PEBBLE PROJECT
SUPPLEMENTAL ENVIRONMENTAL BASELINE DATA REPORT
(2004-2012)

11. GEOCHEMICAL CHARACTERIZATION

Bristol Bay Drainages

MAY 2018

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ACRONYMS AND ABBREVIATIONS

ABA	acid-base accounting
AES	atomic emission spectroscopy
AP	acid potential
ARD	acid rock drainage
ASTM	American Society for Testing and Materials
C%	percent carbon by weight
$CaCO_3$/t	calcium carbonate per metric ton
CEMI	Canadian Environmental and Metallurgical Inc.
cm	centimeter(s)
CUEQ	copper equivalent
DDH	diamond drillhole
EBD	Environmental Baseline Document
EC	electrical conductivity
gpt	grams per metric ton
HCT	humidity cell test
ICP-AES	inductively coupled plasma-atomic emission spectroscopy
ICP-MS	inductively coupled plasma-mass spectroscopy
ill-pyr	illite-pyrite hydrothermal alteration domain (as identified in PLP geological model)
kg	kilogram(s)
Ksil	K-silicate hydrothermal alteration domain (as identified in PLP geological model)
L	liter(s)
LOD	limit of detection
MEND	Mine Environment Neutral Drainage Program
mg	milligram(s)
mg/L	milligram(s) per liter
ML	metal leaching
µg	microgram(s)
µmhos	micromho(s)
µS	microSiemen(s)
ml	milliliter(s)
mm	millimeter(s)
mV	millivolts
MWMP	Meteoric Water Mobility Procedure
NAG	net acid generation

nck	sodic-potassic, calcareous hydrothermal alteration domain (as identified in PLP geological model)
NDM	Northern Dynasty Mines Inc.
nk	sodic-potassic hydrothermal alteration domain (as identified in PLP geological model)
NNP	net neutralization potential
Non-PAG	not potentially acid generating
NP	neutralization potential
NPR	net potential ratio
ORP	oxidation-reduction potential
PAG	potentially acid generating
PEZ	Pebble East Zone
PLP	Pebble Limited Partnership
ppm	parts per million
PWZ	Pebble West Zone
QA	quality assurance
QC	quality control
qsp	quartz-sericite-pyrite hydrothermal alteration domain (as identified in PLP geological model)
S%	percent sulfur by weight
SAC	subaqueous column test
ser	sericite hydrothermal alteration domain (as identified in PLP geological model)
SFE	shake-flask extraction
SRK	SRK Consulting
TDS	total dissolved solids
TIC	total inorganic carbon (carbonate)
tr	trace
wt%	weight percent
XRD	X-ray diffraction

11. GEOCHEMICAL CHARACTERIZATION

11.1 Introduction

Chapter 11 of the Pebble Limited Partnership's (PLP) Environmental Baseline Document (EBD) presented the findings of geochemical characterization program, focusing on data obtained in the period 2004 – 2008, but with updates up to 2010 for long-term kinetic tests that had been initated.

The purpose of this report is to document data that have become available since the EBD was compiled, and to identify and explain trends in cumulative datasets that have been updated with new information since the EBD. The report includes updated cumulative data sets, tables and figures, and identifies trends or notable changes in these datasets. Study objectives, study areas, previous studies, and methods are fully discussed in the EBD which can be accessed online at http://www.pebbleresearch.com/ebd/cook-inlet-bio-env/chapter-11/. However, where post-EBD studies have altered or added to these study aspects, such changes are presented within the respective sections of this report.

11.2 Study Objectives

The study objectives for baseline studies carried out between 2009 and 2012 are consistent with the objectives outlined in the EBD.

11.3 Study Area

The 2009 – 2012 baseline study covered the same study area as reported in Chapter 11 of the EBD – in summary, all mineral waste materials generated by mining of commercially valuable minerals in the Pebble West and East Zones (PWZ and PEZ, respectively, Figure 11-1).

11.4 Previous Studies

The EBD reviewed previous studies relevant to the geochemistry of mineral waste materials.

11.5 Scope of Work

The scope of work for the 2009 - 2012 studies is consistent with the scope for the 2004 – 2008 studies reported in the EBD; the same ranges of test suites and testing methods were used.

11.6 Methods

During the period 2009 – 2012, some additional sampling events have taken place to extend the range of sample types studied, and to address gaps identified within the 2004 – 2008 datasets. These sampling events are described in detail in the sections that follow. The collars of all drillholes

selected for sampling are shown in Figure 11-1, and cross-sections showing sampling locations are provided in Appendix 11A.

Analytical procedures and test methods are consistent with those discussed in the EBD, with the exceptions of some modifications to analytical requirements for selected tailings samples (for details see Section 11.6.2.2).

11.6.1 Rock Sample Selection and Collection

11.6.1.1 Overview

Sampling in the period 2004 – 2008 focused on collection of samples representative of all lithologies, and a range of geochemical characteristics, e.g. sulfur values and copper equivalent grades. Samples were collected to give good spatial representation within the PWZ and PEZ project areas. Table 11-1 presents the geological legend for rock types in the deposit area.

During the period 2009 to 2011, no further rock samples were submitted for geochemical characterization. In 2012, existing datasets were reviewed to determine whether there was good representation of the hydrothermal alteration-based domains that had recently been adopted for use within Pebble Project geological modeling. The alteration domains identified in the geological model were:

- Illite-pyrite (illpy);
- Sodic-potassic (nk);
- Sodic-potassic, calcareous (nck);
- K-silicate (ksil);
- Sericite (ser);
- Quartz-sericite-pyrite (qsp); and
- 8431m (a high grade copper ore zone recognised within the model)

Figure 11-2 is a schematic cross-section showing the distribution of the alteration domains.

Of the 1080 samples that had been studied during the period 2004 – 2008, 685 were assigned a hydrothermal domain by Pebble Project geologists. Table 11-2 summarizes the distribution of these samples by rock type and hydrothermal alteration domain.

As expected, the majority of the samples were sourced from the pre-Tertiary aged rock. A small number of Tertiary aged samples were assigned a domain - all were igneous material types that intruded the porphyry mineralization (lithology codes TA, TB and TD). As it was not expected that Tertiary aged materials would be hydrothermally altered, it is possible that these samples were assigned a domain due to their relatively small scale.

From Table 11-2 it is apparent that all combinations of rock types and alteration domain are represented within the 2004-2008 sample set. The distribution of samples is proportionally consistent with the spatial distribution of the domains as shown in Figure 11-2.

Geochemical data for these samples were reviewed to determine how the geochemical characteristics correlated with the hydrothermal alteration domains.

11.6.1.1.1 ARD Potential

For all waste rock samples assigned with a geometallurgical domain code, Figures 11-3 to 11-5 show the neutralization potential (NP) graphed as a function of the acid potential (AP). Figures 11-3 and 11-4 show pre-Tertiary waste rock (intrusive and volcanosedimentary lithologies, respectively), and Figure 11-5 shows Tertiary waste rock. Figures 11-6 and 11-7 show the distribution of AP and NP values for each domain as box and whisker plots. The distributions of sericite and 8431m domains are based on smaller datasets than the other domains.

The majority of pre-Tertiary samples were classified as PAG, whilst the majority of Tertiary samples were classified as non-PAG.

Some differences between the alteration domains were apparent:

- The highest AP values (i.e. plot toward the right hand side of the plots in Figures 11-3 to 11-5) are associated with the quartz-sericite-pyrite (qsp) and the illite-pyrite (illpy) domains. Based on the box and whisker plots (Figure 11-6), the domains can be ranked according to their AP characteristics as follows:

$$\text{Qsp} >> \text{illpy} > \text{8431m} > \text{ser} \approx \text{nk} > \text{nck} \approx \text{ksil}$$

- All the domains show a range of NP values (Figure 11-7) but in general NP is lower than AP resulting in the dominant PAG classification. The sodic-potassic, calcareous (nck) domain had distinctively higher NP, resulting in the highest NP/AP values (i.e. plots towards the top left hand corner in Figures 11-3 to 11-5). In the case of Tertiary samples (Figure 11-5), the samples plot as non-PAG. Pre-Tertiary samples, however, tend to plot close to, or within, the region of uncertain potential.

11.6.1.1.2 Distribution of Trace Elements

Data describing the distribution of metals were taken from two sources: the PLP drill-hole database, and a smaller number of analyses conducted as part of the geochemical characterization program. For many of the Type 1 composite samples, no analyses were conducted. In the current analysis, reference was made to analysis for the individual samples used to prepare the composites. The results are shown in Figure 11-8, as box and whisker plots.

The following comments can be made:

- The 8431m domain has relatively high median Mo content; however, the 8431m dataset is small, leading to uncertainty as to the range of concentrations.

- The illite-pyrite and quartz-sericite-pyrite domains have relatively high concentrations for some metals – e.g. Co, Cu and Fe. The distribution of these metals correlates positively with the distribution of total sulfur.

- The sericite and K-silicate domains have relatively high Cu and Zn content.

- All domains showed a range of arsenic concentrations with no strong differences. The possible exception was the quartz sericite pyrite (qsp) domain which showed a narrower range of arsenic concentrations, and lower concentrations of molybdenum.

- There are limited data for some elements, e.g. Se. No robust conclusions can be made on Se distribution with respect to alteration domains.

The comments above are intended to identify those domains associated with elevated trace element contents when compared to average values within the dataset; however, no conclusions can be made with respect to the potential for metal leaching. As documented in the EBD, trace element release rates measured in kinetic tests did not correlate well with the trace element content of the sample. Other system parameters, such as solution pH, were observed to have a stronger influence on release rates for many metals.

11.6.1.1.3 Representation within Kinetic Testing Program

Samples submitted for kinetic testing are indicated in Figures 11-3 to 11-5 (samples for humidity cell testing, subaqueous columns, and stored bag tests are shown on the plots). A number of tests have been conducted for the volumetrically larger domains (sodic-potassic (nk and nck), K-silicate (ksil) and quartz-sericite-pyrite (qsp)). The plots show where test samples lie when compared to the overall characteristics of the domain.

Table 11-3 shows a matrix of the materials being studied in humidity cell tests as a function of alteration domain, rock type and economic classification. The latter shows that about half of all samples were classified as ore based on the current cutoff of 0.2%. Most of the ore grade samples had copper concentrations between 0.2 and 0.4% and all but one had copper concentrations less than 0.6%.

Table 11-4 shows how the AP and NP values for these test samples compare to the overall distribution of values for each rock type and domain, expressed as percentiles. With respect to the alteration domains, a reasonable objective would be to ensure that tested samples represent median (50th percentile) and high (exceeding 90th percentile) sulfide content (i.e. acid potential). Based on this objective, gaps in the testing program were identified. For intrusive rock types, the nk and nck domains had kinetic test samples that fell short of the 90th percentile target but exceeded 80% and were considered adequate because characterization of higher sulfide contents were obtained for other domains. For volcano-sedimentary rock types and the sodic potassic domains (nck and nk), the highest percentile was 79%. This was identified as a gap.

For the illite pyrite, sercite and 8431m domains, testing to date has been limited. The small 8431m domain is a high grade copper zone and is classified as entirely ore. Since ore grade materials are already well-characterized for other domains, additional characterization for 8431m was not recommended.

Both Tertiary intrusive samples tested were coded as nck. Based on the assumption that Tertiary intrusions are not altered, the current rock-type based dataset is considered suitable for this minor rock type.

On the basis of this gap-analysis, it was recommended that the humidity cell testing program be extended to include eleven additional samples. The target characteristics for these samples are summarized in Table 11-5.

It was also recommended that additional field (barrel) tests be initiated. Two new barrels have been constructed; one barrel comprising illite-pyrite (ill-py) material and the other sodic-potassic, calcareous (nck) material. By studying these two material types the program was extended, to allow representation of alteration domains and evaluation of differences in pyrite and carbonate content.

11.6.1.2 2012 Sampling Program

The objective of the 2012 sampling program was to obtain samples to extend the range of material types included within the kinetic testing program. For the humidity cell testing program, eleven target sample types were specified. For the field (barrel) testing program, two target material types were identified, to cover end-member characteristics:

- Illite pyrite (illpyr) domain material, to represent sulfidic material that contains limited neutralization potential, and;
- Sodic-potassic, calcareous domain material (nck), to represent material with a more significant neutralization potential.

Further sampling criteria were:

- Samples should be sourced from within the current pit-shell and ideally should give a good spatial spread within that volume.
- Samples should be representative of waste rock, i.e. the copper content should be below the current ore grade.

Suitable samples were identified and collected by PLP personnel. The samples selected for the humidity cell program are listed in Table 11-5. Barrel tests require a large sample mass, between 200 and 300 kilograms. The barrel samples were therefore filled with composite material. The samples used to prepare the composites are listed in Table 11-6. A sub-sample of each composite was collected and submitted for a full suite of laboratory testwork, including submission for humidity cell testing.

In addition to kinetic testing (humidity cell testing on all thirteen samples, and field (barrel) testing on two of the samples) – all samples were submitted for a full suite of static tests.

11.6.2 Characterization of Representative Metallurgical Waste Products

11.6.2.1 Overview

In the period 2004 – 2008, four batches of representative tailings had been submitted for geochemical characterization. Since this period, further batches of tailings have been characterized to extend the range of material types that have been studied:

- Blends of rougher and pyritic tails (eighteen samples, submitted during 2010)
- Rougher tails derived from flotation testing of ores derived from different hydrothermal alteration zones (twenty seven samples, submitted during 2011)
- First cleaner scavenger, pyrite rougher, combined rougher, and gold plant tails – from testing designed to examine flow options that include and exclude processing for gold (four samples, submitted during 2012)
- Rougher tails comprising blends of material sourced from multiple hydrothermal alteration zones (five samples, submitted during 2012)
- Rougher tails sample – one large mass sample provided for field (barrel) testing (during 2012)

All samples were sourced from concurrent metallurgical testwork programs. Figure 11-9 is a schematic illustrating some of the processing options currently under consideration. Most of the samples submitted for geochemical characterization represent rougher tails derived from different ore types. A subset of the samples represented products from different waste streams (e.g. pyritic blends, scavenger tails and gold plant tails).

11.6.2.2 Testing Program

All the tailings were submitted for a suite of static tests. A subset of samples was submitted for kinetic testing:

- First cleaner scavenger and gold plant tailings (2012) were submitted for humidity cell and subaqueous leach column testing.
- The large mass rougher tailings sample (2012) was submitted for humidity cell testing and field (barrel) testing.

Humidity cell testing was based on the same method as adopted previously, described in Chapter 11 of the EBD.

The subaqueous leach columns tests were conducted using a slightly modified sampling protocol. According to the method described in the EBD, leachate samples are withdrawn from the bottom of the column. For the tests involving tailings, samples were collected from both the base of the column and from the overlying water.

As some tailings products included in recent testing may contain cyanide, the analytical requirements for selected testwork were extended to include cyanide species and potential cyanide degradation products. The full list of analytical parameters is shown in Table 11-7.

11.6.3 Quality Assurance and Control

Methods to control the quality of geochemical data remain consistent with those described in the EBD. For example, routine laboratory testing includes check analyses as appropriate (blanks,

duplicates and standard reference materials). Analytical results are also subject to review for the early identification of outliers or results that fall outside of expected ranges.

11.7 Results and Discussion

Cumulative results from static testing are provided in Appendix 11B, whilst Appendix 11C is a compilation of all available petrography reports. Kinetic test data are provided in Appendices 11D to 11O.

The EBD provides discussion and interpretation of the geochemical datasets available at that time. The following sections document interpretations of data obtained since publication of the EBD. The interpretative context remains consistent with that adopted for the EBD.

11.7.1 Waste Rock Samples

11.7.1.1 Characteristics of Samples Collected During 2012 (Pre-Tertiary)

11.7.1.1.1 Mineralogical Characterization

Results from mineralogical studies of eleven samples are pending. Data are available for the two samples submitted for companion humidity cell and field (barrel) tests, and are shown in Table 11-8. Both samples contain significant pyrite, and some chalcopyrite. The NCK sample contains calcite and dolomite/ankerite, whilst the I/P sample contains siderite and dolomite/ankerite. Siderite and the iron component of ankerite do not contribute to neutralization capacity effectively.

11.7.1.1.2 Acid-Base Accounting

Acid-base accounting results are shown in Table 11-9. The samples contained between 2 and 8% total sulfur, the majority of which was sulfidic. Acid potential ranged from 59 to 261 $kgCaCO_3/t$. For several of the samples, paste pH values were acidic, indicating that acidic reaction products were already present within the sample.

Neutralizing potential (NP) was generally low to modest; the highest NP was 23.5 $kgCaCO_3/t$. Carbonate-based neutralization potential was generally higher than the measured NP, which would be consistent with the presence of iron-bearing carbonates in the sample. For two of the samples, mineralogical data confirmed the presence of such carbonates, e.g. siderite, ankerite.

All the samples had NP/AP values less than 1 and would be considered potentially acid generating (PAG), in common with most Pre-Tertiary samples studied to-date. Figure 11-10 shows NP plotted as a function of AP; all Pre-Tertiary samples studied to-date are shown on the plot. The locations of the new samples are indicated by large diamond-shaped markers. The samples plot within expected ranges; some were selected to target median characteristics of the group, whilst others were selected to target 90th percentiles (see Table 11-5).

11.7.1.1.3 Distribution of Metals

The results of chemical analyses are shown in Table 11-10. For the most part the assayed concentrations lie within the ranges observed previously for equivalent material types; however, it is noted that the arsenic content of sericitic mudstone sample 8404-1647-1661 is 429 mg/kg (compared to a previous maximum of 50 mg/kg for sericitic materials) and the zinc content for sericitic granodiorite sample 8404-1812-1822 is 1700 mg/kg (compared to a previous maximum of 570 mg/kg).

11.7.1.1.4 Humidity Cell Tests

NA

11.7.1.1.5 Field Weathering (Barrel) Tests

Barrel tests were constructed on-site for two of the samples: NCK (ARLB015) and ILLPY (ARLB016).

11.7.1.2 Long-Term Kinetic Testing Program

11.7.1.2.1 Pre-Tertiary Materials

Overview

A range of kinetic test methods have been adopted: humidity cell tests, subaqueous columns, stored bag tests and field (barrel) testing. Figure 11-11 shows the numbers of different tests that have been operating each year, by test type.

Humidity Cell Tests

Table 11-11 summarizes selected characteristics of the samples used in each test, and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B. Full cumulative results from the humidity cell tests are provided in Appendix 11D. Graphs showing loading trends are provided in Appendix 11E. Table 11-12 summarizes the average release rates (calculated on the basis of all data available up until the end of December 2012). Note that some average stable release rates presented in Table 11-12 differ from those presented in the equivalent table within the EBD chapter. This is because new data are available (over longer time periods) and long-term trends have been re-evaluated to determine the range of data corresponding to stability. [Stability was defined either as a break in the release rate trend whereby the overall change lessened or by a point in time when the release rates no longer increased or decreased on average.]

A total of thirty-four samples of pre-Tertiary material have been studied; seventeen samples from the PWZ, thirteen from the PEZ (including one ore composite sample), and four sub-samples from the barrel test program (PWZ materials).

Most of the PWZ tests were completed in either in 2005 or in 2009. Two tests are ongoing:

- Volcano-sedimentary sample (Sample 3124-0188-0209; Y). This test is giving acidic leachate. The release rates of sulfate and some metals showed a gradual upward trend in the latter parts of the test, but may have plateaued and could now be decreasing.
- Plutonic sample (Sample 3069-0927-0947; G). This sample is giving acidic leachate. Sulfate and many metal release rates are showing a long-term decline.

These tests have continued so that long-term data for PWZ materials could be obtained. The tests have now been operating for 8 years.

Many of the PEZ tests were completed in 2009 (Table 11-11). Eight are ongoing. These tests have been operating for between 4 and 5 years, and the leachate chemistry continues to show evolving trends. In several tests, the sulfate release trends have not yet stabilized. In the case of granodiorite samples, 105391 and 406692, and mudstone sample, 220076, sharp increases in sulfate release rates were observed in more recent data – generally coincident with further decreases in leachate pH (all three tests were already acidic) and increases in release of a range of other parameters.

Humidity cell tests involving four sub-samples from the barrel test program commenced in 2008 and are ongoing. Trends from most of these tests are relatively stable, although it is noted that sulfate release from ARLB001 and ARLB002 (mudstone samples), having shown a long-term upward trend, may have plateaued.

Subaqueous Columns

Table 11-13 summarizes selected characteristics of the samples used in each test, and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B. Full cumulative results from the subaqueous column tests are provided in Appendix 11F. Graphs showing loading trends are provided in Appendix 11G.

Six samples have been studied. Only one test is ongoing - Sample 3069-0927-0947 (granodiorite). In general, the leachate chemistry appears to show stable trends. Sulfate release is showing a gradual decline, along with the release of a number of other elements, e.g. cadmium, copper, zinc. Arsenic release however appears to show a gradual increase.

Stored Bag Tests

Table 11-14 summarizes selected characteristics of the samples used in each test, and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B.

The stored bag samples were not subjected to periodic flushing (as would be the case in humidity cell tests). It is therefore expected that weathering (including sulfide oxidation) will continue during storage and that, over time, salts and other weathering products will accumulate in the materials.

At various intervals, sub-samples are removed from the stored bags and submitted for shake flask extraction (SFE) testing. The EBD presented data obtained from SFE tests conducted after 1, 2 and 4

weeks of storage. Data are now available from SFE tests conducted after 78, 134 and 188 weeks of storage. The results are presented in Appendix 11H.

Figure 11-12 shows the leachate pH measured in SFE leachates as a function of storage time. The majority of the pre-Tertiary materials were classed as PAG, whilst one sample was classed as uncertain. Two samples (Composites 3 and 4) yielded acidic leachate immediately. The other samples continue to yield circum-neutral pH leachate, with the possible exception of Composite 8 (PAG-classed mudstone (Y) sample) which may be developing a trend toward more acidic conditions – the most recent SFE test gave a pH of 6 (earlier tests were generally around pH 7).

Figure 11-13 shows the dissolved sulfate concentration in the SFE leachates, as a function of storage time. In most of the tests, a gradual increase in dissolved sulfate is observed as a function of time. Generally, the dissolved sulfate concentrations are quite modest, less than 150 mg/L. The most recent leachates from Composites 4 and 8 contained sulfate concentrations in excess of 200 mg/L.

Dissolved metals tend to be show higher concentrations in the acidic leachates observed for Composites 3 and 4. For example, dissolved copper concentrations range between 6 and 30 mg/L in leachates from these samples, but have remained below 1 mg/L in circum neutral leachates from other samples. Other elements show analogous trends, e.g. Co, Fe, Zn.

Field Weathering (Barrel) Tests

The barrel program was extended during 2012, and currently comprises six barrels. Table 11-15 summarizes selected characteristics of the samples used in each test, and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B Data obtained from the field sampling program are provided in Appendix 11I.

For the four original barrels, selected leachate data are shown in Figures 11-14 through 11-18 (from field seasons spanning the period 2007 to 2012). Note that barrel leachates are sampled during the summer field season. The number of samples collected depends on the duration of the field season and the amount of rainfall experienced. The trends shown in the data from more recent field seasons (2010 to 2012) appear consistent with those discussed in the EBD based on the earlier datasets (2007 to 2009).

11.7.1.2.2 Tertiary Materials

Overview

A range of kinetic test methods have been adopted: humidity cell tests, subaqueous columns, stored bag tests and field (barrel) testing. Figure 11-19 shows the numbers of different tests that have been operating each year, by test type.

Humidity Cell Tests

Table 11-16 summarizes selected characteristics of the samples used in each test, and gives information on test status. Detailed geochemical characteristics are included in the static geochemical

database, reproduced in Appendix 11B. Full cumulative results from the humidity cell tests are provided in Appendix 11D. Graphs showing loading trends are provided in Appendix 11E. Table 11-17 summarizes the average release rates (calculated on the basis of all data available up until the end of December 2012). Some of the average stable release rates presented in Table 11-17 differ from those presented in the equivalent table within the EBD chapter – for the same reasons as discussed in the case of the Pre-Tertiary data.

From the PWZ, a total of nine Tertiary samples have been studied (two were studied in replicate so that the reproducibility of data could be assessed). Most of the tests were completed in either in 2005 or in 2009. Two tests are ongoing (Table 11-16): Sample 4157 439-471 (TF) and Sample 4292 415-430 (TA/TD). Both tests are currently giving neutral pH leachate that appears to be showing a long-term trend downwards. Both samples have NP/AP less than 1 indicating a possibility that acid conditions could develop over the very long term (7 to 24 years based on the current rates of NP depletion).

These tests have continued so that long-term data for PWZ materials could be obtained. The tests have now been operating for over 7 years.

From the PEZ, a total of thirteen Tertiary samples have been studied. Many tests were completed in 2009 (Table 11-16). Three tests are ongoing. These tests have been operating for between 4 and 5 years. In two of these tests (104472 – TC; 220366 – TY) the long-term trends appear to have stabilized. In the third test (221502 – TD), there has been a recent increase in sulfate release.

Humidity cell tests involving six sub-samples from the barrel test program commenced in 2008 and are ongoing. Trends from most of these tests are relatively stable.

Subaqueous Columns

Table 11-18 summarizes selected characteristics of the samples used in each test and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B. Full cumulative results from the subaqueous column tests are provided in Appendix 11F. Graphs showing loading trends are provided in Appendix 11G.

Two samples have been studied; both tests are ongoing. In both tests, sulfate and calcium release show a gradually increasing trend, whilst the release of most other elements appears stable or in decline. In the case of Composite 19, molybdenum release showed an increasing trend over the period 680 to 1300 days. The release has since plateaued and may now be in decline.

Stored Bag Tests

Table 11-19 summarizes selected characteristics of the samples used in each test and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B.

The EBD presented data obtained from SFE tests conducted after 1, 2 and 4 weeks of storage. Data are now available from SFE tests conducted after 78, 134 and 188 weeks of storage. The results are presented in Appendix 11H.

Figure 11-20 shows the leachate pH measured in SFE leachates as a function storage time. The majority of the materials were classed as non-PAG or uncertain. One sample (Composite 20) was classed as PAG. Leachates from all the materials were near neutral during initial testing (after 1 to 4 weeks of storage). After longer periods of storage, only one material has developed acidic conditions, Composite 14 (TC/TW, classed as Uncertain).

Figure 11-21 shows the dissolved sulfate concentration in the SFE leachates, as a function of storage time. Note the very high dissolved sulfate in the latter leaches from Composite 14. It is believed that sulfate concentrations would have been higher – but were limited by the solubility of gypsum.

Field Weathering (Barrel) Tests

The barrel program was extended during 2012, and currently comprises six barrel tests. Table 11-20 summarizes selected characteristics of the samples used in each test and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B. Data obtained from the field sampling program are provided in Appendix 11I.

Selected data are shown in Figures 11-22 through 11-26 (from field seasons spanning the period 2007 to 2012). The trends shown in the data from more recent field seasons (2010 to 2012) appear consistent with those discussed in the EBD based on the earlier datasets (2007 to 2009).

11.7.1.3 Acid Generation and Consumption Rates

11.7.1.3.1 Reaction Rates (Humidity Cell Test Data)

The EBD described how humidity cell test results could be interpreted to derive key reaction rates. For example, sulfate release rates were used as indicators of acid generation rates, whilst calcium and magnesium release were used as indicators of rates of carbonate-dominated acid neutralization.

In general, the interpretations given in the EBD have not changed in the light of the new data. For example, it remains the case that sulfate release correlates positively with the sulfide content of the rock, and that neutralization is dominated by carbonates.

In detail, because some of the average stable release rates have changed there are changes to some of the ranges of calculated parameter values.

Figure 11-27 shows revised average sulfate release rates plotted as a function of sulfide content. Note that the range of sulfate release rates now extends to higher values, close to 1000 mg/kg/week (compared to 208 mg/kg/week previously). The highest rates correspond to the two Pre-Tertiary granodiorite samples which have shown a recent sharp increase in release rate (PEZ samples 105391 and 406692, discussed in Section 11.7.1.2.1). As previously, the majority of samples fall along the same trend, regardless of rock type or leachate pH. Table 11-21 shows result of regression analysis of the revised dataset. For Tertiary samples, the gradients are similar to those calculated previously. For Pre-Tertiary samples, the gradients are steeper (by around an order of magnitude), mainly due to the influence of the two aforementioned granodiorite samples from the PEZ. For all categories of materials, the correlation coefficients have increased.

For humidity cell yielding neutral leachate, Figure 11-28 shows stable (Ca+Mg)/SO_4 molar ratio plotted as a function of average sulfate release rate. The trends are consistent with those observed previously – and are interpreted as the influence of carbonate-based neutralization processes.

Site-specific NP/AP criteria based on the revised datasets are similar, but slightly lower, to those calculated previously:

- Pre-Tertiary – between 1.3 and 1.4 (previously 1.3 to 1.6)
- Tertiary – between 0.6 and 1.2 (previously 0.8 to 1.6)

Table 11-22 shows calculated delays to the onset of ARD using the revised regression data, a site-specific criterion of 1.4, and a range of NP/AP values. The timescales to onset of ARD are less than those calculated previously, particularly in the case of the PEZ Pre-Tertiary materials. Median characteristics for Pre-Tertiary rocks correspond to NP/AP values between 0.1 and 0.3. Based on the calculations shown in Table 11-22, timescales to onset of ARD would be between 1 and 5 years (compared to between 3 and 23 years calculated in the EBD).

These timeframes to the onset of ARD are considered to be under-estimates because they are based on data derived under laboratory conditions. Under field conditions, reaction rates are expected to be slower, and timeframes to onset of ARD longer.

11.7.1.3.2 Interpretation of Stored Bag Test Data

As for humidity cell test data, sulfate behavior is considered indicative of sulfide oxidation rates (i.e. acid generation rates). The test data have been used to estimate sulfate accumulation rates as follows:

- The mass of sulfate accumulated during the storage period (SO_{4_accum}, mg/kg) was estimated by recalculating the SFE results to units of leachable mg sulfate per kg sample, and subtracting the mass of sulfate sulfur that was present in the sample initially. [Initial sulfate sulfur values less than 0.05% were considered insignificant and were ignored.]
- An approximate 'average' sulfate accumulation rate (mgSO_4/kg/week) was calculated by dividing SO_{4_accum} (mg/kg) by the overall storage time (weeks):

  $$\text{Rate (average)} = SO_{4\_accum}\ (\text{mg/kg})/\text{Storage time (weeks)}$$

  This value was considered approximate as no allowance is made for possible changes in rate during the storage period.

- An incremental sulfate accumulation rate (mgSO_4/kg/week) was calculated by examining the differences in results from two adjacent storage times. The following expression was used:

  $$\text{Rate (incremental)} = [SO_{4\_accum(time\ 2)} - SO_{4\_accum(time\ 1)}]\ (\text{mg/kg}) / [\text{time 2} - \text{time 1}](\text{weeks})$$

Excepting the first few weeks of the test, the storage time intervals are widely spaced in time (SFE tests were performed once a year). Thus, the calculated incremental rates are not finely discretized with respect to time.

Figure 11-29 presents calculated average and incremental rates for Composite 4. The rate decreases, approximately exponentially, as storage time increases. The decreases in sulfate accumulation rate is interpreted as the influence of armoring of reactive surfaces by secondary products.

Also shown in Figure 11-29 is a theoretical line based on fitting a power function to the average data. The calculated lines give good agreement with the measured data (the correlation coefficient is close to 1.0). Similar lines could be calculated for all the tests. The results are summarized in Table 11-23. Using the power function, reaction rates are calculated for storage at short times (one week) and long times (1000 weeks).

Figure 11-30 presents the short and long-time sulfate accumulation rates plotted as a function of sample sulfide content. A positive correlation is shown, and calculated gradients and intercepts are summarized in Table 11-24.

11.7.1.3.3 Interpretation of Field (Barrel) Test Data

These tests operated over a sufficiently long time period that it is appropriate to estimate release rates. Unlike laboratory tests, the field tests are not operated under controlled conditions. The frequency of barrel flushing is determined by the amount of rain that has fallen between sampling events (sampling takes place at roughly monthly intervals between the spring thaw and autumn). Temperatures will fluctuate according to the weather conditions at site. During Winter, the barrels are expected to freeze.

As is the case with laboratory-scale tests, leachate data are reported in units of mg/L. Release rates from the barrel tests are therefore calculated using a similar methodology:

Release, mg/kg/week = Concentration (mg/L) x Leachate Recovered (L) / Mass of Sample (kg)/ Time (Weeks)

The depth of water at the time of sampling has been used to calculate the volume of leachate recovered during that sampling interval.

The time interval is calculated on the basis of the sampling dates. Note that the first sampling event each field season was not used to calculate a rate as the preceding time interval could not be accurately defined. For an unknown proportion of time since the last sampling event (during the previous autumn) the barrel test will have been frozen and is expected to be ‘dormant’ with respect to sulfide oxidation.

Figure 11-31 shows calculated sulfate release trends for two of the barrels – ARLB001 and ARLB002. The release rates are erratic – as would be expected given the ‘uncontrolled’ operational conditions of the test. Notably, higher release often coincides with increased rainfall (inferred from the higher volumes of water found in the collection bucket). This may indicate that reaction products are flushed more effectively under those conditions. By inference, under ‘normal’ rainfall conditions, products are not flushed effectively from the barrels.

Table 11-25 shows average sulfate release rates calculated for the barrel tests. The averages were calculated on the basis of all individual release rates calculated from the 2008 field season onwards. Release during the 2007 season likely reflects leaching of pre-existing soluble products from the barrels (i.e. reaction products that may have formed within the materials prior to their placement in the barrel tests, for example due to reaction during storage).

Also shown in the table are the equivalent rates derived from the humidity cell tests. As expected, release rates calculated for the barrels were less than those calculated for the equivalent humidity cell tests. Reasons for this include:

- Ineffective flushing of reaction products from the barrel tests (mentioned above). Humidity cell tests are flushed weekly and it is expected that all (soluble) reaction products will be removed. This may not be the case in the barrel tests.
- Ambient temperatures in the field – although variable, are expected to always be lower than those that apply for the laboratory tests. Most reactions are temperature dependent and would be expected to be more rapid at higher temperatures.
- The barrels contain a high proportion of less reactive, coarse-grained material. It is possible this material does not contribute to sulfide oxidation in the barrel. Sulfate release may therefore be controlled by the smaller proportion of more reactive fine-grained material.
- Flow paths within barrel test are significantly longer than those within humidity cell tests. In the barrel tests, therefore, attenuation of solute transport is more likely (sorption, ion exchange, precipitation).

Figure 11-32 shows the calculated average sulfate release rates plotted as a function of sulfide content. Two sets of data are shown: the average barrel data and the equivalent humidity cell test data. The barrel data plot parallel to, but consistently below, the humidity cell test data.

The sulfate release rate correlates positively with the sulfide content of the rock. Calculated gradients and intercepts are summarized in Table 11-26.

Figure 11-33 shows calculated average $(Ca+Mg)/SO_4$ molar ratios plotted as a function of sulfate release rate. The data are consistent with carbonate-dominated neutralization processes.

Table 11-27 presents calculated average release rates for selected elements.

11.7.1.4 Controls on Metal Leachability and Release Rates

Controls on metal leachability and release were discussed in the EBD – for example, metal release from oxidizing sulfides was examined by exploring correlations between metal and sulfate release rates. Metal release as a function of bulk composition and solutions pH was also discussed. In general, the interpretations given in the EBD have not changed in the light of the new data. For example, it remains the case that metal release is elevated under acidic conditions, and that acidic solutions contain higher quantities of dissolved metals. As discussed in Section 11.7.1.3.1, expected

timescales to the onset of acidic conditions have been reduced on the basis of the revised cumulative datasets.

11.7.2 Metallurgical Waste Products

11.7.2.1 Mineralogical Characteristics

The results of mineralogical studies conducted for one sample (MPP rougher – the large mass sample being submitted for field (barrel) testing) are shown in Table 11-28 (X-Ray diffraction and optical mineralogy).

The mineralogy of this sample is similar to products studied previously (documented in the EBD); sulfide mineralogy is dominated by pyrite, and small quantities of carbonates are identified.

11.7.2.2 Static Geochemical Characteristics

Tables 11-29 and 11-30 provide the results of static test data for samples studied since 2008. Also shown in the tables are summary statistics for the samples studied between 2004 and 2008.

Within the recent batches, most samples were rougher tails with total sulfur content ranging between 0.3 and 1.3%. Sulfur speciation data suggest that the majority of sulfur present is in the form of sulfides. Other tailings products (pyritic tails, blends with pyritic tails, gold plant tails) ranged to higher sulfur contents – up to 31.6% (gold plant tails), also found to dominated by sulfidic sulfur. Acid potential for the more recent samples ranged from 0.9 to 980 $kgCaCO_3/t$, a similar range to that observed previously.

Neutralizing potential (NP) was generally less than 20 $kgCaCO_3/t$. The highest NP was 54 $kgCaCO_3/t$, slightly higher than the maximum value measured previously (26 $kgCaCO_3/t$).

Figure 11-34 shows NP plotted as a function of AP; all samples studied to-date are shown on the plot. Whilst some samples are classed as non-PAG, a significant number of samples plot within the PAG region of the plot.

Figure 11-35 shows the NP/AP ratio plotted as a function of sample sulfide content. As observed previously (EBD, 2010), sulfide content appears a strong control on NP/AP – where NP/AP values below 2 are coincident with sulfide contents above 0.2%.

11.7.2.3 Supernatant Characteristics

Supernatant results are provided in Table 11-31. Also shown in the table are summary statistics for the solutions studied between 2004 and 2008.

11.7.2.4 Trends from Kinetic Testing

11.7.2.4.1 Overview

To date, three kinetic test methods have been adopted: humidity cell tests, column tests and subaqueous columns. Figure 11-36 shows the numbers of different tests that have been operating each year, by test type.

11.7.2.4.2 Humidity Cell Tests

Table 11-32 summarizes selected characteristics of the samples used in each test, and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B. Full cumulative results from the humidity cell tests are provided in Appendix 11J. Graphs showing loading trends are provided in Appendix 11K.

Table 11-33 summarizes the average release rates (calculated on the basis of all data available up until the end of December 2012). For the long-running tests, some of the average stable release rates presented in Table 11-33 differ from those presented in the equivalent table within the EBD chapter – for the same reasons as discussed in the case of the waste rock data (i.e. reflecting new data now available, and changes to the range of data corresponding to stability).

Most samples are producing neutral leachates. The exceptions are two recently initiated tests involving first cleaner scavenger tails and gold plant tails. Both these samples contained significant AP (471 and 980 $kgCaCO_3/t$) combined with negligible NP (6.7 and 0.0 $kgCaCO_3/t$) and so rapid onset of acidic conditions was expected.

Figure 11-37 is a plot of average sulfate release rate as a function of sample sulfide content. Data from the newly initiated tests fall in line with the positive correlation noted previously. Figure 11-38 shows the stable $(Ca+Mg)/SO_4$ molar ratios plotted as a function of average sulfate release rates. The pH of most leachates produced in the tests was near neutral. Data points associated with more substantial sulfate release rates plotted closer to the bounding ratios for utilization of carbonate buffering capacity ($(Ca+Mg)/SO_4$ molar ratios between 1 and 2), consistent with neutralization in the tests being dominated by the reaction of carbonate minerals.

Metal release is low, less than 0.1 mg/kg/week, for tests yielding neutral pH leachates – reflecting the expected low solubility of most metals at neutral pH. The two recently initiated tests that are yielding acidic leachate (first cleaner scavenger and gold plant tails) show higher release of many metals – e.g. copper release from these tests is 1.7 and 17 mg/kg/week, respectively.

11.7.2.4.3 Leach Columns

Two samples of scavenger tailings have been tested. Table 11-34 summarizes selected characteristics of the samples, and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Appendix 11B. Full cumulative results from the leach columns are provided in Appendix 11L. Graphs showing loading trends are provided in Appendix 11M.

Only one column is currently operating. Long term trends are consistent with those described in the EBD.

11.7.2.4.4 Subaqueous columns

Table 11-35 summarizes selected characteristics of the samples used in each test, and gives information on test status. Detailed geochemical characteristics are included in the static geochemical database, reproduced in Tables 11-29, 11-30 and Appendix 11B. Full cumulative results from the subaqueous columns are provided in Appendix 11N. Graphs showing loading trends are provided in Appendix 11O.

Two samples are being studied (1st Cleaner Scav Tails and Gold Plant Tails) and both tests were initiated during 2012. Solution chemistry is being monitored within the reservoir that overlies the sample and in column outflow. Generally speaking the chemistry of the overlying water is more dilute, containing total dissolved solids of 100 mg/L or less. Solutions from the base of the column peaked after short operating times (around 30 days) at 1800 mg/L for the gold plant tails test, and 600 mg/L for the first cleaner scavenger tails test.

In the test involving first cleaner scavenger tails, the overlying surface water has been acidic (pH between 3.5 and 5), whilst the outflow water has been near neutral. In the gold plant tail test, surface water is acidic (pH 3 to 4.5) and the outflow water is mildly acidic (pH 4.5 to 5.5).

Cyanide species and cyanide degradation products are being monitored in these tests. As would be expected, readily detectable quantities of these products are limited to the gold plant tails test. Between 20 and 40 days of operation, release of total dissolved cyanide was up to 0.35 mg/kg/week, thiocyanate was up to 17 mg/kg/week. Ammonia/ammonium release also peaked during this period, at around 12 mg/kg/week and has been in gradual decline since.

11.8 Summary

Pebble is a large calc-alkalic porphyry copper deposit formed in the pre-Tertiary Cretaceous Period and subsequently overlain by volcanic and sedimentary rocks in the Tertiary Period. An ML/ARD characterization study has been performed to provide input to mine waste-management planning and permitting of disposal of waste rock and tailings for the Pebble Project.

The study consists of collection of rock samples, and analyses using static and kinetic geochemical methods. Also, as a component of the metallurgical testing program, tailings were sampled and characterized using the same methods.

Analyses of rock samples shows that the pre-Tertiary sedimentary and plutonic rocks contained several percent pyrite and were classified as dominantly PAG. The distribution of pyrite (and consequently acid generating potential) was found to be influenced by the hydrothermal alteration domains present. Only a small component of pre-Tertiary was found to be non-PAG. In contrast, the Tertiary cover rocks contained less than 1 percent pyrite on average and were classified as dominantly non-PAG because carbonate minerals were found to be abundant. A small component of the volcanic component of the Tertiary rocks was found to have potential to generate ARD.

Kinetic testing of the rocks showed that acidic leachate was produced from rocks with low levels of neutralization potential. Under field conditions, onset of acid generation is expected to be delayed by at least two decades, based on observations from weathering of core on site, laboratory and field-based kinetic testing, and information derived from stored bag tests.

Pre-Tertiary rock tested underwater was found to have leachate chemistry influenced by the dissolution of acidic salts in the rock formed prior to testing, and dissolution of gypsum and carbonates formed during hydrothermal mineralization.

Metallurgical process testing has produced a range of representative tailings products. Geochemical characterization of these products suggests that most volumetrically abundant product (rougher tails) typically contains low to moderate sulfur and is predicted to be non-PAG, provided the sulfide content remains below 0.2 percent. Other products, such as pyritic tails and gold plants tails, may have higher sulfide contents and are often classed as PAG.

11.9 References

Northern Dynasty Mines Inc. (NDM). 2007. Excel spreadsheets containing extracts from the Pebble Project Drill-Core Database as current in 2007.

11.10 Glossary

Alteration types and zones – rocks can be subject to mineralogical change when exposed to changes in temperature and pressure, or exposure to contact with external fluids (e.g. hot fluids sourced from nearby igneous bodies). The degree of mineralogical alteration can vary in space, and often different alteration types and zones are identified and mapped to assist with interpretation of the geological history of the region

Andesite—a type of fine-grained igneous rock.

Anticline—an arc-shaped fold on rocks closing upwards, with the oldest rocks in the core.

Arkose—a sedimentary rock, specifically a type of sandstone.

Assay—the analysis of minerals and samples to determine the concentrations of their constituent elements.

Basalt—a dark-colored, fine-grained igneous rock

Breccia—a coarse, clastic sedimentary or volcano-sedimentary rock with angular constituent clasts.

Clast—fragment of sediment or rock that was formed by the deterioration of larger rocks.

Cretaceous—approximately 145.6 to 65 million years ago, the third of the three periods included in the Mesozoic Era.

Collar –the top of the drilled hole

Copper equivalent grade – the threshold copper content (%) that is economic to recover

Country rock – the rock immediately surrounding an igneous intrusion

Diamond drilling—drilling performed using diamond studded bits, usually for recovering core.

Diorite—an intermediate, coarse-grained igneous rock.

Gangue – rock associated with ore, but itself of no commercial value

Glaciofluvial deposits—material transported by glaciers and subsequently sorted and deposited by streams flowing from the melting ice.

Granodiorite—a coarse-grained igneous rock.

Holocene—the epoch that covers the last 10,000 years, often referred to as Recent or post-glacial.

Hornfels—produced when heat from an igneous intrusion recrystallizes the surrounding rocks.

Hydrothermal—pertaining to or associated with the action of very hot water; hydrothermal fluids can react with and alter the rocks through which they pass or can deposit minerals from solution.

Hypogene – primary ore, i.e ore that has not been subjected to secondary alteration or enrichment

Igneous rocks—rocks or minerals that were formed when molten material (magma) solidified; one of three main classifications of rock.

Intrusion—a body of rock, usually igneous, that intrudes into pre-existing rock formations; intrusions are classified according to size, shape, and geometrical relationship to the surrounding rock.

Jurassic—from 208 to 145.6 million years ago, the Mesozoic period following the Triassic and preceding the Cretaceous.

Latite—a type of porphyritic extrusive igneous rock.

Leaching—the removal, in solution, of soluble materials from rock, ore, soil, or other medium.

Lithology— a description of rock type usually based on macroscopic characteristics (field descriptions, and hand specimen observations).

Molar—of or pertaining to moles. In the International System of Units, a mole is the unit of amount of substance, defined as the number of atoms in exactly 12 grams of carbon-12.

Monzodiorite—a type of coarse-grained igneous rock.

Monzonite—a type of coarse-grained igneous rock.

Plagioclase—one of the most important rock-forming silicate minerals.

Porphyry—medium-grained rock containing large, well-formed grains of any mineral.

Pyrite—a common yellow sulfide mineral with a metallic luster.

Quaternary—a sub-era of the Cenozoic era that covers the past 1.64 million years and comprises the Pleistocene and Holocene epochs.

Rougher and pre-cleaner tailings – low-sulfide tailings streams produced by flotation steps

Sedimentary rocks—rocks formed when sediments are consolidated by pressure; one of three major classifications of rocks.

Sericite—white, fine-grained potassium mica with a silky luster.

Sill—a broad, flat igneous intrusion with contacts that are parallel to the surrounding strata.

Skarn—a mineral deposit at or near a contact between an intrusive body of rock and the surrounding rock.

Stratigraphy—the relative spatial and temporal arrangement of rock strata.

Sulfide—a group of minerals comprising the element sulfur in combination with one or more metallic elements.

Supernatant—liquid component of a slurry composed of liquids and solids.

Tertiary— from 65 million years ago until 1.64 million years ago, the first sub-era of the Cenozoic era; the Tertiary comprises five epochs: Paleocene, Eocene, Oligocene, Miocene, and Pliocene.

TABLES

TABLE 11-1
Geological Legend—Pebble Deposit Rock Types (Reproduced from EBD, 2011)

Age/Type	Code	Rock Type	Pebble West Zone	Pebble East Zone
Quaternary	Fc	Ferricrete	✓	×
	Ob	Overburden	✓	×
Tertiary/Volcanic	TA	Andesite	✓	✓
	TB	Basalt	✓	✓
	TD	Dacite/latite	✓	✓
	TL	Latite	×	✓
Tertiary/Sedimentary	TC	Conglomerate, heterolithic	✓	✓
	TF	Conglomerate, matrix dominant, angular pebbles, minor rounded cobbles	✓	✓
	TT	Siltstone	×	✓
	TW	Wacke, sandstone	✓	✓
	TX	Volcaniclastic, dominated by angular fragments (>80%)	×	✓
	TY	Mudstone/siltstone	✓	✓
Tertiary/Other	TM	No information in the NDM drill-core database (2007) regarding definition of this type	×	✓
Pre-Tertiary/Plutonic	A	Quartz monzonite	✓	×
	D	Diorite	✓	✓
	F	Felsite (latite)	✓	×
	G	Granodiorite	✓	✓
	M	Monzonite	✓	×
	N	Monzodiorite	✓	×
	P	Porphyritic monzodiorite to granodiorite	✓	✓
	R	Gabbro	✓	×
	U	Ultramafic rock—pyroxenite	✓	×
	X	Igneous breccia	✓	×
	K	Skarn	✓	×
Pre-Tertiary/Volcano-sedimentary	W	Wacke, sandstone	✓	✓
	Y	Mudstone, siltstone	✓	✓
Pre-Tertiary/Other	Z	Fault-affected material—host lithology not indicated in the NDM Pebble Project Drill-Core database	×	✓

Notes:

✓ = rock type documented as present in the geological materials logged as of May 1, 2007 in the NDM Pebble Project Drill-Core Database (NDM, 2007).

× = rock type not documented in the database as of May 1, 2007.

The granodiorite rock type (G) is often sub-divided into two types: Gp (medium to coarse grained, in plutons) and Gs (fine to medium grained, in sills)

TABLE 11-2
Distribution of Samples by Rock Type and Hydrothermal Alteration Domain[a]

		Rock Types			
		Tertiary Intrusives	**Pre-Tertiary Intrusive**	**Pre-Tertiary Volcano-Sedimentary**	**Total by Domain**
Domains	Illite Pyrite (illpy)	2 (0)	49 (29)	29 (12)	80 (41)
	Potassium Silicate (ksil)	1 (0)	81 (68)	20 (16)	102 (84)
	Sodic Potassic (nk)	18 (5)	153 (60)	59 (27)	230 (92)
	Sodic Potassic Calcareous (nck)	10 (4)	135 (79)	71 (29)	216 (112)
	Quartz Sericite Pyrite (qsp)	0	32 (3)	8 (3)	40 (6)
	Sericite (ser)	0	10 (8)	3 (3)	13 (11)
	8431m	0	2 (2)	2 (1)	4 (3)
	Total by Rock Type	31 (9)	462 (249)	192 (91)	685 (349)

Note a Numbers given in parentheses are those rock samples that contain Cu at levels in excess of 0.2%, and would thus be categorized as ore using the current ore grade cut-off value.

TABLE 11-3
Distribution of Humidity Cell Test Samples by Rock Type and Hydrothermal Alteration Domain[a]

		Rock Types			
		Tertiary Intrusive	**Pre-Tertiary Intrusive**	**Pre-Tertiary Volcano-Sedimentary**	**Total by Domain**
Domains	Illite Pyrite (illpy)	0	0	1 (0)	1 (0)
	Potassium Silicate (ksil)	0	4 (3)	1 (1)	5 (4)
	Sodic Potassic (nk)	0	4 (3)	4 (3)	8 (6)
	Sodic Potassic Calcareous (nck)	2 (0)	4 (2)	3 (2)	9 (4)
	Quartz Sericite Pyrite (qsp)	0	3 (0)	1 (0)	4 (0)
	Sericite (ser)	0	0	1 (1)	1 (1)
	8431m	0	0	0	0
	Total by Rock Type	2 (0)	15 (8)	11 (7)	28 (15)

Source: G:\Northern_Dynasty\1CN007.00_Pebble_Project\Reporting\2012-03_Domain assessment\[Pebble_Sample_Inventory_1CN007000_REV05.xlsx]

Note a Numbers given in parentheses are those rock samples that contain Cu at levels in excess of 0.2%, and would thus be categorized as ore using the current ore grade cut-off value.

TABLE 11-4
Minimum and Maximum Percentiles Represented by Humidity Cell Test Samples, by Rock Type and Hydrothermal Alteration Domain

		AP			NP		
		Tertiary Intrusives	**Pre-Tertiary Intrusive**	**Pre-Tertiary Volcanic-Sediment**	**Tertiary Intrusives**	**Pre-Tertiary Intrusive**	**Pre-Tertiary Volcanic-Sediment**
Domains	Illite Pyrite (illpy)	No tests	No tests	93%	No tests	No tests	82%
	Potassium Silicate (ksil)	No tests	11% to 94%	32%	No tests	0% to 98%	0%
	Sodic Potassic (nk)	No tests	26% to 84%	17% to 79%	No tests	56% to 95%	40% to 100%
	Sodic Potassic Calcareous (nck)	67% to 100%	19% to 87%	26% to 79%	89% to 100%	20% to 80%	73% to 96%
	Quartz Sericite Pyrite (qsp)	No tests	26% to 84%	100%	No tests	26% to 94%	29%
	Sericite (ser)	No tests	No tests	0%	No tests	No tests	50%
	8431m	No tests	No tests	No tests	No tests	No tests	No tests

Source: X:\Central\Projects\SRK111 Pebble Geochemistry\06_Working_Files_\Assessing Domains\AdditionalLithAlt.1CN007000_SJD_REV01.xlsx

TABLE 11-5

Distribution of Samples by Rock Type and Geometallurgical Domain (samples for HCT program)

Target Sampling Criteria					Selected Samples						
Target Material	**Alteration domain**	**Lithological category[a]**	**Target Sulfur content, %[b]**	**Target statistical range[b]**	**Sample ID**	**Hole**	**From (ft)**	**To (ft)**	**Litho Type**	**S, %[c]**	**Cu,%[c]**
1	Illite Pyrite (illpy)	Kint	~3	Approximate median sulfur content for domain	11359-4336-444	11539	433.6	444	Gp	2.5	0.1
2	Illite Pyrite (illpy)	Kint	>7	Upper 90th percentile for domain	11535-14118-1422	11535	1411.8	1422	Gs	7.5	0.2
3	Illite Pyrite (illpy)	Ksed	~3	Approximate median sulfur content for domain	11539-3695-3803	11539	369.5	380.3	Y	2.9	0.3
4	Potassium Silicate (ksil)	Ksed	>2	Upper 90th percentile for domain	8443-1586-1596	8443	1586	1596	Y	2.6	0.1
5	Sodic Potassic (nk)	Ksed	>5	Upper 90th percentile for domain	4232-339-359[d]	4232	339	359	Y	4.9[d]	0.3[d]
6	Sodic Potassic Calcareous (nck)	Ksed	>4	Upper 90th percentile for domain	4232-559-569	4232	559	569	Y	4.3	0.2
7	Quartz Sericite Pyrite (qsp)	Ksed	~8	Approximate median sulfur content for domain	8406-1909-1919	8406	1909	1919	Y	7.7	0.03
8	Sericite (ser)	Kint	~2	Approximate median sulfur content for domain	8404-1950-1960	8404	1950	1960	Gs	2.2	0.5[e]
9	Sericite (ser)	Kint	>4	Upper 90th percentile for domain	8404-1812-1822	8404	1812	1822	Gs	6.1	1.2[e]
10	Sericite (ser)	Ksed	~2	Approximate median sulfur content for domain	8404-2110-2120	8404	2110	2120	Y	2.1	0.7[e]
11	Sericite (ser)	Ksed	>4	Upper 90th percentile for domain	8404-1647-1661	8404	1647	1661	Y	5.9	0.4[e]

Notes:

a Kint=Pre-Tertiary intrusive lithologies; Ksed=Pre-Tertiary volcanosedimentary lithologies.

b The statistical parameter values were calculated on the basis of the data obtained within the geochemical characterisation program (parameter values calculated on the basis of the PLP geological database may differ).

c Sulfur and copper content based on assay data contained within the PLP geological database, August 2012.

d This sample comprised a composite of two adjacent core intervals. The sulfur and copper contents are calculated averages based on data for the individual samples.

e All materials assigned with the sericite alteration domain were heavily mineralized and so the elected samples are above the ore cutoff grade.

TABLE 11-6
Summary of Samples Selected for Preparation of Barrel Test Composites

Hole	From (ft)	To (ft)	Rock Type	Mass collected (kg)
nck barrel (ARLB015)				
11535	1688	1698	Gs	16.3
11535	1698	1708	Gs	15.3
11535	1708	1718.6	Gs	16.3
11535	1718.6	1724	Gs	10.8
11535	1724	1728	Y	7.4
11535	1728	1738	Y	15.3
11535	1738	1748	Y	14.2
11535	1748	1755	Y	10.4
11535	1755	1762	Y	9.9
11537	1242.9	1253.5	Y	18.1
11537	1253.5	1262.7	Y	16.5
11537	1262.7	1273.1	Y	11.2
11537	1273.1	1283.3	Y	18.6
11537	1283.3	1293	Y	15.3
11537	1293	1303.4	Y	17.9
11537	1303.4	1313	Y	12.6
11539	1189.3	1198.9	Y	14.5
11539	1198.9	1209.3	Y	16.0
11539	1209.3	1220.5	Y	19.2
11539	1220.5	1230.7	D	14.1
11539	1230.7	1240.8	D	16.5
11539	1240.8	1250.6	D	17.2
11539	1250.6	1261	D	16.8
Illpy barrel (ARLB016)				
11535	1000.4	1010.4	Y	17.5
11535	1010.4	1020.3	Y	17.2
11535	1020.3	1030	Dx	18.2
11535	1030	1036.5	Dx	11.4
11535	1036.5	1043	Dx	11.7
11535	1043	1050	Y	10.2
11535	1050	1058.4	Y	7.8
11535	1058.4	1068	Y	12.1
11535	1068	1078	Y	16.1
11535	1078	1088	Y	17.0
11535	1088	1095	Y	12.3
11535	1095	1102	Y	3.4
11535	1102	1112	Y	15.0
11539	369.5	380.3	Y	20.1
11539	433.6	444	Gp	20.3
11539	444	454	Gp	37.5
11539	454	466	Gp	30.7
11539	466	475.9	Gp	37.0

TABLE 11-7
Parameters Analyzed in Leachates

Parameter [a]	Units	Method Detection Limit [b]
pH		0.01
Conductivity	µmhos/cm	1
ORP	mV	1
Acidity	mg $CaCO_3$/L	1
Alkalinity	mg $CaCO_3$/L	1
TDS	mg/L	10
Hardness	mg $CaCO_3$/L	0.5
Cl	mg/L	0.5
F	mg/L	0.02
Sulfate	mg/L	0.5
Al	mg/L	0.001
Sb	mg/L	0.00005
As	mg/L	0.0001
Ba	mg/L	0.00005
Be	mg/L	0.0002
Bi	mg/L	0.0005
B	mg/L	0.01
Cd	mg/L	0.00005
Ca	mg/L	0.05
Cr	mg/L	0.0005
Co	mg/L	0.0001
Cu	mg/L	0.0001
Fe	mg/L	0.03
Pb	mg/L	0.00005
Mg	mg/L	0.005
Mn	mg/L	0.00005
Hg	mg/L	0.00001
Mo	mg/L	0.00005
Ni	mg/L	0.0005
K	mg/L	0.05

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

b. Detection limit may decrease for metals because of dilution of samples to eliminate matrix interference.

$CaCO_3$ = calcium carbonate.

cm = centimeter.

L = liter.

µmhos = micromhos.

mg = milligram(s).

mV = millivolt(s).

ORP = oxidation reduction potential.

TDS = total dissolved solids.

TABLE 11-7 (CONTINUED)
Parameters Analyzed in Leachates

Parameter [a]	Units	Method Detection Limit [b]
Se	mg/L	0.001
Si	mg/L	0.05
Ag	mg/L	0.00001
Na	mg/L	2
Tl	mg/L	0.00005
Sn	mg/L	0.0001
V	mg/L	0.0005
Zn	mg/L	0.001
Added parameters required for leachates and solutions in contact with cyanide-bearing tailings (implemented during 2012)		
Total CN	mg/L	0.01
WAD CN	mg/L	0.01
CNO	mg/L	1
CNS	mg/L	2
Nitrate	mg/L	0.5
Nitrite	mg/L	0.6
NH_3+NH_4	mg/L	0.1
S_2O_3	mg/L	2
S_3O_6	mg/L	20
S_4O_6	mg/L	2

Notes:

a. Detection limit may decrease for metals because of dilution of samples to eliminate matrix interference.

b. For chemical abbreviations see Appendix D of this environmental baseline document.

$CaCO_3$ = calcium carbonate.

cm = centimeter.

L = liter.

µmhos = micromhos.

mg = milligram(s).

mV = millivolt(s).

ORP = oxidation reduction potential.

TDS = total dissolved solids.

CN = cyanide

WAD = weak acid dissociable

CNO = cyanate

CNS = thiocyanate

TABLE 11-8
Mineralogical Characterisation of Pre-Tertiary Samples Collected during 2012

Sample ID	Rock Type [b]	Results of Quantitative Phase Analysis (wt%) [a]										
		Sulfides		Carbonates			Silicates and Aluminosilicates					
		Pyrite	Chalcopyrite	Calcite	Siderite	Dolomite/ Ankerite	Quartz	Plagioclase	K-feldspar	Clinochlore	Biotite	Illite
I/P (-4.75 mm)	Y+D+G	12.7	0.9		2.2	0.8	30.6	1.5	14.2	1.5	1.6	26.5
NCK (-4.75 mm)	Y+D+G	4.8	0.7	1.5		1	20.2	16.1	28.7	3.2	9.3	8.6

Note: a Results obtained through Rietveld X-ray diffraction. Blank cells indicate that the mineral was not identified in that sample
b See Table 11-1

TABLE 11-9
Acid-Base Accounting Results for Pre-Tertiary Samples Collected during 2012

Sample ID	Rock Type [a]	Aleration Domain	pH	Sulfur (S%)	Sulfate (S%)	Sulfide (S%)	NP (kg $CaCO_3$/t)	TIC (C%)	TIC (kg $CaCO_3$/t)	AP (kg $CaCO_3$/t)	NNP (kg $CaCO_3$/t)	NP/AP
4232-339-359	Y	nk	4.01	5.04	0.17	4.87	-0.1	0.05	4.5	152.2	-152.3	0.0
4232-559-569	Y	nck	7.46	4.46	0.06	4.4	15.2	0.30	25.0	137.5	-122.3	0.1
8404-1647-1661	Y	ser	4.75	6.87	0.07	6.8	1.5	<0.05	<4.5	212.5	-211.0	0.0
8404-1812-1822	Gs	ser	4.38	6.42	0.15	6.27	-1.5	<0.05	<4.5	195.9	-197.4	0.0
8404-1950-1960	Gs	ser	6.87	2.17	0.03	2.14	12.9	0.27	22.7	66.9	-54.0	0.2
8404-2110-2120	Y	ser	7.69	2.16	0.02	2.14	10.7	0.16	13.6	66.9	-56.2	0.2
8406-1909-1919	Y	qsp	5.23	8.39	0.04	8.35	2.2	<0.05	<4.5	260.9	-258.7	0.0
8443-1586-1596	Y	ksil	7.05	2.87	0.02	2.85	3	0.08	6.8	89.1	-86.1	0.0
11535-14118-1422	Gs	illpy	4.92	7.39	0.06	7.33	3.5	<0.05	<4.5	229.1	-225.6	0.0
11539-3695-3803	Y	illpy	7.04	2.34	-0.01	2.34	5	0.35	29.5	73.1	-68.1	0.1
11539-4336-444	Gp	illpy	6.98	2.41	0.02	2.39	4.4	0.25	20.5	74.7	-70.3	0.1
I/P (+1/4")	Y+D+G	Illpy	7.19	4.14	0.01	4.13	14.2	0.33	27.3	129.1	-114.9	0.1
I/P (-1/4")	Y+D+G	Illpy	6.56	6.65	0.03	6.62	11.6	0.44	36.4	206.9	-195.3	0.1
NCK (+1/4")	Y+D+G	nck	8.31	1.9	0.01	1.89	23.5	0.30	25.0	59.1	-35.6	0.4
NCK (-1/4")	Y+D+G	nck	8.1	2.49	0.02	2.47	19.7	0.25	20.5	77.2	-57.5	0.3

Note a See Table 11-1

NP=Neutralization Potential; TIC=Total inorganic carbon; AP=Acid Potential; NNP=Net neutralization potential

TABLE 11-10
Metal Assay Results for Pre-Tertiary Samples Collected during 2012

Sample ID	Pebble Zone	Rock Type[a]	Alteration	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga
				(mg/kg)	(%)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(%)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(%)	(mg/kg)
4232-339-359	PWZ	Y	nk	1.31	0.91	378	0.8	<10	20	0.8	0.61	0.2	0.39	10.15	34.7	80	2.35	2680	4.52	3.44
4232-559-569	PWZ	Y	nck	1.23	1.14	11.6	<0.2	<10	30	0.54	1.05	0.63	0.03	19.55	20.5	114	1.85	2110	5.52	5.67
8404-1647-1661	PEZ	Y	ser	1.77	0.25	429	0.2	<10	20	0.14	0.85	0.08	0.26	3.27	30	116	0.38	4630	5.19	0.48
8404-1812-1822	PEZ	Gs	ser	3.7	0.29	88.6	0.7	<10	10	0.07	0.98	0.02	0.68	1.1	18.6	109	0.21	1000	5.26	1.4
8404-1950-1960	PEZ	Gs	ser	1.89	0.39	14.1	0.7	<10	20	0.39	0.38	0.4	0.05	1.49	15	83	2.04	5270	2.75	0.86
8404-2110-2120	PEZ	Y	ser	2.94	1.13	12.3	0.2	<10	50	0.27	0.49	0.29	0.88	15.05	12.7	146	2.21	8070	2.75	6.15
8406-1909-1919	PEZ	Y	qsp	0.27	0.33	33.6	<0.2	<10	20	0.33	0.63	0.19	1.39	6.4	33.4	61	0.36	285	6.91	0.74
8443-1586-1596	PEZ	Y	ksil	0.4	1.31	371	0.7	<10	20	0.45	0.13	0.13	0.04	5.78	7.9	172	1.52	1705	5.38	9.74
11535-14118-1422	PWZ	Gs	illpy	2.47	0.34	42	0.2	<10	20	0.39	1.63	0.26	0.54	5.31	15.4	85	0.77	2060	6.08	0.75
11539-3695-3803	PWZ	Y	illpy	1.34	1.13	40.3	0.2	<10	30	0.46	0.33	0.25	0.03	14.25	14.3	102	6.07	2320	4.41	5.59
11539-4336-444	PWZ	Gp	illpy	1.18	0.36	45	0.3	<10	10	0.44	0.21	0.23	0.02	14.7	8.6	115	7.07	2320	3.23	1.33
I/P (+1/4")	PWZ	Y+D+G	illpy	1.48	1.16	69.8	0.5	<10	30	0.51	0.48	0.65	0.28	17.55	25.3	94	2.96	2330	6.2	3.47
I/P (-1/4")	PWZ	Y+D+G	illpy	1.77	1.15	72.4	0.6	<10	40	0.54	2.9	0.57	1.11	11.25	34.4	68	2.61	2250	7.84	3.28
NCK (+1/4")	PEZ+PWZ	Y+D+G	nck	0.98	1.49	8.3	0.2	<10	50	0.46	0.3	1.01	0.1	18.55	16.4	100	3.25	2550	3.87	6.71
NCK (-1/4")	PEZ+PWZ	Y+D+G	nck	1.45	1.4	20.9	0.2	<10	60	0.52	0.78	0.93	0.3	21.4	20.5	93	2.63	3160	4.2	5.6
				Ge	**Hf**	**Hg**	**In**	**K**	**La**	**Li**	**Mg**	**Mn**	**Mo**	**Na**	**Nb**	**Ni**	**P**	**Pb**	**Rb**	**Re**
				(mg/kg)	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(%)**	**(mg/kg)**	**(mg/kg)**	**%**	**(mg/kg)**	**(mg/kg)**	**(%)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
4232-339-359	PWZ	Y	nk	0.12	0.07	0.43	0.026	0.52	4.2	3	0.37	103	73.4	0.01	0.22	51.3	980	12.8	31.1	0.146
4232-559-569	PWZ	Y	nck	0.17	0.09	0.03	0.036	0.71	8.2	4.9	0.9	332	81.7	0.03	0.26	33.4	1090	5.2	45.7	0.167
8404-1647-1661	PEZ	Y	ser	0.16	<0.02	0.08	0.026	0.19	1.5	0.2	0.02	12	276	0.01	0.19	38.3	280	12.6	3.8	1.295
8404-1812-1822	PEZ	Gs	ser	0.18	0.03	0.2	0.072	0.12	0.5	4.1	0.02	13	334	0.02	0.19	17.6	20	8.8	3	1.04
8404-1950-1960	PEZ	Gs	ser	0.07	0.03	0.02	0.038	0.31	0.4	0.9	0.32	215	283	0.05	0.15	13.4	130	11.5	7.1	0.553
8404-2110-2120	PEZ	Y	ser	0.12	0.03	0.06	0.06	1.02	7.1	3.3	1.18	229	245	0.03	0.26	20.6	40	119.5	53.7	0.507
8406-1909-1919	PEZ	Y	qsp	0.15	0.03	0.06	0.018	0.22	2.8	0.7	0.02	9	4.39	0.01	0.2	42.3	780	3.9	6	0.006
8443-1586-1596	PEZ	Y	ksil	0.15	0.02	0.04	0.014	0.68	2.4	14.5	0.84	169	37.6	0.01	0.27	21.1	490	4	31.9	0.03
11535-14118-1422	PWZ	Gs	illpy	0.13	0.06	0.42	0.034	0.27	2.5	0.3	0.06	46	35.4	0.01	0.2	10.7	890	24.3	8.1	0.09
11539-3695-3803	PWZ	Y	illpy	0.14	0.04	0.25	0.02	0.83	5.6	4.3	0.83	510	70.9	0.02	0.3	27.5	810	2.3	48.4	0.14
11539-4336-444	PWZ	Gp	illpy	0.09	0.05	0.13	0.019	0.23	6.8	1.1	0.15	454	109.5	0.01	0.19	5.9	670	2.5	12.8	0.214
I/P (+1/4")	PWZ	Y+D+G	illpy	0.07	0.05	0.1	0.045	0.63	8.1	6.2	0.86	820	58.4	0.01	1.35	18.7	1670	4.9	29.4	0.084
I/P (-1/4")	PWZ	Y+D+G	illpy	0.07	0.04	0.05	0.047	0.57	4.6	6.8	0.86	910	36.4	0.01	0.06	26.2	1750	13.7	28	0.064
NCK (+1/4")	PEZ+PWZ	Y+D+G	nck	0.08	0.03	0.03	0.026	1.05	8.8	8.5	1.43	313	98.9	0.04	0.27	28.5	1190	3	57.6	0.118
NCK (-1/4")	PEZ+PWZ	Y+D+G	nck	0.08	0.04	0.04	0.029	0.85	10.4	7.4	1.24	286	95.8	0.05	0.09	30.2	1250	7.6	42.2	0.154
				S	**Sb**	**Sc**	**Se**	**Sn**	**Sr**	**Ta**	**Te**	**Th**	**Ti**	**Tl**	**U**	**V**	**W**	**Y**	**Zn**	**Zr**
				(%)	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(%)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
4232-339-359	PWZ	Y	nk	4.65	7.06	7.8	6.2	0.4	215	<0.01	1.7	1.5	0.038	2.37	0.67	59	1.54	8.62	164	1.9
4232-559-569	PWZ	Y	nck	4.78	0.54	14.1	9.8	0.6	23.7	<0.01	1.05	2	0.089	0.44	0.53	117	0.38	11.05	26	2.1
8404-1647-1661	PEZ	Y	ser	6.4	0.34	1.1	23	0.6	24.3	<0.01	2.58	0.4	<0.005	0.21	0.11	11	0.67	1.54	41	<0.5
8404-1812-1822	PEZ	Gs	ser	6.5	1.04	2.1	26.5	0.8	30.7	<0.01	2.98	<0.2	<0.005	0.73	0.11	16	0.86	0.37	1700	0.7
8404-1950-1960	PEZ	Gs	ser	2.41	0.14	5.5	7.5	0.2	123.5	<0.01	0.54	0.3	<0.005	0.2	0.2	22	0.19	1.54	95	0.8
8404-2110-2120	PEZ	Y	ser	2.26	5.98	16.1	10.9	0.7	63.5	<0.01	0.58	1.5	0.129	0.4	0.3	159	0.31	1.85	268	0.6
8406-1909-1919	PEZ	Y	qsp	8.38	0.9	1.4	14.5	0.2	61.4	<0.01	1.74	0.8	<0.005	0.26	0.28	8	0.49	1.95	24	0.6
8443-1586-1596	PEZ	Y	ksil	2.9	1.35	13.2	6.6	0.5	19.2	<0.01	0.21	1	0.109	0.25	0.17	635	0.4	5.16	31	<0.5
11535-14118-1422	PWZ	Gs	illpy	7.26	4.1	0.8	16	0.2	26.3	<0.01	2.4	0.8	<0.005	0.48	0.39	7	0.35	4.17	206	1.5
11539-3695-3803	PWZ	Y	illpy	2.35	2.25	13.6	5	0.5	12.2	<0.01	0.54	2	0.098	0.64	0.48	104	0.57	8.64	21	0.7
11539-4336-444	PWZ	Gp	illpy	2.36	0.83	2.1	5	<0.2	15.7	<0.01	0.43	1.4	<0.005	0.2	0.5	19	1.03	5.92	19	1.2
I/P (+1/4")	PWZ	Y+D+G	illpy	5.13	1.04	5.1	9.5	0.5	49.6	<0.01	0.7	2.7	0.042	0.53	0.44	65	0.55	7.79	74	1.4
I/P (-1/4")	PWZ	Y+D+G	illpy	7.38	0.79	5.1	13.6	0.5	27.3	<0.01	0.81	1.3	0.032	0.66	0.46	60	0.76	8.81	207	1.4
NCK (+1/4")	PEZ+PWZ	Y+D+G	nck	2.3	0.2	15.4	5.2	0.6	131.5	<0.01	0.28	1.9	0.147	0.49	0.32	167	0.33	9.71	41	1
NCK (-1/4")	PEZ+PWZ	Y+D+G	nck	3.1	0.28	10.7	6.5	0.6	127.5	<0.01	0.44	1.5	0.094	0.47	0.3	142	0.74	9.49	82	1.1

Note: a See Table 11-1

TABLE 11-11
Summary and Status of Humidity Cell Tests, Pre-Tertiary Waste Rock Samples

Sample ID	Rock Type[a]	Date Started	Last data	Duration, years	NP, kg $CaCO_3$/t	AP, kg $CaCO_3$/t	NP/AP	Leachate pH at end of test	Calculated time (years) to onset of acid conditions[b]
Pebble West Zone									
025-0617-0637	D	08-Feb-05	30-Aug-05	0.6	9.8	105.3	0.1	pH < 5	-
046-0113-0133	N	08-Feb-05	30-Aug-05	0.6	6.1	53.4	0.1	5<pH<6	-
046-0580-0600	G	08-Feb-05	30-Aug-05	0.6	8.0	45.0	0.2	pH neutral	8
112-0460-0480	X	08-Feb-05	30-Aug-05	0.6	5.6	91.6	0.1	pH neutral	6
117-0190-0210	N	09-Feb-05	31-Aug-05	0.6	5.6	58.1	0.1	pH neutral	5
118-0468-0488	M	09-Feb-05	31-Aug-05	0.6	37.5	36.6	1.0	pH neutral	24
3069-0927-0947	G	09-Feb-05	Ongoing	7.9	3.2	76.3	0.0	pH < 5	-
3123-0438-0458	D	10-Feb-05	01-Sep-05	0.6	41.8	152.5	0.3	pH neutral	39
3124-0872-0887	X	10-Feb-05	29-Jun-06	1.4	45.5	44.4	1.0	pH neutral	25
019-0072-0090	WY	08-Feb-05	30-Aug-05	0.6	0.4	12.5	0.0	5<pH<6	-
033-0137-0155	Y	08-Feb-05	30-Aug-05	0.6	26.5	68.4	0.4	pH neutral	24
047-0350-0365	WY	08-Feb-05	27-Jun-06	1.4	6.1	104.7	0.1	pH neutral	5
118-0520-0535	Y	09-Feb-05	31-Aug-05	0.6	30.9	92.5	0.3	pH neutral	10
118-1220-1238	WY	09-Feb-05	31-Aug-05	0.6	32.6	77.5	0.4	pH neutral	15
3102-0568-0588	Y	09-Feb-05	31-Aug-05	0.6	18.5	97.8	0.2	pH neutral	11
3115-0988-1008	Y	10-Feb-05	29-Jun-06	1.4	10.0	46.3	0.2	pH neutral	10
3124-0188-0209	Y	10-Feb-05	Ongoing	7.9	0.1	77.2	0.0	pH < 5	-
Pebble East Zone									
224956	D	17-Jan-08	Ongoing	5.0	25.4	65.6	0.4	pH neutral	36
224182	G	16-Jan-08	14-Oct-2009	1.7	2.5	24.1	0.1	5<pH<6	-
226293	Gp	17-Jan-08	15-Oct-2009	1.7	31.3	16.6	1.9	pH neutral	-
406692	Gs	15-Jan-08	Ongoing	5.0	6.4	398	0	pH<5	-

NP=Neutralization Potential; AP=Acid Potential

Notes a See Table 11-1

b Onset of acid conditions is only expected in the case of those samples with NP/AP less than unity, i.e. there is insufficient NP to neutralize all the potential acid that might be generated in the sample. The timescale is calculated based on the observed rate at which NP is depleting in the sample concerned. Timescales are only given in the case of samples with NP/AP < 1.4 (i.e. samples classed as PAG or Uncertain, with the upper bound of region of uncertain classification defined by a site-specific NP/AP criterion of 1.4, see Section 11.7.1.3.1).

TABLE 11-11 (CONTINUED)
Summary and Status of Humidity Cell Tests, Pre-Tertiary Waste Rock Samples

Sample ID	Rock Type[a]	Date Started	Last data	Duration, years	NP, kg CaCO3/t	AP, kg CaCO3/t	NP/AP	Leachate pH at end of test	Calculated time (years) to onset of acid conditions[b]
Pebble East Zone (continued)									
225026	Gs	15-Jan-08	Ongoing	5.0	7.5	30	0.3	5<pH<6	-
105391	Gs	16-Jan-08	Ongoing	5.0	1	452	0.0	pH<5	-
105456	Gs	16-Jan-08	14-Oct-2009	1.7	2.3	233	0.0	pH<5	-
220841 + 220842	Y	15-Jan-08	Ongoing	5.0	4.9	69.7	0.1	pH<5	-
406717	Y	15-Jan-08	13-Oct-2009	1.7	7.4	305	0.0	pH<5	-
107326	Y	16-Jan-08	14-Oct-2009	1.7	13.7	17.2	0.8	pH neutral	19
107172	Y	17-Jan-08	Ongoing	5.0	5.8	37.5	0.2	pH neutral	13
220076	Y2L	16-Jan-08	Ongoing	5.0	14.8	283	0.1	pH<5	-
11486-001 AT COMP – 10m	Ore composite	9-Apr-08	Ongoing	4.7	6.9	73.8	0.1	5<pH<6	8
Barrel Test Subsamples (Pebble West Zone)									
ARLB003	G/D/N	18-Jan-08	Ongoing	5.0	28.9	183.4	0.2	pH neutral	12
ARLB006	G/D/N	18-Jan-08	Ongoing	5.0	21.3	100.0	0.2	pH neutral	15
ARLB001	Y	18-Jan-08	Ongoing	5.0	6.5	198.4	0.0	pH<5	-
ARLB002	Y	18-Jan-08	Ongoing	5.0	6.2	189.1	0.0	pH<5	-

NP=Neutralization Potential; AP=Acid Potential

Notes a See Table 11-1

b Onset of acid conditions is only expected in the case of those samples with NP/AP less than unity, i.e. there is insufficient NP to neutralize all the potential acid that might be generated in the sample. The timescale is calculated based on the observed rate at which NP is depleting in the sample concerned. Timescales are only given in the case of samples with NP/AP < 1.4 (i.e. samples classed as PAG or Uncertain, with the upper bound of region of uncertain classification defined by a site-specific NP/AP criterion of 1.4, see Section 11.7.1.3.1).

TABLE 11-12

Summary of Average Release Rates for Humidity Cell Kinetic Tests, Pre-Tertiary Samples, Pebble East and West Zones [a]

Sample ID	Rock Type [b]	Date Test Started	Date of Last Interpretative Data Review	Test Weeks	Alkalinity (mg/kg/ week)	Cl (mg/kg/ week)	F (mg/kg/ week)	SO_4 (mg/kg/ week)	Al (mg/kg/ week)	Sb (mg/kg/ week)	As (mg/kg/ week)	Ba (mg/kg/ week)	Be (mg/kg/ week)	Bi (mg/kg/ week)	B (mg/kg/ week)
Pebble West Zone															
025-0617-0637	D	8-Feb-05	30-Aug-05	29	0.49	0.25	0.049	120	0.039	0.00067	0.003	0.0005	0.000450	0.00063	0.016
046-0113-0133	N	8-Feb-05	30-Aug-05	29	1.1	0.25	0.047	20	0.01	0.0011	0.00022	0.016	0.000100	0.00025	0.0088
046-0580-0600	G	8-Feb-05	30-Aug-05	29	16	0.25	0.024	6.2	0.022	0.0018	0.00034	0.017	0.000100	0.00025	0.0062
112-0460-0480	X	8-Feb-05	30-Aug-05	29	2.5	0.24	0.039	21	0.0012	0.0011	0.00069	0.0063	0.000096	0.00024	0.0048
117-0190-0210	N	9-Feb-05	31-Aug-05	29	4	0.25	0.061	22	0.0023	0.00064	0.000064	0.0087	0.000099	0.00025	0.0067
118-0468-0488	M	9-Feb-05	31-Aug-05	29	25	0.24	0.043	7.7	0.012	0.0015	0.00047	0.0092	0.000096	0.00024	0.0048
3069-0927-0947	G	9-Feb-05	26-Dec-12	411	0.5	0.94	0.1	43	0.72	0.00026	0.0003	0.00075	0.000100	0.00025	0.0055
3123-0438-0458	D	10-Feb-05	1-Sep-05	29	12	0.25	0.034	13	0.018	0.0024	0.00071	0.0083	0.000098	0.00025	0.0049
3124-0872-0887	X	10-Feb-05	29-Jun-06	72	22	0.25	0.016	14	0.0073	0.0017	0.00027	0.0043	0.000098	0.00025	0.0049
019-0072-0090	WY	8-Feb-05	30-Aug-05	29	0.98	0.24	0.035	5.1	0.0048	0.0013	0.000064	0.005	0.000097	0.00024	0.0088
033-0137-0155	Y	8-Feb-05	30-Aug-05	29	11	0.25	0.018	12	0.04	0.0022	0.00046	0.0059	0.000098	0.00025	0.0075
047-0350-0365	WY	8-Feb-05	27-Jun-06	72	4.1	0.25	0.17	20	0.0013	0.00024	0.00005	0.0016	0.000100	0.00025	0.005
118-0520-0535	Y	9-Feb-05	31-Aug-05	29	10	0.25	0.052	52	0.002	0.0022	0.00081	0.0053	0.000100	0.00025	0.0051
118-1220-1238	WY	9-Feb-05	31-Aug-05	29	14	0.26	0.026	30	0.0063	0.0016	0.000072	0.0032	0.000100	0.00026	0.0052
3102-0568-0588	Y	9-Feb-05	31-Aug-05	29	14	0.25	0.076	20	0.01	0.0037	0.0021	0.0054	0.000100	0.00025	0.0051
3115-0988-1008	Y	10-Feb-05	29-Jun-06	72	13	0.25	0.011	7.9	0.022	0.0018	0.00051	0.0063	0.000099	0.00025	0.0049
3124-0188-0209	Y	10-Feb-05	27-Dec-12	411	0.48	1.5	0.16	79	5.6	0.000049	0.00056	0.00094	0.000270	0.00038	0.0084
Pebble East Zone															
224956	D	17-Jan-08	27-Dec-12	258	5.4	0.25	0.012	7.8	0.0071	0.000028	0.000061	0.00092	0.000099	0.00025	0.005
224182	G	16-Jan-08	21-Oct-09	92	0.98	0.25	0.0099	3	0.0028	0.0031	0.007	0.0015	0.000098	0.00025	0.0049
226293	Gp	17-Jan-08	22-Oct-09	92	19	0.24	0.017	5.2	0.01	0.00028	0.00063	0.0036	0.000097	0.00024	0.0049
406692	Gs	15-Jan-08	25-Dec-12	258	0.48	4.8	3.2	720	0.99	0.00043	0.13	0.00046	0.000560	0.00092	0.018
225026	Gs	15-Jan-08	25-Dec-12	258	0.51	0.25	0.012	8.9	0.015	0.000027	0.00048	0.0045	0.000170	0.00025	0.0049
105391	Gs	16-Jan-08	26-Dec-12	258	0.49	5.7	0.23	990	0.5	0.00013	0.094	0.00032	0.000480	0.0012	0.024
105456	Gs	16-Jan-08	21-Oct-09	92	0.49	0.48	0.036	40	0.64	0.00005	0.0019	0.0042	0.000100	0.00024	0.0049
220841 + 220842	Y	15-Jan-08	25-Dec-12	258	0.48	1.5	0.069	31	0.22	0.000097	0.0002	0.0061	0.000390	0.00097	0.019
406717	Y	15-Jan-08	20-Oct-09	92	0.49	1	0.052	42	0.53	0.0001	0.0015	0.000059	0.001200	0.00026	0.0051
107326	Y	16-Jan-08	21-Oct-09	92	13	0.24	0.09	2	0.05	0.00015	0.00024	0.00016	0.000097	0.00024	0.0049
107172	Y	17-Jan-08	27-Dec-12	258	2.8	0.24	0.15	3.1	0.0017	0.000033	0.000059	0.00013	0.000098	0.00024	0.0049
220076	Y2L	16-Jan-08	26-Dec-12	258	0.49	4.9	0.36	340	11	0.000025	0.0022	0.0011	0.000930	0.00025	0.0049
11486-001 AT COMP – 10m	Ore composite	09-Apr-08	26-Dec-12	246	1.0	0.3	0.13	13	0.006	0.000063	0.000094	0.0046	0.00010	0.00024	0.0049
Barrel Test Subsamples (Pebble West Zone)															
ARLB003	G/D/N	18-Jan-08	28-Dec-12	258	22	0.69	0.036	26	0.0034	0.000084	0.00014	0.0028	0.000096	0.00024	0.0048
ARLB006	G/D/N	18-Jan-08	28-Dec-12	258	20	0.24	0.013	12	0.0061	0.0002	0.0012	0.0031	0.000096	0.00024	0.0049
ARLB001	Y	18-Jan-08	28-Dec-12	258	0.46	2.5	0.25	150	5.9	0.000023	0.0011	0.0003	0.000420	0.00023	0.0046
ARLB002	Y	18-Jan-08	28-Dec-12	258	0.46	2.8	0.21	190	6.3	0.0001	0.0044	0.00045	0.000280	0.00023	0.0046

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

b. See Table 11-1.

mg/kg/week = milligram(s) per kilogram per week.

TABLE 11-12 (CONTINUED)
Summary of Average Release Rates for Humidity Cell Kinetic Tests, Pre-Tertiary Samples, Pebble East and West Zones [a]

Sample ID	Rock Type [b]	Cd (mg/kg/ week)	Ca (mg/kg/ week)	Cr (mg/kg/ week)	Co (mg/kg/ week)	Cu (mg/kg/ week)	Fe (mg/kg/ week)	Pb (mg/kg/ week)	Mg (mg/kg/ week)	Mn (mg/kg/ week)	Hg (mg/kg/ week)	Mo (mg/kg/ week)	Ni (mg/kg/ week)	K (mg/kg/ week)
Pebble West Zone														
025-0617-0637	D	0.00045	13	0.00063	0.025	2.1	0.23	0.00011	19	3	0.0000049	0.000041	0.027	1.5
046-0113-0133	N	0.0012	2.7	0.00025	0.0053	1.8	0.015	0.000031	2.1	0.094	0.000005	0.000028	0.0032	0.69
046-0580-0600	G	0.000025	4	0.00025	0.00005	0.004	0.015	0.000025	2.4	0.0078	0.000005	0.00046	0.00025	0.7
112-0460-0480	X	0.000075	4.2	0.00024	0.00081	0.021	0.015	0.000024	2	1.1	0.0000049	0.000072	0.0018	0.63
117-0190-0210	N	0.000072	3.5	0.00025	0.00037	0.0059	0.015	0.000025	3.6	0.16	0.000005	0.000039	0.00045	0.42
118-0468-0488	M	0.000024	6.6	0.00024	0.000048	0.0026	0.014	0.000024	3.3	0.0087	0.0000048	0.0019	0.00024	0.53
3069-0927-0947	G	0.000085	0.69	0.00025	0.0074	0.83	1.6	0.0019	0.091	0.017	0.000005	0.00022	0.0034	1.4
3123-0438-0458	D	0.000025	5.6	0.00025	0.000049	0.0015	0.015	0.000025	1.6	0.0029	0.0000049	0.00074	0.00025	1.5
3124-0872-0887	X	0.000025	10	0.00026	0.000069	0.0026	0.015	0.000087	2.3	0.016	0.0000049	0.0017	0.00025	0.49
019-0072-0090	WY	0.000032	1.2	0.00024	0.0018	0.084	0.015	0.000025	0.31	0.056	0.0000049	0.0029	0.00049	0.38
033-0137-0155	Y	0.000025	5.2	0.00025	0.000049	0.0017	0.015	0.000027	1.9	0.052	0.0000049	0.0012	0.00025	0.68
047-0350-0365	WY	0.00014	3.6	0.00025	0.00046	0.0074	0.015	0.000026	3.3	0.27	0.000005	0.000029	0.00038	0.32
118-0520-0535	Y	0.000025	16	0.00025	0.001	0.011	0.015	0.000025	5.1	0.21	0.0000081	0.00047	0.0012	0.47
118-1220-1238	WY	0.000032	11	0.00026	0.0001	0.0028	0.016	0.000026	3.1	0.014	0.0000053	0.0016	0.00026	0.53
3102-0568-0588	Y	0.000025	9.1	0.00025	0.000098	0.0014	0.015	0.000025	2.2	0.071	0.000005	0.0013	0.00025	0.53
3115-0988-1008	Y	0.000025	4.4	0.00025	0.00005	0.0021	0.015	0.000032	1.8	0.016	0.0000049	0.0018	0.00026	0.59
3124-0188-0209	Y	0.00017	1.1	0.0011	0.024	4.2	3.7	0.0017	1.5	0.074	0.0000048	0.00014	0.021	0.63
Pebble East Zone														
224956	D	0.000027	2.9	0.00025	0.000054	0.0051	0.015	0.000058	0.96	0.0031	0.000005	0.0012	0.00025	0.47
224182	G	0.000097	0.71	0.00025	0.00056	0.25	0.015	0.00047	0.14	0.0062	0.0000049	0.00023	0.00037	0.18
226293	Gp	0.000024	7.4	0.00024	0.00018	0.0024	0.015	0.000032	0.4	0.038	0.0000048	0.01	0.00024	1
406692	Gs	0.00026	34	0.0013	0.065	0.78	210	0.00024	0.13	0.18	0.0000048	0.00072	0.023	0.29
225026	Gs	0.000029	1.8	0.00025	0.0024	0.35	0.017	0.00037	0.71	0.057	0.0000049	0.000025	0.0017	0.48
105391	Gs	0.0045	0.7	0.003	0.087	1.5	290	0.0014	0.071	0.0038	0.0000049	0.0039	0.025	0.12
105456	Gs	0.00029	0.56	0.0017	0.0057	0.43	11	0.00011	0.17	0.011	0.0000049	0.000024	0.0062	0.16
220841 + 220842	Y	0.002	0.81	0.00097	0.011	11	0.41	0.00067	0.063	0.0076	0.0000049	0.000097	0.014	0.43
406717	Y	0.0002	0.95	0.00043	0.013	1.1	11	0.000066	0.21	0.019	0.0000048	0.000036	0.011	0.29
107326	Y	0.000027	5.5	0.00024	0.000049	0.00049	0.015	0.000024	0.07	0.012	0.0000049	0.005	0.00024	0.25
107172	Y	0.000057	2.1	0.00024	0.00036	0.018	0.015	0.000051	0.024	0.0069	0.0000049	0.00054	0.00051	0.15
220076	Y2L	0.00064	5.2	0.0074	0.039	1.3	58	0.00081	10	1.2	0.0000049	0.000025	0.039	0.78
11486-001 AT COMP – 10m	Ore composite	0.00067	4.0	0.00024	0.0038	1.8	0.015	0.00057	0.07	0.053	0.0000046	0.00084	0.0052	0.28
Barrel Test Subsamples (Pebble West Zone)														
ARLB003	G/D/N	0.000024	13	0.00024	0.000048	0.00084	0.016	0.000038	3.2	0.0039	0.0000048	0.0021	0.00028	0.77
ARLB006	G/D/N	0.000024	7	0.00024	0.000048	0.0006	0.014	0.00003	2.2	0.0014	0.0000048	0.0058	0.00024	0.69
ARLB001	Y	0.00026	2.9	0.0019	0.027	1.2	18	0.0033	2.7	0.096	0.0000046	0.000027	0.037	1
ARLB002	Y	0.0011	2.1	0.0025	0.033	1.3	25	0.0017	2.7	0.1	0.0000047	0.00008	0.043	0.58

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

b. See Table 11-1.

mg/kg/week = milligram(s) per kilogram per week.

TABLE 11-12 (CONTINUED)
Summary of Average Release Rates for Humidity Cell Kinetic Tests, Pre-Tertiary Samples, Pebble East and West Zones [a]

Sample ID	Rock Type [b]	Se (mg/kg/ week)	Ag (mg/kg/ week)	Na (mg/kg/ week)	TI (mg/kg/ week)	Sn (mg/kg/ week)	V (mg/kg/ week)	Zn (mg/kg/ week)
Pebble West Zone								
025-0617-0637	D	0.012	0.0000082	0.98	0.002	0.000082	0.00049	0.14
046-0113-0133	N	0.0016	0.000005	1	0.000094	0.000056	0.00025	0.073
046-0580-0600	G	0.0005	0.0000053	1	0.000025	0.00005	0.00025	0.00062
112-0460-0480	X	0.00075	0.0000048	0.96	0.00013	0.000048	0.00024	0.014
117-0190-0210	N	0.0012	0.0000049	0.99	0.000038	0.000049	0.00025	0.003
118-0468-0488	M	0.00064	0.0000048	0.96	0.000032	0.000048	0.00024	0.00048
3069-0927-0947	G	0.0005	0.000038	0.99	0.00029	0.000058	0.00025	0.022
3123-0438-0458	D	0.0015	0.0000049	0.98	0.000025	0.000049	0.00025	0.00049
3124-0872-0887	X	0.00049	0.0000052	0.98	0.000025	0.000066	0.00025	0.00058
019-0072-0090	WY	0.0022	0.0000049	0.97	0.000024	0.000049	0.00024	0.011
033-0137-0155	Y	0.0005	0.0000049	0.98	0.000025	0.00005	0.00025	0.00074
047-0350-0365	WY	0.0013	0.0000059	1	0.000029	0.000068	0.00025	0.0034
118-0520-0535	Y	0.0017	0.0000051	1	0.00025	0.000051	0.00025	0.0031
118-1220-1238	WY	0.00067	0.0000072	1	0.000026	0.000052	0.00026	0.0017
3102-0568-0588	Y	0.00051	0.0000051	1	0.00028	0.000051	0.00025	0.00081
3115-0988-1008	Y	0.00055	0.0000052	0.99	0.000025	0.000057	0.00029	0.00063
3124-0188-0209	Y	0.00089	0.00013	0.97	0.000075	0.000087	0.00051	0.025
Pebble East Zone								
224956	D	0.0005	0.000005	0.99	0.000025	0.00073	0.00025	0.00057
224182	G	0.0012	0.0000049	0.98	0.000025	0.00019	0.00025	0.05
226293	Gp	0.0011	0.0000048	0.98	0.000024	0.0017	0.00024	0.00052
406692	Gs	0.03	0.00013	0.97	0.00032	0.0079	0.0046	0.058
225026	Gs	0.00055	0.0000074	0.98	0.000025	0.0016	0.00025	0.0054
105391	Gs	0.048	0.00014	0.99	0.00046	0.002	0.0087	0.85
105456	Gs	0.0016	0.0000083	0.97	0.000024	0.00023	0.00068	0.1
220841 + 220842	Y	0.0035	0.000044	0.97	0.000097	0.0026	0.00097	0.97
406717	Y	0.0027	0.000024	0.95	0.000026	0.00021	0.00055	0.11
107326	Y	0.00049	0.0000049	0.97	0.000024	0.0017	0.00046	0.00049
107172	Y	0.00049	0.0000049	0.98	0.000024	0.0012	0.00024	0.0041
220076	Y2L	0.00052	0.000051	0.98	0.0001	0.0013	0.0014	0.12
11486-001 AT COMP – 10m	Ore composite	0.00064	0.0000086	1	0.000024	0.00011	0.00024	0.45
Barrel Test Subsamples (Pebble West Zone)								
ARLB003	G/D/N	0.00062	0.0000048	0.96	0.000029	0.0032	0.00024	0.00057
ARLB006	G/D/N	0.00068	0.0000048	0.96	0.000024	0.00033	0.00024	0.00054
ARLB001	Y	0.00055	0.000048	0.93	0.00034	0.0095	0.0023	0.045
ARLB002	Y	0.00066	0.000088	0.95	0.00017	0.0082	0.0035	0.15

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

b. See Table 11-1.

mg/kg/week = milligram(s) per kilogram per week.

TABLE 11-13
Summary and Status of Subaqueous Column Tests, Pre-Tertiary Waste Rock Samples

Sample ID	Zone	Rock Type[a]	Started	Last data	Duration	NP	AP	NP/AP	Leachate pH at end of test
					Years	kg $CaCO_3$/t	kg $CaCO_3$/t		
3069-0927-0947	PWZ	G	28-Sep-05	Ongoing	7.3	3.2	76.3	0.0	pH<5
3102-0568-0588	PWZ	Y	28-Sep-05	21-Oct-2009	4.1	18.5	97.8	0.2	pH neutral
3115-0988-1008	PWZ	Y	28-Sep-05	28-Jun-06	0.7	10.0	46.3	0.2	pH neutral
3123-0438-0458	PWZ	D	28-Sep-05	28-Jun-06	0.7	41.8	152.5	0.3	pH neutral
3124-0188-0209	PWZ	Y	28-Sep-05	21-Oct-2009	4.1	0.1	77.2	0.0	pH<5
3124-0872-0887	PWZ	X	26-Oct-05	14-Oct-2009	4.0	45.5	44.4	1.0	pH neutral

NP=Neutralization Potential; AP=Acid Potential

Note: a See Table 11-1

TABLE 11-14
Summary and Status of Stored Bag Tests, Pre-Tertiary Waste Rock Samples

SampleName	Zone	Rock Type[a]	Started	Last Date	Duration	NP	AP	NP/AP	Leachate pH at end of test
					Years	kg $CaCO_3$/t	kg $CaCO_3$/t		
Composite 1	PEZ	G	14/10/2008	Ongoing	3.7	18.4	16.2	1.1	pH neutral
Composite 2	PEZ	G	14/10/2008	Ongoing	3.7	6.5	51.2	0.1	pH neutral
Composite 3	PEZ	G	14/10/2008	Ongoing	3.7	2.6	269.1	0.0	pH<5
Composite 4	PEZ	G	14/10/2008	Ongoing	3.7	< 0.1	502.2	0.0	pH<5
Composite 5	PEZ	Y	14/10/2008	Ongoing	3.7	12.3	28.7	0.4	pH neutral
Composite 6	PEZ	Y	14/10/2008	Ongoing	3.7	11.8	42.2	0.3	pH neutral
Composite 7	PEZ	Y	14/10/2008	Ongoing	3.7	8.1	187.8	0.0	pH neutral
Composite 8	PEZ	Y	14/10/2008	Ongoing	3.7	12.2	275.3	0.0	pH neutral

NP=Neutralization Potential; AP=Acid Potential

Note: a See Table 11-1

TABLE 11-15
Summary and Status of Field (Barrel) Tests, Pre-Tertiary Waste Rock Samples

SampleName	Zone	Rock Type[a]	Started	Last Date	Duration	NP[b]	AP[b]	NP/AP[b]	Recent Leachate pHc
					Years	kg $CaCO_3$/t	kg $CaCO_3$/t		
ARLB001	PWZ	Y	21/09/2007	Ongoing	5.0	6.5	198.4	0.0	pH<5
ARLB002	PWZ	Y	21/09/2007	Ongoing	5.0	6.2	189.1	0.0	pH<5
ARLB003	PWZ	G/D/N	21/09/2007	Ongoing	5.0	28.9	183.4	0.2	pH neutral
ARLB006	PWZ	G/D/N	21/09/2007	Ongoing	5.0	21.3	100.0	0.2	pH neutral
ARLB015	PEZ+PWZ	Y/D/G	Constructed in Summer 2012, sampling to commence during 2013			19.7	77.2	0.3	-
ARLB016	PWZ	Y/D/G				11.6	206.9	0.1	-

NP=Neutralization Potential; AP=Acid Potential

Note:
- a See Table 11 - 1
- b NP, AP and NP/AP data based on characterisation of the -1/4" portion of the samples.
- c Typical pH measured in recent leachates from the test

TABLE 11-16
Summary and Status of Humidity Cell Tests, Tertiary Waste Rock Samples

Sample ID	Rock Type[a]	Date Started	Last data	Duration, years	NP, kg $CaCO_3$/t	AP, kg $CaCO_3$/t	NP/AP	Leachate pH at end of test	Calculated time (years) to onset of acid conditions[b]
Pebble West Zone									
115-0054-0066	TC siltstone	09-Feb-05	31-Aug-05	0.6	29.0	6.3	4.6	pH neutral	
115-0054-0066 D1	TC siltstone	22-Feb-05	30-Aug-05	0.5	29.0	6.3	4.6	pH neutral	
115-0054-0066 D2	TC siltstone	22-Feb-05	30-Aug-05	0.5	29.0	6.3	4.6	pH neutral	
115-0142-0163	TC arkose (higher S)	09-Feb-05	14-Oct-2009	4.7	41.4	9.4	4.4	pH neutral	
117-1055-1071	TBd (low S)	09-Feb-05	31-Aug-05	0.6	108.5	7.8	13.9	pH neutral	
3102-0958-0978	TBd	10-Feb-05	15-Oct-2009	4.7	103.3	21.3	4.9	pH neutral	
3102-0958-0978 D1	TBd	10-Feb-05	15-Oct-2009	4.7	103.3	21.3	4.9	pH neutral	
3102-0958-0978 D2	TBd	10-Feb-05	15-Oct-2009	4.7	103.3	21.3	4.9	pH neutral	
3129-0253-0272	TC (and/vol cng)	10-Feb-05	29-Jun-06	1.4	83.8	3.1	26.8	pH neutral	
3129-0417-0435	TC (and/vol cng)	10-Feb-05	01-Sep-05	0.6	98.5	0.6	157.6	pH neutral	
4157 439-471	TF	01-Nov-05	Ongoing	7.2	21.9	116.9	0.2	pH neutral	7
4292 415-430	TA/TD	01-Nov-05	Ongoing	7.2	17.2	27.2	0.6	pH neutral	24
4292 685-695	TC	01-Nov-05	13-Oct-2009	4.0	83.7	75.3	1.1	pH neutral	
Pebble East Zone									
104472	TC	15-Jan-08	Ongoing	5	10.7	27.5	0.4	pH<5	-
406558	TC	17-Jan-08	15-Oct-2009	1.7	62.5	47.8	1.3	pH neutral	62
220394	TC	17-Jan-08	15-Oct-2009	1.7	92.7	1.3	74.2	pH neutral	
219084	TF	16-Jan-08	14-Oct-2009	1.7	106.4	1.3	85.1	pH neutral	
406502	TF	17-Jan-08	15-Oct-2009	1.7	36.6	3.8	9.8	pH neutral	

NP=Neutralization Potential; AP=Acid Potential

Notes: a See Table 11-1

b Onset of acid conditions is only expected in the case of those samples with NP/AP less than unity, i.e. there is insufficient NP to neutralize all the potential acid that might be generated in the sample. The timescale is calculated based on the observed rate at which NP is depleting in the sample concerned. Timescales are only given in the case of samples with NP/AP < 1.4 (i.e. samples classed as PAG or Uncertain, with the upper bound of region of uncertain classification defined by a site-specific NP/AP criterion of 1.4, see Section 11.7.1.3.1).

TABLE 11-16 (CONTINUED)
Summary and Status of Humidity Cell Tests, Tertiary Waste Rock Samples

Sample ID	Rock Type[a]	Date Started	Last data	Duration, years	NP, kg $CaCO_3$/t	AP, kg $CaCO_3$/t	NP/AP	Leachate pH at end of test	Calculated time (years) to onset of acid conditions[b]
Pebble East Zone (continued)									
219135	TW	15-Jan-08	13-Oct-2009	1.7	70.4	7.5	9.4	pH neutral	
220364	TY	15-Jan-08	13-Oct-2009	1.7	60.8	4.1	15	pH neutral	
219189	TY	17-Jan-08	15-Oct-2009	1.7	51.5	4.7	11	pH neutral	
220366	TY	20-Nov-08	Ongoing	4.1	8.1	56.3	0.1	pH<5	-
222788	TA d	16-Jan-08	14-Oct-2009	1.7	34.6	79.7	0.4	pH neutral	33
226785	TB	16-Jan-08	14-Oct-2009	1.7	83.3	53.8	1.5	pH neutral	-
104775	TD	15-Jan-08	13-Oct-2009	1.7	14	0.9	14.9	pH neutral	
221502	TD	20-Nov-08	Ongoing	4.1	28.2	47.8	0.6	pH<5	-
Barrel Test Subsamples (Pebble West Zone)									
ARLB007	TC/TF	18-Jan-08	Ongoing	5.0	90.2	22.2	4.1	pH neutral	-
ARLB008	TC/TF	18-Jan-08	Ongoing	5.0	70.1	6.6	10.7	pH neutral	-
ARLB004	TW	18-Jan-08	Ongoing	5.0	67.2	5.3	12.6	pH neutral	-
ARLB005	TY	18-Jan-08	Ongoing	5.0	63.4	15.0	4.2	pH neutral	-
ARLB009	TD	18-Jan-08	Ongoing	5.0	44.8	5.0	9.0	pH neutral	-
ARLB010	TA+TB	18-Jan-08	Ongoing	5.0	48.1	1.6	30.8	pH neutral	-

NP=Neutralization Potential; AP=Acid Potential

Notes: a See Table 11-1

b Onset of acid conditions is only expected in the case of those samples with NP/AP less than unity, i.e. there is insufficient NP to neutralize all the potential acid that might be generated in the sample. The timescale is calculated based on the observed rate at which NP is depleting in the sample concerned. Timescales are only given in the case of samples with NP/AP < 1.4 (i.e. samples classed as PAG or Uncertain, with the upper bound of region of uncertain classification defined by a site-specific NP/AP criterion of 1.4, see Section 11.7.1.3.1).

TABLE 11-17
Summary of Average Release Rates for Humidity Cell Kinetic Tests—Tertiary Samples, Pebble West and East Zones [a]

Sample ID	Rock Type [b]	Date Started	Date of Last Interpretative Data Review	Test Weeks	Alkalinity (mg/kg/week)	Cl (mg/kg/week)	F (mg/kg/week)	SO_4 (mg/kg/week)	Al (mg/kg/week)	Sb (mg/kg/week)	As (mg/kg/week)	Ba (mg/kg/week)	Be (mg/kg/week)	Bi (mg/kg/week)	B (mg/kg/week)
Pebble West Zone															
115-0054-0066	TC siltstone	09-Feb-05	31-Aug-05	29	86	0.25	0.046	4.6	0.0018	0.0018	0.00013	0.13	0.000098	0.00025	0.023
115-0054-0066	TC siltstone	22-Feb-05	30-Aug-05	27	90	0.23	0.039	4.1	0.0018	0.0018	0.00011	0.11	0.000093	0.00023	0.022
115-0054-0066	TC siltstone	22-Feb-05	30-Aug-05	27	74	0.25	0.036	3.9	0.0017	0.0019	0.0001	0.11	0.000095	0.00024	0.022
115-0142-0163	TC arkose (higher S)	09-Feb-05	21-Oct-09	245	47	0.25	0.045	8.4	0.0017	0.00082	0.00029	0.1	0.000098	0.00024	0.01
117-1055-1071	TBd (low S)	09-Feb-05	31-Aug-05	29	65	0.26	0.07	3.3	0.032	0.0036	0.0051	0.0024	0.0001	0.00026	0.017
3102-0958-0978	TBd	10-Feb-05	22-Oct-09	245	22	0.24	0.01	3.8	0.008	0.0016	0.0026	0.002	0.000098	0.00024	0.0049
3102-0958-0978	TBd	10-Feb-05	22-Oct-09	245	23	0.24	0.0099	3.2	0.0081	0.0012	0.0028	0.0019	0.000097	0.00024	0.0049
3102-0958-0978	TBd	10-Feb-05	22-Oct-09	245	20	0.25	0.01	3.8	0.009	0.0016	0.0024	0.0015	0.000098	0.00024	0.0049
3129-0253-0272	TC (and/vol cng)	10-Feb-05	29-Jun-06	72	39	0.25	0.012	1.2	0.051	0.002	0.00093	0.014	0.000099	0.00025	0.0072
3129-0417-0435	TC (and/vol cng)	10-Feb-05	01-Sep-05	29	35	0.23	0.018	2.4	0.018	0.0018	0.00063	0.04	0.000093	0.00023	0.0094
4157 439-471	TF	01-Nov-05	25-Dec-12	373	32	1.5	0.088	32	0.00059	0.00031	0.000052	0.0035	0.000097	0.00024	0.01
4292 415-430	TA/TD	01-Nov-05	25-Dec-12	373	4.3	0.24	0.057	11	0.0015	0.00023	0.000069	0.012	0.000095	0.00024	0.0048
4292 685-695	TC	01-Nov-05	20-Oct-09	207	15	0.25	0.0098	18	0.016	0.0025	0.00015	0.015	0.0001	0.00024	0.0049
Pebble East Zone															
222788	TA d	16-Jan-08	21-Oct-09	92	20	0.25	0.013	2.4	0.015	0.00021	0.00032	0.00025	0.0001	0.00026	0.0052
226785	TB	16-Jan-08	21-Oct-09	92	22	0.25	0.011	4.7	0.021	0.00092	0.00017	0.018	0.00011	0.00028	0.0055
104472	TC	15-Jan-08	25-Dec-12	258	0.48	0.24	0.1	23	0.94	0.000026	0.0017	0.0039	0.001	0.00024	0.0048
406558	TC	17-Jan-08	22-Oct-09	92	20	0.25	0.013	3.1	0.032	0.00056	0.00056	0.016	0.000099	0.00025	0.005
220394	TC	17-Jan-08	22-Oct-09	92	22	0.24	0.0098	0.24	0.032	0.00024	0.00025	0.027	0.0001	0.00025	0.005
104775	TD	15-Jan-08	20-Oct-09	92	13	0.25	0.01	0.25	0.062	0.00015	0.00043	0.00035	0.0001	0.00025	0.005
221502	TD	20-Nov-08	27-Dec-12	214	0.48	2.4	0.23	99	4.5	0.000024	0.0011	0.01	0.00021	0.00024	0.0048
219084	TF	16-Jan-08	21-Oct-09	92	25	0.24	0.0099	0.24	0.016	0.000027	0.00013	0.002	0.0001	0.00025	0.0051
406502	TF	17-Jan-08	22-Oct-09	92	22	0.24	0.0097	0.27	0.029	0.000045	0.00096	0.0025	0.000097	0.00024	0.0049
219135	TW	15-Jan-08	20-Oct-09	92	24	0.25	0.01	1.6	0.035	0.00045	0.0052	0.00009	0.0001	0.00025	0.005
220364	TY	15-Jan-08	20-Oct-09	92	22	0.25	0.01	4.1	0.012	0.00076	0.0023	0.038	0.000097	0.00024	0.0049
219189	TY	17-Jan-08	22-Oct-09	92	47	0.24	0.042	2.7	0.006	0.000059	0.000063	0.05	0.000097	0.00024	0.0088
220366	TY	20-Nov-08	27-Dec-12	214	0.49	2.5	0.26	60	2.8	0.000025	0.00035	0.012	0.0006	0.00025	0.0049
Barrel Test Subsamples (Pebble East and West Zones)															
ARLB010	TA+TB	18-Jan-08	28-Dec-12	258	18	0.24	0.0095	0.9	0.019	0.000096	0.00041	0.0069	0.000095	0.00024	0.0048
ARLB009	TD	18-Jan-08	28-Dec-12	258	27	0.23	0.0094	1.6	0.01	0.00014	0.0007	0.007	0.000094	0.00023	0.0047
ARLB007	TC/TF	18-Jan-08	28-Dec-12	258	43	0.31	0.013	5.7	0.0026	0.000024	0.000058	0.042	0.000094	0.00024	0.0049
ARLB008	TC/TF	18-Jan-08	28-Dec-12	258	57	0.46	0.022	2.6	0.0029	0.000024	0.000067	0.087	0.000096	0.00024	0.0054
ARLB004	TW	18-Jan-08	28-Dec-12	258	43	0.24	0.011	2.7	0.0027	0.000045	0.00009	0.1	0.000094	0.00024	0.0047
ARLB005	TY	18-Jan-08	28-Dec-12	258	23	0.24	0.0095	14	0.0047	0.00015	0.00019	0.0073	0.000095	0.00024	0.0047

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

b. See Table 11-1.

mg/kg/week = milligram(s) per kilogram per week

TABLE 11-17 (CONTINUED)
Summary of Average Release Rates for Humidity Cell Kinetic Tests—Tertiary Samples, Pebble West and East Zones [a]

Sample ID	Rock Type [b]	Cd (mg/kg/ week)	Ca (mg/kg/ week)	Cr (mg/kg/ week)	Co (mg/kg/ week)	Cu (mg/kg/ week)	Fe (mg/kg/ week)	Pb (mg/kg/ week)	Mg (mg/kg/ week)	Mn (mg/kg/ week)	Hg (mg/kg/ week)	Mo (mg/kg/ week)	Ni (mg/kg/ week)	K (mg/kg/ week)
Pebble West Zone														
115-0054-0066	TC siltstone	0.000025	17	0.00025	0.000049	0.00077	0.015	0.000025	9.1	0.00028	0.0000049	0.0008	0.00025	3.8
115-0054-0066	TC siltstone	0.000023	15	0.00023	0.00007	0.0012	0.014	0.000023	8.2	0.0046	0.0000046	0.001	0.00035	3.4
115-0054-0066	TC siltstone	0.000024	14	0.00024	0.000077	0.00064	0.014	0.000024	8.4	0.0046	0.0000049	0.0011	0.00024	3.6
115-0142-0163	TC arkose (higher S)	0.000025	13	0.00025	0.000049	0.00063	0.015	0.000045	5.3	0.00076	0.0000049	0.00057	0.00025	0.62
117-1055-1071	TBd (low S)	0.000026	1.8	0.00026	0.000051	0.00074	0.015	0.000026	0.5	0.00036	0.0000052	0.018	0.00026	1.6
3102-0958-0978	TBd	0.000026	6	0.00024	0.000049	0.00099	0.015	0.000053	0.96	0.0016	0.000005	0.0019	0.00024	0.55
3102-0958-0978	TBd	0.000026	6.5	0.00024	0.000049	0.00069	0.015	0.000033	1.1	0.0053	0.0000049	0.001	0.00024	0.53
3102-0958-0978	TBd	0.000026	5.2	0.00025	0.000049	0.00077	0.015	0.000049	0.81	0.0043	0.0000049	0.0013	0.00025	0.46
3129-0253-0272	TC (and/vol cng)	0.000025	4.3	0.00025	0.00005	0.00097	0.02	0.000092	0.89	0.0004	0.000005	0.00023	0.00025	0.78
3129-0417-0435	TC (and/vol cng)	0.000023	5.2	0.00023	0.000047	0.00091	0.014	0.000032	1.7	0.0017	0.0000047	0.00039	0.00023	2.1
4157 439-471	TF	0.000024	6.2	0.00024	0.000049	0.00057	0.015	0.000028	11	0.0018	0.0000049	0.000028	0.00024	0.071
4292 415-430	TA/TD	0.000024	1.7	0.00024	0.000048	0.001	0.014	0.000025	2.4	0.0079	0.0000048	0.0001	0.00024	0.16
4292 685-695	TC	0.000025	12	0.00025	0.000056	0.00049	0.015	0.000027	0.42	0.016	0.0000049	0.00036	0.00025	0.32
Pebble East Zone														
222788	TA d	0.000026	8.3	0.00026	0.000052	0.00016	0.016	0.000026	0.29	0.014	0.0000052	0.02	0.00026	0.56
226785	TB	0.000029	10	0.00028	0.000055	0.00018	0.017	0.00016	0.075	0.0029	0.0000055	0.0015	0.00028	0.33
104472	TC	0.0038	2.6	0.00024	0.011	0.074	0.032	0.00057	1.6	0.2	0.0000048	0.000024	0.017	0.38
406558	TC	0.000025	7.6	0.00025	0.00005	0.00025	0.015	0.000025	0.066	0.002	0.000005	0.0018	0.00025	0.34
220394	TC	0.000025	7.2	0.00025	0.00005	0.00027	0.015	0.000025	0.15	0.019	0.000005	0.000029	0.00025	0.31
104775	TD	0.000025	4.3	0.00025	0.00005	0.00019	0.015	0.000026	0.082	0.0035	0.0000051	0.00017	0.00025	0.038
221502	TD	0.0003	3	0.00024	0.0056	0.025	9.6	0.0092	1.7	0.33	0.0000048	0.000024	0.00024	0.18
219084	TF	0.000025	7.6	0.00027	0.000051	0.00018	0.015	0.000025	1	0.0034	0.0000049	0.000082	0.00025	0.31
406502	TF	0.000024	6.9	0.00024	0.000049	0.00019	0.015	0.000029	0.67	0.0019	0.0000049	0.00043	0.00024	0.26
219135	TW	0.000025	8.1	0.00025	0.000052	0.00025	0.015	0.000025	0.14	0.011	0.000005	0.0067	0.00025	0.025
220364	TY	0.000025	7.6	0.00024	0.000064	0.00033	0.015	0.000029	0.78	0.011	0.0000049	0.005	0.00024	0.56
219189	TY	0.000024	2.2	0.00026	0.000049	0.00022	0.017	0.000024	1.5	0.00053	0.0000049	0.00062	0.00024	0.67
220366	TY	0.00026	9.5	0.00026	0.017	0.019	0.047	0.0074	3.2	0.17	0.0000049	0.000025	0.019	0.23
Barrel Test Subsamples (Pebble East and West Zones)														
ARLB010	TA+TB	0.000025	5.6	0.00024	0.000048	0.00052	0.014	0.000047	0.15	0.0001	0.0000047	0.0028	0.00024	0.094
ARLB009	TD	0.000023	8.4	0.00023	0.000047	0.0003	0.014	0.000027	0.42	0.00014	0.0000047	0.0018	0.00024	0.22
ARLB007	TC/TF	0.000024	7.6	0.00026	0.000047	0.0002	0.014	0.00003	5.1	0.00041	0.0000047	0.00037	0.00024	0.38
ARLB008	TC/TF	0.000024	8.7	0.00026	0.000048	0.00021	0.014	0.000032	6.5	0.00066	0.0000048	0.00031	0.00024	0.45
ARLB004	TW	0.000024	8.8	0.00024	0.000047	0.00031	0.014	0.000031	3.7	0.00053	0.0000047	0.0012	0.00024	0.32
ARLB005	TY	0.000024	11	0.00026	0.000047	0.00028	0.014	0.00003	1.3	0.00029	0.0000047	0.002	0.00024	0.17

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

b. See Table 11-1.

mg/kg/week = milligram(s) per kilogram per week

TABLE 11-17 (CONTINUED)
Summary of Average Release Rates for Humidity Cell Kinetic Tests—Tertiary Samples, Pebble West and East Zones [a]

Sample ID	Rock Type [b]	Se (mg/kg/week)	Ag (mg/kg/week)	Na (mg/kg/week)	TI (mg/kg/week)	Sn (mg/kg/week)	V (mg/kg/week)	Zn (mg/kg/week)
Pebble West Zone								
115-0054-0066	TC siltstone	0.00049	0.0000056	0.98	0.000052	0.000049	0.00025	0.00052
115-0054-0066	TC siltstone	0.00047	0.0000047	1.8	0.000049	0.000047	0.00023	0.00052
115-0054-0066	TC siltstone	0.00048	0.0000048	1.1	0.000044	0.000048	0.00024	0.0005
115-0142-0163	TC arkose (higher S)	0.00056	0.0000051	0.98	0.000077	0.00005	0.00024	0.0008
117-1055-1071	TBd (low S)	0.00051	0.0000071	26	0.000026	0.000051	0.0045	0.00056
3102-0958-0978	TBd	0.00051	0.000005	2.5	0.000024	0.000049	0.0022	0.00069
3102-0958-0978	TBd	0.0005	0.0000052	2.1	0.000025	0.000054	0.0027	0.0008
3102-0958-0978	TBd	0.00051	0.0000049	2.9	0.000024	0.00005	0.0019	0.00074
3129-0253-0272	TC (and/vol cng)	0.0005	0.0000058	11	0.000025	0.000052	0.0027	0.001
3129-0417-0435	TC (and/vol cng)	0.00047	0.0000047	6.3	0.000023	0.000047	0.00066	0.00056
4157 439-471	TF	0.0011	0.000005	0.97	0.000039	0.000049	0.00024	0.00057
4292 415-430	TA/TD	0.00062	0.0000048	0.95	0.000024	0.000048	0.00024	0.001
4292 685-695	TC	0.00049	0.000005	0.99	0.000025	0.000051	0.00025	0.00081
Pebble East Zone								
222788	TA d	0.00052	0.0000052	1	0.000026	0.0025	0.00026	0.00052
226785	TB	0.0028	0.0000055	1.1	0.000028	0.0021	0.00028	0.00055
104472	TC	0.00073	0.0000048	0.96	0.00012	0.0014	0.00024	0.38
406558	TC	0.00051	0.000005	1.1	0.000025	0.0019	0.00032	0.00052
220394	TC	0.0005	0.000005	1	0.000025	0.0017	0.00036	0.00051
104775	TD	0.0005	0.000005	1	0.000025	0.0014	0.00026	0.00055
221502	TD	0.00048	0.0000096	0.97	0.000024	0.0016	0.00024	0.29
219084	TF	0.00051	0.0000051	0.98	0.000025	0.0014	0.00076	0.00051
406502	TF	0.00049	0.0000049	0.97	0.000024	0.0014	0.00051	0.00049
219135	TW	0.0005	0.000005	1.5	0.000025	0.0012	0.00073	0.00063
220364	TY	0.00049	0.0000049	1	0.000024	0.00095	0.00025	0.00052
219189	TY	0.00074	0.0000049	18	0.000024	0.0012	0.00024	0.00051
220366	TY	0.00075	0.000009	0.98	0.000025	0.000072	0.00025	0.031
Barrel Test Subsamples (Pebble East and West Zones)								
ARLB010	TA+TB	0.00048	0.0000048	0.95	0.000024	0.0015	0.00024	0.0006
ARLB009	TD	0.00047	0.0000047	0.94	0.000023	0.00021	0.0003	0.0005
ARLB007	TC/TF	0.00047	0.0000047	0.94	0.000024	0.00033	0.00024	0.00057
ARLB008	TC/TF	0.00048	0.0000048	0.96	0.000024	0.0026	0.00024	0.00055
ARLB004	TW	0.00047	0.0000047	0.94	0.000024	0.0038	0.00024	0.00055
ARLB005	TY	0.00047	0.0000047	0.95	0.000024	0.00037	0.00024	0.00052

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

b. See Table 11-1.

mg/kg/week = milligram(s) per kilogram per week.

TABLE 11-18
Summary and Status of Subaqueous Column Tests, Tertiary Waste Rock Samples

Sample ID	Zone	Rock Type[a]	Started	Last data	Duration	NP	AP	NP/AP	Leachate pH atend of test
					Years	kg $CaCO_3$/t	kg $CaCO_3$/t		
Composite13 (407741)	PEZ	TC	10-Aug-08	Ongoing	4.2	80.7	6.3	12.9	pH neutral
Composite19 (226338)	PEZ	TA	10-Aug-08	Ongoing	4.2	17.5	17.5	1.0	pH neutral

NP=Neutralization Potential; AP=Acid Potential

Note: a See Table 11-1

TABLE 11-19
Summary and Status of Stored Bag Tests, Tertiary Waste Rock Samples

Sample ID	Zone	Rock Type[a]	Started	Last Date	Duration	NP	AP	NP/AP	Leachate pH at end of test
					Years	kg $CaCO_3$/t	kg $CaCO_3$/t		
Composite 9	PEZ	TC	14/10/2008	Ongoing	3.7	84.4	0.6	135.0	pH neutral
Composite 10	PEZ	TC/TF	14/10/2008	Ongoing	3.7	60.3	0.6	96.5	pH neutral
Composite 11	PEZ	TC/TY	14/10/2008	Ongoing	3.7	125.1	3.1	40.0	pH neutral
Composite 12	PEZ	TW(TF)	14/10/2008	Ongoing	3.7	81.2	3.7	21.6	pH neutral
Composite 13	PEZ	TC	14/10/2008	Ongoing	3.7	80.7	6.2	12.9	pH neutral
Composite 14	PEZ	TC/TW	14/10/2008	Ongoing	3.7	26.5	20.9	1.3	pH<5
Composite 15	PEZ	TB	14/10/2008	5/11/2008	0.1	109.2	-0.3	364	pH neutral
Composite 16	PEZ	TB	14/10/2008	Ongoing	3.7	85	0.3	272	pH neutral
Composite 17	PEZ	TB	14/10/2008	Ongoing	3.7	61.3	0.9	65.4	pH neutral
Composite 18	PEZ	TB	14/10/2008	Ongoing	3.7	19.2	9.4	2.0	pH neutral
Composite 19	PEZ	TA	14/10/2008	Ongoing	3.7	17.5	17.5	1	pH neutral
Composite 20	PEZ	TA	14/10/2008	Ongoing	3.7	17.9	41.2	0.4	pH neutral

NP=Neutralization Potential; AP=Acid Potential

Note: a See Table 11-1

TABLE 11-20

Summary and Status of Field (Barrel) Tests, Tertiary Waste Rock Samples

SampleName	Zone	Rock Type[a]	Started	Last Date	Duration	NP	AP	NP/AP	Recent Leachate pH
					Years	kg $CaCO_3$/t	kg $CaCO_3$/t		
ARLB004	PEZ+PWZ	TW	21/09/2007	Ongoing	5.0	67.2	5.3	12.7	pH neutral
ARLB005	PEZ+PWZ	TY	21/09/2007	Ongoing	5.0	63.4	15	4.2	pH neutral
ARLB007	PWZ	TC/TF/TX	22/09/2007	Ongoing	5.0	90.2	22.2	4.1	pH neutral
ARLB008	PWZ	TC/TF/TX	22/09/2007	Ongoing	5.0	70.1	6.6	10.7	pH neutral
ARLB009	PEZ+PWZ	TD	22/09/2007	Ongoing	5.0	44.8	5	9.0	pH neutral
ARLB010	PEZ	TA+TB	22/09/2007	Ongoing	5.0	48.1	1.6	30.8	pH neutral

NP=Neutralization Potential; AP=Acid Potential

Note: a See Table 11-1

TABLE 11-21
Stable Sulfate Release Rates as a Function of Sulfide Content: Regression Analyses (Humidity Cell Test Data)

	Slope, $week^{-1}$	Intercept, $mgSO_4/kg/week^a$	R^2 Coefficient
All Data			
Pre-Tertiary	1.7×10^{-3}	-94.0[1]	0.69
Tertiary	3.8×10^{-4}	2.1	0.26
Pebble East Zone			
Pre-Tertiary	1.8×10^{-3}	-94.9[1]	0.71
Tertiary	5.3×10^{-4}	1.6	0.25
Pebble West Zone			
Pre-Tertiary	6.8×10^{-4}	-18.1[1]	0.43
Tertiary	2.5×10^{-4}	1.5	0.92

Notes:
$mgSO_4/kg/week$ = milligrams of sulfate per kilogram per week
a Negative intercepts are a result of the regression line crossing the x-axis above the origin, possibly suggesting that a proportion of the sulfide present is not reactive

TABLE 11-22
Calculated Time to Onset of Acid Rock Drainage Based on Humidity Cells at Room Temperature

	Pebble West Zone		Pebble East Zone	
	Tertiary	**Pre-Tertiary**	**Tertiary**	**Pre-Tertiary**
k:	2.5×10^{-4}	6.8×10^{-4}	5.3×10^{-4}	1.8×10^{-3}
Critical NP/AP:	1.4	1.4	1.4	1.4
NP/AP	**Time (Years)**			
0.05	3	1	1	0
0.1	5	2	3	1
0.3	16	6	8	2
0.5	27	10	13	4
0.7	38	14	18	5
1	54	20	26	8

Notes:
AP = acid potential.
k = rate of oxidation of sulfide ($week^{-1}$).
NP = neutralization potential.

TABLE 11-23
Calculated Sulfate Release Rates – Stored Bag Test

Sample ID	Rock Type[a]	Sulfide (S^{2-}), %	Week	Measured 'average' accumulation rate, mg/kg/week[b]	Exponent term	Correlation coefficient	Calculated Rate based on Power Function	
							Short time (1 week)	Long time (1000 weeks)
Composite 1	G	0.52	188	1.2	-0.95	-1.00	152.30	0.21
Composite 2	G	1.64	188	1.2	-0.93	-1.00	148.28	0.24
Composite 2D	G	1.64	188	1.3	-0.89	-1.00	134.39	0.30
Composite 3	G	8.61	188	2.3	-0.92	-1.00	271.03	0.46
Composite 4	G	16.07	188	3.5	-0.91	-1.00	414.31	0.75
Composite 5	Y	0.92	188	0.3	-0.93	-1.00	31.53	0.05
Composite 6	Y	1.35	188	1.5	-0.93	-1.00	226.36	0.38
Composite 6D	Y	1.35	188	2.1	-0.92	-1.00	240.96	0.41
Composite 7	Y	6.01	188	1.6	-0.92	-1.00	189.00	0.34
Composite 8	Y	8.81	188	3.5	-0.80	-0.99	184.83	0.75
Composite 19	TA	0.56	188	0.7	-0.94	-1.00	109.11	0.17
Composite 20	TA	1.32	188	0.6	-0.86	-1.00	61.54	0.16
Composite 15	TB	<0.01	4	2.3	-1.31	-0.99	13.44	0.00
Composite 16	TB	0.01	188	0.1	-0.78	-0.97	6.86	0.03
Composite 16D	TB	0.01	188	0.1	-0.81	-1.00	8.69	0.03
Composite 17	TB	0.03	188	0.3	-0.93	-1.00	47.35	0.08
Composite 18	TB	0.30	188	0.4	-0.93	-1.00	54.02	0.09
Composite 13	TC	0.20	188	0.1	-0.82	-0.99	8.32	0.03
Composite 9	TC	0.02	188	0.1	-0.80	-0.99	9.65	0.04
Composite 10	TC/TF	0.02	188	0.1	-0.96	-1.00	9.55	0.01
Composite 10D	TC/TF	0.02	188	0.1	-0.90	-0.99	10.93	0.02
Composite 14	TC/TW	0.67	188	29.7	-0.67	-1.00	1001.59	9.81
Composite 11	TC/TY	0.10	188	0.6	-0.94	-1.00	100.79	0.16
Composite 12	TW(TF)	0.12	188	1.2	-0.93	-1.00	162.07	0.26

Notes:

a See Table 11-1

b Based on mass accumulated after longest storage times.

TABLE 11-24
Stable Sulfate Release Rates as a Function of Sulfide Content: Regression Analyses (Stored Bag Data)

	Slope, week^{-1}	**Intercept, mgSO_4/kg/week**	**R^2 Coefficient**
Short times			
Pre-Tertiary	5.2×10^{-3}	123.9	0.60
Tertiary	8.6×10^{-2}	52.1	0.14
Long times			
Pre-Tertiary	1.2×10^{-5}	0.2	0.69
Tertiary	7.8×10^{-4}	0.2	0.12

Note:

mgSO_4/kg/week = milligrams of sulfate per kilogram per week.

TABLE 11-25
Calculated Sulfate Release Rates – Field (Barrel) Tests

Sample ID	Age	Rock Type[a]	Sulfide (S^{2-}),%[b]	NP/AP[b]	% of barrel test mass with particle size less than 1/4"	Barrel (recent pH[c])	(Ca+Mg)/SO_4 molar ratio	Average sulfate release, mg/kg/week	
								Barrel	Equiv HCT test
ARLB001	PT	Y	6.35	0.0	18.9%	4.4	0.9	5.7	151
ARLB002	PT	Y	6.05	0.0	9.9%	4.3	0.9	8.4	189
ARLB003	PT	G/D/N	5.87	0.2	6.6%	7.8	1.0	7.6	26
ARLB006	PT	G/D/N	3.2	0.2	9.5%	8.1	1.0	3.3	11
ARLB004	T	TW	0.17	12.6	15.8%	8.5	0.2	0.95	2.6
ARLB005	T	TY	0.48	4.2	9.7%	8.1	1.1	1.9	14
ARLB007	T	TC/TF/TX	0.71	4.1	13.9%	8.6	0.2	1.3	5.6
ARLB008	T	TC/TF/TX	0.21	10.7	28.8%	8.5	0.6	0.72	2.5
ARLB009	T	TD	0.16	9.0	8.6%	7.9	5.4	0.06	1.6
ARLB010	T	TA+TB	0.05	30.8	19.9%	8.1	3.3	0.12	0.88

NP=Neutralization Potential; AP=Acid Potential; HCT=Humidity Cell Test

Notes:

a See Table 11-1
b $S(^{2-})$ and NP/AP data based on characterisation of the -1/4" portion of the samples.
c pH measured in recent leachates from the test

TABLE 11-26
Stable Sulfate Release Rates as a Function of Sulfide Content: Regression Analyses (Field (Barrel) Data)

	Slope, $week^{-1}$	Intercept ($mgSO_4/kg/week$)	R^2 Coefficient
Un-scaled data			
Pre-Tertiary	4.2×10^{-4}	-0.5	0.65
Tertiary	7.1×10^{-4}	0.2	0.57
Scaled to fine-grained mass present			
Pre-Tertiary	3.7×10^{-3}	6.5	0.16
Tertiary	6.7×10^{-3}	0.5	0.47

Note:

$mgSO_4/kg/week$ = milligrams of sulfate per kilogram per week.

TABLE 11-27
Calculated Release Rates for Selected Elements – Field (Barrel) Tests

	SO_4, mg/kg/week	Ag, mg/kg/week	Al, mg/kg/week	As, mg/kg/week	B, mg/kg/week	Ba, mg/kg/week	Be, mg/kg/week	Bi, mg/kg/week	Ca, mg/kg/week	Cd, mg/kg/week	Co, mg/kg/week
ARLB001	5.7	0.00000021	0.016	0.000026	0.00091	0.000093	0.000035	0.00000012	1.3	0.000073	0.0013
ARLB002	8.4	0.00000035	0.039	0.000029	0.0006	0.000045	0.000085	0.000000077	1.9	0.000085	0.0013
ARLB003	7.6	0.000000078	0.000065	0.000019	0.00063	0.00012	0.00000004	0.000000098	2.2	0.0000013	0.000017
ARLB004	0.95	0.000000041	0.00016	0.000027	0.00062	0.00029	0.000000014	0.00000011	0.046	0.000000051	0.0000011
ARLB005	1.9	0.000000018	0.000034	0.000021	0.00033	0.0002	0.000000013	n.d.[b]	0.72	0.00000015	0.0000039
ARLB006	3.3	0.00000013	0.000058	0.000045	0.0006	0.00016	0.000000018	0.000000037	0.91	0.00000024	0.000006
ARLB007	1.3	0.000000057	0.00051	0.0000077	0.00057	0.0002	0.00000004	0.00000007	0.062	0.00000009	0.0000012
ARLB008	0.72	0.00000007	0.00011	0.0000051	0.00079	0.00062	0.000000042	n.d.[b]	0.09	0.00000017	0.0000011
ARLB009	0.06	0.000000078	0.00018	0.000011	0.000083	0.00019	0.000000044	0.000000058	0.13	0.00000016	0.00000033
ARLB010	0.12	0.000000065	0.000079	0.000023	0.00017	0.00013	0.000000022	0.000000066	0.14	0.00000014	0.00000033
	Cr, mg/kg/week	**Cu, mg/kg/week**	**Fe, mg/kg/week**	**Hg, mg/kg/week**	**K, mg/kg/week**	**Mg, mg/kg/week**	**Mn, mg/kg/week**	**Mo, mg/kg/week**	**Na, mg/kg/week**	**Ni, mg/kg/week**	**Pb, mg/kg/week**
ARLB001	0.0000018	0.087	0.0042	0.000000023	0.11	0.47	0.033	0.00000047	0.084	0.0021	0.0000091
ARLB002	0.0000021	0.24	0.012	0.000000018	0.086	0.69	0.084	0.00000051	0.071	0.004	0.000067
ARLB003	0.0000098	0.00011	0.00023	0.00000002	0.1	0.65	0.0068	0.00053	0.15	0.000041	0.00000029
ARLB004	0.0000029	0.0000082	0.00018	9.8×10^{-9}	0.017	0.017	0.000016	0.00065	1.4	0.0000047	0.0000003
ARLB005	0.0000045	0.0000055	0.00018	8.3×10^{-9}	0.014	0.075	0.000068	0.00069	0.16	0.000018	0.0000002
ARLB006	0.000011	0.0001	0.00022	0.000000013	0.07	0.31	0.0011	0.00093	0.2	0.000015	0.00000027
ARLB007	0.0000025	0.0000065	0.00075	9.3×10^{-9}	0.025	0.04	0.000037	0.000082	1.8	0.0000036	0.0000004
ARLB008	0.0000027	0.0000067	0.00014	0.000000012	0.037	0.062	0.0001	0.00011	2.7	0.0000045	0.00000028
ARLB009	0.000003	0.000015	0.00012	9.4×10^{-9}	0.0034	0.0022	0.000031	0.00031	0.084	0.0000046	0.00000033
ARLB010	0.0000026	0.000023	0.00014	0.00000001	0.0061	0.012	0.000012	0.0002	0.15	0.0000042	0.00000027
	Sb, mg/kg/week	**Se,mg/kg/week**	**Si, mg/kg/week**	**Sn, mg/kg/week**	**Tl, mg/kg/week**	**V, mg/kg/week**	**Zn, mg/kg/week**				
ARLB001	0.0000034	0.00054	0.075	0.000000071	0.000011	0.0000012	0.0073				
ARLB002	0.0000041	0.00028	0.11	0.00000021	0.000018	0.00000081	0.012				
ARLB003	0.00001	0.00039	0.016	0.0000013	0.0000019	0.0000016	0.00014				
ARLB004	0.000016	0.000066	0.006	0.00000036	0.00000031	0.0000025	0.000019				
ARLB005	0.000014	0.00013	0.0095	0.00000016	0.00000033	0.0000016	0.000023				
ARLB006	0.000022	0.00032	0.016	0.0000002	0.0000011	0.0000031	0.000055				
ARLB007	0.0000016	0.000033	0.0059	0.00000036	0.00000014	0.0000025	0.000018				
ARLB008	0.0000021	0.000042	0.0083	0.00000038	0.00000028	0.000002	0.000021				
ARLB009	0.0000046	0.0000034	0.0093	0.00000032	0.000000069	0.0000037	0.000023				
ARLB010	0.0000061	0.0000037	0.02	0.0000002	0.000000041	0.00002	0.000021				

Notes a For chemical abbreviations see Appendix D of this environmental baseline document.

b n.d. = not detected in any of the leachates sampled from this barrel to-date.

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TABLE 11-28
Summary of Mineralogical Results for Metallurgical Waste Product – MPP Rougher Tails

Mineral	Ideal Formula	Quantitative Phase Analysis (XRD), wt%	Visual Observation, wt%
Quartz	SiO_2	12.2	30
Muscovite	$KAl_2(AlSi_3O_{10})(OH)_2$	6.3	15 (sericite)
Biotite	$K(Mg,Fe^{2+})_3AlSi_3O_{10}(OH)_2$	6.3	15
Chlorite		-	1-2
Kaolinite	$Al_2Si_2O_5(OH)_4$	2.4	
Plagioclase	$NaAlSi_3O_8$ – $CaAl_2Si_2O_8$	16.2	
K-feldspar	$KAlSi_3O_8$	50.7	25
Calcite	$CaCO_3$	0.6	
Dolomite	$CaMg(CO_3)_2$	2.0	
Siderite	$Fe^{2+}CO_3$	1.6	5 (ankerite)
Hematite	α-Fe_2O_3	0.5	<1
Pyrite	FeS_2	0.5	1-2
Chalcopyrite	$CuFeS_2$	-	<1
Rutile	TiO_2	0.7	<1 (ilmenite, sphene, rutile)
Apatite		-	<<1

TABLE 11-29

Acid-Base Accounting Results for Representative Tailings Samples – Batches Tested During Period 2010 to 2012[a]

Sample ID	Product	Paste pH	Total S	Sulfate	Sulfide	AP	$NP_{Modified}$	Fizz Rating	C(T), %	NP/AP
		(Std Units)	(S%)	(S%)	(S%)	($kgCaCO_3/t$)	($kgCaCO_3/t$)	Unity	(%)	-
2010 set										
LCT-25	rougher/pyrite blend	8.3	1.51	0.02	1.49	46.6	31.9	Slight	0.61	0.7
LCT-26	rougher/pyrite blend	8.0	0.17	<0.01	0.17	5.3	9.9	None	0.11	1.9
LCT-27	rougher/pyrite blend	7.6	2.99	0.05	2.94	91.9	19.6	Slight	0.3	0.2
LCT-28	rougher/pyrite blend	7.7	3.02	0.05	2.97	92.8	41.1	Slight	0.79	0.4
LCT-29	rougher/pyrite blend	7.7	1.57	0.01	1.56	48.8	13.1	None	0.4	0.3
LCT-30	rougher/pyrite blend	7.5	0.98	0.01	0.97	30.3	9.5	None	0.54	0.3
LCT-31	rougher/pyrite blend	7.8	0.27	0.01	0.26	8.1	5.9	None	0.25	0.7
LCT-32	rougher/pyrite blend	7.8	0.33	0.03	0.30	9.4	5.0	None	0.07	0.5
LCT-33	rougher/pyrite blend	7.7	0.29	0.02	0.27	8.4	5.6	None	0.21	0.7
LCT-34	rougher/pyrite blend	7.9	0.25	0.05	0.20	6.3	5.0	None	0.14	0.8
LCT-35	rougher/pyrite blend	7.7	0.13	0.04	0.09	2.8	3.3	None	0.07	1.2
LCT-36	rougher/pyrite blend	8.0	0.83	0.05	0.78	24.4	21.2	Slight	0.48	0.9
LCT-37	rougher/pyrite blend	7.6	0.39	0.06	0.33	10.3	4.0	None	0.12	0.4
LCT-38	rougher/pyrite blend	7.5	0.77	0.06	0.71	22.2	4.6	None	0.03	0.2
LCT-39	rougher/pyrite blend	8.3	0.33	0.05	0.28	8.8	31.7	Slight	0.42	3.6
LCT-40	rougher/pyrite blend	7.3	0.95	0.05	0.90	28.1	4.6	None	0.33	0.2
LCT-41	rougher/pyrite blend	7.8	0.15	0.05	0.10	3.1	3.6	None	0.1	1.2
LCT-42	rougher/pyrite blend	7.9	0.16	0.04	0.12	3.8	5.1	None	0.05	1.4
2011 set										
K-Silicate Cu Ro Tail	rougher	8.2	0.17	0.01	0.16	5.0	10.2	None	0.11	2.0
Illite Pyrite Cu Ro Tail	rougher	7.8	0.41	0.01	0.40	12.5	8.5	None	0.19	0.7
Sodic Potassic Cu Ro Tail	rougher	8.0	0.20	0.02	0.18	5.6	18.5	Slight	0.38	3.3
Supergene Cu Ro Tail	rougher	7.6	0.26	0.05	0.21	6.6	6.5	None	0.17	1.0
IP-LCT1	rougher	7.3	0.42	<0.01	0.42	13.1	5.9	None	0.19	0.4
KS-LCT1	rougher	7.8	0.15	<0.01	0.15	4.7	6.6	None	0.09	1.4
NK-LCT1	rougher	7.8	0.21	<0.01	0.21	6.6	13.9	Slight	0.38	2.1
SG-LCT1	rougher	7.0	0.32	<0.01	0.32	10.0	3.3	None	0.14	0.3
LCT 1	rougher	7.3	0.39	<0.01	0.39	12.2	4.3	None	0.1	0.4
LCT 2	rougher	7.5	0.25	<0.01	0.25	7.8	3.4	None	0.16	0.4
LCT 11	rougher	7.8	0.27	<0.01	0.27	8.4	5.6	None	0.01	0.7
LCT 13	rougher	7.3	0.26	<0.01	0.26	8.1	2.3	None	0.21	0.3

AP = acid potential; $CaCO_3/t$ = calcium carbonate per metric tonne; NP = neutralisation potential

Notes: a = for chemical abbreviations see Appendix D of this environment baseline document

b = where concentrations were below the method detection limit, average values were calculated using half the method detection limit value

TABLE 11-29 (CONTINUED)

Acid-Base Accounting Results for Representative Tailings Samples – Batches Tested During Period 2010 to 2012[a]

Sample ID	Product	Paste pH	Total S	Sulfate	Sulfide	AP	$NP_{Modified}$	Fizz Rating	C(T), %	NP/AP
		(Std Units)	(S%)	(S%)	(S%)	($kgCaCO_3/t$)	($kgCaCO_3/t$)	Unity	(%)	-
2011 set (continued)										
LCT 50	rougher	7.6	0.18	<0.01	0.18	5.6	1.6	None	0.02	0.3
LCT 54	rougher	8.0	0.13	<0.01	0.13	4.1	12.8	None	0.18	3.2
LCT 58	rougher	7.5	0.18	<0.01	0.18	5.6	2.1	None	0.01	0.4
LCT 65	rougher	6.6	1.30	0.02	1.28	40.0	-0.5	None	0.02	0.0
LCT 68	rougher	7.9	0.15	<0.01	0.15	4.7	14.7	None	0.18	3.1
LCT 70	rougher	7.1	0.38	<0.01	0.38	11.9	7.5	None	0.38	0.6
LCT 71	rougher	7.3	0.32	<0.01	0.32	10.0	4.0	None	0.17	0.4
LCT 78	rougher	7.3	0.44	0.01	0.43	13.4	1.0	None	0.02	0.1
LCT 79	rougher	8.2	0.14	<0.01	0.14	4.4	54.2	Slight	1.08	12.4
LCT 82	rougher	7.8	0.16	<0.01	0.16	5.0	9.4	None	0.1	1.9
LCT 83	rougher	7.2	0.37	0.01	0.36	11.3	2.3	None	0.01	0.2
LCT 86	rougher	8.2	0.13	<0.01	0.13	4.1	25.1	Slight	0.57	6.2
LCT 87	rougher	7.7	0.21	<0.01	0.21	6.6	4.0	None	0.42	0.6
LCT 98	rougher	8.8	0.03	<0.01	0.03	0.9	6.7	None	0.07	7.1
LCT 100	rougher	8.8	0.23	<0.01	0.23	7.2	5.4	None	0.08	0.8
2012 set										
1st Cleaner Scav Tails	Scavenger	7.6	15.2	0.12	15.08	471.3	10.4	None	0.25	0.0
Pyrite Rougher Tails	pyrite rougher	8.3	3.63	0.05	3.58	111.9	16.3	None	0.32	0.1
Combined Rougher Tails	combined rougher	8.1	0.59	0.02	0.57	17.8	13.6	None	0.3	0.8
Gold Plant Tails	gold plant tails	5.9	31.6	0.23	31.37	980.3	0.0	None	0.18	0.0
PP12-2538	rougher	7.8	0.29	<0.01	0.29	9.1	9.6	None	0.48	1.1
PP12-2539	rougher	8.0	0.20	0.03	0.17	5.3	14.1	None	0.43	2.7
PP12-2540	rougher	8.1	0.14	0.01	0.13	4.1	19.3	Slight	0.5	4.7
PP12-2541	rougher	8.1	0.13	0.02	0.11	3.4	19.2	Slight	0.45	5.6
PP12-2542	rougher	8.2	0.10	<0.01	0.10	3.1	17.2	Slight	0.41	5.5
MPP Ro Tails	rougher	8.2	0.35	<0.01	0.35	10.9	6.7	None	0.38	0.6
Summary statistics for samples (2004 – 2008)[b]										
Minimum		3.91	0.09	0.005	0.05	1.56	3.19	-	0.05	0.003
Median		8.11	0.17	0.02	0.15	4.69	11.8	-	0.3	2.51
Average		8.08	1.33	0.03	1.30	39.8	13.5	-	0.27	2.67
Maximum		8.9	34.1	0.2	34.1	1036	25.9	-	0.8	9.0

AP = acid potential; $CaCO_3/t$ = calcium carbonate per metric tonne; NP = neutralisation potential

Notes: a = for chemical abbreviations see Appendix D of this environment baseline document

b = where concentrations were below the method detection limit, average values were calculated using half the method detection limit value

TABLE 11-30

Metal Assay Results for Representative Tailings Samples – Batches Tested During Period 2010 to 2012[a]

Sample ID	Product	Ag	As	Cd	Co	Cr	Cu	Hg	Mn	Mo	Ni	Pb	Sb	Se	Tl	Zn
		mg/kg (all elements)														
2010 set																
LCT-25	rougher/pyrite blend	0.63	9.7	0.5	12.4	68	213	<0.01	519	9.95	36.2	43.6	0.84	2.5	0.37	128
LCT-26	rougher/pyrite blend	0.25	5.6	0.04	5.1	56	326	<0.01	202	12.3	24	6.5	0.36	0.7	0.21	33
LCT-27	rougher/pyrite blend	0.6	5.8	0.08	22.7	55	285	<0.01	611	8.03	32	3.6	0.12	4.1	0.78	49
LCT-28	rougher/pyrite blend	1.15	39.2	0.1	36.5	50	680	0.07	665	15.4	30.5	6.6	0.69	6.7	1.02	146
LCT-29	rougher/pyrite blend	0.47	8.7	0.04	14.5	35	212	<0.01	666	22	12.5	3.8	0.32	3.2	0.38	19
LCT-30	rougher/pyrite blend	0.63	201	0.07	30.2	62	338	0.01	1460	21.6	24.1	5.5	2.57	2.9	1.01	55
LCT-31	rougher/pyrite blend	0.49	9.8	0.09	5.8	64	557	0.01	698	33	20.7	30.5	0.77	0.9	0.3	54
LCT-32	rougher/pyrite blend	0.34	108	0.1	2.8	29	366	<0.01	158	19.6	6.9	2.9	0.66	0.8	0.21	121
LCT-33	rougher/pyrite blend	0.57	22.5	0.48	6.7	58	793	0.01	785	53.7	19.1	11	1.33	1	0.37	100
LCT-34	rougher/pyrite blend	0.47	29.5	1.29	4.5	47	1060	0.03	463	52.1	12.5	65	1.21	1.1	0.2	177
LCT-35	rougher/pyrite blend	0.41	8.4	0.02	3.3	38	1080	<0.01	225	40.6	8.2	3.8	0.61	1.2	0.15	140
LCT-36	rougher/pyrite blend	0.34	191	0.12	6.6	53	186.5	0.03	726	13.05	25.3	6	4.01	2.4	0.56	75
LCT-37	rougher/pyrite blend	0.68	17.4	<0.01	5	31	727	0.02	483	191	6.6	6.6	0.58	2.4	0.1	80
LCT-38	rougher/pyrite blend	0.62	9.3	0.12	4.3	46	714	0.14	256	12.65	17.2	10.5	1.46	1.6	0.52	85
LCT-39	rougher/pyrite blend	0.24	3.9	0.03	7.2	35	149.5	<0.01	248	10.4	5.4	4.2	0.1	1.4	0.1	15
LCT-40	rougher/pyrite blend	0.54	23.8	0.93	6.9	27	835	0.01	988	16.95	12.9	7.1	1.05	2.1	0.25	73
LCT-41	rougher/pyrite blend	0.5	3.6	0.43	4	29	1050	<0.01	416	17	9.1	5.7	0.29	1.1	0.13	77
LCT-42	rougher/pyrite blend	0.57	9.1	0.85	4.3	52	742	<0.01	197	64.8	17.2	2.5	0.86	1.5	0.36	67
2011 set																
K-Silicate Cu Ro Tail	rougher	0.22	13.9	0.05	3.6	55	511	0.01	102	23.6	12.7	3	0.37	0.9	0.28	77
Illite Pyrite Cu Ro Tail	rougher	0.54	25.2	0.31	2.2	48	637	0.04	618	19.05	11.6	5.5	0.71	0.7	0.67	73
Sodic Potassic Cu Ro Tail	rougher	0.36	26.1	0.09	3.9	51	427	0.01	559	50	13.2	7.3	0.77	1.1	0.43	61
Supergene Cu Ro Tail	rougher	0.52	20	0.31	4.7	50	893	0.02	399	41.6	13.2	37.9	1.02	1.5	0.39	124
IP-LCT1	rougher	0.59	29.9	0.39	3.3	60	686	0.05	722	18.4	14.6	6.7	0.69	1.1	0.83	83
KS-LCT1	rougher	0.25	16	0.06	4.1	54	568	0.09	104	32.3	14.4	2	0.38	0.9	0.28	85
NK-LCT1	rougher	0.42	27.8	0.11	4.5	53	434	0.09	583	20	14	4.3	0.7	0.8	0.46	59
SG-LCT1	rougher	0.79	25.2	0.35	5.2	51	1045	0.06	386	36.8	13.6	41	1.16	1.5	0.41	139
LCT 1	rougher	0.63	8.4	0.51	5.2	58	1290	0.09	338	31.1	18.8	59	0.97	1.2	0.34	120
LCT 2	rougher	0.81	8.8	0.15	4.7	66	1130	0.12	442	16.95	18.8	20.8	0.85	1.1	0.36	61
LCT 11	rougher	0.35	25.6	0.15	3.2	65	508	0.11	275	22	16	2.5	0.64	0.8	0.48	101
LCT 13	rougher	0.33	44.7	0.15	38	74	313	0.34	670	8.98	4.8	8.2	0.74	0.6	0.28	76
LCT 50	rougher	0.37	3.2	0.1	3.2	78	769	0.11	23	14	5.4	5.8	0.21	1.2	0.17	96
LCT 54	rougher	0.24	99.9	0.05	2.6	62	688	0.04	66	26.4	6.7	1.2	0.86	1.3	0.18	65
LCT 58	rougher	0.28	2	0.1	2.5	52	653	0.04	70	31.4	10.9	5.6	0.26	1.1	0.36	236

Notes: a = for chemical abbreviations see Appendix D of this environment baseline document

b = where concentrations were below the method detection limit, average values were calculated using half the method detection limit value

mg/kg = milligram(s) per kilogram

TABLE 11-30 (CONTINUED)

Metal Assay Results for Representative Tailings Samples – Batches Tested During Period 2010 to 2012[a]

Sample ID	Product	Ag	As	Cd	Co	Cr	Cu	Hg	Mn	Mo	Ni	Pb	Sb	Se	Tl	Zn
		mg/kg (all elements)														
2011 set (continued)																
LCT 65	rougher	0.21	17.4	0.09	12.9	35	1430	0.1	18	90.9	12.1	2.8	0.26	5.5	0.14	57
LCT 68	rougher	0.19	61.2	0.11	3	37	402	0.05	77	17.7	12.7	3.6	0.4	0.8	0.4	58
LCT 70	rougher	0.38	99.8	0.11	6.2	91	404	0.03	1480	36.8	25.5	1.5	1.22	1	1.71	44
LCT 71	rougher	0.39	19.3	0.07	1.8	43	387	0.04	539	37.5	9.4	2.4	0.58	1	0.32	24
LCT 78	rougher	0.59	28	0.05	2.5	36	1395	0.06	23	41.7	5.1	5.6	0.26	2.3	0.15	18
LCT 79	rougher	0.32	14.5	0.1	5.7	49	388	0.08	533	18.9	11.4	3.3	0.36	0.8	0.36	91
LCT 82	rougher	0.32	16.6	0.06	1.7	43	321	0.13	324	29.1	9.8	2	0.5	0.5	0.19	26
LCT 83	rougher	0.57	161	0.83	3.1	46	532	0.1	62	13.7	7.7	17.5	1.06	0.9	0.23	162
LCT 86	rougher	0.39	4.7	0.06	5	78	404	0.16	442	25.6	19.6	1.6	0.89	0.8	0.38	56
LCT 87	rougher	0.36	10.2	0.09	4.9	65	545	0.1	254	48.6	12.5	1.2	0.55	1.1	0.23	74
LCT 98	rougher	0.22	0.8	0.04	1.2	88	175.5	0.05	64	12.7	5.6	1.3	0.1	0.5	0.07	52
LCT 100	rougher	0.25	5.8	0.06	4.2	48	982	0.03	63	15.65	13.3	2.9	0.27	1.3	0.41	124
2012 set																
1st Cleaner Scav Tails	Scavenger	4.09	86.2	1.61	107	138	2610	0.18	349	202	54.9	147	1.72	28.7	1.07	286
Pyrite Rougher Tails	pyrite rougher	1.93	26	0.55	31.6	137	1260	0.07	449	118.5	24.8	91.5	1.01	7.1	0.68	140
Combined Rougher Tails	combined rougher	0.54	8.8	0.2	6.7	32	606	0.02	514	19.95	10.6	34.6	0.41	1.8	0.57	80
Gold Plant Tails	gold plant tails	3.22	177.5	2.76	203	99	1550	0.31	193	16.2	96.3	232	2.61	53.4	1.55	484
PP12-2538	rougher	0.46	11.6	0.44	4.6	60	634	0.09	1000	41.2	13.3	4	0.95	1.1	0.57	96
PP12-2539	rougher	0.45	17.9	0.16	3.6	63	510	0.11	632	101.5	10.7	2.9	0.97	1.1	0.38	75
PP12-2540	rougher	0.33	11.5	0.11	4	67	418	0.07	475	35.5	10.1	2.8	0.59	0.9	0.35	78
PP12-2541	rougher	0.33	11.8	0.09	3.7	65	427	0.07	444	39.5	9.5	2.7	0.58	0.9	0.34	69
PP12-2542	rougher	0.28	8	0.07	4.4	66	401	0.06	286	40.2	11.6	2.3	0.45	0.9	0.28	54
MPP Ro Tails	rougher	0.71	53.6	0.2	4.5	139	687	0.05	651	39.2	54.4	10.7	1.8	1.3	0.55	62
Summary statistics for samples (2004 – 2008)[b]																
Minimum		0.23	4.2	0.03	2.2	6	142	0.005	84	10.5	6.3	3.3	0.2	0.4	0.07	0.17
Median		0.5	13.5	0.13	4.8	81.5	570	0.035	392	43.2	16.5	10.9	0.66	1.1	0.32	0.62
Average		0.92	39.9	0.22	12.8	149	916	0.11	359	53.1	69.7	20.2	1.99	3.27	0.36	0.57
Maximum		11.4	718	3.31	199	748	10000	0.62	880	187.5	452	221	41.1	61.5	1.84	1.29

Notes: a = for chemical abbreviations see Appendix D of this environment baseline document

b = where concentrations were below the method detection limit, average values were calculated using half the method detection limit value

mg/kg = milligram(s) per kilogram

TABLE 11-31

Analytical Results for Representative Tailings Supernatants – Batches Tested During Period 2010 to 2012[a]

Sample ID	Product	pH	SO_4	Alkalinity	Thiosalts	Al	Sb	As	Ag	Cd	Ca	Cr	Co	Cu	Fe	Pb
			(mg/L)	($mgCaCO_3/L$)	(mgS_2O_3/L)	(all elements in mg/L)										
2010 set																
LCT-25	Rougher/ pyrite blend	8.0	166	135.1	-	0.020	0.007	0.002	0.00004	-0.0002	52.6	0.0006	0.0002	0.002	-0.03	0.00005
LCT-26	Rougher/ pyrite blend	8.0	117	115.2	-	0.016	0.007	0.003	-0.00001	-0.0001	35.3	-0.0005	0.0002	0.002	-0.03	-0.00005
LCT-27	Rougher/ pyrite blend	8.0	110	113.6	-	0.016	0.002	0.001	0.00024	-0.0001	53.3	-0.0005	-0.0001	-0.002	-0.03	-0.00005
LCT-28	Rougher/ pyrite blend	8.2	199	147.3	-	0.014	0.003	0.002	0.00102	-0.0001	48.5	-0.0005	0.0001	0.021	-0.03	-0.00005
LCT-29	Rougher/ pyrite blend	8.0	134	117.7	-	0.012	0.005	0.002	0.00002	-0.0001	52.1	-0.0005	0.0002	0.001	-0.03	0.00009
LCT-30	Rougher/ pyrite blend	8.0	281	102.0	-	0.003	0.004	0.005	-0.00001	-0.0001	78.5	-0.0005	0.0016	0.002	-0.03	-0.00005
LCT-31	Rougher/ pyrite blend	8.0	153	90.8	-	0.015	0.008	0.001	-0.00001	0.0001	36.8	-0.0005	0.0014	0.003	-0.03	0.00005
LCT-32	Rougher/ pyrite blend	8.0	215	88.7	-	0.010	0.009	0.029	-0.00001	0.0001	67.2	-0.0005	0.0007	0.002	-0.03	-0.00005
LCT-33	Rougher/ pyrite blend	8.0	163	93.7	-	0.010	0.004	0.001	0.00010	0.0005	44.1	-0.0005	0.0018	0.029	-0.03	-0.00005
LCT-34	Rougher/ pyrite blend	7.8	288	81.4	-	0.004	0.003	0.002	-0.00001	0.0025	87.5	-0.0005	0.0033	0.038	-0.03	0.00032
LCT-35	Rougher/ pyrite blend	7.9	155	89.9	-	0.009	0.001	0.002	0.00001	-0.0001	58.1	-0.0005	0.0023	0.037	-0.03	-0.00005
LCT-36	Rougher/ pyrite blend	7.9	182	95.7	-	0.013	0.019	0.015	0.00013	-0.0001	55.9	-0.0005	0.0002	0.003	-0.03	-0.00005
LCT-37	Rougher/ pyrite blend	8.0	153	90.1	-	0.004	0.001	0.001	0.00003	0.0001	48.3	-0.0005	0.0012	0.007	-0.03	-0.00005
LCT-38	Rougher/ pyrite blend	7.9	155	82.8	-	0.059	0.026	0.005	0.00021	0.0001	66.2	-0.0005	0.0002	0.055	-0.03	-0.00005
LCT-39	Rougher/ pyrite blend	8.1	79.9	120.8	-	0.031	0.002	0.001	0.00002	-0.0001	24.6	-0.0005	-0.0001	0.001	-0.03	-0.00005
LCT-40	Rougher/ pyrite blend	7.9	237	69.9	-	0.019	0.005	0.002	0.00016	0.0010	77.9	-0.0005	0.0012	0.060	-0.03	-0.00005
LCT-41	Rougher/ pyrite blend	7.8	180	82.9	-	0.057	0.002	0.003	0.00075	0.0002	82.4	-0.0005	0.0004	0.062	-0.03	-0.00005
LCT-42	Rougher/ pyrite blend	8.0	341	95.4	-	0.006	0.002	0.001	0.00003	0.0015	119	0.0006	0.0027	0.020	-0.03	0.00005
2011 set																
Illite Pyrite Cu Ro Tail	Rougher	8.1	361	118.6	-	0.008	0.002	0.005	-0.00001	0.0005	101	-0.0005	0.0007	0.014	-0.03	-0.00005
K-Silicate Cu Ro Tail	Rougher	8.1	340	97.4	-	0.009	0.002	0.005	-0.00001	-0.0001	95.9	-0.0005	0.0006	0.010	-0.03	-0.00005
Sodic Potassic Cu Ro Tail	Rougher	8.0	516	133.4	-	0.008	0.001	0.005	-0.00001	0.0001	121	-0.0005	0.0006	0.008	-0.03	-0.00005
Supergene Cu Ro Tail	Rougher	8.0	518	104.8	-	0.010	0.002	0.004	-0.00001	0.0007	149	-0.0005	0.0029	0.033	-0.03	0.00006
2012 set																
1st Cleaner Scav Tails	Gold plant tails	9.0	-	51.3	360	0.106	0.003	0.007	0.00541	-0.0001	273	-0.001	-0.0002	0.550	-0.03	0.00063
Pyrite Rougher Tails	Gold plant tails	8.5	-	35.6	250	0.098	0.004	0.005	0.00087	-0.0001	238	-0.001	-0.0002	0.130	-0.03	-0.00010
Combined Rougher Tails	Gold plant tails	8.1	-	173.2	< 2	0.011	0.002	0.001	-0.00001	0.0001	122	-0.0005	0.0006	0.019	-0.03	0.00024
Gold Plant Tails	Gold plant tails	7.6	-	52.7	< 2	0.017	0.005	0.005	-0.00005	-0.0003	382	-0.0025	0.0119	0.011	-0.03	-0.00025
Summary statistics for samples (2004 – 2008)[b]																
Minimum	-	7.0	35	30	-10	0.01	-0.0001	0.001	-0.00001	-0.00001	36.1	-0.001	-0.0001	-0.001	-0.03	-0.0001
Median	-	8.0	292	77	5	0.05	0.005	0.013	0.000004	0.00005	116	0.0005	0.0001	0.00813	0.015	0.00015
Average	-	7.9	319	75	46.86	0.07	0.006	0.017	0.00004	0.0001	116	0.001	0.000	0.008	0.064	0.0003
Maximum	-	8.3	2436	111	826	0.37	0.040	0.117	0.00170	0.0005	707	0.005	0.001	0.0171	2.15	0.0033

Notes: a = for chemical abbreviations see Appendix D of this environment baseline document
b = where concentrations were below the method detection limit, average values were calculated using half the method detection limit value
negative values = concentration of the element was below the method detection limit
" –" values in an otherwise empty cell = not measured
$CaCO_3$ = calcium carbonate
L = Liter
S_2O_3 – thiosulfate

TABLE 11-31 (CONTINUED)

Analytical Results for Representative Tailings Supernatants – Batches Tested During Period 2010 to 2012

Sample ID	Product	Mg	Mn	Hg	Mo	Ni	K	Se	Na	Tl	Zn
		(all elements in mg/L)									
2010 set											
LCT-25	Rougher/pyrite blend	16.1	0.13	-0.00001	0.07	0.005	33.6	0.005	46.8	-0.0001	0.001
LCT-26	Rougher/pyrite blend	13.7	0.08	-0.00001	0.03	0.002	23.8	0.013	40.7	0.0001	-0.001
LCT-27	Rougher/pyrite blend	11.6	0.05	-0.00001	0.02	0.002	29.0	0.004	28.4	-0.0001	-0.001
LCT-28	Rougher/pyrite blend	11.2	0.04	0.00002	0.03	0.001	26.6	0.008	86.9	-0.0001	-0.001
LCT-29	Rougher/pyrite blend	13.5	0.10	-0.00001	0.02	0.002	21.2	0.006	26.1	-0.0001	0.003
LCT-30	Rougher/pyrite blend	25.4	0.76	-0.00001	0.01	0.005	26.7	0.006	24.9	0.0003	-0.001
LCT-31	Rougher/pyrite blend	15.4	1.53	-0.00001	0.02	0.007	34.0	0.006	26.1	-0.0001	-0.001
LCT-32	Rougher/pyrite blend	6.8	0.26	-0.00001	0.05	0.004	18.3	0.006	30.9	0.0001	0.005
LCT-33	Rougher/pyrite blend	15.8	1.83	0.00002	0.05	0.005	38.4	0.005	29.9	0.0001	0.004
LCT-34	Rougher/pyrite blend	18.2	1.30	-0.00001	0.07	0.003	30.9	0.015	27.1	0.0001	0.055
LCT-35	Rougher/pyrite blend	11	0.85	-0.00001	0.05	0.001	20.5	0.008	27.0	-0.0001	0.028
LCT-36	Rougher/pyrite blend	17.1	0.13	-0.00001	0.04	0.003	31.4	0.007	28.7	0.0001	-0.001
LCT-37	Rougher/pyrite blend	17.4	1.32	-0.00001	0.05	0.002	18.6	0.018	21.9	-0.0001	0.004
LCT-38	Rougher/pyrite blend	5.18	0.27	0.00045	0.02	-0.001	31.3	0.005	18.5	0.0001	0.001
LCT-39	Rougher/pyrite blend	5.25	0.03	-0.00001	0.04	0.001	11.4	0.003	60.1	-0.0001	-0.001
LCT-40	Rougher/pyrite blend	15.6	1.81	0.00004	0.02	0.001	34.1	0.006	20.1	0.0002	0.001
LCT-41	Rougher/pyrite blend	9.85	1.01	-0.00001	0.04	-0.001	13.9	0.006	23.2	0.0001	0.001
LCT-42	Rougher/pyrite blend	22	0.35	-0.00001	0.02	0.005	36.5	0.019	25.6	0.0001	0.008
2011 set											
Illite Pyrite Cu Ro Tail	Rougher	26.4	1.20	-0.00001	0.05	0.002	42.4	0.008	29.6	0.0002	0.003
K-Silicate Cu Ro Tail	Rougher	14	0.17	-0.00001	0.15	0.002	39.6	0.015	47.7	0.0001	0.003
Sodic Potassic Cu Ro Tail	Rougher	40.6	1.07	-0.00001	0.06	0.003	52.3	0.003	49.1	0.0001	0.004
Supergene Cu Ro Tail	Rougher	35.1	2.77	-0.00001	0.08	0.002	42.8	0.028	24.9	0.0002	0.023
2012 set											
1st Cleaner Scav Tails	Gold plant tails	0.149	0.00	0.00008	0.13	-0.001	40.9	0.020	42.9	-0.0001	-0.002
Pyrite Rougher Tails	Gold plant tails	0.248	0.00	-0.00005	0.09	-0.001	31.0	0.013	29.6	-0.0001	-0.002
Combined Rougher Tails	Gold plant tails	33.8	0.56	-0.00001	0.02	0.002	32.4	0.004	29.6	0.0001	0.008
Gold Plant Tails	Gold plant tails	13.9	0.06	-0.00005	0.11	-0.003	21.8	0.019	482.0	-0.0003	-0.005
Summary statistics for samples (2004 – 2008)[b]											
Minimum	-	0.15	0.002	-0.00001	0.018	-0.0005	4.47	-0.01	7	-0.00001	-0.002
Median	-	6.12	0.060	0.00001	0.06	0.0005	26.5	0.008	16.9	0.000113	0.0027
Average	-	8.0	0.072	0.00002	0.07	0.001	26.0	0.009	43.8	0.0001	0.005
Maximum	-	27.3	0.288	0.00025	0.35	0.005	40.5	0.017	757	0.0005	0.037

Notes: a = for chemical abbreviations see Appendix D of this environment baseline document
b = where concentrations were below the method detection limit, average values were calculated using half the method detection limit value
negative values = concentration of the element was below the method detection limit
" - " values in an otherwise empty cell = not measured
$CaCO_3$ = calcium carbonate
L = Liter
S_2O_3 - thiosulfate

TABLE 11-32
Summary and Status of Humidity Cell Tests, Metallurgical Waste Products

Sample ID	Tails Type	Zone	Date Started	Last data	Duration, years	NP, kg $CaCO_3$/t	AP, kg $CaCO_3$/t	NP/AP	Leachate pH at end of test	Calculated time (years) to onset of acid conditions[a]
Humidity Cell Tests (2005 Tails Samples)										
Sample 2-Scavenger Tails		PWZ	11-Feb-05	07-Oct-05	0.7	24.4	5.3	4.6	pH neutral	-
Sample 2-Bulk Cleaner Tails		PWZ	11-Feb-05	23-Oct-09	4.7	23.3	9.7	2.4	pH neutral	-
Sample 1-Scavenger Tails		PWZ	11-Feb-05	07-Oct-05	0.7	19.9	4.7	4.2	pH neutral	-
Sample 1-Bulk Cleaner Tails		PWZ	11-Feb-05	23-Oct-09	4.7	19.6	6.9	2.9	pH neutral	-
Humidity Cell Tests (2008 Tails Samples)										
PP08-3365	Y - bulk tails	PEZ	23-Apr-08	21-Oct-09	1.5	4.6	6.6	0.7	pH neutral	2.9
PP08-3607	Y - bulk tails (cyclone slimes)	PEZ	23-Apr-08	21-Oct-09	1.5	5.7	4.7	1.2	pH neutral	2.8
PP08-3850	Y - bulk tails (cyclone sands)	PEZ	23-Apr-08	Ongoing	5.2	6.3	8.4	0.7	pH neutral	10.9
PP08-3614	G - bulk tails	PEZ	23-Apr-08	21-Oct-09	1.5	5.7	2.8	2.0	pH neutral	-
PP08-3610	G - bulk tails (cyclone slimes)	PEZ	23-Apr-08	21-Oct-09	1.5	6.3	1.6	4.0	pH neutral	-
PP08-3849	G - bulk tails (cyclone sands)	PEZ	23-Apr-08	Ongoing	5.2	6.2	3.1	2.0	pH neutral	-
11486-003 bulk	80G+20Y bulk tails	PEZ	22-Oct-08	Ongoing	4.7	7.2	3.4	2.1	pH neutral	-
11486-003 OF	80G+20Y – Cyclone O/F (slimes)	PEZ	22-Oct-08	Ongoing	4.7	8.3	3.4	2.4	pH neutral	-
11486-003 UF	80G+20Y – Cyclone U/F (sands)	PEZ	22-Oct-08	Ongoing	4.7	7.0	6.3	1.1	pH neutral	8.3
11840-003 bulk cleaner	H-Bulk Cleaner Tails	PWZ	13-Aug-08	Ongoing	4.9	17.7	23.4	0.8	pH neutral	8.3
11840-003 pyrite	H - Pyrite Rougher Tails	PWZ	10-Sep-08	Ongoing	4.8	23.0	38.8	0.6	pH neutral	8.2
11840-003 bulk float	H - Bulk Tails (Bulk Scavenger Tails) as is	PWZ	10-Sep-08	Ongoing	4.8	22.3	4.4	5.1	pH neutral	-
11840-003 Phase II sands	H - Bulk Tails (Bulk Scavenger Tails) Cyclone Sands	PWZ	10-Sep-08	Ongoing	4.8	21.1	7.8	2.7	pH neutral	-
11840-003 Phase II OF	H - Bulk Tails (Bulk Scavenger Tails) Cyclone Slimes	PWZ	10-Sep-08	Ongoing	4.8	25.2	2.8	9.0	pH neutral	-
1st Cleaner Scav	Scavenger		11-Jul-12	Ongoing	1.0	10.4	471.3	0.0	pH < 5	-
Gold plant tails	Gold plant		11-Jul-12	Ongoing	1.0	0.0	980.0	0.0	pH < 5	-
MPP Ro tails	Rougher		30-Oct-12	Ongoing	0.7	6.7	10.9	0.6	pH neutral	1.7

Note: a Onset of acid conditions is only expected in the case of those samples with NP/AP less than unity, i.e. there is insufficient NP to neutralize all the potential acid that might be generated in the sample. The timescale is calculated based on the observed rate at which NP is depleting in the sample concerned. Timescales are only given in the case of samples with NP/AP < 2 (i.e. samples classed as PAG or Uncertain).

TABLE 11-33
Summary of Average Release Rates for Humidity Cell Tests, Representative Tailings Samples[a]

Sample ID	Date Started	Date of Last Interpretative Data Review	Alkalinity (mg/kg/week)	Cl (mg/kg/week)	F (mg/kg/week)	SO_4 (mg/kg/week)	Al (mg/kg/week)	Sb (mg/kg/week)	As (mg/kg/week)	Ba (mg/kg/week)	Be (mg/kg/week)	Bi (mg/kg/week)	B (mg/kg/week)
S2-Scavenger Tails	11-Feb-05	07-Oct-05	33	0.26	0.087	8.9	0.012	0.0011	0.0041	0.0072	0.000099	0.00025	0.0049
S2-Bulk Cleaner Tails	11-Feb-05	23-Oct-09	33	0.24	0.044	11	0.0053	0.00049	0.00072	0.0027	0.000096	0.00024	0.0048
S1-Scavenger Tails	11-Feb-05	07-Oct-05	21	0.25	0.067	7.3	0.067	0.0035	0.017	0.0018	0.000099	0.00025	0.0049
S1-Bulk Cleaner Tails	11-Feb-05	23-Oct-09	24	0.26	0.03	7.9	0.014	0.0017	0.0035	0.003	0.000096	0.00024	0.0048
PP08-3365	23-Apr-08	21-Oct-09	24	0.23	0.074	9.7	0.0073	0.0004	0.00051	0.0014	0.000092	0.00023	0.0048
PP08-3607	23-Apr-08	21-Oct-09	26	0.23	0.081	14	0.0072	0.0005	0.0005	0.0016	0.000093	0.00023	0.0047
PP08-3610	23-Apr-08	21-Oct-09	25	0.23	0.55	8.4	0.007	0.00047	0.00035	0.0052	0.000099	0.00025	0.0053
PP08-3614	23-Apr-08	21-Oct-09	25	0.23	0.48	5.2	0.0065	0.00045	0.00029	0.0058	0.000097	0.00024	0.0051
PP08-3849	23-Apr-08	26-Dec-12	18	0.24	0.033	1.5	0.012	0.00018	0.00028	0.0049	0.000096	0.00024	0.0049
PP08-3850	23-Apr-08	26-Dec-12	11	0.23	0.022	3.1	0.008	0.000097	0.00011	0.00059	0.000094	0.00023	0.0048
11486-003 bulk	22-Oct-08	26-Dec-12	19	0.23	0.029	2.1	0.0092	0.00015	0.00023	0.0018	0.000092	0.00023	0.0047
11486-003 OF	22-Oct-08	26-Dec-12	15	0.25	0.064	4.4	0.013	0.00024	0.00033	0.001	0.000093	0.00023	0.0049
11486-003 UF	22-Oct-08	26-Dec-12	17	0.23	0.033	2.2	0.0082	0.00026	0.00069	0.0052	0.000094	0.00023	0.0047
11840-003 bulk cleaner	13-Aug-08	26-Dec-12	38	0.23	0.018	9.9	0.0044	0.00062	0.00043	0.0022	0.000093	0.00023	0.0047
11840-003 pyrite	10-Sep-08	26-Dec-12	30	0.23	0.025	30	0.003	0.00014	0.00023	0.0013	0.000091	0.00023	0.0048
11840-003 bulk float	10-Sep-08	26-Dec-12	43	0.23	0.018	2.6	0.0027	0.000089	0.00012	0.0031	0.000094	0.00023	0.0047
11840-003 Phase II sands	22-Oct-08	26-Dec-12	46	0.24	0.017	3.8	0.0019	0.000095	0.00013	0.0047	0.000095	0.00024	0.0048
11840-003 Phase II OF	22-Oct-08	12-Dec-12	46	0.24	0.02	2.1	0.0028	0.000065	0.000085	0.003	0.000095	0.00024	0.0049
Gold Plant Tails	11-Jul-12	26-Dec-12	0.67	6.4	1.9	1900	31	0.00058	0.25	0.0035	0.0084	0.0022	0.045
1st Cleaner Scav Tails	11-Jul-12	26-Dec-12	8	4.6	0.49	660	0.25	0.00016	0.023	0.025	0.001	0.00088	0.018
MPP Ro Tails	30-Oct-12	26-Dec-12	44	2.7	0.36	50	0.0067	0.0052	0.097	0.007	0.00011	0.00027	0.012

Sample ID	Cd (mg/kg/week)	Ca (mg/kg/week)	Cr (mg/kg/week)	Co (mg/kg/week)	Cu (mg/kg/week)	Fe (mg/kg/week)	Pb (mg/kg/week)	Mg (mg/kg/week)	Mn (mg/kg/week)	Hg (mg/kg/week)	Mo (mg/kg/week)	Ni (mg/kg/week)	K (mg/kg/week)
S2-Scavenger Tails	0.000025	11	0.00025	0.000052	0.0027	0.016	0.000031	2.2	0.033	0.0000052	0.0051	0.0003	3.4
S2-Bulk Cleaner Tails	0.000024	11	0.00024	0.00005	0.0019	0.015	0.000028	2.9	0.03	0.0000049	0.011	0.00028	1.9
S1-Scavenger Tails	0.000026	8.6	0.00025	0.000049	0.0014	0.015	0.000033	0.83	0.0079	0.0000055	0.0044	0.00025	2.6
S1-Bulk Cleaner Tails	0.000024	8.5	0.00024	0.000049	0.0026	0.015	0.000029	1.6	0.013	0.0000049	0.0079	0.00026	1.3
PP08-3365	0.000026	12	0.00023	0.00009	0.0035	0.014	0.000033	0.49	0.022	0.0000049	0.014	0.00025	2.1
PP08-3607	0.000027	14	0.00023	0.000098	0.0047	0.014	0.000027	0.65	0.03	0.0000047	0.02	0.00029	2.3
PP08-3610	0.000025	12	0.00025	0.00013	0.0029	0.014	0.000031	0.6	0.033	0.0000048	0.017	0.00029	1.9
PP08-3614	0.000031	11	0.00025	0.000084	0.0028	0.014	0.00003	0.46	0.023	0.0000047	0.0097	0.00028	1.6
PP08-3849	0.000025	6	0.00025	0.000048	0.0018	0.014	0.000027	0.081	0.0025	0.0000048	0.0066	0.00025	0.17
PP08-3850	0.000041	4.4	0.00024	0.00016	0.012	0.014	0.000026	0.044	0.014	0.0000047	0.0074	0.00039	0.24
11486-003 bulk	0.000027	6.6	0.00024	0.000046	0.0014	0.014	0.000032	0.1	0.00039	0.0000046	0.037	0.00023	0.32
11486-003 OF	0.000025	6.2	0.00024	0.000047	0.0024	0.015	0.000029	0.12	0.0014	0.0000047	0.037	0.0003	0.44
11486-003 UF	0.000027	6.3	0.00024	0.000049	0.0018	0.014	0.000025	0.081	0.0019	0.0000047	0.036	0.00025	0.2
11840-003 bulk cleaner	0.000039	11	0.00024	0.000046	0.00092	0.014	0.000025	3.2	0.00017	0.0000046	0.065	0.00023	1.1
11840-003 pyrite	0.000023	14	0.00026	0.000046	0.00054	0.014	0.000027	4.5	0.00031	0.0000046	0.015	0.00023	1.2
11840-003 bulk float	0.000024	9.6	0.00024	0.000046	0.00047	0.014	0.000026	3.4	0.00012	0.0000046	0.031	0.00023	0.95
11840-003 Phase II sands	0.00003	11	0.00025	0.000047	0.00061	0.014	0.000032	3.8	0.000053	0.0000047	0.056	0.00024	0.85
11840-003 Phase II OF	0.000024	9.9	0.00024	0.000047	0.00045	0.014	0.000028	3.6	0.000084	0.0000047	0.011	0.00024	1.1
Gold Plant Tails	0.095	150	1.1	0.46	17	510	0.0035	20	5.3	0.0000074	0.00028	0.38	0.41
1st Cleaner Scav Tails	0.0032	210	0.0011	0.054	1.7	2	0.0047	27	3.3	0.00001	0.0016	0.074	12
MPP Ro Tails	0.000047	20	0.00027	0.00026	0.0022	0.016	0.00033	6.5	0.19	0.0000053	0.016	0.003	9.2

Note:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

TABLE 11-33 (CONTINUED)
Summary of Average Release Rates for Humidity Cell Tests, Representative Tailings Samples[a]

Sample ID	Se (mg/kg/week)	Ag (mg/kg/week)	Na (mg/kg/week)	TI (mg/kg/week)	Sn (mg/kg/week)	V (mg/kg/week)	Zn (mg/kg/week)
S2-Scavenger Tails	0.0005	0.000005	1.1	0.000025	0.000053	0.0006	0.00071
S2-Bulk Cleaner Tails	0.00053	0.0000048	1.1	0.000024	0.00005	0.00024	0.00061
S1-Scavenger Tails	0.00049	0.0000049	0.99	0.000026	0.000052	0.0017	0.00066
S1-Bulk Cleaner Tails	0.00048	0.0000048	0.96	0.000026	0.00005	0.00062	0.00066
PP08-3365	0.00098	0.0000047	0.92	0.000023	0.000046	0.00023	0.0018
PP08-3607	0.0012	0.0000046	0.94	0.000023	0.000046	0.00024	0.0021
PP08-3610	0.0011	0.0000049	0.96	0.000029	0.000049	0.00025	0.0019
PP08-3614	0.00092	0.000005	0.94	0.000026	0.000053	0.00024	0.0018
PP08-3849	0.00048	0.0000048	0.96	0.000024	0.000051	0.00024	0.0021
PP08-3850	0.00047	0.0000054	0.94	0.000023	0.000051	0.00023	0.021
11486-003 bulk	0.00052	0.0000046	0.92	0.000023	0.0023	0.00023	0.0012
11486-003 OF	0.00071	0.0000064	0.93	0.000023	0.0024	0.00024	0.0074
11486-003 UF	0.00047	0.0000052	0.94	0.000023	0.0036	0.00023	0.0034
11840-003 bulk cleaner	0.00047	0.0000047	0.93	0.000023	0.0012	0.00023	0.00051
11840-003 pyrite	0.00059	0.0000046	0.91	0.000023	0.002	0.00023	0.00068
11840-003 bulk float	0.00046	0.0000046	0.93	0.000023	0.0018	0.00023	0.00055
11840-003 Phase II sands	0.00047	0.0000047	0.95	0.000024	0.0013	0.00024	0.00054
11840-003 Phase II OF	0.00047	0.0000047	0.95	0.000024	0.0015	0.00024	0.00053
Gold Plant Tails	0.0075	0.000052	5.7	0.00033	0.086	0.22	15
1st Cleaner Scav Tails	0.0085	0.000019	2	0.00013	0.025	0.00088	0.55
MPP Ro Tails	0.0017	0.0000053	1.8	0.000073	0.011	0.00062	0.0011

Note:

a. For chemical abbreviations see Appendix D of this environmental baseline document.

TABLE 11-34
Summary and Status of Column Leach Tests, Metallurgical Waste Products

Sample ID	Date Started	Last data	Duration, years	NP, kg $CaCO_3$/t	AP, kg $CaCO_3$/t	NP/AP	Leachate pH at end of test	Calculated time (years) to onset of acid conditions[a]
Sample 1-Scavenger Tails	11-Feb-05	23/10/2009	4.7	19.9	4.7	4.2	pH neutral	-
Sample 2-Scavenger Tails	11-Feb-05	Ongoing	8.4	24.4	5.3	4.6	pH neutral	-

NP=Neutralization Potential; AP=Acid Potential

Note: a Onset of acid conditions is only expected in the case of those samples with NP/AP less than unity, i.e. there is insufficient NP to neutralize all the potential acid that might be generated in the sample. The timescale is calculated based on the observed rate at which NP is depleting in the sample concerned. Timescales are only given in the case of samples with NP/AP < 2 (i.e. samples classed as PAG or Uncertain).

TABLE 11-35
Summary and Status of Subaqueous Column Tests, Metallurgical Waste Products

							Leachate pH at end of test	
Sample ID	Date Started	Last data	Duration, years	NP, kg $CaCO_3$/t	AP, kg $CaCO_3$/t	NP/AP	Overlying water	Outflow water
1st Cleaner Scav Tails	11-Jul-12	Ongoing	0.5	10.4	471.3	0.0	pH<5	pH neutral
Gold Plant Tails	11-Jul-12	Ongoing	0.5	0.0	980.0	0.0	pH<5	pH<5.5

NP=Neutralization Potential; AP=Acid Potential

FIGURES

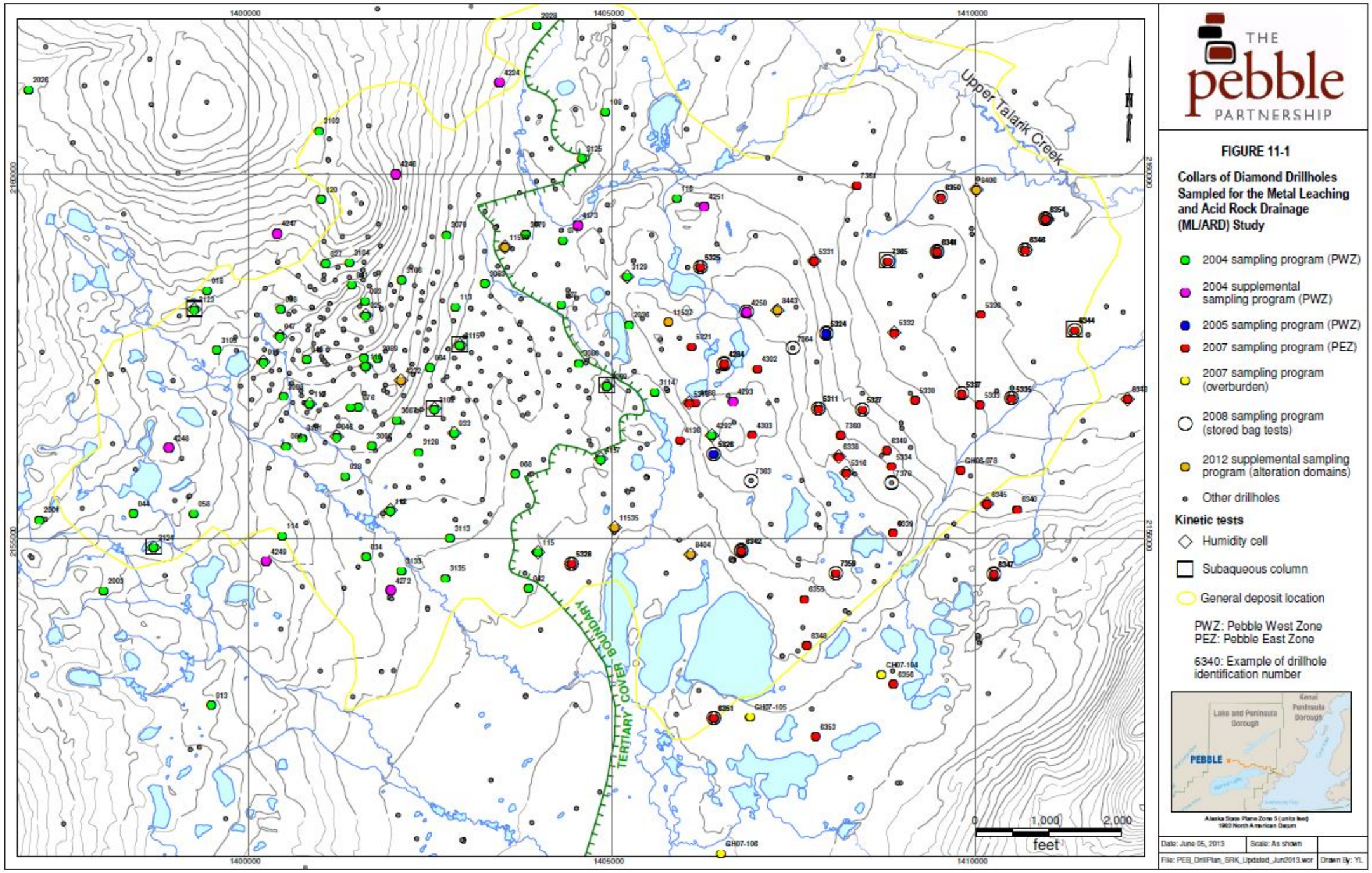


Figure 11-1 Collars of Diamond Drillholes Sampled for the Metal Leaching and Acid Rock Drainage (MLARD) Study

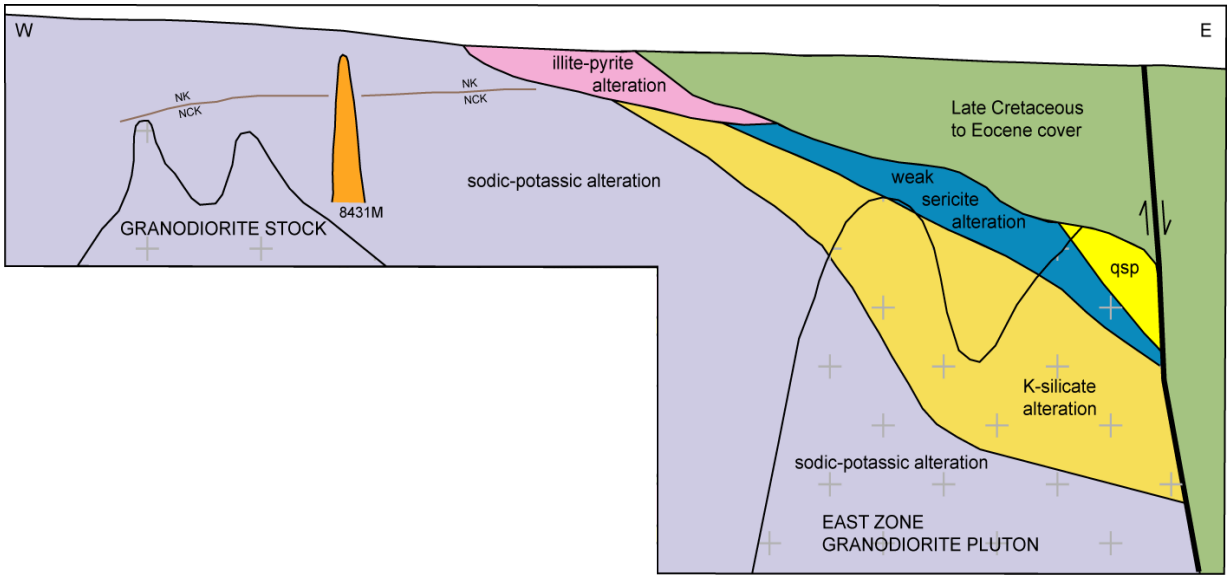
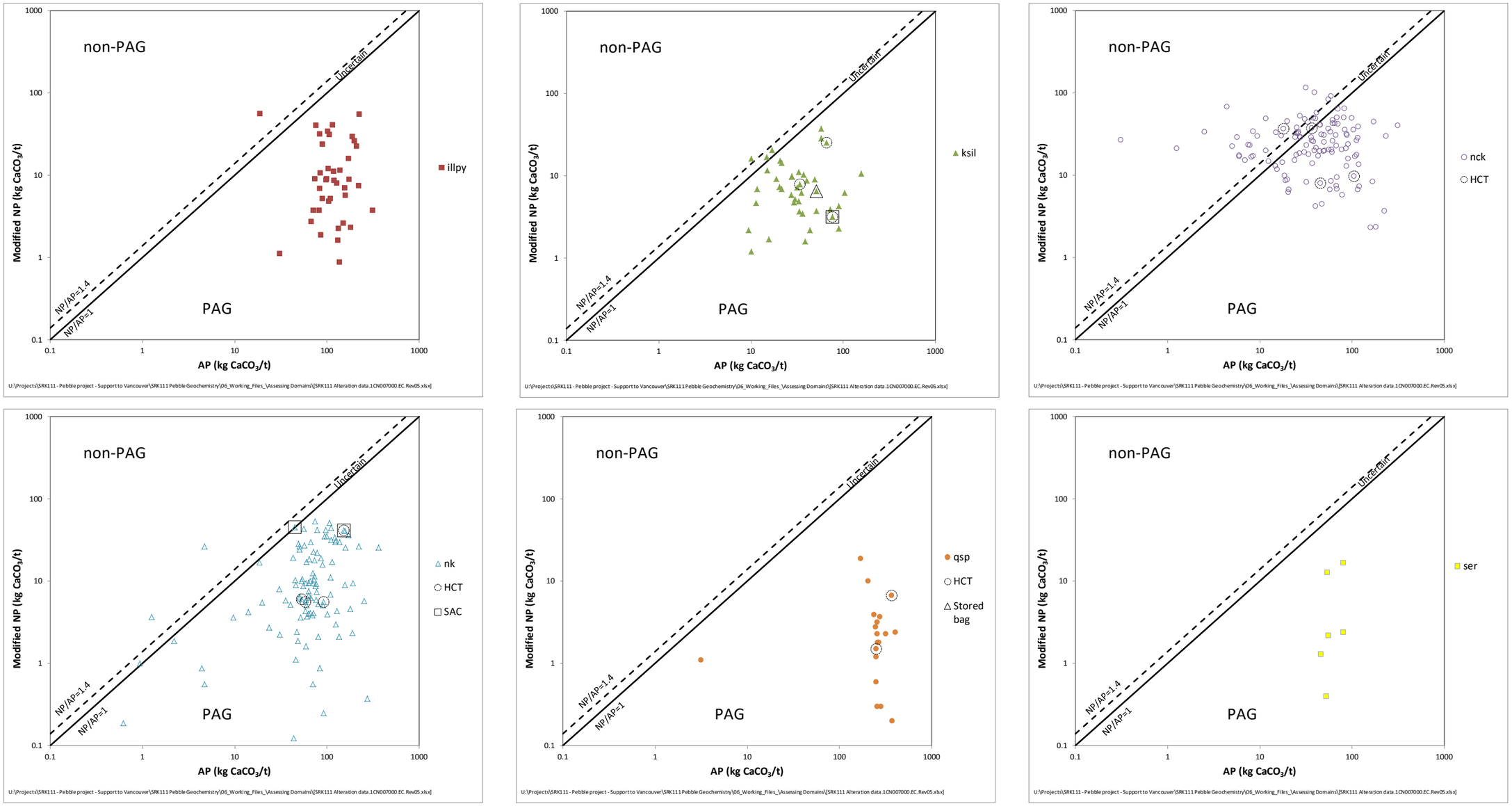


Figure 11-2 Schematic Cross-Section Showing The Distribution Of The Hydrothermal Alteration Domains, North Section (Source: PLP)

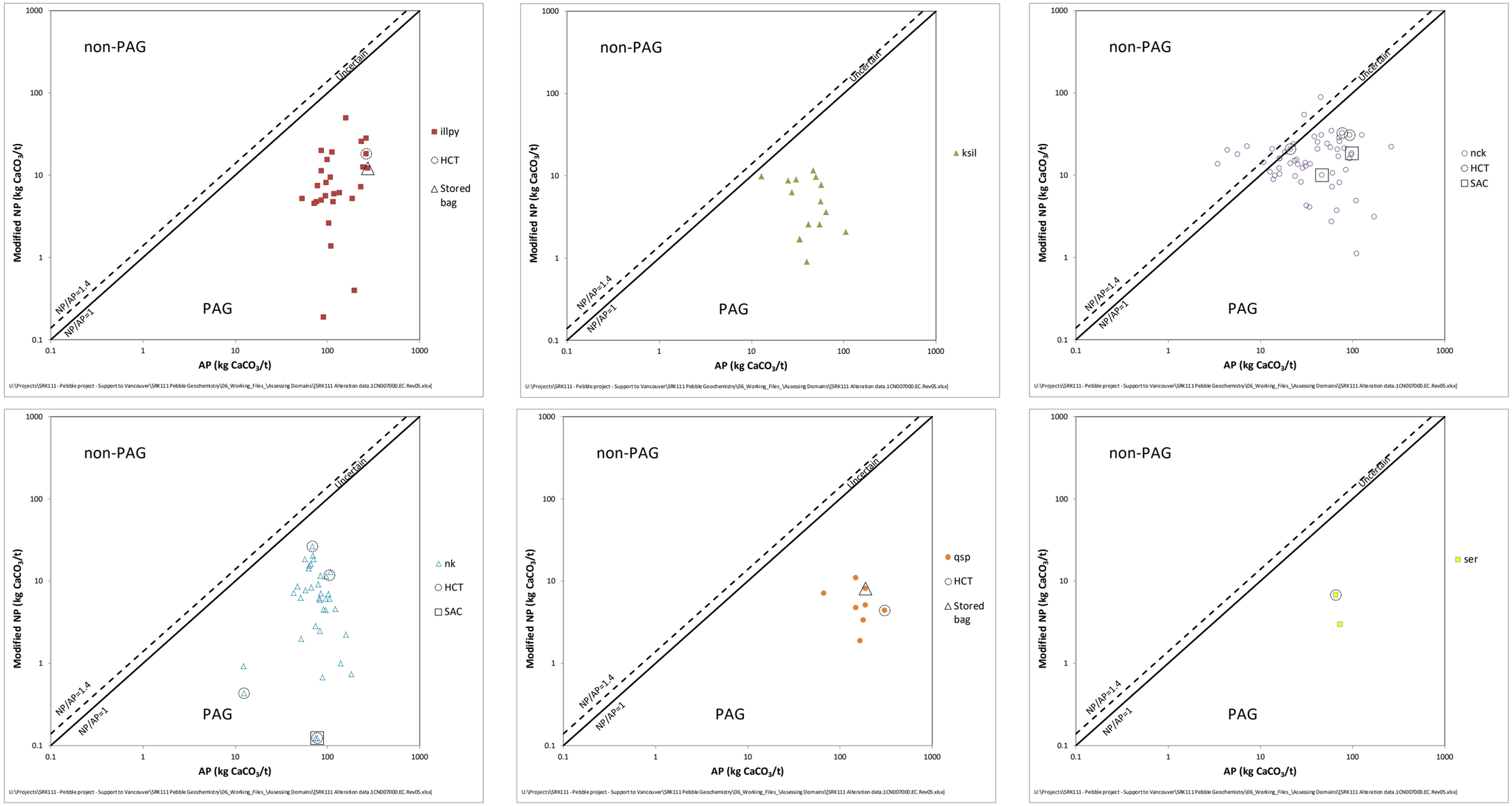


PAG=Potentially Acid Generating; NP=Neutralization Potential; AP=Acid Potential; HCT=Humidity Cell Test; SAC=Subaqueous Column

Illpy=illite-pyrite; ksil=K-silicate; nck= sodic-potassic, calcareous; nk= sodic-potassic; qsp=quartz-sericite-pyrite; ser=sericite

Figure 11-3 Neutralization Potential plotted as a function of Acid Potential (Pre-Tertiary Intrusive) – Hydrothermal Alteration Domains Shown in Separate Plots

Upper bound of region of uncertain classification defined by site-specific NP/AP criterion of 1.4 (see Section 11.7.1.3.1)

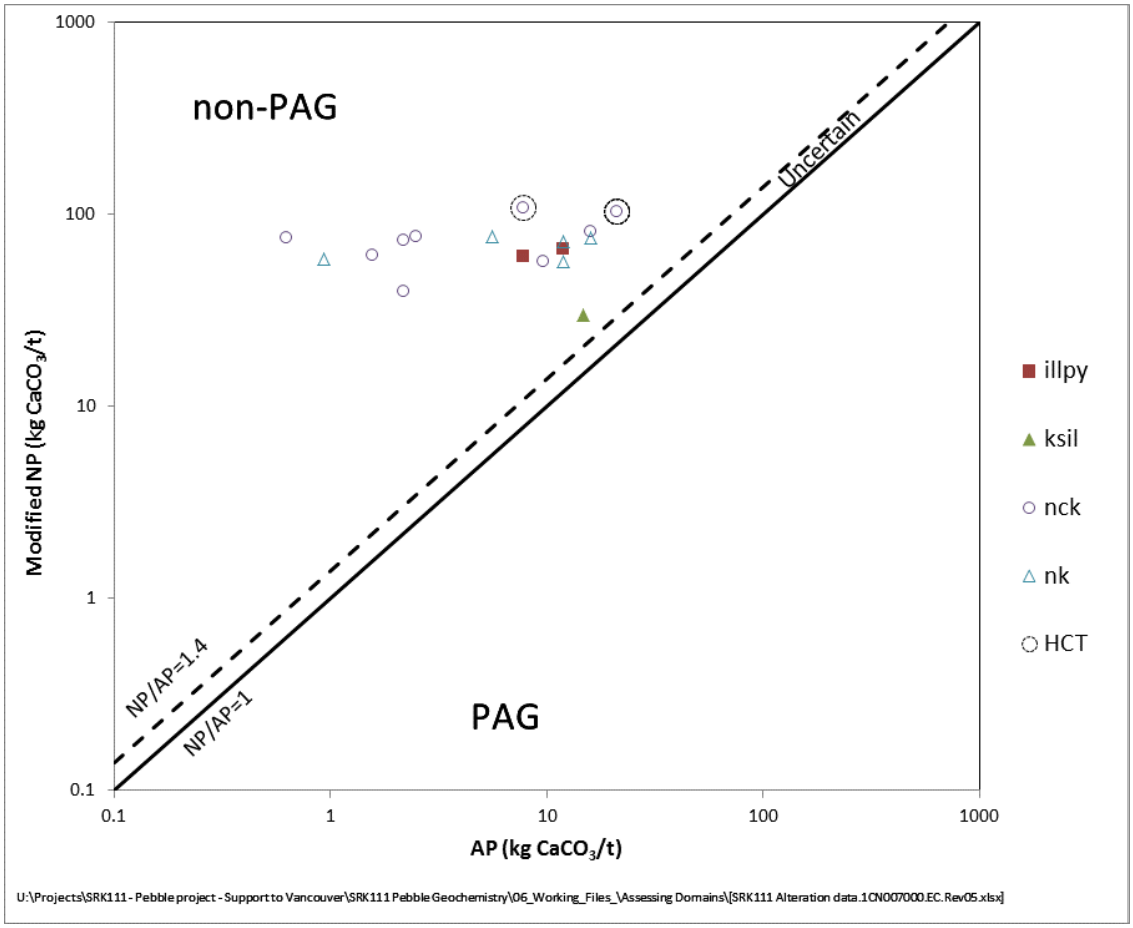


PAG=Potentially Acid Generating; NP=Neutralization Potential; AP=Acid Potential; HCT=Humidity Cell Test; SAC=Subaqueous Column

Illpy=illite-pyrite; ksil=K-silicate; nck= sodic-potassic, calcareous; nk= sodic-potassic; qsp=quartz-sericite-pyrite; ser=sericite

Figure 11-4 Neutralization Potential plotted as a function of Acid Potential (Pre-Tertiary Volcanosedimentary) – Hydrothermal Alteration Domains Shown in Separate Plots

Upper bound of region of uncertain classification defined by site-specific NP/AP criterion of 1.4 (see Section 11.7.1.3.1)

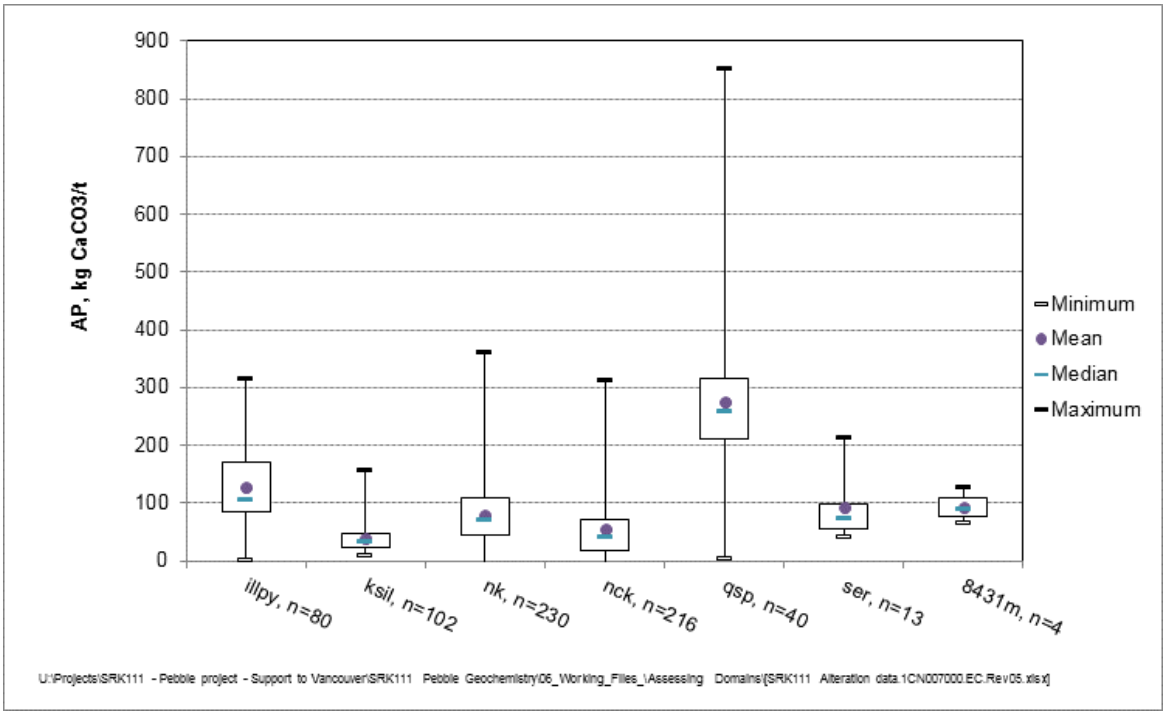


PAG=Potentially Acid Generating; NP=Neutralization Potential; AP=Acid Potential; HCT=Humidity Cell Test

Illpy=illite-pyrite; ksil=K-silicate; nck= sodic-potassic, calcareous; nk= sodic-potassic

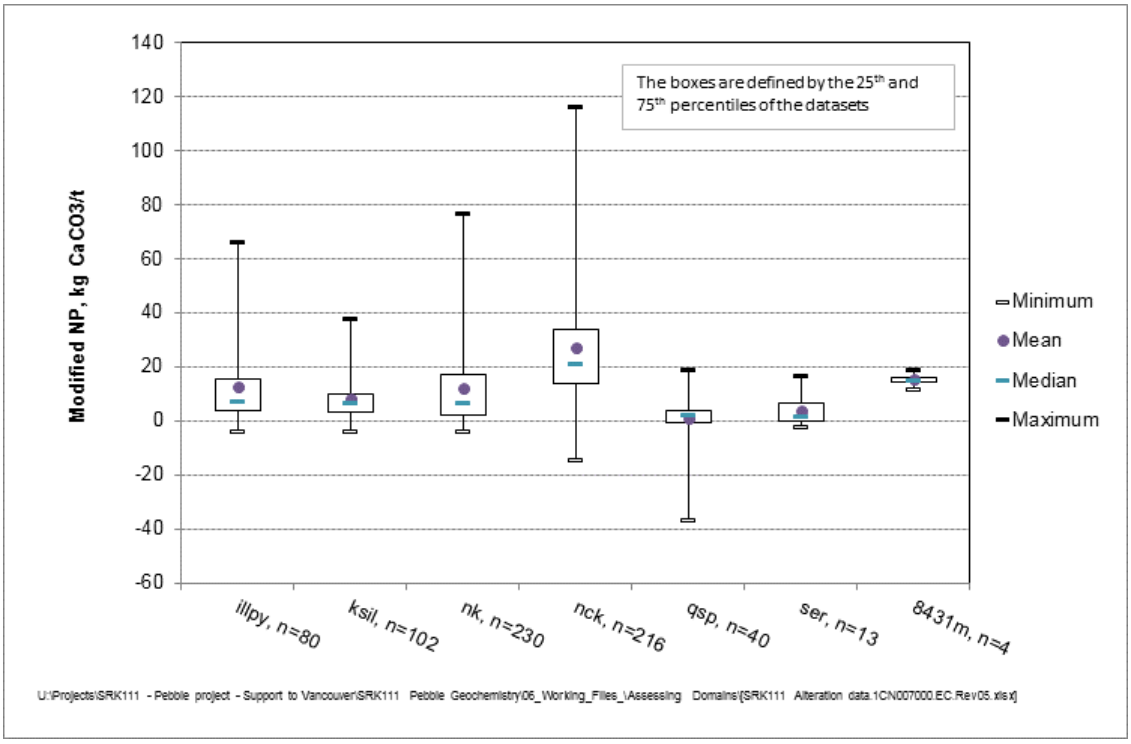
Figure 11-5 Neutralization Potential plotted as a function of Acid Potential (Tertiary Intrusive)

Upper bound of region of uncertain classification defined by site-specific NP/AP criterion of 1.4 (see Section 11.7.1.3.1)



Illpy=illite-pyrite; ksil=K-silicate; nck= sodic-potassic, calcareous; nk= sodic-potassic; qsp=quartz-sericite-pyrite; ser=sericite

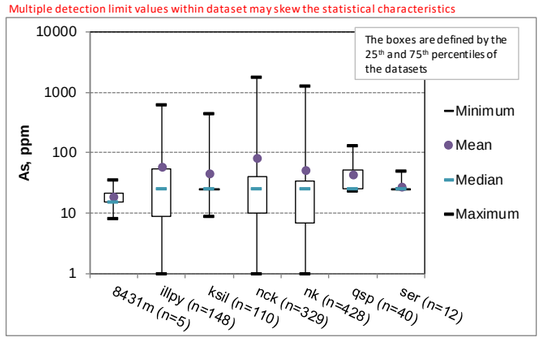
Figure 11-6 Statistical Distribution of AP Values for each Hydrothermal Alteration Domain

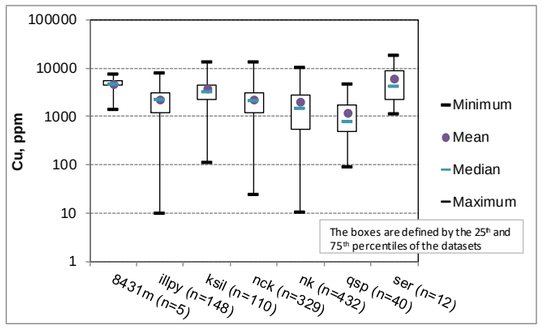


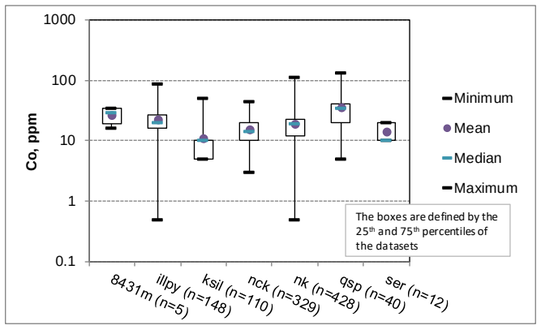
Illpy=illite-pyrite; ksil=K-silicate; nck= sodic-potassic, calcareous; nk= sodic-potassic; qsp=quartz-sericite-pyrite; ser=sericite

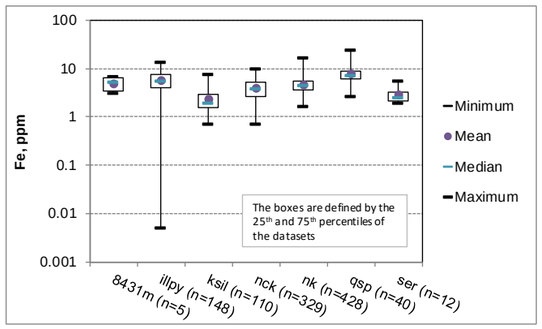
Figure 11-7 Statistical Distribution of NP Values for each Hydrothermal Alteration Domain

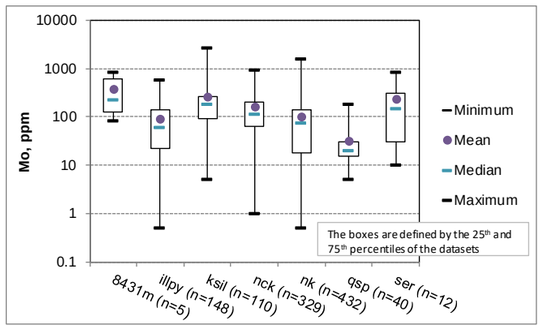
Multiple detection limit values within dataset may skew the statistical characteristics

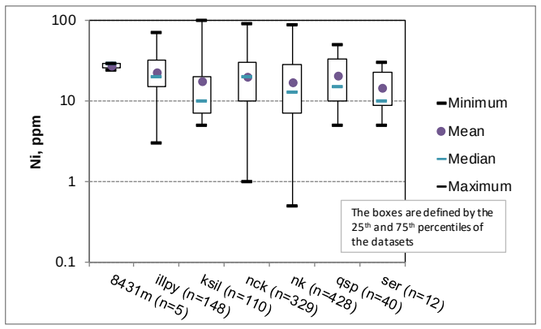




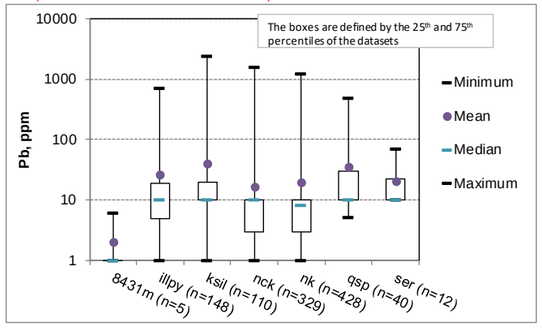




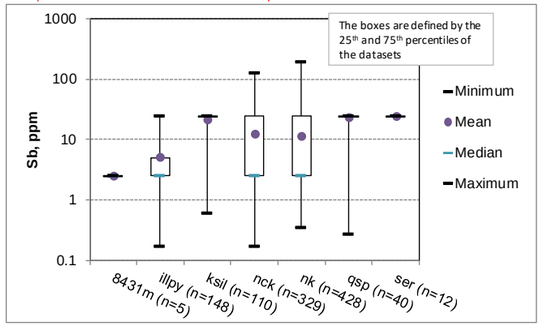


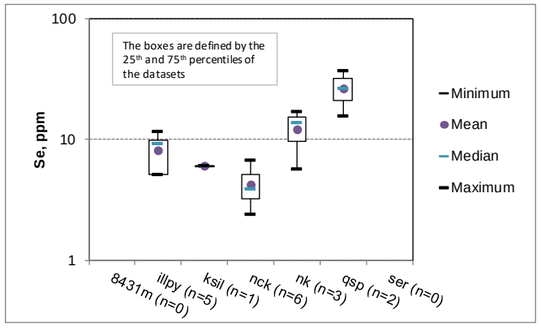


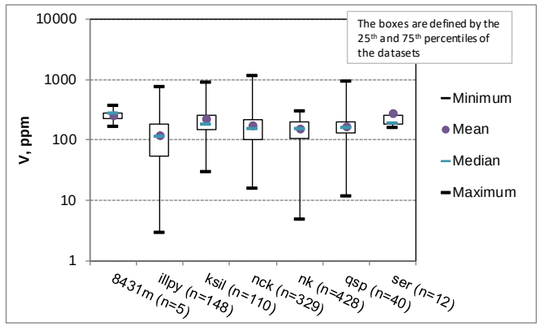
Multiple detection limit values within dataset may skew the statistical characteristics

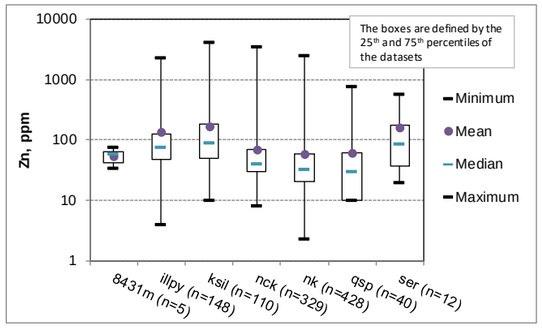


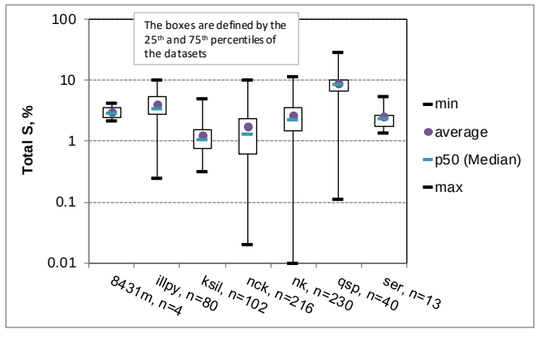
Multiple detection limit values within dataset may skew the statistical characteristics











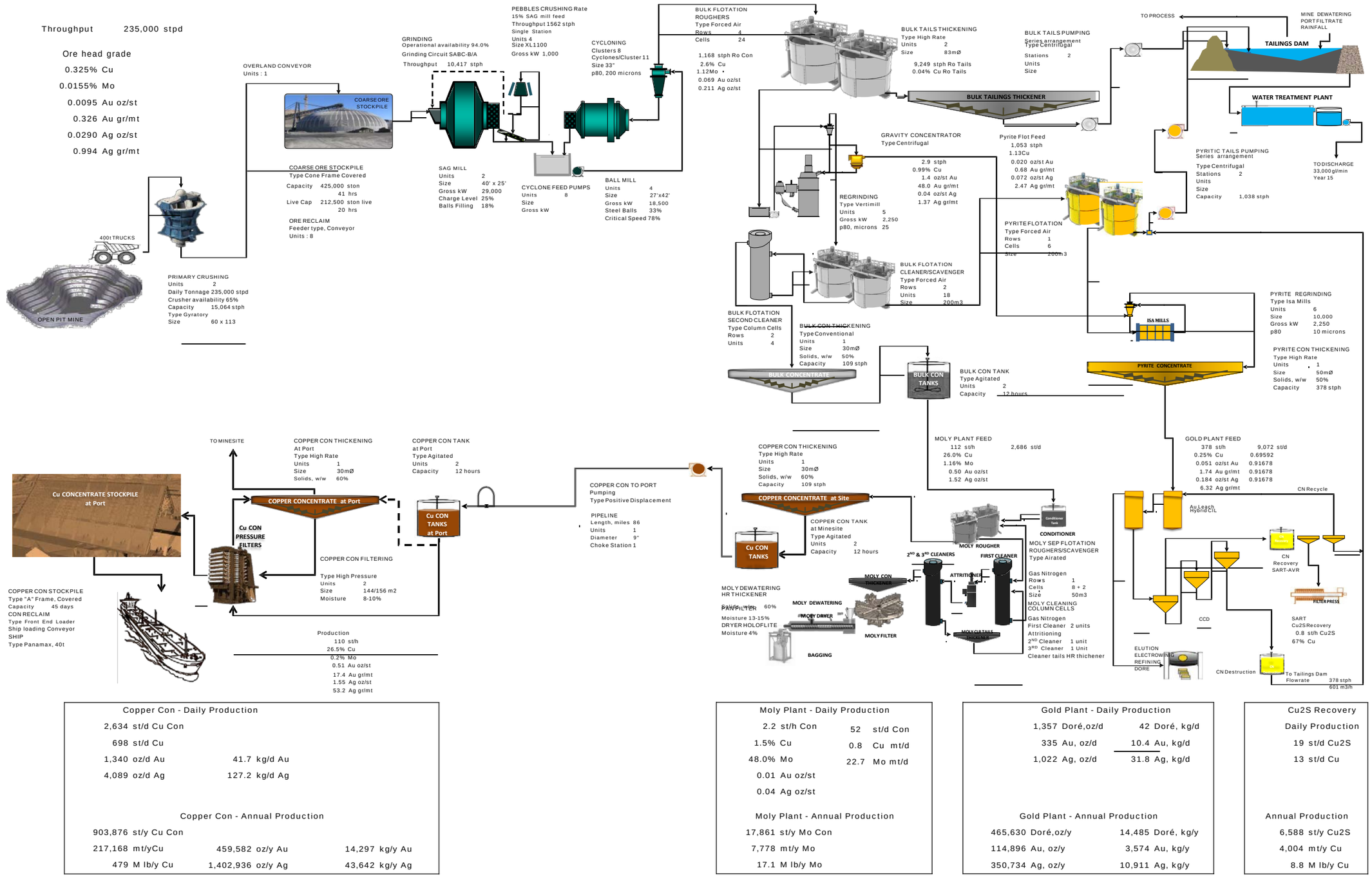
U:\Projects\SRK111 - Pebble project - Support to Vancouver\SRK111 Pebble Geochemistry\06_Working_Files_\Assessing Domains\[SRK111 Alteration data.1CN007000.EC.Rev05.xlsx]

Illpy=illite-pyrite; ksil=K-silicate; nck= sodic-potassic, calcareous; nk= sodic-potassic; qsp=quartz-sericite-pyrite; ser=sericite

Figure 11-8 Statistical Distribution of Metal Content, by Hydrothermal Alteration Domain (Waste Rock)

Pebble Project

Y 1-28 235,000 stpd Case



Copper Con - Daily Production	
2,634 st/d Cu Con	
698 st/d Cu	
1,340 oz/d Au	41.7 kg/d Au
4,089 oz/d Ag	127.2 kg/d Ag

Copper Con - Annual Production		
903,876 st/y Cu Con		
217,168 mt/yCu	459,582 oz/y Au	14,297 kg/y Au
479 M lb/y Cu	1,402,936 oz/y Ag	43,642 kg/y Ag

Moly Plant - Daily Production	
2.2 st/h Con	52 st/d Con
1.5% Cu	0.8 Cu mt/d
48.0% Mo	22.7 Mo mt/d
0.01 Au oz/st	
0.04 Ag oz/st	

Moly Plant - Annual Production
17,861 st/y Mo Con
7,778 mt/y Mo
17.1 M lb/y Mo

Gold Plant - Daily Production	
1,357 Doré,oz/d	42 Doré, kg/d
335 Au, oz/d	10.4 Au, kg/d
1,022 Ag, oz/d	31.8 Ag, kg/d

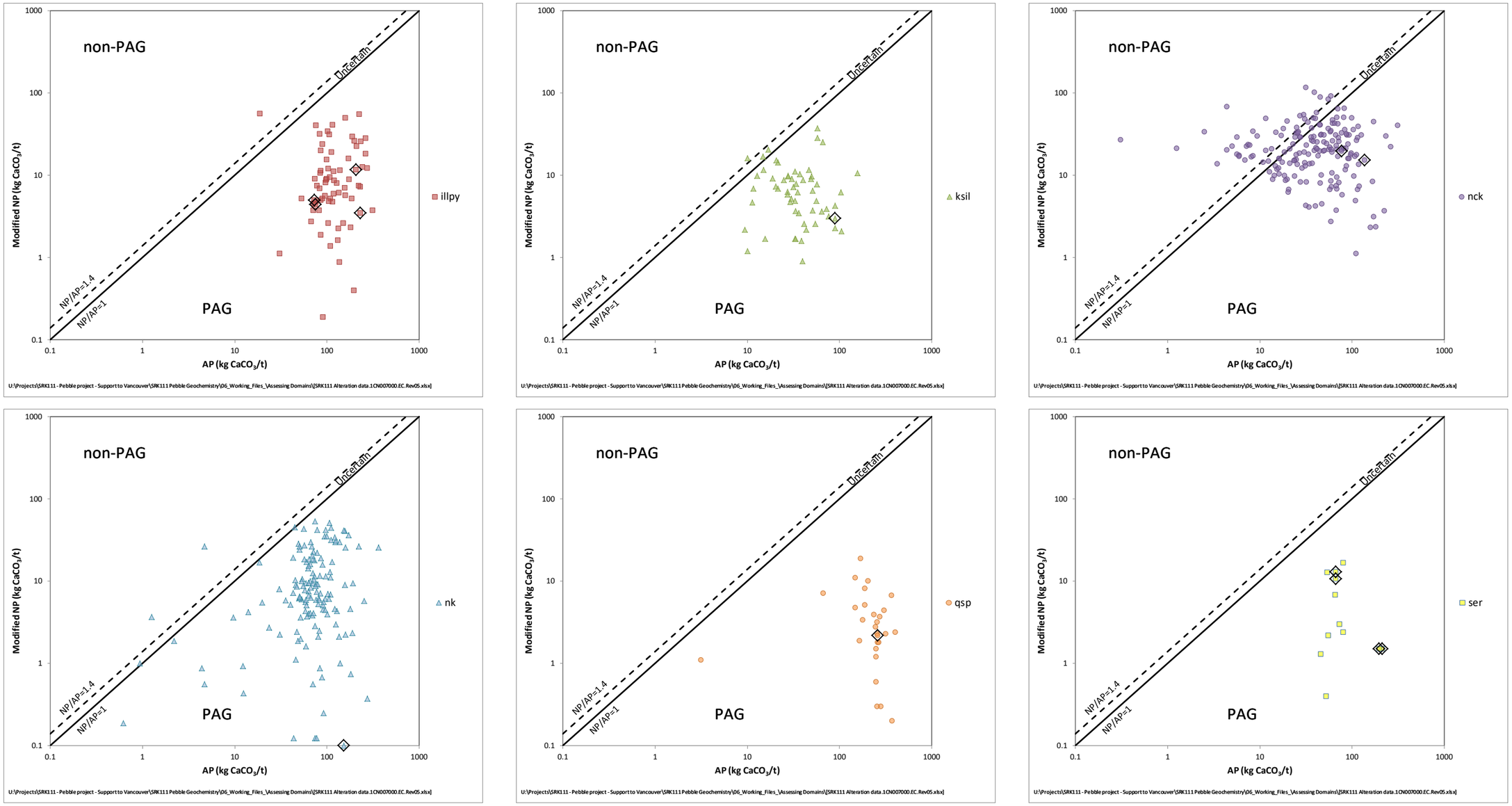
Gold Plant - Annual Production	
465,630 Doré,oz/y	14,485 Doré, kg/y
114,896 Au, oz/y	3,574 Au, kg/y
350,734 Ag, oz/y	10,911 Ag, kg/y

Cu2S Recovery
Daily Production
19 st/d Cu2S
13 st/d Cu

Annual Production
6,588 st/y Cu2S
4,004 mt/y Cu
8.8 M lb/y Cu

20120217 Overview flowsheet.xlsx

Figure 11-9 Schematic of Metallurgical Processing Options (Source: PLP)



PAG=Potentially Acid Generating; NP=Neutralization Potential; AP=Acid Potential; HCT=Humidity Cell Test

Illpy=illite-pyrite; ksil=K-silicate; nck= sodic-potassic, calcareous; nk= sodic-potassic; qsp=quartz-sericite-pyrite; ser=sericite

Figure 11-10 Neutralisation Potential Plotted as a Function of Acid Potential for Pre-Tertiary Samples, as a function of Hydrothermal Alteration Domain (2012 Samples Indicated by Diamond Markers)

Upper bound of region of uncertain classification defined by site-specific NP/AP criterion of 1.4 (see Section 11.7.1.3.1)

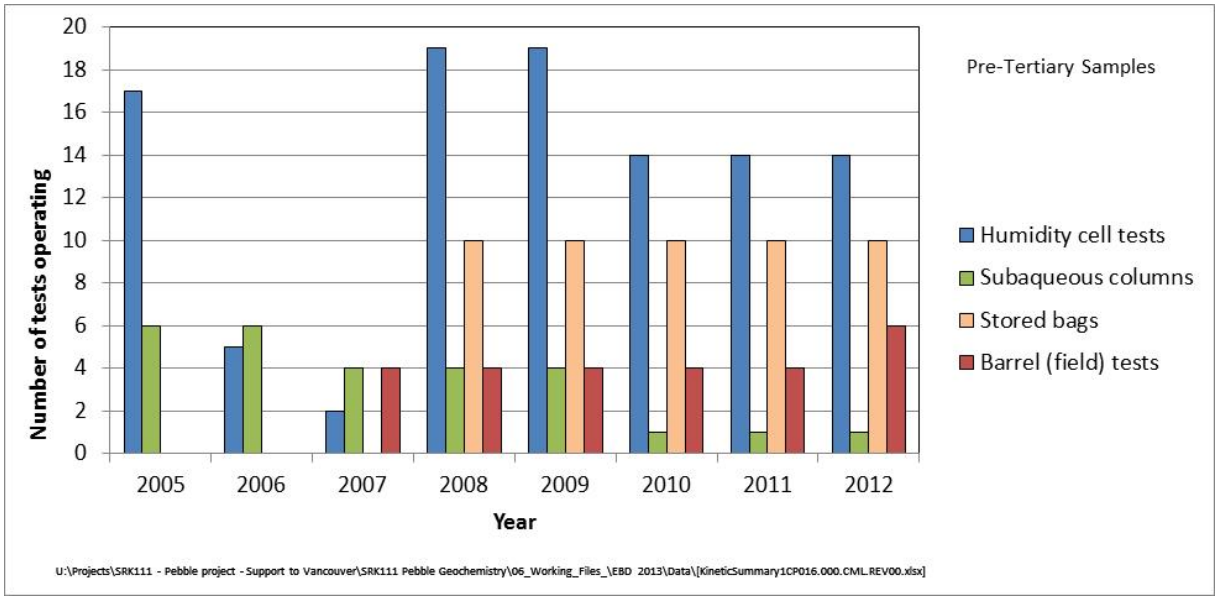


Figure 11-11 Number of Kinetic Tests Operating, by Year (Pre-Tertiary Samples)

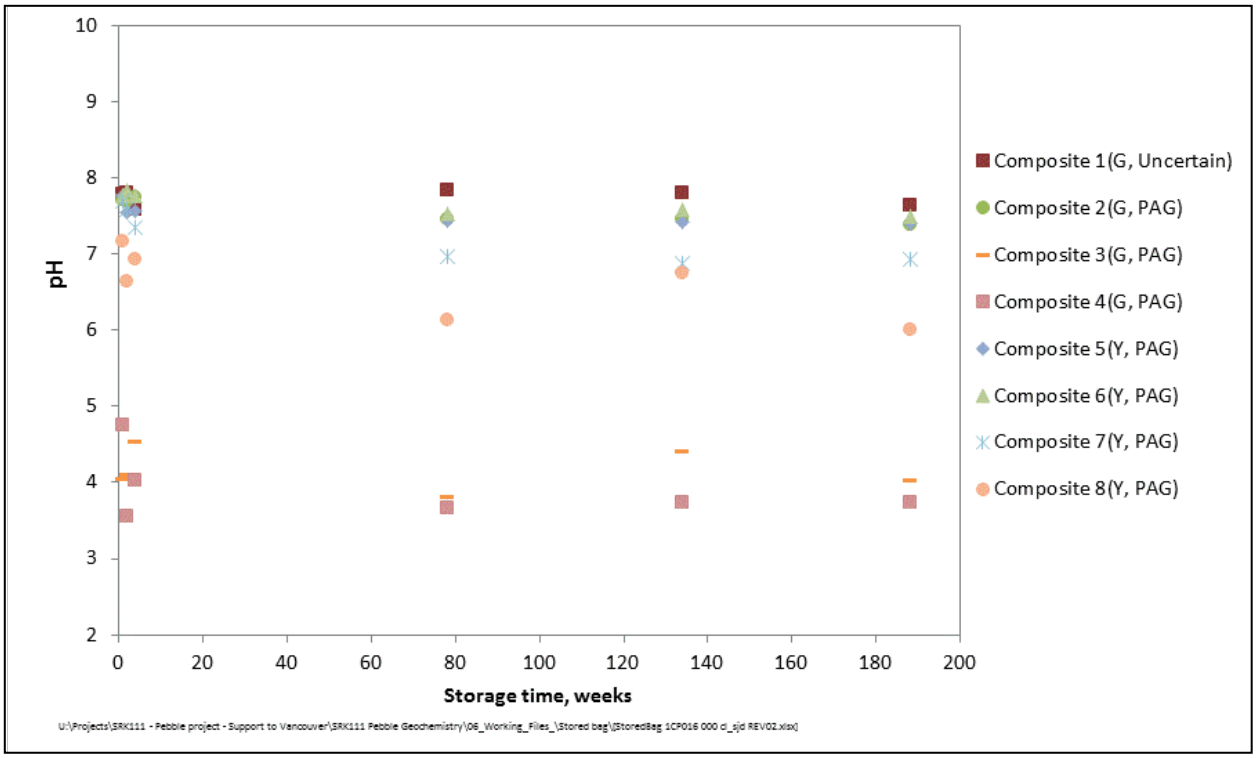


Figure 11-12 Leachate pH in Shake-flask Extraction Tests on Stored Bag Samples, as a Function of Time (Pre-Tertiary Samples)

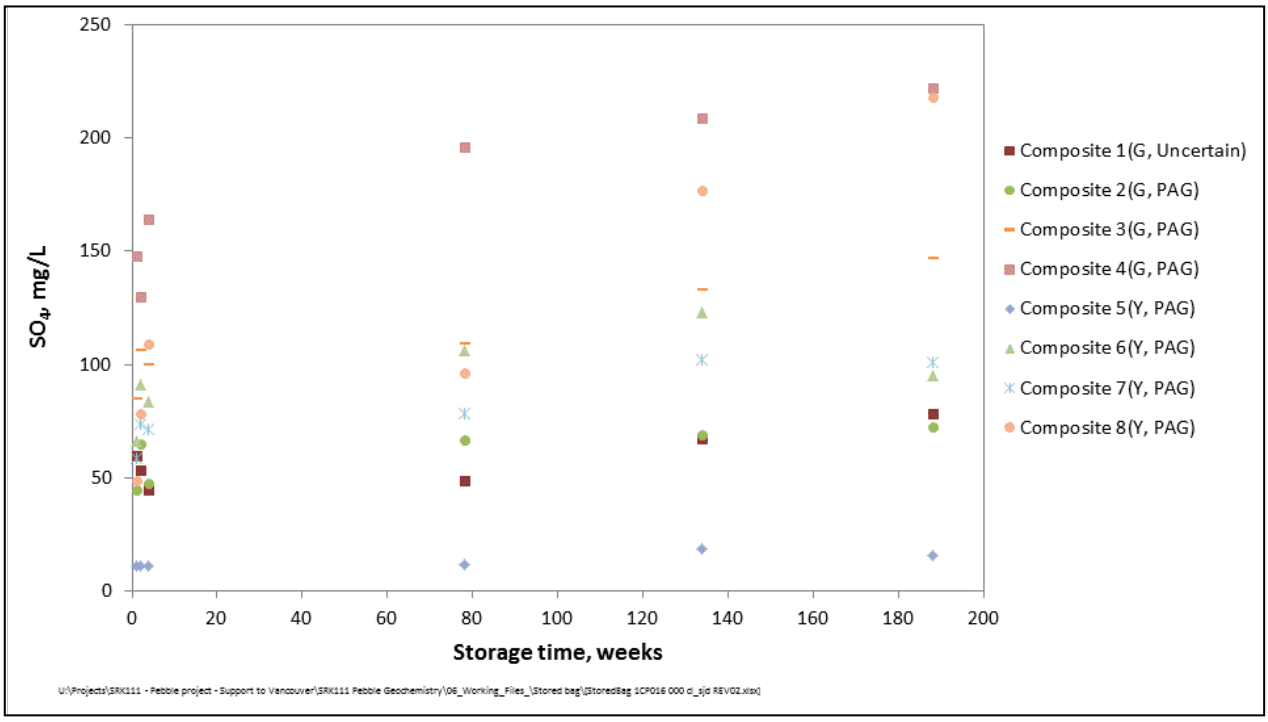


Figure 11-13 Dissolved Sulfate in Shake-flask Extraction tests on Stored Bag Samples, as a Function of Time (Pre-Tertiary samples)

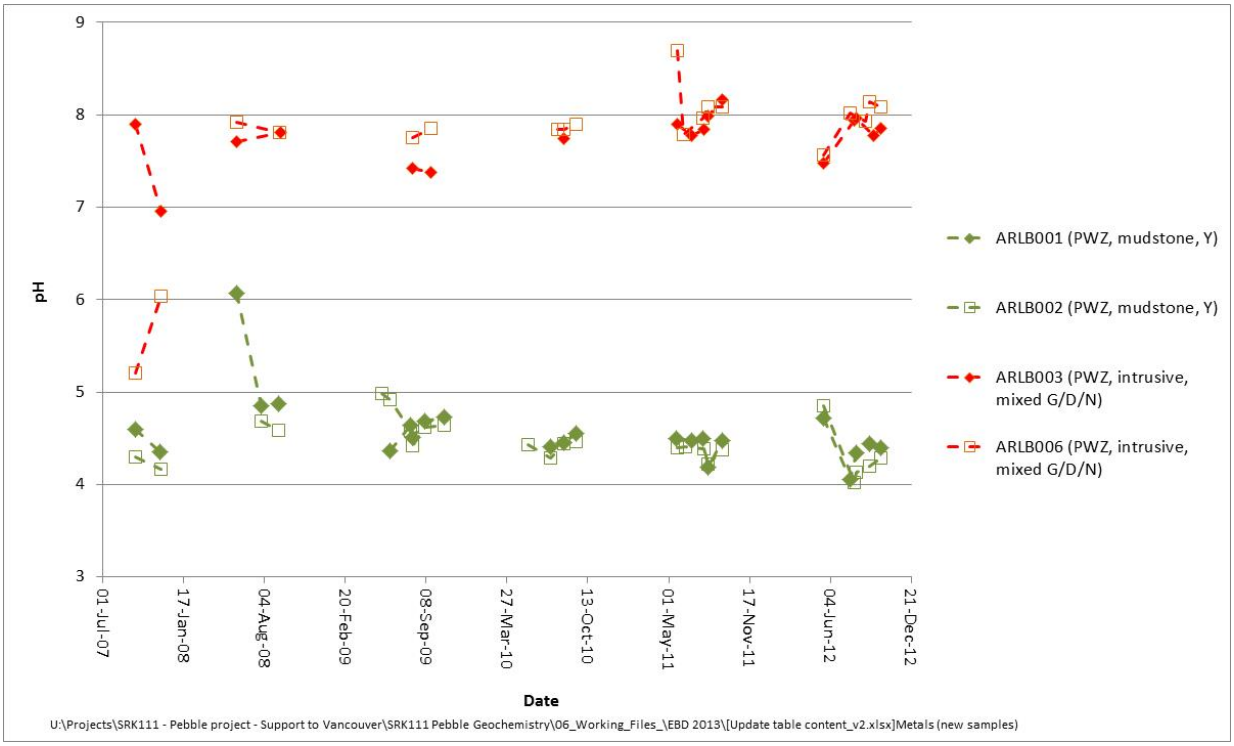


Figure 11-14 Leachate pH Measured from Field Weathering (Barrel) Tests as a Function of Date for Pre-Tertiary Samples, Pebble West Zone

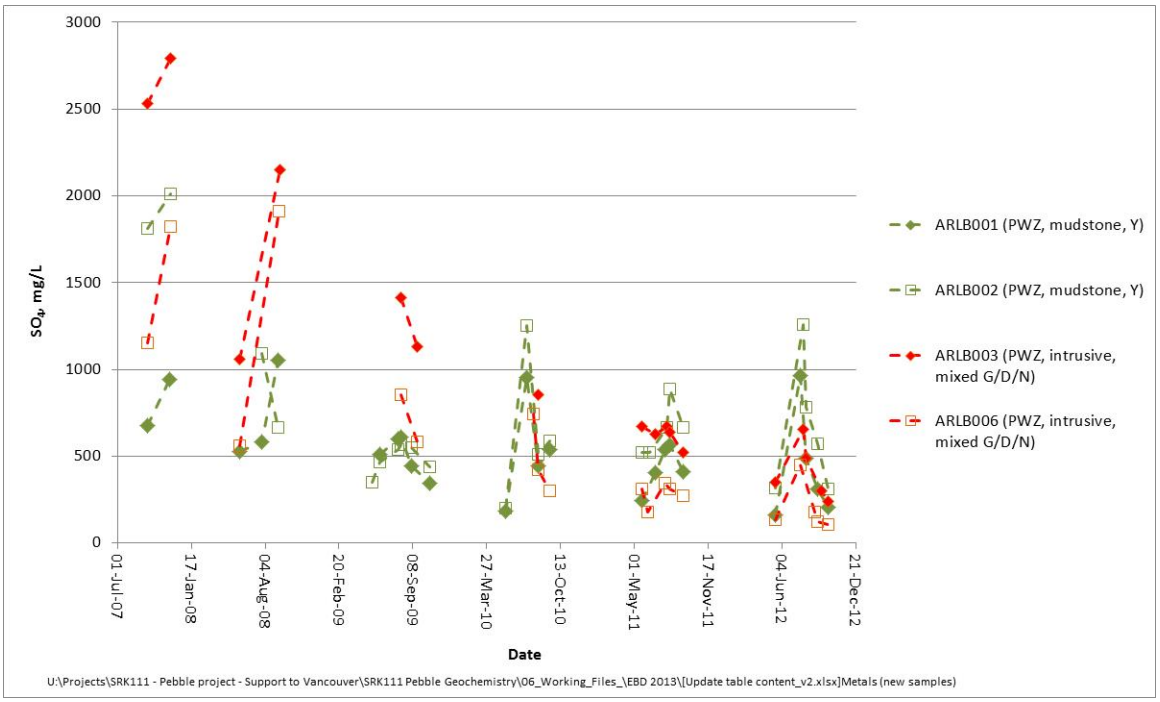


Figure 11-15 Sulfate Concentrations in Leachate from Field Weathering (Barrel) Tests as a Function of Date for Pre-Tertiary Samples, Pebble West Zone

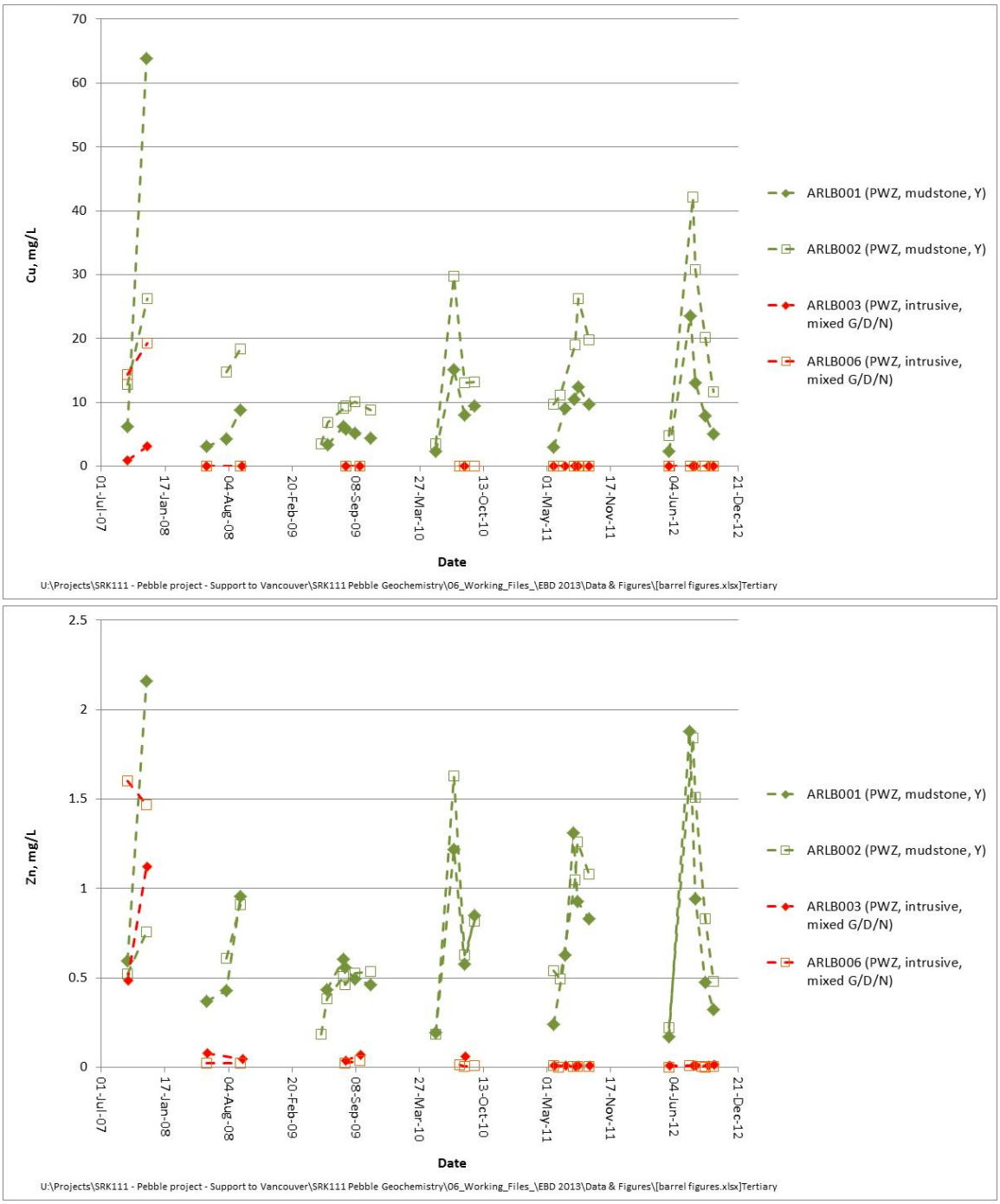


Figure 11-16 Copper and Zinc Concentrations in Leachate from Field Weathering (Barrel) Tests as a Function of Date for Pre-Tertiary Samples, Pebble West Zone

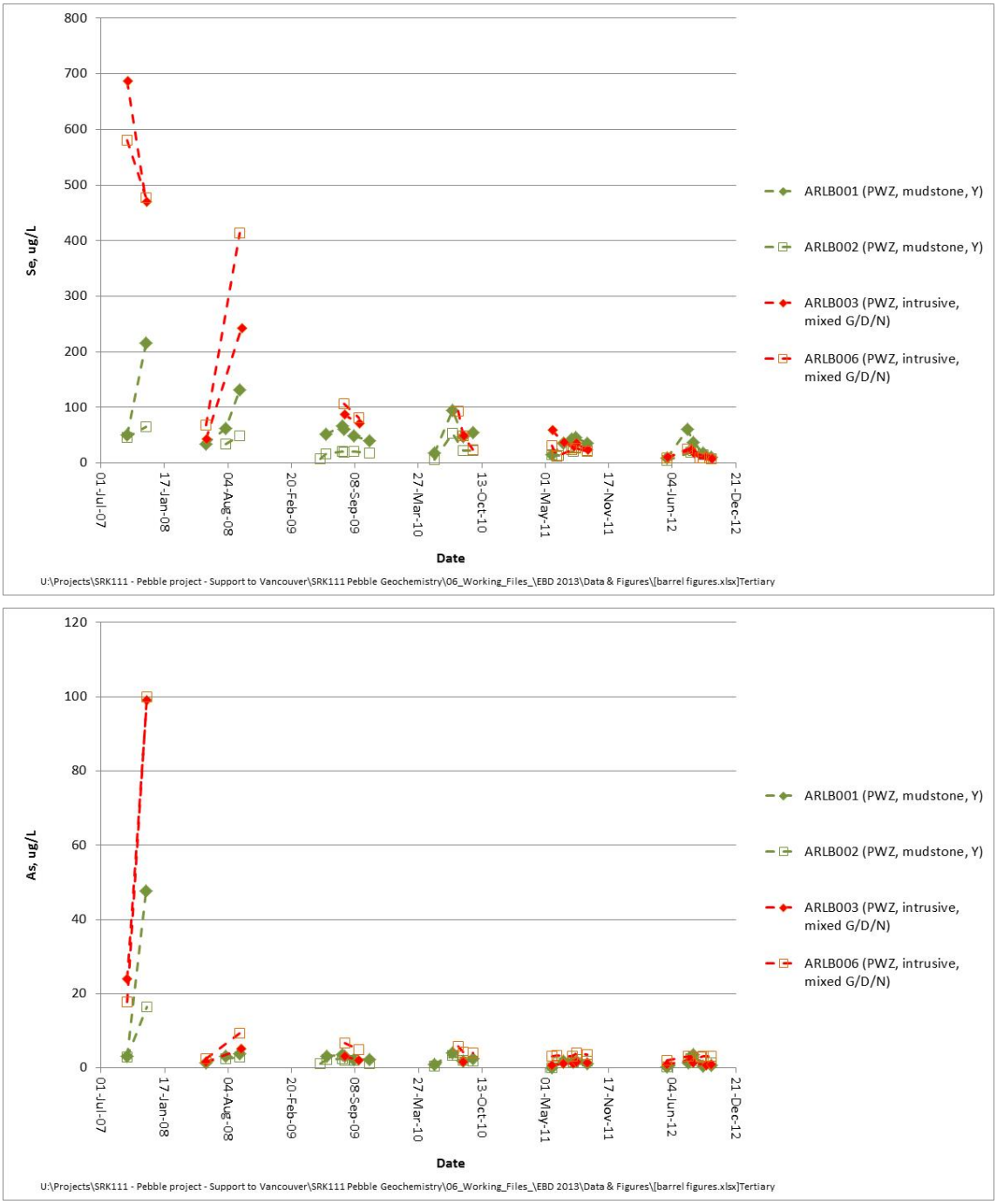


Figure 11-17 Selenium and Arsenic Concentrations in Leachate from Field Weathering (Barrel) Tests as a Function of Date for Pre-Tertiary Samples, Pebble West Zone

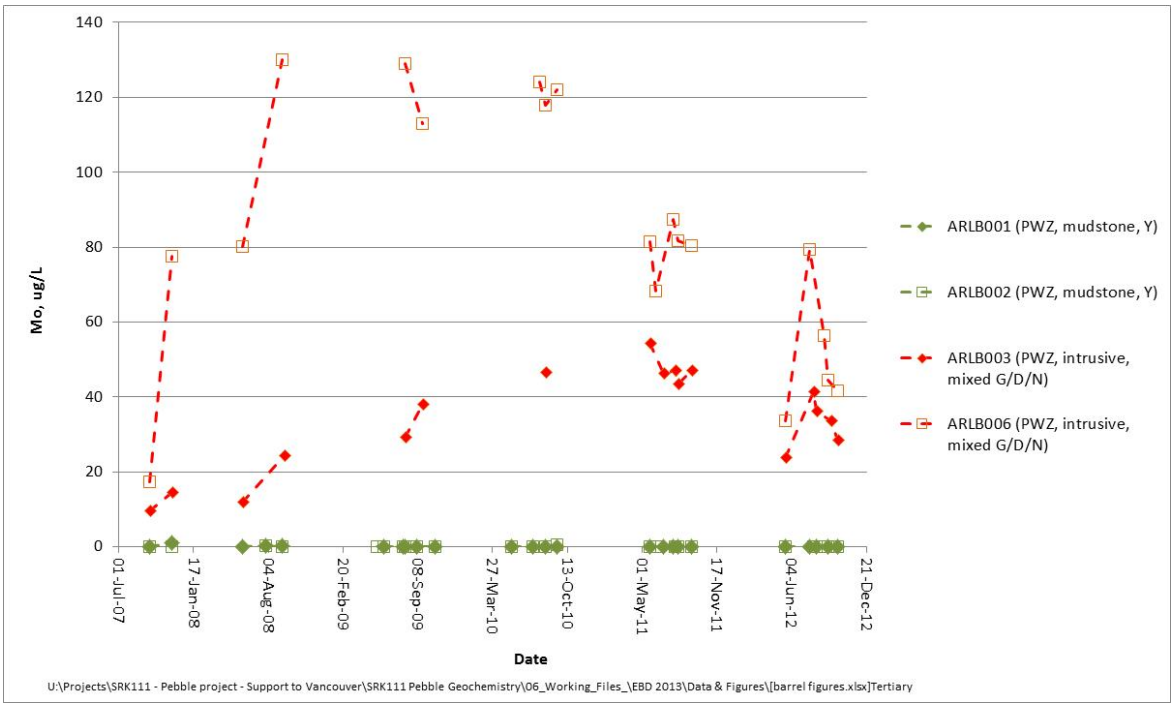


Figure 11-18 Molybdenum Concentrations in Leachate from Field Weathering (Barrel) Tests as a Function of Date for Pre-Tertiary Samples, Pebble West Zone

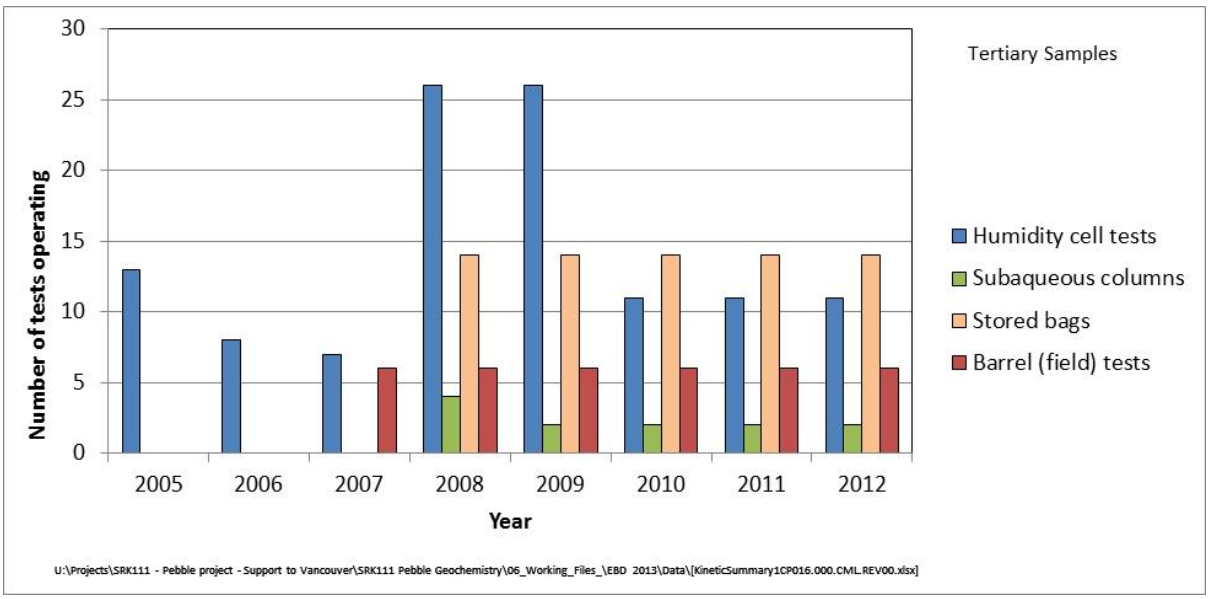


Figure 11-19 Number of Kinetic Tests Operating, by Year (Tertiary Samples)

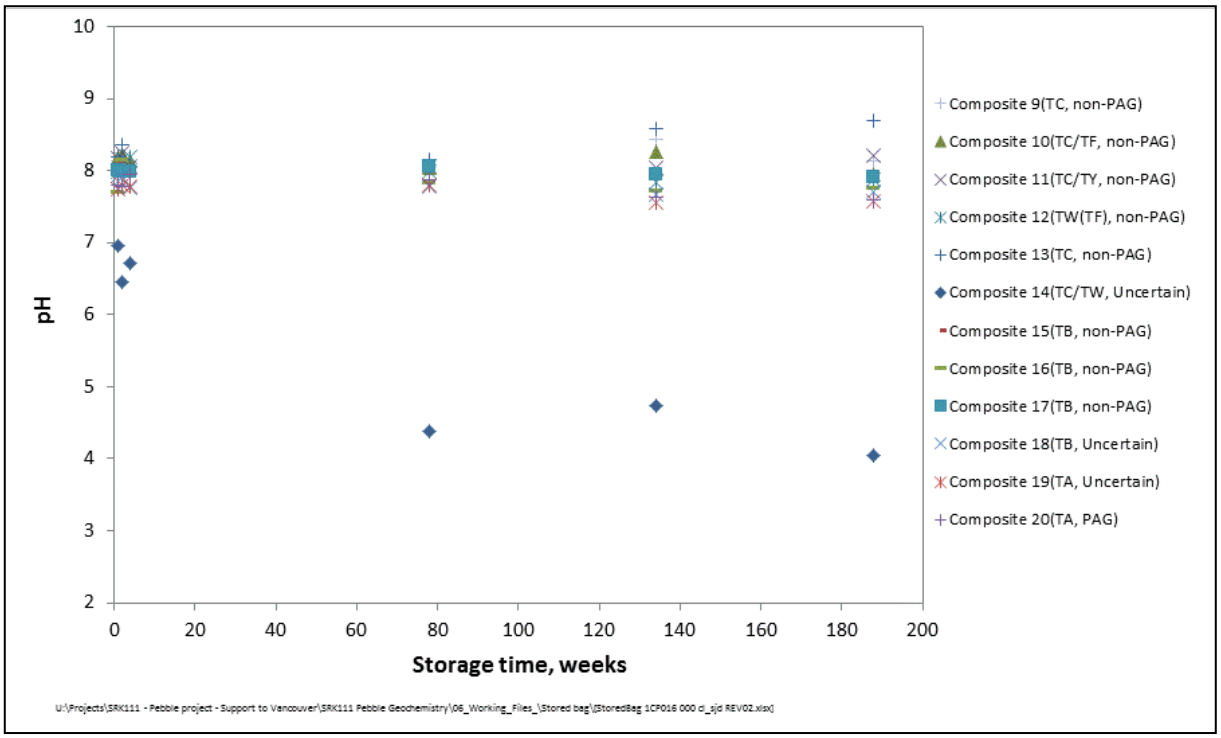


Figure 11-20 Leachate pH in Shake-flask Extraction Tests on Stored Bag Samples, as a Function of Time (Tertiary Samples)

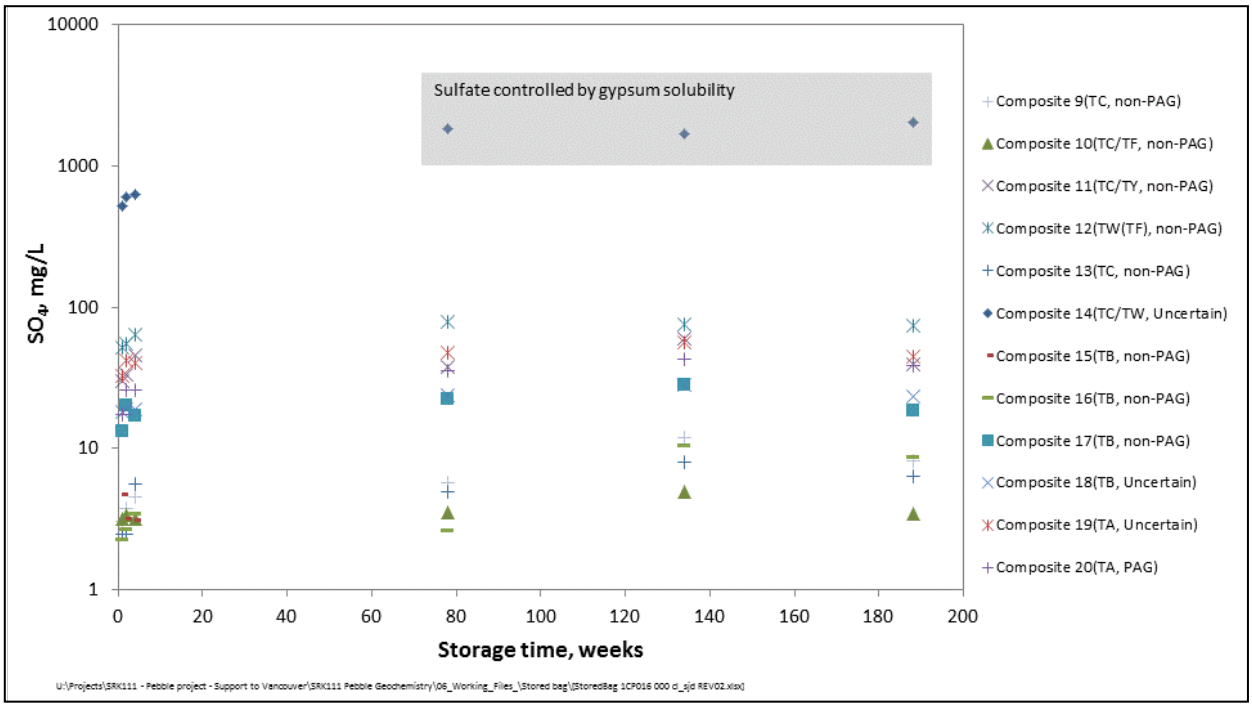


Figure 11-21 Dissolved Sulfate in Shake-flask Extraction tests on Stored Bag Samples, as a Function of Time (Tertiary Samples)

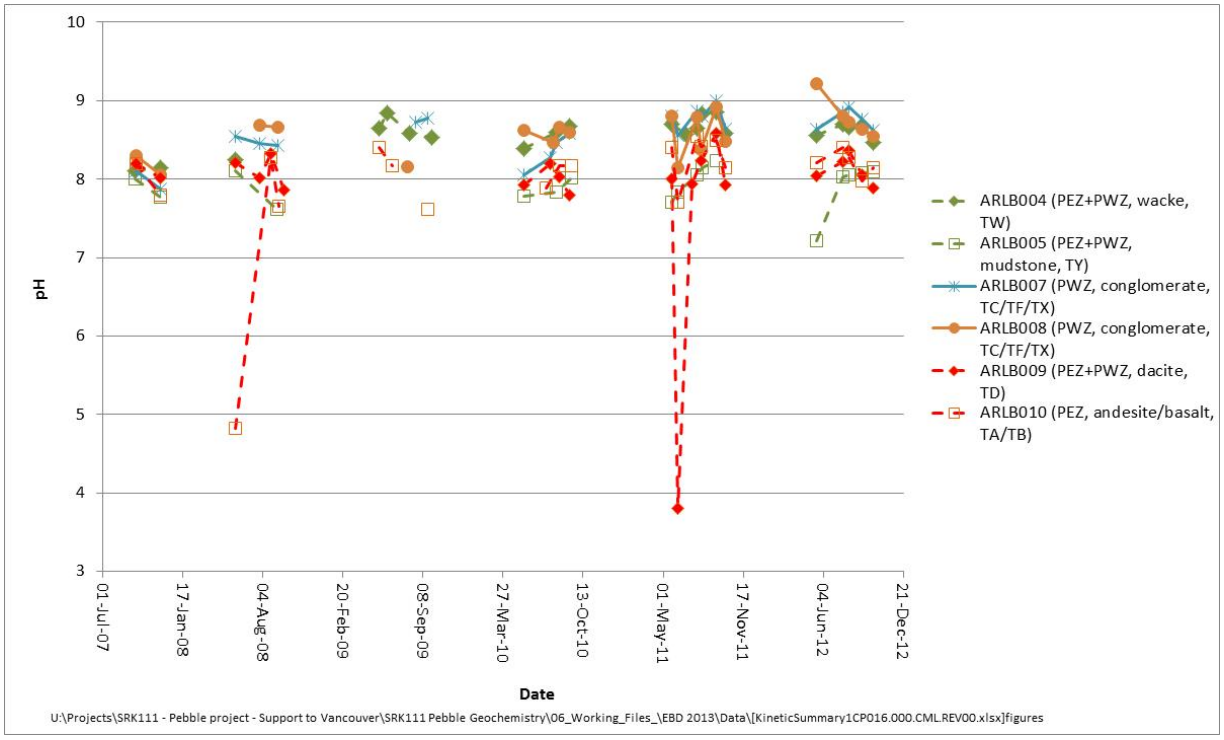


Figure 11-22 Leachate pH Measured from Field Weathering (Barrel) Tests as a Function of Date for Tertiary Samples

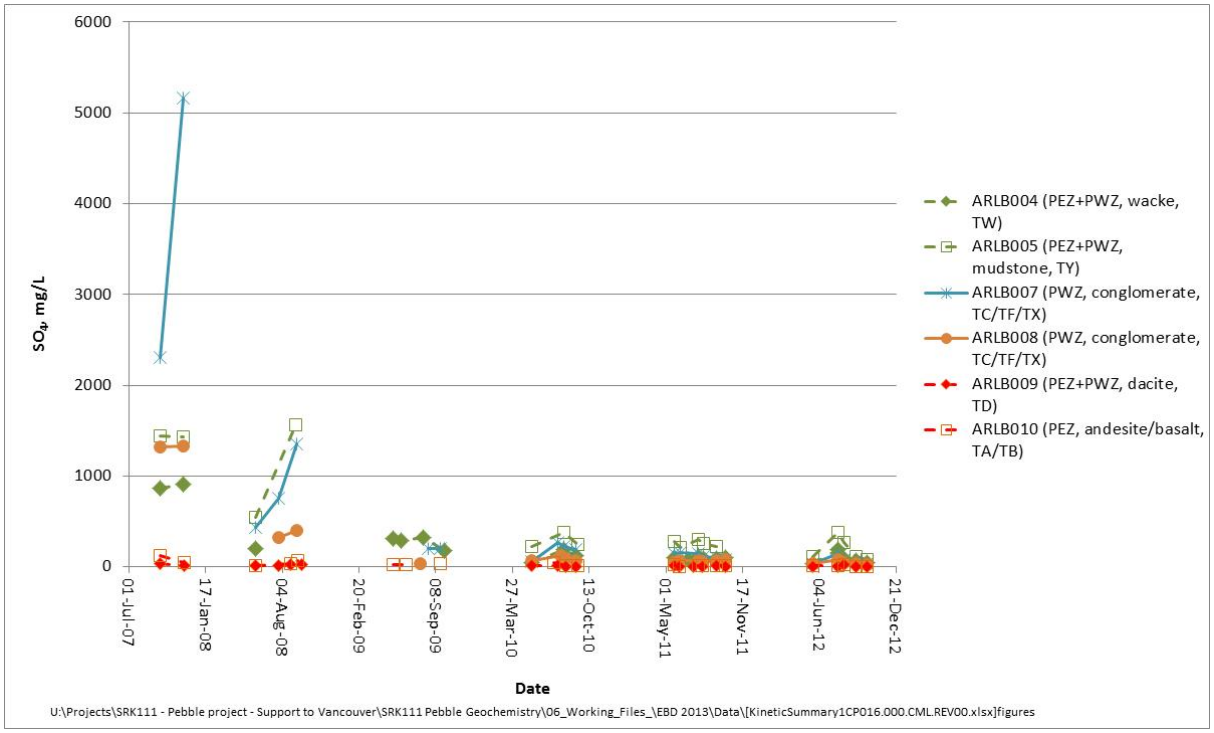
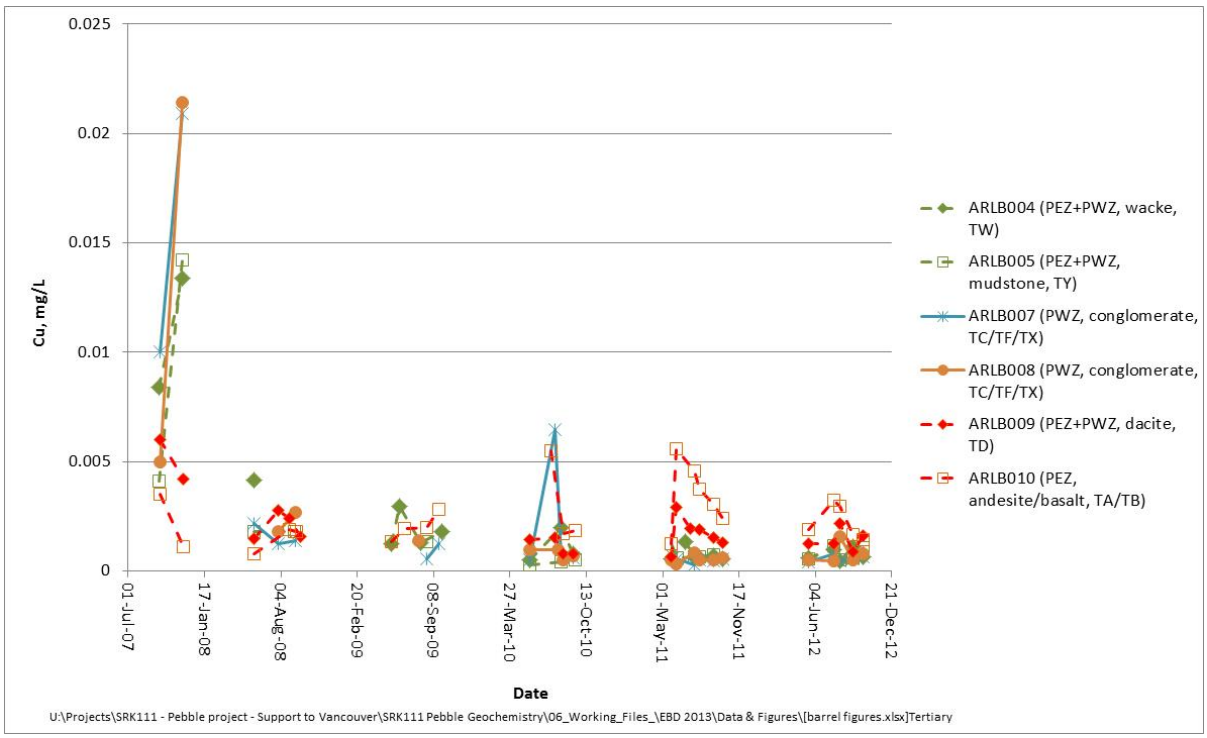


Figure 11-23 Sulfate Concentrations in Leachate from Field Weathering (Barrel) Tests as a Function of Date for Tertiary Samples



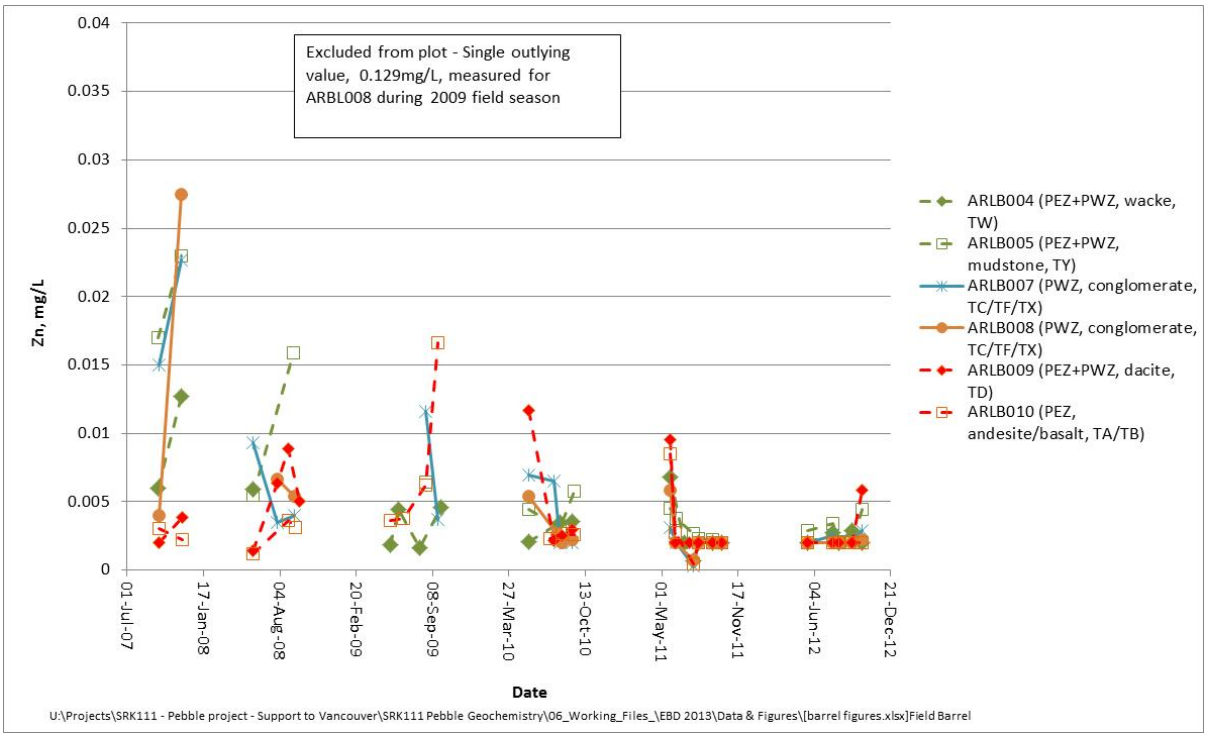
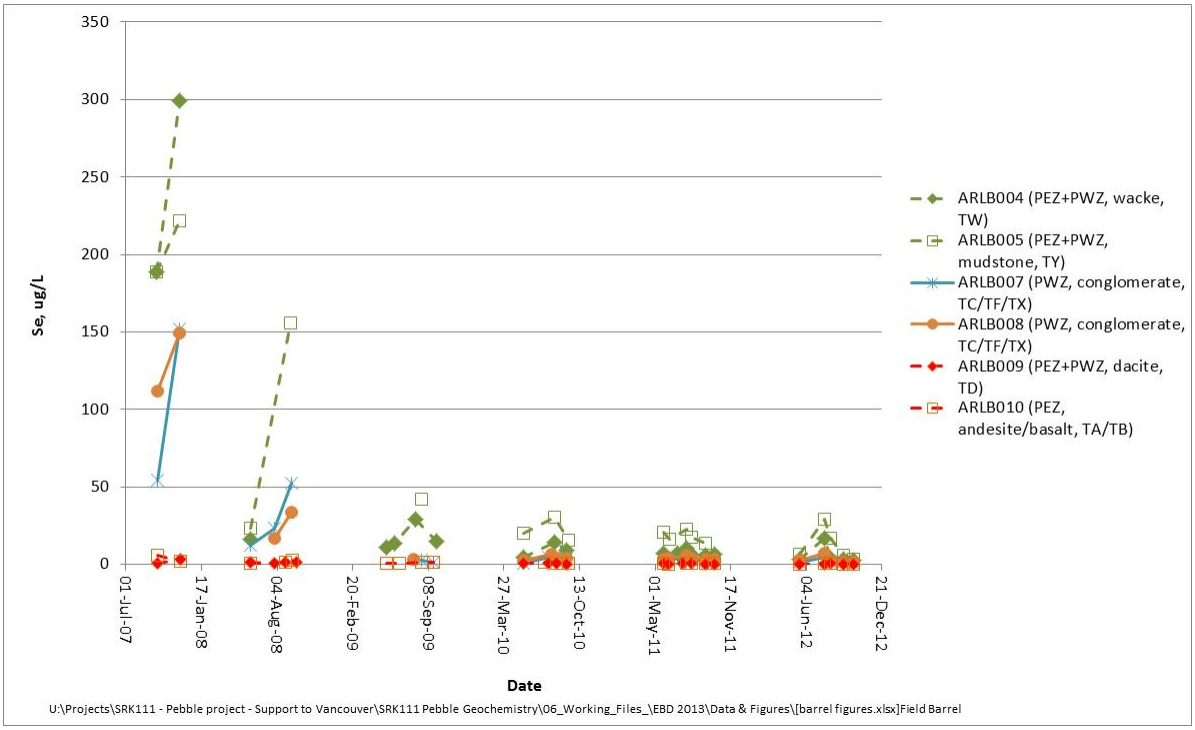


Figure 11-24 Copper and Zinc Concentrations in Leachate from Field Weathering (Barrel) Tests as a Function of Date for Tertiary Samples



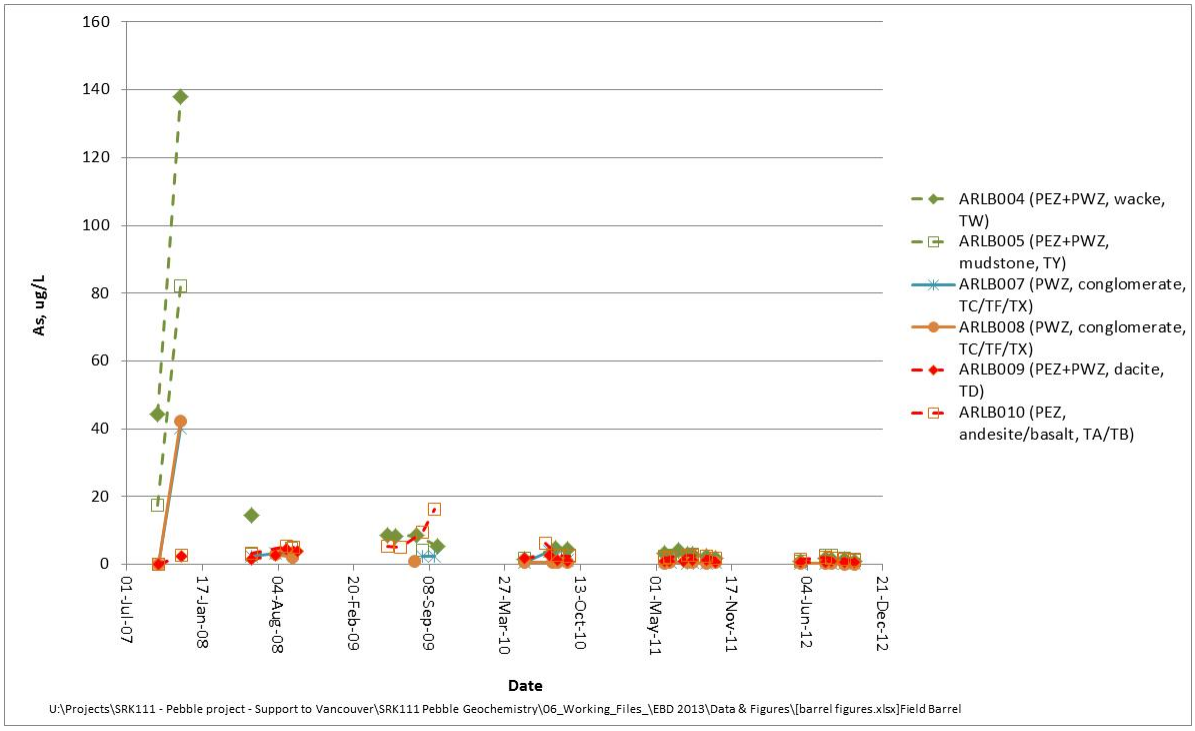


Figure 11-25 Selenium and Arsenic Concentrations in Leachate from Field Weathering (Barrel) Tests as a Function of Date for Tertiary Samples

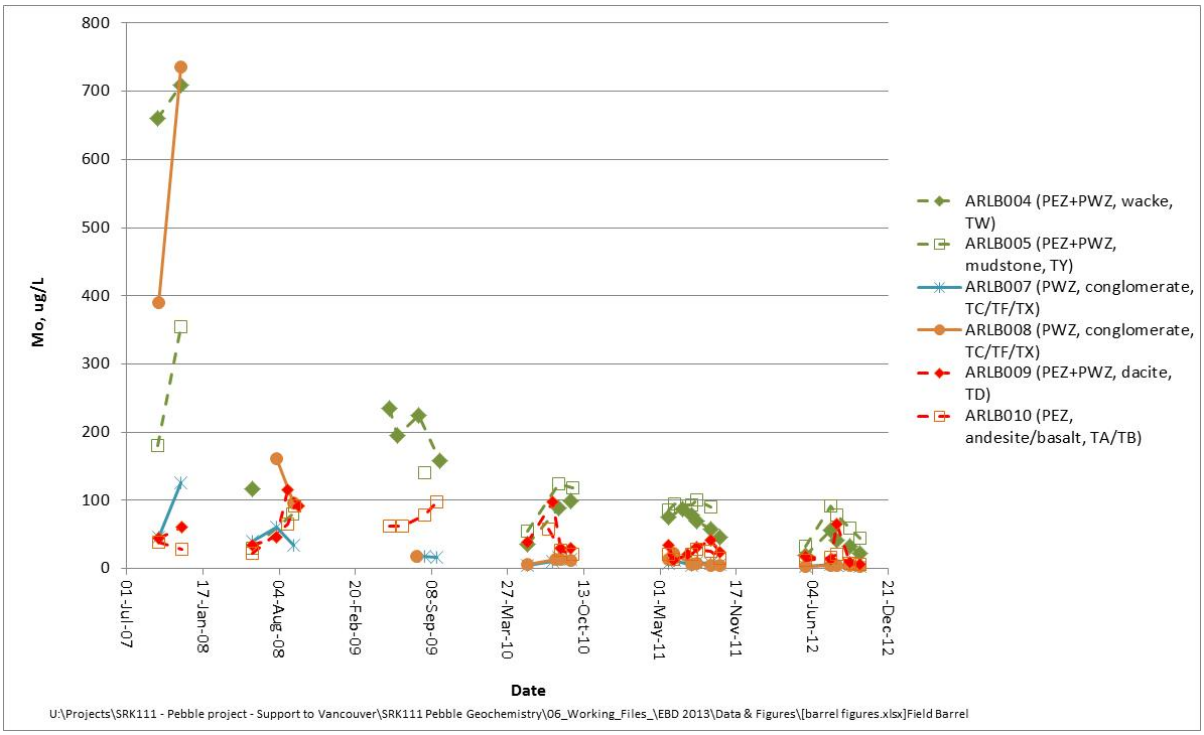


Figure 11-26 Molybdenum Concentrations in Leachate from Field Weathering (Barrel) Tests as a Function of Date for Tertiary Samples

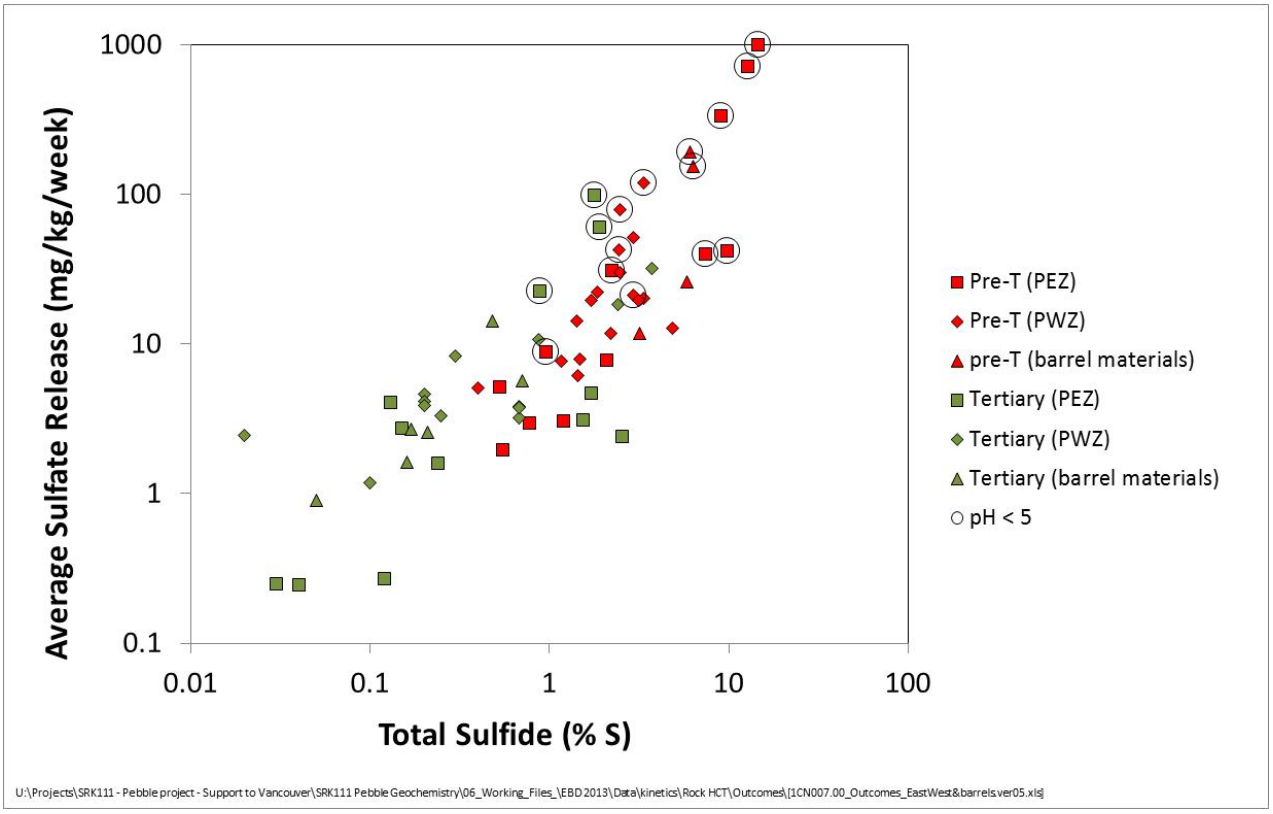


Figure 11-27 Average Sulfate Release Rates Plotted as a Function of Total Sulfide

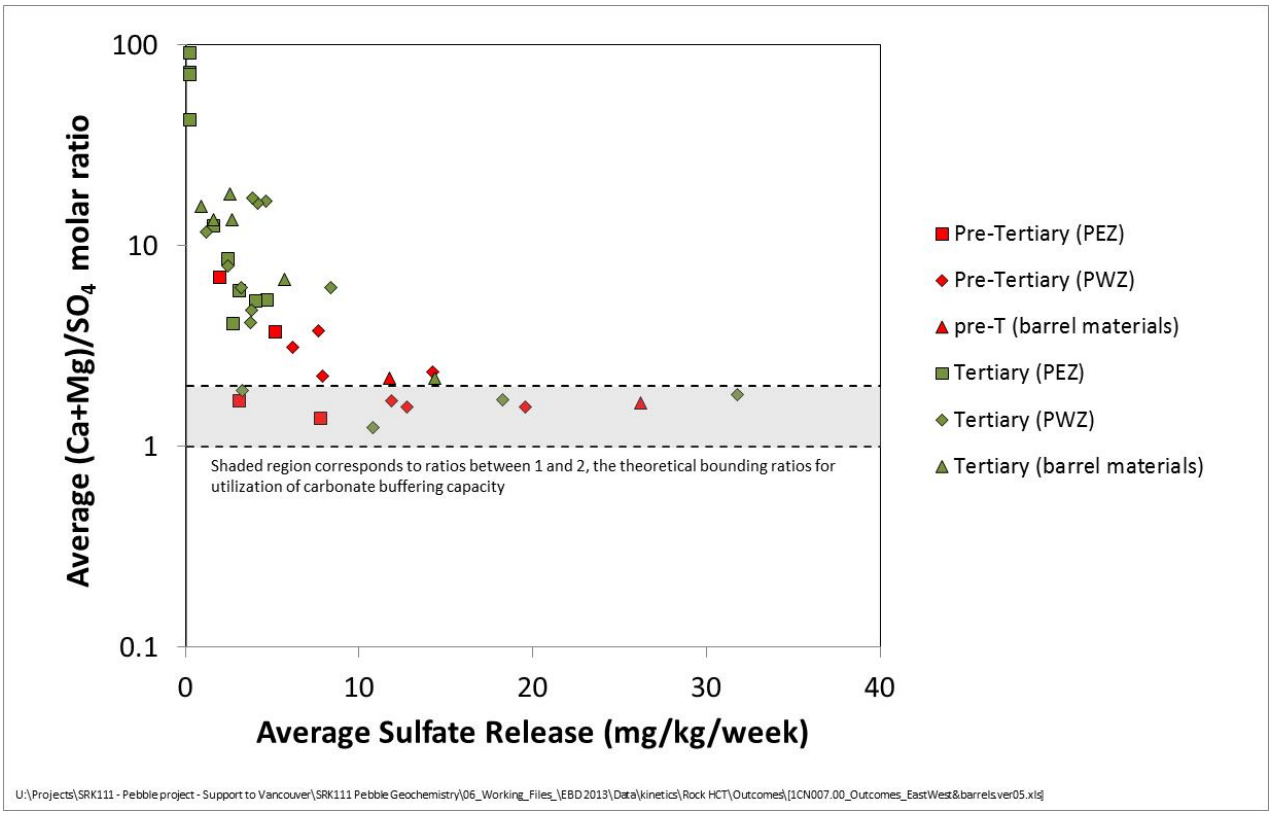


Figure 11-28 Comparison of Stable Average Sulfate Release with Average (Ca+Mg)/SO_4 Molar Ratio for Humidity Cells Yielding Neutral Leachate

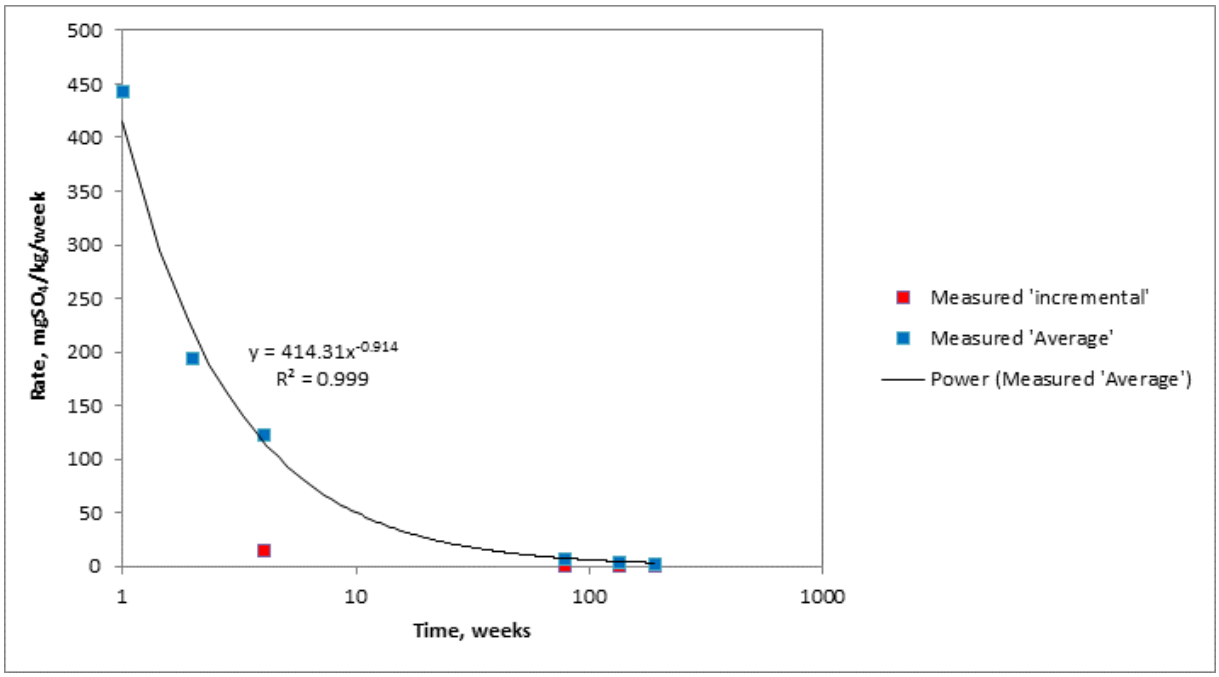


Figure 11-29 Calculated Average and Incremental Rates For Composite 4 (Stored Bag Test)

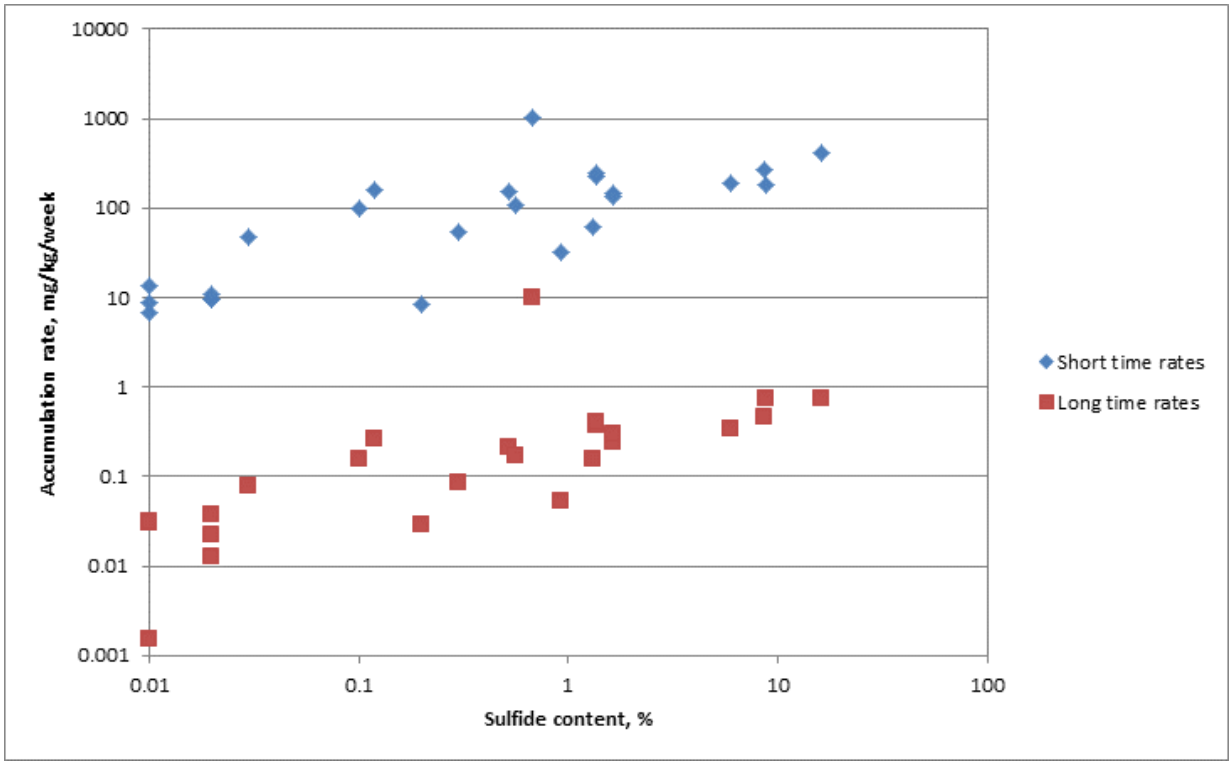


Figure 11-30 Calculated Short and Long-Term Sulfate Accummulation Rates Plotted as a Function of Sulfide Content (Stored Bag Tests)

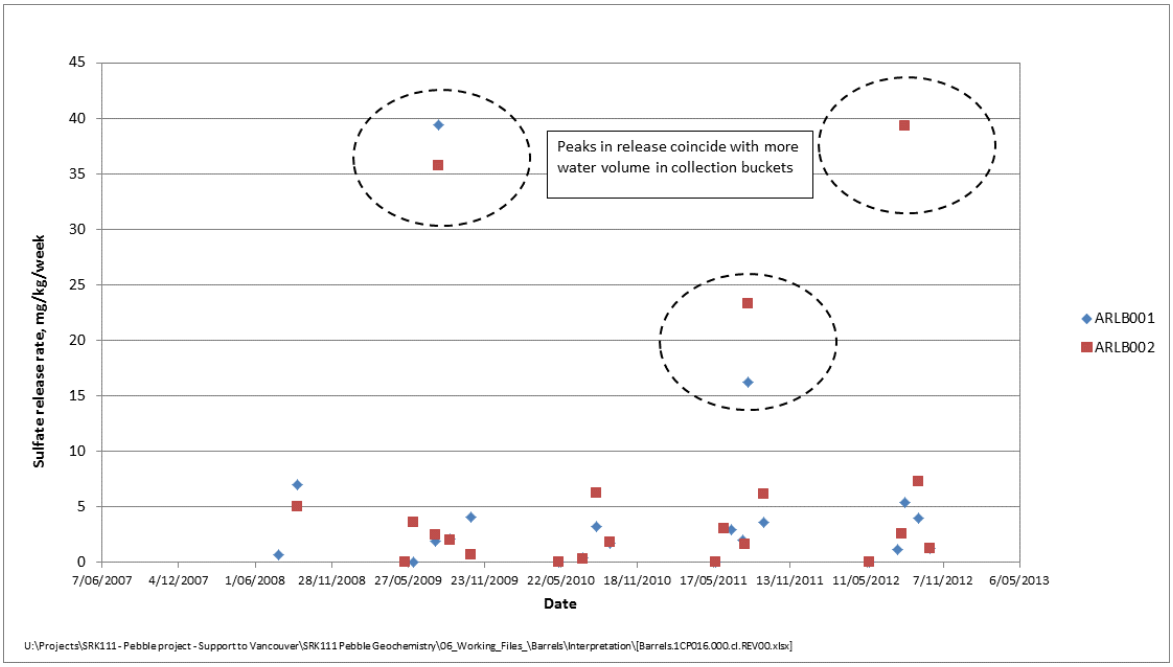


Figure 11-31 Calculated Sulfate Release Rates from ARLB001 and ARLB002 as a Function of Time

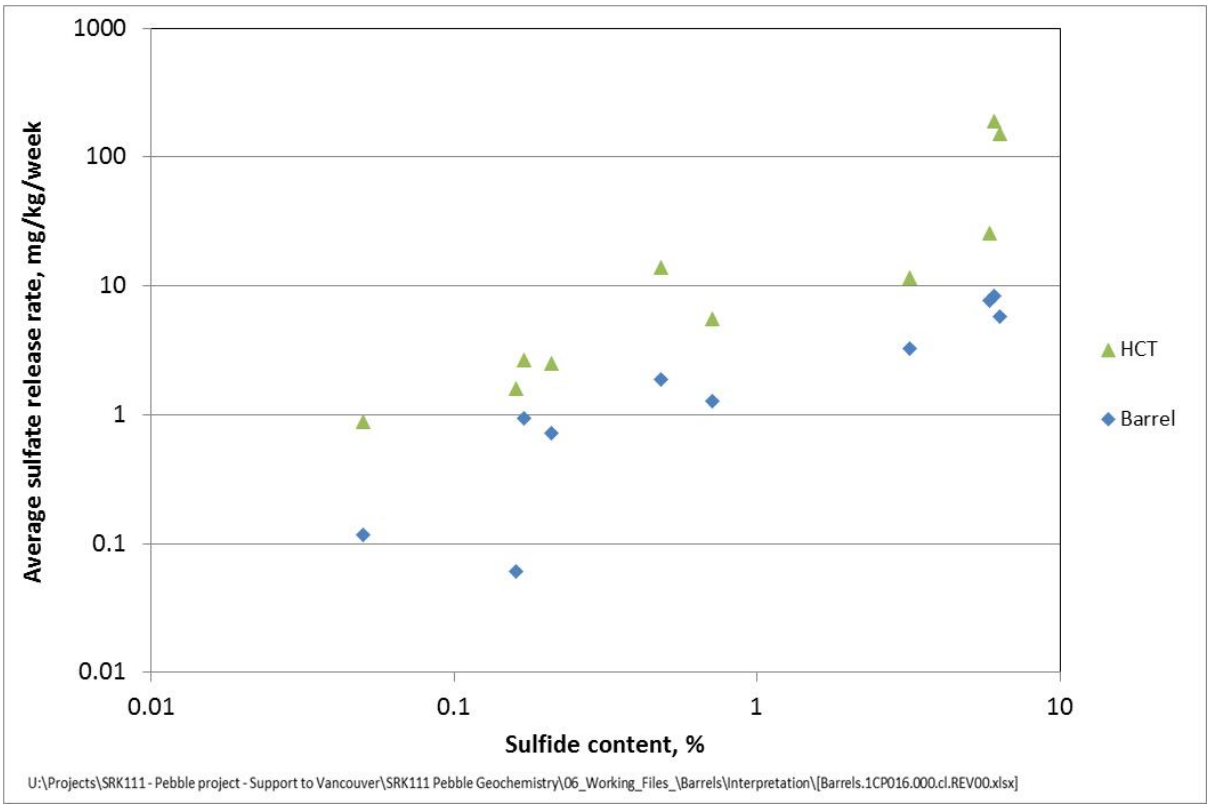


Figure 11-32 Calculated Sulfate Release Rates Plotted as a Function of Sulfide Content (Field Barrel Tests)

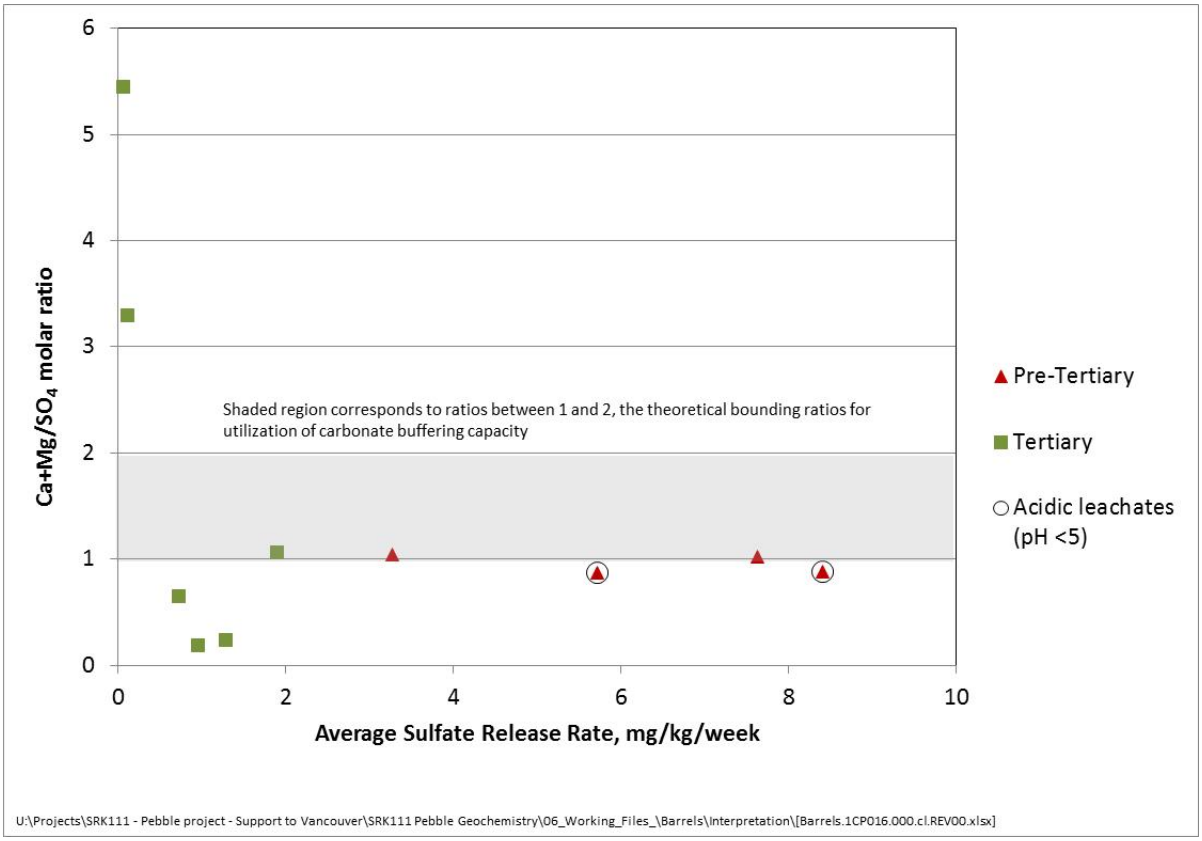


Figure 11-33 Comparison of Stable Average Sulfate Release with Average (Ca+Mg)/SO_4 Molar Ratio for Barrel Tests

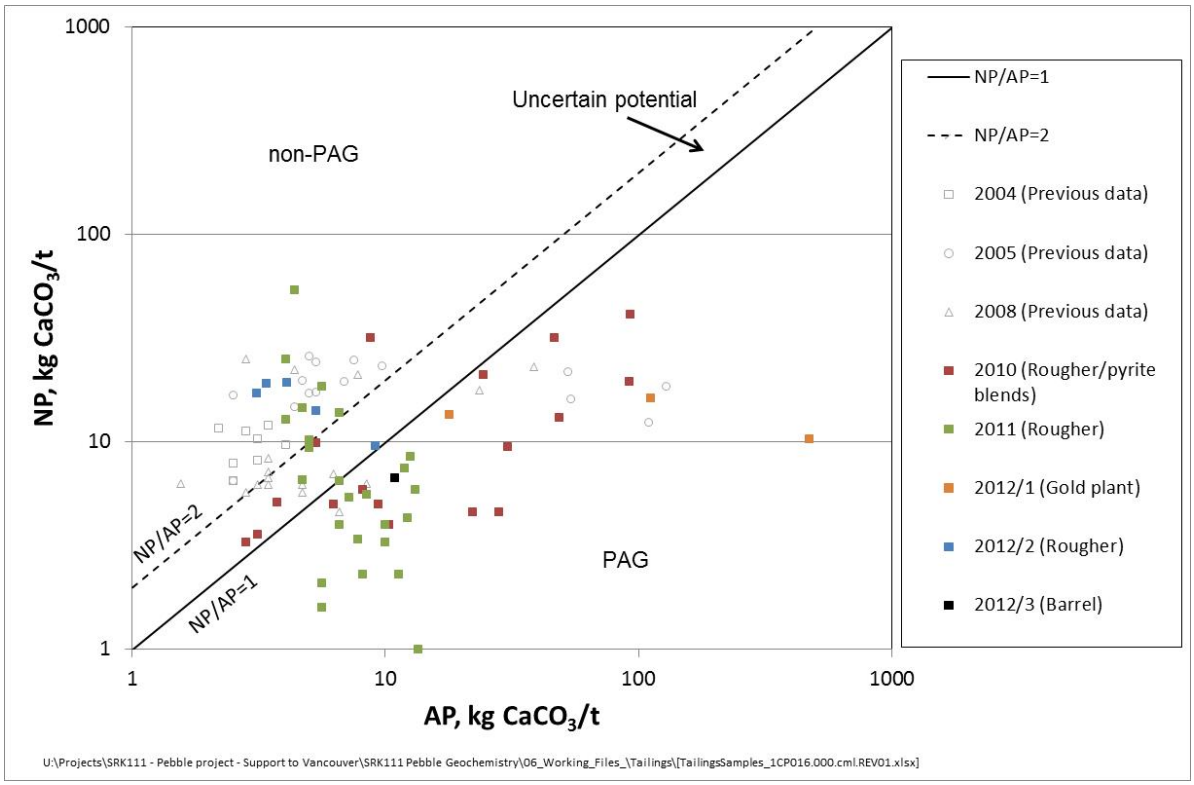


Figure 11-34 NP Plotted as Function of AP for Tailings

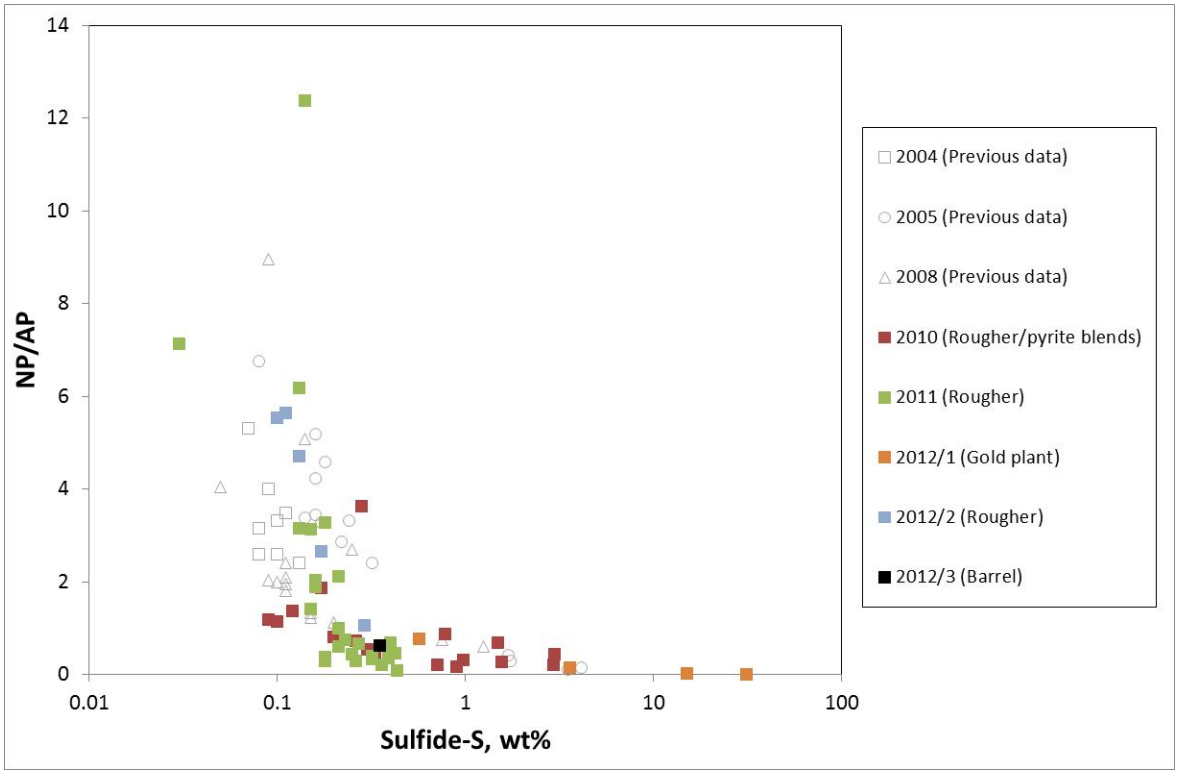


Figure 11-35 NP/AP Ratio Plotted as Function of Sulfide Content for Tailings

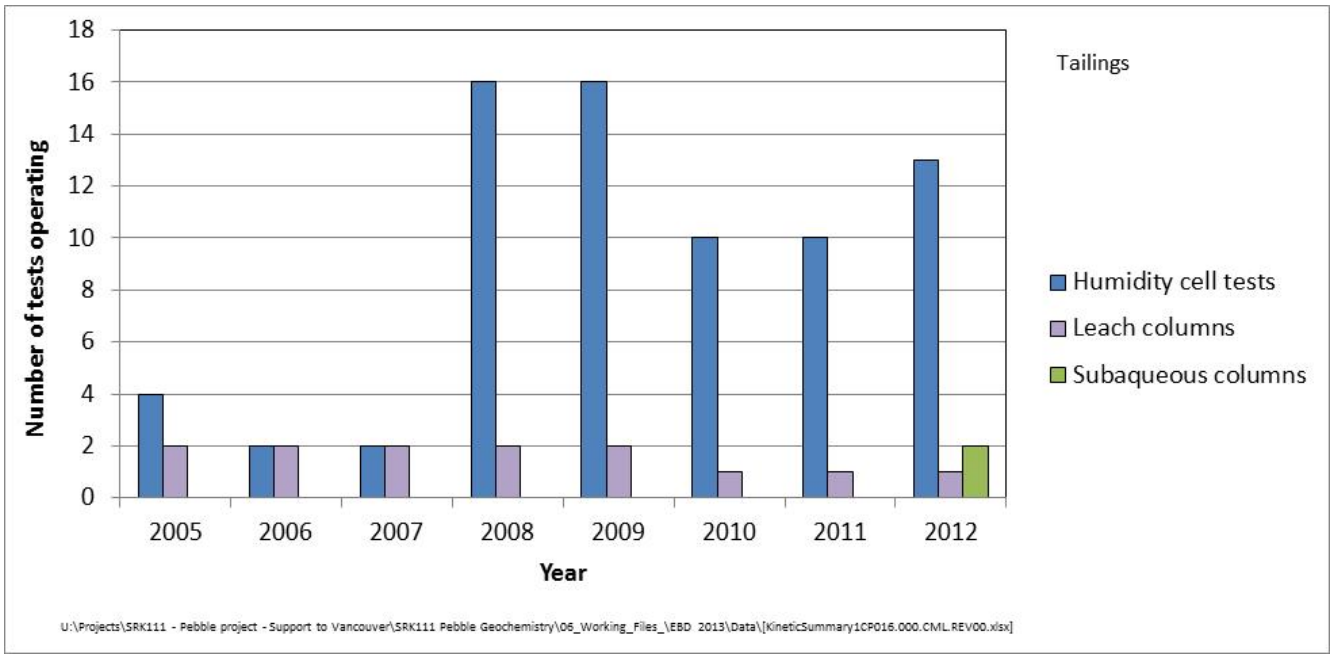


Figure 11-36 Number of Kinetic Tests Operating, by Year (Metallurgical Waste Products)

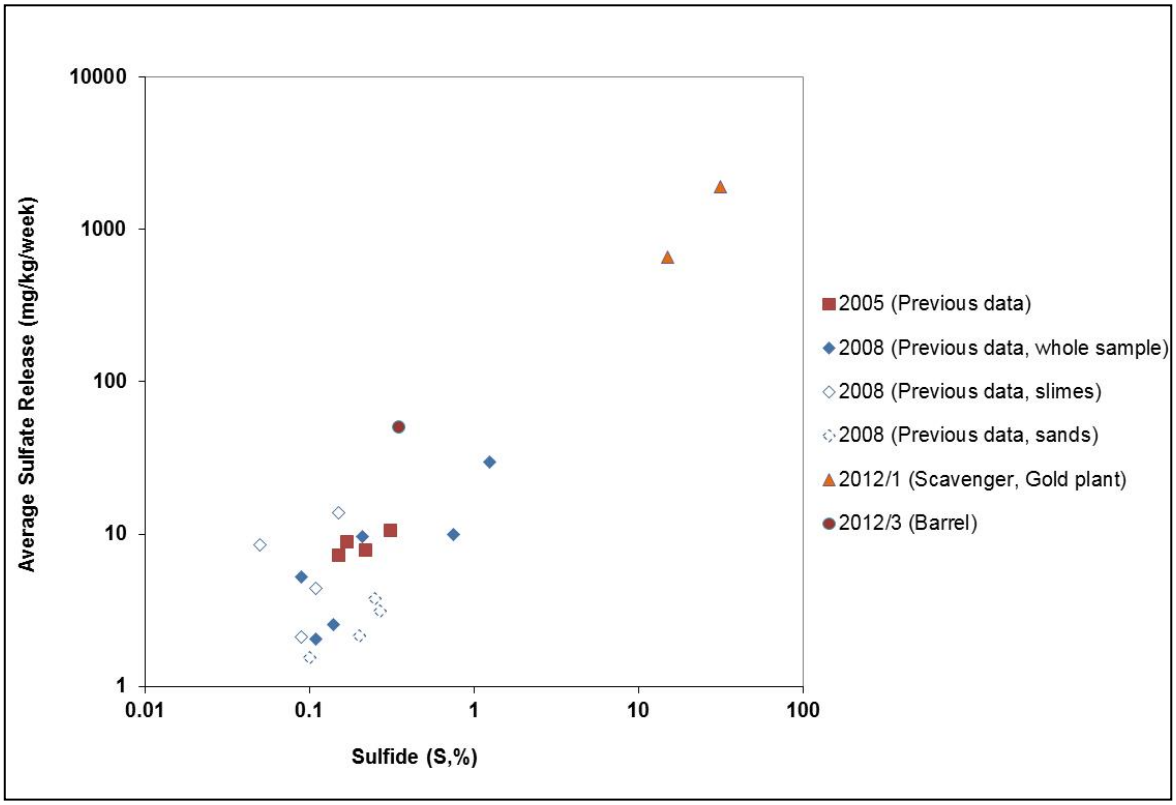


Figure 11-37 Calculated Sulfate Release Rates Plotted as a Function of Sulfide Content (Metallurgical Waste Products)

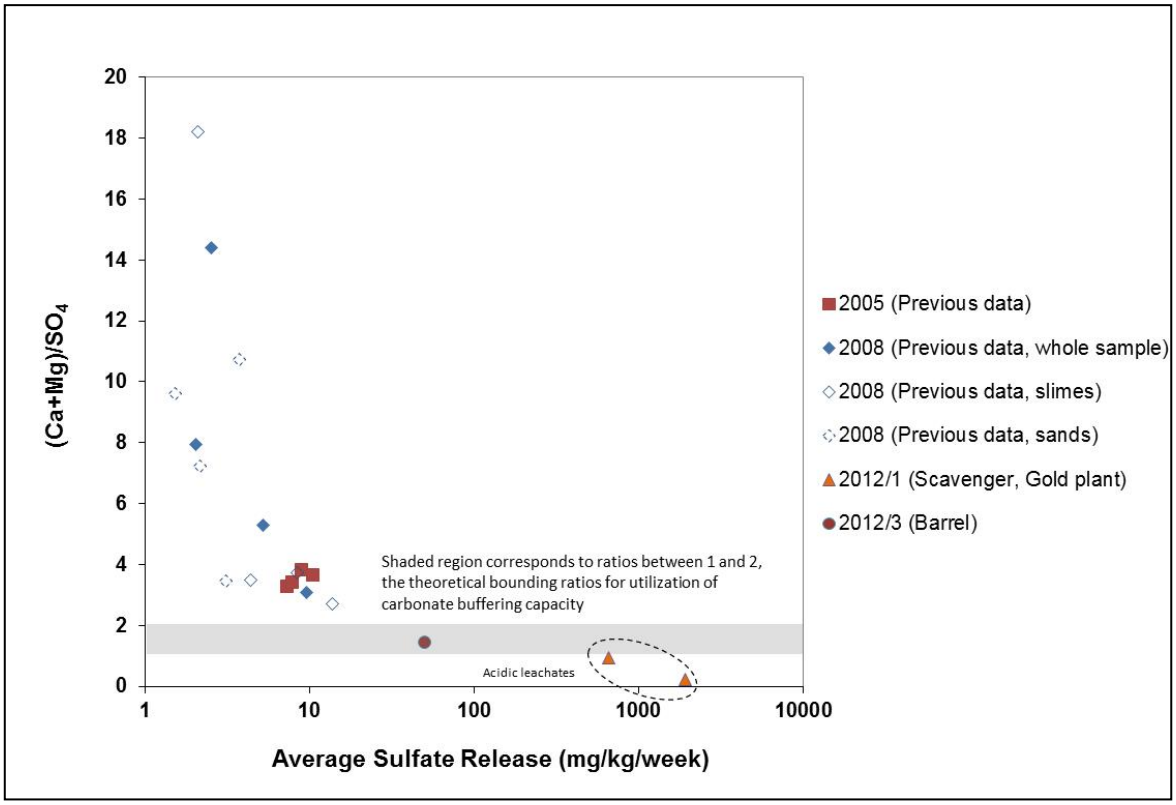
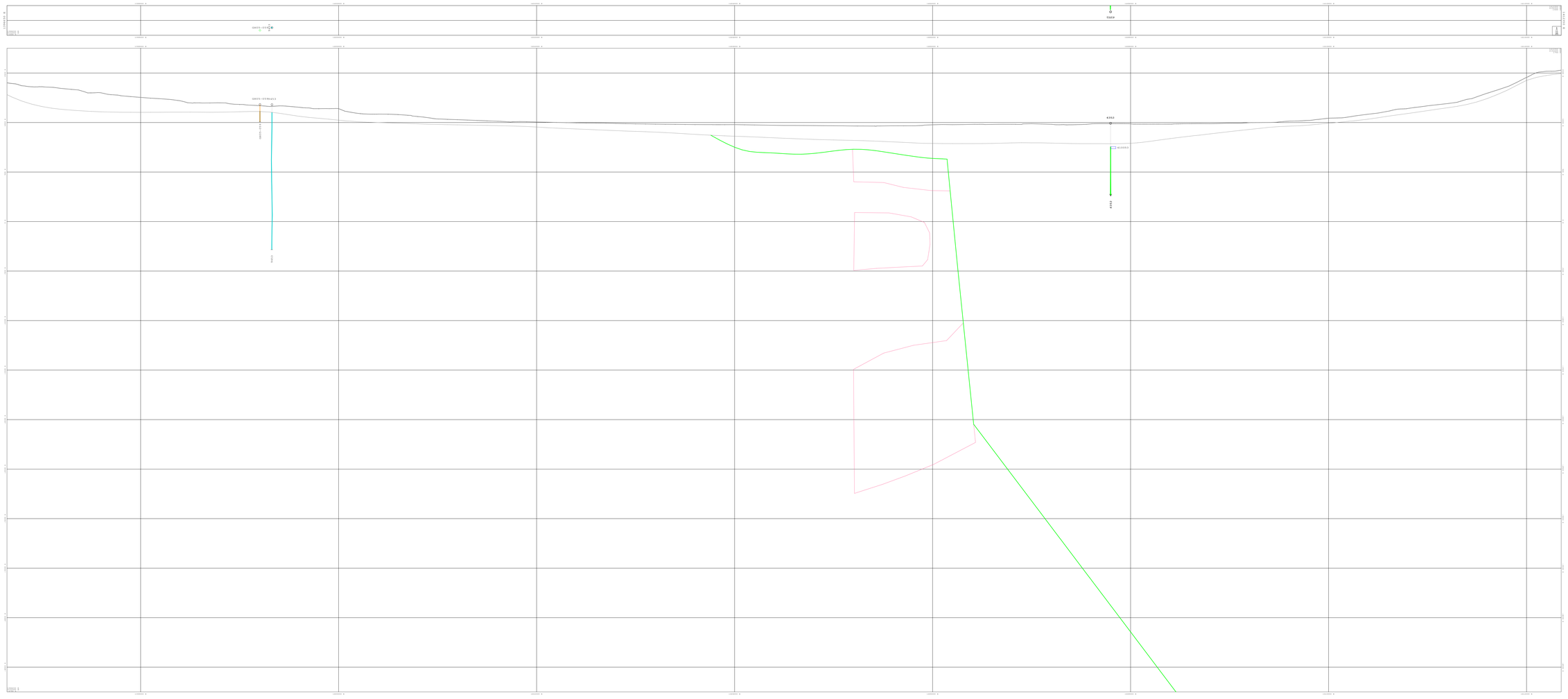


Figure 11-38 Comparison of Stable Average Sulfate Release with Average (Ca+Mg)/SO_4 Molar Ratio (Metallurgical Waste Products)

APPENDICES

Appendix 11A, Cross-sections Showing Sample Locations



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FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

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COMPID (File peb_june2013.srk.isis)

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USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

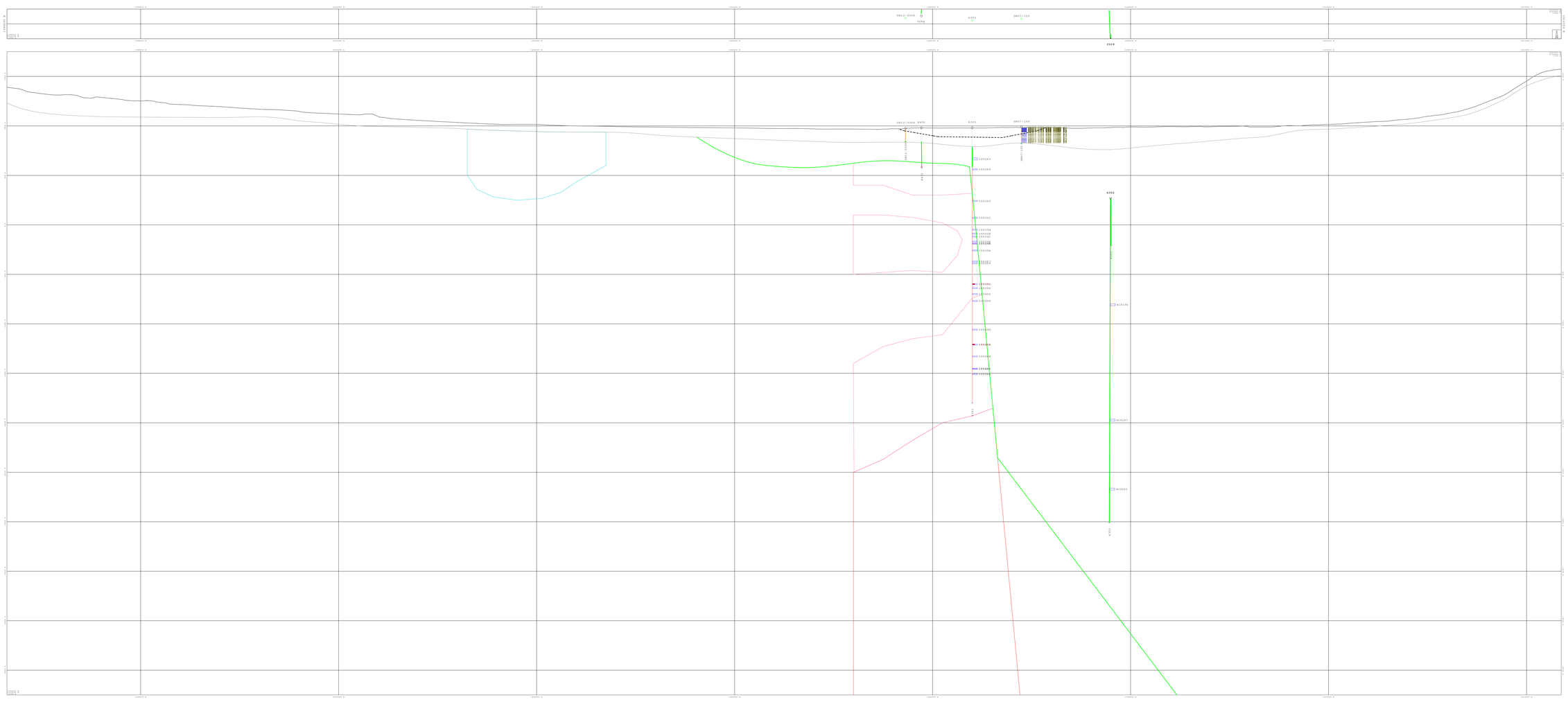
The Pebble Partnership

Pebble Project, Alaska

Section 2152200 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2152200



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USER NOTES

Right of trace:
Blue bars - SRK samples:
  red infill - HCT sample
  cyan infill - SAC samples
  pink infill - stored bag tests
  yellow infill - overburden samples
  no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

The Pebble Partnership

Pebble Project, Alaska

Section 2152500 N

Geology, SRK Sample Locations

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Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
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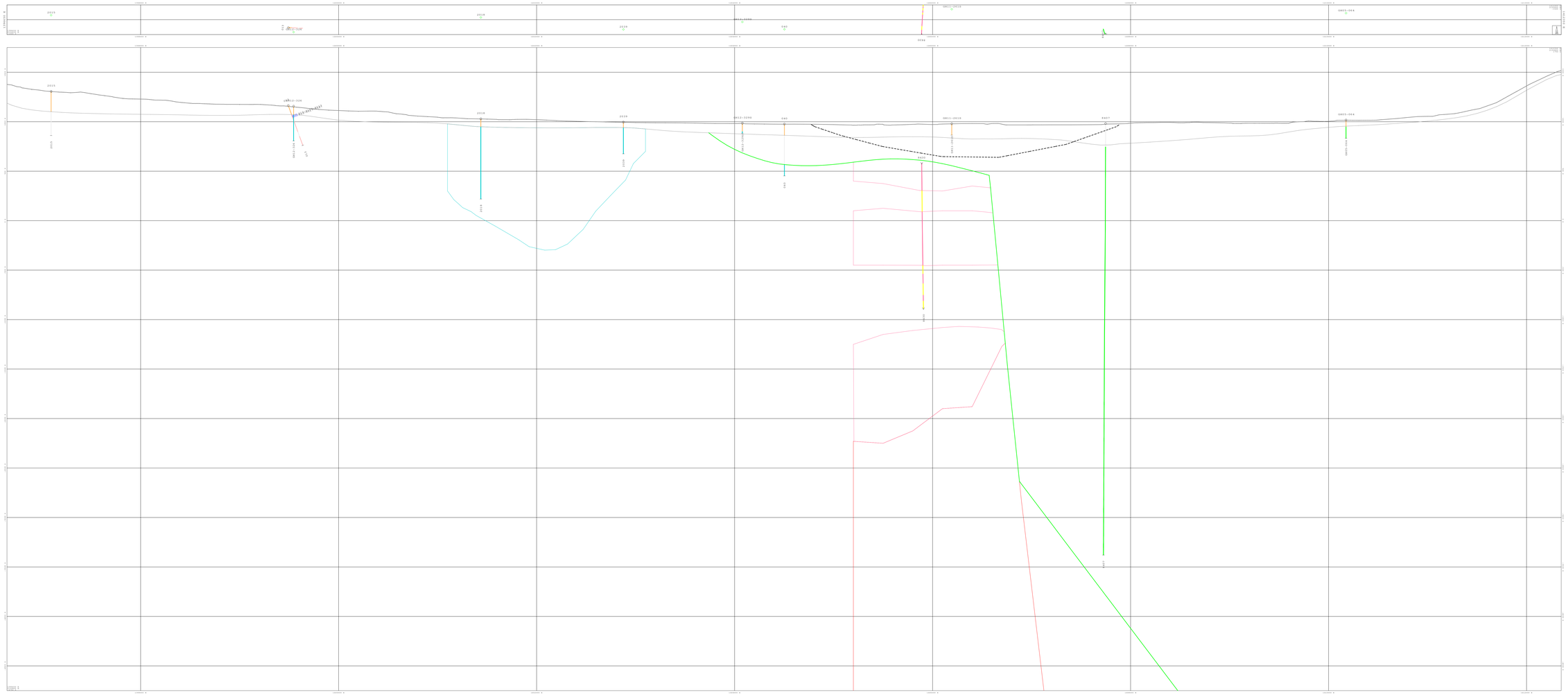

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USER NOTES

Right-of-tracks:
Blue base - SRK samples:
red infill - HCS sample
dark infill - SG sample
Green base - Geotechnical tests
yellow infill - overburden samples
Pink base - other SRK samples.
The colour of the rock type polygons represents the rock type. The transparent white polygons represent the rock type. Unfortunately white is the default colour of a given rock type are colour coded correctly.

Horizontal Scale

0 250 500 750 1000

1 inch = 250.33 ft.

The Pebble Partnership

Pebble Project, Alaska

Section 2152800 N

Geology, SRK Sample Locations

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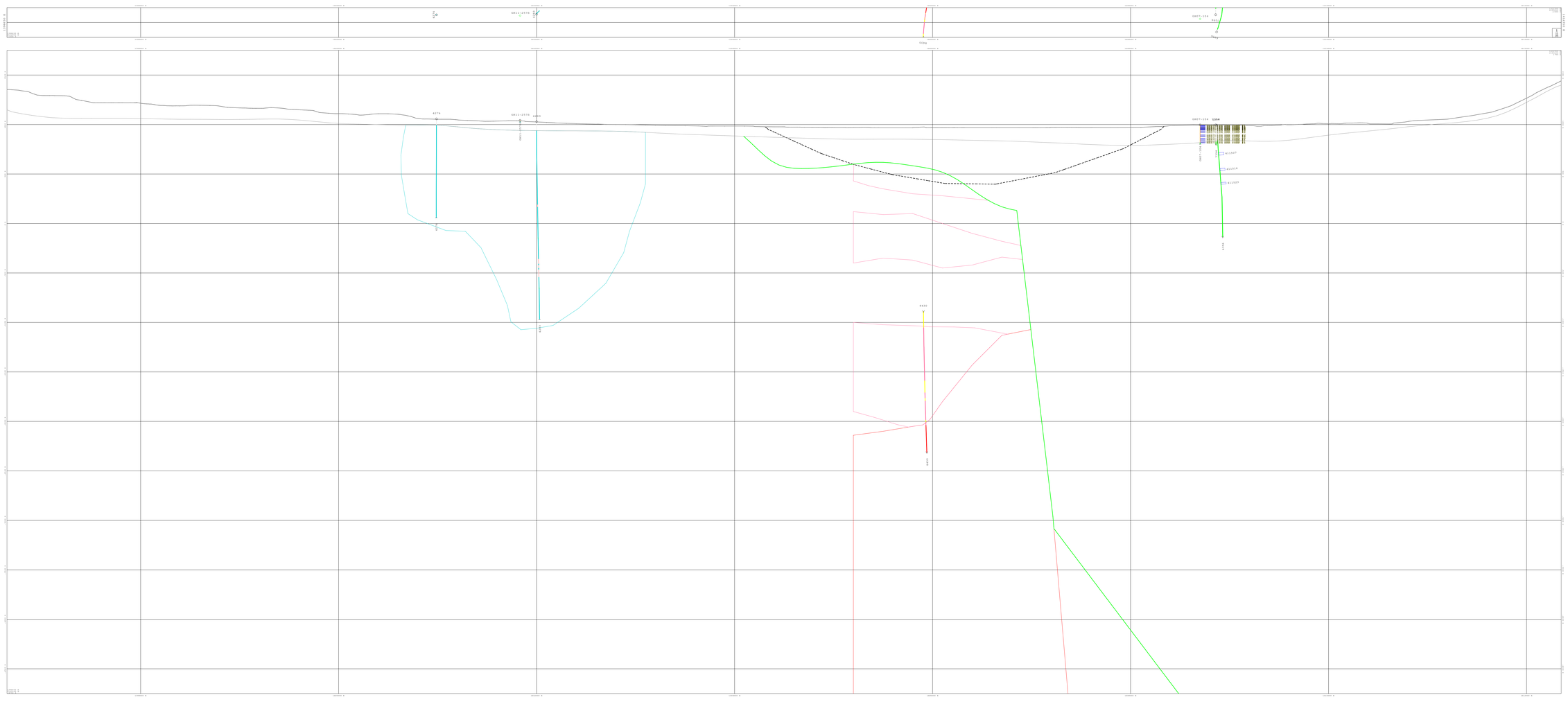
Project:	PEB
Drawn By:	JI
Checked:	
Approved:	
Drawing No.	2152800



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T*	*			

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USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

The Pebble Partnership

Pebble Project, Alaska

Section 2153100 N

Geology, SRK Sample Locations

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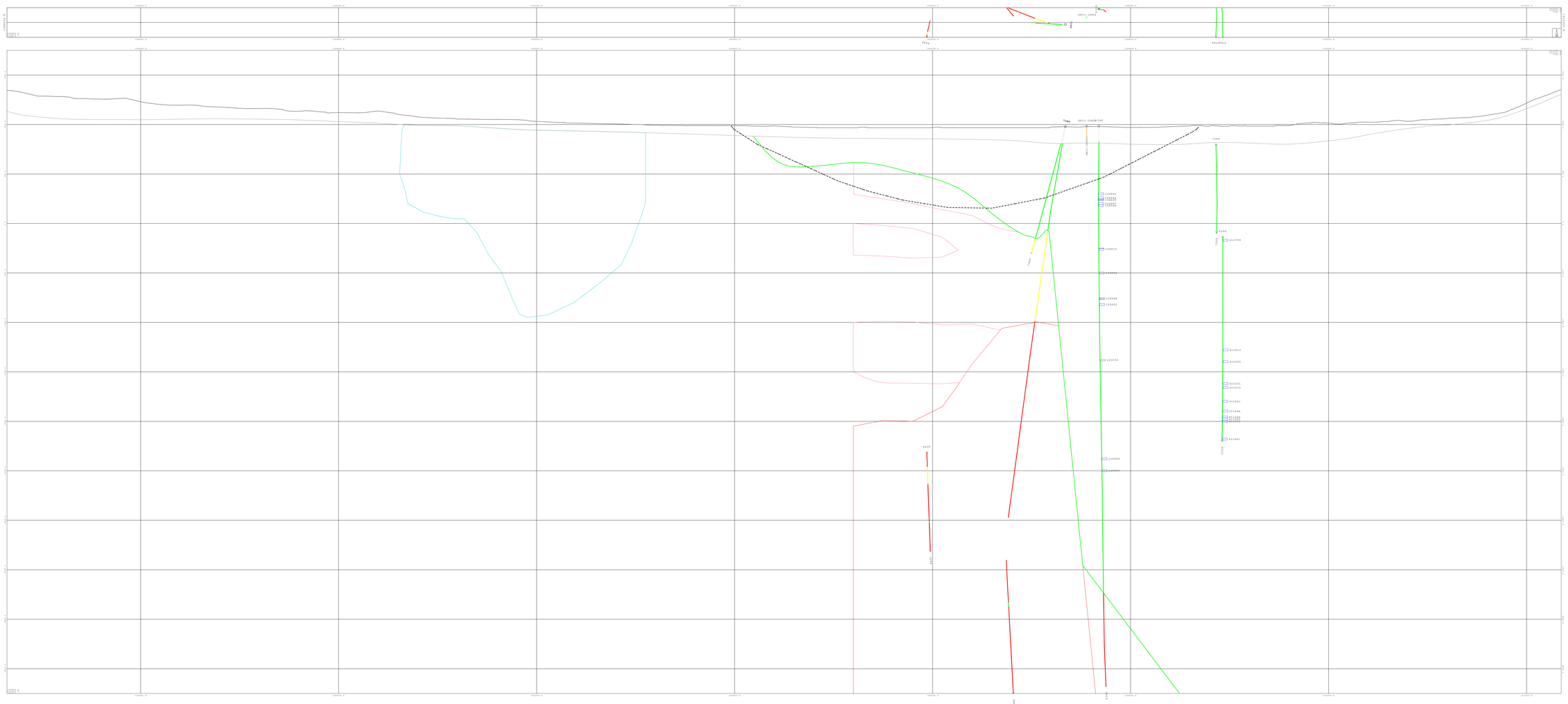
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2153100



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USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

The Pebble Partnership

Pebble Project, Alaska

Section 2153400 N

Geology, SRK Sample Locations

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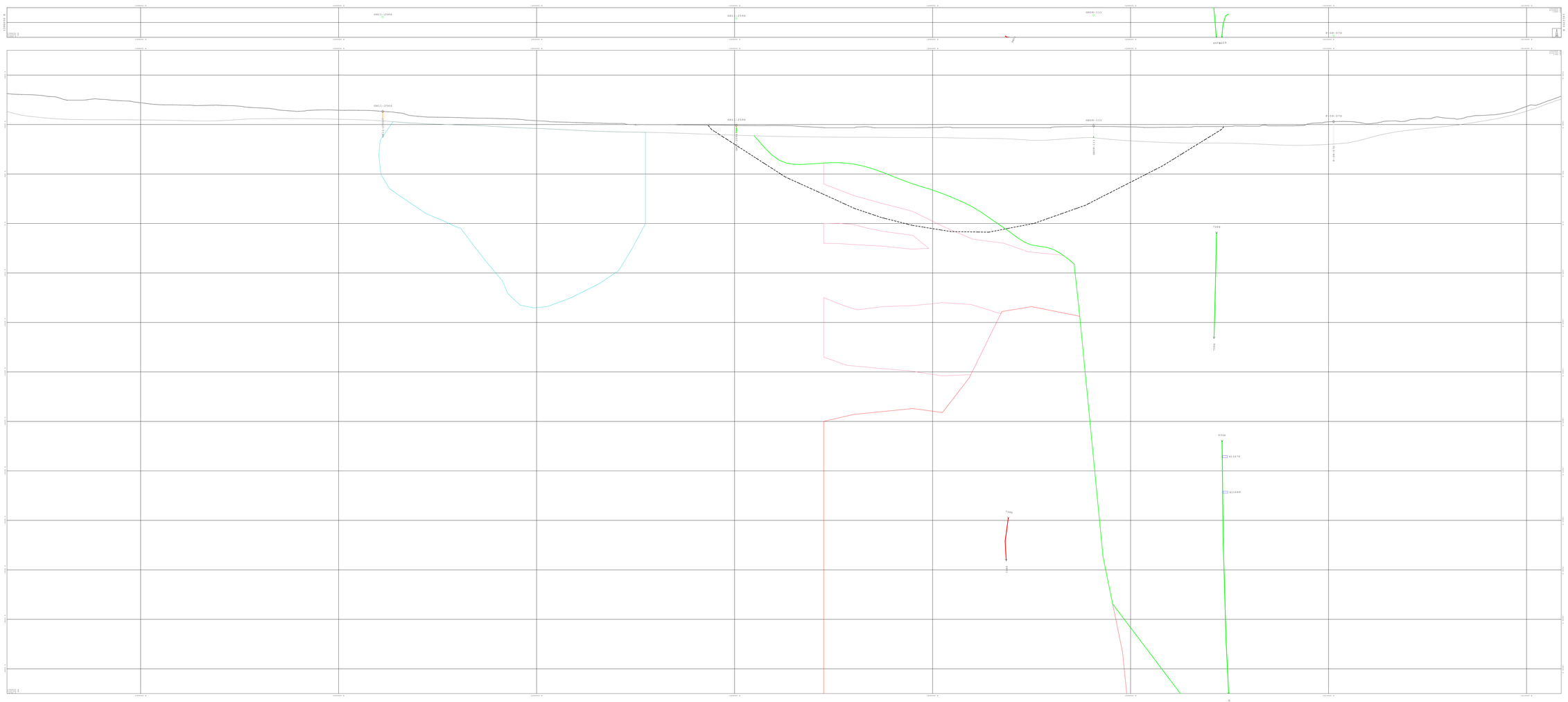
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2153400



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FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

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USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

The Pebble Partnership

Pebble Project, Alaska
Section 2153700 N
Geology, SRK Sample Locations

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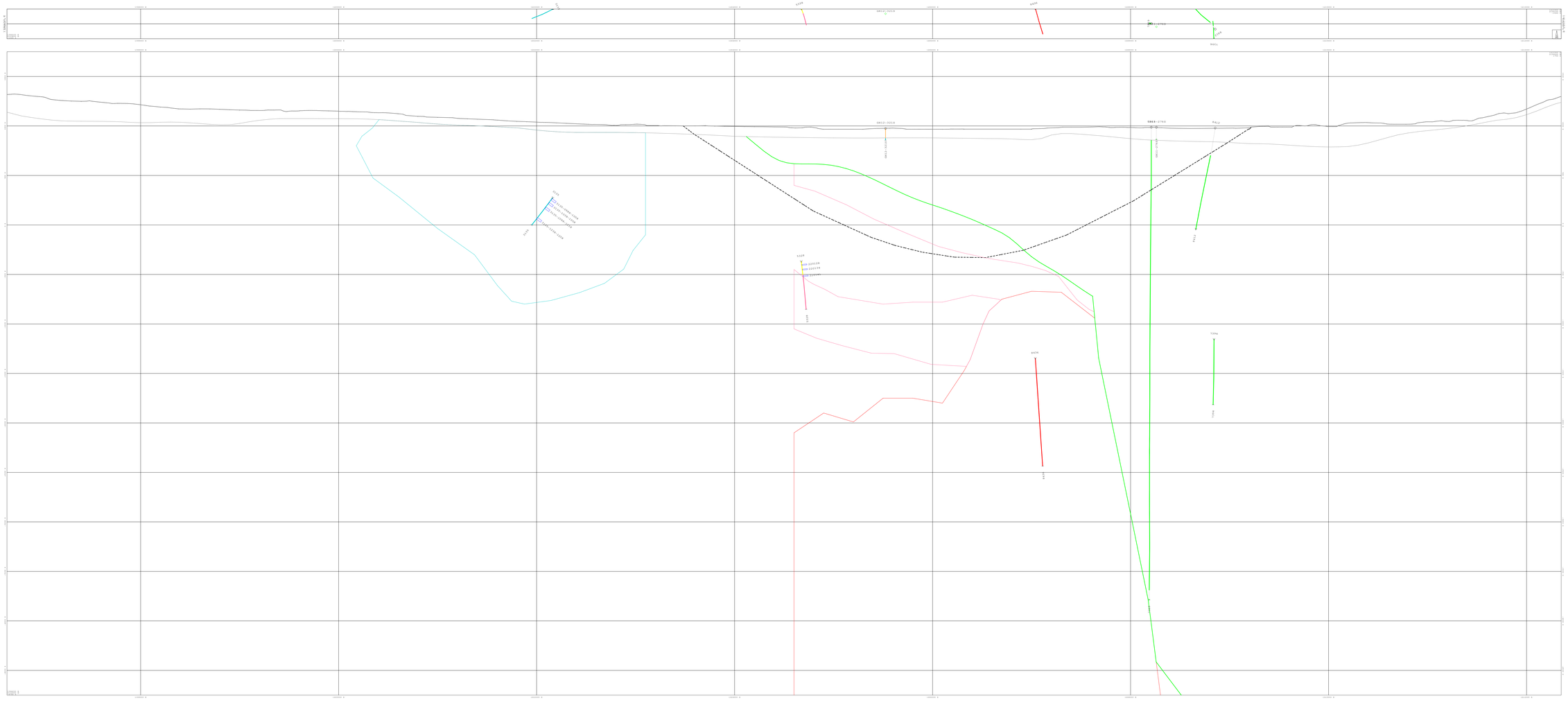
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2153700



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OB	OB	TRI*	TRI*	TRI*
T*	*			

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

The Pebble Partnership

Pebble Project, Alaska

Section 2154000 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2154000

LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL
Y* W* D* R* GS*
GP* GS* GP* QGP* G*
M* P* N* X* FC
FC F* X2 Z* OB
OB OB TRI* TRI* TRI*
T* *

SAMPLE (File peb_june2013.srk.isis)
SAMPLE (File peb_june2013.srk.isis)
SAMPLE (File peb_june2013.srk.isis)
SAMPLE (File peb_june2013.srk.isis)
COMPID (File peb_june2013.srk.isis)
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SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

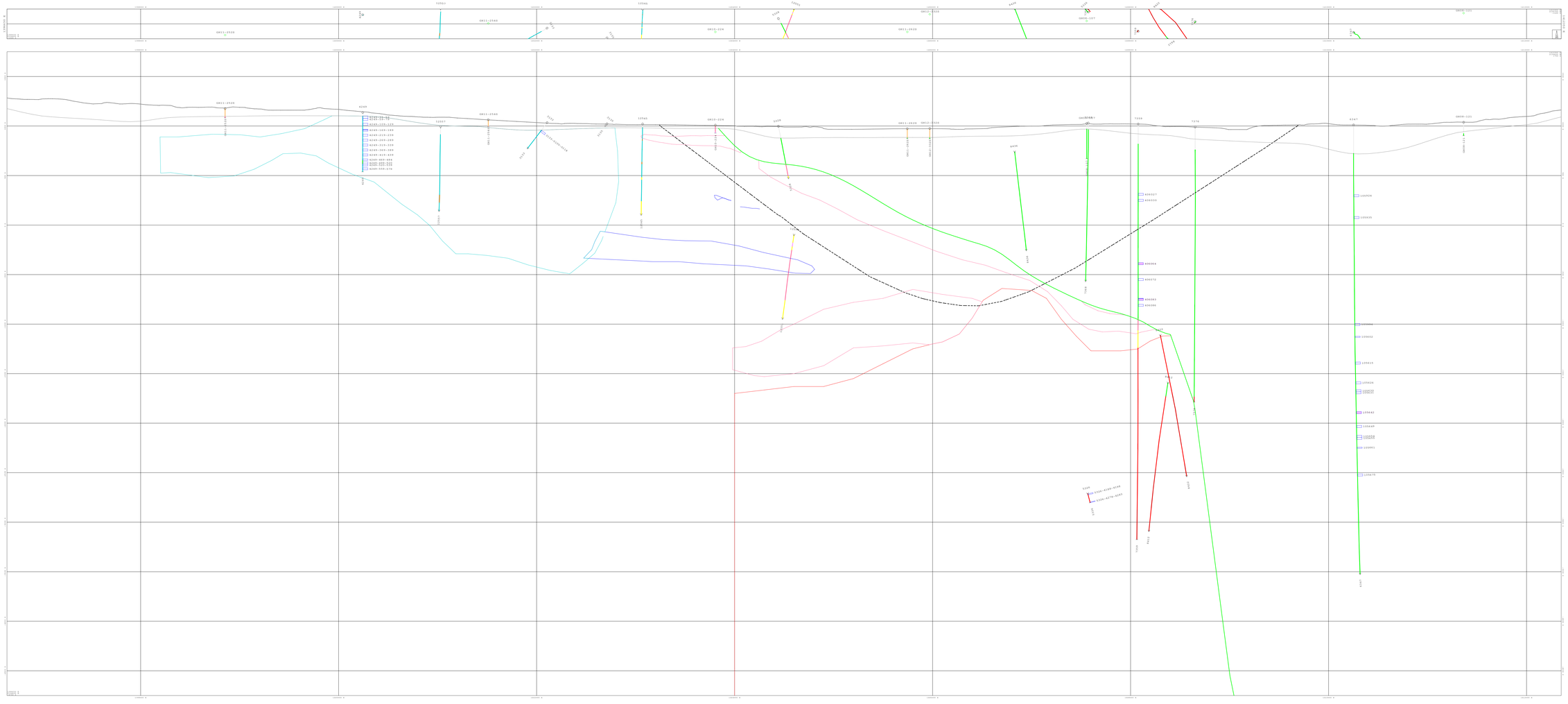
Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

The Pebble Partnership

Pebble Project, Alaska
Section 2154300 N
Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2154300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Type: Area Type: Cross Type: Cross
Type: Area Type: Cross Type: Cross
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USER NOTES
Right-of-Ways:
Blue Base - SRK Samples:
red infill - HCS sample
blue infill - Geobase sample
green infill - Geobase pasta
yellow infill - overburden samples
Yellow - other SRK samples
The colour of the sample symbols represents the rock type. Defined rock types are shown in the legend. Rock type colours are defined in the legend. Colours of a given rock type are colour coded correctly.
Horizontal Scale
0.00 0.50 1.00 2.00
1 inch = 200.00 ft
GEOLOGY, SRK SAMPLE LOCATIONS
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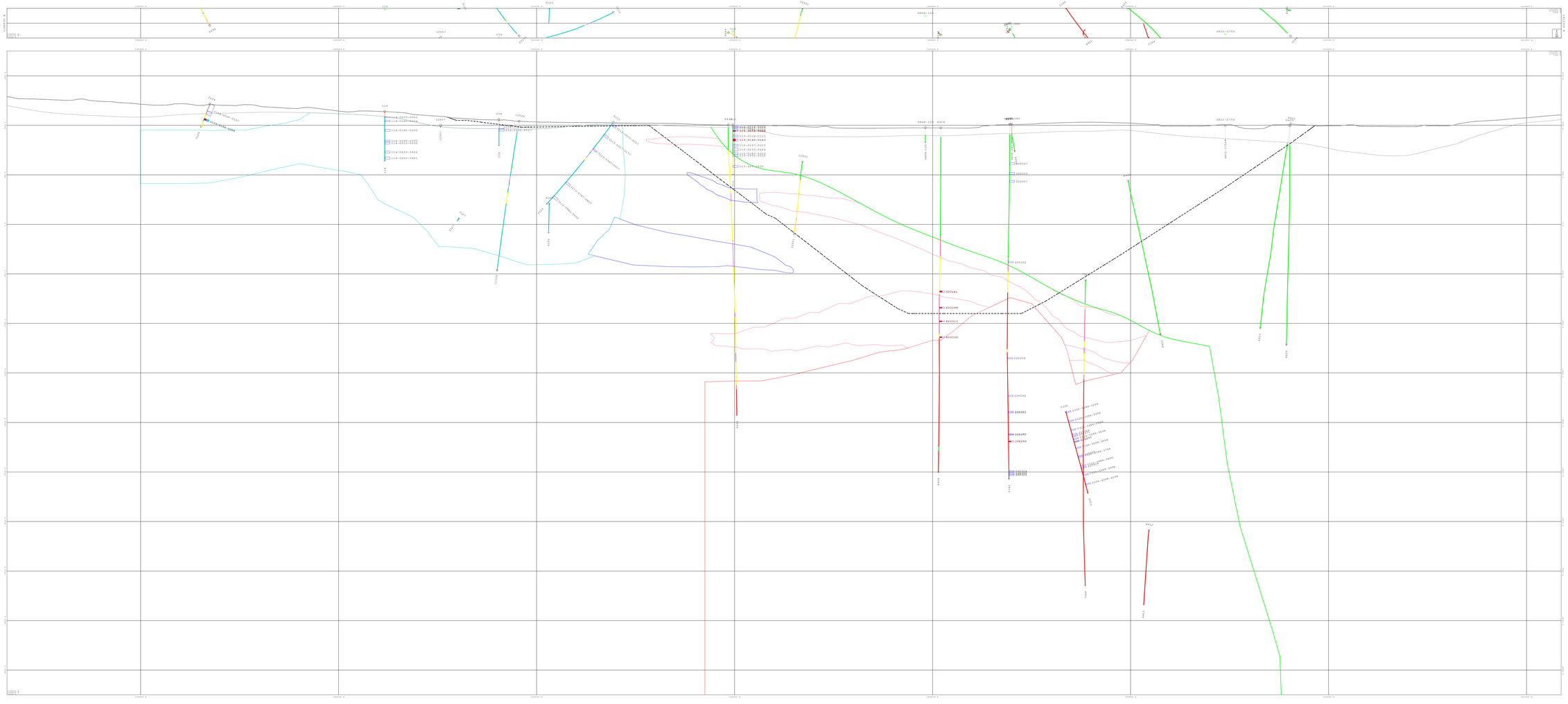
Y:\PEBBLE_EP_RPA\DEC_2010\LAYOUT TRI\FIG_2010_PO010_NEW_WALLS_7.DXF
The Pebble Partnership
Pebble Project, Alaska
Section 2154600 N
Geology, SRK Sample Locations
Scale:1:14000
Date:06-Feb-201
Project:PEB
Drawn By:JI
Checked:
Approved:
Drawing No.
2154600



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

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GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

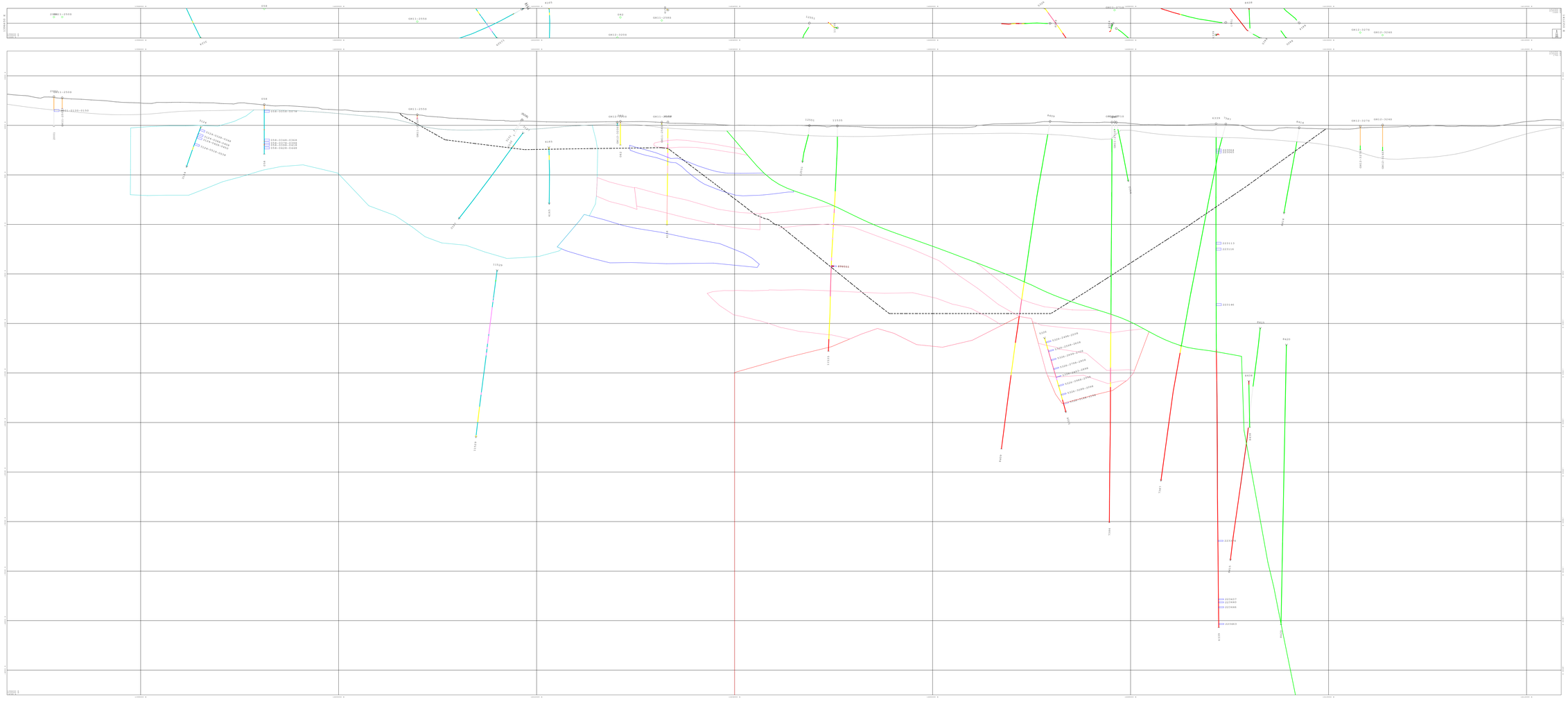
Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

The Pebble Partnership

Pebble Project, Alaska
Section 2154900 N
Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2154900



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

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GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
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V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
  red infill - HCT sample
  cyan infill - SAC samples
  pink infill - stored bag tests
  yellow infill - overburden samples
  no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

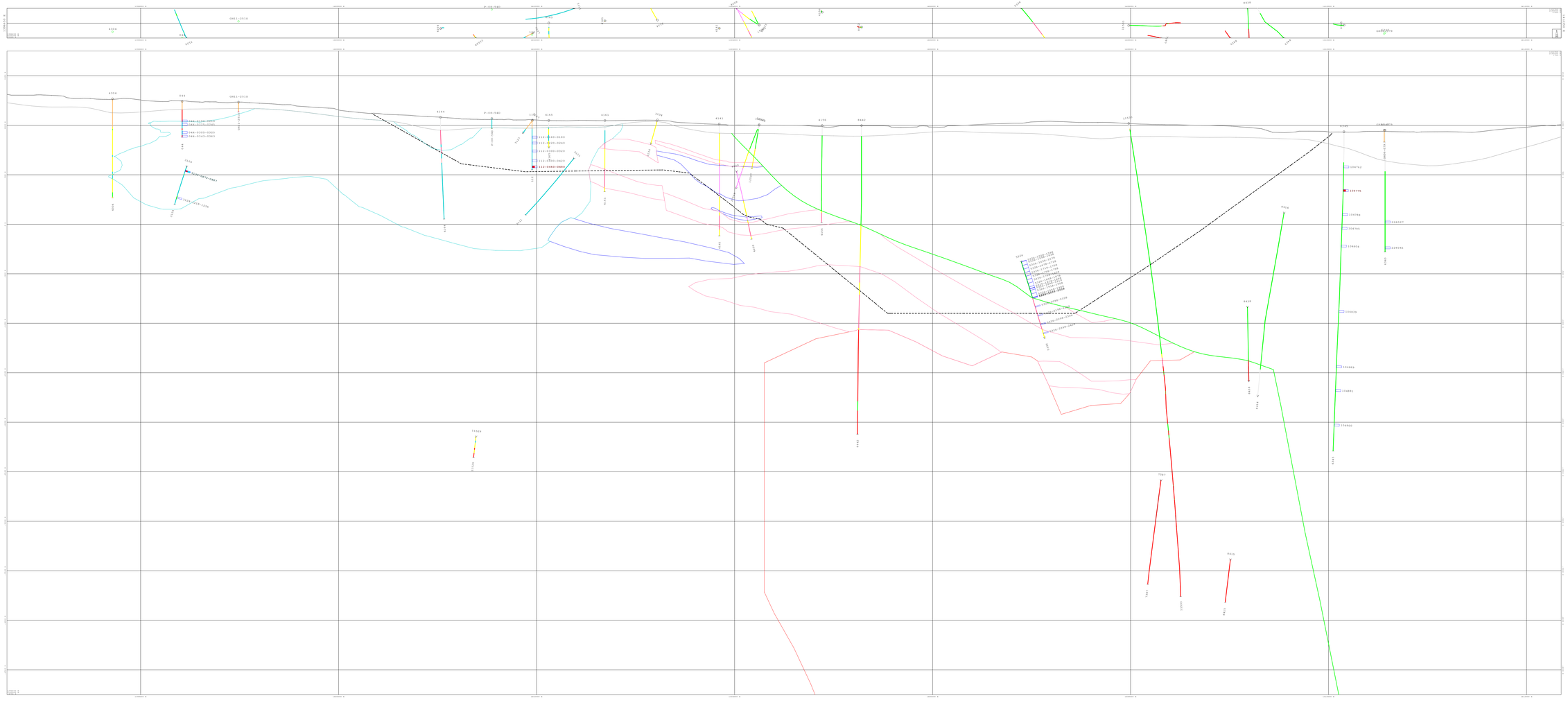
The Pebble Partnership

Pebble Project, Alaska

Section 2155200 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2155200



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

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GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
 red infill - HCT sample
 cyan infill - SAC samples
 pink infill - stored bag tests
 yellow infill - overburden samples
 no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

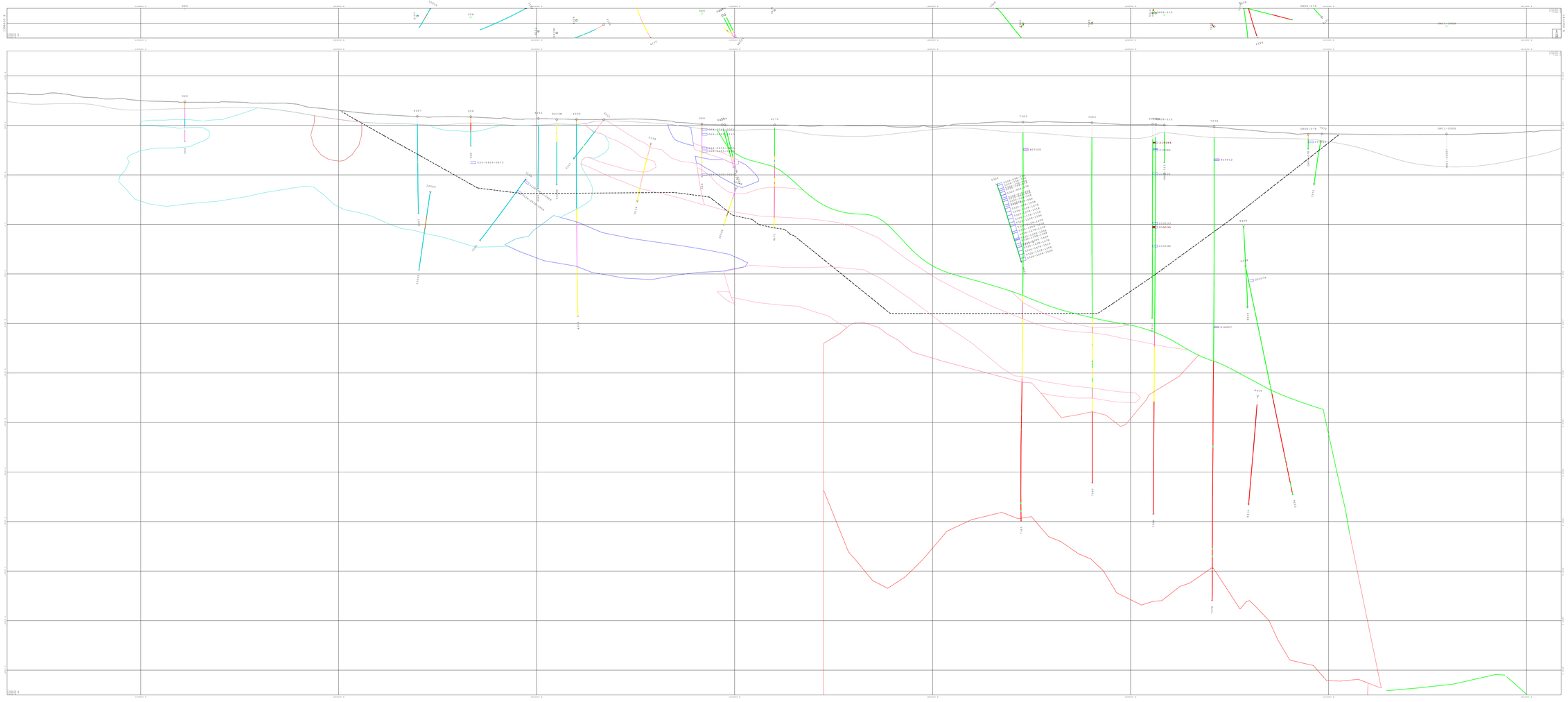
The Pebble Partnership

Pebble Project, Alaska

Section 2155500 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2155500



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

Y*	W*	D*	R*	GS*
GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

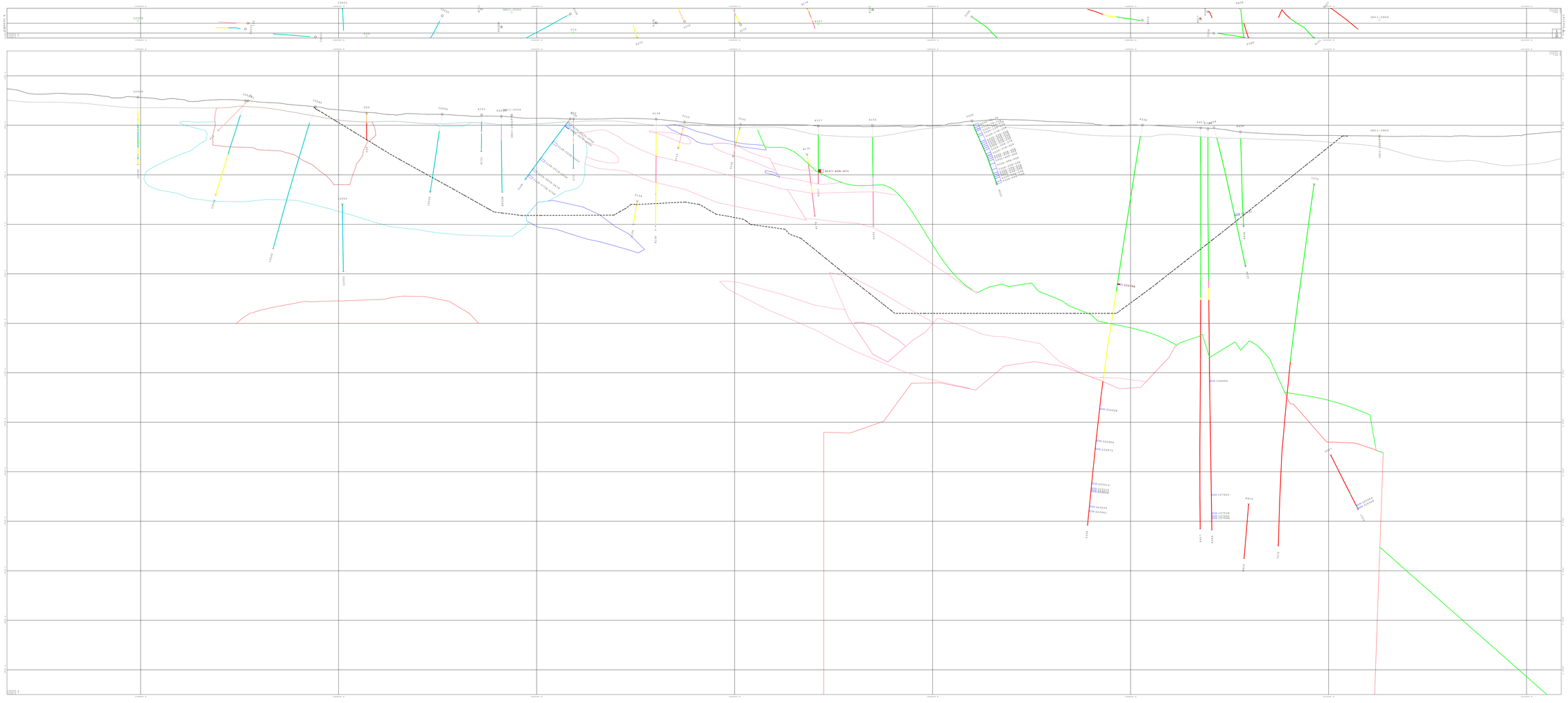
The Pebble Partnership

Pebble Project, Alaska

Section 2155800 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2155800



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

Y*	W*	D*	R*	GS*
GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/TOPO.TRI/TOPO_EXTENDED.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

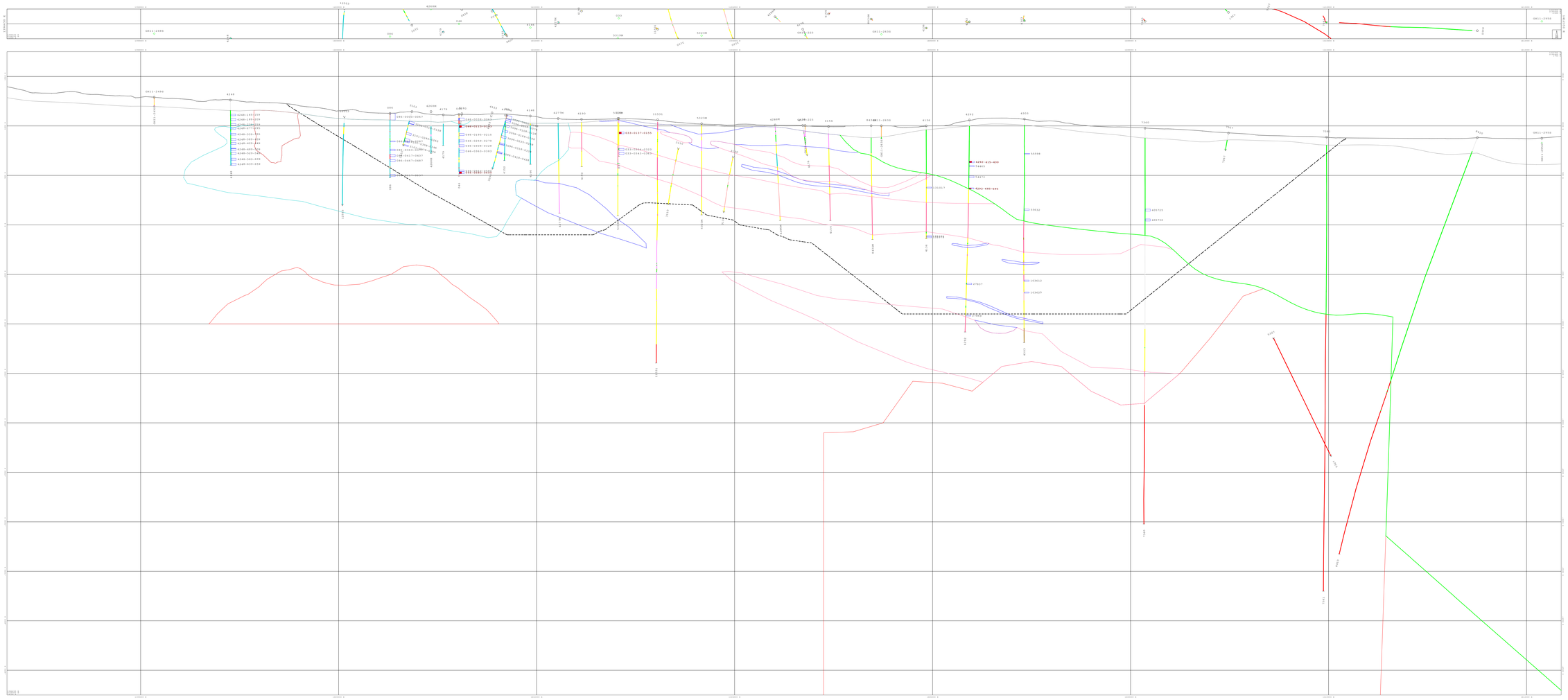
The Pebble Partnership

Pebble Project, Alaska

Section 2156100 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2156100



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

🟨 Y*	🟨 W*	D*	R*	GS*
🟥 GP*	GS*	🟥 GP*	🟥 QGP*	G*
M*	P*	N*	X*	🟦 FC
🟦 FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
🟩 T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

V:/PEBBLE_SP_RPA/PITS.TRI/2009/EXTENDED_200KTPD/F_Y27EXT_TRIMMED.00T
V:/PEBBLE_SP_RPA/TOPO.TRI/TOPO_EXTENDED.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/MBX_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_ES_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_S_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_W_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
    red infill - HCT sample
    cyan infill - SAC samples
    pink infill - stored bag tests
    yellow infill - overburden samples
    no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

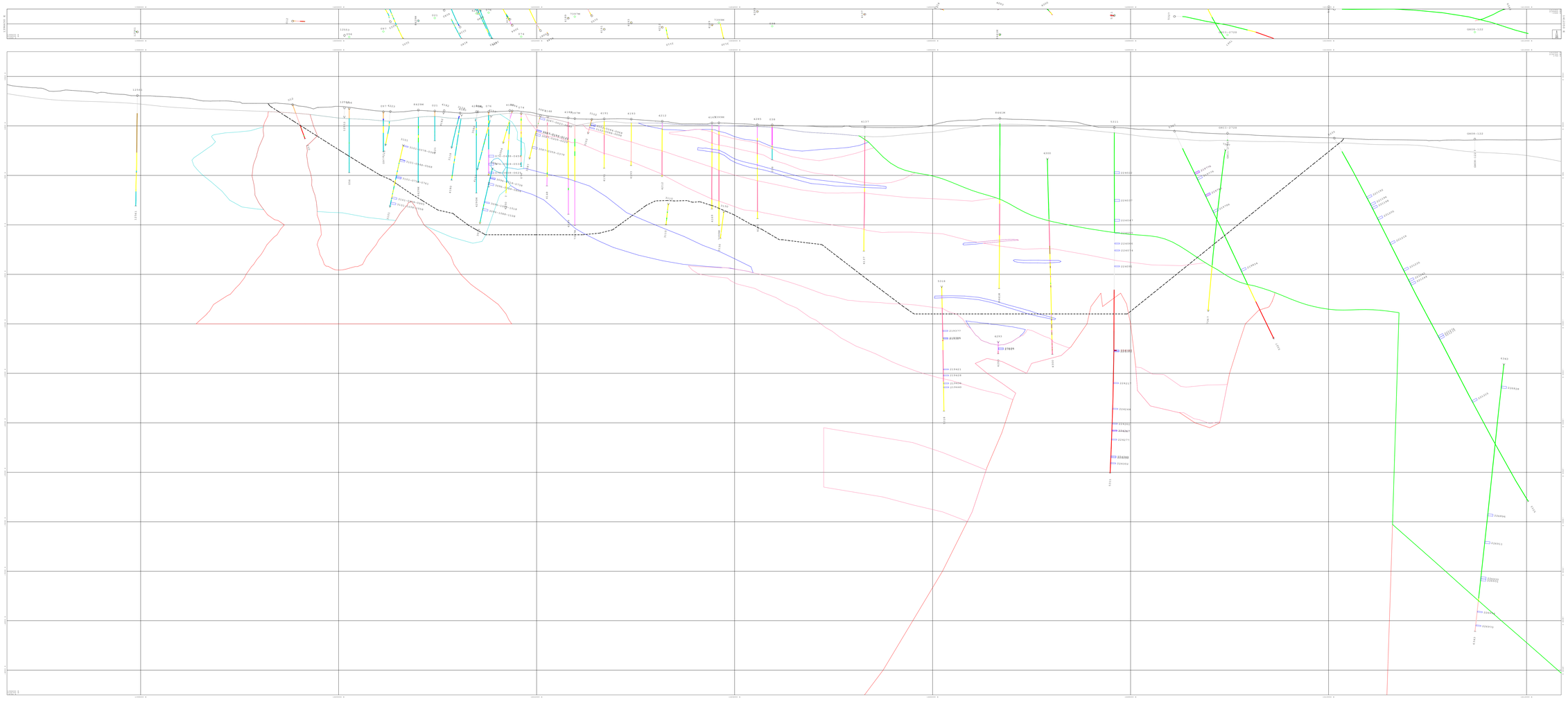
The Pebble Partnership

Pebble Project, Alaska

Section 2156400 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2156400


LEGEND
DATA FILES:
RAGE (File pebble2data2-RAW.txt)
Type: DDH DTH Other Total Total
Total: 1 1 1 1 1
Type: DDH DTH Other Total Total
Total: 1 1 1 1 1
SAMPLE (File pebble_June2013.avk.laid)
SAMPLE (File pebble_June2013.avk.laid)
SAMPLE (File pebble_June2013.avk.laid)
COMPID (File pebble_June2013.avk.laid)
TRANSLUCID pebble_June2013.avk.laid)
TV:PEBBLE_SP_NPA(FTS.TRI/2009/EXTENDED_2004TPO/E_VITEXT_EXIMMED.DOT
TV:PEBBLE_SP_NPA(BRI.BOSTON.ANGLO TRI/FTS.2010_MODIS.DOT
TV:PEBBLE_SP_NPA(BRI.BOSTON.ANGLO TRI/FTS.2010_MODIS.DOT
TV:PEBBLE_SP_NPA(BRI.BOSTON.ANGLO TRI/FTS.2010_BOSTON BW MODIS.DOT
TV:PEBBLE_SP_NPA(BRI.BOSTON.ANGLO TRI/FTS.2010_BOSTON BW MODIS.DOT
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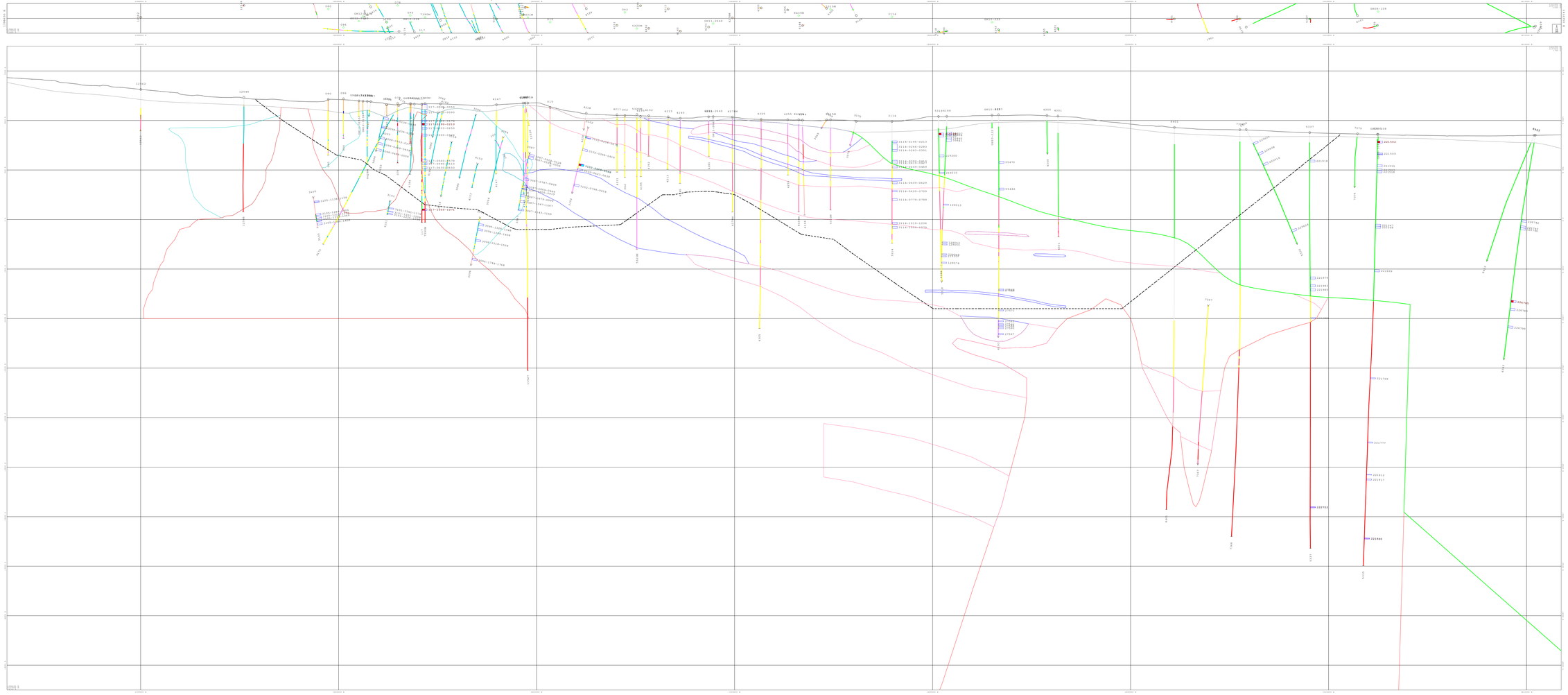
TV:PEBBLE_SP_NPA(BRI.BOSTON.ANGLO TRI/FTS.2010_BOSTON W MODIS.DOT
TV:PEBBLE_SP_NPA(BRI.BOSTON.ANGLO TRI/FTS.2010_BOSTON W MODIS.DOT
TV:PEBBLE_SP_NPA(BRI.BOSTON.ANGLO TRI/FTS.2010_BOSTON W MODIS.DOT
USER NOTES
Right-of-trench
Blue base - SRK samples:
red infill - HCG samples
dark infill - Geochemlab
light infill - Procedrab tests
yellow infill - overburden samples
Yellow - other SRK samples
The colour code for the rock types follows the Pebble code defined
in the lookup. The rock activity and weathering colour codes of
a given rock type are colour coded correctly.
Horizontal Scale
0m 25m 50m 75m 100m
1 inch = 50.00 m
The Pebble Partnership
Pebble Project, Alaska
Section 2156700 N
Geology, SRK Sample Locations
Scale:1:14000
Date:06-Jun-201
Project:PEB
Drawn By:JI
Checked:
Approved:
Drawing No.
2156700



LEGEND

DATA FILES:
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Type Name Count Type Name Count
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GRP 1 RCP 1 GRAB 1
GRB 1 RCR 1 GRAPH 1
TP 1 RCS 1 GRAB 1
TT 1 RCT 1 GRAPH 1
SAMPLE (File geb_June2013.wrk.laz)
SAMPLE (File geb_June2013.wrk.laz)
SAMPLE (File geb_June2013.wrk.laz)
COMPID (File geb_June2013.wrk.laz)
TRANSLATE (File geb_June2013.wrk.laz)

TV:PEBBLE_SP_RPA/PTD.TRI/2009/EXTENDED_2008TPD/E_VITERT_EXTENDED.DXF
TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/PIT_SOLIDS_ANDII.DXF
TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/PIT_SOLIDS_ANDII_DXF
TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/BRC_SOLIDS_BW_ANDII.DXF
TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/BRC_SOLIDS_BW_ANDII.DXF
TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/BRC_SOLIDS_ANDII.DXF
TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/BRC_SOLIDS_W_ANDII.DXF
TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/BRC_SOLIDS_ANDII_DXF
TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/BRC_SOLIDS_ANDII_DXF
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TV:PEBBLE_SP_RPA/BRC_SOLIDS_ANDII TRI/BRC_SOLIDS_ANDII_DXF

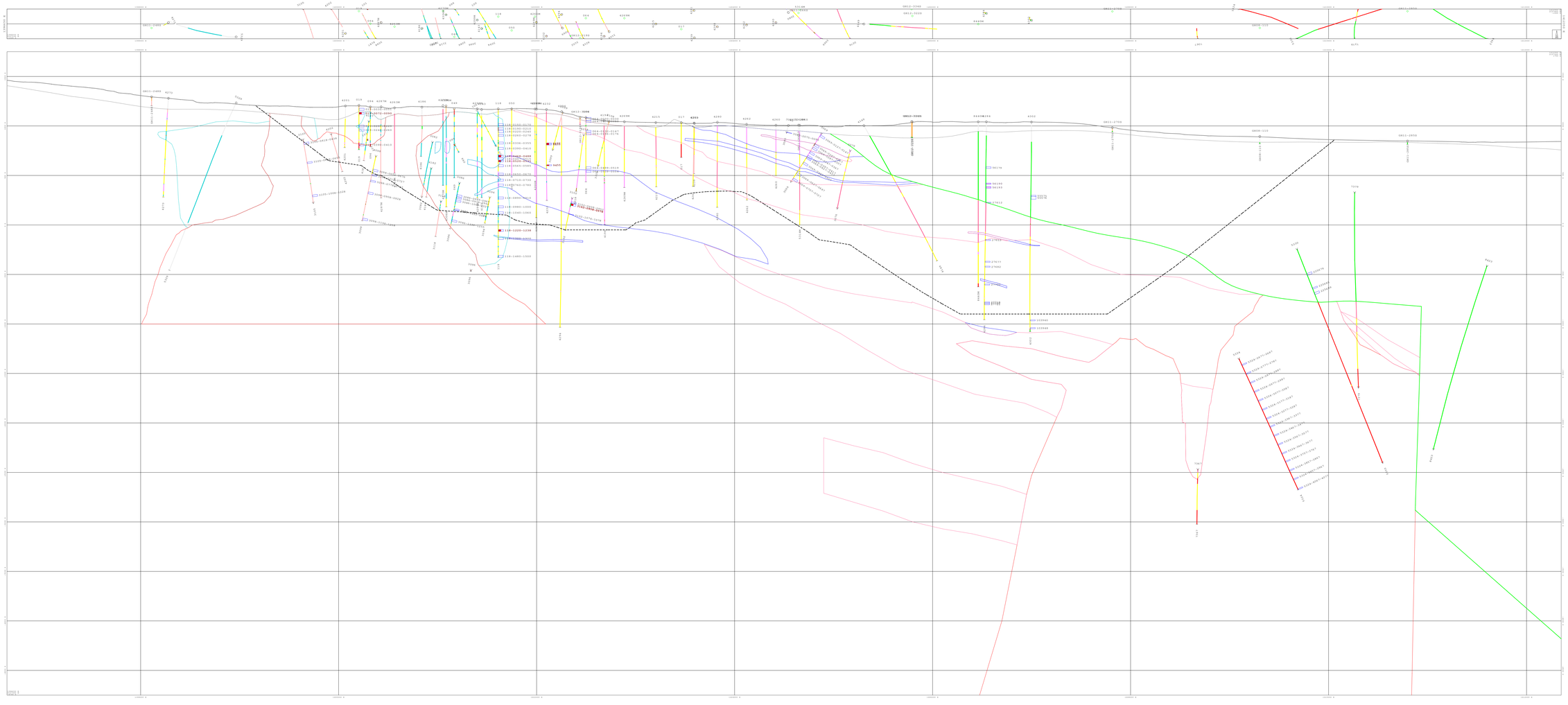
USER NOTES

Right-of-tracks
Blue Back - SRK Samples:
red dotted - RC2 sample
red solid - Grab sample
blue dotted - Grab/Bag sample
yellow dotted - Composites samples
(to scale) - other SRK samples
(Pit Wall Solids - Pit Wall Solids are the Pebble code defined
the rock type. Unfortunately the Pebble code defines
of a given rock type are colour coded correctly.

Horizontal Scale
0m 250m 500m
1 inch = 250.33 ft

The Pebble Partnership

Pebble Project, Alaska	Scale:1:14000
Section 2157000 N	Date:06-Feb-201
Geology, SRK Sample Locations	Project:PEB
	Drawn By:J
	Checked:
	Approved:
	Drawing No.
	2157000



LEGEND

DATA FILES:
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Type: Name: Color: Type: Name: Color:
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GDT GDT GDT GDT
GDT GDT GDT GDT
GDT GDT GDT GDT
SAMPLE (File geb_June2013.ark.laz)
SAMPLE (File geb_June2013.ark.laz)
SAMPLE (File geb_June2013.ark.laz)
COMPID (File geb_June2013.ark.laz)
TRANSCRIPT (File geb_June2013.ark.laz)
TRANSCRIPT (File geb_June2013.ark.laz)

TV:PEBBLE_SP_NPA/PIT2.TRI/2009/EXTENDED_2008TPO/E_V2TEST_EX1MMSD.DGT
TV:PEBBLE_SP_NPA/MPI.ROCK/TRI/2011_2012_ROCK.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2011_2012_SOIL.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2012_SOIL_SECTION_NW_ROCK1.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2012_SOIL_SECTION_NW_ROCK2.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2012_SOIL_SECTION_NW_ROCK3.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2012_SOIL_SECTION_NW_ROCK4.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2012_SOIL_SECTION_NW_ROCK5.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2012_SOIL_SECTION_NW_ROCK6.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2012_SOIL_SECTION_NW_ROCK7.DGT
TV:PEBBLE_SP_NPA/MPI.SOIL/TRI/2012_SOIL_SECTION_NW_ROCK8.DGT

USER NOTES

Right-of-trench
Blue base - SRK samples:
red infill - HCG sample
blue infill - Geochem sample
green infill - Geochem Bag tests
yellow infill - overburden samples
(no infill - other SRK samples)
The colour code for the activities within the tenancy code defines the lock type. Only activities within the tenancy code defined of a given lock type are colour coded correctly.

Horizontal Scale
0m 25m 50m 75m 100m
1 inch = 50.00 ft

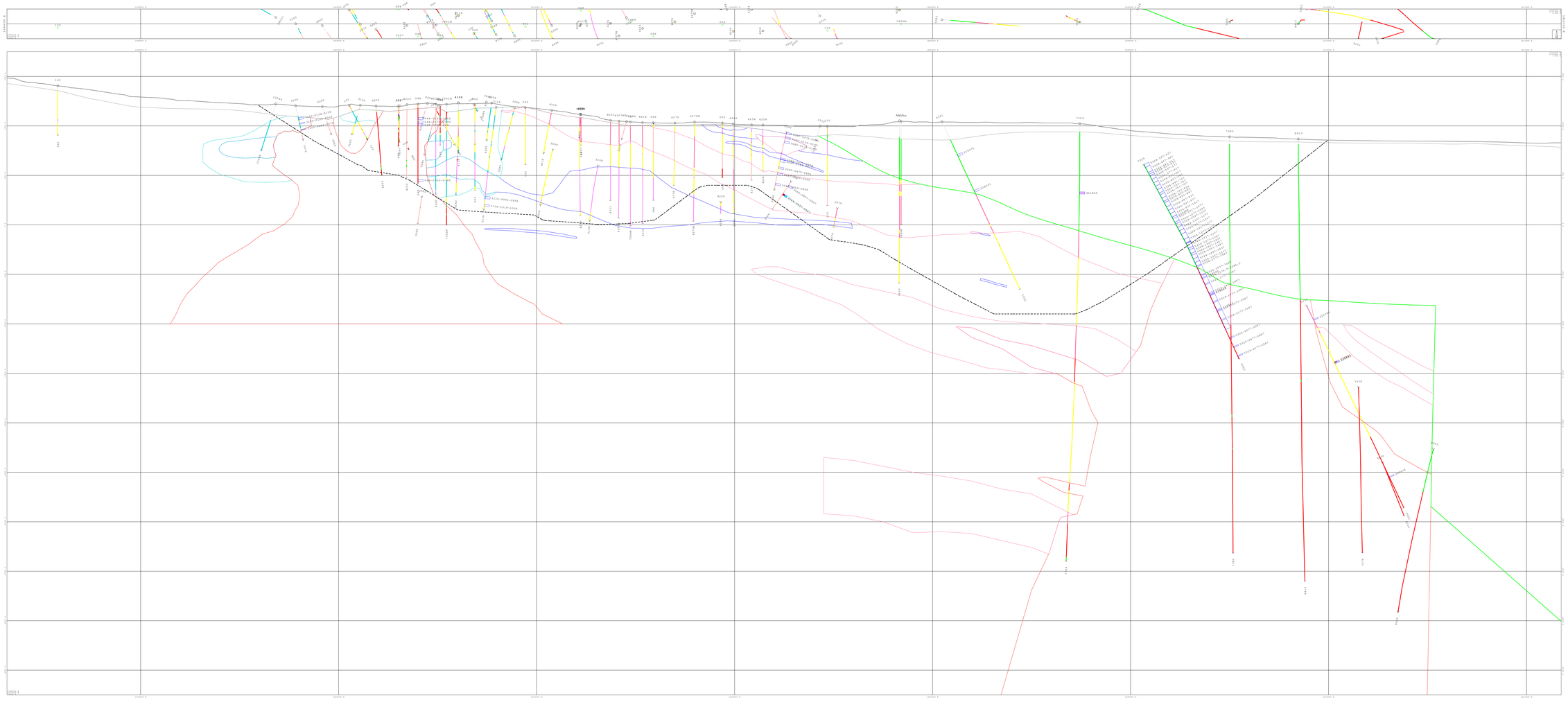
The Pebble Partnership

Pebble Project, Alaska

Section 2157300 N

Geology, SRK Sample Locations

Scale:	1:14000
Date:	06-Jun-2013
Project:	PEB
Drawn By:	jl
Checked:	
Approved:	
Drawing No.	2157300



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

Y*	W*	D*	R*	GS*
GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/TOPO.TRI/TOPO_EXTENDED.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/MBX_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_ES_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_S_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_W_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
  red infill - HCT sample
  cyan infill - SAC samples
  pink infill - stored bag tests
  yellow infill - overburden samples
  no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

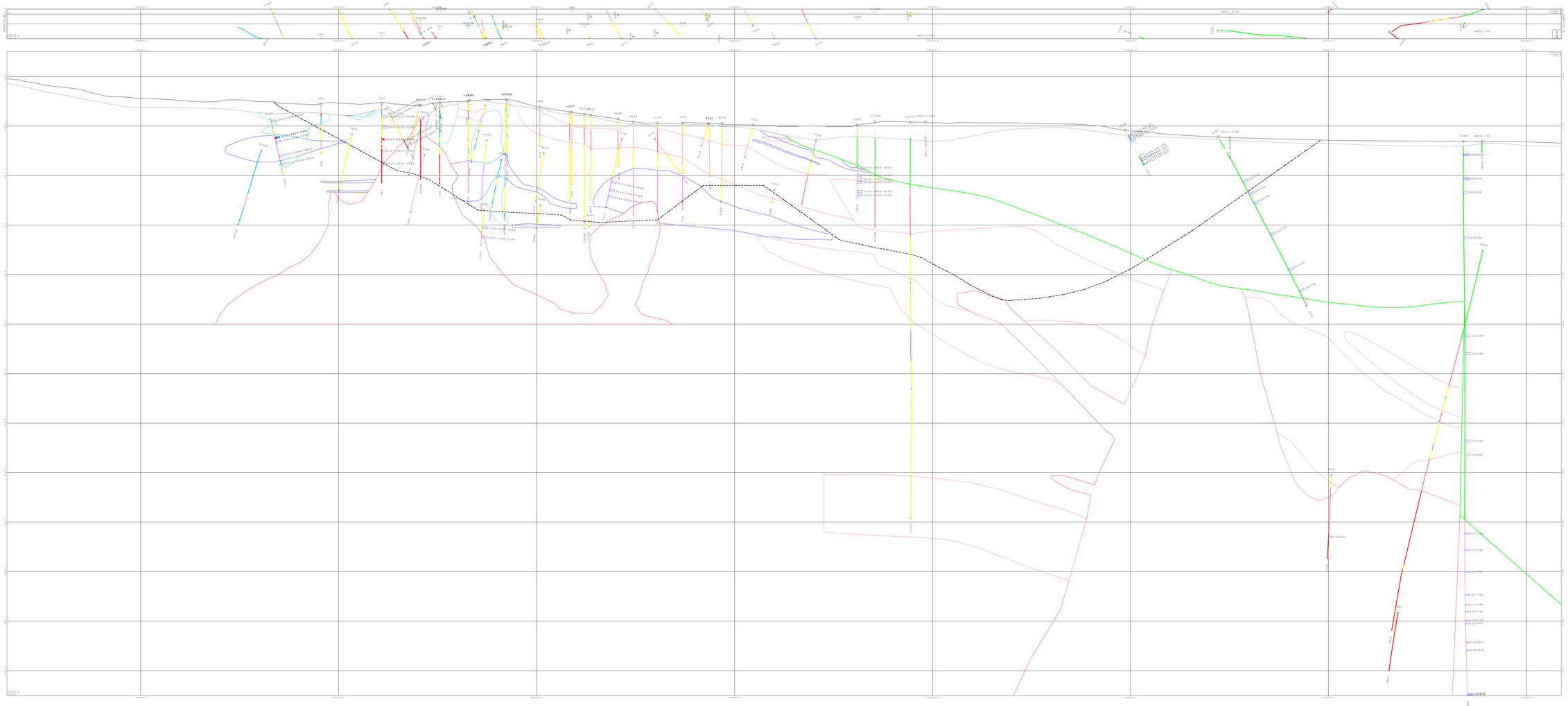
The Pebble Partnership

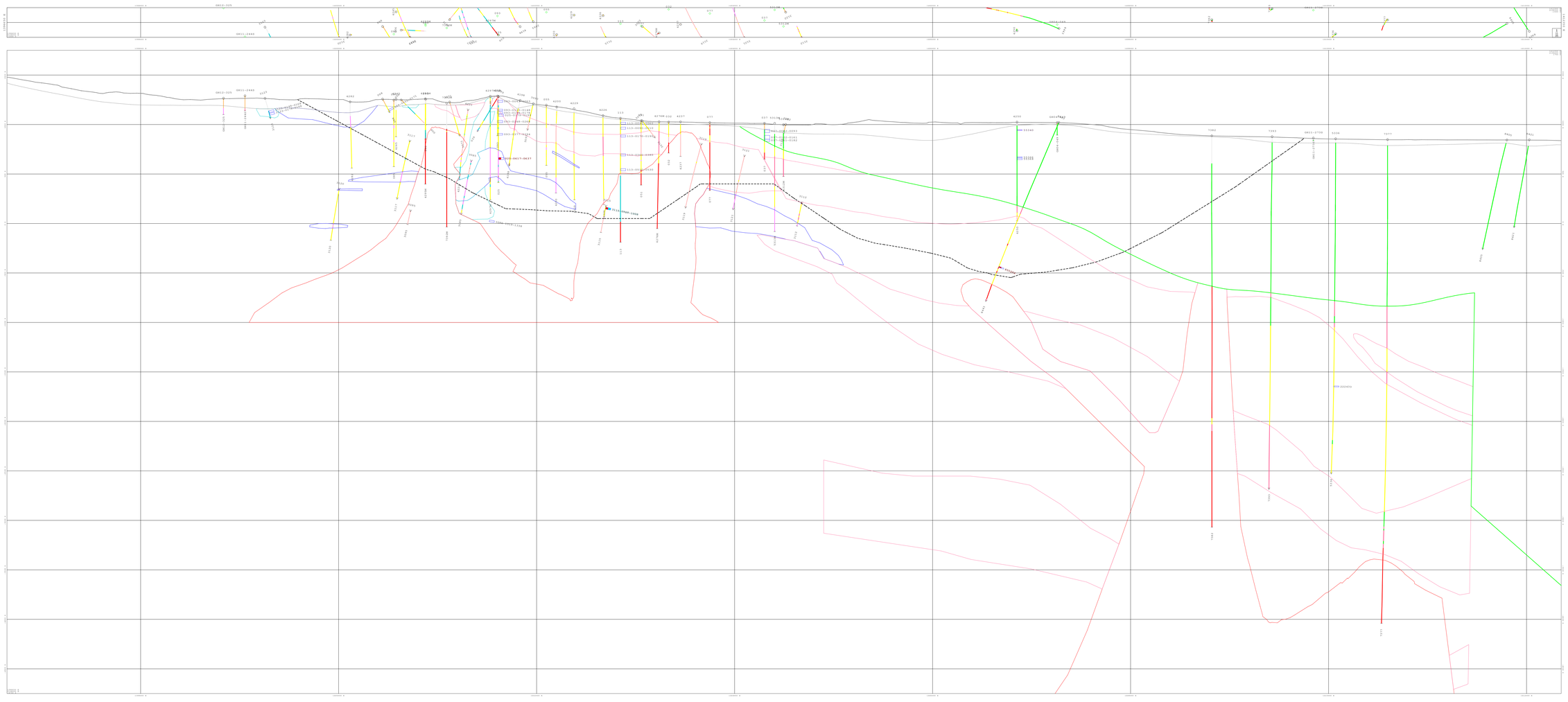
Pebble Project, Alaska

Section 2157600 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2157600


LEGEND
DATA FILES
SAMPLE (File gmb_line2313.srk.laid)
SAMPLE (File gmb_line2313.srk.laid)
SAMPLE (File gmb_line2313.srk.laid)
COMPID (File gmb_line2313.srk.laid)
TRANSLATID gmb_line2313.srk.laid
USER NOTES
Right-of-track:
Blue base - SRK samples:
red infill - HCS samples
blue infill - Stockpile samples
Left-of-track:
yellow infill - Overburden samples
Top-track - other SRK samples.
The colours used for the various rock types are the rehaxy code defined
in the lookup. Unfortunately, the rehaxy code defines the colours of
the rock type by the rock type number, so the colours of a given rock type are colour coded correctly.
Horizontal Scale
1 inch = 20.33 ft
The Pebble Partnership
Pebble Project, Alaska
Section 2157900 N
Geology, SRK Sample Locations
Scale:1:14000
Date:06-Jun-201
Project:PEB
Drawn By:JI
Checked:
Approved:
Drawing No.
2157900



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

Y*	W*	D*	R*	GS*
GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

V:/PEBBLE_SP_RPA/PITS.TRI/2009/EXTENDED_200KTPD/F_Y27EXT_TRIMMED.00T
V:/PEBBLE_SP_RPA/TOPO.TRI/TOPO_EXTENDED.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/MBX_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_ES_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_S_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_W_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

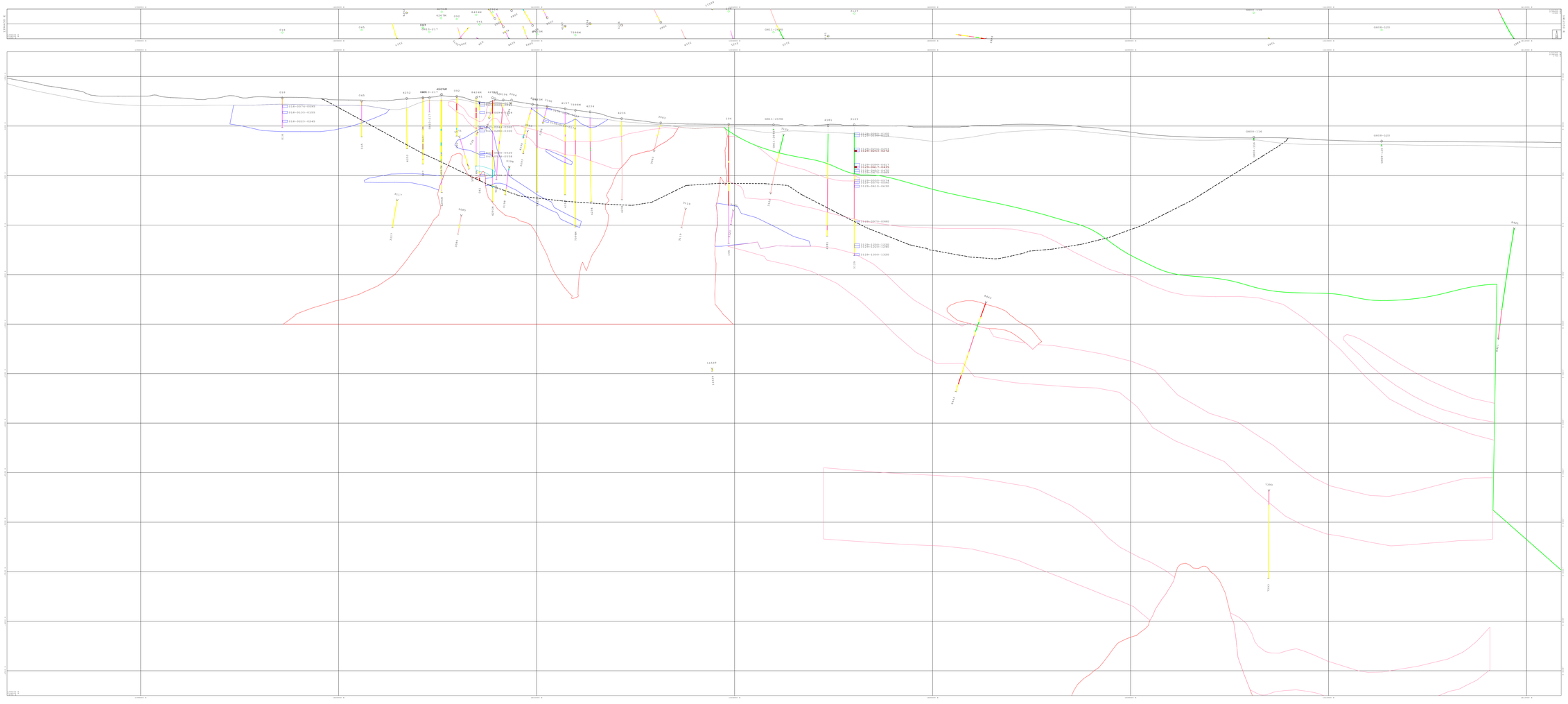
Right of trace:
Blue bars - SRK samples:
  red infill - HCT sample
  cyan infill - SAC samples
  pink infill - stored bag tests
  yellow infill - overburden samples
  no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

The Pebble Partnership

Pebble Project, Alaska
Section 2158200 N
Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2158200



Horizontal Scale

500 0 500

FEET

1 inch = 333.33 ft

LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

🟨 Y*	🟨 W*	🟪 D*	🟪 R*	🟥 GS*
🟥 GP*	🟥 GS*	🟥 GP*	🟥 QGP*	▨ G*
🟦 M*	🟦 P*	🟦 N*	🟦 X*	🟦 FC
🟦 FC	🟦 F*	▨ X2	🟫 Z*	🟧 OB
🟧 OB	🟧 OB	▨ TRI*	▨ TRI*	▨ TRI*
🟩 T*	▨ *			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/TOPO.TRI/TOPO_EXTENDED.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_ES_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_S_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_W_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

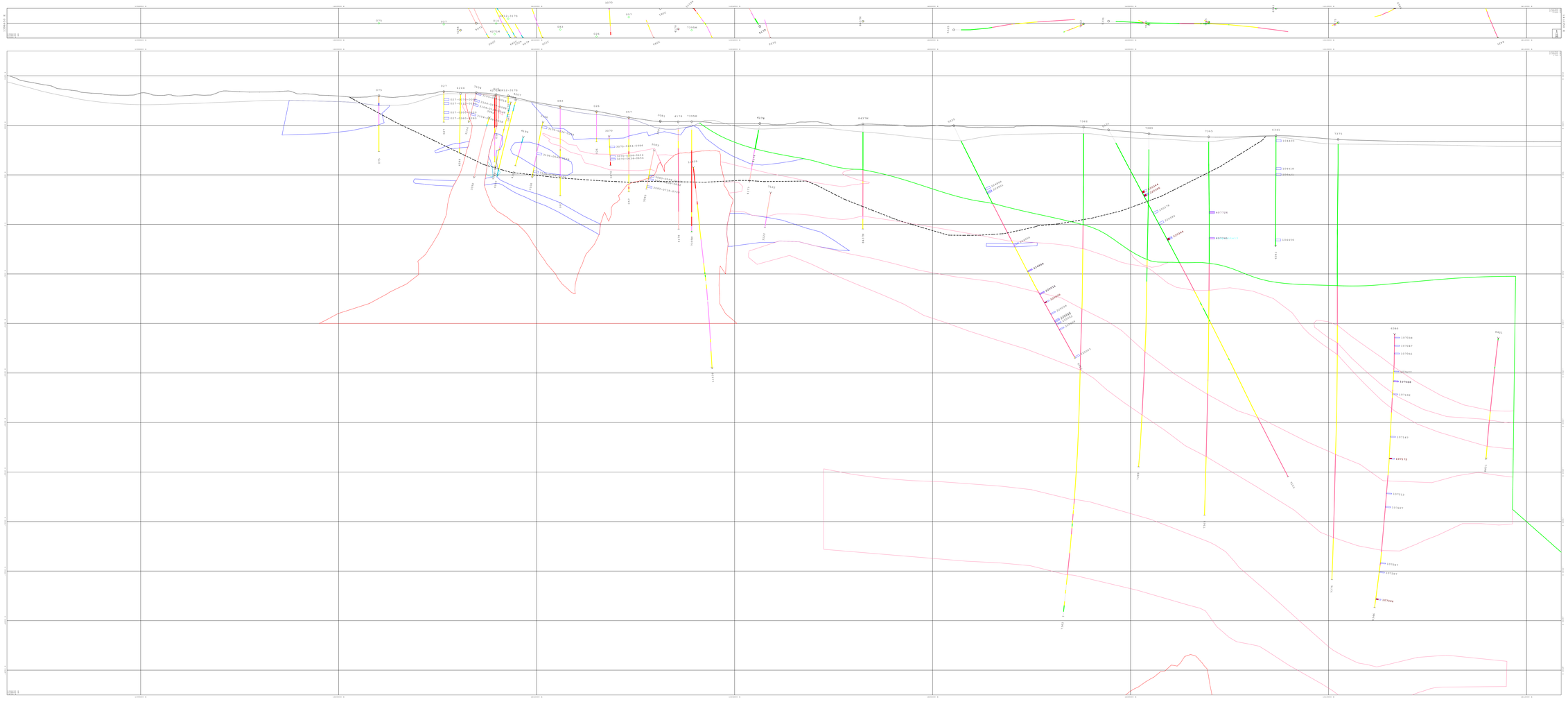
The Pebble Partnership

Pebble Project, Alaska

Section 2158500 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2158500



LEGEND

DATA FILES:

RAGDS (File pmb72ds12-PMB-12192)
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CLF: ALL Year: ALL Source: ALL
Depth: ALL Quality: ALL
Drill: ALL Lab: ALL
Tr: ALL

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SAMPLE (File pmb_June2013.srk.las)

SAMPLE (File pmb_June2013.srk.las)

SAMPLE (File pmb_June2013.srk.las)

COMPID (File pmb_June2013.srk.las)

TRANSLUCIDS (File pmb_June2013.srk.las)

TV/PEBBLE_SP_RPA/FTS.TRI/2009/EXTENDED_2008TPO/E_VITERT_EXTENDED.DXF
TV/PEBBLE_SP_RPA/BRC_SOLIDS_ROCK/ TRI/FTS_2010_ROCK.DXF
TV/PEBBLE_SP_RPA/BRC_SOLIDS_ROCK/ TRI/ROCK_SOLIDS_BW_ROCK1.DXF
TV/PEBBLE_SP_RPA/BRC_SOLIDS_ROCK/ TRI/ROCK_SOLIDS_BW_ROCK2.DXF
TV/PEBBLE_SP_RPA/BRC_SOLIDS_ROCK/ TRI/ROCK_SOLIDS_BW_ROCK3.DXF
TV/PEBBLE_SP_RPA/BRC_SOLIDS_ROCK/ TRI/ROCK_SOLIDS_BW_ROCK4.DXF
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TV/PEBBLE_SP_RPA/BRC_SOLIDS_ROCK/ TRI/ROCK_SOLIDS_BW_ROCK6.DXF
TV/PEBBLE_SP_RPA/BRC_SOLIDS_ROCK/ TRI/ROCK_SOLIDS_BW_ROCK7.DXF
TV/PEBBLE_SP_RPA/BRC_SOLIDS_ROCK/ TRI/ROCK_SOLIDS_BW_ROCK8.DXF

USER NOTES

Right-of-trench
Blue base - SRK samples:
red infill - HCL sample
blue infill - Soxhlet
green infill - Procedure tests
yellow infill - overburden samples
Top solid - other SRK samples.
Colour scheme - the translucent wireframe represents the rock type. The translucent wireframe colour defines the rock type. Multiple wireframes with the same rock type of a given rock type are colour coded correctly.

Horizontal Scale
0m 250m 500m
1 inch = 250.33 ft.

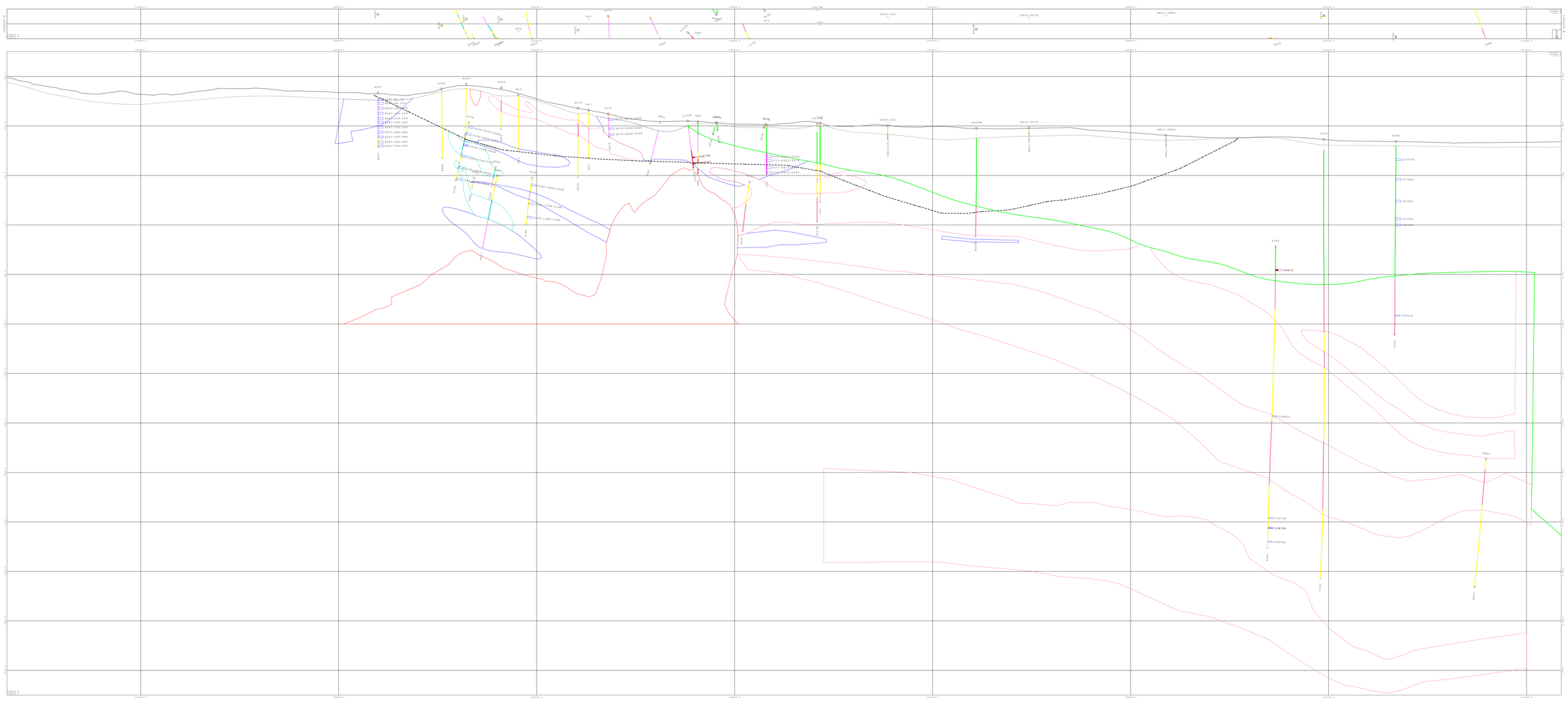
The Pebble Partnership

Pebble Project, Alaska

Section 2158800 N

Geology, SRK Sample Locations

Scale:	1:14000
Date:	06-Feb-2013
Project:	PEB
Drawn By:	JI
Checked:	
Approved:	
Drawing No.	2158800



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

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GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
  red infill - HCT sample
  cyan infill - SAC samples
  pink infill - stored bag tests
  yellow infill - overburden samples
  no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

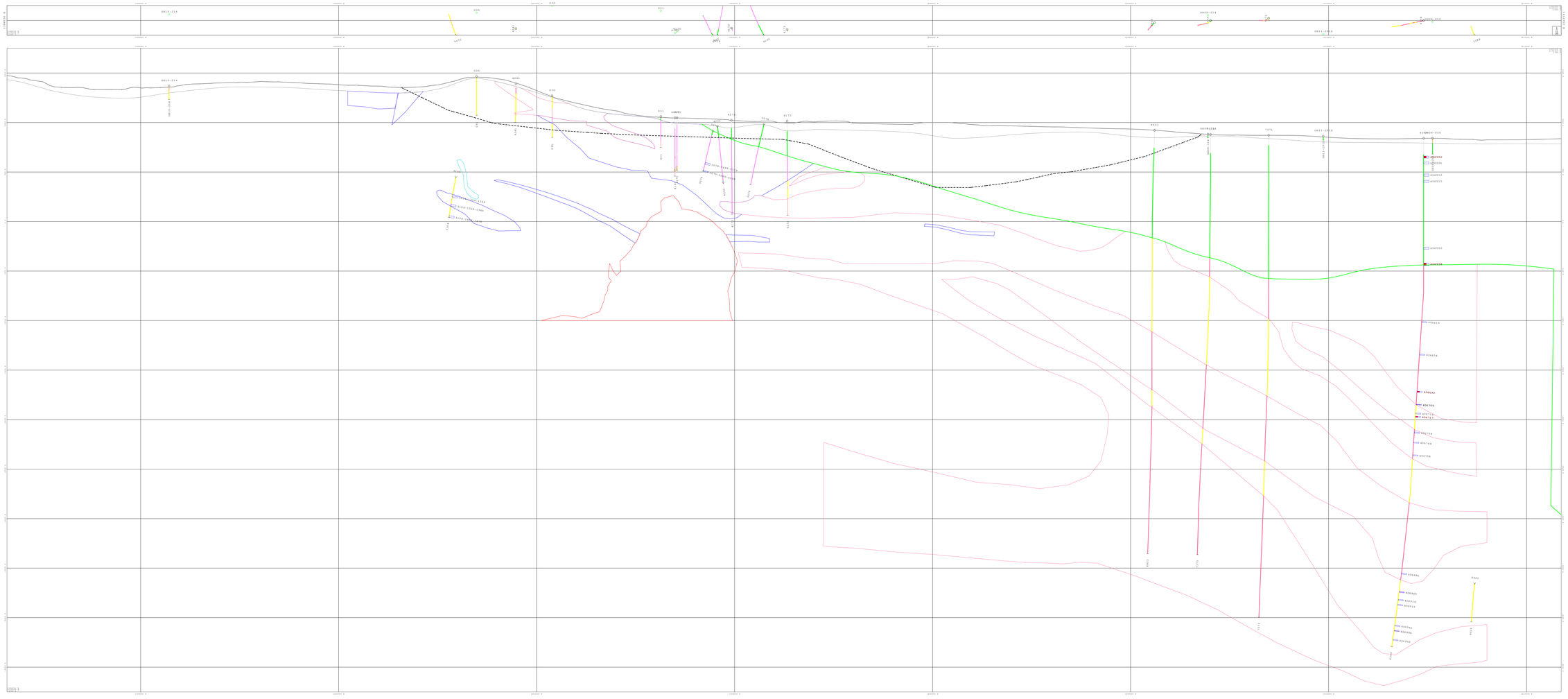
The Pebble Partnership

Pebble Project, Alaska

Section 2159100 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2159100



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

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🟥 GP*	🟥 GS*	🟥 GP*	🟥 QGP*	🟥 G*
🟦 M*	🟦 P*	🟦 N*	🟦 X*	🟦 FC
🟦 FC	🟦 F*	🟪 X2	🟫 Z*	🟧 OB
🟧 OB	🟧 OB	⬜ TRI*	⬜ TRI*	⬜ TRI*
🟩 T*	⬜ *			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_W_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

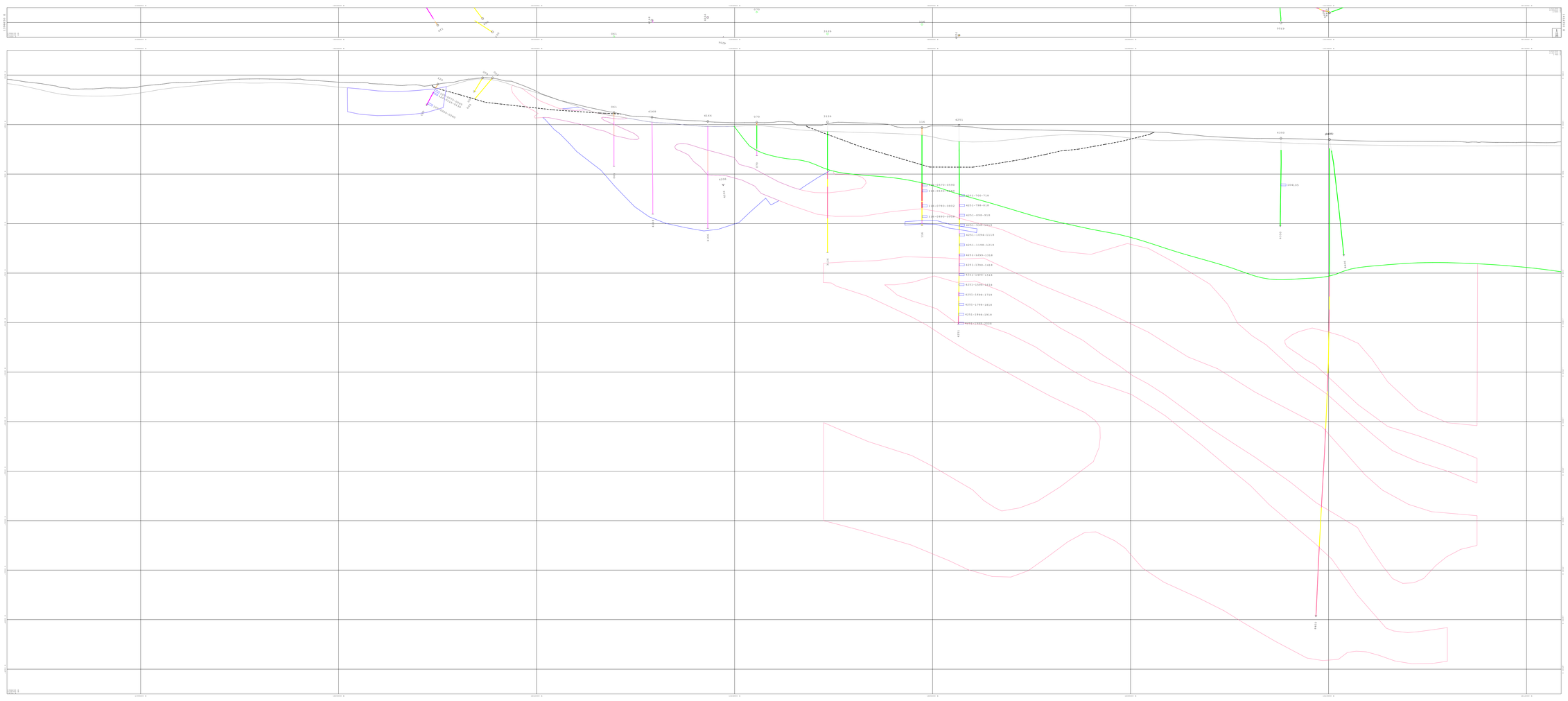
The Pebble Partnership

Pebble Project, Alaska

Section 2159400 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2159400



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

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GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
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V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

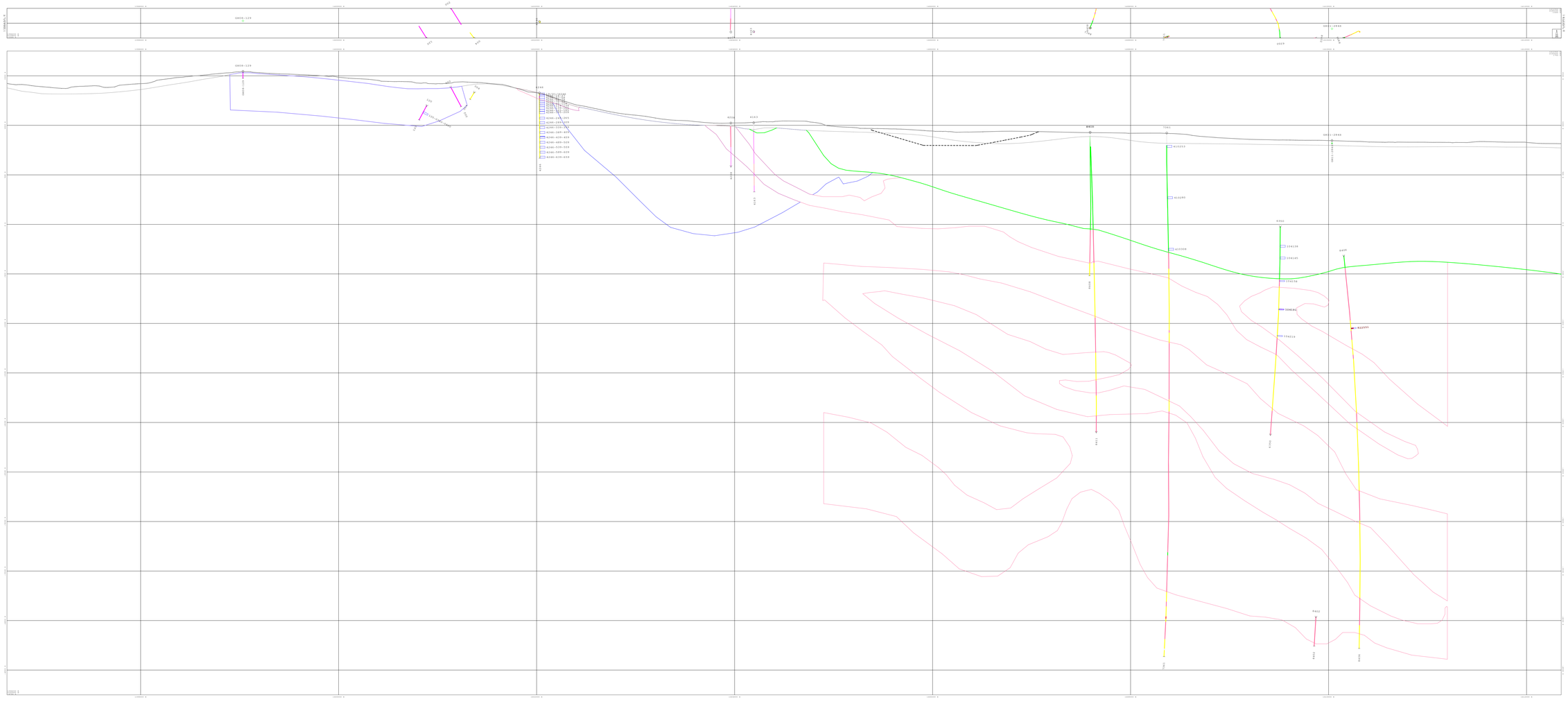
The Pebble Partnership

Pebble Project, Alaska

Section 2159700 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2159700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PD 2 DC 2 Gamma 2 Gamma
DC 3 Gamma 3 Gamma
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SAMPLE (File pwb_line2013.wrk.laz)
SAMPLE (File pwb_line2013.wrk.laz)
SAMPLE (File pwb_line2013.wrk.laz)
COMP3D (File pwb_line2013.wrk.laz)
TRANSX (File pwb_line2013.wrk.laz)
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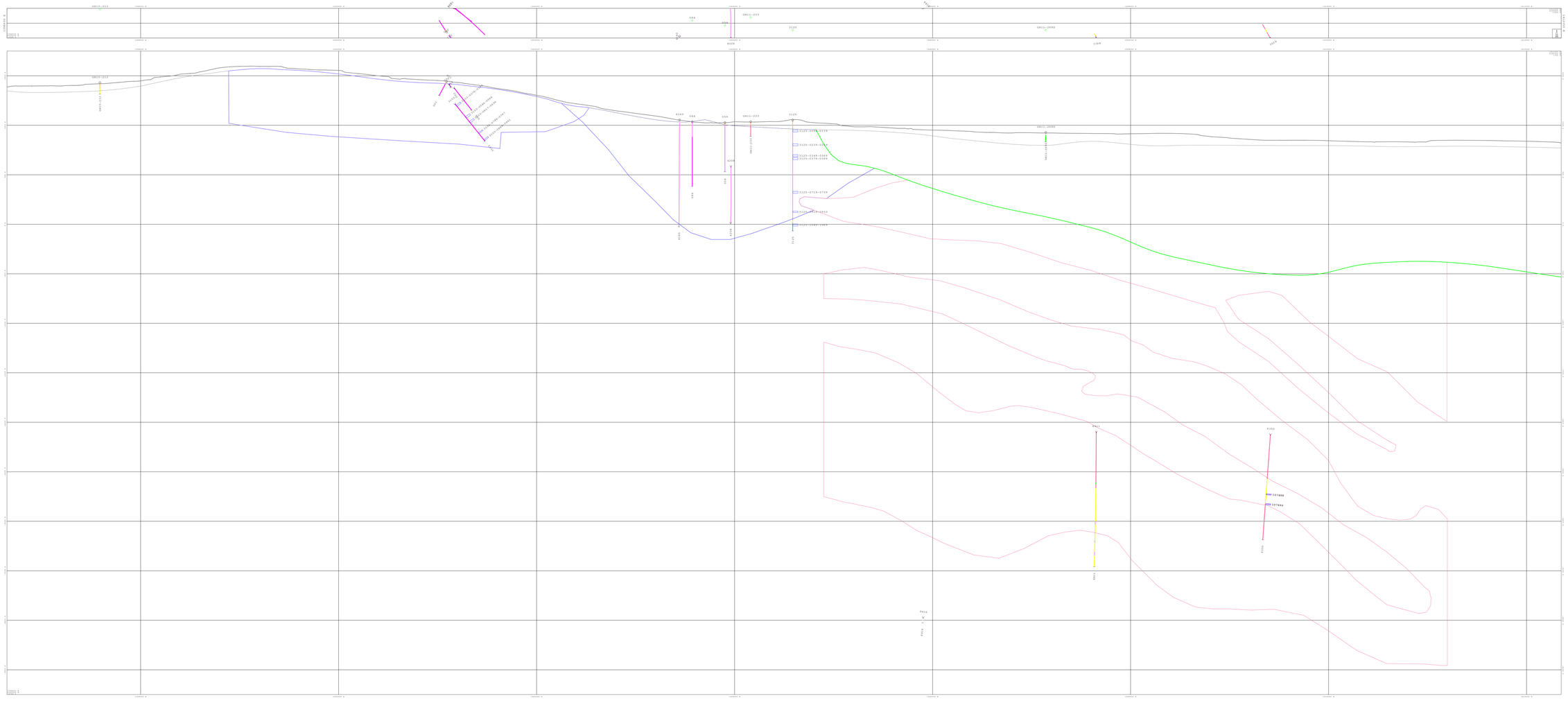
USER NOTES
Right-of-tracks:
Blue Rage - SRK Samples:
red infill - HCS sample
blue infill - Geotechnical
green infill - Procedure tests
yellow infill - Overburden samples
Yellow - other SRK samples
Colour Keys - Unclassified with the Century code defines
the lithology. Unclassified with the Century code defines
of a given rock type are colour coded correctly.
Horizontal Scale
0m 250m 500m
1 inch = 250.33 ft
The Pebble Partnership
Pebble Project, Alaska
Section 2160000 N
Geology, SRK Sample Locations
Scale:1:14000
Date:06-Jun-201
Project:PEB
Drawn By:J
Checked:
Approved:
Drawing No.
2160000


LEGEND
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COMP3D (File geo_June2013.xrk.laz)
Trace (File geo_June2013.xrk.laz)
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Y:\PEBBLE_EP_RPA\PEC.DOC\NI.43101 TRI\FIG.2.2\BOTTOM_OF_SOIL.DXF
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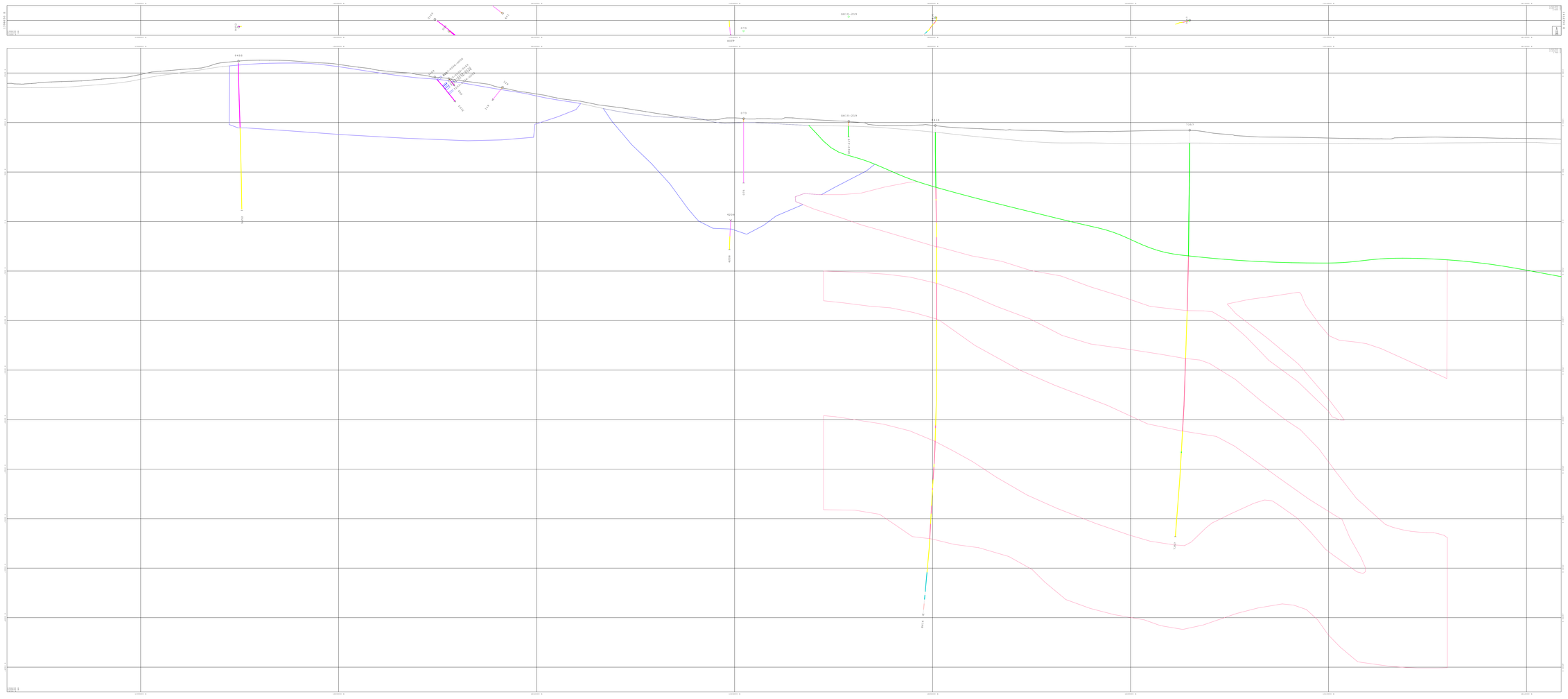
USER NOTES
Right-of-track:
Blue base - SRK samples:
red infill - HCS sample
blue infill - Dredge samples
green infill - Grab samples
yellow infill - Compounded samples
Top-right - other SRK samples.
Triangle type - Unclassified, or the rehabilitation code defines the triangle type. Unclassified triangles are coloured according to the rehabilitation code if a given rock type are colour coded correctly.
Horizontal Scale
1 inch = 20.33 ft
The Pebble Partnership
Pebble Project, Alaska
Section 2160300 N
Geology, SRK Sample Locations
Scale:1:14000
Date:06-Feb-201
Project:PEB
Drawn By:J
Checked:
Approved:
Drawing No.
2160300



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

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🟥 GP*	GS*	🟥 GP*	🟥 QGP*	G*
M*	P*	N*	X*	🟦 FC
🟦 FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
🟩 T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/MBX_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
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V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
    red infill - HCT sample
    cyan infill - SAC samples
    pink infill - stored bag tests
    yellow infill - overburden samples
    no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

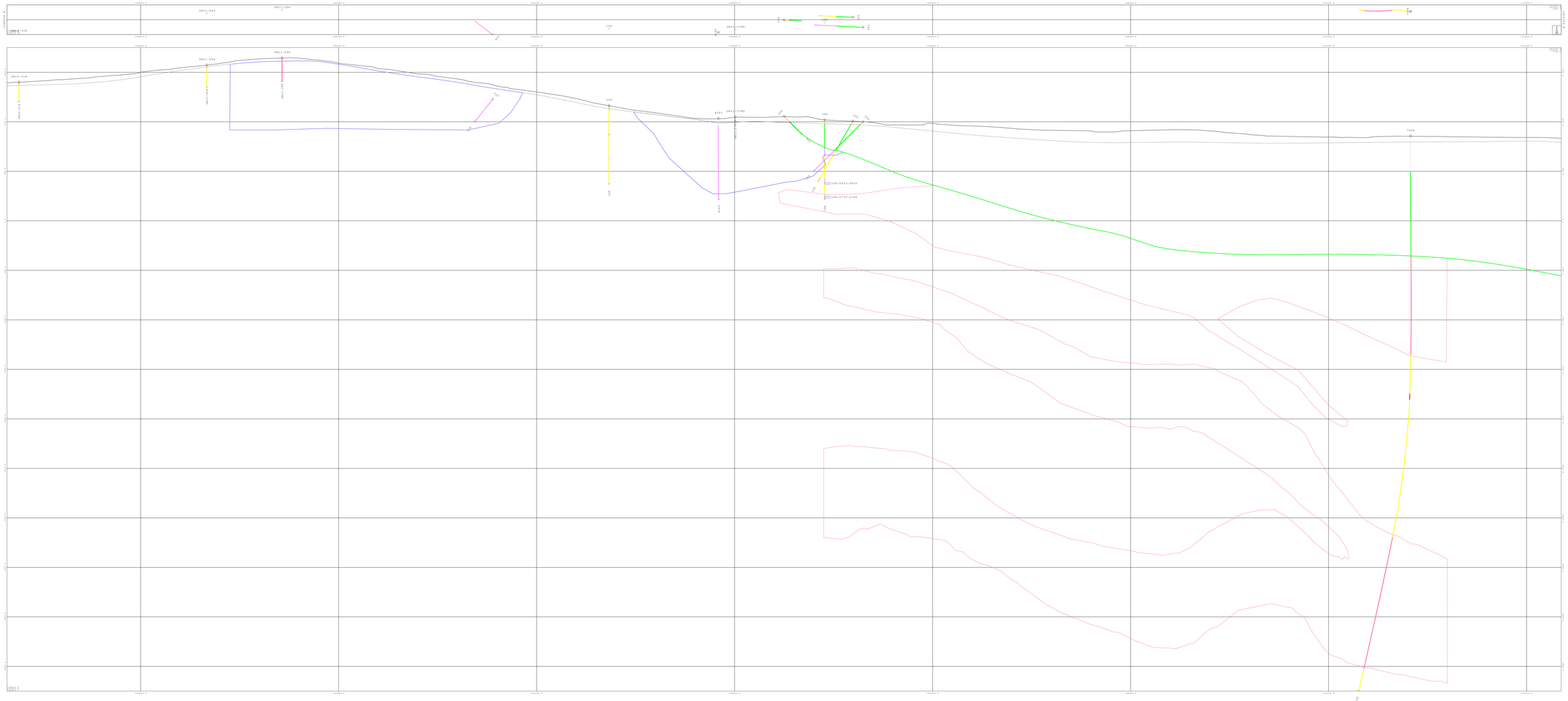
The Pebble Partnership

Pebble Project, Alaska

Section 2160600 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2160600



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

Y*	W*	D*	R*	GS*
GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
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V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
  red infill - HCT sample
  cyan infill - SAC samples
  pink infill - stored bag tests
  yellow infill - overburden samples
  no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

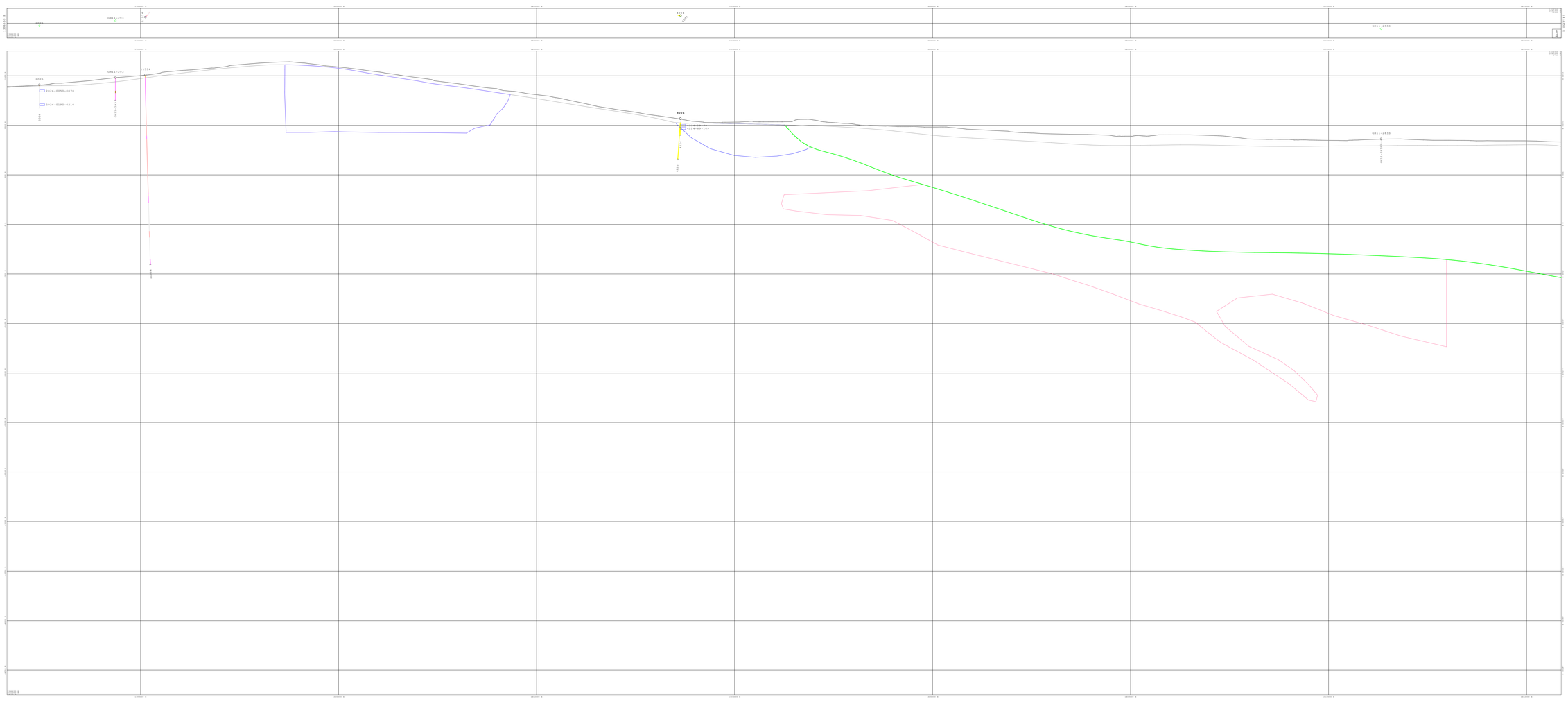
The Pebble Partnership

Pebble Project, Alaska

Section 2160900 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2160900



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SAMPLE (File geb_June2013_ark.laz)

SAMPLE (File geb_June2013_ark.laz)

SAMPLE (File geb_June2013_ark.laz)

COMPID (File geb_June2013_ark.laz)

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Y:/PEBBLE_GP_NPA/PEC_ROCKS_ADDIT_TRI/PEC_ROCKS_ALTOPAN_NW_ADDIT.DGT

Y:/PEBBLE_GP_NPA/PEC_ROCKS_ADDIT_TRI/PEC_ROCKS_ALTOPAN_SE_ADDIT.DGT

Y:/PEBBLE_GP_NPA/PEC_ROCKS_ADDIT_TRI/PEC_ROCKS_ALTOPAN_SW_ADDIT.DGT

Y:/PEBBLE_GP_NPA/PEC_ROCKS_ADDIT_TRI/PEC_ROCKS_ALTOPAN_W_ADDIT.DGT

Y:/PEBBLE_GP_NPA/PEC_ROCKS_ADDIT_TRI/PEC_ROCKS_ALTOPAN_NE_ADDIT.DGT

Y:/PEBBLE_GP_NPA/PEC_ROCKS_ADDIT_TRI/PEC_ROCKS_ALTOPAN_NW_ADDIT.DGT

USER NOTES

Right-of-tracks:
Blue base - SRK samples:
red infill - HCS samples
green infill - Geochem samples
Pit wall - Pit wall samples
yellow infill - Overburden samples
TD infill - other SRK samples
Pit wall type - Unclassified, waste, ore, tailings, code defined.
Pit wall type - Unclassified, waste, ore, tailings, code undefined.
If a given rock type are colour coded correctly.

Horizontal Scale
0.00 0.25 0.50 0.75 1.00
1 inch = 57.33 ft

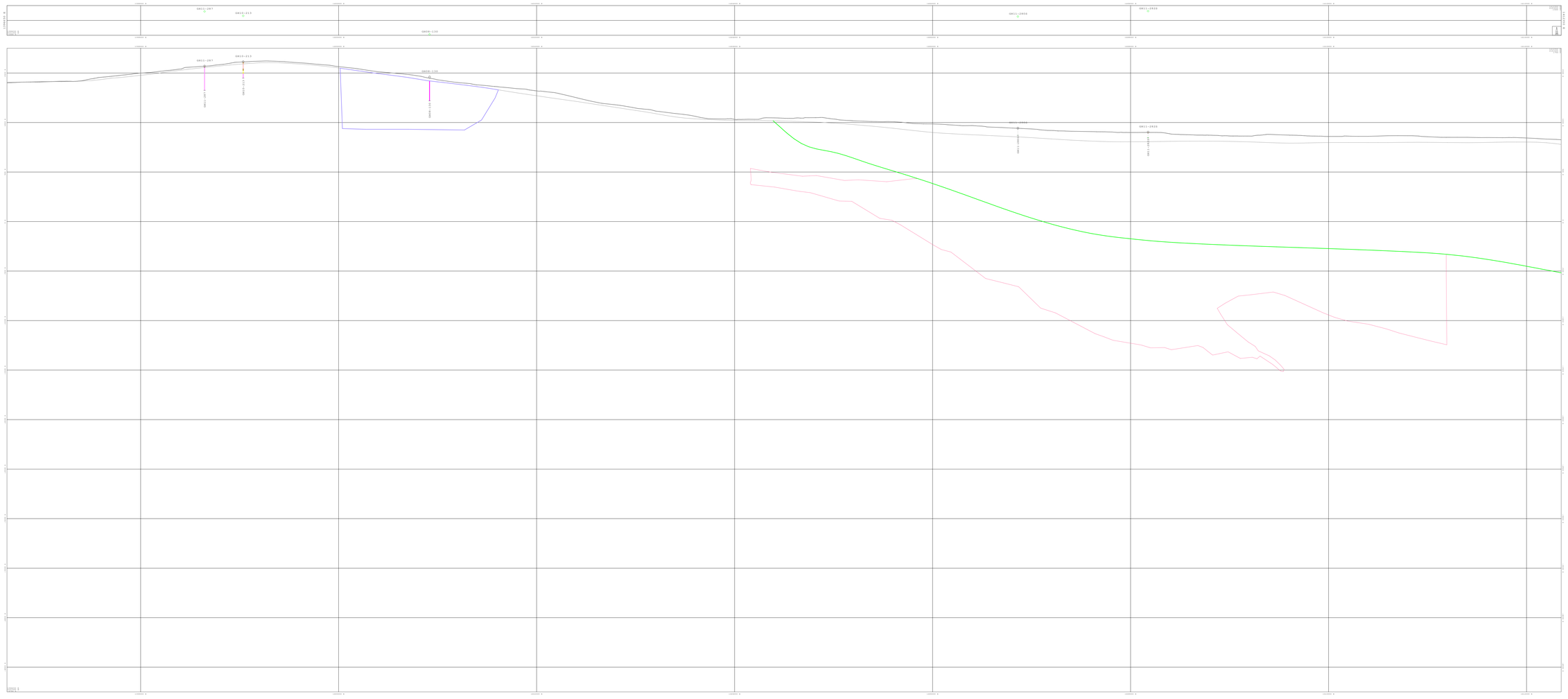
The Pebble Partnership

Pebble Project, Alaska

Section 2161200 N

Geology, SRK Sample Locations

Scale:	1:14000
Date:	06-Jun-2013
Project:	PEB
Drawn By:	JI
Checked:	
Approved:	
Drawing No.	2161200



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

Y*	W*	D*	R*	GS*
GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/MBX_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_ES_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_S_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_W_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

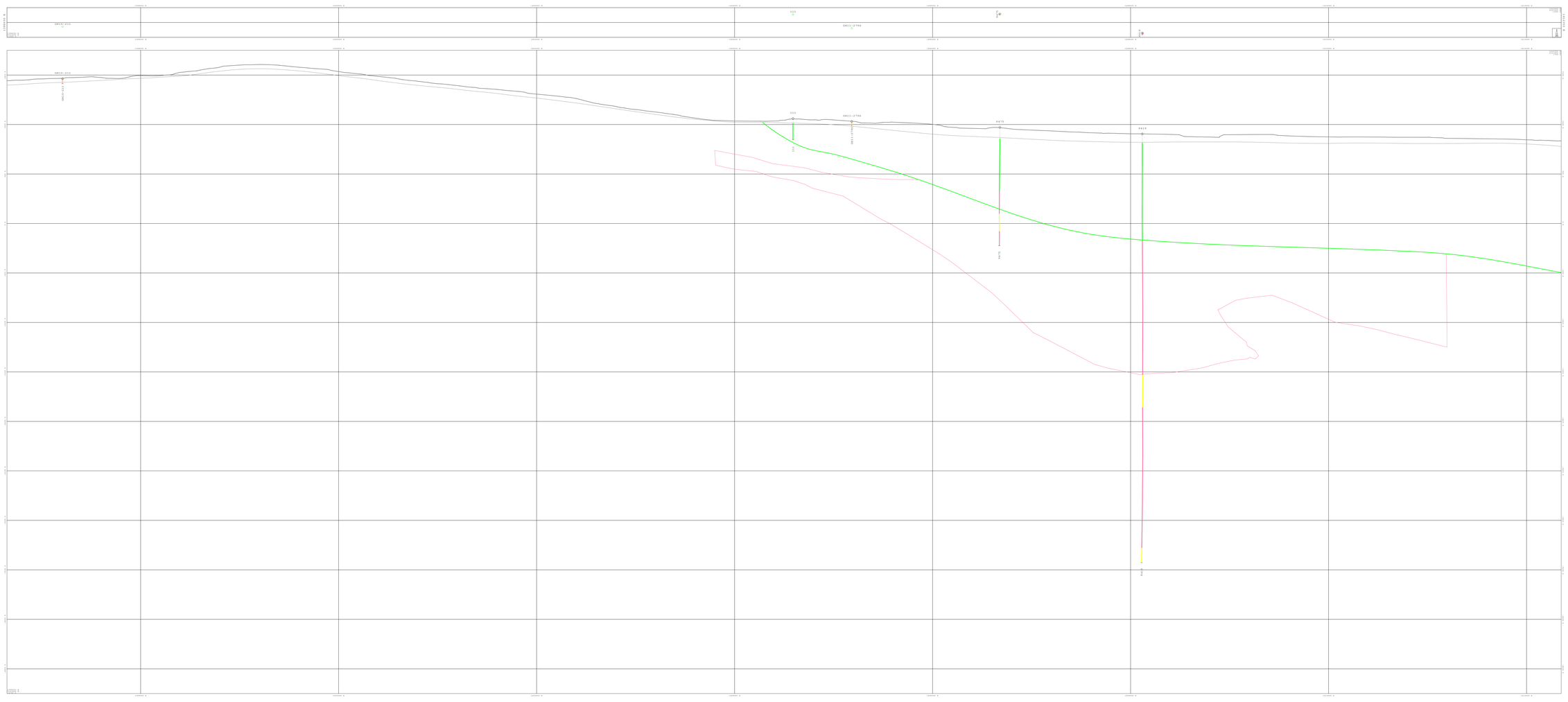
The Pebble Partnership

Pebble Project, Alaska

Section 2161500 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2161500



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

Y*	W*	D*	R*	GS*
GP*	GS*	GP*	QGP*	G*
M*	P*	N*	X*	FC
FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
T*	*			

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

COMPID (File peb_june2013.srk.isis)

SAMPLE (File peb_june2013.srk.isis)

Triangulations

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V:/PEBBLE_SP_RPA/TOPO.TRI/TOPO_EXTENDED.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/MBX_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_ES_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_S_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_W_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
red infill - HCT sample
cyan infill - SAC samples
pink infill - stored bag tests
yellow infill - overburden samples
no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

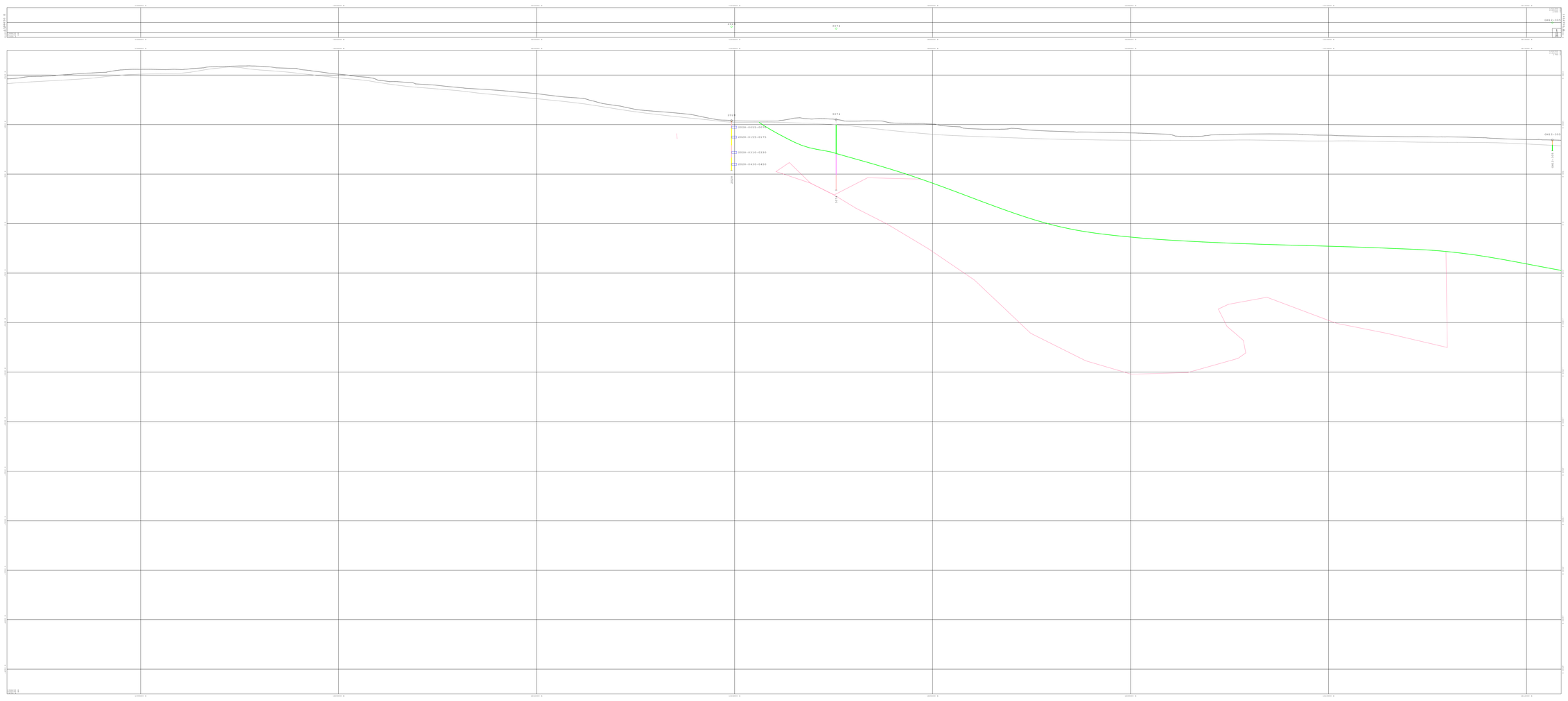
The Pebble Partnership

Pebble Project, Alaska

Section 2161800 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2161800



LEGEND

Data fields

RCODE (File peb12jan13.ddh.isis)
Trace scheme P_CODES_TRADITIONAL

🟨 Y*	🟨 W*	D*	R*	GS*
🟥 GP*	GS*	🟥 GP*	🟥 QGP*	G*
M*	P*	N*	X*	🟦 FC
🟦 FC	F*	X2	Z*	OB
OB	OB	TRI*	TRI*	TRI*
🟩 T*	*			

SAMPLE (File peb_june2013.srk.isis)
SAMPLE (File peb_june2013.srk.isis)
SAMPLE (File peb_june2013.srk.isis)
SAMPLE (File peb_june2013.srk.isis)
COMPID (File peb_june2013.srk.isis)
COMPID (File peb_june2013.srk.isis)
SAMPLE (File peb_june2013.srk.isis)

Triangulations
V:/PEBBLE_SP_RPA/PITS.TRI/2009/EXTENDED_200KTPD/F_Y27EXT_TRIMMED.00T
V:/PEBBLE_SP_RPA/TOPO.TRI/TOPO_EXTENDED.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/DIO_SILL_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/MBX_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_EN_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_ES_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_N_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_SILL_S_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_AUG10.TRI/GDIO_PLUTON_W_AUG10.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/OVERBURDEN/OB_SURFACE_HDSI_10AUG09.00T
V:/PEBBLE_SP_RPA/GEO_SOLIDS_JLY09.TRI/TERTIARY/SOLIDS_AUG09.TRI/KT_UNCONF.00T
V:/Pebble_SP_RPA/geo_solids_aug10.tri/gabbro_aug10.00t

USER NOTES

Right of trace:
Blue bars - SRK samples:
  red infill - HCT sample
  cyan infill - SAC samples
  pink infill - stored bag tests
  yellow infill - overburden samples
  no infill - other SRK samples
DRILL TRACES = The first letter of the geology code defines the rock type. Using asterisks ensures that all occurrences of a given rock type are colour coded correctly

Horizontal Scale
500 0 500
FEET
1 inch = 333.33 ft

The Pebble Partnership

Pebble Project, Alaska

Section 2162100 N

Geology, SRK Sample Locations

Scale:1:4000
Date:06-Jun-2013
Project:PEB
Drawn By:yl
Checked:
Approved:
Drawing No.
2162100

Appendix 11B, Static Testing Database - Waste Rock and Tailings

Key to abbreviations and acronyms used in this appendix

Abbreviation/acronym	**Explanation**
AP	Acid potential
$CaCO_3$/t	Calcium carbonate per metric ton
C(T)	Carbon (total)
CO_2	Carbon dioxide
EC	Electrical conductivity
H_2SO_4/t	Sulfuric acid per metric ton
kg	Kilogram(s)
µS/cm	Micro-siemens per cm
mg/L	Milligrams per liter
mg$CaCO_3$/L	Milligrams calcium carbonate (equivalent) per liter
mV	Millivolt(s)
NAG	Net acid generation
NP	Neutralization potential
ORP	Oxidation-reduction potential
ppm	Parts per million
%	Percent
S(T)	Sulfur (total)
S(SO_4)	Sulfur (as sulfate)
S(S-2)	Sulfur (as sulfide)
TIC	Total inorganic carbon
TDS	Total dissolved solids
wt%	Weight percent

For chemical abbreviations see Appendix D of this environmental baseline document.

For rock type codes, and explanations, see Table 11-1.

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
Waste Rock (PEZ)													
27548	Y	8.39	0.45	0.02	0.43	13.44		21	Moderate	13.64		0.16	0.6
27549	Y	8.05	0.73	<0.01	0.73	22.81		23.9	Moderate	20.45		0.24	0.9
27571	Y	8.4	0.46	<0.01	0.46	14.38		9.9	None	4.55		0.05	0.2
27583	D	8.17	0.63	<0.01	0.63	19.69		8.9	None	<4.5		<0.01	<0.2
27586	D	8.34	0.49	<0.01	0.49	15.31		11.8	None	4.55		0.05	0.2
27588	D	8.39	0.76	<0.01	0.76	23.75		15.2	None	11.36		0.15	0.5
27590	D	8.61	0.56	<0.01	0.56	17.5		14.5	None	9.09		0.11	0.4
27597	D	7.44	1.05	0.02	1.03	32.19		8.3	None	<4.5		<0.01	<0.2
27606	D	7.66	0.61	<0.01	0.61	19.06		8.7	None	<4.5		<0.01	<0.2
27607	D	5.63	0.69	0.03	0.66	20.63		6.7	None	<4.5		<0.01	<0.2
27612	Gs	7.69	2.59	0.03	2.56	80		16.8	Slight	15.91		0.2	0.7
27653	Z	5.99	1.14	0.02	1.12	35		6.2	None	<4.5		<0.01	<0.2
27677	Y	7.17	0.87	<0.01	0.87	27.19		6.3	None	22.73		0.27	1
27682	Y	5.23	1.81	0.01	1.8	56.25		4.9	None	<4.5		<0.01	<0.2
27700	Y	5.4	1.8	0.05	1.75	54.69		2.6	None	<4.5		<0.01	<0.2
27719	Y	4.74	1.3	0.03	1.27	39.69		0.9	None	<4.5		<0.01	<0.2
27720	Y	4.84	1.14	0.09	1.05	32.81		1.7	Slight	<4.5		<0.01	<0.2
27721	Y	4.76	1.1	0.03	1.07	33.44		1.7	Slight	<4.5		<0.01	<0.2
27837	TDd	8.8	0.04	0.02	0.02	0.63		75.8	Moderate	9.09		0.12	0.4
27869	Y	8.53	0.79	<0.01	0.79	24.69		15.6	Moderate	13.64		0.15	0.6
54465	Z	9.1	0.05	<0.01	0.05	1.56		64.5	Slight	4.55		0.06	0.2
54473	TC	9.09	0.03	0.02	0.01	0.31		144.4	Strong	145.45		1.75	6.4
55366	TW	8.54	0.11	0.04	0.07	2.19		20	Slight	22.73		0.27	1
55368	TW	8.75	0.14	0.03	0.11	3.44		-3.5	Moderate	86.36		1.02	3.8
55470	TC	8.72	0.19	0.03	0.16	5		83.2	Strong	77.27		0.94	3.4
55486	TF	8.98	0.06	0.02	0.04	1.25		138.3	Strong	129.55		1.55	5.7
55575	TC	9.26	0.01	0.02	<0.01	<0.3		147	Strong	134.09		1.62	5.9
55576	TD	9.07	0.01	<0.01	0.01	0.31		85.7	Strong	77.27		0.92	3.4
55598	TC	9.08	0.02	0.02	<0.01	<0.3		54.9	Moderate	4.55		<0.01	0.2
55632	TC	8.32	0.25	0.04	0.21	6.56		71.3	Strong	63.64		0.77	2.8
55837	TY	8.75	0.15	0.03	0.12	3.75		66.6	Moderate	90.91		1.09	4
55838	TY	9.08	0.1	0.03	0.07	2.19		74.4	Strong	86.36		1.04	3.8
55840	TY	8.62	0.19	0.01	0.18	5.63		65.5	Slight	84.09		1.02	3.7
55841	TY	8.58	0.22	0.04	0.18	5.63		57.3	Moderate	75		0.91	3.3
56179	TC	8.93	0.12	0.02	0.1	3.13		50.2	Moderate	43.18		0.52	1.9
103612	Gs	7.47	1.22	0.03	1.19	37.19		10.4	Slight	9.09		0.1	0.4
103625	G^c	5.89	1.31	0.03	1.28	40		4.2	None	<4.5		<0.01	<0.2
103940	W	6.32	1.35	0.03	1.32	41.25		2.6	None	<4.5		<0.01	<0.2
103948	G^c	4.83	1.25	0.02	1.23	38.44		1.6	None	<4.5		<0.01	<0.2
104105	TFw	9.08	0.01	<0.01	0.01	0.31		51.5	Moderate	47.73		0.58	2.1
104158	Gs	4.25	8.03	0.05	7.98	249.38		0.6	None	<4.5		<0.01	<0.2
104191	Y	7.45	4.81	0.05	4.76	148.75		11	None	4.55		<0.01	0.2
104219	Y	8.05	2.16	0.03	2.13	66.56		7.1	None	<4.5		<0.01	<0.2
104403	TFw	8.64	<0.01	0.01	0.01	0.31		43.3	Strong	40.91		0.5	1.8
104418	TFw	8.81	0.01	0.01	<0.01	<0.3		74.6	Moderate	65.91		0.79	2.9
104421	TFw	8.46	0.01	0.01	<0.01	<0.3		60.9	Moderate	59.09		0.7	2.6
104456	TC	8.67	0.07	0.01	0.06	1.88		67.5	Strong	65.91		0.79	2.9
104472	TC	8.7	0.9	0.02	0.88	27.5		10.7	None	6.82		<0.01	0.3
104623	Y	8.54	0.79	0.04	0.75	23.44		15	Slight	6.82		0.09	0.3
104729	Y	8.88	0.52	<0.01	0.52	16.25		15.9	Slight	9.09		0.11	0.4

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
104739	Y	8.6	1.12	0.01	1.11	34.69		13.7	Slight	9.09		0.11	0.4
104754	Y	8.74	0.44	<0.01	0.44	13.75		8.9	Slight	<4.5		<0.01	<0.2
104762	TF	8.63	0.01	<0.01	0.01	0.31		4.5	None	<0.1		<0.01	<0.2
104775	TD	8.5	0.03	<0.01	0.03	0.94		14	Slight	20.45		<0.01	0.9
104788	TB	8.71	0.01	<0.01	0.01	0.31		29.1	Moderate	13.64		0.15	0.6
104795	TXc	8.72	0.01	<0.01	0.01	0.31		35.9	Slight	18.18		0.21	0.8
104804	TWc(TWf)	8.49	0.01	<0.01	0.01	0.31		23.4	Slight	4.55		0.05	0.2
104839	TB	9.16	0.01	<0.01	0.01	0.31		44.3	Slight	9.09		0.1	0.4
104869	TB	9.26	0.01	<0.01	0.01	0.31		37.1	Moderate	15.91		0.2	0.7
104881	TT	9.14	0.03	<0.01	0.03	0.94		68.8	Strong	70.45		0.85	3.1
104900	TB	9.13	0.01	<0.01	0.01	0.31		82	Moderate	56.82		0.67	2.5
104942	TWc	8.79	0.01	<0.01	0.01	0.31		32.3	Slight	13.64		0.17	0.6
104944	TWc	8.78	0.01	<0.01	0.01	0.31		67.5	Moderate	31.82		0.38	1.4
104945	TWc	9.49	0.01	<0.01	0.01	0.31		43.7	Slight	11.36		0.13	0.5
104947	TWc	9.42	0.02	0.01	0.01	0.31		97.5	None	4.55		0.06	0.2
104948	TWc	9.37	0.01	<0.01	0.01	0.31		36.3	Slight	6.82		0.07	0.3
104972	TB	8.98	0.01	0.01	0	0		39.9	Slight	4.55		<0.1	0.2
104984	TB	9.02	0.01	<0.01	0.01	0.31		58.5	Moderate	13.64		<0.01	0.6
104998	TB	9.07	0.01	<0.01	0.01	0.31		61.1	Moderate	50		0.61	2.2
105001	TB	9.34	0.02	<0.01	0.02	0.63		89.4	Strong	63.64		0.76	2.8
105032	TB	8.63	0.02	<0.01	0.02	0.63		79.4	Strong	70.45		0.84	3.1
105084	TA	9.2	0.01	0.01	0	0		99.4	Strong	100		1.2	4.4
105091	TD	8.99	0.05	<0.01	0.05	1.56		87.5	Strong	75		0.9	3.3
105263	TX	8.93	0.01	<0.01	0.01	0.31		36.1	Moderate	36.36		0.43	1.6
105269	Gs	7.09	0.11	0.01	0.1	3.13		1.1	None	<4.5		<0.01	<0.2
105303	Gs	4.47	8.38	0.08	8.3	259.38		-0.2	None	<4.5		<0.01	<0.2
105321	Gs	4.4	9.16	0.11	9.05	282.81		0.3	None	<4.5		<0.01	<0.2
105334	Gs	4.34	10.65	0.13	10.52	328.75		-1.6	None	<4.5		<0.01	<0.2
105338	Gs	2.15	28.5	1.23	27.27	852.19		-37	Slight	<4.5		<0.01	<0.2
105341	Gs	4.57	8.28	0.13	8.15	254.69		2.3	None	<4.5		<0.01	<0.2
105346	Gs	4.34	8.57	0.23	8.34	260.63		-1.3	None	<4.5		<0.01	<0.2
105348	Gs	4.6	8.14	<0.01	8.14	254.38		0.3	None	<4.5		<0.01	<0.2
105356	Gs	4.06	8.54	0.11	8.43	263.44		-0.5	None	<4.5		<0.01	<0.2
105367	Gs	4.66	9.74	0.19	9.55	298.44		-0.7	None	<4.5		<0.01	<0.2
105369	Gs	4.18	11.15	0.2	10.95	342.19		-1.8	None	<4.5		<0.01	<0.2
105391	Gs	4.31	15.95	1.49	14.46	451.88		1	None	<4.5		<0.01	<0.2
105396	Gs	4.2	10.15	<0.01	10.15	317.19		-1.2	None	<4.5		<0.01	<0.2
105402	Gs	4.49	8.45	0.12	8.33	260.31		1.8	None	<4.5		<0.01	<0.2
105409	Gs	4.43	9.35	0.12	9.23	288.44		-12.8	None	<4.5		<0.01	<0.2
105440	Gs	5.47	6.81	0.09	6.72	210		-11.6	None	<4.5		<0.01	<0.2
105456	Gs	6.08	7.51	0.07	7.44	232.5		2.3	None	<4.5		<0.01	<0.2
105468	Gs	5.27	8.47	<0.01	8.47	264.69		1.8	None	<4.5		<0.01	<0.2
105481	Gs	3.75	16.25	0.21	16.04	501.25		-1.4	None	<4.5		<0.01	<0.2
105486	Gs	4.37	8.08	0.09	7.99	249.69		1.2	Slight	<4.5		<0.01	<0.2
105615	TB	8.36	0.01	<0.01	0.01	0.31		52.9	Moderate	34.09		0.4	1.5
105626	TB	8.23	0.03	<0.01	0.03	0.94		46.3	Moderate	18.18		0.22	0.8
105630	TB	8.35	0.01	<0.01	0.01	0.31		38.7	Slight	15.91		0.19	0.7
105631	TB	8.47	<0.01	<0.01	<0.01	<0.3		36.4	Moderate	11.36		0.13	0.5
105649	TB	8.36	0.02	0.01	0.01	0.31		40.2	Moderate	15.91		0.18	0.7
105654	TB	8.63	0.02	<0.01	0.02	0.63		50.9	Slight	9.09		0.11	0.4
105655	TB	8.59	0.02	<0.01	0.02	0.63		46.5	Slight	6.82		0.08	0.3

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
105661	TB	8.36	0.07	<0.01	0.07	2.19		63.1	Moderate	38.64		0.46	1.7
105675	TB	8.34	0.01	<0.01	0.01	0.31		74.5	Moderate	47.73		0.58	2.1
105800	P	9.55	0.12	<0.01	0.12	3.75		7.9	Slight	6.82		0.07	0.3
105924	TXc	8.56	0.01	<0.01	0.01	0.31		5.1	None	<0.1		<0.01	<0.2
105935	TTbu	8.78	0.01	<0.01	0.01	0.31		19.2	Slight	9.09		0.12	0.4
105994	TB	8.47	0.04	0.01	0.03	0.94		86.6	Moderate	70.45		0.86	3.1
106898	Gp	6.52	1.39	<0.01	1.39	43.44		2.2	None	<4.5		<0.01	<0.2
107014	Gs	4.59	10.1	<0.01	10.1	315.63		2.3	None	<4.5		<0.01	<0.2
107038	Gs	5.19	7.56	<0.01	7.56	236.25		3.9	None	<4.5		<0.01	<0.2
107047	Gs	4.95	7.84	<0.01	7.84	245		2.8	None	<4.5		<0.01	<0.2
107056	Gs	4.79	8.25	0.06	8.19	255.94		3.2	None	<4.5		<0.01	<0.2
107077	Y	4.38	5.83	0.09	5.74	179.38		3.4	None	<4.5		<0.01	<0.2
107088	Y	4.4	4.83	0.1	4.73	147.81		4.8	None	<4.5		<0.01	<0.2
107102	Y	5.39	5.38	0.09	5.29	165.31		1.9	None	<4.5		<0.01	<0.2
107147	Y	7.99	1.62	0.04	1.58	49.38		9.7	None	4.55		0.05	0.2
107172	Y	7.6	1.25	0.05	1.2	37.5		5.8	None	<4.5		<0.01	<0.2
107213	Gp	8	1.23	0.16	1.07	33.44		3.7	None	<4.5		<0.01	<0.2
107227	Gp	8.13	0.71	0.02	0.69	21.56		14.3	Slight	11.36		0.14	0.5
107287	Y	9.04	0.11	<0.01	0.11	3.44		13.8	None	4.55		0.06	0.2
107297	Y	9.36	0.52	0.01	0.51	15.94		-14.7	None	4.55		<0.01	0.2
107326	Y	9.01	0.57	0.02	0.55	17.19		13.7	Slight	6.82		<0.01	0.3
107488	Y	8.92	0.7	0.02	0.68	21.25		13.9	None	6.82		0.09	0.3
107499	Y	8.75	0.61	0.02	0.59	18.44		19.1	Slight	13.64		0.16	0.6
107505	G	9.06	0.5	0.01	0.49	15.31		85.3	Moderate	79.55		0.95	3.5
107511	TFf	8.9	<0.01	<0.01	<0.01	<0.3		3	None	<0.1		<0.01	<0.2
107559	TWc	8.85	0.02	<0.01	0.02	0.63		71.8	Moderate	59.09		0.72	2.6
107569	TF	8.51	1.71	0.02	1.69	52.81		61.9	Moderate	63.64		0.77	2.8
107581	TXc	9.47	0.15	0.01	0.14	4.38		32.5	Moderate	25		0.3	1.1
107590	TAx	8.99	0.99	0.01	0.98	30.63		20.9	Moderate	13.64		0.15	0.6
107593	TWcm	9	1.05	0.02	1.03	32.19		91.3	Strong	63.64		0.77	2.8
107654	TDm	9.09	0.02	<0.01	0.02	0.63		27.9	Moderate	20.45		0.24	0.9
107704	Gs	5.26	9.82	0.13	9.69	302.81		0.1	None	<4.5		<0.01	<0.2
107722	Gs	4.59	10.3	0.14	10.16	317.5		0.1	None	<4.5		<0.01	<0.2
107745	Gs	5.16	10.7	0.11	10.59	330.94		-0.3	None	<4.5		<0.01	<0.2
107769	Gs	3.3	10.25	0.29	9.96	311.25		-2.7	None	<4.5		<0.01	<0.2
107780	Gs	3.24	11.05	0.37	10.68	333.75		-3.6	None	<4.5		<0.01	<0.2
107787	Gs	3.19	11.8	0.35	11.45	357.81		-2.1	None	<4.5		<0.01	<0.2
107796	Gs	3.43	8.43	0.23	8.2	256.25		-1.2	None	<4.5		<0.01	<0.2
107800	Gs	3.4	12.5	0.3	12.2	381.25		-1.7	None	<4.5		<0.01	<0.2
107820	Gs	4.03	9.4	0.17	9.23	288.44		1.2	None	<4.5		<0.01	<0.2
107828	Gs	4.04	20.1	0.32	19.78	618.13		-3.3	None	<4.5		<0.01	<0.2
107874	Gs	4.03	10.75	0.11	10.64	332.5		2.6	None	<4.5		<0.01	<0.2
107875	Gs	4.29	8.34	0.12	8.22	256.88		-0.2	None	<4.5		<0.01	<0.2
107920	Gp	8.33	0.49	0.01	0.48	15		11.7	Slight	11.36		0.13	0.5
129013	Gs	7.25	1.33	0.04	1.29	40.31		8.8	Slight	9.09		0.1	0.4
129053	W	8.04	0.78	0.02	0.76	23.75		9.8	None	4.55		0.05	0.2
129055	W	8.12	1.01	0.03	0.98	30.63		14.2	Slight	9.09		0.11	0.4
129065	W	6.28	1.12	0.03	1.09	34.06		4.1	None	<4.5		<0.01	<0.2
129074	W	8.43	0.57	0.05	0.52	16.25		10.4	None	6.82		0.07	0.3
131017	Y	4.21	6.34	0.09	6.25	195.31		0.4	None	<4.5		<0.01	<0.2
131072	Y	7.49	0.85	0.03	0.82	25.63		13.6	None	11.36		0.13	0.5

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
131073	Y	6.22	1.06	0.05	1.01	31.56		4.3	None	<4.5		<0.01	<0.2
219084	TF	8.26	0.04	<0.01	0.04	1.25		106.4	Moderate	90.91		<0.01	4
219089	TF	8.65	0.09	0.01	0.08	2.5		100	Strong	70.45		0.85	3.1
219102	TF	8.46	0.01	0.02	<0.01	<0.31		67.6	Moderate	59.09		0.7	2.6
219133	TF	8.12	0.25	0.03	0.22	6.88		64.7	Moderate	50		0.61	2.2
219135	TW	8.14	0.27	0.03	0.24	7.5		70.4	Slight	61.36		<0.01	2.7
219146	TC	8.56	0.21	0.02	0.19	5.94		70	Strong	47.73		0.58	2.1
219189	TY	8.72	0.17	0.02	0.15	4.69		51.5	Slight	109.09		<0.01	4.8
219190	TY	8.27	0.16	0.02	0.14	4.38		51.2	Slight	102.27		1.23	4.5
219200	TC	8.97	0.04	0.03	0.01	0.31		106.3	Strong	111.36		1.35	4.9
219210	TC	8.76	0.09	0.03	0.06	1.88		73.8	Moderate	70.45		0.84	3.1
219302	Y2L	7.16	0.94	0.05	0.89	27.81		8.3	None	<4.5		<0.01	<0.2
219377	Gs	8.16	0.62	0.03	0.59	18.44		9.9	None	<4.5		<0.01	<0.2
219386	Y0	8.84	0.24	0.01	0.23	7.19		22.5	Slight	18.18		0.21	0.8
219387	Y0	8.64	0.36	0.01	0.35	10.94		14.4	None	11.36		0.13	0.5
219421	Gs/D	7.76	0.42	0.02	0.4	12.5		14.9	None	13.64		0.17	0.6
219428	Gs/D	8.61	0.19	<0.01	0.19	5.94		17.6	Slight	18.18		0.21	0.8
219436	W	8.99	0.15	0.01	0.14	4.38		20.2	None	18.18		0.2	0.8
219440	W	8.8	0.19	0.01	0.18	5.63		18.1	None	13.64		0.17	0.6
219475	TC	8.82	0.09	0.03	0.06	1.88		85	Strong	72.73		0.88	3.2
219485	TC/TF	9.02	0.01	0.01	<0.01	<0.3	88.2		Strong	81.36	0.98		3.58
219488	TF	9.05	0.54	<0.01	0.54	16.88	104.1		Strong	97.5	1.17		4.29
219495	Gp	8.02	1.74	0.01	1.73	54.06	12.8		None	7.73	0.09		0.34
219506	Gp	5	2.59	0.01	2.58	80.63	2.4		None	0.91	0.01		0.04
219509	Gp	5.38	1.71	0.04	1.67	52.19		0.4	Slight	<4.5		<0.01	<0.2
219516	Gp	5.86	1.47	<0.01	1.47	45.94	1.3		None	1.14	0.01		0.05
219527	Gp	7.49	1.48	0.01	1.47	45.94	2.7		None	2.73	0.03		0.12
219529	Gp	7.25	1.19	0.04	1.15	35.94		3.5	None	4.55		0.05	0.2
219537	Gp	7.82	1.2	0.01	1.19	37.19	3.7		None	2.27	0.03		0.1
219547	Gp	7.71	0.95	0.02	0.93	29.06		4.8	None	4.55		0.05	0.2
219548	Gp	8.27	0.78	<0.01	0.78	24.38	6.8		None	5.91	0.07		0.26
219558	Gp	6.35	1.01	<0.01	1.01	31.56	1.8		None	0.91	0.01		0.04
219569	Gp	6.95	1.05	<0.01	1.05	32.81	1.5		None	<0.9	0.01		<0.04
219579	Gp	8.05	0.76	<0.01	0.76	23.75	7		None	9.09	0.11		0.4
219590	Gp	6.97	0.93	<0.01	0.93	29.06	-0.1		None	0.91	0.01		0.04
219600	Gp	8.03	0.96	0.01	0.95	29.69	12.1		None	11.36	0.14		0.5
219611	Gp	7	1.17	<0.01	1.17	36.56	0.8		None	1.59	0.02		0.07
219622	Gp	8.26	0.57	<0.01	0.57	17.81	11.4		None	13.18	0.16		0.58
219633	Gp	8.02	0.75	0.01	0.74	23.13	13.5		None	13.41	0.16		0.59
219643	Gp	8.4	0.86	<0.01	0.86	26.88	13.1		Slight	11.36	0.14		0.5
219654	Gp	8.54	0.8	<0.01	0.8	25	17.7		Slight	17.05	0.2		0.75
219664	Gp	8.52	0.83	<0.01	0.83	25.94	10.3		Slight	21.59	0.26		0.95
219675	Gp	8.27	2.47	0.02	2.45	76.56	21.4		Slight	9.77	0.12		0.43
219685	Gp	8	1.12	<0.01	1.12	35	4.8		None	3.41	0.04		0.15
219696	Gp	7.24	1.38	0.02	1.36	42.5	2.7		None	1.59	0.02		0.07
219706	Gp	8.33	0.9	<0.01	0.9	28.13	10		None	8.86	0.11		0.39
219717	Gp	8.14	0.84	<0.01	0.84	26.25	0.9		None	3.41	0.04		0.15
219728	Gp	8.43	1.01	<0.01	1.01	31.56	7.8		None	7.73	0.09		0.34
219738	Gp	8.59	0.63	<0.01	0.63	19.69	10		None	7.27	0.09		0.32
219749	Gp	8.72	0.48	0.02	0.46	14.38	11.4		None	9.55	0.11		0.42
219760	Gp	8.67	0.52	0.02	0.5	15.63	15.2		Slight	13.41	0.16		0.59

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
219779	TF	8.69	0.61	0.03	0.58	18.13		42.5	Strong	38.64		0.45	1.7
219799	TC	9.17	0.58	0.05	0.53	16.56		62.9	Moderate	52.27		0.62	2.3
219834	TC	8.75	0.6	0.03	0.57	17.81		68.8	Strong	63.64		0.76	2.8
220076	Y2L	7.59	9.09	0.04	9.05	282.81		14.8	None	11.36		<0.01	0.5
220092	Y2L	7.08	7.86	0.07	7.79	243.44		12.5	None	9.09		0.11	0.4
220093	Y2L	7.51	7.58	0.07	7.51	234.69		25.8	None	29.55		0.36	1.3
220110	Y2L	6.45	6.02	0.05	5.97	186.56		5.2	None	4.55		<0.01	0.2
220116	Y2L	3.07	8.46	0.41	8.05	251.56		-3.9	None	<4.5		<0.01	<0.2
220128	Y2L	3.9	7.71	0.37	7.34	229.38		7.2	None	4.55		0.05	0.2
220134	Y2L	7.06	8.44	0.08	8.36	261.25		28.1	Slight	63.64		0.77	2.8
220141	Gs	3.85	7.52	0.34	7.18	224.38		3.7	Slight	6.82		0.08	0.3
220364	TY	8.6	0.15	0.02	0.13	4.06		60.8	Slight	61.36		<0.01	2.7
220366	TY	7.78	1.98	0.08	1.9	59.38		32.7	Moderate	27.27		0.33	1.2
220378	TC	8.24	0.63	0.04	0.59	18.44		82.4	Moderate	75		0.9	3.3
220384	TC	8.29	0.08	<0.01	0.08	2.5		94.1	Moderate	93.18		1.11	4.1
220394	TC	8.7	0.05	0.01	0.04	1.25		92.7	Moderate	88.64		<0.01	3.9
220692	TC	8.36	0.19	0.03	0.16	5		73.8	Moderate	65.91		0.8	2.9
220700	TY	7.98	0.35	0.04	0.31	9.69		52.9	Moderate	50		0.6	2.2
220705	TC	8.76	0.23	0.02	0.21	6.56		80.6	Strong	88.64		1.06	3.9
220724	TC	9.08	0.07	<0.01	0.07	2.19		82.5	Moderate	77.27		0.94	3.4
220745	TC	9.08	0.15	<0.01	0.15	4.69		63.4	Strong	43.18		0.52	1.9
220758	TC	8.89	0.16	<0.01	0.16	5		47.6	Slight	11.36		0.14	0.5
220789	Gs	4.45	1.86	0.08	1.78	55.63		2.2	None	<4.5		<0.01	<0.2
220841	Y	3.99	2.62	0.12	2.5	78.13		-0.8	None	<4.5		<0.01	<0.2
220842	Y	7.47	2.38	0.03	2.35	73.44	3		None	<4.5		<0.01	<0.2
220976	Gp	7.42	0.9	0.03	0.87	27.19		5.9	None	<4.5		<0.01	<0.2
221192	TA	8.61	0.33	0.01	0.32	10		14	Slight	22.73		0.27	1
221196	TA	8.55	1.95	0.03	1.92	60		50.6	Moderate	31.82		0.37	1.4
221198	TA	8.61	0.14	<0.01	0.14	4.38		29.4	None	4.55		0.05	0.2
221205	TA	8.36	2.76	0.07	2.69	84.06		28.4	None	6.82		0.08	0.3
221219	TA	8.78	0.26	0.07	0.19	5.94		17	None	<0.1		<0.01	<0.2
221235	TA	8.48	1.12	0.01	1.11	34.69		14.6	Slight	9.09		0.11	0.4
221241	TA	8.8	0.83	0.04	0.79	24.69		20.6	Slight	6.82		0.08	0.3
221244	TC	8.67	0.06	0.03	0.03	0.94		36.3	Slight	20.45		0.25	0.9
221276	TY	8.94	0.07	0.01	0.06	1.88		23.4	Slight	9.09		0.1	0.4
221277	TY	8.76	0.03	0.01	0.02	0.63		23	Slight	6.82		0.07	0.3
221315	TA	8.85	0.04	0.01	0.03	0.94		30.3	Slight	11.36		0.14	0.5
221388	Y	6.26	3.43	0.08	3.35	104.69		2.1	None	<4.5		<0.01	<0.2
221502	TD	9.11	1.81	0.02	1.79	55.94		13.9	None	<4.5		<0.01	<0.2
221509	TF	9.35	0.85	0.03	0.82	25.63		10.1	None	<4.5		<0.01	<0.2
221515	TA	9.02	1.89	0.01	1.88	58.75		19.5	None	4.55		0.06	0.2
221517	TA	9.04	1.16	0.01	1.15	35.94		19.3	Slight	6.82		0.09	0.3
221518	TA	8.47	1.17	0.02	1.15	35.94		17.5	None	6.82		0.08	0.3
221547	TA	8.54	1.32	0.02	1.3	40.63		22.5	None	<4.5		<0.01	<0.2
221548	TA	8.21	2.98	0.03	2.95	92.19		27.1	None	6.82		0.07	0.3
221609	TC	9.08	0.7	0.05	0.65	20.31		18.4	None	4.55		0.06	0.2
221709	Gp	4.24	2.97	0.11	2.86	89.38		2.3	None	<4.5		<0.01	<0.2
221777	Gp	8.11	1.58	0.02	1.56	48.75		9	None	6.82		0.08	0.3
221812	Gp	8.53	1.87	0.04	1.83	57.19		37.4	Moderate	22.73		0.27	1
221817	Gp	8.56	1.86	0.03	1.83	57.19		28.7	Moderate	13.64		0.18	0.6
221880	Gp	7.57	1.08	0.03	1.05	32.81		4.9	None	<4.5		<0.01	<0.2

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
221918	TF	8.41	0.02	0.01	0.01	0.31		73.2	Moderate	54.55		0.66	2.4
221979	TB	9.05	0.01	<0.01	0.01	0.31		53.7	Moderate	40.91		0.49	1.8
221983	TB	9.14	0.04	<0.01	0.04	1.25		60.4	Moderate	50		0.59	2.2
221985	TC	8.32	2.04	<0.01	2.04	63.75		12.9	Slight	9.09		0.11	0.4
222042	TB	8.86	0.07	0.02	0.05	1.56		30.2	Slight	15.91		0.2	0.7
222078	TY	8.78	0.05	0.01	0.04	1.25		27.9	Slight	11.36		0.15	0.5
222433	Y	7.74	0.83	0.04	0.79	24.69		8.8	None	6.82		0.07	0.3
222593	G	8.6	0.25	0.01	0.24	7.5		23.7	Moderate	22.73		0.28	1
222722	Gp	8.55	0.56	0.02	0.54	16.88		20.7	Slight	20.45		0.24	0.9
222788	TA d	8.24	2.58	0.03	2.55	79.69		34.6	Slight	34.09		<0.01	1.5
222928	Gp	8.41	0.25	0.06	0.19	5.94		17	Slight	13.64		0.16	0.6
222964	Gp	8.55	0.28	0.02	0.26	8.13		16.8	Slight	13.64		0.16	0.6
222973	Gp	8.54	0.1	0.02	0.08	2.5		33.6	Moderate	29.55		0.35	1.3
223010	Gp	8.11	0.55	0.51	0.04	1.25		21.3	Slight	20.45		0.23	0.9
223015	Gp	8.02	0.58	0.57	0.01	0.31		26.8	Slight	25		0.29	1.1
223017	Gp	8.09	0.33	0.15	0.18	5.63		28.9	Moderate	27.27		0.32	1.2
223018	Gp	8.08	0.72	0.56	0.16	5		22.7	Moderate	22.73		0.27	1
223035	Gp	8.66	0.28	0.01	0.27	8.44		34.3	Moderate	31.82		0.39	1.4
223041	Gp	8.41	0.26	0.01	0.25	7.81		23.3	Moderate	22.73		0.26	1
223064	TB	8.61	0.01	0.01	<0.01	<0.3		26.7	Slight	22.73		0.26	1
223065	TXc	8.46	0.01	0.01	<0.01	<0.3		24.3	Slight	11.36		0.15	0.5
223113	TB	8.98	<0.01	0.01	0.01	0.31		27.5	Slight	13.64		0.15	0.6
223116	TA	8.6	0.35	0.01	0.34	10.63		24.4	Slight	11.36		0.13	0.5
223146	TB	8.44	0.02	0.01	0.01	0.31		84.2	Moderate	75		0.89	3.3
223374	Gpk	8.11	1.2	0.01	1.19	37.19		13.9	Slight	9.09		0.12	0.4
223437	Gpk	8.6	0.38	0.01	0.37	11.56		49.1	Moderate	45.45		0.56	2
223440	Gpk	8.59	0.31	0.01	0.3	9.38		29.9	Slight	25		0.3	1.1
223446	Gpk	8.64	0.49	0.01	0.48	15		33.1	Slight	15.91		0.2	0.7
223463	Gpk	8.77	0.39	0.02	0.37	11.56		19.9	Slight	15.91		0.19	0.7
224022	TY	8.91	0.08	0.03	0.05	1.56		121.3	Strong	147.73		1.78	6.5
224037	TC	8.8	0.08	0.01	0.07	2.19		85	Strong	77.27		0.94	3.4
224047	TC	8.6	0.34	0.02	0.32	10		107.5	Strong	100		1.21	4.4
224049	TC	6.07	0.69	0.06	0.63	19.69		4.9	None	<4.5		<0.01	<0.2
224055	G	7.62	4.69	0.02	4.67	145.94		18.7	None	18.18		0.21	0.8
224066	G	3.99	4.3	0.13	4.17	130.31		-0.1	None	<4.5		<0.01	<0.2
224074	G	3.23	5.42	0.23	5.19	162.19		-2.3	None	<4.5		<0.01	<0.2
224091	G	3.44	3.24	0.14	3.1	96.88		-0.6	None	<4.5		<0.01	<0.2
224182	G	8.01	0.79	0.02	0.77	24.06		2.5	None	<4.5		<0.01	<0.2
224183	G	4.85	0.53	0.03	0.5	15.63		-0.1	None	<4.5		<0.01	<0.2
224217	G	7.49	0.32	0.02	0.3	9.38		2.2	None	<4.5		<0.01	<0.2
224244	G	5.73	0.34	0.02	0.32	10		1.2	None	<4.5		<0.01	<0.2
224260	Gp	8.17	0.38	0.02	0.36	11.25		4.7	None	4.55		0.05	0.2
224267	Gp	8.02	0.51	0.01	0.5	15.63		1.7	None	<4.5		<0.01	<0.2
224277	Gp	8.18	0.39	0.02	0.37	11.56		6.9	None	6.82		0.09	0.3
224295	Gp	8.12	0.52	0.05	0.47	14.69		12.9	None	9.09		0.12	0.4
224296	Gp	8.46	0.29	0.02	0.27	8.44		17.2	Slight	15.91		0.2	0.7
224302	Gp	8.62	0.24	0.02	0.22	6.88		15.2	Slight	13.64		0.17	0.6
224331	TF	8.72	0.52	0.04	0.48	15		58.7	Moderate	95.45		1.16	4.2
224446	TW	8.8	0.02	<0.01	0.02	0.63	139.1		Strong	130	1.56		5.72
224447	TY	8.5	0.07	0.01	0.06	1.88	58.9		Moderate	53.64	0.64		2.36
224448	TW	8.6	0.06	<0.01	0.06	1.88	163.9		Strong	152.5	1.83		6.71

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
224449	TC	8.6	0.03	<0.01	0.03	0.94	98		Moderate	94.77	1.14		4.17
224452	TD	8.63	0.05	<0.01	0.05	1.56	103.2		Moderate	100		1.2	4.4
224461	TW/TC	8.8	0.08	0.01	0.07	2.19	78.6		Strong	72.05	0.87		3.17
224462	TW/TY	8.6	0.33	<0.01	0.33	10.31	97		Strong	89.77	1.08		3.95
224473	TW/TY	8.9	0.14	<0.01	0.14	4.38	64.2		Strong	59.32	0.71		2.61
224479	TD	9.05	0.1	<0.01	0.1	3.13	110.4		Strong	105	1.26		4.62
224491	TC	9.17	0.21	<0.01	0.21	6.56	93.9		Strong	86.59	1.04		3.81
224899	TC	8.65	0.06	0.02	0.04	1.25		75.9	Moderate	70.45		0.85	3.1
224901	TF	8.58	0.07	0.03	0.04	1.25		79.8	Moderate	81.82		0.98	3.6
224956	D	9.26	2.12	0.02	2.1	65.63		25.4	None	15.91		<0.01	0.7
224988	Y	8.78	1.56	0.08	1.48	46.25		11.7	None	11.36		0.13	0.5
225016	Gs	8.27	1.08	0.03	1.05	32.81		11.2	None	6.82		0.09	0.3
225026	Gs	8.13	0.99	0.03	0.96	30		7.5	None	<4.5		<0.01	<0.2
225039	Gs	8.22	0.51	0.04	0.47	14.69		16.9	Slight	13.64		0.15	0.6
225048	GZ	5.41	0.72	0.07	0.65	20.31		7.4	None	<4.5		<0.01	<0.2
225052	G	7.27	0.65	0.05	0.6	18.75		9.2	None	6.82		0.07	0.3
225059	G	8.32	0.36	0.04	0.32	10		16.2	Slight	13.64		0.17	0.6
225093	Y	8.11	0.43	0.02	0.41	12.81		9.9	None	<4.5		<0.01	<0.2
225107	TA	8.86	0.63	0.02	0.61	19.06	68.5		Moderate	42.95	0.51		1.89
225112	TA	8.75	1.14	0.03	1.11	34.69	80.4		Moderate	65.68	0.79		2.89
225113	TW	8.72	0.97	0.04	0.93	29.06	60		Moderate	44.09	0.53		1.94
225114	TW	8.76	0.06	0.02	0.04	1.25	46.2		Moderate	51.59	0.62		2.27
225115	TW	8.73	0.4	0.05	0.35	10.94	58.2		Moderate	44.09	0.53		1.94
225116	TW	8.81	1.1	0.04	1.06	33.13	17.3		None	12.27	0.15		0.54
225122	TA	8.71	1.58	0.04	1.54	48.13	80.7		Slight	74.55	0.89		3.28
225123	TA	9.21	0.17	0.01	0.16	5	108.9		Strong	100	1.2		4.4
225131	TA	8.9	0.36	0.04	0.32	10	97.8		Moderate	90.23	1.08		3.97
225132	TA	8.1	2.06	0.03	2.03	63.44	69.2		Slight	60.23	0.72		2.65
225133	TA	8.5	0.14	0.01	0.13	4.06	105.1		Moderate	95.91	1.15		4.22
225140	TF	8.8	0.24	0.02	0.22	6.88	151.4		Moderate	154.55	1.86		6.8
225142	TA	9	0.09	0.02	0.07	2.19	152.6		Strong	181.36	2.18		7.98
225146	TC	8.7	0.23	0.01	0.22	6.88	84.2		Moderate	80.91	0.97		3.56
225147	TA	9	0.07	0.01	0.06	1.88	93.5		Strong	91.59	1.1		4.03
225150	TC	8.78	0.14	0.03	0.11	3.44		113.1	Strong	109.09		1.31	4.8
225166	TF	8.8	0.17	0.01	0.16	5	155.1		Strong	156.36	1.88		6.88
225170	TW/TC	8.7	0.26	0.01	0.25	7.81	54.9		Slight	84.09	1.01		3.7
225174	TW	8.48	0.15	0.04	0.11	3.44		30.8	Slight	65.91		0.79	2.9
225198	TC	9.1	0.02	<0.01	0.02	0.63	81		Moderate	73.86	0.89		3.25
225199	TA	8.8	0.15	0.02	0.13	4.06	131.5		Moderate	124.09	1.49		5.46
225205	Z	8.23	1.27	0.05	1.22	38.13	81.9		Moderate	68.18		0.81	3
225206	Gs	8.59	2.13	0.02	2.11	65.94	27.7		Moderate	27.95	0.34		1.23
225216	Gs	8.23	1.63	0.03	1.6	50	31.1		Slight	27.73	0.33		1.22
225227	Gs	6.77	1.86	0.02	1.84	57.5	4.2		None	<0.9	0.01		<0.04
225237	Gs	6.82	1.07	0.01	1.06	33.13	3.4		None	<0.9	0.01		<0.04
225248	Y	7.96	1.74	0.03	1.71	53.44	5.9		None	2.27	0.03		0.1
225258	Y	8.49	1.12	0.02	1.1	34.38	8.3		None	4.77	0.06		0.21
225269	Gs	8.44	1.13	0.02	1.11	34.69	9.3		None	7.05	0.08		0.31
225279	Gs	8.33	1.42	0.03	1.39	43.44	14.1		None	10.45	0.12		0.46
225290	Gs	8.08	1.97	0.02	1.95	60.94	21.1		None	3.18	0.04		0.14
225300	D	7.81	3.09	0.05	3.04	95	9		None	6.36	0.08		0.28
225311	Y/W	8.07	2.61	0.04	2.57	80.31	5.8		None	3.86	0.05		0.17

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
225321	Y	8.32	1.35	0.02	1.33	41.56	9.5		None	6.14	0.07		0.27
225332	Gp	9.16	0.76	0.01	0.75	23.44	16.5		Slight	15.91	0.19		0.7
225342	Gp	8.9	0.49	<0.01	0.49	15.31	10.1		None	8.41	0.1		0.37
225353	Gp	8.75	1.24	0.02	1.22	38.13	12.9		None	10.68	0.13		0.47
225364	Gp	8.81	0.63	0.02	0.61	19.06	10.2		None	7.95	0.1		0.35
225369	Gp	7.77	0.7	0.04	0.66	20.63		15.4	None	9.09		0.11	0.4
225371	Gp	7.65	1.02	0.06	0.96	30		5.2	None	4.55		0.05	0.2
225374	Gp	8.17	1.2	0.03	1.17	36.56	4.2		None	4.77	0.06		0.21
225377	Gp	7.56	1.08	0.07	1.01	31.56		7.2	None	4.55		0.05	0.2
225385	Gp	8.09	0.79	0.02	0.77	24.06	2.4		None	2.05	0.03		0.09
225395	Gp	7.38	0.71	0.02	0.69	21.56		6.9	None	4.55		<0.01	0.2
225396	Gp	8.35	0.76	0.02	0.74	23.13	6.6		None	5.23	0.06		0.23
225407	Gp	8.34	0.61	0.02	0.59	18.44	2.7		None	3.86	0.05		0.17
225409	Gp	7.3	0.7	0.05	0.65	20.31		6.2	None	4.55		0.05	0.2
225417	Gp	8.25	0.56	0.01	0.55	17.19	3.2		None	1.82	0.02		0.08
225428	Gp	8.6	0.49	0.02	0.47	14.69	9.5		None	5.23	0.06		0.23
225438	Gp	8.76	0.61	0.02	0.59	18.44	14.9		None	12.5	0.15		0.55
225448	Gp	8.62	0.32	0.01	0.31	9.69	13.1		None	12.05	0.14		0.53
225564	Gp	7.41	0.96	0.07	0.89	27.81		9.9	None	6.82		0.08	0.3
225568	Tad	8.41	0.5	0.03	0.47	14.69		30.1	Slight	13.64		0.16	0.6
225601	TA	8.61	0.02	<0.01	0.02	0.63		95.7	Moderate	86.36		1.03	3.8
225608	TF	8.27	0.16	<0.01	0.16	5		42.3	Slight	34.09		0.4	1.5
225614	TF	8.42	0.01	0.01	0	0		48.1	Slight	45.45		0.55	2
225654	TC	8.58	0.29	0.05	0.24	7.5		55	Slight	47.73		0.58	2.1
225676	TC	9.04	0.04	<0.01	0.04	1.25		32.5	Slight	34.09		0.41	1.5
225685	TC	9	0.13	<0.01	0.13	4.06		32.7	Slight	25		0.31	1.1
225689	TC	8.72	0.53	0.01	0.52	16.25		33.5	Slight	27.27		0.32	1.2
226027	TB	8.49	0.01	0.01	0	0		25.7	Slight	11.36		0.13	0.5
226041	TB	8.59	<0.01	<0.01	<0.01	<0.3		39.7	Slight	15.91		0.2	0.7
226047	TB	8.5	0.03	0.02	0.01	0.31		42.8	Slight	36.36		0.44	1.6
226053	TB	9.09	0.02	0.01	0.01	0.31		26.5	Slight	34.09		0.41	1.5
226057	TW	8.99	0.03	0.01	0.02	0.63		119.4	Moderate	138.64		1.65	6.1
226102	TAd	8.43	0.04	0.02	0.02	0.63		97.4	Moderate	93.18		1.11	4.1
226204	Gp	6.4	1.35	0.05	1.3	40.63		-0.3	None	<4.5		<0.01	<0.2
226244	Gp	8.77	0.94	0.05	0.89	27.81		29.2	Slight	29.55		0.35	1.3
226261	Gp	9.01	0.88	0.01	0.87	27.19		28.9	Slight	29.55		0.34	1.3
226262	Gp	8.75	0.81	0.04	0.77	24.06		28.9	Moderate	20.45		0.24	0.9
226285	Gp	8.72	0.56	0.01	0.55	17.19		30.6	Slight	27.27		0.31	1.2
226293	Gp	9.16	0.56	0.03	0.53	16.56		31.3	Slight	29.55		<0.01	1.3
226324	Z	8.76	1.2	0.03	1.17	36.56		26.7	Slight	22.73		0.28	1
226326	Z	8.34	1.47	0.05	1.42	44.38		19.7	None	18.18		0.21	0.8
226327	Z	8.43	1.06	0.03	1.03	32.19		23.2	None	20.45		0.24	0.9
226328	Z	8.44	0.9	0.04	0.86	26.88		18.7	None	15.91		0.19	0.7
226358	TAp	8.43	1.28	0.02	1.26	39.38		17.2	None	4.55		0.07	0.2
226382	TWc	8.5	0.16	0.01	0.15	4.69		4.4	Slight	6.82		0.08	0.3
226439	TF	9.77	0.24	<0.01	0.24	7.5		34	Slight	9.09		0.11	0.4
226448	TAwx	9.18	0.1	<0.01	0.1	3.13		27.5	Slight	13.64		0.15	0.6
226742	TA	9.7	0.03	0.01	0.02	0.63		14.6	None	4.55		<0.01	0.2
226745	TT	8.81	0.01	0.02	<0.01	<0.3		31.8	Slight	18.18		0.21	0.8
226746	TT	8.79	0.02	0.02	<0.01	<0.3		51.8	Moderate	27.27		0.33	1.2
226785	TB	8.45	1.75	0.03	1.72	53.75		83.3	Moderate	68.18		<0.01	3

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
226789	TB	8.08	0.01	0.01	<0.01	<0.3		45.8	Slight	11.36		0.13	0.5
226799	TB	8.21	0.09	0.01	0.08	2.5		24.6	Slight	<4.5		<0.01	<0.2
226828	TWc	8.89	0.02	0.01	0.01	0.31		30	None	4.55		0.06	0.2
226896	TDm	8.97	0.01	0.01	<0.01	<0.3		13.3	None	<0.1		<0.01	<0.2
226911	TDm	8.85	0.01	<0.01	0.01	0.31		15.4	Slight	6.82		0.09	0.3
226930	TDm	8.9	0.01	<0.01	0.01	0.31		14.7	None	<4.5		<0.01	<0.2
226931	TDm	8.76	0.01	<0.01	0.01	0.31		-11.7	None	4.55		0.05	0.2
226954	Gs	4.15	11.1	0.18	10.92	341.25		0.9	None	<4.5		<0.01	<0.2
226970	Gs	3.84	7.56	0.23	7.33	229.06		-2.6	None	<4.5		<0.01	<0.2
405725	TA	8.31	0.01	0.01	0	0		82.6	Moderate	72.73		0.86	3.2
405730	TC	8.15	0.24	0.01	0.23	7.19		91.5	Moderate	81.82		0.98	3.6
406027	TX	8.6	0.01	0.01	0	0		17.8	Slight	13.64		0.16	0.6
406030	TWc	8.39	0.38	0.01	0.37	11.56		72.6	Slight	68.18		0.83	3
406072	TB	8.75	0.02	0.01	0.01	0.31		55.3	Moderate	47.73		0.58	2.1
406086	TC	8.81	0.14	0.02	0.12	3.75		81.3	Moderate	75		0.91	3.3
406502	TF	8.63	0.12	<0.01	0.12	3.75		36.6	Moderate	34.09		<0.01	1.5
406506	TF	8.8	0.13	<0.01	0.13	4.06		59.7	Moderate	59.09		0.72	2.6
406512	TBTBx	8.69	0.39	<0.01	0.39	12.19		43	Moderate	38.64		0.45	1.7
406515	TBTBx	8.86	0.06	0.01	0.05	1.56		56.7	Moderate	45.45		0.54	2
406550	TAd	8.58	0.07	<0.01	0.07	2.19		71.8	Strong	61.36		0.74	2.7
406558	TC	8.58	1.58	0.05	1.53	47.81		62.5	Moderate	56.82		<0.01	2.5
406619	Gs	3.89	12.1	0.2	11.9	371.88		0.2	None	<4.5		<0.01	<0.2
406654	Gs	5.47	8.79	0.04	8.75	273.44		3.7	None	<4.5		<0.01	<0.2
406692	Gs	5.85	12.8	0.05	12.75	398.44		6.4	None	<4.5		<0.01	<0.2
406705	Gs	3.76	13.1	0.17	12.93	404.06		2.4	None	<4.5		<0.01	<0.2
406714	Y	5.13	6.11	0.05	6.06	189.38		5.1	None	<4.5		<0.01	<0.2
406717	Y	7.3	9.81	0.05	9.76	305		7.4	None	<4.5		<0.01	<0.2
406734	G	6.44	6.67	0.1	6.57	205.31		10	None	<4.5		<0.01	<0.2
406744	G	7.93	5.49	0.07	5.42	169.38		18.9	Slight	9.09		0.09	0.4
406758	G	7.59	5.06	0.04	5.02	156.88		10.6	None	<4.5		<0.01	<0.2
406886	Gs	8.98	0.91	0.03	0.88	27.5		9.8	None	<4.5		<0.01	<0.2
406914	Y	9.17	0.55	0.04	0.51	15.94		12.2	None	4.55		0.05	0.2
406919	Y	9.47	0.43	0.02	0.41	12.81		11	None	4.55		0.05	0.2
406941	Y	9.31	0.53	0.01	0.52	16.25		16	Slight	9.09		0.1	0.4
406956	Y	9.14	1.02	0.02	1	31.25		13	Slight	6.82		0.08	0.3
410053	TBTBx	8.43	0.04	<0.01	0.04	1.25		58.6	Moderate	45.45		0.55	2
410136	TWc	8.76	0.03	<0.01	0.03	0.94		20.1	Slight	4.55		<0.01	0.2
410253	TF	8.26	0.01	<0.01	0.01	0.31		34.7	Slight	29.55		0.36	1.3
410280	TC	8.66	0.16	0.02	0.14	4.38		68.3	Moderate	61.36		0.74	2.7
410308	TC	8.65	0.03	0.01	0.02	0.63		58.2	Moderate	56.82		0.68	2.5
411024	TBx	8.46	0.01	<0.01	0.01	0.31		126.3	Strong	111.36		1.33	4.9
411027	TB	8.58	0.05	<0.01	0.05	1.56		93.8	Moderate	81.82		0.98	3.6
411034	TB	8.69	0.04	<0.01	0.04	1.25		96.1	Strong	97.73		1.18	4.3
411048	TB	8.59	0.01	<0.01	0.01	0.31		111.9	Strong	102.27		1.23	4.5
411507	TXH	8.58	0.01	<0.01	0.01	0.31		6.9	Slight	<4.5		<0.01	<0.2
411516	TAbt	9.23	<0.01	<0.01	<0.01	<0.3		10.1	Slight	9.09		0.11	0.4
411523	TBh	8.82	0.01	<0.01	0.01	0.31		35.3	Slight	13.64		0.15	0.6
411554	TBv	8.23	<0.01	0.01	0.01	0.31		63.1	Moderate	31.82		0.38	1.4
411613	TB	8.46	0.01	<0.01	0.01	0.31		59.8	Moderate	45.45		0.55	2
411620	TB	8.56	0.01	<0.01	0.01	0.31		37.6	Slight	9.09		0.11	0.4
411631	TB	8.61	0.01	<0.01	0.01	0.31		50.6	Slight	18.18		0.22	0.8

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
411633	TB	8.53	0.01	<0.01	0.01	0.31		48.3	Slight	20.45		0.24	0.9
411641	TB	8.32	0.01	<0.01	0.01	0.31		64.4	Slight	38.64		0.46	1.7
411646	TT	8.46	0.05	<0.01	0.05	1.56		91.4	Moderate	84.09		1	3.7
411649	TMd	8.53	0.01	0.01	0	0		44.5	Moderate	36.36		0.44	1.6
411650	TMd	8.38	0.19	<0.01	0.19	5.94		24.1	Slight	27.27		0.32	1.2
411651	TMd	8.59	<0.01	0.01	0.01	0.31		26.4	Slight	13.64		0.17	0.6
411661	TMd	8.51	0.01	<0.01	0.01	0.31		30.2	Slight	20.45		0.26	0.9
411670	TMd	8.57	0.01	<0.01	0.01	0.31		42.3	Moderate	38.64		0.45	1.7
411689	TB	8.1	0.03	<0.01	0.03	0.94		77.2	Moderate	68.18		0.82	3
219479/219480	TC/TF	9.45	0.01	<0.01	0.01	0.31	82.5		Moderate	75.23	0.9		3.31
219481/219482/219483	TC/TF	9.31	0.07	<0.01	0.07	2.19	85		Strong	83.41	1		3.67
219486/219487	TC/TF	9.24	0.24	0.01	0.23	7.19	83.1		Moderate	80.91	0.97		3.56
219489/219490	TF	9.47	0.08	0.01	0.07	2.19	62.1		Moderate	60.68	0.73		2.67
219491/219492	TF	9.37	0.05	<0.01	0.05	1.56	70.8		Moderate	67.73	0.81		2.98
219493/219494	TF	9.3	0.07	<0.01	0.07	2.19	81.5		Moderate	78.41	0.94		3.45
220841 + 220842	Y	8.24	2.15	0.04	2.11	65.94	6.8		None	<4.5		<0.01	<0.2
224450/224451	TW/TC	8.68	0.18	0.02	0.16	5	102.4		Moderate	107.95	1.29		4.75
224453/224455	TC	8.97	0.13	0.01	0.12	3.75	86.4		Moderate	80.23	0.96		3.53
224456/224457	TC	8.92	0.14	0.02	0.12	3.75	83.1		Moderate	77.05	0.92		3.39
224458/224459/224460	TC	8.9	0.15	0.02	0.13	4.06	77.4		Strong	70	0.84		3.08
224463/224464	TF	9.06	0.13	0.01	0.12	3.75	84.9		Strong	80.45	0.97		3.54
224465/224466	TW	8.97	0.13	0.03	0.1	3.13	76.9		Strong	75.91	0.91		3.34
224467/224468	TY	8.83	0.45	0.03	0.42	13.13	46.2		Slight	44.77	0.54		1.97
224469/224470	TW/TF	9.02	0.13	<0.01	0.13	4.06	87.5		Strong	85.91	1.03		3.78
224471/224472	TW/TF	9.4	0.08	0.02	0.06	1.88	103.8		Strong	102.95	1.23		4.53
224475/224476	TW/TY	8.91	0.19	<0.01	0.19	5.94	61.9		Strong	61.59	0.74		2.71
224477/224478	TY	9.01	0.38	0.01	0.37	11.56	76.3		Strong	72.5	0.87		3.19
224480/224481	TC	9.28	0.16	<0.01	0.16	5	70.6		Strong	67.73	0.81		2.98
224482/224483	TC	9.27	0.13	0.01	0.12	3.75	88.1		Strong	87.95	1.05		3.87
224484/224485	TC	9.29	0.44	<0.01	0.44	13.75	80.6		Strong	77.95	0.94		3.43
224486/224487	TC	9.48	0.05	<0.01	0.05	1.56	73.8		Strong	72.05	0.86		3.17
224488/224489/224490	TC	9.28	0.01	<0.01	0.01	0.31	85.6		Moderate	66.36	0.8		2.92
224492/224493	TC	9.32	0.02	0.01	0.01	0.31	99.4		Strong	97.27	1.17		4.28
224495/224496	TA	9.6	0.05	0.01	0.04	1.25	66.9		Moderate	50.23	0.6		2.21
224497/224498	TA	9.68	0.03	<0.01	0.03	0.94	65.6		Moderate	48.41	0.58		2.13
224499/224500/219478	TA	9.72	0.03	<0.01	0.03	0.94	62.5		Moderate	65.45	0.79		2.88
225101/225102	TA	9.26	0.01	<0.01	0.01	0.31	62.5		Moderate	43.41	0.52		1.91
225103/225104	TA	9.06	0.01	0.02	<0.01	<0.3	70.6		Moderate	55	0.66		2.42
225105/225106	TA	9.07	0.02	0.01	0.01	0.31	71.9		Moderate	56.82	0.68		2.5
225108/225109/225110	TA	9.29	0.02	<0.01	0.02	0.63	41.3		Moderate	28.41	0.34		1.25
225117/225118	TA	9.63	0.12	<0.01	0.12	3.75	57.8		Moderate	54.77	0.66		2.41
225119/225120	Tap	9.6	0.06	<0.01	0.06	1.88	41.8		Slight	43.41	0.52		1.91
225124/225125	TA	9.3	0.58	0.01	0.57	17.81	93.8		Moderate	91.82	1.1		4.04
225126/225127/225128	TA	9.09	0.34	0.02	0.32	10	105		Moderate	104.09	1.25		4.58
225129/225130	TA	9.6	0.06	0.01	0.05	1.56	92.5		Moderate	89.77	1.08		3.95
225134/225135	TA	9.19	0.71	0.02	0.69	21.56	100		Moderate	101.36	1.22		4.46
225136/225137	TW	9.65	0.44	<0.01	0.44	13.75	103.1		Moderate	106.36	1.28		4.68
225138/225139	TF	9.3	0.05	0.01	0.04	1.25	122.5		Moderate	128.64	1.54		5.66
225143/225144/225145	TF	9.6	0.11	0.01	0.1	3.13	133.8		Moderate	142.27	1.71		6.26
225148/225149	TC	9.6	0.11	0.01	0.1	3.13	95.6		Moderate	95.45	1.15		4.2
225150/225151	TC	9.4	0.12	0.01	0.11	3.44	112.5		Moderate	111.59	1.34		4.91

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
225152/225153	TC	9.41	0.14	0.03	0.11	3.44	110		Moderate	108.86	1.31		4.79
225154/225155	TC	9.39	0.05	0.02	0.03	0.94	101.3		Moderate	102.73	1.23		4.52
225156/225157	TC	9.33	0.15	0.02	0.13	4.06	97.5		Moderate	95.91	1.15		4.22
225158/225159	TW	9.37	0.08	<0.01	0.08	2.5	76.6		Moderate	75.68	0.91		3.33
225160/225162	TC	9.05	0.2	0.01	0.19	5.94	84.5		Moderate	81.59	0.98		3.59
225163/225164/225165	TF/TC	8.93	0.33	<0.01	0.33	10.31	100		Moderate	103.41	1.24		4.55
225167/225168/225169	TA	9.66	0.07	0.02	0.05	1.56	167.5		Moderate	182.05	2.19		8.01
225171/225172	TW	9.18	0.13	<0.01	0.13	4.06	59		Moderate	60.23	0.72		2.65
225173/225174	TW	9.25	0.12	<0.01	0.12	3.75	78		Moderate	84.55	1.01		3.72
225175/225176	TW/TY	9.04	0.21	0.01	0.2	6.25	53.1		Moderate	54.55	0.65		2.4
225177/225178	TY	9.01	0.22	0.01	0.21	6.56	49.6		Moderate	47.73	0.57		2.1
225179/225180	TC	9.35	0.19	0.02	0.17	5.31	106.1		Moderate	103.41	1.24		4.55
225182/225183	TC	9.37	0.11	0.01	0.1	3.13	95		Moderate	93.64	1.12		4.12
225184/225185	TC	9.5	0.07	0.01	0.06	1.88	101.3		Moderate	101.82	1.22		4.48
225186/225187	TC	9.6	0.03	0.01	0.02	0.63	84.4		Moderate	82.27	0.99		3.62
225188/225189	TC	9.8	0.01	0.02	<0.01	<0.3	73.8		Moderate	66.14	0.79		2.91
225190/225191	TA	9.8	0.04	0.02	0.02	0.63	41.8		Moderate	35.23	0.42		1.55
225192/225193	TA	9.4	0.01	0.03	<0.01	<0.3	45.5		Moderate	37.05	0.44		1.63
225194/225195	TC	9.55	0.01	0.01	<0.01	<0.3	39.8		Moderate	35.45	0.43		1.56
225196/225197	TC	9.44	0.04	0.01	0.03	0.94	65.1		Moderate	62.95	0.76		2.77
225200/225201	TF	8.84	0.02	0.02	<0.01	<0.3	54.7		Moderate	52.5	0.63		2.31
225203/225204	TF	8.99	0.14	0.02	0.12	3.75	98.8		Moderate	96.14	1.15		4.23
4292-415-430	TA/TD	7.98	0.88	0.01	0.87	27.19		17.2	None	74.09			3.26
4292-685-695	TC	8.05	2.53	0.12	2.41	75.31		83.7	Moderate	78.64			3.46
8404-1812-1822	Gs	4.38	6.42	0.15	6.27	195.94		-1.5	None			0.01	<0.2
8404-1950-1960	Gs	6.87	2.17	0.03	2.14	66.88		12.9	Slight			0.34	1
8404-2110-2120	Y	7.69	2.16	0.02	2.14	66.88		10.7	Slight			0.15	0.6
8406-1909-1919	Y	5.23	8.39	0.04	8.35	260.94		2.2	None			0.02	<0.2
8443-1586-1596	Y	7.05	2.87	0.02	2.85	89.06		3	None			0.05	0.3
ARLB010 (+1/4")	TA+TB	9.14	0.06	0.01	0.03	0.94		39.3	Slight	29.55		0.37	1.3
ARLB010 (-1/4")	TA+TB	9.11	0.07	0.02	0.05	1.56		48.1	Slight	43.18		0.66	1.9
Composite 1	G	8.48	0.52	<0.01	0.52	16.25		18.4	None	15.91			0.7
Composite 10	TC/TF	8.97	0.02	<0.01	0.02	0.63		60.3	Moderate	56.82			2.5
Composite 11	TC/TY	8.99	0.11	0.01	0.1	3.13		125.1	Moderate	120.45			5.3
Composite 12	TW(TF)	8.78	0.13	0.01	0.12	3.75		81.2	Moderate	79.55			3.5
Composite 13	TC	9.26	0.2	<0.01	0.2	6.25		80.7	Moderate	75			3.3
Composite 14	TC/TW	7.34	0.72	0.05	0.67	20.94		26.5	Slight	20.45			0.9
Composite 15	TB	9.48	<0.01	<0.01	<0.01	<0.3		109.2	Moderate	106.82			4.7
Composite 16	TB	8.89	0.01	<0.01	0.01	0.31		85	Moderate	77.27			3.4
Composite 17	TB	9.01	0.04	0.01	0.03	0.94		61.3	Slight	56.82			2.5
Composite 18	TB	9.14	0.3	<0.01	0.3	9.38		19.2	Slight	11.36			0.5
Composite 19	TA	9	0.56	<0.01	0.56	17.5		17.5	None	6.82			0.3
Composite 2	G	8.04	1.65	0.01	1.64	51.25		6.5	None	4.55			0.2
Composite 20	TA	8.96	1.32	<0.01	1.32	41.25		17.9	Slight	11.36			0.5
Composite 3	G	6.96	8.65	0.04	8.61	269.06		2.6	None	<0.1			<0.2
Composite 4	G	5.37	16.1	0.03	16.07	502.19		-0.1	None	<0.1			<0.2
Composite 5	Y	8.82	0.92	<0.01	0.92	28.75		12.3	None	6.82			0.3
Composite 6	Y	8.31	1.36	0.01	1.35	42.19		11.8	None	9.09			0.4
Composite 7	Y	7.89	6.02	0.01	6.01	187.81		8.1	None	4.55			0.2
Composite 8	Y	7.59	8.83	0.02	8.81	275.31		12.2	None	11.36			0.5
Composite 9	TC	9.17	0.02	<0.01	0.02	0.63		84.4	Moderate	79.55			3.5

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
GH07-104-SRK Comp#1		7.26	0.01	<0.01	0.01	0.31		13.3	None	6.82		0.07	0.3
GH07-104-SRK Comp#10		7.9	0.03	<0.01	0.03	0.94		23.8	None	29.55		0.35	1.3
GH07-104-SRK Comp#11		8.07	0.02	<0.01	0.02	0.63		50.4	Slight	54.55		0.7	2.4
GH07-104-SRK Comp#12		8.23	0.01	0.01	<0.01	<0.3		3.4	None	4.55		0.03	0.2
GH07-104-SRK Comp#2		7.74	0.01	0.01	<0.01	<0.3		17.3	None	9.09		0.14	0.4
GH07-104-SRK Comp#3		7.88	0.03	0.02	0.01	0.31		30.3	None	43.18		0.56	1.9
GH07-104-SRK Comp#4		7.92	0.02	0.02	<0.01	<0.3		24.2	None	25		0.38	1.1
GH07-104-SRK Comp#5		7.91	0.03	0.01	0.02	0.63		34.9	Slight	43.18		0.65	1.9
GH07-104-SRK Comp#6		7.99	0.04	0.01	0.03	0.94		40.3	Slight	56.82		0.76	2.5
GH07-104-SRK Comp#7		7.95	0.03	0.01	0.02	0.63		22.1	Slight	31.82		0.39	1.4
GH07-104-SRK Comp#8		8	0.01	0.01	<0.01	<0.3		25.2	Slight	27.27		0.34	1.2
GH07-104-SRK Comp#9		7.753	0.05	0.01	0.04	1.25		25.3	Slight	36.36		0.5	1.6
GH07-105-SRK Comp#1		7.21	0.01	0.01	<0.01	<0.3		6.5	None	4.55		0.04	0.2
GH07-105-SRK Comp#2		7.9	0.01	<0.01	0.01	0.31		16.6	Slight	15.91		0.21	0.7
GH07-105-SRK Comp#3		8.23	0.02	0.01	0.01	0.31		27.2	Slight	40.91		0.49	1.8
GH07-105-SRK Comp#4		8.04	0.04	0.01	0.03	0.94		27.5	Slight	40.91		0.53	1.8
GH07-105-SRK Comp#5		8.38	0.03	0.01	0.02	0.63		22.4	Slight	72.73		0.92	3.2
GH07-105-SRK Comp#6		8.13	0.05	0.01	0.04	1.25		36.9	Slight	40.91		0.52	1.8
GH07-105-SRK Comp#8		8.21	0.02	0.01	0.01	0.31		10.6	None	15.91		0.23	0.7
GH07-106-SRK Comp#1		5.22	0.22	<0.01	0.22	6.88		-13.4	None	6.82		10.35	0.3
GH07-106-SRK Comp#2		6.88	0.02	<0.01	0.02	0.63		8.8	None	4.55		0.08	0.2
GH07-106-SRK Comp#3		7.81	0.01	0.01	<0.01	<0.3		18.4	None	20.45		0.24	0.9
GH07-106-SRK Comp#4		8.04	0.04	0.02	0.02	0.63		27.5	None	36.36		0.52	1.6
GH07-106-SRK Comp#5		8.02	0.03	0.01	0.02	0.63		25.9	Slight	31.82		0.46	1.4
GH07-106-SRK Comp#6		8.22	0.03	0.02	0.01	0.31		32.7	Slight	43.18		0.56	1.9
GH07-106-SRK Comp#7		8.22	0.01	0.02	<0.01	<0.3		9.8	None	4.55		0.06	0.2

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
Waste Rock (PWZ)													
013-0107-0117	G	6.92	0.14	0.11		0.94		1	None	0.83			
013-0117-0127	G	6.32	0.9	0.75		4.69		0.56	None	0.83			
018-0074-0095	D	7.02	0.86	0.23		19.69		5.5	None	1.67	0.02		
018-0135-0155	D/D	8.49	3.08	<0.01		96.25		42.5	Moderate	37.5	0.45		
018-0225-0245	D/D	7.81	7.14	0.1		220		26.75	None	28.34	0.34		
019-0030-0051	OB	8.38	0.26	0.11		4.69		26.75	None	19.17	0.23		
019-0072-0090	WY	6.87	0.78	0.38		12.5		0.44	None	0.83	0.01		
019-0200-0220	N.Y	5.43	2.76	0.09		83.44		0.87	None	0.83	0.01		
019-0240-0260	Y	6.05	2.73	0.08		82.81		2.5	None	0.83	0.01		
019-0390-0410	Gp-Pl	7.86	3.5	0.03		108.44		6.88	None	25.84	0.31		
025-0179-0199	Y	4.8	5.01	0.12		152.81	1.3	-2	None	0.83	0.01		
025-0453-0473	Y	4.7	5.25	0.19		158.13		2.25	None	15	0.18		
025-0617-0637	D	4.96	3.56	0.19		105.31		9.75	None	73.34	0.88		
027-0070-0090	Y	5.06	1.21	0.6		19.06		-0.25	None	0.83			
027-0110-0130	W	4.75	2.96	0.13		88.44		0.69	None	1.67	0.02		
027-0200-0220	Y	7.15	3.32	0.04		102.5		7	None	13.33	0.16		
027-0260-0280	Y	6.36	3.11	0.04		95.94		6.13	None	5.83	0.07		
033-0137-0155	Y	8.4	2.21	0.02		68.44		26.5	None	28.34	0.34		
033-0304-0323	TBpd	8.41	0.41	0.03		11.88		72.5	Moderate	160.01	1.92		
033-0343-0363	G-P	8.07	2.3	0.02		71.25		23	None	57.5	0.69		
034-0060-0090	OB	6.34	0.2	0.19		0.31		2.63	None	0.83			
034-0100-0117	X.DbGY	5.84	1.56	0.06		46.88		2.44	None	0.83			
037-0062-0093	TC - basalt	8.01	0.09	0.02		2.19		85.31	Strong	109.17	1.31		
037-0122-0161	TC - cng	8.14	0.14	0.04		3.13	152.5	107.5	Moderate	159.18	1.91		
037-0161-0182	TC - cng	7.98	0.17	0.06		3.44		79.38	Moderate	151.68	1.82		
041-0000-0020	Fc	7.31	0.1	0.04		1.88		1.88	None	0.83	0.01		
041-0020-0040	Y	5.91	0.15	0.14		0.31		-0.56	None	0.83	0.01		
041-0094-0114	Y	5.21	2.42	0.07		73.44		-0.94	None	0.83	0.01		
041-0244-0260	N	5.32	1.93	0.09		57.5		-0.19	None	0.83	0.01		
041-0280-0300	D	6.45	2.08	0.05		63.44		7.63	None	18.33	0.22		
041-0500-0520	Z	7.14	2.27	0.07		68.75		6.81	None	2.5	0.03		
041-0538-0558	Y	6.49	1.92	0.04		58.75		2.75	None	20	0.24		
041-0728-0748	q	4.7	4.2	0.1		128.13		-0.63	None	0.83	0.01		
042-0060-0075	Y	4.96	2.97	0.06		90.94		0.19	None	5.83	0.07		
042-0271-0290	D/G	7.9	2.89	0.02		89.69		23.88	None	55	0.66		
042-0360-0380	Yb	7.74	3.22	0.06		98.75		15.63	Slight	30	0.36		
044-0190-0210	Gp	4.85	2.1	0.06		63.75		-2	None	0.83			
044-0225-0245	X.HGDN-YxN/D	5.39	2.11	0.08		63.44	9.3	4.06	None	3.33	0.04		
044-0305-0325	N.H	5.13	3.32	0.1		100.63		4	None	0.83	0.01		
044-0343-0363	Gp	5.01	1.95	0.06		59.06		1.63	None	0.83	0.01		
046-0038-0063	Fc	6.91	0.14	0.14		<0.3		1.25	None	0.83	0.01		
046-0113-0133	N or Gp-p.YM	7.24	1.73	0.02		53.44		6.06	None	25	0.3		
046-0195-0215	Y	7.94	1.87	0.02		57.81		7.75	None	26.67	0.32		
046-0259-0279	N or Gp.YM	7.8	1.52	0.05		45.94		9.13	None	37.5	0.45		
046-0308-0328	G-p	7.79	2.06	0.03		63.44		6.75	None	37.5	0.45		
046-0363-0383	N or Gp.YD-M	7.63	2.51	0.04		77.19		7.5	None	34.17	0.41		
046-0563-0580	N-p	7.17	1.92	0.02		59.38		8.5	None	29.17	0.35		
046-0580-0600	GxN	8.04	1.45	0.01		45		8	None	25.84	0.31		
047-0117-0136	Wy	5.95	1.7	0.05		51.56		2	None	0.83	0.01		
047-0226-0246	Wy	6.32	4.47	0.04		138.44		1	None	0.83	0.01		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
047-0350-0365	Wy	6.84	3.43	0.08		104.69	11.8	6.13	None	29.17	0.35		
047-0462-0482	Gph	8.6	1.38	<0.01		43.13		19.5	Slight	36.67	0.44		
047-0592-0612	Gph	8.63	1.94	<0.01		60.63		19.25	None	34.17	0.41		
048-0135-0155	Gp	5.54	2.85	0.05		87.5		-0.25	None	1.67	0.02		
048-0172-0190	Z / Gp	6.99	1.8	0.07		54.06		10.75	None	25	0.3		
048-0200-0220	Gp	7.23	2.95	0.06		90.31		5.13	None	20.83	0.25		
048-0760-0780	Gp	7.95	2.01	0.04		61.56		42.63	Slight	50	0.6		
058-0058-0078	P-k	6.95	0.27	0.27		<0.3		0.13	None	0.83			
058-0348-0368	P	8.36	2.38	0.03		73.44		18	None	28.34	0.34		
058-0378-0398	N	7.93	1.92	0.03		59.06		9.5	None	23.33	0.28		
058-0398-0418	Z.NPY	7.66	2.83	0.08		85.94		19	None	17.5	0.21		
058-0428-0448	X.DPYxN	7.54	3.74	0.09		114.06	20.8	17.13	None	32.5	0.39		
064-0000-0030	OB	7.84	0.05	<0.01		1.56		16.5	None	7.5	0.09		
064-0030-0050	G	4.5	1.21	0.1		34.69		-3.69	None	0.83	0.01		
064-0132-0147	G	4.12	3.52	0.18		104.38		-3.56	None	0.83	0.01		
064-0156-0176	Y	5.42	2.42	0.06		73.75		0.13	None	3.33	0.04		
064-0499-0519	Y-W	8.89	2.3	0.01		71.56		28.5	Slight	33.34	0.4		
064-0539-0554	D/G	6.66	3.91	0.25		114.38		28.63	None	62.5	0.75		
068-0046-0066	Z.Y	7.7	0.89	0.29		18.75		56.5	Moderate	126.68	1.52		
068-0095-0115	D	7.85	7.23	0.1		222.81		55	Slight	70.84	0.85		
068-0235-0255	D	8.48	3.74	0.05		115.31		41.25	None	55.84	0.67		
068-0265-0285	Y-x	7.05	2.26	0.16		65.63		16.13	None	25.84	0.31		
068-0500-0520	G	6.88	3.08	0.18		90.63		15.88	None	25.84	0.31		
071-0313-0333	R/Db	7.7	2.76	0.05		84.69		10.69	None	69.17	0.83		
071-0353-0373	R/Db	6.36	7.15	0.07		221.25		7.5	None	50.84	0.61		
071-0423-0443	R/Db	5.76	3.34	0.15		99.69		9	None	75.84	0.91		
071-0473-0493	R/Db	4.39	5.33	0.54		149.69		2.63	None	41.67	0.5		
076-0438-0458	D/N	5.06	3.9	0.23		114.69		6.75	None	39.17	0.47		
076-0518-0538	D/N	7.75	1.6	0.03		49.06		19.75	None	93.34	1.12		
076-0608-0625	G/N?	4.69	5.2	0.13		158.44		2.31	None	6.67	0.08		
086-0000-0067	OB	7.98	0.65	0.06		18.44		14.25	None	2.5	0.03		
086-0279-0287	TBd	8.22	0.22	0.04		5.63		76.5	Moderate	135.84	1.63		
086-0363-0377	Np	6.58	2.51	0.09		75.63		9.31	None	5	0.06		
086-0417-0437	Gp-k	7.57	2.59	0.1		77.81		22.13	None	31.67	0.38		
086-0467-0487	N.MH	7.32	2.52	0.08		76.25		5.94	None	13.33	0.16		
086-0617-0637	X.Db GN	7.74	3.67	0.13		110.63		45	None	66.67	0.8		
093-0043-0063	G-p	5.42	0.74	0.65		2.81		-1.25	None	0.83			
093-0133-0148	G-p	4.83	3.42	0.08		104.38		-1.19	None	0.83	0.01		
093-0158-0178	Y	4.66	2.23	0.07		67.5		-0.13	None	0.83	0.01		
093-0248-0268	Y	5.85	2.95	0.06		90.31		4.56	None	2.5	0.03		
093-0377-0394	Y	7.18	2.72	0.02		84.38		7.13	None	12.5	0.15		
098-0151-0171	Y	6.08	0.41	0.02		12.19		0.94	None	0.83			
098-0191-0211	Z.Y / Y	4.4	4.88	0.19		146.56		-2.94	None	0.83			
098-0241-0261	Y	5.79	2.4	0.04		73.75		2.88	None	0.83			
098-0572-0592	Gph	7.4	2.12	0.02		65.63		10.13	None	16.67	0.2		
098-0642-0662	Gph	8.49	1.61	<0.01		50.31		24.25	Slight	36.67	0.44		
108-0633-0650	Y	8	3.09	0.01		96.25		17.88	None	22.5	0.27		
108-0770-0790	G	6.25	3.83	0.02		119.06		7.31	None	20.83	0.25		
112-0160-0180	N.NM / N.YM	6.65	2.18	0.04		66.88		6.38	None	7.5	0.09		
112-0220-0240	N.H	7.47	2.6	0.02		80.63		5.31	None	12.5	0.15		
112-0300-0320	N.H	7.48	1.66	0.01		51.56		3.63	None	5.83	0.07		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
112-0400-0420	N.H	8	2.26	0.02		70		12.5	None	22.5	0.27		
112-0460-0480	X.MDbxN	6.74	2.98	0.05		91.56		5.63	None	10	0.12		
113-0040-0060	Y	5.46	2.47	0.03		76.25		4.75	None	3.33	0.04		
113-0090-0110	Y	6.24	2.8	0.04		86.25		5	None	11.67	0.14		
113-0170-0190	G-p	6.38	3.55	0.05		109.38		5.25	None	46.67	0.56		
113-0360-0380	Y	7.21	2.53	0.04		77.81		7.5	None	18.33	0.22		
113-0510-0530	Y	5.2	5.52	0.06		170.63		3.13	None	27.5	0.33		
114-0055-0062	Pp	7.21	0.47	0.45		0.62		0.19	None	0.83	0.01		
114-0090-0104	Pp	6.68	2.25	0.14		65.94		4.13	None	0.83			
114-0180-0200	Ppk / P-k	6.32	1.62	0.04		49.38		6.25	None	0.83	0.01		
114-0290-0303	Ppk	6.2	1.73	0.04		52.81		10	None	14.17	0.17		
114-0310-0330	X.MDxN	7.42	0.99	0.02		30.31		8	None	19.17	0.23		
114-0400-0420	X.MD#b	7.84	2.07	0.04		63.44		9.56	None	19.17	0.23		
114-0460-0481	X.MD#b	8.13	1.8	0.02		55.63		8.75	None	31.67	0.38		
115-0014-0024	TC- Oxidized	7.02	0.05	0.01		1.25	15.3	3	None	1.67	0.02		
115-0024-0034	TC- Arkose	7.71	0.37	0.08		9.06	90	36.75	Moderate	62.5	0.75		
115-0041-0054	TC - Cng	7.86	1.1	0.11		30.94		56.13	Moderate	111.67	1.34		
115-0054-0066	TC	7.87	0.25	0.05		6.25	86.9	29	Slight	88.34	1.06		
115-0104-0123	TC - Slst	8.2	0.11	0.04		2.19		56.75	Moderate	129.18	1.55		
115-0142-0163	TC - Arkose	7.41	0.6	0.3		9.38		41.38	Slight	81.67	0.98		
115-0197-0215	TC - Cng	8.3	0.23	0.09		4.38		64.75	Slight	129.18	1.55		
115-0232-0264	TC - Cng/mdst	8.14	0.36	0.1		8.13		97	Slight	155.84	1.87		
115-0280-0300	TA pd	8.53	0.4	0.02		11.88		66.25	Moderate	175.85	2.11		
115-0300-0320	Y-W	7.91	2.76	0.02		85.63		20	None	65.84	0.79		
115-0410-0430	Y	6.89	4.36	0.03		135.31		6.13	None	42.5	0.51		
11535-14118-1422	Gs	4.92	7.39	0.06	7.33	229.06		3.5	None			0.03	<0.2
11539-3695-3803	Y	7.04	2.34	<0.01	2.34	73.13		5	None			0.41	1.3
11539-4336-444	Gp	6.98	2.41	0.02	2.39	74.69		4.4	None			0.29	0.9
116-0570-0590	Gp	4.52	8.32	0.12		256.25	1.5	-0.63	None	0.83	0.01		
116-0630-0650	Gp	6.98	2.89	0.02		89.69		5.25	None	5.83	0.07		
116-0780-0802	Gp	5.31	2.82	0.06		86.25		1.88	None	5	0.06		
116-0890-0908	Y	6.01	3.52	0.04		108.75		4.88	None	4.17	0.05		
117-0000-0053	OB	6.55	0.26	0.17		2.81		4	None	0.83	0.01		
117-0070-0090	N.M	5.77	1.71	0.17		48.13	5.3	1.88	None	0.83	0.01		
117-0160-0174	MpK-N	7.58	0.76	0.01		23.44		2.75	None	14.17	0.17		
117-0190-0210	N.YM	7.48	1.9	0.04		58.13		5.63	None	37.5	0.45		
117-0233-0250	Mp-K	8.11	0.46	0.01		14.06		4.25	None	40.84	0.49		
117-0300-0320	Gp-K	8.38	1.15	0.01		35.63	11.9	5.88	None	41.67	0.5		
117-0560-0579	GpK	7.57	1.95	0.03		60		5.13	None	10	0.12		
117-0590-0610	Y	7.78	2.75	0.07		83.75		11.75	None	30	0.36		
117-0630-0650	Y	8.13	2.04	0.04		62.5		14.38	None	31.67	0.38		
117-1055-1071	TBd	8.24	0.26	0.01		7.81		108.5	Strong	123.34	1.48		
118-0150-0170	N-.Y	7.78	1.48	0.03		45.31		10.38	None	80.84	0.97		
118-0190-0210	Z.N	7.34	2.3	0.06		70		9.5	None	55.84	0.67		
118-0220-0240	Y	7.94	2.04	0.02		63.13		15.5	None	23.33	0.28		
118-0260-0278	Y	8.09	1.84	0.03		56.56		18.63	None	27.5	0.33		
118-0336-0355	TbD	7.68	0.45	0.07		11.88	63.5	57	Slight	99.17	1.19		
118-0390-0410	TBd	7.96	0.08	0.01		2.19		39.5	Slight	84.17	1.01		
118-0468-0488	Mkp-x	8.41	1.19	0.02		36.56		37.5	Slight	109.17	1.31		
118-0497-0515	N/D.-YM	6.69	2.99	0.16		88.44		30.75	None	64.17	0.77		
118-0520-0535	Y	7.01	3.1	0.14		92.5		30.88	None	43.34	0.52		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
118-0565-0585	Y	7.56	2.37	0.07		71.88		25.88	None	53.34	0.64		
118-0650-0670	D/N-.#b	8.37	2	0.02		61.88		47	None	129.18	1.55		
118-0710-0730	Np-.#b D?	8.53	2.01	0.03		61.88		26.38	None	79.17	0.95		
118-0760-0780	D	8.42	2.1	0.03		64.69		43.13	Slight	94.17	1.13		
118-0890-0910	N/D	8.6	1.08	0.02		33.13		44.25	None	105.01	1.26		
118-0980-1000	N-p-.Y / N-.Y-D	8.14	1.86	0.06		56.25		20.5	None	34.17	0.41		
118-1040-1060	N.Y-D	8.87	1.03	0.02		31.56		116.13	Slight	150.01	1.8		
118-1220-1238	WY	7.65	2.59	0.11		77.5		32.63	None	37.5	0.45		
118-1300-1320	Y	9.49	0.97	0.01		30		54.13	Slight	69.17	0.83		
118-1480-1500	X.YxN	8.62	1.23	0.01		38.13		49.75	Slight	59.17	0.71		
120-0075-0095	B	7.29	0.14	0.07		2.19		1.88	None	0.83	0.01		
120-0116-0130	R/Db	4.55	7.46	0.38		221.25		-2.75	None	0.83	0.01		
120-0260-0280	R/Db	8.19	5.08	0.03		157.81		25.88	None	14.17	0.17		
120-0380-0400	R/Db	8.37	3.01	0.01		93.75		35.25	Slight	20	0.24		
2001-0130-0150	Kqs	7.07	4.16	0.04		128.75		4.38	None	0.83	0.01		
2003-0210-0230	Kgde	5.66	2.3	0.05		70.31		0.56	None	0.83	0.01		
2003-0335-0356	Kgde	6.56	8.15	0.05		253.13		5.75	None	0.83	0.01		
2036-0421-0440	W	5.85	3.7	0.04		114.38		4.75	None	0.83			
2036-0500-0520	G-p	7.57	3.15	0.03		97.5	12.3	8.75	None	20	0.24		
2036-0540-0564	Y	7.19	3.12	0.03		96.56	12.3	8.13	None	5	0.06		
2036-0570-0590	G-p	7.45	3.32	0.03		102.81		12	None	3.33	0.04		
2036-0660-0682	G-p	7.45	2.69	0.02		83.44		6.88	None	1.67	0.02		
2036-0700-0720	G-p	7.19	3.36	0.03		104.06		6.25	None	5.83	0.07		
25293/25294	Gs	7.75	2.25	0.03	2.22	69.38	13.1		None	29.55	0.35		1.3
25303/25304	Gs	6.91	2.79	0.03	2.76	86.25	5.3		None	2.05	0.03		0.09
25314/25315	Gs	7.78	2.37	0.02	2.35	73.44	10.1		None	17.27	0.21		0.76
25324/25325	Y	8.64	1.2	0.01	1.19	37.19	9.8		None	24.77	0.3		1.09
25335/25336	Y	7.15	1.96	0.02	1.94	60.63	5.3		None	11.59	0.14		0.51
25345/25346	Y	7.16	1.66	0.02	1.64	51.25	6.2		None	14.32	0.17		0.63
25356/25357	Gs	7.94	1.71	0.01	1.7	53.13	20.5		None	31.59	0.38		1.39
25367/25368	Gs	8.35	0.88	<0.01	0.88	27.5	19.1		None	29.77	0.36		1.31
25378/25379	Gs	8.38	1.38	0.01	1.37	42.81	19.6		None	32.05	0.38		1.41
25388/25389	Y	8.12	0.66	0.01	0.65	20.31	32.7		None	45.68	0.55		2.01
25399/25400	Gs	7.22	0.7	0.01	0.69	21.56	6		None	21.14	0.25		0.93
25409/25410	Y	8.88	0.61	0.01	0.6	18.75	9.7		None	14.77	0.18		0.65
25420/25421	Y	8.79	0.53	<0.01	0.53	16.56	16.8		None	30	0.36		1.32
25429/25430	Gs	7.36	1.53	0.09	1.44	45	9.3		None	32.05	0.38		1.41
28001/28002	N	6.8	0.51	0.36	0.15	4.69	-0.6		None	1.14	0.01		0.05
28003/28004	N	5.43	2.64	0.53	2.11	65.94	-1.1		None	1.36	0.02		0.06
28008/28009	N	5.85	4.15	0.01	4.14	129.38	-1.1		None	0.91	0.01		0.04
28014/28015	X.MD-YxN	4.02	4.68	0.1	4.58	143.13	1.4		None	1.36	0.02		0.06
28019/28021	X.MD-YxN	5.29	4.18	0.04	4.14	129.38	3.5		None	2.73	0.03		0.12
28025/28026	N	5.3	3.22	0.06	3.16	98.75	3.4		None	9.77	0.12		0.43
28030/28031	N	7.53	2.59	0.02	2.57	80.31	9		None	32.5	0.39		1.43
28035/28036	N	7.47	2.02	0.02	2	62.5	8.5		None	27.73	0.33		1.22
28041/28042	N	7.69	2.23	0.03	2.2	68.75	28.9		None	63.18	0.76		2.78
28047/28048	X.MDYxN	8.13	1.49	0.03	1.46	45.63	17.8		None	57.73	0.69		2.54
28050/28051	TAd	8.54	0.39	0.01	0.38	11.88	23.1		None	35.68	0.43		1.57
28052/28053	X.MDYxN	6.74	4.47	0.05	4.42	138.13	7.6		None	7.95	0.1		0.35
28056/28057	X.MDYxN	6.88	4.36	0.07	4.29	134.06	8		None	8.18	0.1		0.36
28210/28211	X2.DYF	6.79	2.06	0.07	1.99	62.19	2.8		None	1.14	0.01		0.05

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
28214/28215	X2.DYF	5.62	3.81	0.06	3.75	117.19	4.3		None	36.82	0.44		1.62
28219/28220	X2.DYF	6.39	3.99	0.06	3.93	122.81	7		None	41.59	0.5		1.83
28225/28226	X2.DYF	7.46	5.52	0.05	5.47	170.94	13.6		None	13.86	0.17		0.61
28230/28231	X2.DYF	7.66	3.19	0.04	3.15	98.44	11.8		None	37.5	0.45		1.65
28236/28237	X2.DYF	8.24	2.83	0.02	2.81	87.81	25.3		Slight	61.36	0.74		2.7
28241/28243	X2.DYF	7.25	3.97	0.08	3.89	121.56	16.6		None	32.05	0.38		1.41
28247/28248	X2.DYF	7.12	3.25	0.06	3.19	99.69	10.1		None	39.32	0.47		1.73
28502/28503	X2.DYF	8.01	2.95	0.03	2.92	91.25	17.1		None	38.86	0.47		1.71
28508/28509	X2.DYF	7.97	2.44	0.05	2.39	74.69	16.1		None	42.95	0.52		1.89
28513/28514	X2.DYF	7.3	3.81	0.06	3.75	117.19	14.1		None	31.82	0.38		1.4
3069-0127-0147	D	7.91	4.15	0.03		128.75		8	None	34.17	0.41		
3069-0247-0267	Z	4.58	10.2	0.13		314.69		3.75	None	0.83	0.01		
3069-0287-0307	G	6.66	5.12	0.04		158.75		5.69	None	19.17	0.23		
3069-0347-0367	D	7.26	4.46	0.04		138.13		11.5	None	37.5	0.45		
3069-0397-0417	D	7.34	6.41	0.03		199.38		26.31	None	20	0.24		
3069-0427-0437	Y	8.06	3.61	0.03		111.88	46	19.06	None	77.51	0.93		
3069-0487-0507	Y	7.38	3.83	0.04		118.44		6	None	14.17	0.17		
3069-0627-0647	Y	8.2	2.77	0.04		85.31		11.31	None	21.67	0.26		
3069-0707-0727	G	6.62	3.41	0.04		105.31		4.81	None	6.67	0.08		
3069-0807-0827	G	6.84	2.88	0.03		89.06		4.31	None	23.33	0.28		
3069-0927-0947	G	6.51	2.48	0.04		76.25		3.19	None	6.67	0.08		
3070-0074-0094	D	4.47	8.12	0.16		248.75		-4	None	0.83			
3070-0204-0224	D	8.17	6.08	0.02		189.38		29.5	Slight	40.84	0.49		
3070-0284-0304	D	7.68	6.73	0.04		209.06		22.5	None	37.5	0.45		
3070-0464-0484	Y	7.79	5.09	0.03		158.13		50.13	None	84.17	1.01		
3070-0594-0614	G-p	6.68	6.05	0.04		187.81	12.3	2.38	None	23.33	0.28		
3070-0634-0654	G-p	6.48	4.38	0.06		135		2.13	None	21.67	0.26		
3079-0499-0519	D	6.01	4.44	0.04		137.5		0.87	None	7.5	0.09		
3079-0589-0599	Tad	8.59	0.25	<0.01		7.81		60.25	Moderate	27.5	0.33		
3080-0075-0095	D	6.81	5.57	0.04		172.81		8.94	None	68.34	0.82		
3080-0129-0149	G	8.39	2.45	0.02		75.94		40.63	None	75.84	0.91		
3080-0179-0199	G	5.58	4.33	0.04		134.06		2.25	None	4.17	0.05		
3080-0375-0394	D	6.07	3.84	0.06		118.13		11.25	None	45	0.54		
3080-0394-0419	Y	7.02	2.33	0.02		72.19		4.56	None	13.33	0.16		
3080-0479-0499	Y	6.76	3.3	0.01		102.81		2.63	None	5.83	0.07		
3080-0549-0569	G^f	4.79	5.88	0.05		182.19		2.31	None	0.83	0.01		
3080-0669-0689	G^f	6.37	2.66	0.02		82.5		3.75	None	15.83	0.19		
3083-0599-0619	Y	7.53	2.2	0.03		67.81		3.75	None	30.84	0.37		
3083-0639-0652	Y	8.51	1.94	0.02		60		7.25	None	36.67	0.44		
3083-0719-0739	Y	7.62	2.34	0.02		72.5		8.13	None	30	0.36		
3086-0949-0969	N.M	8.27	1.91	0.04		58.44		33.75	None	79.17	0.95		
3086-0979-0992	N.MY/ TBd	8.66	0.15	0.01		4.38		67.75	Slight	159.18	1.91		
3086-1009-1027	P-K	8.08	1.29	0.04		39.06		20.13	Slight	53.34	0.64		
3086-1109-1121	Y	8.4	1.24	0.01		38.44		29.5	None	34.17	0.41		
3086-1121-1126	TBd	8.55	0.09	0.01		2.5		76.38	Moderate	147.51	1.77		
3086-1236-1255	N	8.36	1	0.03		30.31		19.13	None	98.34	1.18		
3086-1319-1338	G	8.71	1	0.01		30.94		48.5	Moderate	54.17	0.65		
3087-0023-0040	Y	5.08	2.27	0.24		63.44		-0.38	None	0.83			
3087-0164-0171	G	6.03	6.15	0.04		190.94		9.44	None	0.83	0.01		
3087-0171-0181	G	6.04	4.03	0.04		124.69		3	None	0.83	0.01		
3087-0209-0229	Y	7.98	2.56	0.02		79.38		9.25	None	21.67	0.26		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
3087-0359-0379	Y	8.62	2.27	0.01		70.63		18.63	None	25.84	0.31		
3087-0509-0528	Y	8.83	2.14	<0.01		66.88		15.25	None	19.17	0.23		
3087-0539-0559	D	8.28	3.31	0.02		102.81		19	None	43.34	0.52		
3087-0787-0809	Dxq/D	6.95	4.16	0.09		127.19		11.38	None	23.33	0.28		
3087-0869-0889	Yxq	8.43	2.57	0.03		79.38		15	None	13.33	0.16		
3087-0905-0919	Mk.Y	8.47	1.64	0.03		50.31		20	None	14.17	0.17		
3087-0979-0999	M	8.28	2.21	0.05		67.5		22.75	None	22.5	0.27		
3087-1047-1067	YxN/N.Y / YXNYxq	8.29	1.47	0.02		45.31		88.75	Moderate	115.84	1.39		
3087-1143-1159	X.YP	8.24	1.89	0.01		58.75		92.5	Moderate	114.17	1.37		
3096-0000-0058	OB	6.47	1.3	0.17		35.31		1.38	None	0.83	0.01		
3096-0058-0078	X.YMzN(?) / X.YM-DxN	6.41	1.64	0.17		45.94		1.13	None	0.83	0.01		
3096-0108-0128	X.YM-DxN	6.76	2.61	0.03		80.63		2.13	None	0.83	0.01		
3096-0168-0188	N.DyM	7.61	2.25	0.03		69.38		3.88	None	12.5	0.15		
3096-0235-0258	Y	8.11	1.53	0.02		47.19		8.63	None	53.34	0.64		
3096-0318-0338	Y	8.04	1.65	0.02		50.94		6.38	None	35.84	0.43		
3096-0418-0438	Y	8.17	2.14	0.01		66.56		8.38	None	48.34	0.58		
3096-0718-0738	X	8.68	1.38	0.01		42.81		17.25	None	41.67	0.5		
3096-0788-0808	N	8.19	1.1	0.02		33.75		18	None	91.67	1.1		
3096-1006-1018	X	8.22	2.5	0.02		77.5		20.75	None	42.5	0.51		
3096-1088-1108	TBd	8.38	0.52	0.01		15.94	72.8	81.75	Slight	152.51	1.83		
3096-1328-1348	M	8.23	0.89	0.02		27.19		52.75	Slight	85.84	1.03		
3096-1388-1408	P	8.22	1.17	0.02		35.94		29	None	67.5	0.81		
3096-1518-1538	P	8.69	0.64	0.01		19.69		45.5	Slight	71.67	0.86		
3096-1748-1768	G-q	8.43	0.87	0.07		25		17.63	Slight	10.83	0.13		
3098-0138-0158	N-p	6.21	1	0.02		30.63		2.25	None	0.83			
3098-0238-0258	Mpk / M-k	7.3	1.87	0.01		58.13		4.38	None	0.83			
3098-0353-0371	M-k	7.56	1.29	0.01		40		5.19	None	4.17	0.05		
3098-0418-0438	Y	8.21	2.62	0.02		81.25		6.25	None	17.5	0.21		
3098-0488-0508	Y-xk-pd	8.23	2.65	0.02		82.19		6	None	5.83	0.07		
3098-0656-0676	Y-W	7.78	3.14	0.05		96.56		11.44	None	18.33	0.22		
3098-0712-0727	G	8.38	1.61	0.02		49.69		25.5	Slight	49.17	0.59		
3098-0778-0792	G	8.29	1.51	0.02		46.56		31.25	Slight	23.33	0.28		
3098-0908-0928	G	9.05	0.79	<0.01		24.69		32.75	Moderate	35	0.42		
3098-1198-1218	G	9.14	0.85	0.01		26.25		34	Moderate	36.67	0.44		
3101-0110-0138	X.M/Mx	7.67	0.05	0.06		<0.3		1.13	None	0.83	0.01		
3101-0240-0262	Yxqd	7.24	1.42	0.04		43.13		7.25	None	31.67	0.38		
3101-0308-0346	TD	9.12	0.01	0.01		<0.3		28.38	None	20	0.24		
3101-0378-0398	Yxq-p	7.09	3.09	0.04		95.31	8.5	4.5	None	1.67	0.02		
3101-0548-0568	Yxqp / Yxq-p\	7.56	3.48	0.04		107.5		12.88	None	23.33	0.28		
3101-0738-0761	M.ky/X.mk	7.54	1.7	0.08		50.63		6.5	None	38.34	0.46		
3101-0978-0995	YxP\P/M-k / Y-x	8.41	1.93	0.04		59.06		34.75	Slight	57.5	0.69		
3101-1038-1058	Mp-k	7.92	1.31	0.02		40.31		48.75	Slight	99.17	1.19		
3101-1161-1172	TBd	8.56	0.02	0.02		<0.3		97.13	Strong	171.68	2.06		
3101-1201-1208	TBd	7.96	0.35	0.04		9.69		57	None	97.51	1.17		
3101-1226-1236	TBd	8.36	0.09	0.02		2.19		73.63	Moderate	130.84	1.57		
3102-0044-0068	Y	7.06	3.93	0.04		121.56		4.63	None	8.33	0.1		
3102-0088-0098	G^fp	8.02	2.36	0.01		73.44		11.5	None	49.17	0.59		
3102-0254-0276	TBd	8.11	0.53	0.02		15.94		75.75	Slight	147.51	1.77		
3102-0398-0418	Y	8.45	4.04	0.02		125.63		31	None	32.5	0.39		
3102-0568-0588	Y	7.9	3.23	0.1		97.81		18.5	None	24.17	0.29		
3102-0623-0638	D	8.41	3.33	0.03		103.13		35.88	None	72.5	0.87		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
3102-0798-0818	D	8.43	2.62	0.02		81.25		50.88	Moderate	80.84	0.97		
3102-0938-0952	D	8.7	2.64	0.01		82.19	69.4	65	Moderate	75	0.9		
3102-0958-0978	TB	8.74	0.69	0.01		21.25		103.25	Strong	88.34	1.06		
3102-1074-1078	Y	8.62	1.34	0.01		41.56		25.25	None	20.83	0.25		
3103-0036-0056	R	8.2	0.73	0.14		18.44	16.5	16.88	None	2.5	0.03		
3103-0129-0143	R / *qp	7.85	11.65	0.05		362.5		25.75	Moderate	19.17	0.23		
3103-0159-0172	R	8.65	3.55	0.02		110.31		31.88	Slight	17.5	0.21		
3103-0176-0196	R	8.68	1.58	0.01		49.06		28.5	Moderate	15	0.18		
3103-0236-0252	R	8.53	3.21	0.02		99.69		35.5	Strong	19.17	0.23		
3103-0376-0393	R	8.94	4.4	0.01		137.19		30	Moderate	14.17	0.17		
3103-0546-0566	R	8.78	3.96	0.03		122.81		30	Moderate	16.67	0.2		
3103-0617-0636	R	8.12	5.52	0.02		171.88		36.5	Moderate	20.83	0.25		
3103-0786-0797	R	8.79	3.98	<0.01		124.38		31.25	Slight	14.17	0.17		
3103-0888-0901	R	8.35	4.99	0.01		155.63		41.25	Strong	26.67	0.32		
3104-0000-0018	O/B	5.95	0.66	0.64		0.63		1.75	None	0.83	0.01		
3104-0077-0098	G^p	5.73	0.72	0.58		4.38		0.88	None	0.83			
3104-0128-0148	G^p	6.6	0.46	0.12		10.63		-1.38	None	0.83			
3104-0238-0258	G^p	4.81	4.21	0.03		130.63		0	None	0.83	0.01		
3104-0378-0398	Y	5	5.8	0.04		180		0.75	None	0.83			
3104-0458-0480	M/P	5.11	2.33	0.02		72.19		-1.13	None	0.83			
3104-0538-0558	Y	4.95	3.92	0.04		121.25		-1.25	None	0.83			
3104-0588-0608	N-p	5.02	2.55	0.02		79.06		-0.75	None	0.83			
3104-0718-0738	Y	5.68	3.59	0.04		110.94		1.13	None	0.83			
3104-0848-0868	P	5.99	5.85	0.05		181.25		2.38	None	0.83	0.01		
3104-0978-0998	Y	8.4	2.98	<0.01		93.13		16	None	11.67	0.14		
3104-1228-1244	D	8.29	3.59	0.01		111.88		26.63	Slight	21.67	0.26		
3104-1328-1346	D	8.5	5.52	0.01		172.19		45	Slight	50	0.6		
3104-1458-1478	Y	8.64	2.62	0.01		81.56		21.25	None	18.33	0.22		
3105-0138-0158	N	6.12	1.57	0.17		43.75		0.13	None	0.83	0.01		
3105-0198-0208	N	5.09	8.8	0.07		272.81		0.38	None	0.83			
3105-0268-0278	G^c	5.35	1.24	0.01		38.44		-3.88	None	0.83	0.01		
3105-0418-0438	G^c	8.2	1.61	<0.01		50.31		26.63	Slight	31.67	0.38		
3105-0638-0653	G^c	8.54	1.81	0.02		55.94	50	43.63	Slight	40.84	0.49		
3105-1008-1028	G^c	9.1	1.22	<0.01		38.13		25.75	Slight	24.17	0.29		
3105-1138-1158	G^c	8.6	0.84	0.01		25.94		32.75	Slight	30.84	0.37		
3105-1284-1300	Z	8.3	1.29	0.04		39.06		102.5	Moderate	94.17	1.13		
3105-1313-1332	Z.TBd / Z	8.77	1.79	0.01		55.63		83.63	Strong	59.17	0.71		
3105-1332-1369	TBd	8.66	0.06	0.01		1.56	66.3	61.5	Slight	23.33	0.28		
3105-1388-1408	G^c	8.68	1.45	<0.01		45.31		40.75	Moderate	37.5	0.45		
3106-0020-0033	D	5.05	0.29	0.23		1.88		-1.63	None	0.83	0.01		
3106-0158-0178	D	6.78	5.49	0.02		170.94		16	None	42.5	0.51		
3106-0236-0258	Y	6.48	3.07	0.03		95		5.63	None	16.67	0.2		
3106-0548-0568	D	6.99	5.43	0.07		167.5		8.38	None	44.17	0.53		
3106-0758-0778	Y	8.3	2.28	0.03		70.31		17	None	19.17	0.23		
3106-0908-0928	Y	8.48	2.22	0.02		68.75		20.5	None	21.67	0.26		
3106-1128-1148	Y	9.6	1.72	0.01		53.44		24.25	None	26.67	0.32		
3106-1288-1308	Y	9.59	1.85	<0.01		57.81		21.75	Slight	24.17	0.29		
3113-0019-0037	N / F.FD	5.98	3.24	0.03		100.31		-0.25	None	0.83	0.01		
3113-0157-0177	N/F-D.Y	4.5	5.1	0.12		155.63		0	None	0.83	0.01		
3113-0347-0357	N.FDZ / N/DX	6.13	3.59	0.12		108.44		11.25	None	12.5	0.15		
3113-0707-0712	F.F-DY	7.83	2.21	0.03		68.13		9.5	None	34.17	0.41		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
3113-0787-0807	F.F-Dy	8.36	2.16	0.01		67.19		7.5	None	28.34	0.34		
3113-0981-1002	F.H(FDY)	8.59	2.77	<0.01		86.56		13	None	33.34	0.4		
3114-0196-0213	TC^k - Volc Cng	8.98	0.02	0.01		0.31		65.63	Slight	77.51	0.93		
3114-0266-0283	TC^k - Volc Cng	8.84	0.03	<0.01		0.94		75	Moderate	60	0.72		
3114-0283-0301	TC^k - Volc Cng	9	0.02	0.02		<0.3		83.88	Strong	84.17	1.01		
3114-0392-0410	TC^k - Volc Cng	8.36	0.21	0.05		5		87.5	Slight	95.84	1.15		
3114-0410-0427	TC^k - Basalt	8.37	0.12	0.01		3.44	141.3	76.25	Moderate	195.85	2.35		
3114-0449-0469	YW	4.66	3.61	0.11		109.38		1.38	None	0.83	0.01		
3114-0589-0599	D	4.61	3.96	0.13		119.69		8.63	None	1.67	0.02		
3114-0609-0629	Y	8.04	3.47	0.03		107.5		9.5	None	5.83	0.07		
3114-0699-0709	G^m	7.38	2.34	0.04		71.88		3.94	None	0.83	0.01		
3114-0779-0799	G^m	7.66	2.52	0.03		77.81		5.75	None	0.83	0.01		
3114-1019-1036	G^m	8.23	1.52	0.02		46.88	13.4	4.5	None	1.67	0.02		
3114-1059-1079	Y	8.49	1.95	0.02		60.31		10.75	None	7.5	0.09		
3115-0678-0698	D	8.52	2.26	0.01		70.31		42	None	92.51	1.11		
3115-0768-0788	D	8.49	2.19	0.01		68.13		50.25	None	120.84	1.45		
3115-0838-0858	D	8.43	1.33	0.01		41.25		58.25	None	105.01	1.26		
3115-0988-1008	Y	8.47	1.49	0.01		46.25		10	None	9.17	0.11		
3116-0935-0958	M?	9.08	1.32	0.02		40.63	25	21.5	None	40.84	0.49		
3116-1018-1038	YxP/M	8.72	1.34	0.01		41.56		21	None	27.5	0.33		
3116-1248-1268	WC?	9.16	1.49	0.02		45.94	32	30.75	None	45.84	0.55		
3116-1348-1368	G	9.28	0.82	0.01		25.31	39.6	38.25	Moderate	38.34	0.46		
3123-0148-0168	X.H(DNNxY)	7.19	5.2	0.19		156.56	15.3	9.13	None	6.67	0.08		
3123-0178-0198	X.H(DNNxY)	8.97	3.91	0.03		121.25		34.5	Slight	45	0.54		
3123-0248-0268	Yxbp(l?)	9.06	2.23	0.02		69.06		20.5	None	22.5	0.27		
3123-0438-0458	D? / Dp	8.72	4.88	<0.01		152.5	50.3	41.75	Slight	42.5	0.51		
3123-0488-0503	Dp	9	3.39	0.01		105.63		51	Slight	54.17	0.65		
3123-0648-0668	D	8.55	2.37	0.01		73.75		53.75	Slight	70	0.84		
3123-0744-0766	X.HxN/X.YxN	9.13	2.13	<0.01		66.56		30	Slight	35	0.42		
3124-0000-0137	OB	8.27	0.82	0.01		25.31		21.5	None	13.33	0.16		
3124-0188-0209	Y	6.12	2.49	0.02		77.19		0.13	None	0.83	0.01		
3124-0328-0348	N/P / N	7.71	1.89	0.01		58.75		6	None	2.5	0.03		
3124-0388-0408	N/P	8.42	2.29	0.01		71.25		4.13	None	0.83	0.01		
3124-0428-0450	N/P / N	8.36	1.96	0.02		60.63	11.1	3.75	None	0.83	0.01		
3124-0518-0538	N/P	8.39	2.36	0.05		72.19		10.5	None	5	0.06		
3124-0872-0887	X.HxN^f	8.35	1.47	0.05		44.38	103.8	45.5	Strong	50	0.6		
3124-1218-1235	TB	8.55	0.04	0.01		0.94		58.75	Strong	33.34	0.4		
3125-0099-0119	D	7.69	2.4	0.02		74.38		9	None	65	0.78		
3125-0239-0259	D	8.67	2.7	0.02		83.75		31.75	Slight	64.17	0.77		
3125-0349-0369	D	8.53	3.31	0.03		102.5		34.5	Slight	47.5	0.57		
3125-0379-0399	D	8.19	3.42	0.03		105.94		31.38	Slight	50.84	0.61		
3125-0719-0739	D	8.74	2.27	0.02		70.31		64.5	Moderate	91.67	1.1		
3125-0919-0933	D/R	8.82	3.29	0.11		99.38		49.5	Slight	52.5	0.63		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
3125-1049-1069	N	8.14	2.8	0.02		86.88		31.88	Slight	38.34	0.46		
3128-0039-0056	D	5.29	5.79	0.07		178.75		4.63	None	1.67	0.02		
3128-0076-0098	X.FDM/pxn/p^f	5.99	2.99	0.05		91.88		0.25	None	0.83	0.01		
3128-0298-0323	X.FDM/pxn/p^f	8.06	2.42	0.01		75.31		8.75	None	12.5	0.15		
3128-0518-0538	P/N.DN/p	8.27	2.5	0.01		77.81		42.25	None	45	0.54		
3128-0658-0678	X.DFxN/P\P/N.DF	7.37	1.85	0.02		57.19		6.75	None	1.67	0.02		
3128-0738-0758	P.DF	8.03	2.76	0.03		85.31		21.13	None	20.83	0.25		
3128-0808-0828	P.DF	8.3	2.15	0.01		66.88		31	Slight	30	0.36		
3128-0938-0958	X.DFxN/P/N/P.DF	7.82	3.76	0.02		116.88		39.38	None	46.67	0.56		
3129-0080-0100	TC - And/Volc cng	8.52	0.03	<0.01		0.94		60.75	Moderate	85.84	1.03		
3129-0100-0119	TC - And/Volc cng	8.76	0.03	<0.01		0.94	123.8	57.5	Moderate	72.5	0.87		
3129-0234-0253	TC - And/Volc cng	8.85	0.03	0.02		0.31		126.88	Strong	255.85	3.07		
3129-0253-0272	TC - And/Volc cng	9.06	0.11	0.01		3.13		83.75	Strong	86.67	1.04		
3129-0399-0417	TC - And/Volc cng	8.53	0.02	0.01		0.31		83.25	Moderate	85.01	1.02		
3129-0417-0435	TC - And/Volc cng	8.47	0.03	0.01		0.63		98.5	Moderate	127.51	1.53		
3129-0453-0470	TC - Volc cng	8.43	0.04	0.04		<0.3		97	Slight	131.68	1.58		
3129-0470-0489	TC - Volc cng	8.41	0.04	0.01		0.94		96.25	Slight	149.18	1.79		
3129-0550-0574	Y	7.81	1.69	<0.01		52.81		5.25	None	1.67	0.02		
3129-0574-0590	Gp	7.4	2.29	0.01		71.25		3.75	None	3.33	0.04		
3129-0610-0630	Gp	7.29	2.15	<0.01		67.19		2.75	None	2.5	0.03		
3129-0970-0980	Y	7.16	2.05	0.01		63.75	9.8	3.63	None	7.5	0.09		
3129-1200-1220	Y	7.96	1.84	0.02		56.88		7.75	None	16.67	0.2		
3129-1220-1240	Y	8.65	0.99	0.02		30.31		9	None	16.67	0.2		
3129-1300-1320	G	7.43	1.66	0.02		51.25		3.75	None	10	0.12		
3133-0100-0118	X2	7.35	0.22	0.18		1.25		3.69	None	1.67	0.02		
3133-0348-0368	X2xx2qpw	7.87	2.87	0.02		89.06		16	None	36.67	0.44		
3133-0668-0688	X2	7.78	1.87	0.05		56.88		27.25	Slight	55.84	0.67		
3133-0688-0708	Fh	8.59	1.78	<0.01		55.63		36.88	Slight	67.5	0.81		
3133-0758-0778	Fh	8.39	1.43	0.01		44.38		40.75	Slight	63.34	0.76		
3133-0808-0828	X2	7.96	2.95	0.04		90.94	28	24	None	51.67	0.62		
3133-1148-1168	X2	8.36	1.96	0.04		60		20.75	Slight	45	0.54		
3135-0080-0098	X2	6.64	1.22	0.24		30.63		1.13	None	0.83			
3135-0198-0218	X2	6.19	4.21	0.03		130.63		1.63	None	0.83	0.01		
3135-0388-0408	X2	6.41	5.08	0.05		157.19	12.3	7	None	12.5	0.15		
3135-0748-0768	X2	8.08	3.64	0.04		112.5		17.88	None	34.17	0.41		
3135-0988-1008	X2	7.69	3.47	0.04		107.19		17	None	44.17	0.53		
3135-1038-1058	Fh	7.07	3.82	0.05		117.81		13.5	None	30.84	0.37		
3135-1098-1118	Fh	8.31	2.7	0.02		83.75	36.5	35.75	None	60	0.72		
3135-1238-1258	Fh	8.55	1.61	0.01		50		31	Slight	56.67	0.68		
4157-439-471	TF	7.42	3.8	0.06	3.74	116.88		21.9	None	324.09			14.26
4232-339-359	Y	4.01	5.04	0.17	4.87	152.19		-0.1	None			0.07	0.2
4232-559-569	Y	7.46	4.46	0.06	4.4	137.5		15.2	Slight			0.3	1.1
7778/7779	TBd-.MY	8.19	0.14	<0.01	0.14	4.38	22.4		None	6.82	0.08		0.3
7783/7784	TBd-.MY	7.99	0.15	0.01	0.14	4.38	19.2		None	6.36	0.08		0.28
7788/7789	TBd-.MY	8.1	0.16	0.01	0.15	4.69	19.7		None	2.95	0.04		0.13
7793/7794	TBd-.MY	5.74	0.83	0.03	0.8	25	2.5		None	3.41	0.04		0.15
7799/7800	TBd-.MY	7.55	1.1	0.02	1.08	33.75	11.8		None	39.32	0.47		1.73
7804/7805	TBd-.MY	8.42	0.28	0.01	0.27	8.44	29		Slight	10.45	0.12		0.46
7808/7809	TBd-.MY	8.31	0.37	0.01	0.36	11.25	39.9		Slight	28.18	0.34		1.24
7815/7816	TBd-.MY	8.36	0.91	0.01	0.9	28.13	42.7		None	59.55	0.71		2.62

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
7819/7820	TBd-.MY	8.45	0.23	0.01	0.22	6.88	67		None	76.82	0.92		3.38
7826/7827	TBd-.MY	8.22	2.1	0.02	2.08	65	29.7		Slight	37.73	0.45		1.66
7831/7832	TBd-.MY	8.43	1.85	0.02	1.83	57.19	34.8		None	44.32	0.53		1.95
7852/7854	Y	7.29	6.82	0.06	6.76	211.25	14.3		None	15	0.18		0.66
7858/7859	Y	7.52	5.25	0.03	5.22	163.13	12.1		None	8.86	0.11		0.39
7863/7864	Y	7.73	4.8	0.03	4.77	149.06	14.6		None	11.14	0.13		0.49
7901/7902	D	7.53	5.15	0.07	5.08	158.75	24.9		None	20	0.24		0.88
7905/7906	D	7.61	6.23	0.07	6.16	192.5	27.6		None	24.55	0.29		1.08
7910/7911	D	7.55	8.15	0.09	8.06	251.88	50.6		None	54.09	0.65		2.38
7916/7917	D	7.62	5.85	0.08	5.77	180.31	29		None	22.05	0.26		0.97
7921/7922	D	7.76	5.5	0.07	5.43	169.69	39.4		None	35.23	0.42		1.55
7926/7927	D	7.68	5.86	0.06	5.8	181.25	40.3		None	33.86	0.41		1.49
7931/7932	D	7.67	6.47	0.08	6.39	199.69	37.3		None	31.14	0.37		1.37
7937/7938	D	7.48	7.86	0.09	7.77	242.81	37.6		None	32.95	0.4		1.45
7942/7943	D	7.3	7.4	0.11	7.29	227.81	44.8		None	47.05	0.56		2.07
7948/4949	Y	6.88	3.39	0.06	3.33	104.06	13.9		None	13.86	0.17		0.61
7952/7953	Y	6.29	4.5	0.08	4.42	138.13	11.3		None	10.45	0.12		0.46
8404-1647-1661	Y	4.75	6.87	0.07	6.8	212.5		1.5	None			0.01	<0.2
9196/9197	Y	6.73	0.26	0.27	<0.01	<0.3	0.6		None	1.82	0.02		0.08
9198/9199	Y/Gs?	6.16	0.29	0.31	<0.01	<0.3	0.2		None	1.36	0.02		0.06
9200/9201	Gs?	5.45	0.38	0.36	0.02	0.63	0.3		None	1.82	0.02		0.08
9202/9203	Y	5.77	0.19	0.2	<0.01	<0.3	0.1		None	1.36	0.02		0.06
9204/9205	Y	5.37	0.2	0.19	0.01	0.31	0.1		None	1.59	0.02		0.07
9206/9208	Y	5.01	0.35	0.36	<0.01	<0.3	-0.4		None	1.36	0.02		0.06
9209/9210	Y	5.17	0.43	0.37	0.06	1.88	-0.2		None	1.59	0.02		0.07
9211/9212	Y	5.47	0.59	0.58	0.01	0.31	0.1		None	1.36	0.02		0.06
9213/9214	Y	5.49	0.59	0.4	0.19	5.94	0.2		None	1.36	0.02		0.06
9215/9216	Y	4.4	2.2	0.21	1.99	62.19	-0.1		None	1.59	0.02		0.07
9220/9221	Y	4.04	7.61	0.21	7.4	231.25	1.3		None	5.68	0.07		0.25
9224/9225	Y	4.08	6.63	0.17	6.46	201.88	1		None	4.77	0.06		0.21
9230/9231	Y	6.37	5.41	0.06	5.35	167.19	5.1		None	5.23	0.06		0.23
9236/9237	Y	6.15	4.84	0.06	4.78	149.38	5.7		None	4.09	0.05		0.18
9241/9242	Y	7.25	5.18	0.04	5.14	160.63	8.8		None	6.82	0.08		0.3
9246/9248	Y	7.32	5.8	0.04	5.76	180	12.3		None	11.82	0.14		0.52
9594/9595	Y	7.09	3.53	0.05	3.48	108.75	17.5		None	37.05	0.44		1.63
9597/9598	Y	7.38	3.62	0.05	3.57	111.56	16.5		None	27.73	0.33		1.22
ARLB001 (+1/4")	Y	7.66	3.91	0.06	3.96	123.75		6.1	None	4.55		0.06	0.2
ARLB001 (-1/4")	Y	7.09	6.74	0.07	6.35	198.44		6.5	None	6.82		0.11	0.3
ARLB002 (+1/4")	Y	7.51	3.88	0.08	3.88	121.25		6.5	None	4.55		0.04	0.2
ARLB002 (-1/4")	Y	6.99	6.42	0.08	6.05	189.06		6.2	None	6.82		0.14	0.3
ARLB003 (+1/4")	G/D/N	8.4	3.67	0.06	3.67	114.69		22.6	None	25		0.34	1.1
ARLB003 (-1/4")	G/D/N	8.13	6.24	0.08	5.87	183.44		28.9	Slight	36.36		0.52	1.6
ARLB006 (+1/4")	G/D/N	8.58	1.95	0.05	1.88	58.75		28.1	None	40.91		0.53	1.8
ARLB006 (-1/4")	G/D/N	8.17	3.62	0.13	3.2	100		21.3	None	34.09		0.55	1.5
ARLB007 (+1/4")	TC/TF/TX	9.03	0.21	0.02	0.18	5.63		117.7	Moderate	159.09		2.08	7
ARLB007 (-1/4")	TC/TF/TX	8.94	0.75	0.05	0.71	22.19		90.2	Moderate	134.09		1.82	5.9
ARLB008 (+1/4")	TC/TF/TX	9.06	0.15	0.02	0.1	3.13		92.1	Moderate	143.18		2.21	6.3
ARLB008 (-1/4")	TC/TF/TX	9.01	0.25	0.03	0.21	6.56		70.1	Slight	131.82		2.37	5.8
I/P (+1/4")		7.19	4.14	0.01	4.13	129.06		14.2	Slight			0.35	1.2
I/P (-1/4")		6.56	6.65	0.03	6.62	206.88		11.6	None			0.44	1.6

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
Waste Rock (PEZ+PWZ)													
ARLB004 (+1/4")	TW	9.62	0.26	0.04	0.22	6.88		93.9	Moderate	106.82		1.47	4.7
ARLB004 (-1/4")	TW	8.96	0.22	0.04	0.17	5.31		67.2	Slight	100		1.67	4.4
ARLB005 (+1/4")	TY	8.89	0.18	0.05	0.13	4.06		51.7	Slight	50		0.92	2.2
ARLB005 (-1/4")	TY	8.38	0.58	0.09	0.48	15		63.4	Slight	68.18		1.56	3
ARLB009 (+1/4")	TD	9.55	0.08	0.02	0.06	1.88		56.1	Slight	52.27		0.64	2.3
ARLB009 (-1/4")	TD	9.21	0.18	0.01	0.16	5		44.8	Moderate	40.91		0.54	1.8
NCK (+1/4")		8.31	1.9	0.01	1.89	59.06		23.5	Slight			0.3	1.1
NCK (-1/4")		8.1	2.49	0.02	2.47	77.19		19.7	Slight			0.25	0.9

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
Waste Rock (Pebble-North)													
2028-0055-0076	G/N	7.37	10.1	0.05		314.06		40.13	Slight	38.34	0.46		
2028-0155-0175	Y	8.05	8.42	0.03		262.19		22.13	None	20.83	0.25		
2028-0310-0330	G	8.07	7.43	0.01		231.88		30	None	29.17	0.35		
2028-0430-0450	Y	8.4	2.71	0.01		84.38		11.75	None	6.67	0.08		
2026-0050-0070	Kq	8.04	1.92	0.01		59.69		17.25	Slight	8.33	0.1		
2026-0190-0210	Kq	8.68	2.06	0.01		64.06		18.5	Slight	10	0.12		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
Waste Rock (Others)													
54026	Gp	7.04	0.08	0.08		<0.3		2.19	None	0.83	0.01		
54055		4.34	5.38	0.1		165		1.75	None	0.83	0.01		
54056		5.04	3.6	0.06		110.63		3.38	None	0.83	0.01		
54057		6.46	3.77	0.03		116.88		7.13	None	10.83	0.13		
55078	Pp	7.1	0.61	0.3		9.69		3.63	None	0.83	0.01		

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
Ore													
11486-001 AT Comp -10 m		8.09	2.41	0.05	2.36	73.75		6.9	None	4.55		0.06	0.2

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
Tailings													
11486-003 bulk	G+Y	8.41	0.12	0.01	0.11	3.44		7.2	Slight	6.82		0.06	0.3
11486-003 OF	G+Y	7.85	0.17	0.06	0.11	3.44		8.3	None	6.82		0.07	0.3
11486-003 UF	G+Y	8.72	0.21	0.01	0.2	6.25		7	Slight	4.55		0.05	0.2
KS-LCT1		7.8	0.15	<0.01	0.15	4.69		6.6	None			0.09	0.3
LCT 100		8.81	0.23	<0.01	0.23	7.19		5.4	None			0.08	0.3
LCT 50		7.56	0.18	<0.01	0.18	5.63		1.6	None			0.02	<0.2
LCT 54		8.01	0.13	<0.01	0.13	4.06		12.8	None			0.18	0.6
LCT 58		7.54	0.18	<0.01	0.18	5.63		2.1	None			0.01	<0.2
LCT 65		6.62	1.3	0.02	1.28	40		-0.5	None			0.02	<0.2
LCT 78		7.28	0.44	0.01	0.43	13.44		1	None			0.02	<0.2
LCT 83		7.17	0.37	0.01	0.36	11.25		2.3	None			0.01	<0.2
LCT 98		8.75	0.03	<0.01	0.03	0.94		6.7	None			0.07	0.3
PP08-3365	Y	7.95	0.23	0.02	0.21	6.56		4.6	None	4.55		0.06	0.2
PP08-3607	Y	8.11	0.17	0.02	0.15	4.69		5.7	None	6.82		0.07	0.3
PP08-3610	G	7.99	0.09	0.04	0.05	1.56		6.3	None	4.55		0.08	0.2
PP08-3614	G	8.18	0.11	0.02	0.09	2.81		5.7	None	6.82		0.1	0.3
PP08-3849	G	8.45	0.11	0.01	0.1	3.13		6.2	None	4.55		0.06	0.2
PP08-3850	Y	8.58	0.29	0.02	0.27	8.44		6.3	None	4.55		0.05	0.2
11840-003 bulk cleaner		7.95	0.78	0.03	0.75	23.44		17.7	Slight	25		0.45	1.1
11840-003 bulk float		7.92	0.17	0.03	0.14	4.38		22.3	Slight	25		0.52	1.1
11840-003 Phase II OF		8.33	0.1	0.01	0.09	2.81		25.2	Slight	25		0.48	1.1
11840-003 Phase II Sands		8.55	0.26	0.01	0.25	7.81		21.1	Slight	22.73		0.37	1
11840-003 pyrite		6.6	1.44	0.2	1.24	38.75		23	Slight	29.55		0.52	1.3
1st Bulk Cl, Sc, TLS F66		7.77	0.11	0.04		2.19		11.63	Strong				
1st Bulk Cl, Sc, TLS F67		7.83	0.14	0.05		2.81		11.25	Strong				
1st Bulk Cl, Sc, TLS F68		7.85	0.14	0.03		3.44		12	Strong				
1st Bulk Cl, Sc, TLS F69		7.72	0.13	0.03		3.13		8.13	Strong				
1st Cleaner Scav Tails		7.59	15.2	0.12	15.08	471.25		10.4	None			0.25	0.8
Combined Rougher Tails		8.12	0.59	0.02	0.57	17.81		13.6	None			0.3	0.9
Gold Plant Tails		5.92	31.6	0.23	31.37	980.31		0	None			0.18	0.5
IP-LCT1		7.29	0.42	<0.01	0.42	13.13		5.9	None			0.19	0.6
Knelson TLS F66		7.99	0.09	0.01		2.5		7.88	Strong				
Knelson TLS F67		8.18	0.14	0.01		4.06		9.75	Strong				
Knelson TLS F68		8.11	0.11	0.01		3.13		10.38	Strong				
Knelson TLS F69		7.99	0.09	0.01		2.5		6.5	Strong				
LCT 1		7.28	0.39	<0.01	0.39	12.19		4.3	None			0.1	0.3
LCT 11		7.79	0.27	<0.01	0.27	8.44		5.6	None			0.01	<0.2
LCT 13		7.26	0.26	<0.01	0.26	8.13		2.3	None			0.21	0.7
LCT 2		7.45	0.25	<0.01	0.25	7.81		3.4	None			0.16	0.6
LCT 68		7.87	0.15	<0.01	0.15	4.69		14.7	None			0.18	0.6
LCT 70		7.1	0.38	<0.01	0.38	11.88		7.5	None			0.38	1.2
LCT 71		7.25	0.32	<0.01	0.32	10		4	None			0.17	0.6
LCT 79		8.18	0.14	<0.01	0.14	4.38		54.2	Slight			1.08	3.9
LCT 82		7.81	0.16	<0.01	0.16	5		9.4	None			0.1	0.4
LCT 86		8.18	0.13	<0.01	0.13	4.06		25.1	Slight			0.57	1.5
LCT 87		7.74	0.21	<0.01	0.21	6.56		4	None			0.42	1.5
LT C1 Combined Pre-Cleaner Tailings		7.8	1.82	0.09	1.73	54.06		16.1	None	27.27		0.34	1.2
LT C1 Combined Rougher Tailings		8.5	0.16	0.02	0.14	4.38		14.8	None	25		0.3	1.1
LT C2 Combined Pre-Cleaner Tailings		8.1	1.72	0.03	1.69	52.81		21.8	None	61.36		0.75	2.7

Sample ID	Litho Code	Paste pH	S(T), %	$S(SO_4)$, %	S(S-2), %	AP, $kgCaCO_3/t$	NP (Sobek), $kgCaCO_3/t$	Modified NP, $kgCaCO_3/t$	Fizz Test	TIC, $kgCaCO_3/t$	TIC, %	C(T), %	CO_2, %
LT C2 Combined Rougher Tailings		8.6	0.09	0.01	0.08	2.5		16.9	None	43.18		0.53	1.9
LT C3 Combined Pre-Cleaner Tailings		7.5	3.61	0.09	3.52	110		12.5	None	36.36		0.45	1.6
LT C3 Combined Rougher Tailings		8.7	0.17	0.01	0.16	5		17.2	None	38.64		0.46	1.7
LT C4 Combined Pre-Cleaner Tailings		7.9	4.19	0.07	4.12	128.75		18.6	None	27.27		0.32	1.2
LT C4 Combined Rougher Tailings		8.8	0.24	<0.01	0.24	7.5		24.9	None	34.09		0.41	1.5
NK-LCT1		7.77	0.21	<0.01	0.21	6.56		13.9	Slight			0.38	1.3
Pyrite Rougher Tails		8.32	3.63	0.05	3.58	111.88		16.3	None			0.32	1
Sample 1 Bulk Cleaner Tails		8.82	0.23	0.01		6.88		19.63	None	30	0.36		
Sample 1 Scavenger Tails		8.82	0.15	<0.01		4.69		19.88	None	29.17	0.35		
Sample 1 Scavenger Tails + Bulk Cleaner Tails		8.53	0.18	0.01		5.31		17.38	None	28.34	0.34		
Sample 2 Bulk Cleaner Tails		8.34	0.31	<0.01		9.69		23.25	None	38.34	0.46		
Sample 2 Pyrite Tails		3.91	34.1	0.01		1035.63		-6.38	None	13.64	0.16		
Sample 2 Scavenger Tails		8.58	0.17	<0.01		5.31		24.38	None	40	0.48		
Sample 2 Scavenger Tails + Bulk Cleaner Tails		8.85	0.18	0.02		5		25.88	None	40.84	0.49		
SG-LCT1		7.03	0.32	<0.01	0.32	10		3.3	None			0.14	0.5
11486-003		7.93	0.15	0.04	0.11	3.44		6.2	Slight	6.82		0.07	0.3
11486-005		7.89	0.16	0.05	0.11	3.44		6.7	None	6.82		0.08	0.3
11486-006		8.57	0.17	0.02	0.15	4.69		6.2	Slight	6.82		0.06	0.3
Illite Pyrite Cu Ro Tail		7.81	0.41	0.01	0.4	12.5		8.5	None			0.19	0.6
K-Silicate Cu Ro Tail		8.22	0.17	0.01	0.16	5		10.2	None			0.11	0.3
LCT-25		8.25	1.51	0.02	1.49	46.56		31.9	Slight			0.61	1.5
LCT-26		8.04	0.17	<0.01	0.17	5.31		9.9	None			0.11	0.3
LCT-27		7.59	2.99	0.05	2.94	91.88		19.6	Slight			0.3	0.7
LCT-28		7.74	3.02	0.05	2.97	92.81		41.1	Slight			0.79	2
LCT-29		7.7	1.57	0.01	1.56	48.75		13.1	None			0.4	0.6
LCT-30		7.5	0.98	0.01	0.97	30.31		9.5	None			0.54	0.3
LCT-31		7.79	0.27	0.01	0.26	8.13		5.9	None			0.25	0.3
LCT-32		7.8	0.33	0.03	0.3	9.38		5	None			0.07	<0.2
LCT-33		7.73	0.29	0.02	0.27	8.44		5.6	None			0.21	0.3
LCT-34		7.91	0.25	0.05	0.2	6.25		5	None			0.14	0.3
LCT-35		7.67	0.13	0.04	0.09	2.81		3.3	None			0.07	0.2
LCT-36		8	0.83	0.05	0.78	24.38		21.2	Slight			0.48	1
LCT-37		7.61	0.39	0.06	0.33	10.31		4	None			0.12	0.2
LCT-38		7.51	0.77	0.06	0.71	22.19		4.6	None			0.03	0.2
LCT-39		8.31	0.33	0.05	0.28	8.75		31.7	Slight			0.42	1.4
LCT-40		7.27	0.95	0.05	0.9	28.13		4.6	None			0.33	0.2
LCT-41		7.76	0.15	0.05	0.1	3.13		3.6	None			0.1	0.2
LCT-42		7.88	0.16	0.04	0.12	3.75		5.1	None			0.05	<0.2
PP12-2538		7.75	0.29	<0.01	0.29	9.1		9.6	None			0.48	1.5
PP12-2539		7.96	0.2	0.03	0.17	5.3		14.1	None			0.43	1.4
PP12-2540		8.12	0.14	0.01	0.13	4.1		19.3	Slight			0.5	1.7
PP12-2541		8.13	0.13	0.02	0.11	3.4		19.2	Slight			0.45	1.5
PP12-2542		8.22	0.1	<0.01	0.1	3.1		17.2	Slight			0.41	1.3
Sodic Potassic Cu Ro Tail		8.02	0.2	0.02	0.18	5.63		18.5	Slight			0.38	1.2
Supergene Cu Ro Tail		7.56	0.26	0.05	0.21	6.56		6.5	None			0.17	0.5

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
Waste Rock (PEZ)																				
27548	Y	0.5	8.53	25	0.229		700	5	10	0.85	5		10	50		2200	3.13			
27549	Y	1	8.4	25	0.28		500	5	10	1.11	5		10	100		3130	2.91			
27571	Y	0.5	7.79	25	0.171		600	5	10	0.38	5		10	50		2000	2.72			
27583	D	0.5	7.55	25	0.378		500	5	10	0.52	5		10	100		3050	3.69			
27586	D	0.5	7.76	25	0.282		700	5	10	0.52	5		10	10		2970	4.37			
27588	D	0.5	7.18	25	0.307		700	5	10	0.57	5		10	10		2880	2.55			
27590	D	0.5	7.91	25	0.315		700	5	10	0.58	5		10	10		2410	2.99			
27597	D	0.5	6.91	50	0.288		600	5	10	0.37	5		10	10		4250	2.7			
27606	D	0.5	7.75	25	0.24		600	5	10	0.4	5		10	70		2180	2.68			
27607	D	0.5	7.69	25	0.216		600	5	10	0.4	5		10	10		4550	2.81			
27612	Gs	3	8.28	50	0.622		500	5	10	0.77	5		10	170		7820	3.39			
27653	Z	1	8.1	120	0.512		600	5	10	0.28	5		10	80		2710	3.31			
27677	Y	0.5	8.42	25	0.353		700	5	10	0.28	5		10	80		2760	4.38			
27682	Y	1	6.57	25	0.658		500	5	10	0.18	5		10	150		4200	3.3			
27700	Y	1	5.5	25	0.293		500	5	10	0.14	5		20	50		3200	2.98			
27719	Y	0.5	5.21	130	0.085		500	5	10	0.05	5		10	50		4100	2.17			
27720	Y	0.5	5.26	90	0.105		600	5	10	0.09	5		10	40		3590	2.16			
27721	Y	1	4.32	90	0.094		400	5	10	0.07	5		10	40		3130	1.91			
27837	TDd	0.5	8.63	25	0.006		100	5	10	5.29	5		20	40		90	6.56			
27869	Y	1	8.63	50	0.145		700	5	10	0.8	5		10	40		2140	2.65			
54465	Z	0.07	8.07	14.5			1200	2.24	0.11	3.49	0.13	73	25.4	5	7	60	7.57	24	0.26	5.6
54473	TC	0.1	7.67	3.5			700	1.27	0.03	5.33	0.12	33.7	32.2	39	6.61	90	7.33	19.05	0.2	3.4
55366	TW	0.19	7.92	23.3			480	1.74	0.67	1.04	0.32	37.3	21	72	8.26	56.9	4.4	20.6	0.06	2.5
55368	TW	0.14	7.7	28.7			540	1.19	0.11	3.66	0.15	31.8	15.7	53	4.88	34.2	4.21	17.7	0.06	2.1
55470	TC	0.11	7.49	17			280	1.15	0.09	3.39	0.14	32.5	17.9	65	5.89	36.5	6.03	15.4	0.12	2.6
55486	TF	0.09	8.94	4.6			910	1.25	0.08	5.51	0.2	39.2	28	30	5.14	91.7	6.39	19.85	0.16	3.7
55575	TC	0.12	7.54	5			490	1.19	0.005	5.56	0.13	34.4	23.3	35	4.13	43.2	5.67	17.55	0.1	2.3
55576	TD	0.15	8.57	4.2			1170	1.19	0.02	4.38	0.16	38.4	24.7	42	2.49	61.3	6.43	20.4	0.12	2.8
55598	TC	0.1	8.48	3.6			920	1.08	0.03	4.01	0.17	38.7	23.2	44	4.22	26.7	5.66	21	0.19	3.2
55632	TC	0.08	8.01	47.6			580	1.21	0.09	3.03	0.15	27.5	19.9	60	6.56	46.7	4.88	20.6	0.16	2.6
55837	TY	0.09	7.54	16.4			690	1.28	0.37	2.44	0.24	33.5	16.2	55	5.07	32.3	4.4	17.5	0.24	2.8
55838	TY	0.07	7.13	11.7			690	1.2	0.16	2.92	0.19	26.3	14.4	51	4.41	28.8	4.08	17.45	0.22	2.5
55840	TY	0.11	7.86	31.8			820	1.32	1.16	2.21	0.3	35.7	17.6	67	5.93	45.3	4.69	18.5	0.24	3.1
55841	TY	0.11	8.58	36.8			770	1.51	1.7	1.81	0.29	42.7	18.6	61	7.12	51.1	5.19	20.6	0.3	3.9
56179	TC	0.11	7.85	22.4			520	1.56	0.33	2.08	0.16	31.5	15.9	61	5.67	40	6.68	17.55	0.26	2
103612	Gs	1	6.95	25	0.301		300	5	10	0.52	5		10	10		2900	2.42			
103625	G^c	1	7.45	25	0.167		500	5	10	0.25	5		10	5		3210	1.86			
103940	W	0.5	5.58	25	0.168		600	5	10	0.07	5		10	50		4090	2.17			
103948	G^c	1	4.85	25	0.138		500	5	10	0.03	5		5	20		3860	1.82			
104105	TFw	0.08	7.86	0.6			720	1.73	0.14	2.42	0.1	43.9	8.4	12	3.58	10.2	3.05	19.1	0.17	4.3
104158	Gs	1	4.9	25	0.149		230	5	10	0.03	5		40	20		2570	6.88			
104191	Y	2	5.39	25	0.174		340	5	10	0.36	5		40	60		4790	5.65			
104219	Y	0.5	4.6	25	0.181		430	5	10	0.2	5		30	50		2920	2.61			
104403	TFw	0.06	8.07	1.2			1100	1.86	0.16	1.96	0.09	45.8	10	22	2.74	15.4	2.94	17.5	0.16	3.9
104418	TFw	0.07	9.07	0.7			610	1.56	0.11	3.14	0.09	47.5	14.9	47	2.9	17.5	4.51	19.45	0.12	3.4
104421	TFw	0.06	9.05	0.9			550	1.56	0.14	2.76	0.2	48.9	13.2	38	2.66	18.9	4.17	19.95	0.12	3.7
104456	TC	0.1	7.8	3.3			610	1.34	0.07	3.13	0.12	32.6	21.3	84	4.52	34.9	5.26	17.55	0.12	1.5
104472	TC	0.24	7.87	490			700	1.38	0.07	0.3	1.56	29.6	18.6	77	5.27	104.5	4.99	18.05	0.14	1.5
104623	Y	1	12.7	25	0.058		800	5	10	0.71	5		10	60		2390	2.72			
104729	Y	2	5.32	25	0.05		500	5	10	0.81	5		10	60		2140	2.71			
104739	Y	1	4.35	25	0.036		500	5	10	0.47	5		20	60		970	2.74			
104754	Y	0.5	4.02	25	0.106		400	5	10	0.37	5		10	60		1300	2.69			

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
Waste Rock (PEZ)																				
27548	Y			6.4			1.38	280	230	1.34		30		10			0.5	25		
27549	Y			6.6			1.42	280	110	0.7		30		10			0.8	25		
27571	Y			6.9			1.14	220	130	0.88		30		10			0.5	25		
27583	D			7.1			1.62	250	80	0.61		10		10			0.7	25		
27586	D			7.4			1.51	290	190	0.67		30		10			0.5	25		
27588	D			7.2			1.36	150	130	0.49		20		10			0.8	25		
27590	D			7.6			1.49	210	150	0.68		20		10			0.6	25		
27597	D			6.9			1.23	150	140	0.38		10		10			1.1	25		
27606	D			7.4			1.34	240	290	0.46		10		10			0.6	25		
27607	D			6.8			1.28	240	240	0.39		20		10			0.7	25		
27612	Gs			4.7			0.88	200	200	0.15		20		10			2.7	25		
27653	Z			6			1.26	190	140	0.35		30		10			1.3	25		
27677	Y			7			1.18	300	160	0.37		40		10			1	25		
27682	Y			6.4			0.78	160	180	0.33		30		10			2.1	25		
27700	Y			6			0.77	120	90	0.3		20		10			2	25		
27719	Y			5.5			0.55	100	220	0.29		20		10			1.5	25		
27720	Y			5.6			0.65	110	190	0.3		20		10			1.3	25		
27721	Y			4.7			0.46	90	240	0.24		20		10			1.2	25		
27837	TDd			2.2			2.79	1100	10	0.91		10		10			0.05	25		
27869	Y			6.9			1.32	190	280	1.73		20		20			0.9	25		
54465	Z	0.03	0.091	1.6			1.4	1245	5	1.87	19.8	5.8		20.9	61.4	0.002	0.05	1.81		3
54473	TC	0.01	0.064	0.9			2.15	1230	5	1.52	9.5	18.4		9.1	41.8	0.002	0.05	0.62		3
55366	TW	0.005	0.086	1.7			1.31	598	2.1	1.36	9.6	34.9		18.4	54.4	0.001	0.11	2.21		2
55368	TW	0.04	0.052	1.7			1.23	948	1.43	1.77	8.4	26.1		12.2	50.5	0.001	0.16	1.46		1
55470	TC	0.01	0.054	1.2			1.39	1260	1.27	1.65	7.3	24.4		10.4	43.4	0.007	0.2	1.82		2
55486	TF	0.005	0.064	1.6			1.89	1215	0.62	1.69	10.4	17.4		14.7	58.9	0.002	0.04	0.96		1
55575	TC	0.005	0.053	1.3			2.17	1755	0.83	1.9	10.3	14.8		7.2	49.1	0.003	0.01	0.59		2
55576	TD	0.005	0.059	1.7			2.04	1305	1.04	2.31	11.6	12.7		11	39.1	0.002	0.01	0.47		2
55598	TC	0.01	0.057	1.5			2.36	1180	0.64	2.65	8.3	21.6		13.4	37.8	0.001	0.01	0.97		3
55632	TC	0.02	0.058	1.6			1.34	943	4.34	1.44	9.8	27.9		11.5	49	0.001	0.29	2.37		3
55837	TY	0.19	0.06	1.4			1.32	847	1.36	1.39	8.3	21.4		11.9	48.4	0.003	0.15	1.75		2
55838	TY	0.16	0.047	1.3			1.38	888	1.22	1.4	7.9	20		10.9	38.6	0.003	0.1	1.49		2
55840	TY	0.23	0.081	1.4			1.31	958	2.26	1.32	8.6	26.2		16	47.4	0.004	0.2	2.31		3
55841	TY	0.16	0.107	1.9			1.34	1040	2.52	1.04	9.4	24.8		18.4	68.5	0.004	0.2	1.99		3
56179	TC	0.01	0.063	1.7			1.67	1000	5	1.36	8.3	21.7		10.7	44	0.002	0.1	1.42		0.5
103612	Gs			6.1			1.17	150	220	0.66		20		10			1.4	25		
103625	G^c			6			0.6	50	110	0.33		10		10			1.5	25		
103940	W			6.3			0.68	100	110	0.38		50		20			1.4	25		
103948	G^c			5			0.37	70	120	0.28		10		20			1.2	25		
104105	TFw	0.005	0.043	2			0.73	879	0.91	2.65	13.1	6		17.8	69.8	0.001	0.01	0.37		0.5
104158	Gs			3.6			0.3	20	60	0.1		20		10			8.3	25		
104191	Y			4			0.79	110	30	0.09		40		10			5.4	25		
104219	Y			6.3			0.86	70	20	0.26		30		10			2.4	25		
104403	TFw	0.01	0.037	2.6			1.02	702	0.62	2.35	12.1	12.4		16.2	75.4	0.001	0.01	0.62		1
104418	TFw	0.005	0.06	2.1			1.55	1080	4.15	2.42	9.5	19.8		11	76.1	0.001	0.01	0.57		2
104421	TFw	0.005	0.058	2			1.38	973	0.62	2.71	11.5	17		14.1	67.5	0.001	0.01	0.49		2
104456	TC	0.005	0.051	1.5			1.38	1130	0.5	1.95	9	27.7		10.2	52.4	0.001	0.08	0.76		2
104472	TC	0.08	0.057	2.6			1.38	907	5.73	0.1	6.9	33.3		7.7	140	0.001	1.19	7.59		4
104623	Y			5.3			1.45	170	240	2.01		50		10			0.9	25		
104729	Y			5.8			1.03	360	580	1.88		30		10			0.5	25		
104739	Y			6.4			0.87	470	420	0.83		40		10			1.1	25		
104754	Y			5.7			0.89	380	550	1.79		40		10			0.5	25		

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
Waste Rock (PEZ)														
27548	Y		250							290			60	
27549	Y		240							320			70	
27571	Y		190							280			40	
27583	D		170							680			40	
27586	D		240							790			50	
27588	D		190							770			40	
27590	D		220							850			40	
27597	D		160							910			60	
27606	D		220							900			80	
27607	D		200							900			70	
27612	Gs		190							220			70	
27653	Z		170							280			40	
27677	Y		160							410			60	
27682	Y		130							550			50	
27700	Y		90							570			30	
27719	Y		90							600			80	
27720	Y		90							710			60	
27721	Y		80							590			70	
27837	TDd		650							250			100	
27869	Y		270							250			30	
54465	Z		488	1.26	0.025	6.5	1.04	0.24	2.8	180		38.3	132	
54473	TC		592	0.61	0.025	2.8	0.77	0.17	1.3	259		25.8	131	
55366	TW		244	0.7	0.09	5.2	0.48	0.57	2.6	156		19.6	104	
55368	TW		423	0.61	0.025	4.9	0.42	0.59	2.1	132		16.8	84	
55470	TC		263	0.54	0.025	4.4	0.45	0.28	1.8	160		18.6	90	
55486	TF		550	0.74	0.025	3.7	0.64	0.33	1.7	220		23.9	107	
55575	TC		522	0.66	0.025	2.5	0.66	0.23	1.2	186		21.2	98	
55576	TD		680	0.76	0.025	2.7	0.78	0.22	1.3	185		24.7	116	
55598	TC		614	0.59	0.025	4.7	0.7	0.33	2.3	168		21.1	98	
55632	TC		365	0.68	0.025	3.2	0.53	0.79	1.6	158		17.6	106	
55837	TY		422	0.6	0.05	5.3	0.45	0.6	2.2	134		18.3	90	
55838	TY		444	0.57	0.025	4.6	0.42	0.57	1.9	123		14.6	81	
55840	TY		463	0.64	0.13	5.8	0.48	0.95	2.6	154		20.1	94	
55841	TY		393	0.69	0.18	7.1	0.51	1.06	3.2	164		23.5	96	
56179	TC		231	0.63	0.05	4	0.47	0.45	1.8	169		16.3	95	
103612	Gs		240							250			90	
103625	G^c		160							230			80	
103940	W		120							760			100	
103948	G^c		80							760			120	
104105	TFw		316	0.95	0.025	5.9	0.44	0.49	2.5	51		23.9	66	
104158	Gs		90							140			40	
104191	Y		120							250			90	
104219	Y		130							300			80	
104403	TFw		249	0.82	0.025	6.1	0.38	0.55	2.3	69		18.6	57	
104418	TFw		337	0.66	0.025	3.9	0.46	0.51	1.9	96		24	81	
104421	TFw		340	0.78	0.025	4.4	0.48	0.45	2.1	94		24.5	78	
104456	TC		401	0.65	0.025	2.7	0.49	0.37	1.1	146		16.1	90	
104472	TC		163	0.48	0.35	2.9	0.42	1.66	1.2	168		16.1	296	
104623	Y		440							210			100	
104729	Y		180							230			30	
104739	Y		130							220			50	
104754	Y		200							220			30	

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
104762	TF	0.02	7.25	4.1			1110	1.73	0.22	0.53	0.08	41	1.6	3	2.63	11	0.94	16.85	0.025	3.2
104775	TD	0.05	7.71	5.1			1340	2.11	0.05	1.09	0.15	47.8	0.6	2	2.89	2	1.74	18.5	0.11	5.1
104788	TB	0.05	8.41	2.5			530	0.63	0.03	5.83	0.13	14.3	34.1	194	1.82	32.2	6.47	17.95	0.09	1.7
104795	TXc	0.13	8.05	1.8			640	0.76	0.04	3.56	0.12	15.45	40.4	192	10.9	25.7	6.33	17.05	0.18	2.2
104804	TWc(TWf)	0.005	10.2	2.3			960	1.49	0.07	2.16	0.19	36.7	25.6	17	4.29	26.6	6.66	25.9	0.24	2.8
104839	TB	0.11	9.57	1.4			540	0.63	0.005	5.96	0.13	20.6	27.6	73	0.64	35.1	5.99	18.3	0.17	2
104869	TB	0.1	9.04	0.4			510	0.79	0.02	5.27	0.09	23.1	27.8	68	1.34	28.2	6.18	17.95	0.19	2.2
104881	TT	0.04	8.92	5.5			680	1.22	0.04	5.38	0.11	54	27.7	95	3.02	24.5	6.57	21.3	0.17	1.7
104900	TB	0.02	9.11	3			850	1.44	0.005	6.12	0.12	63.2	34.9	137	2.5	21.9	8.7	22.7	0.29	4.3
104942	TWc	0.03	9.58	4.2			900	1.24	0.02	3.34	0.1	41.1	25.9	18	3.93	16.5	6.47	23.1	0.21	3.1
104944	TWc	0.08	9.42	1.7			560	0.82	0.01	5.65	0.08	37.5	25.8	16	0.88	24.2	6.02	21.7	0.18	2
104945	TWc	0.05	9	0.2			550	0.87	0.01	4.98	0.1	37.2	28.7	17	0.58	49.7	6.62	20	0.18	2.2
104947	TWc	0.05	8.43	0.1			550	0.81	0.06	4.9	0.08	32.6	28.6	24	0.56	25	6.11	18.45	0.15	2
104948	TWc	0.06	8.98	0.5			540	0.87	0.03	4.77	0.09	36.7	28.9	26	0.67	59.4	6.19	19.15	0.19	2
104972	TB	0.05	9.1	0.6			450	0.67	0.005	6.01	0.09	19.25	28.2	81	0.12	27.4	6.64	19.65	0.18	2.3
104984	TB	0.06	9.11	0.7			430	0.64	0.005	6.25	0.09	21.7	30.1	75	0.21	32.1	6.48	19.35	0.18	2.2
104998	TB	0.05	9.45	0.4			1100	0.71	0.02	6.01	0.09	21.5	29.5	79	0.35	28.4	6.51	18.95	0.11	1.7
105001	TB	0.05	9.56	1.7			1550	0.54	0.01	5.91	0.08	16.8	25.2	96	1.32	24.5	6.55	16.4	0.08	1.2
105032	TB	0.18	8.4	23.9			1240	2.4	0.02	4.68	0.09	96.1	26.3	4	2.92	103.5	7.86	24.6	0.19	7.7
105084	TA	0.08	9.17	4.1			770	1.11	0.01	4.44	0.13	31.6	21.2	24	4.78	39.5	5.9	20.2	0.16	1.8
105091	TD	0.11	9.02	30.5			890	1.68	0.06	5.38	0.1	54	33	59	7.66	98	7.36	21	0.2	3.4
105263	TX	0.05	7.83	2.4			1250	2.45	0.05	1.68	0.16	38.9	4	4	1.51	2.9	1.63	21	0.14	3.3
105269	Gs	1	4.48	25	0.103		310	5	10	0.03	5		5	10		90	6.48			
105303	Gs	0.5	4.49	130	0.104		260	5	10	0.03	5		10	10		1720	7.08			
105321	Gs	1	5.48	25	0.091		240	5	10	0.03	5		20	10		570	7.8			
105334	Gs	0.5	4.35	25	0.076		260	5	10	0.05	5		10	5		480	9.69			
105338	Gs	1	2.48	25	0.214		120	5	10	0.12	5		40	10		400	24.3			
105341	Gs	1	4.21	25	0.144		320	5	10	0.03	5		10	5		550	6.5			
105346	Gs	1	4.63	70	0.105		330	5	10	0.05	5		20	5		430	6.69			
105348	Gs	1	3.99	120	0.136		370	5	10	0.05	5		20	10		930	6.17			
105356	Gs	0.5	5.12	25	0.105		290	5	10	0.03	5		20	10		550	7.06			
105367	Gs	0.5	4.13	25	0.074		250	5	10	0.12	5		20	5		1130	7.74			
105369	Gs	1	4.74	50	0.084		250	5	10	0.03	5		30	10		730	9.01			
105391	Gs	1	4.18	50	0.259		230	5	10	0.08	5		40	10		1870	10			
105396	Gs	0.5	3.69	25	0.123		310	5	10	0.06	5		40	40		480	9.16			
105402	Gs	0.5	4.33	25	0.053		250	5	10	0.06	5		20	5		510	7.58			
105409	Gs	1	3.09	80	0.144		310	5	10	0.03	5		30	50		660	8.3			
105440	Gs	2	3.15	100	0.245		290	5	10	0.03	5		20	60		1810	5.07			
105456	Gs	1	4.1	90	0.164		270	5	10	0.05	5		40	40		460	7.13			
105468	Gs	0.5	3.93	60	0.087		320	5	10	0.06	5		40	40		630	7.43			
105481	Gs	0.5	3.87	100	0.129		210	5	10	0.05	5		130	20		450	13.6			
105486	Gs	1	3.89	80	0.091		340	5	10	0.05	5		40	10		350	6.67			
105615	TB	0.005	9.56	2.6			910	2.01	0.02	4.36	0.21	73.8	34.9	151	1.42	17.3	8.35	23.1	0.14	4.1
105626	TB	0.04	8.21	0.4			860	2.35	0.005	4.91	0.08	62.5	34.5	84	0.64	18.8	8.35	22.5	0.19	5.7
105630	TB	0.06	8.23	0.7			830	1.96	0.005	4.74	0.08	62.5	33.8	83	0.79	21.7	8.3	22.7	0.19	5.6
105631	TB	0.08	8.1	0.1			630	1.81	0.005	5.89	0.08	61.3	33.8	79	0.73	20.3	8.03	22.4	0.17	5.6
105649	TB	0.09	8.83	1.8			930	1.67	0.005	4.41	0.1	64.7	29.3	93	0.86	21.6	8.47	23	0.14	4.9
105654	TB	0.13	9.29	4.6			650	2.01	0.005	6.57	0.09	66.8	31	87	2.98	24.6	8.78	24.3	0.14	5.1
105655	TB	0.2	8.44	3.2			570	1.88	0.005	6.02	0.11	65.1	30.9	80	3.84	52.9	8.08	24	0.14	5.4
105661	TB	0.06	9	2.3			530	1.55	0.005	5.49	0.04	56.5	28.9	95	1.78	23.2	7.59	21.6	0.13	2.4
105675	TB	0.08	8.47	0.9			660	1.63	0.04	4.96	0.08	62.3	34.1	90	3.13	25.8	7.83	22.9	0.2	1.9
105800	P	0.5	4.1	25	0.007		950	5	10	0.63	5		5	5		5	1.51			
105924	TXc	0.04	6.69	2			1260	1.62	0.21	1	0.05	29.3	0.5	1	1.9	2.5	0.62	11.25	0.07	3.3

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
104762	TF	0.05	0.025	3.7			0.26	450	0.24	1.47	11	1.9		18.5	124.5	0.001	0.01	1.66		2
104775	TD	0.05	0.073	3.4			0.2	796	2.46	2.91	13.9	0.3		19.4	99.8	0.002	0.04	1.37		2
104788	TB	0.05	0.057	0.8			4.49	1275	0.87	1.73	3.3	67.3		5.1	5.8	0.001	0.01	1.49		2
104795	TXc	0.05	0.055	0.7			3.65	4170	0.33	1.76	5.5	76		8.3	5.1	0.001	0.01	1.52		1
104804	TWc(TWf)	0.05	0.081	0.6			2.07	1850	0.2	1.32	12	25.2		11.8	4.2	0.001	0.01	0.17		2
104839	TB	0.005	0.051	0.7			3.02	1060	0.39	1.86	5.5	34.3		5.8	9.1	0.001	0.01	0.11		1
104869	TB	0.005	0.057	0.7			2.84	1120	0.47	2.43	5.9	30.4		4.3	15.1	0.001	0.01	0.34		1
104881	TT	0.01	0.064	0.4			3.09	1240	3.17	1.79	11.2	50.2		8.3	10.2	0.002	0.03	0.3		2
104900	TB	0.005	0.077	0.7			4.13	1610	0.81	2.17	20.7	89.7		8.1	17.8	0.001	0.01	0.35		0.5
104942	TWc	0.005	0.073	1.1			2.38	1460	0.54	1.97	7.7	28.1		7.9	19	0.001	0.01	0.16		3
104944	TWc	0.005	0.056	0.4			2.85	1070	0.24	1.95	5.1	29		5.1	4.8	0.001	0.01	0.08		3
104945	TWc	0.005	0.066	0.3			2.75	1160	0.26	2.45	5.8	31.3		5.6	2.2	0.001	0.01	0.08		3
104947	TWc	0.005	0.063	0.3			2.81	1065	0.26	2.26	5.3	39.8		5.4	1.5	0.001	0.01	0.11		2
104948	TWc	0.005	0.06	0.5			2.79	1070	0.45	2.26	5.4	42.5		5.7	5.2	0.001	0.01	0.14		3
104972	TB	0.01	0.06	0.6			3.14	1060	0.56	2.45	6	41.3		4	3.5	0.001	0.01	0.025		2
104984	TB	0.005	0.059	0.6			2.98	1090	0.49	2.4	5.9	40.7		3.9	5.2	0.001	0.01	0.025		1
104998	TB	0.005	0.06	0.6			2.58	1070	0.41	2.27	5.4	37.8		4.1	4.8	0.001	0.02	0.08		3
105001	TB	0.005	0.049	0.4			2.59	1220	0.29	2.3	4.6	34.2		7.4	3.1	0.001	0.05	0.57		2
105032	TB	0.005	0.081	2			1.53	1260	3.21	2.1	34.7	9.3		26.1	57.3	0.002	0.03	2.12		2
105084	TA	0.01	0.059	1.4			1.46	1235	1	2.55	11.7	8.9		16.6	40.2	0.001	0.02	0.58		0.5
105091	TD	0.03	0.072	1.2			2.41	1320	2.54	1.87	14.7	21.9		14.5	35.5	0.001	0.06	1.01		0.5
105263	TX	0.005	0.046	2			0.69	1050	0.41	2.51	19.9	2.8		18.2	41.8	0.001	0.01	0.45		1
105269	Gs			1.3			0.12	40	10	0.05		5		80			0.1	25		
105303	Gs			2.7			0.16	40	10	0.12		10		10			9.4	25		
105321	Gs			3.4			0.25	30	20	0.11		10		130			9	25		
105334	Gs			2.5			0.13	20	20	0.11		10		30			11.5	25		
105338	Gs			0.1			0.03	40	30	0.03		10		70			26.5	25		
105341	Gs			3.2			0.26	30	20	0.13		5		30			8.1	25		
105346	Gs			3.5			0.26	30	10	0.12		5		30			8.7	25		
105348	Gs			3.5			0.25	30	30	0.13		5		30			8.2	25		
105356	Gs			3.4			0.26	20	10	0.09		5		20			8.9	25		
105367	Gs			2.3			0.16	20	20	0.07		5		20			9.8	25		
105369	Gs			3.1			0.22	20	30	0.07		5		10			11.4	25		
105391	Gs			3.4			0.26	30	150	0.09		20		480			12.1	25		
105396	Gs			3.5			0.23	30	20	0.07		30		10			11.2	25		
105402	Gs			3.6			0.23	20	30	0.08		10		10			9.1	25		
105409	Gs			3.4			0.18	20	40	0.08		40		30			9.8	25		
105440	Gs			1.9			0.2	20	20	0.12		40		30			6.9	25		
105456	Gs			2.6			0.19	20	20	0.15		40		110			9	25		
105468	Gs			3.2			0.17	10	10	0.13		30		40			9.3	25		
105481	Gs			2.4			0.1	20	40	0.13		10		10			17.1	25		
105486	Gs			3.4			0.13	20	20	0.14		5		10			8.4	25		
105615	TB	0.005	0.085	1.1			2.1	1380	0.7	2.56	23.3	53		9.8	31.1	0.001	0.01	1.08		2
105626	TB	0.005	0.073	1			2.88	1485	0.96	1.98	22.9	36.7		7.3	17.6	0.001	0.02	0.55		0.5
105630	TB	0.005	0.077	1			2.85	1325	0.86	2.04	23.1	35.2		8.4	20.9	0.001	0.01	0.52		1
105631	TB	0.03	0.071	0.8			2.91	1380	1.4	1.81	22.6	35.8		7	10.2	0.001	0.01	0.29		1
105649	TB	0.005	0.07	1.4			2.65	1390	1	2.35	23.1	38.2		8	34.5	0.001	0.02	0.79		2
105654	TB	0.005	0.076	0.9			3.26	1645	1.88	1.91	23.8	41.7		7.4	16.2	0.001	0.03	0.39		2
105655	TB	0.005	0.076	0.9			2.97	1390	2	1.73	23.6	42.5		8.2	19.7	0.001	0.02	0.43		2
105661	TB	0.01	0.057	0.6			2.56	1215	0.98	1.84	18.4	43.6		7.2	12.5	0.001	0.08	0.61		2
105675	TB	0.005	0.081	0.7			2.19	1410	1.31	1.75	21.4	51		8.8	20.9	0.002	0.01	0.23		2
105800	P			2.8			0.15	350	5	3.02		5		20			0.1	25		
105924	TXc	0.005	0.015	3.7			0.08	448	0.16	1.39	11	0.4		18.1	113	0.001	0.01	0.85		2

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
104762	TF		118.5	0.88	0.05	7.5	0.11	1.15	3.1	13		15.1	38	
104775	TD		179	0.82	0.025	4.4	0.2	0.72	2.3	4		31.7	77	
104788	TB		628	0.19	0.025	0.8	0.62	0.25	0.5	219		13.8	88	
104795	TXc		627	0.36	0.025	1	0.63	0.24	0.6	122		13	95	
104804	TWc(TWf)		503	0.65	0.025	2.1	0.8	0.24	1.3	151		18.6	135	
104839	TB		842	0.33	0.025	0.7	0.62	0.06	0.3	210		16.6	80	
104869	TB		786	0.34	0.025	0.7	0.66	0.11	0.3	223		18.6	82	
104881	TT		663	0.71	0.025	1.9	0.86	0.09	0.8	182		25.8	104	
104900	TB		675	1.26	0.025	2.1	1.21	0.2	0.7	177		33	123	
104942	TWc		742	0.41	0.025	2	0.77	0.31	0.6	162		19.5	103	
104944	TWc		942	0.26	0.025	1.9	0.67	0.09	0.4	171		14.3	83	
104945	TWc		1100	0.29	0.025	1.7	0.74	0.06	0.5	194		14.8	94	
104947	TWc		1300	0.28	0.025	1.5	0.66	0.08	0.4	193		12.5	85	
104948	TWc		1360	0.28	0.025	1.8	0.66	0.11	0.5	176		13.9	85	
104972	TB		853	0.33	0.025	0.5	0.69	0.02	0.3	243		14.6	85	
104984	TB		879	0.32	0.025	0.6	0.68	0.01	0.3	238		15.7	85	
104998	TB		892	0.32	0.025	0.7	0.69	0.03	0.3	230		16.8	88	
105001	TB		827	0.27	0.025	0.4	0.71	0.02	0.2	236		13.1	95	
105032	TB		525	2.1	0.025	8.2	1.23	0.16	4.2	162		42.1	149	
105084	TA		591	0.75	0.025	1.7	0.58	0.29	1.4	201		15.6	103	
105091	TD		570	0.86	0.025	3.7	0.83	0.29	1.9	231		26.8	121	
105263	TX		353	1.1	0.025	3	0.21	0.25	1.4	23		24.3	90	
105269	Gs		600							160			10	
105303	Gs		680							110			10	
105321	Gs		590							180			10	
105334	Gs		870							150			10	
105338	Gs		690							20			100	
105341	Gs		780							160			20	
105346	Gs		640							170			20	
105348	Gs		810							160			30	
105356	Gs		540							160			10	
105367	Gs		430							120			200	
105369	Gs		480							150			40	
105391	Gs		590							200			770	
105396	Gs		440							200			140	
105402	Gs		540							190			10	
105409	Gs		350							200			100	
105440	Gs		180							200			20	
105456	Gs		440							190			30	
105468	Gs		350							160			60	
105481	Gs		240							110			30	
105486	Gs		260							120			20	
105615	TB		822	1.38	0.025	2.6	1.41	0.18	1.5	199		36.3	162	
105626	TB		533	1.28	0.025	2.2	1.44	0.13	0.8	183		35.8	139	
105630	TB		600	1.24	0.025	2.4	1.43	0.15	0.8	183		36	141	
105631	TB		495	1.22	0.025	2.2	1.42	0.07	0.9	181		35.6	137	
105649	TB		591	1.33	0.025	2	1.48	0.19	0.9	180		34.4	145	
105654	TB		541	1.36	0.025	2	1.55	0.1	0.7	195		36.9	149	
105655	TB		473	1.36	0.025	2.1	1.4	0.15	0.8	176		36.5	152	
105661	TB		529	1.05	0.025	1.4	1.12	0.06	0.5	172		28.3	122	
105675	TB		509	1.17	0.025	1.6	1.16	0.14	0.5	169		31.5	121	
105800	P		90							5			40	
105924	TXc		92.4	0.91	0.025	6.7	0.06	0.79	2.7	2		11.6	27	

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
105935	TTbu	0.13	8.56	3.3			1260	2.16	0.21	1.92	0.19	48.5	10.9	51	5	17	3.37	20.7	0.25	5.6
105994	TB	0.04	8.2	1.3			670	1.51	0.01	5.68	0.06	58	34.2	86	0.8	28.8	7.52	20.2	0.17	4.1
106898	Gp	1	1.88	25	0.146		400	5	10	0.03	5		10	20		3270	1.45			
107014	Gs	1	6.06	25	0.108		200	5	10	0.17	5		40	20		1260	9.89			
107038	Gs	0.5	4.34	25	0.085		300	5	10	0.13	5		30	10		1410	6.24			
107047	Gs	0.5	2.51	25	0.159		200	5	10	0.07	5		30	10		1180	6.2			
107056	Gs	3	4.53	25	0.114		200	5	10	0.14	5		30	20		2250	6.71			
107077	Y	1	4.42	25	0.049		300	5	10	0.08	5		40	70		1860	4.71			
107088	Y	1	4.38	25	0.047		400	5	10	0.12	5		40	60		1690	4.71			
107102	Y	1	4.6	50	0.105		400	5	10	0.07	5		50	70		1220	4.65			
107147	Y	1	3.91	25	0.035		500	5	10	0.44	5		20	50		4440	2.55			
107172	Y	2	6.13	25	0.034		600	5	10	0.43	5		20	60		4510	2.64			
107213	Gp	1	3.1	25	0.061		700	5	10	0.14	5		10	10		4460	2.01			
107227	Gp	3	2.98	25	0.092		300	5	10	0.29	5		5	10		4070	1.38			
107287	Y	1	7.32	25	0.01		300	5	10	0.74	5		10	50		790	2.77			
107297	Y	1	6.31	25	0.049		500	5	10	0.8	5		10	60		1060	3.54			
107326	Y	1	7.51	25	0.007		600	5	10	1.56	5		10	60		860	4.39			
107488	Y	0.5	6.53	25	0.102		550	5	10	0.65	5		10	50		980	2.25			
107499	Y	0.5	7.28	25	0.08		690	5	10	0.74	5		20	50		1260	2.96			
107505	G	1	6.94	25	0.028		330	5	10	3.35	5		10	10		60	4.9			
107511	TFf	0.03	6.53	1.7			1130	1.85	0.2	0.38	0.07	35.7	1.2	4	1.64	3.1	0.84	14.85	0.1	2.5
107559	TWc	0.07	9.07	2.2			680	0.98	0.02	3.95	0.13	31	22.8	36	5.03	31.3	5.79	19.8	0.28	1.3
107569	TF	0.15	8.59	35.5			700	2.14	0.05	2.89	0.22	62.3	11.5	17	4.97	24.4	5.03	24.6	0.35	3
107581	TXc	0.2	8.44	1.1			1110	2.28	0.04	2.45	0.19	65.1	8.8	5	2.82	15.6	4.82	24.2	0.2	4.6
107590	TAx	0.02	7.71	5.5			1310	1.98	0.05	2.03	0.13	49.1	6.5	1	1.04	12.2	3.41	21.6	0.17	4.2
107593	TWcm	0.05	8.68	9.5			720	0.84	0.03	5.31	0.09	45	23.8	18	4.92	23.9	6.13	18.8	0.21	2.3
107654	TDm	0.005	7.86	6.7			1110	1.37	0.05	3.04	0.21	34.7	3.5	3	2.39	8	2.52	17.3	0.12	1.8
107704	Gs	0.5	4.16	25	0.068		300	5	10	0.06	5		10	20		60	8.87			
107722	Gs	0.5	3.01	25	0.087		300	5	10	0.03	5		10	5		80	9.26			
107745	Gs	0.5	4.4	25	0.187		200	5	10	0.12	5		30	20		410	9.57			
107769	Gs	0.5	3.96	25	0.141		300	5	10	0.05	5		20	20		80	9.05			
107780	Gs	0.5	3.8	25	0.126		200	5	10	0.05	5		30	20		150	10.5			
107787	Gs	0.5	3.99	25	0.112		200	5	10	0.11	5		20	20		190	10.6			
107796	Gs	0.5	4.72	25	0.084		300	5	10	0.09	5		20	20		140	7.37			
107800	Gs	0.5	5.11	25	0.18		200	5	10	0.13	5		30	20		470	11.2			
107820	Gs	2	4.7	50	0.14		300	5	10	0.11	5		30	20		400	8.75			
107828	Gs	2	4.22	60	0.501		200	5	10	0.08	5		30	20		280	19.5			
107874	Gs	1	4.29	90	0.341		200	5	10	0.13	5		20	10		870	9.95			
107875	Gs	1	3.82	120	0.206		300	5	10	0.12	5		20	10		320	7.16			
107920	Gp	1	2.6	25	0.089		480	5	10	0.25	5		5	20		1970	1.06			
129013	Gs	1	1.6	25	0.142		100	5	10	0.48	5		5	410		4160	2			
129053	W	0.5	8.36	25	0.148		500	5	10	0.53	5		5	160		1820	1.65			
129055	W	1	8.47	25	0.194		500	5	10	0.66	5		10	140		2910	2.15			
129065	W	1	6.34	160	0.255		400	5	10	0.25	5		5	380		2770	1.94			
129074	W	0.5	9.05	25	0.343		700	5	10	0.57	5		10	200		1920	2.15			
131017	Y	1	7.62	25	0.164		500	5	10	0.13	5		30	70		3070	6.88			
131072	Y	2	8.77	25	0.166		600	5	10	0.69	5		10	70		3030	2.11			
131073	Y	1	8.05	25	0.155		400	5	10	0.36	5		10	110		3210	2.32			
219084	TF	0.09	8.38	73.5			580	1.38	0.02	3.13	0.12	45	26.6	134	3.89	18.6	5.85	21.5	0.21	2.7
219089	TF	0.07	7.59	2			630	1.29	0.06	4.04	0.09	36.2	17	56	2.5	18.5	4.07	20.1	0.18	2.5
219102	TF	0.07	6.88	0.9			670	1.39	0.07	2.91	0.1	27.6	14	35	2.25	16.4	3.65	19.6	0.15	2.3
219133	TF	0.09	8.98	41.4			770	1.4	0.2	3.85	0.17	53.1	27.7	52	6.83	89.6	6.36	23	0.21	3
219135	TW	0.04	8.33	39.2			850	0.95	0.09	4.4	0.12	51.1	33.5	69	2.23	83.6	7.27	20.9	0.19	3.9

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
105935	TTbu	0.005	0.073	2.5			1.07	1045	0.59	2.1	13.4	20.2		18.7	77.1	0.001	0.01	1.03		2
105994	TB	0.005	0.067	0.4			3.55	1440	0.67	1.49	17.9	64.7		6.8	5.9	0.001	0.04	0.63		0.5
106898	Gp			5.5			0.12	40	100	0.24		5		10			1.3	25		
107014	Gs			3.8			0.19	20	50	0.13		10		20			10.6	25		
107038	Gs			3.6			0.17	10	50	0.14		10		10			7.9	25		
107047	Gs			3.6			0.12	10	60	0.13		10		10			7.7	25		
107056	Gs			2.9			0.17	30	60	0.16		20		10			8.5	25		
107077	Y			3.6			0.25	30	20	0.16		50		10			5.7	25		
107088	Y			5.2			0.52	100	20	0.15		40		10			5.2	25		
107102	Y			4			0.38	50	30	0.11		40		10			5.7	25		
107147	Y			6			0.95	160	90	0.8		40		10			1.5	25		
107172	Y			6.2			0.89	170	110	0.17		40		10			1.2	25		
107213	Gp			5.9			0.29	120	80	0.13		20		30			1.1	25		
107227	Gp			3.4			0.3	70	160	0.13		10		60			0.7	25		
107287	Y			5			1.02	390	50	0.27		30		10			0.1	25		
107297	Y			4			0.98	580	40	1.96		90		50			0.5	25		
107326	Y			3.1			1.05	910	180	1.72		30		10			0.7	25		
107488	Y			5.6			0.96	170	310	1.4		30		10			0.8	25		
107499	Y			6.6			1.1	310	260	0.69		20		20			0.6	25		
107505	G			2.1			1.3	2250	5	1.66		20		10			0.5	25		
107511	TFf	0.05	0.013	3.6			0.13	518	0.25	1.91	9	1.4		16.8	107	0.002	0.01	0.39		0.5
107559	TWc	0.01	0.052	0.8			2.4	1085	0.21	2.21	7.7	31.9		7.1	5.7	0.001	0.01	0.68		3
107569	TF	0.01	0.073	2.5			0.89	1555	2.98	2.15	15.9	9.9		16.4	86.5	0.001	1.83	1.28		4
107581	TXc	0.005	0.089	1.9			0.81	1225	0.63	3.21	17	3.7		15	58.3	0.002	0.17	0.91		2
107590	TAx	0.005	0.066	2.3			0.54	1220	0.78	3.29	15.1	1.1		15.3	53.1	0.001	1.11	0.45		2
107593	TWcm	0.005	0.061	1.3			3.08	1155	0.54	1.87	5.3	30.5		6.1	21.6	0.001	1.15	0.82		2
107654	TDm	0.01	0.04	1.9			0.58	1100	2.27	2.59	19.3	2		12.6	42.4	0.001	0.01	0.94		1
107704	Gs			3.1			0.08	30	50	0.12		10		10			10	25		
107722	Gs			3			0.06	10	10	0.1		10		10			10.9	25		
107745	Gs			3			0.07	30	30	0.16		20		10			11.1	25		
107769	Gs			3.2			0.09	30	30	0.11		10		20			10.4	25		
107780	Gs			3.3			0.13	20	60	0.08		10		20			11.9	25		
107787	Gs			2.9			0.09	20	20	0.12		10		10			12	25		
107796	Gs			3.3			0.12	20	20	0.13		10		50			8.7	25		
107800	Gs			3			0.13	30	30	0.15		10		20			13.1	25		
107820	Gs			3.5			0.12	30	30	0.1		10		120			9.9	25		
107828	Gs			2.4			0.07	50	10	0.08		5		10			21.5	25		
107874	Gs			3.6			0.32	30	5	0.11		10		10			12.3	25		
107875	Gs			3.7			0.29	40	5	0.11		10		10			8.9	25		
107920	Gp			5.6			0.18	180	260	0.26		10		10			0.4	25		
129013	Gs			1.4			0.23	170	350	0.08		10		10			1.7	25		
129053	W			6.3			0.99	120	610	0.33		10		10			0.7	25		
129055	W			7			1.23	180	290	0.49		40		10			1	25		
129065	W			5.4			0.77	130	300	0.29		30		10			1	25		
129074	W			7.3			1.37	170	150	0.58		40		10			0.5	25		
131017	Y			4.7			0.43	70	190	0.17		40		10			6.9	25		
131072	Y			5.8			1.28	190	220	2.08		40		20			0.8	25		
131073	Y			5.7			1.25	150	240	1.72		50		10			1.1	25		
219084	TF	0.01	0.058	1.4			2.62	1035	29.6	2.12	12.4	44.8		10.7	38.7	0.003	1.5	1.03		3
219089	TF	0.01	0.052	1.4			1.99	910	1.1	2.05	11.3	23.4		11.2	34	0.001	0.08	0.54		2
219102	TF	0.02	0.048	1.9			1.33	793	0.5	2.2	10.9	16.2		11.6	37.9	0.001	0.01	0.44		2
219133	TF	0.01	0.082	1.2			2.09	1190	1.37	1.76	14.8	28.4		17.3	54	0.003	0.25	1.14		4
219135	TW	0.01	0.072	0.8			2.51	1220	4.25	1.82	15.5	37.8		13.5	38.8	0.002	0.29	1.18		3

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
105935	TTbu		337	0.91	0.025	5.7	0.41	0.65	2.6	75		28.3	85	
105994	TB		479	1.03	0.025	1.4	1.13	0.07	0.6	191		32.9	121	
106898	Gp		90							310			100	
107014	Gs		170							130			30	
107038	Gs		130							140			10	
107047	Gs		140							140			10	
107056	Gs		80							130			10	
107077	Y		20							230			60	
107088	Y		30							250			50	
107102	Y		50							280			50	
107147	Y		130							260			60	
107172	Y		150							250			80	
107213	Gp		2120							180			120	
107227	Gp		90							140			480	
107287	Y		210							190			30	
107297	Y		200							200			70	
107326	Y		460							220			110	
107488	Y		260							220			60	
107499	Y		270							220			70	
107505	G		430							160			160	
107511	TFf		130	0.8	0.025	6.9	0.09	0.66	2.8	7		12.2	36	
107559	TWc		842	0.43	0.025	1	0.62	0.16	0.6	173		13.9	87	
107569	TF		334	0.92	0.25	2.1	0.61	0.68	1.1	69		29.3	108	
107581	TXc		429	0.95	0.025	2.8	0.74	0.37	1.6	65		34.6	114	
107590	TAx		386	0.85	0.09	2.6	0.57	0.54	1.5	56		26.4	91	
107593	TWcm		929	0.27	0.14	2.3	0.71	0.43	0.7	191		17.7	79	
107654	TDm		512	1.23	0.025	2.9	0.26	0.64	1.3	32		16.1	76	
107704	Gs		130							100			20	
107722	Gs		410							110			10	
107745	Gs		340							110			20	
107769	Gs		160							140			10	
107780	Gs		110							130			10	
107787	Gs		150							130			10	
107796	Gs		130							140			210	
107800	Gs		400							130			20	
107820	Gs		230							120			240	
107828	Gs		110							70			10	
107874	Gs		110							140			40	
107875	Gs		180							150			30	
107920	Gp		70							200			10	
129013	Gs		50							230			40	
129053	W		180							210			90	
129055	W		180							280			70	
129065	W		120							210			50	
129074	W		210							290			30	
131017	Y		60							220			50	
131072	Y		260							210			50	
131073	Y		190							220			60	
219084	TF		314	0.78	0.39	2.4	0.73	0.35	1.2	156		22.7	85	
219089	TF		320	0.81	0.025	3	0.55	0.3	1.4	110		18.7	71	
219102	TF		349	0.83	0.025	2.5	0.45	0.4	1.5	93		15.1	68	
219133	TF		715	0.98	0.07	4	0.74	0.37	1.7	205		26.3	98	
219135	TW		491	0.95	0.05	3.6	0.85	0.28	2.2	219		28.9	107	

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
219146	TC	0.07	8.17	35.7			700	0.99	0.07	4.2	0.11	30.6	30.7	38	5.25	42.8	6.6	21.6	0.11	1.7
219189	TY	0.03	7.9	37			810	1.48	1.82	2.48	0.36	41.7	20.9	65	5.8	41.4	4.77	21.2	0.16	4.1
219190	TY	0.05	7.45	33.1			780	1.44	1.38	1.79	0.36	39.5	20	66	6.64	45.6	4.65	20.3	0.15	3.5
219200	TC	0.005	7.49	6			630	1.36	0.03	3.37	0.18	37.2	20.6	95	4.27	32.1	4.67	18.85	0.17	3.3
219210	TC	0.005	7.8	18.1			750	1.55	0.04	2.25	0.39	26.8	22	91	8.53	69.7	4.78	19.75	0.15	2.9
219302	Y2L	1	7.56	50	0.207		500	5	10	0.39	5		10	60		2800	2.35			
219377	Gs	0.5	7.07	25	0.169		600	5	10	0.53	5		10	10		1680	2.81			
219386	Y0	0.5	8.65	25	0.049		500	5	10	0.96	5		10	40		780	2.23			
219387	Y0	0.5	8.27	25	0.064		600	5	10	0.58	5		5	40		1190	2.52			
219421	Gs/D	1	8	25	0.042		800	5	10	0.58	5		5	10		700	1.2			
219428	Gs/D	0.5	7.69	25	0.04		900	5	10	0.63	5		5	5		550	2.13			
219436	W	0.5	8.29	25	0.056		500	5	10	0.83	5		5	40		330	2.49			
219440	W	0.5	8.68	25	0.062		600	5	10	0.74	5		5	60		380	2.32			
219475	TC	0.24	7.39	12.2			550	1.24	0.03	3.15	0.11	32.2	18.5	56	4.61	39.4	4.88	17.9	0.18	2.8
219485	TC/TF	0.08	8	2.5			610	1.26	0.03	4.59	0.19	33.8	31.9	93	2.38	51.1	6.28	19.7	0.21	1.4
219488	TF	0.09	8.57	39.5			340	1.15	0.05	5.07	0.14	39.9	29.5	111	3.98	47.8	6.59	19.6	0.21	1.7
219495	Gp	2	7.93	25	0.175		700	5	10	0.61	5		10	10		4550	2.35			
219506	Gp	1	7.39	25	0.091		500	5	10	0.08	5		10	10		2160	2.97			
219509	Gp	4	7.93	25	0.093		500	5	10	0.05	5		20	10		3660	2.05			
219516	Gp	0.5	7.96	25	0.09		500	5	10	0.07	5		10	10		2290	1.93			
219527	Gp	1	8.02	25	0.125		600	5	10	0.15	5		10	10		3010	1.96			
219529	Gp	2	7.98	25	0.12		600	5	10	0.21	5		10	5		4000	1.62			
219537	Gp	1	7.02	25	0.168		500	5	10	0.13	5		10	10		2560	1.74			
219547	Gp	2	7.94	25	0.124		600	5	10	0.26	5		10	5		3140	1.53			
219548	Gp	1	7.99	25	0.14		500	5	10	0.3	5		10	5		3490	1.55			
219558	Gp	0.5	7.93	25	0.114		600	5	10	0.09	5		10	5		3750	1.54			
219569	Gp	0.5	8.12	25	0.142		600	5	10	0.08	5		10	10		2760	1.7			
219579	Gp	1	7.51	25	0.045		500	5	10	0.38	5		10	10		3890	1.37			
219590	Gp	2	7.69	25	0.087		500	5	10	0.09	5		10	10		5120	1.6			
219600	Gp	1	8.16	25	0.23		500	5	10	0.57	5		10	5		5280	1.68			
219611	Gp	3	6.98	25	0.055		500	5	10	0.09	5		10	10		4180	1.71			
219622	Gp	2	7.7	25	0.094		500	5	10	0.54	5		10	5		3770	1.16			
219633	Gp	2	7.21	25	0.087		500	5	10	0.59	5		5	10		6700	1.42			
219643	Gp	3	7.59	25	0.076		500	5	10	0.51	5		5	10		7020	1.64			
219654	Gp	2	8.32	50	0.072		600	5	10	0.73	5		10	5		5210	1.79			
219664	Gp	2	7.58	25	0.148		500	5	20	0.41	5		10	5		4580	1.51			
219675	Gp	8	6.17	25	0.135		500	5	20	0.9	20		50	220		6470	2.89			
219685	Gp	6	8.12	25	0.251		500	5	10	0.24	5		10	100		8740	1.79			
219696	Gp	4	7.14	25	0.227		500	5	10	0.13	5		5	130		12350	1.95			
219706	Gp	3	8.02	25	1.32		600	5	10	0.52	5		5	100		7700	1.54			
219717	Gp	4	7.67	25	0.135		500	5	10	0.21	5		5	90		7050	1.53			
219728	Gp	3	6.35	25	0.07		500	5	10	0.34	5		10	150		6270	1.39			
219738	Gp	2	6.91	25	0.078		500	5	10	0.35	5		5	5		3970	1.4			
219749	Gp	2	6.51	25	0.088		600	5	10	0.42	5		5	5		3950	1.51			
219760	Gp	2	7.3	25	0.1		600	5	10	0.6	5		5	5		3060	1.33			
219779	TF	0.09	8.02	17.2			910	1.77	0.08	1.75	0.15	31.6	9.1	14	3.01	14.2	3.35	21.6	0.12	2.2
219799	TC	0.08	7.81	12.8			850	1.22	0.09	3.58	0.15	27.1	18.3	54	2.82	32.8	5.08	18.15	0.16	2.2
219834	TC	0.13	8.57	12.6			580	1.41	0.1	5.69	0.16	30.9	24.2	50	3.54	79.9	6.37	21.4	0.17	2.6
220076	Y2L	2	7.24	25	0.272		700	5	10	0.72	5		30	50		610	10.9			
220092	Y2L	0.5	7.7	25	0.109		800	5	10	0.51	5		30	50		280	8.92			
220093	Y2L	2	7.5	60	0.195		500	5	10	0.74	20		20	60		680	8.96			
220110	Y2L	0.5	8.28	25	0.095		700	5	10	0.23	5		20	80		30	6.58			
220116	Y2L	2	7.66	25	0.096		300	5	10	0.08	5		10	50		130	8.7			

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
219146	TC	0.005	0.063	0.9			2.02	1170	8.21	1.87	9.3	23.5		12.9	20.3	0.001	0.23	2.41		1
219189	TY	0.31	0.098	1.4			1.32	918	3.07	1.33	9.6	28.2		21	39.2	0.003	0.21	2.86		3
219190	TY	0.22	0.09	1.5			1.25	901	2.44	1.24	9.1	28.2		18.2	45.2	0.002	0.16	2.4		3
219200	TC	0.02	0.045	1.5			1.47	958	0.54	1.78	9.1	28.8		10.1	56.8	0.001	0.03	0.61		2
219210	TC	0.04	0.047	2.1			1.39	834	0.92	1.56	8.8	22.8		9.4	53	0.008	0.09	1.5		2
219302	Y2L			7.7			1.13	180	200	0.42		20		10			0.9	25		
219377	Gs			5.2			1.55	160	180	0.47		20		10			0.7	25		
219386	Y0			5.2			1.24	280	290	2		30		20			0.2	25		
219387	Y0			6.1			1.26	270	100	1.46		30		10			0.3	25		
219421	Gs/D			7.4			0.53	220	470	0.46		20		20			0.4	25		
219428	Gs/D			6.6			0.83	360	60	0.93		5		10			0.2	25		
219436	W			6.3			1.22	420	260	1.58		10		10			0.1	25		
219440	W			6.7			1.16	410	170	1.4		10		10			0.2	25		
219475	TC	0.02	0.053	1.5			1.33	891	0.97	1.78	9.2	26		9.1	50.1	0.001	0.09	1.23		1
219485	TC/TF	0.005	0.056	1			2.04	1055	0.49	1.85	10.9	42.5		8.3	23.6	0.001	0.01	0.57		1
219488	TF	0.005	0.056	1.4			1.7	1380	2.31	1.42	10.6	39		8.5	59.7	0.002	0.57	2.12		1
219495	Gp			5.4			0.26	90	30	0.31		30		30			1.8	25		
219506	Gp			5.2			0.14	40	10	0.24		5		20			2.8	25		
219509	Gp			6.5			0.17	40	30	0.26		10		10			1.7	25		
219516	Gp			5.6			0.19	40	10	0.24		10		10			1.5	25		
219527	Gp			5.6			0.27	60	20	0.33		10		10			1.6	25		
219529	Gp			6			0.32	70	40	0.43		10		20			1.2	25		
219537	Gp			4.9			0.25	70	60	0.34		10		10			1.1	25		
219547	Gp			5.9			0.29	80	80	0.29		10		80			0.9	25		
219548	Gp			5.6			0.34	100	140	0.36		5		40			0.7	25		
219558	Gp			5.3			0.24	70	260	0.26		10		40			1	25		
219569	Gp			6			0.31	100	90	0.26		30		10			1.1	25		
219579	Gp			5.9			0.39	90	50	0.26		5		10			0.7	25		
219590	Gp			5.4			0.25	70	50	0.18		5		10			0.9	25		
219600	Gp			5.8			0.68	60	80	0.18		5		10			1	25		
219611	Gp			5.5			0.36	60	270	0.17		5		10			1.2	25		
219622	Gp			6.2			0.69	60	90	0.22		5		10			0.5	25		
219633	Gp			5.7			0.42	60	170	0.19		5		10			0.7	25		
219643	Gp			5.7			0.51	60	180	0.2		10		20			0.7	25		
219654	Gp			6			0.71	70	170	0.2		30		20			0.7	25		
219664	Gp			5.5			0.52	60	420	0.19		10		10			0.6	25		
219675	Gp			4.2			0.65	230	460	0.16		20		2430			2.4	25		
219685	Gp			5.5			0.76	60	220	0.17		10		20			0.8	25		
219696	Gp			5.8			0.7	60	430	0.21		20		10			1.2	25		
219706	Gp			5.9			0.75	50	240	0.66		10		30			0.7	25		
219717	Gp			5.7			0.62	70	180	0.15		5		20			0.7	25		
219728	Gp			5.3			0.46	50	2010	0.18		5		30			0.9	25		
219738	Gp			5.5			0.55	80	590	0.41		5		10			0.5	25		
219749	Gp			5.9			0.72	160	440	0.45		80		90			0.5	25		
219760	Gp			5.5			0.62	80	710	0.61		5		10			0.5	25		
219779	TF	0.005	0.058	1.7			0.76	835	3.35	3.04	16.2	11.3		14	40.4	0.001	0.7	0.9		2
219799	TC	0.005	0.047	2.2			1.51	1030	1.38	2.36	9.4	22.1		10.5	49.9	0.001	0.6	0.9		2
219834	TC	0.005	0.065	1.6			1.83	1335	1.63	2.14	13	20.1		15.2	34.7	0.002	0.65	1.72		3
220076	Y2L			2.9			1.86	1050	5	0.21		40		40			9.5	25		
220092	Y2L			2.8			1.22	780	5	0.1		40		30			8.4	25		
220093	Y2L			2.8			1.38	800	5	0.11		30		120			8.6	25		
220110	Y2L			3.7			0.3	90	5	0.15		50		20			6.6	25		
220116	Y2L			3.5			0.19	20	5	0.15		40		40			9.3	25		

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
219146	TC		669	0.59	0.21	2	0.63	0.28	1	226		17.1	107	
219189	TY		534	0.81	0.16	6.9	0.48	1.11	3.4	151		23.3	98	
219190	TY		473	0.75	0.14	6.3	0.47	0.96	2.9	152		22.7	100	
219200	TC		489	0.7	0.025	4.6	0.47	0.24	1.8	132		20.3	90	
219210	TC		499	0.67	0.025	3.7	0.5	0.92	2.2	140		18.4	126	
219302	Y2L		170							280			40	
219377	Gs		230							680			30	
219386	Y0		340							250			30	
219387	Y0		220							290			30	
219421	Gs/D		240							340			30	
219428	Gs/D		240							360			20	
219436	W		220							270			20	
219440	W		210							250			20	
219475	TC		450	0.63	0.025	4.5	0.49	0.28	1.9	148		17.8	87	
219485	TC/TF		616	0.71	0.025	1.9	0.61	0.23	0.8	202		18.3	118	
219488	TF		388	0.72	0.08	2.8	0.62	0.56	0.8	209		20	121	
219495	Gp		310							160			30	
219506	Gp		240							240			30	
219509	Gp		160							190			100	
219516	Gp		140							190			100	
219527	Gp		160							180			170	
219529	Gp		170							160			260	
219537	Gp		140							200			220	
219547	Gp		170							220			300	
219548	Gp		200							210			230	
219558	Gp		200							240			290	
219569	Gp		150							190			220	
219579	Gp		150							200			230	
219590	Gp		160							180			240	
219600	Gp		180							180			240	
219611	Gp		190							200			300	
219622	Gp		150							250			150	
219633	Gp		150							180			90	
219643	Gp		130							200			160	
219654	Gp		180							160			160	
219664	Gp		140							180			320	
219675	Gp		240							170			4040	
219685	Gp		170							160			140	
219696	Gp		210							170			120	
219706	Gp		260							170			90	
219717	Gp		140							160			70	
219728	Gp		150							160			370	
219738	Gp		200							150			70	
219749	Gp		220							180			110	
219760	Gp		250							160			40	
219779	TF		398	1.01	0.05	1.7	0.39	0.45	0.9	65		17.1	100	
219799	TC		528	0.67	0.025	3.1	0.52	0.4	1.4	152		15.9	86	
219834	TC		582	0.89	0.15	2.4	0.66	0.54	1.5	187		19.4	106	
220076	Y2L		60							220			200	
220092	Y2L		40							200			110	
220093	Y2L		120							210			2310	
220110	Y2L		30							210			50	
220116	Y2L		50							220			520	

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
220128	Y2L	0.5	7.87	25	0.252		300	5	10	0.29	5		20	70		210	9.55			
220134	Y2L	1	6.82	25	0.172		500	5	10	1.19	5		40	20		790	13.7			
220141	Gs	1	8.4	25	0.12		800	5	10	0.33	5		10	20		430	7.76			
220364	TY	0.09	7.65	20.9			500	1.52	0.16	2.68	0.19	30.2	18	138	6.38	39.3	4.62	18.3	0.16	2.3
220366	TY	0.12	2.23	23.7	<0.2	<10	110	0.59	0.69	1.56	0.25	23.9	16	32	2.05	38.4	4.94	5.32	0.08	0.06
220378	TC	0.09	7.31	68.3			430	1.36	0.04	3.03	0.24	30.7	24.5	98	5.42	47	4.83	18.2	0.18	2.4
220384	TC	0.12	7.86	6.7			660	1.81	0.03	4.13	0.15	35.9	22.6	48	3.95	49.5	5.31	21	0.2	2.8
220394	TC	0.04	8.01	7			780	1.28	0.02	4.51	0.15	34.9	23.9	102	7.01	45.7	5.44	19.1	0.18	2.4
220692	TC	0.05	7.53	36.6			940	1.28	0.07	2.86	0.14	33.6	16.2	49	6.34	40.6	4.76	17.85	0.17	2.3
220700	TY	0.07	8.28	41			760	1.55	0.76	2.48	0.28	38.8	21.6	54	6.09	42.5	4.95	21.4	0.21	2.6
220705	TC	0.06	7.15	32.2			1010	1.09	0.13	3.68	0.14	31.2	21.4	57	4.84	29.3	4.37	16.5	0.19	2.3
220724	TC	0.04	8.13	9.7			840	1.28	0.06	4.09	0.15	38.5	17	83	3.65	34.5	5.03	19.65	0.2	2.3
220745	TC	0.03	8.54	19			930	1.54	0.2	3.93	0.19	39.1	21.5	16	1.78	54.8	5.33	23.7	0.22	2.5
220758	TC	0.07	7.5	20			630	1.08	0.08	2.03	0.11	30.3	18.3	59	1.46	80.4	5.18	17.65	0.19	1.3
220789	Gs	3	8.74	25	0.237		800	5	10	0.2	5		10	10		12200	1.99			
220841	Y	4	8.28	25	0.227		500	5	10	0.08	5		20	30		18050	2.67			
220842	Y	2	8.59	25	0.252		700	5	10	0.1	5		20	40		12700	2.27			
220976	Gp	2	8.43	25	0.409		600	5	10	0.53	5		5	5		4700	1.76			
221192	TA	0.005	9.31	5.2			520	1.7	0.11	3.72	0.18	36.2	15.3	11	6.43	14.6	5.38	23.9	0.31	2.8
221196	TA	0.04	10	6.4			670	0.92	0.08	5.15	0.1	32.9	22.4	44	4.66	40	5.84	21.4	0.25	2.9
221198	TA	0.11	10.3	2.1			550	1.75	0.07	2.47	0.18	52.3	20.2	15	26.6	40.8	6.01	27.3	0.24	3.4
221205	TA	0.07	9.26	11.6			470	0.64	0.03	5.52	0.16	20.7	27.6	79	0.94	31.6	6.68	19.3	0.18	2
221219	TA	0.05	10.9	1.3			780	1.45	0.08	1.93	0.17	33.4	18.1	58	4.79	17	5.97	24.8	0.17	2.2
221235	TA	0.005	10.3	11.4			930	1.84	0.08	4.53	0.14	63.7	35.8	86	2.66	24.2	8.3	22.6	0.19	3.3
221241	TA	0.07	8.92	12.1			1110	1.18	0.28	4.57	0.33	41.3	20.3	9	0.78	127.5	6.59	21.9	0.15	3.6
221244	TC	0.07	8.6	6.1			680	1.2	0.42	5.33	0.11	32.2	20.3	92	0.74	4.7	6.19	21.6	0.17	2.4
221276	TY	0.08	8.31	7			660	1.33	0.67	5.46	0.26	34.9	20.8	61	0.73	25.5	4.72	20.3	0.12	3.2
221277	TY	0.08	8.29	8.7			770	1.14	0.8	3.69	0.23	37.7	21.5	95	0.95	29.8	4.61	18.35	0.12	3
221315	TA	0.03	7.85	3.1			520	0.94	0.32	4.33	0.06	16.4	19.6	27	1.12	26.7	4.8	22	0.11	1.1
221388	Y	2	6.65	25	0.437		500	5	10	0.15	5		20	50		13800	3.39			
221502	TD	0.04	0.94	15.7	<0.2	<10	40	0.13	0.03	0.69	0.08	39.3	6.2	18	0.08	9	3.33	6.13	0.18	0.7
221509	TF	0.02	7.77	3			1170	2.05	0.03	1.06	0.1	42.8	3.3	6	0.65	8.1	1.88	17.95	0.26	2.3
221515	TA	0.005	8.68	6			700	1.57	0.08	2.73	0.14	48.5	9.4	1	0.54	13.2	4.4	23	0.12	3.4
221517	TA	0.005	8.76	6			1290	1.92	0.09	2.88	0.17	54.7	9.1	1	1.82	15.5	4.28	23.5	0.13	3.4
221518	TA	0.005	8.82	3.5			1220	1.92	0.07	2.45	0.17	52.9	8.1	1	2.3	14.8	4.05	26.2	0.13	3.2
221547	TA	0.005	9.31	7.6			480	0.85	0.01	6.2	0.16	19.25	32.5	70	0.81	31.5	6.68	21	0.11	1.8
221548	TA	0.04	8.63	10.6			460	0.64	0.005	4.79	0.13	17.65	35.5	82	2.64	26.2	6.87	20.1	0.12	1.4
221609	TC	0.005	7.87	5.3			660	1.32	0.05	3.04	0.13	36.3	18.6	76	1.82	29.8	5.14	18.95	0.12	1.7
221709	Gp	3	6.55	25	0.365		500	5	10	0.17	5		10	10		12850	3.22			
221777	Gp	2	7.72	50	0.192		700	5	10	0.34	5		5	5		8570	1.84			
221812	Gp	0.5	10.1	25	0.095		500	5	10	3.81	5		30	120		160	7.37			
221817	Gp	0.5	9.84	25	0.198		300	5	10	5.5	5		30	80		110	7.1			
221880	Gp	1	8.02	25	0.24		700	5	10	0.51	5		5	5		2270	1.92			
221918	TF	0.07	9.41	1.8			880	1.03	0.03	5.35	0.11	45.9	27	32	4.75	47.9	6.47	20.8	0.15	3.1
221979	TB	0.12	7.9	15.9			880	1.4	0.08	4.83	0.1	52.3	21.5	47	13.05	47	5.37	19.8	0.12	2.6
221983	TB	0.16	7.95	13.2			810	1.5	0.17	5.03	0.13	52.3	23.4	57	7.37	58.4	5.43	19.7	0.12	2.8
221985	TC	1.54	6.71	12.1			410	0.66	0.47	1.14	0.05	39.1	4.3	35	3.56	107.5	6.57	12.25	0.15	1.1
222042	TB	0.04	8.9	0.5			490	0.6	0.05	6.13	0.09	18.8	26.1	55	0.27	27.8	6.15	18.35	0.15	1.9
222078	TY	0.13	7.87	2.6			900	1.46	0.15	2.53	0.1	58.2	20.9	11	4.92	74.8	7.33	19.75	0.1	2.1
222433	Y	2	7.56	25	0.027		600	5	10	0.26	5		10	50		5450	1.98			
222593	G	2	8.32	25	0.014		600	5	10	0.98	5		10	10		2130	1.66			
222722	Gp	0.5	7.6	50	0.09		600	5	10	0.84	5		5	5		1720	1.27			
222788	TA d	0.5	5.67	170	1.205		300	5	10	2.01	5		20	10		130	6.07			

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
220128	Y2L			3.3			0.68	460	5	0.16		70		20			9.3	25		
220134	Y2L			1.9			1.98	1240	5	0.03		20		20			9.3	25		
220141	Gs			3.3			0.4	150	5	0.19		10		40			8	25		
220364	TY	0.06	0.061	1.6			1.44	872	1.69	1.21	8.7	29.9		13.7	58.3	0.001	0.13	1.18		3
220366	TY	0.04	0.033	0.19	9.7	14	0.98	362	3.71	0.05	0.05	21.8	790	14.6	6.5	0.005	2.24	1.19	5.7	1.6
220378	TC	0.04	0.057	1.5			1.42	902	2.97	1.79	8.2	36.4		11.5	54.6	0.001	0.61	2.51		3
220384	TC	0.005	0.062	1.8			1.3	1060	0.91	1.76	11.3	29.7		13.2	61.2	0.001	0.06	1.35		3
220394	TC	0.005	0.06	1.2			1.85	1620	0.65	2.25	11	41.9		10.4	48	0.002	0.01	0.77		3
220692	TC	0.02	0.051	1.6			1.14	842	1.19	1.85	7.8	21.4		10.5	56.6	0.003	0.16	0.97		2
220700	TY	0.04	0.09	1.5			1.53	843	1.97	1.49	9	23.8		16.7	61.6	0.003	0.31	1.81		2
220705	TC	0.01	0.054	1.8			1.64	801	2.13	1.5	7	24.4		11.4	60.5	0.003	0.19	1.06		1
220724	TC	0.01	0.057	2			1.44	958	1.12	2.03	9.7	21.2		10.8	74.5	0.002	0.06	1.35		2
220745	TC	0.01	0.078	1.9			1.12	1190	2.54	2.38	15.6	8		23.3	55.9	0.003	0.14	1.46		3
220758	TC	0.005	0.051	2			1.51	1095	1.63	2.02	6.7	33.2		7.3	66.6	0.012	0.14	0.97		3
220789	Gs			5.7			0.12	30	270	0.23		10		70			1.7	25		
220841	Y			6.9			0.54	30	610	0.32		30		10			2.4	25		
220842	Y			6.5			0.48	20	850	0.28		30		10			2.2	25		
220976	Gp			5.2			0.7	70	230	0.42		5		10			0.8	25		
221192	TA	0.005	0.084	1			1.38	1305	2.17	1.33	13.2	5.5		13.1	23.8	0.001	0.3	1.65		2
221196	TA	0.005	0.074	0.3			2.17	1030	0.38	2.37	7.3	35.1		7.4	4.6	0.001	2.17	0.94		4
221198	TA	0.005	0.09	0.9			1.92	1375	0.17	0.96	13.4	22.1		12.2	16.6	0.001	0.08	0.32		1
221205	TA	0.005	0.067	0.6			1.78	836	0.36	2.27	5.5	29.9		5.1	6.3	0.001	3.13	1.35		4
221219	TA	0.005	0.082	2.8			1.31	995	1.65	1.21	16.8	22.3		10.2	53	0.001	0.25	0.4		1
221235	TA	0.005	0.081	2.1			1.92	1430	0.9	1.42	19.8	46.3		11.3	70.9	0.001	1.21	2.07		5
221241	TA	0.005	0.089	2			1.66	1165	23.6	2.28	11	3.9		21.8	59.1	0.029	0.88	2.59		5
221244	TC	0.01	0.075	1.4			2.69	1265	6.95	1.55	9.9	20.9		13.1	20.5	0.002	0.04	2.51		1
221276	TY	0.005	0.085	1.8			2.41	994	2.1	1.66	9.2	18.6		17.5	44.2	0.001	0.01	1.81		2
221277	TY	0.005	0.081	2.2			1.93	954	2.25	1.87	9.2	21		17.9	64.7	0.001	0.01	1.71		2
221315	TA	0.005	0.053	0.5			2.1	1115	2.97	2.08	5.6	14.2		9.2	3.9	0.003	0.01	1.58		1
221388	Y			6.7			0.5	50	200	0.39		20		20			3.2	25		
221502	TD	<0.01	0.018	0.07	15.9	7.4	0.56	873	0.39	0.04	0.9	1	1680	9.2	1.5	<0.001	2.12	0.31	4.2	3.4
221509	TF	0.005	0.043	3			0.37	1085	3.85	3.53	16.8	3		19	69.5	0.001	1.01	0.6		4
221515	TA	0.005	0.091	2.2			1.01	1260	0.58	3.57	13.6	0.1		16	43	0.001	2.3	0.78		2
221517	TA	0.005	0.084	2.1			0.97	1240	0.6	3.18	14.4	0.1		17.6	49.4	0.001	1.36	1.09		2
221518	TA	0.005	0.082	2.4			0.85	1120	0.62	2.99	16.4	0.1		19.4	56.1	0.001	1.32	0.45		2
221547	TA	0.005	0.066	0.7			2.81	1235	0.31	2.19	5.5	38.5		4.5	4.9	0.001	1.53	2.02		3
221548	TA	0.005	0.051	1.2			1.81	775	0.72	2.24	5.7	49.6		6.1	14.4	0.001	3.48	1.5		4
221609	TC	0.005	0.058	1.6			1.32	884	0.51	2.18	9.1	28		10.8	57.1	0.001	0.71	1.1		2
221709	Gp			5.4			0.19	50	310	0.21		10		60			2.6	25		
221777	Gp			5.9			0.28	40	320	0.22		10		20			1.4	25		
221812	Gp			2.1			2.41	1280	5	1.62		40		10			2.1	25		
221817	Gp			1.2			2.66	1180	10	1.51		30		10			2.1	25		
221880	Gp			4.8			0.42	60	300	1.31		5		10			1.1	25		
221918	TF	0.005	0.058	0.9			2.67	1185	0.38	2.03	7.7	41.3		7	15.7	0.001	0.01	0.24		3
221979	TB	0.005	0.063	1.2			1.81	1040	1.86	1.96	12.7	14.2		22	38.4	0.001	0.01	1.22		2
221983	TB	0.005	0.064	1.3			1.8	1070	16.45	2.11	12.6	15.3		20.7	34.5	0.006	0.06	1.23		2
221985	TC	0.01	0.034	2.4			0.67	523	9.57	0.09	6.6	4.1		23.3	81.4	0.001	2.1	1.03		11
222042	TB	0.005	0.054	0.5			2.6	1105	0.5	2.11	5.4	26.3		3.4	3.2	0.001	0.08	1.12		2
222078	TY	0.005	0.079	1.4			1.9	870	0.72	1.37	16.2	7.8		20.8	50.8	0.001	0.02	1.02		2
222433	Y			7			1.07	130	2600	0.21		30		10			0.8	25		
222593	G			5.6			0.73	260	220	0.63		5		20			0.2	25		
222722	Gp			6.2			0.51	140	230	0.17		5		10			0.5	25		
222788	TA d			2.8			0.55	1030	10	0.06		5		40			2.8	25		

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
220128	Y2L		60							190			70	
220134	Y2L		70							340			140	
220141	Gs		200							110			140	
220364	TY		351	0.7	0.025	4.9	0.44	0.5	1.9	129		16.9	94	
220366	TY	0.6	208	<0.01	0.25	3.1	<0.005	0.14	0.47	55	0.08	8.32	76	1.4
220378	TC		358	0.63	0.025	4.5	0.45	0.51	1.8	144		18.4	92	
220384	TC		397	0.84	0.025	4.4	0.51	0.39	1.7	154		21.6	99	
220394	TC		625	0.87	0.025	3.2	0.58	0.23	1.4	184		19	90	
220692	TC		396	0.66	0.025	4.2	0.44	0.37	1.6	144		18.8	78	
220700	TY		364	0.71	0.11	4.2	0.54	1.08	1.8	166		20	100	
220705	TC		355	0.58	0.025	4.2	0.46	0.54	1.7	142		17.8	83	
220724	TC		414	0.72	0.025	3.7	0.52	0.35	1.5	146		19.6	84	
220745	TC		829	1.09	0.12	2.4	0.59	0.45	1.8	156		22.3	109	
220758	TC		409	0.5	0.08	2.4	0.4	0.37	1.4	158		18.4	86	
220789	Gs		340							170			50	
220841	Y		190							320			550	
220842	Y		230							310			570	
220976	Gp		200							120			80	
221192	TA		485	0.82	0.18	1.9	0.74	0.45	1.1	142		23.5	111	
221196	TA		647	0.49	0.18	1.5	0.7	0.08	0.7	189		23.2	88	
221198	TA		480	0.83	0.05	2.5	0.81	0.36	1.2	123		23.9	102	
221205	TA		793	0.35	0.5	0.5	0.72	0.23	0.4	235		16.8	85	
221219	TA		449	1.03	0.08	1.6	0.86	1	1.1	148		19.5	145	
221235	TA		736	1.26	0.67	1.8	1.33	0.93	1.4	194		34.5	144	
221241	TA		637	0.74	0.58	3.3	0.78	0.6	1.8	168		30.5	122	
221244	TC		467	0.67	0.26	4.3	0.56	0.55	2	194		19.1	114	
221276	TY		425	0.7	0.12	5.9	0.49	0.86	3	156		19.9	86	
221277	TY		360	0.71	0.09	6.1	0.5	1.02	3.2	156		20	83	
221315	TA		763	0.35	0.08	0.6	0.46	0.23	0.4	159		10.3	109	
221388	Y		150							440			160	
221502	TD	0.5	18.5	0.01	0.27	1	0.26	0.02	0.45	23	0.37	16.1	95	13
221509	TF		235	0.99	0.09	2.2	0.26	0.77	1.1	25		21	84	
221515	TA		520	0.87	0.06	2.3	0.76	0.54	1.3	78		30	114	
221517	TA		599	0.9	0.05	2.6	0.74	0.64	1.3	74		30.5	108	
221518	TA		513	1.05	0.05	2.3	0.73	0.79	1.1	66		28.1	112	
221547	TA		823	0.35	0.17	0.4	0.71	0.25	0.3	249		16.4	93	
221548	TA		588	0.34	0.47	0.3	0.7	0.51	0.3	240		14.3	84	
221609	TC		443	0.65	0.09	3.7	0.52	0.48	1.4	143		18.6	94	
221709	Gp		210							200			220	
221777	Gp		160							180			160	
221812	Gp		950							290			150	
221817	Gp		1350							260			100	
221880	Gp		350							110			20	
221918	TF		1165	0.49	0.025	2.9	0.7	0.1	1.3	220		20.4	88	
221979	TB		519	0.86	0.025	3.9	0.61	0.27	1.6	162		23.2	88	
221983	TB		586	0.86	0.18	4	0.63	0.36	1.9	168		25.9	92	
221985	TC		122	0.47	1.09	2.7	0.33	0.8	0.9	136		8.4	24	
222042	TB		856	0.31	0.025	0.5	0.68	0.11	0.3	226		15.5	76	
222078	TY		735	1.05	0.025	3.5	0.91	0.18	1.6	156		30.7	126	
222433	Y		160							220			230	
222593	G		330							150			60	
222722	Gp		220							150			40	
222788	TA d		150							150			120	

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
222928	Gp	1	7.1	25	0.578		600	5	10	0.81	5		5	10		1620	2.4			
222964	Gp	0.5	3.15	25	0.215		400	5	10	0.58	5		5	5		1980	1.19			
222973	Gp	1	4.54	25	0.231		500	5	10	1.33	5		5	40		1100	1.25			
223010	Gp	1	6.17	25	0.13		500	5	10	2.13	5		5	10		490	1.01			
223015	Gp	1	11.2	25	0.06		700	5	10	2.36	5		5	10		350	1.28			
223017	Gp	0.5	7.86	25	0.017		600	5	10	1.57	5		5	10		170	0.78			
223018	Gp	0.5	5.87	25	0.029		500	5	10	2.03	5		5	10		250	0.89			
223035	Gp	0.5	7.56	25	0.011		500	5	10	1.49	5		5	10		180	0.83			
223041	Gp	0.5	5.69	25	0.007		500	5	10	0.95	5		5	10		40	0.69			
223064	TB	0.1	7.99	8.4			1070	1.84	0.06	2.8	0.11	46.7	17.6	8	1.49	46.4	5.03	21	0.16	5
223065	TXc	0.1	8.16	5.7			1030	1.81	0.06	2.84	0.16	40.3	21	9	2.98	40.6	6.04	21.2	0.15	4.7
223113	TB	0.03	10.1	1.5			380	0.78	0.01	6.56	0.09	19.15	30.4	24	0.11	27.8	6.63	20.3	0.11	2.1
223116	TA	0.07	10.4	5			780	1.15	0.01	2.82	0.53	36.5	35.5	51	1.81	39.3	8.16	25.5	0.22	2.2
223146	TB	0.19	7.95	6.7			1320	2.17	0.02	4.39	0.09	84.4	24.3	3	3.99	91.1	7.32	22.8	0.22	5.2
223374	Gpk	0.5	5.6	25	0.169		600	5	10	0.36	5		5	10		3220	5.37			
223437	Gpk	0.5	7.34	25	0.038		600	5	10	2.14	5		5	5		880	2.85			
223440	Gpk	0.5	6.05	25	0.072		600	5	10	1.28	5		5	10		1240	1.88			
223446	Gpk	0.5	7.11	25	0.052		700	5	10	1.16	5		5	5		1120	2.26			
223463	Gpk	0.5	6.2	25	0.033		700	5	10	1.16	5		5	5		1050	1.72			
224022	TY	0.09	8.34	8.4			1170	0.82	0.18	5.91	0.13	25.1	20.8	51	4.13	25.8	4.89	16.55	0.21	2.2
224037	TC	0.11	7.34	6.2			600	1.26	0.05	3.25	0.14	30.4	17.5	70	3.87	31.8	4.7	17.3	0.21	1.9
224047	TC	0.14	8.28	52.2			640	1.15	0.06	4.32	0.15	38.1	25.4	80	4.12	59	5.82	19.3	0.24	1.8
224049	TC	0.1	7.69	19			460	1.28	0.04	3.64	0.13	30.1	26.1	45	7.02	87.5	5.72	18.4	0.21	1.5
224055	G	1	0.7	25	0.222		100	5	10	0.81	5		20	290		1200	4.86			
224066	G	1	1.47	25	0.353		100	5	10	0.03	5		20	200		4730	4.67			
224074	G	0.5	0.53	25	0.148		50	5	10	0.07	5		20	590		1560	5.48			
224091	G	0.5	0.44	25	0.117		50	5	10	0.03	5		10	310		1110	3.2			
224182	G	0.5	2.22	60	0.023		200	5	10	0.03	5		5	20		3310	0.76			
224183	G	0.5	2.65	25	0.035		300	5	10	0.03	5		5	10		2910	0.71			
224217	G	0.5	3.29	25	0.034		400	5	10	0.05	5		5	220		1780	0.7			
224244	G	1	1.44	25	0.028		100	5	10	0.03	5		5	10		770	0.75			
224260	Gp	1	4.83	25	0.056		600	5	10	0.2	5		5	10		850	0.83			
224267	Gp	2	4.85	25	0.171		600	5	10	0.14	5		5	10		1060	0.98			
224277	Gp	1	6.58	25	0.179		700	5	10	0.25	5		5	5		880	1.42			
224295	Gp	1	6.38	25	0.141		600	5	10	0.48	5		5	10		760	1.3			
224296	Gp	1	6.78	25	0.041		700	5	10	0.66	5		5	5		850	1.02			
224302	Gp	1	7.04	25	0.084		600	5	10	0.62	5		5	10		500	1.38			
224331	TF	0.64	8.59	8.6			780	1.66	0.18	3.92	0.21	47.9	21.2	28	9.82	70.2	5.81	22.4	0.2	3.6
224446	TW	0.05	7.89	6.1			320	0.8	0.06	5.21	0.11	32.6	28.1	45	1.06	46.5	6.38	17.6	0.1	2.3
224447	TY	0.09	7.73	22.3			760	1.15	0.26	2.44	0.36	33.9	29	54	4.61	64.8	6.48	19.75	0.1	2.7
224448	TW	0.04	7.37	16.6			470	0.79	0.07	6.07	0.17	30.3	30.7	41	1.19	49.4	6.5	16.6	0.09	2.3
224449	TC	0.06	7.41	25			650	0.95	0.1	3.87	0.12	29.6	32.2	48	2.16	49.8	6.74	17.75	0.1	2.4
224452	TD	0.02	8.34	5.1			740	1.22	0.03	4.41	0.16	46.9	16.7	1	3.16	13.8	6.77	20.1	0.11	2.9
224461	TW/TC	0.04	7.95	18			580	1.16	0.13	3.2	0.15	44	20.8	94	3.65	31.5	5.85	16.85	0.11	3.2
224462	TW/TY	0.06	7.44	47.3			1180	1.18	0.59	3.81	0.17	36.3	20.3	74	3.18	26.6	4.99	17.8	0.1	3.4
224473	TW/TY	0.07	7.71	22.3			740	1.4	0.85	2.74	0.3	36.3	16.6	58	4.95	35.9	4.81	18.85	0.1	3.2
224479	TD	0.05	7.8	6.6			880	0.93	0.005	4.57	0.15	16.3	14.5	17	5.78	15.8	4.46	20.5	0.15	1.1
224491	TC	0.07	7.25	40.1			460	1.31	0.05	3.64	0.1	28.7	21.2	46	4.02	34.9	4.69	17.6	0.16	1.7
224899	TC	0.07	7.91	5.6			830	1.5	0.02	3.57	0.23	33.3	20.4	49	5.24	41.4	5.3	19.4	0.22	3.4
224901	TF	0.09	8.41	9.5			560	1.44	0.09	3.66	0.16	37	20.7	18	11.35	71.7	5.18	21.5	0.31	4.5
224956	D	1	6.65	25	0.242		300	5	10	0.96	5		20	10		2370	7.65			
224988	Y	1	7.64	25	0.226		600	5	10	0.63	5		10	50		1490	3.8			
225016	Gs	0.5	7.9	25	0.128		800	5	10	0.53	5		10	10		1100	3.45			

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
222928	Gp			4.2			0.64	230	20	0.94		50		10			0.3	25		
222964	Gp			3.7			0.44	240	340	0.75		5		10			0.3	25		
222973	Gp			5			0.52	140	90	1.68		5		10			0.1	25		
223010	Gp			4.5			0.6	140	340	1.81		5		10			0.6	25		
223015	Gp			5			0.97	230	300	1.71		10		10			0.7	25		
223017	Gp			4.8			0.69	190	690	1.32		10		10			0.4	25		
223018	Gp			4.7			0.57	180	390	1.58		10		10			0.8	25		
223035	Gp			5			0.66	230	20	0.81		10		80			0.3	25		
223041	Gp			5.5			0.52	160	10	0.62		10		30			0.3	25		
223064	TB	0.005	0.063	1.4			0.93	946	1.15	2.03	13.6	16.3		12.5	28.4	0.001	0.01	0.29		2
223065	TXc	0.005	0.079	1.4			1.38	1320	1.02	1.88	12.9	14.8		12.7	27.2	0.001	0.01	0.51		3
223113	TB	0.005	0.052	0.3			2.71	1140	0.51	2.25	6.3	18.2		4.2	1.2	0.001	0.01	0.1		2
223116	TA	0.005	0.083	0.7			2.39	1535	0.47	1.83	9.5	34.5		6.6	11.8	0.001	0.39	0.37		3
223146	TB	0.005	0.062	1.8			1.76	1315	3.21	2.27	28.4	9		24.7	50	0.004	0.03	1.44		1
223374	Gpk			5.4			0.34	460	280	1.01		5		10			1.3	25		
223437	Gpk			3.3			0.45	750	160	1.42		5		10			0.4	25		
223440	Gpk			4.1			0.33	640	400	1.28		5		10			0.3	25		
223446	Gpk			4.2			0.44	720	180	1.2		5		10			0.5	25		
223463	Gpk			4.3			0.44	440	310	1.18		5		10			0.4	25		
224022	TY	0.01	0.049	0.9			1.57	1155	2.41	1.64	5.5	14.1		7.8	27.1	0.001	0.09	0.87		0.5
224037	TC	0.005	0.049	1.9			1.37	1420	0.91	1.6	11.8	22.2		9.2	55.9	0.001	0.07	0.78		0.5
224047	TC	0.01	0.057	2.1			1.96	1280	1.74	1.15	10.4	25.9		11	78	0.003	0.38	1.54		1
224049	TC	0.01	0.056	1.8			1.69	1080	0.42	1.04	9.7	18.2		8.7	62.7	0.001	0.1	1.37		1
224055	G			0.2			0.2	280	100	0.03		10		20			5.2	25		
224066	G			0.5			0.03	20	420	0.03		5		10			4.7	25		
224074	G			0.2			0.03	20	80	0.03		10		40			5.7	25		
224091	G			0.1			0.03	10	90	0.03		10		20			3.1	25		
224182	G			1.6			0.03	30	300	0.09		5		10			0.5	25		
224183	G			2			0.06	30	80	0.11		5		10			0.5	25		
224217	G			2.8			0.13	30	180	0.15		5		10			0.3	25		
224244	G			1.3			0.03	40	410	0.07		5		20			0.3	25		
224260	Gp			4.5			0.16	50	330	0.26		5		20			0.4	25		
224267	Gp			4.6			0.15	50	240	0.29		5		10			0.6	25		
224277	Gp			6			0.23	140	90	0.35		5		10			0.4	25		
224295	Gp			5.5			0.41	220	660	0.28		5		30			0.5	25		
224296	Gp			6.1			0.55	340	400	0.34		5		10			0.3	25		
224302	Gp			5.9			0.45	280	160	0.39		20		30			0.2	25		
224331	TF	0.01	0.079	1.9			1.67	1145	3.48	1.15	13.5	13.8		20.7	74.8	0.003	0.09	1.68		2
224446	TW	0.01	0.064	0.4			2.98	1205	0.52	1.42	8.4	20.4		8.4	10.6	0.001	0.01	0.55		0.5
224447	TY	0.06	0.085	1			1.98	1085	3	1.32	10.5	27.7		13.8	19.4	0.002	0.06	1.07		1
224448	TW	0.01	0.058	0.5			3.06	1335	2.56	1.29	9	23.5		9.5	9.2	0.001	0.06	0.65		1
224449	TC	0.01	0.061	0.8			2.22	1200	2.26	1.44	9.5	30.2		9.4	13.8	0.001	0.03	0.74		0.5
224452	TD	0.02	0.083	1.5			1.52	1395	2.03	2.45	11.4	1.1		12.2	33.4	0.002	0.04	0.63		1
224461	TW/TC	0.02	0.059	1.2			1.58	991	0.87	1.85	9.4	20		11.8	49	0.002	0.09	1.23		0.5
224462	TW/TY	0.02	0.072	1.3			1.4	877	2.51	1.56	9.1	19.6		16.4	34.1	0.001	0.34	1.76		1
224473	TW/TY	0.05	0.087	1.6			1.26	926	2.9	1.51	10.2	22.8		17.8	33.5	0.002	0.15	1.59		1
224479	TD	0.005	0.041	1.3			1.1	1055	0.96	1.86	4.7	8.4		7.1	23.3	0.001	0.11	0.49		0.5
224491	TC	0.005	0.046	1.4			1.44	942	4.23	1.64	8.5	27.1		9.4	46.8	0.001	0.22	1.46		1
224899	TC	0.01	0.056	1.5			1.86	1295	0.6	2	10.2	21.7		10.8	50.1	0.001	0.05	0.66		3
224901	TF	0.01	0.064	1.6			1.48	1010	0.96	2.09	14	9.3		17.1	55.4	0.001	0.08	1.05		3
224956	D			5.8			2.57	600	40	0.47		20		10			2.4	25		
224988	Y			5.7			1.04	330	80	0.63		40		10			1.6	25		
225016	Gs			5.7			0.85	310	10	0.81		10		10			1.1	25		

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
222928	Gp		210							330			30	
222964	Gp		120							370			30	
222973	Gp		260							280			20	
223010	Gp		460							220			20	
223015	Gp		540							260			30	
223017	Gp		370							250			20	
223018	Gp		400							230			20	
223035	Gp		170							240			140	
223041	Gp		160							230			100	
223064	TB		419	0.93	0.025	3.4	0.7	0.24	1.8	141		24.1	102	
223065	TXc		605	0.85	0.025	2.2	0.83	0.29	1.6	131		27.2	120	
223113	TB		873	0.33	0.025	0.6	0.69	0.01	0.3	245		17.5	89	
223116	TA		611	0.55	0.025	1.4	1.04	0.14	0.6	271		22.6	124	
223146	TB		533	2.04	0.025	6.7	1.18	0.12	3.2	151		39.2	132	
223374	Gpk		210							420			30	
223437	Gpk		340							120			60	
223440	Gpk		310							110			40	
223446	Gpk		320							140			50	
223463	Gpk		300							140			30	
224022	TY		746	0.37	0.025	3.6	0.56	0.41	1.7	179		16.2	70	
224037	TC		383	0.83	0.025	3.4	0.47	0.43	1.4	140		15.7	84	
224047	TC		391	0.73	0.06	4	0.56	0.57	1.5	184		19.5	90	
224049	TC		406	0.66	0.025	2.5	0.56	0.63	1.1	179		17.3	107	
224055	G		60							270			40	
224066	G		60							950			20	
224074	G		90							190			170	
224091	G		40							190			40	
224182	G		20							260			120	
224183	G		30							300			80	
224217	G		50							280			180	
224244	G		40							50			90	
224260	Gp		140							110			70	
224267	Gp		110							130			50	
224277	Gp		160							130			10	
224295	Gp		100							230			70	
224296	Gp		90							220			10	
224302	Gp		150							260			50	
224331	TF		423	0.91	0.25	4.5	0.56	0.65	2.5	157		25.8	117	
224446	TW		239	0.47	0.025	2	0.58	0.12	0.9	212		21.1	95	
224447	TY		222	0.66	0.07	2.7	0.57	0.32	1.7	207		20.6	106	
224448	TW		345	0.56	0.025	2	0.55	0.18	1.1	203		19.7	112	
224449	TC		293	0.59	0.025	2.2	0.57	0.22	1.2	205		19	100	
224452	TD		474	0.7	0.025	2.9	0.78	0.17	1.8	129		31	116	
224461	TW/TC		323	0.7	0.05	6.5	0.52	0.42	2.9	179		24.4	107	
224462	TW/TY		353	0.67	0.11	5.9	0.48	0.82	3.2	158		20.4	94	
224473	TW/TY		328	0.72	0.1	4.6	0.47	0.8	2.6	144		20	114	
224479	TD		730	0.3	0.025	0.6	0.41	0.37	0.3	127		10.1	95	
224491	TC		397	0.58	0.025	3.3	0.43	0.3	1.3	130		15.9	76	
224899	TC		548	0.72	0.025	3.9	0.54	0.31	1.5	159		20.7	104	
224901	TF		569	0.97	0.08	4	0.63	0.4	1.8	158		25.3	98	
224956	D		160							580			50	
224988	Y		190							270			80	
225016	Gs		260							350			30	

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
225026	Gs	0.5	7.07	25	0.145		500	5	10	0.29	5		10	10		1400	3.63			
225039	Gs	0.5	7.9	25	0.176		700	5	10	0.71	5		10	10		1850	3.25			
225048	GZ	1	7.91	25	0.237		600	5	10	0.29	5		10	10		4200	2.49			
225052	G	1	6.06	25	0.132		500	5	10	0.29	5		5	10		3540	1.81			
225059	G	1	7.56	25	0.169		700	5	10	0.77	5		10	10		2300	2.44			
225093	Y	1	8.06	60	0.309		600	5	10	0.26	5		10	30		1620	2.65			
225107	TA	0.04	9.11	2.5			360	0.69	0.03	5.69	0.12	21	25.7	19	2.84	26.6	6.04	18.9	0.16	2
225112	TA	0.06	8.87	5.4			600	0.9	0.09	5.07	0.17	22.4	23.6	53	3.44	38.8	5.69	20.6	0.18	2
225113	TW	0.06	8.78	5.8			380	0.94	0.04	4.28	0.15	48.2	26.5	53	2.71	27	5.87	19	0.19	2.4
225114	TW	0.04	7.75	4.4			1320	0.94	0.04	3.96	0.16	38.6	23.8	49	2.89	24.9	5.47	19.35	0.18	2.5
225115	TW	0.05	8.22	4.8			1350	0.84	0.05	4.54	0.14	35	24.2	52	3.04	31.2	5.53	18.25	0.17	2.2
225116	TW	0.08	9.42	10			1330	1.32	0.1	2.7	0.16	39.3	20.3	51	6.75	30.6	5.6	22.7	0.19	3.5
225122	TA	0.06	8.72	14.4			390	1.12	0.75	3.62	0.14	30.9	20.5	39	10.95	38.1	6.13	21.1	0.19	3
225123	TA	0.07	8.2	6.7			230	1.57	0.02	4.47	0.12	65.1	24	2	8.66	50.6	7.66	22	0.26	5.1
225131	TA	0.11	8.02	8.5			1110	1.63	0.04	4.08	0.15	66.2	25.5	8	5.54	61.2	7.43	21.7	0.25	5.2
225132	TA	0.11	8.63	14.8			1030	2.18	0.19	3.14	0.13	88.2	25.9	10	7.75	100.5	7.69	23.4	0.27	5.3
225133	TA	0.11	8.58	7.9			260	2.28	0.03	4.64	0.12	99.2	24.3	5	6.04	106	8.32	23.8	0.3	7.1
225140	TF	0.1	7.54	23.2			730	1.15	0.06	5.5	0.11	41	31.9	88	3.38	73.5	6.18	17.85	0.2	3.5
225142	TA	0.06	7.68	6.4			850	0.73	0.01	6.74	0.1	20.5	28.3	160	4.52	40.4	5.54	16.15	0.18	1.8
225146	TC	0.12	7.96	53.4			250	0.92	0.03	3.38	0.11	28	33.5	55	3.36	44.5	6.95	18.9	0.21	2.3
225147	TA	0.11	8.02	18.2			560	1.14	0.03	4.03	0.16	36.2	19.2	10	4.94	19.8	6.59	20.4	0.23	3
225150	TC	0.1	7.89	21.5			430	0.96	0.05	4.33	0.12	32.8	29.5	41	3.39	46.8	6.15	18.4	0.21	2.5
225166	TF	0.07	7.86	19.2			610	0.73	0.09	6.05	0.13	23.2	22.9	151	2.21	51.8	5.29	16.6	0.16	1.5
225170	TW/TC	0.13	7.56	65			690	1.18	0.49	2.26	0.16	35.6	18.3	54	6.66	39.8	5.99	17.15	0.21	2.4
225174	TW	0.12	7.15	17			560	1.13	0.51	2.51	0.25	25.7	16	54	5.1	39.2	4.52	16.95	0.15	2.3
225198	TC	0.16	7.48	10			440	1.06	0.04	4.02	0.22	24.2	25.9	46	3.17	265	5.78	17.45	0.15	2.2
225199	TA	0.08	7.4	19.4			300	0.76	0.02	5.31	0.35	17	28.4	156	3.35	215	6.09	15.75	0.14	1.2
225205	Z	1.19	7.49	13.6			300	1.33	0.24	2.67	0.38	27.2	25.1	158	12.2	3040	5.01	19.45	0.21	0.8
225206	Gs	3	8.15	25	0.472		400	5	10	1.15	5		10	30		6220	2.92			
225216	Gs	2	8.14	50	0.529		500	5	10	1.17	5		10	50		6830	3.64			
225227	Gs	2	9.57	25	0.762		500	5	10	0.14	5		10	40		7040	2.44			
225237	Gs	2	7.66	50	0.437		600	5	10	0.06	5		10	10		6090	1.9			
225248	Y	2	8.49	50	0.269		500	5	10	0.15	5		20	70		6200	2.79			
225258	Y	1	8.6	25	0.589		500	5	10	0.27	5		10	60		4880	2.52			
225269	Gs	1	7.51	25	0.67		400	5	10	0.31	5		10	10		5690	2.17			
225279	Gs	2	7.88	25	0.728		600	5	10	0.51	5		10	20		6790	2.76			
225290	Gs	1	7.56	25	0.542		400	5	10	0.18	5		10	20		6950	3.11			
225300	D	3	7.87	25	1.615		400	5	10	0.34	5		30	10		13550	6.3			
225311	Y/W	8	7.63	25	0.746		700	5	10	0.22	5		10	50		8040	3.77			
225321	Y	0.5	8.13	25	0.255		700	5	10	0.28	5		10	30		3070	2.88			
225332	Gp	0.5	7.68	25	0.125		600	5	10	0.65	5		5	5		2110	1.46			
225342	Gp	0.5	8.15	25	0.22		600	5	10	0.45	5		5	5		2950	1.28			
225353	Gp	2	7.73	25	0.77		500	5	10	0.53	5		5	5		2480	1.96			
225364	Gp	2	6.89	25	0.121		600	5	10	0.34	5		5	10		2630	1.53			
225369	Gp	1	7.52	25	0.096		600	5	10	0.45	5		5	10		2870	1.52			
225371	Gp	1	7.95	25	0.104		600	5	10	0.22	5		10	10		2780	1.72			
225374	Gp	0.5	7.8	25	0.228		600	5	10	0.23	5		10	5		3060	1.72			
225377	Gp	1	7.4	25	0.108		600	5	10	0.21	5		5	10		2200	1.77			
225385	Gp	1	7.14	25	0.086		600	5	10	0.19	5		5	10		3980	1.35			
225395	Gp	1	6.68	25	0.062		700	5	10	0.21	5		10	10		2800	1.36			
225396	Gp	4	6.39	25	0.058		600	5	10	0.22	5		5	10		3600	1.48			
225407	Gp	0.5	6.63	25	0.151		600	5	10	0.18	5		5	10		2900	1.39			
225409	Gp	0.5	7.95	25	0.082		600	5	10	0.21	5		5	5		4100	1.66			

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
225026	Gs			5.6			0.89	320	80	0.32		10		10			1.2	25		
225039	Gs			6.1			1.06	310	40	0.43		10		10			0.5	25		
225048	GZ			6.3			0.67	130	30	0.32		10		10			0.6	25		
225052	G			5.3			0.49	120	70	0.27		5		10			0.6	25		
225059	G			6.1			0.88	200	20	0.36		10		10			0.3	25		
225093	Y			5.8			0.92	250	110	0.31		20		10			0.4	25		
225107	TA	0.01	0.06	0.9			2.22	970	0.51	2	6.2	14.8		5.9	9.5	0.001	0.66	0.27		1
225112	TA	0.04	0.066	0.8			2.46	907	1.2	1.77	5.9	17.2		8.3	7.6	0.001	1.21	0.61		3
225113	TW	0.05	0.065	0.5			3.1	906	0.74	2.08	6.4	38.7		8	6.9	0.001	0.98	0.28		1
225114	TW	0.01	0.063	1.5			3.55	1105	0.73	1.48	6.7	33.8		7.4	12.7	0.001	0.07	0.24		1
225115	TW	0.01	0.063	0.8			2.75	1055	0.54	2.28	5.7	26.7		7.8	8.8	0.001	0.41	0.34		1
225116	TW	0.01	0.078	1.2			1.9	1105	2.64	2	10	19.3		12.8	22.3	0.001	1.19	0.69		1
225122	TA	0.07	0.076	1.7			1.42	950	1.54	1.22	10.2	10.2		11.2	36	0.001	1.63	3.68		1
225123	TA	0.04	0.077	1.2			1.32	1290	1.67	1.83	19.4	3.3		17	32	0.001	0.19	1.88		1
225131	TA	0.005	0.077	1.4			1.74	1270	1.24	1.88	19.2	7.4		21	49.3	0.001	0.41	1.22		2
225132	TA	0.01	0.088	1.7			1.38	837	2.55	1.33	30.8	11		25.5	60.2	0.008	2.19	1.97		3
225133	TA	0.01	0.083	1.4			1.77	1080	0.93	1.76	33.2	9.7		24.3	43.4	0.001	0.16	2		1
225140	TF	0.01	0.067	0.7			2.39	1170	4.27	1.38	12	37.4		11.6	33.3	0.001	0.25	1.09		1
225142	TA	0.02	0.054	0.4			2.82	1095	0.86	1.45	4	43.7		5.3	12.3	0.001	0.1	0.49		0.5
225146	TC	0.01	0.063	1			2.35	997	1.39	1.54	9.4	26.6		10.6	26.8	0.001	0.25	1.51		1
225147	TA	0.04	0.081	1.3			1.41	1165	1.69	2.28	11.4	6.3		14.9	30.4	0.001	0.09	0.98		1
225150	TC	0.01	0.064	1			2.38	1070	2.24	1.56	9.4	27.2		10.2	35.8	0.001	0.12	0.75		1
225166	TF	0.03	0.054	0.7			1.74	1030	1.36	1.71	4.5	35.6		6.7	27.8	0.001	0.17	0.87		1
225170	TW/TC	0.1	0.069	1.5			1.23	826	2.05	1.41	8.8	25.1		13.8	51.7	0.001	0.26	1.59		1
225174	TW	0.07	0.068	1.5			1.1	831	1.57	1.54	8.7	23.3		13.8	36.8	0.001	0.15	1.69		1
225198	TC	0.005	0.064	0.8			1.81	828	0.73	2.04	9.9	18.9		10	15	0.001	0.01	0.67		0.5
225199	TA	0.01	0.054	0.5			3.07	1060	2.13	1.4	5.1	53.5		5.7	6.4	0.006	0.16	0.42		0.5
225205	Z	0.02	0.067	3.4			1.6	612	212	0.4	3.4	54.5		16.6	54.9	0.547	1.24	0.59		6
225206	Gs			4.8			1.12	340	190	0.2		10		30			2.3	25		
225216	Gs			4.8			1.27	430	1090	0.3		50		20			1.7	25		
225227	Gs			4.9			0.43	80	270	0.19		10		20			2	25		
225237	Gs			6.2			0.85	100	240	0.3		20		10			1.1	25		
225248	Y			6.4			1.38	130	280	0.55		50		10			1.9	25		
225258	Y			5.9			1.36	150	320	0.94		40		10			1.1	25		
225269	Gs			6.1			0.83	190	210	0.33		100		50			1.1	25		
225279	Gs			5.8			1.16	170	90	0.45		10		30			1.6	25		
225290	Gs			5.7			0.96	160	260	0.31		20		20			1.8	25		
225300	D			4.7			2.1	340	750	0.2		40		10			3.1	25		
225311	Y/W			6.7			1.12	140	460	0.41		40		40			2.5	25		
225321	Y			6.3			1.14	150	160	1.02		40		20			1.3	25		
225332	Gp			4.8			0.76	90	130	0.34		10		10			0.7	25		
225342	Gp			5.4			0.83	60	190	0.47		10		10			0.4	25		
225353	Gp			4.6			0.44	70	830	0.38		10		80			1.1	25		
225364	Gp			5.2			0.39	80	230	0.44		10		90			0.6	25		
225369	Gp			5.3			0.46	70	180	0.52		5		30			0.7	25		
225371	Gp			5.1			0.25	80	320	0.37		10		30			1.1	25		
225374	Gp			4.9			0.18	70	590	0.29		10		10			1.2	25		
225377	Gp			5.1			0.22	80	310	0.36		5		20			1.2	25		
225385	Gp			5.4			0.24	80	240	0.26		10		20			0.8	25		
225395	Gp			5.4			0.23	90	1660	0.3		40		10			0.7	25		
225396	Gp			5.3			0.22	80	930	0.29		10		20			0.8	25		
225407	Gp			5			0.15	80	230	0.34		10		10			0.6	25		
225409	Gp			5.8			0.27	90	140	0.53		5		10			0.7	25		

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
225026	Gs		190							540			40	
225039	Gs		240							460			60	
225048	GZ		200							510			80	
225052	G		140							390			40	
225059	G		230							410			40	
225093	Y		180							290			50	
225107	TA		813	0.38	0.05	0.8	0.68	0.07	0.4	222		16.1	72	
225112	TA		666	0.39	0.1	1.8	0.66	0.16	0.8	229		16.7	95	
225113	TW		715	0.4	0.05	3	0.65	0.09	1.2	202		20.1	85	
225114	TW		607	0.42	0.025	2.2	0.61	0.23	1.1	182		17.2	83	
225115	TW		724	0.36	0.06	2.3	0.62	0.11	1	212		17.6	79	
225116	TW		636	0.66	0.08	4.1	0.7	0.3	2	180		22.8	95	
225122	TA		373	0.68	0.12	3.3	0.73	0.45	1.7	211		20.8	80	
225123	TA		354	1.27	0.025	5.6	1.06	0.22	2.7	178		40.1	128	
225131	TA		483	1.25	0.05	5.8	0.97	0.19	2.7	166		40.2	118	
225132	TA		316	1.9	0.2	7.7	1.21	0.31	3.8	172		40.6	124	
225133	TA		286	2.13	0.025	9	1.26	0.17	4.4	165		45.9	142	
225140	TF		543	0.7	0.025	3.4	0.72	0.21	1.7	202		25.3	84	
225142	TA		804	0.25	0.025	1.3	0.57	0.04	0.7	207		15.7	67	
225146	TC		301	0.56	0.025	2	0.67	0.19	1	218		18.3	97	
225147	TA		617	0.69	0.025	2.7	0.78	0.16	1.3	140		25.7	113	
225150	TC		418	0.57	0.025	2.8	0.62	0.17	1.3	202		19.7	91	
225166	TF		642	0.3	0.025	2.1	0.54	0.28	0.8	198		15.4	70	
225170	TW/TC		428	0.62	0.08	5.3	0.49	0.66	2.2	146		18.5	81	
225174	TW		374	0.6	0.07	4	0.46	0.56	2	134		15	91	
225198	TC		592	0.65	0.025	1.9	0.7	0.31	1.1	215		18.9	116	
225199	TA		666	0.33	0.025	0.9	0.62	0.34	0.5	219		15.7	112	
225205	Z		262	0.22	0.47	1.5	0.44	1.21	0.7	237		10.8	188	
225206	Gs		200							200			700	
225216	Gs		320							190			280	
225227	Gs		190							170			250	
225237	Gs		210							170			180	
225248	Y		220							290			240	
225258	Y		250							250			180	
225269	Gs		190							180			160	
225279	Gs		260							180			190	
225290	Gs		170							200			270	
225300	D		200							450			460	
225311	Y/W		230							220			370	
225321	Y		210							200			160	
225332	Gp		240							130			120	
225342	Gp		220							160			80	
225353	Gp		230							140			550	
225364	Gp		200							150			270	
225369	Gp		200							160			80	
225371	Gp		180							190			160	
225374	Gp		170							180			150	
225377	Gp		200							180			130	
225385	Gp		250							180			100	
225395	Gp		170							200			90	
225396	Gp		140							220			110	
225407	Gp		130							210			90	
225409	Gp		170							250			90	

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
225417	Gp	2	7.21	25	0.208		600	5	10	0.3	5		5	5		2600	1.46			
225428	Gp	1	7.65	25	0.85		600	5	10	0.57	5		5	10		2310	1.44			
225438	Gp	0.5	6.65	25	0.254		600	5	10	0.69	5		5	10		1800	1.4			
225448	Gp	1	6.26	25	0.061		500	5	10	0.57	5		5	10		1430	1.2			
225564	Gp	2	7.44	25	0.12		800	5	10	0.8	5		5	10		7250	1.86			
225568	Tad	0.5	8.12	25	0.011		200	5	10	7.11	5		30	300		150	6.69			
225601	TA	0.15	8.37	6.1			980	1.94	0.08	5.09	0.13	59.7	25.6	155	2.44	30.3	6.08	19.25	0.19	3.3
225608	TF	0.09	8.52	14.1			2240	1.76	0.05	2.37	0.1	46.4	25.1	29	7.22	8.6	6.77	22.2	0.23	2.3
225614	TF	0.11	8.01	2.1			990	1.73	0.03	2.55	0.12	56.7	8	9	3.17	10.9	3.83	20.8	0.17	3.1
225654	TC	0.09	7.79	23.8			740	1.24	0.05	3.03	0.12	31.3	18.9	66	3.71	38	4.39	17.15	0.25	1.7
225676	TC	0.04	8.61	12.2			820	1.65	0.16	4.46	0.31	37.3	21.7	23	1.63	61.1	5.44	23.8	0.19	2.4
225685	TC	0.08	8.34	11.8			920	1.6	0.15	3.83	0.17	41.8	20.2	31	3.26	60.7	5.12	23.6	0.18	2.7
225689	TC	0.14	9.12	41.5			850	1.23	0.05	6.86	0.11	43.8	32.4	37	0.78	94.5	7.96	23.9	0.23	2.6
226027	TB	0.05	8.79	1.4			500	0.74	0.02	5.11	0.1	17.75	33.7	225	1.4	11.4	6.49	20.7	0.18	2
226041	TB	0.03	8.94	0.7			330	0.56	0.01	6.63	0.1	16.85	31.2	184	1	23.9	6.37	18.05	0.14	1.8
226047	TB	0.16	9.01	11			410	2.05	0.4	1.82	0.28	65.3	24.4	53	17.25	48.4	6.38	24.6	0.13	5
226053	TB	0.005	8.11	18.4			1590	2.67	0.03	4.6	0.1	93.5	25.1	5	18.65	106	7.68	25.4	0.17	9.3
226057	TW	0.08	7.34	21			830	1.44	0.21	3.81	0.17	47.9	19.6	71	6.06	21.5	4.47	18.65	0.12	4.7
226102	TAd	0.5	6.84	25	0.006		400	5	10	4.1	5		10	10		30	6.75			
226204	Gp	1	16.4	25	0.108		600	5	10	0.12	5		10	10		3960	2.21			
226244	Gp	1	5.13	50	0.193		600	5	10	0.92	5		5	10		2880	1.41			
226261	Gp	0.5	6.49	25	0.172		600	5	10	1.02	5		5	10		3080	1.54			
226262	Gp	0.5	4.72	25	0.236		700	5	10	0.9	5		5	10		1990	1.41			
226285	Gp	1	10.4	25	0.082		700	5	10	1.44	5		5	10		1240	1.21			
226293	Gp	0.5	9.73	50	0.158		700	5	10	1.62	5		5	10		1500	1.61			
226324	Z	1	3.59	60	0.369		400	5	10	0.76	5		10	10		1120	1.26			
226326	Z	2	3.64	60	0.54		600	5	10	0.55	5		10	10		860	1.49			
226327	Z	2	3.52	70	0.337		400	5	20	0.6	10		10	10		1050	1.27			
226328	Z	1	2.94	50	0.229		400	5	30	0.56	10		20	10		1100	1.15			
226358	TAp	0.005	8.77	45.6			1250	2.05	0.005	3.46	0.22	78.3	8.7	1	0.84	6	6.07	26.1	0.22	4.4
226382	TWc	0.13	9.51	5.4			620	1.19	0.07	4.93	0.15	57.1	26.7	22	4.81	45.9	6.7	22.3	0.14	2.8
226439	TF	0.005	7.76	1.6			1150	2.16	0.03	1.07	0.12	39	3.2	6	1.06	3	1.75	19.6	0.11	2
226448	TAwx	0.02	8.27	4.5			690	0.84	0.02	4.62	0.1	17.7	15.1	14	0.74	30.2	5.01	20	0.13	1.6
226742	TA	0.04	7.16	1.1			1150	1.89	0.01	1.87	0.13	54.5	6.3	1	0.54	6.7	3.45	20.1	0.16	4.1
226745	TT	0.04	8.43	3.3			480	2.02	0.03	3.78	0.13	54.8	22.5	70	4.2	14.2	6.6	22.6	0.17	2.6
226746	TT	0.04	8.36	1			480	1.92	0.01	4.85	0.12	57.3	20.8	58	2.41	12.8	6.29	21.2	0.17	2.5
226785	TB	0.07	9.3	4.3			510	1.13	0.01	6.1	0.07	45.8	31.6	101	0.84	35.8	8.05	19.75	0.14	2.2
226789	TB	0.05	8.19	2.6			470	1.35	0.01	5.23	0.08	50.3	27.3	92	0.53	21.7	7.98	19.75	0.16	2.9
226799	TB	0.13	9.01	2.9			910	1.78	0.005	4.53	0.1	75.4	36.6	99	1.01	25.9	9.02	26.4	0.22	4.4
226828	TWc	0.09	9.13	2.5			590	1.39	0.04	4.39	0.1	50.5	16.8	33	8.38	18.2	5.15	22.6	0.15	3.1
226896	TDm	0.005	8.48	4.9			1170	1.53	0.01	3.03	0.06	39.9	3.5	4	0.8	1.5	2.64	17.7	0.11	1.7
226911	TDm	0.02	8.55	2.7			1040	1.66	0.005	3.27	0.34	41.4	4.9	3	0.92	2.4	2.95	21.7	0.14	2.6
226930	TDm	0.02	8.04	6.6			1100	1.3	0.03	3.26	0.2	34.8	6.7	18	0.68	10.5	2.99	17.2	0.11	1.6
226931	TDm	0.005	8.16	6.8			1050	1.32	0.01	3.24	0.41	38.5	9.2	27	1.17	5.7	3.45	17	0.12	1.4
226954	Gs	1	2.88	25	0.269		310	5	10	0.03	5		20	10		190	10.1			
226970	Gs	0.5	2.8	25	0.12		230	5	10	0.03	5		30	10		160	6.7			
405725	TA	0.07	7.74	2			930	1.16	0.01	4.36	0.12	28.4	17.8	3	2.94	17.8	5.96	19.5	0.14	2.1
405730	TC	0.1	8.53	26.6			740	1.31	0.06	3.72	0.13	35.9	27.6	58	5.34	73.9	5.96	20.4	0.17	1.6
406027	TX	0.01	9.7	0.8			810	1.09	0.05	1.7	0.1	23.3	26.3	60	2.82	29.7	5.84	26.3	0.16	2.3
406030	TWc	0.05	9.24	21.1			620	1.08	0.05	3.38	0.15	43.6	31	76	4.61	38.9	6.05	22.7	0.21	3.4
406072	TB	0.11	8.42	32.8			1230	2.39	0.01	4.64	0.09	91.1	24	5	10.25	103	7.94	24.2	0.23	6.4
406086	TC	0.09	7.8	25.1			540	1.2	0.06	3.13	0.12	29.7	18.3	67	4.75	40.2	4.55	17.65	0.11	1.9
406502	TF	0.08	6.81	12.2			1010	1.49	0.15	1.41	0.11	35.4	6.9	18	2.88	11.5	2.46	15.65	0.09	3.1

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
225417	Gp			5.3			0.43	80	530	0.53		5		20			0.6	25		
225428	Gp			5.6			0.75	90	550	0.84		5		10			0.5	25		
225438	Gp			5.6			0.59	80	170	0.52		60		20			0.6	25		
225448	Gp			5.3			0.41	170	290	0.25		5		20			0.3	25		
225564	Gp			5.6			0.56	110	410	0.47		5		10			1	25		
225568	Tad			0.3			4.8	1290	5	0.84		40		10			0.5	25		
225601	TA	0.01	0.071	1.8			3.35	1100	0.88	1.8	15	59.8		9	55.8	0.001	0.01	1.06		2
225608	TF	0.01	0.07	3.3			2.72	1415	0.39	1.06	8.8	30.7		10.4	64.6	0.001	0.15	1		2
225614	TF	0.005	0.052	2.1			0.6	1125	0.8	3.62	14.4	4.6		15.3	57.9	0.001	0.01	0.4		1
225654	TC	0.01	0.044	1.9			1.28	864	2.19	2.23	8.5	26.4		10.8	59.4	0.005	0.29	1.55		2
225676	TC	0.005	0.07	1.8			1.6	1070	0.76	2.18	14.2	11.1		19.4	41.2	0.002	0.03	3.58		1
225685	TC	0.005	0.085	1.9			1.49	1075	1.4	2.39	14.8	11.9		18.2	52.3	0.002	0.13	8.78		1
225689	TC	0.005	0.064	1.9			1.27	1720	1.16	2.59	12.8	14.3		9.9	62.6	0.001	0.59	2.87		2
226027	TB	0.005	0.05	1.3			4.38	1210	0.66	1.59	3.6	84.6		6.1	26	0.001	0.01	1.42		0.5
226041	TB	0.005	0.046	0.6			4.65	1190	0.63	1.55	3.1	73.2		4.9	8.8	0.001	0.01	0.46		0.5
226047	TB	0.04	0.091	2			1.43	773	0.78	1.16	16.9	19.8		21.1	119.5	0.001	0.03	1.38		2
226053	TB	0.005	0.081	1.6			1.66	1225	3.29	2.26	36.5	9.6		25.8	46.8	0.001	0.02	1.97		2
226057	TW	0.08	0.056	1.8			1.74	1040	2.09	1.44	10.4	19.9		17.3	89.7	0.001	0.03	1.66		1
226102	TAd			1.7			1.07	1220	10	1.7		5		20			0.05	25		
226204	Gp			3.8			0.21	50	230	0.12		5		10			1.8	25		
226244	Gp			5.1			0.6	70	100	0.63		5		10			1	25		
226261	Gp			4.7			0.6	100	90	0.86		10		10			0.9	25		
226262	Gp			4.7			0.52	90	70	1.02		10		10			0.8	25		
226285	Gp			4			0.59	190	320	0.7		10		30			0.6	25		
226293	Gp			3.9			0.54	460	420	1.2		10		50			0.6	25		
226324	Z			5			0.22	1070	580	0.27		10		40			1.1	25		
226326	Z			5.8			0.27	770	300	0.26		5		10			1.4	25		
226327	Z			4.5			0.25	460	310	0.23		30		30			1	25		
226328	Z			4.9			0.19	350	420	0.26		20		30			0.8	25		
226358	TAp	0.01	0.099	1.8			1.04	1785	0.84	2.96	19	0.1		11.8	49.5	0.001	1.35	4.42		4
226382	TWc	0.02	0.075	1.2			3.22	1135	0.28	1.49	6.6	29.2		8	36.1	0.001	0.15	1.34		2
226439	TF	0.005	0.048	2.6			0.48	974	0.52	3.51	18.2	3.2		15.6	66.2	0.001	0.27	0.12		2
226448	TAwx	0.005	0.052	0.9			1.9	1210	1.09	2.59	5.9	8.7		8.8	8	0.001	0.11	1.64		2
226742	TA	0.005	0.065	2.4			0.73	964	0.64	3.41	13.4	0.1		15.8	56.9	0.001	0.04	0.57		2
226745	TT	0.005	0.085	0.6			1.64	1280	1.34	1.78	16.5	39		11.4	14.8	0.001	0.01	0.53		2
226746	TT	0.005	0.079	0.5			1.92	1310	1.46	1.76	16.6	25.4		10.5	15.9	0.001	0.01	0.58		2
226785	TB	0.005	0.063	0.2			2.19	1530	0.62	2.04	16.3	53.8		6.7	3.1	0.001	0.19	0.7		2
226789	TB	0.005	0.062	0.4			3.25	1385	0.78	2.16	19.5	25.3		8.2	6.1	0.001	0.01	0.47		2
226799	TB	0.005	0.097	1			2.84	1405	0.79	2.39	25.9	39.6		9	19.2	0.001	0.09	0.7		2
226828	TWc	0.005	0.068	0.5			1.57	1260	0.64	2.28	12	12.9		12.3	15.1	0.001	0.01	1.12		2
226896	TDm	0.005	0.037	1.8			0.73	1060	1.76	2.97	20.9	0.9		12.9	43.6	0.001	0.01	0.37		2
226911	TDm	0.005	0.04	1.7			0.89	1400	10.85	2.65	21.2	0.9		26.4	43.7	0.001	0.01	0.65		1
226930	TDm	0.005	0.034	1.6			0.65	977	2.26	2.86	17.5	6.4		19.2	33.5	0.001	0.01	0.57		2
226931	TDm	0.005	0.046	1.6			0.82	1070	2.24	2.35	15.7	7.7		13.1	42.4	0.001	0.01	0.56		2
226954	Gs			1.6			0.03	20	110	0.15		10		10			11.5	25		
226970	Gs			1.1			0.03	30	150	0.16		10		10			8	25		
405725	TA	0.005	0.069	1.6			1.45	1240	1.65	2.44	10.6	1		10	21	0.001	0.01	0.44		2
405730	TC	0.005	0.055	2			1.63	1410	0.8	1.14	10.6	27.2		8.9	89.7	0.001	0.24	1.54		2
406027	TX	0.005	0.073	0.7			3.12	870	0.36	0.91	8.2	36.4		9.2	8.3	0.001	0.01	0.23		2
406030	TWc	0.01	0.08	0.9			2.25	1100	0.38	0.53	12.1	66.8		10.9	20.3	0.001	0.37	2.08		5
406072	TB	0.005	0.072	1.8			1.5	1170	3.03	2.01	34.8	9.8		23.9	50.2	0.001	0.03	1.98		3
406086	TC	0.01	0.052	1.5			1.27	902	1.95	1.97	8.5	25.4		9.3	51.9	0.003	0.15	1.17		2
406502	TF	0.005	0.019	2.5			0.68	681	0.52	2.39	9.4	11		15.9	78.8	0.001	0.08	0.57		1

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
225417	Gp		210							170			100	
225428	Gp		220							190			50	
225438	Gp		190							160			40	
225448	Gp		130							160			30	
225564	Gp		470							150			40	
225568	Tad		1240							260			90	
225601	TA		487	0.93	0.025	3	0.79	0.4	1.4	158		28.4	95	
225608	TF		335	0.53	0.07	2	0.7	0.92	2.2	140		22.6	102	
225614	TF		383	0.91	0.025	3.2	0.59	0.32	1.5	65		27.3	88	
225654	TC		880	0.58	0.025	4	0.46	0.4	1.7	135		17.2	82	
225676	TC		601	1.04	0.06	2.5	0.58	0.43	1.4	156		22	118	
225685	TC		561	1.08	0.08	2.9	0.59	0.39	1.9	140		24.4	99	
225689	TC		502	0.89	0.1	2.1	0.73	0.3	1	212		28.7	108	
226027	TB		438	0.24	0.025	1.2	0.58	0.21	0.6	222		17.1	86	
226041	TB		505	0.2	0.025	1.1	0.58	0.01	0.5	228		16.8	83	
226047	TB		227	1.05	0.07	8	0.72	0.54	3.5	166		32.8	122	
226053	TB		522	2.12	0.025	9.2	1.21	0.13	4.5	158		51.6	142	
226057	TW		317	0.75	0.025	9.9	0.43	0.51	4.5	128		22.3	89	
226102	TAd		400							140			120	
226204	Gp		190							170			190	
226244	Gp		210							140			40	
226261	Gp		270							110			120	
226262	Gp		280							120			80	
226285	Gp		300							110			40	
226293	Gp		400							120			90	
226324	Z		160							140			100	
226326	Z		150							140			60	
226327	Z		150							140			110	
226328	Z		140							130			90	
226358	TAp		629	1.18	0.42	2.8	0.81	0.69	1.4	43		42.3	113	
226382	TWc		871	0.39	0.09	3.4	0.73	0.45	1.6	197		23.4	94	
226439	TF		371	1.11	0.025	2.1	0.23	1.09	1.1	26		19.8	81	
226448	TAwx		1200	0.38	0.025	0.8	0.51	0.31	0.6	159		12.7	86	
226742	TA		381	0.76	0.025	3.4	0.58	0.3	1.7	55		27.1	87	
226745	TT		415	0.98	0.025	2.5	0.95	0.16	1.1	135		27.7	116	
226746	TT		448	0.97	0.025	2.4	0.96	0.14	1.1	129		28.1	120	
226785	TB		602	0.87	0.025	1.2	1.15	0.03	0.8	201		26.9	127	
226789	TB		530	1.08	0.025	1.5	1.41	0.05	0.6	178		27.4	137	
226799	TB		559	1.71	0.025	1.7	1.59	0.1	1	200		39.2	151	
226828	TWc		822	0.75	0.1	2.3	0.56	0.19	1.1	132		27.2	103	
226896	TDm		513	1.35	0.025	3.2	0.26	0.39	1.4	30		18.9	68	
226911	TDm		536	1.56	0.12	3.8	0.26	0.39	3.3	33		23.6	122	
226930	TDm		484	1.14	0.05	2.7	0.3	0.5	1.7	57		15.5	78	
226931	TDm		446	1.03	0.025	3.1	0.34	0.6	1.3	77		16.4	90	
226954	Gs		850							80			10	
226970	Gs		1260							80			10	
405725	TA		718	0.6	0.025	1.9	0.82	0.18	1.2	145		22.2	109	
405730	TC		397	0.63	0.025	2.9	0.64	0.74	1.5	206		20.1	102	
406027	TX		443	0.46	0.025	1.4	0.62	0.26	1.2	183		16.5	101	
406030	TWc		231	0.68	0.05	3.1	0.76	0.28	1.6	139		27.3	88	
406072	TB		533	2.02	0.025	7	1.25	0.12	3.4	156		42.6	156	
406086	TC		442	0.59	0.025	3.3	0.48	0.35	1.3	155		17.1	89	
406502	TF		212	0.74	0.025	5.1	0.28	0.59	2.4	53		17.1	56	

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
406506	TF	0.06	6.88	6.9			980	1.48	0.14	2.45	0.08	35.8	8.9	21	3.25	15.1	2.65	18.15	0.11	3.3
406512	TBTBx	0.05	7.78	2			1450	2.59	0.02	2.21	0.17	75.2	4.6	3	1.81	6.5	4.87	25.6	0.16	6.2
406515	TBTBx	0.14	7.79	39			1630	2.2	0.005	2.61	0.19	79.5	5.1	0.5	2.16	3.3	6.15	24.4	0.19	5.7
406550	TAd	0.07	9.37	4.3			1110	1.4	0.03	4.81	0.14	37.4	17.7	2	1.75	16.9	6.96	23	0.1	2.2
406558	TC	0.17	8.6	24.2			780	1.26	0.06	3.02	1	39.9	21.8	65	5.99	88.8	5.69	19.5	0.11	2.9
406619	Gs	1	3.24	25	0.257		210	5	10	0.05	5		20	20		780	11.4			
406654	Gs	1	3.88	25	0.359		280	5	10	0.03	5		10	10		1470	7.67			
406692	Gs	0.5	3.5	25	0.238		200	5	10	0.27	5		30	10		340	11.3			
406705	Gs	0.5	4	25	0.331		180	5	10	0.33	5		40	30		450	13.4			
406714	Y	0.5	4.27	25	0.273		340	5	10	0.17	5		50	70		760	6.07			
406717	Y	0.5	5.18	25	0.169		230	5	10	0.32	5		60	70		640	8.86			
406734	G	1	5.71	25	0.11		270	5	10	0.44	5		50	10		2130	6.78			
406744	G	0.5	6.49	25	0.061		310	5	10	0.87	5		50	10		1360	6.84			
406758	G	0.5	4.11	25	0.147		310	5	10	0.3	5		20	10		1880	5.59			
406886	Gs	1	6.47	25	0.056		1050	5	10	0.35	5		5	10		2270	1.85			
406914	Y	1	5.72	25	0.022		520	5	10	0.59	5		10	60		1400	2.99			
406919	Y	1	2.84	25	0.02		520	5	10	0.44	5		10	70		820	2.47			
406941	Y	1.33	8.42	2.6	0.016		670	1.12	0.64	0.63	0.18	39.3	8.9	60	3.37	1080	2.91	18.8	0.13	0.7
406956	Y	1.21	5.73	29.4	0.037		730	1	1.18	0.44	0.11	33	11	60	4.02	680	3.47	19.3	0.19	0.7
410053	TBTBx	0.14	9.51	6.2			980	1.67	0.04	4.04	0.12	65.9	27.8	12	1.68	81.1	7.7	23.2	0.31	5.6
410136	TWc	0.09	10.1	7			810	1.68	0.08	2.07	0.18	42.7	25.3	20	4.51	34.7	6.83	27.2	0.18	3
410253	TF	0.03	7.76	2.2			1040	1.72	0.15	1.59	0.1	38.9	8.9	26	2.64	12.8	3.01	17.4	0.13	3.5
410280	TC	0.06	7.71	32.1			320	1.01	0.07	2.65	0.11	28.5	18.4	72	5.39	39.6	4.84	17.9	0.14	2
410308	TC	0.08	7.6	5			560	1.19	0.09	2.33	0.22	29.7	18.7	50	12.3	60.5	5.12	16.7	0.14	1.7
411024	TBx	0.04	8.74	1.1			400	0.8	0.01	5.22	0.16	16.95	28.8	46	1.07	23.3	6.39	18.7	0.16	1.6
411027	TB	0.06	9.57	3.1			510	0.86	0.005	6.27	0.1	19.35	29.2	47	1.06	25.6	6.34	19	0.16	2
411034	TB	0.09	8.79	2.7			300	0.57	0.03	5.79	0.09	21.7	26.9	48	0.92	27.1	5.82	17.8	0.11	1.6
411048	TB	0.06	9.55	0.5			420	0.58	0.005	5.82	0.08	21.2	27.5	59	1.99	30.9	6.17	18.85	0.2	1.3
411507	TXH	0.01	7.12	14.2			1130	2	0.24	0.8	0.04	40.5	0.5	8	8.56	5.2	0.68	16.75	0.1	3.8
411516	TAbt	0.1	7.49	2.4			1340	2.29	0.26	0.9	0.16	57.8	1	3	1.46	1.3	1.84	18.6	0.17	6.5
411523	TBh	0.06	9.03	6.1			1150	1.65	0.04	3.7	0.21	49.4	22.4	14	3.29	58.4	6.47	23.5	0.2	5.7
411554	TBv	0.06	8.88	0.9			810	1.72	0.005	5.51	0.09	59.5	30.4	84	0.61	20.3	8.83	21.7	0.19	5
411613	TB	0.04	9.26	3.2			420	0.61	0.005	4.37	0.1	19.2	35.3	76	0.52	41.7	6.4	20.8	0.13	2.4
411620	TB	0.06	8.68	0.4			360	0.57	0.01	5.97	0.07	13.35	20.4	77	0.1	19	6.08	13.6	0.11	1.3
411631	TB	0.03	9.96	0.1			430	0.74	0.01	6.45	0.09	21.6	28.2	74	0.89	28	6.77	20.3	0.12	1.5
411633	TB	0.03	10.2	0.1			470	0.73	0.01	6.62	0.1	21.7	28.5	75	1.4	27.3	6.89	21.2	0.12	1.4
411641	TB	0.03	10.1	0.1			410	0.73	0.01	6.13	0.1	21.6	30	80	1.73	33.2	7.06	20.3	0.12	1.5
411646	TT	0.03	9.76	4.3			610	1.1	0.06	5.01	0.16	59.3	26.2	56	1.25	28.1	6.11	21.8	0.17	2.2
411649	TMd	0.08	8.23	4.9			1090	1.43	0.03	3.17	0.19	40	14.7	57	3.71	15.8	4.18	19.75	0.13	2.8
411650	TMd	0.04	8.27	5.8			1000	1.37	0.03	2.68	0.13	39.9	14.8	55	3.77	15.5	4.11	19.3	0.13	2.8
411651	TMd	0.04	8.42	5.5			1000	1.56	0.03	2.64	0.16	39.2	14.7	61	3.95	15.7	4.29	20.1	0.13	2.9
411661	TMd	0.07	8.12	3.5			990	1.57	0.02	3.4	0.15	40.9	14.2	57	6	15.8	4.13	19.7	0.15	2.5
411670	TMd	0.07	7.5	4.8			910	1.49	0.01	3.22	0.14	42.3	12	53	4.91	22.9	3.81	18.15	0.13	3.1
411689	TB	0.07	8.09	5.8			1250	1.56	0.03	4.47	0.13	63.2	23.7	2	5.17	53.6	7.74	21.7	0.17	3.4
4292-415-430	TA/TD	0.44	3.43	73.1		<10	110	0.32	0.21	1.24	0.38	6.09	8.6	152	6.77	960	12.95	30.4	0.21	0.03
4292-685-695	TC	0.16	2.71	165		<10	110	0.74	0.04	3.66	0.2	53.5	26	60	3.13	62.1	7.87	10.6	0.11	0.13
8404-1812-1822	Gs	3.7	0.29	88.6	0.7	<10	10	0.07	0.98	0.02	0.68	1.1	18.6	109	0.21	>10000	5.26	1.4	0.18	0.03
8404-1950-1960	Gs	1.89	0.39	14.1	0.7	<10	20	0.39	0.38	0.4	0.05	1.49	15	83	2.04	5270	2.75	0.86	0.07	0.03
8404-2110-2120	Y	2.94	1.13	12.3	0.2	<10	50	0.27	0.49	0.29	0.88	15.05	12.7	146	2.21	8070	2.75	6.15	0.12	0.03
8406-1909-1919	Y	0.27	0.33	33.6	<0.2	<10	20	0.33	0.63	0.19	1.39	6.4	33.4	61	0.36	285	6.91	0.74	0.15	0.03
8443-1586-1596	Y	0.4	1.31	371	0.7	<10	20	0.45	0.13	0.13	0.04	5.78	7.9	172	1.52	1705	5.38	9.74	0.15	0.02
ARLB010 (+1/4")	TA+TB	0.07	2	2.4	<0.2	<10	110	0.6	0.05	1.84	0.09	47.9	14.6	44	1.34	41.1	4.6	9.17	0.14	0.14
ARLB010 (-1/4")	TA+TB	0.11	2.12	6.1	<0.2	<10	610	1.08	0.11	2.32	0.16	50.7	14.1	29	1.21	49.9	4.54	9.44	0.12	0.12

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
406506	TF	0.005	0.024	2.6			0.82	723	3.07	2.05	10.4	11.8		16.2	83.7	0.001	0.12	0.65		1
406512	TBTBx	0.01	0.104	2.1			0.53	1620	1.28	3.02	22.7	4.5		16.1	57.3	0.001	0.39	0.28		1
406515	TBTBx	0.06	0.085	2.5			0.87	1770	1.56	2.63	19.5	0.1		12.1	66.5	0.001	0.06	2.25		2
406550	TAd	0.005	0.092	2.1			1.36	1480	2.2	2.83	11.9	1.3		11.8	41.9	0.001	0.08	1.01		1
406558	TC	0.01	0.053	2			1.49	1115	1.59	0.44	10.9	25.5		115	84.3	0.001	1.34	3.32		8
406619	Gs			3.2			0.11	30	10	0.12		10		10			12.4	25		
406654	Gs			3.7			0.17	10	5	0.13		10		10			8.9	25		
406692	Gs			3.3			0.15	40	5	0.13		5		10			12.6	25		
406705	Gs			2.9			0.22	40	5	0.12		20		10			14.4	25		
406714	Y			4			0.26	30	5	0.13		50		10			6.4	25		
406717	Y			3.5			0.31	60	30	0.11		40		10			9.7	25		
406734	G			3.8			0.43	190	180	0.09		20		20			7.3	25		
406744	G			4.3			0.85	250	20	0.13		20		10			6.1	25		
406758	G			4.3			0.67	300	20	0.12		20		10			5.2	25		
406886	Gs			4.6			0.56	260	30	0.25		5		10			0.9	25		
406914	Y			3.7			1.05	400	20	2.3		30		10			0.5	25		
406919	Y			3.8			0.74	400	40	1.92		30		10			0.4	25		
406941	Y	0.005	0.046	5.5			1.13	458	120	1.2	4.4	29.6		15.2	104	0.122	0.5	0.52		3
406956	Y	0.01	0.047	5.4			0.99	664	50	2.03	4.8	32.2		9.4	118	0.049	1.1	0.99		4
410053	TBTBx	0.005	0.077	1.7			1.03	962	1.25	2.87	16.9	29.7		13.4	53	0.002	0.03	1.24		1
410136	TWc	0.005	0.085	1			1.98	1400	0.48	1.81	8.9	26.9		461	16.8	0.001	0.01	0.73		2
410253	TF	0.005	0.041	2.6			0.85	748	1.44	2.67	11.9	11.8		16.9	81.6	0.001	0.01	0.6		2
410280	TC	0.11	0.049	1.6			1.28	1005	1.4	1.77	9.3	26.6		10.3	51.9	0.002	0.17	1.56		2
410308	TC	0.01	0.066	1.9			1.24	971	3.24	1.36	8.5	33.2		9.4	78	0.004	0.04	0.85		2
411024	TBx	0.005	0.057	0.4			2.96	1040	0.27	2.48	5.8	25.9		4	3.2	0.001	0.01	0.23		2
411027	TB	0.01	0.055	0.5			2.47	1065	0.82	2.43	5.8	26.2		4.1	5	0.001	0.05	0.08		2
411034	TB	0.005	0.052	0.4			2.56	1050	0.68	2.15	5.1	26.2		3.4	5.5	0.001	0.04	0.09		1
411048	TB	0.005	0.059	0.6			2.87	1060	0.5	2.5	5.7	28.5		3.5	7.8	0.003	0.01	0.13		2
411507	TXH	0.005	0.015	3.1			0.08	485	0.37	1.76	10.9	0.4		20.5	109.5	0.001	0.01	2.94		2
411516	TAbt	0.005	0.074	3.2			0.22	686	3.29	3.16	13	0.9		20.4	101	0.001	0.01	0.97		1
411523	TBh	0.005	0.081	1.4			1.57	1310	0.92	2.47	13.8	20.2		11.7	45.4	0.002	0.01	0.38		3
411554	TBv	0.005	0.07	0.8			2.82	1680	0.93	2.23	23.1	33		7.4	14.4	0.001	0.01	0.34		2
411613	TB	0.005	0.053	1			2.76	1055	0.14	2.71	5.8	49.8		3.7	17.8	0.001	0.01	0.38		2
411620	TB	0.005	0.023	0.4			2.73	1170	0.39	2.05	4	21.5		2.6	1.2	0.001	0.01	0.025		1
411631	TB	0.005	0.06	0.6			3.07	1130	0.58	2.35	6.4	37.3		4	3.9	0.001	0.01	0.1		2
411633	TB	0.005	0.063	0.5			3.06	1135	0.64	2.39	6.4	37.9		4	2.8	0.001	0.01	0.1		2
411641	TB	0.005	0.059	0.5			3.47	1210	0.76	2.12	6.1	40.3		4.6	4.8	0.001	0.01	0.12		2
411646	TT	0.005	0.066	0.6			2.78	1110	0.86	1.89	8.1	39.1		9.3	12.3	0.001	0.04	0.37		2
411649	TMd	0.005	0.049	2.8			1.03	1040	0.94	2.01	10	10.6		22.5	89.3	0.001	0.01	1.33		2
411650	TMd	0.005	0.048	3			0.99	792	0.81	2.16	10	10.3		18.4	106	0.001	0.22	1.38		2
411651	TMd	0.005	0.05	3.1			0.96	813	0.84	2.41	10.2	10.8		26.4	111.5	0.001	0.01	1.62		2
411661	TMd	0.005	0.048	3			1.43	822	1.83	2.13	10	10.9		17	107.5	0.001	0.01	0.85		2
411670	TMd	0.005	0.043	2.7			1.14	728	1.2	2.11	7.8	10.6		15.2	107.5	0.001	0.01	0.93		0.5
411689	TB	0.005	0.072	0.9			1.27	1255	1.02	1.9	18.4	3.7		19.2	36.6	0.001	0.02	2.56		1
4292-415-430	TA/TD	0.33	0.287	0.22	2.6	17.8	0.96	398	23.4	0.05	0.09	14	4950	15.2	16.4	0.037	0.9	0.8	11	4.5
4292-685-695	TC	0.07	0.058	0.23	25.2	7.8	0.91	839	3.18	0.06	0.05	3.6	2220	21	7	0.003	2.58	0.68	9.5	0.7
8404-1812-1822	Gs	0.2	0.072	0.12	0.5	4.1	0.02	13	334	0.02	0.19	17.6	20	8.8	3	1.04	6.5	1.04	2.1	26.5
8404-1950-1960	Gs	0.02	0.038	0.31	0.4	0.9	0.32	215	283	0.05	0.15	13.4	130	11.5	7.1	0.553	2.41	0.14	5.5	7.5
8404-2110-2120	Y	0.06	0.06	1.02	7.1	3.3	1.18	229	245	0.03	0.26	20.6	40	119.5	53.7	0.507	2.26	5.98	16.1	10.9
8406-1909-1919	Y	0.06	0.018	0.22	2.8	0.7	0.02	9	4.39	0.01	0.2	42.3	780	3.9	6	0.006	8.38	0.9	1.4	14.5
8443-1586-1596	Y	0.04	0.014	0.68	2.4	14.5	0.84	169	37.6	0.01	0.27	21.1	490	4	31.9	0.03	2.9	1.35	13.2	6.6
ARLB010 (+1/4")	TA+TB	<0.01	0.044	0.1	21.3	17	1.1	850	1.99	0.11	0.22	11.5	1970	11.1	4.5	0.001	0.04	0.53	7.2	0.8
ARLB010 (-1/4")	TA+TB	0.01	0.049	0.18	22.7	20.2	1.04	1285	3.07	0.06	0.14	7.9	2020	15.2	6.9	0.003	0.07	0.52	7.8	0.9

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
406506	TF		262	0.81	0.025	5.1	0.31	0.64	2.2	64		19	57	
406512	TBTBx		354	1.36	0.025	3.4	0.52	0.38	1.6	15		41	131	
406515	TBTBx		761	1.21	0.025	3.5	0.68	0.45	1.6	5		45.8	140	
406550	TAd		710	0.74	0.025	2.5	0.83	0.34	1.2	141		26.8	122	
406558	TC		549	0.76	1.09	4.8	0.5	1.02	2.5	148		20.1	192	
406619	Gs		160							120			10	
406654	Gs		130							110			10	
406692	Gs		300							240			20	
406705	Gs		50							270			20	
406714	Y		30							230			30	
406717	Y		30							210			20	
406734	G		50							160			60	
406744	G		250							170			30	
406758	G		60							160			20	
406886	Gs		230							140			30	
406914	Y		150							200			50	
406919	Y		160							220			30	
406941	Y		198.5	0.3	0.63	3.5	0.36	2	1	205		16.5	58	
406956	Y		204	0.38	0.54	3.5	0.38	1.87	1.1	213		13.6	55	
410053	TBTBx		546	0.95	0.025	4.4	1.1	0.19	1.5	255		40.8	130	
410136	TWc		635	0.65	0.06	2.6	0.81	0.3	0.6	152		22.9	111	
410253	TF		255	0.82	0.025	5.7	0.38	0.62	2.8	68		22.4	66	
410280	TC		300	0.57	0.025	3.5	0.51	0.35	1.6	160		17.7	91	
410308	TC		335	0.53	0.07	3.3	0.39	0.65	1.2	142		17.4	89	
411024	TBx		614	0.31	0.025	0.5	0.65	0.04	0.3	218		13.8	78	
411027	TB		846	0.32	0.025	0.6	0.67	0.02	0.3	226		16.4	80	
411034	TB		675	0.28	0.025	0.6	0.64	0.03	0.3	217		16.7	78	
411048	TB		793	0.3	0.025	0.5	0.65	0.04	0.3	224		15.8	79	
411507	TXH		135.5	0.99	0.025	8.5	0.07	0.71	3.5	2		14	28	
411516	TAbt		186.5	0.88	0.025	6.1	0.19	0.68	3	5		34.4	69	
411523	TBh		1045	0.79	0.025	2.9	0.91	0.24	1.3	182		36.4	131	
411554	TBv		532	1.33	0.025	2.3	1.56	0.12	0.8	192		33	148	
411613	TB		826	0.33	0.025	0.6	0.68	0.06	0.4	266		18.4	95	
411620	TB		788	0.26	0.025	0.7	0.67	0.01	0.2	231		10.9	85	
411631	TB		823	0.34	0.025	0.5	0.71	0.03	0.2	253		18.1	94	
411633	TB		866	0.34	0.025	0.6	0.72	0.03	0.3	256		18.6	97	
411641	TB		770	0.32	0.025	0.6	0.7	0.03	0.3	248		18.1	93	
411646	TT		762	0.45	0.025	3.8	0.67	0.15	1.4	207		22.9	101	
411649	TMd		416	0.76	0.025	9.8	0.41	0.6	4.4	119		23.1	83	
411650	TMd		391	0.76	0.025	10.1	0.39	0.67	4.3	114		21.5	80	
411651	TMd		396	0.76	0.025	10	0.41	0.7	4.6	117		22.1	85	
411661	TMd		357	0.75	0.025	10.1	0.39	0.63	4.3	113		22.2	78	
411670	TMd		340	0.61	0.025	8.9	0.34	0.55	3.8	105		18	73	
411689	TB		402	1.02	0.025	3.6	1.03	0.39	2.1	174		30.7	128	
4292-415-430	TA/TD	2	105	<0.01	0.85	3.7	0.028	0.35	1.66	255	0.35	3.01	177	3
4292-685-695	TC	1.6	185	<0.01	0.01	2.8	0.021	0.09	0.65	89	0.09	25.1	120	3.9
8404-1812-1822	Gs	0.8	30.7	<0.01	2.98	<0.2	<0.005	0.73	0.11	16	0.86	0.37	1700	0.7
8404-1950-1960	Gs	0.2	123.5	<0.01	0.54	0.3	<0.005	0.2	0.2	22	0.19	1.54	95	0.8
8404-2110-2120	Y	0.7	63.5	<0.01	0.58	1.5	0.129	0.4	0.3	159	0.31	1.85	268	0.6
8406-1909-1919	Y	0.2	61.4	<0.01	1.74	0.8	<0.005	0.26	0.28	8	0.49	1.95	24	0.6
8443-1586-1596	Y	0.5	19.2	<0.01	0.21	1	0.109	0.25	0.17	635	0.4	5.16	31	<0.5
ARLB010 (+1/4")	TA+TB	0.7	96.7	0.01	<0.01	2	0.189	0.02	0.85	87	0.07	22.8	87	6.1
ARLB010 (-1/4")	TA+TB	1.2	117.5	<0.01	0.01	2.3	0.109	0.06	0.83	71	0.14	23.3	99	5.1

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
Composite 1	G	0.56	0.57	23.5	<0.2	<10	30	0.38	0.35	0.84	0.21	13.8	3.4	35	2.01	1300	1.03	1.72	<0.05	0.03
Composite 10	TC/TF	0.05	2.51	13.9	<0.2	<10	80	0.96	0.04	2.81	0.11	67.4	18.2	21	1.52	22	5.38	11.45	0.16	0.12
Composite 11	TC/TY	0.08	3.57	38.1	<0.2	<10	240	0.7	0.34	5.57	0.18	23.8	23.9	34	2.57	35.5	5.12	10.4	0.13	0.16
Composite 12	TW(TF)	0.2	3.39	64.7	<0.2	<10	140	1.12	0.13	3.95	0.34	59.1	28.2	53	2.17	69.5	6.81	13.8	0.19	0.13
Composite 13	TC	0.12	2.89	6.6	<0.2	<10	80	0.36	0.05	3.61	0.21	33.4	17.9	72	1.47	48.2	5.4	8.6	0.1	0.09
Composite 14	TC/TW	0.1	3.69	7.5	<0.2	<10	140	0.47	0.1	1.66	0.32	44.7	17.8	13	3.56	19.4	6.3	10.6	0.13	0.22
Composite 15	TB	0.06	2.68	0.3	<0.2	<10	180	0.31	0.01	4.78	0.19	44.5	16.3	25	1.4	15.1	5.89	9.46	0.12	0.08
Composite 16	TB	0.05	4.71	1	<0.2	<10	230	0.27	0.05	4.73	0.12	34.5	19.4	32	2.02	30.9	5.36	10.7	0.13	0.34
Composite 17	TB	0.07	3.39	7.1	<0.2	<10	700	0.64	0.08	3.11	0.19	55.3	22.7	45	1.98	39.8	6.94	11.8	0.15	0.28
Composite 18	TB	0.06	2.87	1.6	<0.2	<10	30	0.39	0.08	1.58	0.39	35.3	16.4	9	0.32	24	5.12	9.53	0.29	0.53
Composite 19	TA	0.06	2.99	4	<0.2	<10	30	0.2	0.01	1.56	0.09	39.4	23.8	181	0.88	32.8	4.97	10.55	0.18	0.36
Composite 2	G	0.82	0.78	24.5	0.2	<10	20	0.46	0.74	0.35	0.2	12.5	9.2	31	3.04	2640	2.33	2.78	0.07	0.07
Composite 20	TA	0.05	1.81	4.8	<0.2	<10	20	0.26	0.07	1.28	0.23	38.6	10.1	33	0.4	17.4	4.3	9.12	0.15	0.55
Composite 3	G	0.86	0.4	166	0.2	<10	30	0.22	1.27	0.15	0.67	4.23	24.9	17	0.45	680	7.86	1.06	0.14	0.02
Composite 4	G	0.93	0.43	117	0.2	<10	20	0.19	2.01	0.23	0.2	4.46	108	28	0.36	639	13.25	1.07	0.3	0.02
Composite 5	Y	0.43	1.32	88.7	<0.2	<10	30	0.71	0.31	0.6	0.2	16.75	9.3	61	4.16	975	2.41	5.91	0.07	0.03
Composite 6	Y	0.91	1.31	17.6	<0.2	<10	20	0.44	0.31	0.57	0.22	19.5	10.8	62	2.8	1125	2.98	5.94	0.08	0.02
Composite 7	Y	1.16	0.94	23.3	<0.2	<10	30	0.4	0.66	0.46	0.32	19.1	47.8	34	2.51	3090	5.78	2.44	0.14	0.03
Composite 8	Y	1.54	1.01	14.5	0.2	<10	20	0.46	1.85	0.45	4.36	8.36	16.9	47	0.68	288	8.67	2.7	0.15	0.06
Composite 9	TC	0.09	2.55	1.6	<0.2	<10	320	0.66	0.06	3.46	0.17	43.5	22.3	77	2.09	42.6	4.67	9.31	0.12	0.07
GH07-104-SRK Comp#1		0.1	1.94	6.8	<0.2	<10	120	0.55	0.04	1.14	0.11	45	19.9	46	1.31	58.5	5.37	6.82	0.17	0.21
GH07-104-SRK Comp#10		0.08	1.72	9.2	<0.2	<10	140	0.51	0.1	1.42	0.11	36.9	13.7	37	1.72	22.9	4.05	5.57	0.09	0.43
GH07-104-SRK Comp#11		0.08	1.77	7	<0.2	<10	110	0.53	0.06	2.47	0.15	34.9	18.9	37	1.82	52.6	5.57	6.15	0.12	0.34
GH07-104-SRK Comp#12		0.02	0.52	0.6	<0.2	<10	70	0.56	0.11	0.18	0.03	34.6	3.1	15	1.69	6.4	0.46	1.78	<0.05	0.19
GH07-104-SRK Comp#2		0.06	1.85	5.3	<0.2	<10	120	0.47	0.05	1.23	0.11	40.3	18	57	1.04	21.8	4.54	6.53	0.14	0.29
GH07-104-SRK Comp#3		0.06	1.54	8	<0.2	<10	170	0.51	0.07	1.73	0.11	36.8	14.8	38	1.36	20.9	4.11	4.98	0.11	0.33
GH07-104-SRK Comp#4		0.08	1.83	8.3	<0.2	<10	220	0.6	0.1	1.51	0.11	40.2	15	35	1.98	23	4.12	5.57	0.09	0.21
GH07-104-SRK Comp#5		0.07	1.64	7.2	<0.2	<10	150	0.54	0.07	1.99	0.14	38.3	14.8	40	1.23	22.7	4.31	5.2	0.11	0.34
GH07-104-SRK Comp#6		0.06	1.31	5.9	<0.2	<10	150	0.47	0.07	1.96	0.11	37.6	13.7	34	0.98	17.5	3.78	4.43	0.1	0.36
GH07-104-SRK Comp#7		0.08	1.71	8.7	<0.2	<10	160	0.52	0.11	1.51	0.11	38.2	13	42	1.58	23.1	3.91	5.43	0.09	0.31
GH07-104-SRK Comp#8		0.08	1.6	8.3	<0.2	<10	140	0.49	0.09	1.47	0.12	37.6	13.7	39	1.48	24.1	3.87	5.38	0.1	0.35
GH07-104-SRK Comp#9		0.09	1.35	6.6	<0.2	<10	150	0.46	0.12	1.48	0.12	35.7	12.2	48	1.05	20.8	4.15	4.29	0.1	0.33
GH07-105-SRK Comp#1		0.07	1.97	7.8	<0.2	<10	170	0.51	0.1	0.89	0.1	40.5	15.3	43	1.47	50.3	4.24	5.9	0.1	0.34
GH07-105-SRK Comp#2		0.07	1.52	5.8	<0.2	<10	170	0.53	0.08	1.27	0.12	35.8	13.2	35	1.32	25.7	3.72	4.97	0.09	0.32
GH07-105-SRK Comp#3		0.05	1.59	3.9	<0.2	<10	120	0.44	0.07	1.54	0.11	39.5	16.8	50	1.06	18.3	4.22	5.25	0.1	0.31
GH07-105-SRK Comp#4		0.08	1.65	7.4	<0.2	<10	160	0.5	0.08	1.78	0.13	36.2	13.5	37	1.32	23	4.07	4.97	0.1	0.37
GH07-105-SRK Comp#5		0.04	1.18	2.5	<0.2	<10	100	0.4	0.05	1.54	0.1	44	18.5	83	0.74	18.5	4.86	4.21	0.13	0.22
GH07-105-SRK Comp#6		0.06	1.91	4.8	<0.2	<10	90	0.55	0.06	1.93	0.15	43.9	16.5	39	1.14	19.3	4.38	7.11	0.11	0.33
GH07-105-SRK Comp#8		0.06	1.09	7.8	<0.2	<10	60	0.31	0.07	0.76	0.1	28.2	10	71	1.09	29	3.12	4.12	0.08	0.47
GH07-106-SRK Comp#1		0.34	1.08	1.2	<0.2	<10	60	0.81	0.08	0.39	0.19	13.6	1.9	30	0.36	37	0.47	4.68	0.11	0.07
GH07-106-SRK Comp#2		0.07	1.82	8	<0.2	<10	130	0.66	0.07	0.68	0.12	40.6	18.8	43	1.35	25.5	4.21	7.22	0.15	0.44
GH07-106-SRK Comp#3		0.07	1.57	8.8	<0.2	<10	150	0.64	0.08	1.12	0.12	37.3	15.2	37	1.48	27	3.66	5.88	0.15	0.5
GH07-106-SRK Comp#4		0.08	1.64	8.3	<0.2	<10	160	0.65	0.07	1.49	0.1	37.4	15.2	38	1.43	30.9	3.77	6.01	0.14	0.53
GH07-106-SRK Comp#5		0.08	1.7	9.9	<0.2	<10	190	0.76	0.18	1.53	0.13	41.7	15.9	40	1.53	27.9	3.82	6.06	0.15	0.12
GH07-106-SRK Comp#6		0.07	1.97	10	<0.2	<10	160	0.55	0.1	2.12	0.16	37.3	18.4	52	1.23	32.4	4.25	7.37	0.16	0.07
GH07-106-SRK Comp#7		0.05	1.3	7.1	<0.2	<10	80	0.45	0.15	0.63	0.1	27.7	8.7	84	1.02	21.6	2.69	5.47	0.13	0.45

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
Composite 1	G	0.02	0.015	0.22	6.8	4.8	0.17	168	267	0.02	<0.05	3.3	850	13	8.6	0.591	0.69	0.45	1.8	3.2
Composite 10	TC/TF	0.01	0.04	0.18	28.8	41.8	1.3	1470	0.62	0.04	0.05	12.2	2300	6.2	7	0.001	0.03	0.41	9.9	0.6
Composite 11	TC/TY	0.02	0.045	0.11	10	39.7	1.35	1100	4.01	0.15	0.14	15.6	1140	11	4.6	0.003	0.21	0.42	12.9	0.7
Composite 12	TW(TF)	0.04	0.057	0.1	24.9	73.9	1.63	1410	3.16	0.04	0.11	19	2080	30.1	5.1	0.001	0.26	1.19	13.5	1
Composite 13	TC	<0.01	0.032	0.14	14.4	30.9	1.48	1370	1.12	0.05	0.07	16.1	1330	11.4	4.2	0.001	0.35	0.36	7.6	0.3
Composite 14	TC/TW	0.06	0.062	0.11	19.3	25.5	1.52	1565	1.37	0.06	0.08	9.3	1360	12.1	3.7	0.001	1.09	0.22	11.7	0.6
Composite 15	TB	<0.01	0.051	0.19	18.3	17.7	1.33	1420	0.93	0.04	0.06	1.4	2020	8.5	5.2	0.001	0.02	0.17	9.6	0.3
Composite 16	TB	<0.01	0.035	0.12	13.7	31.2	2.08	1145	2.13	0.13	0.17	25.2	1330	6.3	2.5	0.004	0.03	0.16	8.8	0.4
Composite 17	TB	<0.01	0.048	0.12	23.8	19.4	1.79	1030	2.68	0.05	0.19	12.9	2300	15	4.6	0.001	0.07	0.3	8.9	0.6
Composite 18	TB	<0.01	0.029	0.06	13.4	28.6	1.54	1035	2.09	0.03	0.34	1.4	2130	37.4	2.1	0.001	0.43	0.54	6	1.9
Composite 19	TA	<0.01	0.009	0.04	14.4	19.4	2.59	747	1.64	0.09	0.39	73.9	2500	3.1	1.1	0.001	0.81	0.18	3	0.4
Composite 2	G	0.01	0.034	0.32	5.8	6.2	0.3	105	163.5	0.02	0.29	6.4	440	5.8	13.3	0.199	1.85	0.61	2.3	6.1
Composite 20	TA	<0.01	0.024	0.04	15.3	20.9	0.85	1085	1.41	0.06	0.48	9.1	2130	10.8	1.1	0.001	1.64	0.27	5.4	0.9
Composite 3	G	0.02	0.085	0.23	1.9	0.9	0.05	27	12.85	0.01	0.06	9.3	490	9.6	7	0.145	8.7	0.53	1.1	15.3
Composite 4	G	0.03	0.01	0.23	2.2	1.4	0.05	23	17.5	0.01	0.1	21.1	920	5.2	7.9	0.032	>10	4.15	1.7	37.2
Composite 5	Y	0.03	0.012	0.6	7.7	23.8	0.9	241	197.5	0.01	0.09	27.6	1340	8.3	39.8	0.24	1.05	1.44	9.8	2.4
Composite 6	Y	0.02	0.015	0.44	8.9	14.3	0.9	390	219	0.01	0.06	28.9	780	7	26.3	0.265	1.45	0.39	8	3.3
Composite 7	Y	0.01	0.026	0.42	9	8.8	0.45	128	20	0.01	<0.05	48.9	1400	9	22.1	0.025	5.94	0.27	2.8	15.8
Composite 8	Y	0.06	0.032	0.21	3.8	5.4	0.7	636	1.98	<0.01	<0.05	38.6	860	61.6	7.7	0.003	9.63	0.17	4.9	11.6
Composite 9	TC	<0.01	0.028	0.17	21	41.9	1.33	1130	0.88	0.04	<0.05	31.3	1150	7.4	8.1	0.001	0.06	0.18	10.6	0.5
GH07-104-SRK Comp#1		0.06	0.036	0.09	22.1	12.8	1.04	994	2.01	0.14	0.42	27.8	1610	10.9	4.6	0.001	<0.01	0.43	9.8	0.4
GH07-104-SRK Comp#10		0.13	0.038	0.14	18.3	11.6	0.88	848	0.96	0.1	0.17	20.2	1280	9.5	7.9	<0.001	0.02	0.46	7.5	0.3
GH07-104-SRK Comp#11		11.35	0.042	0.16	17.6	13.4	0.84	988	2.02	0.11	0.18	21.5	1220	7.4	7.1	0.001	<0.01	1.51	10.7	0.4
GH07-104-SRK Comp#12		0.06	0.007	0.2	20.7	1.9	0.08	262	0.83	0.05	0.06	3.1	110	10.4	14.9	<0.001	<0.01	0.1	1.2	<0.2
GH07-104-SRK Comp#2		0.37	0.048	0.1	20.1	15.6	1.07	907	1.19	0.12	0.22	27.4	1600	7	5.8	<0.001	<0.01	0.44	9.9	0.3
GH07-104-SRK Comp#3		0.17	0.043	0.1	18.1	10	0.94	832	0.71	0.09	0.13	20.2	1390	8.2	6.3	<0.001	0.01	0.42	8.1	0.3
GH07-104-SRK Comp#4		0.45	0.044	0.14	19.6	10.8	0.95	793	0.66	0.1	0.13	21	1470	9.7	8.4	<0.001	<0.01	0.49	8.5	0.3
GH07-104-SRK Comp#5		0.24	0.043	0.12	19	9.4	0.92	949	0.87	0.1	0.15	20.3	1340	7.7	6.6	<0.001	0.01	0.47	8.8	0.3
GH07-104-SRK Comp#6		0.1	0.035	0.11	18.7	9.3	0.95	906	1.1	0.08	0.18	17.2	1110	7	6.3	<0.001	0.04	0.4	7.3	0.3
GH07-104-SRK Comp#7		0.13	0.041	0.15	19	10.3	0.8	803	1	0.12	0.14	19.5	1250	9.8	8.6	0.001	0.01	0.5	7.7	0.3
GH07-104-SRK Comp#8		0.13	0.039	0.13	18.6	11.2	0.84	847	1.06	0.09	0.16	18.7	1220	8.8	7.8	0.001	<0.01	0.45	7.6	0.3
GH07-104-SRK Comp#9		0.15	0.038	0.13	17.8	8.1	0.81	794	3.76	0.12	0.29	16.8	1190	17.4	7.1	<0.001	0.04	0.4	6.1	0.3
GH07-105-SRK Comp#1		0.07	0.041	0.15	19.7	11.9	0.81	802	1.91	0.13	0.45	20.2	1250	7.8	7.8	0.006	<0.01	0.34	8.3	0.3
GH07-105-SRK Comp#2		0.06	0.039	0.11	17.7	9.4	0.72	755	0.7	0.08	0.15	18.3	1170	8.2	7.3	0.001	<0.01	0.31	7.7	0.3
GH07-105-SRK Comp#3		0.36	0.033	0.14	19.8	11.1	1.25	834	0.97	0.17	0.19	23	1600	7	6.7	<0.001	<0.01	0.26	6.5	0.3
GH07-105-SRK Comp#4		0.25	0.041	0.12	17.8	8.7	0.9	888	0.72	0.11	0.15	17.9	1370	8.5	6.9	0.001	0.02	0.41	8	0.4
GH07-105-SRK Comp#5		0.16	0.036	0.12	20.4	7.4	1.2	1065	1.56	0.18	0.43	19.7	2350	4.8	5.6	0.001	0.02	0.18	6.2	0.4
GH07-105-SRK Comp#6		0.15	0.043	0.13	21.6	11.4	1.16	879	1.01	0.1	0.16	15.5	1550	6.7	6.4	<0.001	0.04	0.27	8.5	0.3
GH07-105-SRK Comp#8		0.04	0.035	0.11	14	10.3	0.58	611	2.7	0.1	0.23	18.4	870	5.1	6.7	0.001	0.01	0.5	6	0.2
GH07-106-SRK Comp#1		0.29	0.027	0.02	11	4.2	0.11	96	1.44	0.06	0.45	4.6	1150	5.1	1.6	0.002	0.19	0.53	3.1	7.5
GH07-106-SRK Comp#2		0.07	0.038	0.1	20.1	15.2	0.82	1005	2.21	0.09	0.26	23.9	1290	8.4	6.1	<0.001	<0.01	0.49	8.5	0.7
GH07-106-SRK Comp#3		0.13	0.035	0.11	19.2	11.5	0.73	825	1.05	0.07	0.14	19.9	1160	8.9	7.6	<0.001	0.01	0.46	8	0.5
GH07-106-SRK Comp#4		0.15	0.038	0.12	19	11.1	0.85	803	0.94	0.09	0.14	19.4	1230	9.1	7.7	<0.001	0.03	0.47	8.6	0.6
GH07-106-SRK Comp#5		0.32	0.04	0.13	20	11.7	0.88	825	0.76	0.09	0.09	22.5	1310	10.4	9.2	<0.001	0.03	0.38	9.6	0.5
GH07-106-SRK Comp#6		0.1	0.036	0.11	18.1	15.2	1.21	985	1.12	0.1	0.14	31.5	1520	8.5	6.8	<0.001	0.05	0.35	10.2	0.6
GH07-106-SRK Comp#7		0.02	0.026	0.12	13.8	14.3	0.55	457	2.11	0.08	0.16	14.2	690	6.8	7.7	<0.001	0.02	0.32	4.9	0.4

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
Composite 1	G	0.2	113	<0.01	0.22	1.6	<0.005	0.21	0.28	17	0.17	8.6	51	0.9
Composite 10	TC/TF	0.8	144	0.01	0.01	1.2	0.024	0.05	0.4	53	0.08	27.7	118	3.9
Composite 11	TC/TY	0.8	278	0.01	0.04	1.8	0.126	0.31	0.64	106	0.3	13.4	87	4.5
Composite 12	TW(TF)	1.9	281	0.01	0.01	2.2	0.053	0.14	0.73	105	0.14	23.5	156	4.3
Composite 13	TC	0.6	255	0.01	0.02	1.5	0.031	0.04	0.34	94	0.06	12.4	121	2
Composite 14	TC/TW	1	269	0.01	0.05	1.5	0.036	0.13	0.39	96	0.1	16.9	126	6.9
Composite 15	TB	0.8	193	0.01	0.01	1	0.01	0.03	0.3	96	0.08	23.2	121	1.6
Composite 16	TB	0.6	1095	0.01	0.02	1.1	0.291	0.03	0.5	120	0.13	13.8	102	10.9
Composite 17	TB	1.1	150.5	0.01	0.02	2.3	0.237	0.1	0.76	111	0.41	22.4	150	9.3
Composite 18	TB	0.8	57	0.01	0.18	1.2	0.388	0.03	0.52	72	1.29	17.8	201	12.2
Composite 19	TA	0.8	71.9	0.01	0.01	1.1	0.405	<0.02	0.56	84	0.35	14.9	87	17.6
Composite 2	G	0.3	61.3	<0.01	0.32	1.8	0.031	0.21	0.27	46	0.86	5.97	89	1.6
Composite 20	TA	0.5	45.3	0.01	0.21	0.8	0.243	<0.02	0.36	51	0.47	15.65	118	14.1
Composite 3	G	0.5	102.5	<0.01	1.91	0.4	<0.005	0.38	0.32	8	0.62	1.59	25	1
Composite 4	G	0.4	24.6	<0.01	1.97	0.5	<0.005	0.29	0.38	12	1	3.44	49	0.6
Composite 5	Y	0.5	65.9	<0.01	0.3	2.2	0.088	2.25	0.51	104	1.16	10.25	48	0.7
Composite 6	Y	0.3	55.6	<0.01	0.36	2.3	0.037	0.38	0.31	122	0.32	10.7	56	0.5
Composite 7	Y	0.3	57	<0.01	1.16	1.9	0.007	0.73	0.35	36	2.29	11.25	101	0.7
Composite 8	Y	0.3	20.5	<0.01	2.38	1.1	0.005	0.3	0.48	37	0.48	4.28	643	1.9
Composite 9	TC	0.5	187.5	<0.01	0.03	1.6	0.008	0.04	0.37	73	0.06	16	92	1.9
GH07-104-SRK Comp#1		1.1	93.4	0.01	0.03	3.3	0.292	0.04	1.34	97	0.62	22.8	90	14.1
GH07-104-SRK Comp#10		0.9	94.5	<0.01	0.01	3	0.132	0.06	0.84	73	0.13	19.05	79	18.5
GH07-104-SRK Comp#11		1.2	109	<0.01	0.01	2.8	0.129	0.06	0.73	111	46.3	19.65	114	13.6
GH07-104-SRK Comp#12		0.3	16.3	<0.01	<0.01	6.8	0.008	0.06	0.98	5	12.75	5.37	17	6.8
GH07-104-SRK Comp#2		0.9	88.6	<0.01	0.01	3.1	0.165	0.06	0.8	89	0.67	21.5	83	14.5
GH07-104-SRK Comp#3		0.8	118	<0.01	0.01	2.9	0.115	0.06	0.86	78	0.15	19.9	82	15
GH07-104-SRK Comp#4		0.9	134	<0.01	0.02	3.2	0.122	0.07	0.87	79	0.67	21.4	83	11
GH07-104-SRK Comp#5		0.9	112	<0.01	0.01	3	0.13	0.07	0.81	81	0.11	20.3	80	16.5
GH07-104-SRK Comp#6		0.8	86.1	<0.01	0.01	4.3	0.103	0.05	0.92	63	0.48	19.1	73	16.7
GH07-104-SRK Comp#7		0.9	107.5	<0.01	0.01	3.4	0.136	0.08	0.92	73	0.25	19.6	75	15.9
GH07-104-SRK Comp#8		0.9	92.2	<0.01	0.01	3.6	0.117	0.07	0.9	69	0.28	19.25	75	16
GH07-104-SRK Comp#9		1	97.4	<0.01	0.01	3.6	0.118	0.07	0.9	58	0.49	18.2	89	16.7
GH07-105-SRK Comp#1		1	102	0.01	0.02	4.3	0.152	0.11	1.39	79	570	20.2	79	19
GH07-105-SRK Comp#2		0.8	98.1	<0.01	0.01	3.4	0.102	0.08	0.8	67	3.96	19.45	74	16.3
GH07-105-SRK Comp#3		0.7	97.8	<0.01	0.01	3	0.118	0.06	0.9	78	1.59	20.6	78	15.3
GH07-105-SRK Comp#4		0.8	117	<0.01	0.01	2.9	0.138	0.06	0.85	84	0.29	19.5	83	16.4
GH07-105-SRK Comp#5		0.7	84.2	0.01	0.01	1.7	0.193	0.06	0.45	70	0.6	23.9	107	12.7
GH07-105-SRK Comp#6		0.9	113	<0.01	0.01	2.6	0.116	0.05	0.75	81	0.4	20.2	93	14.7
GH07-105-SRK Comp#8		1	49.8	<0.01	0.01	4.4	0.1	0.05	1.26	60	31.4	14.9	64	18.9
GH07-106-SRK Comp#1		0.3	40.8	0.01	0.02	0.5	0.027	0.03	3.94	11	0.42	21.4	14	1.5
GH07-106-SRK Comp#2		0.8	59.8	<0.01	0.02	3.3	0.132	0.07	0.97	70	0.66	19.6	78	16.5
GH07-106-SRK Comp#3		0.7	82.2	<0.01	0.02	3.8	0.102	0.06	1.15	67	0.53	18.05	71	16.6
GH07-106-SRK Comp#4		0.8	98.7	<0.01	0.02	3.5	0.111	0.06	0.98	73	2.19	18	82	17.7
GH07-106-SRK Comp#5		0.8	117.5	0.01	0.02	3.5	0.101	0.07	0.97	77	0.18	20.8	79	6.8
GH07-106-SRK Comp#6		0.9	118.5	0.01	0.02	2.8	0.199	0.05	1	90	0.43	21.1	82	4.7
GH07-106-SRK Comp#7		0.8	48.1	<0.01	0.02	4.2	0.108	0.06	0.97	56	3.01	12.9	55	15.6

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
Waste Rock (PWZ)																				
019-0200-0220	N.Y	1.84	1.87	8.4		<10	40	0.24	0.24	0.27	2.84	24.4	29.4	129	1.44	7540	4.07	7.27	0.18	0.11
076-0518-0538	D/N	1.11	1.82	161.5		<10	60	0.69	0.09	0.78	0.45	20.3	38.5	122	2.75	3890	9.03	8.19	0.28	0.11
115-0014-0024	TC- Oxidized	0.08	2.61	78.1		<10	200	0.8	0.07	0.78	0.27	37.3	29.7	51	1.42	52.7	5.38	10.25	0.1	0.09
115-0024-0034	TC- Arkose	0.07	2.21	65.1		<10	180	0.61	0.06	1.98	0.14	31.1	20.3	57	1.1	25.4	4.21	7.64	0.08	0.08
115-0041-0054	TC - Cng	0.06	1.9	58.6		<10	200	0.56	0.05	2.78	0.12	24.2	25.8	52	1.3	37.2	5.15	5.72	0.08	0.09
115-0054-0066	TC	0.11	1.67	25.6		<10	240	0.85	0.14	1.8	0.22	24.9	25.1	36	1.9	66	3.98	4.44	0.08	0.08
115-0104-0123	TC - Slst	0.1	1.45	21		10	340	0.65	0.14	2.66	0.25	25.9	22.9	25	1.62	46.5	4.25	3.77	0.08	0.08
115-0142-0163	TC - Arkose	0.21	1.56	46.8		10	500	0.94	0.66	2.43	0.26	30.8	20.5	12	1.38	106.5	3.49	3.73	0.08	0.1
115-0197-0215	TC - Cng	0.13	1.71	21.9		10	490	0.81	0.46	2.81	0.23	22.1	20	37	1.95	49.3	3.99	4.39	0.06	0.07
115-0232-0264	TC - Cng/mdst	0.19	1.69	38.6		10	430	0.65	0.86	3.47	0.23	16.75	23.2	27	1.5	80.3	3.98	4.13	0.06	0.06
11535-14118-1422	Gs	2.47	0.34	42	0.2	<10	20	0.39	1.63	0.26	0.54	5.31	15.4	85	0.77	2060	6.08	0.75	0.13	0.06
11539-3695-3803	Y	1.34	1.13	40.3	0.2	<10	30	0.46	0.33	0.25	0.03	14.25	14.3	102	6.07	2320	4.41	5.59	0.14	0.04
11539-4336-444	Gp	1.18	0.36	45	0.3	<10	10	0.44	0.21	0.23	0.02	14.7	8.6	115	7.07	2320	3.23	1.33	0.09	0.05
3069-0347-0367	D	1.86	2.37	17.7		<10	60	0.74	0.56	0.64	1.79	26.7	28.1	110	4.88	1650	8.05	9.06	0.2	0.14
3080-0394-0419	Y	1.68	1.74	18.4		<10	50	0.42	0.34	0.31	0.71	23.8	21.1	129	4.72	2610	4.7	5.43	0.09	0.06
3105-0198-0208	N	12.75	0.61	913		<10	20	0.35	22	0.08	2.73	16	17.4	104	1.19	7410	7.77	1.71	0.14	0.12
3105-1138-1158	G^c	0.61	0.85	3.4		<10	20	0.29	0.12	1.23	0.95	23.4	6.1	217	1.03	1030	2.12	3.71	0.07	0.09
3106-0236-0258	Y	0.66	1.22	7.5		<10	50	0.43	0.49	0.21	0.43	20.7	24.6	146	2.85	1145	4.64	2.45	0.07	0.09
3114-0196-0213	TC^k - Volc Cng	0.12	2.31	3		<10	320	0.67	0.04	2.67	0.29	32.5	20	121	1.68	44.4	4.1	7.94	0.09	0.2
3114-0266-0283	TC^k - Volc Cng	0.08	2.65	4.1		<10	120	0.64	0.04	2.56	0.2	32.3	21.8	100	1.4	45.5	4.8	9.16	0.09	0.2
3114-0283-0301	TC^k - Volc Cng	0.1	3.3	3.4		<10	230	0.68	0.08	3.47	0.17	31.4	24.9	79	1.88	55.7	6.09	10.6	0.1	0.17
3114-0392-0410	TC^k - Volc Cng	0.23	2.19	8.4		<10	930	0.74	0.15	3.96	0.22	14.35	28.8	67	4.54	163.5	3.7	4.18	0.06	0.02
3114-0410-0427	TC^k - Basalt	0.17	2.24	4		<10	190	0.76	0.06	3.56	0.42	34.5	16.8	81	3.16	246	4.64	6.38	0.09	0.19
3125-0719-0739	D	1.36	2.17	9.9		<10	30	0.45	0.29	2.2	0.42	27.2	25.4	122	8.9	1800	6.72	7.52	0.16	0.1
3128-0298-0323	X.FDM/pxn/p^f	0.72	1.38	3		<10	20	0.36	0.2	0.41	0.9	13.7	22	125	1.45	1625	6.69	4.96	0.1	0.2
3129-0080-0100	TC - And/Volc cng	0.09	2.47	2.8		10	330	0.63	0.05	2.66	0.2	32.6	20	101	2.59	44.6	4.78	7.34	0.09	0.21
3129-0100-0119	TC - And/Volc cng	0.09	2.16	2.2		10	250	0.61	0.05	2.3	0.18	32.7	19.8	102	2.45	33.6	4.16	6.93	0.09	0.15
3129-0234-0253	TC - And/Volc cng	0.06	3.18	14.8		10	320	0.67	0.01	5.15	0.16	32	28.4	49	1.67	28.8	6.32	10.75	0.1	0.27
3129-0253-0272	TC - And/Volc cng	0.09	3.41	15.4		<10	70	0.58	0.04	3.4	0.21	29	30	83	1.62	34.5	5.51	10.85	0.1	0.22
3129-0399-0417	TC - And/Volc cng	0.07	2.89	4		<10	80	0.77	0.06	3.29	0.12	43.2	25.3	91	4.29	118.5	4.91	9.05	0.1	0.18
3129-0417-0435	TC - And/Volc cng	0.07	2.64	5.7		<10	300	0.8	0.04	3.81	0.14	41.8	26.4	114	6.73	139.5	4.44	7.2	0.08	0.1
3129-0453-0470	TC - Volc cng	0.08	2.16	4.4		<10	960	0.89	0.1	3.47	0.17	26	19.6	85	10.9	95.6	4.25	6.41	0.07	0.07
3129-0470-0489	TC - Volc cng	0.08	1.66	4.1		<10	330	0.71	0.09	3.38	0.18	29.2	14.4	79	10.45	58.8	4.36	5.53	0.08	0.13
3135-0198-0218	X2	0.55	1.44	23.3		<10	30	0.31	0.45	0.06	<0.01	17.65	21	144	2.77	2180	4.69	6.79	0.17	0.12
4157-439-471	TF	1.57	0.83	102		10	50	0.71	0.8	1.28	0.07	5.03	11.4	113	1.28	1075	18.6	4.6	0.18	0.33
4232-339-359	Y	1.31	0.91	378	0.8	<10	20	0.8	0.61	0.2	0.39	10.15	34.7	80	2.35	2680	4.52	3.44	0.12	0.07
4232-559-569	Y	1.23	1.14	11.6	<0.2	<10	30	0.54	1.05	0.63	0.03	19.55	20.5	114	1.85	2110	5.52	5.67	0.17	0.09
8404-1647-1661	Y	1.77	0.25	429	0.2	<10	20	0.14	0.85	0.08	0.26	3.27	30	116	0.38	4630	5.19	0.48	0.16	<0.02
ARLB001 (+1/4")	Y	0.35	1.33	11.4	<0.2	<10	50	0.46	0.23	0.27	0.1	15	17.4	91	2.17	551	4.53	4.24	0.1	0.08
ARLB001 (-1/4")	Y	0.68	1.5	30.8	<0.2	<10	40	0.56	0.5	0.37	0.24	14.35	29.4	99	2.33	922	6.42	5.21	0.17	0.08
ARLB002 (+1/4")	Y	0.44	1.44	20	<0.2	<10	40	0.45	0.52	0.27	0.07	11.15	19.8	104	1.77	791	4.55	4.8	0.1	0.07
ARLB002 (-1/4")	Y	1.4	1.38	48.2	<0.2	<10	30	0.5	0.94	0.29	0.45	13.45	24.8	110	1.63	1075	5.98	4.88	0.15	0.06
ARLB003 (+1/4")	G/D/N	0.73	1.14	17.5	<0.2	<10	30	0.54	0.53	0.98	0.07	18.55	30.6	85	2.8	611	5.65	5.1	0.13	0.09
ARLB003 (-1/4")	G/D/N	0.88	1.45	57.6	0.3	<10	50	0.83	0.76	1.2	0.23	22.4	27.2	76	3.39	1090	7.35	5.44	0.17	0.1
ARLB006 (+1/4")	G/D/N	0.48	1.16	17.4	<0.2	<10	40	0.57	0.28	0.96	1.08	22.2	12.6	72	3.02	867	4.17	5.17	0.11	0.07
ARLB006 (-1/4")	G/D/N	1.27	1.56	35.7	<0.2	<10	60	0.76	0.75	0.99	0.16	27.7	23.5	70	3.17	873	5.91	6.07	0.15	0.12
ARLB007 (+1/4")	TC/TF/TX	0.07	2.79	23.8	<0.2	<10	210	0.81	0.11	4.28	0.11	29.1	24.4	36	1.37	34.6	5.73	8.82	0.09	0.03
ARLB007 (-1/4")	TC/TF/TX	0.1	2.18	59.3	<0.2	<10	260	0.82	0.14	3.44	0.14	28.3	27.7	47	1.57	46.2	5.16	6.67	0.09	0.03
ARLB008 (+1/4")	TC/TF/TX	0.07	2.44	16.5	<0.2	<10	180	0.76	0.12	3.4	0.12	27	22	41	1.37	41.5	5.21	7.2	0.09	0.03
ARLB008 (-1/4")	TC/TF/TX	0.11	2.28	31.9	<0.2	<10	250	0.92	0.23	2.93	0.19	30	23	40	1.5	45	5.05	6.25	0.09	0.03
I/P (+1/4")		1.48	1.16	69.8	0.5	<10	30	0.51	0.48	0.65	0.28	17.55	25.3	94	2.96	2330	6.2	3.47	0.07	0.05
I/P (-1/4")		1.77	1.15	72.4	0.6	<10	40	0.54	2.9	0.57	1.11	11.25	34.4	68	2.61	2250	7.84	3.28	0.07	0.04

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
Waste Rock (PWZ)																				
019-0200-0220	N.Y	0.03	0.007	0.9	12.8	6	1.08	160	673	0.02	0.11	33.5	1060	1.6	69.8	2.04	2.79	0.43	13.1	13.8
076-0518-0538	D/N	0.1	0.02	1.51	10.2	9.5	2.02	539	101.5	0.06	0.39	22.9	1880	1.9	102	0.22	0.16	2.86	18.1	6.7
115-0014-0024	TC- Oxidized	0.05	0.05	0.11	22.7	11.2	0.58	1020	3.49	0.02	<0.05	26.3	1100	8.7	13.9	0.001	0.03	0.23	13.6	1.1
115-0024-0034	TC- Arkose	0.08	0.042	0.12	14.8	13.4	0.84	834	3.28	0.02	<0.05	17.8	930	8.2	6.6	0.004	0.35	0.18	10.9	0.5
115-0041-0054	TC - Cng	0.06	0.041	0.1	11	7.7	1.15	956	1.6	0.03	<0.05	23.5	770	7.4	5.8	0.001	1.19	0.17	11	0.3
115-0054-0066	TC	0.15	0.046	0.13	9.9	5.6	1.03	808	2.91	0.05	<0.05	21.2	850	9.2	7.7	0.002	0.22	0.41	9.9	0.6
115-0104-0123	TC - Slst	0.2	0.051	0.11	10.4	5.4	1.03	913	1.62	0.12	<0.05	18.6	810	9.1	6.7	0.001	0.1	0.38	9.6	0.7
115-0142-0163	TC - Arkose	0.24	0.066	0.08	12.2	5	0.61	662	1.79	0.22	<0.05	8.9	890	16.4	4.4	0.002	0.62	0.48	8.8	2.3
115-0197-0215	TC - Cng	0.13	0.06	0.12	8.5	6.7	1.12	823	2.24	0.2	<0.05	19.9	760	12.1	6.9	0.003	0.21	0.53	10.2	0.9
115-0232-0264	TC - Cng/mdst	0.07	0.075	0.15	7.3	5.6	1.22	821	2.04	0.19	<0.05	17	890	13.8	6.7	0.001	0.35	0.35	10.7	1.4
11535-14118-1422	Gs	0.42	0.034	0.27	2.5	0.3	0.06	46	35.4	0.01	0.2	10.7	890	24.3	8.1	0.09	7.26	4.1	0.8	16
11539-3695-3803	Y	0.25	0.02	0.83	5.6	4.3	0.83	510	70.9	0.02	0.3	27.5	810	2.3	48.4	0.14	2.35	2.25	13.6	5
11539-4336-444	Gp	0.13	0.019	0.23	6.8	1.1	0.15	454	109.5	0.01	0.19	5.9	670	2.5	12.8	0.214	2.36	0.83	2.1	5
3069-0347-0367	D	0.07	0.051	1.59	12	5.8	1.61	1640	32.4	0.01	0.23	23	1880	120	92.25	0.087	4.79	0.79	13.4	9.2
3080-0394-0419	Y	0.04	0.03	1.05	10.6	4.9	0.96	939	79.5	0.03	0.1	38.1	1220	6.7	66.5	0.189	2.54	2.25	9.4	5.1
3105-0198-0208	N	1.08	0.119	0.29	7.8	2.4	0.08	18	139	0.02	0.07	7.8	1120	77.3	12.4	0.387	8.66	192.5	3.1	17
3105-1138-1158	G^c	0.01	0.016	0.31	12.4	4.9	0.48	232	282	0.09	0.19	5.7	760	16.8	18.4	0.461	0.87	0.82	4.3	3.8
3106-0236-0258	Y	0.01	0.012	0.77	9.2	4	0.53	739	37.8	0.01	0.07	38.1	880	3.7	40	0.086	3.37	0.45	2.7	5.1
3114-0196-0213	TC^k - Volc Cng	0.02	0.04	0.19	16	25.4	1.42	1380	1.43	0.11	<0.05	30.3	920	5.1	17.4	<0.001	0.01	0.3	13.4	0.3
3114-0266-0283	TC^k - Volc Cng	0.01	0.039	0.18	15	31.4	1.66	968	1.18	0.08	<0.05	26.7	970	5	10.4	0.001	0.02	0.41	11.2	0.4
3114-0283-0301	TC^k - Volc Cng	<0.01	0.049	0.18	14.6	32.7	2.04	981	0.88	0.11	<0.05	17.2	950	4.7	9.3	0.001	0.02	0.28	14.5	0.5
3114-0392-0410	TC^k - Volc Cng	0.03	0.04	0.44	5.4	15.5	0.95	1050	2.56	0.06	<0.05	24.4	5200	7.7	18.2	0.01	0.3	0.08	13.3	0.9
3114-0410-0427	TC^k - Basalt	<0.01	0.047	0.25	15.8	19	0.89	1080	16.95	0.1	<0.05	13.5	2420	7.9	13	0.026	0.12	0.41	15	0.6
3125-0719-0739	D	<0.01	0.047	1.28	12.1	8.5	1.93	1000	38.2	0.06	0.14	24.9	1830	2.6	77.4	0.081	2.53	0.17	16.7	5.5
3128-0298-0323	X.FDM/pxn/p^f	0.01	0.019	0.71	8.5	5.5	0.84	496	129	0.02	0.14	14.6	920	10	48.3	0.268	2.66	0.35	7.4	5.7
3129-0080-0100	TC - And/Volc cng	0.02	0.043	0.24	14.6	15.5	1.24	1095	1.42	0.09	<0.05	26	820	4.8	19.4	<0.001	0.03	0.14	12.1	0.4
3129-0100-0119	TC - And/Volc cng	0.02	0.038	0.2	15	17.4	1.24	921	1.14	0.1	<0.05	29.6	880	4.2	17.7	<0.001	0.01	0.1	11.2	0.4
3129-0234-0253	TC - And/Volc cng	<0.01	0.058	0.12	14	34	2.06	1495	1.08	0.15	<0.05	7.5	1020	4.2	7.5	0.001	0.04	0.28	18.7	0.4
3129-0253-0272	TC - And/Volc cng	0.07	0.049	0.19	13.4	28.6	2.22	1235	1.57	0.13	<0.05	15.2	890	5.7	12	0.001	0.11	0.52	14.8	0.4
3129-0399-0417	TC - And/Volc cng	<0.01	0.046	0.16	20.4	23.7	1.55	780	1.83	0.07	<0.05	27	990	5.3	11.3	0.002	0.02	0.2	12.8	0.4
3129-0417-0435	TC - And/Volc cng	0.01	0.04	0.24	14.3	18.1	1.42	905	1.54	0.06	<0.05	39.2	950	5.8	15.7	0.002	0.03	0.1	14.8	0.3
3129-0453-0470	TC - Volc cng	0.01	0.04	0.33	11.8	10.2	1.42	801	1.49	0.04	<0.05	28.7	590	5	29.7	0.001	0.03	0.08	11.8	0.3
3129-0470-0489	TC - Volc cng	0.06	0.037	0.33	14	6.4	1.16	1185	1.78	0.03	<0.05	19	1020	6.2	26.3	0.001	0.03	0.23	12	0.5
3135-0198-0218	X2	0.01	0.014	0.76	8.7	3.3	0.62	56	18.7	0.03	0.1	14.5	500	2.5	52	0.034	4.54	0.47	8.4	9.8
4157-439-471	TF	0.07	0.081	0.31	2.3	4.2	1.06	358	7.07	0.02	0.11	12.2	3810	20.4	13.3	0.006	3.43	1.13	7.8	10.7
4232-339-359	Y	0.43	0.026	0.52	4.2	3	0.37	103	73.4	0.01	0.22	51.3	980	12.8	31.1	0.146	4.65	7.06	7.8	6.2
4232-559-569	Y	0.03	0.036	0.71	8.2	4.9	0.9	332	81.7	0.03	0.26	33.4	1090	5.2	45.7	0.167	4.78	0.54	14.1	9.8
8404-1647-1661	Y	0.08	0.026	0.19	1.5	0.2	0.02	12	276	0.01	0.19	38.3	280	12.6	3.8	1.295	6.4	0.34	1.1	23
ARLB001 (+1/4")	Y	0.03	0.007	0.75	7	7.7	0.78	167	69.1	0.03	0.05	31.9	960	6.1	42.7	0.158	4.18	0.65	7	8.2
ARLB001 (-1/4")	Y	0.06	0.011	0.74	6.6	8.1	0.9	144	71.3	0.02	0.09	41.4	1110	15	47.6	0.168	6.23	1.19	9.2	17.4
ARLB002 (+1/4")	Y	0.02	0.009	0.81	5	8	0.92	155	66.8	0.02	0.06	35	760	4.8	47.8	0.15	4.09	1.63	8.3	8
ARLB002 (-1/4")	Y	0.07	0.011	0.71	6.3	7.9	0.81	175	105.5	0.02	0.09	39.9	860	63.9	45.2	0.233	5.63	5.14	8.9	14.3
ARLB003 (+1/4")	G/D/N	0.01	0.023	0.52	8.9	5.6	0.79	354	50.4	0.03	0.19	14.4	1150	8.1	29.2	0.094	3.82	0.46	7.5	11.7
ARLB003 (-1/4")	G/D/N	0.04	0.032	0.62	10.5	6.9	0.88	451	69.7	0.03	0.18	16.3	1460	11.7	34	0.119	6.04	1.11	8.7	16
ARLB006 (+1/4")	G/D/N	<0.01	0.042	0.57	10.5	5.6	0.91	470	58.4	0.03	0.12	11.1	1280	3.1	33.7	0.085	2.08	0.5	10.6	6.3
ARLB006 (-1/4")	G/D/N	0.04	0.044	0.51	12.9	7.6	0.84	390	48	0.04	0.1	13.7	1360	13	28	0.058	3.6	0.69	9.4	12
ARLB007 (+1/4")	TC/TF/TX	0.03	0.049	0.13	12.9	14.6	1.75	1095	1.28	0.15	<0.05	14	1050	8.2	6.4	0.001	0.24	0.08	12.6	0.7
ARLB007 (-1/4")	TC/TF/TX	0.06	0.052	0.16	12.3	12.5	1.15	1015	2.48	0.16	0.05	20.2	940	11.2	7.7	0.002	0.77	0.14	12.7	0.9
ARLB008 (+1/4")	TC/TF/TX	0.04	0.053	0.14	11.9	15.3	1.31	1035	2	0.15	<0.05	15.9	990	7.8	6.9	0.001	0.13	0.08	12.7	0.7
ARLB008 (-1/4")	TC/TF/TX	0.07	0.064	0.15	12.8	13.4	1.29	1050	2.21	0.2	<0.05	16.9	970	10.9	7.1	0.001	0.24	0.1	13.4	0.9
I/P (+1/4")		0.1	0.045	0.63	8.1	6.2	0.86	820	58.4	0.01	1.35	18.7	1670	4.9	29.4	0.084	5.13	1.04	5.1	9.5
I/P (-1/4")		0.05	0.047	0.57	4.6	6.8	0.86	910	36.4	0.01	0.06	26.2	1750	13.7	28	0.064	7.38	0.79	5.1	13.6

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
Waste Rock (PWZ)														
019-0200-0220	N.Y	<0.2	69.4	0.01	0.09	2.4	0.142	0.37	0.82	168	0.42	20.3	39	2.2
076-0518-0538	D/N	0.8	60.6	<0.01	0.21	1.1	0.257	1.04	0.61	316	1.03	16.75	51	3.1
115-0014-0024	TC- Oxidized	0.8	79.5	0.01	0.04	2.3	<0.005	0.26	0.48	104	0.06	18.75	106	1.3
115-0024-0034	TC- Arkose	0.9	123.5	<0.01	0.01	3.2	<0.005	0.16	0.6	80	<0.05	13.5	136	1.5
115-0041-0054	TC - Cng	0.7	226	<0.01	0.01	2.2	<0.005	0.15	0.45	72	<0.05	12.9	78	1.8
115-0054-0066	TC	0.7	283	0.01	0.02	2.9	<0.005	0.18	0.74	62	0.08	16.8	92	2
115-0104-0123	TC - Slst	0.6	377	<0.01	0.02	2.6	<0.005	0.16	0.63	60	0.11	16.5	97	1.9
115-0142-0163	TC - Arkose	0.7	487	<0.01	0.3	3.7	<0.005	0.59	0.94	47	0.19	18.75	84	2.2
115-0197-0215	TC - Cng	0.7	341	0.01	0.07	4.1	<0.005	0.25	1.18	57	1.05	16.6	93	2.3
115-0232-0264	TC - Cng/mdst	0.6	308	<0.01	0.43	3	<0.005	0.24	0.82	56	0.09	14.5	118	1.6
11535-14118-1422	Gs	0.2	26.3	<0.01	2.4	0.8	<0.005	0.48	0.39	7	0.35	4.17	206	1.5
11539-3695-3803	Y	0.5	12.2	<0.01	0.54	2	0.098	0.64	0.48	104	0.57	8.64	21	0.7
11539-4336-444	Gp	<0.2	15.7	<0.01	0.43	1.4	<0.005	0.2	0.5	19	1.03	5.92	19	1.2
3069-0347-0367	D	1.1	33.9	0.01	2.22	1.5	0.188	1.08	0.58	145	0.64	12.8	317	3
3080-0394-0419	Y	0.5	7.5	<0.01	0.81	2.2	0.113	0.57	0.58	139	0.3	8.29	100	1.2
3105-0198-0208	N	2	18.6	<0.01	10.4	1.8	0.007	0.34	1.08	104	0.5	5.94	355	4.6
3105-1138-1158	G^c	0.4	92.6	<0.01	0.24	3	0.033	0.08	0.89	61	1.92	13.45	59	1.4
3106-0236-0258	Y	0.3	4.8	<0.01	0.65	2.1	0.037	0.34	0.39	41	0.45	6.39	60	2
3114-0196-0213	TC^k - Volc Cng	0.8	281	<0.01	<0.01	3	0.027	0.06	0.64	93	0.15	15.3	102	5
3114-0266-0283	TC^k - Volc Cng	0.8	248	0.01	<0.01	2.7	0.031	0.05	0.65	105	0.08	16.25	105	4.1
3114-0283-0301	TC^k - Volc Cng	0.9	364	0.01	0.01	2.1	0.043	0.04	0.47	138	<0.05	16.4	114	3.4
3114-0392-0410	TC^k - Volc Cng	0.6	433	<0.01	0.08	2.3	0.009	0.41	1.06	84	0.1	13.15	114	1.1
3114-0410-0427	TC^k - Basalt	0.8	329	0.01	0.03	3.6	0.029	0.09	0.81	106	0.08	26	158	4.4
3125-0719-0739	D	0.6	78	<0.01	0.23	1.2	0.149	0.45	0.26	266	0.92	11.8	56	1.4
3128-0298-0323	X.FDM/pxn/p^f	0.5	23	<0.01	0.27	1.5	0.079	0.24	0.64	135	0.33	8.53	36	4.8
3129-0080-0100	TC - And/Volc cng	0.9	312	0.01	<0.01	3.2	0.02	0.08	1.1	92	<0.05	17	112	3.9
3129-0100-0119	TC - And/Volc cng	0.8	249	<0.01	<0.01	3.2	0.014	0.07	0.7	80	<0.05	14.4	92	3.2
3129-0234-0253	TC - And/Volc cng	1	402	0.01	<0.01	1.8	0.066	0.2	0.51	186	<0.05	25.5	100	5.4
3129-0253-0272	TC - And/Volc cng	0.8	334	0.01	0.02	1.9	0.032	0.22	1.16	144	0.08	18.7	91	4.8
3129-0399-0417	TC - And/Volc cng	1.2	287	0.01	<0.01	3.5	0.026	0.09	0.9	103	0.06	17.35	128	4.3
3129-0417-0435	TC - And/Volc cng	0.7	339	0.01	<0.01	2.8	0.007	0.22	1	92	<0.05	16.6	86	2
3129-0453-0470	TC - Volc cng	0.8	327	<0.01	<0.01	3.1	0.005	0.21	0.86	67	<0.05	13	87	1.7
3129-0470-0489	TC - Volc cng	0.9	248	0.01	0.02	3.2	0.009	0.18	1.17	77	0.05	14.65	75	3.2
3135-0198-0218	X2	0.6	16.1	<0.01	0.79	1.3	0.066	0.6	0.79	109	0.3	5.13	6	4.5
4157-439-471	TF	1.1	172	<0.01	2.03	2.4	0.009	0.99	0.68	148	0.46	5.56	39	16.5
4232-339-359	Y	0.4	215	<0.01	1.7	1.5	0.038	2.37	0.67	59	1.54	8.62	164	1.9
4232-559-569	Y	0.6	23.7	<0.01	1.05	2	0.089	0.44	0.53	117	0.38	11.05	26	2.1
8404-1647-1661	Y	0.6	24.3	<0.01	2.58	0.4	<0.005	0.21	0.11	11	0.67	1.54	41	<0.5
ARLB001 (+1/4")	Y	0.4	22	<0.01	0.36	2.2	0.061	0.44	0.53	86	0.37	6.83	26	3.3
ARLB001 (-1/4")	Y	0.9	32.6	<0.01	0.63	2	0.067	0.59	0.78	105	1.04	9.95	45	2.8
ARLB002 (+1/4")	Y	0.4	19.4	<0.01	0.56	1.9	0.08	0.5	0.51	103	0.47	6.35	15	2.5
ARLB002 (-1/4")	Y	0.5	29.1	<0.01	0.74	1.9	0.071	0.55	0.77	108	2.03	7.63	74	2.4
ARLB003 (+1/4")	G/D/N	0.5	58.9	<0.01	0.51	1.6	0.069	0.38	0.69	108	0.7	9.81	35	2.6
ARLB003 (-1/4")	G/D/N	0.7	95.8	<0.01	0.87	1.8	0.06	0.81	0.92	100	1.35	13.1	90	2.8
ARLB006 (+1/4")	G/D/N	0.6	64.7	<0.01	0.18	1.8	0.064	0.39	0.59	114	0.63	10.3	169	1.9
ARLB006 (-1/4")	G/D/N	0.8	137	<0.01	0.67	2.8	0.028	0.56	1.02	106	2.18	11.85	68	3.9
ARLB007 (+1/4")	TC/TF/TX	0.6	410	<0.01	0.01	2.3	<0.005	0.09	0.45	95	<0.05	17.3	93	0.9
ARLB007 (-1/4")	TC/TF/TX	0.9	400	<0.01	0.03	2.7	<0.005	0.17	0.55	69	0.05	16.2	90	0.8
ARLB008 (+1/4")	TC/TF/TX	0.6	358	<0.01	0.03	2.1	<0.005	0.1	0.48	87	<0.05	16.3	86	0.7
ARLB008 (-1/4")	TC/TF/TX	1	425	<0.01	0.04	3	<0.005	0.17	0.75	72	<0.05	18	113	0.5
I/P (+1/4")		0.5	49.6	<0.01	0.7	2.7	0.042	0.53	0.44	65	0.55	7.79	74	1.4
I/P (-1/4")		0.5	27.3	<0.01	0.81	1.3	0.032	0.66	0.46	60	0.76	8.81	207	1.4

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
11486-001 AT Comp -10 m		2.35	0.62	33.1	0.2	<10	20	0.26	1.04	0.3	0.14	12.3	13.1	138	1.55	7350	2.71	2.42	0.09	0.03

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
Waste Rock (PEZ+PWZ)																				
ARLB004 (+1/4")	TW	0.08	3.36	18.8	<0.2	<10	90	0.71	0.37	3.64	0.13	21.5	21.6	65	1.45	31.2	5.67	10	0.09	0.11
ARLB004 (-1/4")	TW	0.11	2.57	36.1	<0.2	<10	260	0.89	0.32	2.69	0.18	23.9	20.2	55	1.92	47.1	4.47	7.01	0.08	0.04
ARLB005 (+1/4")	TY	0.11	3.25	28.4	<0.2	<10	60	0.79	0.91	2.48	0.19	22.4	22.7	51	2.8	43.7	5.48	9.74	0.1	0.24
ARLB005 (-1/4")	TY	0.16	2.75	47	<0.2	<10	130	0.83	0.97	2.85	0.25	24.4	22.5	42	2.39	62.1	4.8	7.73	0.09	0.12
ARLB009 (+1/4")	TD	0.05	2.04	1.7	<0.2	<10	100	0.41	0.16	2.35	0.18	21.9	10.3	69	2.11	16.3	3.17	6.88	0.07	0.08
ARLB009 (-1/4")	TD	0.12	2.43	8	<0.2	<10	170	0.52	0.21	2.15	0.22	23	11.3	108	2.42	106	3.45	7.63	0.07	0.09
NCK (+1/4")		0.98	1.49	8.3	0.2	<10	50	0.46	0.3	1.01	0.1	18.55	16.4	100	3.25	2550	3.87	6.71	0.08	0.03
NCK (-1/4")		1.45	1.4	20.9	0.2	<10	60	0.52	0.78	0.93	0.3	21.4	20.5	93	2.63	3160	4.2	5.6	0.08	0.04

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
11486-001 AT Comp -10 m		0.02	0.069	0.28	5.3	7.4	0.31	76	347	0.03	0.09	14.9	260	17.8	13.4	0.695	2.56	0.98	2.7	17.2

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
Waste Rock (PEZ+PWZ)																				
ARLB004 (+1/4")	TW	0.03	0.05	0.1	8.9	34.3	2.18	1040	2.36	0.07	0.08	18.3	690	11.7	4.7	0.001	0.26	0.3	12.1	1
ARLB004 (-1/4")	TW	0.1	0.052	0.13	9.8	22.6	1.34	747	3.2	0.13	0.05	21	730	14.2	6.3	0.002	0.23	0.28	9.5	0.9
ARLB005 (+1/4")	TY	<0.01	0.062	0.13	8.9	31	1.49	1005	3.9	0.08	0.22	18	930	16.2	6.4	0.001	0.19	0.57	9.4	1.1
ARLB005 (-1/4")	TY	0.03	0.063	0.13	9.8	23.4	1.21	900	3.87	0.06	0.11	18.7	960	19.8	6.4	0.003	0.58	0.52	9.4	1.4
ARLB009 (+1/4")	TD	<0.01	0.028	0.13	9.5	23.3	0.76	870	3.58	0.07	0.33	4.7	790	10.3	6	<0.001	0.08	0.11	4.9	0.5
ARLB009 (-1/4")	TD	<0.01	0.035	0.16	9.9	21.4	0.84	1060	5.81	0.1	0.36	14	790	31.1	7.2	0.002	0.19	0.36	5.6	0.7
NCK (+1/4")		0.03	0.026	1.05	8.8	8.5	1.43	313	98.9	0.04	0.27	28.5	1190	3	57.6	0.118	2.3	0.2	15.4	5.2
NCK (-1/4")		0.04	0.029	0.85	10.4	7.4	1.24	286	95.8	0.05	0.09	30.2	1250	7.6	42.2	0.154	3.1	0.28	10.7	6.5

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
11486-001 AT Comp -10 m		0.7	65.9	<0.01	0.54	1.3	0.019	0.3	0.22	63	1.09	5.64	234	0.6

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
Waste Rock (PEZ+PWZ)														
ARLB004 (+1/4")	TW	0.9	196.5	<0.01	0.05	2.4	0.048	0.13	0.66	98	0.09	12.4	93	3.4
ARLB004 (-1/4")	TW	1	280	<0.01	0.05	3.1	0.005	0.26	0.78	68	0.05	13.2	90	1.5
ARLB005 (+1/4")	TY	0.9	113	0.01	0.08	2.5	0.161	0.17	0.76	90	0.29	13.85	98	7.1
ARLB005 (-1/4")	TY	1	277	<0.01	0.09	2.8	0.048	0.21	0.85	72	0.14	14.95	100	3.5
ARLB009 (+1/4")	TD	0.3	119	0.01	0.01	0.9	0.041	0.04	0.25	41	0.13	10.2	81	2.1
ARLB009 (-1/4")	TD	24.9	131.5	0.01	0.1	1.7	0.05	0.07	0.39	46	0.23	11.45	111	3
NCK (+1/4")		0.6	131.5	<0.01	0.28	1.9	0.147	0.49	0.32	167	0.33	9.71	41	1
NCK (-1/4")		0.6	127.5	<0.01	0.44	1.5	0.094	0.47	0.3	142	0.74	9.49	82	1.1

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
Tailings																				
11486-003 bulk	G+Y	0.29	0.64	5.5	<0.2	<10	30	0.25	0.26	0.34	0.09	13.45	3	45	1.47	435	0.85	2.57	<0.05	0.02
11486-003 OF	G+Y	0.55	0.73	12.6	<0.2	<10	30	0.33	1.98	0.35	0.13	18.15	5.1	48	2.15	483	1.2	3.19	<0.05	0.02
11486-003 UF	G+Y	0.26	0.47	12.2	<0.2	<10	20	0.19	0.5	0.25	0.15	9.89	3.3	78	0.88	532	0.67	1.89	<0.05	0.02
KS-LCT1		0.25	0.96	16	<0.2	<10	20	0.37	0.22	0.42	0.06	18	4.1	54	2.1	568	1.19	4.17	<0.05	0.03
LCT 100		0.25	0.68	5.8	<0.2	<10	20	0.17	0.18	0.35	0.06	11.7	4.2	48	2.13	982	0.74	2.75	<0.05	<0.02
LCT 50		0.37	0.29	3.2	<0.2	<10	20	0.18	0.1	0.12	0.1	4.97	3.2	78	1.39	769	0.39	0.78	<0.05	<0.02
LCT 54		0.24	0.56	99.9	<0.2	<10	20	0.33	0.27	0.53	0.05	16.9	2.6	62	1.19	688	0.65	1.76	<0.05	0.03
LCT 58		0.28	0.8	2	<0.2	<10	70	0.32	0.15	0.15	0.1	7.13	2.5	52	1.66	653	0.76	3.01	<0.05	0.02
LCT 65		0.21	0.22	17.4	<0.2	<10	100	0.1	0.57	0.12	0.09	3.1	12.9	35	0.25	1430	1.57	0.44	<0.05	<0.02
LCT 78		0.59	0.27	28	<0.2	<10	90	0.08	0.23	0.12	0.05	9.02	2.5	36	0.31	1395	0.55	0.81	<0.05	<0.02
LCT 83		0.57	0.61	161	<0.2	<10	50	0.34	1.63	0.22	0.83	18.45	3.1	46	3	532	0.97	2.5	<0.05	0.02
LCT 98		0.22	0.48	0.8	<0.2	<10	10	0.21	0.42	0.4	0.04	6.34	1.2	88	1.11	175.5	0.5	2.96	<0.05	0.02
PP08-3365	Y	0.57	0.93	7.4	<0.2	<10	20	0.24	0.26	0.28	0.12	16.1	4.8	33	2.46	967	1.32	4.21	0.06	0.02
PP08-3607	Y	0.75	1.1	9.1	<0.2	<10	20	0.29	0.76	0.3	0.11	19.75	5.1	38	2.92	788	1.44	5.19	0.06	0.02
PP08-3610	G	0.44	0.48	6.4	<0.2	<10	30	0.23	0.82	0.35	0.09	11.25	3.5	11	1.64	308	0.85	2.01	<0.05	0.02
PP08-3614	G	0.3	0.33	4.2	<0.2	<10	20	0.2	0.28	0.29	0.08	7.97	2.5	6	1.22	323	0.59	1.39	<0.05	0.02
PP08-3849	G	0.23	0.44	4.2	<0.2	<10	30	0.18	0.76	0.27	0.1	7.22	2.2	141	0.84	414	0.57	1.64	<0.05	0.02
PP08-3850	Y	0.45	0.96	9	<0.2	<10	20	0.26	0.41	0.25	0.1	15.4	5.3	108	1.75	1040	1.18	4.6	0.05	0.03
11840-003 bulk cleaner		1.05	1.42	46.4	<0.2	<10	40	0.64	0.7	0.85	0.31	30.7	8.2	43	4.91	1180	3.07	6.68	0.09	0.07
11840-003 bulk float		0.33	1.29	12.6	<0.2	<10	50	0.56	0.2	1.1	0.13	28.7	4.4	53	4.02	312	2.8	5.53	0.09	0.06
11840-003 Phase II OF		0.28	1.44	8.8	<0.2	<10	50	0.56	0.44	1.07	0.1	29.1	4	46	4.28	142	2.65	6.03	0.06	0.07
11840-003 Phase II Sands		0.29	0.97	15.9	<0.2	<10	40	0.34	0.25	0.8	0.16	17.7	3.4	71	2.51	476	2.15	4.47	0.06	0.06
11840-003 pyrite		1.46	1.27	63.2	0.2	<10	40	0.53	1.03	1.06	0.19	31.2	12.7	130	4.06	506	3.97	5.26	0.1	0.08
1st Bulk Cl, Sc, TLS F66		0.66	0.78	14.9		<10	20	0.44	0.27	0.67	0.24	27.7	4	273	2.1	995	1.05	2.12	<0.05	0.06
1st Bulk Cl, Sc, TLS F67		0.68	0.86	14.9		<10	30	0.61	0.22	0.74	0.28	25.3	4.2	276	3.57	693	1.22	2.27	<0.05	0.05
1st Bulk Cl, Sc, TLS F68		0.76	1.52	11.8		<10	40	0.47	0.22	0.57	0.08	29.8	7.1	271	2.72	461	2.22	6.58	0.09	0.07
1st Bulk Cl, Sc, TLS F69		0.69	1.4	12		<10	50	0.52	0.13	0.5	0.13	36.3	8.4	196	2.55	632	4.12	7.24	0.13	0.11
1st Cleaner Scav Tails		4.09	0.94	86.2	1.2	<10	30	0.44	3.04	0.74	1.61	16.25	107	138	3.31	2610	15.85	3.39	0.4	0.06
Combined Rougher Tails		0.54	1.27	8.8	<0.2	<10	50	0.69	0.36	0.67	0.2	24.6	6.7	32	3.32	606	2.79	5.26	0.11	0.06
Gold Plant Tails		3.22	0.56	177.5	<0.2	<10	20	0.28	5.14	0.58	2.76	8.31	203	99	1.42	1550	29.1	2.47	0.81	0.49
IP-LCT1		0.59	1.36	29.9	<0.2	<10	60	0.56	0.32	0.44	0.39	19.5	3.3	60	3.34	686	2.58	5.21	0.07	0.07
Knelson TLS F66		0.39	0.62	12		<10	20	0.29	0.14	0.45	0.07	18.55	2.4	160	1.34	652	0.81	1.7	<0.05	0.05
Knelson TLS F67		0.51	0.66	13.7		<10	20	0.43	0.13	0.53	0.18	18.35	2.7	166	2.75	564	0.99	1.69	<0.05	0.05
Knelson TLS F68		0.38	1.26	11.3		<10	30	0.34	0.12	0.47	0.03	24.8	5.2	163	1.99	338	1.86	5.37	0.08	0.05
Knelson TLS F69		0.37	1.12	9		<10	50	0.4	0.08	0.42	0.06	26.9	6.1	135	1.79	403	3.64	5.61	0.1	0.1
LCT 1		0.63	1.11	8.4	<0.2	<10	40	0.43	0.21	0.33	0.51	22.1	5.2	58	1.86	1290	1.97	4.47	0.07	0.07
LCT 11		0.35	1.68	25.6	<0.2	<10	40	0.64	0.3	0.51	0.15	29	3.2	65	2.98	508	1.8	6.41	0.08	0.05
LCT 13		0.33	0.37	44.7	<0.2	<10	20	0.41	0.19	0.23	0.15	10.75	38	74	4.72	313	1.38	1.2	<0.05	0.04
LCT 2		0.81	1.16	8.8	<0.2	<10	30	0.45	0.36	0.28	0.15	22.6	4.7	66	1.95	1130	2.38	5.18	0.1	0.06
LCT 68		0.19	0.96	61.2	<0.2	<10	20	0.54	0.08	0.59	0.11	15.45	3	37	1.6	402	0.78	4.02	<0.05	0.04
LCT 70		0.38	2.07	99.8	0.2	<10	30	0.76	0.11	0.54	0.11	29.5	6.2	91	3.65	404	4.82	9.28	0.19	0.1
LCT 71		0.39	0.72	19.3	<0.2	<10	20	0.39	0.39	0.4	0.07	16.95	1.8	43	3.26	387	1.6	2.85	<0.05	0.06
LCT 79		0.32	1.63	14.5	<0.2	<10	50	0.54	0.09	2.06	0.1	24.9	5.7	49	6.08	388	3.46	6.92	0.13	0.11
LCT 82		0.32	0.77	16.6	<0.2	<10	20	0.27	0.35	0.42	0.06	14	1.7	43	0.97	321	1.87	3.28	0.05	0.1
LCT 86		0.39	1.62	4.7	<0.2	<10	40	0.32	0.18	1.11	0.06	22.8	5	78	1.81	404	2.75	6.71	0.09	0.12
LCT 87		0.36	0.98	10.2	<0.2	<10	60	0.42	0.07	0.29	0.09	52.9	4.9	65	1.32	545	3.39	5.87	0.18	0.11
LT C1 Combined Pre-Cleaner Tailings		2.17	1.9	50.8		<10	50	0.61	1.64	0.67	0.17	33.6	28.4	451	3.37	1560	4.9	7.04	0.16	0.11
LT C1 Combined Rougher Tailings		0.47	1.46	14.8		<10	40	0.38	0.37	0.56	0.06	23.7	4.3	112	2.24	380	2.33	5.52	0.08	0.08
LT C2 Combined Pre-Cleaner Tailings		2.04	1.91	45.9		<10	50	0.71	1.26	0.95	0.4	38.7	33.6	670	3.03	2050	6.62	7.35	0.16	0.15
LT C2 Combined Rougher Tailings		0.28	1.33	8.8		<10	40	0.46	0.15	0.69	0.13	25.9	5.3	87	2.15	288	3.24	5.42	0.1	0.1
LT C3 Combined Pre-Cleaner Tailings		2.12	1.48	168.5		<10	40	0.59	1.11	0.58	0.24	25.3	45.9	748	4.29	1585	7.15	6.04	0.16	0.11
LT C3 Combined Rougher Tailings		0.26	1.2	27.2		<10	40	0.43	0.14	0.62	0.09	20	4	85	3.12	241	2.66	4.88	0.08	0.08

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
Tailings																				
11486-003 bulk	G+Y	0.01	0.009	0.28	6.8	7.8	0.37	116	36.8	0.01	0.12	9.3	290	3.6	15.1	0.058	0.11	0.53	3.1	0.8
11486-003 OF	G+Y	0.06	0.017	0.31	9.1	9.5	0.44	133	34.5	0.01	0.17	13.6	310	13.5	18.6	0.06	0.17	0.55	3.8	1.4
11486-003 UF	G+Y	0.01	0.01	0.23	4.9	5.3	0.24	84	78.6	0.01	0.11	7.1	230	6.5	11.8	0.133	0.19	0.35	2.2	1.1
KS-LCT1		0.09	0.01	0.53	8.6	12.8	0.76	104	32.3	0.02	0.08	14.4	620	2	27.4	0.044	0.18	0.38	7	0.9
LCT 100		0.03	0.017	0.47	5.3	12.6	0.44	63	15.65	0.02	0.09	13.3	270	2.9	21	0.026	0.29	0.27	5.1	1.3
LCT 50		0.11	0.015	0.21	2.3	0.9	0.02	23	14	0.01	<0.05	5.4	190	5.8	5.1	0.027	0.22	0.21	1.2	1.2
LCT 54		0.04	0.006	0.38	8.5	4.3	0.34	66	26.4	0.01	<0.05	6.7	780	1.2	15.2	0.025	0.15	0.86	3.9	1.3
LCT 58		0.04	0.009	0.51	3.6	8.3	0.53	70	31.4	0.01	0.07	10.9	420	5.6	21.4	0.066	0.22	0.26	5.5	1.1
LCT 65		0.1	0.016	0.11	1.5	1.4	0.02	18	90.9	0.01	<0.05	12.1	140	2.8	3.1	0.205	1.41	0.26	1.1	5.5
LCT 78		0.06	0.02	0.21	4.7	0.5	0.11	23	41.7	0.02	<0.05	5.1	460	5.6	7.2	0.095	0.46	0.26	2.4	2.3
LCT 83		0.1	0.031	0.38	8.9	3.6	0.24	62	13.7	0.02	0.05	7.7	660	17.5	14.2	0.045	0.42	1.06	2.6	0.9
LCT 98		0.05	<0.005	0.33	3	9.1	0.33	64	12.7	0.02	0.11	5.6	730	1.3	13.5	0.014	0.05	0.1	3	0.5
PP08-3365	Y	<0.01	0.015	0.43	7.5	14.9	0.8	113	59.1	0.01	0.13	20.1	290	3.9	22.4	0.104	0.24	0.33	6.6	1.6
PP08-3607	Y	0.01	0.016	0.51	9.3	18.4	0.91	127	55	0.01	0.2	23.5	340	5.6	25.9	0.096	0.17	0.4	7.8	1.3
PP08-3610	G	<0.01	0.014	0.17	5.7	6.1	0.28	126	21	0.01	0.11	8.5	320	12.6	8.4	0.036	0.1	0.37	1.9	0.8
PP08-3614	G	<0.01	0.01	0.11	3.9	4.7	0.19	97	14.2	0.01	0.11	6.6	270	7.5	5.6	0.025	0.09	0.27	1.3	0.7
PP08-3849	G	<0.01	0.009	0.19	3.6	4.4	0.17	97	21.7	0.01	0.13	6.3	240	4.3	7.8	0.03	0.1	0.2	1.4	0.8
PP08-3850	Y	<0.01	0.022	0.5	7.3	15.8	0.7	95	70.1	0.01	0.13	20.6	260	3.7	30.1	0.111	0.29	0.29	7	1.7
11840-003 bulk cleaner		0.1	0.03	0.7	15.2	7.3	1	474	65.2	0.05	0.14	22.1	850	14.8	45	0.154	0.8	1.52	11.5	2.3
11840-003 bulk float		0.03	0.019	0.73	13.7	7.5	1.05	532	24.8	0.05	0.14	13.7	1350	3.7	39.4	0.045	0.22	0.64	10.5	0.7
11840-003 Phase II OF		0.03	0.017	0.72	15	6.7	1.05	520	10.5	0.03	0.13	14.1	1320	3.7	45.3	0.022	0.1	0.41	11.1	0.4
11840-003 Phase II Sands		0.04	0.014	0.61	9.1	4.5	0.8	394	41.7	0.03	0.14	11.3	870	3.3	37.9	0.086	0.26	0.79	8.5	0.8
11840-003 pyrite		0.08	0.032	0.67	15.1	7.2	0.92	607	25.4	0.04	0.18	27.8	890	16.3	36	0.049	1.45	2.06	9.2	3.1
1st Bulk Cl, Sc, TLS F66		0.56	0.016	0.26	14	3.5	0.28	316	53.4	<0.01	<0.05	142.5	970	33.8	15.6	0.086	0.11	0.86	3.6	1
1st Bulk Cl, Sc, TLS F67		0.5	0.022	0.3	12	3.3	0.25	492	31.2	0.01	<0.05	148	1250	88.4	16.8	0.044	0.14	0.61	3.2	0.7
1st Bulk Cl, Sc, TLS F68		0.36	0.009	1.01	15.9	10.4	1.19	463	47	0.02	0.1	136	1030	17.2	63.6	0.068	0.14	1.1	16.9	0.8
1st Bulk Cl, Sc, TLS F69		0.35	0.014	1.03	18.2	7.3	1.28	571	40.7	0.02	0.27	98.5	1180	7.8	67	0.059	0.11	0.79	12.6	0.8
1st Cleaner Scav Tails		0.18	0.094	0.54	7.6	2.3	0.52	349	202	0.02	0.35	54.9	870	147	27.6	0.385	>10	1.72	4.2	28.7
Combined Rougher Tails		0.02	0.022	0.79	10.5	4.6	0.87	514	19.95	0.01	0.14	10.6	1670	34.6	46.9	0.034	0.75	0.41	8.3	1.8
Gold Plant Tails		0.31	0.123	0.29	4	1.3	0.26	193	16.2	0.07	0.48	96.3	430	232	15.1	0.035	>10	2.61	2.8	53.4
IP-LCT1		0.05	0.021	0.91	9.1	5.2	0.93	722	18.4	0.02	0.09	14.6	1310	6.7	50.6	0.035	0.5	0.69	9	1.1
Knelson TLS F66		0.18	0.01	0.24	9.4	2.9	0.22	238	52.1	0.01	<0.05	66.9	770	19.1	12.3	0.124	0.08	0.67	2.6	0.7
Knelson TLS F67		0.1	0.015	0.26	9	2.5	0.2	390	28.7	<0.01	<0.05	74.9	1080	58	13.8	0.056	0.12	0.58	2.5	0.5
Knelson TLS F68		0.18	0.005	0.85	12.1	8.9	0.99	378	36	0.02	0.08	71.2	960	8.8	53.5	0.06	0.11	0.74	14.1	0.6
Knelson TLS F69		0.19	0.009	0.84	14.2	5.8	1.02	490	37.7	0.02	0.22	57.4	1130	4.8	51.2	0.07	0.08	0.49	10.3	0.6
LCT 1		0.09	0.014	0.73	10.7	9.3	0.75	338	31.1	0.02	0.12	18.8	1000	59	42.3	0.086	0.43	0.97	10.4	1.2
LCT 11		0.11	0.014	0.91	14	15	1.18	275	22	0.02	0.1	16	1410	2.5	45.3	0.04	0.29	0.64	11.8	0.8
LCT 13		0.34	0.006	0.27	5.3	1	0.1	670	8.98	0.01	<0.05	4.8	700	8.2	11.8	0.014	0.28	0.74	1.8	0.6
LCT 2		0.12	0.02	0.83	11	10.5	0.87	442	16.95	0.02	0.13	18.8	890	20.8	48.5	0.045	0.29	0.85	11.6	1.1
LCT 68		0.05	0.006	0.65	7.7	7.2	0.86	77	17.7	0.02	0.08	12.7	980	3.6	33.2	0.016	0.2	0.4	5.5	0.8
LCT 70		0.03	0.014	1.59	15.7	7.9	1.69	1480	36.8	0.03	0.17	25.5	1940	1.5	105	0.05	0.45	1.22	15.4	1
LCT 71		0.04	0.011	0.44	7.8	1.7	0.36	539	37.5	0.02	0.06	9.4	1330	2.4	22.3	0.043	0.34	0.58	5.1	1
LCT 79		0.08	0.024	0.92	11.6	7.7	1.53	533	18.9	0.07	0.19	11.4	1790	3.3	51.2	0.024	0.17	0.36	16.9	0.8
LCT 82		0.13	0.059	0.36	8.2	4.7	0.49	324	29.1	0.02	0.07	9.8	850	2	20.8	0.061	0.19	0.5	5.6	0.5
LCT 86		0.16	0.015	0.94	11.2	7.7	1.32	442	25.6	0.09	0.42	19.6	1000	1.6	57.8	0.045	0.15	0.89	15.8	0.8
LCT 87		0.1	0.013	0.83	35.4	8.8	1.1	254	48.6	0.03	0.3	12.5	780	1.2	54.2	0.099	0.19	0.55	9.3	1.1
LT C1 Combined Pre-Cleaner Tailings		0.08	0.041	0.94	17.6	8.3	1.12	491	101	0.04	0.24	255	1040	37.2	57.6	0.12	2.11	5.41	15	7.4
LT C1 Combined Rougher Tailings		0.02	0.018	0.76	12.8	6.2	0.93	340	41.6	0.03	0.14	16.2	940	14.6	46.9	0.074	0.17	2	11.8	1.8
LT C2 Combined Pre-Cleaner Tailings		0.06	0.037	0.82	20.5	7	1.24	689	187.5	0.04	0.25	395	1130	34.9	52.3	0.252	2.05	1.82	13	6.3
LT C2 Combined Rougher Tailings		0.09	0.016	0.75	13.8	5.3	0.97	406	44.6	0.04	0.22	13.4	1120	6.8	46.6	0.085	0.1	0.39	10.2	1
LT C3 Combined Pre-Cleaner Tailings		0.19	0.031	0.79	13	4.5	0.9	880	153	0.03	0.32	452	840	25.5	50.7	0.158	4.19	3.12	11.4	8.8
LT C3 Combined Rougher Tailings		0.04	0.013	0.76	10	3.7	0.89	641	27.2	0.03	0.16	11.9	1060	6.1	46.3	0.049	0.17	0.61	10.2	0.8

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
Tailings														
11486-003 bulk	G+Y	0.4	55.6	<0.01	0.11	1.3	0.024	0.15	0.22	68	1.15	5.67	149	<0.5
11486-003 OF	G+Y	0.9	66.8	<0.01	0.32	1.7	0.021	0.21	0.31	84	29.8	7.48	260	0.6
11486-003 UF	G+Y	0.3	37	<0.01	0.08	1	0.017	0.14	0.17	47	3.23	4.58	71	<0.5
KS-LCT1		0.6	90.7	<0.01	0.11	1.7	0.04	0.28	0.25	113	0.74	7.07	85	<0.5
LCT 100		0.4	76.7	<0.01	0.17	2	0.026	0.41	0.15	65	0.41	1.68	124	<0.5
LCT 50		0.2	104.5	<0.01	0.11	0.8	<0.005	0.17	0.2	15	0.43	2.35	96	<0.5
LCT 54		0.3	101.5	<0.01	0.09	1.3	0.005	0.18	0.23	48	0.33	6.89	65	0.5
LCT 58		1.5	108	<0.01	0.12	0.7	0.026	0.36	0.21	59	0.37	3.88	236	<0.5
LCT 65		0.4	67.2	<0.01	0.45	0.5	<0.005	0.14	0.11	4	1.31	0.75	57	<0.5
LCT 78		0.3	33.3	<0.01	0.24	0.7	0.005	0.15	0.22	18	0.57	1.48	18	0.5
LCT 83		0.4	138	<0.01	0.17	1.3	0.006	0.23	0.3	52	0.38	4.9	162	<0.5
LCT 98		0.2	30.8	<0.01	0.06	1.7	0.017	0.07	0.3	147	0.45	6.12	52	<0.5
PP08-3365	Y	0.6	56.2	<0.01	0.1	1.8	0.066	0.25	0.26	123	0.39	7.89	125	<0.5
PP08-3607	Y	0.9	61	<0.01	0.1	2.2	0.071	0.27	0.29	149	0.44	8.78	155	0.5
PP08-3610	G	0.7	73.5	<0.01	0.14	1.4	0.01	0.16	0.28	56	0.73	6.02	146	<0.5
PP08-3614	G	0.4	61.5	<0.01	0.08	1	0.009	0.11	0.2	36	0.91	4.86	90	<0.5
PP08-3849	G	0.2	45.3	<0.01	0.06	1	0.01	0.13	0.19	38	0.74	4.24	53	0.5
PP08-3850	Y	0.5	46.5	<0.01	0.08	1.9	0.066	0.31	0.24	112	0.83	7.63	96	0.6
11840-003 bulk cleaner		1.1	104	<0.01	0.46	2.6	0.075	0.49	0.74	118	0.68	11.6	238	2.7
11840-003 bulk float		0.8	82.1	<0.01	0.12	2.2	0.097	0.37	0.67	124	0.5	13.35	138	2
11840-003 Phase II OF		0.8	80.6	<0.01	0.12	2.3	0.09	0.34	0.69	123	2.78	14.05	149	2
11840-003 Phase II Sands		0.5	41.8	<0.01	0.14	1.6	0.082	0.32	0.43	96	8.07	9.39	51	1.4
11840-003 pyrite		1.7	72.8	<0.01	0.92	2.6	0.072	0.55	0.87	121	1.06	10.5	191	2.4
1st Bulk Cl, Sc, TLS F66		0.5	44.3	<0.01	0.38	2.4	0.007	0.11	0.82	34	1.4	11.45	44	1.9
1st Bulk Cl, Sc, TLS F67		0.4	37.1	<0.01	0.49	2.2	<0.005	0.19	0.84	26	1.16	12.15	42	1.5
1st Bulk Cl, Sc, TLS F68		0.9	34.1	<0.01	0.26	2.7	0.15	0.35	0.72	155	1.14	11.8	45	2.1
1st Bulk Cl, Sc, TLS F69		0.9	40.9	<0.01	0.22	2.5	0.162	0.33	0.79	164	1.16	14.05	58	3.8
1st Cleaner Scav Tails		1.8	42.2	<0.01	8.93	1.5	0.038	1.07	0.56	87	1.81	6.1	286	1.6
Combined Rougher Tails		0.9	69.4	<0.01	0.86	1.6	0.078	0.57	0.49	98	0.4	11.25	80	1.6
Gold Plant Tails		1.6	24.8	<0.01	14.15	1	0.022	1.55	0.44	67	1.84	6.66	484	20
IP-LCT1		0.6	34.2	<0.01	0.41	1.8	0.088	0.83	0.53	102	0.56	9.78	83	1.8
Knelson TLS F66		0.3	27.3	<0.01	0.19	1.5	0.007	0.07	0.5	27	0.72	7.75	30	1.5
Knelson TLS F67		0.3	25	<0.01	0.28	1.6	<0.005	0.15	0.62	21	0.66	9.65	32	1.3
Knelson TLS F68		0.6	25.2	<0.01	0.16	2.3	0.129	0.31	0.55	131	0.75	10.6	33	1.6
Knelson TLS F69		0.6	33.6	<0.01	0.13	1.9	0.128	0.25	0.58	137	0.83	12	43	3
LCT 1		0.8	10.3	<0.01	0.28	2.5	0.104	0.34	0.49	103	0.66	12.15	120	1.5
LCT 11		0.9	142.5	0.01	0.17	2.2	0.081	0.48	0.43	126	1.93	11.9	101	1
LCT 13		0.3	21.4	<0.01	0.19	1.3	<0.005	0.28	0.54	14	148	6.59	76	0.9
LCT 2		1.4	8.7	<0.01	0.23	2.6	0.118	0.36	0.51	119	1.03	10.55	61	1.5
LCT 68		1	210	<0.01	0.06	1.2	0.018	0.4	0.37	95	0.78	8.75	58	0.7
LCT 70		1.3	12.5	0.01	0.29	2.4	0.199	1.71	0.66	176	0.58	13.65	44	2.9
LCT 71		0.5	32.9	<0.01	0.29	1.3	0.02	0.32	0.39	55	0.45	9.09	24	1.8
LCT 79		0.6	129.5	0.01	0.08	1.6	0.134	0.36	0.45	209	0.42	12.35	91	3
LCT 82		0.7	21.2	<0.01	0.17	1.4	0.03	0.19	0.41	69	0.63	7.7	26	3.3
LCT 86		1.1	66.6	0.01	0.14	2.4	0.153	0.38	0.64	150	0.27	12.05	56	3.4
LCT 87		1.8	40.5	0.01	0.06	2.8	0.129	0.23	1.01	183	0.54	14.05	74	2.6
LT C1 Combined Pre-Cleaner Tailings		1.6	57.1	<0.01	1.02	3.1	0.117	0.52	1.04	164	2.08	11.55	52	3.4
LT C1 Combined Rougher Tailings		0.6	38.6	<0.01	0.27	2.2	0.106	0.34	0.67	126	0.5	9.22	29	2.3
LT C2 Combined Pre-Cleaner Tailings		1.5	75.5	<0.01	0.84	3.3	0.105	0.33	1.29	188	2.57	15.75	97	4.2
LT C2 Combined Rougher Tailings		0.7	48.8	<0.01	0.11	2	0.103	0.23	0.71	132	0.73	13.25	44	2.7
LT C3 Combined Pre-Cleaner Tailings		1.7	52.9	<0.01	1.45	2.5	0.078	1.2	0.81	132	3.39	9.75	73	3.3
LT C3 Combined Rougher Tailings		0.4	38.6	<0.01	0.2	1.8	0.088	0.45	0.52	106	0.54	9.89	39	2.2

Sample ID	Litho Code	Ag, ppm	Al, %	As, ppm	Au, ppm	B, ppm	Ba, ppm	Be, ppm	Bi, ppm	Ca, %	Cd, ppm	Ce, ppm	Co, ppm	Cr, ppm	Cs, ppm	Cu, ppm	Fe, %	Ga, ppm	Ge, ppm	Hf, ppm
LT C4 Combined Pre-Cleaner Tailings		1.3	1.74	57.9		<10	50	0.64	1.14	0.76	0.11	26.4	39	598	5.07	853	6.78	6.03	0.14	0.08
LT C4 Combined Rougher Tailings		0.27	1.57	13.2		<10	50	0.57	0.21	0.92	0.07	24.5	3.8	77	4.75	261	2.59	6.07	0.1	0.06
NK-LCT1		0.42	1.37	27.8	<0.2	<10	40	0.5	0.14	0.79	0.11	24.9	4.5	53	2.61	434	3.08	6.14	0.1	0.08
Pyrite Rougher Tails		1.93	1.16	26	0.3	<10	40	0.72	1.7	0.93	0.55	25.8	31.6	137	3.77	1260	5.55	4.37	0.16	0.06
Sample 1 Bulk Cleaner Tails		0.82	1.47	28.8		<10	50	0.54	0.27	0.73	0.25	29.4	5.5	68	2.95	1265	2.67	6.31	0.1	0.1
Sample 1 Scavenger Tails		0.49	1.29	20.4		<10	40	0.53	0.16	0.68	0.15	25.9	4.4	69	2.64	853	2.34	5.79	0.1	0.09
Sample 1 Scavenger Tails + Bulk Cleaner Tails		0.52	1.3	20.4		<10	40	0.45	0.18	0.66	0.15	25.6	4.5	59	2.65	889	2.38	5.7	0.1	0.09
Sample 2 Bulk Cleaner Tails		0.84	1.44	29.2		<10	40	0.61	0.29	0.86	0.19	29.8	6.3	54	3.38	998	3.23	6.12	0.11	0.09
Sample 2 Pyrite Tails		11.35	0.39	718		<10	10	0.15	5.3	0.76	3.31	9.02	199	112	0.97	>10000	2.49	1.68	0.67	0.06
Sample 2 Scavenger Tails		0.42	1.22	18.5		<10	40	0.46	0.15	0.85	0.11	26	4.8	58	2.8	575	2.73	5.31	0.09	0.07
Sample 2 Scavenger Tails + Bulk Cleaner Tails		0.52	1.31	20.4		<10	40	0.48	0.21	0.87	0.18	27.4	5.4	61	2.94	636	2.77	5.66	0.11	0.09
SG-LCT1		0.79	1.22	25.2	0.2	<10	50	0.49	0.3	0.34	0.35	25.9	5.2	51	2.92	1045	2.28	4.59	0.07	0.08
11486-003		0.38	0.51	14	<0.2	<10	20	0.29	0.31	0.29	0.13	11.15	3.6	24	1.49	512	0.8	2.29	0.05	0.02
11486-005		0.57	0.72	12	<0.2	<10	30	0.34	1.3	0.35	0.11	15.6	4.8	34	1.89	465	1.1	3.1	0.06	0.02
11486-006		0.28	0.54	11.3	<0.2	<10	20	0.22	0.35	0.26	0.12	9.55	2.9	101	0.93	577	0.68	2.12	0.05	0.02
Illite Pyrite Cu Ro Tail		0.54	1.15	25.2	<0.2	<10	50	0.47	0.24	0.37	0.31	18.05	2.2	48	3.03	637	2.11	4.27	0.06	0.05
K-Silicate Cu Ro Tail		0.22	0.9	13.9	<0.2	<10	20	0.33	0.2	0.38	0.05	18.3	3.6	55	2.05	511	1.08	3.99	0.05	0.02
LCT-25		0.63	1.06	9.7	<0.2	<10	30	0.35	0.33	0.88	0.5	19.75	12.4	68	3.07	213	3.3	5.03	0.11	0.04
LCT-26		0.25	1.28	5.6	<0.2	<10	30	0.43	0.26	0.39	0.04	14.5	5.1	56	2.97	326	2.08	5.87	0.08	0.02
LCT-27		0.6	1.96	5.8	<0.2	<10	60	0.68	0.52	0.8	0.08	27.3	22.7	55	3.99	285	5.21	8.58	0.15	0.07
LCT-28		1.15	2.46	39.2	0.3	<10	80	0.83	0.48	1.7	0.1	24.8	36.5	50	4.16	680	7.16	12.7	0.35	0.11
LCT-29		0.47	0.87	8.7	<0.2	<10	30	0.64	0.26	0.58	0.04	23.5	14.5	35	3.46	212	3.18	3.89	0.1	0.04
LCT-30		0.63	2.28	201	<0.2	<10	40	1.14	0.06	0.58	0.07	26.2	30.2	62	3.23	338	6.22	11	0.28	0.11
LCT-31		0.49	1.08	9.8	<0.2	<10	30	0.32	0.14	0.26	0.09	25.7	5.8	64	2.23	557	2.41	5.25	0.1	0.05
LCT-32		0.34	0.89	108	<0.2	<10	30	0.57	0.19	0.44	0.1	35.1	2.8	29	2.64	366	1.05	3.2	0.07	0.02
LCT-33		0.57	1.08	22.5	<0.2	<10	30	0.42	0.17	0.32	0.48	30.8	6.7	58	2.63	793	2.16	4.67	0.11	0.05
LCT-34		0.47	0.78	29.5	<0.2	<10	30	0.45	0.14	0.32	1.29	34.3	4.5	47	1.76	1060	1.44	3.83	0.1	0.06
LCT-35		0.41	0.83	8.4	<0.2	<10	30	0.37	0.15	0.3	0.02	19.95	3.3	38	1.57	1080	1.15	3.54	0.07	0.06
LCT-36		0.34	0.73	191	0.3	<10	30	0.45	0.46	0.65	0.12	18.1	6.6	53	3.07	186.5	2.38	3.79	0.08	0.05
LCT-37		0.68	0.44	17.4	<0.2	<10	10	0.45	0.21	0.32	<0.01	17.9	5	31	2.11	727	1.45	2.03	0.06	0.06
LCT-38		0.62	1	9.3	0.2	<10	30	0.33	1.36	0.3	0.12	22.6	4.3	46	3.28	714	1.49	3.96	0.06	0.05
LCT-39		0.24	0.75	3.9	<0.2	<10	30	0.27	0.11	1.29	0.03	24.9	7.2	35	1.19	149.5	1.72	4.82	0.07	0.06
LCT-40		0.54	0.53	23.8	<0.2	<10	30	0.59	0.42	0.33	0.93	12.5	6.9	27	5.52	835	2.17	1.23	0.06	0.07
LCT-41		0.5	0.73	3.6	<0.2	<10	10	0.74	0.23	0.41	0.43	30.3	4	29	2.51	1050	1.06	2.24	0.07	0.07
LCT-42		0.57	1.19	9.1	<0.2	<10	30	0.42	0.19	0.31	0.85	32.2	4.3	52	1.53	742	1.59	7.16	0.17	0.06
MPP Ro Tails		0.71	1.21	53.6	<0.2	<10	30	0.52	0.26	0.7	0.2	24.4	4.5	139	1.86	687	2.34	6.28	0.08	0.07
PP12-2538		0.46	1.41	11.6	<0.2	<10	40	0.52	0.2	0.59	0.44	25	4.6	60	5	634	3.41	5.5	0.15	0.09
PP12-2539		0.45	1.14	17.9	<0.2	<10	40	0.44	0.14	0.67	0.16	24.9	3.6	63	3.18	510	2.8	5.31	0.13	0.07
PP12-2540		0.33	1.14	11.5	<0.2	<10	40	0.37	0.12	0.88	0.11	22.4	4	67	2.62	418	2.7	4.71	0.11	0.06
PP12-2541		0.33	1.02	11.8	<0.2	<10	40	0.33	0.1	0.82	0.09	22.4	3.7	65	2.62	427	2.46	4.36	0.11	0.06
PP12-2542		0.28	0.84	8	<0.2	<10	30	0.31	0.08	0.72	0.07	20.5	4.4	66	1.95	401	1.97	3.89	0.1	0.05
Sodic Potassic Cu Ro Tail		0.36	1.29	26.1	<0.2	<10	40	0.48	0.12	0.71	0.09	23.9	3.9	51	2.5	427	2.73	5.56	0.1	0.06
Supergene Cu Ro Tail		0.52	1.19	20	<0.2	<10	50	0.49	0.24	0.38	0.31	26.4	4.7	50	3.02	893	2.13	4.55	0.09	0.06

Sample ID	Litho Code	Hg, ppm	In, ppm	K, %	La, ppm	Li, ppm	Mg, %	Mn, ppm	Mo, ppm	Na, %	Nb, ppm	Ni, ppm	P, ppm	Pb, ppm	Rb, ppm	Re, ppm	S, %	Sb, ppm	Sc, ppm	Se, ppm
LT C4 Combined Pre-Cleaner Tailings		0.1	0.033	0.85	12.2	4.7	0.96	554	87.9	0.03	0.26	363	930	14.1	49.9	0.07	4.69	1.2	9.7	7.3
LT C4 Combined Rougher Tailings		0.03	0.023	0.86	11.6	4.7	1.04	492	21.4	0.03	0.16	12.2	1270	4.6	53.8	0.039	0.23	0.39	11.2	0.7
NK-LCT1		0.09	0.019	0.9	12.4	7.6	1.17	583	20	0.03	0.18	14	1330	4.3	53.9	0.043	0.24	0.7	11.6	0.8
Pyrite Rougher Tails		0.07	0.044	0.67	12	3.7	0.69	449	118.5	0.03	0.19	24.8	1140	91.5	37.4	0.216	4	1.01	6.4	7.1
Sample 1 Bulk Cleaner Tails		0.03	0.025	0.87	15.4	6.9	1.09	394	44.9	0.02	0.19	15.9	1410	17.7	53.9	0.09	0.27	1.67	12.4	1.4
Sample 1 Scavenger Tails		0.02	0.021	0.79	13.8	6.2	1	348	91.7	0.02	0.18	12.7	1340	11.5	51.6	0.215	0.18	1.16	11.6	1.3
Sample 1 Scavenger Tails + Bulk Cleaner Tails		0.02	0.021	0.79	13.6	6.1	1.02	351	40.2	0.02	0.18	13.7	1340	12.6	50.3	0.087	0.19	1.18	11.8	1.2
Sample 2 Bulk Cleaner Tails		0.04	0.022	0.88	16.4	6.2	1.18	455	57.4	0.03	0.2	20.5	1230	13.7	55.1	0.109	0.36	1.53	13.4	1.6
Sample 2 Pyrite Tails		0.62	0.195	0.19	4.3	1.8	0.25	331	102	<0.01	1.09	146	330	221	11.4	0.219	>10	41.1	2.6	61.5
Sample 2 Scavenger Tails		0.02	0.017	0.78	14.2	5.4	1.08	398	59.8	0.02	0.2	14.7	1230	8.6	49.7	0.107	0.22	1.02	12.2	1
Sample 2 Scavenger Tails + Bulk Cleaner Tails		0.03	0.021	0.82	13.7	6.5	1.12	417	55.1	0.02	0.18	16.7	1240	10.2	54.1	0.113	0.22	1.05	12.9	1.3
SG-LCT1		0.06	0.023	0.72	13.5	6.7	0.76	386	36.8	0.02	0.13	13.6	1100	41	42	0.076	0.38	1.16	9.2	1.5
11486-003		<0.01	0.011	0.19	5.4	9.6	0.31	103	31.7	0.01	0.14	8.7	270	7.9	11	0.057	0.18	0.39	2.9	1.1
11486-005		0.01	0.012	0.26	7.5	10.8	0.42	131	33.3	0.01	0.17	12.2	310	13.2	12.4	0.057	0.19	0.51	3.5	1.6
11486-006		0.01	0.009	0.24	4.6	7	0.26	93	57.9	0.01	0.11	7.8	260	5.1	11.5	0.093	0.21	0.34	2.4	1.3
Illite Pyrite Cu Ro Tail		0.04	0.018	0.77	8.3	4.1	0.79	618	19.05	0.03	0.08	11.6	1130	5.5	45.4	0.038	0.42	0.71	7.5	0.7
K-Silicate Cu Ro Tail		0.01	0.011	0.52	8.3	11	0.71	102	23.6	0.01	0.09	12.7	580	3	29.7	0.032	0.19	0.37	6.4	0.9
LCT-25		<0.01	0.012	0.74	9.3	6.7	1.13	519	9.95	0.04	0.17	36.2	920	43.6	40.9	0.017	1.63	0.84	13.3	2.5
LCT-26		<0.01	0.008	0.64	6.5	14	0.98	202	12.3	0.02	0.11	24	960	6.5	31.2	0.018	0.21	0.36	12	0.7
LCT-27		<0.01	0.032	1.16	12.2	8.1	1.61	611	8.03	0.03	0.11	32	1960	3.6	57.8	0.017	3.17	0.12	13.7	4.1
LCT-28		0.07	0.046	1.55	11.6	9.4	2.3	665	15.4	0.06	0.38	30.5	1900	6.6	90	0.036	3.08	0.69	23.2	6.7
LCT-29		<0.01	0.012	0.5	11	3.2	0.54	666	22	0.03	0.21	12.5	1240	3.8	30.9	0.04	1.63	0.32	5.5	3.2
LCT-30		0.01	0.012	1.9	13.3	11.2	2.41	1460	21.6	0.04	0.4	24.1	1930	5.5	124.5	0.052	1.11	2.57	25.3	2.9
LCT-31		0.01	0.019	0.78	13.8	9.1	0.89	698	33	0.03	0.11	20.7	870	30.5	45.8	0.088	0.32	0.77	13.4	0.9
LCT-32		<0.01	0.013	0.34	16.8	7.5	0.44	158	19.6	0.02	<0.05	6.9	1110	2.9	15.9	0.024	0.37	0.66	3.3	0.8
LCT-33		0.01	0.019	0.69	16	9.1	0.77	785	53.7	0.03	0.07	19.1	1140	11	42.6	0.175	0.34	1.33	12.9	1
LCT-34		0.03	0.021	0.49	18.8	8.6	0.54	463	52.1	0.02	0.14	12.5	1040	65	31.7	0.193	0.29	1.21	9.8	1.1
LCT-35		<0.01	0.013	0.41	10	5	0.45	225	40.6	0.02	0.16	8.2	1000	3.8	27.7	0.072	0.16	0.61	6.3	1.2
LCT-36		0.03	0.017	0.51	8.5	5.6	0.73	726	13.05	0.02	0.15	25.3	920	6	34.5	0.022	0.89	4.01	12.1	2.4
LCT-37		0.02	0.011	0.2	8.7	2.6	0.25	483	191	0.02	0.1	6.6	860	6.6	12.6	0.536	0.45	0.58	3	2.4
LCT-38		0.14	0.019	0.59	10.3	3.1	0.53	256	12.65	0.01	0.06	17.2	1060	10.5	37.9	0.028	0.85	1.46	6.9	1.6
LCT-39		<0.01	0.006	0.16	11.8	6.6	0.59	248	10.4	0.03	0.08	5.4	760	4.2	11.6	0.046	0.4	0.1	4.1	1.4
LCT-40		0.01	0.026	0.21	5.3	1.9	0.22	988	16.95	0.01	<0.05	12.9	1230	7.1	16.4	0.041	1.01	1.05	3.5	2.1
LCT-41		<0.01	0.011	0.17	14.2	2.3	0.18	416	17	0.02	<0.05	9.1	1100	5.7	13.1	0.04	0.18	0.29	3.7	1.1
LCT-42		<0.01	0.012	0.85	15.4	8.3	1.03	197	64.8	0.02	0.23	17.2	1200	2.5	55.4	0.119	0.2	0.86	13.2	1.5
MPP Ro Tails		0.05	0.025	0.82	12.7	5.8	1.06	651	39.2	0.02	0.22	54.4	1260	10.7	52.4	0.06	0.41	1.8	12.4	1.3
PP12-2538		0.09	0.026	0.9	11.6	6.2	1.02	1000	41.2	0.02	0.15	13.3	1820	4	50.6	0.065	0.37	0.95	10	1.1
PP12-2539		0.11	0.02	0.72	12	4.6	0.84	632	101.5	0.03	0.24	10.7	1200	2.9	42	0.222	0.25	0.97	8.5	1.1
PP12-2540		0.07	0.018	0.67	10.9	4.5	0.89	475	35.5	0.03	0.24	10.1	1180	2.8	37.4	0.064	0.17	0.59	7.9	0.9
PP12-2541		0.07	0.016	0.6	10.8	3.8	0.77	444	39.5	0.03	0.25	9.5	1010	2.7	34	0.089	0.16	0.58	7.3	0.9
PP12-2542		0.06	0.015	0.5	10	3.5	0.64	286	40.2	0.02	0.26	11.6	840	2.3	30.6	0.07	0.11	0.45	6.4	0.9
Sodic Potassic Cu Ro Tail		0.01	0.014	0.84	12.6	6.6	1.1	559	50	0.02	0.14	13.2	1250	7.3	54.2	0.119	0.24	0.77	11	1.1
Supergene Cu Ro Tail		0.02	0.019	0.71	14.4	5.8	0.78	399	41.6	0.02	0.12	13.2	1090	37.9	46.9	0.092	0.32	1.02	9.2	1.5

Sample ID	Litho Code	Sn, ppm	Sr, ppm	Ta, ppm	Te, ppm	Th, ppm	Ti, %	Tl, ppm	U, ppm	V, ppm	W, ppm	Y, ppm	Zn, ppm	Zr, ppm
LT C4 Combined Pre-Cleaner Tailings		1.2	58.2	<0.01	1.13	2	0.077	0.85	0.64	120	2.51	9.36	48	2.3
LT C4 Combined Rougher Tailings		0.6	56.8	<0.01	0.18	1.8	0.099	0.49	0.52	118	0.74	11.3	39	1.8
NK-LCT1		0.6	40.6	0.01	0.17	2	0.126	0.46	0.52	139	0.79	12.5	59	2.1
Pyrite Rougher Tails		2	52.9	<0.01	4.37	1.9	0.047	0.68	0.65	95	0.93	8.49	140	1.7
Sample 1 Bulk Cleaner Tails		0.9	51.4	<0.01	0.42	2.3	0.117	0.41	0.81	141	0.53	12.75	47	2.9
Sample 1 Scavenger Tails		0.6	46.6	<0.01	0.26	1.9	0.11	0.33	0.68	130	0.49	12.2	38	2.4
Sample 1 Scavenger Tails + Bulk Cleaner Tails		0.7	44.9	<0.01	0.28	1.9	0.11	0.33	0.68	129	0.52	11.8	38	2.4
Sample 2 Bulk Cleaner Tails		1	55.1	<0.01	0.41	2.3	0.119	0.35	0.77	142	0.52	12.55	45	2.7
Sample 2 Pyrite Tails		2.8	26.1	<100	6.35	1.2	0.024	1.84	0.61	62	10.35	4.21	494	1.9
Sample 2 Scavenger Tails		0.6	45	<0.01	0.21	1.9	0.112	0.29	0.61	128	0.54	12.1	37	2.2
Sample 2 Scavenger Tails + Bulk Cleaner Tails		0.7	46.9	<0.01	0.23	2.1	0.115	0.36	0.69	133	0.82	12.15	43	2.5
SG-LCT1		0.6	21.4	0.01	0.54	2.2	0.082	0.41	0.75	99	1.09	11.1	139	2.1
11486-003		0.5	53	<0.01	0.12	1.2	0.02	0.14	0.21	57	0.8	5.16	158	0.5
11486-005		0.8	67.7	<0.01	0.21	1.6	0.021	0.2	0.27	81	0.79	6.48	267	0.5
11486-006		0.3	39.8	<0.01	0.08	1	0.019	0.17	0.17	51	0.82	4.49	74	<0.5
Illite Pyrite Cu Ro Tail		0.6	28.8	<0.01	0.38	1.4	0.082	0.67	0.43	89	0.35	7.92	73	1.4
K-Silicate Cu Ro Tail		0.5	79.9	<0.01	0.11	1.5	0.043	0.28	0.24	109	0.33	6.64	77	<0.5
LCT-25		0.8	26.4	<0.01	0.42	2.1	0.118	0.37	0.44	129	0.29	8.88	128	1
LCT-26		0.5	52.5	<0.01	0.18	2	0.09	0.21	0.3	153	0.14	8.77	33	0.5
LCT-27		0.9	64.1	<0.01	1.26	1.9	0.148	0.78	0.48	167	0.45	10	49	1.7
LCT-28		1.5	127.5	0.01	0.55	1.4	0.272	1.02	0.63	225	0.43	16.65	146	2.4
LCT-29		1.3	59.6	<0.01	0.38	1.4	0.043	0.38	0.41	60	0.33	9.97	19	1.2
LCT-30		1.6	31	<0.01	0.17	1.3	0.362	1.01	0.93	263	2.47	16.15	55	3.7
LCT-31		1.7	12	<0.01	0.29	2.4	0.118	0.3	0.42	126	0.44	8.41	54	1.2
LCT-32		0.6	150	<0.01	0.14	1.6	0.007	0.21	0.37	39	0.19	9.1	121	0.7
LCT-33		2.1	16.4	<0.01	0.43	2.6	0.094	0.37	0.55	119	0.5	11.1	100	1.4
LCT-34		0.8	14.7	<0.01	0.41	2.1	0.065	0.2	0.52	86	0.55	11.8	177	1.7
LCT-35		1.2	60	<0.01	0.12	2	0.049	0.15	0.53	62	0.39	12.65	140	1.9
LCT-36		0.8	26.4	<0.01	0.55	2.1	0.07	0.56	0.65	79	0.58	10.35	75	1.2
LCT-37		0.4	42.1	<0.01	0.23	2.1	0.012	0.1	0.58	30	0.37	11.75	80	1.9
LCT-38		7.6	8.5	<0.01	1.09	2.4	0.048	0.52	0.63	61	0.29	8.93	85	2
LCT-39		0.6	95	<0.01	0.09	2.6	0.015	0.1	1.05	53	0.19	13.75	15	1.2
LCT-40		3	20.3	<0.01	0.53	1.1	<0.005	0.25	0.65	23	0.41	13.05	73	2.2
LCT-41		0.8	19.8	<0.01	0.3	2.5	0.007	0.13	0.82	26	0.46	19.3	77	1.8
LCT-42		1.2	160.5	<0.01	0.16	1.8	0.139	0.36	0.79	190	0.29	16.2	67	1.7
MPP Ro Tails		0.7	47.9	<0.01	0.54	1.8	0.104	0.55	0.66	154	1.02	11.75	62	2.2
PP12-2538		0.8	26.9	<0.01	0.24	1.7	0.099	0.57	0.54	154	0.49	12.4	96	1.9
PP12-2539		0.8	45	<0.01	0.17	1.7	0.09	0.38	0.55	127	0.47	11.6	75	1.6
PP12-2540		0.7	57.2	<0.01	0.14	1.7	0.094	0.35	0.49	110	0.35	10.9	78	1.4
PP12-2541		0.7	58.1	<0.01	0.11	1.8	0.08	0.34	0.48	91	0.34	10.2	69	1.2
PP12-2542		0.5	60.2	<0.01	0.1	1.7	0.068	0.28	0.43	75	0.31	9.03	54	1.1
Sodic Potassic Cu Ro Tail		0.6	38	<0.01	0.19	1.7	0.123	0.43	0.47	133	0.49	11.25	61	1.7
Supergene Cu Ro Tail		0.6	25	<0.01	0.4	1.9	0.088	0.39	0.59	102	0.57	11.3	124	1.7

SampleID	pH	EC, uS/cm	ORP, mV	Hardness , $mgCaCO_3/L$	Hardness, mg/L	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Cl, mg/L	F, mg/L	SO_4, mg/L	Ag(T), mg/L
LT C1 Combined Rougher Tailings	7.86	350	252	140		<1	4	91.5	231	16.6	0.777	66	0.000018
LT C1 Combined Pre-Cleaner Tailings	7.45	365	254	136		<1	7	77	232	19.2	0.61	77	0.000047
LT C2 Combined Rougher Tailings	8.06	288	287	115		<1	2.75	97.75	191	15.8	0.611	35	0.000019
LT C2 Combined Pre-Cleaner Tailings	7.71	321	289	118		<1	4.5	80.25	221	24	0.519	59	0.000096
F97-5-Ro,Sc, T/S	8.25	819		380		<1	1.75	54.75				369	<0.00002
F97-6-Ro,Sc, T/S	8.27	791		374		<1	1	51.25				339	0.000021
F97-1-1st, Bulk, Cl, Sc,T/S	8.22	558		236		<1	1.25	72.5				222	<0.00001
F97-2-1st, Bulk, Cl,Sc, T/S	8.14	723		315		<1	1.5	101.5				282	<0.00002
F97-3-1st, Bulk, Cl,Sc, T/S	8.27	722		331		<1	0.5	87.75				291	<0.00002
F97-4-1st, Bulk, Cl,Sc, T/S	8.25	746		342		<1	0.75	91.25				292	<0.00002
F97-5-1st, Bulk, Cl,Sc, T/S	8.21	766		390		<1	1.25	101.25				310	<0.00002
F97-6-1st, Bulk, Cl,Sc, T/S	8.28	718		358		<1	0.75	85				298	<0.00002
F66 3+4+5+6 1st Cu.Cl.Sc.TLS	7.92	1331		1730		<1	4.5	49.75				1710	<0.0001
F68 3+4+5+6 1st Cu.Cl.Sc.TLS	7.88	1359		1880		<1	4.5	43.5				1830	<0.0001
F69 3+4+5+6 1st Cu.Cl.Sc.TLS	3.4	2080		1630		35.75	52.75	0				1680	<0.00005
P0410-Sample 1-Cu-Moly O/F	7.68	2290		407		<1	4.5	51.5				1265	<0.0001
P0410-Sample 2-Cu-Moly O/F	7.02	3140		1770		<1	11.25	29.75				2436	<0.0002
Sample 1 Scavenger Tails	7.32	922	357	425		<1	10.75	68.75	678	6.42	1.33	389	<0.00002
LT C3 Combined Rougher Tailings	7.7	403	312	141		<1	5.75	90.75	262	15.7	1.04	81	0.000046
LT C3 Combined Pre-Cleaner Tailings	7.25	443	338	142		<1	8	58.5	280	21.6	0.841	122	0.000013
LT C4 Combined Rougher Tailings	7.87	360	319	116		<1	4.5	96.75	236	15.8	0.76	61	0.000021
LT C4 Combined Pre-Cleaner Tailings	7.63	441	323	131		<1	5.75	77.75	285	26	0.588	97	0.000026
1st Cu, Cl, Sc Tails F66 (3-6)	3.55	2110		1530			36	0				1550	0.00053
1st Cu, Cl, Sc Tails F68 (3-6)	6.08	1062		393			4.25	4.5				246	0.000175
1st Cu, Cl, Sc Tails F69 (3-6)	6.64	882		325			5.5	15.5				246	0.000187
Bulk Cl. Sc Tails F66 (3-6)	7.87	507		177			2	51.75				174	0.0017
Bulk Cl. Sc Tails F67 (3-6)	7.96	478		164			1.75	55.75				152	0.000026
Bulk Cl. Sc Tails F68 (3-6)	7.96	571		203			2.75	74.75				191	<0.00001
Bulk Cl. Sc Tails F69 (3-6)	8.15	457		139			1.25	95.75				107	<0.00001
Bulk Ro. Sc. Tails F66 (3-6)	7.64	559		202			2.75	37.5				216	<0.00001
Bulk Ro. Sc. Tails F67 (3-6)	7.8	544		193			2.25	42.75				216	<0.00001
Bulk Ro. Sc. Tails F68 (3-6)	7.86	594		196			2.25	55.5				214	<0.00001
Bulk Ro. Sc. Tails F69 (3-6)	8.08	460		125			1.75	83.75				113	0.000023
F97-1-Ro,Sc, T/S	8.16	717		339		<1	1.25	60.5				317	<0.00002
F97-2-Ro,Sc, T/S	8.25	757		365		<1	1	54.75				329	<0.00002
F97-3-Ro,Sc, T/S	8.15	826		388		<1	1	52.25				389	<0.00002
F97-4-Ro,Sc, T/S	8.07	753		329		<1	2.25	52.25				329	<0.00002
Sample 1 Bulk Cleaner Tails	7.48	790	410	445		<1	7	55.75	566	6.66	1.36	333	<0.00002
Sample 1 Pyrite Tailings	11.27	1377	139	406		<1	<1	235	458	4.54	0.595	136	<0.00002
Sample 1 Scavenger Tails + Bulk Cleaner Tails	7.66	927	406	435		<1	5.25	76.75	688	<50	<2	383	<0.00002
Sample 2 Scavenger Tails	7.82	842	343	372		<1	3.75	69	604	5.72	1.05	339	<0.00002
Sample 2 Bulk Cleaner Tails	7.34	749	405	354		<1	7	55	543	5.33	1.24	294	<0.00002
Sample 2 Pyrite Tails	9.73	1007	183	472		<1	<1	58	736	3.44	<0.02	150	0.000039
Sample 2 Scavenger Tails + Bulk Cleaner Tails	7.77	688	403	286		<1	3	48.5	481	5.47	1.06	283	<0.00002
Sample 2 Scavenger Tails aged	7.98	996	390	456		<1	2.75	83	736	6.3	1.09	414	<0.00002
Sample 2 Bulk Cleaner Tails aged	8.02	817	377	328		<1	2.75	94.75	591	5.94	1.11	316	<0.00002
Sample 2 Scavenger Tails + Bulk Cleaner Tails aged	7.98	1020	385	467		<1	3.5	73.5	764	7.07	0.765	451	<0.00002

SampleID	Al(T), mg/L	As(T), mg/L	B(T), mg/L	Ba(T), mg/L	Be(T), mg/L	Bi(T), mg/L	Ca(T), mg/L	Cd(T), mg/L	Co(T), mg/L	Cr(T), mg/L	Cu(T), mg/L	Fe(T), mg/L	Hg(T), mg/L
LT C1 Combined Rougher Tailings	0.562	0.00855	0.015	0.00451	<0.0002	<0.0005	46.1	<0.00005	0.00014	0.00068	0.0173	0.215	<0.00001
LT C1 Combined Pre-Cleaner Tailings	0.474	0.00314	0.015	0.00771	<0.0002	<0.0005	43.7	<0.00005	0.00035	0.00175	0.04	0.599	<0.00001
LT C2 Combined Rougher Tailings	0.57	0.00641	0.012	0.0114	<0.0002	<0.0005	34.6	0.000051	0.00012	0.00078	0.0138	0.269	<0.00001
LT C2 Combined Pre-Cleaner Tailings	0.46	0.00157	0.013	0.0187	<0.0002	<0.0005	33.8	0.000052	0.0004	0.00183	0.0354	0.569	<0.00001
F97-5-Ro,Sc, T/S	0.0681	0.0209	<0.02	0.0128	<0.0004	<0.001	141	<0.0001	<0.0002	<0.001	0.00889	<0.03	<0.00001
F97-6-Ro,Sc, T/S	0.0889	0.0208	<0.02	0.0115	<0.0004	<0.001	141	<0.0001	<0.0002	<0.001	0.00991	<0.03	0.000015
F97-1-1st, Bulk, Cl, Sc,T/S	0.0508	0.0285	0.017	0.00833	<0.0002	<0.0005	84.9	0.000139	0.00013	0.00112	0.0107	<0.03	<0.00001
F97-2-1st, Bulk, Cl,Sc, T/S	0.0447	0.0295	0.021	0.0108	<0.0004	<0.001	112	<0.0001	<0.0002	0.0028	0.0139	<0.03	<0.00001
F97-3-1st, Bulk, Cl,Sc, T/S	0.0559	0.0299	0.02	0.0109	<0.0004	<0.001	120	<0.0001	<0.0002	<0.001	0.00892	<0.03	<0.00001
F97-4-1st, Bulk, Cl,Sc, T/S	0.0525	0.0289	0.025	0.0106	<0.0004	<0.001	124	<0.0001	<0.0002	<0.002	0.0104	<0.03	0.000024
F97-5-1st, Bulk, Cl,Sc, T/S	0.0368	0.0274	0.023	0.012	<0.0004	<0.001	141	<0.0001	0.00028	<0.001	0.0126	<0.03	<0.00001
F97-6-1st, Bulk, Cl,Sc, T/S	0.0532	0.0281	0.021	0.0109	<0.0004	<0.001	131	<0.0001	<0.0002	<0.001	0.00833	<0.03	<0.00001
F66 3+4+5+6 1st Cu.Cl.Sc.TLS	0.016	0.0013	<0.1	0.0317	<0.002	<0.005	629	<0.0005	0.0019	<0.005	0.0142	<0.03	<0.00001
F68 3+4+5+6 1st Cu.Cl.Sc.TLS	0.02	0.0013	<0.1	0.048	<0.002	<0.005	680	<0.0005	0.0042	<0.005	<0.005	<0.03	<0.00001
F69 3+4+5+6 1st Cu.Cl.Sc.TLS	0.392	0.00446	<0.05	0.0767	<0.001	<0.0025	572	0.00035	0.00498	0.0074	0.0339	2.66	<0.00001
P0410-Sample 1-Cu-Moly O/F	0.191	0.117	<0.1	0.00939	<0.002	<0.005	159	<0.0005	<0.001	<0.005	<0.001	<0.03	<0.0005
P0410-Sample 2-Cu-Moly O/F	0.185	0.096	<0.2	0.0247	<0.004	<0.01	707	<0.001	<0.002	<0.01	<0.002	<0.15	<0.0005
Sample 1 Scavenger Tails	0.0188	0.0023	<0.02	0.0113	<0.0004	<0.001	161	0.0001	<0.0002	<0.001	0.013	<0.03	<0.0001
LT C3 Combined Rougher Tailings	0.484	0.0132	0.014	0.00894	<0.0002	<0.0005	46.2	0.000051	0.00019	0.00112	0.0152	0.365	<0.00001
LT C3 Combined Pre-Cleaner Tailings	0.2	0.00218	0.015	0.0138	<0.0002	<0.0005	42.5	<0.00005	0.00013	<0.0005	0.0038	0.106	<0.00001
LT C4 Combined Rougher Tailings	0.401	0.0197	0.016	0.00601	<0.0002	<0.0005	38.8	<0.00005	<0.0001	<0.0005	0.00493	0.187	<0.00001
LT C4 Combined Pre-Cleaner Tailings	0.293	0.00165	0.016	0.0122	<0.0002	<0.0005	42.9	<0.00005	0.00014	0.00095	0.00974	0.275	<0.00001
1st Cu, Cl, Sc Tails F66 (3-6)	0.107	0.0061	<0.1	0.0335	<0.002	<0.005	583	<0.0005	0.0012	<0.005	0.107	0.104	0.00046
1st Cu, Cl, Sc Tails F68 (3-6)	0.0509	0.0132	0.044	0.0273	<0.0004	<0.001	155	<0.0001	0.0002	<0.001	0.0285	<0.03	<0.0001
1st Cu, Cl, Sc Tails F69 (3-6)	0.0279	0.00401	0.047	0.0239	<0.0004	<0.001	120	<0.0001	0.00027	<0.001	0.0171	<0.03	<0.0001
Bulk Cl. Sc Tails F66 (3-6)	0.115	0.0278	0.029	0.0172	<0.0002	<0.0005	64.5	0.000114	0.00011	<0.0006	0.0167	<0.03	0.000017
Bulk Cl. Sc Tails F67 (3-6)	0.103	0.0258	0.025	0.0123	<0.0002	<0.0005	58.1	0.000054	<0.0001	<0.0005	0.00957	<0.03	<0.00001
Bulk Cl. Sc Tails F68 (3-6)	0.0283	0.0145	0.038	0.0177	<0.0002	<0.0005	70.7	0.00006	0.00011	<0.0005	0.0075	<0.03	<0.00001
Bulk Cl. Sc Tails F69 (3-6)	0.0229	0.00262	0.03	0.0366	<0.0002	<0.0005	41.3	<0.00005	0.00016	<0.0005	0.00874	<0.03	<0.00001
Bulk Ro. Sc. Tails F66 (3-6)	0.0748	0.0199	0.03	0.0154	<0.0002	<0.0005	75.2	0.000108	0.00011	<0.0006	0.00896	<0.03	<0.00001
Bulk Ro. Sc. Tails F67 (3-6)	0.0684	0.0203	0.028	0.0126	<0.0002	<0.0005	69.8	0.000058	<0.0001	<0.0006	0.00707	<0.03	<0.00001
Bulk Ro. Sc. Tails F68 (3-6)	0.0309	0.0176	0.043	0.0165	<0.0002	<0.0005	71	<0.00005	0.00015	<0.0005	0.00626	<0.03	<0.00001
Bulk Ro. Sc. Tails F69 (3-6)	0.0227	0.00413	0.027	0.0343	<0.0002	<0.0005	40.2	<0.00005	0.00017	<0.0005	0.0118	<0.03	<0.00001
F97-1-Ro,Sc, T/S	0.0535	0.021	0.02	0.0118	<0.0004	<0.001	126	0.00023	<0.0002	<0.001	0.00917	<0.03	0.000017
F97-2-Ro,Sc, T/S	0.0829	0.0207	0.021	0.0114	<0.0004	<0.001	137	<0.0001	<0.0002	<0.001	0.00751	<0.03	0.000016
F97-3-Ro,Sc, T/S	0.0597	0.0192	<0.02	0.0134	<0.0004	<0.001	145	0.00012	<0.0002	<0.001	0.00943	<0.03	<0.00001
F97-4-Ro,Sc, T/S	0.0537	0.0202	<0.02	0.0121	<0.0004	<0.001	122	<0.0001	<0.0002	<0.001	0.0119	<0.03	0.000012
Sample 1 Bulk Cleaner Tails	0.0121	0.00388	<0.02	0.0136	<0.0004	<0.001	150	<0.0001	0.00026	<0.001	0.00103	0.155	<0.0001
Sample 1 Pyrite Tailings	1.07	0.00099	<0.02	0.00695	<0.0004	<0.001	163	<0.0001	<0.0002	<0.001	0.00946	<0.03	<0.0001
Sample 1 Scavenger Tails + Bulk Cleaner Tails	0.025	0.00601	<0.02	0.0135	<0.0004	<0.001	146	<0.0001	0.0003	<0.001	0.00199	2.15	<0.0001
Sample 2 Scavenger Tails	0.013	0.00174	<0.02	0.013	<0.0004	<0.001	129	<0.0001	<0.0002	<0.001	0.00826	<0.03	<0.0001
Sample 2 Bulk Cleaner Tails	0.0116	0.00105	<0.02	0.0155	<0.0004	<0.001	105	<0.0001	0.00037	<0.001	0.00644	<0.03	<0.0001
Sample 2 Pyrite Tails	4.29	0.00504	<0.02	0.0337	<0.0004	<0.001	189	<0.0001	<0.0002	<0.001	0.0197	<0.06	<0.0001
Sample 2 Scavenger Tails + Bulk Cleaner Tails	0.0262	0.00114	<0.02	0.00803	<0.0004	<0.001	91.6	<0.0001	<0.0002	<0.001	0.00638	<0.03	<0.0001
Sample 2 Scavenger Tails aged	0.0181	0.00282	0.02	0.0183	<0.0004	<0.001	138	<0.0001	0.00025	<0.001	0.0115	<0.03	<0.00001
Sample 2 Bulk Cleaner Tails aged	0.0361	0.00734	<0.02	0.00631	<0.0004	<0.001	127	<0.0001	<0.0002	<0.001	0.00079	<0.03	<0.00001
Sample 2 Scavenger Tails + Bulk Cleaner Tails aged	0.0241	0.0055	<0.02	0.0162	<0.0004	<0.001	173	<0.0001	<0.0002	<0.001	0.00932	<0.03	<0.00001

SampleID	K(T), mg/L	Li(T), mg/L	Mg(T), mg/L	Mn(T), mg/L	Mo(T), mg/L	Na(T), mg/L	Ni(T), mg/L	P(T), mg/L	Pb(T), mg/L	Sb(T), mg/L	Se(T), mg/L	Si(T), mg/L	Sn(T), mg/L
LT C1 Combined Rougher Tailings	15.7		3.95	0.0275	0.0576	14.4	0.00062		0.000789	0.00392	0.0078	1.76	0.00048
LT C1 Combined Pre-Cleaner Tailings	14		5.16	0.028	0.0706	17.9	0.00183		0.00154	0.0062	0.0064	1.61	<0.0001
LT C2 Combined Rougher Tailings	12.7		5.74	0.0081	0.0593	14.5	0.00072		0.000535	0.00141	0.0038	4.02	0.00058
LT C2 Combined Pre-Cleaner Tailings	13.3		6.91	0.0313	0.091	20.9	0.00248		0.000899	0.00236	0.0045	2.67	<0.0001
F97-5-Ro,Sc, T/S	30.1		6.66	0.0631	0.0732	12.1	<0.001		0.0002	0.00552	0.0161	1.32	<0.0002
F97-6-Ro,Sc, T/S	29.6		5.57	0.0457	0.07	12.2	<0.001		0.00023	0.00496	0.0152	1.25	<0.0002
F97-1-1st, Bulk, Cl, Sc,T/S	18.4		5.81	0.0656	0.0422	7.2	<0.0005		0.00015	0.00562	0.0085	1.58	<0.0001
F97-2-1st, Bulk, Cl,Sc, T/S	23.5		8.68	0.111	0.0539	8.5	<0.001		0.00017	0.00623	0.0113	1.67	<0.0002
F97-3-1st, Bulk, Cl,Sc, T/S	23.9		7.84	0.0723	0.0555	9.3	<0.001		0.00018	0.00658	0.0118	1.6	<0.0002
F97-4-1st, Bulk, Cl,Sc, T/S	25		8.03	0.103	0.0534	9.6	<0.001		<0.0001	0.00631	0.0133	1.63	<0.0002
F97-5-1st, Bulk, Cl,Sc, T/S	25.9		9	0.144	0.0561	10.5	<0.001		0.00011	0.00631	0.0132	1.86	<0.0002
F97-6-1st, Bulk, Cl,Sc, T/S	24.1		7.78	0.0836	0.0527	10	<0.001		0.00011	0.00633	0.0121	1.74	<0.0002
F66 3+4+5+6 1st Cu.Cl.Sc.TLS	18.3		38.5	0.339	0.00225	14.9	<0.005		<0.0005	0.00458	<0.01	3.42	<0.001
F68 3+4+5+6 1st Cu.Cl.Sc.TLS	23.3		44.1	0.368	0.00169	17.1	0.0117		<0.0005	0.00435	<0.01	3.05	<0.001
F69 3+4+5+6 1st Cu.Cl.Sc.TLS	23.4		48.1	0.579	0.0235	14.1	0.0071		0.0265	0.00295	0.0091	3.52	<0.0005
P0410-Sample 1-Cu-Moly O/F	4.47		2.24	0.00521	0.0426	573	<0.005		<0.0005	0.0396	<0.01	3.84	<0.001
P0410-Sample 2-Cu-Moly O/F	8		0.15	0.0024	0.14	757	<0.01		<0.001	<0.001	<0.02	5.97	<0.002
Sample 1 Scavenger Tails	35.1		5.73	0.065	0.0451	18.8	<0.001		<0.0001	0.00501	0.0068	0.724	<0.0002
LT C3 Combined Rougher Tailings	25.3		5.35	0.0222	0.0266	16.3	0.00094		0.000938	0.00332	0.0052	3.18	0.00203
LT C3 Combined Pre-Cleaner Tailings	23.5		7.29	0.0574	0.0577	21.2	0.0017		0.000139	0.00394	0.0044	1.52	<0.0001
LT C4 Combined Rougher Tailings	22.7		3.35	0.00595	0.0189	20.9	0.00063		0.000501	0.00379	0.0038	2.75	0.00037
LT C4 Combined Pre-Cleaner Tailings	25.6		5.05	0.0293	0.0616	25.7	0.00178		0.000251	0.00388	0.0035	1.82	<0.0001
1st Cu, Cl, Sc Tails F66 (3-6)	25.9		19.3	0.0475	0.0775	16.2	<0.005		0.00999	0.0141	0.023	2.38	<0.001
1st Cu, Cl, Sc Tails F68 (3-6)	24.6		1.11	0.00372	0.0491	21.7	<0.001		0.0006	0.0187	0.0031	1.35	<0.0002
1st Cu, Cl, Sc Tails F69 (3-6)	24.8		6.02	0.0196	0.0438	13.1	<0.001		<0.0001	0.00862	0.0046	1.84	<0.0002
Bulk Cl. Sc Tails F66 (3-6)	20.8		3.84	0.0375	0.265	9.2	<0.0005		0.000319	0.0128	0.014	1.6	<0.0001
Bulk Cl. Sc Tails F67 (3-6)	23.9		4.69	0.0487	0.0514	7.8	<0.0005		0.000128	0.00922	0.0066	1.85	<0.0001
Bulk Cl. Sc Tails F68 (3-6)	26.3		6.44	0.0488	0.0528	12.7	<0.0005		0.000094	0.0133	0.0087	4.02	<0.0001
Bulk Cl. Sc Tails F69 (3-6)	30.5		8.66	0.0736	0.0344	14.2	<0.0005		0.000164	0.00429	0.0089	3.41	<0.0001
Bulk Ro. Sc. Tails F66 (3-6)	25.4		3.46	0.0535	0.353	11.9	<0.0005		0.000072	0.0109	0.0171	1.57	<0.0001
Bulk Ro. Sc. Tails F67 (3-6)	31.4		4.58	0.0656	0.0706	10.7	<0.0005		0.000051	0.00857	0.0095	1.8	<0.0001
Bulk Ro. Sc. Tails F68 (3-6)	32.5		4.47	0.0347	0.065	15.7	<0.0005		0.000055	0.0113	0.0102	4.08	<0.0001
Bulk Ro. Sc. Tails F69 (3-6)	35.1		6.01	0.0578	0.0408	16.6	<0.0005		0.000135	0.00431	0.0099	3.55	<0.0001
F97-1-Ro,Sc, T/S	27.9		6.23	0.088	0.0694	11	<0.001		0.00131	0.00569	0.0131	1.52	<0.0002
F97-2-Ro,Sc, T/S	27.9		5.59	0.043	0.0685	11.9	<0.001		0.00045	0.00534	0.014	1.35	<0.0002
F97-3-Ro,Sc, T/S	30		6.37	0.0865	0.0761	12.5	<0.001		0.00038	0.00527	0.0161	1.29	<0.0002
F97-4-Ro,Sc, T/S	28.7		5.86	0.085	0.0688	11	<0.001		0.00049	0.00581	0.0142	1.28	<0.0002
Sample 1 Bulk Cleaner Tails	30.3		17.3	0.148	0.0438	20	0.001		0.00152	<0.0001	0.0046	0.719	<0.0002
Sample 1 Pyrite Tailings	22.5		0.019	0.00014	0.124	9.3	<0.001		0.0008	0.00014	0.017	0.951	<0.0002
Sample 1 Scavenger Tails + Bulk Cleaner Tails	29.8		16.9	0.149	0.05	18.5	<0.001		0.0033	<0.0001	0.0066	0.684	<0.0002
Sample 2 Scavenger Tails	30.5		12.2	0.153	0.0443	20.8	<0.001		<0.0001	0.00357	0.0064	1.63	<0.0002
Sample 2 Bulk Cleaner Tails	29.3		22.5	0.27	0.0806	24.4	0.002		<0.0001	0.00256	0.0034	2.46	<0.0002
Sample 2 Pyrite Tails	26.7		0.161	0.00018	0.173	9.8	<0.001		0.00073	0.0124	0.0044	0.75	<0.0002
Sample 2 Scavenger Tails + Bulk Cleaner Tails	26.8		14	0.0402	0.0247	18.3	<0.001		<0.0001	0.0022	0.0045	0.805	<0.0002
Sample 2 Scavenger Tails aged	34.3		27.3	0.288	0.0671	27.1	<0.001		<0.0001	0.00476	0.0046	1.9	<0.0002
Sample 2 Bulk Cleaner Tails aged	28.3		2.72	0.00637	0.0328	19.6	<0.001		0.00013	0.00419	0.0075	2.54	<0.0002
Sample 2 Scavenger Tails + Bulk Cleaner Tails aged	40.5		8.66	0.0839	0.0847	29	<0.001		<0.0001	0.00576	0.0072	1.89	<0.0002

SampleID	Sr(T), mg/L	Ti(T), mg/L	Tl(T), mg/L	U(T), mg/L	V(T), mg/L	Zn(T), mg/L	Ag, mg/L	Al, mg/L	As, mg/L	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L
LT C1 Combined Rougher Tailings			<0.00005		0.00481	0.0028	<0.00001	0.339	0.00887	0.014	0.00303	<0.0002	<0.0005	49.6	<0.00005
LT C1 Combined Pre-Cleaner Tailings			<0.00005		0.00264	0.0043	<0.00001	0.18	0.00222	0.014	0.00579	<0.0002	<0.0005	46.3	<0.00005
LT C2 Combined Rougher Tailings			<0.00005		0.00572	0.0036	<0.00001	0.0438	0.00639	0.011	0.00703	<0.0002	<0.0005	37	<0.00005
LT C2 Combined Pre-Cleaner Tailings			<0.00005		0.00208	0.0051	0.000037	0.0348	0.00111	0.012	0.0153	<0.0002	<0.0005	36.1	<0.00005
F97-5-Ro,Sc, T/S			0.00018		0.0024	<0.002									
F97-6-Ro,Sc, T/S			0.00019		0.0027	<0.002									
F97-1-1st, Bulk, Cl, Sc,T/S			0.000146		0.00289	<0.001									
F97-2-1st, Bulk, Cl,Sc, T/S			0.00022		0.0027	<0.002									
F97-3-1st, Bulk, Cl,Sc, T/S			0.0002		0.0027	<0.002									
F97-4-1st, Bulk, Cl,Sc, T/S			0.00022		0.0026	<0.002									
F97-5-1st, Bulk, Cl,Sc, T/S			0.00022		0.0026	<0.002									
F97-6-1st, Bulk, Cl,Sc, T/S			0.00021		0.0027	<0.002									
F66 3+4+5+6 1st Cu.Cl.Sc.TLS			<0.0005		<0.005	0.032									
F68 3+4+5+6 1st Cu.Cl.Sc.TLS			<0.0005		<0.005	<0.01									
F69 3+4+5+6 1st Cu.Cl.Sc.TLS			<0.00025		0.033	0.0242									
P0410-Sample 1-Cu-Moly O/F			<0.0005		<0.005	0.033									
P0410-Sample 2-Cu-Moly O/F			<0.001		0.027	0.037									
Sample 1 Scavenger Tails			<0.0001		0.001	0.0056									
LT C3 Combined Rougher Tailings			0.000109		0.00509	0.0051	<0.00001	0.0885	0.0127	0.013	0.00645	<0.0002	<0.0005	48.2	<0.00005
LT C3 Combined Pre-Cleaner Tailings			0.000076		0.00067	0.0022	<0.00001	0.0381	0.00212	0.015	0.0136	<0.0002	<0.0005	45.1	<0.00005
LT C4 Combined Rougher Tailings			0.000069		0.0095	0.0031	<0.00001	0.138	0.0201	0.016	0.00422	<0.0002	<0.0005	41.3	<0.00005
LT C4 Combined Pre-Cleaner Tailings			0.000059		0.00104	0.0022	0.00004	0.0749	0.00137	0.016	0.0105	<0.0002	<0.0005	44.4	<0.00005
1st Cu, Cl, Sc Tails F66 (3-6)			<0.0005		<0.005	0.019									
1st Cu, Cl, Sc Tails F68 (3-6)			<0.0001		<0.001	0.0072									
1st Cu, Cl, Sc Tails F69 (3-6)			<0.0001		<0.001	0.0028									
Bulk Cl. Sc Tails F66 (3-6)			0.000154		0.00353	0.0064									
Bulk Cl. Sc Tails F67 (3-6)			0.000183		0.00537	0.0029									
Bulk Cl. Sc Tails F68 (3-6)			0.000131		0.00442	0.0026									
Bulk Cl. Sc Tails F69 (3-6)			0.000113		0.00209	0.0017									
Bulk Ro. Sc. Tails F66 (3-6)			0.000126		0.00363	0.0015									
Bulk Ro. Sc. Tails F67 (3-6)			0.000178		0.00525	0.0022									
Bulk Ro. Sc. Tails F68 (3-6)			0.000107		0.00676	0.0048									
Bulk Ro. Sc. Tails F69 (3-6)			0.000112		0.0032	0.0025									
F97-1-Ro,Sc, T/S			0.00017		0.0026	0.0042									
F97-2-Ro,Sc, T/S			0.00016		0.0026	0.0047									
F97-3-Ro,Sc, T/S			0.0002		0.0022	<0.002									
F97-4-Ro,Sc, T/S			0.00019		0.0023	<0.002									
Sample 1 Bulk Cleaner Tails			<0.0001		<0.001	0.0027									
Sample 1 Pyrite Tailings			<0.0001		0.0014	0.0062									
Sample 1 Scavenger Tails + Bulk Cleaner Tails			<0.0001		<0.001	0.0043									
Sample 2 Scavenger Tails			<0.0001		<0.001	0.0103									
Sample 2 Bulk Cleaner Tails			<0.0001		<0.001	<0.002									
Sample 2 Pyrite Tails			<0.0001		0.004	0.0025									
Sample 2 Scavenger Tails + Bulk Cleaner Tails			<0.0001		<0.001	0.0037									
Sample 2 Scavenger Tails aged			<0.0001		<0.001	<0.002									
Sample 2 Bulk Cleaner Tails aged			<0.0001		0.003	0.011									
Sample 2 Scavenger Tails + Bulk Cleaner Tails aged			<0.0001		<0.001	0.0032									

SampleID	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, mg/L	K, mg/L	Mg, mg/L	Mn, mg/L	Mo, mg/L	Na, mg/L	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L
LT C1 Combined Rougher Tailings	<0.0001	<0.0005	0.00733	<0.03	0.000015	16.1	3.85	0.0207	0.0588	15.5	<0.0005	0.000178	0.00437	0.009	1.35	0.0005
LT C1 Combined Pre-Cleaner Tailings	<0.0001	<0.0005	0.0042	<0.03	<0.00001	13.6	4.89	0.0213	0.0675	19	0.0009	0.000139	0.00607	0.0071	1.05	<0.0001
LT C2 Combined Rougher Tailings	<0.0001	<0.0005	0.00193	<0.03	<0.00001	12.2	5.58	0.00402	0.058	15.4	<0.0005	0.000125	0.0012	0.0041	3.02	0.00041
LT C2 Combined Pre-Cleaner Tailings	<0.0001	<0.0005	0.00677	<0.03	<0.00001	12.9	6.75	0.0254	0.0903	22.5	0.00153	0.000188	0.00228	0.0045	1.75	<0.0001
F97-5-Ro,Sc, T/S																
F97-6-Ro,Sc, T/S																
F97-1-1st, Bulk, Cl, Sc,T/S																
F97-2-1st, Bulk, Cl,Sc, T/S																
F97-3-1st, Bulk, Cl,Sc, T/S																
F97-4-1st, Bulk, Cl,Sc, T/S																
F97-5-1st, Bulk, Cl,Sc, T/S																
F97-6-1st, Bulk, Cl,Sc, T/S																
F66 3+4+5+6 1st Cu.Cl.Sc.TLS																
F68 3+4+5+6 1st Cu.Cl.Sc.TLS																
F69 3+4+5+6 1st Cu.Cl.Sc.TLS																
P0410-Sample 1-Cu-Moly O/F																
P0410-Sample 2-Cu-Moly O/F																
Sample 1 Scavenger Tails																
LT C3 Combined Rougher Tailings	<0.0001	0.00058	0.00159	<0.03	<0.00001	24.4	5.11	0.0123	0.0254	17.2	<0.0005	0.000292	0.00309	0.0052	2.4	0.0019
LT C3 Combined Pre-Cleaner Tailings	0.00013	<0.0005	0.00155	<0.03	<0.00001	23.5	7.25	0.055	0.0568	22.7	0.00198	0.000065	0.00388	0.0039	1.56	<0.0001
LT C4 Combined Rougher Tailings	<0.0001	<0.0005	0.00283	<0.03	<0.00001	22	3.19	0.00594	0.0181	22.6	0.00083	0.00123	0.00362	0.0037	2.34	0.00035
LT C4 Combined Pre-Cleaner Tailings	<0.0001	<0.0005	0.00274	<0.03	<0.00001	24.8	4.84	0.0253	0.0594	26.8	0.00115	0.000055	0.00387	0.0038	1.37	<0.0001
1st Cu, Cl, Sc Tails F66 (3-6)																
1st Cu, Cl, Sc Tails F68 (3-6)																
1st Cu, Cl, Sc Tails F69 (3-6)																
Bulk Cl. Sc Tails F66 (3-6)																
Bulk Cl. Sc Tails F67 (3-6)																
Bulk Cl. Sc Tails F68 (3-6)																
Bulk Cl. Sc Tails F69 (3-6)																
Bulk Ro. Sc. Tails F66 (3-6)																
Bulk Ro. Sc. Tails F67 (3-6)																
Bulk Ro. Sc. Tails F68 (3-6)																
Bulk Ro. Sc. Tails F69 (3-6)																
F97-1-Ro,Sc, T/S																
F97-2-Ro,Sc, T/S																
F97-3-Ro,Sc, T/S																
F97-4-Ro,Sc, T/S																
Sample 1 Bulk Cleaner Tails																
Sample 1 Pyrite Tailings																
Sample 1 Scavenger Tails + Bulk Cleaner Tails																
Sample 2 Scavenger Tails																
Sample 2 Bulk Cleaner Tails																
Sample 2 Pyrite Tails																
Sample 2 Scavenger Tails + Bulk Cleaner Tails																
Sample 2 Scavenger Tails aged																
Sample 2 Bulk Cleaner Tails aged																
Sample 2 Scavenger Tails + Bulk Cleaner Tails aged																

SampleID	Sr, mg/L	Tl, mg/L	U, mg/L	V, mg/L	Zn, mg/L	EPH10-19, mg/L	EPH19-32, mg/L	Thiosalts, mgS_2O_3/L	Thiosalts, mgSO_4/L	S_3O_6, mg/L	S_4O_6, mg/L	Sulphide S, mg/L	Ammonia(N), mg/L	Nitrate(N), mg/L	Nitrite(N), mg/L
LT C1 Combined Rougher Tailings		0.000051		0.00401	0.0021	<0.25	<0.25		28						
LT C1 Combined Pre-Cleaner Tailings		<0.00005		0.00053	0.0021	<0.25	<0.25		<10						
LT C2 Combined Rougher Tailings		<0.00005		0.00425	0.0036	<0.25	<0.25		<10						
LT C2 Combined Pre-Cleaner Tailings		<0.00005		<0.0005	0.0032	<0.25	<0.25		40						
F97-5-Ro,Sc, T/S															
F97-6-Ro,Sc, T/S															
F97-1-1st, Bulk, Cl, Sc,T/S															
F97-2-1st, Bulk, Cl,Sc, T/S															
F97-3-1st, Bulk, Cl,Sc, T/S															
F97-4-1st, Bulk, Cl,Sc, T/S															
F97-5-1st, Bulk, Cl,Sc, T/S															
F97-6-1st, Bulk, Cl,Sc, T/S															
F66 3+4+5+6 1st Cu.Cl.Sc.TLS															
F68 3+4+5+6 1st Cu.Cl.Sc.TLS															
F69 3+4+5+6 1st Cu.Cl.Sc.TLS															
P0410-Sample 1-Cu-Moly O/F								146				0.045			
P0410-Sample 2-Cu-Moly O/F								826				0.303			
Sample 1 Scavenger Tails						<0.3	<1	<10							
LT C3 Combined Rougher Tailings		0.000096		0.00315	0.0074	<0.25	<0.25		40						
LT C3 Combined Pre-Cleaner Tailings		0.000075		<0.0005	0.0027	<0.25	<0.25		<10						
LT C4 Combined Rougher Tailings		0.000063		0.00845	0.0184	<0.25	<0.25		32						
LT C4 Combined Pre-Cleaner Tailings		0.000053		<0.0005	0.0015	<0.25	<0.25		28						
1st Cu, Cl, Sc Tails F66 (3-6)															
1st Cu, Cl, Sc Tails F68 (3-6)															
1st Cu, Cl, Sc Tails F69 (3-6)															
Bulk Cl. Sc Tails F66 (3-6)															
Bulk Cl. Sc Tails F67 (3-6)															
Bulk Cl. Sc Tails F68 (3-6)															
Bulk Cl. Sc Tails F69 (3-6)															
Bulk Ro. Sc. Tails F66 (3-6)															
Bulk Ro. Sc. Tails F67 (3-6)															
Bulk Ro. Sc. Tails F68 (3-6)															
Bulk Ro. Sc. Tails F69 (3-6)															
F97-1-Ro,Sc, T/S															
F97-2-Ro,Sc, T/S															
F97-3-Ro,Sc, T/S															
F97-4-Ro,Sc, T/S															
Sample 1 Bulk Cleaner Tails						<0.3	<1	<10							
Sample 1 Pyrite Tailings						<0.3	<1	35							
Sample 1 Scavenger Tails + Bulk Cleaner Tails						<0.3	<1	<10							
Sample 2 Scavenger Tails						<0.3	<1	<10							
Sample 2 Bulk Cleaner Tails						<0.3	<1	<10							
Sample 2 Pyrite Tails						0.4	<1	366							
Sample 2 Scavenger Tails + Bulk Cleaner Tails						<0.3	<1	<10							
Sample 2 Scavenger Tails aged						<0.3	<1	<10							
Sample 2 Bulk Cleaner Tails aged						<0.3	<1	<10							
Sample 2 Scavenger Tails + Bulk Cleaner Tails aged						<0.3	<1	<10							

SampleID	Total CN, mg/L	WAD CN, mg/L	Cyanate, mg/L	Thiocyanate, mg/L
LT C1 Combined Rougher Tailings				
LT C1 Combined Pre-Cleaner Tailings				
LT C2 Combined Rougher Tailings				
LT C2 Combined Pre-Cleaner Tailings				
F97-5-Ro,Sc, T/S				
F97-6-Ro,Sc, T/S				
F97-1-1st, Bulk, Cl, Sc,T/S				
F97-2-1st, Bulk, Cl,Sc, T/S				
F97-3-1st, Bulk, Cl,Sc, T/S				
F97-4-1st, Bulk, Cl,Sc, T/S				
F97-5-1st, Bulk, Cl,Sc, T/S				
F97-6-1st, Bulk, Cl,Sc, T/S				
F66 3+4+5+6 1st Cu.Cl.Sc.TLS				
F68 3+4+5+6 1st Cu.Cl.Sc.TLS				
F69 3+4+5+6 1st Cu.Cl.Sc.TLS				
P0410-Sample 1-Cu-Moly O/F				
P0410-Sample 2-Cu-Moly O/F				
Sample 1 Scavenger Tails				
LT C3 Combined Rougher Tailings				
LT C3 Combined Pre-Cleaner Tailings				
LT C4 Combined Rougher Tailings				
LT C4 Combined Pre-Cleaner Tailings				
1st Cu, Cl, Sc Tails F66 (3-6)				
1st Cu, Cl, Sc Tails F68 (3-6)				
1st Cu, Cl, Sc Tails F69 (3-6)				
Bulk Cl. Sc Tails F66 (3-6)				
Bulk Cl. Sc Tails F67 (3-6)				
Bulk Cl. Sc Tails F68 (3-6)				
Bulk Cl. Sc Tails F69 (3-6)				
Bulk Ro. Sc. Tails F66 (3-6)				
Bulk Ro. Sc. Tails F67 (3-6)				
Bulk Ro. Sc. Tails F68 (3-6)				
Bulk Ro. Sc. Tails F69 (3-6)				
F97-1-Ro,Sc, T/S				
F97-2-Ro,Sc, T/S				
F97-3-Ro,Sc, T/S				
F97-4-Ro,Sc, T/S				
Sample 1 Bulk Cleaner Tails				
Sample 1 Pyrite Tailings				
Sample 1 Scavenger Tails + Bulk Cleaner Tails				
Sample 2 Scavenger Tails				
Sample 2 Bulk Cleaner Tails				
Sample 2 Pyrite Tails				
Sample 2 Scavenger Tails + Bulk Cleaner Tails				
Sample 2 Scavenger Tails aged				
Sample 2 Bulk Cleaner Tails aged				
Sample 2 Scavenger Tails + Bulk Cleaner Tails aged				

SampleID	pH	EC, uS/cm	ORP, mV	Hardness , $mgCaCO_3/L$	Hardness, mg/L	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Cl, mg/L	F, mg/L	SO_4, mg/L	Ag(T), mg/L
Sample 1 Scavenger Tails aged	8.12	992	346	550		<1	2.5	96.75	886	7.62	1.05	545	<0.00002
Sample 1 Bulk Cleaner Tails aged	7.96	1035	386	485		<1	3	87.5	802	8.73	0.857	445	<0.00002
Sample 1 Scavenger Tails + Bulk Cleaner Tails aged	8.08	977	368	472		<1	3	111.25	740	6.59	0.893	408	<0.00002
Sample 1 Combined Tails 2 mth aged	8.01	1102	383	564		<1	2.75	79.5	870	9.62	0.769	534	<0.00005
Sample 2 Combined Tails 2 mth aged	8.19	1072	376	565		<1	1.5	106.5	835	8.45	0.915	463	<0.00005
K-Silicate Cu Ro Tail	8.07	903.19	348.14	297			4.75	97.38	593	16	1.3	340	0.000017
Illite Pyrite Cu Ro Tail	8.12	944.68	352.05	362			5.05	118.59	636	15.1	1.13	361	0.000011
Sodic Potassic Cu Ro Tail	7.98	1238.7	350.58	470			8.32	133.35	875	17.4	1.32	516	0.000042
Supergene Cu Ro Tail	7.96	1185.99	351.07	516			8.67	104.84	890	15.1	1.51	518	0.000019
LCT-25	8.03	661.07	296.87	258	198		3.54	135.08		33	0.82	166	0.000015
LCT-26	8.03	518.94	291.99	182	145		3.29	115.18		24.9	0.43	117	0.000014
LCT-27	8	531.86	288.57	223	181		3.58	113.62		18.8	0.37	110	0.000018
LCT-28	8.16	764.44	263.67	247	167		2.66	147.28		17	0.65	199	0.000015
LCT-29	8.01	538.82	262.69	237	186		4.04	117.68		15.7	0.3	134	<0.00001
LCT-30	7.95	744.56	281.73	358	301		4.09	102		16.3	0.8	281	0.000018
LCT-31	7.98	533.85	282.71	210	155		3.88	90.75		16.8	1.55	153	0.000013
LCT-32	7.95	567.64	280.76	243	196		3.39	88.71		15.9	0.37	215	<0.00001
LCT-33	7.95	590.5	279.78	230	175		3.84	93.7		20.8	2.15	163	<0.00001
LCT-34	7.8	717.88	230.95	329	293		4.43	81.41		15.9	1.07	288	<0.00001
LCT-35	7.91	530.46	236.32	230	190		3.97	89.88		19.1	2.7	155	<0.00001
LCT-36	7.93	609.22	245.11	283	210		3.61	95.72		17.9	0.65	182	<0.00001
LCT-37	7.96	512.52	235.83	242	192		3.45	90.14		16.2	1.76	153	0.000014
LCT-38	7.94	526.47	243.65	239	187		3.52	82.84		14.4	0.62	155	<0.00001
LCT-39	8.1	456.69	233.88	127	83		2.33	120.76		17.2	0.58	79.9	<0.00001
LCT-40	7.85	650.09	249.51	303	259		3.81	69.93		17.4	1.11	237	<0.00001
LCT-41	7.75	555.38	247.07	275	246		4.52	82.92		15.2	0.82	180	0.000052
LCT-42	7.97	820.56	240.23	408	387		3.99	95.41		17	1.69	341	0.000029
1st Cleaner Scav Tails	8.98	1553.26	148.43		683	<1	<1	51.32	1220	20	<0.4		0.00848
Pyrite Rougher Tails	8.45	1279.63	201.66		595	<1	<1	35.59	974	17.2	<0.2		0.00517
Combined Rougher Tails	8.11	1021.97	157.22		445	<1	6.21	173.19	725	19.8	0.47		0.000013
Gold Plant Tails	7.56	3878.16	299.8		1010	<1	15.33	52.68	3030	15	<0.4		<0.00005

SampleID	Al(T), mg/L	As(T), mg/L	B(T), mg/L	Ba(T), mg/L	Be(T), mg/L	Bi(T), mg/L	Ca(T), mg/L	Cd(T), mg/L	Co(T), mg/L	Cr(T), mg/L	Cu(T), mg/L	Fe(T), mg/L	Hg(T), mg/L
Sample 1 Scavenger Tails aged	0.0604	0.0172	<0.02	0.0147	<0.0004	<0.001	201	<0.0001	<0.0002	<0.001	0.0152	<0.03	<0.00001
Sample 1 Bulk Cleaner Tails aged	0.022	0.0127	<0.02	0.0166	<0.0004	<0.001	178	<0.0001	0.00025	<0.001	0.0119	<0.03	<0.00001
Sample 1 Scavenger Tails + Bulk Cleaner Tails aged	0.0278	0.00605	<0.02	0.0168	<0.0004	<0.001	152	<0.0001	<0.0002	<0.001	0.0142	<0.03	<0.00001
Sample 1 Combined Tails 2 mth aged	0.0167	0.00316	<0.05	0.0204	<0.001	<0.0025	203	<0.00025	<0.0005	<0.0025	0.0171	<0.03	<0.00001
Sample 2 Combined Tails 2 mth aged	0.0252	0.0117	<0.05	0.017	<0.001	<0.0025	207	<0.00025	<0.0005	<0.0025	0.0161	<0.03	<0.00001
K-Silicate Cu Ro Tail	0.234	0.00581	0.044	0.0237	<0.0005	<0.0005	97.3	<0.00008	0.00078	0.00167	0.0202	0.163	<0.00001
Illite Pyrite Cu Ro Tail	0.174	0.00468	0.03	0.0223	<0.0005	<0.0005	96.3	0.000449	0.00071	0.00113	0.0201	0.193	<0.00001
Sodic Potassic Cu Ro Tail	0.279	0.00664	0.054	0.027	<0.0005	<0.0005	124	0.000105	0.0009	0.00228	0.0273	0.576	<0.00001
Supergene Cu Ro Tail	0.0827	0.00378	0.037	0.013	<0.0005	<0.0005	154	0.000731	0.00308	0.00083	0.047	0.095	0.000015
LCT-25	0.0643	0.00169	0.04	0.0303	<0.0002	<0.0005	70.7	<0.0003	0.00036	<0.0005	0.00229	0.247	<0.00001
LCT-26	0.143	0.00247	0.02	0.0324	<0.0002	<0.0005	45	<0.00005	0.00025	<0.0005	0.00381	0.099	<0.00001
LCT-27	0.102	0.00096	0.023	0.0287	<0.0002	<0.0005	66	<0.00005	0.00012	<0.0005	0.00269	0.149	<0.00001
LCT-28	0.086	0.0012	0.033	0.0307	<0.0002	<0.0005	72.8	<0.00011	0.00031	<0.0005	0.00532	0.133	<0.00001
LCT-29	0.0734	0.00186	0.02	0.0324	<0.0002	<0.0005	68.2	<0.00005	0.00032	<0.0005	0.00165	0.062	<0.00001
LCT-30	0.0876	0.0106	0.018	0.0314	<0.0002	<0.0005	97.6	0.000081	0.00296	<0.0005	0.00384	0.144	<0.00001
LCT-31	0.521	0.00132	0.026	0.0298	<0.0002	<0.0005	52.5	0.000106	0.00251	<0.0005	0.00719	0.093	<0.00001
LCT-32	0.0829	0.0221	0.02	0.0227	<0.0002	<0.0005	83.8	0.000065	0.00131	<0.0005	0.00391	0.044	<0.00001
LCT-33	0.117	0.00118	0.023	0.0235	<0.0002	<0.0005	59.4	0.000817	0.00368	<0.0005	0.0264	0.115	<0.00001
LCT-34	0.0603	0.00198	0.035	0.0297	<0.0002	<0.0005	98.1	0.00498	0.00673	<0.0005	0.07	0.09	<0.00001
LCT-35	0.0351	0.00159	0.026	0.0155	<0.0002	<0.0005	69.7	0.000053	0.00339	<0.0005	0.0559	<0.03	<0.00001
LCT-36	0.0612	0.0225	0.032	0.0233	<0.0002	<0.0005	77.4	<0.00005	0.00036	<0.0005	0.00506	0.098	<0.00001
LCT-37	0.083	0.00107	0.028	0.0214	<0.0002	<0.0005	62.3	0.000088	0.00224	<0.0005	0.0163	0.169	<0.00001
LCT-38	0.0915	0.00286	0.024	0.00912	<0.0002	<0.0005	84.8	0.000107	0.00064	<0.0005	0.0293	0.091	0.000015
LCT-39	0.794	0.00133	0.164	0.0528	<0.0002	<0.0005	37.9	<0.00005	0.00011	<0.0005	0.00553	0.172	<0.00001
LCT-40	0.0658	0.00218	0.027	0.0157	<0.0002	<0.0005	91.2	0.00209	0.00323	<0.0005	0.0292	0.205	<0.00001
LCT-41	0.0836	0.00244	0.034	0.0123	<0.0002	<0.0005	88.5	0.000292	0.00105	<0.0005	0.037	0.062	<0.00001
LCT-42	0.156	0.00081	0.019	0.0229	<0.0002	<0.0005	124	0.00295	0.00497	<0.0005	0.0337	0.199	<0.00001
1st Cleaner Scav Tails	0.601	0.00808	<0.02	0.0705	<0.001	<0.001	266	<0.0001	0.00026	0.002	0.5	0.457	
Pyrite Rougher Tails	0.11	0.004	<0.02	0.0545	<0.001	<0.001	226	<0.0001	<0.0002	<0.001	0.372	<0.03	
Combined Rougher Tails	0.0206	0.00077	0.024	0.0317	<0.0005	<0.0005	121	0.00012	0.00063	<0.0005	0.0197	<0.03	
Gold Plant Tails	0.056	0.00448	<0.05	0.0413	<0.0025	<0.0025	375	<0.00025	0.0114	<0.0025	0.0131	0.105	

SampleID	K(T), mg/L	Li(T), mg/L	Mg(T), mg/L	Mn(T), mg/L	Mo(T), mg/L	Na(T), mg/L	Ni(T), mg/L	P(T), mg/L	Pb(T), mg/L	Sb(T), mg/L	Se(T), mg/L	Si(T), mg/L	Sn(T), mg/L
Sample 1 Scavenger Tails aged	40.1		11.5	0.0763	0.102	22.5	<0.001		<0.0001	0.00823	0.0083	1.14	<0.0002
Sample 1 Bulk Cleaner Tails aged	38		10.1	0.1	0.109	21.7	<0.001		0.00019	0.00871	0.007	1.83	<0.0002
Sample 1 Scavenger Tails + Bulk Cleaner Tails aged	34.6		22.4	0.159	0.0775	19.2	<0.001		<0.0001	0.00788	0.0042	1.64	<0.0002
Sample 1 Combined Tails 2 mth aged	38.4		13.6	0.15	0.0661	30.8	<0.0025		<0.00025	0.00534	0.0102	1.82	<0.0005
Sample 2 Combined Tails 2 mth aged	31.7		11.6	0.122	0.0623	20.3	<0.0025		<0.00025	0.00728	0.0054	1.87	<0.0005
K-Silicate Cu Ro Tail	44.9	0.0335	15.5	0.184	0.193	47.8	0.00216	<0.3	0.000166	0.00269	0.0155	4.67	0.00013
Illite Pyrite Cu Ro Tail	44.7	0.0314	28	1.22	0.048	28.2	0.00232	<0.3	0.00018	0.00219	0.0122	4.45	0.00015
Sodic Potassic Cu Ro Tail	59.1	0.0251	46	1.17	0.0715	48.9	0.00325	<0.3	0.000503	0.0016	0.0031	5.98	0.00044
Supergene Cu Ro Tail	48.5	0.0054	40.6	2.95	0.0874	25.9	0.00193	<0.3	0.000654	0.00235	0.0286	4.88	<0.0001
LCT-25	34.5	0.0056	19.7	0.258	0.0685	48.9			0.00158	0.00328	0.0024	4.37	<0.0001
LCT-26	25.2	0.00108	17	0.12	0.031	39.8			0.000424	0.00553	0.0082	3.7	<0.0001
LCT-27	30	0.0029	14.1	0.107	0.02	27.6			0.000402	0.00113	0.002	3.53	<0.0001
LCT-28	28.3	0.00095	15.8	0.156	0.0262	90.9			0.000116	0.00165	0.0024	3.06	<0.0001
LCT-29	23.2	0.00342	16.1	0.2	0.0223	26.6			0.00007	0.00303	0.0039	3.84	<0.0001
LCT-30	28.6	0.0101	27.6	1.18	0.00433	25.8			0.000165	0.00255	0.0033	3.25	<0.0001
LCT-31	40	0.0103	19.2	2.42	0.0166	29.2			0.000616	0.00401	0.0033	6.54	<0.0001
LCT-32	20.6	0.00502	8.13	0.405	0.0624	31.2			0.000073	0.00741	0.0034	3.52	<0.0001
LCT-33	43.7	0.00608	19.9	3.14	0.0443	31.4			0.000244	0.00362	0.0036	5.6	<0.0001
LCT-34	34.2	0.00381	20.3	1.82	0.072	27			0.00153	0.00303	0.0145	4.86	<0.0001
LCT-35	22.8	0.00106	13.6	1.21	0.0612	26.7			<0.00005	0.00118	0.0074	4.18	<0.0001
LCT-36	33.3	0.00709	21.8	0.337	0.0411	28.5			0.000184	0.0108	0.0034	3.32	<0.0001
LCT-37	20.8	0.00332	20.9	2.38	0.0349	22.3			0.000169	0.000655	0.0141	3.37	<0.0001
LCT-38	33.5	<0.0005	6.56	0.555	0.0247	19			0.000353	0.0327	0.0042	3.73	0.00019
LCT-39	13.8	0.00105	7.73	0.0817	0.0422	63			0.000224	0.00118	0.0014	4.96	<0.0001
LCT-40	35.1	0.00582	18.3	2.88	0.0162	20.1			0.00011	0.00566	0.0041	3.68	0.00012
LCT-41	16	<0.0005	13.1	1.82	0.0461	23.2			0.000076	0.00215	0.0059	2.19	<0.0001
LCT-42	38.9	0.00618	23.9	0.551	0.0224	25.3			0.000279	0.00209	0.0159	5.64	<0.0001
1st Cleaner Scav Tails	45.4	<0.01	0.2	0.00388	0.138	41.7	<0.001	<0.3	0.00308	0.00267	0.0174	4.29	<0.0002
Pyrite Rougher Tails	36.2	<0.01	0.32	0.00056	0.0683	29.1	<0.001	<0.3	0.00011	0.00343	0.0141	1.91	<0.0002
Combined Rougher Tails	33.7	0.0341	35.6	0.561	0.0184	29.1	0.0019	<0.3	0.000215	0.0022	0.0042	3.47	<0.0001
Gold Plant Tails	20.1	<0.025	12.6	0.0554	0.11	475	<0.0025	<0.3	0.00074	0.00472	0.0192	0.959	<0.0005

SampleID	Sr(T), mg/L	Ti(T), mg/L	Tl(T), mg/L	U(T), mg/L	V(T), mg/L	Zn(T), mg/L	Ag, mg/L	Al, mg/L	As, mg/L	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L
Sample 1 Scavenger Tails aged			0.00019		0.0016	0.0035									
Sample 1 Bulk Cleaner Tails aged			0.00014		0.0011	0.0054									
Sample 1 Scavenger Tails + Bulk Cleaner Tails aged			<0.0001		<0.001	0.0025									
Sample 1 Combined Tails 2 mth aged			<0.00025		<0.0025	0.0092									
Sample 2 Combined Tails 2 mth aged			<0.00025		<0.0025	<0.005									
K-Silicate Cu Ro Tail	6.78	0.015	0.00015	0.00088	0.0022	0.0101	<0.00001	0.0085	0.00541	0.022	0.0228	<0.0002	<0.0005	95.9	<0.00007
Illite Pyrite Cu Ro Tail	1.84	0.015	0.00018	0.00103	0.0013	0.0071	<0.00001	0.0082	0.00482	0.019	0.0226	<0.0002	<0.0005	101	0.00046
Sodic Potassic Cu Ro Tail	3.23	0.024	0.00016	0.00288	0.0023	0.0079	<0.00001	0.0078	0.00502	0.039	0.0247	<0.0002	<0.0005	121	0.00009
Supergene Cu Ro Tail	0.545	<0.01	0.00019	0.000975	<0.001	0.0307	<0.00001	0.0099	0.00371	0.024	0.0127	<0.0002	<0.0005	149	0.000712
LCT-25	1.15		<0.00005	0.00107	0.0012	0.0219	0.000043	0.0195	0.00182	0.034	0.0247	<0.0002	<0.0005	52.6	<0.00015
LCT-26	2.12		0.000062	0.0021	0.0014	<0.001	<0.00001	0.0156	0.00325	0.014	0.0283	<0.0002	<0.0005	35.3	<0.00005
LCT-27	2.44		<0.00005	0.000704	<0.001	<0.001	0.000237	0.0164	0.00074	0.022	0.0232	<0.0002	<0.0005	53.3	<0.00005
LCT-28	2.76		<0.00005	0.00208	<0.001	0.0027	0.00102	0.014	0.00198	0.027	0.0246	<0.0002	<0.0005	48.5	<0.00005
LCT-29	2.26		0.00006	0.00135	<0.001	<0.001	0.000017	0.0119	0.00192	0.018	0.0288	<0.0002	<0.0005	52.1	<0.00005
LCT-30	1.12		0.000364	0.00145	<0.001	<0.001	<0.00001	0.0032	0.00539	0.016	0.0289	<0.0002	<0.0005	78.5	<0.00005
LCT-31	0.113		0.000089	0.00109	<0.001	0.0051	<0.00001	0.0147	0.00083	0.019	0.0182	<0.0002	<0.0005	36.8	0.000058
LCT-32	5.44		0.000082	0.000798	<0.001	0.012	<0.00001	0.0097	0.0285	0.016	0.018	<0.0002	<0.0005	67.2	0.000061
LCT-33	0.125		0.000081	0.000728	<0.001	0.0192	0.000098	0.0101	0.00119	0.02	0.015	<0.0002	<0.0005	44.1	0.000461
LCT-34	0.229		0.000104	0.000155	<0.001	0.137	<0.00001	0.0036	0.00181	0.037	0.0252	<0.0002	<0.0005	87.5	0.00254
LCT-35	0.108		<0.00005	0.000117	0.0012	0.0554	0.000011	0.0093	0.00194	0.027	0.0134	<0.0002	<0.0005	58.1	<0.00005
LCT-36	1.21		0.000097	0.00091	<0.001	0.0019	0.000132	0.0128	0.015	0.033	0.0195	<0.0002	<0.0005	55.9	<0.00005
LCT-37	0.0815		<0.00005	0.000752	<0.001	0.0133	0.00003	0.0042	0.00091	0.03	0.0163	<0.0002	<0.0005	48.3	0.000064
LCT-38	0.1		0.000107	0.000563	0.0015	0.0134	0.000213	0.0589	0.00468	0.021	0.00611	<0.0002	<0.0005	66.2	0.00007
LCT-39	1.74		<0.00005	0.0016	<0.001	<0.001	0.000018	0.0312	0.00102	0.147	0.0332	<0.0002	<0.0005	24.6	<0.0001
LCT-40	0.134		0.000145	0.000423	0.0011	0.0062	0.000164	0.0194	0.00223	0.024	0.0118	<0.0002	<0.0005	77.9	0.000975
LCT-41	0.16		0.00018	0.000619	0.0011	0.0042	0.00075	0.0571	0.00288	0.032	0.00742	<0.0002	<0.0005	82.4	0.000231
LCT-42	0.456		0.000135	0.00108	0.0017	0.0262	0.000034	0.0062	0.00075	0.02	0.0172	<0.0002	<0.0005	119	0.00151
1st Cleaner Scav Tails	2.82	0.03	<0.0002	<0.00002	0.0051	0.0061	0.00541	0.106	0.00714	<0.02	0.0701	<0.0004	<0.001	273	<0.0001
Pyrite Rougher Tails	2.09	0.016	<0.0002	<0.00002	0.0024	<0.006	0.000866	0.0975	0.00533	<0.02	0.0498	<0.0004	<0.001	238	<0.0001
Combined Rougher Tails	5.11	0.011	<0.0001	0.0051	<0.001	0.0095	<0.00001	0.0109	0.0008	0.02	0.0327	<0.0002	<0.0005	122	0.000131
Gold Plant Tails	1.86	0.019	<0.0005	0.00118	<0.005	<0.015	<0.00005	0.017	0.00488	<0.05	0.0418	<0.001	<0.0025	382	<0.00025

SampleID	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, mg/L	K, mg/L	Mg, mg/L	Mn, mg/L	Mo, mg/L	Na, mg/L	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L
Sample 1 Scavenger Tails aged																
Sample 1 Bulk Cleaner Tails aged																
Sample 1 Scavenger Tails + Bulk Cleaner Tails aged																
Sample 1 Combined Tails 2 mth aged																
Sample 2 Combined Tails 2 mth aged																
K-Silicate Cu Ro Tail	0.00064	<0.0005	0.0102	<0.03	<0.00001	39.6	14	0.169	0.145	47.7	0.00189	<0.00005	0.00215	0.0154	4.15	<0.0001
Illite Pyrite Cu Ro Tail	0.0007	<0.0005	0.0144	<0.03	<0.00001	42.4	26.4	1.2	0.0476	29.6	0.00228	<0.00005	0.00236	0.0076	4.34	<0.0001
Sodic Potassic Cu Ro Tail	0.00063	<0.0005	0.00815	<0.03	<0.00001	52.3	40.6	1.07	0.0639	49.1	0.00273	<0.00005	0.00149	0.003	5.21	<0.0001
Supergene Cu Ro Tail	0.00287	<0.0005	0.0331	<0.03	<0.00001	42.8	35.1	2.77	0.0811	24.9	0.00189	0.000058	0.0023	0.0277	4.61	<0.0001
LCT-25	0.00019	0.00055	0.00213	<0.03	<0.00001	33.6	16.1	0.133	0.068	46.8	0.00463	0.000054	0.00722	0.0051	2.78	0.00011
LCT-26	0.00016	<0.0005	0.00241	<0.03	<0.00001	23.8	13.7	0.0759	0.0294	40.7	0.00151	<0.00005	0.00724	0.013	3.29	<0.0001
LCT-27	<0.0001	<0.0005	<0.0015	<0.03	<0.00001	29	11.6	0.0544	0.0207	28.4	0.00175	<0.00005	0.00203	0.0035	2.4	<0.0001
LCT-28	0.00013	<0.0005	0.0212	<0.03	0.000021	26.6	11.2	0.0443	0.0282	86.9	0.00056	<0.00005	0.00254	0.0082	2.24	<0.0001
LCT-29	0.00017	<0.0005	0.00138	<0.03	<0.00001	21.2	13.5	0.103	0.0218	26.1	0.00226	0.000087	0.0049	0.006	2.8	<0.0001
LCT-30	0.00162	<0.0005	0.00151	<0.03	<0.00001	26.7	25.4	0.763	0.00578	24.9	0.00536	<0.00005	0.00387	0.0062	2.33	<0.0001
LCT-31	0.00137	<0.0005	0.00303	<0.03	<0.00001	34	15.4	1.53	0.018	26.1	0.0066	0.000054	0.00751	0.0057	3.14	<0.0001
LCT-32	0.00068	<0.0005	0.00242	<0.03	<0.00001	18.3	6.8	0.261	0.0538	30.9	0.00396	<0.00005	0.00883	0.0057	2.8	<0.0001
LCT-33	0.00175	<0.0005	0.0291	<0.03	0.000024	38.4	15.8	1.83	0.0477	29.9	0.00508	<0.00005	0.00443	0.0051	3.55	<0.0001
LCT-34	0.00331	<0.0005	0.0376	<0.03	<0.00001	30.9	18.2	1.3	0.0687	27.1	0.00274	0.000316	0.00262	0.0145	4.28	<0.0001
LCT-35	0.0023	<0.0005	0.0371	<0.03	<0.00001	20.5	11	0.846	0.0543	27	0.00143	<0.00005	0.00102	0.0081	3.59	<0.0001
LCT-36	0.00018	<0.0005	0.00272	<0.03	<0.00001	31.4	17.1	0.129	0.0383	28.7	0.00343	<0.00005	0.0189	0.0072	2.11	<0.0001
LCT-37	0.00117	<0.0005	0.00674	<0.03	<0.00001	18.6	17.4	1.32	0.0541	21.9	0.00212	<0.00005	0.0011	0.018	2.34	<0.0001
LCT-38	0.00022	<0.0005	0.0549	<0.03	0.000447	31.3	5.18	0.266	0.0245	18.5	<0.0005	<0.00005	0.0263	0.0048	2.12	<0.0001
LCT-39	<0.0001	<0.0005	0.00108	<0.03	<0.00001	11.4	5.25	0.0329	0.0415	60.1	0.00084	<0.00005	0.00243	0.0032	2.1	<0.0001
LCT-40	0.00124	<0.0005	0.0601	<0.03	0.000043	34.1	15.6	1.81	0.0173	20.1	0.00137	<0.00005	0.00546	0.0056	2.43	<0.0001
LCT-41	0.00041	<0.0005	0.0619	<0.03	<0.00001	13.9	9.85	1.01	0.0383	23.2	<0.0005	<0.00005	0.00161	0.006	1.58	<0.0001
LCT-42	0.00266	0.0006	0.0197	<0.03	<0.00001	36.5	22	0.352	0.0239	25.6	0.00474	0.00005	0.00224	0.0194	4.14	<0.0001
1st Cleaner Scav Tails	<0.0002	<0.001	0.55	<0.03	0.000082	40.9	0.149	0.00029	0.129	42.9	<0.001	0.00063	0.00288	0.02	2.93	<0.0002
Pyrite Rougher Tails	<0.0002	<0.001	0.13	<0.03	<0.00005	31	0.248	0.00032	0.092	29.6	<0.001	<0.0001	0.00371	0.0125	2.22	<0.0002
Combined Rougher Tails	0.00063	<0.0005	0.0187	<0.03	<0.00001	32.4	33.8	0.56	0.0179	29.6	0.00212	0.000244	0.00226	0.0044	3.51	<0.0001
Gold Plant Tails	0.0119	<0.0025	0.0112	<0.03	<0.00005	21.8	13.9	0.0576	0.113	482	<0.0025	<0.00025	0.00491	0.0185	0.903	<0.0005

SampleID	Sr, mg/L	Tl, mg/L	U, mg/L	V, mg/L	Zn, mg/L	EPH10-19, mg/L	EPH19-32, mg/L	Thiosalts, mgS_2O_3/L	Thiosalts, mgSO_4/L	S_3O_6, mg/L	S_4O_6, mg/L	Sulphide S, mg/L	Ammonia(N), mg/L	Nitrate(N), mg/L	Nitrite(N), mg/L
Sample 1 Scavenger Tails aged						<0.3	<1	<10							
Sample 1 Bulk Cleaner Tails aged						<0.3	<1	<10							
Sample 1 Scavenger Tails + Bulk Cleaner Tails aged						<0.3	<1	<10							
Sample 1 Combined Tails 2 mth aged						<0.3	<1	<10							
Sample 2 Combined Tails 2 mth aged						<0.3	<1	<10							
K-Silicate Cu Ro Tail	5.2	0.000107	0.000665	0.00065	0.0033										
Illite Pyrite Cu Ro Tail	1.89	0.000179	0.00105	<0.0005	0.0031										
Sodic Potassic Cu Ro Tail	3.02	0.000139	0.0027	<0.0005	0.0044										
Supergene Cu Ro Tail	0.523	0.000188	0.000928	0.00057	0.023										
LCT-25	0.866	<0.00005	0.00122	<0.0005	0.0012										
LCT-26	1.64	0.000057	0.00275	0.00067	<0.001										
LCT-27	1.96	<0.00005	0.000746	<0.0005	<0.001										
LCT-28	1.96	<0.00005	0.00207	0.00062	<0.001										
LCT-29	1.76	<0.00005	0.00142	<0.0005	0.0029										
LCT-30	0.92	0.00029	0.00131	<0.0005	<0.001										
LCT-31	0.0767	<0.00005	0.00088	<0.0005	<0.001										
LCT-32	4.19	0.000064	0.00059	<0.0005	0.0049										
LCT-33	0.0829	0.000067	0.000552	<0.0005	0.0041										
LCT-34	0.187	0.000056	0.000139	<0.0005	0.0552										
LCT-35	0.0829	<0.00005	0.000057	0.00096	0.0279										
LCT-36	0.966	0.000072	0.000937	<0.0005	<0.001										
LCT-37	0.0624	<0.00005	0.000691	<0.0005	0.0043										
LCT-38	0.0744	0.000075	0.000779	0.0018	0.001										
LCT-39	1.14	<0.00005	0.00135	<0.0005	<0.001										
LCT-40	0.109	0.000151	0.000353	0.00087	0.0012										
LCT-41	0.122	0.000097	0.000935	0.00104	0.0012										
LCT-42	0.374	0.000072	0.000593	<0.0005	0.0082										
1st Cleaner Scav Tails	2.81	<0.0001	<0.00002	0.0033	<0.002			360	409	61	<2		0.2	<0.05	<0.06
Pyrite Rougher Tails	2.15	<0.0001	<0.00002	0.0037	<0.002			250	368	30	<2		0.1	0.05	<0.06
Combined Rougher Tails	5	0.000149	0.00514	<0.0005	0.0075			<2	380	<20	<2		<0.1	0.31	<0.06
Gold Plant Tails	1.92	<0.00025	0.00117	<0.0025	<0.005			<2	2010	<20	<2		36.6	0.06	<0.06

SampleID	Total CN, mg/L	WAD CN, mg/L	Cyanate, mg/L	Thiocyanate, mg/L
Sample 1 Scavenger Tails aged				
Sample 1 Bulk Cleaner Tails aged				
Sample 1 Scavenger Tails + Bulk Cleaner Tails aged				
Sample 1 Combined Tails 2 mth aged				
Sample 2 Combined Tails 2 mth aged				
K-Silicate Cu Ro Tail				
Illite Pyrite Cu Ro Tail				
Sodic Potassic Cu Ro Tail				
Supergene Cu Ro Tail				
LCT-25				
LCT-26				
LCT-27				
LCT-28				
LCT-29				
LCT-30				
LCT-31				
LCT-32				
LCT-33				
LCT-34				
LCT-35				
LCT-36				
LCT-37				
LCT-38				
LCT-39				
LCT-40				
LCT-41				
LCT-42				
1st Cleaner Scav Tails	<0.01	<0.01	<1	<2
Pyrite Rougher Tails	<0.01	<0.01	<1	<2
Combined Rougher Tails	<0.01	<0.01	<1	<2
Gold Plant Tails	0.04	0.02	2.8	160

Sample ID	Litho Code	Cycle	pH	EC, uS/cm	ORP, mV	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	NAG pH4.5, kgH_2SO_4/t	NAG pH7, kgH_2SO_4/t	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Ag, mg/L	Al, mg/L	As, mg/L
018-0135-0155	D/D	C1	2.69	1759	452	160	282.5	15.55	25.03								
		C2	2.89	1043	432	80	125	7.81	11.47								
		C3	3.85	159	357	12.5	100	1.22	4.15								
		C1 + C2								671	191	<5	<0.2	448	0.000927	6.38	0.00059
027-0070-0090	Y	C1	2.71	1113	486	117.5	182.5	10.90	15.77								
		C2	3.36	102	421	37.5	657.5	3.68	12.28								
		C3	3.76	181	396	12.5	270	1.24	6.94								
		C1								326	40.3	8.58	0.041	227	0.00212	7.16	0.003
034-0060-0090	OB	C1	6.57	145	249	0	22.5	<1	0.49								
		C2	6.18	134	242	0	45	<1	2.06								
		C3	4.23	117	359	22.5	357.5	2.17	7.94								
		C1 + C2 + C3								120	9.16	1.05	<0.02	6.18	0.00035	0.688	0.0424
041-0020-0040	Y	C1	5.64	147	296	0	160	<1	2.94								
		C2	5.01	158	310	0	435	<1	7.06								
		C3	3.62	125	390	22.5	1050	2.22	14.55								
		C1 + C2 + C3								106	4.53	1.1	<0.02	9.23	0.00181	0.534	0.00436
041-0244-0260	N	C1	2.6	1794	479	185	420	17.50	36.42								
		C2	2.77	838	445	87.5	132.5	8.26	10.39								
		C3	3.99	183	386	7.5	107.5	<1	3.90								
		C1 + C2								445	46.6	11.3	<0.2	316	0.00549	9.12	0.0076
044-0225-0245	X.HGDN-YxN/D	C1	2.52	1960	435	235	395	18.80	29.59								
		C2	2.71	1169	511	115	152.5	10.51	11.20								
		C3	4	175	370	2.5	47.5	<1	1.95								
		C1+C2								511	75.9	9.7	<0.2	378	0.00156	7.96	0.00072
044-0343-0363	Gp	C1	2.5	1933	450	235	365	22.91	33.14								
		C2	2.64	1300	521	140	175	13.65	14.87								
		C3	4.11	149	382	5	52.5	<1	2.71								
		C1 + C2								337	19.6	<5	<0.2	256	0.0033	8.32	0.0013
047-0350-0365	Wy	C1	2.74	1421	444	137.5	367.5	13.44	33.72								
		C2	2.5	1967	404	267.5	355	28.28	35.68								
		C3	2.71	958	410	97.5	130	9.62	11.84								
		C1 + C2								554	40.5	<5	0.24	419	0.00443	5.2	0.007
068-0500-0520	G	C1	2.63	2100	392	197.5	415	18.72	36.97								
		C2	2.4	2240	504	260	302.5	24.53	27.12								
		C3	3.83	156	390	7.5	32.5	<1	1.95								
		C1 + C2								639	125	11.9	<0.2	502	0.0042	6.63	0.00138
071-0423-0443	R/Db	C1	2.74	1532	436	152.5	420	14.91	38.61								
		C2	2.42	1960	401	282.5	400	27.54	37.77								
		C3	2.89	587	392	65	132.5	6.42	10.62								
		C1 + C2								621	41.9	<5	<0.2	474	0.00164	6.31	0.0615
086-0000-0067	OB	C1	3.88	461	477	10	45	0.97	3.16								
		C2	5.89	144	262	<1	47.5	<1	1.45								
		C3	4.13	122	369	12.5	452.5	1.24	8.45								
		C1								226	68.8	1.11	0.093	170	0.000118	0.652	0.00087

Sample ID	Litho Code	Cycle	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, mg/L	K, mg/L	Mg, mg/L	Mn, mg/L	Mo, mg/L	Na, mg/L
018-0135-0155	D/D	C1																
		C2																
		C3																
		C1 + C2	0.027	0.0646	0.00077	<0.0005	65.1	0.000303	0.101	0.0183	4.79	12.9	<0.00001	20.9	6.95	0.576	0.00482	30.5
027-0070-0090	Y	C1																
		C2																
		C3																
		C1	0.054	0.00347	0.00072	<0.0005	8.55	0.000111	0.0588	0.0367	1.17	0.958	0.000016	13.9	4.61	0.0491	0.0421	21.9
034-0060-0090	OB	C1																
		C2																
		C3																
		C1 + C2 + C3	0.017	0.00603	<0.0002	<0.0005	2.12	<0.00005	0.00376	0.025	0.111	0.898	<0.01	2.93	0.94	0.205	0.0785	18.9
041-0020-0040	Y	C1																
		C2																
		C3																
		C1 + C2 + C3	0.025	0.00258	<0.0002	<0.0005	0.78	<0.00005	0.00048	0.0369	0.0352	0.346	<0.01	3.17	0.625	0.017	0.125	21.8
041-0244-0260	N	C1																
		C2																
		C3																
		C1 + C2	<0.1	0.0584	<0.002	<0.005	10.9	0.00189	0.078	0.0586	30	4.34	<0.00001	12.2	4.72	0.117	0.381	24.5
044-0225-0245	X.HGDN-YxN/D	C1																
		C2																
		C3																
		C1+C2	0.05	0.0485	0.00202	<0.001	18.6	0.00069	0.0548	0.0224	7.63	15.9	0.000011	17.9	7.15	0.179	0.0645	29
044-0343-0363	Gp	C1																
		C2																
		C3																
		C1 + C2	<0.1	0.0572	<0.002	<0.005	3.84	0.00136	0.0656	0.0363	11	12.7	<0.00001	6.81	2.44	0.156	0.171	13.7
047-0350-0365	Wy	C1																
		C2																
		C3																
		C1 + C2	<0.05	0.0246	0.0016	<0.0025	6.88	0.0028	0.12	0.019	21.8	47	<0.00001	9.34	5.66	0.938	0.0459	25.1
068-0500-0520	G	C1																
		C2																
		C3																
		C1 + C2	0.052	0.0307	0.0028	<0.0025	30.9	0.00076	0.0481	0.0257	9.41	39.4	<0.00001	12.3	11.6	1.39	0.0475	24.1
071-0423-0443	R/Db	C1																
		C2																
		C3																
		C1 + C2	0.041	0.0172	0.0014	<0.0005	5.01	0.000489	0.0984	0.03	11.7	85.7	<0.00001	12.3	7.15	3.25	0.648	23.6
086-0000-0067	OB	C1																
		C2																
		C3																
		C1	0.024	0.0743	0.00044	<0.0005	14.3	0.000762	0.0452	0.0109	3.85	0.071	<0.00001	8.46	8.05	1.65	0.0163	28

Sample ID	Litho Code	Cycle	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L	Tl, mg/L	V, mg/L	Zn, mg/L
018-0135-0155	D/D	C1									
		C2									
		C3									
		C1 + C2	0.0294	0.0221	<0.00005	0.0403	17.7	0.00092	0.000733	0.00575	0.0392
027-0070-0090	Y	C1									
		C2									
		C3									
		C1	0.0637	0.00304	0.000312	0.0364	20.6	0.00016	0.000572	0.0133	0.121
034-0060-0090	OB	C1									
		C2									
		C3									
		C1 + C2 + C3	0.00361	0.000259	0.00171	0.0015	11	0.0414	<0.00005	0.0486	0.0137
041-0020-0040	Y	C1									
		C2									
		C3									
		C1 + C2 + C3	0.00465	0.000131	0.000733	0.0062	4.79	0.0737	0.00006	0.0636	0.0326
041-0244-0260	N	C1									
		C2									
		C3									
		C1 + C2	0.0859	0.00079	<0.0005	0.035	10.5	<0.001	0.00085	0.0703	0.164
044-0225-0245	X.HGDN-YxN/D	C1									
		C2									
		C3									
		C1+C2	0.0653	0.00147	0.00012	0.0228	19.5	<0.0002	0.00081	0.0504	0.178
044-0343-0363	Gp	C1									
		C2									
		C3									
		C1 + C2	0.0364	0.00191	<0.0005	0.029	16.2	<0.001	<0.0005	0.0141	0.128
047-0350-0365	Wy	C1									
		C2									
		C3									
		C1 + C2	0.0472	0.0004	0.00037	0.051	15.5	<0.0005	0.00043	0.0163	0.226
068-0500-0520	G	C1									
		C2									
		C3									
		C1 + C2	0.0574	0.00047	<0.00025	0.0164	15.7	<0.0005	0.00381	0.0091	0.15
071-0423-0443	R/Db	C1									
		C2									
		C3									
		C1 + C2	0.0939	0.000193	0.000441	0.0362	14	<0.0002	0.0165	0.0528	0.117
086-0000-0067	OB	C1									
		C2									
		C3									
		C1	0.0381	0.000139	0.000059	0.0093	28.8	<0.0001	0.000158	0.0286	0.0985

Sample ID	Litho Code	Cycle	pH	EC, uS/cm	ORP, mV	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	NAG pH4.5, kgH_2SO_4/t	NAG pH7, kgH_2SO_4/t	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Ag, mg/L	Al, mg/L	As, mg/L
093-0043-0063	G-p	C1	3.67	261	433	27.5	700	2.92	13.00								
		C2	2.87	203	427	47.5	1967.5	4.66	35.28								
		C3	3.8	171	403	15	465	1.47	8.09								
		C1 + C2 + C3								91	24	6.73	<0.02	23.9	0.00285	0.552	0.0124
093-0133-0148	G-p	C1	2.49	2080	469	262.5	480	25.51	43.73								
		C2	2.25	2530	558	410	475	39.28	42.88								
		C3	3.22	531	424	35	57.5	3.45	4.68								
		C1 + C2								489	32.3	9	<0.2	515	0.00675	9.78	0.0081
114-0090-0104	Pp	C1	2.58	1739	474	207.5	345	20.31	32.05								
		C2	2.64	1195	487	130	177.5	12.91	15.14								
		C3	3.45	185	371	20	172.5	1.98	6.68								
		C1 + C2								411	36.5	5.5	<0.2	317	0.000459	8.13	0.00056
115-0024-0034	TC- Arkose	C1	5.64	268	265	<1	30	<1	0.99								
		C2	6.7	213	260	<1	47.5	<1	0.73								
		C3	6.71	139	310	<1	40	<1	0.73								
		C1 + C2								159	52.9	0.95	<0.02	50.9	0.000013	0.0166	0.0629
3079-0499-0519	D	C1	2.42	1890	391	237.5	405	22.20	35.76								
		C2	2.04	3980	491	595	675	56.42	62.11								
		C3	2.47	2140	498	270	305	26.21	29.13								
		C1 + C2 + C3								468	30.5	9.7	<0.2	504	0.00345	3.76	0.00952
3080-0669-0689	G^f	C1	2.51	1909	400	222.5	402.5	21.70	36.57								
		C2	2.45	2480	510	305	342.5	30.21	32.44								
		C3	3.68	223	403	10	35	0.98	2.21								
		C1 + C2								459	42.5	14.3	<0.2	420	0.00346	5.9	0.00345
3087-0023-0040	Y	C1	2.36	2030	423	280	415	25.82	35.96								
		C2	2.6	1752	480	192.5	220	18.38	19.33								
		C3	3.92	198	387	7.5	117.5	<1	3.67								
		C1 + C2								418	36.4	13.4	<0.2	381	0.00493	5.87	0.00676
3104-0378-0398	Y	C1	2.41	2430	389	317.5	707.5	27.73	58.73								
		C2	2.17	4440	501	687.5	787.5	62.48	69.07								
		C3	2.6	1410	470	152.5	185	14.95	16.17								
		C1 + C2 + C3								660	25.8	9.9	<0.2	601	0.00936	8.97	0.0522
3105-0198-0208	N	C1	2.25	2690	399	362.5	657.5	33.00	56.43								
		C2	2	4080	483	887.5	1187.5	78.34	90.48								
		C3	2.1	4750	516	720	825	69.90	76.21								
		C1 + C2 + C3								769	33.6	9.6	<0.2	855	0.0101	6.59	0.284
3113-0019-0037	N / F.FD	C1	2.05	3090	416	517.5	760	48.47	68.84								
		C2	2.52	1837	536	165	215	15.41	18.45								
		C3	4.55	137	386	<1	60	<1	2.45								
		C1 + C2								559	47.7	12.1	<0.2	524	0.000034	17.7	0.00661
3113-0157-0177	N/F-D.Y	C1	2.26	2550	438	410	617.5	40.62	56.97								
		C2	2.09	4360	508	645	730	61.30	67.48								
		C3	2.92	803	453	37.5	85	3.67	6.84								
		C1 + C2								626	40.1	14.1	<0.2	723	0.000396	8.71	0.00873

Sample ID	Litho Code	Cycle	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, mg/L	K, mg/L	Mg, mg/L	Mn, mg/L	Mo, mg/L	Na, mg/L
093-0043-0063	G-p	C1																
		C2																
		C3																
		C1 + C2 + C3	0.035	0.00107	<0.0002	<0.0005	6.82	<0.00005	0.00211	0.0259	0.0668	0.06	<0.005	4.75	1.69	0.0181	0.249	22.6
093-0133-0148	G-p	C1																
		C2																
		C3																
		C1 + C2	<0.1	0.0802	<0.002	<0.005	9.09	0.0287	0.121	0.063	19.7	31.1	<0.00001	8.96	2.34	0.0969	0.0921	23.6
114-0090-0104	Pp	C1																
		C2																
		C3																
		C1 + C2	0.05	0.0814	0.0036	<0.0005	9.12	0.000184	0.0468	0.021	5.21	8	<0.00001	7.86	3.34	0.234	0.00443	25.2
115-0024-0034	TC- Arkose	C1																
		C2																
		C3																
		C1 + C2	0.019	0.00292	<0.0002	<0.0005	16.8	<0.00005	0.00088	0.0278	0.00577	<0.06	<0.01	1.84	2.69	0.0586	0.0102	24.9
3079-0499-0519	D	C1																
		C2																
		C3																
		C1 + C2 + C3	0.033	0.0498	0.00103	<0.001	8.1	0.0089	0.0452	0.0237	5.5	55.3	0.000018	5.99	2.5	0.513	0.0375	19.2
3080-0669-0689	G^f	C1																
		C2																
		C3																
		C1 + C2	<0.05	0.0471	0.0016	<0.0025	10.7	0.00074	0.0667	0.0355	8.75	36	<0.00001	12.6	3.82	0.643	0.275	22.7
3087-0023-0040	Y	C1																
		C2																
		C3																
		C1 + C2	0.036	0.0113	0.00051	<0.0005	9.54	0.000089	0.0858	0.0407	3.41	18	0.000013	8.67	3.06	0.0738	0.212	21.8
3104-0378-0398	Y	C1																
		C2																
		C3																
		C1 + C2 + C3	0.052	0.0839	<0.001	<0.0025	6.46	0.00544	0.0689	0.0674	16.9	69.5	0.000016	11.8	2.36	0.0556	0.275	20.3
3105-0198-0208	N	C1																
		C2																
		C3																
		C1 + C2 + C3	<0.05	0.0394	<0.001	<0.0025	9.62	0.00751	0.0503	0.0278	19.2	119	0.000037	6.31	2.32	0.0254	0.127	22.9
3113-0019-0037	N / F.FD	C1																
		C2																
		C3																
		C1 + C2	0.13	0.00158	0.00101	<0.001	13.4	0.00048	0.169	0.107	1.75	107	<0.00001	7.75	3.5	0.385	0.0132	27.9
3113-0157-0177	N/F-D.Y	C1																
		C2																
		C3																
		C1 + C2	0.039	0.00373	0.00079	<0.001	10.7	0.00056	0.102	0.0689	3.72	87.1	<0.00001	11.2	3.26	0.116	0.0267	24

Sample ID	Litho Code	Cycle	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L	Tl, mg/L	V, mg/L	Zn, mg/L
093-0043-0063	G-p	C1									
		C2									
		C3									
		C1 + C2 + C3	0.00869	0.00011	0.00115	0.014	4.92	0.0006	0.000275	0.0158	0.0399
093-0133-0148	G-p	C1									
		C2									
		C3									
		C1 + C2	0.0709	0.046	0.00102	0.036	11.2	<0.001	0.00165	0.0064	3.93
114-0090-0104	Pp	C1									
		C2									
		C3									
		C1 + C2	0.0235	0.000737	<0.00005	0.0265	16.8	<0.0001	0.000337	0.0177	0.0597
115-0024-0034	TC- Arkose	C1									
		C2									
		C3									
		C1 + C2	0.0018	<0.00005	0.000705	0.0011	6.13	0.00046	0.000089	0.0325	0.0019
3079-0499-0519	D	C1									
		C2									
		C3									
		C1 + C2 + C3	0.0327	0.0638	0.00021	0.019	8.12	0.00025	0.00088	0.003	0.867
3080-0669-0689	G^f	C1									
		C2									
		C3									
		C1 + C2	0.064	0.0141	<0.00025	0.0224	13.8	<0.0005	0.00115	0.0108	0.253
3087-0023-0040	Y	C1									
		C2									
		C3									
		C1 + C2	0.0744	0.000271	0.0002	0.0327	12.9	<0.0001	0.000886	0.0119	0.169
3104-0378-0398	Y	C1									
		C2									
		C3									
		C1 + C2 + C3	0.0819	0.0116	0.00357	0.0618	18.6	<0.0005	0.00157	0.0198	0.787
3105-0198-0208	N	C1									
		C2									
		C3									
		C1 + C2 + C3	0.0287	0.0361	0.0622	0.0462	9.59	0.00091	0.00104	0.0258	1.2
3113-0019-0037	N / F.FD	C1									
		C2									
		C3									
		C1 + C2	0.084	0.00026	0.00016	0.0612	38	0.00056	0.00044	0.0116	0.29
3113-0157-0177	N/F-D.Y	C1									
		C2									
		C3									
		C1 + C2	0.0648	0.00043	0.00066	0.0484	14.2	0.00036	0.00492	0.0304	0.116

Sample ID	Litho Code	Cycle	pH	EC, uS/cm	ORP, mV	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	NAG pH4.5, kgH_2SO_4/t	NAG pH7, kgH_2SO_4/t	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Ag, mg/L	Al, mg/L	As, mg/L
3114-0392-0410	TC^k - Volc Cng	C1	6.49	213	247	<1	20	<1	0.25								
		C2	6.91	190	252	<1	35	<1	0.24								
		C3	6.57	119	309	<1	20	<1	0.73								
		C1 + C2								142	30	0.92	<0.02	34.3	0.000144	0.104	0.0118
3124-0188-0209	Y	C1	2.54	1712	428	217.5	392.5	21.29	36.95								
		C2	2.59	1600	421	192.5	267.5	18.87	24.01								
		C3	3.25	203	380	30	295	2.93	8.06								
		C1 + C2								458	19.2	<5	<0.2	391	0.00533	9.35	0.00221
3128-0039-0056	D	C1	2.4	2290	490	347.5	592.5	31.72	50.88								
		C2	2.2	3130	503	625	712.5	56.55	62.65								
		C3	2.66	1604	540	182.5	225	17.67	20.33								
		C1 + C2 + C3								563	47.8	11.7	<0.2	560	0.00303	9.11	0.0256
3129-0100-0119	TC - And/Volc cng	C1	6.72	214	236	<1	30	<1	0.25								
		C2	6.45	194	257	<1	125	<1	1.47								
		C3	5.96	205	326	<1	552.5	<1	5.67								
		C1 + C2 + C3								128	51.3	0.91	<0.02	6.38	0.000062	0.0607	0.00341
3129-0253-0272	TC - And/Volc cng	C1	6.79	205	239	<1	22.5	<1	0.25								
		C2	6.99	212	255	<1	62.5	<1	0								
		C3	7.2	130	290	<1	15	<1	0								
		C1 + C2								154	32	0.96	<0.02	19.3	0.000023	0.03	0.0146
3135-0080-0098	X2	C1	2.66	1303	461	152.5	225	14.81	19.90								
		C2	4.11	165	337	2.5	152.5	<1	3.90								
		C3	3.15	166	397	45	742.5	4.43	13.28								
		C1								369	11.1	<5	<0.2	274	0.0018	7.89	0.00207
3135-0388-0408	X2	C1	2.27	2650	431	385	670	37.58	62.96								
		C2	2.18	3060	445	502.5	582.5	49.11	55.71								
		C3	2.96	399	391	55	205	5.35	8.52								
		C1 + C2								682	42.2	<5	<0.2	690	0.000313	9.07	0.0102
3135-0988-1008	X2	C1	2.56	1807	453	257.5	447.5	25.13	41.00								
		C2	2.45	1816	423	265	335	26.25	32.44								
		C3	3.42	245	364	27.5	72.5	2.66	3.86								
		C1 + C2								567	69.2	<5	<0.2	466	0.00216	6.74	0.00401
3135-1038-1058	Fh	C1	2.56	1896	446	230	447.5	22.42	41.67								
		C2	2.39	2450	421	385	477.5	37.63	44.96								
		C3	2.85	569	393	57.5	120	5.56	8.22								
		C1 + C2								627	58.8	<5	<0.2	534	0.00339	6.96	0.0584
2028-0155-0175	Y	C1	1.99	3970	412	815	1240	79.44	115.51								
		C2	2.16	3000	447	567.5	692.5	56.73	67.97								
		C3	2.81	702	414	75	120	7.42	9.64								
		C1 + C2								1130	128	<5	<0.2	1140	0.000255	18.6	0.00252

Sample ID	Litho Code	Cycle	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, mg/L	K, mg/L	Mg, mg/L	Mn, mg/L	Mo, mg/L	Na, mg/L
3114-0392-0410	TC^k - Volc Cng	C1																
		C2																
		C3																
		C1 + C2	0.027	0.00177	<0.0002	<0.0005	9.28	<0.00005	0.00065	0.0265	0.00473	<0.06	<0.01	3.98	1.67	0.0158	0.00645	25.5
3124-0188-0209	Y	C1																
		C2																
		C3																
		C1 + C2	<0.05	0.0791	<0.001	<0.0025	3.05	0.00082	0.118	0.0386	12.5	18.9	<0.00001	11.5	2.8	0.124	0.0474	25.9
3128-0039-0056	D	C1																
		C2																
		C3																
		C1 + C2 + C3	<0.05	0.0221	0.0019	<0.0025	10.5	0.00139	0.155	0.0349	8.31	53.7	0.000076	14.4	5.22	0.347	0.101	23.2
3129-0100-0119	TC - And/Volc cng	C1																
		C2																
		C3																
		C1 + C2 + C3	0.022	0.00351	<0.0002	<0.0005	16.4	<0.00005	0.00044	0.0325	0.00861	<0.06	<0.01	2.05	2.49	0.0961	0.00286	22.7
3129-0253-0272	TC - And/Volc cng	C1																
		C2																
		C3																
		C1 + C2	0.024	0.00121	<0.0002	<0.0005	8.7	0.00005	<0.0001	0.0308	0.00433	0.068	<0.01	2.38	2.5	0.0092	0.00239	30.8
3135-0080-0098	X2	C1																
		C2																
		C3																
		C1	0.039	0.0447	0.00055	<0.0005	2.48	0.000288	0.0616	0.0383	4.17	5.03	<0.00001	12.2	1.19	0.0739	0.0177	25.7
3135-0388-0408	X2	C1																
		C2																
		C3																
		C1 + C2	0.027	0.00427	0.00132	<0.0005	7.49	0.000692	0.076	0.0724	3.41	97.2	<0.00001	12.5	5.7	0.924	0.0142	24.5
3135-0988-1008	X2	C1																
		C2																
		C3																
		C1 + C2	0.03	0.0522	0.00155	<0.0005	14.6	0.000413	0.0742	0.0331	8.32	38.7	<0.00001	10.9	7.96	2.71	0.0932	27
3135-1038-1058	Fh	C1																
		C2																
		C3																
		C1 + C2	0.029	0.0274	0.00282	<0.001	12.5	0.0061	0.0569	0.0357	9.83	53.3	<0.00001	11.2	6.67	3.84	0.0196	26.7
2028-0155-0175	Y	C1																
		C2																
		C3																
		C1 + C2	<0.05	0.0302	0.002	<0.0025	32.3	<0.00025	0.0932	0.0745	0.896	135	<0.00001	11	11.4	0.615	0.0004	29.6

Sample ID	Litho Code	Cycle	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L	Tl, mg/L	V, mg/L	Zn, mg/L
3114-0392-0410	TC^k - Volc Cng	C1									
		C2									
		C3									
		C1 + C2	0.00067	0.000062	0.000688	0.0028	4.88	0.00263	0.000068	0.0212	0.0029
3124-0188-0209	Y	C1									
		C2									
		C3									
		C1 + C2	0.111	0.00365	0.00037	0.0513	19.5	0.00073	0.00059	0.0216	0.0856
3128-0039-0056	D	C1									
		C2									
		C3									
		C1 + C2 + C3	0.0792	0.00081	0.00046	0.0366	11.7	<0.0005	0.016	0.0339	0.154
3129-0100-0119	TC - And/Volc cng	C1									
		C2									
		C3									
		C1 + C2 + C3	0.00263	0.000105	0.000578	<0.001	5.76	0.0028	<0.00005	0.0196	0.0031
3129-0253-0272	TC - And/Volc cng	C1									
		C2									
		C3									
		C1 + C2	<0.0005	<0.00005	0.00107	<0.001	9.59	0.0007	0.000063	0.0444	0.0012
3135-0080-0098	X2	C1									
		C2									
		C3									
		C1	0.0363	0.000297	<0.00005	0.0554	20.9	0.00019	0.000844	0.00551	0.0402
3135-0388-0408	X2	C1									
		C2									
		C3									
		C1 + C2	0.0637	0.000208	0.000062	0.0374	20.8	0.00033	0.00154	0.0202	0.125
3135-0988-1008	X2	C1									
		C2									
		C3									
		C1 + C2	0.0521	0.00849	0.000121	0.0331	17.6	0.00015	0.00129	0.00527	0.114
3135-1038-1058	Fh	C1									
		C2									
		C3									
		C1 + C2	0.0334	0.00043	0.00083	0.0265	16.8	0.00069	0.00261	0.01	0.8
2028-0155-0175	Y	C1									
		C2									
		C3									
		C1 + C2	0.132	0.00034	<0.00025	0.049	30.3	0.00214	0.00148	0.0129	0.0289

SampleName	LithoCode	pH	EC, uS/cm	ORP, mV	Acidity (pH4.5), $mgCaCO_3/L$	Total Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	TDS, mg/L	Hardness, $mgCaCO_3/L$	Ag, mg/L
GH07-104-SRK Comp#1		7.43	75.61	407	<1	3.73	33.41	0.78	0.099	9.51	62	27.4	<0.00001
GH07-104-SRK Comp#4		7.65	331.82	390	<1	3.56	89.43	1.04	0.146	99.4	254	163	<0.00001
GH07-104-SRK Comp#10		7.98	262.56	394	<1	2.23	90.64	1.17	0.319	59.6	193	107	<0.00001
GH07-105-SRK Comp#1		7.7	99.7	398	<1	3.78	24.76	2.39	0.157	27.1	81	24.1	<0.00001
GH07-105-SRK Comp#2		8.01	229.97	397	<1	4.97	112.07	1.27	0.074	27.6	160	112	<0.00001
GH07-105-SRK Comp#8		7.65	95.82	401	<1	2.33	40.38	1.76	0.109	13.7	73	19.5	<0.00001
GH07-106-SRK Comp#3		8.1	275.8	406	<1	2.96	105.11	1.04	0.249	58.5	210	111	<0.00001
GH07-106-SRK Comp#6		7.89	227.93	408	<1	3.46	73.15	1.47	0.134	53.3	171	103	<0.00001
GH07-106-SRK Comp#7		7.58	49.54	409	<1	2.87	27.42	1.25	0.057	1.01	47	21	<0.00001
037-0062-0093	TC - basalt	7.98	379	355	<1	2.3	53.5	2.37	0.207	126	256	133	<0.00001
037-0122-0161	TC - cng	8.2	675	366	<1	<1	80.3	3.98	0.159	267	469	287	<0.00001
037-0161-0182	TC - cng	8.09	773	367	<1	2	75.5	4.15	0.232	689	1110	676	<0.00005
115-0014-0024	TC- Oxidized	6.85	402	429	<1	3.5	6	6.2	0.221	172	294	122	<0.00001
115-0024-0034	TC- Arkose	7.8	835	396	<1	4	40.8	2.1	0.201	774	1210	725	<0.00005
115-0041-0054	TC - Cng	7.89	990	362	<1	4	63.5	<0.5	0.028	361	2380	1360	<0.00005
115-0054-0066	TC	8.25	789	352	<1	<1	96	2.4	0.171	542	906	342	<0.00005
115-0104-0123	TC - Slst	8.67	1001	319	<1	<1	149	1.89	1.07	324	659	77.5	<0.00005
115-0142-0163	TC - Arkose	8.25	1764	313	<1	1.3	262.5	<5	0.37	2350	3660	891	<0.0001
115-0197-0215	TC - Cng	8.52	2230	299	<1	<1	194.5	1.32	0.97	1130	1890	369	<0.00005
115-0232-0264	TC - Cng/mdst	8.44	2350	331	<1	<1	206.8	1.43	0.87	1210	2060	391	<0.00005
115-0280-0300	TA pd	8.8	646	321	<1	<1	119.3	2.19	1.51	182	414	45.3	<0.00002
3079-0589-0599	Tad	8.11	152	349	<1	1.3	48.5	<0.5	0.158	24	90	41.2	<0.00001
3101-0308-0346	TD	7.53	51	401	<1	2.5	19.8	0.54	0.219	7.11	56	14.2	<0.00001
3114-0196-0213	TC^k - Volc Cng	9.8	296	239	<1	<1	134.5	0.59	0.098	9.77	348	5.78	0.000017
3114-0266-0283	TC^k - Volc Cng	9.62	237	251	<1	<1	115.8	<0.5	0.092	10.6	249	5.28	0.000012
3114-0283-0301	TC^k - Volc Cng	9.55	259	264	<1	<1	120.3	<0.5	0.111	11.6	347	5.74	0.000015
3114-0392-0410	TC^k - Volc Cng	8.64	291	308	<1	<1	85.8	<0.5	0.026	10.1	222	18.1	<0.00001
3114-0410-0427	TC^k - Basalt	8.42	222	331	<1	<1	70.5	<0.5	0.035	10.4	145	20.5	<0.00001
3129-0080-0100	TC - And/Volc cng	8.97	305	326	<1	<1	123	<0.5	0.034	7.39	202	14.8	<0.00001
3129-0100-0119	TC - And/Volc cng	9.35	339	276	<1	<1	156.5	1.1	0.204	18.7	368	8.52	0.000014
3129-0234-0253	TC - And/Volc cng	9.29	411	269	<1	<1	192.5	1.51	0.375	24.3	348	7.55	0.000015
3129-0253-0272	TC - And/Volc cng	9.51	363	261	<1	<1	166.5	0.72	0.386	20	338	7.01	0.000013
3129-0399-0417	TC - And/Volc cng	8.96	224	307	<1	<1	112.5	<0.5	0.337	7.29	148	10.4	<0.00001
3129-0417-0435	TC - And/Volc cng	8.71	261	290	<1	<1	119.3	1.03	0.48	19.4	157	18.7	<0.00001
3129-0453-0470	TC - Volc cng	8.5	240	331	<1	<1	110	<0.5	0.293	17.2	147	22.5	<0.00001
3129-0470-0489	TC - Volc cng	8.59	192	305	<1	<1	88.8	1.02	0.303	10.7	127	19.9	<0.00001

SampleName	LithoCode	Al, mg/L	As, mg/L	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, ug/L	K, mg/L
GH07-104-SRK Comp#1		0.0091	0.00037	0.048	0.00706	<0.0002	<0.0005	8.83	<0.00005	<0.0001	<0.0005	0.00089	<0.03	<0.00001	0.728
GH07-104-SRK Comp#4		0.018	0.00701	0.025	0.07	<0.0002	<0.0005	45.6	<0.00005	0.00012	<0.0005	0.00669	<0.03	<0.00001	4.93
GH07-104-SRK Comp#10		0.0165	0.0103	0.053	0.0541	<0.0002	<0.0005	33.2	<0.00005	0.00012	<0.0005	0.00691	<0.03	<0.00001	3.96
GH07-105-SRK Comp#1		0.008	0.00067	0.022	0.0128	<0.0002	<0.0005	7.75	<0.00005	<0.0001	<0.0005	0.00292	<0.03	<0.00001	0.786
GH07-105-SRK Comp#2		0.0069	0.00146	0.017	0.0302	<0.0002	<0.0005	34.5	<0.00005	<0.0001	0.00101	0.00399	<0.03	<0.00001	2.98
GH07-105-SRK Comp#8		0.0513	0.00537	0.017	0.00499	<0.0002	<0.0005	5.82	<0.00005	0.00077	<0.0005	0.00829	<0.03	<0.00001	1.39
GH07-106-SRK Comp#3		0.0102	0.00162	0.02	0.0397	<0.0002	<0.0005	35.6	<0.00005	<0.0001	<0.0005	0.00657	<0.03	<0.00001	2.92
GH07-106-SRK Comp#6		0.0377	0.0078	0.016	0.0462	<0.0002	<0.0005	30.8	<0.00005	0.00015	<0.0005	0.00654	<0.03	<0.00001	3.64
GH07-106-SRK Comp#7		0.0331	0.00327	0.012	0.00357	<0.0002	<0.0005	6.73	0.000092	0.00033	<0.0005	0.00923	<0.03	<0.00001	0.875
037-0062-0093	TC - basalt	0.0225	0.00036	0.198	0.0428	<0.0002	<0.0005	31.4	0.000156	0.00233	<0.0005	0.0652	0.056	0.000017	6.56
037-0122-0161	TC - cng	0.0116	0.00093	0.192	0.0729	<0.0002	<0.0005	63	<0.00005	0.00095	<0.0005	0.00659	<0.03	<0.00001	13.2
037-0161-0182	TC - cng	<0.005	0.00104	0.146	0.0648	<0.001	<0.0025	148	<0.00025	0.00247	<0.0025	0.00516	<0.03	<0.00001	21.6
115-0014-0024	TC- Oxidized	0.031	0.00109	0.493	0.0597	<0.0002	<0.0005	36.1	0.000067	0.00148	<0.0005	0.00212	0.043	0.000011	1.51
115-0024-0034	TC- Arkose	0.0076	0.00116	0.147	0.0673	<0.001	<0.0025	199	<0.00025	0.0213	<0.0025	0.00363	<0.03	<0.00001	8.55
115-0041-0054	TC - Cng	<0.005	0.00076	0.18	0.047	<0.001	<0.0025	331	<0.00025	0.0147	<0.0025	0.00278	<0.03	<0.00001	16.4
115-0054-0066	TC	0.0084	0.00239	0.267	0.0474	<0.001	<0.0025	77.2	<0.00025	0.00255	<0.0025	0.00828	<0.03	<0.00001	9.34
115-0104-0123	TC - Slst	0.307	0.00272	0.289	0.0826	<0.001	<0.0025	15.3	<0.00025	0.00079	<0.0025	0.0109	0.065	0.000037	5.47
115-0142-0163	TC - Arkose	0.022	0.0014	0.48	0.0424	<0.002	<0.005	172	<0.0005	0.0681	<0.005	0.0097	<0.03	0.00001	15.4
115-0197-0215	TC - Cng	0.109	0.00192	0.271	0.0887	<0.001	<0.0025	63.6	<0.00025	0.00151	<0.0025	0.00414	0.032	<0.00001	8.18
115-0232-0264	TC - Cng/mdst	0.047	0.00356	0.271	0.076	<0.001	<0.0025	70.2	<0.00025	0.00719	<0.0025	0.0091	<0.03	<0.00001	9.1
115-0280-0300	TA pd	0.628	0.0598	0.298	0.0642	<0.0004	<0.001	8.37	<0.0001	0.00633	<0.001	0.0412	0.128	<0.00001	3.99
3079-0589-0599	Tad	0.0582	0.031	0.036	0.00764	<0.0002	<0.0005	11.3	<0.00005	<0.0001	<0.0005	0.0017	<0.03	<0.00001	1.49
3101-0308-0346	TD	0.0763	0.0275	0.019	0.0243	<0.0002	<0.0005	3.71	<0.00005	0.00012	<0.0005	0.00114	0.065	<0.00001	1
3114-0196-0213	TC^k - Volc Cng	3.56	0.0116	0.056	0.0273	<0.0002	<0.0005	1.23	<0.00005	0.00034	0.00438	0.00273	1.37	<0.00001	2.18
3114-0266-0283	TC^k - Volc Cng	2.69	0.00421	0.049	0.0212	<0.0002	<0.0005	1.2	<0.00005	0.00026	<0.002	0.00099	0.82	<0.00001	1.64
3114-0283-0301	TC^k - Volc Cng	2.91	0.00632	0.067	0.0187	<0.0002	<0.0005	1.28	<0.00005	0.00029	<0.002	0.00128	0.991	<0.00001	1.78
3114-0392-0410	TC^k - Volc Cng	1.3	0.0145	0.037	0.0254	<0.0002	<0.0005	5.11	<0.00005	0.00037	<0.002	0.00308	0.366	<0.00001	3.78
3114-0410-0427	TC^k - Basalt	0.197	0.00675	0.021	0.0109	<0.0002	<0.0005	5.89	<0.00005	<0.0001	<0.0005	0.00382	0.061	<0.00001	3.08
3129-0080-0100	TC - And/Volc cng	0.623	0.0077	0.248	0.0272	<0.0002	<0.0005	3.77	<0.00005	0.00012	<0.002	0.00144	0.238	<0.00001	1.91
3129-0100-0119	TC - And/Volc cng	2.17	0.0261	0.231	0.0381	<0.0002	<0.0005	2.1	<0.00005	0.00055	0.00316	0.00473	1.28	<0.00001	1.82
3129-0234-0253	TC - And/Volc cng	2.11	0.019	0.182	0.0255	<0.0002	<0.0005	1.84	<0.00005	0.00055	<0.001	0.00148	1.97	<0.00001	1.21
3129-0253-0272	TC - And/Volc cng	2.15	0.0205	0.206	0.0157	<0.0002	<0.0005	1.54	0.000061	0.00056	<0.002	0.00155	1.74	<0.00001	1.38
3129-0399-0417	TC - And/Volc cng	0.509	0.0252	0.1	0.0113	<0.0002	<0.0005	2.89	<0.00005	<0.0001	<0.0005	0.00159	0.175	<0.00001	2
3129-0417-0435	TC - And/Volc cng	0.101	0.0162	0.114	0.0157	<0.0002	<0.0005	5.07	<0.00005	<0.0001	<0.0005	0.00138	0.047	<0.00001	2.85
3129-0453-0470	TC - Volc cng	0.237	0.00637	0.078	0.0216	<0.0002	<0.0005	5.74	<0.00005	<0.0001	<0.0005	0.00197	0.093	<0.00001	3.79
3129-0470-0489	TC - Volc cng	0.289	0.00634	0.04	0.0242	<0.0002	<0.0005	5.05	<0.00005	<0.0001	<0.0005	0.00207	0.096	<0.00001	4.03

SampleName	LithoCode	Mg, mg/L	Mn, mg/L	Mo, mg/L	Na, mg/L	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L	Tl, mg/L	V, mg/L	Zn, mg/L
GH07-104-SRK Comp#1		1.29	0.0247	0.00423	7.7	0.00084	0.000096	0.000155	<0.001	6.16	0.00016	<0.00005	<0.0005	0.0019
GH07-104-SRK Comp#4		12	0.0942	0.0112	12.1	0.00096	0.000096	0.00106	0.0038	7.13	<0.0001	<0.00005	0.00453	0.0034
GH07-104-SRK Comp#10		5.94	0.0677	0.0274	21.5	0.00108	0.000075	0.000659	0.0042	6.05	0.00016	<0.00005	0.00877	0.0023
GH07-105-SRK Comp#1		1.16	0.0348	0.00831	14.3	<0.0005	<0.00005	0.000195	<0.001	7.13	<0.0001	<0.00005	0.00073	0.0018
GH07-105-SRK Comp#2		6.2	0.00272	0.00794	15.2	0.00393	0.000086	0.000348	0.0012	9.85	<0.0001	<0.00005	0.00199	0.0019
GH07-105-SRK Comp#8		1.2	0.0125	0.0134	16.2	0.00437	0.000217	0.000182	<0.001	3.96	0.0005	<0.00005	0.00402	0.0056
GH07-106-SRK Comp#3		5.44	0.0125	0.0398	25.5	<0.0005	0.000098	0.000407	0.0022	5.92	<0.0001	<0.00005	0.00185	0.0022
GH07-106-SRK Comp#6		6.37	0.0693	0.0254	13.4	0.00098	0.00009	0.000688	0.0035	5.45	0.00013	<0.00005	0.0114	0.0022
GH07-106-SRK Comp#7		1.02	0.00051	0.00388	4.1	0.0019	0.000187	0.000096	<0.001	3.68	0.00041	<0.00005	0.00243	0.0059
037-0062-0093	TC - basalt	13.3	0.0927	0.00523	19.9	0.00136	0.000065	0.00171	0.0185	1	<0.0001	<0.00005	<0.0005	0.0252
037-0122-0161	TC - cng	31.4	0.0295	0.0322	23.9	<0.0005	<0.00005	0.00269	0.0457	1.07	<0.0001	0.000066	<0.0005	0.006
037-0161-0182	TC - cng	74.2	0.11	0.00243	47	<0.0025	<0.00025	0.00221	0.0429	0.96	<0.0005	<0.00025	<0.0025	0.0123
115-0014-0024	TC- Oxidized	7.66	0.308	0.000962	32.4	0.00367	0.000096	0.00357	0.0535	9.32	<0.0001	<0.00005	0.00067	0.0179
115-0024-0034	TC- Arkose	55.4	3.07	0.0151	38.2	0.0209	<0.00025	0.00255	0.026	1.3	<0.0005	0.00031	<0.0025	0.077
115-0041-0054	TC - Cng	131	1.01	0.00142	118	0.0106	<0.00025	0.00112	0.0177	1.11	<0.0005	<0.00025	<0.0025	0.0158
115-0054-0066	TC	36.2	0.0276	0.0812	145	0.0038	<0.00025	0.00171	0.102	0.992	<0.0005	<0.00025	<0.0025	0.0059
115-0104-0123	TC - Slst	9.53	0.00538	0.0587	191	<0.0025	<0.00025	0.00198	0.0867	1.48	<0.0005	<0.00025	<0.0025	<0.005
115-0142-0163	TC - Arkose	112	0.352	0.0084	746	0.0376	<0.0005	0.00308	0.22	1.71	<0.001	0.00111	<0.005	0.079
115-0197-0215	TC - Cng	51	0.0333	0.0237	449	0.0031	<0.00025	0.00347	0.0748	0.853	<0.0005	0.00029	<0.0025	<0.005
115-0232-0264	TC - Cng/mdst	52.3	0.072	0.0401	491	0.0077	<0.00025	0.0021	0.137	1.04	<0.0005	0.00035	<0.0025	0.0081
115-0280-0300	TA pd	5.93	0.00823	0.0286	128	0.0037	<0.0001	0.00525	0.0191	2.32	0.00021	<0.0001	0.0057	0.0051
3079-0589-0599	Tad	3.17	0.0041	0.04	14.8	<0.0005	<0.00005	0.00396	0.0039	3.94	<0.0001	<0.00005	0.0163	0.0038
3101-0308-0346	TD	1.2	0.00546	0.00829	5.6	<0.0005	<0.00005	0.00183	<0.001	5.32	<0.0001	<0.00005	0.00289	0.0091
3114-0196-0213	TC^k - Volc Cng	0.659	0.0127	0.00246	67.7	0.00082	0.000274	0.0102	0.0012	10.1	0.0002	<0.00005	0.0382	0.0031
3114-0266-0283	TC^k - Volc Cng	0.552	0.00766	0.00195	55.5	<0.0005	0.000166	0.00992	0.0012	6.36	0.00017	<0.00005	0.0276	0.0018
3114-0283-0301	TC^k - Volc Cng	0.621	0.00561	0.000657	60.5	<0.0005	0.000165	0.00178	0.0032	7.28	0.00017	<0.00005	0.0306	0.0016
3114-0392-0410	TC^k - Volc Cng	1.31	0.00595	0.0157	57.7	0.00056	0.000126	0.00104	0.0151	3.74	0.00011	<0.00005	0.00994	0.0018
3114-0410-0427	TC^k - Basalt	1.4	0.0118	0.00103	39.7	<0.0005	<0.00005	0.00236	0.0044	1.86	<0.0001	<0.00005	0.00568	0.0011
3129-0080-0100	TC - And/Volc cng	1.31	0.00601	0.00469	65.3	<0.0005	0.000092	0.00437	0.0118	2.76	<0.0001	<0.00005	0.0147	0.0018
3129-0100-0119	TC - And/Volc cng	0.797	0.0172	0.00519	79	0.00089	0.000424	0.00454	0.0072	6.47	<0.0001	<0.00005	0.0273	0.0056
3129-0234-0253	TC - And/Volc cng	0.718	0.0134	0.00176	95.5	<0.0005	0.000224	0.00422	0.0012	9.95	<0.0001	<0.00005	0.0591	0.003
3129-0253-0272	TC - And/Volc cng	0.767	0.0128	0.0103	84	<0.0005	0.000273	0.00991	0.0028	10.3	<0.0001	<0.00005	0.0604	0.0031
3129-0399-0417	TC - And/Volc cng	0.77	0.0025	0.00782	47.1	<0.0005	0.000074	0.00564	<0.001	3.33	<0.0001	<0.00005	0.0259	<0.001
3129-0417-0435	TC - And/Volc cng	1.47	0.00247	0.0137	52.2	<0.0005	<0.00005	0.00182	0.0012	2.05	<0.0001	<0.00005	0.0111	<0.001
3129-0453-0470	TC - Volc cng	1.98	0.0025	0.0119	43	0.0041	0.000102	0.000681	0.0022	2.13	0.00024	<0.00005	0.00393	0.0034
3129-0470-0489	TC - Volc cng	1.78	0.00453	0.00699	34.5	<0.0005	0.000064	0.00204	0.0024	2.49	<0.0001	<0.00005	0.00809	0.0016

Sample ID	Litho Code	Sample Weight, g	Vol Input, ml	Temp, C	pH (3hrs)	EC (3hrs), uS/cm	pH (final)	EC (final), uS/cm	ORP, mV	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L
Waste Rock																	
018-0135-0155	D/D	250	750	25	7.88	174	7.95	221	377	<1	3.5	63.5	142	93.4	0.68	0.171	46.4
027-0070-0090	Y	250	750	25	4.13	107	4.15	151	545	2.5	19.5	<1	78	32.2	<0.5	0.119	54.2
034-0060-0090	OB	250	750	25	6.6	41	6.66	72	461	<1	3	4.3	162	2.07	1.33	0.091	21
041-0020-0040	Y	250	750	25	5.86	14	5.5	20	467	<1	5.25	2.3	46	0.68	1.05	0.023	6.38
041-0244-0260	N	250	750	25	4.56	440	4.78	642	533	<1	235	1.5	616	71.9	<0.5	1.94	340
044-0225-0245	X.HGDN-YxN/D	250	750	25	4.59	402	4.71	494	536	<1	42	1	382	176	<0.5	0.726	238
044-0343-0363	Gp	250	750	25	4.14	417	4.3	523	551	1.25	90	<1	406	151	<0.5	1.6	254
047-0350-0365	Wy	250	750	25	5.17	608	5.3	704	509	<1	25.75	1.8	548	313	0.68	0.367	366
068-0500-0520	G	250	750	25	4.74	882	5	885	510	<1	40	2	932	582	<0.5	0.117	618
071-0423-0443	R/Db	250	750	25	4.15	735	4.42	905	494	<1	51.75	<1	732	201	<0.5	0.345	485
086-0000-0067	OB	250	750	25	5.86	60	7.27	389	389	<1	3.75	14	118	18.4	0.97	0.141	34.2
093-0043-0063	G-p	250	750	25	4.85	37	4.86	58	529	<1	7.25	1.3	52	<0.5	0.83	<0.02	22.5
093-0133-0148	G-p	250	750	25	4.19	524	4.32	661	536	2.25	291.5	<1	641	17.7	1.15	0.123	353
114-0090-0104	Pp	250	750	25	5.59	196	5.81	251	501	<1	9.5	3.5	167	93.1	0.68	0.048	112
115-0024-0034	TC- Arkose	250	750	25	7.14	604	7.45	725	395	<1	3.5	29	544	298	0.66	0.144	349
3079-0499-0519	D	250	750	25	7.74	51	7.87	99	413	<1	1.75	43.5	64	39.7	<0.5	0.053	8.53
3080-0669-0689	G^f	250	750	25	4.36	196	4.68	240	534	<1	13	<1	148	72.4	<0.5	0.111	102
3087-0023-0040	Y	250	750	25	4.25	137	4.41	176	536	<1	19.75	<1	107	36.4	<0.5	0.056	68
3104-0378-0398	Y	250	750	25	4.07	522	4.23	662	544	4	294.25	<1	646	29.7	<0.5	0.246	361
3105-0198-0208	N	250	750	25	4.46	546	4.55	677	533	<1	231.75	0.3	602	89.3	<0.5	0.69	361
3113-0019-0037	N / F.FD	250	750	25	4.8	52	4.87	87	535	<1	17.25	1.5	56	12.3	0.75	<0.02	32.3
3113-0157-0177	N/F-D.Y	250	750	25	3.23	850	3.13	1106	520	70.5	283.75	<1	761	223	<0.5	2.86	481
3114-0392-0410	TC^k - Volc Cng	250	750	25	8.6	199	8.31	274	379	<1	<1	116.3	314	23.2	<0.5	0.086	29.5
3124-0188-0209	Y	250	750	25	4.44	241	4.5	303	527	<1	53	<1	226	84.8	<0.5	0.531	140
3128-0039-0056	D	250	750	25	3.98	370	4.2	492	539	2.5	85.75	<1	366	144	<0.5	0.7	240
3129-0100-0119	TC - And/Volc cng	250	750	25	9.1	187	8.66	331	338	<1	<1	166	303	7.58	<0.5	0.025	6.38
3129-0253-0272	TC - And/Volc cng	250	750	25	9.21	263	8.7	419	330	<1	<1	192.5	362	6.53	<0.5	0.074	30.5
3135-0080-0098	X2	250	750	25	5.03	58	5.42	82	512	<1	16.75	2.8	57	18	0.83	<0.02	32.5
3135-0388-0408	X2	250	750	25	4.79	430	5.62	530	500	<1	9.25	3.8	382	241	0.55	0.158	264
3135-0988-1008	X2	250	750	25	7.14	368	7.34	456	432	<1	2.5	22	317	171	0.53	0.149	200
3135-1038-1058	Fh	250	750	25	4.63	434	5.08	555	481	<1	30	2.3	408	203	<0.5	<0.02	254
2028-0155-0175	Y	250	750	25	7.41	126	7.63	165	421	<1	4.25	37.3	103	64.8	<0.5	0.046	41.6

Sample ID	Litho Code	Ag, mg/L	Al, mg/L	As, mg/L	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, ug/L	K, mg/L	Mg, mg/L
Waste Rock																	
018-0135-0155	D/D	0.000018	0.0381	0.00096	0.056	0.00906	<0.0002	<0.0005	31	<0.00005	<0.0001	<0.0005	0.0117	<0.03	0.000032	7.41	3.85
027-0070-0090	Y	0.000015	0.728	0.00057	0.035	0.000629	<0.0002	<0.0005	3.45	0.000148	0.0297	<0.0005	1.26	0.225	0.000012	3.93	5.74
034-0060-0090	OB	0.000013	0.352	0.00198	0.351	0.00308	<0.0002	<0.0005	0.498	<0.00005	0.00018	0.00091	0.0313	0.411	0.000058	0.588	0.201
041-0020-0040	Y	0.000042	0.0561	0.00074	0.157	0.000345	<0.0002	<0.0005	0.187	<0.00005	0.0008	<0.0005	0.0382	0.067	0.000016	0.915	0.0519
041-0244-0260	N	<0.0005	3.36	<0.005	<0.5	<0.0025	<0.01	<0.025	17.9	0.031	0.161	<0.025	154	0.075	0.000014	6.2	6.58
044-0225-0245	X.HGDN-YxN/D	<0.00005	0.954	<0.0005	0.124	0.00314	<0.001	<0.0025	46.3	0.00222	0.04	<0.0025	19.6	0.186	<0.00001	5.53	14.7
044-0343-0363	Gp	<0.0001	2.46	0.0019	<0.1	0.00441	0.002	<0.005	37.5	0.0074	0.108	<0.005	45	0.676	0.000012	4.09	13.9
047-0350-0365	Wy	<0.00005	0.159	<0.0005	0.099	0.00104	<0.001	<0.0025	62.9	0.00949	0.0831	<0.0025	10.6	<0.03	<0.00001	6.25	37.9
068-0500-0520	G	<0.00005	0.396	<0.0005	<0.05	0.00333	0.0038	<0.0025	120	0.00277	0.0085	<0.0025	15	1.01	<0.00001	5.63	68.8
071-0423-0443	R/Db	0.000011	0.165	0.00537	<0.01	0.0012	0.00053	<0.0005	60	0.000258	0.0172	<0.0005	0.849	11.4	<0.00001	1.32	12.5
086-0000-0067	OB	<0.00001	0.0913	0.00045	0.13	0.00749	<0.0002	<0.0005	4.93	<0.00005	0.00012	<0.0005	0.0139	0.102	<0.00001	1.97	1.48
093-0043-0063	G-p	0.00001	0.0315	0.00074	0.158	0.000843	<0.0002	<0.0005	0.137	<0.00005	0.00014	<0.0005	0.0328	0.044	0.000045	3.11	0.0321
093-0133-0148	G-p	<0.0005	6.02	<0.005	<0.5	0.018	<0.01	<0.025	5.51	0.0637	0.0679	<0.025	162	1.47	0.000024	6.9	0.95
114-0090-0104	Pp	<0.00001	0.007	0.00106	0.091	0.00886	<0.0002	<0.0005	24.4	0.000065	0.00222	<0.0005	1.5	<0.03	<0.00001	2.16	7.79
115-0024-0034	TC- Arkose	<0.00001	0.0088	0.00125	0.08	0.0486	<0.0002	<0.0005	73.3	0.000102	0.00932	<0.0005	0.0116	<0.03	<0.00001	6.38	27.9
3079-0499-0519	D	0.000015	0.0464	0.00065	<0.01	0.00744	<0.0002	<0.0005	10.6	<0.00005	<0.0001	<0.0005	0.00505	<0.03	0.000027	3.45	3.24
3080-0669-0689	G^f	0.000014	0.145	0.00095	0.012	0.00243	0.00138	<0.0005	12.3	0.000575	0.0275	<0.0005	1.77	1.27	<0.00001	9.4	10.1
3087-0023-0040	Y	<0.00001	0.317	0.00148	0.042	0.00325	<0.0002	<0.0005	10.8	0.000177	0.00919	<0.0005	3.63	0.484	<0.00001	3.79	2.29
3104-0378-0398	Y	<0.0005	11.3	0.0071	<0.5	0.0194	<0.01	<0.025	7.26	0.0256	0.0772	<0.025	175	2.38	0.000015	6.3	2.81
3105-0198-0208	N	<0.0005	2.73	0.0092	<0.5	0.01	<0.01	<0.025	25.8	0.011	0.0394	<0.025	144	0.531	0.000013	6.5	6.06
3113-0019-0037	N / F.FD	<0.00001	0.0646	0.00059	0.04	0.0408	<0.0002	<0.0005	3.78	0.000134	0.00359	<0.0005	1.03	<0.03	<0.00001	5.93	0.703
3113-0157-0177	N/F-D.Y	0.000067	24.3	0.0439	<0.05	0.00249	0.0124	<0.0025	49.1	0.011	0.254	0.0137	20.9	28.1	<0.00001	2.4	24.5
3114-0392-0410	TC^k - Volc Cng	<0.00001	0.445	0.00521	0.033	0.0279	<0.0002	<0.0005	6.16	<0.00005	0.00053	0.00064	0.00625	0.332	<0.00001	4.68	1.89
3124-0188-0209	Y	<0.00005	1.17	0.00079	<0.05	0.00198	<0.001	<0.0025	21.2	0.00183	0.094	<0.0025	28.3	0.357	<0.00001	4.11	7.74
3128-0039-0056	D	0.00011	2.74	0.0141	<0.1	0.0229	0.0054	<0.005	38.2	0.0264	0.173	<0.005	37.6	4.32	0.000018	5.81	11.8
3129-0100-0119	TC - And/Volc cng	<0.00001	0.34	0.00387	0.107	0.0198	<0.0002	<0.0005	2	<0.00005	<0.0001	0.00075	0.00158	0.364	<0.00001	1.52	0.626
3129-0253-0272	TC - And/Volc cng	<0.00001	0.417	0.0297	0.12	0.00627	<0.0002	<0.0005	1.67	<0.00005	0.00026	<0.0005	0.00468	0.383	<0.00001	1.27	0.572
3135-0080-0098	X2	<0.00001	0.0105	0.0005	0.034	0.00392	<0.0002	<0.0005	4.96	0.000087	0.00351	<0.0005	0.971	<0.03	<0.00001	3.82	1.36
3135-0388-0408	X2	<0.00001	0.124	0.00098	0.014	0.00937	0.00125	<0.0005	49.1	0.00194	0.0209	<0.0005	1.35	0.191	0.000019	7.26	28.7
3135-0988-1008	X2	<0.00001	0.0104	0.00034	0.016	0.00762	<0.0002	<0.0005	33.1	0.000082	0.00443	<0.0005	0.00944	<0.03	<0.00001	10.4	21.4
3135-1038-1058	Fh	<0.00002	0.152	0.0008	<0.02	0.0113	0.0106	<0.001	46.8	0.00433	0.00934	<0.001	9.54	3.41	<0.00001	7.28	20.9
2028-0155-0175	Y	0.000016	0.029	0.0006	<0.01	0.0128	<0.0002	<0.0005	17.9	<0.00005	<0.0001	<0.0005	0.00587	<0.03	0.000017	3.61	4.87

Sample ID	Litho Code	Mn, mg/L	Mo, mg/L	Na, mg/L	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L	Tl, mg/L	V, mg/L	Zn, mg/L
Waste Rock													
018-0135-0155	D/D	0.0228	0.00151	3	<0.0005	<0.00005	0.000452	0.0021	1.04	<0.0001	<0.00005	0.00092	<0.001
027-0070-0090	Y	0.0501	<0.00005	3.2	0.0302	0.000151	<0.00005	0.0092	1.05	<0.0001	0.000205	<0.0005	0.192
034-0060-0090	OB	0.0133	0.0422	9.8	0.00057	0.000274	0.00031	0.0025	4.46	<0.0001	<0.00005	0.00127	0.0027
041-0020-0040	Y	0.0009	0.0042	4.2	<0.0005	0.000054	0.00006	0.0015	1.22	<0.0001	<0.00005	0.00085	0.0198
041-0244-0260	N	0.528	<0.0025	2.4	0.197	<0.0025	<0.0025	<0.05	1	<0.005	<0.0025	<0.025	0.64
044-0225-0245	X.HGDN-YxN/D	0.485	<0.00025	7.2	0.0368	0.0003	0.00034	0.0057	1.66	<0.0005	0.00071	<0.0025	0.448
044-0343-0363	Gp	0.779	<0.0005	6.4	0.0626	<0.0005	<0.0005	<0.01	1.23	0.0011	0.00056	<0.005	0.591
047-0350-0365	Wy	2.62	<0.00025	13.2	0.0408	<0.00025	<0.00025	0.014	1.26	<0.0005	0.00039	<0.0025	0.613
068-0500-0520	G	8.85	<0.00025	4.3	0.0638	<0.00025	<0.00025	0.0052	0.955	<0.0005	0.0007	<0.0025	0.39
071-0423-0443	R/Db	3.19	<0.00005	3.4	0.0594	<0.00005	<0.00005	<0.001	1.16	<0.0001	0.000309	<0.0005	0.0524
086-0000-0067	OB	0.0461	0.0662	13.3	0.00072	0.000078	0.000151	0.0057	4.24	<0.0001	<0.00005	<0.0005	0.0017
093-0043-0063	G-p	0.0041	0.000343	9.4	<0.0005	0.000072	<0.00005	0.0048	1.78	<0.0001	0.000107	<0.0005	0.0053
093-0133-0148	G-p	0.252	<0.0025	6.5	0.125	<0.0025	<0.0025	0.055	0.99	<0.005	<0.0025	<0.025	8.42
114-0090-0104	Pp	0.12	0.00454	9.2	0.00142	0.000221	0.000259	0.0477	2.71	<0.0001	0.000208	0.00813	0.0316
115-0024-0034	TC- Arkose	1.62	0.0173	12.1	0.00918	<0.00005	0.000126	0.0121	0.646	<0.0001	0.000256	<0.0005	0.0057
3079-0499-0519	D	0.00597	0.00113	4.1	<0.0005	0.000101	0.000374	<0.001	0.629	<0.0001	<0.00005	0.00057	<0.001
3080-0669-0689	G^f	3.33	<0.00005	3.9	0.0894	0.000559	<0.00005	0.0023	0.451	<0.0001	0.000559	<0.0005	0.375
3087-0023-0040	Y	0.106	0.000121	8.1	0.0107	0.000305	0.00005	0.021	1.75	<0.0001	0.000487	<0.0005	0.503
3104-0378-0398	Y	0.173	<0.0025	2.6	0.229	<0.0025	0.0168	<0.05	1.09	<0.005	<0.0025	<0.025	3.31
3105-0198-0208	N	0.131	<0.0025	<2	0.047	<0.0025	0.0632	<0.05	0.786	<0.005	<0.0025	<0.025	2.37
3113-0019-0037	N / F.FD	0.113	<0.00005	6.1	0.00305	0.000503	<0.00005	0.0087	1.55	<0.0001	0.000126	<0.0005	0.218
3113-0157-0177	N/F-D.Y	2.45	<0.00025	2.4	0.25	0.00036	0.00085	<0.005	1.01	<0.0005	0.0036	0.0817	0.65
3114-0392-0410	TC^k - Volc Cng	0.0116	0.00929	36	<0.0005	0.000119	0.000351	0.0069	2.77	<0.0001	<0.00005	0.0032	0.0014
3124-0188-0209	Y	0.233	0.00088	2.9	0.13	<0.00025	0.00279	0.0093	1.24	<0.0005	0.00052	<0.0025	0.194
3128-0039-0056	D	1.64	<0.0005	4.3	0.163	<0.0005	0.00075	<0.01	1.66	<0.001	0.00319	<0.005	0.752
3129-0100-0119	TC - And/Volc cng	0.00791	0.0027	52.1	<0.0005	0.000118	0.000202	0.0025	2.59	<0.0001	<0.00005	0.0024	<0.001
3129-0253-0272	TC - And/Volc cng	0.0055	0.00852	63.5	<0.0005	0.000263	0.000795	0.0065	2.69	<0.0001	<0.00005	0.00709	0.0029
3135-0080-0098	X2	0.021	<0.00005	5.1	0.00154	0.000149	<0.00005	0.0338	2.27	<0.0001	0.000349	<0.0005	0.0208
3135-0388-0408	X2	2.46	<0.00005	5	0.0416	0.000476	0.000116	0.004	0.77	<0.0001	0.000435	<0.0005	0.16
3135-0988-1008	X2	3.03	0.00203	9.9	0.0103	<0.00005	0.000766	0.0059	0.712	<0.0001	0.000077	<0.0005	0.0045
3135-1038-1058	Fh	5.3	<0.0001	15.9	0.0282	0.00655	0.00051	0.0038	0.922	<0.0002	0.0002	<0.001	0.583
2028-0155-0175	Y	0.209	0.000216	2.1	0.00078	<0.00005	0.000546	<0.001	0.497	<0.0001	<0.00005	<0.0005	<0.001

Sample ID	Litho Code	Anhydrite, wt%	Biotite, wt%	Carbonate, wt%	Chalcopyrite, wt%	Chlorite, wt%	Clay, wt%	Fe-oxydydroxide, wt%	Gypsum, wt%	Hematite, wt%
Waste Rock (PEZ)										
4292-415-430	TA/TD			5	tr	7				
4292-685-695	TC			20	tr	10				5
104472	TC			tr	tr	3 to 5	15			tr?
104775	TD			tr						
105391	Gs		tr				1			tr?
105456	Gs			tr			1			tr?
107172	Y			2	3	3 to 5				tr?
107326	Y		tr	1	tr	15				
219084	TF		tr	10	tr	5	15			1
219135	TW			10	tr		25			
219189	TY			10			25			15
220076	Y2L		20	tr	tr					tr
220364	TY			5	tr		15			3
220366	TY			7			15			tr
220394	TC			15	tr	20	5			5
220842	Y		7	tr	13		5			tr
221502	TD			4		10	10			5
222788	TA d		30	5	tr					
224182	G			tr	1					
224956	D		30	tr	1					1
225026	Gs		3	tr	1					tr
226293	Gp			2	1					tr
226785	TB		tr	7	tr	20	15			tr
406502	TF			5		5	15			1
406558	TC			10	tr	15	2			tr
406692	Gs				tr		tr			
406717	Y				tr		tr			

Sample ID	Illite, wt%	K-feldspar, wt%	Magnetite, wt%	Molybdenite, wt%	Pyrite, wt%	Rutile, wt%	Sericite, wt%	Other Sulfide, wt%	Other, wt%
Waste Rock (PEZ)									
4292-415-430					2		3	marc	tr
4292-685-695								marc (2%)	tr
104472	15				3		7	aspy, sphal	tr
104775	1		tr		tr		tr		tr
105391					20		70	cov, sphal	tr
105456					20		70	cov, bor	
107172	20			tr	2		3		
107326	5			tr	2		tr		
219084					tr				tr
219135					1				tr
219189					tr				tr
220076			tr		20		10		
220364	1		tr		tr		tr		
220366					2				
220394					tr				
220842				tr	2		20	sphal	
221502		40			10				
222788					5		15		
224182					1		15	chal, bor, sphal	
224956	3			tr	2		5	marc	
225026	7			tr	2		15		
226293					1		30	sphal, aspy?	
226785	tr				tr				
406502					tr				
406558					3		20	gal, sphal	
406692					20		70		tr
406717					20		70		tr

Sample ID	Litho Code	Anhydrite, wt%	Biotite, wt%	Carbonate, wt%	Chalcopyrite, wt%	Chlorite, wt%	Clay, wt%	Fe-oxydydroxide, wt%	Gypsum, wt%	Hematite, wt%
Waste Rock (PWZ)										
019-0072-0090	WY		20	1						5
025-0617-0637	D		25	tr	1					2
033-0137-0155	Y		30	tr	2					tr
046-0113-0133	N or Gp-p.YM		15	1	1					3
046-0580-0600	GxN		5	tr	1					tr
047-0350-0365	Wy		15	tr	1					3
112-0460-0480	X.MDbxN		10	tr	1					1.5
115-0054-0066	TC			15						2
115-0142-0163	TC - Arkose			3						15
117-0190-0210	N.YM	1	15	1	1					3
117-1055-1071	TBd		tr	10	1					tr
118-0468-0488	Mkp-x		3	11	1					7
118-0520-0535	Y		15	tr	1					1
118-1220-1238	WY		15	5	tr					tr
3069-0927-0947	G		5		tr					
3102-0568-0588	Y		15	2	tr					
3102-0958-0978	TB		15	2	tr			3		
3115-0988-1008	Y		15	tr	1					1
3123-0438-0458	D? / Dp		60	tr	tr			tr		
3124-0188-0209	Y		15		1				1	tr
3124-0872-0887	X.HxN^f		10	1	tr					tr
3129-0253-0272	TC - And/Volc cng			15		10				1
3129-0417-0435	TC - And/Volc cng			20	tr	2				1
4157-439-471	TF			20	tr		5			3

Sample ID	Illite, wt%	K-feldspar, wt%	Magnetite, wt%	Molybdenite, wt%	Pyrite, wt%	Rutile, wt%	Sericite, wt%	Other Sulfide, wt%	Other, wt%
Waste Rock (PWZ)									
019-0072-0090		50			1		5		
025-0617-0637		50		tr	5		5	aspy, dig, cov, tt-tn	
033-0137-0155		10			7		10		
046-0113-0133		60		tr	2			dig, cov	
046-0580-0600		70		tr	2		1	bor	
047-0350-0365		40			5		10	dig	
112-0460-0480		50			3		1		
115-0054-0066		3						aspy (1%)	15
115-0142-0163		tr						aspy	
117-0190-0210		65			2		1		
117-1055-1071			tr		tr		10	aspy, marc	
118-0468-0488		75		tr	1		tr	bor, cov	
118-0520-0535		30			4		1	dig	
118-1220-1238		30	tr	tr	2		10	aspy, marc	
3069-0927-0947		50		tr	2		15		tr
3102-0568-0588		40		tr	5		2		
3102-0958-0978		3	3		2		1		tr
3115-0988-1008		20			2		2		
3123-0438-0458		10			5				tr
3124-0188-0209		40			2		tr	dig, cov	
3124-0872-0887		30		tr	2		1		
3129-0253-0272			tr					aspy	
3129-0417-0435								aspy, bor, chal	
4157-439-471					3		15	marc (2%)	3

Sample ID	Litho Code	Anhydrite, wt%	Biotite, wt%	Carbonate, wt%	Chalcopyrite, wt%	Chlorite, wt%	Clay, wt%	Fe-oxydydroxide, wt%	Gypsum, wt%	Hematite, wt%
Tailings										
11486-003 bulk	G+Y		5	tr	1	1				tr
11486-003 OF	G+Y		~30	tr	tr	>1				tr
11486-003 UF	G+Y		20	tr	tr	2				tr
PP08-3365	Y		15	tr	1	tr				tr
PP08-3607	Y		20	tr	tr	tr				tr
PP08-3610	G		20	tr	tr					1
PP08-3614	G		1	tr	tr	1				tr
PP08-3849	G		tr	tr	tr	tr				tr
PP08-3850	Y		20	tr	1	tr				
11840-003 Hypogene Bulk Float Tail A			>50	1	tr					tr
11840-003 Hypogene Bulk Float Tail A			>40	1.5	tr					tr
11840-003 Phase II OF			20	1.5	tr					tr
11840-003 Phase II Sands			20	1	tr					1
11840-003 pyrite			>50	tr	tr					tr
11840-003A			50-70	tr	1					tr
11840-003B			50-70	tr	1					tr
Sample 1 Bulk Cleaner Tails			7	tr	tr			tr		
Sample 1 Scavenger Tails			30	tr	tr			1		
Sample 2 Bulk Cleaner Tails			7	tr	tr			tr		
Sample 2 Scavenger Tails			15	tr	tr			tr		
11486-003			tr	tr	tr	1				tr
11486-005			1	tr	tr	tr				1
11486-006			2	tr	tr	tr				tr

Sample ID	Illite, wt%	K-feldspar, wt%	Magnetite, wt%	Molybdenite, wt%	Pyrite, wt%	Rutile, wt%	Sericite, wt%	Other Sulfide, wt%	Other, wt%
Tailings									
11486-003 bulk			tr		1		20	pyrr	tr
11486-003 OF			tr		tr		2		2
11486-003 UF			tr		2		3		tr
PP08-3365				tr	1		10		
PP08-3607					tr		10		
PP08-3610					tr		7		
PP08-3614					tr		20		tr
PP08-3849					tr		15	cov	tr
PP08-3850					1		10		
11840-003 Hypogene Bulk Float Tail A			tr		tr		2		1
11840-003 Hypogene Bulk Float Tail A			tr		tr		3	marc	tr
11840-003 Phase II OF			tr		tr		10		2
11840-003 Phase II Sands			tr	tr	1		10		tr
11840-003 pyrite			tr		1		tr	?marc, bor	3
11840-003A			tr	tr	2		10-15	bor	tr
11840-003B			tr		2		5	marc	tr
Sample 1 Bulk Cleaner Tails		10-30	tr	tr	1			cov	
Sample 1 Scavenger Tails		10-30	tr		tr	3		aspy, dig, cov	
Sample 2 Bulk Cleaner Tails		10-30	tr		tr			aspy, dig, cov	
Sample 2 Scavenger Tails		10-30	tr		tr	1		aspy, bor, cov	
11486-003					tr		15	sphl	tr
11486-005					tr		20		tr
11486-006					tr		15		

Sample ID	Litho Code	Actinolite, wt%	Augite, wt%	Biotite, wt%	Boehmite?, wt%	Calcite, wt%	Chalcopyrite, wt%	Clinochlore, wt%	Clinoptilolite?, wt%
Waste Rock (PEZ)									
ARLB010	TA+TB					3		15	
220841 + 220842	Y								
104472	TC					2.4		4.6	
104775	TD							2.8	
105391	Gs								
105456	Gs								
107172	Y							14.1	
107326	Y					1.2		12.3	
219084	TF					11		23.7	
219135	TW			3.5		6.8		27.5	
219189	TY					3.3			
220076	Y2L			8.8				8.8	
220364	TY					7		13.1	
220366	TY					3.1		10.2	
220394	TC					10.9		20.8	
220841	Y			2.807	0.397		5	1.6	
220842	Y				0.745		5.2		
221502	TD							5.3	
222788	TA d					3.4		7.4	
224182	G						0.8		
224956	D			17.3			0.9	8.1	
225026	Gs						0.6	5.1	
226293	Gp				0.4	4.5		4.7	
226785	TB					8.3		17.1	
406502	TF					3.7		8.1	
406558	TC					7.7		16.2	
406692	Gs								
406717	Y								
Composite 1	G				0.3	2.6		2.1	
Composite 10	TC/TF					7		13.5	
Composite 11	TC/TY					16.2		12.6	
Composite 12	TW(TF)					9.9		16.4	
Composite 13	TC					10.1		15.5	
Composite 14	TC/TW					3.9		11.1	
Composite 15	TB					13.6		9.9	
Composite 16	TB					10.3		25.5	2.6
Composite 17	TB					6.4		26	
Composite 18	TB					0.7		12.6	
Composite 19	TA	4	18			0.4		23.1	1.1
Composite 2	G						1.2	2.2	
Composite 20	TA					1		10.5	
Composite 3	G								
Composite 4	G								
Composite 5	Y			5			0.6	5	
Composite 6	Y			2.3	0.4	1.3		5.8	
Composite 7	Y						1.3	4.1	
Composite 8	Y							4.6	
Composite 9	TC					10.3		14.9	

Sample ID	Litho Code	Clinozoisite, wt%	Dol/Ank, wt%	Epidote, wt%	Epistilbite?, wt%	Grossular, wt%	Gypsum, wt%	Hematite, wt%	Illite, wt%
Waste Rock (PEZ)									
ARLB010	TA+TB		3.1					4.1	
220841 + 220842	Y								
104472	TC								
104775	TD								
105391	Gs								
105456	Gs								
107172	Y								
107326	Y	4.3							
219084	TF							0.7	
219135	TW				5.3				
219189	TY								
220076	Y2L								
220364	TY								
220366	TY						1.5		6.9
220394	TC							3.9	
220841	Y								
220842	Y								
221502	TD	3.6							
222788	TA d								
224182	G								
224956	D					1.7			
225026	Gs								
226293	Gp								
226785	TB								
406502	TF								
406558	TC								
406692	Gs								
406717	Y								
Composite 1	G								4.6
Composite 10	TC/TF							1.2	
Composite 11	TC/TY								4.3
Composite 12	TW(TF)								
Composite 13	TC								
Composite 14	TC/TW						0.8		
Composite 15	TB								
Composite 16	TB								
Composite 17	TB								
Composite 18	TB			23.8					
Composite 19	TA								
Composite 2	G								2.5
Composite 20	TA	5.3							
Composite 3	G								
Composite 4	G								
Composite 5	Y								
Composite 6	Y								
Composite 7	Y								
Composite 8	Y		1.3						
Composite 9	TC								

Sample ID	Litho Code	Kaolinite, wt%	K-feldspar, wt%	Magnetite, wt%	Montmorillonite, wt%	Muscovite, wt%	Muscovite Mg?, wt%	Orthoclase, wt%
Waste Rock (PEZ)								
ARLB010	TA+TB			3.4				22.3
220841 + 220842	Y							
104472	TC		41.6			13.4	17.159	
104775	TD		20.5		28.6	1.2		
105391	Gs	1	1.5			40.1		
105456	Gs		2.1			45.2		
107172	Y	6.5	7.7			20		
107326	Y		34.7			12.6		
219084	TF					13.3		
219135	TW		6.6					
219189	TY	8.5			40.2			
220076	Y2L	2.6	4			22.5	8.1	
220364	TY					20.4		
220366	TY					18		
220394	TC		2.4			11.9		
220841	Y		49.3			19		
220842	Y		43.4			28.2		
221502	TD		21.8					
222788	TA d	7.4	11.4			31.2		
224182	G		10.9			4.2		
224956	D		38.9			2.3		
225026	Gs		43.5			12.9		
226293	Gp		25			18.8		
226785	TB					22.8		
406502	TF		12.8			10.8		
406558	TC					19.3		
406692	Gs		2.2			43.3		
406717	Y		2			50.9		
Composite 1	G		31.9			13		
Composite 10	TC/TF		3.9	1.4		20.8		
Composite 11	TC/TY		3.4			6.6		
Composite 12	TW(TF)		6.2			10.6		
Composite 13	TC					15.7		
Composite 14	TC/TW	21.7						
Composite 15	TB			1.2		21.5		
Composite 16	TB					8.8		
Composite 17	TB					11.4		
Composite 18	TB		12.7					
Composite 19	TA		10.1					
Composite 2	G		30.2			20.3		
Composite 20	TA		11.7					
Composite 3	G		2.7			43.8		
Composite 4	G		2.6			34.5		
Composite 5	Y		47.6			12.5		
Composite 6	Y		46.3			12.9		
Composite 7	Y		12.1			40.3		
Composite 8	Y		1.8			35.9		
Composite 9	TC					16.9		

Sample ID	Litho Code	Plagioclase, wt%	Pyrite, wt%	Pyrrhotite, wt%	Pyrophyllite, wt%	Quartz, wt%	Rutile, wt%	Siderite, wt%	Talc?, wt%	Titanite, wt%
Waste Rock (PEZ)										
ARLB010	TA+TB	29.5				19.6				
220841 + 220842	Y									
104472	TC		1.1			19.8				
104775	TD	26.9			1.8	18.1				
105391	Gs		27.1			30.3				
105456	Gs		13.7			39				
107172	Y		2.7			49.1				
107326	Y	24.7	1.2			9				
219084	TF	30.4				20.3		0.5		
219135	TW	25.4	0.5			23.9		0.5		
219189	TY	15.1				24.6		8.3		
220076	Y2L		17.6			27.6				
220364	TY	17.2				42.4				
220366	TY	20.1	4.2			36				
220394	TC	31.2				18.9				
220841	Y		1.6			20.3				
220842	Y		1.8			20.6				
221502	TD	45.7	3.9			16.7				3.1
222788	TA d		5.3			33.8				
224182	G		1.1			82.9				
224956	D	6.9	3.9			18.6		1.2		
225026	Gs		1.8			35.4				
226293	Gp	14	0.7			31.9				
226785	TB	3.2	4.1			43.6		0.9		
406502	TF	31.9	0.2			32.5				
406558	TC	11.8	3.8			41.3				
406692	Gs		21.8			32.6				
406717	Y		17.1			30				
Composite 1	G	4.9	1.1			39.7				
Composite 10	TC/TF	30.3				22				
Composite 11	TC/TY	30				27				
Composite 12	TW(TF)	24.5	0.4			30.8				1.2
Composite 13	TC	32.7	0.6			25.5				
Composite 14	TC/TW	40.8	2.9			18.7				
Composite 15	TB	36.7				17.2				
Composite 16	TB	30.1			7.6	11.9				3.3
Composite 17	TB	28.9		0.7		23.9				2.7
Composite 18	TB	32.7	1			13.9				2.5
Composite 19	TA	34.1	1.9			1.4				5.8
Composite 2	G	10.6	3.7			29.2				
Composite 20	TA	50	3			14.3				4.3
Composite 3	G		18.1			35.3				
Composite 4	G		29.8			33.1				
Composite 5	Y	9.3	2.1			17.9				
Composite 6	Y	7	2.6			21.4				
Composite 7	Y		11			31.3				
Composite 8	Y		16.3			40.1				
Composite 9	TC	27	0.3			30.6				

Sample ID	Litho Code	Actinolite, wt%	Augite, wt%	Biotite, wt%	Boehmite?, wt%	Calcite, wt%	Chalcopyrite, wt%	Clinochlore, wt%	Clinoptilolite?, wt%
Waste Rock (PWZ)									
ARLB001	Y			3.7		0.3			
ARLB002	Y			6.9					
ARLB003	G/D/N	5.3		2.1		2.6		6.7	
ARLB006	G/D/N			3.6		1.1		4.3	
ARLB007	TC/TF/TX					6.2		13	
ARLB008	TC/TF/TX					12.7		20.3	
I/P (-4.75 mm)				1.6			0.9	1.5	

Sample ID	Litho Code	Actinolite, wt%	Augite, wt%	Biotite, wt%	Boehmite?, wt%	Calcite, wt%	Chalcopyrite, wt%	Clinochlore, wt%	Clinoptilolite?, wt%
Waste Rock (PEZ+PWZ)									
ARLB004	TW					12.3		18.6	
ARLB005	TY					8.8		15.4	
ARLB009	TD			5		4.1		7	
NCK (-4.75 mm)				9.3		1.5	0.7	3.2	

Sample ID	Litho Code	Actinolite, wt%	Augite, wt%	Biotite, wt%	Boehmite?, wt%	Calcite, wt%	Chalcopyrite, wt%	Clinochlore, wt%	Clinoptilolite?, wt%
Ore									
11486-001 AT Comp -10 m		1.2			0.6		2.6	2.8	

Sample ID	Litho Code	Actinolite, wt%	Augite, wt%	Biotite, wt%	Boehmite?, wt%	Calcite, wt%	Chalcopyrite, wt%	Clinochlore, wt%	Clinoptilolite?, wt%
Tailings									
11486-003 bulk	G+Y	1.2				0.9		2.8	
11486-003 OF	G+Y					0.7		3.7	
11486-003 UF	G+Y					0.7		2.5	
PP08-3365	Y			3.2				5	
PP08-3607	Y			4.8				4.8	
PP08-3610	G							2.3	
PP08-3614	G					0.9		2.4	
PP08-3849	G					0.8		2.2	
PP08-3850	Y			2.6		1.1		4.4	
11840-003 bulk cleaner				4.9		0.3			
11840-003 Phase II OF				5.9		0.3			
11840-003 Phase II Sands				4.7		0.5			
11840-003 pyrite				4.5		0.4			
11486-003						1.1		3.3	
11486-005						0.9		3	
11486-006						0.7		2.2	
MPP Ro Tails				6.3		0.6			

Sample ID	Litho Code	Clinozoisite, wt%	Dol/Ank, wt%	Epidote, wt%	Epistilbite?, wt%	Grossular, wt%	Gypsum, wt%	Hematite, wt%	Illite, wt%
Waste Rock (PWZ)									
ARLB001	Y								
ARLB002	Y								
ARLB003	G/D/N								
ARLB006	G/D/N								
ARLB007	TC/TF/TX		0.9						
ARLB008	TC/TF/TX	2.5	0.5						
I/P (-4.75 mm)			0.8						26.5

Sample ID	Litho Code	Clinozoisite, wt%	Dol/Ank, wt%	Epidote, wt%	Epistilbite?, wt%	Grossular, wt%	Gypsum, wt%	Hematite, wt%	Illite, wt%
Waste Rock (PEZ+PWZ)									
ARLB004	TW								
ARLB005	TY								
ARLB009	TD	3.8			2.2				
NCK (-4.75 mm)			1						8.6

Sample ID	Litho Code	Clinozoisite, wt%	Dol/Ank, wt%	Epidote, wt%	Epistilbite?, wt%	Grossular, wt%	Gypsum, wt%	Hematite, wt%	Illite, wt%
Ore									
11486-001 AT Comp -10 m									

Sample ID	Litho Code	Clinozoisite, wt%	Dol/Ank, wt%	Epidote, wt%	Epistilbite?, wt%	Grossular, wt%	Gypsum, wt%	Hematite, wt%	Illite, wt%
Tailings									
11486-003 bulk	G+Y								
11486-003 OF	G+Y								
11486-003 UF	G+Y								
PP08-3365	Y								
PP08-3607	Y								
PP08-3610	G								
PP08-3614	G								
PP08-3849	G								
PP08-3850	Y								
11840-003 bulk cleaner									
11840-003 Phase II OF									
11840-003 Phase II Sands									
11840-003 pyrite							0.9		
11486-003									
11486-005									
11486-006									
MPP Ro Tails			2					0.5	

Sample ID	Litho Code	Kaolinite, wt%	K-feldspar, wt%	Magnetite, wt%	Montmorillonite, wt%	Muscovite, wt%	Muscovite Mg?, wt%	Orthoclase, wt%
Waste Rock (PWZ)								
ARLB001	Y	2.1	21.7			25.5		
ARLB002	Y	1.7	28.8			17.6		
ARLB003	G/D/N		21.4	1.6		5.3		
ARLB006	G/D/N		30.8			10.1		
ARLB007	TC/TF/TX		2.9					
ARLB008	TC/TF/TX							
I/P (-4.75 mm)			14.2					

Sample ID	Litho Code	Kaolinite, wt%	K-feldspar, wt%	Magnetite, wt%	Montmorillonite, wt%	Muscovite, wt%	Muscovite Mg?, wt%	Orthoclase, wt%
Waste Rock (PEZ+PWZ)								
ARLB004	TW		2.3			13.9		
ARLB005	TY		3.4			22.3		
ARLB009	TD					2.9		11.5
NCK (-4.75 mm)			28.7					

Sample ID	Litho Code	Kaolinite, wt%	K-feldspar, wt%	Magnetite, wt%	Montmorillonite, wt%	Muscovite, wt%	Muscovite Mg?, wt%	Orthoclase, wt%
Ore								
11486-001 AT Comp -10 m			29.6			15.3		

Sample ID	Litho Code	Kaolinite, wt%	K-feldspar, wt%	Magnetite, wt%	Montmorillonite, wt%	Muscovite, wt%	Muscovite Mg?, wt%	Orthoclase, wt%
Tailings								
11486-003 bulk	G+Y		29			15.5		
11486-003 OF	G+Y		31.4			24.4		
11486-003 UF	G+Y		26			12.8		
PP08-3365	Y		47.6			11.7		
PP08-3607	Y		52.4			10.9		
PP08-3610	G		28			23		
PP08-3614	G	0.8	23.9			16.9		
PP08-3849	G	0.8	21.9			12.8		
PP08-3850	Y		42.9			9.4		
11840-003 bulk cleaner		4.1	33.5		13.7	2.4		
11840-003 Phase II OF		1.1	33		17.3	5.6		
11840-003 Phase II Sands		1.8	38.4			8.1		
11840-003 pyrite		2.4	31.6		18.6	5.7		
11486-003			27.8			17.2		
11486-005			30.5			24.8		
11486-006			26.9			11.2		
MPP Ro Tails		2.4	50.7			6.3		

Sample ID	Litho Code	Plagioclase, wt%	Pyrite, wt%	Pyrrhotite, wt%	Pyrophyllite, wt%	Quartz, wt%	Rutile, wt%	Siderite, wt%	Talc?, wt%	Titanite, wt%
Waste Rock (PWZ)										
ARLB001	Y	12.1	8.8			25.7				
ARLB002	Y	16.1	7			21.8				
ARLB003	G/D/N	40.4	4.2			10.3				
ARLB006	G/D/N	27.9	3.9			16.6		1.7		
ARLB007	TC/TF/TX	29.4	0.4			42.3		4.8		
ARLB008	TC/TF/TX	29.8	0.4			29.1		4.8		
I/P (-4.75 mm)		1.5	12.7			30.6		2.2		

Sample ID	Litho Code	Plagioclase, wt%	Pyrite, wt%	Pyrrhotite, wt%	Pyrophyllite, wt%	Quartz, wt%	Rutile, wt%	Siderite, wt%	Talc?, wt%	Titanite, wt%
Waste Rock (PEZ+PWZ)										
ARLB004	TW	21.4	0.5			31				
ARLB005	TY	23.6	0.5	1.1		24.4		0.4		
ARLB009	TD	37.3				26.3				
NCK (-4.75 mm)		16.1	4.8			20.2				

Sample ID	Litho Code	Plagioclase, wt%	Pyrite, wt%	Pyrrhotite, wt%	Pyrophyllite, wt%	Quartz, wt%	Rutile, wt%	Siderite, wt%	Talc?, wt%	Titanite, wt%
Ore										
11486-001 AT Comp -10 m		4.9	3		1.7	39.6				

Sample ID	Litho Code	Plagioclase, wt%	Pyrite, wt%	Pyrrhotite, wt%	Pyrophyllite, wt%	Quartz, wt%	Rutile, wt%	Siderite, wt%	Talc?, wt%	Titanite, wt%
Tailings										
11486-003 bulk	G+Y	7				43.7				
11486-003 OF	G+Y	4.7	0.3			33.7			1	
11486-003 UF	G+Y	5.5	0.3			52.1				
PP08-3365	Y	7.2				25.4				
PP08-3607	Y	5.2	0.4			21.5				
PP08-3610	G	4.5				42.1				
PP08-3614	G	4.5				50				
PP08-3849	G	5.3				56.2				
PP08-3850	Y	8.7				30.9				
11840-003 bulk cleaner		16.6				22.7		1.8		
11840-003 Phase II OF		18	0.6			18.1				
11840-003 Phase II Sands		20.2	0.4			25.9				
11840-003 pyrite		13.8	2.6			18		1.6		
11486-003		5	0.3			45.5				
11486-005		5.4	0.5			33.5			1.4	
11486-006		5.5	0.3			53.2				
MPP Ro Tails		16.2	0.5			12.2	0.7	1.6		

Appendix 11C, Mineralogical Assessments

Petrography Report

CHARACTERIZATION OF CHIPS AND POWDERS FROM HUMIDITY CELL TESTS, PEBBLE COPPER PROPERTY, ALASKA

20 February 2006

Revised 26 June 2006

Prepared For: Stephen Day
SRK Consulting Inc.
Suite 800-1066 West Hastings Street
Vancouver, BC V6E 3X2

PetraScience Consultants Inc.

700 – 700 West Pender Street
Vancouver, B.C. V6C 1G8 Canada
phone: 604.684.5857 fax: 604.222.4642

info@petrascience.com
www.petrascience.com

SUMMARY

Thirty samples of material collected from the Pebble Copper property are characterized in this report. The samples are polished thin sections of humidity cell residues from kinetic tests of material. Start material rock type names were provided. Stephen Day of SRK requested the petrographic analysis. The goal of the work was basic transmitted and reflected light observations, with emphasis on identification of the secondary minerals and mineralogical controls. Kathryn Dunne and Anne Thompson carried out the analysis, Kathryn at her office in Salmon Arm, B.C. and Anne at the PetraScience office, Vancouver, B.C.

The observations are summarized below and over, and photographs of each section and thin section descriptions follow. All percentages in the descriptions are approximate.

This report has been revised based on results (see Appendix 1 and 2) of microprobe EDS testing by Dr. Mati Raudsepp at UBC of selected sulphides in the following samples:

CEMI-9	117-1055-1071
CEMI-12	118-1220-1238
CEMI-14	3102-0568-0588
CEMI-23	drum 2, sample 2, bulk cleaner, scavenger tailings
	4157-439-471
	4292-415-430
	4292-685-695
	115-0054-0066
	115-0142-0163
	3129-0253-0272
	3129-0417-0435

Photographs of the sulphides selected for microprobe EDS testing are on a CD provided with this report.

Results of carbonate determinations by microprobe analysis that were undertaken by Dr. Mati Raudsepp at UBC are appended in Appendix 1. An excel file with the same data is included with the CD provided with this report.

Sample Summary

The sample set includes a wide variety of lithologies from the Pebble Copper deposit which are subdivided generally into the following basic rock types:

Intrusive rocks (mineralized):	CEMI #
diorite gabbro	2, 17
monzodiorite	4, 8
granodiorite	5, 13
monzonite	10
intrusion breccia	7, 19

The samples comprise medium to coarse chips of altered rock, veinlets and liberated mineral fragments including biotite, carbonate and pyrite. The altered rock fragments include fine-grained, equigranular and porphyritic rock (CEMI-2, 17), fine to medium-grained porphyritic and granular rock (CEMI-4, 8), porphyritic and fine to medium-grained leucocratic rock (CEMI-5, 13), fine-grained porphyritic, leucocratic equigranular and basaltic rock (CEMI-10, 7, 19). Veinlets include quartz-K-feldspar, quartz±K-feldspar-pyrite±chalcopyrite, quartz-carbonate-pyrite±chalcopyrite±molybdenite±hematite, carbonate, quartz±pyrite±molybdenite, quartz-biotite, quartz-muscovite-pyrite.

Alteration of the intrusive rocks is dominated by development of very fine-grained, green-brown secondary biotite which occurs to variable extent (typically from approximately 5 to 25%) as patchy replacement of former mafic minerals, plagioclase phenocrysts and matrix. Biotite comprises approximately 60% of section CEMI 17.

Secondary K-feldspar occurs as very fine-grained aggregates that selectively replace plagioclase and are variably overprinted by flaky to anhedral aggregates of sericite (typically from 1 to 5%). Sericite occurs in some sections as replacement of primary and secondary biotite. Sericite comprises approximately 15% of section CEMI-13. Carbonate typically occurs in trace to very minor amounts (1%) as fine-grained, anhedral, colourless disseminated grains or patchy aggregates that overprint secondary biotite alteration, as fine to very fine-grained, anhedral to rhombic, zoned, colourless aggregates in veinlets, as very fine-grained, brown aggregates replacing colourless carbonate and as fracture infill. Carbonate comprises approximately 11% of sample CEMI-10. Anhedral to rhombic carbonate within veinlets is partly pseudomorphically replaced by hematite. Traces of gypsum occurs as fibrous masses associated with biotite in section CEMI-17. Traces of clay occur as irregular patches in section CEMI-4. Trace apatite, rutile or titanite occur disseminated in some sections.

Sulphides vary from 2 to 6% of the section. They typically comprise dominantly pyrite, lesser chalcopyrite and locally traces of molybdenite. Bornite, digenite and/or covellite occur in some sections. Traces of ?tetrahedrite-tennantite are observed in section CEMI-2. Pyrite grains are eu-anhedral, variably pitted and locally fractured. Boundaries of pyrite grains vary from relatively clean to slightly oxidized with development of hematite, orange-brown material or Fe-oxyhydroxide rims in most sections. Chalcopyrite grains are often anhedral and ragged; chalcopyrite locally encloses pyrite and surrounds and heals fractures in earlier pyrite. Chalcopyrite rims are replaced by digenite/covellite and by hematite in some sections. Rare grains of malachite occur locally associated with carbonate and pyrite in section CEMI-17. Hematite varies from trace amounts to 7% of the sections occurring dominantly as fine-grained aggregates with secondary biotite, as replacement of Fe-bearing carbonate and as replacement of sulphide rims.

Sedimentary rocks (mineralized):	CEMI #
greywacke	1, 3, 6, 11, 12, 14, 16, 18

The samples comprise medium to coarse chips of altered rock, veinlets and liberated mineral fragments including quartz, carbonate, hematite and pyrite. The altered rock fragments include poorly sorted greywacke, laminated quartz and biotite-rich greywacke, and locally fine-grained granular rock (CEMI-6, 12), silicified, vaguely porphyritic rock (CEMI-11) and fine-grained siltstone (CEMI-14). Veinlets include quartz, quartz-pyrite, carbonate±quartz-pyrite-chalcopyrite-hematite, quartz-K-feldspar, K-feldspar, quartz-biotite±pyrite and quartz-carbonate.

Alteration of the sedimentary rocks is dominated by development of very fine-grained, green-brown secondary biotite which occurs to variable extent (typically from approximately 15 to 30%) as pervasive alteration, locally with patches of aphanitic brown carbonate and disseminated rutile. Biotite also occurs as fine veinlets, locally with quartz±brown carbonate±pyrite and as vein selvages. Patchy retrograde sericite alteration replaces some of the secondary biotite. Sericite comprises from one to approximately 10% of sections. Secondary K-feldspar occurs as very fine-grained patchy aggregates in some sections. Carbonate typically occurs in trace to very minor amounts (2%) as very fine-grained, anhedral, colourless to brown patchy aggregates that overprint secondary biotite alteration, as fine-grained, rhombic, colourless aggregates in veinlets, and as very fine-grained, brown aggregates replacing colourless carbonate. Carbonate comprises approximately 5% of sample CEMI-12. Rhombic carbonate within veinlets is partly pseudomorphically replaced by hematite. Traces of brown aphanitic ?gypsum occurs as patchy replacement associated with secondary biotite, in quartz±K-feldspar veinlets and as late infill in section CEMI-18. Trace apatite and rutile occur disseminated in some sections.

Sulphides vary from 1 to 9% of the section. They typically comprise dominantly pyrite, lesser chalcopyrite and rarely traces of molybdenite or marcasite. Digenite and/or covellite occur in some sections. Pyrite grains are eu-anhedral, variably pitted and locally fractured. Boundaries of pyrite grains are typically relatively clean except in sections CEMI-1 and 11 where pyrite is rimmed and replaced by hematite and yellow-brown material. Chalcopyrite grains are often anhedral and ragged; chalcopyrite locally encloses pyrite and surrounds and heals fractures in earlier pyrite. Chalcopyrite rims are replaced by digenite/covellite in 2 sections and by hematite in most sections. Rare grains of malachite occur locally associated with secondary biotite in section CEMI-6. Hematite varies from trace amounts to 5% of the sections occurring dominantly as fine-grained aggregates with

secondary biotite, as patchy replacement and vein infill, as replacement of Fe-carbonate and as replacement of magnetite or sulphide rims.

Tertiary cover rocks:	CEMI #	Sample #
basalt	9, 15	
siltstone		115-0054-0066
arkose		115-0142-0163
andesite/volcanic conglomerate		3129-0253-0272
andesite/volcanic conglomerate		3129-0417-0435
volcanic/volcaniclastic rock		4157-539-471
volcanic/volcaniclastic rock		4292-415-430
volcanic/volcaniclastic rock		4292-685-695

The samples comprise fine to coarse chips of altered rock, veinlets and liberated mineral fragments including carbonate, quartz, plagioclase and sulphides. The altered rock fragments include a variety of andesitic to basaltic volcanic rocks including seriate-textured, locally amygdaloidal basalt and plagioclase porphyritic rock, siltstone, sandstone and a variety of breccias. Veinlets are mainly limited to sections CEMI-15 and sample# 4157-439-471 and include minor quartz±K-feldspar-pyrite-chalcopyrite, quartz-carbonate±hematite, carbonate, and quartz-pyrite.

Alteration of the cover rocks is dominated by carbonate, locally as calcite, which replaces plagioclase and mafic phases and occurs as infill and amygdales in the volcanic rocks, occurs as patchy replacement of siltstone and sandstone, occurs as nodular brecciated aggregate in sample # 4157-439-471 and occurs as veinlets. Carbonate typically occurs in minor to major amounts (from 2 to 20%) dominantly as fine-grained, anhedral, colourless varieties and lesser very fine-grained, brown patchy aggregates that partly replace the colourless carbonate. Rhombic carbonate in siltstone is partly pseudomorphically replaced by hematite. Secondary biotite occurs as replacement of mafic minerals and feldspars in section CEMI-15. Patchy sericite alteration occurs as replacement of plagioclase in the volcanic rocks and breccias. Sericite comprises from 3 to approximately 15% in some sections. Secondary K-feldspar occurs as very fine-grained patchy aggregates in some sections. Chlorite comprises from 2-10% of some volcanic rock and breccia sections. Chlorite occurs as replacement of mafic phases, as amygdales and as infill. Trace apatite and rutile occur disseminated in some sections.

Sulphides vary from trace to 5% of the section. They typically include pyrite, chalcopyrite and/or marcasite. Rare traces of arsenic in marcasite were detected by EDS analyses on the microprobe in sections 115-0054-0066 and 115-0142-0163 (Raudsepp, written communication, 2006, Appendix 1; photos in Appendix 2). Bornite and/or chalcocite occur in sample # 3129-0417-0435 as replacement of chalcopyrite. Pyrite occurs only in sections CEMI-9, 15 and samples 4157-439-471 and 4292-415-430. Pyrite grains are eu-anhedral, variably pitted and locally fractured. Boundaries of pyrite grains are rimmed and replaced by black Fe-oxyhydroxide material, hematite or red-brown material. Chalcopyrite grains are often anhedral and ragged; chalcopyrite locally encloses pyrite. Similar to pyrite, chalcopyrite rims are replaced by by black Fe-oxyhydroxide material or hematite. Marcasite grains are typically pitted, anhedral and partly replaced by hematite or red-brown/black secondary material. Trace malachite occurs as patchy aggregates in sample 3129-0253-0272. Hematite varies typically from trace amounts to 5% of the sections occurring dominantly as disseminated fine-grained grains and discontinuous lenses, as patchy replacement, as concentric bands within amygdales, as replacement of Fe-carbonate and as replacement of magnetite or sulphide rims. Sample 115-0142-0163 comprises approximately 15% hematite.

Tailings:	CEMI #
bulk rougher tailings	20, 21
bulk cleaner scavenger tailings	22, 23

The samples comprise fine to very fine-grained powders. Shreddy green secondary biotite comprises from 7 to 30% of the sections. Aphanitic brown K-feldspar occurs disseminated. Sericite comprises from trace to 1% of the sections. Trace carbonate occurs mostly as anhedral colourless and lesser brown varieties. Disseminated rutile occurs in trace amounts to 3% of the section.

Total sulphide varies from trace to 1% of the sections. Sulphides include pyrite, chaclpyrite and rarely marcasite and molybdenite. Chalcopyrite is locally replaced by bornite and covellite or digenite and covellite. Pyrite grains are locally pitted with irregular boundaries but with no oxide rim development. Traces of magnetite occur disseminated. Trace Fe-oxyhydroxide occurs as liberated grains and locally as replacement of magnetite and Fe-bearing carbonate.

CEMI #	Sample #	Sulphide; ~%	Carbonate occurrence; ~%	Oxides; ~%	Some Other; ≥1%
1	019-0072-0090	pyrite; 1	patches; ~1	hematite; 5 yellow-brown material; trace	K-feldspar; 50 biotite; 20 sericite; 5
2	025-0617-0637	pyrite; 5 chalcopyrite; 1 molybdenite; trace digenite; trace covellite; trace ?tetrahedrite-tennantite; trace	patches, vein; trace	hematite; 2	K-feldspar; 50 biotite; 25 sericite; 5
3	033-0137-0155	pyrite; 7 chalcopyrite; 2	patches; trace	hematite; tr	biotite; 30 K-feldspar; 10 sericite; 10
4	046-0113-0133	pyrite; 2 chalcopyrite; 1 molybdenite; trace digenite; trace covellite; trace	patches, vein; 1	hematite; 3	K-feldspar; 60 biotite; 15
5	046-0580-0600	pyrite; 2 chalcopyrite; 1 molybdenite; trace bornite; trace	patches, infill, vein; trace	hematite; trace	K-feldspar; 70 biotite; 5 sericite; 1
6	047-0350-0365	pyrite; 5 chalcopyrite; 1 digenite; trace	veins; trace	hematite; 3	K-feldspar; 40 biotite; 15 sericite; 10
7	112-0460-0480	pyrite; 3 chalcopyrite; 1	patches; trace	hematite; 1-2	K-feldspar; 50 biotite; 10 sericite; 1
8	117-0190-0210	pyrite; 2 chalcopyrite; 1	patches, vein; 1	hematite; 3	K-feldspar; 65 biotite; 15 sericite; 1 anhydrite; 1
9	117-1055-1071	chalcopyrite; 1 pyrite; trace marcasite; trace	patches, liberated fragments; 10	hematite; tr magnetite; tr	sericite; 10 biotite; tr
10	118-0468-0488	pyrite; 1 chalcopyrite; 1 molybdenite; tr bornite; tr covellite; tr	patches, infill, vein; 11	hematite; 7	K-feldspar; 75 biotite; 3 sericite; tr
11	118-0520-0535	pyrite; 4 chalcopyrite; 1 digenite; tr	vein; tr	hematite; 1	K-feldspar; 30 biotite; 15 sericite; 1
12	118-1220-1238	pyrite; 2 chalcopyrite; tr marcasite; tr molybdenite; tr	patches, vein; 5	hematite; tr magnetite; tr	K-feldspar; 30 biotite; 15 sericite; 10

CEMI	Sample #	Sulphide; ~%	Carbonate	Oxides; ~%	Some Other;

#			occurrence; ~%		≥1%
13	3069-0927-0947	pyrite; 2 chalcopyrite; tr molybdenite; tr		orange-brown material; tr	K-feldspar; 50 biotite; 5 sericite; 15
14	3102-0568-0588	pyrite; 5 chalcopyrite; tr molybdenite; tr	patchy, vein; 2	hematite; tr	K-feldspar; 40 biotite; 15 sericite; 2
15	3102-0958-0978	pyrite; 2 chalcopyrite; tr	amygdales, vein, liberated fragments, patches; 2	black Fe-oxyhydroxide; tr magnetite; 3	biotite; 15 K-feldspar; 3 sericite; 1
16	3115-0988-1008	pyrite; 2 chalcopyrite; 1	patches, vein; tr	hematite; 1	K-feldspar; 20 biotite; 15 sericite; 2
17	3123-0438-0458	pyrite; 5 chalcopyrite; tr	patches, vein; tr	Fe-oxyhydroxide; tr orange-red material; tr	biotite; 60 K-feldspar; 10
18	3124-0188-0209	pyrite; 2 chalcopyrite; 1 digenite; tr covellite; tr		hematite; tr	K-feldspar; 40 biotite; 15 gypsum; 1 sericite; tr
19	3124-0872-0887	pyrite; 2 chalcopyrite; tr molybdenite; tr	patches, amygdales, vein, infill; 1	hematite; tr	K-feldspar; 30 biotite; 10 sericite; 1
20	drum 1 sample 2 bulk rougher tailings	pyrite; tr-1 chalcopyrite; tr molybdenite; tr covellite; tr	tr	magnetite; tr Fe-oxydydroxide; tr	K-feldspar; 10-30? biotite; 7 sericite 1
21	drum 4 sample 1 bulk rougher tailings	pyrite; tr chalcopyrite; tr marcasite; tr digenite; tr covellite; tr	tr	magnetite; tr Fe-oxydydroxide; tr	K-feldspar; 10-30? biotite; 7 sericite 1
22	pail sample sample 1 bulk cleaner scavenger tailings	pyrite; tr chalcopyrite; tr marcasite; tr bornite; tr covellite; tr	tr	magnetite; tr Fe-oxydydroxide; tr rutile; 1	K-feldspar; 10-30? biotite; 15 sericite; tr
23	drum 2 sample 2 bulk cleaner scavenger tailings	pyrite; tr chalcopyrite; tr marcasite; tr digenite; tr covellite; tr	tr	magnetite; tr Fe-oxyhydroxide; 1 rutile; 3	biotite; 30 K-feldspar; 10-30? sericite; tr
	4157-439-471	pyrite; 3 marcasite; 2 chalcopyrite; tr	patches, vein; 20	hematite; 3 ?goethite, 2 limonite, 1	sericite; 15 clay; 5
	4292-415-430	pyrite; 2 chalcopyrite; tr marcasite; tr	patches, infill, liberated fragments; 5	black Fe-oxyhydroxide, tr; red-brown material; tr	chlorite; 7 sericite; 3

CEMI #	Sample #	Sulphide; ~%	Carbonate occurrence; ~%	Oxides; ~%	Some Other; ≥1%

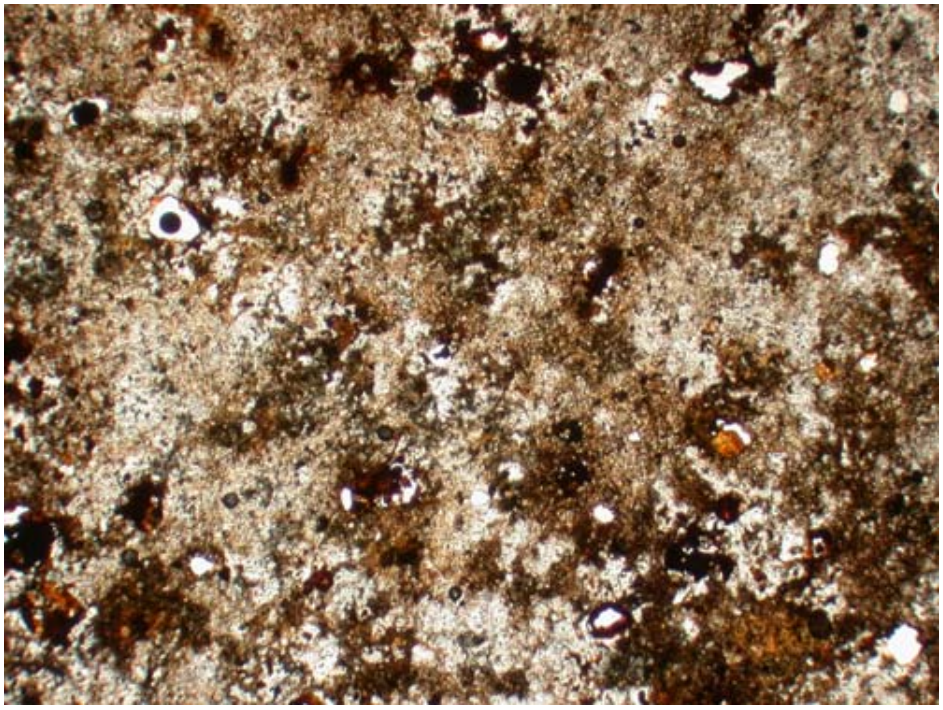
	4292-685-695	marcasite; 2 chalcopyrite; tr	patches, amygdales, infill, liberated fragments; 20	hematite; 5 Fe-oxyhydroxide; tr	chlorite; 10
	115-0054-0066	marcasite; 1	patchy, liberated fragments; 15	red-brown Fe-oxyhydroxide; 15 hematite; 2	K-feldspar; 3
	115-0142-0163	marcasite; tr	patchy; liberated fragments, ?nodules; 3	hematite; 15	K-feldspar; tr
	3129-0253-0272	pyrite; tr marcasite; tr	patchy, amygdales, liberated fragments; 15	hematite, 1 magnetite; tr	chlorite; 10
	3129-0417-0435	pyrite, tr chalcopyrite; tr bornite; tr chalcocite; tr	patchy, amygdales, liberated fragments; 20	hematite; 1	chlorite; 2

CEMI-1
Sample ID: 019-0072-0090 **Rock Type:** Greywacke

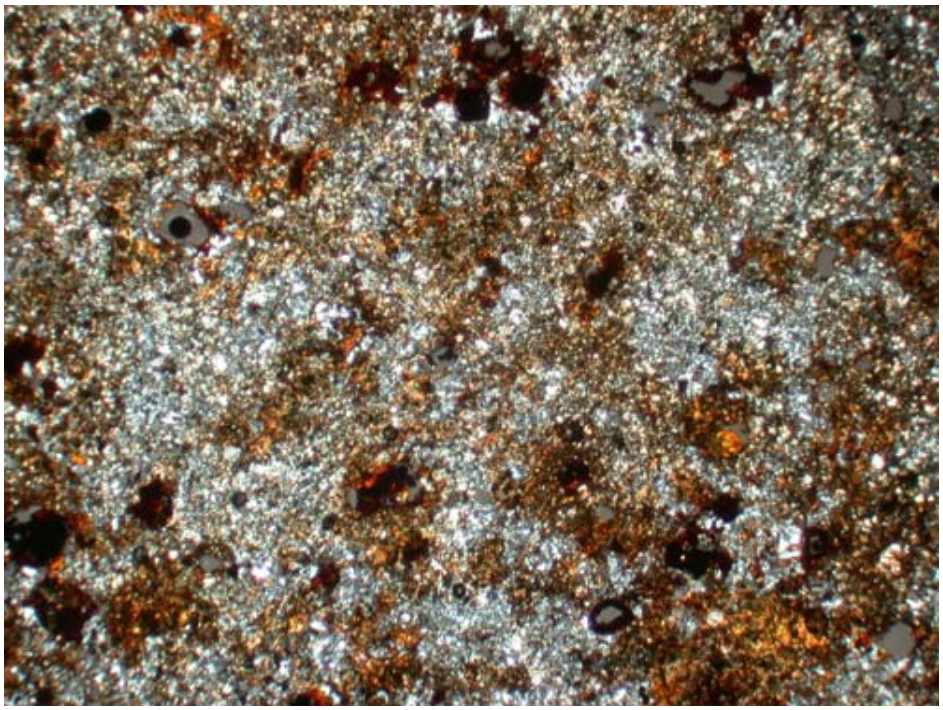
Chip and Stained Mount Description:
Light tan, gray and orange-brown, very coarse-sized chips (up to 25mm size). Chips comprise dominantly angular, mottled, silicified vuggy rock and mottled, fine-grained equigranular rock fragments. Major pyrite occurs disseminated in some equigranular fragments (approximately 5%). In some fragments disseminated sulphide is strongly weathered to red-brown oxide material. K-feldspar comprises approximately 50% of the mount (based on stain). Patchy orange-brown surface oxidation of most chips. Red-brown oxide material as fracture coating is noted in some chips. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 15mm maximum size) of poorly sorted greywacke with fine fragments of monocrystalline and polycrystalline quartz grains and fine to medium-grained angular polylithic rock fragments in a silicified, very fine-grained, K-feldspar-quartz dominant matrix. K-feldspar comprises approximately 50% of the section (based on stained offcut). Fine to very fine-grained, shreddy aggregates of secondary green-brown biotite occur, locally with minor patches of aphanitic brown carbonate and traces of brown disseminated rutile, as selectively pervasive alteration. Biotite comprises approximately 20% of the section; brown carbonate comprises approximately 1% of the section. Retrograde sericite alteration, which occurs as occurs as very fine-grained anhedral aggregates to coarser-grained plates and sheaves, replaces some of the secondary biotite alteration. Sericite comprises approximately 5% of the section. Traces of fine to very fine-grained apatite crystals occur disseminated.

Minor pyrite, approximately 1%, occurs disseminated and is the only sulphide. Hematite and traces of aphanitic yellow-brown material, likely ?limonite, occur as replacement of pyrite rims and locally as complete replacement of pyrite. Many of the chips in the section are vuggy and pervasively hematite-altered with very fine-grained hematite occurring as rims to some chips, as replacement of feldspars, as rock fragments, interstitial to quartz grains and as veinlets and fracture infill. Hematite comprises approximately 5% of the section. The abundance of hematite has resulted in orange-brown colouration of chips.

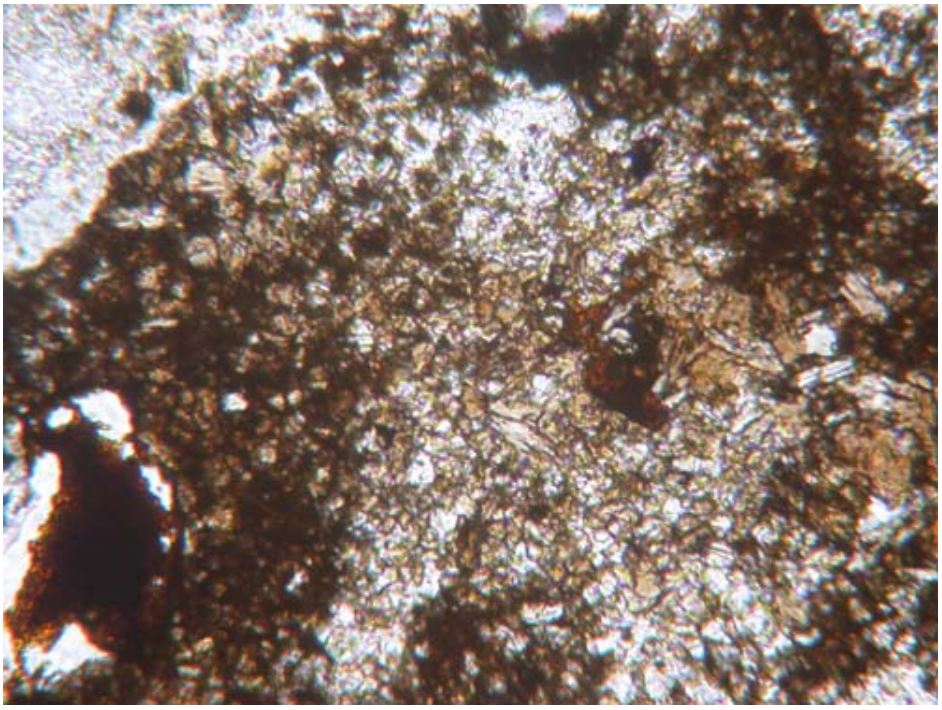


A

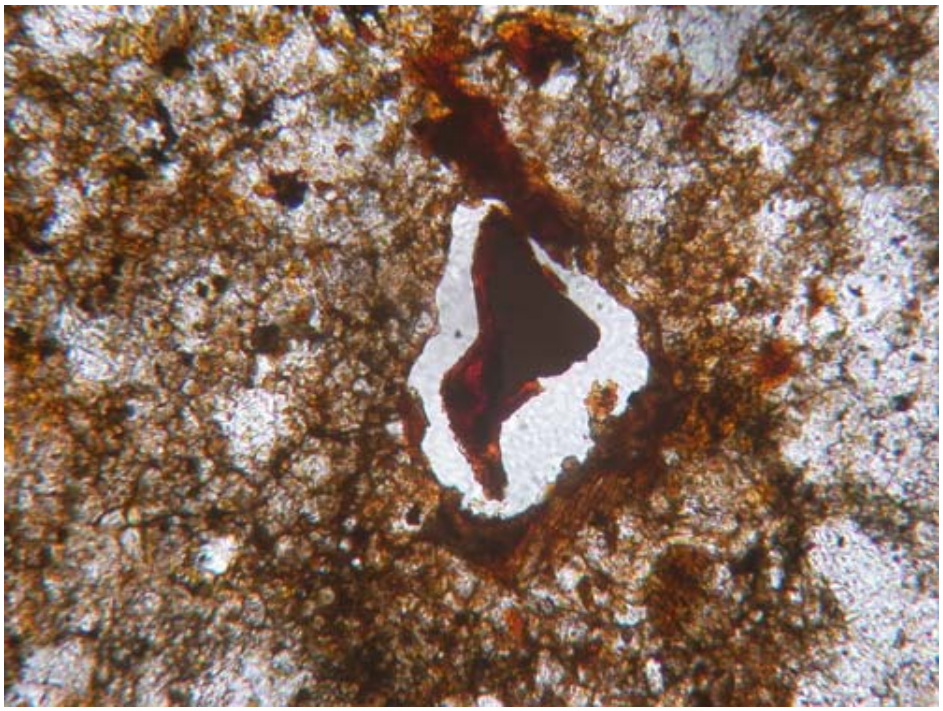


B

CEMI-1: A) Representative view of hematitic, vuggy, pervasively K-feldspar-biotite altered greywacke. A) PPL, B) XPL, FOV ~ 4.5 mm.

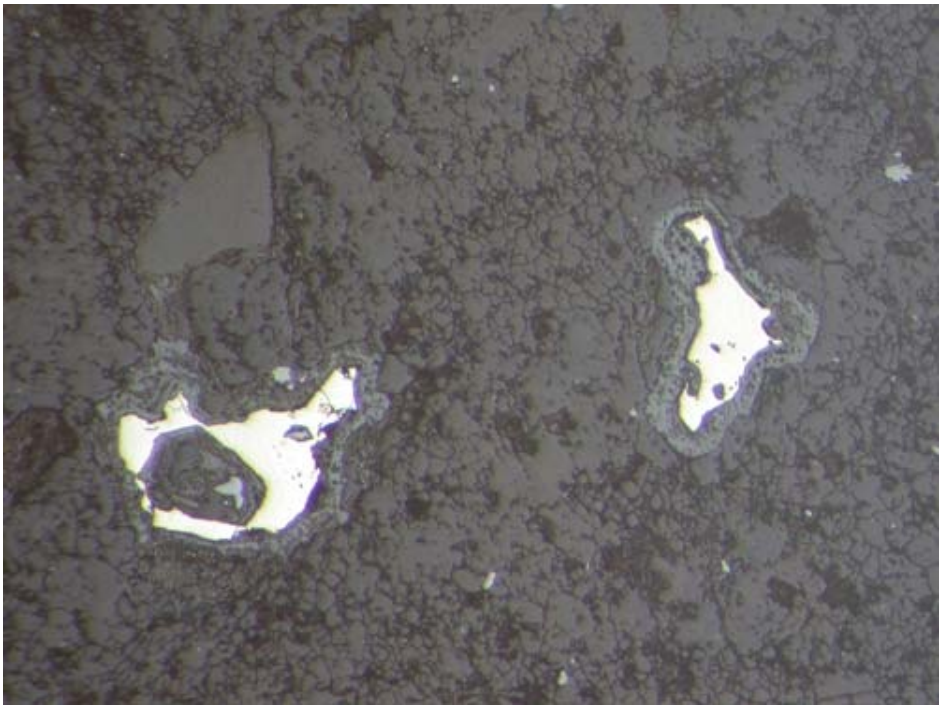


C



D

CEMI-1: C) Top, pervasive secondary biotite alteration and hematite after pyrite. PPL, FOV =~ 0.6mm, D) Bottom, Hematite within vug, after weathered pyrite. PPL, FOV =~ 0.85mm.



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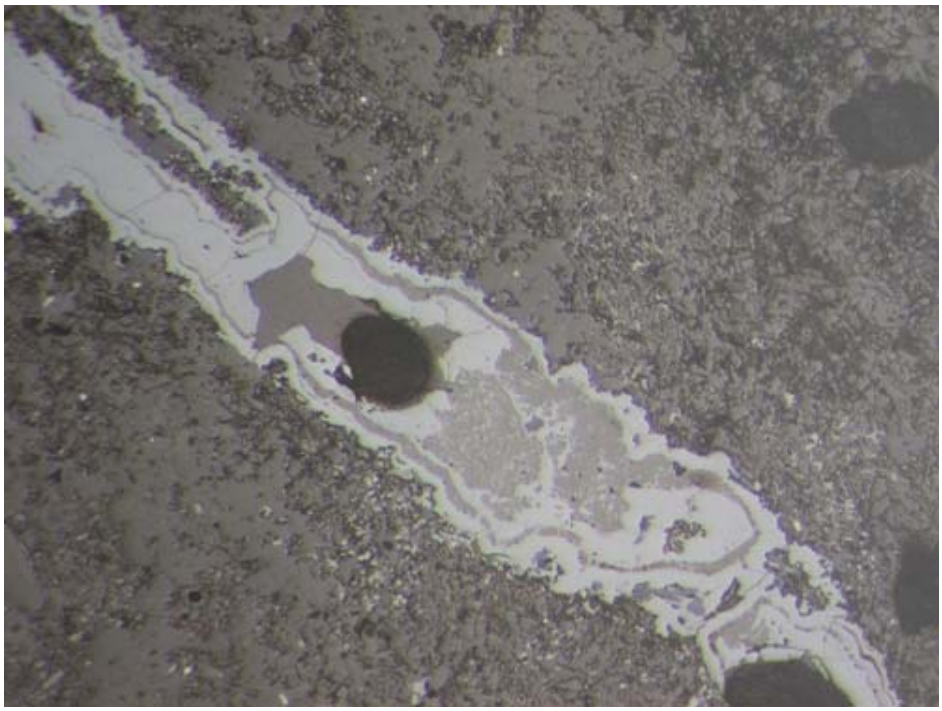


F

CEMI-1: E) Top, hematite as replacement of pyrite rims. RL, FOV =~ 1.3mm, F) Bottom, veinlet of hematite and ?limonite. RL, FOV =~ 1.5mm.

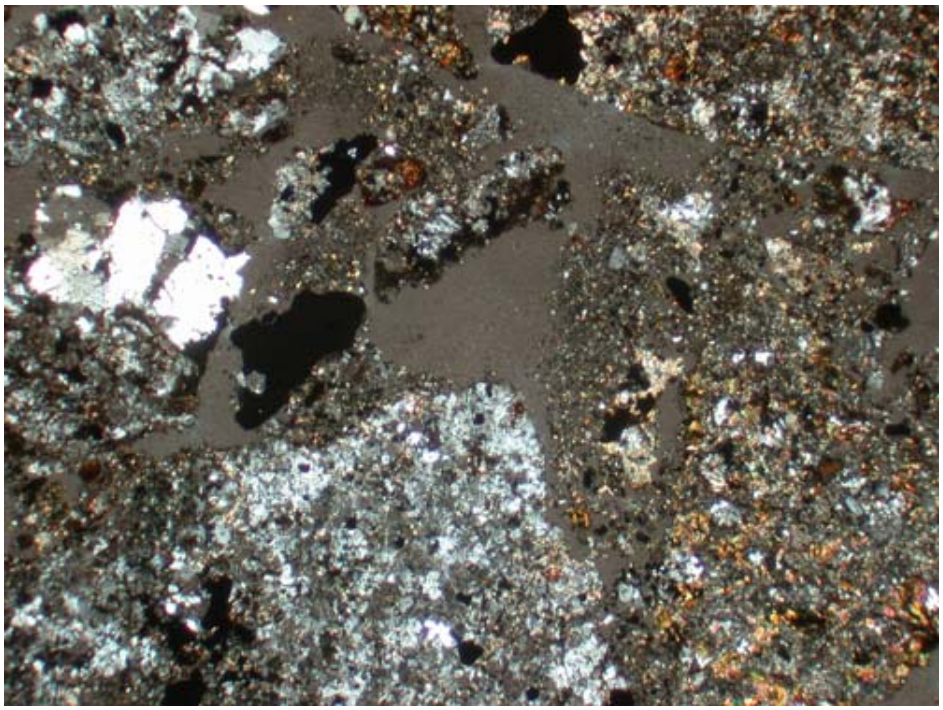
CEMI-2
Sample ID: 025-0617-0637 **Rock Type:** Diorite Gabbro

Chip/Powder and Stained Mount Description:
Light gray and dark gray/black, very coarse-sized chips (up to 35mm size). Chips comprise dominantly angular, very fine-grained, silicified rock and fine-grained vaguely porphyritic rock fragments. K-feldspar comprises approximately 50% of the mount (based on stain). Minor pyrite occurs disseminated and less commonly with chalcopyrite in narrow vuggy quartz veinlets. A very fine-grained, pale yellow alteration material occurs locally coating fractures on the light gray rock chips; a dull brown material coats fracture surfaces on some of the black chips. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 7mm maximum size) of K-feldspar-biotite altered fine-grained equigranular to vaguely porphyritic rock and minor quartz, quartz-K-feldspar and quartz-carbonate veinlets. Alteration is dominated by development of very fine-grained, green-brown, shreddy secondary biotite which, together with minor red-brown, anhedral aggregates of rutile, hematite, sulphides and traces of carbonate, replaces primary mafic minerals, including magmatic biotite. Biotite comprises approximately 25% of the section. Relict plagioclase is selectively replaced by very fine-grained, brown secondary K-feldspar and subsequently by flaky to anhedral aggregates of sericite and anhedral rutile aggregates. K-feldspar comprises approximately 50% of the section (estimate based on stained offcut); sericite comprises approximately 5% of the section. Colourless carbonate occurs in trace amounts in the section. Carbonate occurs in some fragments as very fine-grained, anhedral grains and patchy aggregates that overprint secondary biotite alteration. Fine to very fine-grained colourless carbonate also occurs interstitial to quartz as quartz-carbonate veinlets. The carbonate is partly replaced by a very fine-grained carbonate and by hematite. Fine to very fine-grained apatite crystals occur disseminated and comprise almost 1% of some fragments.

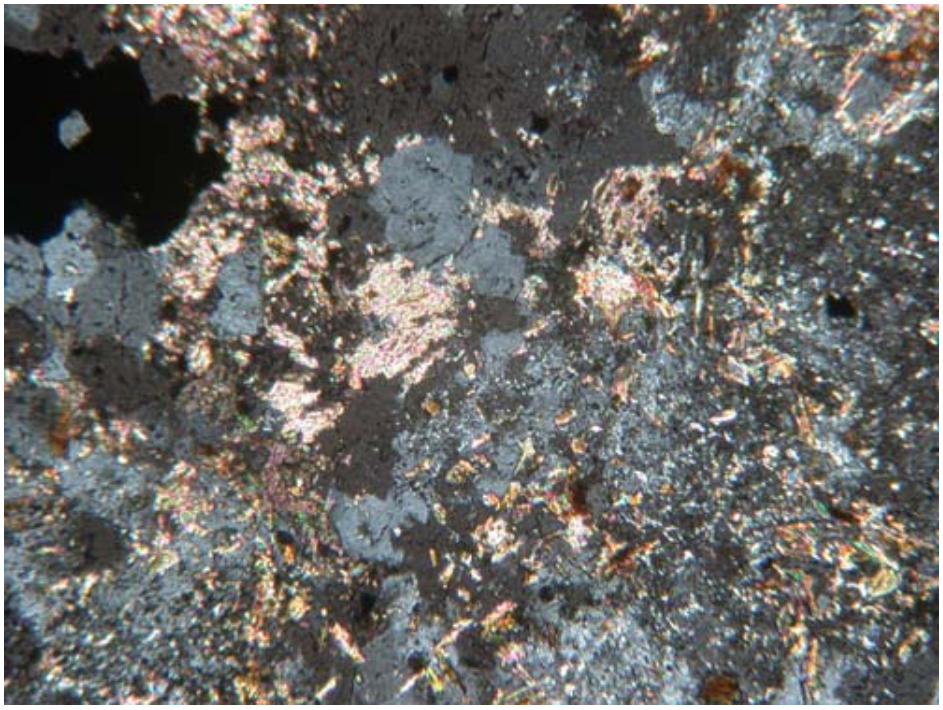
Total sulphide, 6%, comprises dominantly pyrite with minor chalcopyrite and traces of molybdenite, digenite, covellite and rare ?tetrahedrite-tennantite. Pyrite, approximately 5% of the section, occurs disseminated as fine to very fine-grained, eu-anhedral grains and aggregates within rock and quartz vein chips. Cores of pyrite grains are variably pitted with minor fracturing present in some grains and development of spongy, very fine-grained aggregates in other grains. Pyrite boundaries vary from relatively clean to spongy, corroded and vacant in many chips. Partial replacement by hematite occurs locally. Chalcopyrite, approximately 1% of the section, occurs as fine to very fine-grained, anhedral aggregates; it encloses euhedral pyrite. Traces of bornite occur as inclusions in chalcopyrite and pyrite. Chalcopyrite also occurs as infill and overgrowths to fractured and locally spongy pyrite. Chalcopyrite is locally replaced by digenite or rimmed by traces of covellite. Rare ?tetrahedrite-tennantite was observed enclosing pyrite grains. Hematite occurs as anhedral to bladed aggregates with carbonate in quartz-carbonate veinlets, as selvages to quartz-carbonate veinlets and disseminated as anhedral to bladed aggregates after ilmenite. Hematite comprises approximately 2% of the section.

A



B

CEMI-2: General view of pervasively K-feldspar-biotite and K-feldspar-sericite-quartz altered fine-grained rocks; quartz veinlet (left). A) PPL, B) XPL, FOV =~ 4.5 mm.



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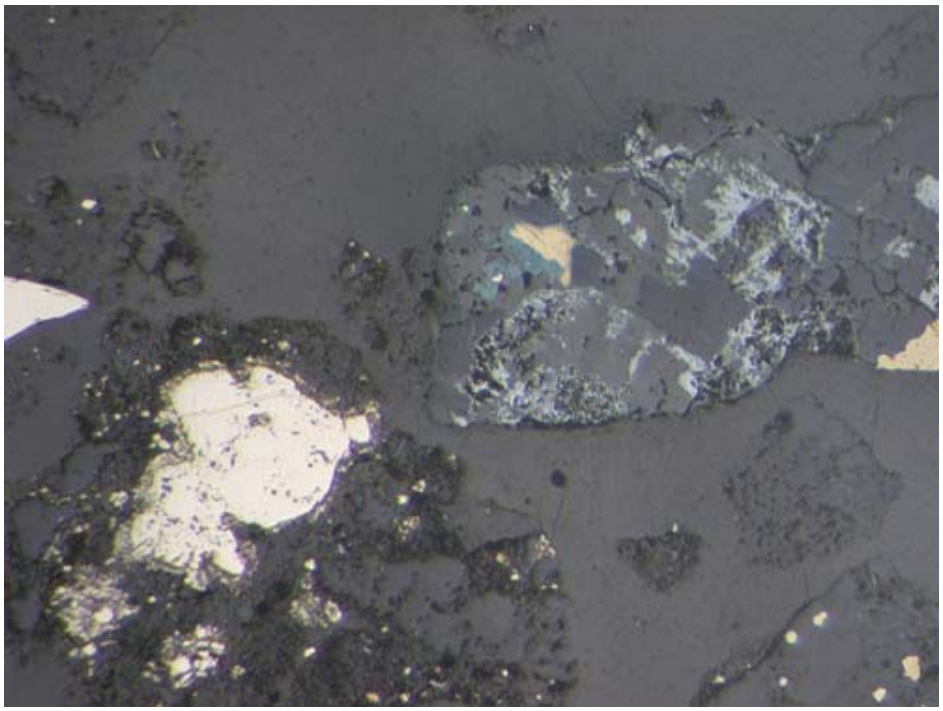


D

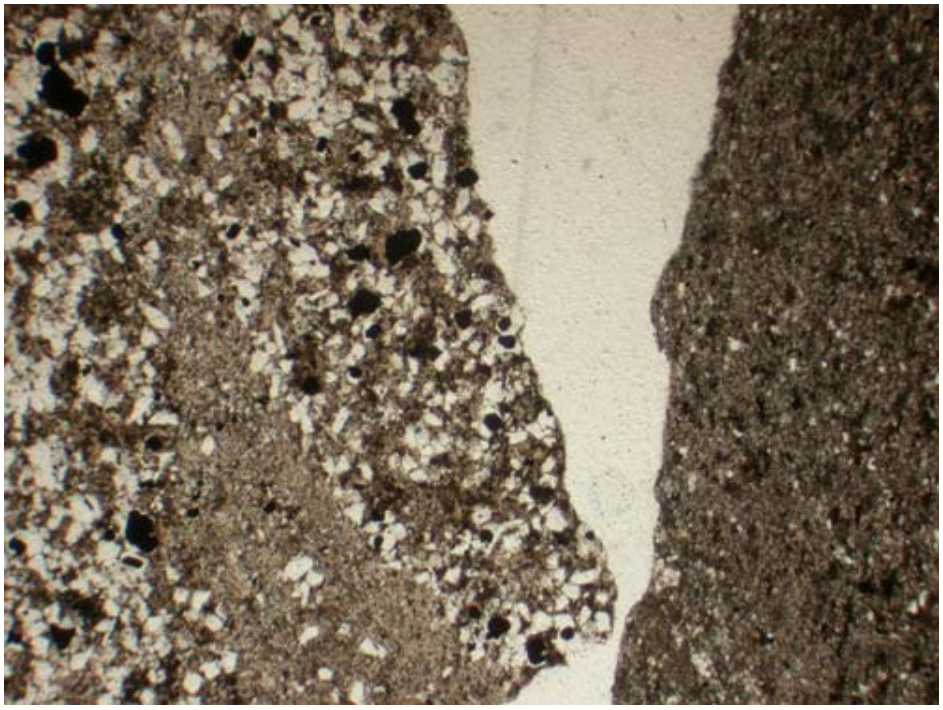
CEMI-2: C) Top, patchy carbonate and hematite aggregates overprint secondary biotite alteration. XPL, FOV =~ 1 mm, D) Bottom, anhedral pyrite with spongy overgrowths (left); chalcopyrite replaced by covellite enclosed by hematite (right). RL, FOV =~ 1.3 mm.

CEMI-3
Sample ID: 033-0137-0155 **Rock Type:** Greywacke

Chip/Powder and Stained Mount Description:
Medium to dark gray, very coarse-sized chips (up to 32mm size). Chips comprise dominantly angular, fine-grained, silicified, granular rock fragments cut by submm quartz veinlets and quartz veinlet stockwork. Vaguely laminated beds are noted in some chips from stained offcut. K-feldspar comprises approximately 10% of the mount (based on stain). K-feldspar appears to be concentrated at the margins of some chips indicating possibly selective replacement. Minor pyrite occurs disseminated (approximately 2%); minor pyrite and chalcopyrite occur as disseminated grains within the quartz veinlets. Dull brown fracture coating on some chip surfaces. Trace reaction of local white aphanitic fracture coatings to cold dilute HCl. No reaction to magnet.

Thin Section Description: (note 2 sections provided)
Coarse chips (up to 10mm maximum size) of greywacke with laminated beds varying from fine-grained with dominantly angular monocrystalline quartz grains to very fine-grained with dark layers of dominantly secondary biotite aggregate. Fine to very fine-grained, shreddy, green-brown biotite alteration is pervasive and also occurs as fine veinlets, locally with quartz ± brown carbonate ± pyrite and as vein selvages. Biotite comprises approximately 30% of the section. Very fine-grained linear aggregates of pyrite and rutile replace biotite along former cleavage planes. Patchy retrograde sericite alteration replaces some of the secondary biotite. Sericite comprises approximately 10% of the section. Patches of secondary, brown K-feldspar are distributed through some of the chips. K-feldspar comprises approximately 10% of the section. Traces of very fine-grained, colourless carbonate aggregates occur as patchy alteration of dark biotite layers in one chip only. Traces of chlorite occur locally with quartz as replacement of biotite.

Total sulphide, 9%, comprises dominantly pyrite with minor chalcopyrite. Pyrite, approximately 7% of the section, occurs disseminated as fine and very fine-grained, eu-anhedral grains and aggregates within chips. Chalcopyrite and rarely pyrrhotite occur as inclusions in some pyrite grains. Cores of pyrite grains have very few pits; minor fracturing is present in some grains. Pyrite boundaries vary from straight and relatively clean to irregular and careous; however, there is no development of hematite or Fe-oxyhydroxide rims. Pyrite often occurs with aggregates of rutile. Chalcopyrite, approximately 2% of the section, occurs disseminated as fine to very fine-grained, ragged, anhedral aggregates often enclosing pyrite. Chalcopyrite also occurs as infill and overgrowths to fractured pyrite. Chalcopyrite with irregular, cellular boundaries occurs in biotite veinlets. Chalcopyrite is strongly corroded and pitted in veins with pyrite and K-feldspar. Chalcopyrite is typically rimmed and partly replaced by anhedral hematite aggregates in these veins. Hematite occurs only in trace amounts in the section.



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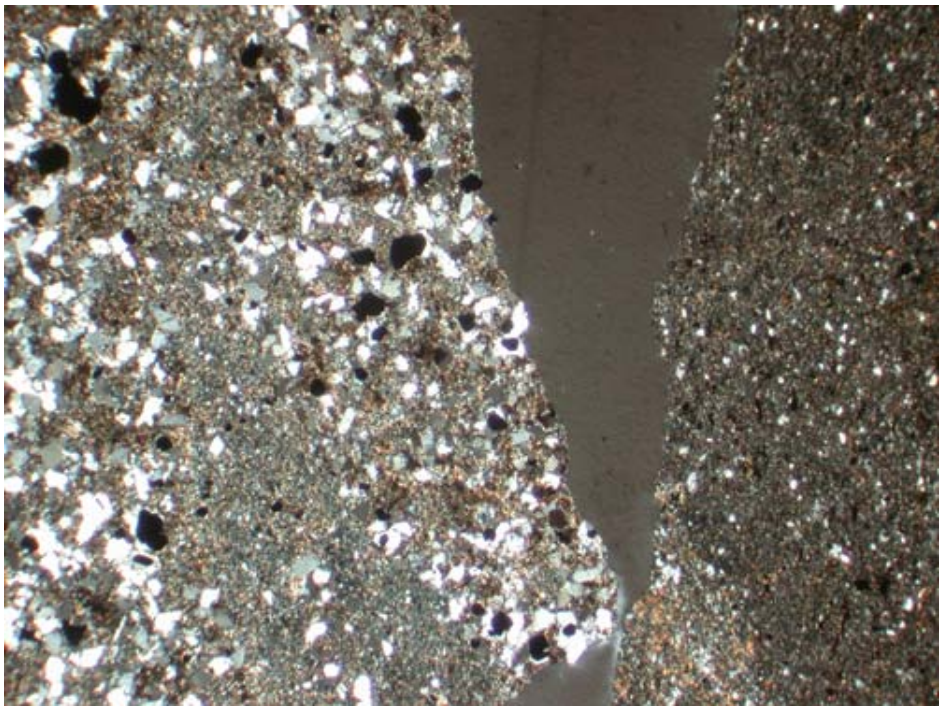
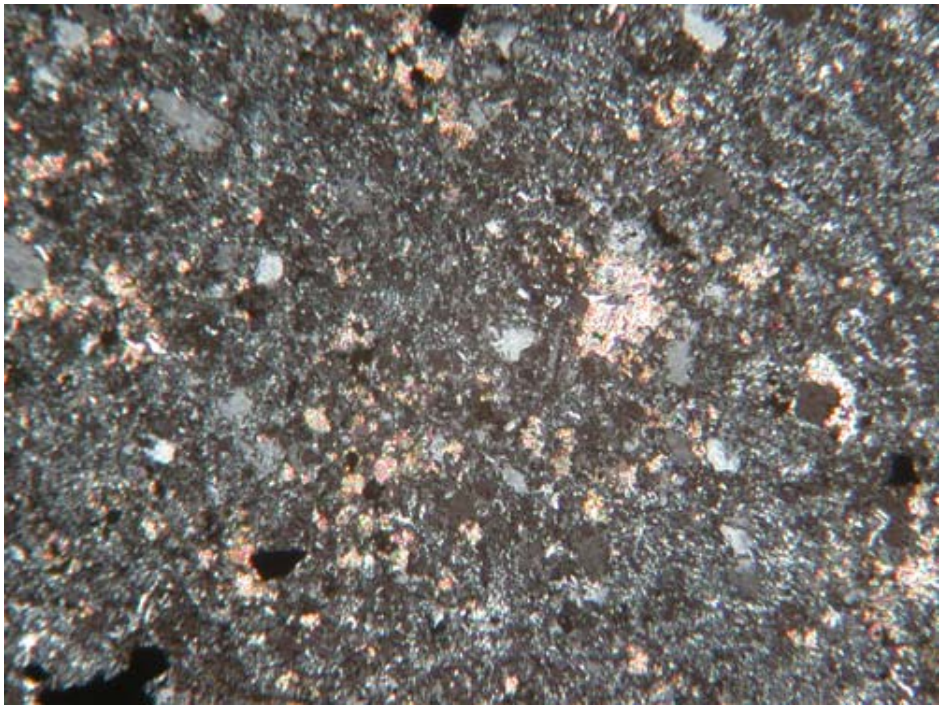


B

CEMI-3: General view of fine-grained quartz-rich and very fine-grained biotite-dominant laminated graywacke rock chips. A) PPL, B) XPL, FOV =~ 4.5 mm.



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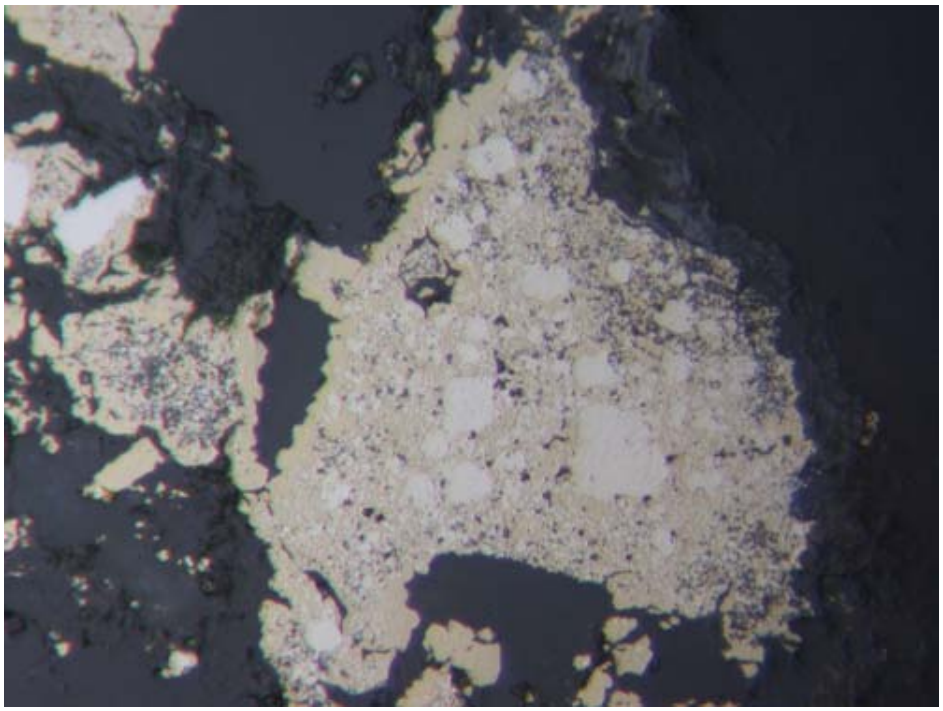


D

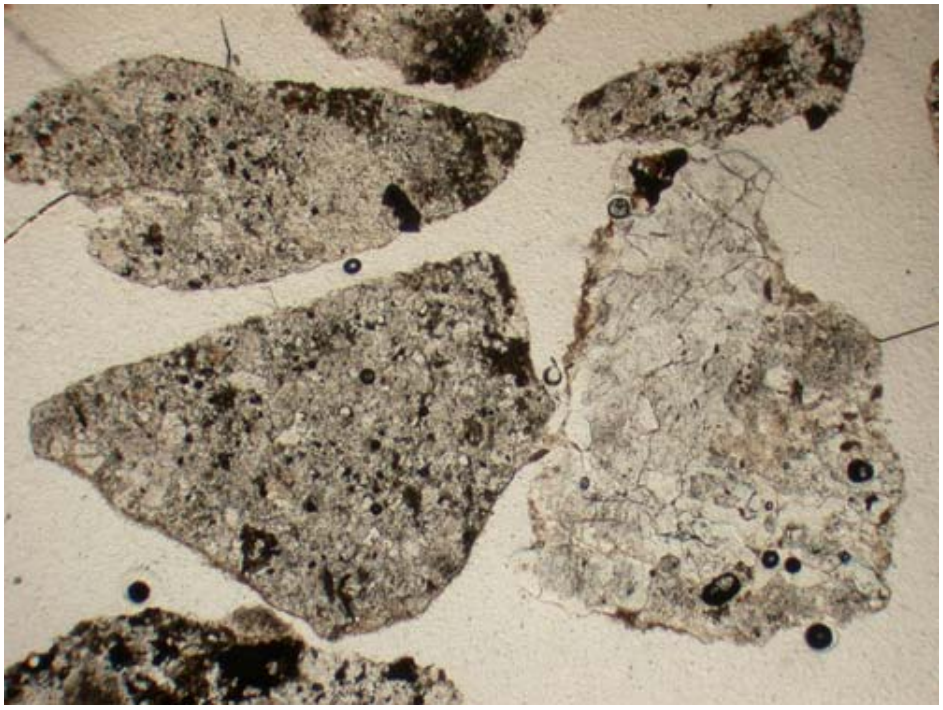
CEMI-3: C) Top, patchy carbonate alteration of very fine-grained greywacke. XPL, FOV =~ 0.9 mm, D) Bottom, anhedral mottled chalcopyrite encloses subhedral pyrite grains. Chalcopyrite is rimmed and partly replaced by hematite. RL, FOV =~ 1.5 mm.

CEMI-4
Sample ID: 046-0113-0133 **Rock Type:** Monzodiorite

Chip/Powder and Stained Mount Description:
Gray, very coarse-sized chips (up to 28mm size). Chips comprise dominantly dark gray angular, feldspar porphyry fragments and minor light gray, mottled, vaguely porphyritic rock fragments. K-feldspar comprises approximately 60% of the mount (based on stain). Submm to 3mm vuggy quartz veinlets with traces of pyrite occur locally in the dark fragments. A 3mm quartz vein with patchy chalcopyrite and traces of malachite occurs in one mottled, light gray rock fragment. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 7mm maximum size) of K-feldspar-biotite ± hematite ± carbonate altered, fine to medium-grained, porphyritic, locally vuggy, quartz-poor dioritoid rock and minor quartz, quartz-carbonate-sulphide-hematite and quartz-K-feldspar ± sulphide veinlets. Alteration of the chips is dominated by development of K-feldspar alteration and very fine-grained, green-brown secondary biotite aggregates which replace primary mafic minerals, partly replace former plagioclase phenocrysts, and occur as pervasive alteration of some chips. Biotite comprises approximately 15% of the section. Traces of patchy retrograde sericite alteration replace some of the secondary biotite alteration. K-feldspar occurs as selectively pervasive replacement of plagioclase; K-feldspar comprises approximately 60% of the section (estimate based on stained offcut). Minor colourless carbonate, approximately 1% of the section, occurs as locally zoned, rhombic or anhedral aggregates that are partly pseudomorphically replaced by hematitite and occur within quartz-sulphide veinlets or as patchy replacement of porphyritic rock. Traces of aphanitic dark brown clay aggregate occur as irregular patches associated with secondary biotite in some fragments. Brown grains and aggregates of rutile occur disseminated. Traces of very fine-grained apatite crystals occur disseminated in some of the fragments.

Total sulphide, 3%, comprises dominantly pyrite with minor chalcopyrite and traces of molybdenite, digenite and covellite. Pyrite, approximately 2% of the section, occurs disseminated as fine to very fine-grained, sub-anhedral grains and aggregates within chips and within quartz, quartz-K-feldspar and quartz-carbonate veinlets. Chalcopyrite and pyrrhotite occur as inclusions in some pyrite grains. Cores of pyrite grains have very few pits; minor fracturing is present in some grains. Most pyrite grains are rimmed and/or partly replaced by hematite. Chalcopyrite, approximately 1% of the section, occurs as fine to very fine-grained, ragged, anhedral disseminated aggregates; it sometimes encloses pyrite. Chalcopyrite is locally rimmed and partly replaced by traces of digenite and covellite or by hematite. Hematite also occurs as very fine-grained anhedral aggregates that occur with secondary biotite and pseudomorphically replace zoned carbonate alteration. Hematite comprises approximately 3% of the section.



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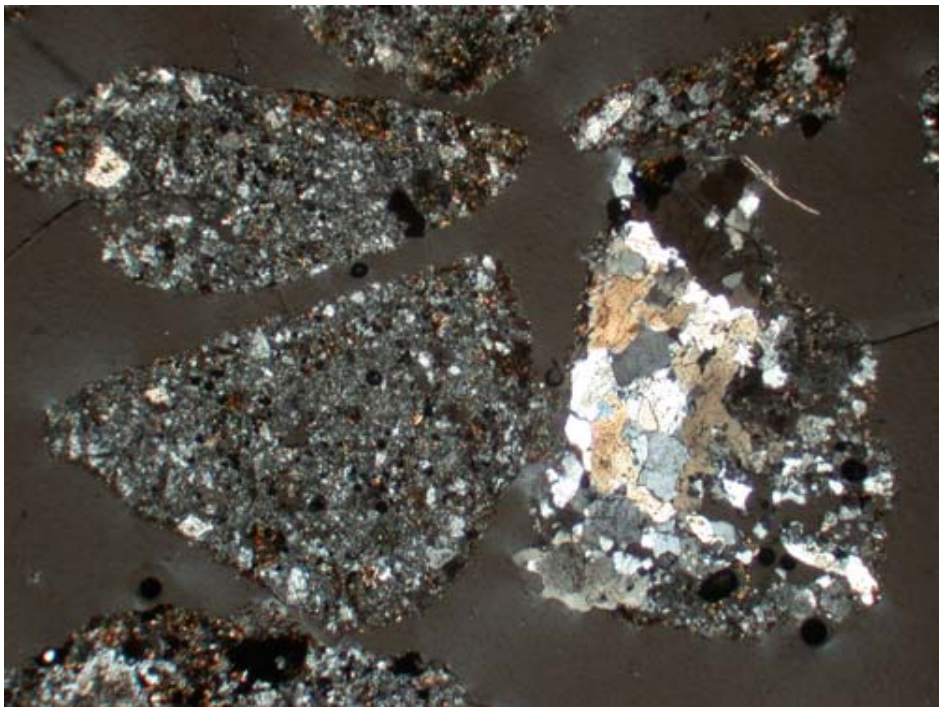
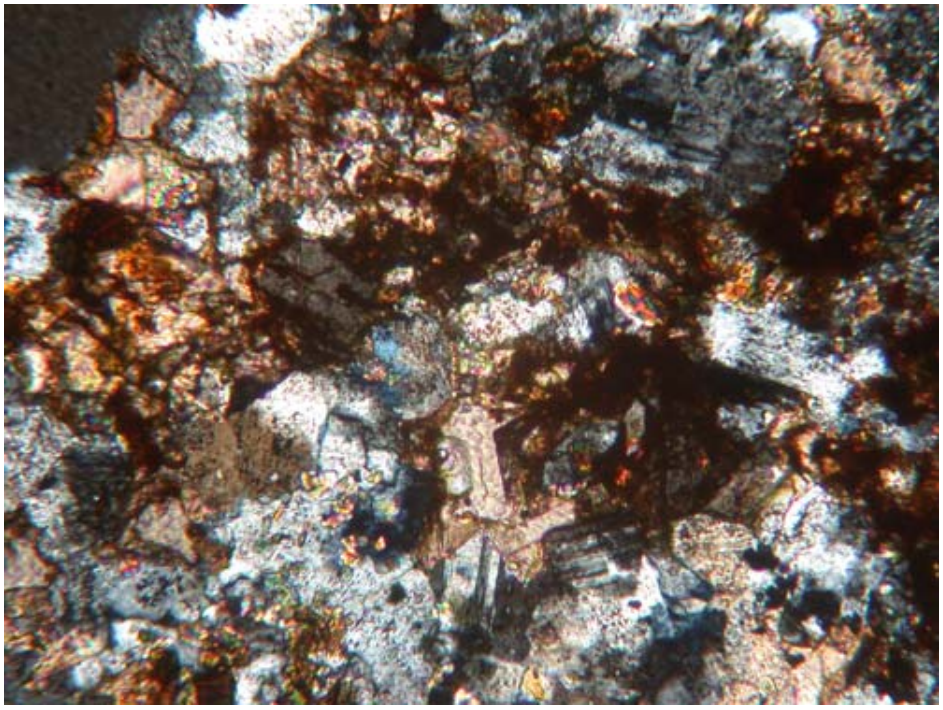


B

CEMI-4: Representative chips showing fine-grained porphyritic rock chips cut by quartz-K-feldspar veinlet A) PPL, B) XPL, FOV =~ 4 .5mm.



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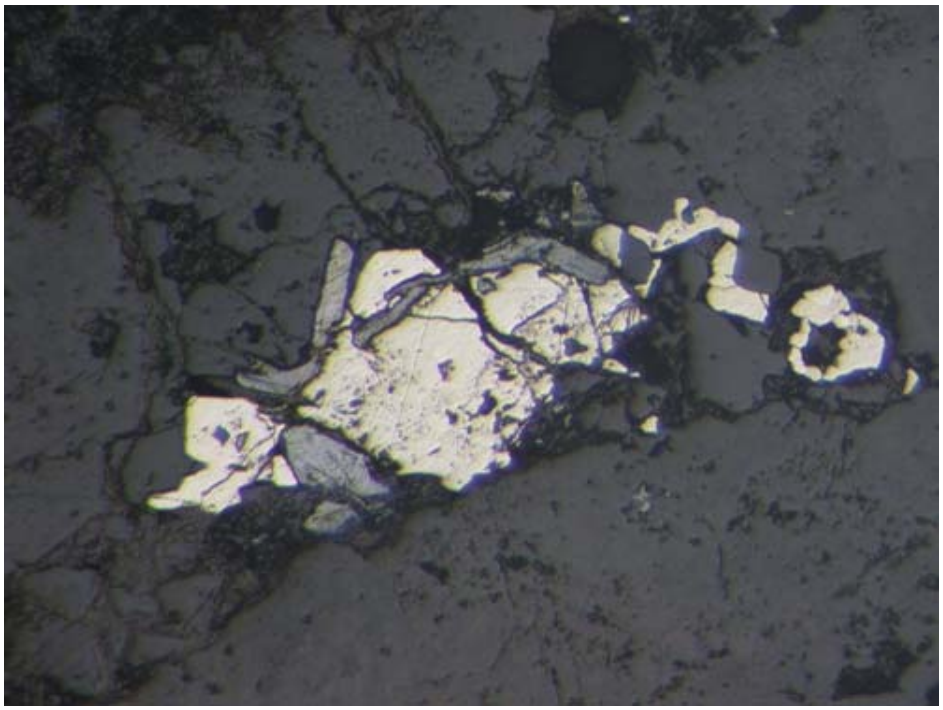
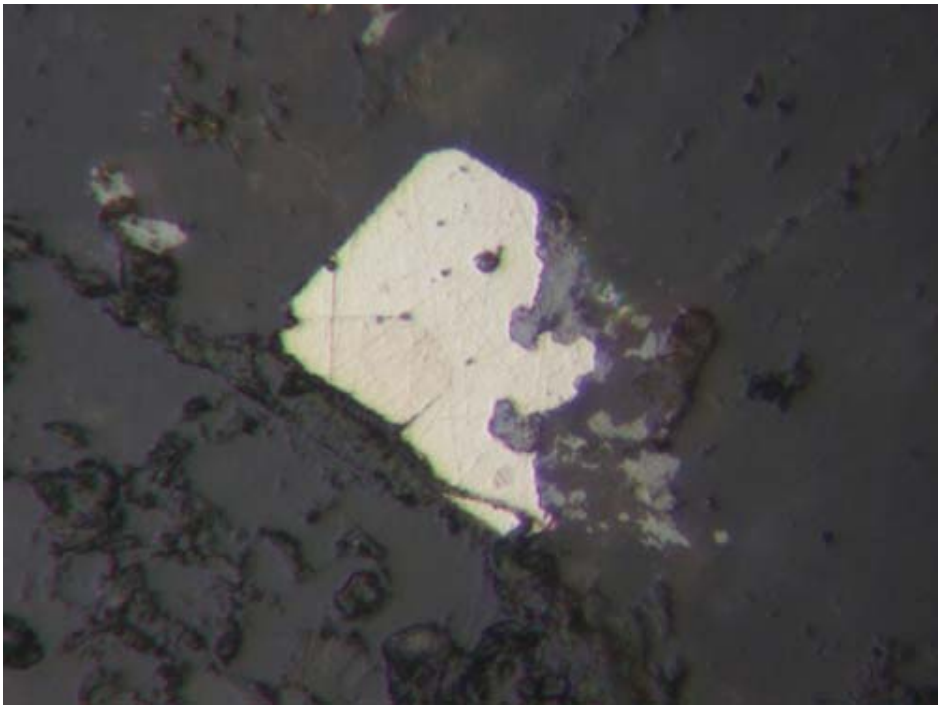
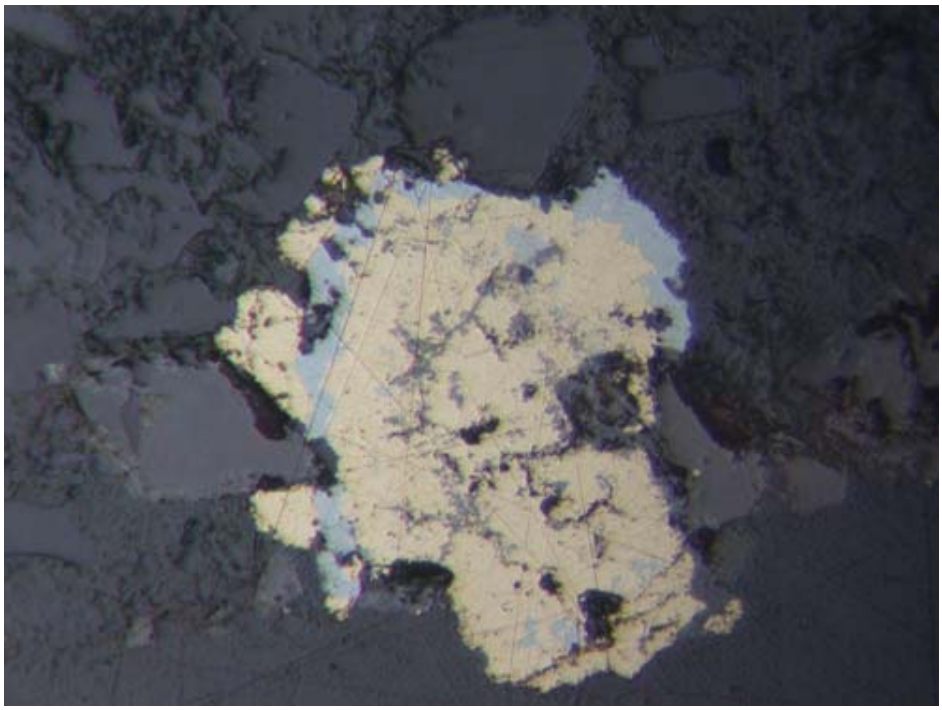


D

CEMI-4: C) Top, rhombic, zoned carbonate partly pseudomorphically replaced by hematite. XPL, FOV =~ 0.8 mm, D) Bottom, quartz vein with fractured, pitted pyrite and molybdenite laths rimmed by hematite. RL, FOV =~ 1 mm.



E



F

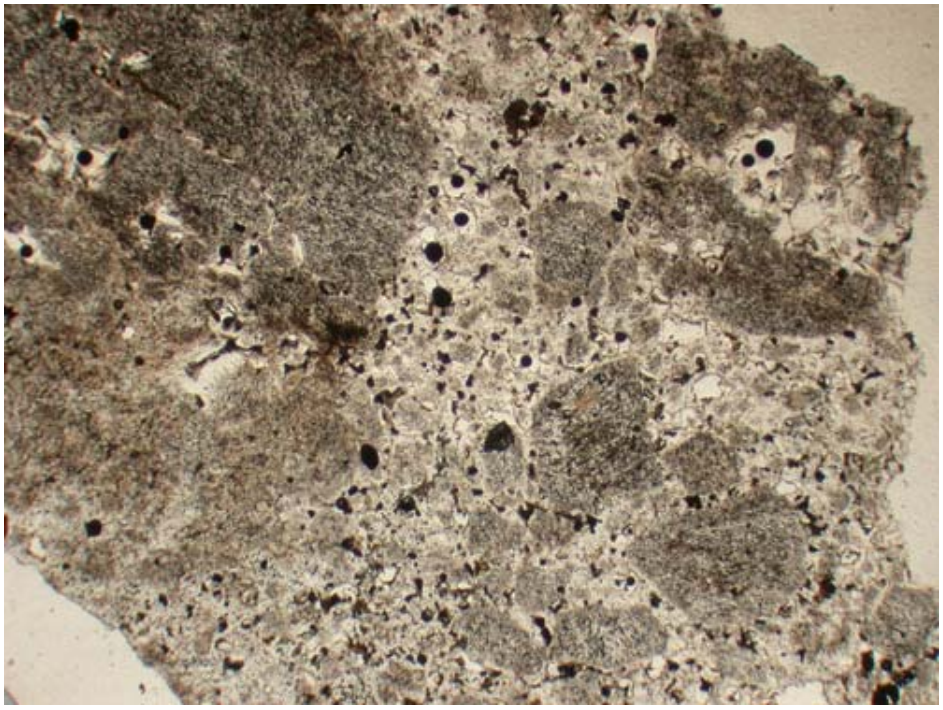
CEMI-4: E) Top, cubic pyrite grain partly replaced by hematite. RL, FOV =~ 0.2 mm, F) Bottom, pitted chalcopyrite partly replaced by digenite. RL, FOV =~ 0.3 mm.

CEMI-5
Sample ID: 046-0580-0600 **Rock Type:** Granodiorite

Chip/Powder and Stained Mount Description:
Dark gray and white, very coarse-sized chips (up to 30mm size). Chips comprise dominantly angular, feldspar porphyry fragments, leucocratic granitoid rock fragments and quartz vein fragments. K-feldspar comprises approximately 70% of the mount (based on stain). Minor pyrite and trace chalcopyrite occur disseminated within rock and vein fragments. Aphanitic brown material occurs locally along fractures. Red-brown alteration of disseminated sulphides in some rock chips. No reaction of chips to cold, dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 10mm maximum size) of K-feldspar-biotite altered porphyritic rock with fine to very fine-grained matrix, K-feldspar-biotite altered fine to medium-grained leucocratic rock and minor quartz ± biotite, quartz-K-feldspar and quartz-carbonate veinlets. Alteration of the rock fragments is dominated by development of very fine-grained, green-brown, shreddy secondary biotite which replaces primary mafic minerals. Biotite comprises approximately 5% of the section. Retrograde sericite alteration which replaces some of the secondary biotite alteration comprises approximately 1% of the section. Plagioclase crystals are selectively replaced by very fine-grained, brown secondary K-feldspar, patches of biotite, sericite and less commonly carbonate and hematite. Fine-grained, anhedral, secondary K-feldspar aggregates intergrown with quartz and traces of albite occur as groundmass interstitial to the plagioclase phenocrysts. K-feldspar comprises approximately 70% of the section (estimate based on stained offcut). Traces of fine-grained, colourless, anhedral to rhombic carbonate aggregates, possibly ferrous dolomite or siderite, are partly pseudomorphically replaced by hematite and occur as patchy aggregates, associated with biotite, as infill with sulphides and as veinlets with quartz. Traces of very fine-grained apatite crystals occur disseminated in some of the fragments.

Total sulphide, 3%, comprises dominantly pyrite with minor chalcopyrite and traces of molybdenite and rare bornite. Pyrite, approximately 2% of the section, occurs disseminated as fine to very fine-grained, eu-anhedral grains and aggregates within chips. Chalcopyrite and rarely pyrrhotite occur as inclusions in some pyrite grains. Cores of pyrite grains have very few pits; minor fracturing is present in some grains. Pyrite occurs locally with clusters of prismatic red-brown rutile crystals. Pyrite boundaries are relatively clean with virtually no development of hematite rims. Chalcopyrite, approximately 1% of the section, occurs as fine to very fine-grained, ragged, anhedral aggregates; it typically encloses pyrite. Rare traces of bornite are replaced by chalcopyrite. Rare grains of molybdenite occur disseminated and with chalcopyrite. Chalcopyrite occurs locally with but apparently not replaced by very fine-grained hematite aggregate. Black recessive patches occur adjacent to some pyrite-chalcopyrite clusters (?Fe-oxyhydroxides). Traces of hematite also occur as very fine-grained anhedral aggregates with secondary biotite and as replacement of Fe-bearing carbonate alteration.



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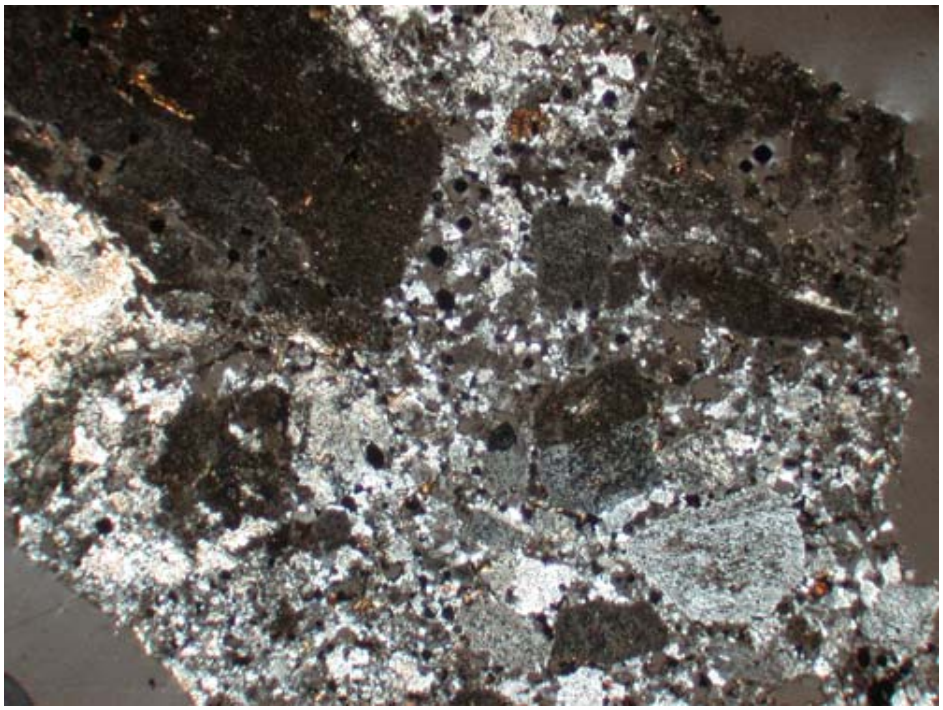
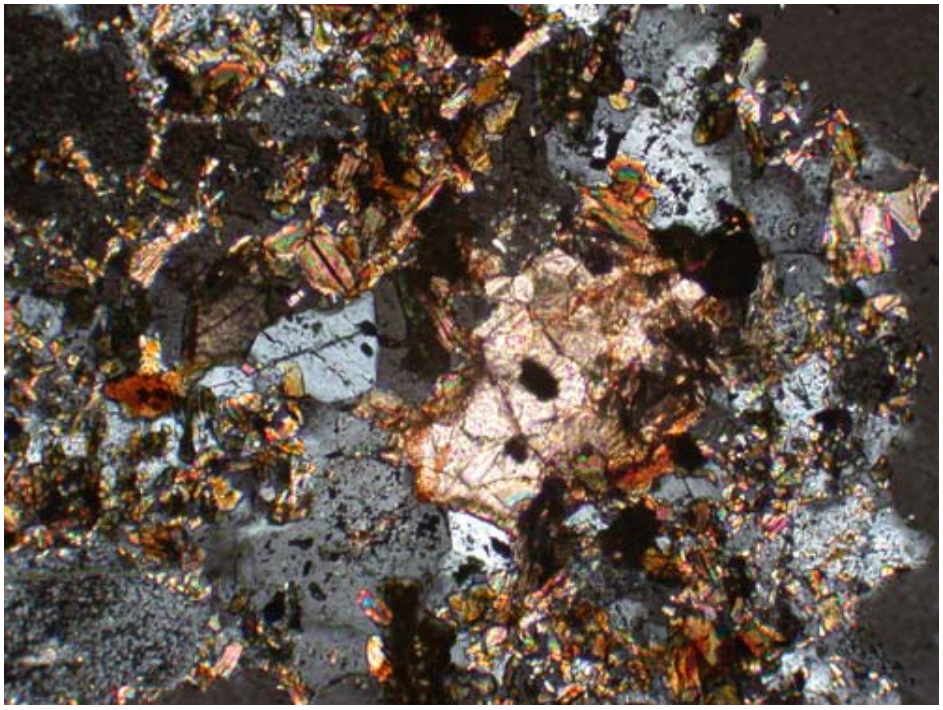


B

CEMI-5: Representative chips of K-feldspar-biotite porphyritic rock with fine to very fine-grained matrix. A) PPL, B) XPL, FOV =~ 4.5 mm.



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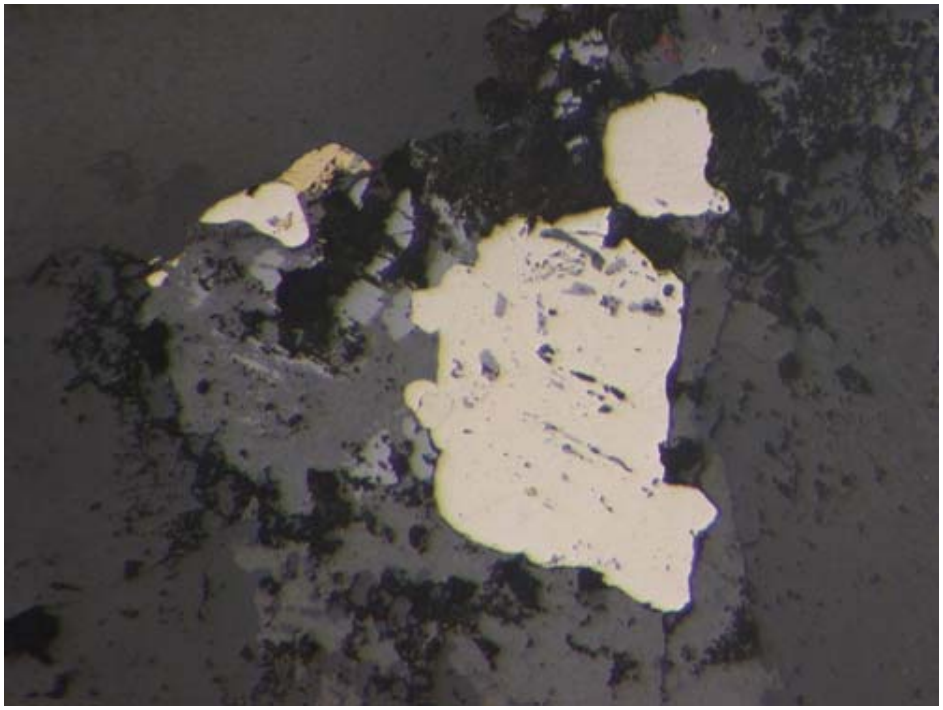


D

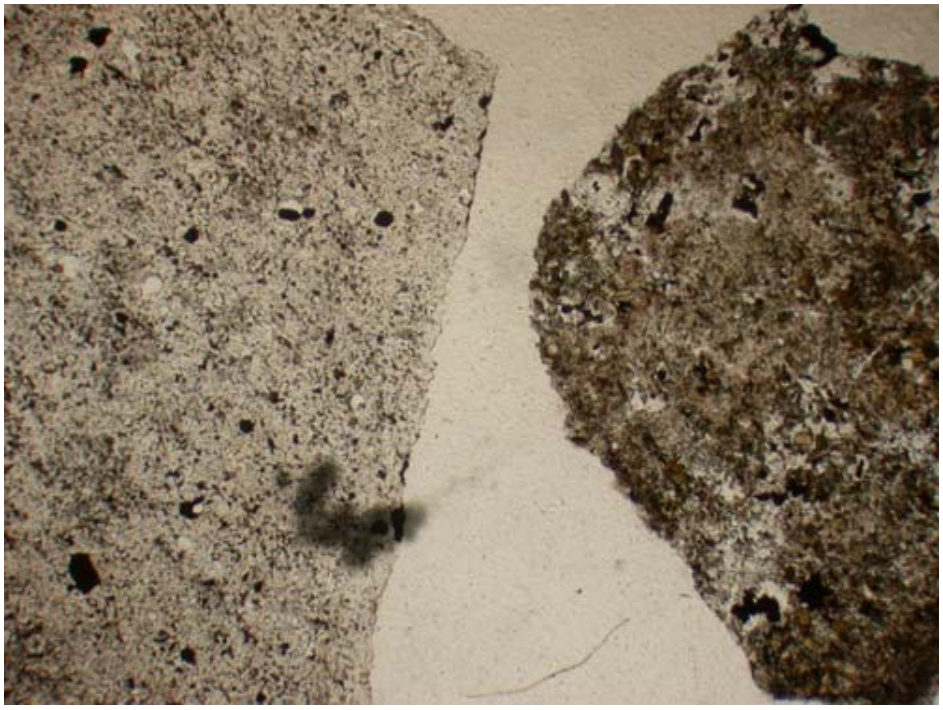
CEMI-5: C) Top, anhedral carbonate aggregate, partly replaced by hematite, associated with biotite in quartz veinlet. XPL, FOV =~ 0.9 mm, D) Bottom, anhedral pyrite and chalcopyrite grains associated with clusters of rutile. Black pits and patches adjacent to pyrite and chalcopyrite. RL, FOV =~ 2 mm

CEMI-6
Sample ID: 047-0350-0365 **Rock Type:** Greywacke

Chip/Powder and Stained Mount Description:
Light gray and dark gray/black, very coarse-sized chips (up to 32mm size). Chips comprise dominantly angular, fine-grained, mottled dark gray rock, minor aphanitic light gray rock and rare fine-grained, pinkish biotite altered, granular quartz-rich rock fragments. K-feldspar comprises approximately 40% of the mount (based on stain). Major pyrite, minor chalcopyrite and trace malachite occur disseminated and locally in narrow quartz veinlets. Locally orange-brown or pale yellow material as fracture coatings. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 12mm maximum size) of K-feldspar-biotite altered, fine-grained, granular rock, lesser silicified granular rock with abundant sericite-altered layers, and minor quartz and quartz-K-feldspar veinlets. Alteration is dominated by development of very fine-grained, green-brown, shreddy secondary biotite which, together with minor anhedral aggregates of hematite, rutile, sulphides and traces of carbonate replaces primary mafic minerals. Biotite comprises approximately 15% of the section. In the equigranular, quartz-poor rock, relict plagioclase is selectively replaced by very fine-grained, brown secondary K-feldspar, secondary biotite, hematite and rutile. K-feldspar comprises approximately 40% of the section (estimate based on stained offcut). The silicified, granular rock comprises layers of quartz aggregate with disseminated biotite and layers of massive, very fine-grained retrograde sericite as replacement of patchy secondary biotite. Sericite comprises approximately 10% of the section. Rare traces of malachite occur as anhedral patchy aggregates with secondary biotite. Traces of rhombic colourless carbonate occur with quartz-chalcopyrite veinlets altered to hematite. Traces of fine to very fine-grained apatite crystals occur disseminated.

Total sulphide, 6%, comprises dominantly pyrite with minor chalcopyrite and traces of digenite. Pyrite, approximately 5% of the section, occurs disseminated as fine to very fine-grained, anhedral grains and aggregates within chips. Chalcopyrite and rarely pyrrhotite occur as inclusions in some pyrite grains. Cores of pyrite grains have very few pits; minor fracturing is present in some grains. Pyrite boundaries are relatively clean with little local development corroded rims. Chalcopyrite, approximately 1% of the section, occurs as fine to very fine-grained, ragged, anhedral aggregates; it typically encloses pyrite. Chalcopyrite also occurs as infill and overgrowths to fractured pyrite. Chalcopyrite is locally replaced by digenite and rimmed and partly replaced by hematite. Hematite occurs as very fine-grained, anhedral aggregates that occur with secondary biotite; hematite also occurs as fracture infill and as replacement of sulphides in quartz veinlets. Hematite comprises approximately 3% of the section.



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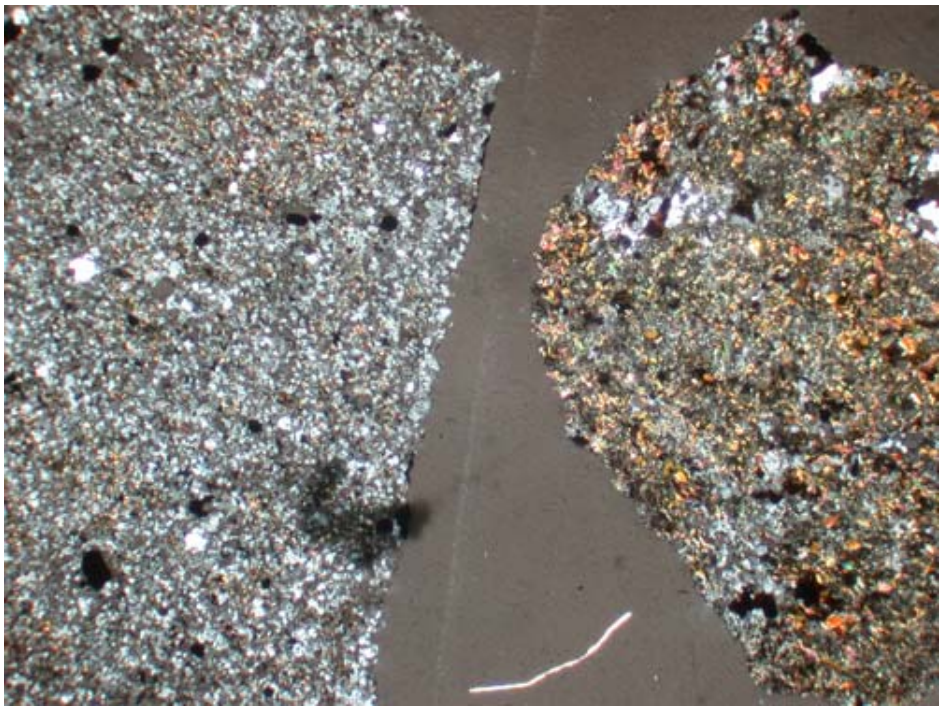
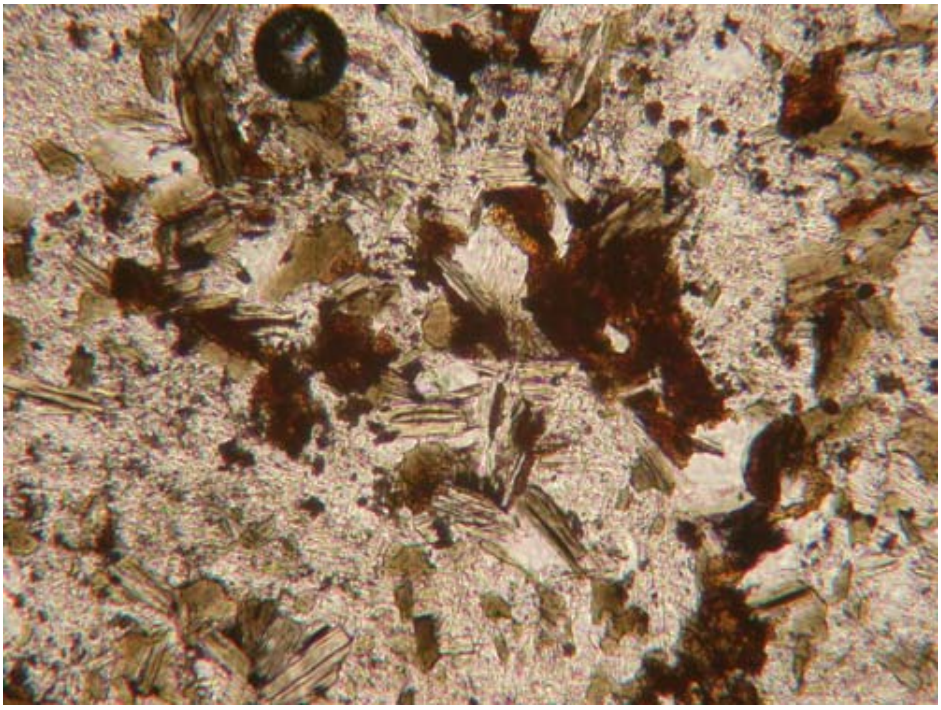


B

CEMI-6: General view of silicified granular rock (left) and dominantly biotite-altered greywacke (right). A) PPL, B) XPL, FOV~ 4.5 mm.



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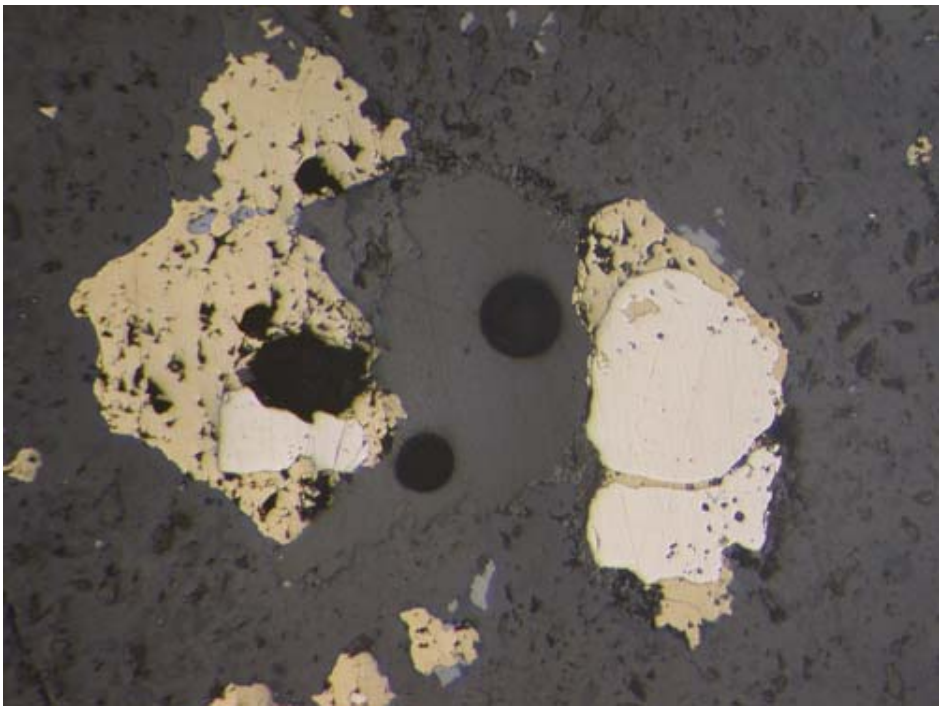
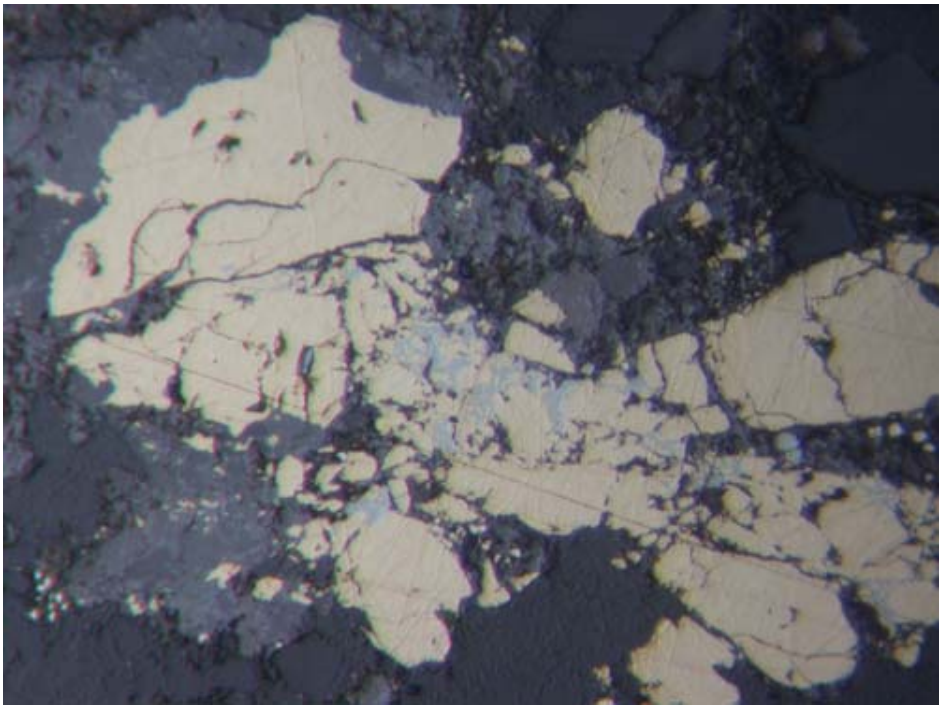


D

CEMI-6: C) Top, patchy secondary biotite, hematite and rutile in K-feldspar dominant granular matrix. PPL, FOV =~ 0.65 mm, D) Bottom, anhedral, strongly pitted chalcopyrite surrounds and heals fractures in earlier pyrite; sulphides are rimmed by hematite (recessive polish) and hematite fills fracture between sulphide clusters. RL, FOV =~ 1.4 mm.



D

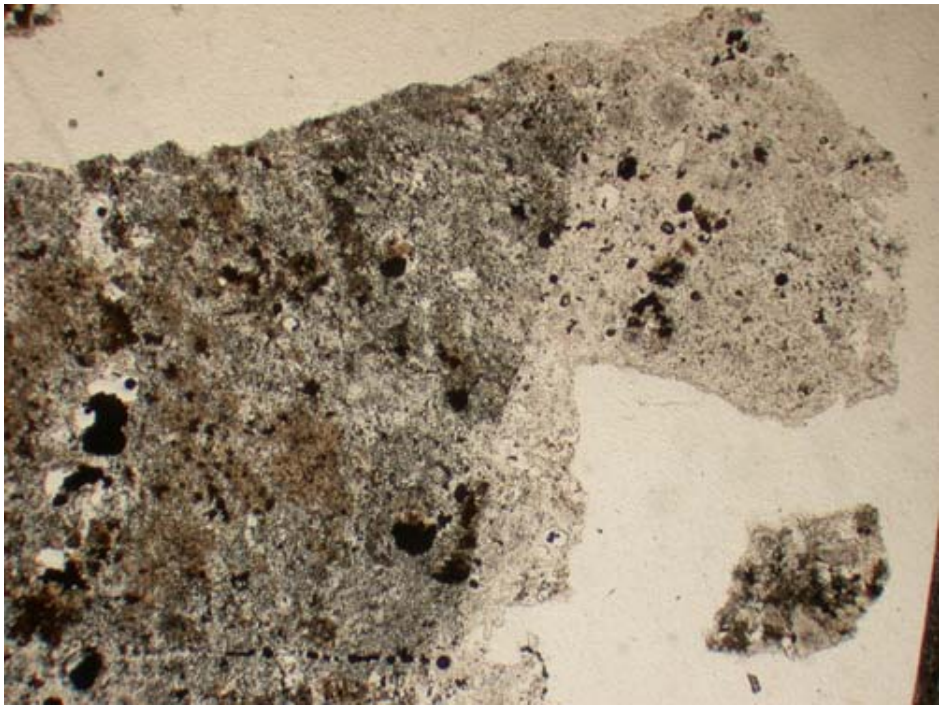
CEMI-6: E) Chalcopyrite replaced by digenite and rimmed by hematite. RL, FOV =~ 0.25mm.

CEMI-7
Sample ID: 112-0460-0480 **Rock Type:** Intrusion Breccia

Chip/Powder and Stained Mount Description:
Dark gray, light gray-brown and white, very coarse-sized chips (up to 27mm size). Chips comprise dominantly angular, feldspar porphyry, fine-grained, leucocratic granitoid rock and minor aphanitic light gray rock fragments. K-feldspar comprises approximately 50% of the mount (based on stain). Minor pyrite, chalcopyrite and trace molybdenite occur disseminated and pyrite occurs locally as stringers. Aphanitic light gray rock fragments are rarely stained by red-brown and pale yellow aphanitic material. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description: (section is very thin)
Medium to coarse chips (up to 12mm maximum size) of ?brecciated K-feldspar-biotite altered fine-grained porphyritic quartz-poor dioritoid rock, K-feldspar altered, fine-grained leucocratic equigranular rock and minor quartz-K-feldspar-sulphide veinlets. Alteration of the dioritoid rock is dominated by development of very fine-grained, green-brown secondary biotite aggregates which replace primary mafic minerals and partly replace former plagioclase phenocrysts and matrix. Biotite comprises approximately 10% of the section. Patchy retrograde sericite alteration replaces some of the secondary biotite alteration. Sericite comprises approximately 1% of the section. The leucocratic rock fragments are characterized by relict fine -grained plagioclase phenocrysts selectively replaced by very fine-grained, brown secondary K-feldspar, disseminated and patchy secondary biotite and traces of rutile, sulphides and hematite. Fine-grained, anhedral, secondary K-feldspar aggregates intergrown with quartz occur as groundmass interstitial to the plagioclase phenocrysts. K-feldspar comprises approximately 50% of the section (estimate based on stained offcut). Traces of colourless carbonate occur as anhedral aggregates that overprint K-feldspar altered plagioclase phenocrysts. Traces of anhedral to rhombic, zoned colourless carbonate, partly replaced by hematite, are locally associated with secondary biotite alteration. Disseminated brown grains and aggregates of rutile occur with secondary biotite and hematite-altered carbonate as replacement of the diorite. Traces of very fine-grained apatite crystals occur disseminated in some of the fragments.

Total sulphide, 4%, comprises dominantly pyrite with minor chalcopyrite. Pyrite, approximately 3% of the section, occurs disseminated as fine to very fine-grained, eu-anhedral grains and aggregates within rock chips and within quartz veinlets. Chalcopyrite, pyrrhotite and bornite occur as inclusions in some pyrite grains. One grain of gold was observed as an inclusion in pyrite. Cores of pyrite grains have very few pits; minor fracturing is present in some grains. Pyrite occurs locally with clusters of prismatic red-brown rutile crystals. Pyrite boundaries are relatively clean with rare development of hematite rims. Chalcopyrite, approximately 1% of the section, occurs as fine to very fine-grained, ragged, anhedral aggregates; it typically encloses pyrite. Chalcopyrite is locally rimmed and partly replaced by hematite. The oxidation is particularly evident in leucocratic rock fragments with virtually no development of secondary biotite. Hematite occurs as very fine-grained anhedral aggregates that pseudomorphically replace anhedral to rhombic, zoned carbonate. Hematite comprises between 1 and 2% of the section.



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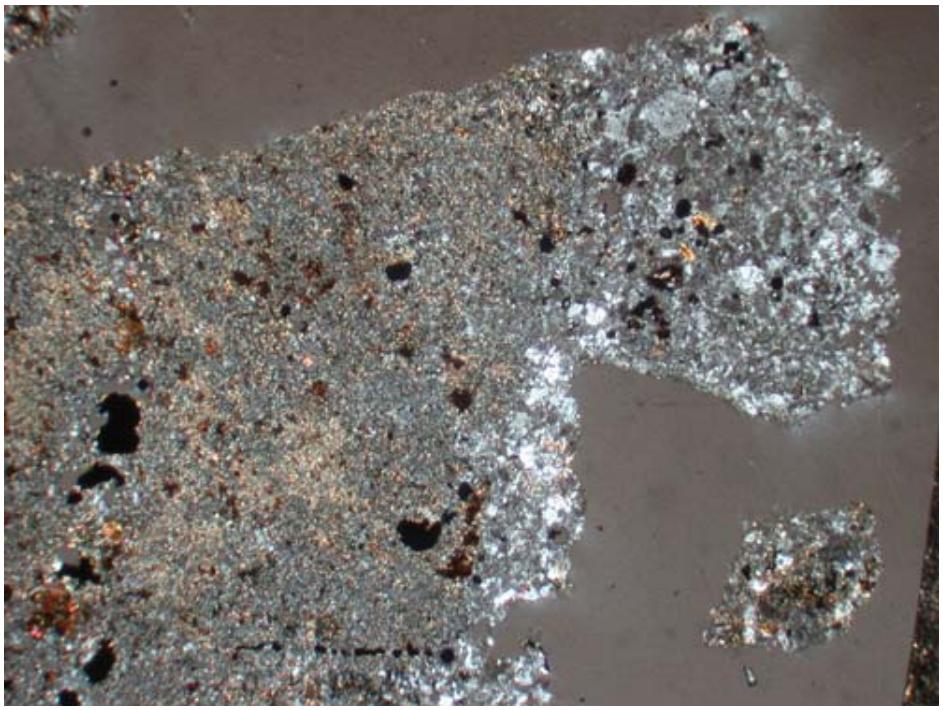
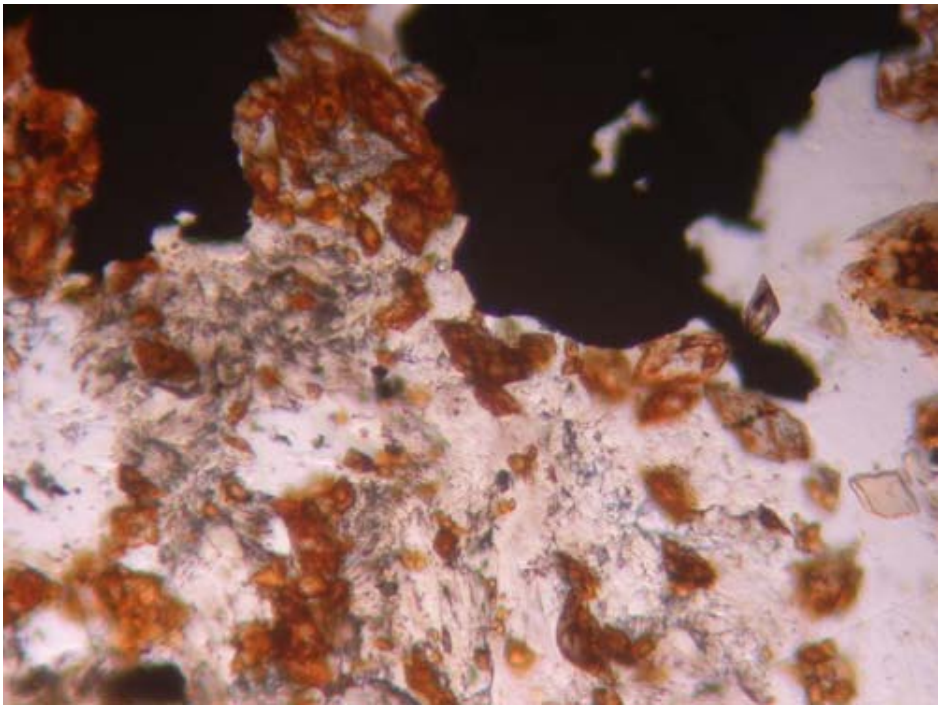


B

CEMI-7: View of large rock fragment with contact between K-feldspar-biotite-altered, fine-grained porphyritic quartz-poor rock and granular leucocratic rock. A) PPL, B) XPL, FOV~ 4.5 mm.



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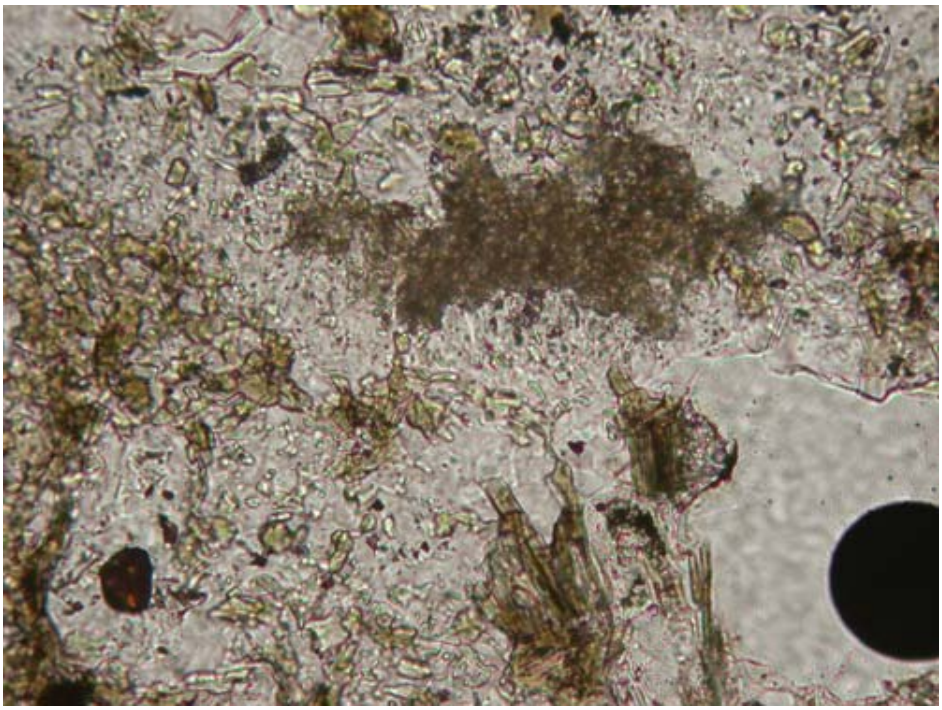
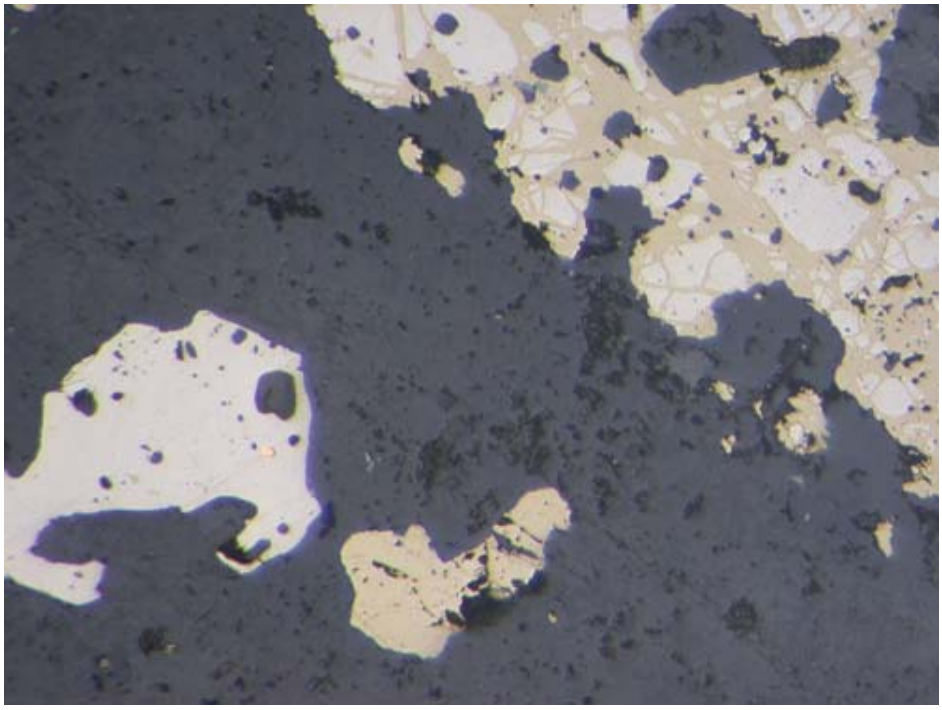


D

CEMI-7: C) Top, rhombic carbonate aggregate replaced by hematite. PPL, FOV =~ 0.3 mm, D) Bottom, very fine-grained brown carbonate aggregate associated with secondary biotite. PPL, FOV =~ 0.35mm.



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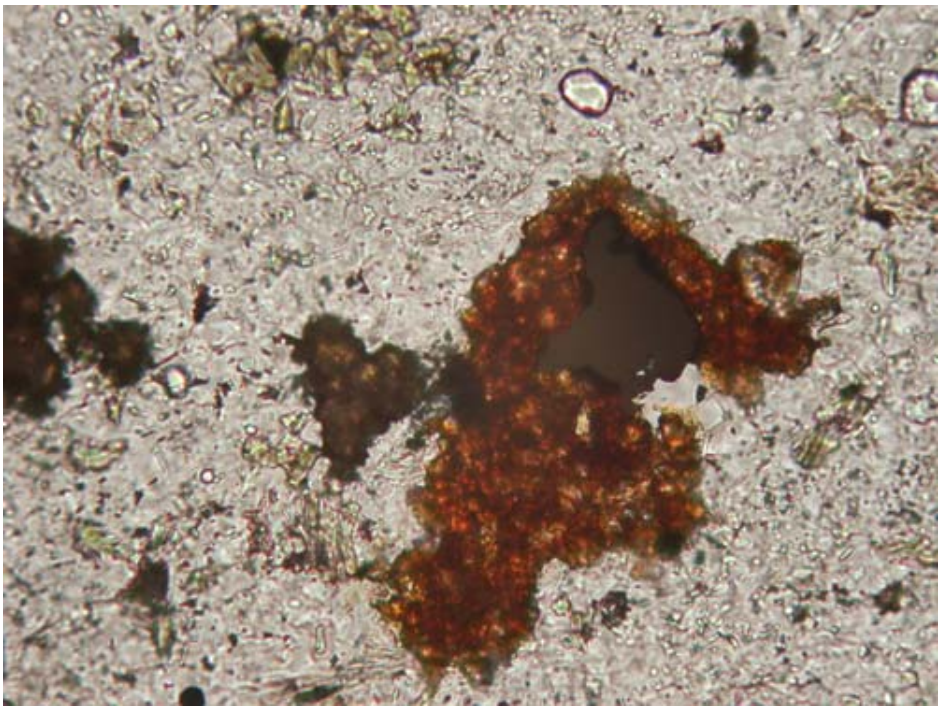


F

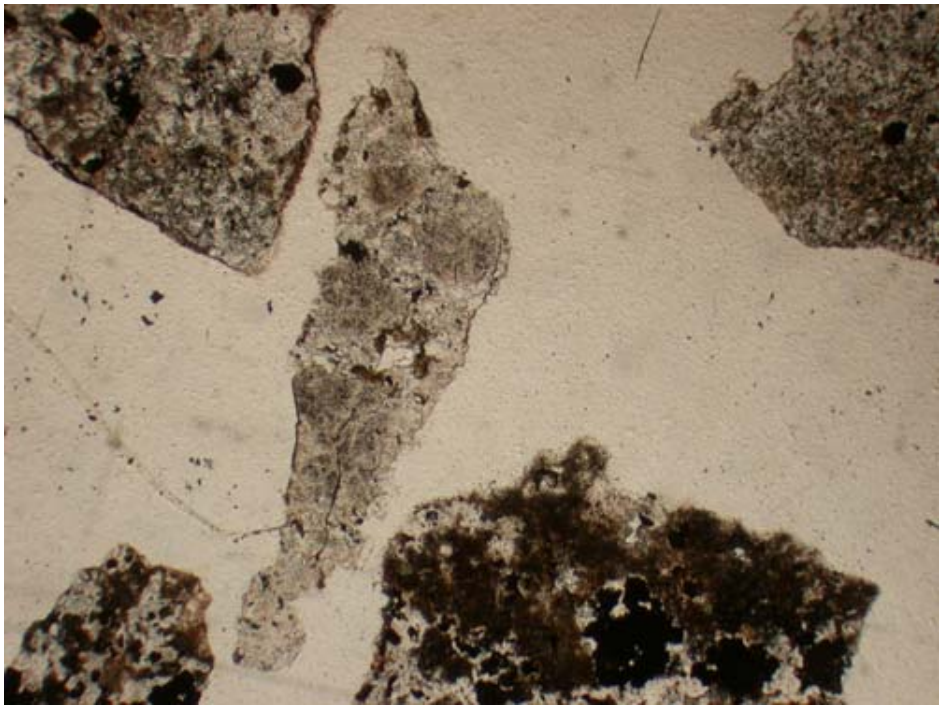
CEMI-7: C) Top, anhedral chalcopyrite surrounds and heals fractures in early pyrite; note inclusion of gold within pyrite (left). RL, FOV =~ 1 mm, D) Bottom, pyrite rimmed and partly replaced by hematite; clusters of rutile (left). PPL, FOV =~ 0.35mm.

CEMI-8
Sample ID: 117-0190-0210 **Rock Type:** Monzodiorite

Chip/Powder and Stained Mount Description:
Dark gray, light gray and black, very coarse-sized chips (up to 33mm size). Chips comprise dominantly angular, feldspar porphyry fragments and clasts of aphanitic black rock in a light gray aphanitic matrix. K-feldspar comprises approximately 65% of the mount (based on stain). Minor pyrite and chalcopyrite occur disseminated; chalcopyrite occurs locally with quartz as fine 2mm veinlets. Aphanitic light gray rock fragments are stained by red-brown and pale yellow aphanitic material. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 12mm maximum size) of K-feldspar-biotite altered fine to medium-grained porphyritic quartz-poor dioritoid rock, pervasively biotite-altered, fine-grained granular rock, pervasively K-feldspar-biotite-quartz altered fine-grained granular rock and minor quartz, quartz-carbonate-sulphide-hematite and quartz-K-feldspar veinlets. Alteration of the chips is dominated by development of K-feldspar alteration and very fine-grained, green-brown secondary biotite aggregates which replace primary mafic minerals, partly replace former plagioclase phenocrysts, and occur as pervasive alteration of some chips. Biotite comprises approximately 15% of the section. Minor patchy retrograde sericite alteration, approximately 1%, replaces some of the secondary biotite alteration. K-feldspar occurs as selectively pervasive replacement of plagioclase; K-feldspar comprises approximately 65% of the section (estimate based on stained offcut). Minor, approximately 1%, very fine-grained anhydrite occurs associated with secondary biotite and carbonate as replacement of plagioclase, with retrograde sericite, with disseminated sulphides, and as fine-grained radiating aggregates in selvages of some quartz-carbonate veinlets. Minor anhedral to rhombic, zoned, colourless carbonate, approximately 1% of the section, occurs partly pseudomorphically replaced by hematite aggregate as anhedral aggregates within quartz-sulphide veinlets and as irregular patches in some fragments. Brown grains and aggregates of rutile occur disseminated. Rare traces of very fine-grained apatite crystals occur disseminated in some of the fragments.

Total sulphide, 3%, comprises dominantly pyrite with minor chalcopyrite and traces of bornite, digenite and covellite. Pyrite, approximately 2% of the section, occurs disseminated as fine to very fine-grained, eu-anhedral grains and aggregates within chips and within quartz and quartz-carbonate veinlets. Chalcopyrite occurs as inclusions in some pyrite grains. Cores of pyrite grains have very few pits; minor fracturing is present in some grains. Some pyrite boundaries are relatively clean but some pyrite grains have hematite rims. Chalcopyrite, approximately 1% of the section, occurs as fine to very fine-grained, ragged, anhedral aggregates; it typically encloses pyrite. Chalcopyrite is replaced by bornite and digenite or covellite in some chips. Chalcopyrite is locally rimmed and partly replaced by hematite. Hematite occurs dominantly as fine to very fine-grained anhedral to rhombic aggregates that pseudomorphically replace colourless carbonate. Hematite comprises approximately 3% of the section.



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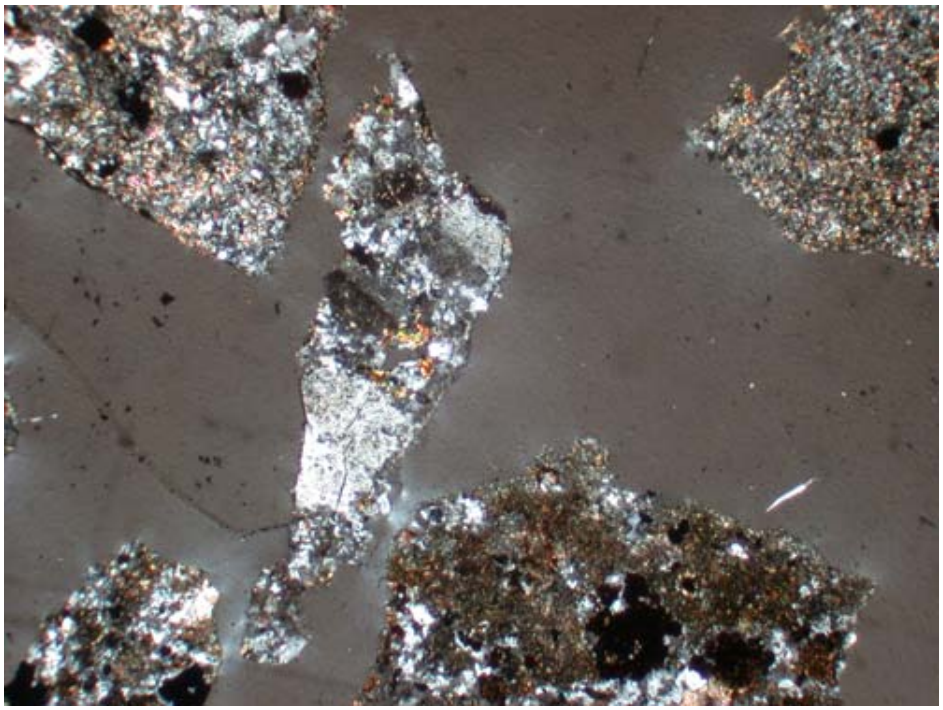
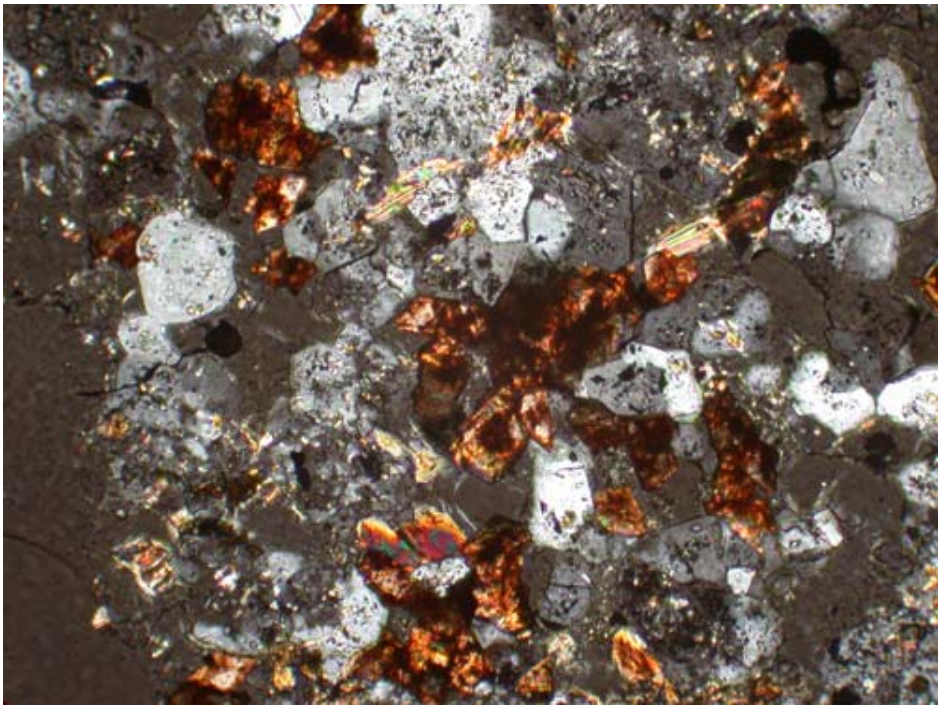


B

CEMI-8: General view of biotite-altered porphyritic and granular rock fragments. A) PPL, B) XPL, FOV~ 4.5 mm.



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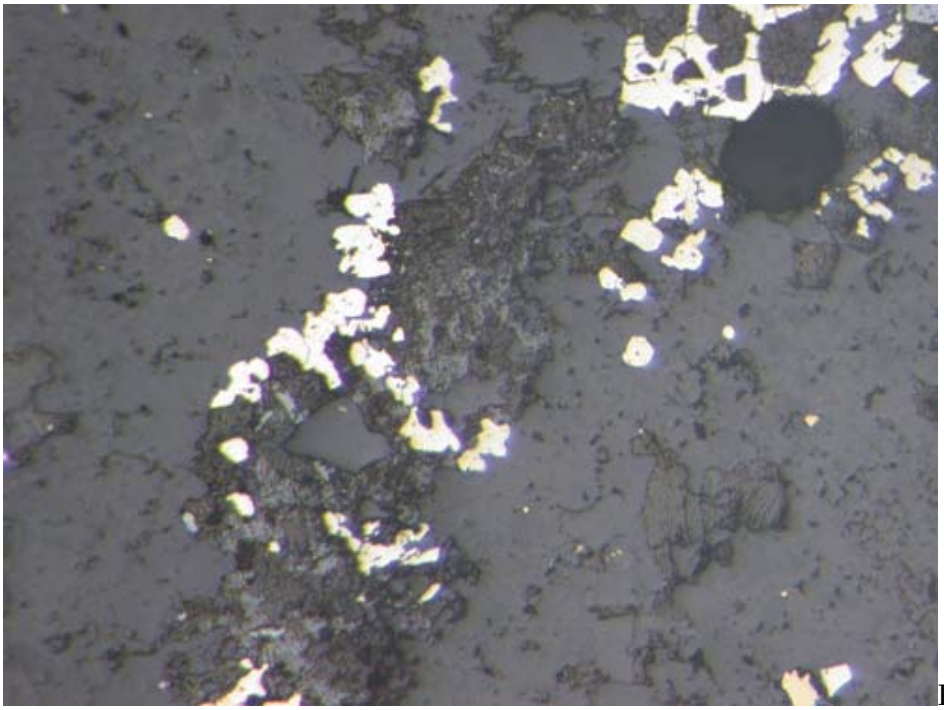
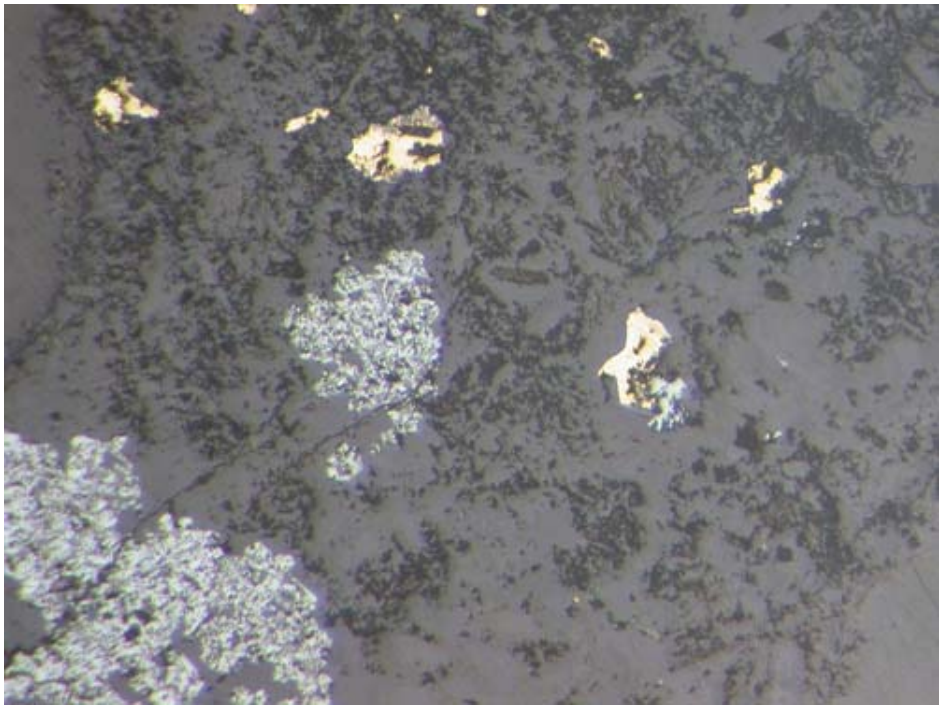


D

CEMI-8: C) Top, rhombic carbonate pseudomorphically replaced by hematite. XPL, FOV =~ 0.9 mm, D) Bottom, anhedral pyrite aggregate partly replaced by hematite (recessive). RL, FOV =~ 1 mm.



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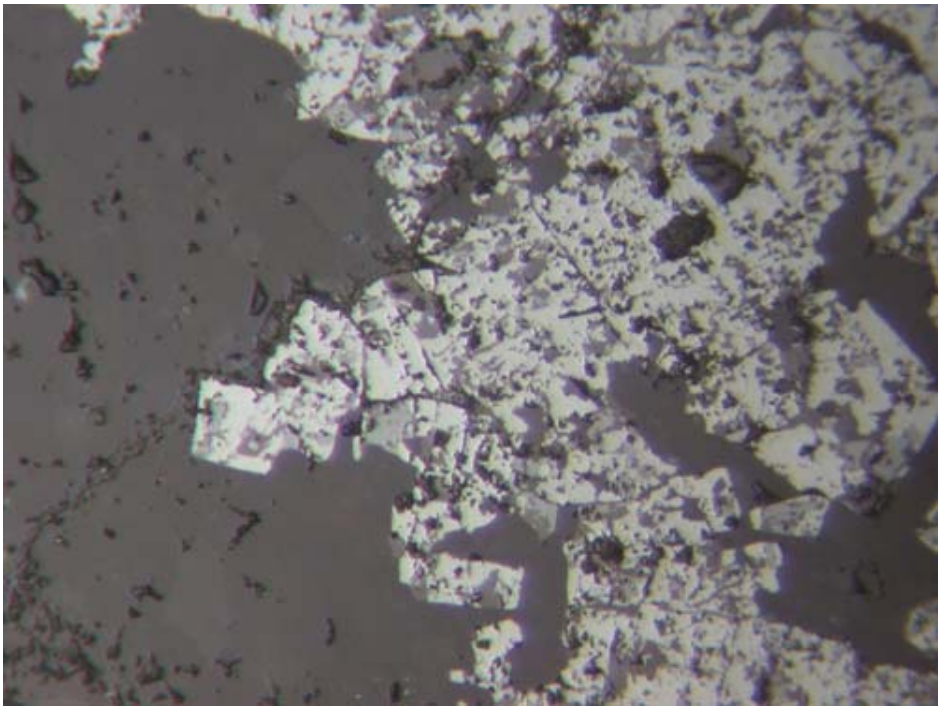


F

CEMI-8: E) Top, disseminated chalcopyrite partly replaced by traces of bornite and digenite (top); pitted hematite aggregates (centre & lower left). RL, FOV =~ 1 mm, F) Bottom, enlargement of central portion of photo E: rhombic hematite aggregates. RL, FOV =~ 0.25mm.

CEMI-9
Sample ID: 3102-0958-0978 **Rock Type:** Basalt/porphyritic rock

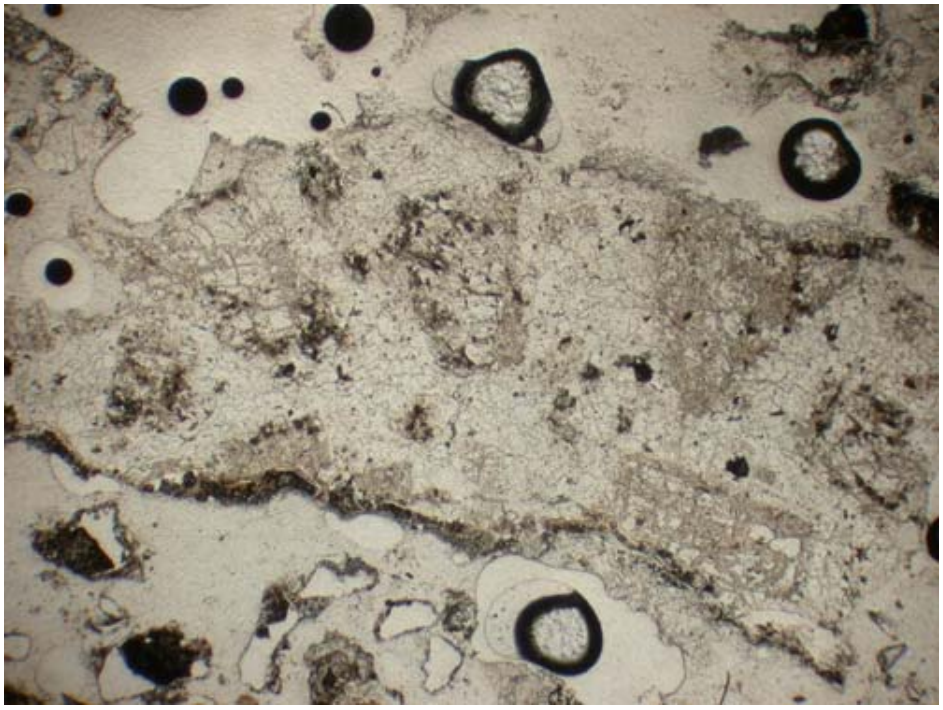
Chip/Powder and Stained Mount Description:
Dark green/black, very coarse-sized chips (up to 30mm size). Chips comprise angular, aphanitic rock with cream to tan calcite as fine to medium-grained patches and stockwork. Rock appears virtually unmineralized with only rare isolated ?pyrite grains and rare, spotty red-brown staining along fracture surfaces. Strong reaction of chips to cold dilute HCl. Strong reaction to magnet.

Thin Section Description:
Much of this section has been removed during sample preparation; the remainder is strongly fragmented and chaotic due to reaction and/or plucking of section during polishing and mounting. The offcut has large vacant cavities with eroded fragments remaining in the epoxy resin. Re-sectioning is recommended. A brief description limited to the remaining preserved section is below. This description does not reflect the whole rock as described in hand sample.

Coarse chips (up to 14mm maximum size), mostly plucked from the section, of carbonate altered, seriate-textured basalt, sericite-altered plagioclase porphyritic rock and fine-grained, leucocratic equigranular rock and liberated fragments of carbonate (likely calcite), quartz, plagioclase, chalcopyrite, pyrite, marcasite and hematite. The seriate-textured basalt consists of dominantly carbonate altered-plagioclase laths, disseminated magnetite, and selectively pervasive carbonate-clay replacement of former mafic phases and groundmass. The porphyritic rock comprises fine to medium-grained plagioclase phenocrysts, selectively replaced by sericite and patchy carbonate, in a fine-grained matrix of quartz and feldspar. The equigranular rock comprises quartz, patches of pervasively sericite-altered former ?feldspar and locally trace biotite. Sericite comprises approximately 10% of the section. Carbonate comprises approximately 10% of the section as dominantly fine to very fine-grained colourless varieties. Calcite comprises some of the carbonate which occurs as infill, replacement of plagioclase, mafic phases and as liberated fragments (based on reaction to HCl). Minor, approximately 1-2%, very fine-grained brown carbonate occurs in some chips partly replacing the anhedral colourless carbonate.

Total sulphide, 1%, comprises minor chalcopyrite and with traces of marcasite and pyrite. Trace pyrite occurs as very fine-grained, eu-anhedral grains and aggregates enclosed within chalcopyrite. Chalcopyrite, approximately 1% of the section, occurs as fine to very fine-grained, ragged anhedral aggregates associated with porphyritic chips. Chalcopyrite is partly replaced by hematite. Traces of very fine-grained marcasite occur disseminated associated with patchy carbonate and as liberated grains. Marcasite boundaries are ragged and anhedral. Trace magnetite occurs disseminated and as liberated grains. Trace hematite occurs as replacement of chalcopyrite and as liberated grains.

Traces of tramp iron? in this section identified by microprobe EDS analyses (Appendix 1 and 2).



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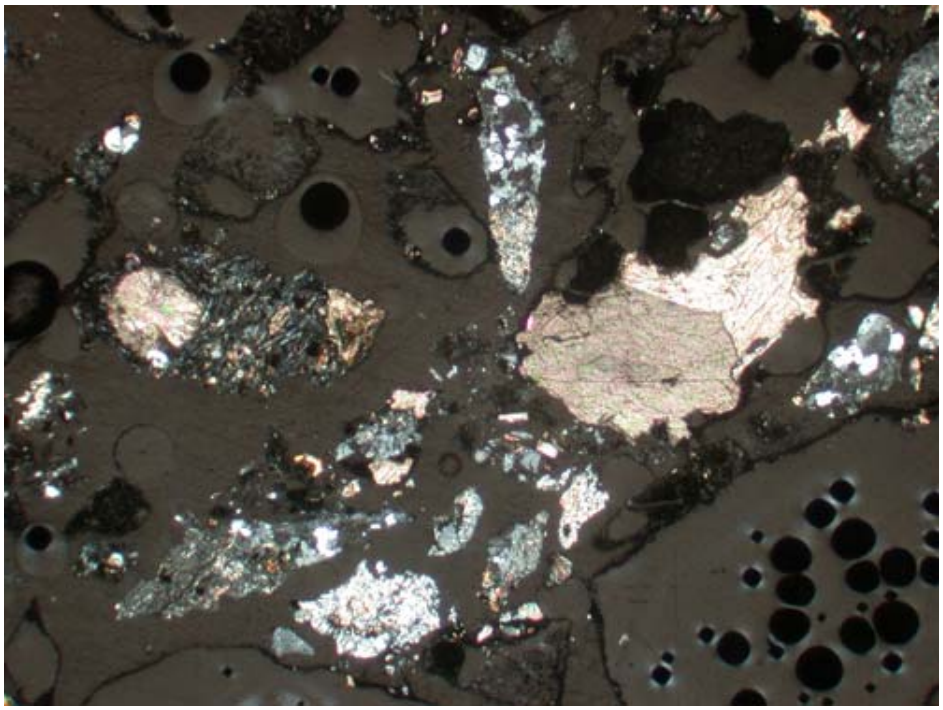
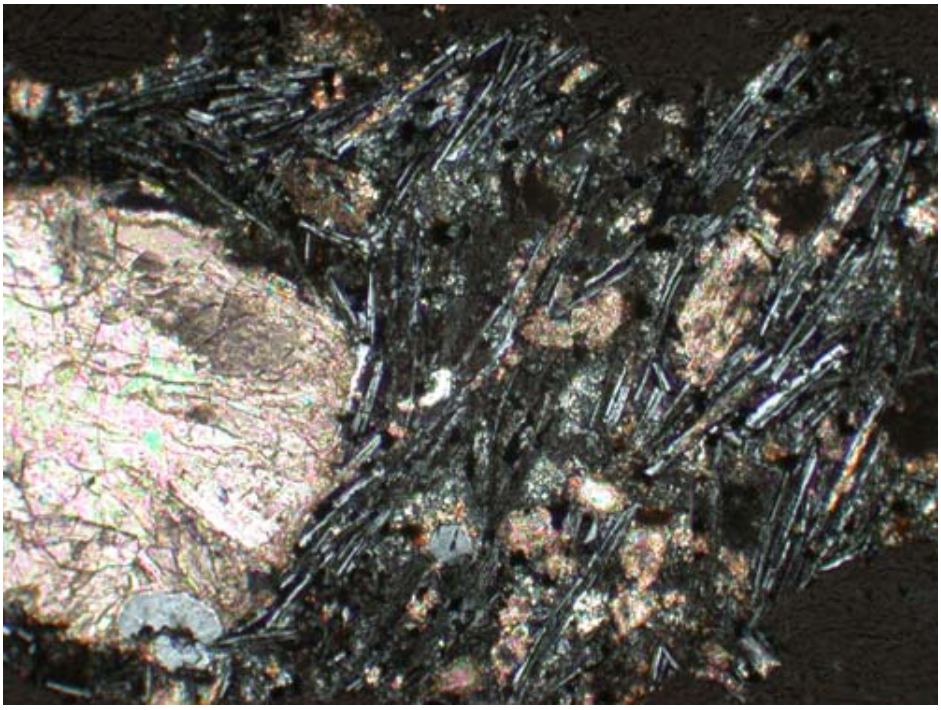


B

CEMI-9: A) Representative view of plagioclase porphyritic rock fragment. A) PPL, FOV~4.5mm. B) General view of mount showing seriate-textured basalt (left) and liberated carbonate chips (right). XPL, FOV~ 4.5 mm.



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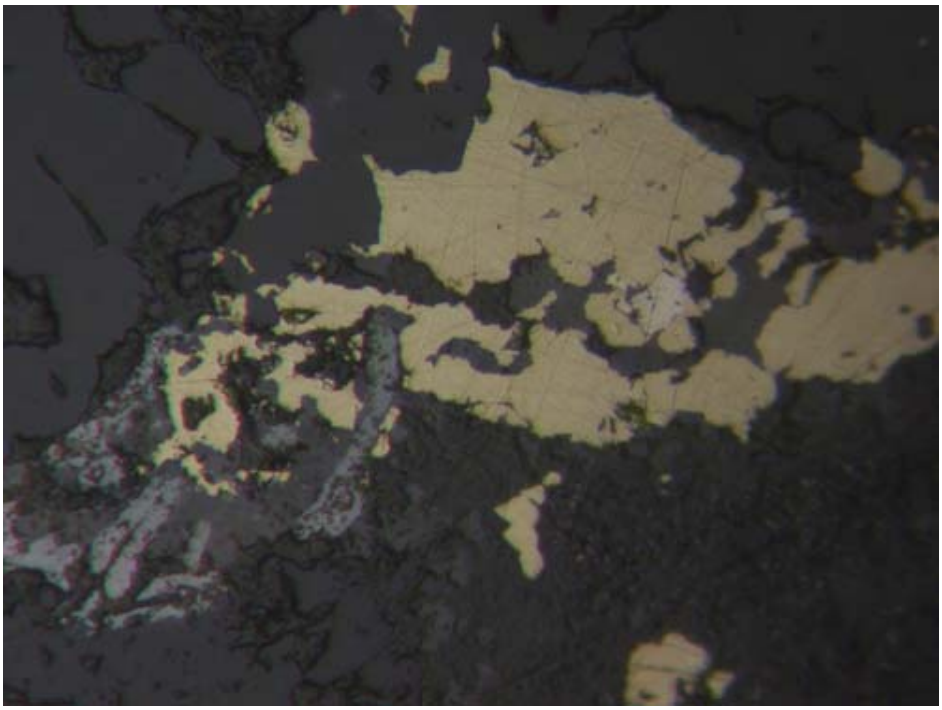


D

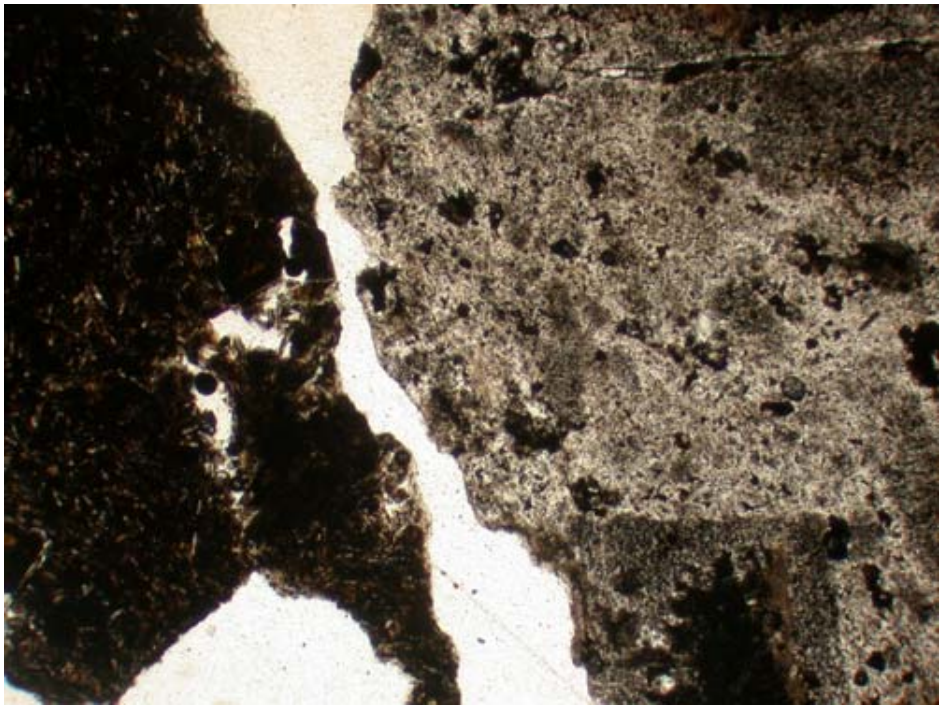
CEMI-9: C) Top, detail shows carbonate alteration of mafic phases and plagioclase laths in seriate-textured basalt. XPL, FOV =~ 0.9 mm, D) Bottom, ragged anhedral chalcopyrite encloses pyrite; chalcopyrite is rimmed and replaced by hematite. RL, FOV =~ 0.25 mm.

CEMI-10
Sample ID: 118-0468-0488 **Rock Type:** Monzonite

Chip/Powder and Stained Mount Description:
Medium gray, green and white, very coarse-sized chips (up to 42mm size). Chips comprise dominantly angular, feldspar porphyry, coarse-grained, leucocratic granitoid rock, green porphyritic andesite and minor quartz vein fragments. K-feldspar comprises approximately 75% of the mount (based on stain). Minor pyrite and chalcopyrite occur disseminated and locally as stringers within the leucocratic granitoid chips; other chips are unmineralized. Slight brown patchy biotite and possibly iron carbonate alteration of granitoid chips. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 12mm maximum size) of K-feldspar-biotite altered, fine to medium-grained, porphyritic quartz-poor dioritoid rock, K-feldspar altered, fine to medium-grained leucocratic porphyritic rock, seriate-textured basalt and minor quartz-carbonate±hematite±sulphide vein/?breccia fragments. The diorite and leucocratic rock fragments are characterized by relict fine to medium-grained plagioclase phenocrysts selectively replaced by very fine-grained, brown secondary K-feldspar, locally disseminated and patchy secondary biotite and traces of rutile, sulphides and hematite. K-feldspar comprises approximately 75% of the section (estimate based on stained offcut). Secondary, very fine-grained, green-brown secondary biotite occurs as disseminated to patchy aggregates and as partial replacement of former plagioclase grains. Biotite comprises approximately 3% of the section. Patchy retrograde traces of sericite alteration replaces some of the secondary biotite alteration. Major fine to very fine-grained, anhedral to rhombic aggregates of colourless carbonate occur, locally with clusters of trace anhydrite and sulphides, as patchy anhedral aggregates that overprint secondary K-feldspar alteration. Colourless anhedral to rhombic aggregates of carbonate occur as infill to quartz in quartz-carbonate±hematite±sulphide veins and ?breccias. The rhombic carbonate is rimmed and partly pseudomorphically replaced by very fine-grained, anhedral hematite aggregates. Very fine-grained, colourless carbonate also occurs as pervasive replacement of groundmass and occurs with rare traces of colloform-textured ?goethite as infill to vugs in seriate-textured basalt fragments. Colourless carbonate comprises approximately 10% of the section. Minor, approximately 1%, aphanitic dark brown carbonate aggregates occur as patchy replacement of colourless carbonate in quartz-carbonate veins, ?breccias and fractures. Traces of apatite crystals occur disseminated in some of the fragments.

Total sulphide, 2%, comprises minor pyrite and chalcopyrite with traces of bornite and molybdenite. Pyrite, approximately 1% of the section, occurs disseminated as fine to very fine-grained, eu-anhedral grains and aggregates within chips and within veinlets. Chalcopyrite occurs as inclusions in some pyrite grains. Cores of pyrite grains have very few pits; minor fracturing is present in some grains. Pyrite occurs locally with clusters of brown rutile crystals. Pyrite boundaries are variable: some relatively clean with rare development of hematite rims, others show partial to significant replacement by hematite. Chalcopyrite, approximately 1% of the section, occurs as fine to very fine-grained, ragged, anhedral aggregates; it typically encloses pyrite. Chalcopyrite is locally rimmed and partly replaced by hematite. In quartz-carbonate-sulphide-hematite veins/?breccia, chalcopyrite is replaced sequentially by traces of bornite and covellite (see photos) and subsequently by hematite. Traces of very fine-grained, poorly polished molybdenite occur disseminated in a fragments of quartz-carbonate-pyrite-chalcopyrite vein. Major hematite, approximately 7%, occurs as replacement of sulphide rims and notably as very fine-grained anhedral aggregates that occur with secondary biotite and partly pseudomorph rhombic carbonate.



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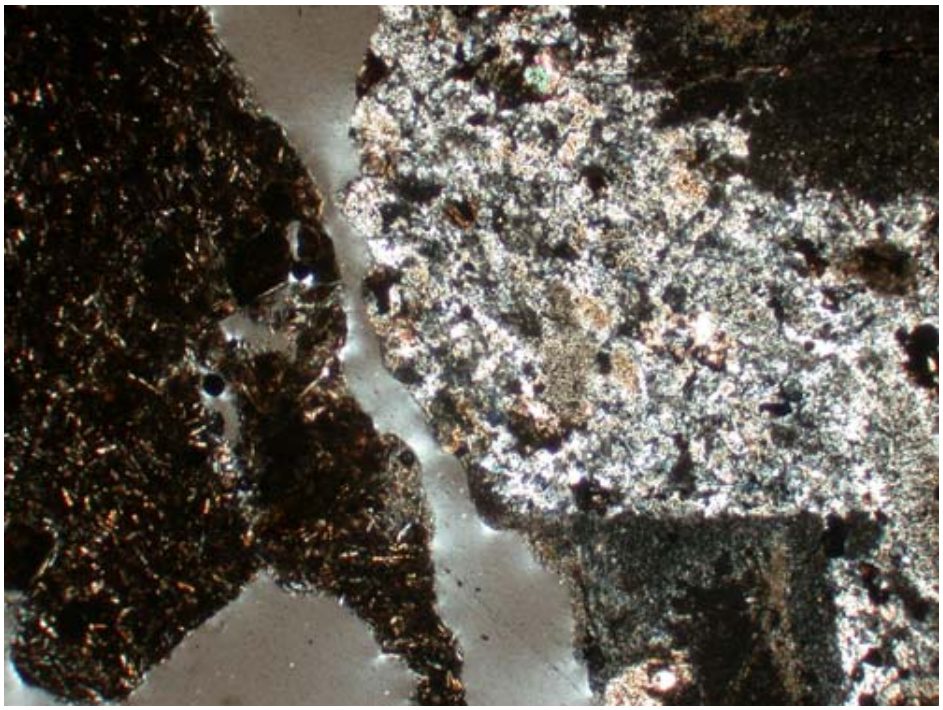
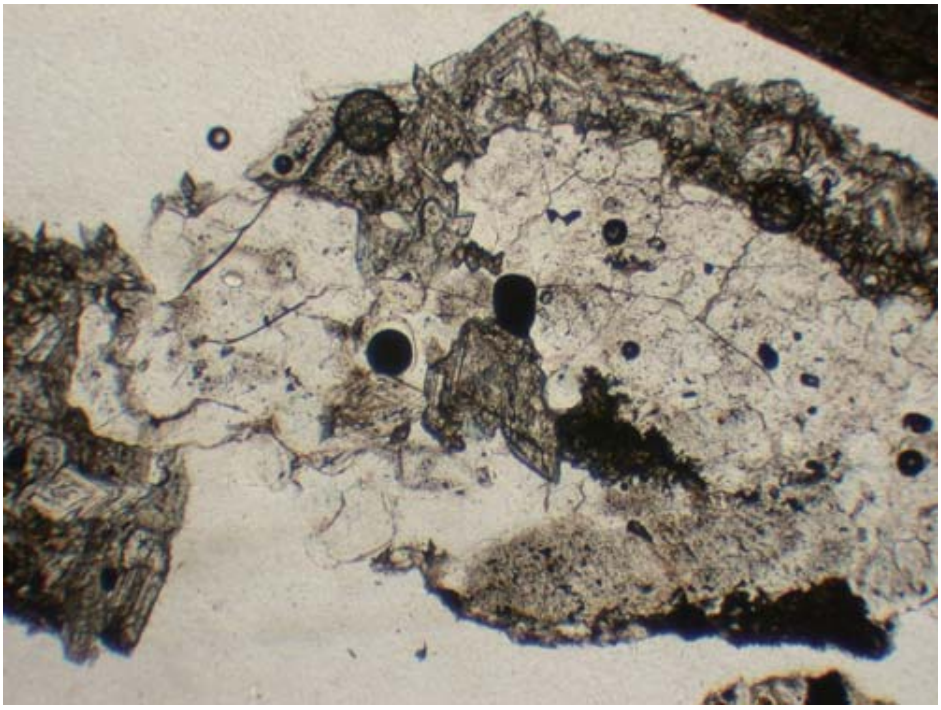


B

CEMI-10: General view of mount showing seriate-textured basalt and porphyritic quartz-poor dioritoid rock chips. A) PPL, B) XPL, FOV~ 4.5 mm.



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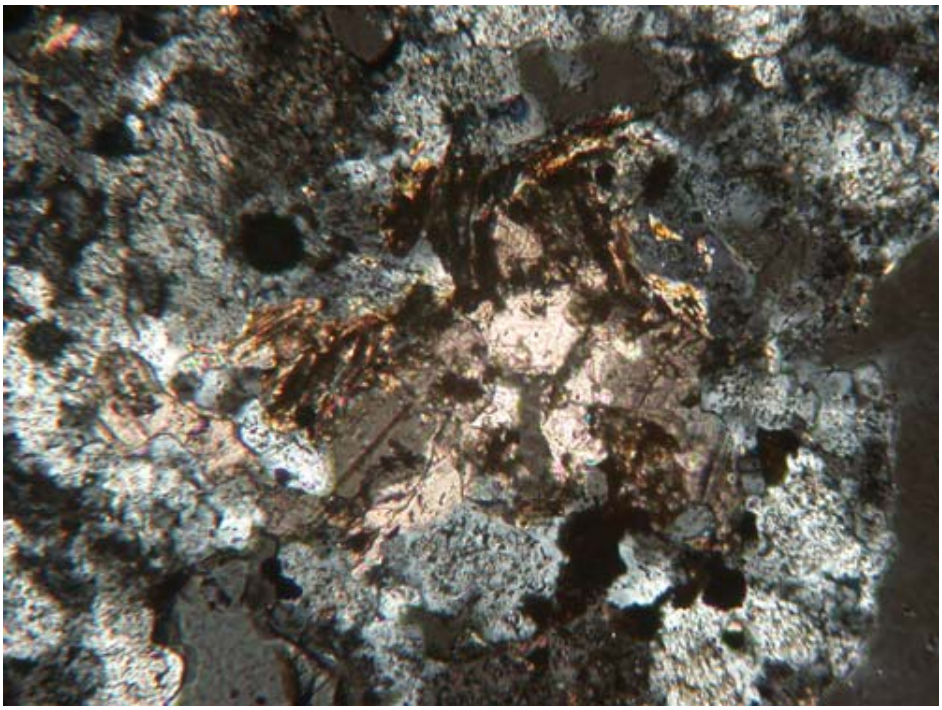
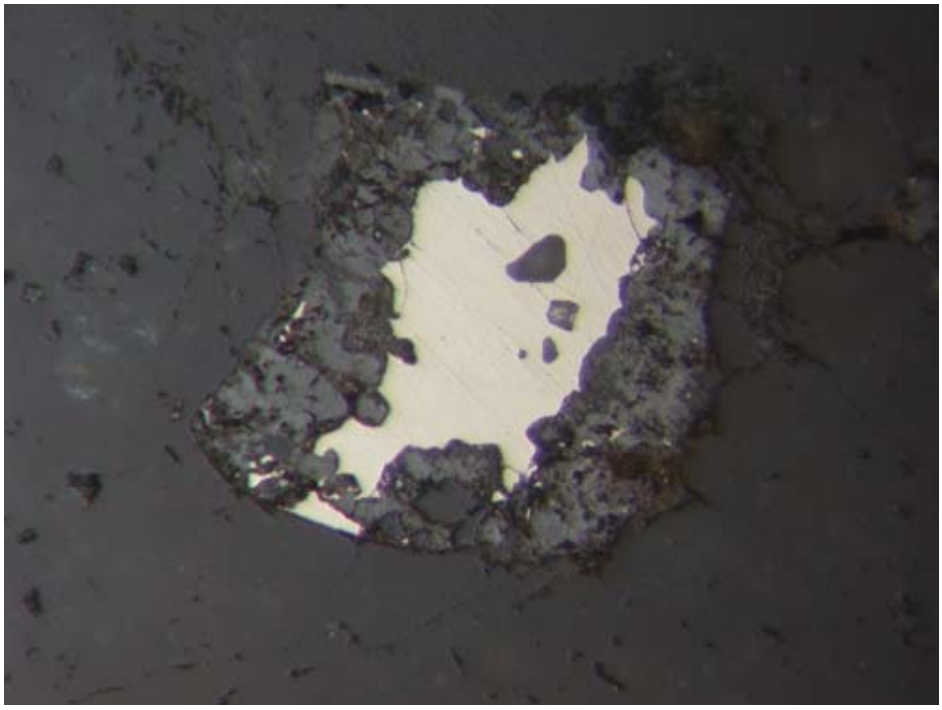


D

CEMI-10: C) Top, rhombic, zoned carbonate as infill to quartz veinlet. PPL, FOV =~ 2.3 mm, D) Bottom, patchy carbonate and hematite alteration within porphyritic rock fragment. XPL, FOV =~ 1 mm.



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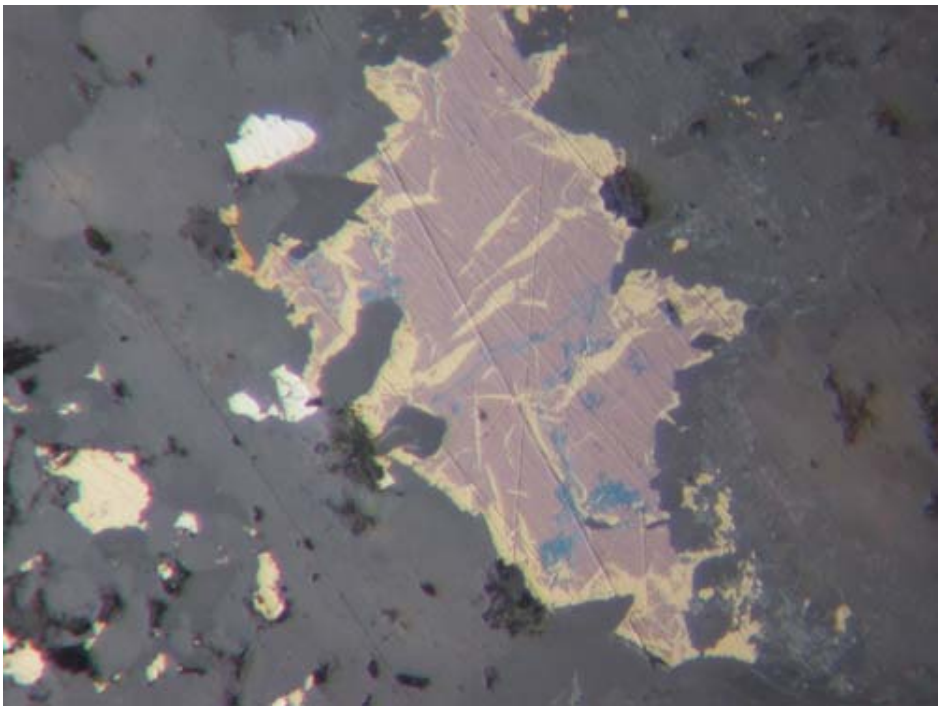


F

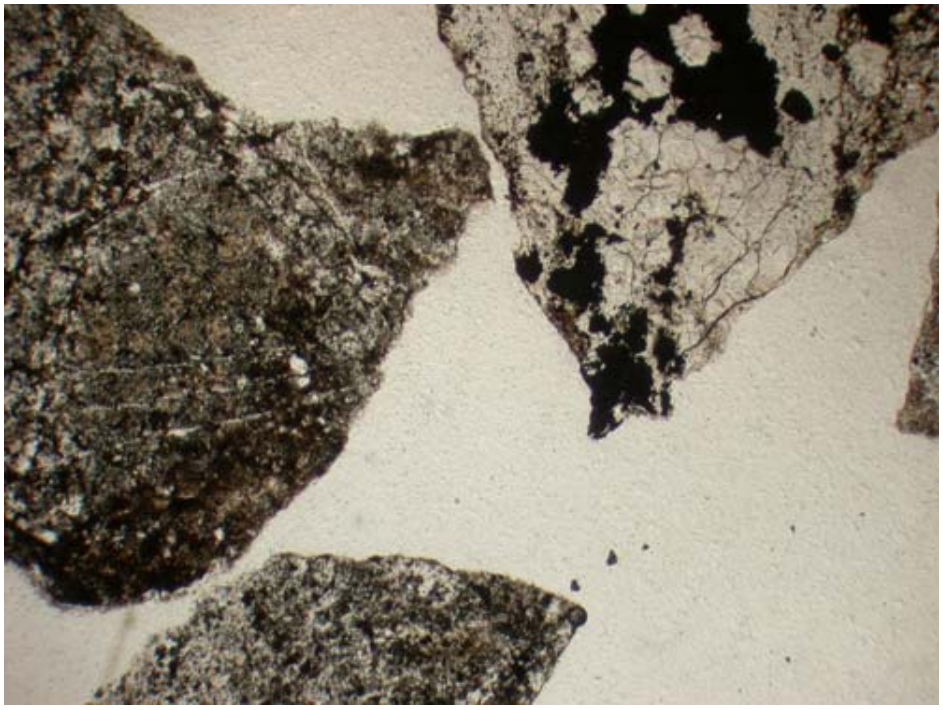
CEMI-10: E) Top, hematite replacement of pyrite rims. RL, FOV =~ 0.3 mm, F) Bottom, chalcopyrite replaced by bornite and covellite in quartz-carbonate-sulphide-hematite vein/?breccia rock chip. RL, FOV =~ 0.3 mm.

CEMI-11
Sample ID: 118-0520-0535 **Rock Type:** Greywacke

Chip/Powder and Stained Mount Description:
Dark gray and black, very coarse-sized chips (up to 40mm size). Chips comprise dominantly angular, fine-grained, granular and rarely porphyritic rock fragments, aphanitic black rock and silicified, aphanitic gray rock. K-feldspar comprises approximately 30% of the mount (based on stain). Minor pyrite, chalcopyrite and trace molybdenite occur disseminated, pyrite occurs locally as stringers, molybdenite ± chalcopyrite occur with quartz in 2mm veinlets. Rare traces of red-brown and pale yellow oxidized material. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Coarse chips (up to 10mm maximum size) of greywacke, silicified, fine-grained to vaguely porphyritic rock and quartz, quartz-sulphide, quartz-carbonate-sulphide-hematite and K-feldspar veinlets. The greywacke comprises vaguely laminated beds varying from fine-grained with dominantly angular monocrystalline quartz grains to very fine-grained with dark layers of dominantly secondary biotite aggregate. The silicified rock comprises dominantly fine to very fine-grained K-feldspar and quartz intergrowths with irregular grain boundaries and undulose extinction indicating partial recrystallization. Relict tabular K-feldspar altered grains occur scattered in some of the silicified fragments. K-feldspar comprises approximately 30% of the section. Fine to very fine-grained, shreddy, green-brown biotite alteration is pervasive in the greywacke and patchy in the silicified rock. Biotite also occurs as veinlets with quartz and colourless carbonate. In some silicified chips and veinlets, biotite is replaced by pyrite, hematite and rutile aggregates and the section has numerous vugs resulting from weathered pyrite. Biotite comprises approximately 15% of the section. Patchy retrograde sericite alteration replaces some of the secondary biotite. Sericite comprises approximately 1% of the section. Traces of aphanitic dark brown ?clay aggregate occur as irregular patches with/?replacing secondary biotite in some fragments. Traces of fine-grained, colourless, rhombic carbonate aggregates are partly pseudomorphically replaced by hematite and occur as infill to quartz veinlets. The colourless carbonate is also locally partly replaced by traces of brown very fine-grained, grungy carbonate aggregates. Traces of very fine-grained, prismatic apatite occur disseminated in the greywacke.

Total sulphide, 5%, comprises dominantly pyrite with minor chalcopyrite and traces of digenite. Pyrite, approximately 4% of the section, occurs disseminated and within quartz and quartz carbonate veinlets as fine to very fine-grained, sub-anhedral grains and aggregates within chips. Chalcopyrite occurs as inclusions in some pyrite grains. Cores of pyrite grains are typically pitted and locally spongy; fracturing is present in some grains. Pyrite boundaries vary from straight and relatively clean to irregular and careous with rim replacement by hematite. Pyrite often occurs with aggregates of rutile. Chalcopyrite, approximately 1% of the section, occurs disseminated as fine to very fine-grained, ragged, anhedral aggregates often enclosing pyrite. Chalcopyrite also occurs as infill and overgrowths to fractured pyrite. Chalcopyrite is strongly replaced by digenite and typically rimmed and partly replaced by anhedral hematite aggregates. Hematite comprises approximately 1% of the section.



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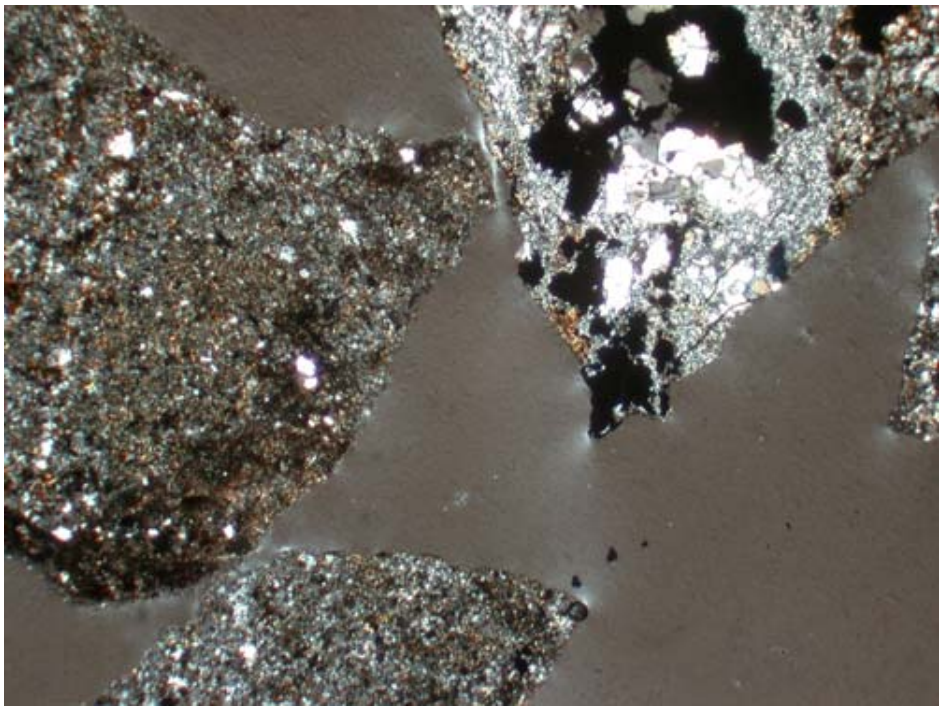
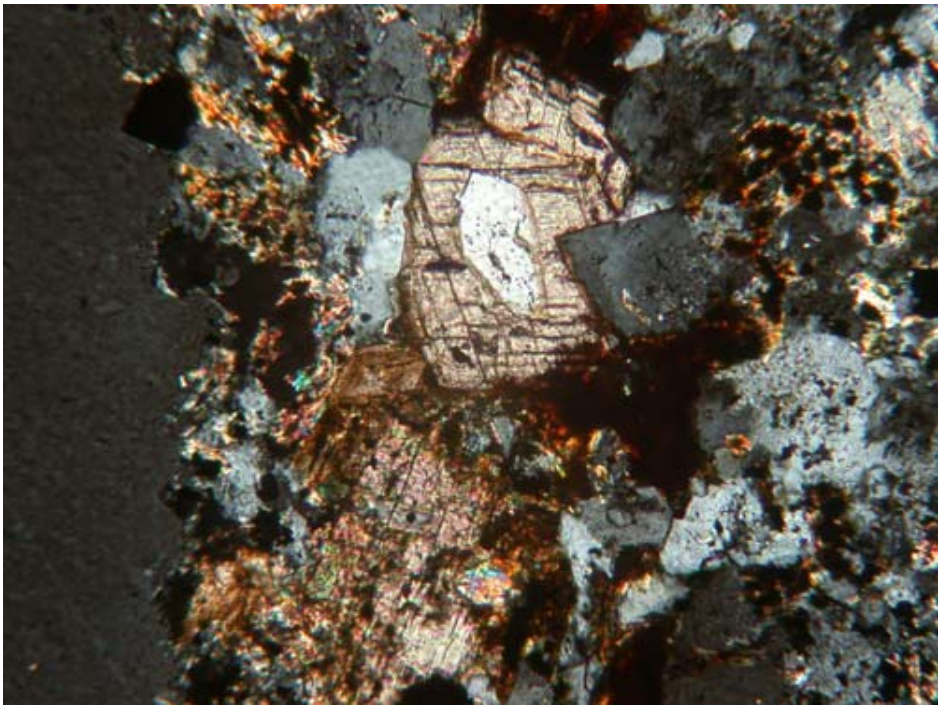


B

CEMI-11: General view of rock fragments comprising graywacke with patchy secondary biotite alteration and a quartz-sulphide veinlet. A) PPL, B) XPL, FOV~ 4.5 mm.



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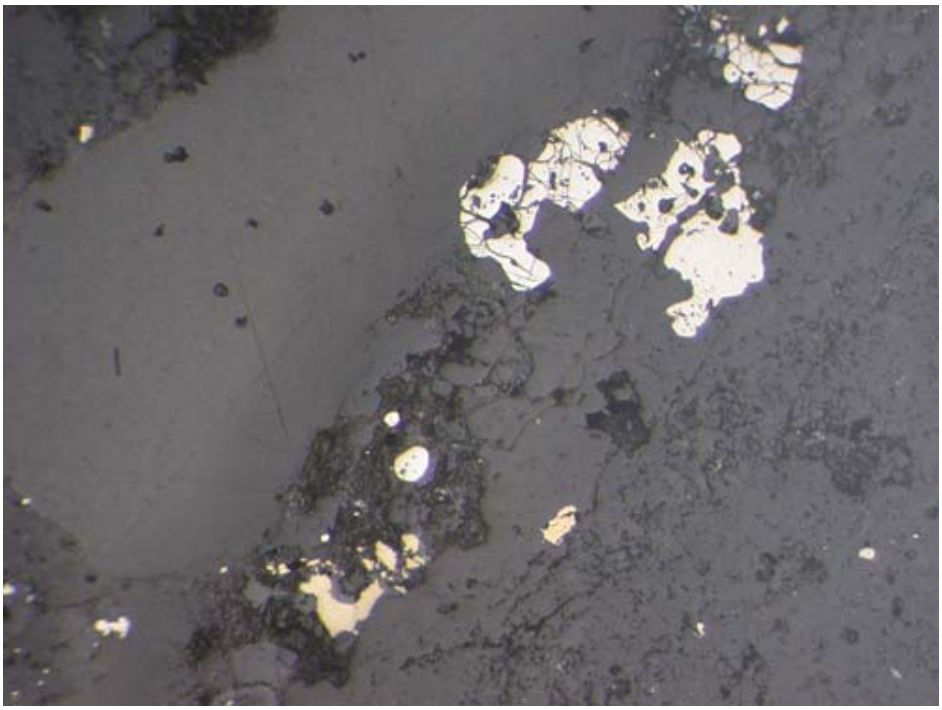


D

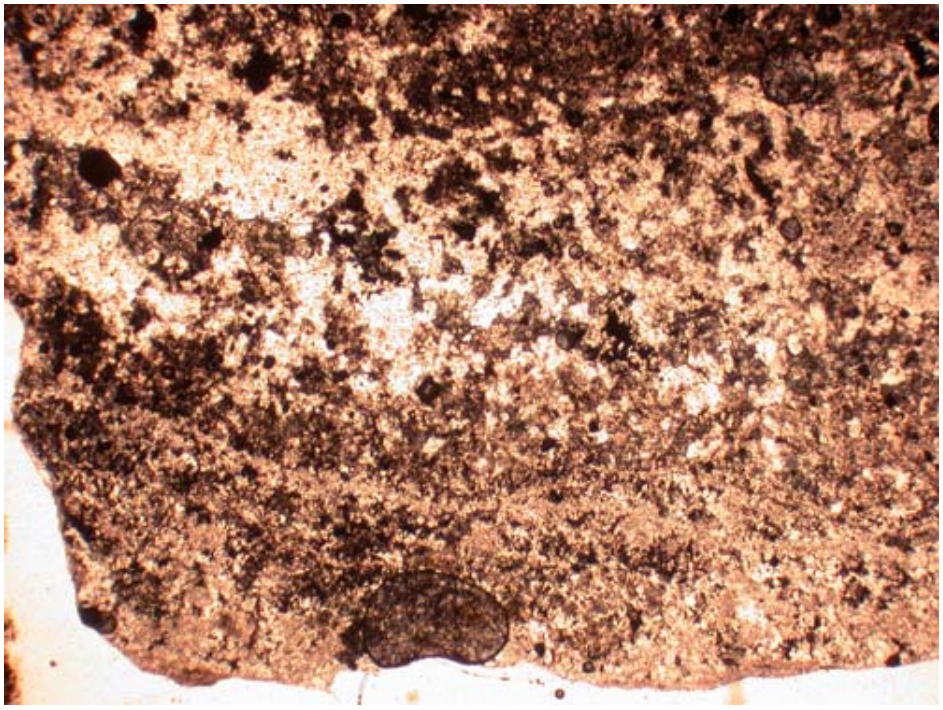
CEMI-11: C) Top, veinlet with rhombic, zoned carbonate replaced by very fine-grained, brown carbonate aggregate and hematite. XPL, FOV =~ 0.9 mm, D) Bottom, quartz-carbonate veinlet with pyrite and chalcopyrite rims replaced by hematite. RL, FOV =~ 2 mm.

CEMI-12
Sample ID: 118-1220-1238 **Rock Type:** Greywacke

Chip/Powder and Stained Mount Description:
Dark gray and black, very coarse-sized chips (up to 35mm size). Chips comprise dominantly dark, angular, fine-grained, granular and aphanitic rock fragments locally cut by tan carbonate patchy veinlets. K-feldspar comprises approximately 30% of the mount (based on stain). Minor pyrite and chalcopyrite occur disseminated, pyrite occurs locally with quartz as veinlets. Rare traces of red-brown oxidized material. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Coarse chips (up to 14mm maximum size) of greywacke, silicified, fine-grained granular rock, fine to medium-grained quartz-pyrite veinlets and fine-grained quartz-carbonate or quartz-biotite veinlets. The greywacke varies from fine-grained with dominantly angular monocrystalline quartz grains to very fine-grained with dark layers of dominantly secondary biotite aggregate. The silicified rock comprises dominantly fine to very fine-grained K-feldspar and quartz intergrowths with irregular grain boundaries and undulose extinction indicating partial recrystallization. Relict tabular K-feldspar altered grains occur scattered in some of the silicified fragments. K-feldspar comprises approximately 30% of the section. Fine to very fine-grained, shreddy, green-brown biotite alteration is pervasive in the greywacke and patchy in the silicified rock. Biotite comprises approximately 15% of the section. Patchy to locally pervasive retrograde sericite alteration replaces some of the secondary biotite. Sericite comprises approximately 10% of the section. Carbonate comprises approximately 5% of the section as fine-grained, colourless and aphanitic, dark brown varieties. Minor aphanitic dark brown carbonate aggregate, approximately 3%, occur as irregular patches associated with secondary biotite, sericite (after biotite) or patches of colourless carbonate in some fragments. Minor fine-grained, colourless carbonate, approximately 2%, occurs as rhombic aggregates that occur as infill to quartz veinlets and as irregular patches. Traces of very fine-grained, prismatic apatite occur disseminated in the greywacke.

Total sulphide, 2%, comprises dominantly pyrite with traces of chalcopyrite, marcasite and molybdenite. Pyrite, approximately 2% of the section, occurs disseminated and within quartz, quartz-biotite and quartz carbonate veinlets as fine to very fine-grained, eu-anhedral grains and aggregates within chips. Chalcopyrite and bornite occur as inclusions in some pyrite grains. Cores of pyrite grains are locally pitted and locally spongy; fracturing is present in some grains. Pyrite boundaries are typically straight and relatively clean but can be irregular and careous. Pyrite often occurs with trace aggregates of rutile. Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral aggregates often enclosing pyrite. Chalcopyrite also occurs as infill and overgrowths to fractured pyrite. Trace marcasite occurs disseminated, associated with secondary biotite, with pyrite in carbonate veinlets and within quartz ± chalcopyrite veinlets. Grain boundaries vary from clean to ragged with dark rims ?Fe-oxydydroxides. Rare molybdenite occurs with pyrite and chalcopyrite in quartz-biotite veinlets. Hematite occurs in very trace amounts as anhedral aggregates associated with secondary biotite and rare magnetite and as replacement of cubic forms (?magnetite).



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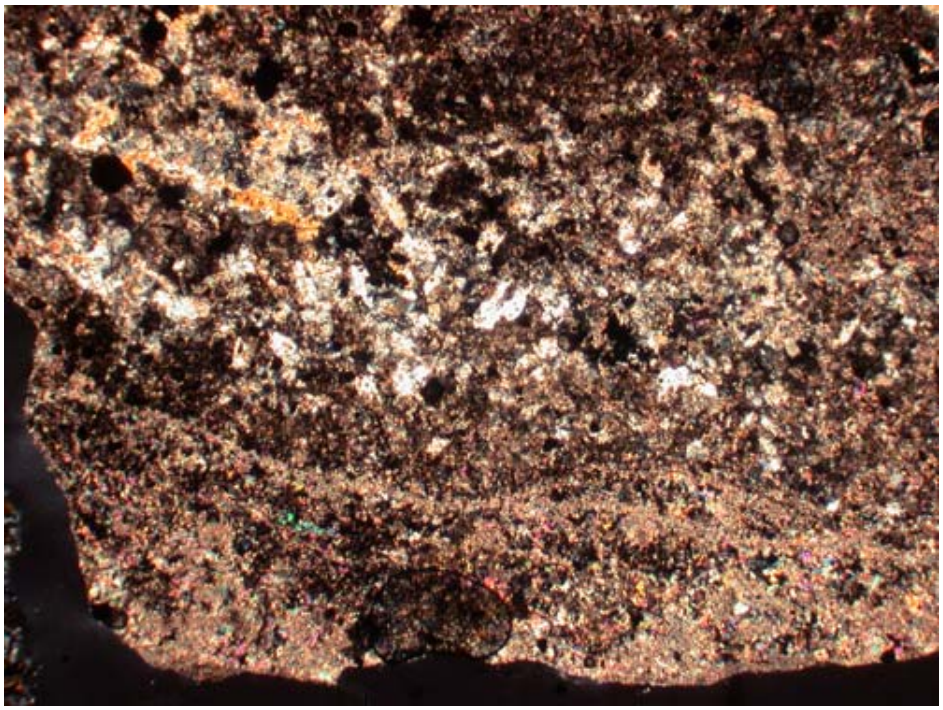
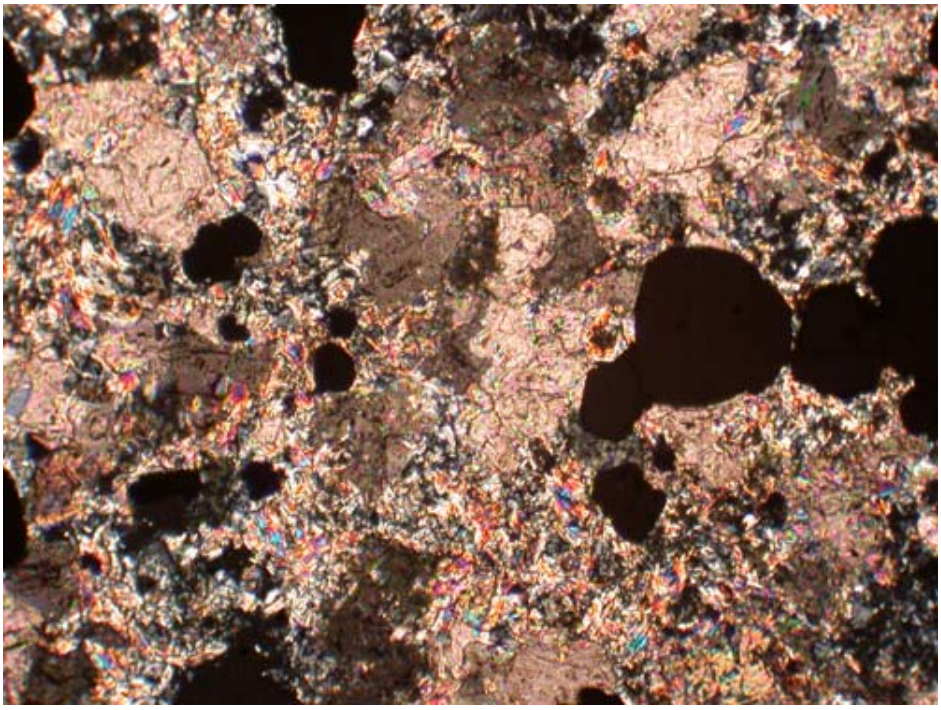


B

CEMI-12: General view of coarse rock chip comprising laminated graywacke with patchy biotite, sericite and carbonate alteration. A) PPL, B) XPL, FOV~ 4.5 mm.



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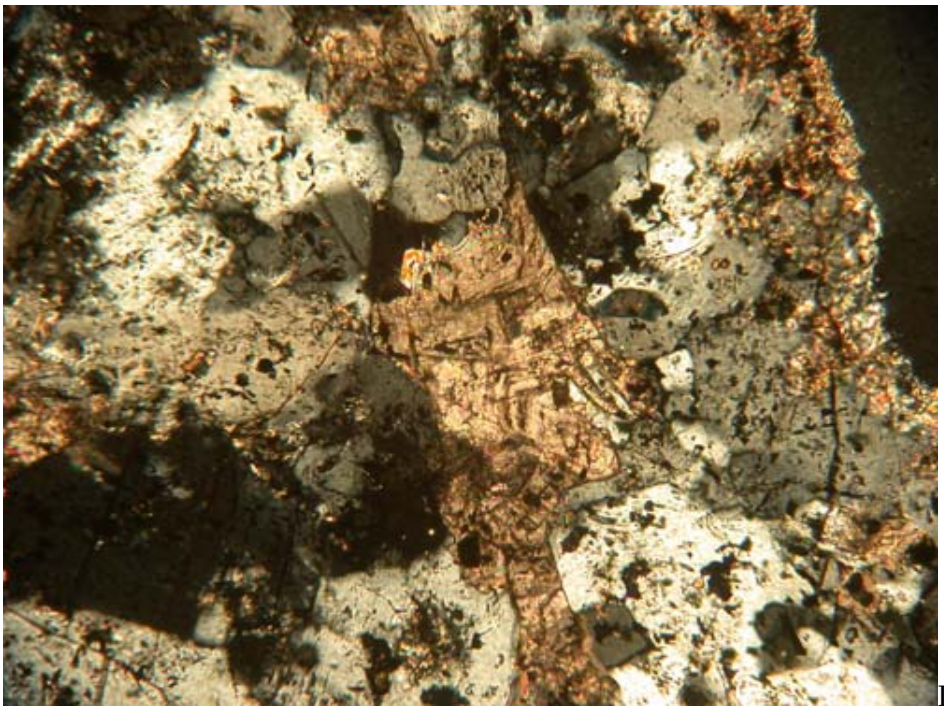
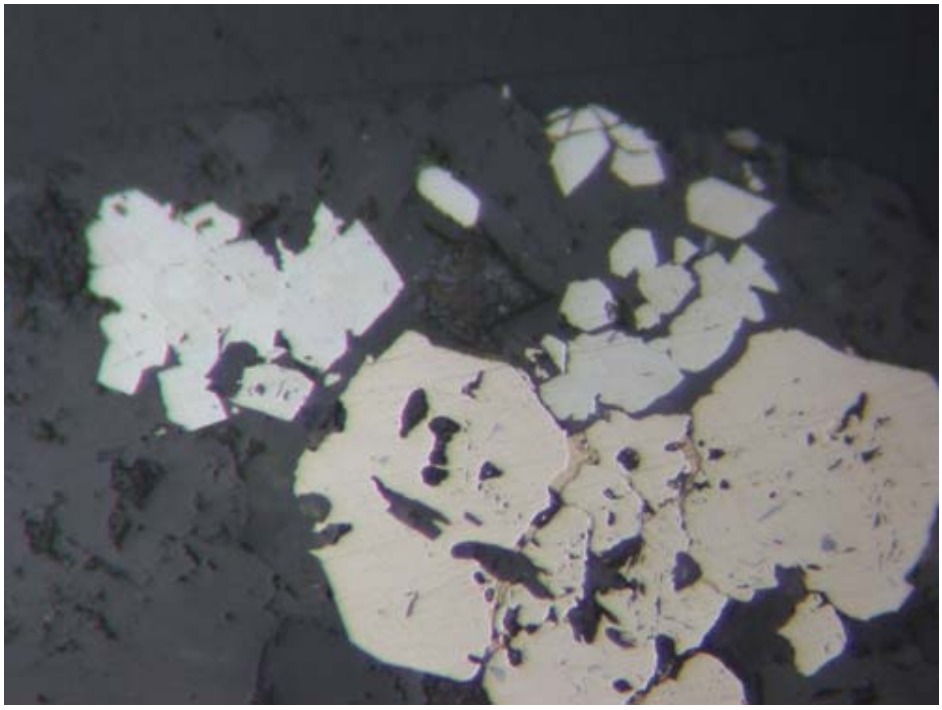
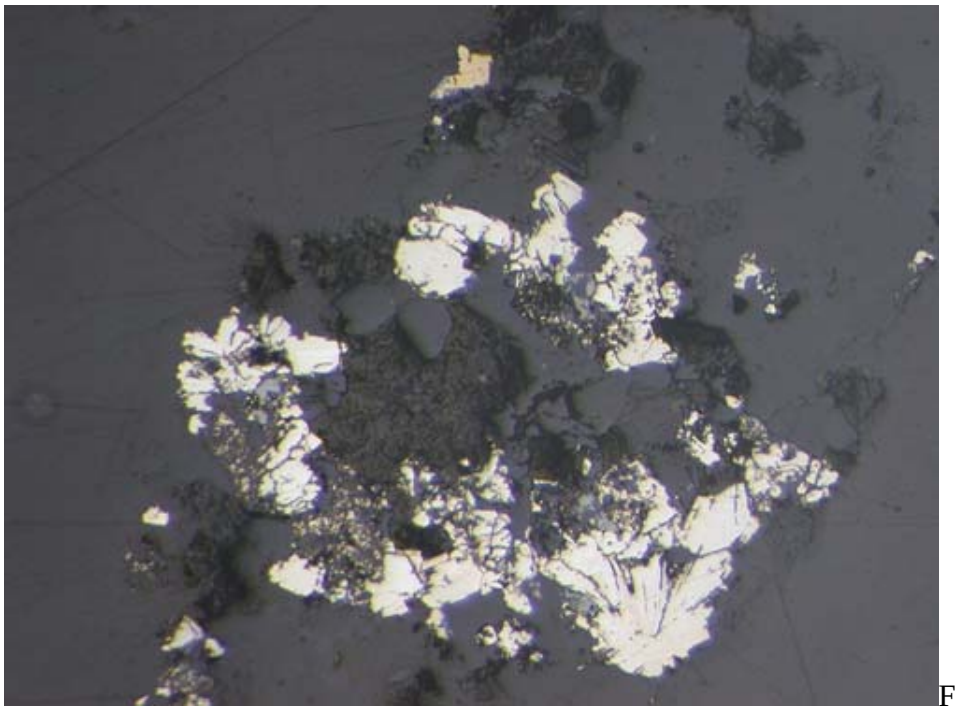


D

CEMI-12: C) Top, patchy carbonate-sericite-quartz-pyrite alteration. XPL, FOV =~ 0.9 mm, D) Bottom, quartz-carbonate veinlet. XPL, FOV =~ 1.3 mm.



E



F

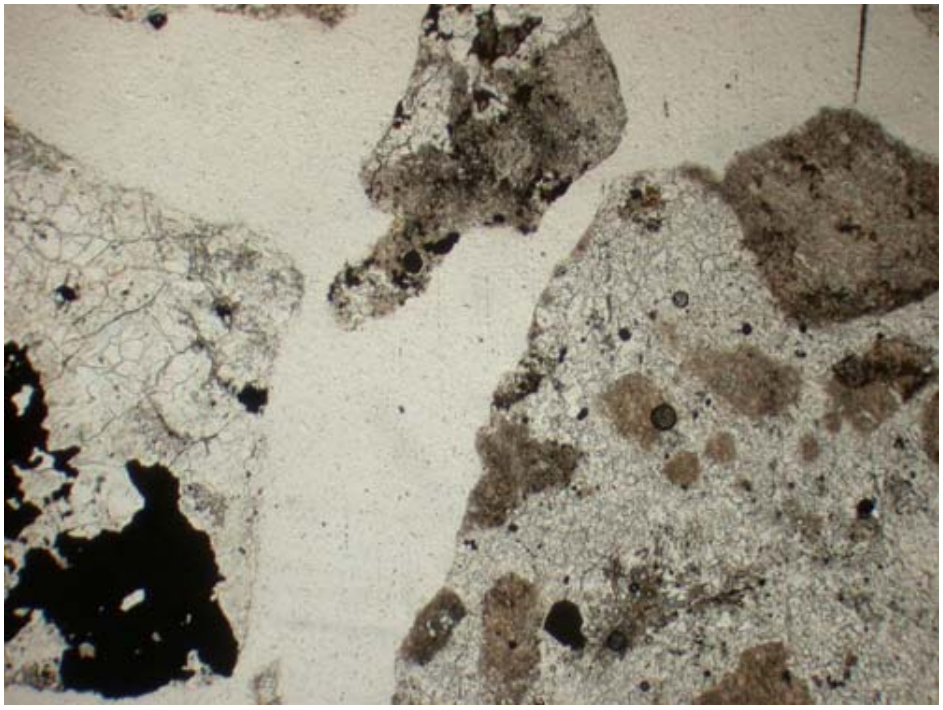
CEMI-12: E) Top, pyrite aggregate with fracture infill by chalcopyrite; marcasite clusters (top). RL, FOV =~ 0.35 mm, F) Bottom, pitted and fractured marcasite and trace chalcopyrite (top). RL, FOV =~ 1.3 mm.

CEMI-13
Sample ID: 3069-0927-0947 **Rock Type:** Granodiorite

Chip/Powder and Stained Mount Description:
White and white/tan, very coarse-sized chips (up to 25mm size). Chips comprise dominantly angular, porphyritic leucocratic granitoid and medium-grained, leucocratic granitoid rock and rare quartz vein fragments. K-feldspar comprises approximately 50% of the mount (based on stain). Minor pyrite occurs disseminated, as patchy aggregates and as veinlets with quartz and traces of chalcopyrite. Rare fragments are stained red-brown. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 10mm maximum size) of K-feldspar altered, fine-grained, leucocratic porphyritic rock and minor quartz-sulphide and quartz-muscovite-sulphide veinlets. The porphyritic rock fragments are characterized by approximately 30% fine to medium-grained K-feldspar and former tabular ?plagioclase phenocrysts, and less than 5% former biotite phenocrysts in a fine-grained K-feldspar-quartz dominant groundmass. The former tabular phenocrysts have been selectively replaced by very fine-grained, brown secondary K-feldspar, and subsequently by a selectively pervasive fine-grained sericite, quartz and patchy clay aggregate. K-feldspar phenocrysts and groundmass are only slightly altered to fine-grained sericite and locally quartz aggregate. K-feldspar comprises approximately 50% of the section (estimate based on stained offcut). Sericite comprises approximately 15% of the section. Former biotite phenocrysts are partly replaced by platy muscovite aggregate, anhedral sericite aggregate, traces of patchy titanite aggregate, disseminated pyrite and traces of very fine-grained orange-red material, possibly ?limonite aggregate. Relict biotite occurs in trace amounts in the section. Trace rutile and apatite occur disseminated in some of the fragments.

Total sulphide, 2%, comprises dominantly pyrite with traces of chalcopyrite and rare molybdenite. Pyrite, approximately 2% of the section, occurs disseminated as fine to very fine-grained, anhedral grains and aggregates within rock chips and quartz veinlets. Chalcopyrite and bornite occur as inclusions in some pyrite grains. Cores of pyrite grains are variably pitted; minor fracturing is present in some grains. Pyrite boundaries are variable; some are relatively clean, other have developed fine orange-brown Fe-oxyhydroxide rims. Pyrite occurs locally with traces of prismatic brown titanite crystals. Trace chalcopyrite occurs as fine to very fine-grained, ragged, anhedral aggregates; it typically encloses pyrite. Rare grains of molybdenite occur disseminated.



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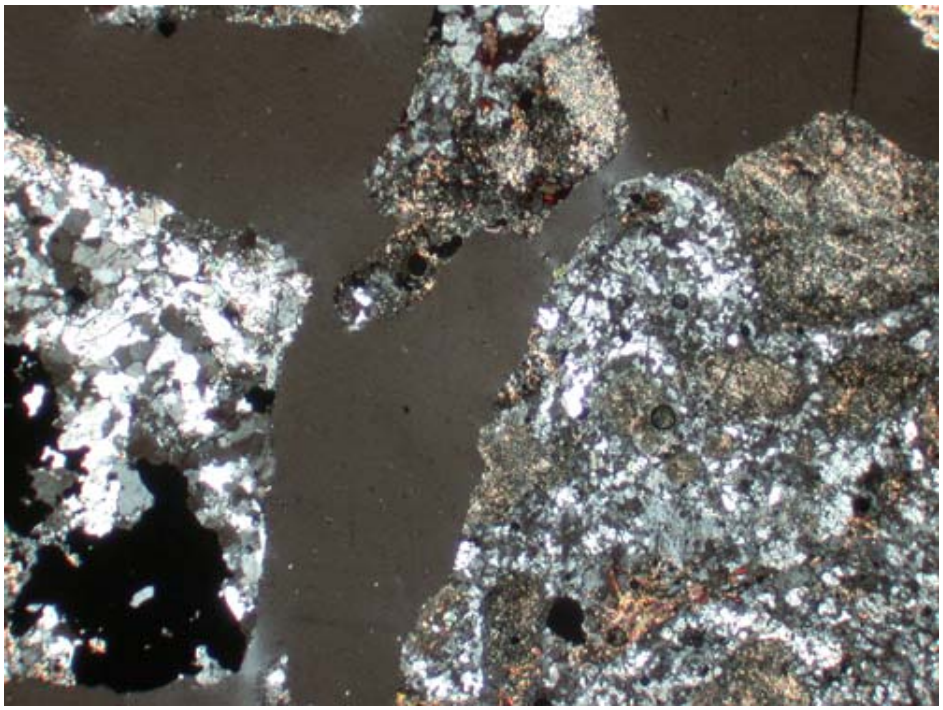
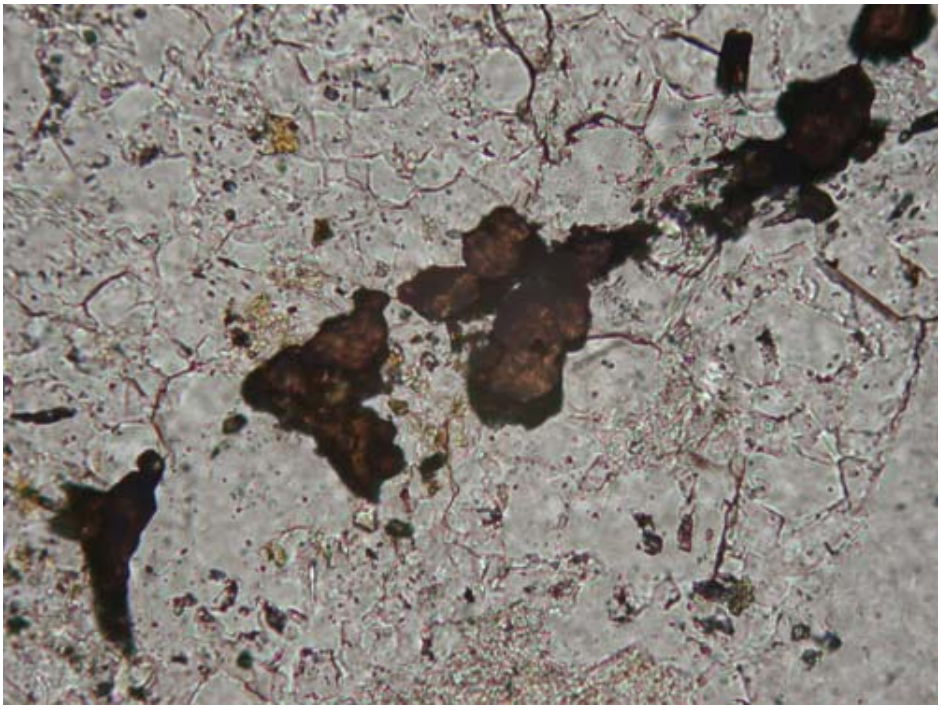


B

CEMI-13: General view of rock chips. Note chips of quartz-sulphide veinlet (left) and leucocratic porphyritic rock (right). A) PPL, B) XPL, FOV~ 4.5 mm.



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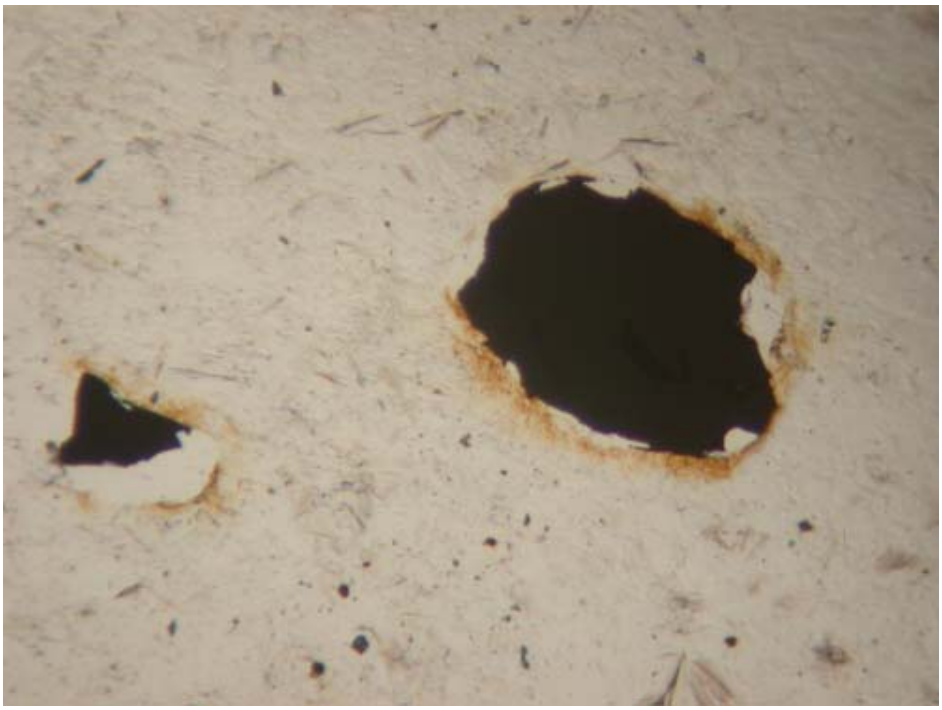
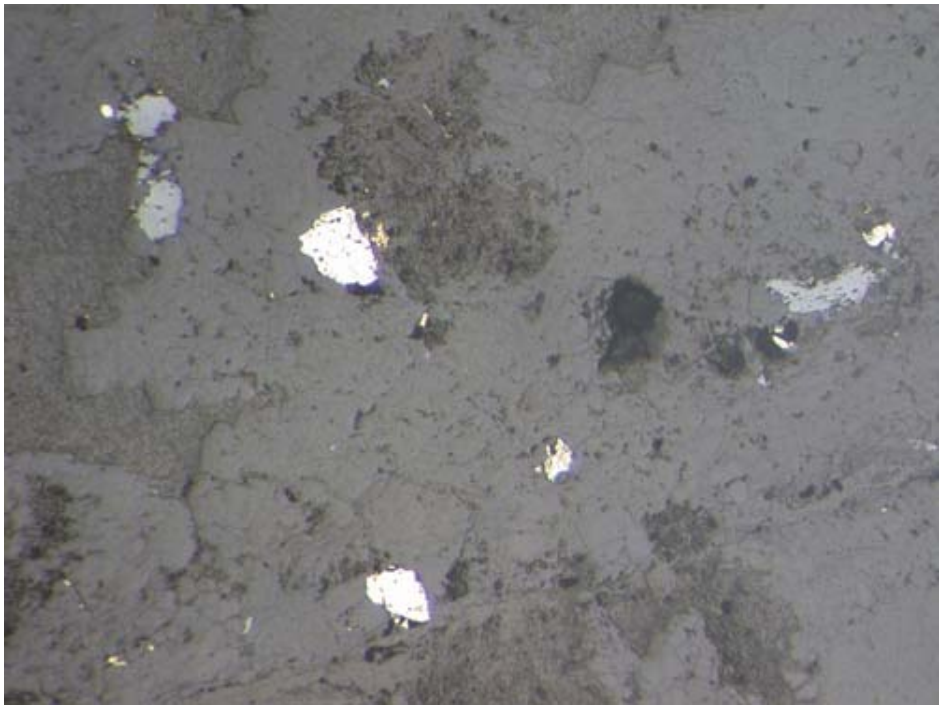


D

CEMI-13: C) Top, very fine-grained quartz-feldspar-titanite aggregate. PPL, FOV =~ 0.35 mm, D) Bottom, pyrite grains with haloes of orange-brown Fe-oxyhydroxide. PPL, FOV =~ 0.3 mm.



E

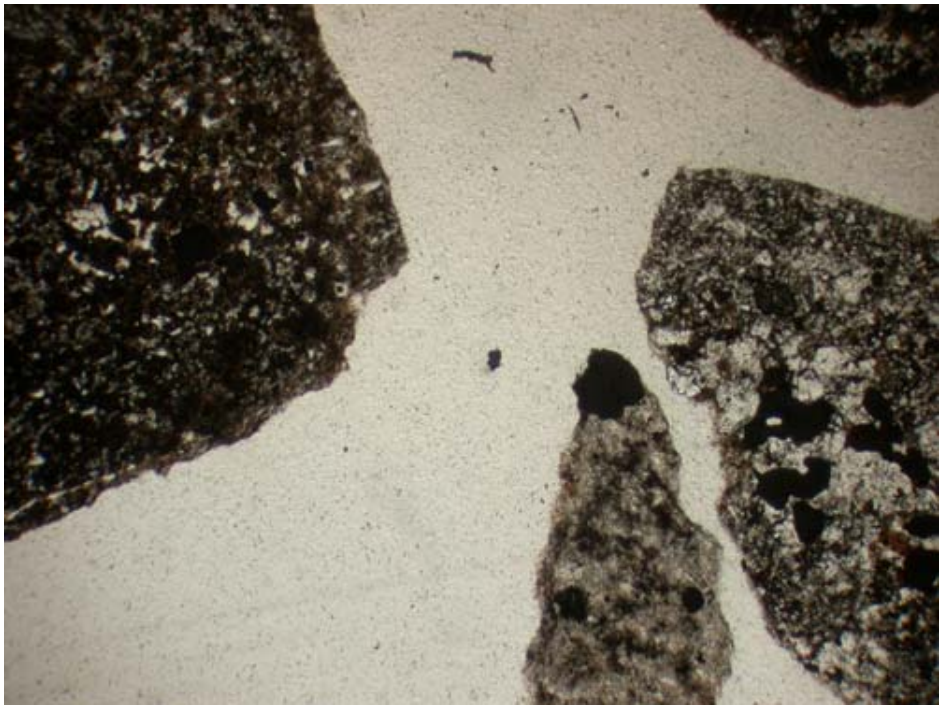
CEMI-13: E) Disseminated pitted pyrite, ragged chalcopyrite and titanite grains. RL, FOV =~ 1.5 mm

CEMI-14
Sample ID: 3102-0568-0588 **Rock Type:** Greywacke

Chip/Powder and Stained Mount Description:
Tan/light gray, very coarse-sized chips (up to 35mm size). Chips comprise dominantly angular, silicified aphanitic gray rock, fine-grained, granular, vaguely laminated rock and minor quartz-pyrite vein fragments. K-feldspar comprises approximately 40% of the rock fragments in the mount (based on stain). Minor pyrite occurs disseminated, as fracture infill and as veinlets with quartz. Rare fragments have red-brown staining along fractures. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Coarse chips (up to 12mm maximum size) of greywacke, fine-grained siltstone, fine to medium-grained quartz-pyrite and fine-grained carbonate-hematite-pyrite veinlets. The greywacke comprises vaguely laminated beds varying from fine-grained K-feldspar–dominant with scattered angular monocrystalline quartz grains to very fine-grained with dark layers of dominantly secondary biotite aggregate. The siltstone comprises dominantly dark, very fine-grained massive clay and biotite with scattered grains of very fine-grained quartz. K-feldspar comprises approximately 40% of the section. Fine to very fine-grained, shreddy, green-brown biotite alteration is pervasive in the greywacke and patchy in the siltstone. Biotite comprises approximately 15% of the section. In one fragment pervasive retrograde sericite alteration, traces of patchy very fine-grained, colourless carbonate and disseminated rutile replace secondary biotite. In some chips, traces of very fine-grained, brown carbonate aggregates occur as patchy alteration of dark biotite layers. Sericite comprises approximately 2% of the section. Minor fine-grained, colourless carbonate, approximately 2%, occurs as rhombic, zoned aggregates that occur as veinlets with pyrite and are pseudomorphically replaced by hematite. Traces of very fine-grained, prismatic apatite occur disseminated in the greywacke.

Total sulphide, 5%, comprises dominantly pyrite with traces of chalcopyrite and molybdenite. Pyrite, approximately 5% of the section, occurs disseminated and within quartz and carbonate veinlets as fine to very fine-grained, eu-anhedral grains and aggregates. Chalcopyrite and bornite occur as inclusions in some pyrite grains. Cores of pyrite grains are locally pitted; fracturing is present in some grains; no evidence for rim replacement by Fe-oxyhydroxides. Pyrite boundaries vary from straight and relatively clean to irregular and careous. Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral aggregates often enclosing pyrite. Chalcopyrite also occurs as infill to fractured pyrite. Chalcopyrite rims are typically partly replaced by hematite. Rare molybdenite occurs with pyrite in quartz-rich zones in the greywacke. Traces of hematite also occur as pseudomorphic replacement of rhombic, zoned carbonate in veinlets. Traces of rutile occur disseminated.



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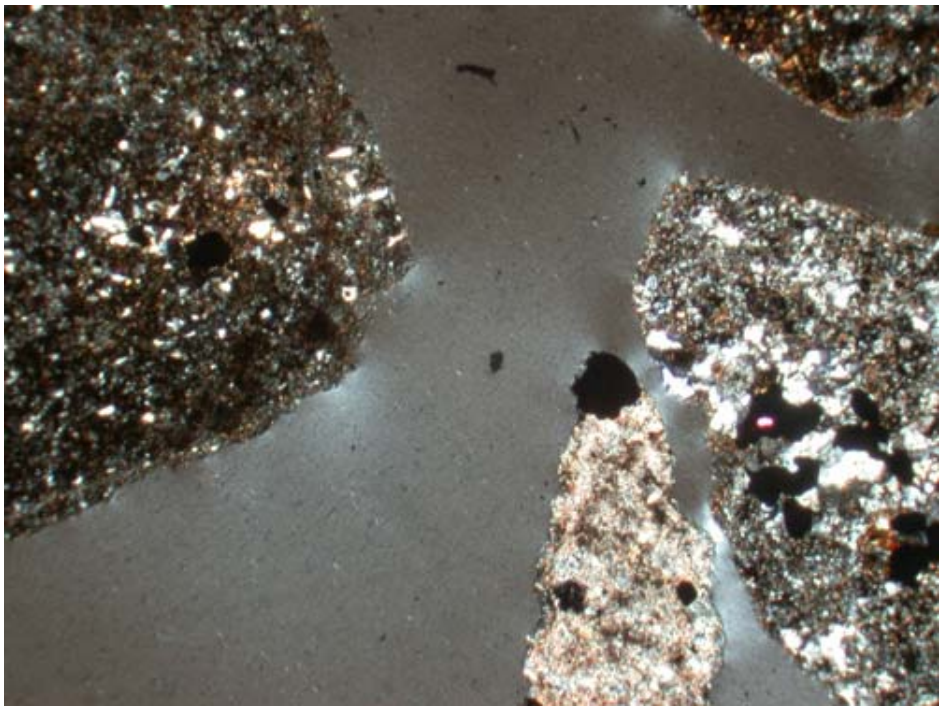
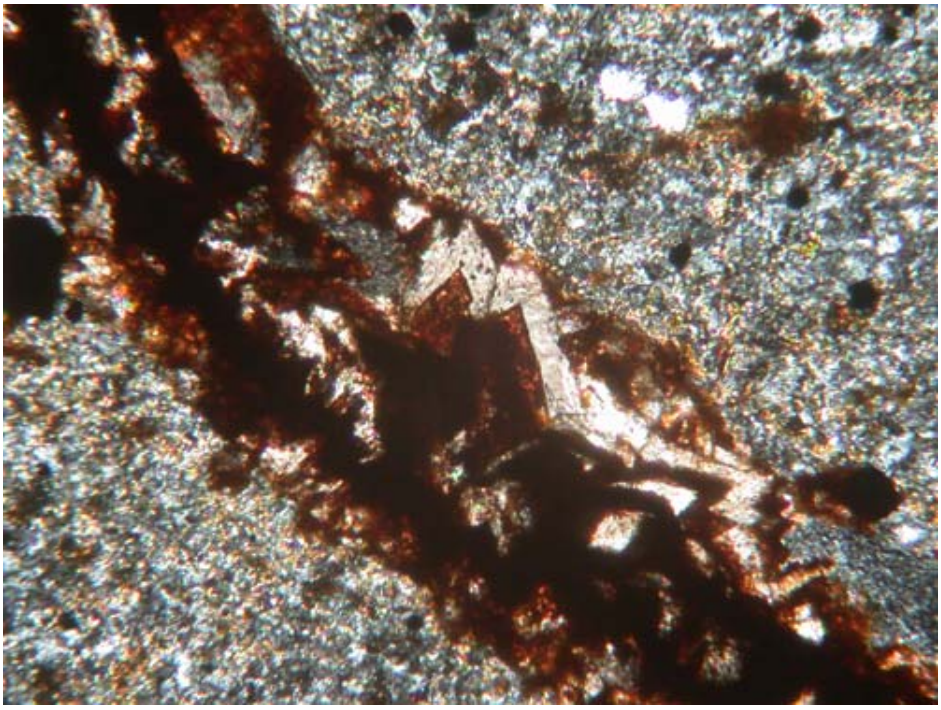


B

CEMI-14: General view of rock chips comprising laminated graywacke with dark secondary biotite layers and quartz-dominant layers. Pervasive sericite alteration in one chip (lower centre). A) PPL, B) XPL, FOV~ 4.5 mm.



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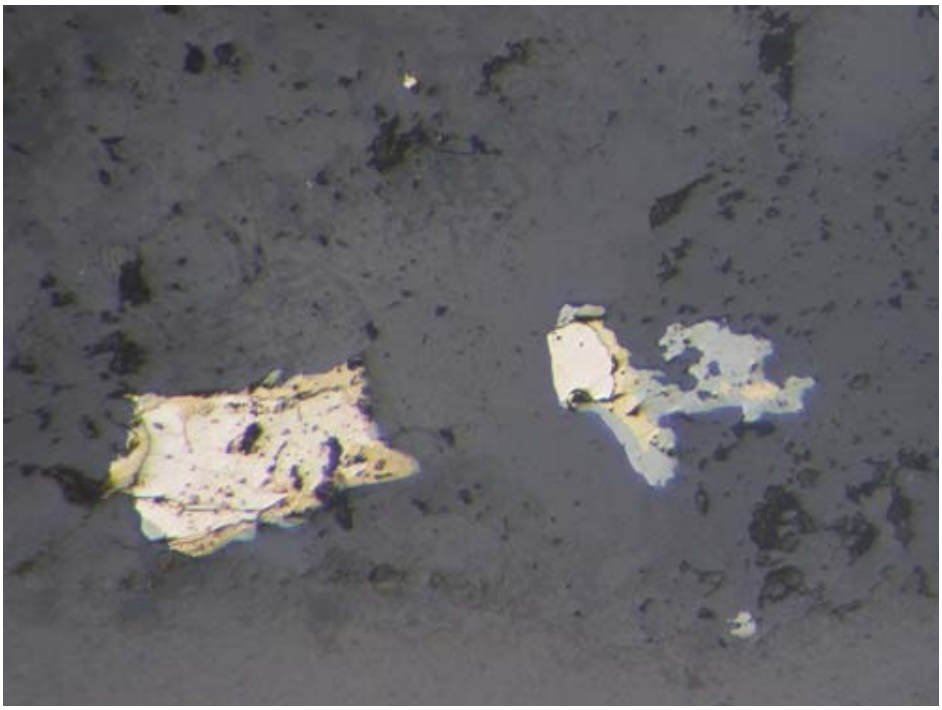


D

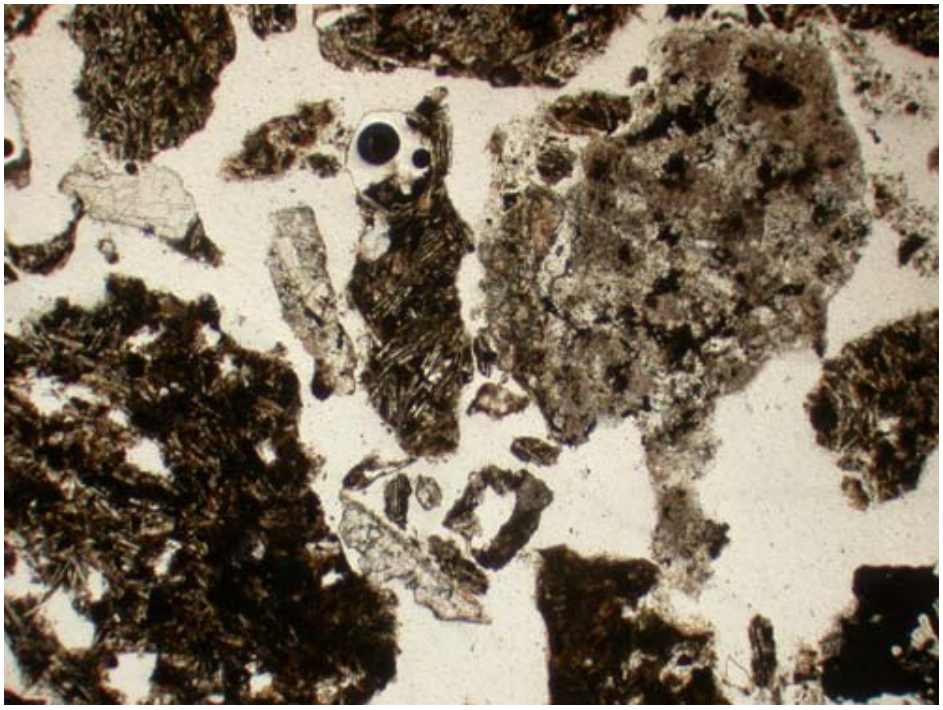
CEMI-14: C) Top, rhombic, zoned carbonate aggregates in veinlet pseudomorphically replaced by hematite. XPL, FOV =~ 0.8 mm, D) Bottom, fractured pyrite infilled and enclosed by chalcopyrite (left); pyrite with chalcopyrite rimmed and replaced by hematite (right). RL, FOV =~ 1 mm.

CEMI-15
Sample ID: 3102-0958-0978 **Rock Type:** Basalt

Chip/Powder and Stained Mount Description:
Dark green/black, very coarse-sized chips (up to 30mm size). Chips comprise angular, aphanitic rock with 1-2% fine-grained calcite patches. K-feldspar comprises approximately 3% of the mount (based on stain). Calcite occurs locally as fracture infill. Rock appears unmineralized. Patchy reaction of chips to cold dilute HCl. Strong reaction to magnet.

Thin Section Description: (central part of section is very thin)
Fine to coarse chips (up to 12mm maximum size) of biotite-carbonate altered seriate-textured basalt, sericite-quartz altered, fine-grained porphyritic rock and minor quartz±K-feldspar-pyrite-chalcopyrite veinlets, quartz-carbonate and carbonate veinlets and liberated grains of carbonate and rarely pyrite and chalcopyrite. The seriate-textured basalt consists of dominantly plagioclase laths, former clinopyroxene crystals and disseminated magnetite in a very fine-grained brown biotite altered matrix. Calcite and quartz occur as amygdales. The former clinopyroxene crystals are virtually replaced by very fine-grained brown biotite and carbonate aggregate. Plagioclase laths are locally replaced by patches of biotite and carbonate. The porphyritic rock comprises brown K-feldspar altered phenocrysts and pervasive secondary biotite alteration selectively replaced by very fine-grained sericite-quartz-rutile alteration. Biotite comprises approximately 15% of the section. Sericite comprises approximately 1% of the section. K-feldspar comprises approximately 3% of the section (estimate based on stained offcut). Carbonate comprises approximately 2% of the section as both fine-grained colourless and brown varieties. Calcite comprises most of the carbonate which occurs as amygdales, veinlets and liberated fragments. Traces of anhedral colourless carbonate occurs as replacement of clinopyroxene and plagioclase. Traces of very fine-grained brown carbonate occurs partly replacing the anhedral colourless carbonate. Minor fine-grained apatite crystals occur disseminated in the porphyritic rock fragments; apatite occurs as trace amounts in the overall section.

Total sulphide, 2%, comprises dominantly pyrite with traces of chalcopyrite. Pyrite is virtually confined to the sericite-quartz altered rock as fine to very fine-grained, anhedral disseminated grains, stringers and within quartz veinlets. Rare very fine pyrite grains are observed in the basalt fragments. Pyrite boundaries are irregular and some grains are locally fractured with boundaries rimmed by fine black ?Fe-oxyhydroxide material. Pyrite occurs locally with clusters of prismatic brown rutile crystals. Pyrite grains are locally enclosed by chalcopyrite and partly replaced corroded to very fine-grained spongy aggregates in some chips. Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral aggregates; it locally encloses pyrite. Chalcopyrite grains are also rimmed by black aphanitic material. Minor very fine-grained magnetite, approximately 3% of the section, occurs disseminated within the basalt.



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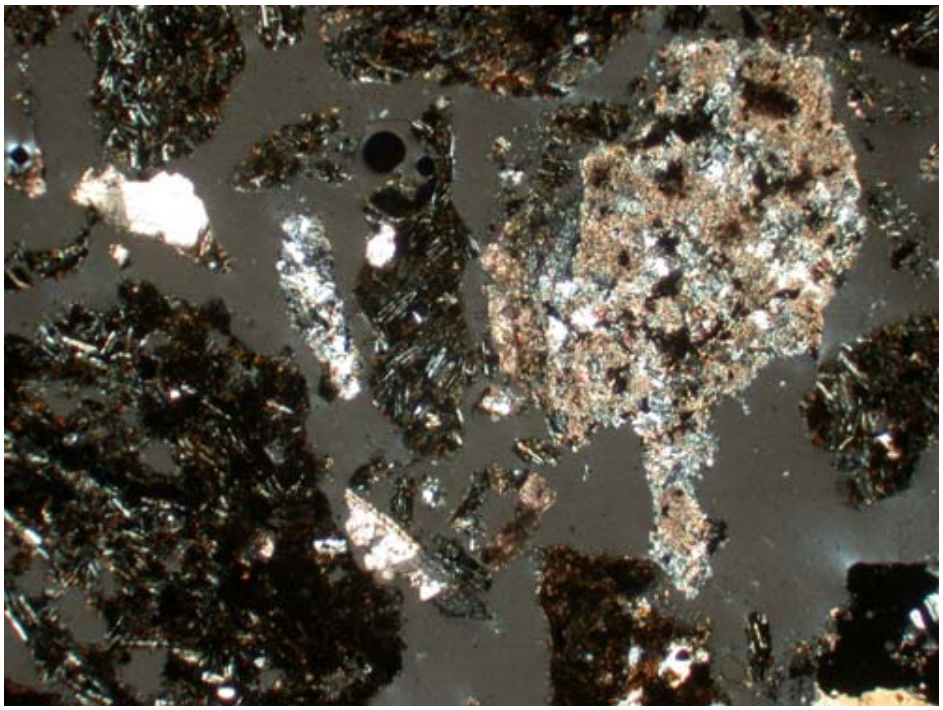
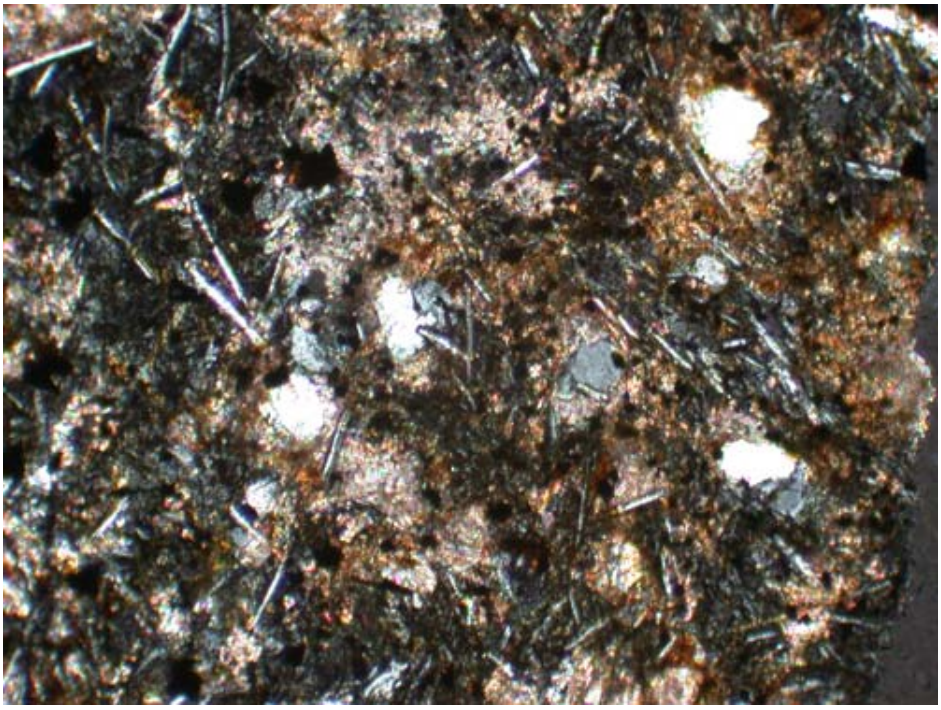


B

CEMI-15: General view of biotite-carbonate altered seriate-textured basalt rock chips, sericite-quartz altered porphyritic rock chips and liberated carbonate fragments. A) PPL, B) XPL, FOV~ 4.5 mm.



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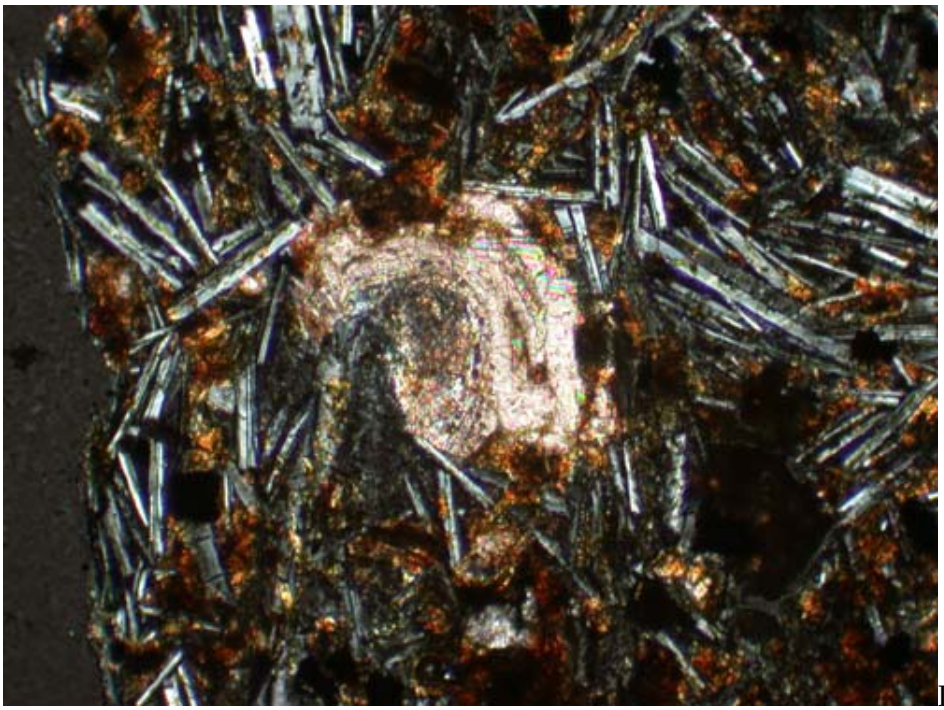
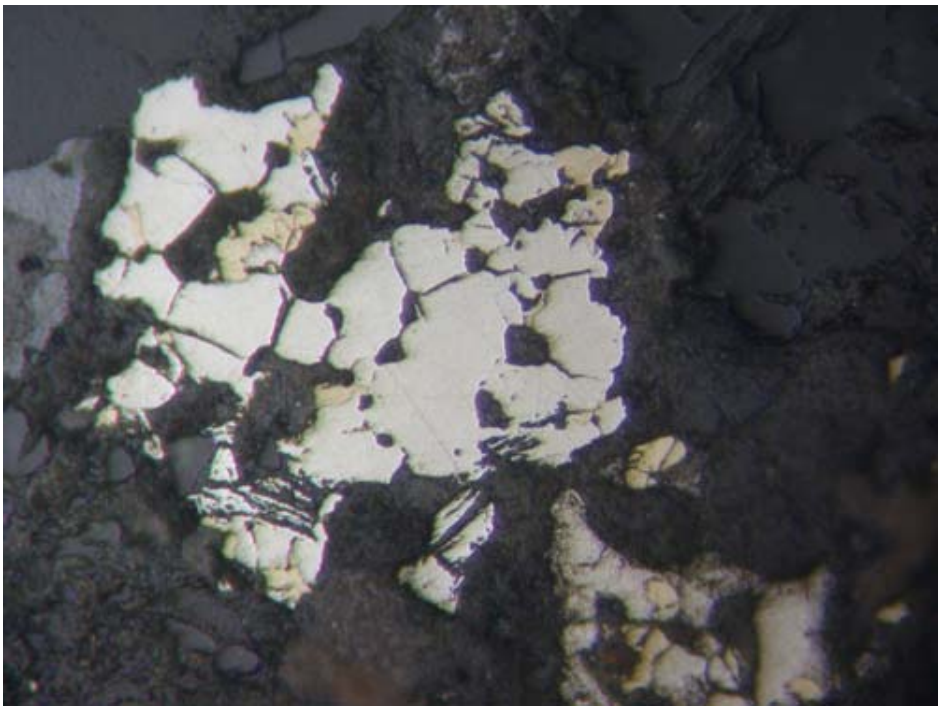


D

CEMI-15: C) Top, patchy biotite and carbonate replacement with quartz amygdales. XPL, FOV =~ 0.85 mm, D) Bottom, patchy biotite replacement with concentrically zoned carbonate amygdale. XPL, FOV =~ 0.8 mm.

E



F

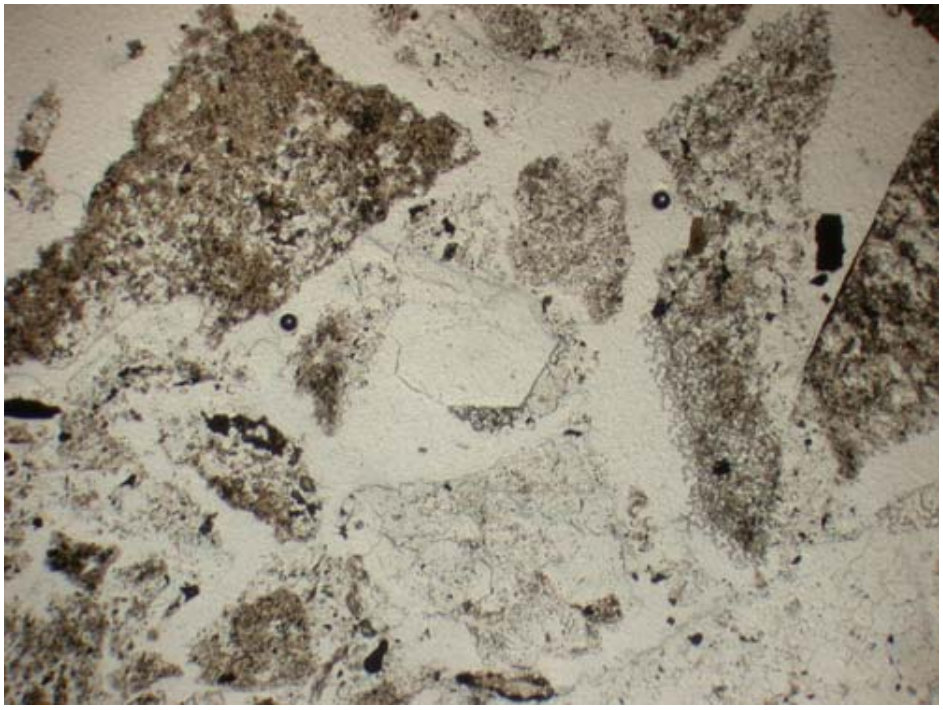
CEMI-15: E) Top, liberated fragment of fine-grained colourless and very fine-grained brown carbonate. XPL, FOV =~ 0.8 mm, F) Bottom, pitted and fractured pyrite and chalcopyrite with black rims. RL, FOV =~ 0.35 mm.

CEMI-16
Sample ID: 3115-0988-1008 **Rock Type:** Greywacke

Chip/Powder and Stained Mount Description:
Light gray, very coarse-sized chips (up to 21mm size). Chips comprise dominantly angular, silicified aphanitic gray rock cut by quartz-chalcopyrite±pyrite and quartz-carbonate veinlets. K-feldspar comprises approximately 20% of the rock fragments in the mount (based on stain). Minor pyrite and chalcopyrite occur disseminated and within quartz veinlets. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Coarse chips (up to 15mm maximum size) of greywacke, fine-grained quartz, quartz-carbonate and quartz-pyrite veinlets, and scattered liberated grains of quartz, carbonate, pyrite and hematite. The greywacke comprises dominantly granular quartz, K-feldspar and biotite with some dark layers of dominantly secondary biotite aggregate. Fine-grained anhedral aggregates of K-feldspar comprise approximately 20% of the section. The K-feldspar is partly replaced by very fine-grained, platy sericite, patchy anhedral brown carbonate and disseminated rutile. Fine to very fine-grained, shreddy, green-brown biotite alteration is pervasive in the greywacke and comprises approximately 15% of the section. Pervasive retrograde sericite alteration, traces of patchy fine-grained, colourless carbonate and disseminated rutile replace secondary biotite in many chips. Sericite comprises approximately 2% of the section. Carbonate occurs in trace amounts as fine-grained colourless patches associated with sericite, as fine-grained, colourless grains in quartz and quartz-pyrite veinlets and as very fine-grained, anhedral, grungy brown aggregates that overprint colourless carbonate and sericite and occur as patchy alteration of the greywacke. Traces of very fine-grained, prismatic apatite occur disseminated in the greywacke.

Total sulphide, 3%, comprises dominantly pyrite with minor chalcopyrite. Pyrite, approximately 2% of the section, occurs disseminated and within quartz veinlets as fine to very fine-grained, eu-anhedral grains and aggregates. Traces of pyrite also occur as liberated grains. Chalcopyrite and pyrrhotite occur as inclusions in some pyrite grains. Pyrite grains show very little pitting and fracturing; rare grains are rimmed by very fine-grained hematite aggregate. Pyrite boundaries are often rounded but typically relatively clean and rarely irregular or careous. Minor chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral aggregates often enclosing pyrite. Chalcopyrite also occurs as infill to fractured pyrite. Chalcopyrite grains are sometimes partly replaced by hematite. Minor hematite, approximately 1%, occurs as fracture infill, as liberated grains and partly replacing sulphides. Traces of rutile occur disseminated.



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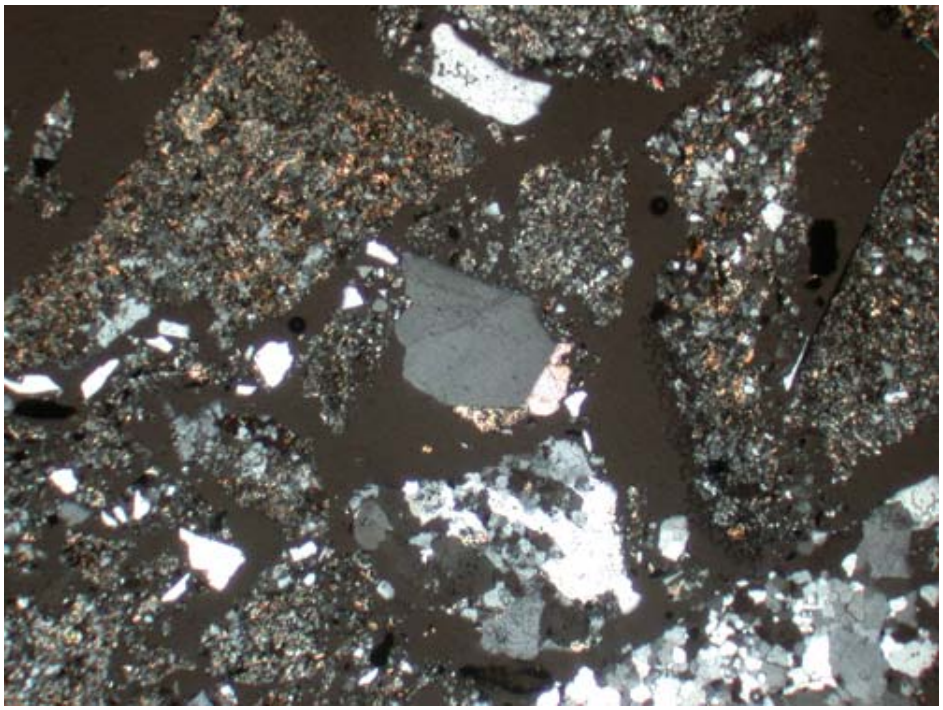
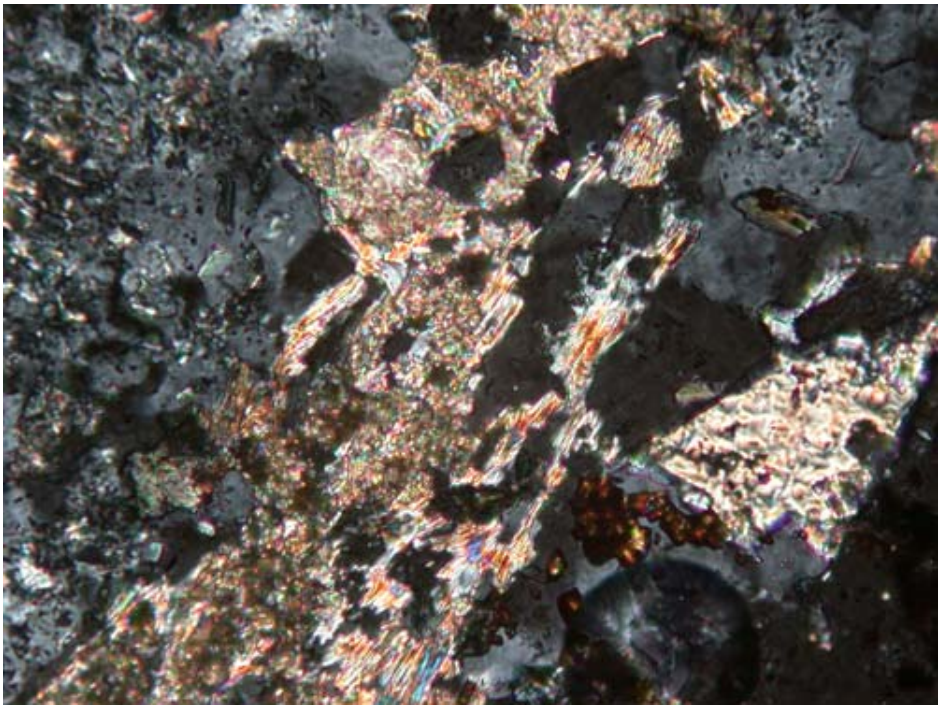


B

CEMI-16: General view of graywacke rock chips, fragments of quartz and quartz-carbonate veinlets and liberated grains of quartz and hematite. A) PPL, B) XPL, FOV~ 4.5 mm.



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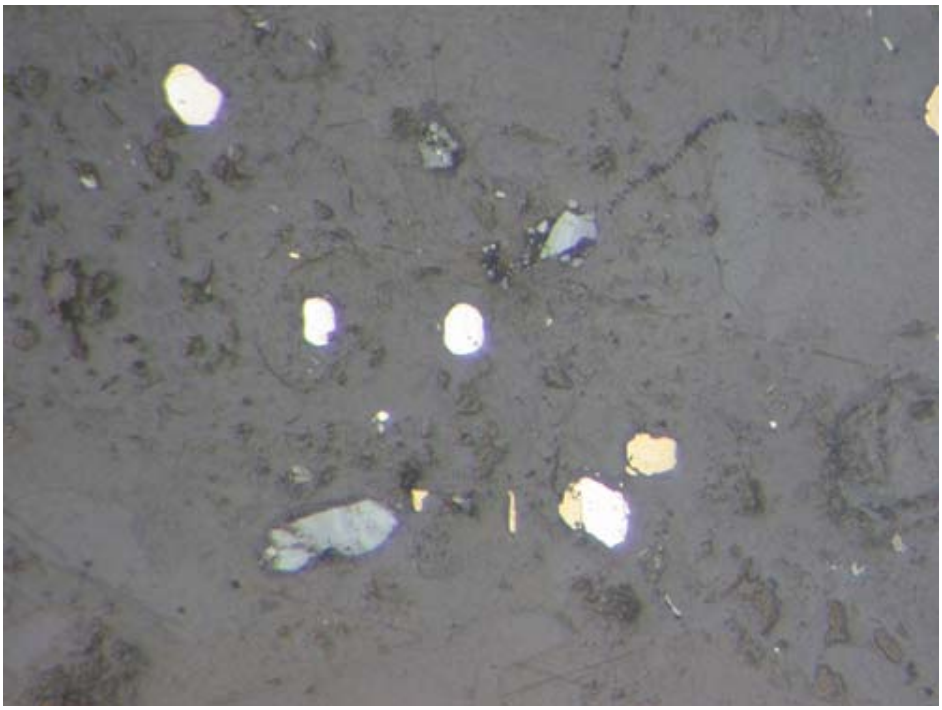
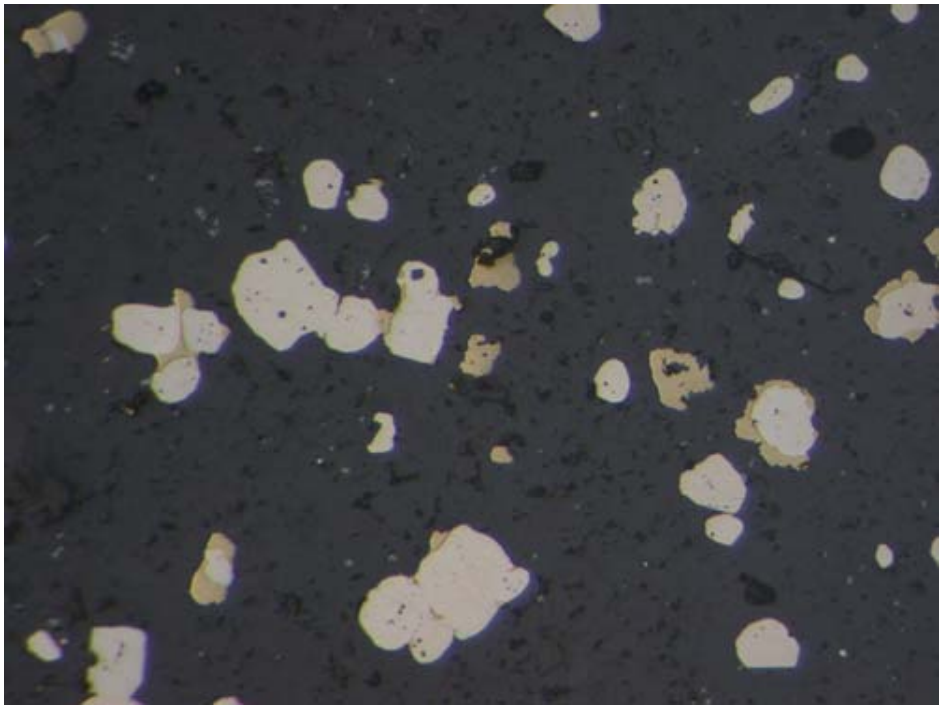
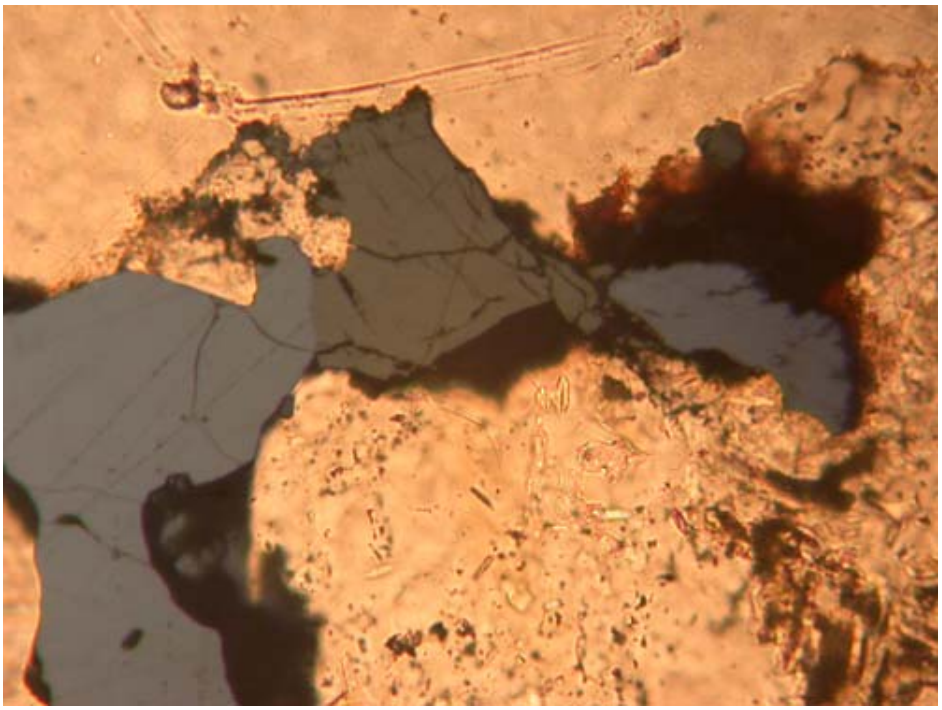


D

CEMI-16: C) Top, patchy very fine-grained, brown carbonate overprints fine-grained rhombic carbonate and sericite in quartz-pyrite veinlet. XPL, FOV =~ 0.3 mm, D) Bottom, liberated grains of hematite, pyrite and chalcopyrite. RL, FOV =~ 1.0 mm.



E



F

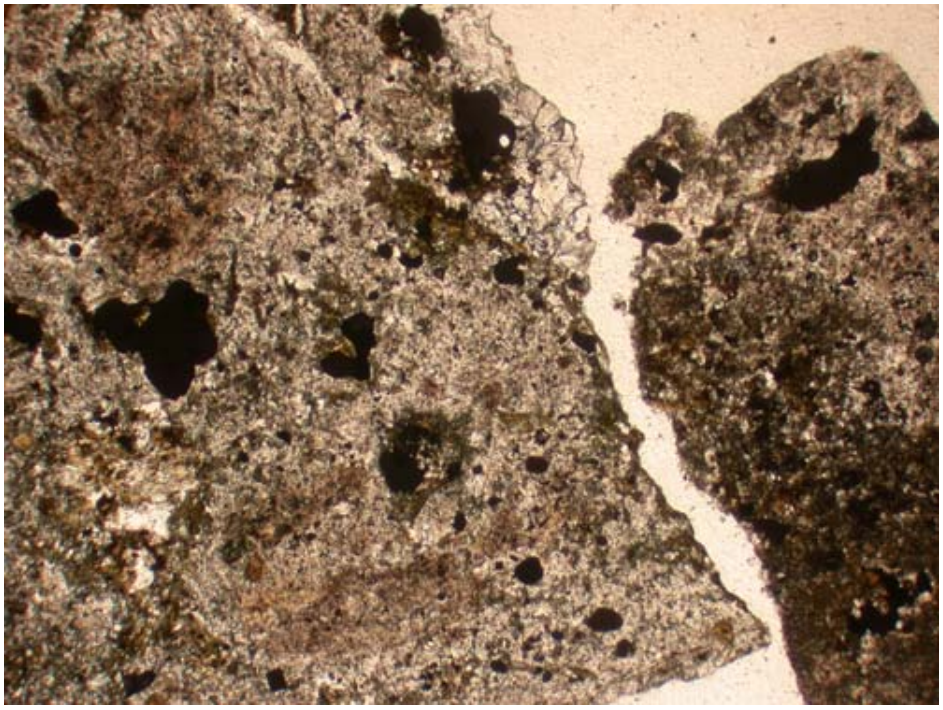
CEMI-16: E) Top, subrounded, disseminated pyrite grains with clean boundaries partly enclosed by chalcopyrite. RL, FOV =~ 1.3 mm, F) Bottom, pyrite and chalcopyrite with pyrite partly replaced by very fine-grained hematite aggregate. PPL (condensed) + RL, FOV =~ 0.3 mm.

CEMI-17
Sample ID: 3123-0438-0458 **Rock Type:** Diorite Gabbro

Chip/Powder and Stained Mount Description:
Dark gray/black, very coarse-sized chips (up to 26mm size). Chips comprise dominantly angular, feldspar porphyry cut by narrow 2-3mm quartz and quartz-brown carbonate veinlets. K-feldspar comprises approximately 10% of the mount (based on stain). Minor pyrite occurs disseminated, locally as rims/replacement of feldspar phenocrysts, and occurs with quartz and quartz-carbonate veinlets. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Medium to coarse chips (up to 7mm maximum size) of biotite-K-feldspar-quartz altered fine-grained porphyritic rock cut by minor quartz-K-feldspar-pyrite and quartz-carbonate-pyrite veinlets. Alteration is dominated by development of very fine-grained, green-brown, shreddy secondary biotite which, together with K-feldspar, quartz and carbonate, occurs as patchy to pervasive replacement of rock chips and locally within quartz-carbonate-pyrite veinlets. Biotite comprises approximately 60% of the section. K-feldspar occurs as patchy alteration, selectively pervasive alteration of plagioclase phenocrysts and as selvages to quartz-carbonate-pyrite veinlets. K-feldspar comprises approximately 10% of the section (estimate based on stained offcut). Trace carbonate occurs as both colourless and brown varieties. Colourless carbonate occurs in as fine-grained patchy replacement of phenocrysts and groundmass in some fragments and as anhedral to rhombic grains interstitial to quartz in quartz-carbonate veinlets. Locally rhombic, zoned carbonate is pseudomorphically replaced by traces of very fine-grained orange-red material, possibly ?limonite. Very fine-grained, grungy brown carbonate aggregates occurs as replacement of former tabular phenocrysts and partly replaces rhombic carbonate in veinlets. Traces of rutile occur with carbonate, biotite and pyrite as clusters replacing former mafic phenocrysts. Rare grains of malachite occur locally associated with carbonate and pyrite. Trace gypsum occurs as fibrous masses associated with biotite in selected chips. Fine to very fine-grained apatite crystals occur disseminated in trace amounts.

Total sulphide, 5%, comprises dominantly pyrite with traces of chalcopyrite. Pyrite, approximately 5% of the section, occurs disseminated as fine to very fine-grained, sub-anhedral grains and aggregates within rock and quartz vein chips. Pyrite grains are relatively clean with minor fracturing present in some grains. Pyrite boundaries vary from relatively clean slightly oxidized with very fine Fe-oxyhydroxide rims in some chips. Trace chalcopyrite occurs as fine to very fine-grained, anhedral aggregates; it locally encloses pyrite. Traces of chalcopyrite and pyrrhotite occur as inclusions in pyrite. Chalcopyrite occurs as infill to fractured and very fine-grained pyrite.



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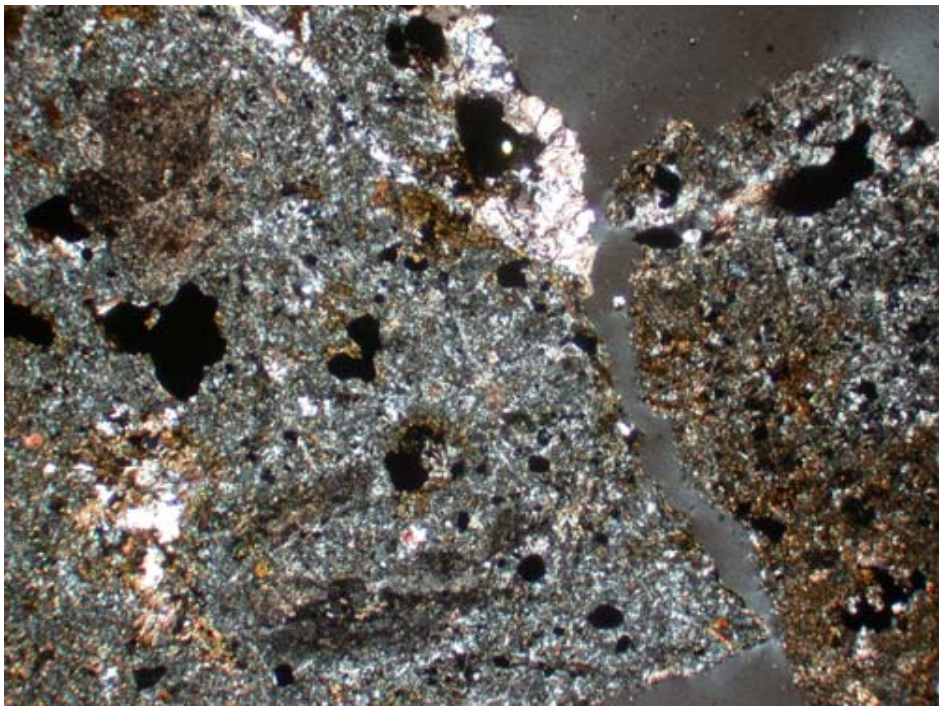
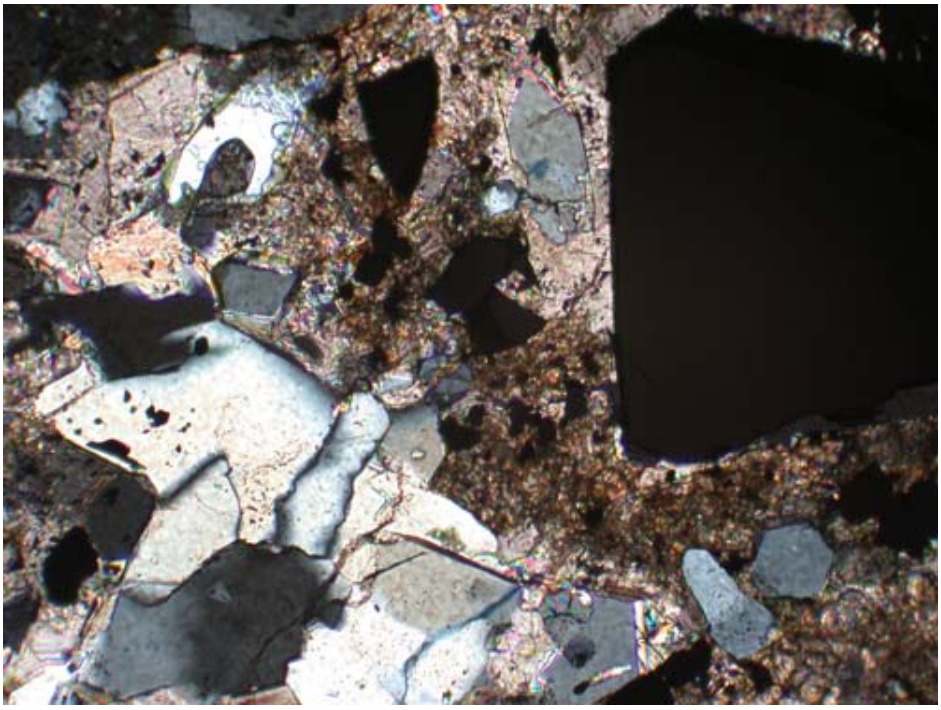


B

CEMI-17: General view of biotite-K-feldspar-quartz altered fine-grained porphyritic rock cut by quartz-carbonate-pyrite veinlets. A) PPL, B) XPL, FOV~ 4.5 mm.



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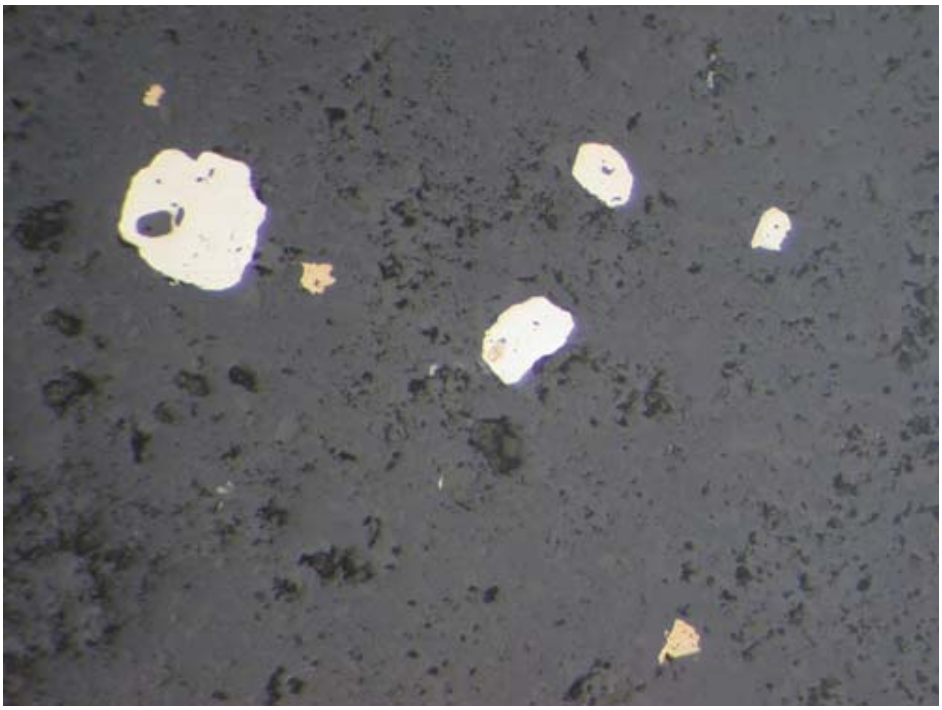
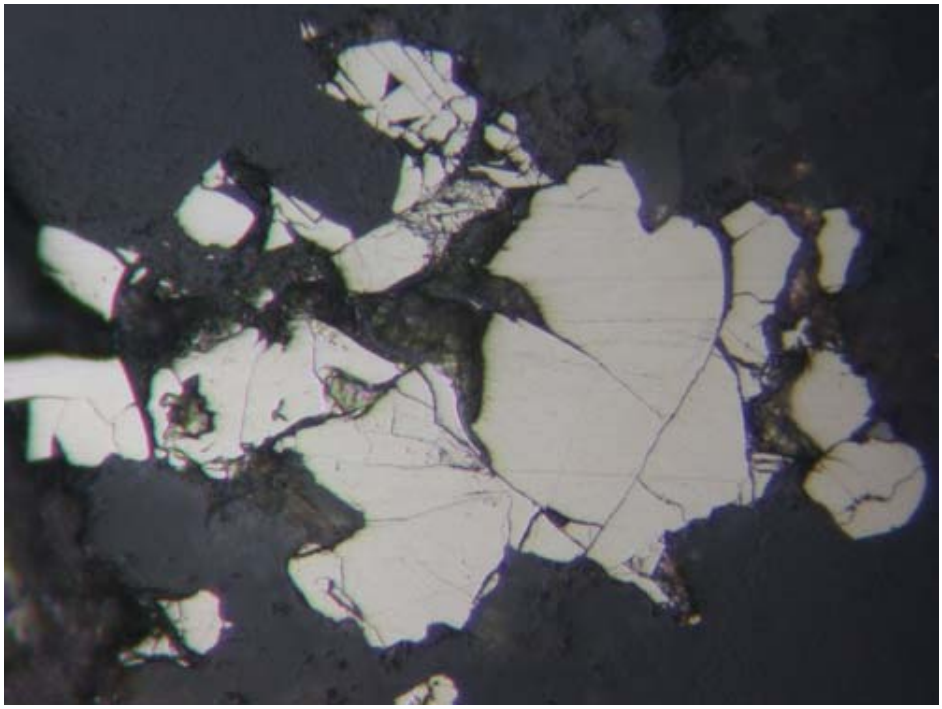


D

CEMI-17: C) Top, very fine-grained brown carbonate aggregate replaces colourless fine-grained carbonate in quartz-carbonate-pyrite veinlet. XPL, FOV =~ 0.9 mm, D) Bottom, disseminated chalcopyrite and pyrite grains with inclusions of chalcopyrite and pyrrhotite; clean boundaries. RL, FOV =~ 1.5 mm.



E

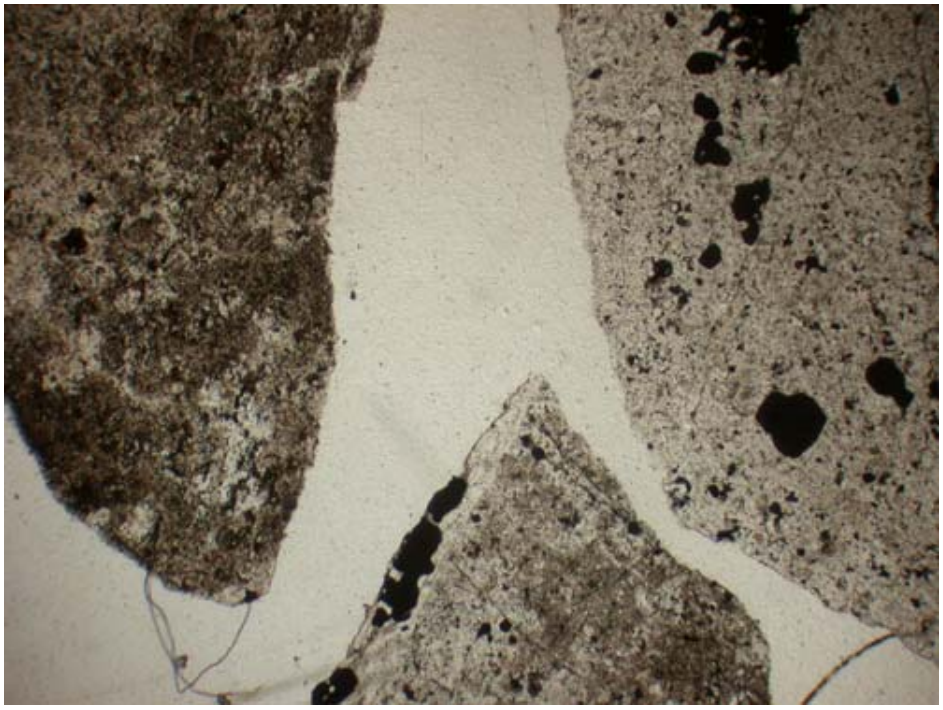
CEMI-17: E) Top, fractured pyrite with black Fe-oxyhydroxide rims. RL, FOV =~ 0.3 mm

CEMI-18
Sample ID: 3124-0188-0209 **Rock Type:** Greywacke

Chip/Powder and Stained Mount Description:
Medium to dark gray, very coarse-sized chips (up to 35mm size). Chips comprise dominantly angular, patchy biotite-altered aphanitic rock and fine-grained, granular, vaguely laminated rock fragments. K-feldspar comprises from less than 20 to over 50% of chips in the mount (based on stain). Minor pyrite occurs disseminated and as stringers. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Coarse chips (up to 14mm maximum size) of greywacke with vaguely laminated beds varying from fine-grained with dominantly angular monocrystalline quartz grains to very fine-grained with dark layers and patches of dominantly secondary biotite aggregate. The greywacke matrix contains quartz and abundant very fine-grained K-feldspar grains; K-feldspar comprises approximately 40% of the section. Fine to very fine-grained, shreddy, green-brown biotite alteration is pervasive; biotite comprises approximately 15% of the section. Traces of very fine-grained sericite alteration replaces secondary biotite in some chips. Carbonate is not observed in the section. Minor brown aphanitic ?gypsum aggregate occurs as patchy replacement of greywacke, associated with secondary biotite, in sub-mm quartz±K-feldspar-biotite veinlets, and as late fracture and vug infill. ?Gypsum comprises approximately 1% of the section. Trace rutile occurs as disseminated aggregates.

Total sulphide, 3%, comprises dominantly pyrite with minor chalcopyrite and traces of digenite and covellite. Pyrite, approximately 2% of the section, occurs disseminated, as stringers and within quartz±K-feldspar ± ?gypsum ± chalcopyrite ±biotite veinlets as fine to very fine-grained, sub-anhedral grains and aggregates within chips. Chalcopyrite occurs as inclusions in some pyrite grains. Cores of pyrite grains are locally pitted; fracturing is present in some grains; no evidence of pyrite rim replacement by Fe-oxyhydroxides. Pyrite boundaries vary from straight and relatively clean to irregular and careous. Pyrite often occurs with trace aggregates of rutile. Minor chalcopyrite, approximately 1%, occurs disseminated and within quartz-K-feldspar veinlets as fine to very fine-grained, ragged, anhedral grains and aggregates. Chalcopyrite is rimmed and partly replaced by traces of digenite and covellite. Trace hematite occurs rarely as very fine-grained anhedral aggregates within quartz-dominant layers in some of the greywacke chips.



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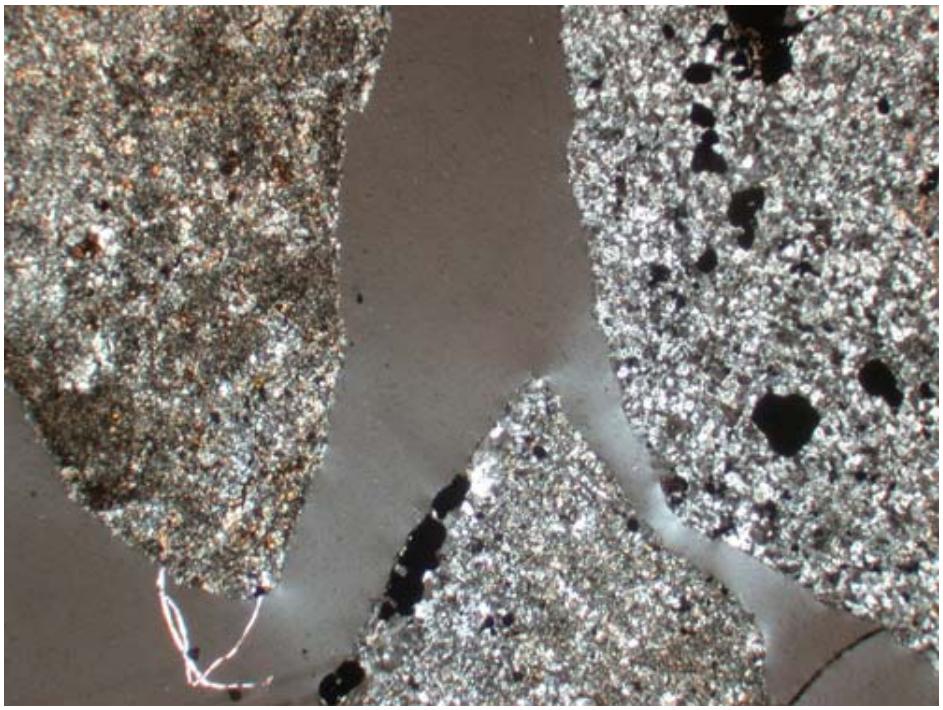
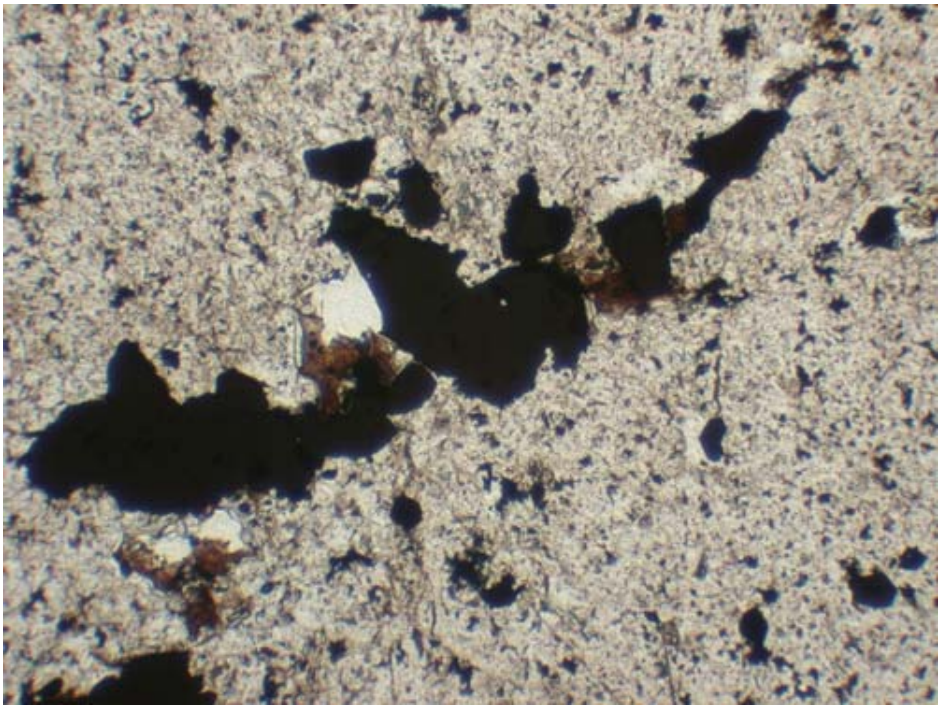


B

CEMI-18: General view of rock chips of patchy biotite-altered graywacke (left) and silicified graywacke with disseminated and veinlet controlled sulphides (right). A) PPL, B) XPL, FOV~ 4.5 mm.



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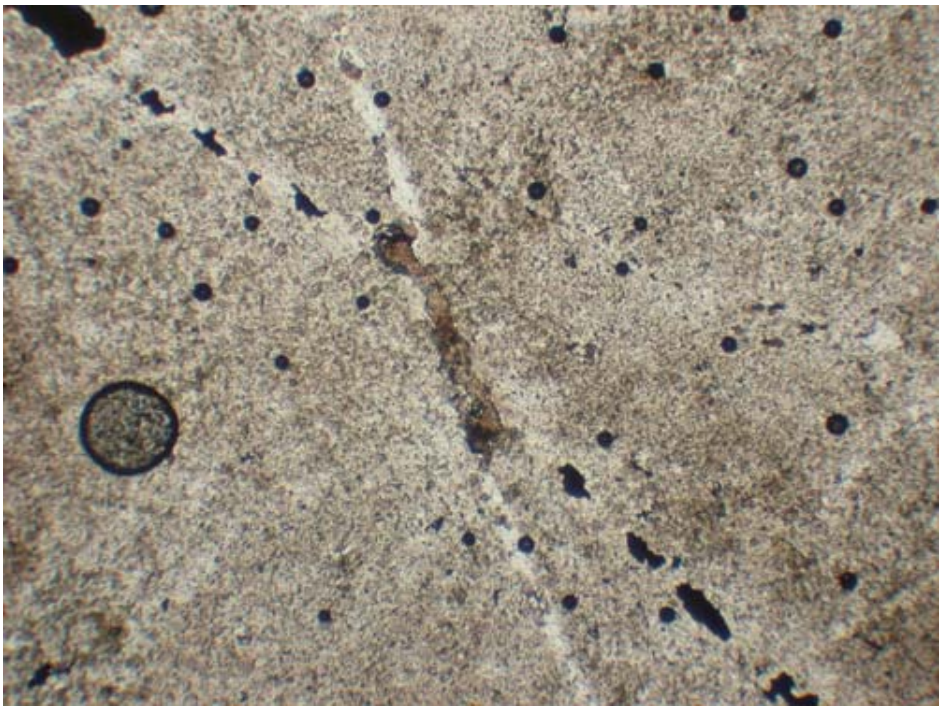
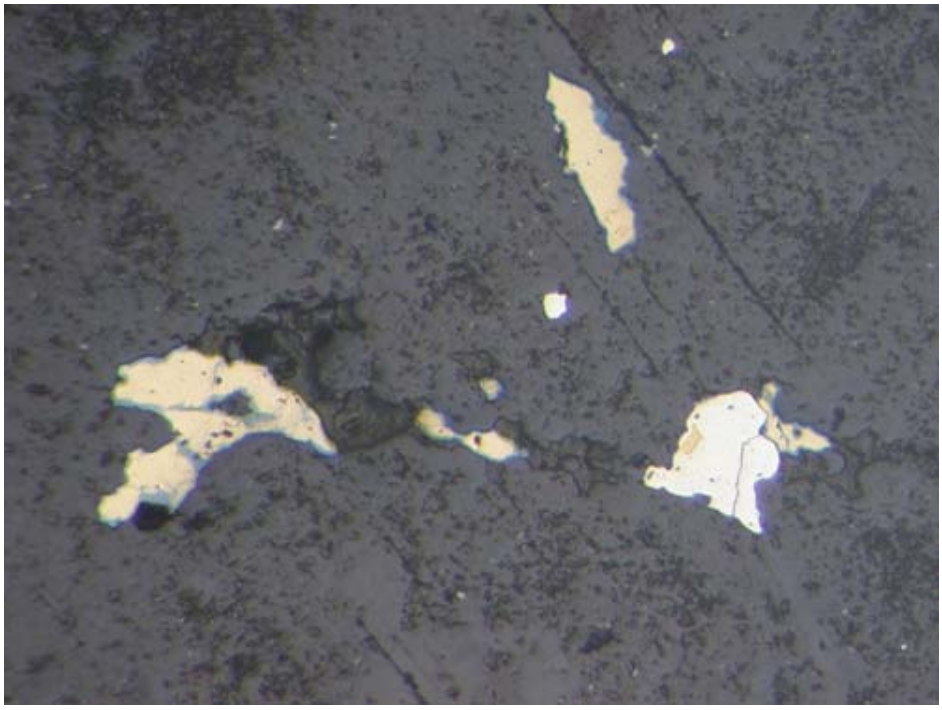


D

CEMI-18: C) Top, brown ?gypsum aggregate as late infill to pyrite stringers. PPL, FOV =~ 1.7 mm, D) Bottom, quartz-?gypsum-chalcopyrite veinlets. PPL, FOV =~ 2.4 mm.



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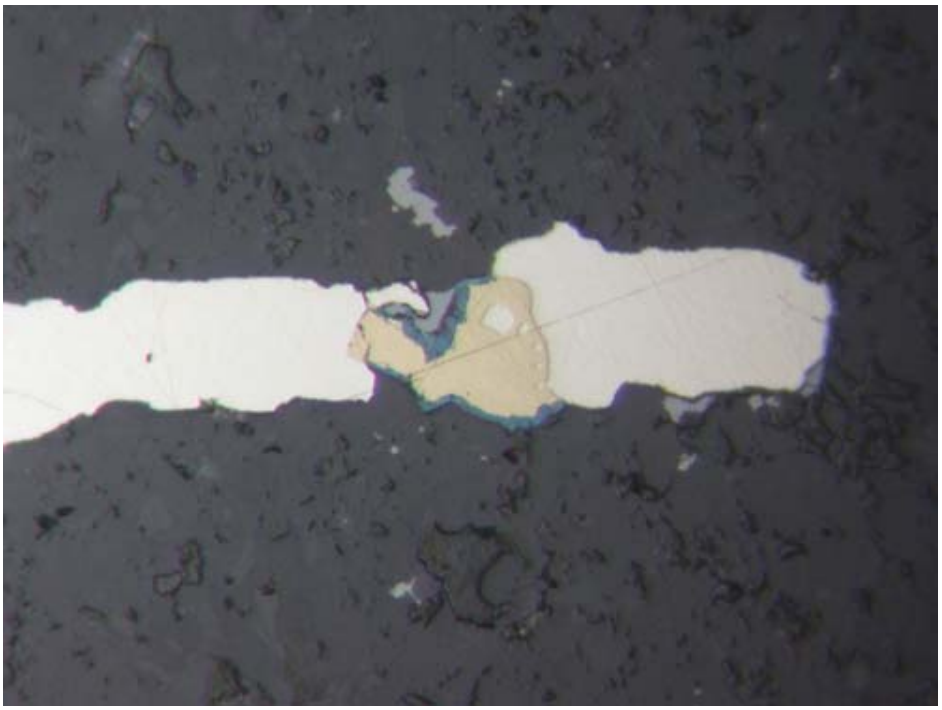


F

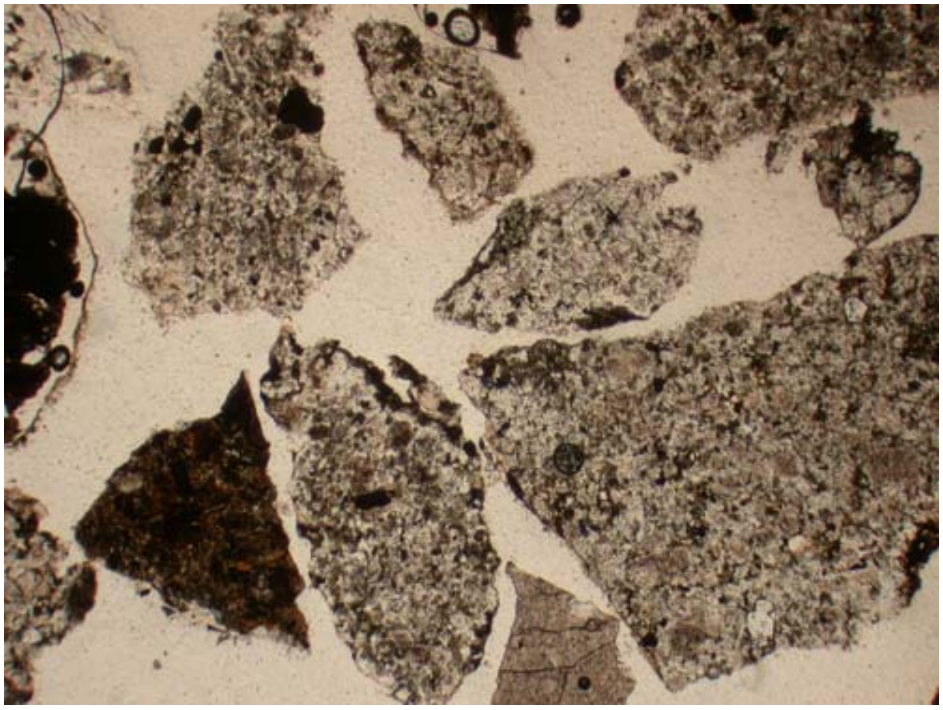
CEMI-18: E) Top, disseminated and fracture-controlled pyrite with inclusions of chalcopyrite and chalcopyrite rimmed by digenite and covellite. RL, FOV =~ 1.1 mm, F) Bottom, pyrite-chalcopyrite-quartz veinlet with chalcopyrite rimmed by covellite. Gray mineral is rutile. RL, FOV =~ 0.3 mm.

CEMI-19
Sample ID: 3124-0872-0887 **Rock Type:** Intrusion Breccia

Chip/Powder and Stained Mount Description:
Medium to dark gray, very coarse-sized chips (up to 32mm size). Chips comprise dominantly angular, feldspar porphyry and aphanitic black rock with patchy calcite. K-feldspar comprises approximately 30% of the mount (based on stain). Minor pyrite occurs disseminated and in quartz veinlets within the feldspar porphyry; chalcopyrite occurs as patches. The aphanitic black rock is unmineralized. Reaction of black chips to cold dilute HCl. No reaction to magnet.

Thin Section Description: (central part of section is very thin)
Medium to coarse chips (up to 7mm maximum size) of brecciated K-feldspar-biotite altered fine-grained porphyritic rock, K-feldspar altered, fine-grained, leucocratic equigranular and porphyritic rock, sericite-quartz-rutile altered granular rock, seriate-textured basalt with calcite amygdales and minor quartz±K-feldspar-sulphide veinlets, carbonate veinlets and liberated grains of biotite, carbonate and pyrite. Biotite comprises approximately 10% of the section and occurs with K-feldspar as pervasive alteration of porphyritic rock fragments. Former plagioclase phenocrysts are selectively replaced by K-feldspar and locally subsequently by patchy biotite or sericite alteration. Sericite replaces some of the secondary biotite alteration and comprises approximately 1% of the section. In the leucocratic fragments, fine-grained, anhedral, secondary K-feldspar aggregates intergrown with quartz occur as groundmass interstitial to the former plagioclase phenocrysts. K-feldspar comprises approximately 30% of the section (estimate based on stained offcut). Within the sericate-textured basalt, former clinopyroxene crystals and plagioclase laths are partly replaced by fine to very fine-grained colourless and brown carbonate aggregate; calcite occurs as fine-grained amygdales within the basalt. Minor carbonate occurs as fine to very fine-grained, submm veinlets and fracture infill. Carbonate comprises approximately 1% of the section. Traces of anhedral colourless carbonate within carbonate-sulphide veinlets are partly replaced by hematite. Traces of very fine-grained apatite crystals occur disseminated in some of the fragments.

Total sulphide, 2%, comprises dominantly pyrite with traces of chalcopyrite and rarely molybdenite. Pyrite occurs disseminated as fine to very fine-grained, eu-anhedral grains and stringers within chips and within quartz veinlets. Pyrite boundaries are mostly relatively clean but some grains are locally fractured with boundaries rimmed and replaced by traces of very fine-grained, red-brown Fe-oxide material, likely hematite. Pyrite occurs locally with clusters of prismatic red-brown rutile crystals. Trace chalcopyrite occurs as fine to very fine-grained, ragged, anhedral aggregates; it locally encloses pyrite. Trace hematite occurs as very fine-grained anhedral aggregates that replace anhedral carbonate.



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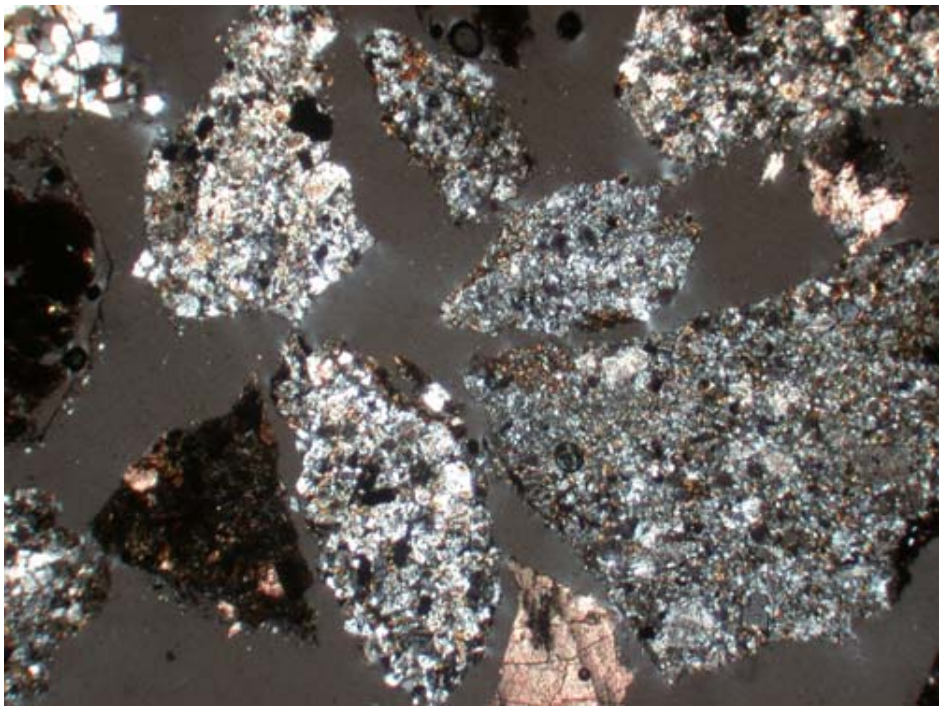
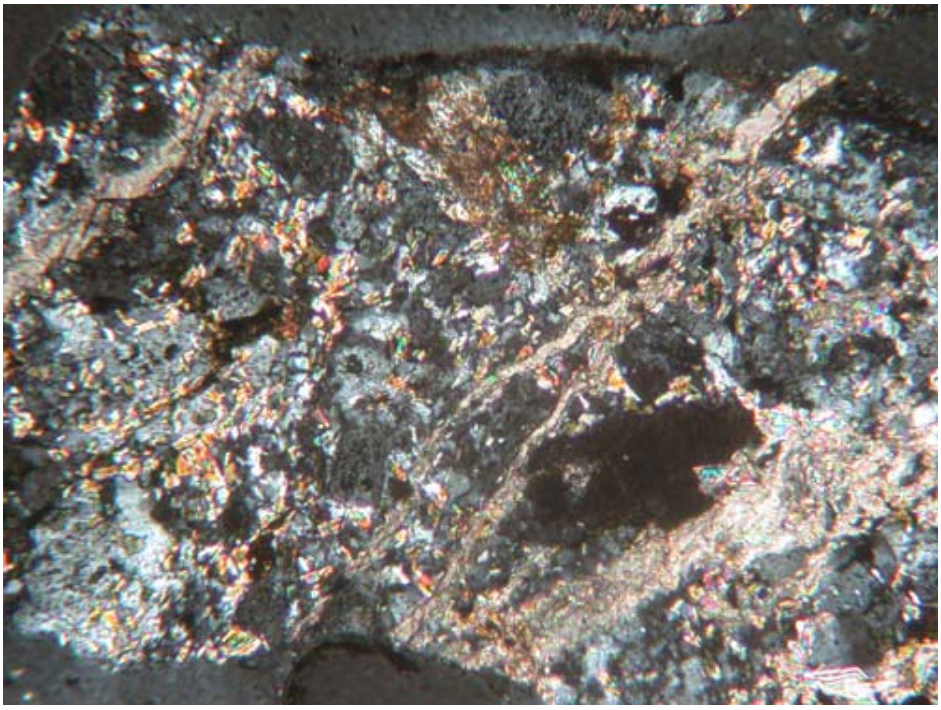


B

CEMI-19: General view of seriate-textured basalt rock chips, granular and porphyritic rock chips and liberated carbonate fragments. A) PPL, B) XPL, FOV~ 4.5 mm.



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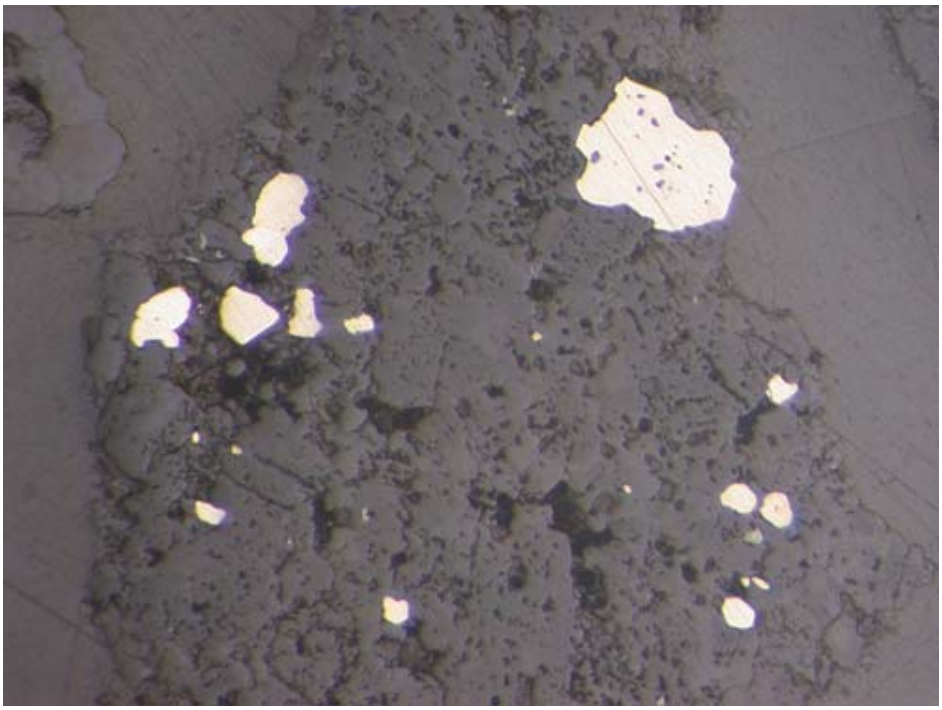
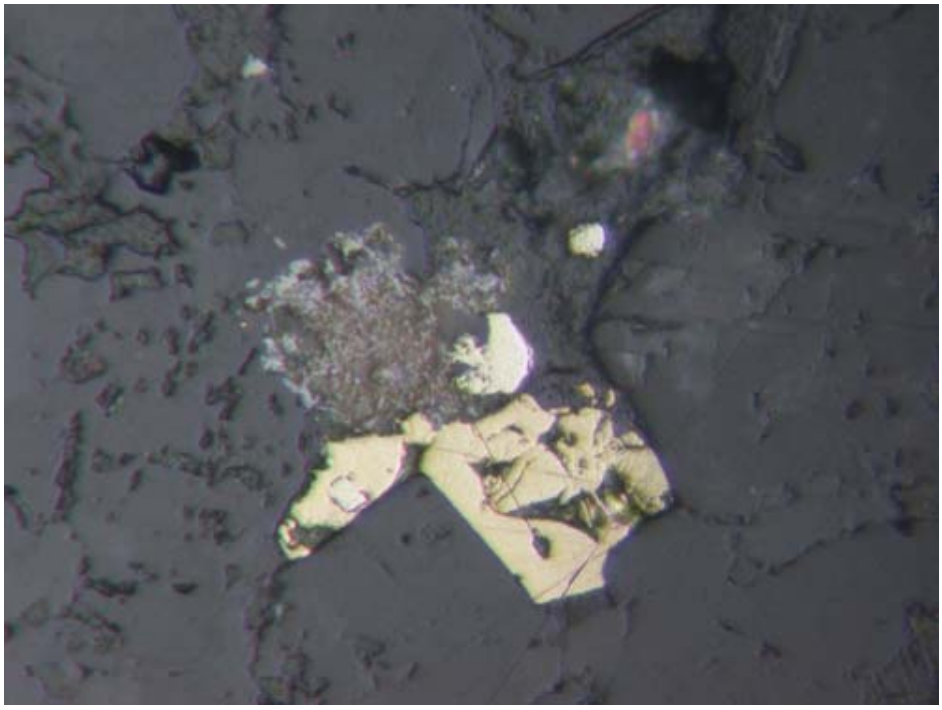


D

CEMI-19: C) Top, carbonate veinlets cut biotite-K-feldspar altered porphyritic rock. XPL, FOV =~ 0.75 mm, D) Bottom, pyrite and chalcopyrite with clean boundaries within biotite-altered fragment. RL, FOV =~ 1.3 mm.



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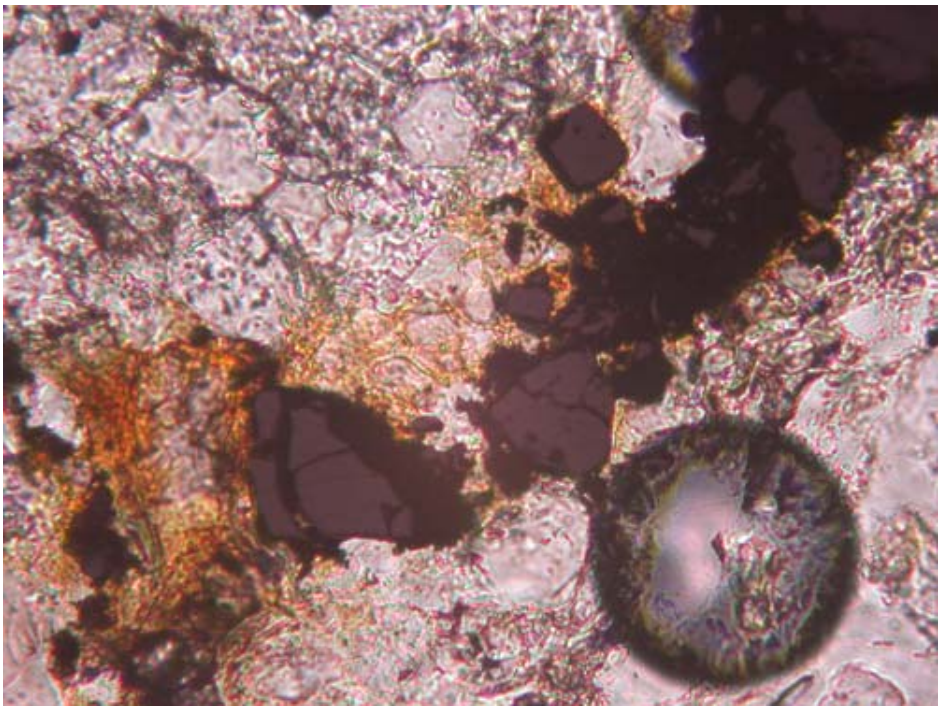


F

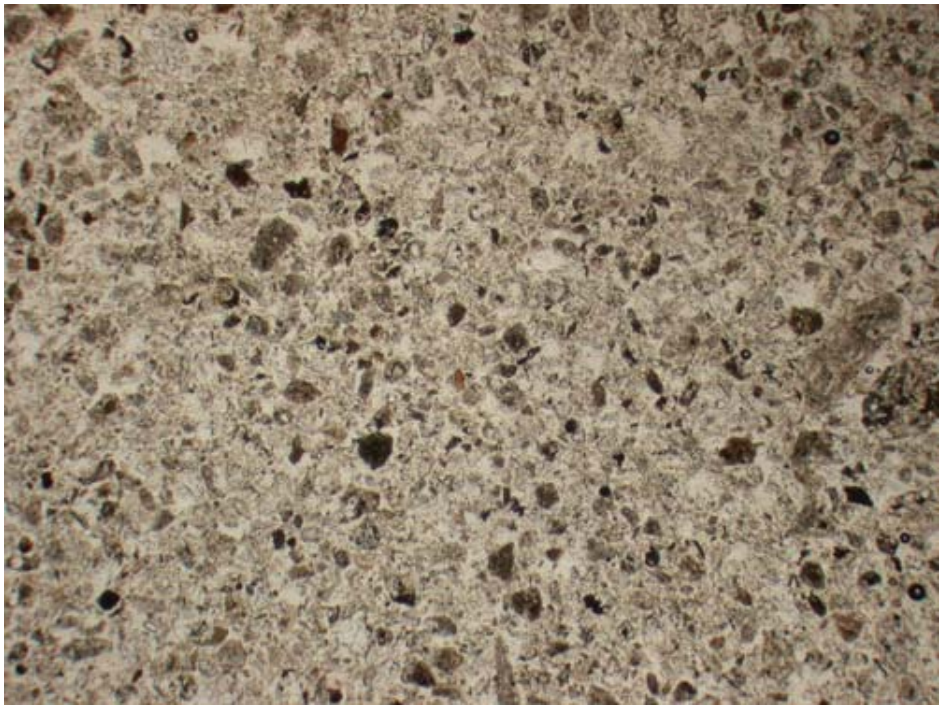
CEMI-19: E) Top, chalcopyrite and pyrite partly replaced by very fine-grained Fe-oxide material, likely hematite. RL, FOV =~ 0.25 mm, F) Bottom, fractured pyrite with black rims and red-brown hematite stain. PPL, FOV =~ 0.3 mm.

CEMI-20
Sample ID: drum 1 - sample 2 - bulk rougher tailings

Chip/Powder and Stained Mount Description: (stained mount not available)
Tan powder. No reaction to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Fine to very fine-grained powder. Secondary green, shreddy biotite comprises approximately 7% of the section. Aphanitic brown K-feldspar aggregate occurs as replacement of plagioclase grains. K-feldspar comprises approximately ?10-30% of the section. The plagioclase grains are overprinted by patchy very fine-grained biotite or sericite alteration. Sericite comprises approximately 1% of the section. Anhedral quartz fragments comprise approximately 5% of the section. Locally trace fragments of quartz-K-feldspar and quartz-rhombic carbonate veinlets. Trace carbonate occurs mostly as anhedral colourless and lesser very fine-grained brown varieties. Traces of rhombic colourless carbonate are partly replaced by hematite. Traces of very fine-grained apatite crystals occur disseminated. Trace rutile occurs disseminated.

Total sulphide, approximately trace to 1%, occurs dominantly as pyrite with lesser chalcopyrite, rarely molybdenite and covellite. Pyrite occurs as fine to very fine-grained anhedral liberated grains and occurs less commonly with chalcopyrite. Pyrite boundaries are irregular to smooth but clean; some pyrite grains are locally pitted. Trace chalcopyrite occurs as very fine-grained anhedral grains; it locally encloses pyrite. Chalcopyrite is rimmed and replaced by covellite. Rare molybdenite occurs as very fine-grained liberated plates. Traces of very fine-grained magnetite occur disseminated. Trace Fe-oxyhydroxide occurs as liberated anhedral grains, commonly as very fine-grained anhedral aggregates that replace anhedral very fine-grained carbonate, less commonly partly replacing magnetite and rarely as rims to covellite.



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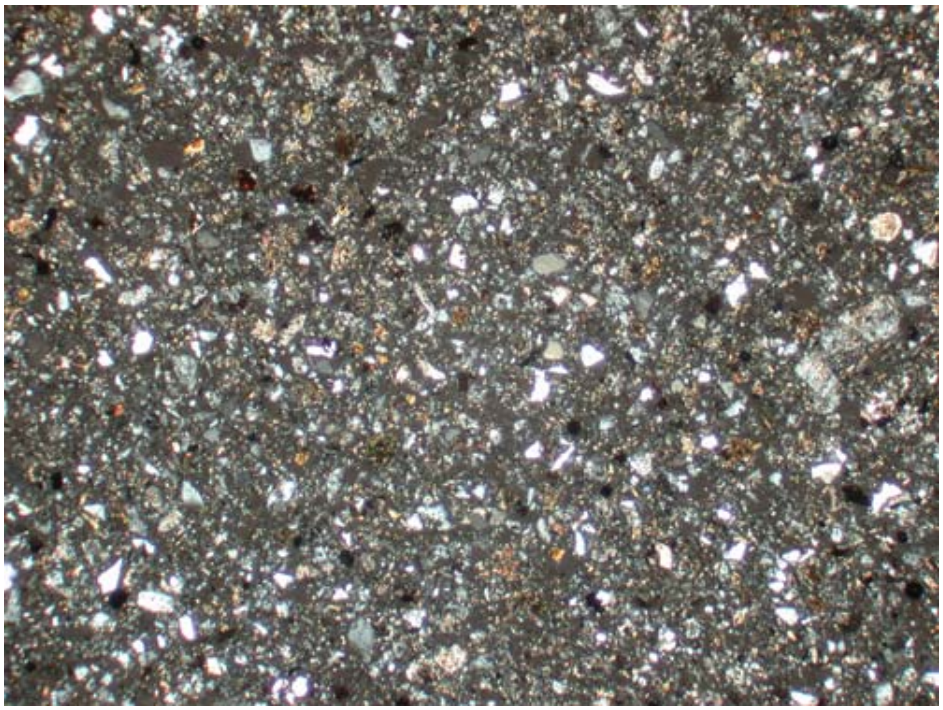
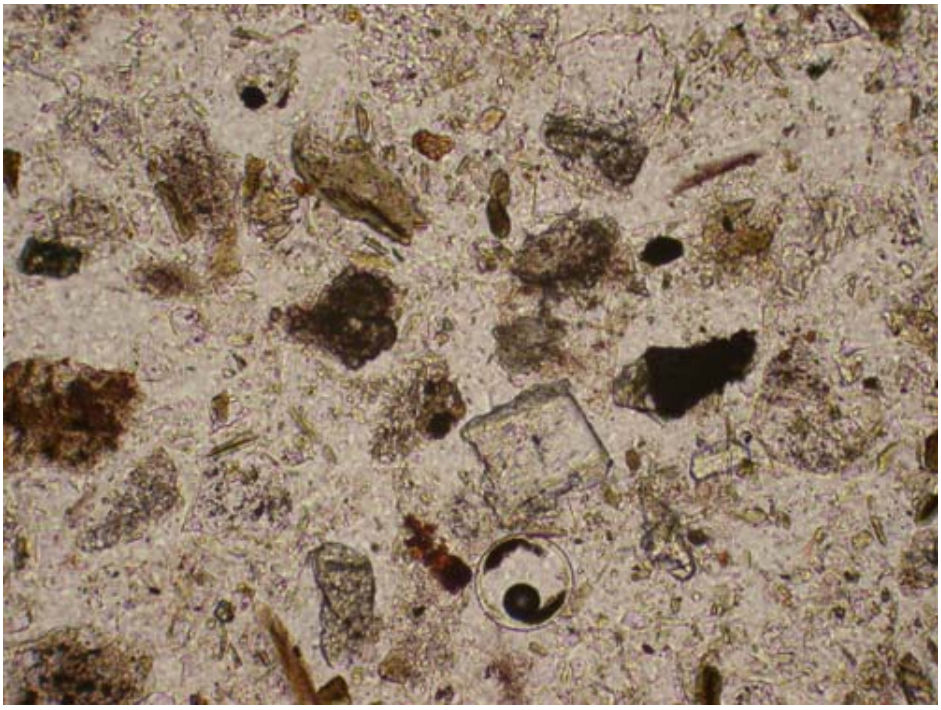


B

CEMI-20: General view of powder. A) PPL, B) XPL, FOV~ 4.5 mm.



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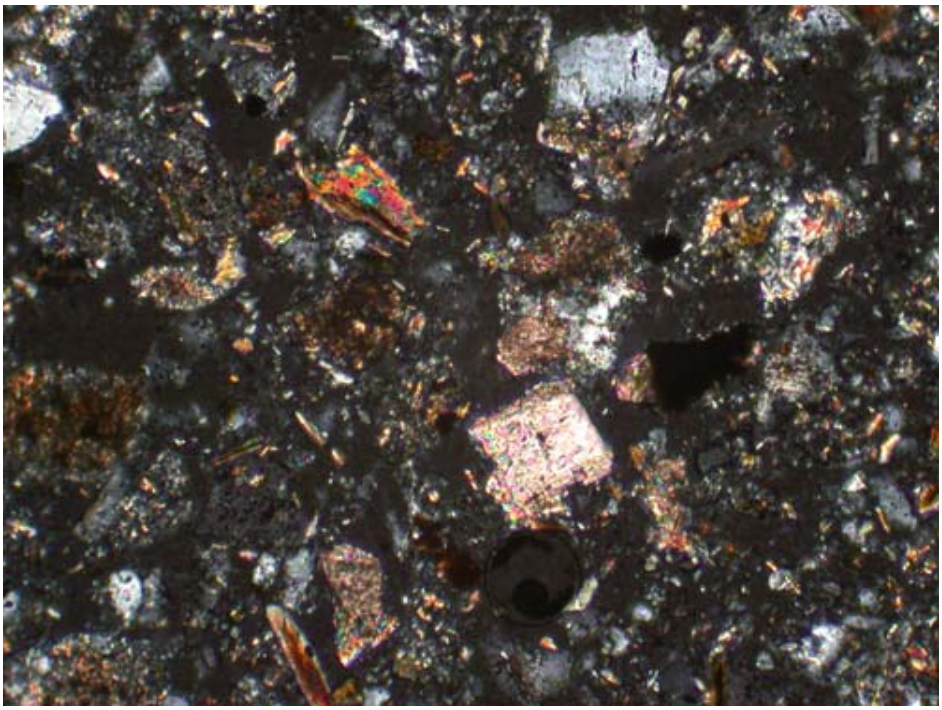
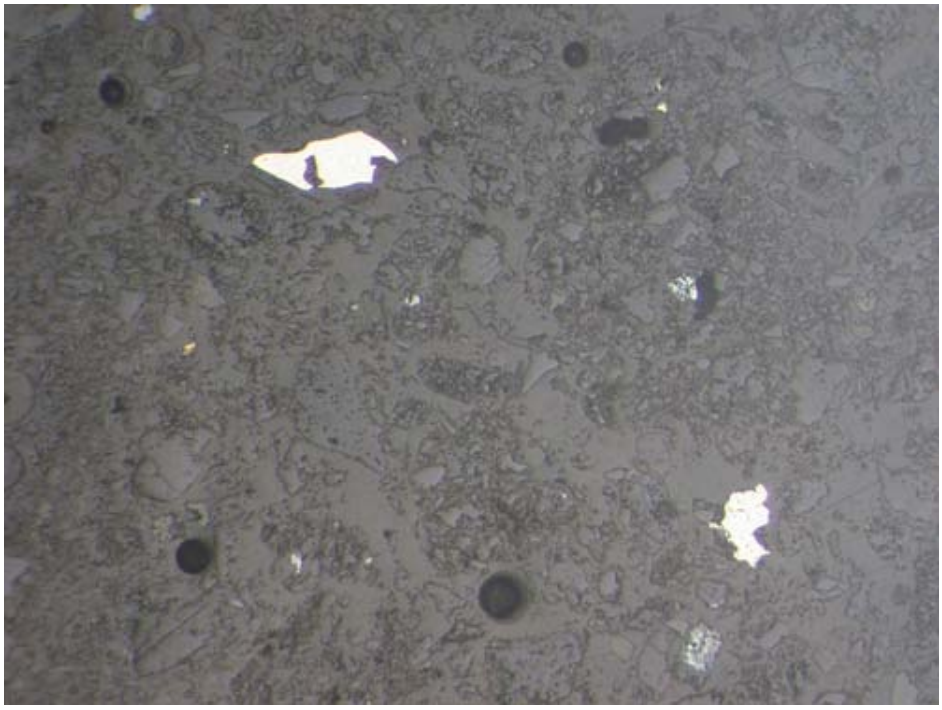
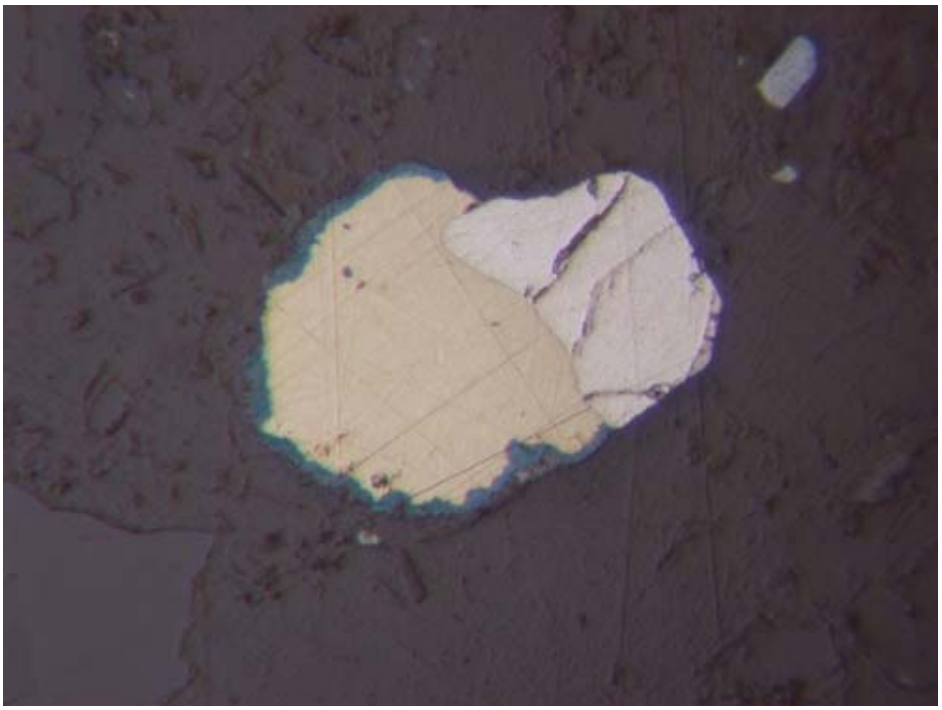


D

CEMI-20: Detailed view of powder. Note colourless carbonate (below centre), very fine-grained brown carbonate aggregates, Fe oxyhydroxide (below centre), and secondary shreddy biotite. A) PPL, B) XPL, FOV~ 0.75 mm.



E



F

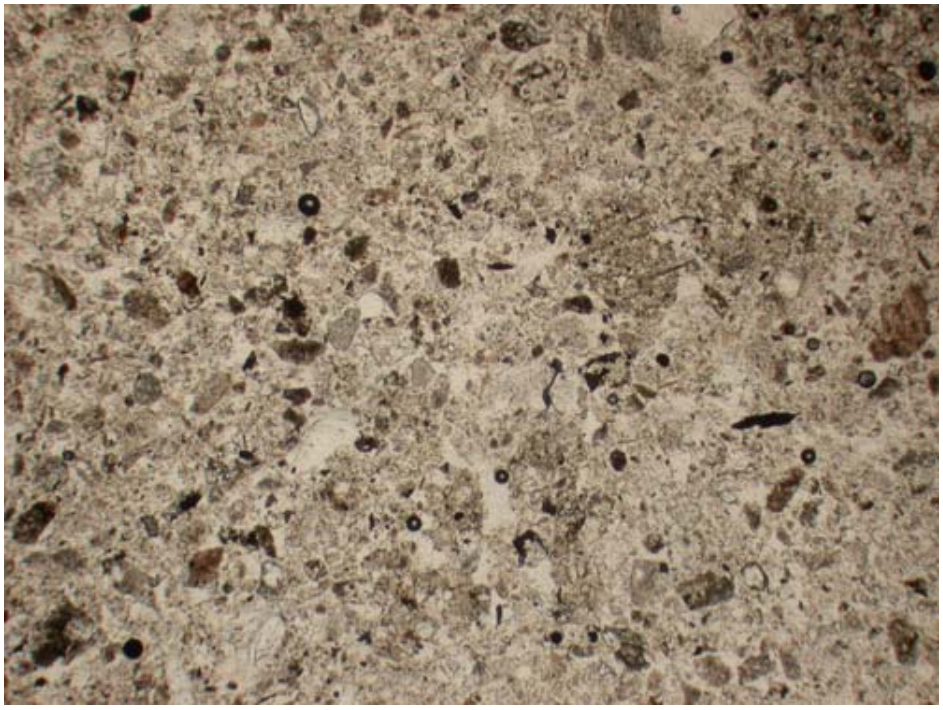
CEMI-20: E) Top, disseminated pyrite and hematite grains. RL, FOV =~ 1.8 mm, F) Bottom, pyrite and chalcopyrite. Covellite rims chalcopyrite and is partly replaced by Fe-oxyhydroxide rim. RL, FOV =~ 0.2 mm.

CEMI-21
Sample ID: drum 4 - sample 1 - bulk rougher tailings

Chip/Powder and Stained Mount Description: (stained mount not available)
Pale gray-tan powder. K-feldspar present in mount (based on stain). No reaction to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Fine to very fine-grained powder. Secondary green, shreddy biotite comprises approximately 7% of the section. Aphanitic brown K-feldspar aggregate occurs as replacement of plagioclase grains. K-feldspar comprises approximately ?10-30% of the section. The plagioclase grains are overprinted by patchy very fine-grained biotite or sericite alteration. Sericite comprises approximately 1% of the section. Anhedral quartz fragments comprise approximately 5% of the section. Locally trace fragments of quartz-carbonate veinlets. Trace carbonate occurs mostly as anhedral colourless and lesser very fine-grained brown varieties. Traces of rhombic colourless carbonate are partly replaced by hematite. Traces of very fine-grained apatite crystals occur disseminated. Trace rutile occurs disseminated.

Total sulphide occurs as trace amounts dominantly as pyrite with lesser chalcopyrite, rarely marcasite, digenite and covellite. Pyrite occurs as very fine-grained anhedral liberated grains, as replacement of platy biotite and occurs less commonly with chalcopyrite. Pyrite boundaries are irregular to smooth but clean; some pyrite grains are locally pitted. Trace chalcopyrite occurs as very fine-grained anhedral grains; it locally encloses pyrite. Chalcopyrite is commonly rimmed and replaced by covellite which locally replaces digenite. Rare marcasite occurs as very fine-grains strongly replaced by traces of hematite. Traces of very fine-grained magnetite occur disseminated. Trace Fe-oxyhydroxide occurs as liberated anhedral grains, as very fine-grained anhedral aggregates that replace anhedral very fine-grained carbonate and less commonly partly replacing magnetite.



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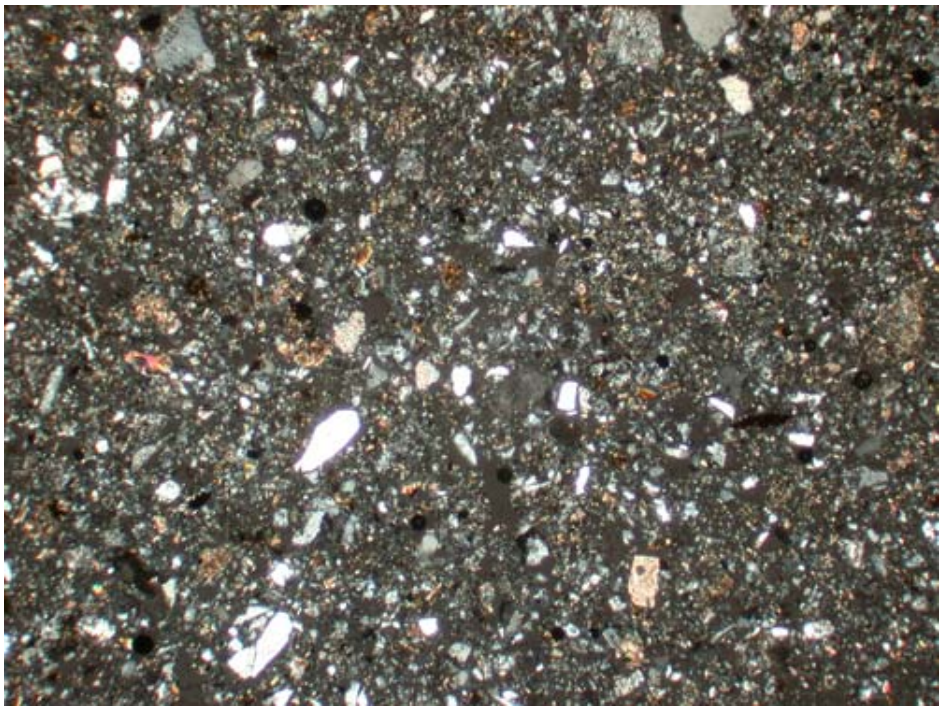
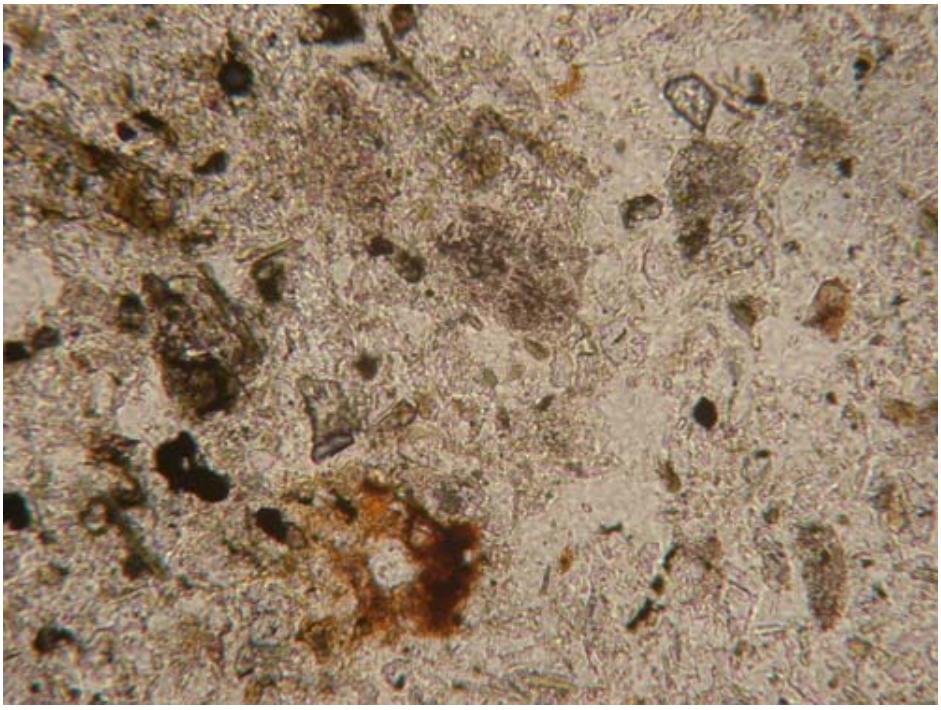


B

CEMI-21: General view of powder. A) PPL, B) XPL, FOV~ 4.5 mm.



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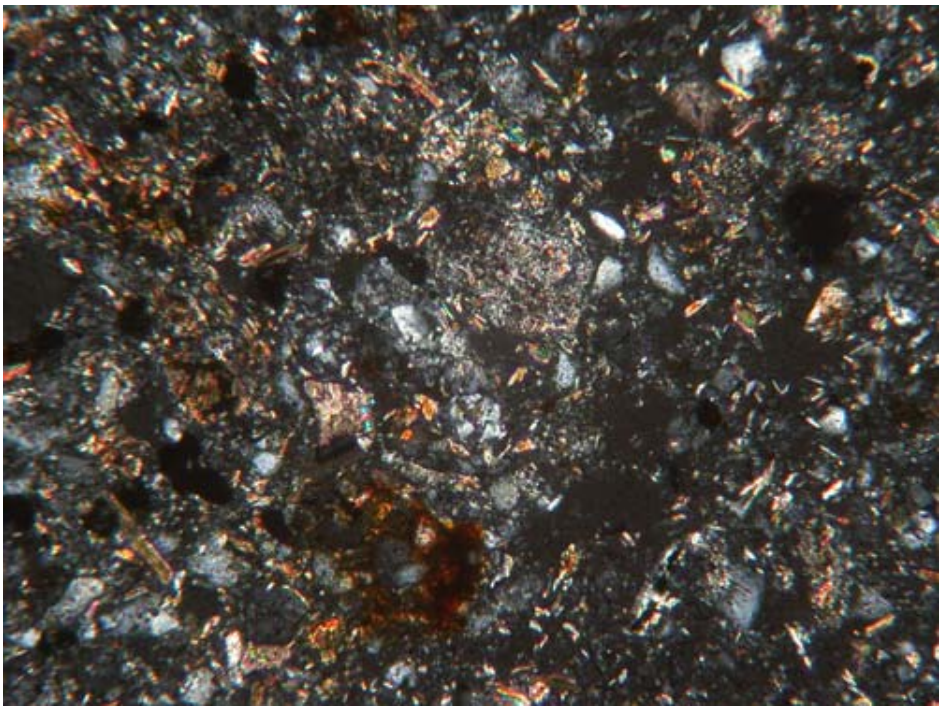
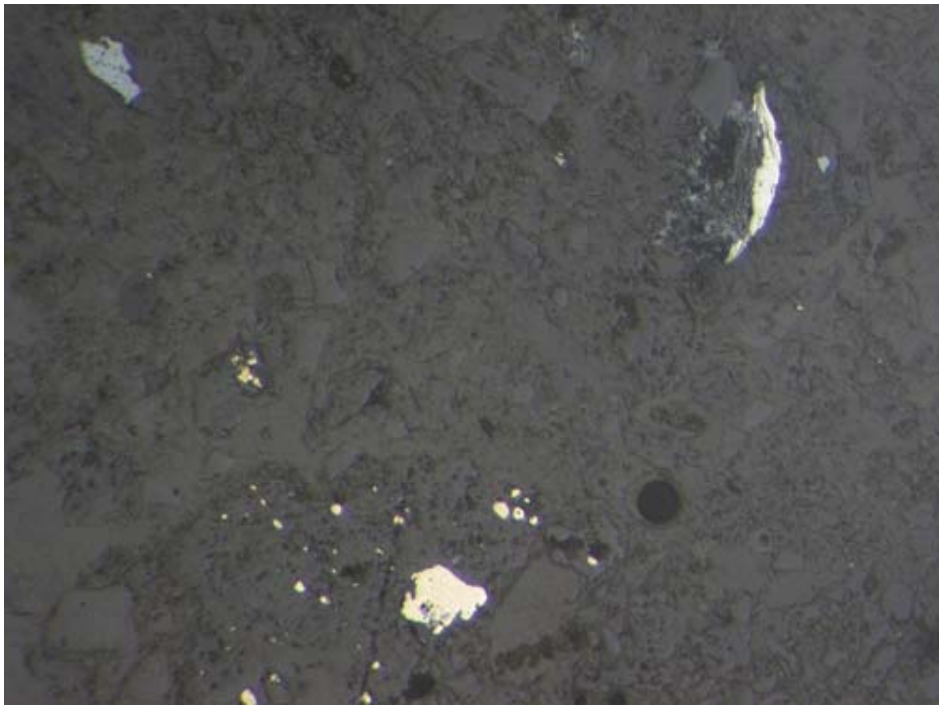
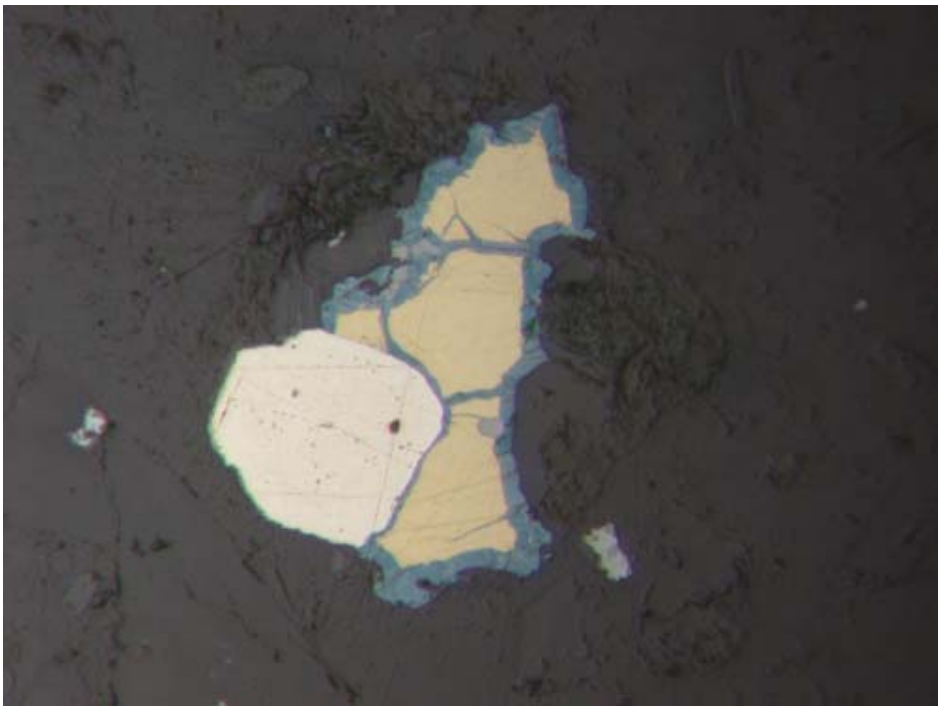


D

CEMI-21: Detailed view of powder. Note colourless carbonate (left of centre), Fe-oxyhydroxide (below centre), K-feldspar-altered grains and abundant secondary biotite. A) PPL, B) XPL, FOV~ 0.85 mm.



E



F

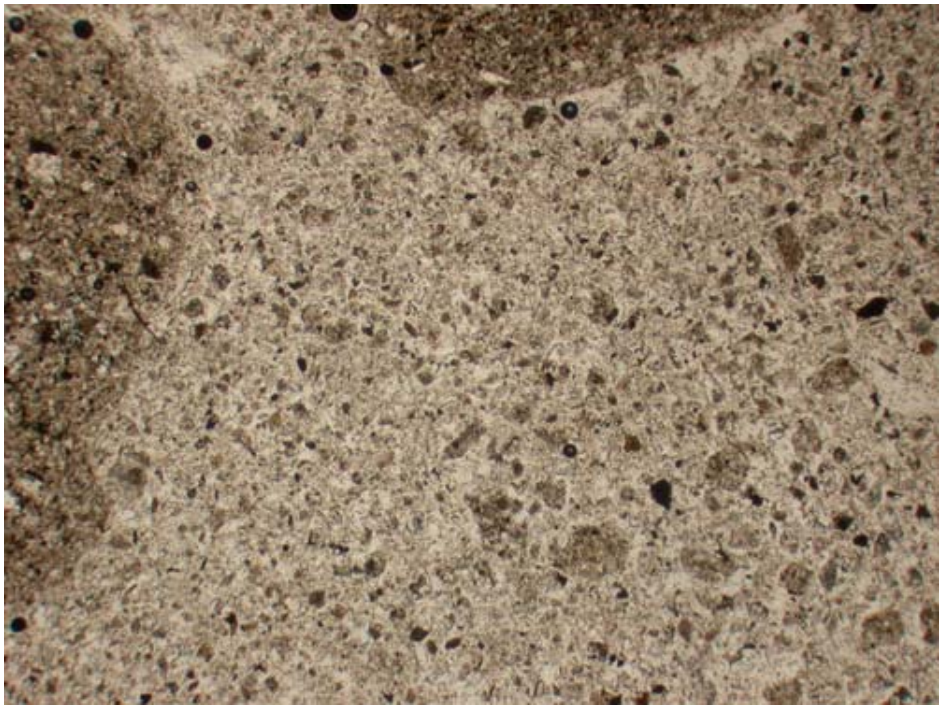
CEMI-21: E) Top, marcasite partly replaced by hematite (top right) and disseminated pyrite (lower portion of photo). RL, FOV =~ 1.4 mm, F) Bottom, pyrite and chalcopyrite. Digenite and covellite rim and partly replace chalcopyrite. RL, FOV =~ 0.3 mm

CEMI-22
Sample ID: pail sample - sample 1 - bulk cleaner - scavenger tailings

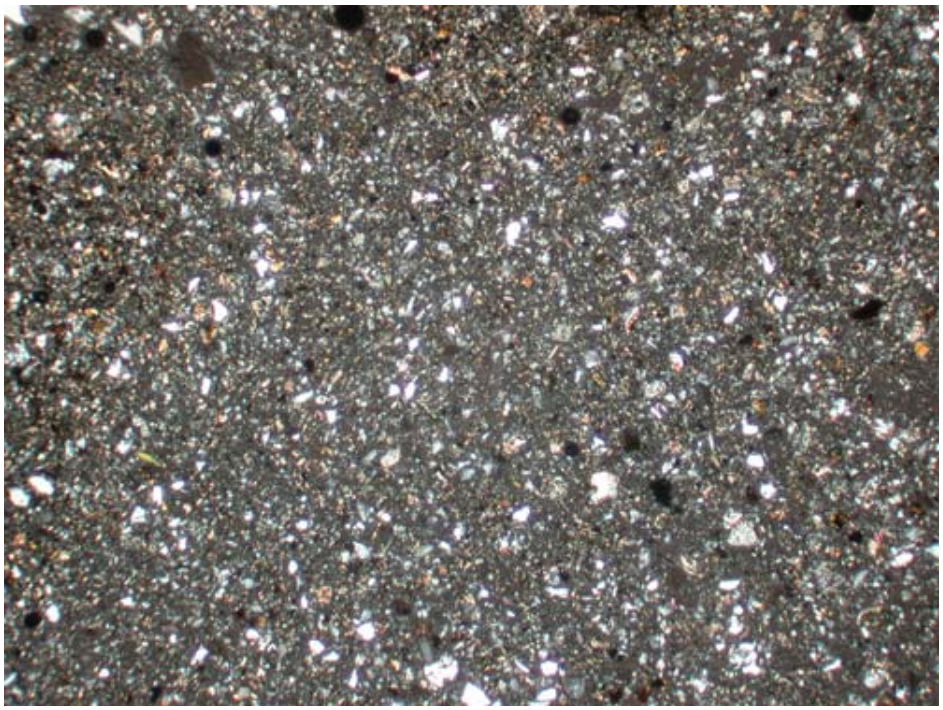
Chip/Powder and Stained Mount Description: (stained mount not available)
Pale gray-tan powder. No reaction to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Fine to very fine-grained powder. Secondary green, shreddy biotite comprises approximately 15% of the section. Aphanitic brown K-feldspar aggregate occurs as replacement of plagioclase grains. K-feldspar comprises approximately ?10-30% of the section. The plagioclase grains are overprinted by patchy very fine-grained biotite or trace sericite alteration. Anhedral quartz fragments comprise approximately 5% of the section. Trace carbonate occurs mostly as anhedral colourless and lesser very fine-grained brown varieties. Traces of very fine-grained apatite crystals occur disseminated. Disseminated rutile comprises approximately 1% of the section.

Total sulphide occurs as trace amounts as pyrite, chalcopyrite, rarely marcasite, bornite and covellite. Pyrite occurs as very fine-grained anhedral liberated grains and occurs rarely enclosed by chalcopyrite. Pyrite boundaries are irregular to smooth but clean; some pyrite grains are locally pitted. Trace chalcopyrite occurs as very fine-grained anhedral grains. Chalcopyrite is sometimes partly replaced by bornite and rimmed by covellite. Rare marcasite occurs as very fine grains. Traces of very fine-grained magnetite occur disseminated. Trace Fe-oxyhydroxide occurs as liberated anhedral grains and aggregates and less commonly partly replacing magnetite.

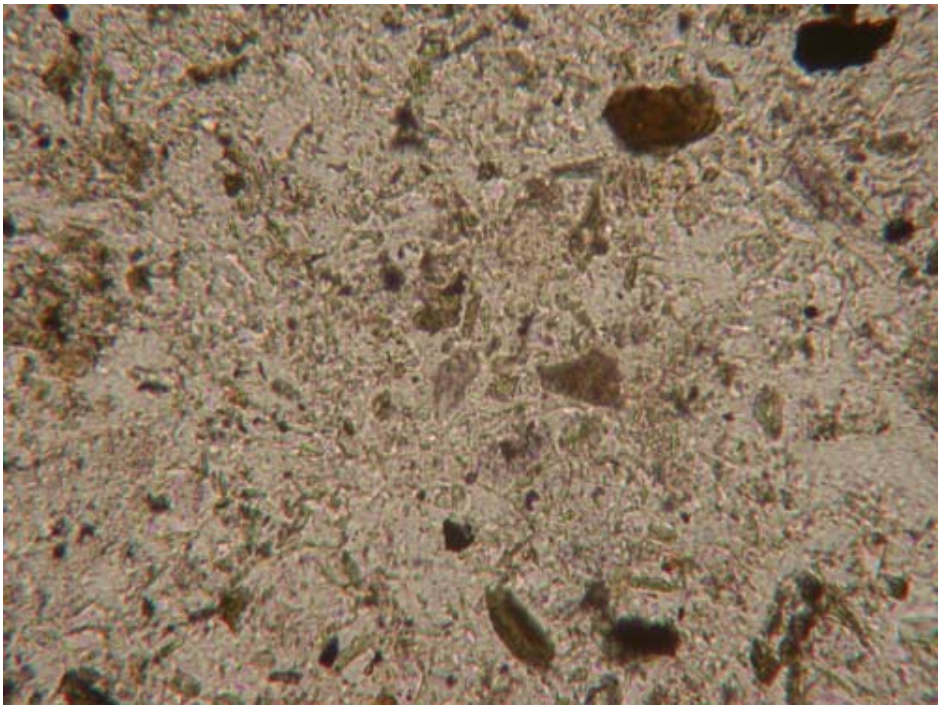


A

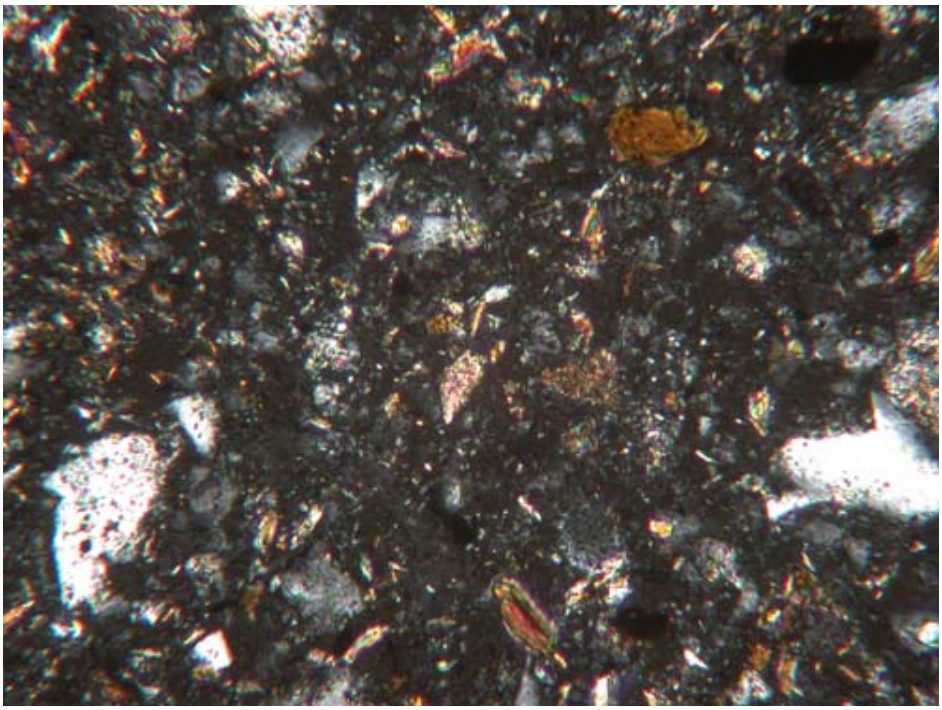


B

CEMI-22: General view of powder and clumping aggregates. A) PPL, B) XPL, FOV~ 4.5 mm.

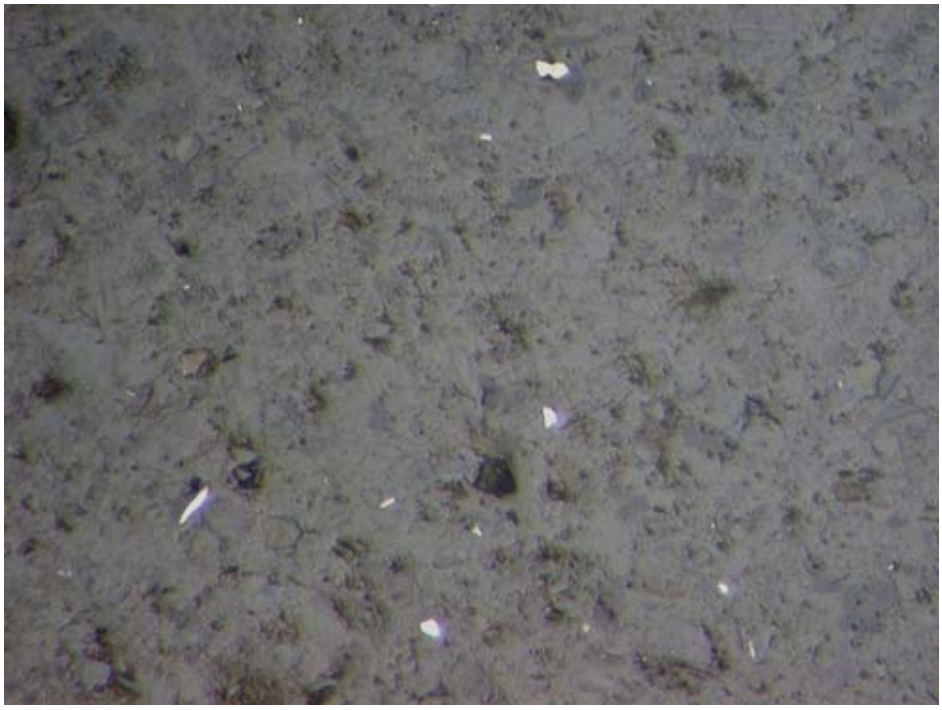


C

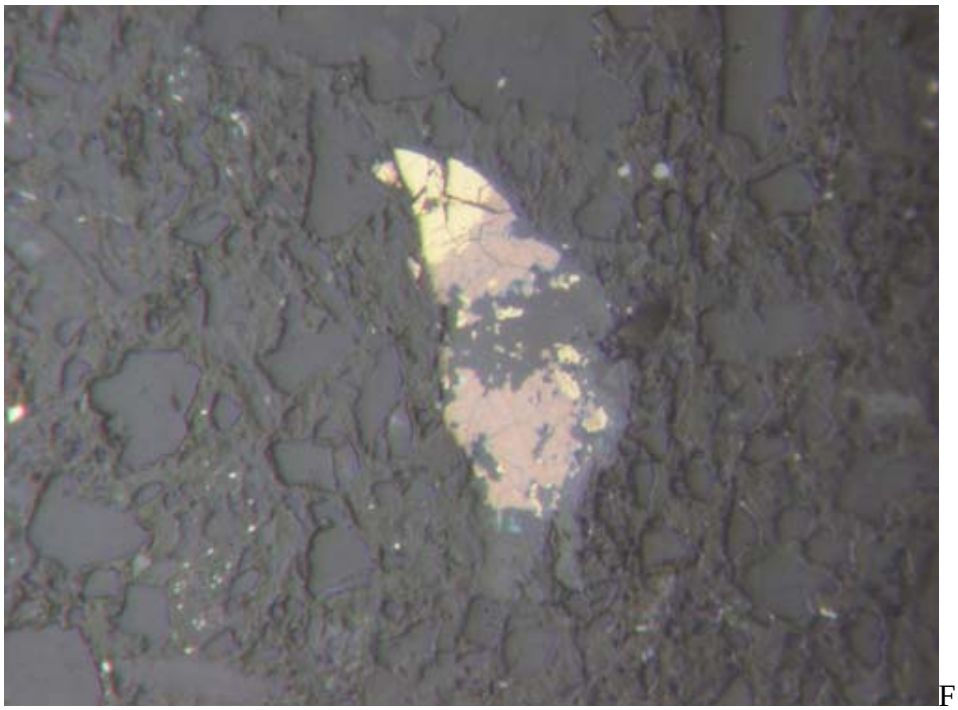


D

CEMI-22: Detailed view of powder. Note colourless carbonate (centre), very fine-grained brown carbonate aggregate (right of centre), and secondary shreddy biotite. A) PPL, B) XPL, FOV~ 0.6 mm.



E



F

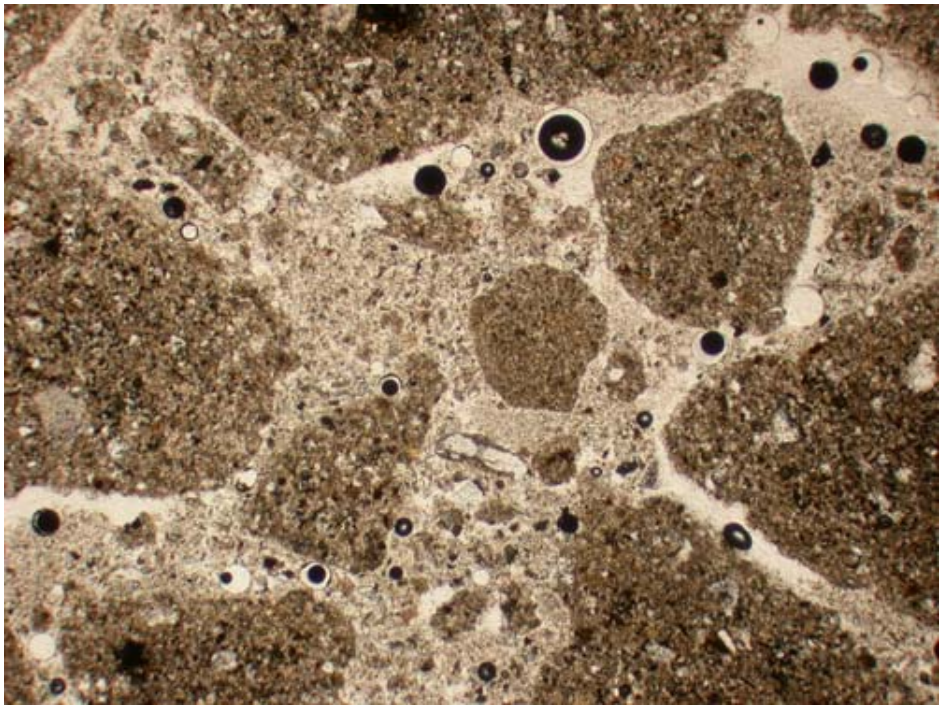
CEMI-22: E) Top, disseminated pyrite without development of oxide rims. RL, FOV =~ 0.95 mm, F) Bottom, chalcopyrite replaced by bornite and covellite. RL, FOV =~ 0.25 mm

CEMI-23
Sample ID: drum 2 - sample 2 - bulk cleaner - scavenger tailings

Chip/Powder and Stained Mount Description: (stained mount not available)
Tan powder. K-feldspar present in mount (based on stain). No reaction to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Fine to very fine-grained powder. Secondary green, shreddy biotite comprises approximately 30% of the section. Aphanitic brown K-feldspar aggregate occurs disseminated (based on stained offcut). K-feldspar comprises approximately ?10-30% of the section. The plagioclase grains are overprinted by patchy very fine-grained biotite which is locally partly replaced by sericite alteration. Anhedral quartz fragments comprise approximately 5% of the section. Trace carbonate occurs mostly as anhedral colourless grains. Traces of very fine-grained apatite crystals occur disseminated. Disseminated rutile comprises approximately 3% of the section.

Total sulphide, approximately 1%, occurs as trace amounts of pyrite, chalcopyrite and rarely marcasite, digenite and covellite. Pyrite occurs as very fine-grained anhedral liberated grains and occurs rarely with chalcopyrite. Pyrite boundaries are irregular to smooth but clean; some pyrite grains are locally pitted. Trace chalcopyrite occurs as very fine-grained anhedral grains; chalcopyrite locally enclosed pyrite. Chalcopyrite is rarely rimmed and replaced by digenite and covellite. Rare marcasite occurs as very fine grains. Traces of very fine-grained magnetite occur disseminated. Minor Fe-oxyhydroxide, approximately 1%, occurs as liberated anhedral grains and aggregates and less commonly partly replacing magnetite.



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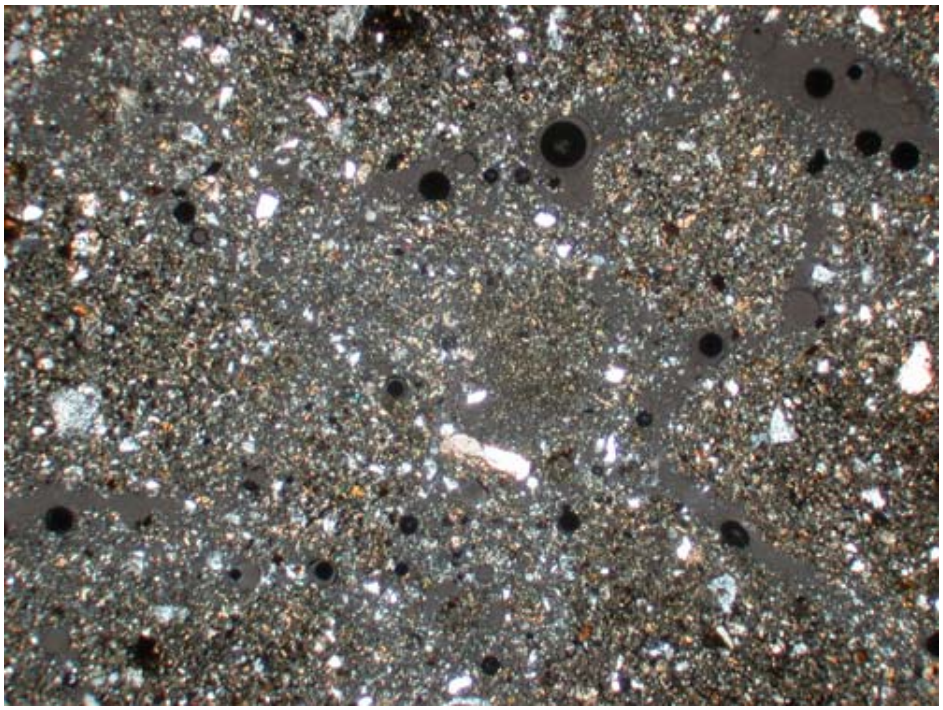
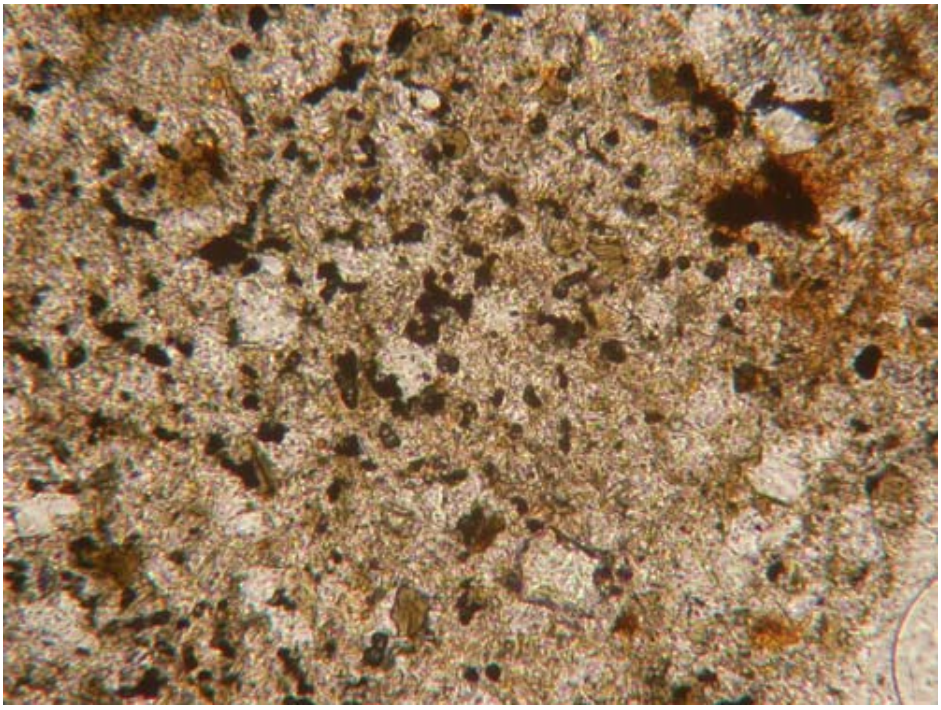


B

CEMI-23: General view of powder and clumping aggregates. A) PPL, B) XPL, FOV~ 4.5 mm.



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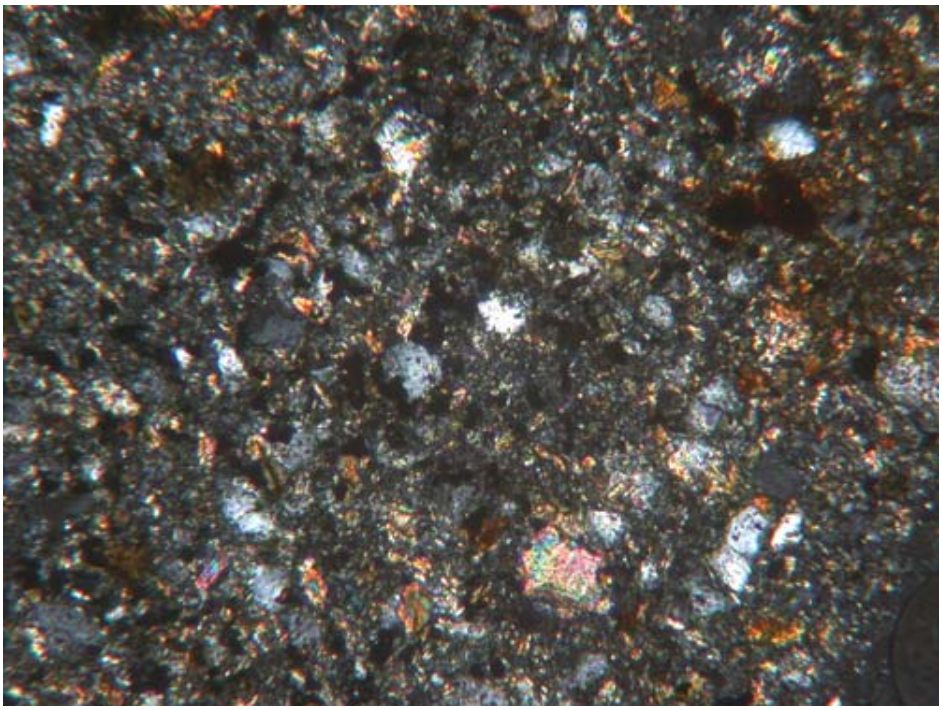
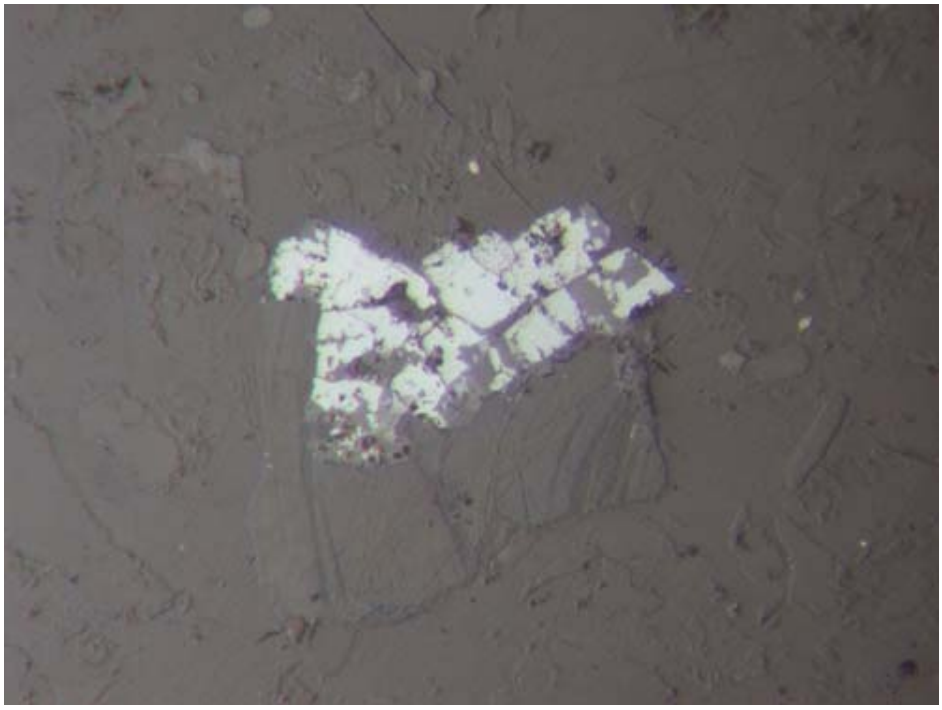
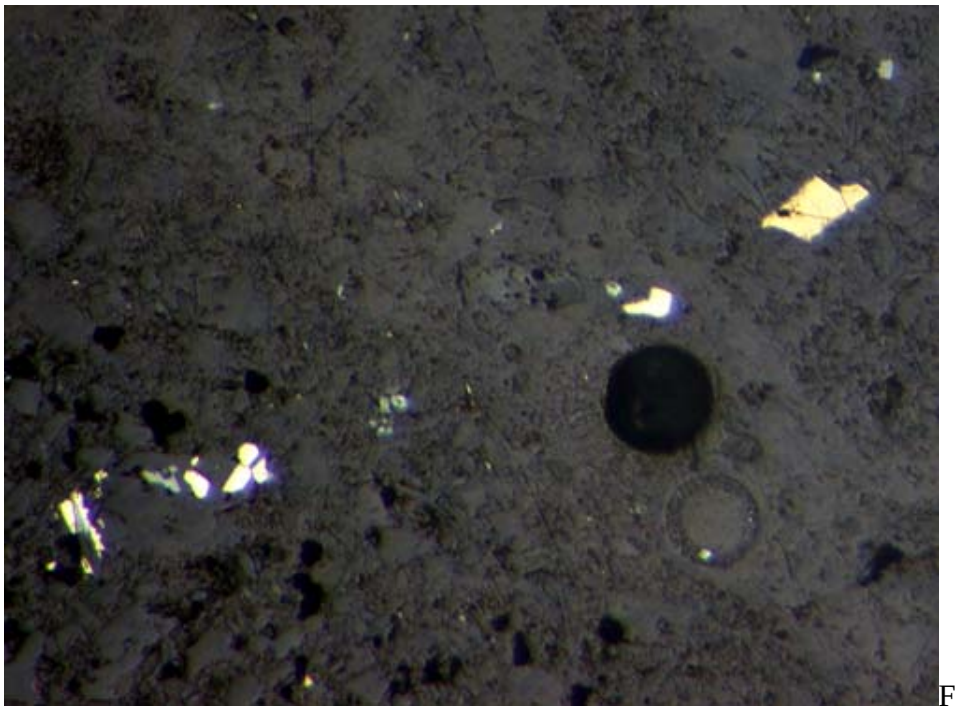


D

CEMI-23: Detailed view powder. Note colourless carbonate (lower right), Fe-oxyhydroxides (top right), and abundant disseminated rutile. A) PPL, B) XPL, FOV~ 0.7 mm.



E



F

CEMI-23: E) Top, hematite replaces cubic magnetite aggregate within biotite plate. RL, FOV =~ 0.25 mm, F) Bottom, grains of rutile, pyrite, hematite and chalcopyrite. RL, FOV =~ 0.95 mm

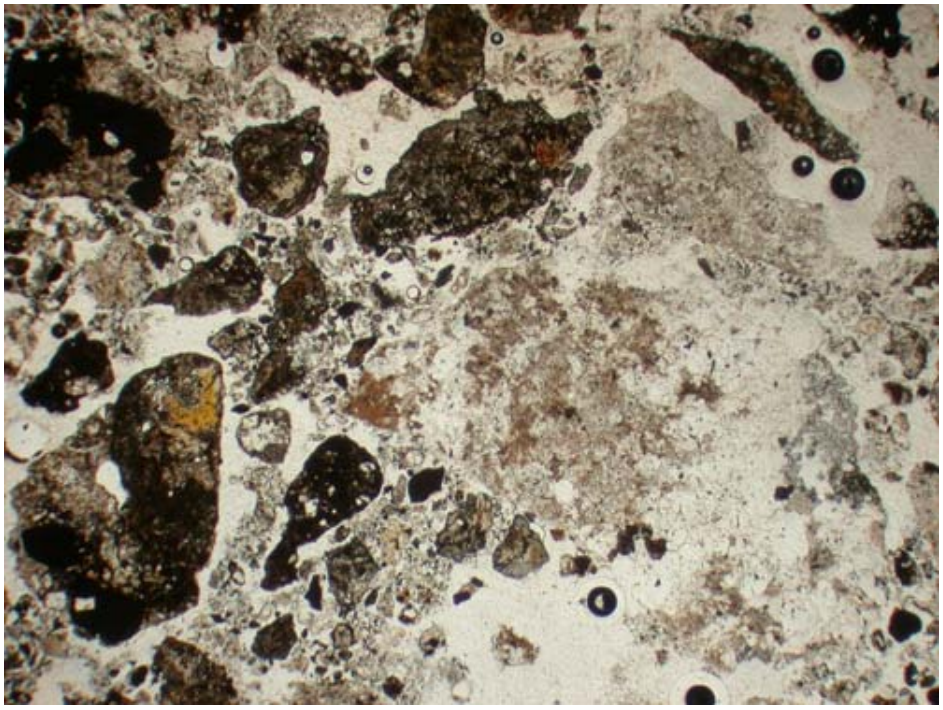
CEMI
Sample ID: 4157-439-471 **Rock Type:** ?Breccia

Chip/Powder and Stained Mount Description:
Tan to cream, very coarse-sized chips (up to 24mm size) comprise nodular sandstone fragments with a fine tan-brown iron oxidized cement, pervasively quartz-sericite-pyrite altered fragments and submm quartz veinlets. Calcite occurs locally as patches in the nodular chips. No reaction to magnet.

Thin Section Description:
Fine to coarse chips (up to 7mm maximum size) of nodular carbonate-hematite/?goethite-quartz±limonite±pyrite±marcasite rock, quartz-sericite-clay-rutile±pyrite altered rock, hematite-carbonate altered very fine-grained seriate textured ?basalt with quartz amygdales, fine-grained quartz, quartz-carbonate-hematite and quartz-pyrite veinlets and liberated grains of carbonate, pyrite and hematite. The nodular carbonate-hematite-quartz±pyrite±marcasite rock comprises fine-grained, colourless anhedral carbonate aggregate rimmed, partly replaced, partly stained and fractures healed by a very fine-grained red-brown hematite or a brown ?goethite aggregate and/or a yellow limonitic aggregate. Locally, a very fine-grained anhedral brown to rhombic colourless carbonate partly replaces the colourless carbonate. Anhedral fine-grained quartz occurs locally as clusters and pyrite occurs as irregular patches in some fragments. The quartz-sericite-clay-rutile±pyrite altered rock comprises fine-grained quartz, fine to very fine-grained sericite and aphanitic brown clay material as replacement of pre-existing rock. Minor pyrite and trace rutile occur disseminated. The quartz-sericite altered rock is locally overprinted by patchy colourless carbonate with hematite/limonite. Carbonate comprises approximately 20% of the section mostly as fine-grained colourless and approximately 3-4% as brown varieties. Sericite comprises approximately 15% of the section. Brown clay comprises approximately 5% of the section.

Total sulphide, 5%, comprises dominantly pyrite with minor marcasite and traces of chalcopyrite. Pyrite, approximately 3%, occurs disseminated as fine to very fine-grained, anhedral disseminated grains and aggregates within nodular carbonate rock, quartz-sericite altered rock, quartz veinlets and as liberated grains. Pyrite commonly contains inclusions of chalcopyrite and/or pyrrhotite. Pyrite boundaries are irregular and some grains are locally fractured with boundaries rimmed by red-brown Fe-oxide material. Pyrite grains occur with anhedral marcasite within nodular carbonate rock chips. Marcasite comprises approximately 2% of the section. Marcasite grains are typically fractured and boundaries rimmed by hematite or ?goethite. Traces of chalcopyrite occur healing fractures in pyrite within quartz-sericite altered rock. Hematite comprises approximately 3 % of the section; brown ?goethite comprises approximately 2% of the section and yellow limonite approximately 1%.

Limonitic material within the sample may contain jarosite, but would require SEM or Rietveld XRD for confirmation.



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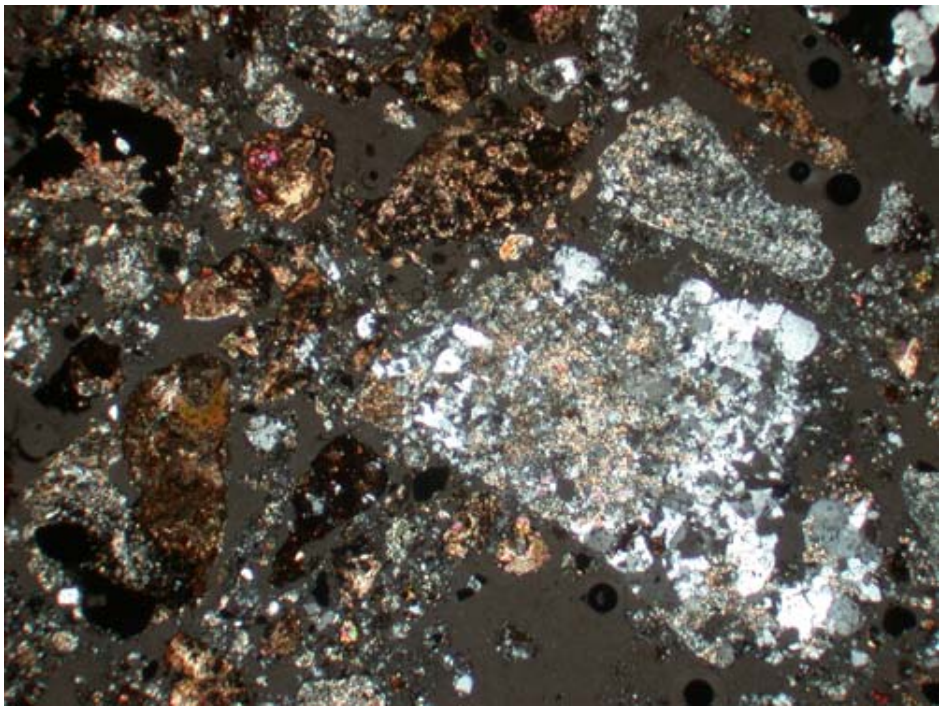
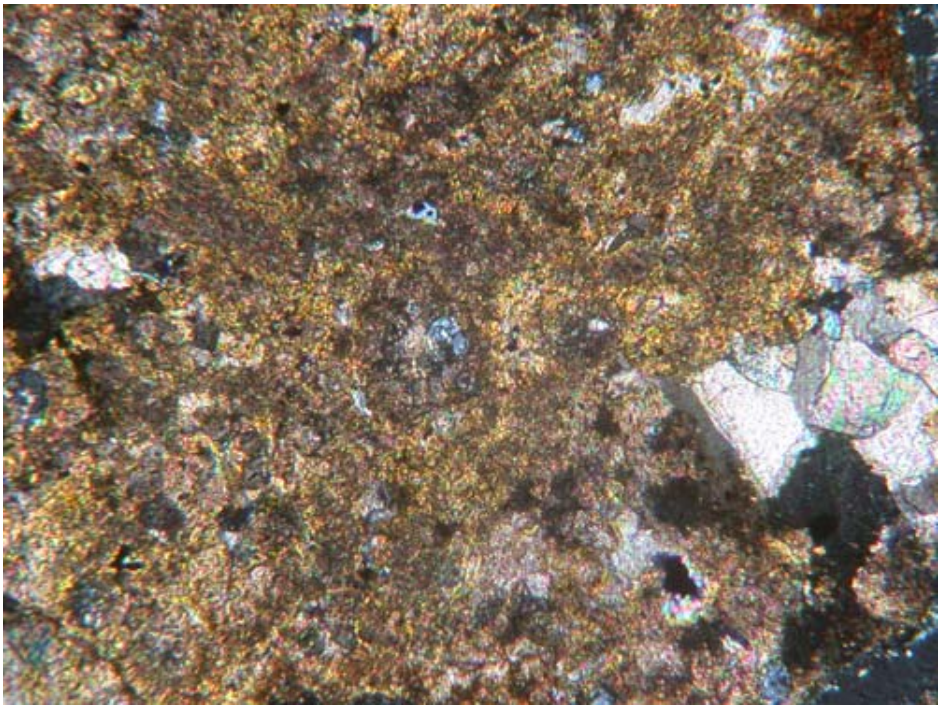


B

4157-439-471: A) Representative view of carbonate-hematite/goethite-quartz-limonite rock and quartz-sericite-clay altered rock chips. A) PPL, B) XPL, FOV ~ 4.5 mm.



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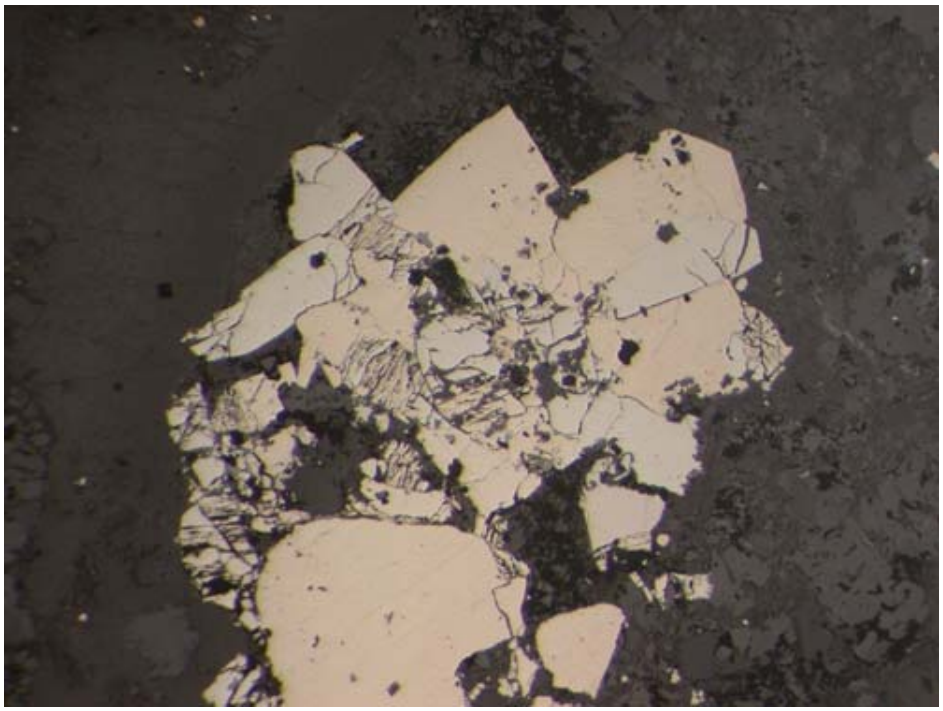


D

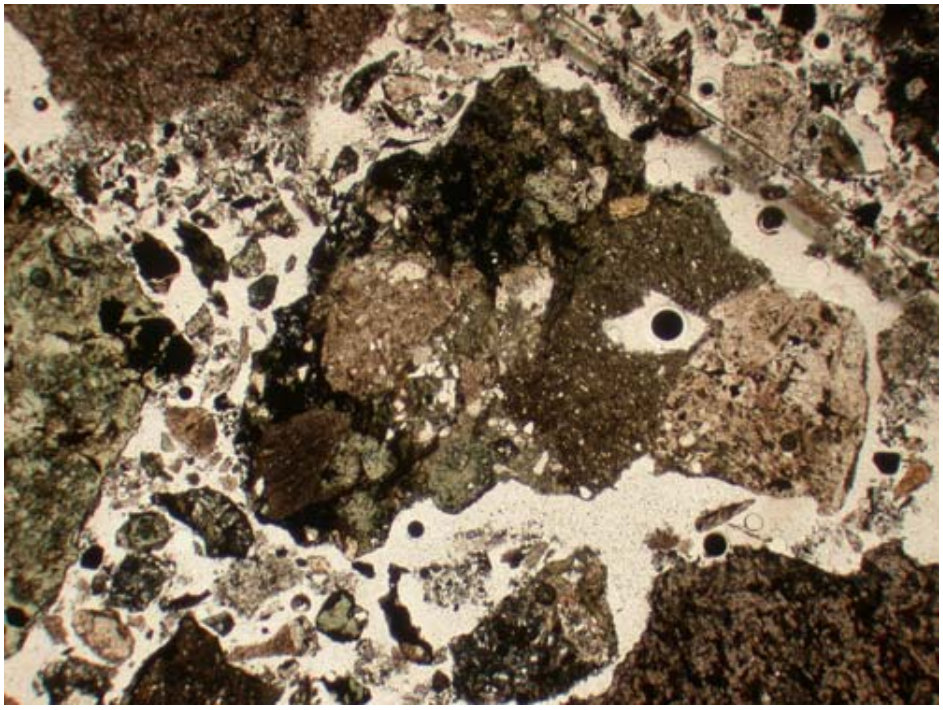
4157-439-471: C) Top, fine-grained carbonate partly replaced by very fine-grained brown carbonate and limonite. XPL, FOV =~ 0.9 mm, D) Bottom, pyrite and highly fractured marcasite rimmed by very fine-grained hematite aggregate. RL, FOV =~ 2.0 mm.

CEMI
Sample ID: 4292-415-430 **Rock Type:** Polylithic breccia

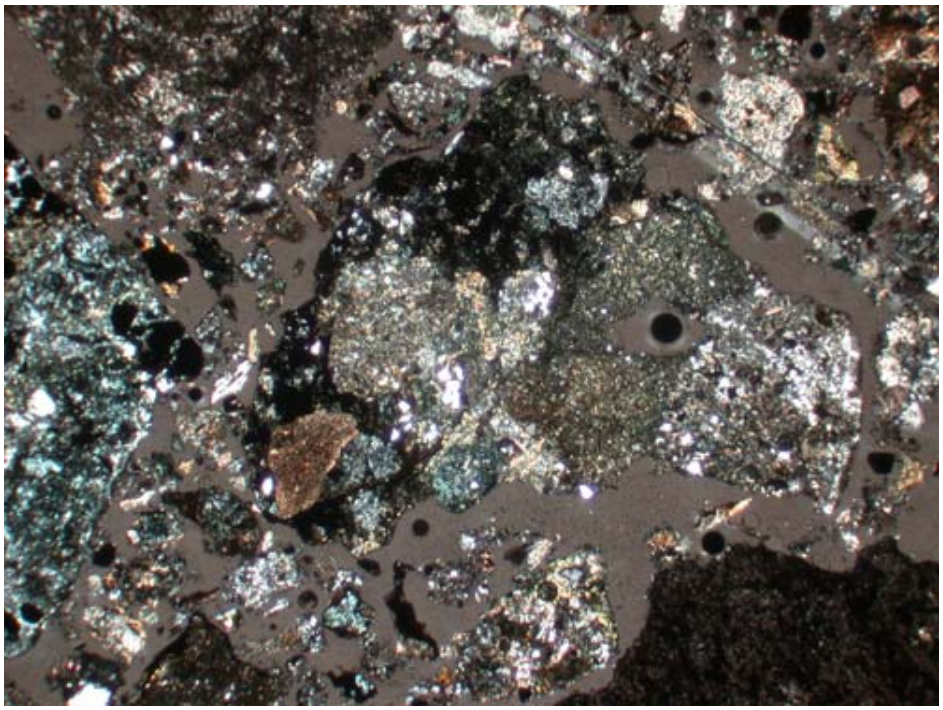
Chip/Powder and Stained Mount Description:
Fragmental maroon/ grey/ black rock, very coarse-sized chips (up to 22mm size). Chips comprise angular clasts (up to approximately 2 cm size) in a fine-grained black-maroon matrix. Minor pyrite occurs disseminated in both clasts and matrix. Red-brown powder coats chips; locally orange-brown material as stain. No reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Fine powder to coarse chips (up to 11mm maximum size) of chlorite-carbonate-hematite, quartz-sericite, and chlorite-sericite-clay altered polylithic pebble breccia. Breccia fragments include chlorite – sericite ± hematite altered mudstone with scattered quartz crystals, chlorite-sericite altered fine-grained porphyritic rock, carbonate-chlorite altered amygdaloidal rock, fine-grained mudstone and chlorite altered clasts cemented by hematite, fine-grained quartz-sericite-rutile altered rock, massive chlorite with disseminated pyrite, fragments of quartz, chlorite and carbonate cemented by hematite and numerous liberated fragments of carbonate, hematite, pyrite and chlorite. Carbonate comprises approximately 5% of the section as dominantly fine to very fine-grained colourless varieties overprinted by traces of very fine-grained brown carbonate aggregate. The colourless carbonate is typically anhedral, locally zoned, and occurs as patchy irregular replacement of rock chips and, typically with chlorite and/or hematite, as concentrically zoned infill. Aphanitic chlorite occurs as replacement of mafic crystals, patchy replacement and as infill; it comprises approximately 7% of the section. Sericite occurs as flaky aggregates with microcrystalline quartz as replacement of rock chips; sericite comprises approximately 3% of the section. Trace rutile occurs disseminated.

Total sulphide, 2%, comprises dominantly pyrite with traces of chalcopyrite and marcasite. Pyrite occurs disseminated as fine to very fine-grained, variably pitted and fractured grains and aggregates. Pyrite boundaries vary from smooth and clean to irregular, careous and spongy marcasite. Corroded pyrite boundaries are rimmed by black, recessive weathering Fe-oxyhydroxides or red-brown, very fine-grained material. Pyrite occurs with anhedral to radiating tabular marcasite aggregate (see photos). Traces of anhedral chalcopyrite surround and heal fractures in pyrite. Chalcopyrite and pyrrhotite occur locally as inclusions in pyrite. Marcasite and chalcopyrite boundaries are both typically rimmed by red-brown or black secondary material. Hematite occurs as fine to very fine-grained anhedral aggregates as patchy replacement of matrix to breccia clasts and very fine-grained mudstone, as concentrically zoned infill and as liberated fragments; hematite comprises approximately 2% of the section.

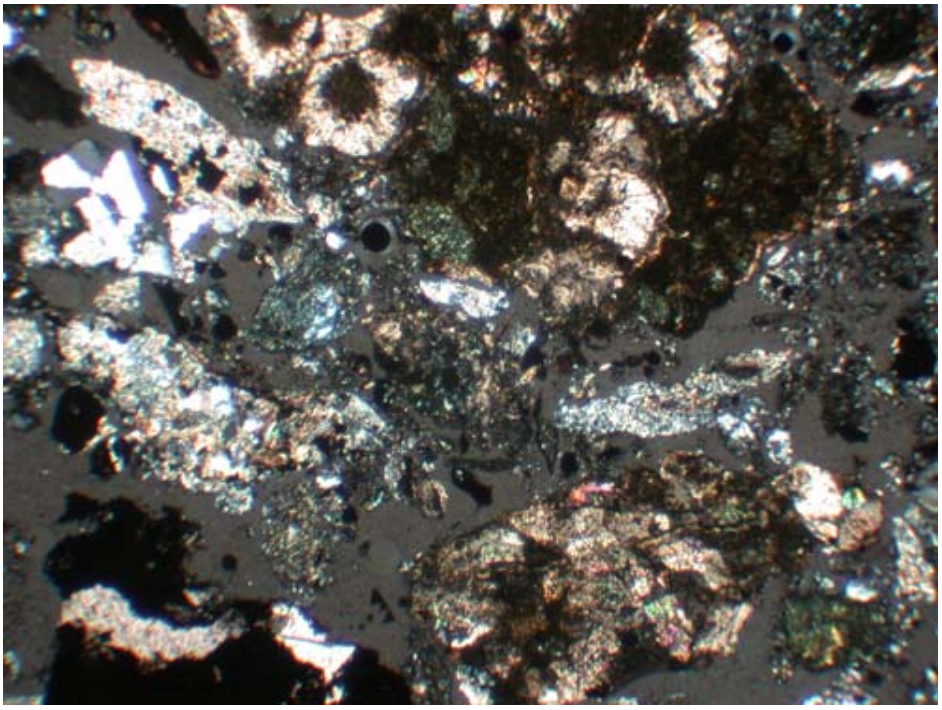


A

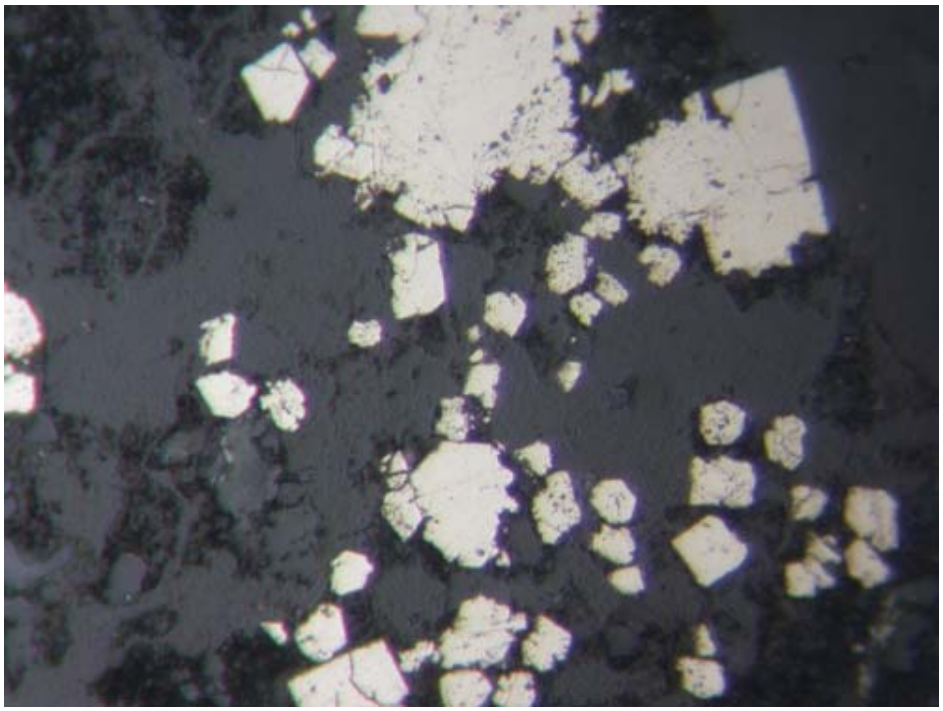


B

4292-415-430: A) Representative view of chlorite-carbonate-hematite, quartz-sericite and chlorite-sericite-clay altered polylithic breccia. A) PPL, B) XPL, FOV ~ 4.5 mm.

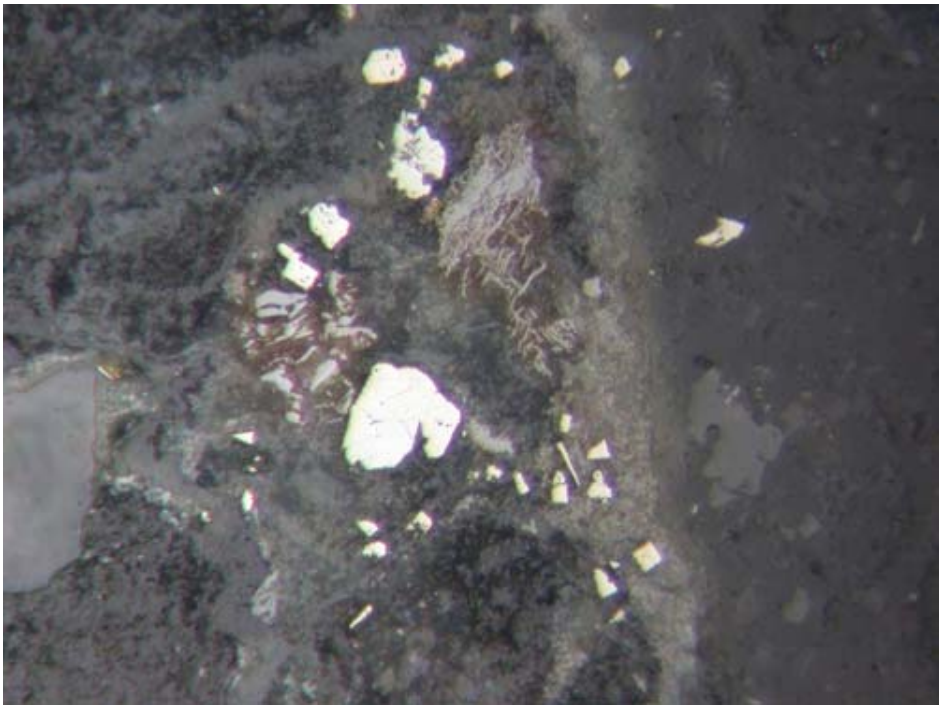


C

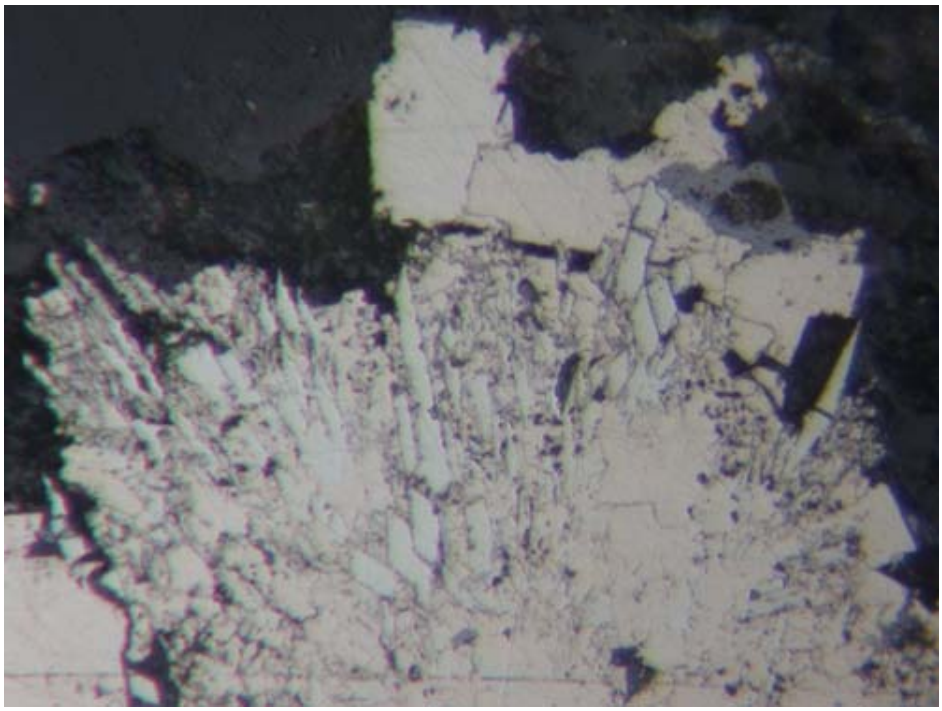


D

4292-415-430: C) Top, carbonate as patchy replacement (lower right) and as concentrically zoned infill (top). XPL, FOV =~ 2.8 mm, D) Bottom, cubic pyrite with corroded, pitted and spongy marcasite rims. RL, FOV =~ 0.3 mm.



E



F

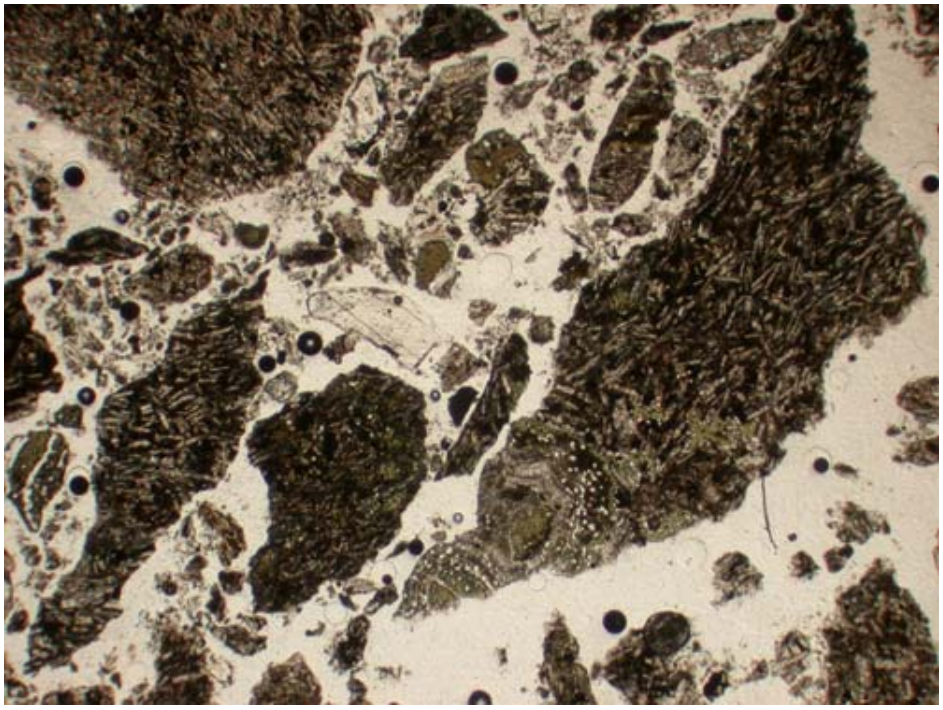
4292-415-430: E) Top, pitted and corroded pyrite and anhedral hematite aggregate. RL, FOV =~ 0.3 mm, F) Bottom, radiating tabular marcasite occurs with pitted and corroded pyrite. RL, FOV =~ 0.2 mm.

CEMI
Sample ID: 4292-685-695 **Rock Type:** Amygdaloidal basalt

Chip/Powder and Stained Mount Description:
Fragmental dark green/black basalt and light grey/green very fine-grained chloritic rock as very coarse-sized chips (up to 22mm size). Infill includes concentrically banded chlorite, quartz and carbonate as well as patches of marcasite (approximately 1%). Chlorite, quartz and carbonate also occur as concentrically banded amygdales. Traces of K-feldspar occur disseminated in some of the basalt chips in the stained mount (based on stain). Calcite occurs as pervasive alteration of the basalt and as matrix to the grey/green rock as recognized by reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Fine powder to coarse chips (up to 7mm maximum size) of chlorite-carbonate-hematite altered brecciated, seriate-textured basalt with carbonate, chlorite, and quartz filled amygdales and minor marcasite, chlorite, carbonate and quartz as breccia infill. Abundant liberated fine fragments of carbonate, chlorite and traces of marcasite. The seriate-textured basalt consists of dominantly carbonate altered-plagioclase laths, disseminated hematite, likely after magnetite, and selectively pervasive chlorite-carbonate-smectite(nontronite) , replacement of former mafic phases and groundmass. Calcite, chlorite and quartz occur as amygdales. Carbonate comprises approximately 20% of the section as dominantly fine to very fine-grained colourless varieties. Calcite comprises some of the carbonate which occurs as amygdales, infill and liberated fragments (based on reaction to HCl). Anhedral colourless carbonate occurs as replacement of plagioclase. Rare traces of very fine-grained brown carbonate occurs in some chips partly replacing the anhedral colourless carbonate. Chlorite and nontronite (smectite) comprise approximately 10% of the section.

Total sulphide, 2%, comprises dominantly marcasite and traces of disseminated chalcopyrite. Marcasite occurs as fine to very fine-grained, anhedral grains and aggregates as breccia infill, locally as replacement of basalt groundmass and as liberated grains. Marcasite boundaries are irregular and some grains are locally fractured with boundaries rimmed by red-brown Fe-oxide material. Hematite occurs disseminated as eu-anhedral grains after magnetite and locally with relict martite texture preserved. Hematite comprises approximately 5% of the section.



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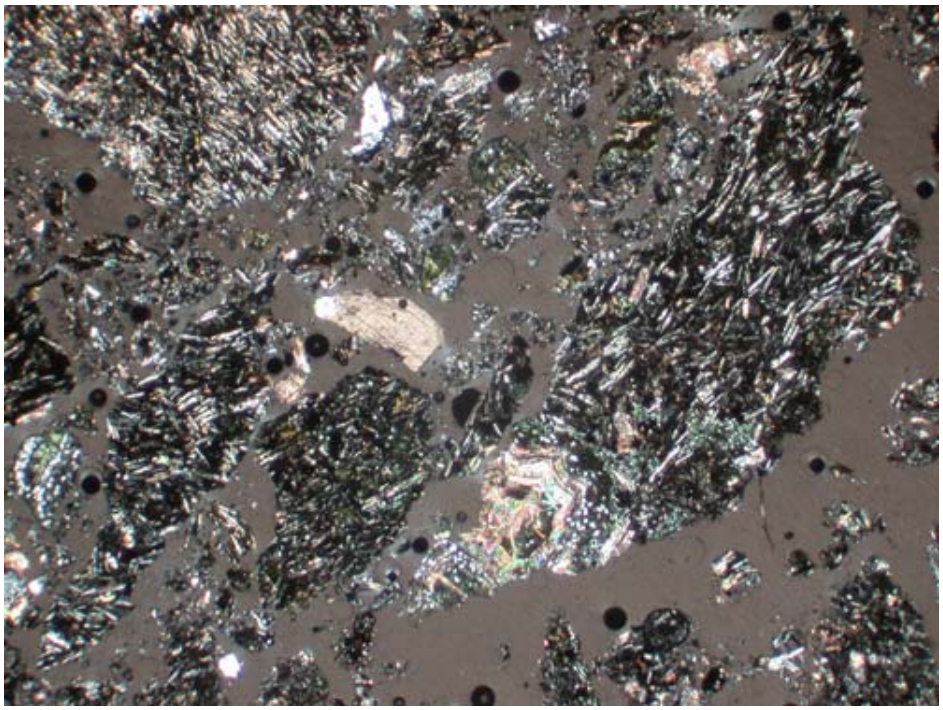
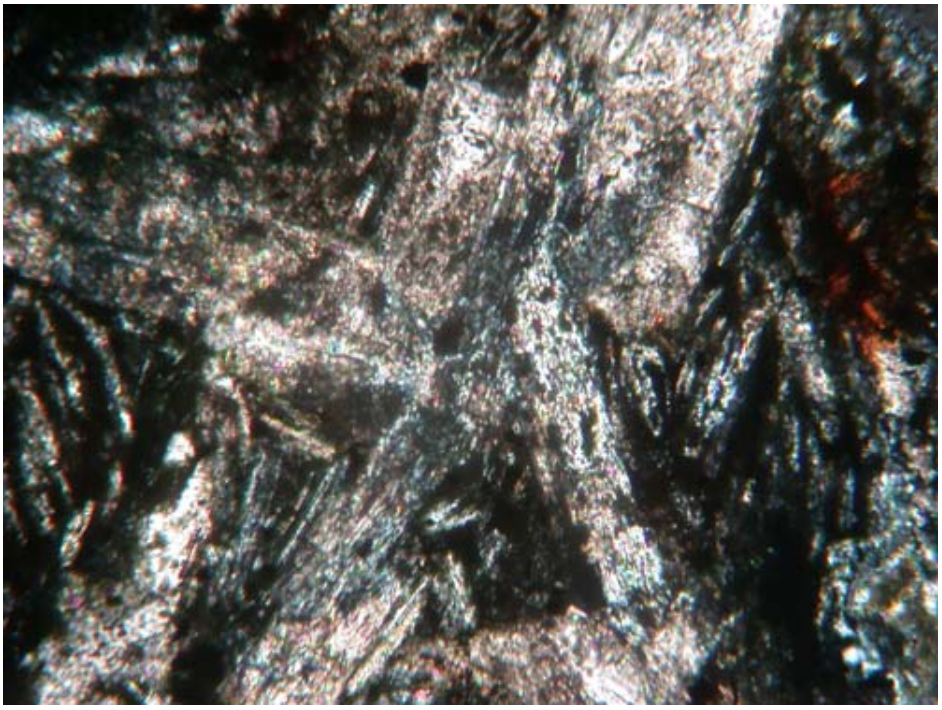
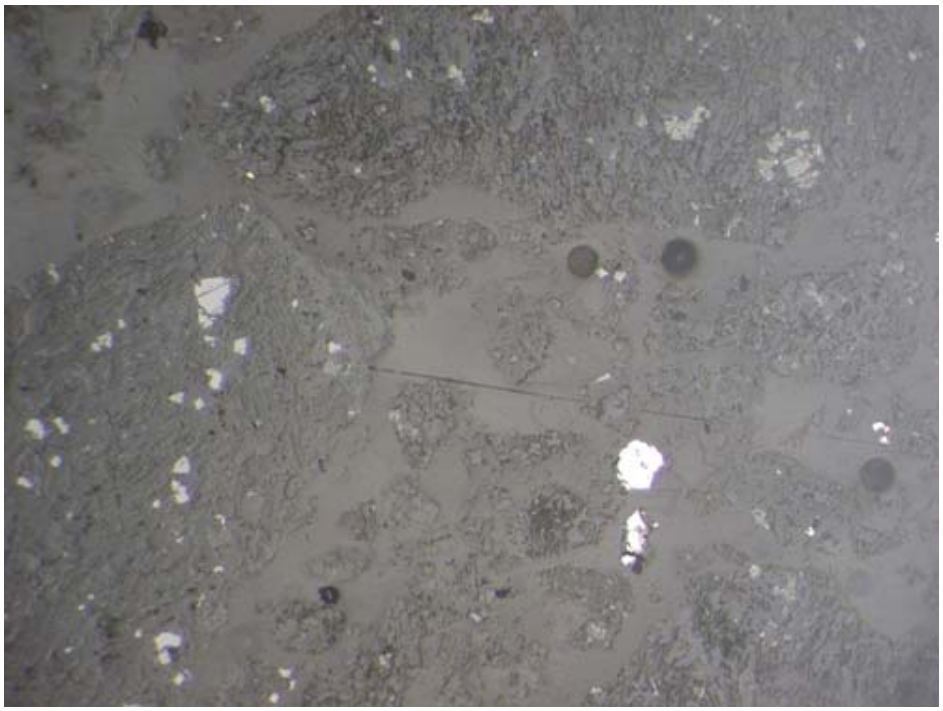


B

4292-685-695: A) Representative view of chlorite-carbonate-hematite altered seriate-textured basalt with carbonate-chlorite amygdales. A) PPL, B) XPL, FOV ~ 4.5 mm.

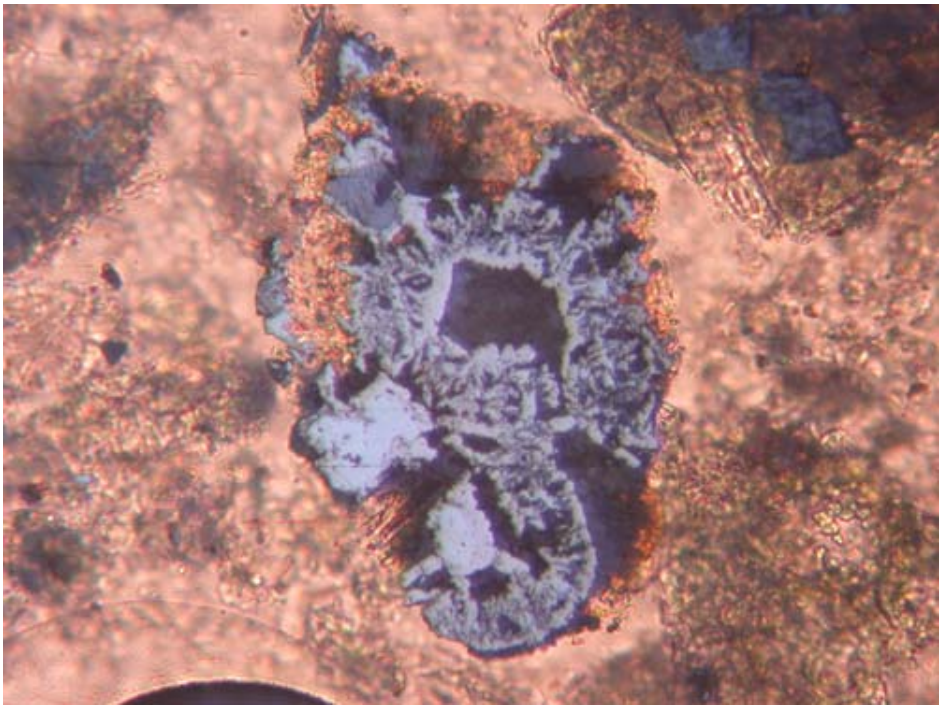


C

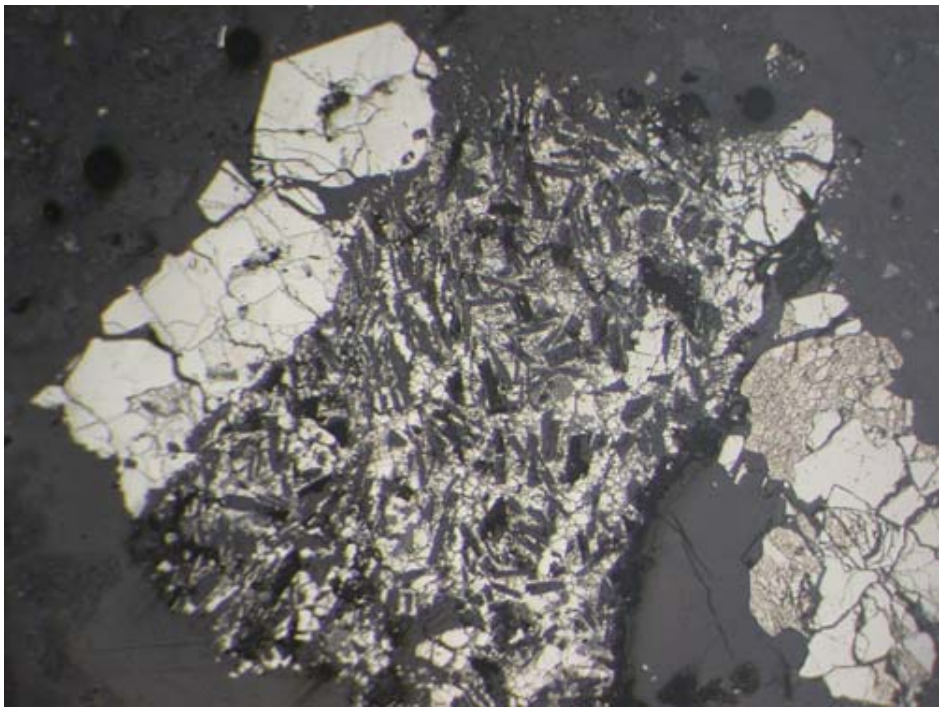


D

4292-685-695: C) Top, plagioclase laths selectively replaced by carbonate. XPL, FOV =~ 0.9mm, D) Bottom, disseminated hematite within fragments and liberated marcasite grains. RL, FOV =~ 0.4mm.



E



F

4292-685-695: E) Top, liberated marcasite grains rimmed by red-brown Fe-oxide material. PPL + RL, FOV =~ 0.25mm, F) Bottom, massive marcasite and replacement of basalt matrix by marcasite. RL, FOV =~ 0.4mm.

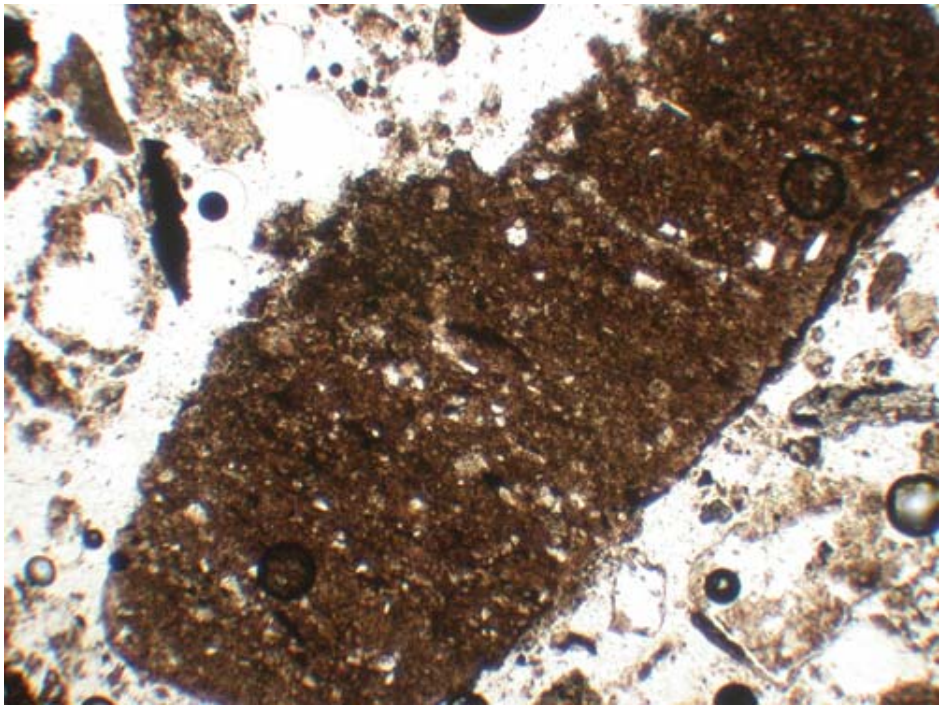
CEMI
Sample ID: 115-0054-0066 **Rock Type:** Siltstone

Chip/Powder and Stained Mount Description:
Medium-grey mudrock as powder to very coarse-sized chips (up to 22mm size). K-feldspar occurs disseminated in some chips comprising approximately 3% of the stained mount (based on stain). Very slight reaction of chips to cold dilute HCl. No reaction to magnet.

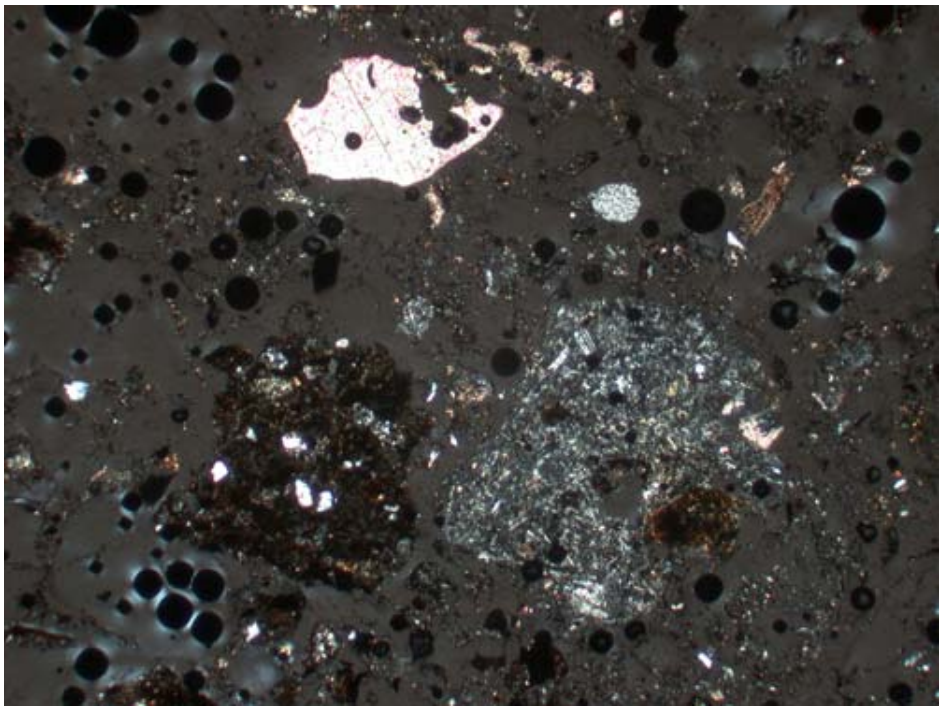
Thin Section Description:
Fine powder to coarse chips (up to 12mm maximum size) of coarse siltstone and minor fine-grained sandstone, porphyritic basalt and liberated carbonate fragments. The siltstone comprises up to 3-5% very fine-grained anhedral quartz fragments in a brown clay-rich matrix. The siltstone is locally vaguely laminated and hematitic. The sandstone contains dominantly quartz and lithic fragments with minor feldspar in a fine-grained matrix that comprises more than 15% of the rock. The porphyritic basalt fragments comprise fine-grained plagioclase phenocrysts in a very fine-grained matrix dominated by plagioclase laths. Carbonate comprises approximately 15% of the section and occurs dominantly as fine to very fine-grained colourless and lesser very fine-grained brown varieties. Colourless carbonate occurs dominantly as liberated fragments, partly replacing plagioclase in porphyritic basalt fragments and liberated plagioclase fragments, and as patchy replacement of siltstone and sandstone. Brown carbonate occurs as very fine-grained liberated aggregates and locally as replacement of colourless carbonate. Some rhombic carbonate grains are pseudomorphically rimmed and replaced by very fine-grained red-brown Fe-oxyhydroxide aggregate, likely hematite.

Total sulphide, 1%, comprises marcasite which occurs as disseminated fine to very fine-grained, eu-subhedral grains and aggregates associated with carbonate in sandstone and siltstone fragments as liberated grains. Marcasite boundaries are vary from irregular to straight and some grains are locally fractured with boundaries rimmed by red-brown Fe-oxyhydroxide material, likely hematite. This red-brown Fe-oxyhydroxide material comprises approximately 15% of the section and occurs as patchy replacement of siltstone and sandstone fragments and as liberated fragments. The red-brown material is typically very fine-grained, anhedral and consists of patchy aggregates that occur typically with carbonate, and locally partly replacing carbonate. Hematite occurs as disseminated grains and as discontinuous lenses within vaguely laminated siltstone fragments. Hematite comprises approximately 1-2% of the section.

Rare traces of arsenic in marcasite were detected by EDS analyses on the microprobe in this section (Raudsepp, written communication, 2006, Appendix 1; photos in Appendix 2).

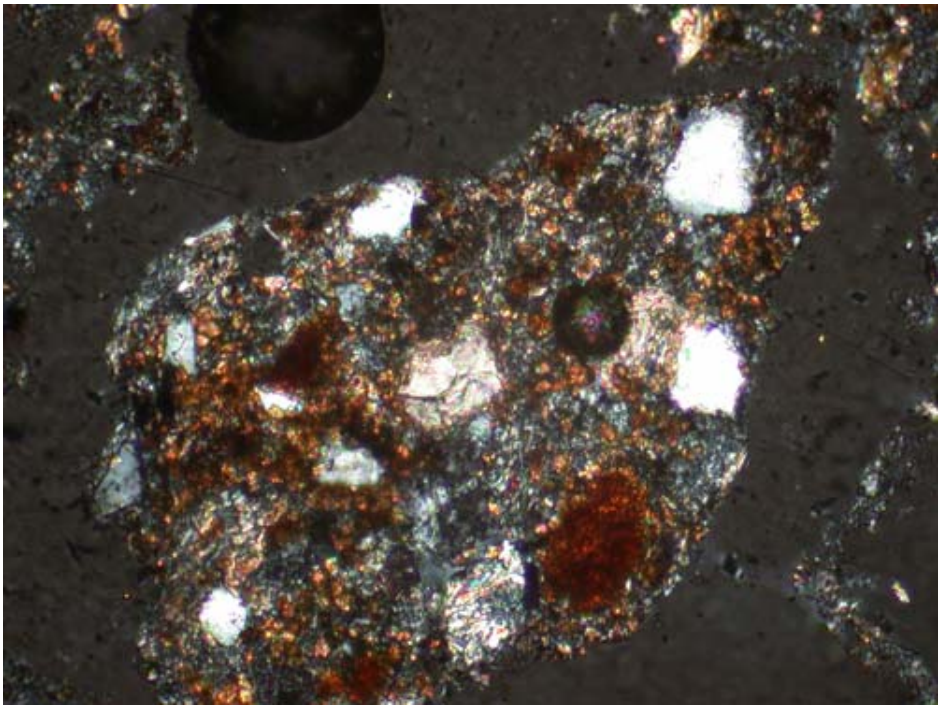


A

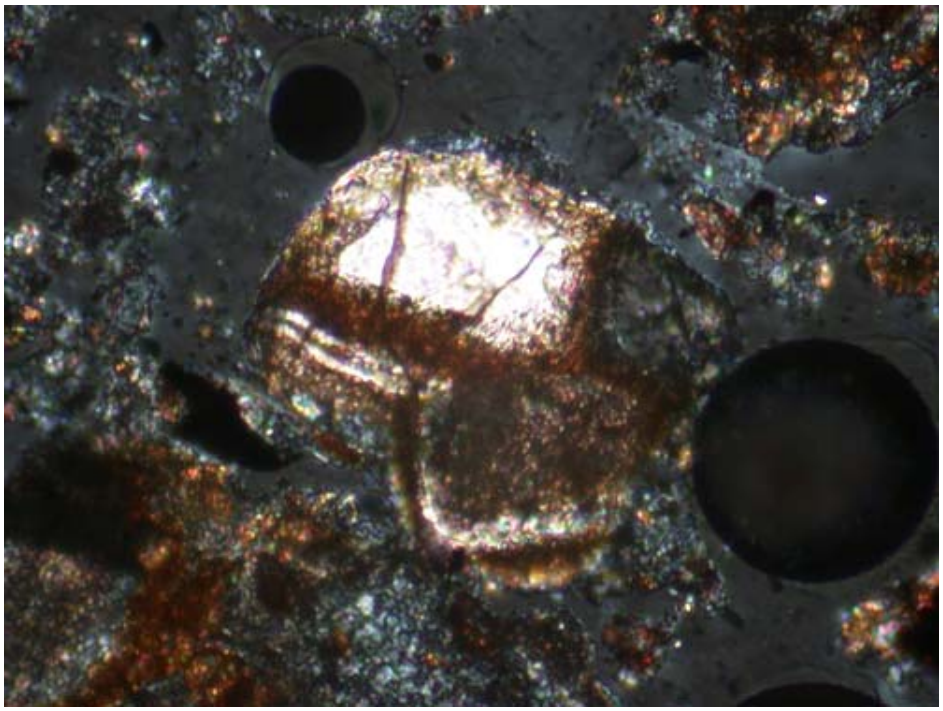


B

115-0054-0066: A) Representative view of vaguely laminated and hematitic siltstone fragment. PPL, FOV ~ 2.5 mm, B) General view of siltstone fragment (left), basalt fragment (right) and liberated carbonate (top). XPL, FOV ~ 4.5 mm.

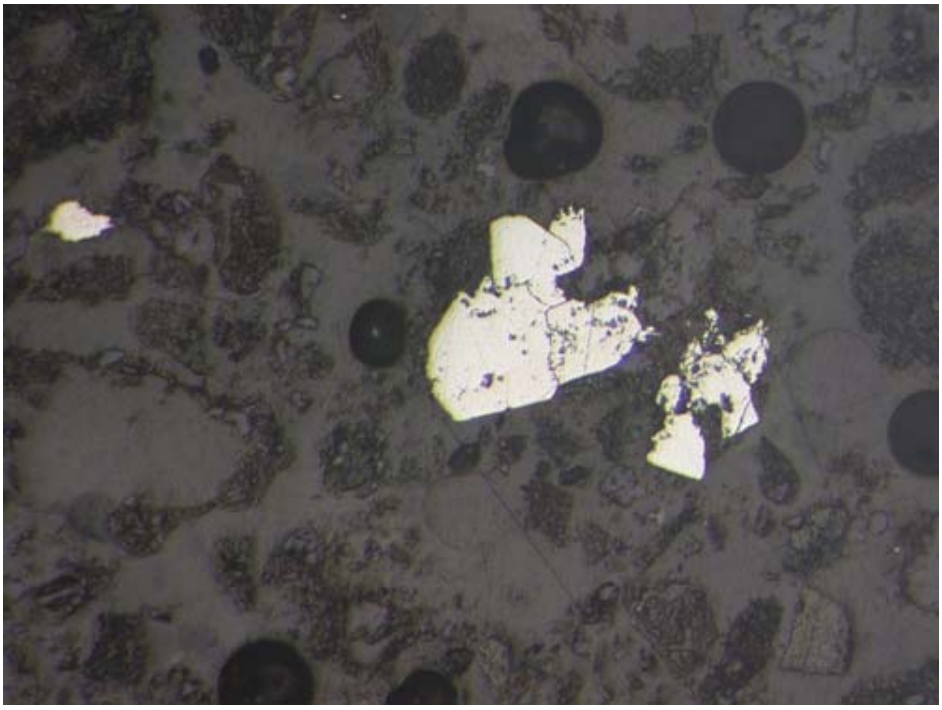


C

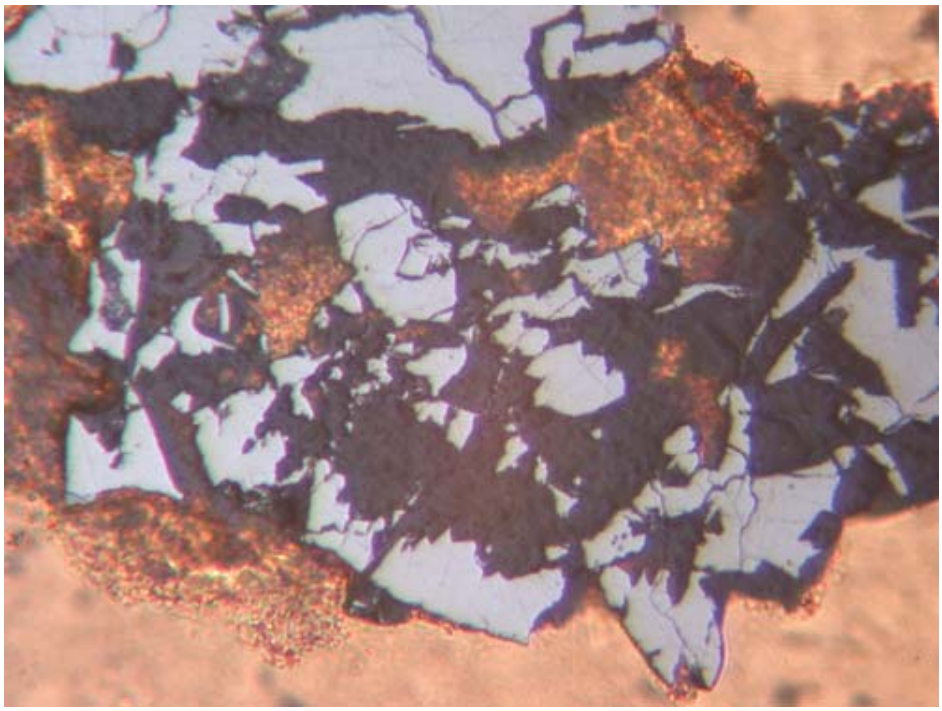


D

115-0054-0066: C) Top, patchy carbonate and red-brown Fe-oxyhydroxide material, likely hematite, as replacement of siltstone fragment. XPL, FOV =~ 0.6mm, D) Bottom, rhombic carbonate pseudomorphically replaced by red-brown Fe-oxyhydroxide aggregate, likely hematite. XPL, FOV =~ 0.45mm.



E



F

115-0054-0066: E) Top, disseminated marcasite grains and aggregates. RL, FOV =~ 1.2mm, F) Bottom, anhedral corroded marcasite partly replaced by hematite. PPL + RL, FOV =~ 0.22mm.

CEMI
Sample ID: 115-0142-0163 **Rock Type:** Siltstone/Arkose

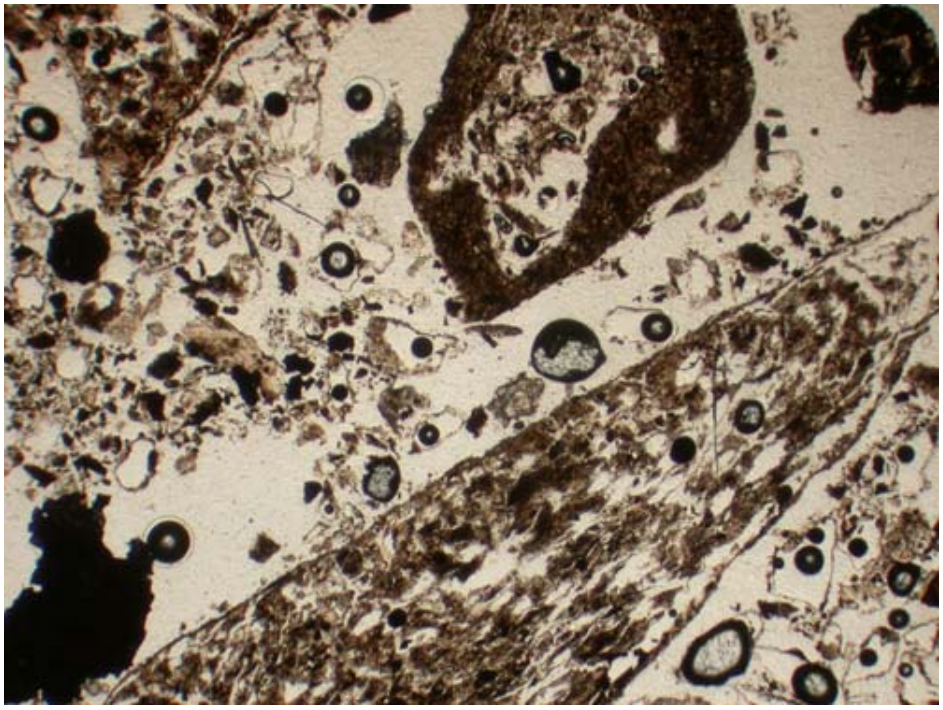
Chip/Powder and Stained Mount Description:
Dark brown-black thinly laminated mudrock as powder to very coarse-sized chips (up to 20mm size). Trace K-feldspar occurs disseminated in some chips (based on stain). One silicified fragment cut by very fine quartz-pyrite veinlet stockwork (not in stained mount). Very slight reaction of chips to cold dilute HCl. No reaction to magnet.

Thin Section Description:
Fine powder to coarse chips (up to 11mm maximum size) of strongly plucked and eroded siltstone, minor pervasively sericite-altered fine-grained rock, and liberated carbonate fragments. The siltstone comprises scattered quartz, trace feldspar and aphanitic lithic fragments in a brown, clay-rich matrix. The siltstone is locally laminated, compacted and hematitic. The fine-grained rock comprises fine to very fine-grained quartz grains and aggregates and abundant brown K-feldspar grains or fragments that have been selectively replaced by trace sericite and rutile. Carbonate comprises approximately 3% of the section and occurs dominantly as fine to very fine-grained colourless and lesser very fine-grained brown varieties. Colourless carbonate occurs dominantly as liberated fragments and as patchy replacement of siltstone. Brown carbonate occurs as locally as replacement of colourless carbonate. Traces of very fine-grained radiating pale brown carbonate nodules (identified as siderite by microprobe analyses (see Appendix 1) occur as liberated aggregates and are locally rimmed and partly replaced by hematite.

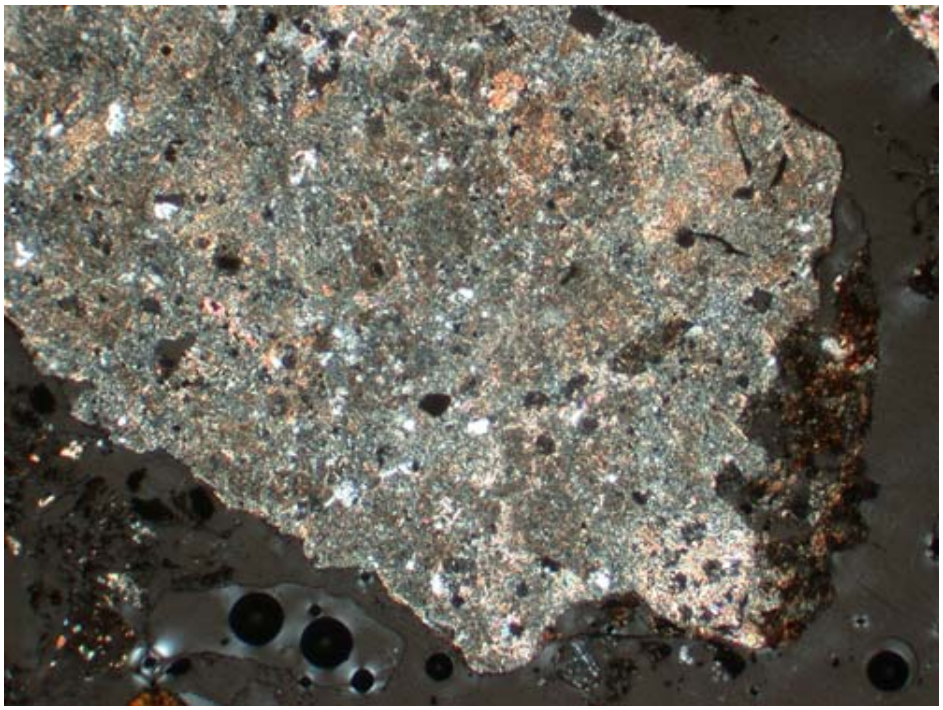
Trace marcasite occurs disseminated as rounded, very fine-grained grains and aggregates in siltstone fragments and as liberated anhedral grains. Marcasite is variably pitted and typically rimmed and replaced by hematite. Locally, hematite occurs as patchy aggregates that occur with carbonate and partly replacing brown nodular ?carbonate. Hematite occurs as disseminated grains and as discontinuous lenses within laminated, plucked siltstone fragments and as liberated grains and aggregates. Hematite comprises approximately 15% of the section.

Rare traces of arsenic in marcasite were detected by EDS analyses on the microprobe in this section (Raudsepp, written communication, 2006, Appendix 1; photos in Appendix 2).

Traces of tramp iron? in this section identified by microprobe EDS analyses (Appendix 1 and 2).

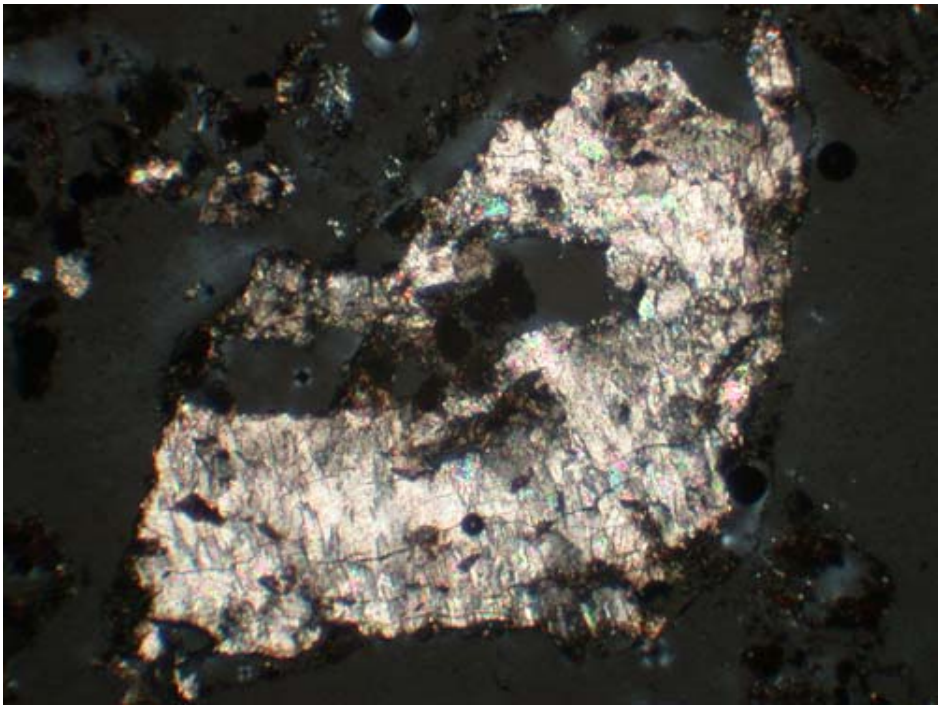


A

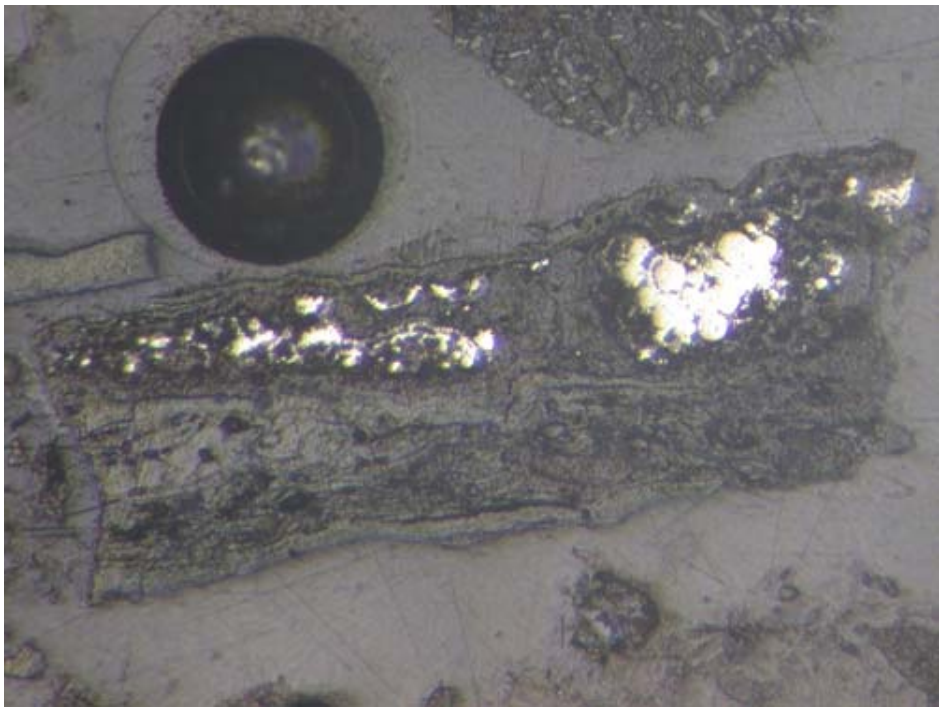


B

115-0142-0163: A) Representative view of strongly plucked and eroded siltstone fragments. PPL, FOV ~ 4.5 mm, B) General view of fine to very fine-grained quartz grains and aggregates and abundant brown K-feldspar grains or fragments that have been selectively replaced by trace sericite and rutile. XPL, FOV ~ 4.5 mm.



C



D

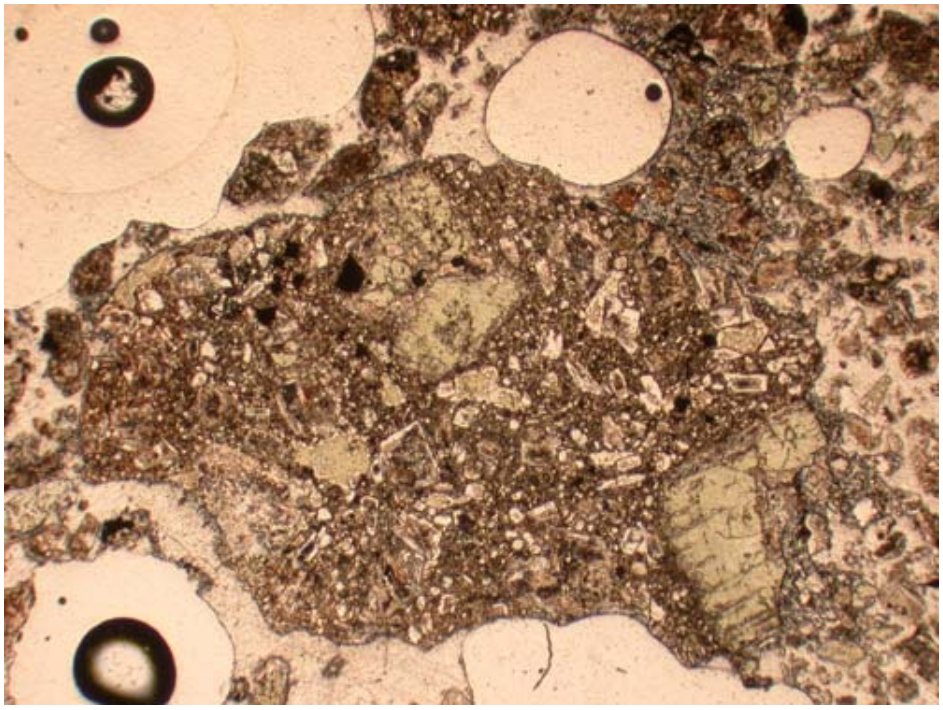
115-0142-0163: C) Top, liberated carbonate fragment. XPL, FOV =~ 2mm, D) Bottom, hematitic siltstone fragment with rounded marcasite aggregates. RL, FOV =~ 0.9mm.

CEMI
Sample ID: 3129-0253-0272 **Rock Type:** Basalt/Andesite/Volcanic Conglomerate

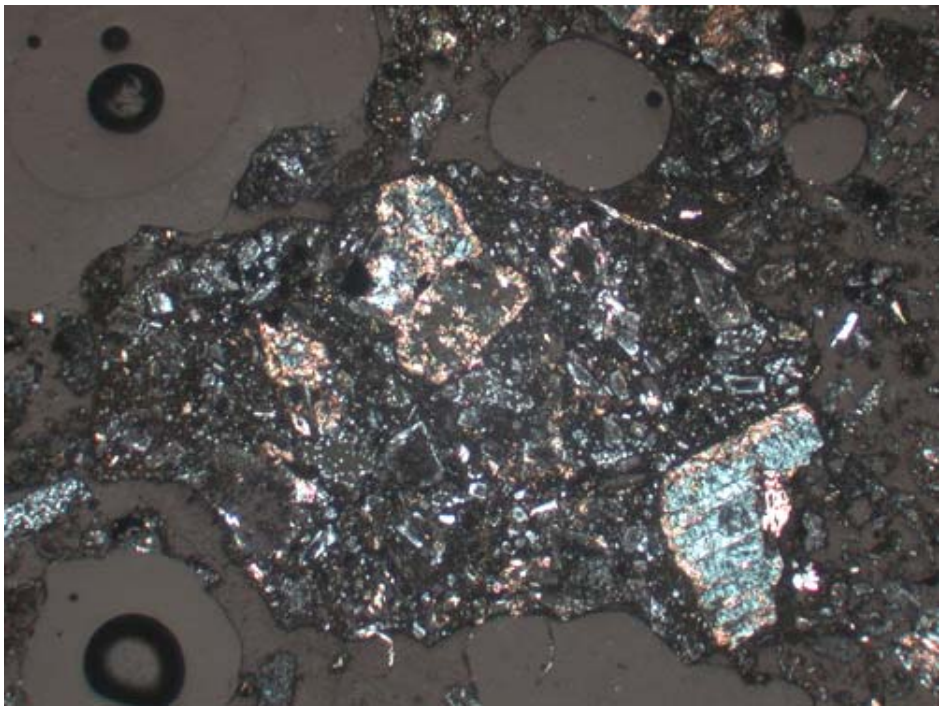
Chip/Powder and Stained Mount Description:
Grey-green amygdaloidal basalt as very coarse-sized chips (up to 25mm size). Calcite and chlorite filled fractures and concentrically banded amygdales. Some fragments have up to approximately 40% fine plagioclase phenocrysts. Traces of K-feldspar occur disseminated in some of the basalt chips in the stained mount (based on stain). Calcite occurs as pervasive alteration of the basalt as recognized by reaction of chips to cold dilute HCl. Reaction to magnet.

Thin Section Description:
Fine powder to coarse chips (up to 8mm maximum size) of chlorite-calcite-clay altered porphyritic basalt with calcite, quartz, chlorite and clay filled amygdales and minor coarse-grained sandstone. Abundant liberated fragments of calcite and chlorite. The porphyritic basalt consists of dominantly clay±calcite altered, zoned plagioclase laths, selectively pervasive chlorite-calcite replacement of former mafic phenocrysts, disseminated magnetite and chlorite-calcite-clay replacement of groundmass. The sandstone is a greywacke as it contains dominantly quartz and lithic fragments with minor feldspar in a fine-grained matrix that comprises more than 15% of the rock. Calcite comprises approximately 15% of the section as dominantly fine to very fine-grained colourless varieties. Calcite occurs as fine to very fine-grained, anhedral aggregates that occur as replacement of plagioclase and former mafic phases, as replacement of matrix, as amygdales and as liberated fragments. Chlorite comprises approximately 10% of the section.

Trace pyrite and marcasite occur disseminated as very fine-grained, anhedral grains and aggregates within basalt fragments and amygdales. Pyrite boundaries vary from straight to irregular and some grains are locally fractured with boundaries rimmed and partly replaced by hematite. Marcasite boundaries are irregular. Trace malachite occurs as amorphous to felted patchy aggregates in sandstone and basalt fragments. Hematite occurs disseminated as fine to very fine-grained eu-anhedral grains after trace magnetite and locally with relict martite texture preserved. Hematite also occurs in fine concentric bands within amygdales. Hematite comprises approximately 1% of the section.

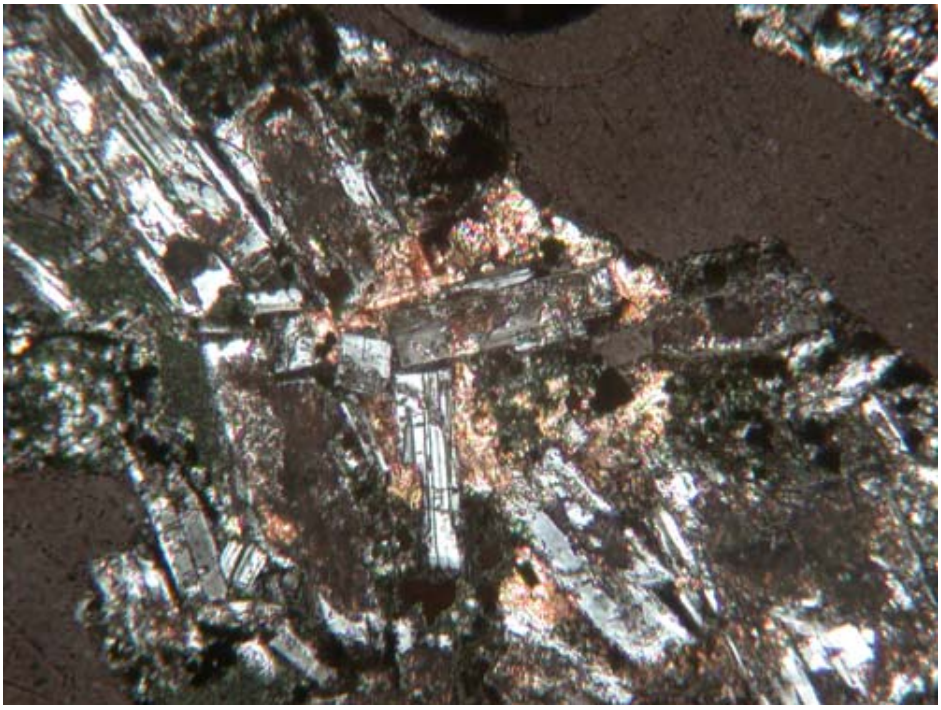


A

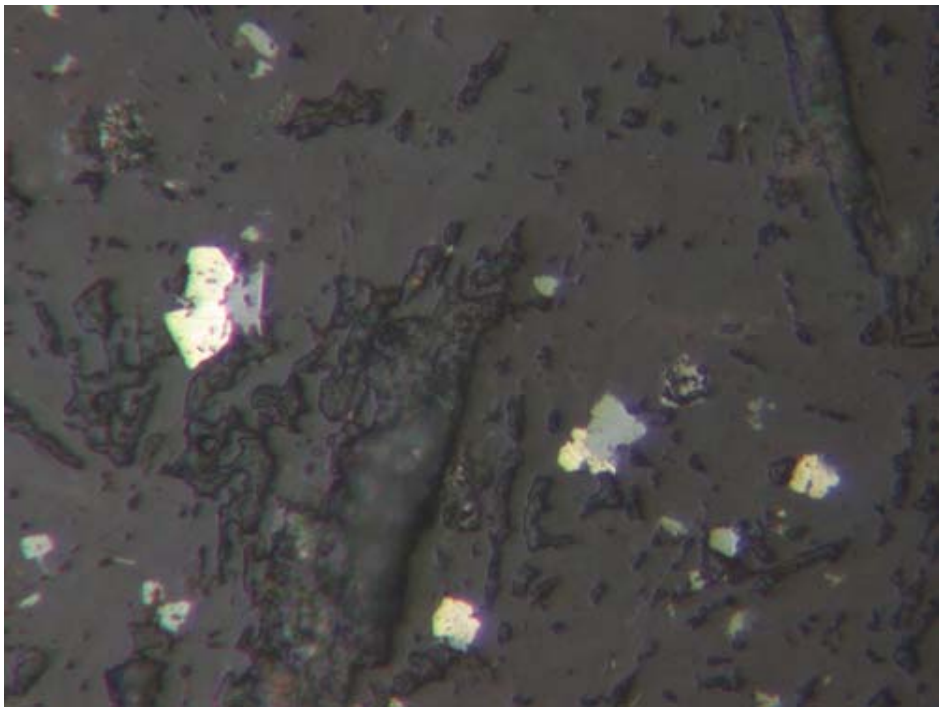


B

3129-0253-0272: A) Representative view of chlorite-calcite-clay altered porphyritic basalt. A) PPL, B) XPL, FOV ~ 4.5 mm.



C



D

3129-0253-0272: C) Top, plagioclase laths in basalt selectively replaced by patchy clay and calcite; calcite replacement of matrix. XPL, FOV =~ 0.9mm, D) Bottom, disseminated pyrite partly replaced by hematite. RL, FOV =~ 0.2mm.

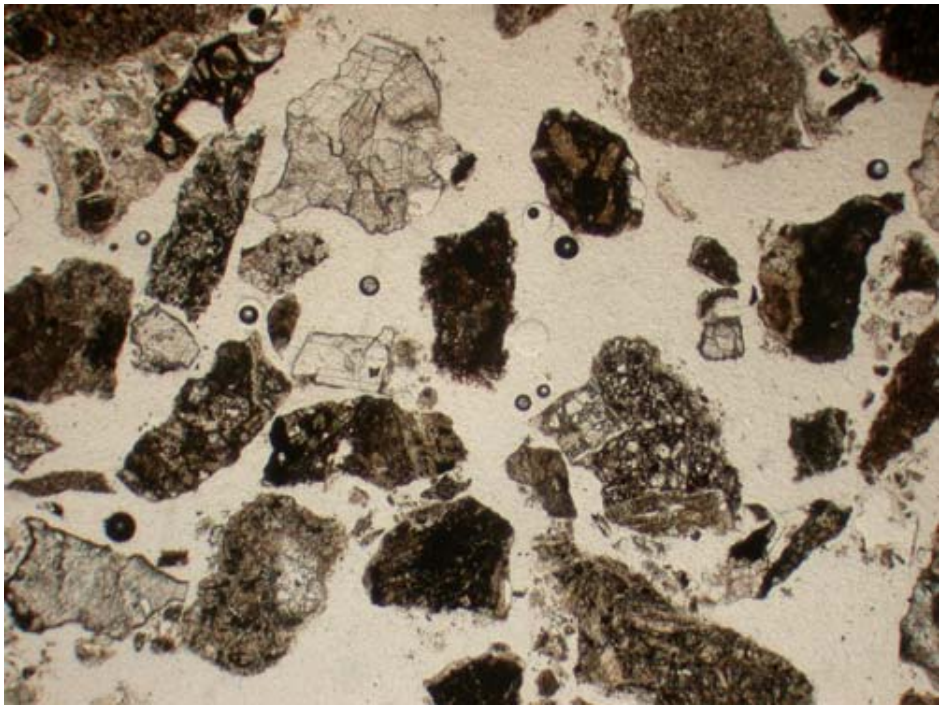
CEMI
Sample ID: 3129-0417-0435 **Rock Type:** Basalt/Andesite/Volcanic Conglomerate

Chip/Powder and Stained Mount Description:
Grey/maroon amygdaloidal rock as very coarse-sized chips (up to 30mm size). Chlorite and calcite occur as concentrically banded amygdales (less than 1 cm diameter). Traces of K-feldspar occur disseminated in some of the chips in the stained mount (based on stain). Strong reaction of amygdales to cold dilute HCl. No reaction to magnet.

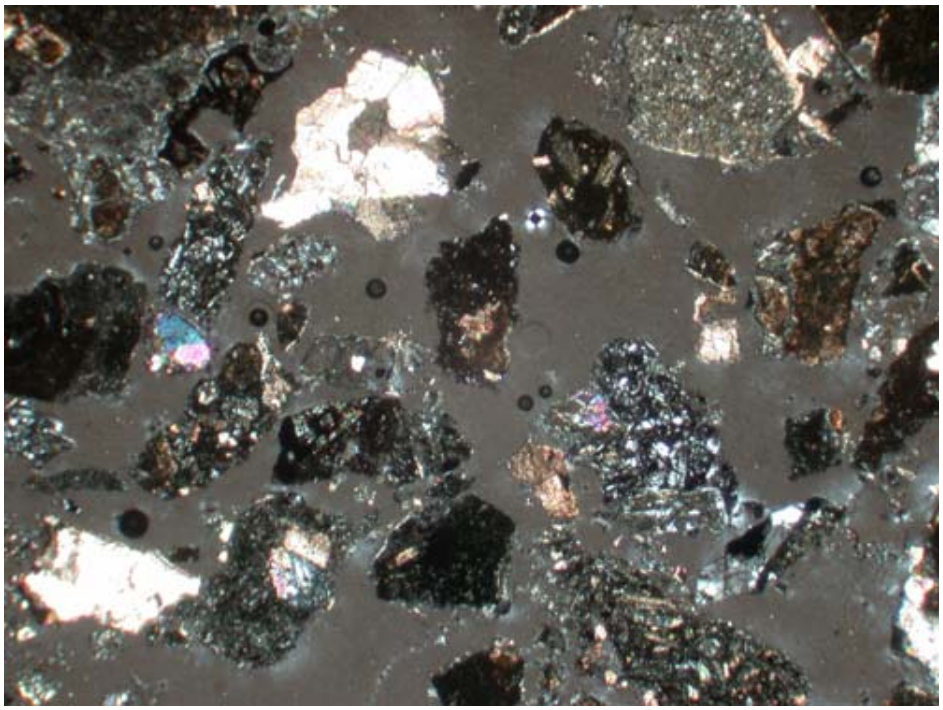
Thin Section Description:
Fine powder to coarse chips (up to 7mm maximum size) of calcite-chlorite-hematite altered seriate-textured and porphyritic basalt with carbonate and lesser chlorite-quartz±calcite filled amygdales and minor fine to coarse-grained poorly-sorted sandstone. Abundant liberated fine fragments of calcite, plagioclase, quartz-calcite and chlorite aggregate. The seriate-textured basalt consists of dominantly carbonate altered-plagioclase laths, disseminated hematite, likely after magnetite, and selectively pervasive chlorite-calcite-?smectite replacement of former mafic phases and groundmass. The porphyritic basalt is generally less altered and dominated by fine to medium-grained, euhedral, locally zoned plagioclase phenocrysts partly replaced by calcite in a very fine-grained felt-textured matrix. The sandstone is a greywacke as it contains dominantly quartz fragments in a fine-grained matrix that comprises more than 15% of the rock. Calcite comprises approximately 20% of the section. Calcite occurs as fine to very fine-grained, anhedral aggregates that occurs as replacement of plagioclase, as fine to very fine-grained radiating aggregates in amygdales and as liberated fragments. Minor very fine-grained brown carbonate, approximately 1%, occurs in some chips partly replacing the anhedral colourless carbonate. Chlorite comprises approximately 2% of the section.

Trace sulphide comprises pyrite, chalcopyrite, bornite and chalcocite. Pyrite occurs disseminated as fine to very fine-grained, anhedral grains and aggregates in some fragments of basalt. The pyrite is typically pitted, locally fractured, anhedral and is locally replaced by hematite. Chalcopyrite occurs as anhedral grains within calcite amygdales and liberated grains. Chalcopyrite is partly replaced by bornite and chalcocite. Hematite occurs disseminated as anhedral grains, likely after magnetite. Hematite comprises approximately 1% of the section.

Traces of tramp iron? in this section identified by microprobe EDS analyses (Appendix 1 and 2).

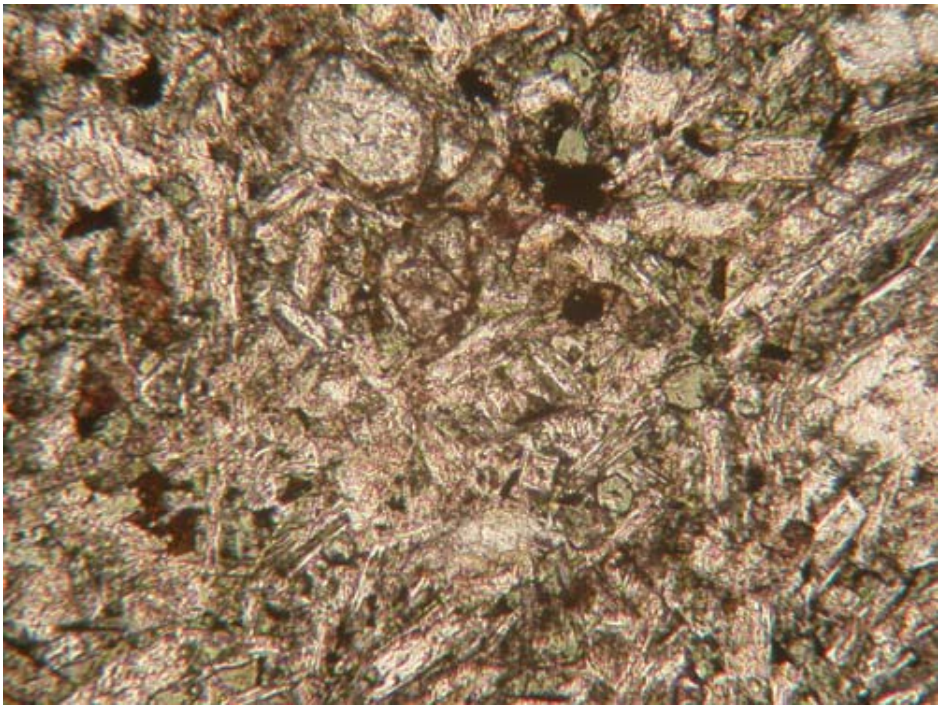


A



B

3129-0417-0435: A) Representative view of calcite-chlorite-hematite altered seriate-textured basalt fragments, minor sandstone (top right) and liberated fragments of calcite amygdales. A) PPL, B) XPL, FOV ~ 4.5 mm.



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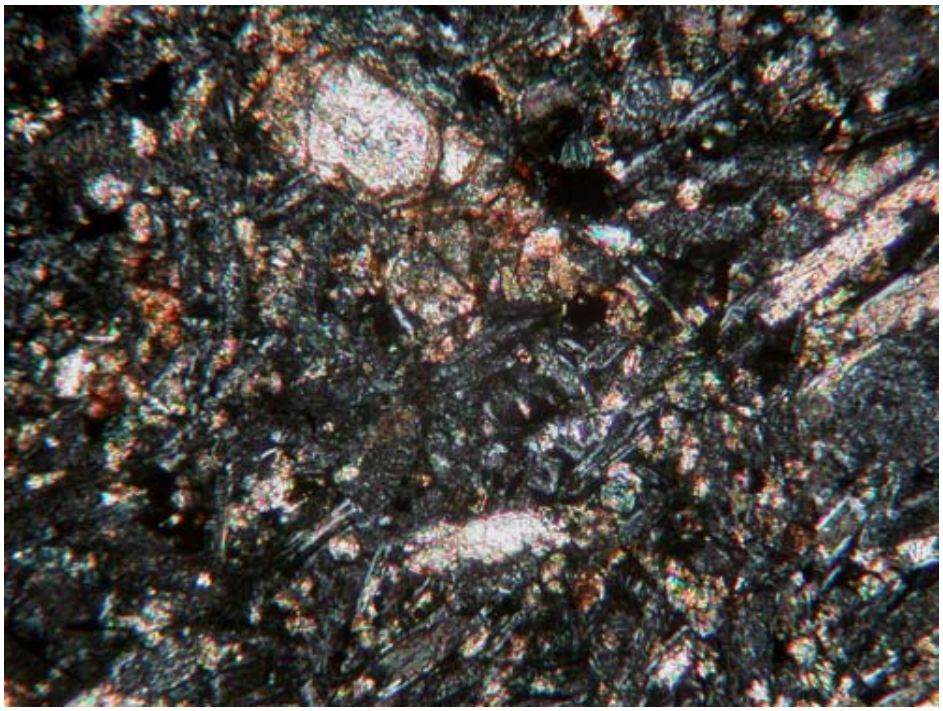
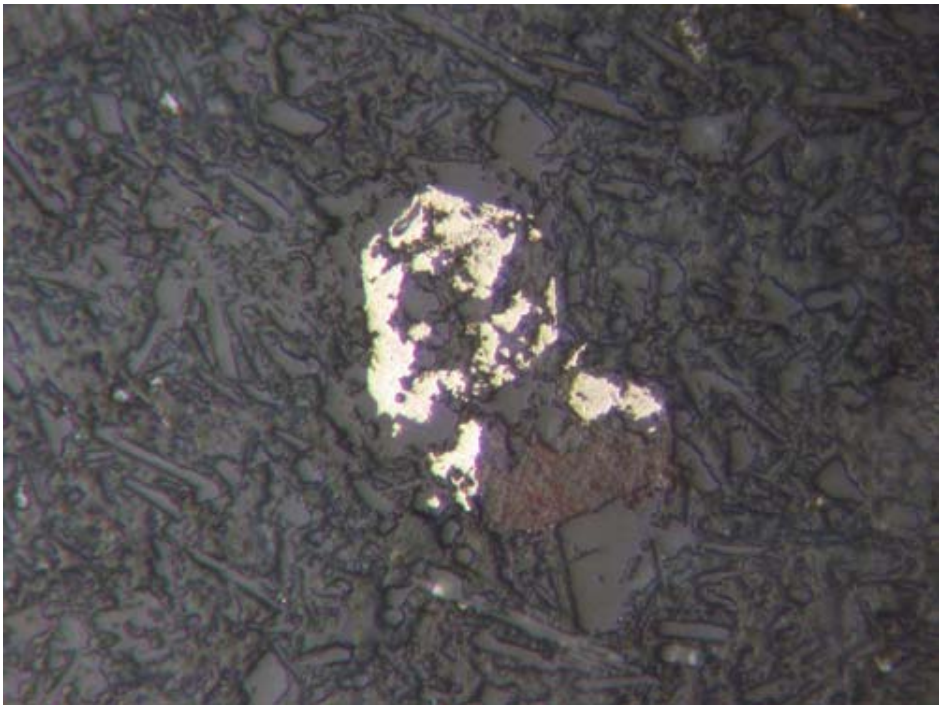


D

3129-0417-0435: Detailed view of basalt with chlorite after former mafic phases, disseminated hematite and plagioclase laths selectively replaced by calcite. C) PPL, D) XPL, FOV =~ 0.75mm.



E

F

3129-0417-0435: E) Top, Pitted pyrite grains partly replaced by hematite. RL, FOV =~ 0.25mm, F) Bottom, anhedral chalcopyrite within carbonate amygdale. RL, FOV =~ 1.1mm.

APPENDIX 1

Result of Microprobe EDS testing of Sulphide Grains and Microprobe Results for Carbonate Grains (totals between 98-102 wt.%) from Selected Sections

Pebble Copper Deposit

By Dr. Mati Raudsepp,
Director: Electron-Microbeam/X-ray Diffraction Facility
Department of Earth & Ocean Sciences
6339 Stores Road, UBC
Vancouver, BC V6T 1Z4

Written Communication to PetraScience Consultants Inc.
June 23, 2006

All sulfides tested with EDS are iron sulfides with spectra consistent with pyrite/marcasite except as follows:

CEMI-9, circle #7	Fe, tramp iron?
3129-0417-0435, circle #5	Fe, tramp iron?
3129-0417-0435, circle #8	Fe, tramp iron?
3102-0568-0588, circle #1	chalcopyrite
115-0142-0163-1 circle #6	Fe, tramp iron?
115-0142-0163-1 circle #22	22C: Fe, tramp iron?

As by EDS was generally not detected except in the following grains:

115-0054-0066, circle #7	As
115-0142-0163-1 circle #17	As
115-0142-0163-1 circle #21	unknown mineral is siderite, but gave poor analyses

	Oxide wt.% (*CO2 from stoichiometry)						Structural Formula on the basis of 6 O and 2CO2					
	MgO	**CaO**	**MnO**	**FeO**	**CO2 ***	**Total**	**Mg2+**	**Ca2+**	**Mn2+**	**Fe2+**	**C4+**	**Sum**
CEMI-15-1	0.54	52.87	1.3	1.5	43.81	100.02	0.027	1.894	0.037	0.042	2.00	4.00
CEMI-15-2	0.56	53.04	1.24	1.46	43.90	100.20	0.03	1.90	0.04	0.04	2.00	4.00
CEMI-15-3	0.25	53.62	1.25	1.14	43.83	100.09	0.01	1.92	0.04	0.03	2.00	4.00
CEMI-15-4	0.25	53.73	1.28	0.99	43.84	100.09	0.01	1.92	0.04	0.03	2.00	4.00
CEMI-15-5	5.44	41.46	1.18	8.18	44.22	100.48	0.27	1.47	0.03	0.23	2.00	4.00
CEMI-15-6	4.18	43.88	1.32	6.76	43.96	100.10	0.21	1.57	0.04	0.19	2.00	4.00
CEMI-15-7	0.39	53.32	0.45	2.24	43.92	100.32	0.02	1.91	0.01	0.06	2.00	4.00
CEMI-15-8	0.40	53.50	0.42	2.33	44.11	100.76	0.02	1.90	0.01	0.07	2.00	4.00
CEMI-15-9	25.12	5.00	0.69	23.89	46.42	101.12	1.18	0.17	0.02	0.63	2.00	4.00
CEMI-15-10	19.08	5.12	0.64	31.70	44.67	101.21	0.93	0.18	0.02	0.87	2.00	4.00
CEMI-15-11	1.10	51.89	1.08	1.97	43.80	99.84	0.06	1.86	0.03	0.06	2.00	4.00
CEMI-15-12	0.41	53.38	1.08	1.28	43.79	99.94	0.02	1.91	0.03	0.04	2.00	4.00
CEMI-15-13	0.19	53.85	1.21	1.15	43.92	100.32	0.01	1.92	0.03	0.03	2.00	4.00
CEMI-15-14	0.25	53.67	1.06	1.13	43.74	99.85	0.01	1.93	0.03	0.03	2.00	4.00
CEMI-15-16	0.58	52.47	1.19	1.38	43.39	99.01	0.03	1.90	0.03	0.04	2.00	4.00
CEMI-15-17	0.35	54.70	0.92	1.10	44.55	101.62	0.02	1.93	0.03	0.03	2.00	4.00
CEMI-15-18	20.88	14.44	0.48	19.67	46.48	101.95	0.98	0.49	0.01	0.52	2.00	4.00
CEMI-15-19	0.32	54.04	0.86	0.84	43.81	99.87	0.02	1.94	0.02	0.02	2.00	4.00
CEMI-15-20	0.87	51.62	1.77	1.70	43.60	99.56	0.04	1.86	0.05	0.05	2.00	4.00
CEMI-15-21	2.14	50.18	0.72	2.88	43.93	99.85	0.11	1.79	0.02	0.08	2.00	4.00
CEMI-15-22	1.27	50.40	1.22	2.92	43.49	99.30	0.06	1.82	0.04	0.08	2.00	4.00
CEMI-15-25	0.80	52.33	1.70	1.81	44.10	100.74	0.04	1.86	0.05	0.05	2.00	4.00
CEMI-15-26	0.96	50.64	1.79	2.20	43.25	98.84	0.05	1.84	0.05	0.06	2.00	4.00
CEMI-15-27	0.46	53.55	0.92	0.93	43.67	99.53	0.02	1.93	0.03	0.03	2.00	4.00
CEMI-15-28	0.34	54.04	0.93	0.72	43.80	99.83	0.02	1.94	0.03	0.02	2.00	4.00
CEMI-15-29	20.89	10.23	0.87	22.00	44.85	98.84	1.02	0.36	0.02	0.60	2.00	4.00
CEMI-15-30	24.46	4.75	0.90	24.93	46.27	101.31	1.16	0.16	0.02	0.66	2.00	4.00
CEMI-15-31	8.92	37.14	1.27	7.67	44.37	99.37	0.44	1.31	0.04	0.21	2.00	4.00
CEMI-15-32	14.50	28.55	0.96	10.93	45.53	100.47	0.70	0.98	0.03	0.29	2.00	4.00
CEMI-15-34	0.85	50.37	1.64	2.76	43.17	98.79	0.04	1.83	0.05	0.08	2.00	4.00
CEMI-16-1	8.78	1.61	0.76	48.04	40.75	99.94	0.47	0.06	0.02	1.44	2.00	4.00
CEMI-16-2	12.99	0.90	1.04	43.68	42.29	100.90	0.67	0.03	0.03	1.27	2.00	4.00
CEMI-16-3	10.96	0.90	2.23	45.72	42.06	101.87	0.57	0.03	0.07	1.33	2.00	4.00
CEMI-16-4	23.10	0.84	0.28	31.58	45.40	101.20	1.11	0.03	0.01	0.85	2.00	4.00
CEMI-16-6	22.83	0.24	0.29	32.29	45.08	100.73	1.11	0.01	0.01	0.88	2.00	4.00
CEMI-16-8	11.78	0.64	2.08	45.07	42.26	101.83	0.61	0.02	0.06	1.31	2.00	4.00
CEMI-16-9	3.41	1.00	2.64	54.82	39.73	101.60	0.19	0.04	0.08	1.69	2.00	4.00
CEMI-16-10	17.67	0.20	0.55	39.41	43.93	101.76	0.88	0.01	0.02	1.10	2.00	4.00
CEMI-16-11	10.04	1.00	0.39	47.92	41.34	100.69	0.53	0.04	0.01	1.42	2.00	4.00
CEMI-16-12	17.29	0.24	1.22	39.31	43.90	101.96	0.86	0.01	0.03	1.10	2.00	4.00
CEMI-16-14	12.71	0.51	0.95	44.75	42.28	101.20	0.66	0.02	0.03	1.30	2.00	4.00
CEMI-16-15	12.35	1.04	0.83	44.15	41.86	100.23	0.64	0.04	0.03	1.29	2.00	4.00
CEMI-16-16	15.84	0.22	0.52	41.31	43.10	100.99	0.80	0.01	0.02	1.17	2.00	4.00
CEMI-16-17	15.40	0.47	0.96	41.39	43.13	101.35	0.78	0.02	0.03	1.18	2.00	4.00
CEMI-16-18	10.61	1.19	1.57	45.29	41.24	99.90	0.56	0.05	0.05	1.35	2.00	4.00
CEMI-16-19	3.30	0.72	2.49	54.73	39.24	100.48	0.18	0.03	0.08	1.71	2.00	4.00
CEMI-16-20	2.42	0.88	3.11	54.50	38.65	99.56	0.14	0.04	0.10	1.73	2.00	4.00
CEMI-16-22	17.75	0.10	0.61	39.49	44.03	101.98	0.88	0.00	0.02	1.10	2.00	4.00
CEMI-16-23	10.66	0.45	0.57	47.64	41.53	100.85	0.56	0.02	0.02	1.41	2.00	4.00
CEMI-16-24	0.47	53.11	1.21	1.59	43.92	100.30	0.02	1.90	0.03	0.04	2.00	4.00
CEMI-16-25	0.57	53.21	1.28	1.70	44.22	100.98	0.03	1.89	0.04	0.05	2.00	4.00
CEMI-16-26	0.45	52.92	1.18	1.53	43.69	99.77	0.02	1.90	0.03	0.04	2.00	4.00
CEMI-16-27	12.68	0.66	1.45	44.10	42.28	101.17	0.66	0.03	0.04	1.28	2.00	4.00
CEMI-16-28	15.19	0.27	2.09	40.71	43.03	101.29	0.77	0.01	0.06	1.16	2.00	4.00
CEMI-16-29	10.49	29.09	1.27	15.82	44.76	101.43	0.51	1.02	0.04	0.43	2.00	4.00
CEMI-16-30	11.78	29.66	1.18	13.39	45.07	101.08	0.57	1.03	0.03	0.36	2.00	4.00
CEMI-17-1	14.14	29.28	0.32	10.61	45.12	99.47	0.68	1.02	0.01	0.29	2.00	4.00
CEMI-17-2	14.37	29.39	0.22	10.03	45.04	99.05	0.70	1.02	0.01	0.27	2.00	4.00
CEMI-17-4	9.91	1.67	0.51	47.58	41.59	101.26	0.52	0.06	0.02	1.40	2.00	4.00
CEMI-17-5	13.40	1.92	0.33	43.33	42.89	101.87	0.68	0.07	0.01	1.24	2.00	4.00
CEMI-17-6	11.58	34.30	0.12	9.79	45.63	101.42	0.55	1.18	0.00	0.26	2.00	4.00
CEMI-17-7	7.40	1.17	0.75	51.55	41.04	101.91	0.39	0.05	0.02	1.54	2.00	4.00
CEMI-17-8	15.07	29.48	0.14	9.78	45.67	100.14	0.72	1.01	0.00	0.26	2.00	4.00
CEMI-17-9	13.37	29.71	0.33	12.12	45.54	101.07	0.64	1.02	0.01	0.33	2.00	4.00
CEMI-17-10	13.24	28.80	0.29	12.33	44.79	99.45	0.65	1.01	0.01	0.34	2.00	4.00
CEMI-17-11	14.46	29.60	0.40	9.84	45.29	99.59	0.70	1.03	0.01	0.27	2.00	4.00
CEMI-17-12	13.87	29.64	0.42	10.26	44.95	99.14	0.67	1.04	0.01	0.28	2.00	4.00
CEMI-17-13	11.05	34.19	0.15	10.45	45.39	101.23	0.53	1.18	0.00	0.28	2.00	4.00
CEMI-17-14	14.01	29.82	0.18	11.11	45.62	100.74	0.67	1.03	0.01	0.30	2.00	4.00
CEMI-17-17	12.80	29.53	0.22	13.34	45.46	101.35	0.62	1.02	0.01	0.36	2.00	4.00

CEMI-17-18	15.05	30.02	0.16	9.60	45.97	100.80	0.72	1.03	0.00	0.26	2.00	4.00
CEMI-17-19	15.05	30.46	0.12	9.32	46.12	101.07	0.71	1.04	0.00	0.25	2.00	4.00
CEMI-17-20	16.99	30.48	0.13	6.65	46.63	100.88	0.80	1.03	0.00	0.18	2.00	4.00
CEMI-17-21	7.44	1.34	0.32	51.40	40.86	101.36	0.40	0.05	0.01	1.54	2.00	4.00
CEMI-17-22	6.84	1.32	0.27	51.97	40.51	100.91	0.37	0.05	0.01	1.57	2.00	4.00
CEMI-17-24	16.06	30.09	0.24	8.01	46.21	100.61	0.76	1.02	0.01	0.21	2.00	4.00
CEMI-17-25	13.14	29.80	0.29	12.45	45.54	101.22	0.63	1.03	0.01	0.34	2.00	4.00
CEMI-17-26	15.97	29.92	0.26	8.26	46.14	100.55	0.76	1.02	0.01	0.22	2.00	4.00
CEMI-17-27	14.23	29.76	0.26	10.86	45.71	100.82	0.68	1.02	0.01	0.29	2.00	4.00
CEMI-17-28	15.66	29.94	0.30	8.91	46.24	101.05	0.74	1.02	0.01	0.24	2.00	4.00
CEMI-17-31	7.67	2.55	0.12	49.60	40.83	100.77	0.41	0.10	0.00	1.49	2.00	4.00
CEMI-17-32	13.64	29.45	0.23	10.96	44.86	99.14	0.66	1.03	0.01	0.30	2.00	4.00
CEMI-17-33	8.57	1.60	0.47	49.10	40.98	100.72	0.46	0.06	0.01	1.47	2.00	4.00
CEMI-17-34	15.05	29.68	0.30	9.49	45.73	100.25	0.72	1.02	0.01	0.25	2.00	4.00
CEMI-17-35	17.52	29.77	0.35	6.53	46.71	100.88	0.82	1.00	0.01	0.17	2.00	4.00
CEMI-17-36	11.80	28.33	0.25	15.94	45.04	101.36	0.57	0.99	0.01	0.43	2.00	4.00
CEMI-17-37	16.07	29.55	0.25	7.93	45.75	99.55	0.77	1.01	0.01	0.21	2.00	4.00
CEMI-19-1	0.40	53.42	0.41	1.53	43.55	99.31	0.02	1.93	0.01	0.04	2.00	4.00
CEMI-19-2	0.15	55.24	0.56	0.77	44.33	101.05	0.01	1.96	0.02	0.02	2.00	4.00
CEMI-19-3	0.24	53.46	0.55	1.68	43.59	99.52	0.01	1.93	0.02	0.05	2.00	4.00
CEMI-19-4	0.25	53.40	0.66	1.92	43.77	100.00	0.01	1.92	0.02	0.05	2.00	4.00
CEMI-19-5	0.19	54.33	0.57	1.14	43.90	100.13	0.01	1.94	0.02	0.03	2.00	4.00
CEMI-19-6	0.20	54.19	0.57	1.01	43.72	99.69	0.01	1.95	0.02	0.03	2.00	4.00
CEMI-19-7	0.49	51.13	1.55	2.76	43.31	99.24	0.03	1.85	0.04	0.08	2.00	4.00
CEMI-19-8	0.38	51.38	1.58	2.56	43.29	99.19	0.02	1.86	0.05	0.07	2.00	4.00
CEMI-19-9	1.83	48.26	2.83	2.89	43.40	99.21	0.09	1.75	0.08	0.08	2.00	4.00
CEMI-19-10	0.82	48.94	3.38	2.40	42.87	98.41	0.04	1.79	0.10	0.07	2.00	4.00
CEMI-19-11	1.65	46.27	1.14	6.37	42.72	98.15	0.08	1.70	0.03	0.18	2.00	4.00
CEMI-19-12	1.37	48.67	1.37	4.74	43.44	99.59	0.07	1.76	0.04	0.13	2.00	4.00
CEMI-19-13	1.54	51.56	1.13	1.37	43.68	99.28	0.08	1.85	0.03	0.04	2.00	4.00
CEMI-19-14	1.66	51.33	1.32	1.46	43.81	99.58	0.08	1.84	0.04	0.04	2.00	4.00
CEMI-19-15	0.08	54.91	0.48	0.96	44.07	100.50	0.00	1.96	0.01	0.03	2.00	4.00
CEMI-19-16	0.32	54.49	0.56	1.09	44.13	100.59	0.02	1.94	0.02	0.03	2.00	4.00
CEMI-19-17	1.41	51.80	1.12	1.52	43.82	99.67	0.07	1.86	0.03	0.04	2.00	4.00
CEMI-19-18	1.40	51.39	1.06	1.45	43.40	98.70	0.07	1.86	0.03	0.04	2.00	4.00
CEMI-19-19	0.20	55.36	0.43	0.41	44.18	100.58	0.01	1.97	0.01	0.01	2.00	4.00
CEMI-19-20	0.29	54.98	0.68	0.76	44.35	101.06	0.01	1.95	0.02	0.02	2.00	4.00
CEMI-19-21	0.34	54.24	0.23	1.02	43.71	99.54	0.02	1.95	0.01	0.03	2.00	4.00
CEMI-19-22	0.32	54.79	0.16	1.26	44.22	100.75	0.02	1.95	0.00	0.04	2.00	4.00
CEMI-19-23	0.38	53.84	0.60	1.23	43.79	99.84	0.02	1.93	0.02	0.03	2.00	4.00
CEMI-19-25	0.37	54.04	0.15	1.18	43.63	99.37	0.02	1.94	0.00	0.03	2.00	4.00
CEMI-19-26	0.39	54.40	0.14	1.18	43.93	100.04	0.02	1.94	0.00	0.03	2.00	4.00
CEMI-19-27	0.08	55.79	0.29	0.29	44.23	100.68	0.00	1.98	0.01	0.01	2.00	4.00
CEMI-19-28	0.10	55.96	0.43	0.27	44.46	101.22	0.01	1.98	0.01	0.01	2.00	4.00
CEMI-20-1	12.99	29.88	0.09	11.38	44.66	99.00	0.64	1.05	0.00	0.31	2.00	4.00
CEMI-20-2	13.09	29.16	0.66	12.48	45.23	100.62	0.63	1.01	0.02	0.34	2.00	4.00
CEMI-20-4	11.46	31.36	0.96	11.54	44.79	100.11	0.56	1.10	0.03	0.32	2.00	4.00
CEMI-20-5	12.92	31.88	0.49	9.18	45.05	99.52	0.63	1.11	0.01	0.25	2.00	4.00
CEMI-20-6	1.19	1.29	3.40	55.46	38.39	99.73	0.07	0.05	0.11	1.77	2.00	4.00
CEMI-20-7	10.54	2.63	0.19	44.85	41.16	99.37	0.56	0.10	0.01	1.34	2.00	4.00
CEMI-20-8	0.19	53.84	0.47	1.55	43.70	99.75	0.01	1.93	0.01	0.04	2.00	4.00
CEMI-20-9	3.92	6.00	0.05	50.74	40.10	100.81	0.21	0.24	0.00	1.55	2.00	4.00
CEMI-20-10	5.04	6.64	0.07	48.92	40.72	101.39	0.27	0.26	0.00	1.47	2.00	4.00
CEMI-20-11	12.11	37.12	0.41	3.70	44.88	98.22	0.59	1.30	0.01	0.10	2.00	4.00
CEMI-20-12	14.35	30.61	0.50	8.74	45.36	99.56	0.69	1.06	0.01	0.24	2.00	4.00
CEMI-20-13	10.03	31.18	1.28	13.55	44.52	100.56	0.49	1.10	0.04	0.37	2.00	4.00
CEMI-20-14	0.18	54.75	0.35	1.29	44.17	100.74	0.01	1.95	0.01	0.04	2.00	4.00
CEMI-20-15	0.25	53.78	0.49	1.41	43.65	99.58	0.01	1.93	0.01	0.04	2.00	4.00
CEMI-20-16	0.13	53.57	1.17	0.83	43.42	99.12	0.01	1.94	0.03	0.02	2.00	4.00
CEMI-20-17	14.43	35.15	0.17	4.01	45.90	99.66	0.69	1.20	0.01	0.11	2.00	4.00
CEMI-20-18	0.10	54.12	0.90	0.57	43.49	99.18	0.01	1.95	0.03	0.02	2.00	4.00
CEMI-20-19	0.17	54.03	0.92	0.77	43.63	99.52	0.01	1.94	0.03	0.02	2.00	4.00
CEMI-20-20	0.02	55.27	0.41	0.58	44.01	100.29	0.00	1.97	0.01	0.02	2.00	4.00
CEMI-20-22	11.84	30.59	0.09	12.67	44.75	99.94	0.58	1.07	0.00	0.35	2.00	4.00
CEMI-20-23	9.07	0.90	1.04	48.33	40.86	100.20	0.49	0.04	0.03	1.45	2.00	4.00
CEMI-20-24	0.30	53.06	0.46	1.64	43.26	98.72	0.02	1.93	0.01	0.05	2.00	4.00
CEMI-20-26	15.65	29.47	0.09	8.20	45.29	98.70	0.76	1.02	0.00	0.22	2.00	4.00
CEMI-20-27	12.75	32.00	0.16	10.04	45.28	100.23	0.62	1.11	0.00	0.27	2.00	4.00
CEMI-20-28	1.94	0.42	0.05	59.79	39.10	101.30	0.11	0.02	0.00	1.87	2.00	4.00
CEMI-20-30	16.63	29.84	0.07	7.01	45.91	99.46	0.79	1.02	0.00	0.19	2.00	4.00
CEMI-21-1	16.05	0.33	0.84	41.12	43.49	101.83	0.81	0.01	0.02	1.16	2.00	4.00
CEMI-21-2	14.33	0.46	0.86	42.78	42.75	101.18	0.73	0.02	0.03	1.23	2.00	4.00
CEMI-21-3	4.11	1.61	0.85	53.72	39.19	99.48	0.23	0.06	0.03	1.68	2.00	4.00

CEMI-21-4	14.03	28.46	0.12	10.97	44.45	98.03	0.69	1.01	0.00	0.30	2.00	4.00
CEMI-21-5	16.74	1.21	0.29	39.24	43.45	100.93	0.84	0.04	0.01	1.11	2.00	4.00
CEMI-21-7	11.35	32.90	0.59	10.41	44.96	100.21	0.55	1.15	0.02	0.28	2.00	4.00
CEMI-21-8	9.87	30.83	0.55	14.35	44.10	99.70	0.49	1.10	0.02	0.40	2.00	4.00
CEMI-21-9	5.28	0.97	0.16	53.32	39.29	99.02	0.29	0.04	0.01	1.66	2.00	4.00
CEMI-21-10	7.53	3.53	0.29	48.74	41.03	101.12	0.40	0.14	0.01	1.46	2.00	4.00
CEMI-21-11	2.77	2.47	0.74	55.89	39.66	101.53	0.15	0.10	0.02	1.73	2.00	4.00
CEMI-21-12	1.04	2.64	0.56	57.04	38.49	99.77	0.06	0.11	0.02	1.82	2.00	4.00
CEMI-21-13	15.29	29.82	0.35	8.73	45.66	99.85	0.73	1.03	0.01	0.23	2.00	4.00
CEMI-21-14	10.49	30.60	0.45	13.62	44.09	99.25	0.52	1.09	0.01	0.38	2.00	4.00
CEMI-21-15	11.65	30.84	1.28	12.60	45.44	101.81	0.56	1.07	0.04	0.34	2.00	4.00
CEMI-21-16	11.66	30.74	1.51	11.91	45.09	100.91	0.57	1.07	0.04	0.32	2.00	4.00
CEMI-21-18	3.62	2.26	1.30	54.42	39.87	101.47	0.20	0.09	0.04	1.67	2.00	4.00
CEMI-21-19	12.00	29.73	0.39	13.58	45.00	100.70	0.58	1.04	0.01	0.37	2.00	4.00
CEMI-21-20	10.83	29.81	0.48	15.18	44.82	101.12	0.53	1.04	0.01	0.42	2.00	4.00
CEMI-21-21	16.25	29.42	0.53	7.42	45.71	99.33	0.78	1.01	0.01	0.20	2.00	4.00
CEMI-21-22	13.30	29.47	0.25	12.58	45.51	101.11	0.64	1.02	0.01	0.34	2.00	4.00
CEMI-21-23	12.04	30.12	0.18	12.32	44.44	99.10	0.59	1.06	0.01	0.34	2.00	4.00
CEMI-21-24	10.51	30.35	0.17	14.66	44.38	100.07	0.52	1.07	0.01	0.41	2.00	4.00
CEMI-21-25	0.04	55.16	0.12	0.75	43.87	99.94	0.00	1.97	0.00	0.02	2.00	4.00
CEMI-21-26	0.05	56.04	0.01	0.41	44.29	100.80	0.00	1.99	0.00	0.01	2.00	4.00
CEMI-21-27	3.68	2.44	1.87	53.08	39.61	100.68	0.20	0.10	0.06	1.64	2.00	4.00
CEMI-21-29	13.15	29.61	0.17	11.73	44.89	99.55	0.64	1.04	0.01	0.32	2.00	4.00
CEMI-21-30	12.64	28.89	0.34	13.31	44.84	100.02	0.62	1.01	0.01	0.36	2.00	4.00
CEMI-21-31	14.81	29.92	0.18	9.96	45.86	100.73	0.71	1.02	0.01	0.27	2.00	4.00
CEMI-21-32	15.70	30.07	0.12	7.99	45.71	99.59	0.75	1.03	0.00	0.21	2.00	4.00
4292-685-695-1	0.17	53.27	1.50	1.04	43.56	99.54	0.01	1.92	0.04	0.03	2.00	4.00
4292-685-695-3	0.00	55.22	0.82	0.00	43.84	99.88	0.00	1.98	0.02	0.00	2.00	4.00
4292-685-695-4	0.03	55.04	1.17	0.16	44.05	100.45	0.00	1.96	0.03	0.00	2.00	4.00
4292-685-695-5	0.03	54.30	1.40	0.18	43.62	99.53	0.00	1.95	0.04	0.01	2.00	4.00
4292-685-695-6	0.22	53.57	0.58	1.08	43.30	98.75	0.01	1.94	0.02	0.03	2.00	4.00
4292-685-695-7	0.03	54.58	0.87	0.11	43.47	99.06	0.00	1.97	0.03	0.00	2.00	4.00
4292-685-695-8	0.00	54.92	0.67	0.10	43.58	99.27	0.00	1.98	0.02	0.00	2.00	4.00
4292-685-695-9	0.11	54.26	1.04	0.61	43.72	99.74	0.01	1.95	0.03	0.02	2.00	4.00
4292-685-695-10	0.02	55.37	0.74	0.22	44.07	100.42	0.00	1.97	0.02	0.01	2.00	4.00
4292-685-695-11	0.03	55.89	0.71	0.30	44.52	101.45	0.00	1.97	0.02	0.01	2.00	4.00
4292-685-695-12	0.00	55.73	0.59	0.34	44.31	100.97	0.00	1.97	0.02	0.01	2.00	4.00
4292-685-695-13	0.03	55.96	0.88	0.32	44.69	101.88	0.00	1.97	0.02	0.01	2.00	4.00
4292-685-695-15	0.18	54.46	0.70	1.08	44.03	100.45	0.01	1.94	0.02	0.03	2.00	4.00
4292-685-695-16	0.07	54.31	1.08	0.55	43.70	99.71	0.00	1.95	0.03	0.02	2.00	4.00
4292-685-695-17	0.20	53.78	1.04	1.15	43.77	99.94	0.01	1.93	0.03	0.03	2.00	4.00
4292-685-695-18	0.18	53.82	0.80	0.67	43.34	98.81	0.01	1.95	0.02	0.02	2.00	4.00
4292-685-695-19	0.01	56.06	0.57	0.18	44.47	101.29	0.00	1.98	0.02	0.01	2.00	4.00
4292-685-695-20	0.06	55.18	0.76	0.31	44.03	100.34	0.00	1.97	0.02	0.01	2.00	4.00
4292-685-695-21	0.03	55.22	0.47	0.63	44.05	100.40	0.00	1.97	0.01	0.02	2.00	4.00
4292-685-695-22	0.04	54.71	0.46	0.74	43.72	99.67	0.00	1.96	0.01	0.02	2.00	4.00
4292-685-695-23	0.23	53.96	0.51	1.36	43.75	99.81	0.01	1.94	0.01	0.04	2.00	4.00
4292-685-695-24	0.25	53.60	0.55	1.26	43.45	99.11	0.01	1.94	0.02	0.04	2.00	4.00
4292-685-695-25	0.05	54.85	0.65	0.72	43.94	100.21	0.00	1.96	0.02	0.02	2.00	4.00
4292-685-695-26	0.00	54.95	1.06	0.13	43.86	100.00	0.00	1.97	0.03	0.00	2.00	4.00
4292-685-695-27	0.06	55.04	0.72	0.51	44.02	100.35	0.00	1.96	0.02	0.01	2.00	4.00
4292-685-695-28	0.06	53.78	1.35	0.40	43.35	98.94	0.00	1.95	0.04	0.01	2.00	4.00
4292-685-695-29	0.31	52.81	1.34	1.19	43.34	98.99	0.02	1.91	0.04	0.03	2.00	4.00
4292-685-695-30	0.02	55.45	0.64	0.10	44.00	100.21	0.00	1.98	0.02	0.00	2.00	4.00
4292-685-695-31	0.08	54.83	1.36	0.30	44.14	100.71	0.00	1.95	0.04	0.01	2.00	4.00
4292-685-695-32	0.08	53.54	1.36	0.57	43.30	98.85	0.00	1.94	0.04	0.02	2.00	4.00
3129-0417-0435-2	12.50	30.20	0.29	12.55	45.22	100.76	0.60	1.05	0.01	0.34	2.00	4.00
3129-0417-0435-3	2.65	42.43	1.08	9.95	42.96	99.07	0.14	1.55	0.03	0.28	2.00	4.00
3129-0417-0435-4	2.37	44.04	0.95	8.70	43.07	99.13	0.12	1.61	0.03	0.25	2.00	4.00
3129-0417-0435-5	0.69	51.53	1.06	2.23	43.22	98.73	0.04	1.87	0.03	0.06	2.00	4.00
3129-0417-0435-7	0.31	53.31	0.60	1.54	43.49	99.25	0.02	1.92	0.02	0.04	2.00	4.00
3129-0417-0435-8	0.33	52.98	0.57	1.61	43.28	98.77	0.02	1.92	0.02	0.05	2.00	4.00
3129-0417-0435-9	0.05	54.99	0.57	0.25	43.72	99.58	0.00	1.97	0.02	0.01	2.00	4.00
3129-0417-0435-11	0.92	52.22	0.72	1.85	43.57	99.28	0.05	1.88	0.02	0.05	2.00	4.00
3129-0417-0435-12	0.76	53.12	0.60	1.73	43.95	100.16	0.04	1.90	0.02	0.05	2.00	4.00
3129-0417-0435-13	13.03	28.11	0.55	13.99	45.20	100.88	0.63	0.98	0.02	0.38	2.00	4.00
3129-0417-0435-15	16.09	3.21	0.61	37.68	43.55	101.14	0.81	0.12	0.02	1.06	2.00	4.00
3129-0417-0435-16	13.97	2.89	0.71	40.45	42.74	100.76	0.71	0.11	0.02	1.16	2.00	4.00
3129-0417-0435-17	12.43	30.70	0.36	12.32	45.44	101.25	0.60	1.06	0.01	0.33	2.00	4.00
3129-0417-0435-18	12.58	29.36	0.38	13.33	45.18	100.83	0.61	1.02	0.01	0.36	2.00	4.00
3129-0417-0435-19	12.24	30.49	0.31	12.65	45.23	100.92	0.59	1.06	0.01	0.34	2.00	4.00
3129-0417-0435-22	13.35	28.76	0.53	11.67	44.62	98.93	0.65	1.01	0.02	0.32	2.00	4.00
3129-0417-0435-23	12.90	29.41	0.54	13.21	45.59	101.65	0.62	1.01	0.02	0.36	2.00	4.00

3129-0417-0435-24	17.16	32.09	0.25	4.93	47.10	101.53	0.80	1.07	0.01	0.13	2.00	4.00
3129-0417-0435-25	12.99	28.89	0.18	13.25	45.08	100.39	0.63	1.01	0.01	0.36	2.00	4.00
3129-0417-0435-26	12.68	28.81	0.61	14.16	45.51	101.77	0.61	0.99	0.02	0.38	2.00	4.00
3129-0417-0435-27	5.13	33.57	0.94	17.01	42.95	99.60	0.26	1.23	0.03	0.49	2.00	4.00
3129-0417-0435-28	3.96	38.82	1.00	12.95	43.34	100.07	0.20	1.41	0.03	0.37	2.00	4.00
3129-0417-0435-29	11.93	2.87	0.98	43.16	42.32	101.26	0.62	0.11	0.03	1.25	2.00	4.00
3129-0417-0435-30	13.93	29.84	0.57	10.97	45.70	101.01	0.67	1.03	0.02	0.29	2.00	4.00
3129-0417-0435-31	14.22	29.05	0.63	11.34	45.66	100.90	0.68	1.00	0.02	0.30	2.00	4.00
3129-0417-0435-33	14.34	3.91	1.08	38.80	43.16	101.29	0.73	0.14	0.03	1.10	2.00	4.00
3129-0417-0435-34	12.58	2.40	0.97	42.10	42.01	100.06	0.65	0.09	0.03	1.23	2.00	4.00
3129-0417-0435-35	11.82	3.08	0.78	43.10	42.21	100.99	0.61	0.12	0.02	1.25	2.00	4.00
3129-0417-0435-36	14.17	3.32	0.68	40.29	43.18	101.64	0.72	0.12	0.02	1.14	2.00	4.00
3129-0417-0435-37	3.30	41.02	1.35	11.17	43.47	100.31	0.17	1.48	0.04	0.32	2.00	4.00
3129-0417-0435-38	0.76	53.08	1.10	1.69	44.20	100.83	0.04	1.89	0.03	0.05	2.00	4.00
3129-0417-0435-39	0.75	52.71	0.89	1.51	43.66	99.52	0.04	1.90	0.03	0.04	2.00	4.00
3129-0417-0435-40	12.37	30.96	0.27	12.35	45.54	101.49	0.59	1.07	0.01	0.33	2.00	4.00
3129-0417-0435-41	12.87	30.70	0.30	11.83	45.58	101.28	0.62	1.06	0.01	0.32	2.00	4.00
115-0054-0066-2	0.13	54.13	0.31	0.55	43.15	98.27	0.01	1.97	0.01	0.02	2.00	4.00
115-0054-0066-5	0.62	53.10	0.27	1.64	43.52	99.15	0.03	1.92	0.01	0.05	2.00	4.00
115-0054-0066-7	11.86	29.57	0.67	13.15	44.63	99.88	0.58	1.04	0.02	0.36	2.00	4.00
115-0054-0066-8	13.15	29.63	0.42	12.44	45.49	101.13	0.63	1.02	0.01	0.34	2.00	4.00
115-0054-0066-9	10.16	0.90	0.86	46.91	41.07	99.90	0.54	0.03	0.03	1.40	2.00	4.00
115-0054-0066-10	12.42	1.79	1.19	43.46	42.33	101.19	0.64	0.07	0.04	1.26	2.00	4.00
115-0054-0066-11	0.13	54.59	0.36	0.51	43.52	99.11	0.01	1.97	0.01	0.01	2.00	4.00
115-0054-0066-12	0.35	53.57	0.64	0.99	43.43	98.98	0.02	1.94	0.02	0.03	2.00	4.00
115-0054-0066-16	9.30	1.48	1.70	47.75	41.62	101.85	0.49	0.06	0.05	1.41	2.00	4.00
115-0054-0066-18	4.32	2.90	0.81	52.24	39.50	99.77	0.24	0.12	0.03	1.62	2.00	4.00
115-0054-0066-19	0.47	52.49	0.59	1.61	43.06	98.22	0.02	1.91	0.02	0.05	2.00	4.00
115-0054-0066-20	0.30	52.79	0.28	1.84	43.06	98.27	0.02	1.92	0.01	0.05	2.00	4.00
115-0054-0066-22	0.60	53.54	0.72	1.03	43.75	99.64	0.03	1.92	0.02	0.03	2.00	4.00
115-0054-0066-24	0.32	53.07	0.56	1.25	43.11	98.31	0.02	1.93	0.02	0.04	2.00	4.00
115-0054-0066-27	0.90	51.76	1.07	1.40	43.12	98.25	0.05	1.88	0.03	0.04	2.00	4.00
115-0054-0066-28	0.40	52.72	0.75	1.70	43.32	98.89	0.02	1.91	0.02	0.05	2.00	4.00
115-0054-0066-29	0.27	53.30	0.60	1.26	43.27	98.70	0.01	1.93	0.02	0.04	2.00	4.00
115-0054-0066-30	14.88	1.45	1.02	40.49	42.82	100.66	0.76	0.05	0.03	1.16	2.00	4.00
115-0054-0066-34	0.08	53.98	0.10	0.86	43.04	98.06	0.00	1.97	0.00	0.02	2.00	4.00
4157-439-471-1	2.63	1.50	0.05	56.13	38.46	98.77	0.15	0.06	0.00	1.79	2.00	4.00
4157-439-471-2	3.74	1.68	0.06	55.35	39.34	100.17	0.21	0.07	0.00	1.72	2.00	4.00
4157-439-471-3	0.02	0.31	0.05	62.52	38.59	101.49	0.00	0.01	0.00	1.99	2.00	4.00
4157-439-471-4	2.47	2.13	0.03	56.43	38.95	100.01	0.14	0.09	0.00	1.78	2.00	4.00
4157-439-471-5	0.25	0.53	0.02	60.47	37.74	99.01	0.01	0.02	0.00	1.96	2.00	4.00
4157-439-471-6	4.61	0.88	0.04	55.19	39.56	100.28	0.26	0.04	0.00	1.71	2.00	4.00
4157-439-471-7	3.01	1.71	0.05	55.81	38.85	99.43	0.17	0.07	0.00	1.76	2.00	4.00
4157-439-471-8	2.53	1.87	0.00	56.23	38.67	99.30	0.14	0.08	0.00	1.78	2.00	4.00
4157-439-471-10	0.02	0.39	0.04	60.31	37.30	98.06	0.00	0.02	0.00	1.98	2.00	4.00
4157-439-471-11	2.16	1.43	0.00	56.80	38.27	98.66	0.12	0.06	0.00	1.82	2.00	4.00
4157-439-471-12	4.37	1.46	0.05	54.92	39.59	100.39	0.24	0.06	0.00	1.70	2.00	4.00
4157-439-471-14	8.57	1.66	0.18	49.16	40.89	100.46	0.46	0.06	0.01	1.47	2.00	4.00
4157-439-471-15	1.60	1.71	0.06	58.85	39.18	101.40	0.09	0.07	0.00	1.84	2.00	4.00
4157-439-471-16	0.03	0.42	0.02	61.71	38.18	100.36	0.00	0.02	0.00	1.98	2.00	4.00
4157-439-471-17	4.02	1.22	0.02	55.70	39.48	100.44	0.22	0.05	0.00	1.73	2.00	4.00
4157-439-471-18	0.27	0.53	0.06	61.58	38.47	100.91	0.02	0.02	0.00	1.96	2.00	4.00
4157-439-471-19	4.51	0.46	0.03	56.66	40.01	101.67	0.25	0.02	0.00	1.74	2.00	4.00
4157-439-471-21	1.95	2.39	0.06	56.57	38.69	99.66	0.11	0.10	0.00	1.79	2.00	4.00
4157-439-471-22	0.31	2.13	0.01	60.39	39.01	101.85	0.02	0.09	0.00	1.90	2.00	4.00
4157-439-471-23	0.33	1.85	0.02	60.01	38.58	100.79	0.02	0.08	0.00	1.91	2.00	4.00
4157-439-471-24	2.54	2.21	0.07	56.05	38.88	99.75	0.14	0.09	0.00	1.77	2.00	4.00
4157-439-471-25	4.99	0.84	0.05	55.67	40.24	101.79	0.27	0.03	0.00	1.70	2.00	4.00
4157-439-471-27	0.17	0.42	0.05	62.51	38.84	101.99	0.01	0.02	0.00	1.97	2.00	4.00
4157-439-471-28	3.35	2.14	0.00	55.58	39.38	100.45	0.19	0.09	0.00	1.73	2.00	4.00
4157-439-471-29	0.07	0.33	0.05	61.58	38.09	100.12	0.00	0.01	0.00	1.98	2.00	4.00
4157-439-471-30	2.31	1.39	0.03	57.27	38.71	99.71	0.13	0.06	0.00	1.81	2.00	4.00
4157-439-471-31	3.12	1.43	0.00	57.17	39.55	101.27	0.17	0.06	0.00	1.77	2.00	4.00
4157-439-471-32	4.25	1.12	0.04	55.78	39.71	100.90	0.23	0.04	0.00	1.72	2.00	4.00
4157-439-471-34	6.27	0.73	0.08	54.00	40.55	101.63	0.34	0.03	0.00	1.63	2.00	4.00
4157-439-471-36	0.31	1.19	0.11	61.32	38.90	101.83	0.02	0.05	0.00	1.93	2.00	4.00
3102-0568-0588-2	0.22	1.09	3.67	57.30	38.47	100.75	0.01	0.04	0.12	1.83	2.00	4.00
3102-0568-0588-6	0.27	1.02	3.75	57.96	38.93	101.93	0.02	0.04	0.12	1.82	2.00	4.00
3102-0568-0588-7	15.38	28.83	0.42	9.99	45.80	100.42	0.73	0.99	0.01	0.27	2.00	4.00
3102-0568-0588-8	15.54	31.04	0.59	7.27	46.15	100.59	0.74	1.06	0.02	0.19	2.00	4.00
3102-0568-0588-9	0.77	4.93	3.72	50.91	38.20	98.53	0.04	0.20	0.12	1.63	2.00	4.00
3102-0568-0588-11	15.40	29.33	0.57	9.43	45.96	100.69	0.73	1.00	0.02	0.25	2.00	4.00
3102-0568-0588-12	16.15	30.52	0.32	6.78	45.94	99.71	0.77	1.04	0.01	0.18	2.00	4.00

3102-0568-0588-13	14.71	28.95	0.77	10.48	45.68	100.59	0.70	1.00	0.02	0.28	2.00	4.00
3102-0568-0588-14	1.11	4.47	3.82	50.94	38.29	98.63	0.06	0.18	0.12	1.63	2.00	4.00
3102-0568-0588-15	13.58	29.59	1.54	10.90	45.68	101.29	0.65	1.02	0.04	0.29	2.00	4.00
3102-0568-0588-16	15.27	30.21	0.81	8.57	46.13	101.00	0.72	1.03	0.02	0.23	2.00	4.00
CEMI-23-1	0.19	54.40	0.09	1.07	43.61	99.36	0.01	1.96	0.00	0.03	2.00	4.00
CEMI-23-3	0.10	54.20	0.85	0.48	43.47	99.10	0.01	1.96	0.02	0.01	2.00	4.00
CEMI-23-5	10.62	29.79	0.54	15.40	44.74	101.09	0.52	1.05	0.02	0.42	2.00	4.00
CEMI-23-6	13.88	29.36	0.07	10.73	44.81	98.85	0.68	1.03	0.00	0.29	2.00	4.00
CEMI-23-7	12.52	28.16	0.26	14.40	44.75	100.09	0.61	0.99	0.01	0.39	2.00	4.00
CEMI-23-9	12.95	29.45	0.21	11.94	44.70	99.25	0.63	1.03	0.01	0.33	2.00	4.00
CEMI-23-10	12.65	28.48	0.22	13.90	44.81	100.06	0.62	1.00	0.01	0.38	2.00	4.00
CEMI-23-11	16.88	30.65	0.21	5.49	45.98	99.21	0.80	1.05	0.01	0.15	2.00	4.00
CEMI-23-13	2.67	3.50	0.36	54.77	39.44	100.74	0.15	0.14	0.01	1.70	2.00	4.00
CEMI-23-14	0.45	52.54	0.55	1.78	43.16	98.48	0.02	1.91	0.02	0.05	2.00	4.00
CEMI-23-19	7.17	0.87	1.41	50.68	40.43	100.56	0.39	0.03	0.04	1.54	2.00	4.00
CEMI-23-20	12.90	30.24	0.13	11.11	44.70	99.08	0.63	1.06	0.00	0.30	2.00	4.00
CEMI-23-23	12.89	31.78	0.22	9.30	44.85	99.04	0.63	1.11	0.01	0.25	2.00	4.00
CEMI-23-24	13.22	31.76	0.21	8.50	44.70	98.39	0.65	1.12	0.01	0.23	2.00	4.00
CEMI-23-25	13.16	30.60	0.39	11.03	45.38	100.56	0.63	1.06	0.01	0.30	2.00	4.00
CEMI-23-26	12.58	29.82	0.40	11.44	44.39	98.63	0.62	1.05	0.01	0.32	2.00	4.00
CEMI-23-27	14.10	28.89	0.18	11.53	45.24	99.94	0.68	1.00	0.01	0.31	2.00	4.00
CEMI-23-28	14.00	28.57	0.21	11.51	44.89	99.18	0.68	1.00	0.01	0.31	2.00	4.00
4292-415-430-1	3.61	1.05	0.08	56.09	39.17	100.00	0.20	0.04	0.00	1.75	2.00	4.00
4292-415-430-2	4.09	1.06	0.08	55.63	39.42	100.28	0.23	0.04	0.00	1.73	2.00	4.00
4292-415-430-3	4.05	0.91	0.16	56.58	39.89	101.59	0.22	0.04	0.01	1.74	2.00	4.00
4292-415-430-4	3.92	1.98	0.04	55.14	39.64	100.72	0.22	0.08	0.00	1.70	2.00	4.00
4292-415-430-5	2.95	0.66	0.05	58.02	39.31	100.99	0.16	0.03	0.00	1.81	2.00	4.00
4292-415-430-6	3.21	0.76	0.01	56.84	38.93	99.75	0.18	0.03	0.00	1.79	2.00	4.00
4292-415-430-7	4.50	0.30	1.60	54.41	39.47	100.28	0.25	0.01	0.05	1.69	2.00	4.00
4292-415-430-8	4.14	0.96	0.14	55.71	39.49	100.44	0.23	0.04	0.00	1.73	2.00	4.00
4292-415-430-9	3.24	1.50	0.06	56.51	39.37	100.68	0.18	0.06	0.00	1.76	2.00	4.00
4292-415-430-10	3.26	1.40	0.02	55.94	38.94	99.56	0.18	0.06	0.00	1.76	2.00	4.00
4292-415-430-11	5.52	0.50	0.70	54.61	40.31	101.64	0.30	0.02	0.02	1.66	2.00	4.00
4292-415-430-13	10.67	28.09	0.17	16.96	44.19	100.08	0.53	1.00	0.01	0.47	2.00	4.00
4292-415-430-14	12.88	29.04	0.07	12.94	44.82	99.75	0.63	1.02	0.00	0.35	2.00	4.00
4292-415-430-15	3.53	0.95	0.07	55.90	38.89	99.34	0.20	0.04	0.00	1.76	2.00	4.00
4292-415-430-16	4.70	0.38	1.88	53.68	39.48	100.12	0.26	0.02	0.06	1.67	2.00	4.00
4292-415-430-17	2.97	0.78	0.02	57.13	38.86	99.76	0.17	0.03	0.00	1.80	2.00	4.00
4292-415-430-18	2.74	1.06	0.03	56.68	38.56	99.07	0.16	0.04	0.00	1.80	2.00	4.00
4292-415-430-19	3.47	1.30	0.04	56.49	39.44	100.74	0.19	0.05	0.00	1.76	2.00	4.00
4292-415-430-20	3.55	1.29	0.12	56.10	39.33	100.39	0.20	0.05	0.00	1.75	2.00	4.00
4292-415-430-21	3.20	1.23	0.06	56.31	38.99	99.79	0.18	0.05	0.00	1.77	2.00	4.00
4292-415-430-22	4.07	1.41	0.07	55.62	39.66	100.83	0.22	0.06	0.00	1.72	2.00	4.00
4292-415-430-23	3.02	1.46	0.00	57.46	39.64	101.58	0.17	0.06	0.00	1.78	2.00	4.00
4292-415-430-24	3.27	1.49	0.02	56.92	39.62	101.32	0.18	0.06	0.00	1.76	2.00	4.00
4292-415-430-25	3.68	1.15	0.10	55.95	39.26	100.14	0.21	0.05	0.00	1.75	2.00	4.00
4292-415-430-28	4.85	1.85	0.04	54.50	40.16	101.40	0.26	0.07	0.00	1.66	2.00	4.00
4292-415-430-29	4.64	0.98	0.32	55.23	39.87	101.04	0.25	0.04	0.01	1.70	2.00	4.00
4292-415-430-31	11.39	28.54	0.17	15.65	44.53	100.28	0.56	1.01	0.01	0.43	2.00	4.00
4292-415-430-32	10.74	28.70	0.21	17.01	44.80	101.46	0.52	1.01	0.01	0.47	2.00	4.00
CEMI-22-3	12.39	33.21	0.40	8.49	45.04	99.53	0.60	1.16	0.01	0.23	2.00	4.00
CEMI-22-4	13.11	31.89	0.30	9.65	45.44	100.39	0.63	1.10	0.01	0.26	2.00	4.00
CEMI-22-5	16.81	29.19	0.22	6.82	45.58	98.62	0.81	1.01	0.01	0.18	2.00	4.00
CEMI-22-7	12.90	1.74	0.24	43.08	41.99	99.95	0.67	0.07	0.01	1.26	2.00	4.00
CEMI-22-8	14.79	2.57	0.20	40.95	43.37	101.88	0.75	0.09	0.01	1.16	2.00	4.00
CEMI-22-9	17.90	29.93	0.15	5.68	46.61	100.27	0.84	1.01	0.00	0.15	2.00	4.00
CEMI-22-11	13.52	31.20	1.52	7.66	44.88	98.78	0.66	1.09	0.04	0.21	2.00	4.00
CEMI-22-13	10.08	32.44	0.63	12.38	44.44	99.97	0.50	1.15	0.02	0.34	2.00	4.00
CEMI-22-14	6.65	39.09	0.77	9.49	44.23	100.23	0.33	1.39	0.02	0.26	2.00	4.00
CEMI-22-17	0.16	54.53	0.09	0.62	43.40	98.80	0.01	1.97	0.00	0.02	2.00	4.00
CEMI-22-19	11.90	28.80	0.34	14.66	44.79	100.49	0.58	1.01	0.01	0.40	2.00	4.00
CEMI-22-20	11.71	29.37	0.25	14.80	45.06	101.19	0.57	1.02	0.01	0.40	2.00	4.00
CEMI-22-21	11.99	31.68	0.41	10.95	44.92	99.95	0.58	1.11	0.01	0.30	2.00	4.00
CEMI-22-22	11.89	32.23	0.32	10.47	44.89	99.80	0.58	1.13	0.01	0.29	2.00	4.00
CEMI-22-23	13.37	28.72	0.27	11.91	44.60	98.87	0.66	1.01	0.01	0.33	2.00	4.00
CEMI-22-24	14.05	29.00	0.21	11.13	45.05	99.44	0.68	1.01	0.01	0.30	2.00	4.00
CEMI-22-25	0.05	54.61	0.15	0.70	43.43	98.94	0.00	1.97	0.00	0.02	2.00	4.00
CEMI-22-26	0.06	54.52	0.20	0.67	43.39	98.84	0.00	1.97	0.01	0.02	2.00	4.00
CEMI-9-1	17.15	33.15	0.10	2.39	46.27	99.06	0.81	1.13	0.00	0.06	2.00	4.00
CEMI-9-2	16.63	33.84	0.13	2.13	46.10	98.83	0.79	1.15	0.00	0.06	2.00	4.00
CEMI-9-3	0.24	53.07	0.98	0.97	43.11	98.37	0.01	1.93	0.03	0.03	2.00	4.00
CEMI-9-5	0.41	53.90	0.82	0.24	43.40	98.77	0.02	1.95	0.02	0.01	2.00	4.00
CEMI-9-7	0.30	53.38	0.68	0.68	43.06	98.10	0.02	1.95	0.02	0.02	2.00	4.00

CEMI-9-11	0.18	53.52	0.94	0.64	43.17	98.45	0.01	1.95	0.03	0.02	2.00	4.00
CEMI-9-12	0.60	52.27	1.64	0.73	43.14	98.38	0.03	1.90	0.05	0.02	2.00	4.00
CEMI-9-14	0.39	53.66	0.81	0.49	43.34	98.69	0.02	1.94	0.02	0.01	2.00	4.00
CEMI-9-15	0.18	54.69	0.54	0.42	43.71	99.54	0.01	1.96	0.02	0.01	2.00	4.00
CEMI-9-16	11.24	33.94	0.42	9.06	44.72	99.38	0.55	1.19	0.01	0.25	2.00	4.00
CEMI-9-17	0.22	53.84	0.67	0.60	43.28	98.61	0.01	1.95	0.02	0.02	2.00	4.00
CEMI-9-18	11.35	34.04	0.42	9.02	44.89	99.72	0.55	1.19	0.01	0.25	2.00	4.00
CEMI-9-19	0.30	53.92	0.81	0.82	43.65	99.50	0.02	1.94	0.02	0.02	2.00	4.00
CEMI-9-20	0.35	52.95	0.95	0.88	43.06	98.19	0.02	1.93	0.03	0.03	2.00	4.00
CEMI-9-21	0.52	53.72	0.20	1.24	43.61	99.29	0.03	1.93	0.01	0.04	2.00	4.00
CEMI-9-23	0.77	52.02	1.11	1.62	43.35	98.87	0.04	1.88	0.03	0.05	2.00	4.00
CEMI-9-24	24.66	7.44	0.34	22.35	46.67	101.46	1.15	0.25	0.01	0.59	2.00	4.00
CEMI-9-25	1.08	51.13	1.13	2.08	43.28	98.70	0.05	1.85	0.03	0.06	2.00	4.00
CEMI-9-26	0.84	51.78	1.03	1.75	43.26	98.66	0.04	1.88	0.03	0.05	2.00	4.00
CEMI-9-29	0.35	53.02	0.79	1.02	43.11	98.29	0.02	1.93	0.02	0.03	2.00	4.00
CEMI-9-31	0.13	54.79	0.47	0.26	43.59	99.24	0.01	1.97	0.01	0.01	2.00	4.00
CEMI-9-32	17.15	33.39	0.13	2.14	46.32	99.13	0.81	1.13	0.00	0.06	2.00	4.00
CEMI-9-35	0.46	52.67	0.99	1.19	43.18	98.49	0.02	1.92	0.03	0.03	2.00	4.00
CEMI-12-1	11.61	32.22	0.29	10.95	44.85	99.92	0.57	1.13	0.01	0.30	2.00	4.00
CEMI-12-2	11.98	31.92	0.22	10.69	44.82	99.63	0.58	1.12	0.01	0.29	2.00	4.00
CEMI-12-3	7.92	31.08	0.40	17.81	44.20	101.41	0.39	1.10	0.01	0.49	2.00	4.00
CEMI-12-4	8.74	29.61	0.29	17.76	43.84	100.24	0.44	1.06	0.01	0.50	2.00	4.00
CEMI-12-5	10.89	31.10	0.18	12.76	44.23	99.16	0.54	1.10	0.01	0.35	2.00	4.00
CEMI-12-6	10.09	32.98	0.16	12.50	44.66	100.39	0.49	1.16	0.00	0.34	2.00	4.00
CEMI-12-7	13.11	30.98	0.06	10.86	45.32	100.33	0.63	1.07	0.00	0.29	2.00	4.00
CEMI-12-8	12.20	31.53	0.31	10.98	44.98	100.00	0.59	1.10	0.01	0.30	2.00	4.00
CEMI-12-9	13.36	29.66	0.26	11.23	44.91	99.42	0.65	1.04	0.01	0.31	2.00	4.00
CEMI-12-11	12.78	29.37	0.16	11.95	44.42	98.68	0.63	1.04	0.00	0.33	2.00	4.00
CEMI-12-12	13.14	29.46	0.17	11.22	44.45	98.44	0.65	1.04	0.01	0.31	2.00	4.00
CEMI-12-13	9.55	29.90	0.29	16.85	44.39	100.98	0.47	1.06	0.01	0.47	2.00	4.00
CEMI-12-16	8.24	30.16	0.53	17.93	43.98	100.84	0.41	1.08	0.02	0.50	2.00	4.00
CEMI-12-17	12.57	29.51	0.14	12.05	44.35	98.62	0.62	1.04	0.00	0.33	2.00	4.00
CEMI-12-18	10.33	29.04	0.31	16.04	44.09	99.81	0.51	1.03	0.01	0.45	2.00	4.00
CEMI-12-19	12.59	29.75	0.19	11.39	44.19	98.11	0.62	1.06	0.01	0.32	2.00	4.00
CEMI-12-20	9.50	30.63	0.43	14.97	43.85	99.38	0.47	1.10	0.01	0.42	2.00	4.00
CEMI-12-21	11.25	30.45	0.15	13.38	44.47	99.70	0.55	1.08	0.00	0.37	2.00	4.00
CEMI-12-23	15.15	29.36	0.06	8.99	45.13	98.69	0.73	1.02	0.00	0.24	2.00	4.00
CEMI-12-24	13.49	29.07	0.19	11.76	44.87	99.38	0.66	1.02	0.01	0.32	2.00	4.00
CEMI-12-25	9.61	29.56	0.36	16.68	44.13	100.34	0.48	1.05	0.01	0.46	2.00	4.00
CEMI-12-26	9.07	30.03	0.25	16.21	43.56	99.12	0.46	1.08	0.01	0.46	2.00	4.00
CEMI-12-27	12.18	27.91	0.29	13.82	43.85	98.05	0.61	1.00	0.01	0.39	2.00	4.00
CEMI-12-28	10.87	32.77	0.27	11.97	45.09	100.97	0.53	1.14	0.01	0.33	2.00	4.00
CEMI-12-29	7.00	29.52	0.36	20.00	43.28	100.16	0.35	1.07	0.01	0.57	2.00	4.00
CEMI-12-30	10.81	29.09	0.28	15.00	44.00	99.17	0.54	1.04	0.01	0.42	2.00	4.00
CEMI-12-31	9.45	30.52	0.45	15.85	44.26	100.53	0.47	1.08	0.01	0.44	2.00	4.00
115-0142-0163-1	0.27	54.33	0.37	0.97	43.76	99.70	0.01	1.95	0.01	0.03	2.00	4.00
115-0142-0163-2	0.72	54.36	0.07	1.44	44.37	100.96	0.04	1.92	0.00	0.04	2.00	4.00
115-0142-0163-3	0.52	52.84	0.15	2.51	43.67	99.69	0.03	1.90	0.00	0.07	2.00	4.00
115-0142-0163-4	0.65	52.75	0.09	2.79	43.87	100.15	0.03	1.89	0.00	0.08	2.00	4.00
115-0142-0163-5	0.29	54.60	0.52	1.14	44.19	100.74	0.01	1.94	0.02	0.03	2.00	4.00
115-0142-0163-6	0.11	55.65	0.30	0.51	44.29	100.86	0.01	1.97	0.01	0.01	2.00	4.00
115-0142-0163-7	0.37	53.86	0.67	1.86	44.23	100.99	0.02	1.91	0.02	0.05	2.00	4.00
115-0142-0163-8	0.35	54.10	0.60	1.76	44.29	101.10	0.02	1.92	0.02	0.05	2.00	4.00
115-0142-0163-9	0.37	53.04	1.02	1.31	43.46	99.20	0.02	1.92	0.03	0.04	2.00	4.00
115-0142-0163-10	0.35	53.96	0.84	0.95	43.83	99.93	0.02	1.93	0.02	0.03	2.00	4.00
115-0142-0163-11	0.82	52.30	0.60	2.33	43.74	99.79	0.04	1.88	0.02	0.07	2.00	4.00
115-0142-0163-12	0.71	52.01	0.65	1.93	43.18	98.48	0.04	1.89	0.02	0.06	2.00	4.00
115-0142-0163-13	0.17	54.57	0.55	1.07	44.01	100.37	0.01	1.95	0.02	0.03	2.00	4.00
115-0142-0163-14	0.17	54.22	0.57	0.89	43.64	99.49	0.01	1.95	0.02	0.03	2.00	4.00
115-0142-0163-15	0.09	55.69	0.50	0.68	44.53	101.49	0.00	1.96	0.01	0.02	2.00	4.00
115-0142-0163-16	0.31	53.68	0.43	1.56	43.69	99.67	0.02	1.93	0.01	0.04	2.00	4.00
115-0142-0163-17	0.29	54.00	0.62	0.82	43.58	99.31	0.02	1.95	0.02	0.02	2.00	4.00
115-0142-0163-18	0.25	54.01	0.60	0.80	43.52	99.18	0.01	1.95	0.02	0.02	2.00	4.00
115-0142-0163-19	0.18	54.71	0.48	0.75	43.89	100.01	0.01	1.96	0.01	0.02	2.00	4.00
115-0142-0163-20	0.21	53.92	0.68	0.95	43.55	99.31	0.01	1.94	0.02	0.03	2.00	4.00
115-0142-0163-21	0.36	53.58	0.75	1.04	43.54	99.27	0.02	1.93	0.02	0.03	2.00	4.00
115-0142-0163-22	0.34	53.74	0.92	1.02	43.74	99.76	0.02	1.93	0.03	0.03	2.00	4.00
115-0142-0163-26	0.25	54.63	0.60	0.90	44.07	100.45	0.01	1.95	0.02	0.03	2.00	4.00
115-0142-0163-27	0.24	54.95	0.46	0.73	44.12	100.50	0.01	1.96	0.01	0.02	2.00	4.00
115-0142-0163-31	0.58	54.53	0.06	1.34	44.29	100.80	0.03	1.93	0.00	0.04	2.00	4.00
115-0142-0163-32	0.18	54.80	0.21	0.75	43.79	99.73	0.01	1.96	0.01	0.02	2.00	4.00
3129-0253-0272-1	0.40	52.94	3.02	0.32	44.05	100.73	0.02	1.89	0.09	0.01	2.00	4.00
3129-0253-0272-2	0.28	53.81	1.91	0.33	43.92	100.25	0.01	1.92	0.05	0.01	2.00	4.00

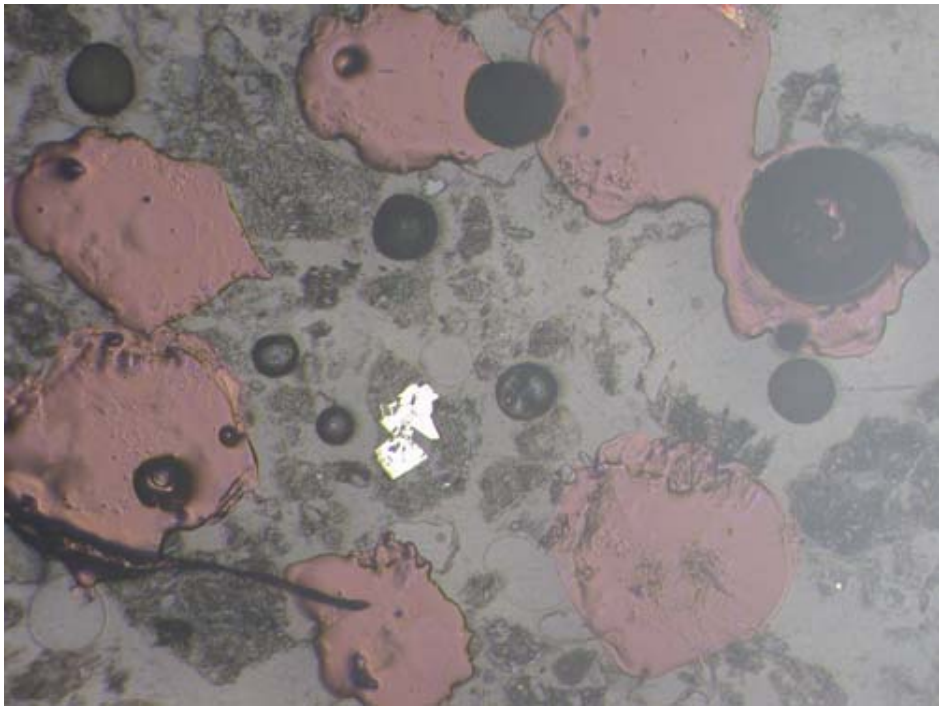
3129-0253-0272-3	0.24	54.86	1.44	0.23	44.35	101.12	0.01	1.94	0.04	0.01	2.00	4.00
3129-0253-0272-4	0.10	56.18	0.82	0.11	44.77	101.98	0.01	1.97	0.02	0.00	2.00	4.00
3129-0253-0272-5	0.20	55.23	1.07	0.17	44.33	101.00	0.01	1.96	0.03	0.01	2.00	4.00
3129-0253-0272-6	0.52	54.21	1.36	0.42	44.21	100.72	0.03	1.93	0.04	0.01	2.00	4.00
3129-0253-0272-7	2.04	50.13	1.69	2.01	43.85	99.72	0.10	1.79	0.05	0.06	2.00	4.00
3129-0253-0272-8	3.08	46.97	1.70	4.59	44.09	100.43	0.15	1.67	0.05	0.13	2.00	4.00
3129-0253-0272-9	0.64	52.92	1.70	1.00	43.90	100.16	0.03	1.89	0.05	0.03	2.00	4.00
3129-0253-0272-10	1.02	51.13	1.49	1.67	43.19	98.50	0.05	1.86	0.04	0.05	2.00	4.00
3129-0253-0272-11	0.17	54.55	1.58	0.25	44.13	100.68	0.01	1.94	0.04	0.01	2.00	4.00
3129-0253-0272-12	0.03	55.40	1.17	0.25	44.39	101.24	0.00	1.96	0.03	0.01	2.00	4.00
3129-0253-0272-13	0.37	53.59	1.51	0.57	43.75	99.79	0.02	1.92	0.04	0.02	2.00	4.00
3129-0253-0272-14	0.27	54.09	1.39	0.58	43.96	100.29	0.01	1.93	0.04	0.02	2.00	4.00
3129-0253-0272-15	0.21	54.10	1.58	0.35	43.88	100.12	0.01	1.94	0.05	0.01	2.00	4.00
3129-0253-0272-16	0.18	54.13	2.00	0.45	44.19	100.95	0.01	1.92	0.06	0.01	2.00	4.00
3129-0253-0272-17	0.53	54.08	0.67	0.81	43.93	100.02	0.03	1.93	0.02	0.02	2.00	4.00
3129-0253-0272-20	0.43	53.45	1.49	1.00	43.95	100.32	0.02	1.91	0.04	0.03	2.00	4.00
3129-0253-0272-21	1.17	51.77	1.34	1.68	43.77	99.73	0.06	1.86	0.04	0.05	2.00	4.00
3129-0253-0272-22	1.27	51.52	1.14	1.78	43.62	99.33	0.06	1.85	0.03	0.05	2.00	4.00
3129-0253-0272-23	0.03	56.19	0.85	0.03	44.68	101.78	0.00	1.97	0.02	0.00	2.00	4.00
3129-0253-0272-25	1.74	49.56	1.20	3.22	43.51	99.23	0.09	1.79	0.03	0.09	2.00	4.00
3129-0253-0272-26	1.93	49.79	2.24	1.95	43.77	99.68	0.10	1.79	0.06	0.06	2.00	4.00
3129-0253-0272-27	0.18	54.40	1.97	0.32	44.31	101.18	0.01	1.93	0.06	0.01	2.00	4.00
3129-0253-0272-28	0.20	54.64	2.09	0.32	44.59	101.84	0.01	1.92	0.06	0.01	2.00	4.00
3129-0253-0272-29	0.58	52.31	1.56	1.14	43.35	98.94	0.03	1.89	0.05	0.03	2.00	4.00
3129-0253-0272-30	0.47	52.78	2.64	0.64	43.96	100.49	0.02	1.88	0.08	0.02	2.00	4.00

APPENDIX 2

Photographs of Selected Sulphide Grains referred to in Appendix 1

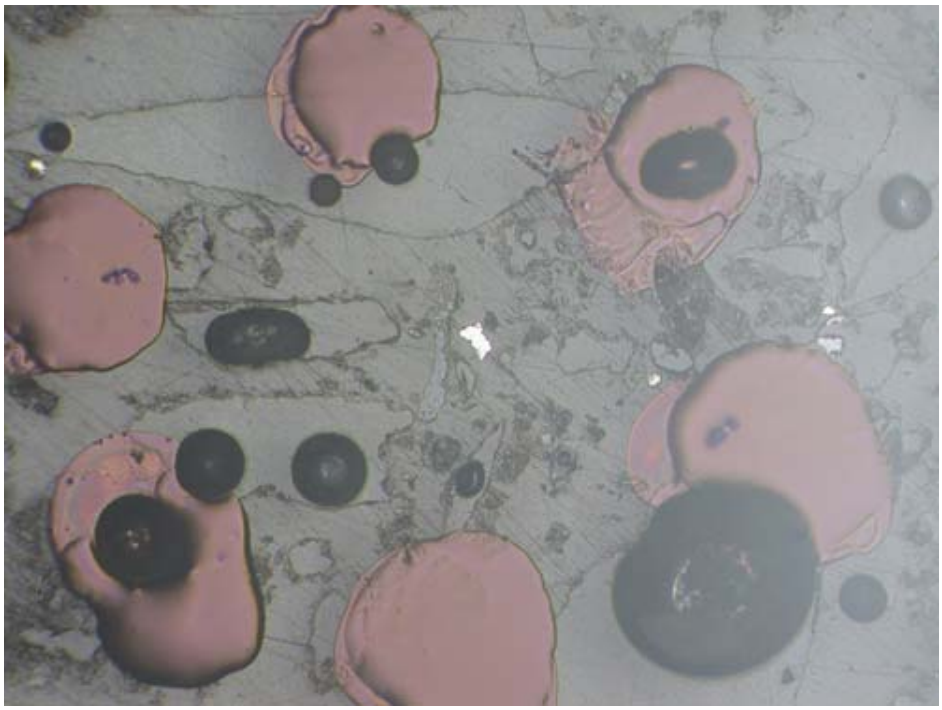
2 possible arsenian pyrite grains based on microprobe EDS data of Mati Raudsepp, June 23, 2006

SAMPLE: 115-0054-0066



Circle #7 FOV = 2.0mm Reflected Light (sulphide)

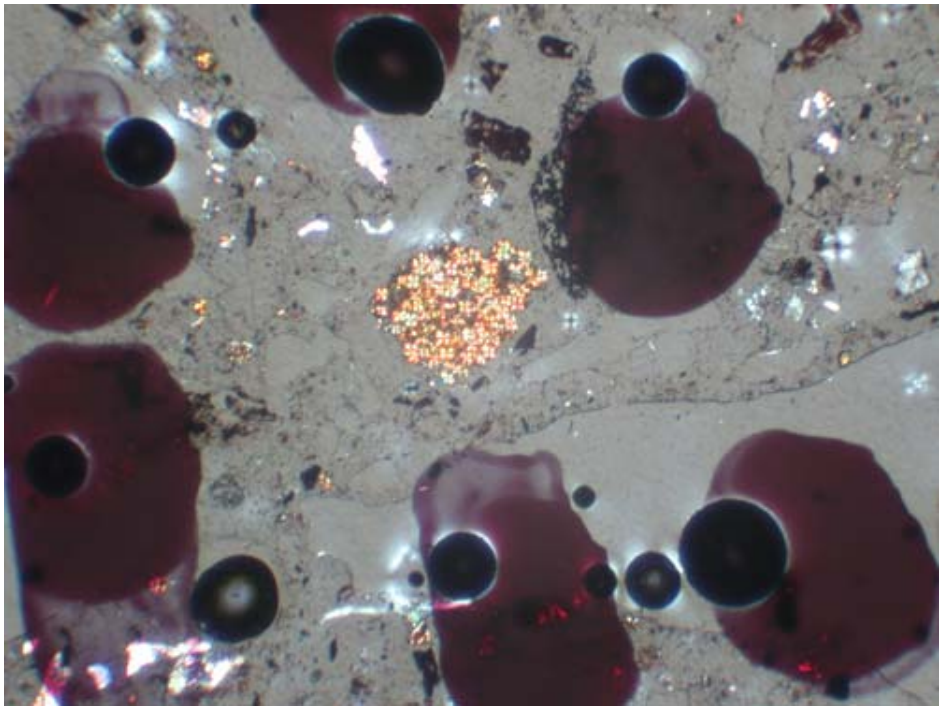
SAMPLE: 115-0142-0163



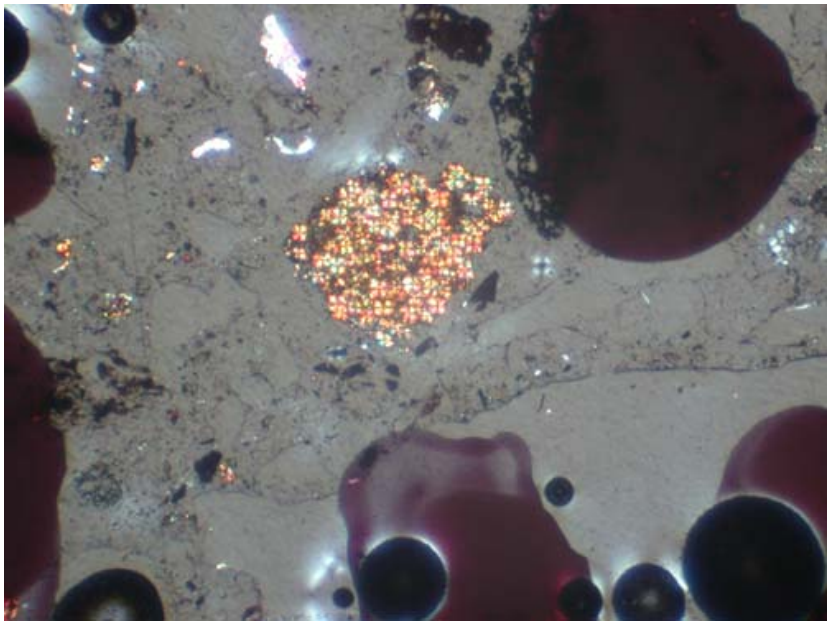
Circle #17 FOV = 2.0mm Reflected Light (sulphide)

Unknown grains identified as siderite based on microprobe EDS data of Mati Raudsepp, June 23, 2006

SAMPLE: 115-0142-0163

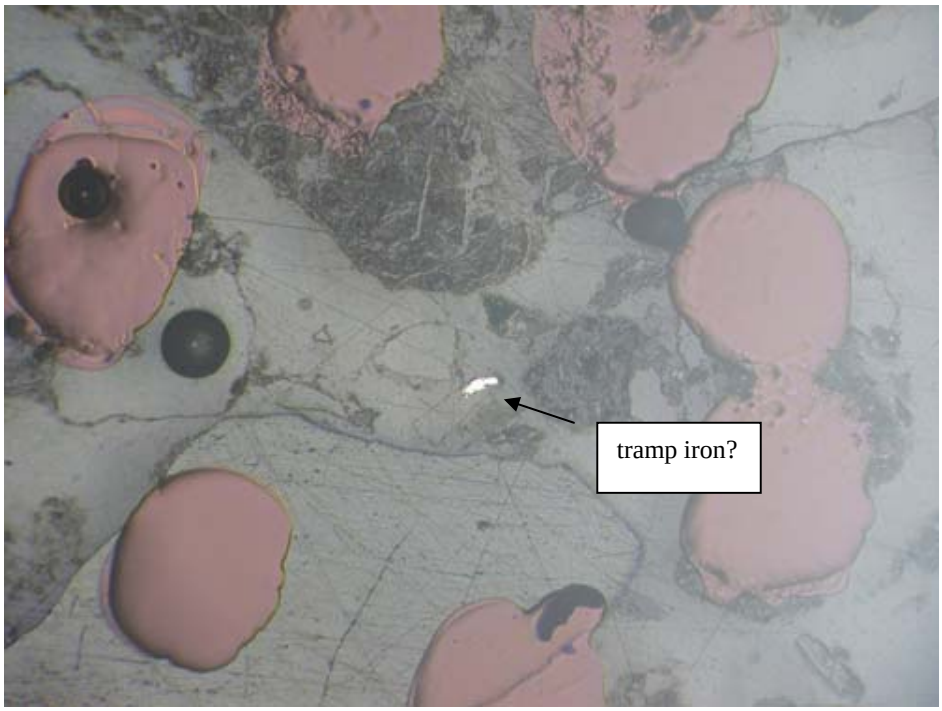


Circle #21 FOV = 2.0mm ; (close up of same image is below)



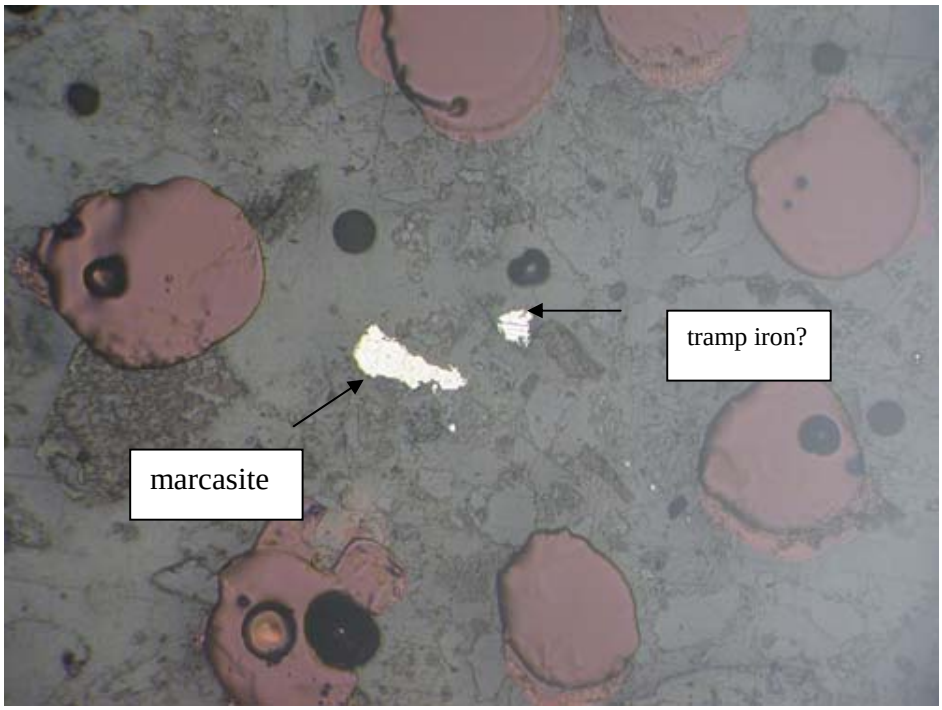
5 tramp iron? grains identified based on microprobe EDS data of Mati Raudsepp, June 23, 2006

SAMPLE: 115-0142-0163



Circle #6 FOV = 2.3mm Reflected Light (sulphide)

SAMPLE: 115-0142-0163

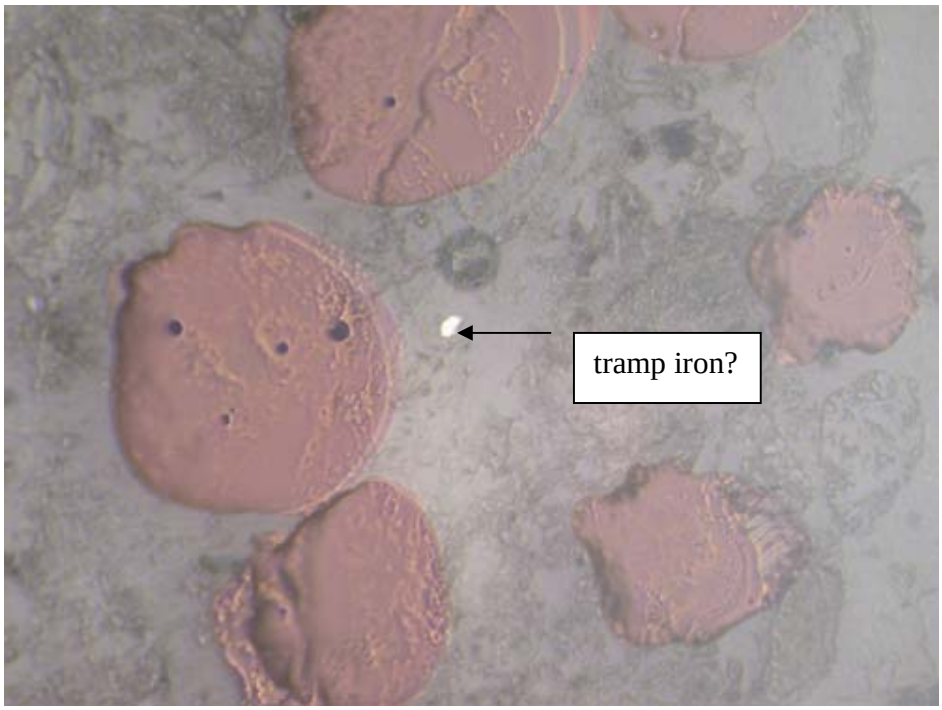


Circle #22 FOV = 2.3mm ** 2 grains in this circle **

SAMPLE: 3129-0417-0435

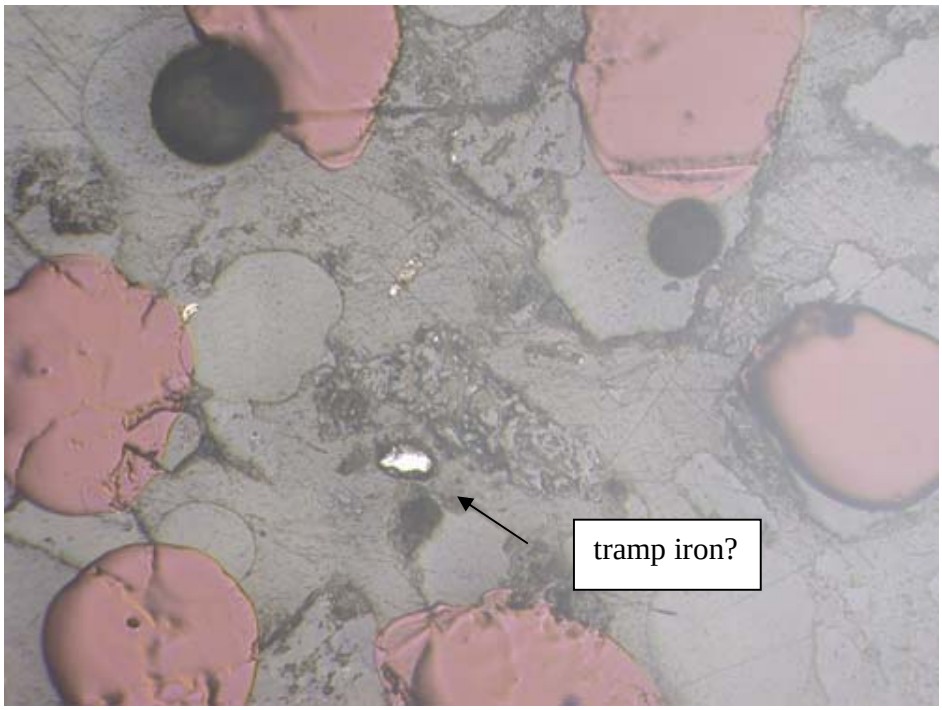
Circle #5 FOV = 1.5mm Reflected Light (sulphide)

SAMPLE: 3129-0417-0435



Circle #8 FOV = 1.5mm Reflected Light (sulphide)

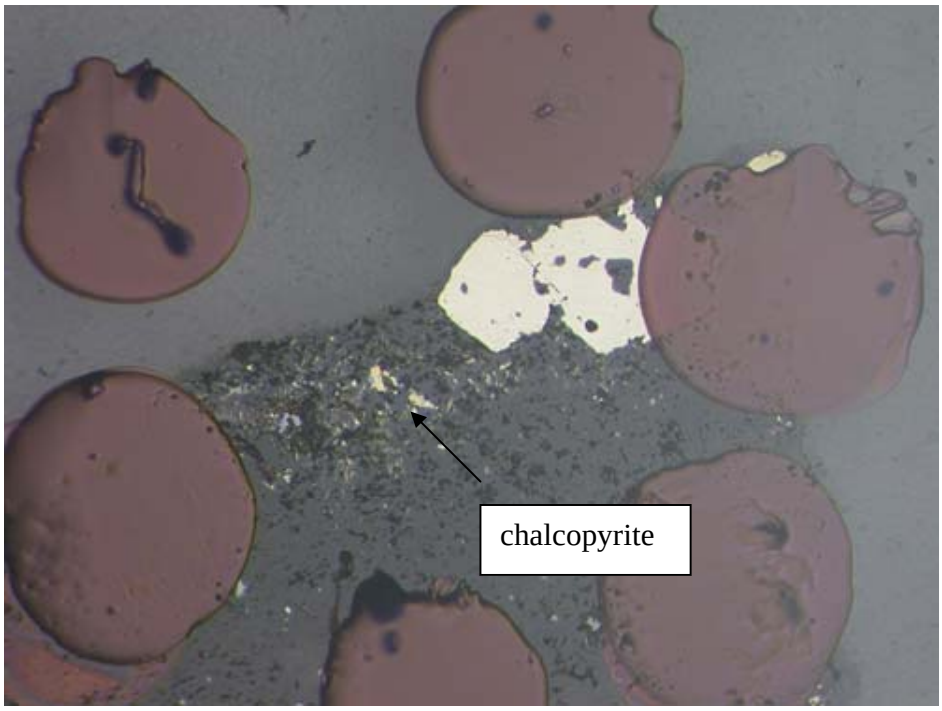
CEMI-9 (117-1055-1071)



Circle #7 FOV = 2.0mm Reflected Light (sulphide)

Chalcopyrite grain identified based on microprobe EDS data of Mati Raudsepp, June 23, 2006

CEMI-14 (3102-0568-0588)



Circle #1 FOV = 1.5mm Reflected Light (sulphide)

PETROGRAPHIC DESCRIPTION OF DRILL CORE CHIP SAMPLES

PEBBLE PROJECT, ALASKA

February 24, 2008

Prepared for:

Madeleine Corriveau M.Sc. (Eng), EIT/GIT
SRK Consulting (Canada) Inc.
1-A Serpentine St.
Copper Cliff, ON
Canada P0M 1N0

Prepared by:

Kathryn Dunne, M.Sc. P.Geo.
Bag 9000, Suite 207
190B Trans Can Hwy NE
Salmon Arm, BC
Canada V1E 1S3

phone: 250-804-0729
kgeo@telus.net

Background

Thirty-nine samples of material from the Pebble project, Alaska are characterized in this report (SRK Project No. 1CN007.00). The material consists of numerous drill core chips (typically from 3 to 6 cm in longest dimension) in samples bags. The samples were submitted for polished thin section production at Vancouver Petrographics Ltd. by Rik Vos of CEMI on October 3, 2008. The prepared samples were then sent to Kathryn Dunne for optical characterization of the mineralogy. The purpose of the study was to characterize the mineralogy with particular emphasis on the sulfide and any carbonate minerals present. Results of quantitative phase analysis of 22 composite samples at UBC using the XRD Rietveld method and X-Ray powder diffraction data were provided. Kathryn Dunne, P.Geo. carried out the optical analysis at her office in Salmon Arm, B.C.

Sample descriptions with representative photomicrographs follow this summary. All percentages in the descriptions are approximate based on visual estimation.

Summary

Samples in this report are summarized in 4 tables and in overview descriptions of carbonate and sulphide occurrences following the tables. Comprehensive petrographic reports for each sample follow the summary.

Table 1 is a compilation of sample #, CT # (polished section #), Hole-ID from-to (ft), sample lithologies, UBC Composite # (XRD Rietveld) and petrographic report page #. The petrographic reports following the summary are sorted by CT#.

Table 2 is a summary of individual sample heterogeneity and evaluation of the similarity of samples that comprise the UBC composites.

- Each sample bag comprises numerous drill core chips typically from 3 to 6 cm in maximum dimension. For some samples there is considerable variation in rock type between the drill core chips. This variation is due either to the fragmental nature of the sample or to multiple lithologies or alteration within the sample. Polished thin sections have been prepared from only one of the drill core chips within each sample bag. Polished thin section descriptions may not be representative of some of the samples as a whole depending on which material was selected for polished thin section preparation. The heterogeneity of individual samples is evaluated for each sample in the report and summarized in Table 3. The occurrence of heterogeneous samples will complicate comparison of petrographic data with XRD Rietveld data.
- An evaluation of the similarity of samples selected as composites for XRD Rietveld analyses is also in Table 3. Some samples that make up the composites are dissimilar due to the occurrence of multiple sample lithologies or the fragmental nature of samples. The occurrence of dissimilar samples within the composites will also complicate comparison of petrographic data with XRD Rietveld data.

Table 3 is a summary of lithologies and alteration of samples in this report.

Table 4 tabulates the percentage of sulphides, carbonate, Fe-oxide and oxyhydroxides and some other minerals in each sample.

Summary Table 1: Sample List and Lithologies (SRK Project No. 1CN007.00):

Sample #	**Hole-ID (from-to) ft**	**CT #**	**Lithology of Polished Thin Section**	**UBC Composite # (XRD Rietveld)**	**Petrographic Report Page #**
224267	5311 (3058-3068)	6	Porphyritic ?granodiorite	1	33
222722	5337 (3778-3788)	16	Plagioclase porphyritic rock	1	76
226285	6342 (3126-3136)	18	Porphyritic ?granodiorite	1	84
219529	5324 (1897-1907)	7	Porphyritic ?granodiorite	2	38
225016	5325 (1908-1918)	9	Porphyritic rock	2	47
225377	5326 (3618-3628)	10	Granular rock	2	51
221880	5335 (4078-4088)	15	Plagioclase porphyritic rock	2	72
107875	6344 (5586-5596)	21	Granular rock	3	98
105348	6351 (1165-1175)	27	Granular rock	3	125
105481	6351 (2430-2440)	28	Granular rock	4	129
406705	6354 (2689-2694)	29	?Porphyritic rock	4	133
107488	6350 (3628-3638)	25	Hornfelsed siltstone	5	115
107499	6350 (3728-3740)	26	Hornfelsed siltstone	5	120
406905	6354 (4586-4596)	30	Hornfelsed siltstone	5	138
224988	5325 (1648-1658)	8	Hornfelsed siltstone	6	42
104739	6341 (3955-3965)	17	Hornfelsed siltstone	6	80
406946	6354 (4983-4990)	31	Hornfelsed siltstone	6	143
107088	6346 (2423.5-2434)	22	Hornfelsed siltstone	7	102
104191	6350 (1738-1748)	24	Hornfelsed siltstone	7	111
220093	5328 (1168-1178)	13	Greywacke	8	63
220116	5328 (1388-1398)	14	Siltstone	8	67
411865	7364 (689-710)	35	Fine tuff	9	163
56190	4284 (620-631.5)	3	Volcaniclastic breccia	10	21
56193	4284 (655-670)	4	Porphyritic rock and Volcaniclastic breccia	10	25
219776	5327-(467-487)	11	Volcanic breccia	10	55
219790	5327 (717-737)	12	Siltstone	11	59
55340	4250 (78-83)	5	Siltstone	12	29
406083	7359 (1760-1780)	33	Lithic greywacke	12	154
407741	7365 (1015-1030)	37	Porphyritic rock fragment (within lapilli tuff)	13	172
407160	7363 (268-288)	34	Coarse crystal-lithic tuff	14	158
407726	7365 (752-773)	36	?Quartz diorite	15	168
815912	7378 (325-344)	38	Coarse crystal-lithic tuff	16	176
105642	6347 (2895-2915)	23	Mudstone/Lithic greywacke	17	107
406064	7359 (1400-1420)	32	Amygdaloidal basalt	17	148
816007	7378 (2019-2029)	39	Lapilli tuff	18	182
226338	6344 (125-145)	19	Porphyritic basalt	19	88
226350	6344 (365-385)	20	Volcanic breccia	20	93
220366		1	Lithic greywacke	21	12
221502		2	Volcanic breccia	22	16

Summary table 2: Heterogeneity of drill core chips within samples and
Similarity of samples comprising UBC Composites for XRD Rietveld analyses:

Sample #	**Hole-ID (from-to) ft**	**CT #**	**Heterogeneity of drill core chips [1]**	**UBC Composite # (XRD Rietveld)**	**Similarity of samples comprising UBC composites [2]**
224267	5311 (3058-3068)	6		1	
222722	5337 (3778-3788)	16		1	
226285	6342 (3126-3136)	18		1	
219529	5324 (1897-1907)	7		2	D
225016	5325 (1908-1918)	9		2	D
225377	5326 (3618-3628)	10		2	D
221880	5335 (4078-4088)	15		2	D
107875	6344 (5586-5596)	21		3	D
105348	6351 (1165-1175)	27		3	D
105481	6351 (2430-2440)	28		4	D
406705	6354 (2689-2694)	29		4	D
107488	6350 (3628-3638)	25		5	
107499	6350 (3728-3740)	26		5	
406905	6354 (4586-4596)	30		5	
224988	5325 (1648-1658)	8		6	
104739	6341 (3955-3965)	17		6	
406946	6354 (4983-4990)	31		6	
107088	6346 (2423.5-2434)	22		7	
104191	6350 (1738-1748)	24		7	
220093	5328 (1168-1178)	13		8	D
220116	5328 (1388-1398)	14		8	D
411865	7364 (689-710)	35	H	9	
56190	4284 (620-631.5)	3	H	10	D
56193	4284 (655-670)	4	H	10	D
219776	5327-(467-487)	11	H	10	D
219790	5327 (717-737)	12		11	
55340	4250 (78-83)	5		12	D
406083	7359 (1760-1780)	33		12	D
407741	7365 (1015-1030)	37	H	13	
407160	7363 (268-288)	34		14	
407726	7365 (752-773)	36		15	
815912	7378 (325-344)	38	H	16	
105642	6347 (2895-2915)	23	H	17	D
406064	7359 (1400-1420)	32		17	D
816007	7378 (2019-2029)	39	H	18	
226338	6344 (125-145)	19		19	
226350	6344 (365-385)	20	H	20	
220366		1		21	
221502		2	H	22	

1. H = heterogeneous sample - due fragmental texture or multiple lithologies
2. D = dissimilar composite samples - due multiple sample lithologies or fragmental nature of samples

Lithologies & Alteration

Summary Table 3: Lithologies and alteration

Lithology	**Alteration**
porphyritic ?granodiorite	muscovite (sericite), *carbonate* ± K-feldspar
porphyritic rock	muscovite (sericite) ± pyrite, K-feldspar, biotite, rutile, quartz, unknown aphanitic material
granular rock	muscovite (sericite), pyrite
hornfelsed siltstone (biotite hornfels)	biotite, muscovite (sericite) ± *carbonate*, chlorite, quartz, pyrite, K-feldspar, unknown aphanitic material
(lithic) greywacke/ siltstone/ mudstone	*carbonate* ± Fe-oxide/oxyhydroxide, Illite, muscovite (sericite), pyrite
fine and coarse tuff	clay ± *carbonate*, chlorite, hematite, pyrite, ?pyrophyllite, quartz, unknown aphanitic material
lapilli tuff	muscovite (sericite), chlorite, rutile, unknown aphanitic material ± *carbonate*, magnetite, quartz
volcaniclastic breccia	*carbonate*, hematite, muscovite (sericite), ± chlorite, quartz
volcanic breccia	*carbonate*, chlorite ± pyrite, hematite, epidote, quartz
amygdaloidal basalt	*carbonate*, smectite, hematite
porphyritic basalt	chlorite, smectite, K-feldspar, pyrite, unknown aphanitic material
?quartz diorite	*carbonate*, chlorite, muscovite (sericite)

Summary table 4: Sulphides, carbonate occurrence, Fe-oxides and oxyhydroxides and some other minerals:

Sample #	**CT #**	**UBC Comp-osite #**	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other > 1%**	**% ~**
224267	6	1	pyrite chalcopyrite molybdenite	3 2 tr	patchy aggregates, veinlets	7	ilmenite	tr	K-feldspar muscovite (sericite)	40 10
222722	16	1	pyrite chalcopyrite	3 1	patchy aggregates, veinlets	3			muscovite (sericite) K-feldspar	30 25
226285	18	1	chalcopyrite pyrite	tr tr	patchy aggregates, infill	4			K-feldspar muscovite (sericite) unknown aphanitic	28 15 1
219529	7	2	chalcopyrite pyrite sphalerite	4 3 tr	patchy aggregates	2	ilmenite	tr	K-feldspar muscovite (sericite)	35 20
225016	9	2	pyrite chalcopyrite unknown	7 tr tr	veinlets	tr			K-feldspar muscovite (sericite) biotite	30 17 15
225377	10	2	chalcopyrite pyrite molybdenite sphalerite	4 3 tr tr	infill	tr			muscovite (sericite) K-feldspar	38 3
221880	15	2	pyrite	7	infill	tr			K-feldspar muscovite (sericite) chlorite	20 20 1
107875	21	3	pyrite ?tetrahedrite chalcopyrite	13 tr tr					muscovite (sericite)	55
105348	27	3	pyrite chalcocite covellite bornite marcasite sphalerite	15 1 tr tr tr tr					muscovite (sericite) unknown	35 2
105481	28	4	pyrite	25					muscovite (sericite)	40
406705	29	4	pyrite chalcopyrite	30 tr					unknown muscovite (sericite)	30 32
107488	25	5	pyrite chalcopyrite	3 1	veinlet	5			K-feldspar biotite muscovite (sericite) chlorite	50 30 5 1
107499	26	5	pyrite chalcopyrite	1 tr	veinlet	tr			biotite K-feldspar chlorite muscovite (sericite)	60 25 8 1
406905	30	5	pyrite chalcopyrite	1 tr	veinlets, infill	tr			K-feldspar biotite muscovite (sericite) chlorite	50 30 8 3

Summary table 4: Sulphides, carbonate occurrence, Fe-oxides and oxyhydroxides and some other minerals (cont.):

Sample #	**CT #**	**UBC Comp-osite #**	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxide**	**% ~**	**Some Other > 1%**	**% ~**
224988	8	6	chalcopyrite pyrite	5 1	patchy aggregates, veinlets	2	hematite	1	biotite K-feldspar chlorite muscovite (sericite)	45 20 15 6
104739	17	6	pyrite chalcopyrite molybdenite	4 1 tr	veinlets, infill, patchy aggregates	1			K-feldspar aphanitic material muscovite (sericite) chlorite	35 30 10 3
406946	31	6	pyrite chalcopyrite	7 tr	veinlets	tr			K-feldspar biotite chlorite muscovite (sericite)	45 30 7 7
107088	22	7	pyrite chalcopyrite sphalerite	10 tr tr	veinlet, alteration envelopes	tr			biotite muscovite (sericite) chlorite	60 15 2
104191	24	7	pyrite chalcopyrite	10 1					biotite muscovite (sericite)	50 25
220093	13	8	chalcopyrite	tr			hematite	tr	biotite muscovite (sericite)	20 5
220116	14	8	pyrite	10	veinlets	tr			illite muscovite (sericite) unknown aphantic ?chlorite	35 15 15 4
411865	35	9	pyrite sphalerite	tr tr	isolated grains	tr	magnetite	tr	clay unknown aphanitic	40 15
56190	3	10	chalcopyrite	tr	patchy aggregates	35	hematite	5	chlorite muscovite (sericite)	25 2
56193	4	10			patchy aggregates, veinlet, amygdales	15	hematite magnetite	15 3	unknown aphanitic muscovite (sericite)	15 1
219776	11	10	chalcopyrite pyrite	tr tr	patchy aggregates, infill, crystals	3	magnetite	3	K-feldspar chlorite unknown smectite	40 25 10 8
219790	12	11	chalcopyrite sphalerite	tr tr	patchy aggregates, veinlet	17			chlorite aphanitic material illite	30 30 2
55340	5	12	pyrite chalcopyrite	tr tr	patchy aggregates	3				
406083	33	12	chalcopyrite pyrite pyrrhotite galena	tr tr tr tr	patchy aggregates	15	Fe-oxide/ oxyhydroxide	tr	chlorite illite	15 2
407741	37	13	chalcopyrite	tr	patchy aggregates	33	magnetite hematite	3 tr	chlorite muscovite (sericite)	20 10

Summary table 4: Sulphides, carbonate occurrence, Fe-oxides and oxyhydroxides and some other minerals (cont.):

Sample #	**CT #**	**UBC Comp-osite #**	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other > 1%**	**% ~**
407160	34	14	pyrite	3	patchy aggregates	20	hematite	2	clay chlorite	35 3
407726	36	15	chalcopyrite	tr	patchy aggregates, infill	42	magnetite hematite	3 tr	chlorite muscovite (sericite)	25 15
815912	38	16	pyrite chalcopyrite	1 tr	fragments, patchy aggregates, veinlet	2	magnetite	tr	clay chlorite ?pyrophyllite	35 15 11
105642	23	17	pyrite	tr	infill	tr	ilmenite	tr	biotite muscovite (sericite) chlorite	15 3 1
406064	32	17	chalcopyrite pyrite	tr tr	patchy aggregates, infill, amygdales	45	hematite magnetite	3 tr	smectite	15
816007	39	18	pyrite chalcopyrite	tr tr	veinlet, patchy aggregates	tr			muscovite (sericite) chlorite unknown aphanitic	40 15 15
226338	19	19	pyrite chalcopyrite	7 tr	patchy aggregates	1	magnetite	tr	chlorite unknown aphantic smectite K-feldspar	25 15 15 10
226350	20	20	pyrite	10	patchy aggregates	tr	hematite	5	K-feldspar chlorite	50 10
220366	1	21	pyrite	2	patchy aggregates, fracture infill	7	hematite	tr	clay	15
221502	2	22	pyrite	10	patchy aggregates	4	hematite	5	K-feldspar clay chlorite	40 10 10

tr = trace (< 1%); x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

Carbonate Occurrences

Intrusive Rocks:
Samples CT# 6, 7, 9, 10, 15, 16, 18, 21, 27, 28, 29
UBC Composite # 1, 2, 3, 4
In samples of porphyritic ?granodiorite, porphyritic rock and granular rock, carbonate occurrence varies from absent up to major amounts (7%). Carbonate occurs dominantly as colourless varieties and in some sections as brown carbonate. Colourless carbonate occurs as fine-grained patchy aggregates replacing phenocrysts and matrix, overprinting muscovite (sericite) alteration, in veinlets with quartz, chalcopyrite and pyrite, quartz-pyrite-chlorite-quartz, as late veinlets and as infill. Brown carbonate occurs as very fine-grained, anhedral aggregates overprinting muscovite (sericite) alteration of feldspar phenocrysts.

Carbonate Occurrences (cont.)

Metasedimentary/sedimentary rocks:
Samples CT#, 8, 13, 14, 17, 22, 24, 25, 26, 30, 31
UBC Composite # 5, 6, 7, 8
In samples of hornfelsed siltstone, greywacke and siltstone, carbonate occurrence typically varies from absent up to minor amounts (2%), one sample has 5% carbonate. Carbonate occurs as patchy aggregates within the host rock, as grains and aggregates in quartz ± chlorite ± pyrite-chalcopyrite veinlets or pyrite veinlets, and as late fracture or cavity infill. In sample CT #8, carbonate in the quartz veinlets is rimmed and partly replaced by chlorite and locally by hematite. In sample CT#26, carbonate is rimmed and partly replaced by hematite. In sample CT#14, carbonate in pyrite veinlets is rimmed and partly replaced by brown aggregates (CT#14). In sample CT#25, colourless carbonate in veinlets is partly replaced by very fine-grained aggregates. In samples CT#17 and #31, carbonate occurs within quartz-K-feldspar-chlorite veinlets.

Volcaniclastic rocks:
Samples CT# 2, 3, 4, 11, 20, 34, 35, 37, 38, 39
UBC Composite # 9, 10, 13, 14, 16, 18, 20, 22
In samples of fine and coarse tuff, lapilli tuff and volcanic/volcaniclastic breccia, carbonate occurrence typically varies from trace up to major amounts (35%). Carbonate occurs dominantly as colourless varieties and in some sections as brown carbonate. Colourless carbonate occurs as fine to very fine-grained, colourless, anhedral to rhombic aggregates that overprint host rock, replace plagioclase and mafic phases, occur as scattered anhedral fragments and occur locally as amygdales and fracture and breccia infill. In sections CT#38 and #39, carbonate occurs as veinlets. Brown carbonate occurs in section CT#3 as very fine-grained, brown patchy aggregates partly replacing the groundmass and locally overprinting colourless carbonate (section CT#11). In samples CT#2, #20, #34 and #37 carbonate is locally partly replaced by hematite. Carbonate occurs locally with magnetite in sections CT#35, #37 and #38.

Sedimentary rocks:
Samples CT# 1, 5, 12, 23, 33
UBC Composite # 11, 12, 17, 21
In samples of lithic greywacke and siltstone/mudstone, carbonate occurrence typically varies from trace up to major amounts (17%). Carbonate occurs as replacement of plagioclase grains, as individual grains and aggregates and less commonly as patchy aggregates within rock fragments and fracture infill. In sample CT #5, carbonate is rimmed and partly replaced by Fe-oxide/oxyhydroxide aggregate. In sample CT #12, carbonate occurs as fine-grained, anhedral aggregates within sub-mm veinlets.

Igneous Rocks:
Samples CT# 19, 32, 36
UBC Composite # 15, 17, 19
In samples of ?quartz diorite and amygdaloidal/porphyritic basalt, carbonate occurrence typically varies from minor (1%) up to major amounts (45%). Carbonate occurs dominantly as colourless varieties and in section #32 as cloudy carbonate. Colourless carbonate aggregates replace former plagioclase phenocrysts and occur as veinlets/fracture infill. In section CT#32, cloudy carbonate aggregates occur with smectite and microcrystalline quartz in basalt breccia as patchy replacement and fracture infill. Carbonate is locally partly replaced by very fine-grained hematite aggregates in all sections.

Sulphide Occurrences

Intrusive Rocks:
Samples CT# 6, 7, 9, 10, 15, 16, 18, 21, 27, 28, 29
UBC Composite # 1, 2, 3, 4
In samples of porphyritic ?granodiorite, porphyritic rock and granular rock, sulphides vary from trace to 30% of the section. They typically comprise dominantly pyrite, lesser chalcopyrite and locally traces of molybdenite and/or sphalerite. In section CT# 27, bornite, chalcocite, covellite and marcasite occur in trace amounts. Traces of ?tetrahedrite are observed in section CT#21. Traces of an unknown sulphide phase with optical properties of arsenopyrite occurs in section CT#9.

Pyrite is varies from euhedral with straight grain boundaries to anhedral with irregular but clean grain boundaries. Alteration rims are not evident. Pyrite is pitted in some sections. In section CT#6, a faint yellow stain occurs around pyrite grains.

Metasedimentary/sedimentary rocks:
Samples CT#, 8, 13, 14, 17, 22, 24, 25, 26, 30, 31
UBC Composite # 5, 6, 7, 8
In samples of hornfelsed siltstone, greywacke and siltstone, sulphide occurrence typically varies from minor (1%) to major (11%) amounts in the section. Most sections comprise dominantly pyrite, lesser chalcopyrite and locally traces of molybdenite and/or sphalerite. In section CT# 8, chalcopyrite occurs in major amounts (5%).

Pyrite occurs disseminated as anhedral grains with irregular grain boundaries and within veinlets as eu-anhedral grains and aggregates. Alteration rims are not evident.

Volcaniclastic rocks:
Samples CT# 2, 3, 4, 11, 20, 34, 35, 37, 38, 39
UBC Composite # 9, 10, 13, 14, 16, 18, 20, 22
In samples of fine and coarse tuff, lapilli tuff and volcanic/volcaniclastic breccia, sulphide occurrence typically varies from absent to minor amounts (3%); in samples CT#2 and #20, pyrite comprises 10% of the sample. Sections typically comprise pyrite and/or chalcopyrite and rarely traces of sphalerite (section CT#35).

Pyrite occurs in sections CT# 2, #20, #34, #35, #38, and #39. In samples CT#2 and #20, disseminated euhedral pyrite grain boundaries are unaltered. In most other samples, pyrite occurs as very fine-grained, disseminated eu-anhedral grains; in some samples pyrite is pitted or has corroded cores. In sample #34, pyrite occurs as clusters of grains overprinting fragments and patchy carbonate, as rims to former chlorite-altered prismatic phases and as overprint to hematite aggregates. Pyrite grain boundaries are without alteration rims.

Sedimentary rocks:
Samples CT# 1, 5, 12, 23, 33
UBC Composite # 11, 12, 17, 21
In samples of lithic greywacke and siltstone/mudstone, sulphide occurrence typically varies from trace to minor amounts (2%). Pyrite occurs in most samples except CT#12. Traces of chalcopyrite and sphalerite occur in CT#12. Traces of chalcopyrite, pyrite, pyrrhotite and galena occur in CT #33. Traces of chalcopyrite and pyrite occur in CT# 5.

In sample CT#1, pyrite occurs as very fine-grained, anhedral, pitted, partly corroded grains with irregular grain boundaries. Pyrite occurs with clay as matrix interstitial to rock and mineral fragments. In sample

Sulphide Occurrences (cont.)

CT#5, pyrite occurs disseminated as very fine-grained, sub-anhedral grains and locally as framboids. Pyrite grain boundaries appear unaltered. In sample CT#33, pyrite occurs as very fine-grained euhedral grains disseminated within aphanitic rock fragments and as fine grained, anhedral grains with chalcopyrite within carbonate framework grains. Pyrite grain boundaries are without alteration rims.

Igneous Rocks:
Samples CT# 19, 32, 36
UBC Composite # 15, 17, 19
In samples of ?quartz diorite and amygdaloidal/porphyritic basalt, sulphide occurrence typically varies from trace to 7%. Pyrite occurs in samples CT#32 and CT#19. Chalcopyrite occurs in trace amounts in all sections.

Pyrite occurs as infill in sample CT#32. Pyrite is very fine-grained, eu-subhedral and with unaltered grain boundaries. In sample CT#19, pyrite is fine to medium-grained, anhedral, commonly pitted and with irregular grain boundaries. Alteration rims are not evident.

SRK Project No. 1CN007.00 **UBC Composite # 21**
Sample #: 220366 **CT-1**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Lithic greywacke
ALTERATION TYPE: Carbonate

Hand Sample Description:
Core sample consists of pieces of medium-dark grey brecciated siltstone and sandstone and light grey sandstone (2-6 mm size). Section is prepared from fragment of medium to light-grey immature sandstone with polylithic subangular grains. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). Trace reaction to cold, dilute HCl.

Polished Thin Section Description:
This sample is a poorly-sorted lithic greywacke with angular to subangular mineral grains and abundant polylithic rock fragments in a very fine-grained brown clay matrix (~15%) with low intergranular porosity and approximately 2% pyrite grains. The greywacke comprises approximately 5% quartz grains, 5% altered plagioclase grains, 7% carbonate (grains and replacement) and rock fragments including aphanitic rock, volcanic rock with feldspar microphenocrysts, sandstone, siltstone, polycrystalline quartz and micaceous quartz-rich rock. Plagioclase grains are partly replaced by colourless carbonate. The framework grains range from approximately 0.07 mm to 1.1 mm in size which spans the boundary between very coarse sandstone and very fine sandstone.

Carbonate comprises approximately 7% of the section as fine-grained (< 0.5 mm), colourless, commonly pitted grains. Carbonate occurs as replacement of plagioclase, as individual grains and less commonly as patchy aggregates within rock fragments.

Sulphide comprises approximately 2% of the section as pyrite. Pyrite occurs as very fine-grained, anhedral, pitted, partly corroded grains with irregular grain boundaries. Pyrite occurs with clay as matrix interstitial to rock and mineral fragments.

SRK Project No. 1CN007.00 **UBC Composite # 21**
Sample #: 220366 **CT-1**

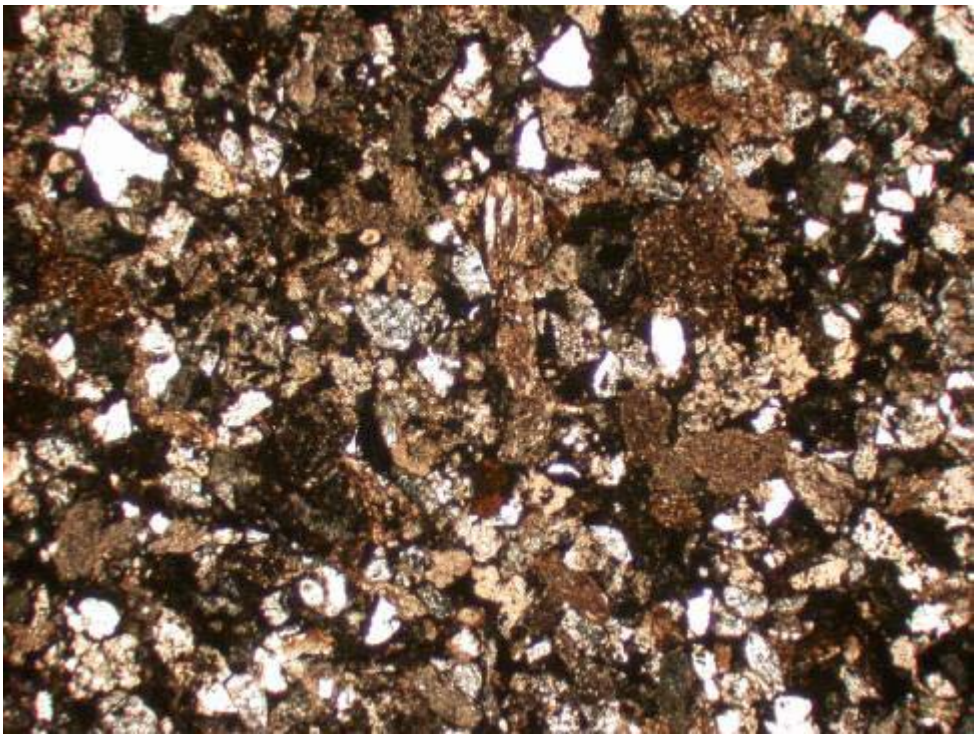
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rock Fragments	70	angular to very angular, includes aphanitic rock, volcanic rock with feldspar microphenocrysts, sandstone, siltstone, polycrystalline quartz and micaceous quartz-rich rock	*polylithic*
Clay	15	aphanitic brown aggregates, occurs with pyrite as matrix interstitial to rock fragments	*brown, murky*
Carbonate	7	fine-grained (< 0.5 mm), colourless, commonly pitted, occurs as replacement of plagioclase, as individual grains, less commonly as patchy aggregates within rock fragments and as fracture infill	*colourless*
Quartz	5	fine-grained, occurs as angular framework grains	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Pyrite	2	very fine-grained, anhedral, pitted, partly corroded grains, occurs with clay as matrix interstitial to rock and mineral fragments	
Plagioclase	1	fine-grained, tabular framework grains, mostly replaced by carbonate	*polysynthetic twinning*
Hematite	tr	fine-grained, anhedral grains, occurs within volcanic rock fragments and as angular grains	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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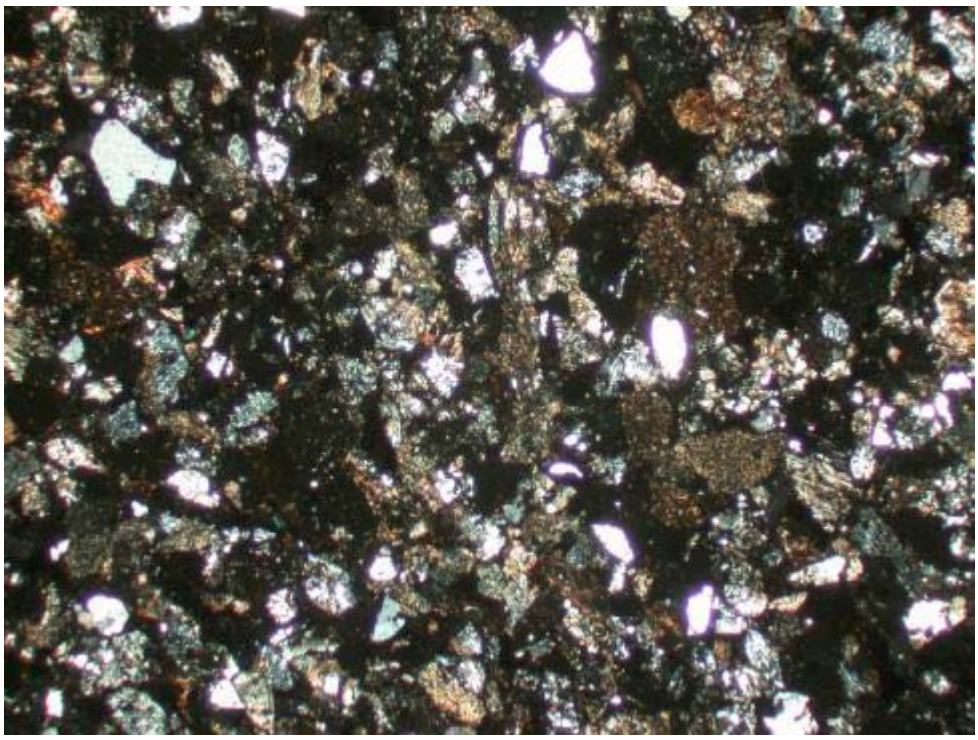
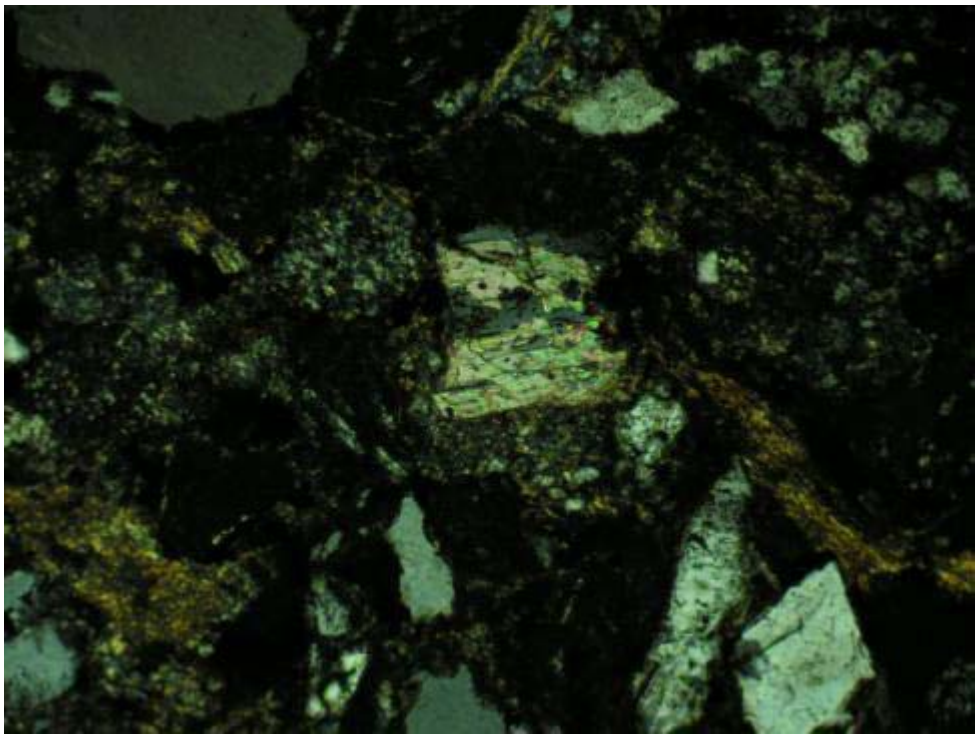


B

Sample #: 220366
A & B) Overview of poorly-sorted lithic greywacke with angular to subangular mineral grains and abundant polylithic rock fragments in a very fine-grained brown clay matrix. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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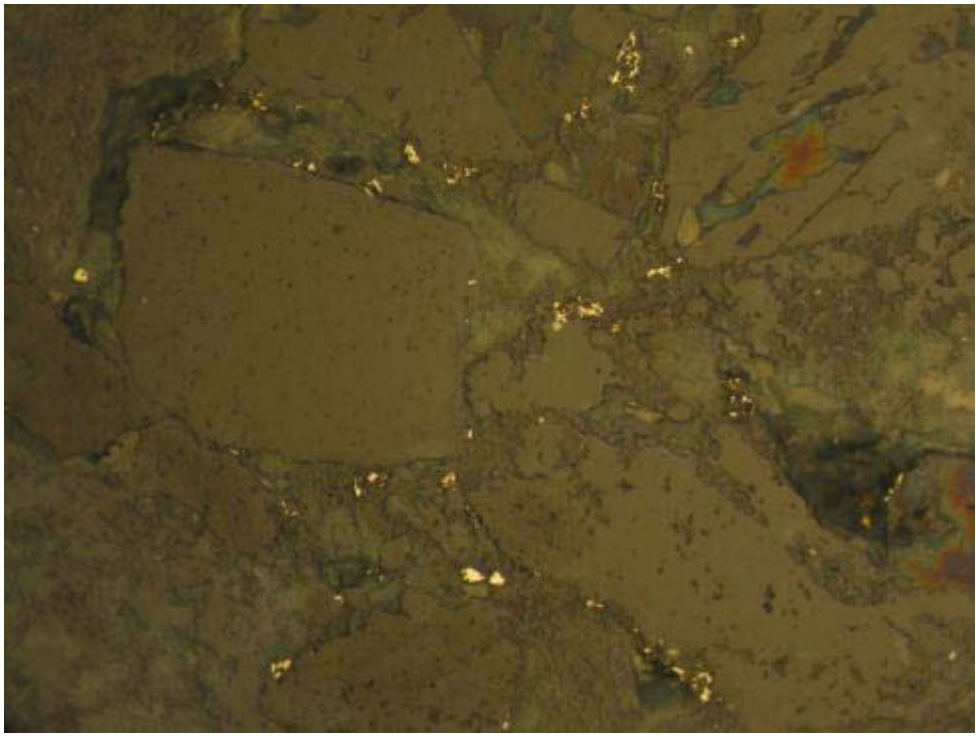
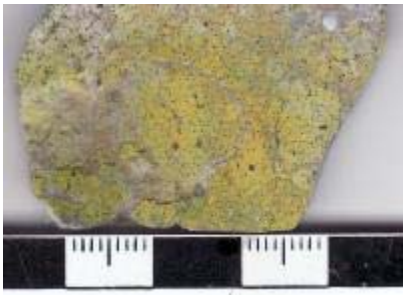


D

Sample #: 220366
C) Detailed view of plagioclase grain (centre) partly replaced by carbonate. XPL, FOV = ~ 2.1 mm. D) Very fine-grained, anhedral, pitted, partly corroded pyrite grains, occurs with clay as matrix interstitial to rock and mineral fragments. RL, FOV = ~ 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 22**
Sample #: 221502 **CT-2**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Volcanic breccia
ALTERATION TYPE: Carbonate, chlorite, pyrite, hematite, epidote, quartz
MINERALIZATION: Pyrite

Hand Sample Description:
Fragment-supported breccia with angular fragments of light greenish-grey aphanitic K-feldspar-bearing rock (from <1 mm to-2.5 cm size) in a maroon aphanitic matrix. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a selectively altered, fragment-supported volcanic breccia (?lapilli tuff) with angular fragments (from 1-13 mm in size) in a hematite-dominant matrix. The breccia fragments and matrix preserve a porphyritic rock texture defined by minor fine to medium-grained plagioclase phenocrysts and other tabular phases in a fine-grained groundmass of trachytic-textured K-feldspar laths and plagioclase. The breccia fragment groundmass has been overprinted by patchy very fine-grained epidote, chlorite and carbonate aggregates and a pervasive tan-coloured clay alteration. Abundant very fine-grained hematite occurs in the breccia matrix. Former plagioclase and tabular phases are replaced by aggregates of epidote-quartz±chlorite±hematite. Major fine-grained euhedral pyrite (cubic forms) occurs disseminated. Traces of apatite occur as an accessory phase.

Carbonate comprises approximately 4% of the section as very fine-grained, colourless, anhedral to rhombic aggregates that overprint trachytic-textured breccia fragments. Carbonate is locally partly replaced by hematite.

Sulphide comprises approximately 10% of the section as pyrite (as described above). Pyrite grain boundaries are unaltered.

Note: The heterogeneity of this sample due to size and variation of breccia fragments and selection of material for thin section preparation may complicate comparison of this petrographic data with XRD Rietveld data.

SRK Project No. 1CN007.00 **UBC Composite # 22**
Sample #: 221502 **CT-2**

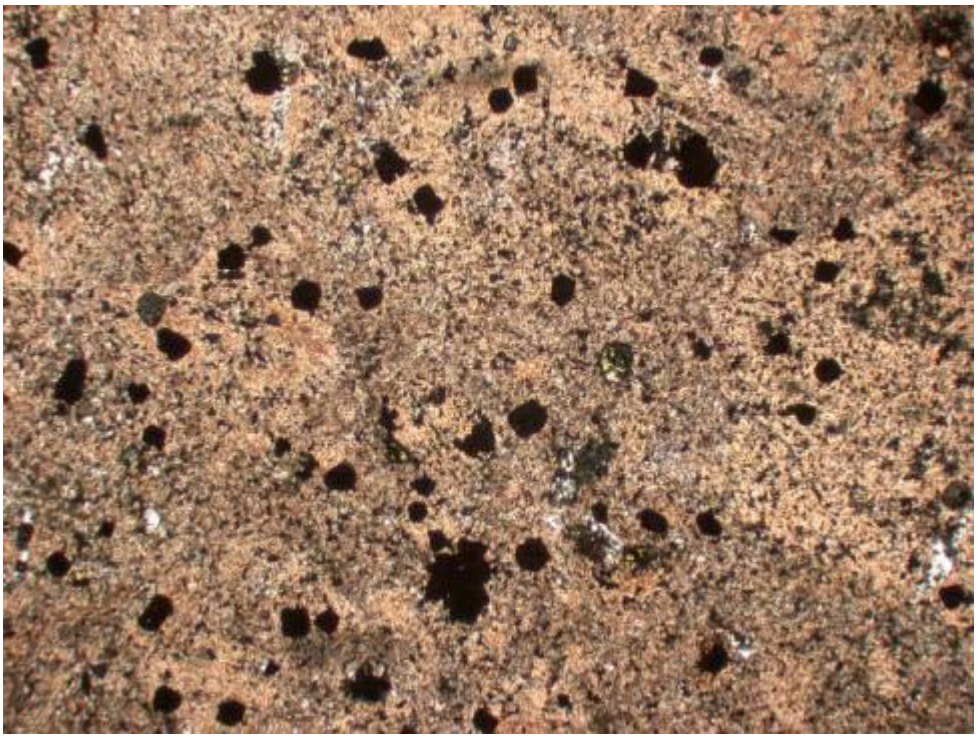
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
K-feldspar	40	very fine-grained, trachytic-textured laths, overprinted by clay, chlorite, carbonate and hematite	
Clay, ?smectite	10	aphanitic, occurs as pervasive replacement of rock, overprints K-feldspar in groundmass	*tan*
Plagioclase	10	-fine to medium-grained, occurs as phenocrysts, selectively replaced by epidote, chlorite, quartz and hematite -fine to very fine-grained (< 0.1 mm), occurs as groundmass, overprinted by clay, chlorite, carbonate, epidote, hematite	
Chlorite	10	-very fine-grained, anhedral aggregates, occurs as replacement of tabular phenocrysts and groundmass of breccia fragments and matrix -fine-grained, occurs with epidote and quartz as replacement of plagioclase phenocrysts	
Pyrite	10	fine-grained, euhedral pitted grains, occurs disseminated	
Epidote	8	-fine-grained, subhedral, occurs as replacement of former plagioclase phenocrysts -very fine-grained occurs as patchy aggregates throughout breccia	*yellow*
Hematite	5	very fine-grained, occurs in abundance disseminated throughout matrix, occurs with quartz, epidote and chlorite as replacement of former tabular phases, occurs partly replacing very fine-grained carbonate	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate	4	very fine-grained, anhedral to rhombic aggregates, occurs as with epidote as patchy aggregates throughout breccia fragments and matrix, locally partly replaced by hematite	
Quartz	2	fine-grained (< 0.1 mm), radiating aggregates, occurs with epidote, hematite and chlorite as infill/replacement of former tabular phenocrysts	
Apatite	tr	fine-grained, occurs disseminated	*high relief*

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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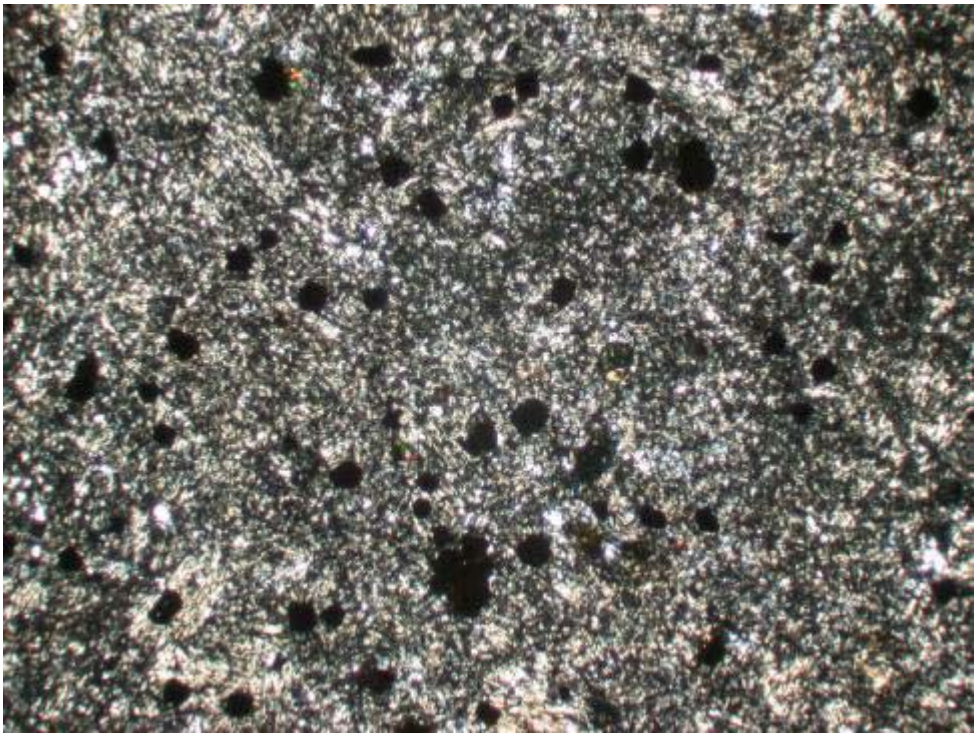
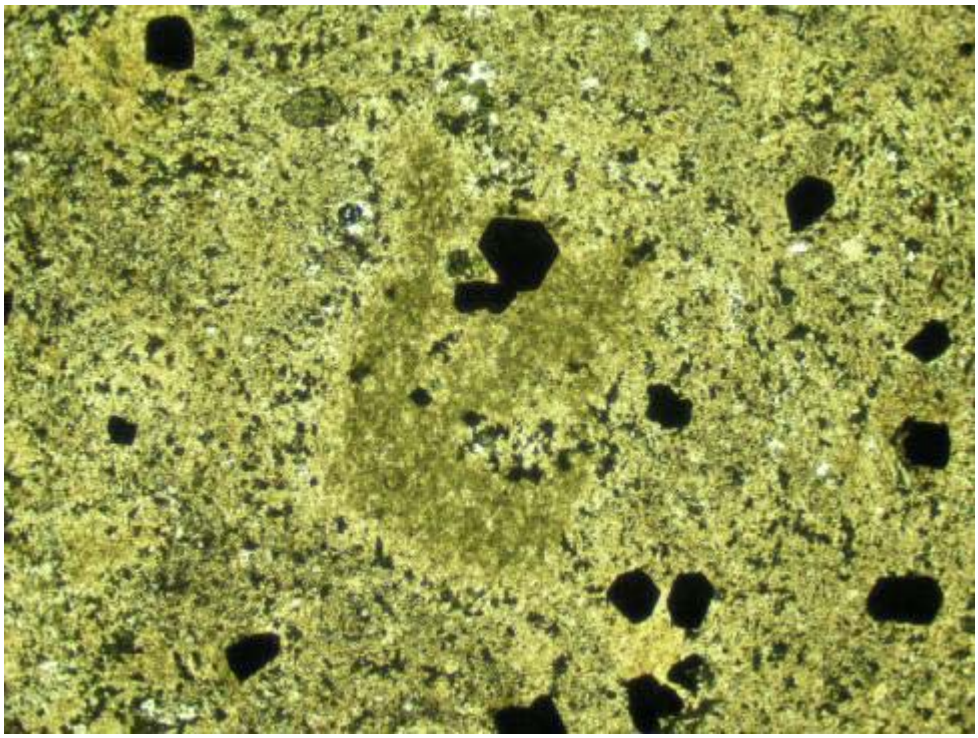


B

Sample #: 221502
A & B) Overview of sample shows tan-coloured, relict brecciated rock texture with trachytic-textured fragments and matrix overprinted by patchy aggregates of clay, chlorite, epidote and carbonate and disseminated pyrite (opaque). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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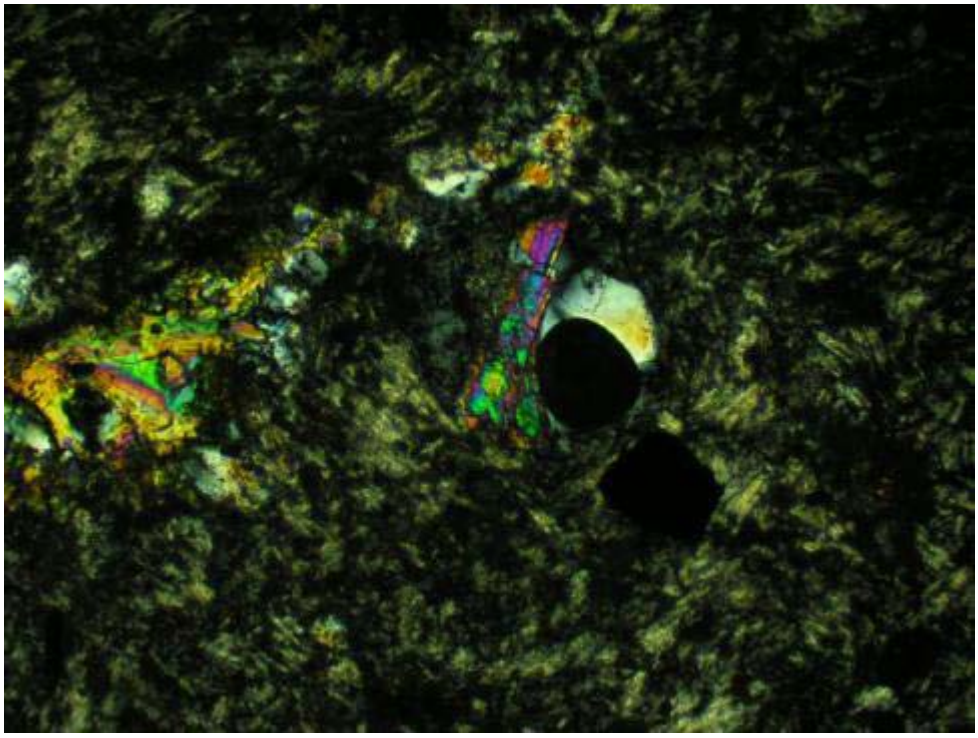
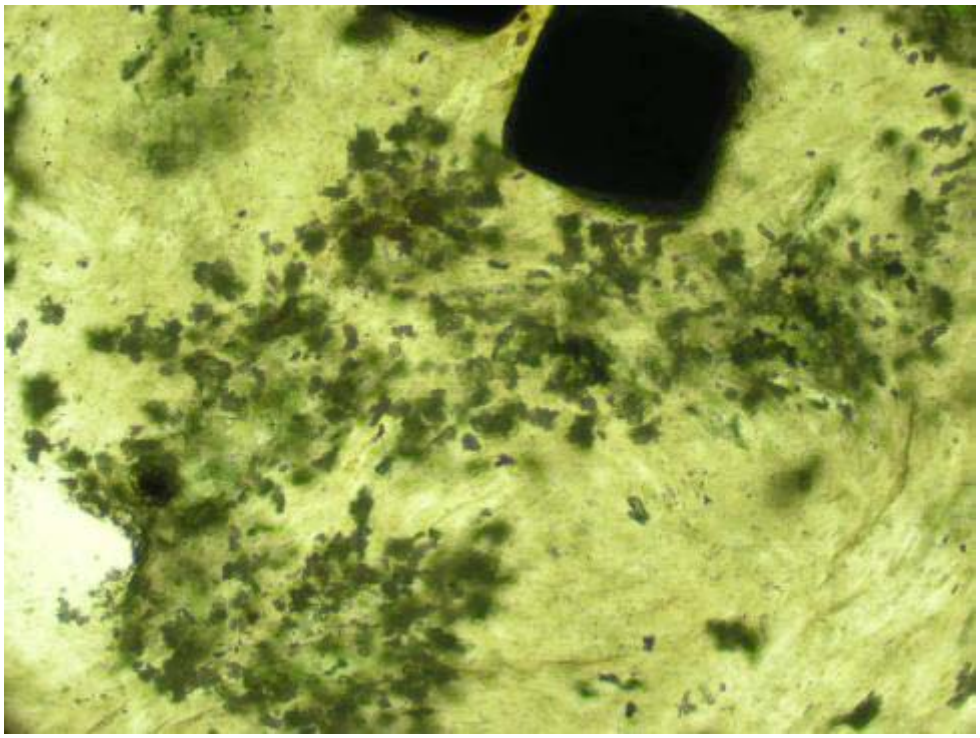


D

Sample #: 221502
C) Former tabular phase replaced by very fine-grained chlorite and patchy carbonate, epidote and opaques. PPL, FOV = ~ 2.8 mm. D) Former plagioclase phenocrysts replaced by epidote and quartz. Note trachytic-textured groundmass. XPL, FOV = ~ 1.3 mm.



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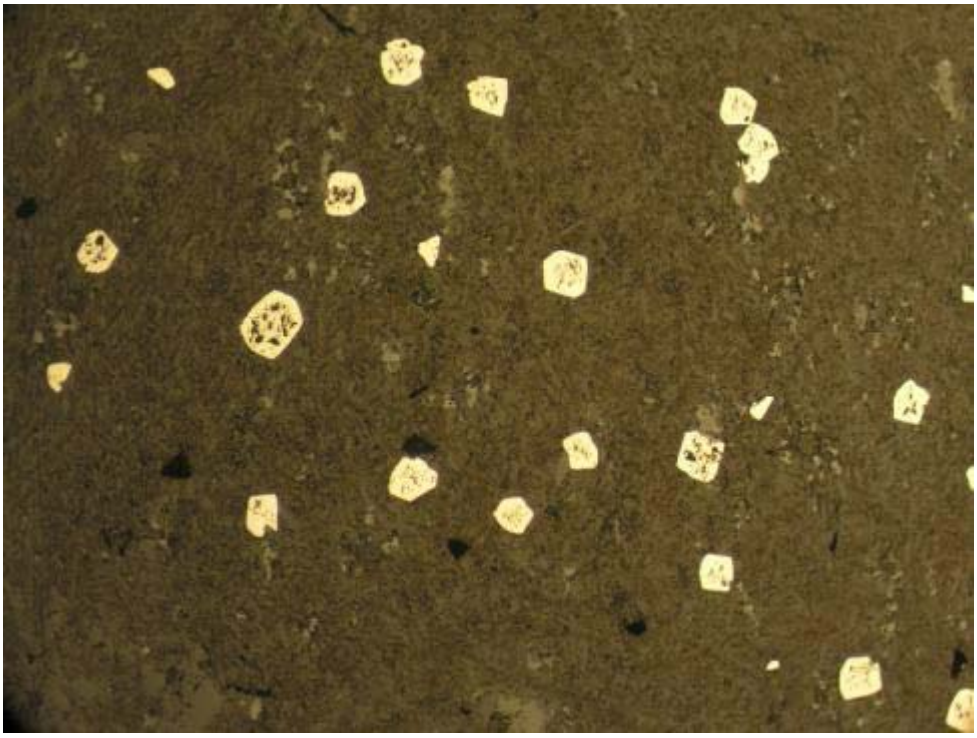
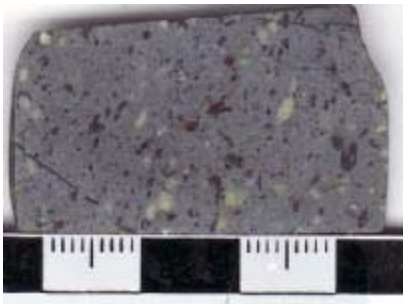


F

Sample #: 221502
E) Detailed view of very fine-grained patchy carbonate aggregate and tan-coloured aphanitic clay-alteration. Note pyrite grain for scale comparison (opaque, top right). PPL, FOV = ~ 0.7 mm. F) Disseminated euhedral pitted pyrite grains. RL, FOV = ~ 2.8 mm.

SRK Project No. 1CN007.00 **UBC Composite # 10**
Hole-ID (from_ft-to_ft): 4284 (620-631.5) **CT-3**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Volcaniclastic breccia
ALTERATION TYPE: Chlorite, carbonate (brown), carbonate (colourless), hematite, muscovite (sericite), quartz

Hand Sample Description:
Core sample consists of pieces of volcaniclastic breccia comprising angular fragments of greenish-black and greenish-grey aphanitic rock (2-4 mm size), rounded fragments of greenish-grey and dark grey porphyritic rock (1-3 cm size) and angular fragments of quartz vein (5mm size) in a dark greenish-grey matrix with abundant mafic and former plagioclase crystals. The section and section offcut are cut from a piece of core that covers a porphyritic rock fragment. The fragment is dark grey and comprises approximately 15% fine to medium-grained white altered plagioclase phenocrysts (up to 2mm size) and 15% former mafic phenocrysts (up to 2mm size, partly replaced by hematite) in an aphanitic groundmass. The fragment has mild attraction to magnet and strong reaction with dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite.

Polished Thin Section Description:
This section covers a portion of the polylithic volcaniclastic breccia and consists one of the porphyritic rock fragments. The fragment comprises approximately 15% altered fine to medium-grained relict plagioclase phenocrysts and fine laths, 7% altered fine-grained relict mafic phenocrysts (including amphibole), approximately 7% vugs (tabular shaped – likely former phenocrysts) and traces of resorbed quartz phenocrysts in a fine to very fine-grained pervasively carbonate (brown) – chlorite – hematite – quartz altered groundmass with fine-grained plagioclase laths. Relict plagioclase phenocrysts are selectively replaced by patchy carbonate-chlorite and locally traces of muscovite (sericite) aggregate. Former relict amphibole and possibly other mafic phenocrysts are replaced by aggregates of chlorite-hematite-carbonate and locally quartz. The aphanitic matrix is pervasively replaced by very fine-grained patchy brown carbonate, chlorite and hematite grains and aggregates.

Carbonate comprises approximately 35% of the section as fine-grained, colourless patchy aggregates (~15%) replacing former plagioclase and mafic phenocrysts and as very fine-grained, brown patchy aggregates (~20%) partly replacing the groundmass.

Sulphide occurs in trace amounts (rarely) as a few very fine-grained, anhedral chalcopyrite grains within former phenocrysts.

Note: The heterogeneity of this sample due to size and variation of breccia fragments and selection of material for thin section preparation may complicate comparison of this petrographic data with XRD Rietveld data.

SRK Project No. 1CN007.00 **UBC Composite # 10**
Hole-ID (from_ft-to_ft): 4284 (620-631.5) **CT-3**

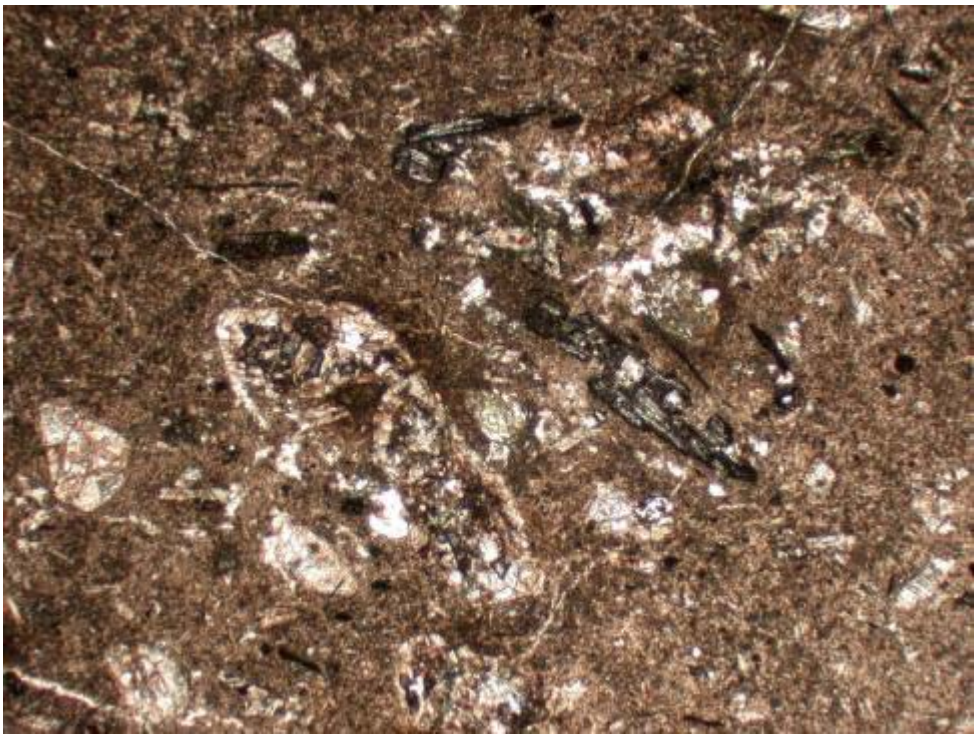
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Chlorite	25	very fine-grained aggregates, occurs as replacement of phenocrysts and matrix	
Carbonate, brown	20	very fine-grained, anhedral aggregates, occurs as patchy replacement of matrix	
Relict matrix	20	aphanitic material, pervasively replaced by patchy brown carbonate, chlorite, hematite and locally quartz grains and aggregates	
Carbonate, colourless	15	fine-grained, patchy aggregates, occurs as replacement of phenocrysts	
Vugs	7		
Hematite	5	very fine-grained, grains and aggregates, occurs partly replacing former mafic phenocrysts and matrix, replaces former cubic forms within phenocrysts -colloform aggregates, occurs with quartz, chlorite and carbonate (colourless) as infill	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Plagioclase	3	medium-grained (1-3 mm), tabular, occurs as phenocrysts and as fine-grained platy laths, replaced by chlorite and carbonate	
Quartz	2	-fine-grained, resorbed, occurs as phenocrysts -very fine-grained, anhedral aggregates, occurs with carbonate and hematite replacing tabular forms and locally matrix -colloform-textured, occurs as infill with colloform hematite, chlorite and carbonate	
Muscovite (sericite)	2	very fine-grained, flaky, occurs as replacement of plagioclase phenocrysts and matrix	
Amphibole	tr	fine-grained, tabular and hexagonal forms, occurs as former phenocrysts, selectively replaced by carbonate, hematite and chlorite	
Chalcopyrite	tr	very fine-grained, anhedral, occurs within former plagioclase phenocryst	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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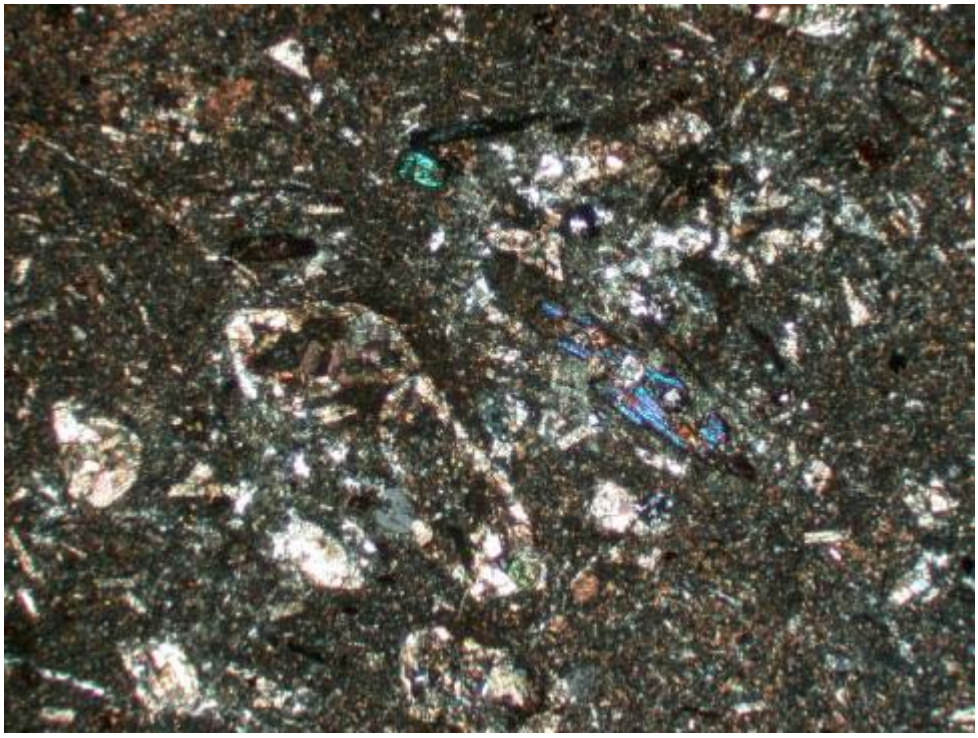
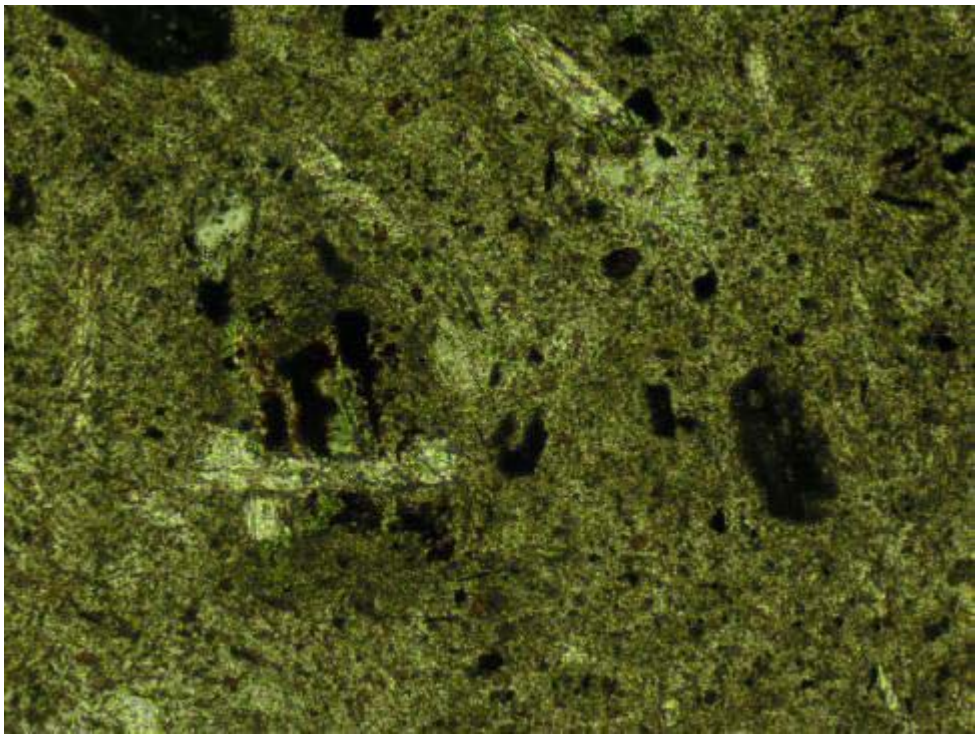


B

Hole-ID (from_ft-to_ft): 4284 (620-631.5)
A & B) Overview of porphyritic rock fragment with former fine to medium-grained relict plagioclase phenocrysts and fine laths and altered fine-grained relict mafic phenocrysts (including amphibole) in a pervasively carbonate (brown)-chlorite-hematite altered aphanitic groundmass. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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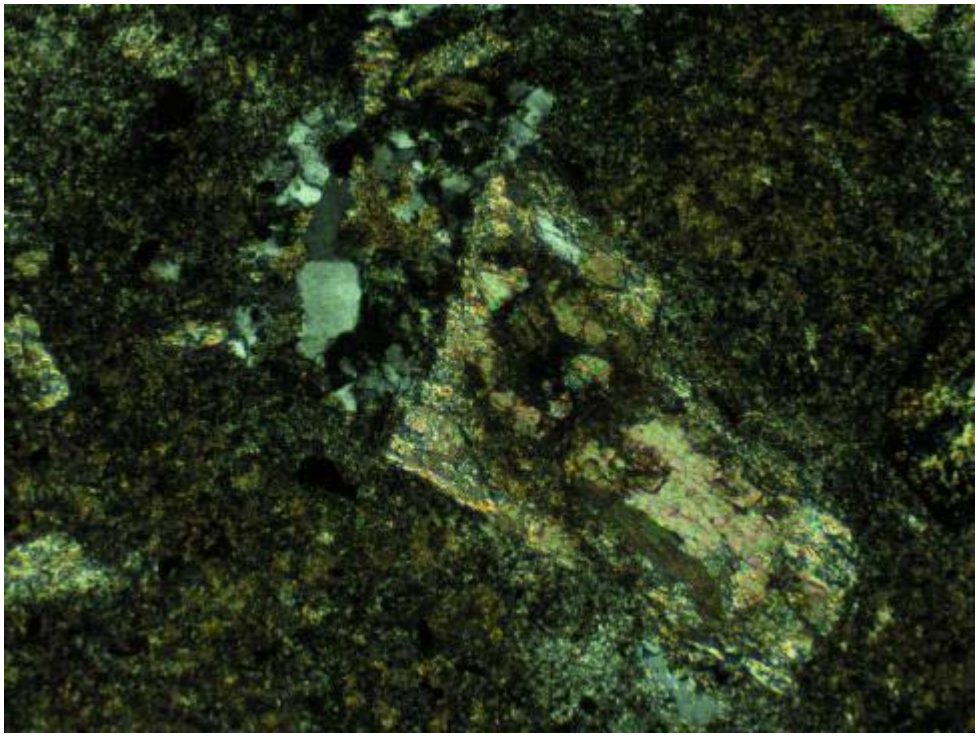
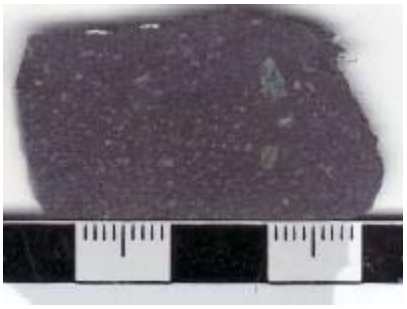


D

Hole-ID (from_ft-to_ft): 4284 (620-631.5)
C) Detailed view of former plagioclase laths and groundmass. Note patchy carbonate (brown)-chlorite (green)-hematite (opaque) alteration of groundmass. PPL, FOV = ~ 0.7 mm. D) Patchy carbonate replacement of former plagioclase phenocryst. Note patchy carbonate alteration of matrix and secondary quartz alteration (top left) XPL, FOV = 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 10**
Hole-ID (from_ft-to_ft): 4284 (655-670) **CT-4**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (dry)

LITHOLOGY: Porphyritic rock and volcaniclastic breccia
ALTERATION TYPE: Carbonate, hematite, unknown aphanitic material, muscovite (sericite)
VEINLETS: Carbonate

Hand Sample Description:
Core sample consists of pieces of porphyritic rock: dark grey (attraction to magnet), bluish grey (no attraction to magnet), brownish grey (no attraction to magnet) and some pieces of volcaniclastic breccia similar to sample 4284 (620-631.5). The polished thin section was cut from a piece of dark grey porphyritic rock and comprises approximately 30% fine to medium-grained white altered plagioclase laths and phenocrysts (up to 2mm size) and scattered green amygdales (2-3 mm size) in an aphanitic groundmass. Moderate attraction to magnet. Trace reaction of fractures in some pieces with dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite.

Polished Thin Section Description:
This section consists one of the dark grey porphyritic rock fragments cut by a discontinuous carbonate veinlet (~ 1mm wide). The fragment comprises approximately 35% altered fine to medium-grained relict plagioclase phenocrysts and fine laths, and approximately traces of amydgales in an aphanitic grungy brown groundmass. Tabular former phenocrysts and relict plagioclase phenocrysts are selectively replaced by patchy carbonate-quartz-aphanitic unknown material and locally traces of muscovite (sericite) or chlorite aggregate. Carbonate overprints earlier muscovite (sericite) alteration. Minor fine-grained magnetite occurs disseminated. Major very fine-grained hematite occurs disseminated throughout the matrix and imparts slight maroon colour to sample.

Carbonate comprises approximately 15% of the section as colourless, fine-grained patchy aggregates replacing former plagioclase and tabular phenocrysts, very fine-grained aggregates as amygdales and fine to very fine-grained aggregates as discontinuous fracture infill.

Sulphide does not occur in this section.

Note: The heterogeneity of this sample due to size and variation of breccia fragments and selection of material for thin section preparation may complicate comparison of this petrographic data with XRD Rietveld data.

SRK Project No. 1CN007.00 **UBC Composite # 10**
Hole-ID (from_ft-to_ft): 4284 (655-670) **CT-4**

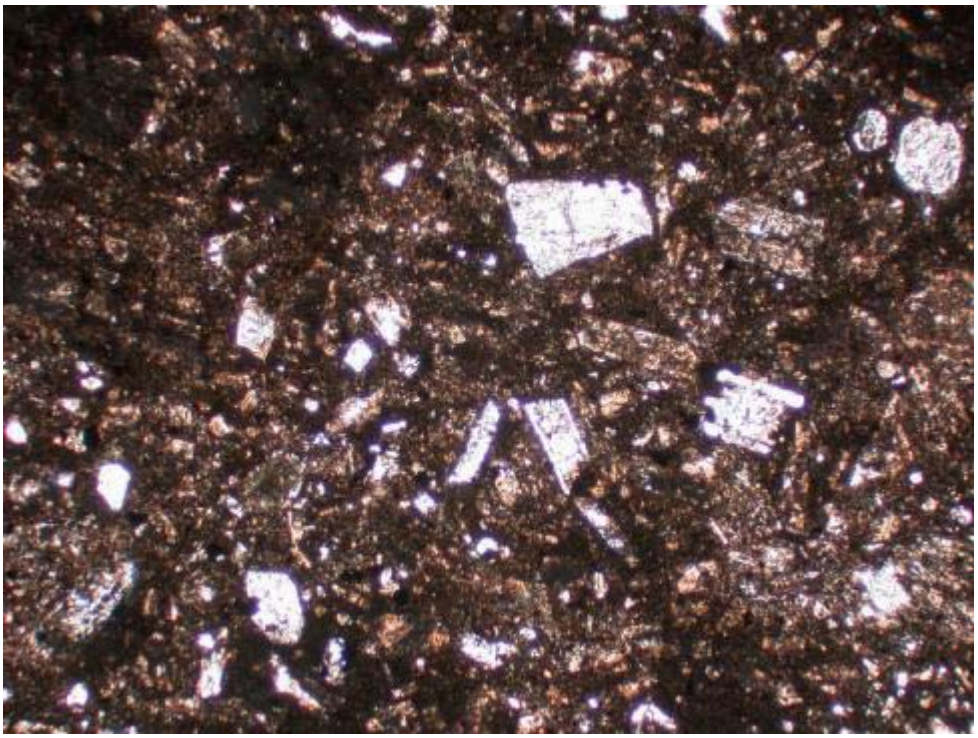
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Matrix	45	aphanitic material, grungy, semi-opaque	*dark brown*
Carbonate, colourless	15	-fine-grained, patchy aggregates, occurs as replacement of former tabular phenocrysts, overprints muscovite (sericite) -fine to very fine-grained, occurs as discontinuous veinlet (< 1 mm wide) -very fine-grained, occurs with quartz as amygdales	
Hematite	15	very fine-grained, acicular to anhedral aggregates, occurs disseminated in the matrix	
Unknown	15	aphanitic material similar to matrix, occurs partly replacing phenocrysts and laths	*dark brown*

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Plagioclase	3	medium-grained (1-2 mm), tabular, occurs as phenocrysts and as fine-grained platy laths, replaced by carbonate, quartz, muscovite (sericite) and locally chlorite	
Magnetite	3	fine-grained (< 0.6 mm), an-subhedral, occurs disseminated	
Quartz	2	fine to very fine-grained (< 0.1 mm), anhedral grains and aggregates, occurs with carbonate replacing tabular forms -very fine-grained, occurs with carbonate as amydgdales	
Muscovite (sericite)	1	very fine-grained, flaky, occurs as replacement of plagioclase phenocrysts	
Chlorite	tr	very fine-grained aggregates, occurs as replacement of phenocrysts and in amygdales	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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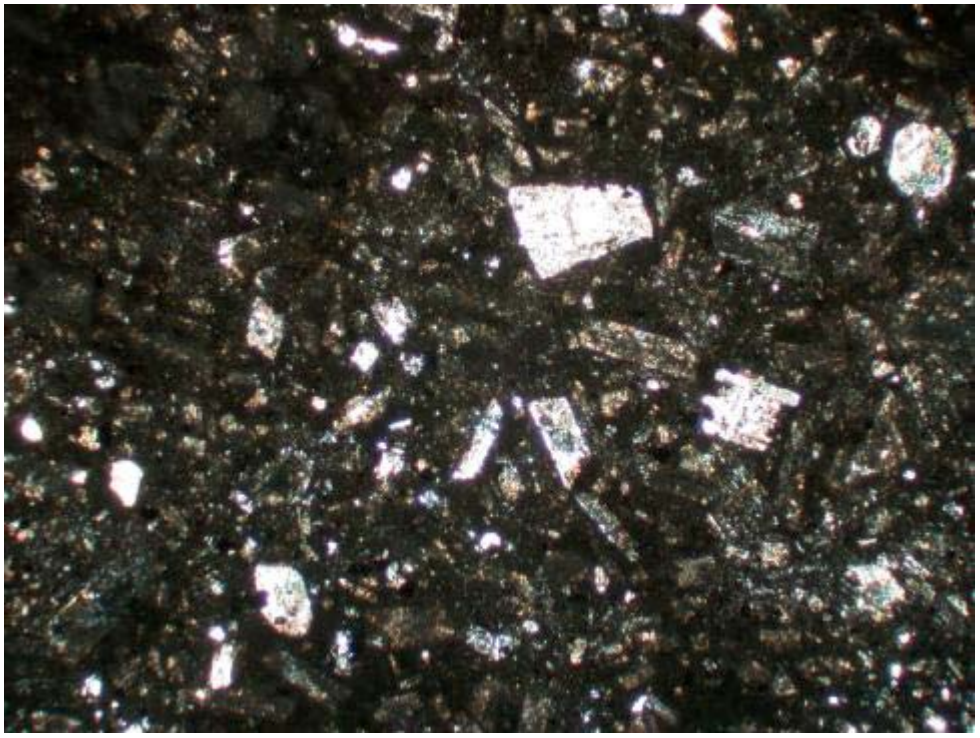
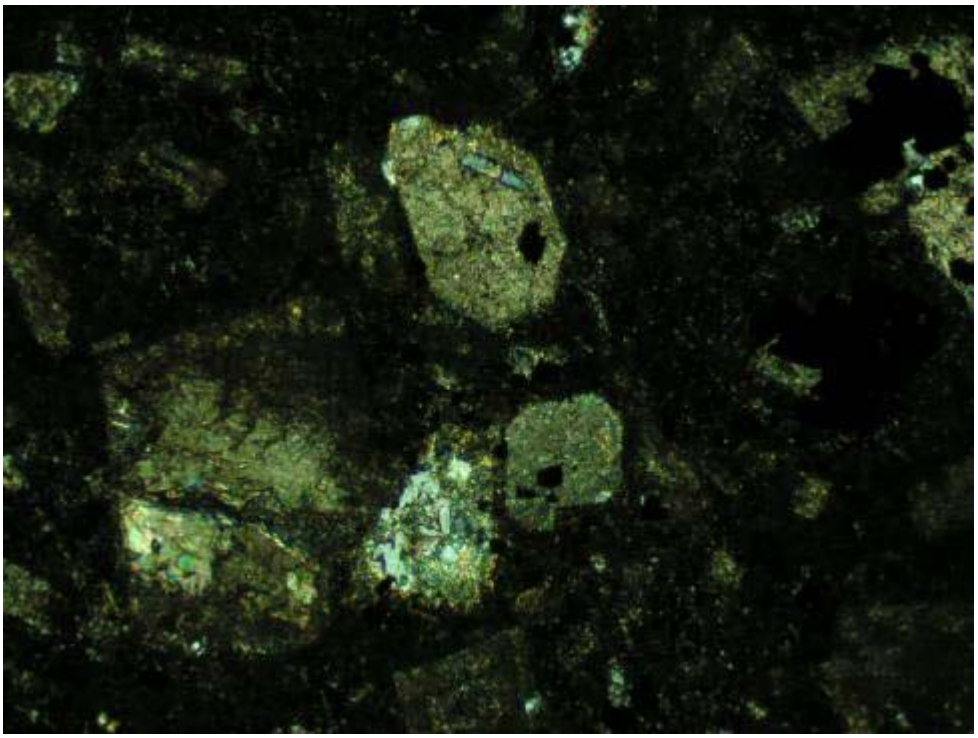


B

Hole-ID (from_ft-to_ft): 4284 (655-670)
A & B) Representative view of sample shows abundant tabular phenocrysts and laths including some relict plagioclase phenocrysts in a dark brown aphanitic matrix. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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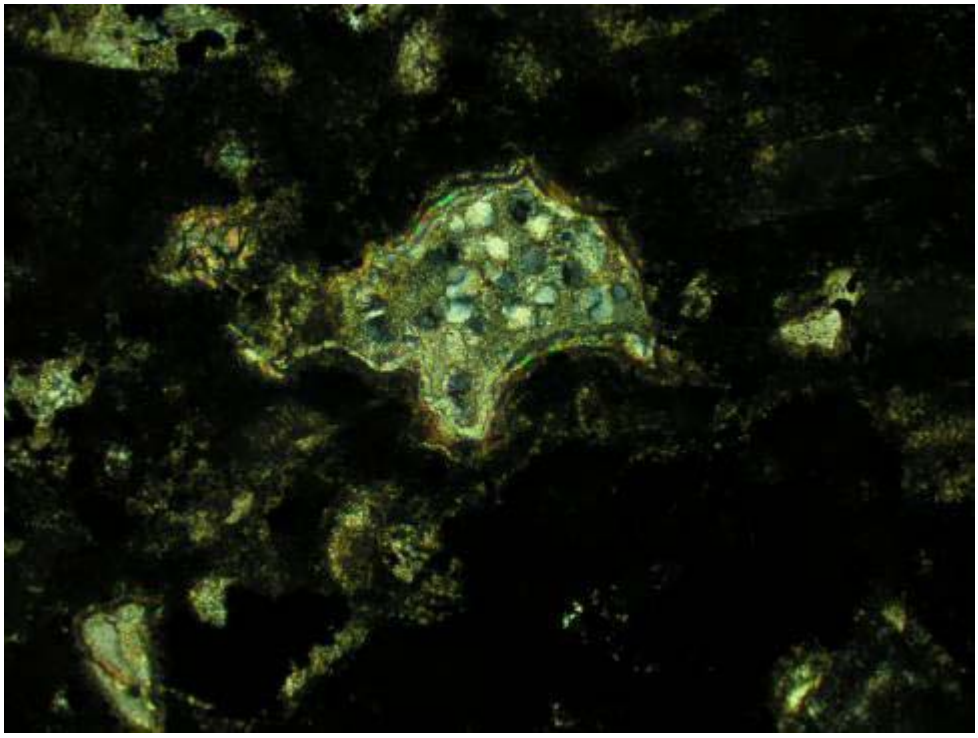


D

Hole-ID (from_ft-to_ft): 4284 (655-670)
C) Tabular phenocrysts replaced by carbonate, aphanitic material and quartz. XPL, FOV = ~ 1.3 mm. D) Amygdale (centre) filled with carbonate and quartz. XPL, FOV = 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 12**
Hole-ID (from_ft-to_ft): 4250 (78-83) **CT-5**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Poorly sorted, thinly laminated, graded siltstone
ALTERATION TYPE: Carbonate, Fe-oxide/oxyhydroxide

Hand Sample Description:
Light olive-grey to medium-dark grey thinly laminated, graded siltstone. No reaction to magnet. Strong reaction to cold, dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite.

Polished Thin Section Description:
This sample is a poorly-sorted, thinly laminated siltstone with grading from medium to coarse silt-sized angular mineral grains and abundant subangular polylithic rock fragments in a very fine-grained brown clay/hematite matrix to fine to very fine silt and clay/hematite layers. Mineral grains in the coarse layers include approximately 3% quartz grains, 1% altered plagioclase grains, 3% carbonate (grains and replacement) and rock fragments including aphanitic rock, porphyritic rock, sandstone, siltstone and polycrystalline quartz. Plagioclase grains are partly replaced by colourless carbonate.

Carbonate comprises approximately 3% of the section as colourless, commonly pitted fine grains (< 0.2 mm in size). Carbonate occurs as replacement of plagioclase and as individual grains. Locally carbonate is rimmed and partly replaced by Fe-oxide/oxyhydroxide aggregate.

Sulphide occurs in trace amounts as pyrite and chalcopyrite. Pyrite occurs disseminated as very fine-grained, sub-anhedral grains and locally as framboids. Pyrite grain boundaries appear unaltered. Chalcopyrite occurs disseminated as a few very fine-grained, anhedral grains.

SRK Project No. 1CN007.00 **UBC Composite # 12**
Hole-ID (from_ft-to_ft): 4250 (78-83) **CT-5**

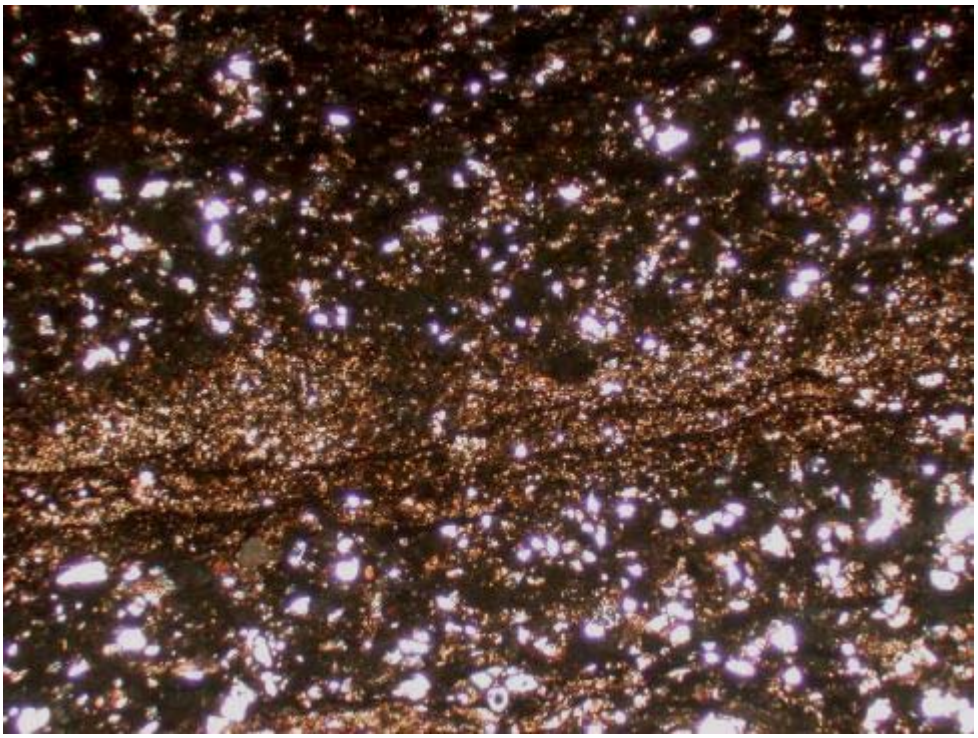
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Fine silt and clay size material, matrix	63	aphanitic, brown to opaque aggregates of clay, includes hematitic aggregate as fine layers and interstitial to rock fragments	*brown, murky*
Rock Fragments	30	angular to sub-angular, includes aphanitic rock, porphyritic rock with feldspar microphenocrysts, sandstone, siltstone and polycrystalline quartz, occurs in medium to coarse silt layers	*polylithic*

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate	3	fine-grained (< 0.2 mm), colourless, commonly pitted, occurs as replacement of plagioclase, as individual grains, locally rimmed and partly replaced by Fe-oxide/oxyhydroxide aggregate	*colourless*
Quartz	3	very fine-grained (medium to coarse silt), occurs as angular framework grains	
Plagioclase	tr	very fine-grained (medium to coarse silt), tabular framework grains, locally partly replaced by carbonate	*polysynthetic twinning*
Pyrite	tr	very fine-grained, sub-anhedral and locally framboidal, occurs disseminated	
Chalcopyrite	tr	very fine-grained, anhedral, only a few grains, occurs disseminated	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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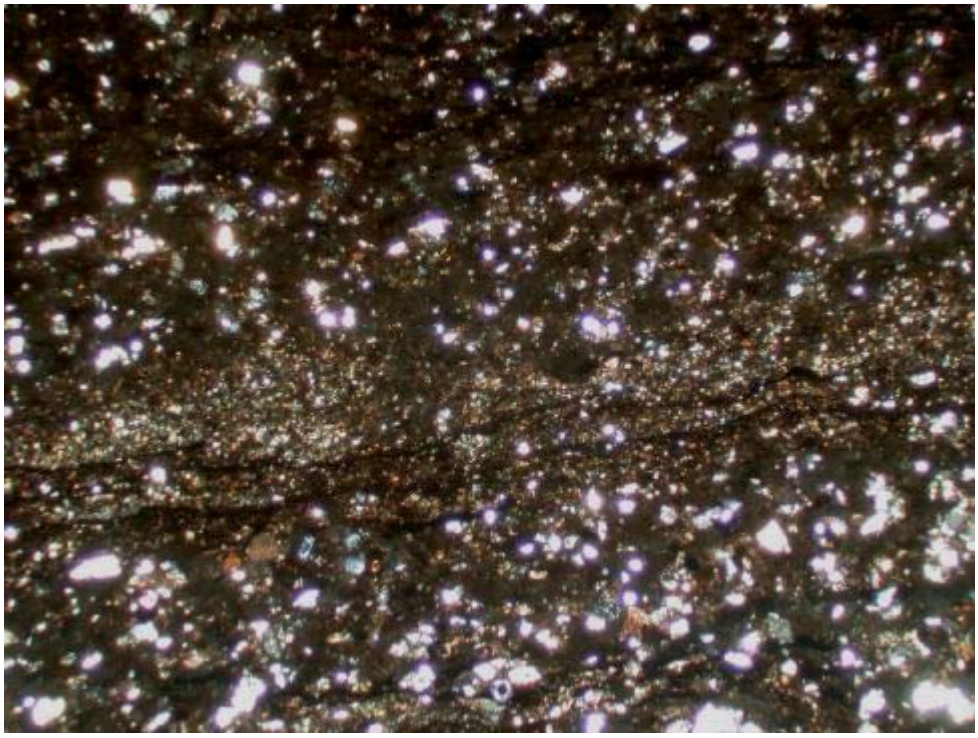
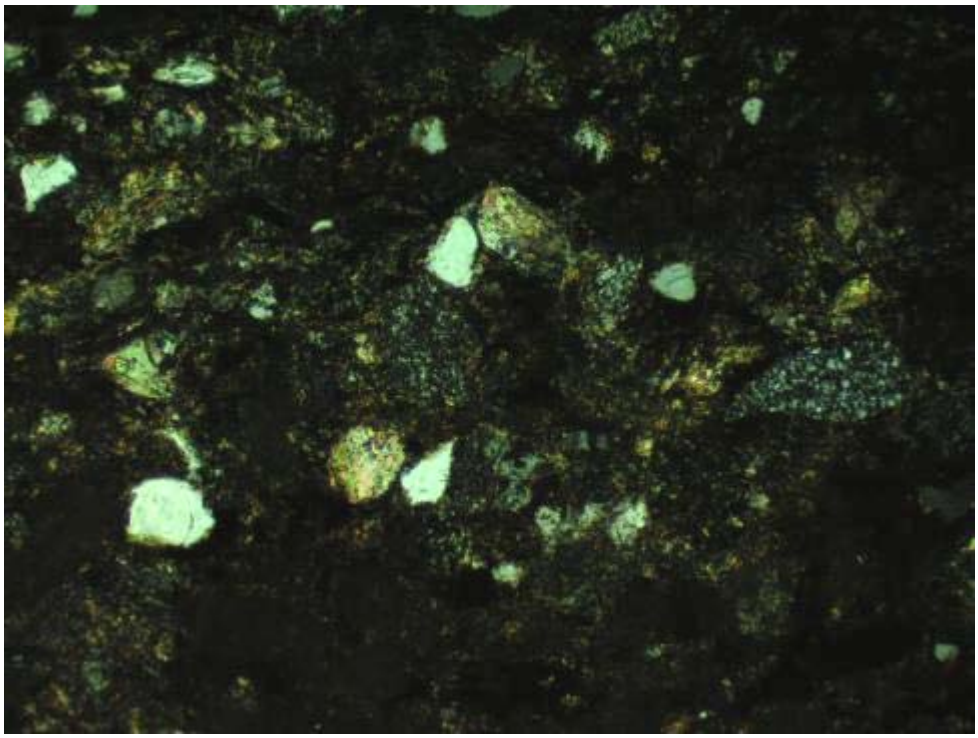


B

Hole-ID (from_ft-to_ft): 4250 (78-83)
A & B) Representative view of poorly-sorted, thinly laminated siltstone with grading from medium to coarse silt-sized angular mineral grains and abundant subangular polylithic rock fragments in a very fine-grained brown clay/hematite matrix to fine to very fine silt and clay/hematite layers A) PPL, B) XPL, FOV = ~ 5 mm.



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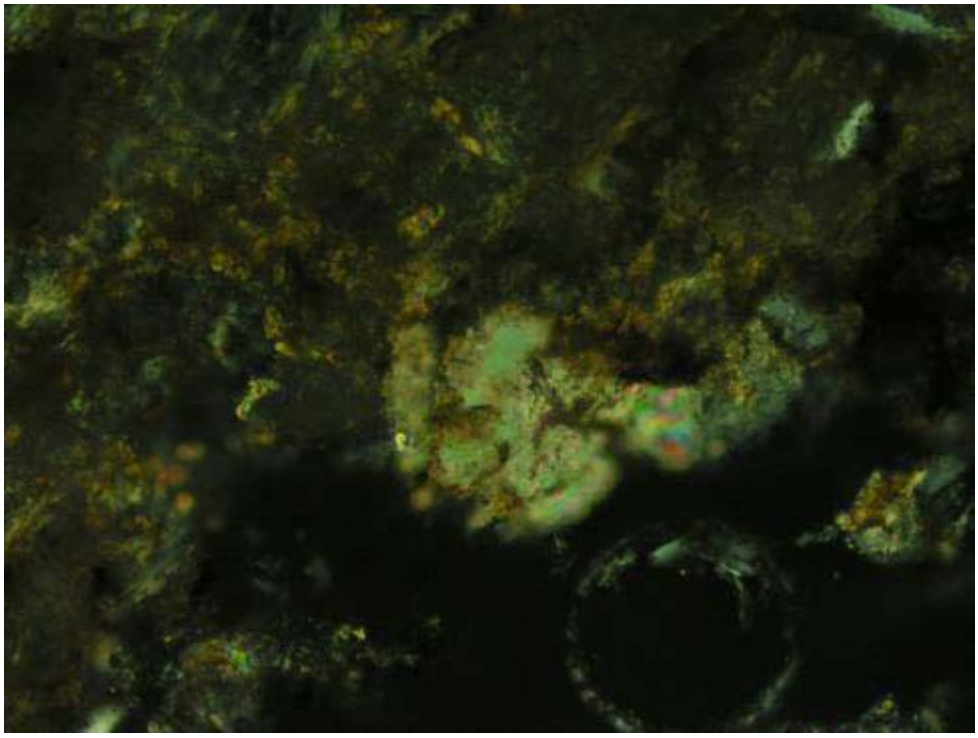


D

Hole-ID (from_ft-to_ft): 4250 (78-83)
C) Detailed view of coarse siltstone layer shows quartz and carbonate mineral grains and polylithic rock fragments in aphanitic matrix. XPL, FOV = ~ 1.3 mm. D) Carbonate grain partly rimmed and replaced by red-brown Fe-oxide/oxyhydroxide aggregate. XPL, FOV = 0.35 mm.

SRK Project No. 1CN007.00 **UBC Composite # 1**
Hole-ID (from_ft-to_ft): 5311 (3058-3068) **CT-6**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY:	Porphyritic ?Granodiorite
ALTERATION TYPE:	Orthoclase, muscovite (sericite), carbonate (brown), carbonate
MINERALIZATION:	Pyrite, chalcopyrite, (molybdenite)
VEINLETS:	Quartz-orthoclase-pyrite-chalcopyrite; Quartz-pyrite-chalcopyrite; Quartz-carbonate-pyrite-chalcopyrite; Carbonate

Hand Sample Description:
Core sample consists of pieces of leucocratic porphyritic rock and quartz vein (2.5 to 4 cm size). The porphyritic rock is medium-grey with approximately 30% light greenish-grey altered, medium-grained K-feldspar-bearing phenocrysts and 1% quartz phenocrysts in an aphanitic K-feldspar-rich matrix (based on stained offcut). The porphyritic rock is cut by 1-2 mm wide quartz veinlets. Minor disseminated pyrite and chalcopyrite within porphyritic rock and veinlets. The quartz vein pieces comprise massive white quartz with traces of molybdenite, pyrite and sericite. No reaction to cold, dilute HCl. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite.

Polished Thin Section Description:
This section is a selectively muscovite (sericite)-carbonate-altered leucocratic porphyritic ?granodiorite comprising approximately 30% altered fine to coarse-grained former feldspar phenocrysts, 2% quartz phenocrysts and traces of former ?biotite phenocrysts (replaced by muscovite (sericite)) in a very fine-grained matrix comprising dominantly quartz and orthoclase with minor muscovite (sericite) after biotite. Former ?plagioclase phenocrysts are partly replaced by patchy orthoclase aggregates. All feldspar phenocrysts are selectively replaced by very fine-grained muscovite (sericite) aggregate and overprinted by patchy very fine-grained brown carbonate. Minor fine-grained euhedral pyrite and chalcopyrite occur disseminated. Pyrite is often partly enclosed by chalcopyrite and locally associated with ilmentite or rutile aggregates. The porphyritic rock is cut by a variety of veinlets from 1-2 mm wide (as listed above).

Carbonate comprises approximately 7% of the section as both brown and colourless varieties. Brown carbonate (5%) occurs as very fine-grained, anhedral aggregates overprinting muscovite (sericite) alteration of feldspar phenocrysts. Colourless carbonate (2%) occurs as fine-grained patchy aggregates replacing phenocrysts and matrix, in veinlets with quartz, chalcopyrite and pyrite and as late veinlets.

Sulphide occurs in major amounts as pyrite, chalcopyrite and molybdenite. Pyrite, approximately 3%, occurs disseminated in the porphyritic rock and veinlets. Pyrite is typically euhedral with straight grain boundaries; some grains have irregular, partly corroded boundaries. Alteration rims are not evident in these irregular pyrite grains but a faint yellow stain occurs around the grains. Anhedral chalcopyrite, approximately 2%, occurs disseminated and within veinlets. Molybdenite occurs in trace amounts.

SRK Project No. 1CN007.00 **UBC Composite # 1**
Hole-ID (from_ft-to_ft): 5311 (3058-3068) **CT-6**

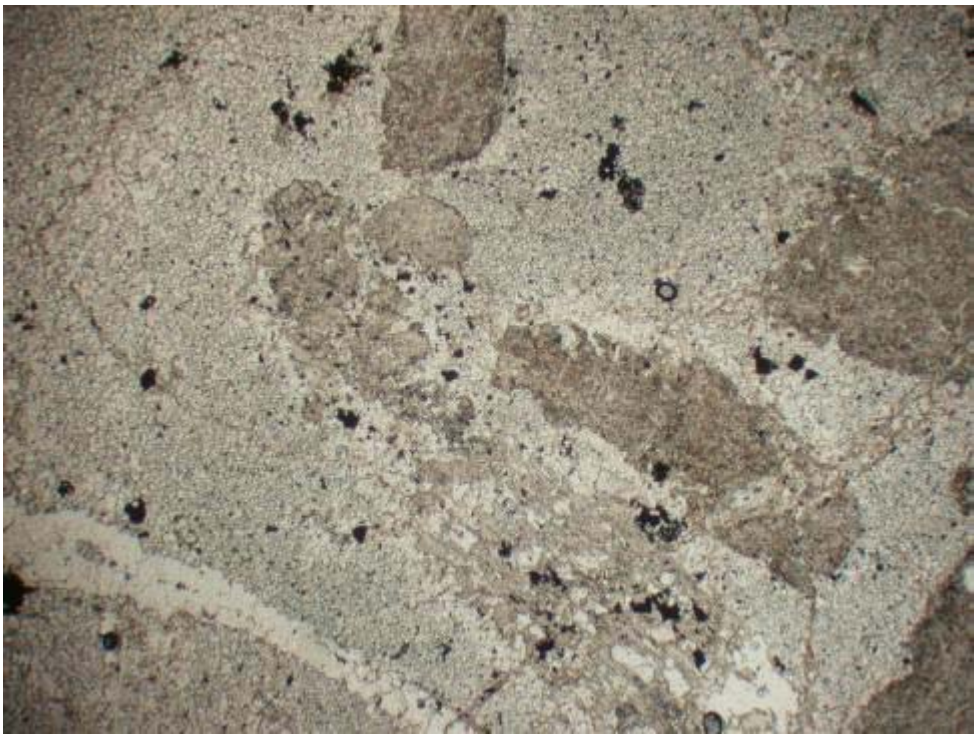
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Orthoclase	40	-fine to coarse-grained, occurs as phenocrysts, selectively replaced by muscovite (sericite) and carbonate, ~5% -fine-grained (< 0.2 mm), anhedral aggregates, occurs as replacement of former tabular phases, partly overprinted by muscovite (sericite) and carbonate, ~5% -very fine-grained, intergrown with quartz and muscovite (sericite) in groundmass, ~30% -fine-grained (< 0.3 mm), euhedral, occurs within quartz veinlets	
Quartz	37	-fine-grained, anhedral aggregates, occurs as rounded phenocrysts (1-2 mm size), ~2% -very fine-grained, aggregates, occurs intergrown with orthoclase in the groundmass, ~30% -fine-grained, anhedral aggregates, occurs as veinlets, ~8%	
Muscovite (sericite)	10	very fine-grained, anhedral to flaky aggregates, occurs as replacement of former feldspar and ?biotite phenocrysts, overprinted by brown carbonate	
Carbonate, brown	5	-very fine-grained, anhedral aggregates, occurs overprinting muscovite (sericite) alteration of former feldspar phenocrysts	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Pyrite	3	fine-grained (< 0.1 mm), euhedral grains and aggregates, locally enclosed by chalcopyrite ± ilmenite ± rutile aggregates, occurs disseminated and within veinlets	
Chalcopyrite	2	fine-grained (< 0.3 mm), anhedral grains and aggregates, occurs locally enclosing euhedral pyrite, occurs disseminated and within quartz, quartz-orthoclase and carbonate veinlets	
Carbonate, colourless	2	fine-grained, occurs as patchy aggregates replacing phenocrysts and matrix, occurs in veinlets with quartz, chalcopyrite and pyrite, occurs as late veinlets	
Rutile	tr	fine to very fine-grained, eu-anhedral aggregates, occurs associated with patchy carbonate alteration, as replacement of phenocrysts and within quartz-carbonate veinlets	
Ilmenite	tr	fine to very fine-grained, anhedral aggregates, occurs within groundmass and associated with chalcopyrite and pyrite	
Molybdenite	tr	fine-grained (< 0.5 mm), occurs rarely disseminated	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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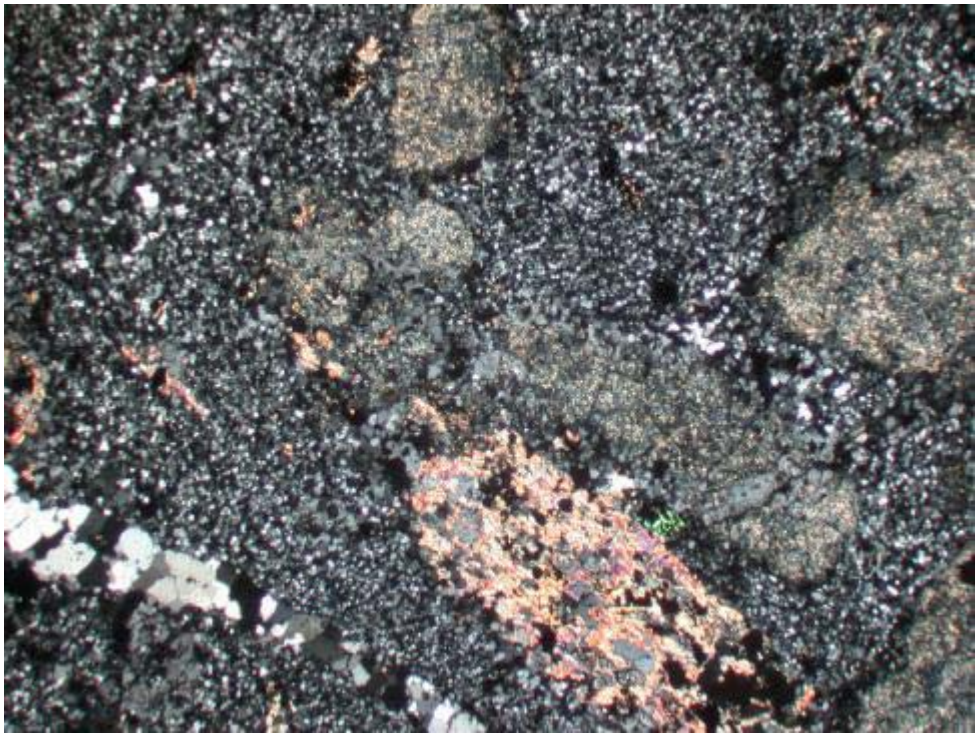
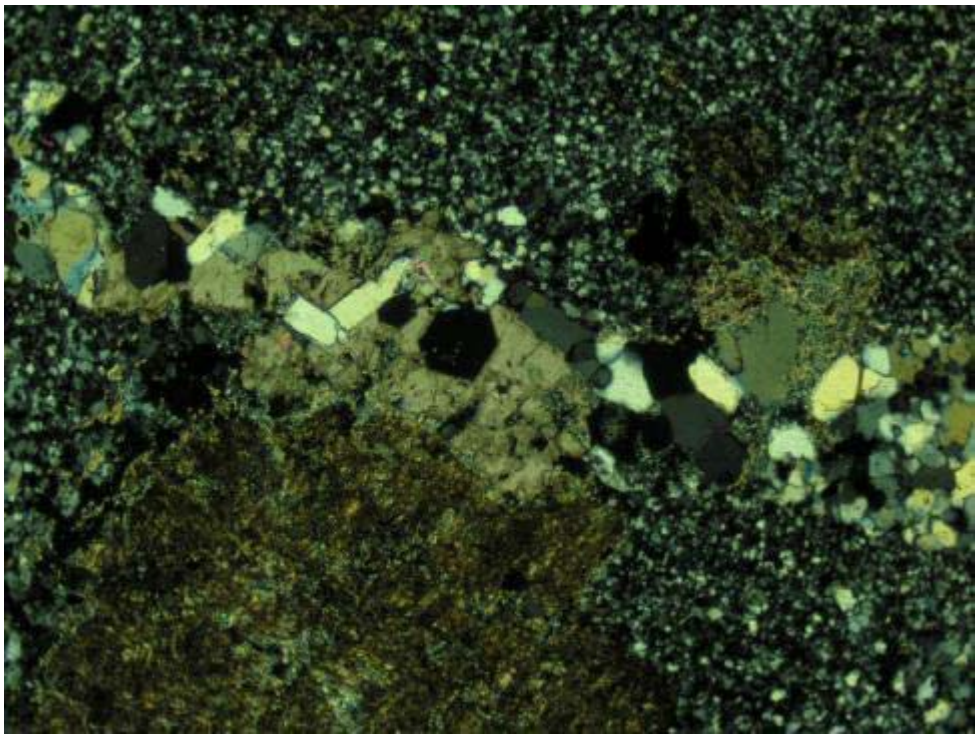


B

Hole-ID (from_ft-to_ft): 5311 (3058-3068)
A & B) Overview of porphyritic rock shows former feldspar phenocrysts (top and right) replaced by muscovite (sericite) and carbonate alteration, former ?biotite phenocryst (below centre) replaced by muscovite (sericite) ad opaques, very fine-grained quartz-orthoclase dominant groundmass and small quartz veinlet (left). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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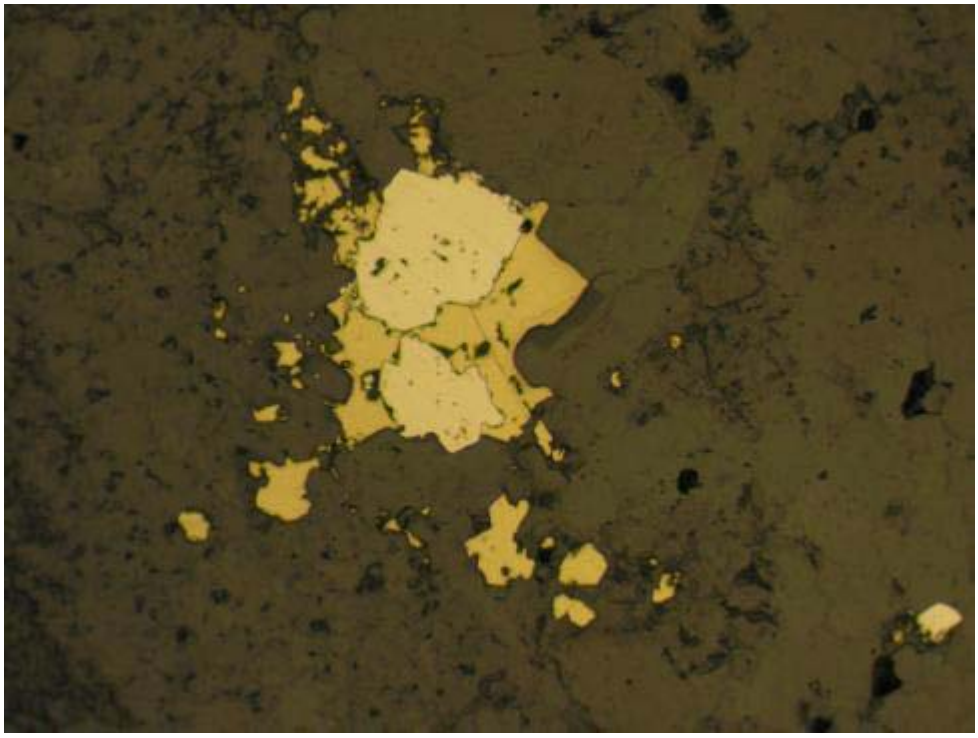
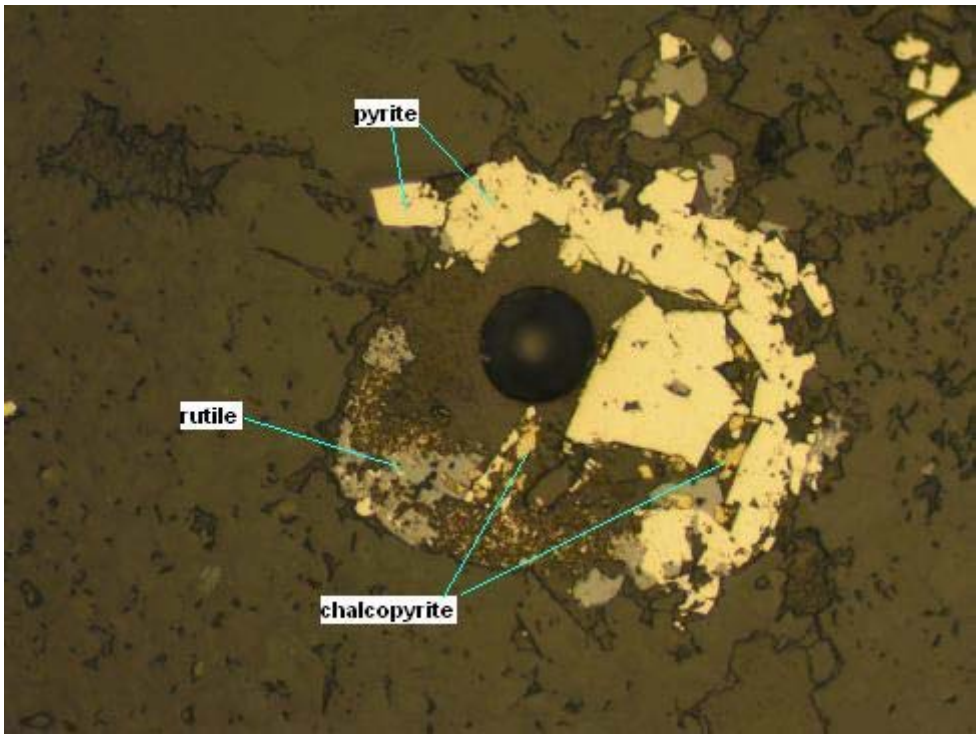


D

Hole-ID (from_ft-to_ft): 5311 (3058-3068)
C) Detailed view of brown carbonate alteration of former feldspar phenocryst (lower left of photo). Veinlet of quartz-carbonate (colourless) cuts the section. XPL, FOV = ~ 2.8 mm. D) Euhedral pyrite enclosed by chalcopyrite. No evidence of pyrite alteration. RL, FOV = ~ 1.1 mm.



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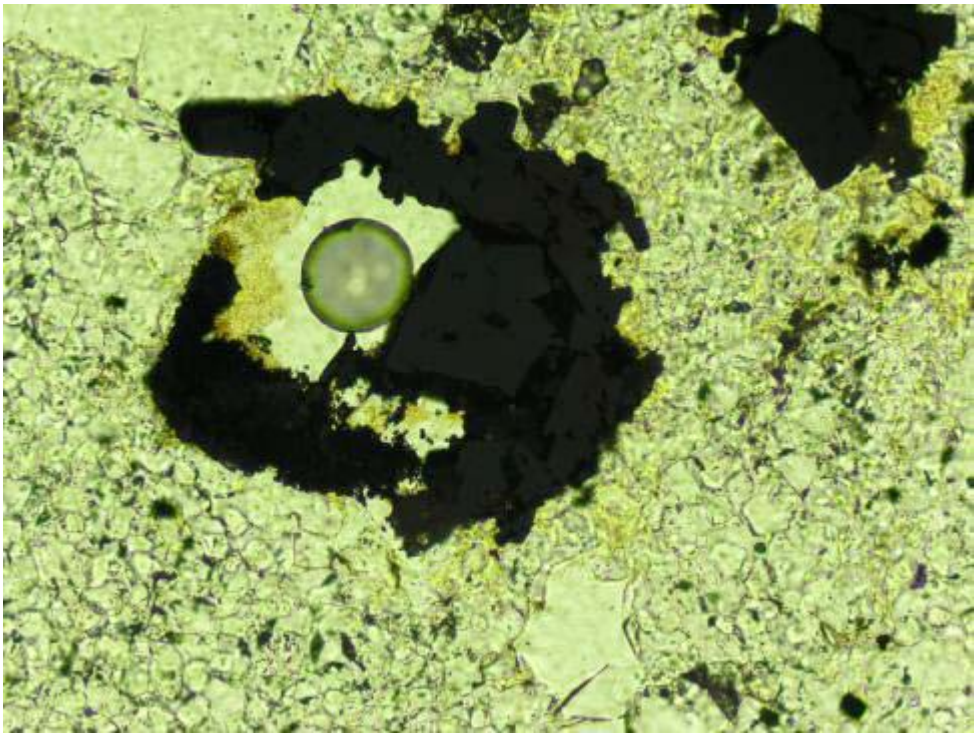


F

Hole-ID (from_ft-to_ft): 5311 (3058-3068)
E) Detailed view of pyrite aggregate with some irregular grain boundaries. RL, FOV = ~ 0.6 mm.
F) Almost the same FOV, notice slight yellow staining of muscovite (sericite) around pyrite aggregate. PPL, FOV = ~ 0.6 mm.

SRK Project No. 1CN007.00 **UBC Composite # 2**
Hole-ID (from_ft-to_ft): 5324 (1897-1907) **CT-7**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY:	Porphyritic ?Granodiorite
ALTERATION TYPE:	Orthoclase, muscovite (sericite), carbonate (brown)
MINERALIZATION:	Pyrite, chalcopyrite, (sphalerite)
VEINLETS:	Quartz-orthoclase-(pyrite-chalcopyrite)
	Quartz-pyrite-chalcopyrite-(sphalerite, ilmenite)
	Pyrite-(quartz-chalcopyrite-sphalerite)

Hand Sample Description:
Core sample consists of pieces of leucocratic porphyritic rock (2 to 3 cm size). The porphyritic rock is medium-grey with approximately 30% light greenish-grey altered, medium-grained K-feldspar-bearing phenocrysts in an aphanitic K-feldspar-rich matrix (based on stained offcut). The porphyritic rock is cut by 1-2 mm wide quartz and quartz-pyrite-chalcopyrite veinlets. Minor disseminated pyrite and chalcopyrite within porphyritic rock and veinlets. No reaction to cold, dilute HCl. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite.

Polished Thin Section Description:
This section is a selectively muscovite (sericite)-carbonate-altered leucocratic porphyritic ?granodiorite comprising approximately 30% altered fine to coarse-grained former feldspar phenocrysts in a very fine-grained matrix comprising dominantly quartz and orthoclase with minor muscovite (sericite) after biotite. Former ?plagioclase phenocrysts are partly replaced by patchy orthoclase aggregates. All feldspar phenocrysts are selectively replaced by very fine-grained muscovite (sericite) aggregate and locally overprinted by patchy very fine-grained brown carbonate. Minor fine-grained sub-anhedral pyrite and chalcopyrite occur disseminated. Pyrite is often partly enclosed by chalcopyrite and locally associated with traces of sphalerite or rutile aggregates. The porphyritic rock is cut by a variety of veinlets from 1-2 mm wide (as listed above).

Carbonate comprises approximately 2% of the section as brown carbonate. The brown carbonate occurs as very fine-grained, anhedral aggregates overprinting muscovite (sericite) alteration of feldspar phenocrysts.

Sulphide occurs in major amounts as pyrite, chalcopyrite and sphalerite. Pyrite, approximately 3%, occurs disseminated in the porphyritic rock and veinlets. Pyrite is typically sub-anhedral with straight grain boundaries; some grains have irregular boundaries but alteration rims are not evident. Anhedral chalcopyrite, approximately 4%, occurs disseminated and within veinlets. Sphalerite occurs in trace amounts intergrown with chalcopyrite.

SRK Project No. 1CN007.00 **UBC Composite # 2**
Hole-ID (from_ft-to_ft): 5324 (1897-1907) **CT-7**

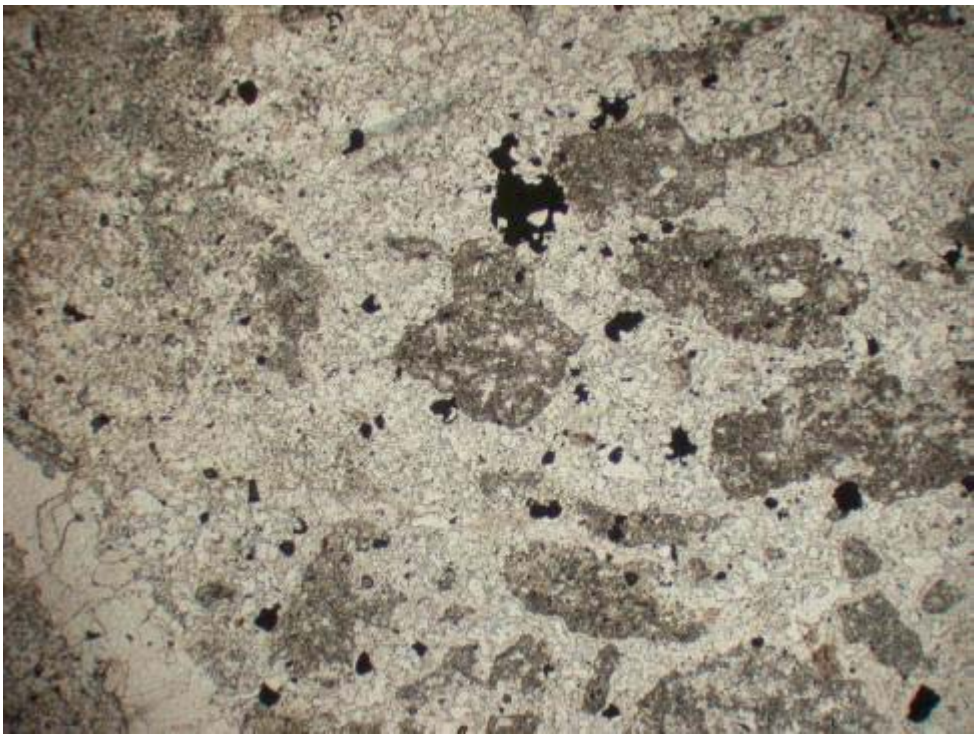
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Orthoclase	35	-fine to medium-grained, occurs as phenocrysts, selectively replaced by muscovite (sericite) and locally brown carbonate -fine-grained (< 0.2 mm), anhedral aggregates, occurs as replacement of former tabular phases, partly overprinted by muscovite (sericite) -very fine-grained, intergrown with quartz and muscovite (sericite) in groundmass -fine-grained (< 0.2 mm), euhedral, occurs as early veinlets with quartz	
Quartz	35	-very fine-grained, aggregates, occurs intergrown with orthoclase in the groundmass -fine-grained, anhedral aggregates, occurs as veinlets	
Muscovite (sericite)	20	very fine-grained, anhedral to flaky aggregates, locally fine-grained sheaves, locally replaces secondary biotite, occurs as replacement of former feldspar phenocrysts, locally overprinted by brown carbonate	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Chalcopyrite	4	fine to very fine-grained (< 0.3 mm), anhedral grains and aggregates, occurs locally enclosing pyrite, occurs disseminated and within veinlets	
Pyrite	3	fine to very fine-grained (< 0.4 mm), sub-anhedral grains and aggregates, locally enclosed by chalcopyrite ± sphalerite ± rutile aggregates, occurs disseminated and within veinlets	
Carbonate, brown	2	-very fine-grained, anhedral aggregates, occurs overprinting muscovite (sericite) alteration of former feldspar phenocrysts	
Rutile	tr	fine to very fine-grained, eu-anhedral aggregates, occurs as patchy aggregates in the groundmass and within veinlets	
Ilmenite	tr	fine to very fine-grained, anhedral aggregates, occurs disseminated in groundmass	
Biotite	tr	fine-grained, secondary aggregates, occurs in groundmass, virtually completely replaced by muscovite (sericite)	*brown*
Sphalerite	tr	fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs disseminated and in veinlets with chalcopyrite enclosing pyrite	*honey colour*

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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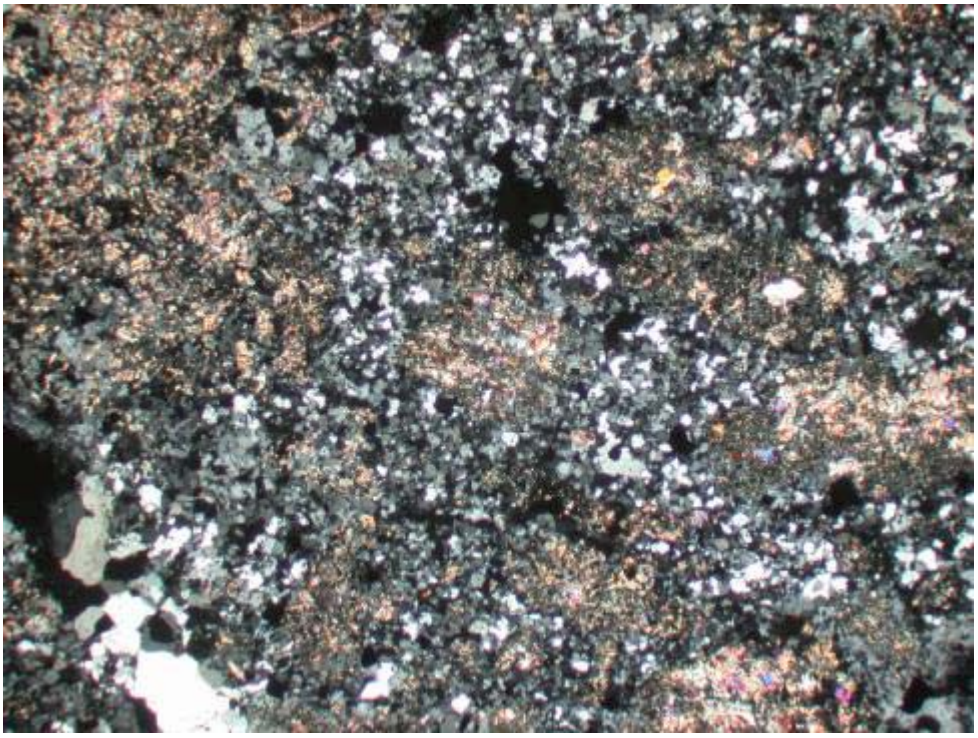
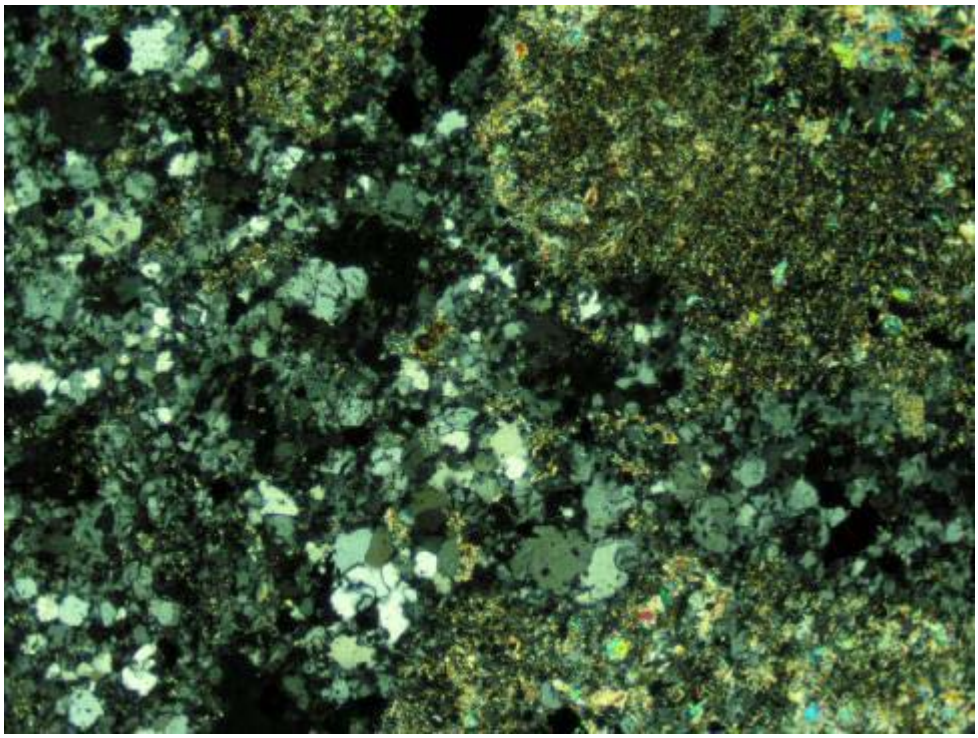


B

Hole-ID (from_ft-to_ft): 5324 (1897-1907)
A & B) Overview of porphyritic rock shows former feldspar phenocrysts replaced by muscovite (sericite) and carbonate alteration, very fine-grained quartz-orthoclase dominant groundmass and small quartz veinlet (left). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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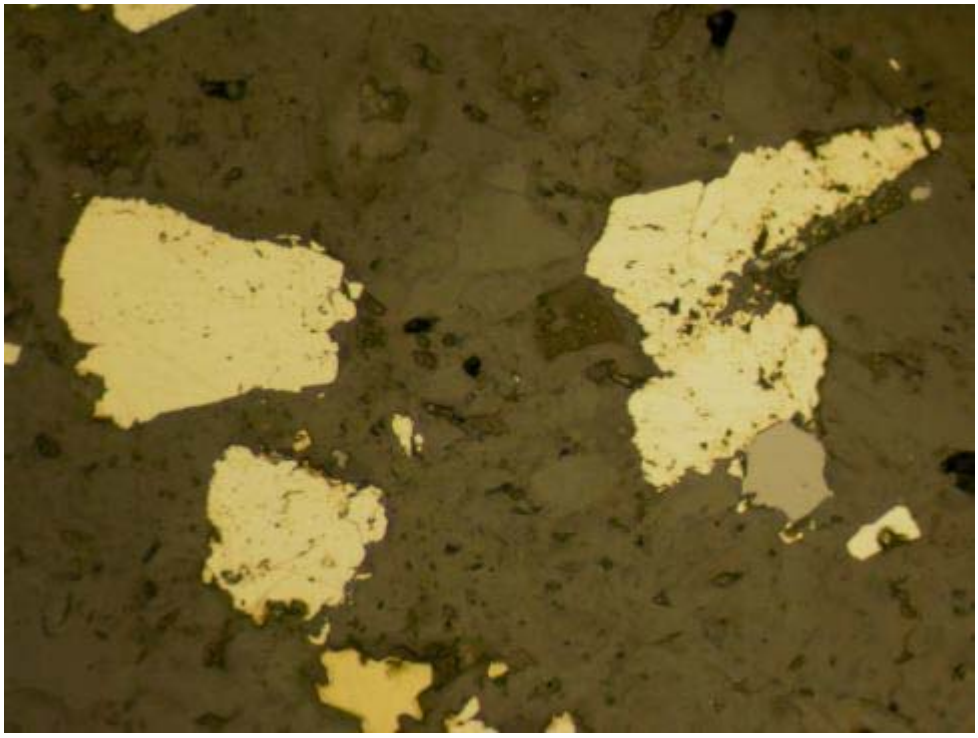


D

Hole-ID (from_ft-to_ft): 5324 (1897-1907)
C) Detailed view of very fine-grained carbonate aggregate overprinting muscovite (sericite) altered phenocrysts (top and right). XPL, FOV = 2.8 mm. D) Subhedral pyrite and chalcopyrite grains (left) within veinlet and (right) disseminated. Note irregular boundaries but absence of alteration rims. RL, FOV = ~ 0.6 mm.

SRK Project No. 1CN007.00 **UBC Composite # 6**
Hole-ID (from_ft-to_ft): 5325 (1648-1658) **CT-8**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY:	Hornfelsed siltstone (Biotite hornfels)
ALTERATION TYPE:	Biotite, chlorite, muscovite (sericite), carbonate
MINERALIZATION:	Chalcopyrite, pyrite
VEINLETS:	Quartz-chalcopyrite (K-feldspar envelopes)
	Quartz-biotite-carbonate-pyrite-chalcopyrite (sericite envelopes)

Hand Sample Description:
Core sample consists of pieces of dark greenish-grey and olive-grey aphanitic rock with sub-mm pyritic veinlets and one fragment cut by 1 cm wide quartz vein with traces of pyrite. Greenish-grey rock has reaction to cold, dilute HCl. The polished thin section is cut from a piece of olive-grey aphanitic rock (biotite hornfels). K-feldspar staining indicates sub-mm veinlets, locally with fine-grained pyrite, and diffuse alteration envelopes of K-feldspar. No reaction to magnet.

Polished Thin Section Description:
This section is a very fine-grained biotite hornfels cut by a sub-mm quartz-chalcopyrite veinlet stockwork with sub-mm K-feldspar alteration envelopes and by later quartz-biotite-carbonate-pyrite-chalcopyrite veinlets with muscovite (sericite) alteration envelopes. The hornfels comprises dominantly platy to microcrystalline biotite, anhedral K-feldspar aggregate, chlorite and muscovite (sericite) (after biotite) and patchy carbonate aggregate.

Carbonate comprises approximately 2% of the section as very fine-grained colourless carbonate. The carbonate occurs as patchy aggregates within hornfels and as grains and aggregates in quartz veinlets. Carbonate in the veinlets is rimmed and partly replaced by chlorite and locally by hematite.

Sulphide occurs in major amounts as chalcopyrite and pyrite. Pyrite, approximately 1%, occurs within quartz-biotite-carbonate-pyrite-chalcopyrite veinlets. Pyrite is typically sub-anhedral with irregular grain boundaries but without alteration rims. Anhedral chalcopyrite, approximately 5%, occurs disseminated and within veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 6**
Hole-ID (from_ft-to_ft): 5325 (1648-1658) **CT-8**

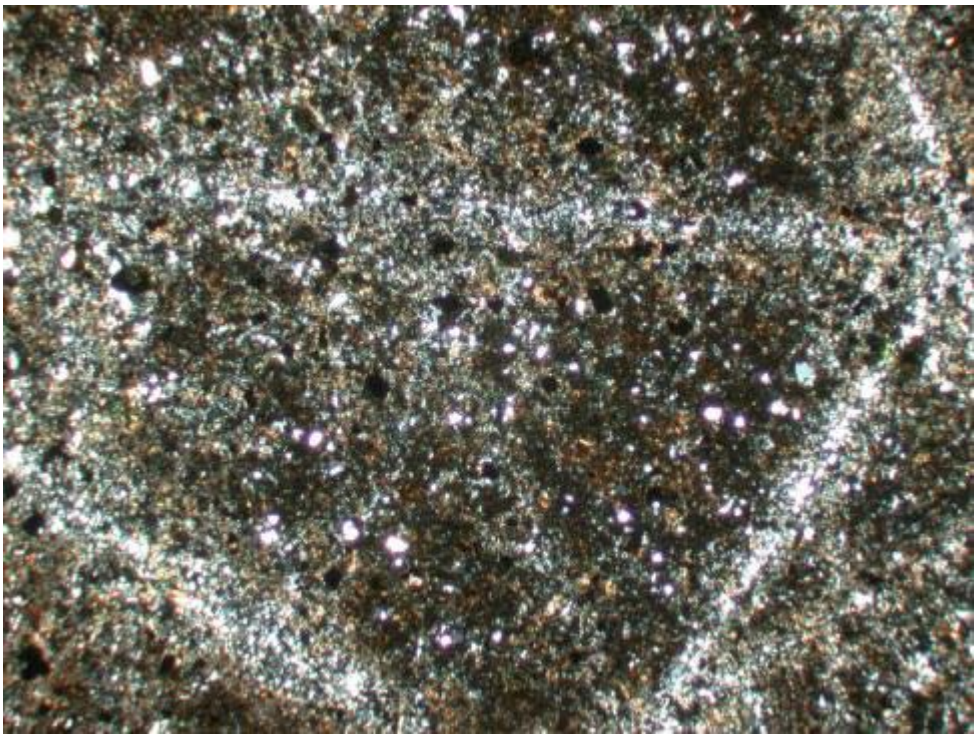
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Biotite	45	very fine-grained, platy to microcrystalline aggregates, occurs as hornfels, partly replaced by chlorite aggregate	
K-feldspar	20	-very fine-grained, anhedral aggregates, occurs with biotite, chlorite and carbonate as hornfels -very fine-grained, occurs with quartz and locally carbonate and epidote as sub-mm wide alteration envelopes to sub-mm stockwork quartz veinlets	
Chlorite	15	-very fine-grained, occurs as replacement of biotite hornfels -very fine-grained, occurs rimming and partly replacing carbonate within quartz veinlet stockwork	
Muscovite (sericite)	6	-very fine-grained, flaky, occurs as alteration envelopes to biotite-carbonate-pyrite-chalcopyrite-quartz veinlets, occurs partly replacing biotite	
Quartz	5	very fine-grained, occurs as sub-mm veinlet stockwork with chalcopyrite and with biotite-carbonate-pyrite-chalcopyrite	
Chalcopyrite	5	fine-grained (<0.2 mm), anhedral aggregates, occurs disseminated and within quartz-chalcopyrite veinlets	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate	2	-very fine-grained, occurs as patchy aggregates within hornfels -very fine-grained, colourless grains and aggregates, occurs in quartz veinlets	
Hematite	1	-very fine-grained, anhedral aggregates, occurs disseminated -microcrystalline, occurs locally partly replacing carbonate within quartz veinlet stockwork	
Pyrite	1	-fine-grained (< 0.1 mm), anhedral grains and aggregates, occurs in veinlets with biotite-carbonate-chalcopyrite and quartz	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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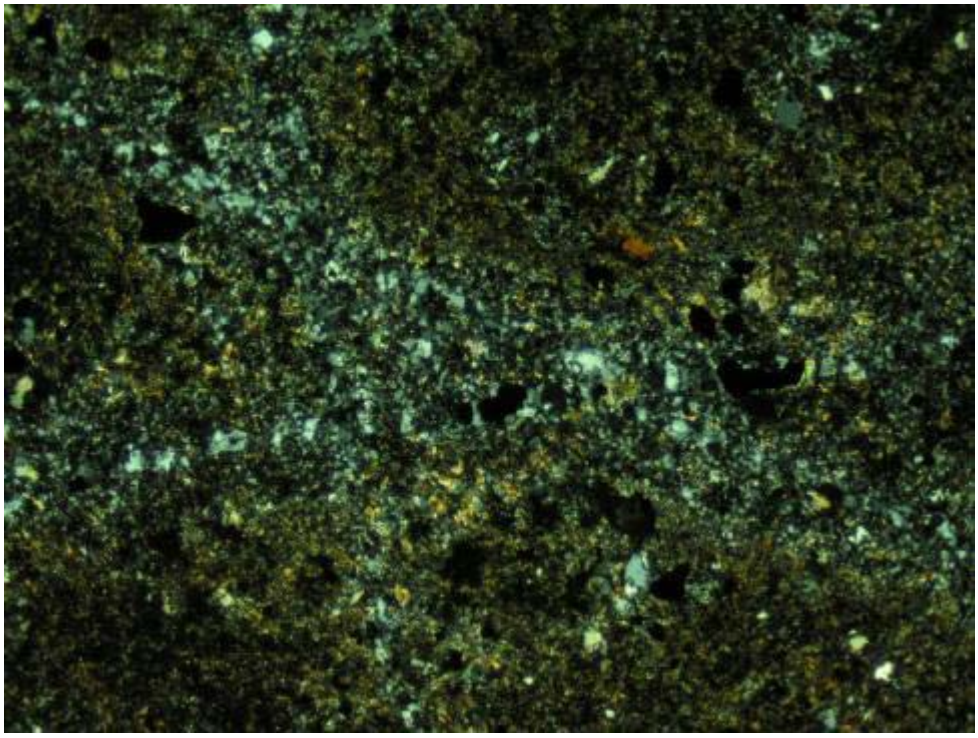
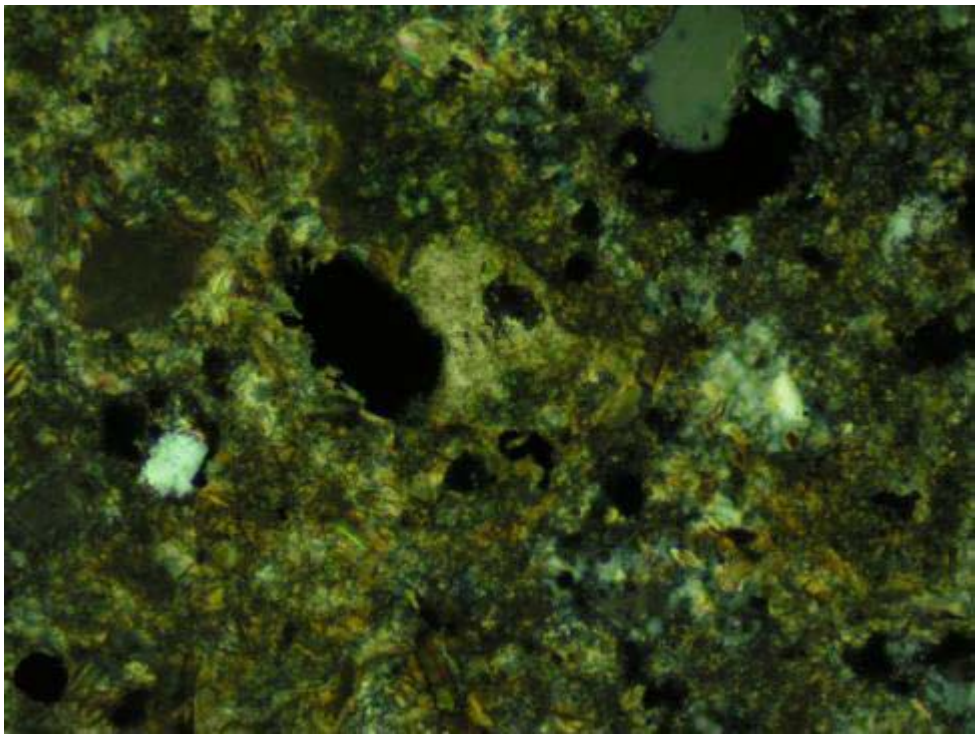


B

Hole-ID (from_ft-to_ft): 5325 (1648-1658)
A & B) Overview of sample shows shows very fine-grained biotite hornfels cut by a sub-mm quartz-chalcopyrite veinlet stockwork with K-feldspar dominant alteration envelopes. A) XPL, ~4.5 mm B) XPL, FOV = ~ 2.8 mm.



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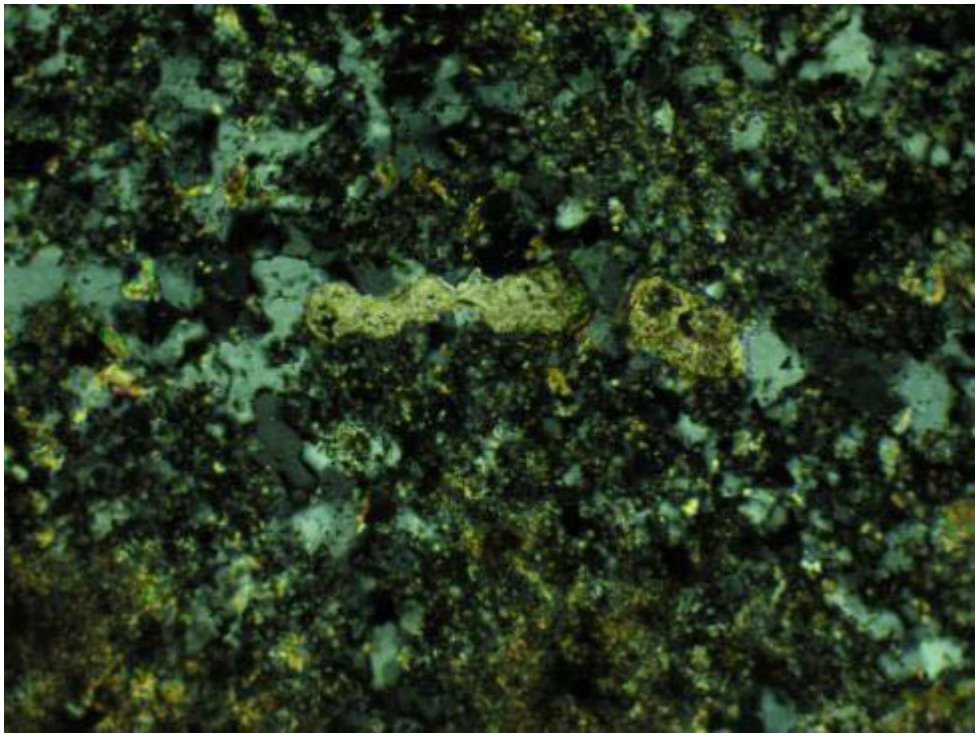
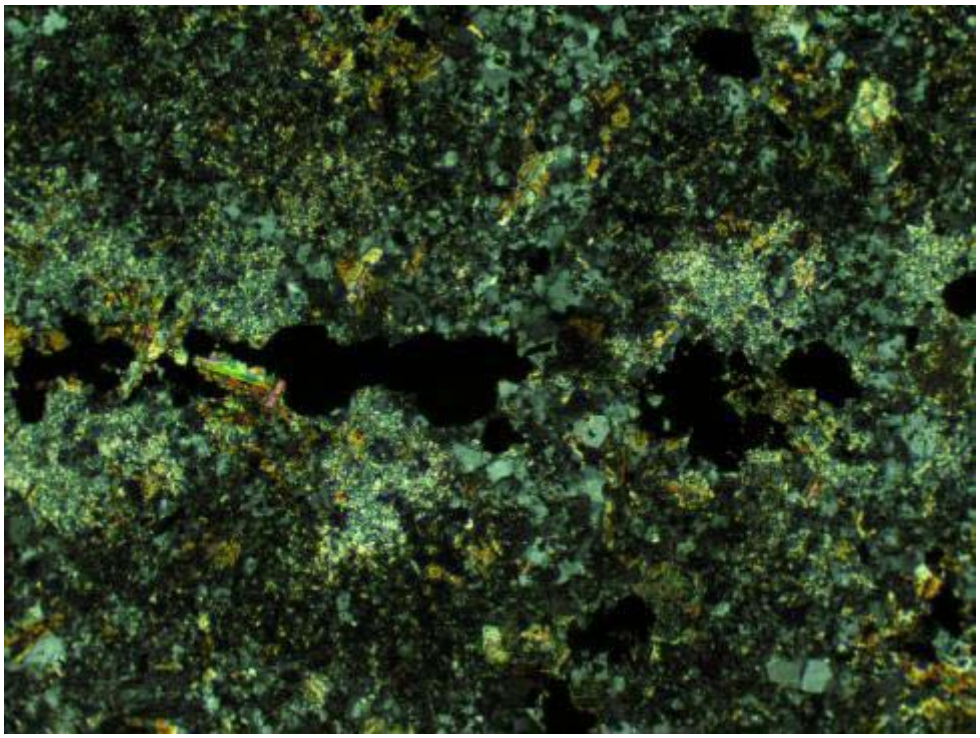


D

Hole-ID (from_ft-to_ft): 5325 (1648-1658)
C) Detailed view of biotite hornfels with very fine-grained K-feldspar aggregate, platy to microcrystalline biotite aggregate, disseminated opaques and patchy carbonate (centre). XPL, FOV = ~ 0.6 mm. D) Close up view of sub-mm quartz-carbonate veinlet with K-feldspar alteration envelopes merging into biotite hornfels (lower portion of photo). XPL, FOV = 1.1 mm.



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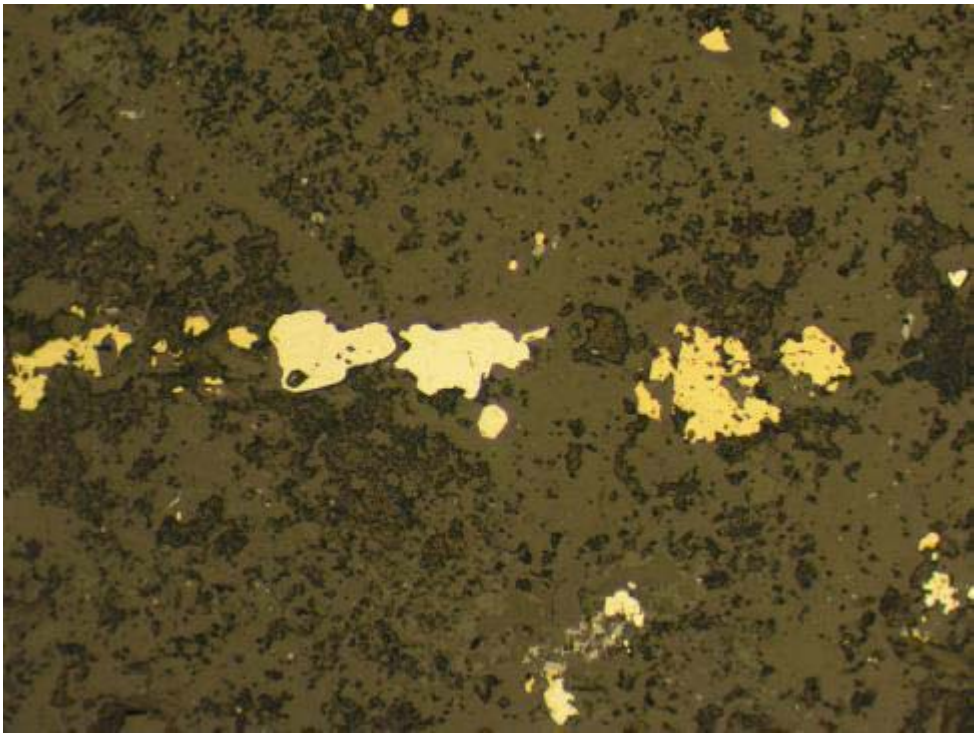
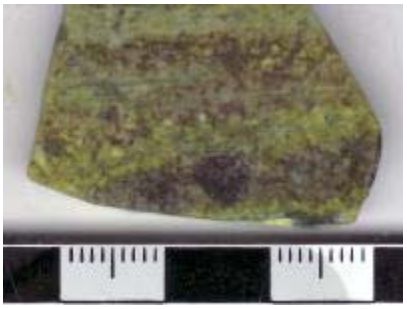


F

Hole-ID (from_ft-to_ft): 5325 (1648-1658)
E&F) Diffuse biotite-carbonate-pyrite-chalcopyrite-quartz veinlet with muscovite (sericite) alteration envelopes. E) XPL, F) RL, FOV = ~ 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 2**
Hole-ID (from_ft-to_ft): 5325 (1908-1918) **CT-9**


Etched and stained section offcut; scale in cm


View of some of the core sample pieces (wet)

LITHOLOGY: Pervasively altered porphyritic rock
ALTERATION TYPE: K-feldspar, biotite, muscovite (sericite), pyrite
MINERALIZATION: Pyrite, (chalcopyrite, arsenopyrite, molybdenite)
VEINLETS: Quartz-microcrystalline quartz-pyrite±chalcopyrite
Quartz-carbonate-pyrite-chlorite-microcrystalline quartz

Hand Sample Description:
Brownish-grey plagioclase porphyritic rock with approximately 40% partly K-feldspar-altered greenish-white plagioclase phenocrysts in an aphanitic groundmass. Rock is cut by hairline quartz-pyrite veinlets and pyrite stringers with 1-2mm wide K-feldspar alteration envelopes (see stained offcut). No reaction to magnet. No reaction of fracture infill to cold, dilute HCl. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut).

Polished Thin Section Description:
This section is a selectively K-feldspar-biotite-muscovite (sericite)-pyrite-altered former porphyritic rock comprising approximately 40% altered fine to medium-grained former phenocrysts in a very fine-grained matrix comprising dominantly quartz and K-feldspar. Former phenocrysts are partly replaced by patchy secondary brown biotite aggregate and overprinted by very fine-grained muscovite (sericite) aggregate. Minor fine to very fine-grained anhedral pyrite and traces of chalcopyrite occur disseminated. Pyrite is often partly enclosed by chalcopyrite. The porphyritic rock is cut by a variety of veinlets from 1-2 mm wide (as listed above). The quartz-microcrystalline quartz-pyrite ±chalcopyrite veinlets have approximately 1mm wide very fine-grained, massive K-feldspar alteration envelopes. The quartz-carbonate-pyrite-chlorite-microcrystalline quartz veinlets have very fine-grained muscovite (sericite) alteration envelopes. Apparent vugs in the rock are infilled by variably prismatic to subhedral quartz-microcrystalline quartz and at least some of the following carbonate-chlorite-pyrite-(arsenopyrite) or traces of chalcopyrite, molybdenite or arsenopyrite.

Carbonate occurs in trace amounts in the section as colourless carbonate. The carbonate occurs as fine-grained anhedral aggregates within quartz-pyrite-carbonate-chlorite-microcrystalline quartz veinlets.

Sulphide occurs in major amounts (~7%) dominantly as pyrite with traces of chalcopyrite, molybdenite and an unknown sulphide phase. Pyrite, approximately 7%, occurs disseminated in the porphyritic rock, in vugs and veinlets. Pyrite is typically anhedral with irregular but clean grain boundaries. Anhedral chalcopyrite, occurs disseminated and within vugs and veinlets. The unknown sulphide phase is rhombic (optical properties similar to arsenopyrite), locally associated with pyrite, with quartz-microcrystalline quartz± carbonate and chlorite filled vugs and cavities. One molybdenite grain was observed as vug infill with quartz and microcrystalline quartz.

SRK Project No. 1CN007.00 **UBC Composite # 2**
Hole-ID (from_ft-to_ft): 5325 (1908-1918) **CT-9**

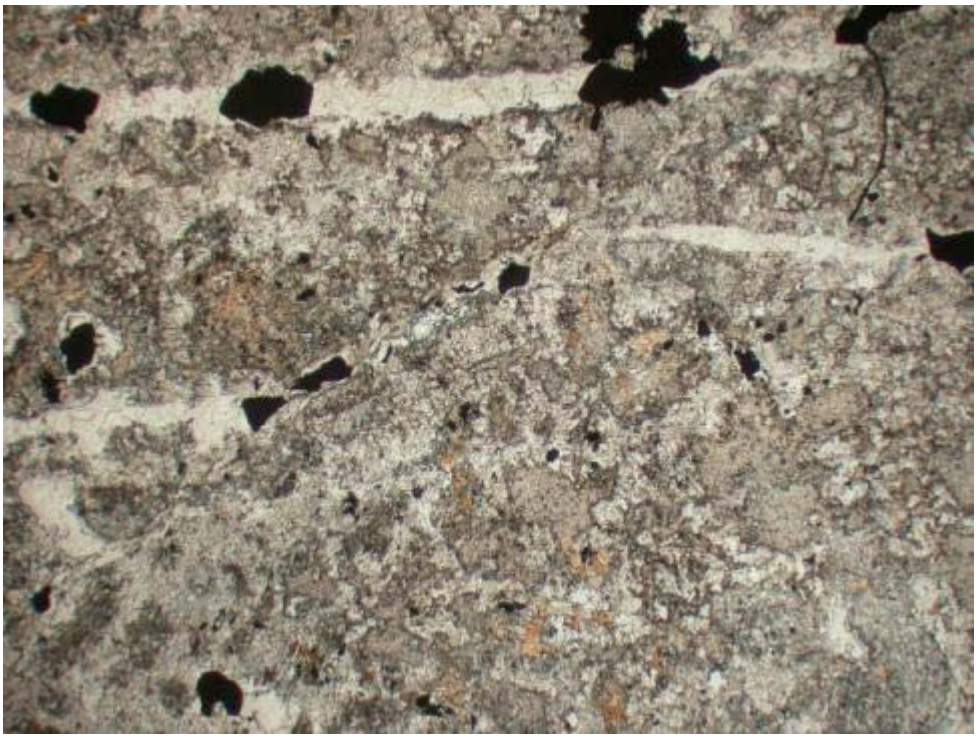
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	30	-fine-grained (< 0.5 mm), anhedral aggregates, occurs as veinlets -fine-grained, eu-subhedral grains and aggregates, occurs with microcrystalline quartz as vug infill -very fine-grained, anhedral aggregates, occurs with K-feldspar as groundmass to porphyritic rock -microcrystalline aggregates, occurs as infill to quartz veinlets and quartz filled vugs	
K-feldspar	30	very fine-grained, occurs with quartz as groundmass to porphyritic rock -very fine-grained, occurs as alteration envelopes to quartz-microcrystalline quartz-pyrite± chalcopyrite veinlets	
Muscovite (sericite)	17	very fine-grained, flaky to anhedral aggregates, occurs as replacement of secondary biotite -very fine-grained, anhedral aggregates, occurs as alteration envelopes to quartz-carbonate-pyrite-chlorite veinlets	
Biotite	15	fine to very fine-grained, platy to microcrystalline secondary aggregates, occurs as replacement of phenocrysts	
Pyrite	7	fine to very fine-grained, anhedral grains and aggregates, occurs disseminated, as cavity infill and within quartz veinlets	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate	tr	fine-grained (< 0.2 mm), anhedral aggregates, occurs within quartz-pyrite-carbonate-chlorite-microcrystalline quartz veinlets	*colourless*
Chlorite	tr	very fine-grained, anhedral aggregates, occurs within quartz-pyrite-carbonate-chlorite-microcrystalline quartz veinlets	
Chalcopyrite	tr	fine-grained (< 0.1 mm), anhedral grains and aggregates, occurs locally as infill to or rimming pyrite, occurs disseminated, within quartz-pyrite veinlets and within quartz-filled vugs	
Rutile	tr	very fine-grained, subhedral aggregates, occurs with secondary biotite aggregates	
Unknown	tr	very fine-grained, rhombic grains and aggregates, occurs associated with pyrite and quartz-microcrystalline quartz-carbonate-chlorite as vug infill, straight grain boundaries, no alteration	*white in RL*
Molybdenite	tr	fine-grained ~0.1 mm, one grain observed, occurs within quartz vug infill	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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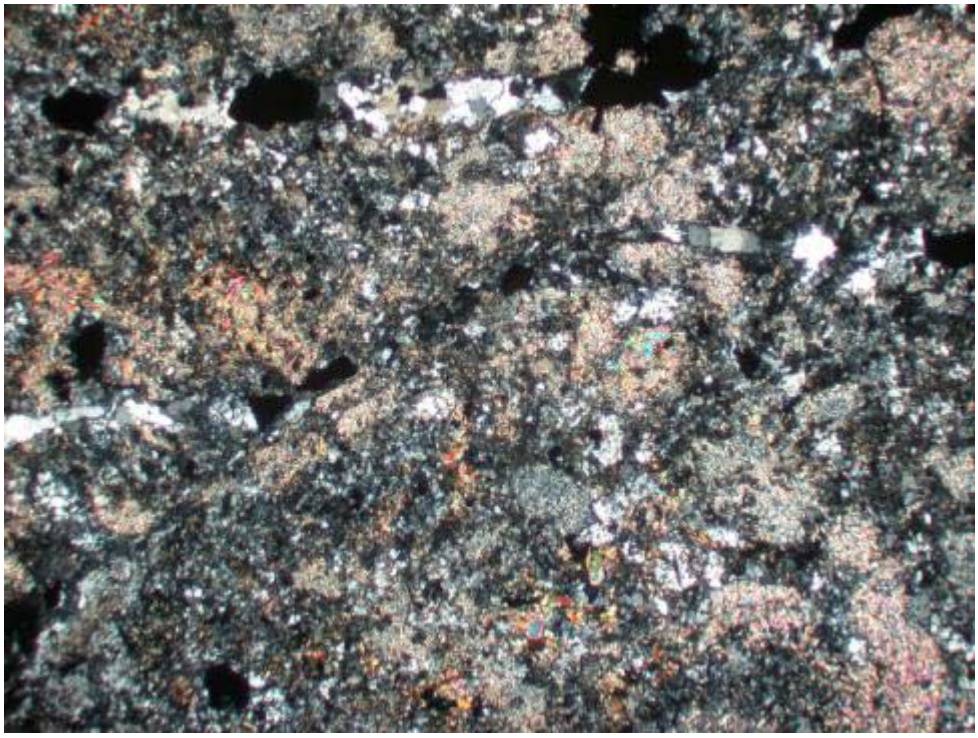
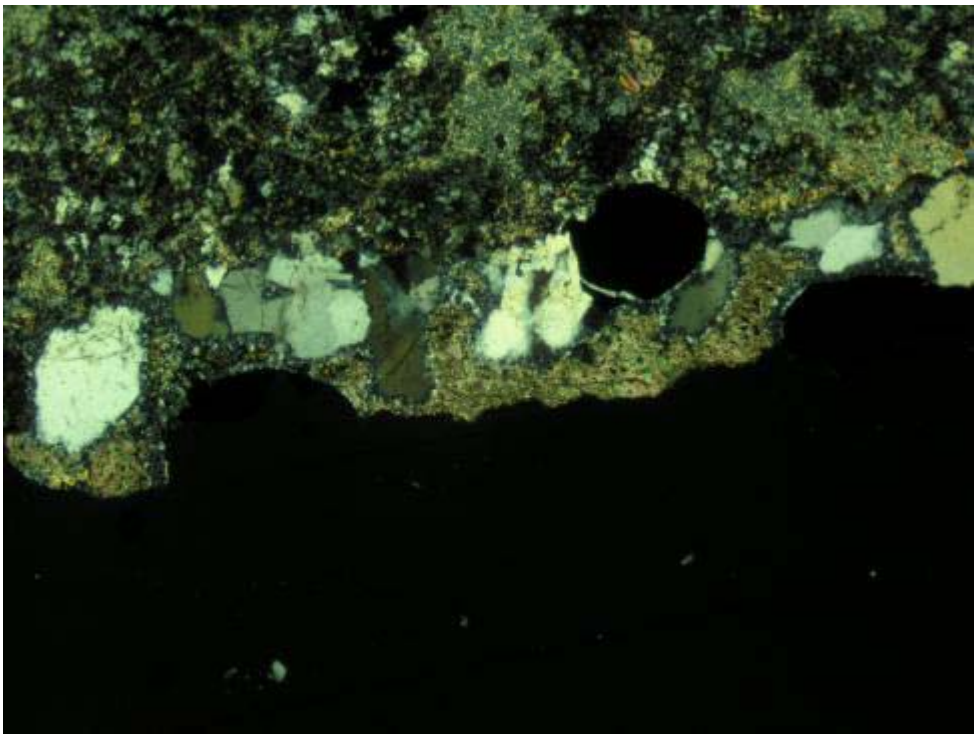


B

Hole-ID (from_ft-to_ft): 5325 (1908-1918)
A & B) Overview of sample shows shows biotite-muscovite (sericite)-altered former porphyritic rock cut by veinlets of quartz-pyrite±chalcopyrite (opaque). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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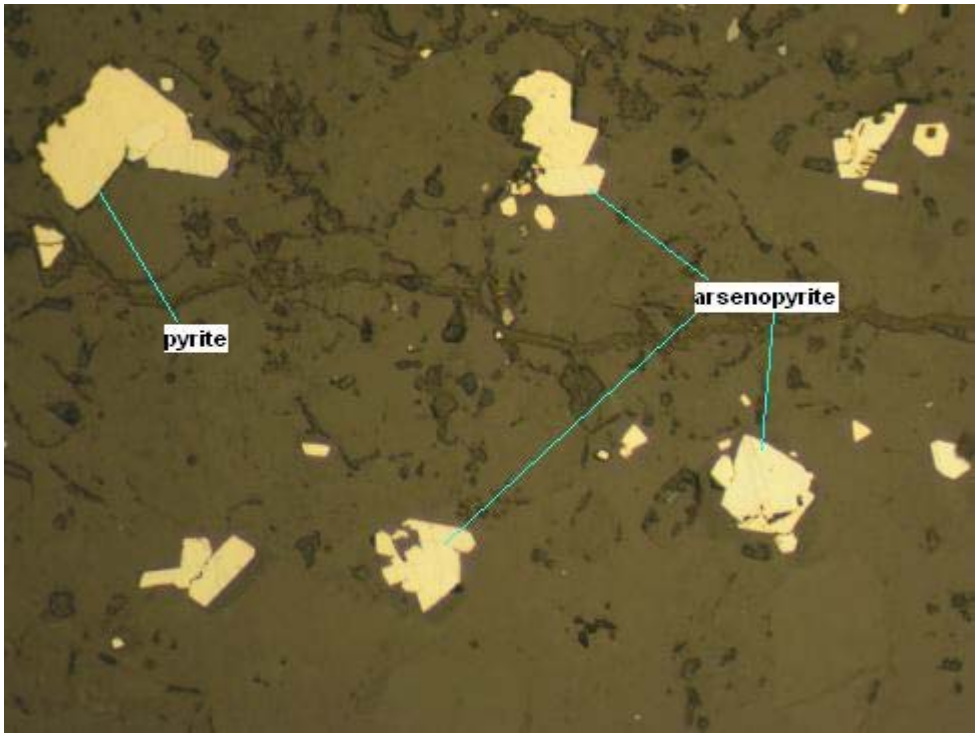
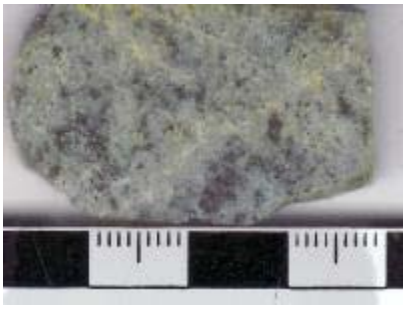


D

Hole-ID (from_ft-to_ft): 5325 (1908-1918)
C) Veinlet of quartz-carbonate-chlorite-microcrystalline quartz-pyrite at margin of polished thin section. XPL, FOV = ~ 2.8 mm. D) Pyrite and rhombic arsenopyrite grains (unaltered) within quartz-microcrystalline quartz-carbonate-chlorite as cavity infill. RL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 2**
Hole-ID (from_ft-to_ft): 5326 (3618-3628) **CT-10**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY:	Pervasively muscovite (sericite) altered granular rock
ALTERATION TYPE:	Muscovite (sericite), chalcopyrite, pyrite
MINERALIZATION:	Chalcopyrite, pyrite, (molybdenite, sphalerite)
FRACTURE INFILL:	K-feldspar ± (molybdenite±chalcopyrite) Carbonate

Hand Sample Description:
Very light grey mottled, sugary-textured rock comprising mostly quartz and sericite with major disseminated to patchy pyrite and chalcopyrite. Rock is cut by minor stockwork of irregular hairline K-feldspar veinlets. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). Trace patchy reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a pervasively muscovite (sericite)-altered former fine to medium-grained granular rock. The rock now comprises approximately 50% fine to medium-grained quartz aggregate with fine to very fine-grained muscovite (sericite) aggregate (after former fine to medium-grained phases) and minor relict fine-grained prismatic (possibly former mafic) phases replaced by very fine-grained aggregates of rutile. The rock is cut by irregular hairline fractures infilled with very fine-grained K-feldspar aggregate with traces of fine-grained molybdenite and chalcopyrite. Minor pyrite and chalcopyrite occur disseminated; locally pyrite is enclosed by aggregates of chalcopyrite. Traces of sphalerite occur intergrown with chalcopyrite.

Carbonate occurs in trace amounts in the section as colourless carbonate. The carbonate occurs as fine-grained anhedral aggregates as late infill. Carbonate is likely calcite based on reaction to HCl.

Sulphide occurs in major amounts (~7%) dominantly as chalcopyrite and pyrite with traces of molybdenite and sphalerite. Pyrite, approximately 3%, occurs disseminated in the altered rock. Pyrite is sub-anhedral with irregular but clean grain boundaries. Anhedral chalcopyrite, occurs disseminated and enclosed pyrite grains. Occurrence of traces of molybdenite and sphalerite are described above. Grain boundaries for all sulphides are not altered.

SRK Project No. 1CN007.00 **UBC Composite # 2**
Hole-ID (from_ft-to_ft): 5326 (3618-3628) **CT-10**

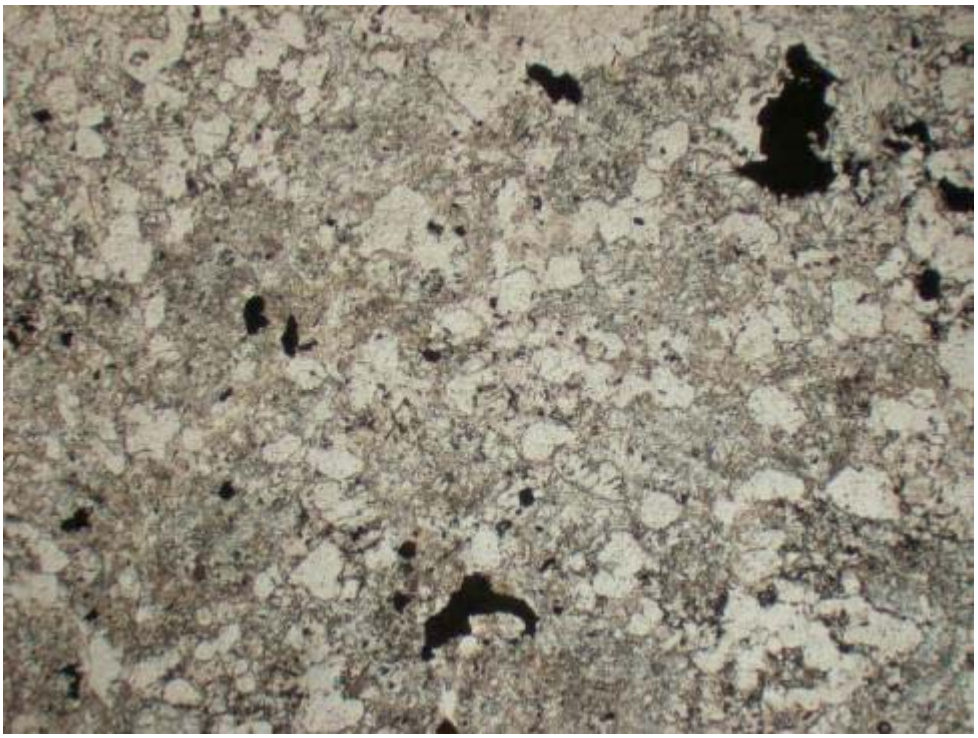
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	50	fine to medium-grained (< 2 mm), anhedral grains and aggregates, occurs with muscovite (sericite) aggregate	
Muscovite (sericite)	38	fine-grained sheaves and radiating aggregates to very fine-grained anhedral aggregates, occurs as pervasive replacement of former fine to medium-grained granular phases intergrown with quartz aggregate	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Chalcopyrite	4	fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs with K-feldspar fracture infill, occurs disseminated, encloses pyrite, locally intergrown with sphalerite	
Pyrite	3	fine-grained (< 0.4 mm), sub-anhedral grains and aggregates, enclosed by chalcopyrite, occurs disseminated	
K-feldspar	3	very fine-grained, anhedral aggregates, occurs as fracture infill	
Rutile	1	very fine-grained, anhedral to subhedral aggregates, occurs partly replacing fine-grained prismatic forms	
Molybdenite	tr	fine-grained (< 0.2 mm), eu-subhedral, occurs with K-feldspar fracture infill	
Sphalerite	tr	very fine-grained, anhedral occurs intergrown with chalcopyrite	*pale brown*
Carbonate, likely calcite	tr	fine-grained, anhedral aggregates, occurs as infill	*colourless*

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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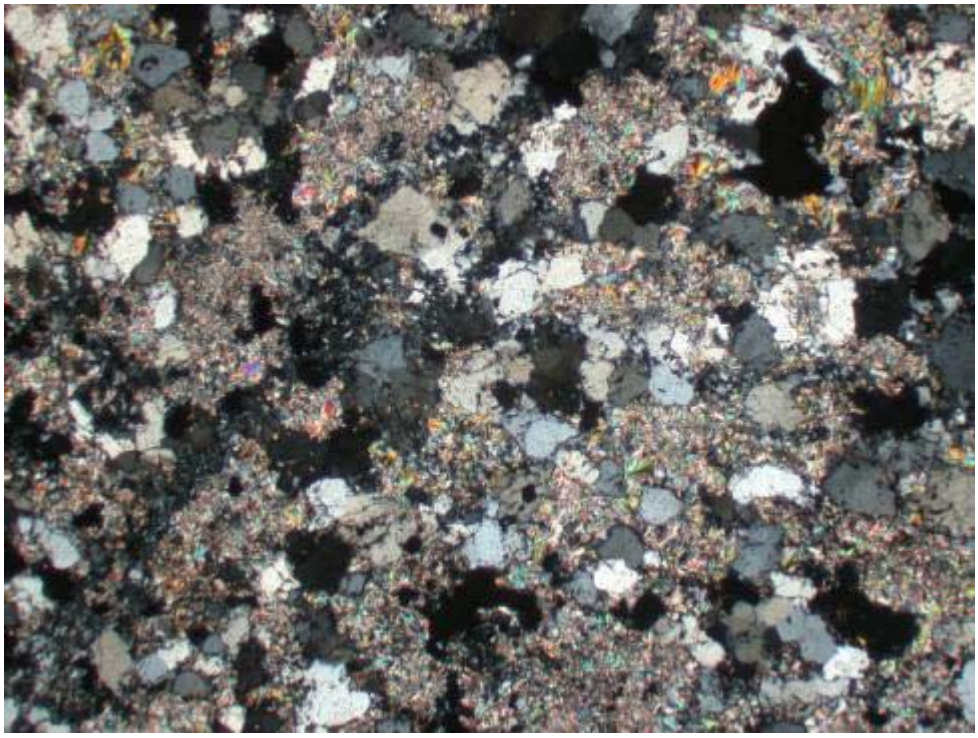
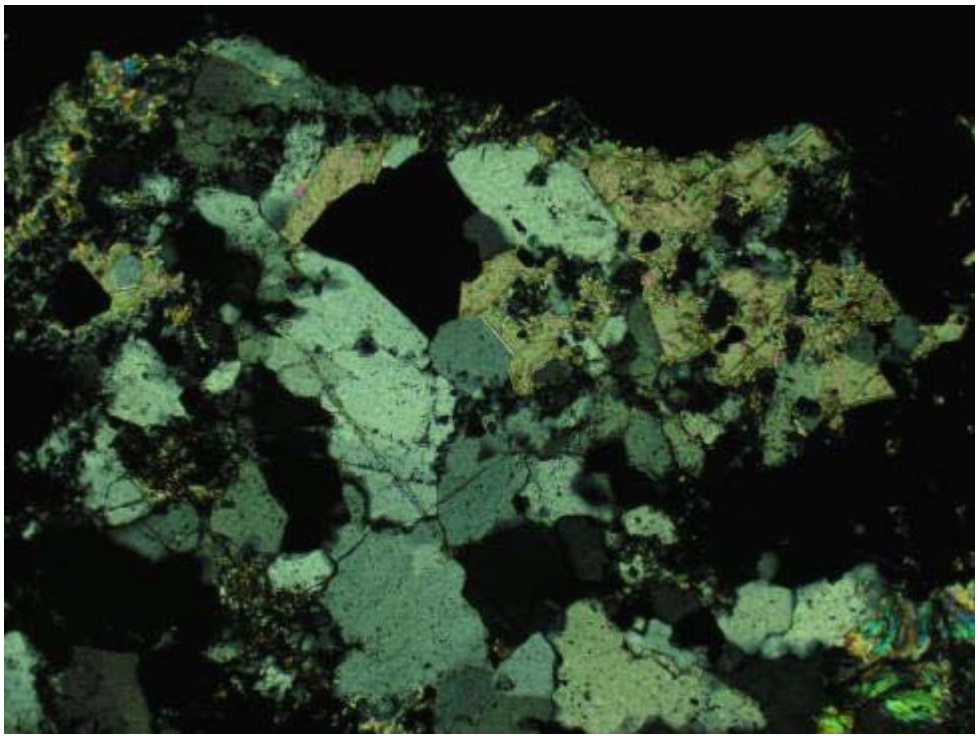


B

Hole-ID (from_ft-to_ft): 5326 (3618-3628)
A & B) Representative view of sample shows pervasively muscovite (sericite)-altered former fine to medium-grained granular rock cut by hairline fracture filled with very fine-grained K-feldspar aggregate (left side of photo). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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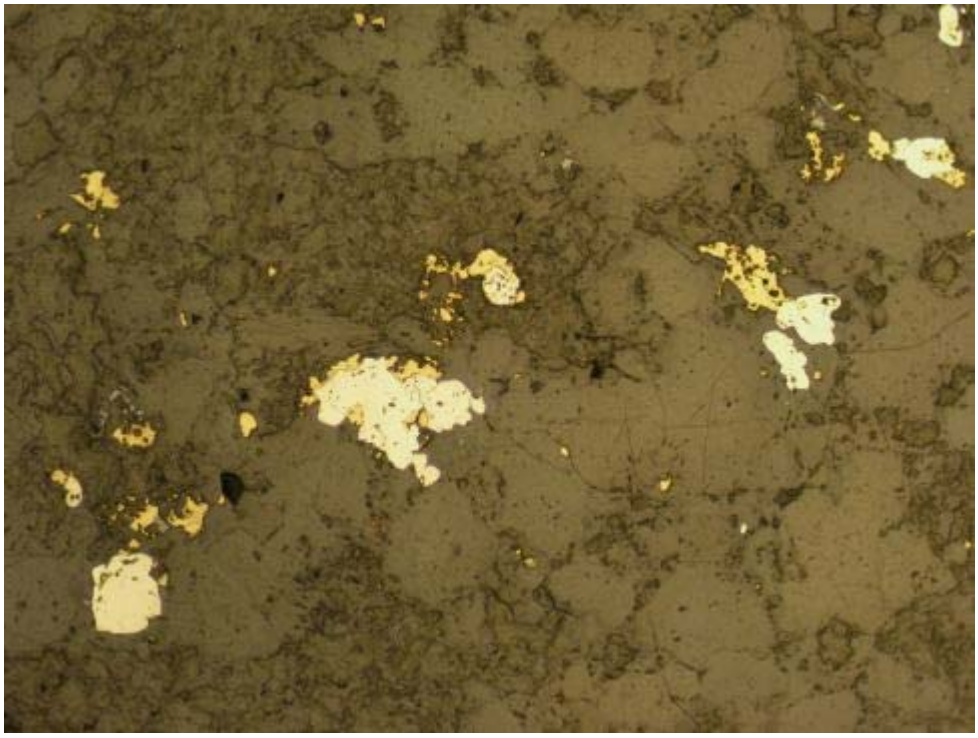


D

Hole-ID (from_ft-to_ft): 5326 (3618-3628)
C) Calcite as infill (at margins of section). XPL, FOV = ~ 1.3 mm. D) Disseminated pyrite and chalcopyrite. Note pyrite partly enclosed by chalcopyrite (centre). RL, FOV = 2.8 mm.

SRK Project No. 1CN007.00 **UBC Composite # 10**
Hole-ID (from_ft-to_ft): 5327-(467-487) **CT-11**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Fragment-supported volcanic breccia
ALTERATION TYPE: Chlorite, carbonate

Hand Sample Description:
Core pieces comprise greenish-grey to dark greenish-grey fragment-supported breccia with angular fragments from 2mm to 2cm size. Trace reaction of one core piece to cold, dilute HCl. Section is cut from one piece (lower left of core pieces photo) and comprises angular fragments of aphanitic K-feldspar-bearing rock (from 2-10 mm size) in an aphanitic matrix (see stained offcut). Reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut).

Polished Thin Section Description:
This section is a pervasively-altered fragment supported volcanic breccia (?lapilli tuff) comprising angular fragments of brecciated trachytic-textured rock and crystals of quartz, plagioclase and carbonate in an aphanitic matrix. The breccia fragments are characterized by minor fine-grained carbonate-altered plagioclase phenocrysts in a very fine-grained matrix comprising felted aggregates of trachytic-textured K-feldspar and plagioclase with interstitial chlorite (after former mafic phases), disseminated very fine-grained magnetite and patchy virtually opaque aphanitic material. Minor fine-grained magnetite occurs disseminated. Vesicles and breccia fragments are infilled by very fine-grained aggregates of carbonate, radiating aggregates of green smectite and traces of quartz. Rare traces of very fine-grained pyrite and chalcopyrite occur disseminated.

Carbonate comprises approximately 4% of the section as both colourless and brown varieties. Colourless carbonate occurs as very fine-grained, anhedral aggregates that replace former plagioclase phenocrysts and occur as infill to breccia fragments. Brown carbonate occurs locally as very fine-grained anhedral aggregates overprinting colourless carbonate.

Sulphide occurs rarely as pyrite and chalcopyrite. Pyrite and chalcopyrite grain boundaries are irregular but without alteration rims.

Note: The heterogeneity of this sample due to size and variation of breccia fragments and selection of material for thin section preparation may complicate comparison of this petrographic data with XRD Rietveld data.

SRK Project No. 1CN007.00 **UBC Composite # 10**
Hole-ID (from_ft-to_ft): 5327-(467-487) **CT-11**

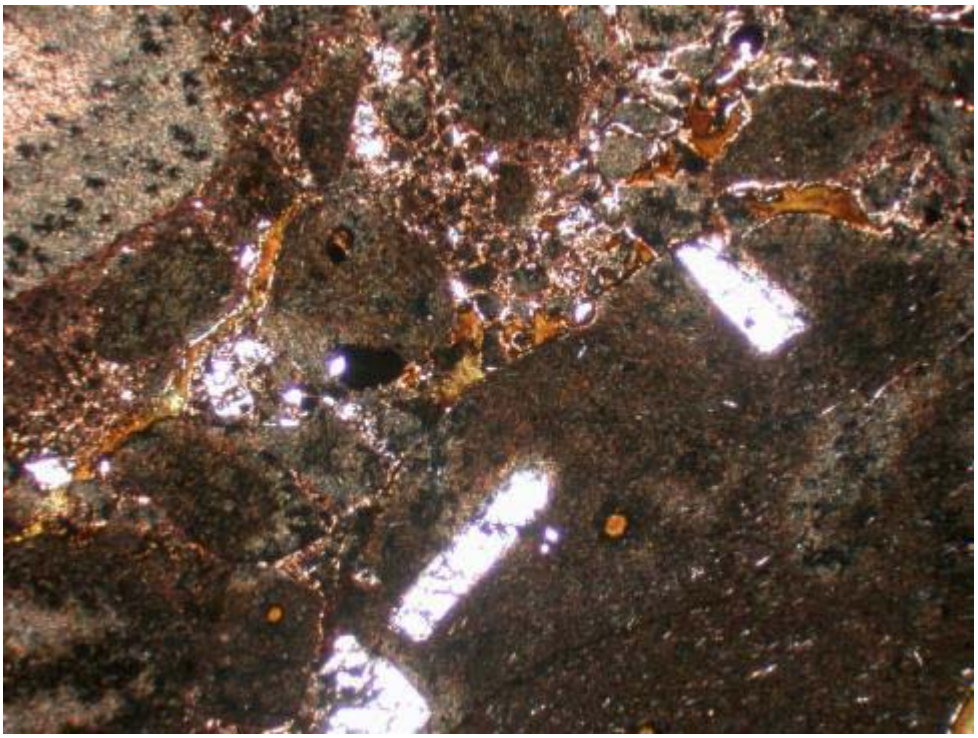
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
K-feldspar	40	- fine to very fine-grained (< 0.1 mm), trachytic-textured, occurs as laths	
Chlorite	25	-very fine-grained, anhedral aggregates, occurs as replacement of former mafic phases in groundmass of breccia fragments	*pale light green*
Plagioclase	10	-fine to very fine-grained, occurs in groundmass -fine-grained, tabular, occurs as relict phenocrysts, virtually replaced by carbonate -fine-grained (< 0.2 mm), broken crystals, occurs scattered through matrix of breccia	
Unknown	10	virtually opaque aphanitic material, occurs as irregular patches within breccia fragments	
Smectite	8	fine-grained (< 0.2 mm), radiating aggregates, occurs as vesicle and breccia infill	*green-brown*

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Magnetite	3	fine-grained (< 0.2 mm), eu-subhedral grains and aggregates, occurs disseminated in breccia fragments -very fine-grained, occurs disseminated in matrix and fragments	
Carbonate	3	-fine-grained, anhedral aggregates, occurs within breccia fragments as replacement of plagioclase phenocrysts and as infill, locally overprinted by very fine-grained brown carbonate aggregate, occurs as patchy aggregates overprinting other smaller trachytic breccia fragments, occurs as crystals within breccia matrix	
Carbonate, brown	tr	very fine-grained, anhedral aggregates, occurs overprinting carbonate infill	
Apatite	tr	fine-grained, occurs disseminated	*high relief*
Chalcopyrite	tr	very fine-grained, anhedral grains, occurs disseminated	
Quartz	tr	-very fine-grained, anhedral aggregates, occurs rimming fragments within breccia fragments, infilled by smectite -fine-grained, occurs as broken crystals within breccia matrix	
Pyrite	tr	very fine-grained, anhedral grains, irregular, pitted, occurs disseminated in breccia fragments	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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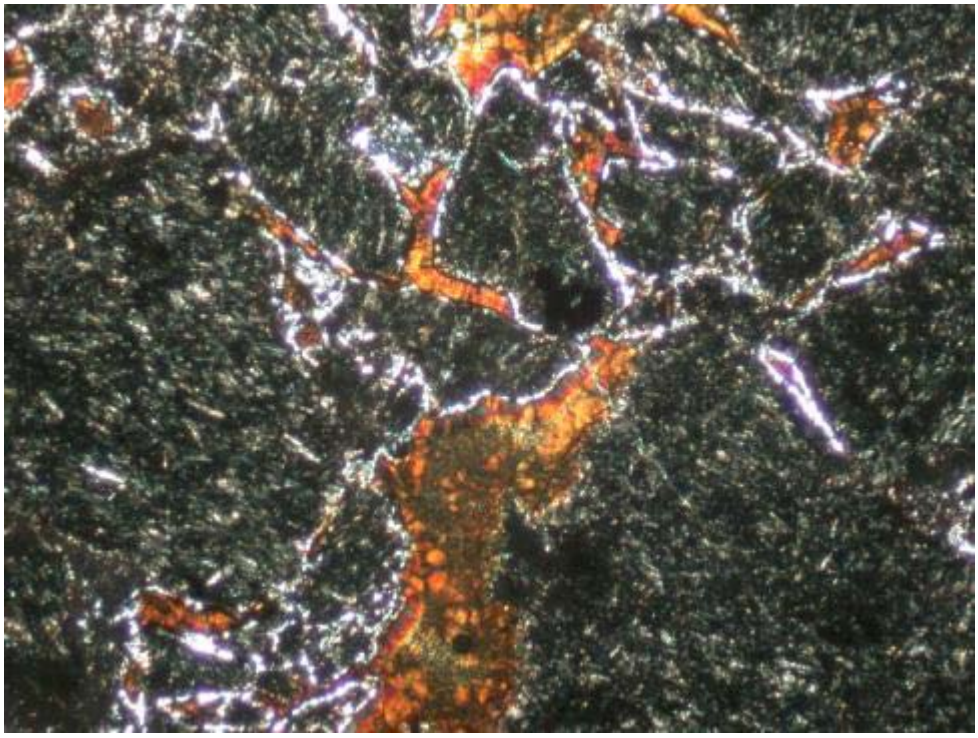
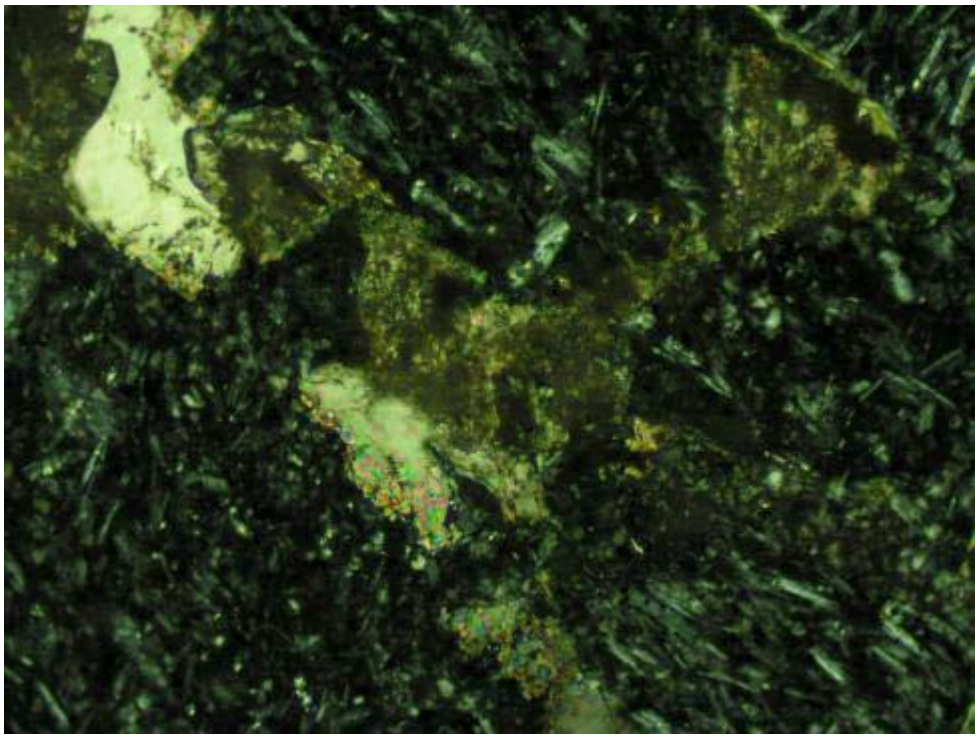


B

Hole-ID (from_ft-to_ft): 5327-(467-487)
A & B) Overviews of fragment-supported volcanic breccia. A) Note angular fragments in aphanitic matrix and carbonate-altered plagioclase phenocrysts (fragment lower right). B) Note felted trachytic-textured breccia fragments and infill by radiating aggregates of smectite rimmed and partly replaced by brown ?limonite. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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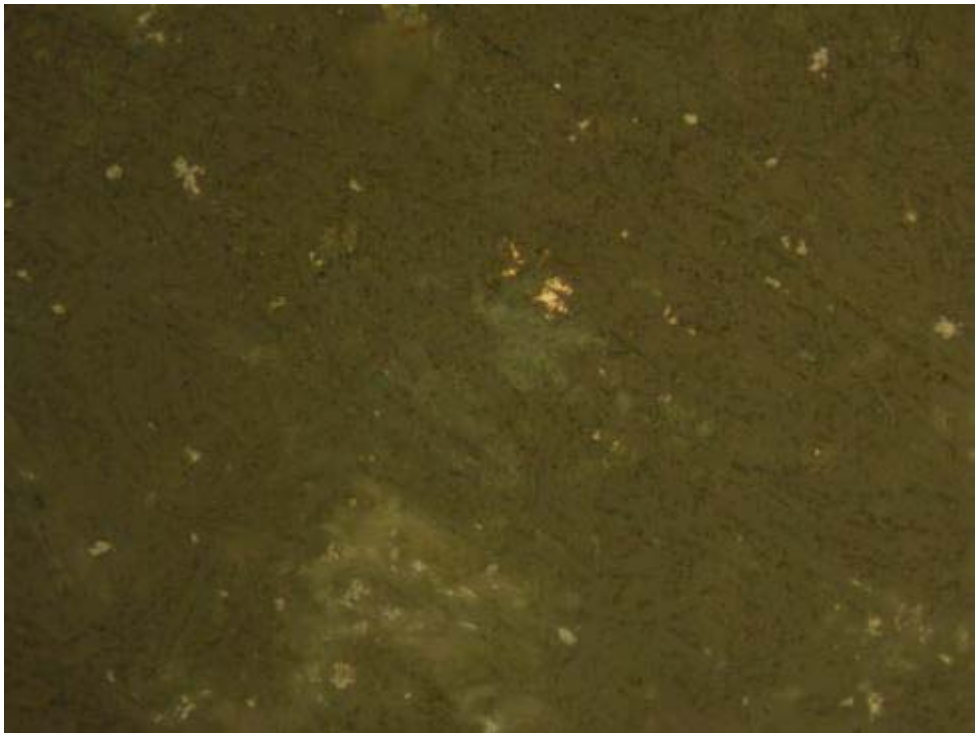
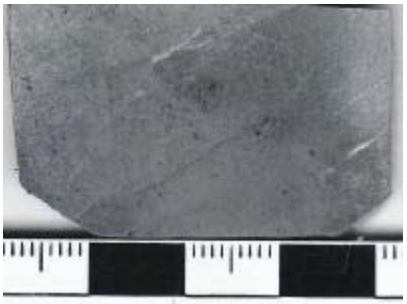


D

Hole-ID (from_ft-to_ft): 5327-(467-487)
C) Patchy colourless carbonate aggregate overprinted by very fine-grained brown carbonate as infill to breccia fragment. XPL, FOV = ~ 0.7 mm. D) Very fine-grained disseminated magnetite and traces of pyrite (centre) within breccia fragments. RL, FOV = 0.35 mm.

SRK Project No. 1CN007.00 **UBC Composite # 11**
Hole-ID (from_ft-to_ft): 5327 (717-737) **CT-12**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (dry)

LITHOLOGY: Siltstone
ALTERATION TYPE: Carbonate
VEINLETS: Carbonate

Hand Sample Description:
Core pieces include medium to dark-grey finely laminated siltstone with black carbonaceous layers (2mm thick). Trace reaction to cold, dilute HCl. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). Sub-mm veinlets of white carbonate.

Polished Thin Section Description:
This section is a fine to coarse siltstone comprising medium to coarse silt particles cemented by massive very fine-grained chlorite and lesser quartz aggregate. The silt particles comprise aphanitic brown material and locally minor illite, as subrounded to subangular rock fragments, anhedral to tabular carbonate (partly replacing plagioclase grains) and traces of angular quartz and relict plagioclase. Part of the section has a much higher concentration of aphanitic material and ragged carbonate aggregates.

Carbonate comprises approximately 17% of the section colourless carbonate. Carbonate occurs as fine to very fine-grained, anhedral to tabular-shaped grains and as patchy ragged aggregates. Locally carbonate occurs as fine-grained, anhedral aggregates within sub-mm veinlets.

Sulphide occurs as rare grains of chalcopyrite and sphalerite within sub-mm carbonate veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 11**
Hole-ID (from_ft-to_ft): 5327 (717-737) **CT-12**

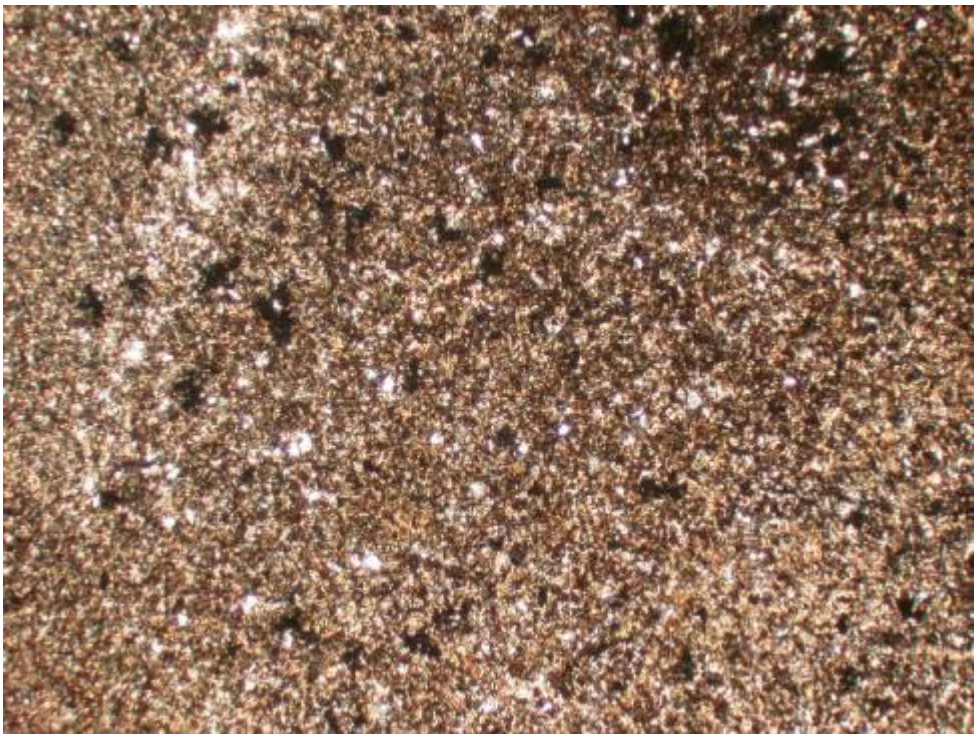
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Chlorite	30	very fine-grained, anhedral to radiating aggregates, occurs as cement to silt particles	
Aphanitic material	30	aphanitic aggregates, occurs as silt-sized, subrounded to subangular rock fragments	*grungy brown*
Quartz	20	-fine grained, anhedral grains, occurs as coarse silt particles -very fine-grained, anhedral aggregates, occurs with chlorite as cement to silt particles	
Carbonate	17	-fine to very fine-grained, anhedral to tabular-shaped grains, occurs as medium to coarse silt particles, partly replacing plagioclase grains -fine to very fine-grained, occurs as patchy ragged aggregates, in higher proportion of carbonate than other parts of the section -fine-grained, anhedral aggregates occurs as sub-mm veinlet	

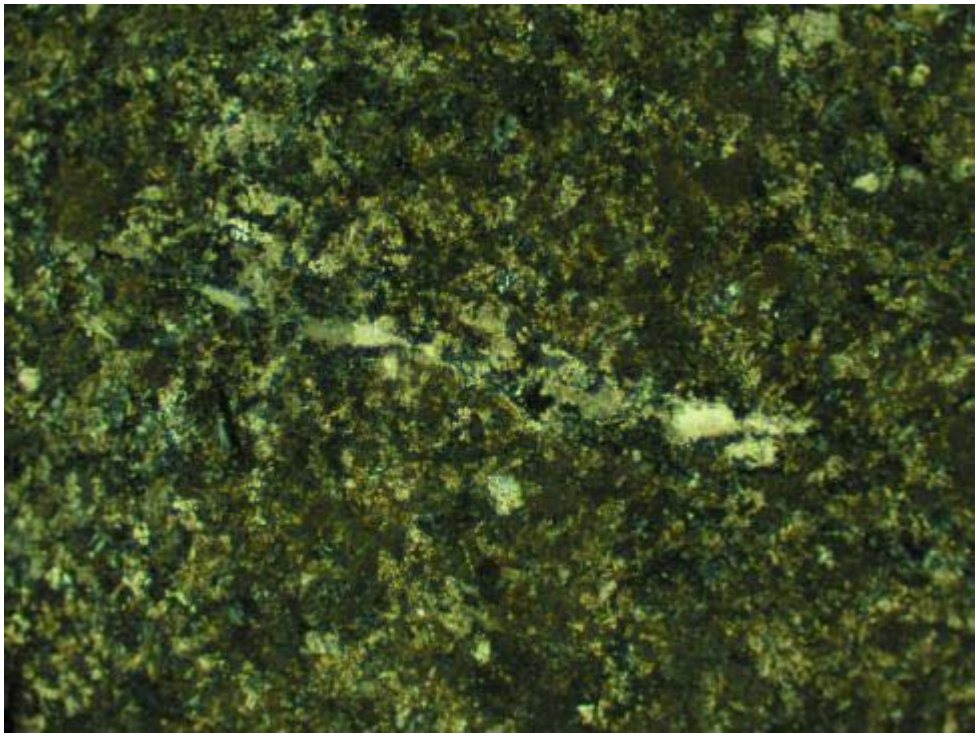
MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Illite	2	very fine-grained, flaky, occurs as replacement of silt grains	
Plagioclase	tr	fine-grained, tabular grains, occurs as silt particles, some grains partly replaced by carbonate	
Chalcopyrite	tr	very fine-grained, anhedral grains, occurs locally intergrown with sphalerite, occurs within carbonate veinlet	
Sphalerite	tr	very fine-grained, occurs with chalcopyrite within carbonate veinlet	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm

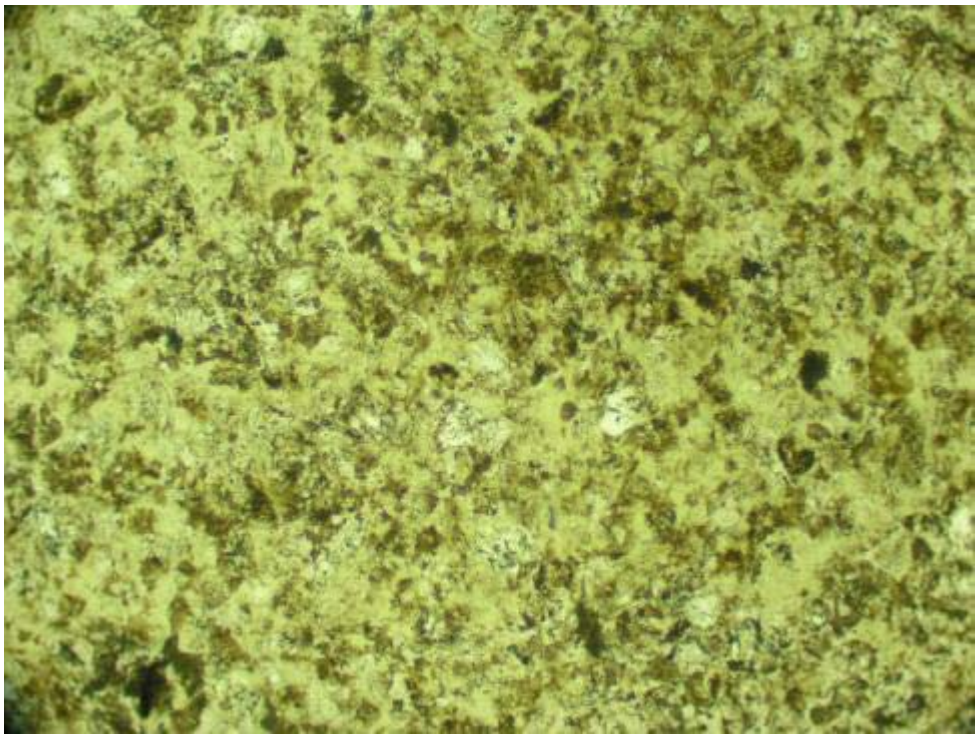


A



B

Hole-ID (from_ft-to_ft): 5327 (717-737)
A & B) Overview of siltstone with higher concentration of carbonate and aphanitic material. Note sub-mm carbonate veinlets. A) PPL, FOV = ~ 4.5 mm, B) PPL, FOV = ~ 1.3 mm.



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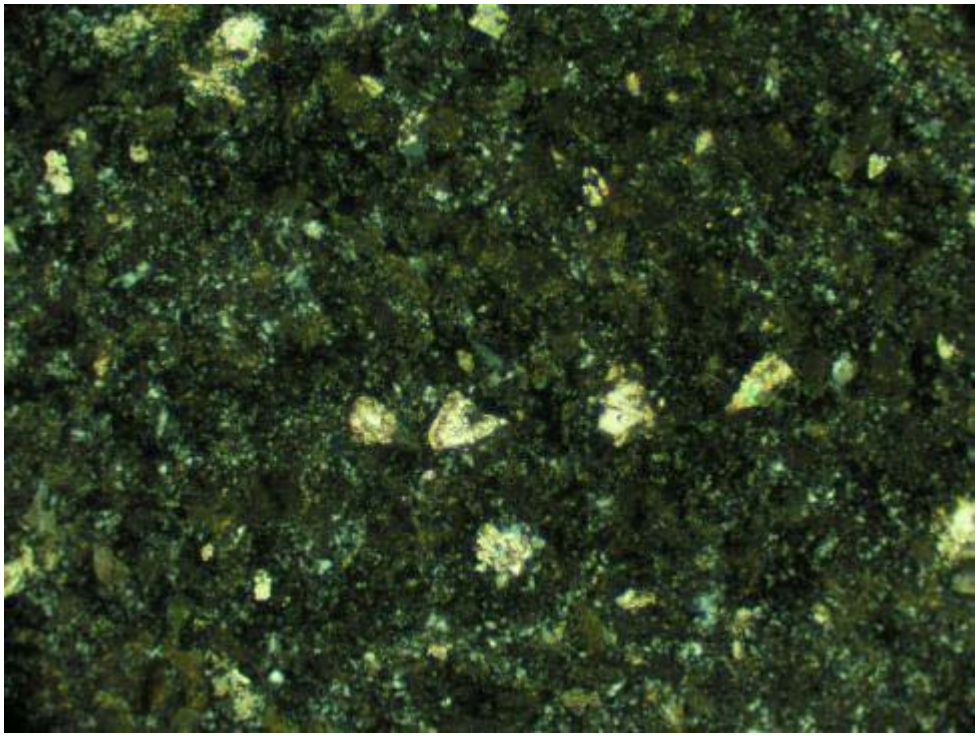


D

Hole-ID (from_ft-to_ft): 5327 (717-737)
C&D) Overview of siltstone with approximately 7% carbonate grains and patchy aphanitic material as silt-sized rock fragments with dominantly chlorite cement. C) PPL, D) XPL, FOV = ~ 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 8**
Hole-ID (from_ft-to_ft): 5328 (1168-1178) **CT-13**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY:	Hornfelsed greywacke
ALTERATION TYPE:	Quartz, pyrite, biotite, muscovite (sericite)
MINERALIZATION:	Pyrite
VEINLETS:	Pyrite-(quartz)
	Pyrite-biotite-muscovite (sericite)-quartz

Hand Sample Description:
Core sample consists of pieces of greenish-grey and light olive-grey aphanitic rock cut by pyrite and quartz-pyrite veinlets (1 mm wide). No reaction to cold, dilute HCl. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut).

Polished Thin Section Description:
This section is selectively quartz-biotite-altered greywacke cut by a prominent pyrite-(quartz) veinlet (1 mm wide) with muscovite (sericite)-pyrite-(rutile) alteration envelopes (2-3 mm wide). The greywacke comprises subangular sand-size aphanitic rock aphanitic rock fragments replaced by secondary brown biotite and grungy brown aphanitic material in a very fine-grained matrix comprising massive quartz and lesser biotite aggregate. The rock fragments are partly replaced by muscovite (sericite) and traces of patchy rutile aggregate in an alteration envelope adjacent to the pyrite veinlet. Fine-grained pyrite occurs disseminated as euhedral grains and aggregates and as aggregates within pyrite-bearing veinlets. Pyrite is disseminated in higher concentration in the muscovite (sericite) alteration envelope adjacent to the main pyritic veinlet.

Carbonate is not evident in this section.

Sulphide occurs in major amounts as pyrite and as traces of chalcopyrite. Pyrite, approximately 25%, occurs within pyrite-dominant veinlets and disseminated. Pyrite is typically euhedral with straight grain boundaries or sub-anhedral with irregular grain boundaries but without alteration rims. Anhedral chalcopyrite occurs disseminated and within veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 8**
Hole-ID (from_ft-to_ft): 5328 (1168-1178) **CT-13**

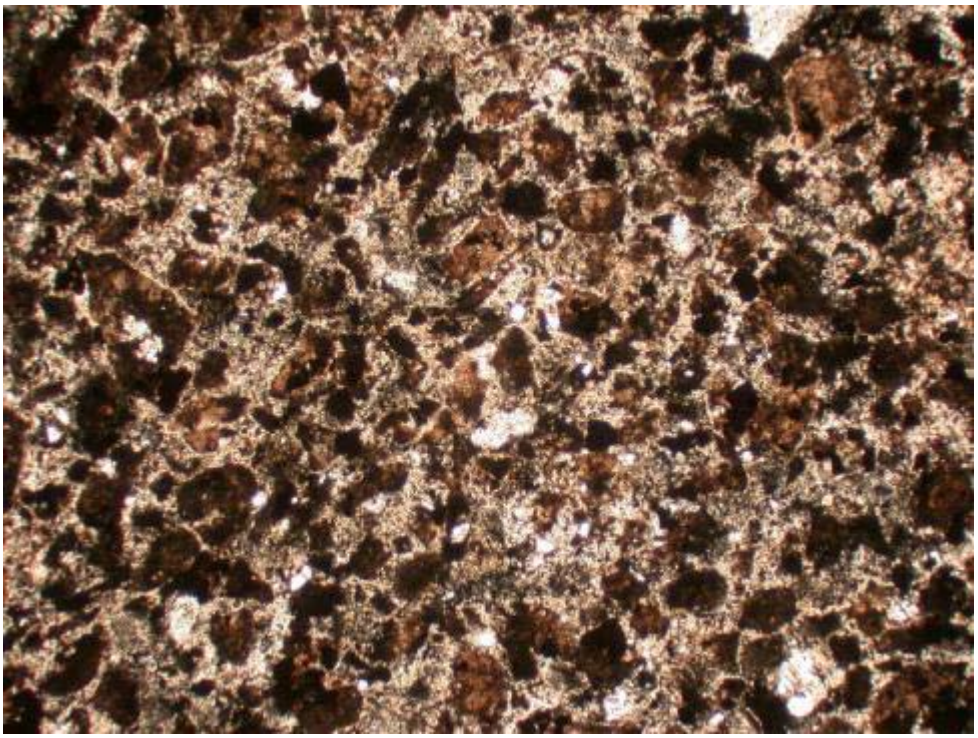
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	40	-very fine-grained, massive anhedral aggregates, occurs with secondary biotite as replacement of matrix -fine-grained (< 0.2 mm), occurs as framework grains -very fine-grained, anhedral, occurs as minor aggregates within pyrite veinlets	
Pyrite	25	-fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs as main veinlet with traces of quartz and chalcopyrite, occurs in minor sub-mm veinlets with biotite-muscovite (sericite) and quartz	
Biotite	20	-very fine-grained, shreddy aggregates, occurs with very fine-grained quartz aggregate as replacement of matrix -very fine-grained, anhedral aggregates, occurs as replacement of rock fragments and within minor sub-mm pyrite veinlets	
Unknown	10	aphanitic material, occurs within framework grains, replaced by secondary brown biotite	*grungy brown*
Muscovite (sericite)	5	-very fine-grained, anhedral to flaky, occurs as alteration envelopes to pyrite-chalcopyrite-quartz veinlets, occurs in minor sub-mm pyrite veinlets	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rutile	tr	very fine-grained, anhedral aggregates, occurs as replacement of tabular forms in muscovite (sericite) altered envelopes adjacent to pyrite-(quartz)veinlet	
Chalcopyrite	tr	very fine-grained, anhedral aggregates, occurs disseminated and as traces within main pyrite (quartz) veinlet.	
Hematite	tr	very fine-grained, anhedral aggregates, occurs as patchy aggregates replacing greywacke matrix and rock fragments	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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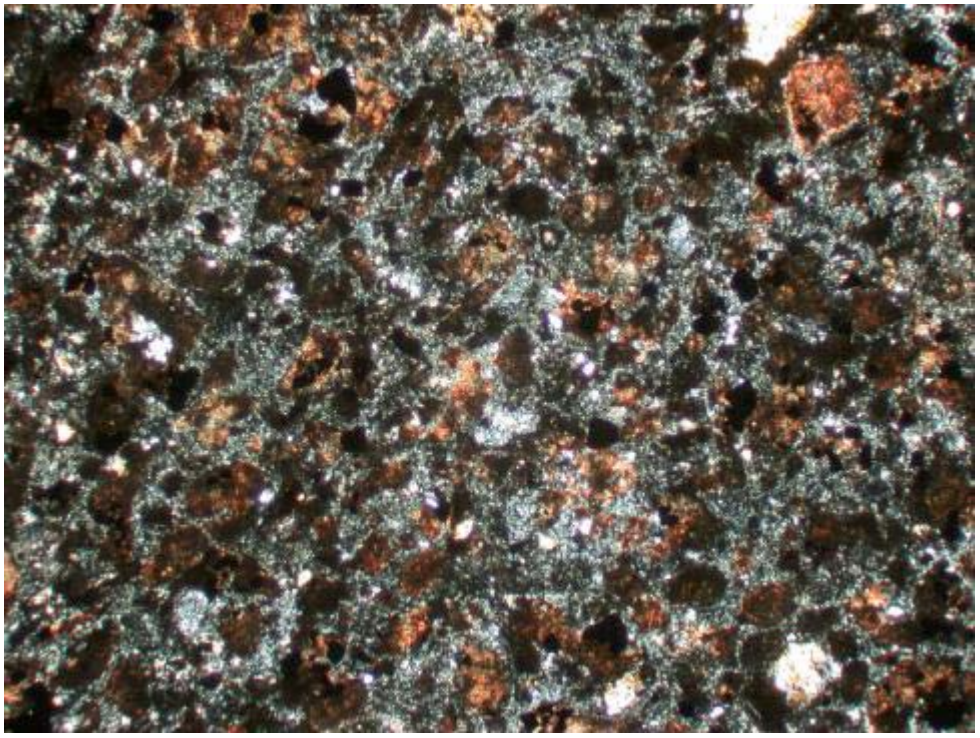
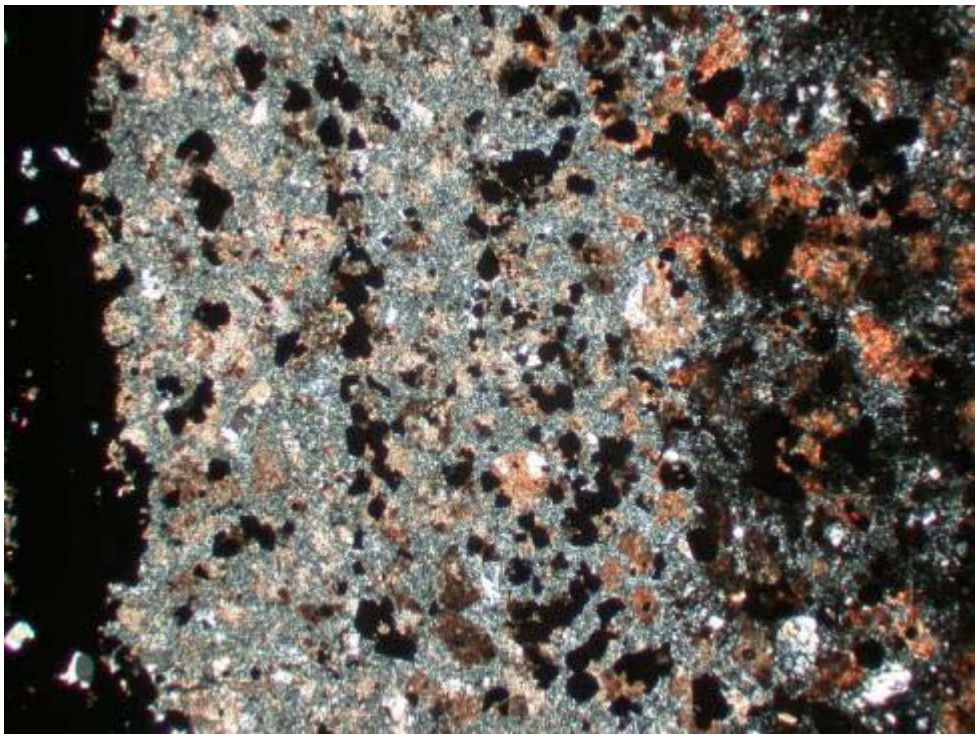


B

Hole-ID (from_ft-to_ft): 5328 (1168-1178)
A & B) Representative view of selectively quartz-biotite-altered greywacke. PPL, B) XPL, FOV = ~ 4.5 mm.



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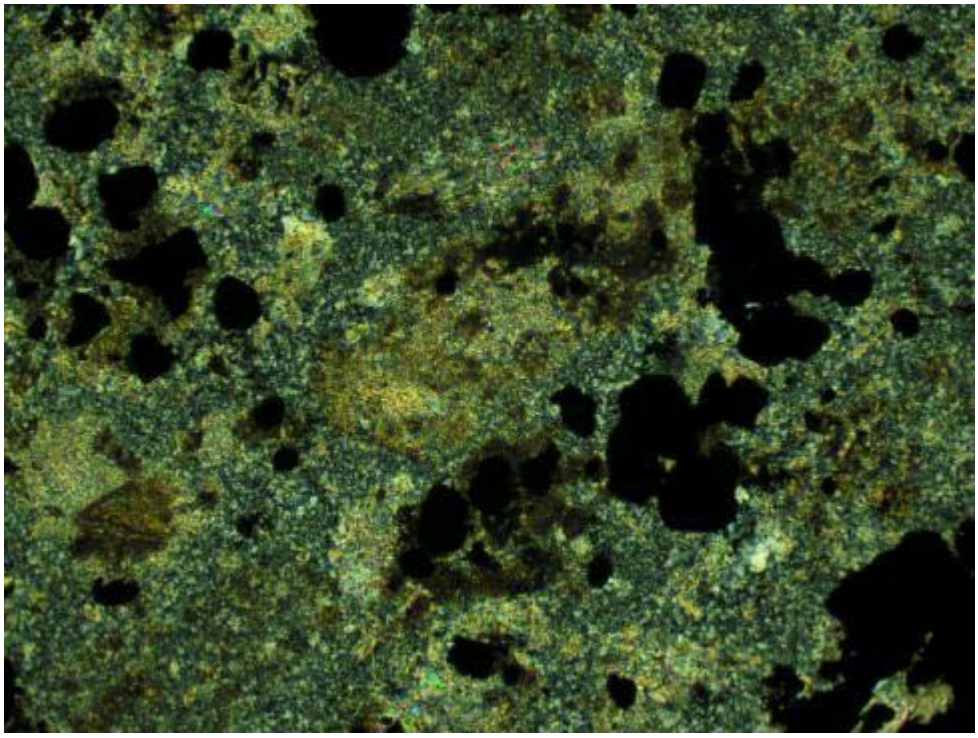
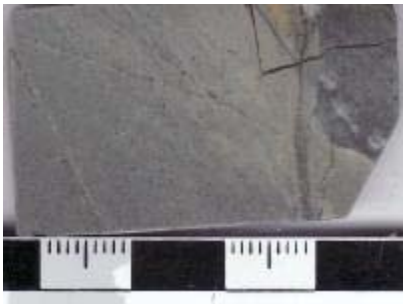


D

Hole-ID (from_ft-to_ft): 5328 (1168-1178)
C) Muscovite (sericite)-pyrite alteration envelope adjacent to pyritic veinlet. Dominantly biotite alteration to right of photo XPL, FOV = ~ 4.5 mm. D) Detailed view of muscovite (sericite) replacing secondary biotite alteration in alteration envelope adjacent to pyritic veinlet. XPL, FOV = 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 8**
Hole-ID (from_ft-to_ft): 5328 (1388-1398) **CT-14**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY:	Siltstone
ALTERATION TYPE:	Illite, muscovite (sericite), unknown, pyrite
MINERALIZATION:	Pyrite
VEINLETS:	quartz-sericite-pyrite quartz-pyrite carbonate-pyrite

Hand Sample Description:
Light olive-grey aphanitic rock with very fine-grained disseminated pyrite, pyrite stringers and quartz-pyrite hairline veinlets. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This section covers the contact between pervasively altered very fine and coarse siltstone cut by sub-mm wide quartz-sericite-pyrite, quartz-pyrite and carbonate-pyrite veinlets. The coarse siltstone comprises approximately 10% very fine-grained quartz grains in a dominantly muscovite (sericite)-pyrite altered matrix overprinted by unknown patchy grungy brown aphanitic aggregates. The very fine siltstone comprises only 2-3% very fine-grained quartz grains in a dominantly illite-pyrite altered matrix with patchy ?chlorite and also overprinted by unknown patchy grungy brown aphanitic aggregates. Pyrite occurs in veinlets and disseminated as fine to very fine grains. Pyrite occurs disseminated in higher concentration in the coarse siltstone layer.

Carbonate occurs in trace amounts in the section. Carbonate occurs as very fine-grained colourless aggregates within sub-mm carbonate-pyrite veinlets. Some of the carbonate is rimmed and partly replaced by brown aggregates.

Sulphide occurs in major amounts, approximately 10%, as pyrite. Pyrite occurs within pyrite-dominant veinlets and disseminated. Pyrite is typically sub-anhedral with irregular grain boundaries but without alteration rims. Pyrite is variably pitted.

SRK Project No. 1CN007.00 **UBC Composite # 8**
Hole-ID (from_ft-to_ft): 5328 (1388-1398) **CT-14**

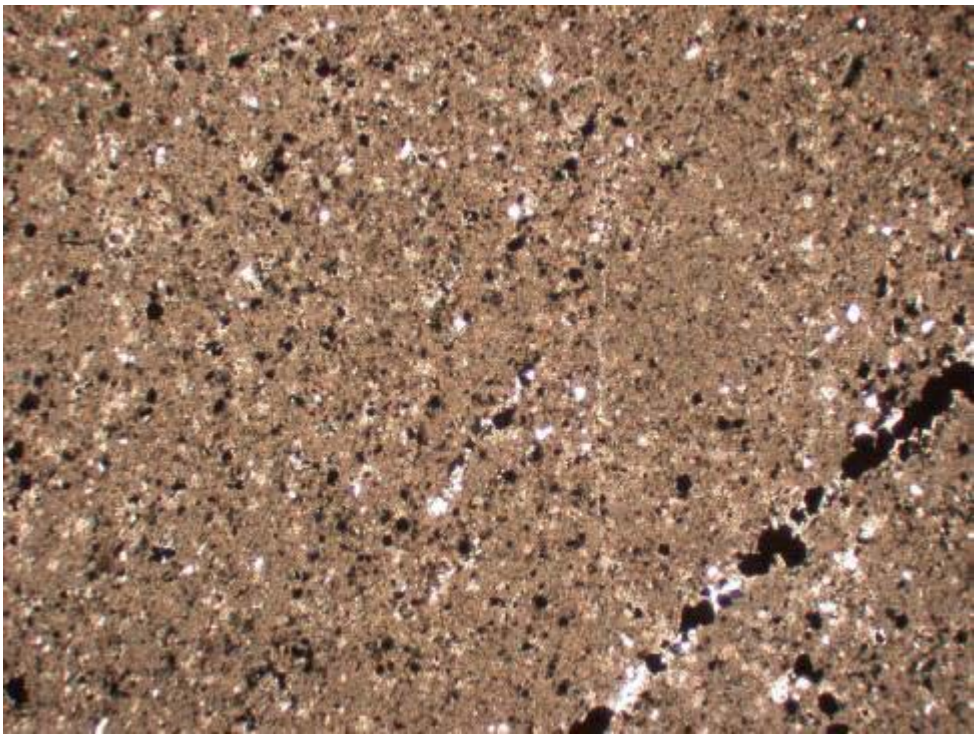
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Illite	35	very fine-grained, anhedral flaky aggregates, occurs as replacement of finer siltstone layers, overprinted by unknown brown patchy aggregates	
Quartz	20	-very fine grained, anhedral grains, occurs scattered as silt particles, higher abundance in slightly coarser layers of siltstone -very fine-grained, occurs as patchy aggregates with brown material -very fine-grained, anhedral aggregates, occurs in sub-mm veinlets with pyrite	
Muscovite (sericite)	15	very fine-grained anhedral to flaky aggregates to locally fine-grained (< 0.1 mm) sheaves, occurs as pervasive replacement of coarser siltstone layers, overprinted by unknown brown patchy aggregates, also occurs in veinlets with quartz and pyrite	
Unknown	15	aphanitic material, occurs as patchy ragged aggregates, locally as patches surrounding pyrite	*grungy brown*
Pyrite	10	fine to very fine-grained (< 0.2 mm), sub-anhedral grains, locally pitted, irregular rims, occurs disseminated and within sub-mm veinlets with quartz and locally sericite	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
?Chlorite	4	very fine-grained, anhedral aggregates, occurs with quartz as patchy aggregates in very fine siltstone	
Carbonate	tr	very fine-grained, colourless anhedral aggregates, locally partly rimmed and replaced by brown aggregates, occurs as veinlets with pyrite	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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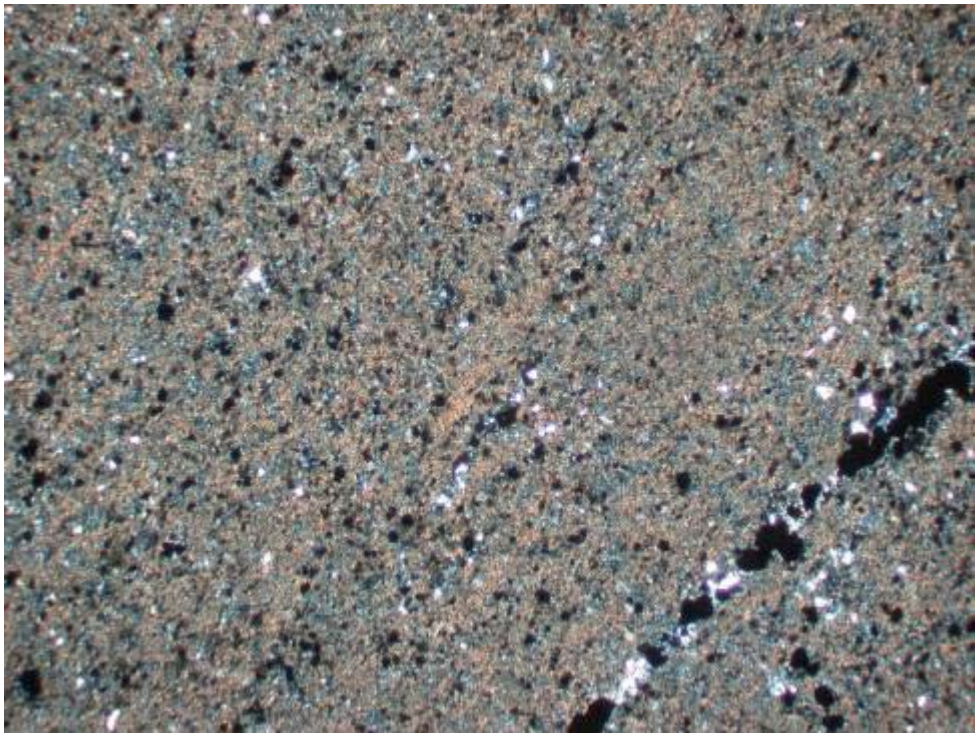
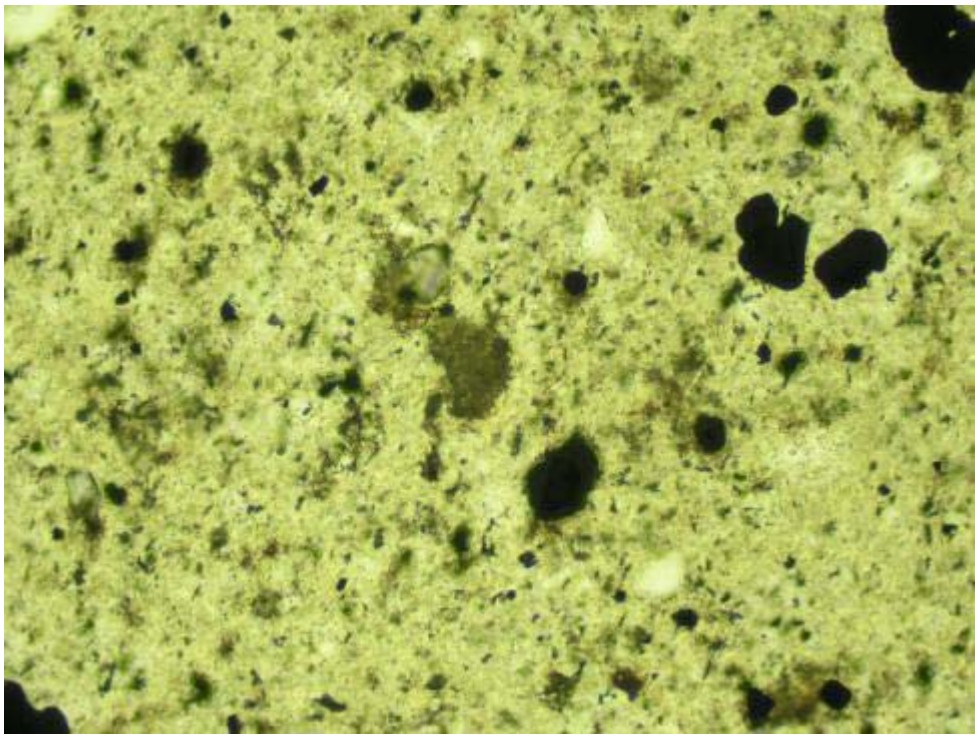


B

Hole-ID (from_ft-to_ft): 5328 (1388-1398)
A & B) Representative view of selectively illite-altered siltstone cut by quartz-pyrite veinlet. PPL, B) XPL, FOV = ~ 4.5 mm.



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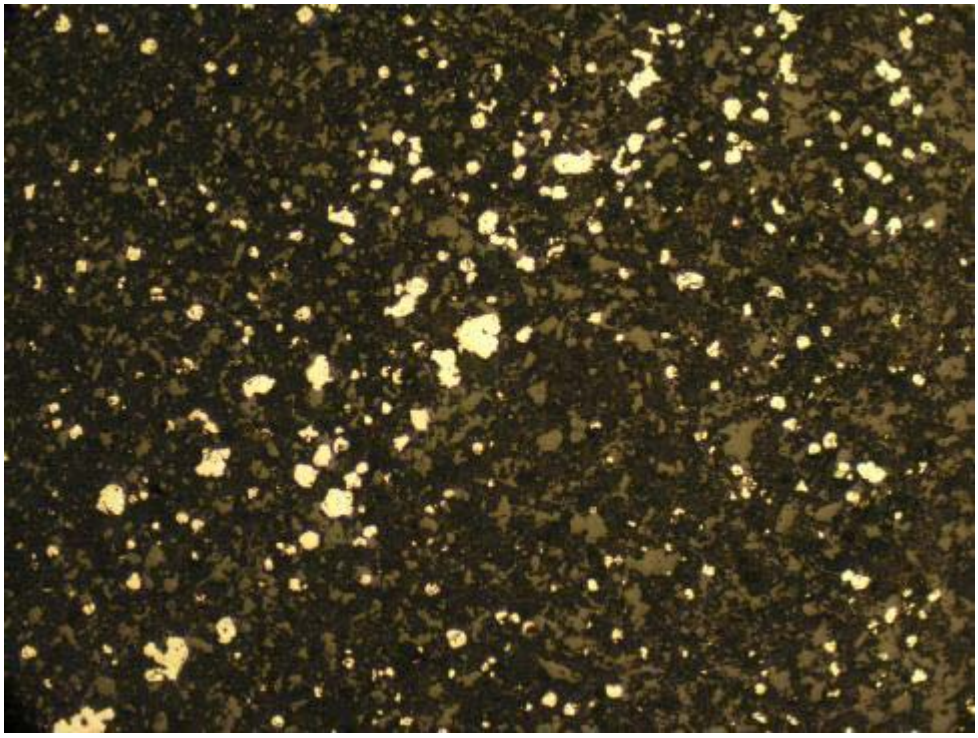
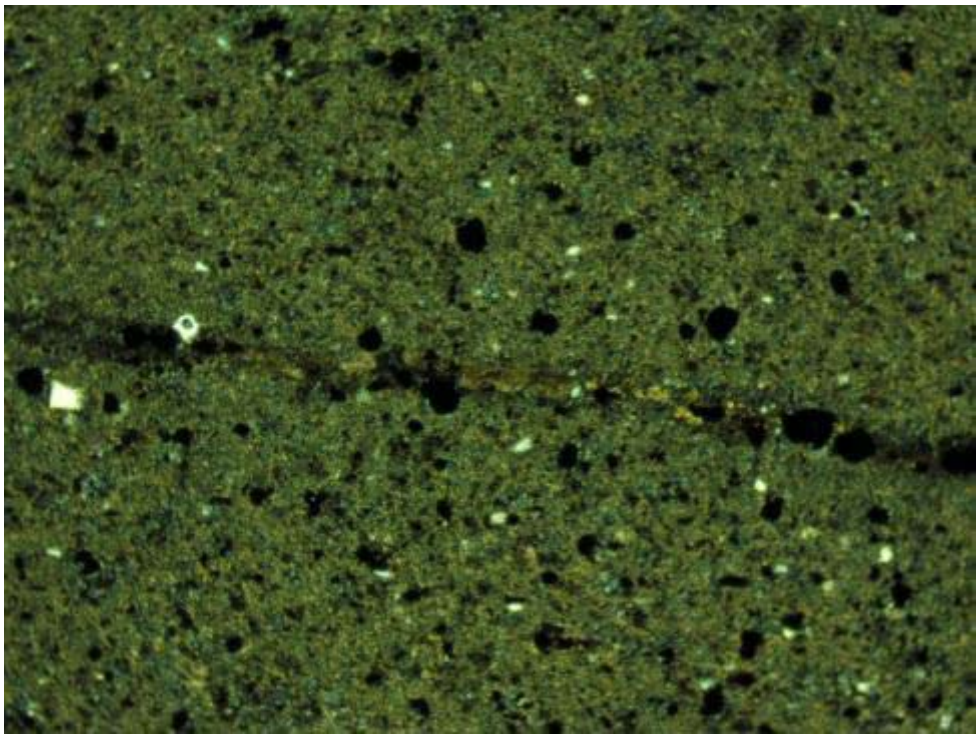


D

Hole-ID (from_ft-to_ft): 5328 (1388-1398)
C) Patchy unknown brown grungy aggregates overprint pervasive illite altered very fine siltstone. PPL condensed light, FOV = ~ 0.7 mm. D) Disseminated pyrite within coarse siltstone. RL, FOV = 2.8 mm.



E

Hole-ID (from_ft-to_ft): 5328 (1388-1398)
E) Sub-mm veinlet of carbonate-pyrite cuts very fine siltstone. XPL, FOV = 2.8 mm.

SRK Project No. 1CN007.00 **UBC Composite # 2**
Hole-ID (from_ft-to_ft): 5335 (4078-4088) **CT-15**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Altered plagioclase porphyritic rock
ALTERATION TYPE: K-feldspar, muscovite (sericite), pyrite, rutile
MINERALIZATION: Pyrite, chalcopyrite
VEINLETS: Quartz-pyrite-chalcopyrite-epidote

Hand Sample Description:
Core pieces comprise medium to light grey plagioclase porphyritic rock with approximately 40% white fine to medium-grained plagioclase phenocrysts and several percent former mafic phenocrysts in an aphanitic dark grey K-feldspar-dominant matrix (based on stained offcut). Rock is cut by 1-2mm and 7mm wide quartz veinlets with disseminated pyrite and chalcopyrite. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a selectively K-feldspar-muscovite (sericite)-pyrite-rutile-altered former porphyritic rock comprising approximately 40% altered fine to medium-grained former plagioclase phenocrysts in a very fine-grained matrix comprising dominantly quartz and K-feldspar. Former phenocrysts are selectively replaced by very fine-grained muscovite (sericite) aggregate. Locally the plagioclase phenocrysts are rimmed by fine-grained K-feldspar. Minor rutile occurs as fine to very fine-grained aggregates rimming and partly replacing plagioclase phenocrysts and former rhombic forms. Minor fine to very fine-grained anhedral pyrite and traces of chalcopyrite occur disseminated. Pyrite is locally partly enclosed by chalcopyrite. The porphyritic rock is cut by a 7 mm wide quartz-pyrite-chalcopyrite-epidote veinlet with very fine-grained chlorite selvages. Pyrite occurs in higher concentration adjacent to the veinlet. Pyrite and chalcopyrite are coarser-grained within the veinlet.

One small patch of very fine-grained colourless carbonate occurs with chlorite as infill at the margins of the quartz-pyrite-chalcopyrite-epidote veinlet.

Sulphide occurs in major amounts as pyrite and chalcopyrite. Pyrite, approximately 7%, occurs disseminated in the porphyritic rock but in higher concentrations near and within the quartz-pyrite-chalcopyrite-epidote veinlet. Pyrite is typically euhedral with straight grain boundaries but is commonly pitted; alteration rims are not evident. Locally pyrite occurs with aggregates of rutile. Anhedral chalcopyrite, approximately 2%, occurs disseminated and within and adjacent to the quartz-pyrite-chalcopyrite-epidote veinlet.

SRK Project No. 1CN007.00 **UBC Composite # 2**
Hole-ID (from_ft-to_ft): 5335 (4078-4088) **CT-15**

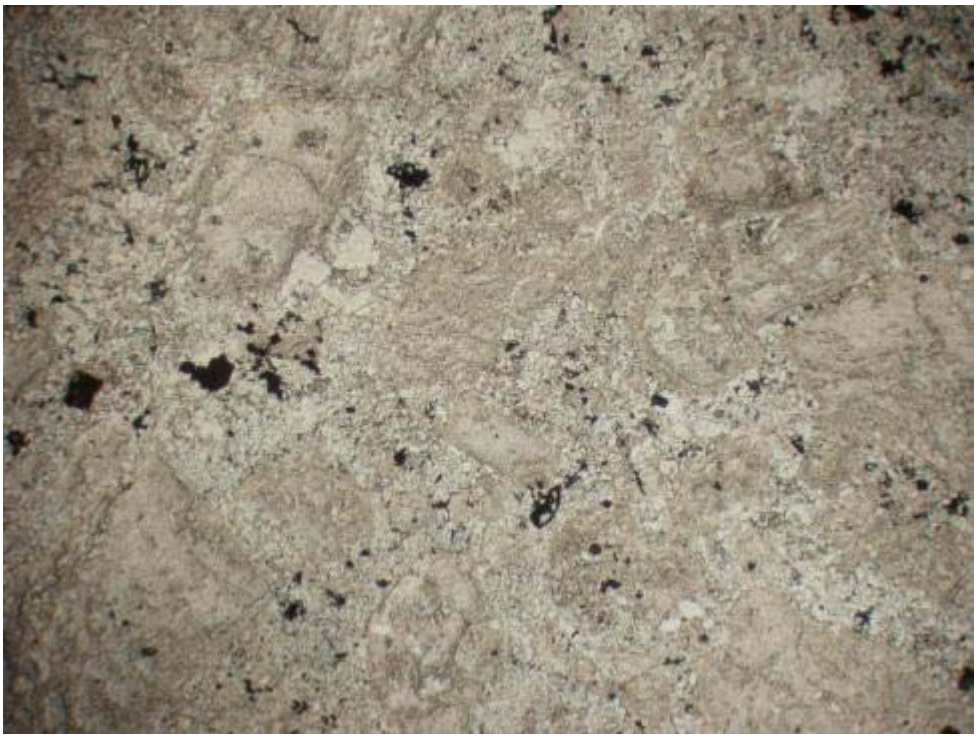
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	42	-fine-grained, occurs as rare phenocrysts -fine-grained (< 0.8 mm), anhedral aggregates, occurs as veinlets -very fine-grained, anhedral aggregates, occurs with K-feldspar as groundmass to porphyritic rock	
K-feldspar	20	-very fine-grained, occurs with quartz as groundmass to porphyritic rock -fine-grained, occurs rimming former plagioclase phenocrysts	
Muscovite (sericite)	20	very fine-grained, flaky to anhedral aggregates, occurs as replacement of former plagioclase phenocrysts and plagioclase in the matrix	
Pyrite	7	fine-grained (< 0.1 mm), subhedral grains, occurs disseminated -fine-grained (< 0.2 mm), euhedral grains and aggregates, pitted, occurs within and adjacent to quartz-pyrite-epidote veinlet	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rutile	3	fine to very fine-grained aggregates (< 0.1 mm), occurs rimming and partly replacing plagioclase and former rhombic forms	
Plagioclase	3	fine to medium-grained (< 2 mm), occurs as phenocrysts, selectively replaced by muscovite (sericite) and patchy rutile aggregates	*relict polysynthetic twinning*
Chalcopyrite	2	-fine-grained (< 0.3 mm), anhedral grains, locally encloses pyrite, occurs disseminated -fine-grained (< 1 mm), anhedral grains and aggregate, occurs within and adjacent to quartz-pyrite-epidote veinlet	
Chlorite	1	very fine-grained, aggregates, occurs as selvages and partly infilling margins of quartz-pyrite-chalcopyrite-epidote veinlet	
Epidote	1	fine-grained (< 0.5 mm), tabular to radiating aggregates, occurs within quartz veinlet	
Unknown	tr	aphanitic brown material, overprints muscovite (sericite) adjacent to quartz-pyrite-chalcopyrite-epidote veinlet	*dull brown*
Carbonate	tr	very fine-grained, anhedral aggregates, occurs with chlorite as infill at margins of quartz-pyrite-chalcopyrite-epidote veinlet	*colourless*

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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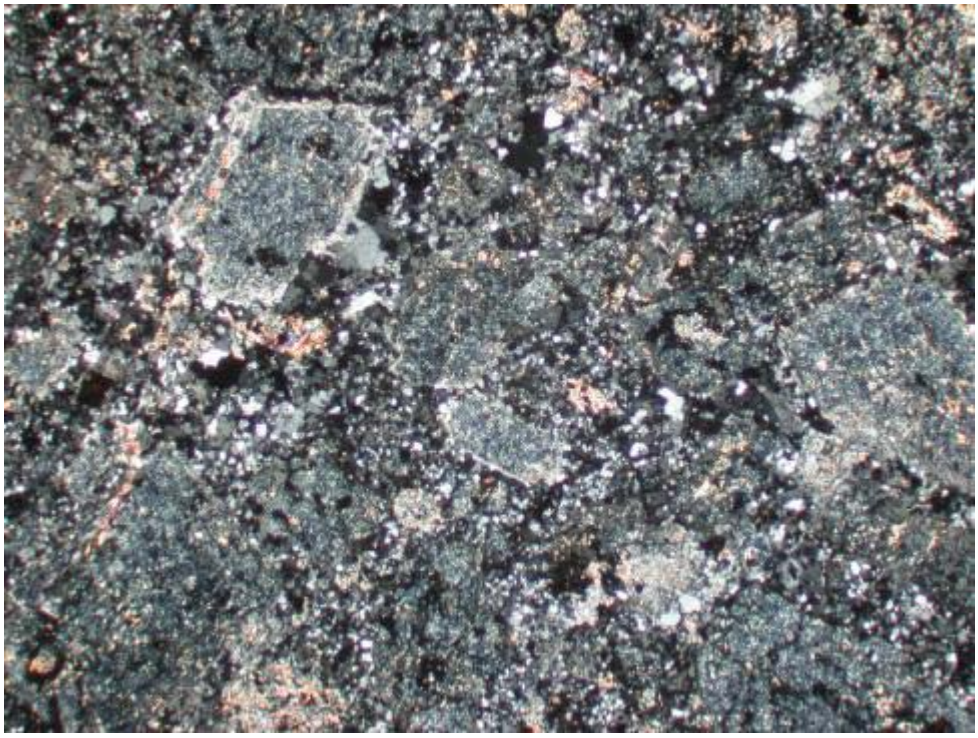
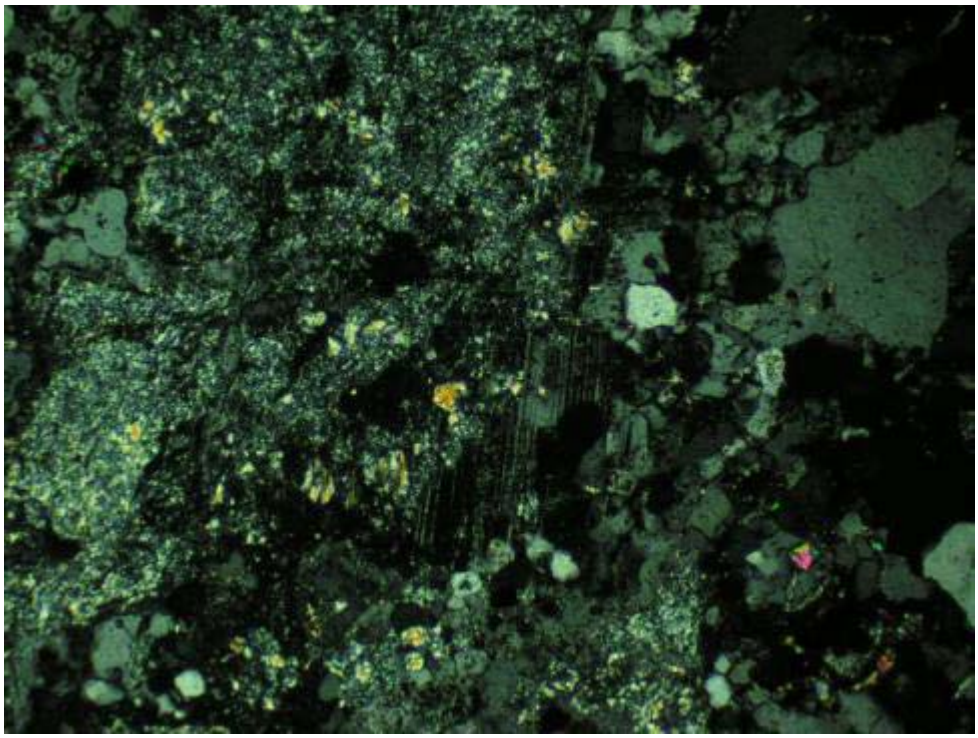


B

Hole-ID (from_ft-to_ft): 5335 (4078-4088)
A & B) Overview of porphyritic rock shows pervasively muscovite (sericite)-altered former plagioclase phenocrysts in very fine-grained matrix. Note minor disseminated opaque phases (pyrite, chalcopyrite, rutile). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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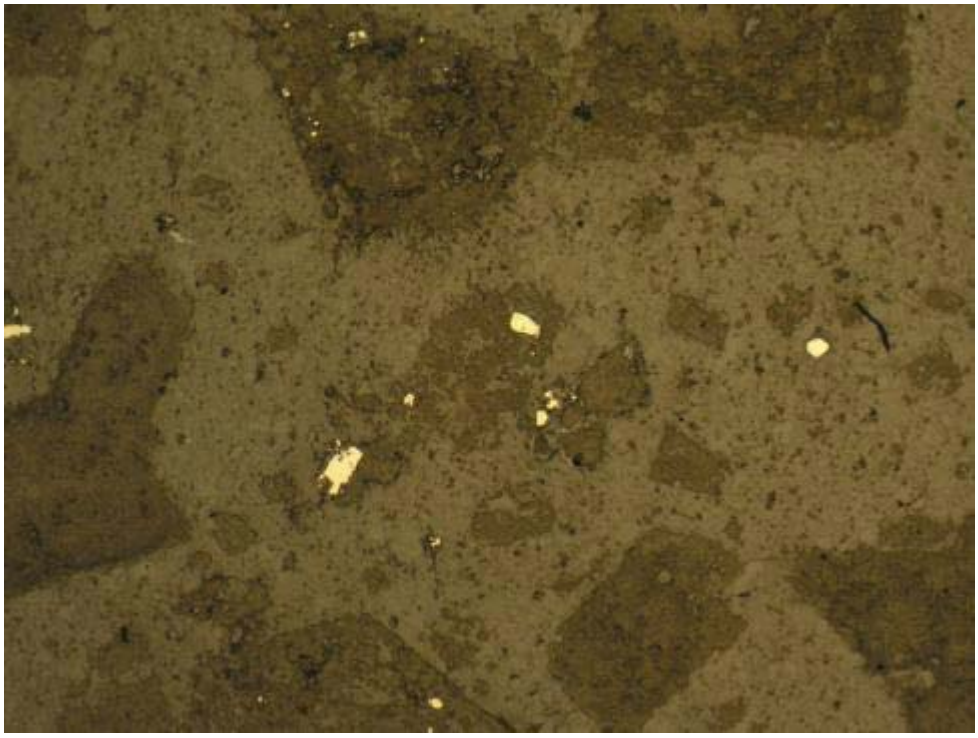
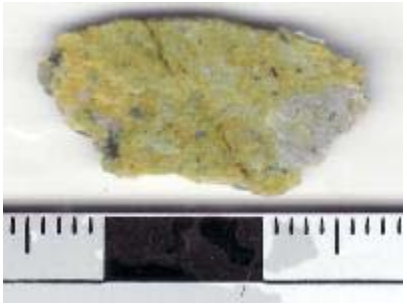


D

Hole-ID (from_ft-to_ft): 5335 (4078-4088)
C) Relict former plagioclase phenocryst selectively replaced by muscovite (sericite). XPL, FOV = ~ 1.0 mm. D) Disseminated euhedral pyrite grains within porphyritic rock. RL, FOV = 2.8 mm.

SRK Project No. 1CN007.00 **UBC Composite # 1**
Hole-ID (from_ft-to_ft): 5337 (3778-3788) **CT-16**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Altered plagioclase porphyritic rock
ALTERATION TYPE: K-feldspar, muscovite (sericite), carbonate, pyrite, rutile
MINERALIZATION: Pyrite, chalcopyrite
VEINLETS: Quartz-carbonate chalcopyrite-pyrite

Hand Sample Description:
Core pieces comprise white and light grey plagioclase porphyritic rock with approximately 40% light grey fine to coarse-grained plagioclase phenocrysts in an aphanitic white K-feldspar-dominant matrix (based on stained offcut). Minor pyrite and chalcopyrite occur as patches and in sub-mm veinlets. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). Local patchy reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a selectively K-feldspar-muscovite (sericite)-carbonate-pyrite-rutile-altered former porphyritic rock comprising approximately 40% selectively-altered fine to medium-grained former plagioclase phenocrysts in a very fine-grained matrix comprising dominantly quartz and K-feldspar. The rock is cut by rare sub-mm veinlets of quartz-carbonate-chalcopyrite-pyrite. Former plagioclase phenocrysts are selectively replaced by brown aphanitic K-feldspar, overprinted by very fine-grained muscovite (sericite) aggregate and subsequently by patchy colourless carbonate (likely calcite based on reaction to HCl). Minor rutile occurs as fine to very fine-grained aggregates rimming and partly replacing former prismatic phenocrysts and as patchy aggregates replacing plagioclase. Minor fine to very fine-grained eu-subhedral pyrite and traces of chalcopyrite occurs disseminated. Pyrite is partly enclosed by chalcopyrite within quartz-carbonate-chalcopyrite-pyrite veinlets.

Carbonate comprises approximately 3% of the section colourless carbonate. Carbonate occurs as fine-grained, anhedral patchy aggregates overprinting muscovite (sericite) alteration. Carbonate also occurs within sub-mm quartz-carbonate-chalcopyrite-pyrite veinlets.

Sulphide occurs in minor amounts as pyrite and chalcopyrite. Pyrite, approximately 3%, occurs disseminated in the porphyritic rock and within quartz-carbonate-chalcopyrite-pyrite veinlets. Pyrite is typically eu-subhedral with straight and locally irregular grain boundaries and is locally pitted; alteration rims are not evident. Locally pyrite occurs with aggregates of rutile. Anhedral chalcopyrite, approximately 1%, occurs rarely disseminated and locally enclosing pyrite within quartz-carbonate-chalcopyrite-pyrite veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 1**
Hole-ID (from_ft-to_ft): 5337 (3778-3788) **CT-16**

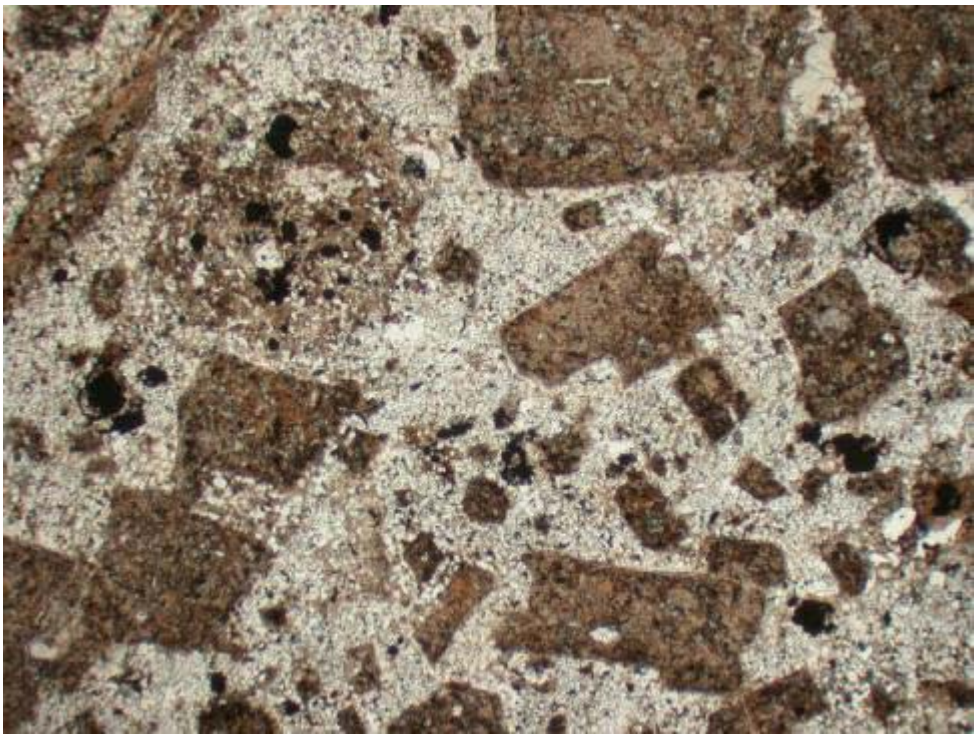
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	35	-fine-grained (< 0.2 mm), anhedral aggregates, occurs with carbonate, chalcopyrite and pyrite as veinlets -fine-grained (< 0.1 mm), anhedral aggregates, occurs with K-feldspar as groundmass to porphyritic rock	
Muscovite (sericite)	30	very fine-grained, flaky to anhedral aggregates, occurs as replacement of former plagioclase phenocrysts and matrix	
K-feldspar	25	-fine-grained (< 0.2 mm), occurs with quartz as groundmass to porphyritic rock -aphanitic, brown aggregate, occurs locally rimming and as selective relict patchy alteration of former plagioclase phenocrysts, overprinted by muscovite (sericite) alteration	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate	3	-fine-grained, anhedral patchy aggregates, occurs overprinting muscovite (sericite) alteration, occurs with rutile and pyrite as replacement of former fine-grained prismatic forms -fine-grained (< 0.1 mm), occurs as veinlets with quartz, pyrite and chalcopyrite	*colourless*
Pyrite	3	-fine-grained (< 0.3 mm), eu-subhedral grains, locally pitted, occurs disseminated -very fine-grained, euhedral grains and aggregates, enclosed by chalcopyrite, occurs within quartz-carbonate-chalcopyrite-pyrite veinlets	
Rutile	2	very fine-grained aggregates, occurs rimming and partly replacing former prismatic forms, occurs as patchy replacement of plagioclase	
Chalcopyrite	1	-fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs within quartz-carbonate-chalcopyrite±pyrite veinlets and rarely disseminated	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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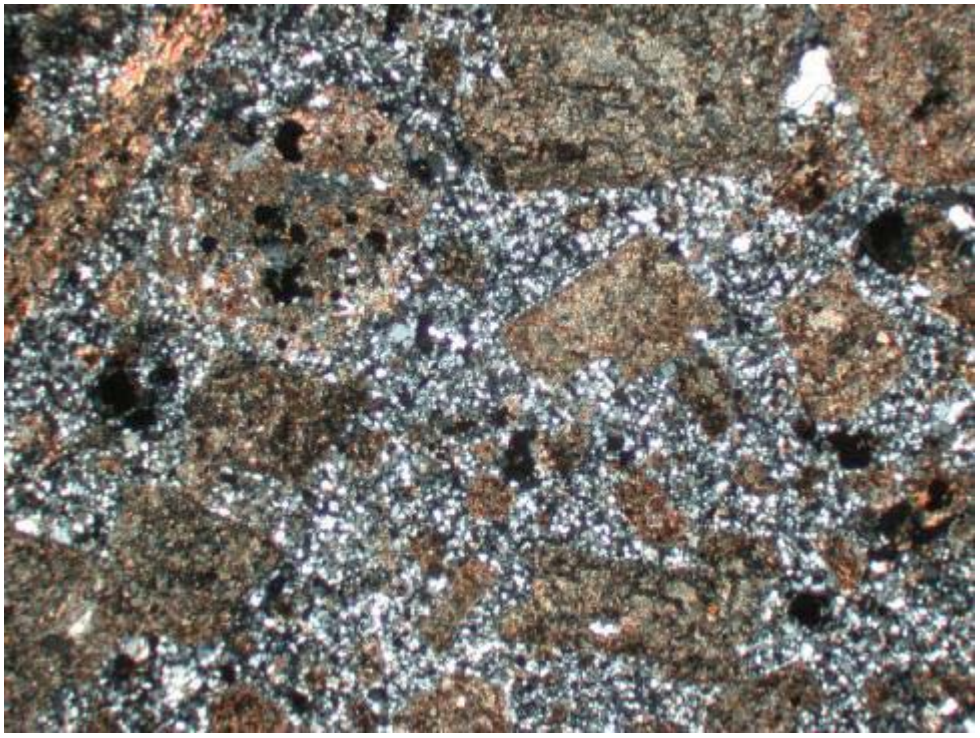
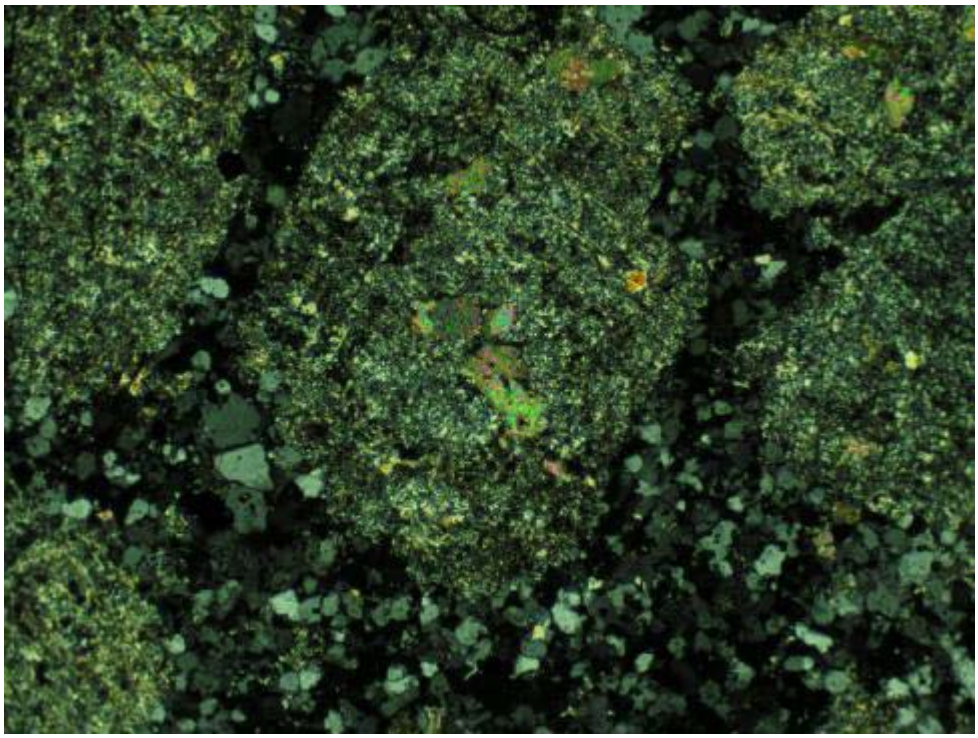


B

Hole-ID (from_ft-to_ft): 5337 (3778-3788)
A & B) Overview of porphyritic rock shows pervasively muscovite (sericite)-altered former plagioclase phenocrysts in very fine-grained matrix. Note minor disseminated opaque phases (pyrite, rutile). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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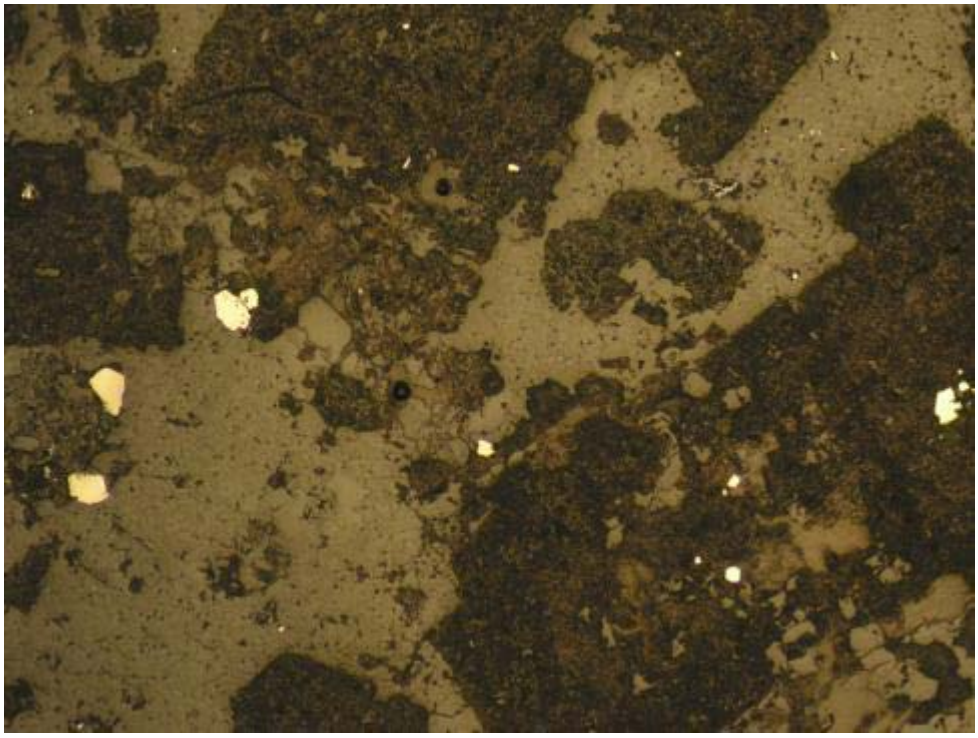


D

Hole-ID (from_ft-to_ft): 5337 (3778-3788)
C) Detailed view of pervasive muscovite (sericite) replacement of tabular former plagioclase and patchy carbonate overprint. XPL, FOV = ~ 2.8 mm. D) Disseminated pyrite grains with unaltered rims. RL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 6**
Hole-ID (from_ft-to_ft): 6341 (3955-3965) **CT-17**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Hornfelsed siltstone (Biotite hornfels)
ALTERATION TYPE: K-feldspar, unknown, muscovite (sericite), pyrite, chlorite
MINERALIZATION: pyrite, chalcopyrite, (molybdenite)
VEINLETS: Quartz-K-feldspar-chlorite-(carbonate, pyrite, chalcopyrite, molybdenite); K-feldspar; Carbonate±pyrite-chalcopyrite

Hand Sample Description:
Drill core chips comprise olive grey aphanitic rock and greenish grey very finely aphanitic to granular rock cut by sub-mm quartz± calcite-pyrite veinlets. Minor very fine-grained pyrite occurs disseminated. No reaction to magnet. Reaction of veinlets to cold, dilute HCl. Section is cut from chip that covers contact between greenish grey and olive grey rock types (lower left of core sample photo). Positive test for K-feldspar using etching by HF and sodium cobaltinitrite. Section offcut shows selective K-feldspar alteration of host rock and K-feldspar as sub-mm wide envelopes to the veinlets.

Polished Thin Section Description:
This section is a pervasively K-feldspar-unknown aphantic material-muscovite (sericite)-pyrite-chlorite altered hornfelsed siltstone cut by sub-mm wide quartz-K-feldspar-chlorite-(carbonate-pyrite-chalcopyrite) veinlets with K-feldspar alteration envelopes and by later carbonate±pyrite-chalcopyrite veinlets. The host rock consists of very fine-grained, massive anhedral K-feldspar aggregate and aggregates of muscovite (sericite)-chlorite-patchy brown unknown material with minor disseminated pyrite. On one side of the section, relict biotite is partly replaced by chlorite and selectively replaced by muscovite (sericite). Quartz aggregate occurs associated with muscovite (sericite) alteration. Traces of rutile occur associated with minor disseminated pyrite and chalcopyrite and within carbonate filled fractures. Pyrite and chalcopyrite occur in trace amounts within the quartz-K-feldspar-chlorite veinlets and more commonly in later carbonate-filled fractures.

Carbonate occurs in minor amounts, ~1%, within the veinlets as colourless and cloudy varieties. Carbonate, likely includes calcite (HCl reaction), comprises fine to very fine-grained-grained aggregates that locally replace K-feldspar within quartz-K-feldspar-chlorite veinlets (but not alteration envelopes). Most carbonate occurs as late fracture infill. Traces of carbonate occur replacing aphanitic alteration.

Sulphide comprises approximately 5% of the section as minor pyrite, chalcopyrite and traces of molybdenite. Pyrite, approximately 4%, occurs as disseminated enhedral grains and as subhedral grains and aggregates within veinlets. Pyrite grain boundaries are unaltered. Pyrite occurs commonly with aggregates of rutile. Locally very fine-grained rutile aggregates replace cubic forms. Trace chalcopyrite occurs disseminated as anhedral grains and within veinlets. Chalcopyrite locally partly encloses pyrite. Traces of molybdenite occur within quartz-K-feldspar-chlorite veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 6**
Hole-ID (from_ft-to_ft): 6341 (3955-3965) **CT-17**

MAJOR MINERALS

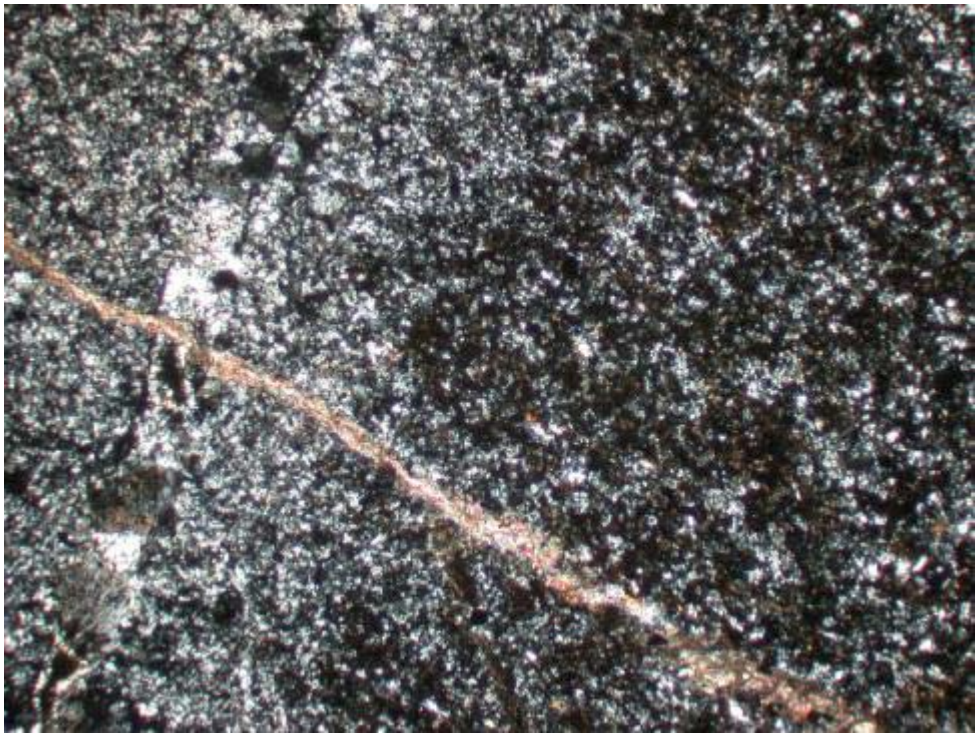
Mineral	%	Distribution & Characteristics*	Optical
K-feldspar	35	-very fine-grained, anhedral massive aggregates, occurs with former secondary biotite and patchy aphanitic material as selective replacement of host rock -very fine-grained, anhedral aggregates, occurs as < 1 mm wide envelopes to quartz-K-feldspar-chlorite-(carbonate-sulphide) veinlets -very fine-grained aggregates, occurs as hairline veinlets	
Unknown	30	aphanitic aggregates, occurs as patchy aggregates, overprints biotite, muscovite (sericite) and chlorite alteration	*brown*
Quartz	15	-very fine-grained, anhedral grains, occurs scattered throughout host rock, also occurs as aggregates with muscovite (sericite) alteration -fine-grained (< 1 mm), anhedral aggregates, occurs within quartz-K-feldspar-chlorite-(carbonate-sulphide) veinlets	
Muscovite (sericite)	10	very fine-grained, flaky to anhedral aggregates, occurs as replacement of secondary biotite on one side of the section	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Pyrite	4	fine to very fine-grained (< 0.3 mm), eu-subhedral grains and aggregates, typically pitted, occurs disseminated and within carbonate veinlets, less commonly within K-feldspar-bearing veinlets	
Chlorite	3	-very fine-grained, anhedral aggregates, occurs within quartz-K-feldspar-chlorite-(carbonate-sulphide) veinlets and as fracture infill with carbonate -very fine-grained, occurs partly replacing biotite alteration	
Chalcopyrite	1	-fine to very fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs disseminated and within carbonate veinlets, less commonly within K-feldspar-bearing veinlets	
Carbonate, includes calcite	1	-fine to very fine-grained, colourless and cloudy aggregates, occurs within quartz-K-feldspar-chlorite-(carbonate) veinlets, locally as replacement of K-feldspar -fine to very fine-grained, aggregates occurs as late fracture infill cutting quartz-K-feldspar-chlorite-bearing veinlets -very fine-grained, occurs rarely replacing aphanitic material	
Biotite	tr	very fine-grained, flaky to anhedral aphanitic aggregates, occurs as patchy aggregates, mostly by muscovite (sericite), chlorite and patchy unknown aphantic material	*brown*
Rutile	tr	-fine-grained, occurs within quartz-K-feldspar-chlorite-(carbonate) veinlets; also very fine-grained aggregates occurs associated with pyrite and chalcopyrite, replaces cubic forms	
Molybdenite	tr	fine-grained, platy aggregates occurs in quartz-K-feldspar-chlorite-(carbonate) veinlet	

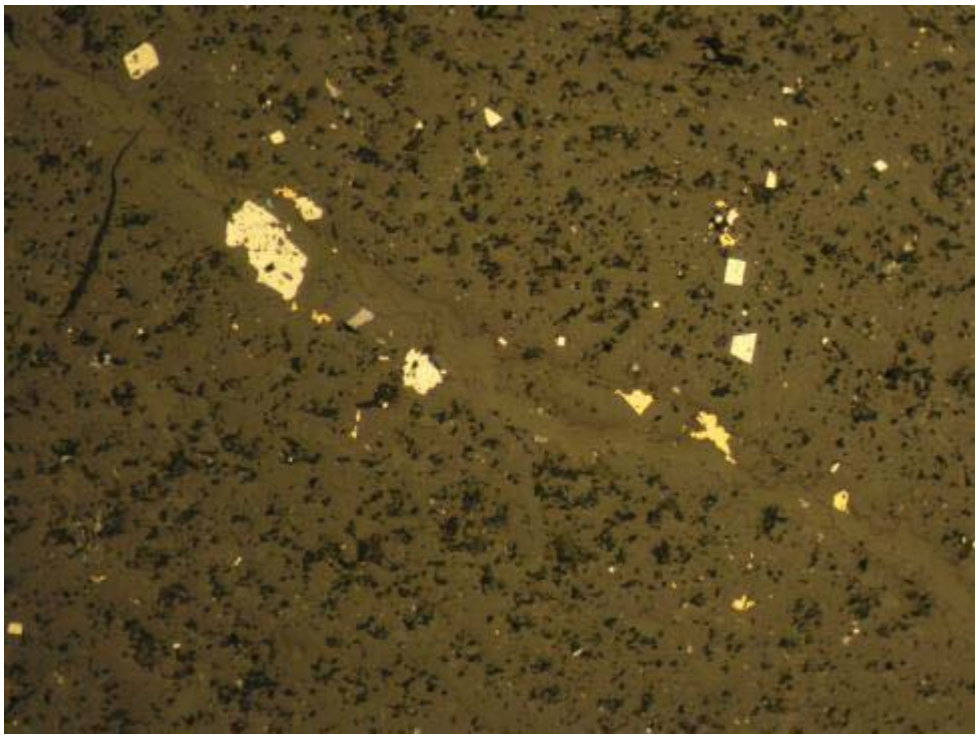
*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm

A



B

Hole-ID (from_ft-to_ft): 6341 (3955-3965)
A & B) Overview of sample shows dominantly aphanitic brown material and K-feldspar altered rock cut by quartz-K-feldspar-chlorite veinlet with very fine-grained K-feldspar alteration envelopes (left) and crosscut by later carbonate-filled fracture. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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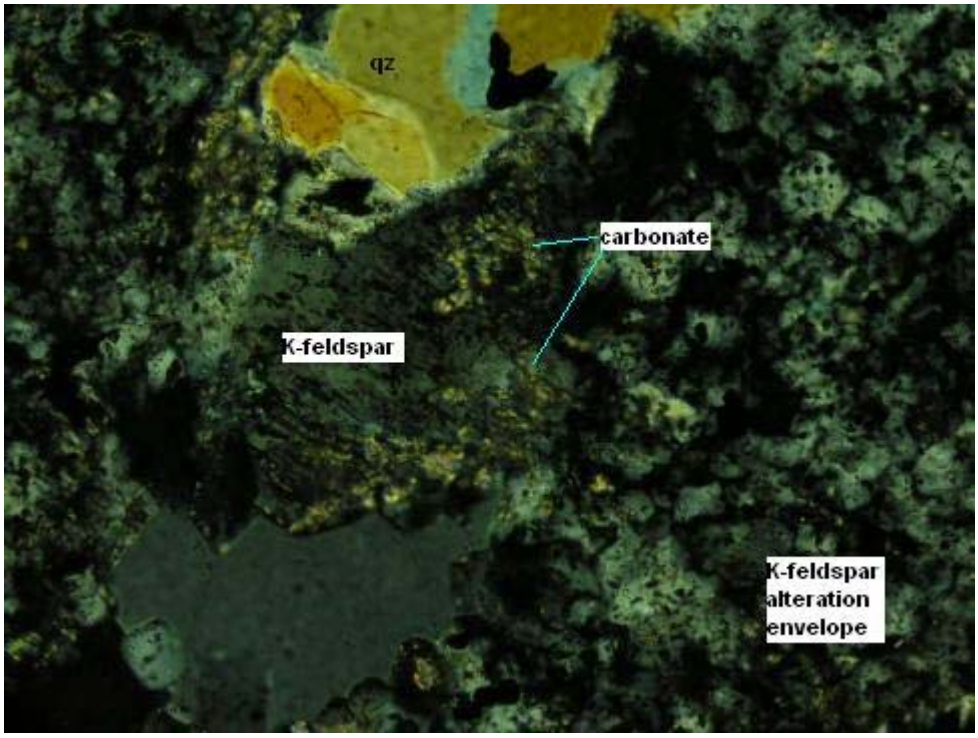


D

Hole-ID (from_ft-to_ft): 6341 (3955-3965)
C) Disseminated euhedral pyrite and chalcopyrite. Also note subhedral pyrite and chalcopyrite within carbonate fracture infill. RL, FOV = ~ 2.8 mm. D) K-feldspar within veinlet partly replaced by very fine-grained carbonate (centre). Note very fine-grained K-feldspar alteration envelopes out to margins of photo. XPL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 1**
Hole-ID (from_ft-to_ft): 6342 (3126-3136) **CT-18**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Porphyritic ?granodiorite
ALTERATION TYPE: Muscovite (sericite), carbonate
MINERALIZATION: Pyrite, chalcopyrite
VEINLETS: Quartz-orthoclase-carbonate-(chlorite-apatite-pyrite-chalcopyrite)

Hand Sample Description:
Core sample consists of pieces of leucocratic porphyritic rock (2 to 4 cm size). The porphyritic rock is light-grey with approximately 30% light greenish-grey altered, medium-grained phenocrysts in an aphanitic K-feldspar-rich matrix (based on stained offcut). The porphyritic rock is cut by 1-2 mm wide quartz veinlets. Traces of disseminated and stringer pyrite and chalcopyrite within porphyritic rock. Strong reaction to cold, dilute HCl. No reaction to magnet. Positive test for K-feldspar using etching by HF and staining with sodium cobaltinitrite.

Polished Thin Section Description:
This section is a selectively muscovite (sericite)-carbonate-altered leucocratic porphyritic ?granodiorite comprising approximately 30% altered fine to medium-grained former feldspar phenocrysts in a fine-grained matrix comprising dominantly quartz and orthoclase. Orthoclase phenocrysts are selectively replaced by very fine-grained muscovite (sericite) aggregate and locally overprinted by patchy fine-grained carbonate and aphanitic brown material. Traces of fine-grained sub-anhedral pyrite and chalcopyrite occur disseminated. Pyrite is often partly enclosed by chalcopyrite and locally associated with traces of rutile aggregates. The porphyritic rock is cut by 1-2 mm wide veinlets (as listed above).

Carbonate comprises approximately 4% of the section as colourless carbonate. The colourless carbonate occurs as fine-grained, anhedral aggregates overprinting muscovite (sericite) alteration of feldspar phenocrysts.

Sulphide occurs in trace amounts as pyrite and chalcopyrite. Pyrite occurs disseminated in the porphyritic rock and veinlets. Pyrite is typically anhedral with irregular boundaries but alteration rims are not evident. Anhedral chalcopyrite occurs disseminated and within veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 1**
Hole-ID (from_ft-to_ft): 6342 (3126-3136) **CT-18**

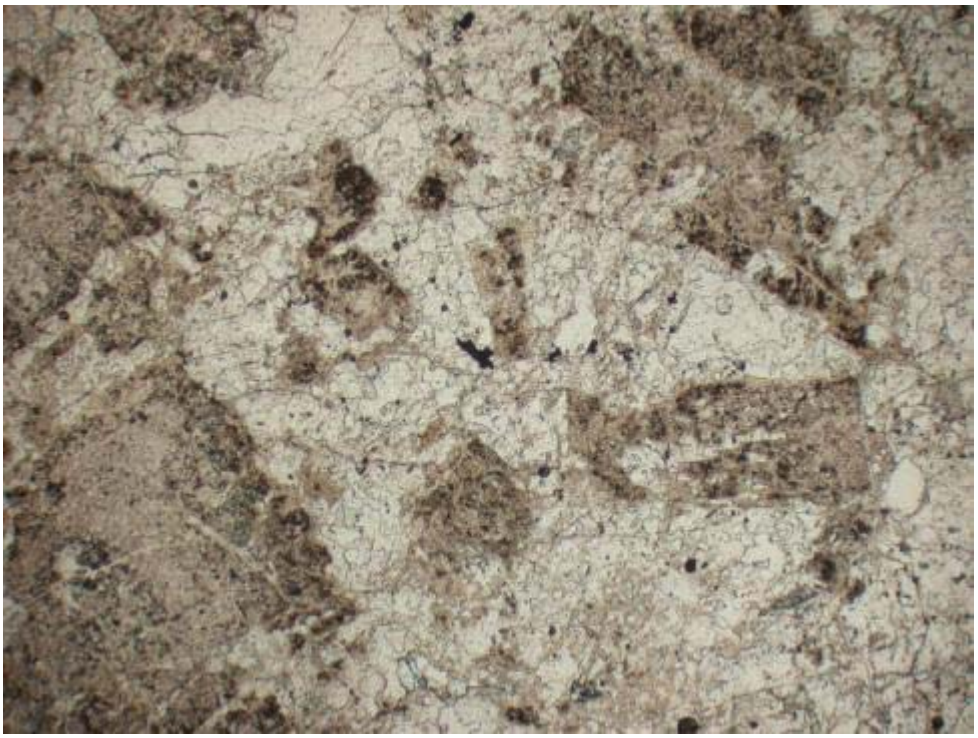
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	50	-medium-grained (< 2 mm), anhedral, occurs as phenocrysts -fine-grained, aggregates, occurs intergrown with orthoclase in the groundmass -fine-grained, anhedral aggregates, occurs as veinlets, irregular grain boundaries	
Orthoclase	28	-fine to medium-grained, occurs as phenocrysts, locally megacrystic enclosing quartz, selectively replaced by muscovite (sericite) and locally carbonate and aphanitic brown material -fine-grained, intergrown with quartz in groundmass -fine-grained (< 0.3 mm), anhedral, occurs with quartz in veinlets, partly replaced by carbonate and very fine-grained apatite aggregate	
Muscovite (sericite)	15	very fine-grained, anhedral to flaky aggregates, locally fine-grained sheaves, occurs as replacement of former feldspar phenocrysts, locally overprinted by carbonate and brown aphantic material	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate	4	fine-grained, anhedral aggregates, occurs partly replacing orthoclase in porphyritic rock and veinlets, occurs as vug infill within quartz veinlets, occurs as fracture infill throughout section, overprints muscovite (sericite)	
Unknown	1	aphanitic brown material, overprints muscovite (sericite) adjacent to quartz-pyrite-chalcopyrite-epidote veinlet	*dull brown*
Apatite	1	-fine-grained (< 0.1 mm), hexagonal forms, occurs disseminated -very fine-grained, occurs as aggregates replacing orthoclase and acting as infill within quartz veinlets	*high relief*
Chalcopyrite	tr	fine to very fine-grained (< 0.1 mm), anhedral grains and aggregates, occurs locally enclosing pyrite, occurs disseminated and within veinlets	
Pyrite	tr	very fine-grained, sub-anhedral grains and aggregates, locally enclosed by chalcopyrite, occurs disseminated and within veinlets	
Rutile	tr	fine to very fine-grained (< 0.2 mm), eu-anhedral aggregates, occurs as patchy aggregates in the groundmass and within veinlets	
Chlorite	tr	-very fine-grained, occurs with carbonate within quartz veinlet	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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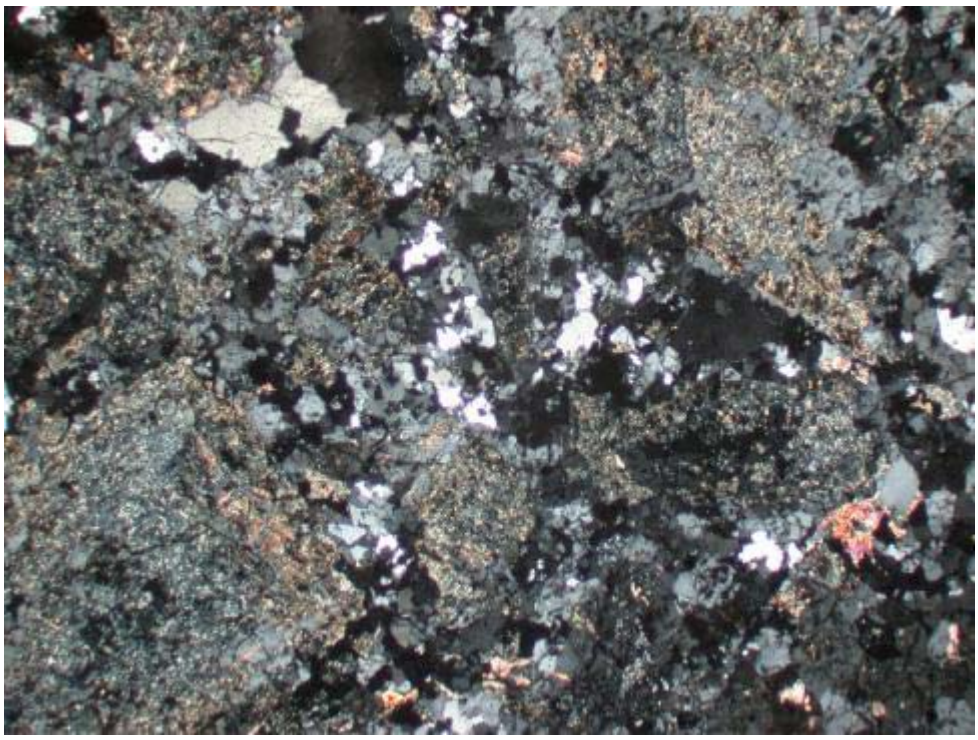
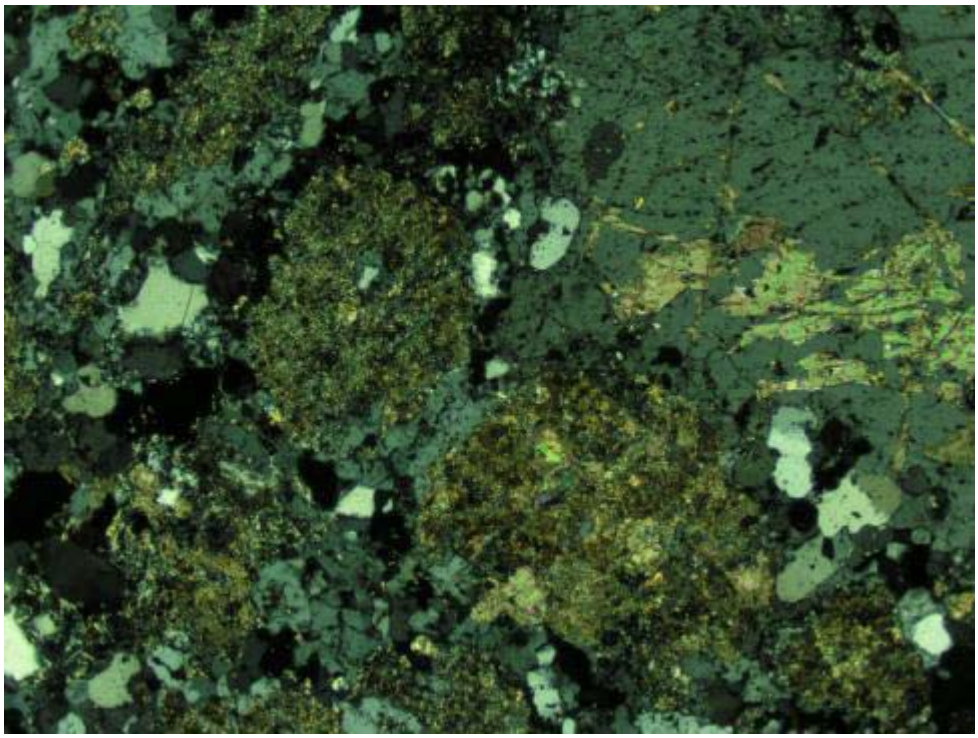


B

Hole-ID (from_ft-to_ft): 6342 (3126-3136)
A & B) Overview of sample shows porphyritic rock comprising selectively muscovite (sericite) altered fine to medium-grained former feldspar phenocrysts in a fine-grained matrix comprising dominantly quartz and orthoclase. . A) PPL, B) XPL, FOV = ~ 4.5 mm.



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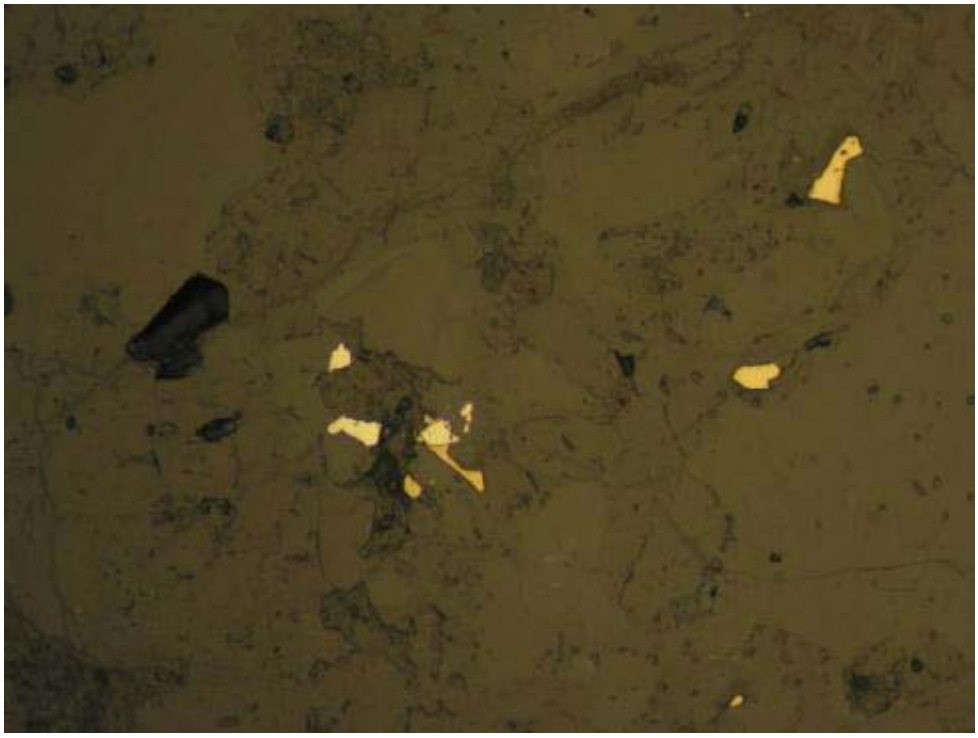
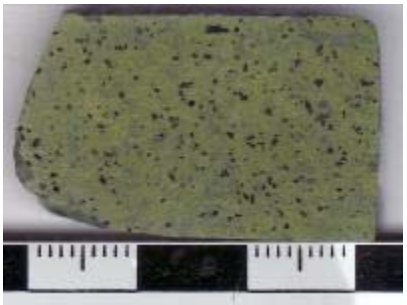


D

Hole-ID (from_ft-to_ft): 6342 (3126-3136)
C) Detailed view of porphyritic rock shows patchy carbonate replacement of feldspar phenocrysts. Note carbonate overprints muscovite (sericite) – (lower right of photo). XPL, FOV = ~ 1.3 mm. D) Disseminated pyrite and chalcopyrite grains with irregular grain boundaries but without alteration rims. RL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 19**
Hole-ID (from_ft-to_ft): 6344 (125-145) **CT-19**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Altered porphyritic basalt
ALTERATION TYPE: Chlorite, unknown, smectite, K-feldspar, pyrite
MINERALIZATION: Pyrite, (chalcopyrite)

Hand Sample Description:
Drill core chips comprise light greenish grey and greenish grey amygdaloidal rock and porphyritic rock with from 5 to 25% chlorite and epidote-carbonate altered phenocrysts. The section is cut from a piece of porphyritic rock. Minor to major pyrite occurs disseminated. Trace reaction to magnet. No reaction to cold, dilute HCl. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). Section comprises approximately 7% phenocrysts with a greenish-grey aphanitic K-feldspar-bearing matrix.

Polished Thin Section Description:
This section is a selectively chlorite-aphanitic brown unknown-smectite-K-feldspar-pyrite altered porphyritic basalt. Former fine to medium-grained mafic phenocrysts are replaced by aggregates of chlorite-epidote or carbonate±epidote. The groundmass comprises a felted aggregate of plagioclase laths partly replaced by K-feldspar, chlorite and smectite and former mafic phases replaced by chlorite, patchy unknown aphanitic brown aggregates and smectite. Traces of magnetite occur disseminated and as replacement of former phenocrysts.

Carbonate occurs in minor amounts, approximately 1% as fine-grained, anhedral cloudy aggregates replacing former phenocrysts.

Sulphides occur in major amounts, approximately 7%, dominantly as pyrite with traces of chalcopyrite. Pyrite is fine to medium-grained, anhedral, commonly pitted and with irregular grain boundaries. Alteration rims are not evident. Anhedral chalcopyrite occurs rarely disseminated.

SRK Project No. 1CN007.00 **UBC Composite # 19**
Hole-ID (from_ft-to_ft): 6344 (125-145) **CT-19**

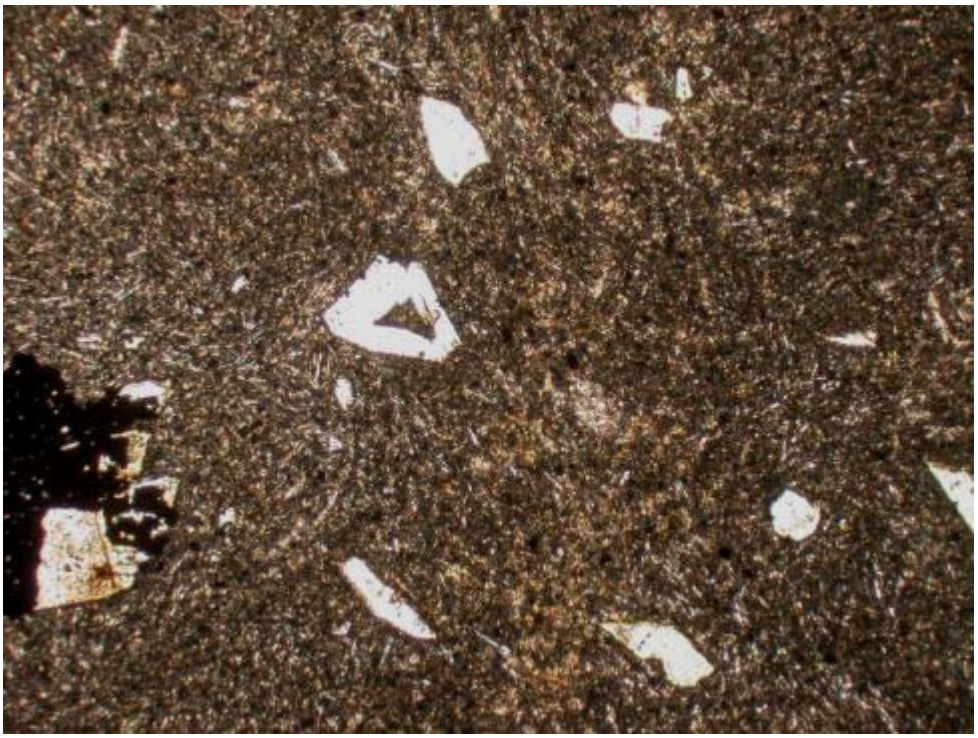
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Plagioclase	25	fine-grained (< 0.2 mm), laths, occurs in the groundmass, partly replaced by K-feldspar, smectite and chlorite	
Chlorite	25	very fine-grained, aggregates, occurs with epidote and locally pyrite as replacement of former mafic phenocrysts and mafic phases in the groundmass	
Unknown	15	very fine-grained, anhedral brown aggregates, occurs with chlorite and smectite as replacement of former mafic phases in the groundmass	
Smectite	15	very fine-grained, occurs as replacement of former mafic phases in the groundmass	
K-feldspar	10	very fine-grained, occurs as replacement of plagioclase laths	
Pyrite	7	fine to medium-grained, anhedral aggregates, commonly pitted, irregular grain boundaries, occurs disseminated	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Epidote	1	very fine-grained, anhedral aggregates, occurs with chlorite as replacement of former mafic phenocrysts	*yellow*
Carbonate	1	-fine-grained, anhedral cloudy aggregates, occurs as replacement of former fine to medium-grained phenocrysts -very fine-grained, brown aggregates, occurs with epidote and chlorite as replacement of fine-grained phenocrysts	
Magnetite	tr	very fine-grained, cubic to anhedral forms, occurs disseminated and as replacement of mafic phases	
Chalcopyrite	tr	very fine-grained, anhedral, occurs rarely disseminated	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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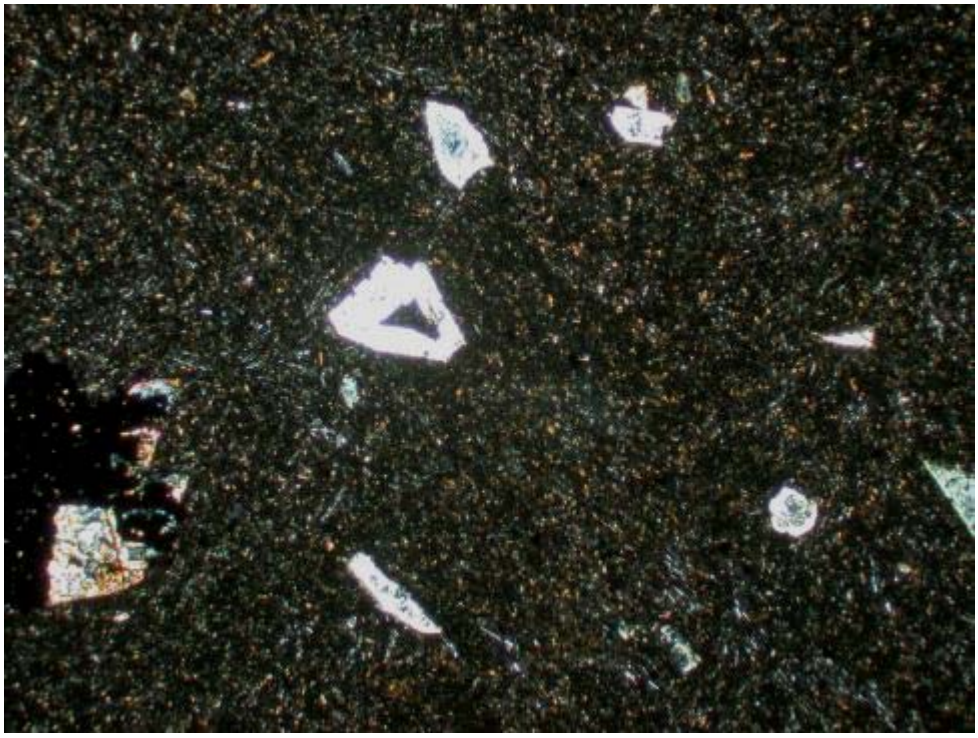
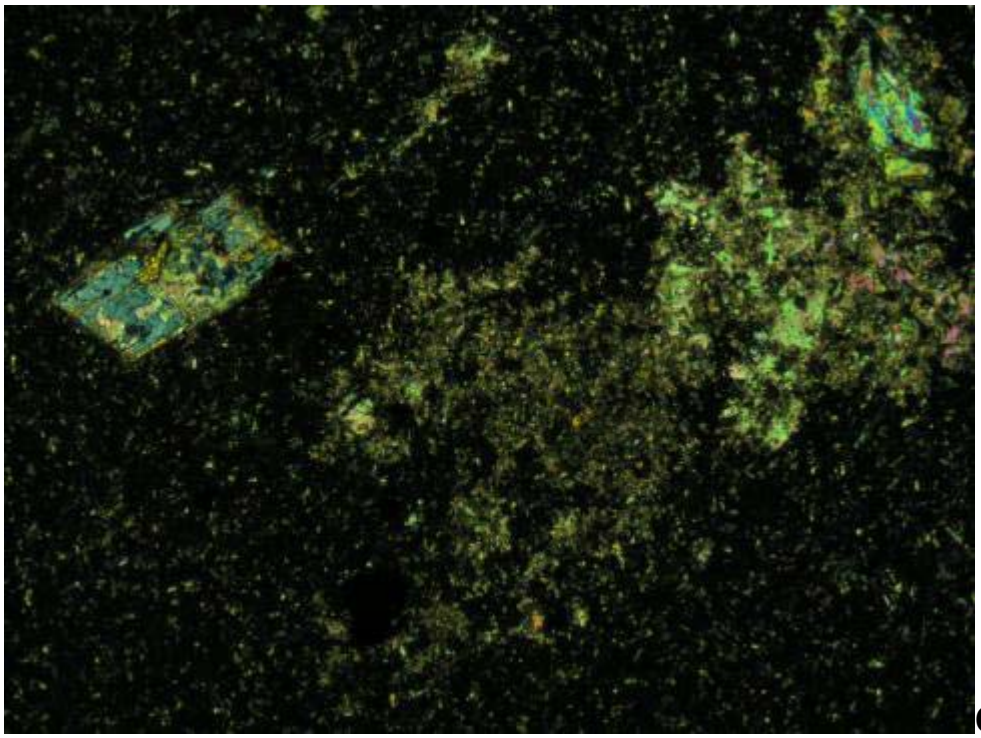


B

Hole-ID (from_ft-to_ft): 6344 (125-145)
A & B) Overview of sample shows fine to medium-grained chlorite-altered phenocrysts in an aphanitic groundmass. Pyrite partly replaces phenocryst (lower left). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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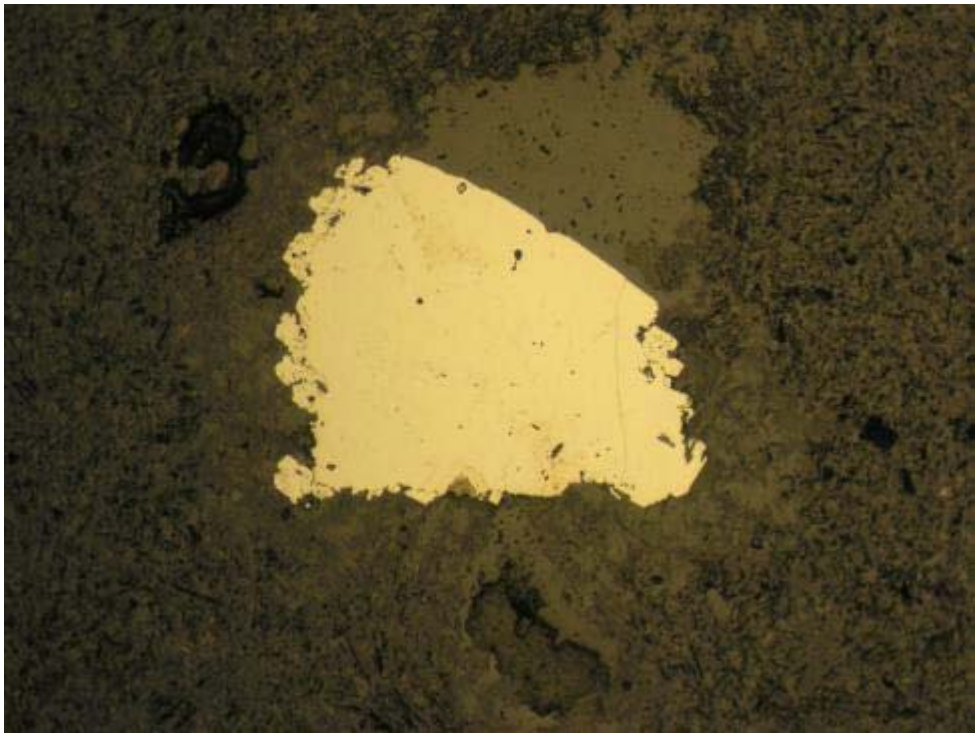
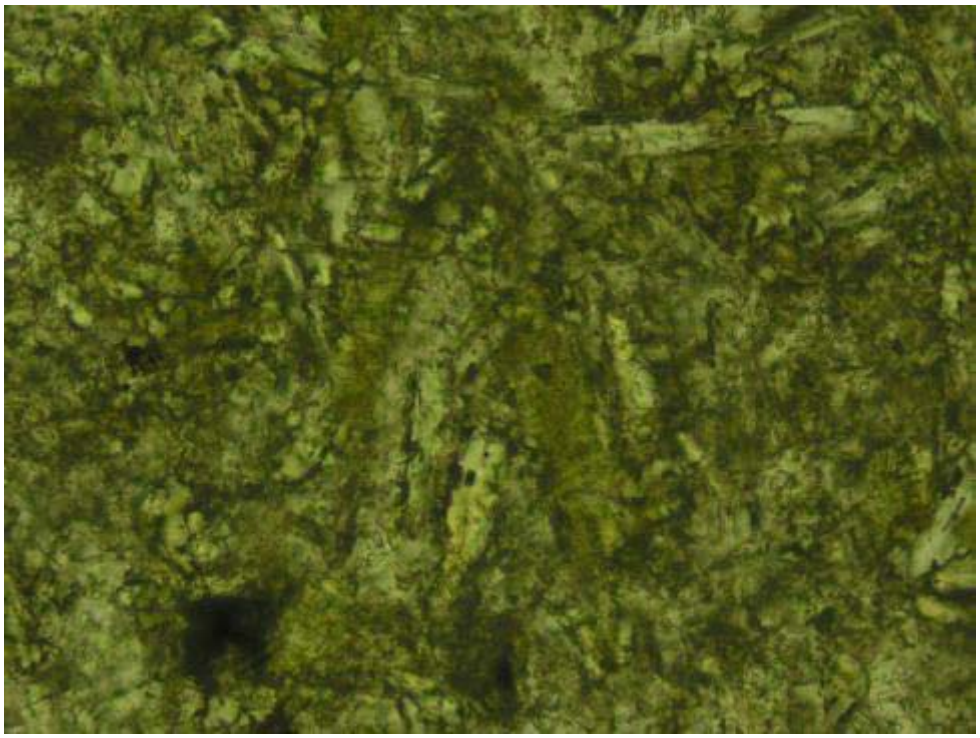
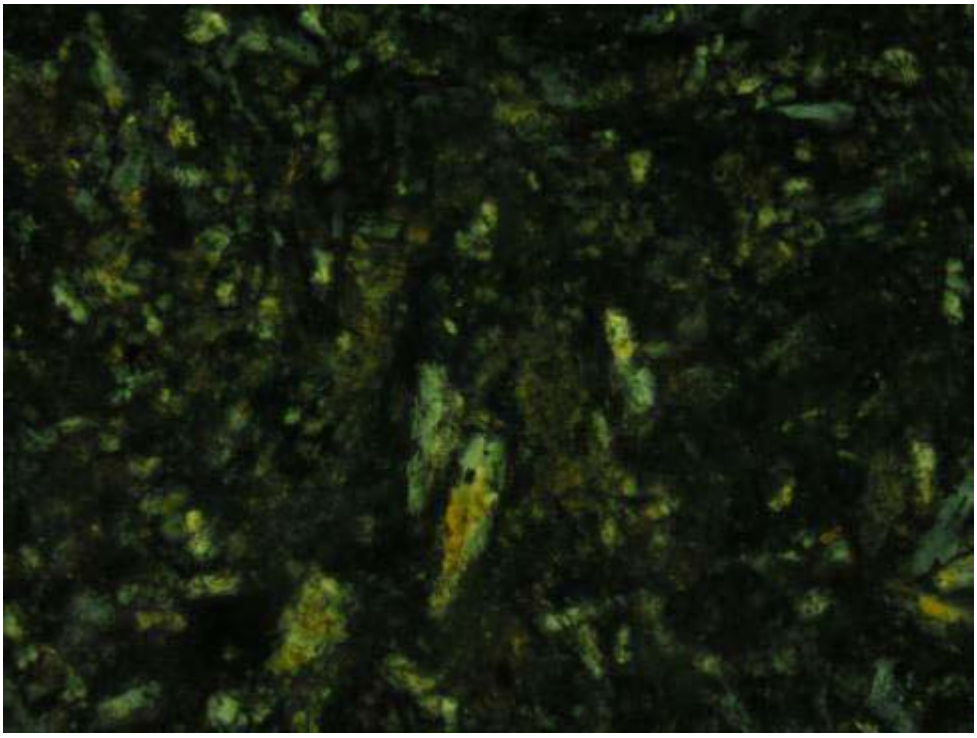


D

Hole-ID (from_ft-to_ft): 6344 (125-145)
C) Patchy carbonate aggregate replacing former fine and medium-grained phenocrysts. XPL, FOV = ~ 2.8 mm. D) Disseminated anhedral pyrite. RL, FOV = 2.8 mm.



E



F

Hole-ID (from_ft-to_ft): 6344 (125-145)
E&F) Detailed view of basalt groundmass show plagioclase laths and former mafic phases replaced by chlorite, smectite and an unknown aphanitic brown aggregate. E) PPL, F) XPL, FOV = 0.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 20**
Hole-ID (from_ft-to_ft): 6344 (365-385) **CT-20**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Volcanic breccia
ALTERATION TYPE: Chlorite, pyrite, epidote, ?rutile, hematite
MINERALIZATION: Pyrite

Hand Sample Description:
Fragment-supported breccia with angular fragments of greenish-grey aphanitic K-feldspar-bearing rock (from <1 mm to-3.5 cm size) in a maroon aphanitic matrix. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a selectively altered, fragment-supported volcanic breccia (?lapilli tuff) with angular fragments (from 1-15 mm in size) in a hematite-dominant matrix. The breccia fragments and matrix preserve a porphyritic rock texture defined by minor fine to medium-grained plagioclase phenocrysts and and traces of other prismatic phases in a fine-grained groundmass of trachytic-textured K-feldspar laths and plagioclase. The groundmass has been selectively overprinted by patchy very fine-grained epidote, ?rutile and chlorite aggregates; abundant very fine-grained hematite occurs in the breccia matrix. Former plagioclase phenocrysts are replaced by aggregates of epidote±chlorite. Former prismatic phases are replaced by very fine-grained carbonate and locally epidote aggregate. Major fine-grained euhedral pyrite (cubic forms) occurs disseminated. Traces of apatite occur as an accessory phase. Fractures are infilled by aggregates of quartz, epidote, chlorite and carbonate.

Carbonate occurs in trace amounts as very fine-grained aggregates partly replacing prismatic forms and as fracture infill. Carbonate is rarely partly replaced by very fine-grained hematite aggregates.

Sulphide comprises approximately 10% of the section as pyrite (as described above). Pyrite grain boundaries are unaltered.

Note: The heterogeneity of this sample due to size and variation of breccia fragments and selection of material for thin section preparation may complicate comparison of this petrographic data with XRD Rietveld data.

SRK Project No. 1CN007.00 **UBC Composite # 20**
Hole-ID (from_ft-to_ft): 6344 (365-385) **CT-20**

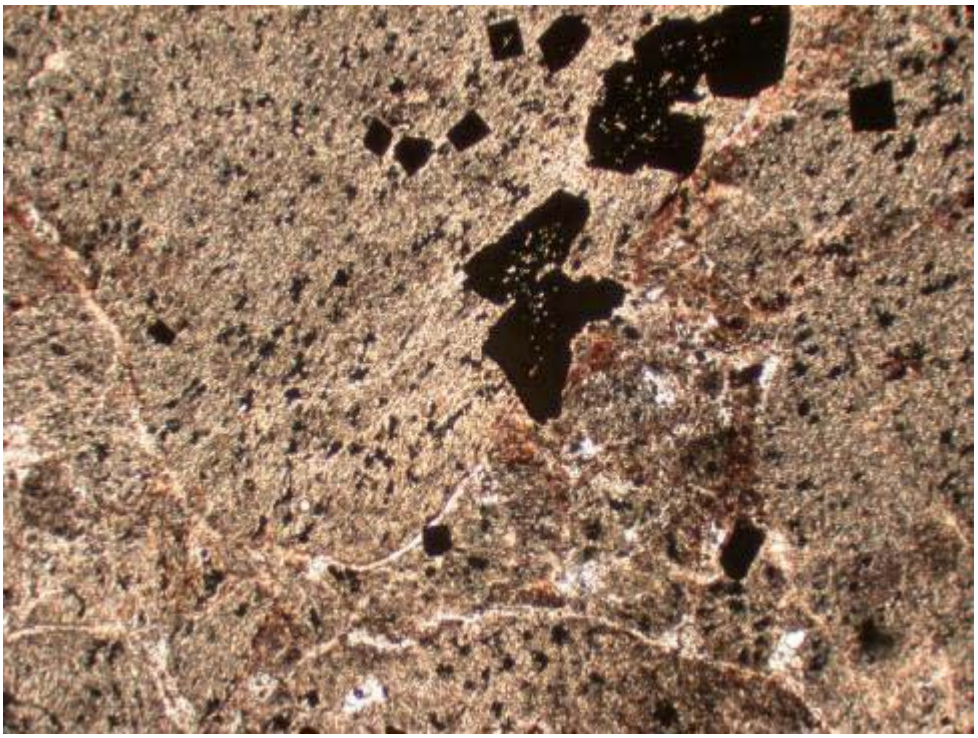
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
K-feldspar	50	-fine to very fine-grained, laths, trachytic-texture, occurs in the groundmass with plagioclase, overprinted by patchy aggregates of epidote, ?rutile, hematite and chlorite	
Plagioclase	10	-fine to very fine-grained (< 0.1 mm), occurs as groundmass -fine to medium-grained, occurs as phenocrysts, selectively replaced by epidote, chlorite, quartz and hematite	
Chlorite	10	-very fine-grained, anhedral aggregates, occurs as replacement of tabular phenocrysts and groundmass of breccia fragments and matrix -fine-grained, occurs as replacement of former ?mafic phases and locally with epidote as replacement of plagioclase phenocrysts	
Pyrite	10	fine-grained, euhedral pitted grains, occurs disseminated	
Epidote	8	-fine-grained, subhedral, occurs as replacement of former plagioclase phenocrysts, also occurs in fractures with chlorite and quartz -very fine-grained, aggregates, occurs with ?rutile as patchy irregular aggregates thoughout breccia	*yellow*
?Rutile	7	very fine-grained, brown aggregates, occurs with epidote as patchy aggregates throughout breccia fragments and matrix, locally occurs with patchy hematite	
Hematite	5	very fine-grained, occurs in abundance disseminated throughout matrix, occurs locally with epidote-?rutile aggregates, rarely replaces carbonate	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	1	fine-grained (< 0.1 mm), occurs with epidote ± chlorite and carbonate as fracture infill	
Carbonate	tr	very fine-grained, occurs with epidote as sub-anhedral aggregates replacing prismatic forms	
Apatite	tr	fine-grained, occurs disseminated	*high relief*

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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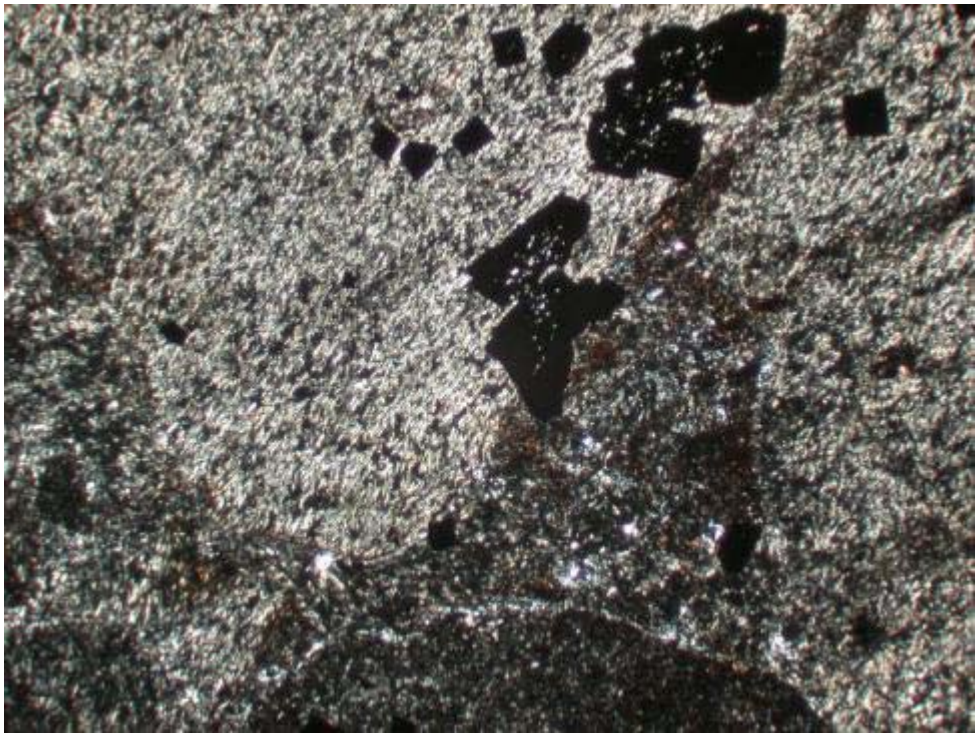
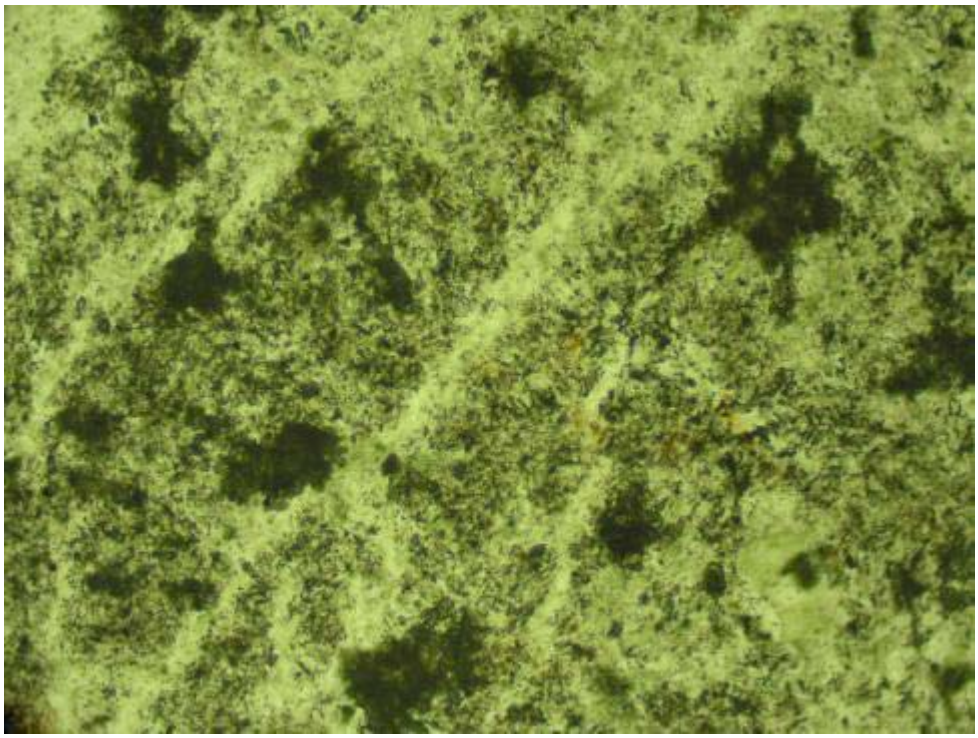


B

Hole-ID (from_ft-to_ft): 6344 (365-385)
A & B) Overview of sample shows brecciated rock texture with trachytic-textured fragments and matrix, patchy aphanitic aggregates and disseminated pyrite (opaque). Note abundant very fine-grained hematite (reddish colour in PPL photo) in breccia matrix. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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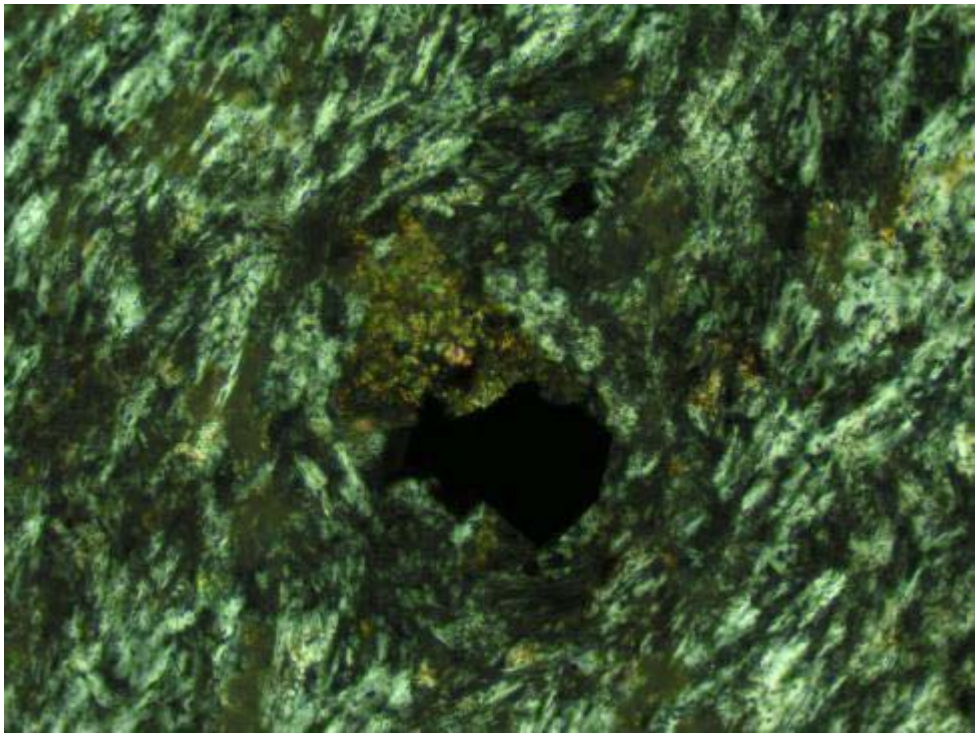
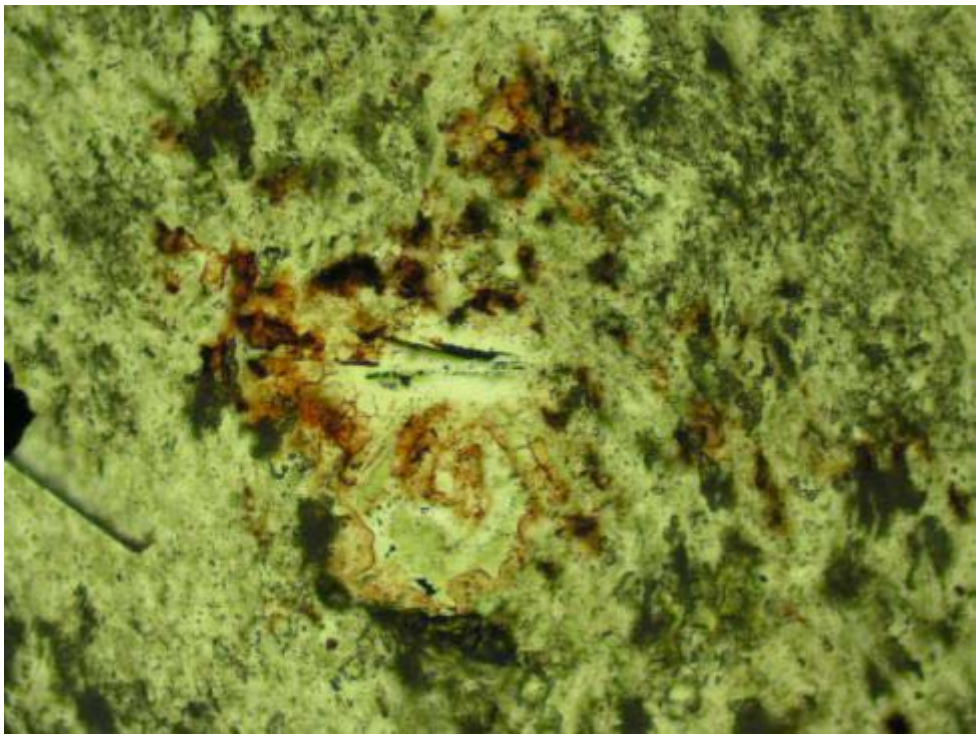


D

Hole-ID (from_ft-to_ft): 6344 (365-385)
C) Patchy brown very fine-grained epidote-?rutile aggregates overprinting trachytic-textured breccia fragments. PPL, FOV = ~ 0.7 mm. D) Very fine-grained carbonate replacing prismatic forms in trachyte. XPL, FOV = 0.7 mm.



E

Hole-ID (from_ft-to_ft): 6344 (365-385)
E) Carbonate aggregate partly replaced by hematite aggregate within breccia matrix. PPL, FOV = ~ 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 3**
Hole-ID (from_ft-to_ft): 6344 (5586-5596) **CT-21**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Pervasively muscovite (sericite) altered granular rock
ALTERATION TYPE: Muscovite (sericite), pyrite
MINERALIZATION: Pyrite, (?tetrahedrite, chalcopyrite)

Hand Sample Description:
Medium grey mottled rock comprising mostly quartz and sericite with major disseminated, patchy and fracture-controlled pyrite. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a pervasively muscovite (sericite)-altered former fine to medium-grained granular to vaguely porphyritic rock. The rock now comprises fine-grained quartz aggregate with fine to very fine-grained muscovite (sericite) aggregate (after former fine to medium-grained tabular phases) and major disseminated fine to medium-grained pyrite. Pyrite occurs locally fracture-controlled. Locally pyrite is associated with and partly enclosed by traces of ?tetrahedrite. Rare traces of chalcopyrite occur disseminated and as inclusions in pyrite and ?tetrahedrite.

Carbonate is not observed in this section.

Sulphide occurs in major amounts (~13%) dominantly as pyrite with traces of ?tetrahedrite and chalcopyrite. Pyrite occurs disseminated and locally fracture-controlled in the altered rock. Pyrite is anhedral with irregular but clean grain boundaries. Occurrence of traces of ?tetrahedrite and chalcopyrite are described above. Grain boundaries for all sulphides are not altered.

SRK Project No. 1CN007.00 **UBC Composite # 3**
Hole-ID (from_ft-to_ft): 6344 (5586-5596) **CT-21**

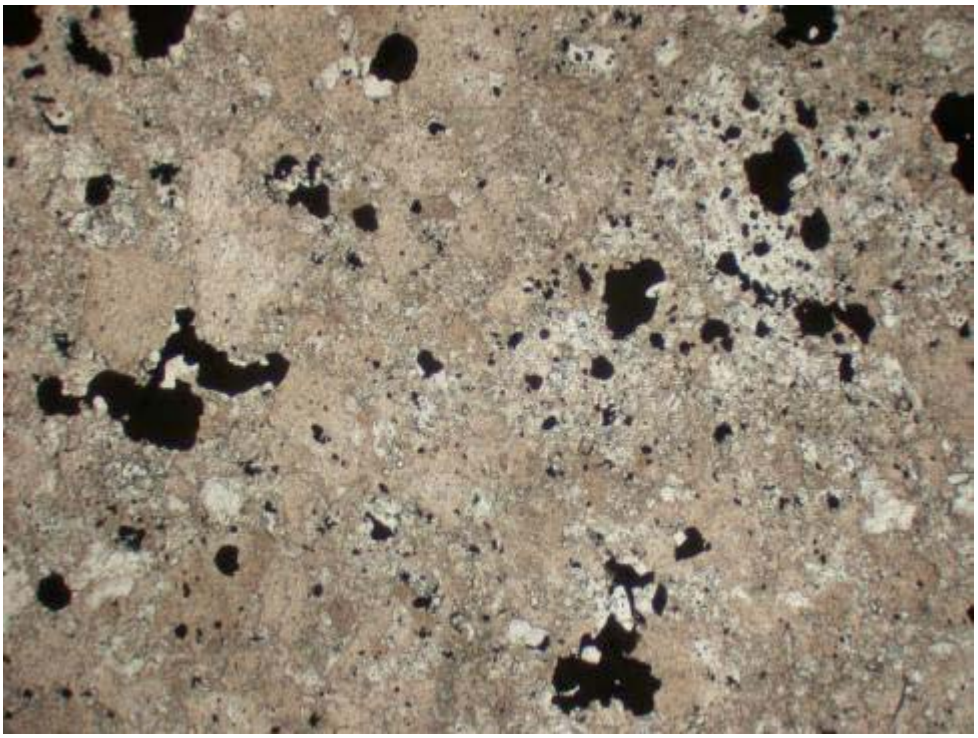
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Muscovite (sericite)	55	fine-grained sheaves and very fine-grained anhedral aggregates, occurs as pervasive replacement of former fine to medium-grained tabular phases intergrown with quartz aggregate	
Quartz	30	fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs intergrown with former tabular phases that have been replaced by muscovite (sericite) aggregate	
Pyrite	13	fine to medium-grained (< 2 mm), anhedral grains and aggregates, locally enclosed by and associated with ?tetrahedrite, locally inclusions of chalcopyrite, occurs disseminated and less commonly fracture-controlled	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rutile	1	very fine-grained, anhedral to subhedral aggregates, occurs partly replacing fine-grained prismatic forms	
?Tetrahedrite	tr	very fine-grained, anhedral aggregates, locally inclusions of chalcopyrite, locally encloses pyrite	
Chalcopyrite	tr	very fine-grained, occurs rarely disseminated and as inclusions in pyrite and ?tetrahedrite	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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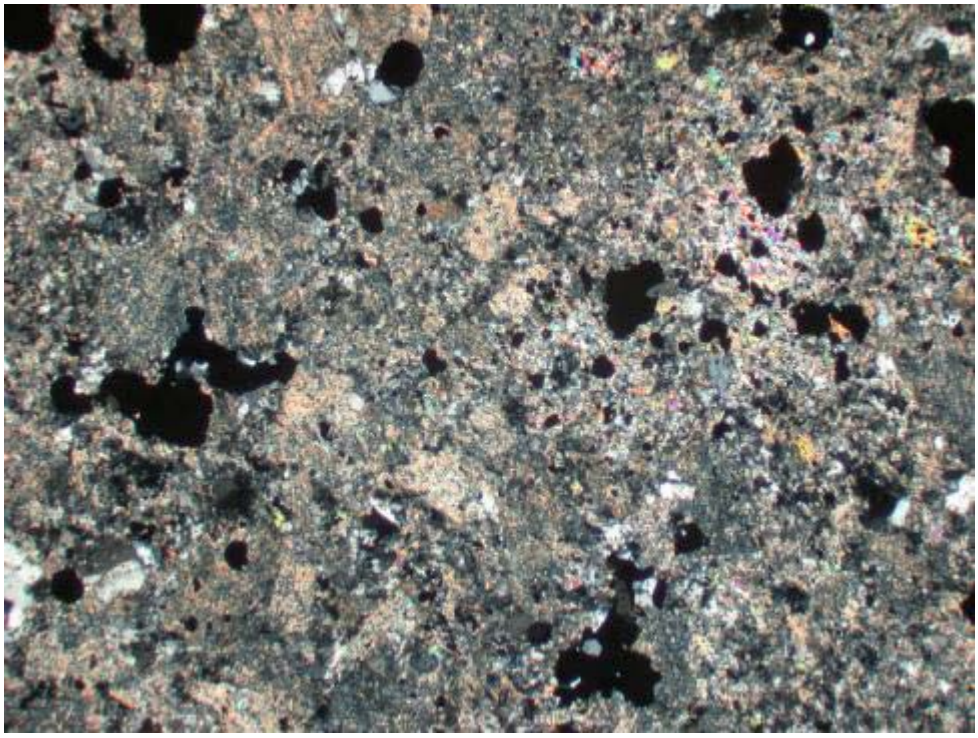
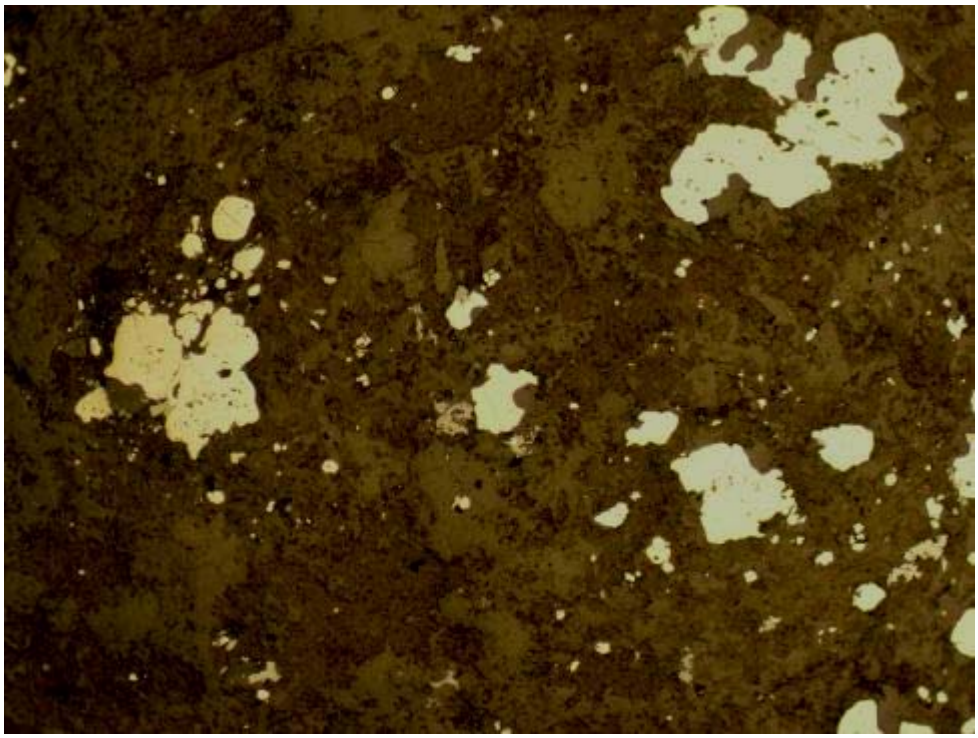


B

Hole-ID (from_ft-to_ft): 6344 (5586-5596)
A & B) Representative view of sample shows pervasively muscovite (sericite)-altered former fine to medium-grained granular rock cut by hairline fracture filled with very fine-grained K-feldspar aggregate (left side of photo). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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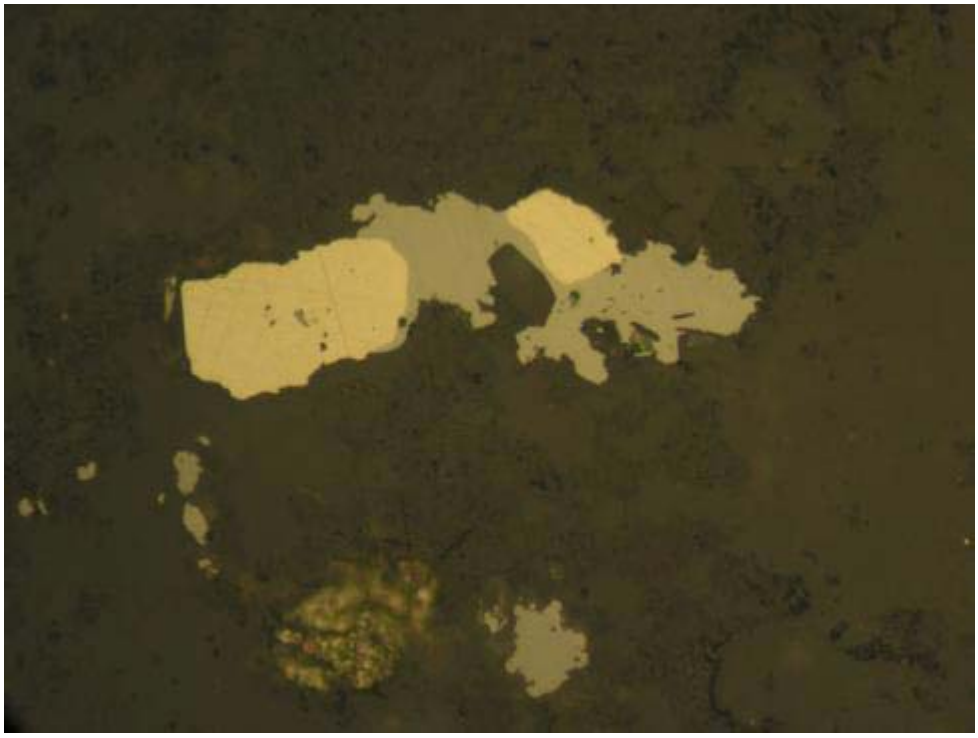


D

Hole-ID (from_ft-to_ft): 6344 (5586-5596)
C) Representative view of disseminated pyrite with traces of rutile (centre, grey). RL, FOV = ~ 2.6 mm.
D) Anhedral pyrite grains partly enclosed by ?tetrahedrite (grey). RL, FOV = 0.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 7**
Hole-ID (from_ft-to_ft): 6346 (2423.5-2434) **CT-22**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY:	Hornfelsed siltstone (Biotite hornfels)
ALTERATION TYPE:	Biotite, muscovite (sericite), pyrite
MINERALIZATION:	pyrite, chalcopyrite, (sphalerite)
VEINLETS:	Pyrite-chlorite ± rutile± carbonate ± sphalerite Chlorite

Hand Sample Description:
Sample comprises light olive grey aphanitic rock cut by a sub-mm wide pyrite ± chlorite veinlet stockwork with bleached light grey sub-mm wide alteration envelopes. Major very fine-grained pyrite occurs disseminated and in veinlets. No reaction to magnet. No reaction to cold, dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite.

Polished Thin Section Description:
This section is a pervasively biotite-muscovite (sericite)-pyrite altered hornfelsed siltstone (biotite hornfels) cut by sub-mm wide pyrite-chlorite ± rutile± carbonate ± sphalerite veinlets with muscovite (sericite) alteration envelopes and by chlorite veinlets. The host rock consists of very fine-grained, massive aphanitic brown grungy biotite aggregate partly replaced by patchy muscovite (sericite) aggregate with major disseminated pyrite. Quartz occurs as scattered grains throughout the host rock. Traces of rutile occur within the veinlets and associated with disseminated pyrite and chalcopyrite.

Carbonate occurs rarely in trace amounts within the veinlets as cloudy very fine-grained patchy aggregates.

Sulphide comprises approximately 10% of the section as pyrite with traces of chalcopyrite and rarely sphalerite. Pyrite occurs as disseminated and within veinlets as sub-anhedral grains and aggregates. Pyrite grain boundaries are irregular but unaltered. Pyrite occurs locally with aggregates of rutile. Trace chalcopyrite occurs disseminated as anhedral grains and within veinlets. Chalcopyrite locally encloses pyrite within veinlets. Traces of sphalerite occur within one of the veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 7**
Hole-ID (from_ft-to_ft): 6346 (2423.5-2434) **CT-22**

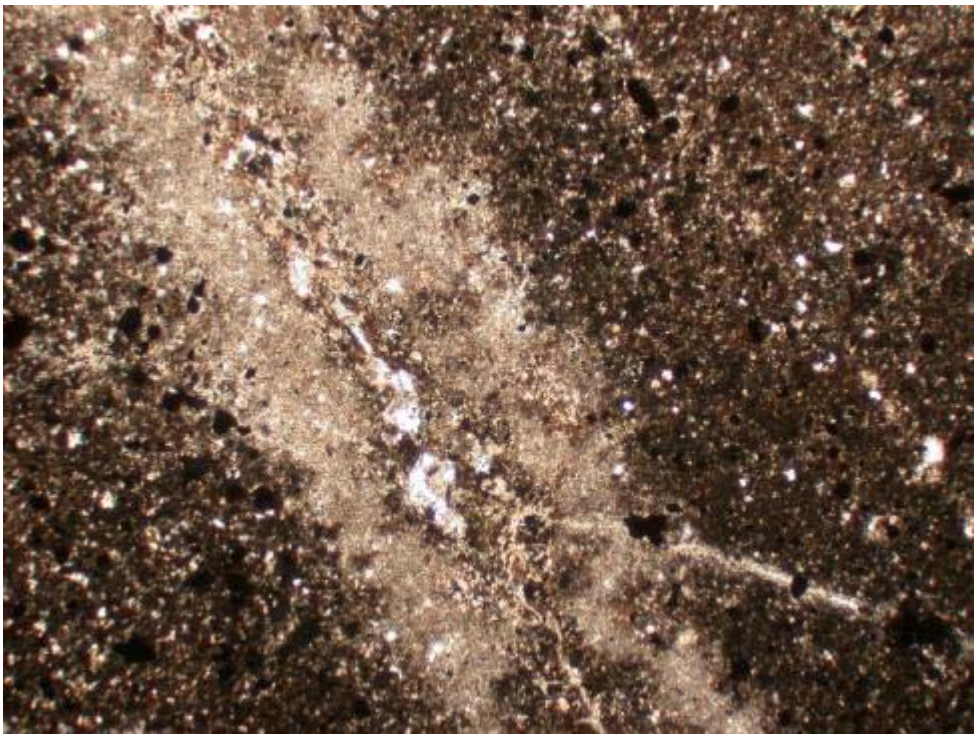
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Biotite	60	aphanitic brown aggregates, occurs as biotite hornfels	*grungy brown*
Muscovite (sericite)	15	very fine-grained, anhedral aggregates, occurs as patchy replacement of hornfelsed siltstone -very fine-grained, anhedral aggregates, rarely fine-grained sheaves, occurs as alteration envelopes to pyritic veinlets	
Quartz	10	-very fine-grained, anhedral grains and aggregates, occurs scattered throughout host rock -fine-grained, anhedral aggregates, occurs rarely within chlorite-pyrite veinlets	
Pyrite	10	fine to very fine-grained (< 0.3 mm), sub-anhedral grains and aggregates, typically pitted, rarely inclusions of chalcopyrite, occurs disseminated and within veinlets	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Chlorite	2	-very fine-grained, anhedral aggregates, occurs with pyrite, chalcopyrite, rutile and rarely sphalerite as veinlets and as fracture infill	
Apatite	tr-1	very fine-grained, euhedral aggregates, occurs with abundance in one chlorite-carbonate-rutile-pyrite veinlet with muscovite (sericite) alteration envelopes	
Chalcopyrite	tr	-very fine-grained, anhedral grains and aggregates, occurs rarely disseminated and most commonly within pyrite-chlorite-bearing veinlets, locally encloses pyrite	
Rutile	tr	-fine-grained, occurs within chloritic veinlets	
Sphalerite	tr	fine-grained, anhedral grains, occurs within veinlet with chlorite, traces of rutile and muscovite (sericite) alteration envelopes	*yellow-brown*
Carbonate	tr	-very fine-grained, cloudy aggregates, occurs within chlorite-pyrite veinlet with muscovite (sericite) and patchy dark brown biotite alteration envelopes	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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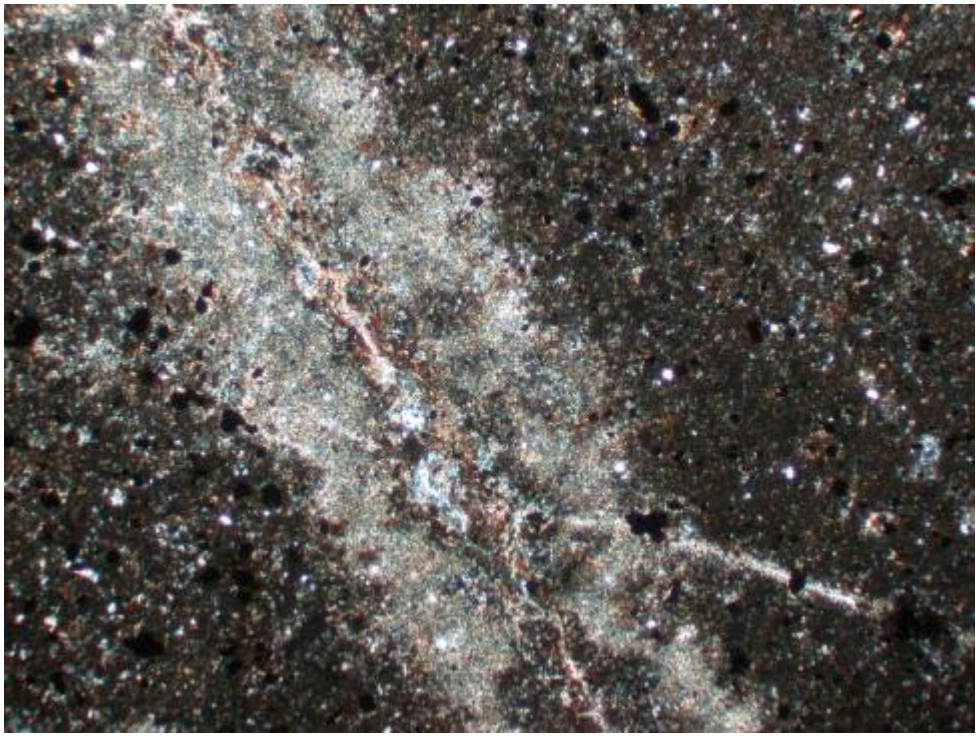
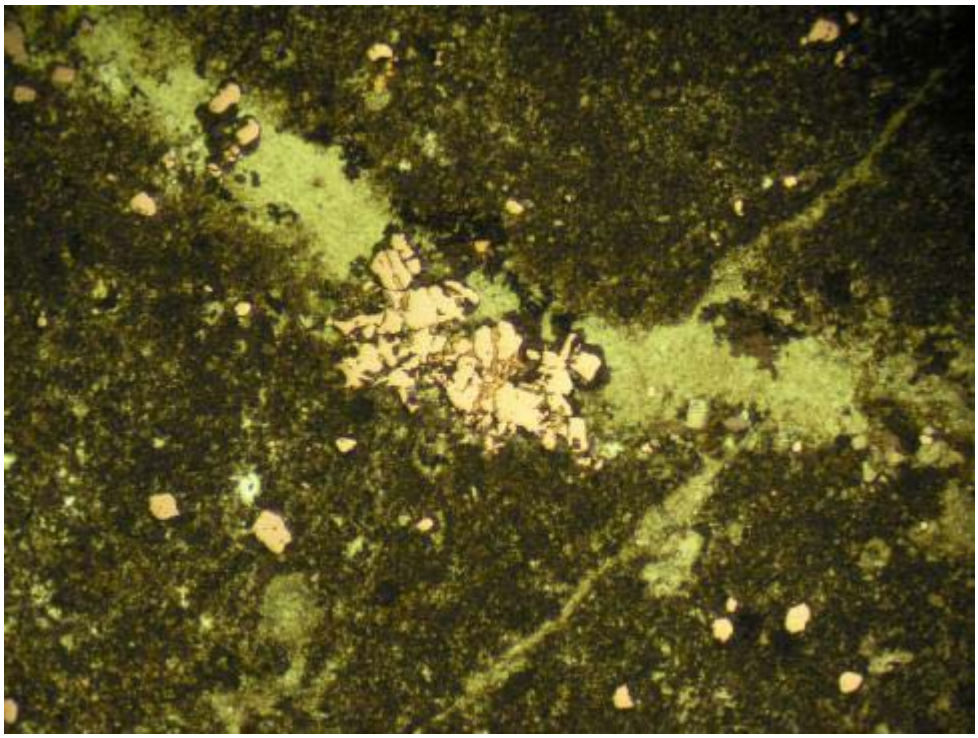


B

Hole-ID (from_ft-to_ft): 6346 (2423.5-2434)
A & B) Overview of hornfelsed siltstone shows biotite hornfels cut by quartz-muscovite (sericite)-pyrite-biotite veinlet with muscovite (sericite) alteration envelopes (centre). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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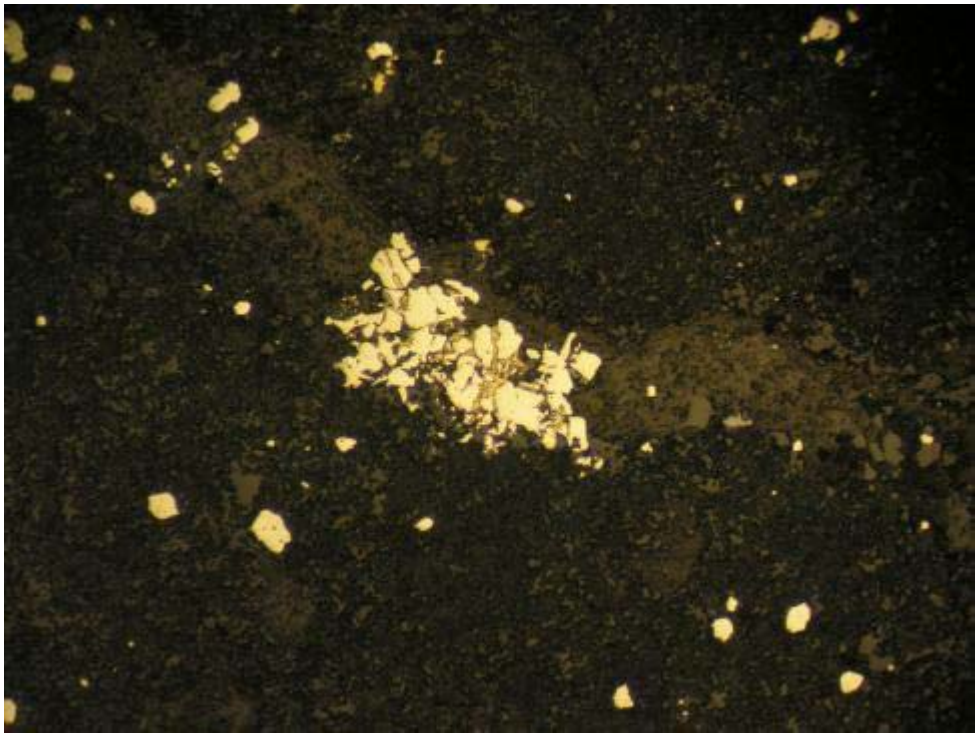
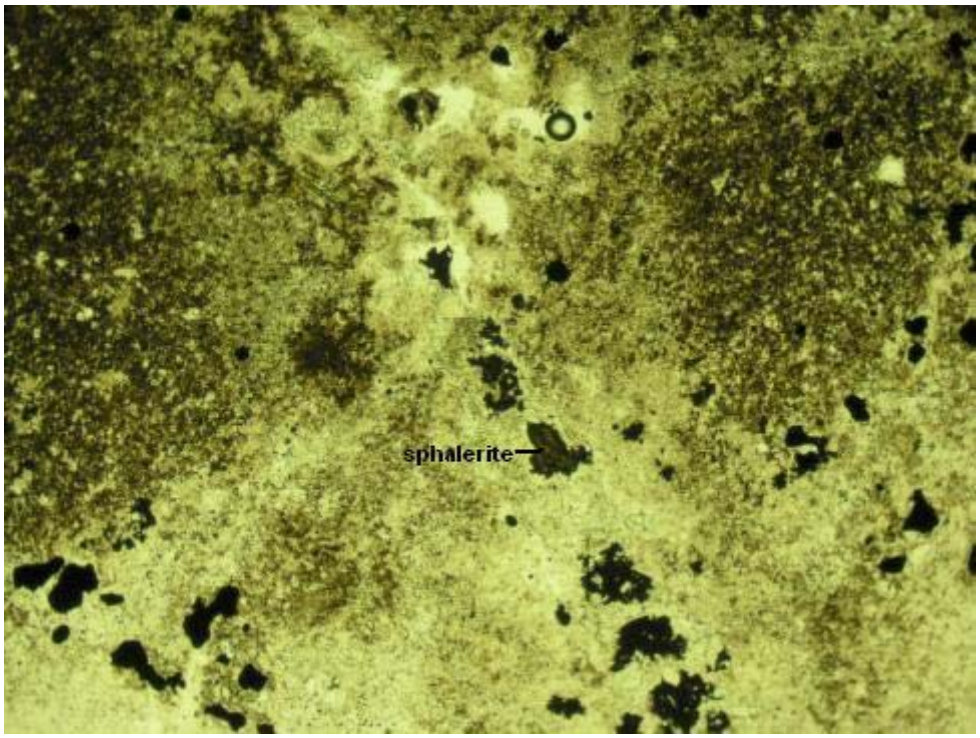


D

Hole-ID (from_ft-to_ft): 6346 (2423.5-2434)
C&D) Hornfelsed siltstone cut by chlorite-pyrite-chalcopyrite veinlet. Note pyrite infilled and partly enclosed by chalcopyrite. Also note disseminated pyrite throughout host rock. C) PPL+RL, D) RL, FOV = 2.8 mm.



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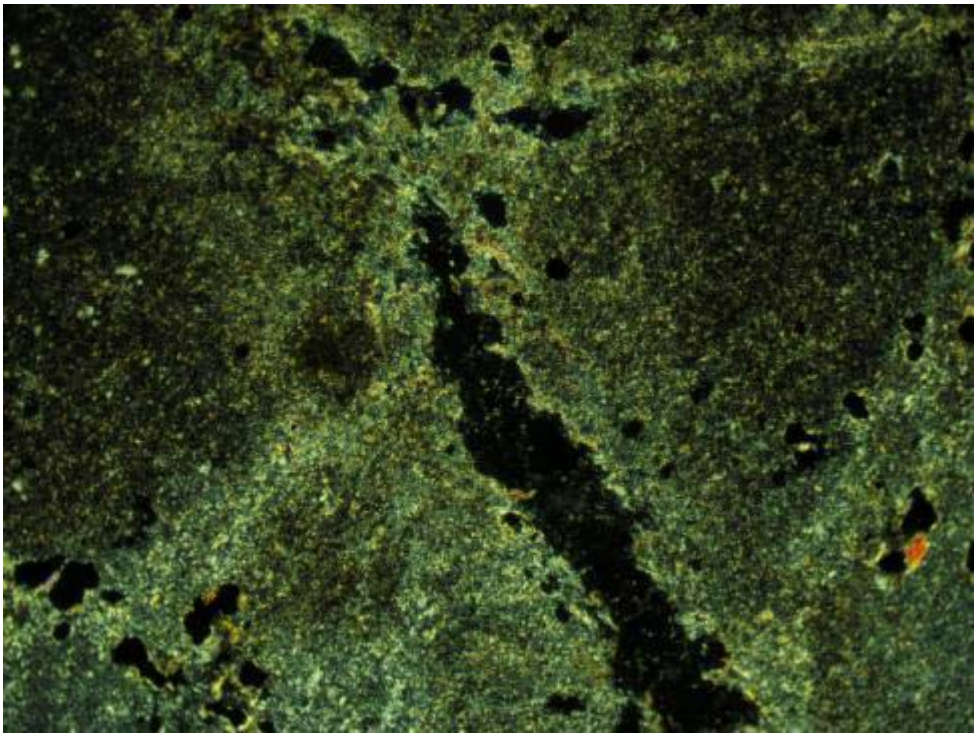


F

Hole-ID (from_ft-to_ft): 6346 (2423.5-2434)
E&F) Veinlet stockwork with pyrite and chlorite-rutile-sphalerite veinlets and with muscovite (sericite) alteration envelopes. E) PPL, F) XPL, FOV = 2.8 mm.

SRK Project No. 1CN007.00 **UBC Composite # 17**
Hole-ID (from_ft-to_ft): 6347 (2895-2915) **CT-23**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Contact between brecciated mudstone and lithic greywacke
ALTERATION TYPE: Muscovite (sericite)

Hand Sample Description:
Numerous pieces of core (up to 4 cm size) comprising greenish-grey sandstone, grayish-black mudstone and breccia with polylithic aphanitic fragments in a black mudstone matrix. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl. The polished thin section is cut at the contact between a sandstone and black mudstone. This contact appears to be lithologic – fine bands of mudstone within sandstone, sedimentary structures at contact (rip-up clasts of sandstone within mudstone).

Polished Thin Section Description:
This section is dominated by poorly-sorted lithic greywacke with local intercalation and infill by mudstone and carbonaceous material. The sandstone-mudstone contact is evident in one corner of the section. The lithic graywacke comprises angular to subangular mineral grains and abundant polylithic rock fragments in a very fine-grained matrix comprising dominantly brown biotite with minor aggregates of rutile and carbonaceous material. Biotite is partly replaced by patchy muscovite (sericite). The greywacke comprises approximately 5% quartz grains, 1% plagioclase grains and rock fragments including aphanitic rock, spherulitic-textured rock, volcanic rock with feldspar microphenocrysts, sandstone, siltstone, and polycrystalline quartz. The framework grains typically range from approximately 0.07 mm to 1.1 mm in size which spans the boundary between very coarse sandstone and very fine sandstone. Very fine-grained chlorite and carbonate occur as late infill.

Carbonate occurs rarely in trace amounts as very fine-grained, colourless, colloform-textured aggregates. Carbonate occurs with chlorite as fracture infill.

One very fine-grain of subhedral pyrite was observed in the section associated with aggregates of rutile as matrix to framework grains and aggregates.

Note: The heterogeneity of this sample due to variation of core pieces and selection of material for thin section preparation may complicate comparison of this petrographic data with XRD Rietveld data.

SRK Project No. 1CN007.00 **UBC Composite # 17**
Hole-ID (from_ft-to_ft): 6347 (2895-2915) **CT-23**

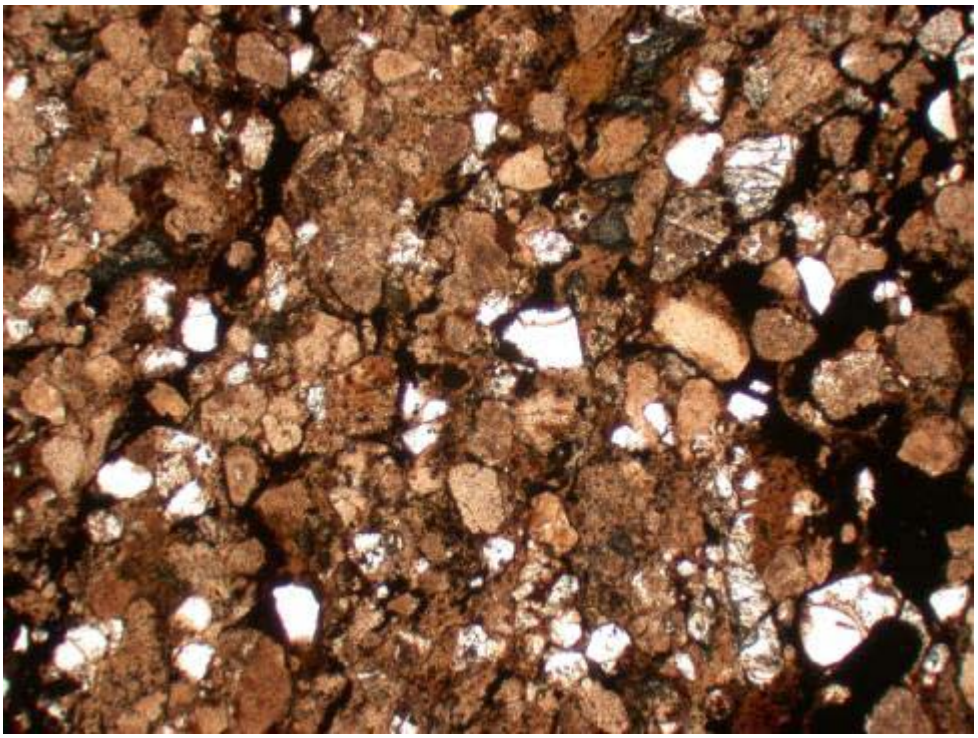
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rock Fragments	60	angular to very angular, includes aphanitic rock, volcanic rock with feldspar microphenocrysts, sandstone, siltstone, polycrystalline quartz and micaceous quartz-rich rock	*polylithic*
Biotite	15	fine-grained brown aggregates, occurs with carbonaceous material and rutile as matrix interstitial to rock fragments	*brown*
Mudstone	7	aphanitic, dark brown, occurs locally as intercalations and infill to grains and rock fragments in lithic greywacke; also occurs in contact with the greywacke	
Quartz	5	fine-grained, occurs as angular framework grains	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rutile	3	very fine-grained aggregates, occurs with biotite and carbonaceous matter as infill to framework grains and rock fragments	
Muscovite (sericite)	3	very fine-grained, flaky aggregates, occurs as replacement of biotite	
Carbonaceous material	3	aphanitic material, occurs intercalated with mudstone and lithic sandstone	
Plagioclase	1	fine-grained, tabular framework grains	*polysynthetic twinning*
Chlorite	1	very fine-grained, occurs with carbonate as late fracture infill	
Ilmenite	tr	fine-grained (< 0.3 mm), subhedral grains, occurs disseminated, partly replaced by rutile	
Carbonate	tr	very fine-grained, colloform aggregates, occurs rarely with chlorite as fracture infill	
Pyrite	tr	very fine-grained (~10µm), rare, one subhedral grain observed within rutile aggregate	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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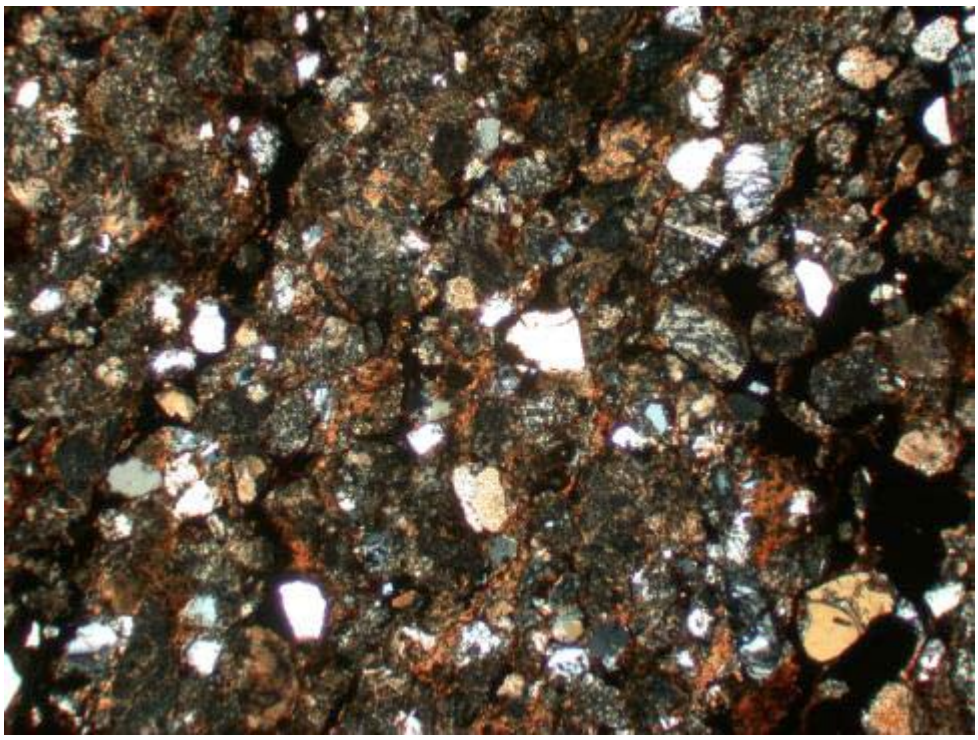
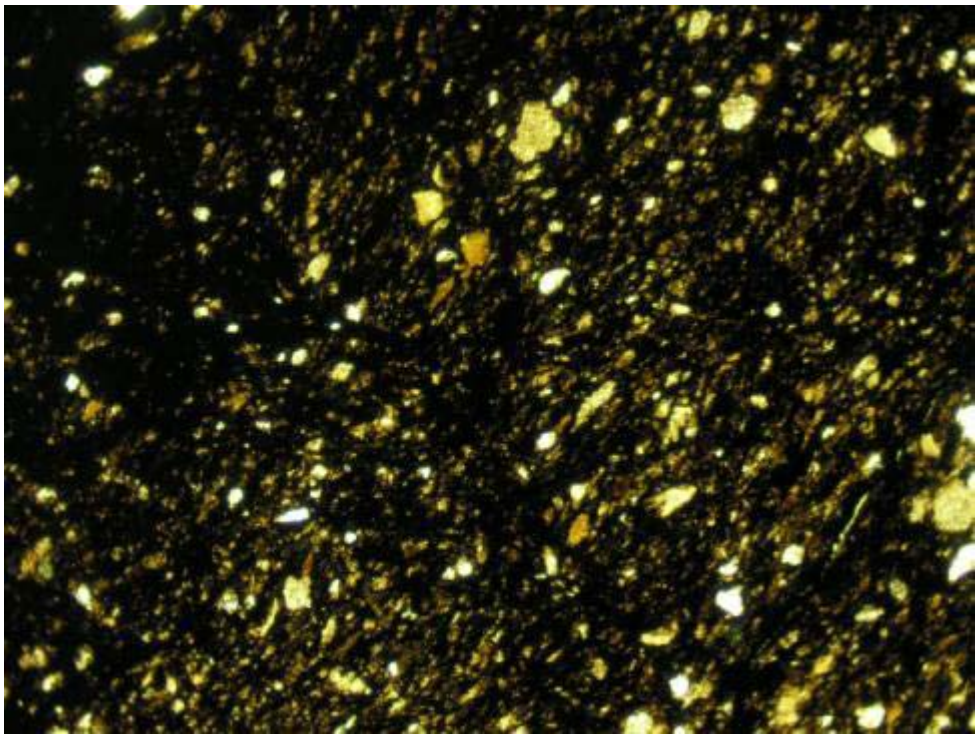


B

Hole-ID (from_ft-to_ft): 6347 (2895-2915)
A & B) Overview of poorly-sorted lithic greywacke with angular to subangular mineral grains and abundant polylithic rock fragments in a very fine-grained matrix comprising biotite, carbonaceous material and aggregates of rutile. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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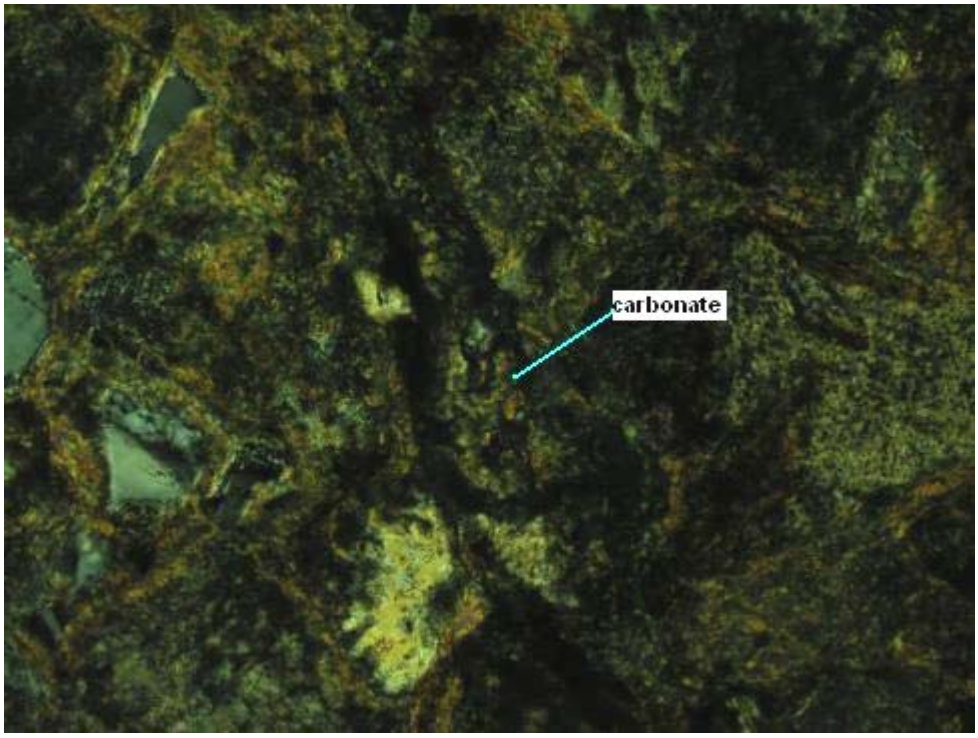
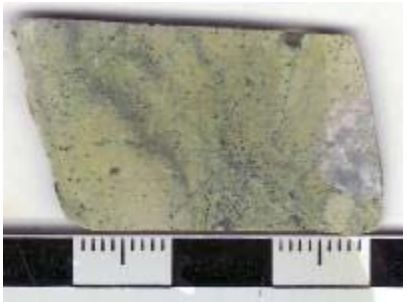


D

Hole-ID (from_ft-to_ft): 6347 (2895-2915)
C) Overview of mudstone (one corner of section). PPL, FOV = ~ 2.8 mm. D) Rare traces of colloform-textured carbonate as fracture infill. PPL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 7**
Hole-ID (from_ft-to_ft): 6350 (1738-1748) **CT-24**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Hornfelsed siltstone (Biotite hornfels)
ALTERATION TYPE: Biotite, muscovite (sericite), pyrite
VEINLETS: Quartz-muscovite (sericite)-biotite-pyrite-(chalcopyrite)
Biotite-muscovite (sericite)-pyrite-chalcopyrite

Hand Sample Description:
Very light-grey mottled aphanitic rock with major disseminated and fracture-controlled pyrite within sub-mm wide veinlets. No reaction to magnet. Test for K-feldspar using etching by HF and sodium cobaltinitrite yielded very pale grayish yellow colour (see offcut). Reaction of sub-mm veinlets in some drill core chips, not all, to cold, dilute HCl.

Polished Thin Section Description:
This section is a pervasively biotite, muscovite (sericite)-pyrite altered hornfelsed siltstone (biotite hornfels) cut by sub-mm wide quartz-muscovite (sericite)-biotite-pyrite-(chalcopyrite) veinlets and discontinuous biotite-muscovite (sericite)-pyrite-chalcopyrite veinlets. The host rock consists of very fine-grained, massive aphanitic brown grungy biotite aggregate partly replaced by patchy muscovite (sericite) aggregate with major disseminated pyrite. Quartz occurs as scattered grains and aggregates throughout the host rock. Traces of rutile occur disseminated, within the veinlets and associated with disseminated pyrite and chalcopyrite.

Although carbonate is not observed in this section, some other drill core chips have sub-mm pyritic veinlets that have a reaction to cold, dilute HCl indicating the presence of traces of calcite.

Sulphide comprises approximately 10% of the section as pyrite with traces of chalcopyrite. Pyrite occurs disseminated and within veinlets as sub-anhedral grains and aggregates. Pyrite grain boundaries are irregular but unaltered. Pyrite occurs locally with aggregates of rutile. Trace chalcopyrite occurs disseminated as anhedral grains and within veinlets. Chalcopyrite locally encloses pyrite within veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 7**
Hole-ID (from_ft-to_ft): 6350 (1738-1748) **CT-24**

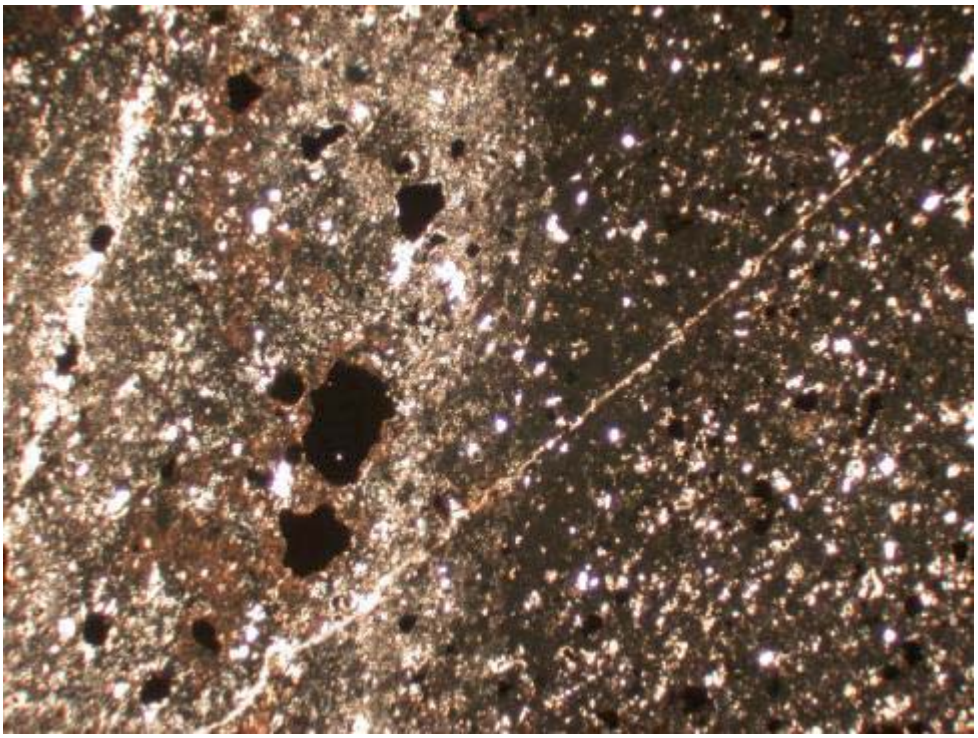
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Biotite	50	-very fine-grained to aphanitic brown aggregates, occurs as biotite hornfels, patchy replacement by muscovite (sericite), -very fine-grained, aphanitic aggregates, occurs within veinlets with muscovite (sericite), pyrite and locally quartz and chalcopyrite	*grungy brown*
Muscovite (sericite)	25	very fine-grained, anhedral aggregates, occurs partly replacing hornfelsed siltstone -very fine-grained, anhedral aggregates, occurs within muscovite (sericite)-biotite-pyrite-(chalcopyrite) ± quartz veinlets	
Quartz	13	-very fine-grained, anhedral grains and aggregates, occurs scattered throughout host rock -fine-grained, anhedral aggregates, occurs within quartz-muscovite (sericite)-biotite-pyrite-(chalcopyrite) veinlets	
Pyrite	10	fine to very fine-grained (< 0.3 mm), sub-anhedral grains and aggregates, typically pitted, rarely inclusions of chalcopyrite, occurs disseminated; fine to medium-grained (< 2 mm), anhedral aggregates, occurs within veinlets	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Chalcopyrite	1	-fine to very fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs disseminated -fine-grained (< 1 mm), anhedral aggregates, occurs within veinlets, encloses pyrite	
Rutile	tr	-very fine-grained, occurs as anhedral aggregates disseminated in host rock and veinlets	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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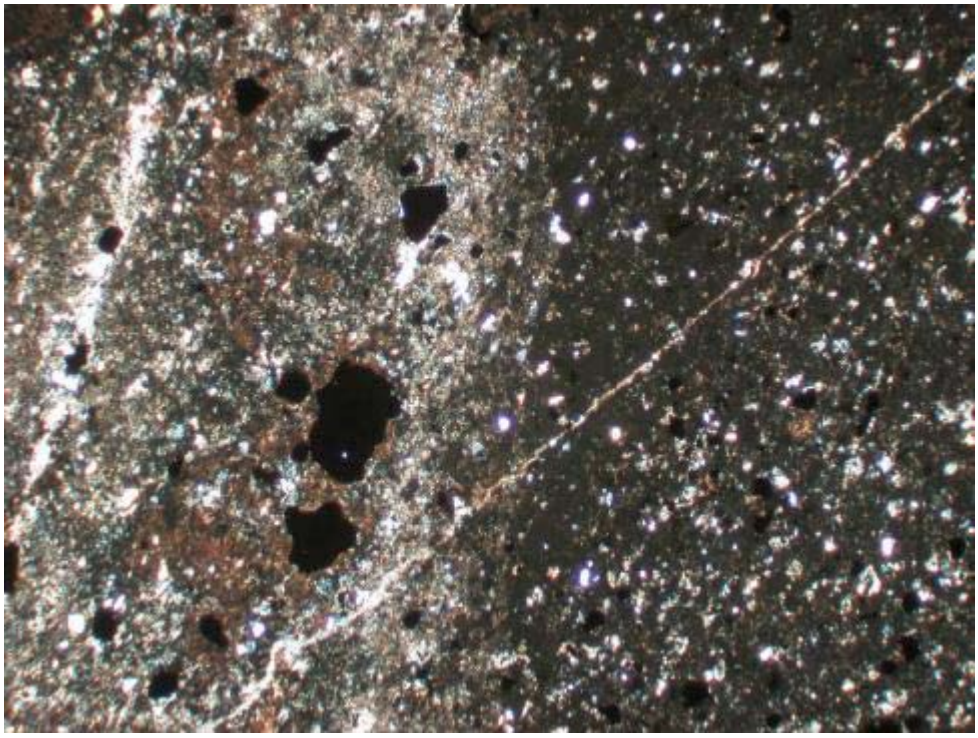
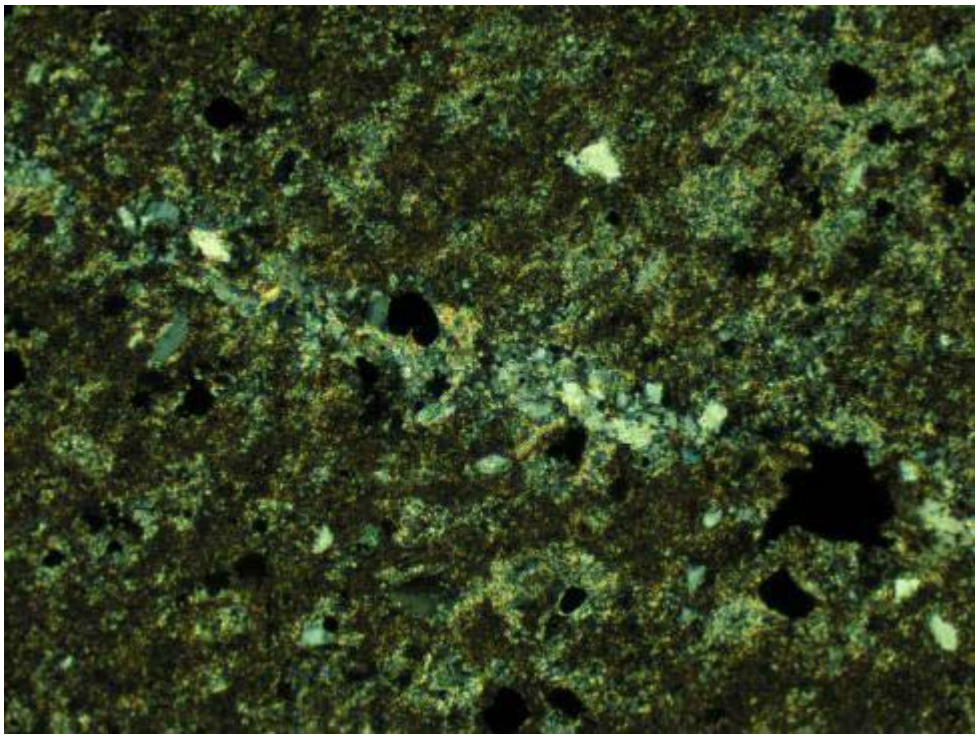


B

Hole-ID (from_ft-to_ft): 6350 (1738-1748)
A & B) Overview of hornfelsed siltstone shows biotite hornfels (right) cut by biotite-muscovite (sericite)-pyrite-chalcopyrite veinlet (left). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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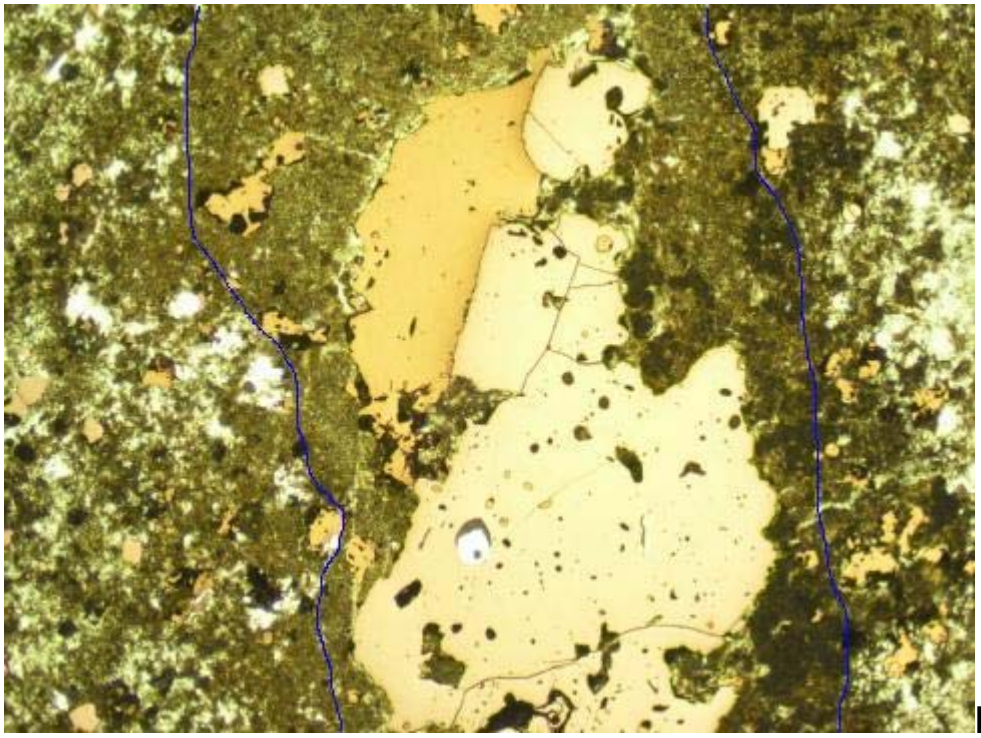


D

Hole-ID (from_ft-to_ft): 6350 (1738-1748)
C) Biotite hornfels partly replaced by patchy muscovite (sericite) aggregates and cut by quartz-muscovite (sericite)-biotite-pyrite-(chalcopyrite) veinlet (< 0.1 mm wide). XPL, FOV = ~ 1.3 mm. D) Portion of discontinuous biotite-muscovite (sericite)-pyrite-chalcopyrite veinlet (outlined in blue). Muscovite (sericite) not shown in this view. PPL+RL, FOV = 2.8 mm.

SRK Project No. 1CN007.00 **UBC Composite # 5**
Hole-ID (from_ft-to_ft): 6350 (3628-3638) **CT-25**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY:	Hornfelsed siltstone (Biotite hornfels)
ALTERATION TYPE:	K-feldspar, biotite, pyrite, muscovite (sericite)
VEINLETS:	Quartz-carbonate-chlorite-pyrite-chalcopyrite
	K-feldspar-biotite-pyrite-chalcopyrite
	Quartz-biotite-pyrite-chalcopyrite
	Quartz-muscovite (sericite)-chlorite-pyrite-chalcopyrite

Hand Sample Description:
Olive grey aphanitic K-feldspar-dominant rock with mottled bands of dark grey material. Some drill core chips are cut by white veinlets (approximately 1 mm wide). Minor fine-grained disseminated pyrite and traces of pyrite within veinlets. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). Spotty reaction of veinlet to cold, dilute HCl.

Polished Thin Section Description:
This section is a pervasively K-feldspar-biotite-muscovite (sericite) altered hornfelsed siltstone cut by hairline K-feldspar-biotite-pyrite filled fractures, quartz-biotite-sulphide and quartz-muscovite (sericite)-chlorite-sulphide sub-mm veinlets and offset by a 1 mm wide quartz-carbonate-chlorite-pyrite-chalcopyrite veinlet. The host rock consists of very fine-grained, massive anhedral K-feldspar aggregate and vaguely banded aggregates of patchy brown biotite with disseminated pyrite and lesser chalcopyrite. Locally secondary biotite aggregate appears to replace former prismatic forms. Biotite is locally partly replaced by patchy muscovite (sericite) and by chlorite adjacent to the main quartz-carbonate-chlorite-pyrite-chalcopyrite veinlet. Chlorite occurs as patchy aggregates dominantly at the margins of the veinlet. Traces of rutile occur in the main veinlet and in earlier K-feldspar-biotite veinlets, in quartz-muscovite (sericite)-chlorite-sulphide sub-mm veinlets and in hairline quartz veinlets.

Carbonate, approximately 5% of the section, occurs within the main veinlet as colourless and cloudy varieties. The colourless carbonate, likely calcite based on reaction to HCl, comprises fine-grained aggregates that are partly rimmed and replaced by very fine-grained anhedral carbonate aggregate.

Sulphide comprises approximately 4% of the section as pyrite and chalcopyrite. Pyrite, approximately 3%, occurs as disseminated anhedral grains and eu-subhedral grains and aggregates within veinlets. Pyrite grain boundaries are unaltered. Chalcopyrite, approximately 1%, occurs disseminated as anhedral grains and more commonly occurs within veinlets. Chalcopyrite locally partly encloses pyrite.

SRK Project No. 1CN007.00 **UBC Composite # 5**
Hole-ID (from_ft-to_ft): 6350 (3628-3638) **CT-25**

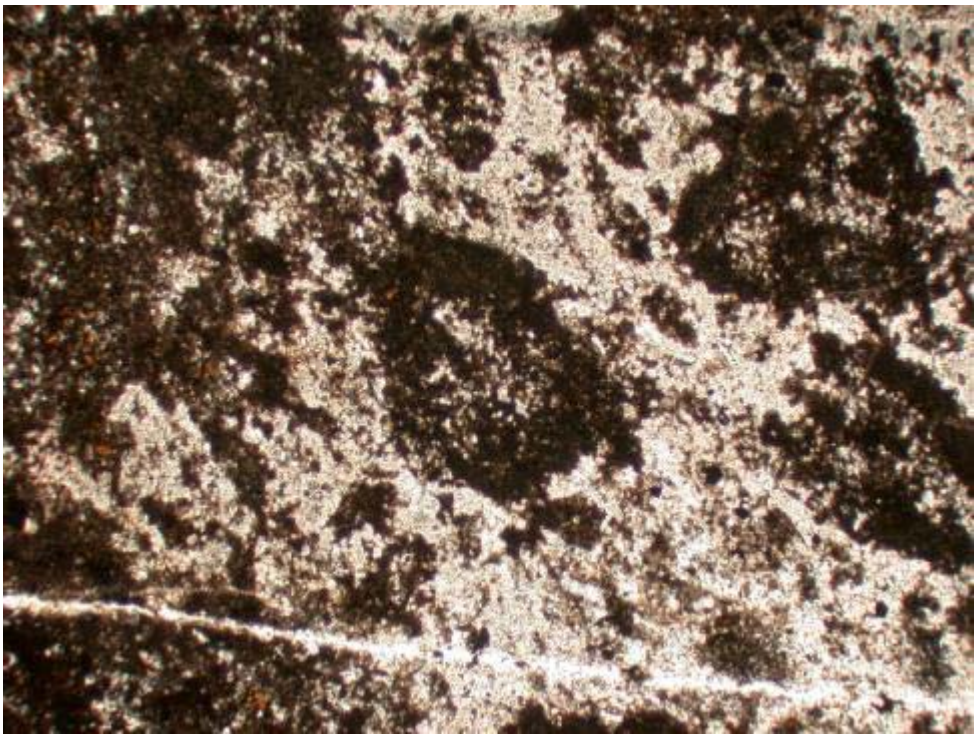
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
K-feldspar	50	very fine-grained, anhedral massive aggregates, occurs as pervasive replacement of host rock, also occurs as hairline veinlets with traces of rutile and pyrite (offset by main veinlet)	
Biotite	30	fine-grained, shreddy (< 0.1 mm) to very fine-grained, anhedral aggregates, occurs as patches forming a vague banded texture (biotite hornfels), locally replaces former prismatic phases, patchy replacement by muscovite (sericite), rarely partly replaced by chlorite ± rutile	
Muscovite (sericite)	5	-very fine-grained, patchy aggregates, occurs partly replacing biotite -very fine-grained, anhedral aggregates, occurs in sub-mm veinlets with chlorite and quartz	
Carbonate, includes calcite	5	fine to medium-grained, colourless aggregates, occurs within main quartz-carbonate-chlorite-pyrite-chalcopyrite veinlet, partly rimmed and replaced by very fine-grained cloudy carbonate aggregates	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	4	-very fine-grained, anhedral grains, occurs scattered throughout host rock -fine to medium-grained (< 2 mm), anhedral aggregates, occurs within main quartz-carbonate-chlorite-pyrite-chalcopyrite veinlet -very fine-grained, anhedral aggregates, occurs as hairline veinlets and locally with muscovite (sericite) and chlorite as sub-mm veinlets	
Pyrite	3	fine to very fine-grained (< 0.4 mm), eu-anhedral grains and aggregates, occurs disseminated and within veinlets, locally pitted	
Chlorite	1	-very fine-grained, anhedral aggregates, occurs within main quartz-carbonate-chlorite-pyrite-chalcopyrite veinlet and within sub-mm chlorite-muscovite (sericite)-quartz veinlets -very fine-grained, occurs partly replacing biotite	
Chalcopyrite	1	-fine to very fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs disseminated and within veinlets	
Rutile	tr	-very fine-grained, aggregates, occurs with chlorite as replacement of biotite within sub-mm veinlets -fine-grained, occurs within early K-feldspar veinlets and the main quartz-carbonate vein	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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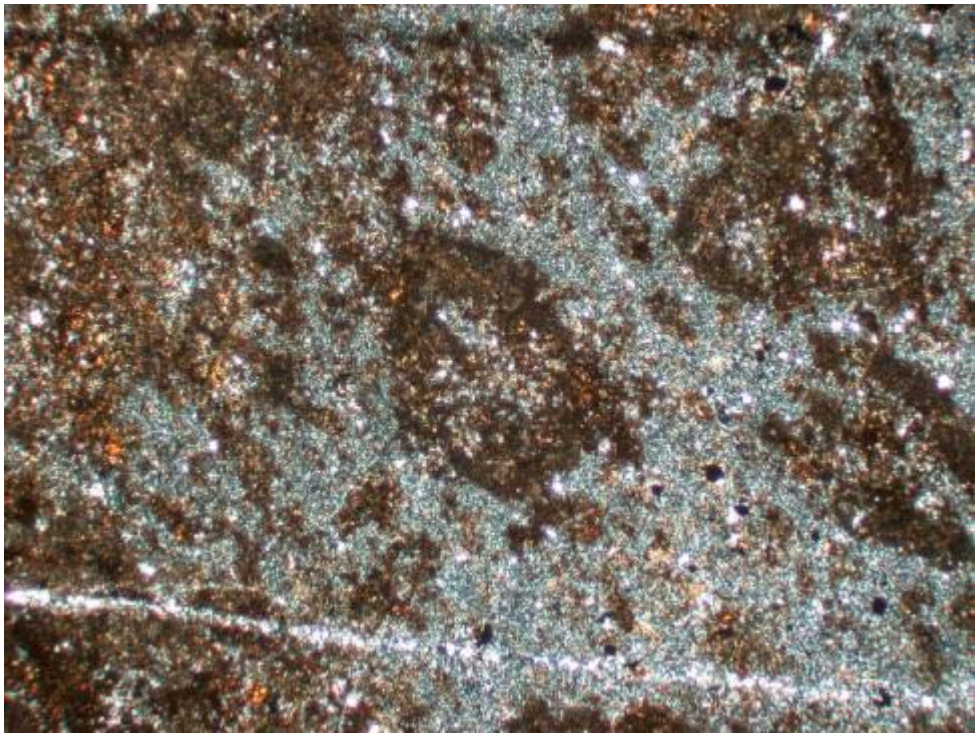
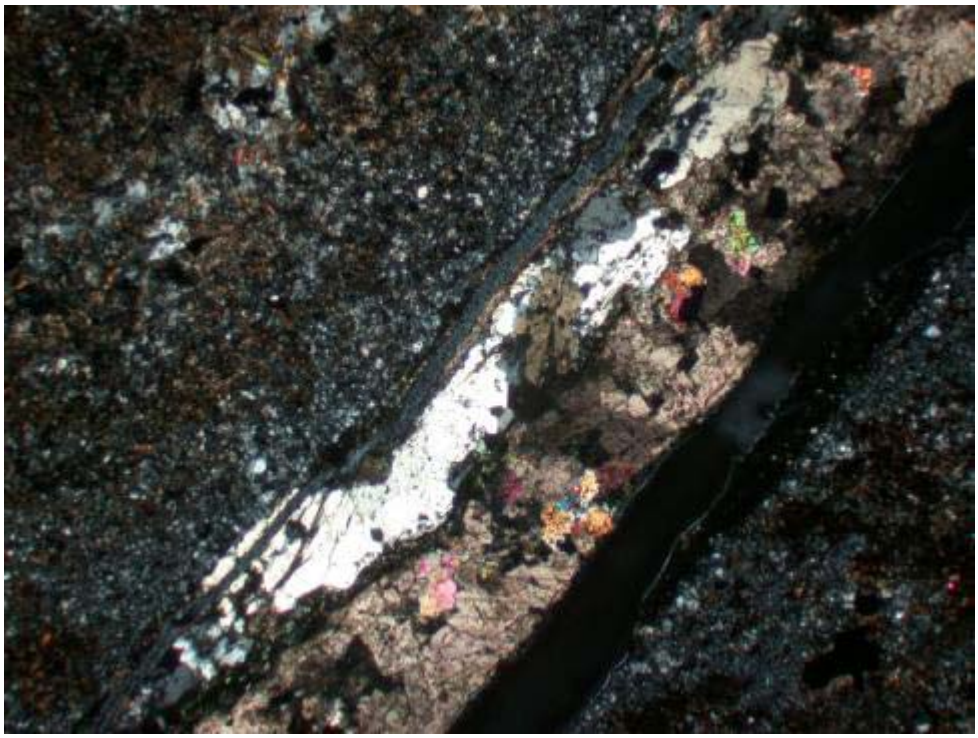


B

Hole-ID (from_ft-to_ft): 6350 (3628-3638)
A & B) Overview of sample shows pervasively K-feldspar-biotite-altered hornfelsed siltstone. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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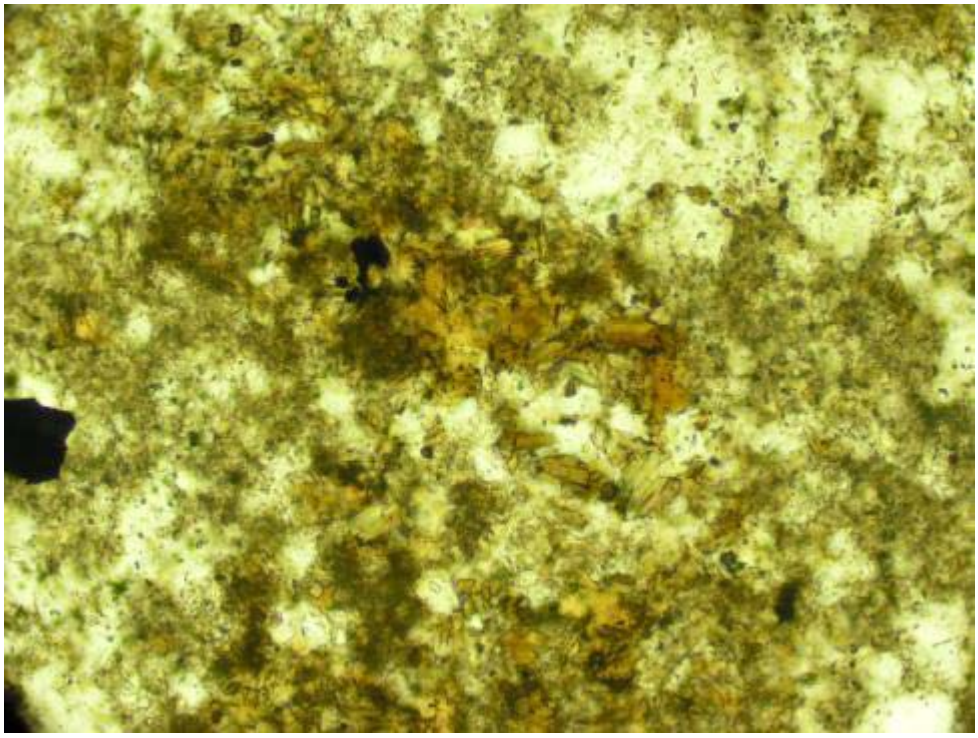
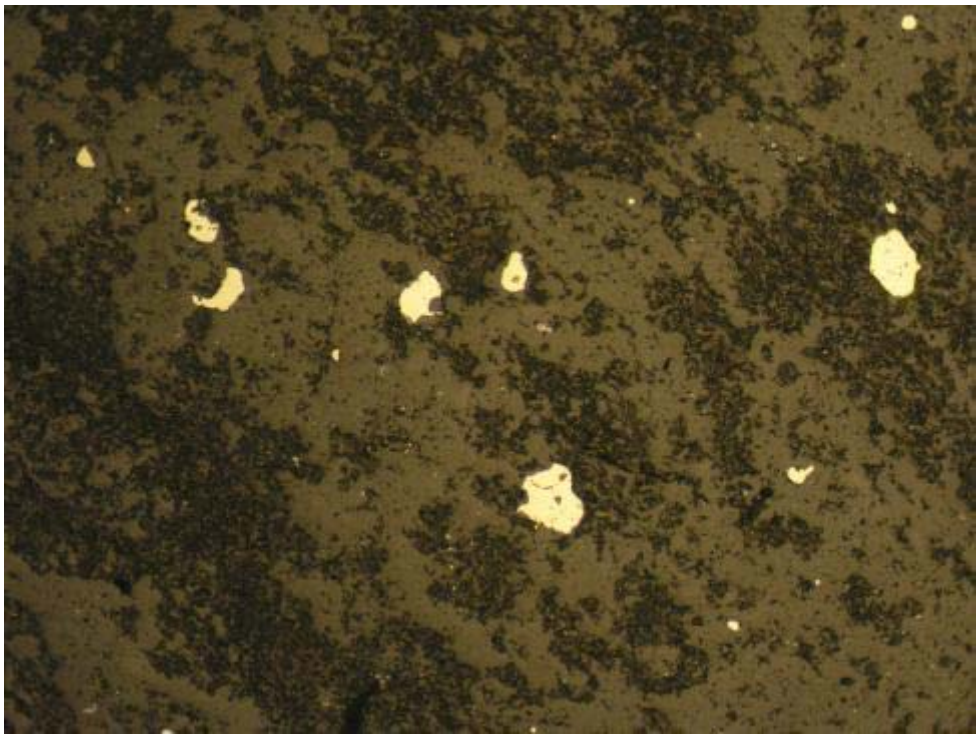


D

Hole-ID (from_ft-to_ft): 6350 (3628-3638)
C) Quartz-carbonate veinlet with chlorite selvages cuts K-feldspar-biotite altered host rock. Note very fine-grained, massive secondary K-feldspar aggregates. XPL, FOV = ~ 4.5 mm. D) Patchy brown secondary biotite aggregates partly replaced by chlorite. PPL, FOV = 0.7 mm.



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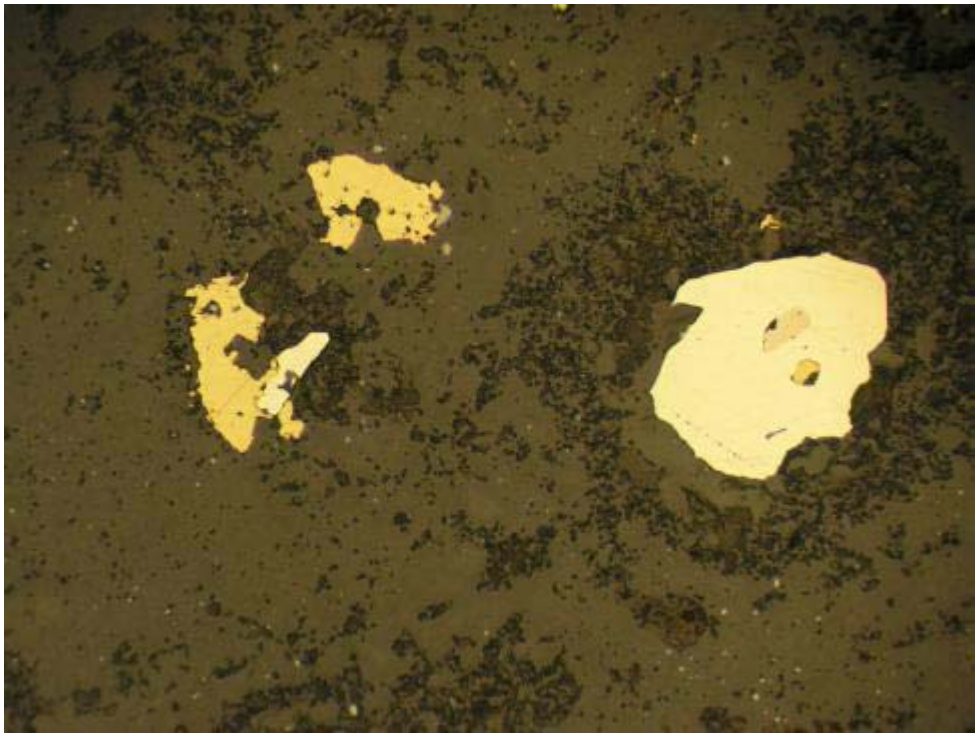


F

Hole-ID (from_ft-to_ft): 6350 (3628-3638)
E) Disseminated pyrite with irregular grain boundaries but without alteration rims. RL, FOV = ~ 2.8 mm.
F) Disseminated chalcopyrite grains partly enclosing pyrite and disseminated pyrite with pyrrhotite and chalcopyrite inclusions. RL, FOV = 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 5**
Hole-ID (from_ft-to_ft): 6350 (3728-3740) **CT-26**


Etched and stained section offcut; scale in cm


View of some of the core sample pieces (wet)

LITHOLOGY:	Hornfelsed siltstone (Biotite hornfels)
ALTERATION TYPE:	Biotite, K-feldspar, chlorite
VEINLETS:	Quartz-carbonate-chlorite-pyrite-chalcopyrite
	Quartz-muscovite (sericite)-carbonate
FRACTURE INFILL:	Carbonate-chlorite
	Muscovite (sericite)

Hand Sample Description:
Drill core chips comprise olive grey, greenish grey and dark grey aphanitic, locally brecciated, rock. Strong patchy reaction of greenish-grey chip and fractures within dark grey chip to cold, dilute HCl. No reaction to magnet. Most chips have minor disseminated pyrite. The section is cut from a piece of aphanitic greenish grey rock. Offcut shows patchy K-feldspar-dominant alteration and narrow K-feldspar alteration envelopes to hairline fracture-filled veinlets. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut).

Polished Thin Section Description:
This section is a pervasively K-feldspar-biotite-chlorite altered hornfelsed siltstone cut by sub-mm wide quartz-carbonate-chlorite-pyrite-chalcopyrite veinlets with K-feldspar alteration envelopes and by sub-mm wide quartz-muscovite (sericite)-carbonate veinlets. The host rock consists of very fine-grained, massive anhedral K-feldspar aggregate and vaguely banded aggregates of patchy brown biotite with minor disseminated pyrite. Biotite is partly replaced by chlorite. Patchy muscovite (sericite) aggregates occur locally in the host rock. Traces of rutile occur associated with sulphides in the quartz-carbonate-chlorite veinlets.

Carbonate occurs in trace amounts within the veinlets as colourless and cloudy varieties. The colourless and cloudy carbonate, likely includes calcite based on reaction to HCl, comprises fine-grained aggregates that are partly rimmed and replaced by very fine-grained hematite aggregates.

Sulphide comprises approximately 1% of the section as pyrite and traces of chalcopyrite. Pyrite, approximately 1%, occurs as disseminated anhedral grains and eu-subhedral grains and aggregates within veinlets. Pyrite grain boundaries are unaltered. Pyrite occurs commonly with aggregates of rutile. Trace chalcopyrite occurs disseminated as anhedral grains and within veinlets. Chalcopyrite locally partly encloses pyrite.

SRK Project No. 1CN007.00 **UBC Composite # 5**
Hole-ID (from_ft-to_ft): 6350 (3728-3740) **CT-26**

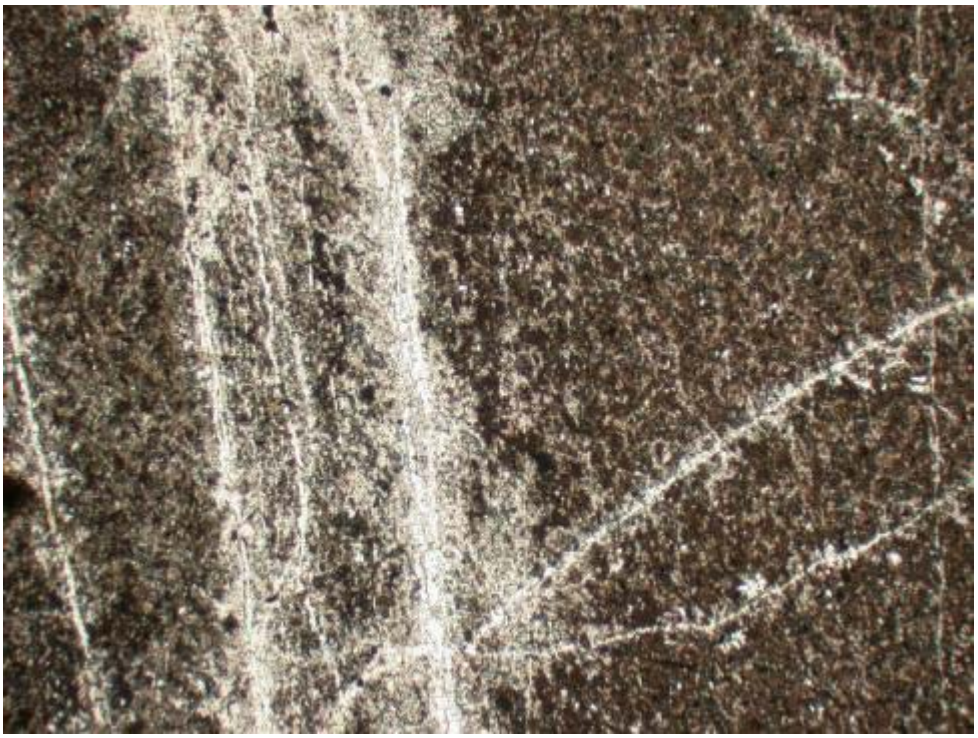
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Biotite	60	very fine-grained, anhedral aggregates, occurs as patches (biotite hornfels), partly replaced by chlorite	
K-feldspar	25	very fine-grained, anhedral massive "cherty" aggregates, occurs as pervasive replacement of host rock -fine to very fine-grained (< 0.1 mm), anhedral aggregates, occurs as < 0.5 mm wide envelopes to quartz-carbonate-chlorite veinlets	
Chlorite	8	-very fine-grained, anhedral aggregates, occurs within quartz-carbonate-chlorite-pyrite-chalcopyrite veinlet and as fracture infill with carbonate -very fine-grained, occurs partly replacing patchy biotite alteration	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	4	-very fine-grained, anhedral grains, occurs scattered throughout host rock -fine-grained (< 1 mm), anhedral aggregates, occurs as quartz-carbonate-chlorite-pyrite-chalcopyrite and quartz-carbonate-muscovite (sericite) veinlets	
Pyrite	1	fine to very fine-grained (< 0.1 mm), sub-anhedral grains and aggregates, occurs disseminated and within veinlets, locally pitted	
Muscovite (sericite)	1	very fine-grained, anhedral aggregates, occurs in sub-mm veinlets with carbonate and quartz; also occurs as fracture infill and patches within host rock	
Chalcopyrite	tr	-fine to very fine-grained (< 0.2 mm), anhedral grains and aggregates, occurs disseminated and within veinlets	
Carbonate, includes calcite	tr	fine to very fine-grained, colourless and cloudy aggregates, occurs within main quartz-carbonate-chlorite-pyrite-chalcopyrite veinlet, locally rimmed and replaced by very fine-grained red hematite aggregates; also occurs within quartz-carbonate-muscovite (sericite) veinlets	
Rutile	tr	-fine-grained, occurs within veinlets	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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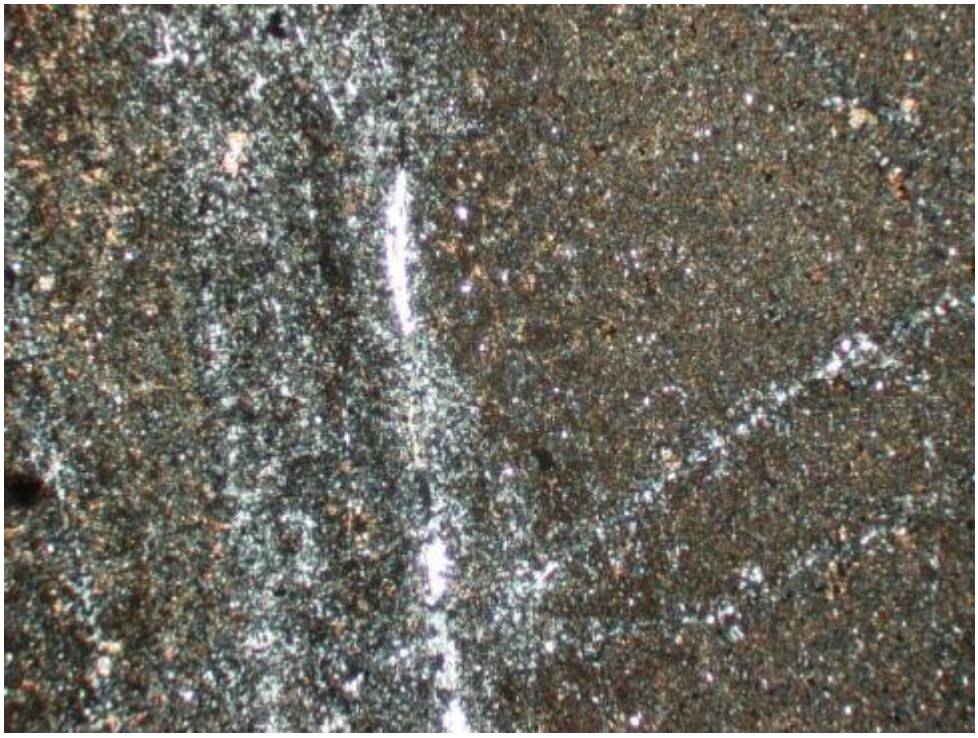
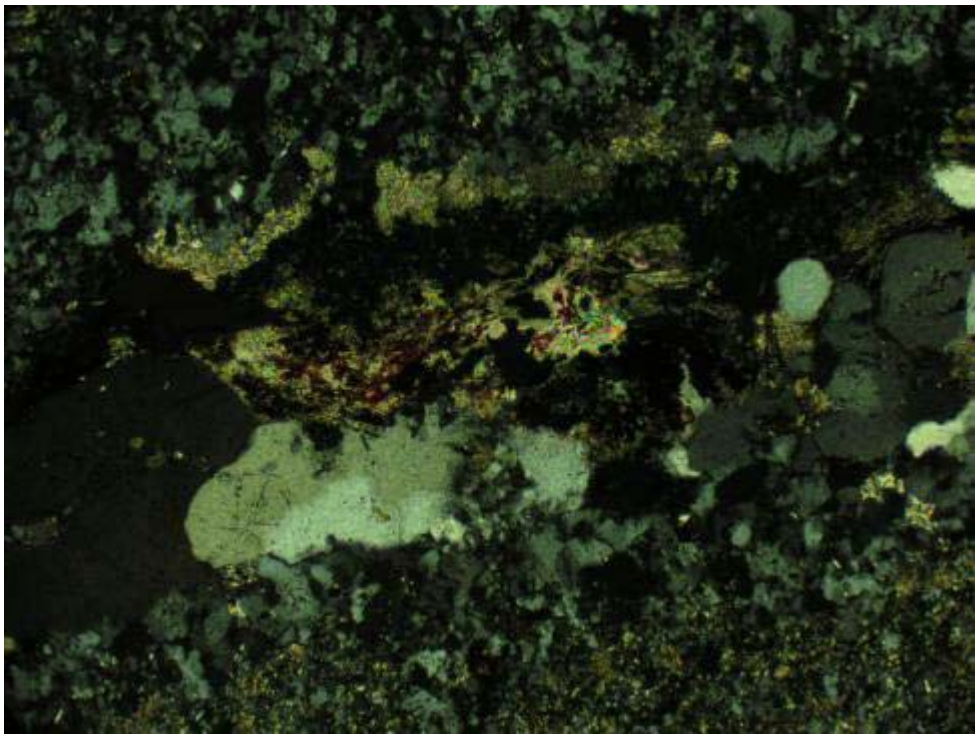


B

Hole-ID (from_ft-to_ft): 6350 (3728-3740)
A & B) Overview of sample shows pervasively K-feldspar-biotite-altered hornfelsed siltstone cut by quartz-carbonate-chlorite veinlets with very fine-grained K-feldspar alteration envelopes. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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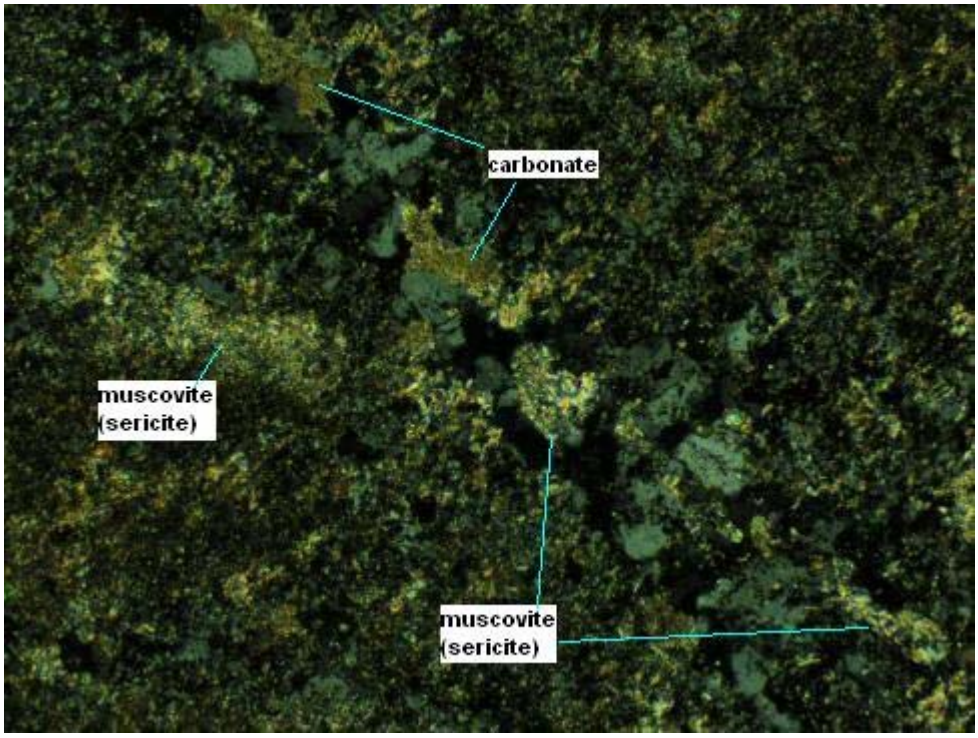
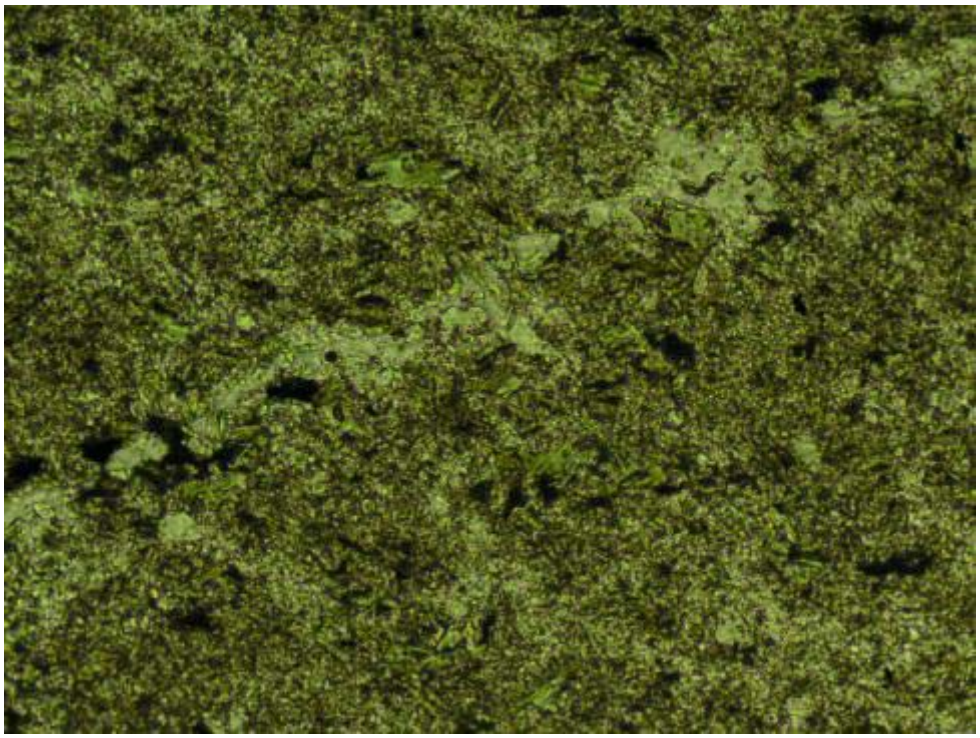


D

Hole-ID (from_ft-to_ft): 6350 (3728-3740)
C) Carbonate (centre) partly replaced by hematite within quartz-carbonate-chlorite-pyrite-chalcopyrite veinlet. XPL, FOV = ~ 1.3 mm. D) Quartz-carbonate-muscovite (sericite) veinlets. XPL, FOV = 1.1 mm.



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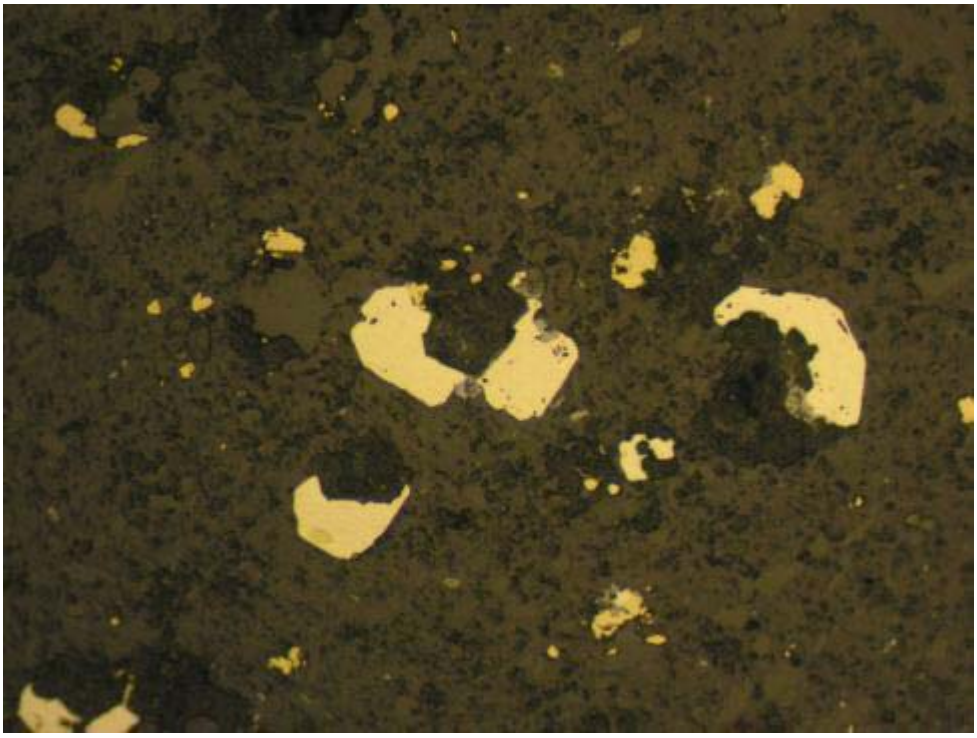


F

Hole-ID (from_ft-to_ft): 6350 (3628-3638)
E) Pervasive very fine-grained biotite alteration partly replaced by green chlorite. PPL, FOV = ~ 1.3 mm.
F) Disseminated pyrite and chalcopyrite grains. Note very fine-grained rutile aggregates (grey) associated with pyrite and chalcopyrite. RL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 3**
Hole-ID (from_ft-to_ft): 6351 (1165-1175) **CT-27**


Etched and stained section offcut; scale in cm


View of some of the core sample pieces (wet)

LITHOLOGY: Pervasively muscovite (sericite) altered granular rock
ALTERATION TYPE: Muscovite (sericite), pyrite, unknown
MINERALIZATION: Pyrite, (chalcocite, covellite, bornite, sphalerite)
VEINLET: Quartz-pyrite-(chalcocite, covellite, bornite, sphalerite)

Hand Sample Description:
Core pieces comprise very light grey mottled, sugary-textured rock comprising mostly quartz and sericite with major disseminated to patchy pyrite. Rock is cut by 6-7 mm wide quartz veinlet with pyrite (?infill) and as thin seam in centre of vein. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a pervasively muscovite (sericite)-altered former fine to medium-grained granular rock. The rock now comprises approximately 20% fine to medium-grained quartz aggregate intergrown with muscovite (sericite) aggregate (after former fine to medium-grained phases) with minor relict fine-grained prismatic (possibly former mafic) phases replaced by very fine-grained aggregates of rutile. Muscovite (sericite) is partly replaced by minor aphanitic brown aggregates. Major pyrite occurs disseminated. The rock is cut by a 6-7 mm wide quartz-pyrite veinlet with infill by pyrite, sphalerite and bornite (partly replaced by chalcocite and covellite).

Carbonate is not observed in this section.

Sulphide occurs in major amounts (~16%) dominantly as pyrite with traces of chalcocite, covellite, bornite, marcasite and sphalerite. Pyrite, approximately 15%, occurs disseminated as fine-grains and aggregates in the altered rock and disseminated and as infill to the quartz veinlet. Pyrite is sub-anhedral with irregular but clean grain boundaries. Locally pyrite is intergrown with traces of marcasite within the quartz veinlet. Occurrence of traces of bornite, minor chalcocite, trace covellite and sphalerite are described above. Grain boundaries for the sulphides are not altered.

SRK Project No. 1CN007.00 **UBC Composite # 3**
Hole-ID (from_ft-to_ft): 6351 (1165-1175) **CT-27**

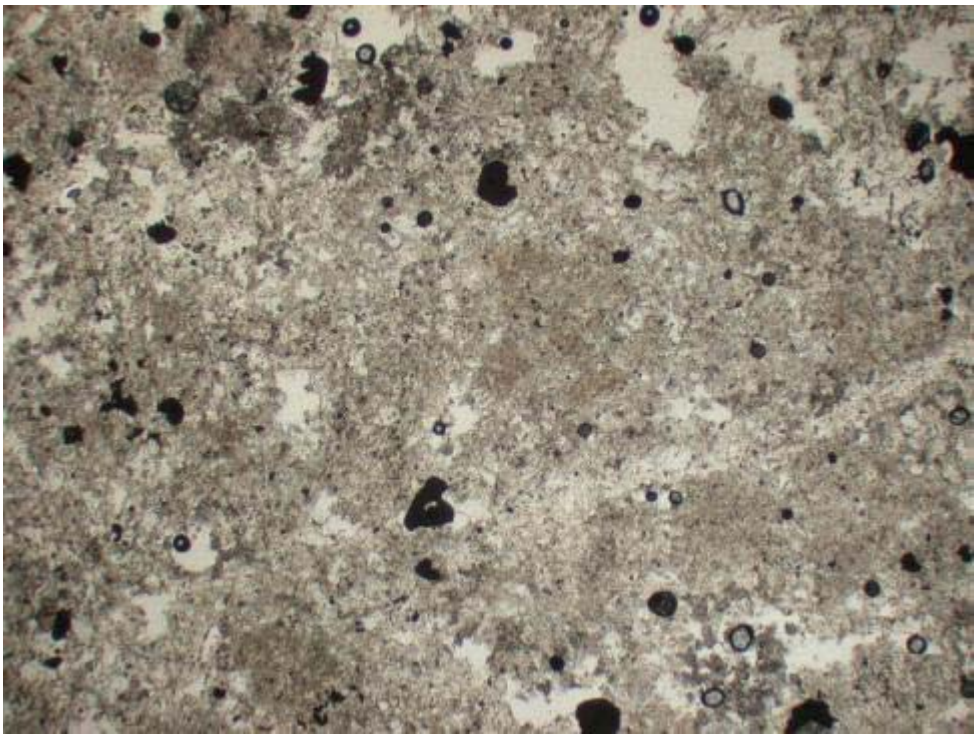
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	45	fine-grained (< 0.3 mm), anhedral grains and aggregates, occurs with muscovite (sericite) aggregate -fine to medium-grained, anhedral aggregates, irregular grain boundaries, undulatory extinction, occurs with pyrite as veinlet, infilled by pyrite and bornite	
Muscovite (sericite)	35	fine sheaves (< 0.1 mm) and very fine-grained anhedral aggregates, occurs as pervasive replacement of former fine to medium-grained granular phases intergrown with quartz aggregate	
Pyrite	15	-fine-grained, sub-anhedral grains and aggregates, rarely inclusions of chalcopyrite or pyrrhotite, occurs disseminated -fine to medium-grained (< 1.4 mm), anhedral grains and aggregates, occurs disseminated and as infill to quartz veinlet	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Unknown	2	aphanitic, grungy brown aggregates, occurs as patchy replacement of former porphyritic rock matrix, overprints muscovite (sericite) aggregates	
Rutile	1	very fine-grained, anhedral to subhedral aggregates, occurs partly replacing fine-grained prismatic forms	
Chalcocite	1	fine to very fine-grained, anhedral, occurs as replacement of bornite	
Covellite	tr	very fine-grained, anhedral aggregates, occurs as replacement of bornite and chalcocite	
Bornite	tr	very fine-grained, occurs with pyrite as infill to quartz veinlet, virtually replaced by chalcocite and covellite	
Marcasite	tr	very fine-grained, occurs as intergrowths with pyrite within quartz veinlet	
Sphalerite	tr	very fine-grained, anhedral occurs intergrown with bornite and chalcocite-covellite	*pale brown*

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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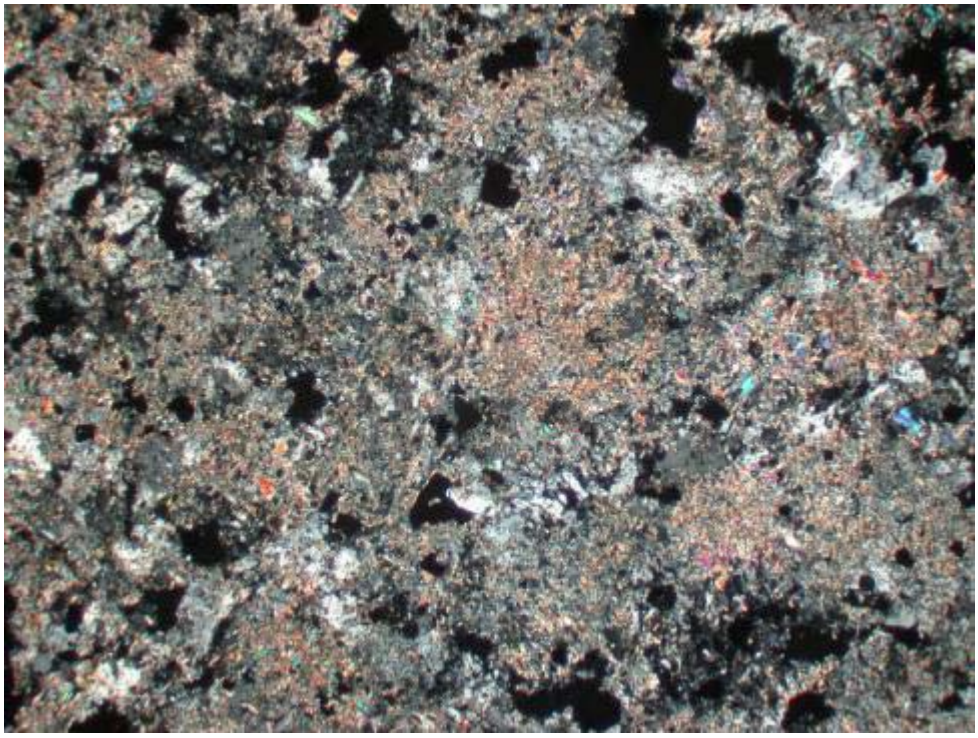
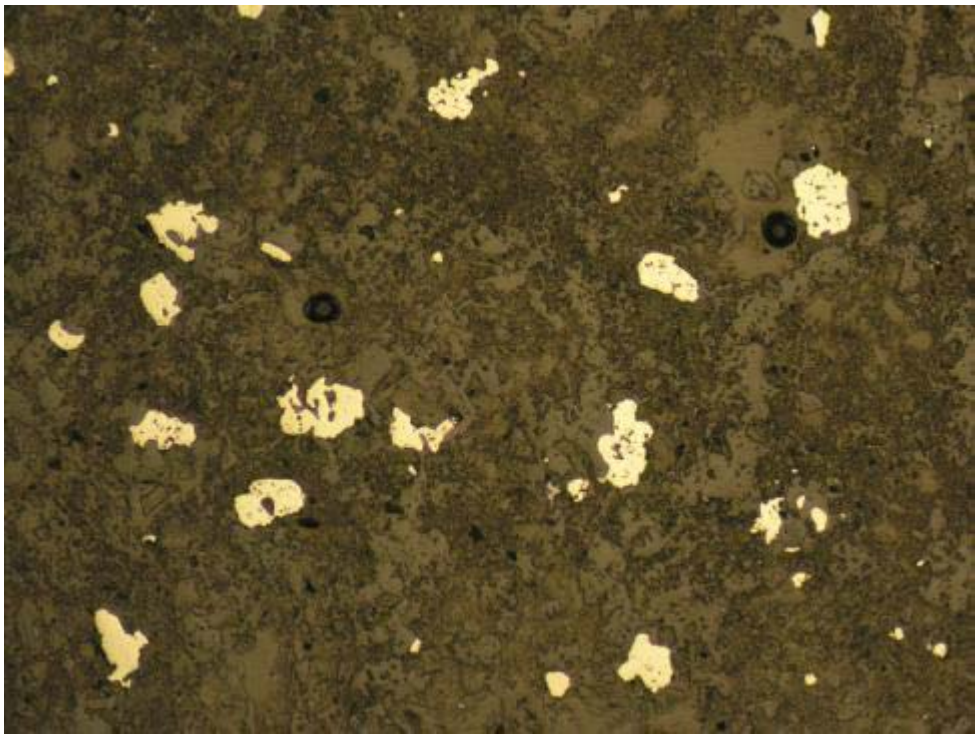


B

Hole-ID (from_ft-to_ft): 6351 (1165-1175)
A & B) Representative view of sample shows pervasively muscovite (sericite)-altered former fine to medium-grained granular rock. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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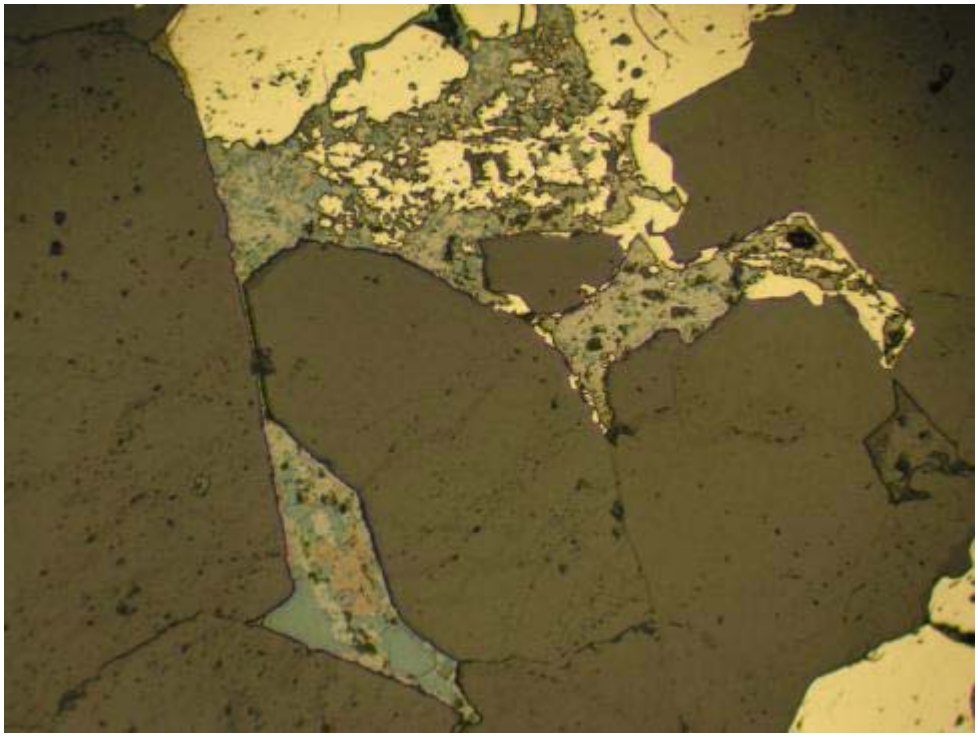


D

Hole-ID (from_ft-to_ft): 6351 (1165-1175)
C) Disseminated sub-anhedral pyrite grains and aggregates. Note absence of alteration rims. RL, FOV = ~ 2.8 mm. D) Pyrite and bornite-(chalcocite-covellite) as infill to quartz veinlet. Note replacement of bornite by chalcocite and covellite RL, FOV = 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 4**
Hole-ID (from_ft-to_ft): 6351 (2430-2440) **CT-28**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Pervasively muscovite (sericite) altered granular rock
ALTERATION TYPE: Muscovite (sericite), pyrite
MINERALIZATION: Pyrite
VEINLETS: Pyrite-quartz

Hand Sample Description:
Medium-gray mottled aphanitic rock with major patchy and fracture-controlled pyrite. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a pervasively muscovite (sericite)-altered former fine-grained granular rock. The rock now comprises fine-grained quartz aggregate intergrown with muscovite (sericite) aggregate (locally after vague former fine-grained tabular phases) and traces of very fine-grained rutile. Major pyrite occurs disseminated and in veinlets with quartz.

Carbonate is not observed in this section.

Sulphide occurs in major amounts (~25%) as pyrite. Pyrite occurs disseminated as fine-grains and aggregates in the altered rock as veinlets with quartz. Pyrite is anhedral and variably pitted with irregular but unaltered grain boundaries.

SRK Project No. 1CN007.00 **UBC Composite # 4**
Hole-ID (from_ft-to_ft): 6351 (2430-2440) **CT-28**

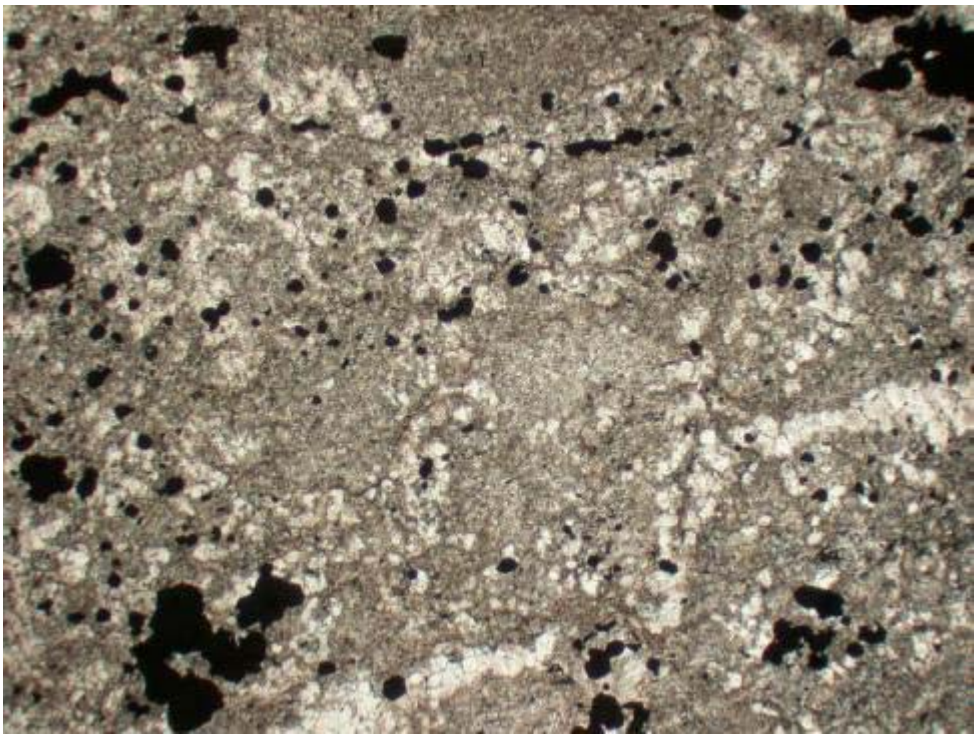
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Muscovite (sericite)	40	fine sheaves (< 0.1 mm) and very fine-grained anhedral aggregates, occurs as pervasive replacement of vague former fine-grained granular phases intergrown with quartz aggregate	
Quartz	34	fine-grained (< 0.1 mm), anhedral grains and aggregates, occurs with muscovite (sericite) aggregate -fine-grained, anhedral aggregates, irregular grain boundaries, undulatory extinction, occurs with pyrite as veinlets	
Pyrite	25	-fine-grained, sub-anhedral grains and aggregates, occurs disseminated and as veinlets with quartz	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rutile	tr	very fine-grained, anhedral aggregates, occurs associated with muscovite (sericite) alteration and locally adjacent to pyrite aggregates	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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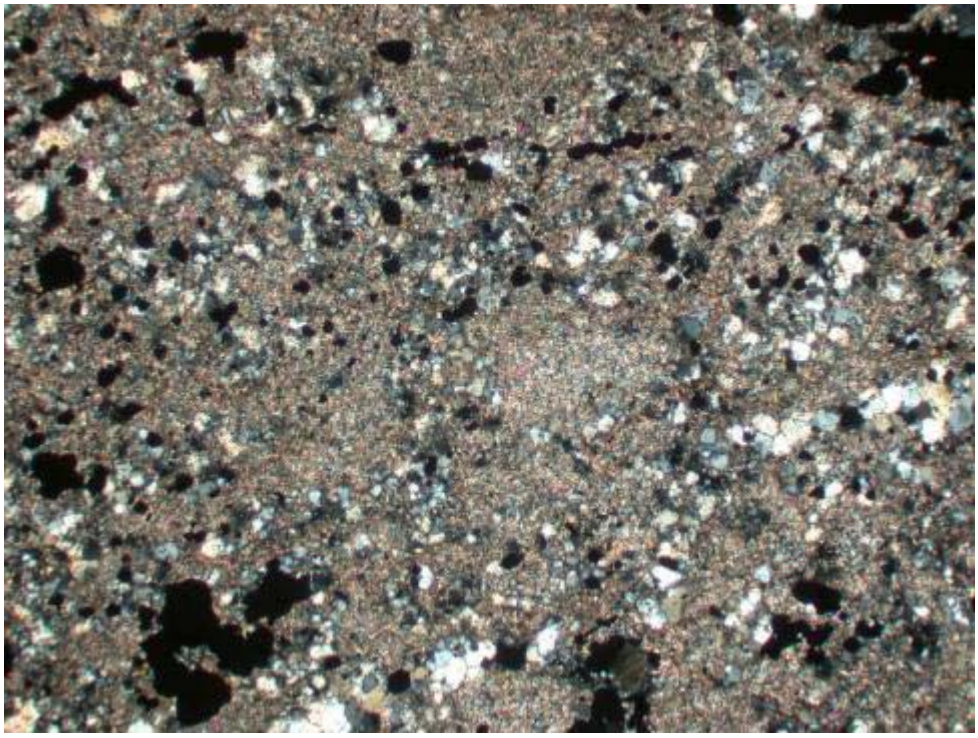
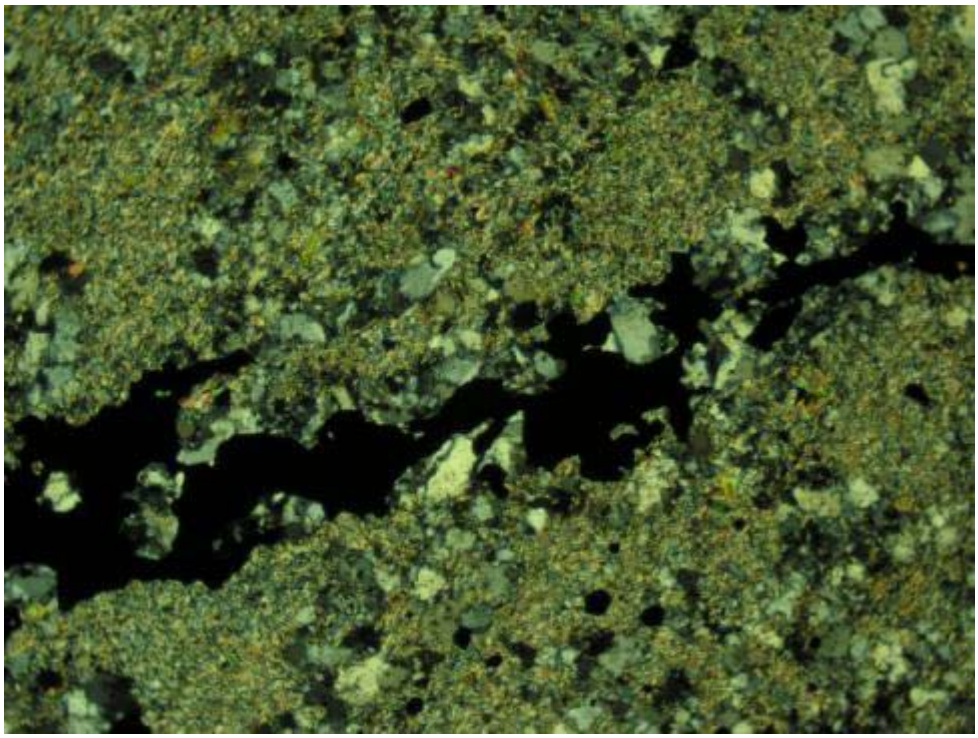


B

Hole-ID (from_ft-to_ft): 6351 (2430-2440)
A & B) Representative view of muscovite (sericite) altered granular rock with disseminated pyrite (opaque). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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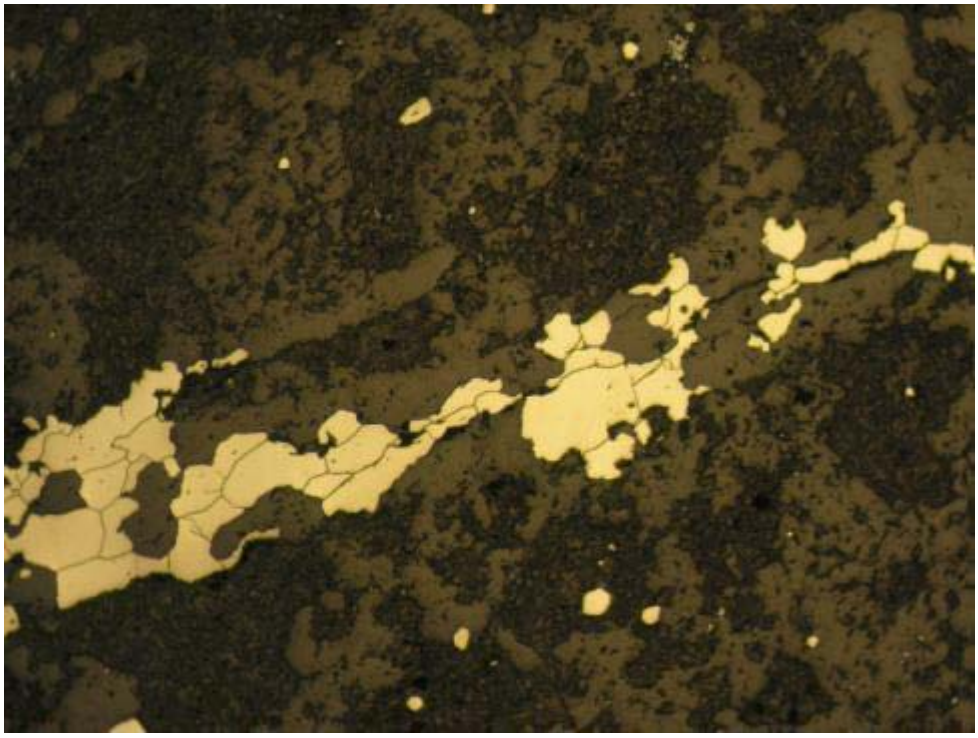


D

Hole-ID (from_ft-to_ft): 6351 (2430-2440)
C&D) Pyrite-quartz veinlet cuts muscovite (sericite) altered granular rock. C) XPL, D) RL, FOV = ~ 1.1 mm.

SRK Project No. 1CN007.00 **UBC Composite # 4**
Hole-ID (from_ft-to_ft): 6354 (2689-2694) **CT-29**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Former ?porphyritic rock
ALTERATION TYPE: Muscovite (sericite), unknown, pyrite, quartz
VEINLETS: Pyrite-quartz-(chalcopyrite)
Pyrite

Hand Sample Description:
Light grey to very light grey mottled, vaguely ?porphyritic rock with major disseminated and fracture-controlled pyrite (~ 1 mm wide veinlets). No reaction to magnet. No reaction to cold, dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite.

Polished Thin Section Description:
This section is a pervasively muscovite (sericite)-unknown aphantic material-pyrite-quartz altered former ?porphyritic rock. Former ?phenocrysts have been replaced by very fine-grained quartz and muscovite (sericite) aggregate with major disseminated pyrite. Muscovite (sericite) is overprinted by patchy brown aphanitic material. Minor quartz grains occur scattered throughout the host rock. Traces of rutile occur disseminated and associated with disseminated pyrite and chalcopyrite.

Carbonate is not observed in this section.

Sulphide comprises approximately 30% of the section as pyrite with traces of chalcopyrite. Pyrite occurs disseminated and within veinlets as anhedral grains and aggregates. Pyrite grain boundaries are irregular but unaltered. Trace chalcopyrite occurs disseminated as anhedral grains and within pyrite-quartz-(chalcopyrite) veinlets. Chalcopyrite locally encloses pyrite within the veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 4**
Hole-ID (from_ft-to_ft): 6354 (2689-2694) **CT-29**

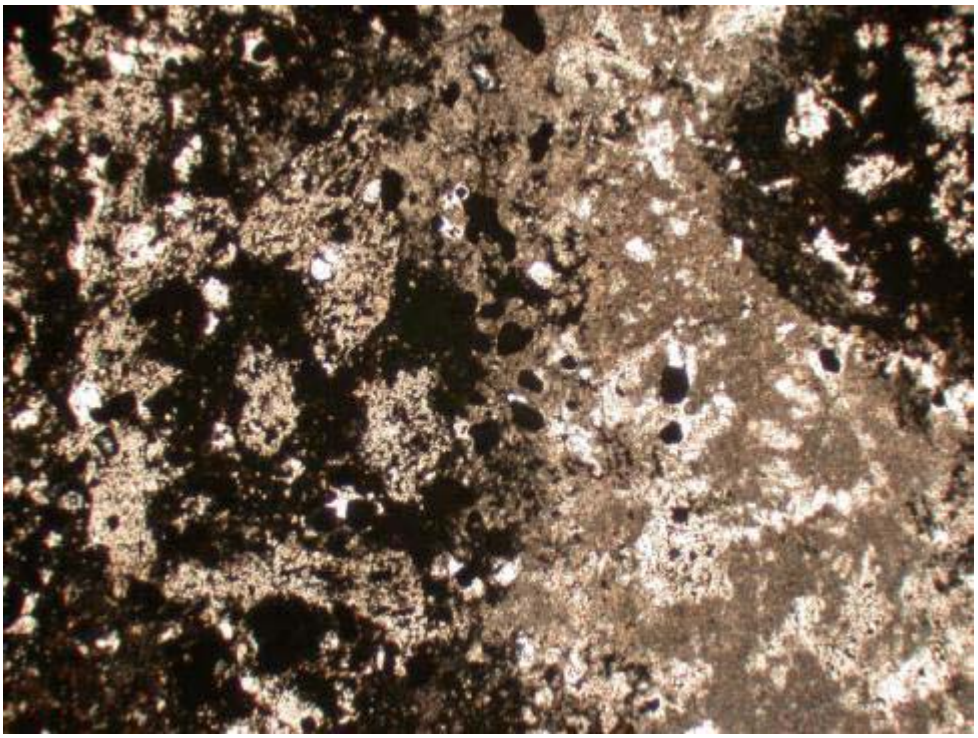
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Muscovite (sericite)	32	fine sheaves (< 0.1 mm) and very fine-grained anhedral aggregates, occurs as pervasive replacement of vague former fine-grained granular phases intergrown with quartz aggregate	
Unknown	30	aphanitic, grungy brown aggregates, occurs as patchy replacement of former porphyritic rock matrix, overprints muscovite (sericite) aggregates, also occurs as patchy overprint to former prismatic phenocrysts	
Pyrite	30	fine to medium-grained (< 4 mm), anhedral, pitted, irregular grain boundaries, occurs disseminated and as veinlets with minor quartz and traces of chalcopyrite	
Quartz	7	-fine-grained, anhedral aggregates, occurs within pyrite-quartz-(chalcopyrite) veinlets -very fine-grained, anhedral aggregates, occurs as replacement of former prismatic phenocrysts, overprinted by patchy aphanitic material -very fine-grained, occurs as scattered fine-grains (< 1 mm)	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Chalcopyrite	tr	fine-grained, anhedral grains and aggregates, occurs disseminated and within pyrite-dominant veinlets, locally encloses pyrite	
Rutile	tr	very fine-grained, anhedral aggregates, occurs disseminated and locally associated with pyrite	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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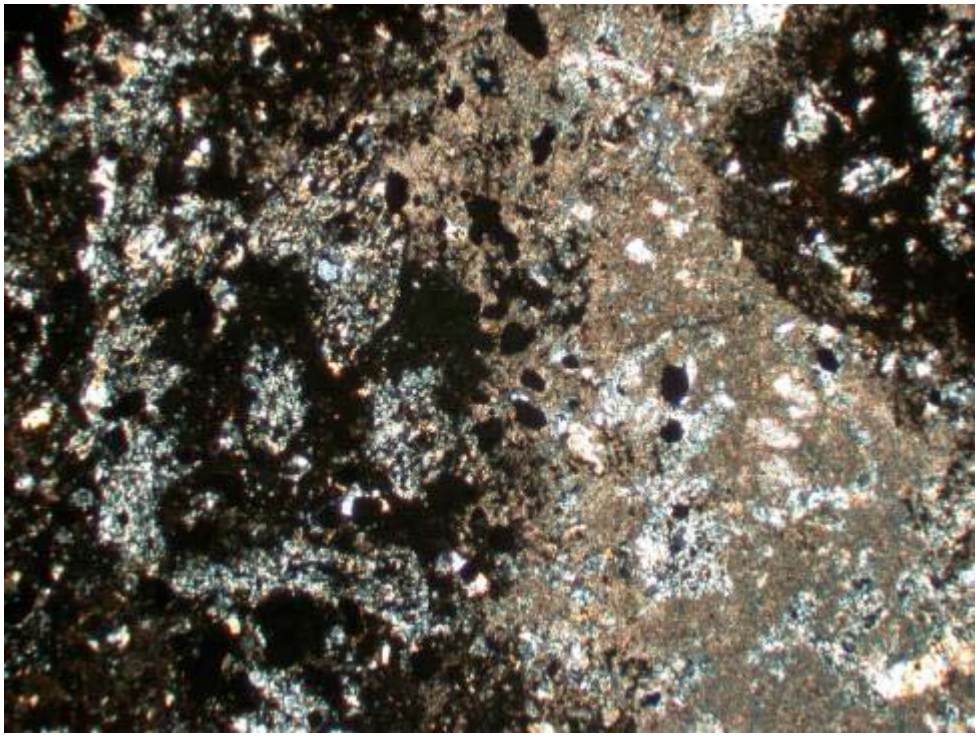
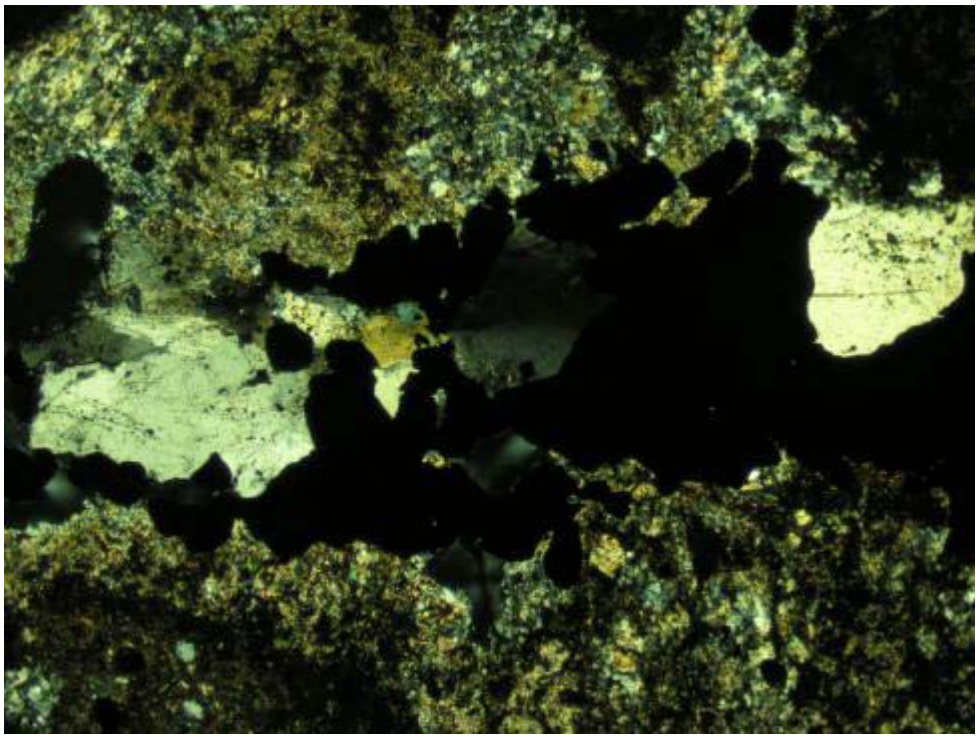


B

Hole-ID (from_ft-to_ft): 6354 (2689-2694)
A & B) Overview of sample shows vague former ?porphyritic texture defined by quartz aggregate in a matrix of dark brown aphanitic material which overprints muscovite (sericite) alteration. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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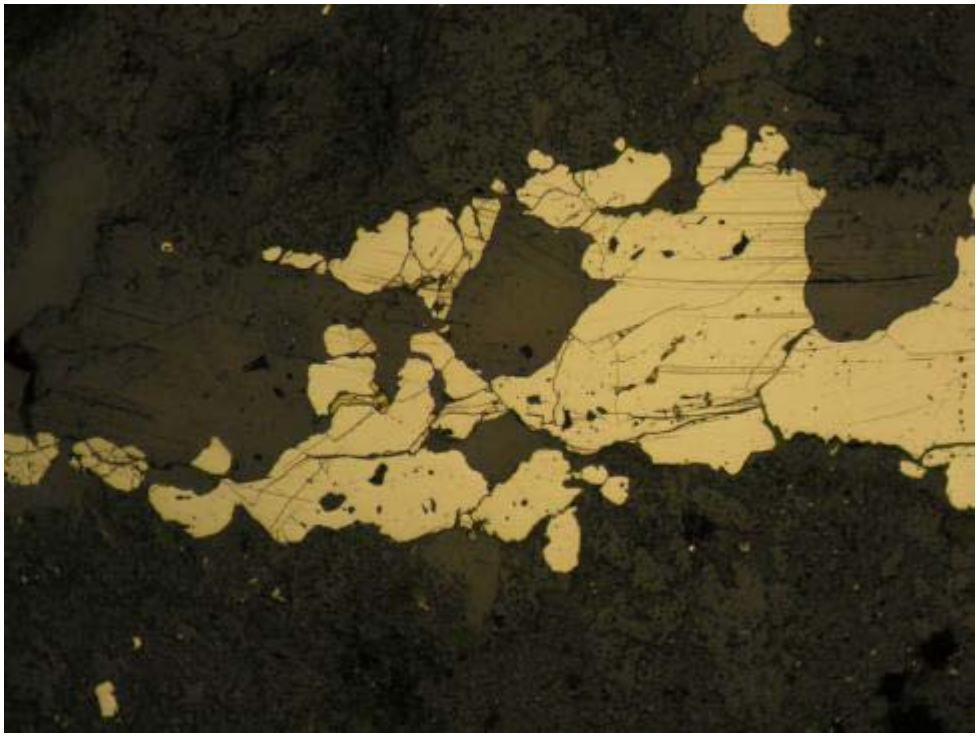
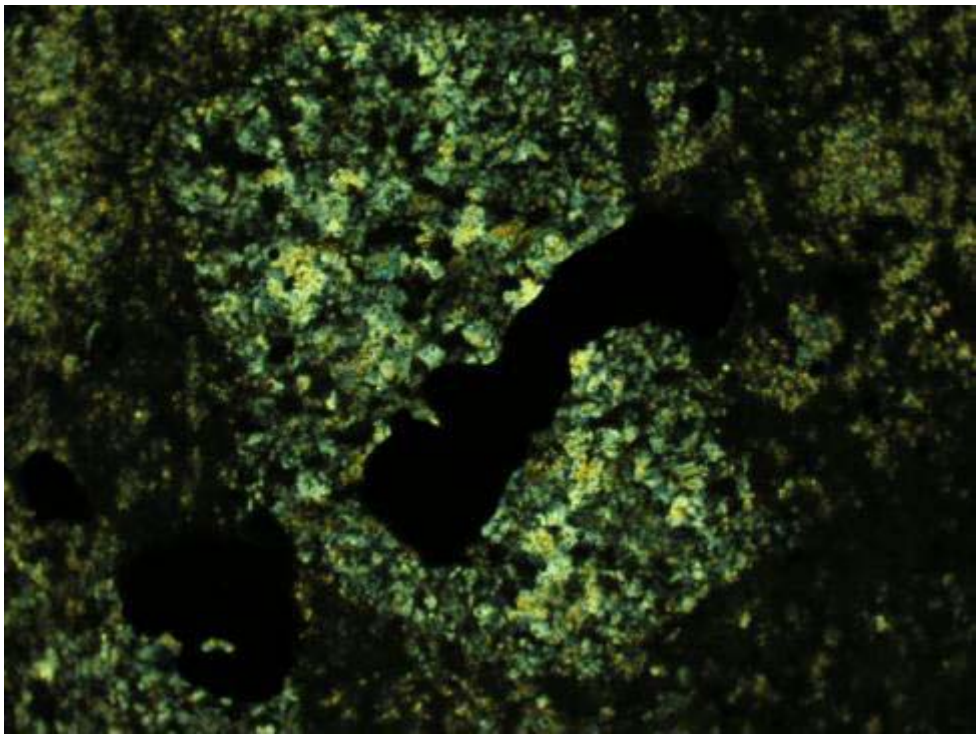


D

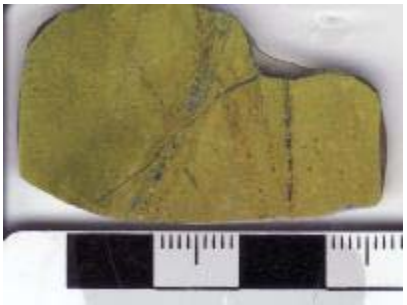
Hole-ID (from_ft-to_ft): 6354 (2689-2694)
C & D) Selected view of part of pyrite-quartz-(chalcopyrite) veinlet cutting aphanitic material, muscovite (sericite), pyrite and quartz-altered rock. C) XPL, D) RL, FOV = ~ 2.8 mm.



E

Hole-ID (from_ft-to_ft): 6354 (2689-2694)
E) Detailed view of former ?phenocryst replaced by very fine-grained quartz aggregate and overprinted by fine-grained pyrite (opaque). XPL, FOV = ~ 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 5**
Hole-ID (from_ft-to_ft): 6354 (4586-4596) **CT-30**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Hornfelsed siltstone (Biotite hornfels)
ALTERATION TYPE: K-feldspar, biotite, muscovite (sericite)
VEINLETS: K-feldspar
Quartz-K-feldspar-chlorite-pyrite-chalcopyrite-(carbonate)
Quartz-carbonate-chlorite

Hand Sample Description:
Olive-brown aphanitic rock with cut by quartz veinlets from sub-mm to 5mm wide. Traces of pyrite and minor patchy chlorite occur within the quartz veinlets. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). K-feldspar occurs throughout host rock and as envelopes to the veinlets (based on stain). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This section is a pervasively K-feldspar-biotite-muscovite (sericite) altered hornfelsed siltstone (biotite hornfels) cut by hairline K-feldspar veinlets, sub-mm to 5 mm wide quartz-K-feldspar-chlorite-pyrite-chalcopyrite veinlets and cavities infilled by quartz-chlorite and carbonate. The host rock consists of very fine-grained, massive aphanitic brown grungy biotite aggregate and massive aggregates of very fine-grained K-feldspar with traces of disseminated chalcopyrite and rutile. Minor quartz occurs as scattered grains throughout the host rock. The wide quartz-K-feldspar-chlorite-pyrite-chalcopyrite veinlets have sub-mm wide alteration envelopes of massive, very fine-grained K-feldspar and locally patchy muscovite (sericite). Traces of rutile occur disseminated, within the veinlets and associated with disseminated pyrite and chalcopyrite.

Carbonate occurs in trace amounts in the section as patchy very fine-grained cloudy aggregates associated with chlorite within quartz-K-feldspar-chlorite-pyrite-chalcopyrite veinlets and as fine-grained colourless infill to cavities lined with quartz and chlorite.

Sulphide comprises approximately 1% of the section as pyrite with traces of chalcopyrite. Pyrite occurs within veinlets as eu-anhedral grains and aggregates. Pyrite grain boundaries are unaltered. Trace chalcopyrite occurs disseminated as anhedral grains and within veinlets.

SRK Project No. 1CN007.00 **UBC Composite # 5**
Hole-ID (from_ft-to_ft): 6354 (4586-4596) **CT-30**

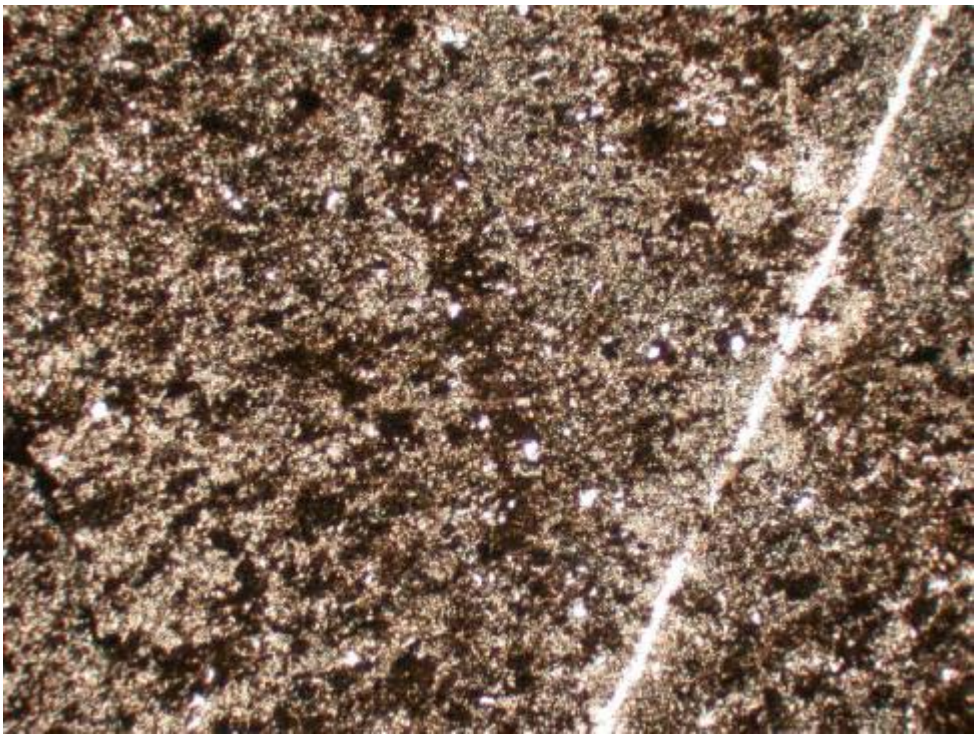
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
K-feldspar (orthoclase)	50	-fine-grained, anhedral aggregates, occurs with quartz in quartz-K-feldspar-chlorite-pyrite-chalcopyrite veinlets -very fine-grained, massive anhedral aggregates "cherty", occurs as pervasive replacement of host rock -very fine-grained, massive anhedral aggregates "cherty", occurs as envelopes to quartz-K-feldspar-chlorite-sulphide veinlets -very fine-grained, occurs as hairline veinlets	
Biotite	30	-very fine-grained to aphanitic brown aggregates, occurs as biotite hornfels, patchy replacement by muscovite (sericite)	*grungy brown*
Muscovite (sericite)	8	very fine-grained, anhedral aggregates, occurs as patchy replacement of biotite, also occurs as discontinuous sub-mm wide envelopes to quartz-K-feldspar-chlorite-sulphide veinlets	
Quartz	7	-very fine-grained, anhedral grains, occurs scattered throughout host rock -fine-grained, anhedral aggregates, occurs with K-feldspar in quartz-K-feldspar-chlorite-pyrite-chalcopyrite veinlets -fine-grained, prismatic aggregates, occurs lining cavities, infilled by chlorite and carbonate	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Chlorite	3	fine to very fine-grained (< 0.1 mm), anhedral to platy aggregates, occurs as clots within quartz-K-feldspar veinlets and infill to cavities lined by prismatic quartz	
Pyrite	1	fine-grained (< 0.3 mm), eu-anhedral grains and aggregates, typically pitted, occurs within veinlets	
Chalcopyrite	tr	-very fine-grained, anhedral grains and aggregates, occurs disseminated and within veinlets	
Carbonate	tr	fine to very fine-grained (< 0.1 mm), anhedral grains and aggregates, occurs associated with chlorite within quartz-K-feldspar veinlets and infills prismatic quartz lined cavities	*cloudy*
Rutile	tr	-very fine-grained, occurs as anhedral aggregates disseminated in host rock and veinlets	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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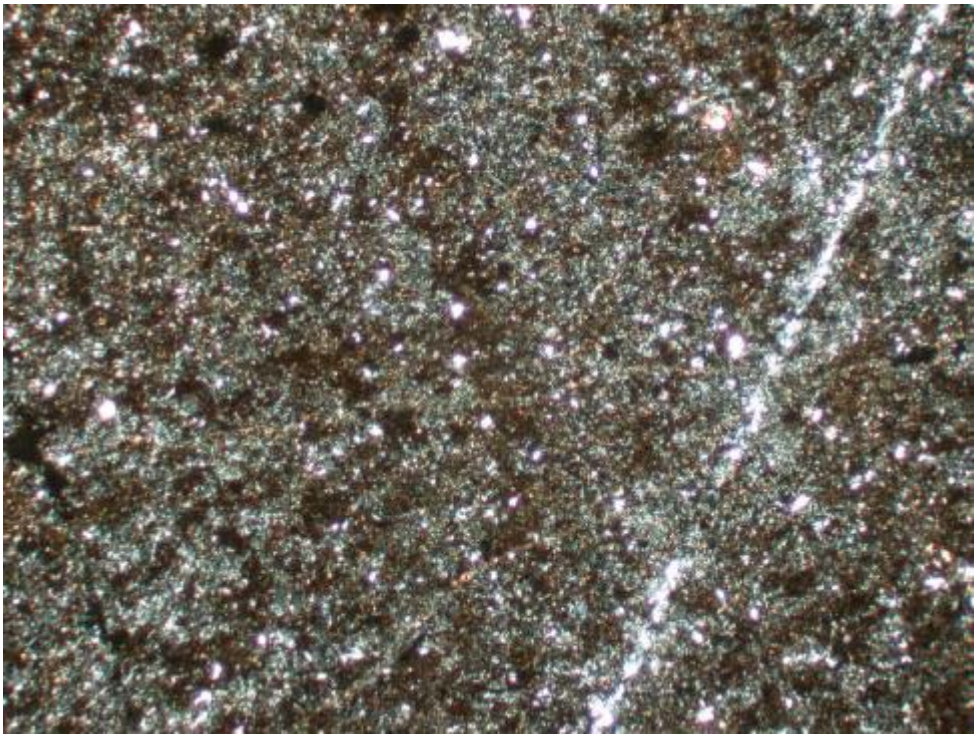
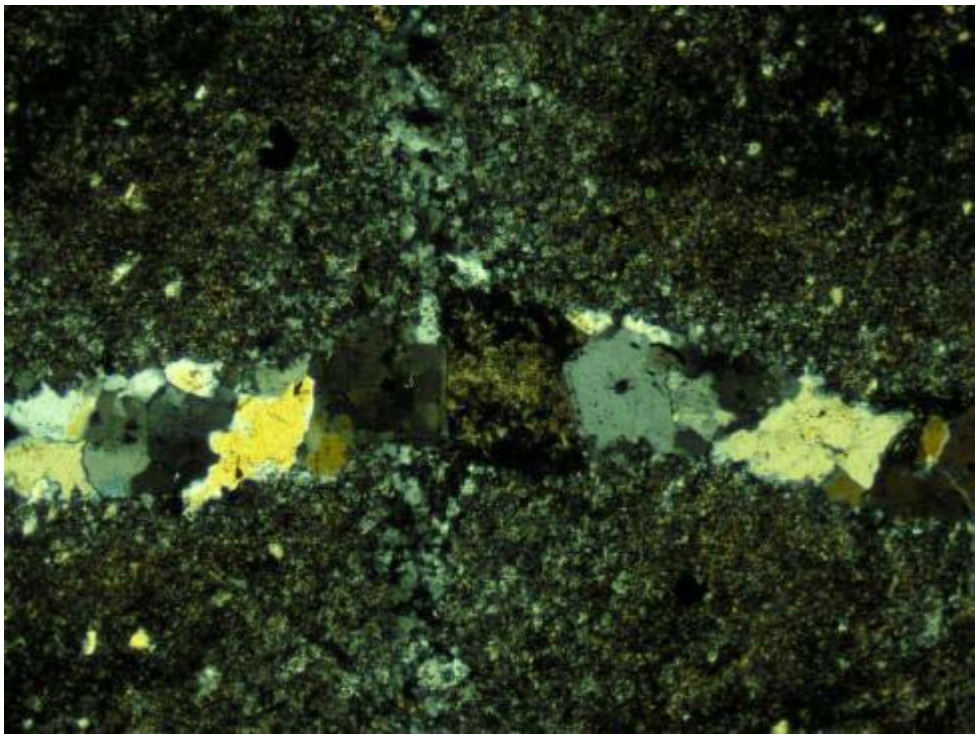


B

Hole-ID (from_ft-to_ft): 6354 (4586-4596)
A & B) Overview of hornfelsed siltstone shows biotite hornfels and massive, very fine-grained K-feldspar aggregate cut by hairline K-feldspar veinlet (right). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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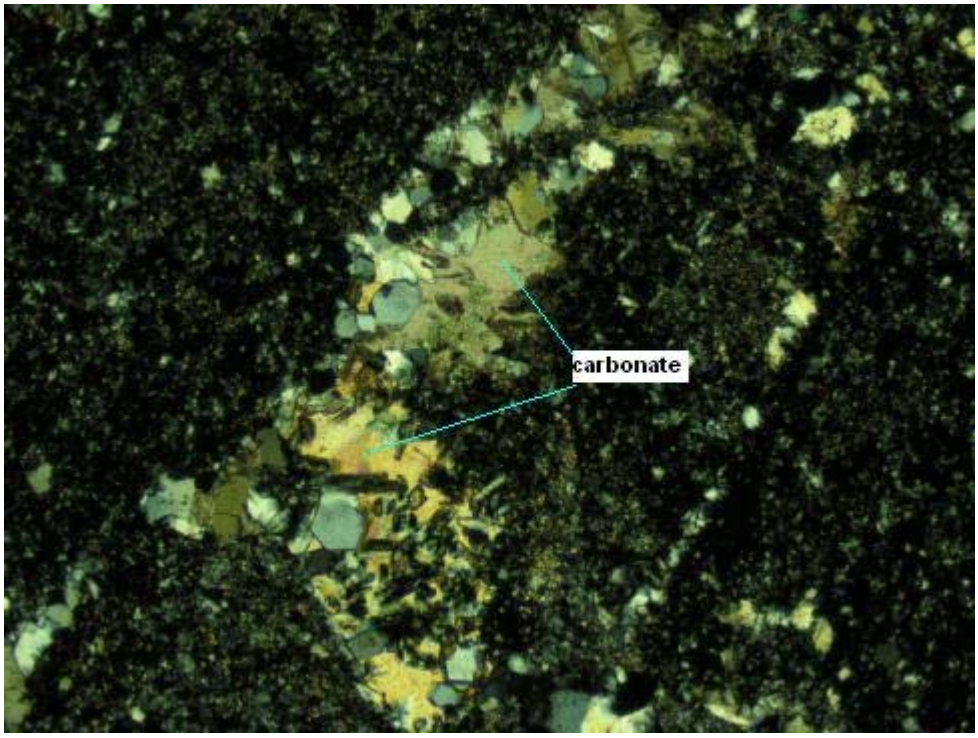
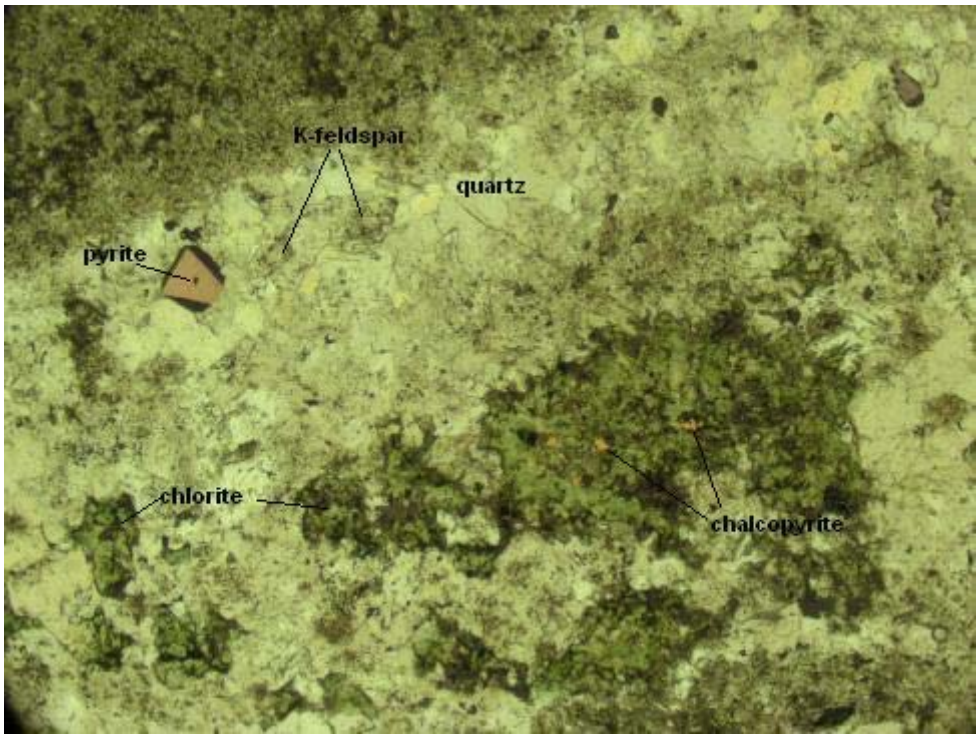
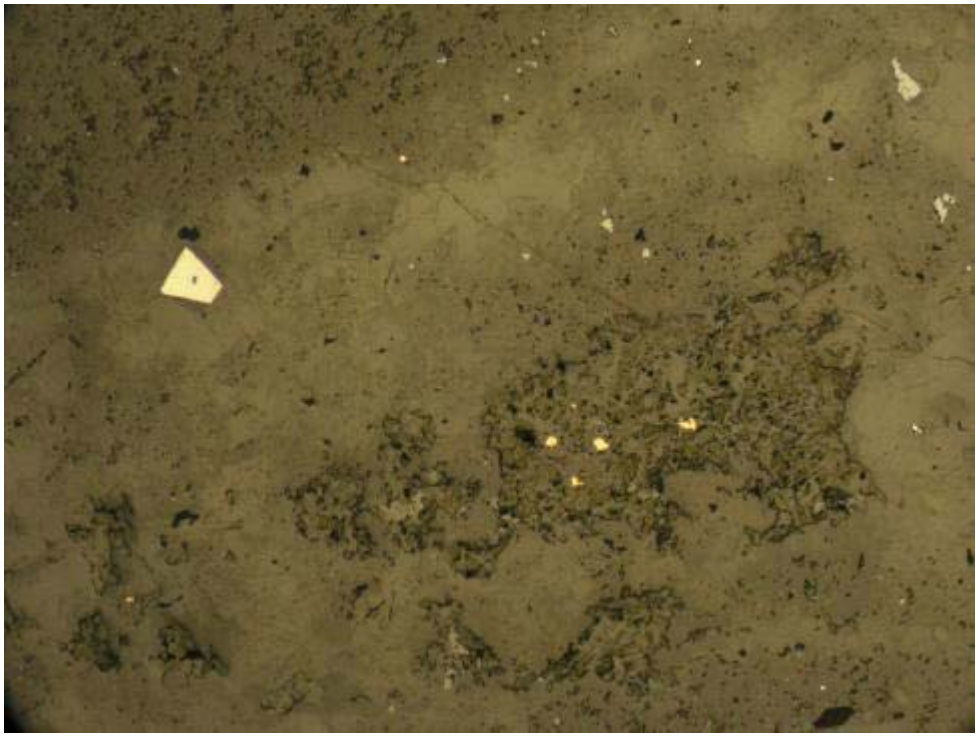


D

Hole-ID (from_ft-to_ft): 6354 (4586-4596)
C) Quartz-K-feldspar-chlorite-carbonate veinlet (left to right of photo) with K-feldspar alteration envelopes cuts earlier hairline K-feldspar veinlet (top to bottom of photo). XPL, FOV = ~ 2.8 mm. D) Cavity lined by prismatic quartz crystals and infilled by chlorite and carbonate. XPL, FOV = 2.8 mm.



E



F

Hole-ID (from_ft-to_ft): 6354 (4586-4596)
E&F) Quartz-K-feldspar (orthoclase)-chlorite-pyrite-chalcopyrite veinlet. E) PPL+RL, F) RL, FOV = ~ 2.8 mm.

SRK Project No. 1CN007.00 **UBC Composite # 6**
Hole-ID (from_ft-to_ft): 6354 (4983-4990) **CT-31**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Hornfelsed siltstone (Biotite hornfels)
ALTERATION TYPE: K-feldspar, biotite, muscovite (sericite), pyrite, chlorite
MINERALIZATION: Pyrite, chalcopyrite
VEINLETS: Quartz-K-feldspar-(chlorite-carbonate)

Hand Sample Description:
Olive-brown aphanitic rock cut by quartz-K-feldspar and chlorite-calcite veinlets from sub-mm to 1-2mm wide. Traces of disseminated and fracture-controlled pyrite. No reaction to magnet. Positive test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). K-feldspar occurs throughout host rock and within quartz veinlet (based on stain). Reaction of chlorite-bearing veinlets to cold, dilute HCl.

Polished Thin Section Description:
This section is a pervasively K-feldspar-biotite-muscovite (sericite)-pyrite-chlorite altered hornfelsed siltstone (biotite hornfels) cut on one side of the section by a quartz-K-feldspar-(chlorite-carbonate) veinlet. The host rock consists of very fine-grained, massive aphanitic brown grungy biotite aggregate and massive aggregates of very fine-grained K-feldspar with major disseminated pyrite and traces of disseminated chalcopyrite and rutile. Minor quartz occurs as scattered grains throughout the host rock. The quartz-K-feldspar-(chlorite-carbonate) veinlet has sub-mm wide alteration envelopes of massive, very fine-grained K-feldspar. Traces of rutile occur disseminated, within the veinlet and locally associated with disseminated pyrite and chalcopyrite.

Carbonate occurs in trace amounts in the section as very fine-grained anhedral grains within the quartz-K-feldspar-(chlorite-carbonate) veinlet.

Sulphide comprises approximately 7% of the section as pyrite with traces of chalcopyrite. Pyrite occurs disseminated as anhedral grains with irregular grain boundaries. Pyrite grain boundaries are unaltered. Trace chalcopyrite occurs disseminated as anhedral grains.

SRK Project No. 1CN007.00 **UBC Composite # 6**
Hole-ID (from_ft-to_ft): 6354 (4983-4990) **CT-31**

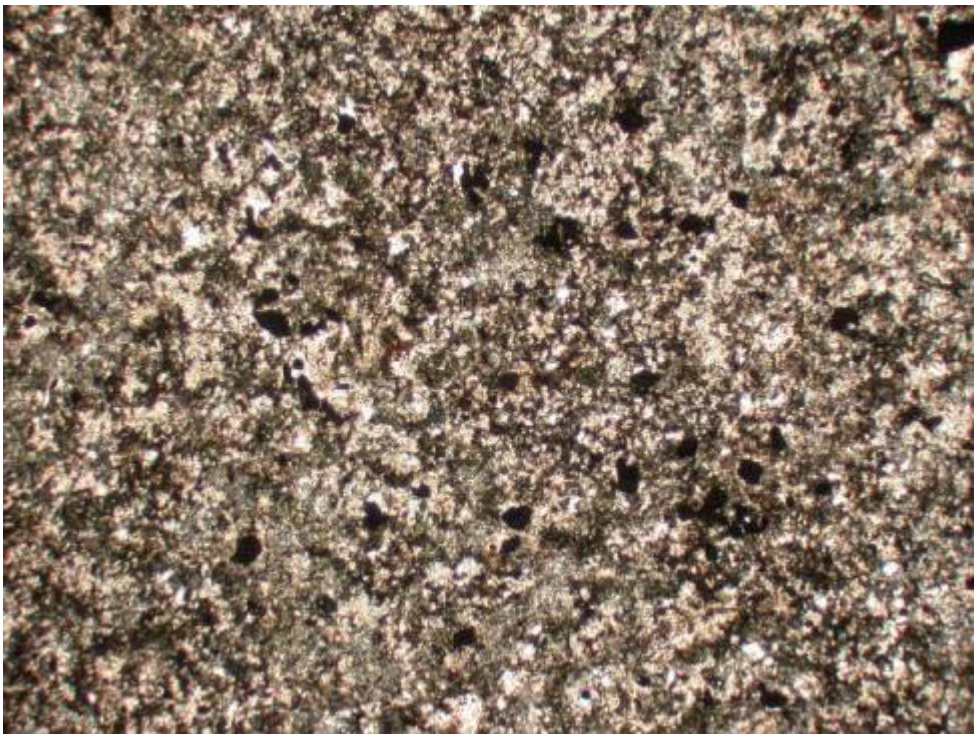
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
K-feldspar (orthoclase)	45	-fine-grained, anhedral aggregates, occurs with quartz in quartz-K-feldspar-(chlorite-carbonate) veinlet -very fine-grained, massive anhedral aggregates "cherty", occurs as pervasive replacement of host rock -very fine-grained, massive anhedral aggregates, occurs as envelopes to quartz-K-feldspar-chlorite veinlet	
Biotite	30	-very fine-grained to aphanitic brown aggregates, occurs as biotite hornfels, patchy replacement by chlorite and muscovite (sericite)	*grungy brown*
Pyrite	7	fine to very fine-grained (< 0.2 mm), anhedral grains, locally pitted, irregular grain boundaries, occurs disseminated	
Chlorite	7	very fine-grained, anhedral aggregates, occurs partly replacing biotite	
Muscovite (sericite)	7	very fine-grained, anhedral aggregates, occurs as patchy replacement of biotite	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	3	-very fine-grained, anhedral grains, occurs scattered throughout host rock -fine-grained, anhedral aggregates, occurs with K-feldspar in quartz-K-feldspar-(chlorite-carbonate) veinlet	
Chalcopyrite	tr	-very fine-grained, anhedral grains and aggregates, occurs disseminated	
Carbonate	tr	very fine-grained, anhedral grains, occurs associated with chlorite within quartz-K-feldspar veinlets	*colourless*
Rutile	tr	-very fine-grained, occurs as anhedral aggregates disseminated in host rock and veinlets	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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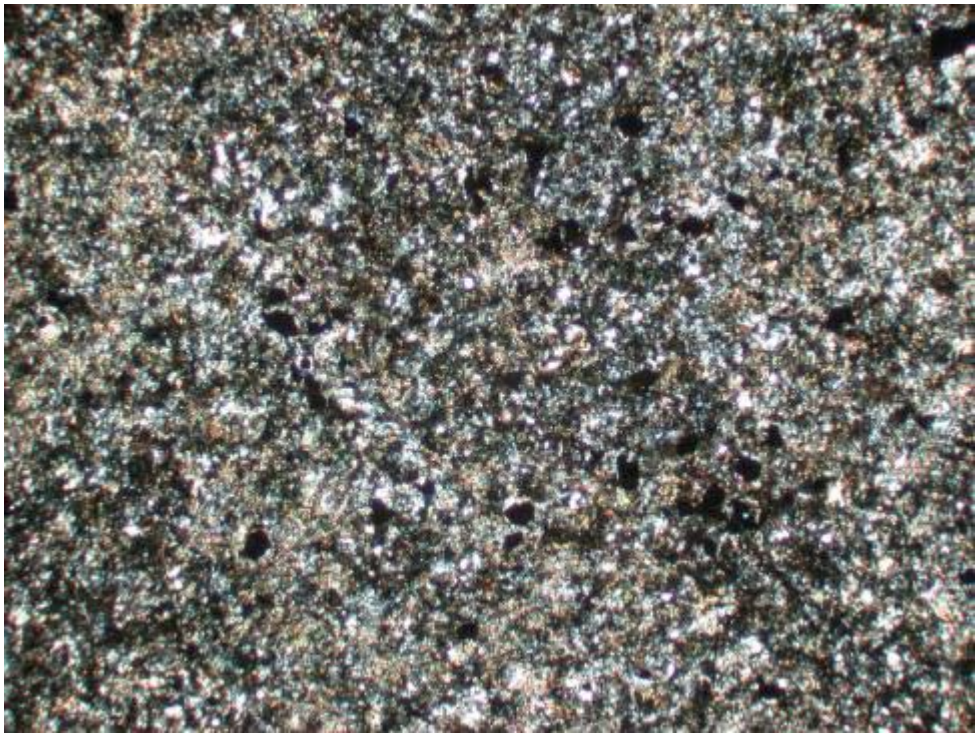
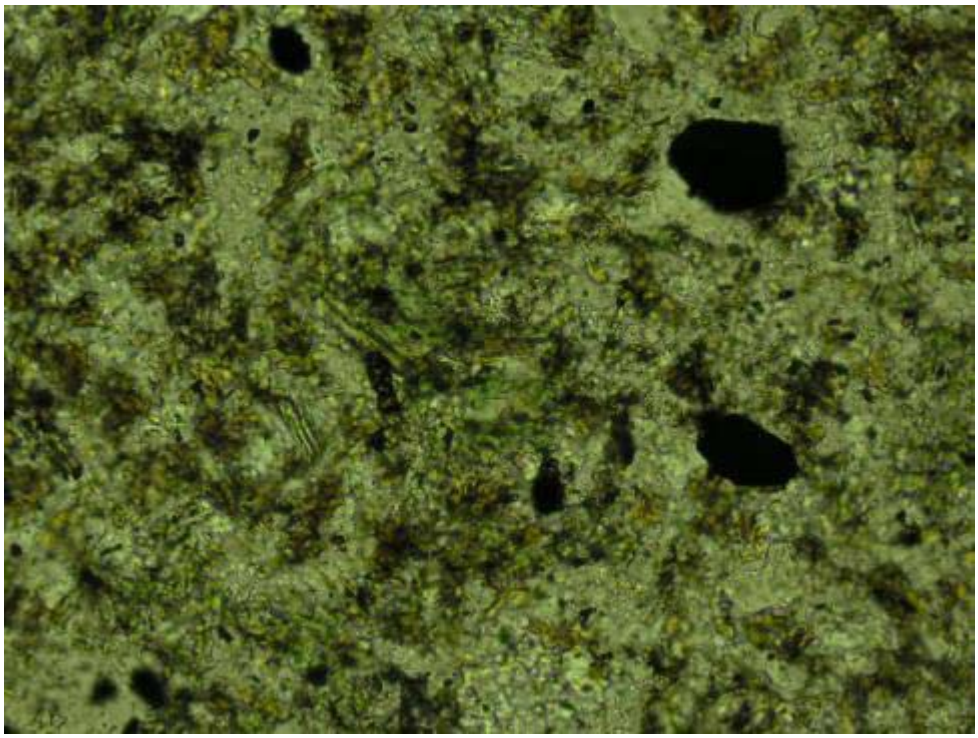
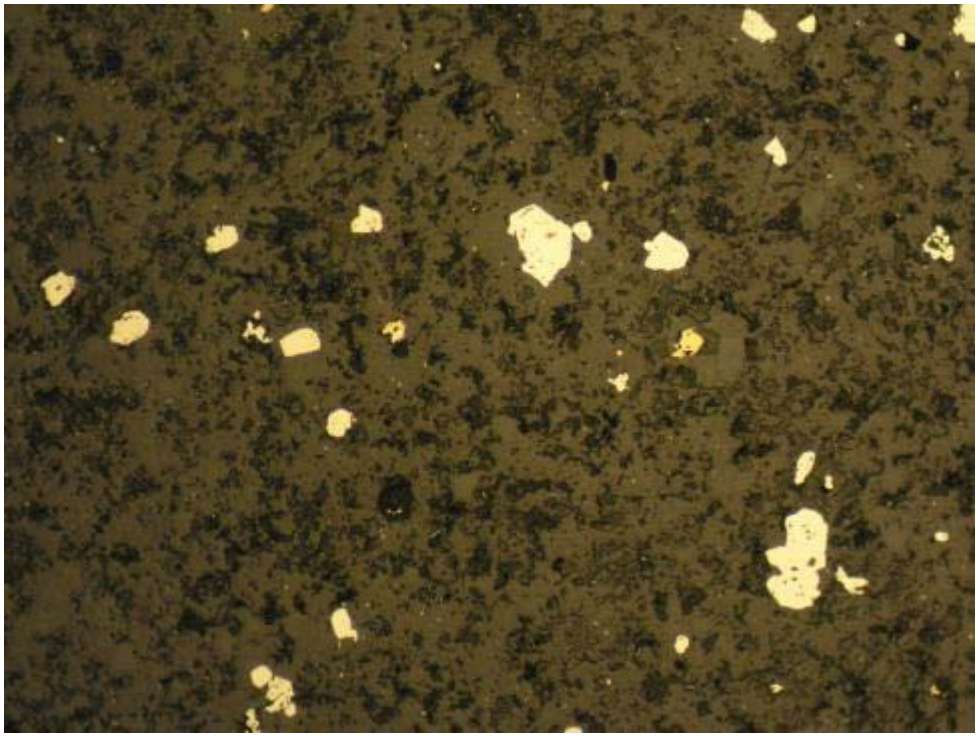


B

Hole-ID (from_ft-to_ft): 6354 (4983-4990)
A & B) Overview of hornfelsed siltstone shows biotite hornfels and massive, very fine-grained K-feldspar aggregate. Biotite is partly replaced by chlorite and muscovite (sericite). A) PPL, B) XPL, FOV = ~ 4.5 mm.

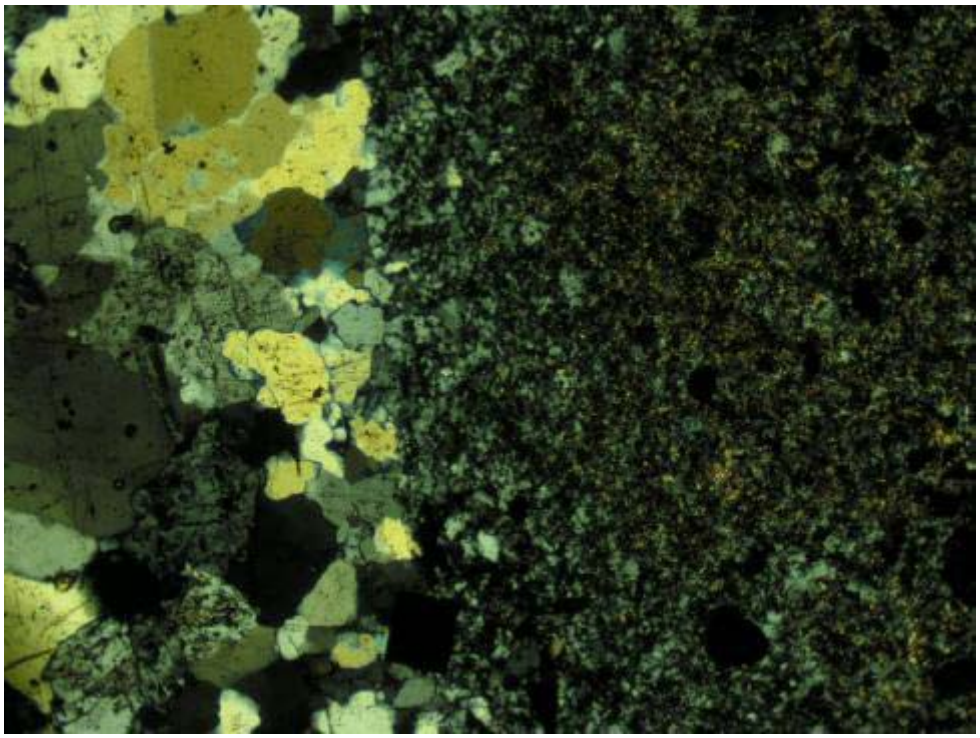


C

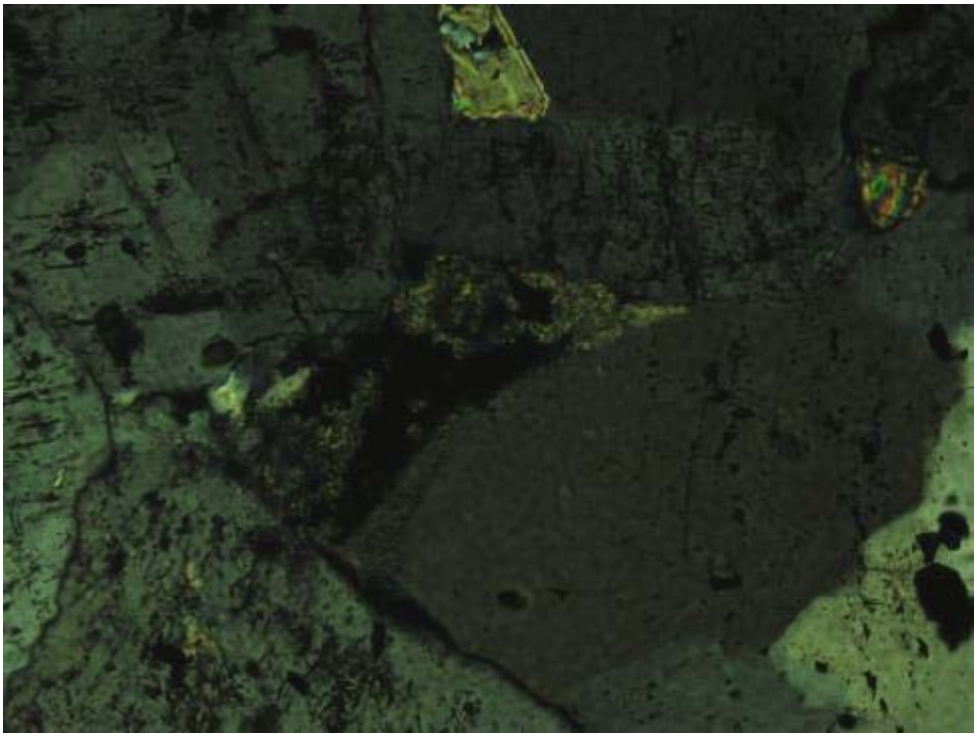


D

Hole-ID (from_ft-to_ft): 6354 (4983-4990)
C) Detailed view of biotite hornfels partly replaced by chlorite (centre). PPL, FOV = ~ 0.7 mm. D) Disseminated fine-grained anhedral pyrite and very fine-grained chalcopyrite. RL, FOV = 2.8 mm.



E



F

Hole-ID (from_ft-to_ft): 6354 (4983-4990)
E) Margin of quartz-K-feldspar-(chlorite-carbonate) veinlet with K-feldspar alteration envelope. XPL, FOV = ~ 2.8 mm. F) Traces of carbonate within quartz-K-feldspar-chlorite veinlet. XPL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 17**
Hole-ID (from_ft-to_ft): 7359 (1400-1420) **CT-32**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: Amygdaloidal basalt
ALTERATION TYPE: Carbonate, smectite, hematite
FRACTURE INFILL: Carbonate, smectite, quartz
MINERALIZATION: Chalcopyrite, pyrite

Hand Sample Description:
Drill core chips comprise a calcite vein with aphanitic black host rock and mostly greenish grey amygdaloidal basalt with from 10 to 15% dark green and locally carbonate, hematite or pyrite filled amygdales. Trace localized reaction to magnet. Strong reaction of matrix, filled hairline fractures and veinlets to cold, dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite.

Polished Thin Section Description:
This sample is a selectively carbonate-smectite-hematite altered, fractured amygdaloidal basalt in contact with brecciated basalt fragments that are cemented by calcite, smectite and quartz. The basalt has abundant amygdales in a fine-grained matrix which comprises carbonate-altered plagioclase laths and a locally patchy green-brown smectite-altered aphanitic brown groundmass. Amygdales are a maximum of 7 mm in diameter with oval shapes. Amygdales are filled by smectite, carbonate, radiating quartz aggregate (chalcedony) and locally hematite. Traces of chalcopyrite and rarely magnetite occur disseminated. The rock is cut by numerous fractures infilled with carbonate, lesser smectite and very fine-grained quartz. Rare traces of pyrite occur within the quartz infill.

Carbonate occurs in major amounts, approximately 45% dominantly as colourless carbonate and less commonly cloudy to brown carbonate aggregates. Colourless carbonate aggregates, approximately 30%, replace former plagioclase phenocrysts and occur as fracture infill. Cloudy carbonate aggregates occur with smectite and microcrystalline quartz in basalt breccia as patchy replacement and fracture infill. Cloudy carbonate is locally partly replaced by very fine-grained hematite aggregates.

Sulphides occur in trace amounts as pyrite and chalcopyrite. Pyrite is very fine-grained, eu-subhedral and with unaltered grain boundaries. Anhedral chalcopyrite grains are also unaltered.

SRK Project No. 1CN007.00 **UBC Composite # 17**
Hole-ID (from_ft-to_ft): 7359 (1400-1420) **CT-32**

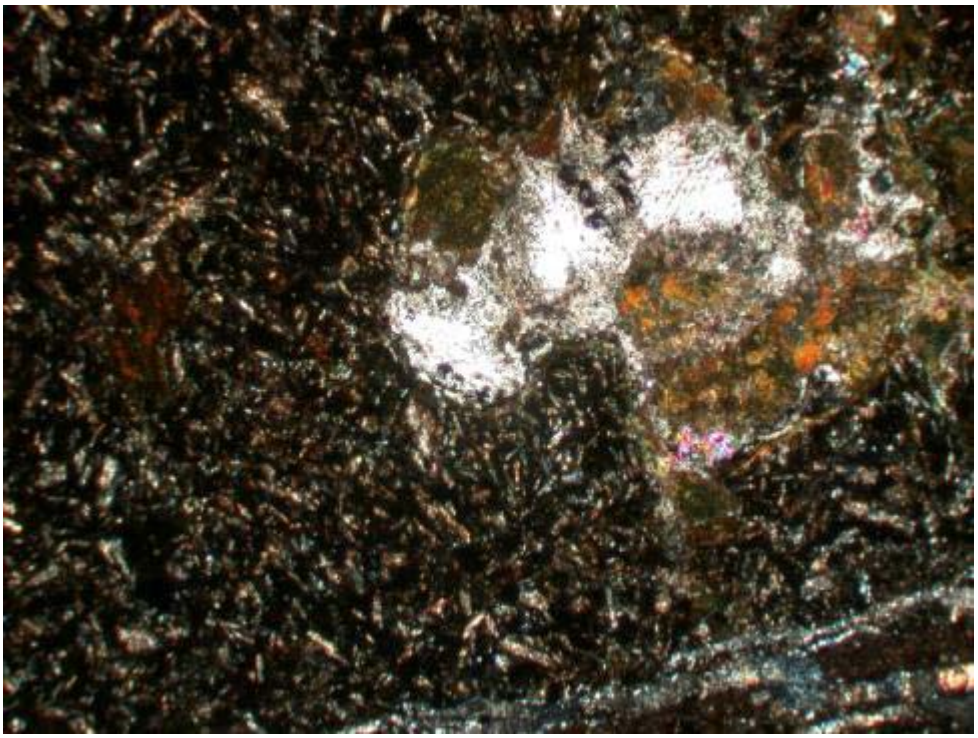
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Groundmass	32	aphanitic, brown, occurs interstitial to plagioclase laths, forms devitrified groundmass, components unresolved	*dark brown*
Carbonate, colourless	30	-fine to medium-grained (< 3 mm), anhedral colourless aggregates, occurs as fracture infill and as amygdales with quartz and hematite -fine to very fine-grained, anhedral aggregates, occurs replacing plagioclase laths in the groundmass, locally partly replaced by hematite	
Carbonate, cloudy	15	-very fine-grained, cloudy aggregates, occurs with smectite and quartz as fracture infill and patchy replacement of brecciated basalt, partly replaced by hematite	
Smectite	15	-fine to very fine-grained, radiating to anhedral aggregates, occurs as amygdales -very fine-grained, occurs with very fine-grained quartz and carbonate as fracture infill -very fine-grained, occurs as patchy replacement of groundmass and occurs with rutile as replacement of former fine-grained prismatic phases	*green-brown*

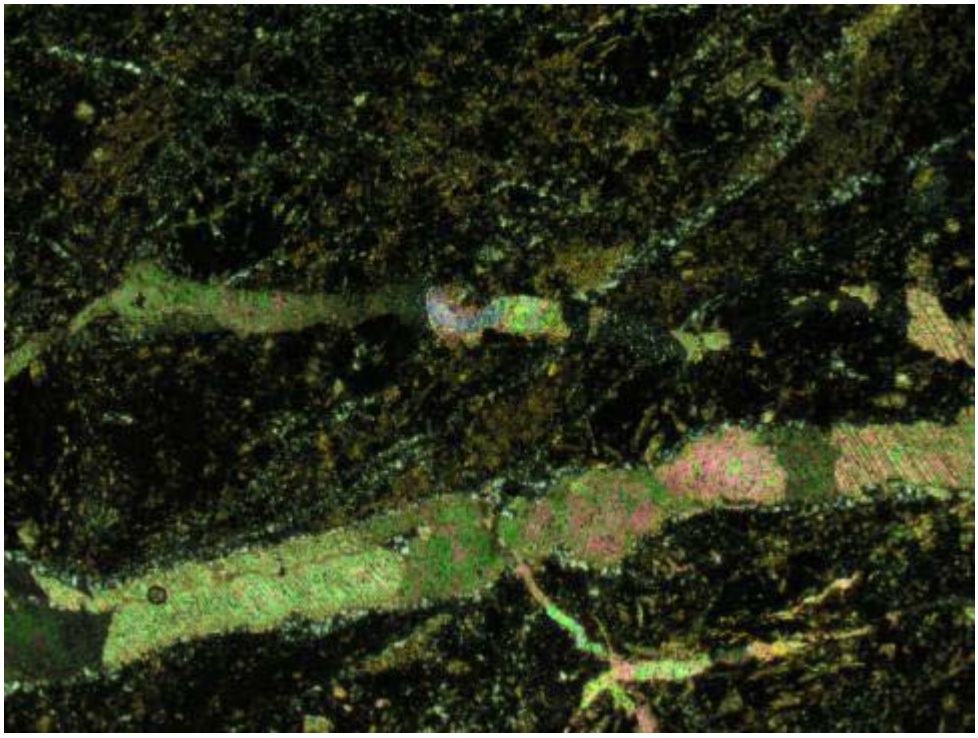
MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Hematite	3	very fine-grained, radiating to anhedral aggregates, occurs as replacement of carbonate fracture infill, amygdales and plagioclase	
Plagioclase	2	fine-grained (< 0.4 mm), laths, occurs in glassy groundmass, almost completely replaced by carbonate	
Quartz	2	-fine-grained, radiating aggregates, occurs as infill to amygdales filled with carbonate and hematite (chalcedony) -very fine-grained, anhedral aggregates, occurs with colourless carbonate and smectite as fracture infill	
Rutile	tr	very fine-grained, anhedral, occurs with smectite as replacement of former fine-grained prismatic phases	
Chalcopyrite	tr	very fine-grained, anhedral, occurs disseminated	
Pyrite	tr	very fine-grained, anhedral, associated with very fine-grained quartz fracture infill	
Magnetite	tr	very fine-grained, subhedral, occurs rarely disseminated	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm

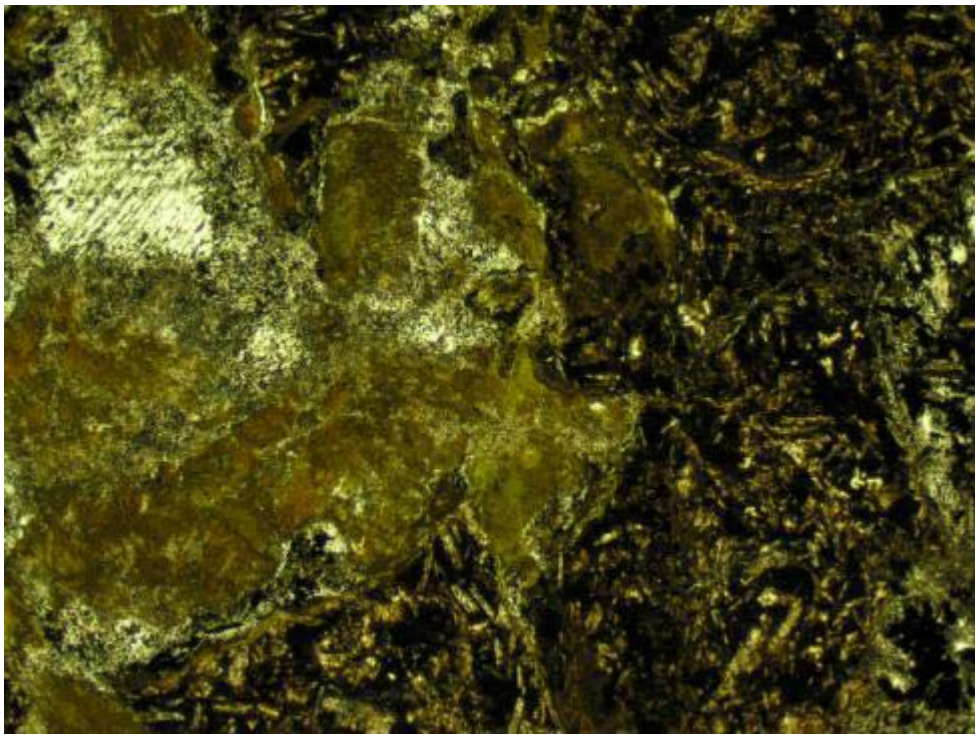


A

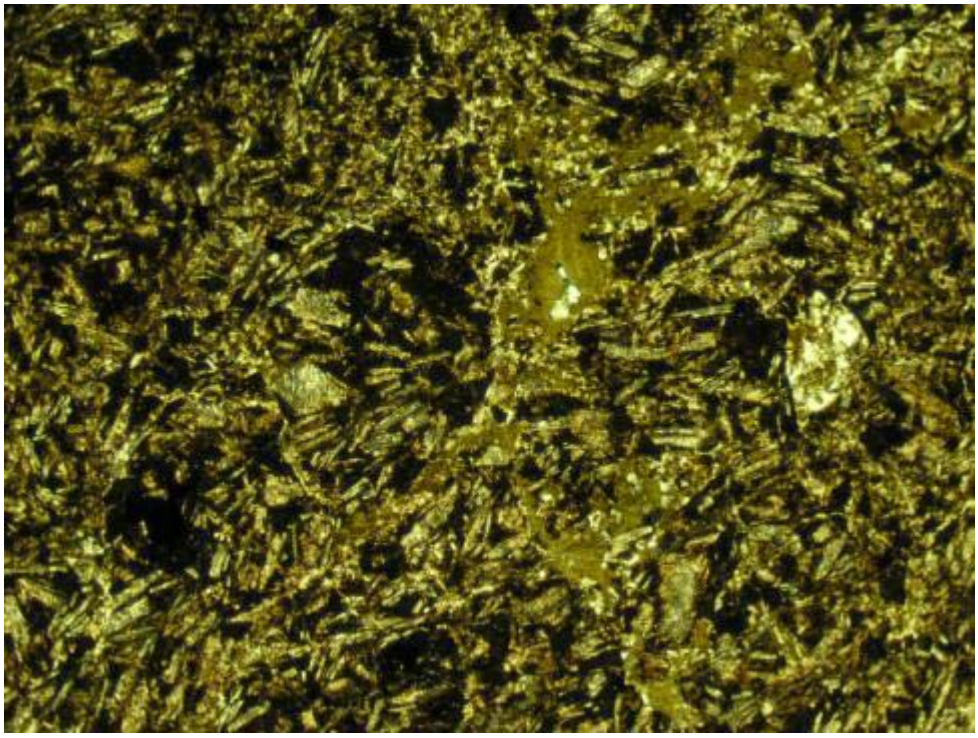


B

Hole-ID (from_ft-to_ft): 7359 (1400-1420)
A) Overview of amygdaloidal basalt shows amygdale (right) filled with smectite and carbonate. PPL, FOV = ~ 4.5 mm. B) Brecciated portion of sample shows cloudy-brown carbonate-altered basalt cut by colourless carbonate filled fractures. XPL, FOV = ~ 2.8 mm.

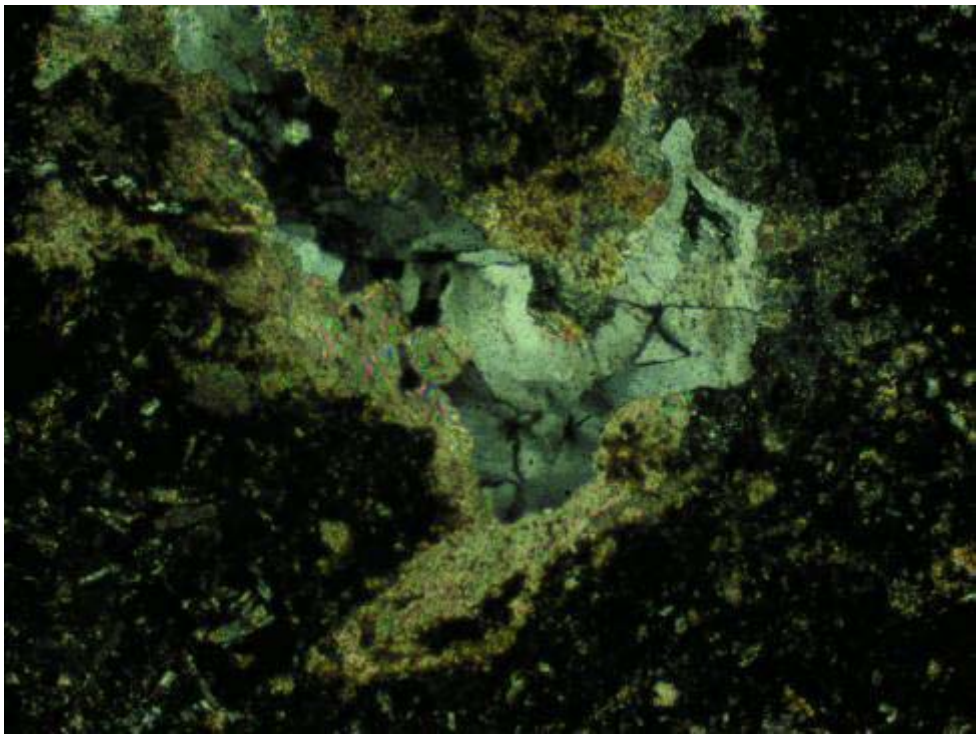


C



D

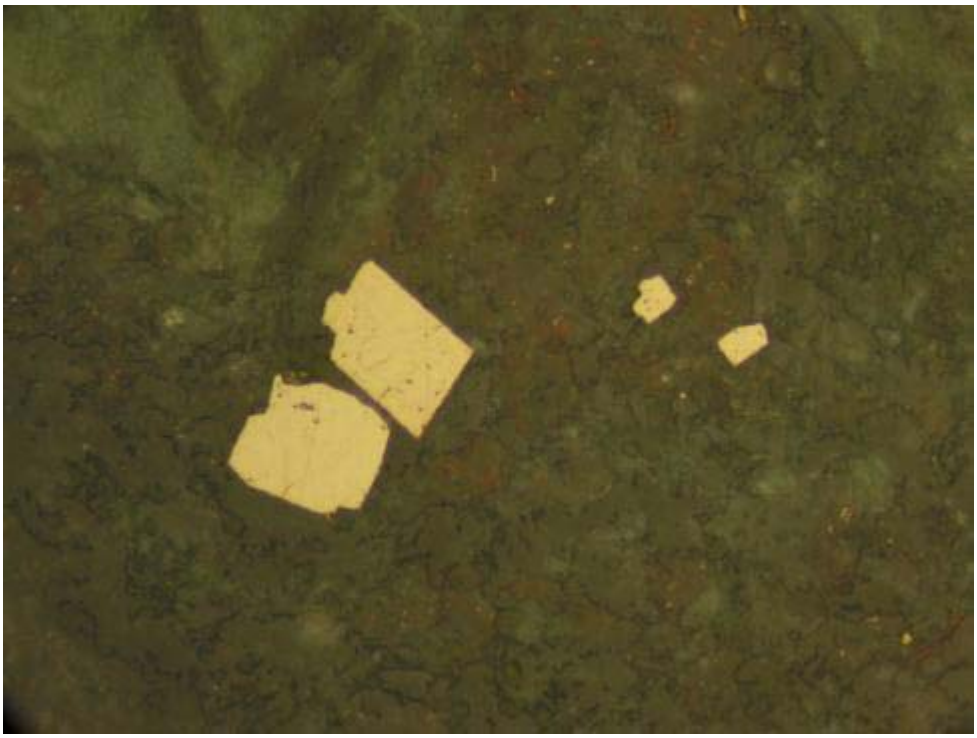
Hole-ID (from_ft-to_ft): 7359 (1400-1420)
C&D) Detailed views of amygdaloidal basalt. Note smectite-carbonate-filled amygdale in photo C. In photo D, note replacement of plagioclase laths by carbonate and patchy replacement of aphanitic groundmass by patchy smectite. Both photos are in PPL. FOV = 2.8 mm.



E

F

Hole-ID (from_ft-to_ft): 7359 (1400-1420)
E) Amygdale infilled by quartz (chalcedony) and carbonate. XPL, FOV = ~ 1.3 mm. F) Bladed hematite aggregates within a carbonate-quartz filled amygdale. RL, FOV = 1.3 mm.



G

Hole-ID (from_ft-to_ft): 7359 (1400-1420)
G) Rare grains of eu-subhedral pyrite with unaltered grain boundaries. RL, FOV = 0.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 12**
Hole-ID (from_ft-to_ft): 7359 (1760-1780) **CT-33**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (dry)

LITHOLOGY: Lithic greywacke
ALTERATION TYPE: Carbonate

Hand Sample Description:
Medium to light-grey immature sandstone with polylithic subangular grains. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). Strong reaction to cold, dilute HCl.

Polished Thin Section Description:
This sample is a poorly-sorted lithic greywacke with angular to subangular mineral grains and abundant polylithic rock fragments in a very fine-grained chlorite ± illite± quartz matrix (~20%) with low intergranular porosity. The greywacke comprises approximately 5% quartz grains, 8% altered plagioclase grains, 15% carbonate (grains and replacement) and rock fragments including dominantly aphanitic rock, sandstone, siltstone, mudstone and polycrystalline quartz. Plagioclase grains are partly replaced by colourless carbonate. The framework grains range from approximately 0.07 mm to 1.1 mm in size which spans the boundary between very coarse sandstone and very fine sandstone.

Carbonate comprises approximately 15% of the section as fine-grained (< 0.5 mm), colourless, locally pitted grains and aggregates. Carbonate occurs as replacement of plagioclase, as individual grains and as patchy aggregates within rock fragments.

Sulphide occurs in trace amounts as chalcopyrite, pyrite and rarely pyrrhotite and galena. Pyrite occurs as very fine-grained euhedral grains disseminated within aphanitic rock fragments and as fine grained, anhedral grains with chalcopyrite within carbonate framework grains. Pyrite grain boundaries are without alteration rims. Rim of one chalcopyrite grain partly replaced by red-brown Fe-oxide/oxyhydroxide material.

SRK Project No. 1CN007.00 **UBC Composite # 12**
Hole-ID (from_ft-to_ft): 7359 (1760-1780) **CT-33**

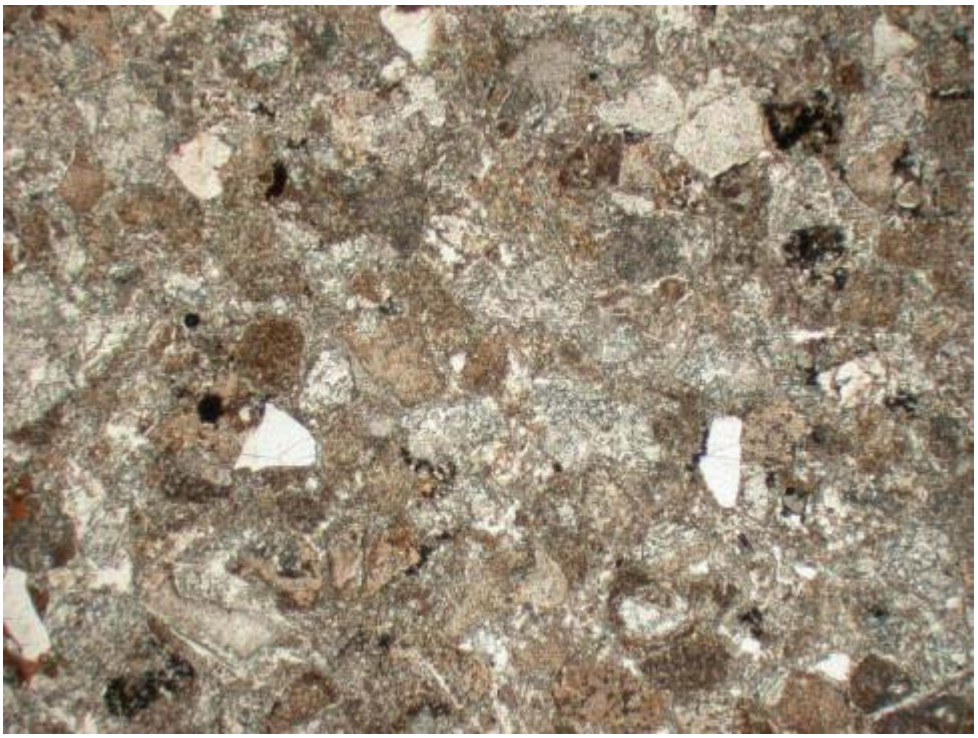
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rock Fragments	55	angular to very angular, includes aphanitic rock, sandstone, siltstone and polycrystalline quartz	*polylithic*
Chlorite	15	very fine-grained, platy to radiating aggregates, occurs as matrix interstitial to mineral grains and rock fragments, occurs locally with quartz, illite or epidote	
Carbonate, includes calcite	15	fine to very fine-grained (< 0.5 mm), colourless, patchy aggregates, occurs as replacement of plagioclase, as individual grains and less commonly as within rock fragments	*colourless*
Quartz	5	-fine-grained, occurs as angular framework grains -very fine-grained, anhedral aggregates, occurs locally with chlorite as matrix	
Plagioclase	5	fine-grained, tabular framework grains, partly replaced by carbonate	*polysynthetic twinning*

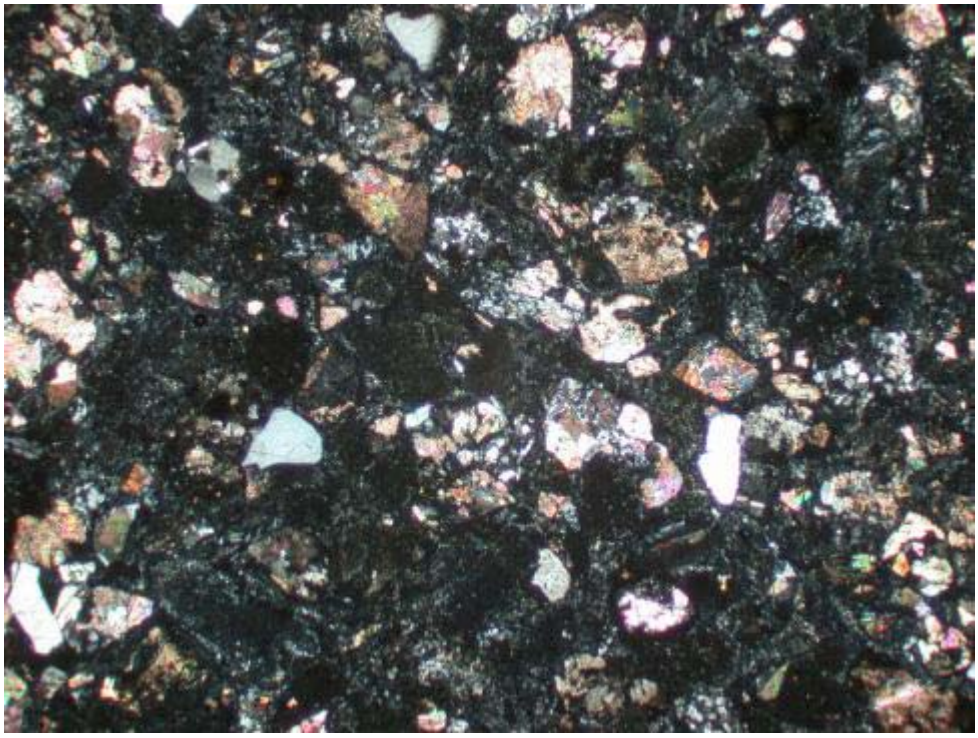
MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Illite	2	very fine-grained, occurs locally with chlorite as matrix interstitial to mineral grains and rock fragments	
Epidote	2	very fine-grained, anhedral aggregates, occurs locally rimming rock and mineral fragments as matrix and locally associated with carbonate	*grungy, high relief, high birefringence*
Chalcopyrite	tr	fine-grained, anhedral, occurs within carbonate grains and disseminated in some rock fragments	
Pyrite	tr	very fine-grained, euhedral, occurs disseminated within aphanitic rock fragments fine-grained, anhedral, occurs with chalcopyrite within carbonate framework grains, no alteration rims	
Fe-oxide/oxyhydroxide	tr	aphanitic aggregates, occurs as patches in some rock fragments, partly replaces one grain of chalcopyrite	*red-brown*
Carbonaceous material	tr	aphanitic, anhedral aggregate, occurs as isolated framework fragment	
Pyrrhotite	tr	very fine-grained, anhedral aggregates, occurs within aphanitic rock fragment	
Galena	tr	very fine-grained, cubic forms, occurs within carbonate grain	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm

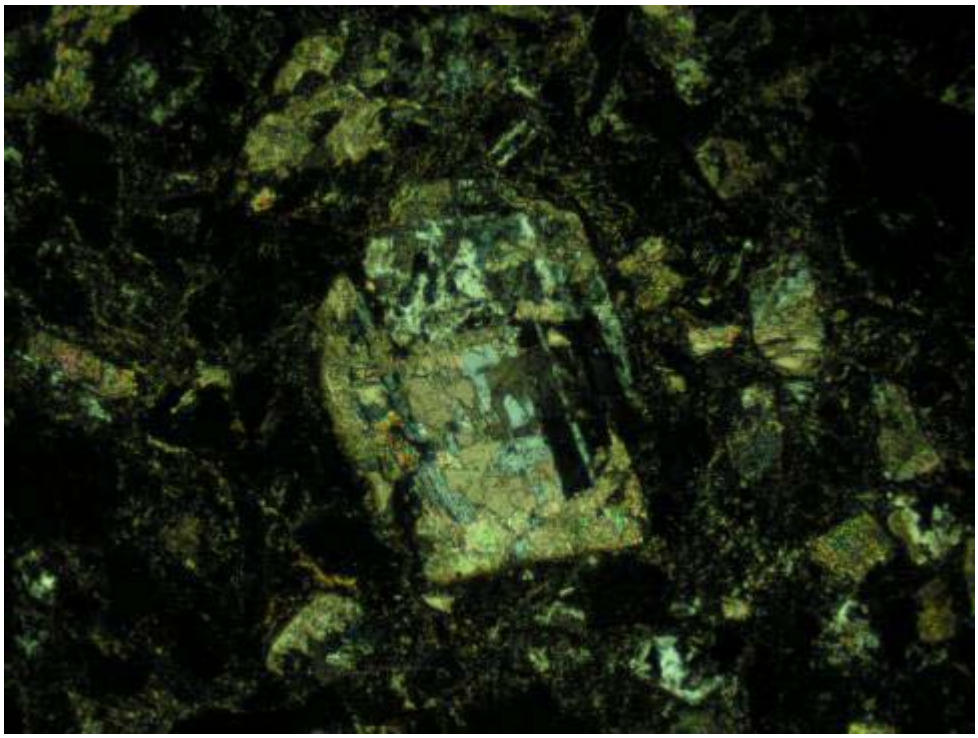


A

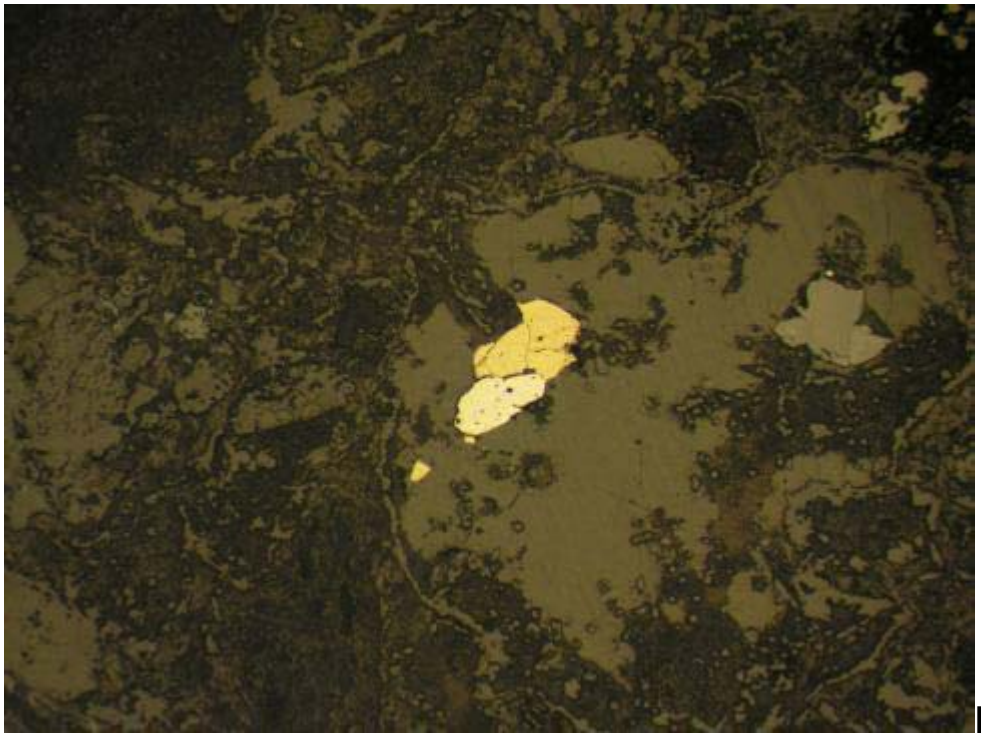


B

Hole-ID (from_ft-to_ft): 7359 (1360-1780)
A & B) Overview of poorly-sorted lithic greywacke with angular to subangular mineral grains and abundant polylithic rock fragments in a very fine-grained chlorite-dominant matrix. A) PPL, B) XPL, FOV = ~ 4.5 mm.



C



D

Hole-ID (from_ft-to_ft): 7359 (1360-1780)
C) Plagioclase framework grain (centre) partly replaced by carbonate. XPL, FOV = ~ 2.1 mm. D) Disseminated pyrite and chalcopyrite grains within carbonate grain. Note low reflectance area (right) is pit in mineral surface. RL, FOV = 1.0 mm.

SRK Project No. 1CN007.00 **UBC Composite # 14**
Hole-ID (from_ft-to_ft): 7363 (268-288) **CT-34**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (dry)

LITHOLOGY: Coarse crystal-lithic tuff
ALTERATION TYPE: Clay, carbonate, chlorite, hematite, pyrite

Hand Sample Description:
Medium-grey immature tuffaceous rock with polylithic subangular grains. No reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This sample is a coarse crystal-lithic tuff with angular to subangular mineral grains and abundant rock fragments in a fine-grained plagioclase-dominant matrix. The tuff comprises dominantly fine-grained plagioclase-crystal-rich fragments, broken quartz crystals ~1% plagioclase crystals ~1% and aphanitic rock fragments (approximately 5%). Plagioclase-crystal-rich fragments are variably carbonate, clay and chlorite-altered.

Carbonate comprises approximately 20% of the section as fine-grained (< 0.2 mm), colourless aggregates. Carbonate occurs as replacement of plagioclase and as patchy aggregates within basaltic rock fragments and matrix. Locally carbonate is partly replaced by hematite.

Sulphide occurs in minor amounts, ~3%, as pyrite. Pyrite occurs as very fine-grained, disseminated eu-subhedral grains, as clusters of grains overprinting fragments and patchy carbonate, as rims to former chlorite-altered prismatic phases and as overprint to hematite aggregates. Pyrite grain boundaries are without alteration rims.

SRK Project No. 1CN007.00 **UBC Composite # 14**
Hole-ID (from_ft-to_ft): 7363 (268-288) **CT-34**

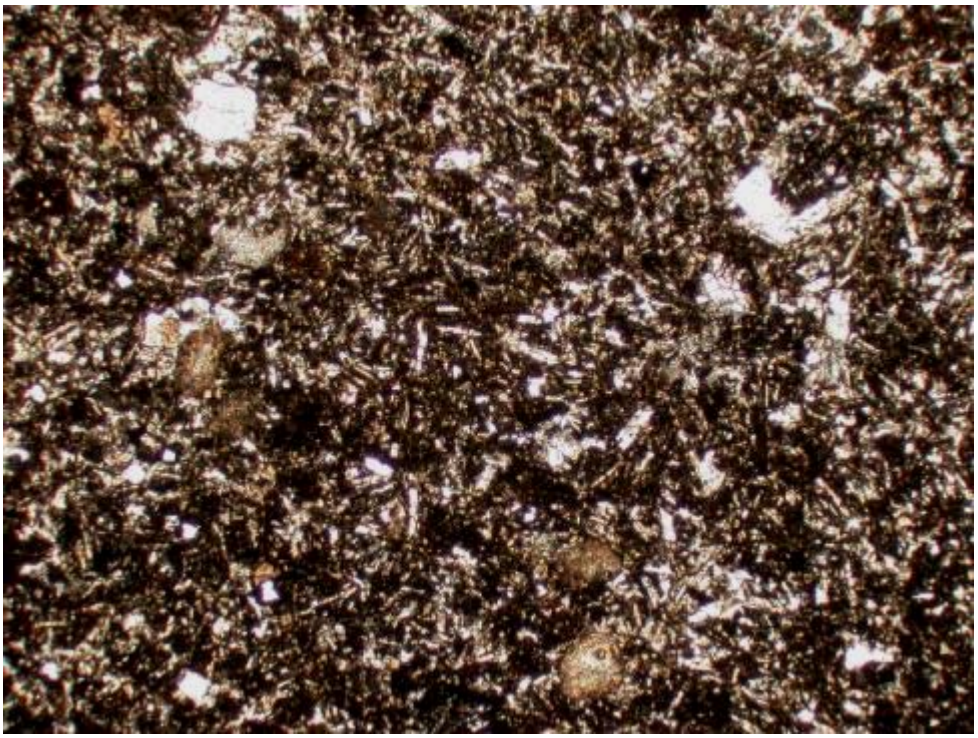
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Clay	35	very fine-grained, aggregates, occurs as aphanitic rock fragments, partly plucked from section leaving vugs -very fine-grained, occurs as replacement of very fine-grained former mafic phases interstitial to plagioclase in plagioclase-crystal rich rock fragments, occurs partly replacing plagioclase	
Plagioclase	30	-fine-grained (< 0.3 mm), occurs as scattered broken crystals -fine-grained (< 0.25mm), laths, occurs as plagioclase-crystal-rich matrix, partly replaced by carbonate and clay	
Carbonate	20	fine-grained (< 0.2 mm), occurs as patchy replacement of plagioclase-crystal-rich fragments, also occurs partly replacing plagioclase laths within fragments, locally rimmed and partly replaced by hematite	
Aphanitic rock fragments	5	subangular to subrounded, unknown aphanitic rock fragments	

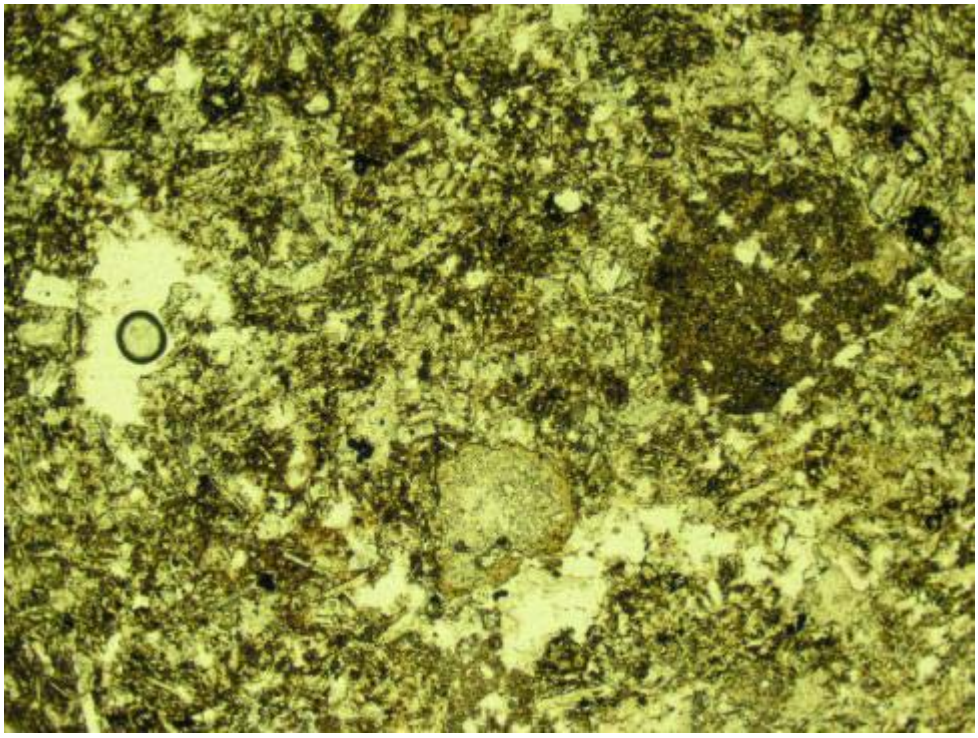
MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Pyrite	3	very fine-grained, eu-subhedral grains and aggregates, occurs disseminated overprinting clasts and patchy carbonate, locally occurs rimming former chlorite-altered prismatic phases, locally rims and overprints hematite aggregate	
Chlorite	3	very fine-grained, anhedral aggregates, occurs as replacement of former fine-grained prismatic phases within basalt fragments, rimmed by very fine-grained euhedral pyrite aggregate	
Hematite	2	very fine-grained aggregates, occurs as patches in some rock fragments, occurs locally partly replacing carbonate	*red*
Quartz	1	fine-grained (<0.6 mm), anhedral, occurs as scattered broken crystals	

* size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm

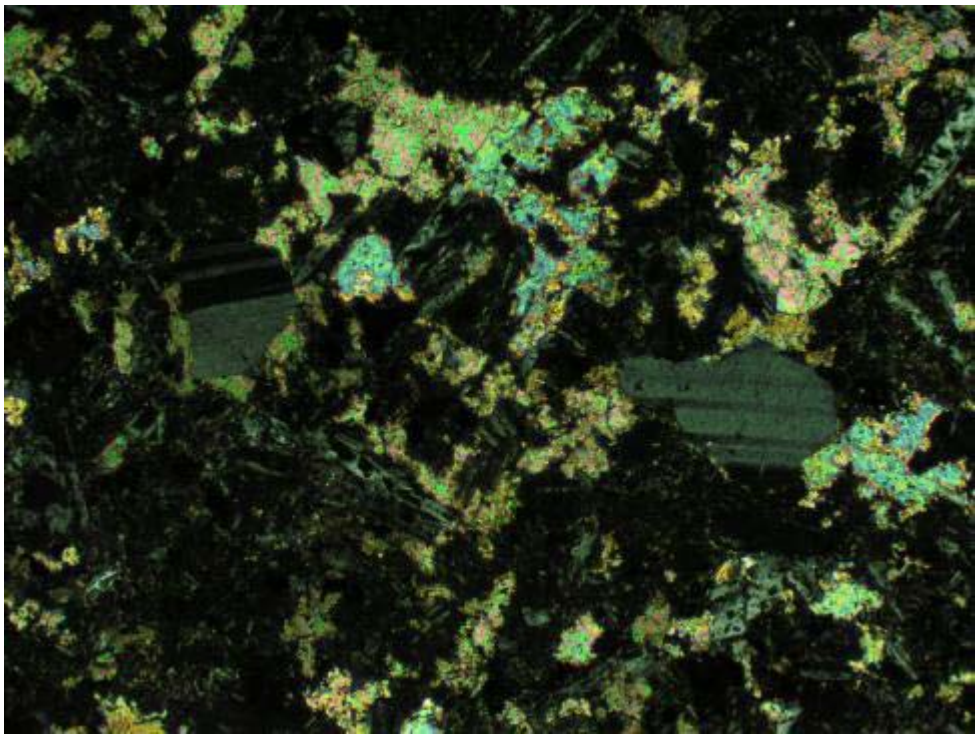


A

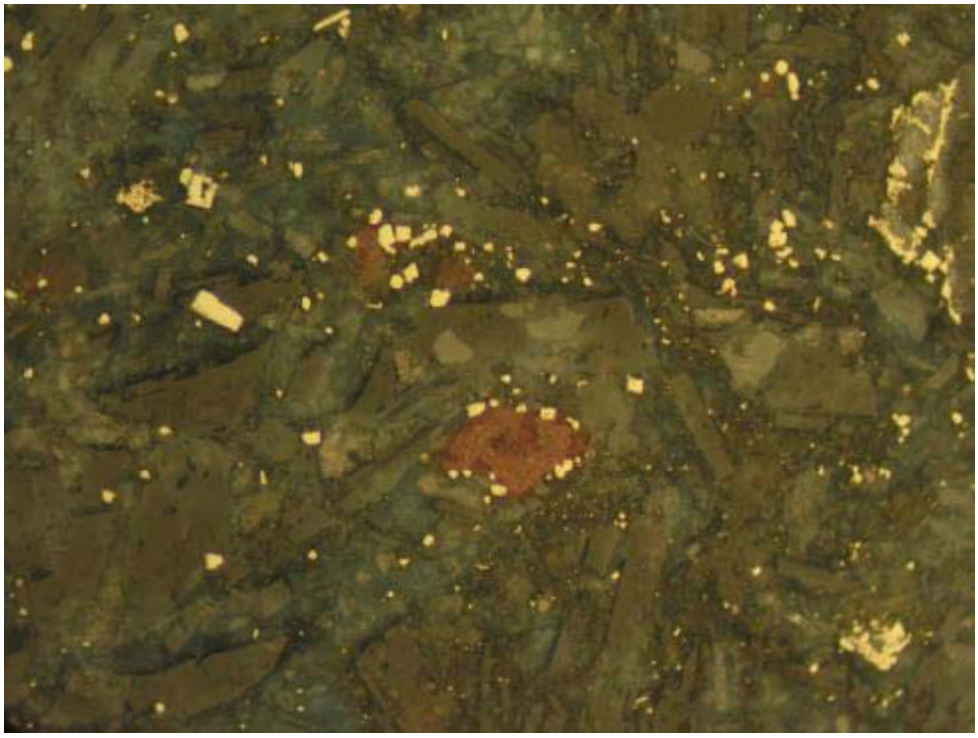


B

Hole-ID (from_ft-to_ft): 7363 (268-288)
A & B) Overviews of sample shows crystal-lithic tuff with angular to subangular mineral grains and rock fragments in a fine-grained plagioclase-crystal-rich matrix. A) PPL, FOV = ~ 4.5 mm. B) PPL, FOV = ~ 2.8 mm.

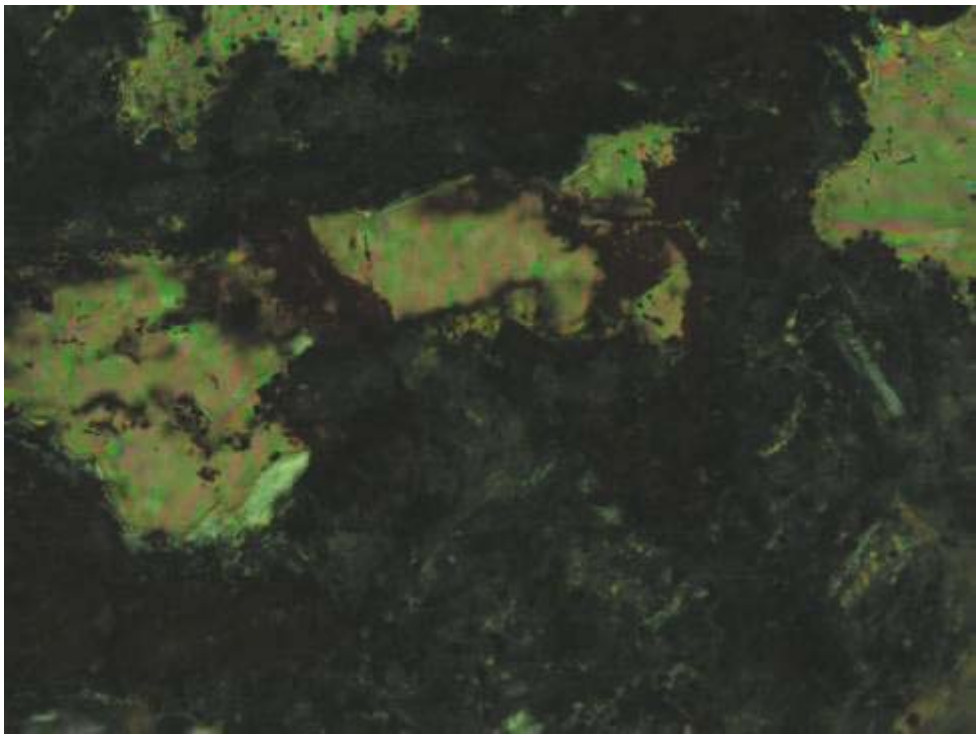


C

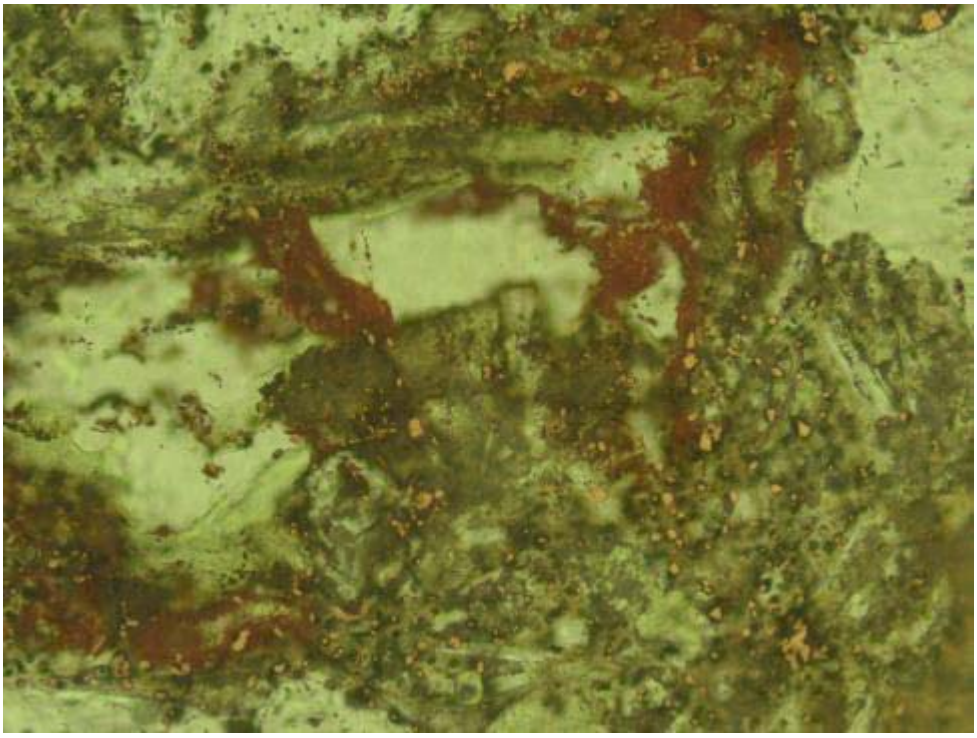


D

Hole-ID (from_ft-to_ft): 7363 (268-288)
C) Detailed view of broken plagioclase crystals and carbonate-altered basalt. XPL, FOV = ~ 1.3 mm. D) Patches of hematite (red) within basaltic rock fragments. Note occurrence of very fine-grained euhedral pyrite – disseminated and as rims to hematite (centre) and former prismatic aggregates (right). RL, FOV = 0.3 mm.



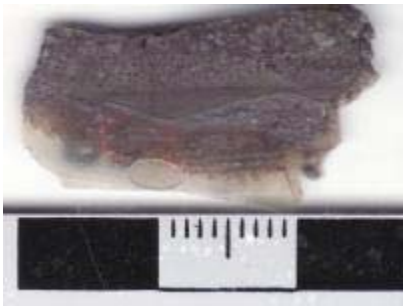
E



F

Hole-ID (from_ft-to_ft): 7363 (268-288)
E&F) Detailed view of patchy carbonate partly replaced by hematite aggregate (red in PPL). Very fine-grained pyrite overprints hematite. E) XPL, condensed, F) PPL, condensed +RL, FOV = 0.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 9**
Hole-ID (from_ft-to_ft): 7364 (689-710) **CT-35**



Etched and stained section offcut

2 views of some of the core sample pieces (wet)

all photo scales in cm

Note section and offcut were made from central core piece (aphanitic) of middle photo (above). This section and offcut are not representative of the majority of core pieces in this sample (which crystal-rich tuffs.

LITHOLOGY: Thinly laminated, interlayered fine to very fine tuff
ALTERATION TYPE: Clay, unknown

Hand Sample Description:
Drill core fragments are dominantly crystal-rich tuff and lapilli tuff. Locally patchy hematite occurs as matrix to lapilli tuff. Sample offcut is thinly laminated fine tuff. The majority of samples have patchy reaction to cold, dilute HCl. One drill core fragment has slight reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut).

Polished Thin Section Description:
This sample is a thinly laminated, interlayered fine to very fine tuff with angular to subangular mineral grains and in a fine to very fine-grained plagioclase crystal-rich matrix. The coarser tuff layers comprise broken fine-grained quartz crystals ~3%, plagioclase crystals ~3%, rare platy biotite and rare carbonate grains in a fine to very fine-grained plagioclase crystal-rich matrix. Abundant clay occurs interstitial to plagioclase as replacement of former phases. The finer tuff layers are interlayered with coarser material and comprise very fine-grained quartz, plagioclase, aphanitic brown clay and unknown aphanitic material.

Carbonate occurs in trace amounts as rare, scattered, fine anhedral grains within the coarser tuff layers. Locally carbonate occurs with traces of magnetite.

Sulphide occurs in trace amounts as pyrite. Pyrite occurs as very fine-grained, disseminated sub-anhedral pitted and locally fragmented grains. Some grains have corroded cores. Pyrite grain boundaries are irregular but without alteration rims.

SRK Project No. 1CN007.00 **UBC Composite # 9**
Hole-ID (from_ft-to_ft): 7364 (689-710) **CT-35**

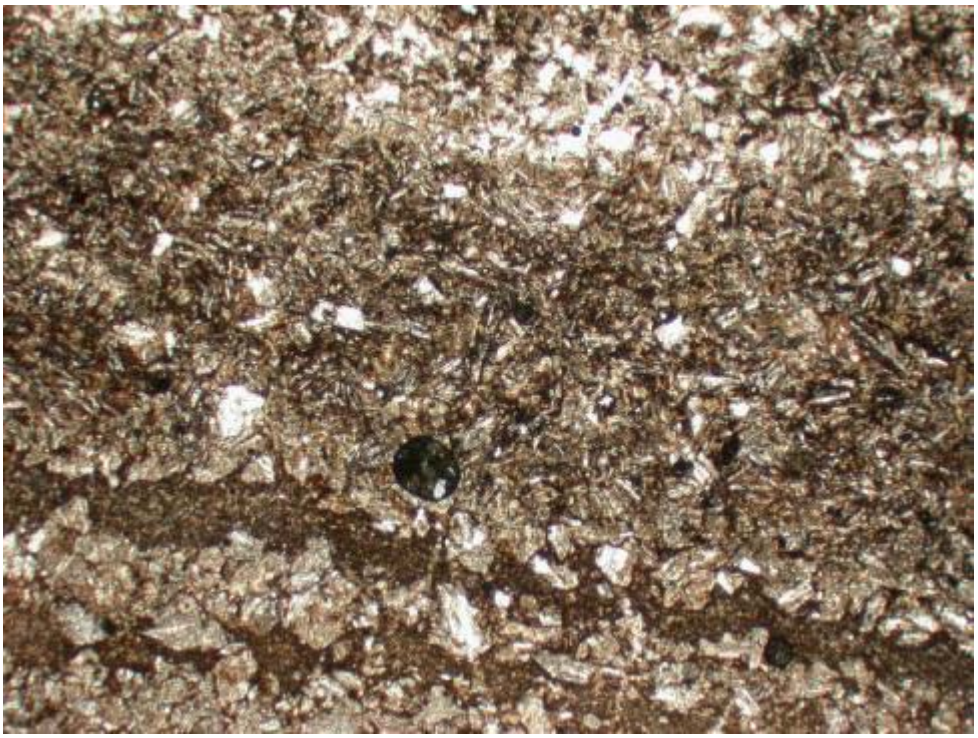
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Plagioclase	40	-fine-grained (< 1 mm), occurs as scattered broken crystals within coarser tuff layers (2.5% of section) -fine to very fine-grained (< 0.25mm), laths, occurs in the matrix	
Clay	40	very fine-grained, aggregates, occurs as replacement of very fine-grained phases interstitial to plagioclase in the matrix of coarser layers and dominates finer tuff layers	*brown*
Unknown aphanitic material	15	aphanitic material, occurs with very fine-grained plagioclase, quartz and clay as finer-tuff layers, beyond optical resolution, partly plucked from section	

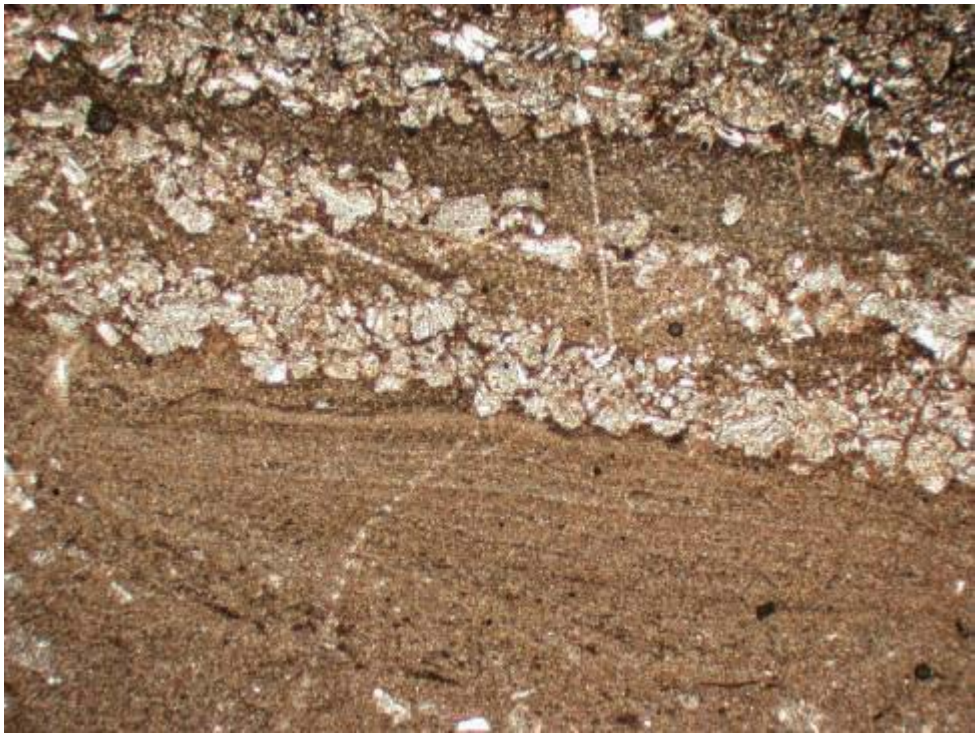
MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Quartz	3	fine-grained (<1 mm), anhedral, occurs as scattered broken crystals within very fine and fine tuff layers	
Biotite	tr	fine-grained, platy, occurs as isolated laths within tuff layers	
Carbonate	tr	fine-grained (< 0.2 mm), occurs as isolated grains within coarser tuff layers	
Pyrite	tr	very fine-grained, sub-anhedral disseminated grains, commonly pitted and fragmented, locally corroded cores	
Magnetite	tr	very fine-grained, occurs as blebs within carbonate grain	
Sphalerite	tr	very fine-grained, one anhedral grain observed	

* size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm

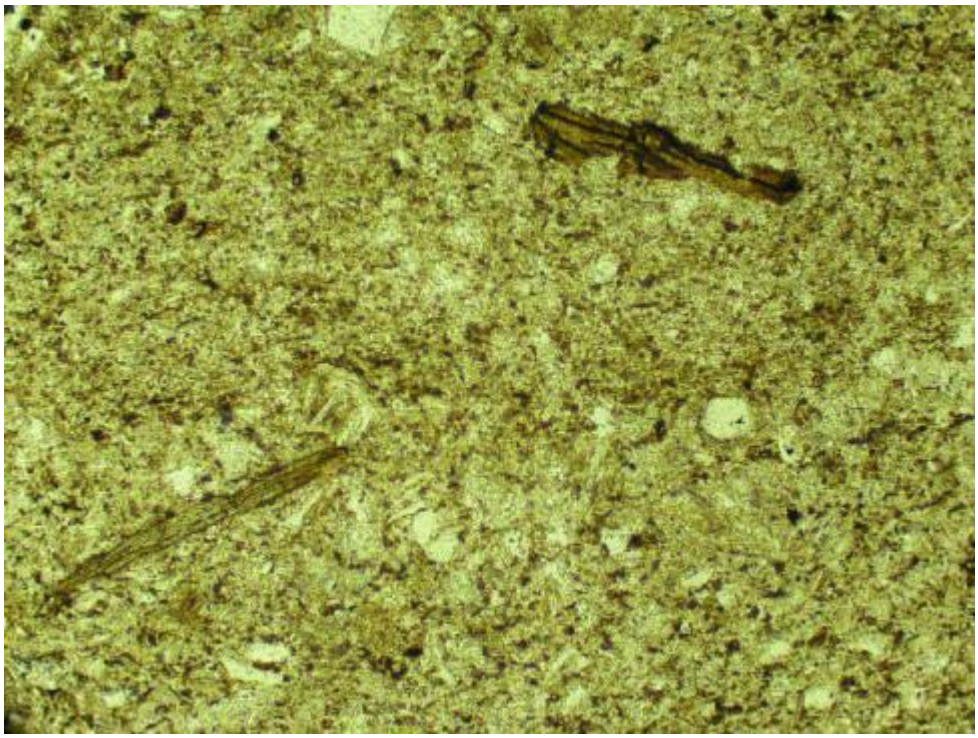


A

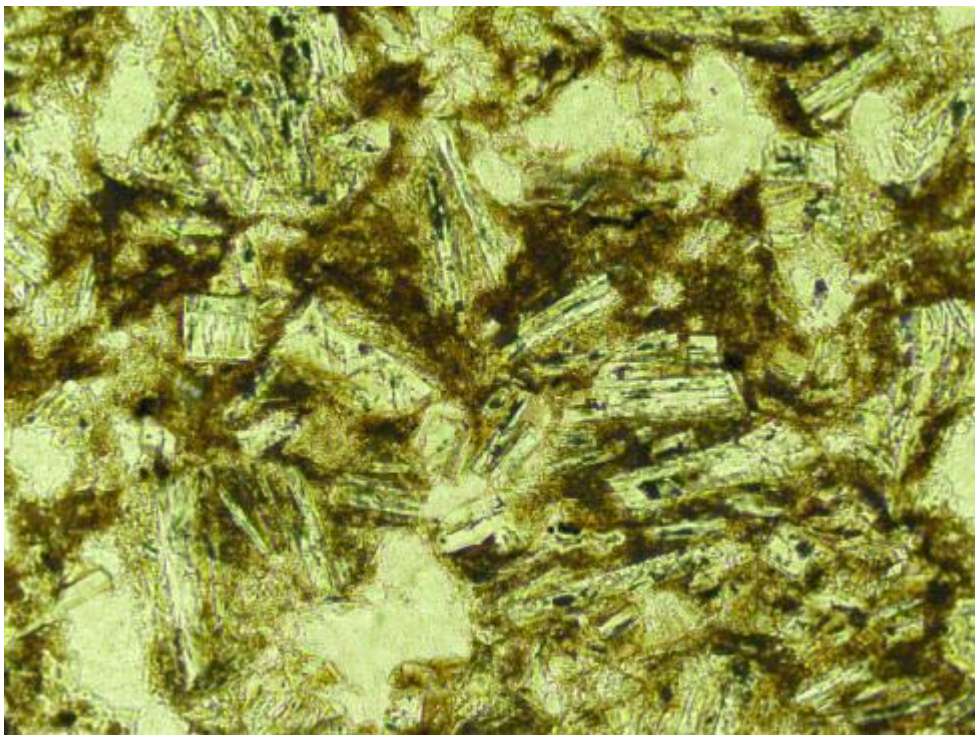


B

Hole-ID (from_ft-to_ft): 7364 (689-710)
A & B) Overview of sample shows thinly laminated, interlayered fine to very fine tuff. A) PPL, B) XPL, FOV = ~ 4.5 mm.

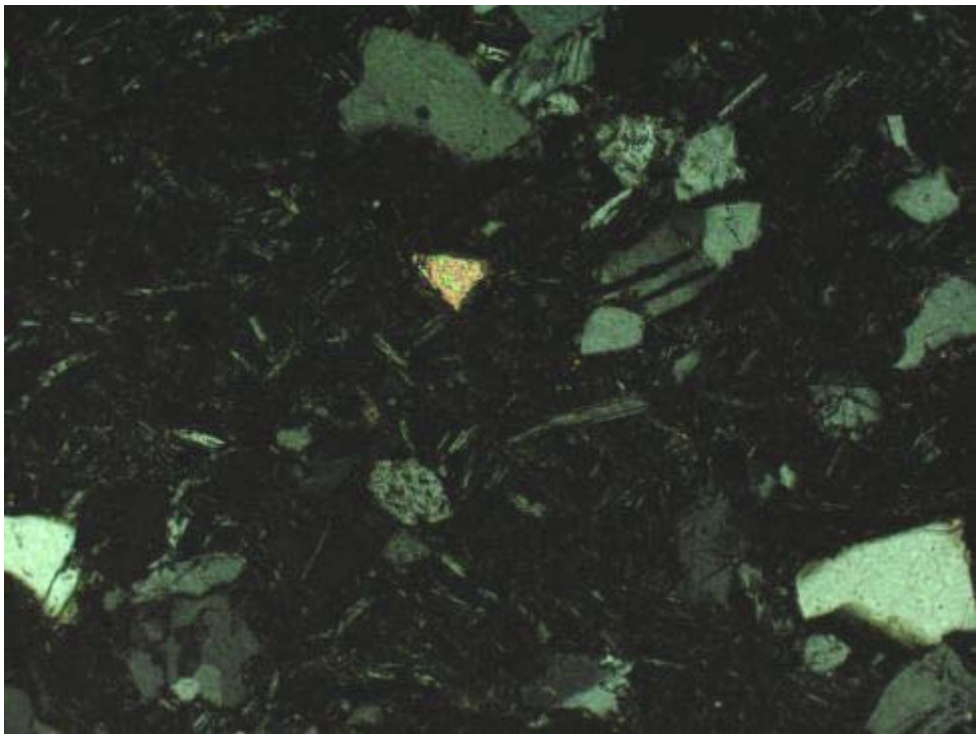


C

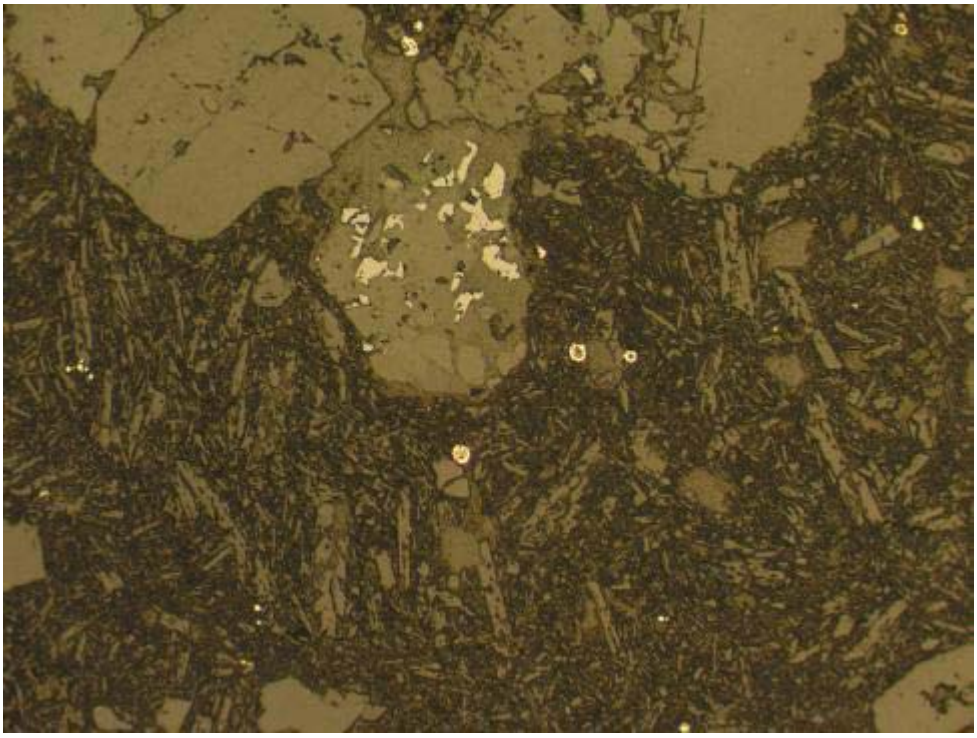


D

Hole-ID (from_ft-to_ft): 7364 (689-710)
C) Detailed view of very fine tuff with scattered fine biotite plates. PPL, FOV = ~ 1.3 mm. D) Detailed view of fine tuff with plagioclase laths and abundant interstitial brown clay and aphanitic material (partly plucked from section-lower left of photo). PPL, FOV = 0.7 mm.



E



F

Hole-ID (from_ft-to_ft): 7364 (689-710)
E) Isolated carbonate grain within fine tuff (above centre of photo). XPL, FOV = 1.3 mm.
F) Patchy magnetite (centre) associated with carbonate aggregate. Disseminated very fine-grained pyrite. RL, FOV = 1.3 mm.

SRK Project No. 1CN007.00 **UBC Composite # 15**
Hole-ID (from_ft-to_ft): 7365 (752-773) **CT-36**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

LITHOLOGY: ?Quartz diorite
ALTERATION TYPE: Carbonate, chlorite, muscovite (sericite)
VEINLETS: Carbonate

Hand Sample Description:
Dark greenish-grey seriate inequigranular to plagioclase porphyritic rock with fine-grained groundmass. Rock has proportionally more felsic than mafic phases. Some drill core pieces are cut by sub-mm calcite-chlorite-hematite veinlets. Reaction of veinlets and patchy reaction of rock to cold, dilute HCl. Reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut).

Polished Thin Section Description:
This section is a fine to medium-grained, pervasively carbonate-chlorite-muscovite (sericite)-magnetite-altered seriate inequigranular to plagioclase porphyritic ?quartz diorite. Plagioclase is virtually completely replaced by muscovite (sericite) aggregate overprinted by patchy carbonate and chlorite. Former mafic phases are replaced by chlorite, magnetite and rutile. Minor magnetite grains, likely ?titano-magnetite, have lamellae of unknown Ti-oxide (likely rutile formed during Ti-exsolution). Traces of chalcopyrite occur disseminated. An irregular, discontinuous sub-mm wide calcite veinlet cuts the section.

Carbonate occurs in major amounts, approximately 42%, as colourless patchy aggregates selectively replacing former plagioclase and as veinlets. Locally carbonate is partly replaced by very fine-grained hematite aggregates.

Sulphide occurs in trace amounts as disseminated chalcopyrite. Chalcopyrite grains are anhedral with irregular but unaltered boundaries.

SRK Project No. 1CN007.00 **UBC Composite # 15**
Hole-ID (from_ft-to_ft): 7365 (752-773) **CT-36**

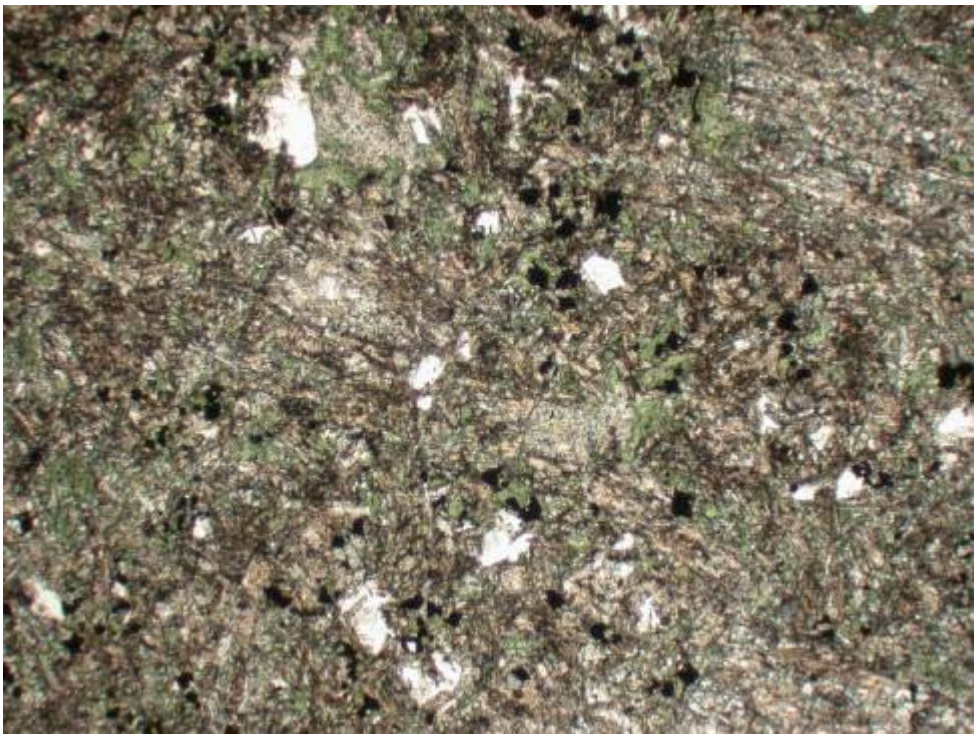
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate, includes calcite	42	fine to very fine-grained (< 0.25mm), patchy aggregates, occurs selectively replacing plagioclase, overprints muscovite (sericite) alteration, also occurs as fracture infill	
Chlorite	25	fine-grained (< 0.2 mm), platy aggregates, occurs as replacement of former mafic phases and plagioclase	
Muscovite (sericite)	15	very fine-grained, anhedral to flaky aggregates, occurs as replacement of former plagioclase phenocrysts and matrix	
Quartz	7	fine-grained (mm), anhedral, undulatory extinction, occurs as subhedral granular aggregates with former plagioclase and mafic phases	
Plagioclase	5	fine to medium-grained (< 2.5 mm), occurs as phenocrysts, fine-grained, occurs as subhedral granular aggregates with quartz and former mafic phases, virtually completely replaced by muscovite (sericite), carbonate and chlorite	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Magnetite, likely ?Titano-magnetite	3	fine-grained (< 0.2 mm), sub-anhedral grains and aggregates, occurs disseminated, occurs with aphanitic unknown Ti-oxide lamellae	
Unknown Ti-oxide, likely rutile	2	very fine-grained subhedral prismatic to aphanitic brown aggregates, occurs as lamellae within magnetite grains	*white int. reflections*
Chalcopyrite	tr	very fine-grained, occurs rarely disseminated, locally associated with magnetite	
Hematite	tr	very fine-grained, grains and aggregates, occurs partly replacing carbonate	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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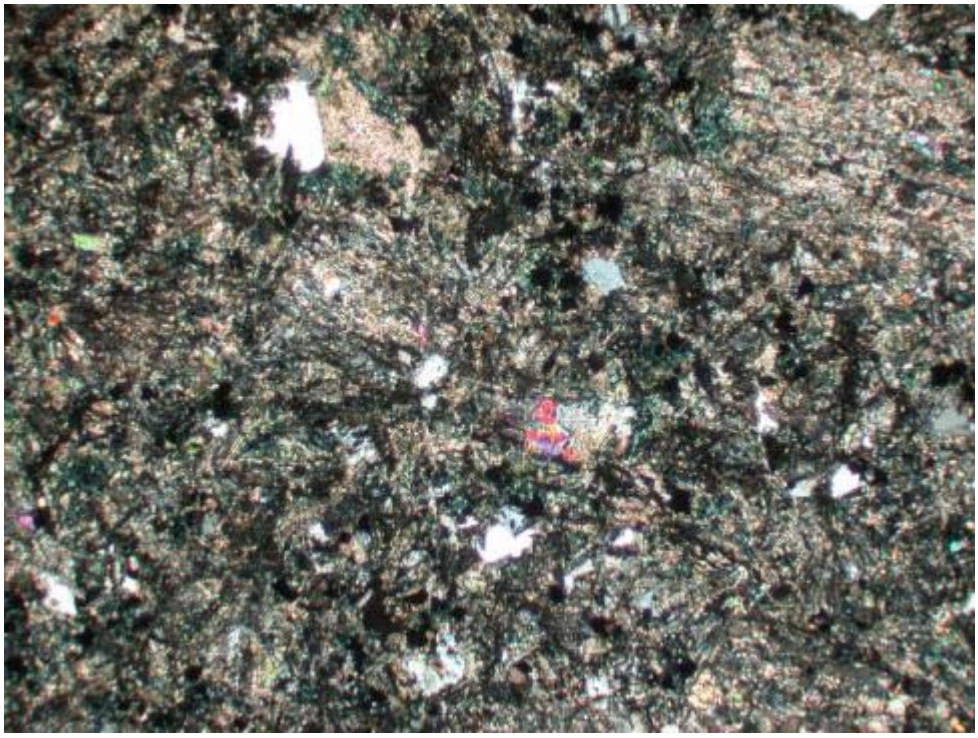
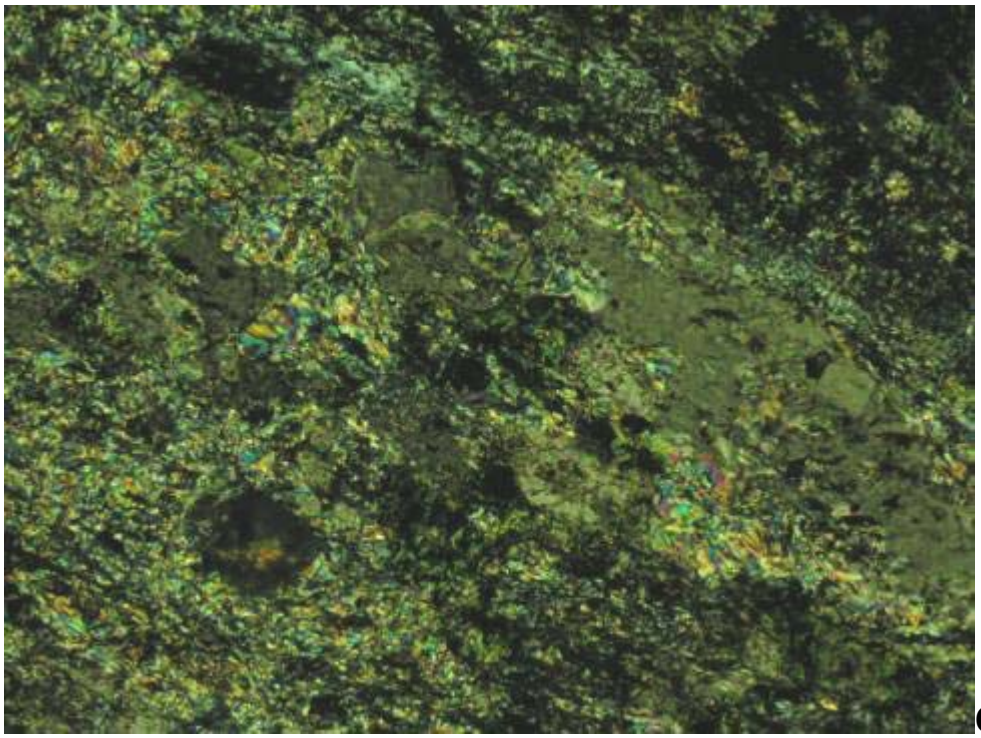


B

Hole-ID (from_ft-to_ft): 7365 (752-773)
A & B) Overview of sample shows fine to medium-grained, pervasively carbonate-chlorite-muscovite (sericite)-magnetite- altered seriate inequigranular to plagioclase porphyritic rock. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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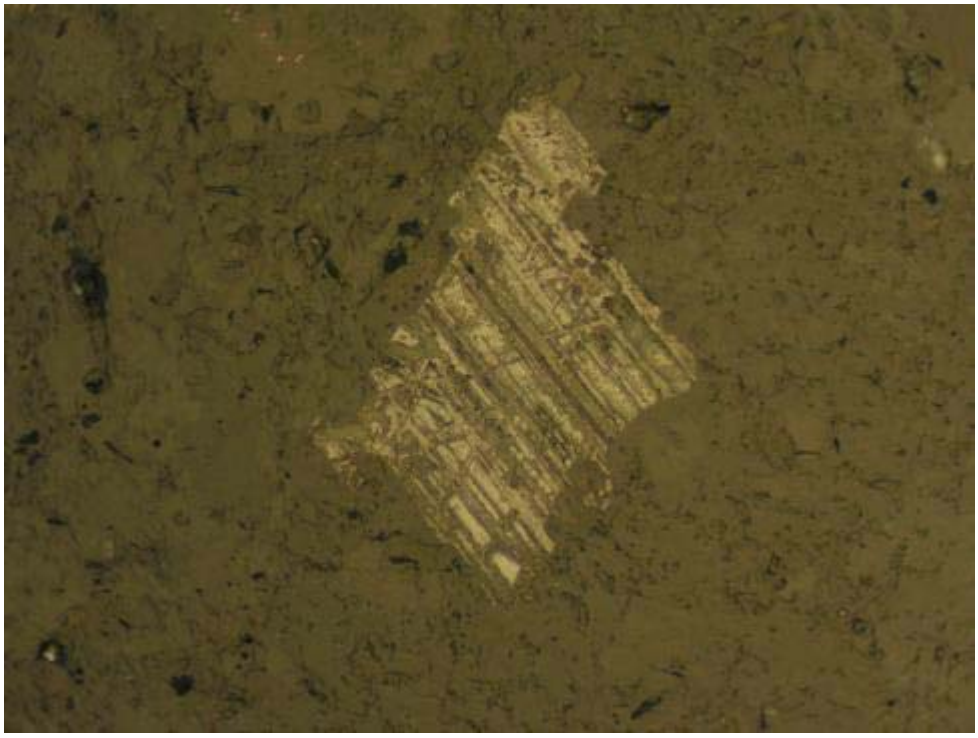
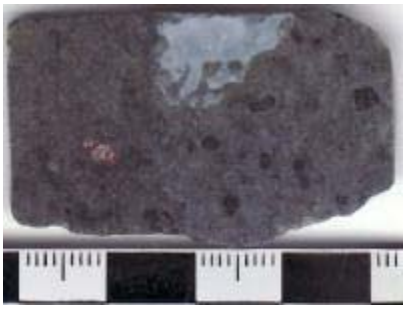


D

Hole-ID (from_ft-to_ft): 7365 (752-773)
C) Former plagioclase phenocryst selectively replaced by muscovite (sericite) aggregate and overprinted by patchy carbonate and chlorite aggregate. XPL, FOV = ~ 0.7 mm. D) Magnetite, likely ?titanomagnetite, with lamellae of unknown Ti-oxide (likely rutile). RL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 13**
Hole-ID (from_ft-to_ft): 7365 (1015-1030) **CT-37**



Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

all photo scales in cm

Note section and offcut were made from a core piece that is not representative of the majority of core pieces in this sample (which are lithic-rich coarse tuff and lapilli tuff. The section and offcut were cut from a porphyritic rock fragment.

LITHOLOGY: Porphyritic rock fragment (within lapilli tuff)
ALTERATION TYPE: Carbonate, chlorite, muscovite (sericite), magnetite, quartz

Hand Sample Description:
Drill core fragments are dominantly fragment-supported lithic-rich coarse tuff and lapilli tuff. Sample offcut is porphyritic rock with approximately 25% plagioclase (< 2 mm size) and 3-5% former mafic phenocrysts in a very fine-grained groundmass. The majority of samples have patchy reaction to cold, dilute HCl. Most drill core fragments have slight reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut).

Polished Thin Section Description:
This section is a pervasively carbonate-chlorite-muscovite (sericite)-magnetite-quartz altered plagioclase porphyritic rock fragment with approximately 25% former fine to medium-grained plagioclase phenocrysts and 5% former mafic phases in a fine to very fine-grained groundmass. Plagioclase phenocrysts are partly replaced by patchy carbonate alteration as well as by a likely soft, water soluble material that has been extensively plucked from the section (leaving an aphanitic brown residue and 10% vugs). Former mafic phenocrysts are replaced by chlorite, carbonate, quartz and magnetite or hematite. The groundmass comprises plagioclase laths and interstitial material that is replaced by carbonate, chlorite and magnetite. The plagioclase laths are partly replaced by muscovite (sericite) and overprinted by carbonate and chlorite. Minor magnetite grains is commonly associated with patchy carbonate alteration. Traces of chalcopyrite and rutile occur disseminated.

Carbonate occurs in major amounts, approximately 33%, as colourless, fine to very fine-grained patchy aggregates selectively replacing former plagioclase and mafic phases. Minor magnetite grains are commonly associated with the patchy carbonate alteration. Locally carbonate is partly replaced by very fine-grained hematite aggregates.

Sulphide occurs in trace amounts as disseminated chalcopyrite. Chalcopyrite grains are anhedral with irregular but unaltered boundaries.

SRK Project No. 1CN007.00 **UBC Composite # 13**
Hole-ID (from_ft-to_ft): 7365 (1015-1030) **CT-37**

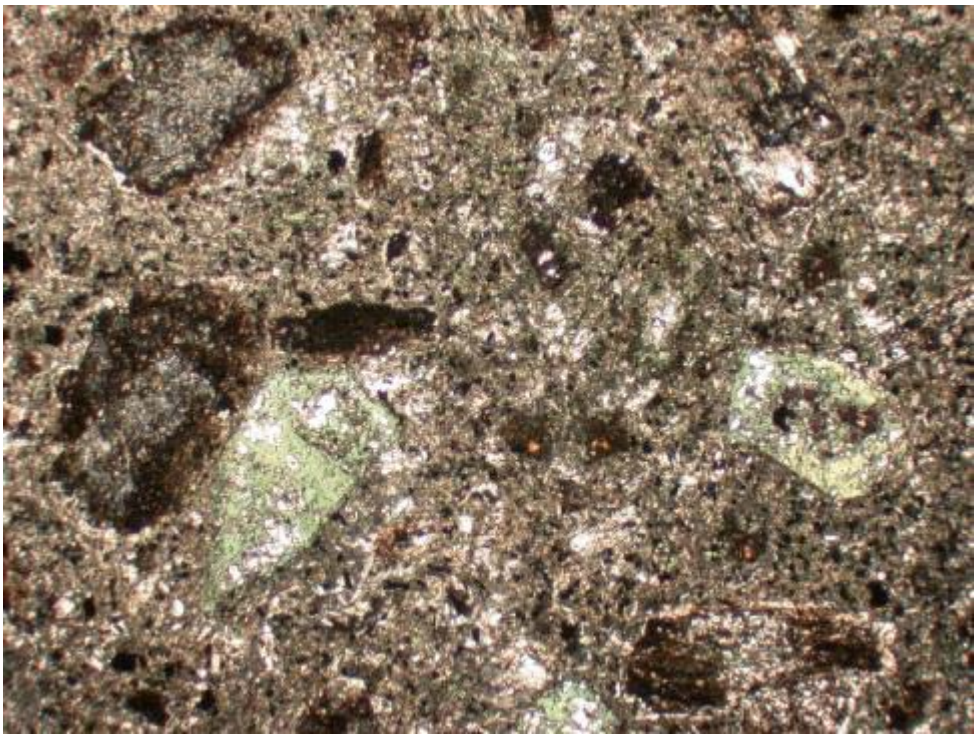
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate, includes calcite	33	fine to very fine-grained (< 0.2mm), patchy aggregates, occurs selectively replacing plagioclase and former mafic phases, associated with chlorite and disseminated magnetite, partly replaced by hematite	*colourless*
Chlorite	20	very fine-grained, platy aggregates, occurs as replacement of former mafic phases and plagioclase	
Plagioclase	20	-fine to medium-grained (0.5 to 3 mm), occurs as phenocrysts, partly replaced by carbonate, mostly consists of vugs with relict brown material, original material plucked from the section (likely water soluble) -fine to very fine-grained (< 0.1 mm), laths, occurs as groundmass, partly replaced by chlorite and carbonate, interstitial chlorite, carbonate and magnetite after relict mafic phases	
Muscovite (sericite)	10	very fine-grained, anhedral to flaky aggregates, occurs as replacement of former plagioclase laths in groundmass, overprinted by carbonate-chlorite alteration	
Vugs	10	relict aphanitic brown material lines vugs, mostly plucked from former plagioclase phenocrysts in the section, plucked material likely water soluble	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Magnetite	3	fine-grained (< 0.2 mm), eu-anhedral grains and aggregates, occurs disseminated associated with patchy carbonate alteration, also occurs as replacement of former mafic phenocrysts	
Quartz	3	fine-grained (mm), anhedral, undulatory extinction, occurs with carbonate, chlorite, magnetite and hematite as replacement of former mafic phenocrysts	
Rutile	tr	very fine-grained, brown anhedral aggregates, occurs disseminated	
Unknown, ?Ti-oxide	tr	dark brown, very fine-grained, subhedral grains, occurs associated with magnetite	*white & red-brown int. reflections*
Chalcopyrite	tr	very fine-grained, occurs rarely disseminated	
Hematite	tr	very fine-grained, grains and aggregates, occurs associated with chlorite, quartz and carbonate replacing former mafic phenocrysts, occurs locally partly replacing carbonate	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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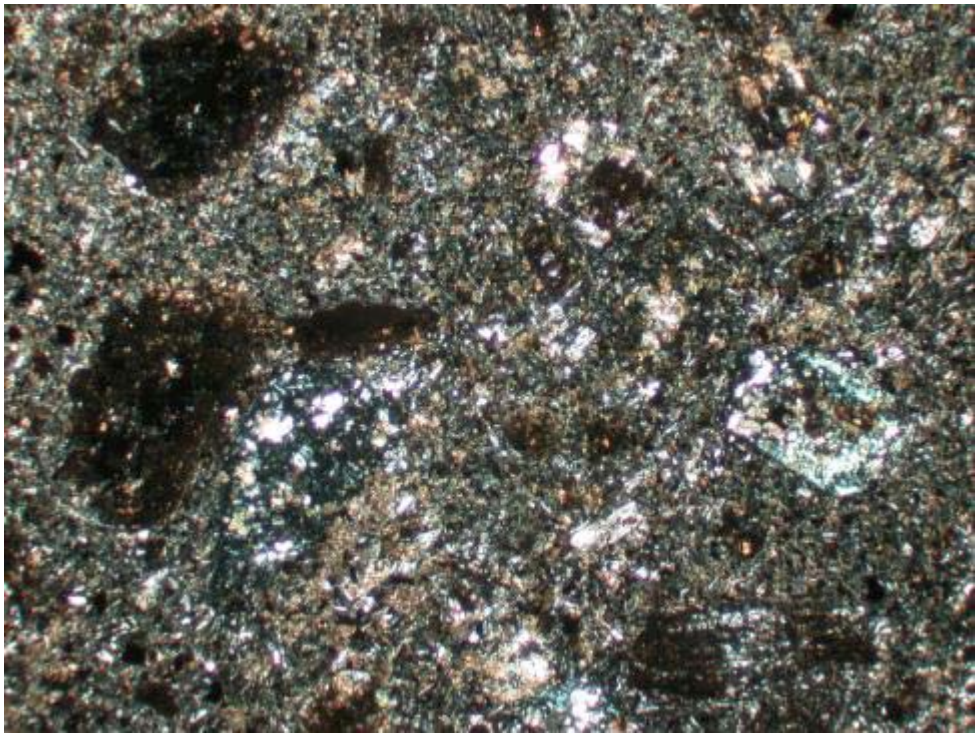
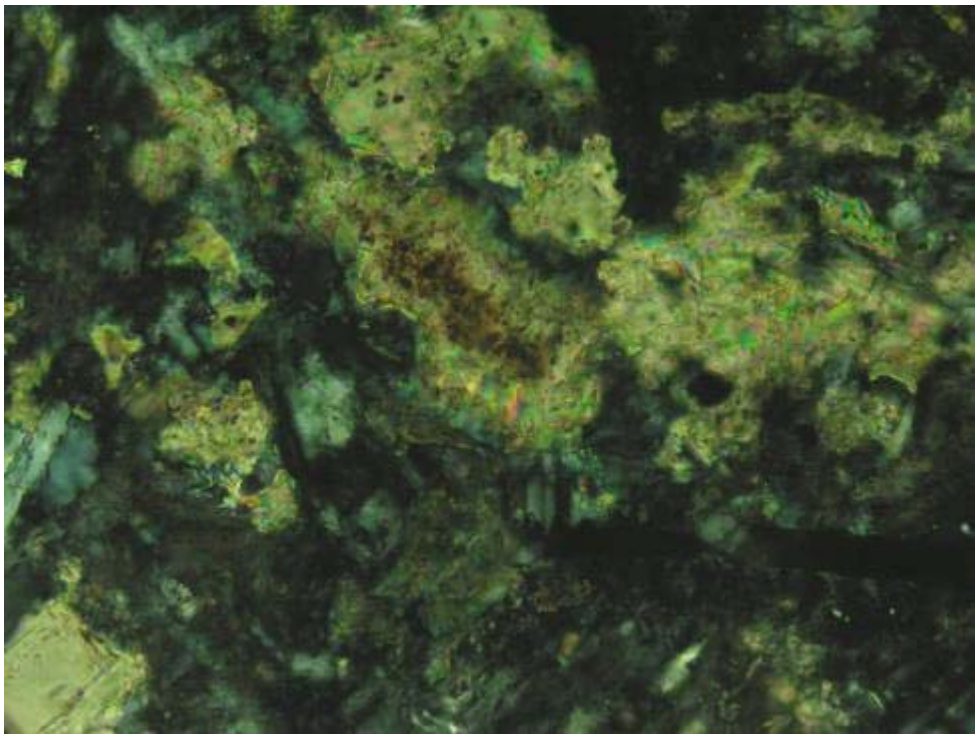


B

Hole-ID (from_ft-to_ft): 7365 (1015-1030)
A & B) Overview of pervasively carbonate-chlorite-muscovite (sericite)-magnetite-quartz altered plagioclase porphyritic rock with former fine to medium-grained plagioclase phenocrysts (altered and partly plucked from section) and former mafic phenocrysts (replaced by carbonate-chlorite-quartz-hematite) in a fine to very fine-grained groundmass. A) PPL, B) XPL, FOV = ~ 4.5 mm.



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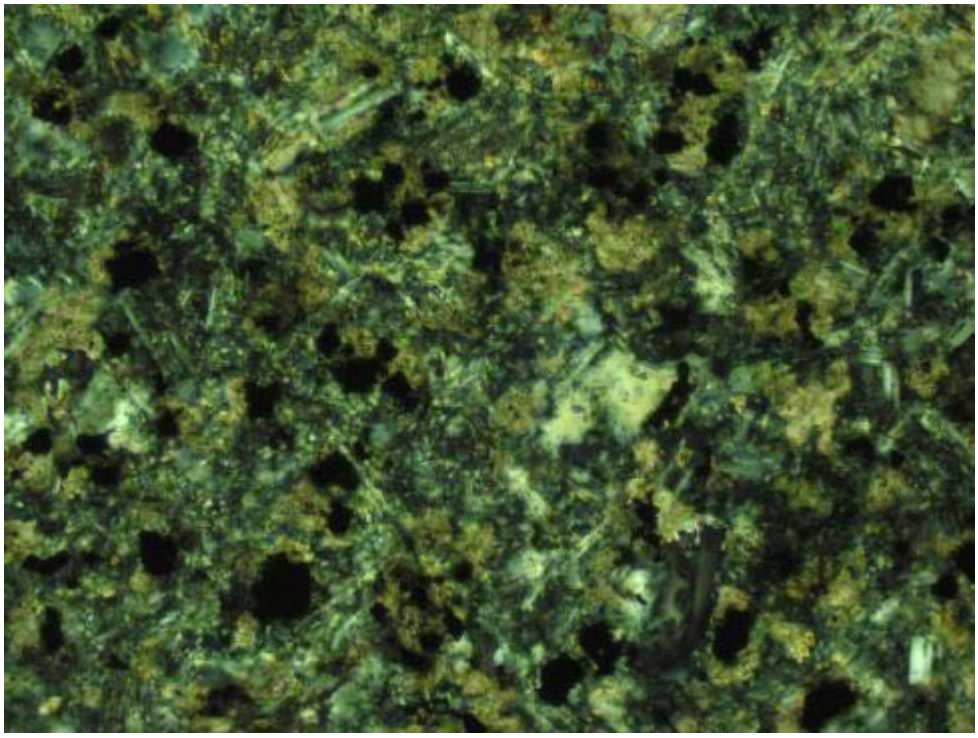


D

Hole-ID (from_ft-to_ft): 7365 (1015-1030)
C) Colourless carbonate partly replaced by very fine-grained hematite aggregates (centre). XPL, FOV = ~ 0.3 mm. D) Disseminated magnetite (opaque) associated with patchy carbonate replacement of groundmass XPL, FOV = 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 16**
Hole-ID (from_ft-to_ft): 7378 (325-344) **CT-38**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

all photo scales in cm

Note There is variability in the core pieces in this sample. The pieces comprise crystal-rich coarse tuff, fine tuff and hematitic lapilli tuff. One piece has a prominent calcite veinlet. The section and offcut were cut from a crystal-rich coarse tuff fragment.

LITHOLOGY: Coarse crystal-lithic tuff
ALTERATION TYPE: Clay, chlorite, ?pyrophyllite, quartz
VEINLETS: Carbonate

Hand Sample Description:
Greenish-grey coarse crystal and lithic tuff with approximately 5% fine-grained quartz crystals, approximately 20% fine-grained plagioclase crystals and 2-3% rock fragments (1-2mm size). Hematite-rich fragment has reaction to magnet. Negative test for K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). Patchy reaction of most drill core pieces to cold, dilute HCl.

Polished Thin Section Description:
This sample is a coarse crystal-lithic tuff with angular to subangular mineral grains and abundant rock fragments in an ?advanced argillite altered plagioclase-dominant matrix. The tuff comprises dominantly plagioclase crystals ~20%, broken quartz crystals ~5%, fragments of carbonate ~1% and rock fragments (approximately 3%) in a fine-grained matrix. Rock fragments include crystal tuff, aphanitic carbonate-altered rock, quartz-sericite altered rock, zeolite-bearing rock. The plagioclase-dominant matrix is replaced by clay-chlorite-?pyrophyllite and quartz aggregates. Traces of ?diaspore occur disseminated as high relief prisms.

Carbonate comprises approximately 2% of the section as fine-grained (< 0.6 mm), colourless fragments and discontinuous sub-mm veinlets. Traces of magnetite occur associated with carbonate fragments. Less commonly carbonate occurs as very fine-grained aggregates replacing aphanitic rock fragments.

Sulphide occurs in minor amounts, ~1%, as pyrite with traces of chalcopyrite. Pyrite occurs as fine to very fine-grained clusters of disseminated eu-subhedral grains. Pyrite grain boundaries are pitted but without alteration rims. Anhedral chalcopyrite occurs associated with carbonate fragments and rarely enclosed by magnetite or pyrite.

SRK Project No. 1CN007.00 **UBC Composite # 16**
Hole-ID (from_ft-to_ft): 7378 (325-344) **CT-38**

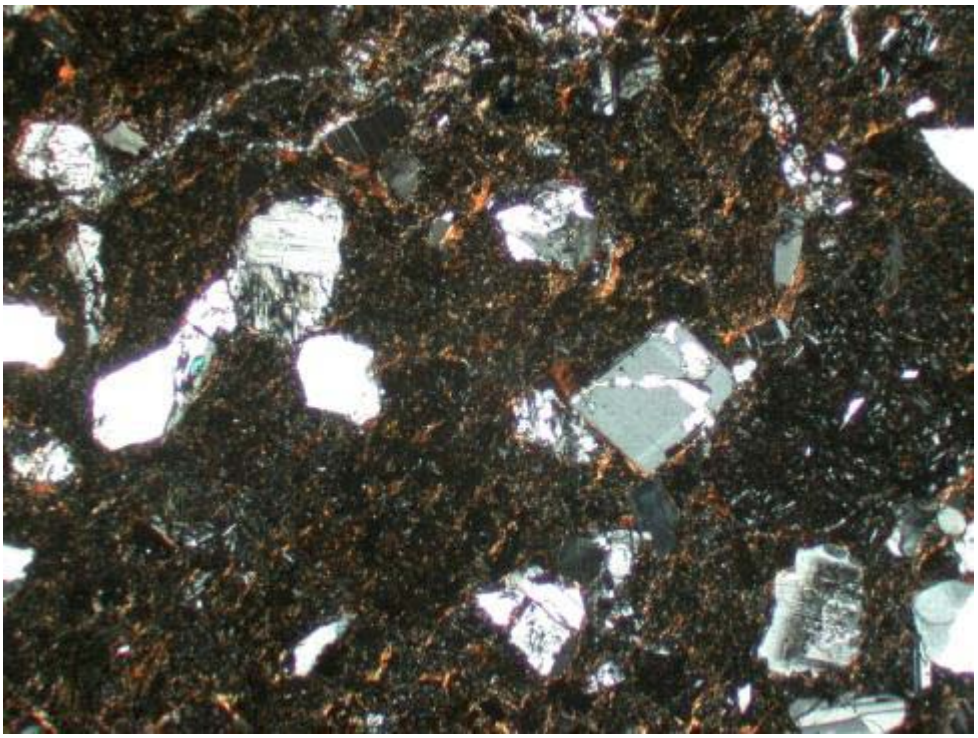
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Clay	35	aphanitic brown aggregates, occurs with pyrophyllite and quartz replacing plagioclase in the matrix	
Plagioclase	25	-fine-grained (< 0.8 mm), occurs as scattered broken crystals -fine-grained (< 0.1 mm), laths, occurs as plagioclase-crystal-rich matrix and matrix of fragments, selectively replaced by clay, ?pyrophyllite and quartz	
Chlorite	15	very fine-grained, anhedral aggregates, occurs with clay, ?pyrophyllite and quartz as replacement of matrix	
?Pyrophyllite	11	very fine-grained, flaky aggregates, occurs with clay and quartz as selective replacement of plagioclase laths in the matrix	
Quartz	10	fine-grained (<0.6 mm), anhedral, occurs as scattered broken crystals -very fine-grained, anhedral aggregates, occurs with pyrophyllite and clay replacing matrix -fine-grained, occurs within rock fragments	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate	2	-fine-grained (< 0.6 mm), occurs as fragments -very fine-grained aggregates, occurs as pervasive replacement of some fragments -fine-grained, occurs as discontinuous sub-mm veinlet	*colourless* *brown* *colourless*
Pyrite	1	fine to very fine-grained (< 0.1 mm), eu-subhedral grains and aggregates, pitted, occurs disseminated as clusters, rarely encloses chalcopyrite	
Muscovite (sericite)	tr	very fine-grained, anhedral aggregates, occurs with quartz within rock fragment	
Zeolite	tr	fine-grained, radiating aggregates, occurs within rock fragments	*colourless*
?Diaspore	tr	very fine-grained, high relief prisms, occurs disseminated in fragments and plagioclase grains	
Magnetite	tr	fine-grained (< 0.4 mm), euhedral, occurs disseminated and associated with carbonate fragments, rarely enclosed chalcopyrite	
Chalcopyrite	tr	very fine-grained, anhedral, associated with carbonate-altered fragments, locally enclosed by magnetite or pyrite	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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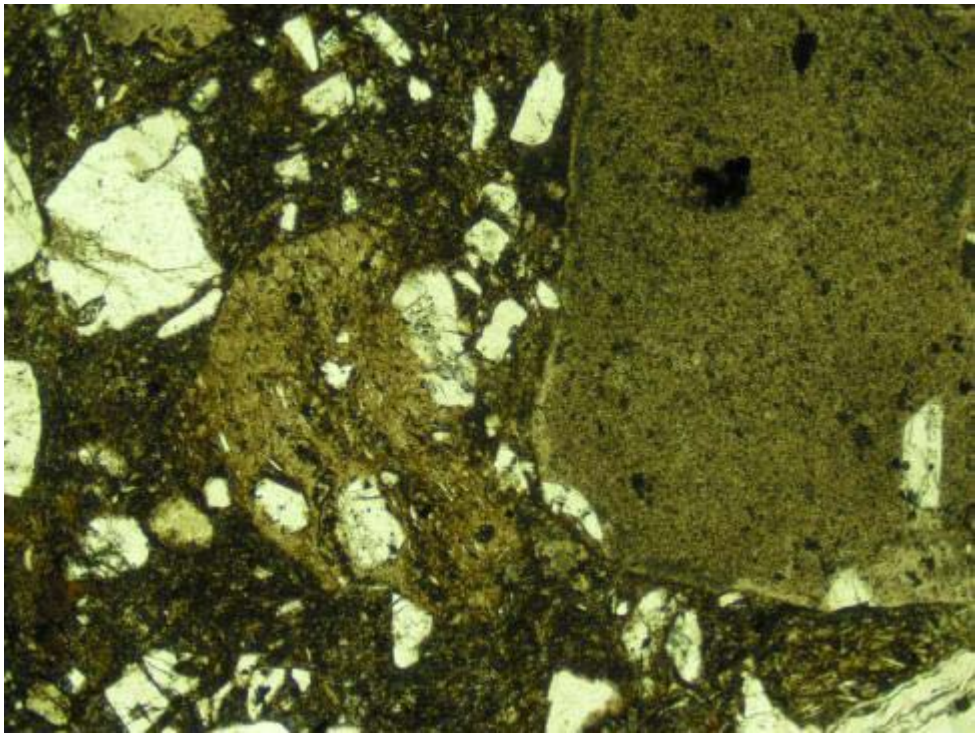
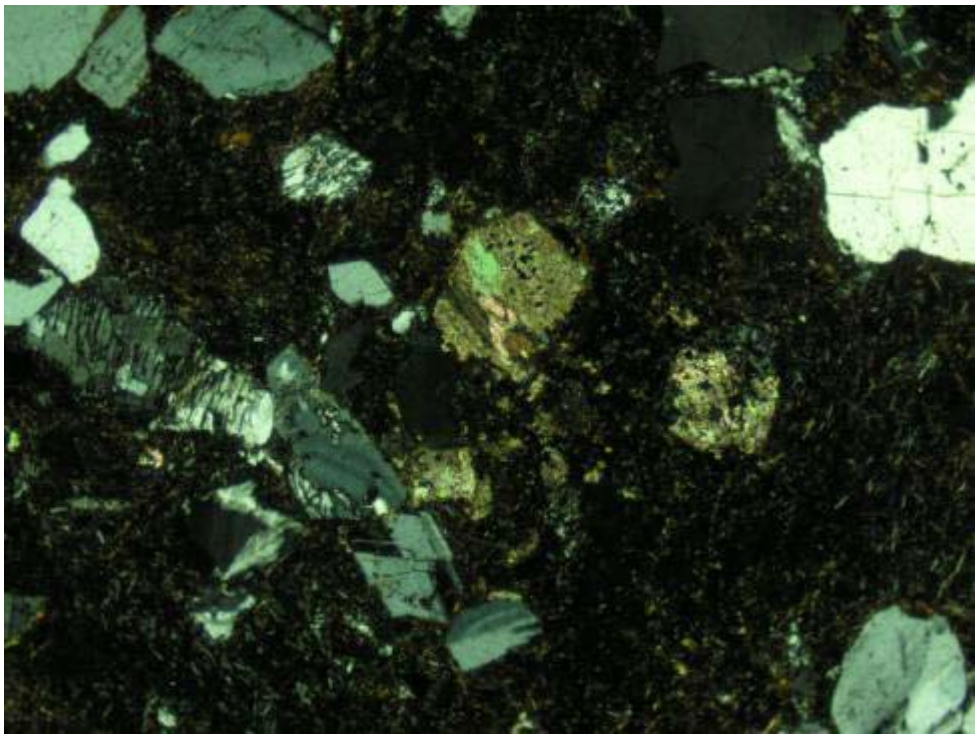


B

Hole-ID (from_ft-to_ft): 7378 (325-344)
A & B) Overview of sample shows coarse crystal-lithic tuff with plagioclase and quartz crystals and rock fragments in an ?pyrophyllite-clay-chlorite-quartz altered formerly plagioclase-dominant matrix. Note two different fields of view. A) XPL, 4.5 mm B) PPL, FOV = ~ 2.8 mm.



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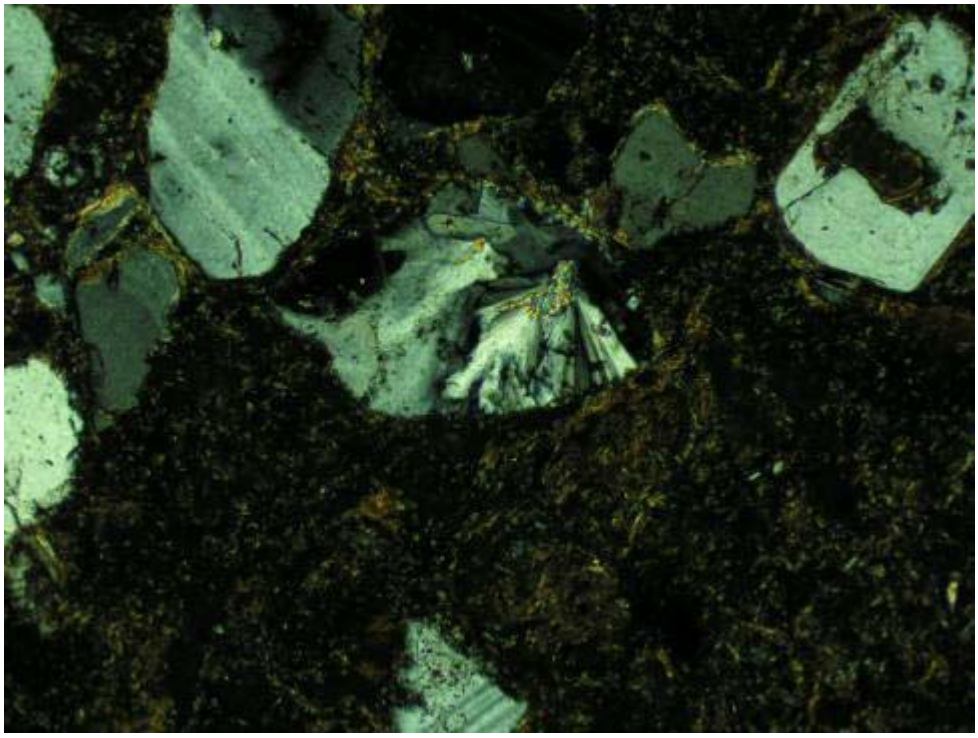
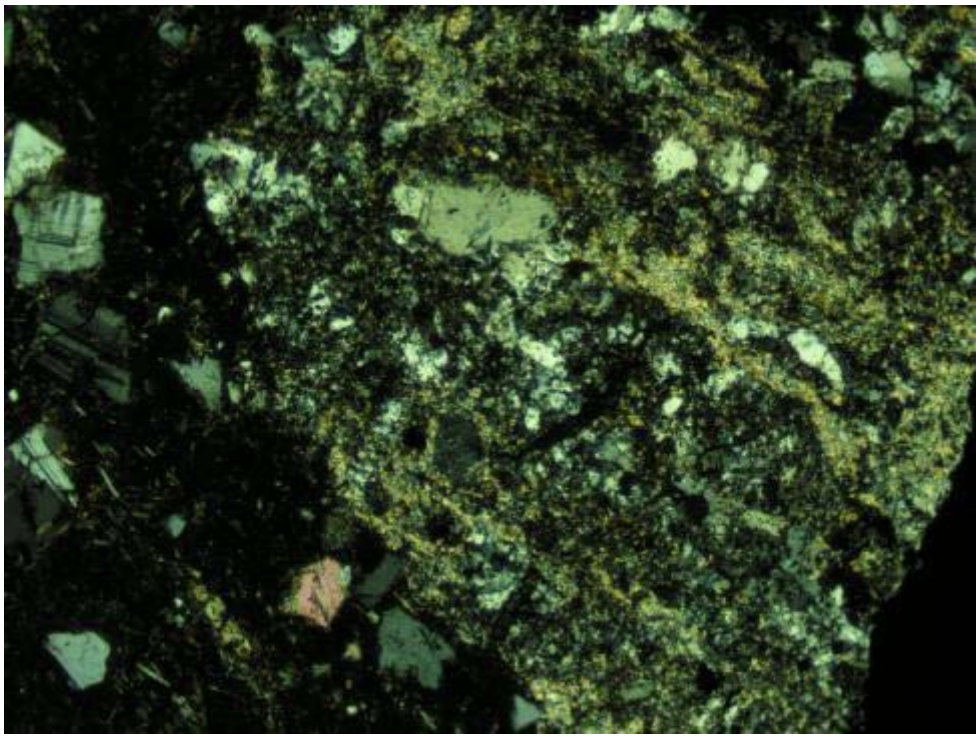


D

Hole-ID (from_ft-to_ft): 7378 (325-344)
C) Fragments of colourless carbonate (centre). XPL, FOV = ~ 2.8 mm. D) Rock fragment with radiating zeolite aggregate. XPL, FOV = 1.3 mm.



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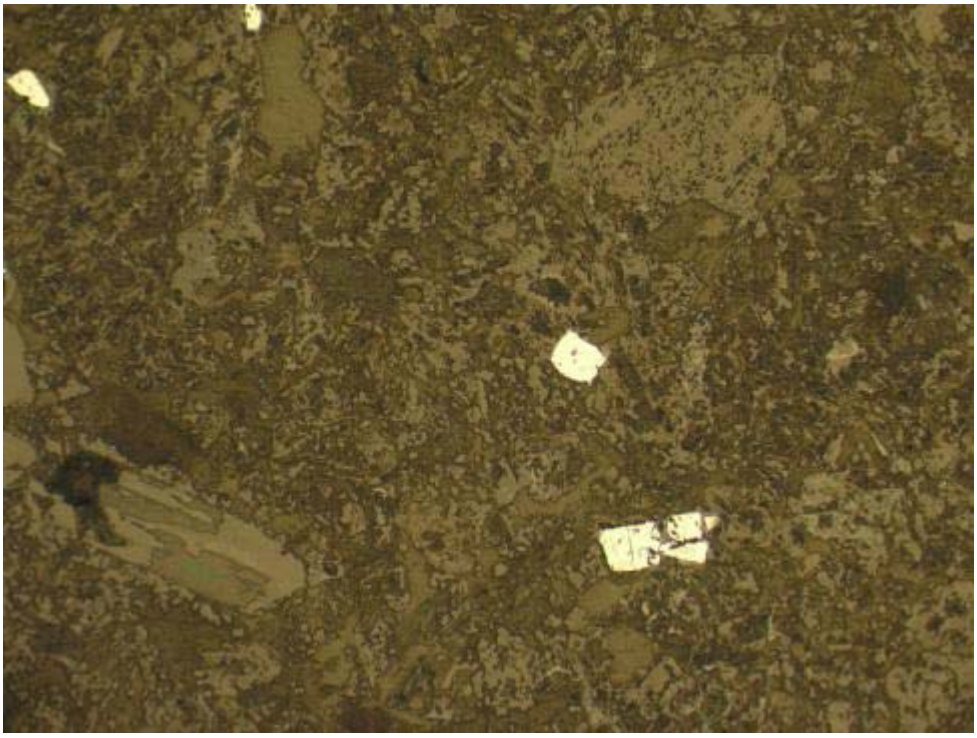
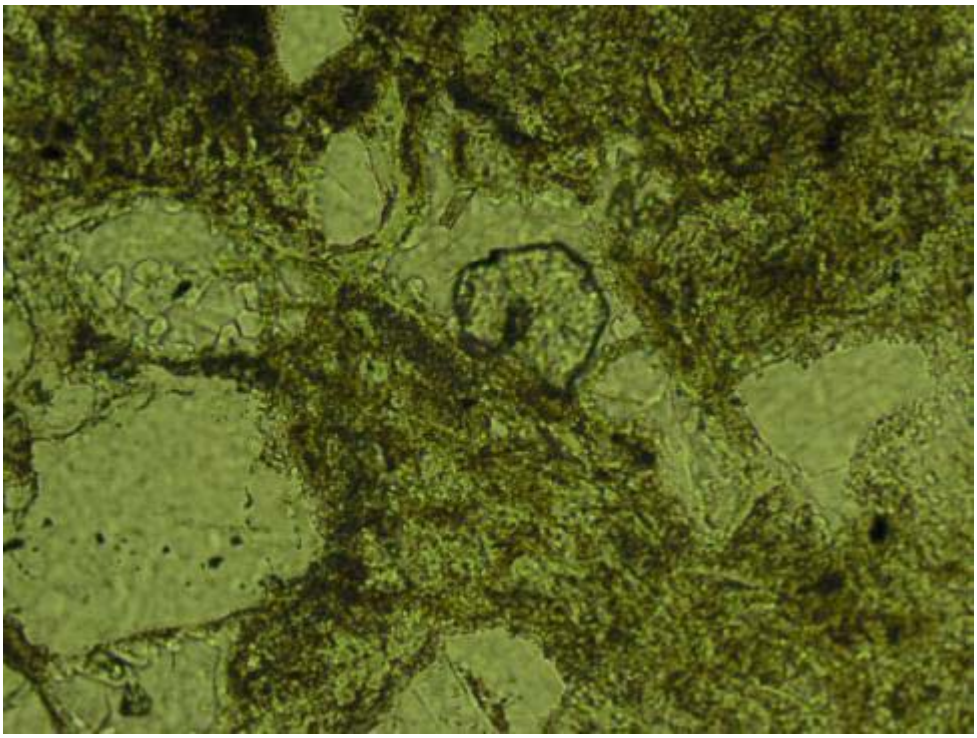


F

Hole-ID (from_ft-to_ft): 7378 (325-344)
E) Rock fragment with pervasive muscovite (sericite) alteration. XPL, FOV = ~ 2.8 mm. F) Disseminated pitted eu-subhedral pyrite grains. RL, FOV = 1.3 mm.



G

Hole-ID (from_ft-to_ft): 7378 (325-344)
G) High relief grain of ?diaspore (centre). PPL, FOV = ~ 0.7 mm.

SRK Project No. 1CN007.00 **UBC Composite # 18**
Hole-ID (from_ft-to_ft): 7378 (2019-2029) **CT-39**

Etched and stained section offcut; scale in cm

View of some of the core sample pieces (wet)

all photo scales in cm

Note There is variability in the core pieces in this sample. The pieces generally comprise epidote-altered crystal-rich coarse tuff, fine tuff and lapilli tuff. One piece has prominent epidote veinlets and disseminated pyrite (right side of photo above). The section and offcut were cut from a lapilli tuff with two different fragments.

LITHOLOGY: Lapilli tuff
ALTERATION TYPE: Muscovite (sericite), chlorite, unknown aphantic material, rutile
VEINLETS: Epidote ± carbonate ± (pyrite)

Hand Sample Description:
Greenish-grey lapilli tuff comprising dominantly fragments of siltstone and fine-grained plagioclase porphyritic rock in an aphanitic matrix crowded with approximately fine-grained plagioclase and quartz crystals. No reaction to magnet. Vague traces of mottled K-feldspar using etching by HF and sodium cobaltinitrite (see offcut). No reaction to cold, dilute HCl.

Polished Thin Section Description:
This sample is a lapilli tuff with dominantly rock fragments (to 3.5 cm size) and lesser angular to subangular mineral grains in an very fine-grained matrix. The tuff matrix comprises dominantly pervasively muscovite (sericite) ± carbonate-altered former plagioclase crystals, broken quartz crystals, aphanitic fragments and polycrystalline quartz fragments in a very fine-grained clay-chlorite altered matrix. The large rock fragments include altered siltstone and porphyritic rock. The siltstone fragment comprises pervasively muscovite (sericite)-chlorite and epidote-altered siltstone cut by sub-mm wide epidote ± carbonate ± (pyrite) veinlets with chlorite-muscovite (sericite)-altered relict K-feldspar alteration envelopes. The porphyritic rock fragment comprises approximately 3% fine to medium-grained selectively muscovite (sericite)-altered former plagioclase phenocrysts and traces of fine-grained epidote ± chlorite altered phenocrysts in a fine to very fine-grained, pervasively chlorite-muscovite (sericite)-rutile altered matrix with relict plagioclase laths. The porphyritic rock fragment is also cut by sub-mm wide epidote ± carbonate veinlets.

Carbonate occurs in trace amounts as colourless, fine to very fine-grained patchy aggregates selectively replacing former plagioclase and within epidote veinlets.

Sulphide occurs in trace amounts as pyrite and chalcopyrite. Pyrite occurs as very fine-grained disseminated anhedral grains. Pyrite grain boundaries are pitted but without alteration rims. Anhedral chalcopyrite occurs disseminated; alteration at boundaries is not observed.

SRK Project No. 1CN007.00 **UBC Composite # 18**
Hole-ID (from_ft-to_ft): 7378 (2019-2029) **CT-39**

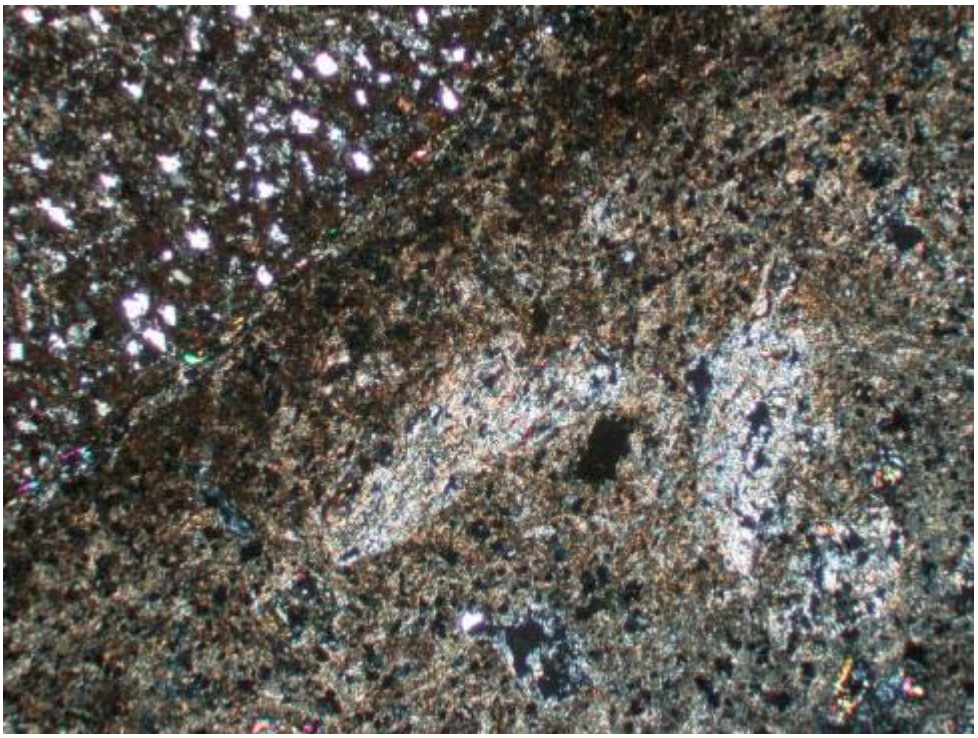
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Muscovite (sericite)	40	very fine-grained, anhedral aggregates, occurs as replacement of feldspar grains in siltstone, as replacement of plagioclase phenocrysts and matrix in porphyritic rock fragment, as replacement of former plagioclase crystals in tuff matrix	
Quartz	20	-fine to very fine-grained, anhedral grains, occurs within siltstone rock fragment -fine-grained, occurs as broken crystals in tuff matrix -very fine-grained, occurs as aggregates within polycrystalline quartz and aphanitic rock fragments	
Chlorite	15	very fine-grained, occurs as patchy replacement of tuff matrix, porphyritic rock fragment matrix and siltstone	
Unknown, aphantic material/clay	15	aphanitic brown grungy aggregates, occurs as relict patches within siltstone, occurs with chlorite as matrix to tuff	*dark brown*
Rutile	5	very fine-grained to aphantic, occurs as clusters within chlorite-muscovite (sericite) altered porphyritic rock matrix, occurs as relict Ti-exsolution lamellae within porphyritic rock matrix, occurs as patches within siltstone	*brown*

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Epidote	3	very fine-grained, occurs as replacement of former plagioclase phenocrysts within rock fragments, occurs in veinlets	
Plagioclase	1	fine to very fine-grained, occurs as relict grains, phenocrysts and groundmass within rock fragments	
K-feldspar	tr	very fine-grained, occurs as relict alteration envelopes to epidote veinlets within siltstone fragment, partly replaced by muscovite (sericite) and chlorite	
Carbonate	tr	very fine-grained, colourless aggregates, occurs with epidote as sub-mm veinlets very fine-grained, occurs partly replacing former plagioclase crystals in tuff matrix	
Pyrite	tr	very fine-grained, anhedral grains, occurs disseminated in rock fragments, occurs locally associated with epidote alteration and within epidote veinlets	
Chalcopyrite	tr	very fine-grained, anhedral grains, occurs disseminated	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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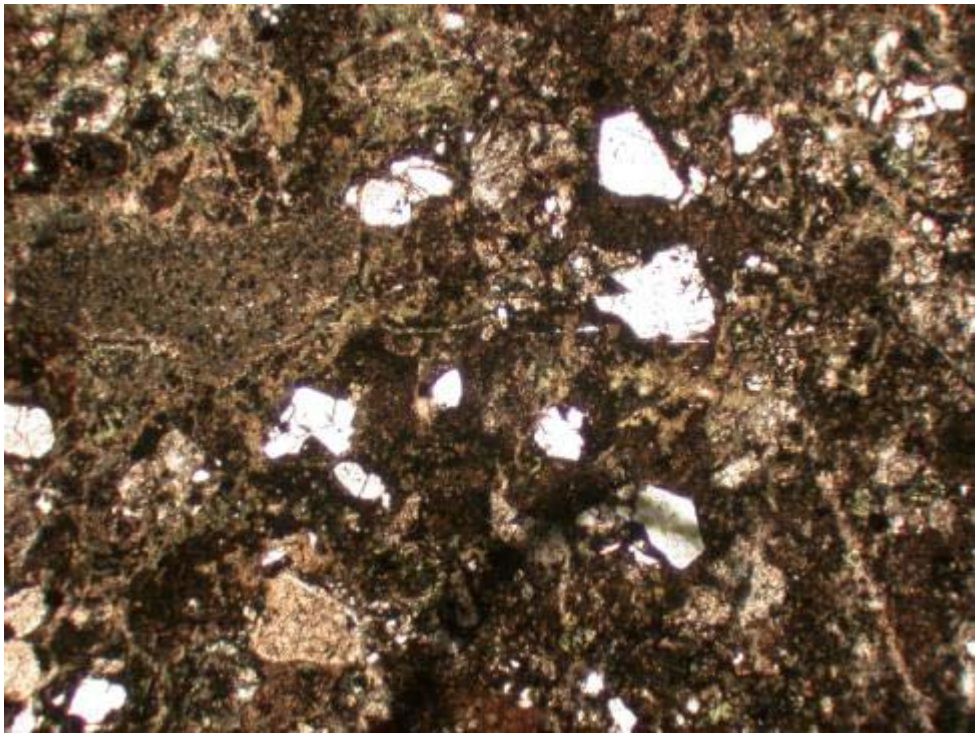
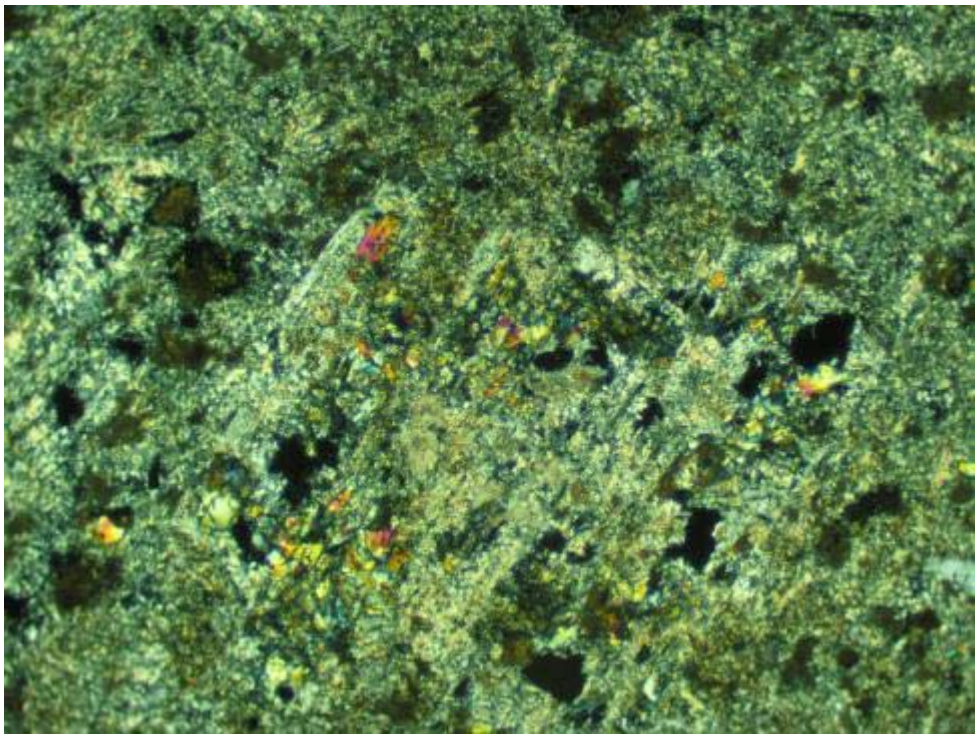


B

Hole-ID (from_ft-to_ft): 7378 (2019-2029)
A) Overview of contact between siltstone rock fragment (top left) and porphyritic rock fragment (lower right). XPL, FOV = ~ 4.5 mm. B) Representative view of matrix to lapilli tuff. Note abundant quartz crystals, aphanitic rock fragments, sericite-altered plagioclase crystals set in very fine-grained clay-chlorite matrix. PPL, FOV = ~ 4.5 mm.



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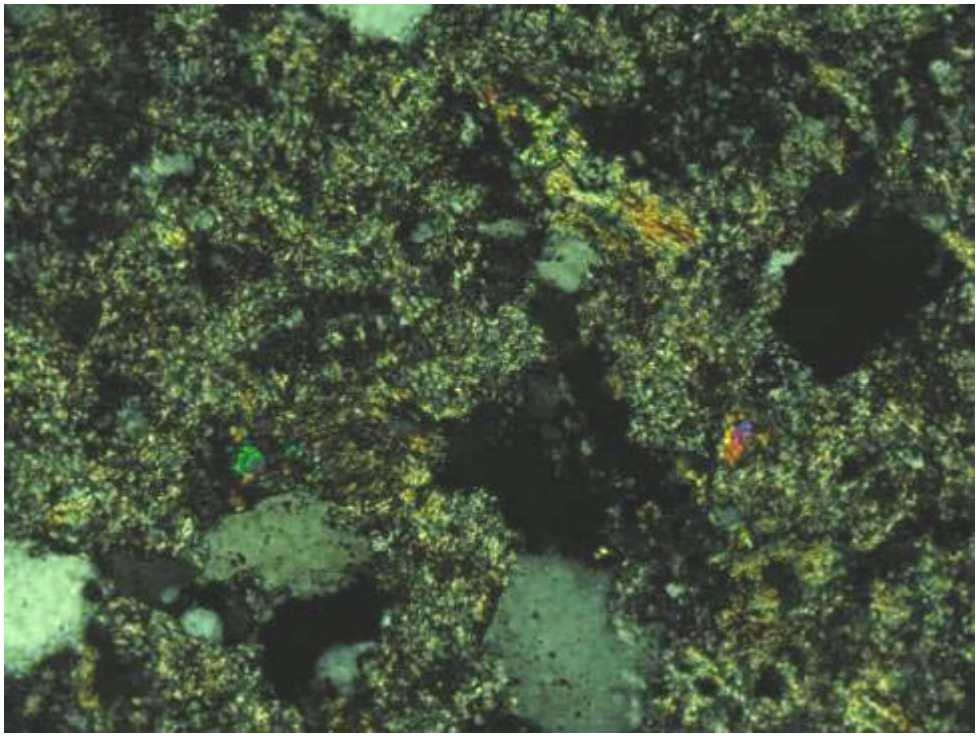
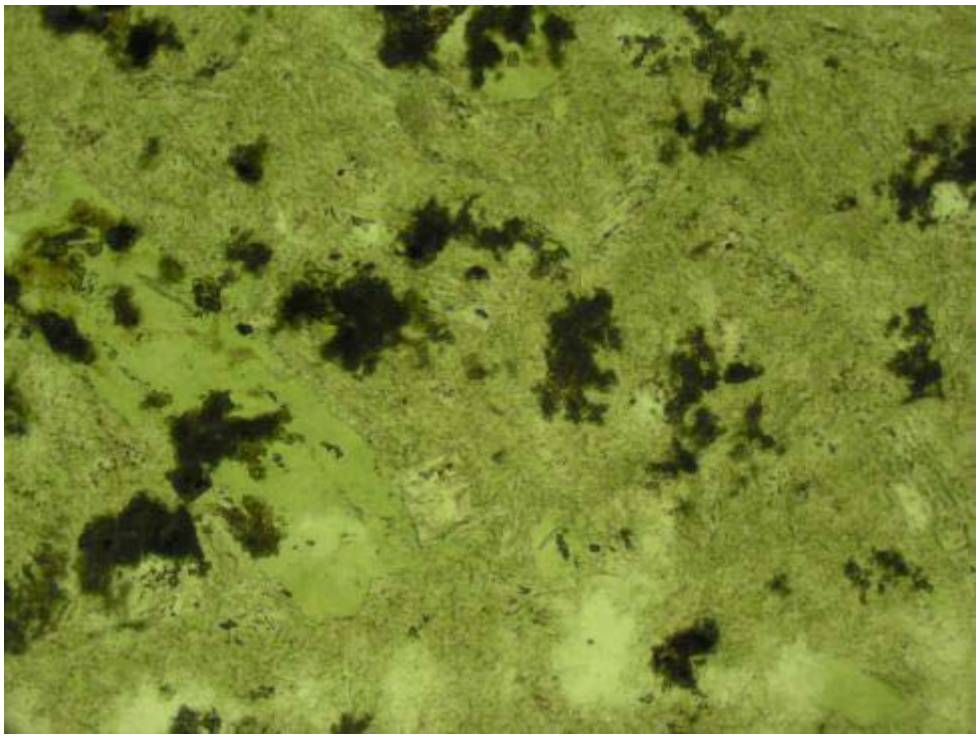


D

Hole-ID (from_ft-to_ft): 7378 (2019-2029)
C) Former plagioclase phenocryst (within porphyritic rock fragment) replaced by muscovite (sericite) – epidote and patchy carbonate. XPL, FOV = ~ 1.3 mm. D) Pervasively muscovite (sericite)-epidote altered siltstone. XPL, FOV = 0.7 mm.



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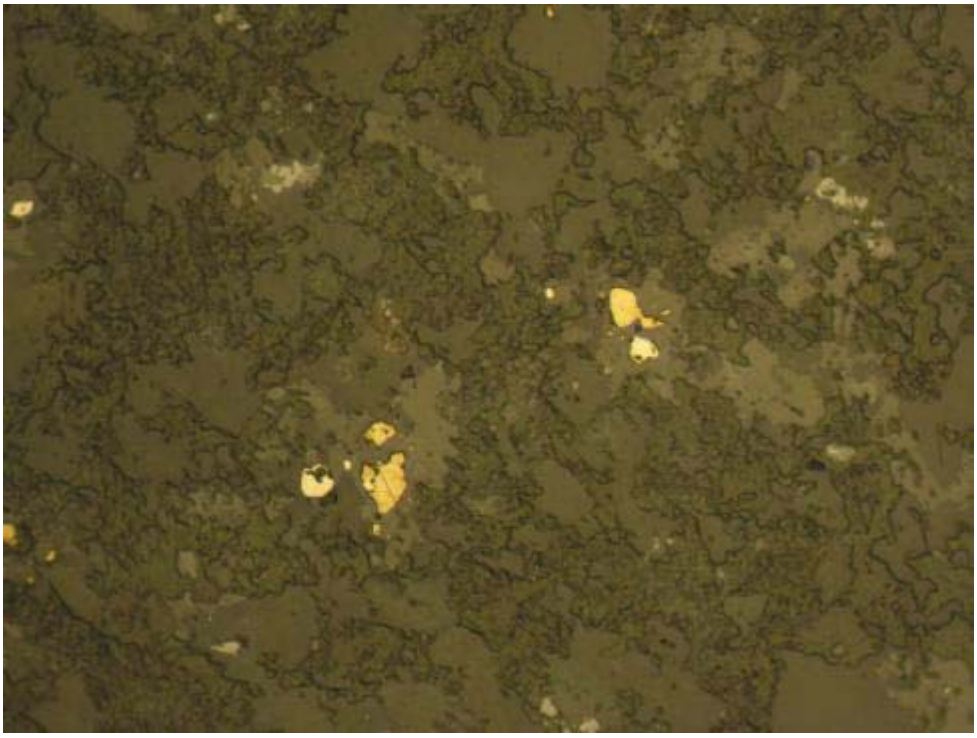

F

Hole-ID (from_ft-to_ft): 7378 (2019-2029)
E) Chlorite-muscovite (sericite)- patchy aphanitic material replace matrix of porphyritic rock fragment. PPL, FOV = ~ 0.7 mm. F) Disseminated pyrite and chalcopyrite grains associated with epidote alteration within siltstone. RL, FOV = 0.7 mm.

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the city of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, Suite 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.

6. I have practiced my profession as a geologist for approximately 20 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 13 years as an independent consultant.

7. The petrographic data of this report was collected by me in January and February 2009.

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Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
February 24, 2009

Petrography Report

CHARACTERIZATION OF COARSE CHIPS AND FINE CHIPS AND POWDERS/TAILINGS FROM HUMIDITY CELL TESTS, PEBBLE COPPER PROPERTY, ALASKA

Sept 29, 2008

Prepared for:

Stephen Day, P.Geo. and
Madeleine Corriveau, EIT/GIT
SRK Consulting (Canada) Inc.
Suite 2200-1066 West Hastings St.
Vancouver, BC
Canada V6E 3X2

Prepared by:

Kathryn Dunne, M.Sc. P.Geo.
Consulting Geologist
Bag 9000, # 207
190B Trans Can Hwy NE
Salmon Arm, BC
Canada V1E 1S3

phone: 250-804-0729
kgeo@telus.net

Background

Twelve samples of material from the Pebble Copper property, Alaska are characterized in this report. The material consists of impregnated mounts of coarse chips and fine chips and powders/tailings taken from humidity cell tests and prepared as polished thin sections. Some of the coarse chips impregnated mounts have been etched and stained to test for K-feldspar. The samples were submitted by Madeleine Corriveau of SRK Consulting (Canada) Inc. on June 10, 2008 and September 4, 2008 for characterization of the mineralogy. The polished thin sections were examined optically. The purpose of the study was to characterize the mineralogy with particular emphasis on the sulfide and carbonate minerals present. Kathryn Dunne, P.Geo. carried out the optical analysis at her office in Salmon Arm, B.C.

Sample descriptions with representative photomicrographs follow this summary. All percentages in the descriptions are approximate based on visual estimation.

Summary

Two groups of coarse chips and fine chips/powders from this project # SRK Project No. 1CN007.00 (11486-series & ARLB-series) are summarized below:

Group 1 – 2 samples:

11840-003A 11840-003B

Lithologies in these samples are similar: pervasively biotite and muscovite (sericite)-altered fine-grained clastic rock fragments, minor quartz and polycrystalline quartz, quartz-carbonate and either quartz-albite or quartz-K-feldspar vein fragments, minor disseminated pyrite and chalcopyrite and liberated grains of carbonate and pyrite.

Alteration of the chips is dominated by development of approximately 50-70% brown biotite (very fine-grained, massive aggregates and minor fine-grained plates). Muscovite (sericite), approximately 5 to 15%, occurs as anhedral very fine-grained aggregates and less commonly as fine sheaves. Traces of colourless carbonate occurs as very fine-grained, anhedral grains and patchy aggregates that overprint biotite-altered rock fragments, as fine-grained aggregates with quartz in vein fragments and as liberated fine grains and very fine-grained aggregates.

Total sulphide comprises 3% of the sections dominantly as pyrite with lesser chalcopyrite. Traces of molybdenite and bornite occur in section 11840-003A; traces of marcasite occur in section 11840-003B. Pyrite boundaries are irregular but clean and unaltered. Trace goethite occurs as very fine-grained disseminated red-brown grains/aggregates within biotite-altered chips. Traces of magnetite are partly replaced by hematite. In section 11840-003B, an unknown very fine-grained orange-brown material occurs replacing one of the chips.

Group 1 - summary:

Sample # -	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other**	**% ~**
11840-003A	*pyrite* chalcopyrite molybdenite bornite	*2* 1 tr tr	patches, liberated grains, veins	tr	goethite magnetite hematite	tr tr tr	biotite muscovite (sericite)	50-70 10-15
11840-003B	*pyrite* chalcopyrite marcasite	*2* 1 tr	patches, liberated grains, veins	tr	goethite magnetite hematite unknown, orange-brown material	tr tr tr tr	biotite muscovite (sericite)	50-70 5

*tr = trace; x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

Group 2 – Coarse Chips – 10 samples:

ARLB-001	ARLB-001	ARLB-003	ARLB-004	ARLB-005
ARLB-006	ARLB-007	ARLB-008	ARLB-009	ARLB-010

These samples are typically fine to coarse chips ± powder which include some of the following variably altered igneous or sedimentary lithologies: pervasively biotite and muscovite (sericite)-altered rock, quartz-feldspar porphyritic rock, K-feldspar-altered or chlorite-carbonate-rutile ± hematite-altered porphyritic rock, leucocratic equigranular rock, aphanitic, amygdaloidal or porphyritic basalt, crystal-lithic tuff, granule conglomerate, lithic sandstone (graywacke), siltstone, carbonate and quartz ± pyrite ± chalcopyrite vein fragments and in various sections some of the following liberated grains: carbonate, biotite, hematite, pyrite and chalcopyrite.

Generally, equigranular, porphyritic and pervasively altered rock lithologies include approximately 30 to 50% K-feldspar, 5-15% biotite and 3-20% muscovite (sericite) typically as anhedral very fine-grained aggregates. Chlorite occurs as trace to minor amounts in these sections. Carbonate occurs as trace to major amounts as patchy replacement of plagioclase, as veins and as liberated grains. Most carbonate is colourless; in some sections colourless carbonate is partly pseudomorphically replaced by hematite. Sulphides vary from trace to 7% of these sections; sulphides occur dominantly as pyrite with traces of chalcopyrite. Most pyrite grain boundaries are unaltered but rarely, in some sections, a few pyrite grains have rims of an unknown red-brown Fe-oxide/oxyhydroxide material. Traces of covellite occur in two sections; trace marcasite is observed in one section. Hematite occurs as trace to minor amounts in these lithologies; an unknown red-brown Fe-oxide/oxyhydroxide material occurs in trace to major amounts in some sections. Some sections have a few orange-brown stained chips. In section ARLB-006, approximately 5% of rock chips are rimmed or partly to completely replaced by secondary red-brown Fe-oxide/oxyhydroxide aggregates and stained yellow or orange-brown.

Basaltic lithologies commonly include approximately 30% clay minerals, trace to 5% secondary K-feldspar, 1-3% chlorite and traces of muscovite (sericite) typically as anhedral very fine-grained aggregates. Carbonate occurs as major amounts (up to 15%) as patchy replacement of plagioclase, as veins, as amygdales and as liberated grains. Most carbonate is colourless; in some sections colourless carbonate is partly pseudomorphically replaced by hematite. Sulphides occur in trace to minor amounts as pyrite. Most pyrite grain boundaries are unaltered but in some sections, a few pyrite grains have rims of an unknown red-brown Fe-oxide/oxyhydroxide material. Hematite occurs as minor to major amounts (up to 7%) in these lithologies; an unknown red-brown Fe-oxide/oxyhydroxide material occurs in trace to minor amounts (~1%) in these sections. One section has traces of a very fine-grained, secondary orange unknown material.

Clastic sedimentary rocks generally include approximately 25-40% clay minerals, minor biotite and/or chlorite (1-3%) and trace to minor muscovite (sericite) or illite (up to 2%) typically as anhedral very fine-grained aggregates. Carbonate occurs as minor to major amounts (up to 15%) as patchy replacement of plagioclase, as fractured grains or anhedral aggregates, as veins and as liberated grains. Most carbonate is colourless; in some sections colourless carbonate is partly pseudomorphically replaced by hematite. Sulphides occur in trace to minor amounts as pyrite; traces of chalcopyrite occur in some sections. Most pyrite grain boundaries are unaltered but in some sections, a few pyrite grains have rims of an unknown red-brown Fe-oxide/oxyhydroxide material. Hematite occurs as minor to major amounts (up to 15%) mostly as matrix and as irregular bands; an unknown red-brown Fe-oxide/oxyhydroxide material occurs in trace amounts in most of these sections. One section has traces of a very fine-grained, secondary orange unknown material.

Group 2 - summary:

Sample #	**Sulphide**	**%** ~	**Carbonate occurrence**	**%** ~	**Fe-Oxides and Oxyhydroxides**	**%** ~	**Some Other**	**%** ~
ARLB-001	*pyrite* chalcopyrite marcasite covellite	*7* 1 tr tr	liberated grains	tr	magnetite hematite red-brown unknown material red-brown to yellow stain	tr tr tr tr	K-feldspar biotite muscovite (sericite) chlorite	50 15 20 tr
ARLB-002	*pyrite* chalcopyrite covellite	*5* tr tr	liberated grains	tr	hematite red-brown unknown material	tr tr	K-feldspar biotite muscovite (sericite)	50 15 20
ARLB-003	*pyrite* chalcopyrite	*5* tr	patches, veins	7	hematite magnetite red-brown unknown material orange-brown stain	2 tr tr tr	biotite muscovite (sericite) chlorite	10 5 tr
ARLB-004	*pyrite* chalcopyrite	*tr* tr	patches, fractured grains, veins	5	hematite	2	clay biotite illite	25 1-2 tr
ARLB-005	*pyrite* chalcopyrite	*tr* tr	patches, veins, angular grain fragments	2	hematite red-brown unknown material	15 tr	clay biotite illite chlorite	40 2-3 1-2 2
ARLB-006	*pyrite* chalcopyrite	*7* tr	patches, liberated grains	tr	red-brown unknown material and orange-brown stain hematite magnetite	5 tr tr	K-feldspar biotite muscovite (sericite)	30 5 3
ARLB-007	*pyrite*	*1*	veins, patches, fragments, amygdales, liberated grains	15	hematite red-brown unknown material	5-7 tr	clay muscovite (sericite) chlorite	30 1 1
ARLB-008	*pyrite*	*tr*	veins, patches, fragments, amygdales, liberated grains	15	hematite orange or red-brown unknown material	7 tr	clay chlorite muscovite (sericite)	30 1-2 tr
ARLB-009	*pyrite*	*tr*	patches	7	hematite	tr	K-feldspar clay chlorite	30 3 2
ARLB-010	*pyrite*	*tr*	patches, amygdales, liberated grains	7	red-brown unknown material magnetite hematite	1 1 tr	clay K-feldspar chlorite	30 5 2-3

*tr = trace; x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

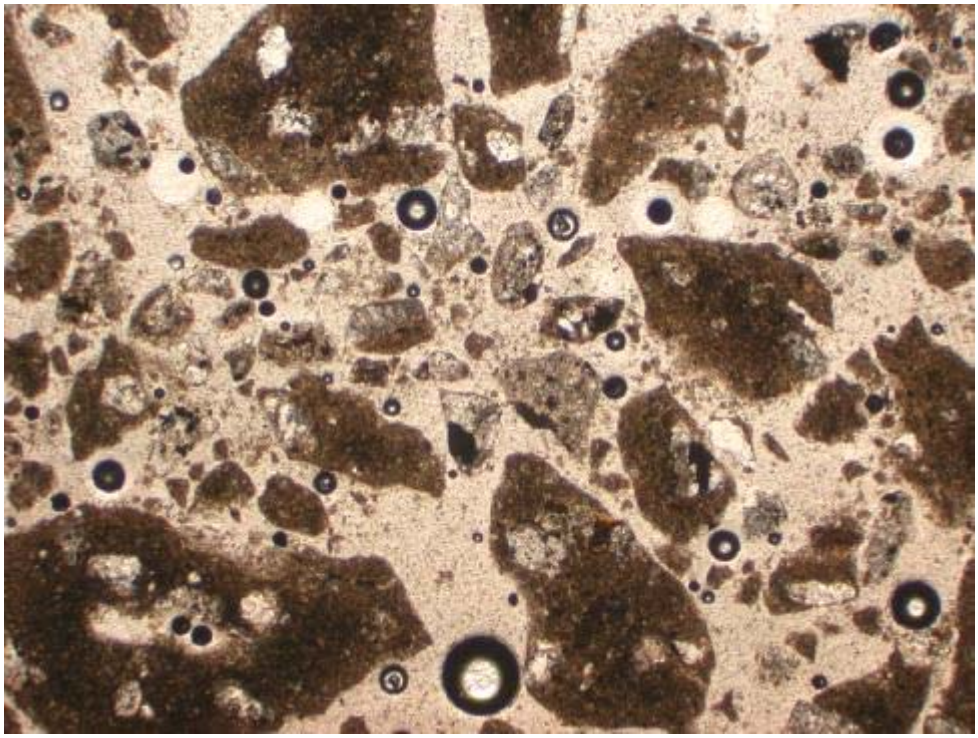
Project #: 1CN007.00
Sample ID: 11840-003A

Offcut Mount Description (Pulps not provided):
Medium gray fine grains and powder (< 1mm size). No reaction of mount to cold dilute HCl. No reaction to magnet. Offcut has not been etched and stained using sodium cobaltinitrite.

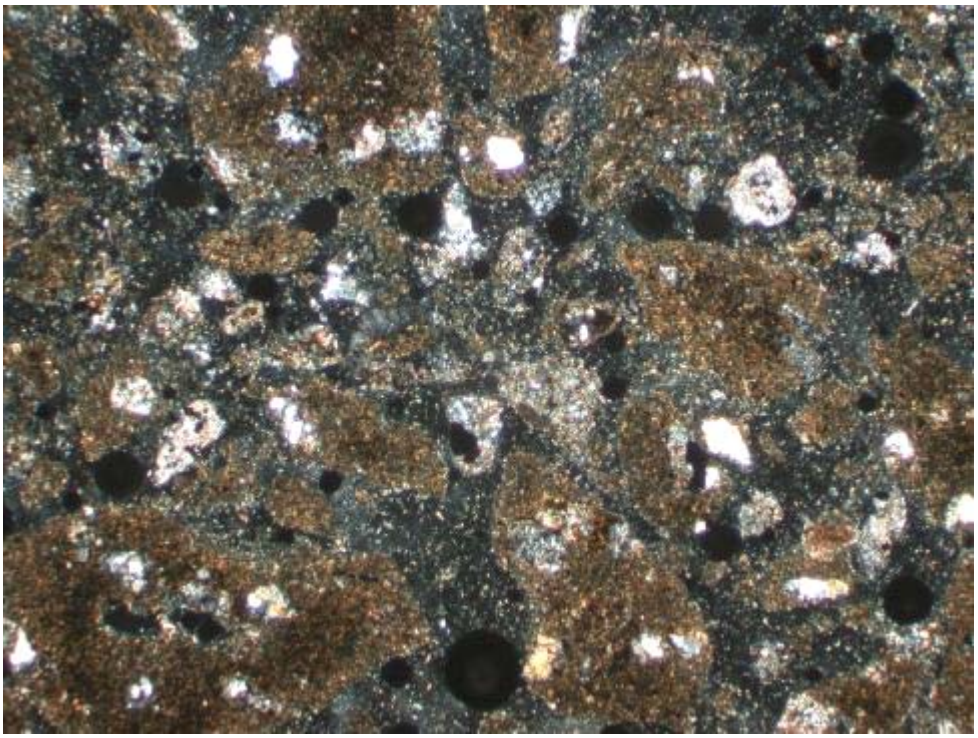
Polished Thin Section Description:
Fine chips of pervasively biotite and muscovite (sericite)-altered fine-grained clastic rock fragments, minor quartz and polycrystalline quartz, quartz-carbonate and quartz-albite vein fragments, minor disseminated pyrite and chalcopyrite and traces of liberated carbonate. The section is dominated by very fine-grained secondary brown biotite aggregates (approximately 50-70%) as replacement of clastic rock matrix. Biotite also occurs in trace amounts as fine-grained plates. Muscovite (sericite)-altered rock is fine-grained and comprises dominantly pervasively muscovite (sericite) altered rock and sericite-altered tabular grains intergrown with quartz and locally pyrite. Muscovite (sericite), approximately 10-15% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates. Traces of rutile occur associated with some sericite-quartz-pyrite aggregates.

Total carbonate occurs as trace amounts in the section. Carbonate occurs very fine-grained, colourless anhedral grains and patchy aggregates that overprint biotite-altered rock fragments, fine-grained aggregates with quartz as vein fragments and as liberated fine grains and very fine-grained aggregates.

Sulphide approximately 3%, occurs dominantly as pyrite and chalcopyrite with rare traces of molybdenite and bornite. Pyrite, approximately 2%, is fine-grained (< 0.15 mm), sub-anhedral and variably pitted and fractured. It occurs as disseminated grains and aggregates in altered rock and quartz vein fragments and less commonly as liberated grains. Pyrite boundaries are irregular but clean and unaltered. Minor chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within vein and rock fragments and liberated grains; it locally occurs a infill to pyrite. One grain of bornite-chalcopyrite associated with quartz-carbonate veining was observed. One grain of molybdenite was observed within a quartz vein fragment. Traces of very fine-grained colloform-textured goethite grains and aggregates occur disseminated throughout the biotite-altered rock fragments. Rare grains of very fine-grained magnetite, partly replaced by hematite, occur in one quartz-albite veinlet fragment.

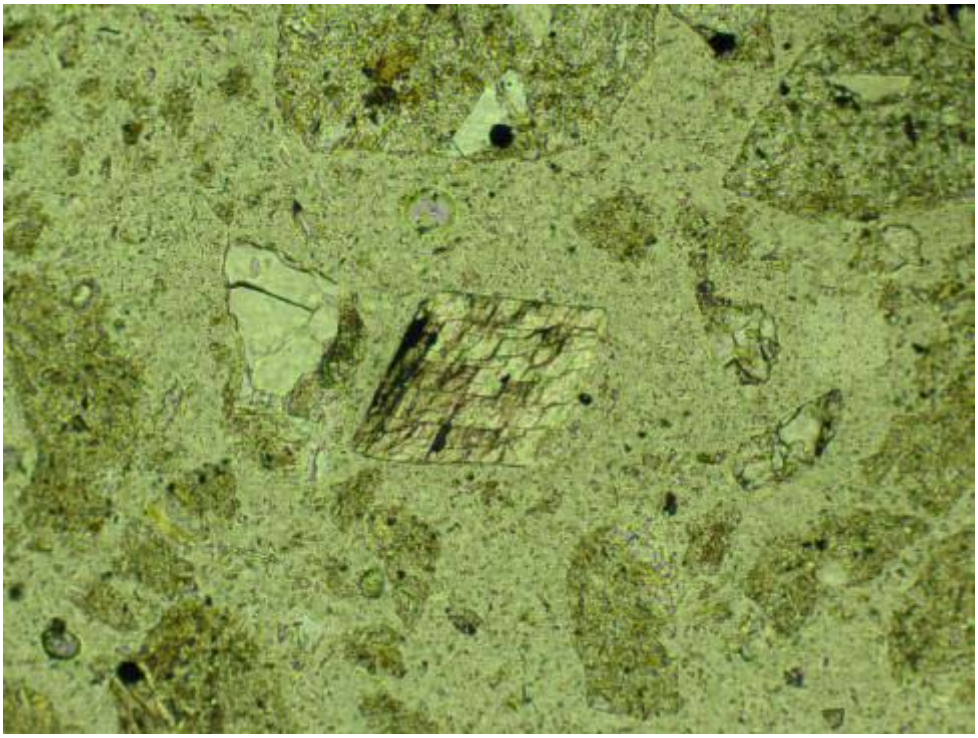


A



B

11840-003A: Representative chips of biotite and muscovite (sericite)-altered fine-grained clastic rock, quartz vein fragments and disseminated sulphide grains (opaque). A) PPL, B) XPL, FOV =~ 4.5 mm.



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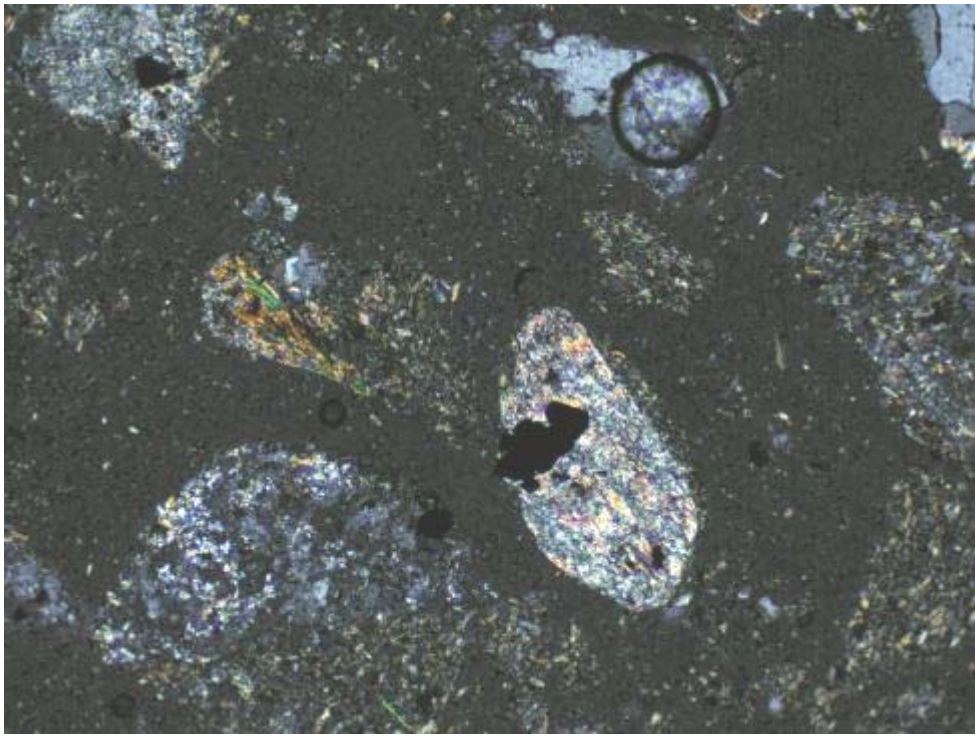
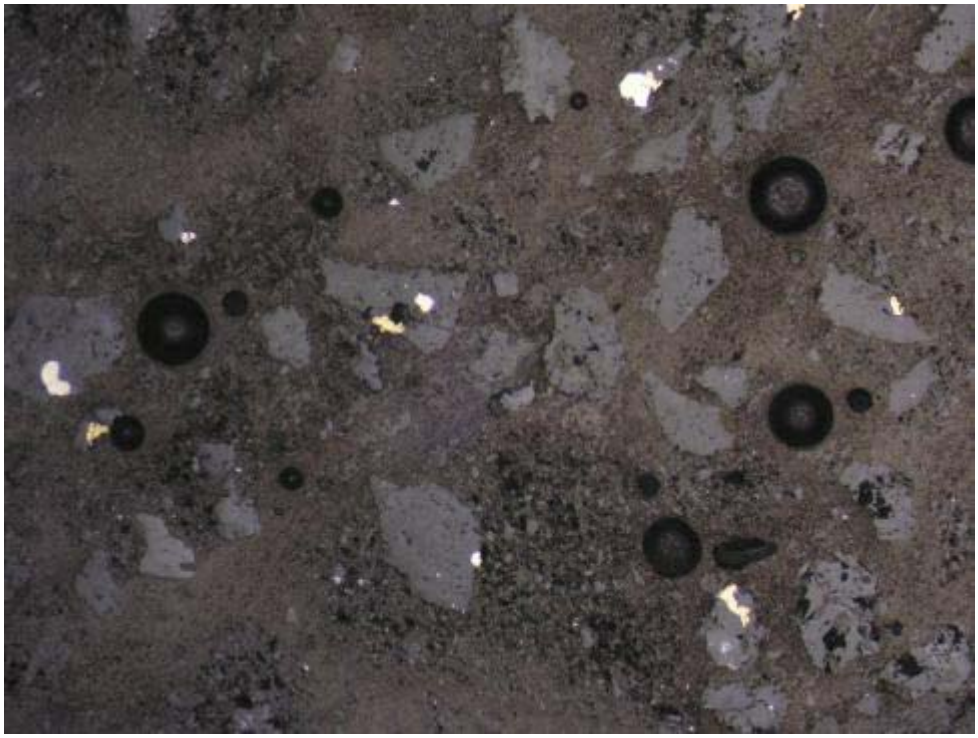


D

11840-003A: C) Top: Liberated fragment of fine-grained colourless carbonate. PPL, FOV =~ 1.0 mm. D) Bottom: Detailed view of pervasively biotite and sericite-quartz-pyrite (opaque)-altered rock fragments. XPL, FOV =~ 1.3 mm



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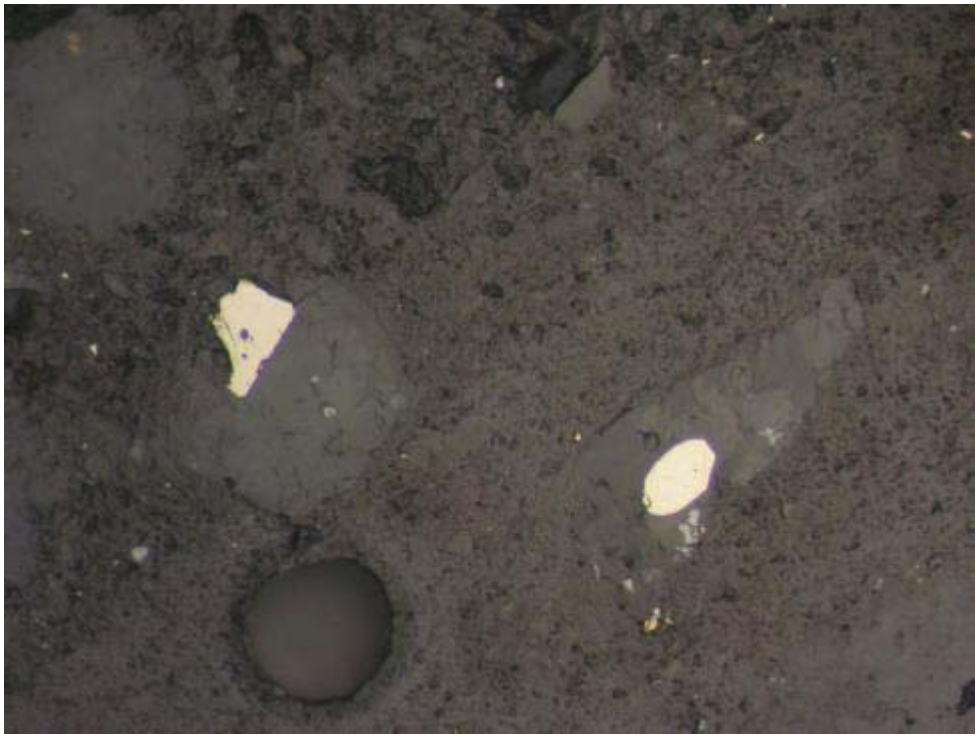


F

11840-003A: E) Top: Disseminated anhedral pyrite and chalcopyrite with irregular and ragged grain boundaries. RL, FOV =~ 2.8 mm, F) Bottom: Detailed view of pyrite grains within fragments. Note irregular but clean grain boundaries. RL, FOV =~ 0.55 mm.

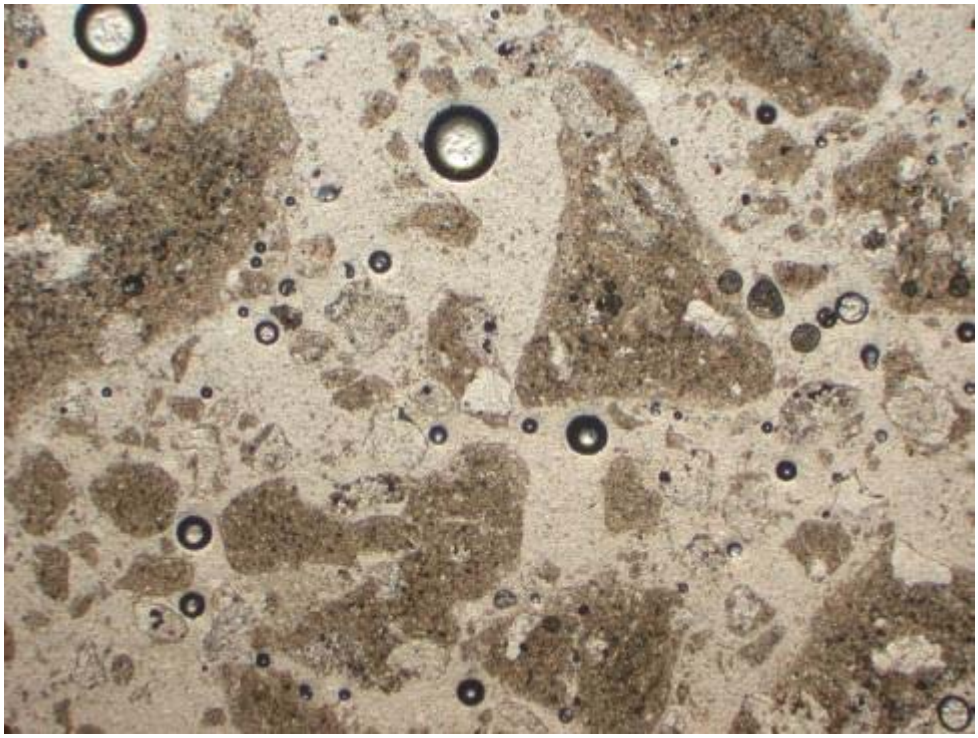
Project #: 1CN007.00
Sample ID: 11840-003B

Offcut Mount Description (Pulps not provided):
Medium gray fine grains and powder (< 1mm size). No reaction of mount to cold dilute HCl. No reaction to magnet. Offcut has not been etched and stained using sodium cobaltinitrite.

Polished Thin Section Description:
This section is similar to section 11840-003A; it comprises fine chips of pervasively biotite and muscovite (sericite)-altered fine-grained clastic rock fragments, minor quartz and polycrystalline quartz, quartz-carbonate and quartz-K-feldspar vein fragments, minor disseminated pyrite and chalcopyrite and traces of liberated carbonate. The section is dominated by very fine-grained secondary brown biotite aggregates (approximately 50-70%) as replacement of clastic rock matrix. Biotite also occurs in trace amounts as fine-grained plates. Muscovite (sericite)-altered rock is fine-grained and comprises dominantly pervasively muscovite (sericite) altered rock and sericite-altered tabular grains intergrown with quartz and locally pyrite. Muscovite (sericite), approximately 5% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates. Traces of rutile occur associated with some sericite-quartz-pyrite aggregates.

Total carbonate occurs as trace amounts in the section. The amount of carbonate in this section is slightly more than that in section 11840-003A. Carbonate occurs very fine-grained, colourless anhedral grains and patchy aggregates that overprint biotite-altered rock fragments, fine-grained aggregates with quartz as vein fragments and as liberated fine grains and very fine-grained aggregates.

Sulphide approximately 3%, occurs dominantly as pyrite and chalcopyrite with rare traces of marcasite. Pyrite, approximately 2%, is fine-grained (< 0.1 mm), sub-anhedral and variably pitted and fractured. It occurs as disseminated grains and aggregates in altered rock and quartz vein fragments and less commonly as liberated grains. Pyrite boundaries are irregular but clean and unaltered. Minor chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within vein and rock fragments and liberated grains. One grain of pyrite rimmed by lamellar marcasite was observed. Traces of very fine-grained colloform-textured goethite grains and aggregates occur disseminated throughout the biotite-altered rock fragments. Grains of fine-grained magnetite, partly to virtually completely replaced by traces of hematite, occur in quartz vein fragments and as irregular liberated grains. A very fine-grained aggregate of an unknown orange-brown material was observed replacing one of the chips.



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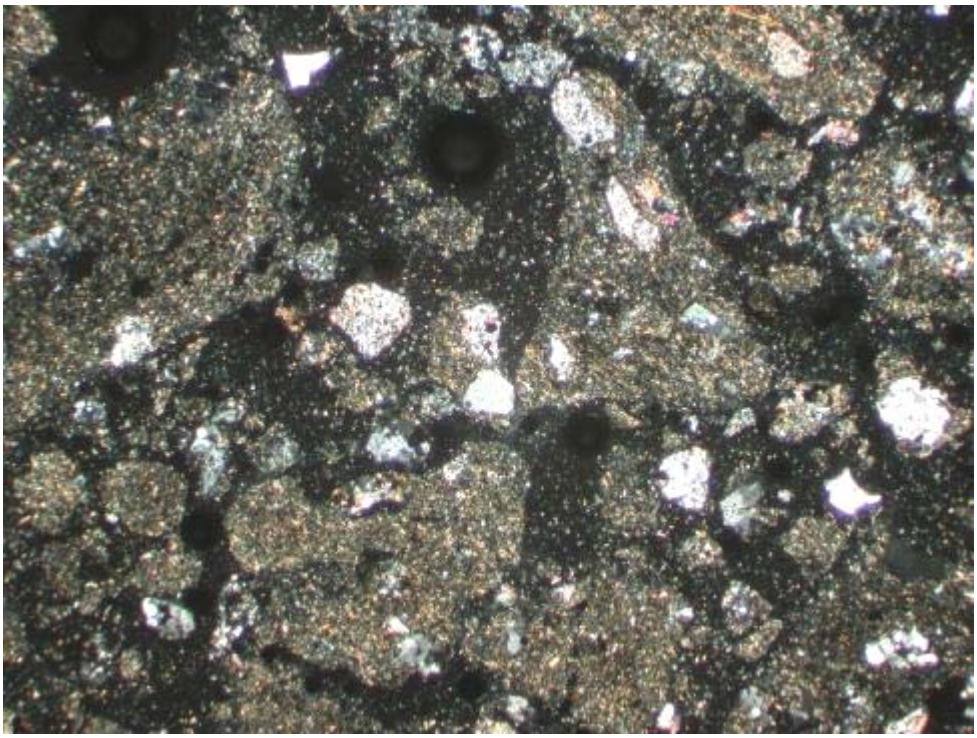
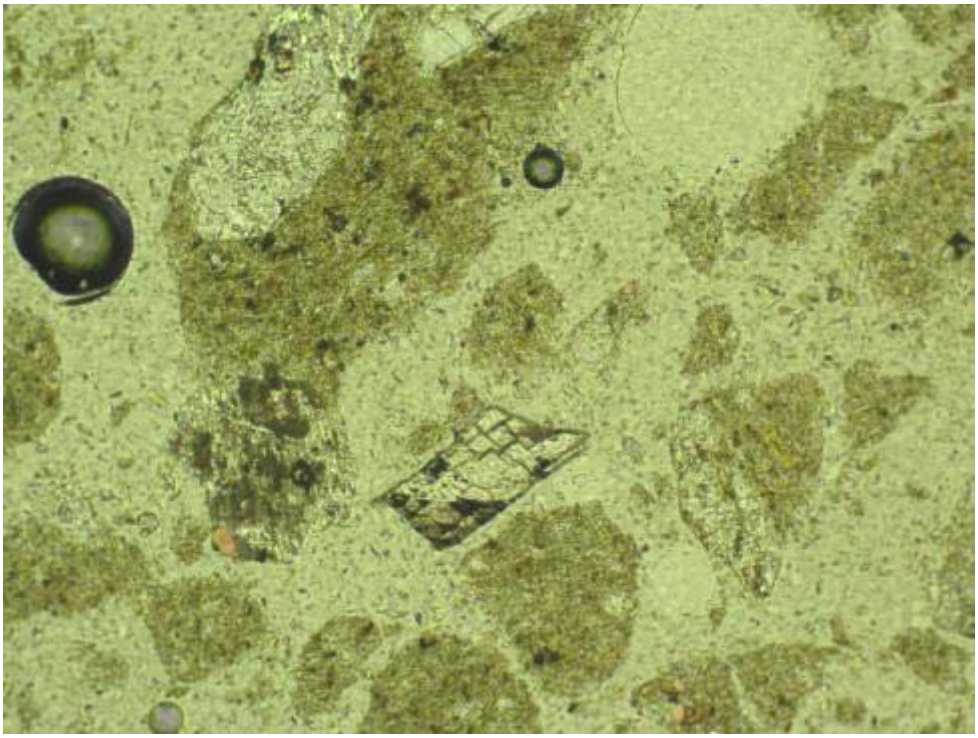


B

11840-003B: Representative chips of biotite and muscovite (sericite)-altered fine-grained clastic rock, quartz vein fragments and disseminated sulphide grains (opaque). A) PPL, B) XPL, FOV =~ 4.5 mm.



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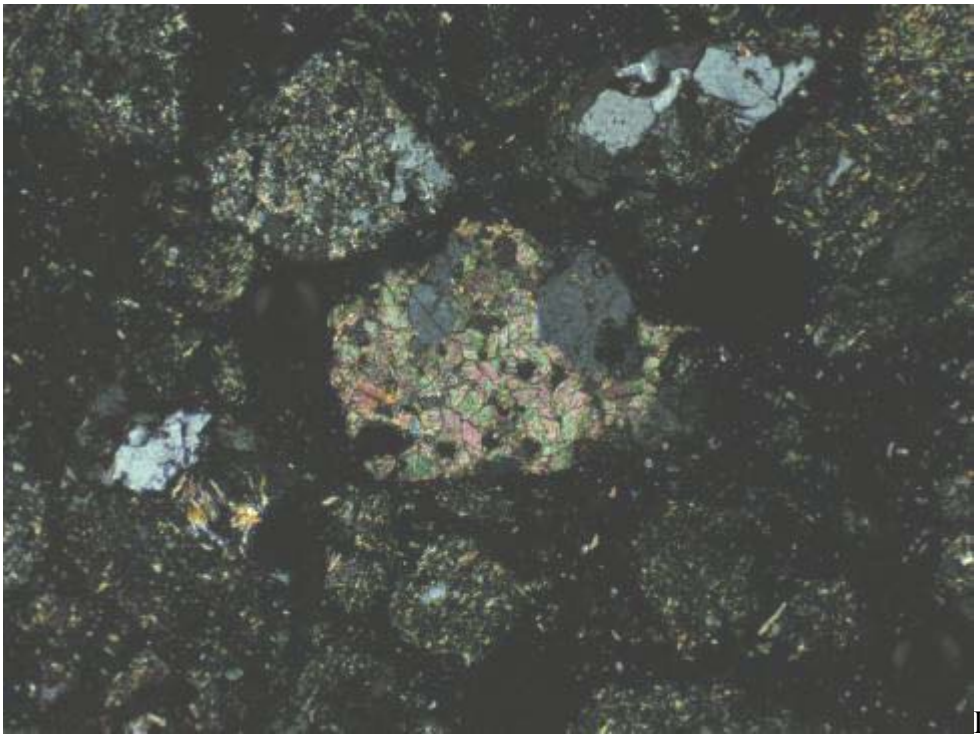
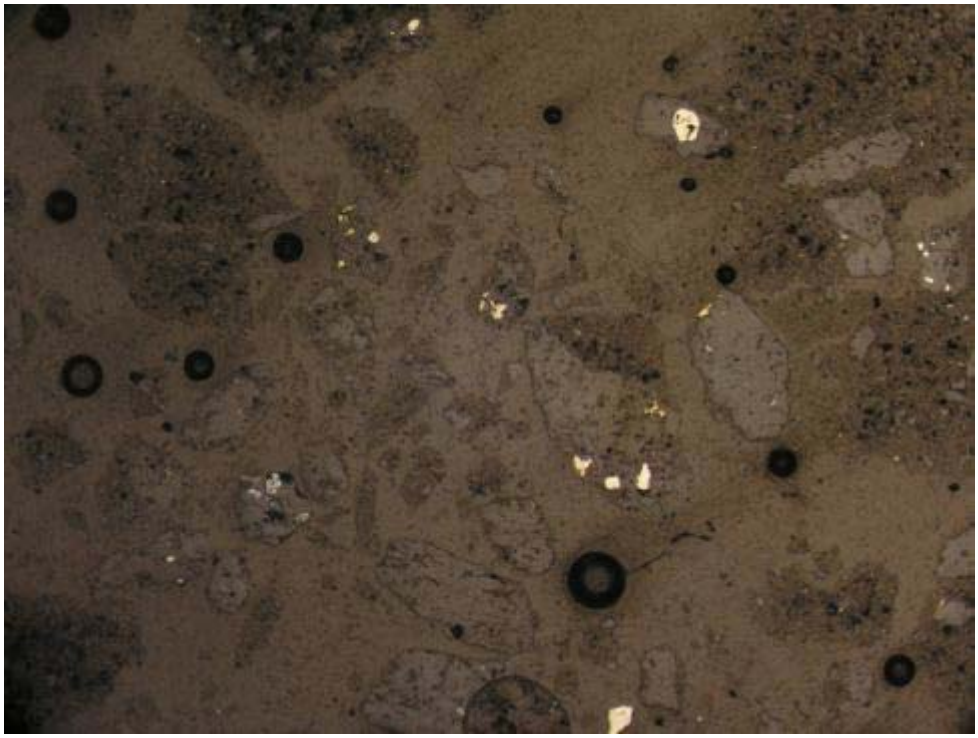
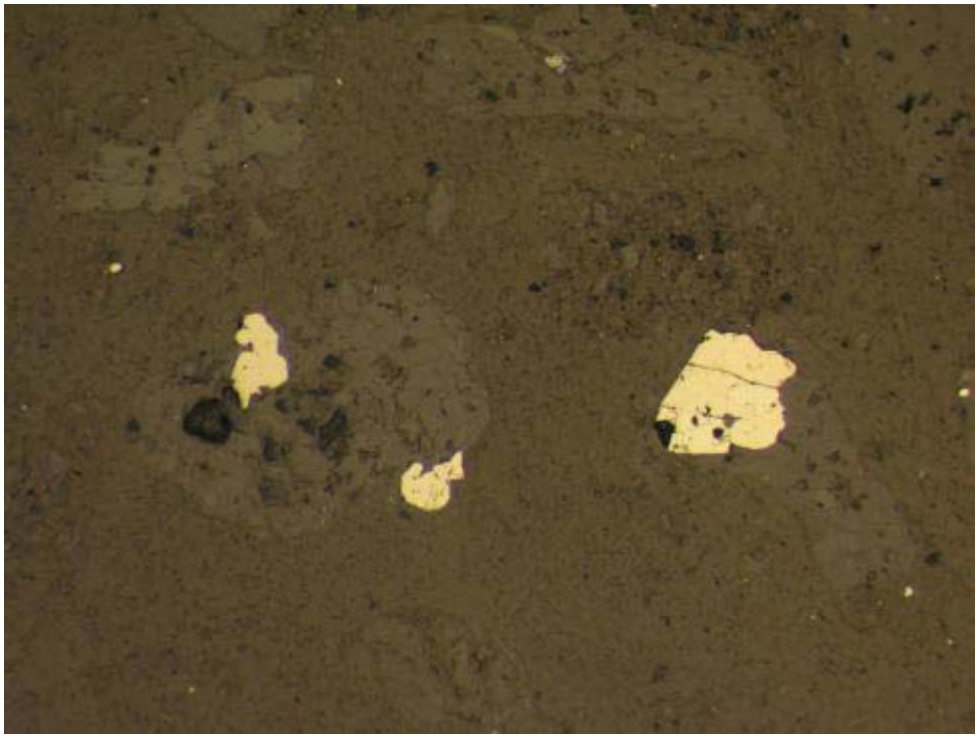


D

11840-003B: C) Top: Liberated colourless carbonate grain (below centre). PPL, FOV =~ 1.3 mm, D) Bottom: Carbonate-quartz vein aggregate. XPL, FOV =~ 1.3 mm

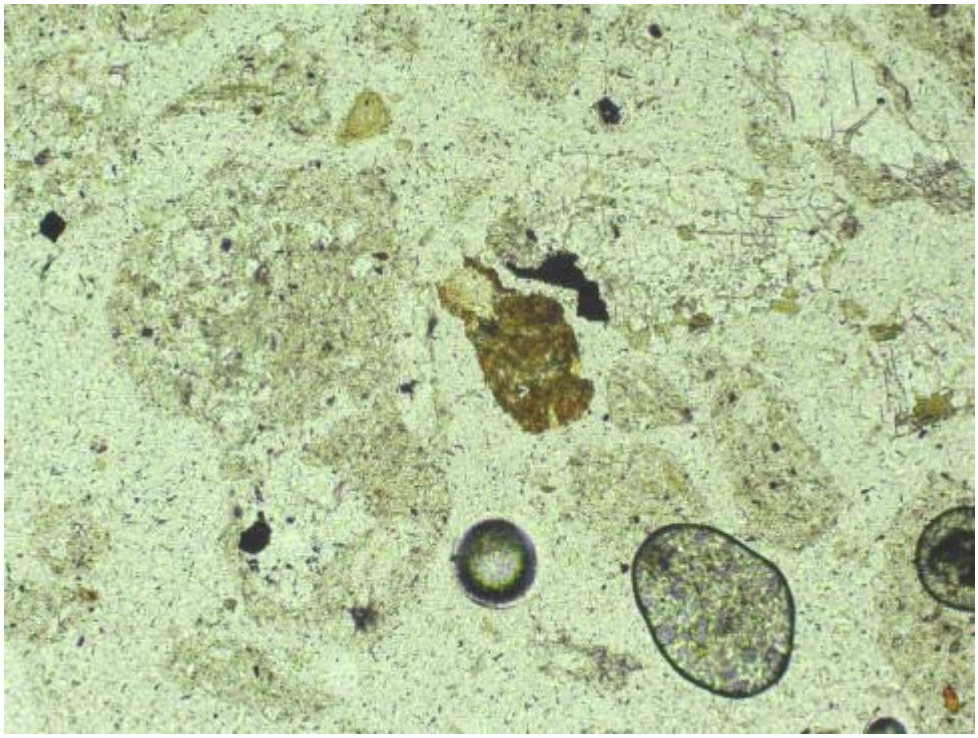


E

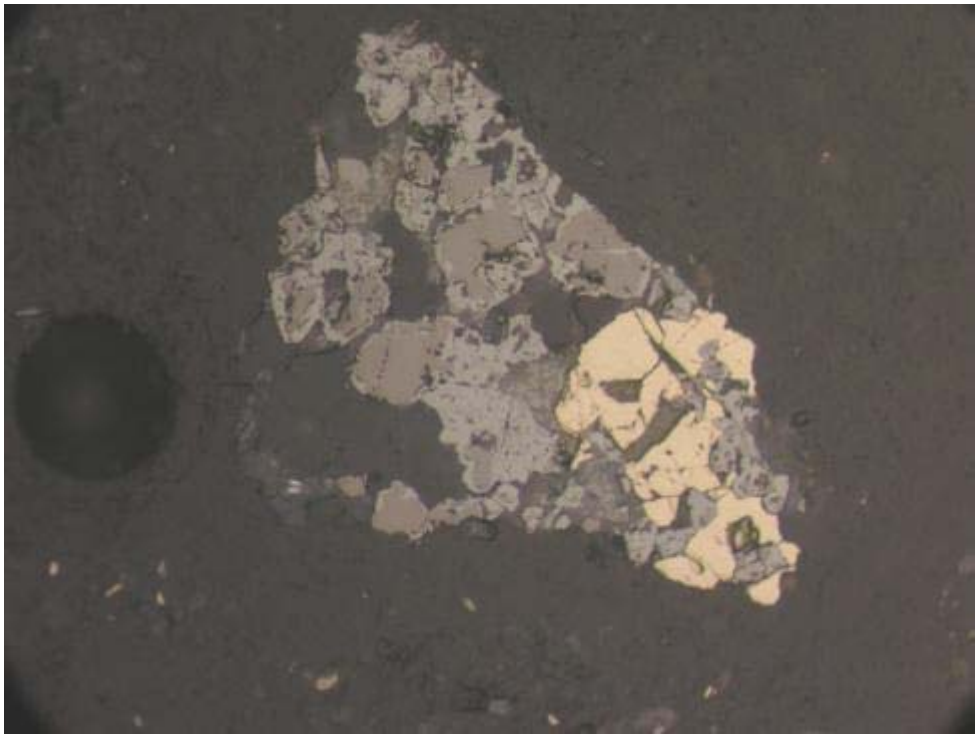


F

11840-003B: E) Top: Representative view of minor pyrite and chalcopyrite distribution. Note hematite grains (lower left of centre, after magnetite). RL, FOV =~ 2.8 mm, F) Bottom: Detailed view of pyrite grains within fragments. Note irregular but clean grain boundaries. RL, FOV =~ 1.0 mm.



G



H

11840-003B: G) Top: Unknown very fine-grained orange-brown Fe-oxyhydroxide aggregate as fragment (centre). PPL, FOV =~ 1.3 mm, H) Bottom: Magnetite (partly replaced by hematite)-pyrite aggregate within quartz vein fragment. RL, FOV =~ 0.35 mm.

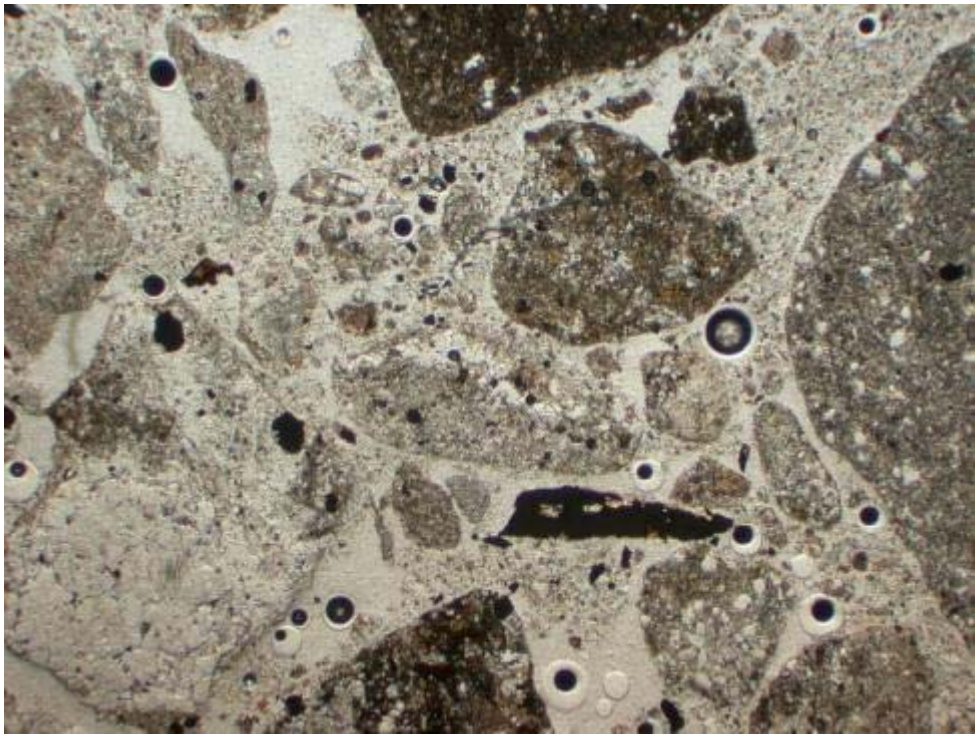
Project #: 1CN007.00
Sample ID: ARLB-001

Chip/Powder and Offcut Mount Description:
Fine to coarse-size chips (up to 9 mm size). Chips comprise greenish-gray aphanitic rock and mottled white-yellowish gray rock fragments. The chips include approximately 5% pyrite as stringers and disseminated. No reaction of chips to cold dilute HCl. No reaction to magnet. Approximately half the chips have abundant very fine-grained K-feldspar (based on offcut mount etched and stained with sodium cobaltinitrite solution). A couple of chips have orange-brown colouration (see green marking lines in photo above).

Polished Thin Section Description:
Mixed powder and fine to coarse chips of pyritic, pervasively biotite and muscovite (sericite)-altered rock and quartz vein fragments as well as abundant liberated pyrite grains and traces of liberated carbonate. Brown biotite, approximately 15%, occurs as very fine-grained shreddy aggregates with fine to very fine-grained quartz and K-feldspar aggregates. Biotite occurs less commonly as fine-grained platy aggregates. Sericite, approximately 20% of the section, occurs as fine sheaves and very fine-grained anhedral patchy aggregates typically with fine-grained quartz aggregate. Sericite occurs partly replacing biotite or K-feldspar in some chips. Trace chlorite occurs as replacement of biotite in some chips. Traces of rutile occur as very fine-grained aggregates within altered rock fragments.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as a few scattered fine to very fine-grained, colourless liberated grains.

Total sulphide, approximately 7%, comprises dominantly pyrite with traces of chalcopyrite, marcasite and covellite. Pyrite, approximately 7%, occurs disseminated as fine to medium-grained (< 1.4 mm), variably fractured, sub-anhedral grains and aggregates within the muscovite (sericite) and biotite-altered rocks, with vein quartz aggregate and as liberated grains. Pyrite boundaries are mostly straight and relatively clean but some can be irregular, fractured and careous. A few pyrite grains have red-brown oxide/oxyhydroxide rims (see photos). One chip with disseminated pyrite has a pronounced red-brown to yellow coloured stain (see photos). Pyrite is rarely enclosed by traces of chalcopyrite. Chalcopyrite occurs as fine to very fine-grained anhedral aggregates without alteration rims. Traces of very fine-grained covellite occur as replacement of chalcopyrite in some chips. Traces of fine-grained marcasite occur as radiating aggregates with pyrite within a quartz vein fragment. One grain of magnetite was observed with a fine rim of hematite. Rare traces of very fine-grained hematite occur disseminated as liberated clusters.



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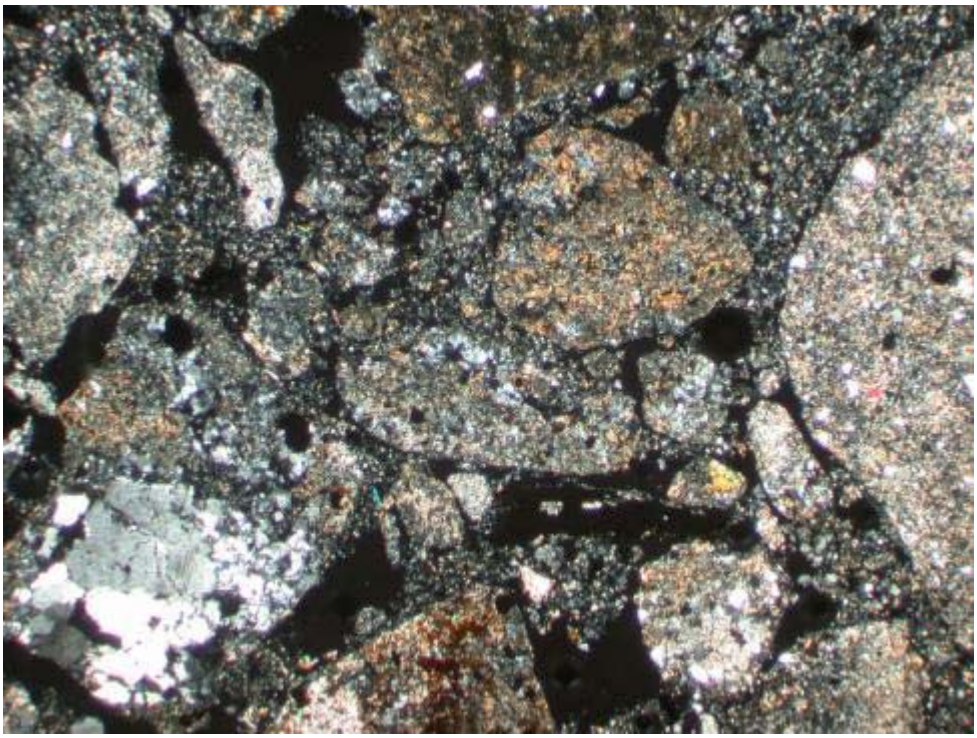
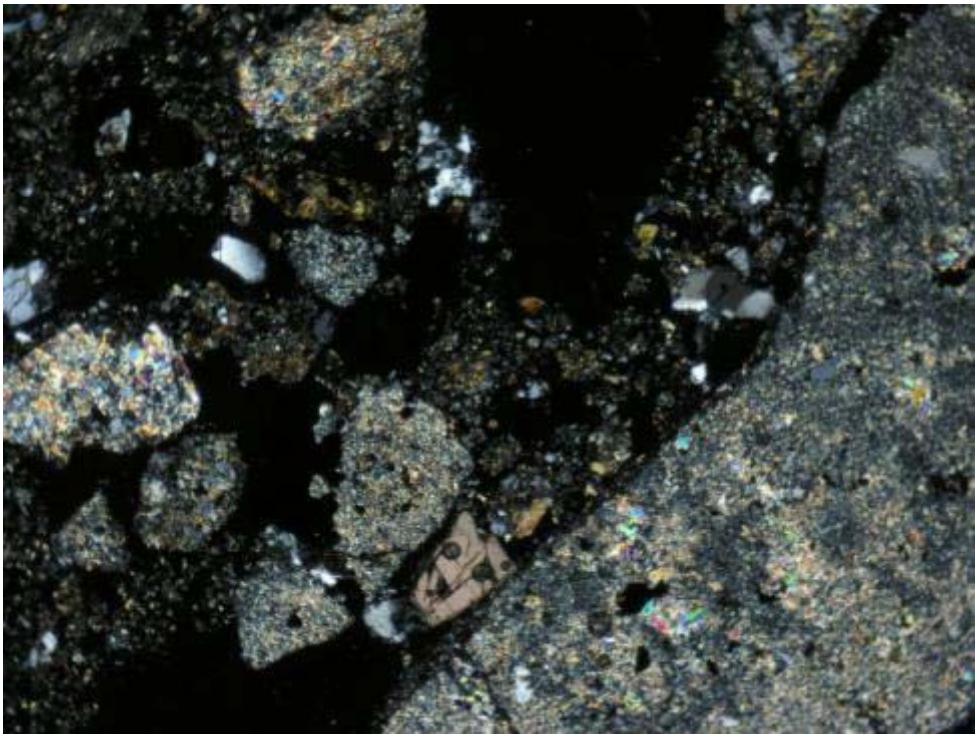


B

ARLB-001: General view of pervasive biotite and muscovite (sericite) altered rock chips and quartz vein fragments (lower left). A) PPL, B) XPL, FOV =~ 4.5 mm.



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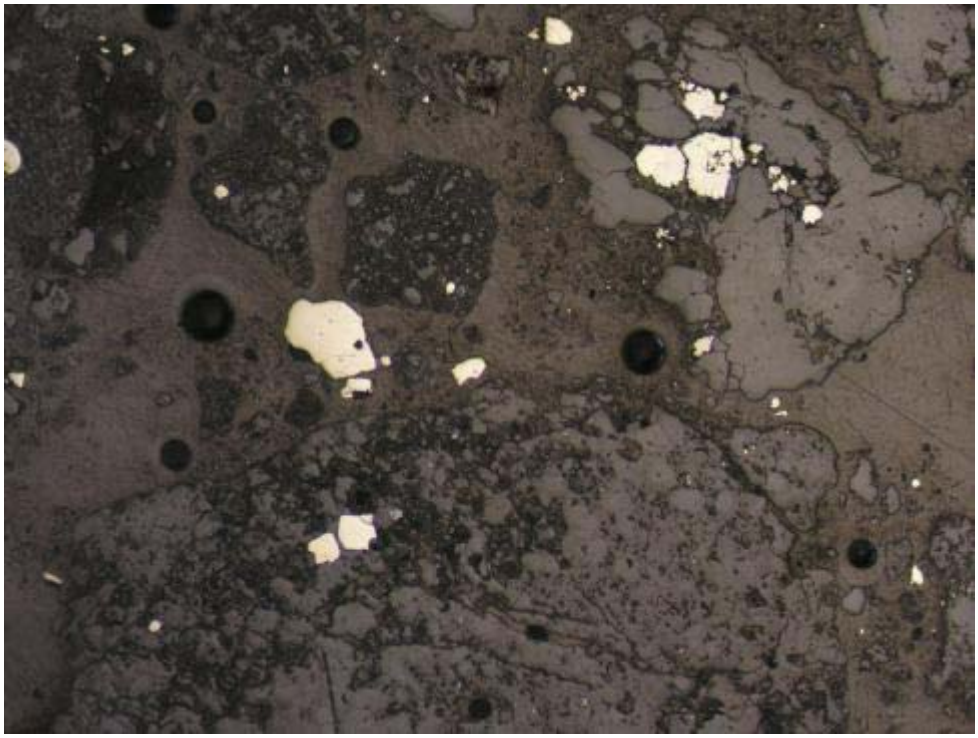
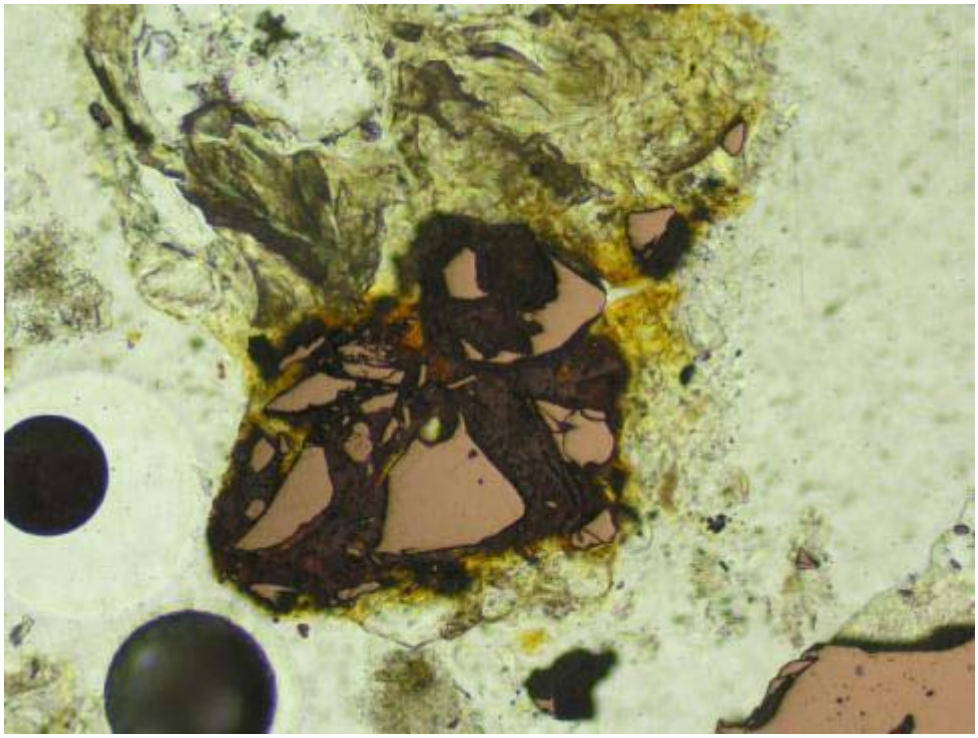
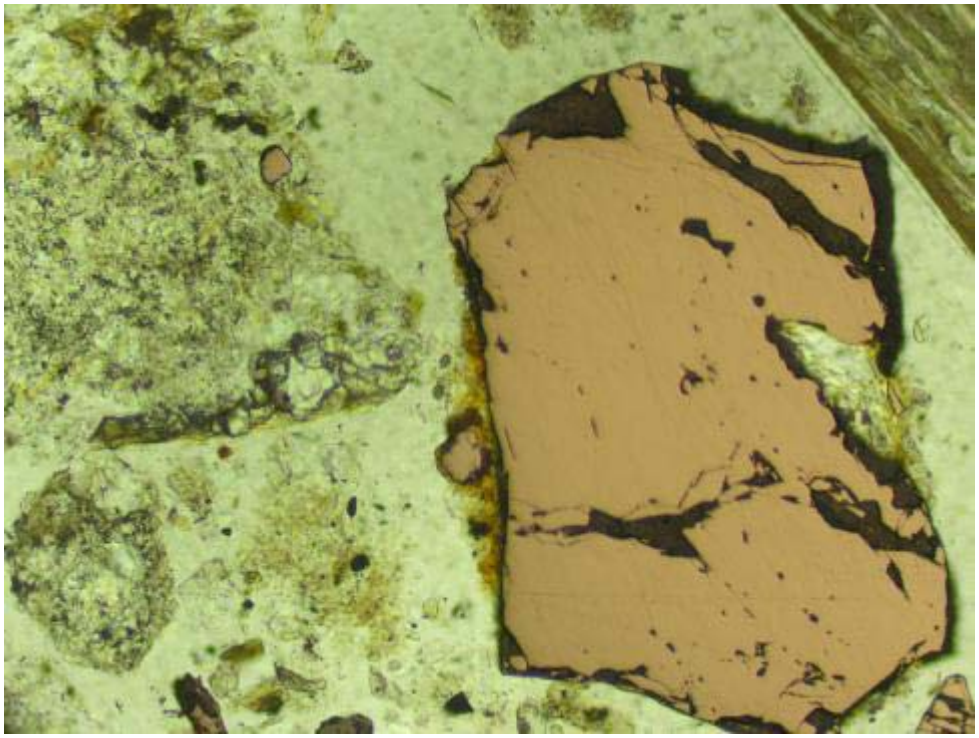


D

ARLB-001: C) Top: Detailed view of patchy muscovite (sericite) altered rock chips, monocrystalline and polycrystalline quartz fragments and liberated carbonate grain (centre-lower portion of photo). XPL, FOV =~2.8 mm. D) Bottom: Disseminated pyrite grains and aggregates in sericite-altered rock (lower half of photo) pyrite-marcasite aggregate in polycrystalline quartz fragments (top right) and pyrite as liberated grains (left of centre). Note pyrite has irregular but clean grain boundaries. RL, FOV =~ 2.8 mm

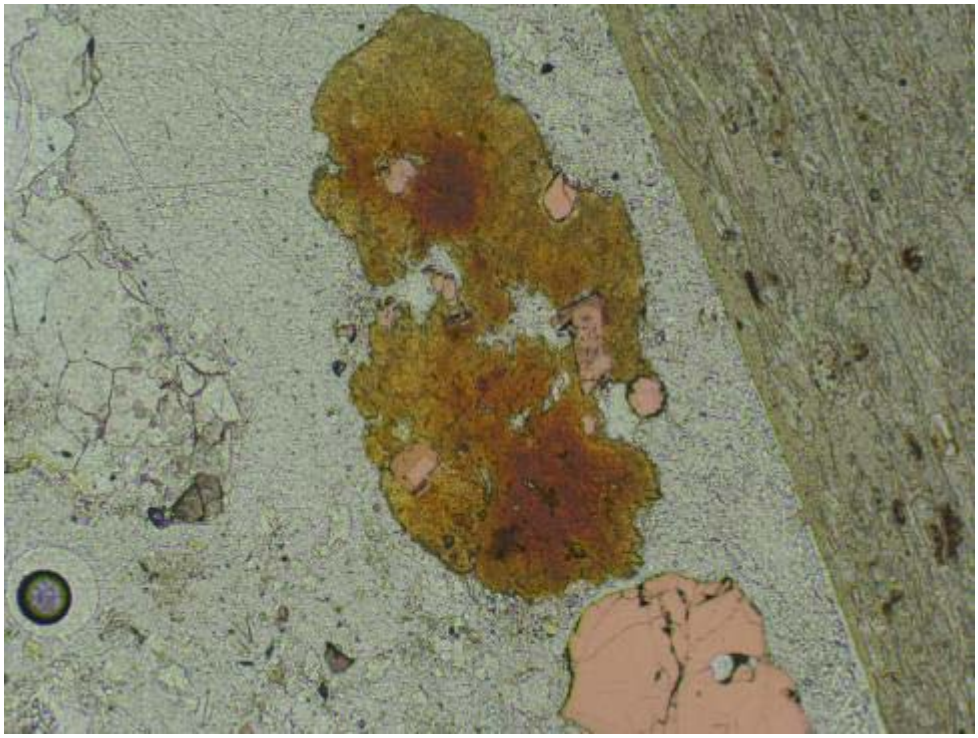


E

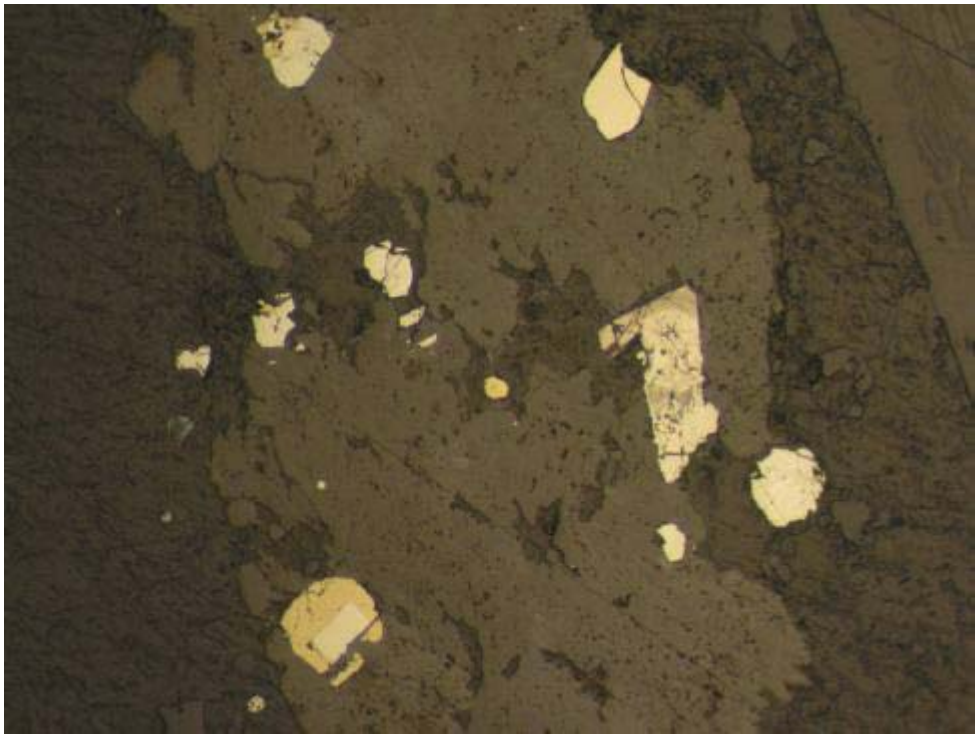


F

ARLB-001: E) Top: Irregular, fractured, careous pyrite grain with red-brown alteration rims. PPL+RL, FOV =~ 0.55 mm. F) Bottom: Irregular pyrite grain with fractured boundaries and narrow red-brown alteration rim (left side of grain). PPL+RL, FOV =~ 0.7 mm.



G



H

ARLB-001: G) Top: Red-brown to yellow staining of chip with disseminated pyrite and chalcopyrite. PPL+RL, FOV =~ 2.8 mm. H) Bottom: Detailed view of disseminated sulphides within stained chip of photo G. Note pyrite grains appear to have clean unaltered boundaries. RL, FOV =~ 1.3 mm.

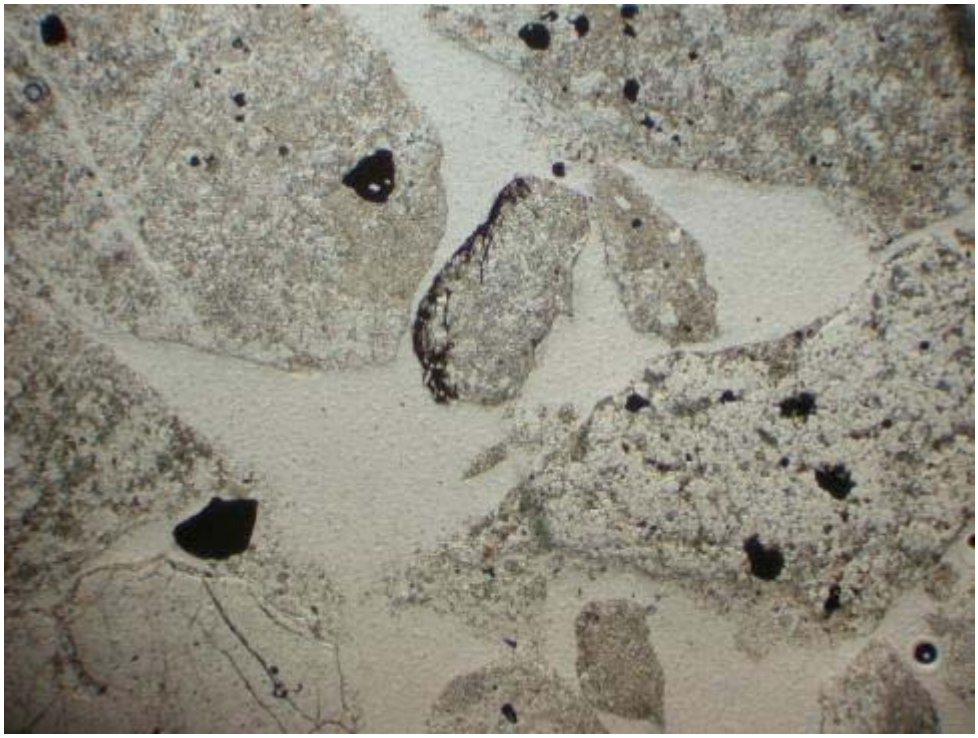
Project #: 1CN007.00
Sample ID: ARLB-002

Chip/Powder and Offcut Mount Description:
Medium to coarse-size chips (up to 14 mm size). Chips comprise medium-gray aphanitic rock, mottled gray-light gray rock and translucent quartz vein fragments. The chips include approximately 5% pyrite as stringers and disseminated. No reaction of chips to cold dilute HCl. No reaction to magnet. Approximately half the chips have abundant very fine-grained K-feldspar (based on offcut mount etched and stained with sodium cobaltinitrite solution).

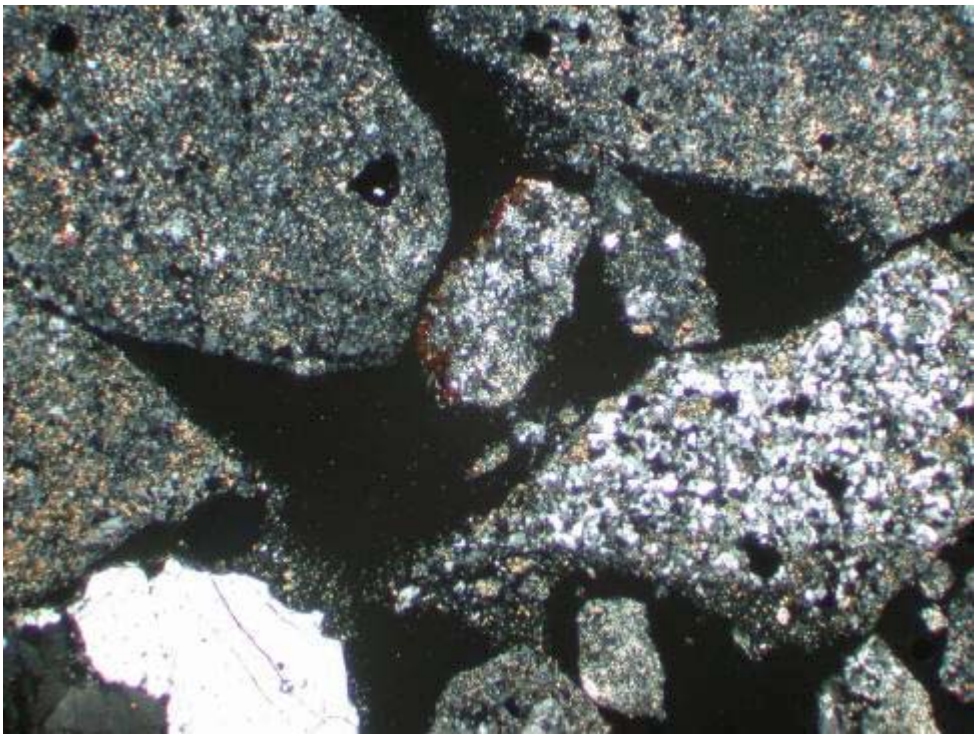
Polished Thin Section Description:
This section is similar to ARLB-001. It comprises mixed powder and fine to coarse chips of pyritic, pervasively biotite and muscovite (sericite)-altered rock and quartz vein fragments as well as abundant liberated pyrite grains and traces of liberated carbonate. Brown biotite, approximately 15%, occurs as very fine-grained shreddy aggregates with fine to very fine-grained quartz and K-feldspar aggregates. Biotite occurs less commonly as fine-grained platy aggregates. Sericite, approximately 20% of the section, occurs as fine sheaves and very fine-grained anhedral patchy aggregates typically with fine-grained quartz aggregate. Sericite occurs partly replacing biotite or K-feldspar in some chips. Traces of rutile occur as very fine-grained aggregates within altered rock fragments.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as a few scattered fine to very fine-grained, colourless liberated grains.

Total sulphide, approximately 5%, comprises dominantly pyrite with traces of chalcopyrite and covellite. Pyrite, approximately 5%, occurs disseminated as fine to medium-grained (< 1.4 mm), variably fractured, sub-anhedral grains and aggregates within the muscovite (sericite) and biotite-altered rocks, with vein quartz aggregate and as liberated grains. Pyrite boundaries are mostly straight and relatively clean but some can be irregular, fractured and careous. A few chips of biotite-sericite altered rock have red-brown oxide/oxyhydroxide rims and some chips are completely replaced by the red-brown oxide/hydroxide material (see photos). Trace chalcopyrite occurs as fine to very fine-grained anhedral aggregates without alteration rims. Rare traces of very fine-grained covellite occur with pyrite in one chip. Rare traces of very fine-grained hematite occur as liberated clusters.

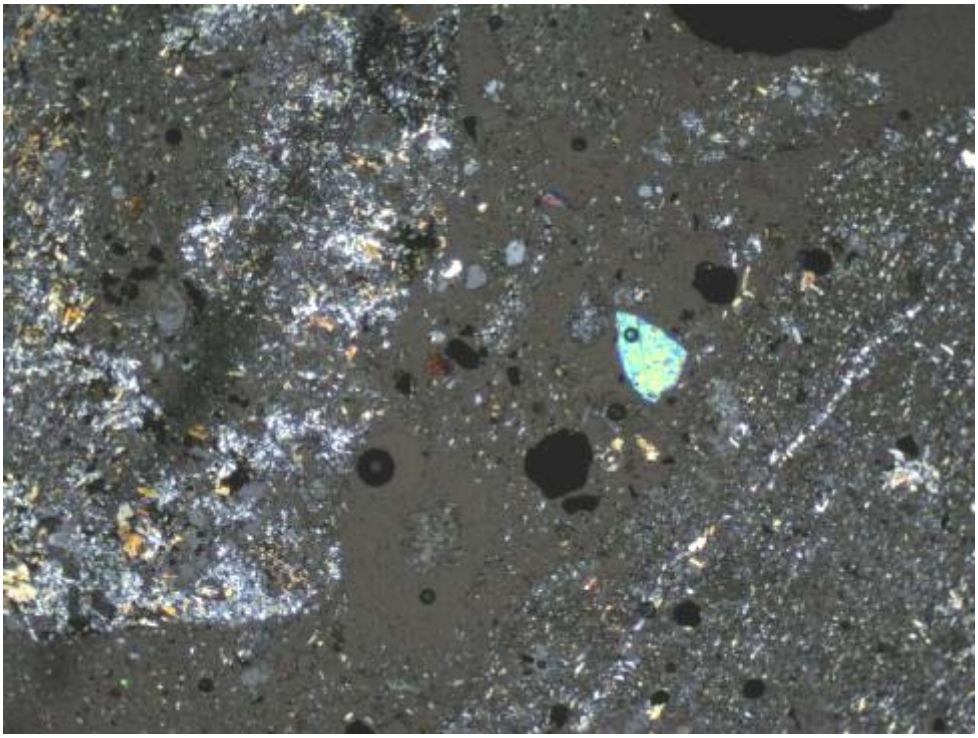


A



B

ARLB-002: General view of pervasive biotite and muscovite (sericite) altered rock chips and quartz vein fragment (lower left). A) PPL, B) XPL, FOV =~ 4.5 mm.



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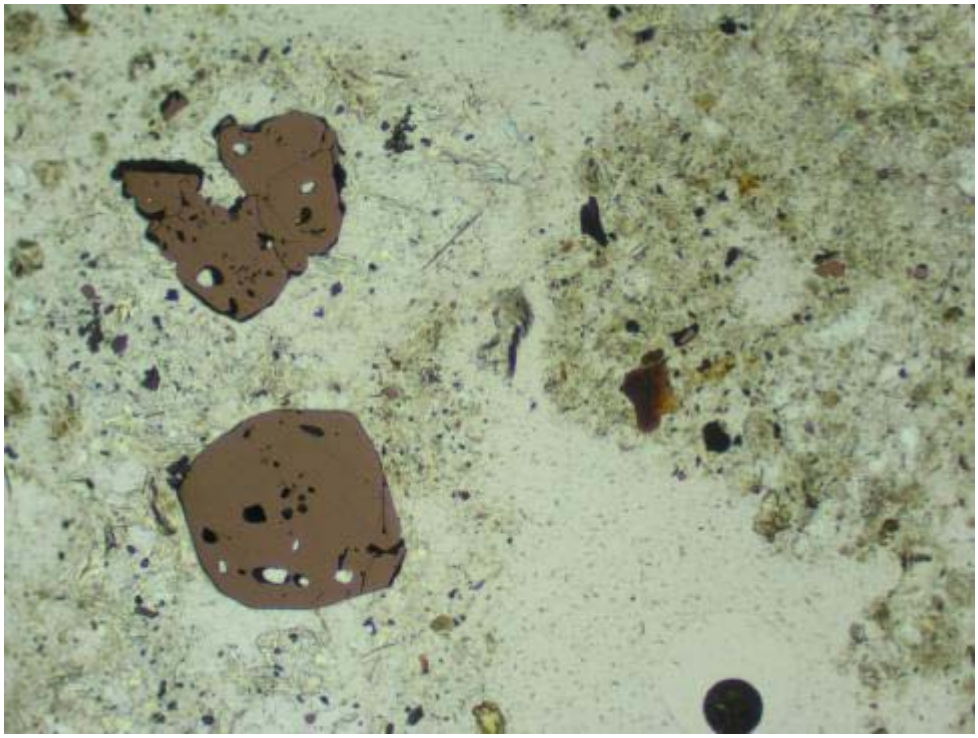
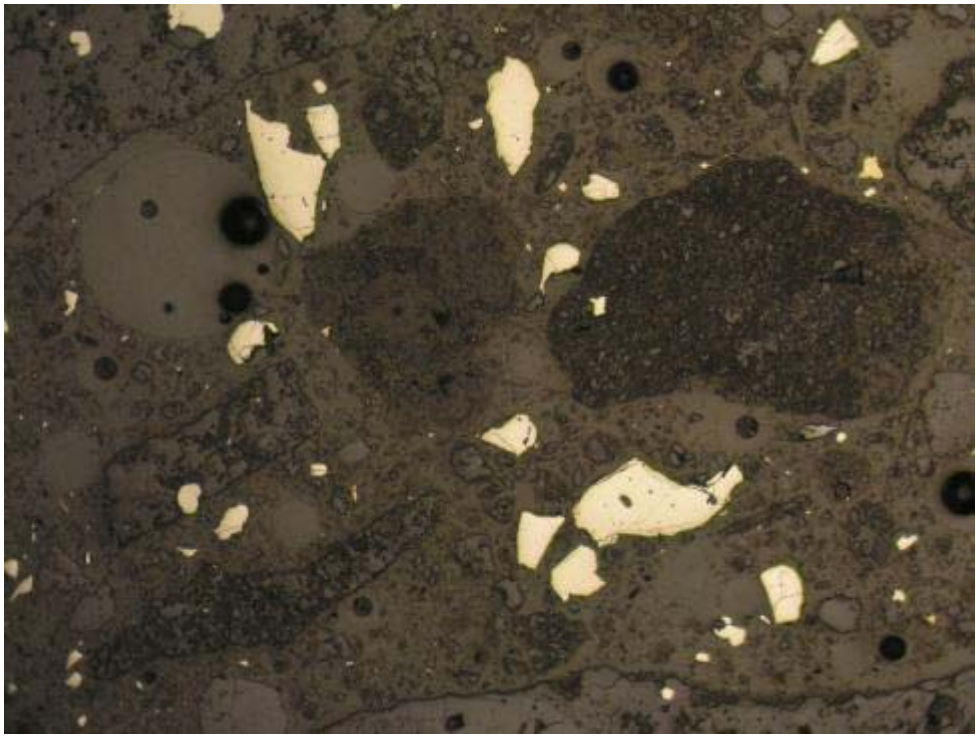
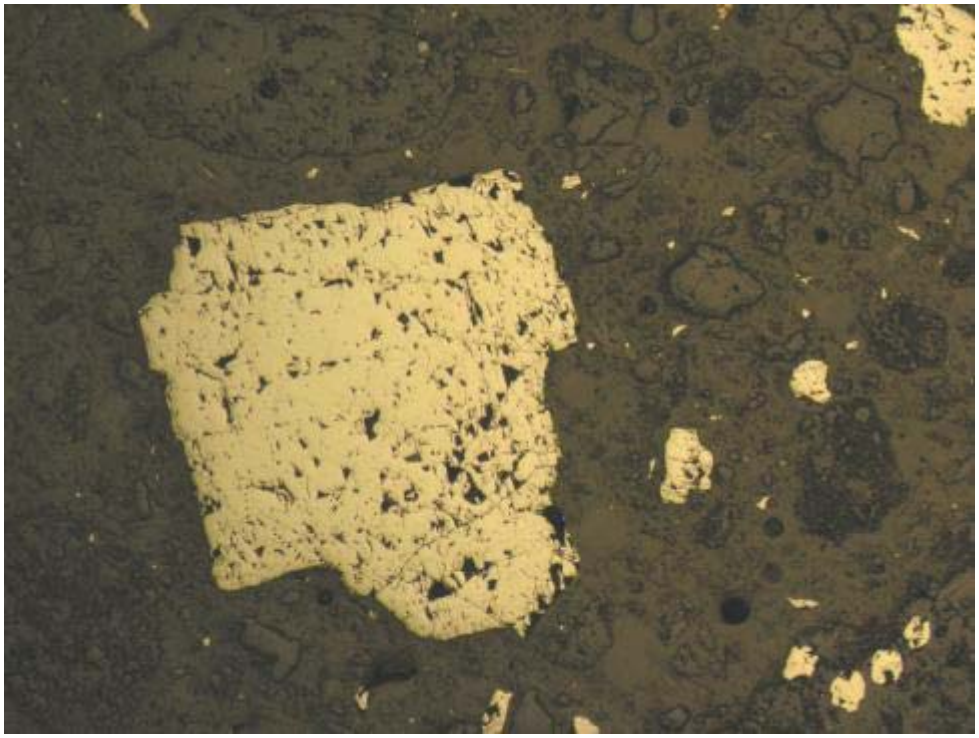


D

ARLB-002: C) Top: Liberated carbonate grain (right of centre). XPL, FOV =~ 2.7 mm. D) Bottom: Pitted and careous pyrite grains (left); hematite grain within rock fragment (right of centre). PPL+RL, FOV =~ 1.3 mm

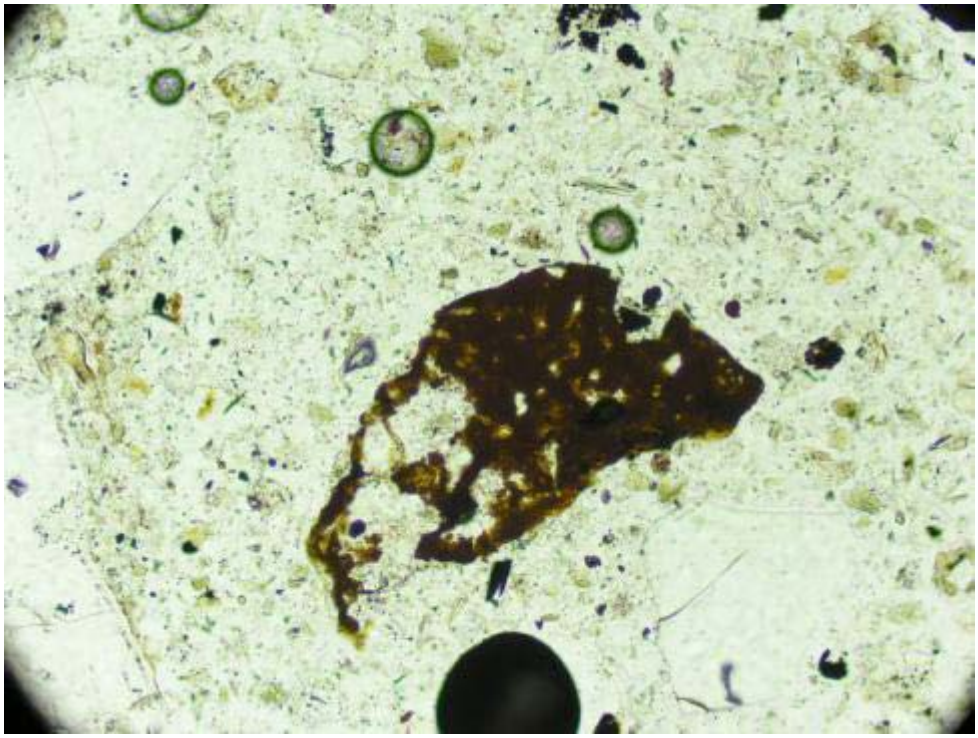


E



F

ARLB-002: E) Top: Liberated fine-grained anhedral pyrite grains with no alteration rims. RL, FOV =~ 2.8 mm.
F) Bottom: Fractured and pitted subhedral pyrite grains with no alteration rims. RL, FOV = ~2.8 mm



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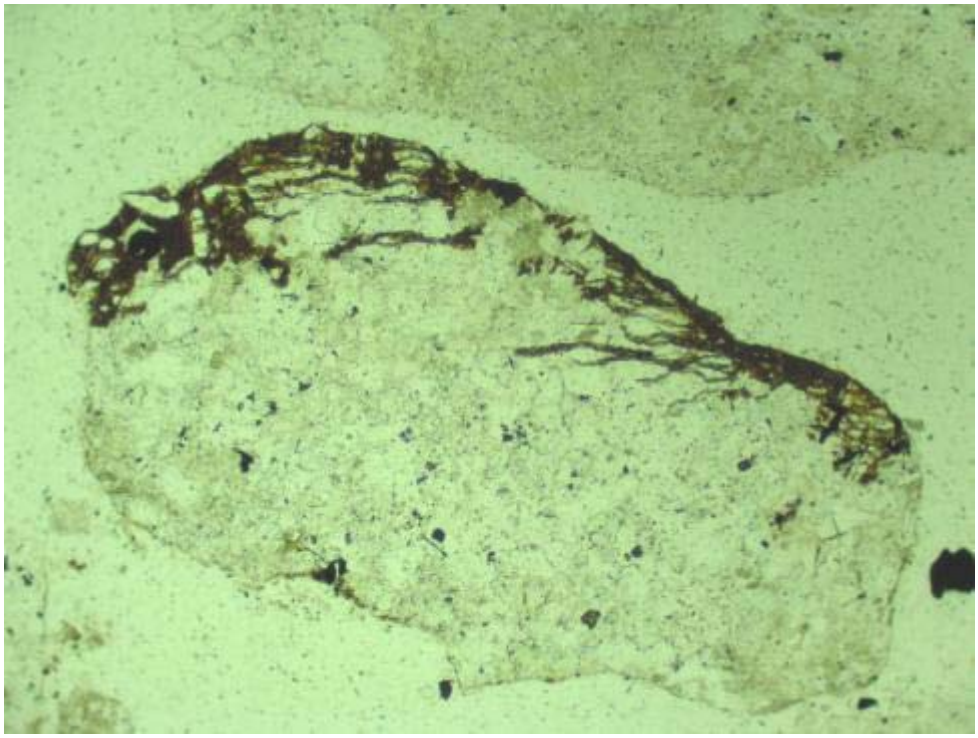


H

ARLB-002: G) Top: Red-brown oxide/oxyhydroxide altered chip. PPL, FOV =~ 0.7 mm. H) Bottom: Detailed view of rock fragment partly rimmed by unknown red-brown oxide/oxyhydroxide. PPL, FOV =~ 0.7 mm.

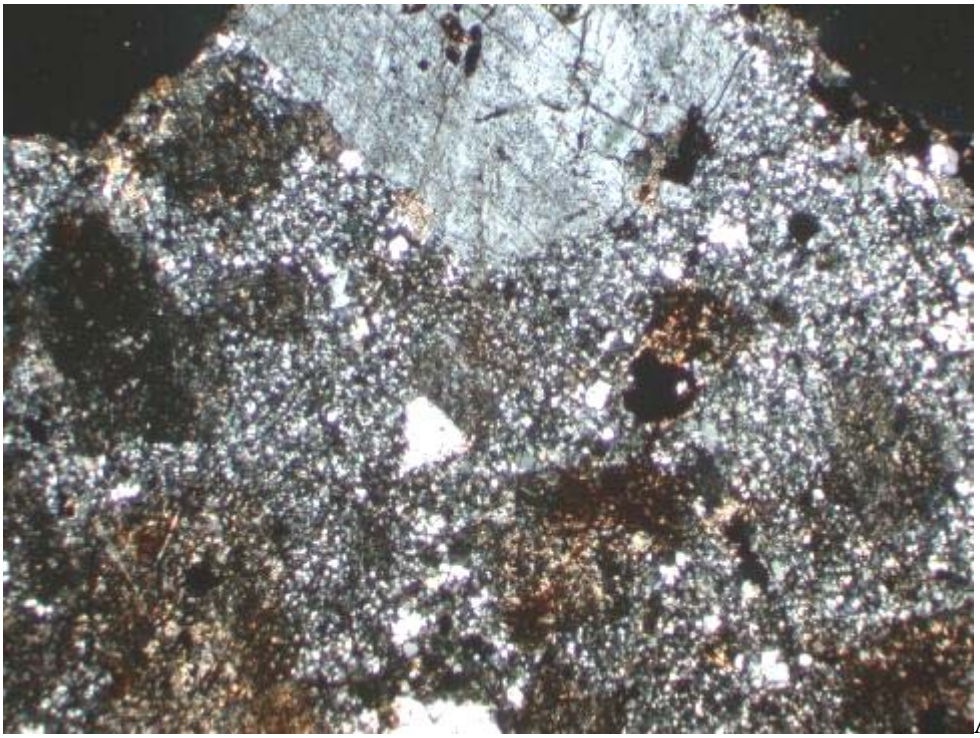
Project #: 1CN007.00
Sample ID: ARLB-003

Chip/Powder Description: (impregnated mount not available)
Fine to coarse-size chips (up to 11 mm size). Chips comprise medium-dark gray aphanitic rock, mottled light greenish gray porphyritic rock and yellowish gray carbonate vein fragments. The chips include < 5% patchy to disseminated pyrite. Some chips have strong reaction to cold dilute HCl. No reaction to magnet. Stained offcut mount not available. Orange-brown colouration of 2% of chips (see photo above).

Polished Thin Section Description:
Medium to coarse chips of variably carbonate-hematite altered quartz-feldspar porphyritic and leucocratic equigranular rock, pervasively biotite-pyrite altered fine-grained rock, quartz-pyrite-(biotite-chalcopyrite) veinlets and massive carbonate vein fragments. The porphyritic rock comprises minor quartz and orthoclase and variable amounts of biotite-sericite and sericite-hematite altered former plagioclase phenocrysts. Plagioclase in the leucocratic equigranular rock is variably replaced by sericite subsequently carbonate-(hematite) aggregate. Biotite, approximately 10% of the section, occurs as both green and dominantly brown varieties. Brown biotite occurs as very fine-grained aggregates within altered fine-grained rock and partly replaces plagioclase phenocrysts in porphyritic rock chips. Brown biotite also occurs as fine-grained platy phenocrysts and grains. Green biotite occurs as selective replacement of former mafic phases, within quartz-pyrite-(chalcopyrite) veinlets and patchy alteration in one rock chip. Muscovite (sericite) comprises approximately 5% of the section and occurs as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Muscovite (sericite) replaces former plagioclase and overprints secondary biotite in rock fragments. Trace accessory minerals include chlorite (after biotite) and aggregates of rutile. Orange-brown colouration of some rock chips.

Carbonate comprises approximately 7% of the section. Carbonate occurs two colourless varieties: 1) fine-grained, subhedral occurs as veins and infill (likely calcite based on strong reaction of some chips to cold, dilute HCl); and 2) fine-grained, partly pseudomorphically replaced by very fine-grained, anhedral hematite aggregates, occurs as replacement of plagioclase in rock fragments. In the section, the first carbonate variety is more abundant as it occurs mostly as a large vein fragment.

Sulphide approximately 5%, occurs dominantly as pyrite with traces of chalcopyrite. Pyrite, approximately 5%, is fine to very fine-grained (< 1 mm), sub-anhedral and occurs as disseminated grains and aggregates in fragments, quartz veinlets and as liberated grains. Pyrite boundaries are irregular; most are clean and unaltered. A few grains have relict red-brown oxide/oxyhydroxide material as <u>apparent</u> rims (see photos); this material may be the result of carbonate replacement by hematite adjacent to the pyrite. Some pyrite grains have dark rims, possibly due to orientation of the pyrite grain through the depth of section. Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within some fragments and quartz veinlets. Chalcopyrite occurs as infill to pyrite. Minor hematite, approximately 2%, occurs as replacement of trace disseminated magnetite, as replacement of carbonate (after former plagioclase) in some of the porphyritic rock fragments and as pseudomorphic replacement of colourless carbonate.



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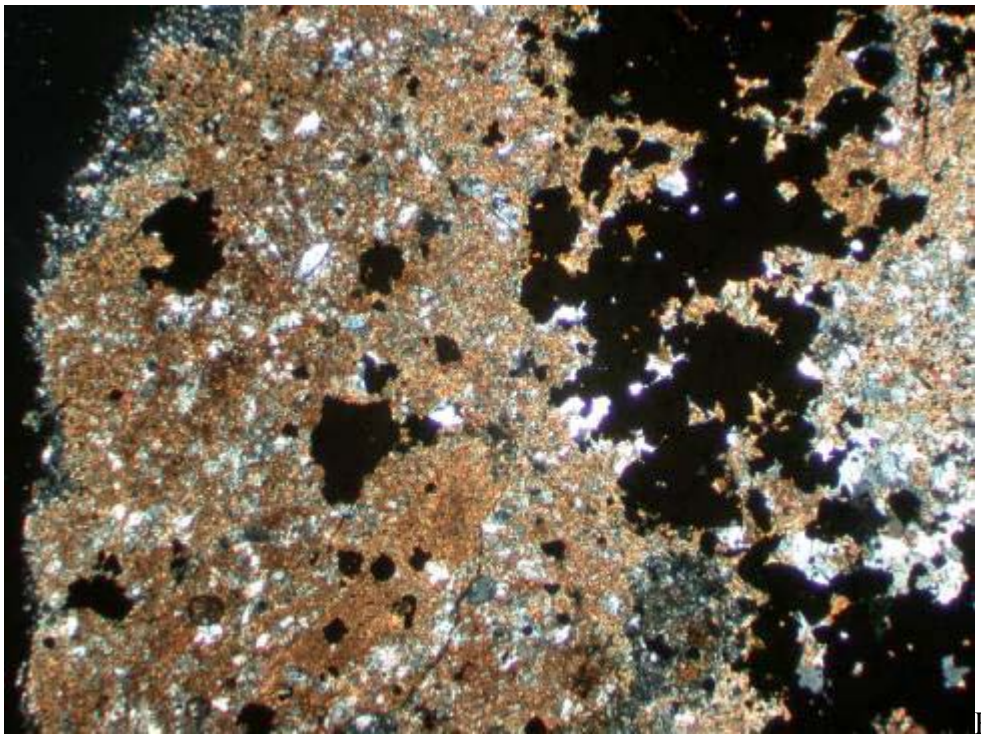
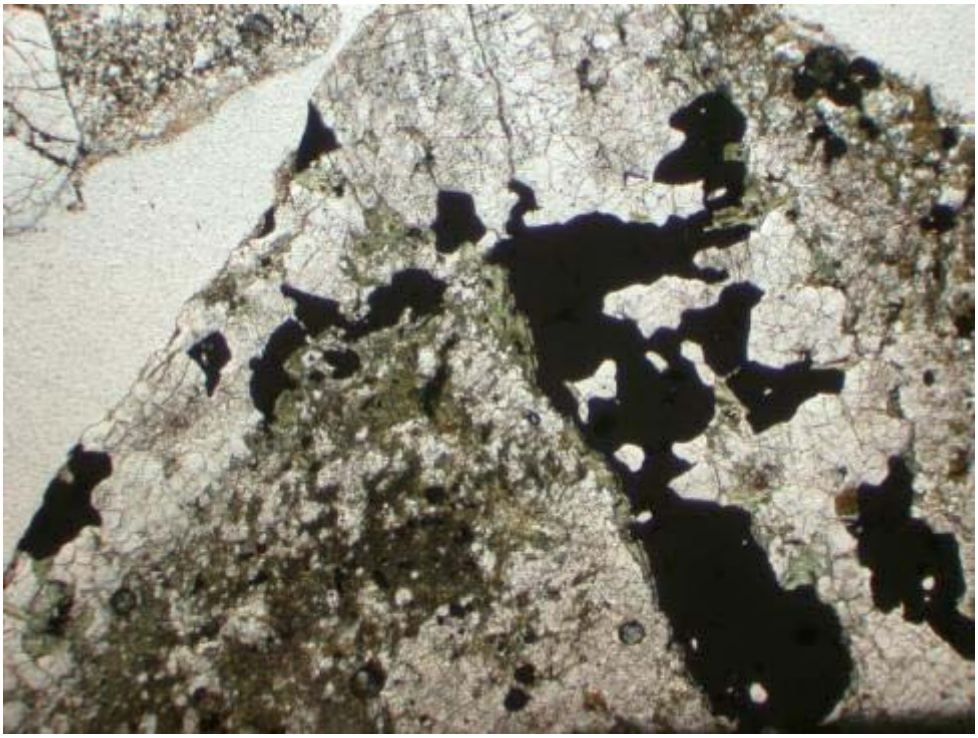


B

ARLB-003: A) Porphyritic rock with minor quartz and orthoclase and variable amounts of biotite-sericite and sericite-hematite altered former plagioclase phenocrysts. XPL, FOV =~ 4.5 mm. B) Pervasively brown biotite-altered rock fragment. XPL, FOV =~ 4.5 mm.



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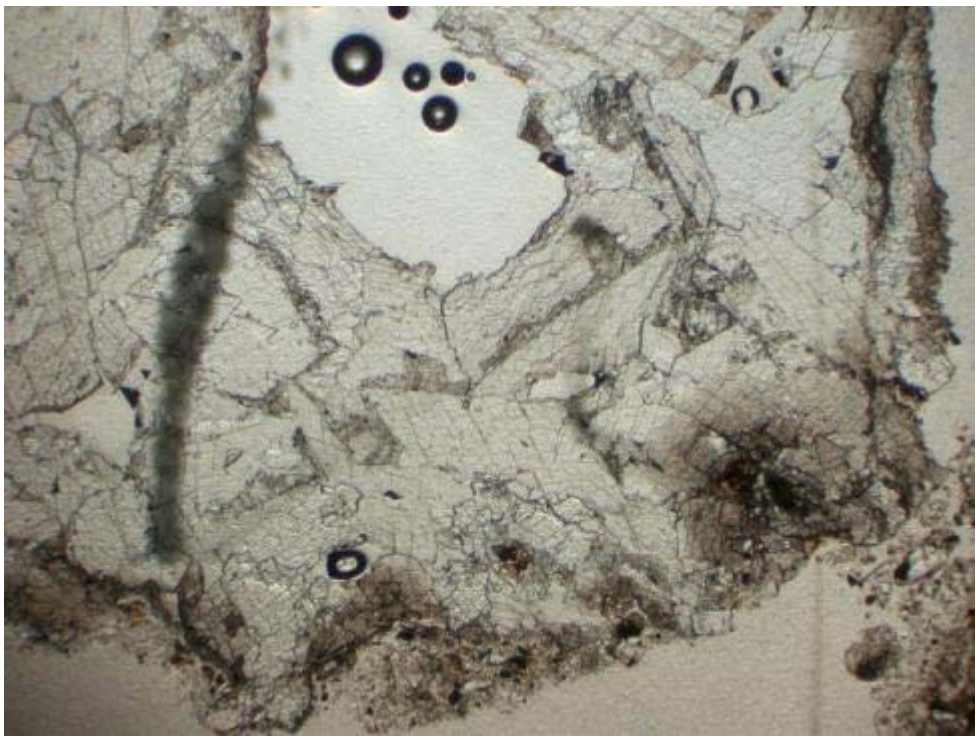
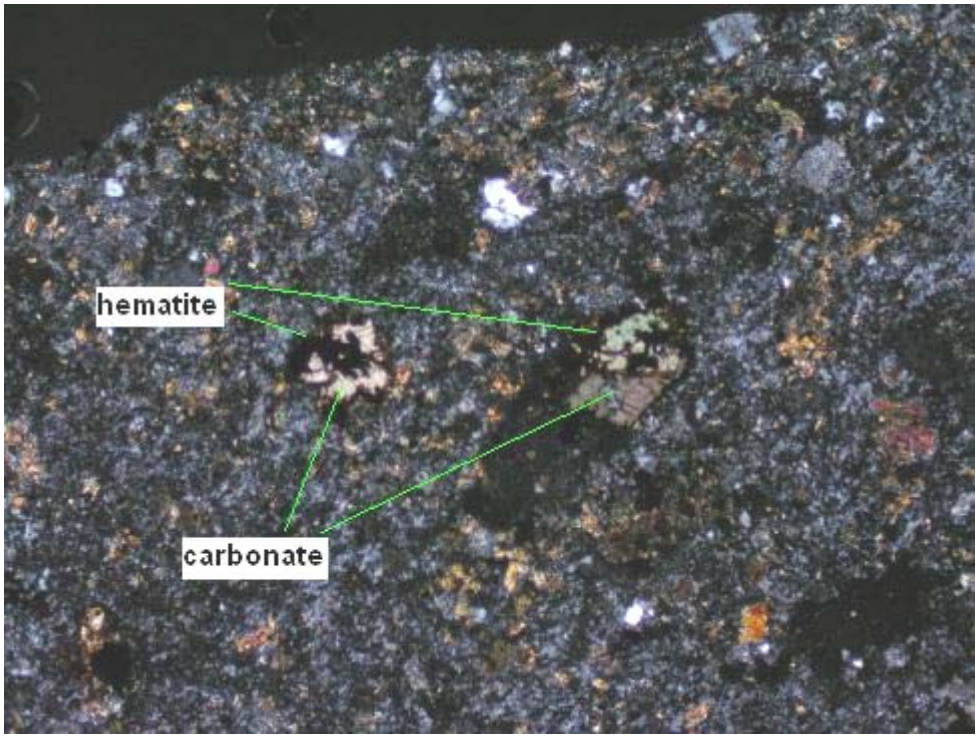
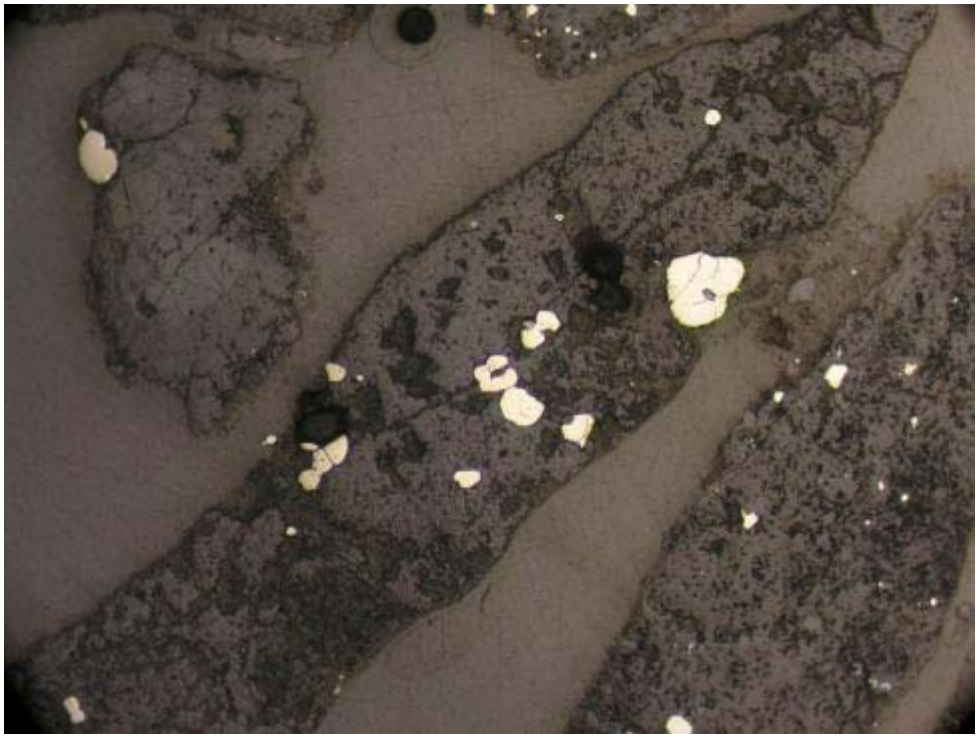


D

ARLB-003: C) Green biotite-altered rock fragment cut by quartz-pyrite-(chalcopyrite-biotite) veinlets. XPL, FOV =~ 4.5 mm. D) Massive fine-grained colourless carbonate vein fragment. PPL, FOV =~ 4.5 mm.

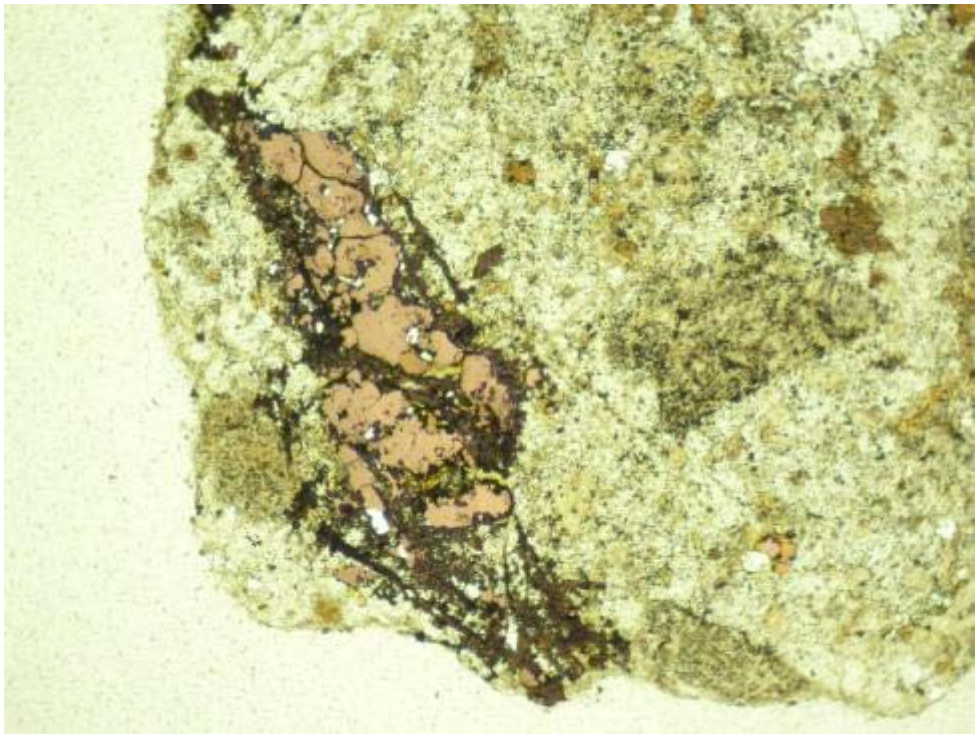


E



F

ARLB-003: E) Top: Porphyritic rock with former plagioclase phases replaced by carbonate which is partly pseudomorphed by very fine-grained hematite aggregate. XPL, FOV =~ 1.3 mm, F) Bottom: Disseminated subhedral pyrite with clean unaltered rims. RL, FOV =~ 2.8 mm.



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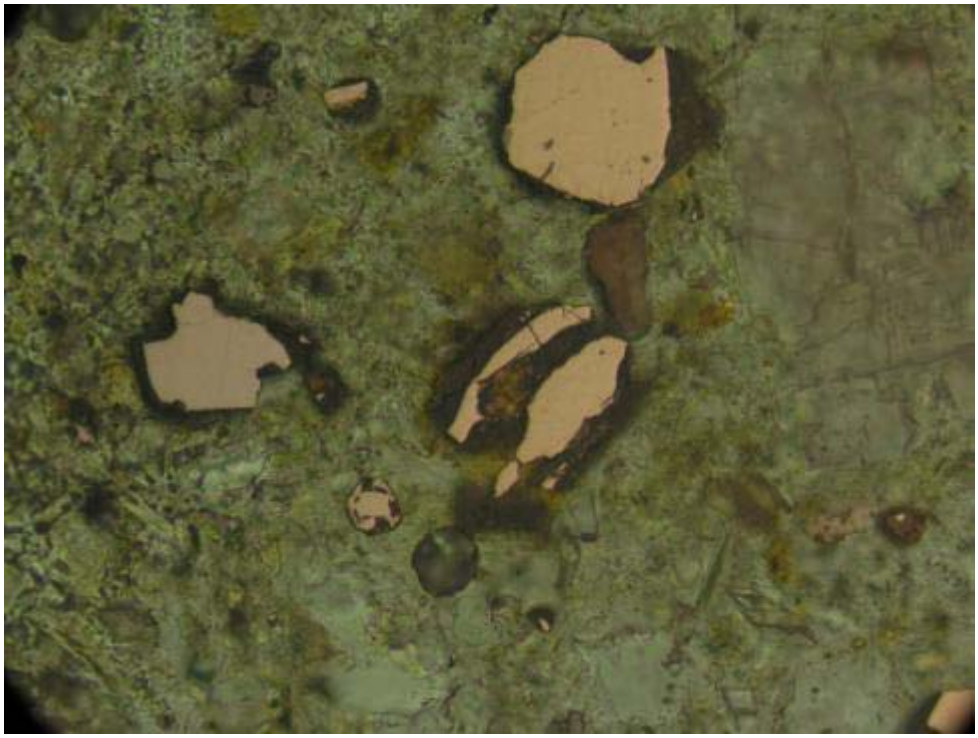


H

ARLB-003: G) Top: Fractured pyrite aggregate with apparent rims of red-brown oxide/oxyhydroxide material; this material may be the result of carbonate replacement by hematite adjacent to the pyrite. PPL+RL, FOV =~ 2.8 mm, H) Bottom: Fractured and irregular pyrite grains with black and apparent red-brown oxidation rims. Black rims may be due to orientation of pyrite grain through the depth of the section. PPL+RL, FOV =~ 0.35 mm.

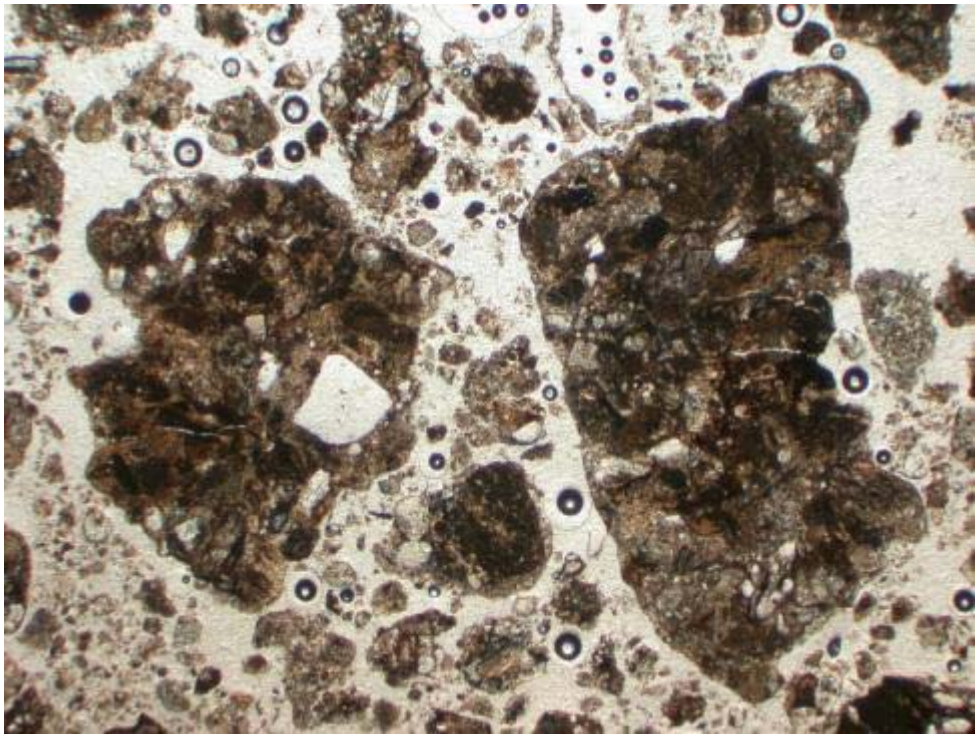
Project #: 1CN007.00
Sample ID: ARLB-004

Chip/Powder and Offcut Mount Description:
Fine to coarse-size chips (up to 7 mm size) and powder. Chips comprise dark gray layered and olive gray aphanitic rocks, dark greenish-gray rock and translucent white vein fragments. The chips include traces of disseminated pyrite. Strong reaction of chips to cold dilute HCl. No reaction to magnet. No reaction of offcut mount to etching and staining with sodium cobaltinitrite solution.

Polished Thin Section Description:
Mixed powder and fine to coarse chips of lithic sandstone (graywacke) and siltstone fragments with traces of disseminated pyrite and liberated pyrite grains and carbonate vein fragments. Lithic sandstone chips are poorly sorted with angular monocrystalline and lesser rounded polycrystalline quartz grains, rounded massive to laminated mudstone fragments, minor plagioclase and carbonate fragments in a very fine-grained clay-rich, locally hematitic matrix. Trace illite occurs as replacement of fragments and as matrix. Minor very fine-grained biotite aggregate occurs as matrix (approximately 1-2%). The siltstone chips are poorly sorted, hematitic and locally laminated. Siltstone fragments comprise angular monocrystalline quartz and plagioclase grains, carbonate grains and aggregates in a very fine-grained red-brown clay-rich hematitic matrix. Aphanitic brown clay minerals contribute at least 25% of the section.

Carbonate comprises approximately 5% of the section. Carbonate occurs as fine to very fine-grained, subhedral grains and aggregates as vein fragments, as replacement of tabular feldspar and as fractured grains (likely calcite based on strong reaction of some chips to cold, dilute HCl).

Sulphide occurs in trace amounts dominantly as pyrite with lesser chalcopyrite. Trace pyrite is fine to very fine-grained (< 0.4 mm), eu-anhedral and occurs disseminated in the clastic fragments and as liberated grains. Pyrite boundaries vary from straight to irregular but are typically clean and unaltered. One grain of chalcopyrite occurs as a fine-grained, ragged grain within a pyritic lithic sandstone chip. Minor fine to very fine-grained hematite, approximately 2%, occurs locally as replacement of siltstone and sandstone matrix, as stringers and as liberated aggregates.



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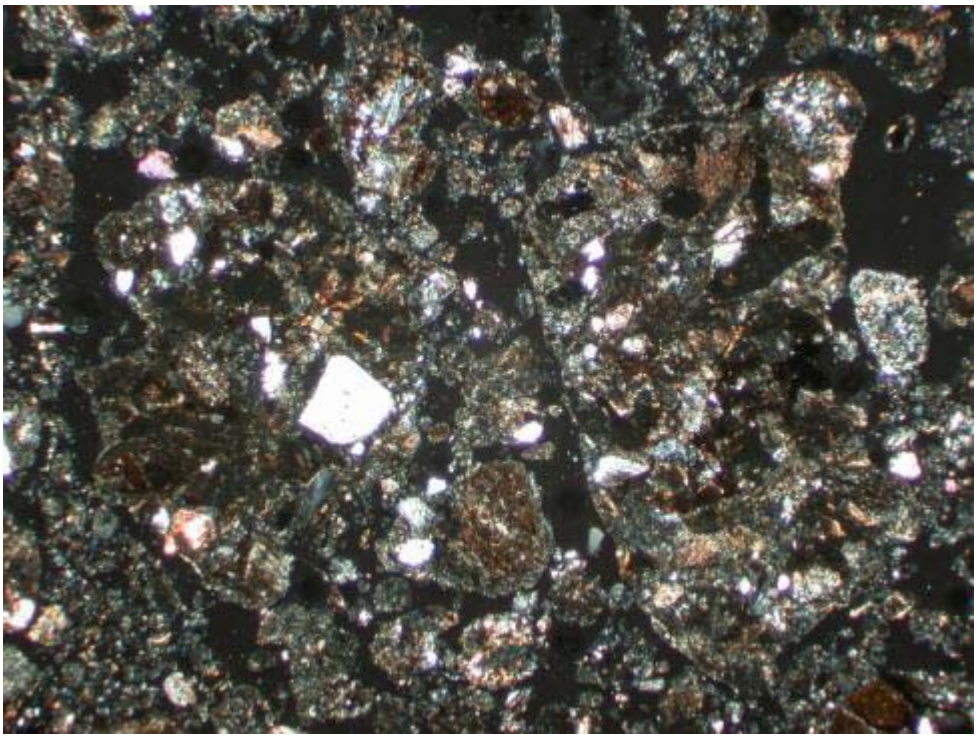
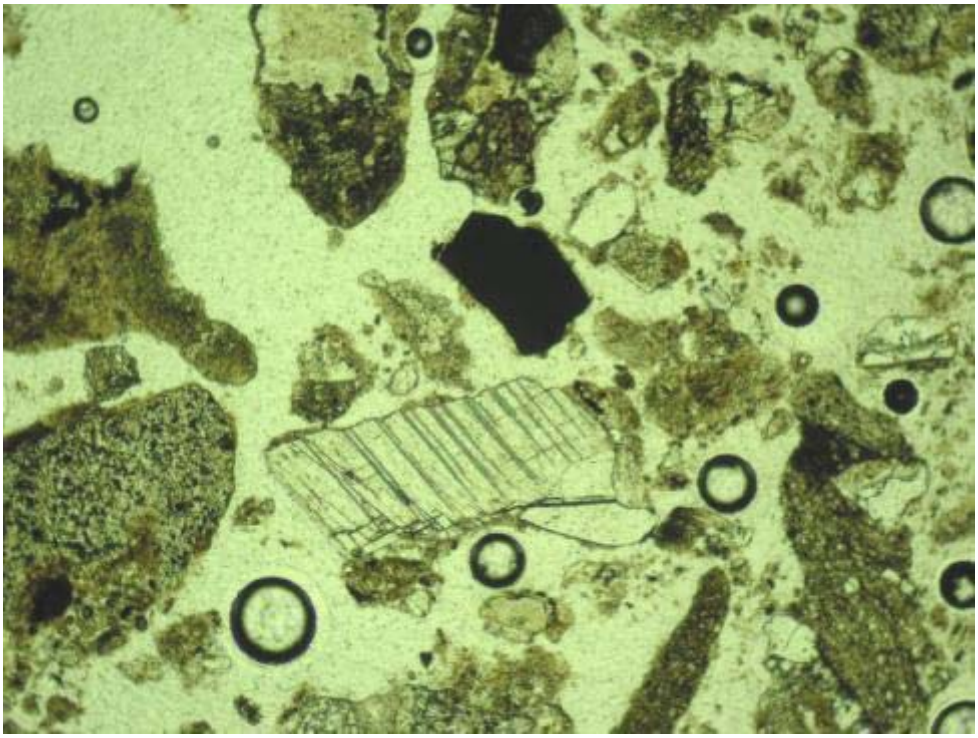


B

ARLB-004: General view of fine to coarse chips of lithic sandstone (graywacke) and siltstone. A) PPL, B) XPL, FOV =~ 4.5 mm.



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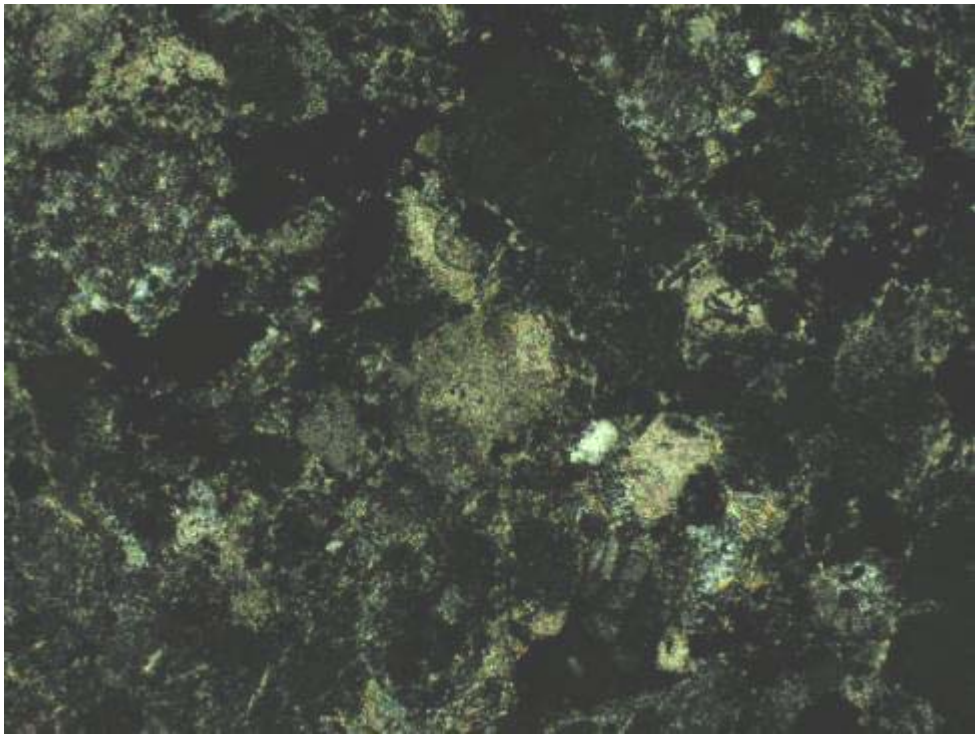
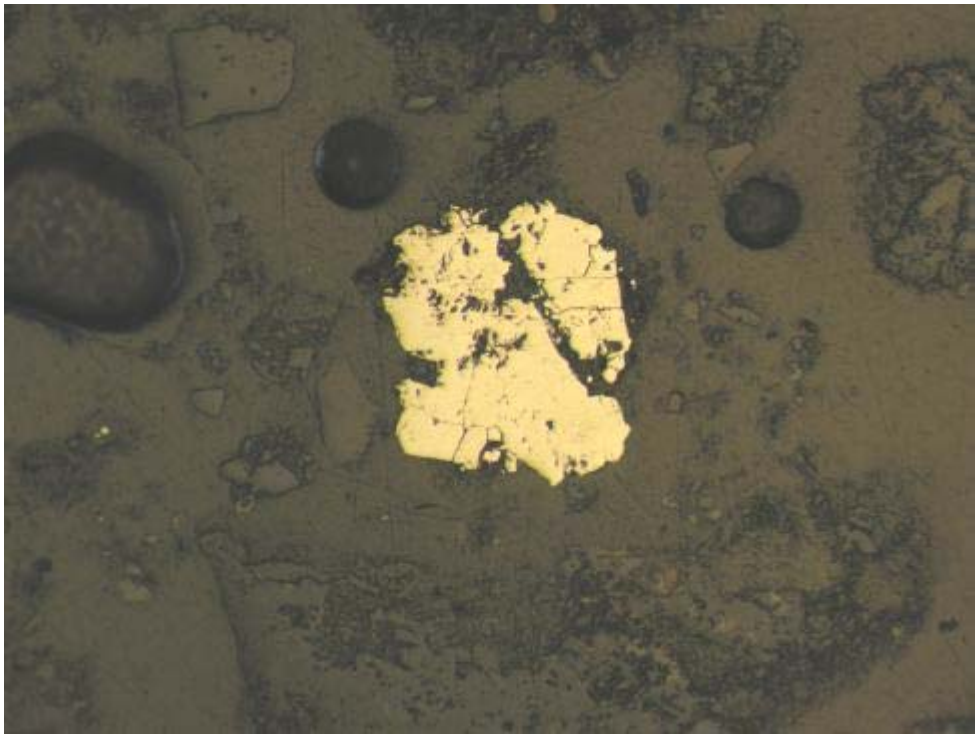
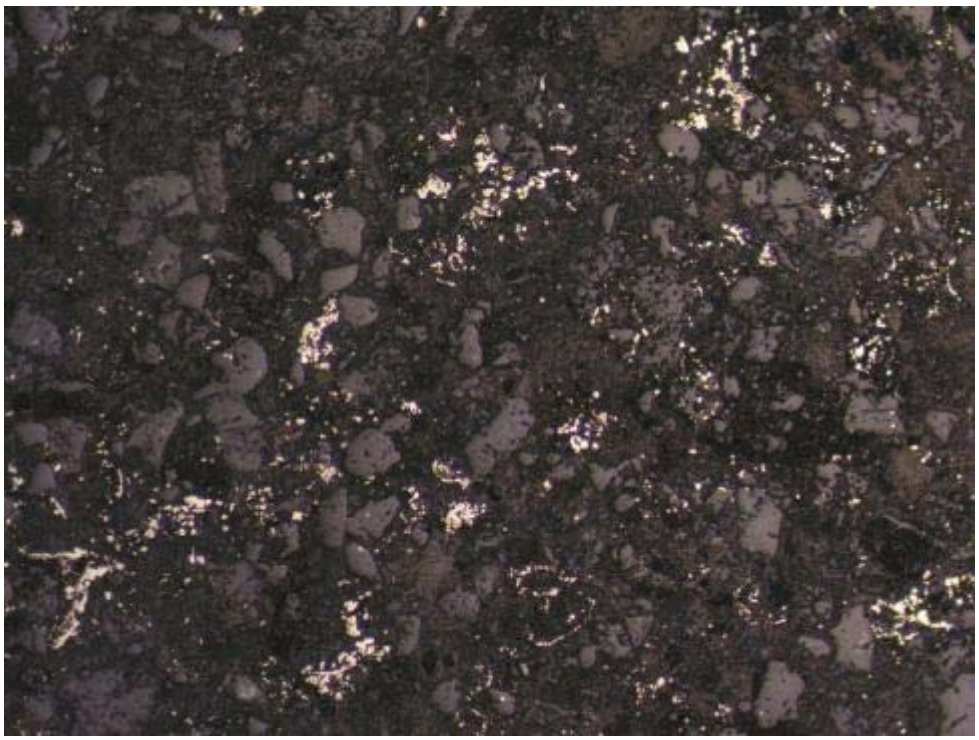


D

ARLB-004: C) Top, Liberated colourless carbonate grain (below centre) and liberated pyrite grain (opaque, above centre). PPL, FOV =~ 2.8 mm, D) Bottom: Patchy fine-grained carbonate replaced by very fine-grained carbonate. XPL, FOV = 1.3 mm



E



F

ARLB-004: E) Top: Grain of subhedral fractured and partly corroded pyrite without alteration rims. RL, FOV =~ 1.3 mm, F) Bottom, Very fine-grained patchy pyrite aggregates without alteration rims. RL, FOV =~ 2.8 mm.

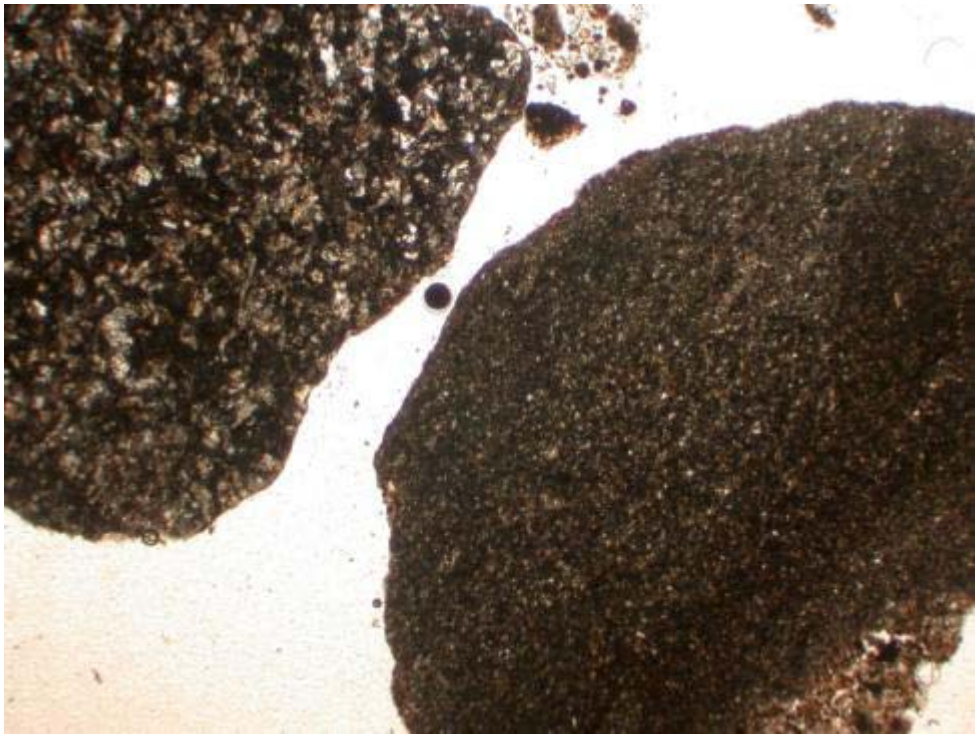
Project #: 1CN007.00
Sample ID: ARLB-005

Chip/Powder Description: (impregnated mount not available)
Fine to coarse-size chips (up to 8 mm size) and powder. Chips comprise medium-gray/green aphanitic rock and dark gray shale. Strong reaction to cold dilute HCl. No reaction to magnet. Stained offcut mount not available.

Polished Thin Section Description:
This section comprises mixed powder and fine to coarse chips of dominantly siltstone fragments with lesser lithic sandstone (graywacke), chlorite-carbonate-rutile altered porphyritic rock and one chip of epidote altered fine-grained equigranular rock with graphic intergrowths. The section has traces of disseminated pyrite and chalcopyrite and liberated pyrite grains and carbonate vein fragments. Lithic sandstone chips are poorly sorted with angular monocrystalline and lesser rounded polycrystalline quartz grains, rounded massive to laminated mudstone fragments, minor feldspar and carbonate fragments in a very fine-grained clay-rich matrix. Minor illite (approximately 1-2%) occurs as replacement of fragments and as matrix. Minor very fine-grained chlorite after biotite aggregate occurs as matrix (approximately 2%). Green biotite (approximately 2-3% of section) occurs as matrix in some siltstone fragments. The siltstone chips are poorly sorted, hematitic and locally laminated. Siltstone fragments comprise angular monocrystalline quartz grains, carbonate grains and aggregates in a very fine-grained red-brown clay-rich variably hematitic matrix with discontinuous dark clay/hematite bands. Aphanitic brown clay minerals contribute at least 40% of the section.

Carbonate comprises approximately 2% of the section. Carbonate occurs as fine to very fine-grained, subhedral grains and aggregates, as vein fragments (locally with quartz), as replacement of feldspars and patchy aggregates within igneous rock fragments and as anhedral framework grains (after feldspar) within clastic sedimentary rocks (likely calcite based on strong reaction of some chips to cold, dilute HCl).

Sulphide occurs in trace amounts dominantly as pyrite with lesser chalcopyrite. Trace pyrite is fine to very fine-grained (< 0.2 mm), sub-anhedral and occurs disseminated in the rock fragments, within colloform-textured fragments and as liberated grains. Pyrite boundaries vary from straight to irregular and are variably altered. Some pyrite grains have clean boundaries without alteration (photo F). Colloform-textured very fine-grained pyrite appears altered to very fine-grained red-brown Fe-oxide/oxyhydroxide aggregates. Traces of fine-grained chalcopyrite occurs disseminated in rock fragments. Fine to very fine-grained hematite, approximately 15%, occurs as replacement of siltstone and sandstone matrix, as irregular bands and stringers and as liberated grains and aggregates.



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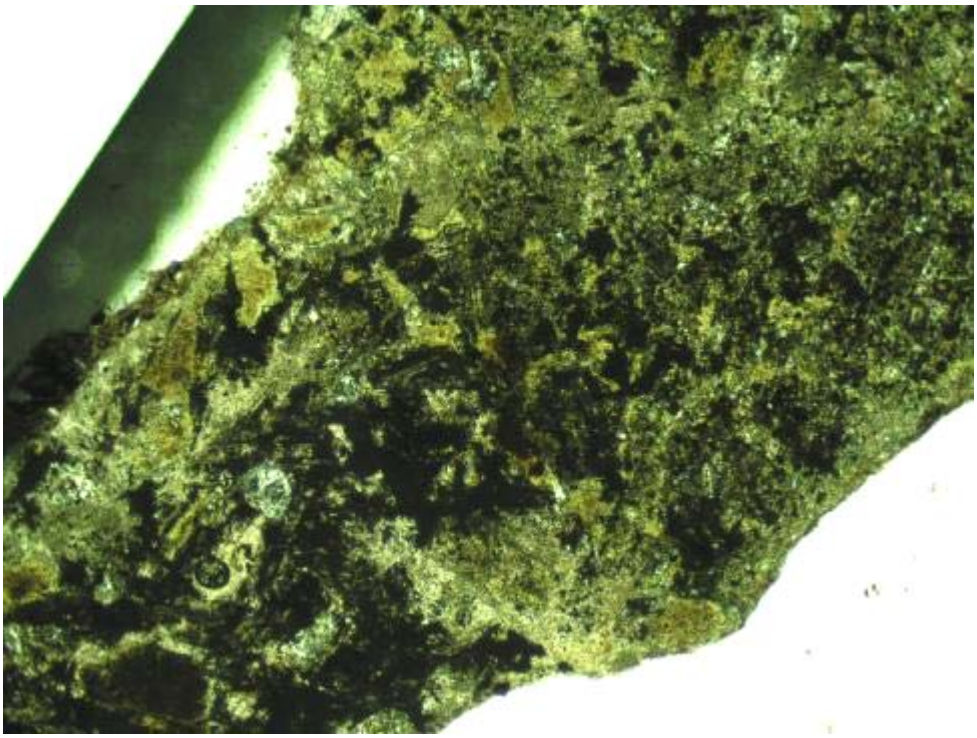
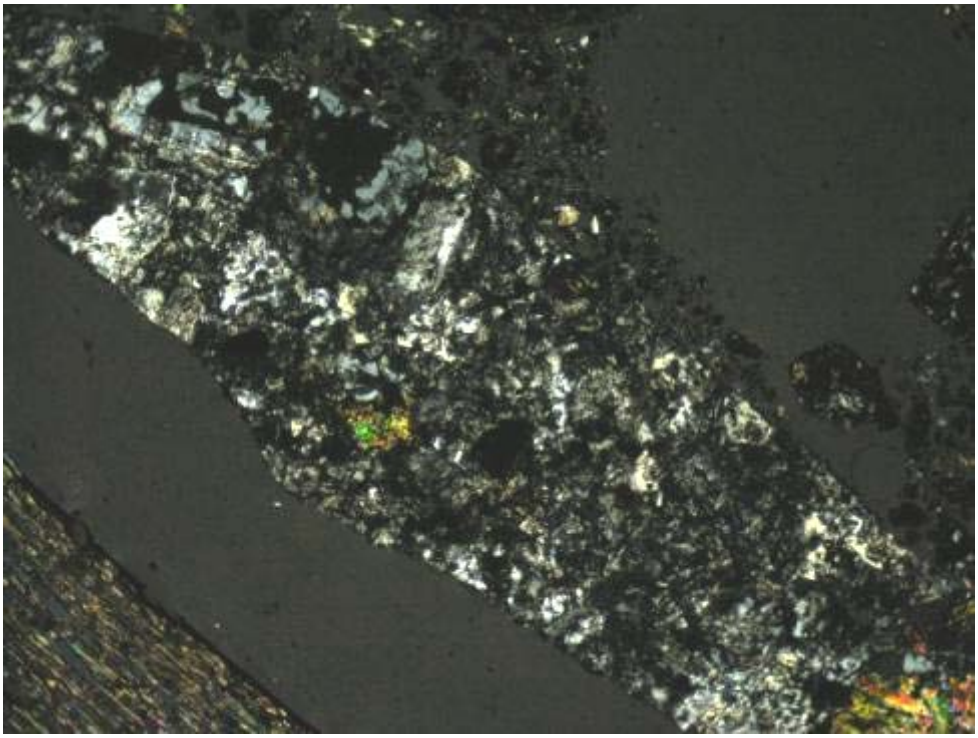


B

ARLB-005: A) Representative chips of laminated siltstone and lithic sandstone chips. PPL, FOV =~ 4.5 mm. B) Chlorite-carbonate-rutile altered former porphyritic rock chip. PPL, FOV =~ 2.8 mm.



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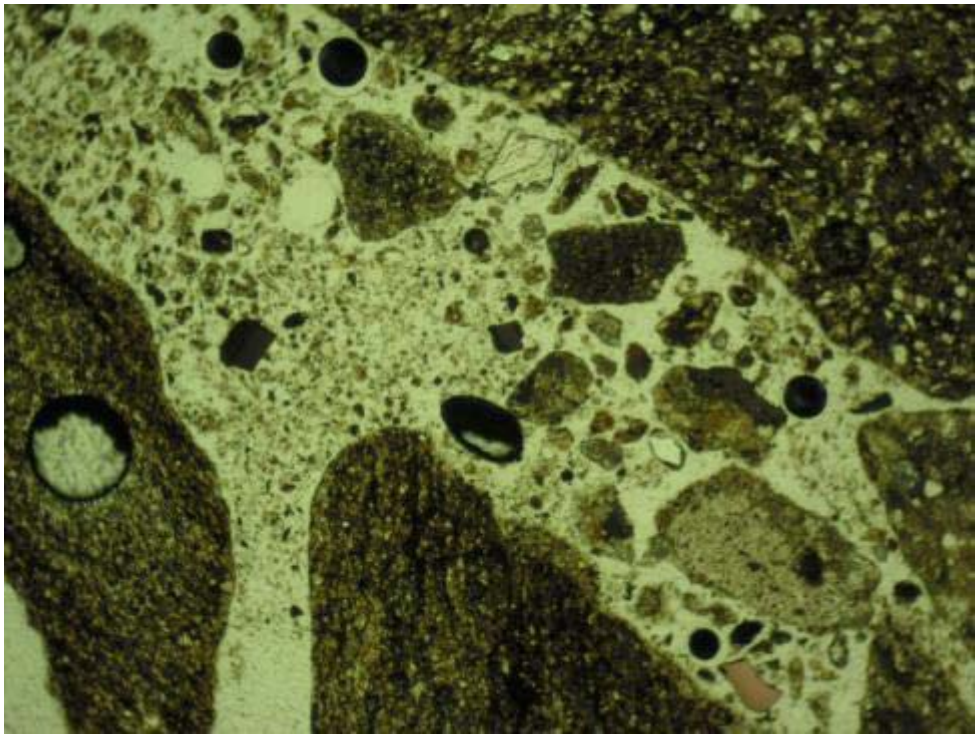
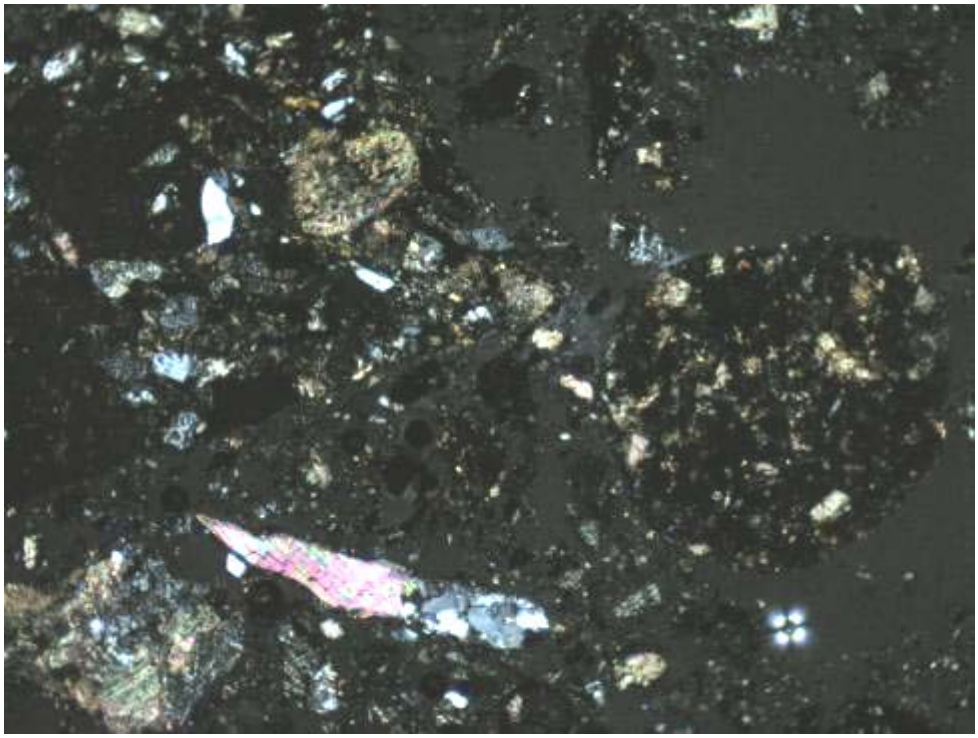


D

ARLB-005: C) Top, Epidote-altered fine-grained equigranular rock chip. XPL, FOV =~ 2.8 mm, D) Bottom: Liberated carbonate grain (centre top), liberated pyrite grain (lower right) and clastic rock chips. PPL+RL, FOV = 2.8 mm

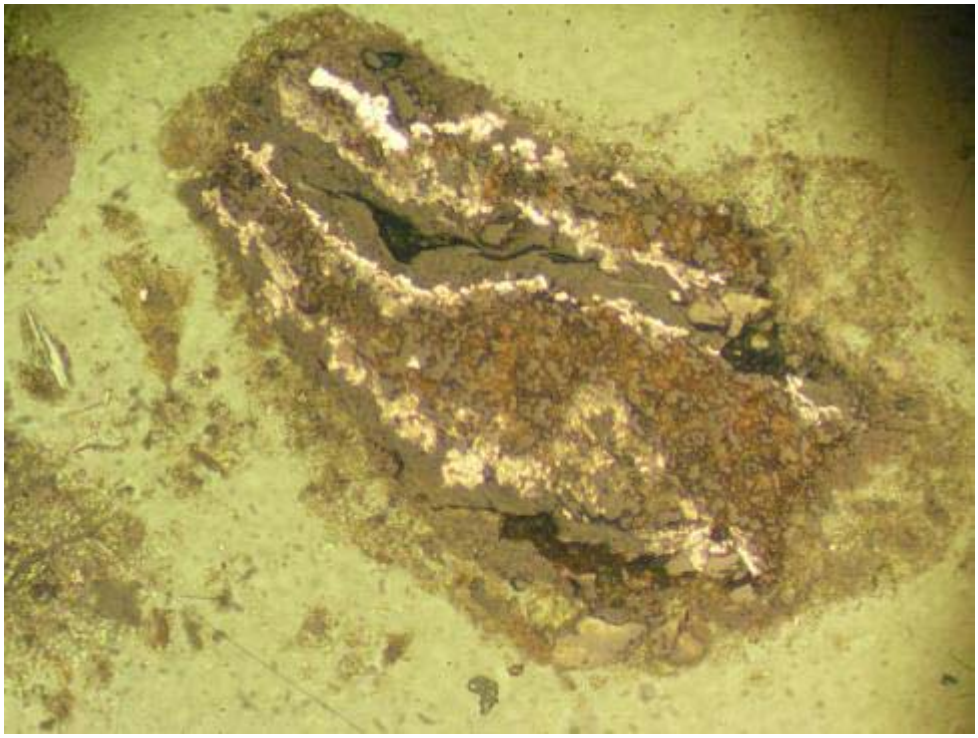


E

F

ARLB-005: E) Top: Fragments of carbonate (after feldspar) within lithic sandstone fragments and carbonate-quartz vein fragment (lower left). XPL, FOV =~ 2.8 mm. F) Top: Liberated grain of pyrite without alteration rims. RL, FOV =~ 0.35 mm.

G



H

ARLB-005: G) Top: Colloform-textured pyrite, quartz and red-brown Fe-oxide/oxyhydroxides (likely after pyrite). PPL+RL, FOV =~ 1.3 mm. H) Top: Colloform-textured pyrite, quartz and red-brown Fe-oxide/oxyhydroxides (likely after pyrite). PPL+RL, FOV =~ 0.7 mm.

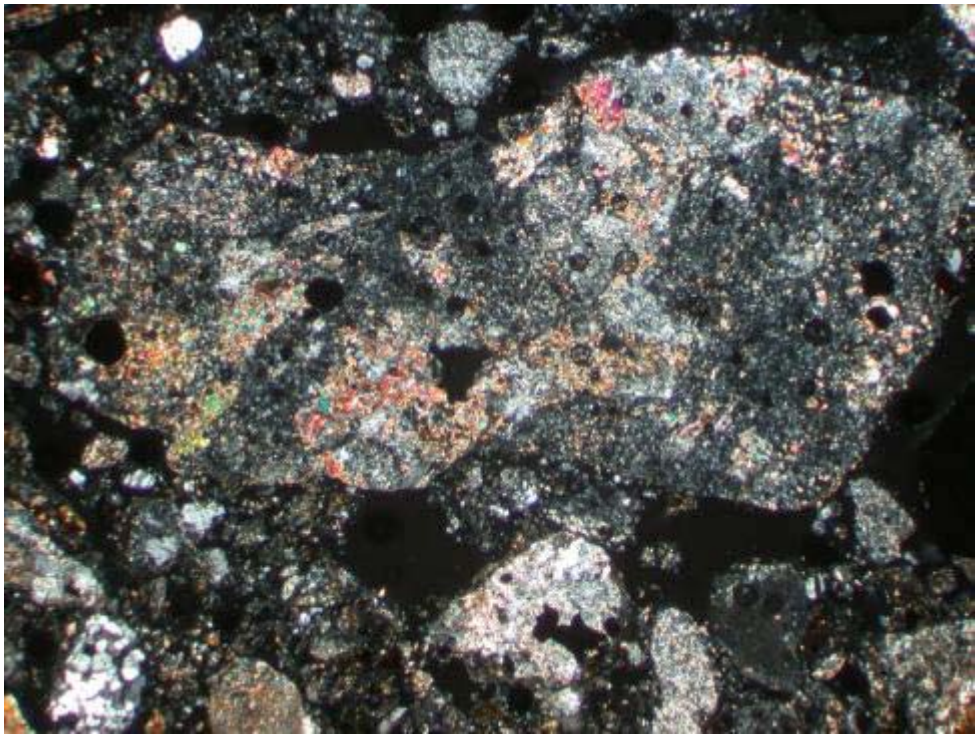
Project #: 1CN007.00
Sample ID: ARLB-006

Chip/Powder and Offcut Mount Description:
Fine to coarse-size chips (up to 12 mm size) and powder. Chips comprise greenish-gray and medium-dark gray aphanitic rocks, moderate brown mottled rock and greenish-gray and white fine-grained quartz-feldspar porphyritic rock. The chips include approximately 5% disseminated pyrite. No reaction of chips to cold dilute HCl. Some chips react to magnet. Approximately half the chips, including matrix of porphyritic rock fragments, have abundant very fine-grained K-feldspar (based on offcut mount etched and stained with sodium cobaltinitrite solution). Orange-pink colouration of numerous chips (see below).

Polished Thin Section Description:
Mixed powder and fine to coarse chips of quartz-feldspar porphyry, pervasively K-feldspar altered porphyritic rock, muscovite (sericite) and biotite altered rock, quartz veins and liberated biotite, hematite, pyrite, chalcopyrite and carbonate grains. Quartz-feldspar porphyry comprises phenocrysts of plagioclase, quartz and orthoclase in a microgranular quartz-feldspar aggregate. K-feldspar comprises approximately 30% of the section as fine to very fine-grained massive aggregates replacing the matrix porphyritic rock chips. Green biotite comprises approximately 5% of the section and occurs as very fine-grained anhedral aggregates and less commonly fine-grained plates. Biotite occurs within altered rock fragments, as phenocrysts, within equigranular rock fragments and as liberated plates. Muscovite (sericite), approximately 3% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates replacing former plagioclase phenocrysts in porphyritic rock fragments and occurring with quartz as pervasive replacement of chips with quartz. Orange brown colouration of approximately 5% of chips.

Total carbonate occurs as trace amounts in the section. Most carbonate occurs dominantly as fine-grained liberated colourless anhedral grains and aggregates and to a lesser extent as replacement of tabular feldspar in some equigranular and porphyritic fragments. Some colourless carbonate is partly pseudomorphically replaced by traces of very fine-grained hematite aggregates. Other colourless carbonate grains are partly replaced by a very fine-grained brown carbonate aggregate.

Sulphide occurs in major amounts, approximately 7%, dominantly as pyrite with traces of chalcopyrite. Pyrite, approximately 7%, is fine to medium-grained (< 1.4 mm), sub-anhedral and occurs as disseminated grains and aggregates in fragments and as liberated grains. Pyrite boundaries are irregular but typically clean and unaltered. Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within fragments and as liberated grains. Traces of magnetite occur as fine to very fine-grains disseminated in biotite and sericite-altered porphyritic rock chips and as liberated grains. Magnetite is variably replaced by very fine-grained hematite aggregate. Traces of very fine-grained hematite (numerous grains) occur as liberated aggregates and within some rock fragments. Approximately 5% of rock chips are rimmed or partly to completely replaced by secondary red-brown Fe oxide/oxyhydroxide aggregates and stained yellow or orange-brown (see photos). Traces of very fine-grained yellow-brown aggregates occur as liberated chips and as veins.



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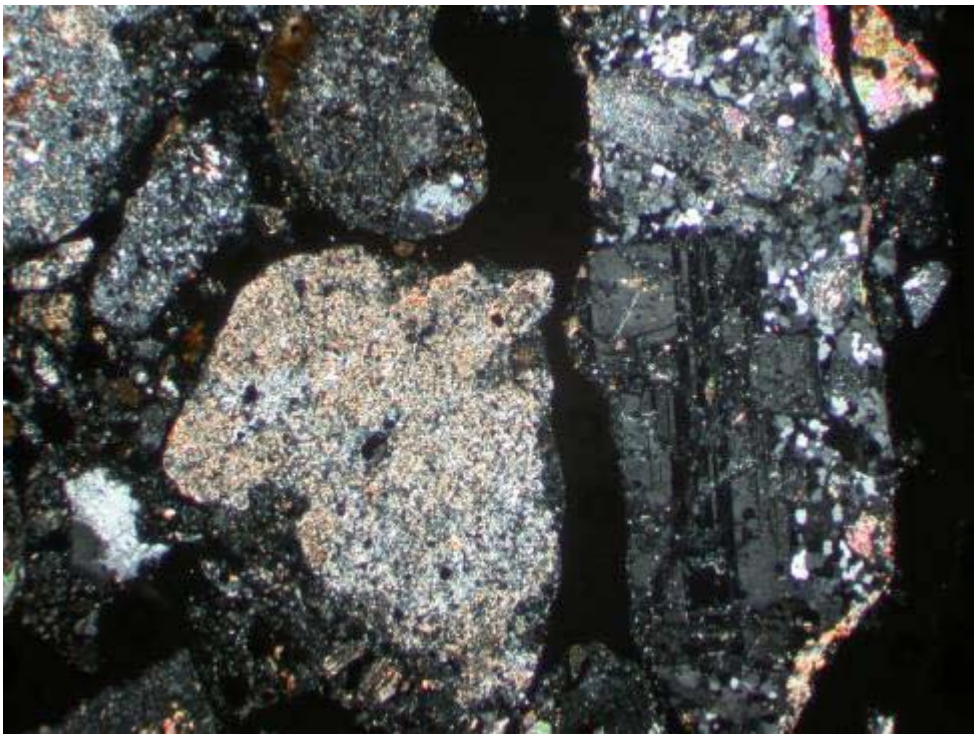
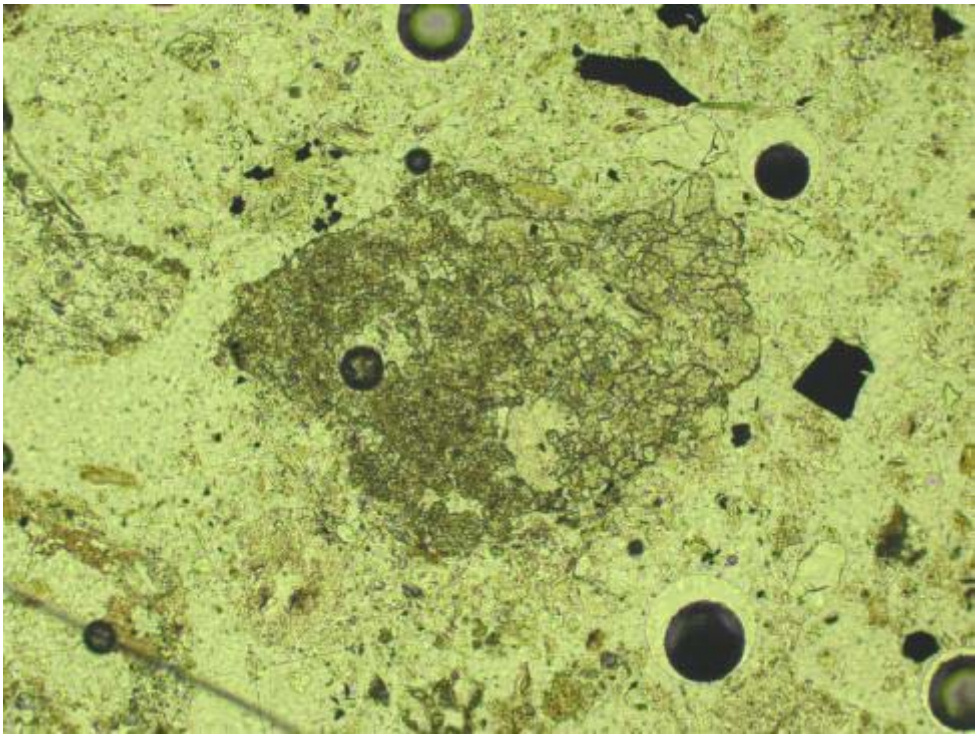


B

ARLB-006: Representative chips of A) selectively biotite and muscovite (sericite) altered porphyritic rock chips and B) pervasively muscovite (sericite) altered rock (centre) and quartz-feldspar porphyry cut by carbonate veinlet (right). Note liberated carbonate aggregate (top right). XPL, FOV =~ 4.5 mm.



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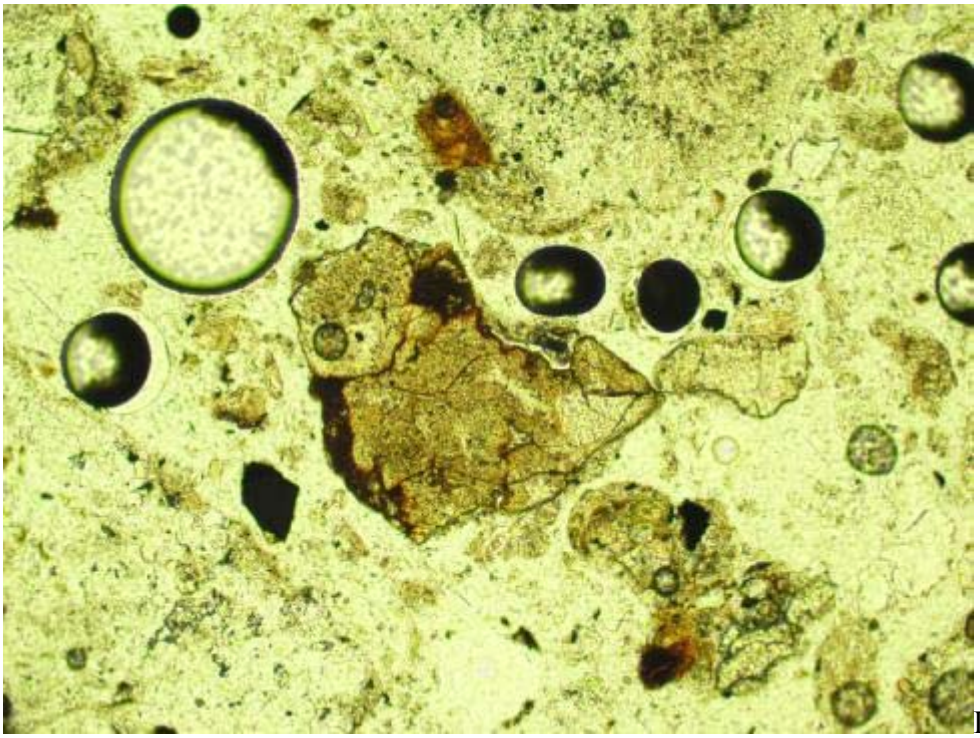
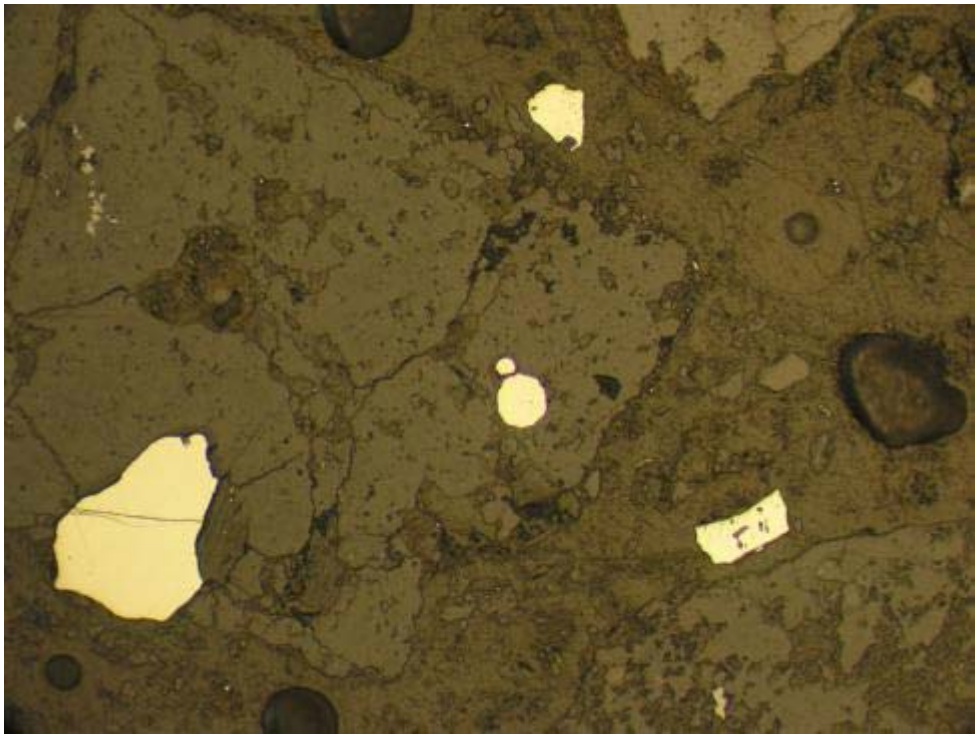


D

ARLB-006: C) Top, Fine-grained colourless carbonate partly replaced by very fine-grained brown carbonate. PPL, FOV =~ 1.3 mm, D) Bottom: Colourless and brown carbonate aggregate partly pseudomorphed by very fine-grained hematite aggregate. PPL, FOV = 1.3 mm



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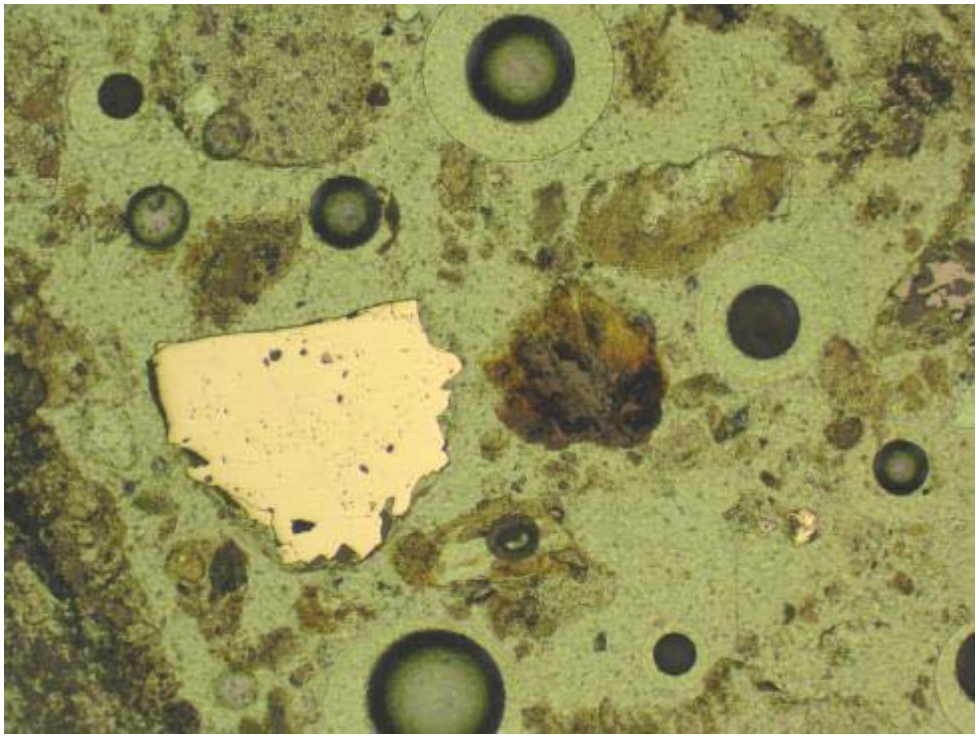
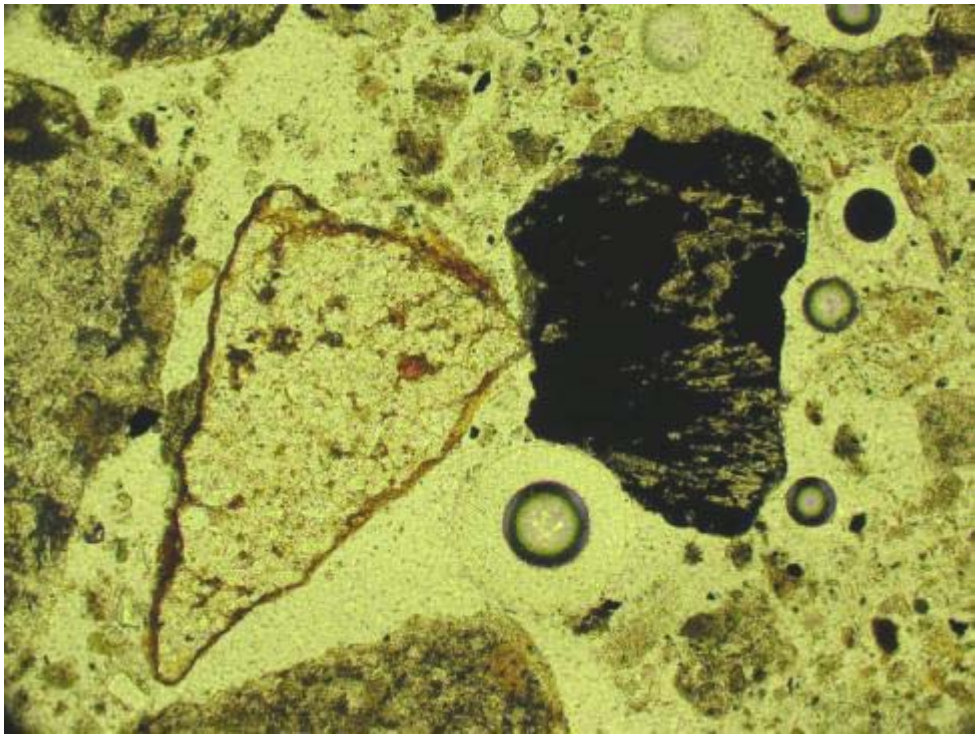


F

ARLB-006: E) Top: Anhedral, locally pitted pyrite grains without alteration rims. RL, FOV =~ 1.3 mm, F) Bottom: Liberated pyrite grain with irregular boundaries without alteration rims (left); liberated hematite grain (right of centre). RL+PPL, FOV =~ 1.3 mm.



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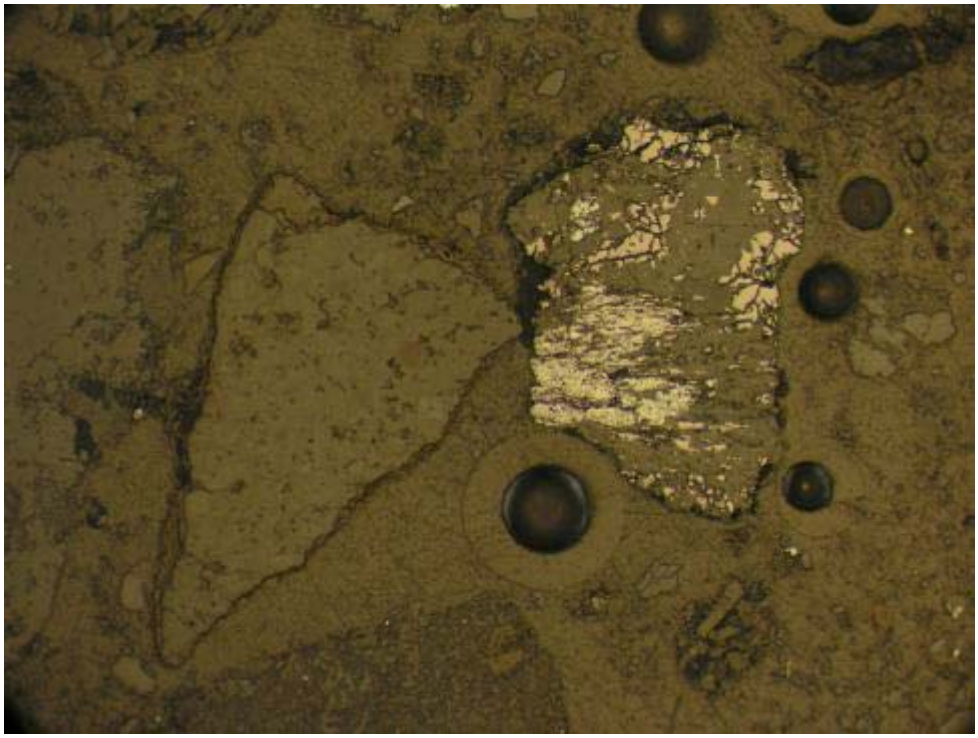
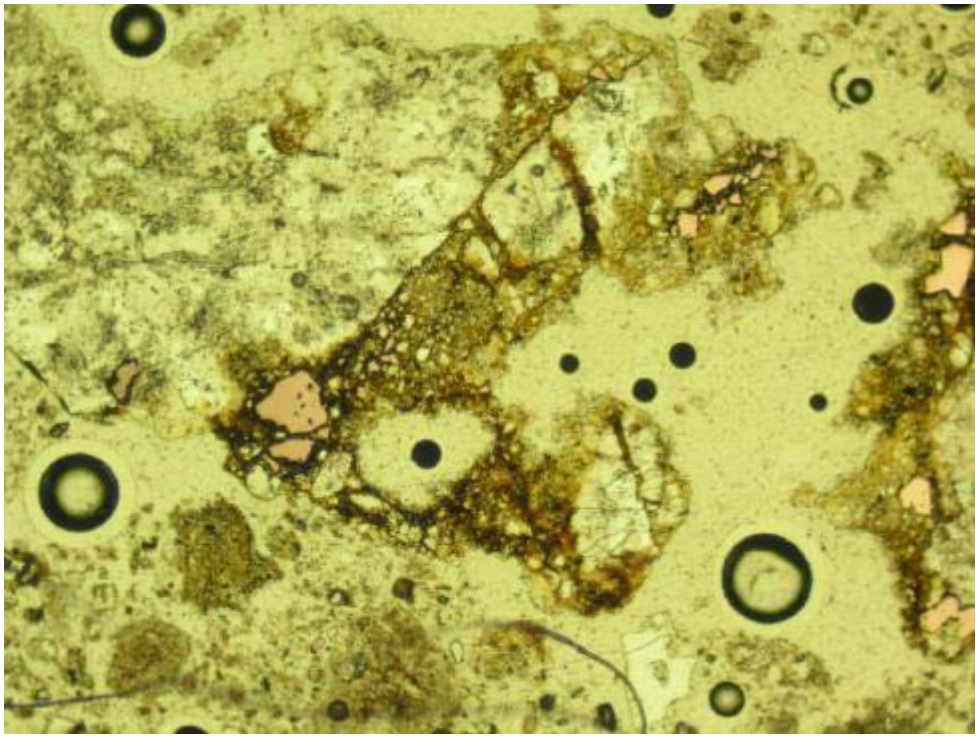


H

ARLB-006: G & H) Quartz feldspar porphyry matrix rimmed by fine red-brown Fe oxide/oxyhydroxide material (left). Magnetite-carbonate fragment with magnetite partly replaced by hematite (right). G) PPL H) RL, FOV =~ 1.3 mm.



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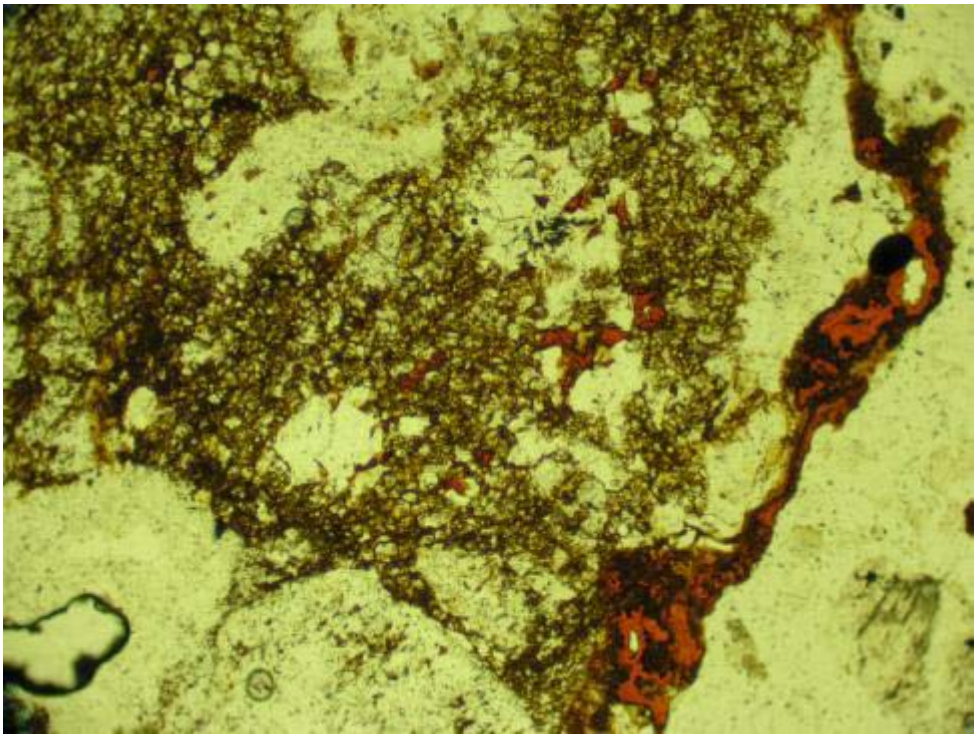


J

ARLB-006: E) Top: Orange-brown colouration of chips (centre). PPL+RL, FOV =~ 2.8 mm, F) Bottom: Detailed view of chip rimmed by red-brown Fe-oxide/oxyhydroxide material. PPL, FOV =~ 1.3 mm.

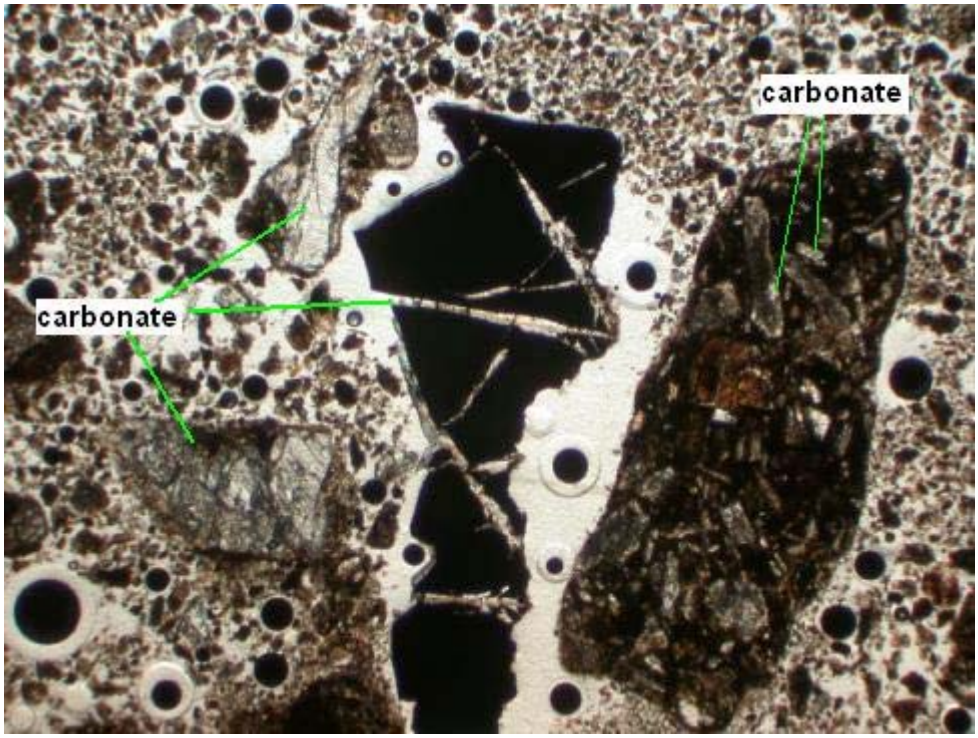
Project #: 1CN007.00
Sample ID: ARLB-007

Chip/Powder Description: (impregnated mount not available)
Fine to coarse-size chips (up to 10 mm size) and powder. Chips comprise dark gray shale, olive gray lithic sandstone, medium-dark gray aphanitic rock and light to medium bluish gray aphanitic rock. Strong reaction of gray aphanitic material to cold dilute HCl. No reaction to magnet. Stained offcut mount not available.

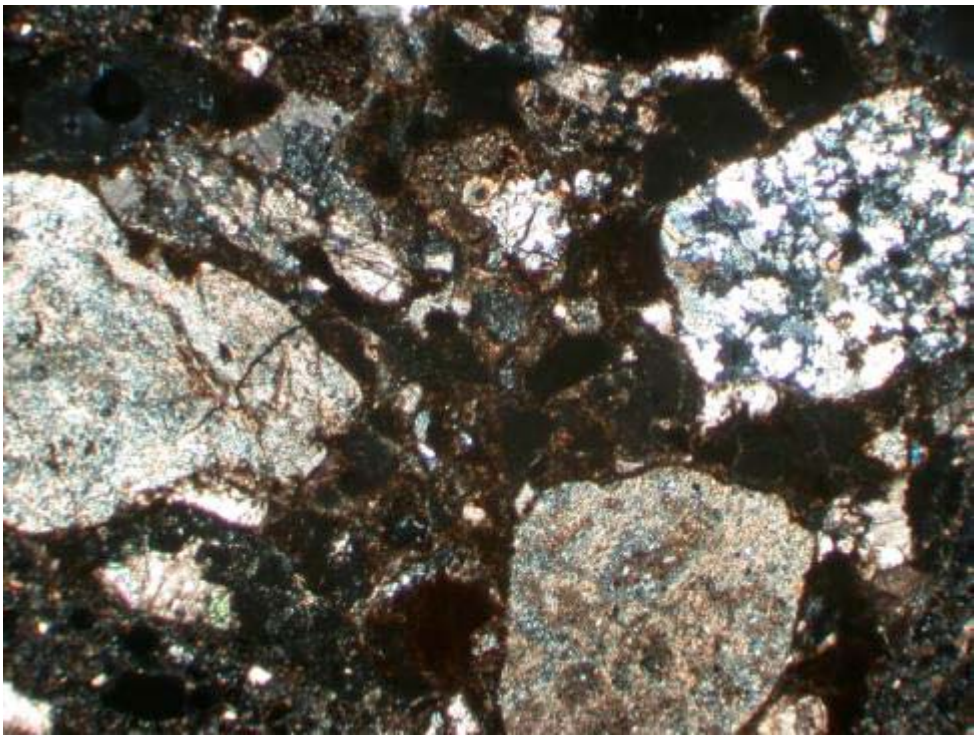
Polished Thin Section Description:
Mixed powder and fine to medium chips of lithic sandstone, granule conglomerate, carbonate-chlorite-rutile altered and carbonate-hematite altered porphyritic, locally amygdaloidal basalt, fine-grained equigranular rock, very fine-grained hematite-carbonate altered aggregate and fractured botryoidal hematite with carbonate infill. The section has minor disseminated and liberated pyrite grains and numerous carbonate vein fragments. Fine lithic sandstone chips are poorly sorted with angular monocrystalline and lesser rounded polycrystalline quartz grains, abundant pervasively sericite-altered fragments and minor plagioclase in a very fine-grained quartz-(clay) rich matrix. Granule conglomerate is fragment supported and comprises subrounded fragments of muscovite (sericite) altered rock, porphyritic basaltic rock, fine-grained equigranular rock and angular fragments of carbonate cemented by a very fine-grained carbonate-hematite matrix. Porphyritic basalt fragments comprise selectively carbonate-(chlorite) altered former plagioclase and mafic phenocrysts in an aphanitic quartz ±clay ±chlorite ±rutile altered groundmass with locally carbonate-chlorite±hematite filled amygdales and replacement of cubic forms by hematite. The equigranular rock comprises quartz and feldspar partly replaced by patchy fine-grained carbonate. Muscovite (sericite) comprises approximately 1% of the section. Chlorite comprises approximately 1% of the section. Aphanitic brown clay minerals contribute at least 30% of the section.

Carbonate comprises approximately 15% of the section. Carbonate occurs as two colourless varieties: 1) fine to very fine-grained, rhombic to subhedral grains and aggregates, as vein fragments, as replacement of feldspars, as amygdale infill, as fragments in granule conglomerate chips, as infill to fractured botryoidal hematite chips and as liberated grains and aggregates (likely calcite based on strong reaction of some chips to cold, dilute HCl); 2) fine to very fine-grained, anhedral aggregates, partly pseudomorphically replaced by very fine-grained, anhedral hematite aggregates, occurs as replacement of cubic forms in basalt, as matrix to granule conglomerate and as liberated anhedral aggregates and vein fragments. In the section, the carbonate varieties occur in roughly equal proportions.

Sulphide occurs in minor amounts (approximately 1%) as pyrite. Pyrite is fine to very fine-grained (< 0.2 mm), sub-anhedral and occurs disseminated in the rock fragments and as liberated grains. Pyrite boundaries are irregular. Most pyrite grains have clean boundaries without alteration but a few grains and aggregates have very fine-grained red-brown Fe-oxide/oxyhydroxide aggregate rims (see photos). Fine to very fine-grained hematite, approximately 5-7%, occurs as replacement of carbonate, as fractured botryoidal aggregates, disseminated within fragments, as replacement of cubic forms in basalt, as matrix to granule conglomerate fragments and as liberated aggregates.

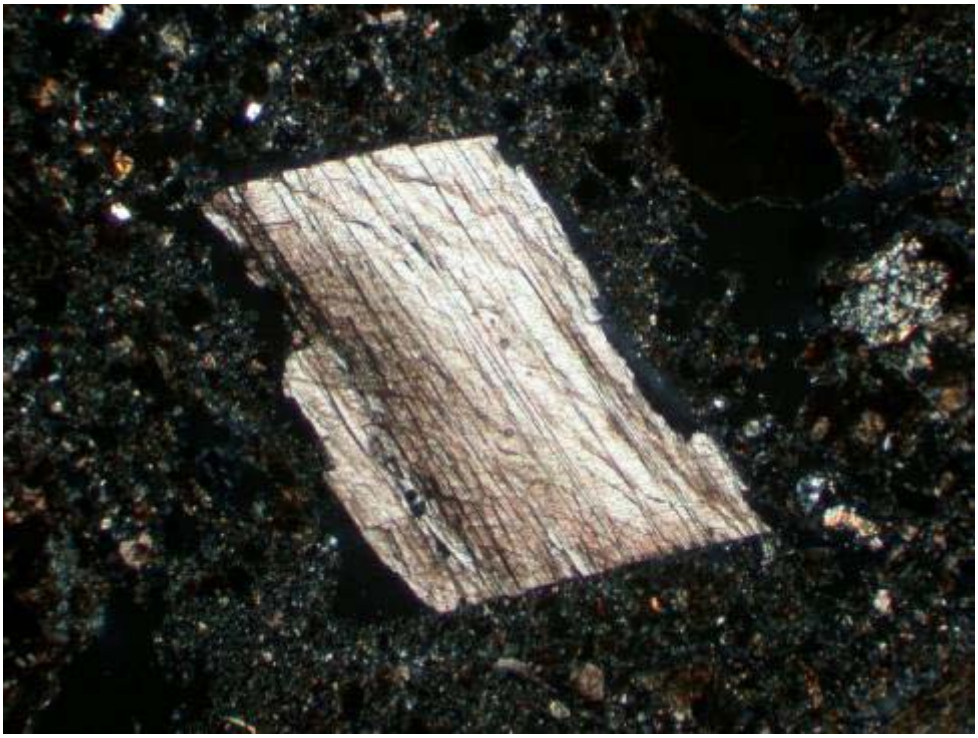


A



B

ARLB-007: A) General view of liberated carbonate grains (left), fractured botryoidal hematite infilled by carbonate (centre) and carbonate-altered porphyritic basalt fragment (right). PPL, FOV =~ 4.5 mm. B) General view of granule conglomerate with sericite-altered fragments (left and bottom right), equigranular fragment (top right) and angular carbonate fragments in carbonate-hematite matrix. XPL, FOV =~ 4.5 mm.



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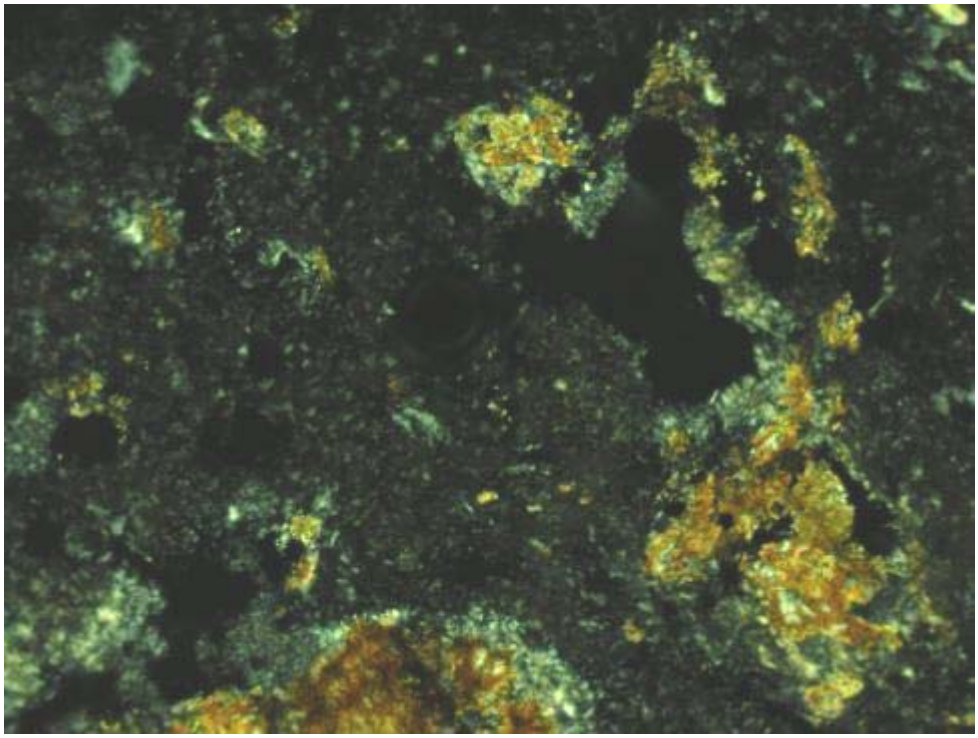
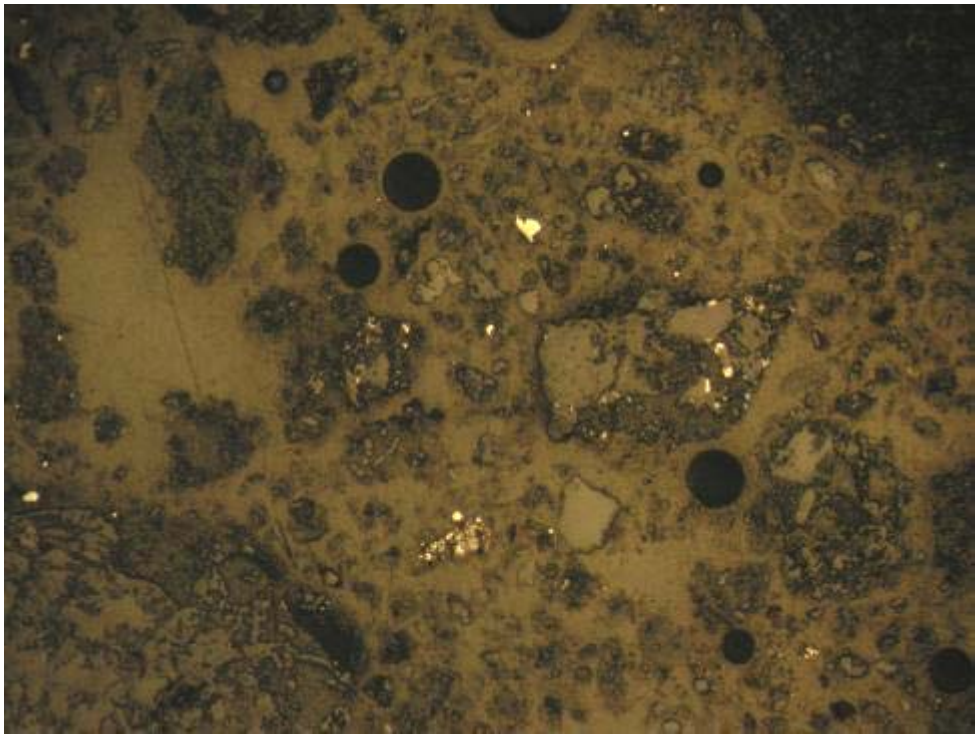


D

ARLB-007: C) Top: Large liberated carbonate grain. XPL, FOV =~ 4.5 mm. D) Bottom: Carbonate pseudomorphically replaced by very fine-grained hematite aggregate. XPL, FOV =~ 0.6 mm



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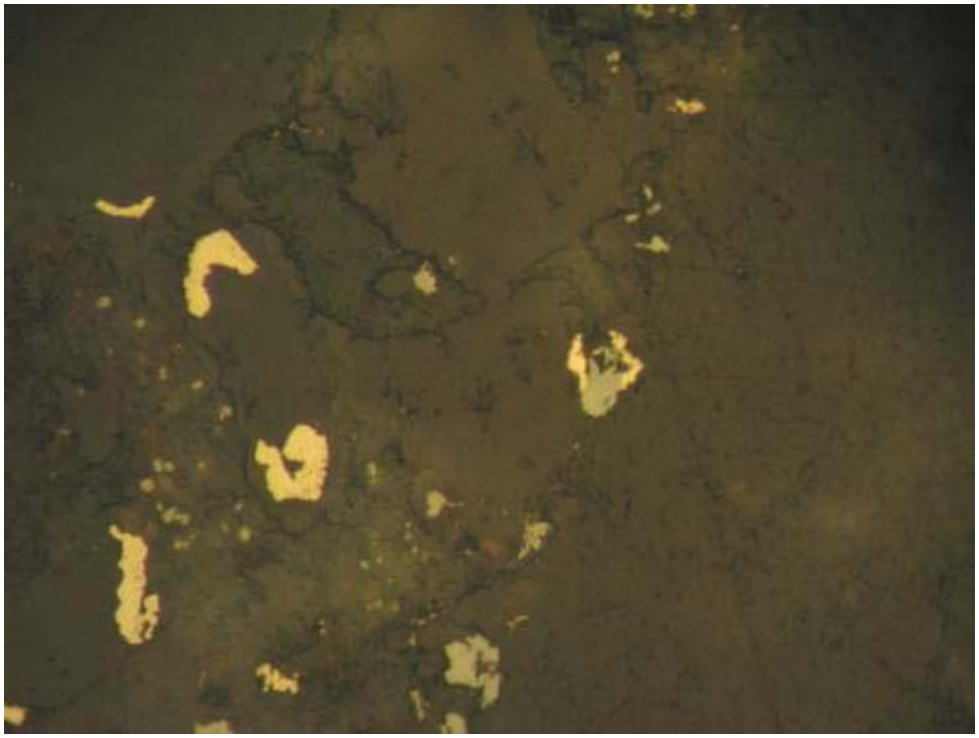
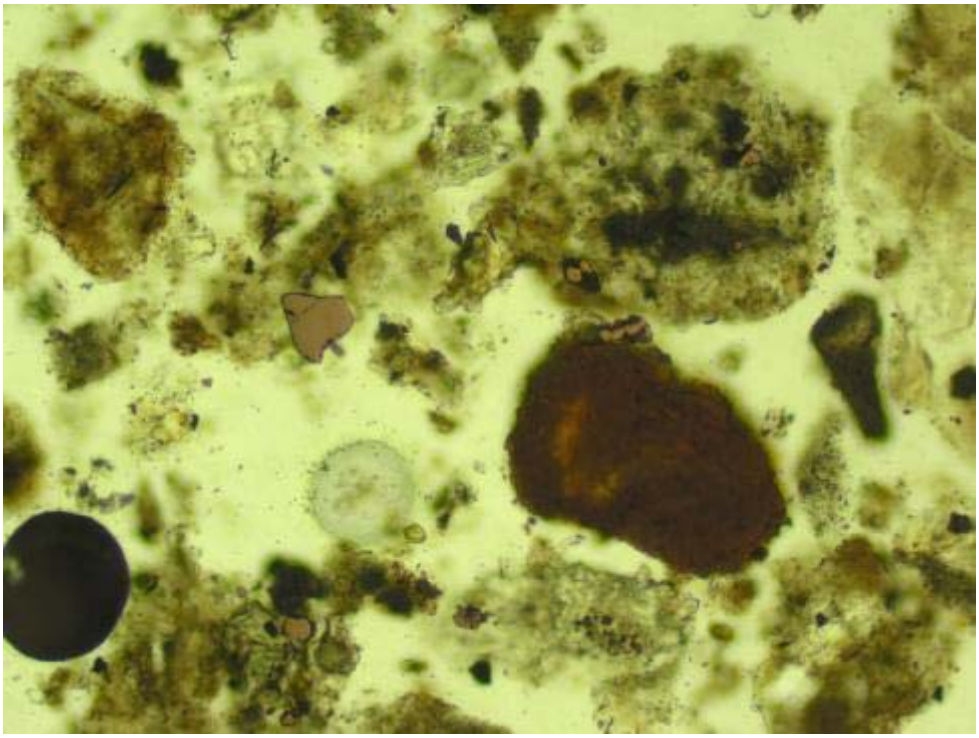


F

ARLB-007: E) Top: General view of very fine-grained pyrite disseminated in chips and as liberated grains. RL, FOV =~ 2.1 mm. F) Bottom: Detailed view of disseminated pyrite within granule conglomerate. Note pyrite grain right of centre is partly replaced by hematite. RL, FOV = ~0.1 mm



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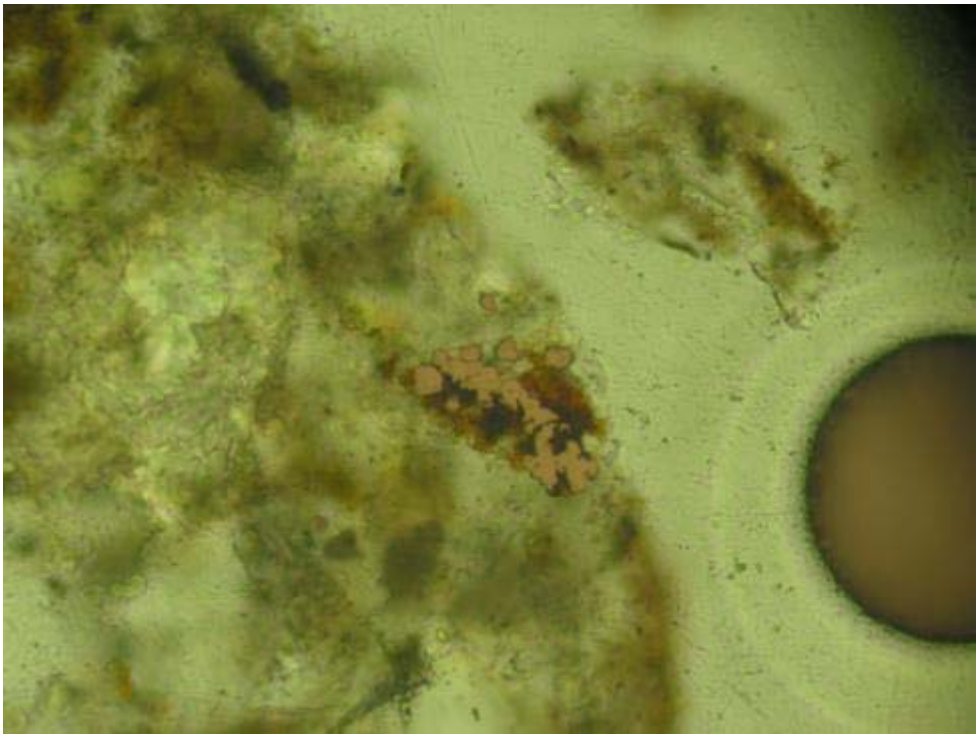


H

ARLB-007: G) Top: Liberated aggregate of red-brown Fe-oxide/oxyhydroxide with traces of relict pyrite (right), pyrite grain without alteration rims (left of centre). RL+PPL, FOV =~ 0.7 mm. H) Bottom: Very fine-grained pyrite aggregate partly replaced by hematite within granule conglomerate fragment. RL+PPL, FOV = ~0.1 mm

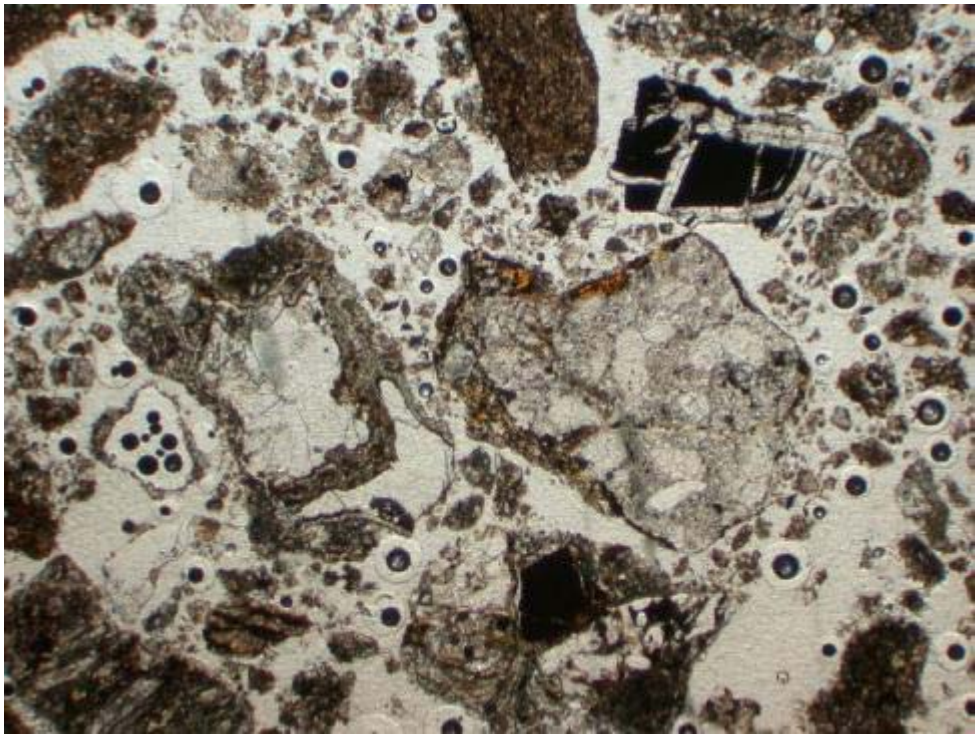
Project #: 1CN007.00
Sample ID: ARLB-008

Chip/Powder and Offcut Mount Description:
Fine to coarse-size chips (up to 10 mm size) and powder. Chips comprise greenish-gray and medium gray aphanitic rocks, mottled gray-white and grayish orange rock. Strong reaction of some chips to cold dilute HCl. No reaction to magnet. No reaction of offcut mount to etching and staining with sodium cobaltinitrite solution. Grayish-orange colouration of approximately 3% of chips.

Polished Thin Section Description:
Mixed powder and fine to coarse chips of fine lithic sandstone, granule conglomerate, massive to laminated siltstone, carbonate-hematite altered porphyritic basalt, chlorite-sericite altered porphyritic rock and fractured hematite with carbonate infill. The section has traces of disseminated and liberated pyrite grains and numerous carbonate vein fragments. Fine lithic sandstone chips are poorly sorted with angular monocrystalline and lesser rounded polycrystalline quartz grains, some pervasively sericite-altered fragments and minor plagioclase in a very fine-grained quartz-(clay) rich matrix. Granule conglomerate is fragment supported and comprises subrounded fragments of lithic sandstone, siltstone, spherulitic-textured rock and angular fragments of quartz and carbonate cemented by a very fine-grained carbonate-hematite matrix. Siltstone fragments comprise angular monocrystalline quartz grains, carbonate grains and aggregates in a very fine-grained red-brown clay-rich variably hematitic matrix with discontinuous dark clay/hematite bands. Porphyritic basalt fragments comprise selectively carbonate-altered former plagioclase and mafic phenocrysts in an aphanitic quartz ±clay ±chlorite ±rutile altered groundmass with locally carbonate-chlorite±hematite filled amygdales. Muscovite (sericite) occurs in trace amounts in the section. Chlorite comprises approximately 1-2% of the section. Aphanitic brown clay minerals contribute at least 30% of the section. A few chips have orange brown coloured rims.

Carbonate comprises approximately 15% of the section. Carbonate occurs as three varieties: 1) colourless, fine to very fine-grained, rhombic to subhedral grains and aggregates, as vein fragments, as replacement of feldspars, as amygdale infill, as fragments in granule conglomerate chips, as infill to fractured botryoidal hematite chips and as liberated grains and aggregates (likely calcite based on strong reaction of some chips to cold, dilute HCl); 2) colourless, very fine-grained, anhedral aggregates, partly pseudomorphically replaced by very fine-grained, anhedral hematite aggregates, occurs as replacement of cubic forms in basalt, as matrix to granule conglomerate and as liberated anhedral aggregates and vein fragments. 3) brown, very fine-grained, anhedral aggregates, occurs as replacement of colourless carbonate as infill to hematite fragments, as matrix to granule conglomerate, as patchy replacement of porphyritic rock fragments. In the section, the first, fine-grained colourless carbonate variety dominates with minor amounts of varieties 2 and 3.

Sulphide occurs in trace amounts as pyrite. Pyrite is very fine-grained (< 0.05 mm), sub-anhedral and occurs disseminated in the rock fragments and as liberated grains. Pyrite boundaries are irregular. Most pyrite grains have clean boundaries without alteration but a few grains and aggregates have very fine-grained orange or red-brown Fe-oxide/oxyhydroxide aggregate rims (see photos). Fine to very fine-grained hematite, approximately 7%, occurs as replacement of carbonate, as fractured botryoidal aggregates, disseminated within fragments, as matrix to granule conglomerate fragments and as liberated grains.



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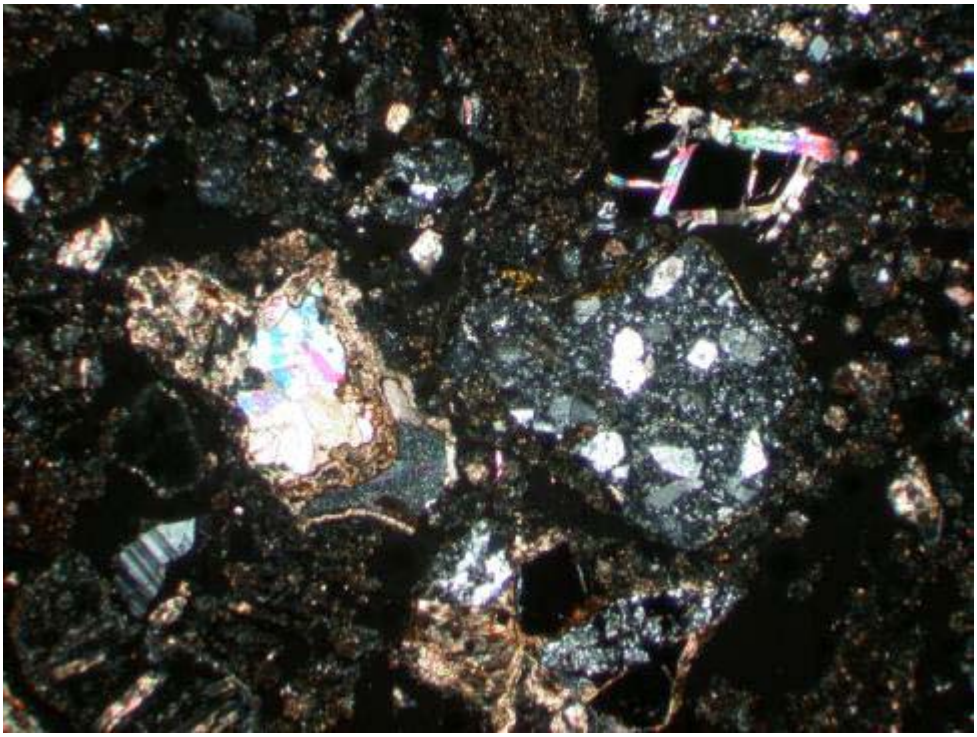
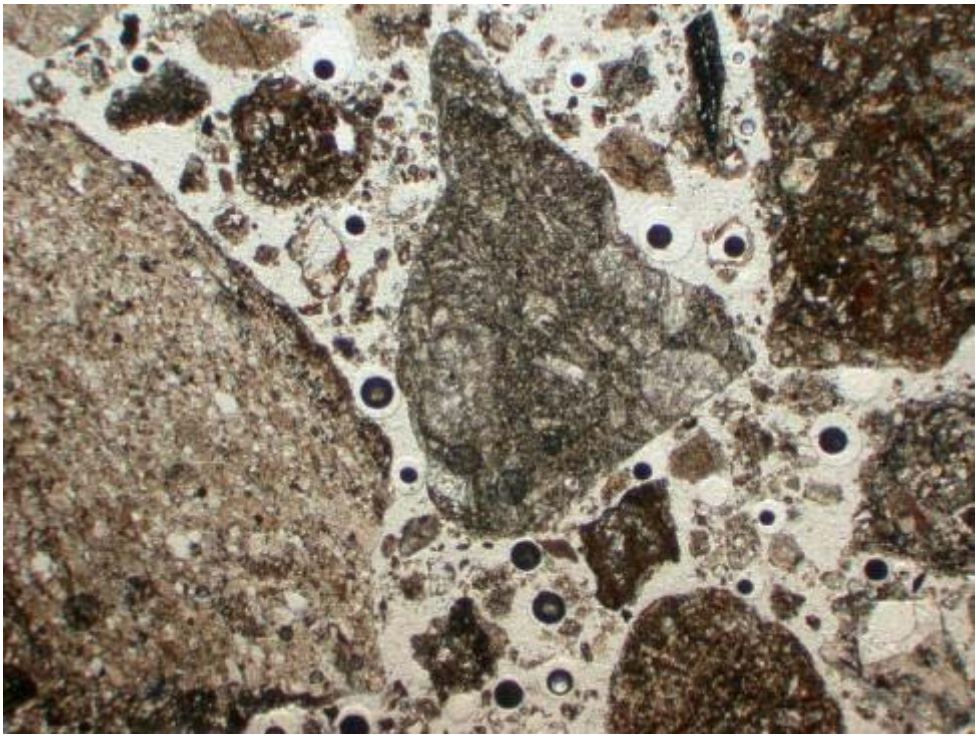


B

ARLB-008: General view of carbonate-hematite-quartz filled amygdale (left), lithic sandstone with orange-brown oxidized rim (right), hematite with carbonate infill (top right) and granule conglomerate with carbonate matrix (bottom centre). A) PPL, B) XPL, FOV =~ 4.5 mm.



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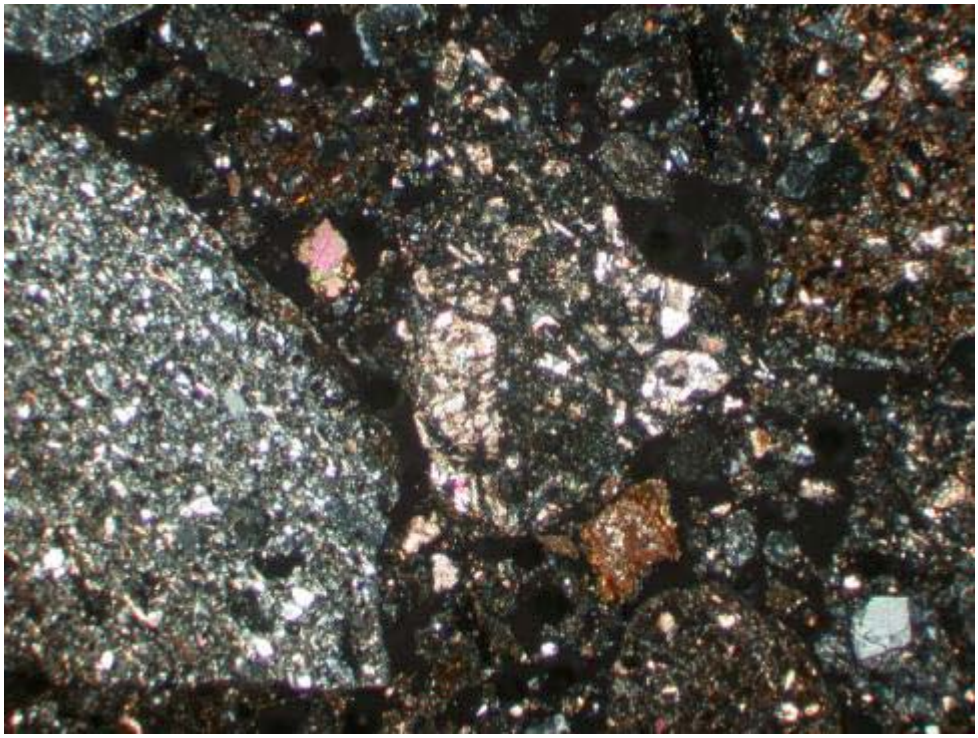
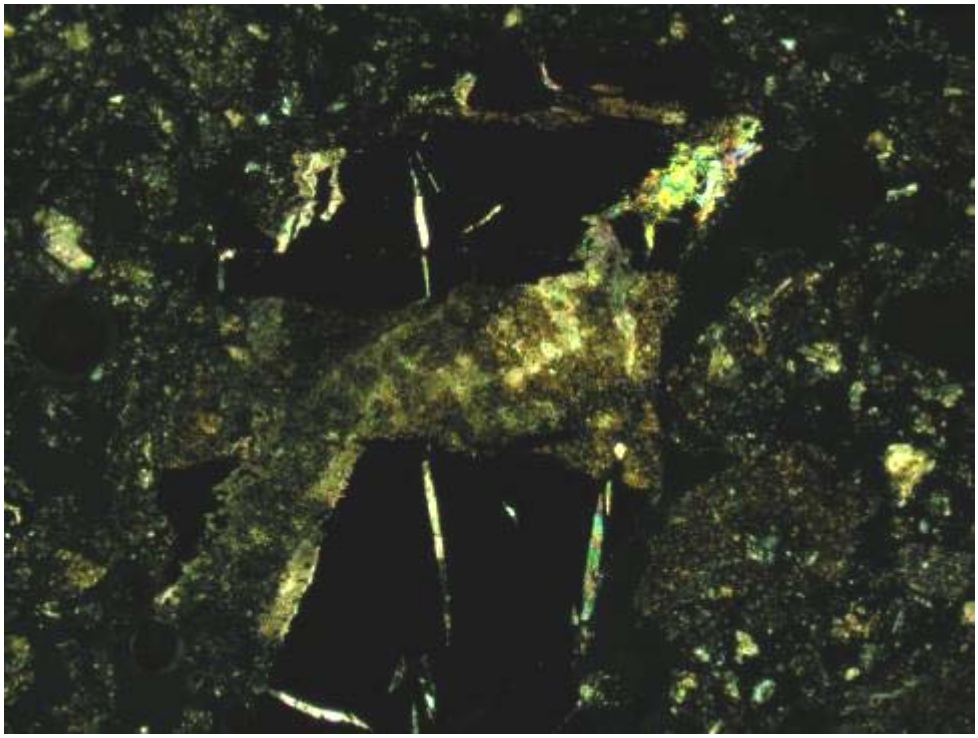


D

ARLB-008: General view of siltstone (left), carbonate-altered porphyritic basalt (centre), liberated carbonate aggregate (left of centre) and carbonate partly replaced by very fine-grained hematite aggregate (to right, below centre). C) PPL, D) XPL, FOV =~ 4.5 mm.



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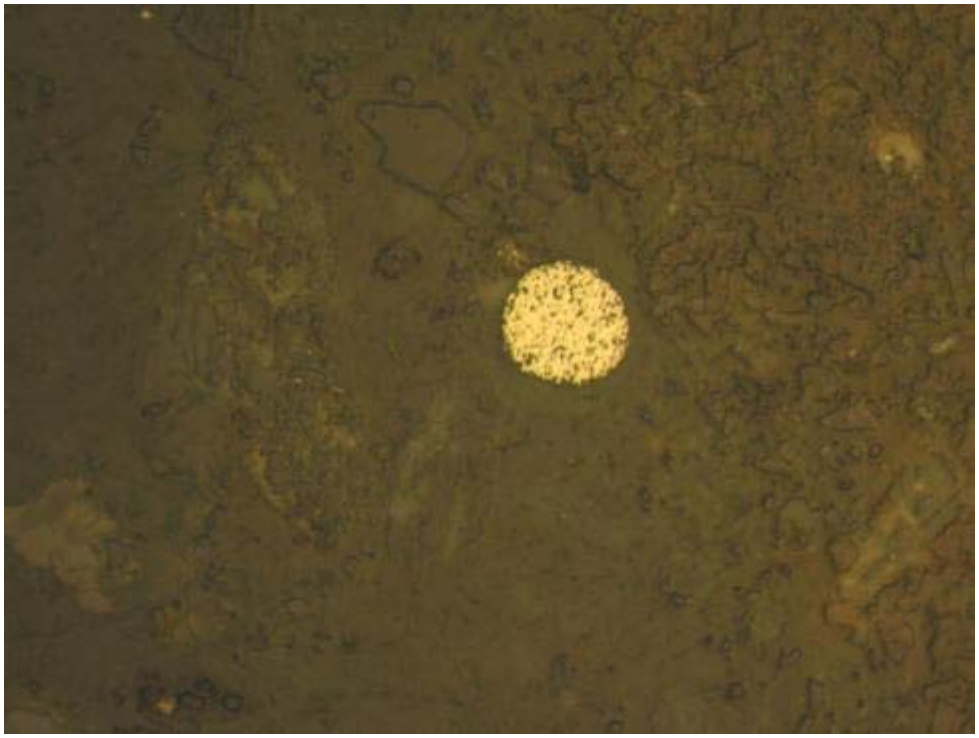
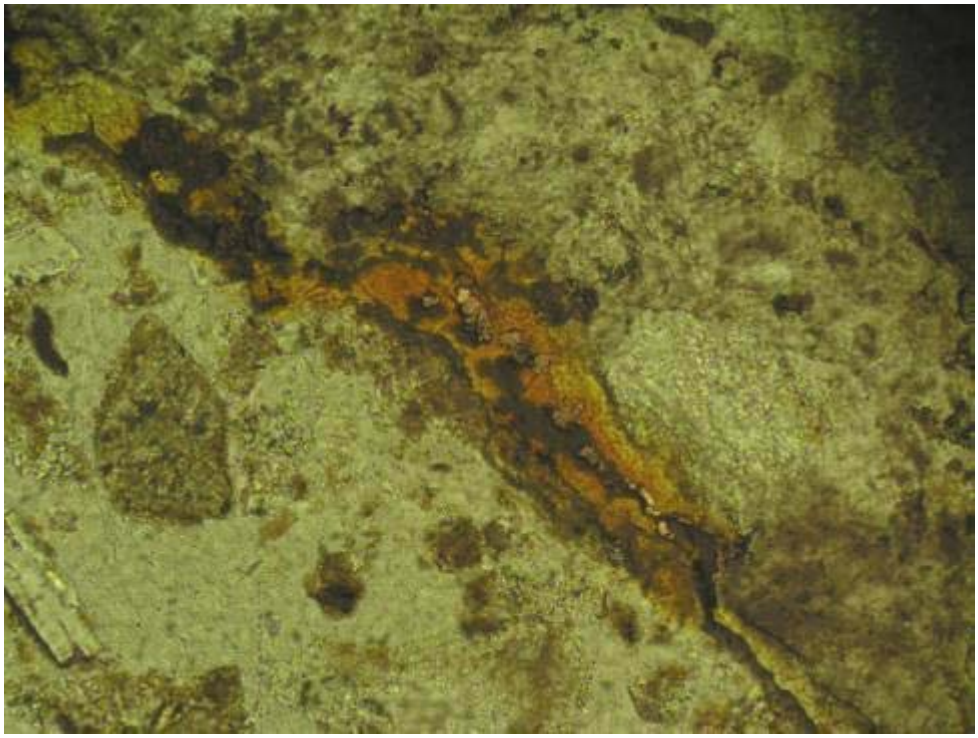


F

ARLB-008: E) Top: Very fine-grained brown carbonate overprints colourless carbonate as infill to medium-grained hematite chip. XPL, FOV =~ 2.8 mm. F) Bottom: Liberated colloform-textured spongy pyrite grain without alteration rims. RL, FOV = ~0.35 mm



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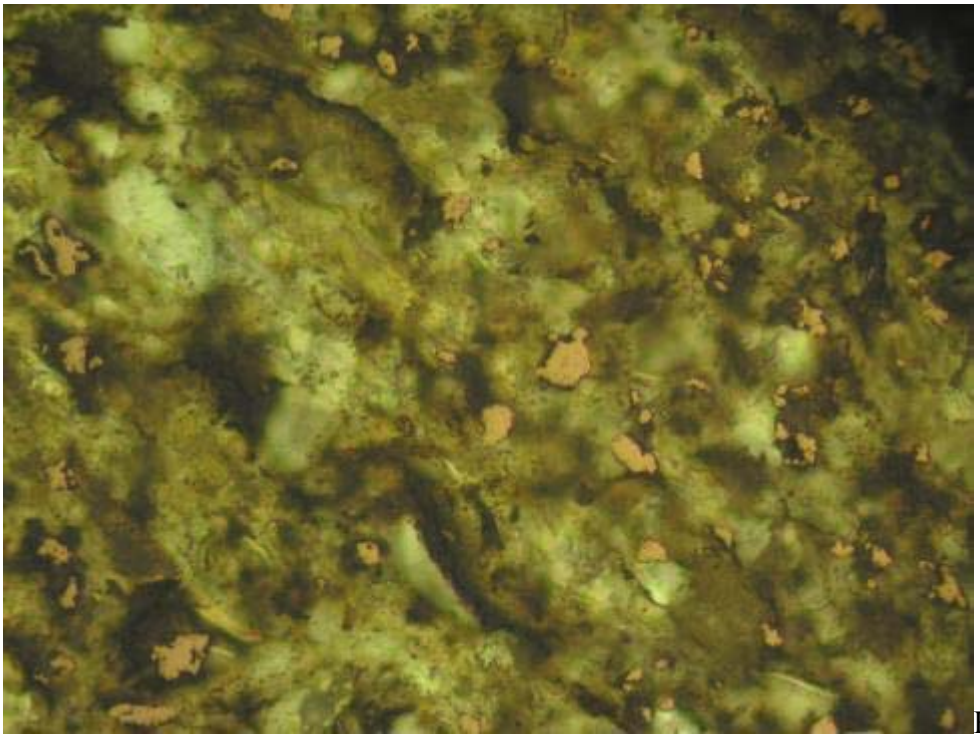


H

ARLB-008: G) Top: Detailed view of disseminated pyrite grains with orange-brown alteration (same chip as in photos A/B). RL+PPL, FOV =~ 0.55 mm. H) Bottom: Detailed view of disseminated pyrite (no alteration) within siltstone fragment. RL+PPL, FOV = ~0.55 mm.

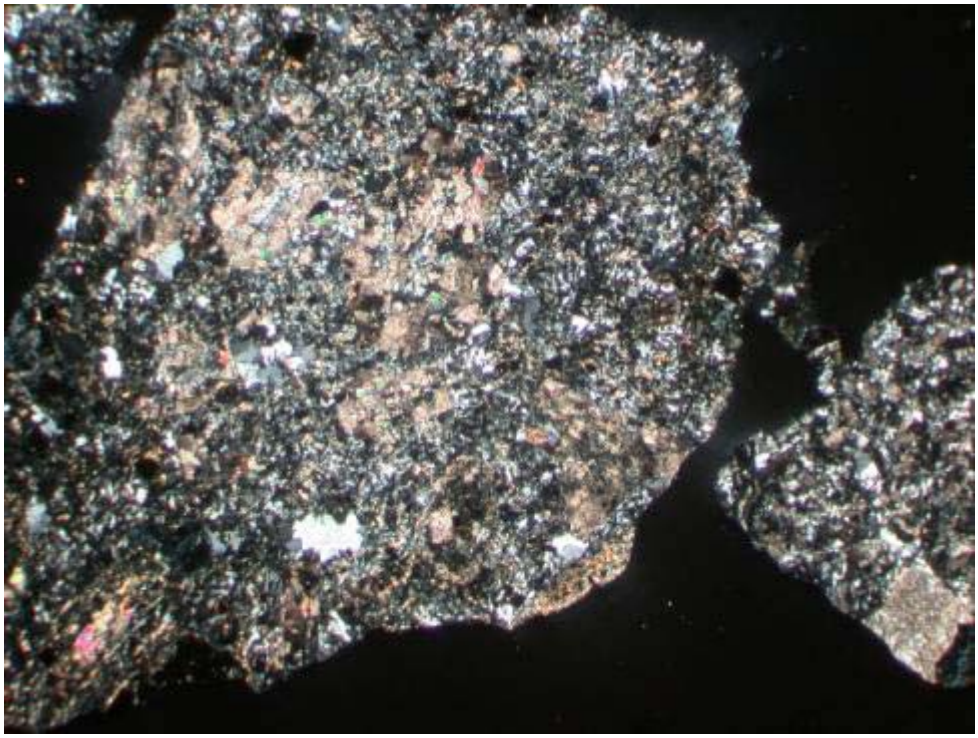
Project #: 1CN007.00
Sample ID: ARLB-009

Chip/Powder and Offcut Mount Description:
Medium to coarse-size chips (up to 12 mm size). Chips comprise greenish-gray mottled equigranular rock and brownish-black aphanitic rock. Strong reaction of some chips to cold dilute HCl. No reaction to magnet. Weak reaction of approximately 30% of chips in offcut mount to etching and staining with sodium cobaltinitrite solution.

Polished Thin Section Description:
Mixed medium to coarse chips of selectively carbonate-chlorite altered porphyritic rock with very fine-grained groundmass, variably epidote ± chlorite ± illite ± clay-altered fine-grained equigranular to porphyritic rock with graphic intergrowth texture, traces of albite veinlets and aphanitic clay-altered fragments. The porphyritic rock comprises fine to medium-grained plagioclase phenocrysts selectively replaced by carbonate, fine to medium grained former mafic phases selectively replaced by chlorite and clay and traces of fine-grained quartz phenocrysts in a very fine-grained groundmass of plagioclase-chlorite-carbonate. The equigranular rock comprises fine-grained intergrowths of quartz and K-feldspar with traces of minor epidote ± chlorite ± illite ± clay alteration. K-feldspar makes up about 30% of the section. Chlorite comprises approximately 2% of the section. Illite occurs in trace amounts in the section. Aphanitic brown clay minerals contribute at least 3% of the section.

Carbonate comprises approximately 7% of the section. Carbonate occurs as colourless, fine to very fine-grained, sub-anhedral grains and aggregates, as replacement of phenocrysts and matrix in porphyritic rock fragments.

Sulphide occurs in trace amounts as pyrite. Pyrite is fine to very fine-grained (< 0.2mm), sub-anhedral and occurs as disseminated grains and aggregates in fragments. Pyrite boundaries are irregular but clean and unaltered. Traces of hematite occur with chlorite and carbonate rimming and as replacement of phenocrysts in porphyritic rock fragments and as disseminated fine-grained cubic forms.



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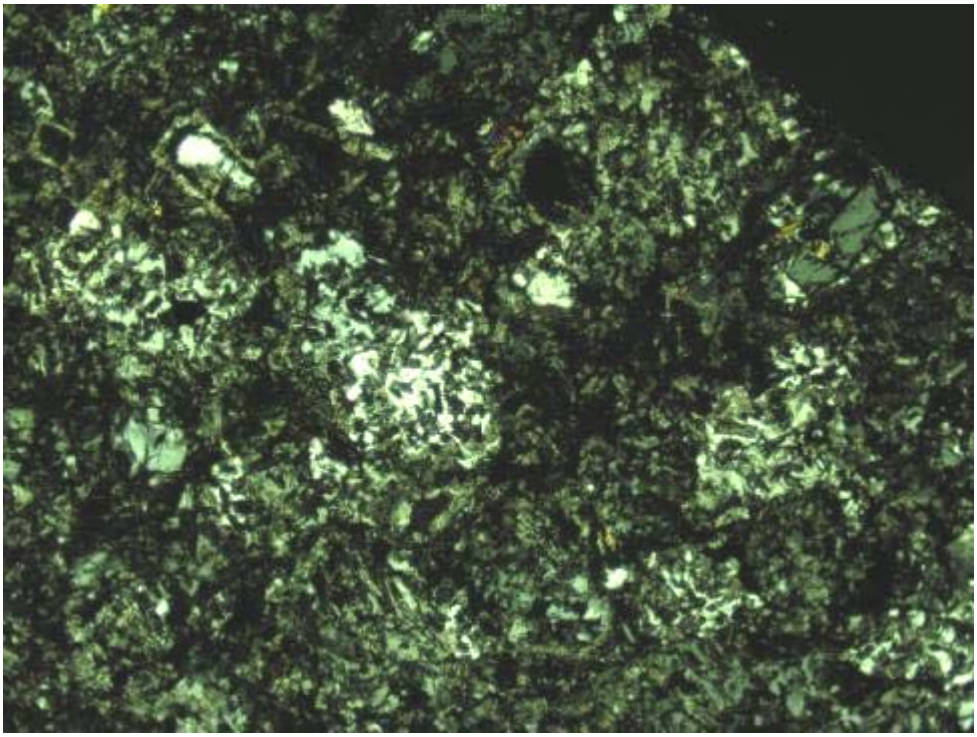
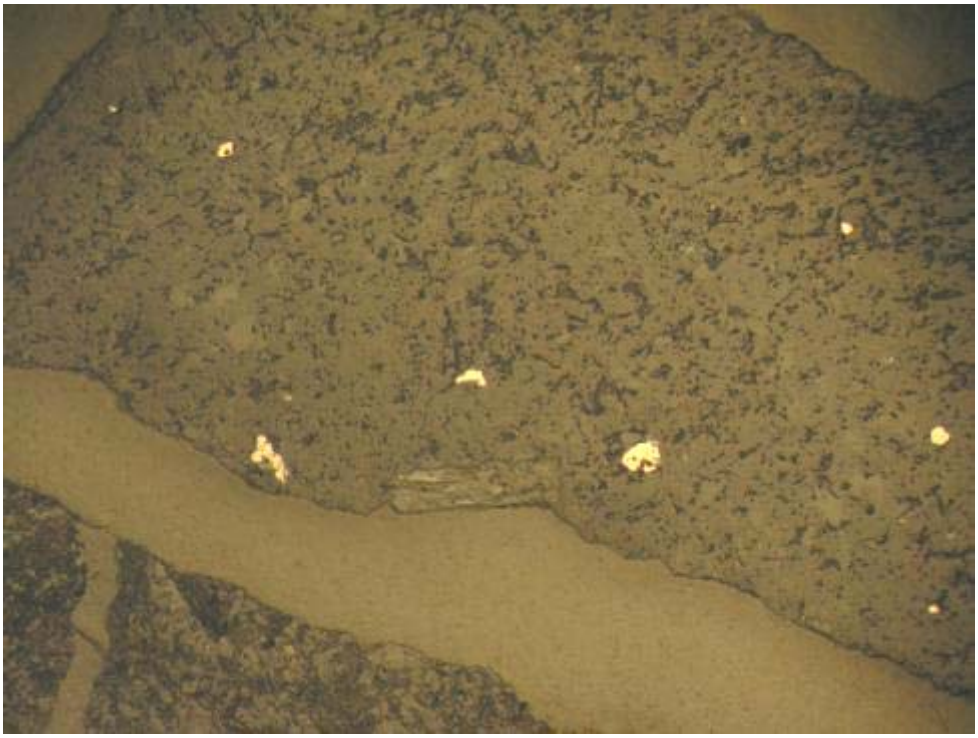


B

ARLB-009: A) General view of carbonate-chlorite altered porphyritic rock with very fine-grained groundmass. XPL, FOV =~ 4.5 mm. B) Representative view of equigranular rock chip with graphic intergrowth texture. XPL, FOV =~ 2.8 mm.



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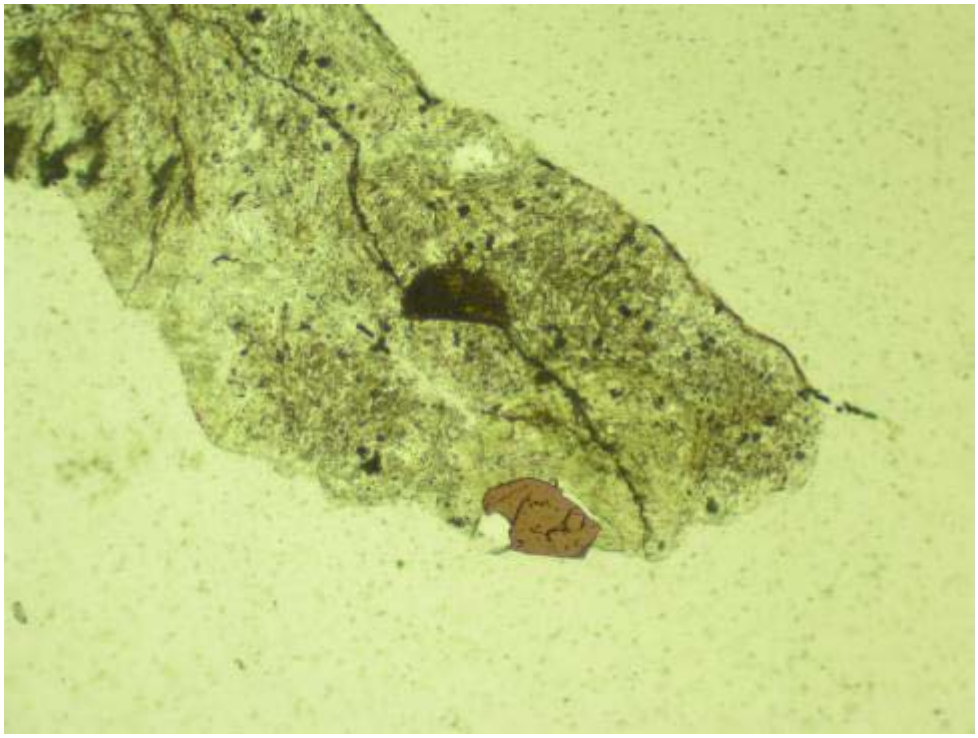
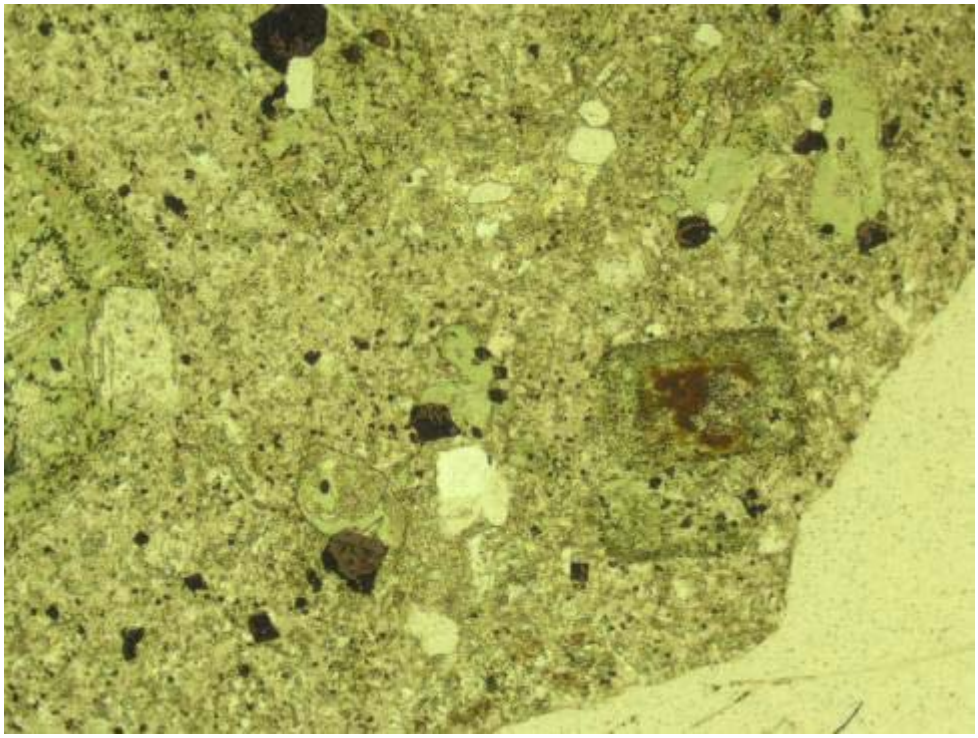


D

ARLB-009: C) Top: Disseminated very fine-grained pyrite (without alteration rims) in equigranular rock fragment. RL, FOV =~ 2.8 mm. D) Bottom: Pyrite grain (without alteration rims) in porphyritic rock. RL+PPL, FOV =~ 1.3 mm



E

ARLB-009: E) Chlorite ± hematite replacement of former mafic phases within porphyritic rock fragment. Note hematite grains also occur disseminated (cubic forms after ?magnetite). RL+PPL, FOV =~ 2.8 mm.

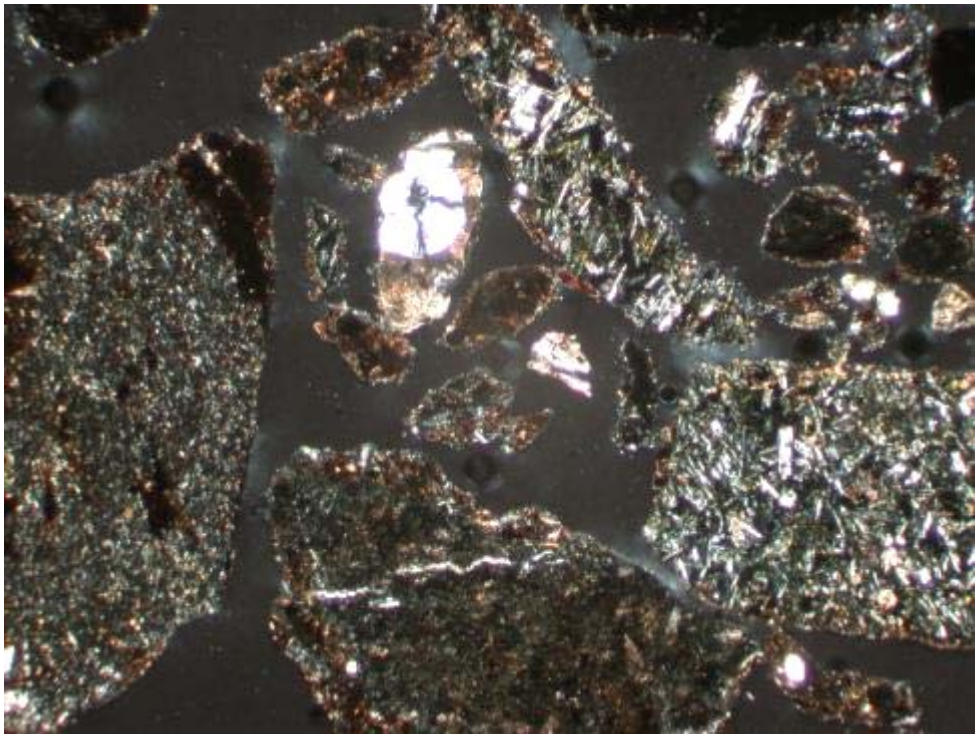
Project #: 1CN007.00
Sample ID: ARLB-010

Chip/Powder and Offcut Mount Description:
Fine to coarse-size chips (up to 9 mm size). Chips comprise medium-dark gray and pale red purple aphanitic rock and yellowish-gray veins. Strong reaction to cold dilute HCl. Reaction of some chips to magnet. Reaction of some aphanitic rock fragments and tabular phenocrysts to etching and staining with sodium cobaltinitrite solution (approximately 5% of section).

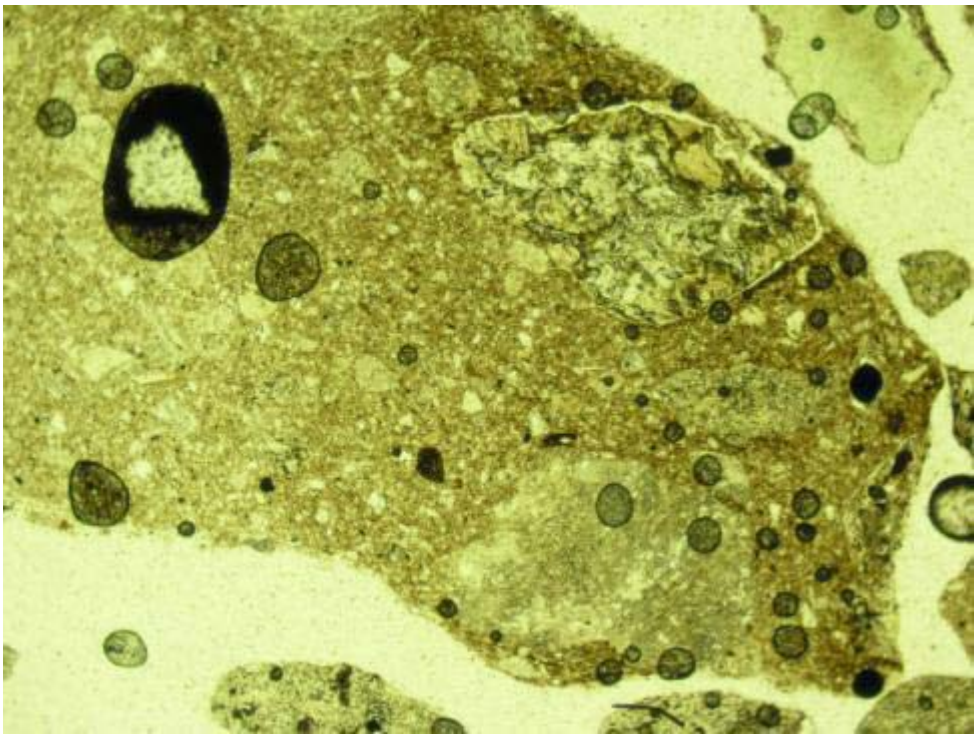
Polished Thin Section Description:
Mixed fine to coarse chips of altered seriate-textured basalt, aphanitic and amygdaloidal basalt and crystal-lithic tuff with some liberated carbonate aggregates and carbonate-chlorite/carbonate-quartz amygdales. The seriate-textured basalt consists of variably altered plagioclase laths and former mafic phases in a very fine-grained matrix selectively replaced by chlorite ± carbonate ± epidote ± rutile or carbonate ± clay ± rutile ± hematite aggregates. Fine-grained magnetite or hematite occur disseminated in the basalt. The aphanitic and amygdaloidal basalts comprise a dark very fine-grained groundmass of minute plagioclase laths with interstitial microcrystalline chlorite and rutile aggregate locally with disseminated magnetite. Amygdales comprise chlorite and colourless carbonate aggregates. Crystal-lithic tuff comprises fine fragment of variably carbonate-altered aphanitic to seriate-textured basalt and crystals of quartz, plagioclase and carbonate (as replacement of plagioclase) in a very fine-grained clay to hematitic matrix. Clay comprises at least 30% of the section; chlorite makes up approximately 2-3%. Some chips have a red-brown colouration of matrix material or diffuse red-brown rims/stringers.

Carbonate comprises approximately 7% of the section as colourless carbonate. Carbonate occurs as fine to very fine-grained, colourless anhedral aggregates with chlorite (as amygdales), as liberated fine grains and aggregates, as selective replacement of plagioclase phenocrysts in basalt, partly replacing plagioclase crystals in crystal-tuff and as patchy aggregates locally replacing basalt in some chips.

Total sulphide occurs in trace amounts as pyrite. Pyrite is fine to very fine-grained (< 0.2mm), sub-anhedral and occurs as disseminated grains and aggregates in chips. Pyrite boundaries are irregular and grains appear pitted and corroded but grains are not rimmed by coloured oxidation products. Fine to very fine-grained magnetite (< 0.2mm), approximately 1%, occurs disseminated in basalt and lithic tuff fragments. Magnetite is partly replaced by hematite in a few rare chips. Traces of red-brown Fe-oxide/hydroxide occur disseminated as cubic and irregular forms in some of the chips. A pervasive red-brown hematitic matrix occurs in a few fragments of basaltic rock and crystal-lithic tuff; stringers and diffuse rims of red-brown Fe-oxide/oxyhydroxide material occur in some chips. The red-brown Fe-oxide/oxyhydroxide material comprises about 1% of the section.

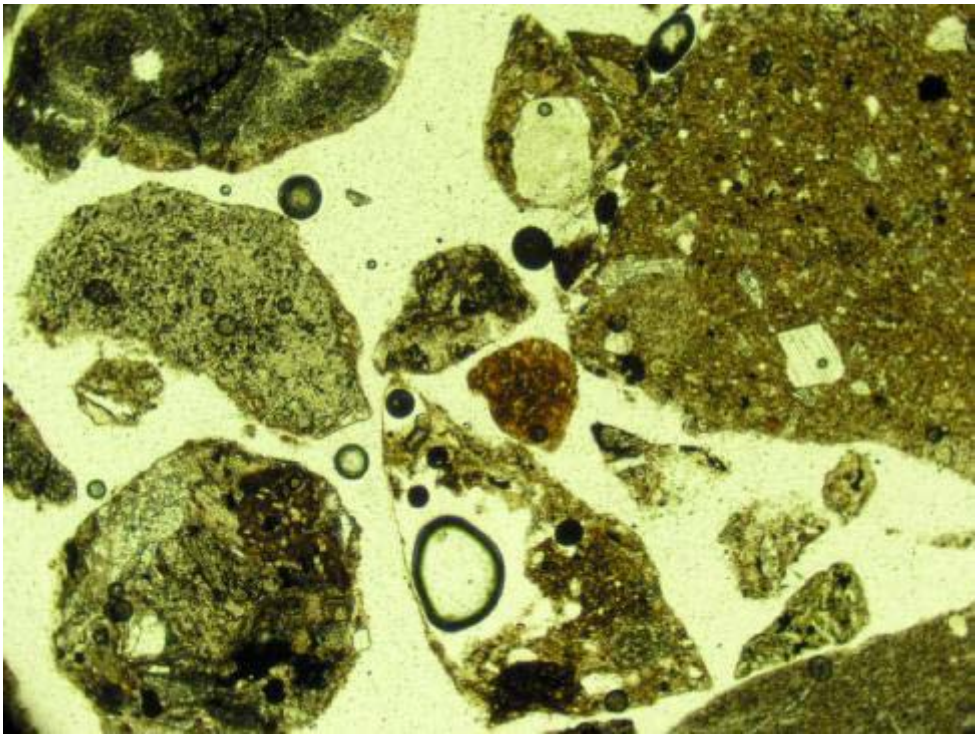


A

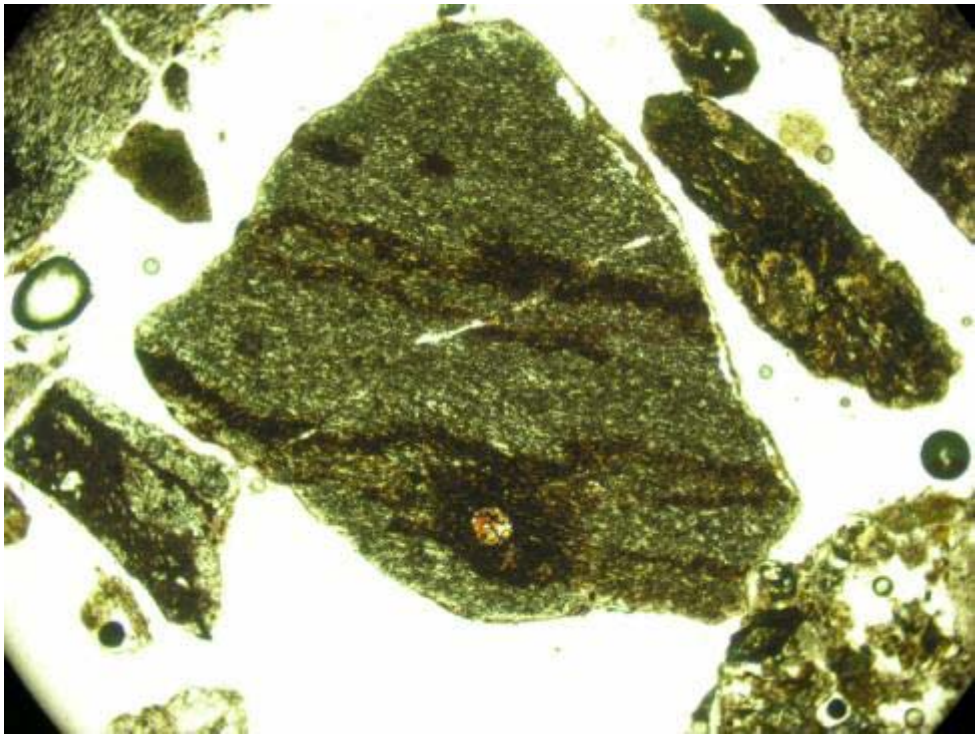


B

ARLB-010: A) General view of aphanitic and seriate-textured basalt fragments and liberated carbonate-quartz amygdale (above centre). XPL, FOV =~ 4.5 mm. B) View of crystal-lithic tuff fragment. PPL, FOV =~ 2.8 mm.

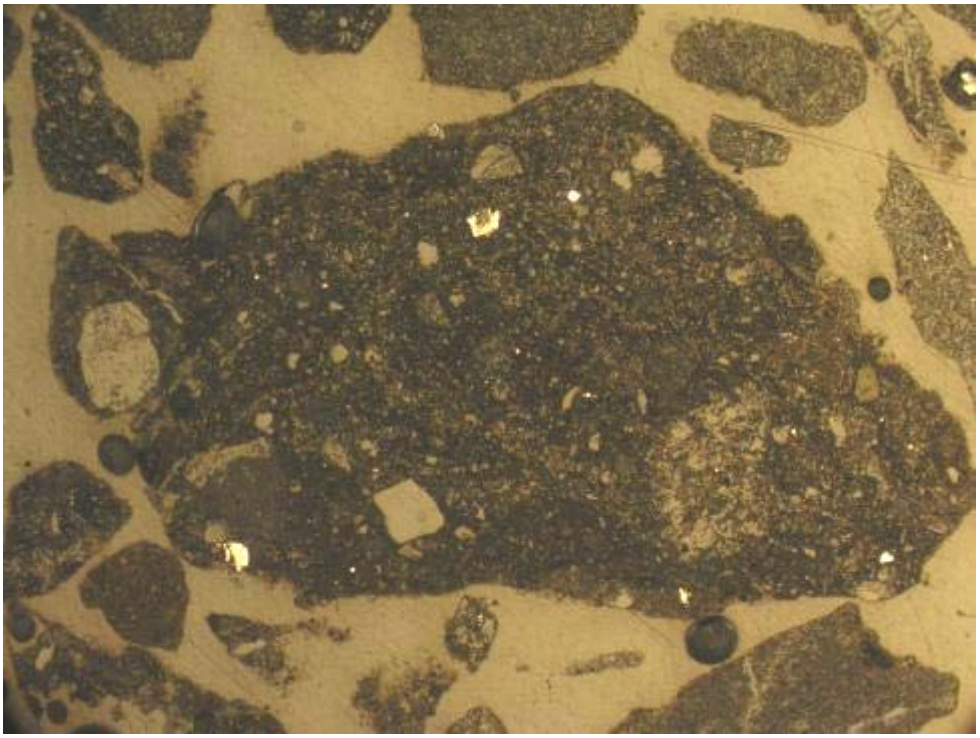


C

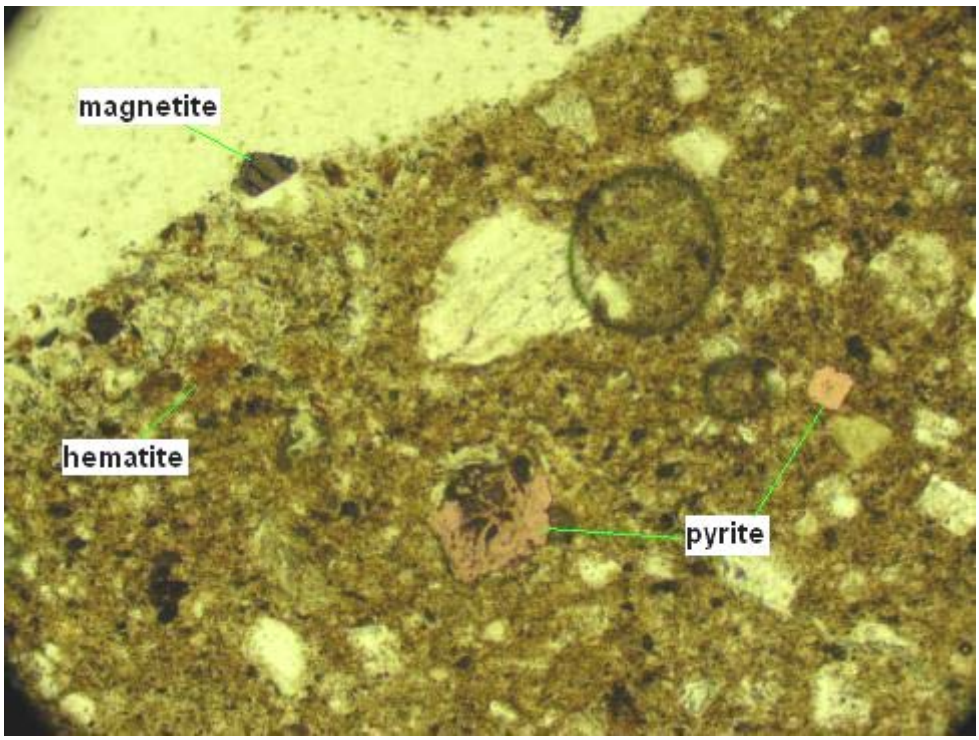


D

ARLB-010: C) View of basalt and crystal-lithic rock fragments. Note pervasive red-brown hematitic matrix to rock fragment at photo centre. PPL, FOV =~ 2.8 mm. D) Aphantic basalt fragment (centre) with stringers of hematite. PPL, FOV =~ 2.8 mm



E



F

ARLB-010: E) Disseminated anhedral pyrite within crystal-lithic tuff fragment. RL, FOV =~ 2.8 mm. F) Detailed view fragment in photo E. Note pitted euhedral pyrite, disseminated magnetite and anhedral hematite aggregate. PPL+RL, FOV = ~0.7 mm

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the district of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, Suite 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.

6. I have practiced my profession as a geologist for approximately 20 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 13 years as an independent consultant.

7. The petrographic data of this report was collected by me in September 2008.

……..……

Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
September 29, 2008

Petrography Report

CHARACTERIZATION OF FINE CHIPS AND POWDERS/TAILINGS FROM HUMIDITY CELL TESTS, PEBBLE COPPER PROPERTY, ALASKA

June 18, 2008

Prepared for:

Steven Day, P.Geo. and
Madeleine Corriveau, EIT/GIT
SRK Consulting (Canada) Inc.
Suite 2200-1066 West Hastings St.
Vancouver, BC
Canada V6E 3X2

Prepared by:

Kathryn Dunne, M.Sc. P.Geo.
Consulting Geologist
Bag 9000, Suite 207
190B Trans Can Hwy NE
Salmon Arm, BC
Canada V1E 1S3

phone: 250-804-0729
kgeo@telus.net

Background

Ten samples of material from the Pebble Copper property, Alaska are characterized in this report. The material consists of impregnated mounts of fine chips and powders/tailings taken from humidity cell tests and prepared as polished thin sections. The impregnated mounts have not been etched and stained to test for K-feldspar. The samples were submitted by Madeleine Corriveau of SRK Consultants Inc on May 26, 2008 and June 10, 2008 for characterization of the mineralogy. The polished thin sections were examined optically. The purpose of the study was to characterize the mineralogy with particular emphasis on the sulfide and carbonate minerals present. Kathryn Dunne, P.Geo. carried out the optical analysis at her office in Salmon Arm, B.C.

Sample descriptions with representative photomicrographs follow this summary. All percentages in the descriptions are approximate based on visual estimation.

Summary

Two groups of fine chips and powders from this project #0441 (11486-series and PP08-series) are summarized below:

<u>Group 1 – 4 samples:</u>

11486-001	"B" AT COMP-10m	11486-005
11486-003	"A"	11486-006

These samples are typically fine chips and powder comprising muscovite (sericite) aggregate, quartz-biotite±sericite aggregate, quartz-sericite±rutile aggregate, locally chlorite-carbonate-quartz-rutile aggregate, anhedral quartz grains and aggregates, locally quartz-carbonate vein fragments and, in various sections some of the following liberated grains: carbonate, biotite, muscovite (sericite), hematite, rutile, titanite, pyrite, chalcopyrite and chalcocite.

Alteration of the chips is dominated by development of muscovite (sericite) as anhedral very fine-grained aggregates and less commonly as fine sheaves. Sericite comprises approximately 15-20% of the sections. Brown biotite occurs as aggregates with quartz and as liberated plates; biotite is variably replaced by sericite or chlorite. Biotite comprises from trace to 2% of the sections. Chlorite occurs as trace to locally 1% of the sections.

Carbonate occurs in trace amounts in all the sections typically as fine to very fine-grained, colourless anhedral grains and patchy aggregates with sericite-quartz and quartz aggregate and as liberated grains and aggregates. Rarely, traces of very fine-grained brown carbonate occur replacing colourless carbonate. In section 11486-006, very fine-grained hematite occurs partly replacing one liberated carbonate grain.

Sulphides vary from trace to 4% of the sections. Sulphides typically comprise dominantly pyrite and chalcopyrite. In section 11486-001, traces of molybdenite, sphalerite, bornite, chalcocite and covellite are observed. Traces of sphalerite or molybdenite are noted in some other sections. Pyrite boundaries are irregular but typically clean and unaltered. In one section, 11486-005, pyrite is rimmed by red-brown Fe oxy/hydroxide material. In section 11486-006, ?arsenopyrite is rimmed and partly replaced by hematite. Hematite varies from trace amounts in most sections to 1% of section 11486-005. Hematite occurs typically as fine-grained liberated and disseminated grains and aggregates.

Group 1 - summary:

Sample # -	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other**	**% ~**
"B" 11486-001 AT comp-10m	*pyrite* chalcopyrite molybdenite sphalerite bornite chalcocite covellite	*2* 2 tr tr tr tr tr	patches, veins	tr	hematite (rare)	tr	muscovite (sericite) biotite chlorite	15 2 tr
"A" 11486-003	*pyrite* chalcopyrite sphalerite	*tr* tr tr	patches, liberated grains	tr	hematite (numerous) unknown yellow Fe-ox	tr tr	muscovite (sericite) chlorite biotite	15 1 tr
11486-005	*pyrite (rare)* chalcopyrite (rare)	*tr* tr	patches, liberated grains	tr	hematite unknown red-brown Fe-ox	1 tr	muscovite (sericite) biotite chlorite	20 1 tr
11486-006	*pyrite* chalcopyrite ?arsenopyrite	*tr* tr tr	patches, liberated grains	tr	hematite (rare)	tr	muscovite (sericite) biotite chlorite	15 2 tr

*tr = trace; x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

Group 2 – Tailings – 6 samples:

PP08-3365 PP08-3607 PP08-3610
PP08-3614 PP08-3849 PP08-3850

These samples are typically fine chips and powder comprising muscovite (sericite) aggregate, quartz-biotite±sericite aggregate, quartz-sericite±rutile aggregate, locally chlorite-carbonate ± rutile ± hematite aggregate, anhedral quartz grains and aggregates and, in various sections some of the following liberated grains: carbonate, biotite, muscovite (sericite), chlorite, hematite, rutile, titanite, pyrite and chalcopyrite.

Alteration of the chips is dominated by development of muscovite (sericite) as anhedral very fine-grained aggregates and less commonly as fine sheaves. Sericite comprises approximately 10-20% of the sections. Brown biotite occurs as aggregates with quartz, as very fine-grained aggregates and locally as liberated plates; biotite is variably replaced by sericite or chlorite. Biotite comprises from trace or 1% of the section or 15-20% of the sections. Chlorite occurs as trace to locally 1% of the sections.

Carbonate occurs in trace amounts in all the sections as fine to very fine-grained, colourless anhedral grains and patchy aggregates with sericite-quartz, quartz-biotite or chlorite aggregate and/or as liberated grains and aggregates. In section PP08-3614, traces of very fine-grained brown carbonate occur replacing colourless carbonate.

Sulphides vary from trace to 2% of the sections. Sulphides typically comprise dominantly pyrite and chalcopyrite with, in some sections, traces of molybdenite or covellite. Pyrite boundaries are irregular but typically clean and unaltered. In some sections, a few pyrite grains are observed with black rims,

possibly alteration material plucked from the section. Hematite varies from trace amounts in most sections to approximately 1% of section PP08-3610. Hematite occurs as very fine-grained liberated, anhedral to locally rounded grains and aggregates and/or disseminated within quartz-sericite, quartz-biotite and/or chlorite-carbonate fragments. In section PP08-3365, and unknown sulphide mineral is rimmed and partly replaced by hematite. A few quartz-sericite chips are rimmed by secondary hematite and stained yellow in sections PP08-3849 and PP08-3614.

Group 2 - summary:

Sample #	**Sulphide**	**%** ~	**Carbonate occurrence**	**%** ~	**Fe-Oxides and Oxyhydroxides**	**%** ~	**Some Other**	**%** ~
PP08-3365	*pyrite* chalcopyrite molybdenite ?unknown	*1* 1 tr tr	patches, liberated grains (rare)	tr	hematite	tr	biotite muscovite (sericite) chlorite	15 10 tr
PP08-3607	*pyrite* chalcopyrite	*tr* tr	liberated grains	tr	hematite	tr	biotite muscovite (sericite) chlorite	20 10 tr
PP08-3610	*pyrite* chalcopyrite	*tr* tr	liberated grains	tr	hematite	1	biotite muscovite (sericite)	20 7
PP08-3614	total *pyrite* chalcopyrite	1 *tr* tr	patches, liberated grains (rare)	tr	hematite (numerous) yellow-brown Fe-ox stain	tr tr	muscovite (sericite) biotite chlorite	20 1 1
PP08-3849	chalcopyrite *pyrite* covellite	tr *tr* tr	patches, liberated grains	tr	hematite (rare) yellow-brown Fe-ox stain	tr tr	muscovite (sericite) biotite chlorite	15 tr tr
PP08-3850	*pyrite* chalcopyrite	*1* 1	patches, liberated grains	tr		x	biotite muscovite (sericite) chlorite	20 10 tr

*tr = trace; x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

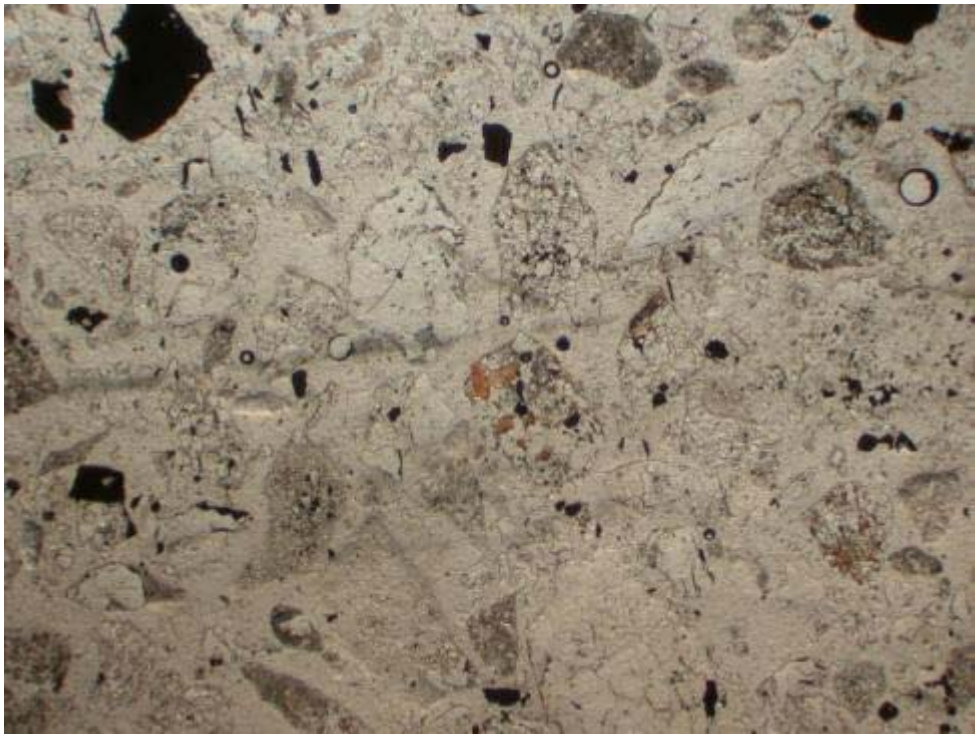
Project #: 0441
Sample ID: "B" 11486-001 AT comp-10m

Chip/Powder and Offcut Mount Description:
Fine to medium-sized chips (up to 3mm size) comprise predominantly white with lesser mauve, green and gray coloured fragments. Major disseminated fine-grained pyrite. No reaction to cold dilute HCl. No reaction to magnet.

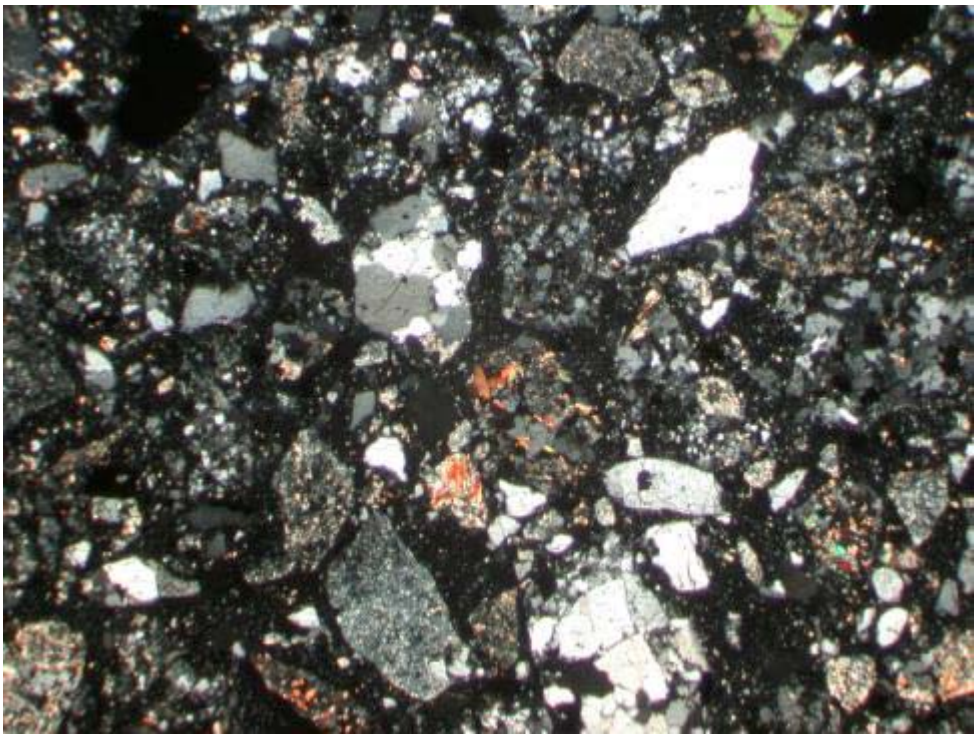
Polished Thin Section Description:
Mixed fine to medium chips of muscovite (sericite)-altered fine-grained rock and quartz veinlets with abundant liberated quartz grains, a few quartz-biotite-bearing fragments and minor liberated pyrite, chalcopyrite and chalcocite. The muscovite (sericite)-altered rock is fine-grained and comprises dominantly pervasively muscovite (sericite) altered rock and sericite-altered tabular grains intergrown with quartz. Muscovite (sericite), approximately 15% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates. Brown biotite, approximately 2%, occurs as fine plates to very fine-grained aggregates within quartz-biotite-bearing rock fragments; biotite is partly replaced by sericite and less commonly by traces of chlorite. Traces of disseminated rutile occur with the sericite aggregate.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as fine to very fine-grained, colourless anhedral grains and patchy aggregates that overprint sericite-altered rock fragments, occur with quartz as veins. Rare traces of very fine-grained brown carbonate occur replacing colourless carbonate within quartz-carbonate vein fragments.

Sulphide approximately 4%, occurs dominantly as pyrite and chalcopyrite with traces of molybdenite, sphalerite, chalcocite, bornite and covellite. Pyrite, approximately 2%, is fine-grained (< 0.7mm), sub-anhedral and variably pitted and fractured. It occurs as disseminated grains and aggregates in altered rock and quartz vein fragments and as liberated grains. Pyrite is locally enclosed by chalcopyrite aggregate. Pyrite boundaries are irregular but clean and unaltered. Minor chalcopyrite, approximately 2%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within vein and rock fragments and liberated grains; it locally encloses pyrite. Pyrite occurs rarely with traces of bornite which is partly replaced by chalcocite and/or covellite. One grain of molybdenite was observed as a liberated plate. One grain of sphalerite was observed within a quartz-biotite-bearing rock fragment. Rare traces of very fine-grained hematite aggregate occur with chlorite in a quartz-carbonate vein fragment.

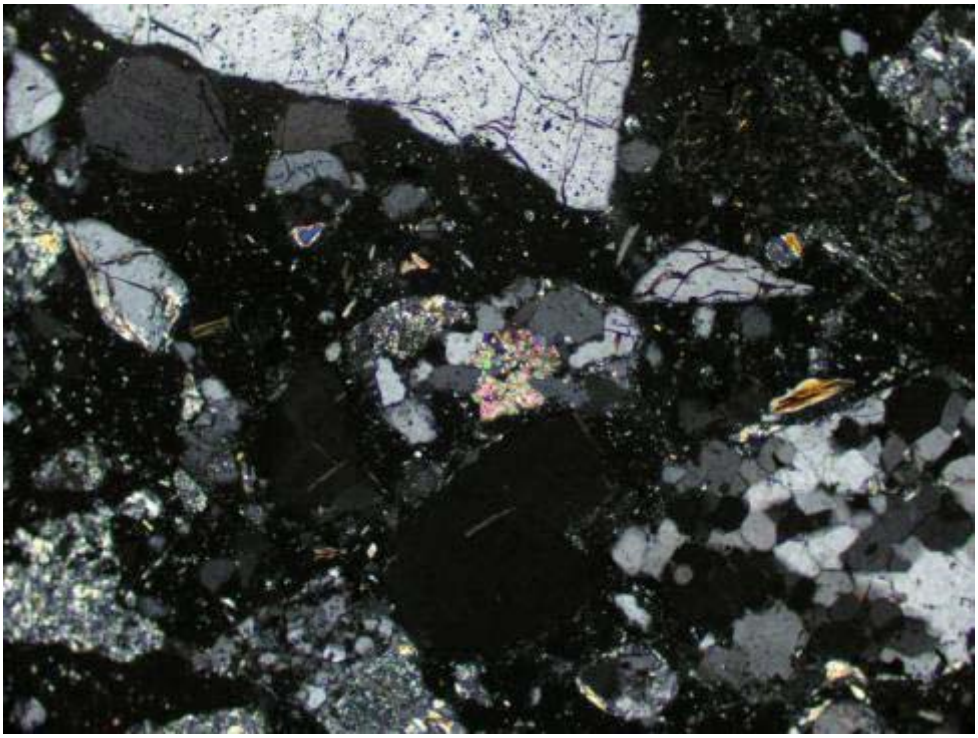


A



B

"B" 11486-001 AT comp-10m: Representative chips muscovite (sericite)-altered fine-grained rock, quartz-biotite-bearing rock, quartz vein fragments and sulphide grains (opaque). A) PPL, B) XPL, FOV =~ 4.5 mm.



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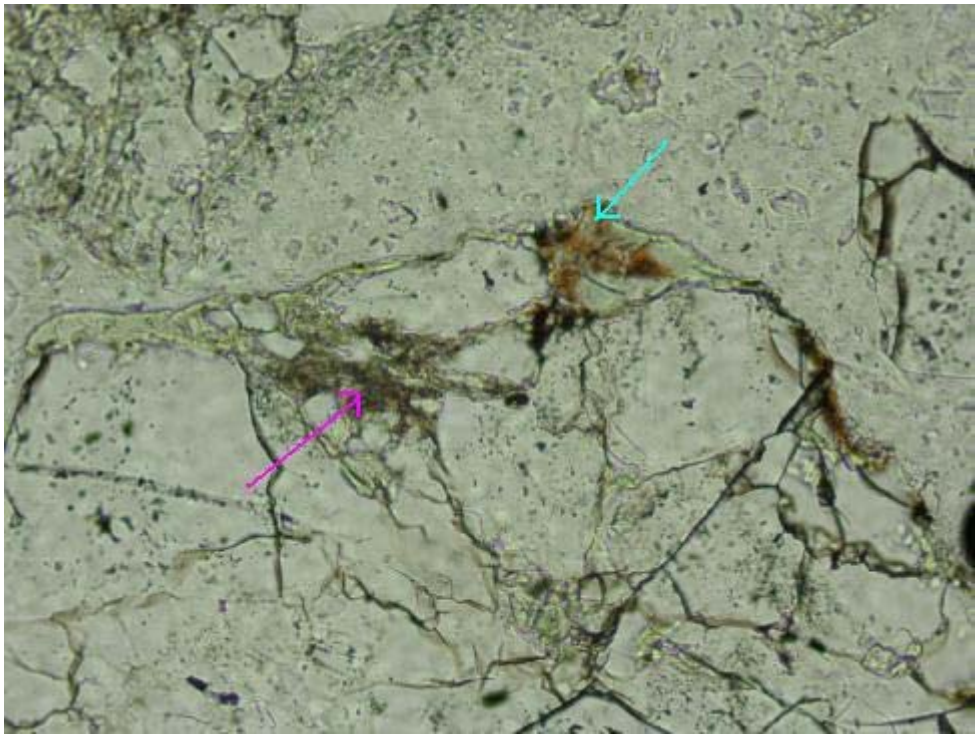
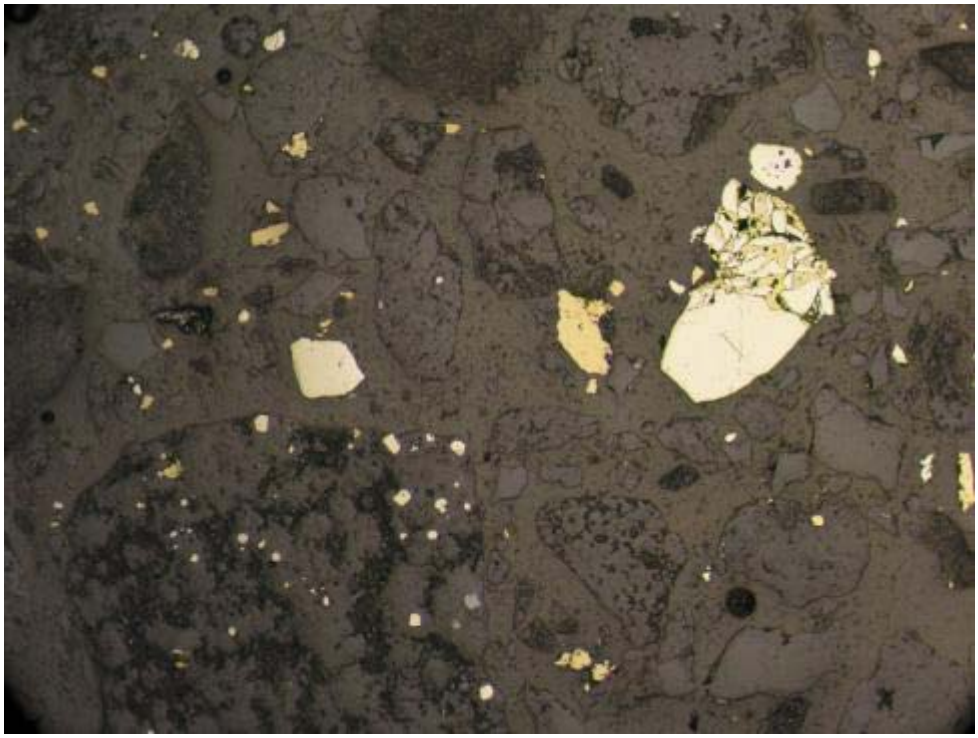
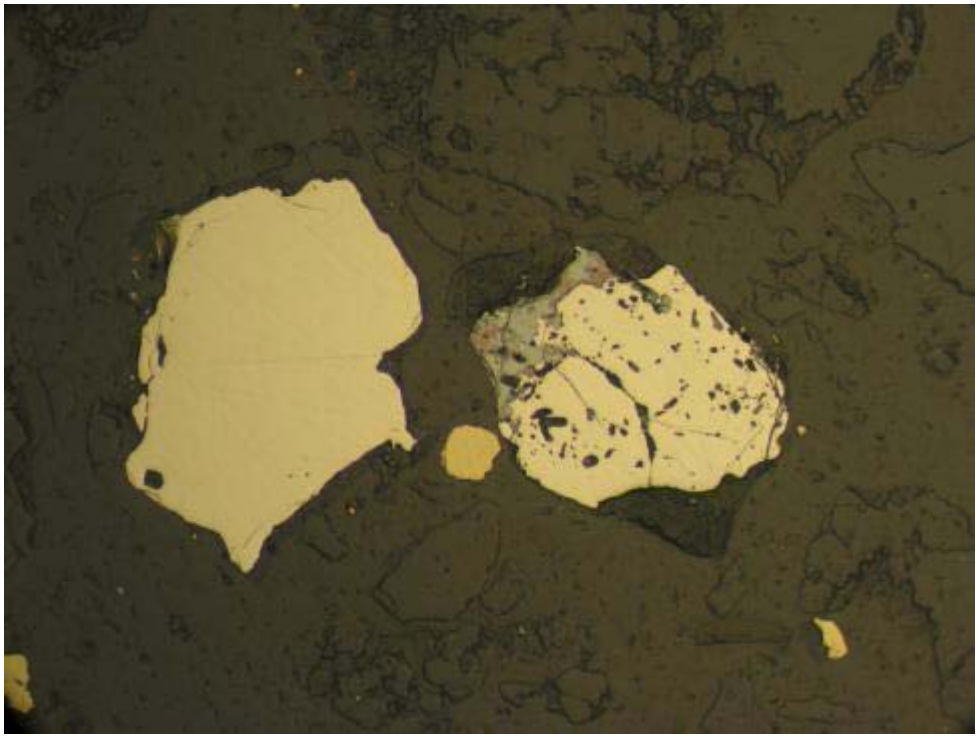


D

"B" 11486-001 AT comp-10m: C) Top: Very fine-grained colourless carbonate aggregate within quartz-sericite altered fragment. XPL, FOV =~ 1.3 mm. D) Bottom: Detailed view of disseminated hematite associated with chlorite infill of quartz vein (blue arrow right of centre). Note very fine-grained brown carbonate overprints colourless carbonate infill to quartz vein (pink arrow left of centre). PPL, FOV =~ 1.3 mm



E



F

"B" 11486-001 AT comp-10m: E) Top: Overview of typical sulphide distribution as liberated grains and disseminated in rock fragments. Note pyrite and chalcopyrite have clean rims. RL, FOV =~ 2.8 mm, F) Bottom: Detailed view of pyrite grains. Note grain on right is associated with bornite (partly replaced by chalcocite and covellite). The grain on the right is pitted but without alteration rims. RL, FOV =~ 0.7 mm.

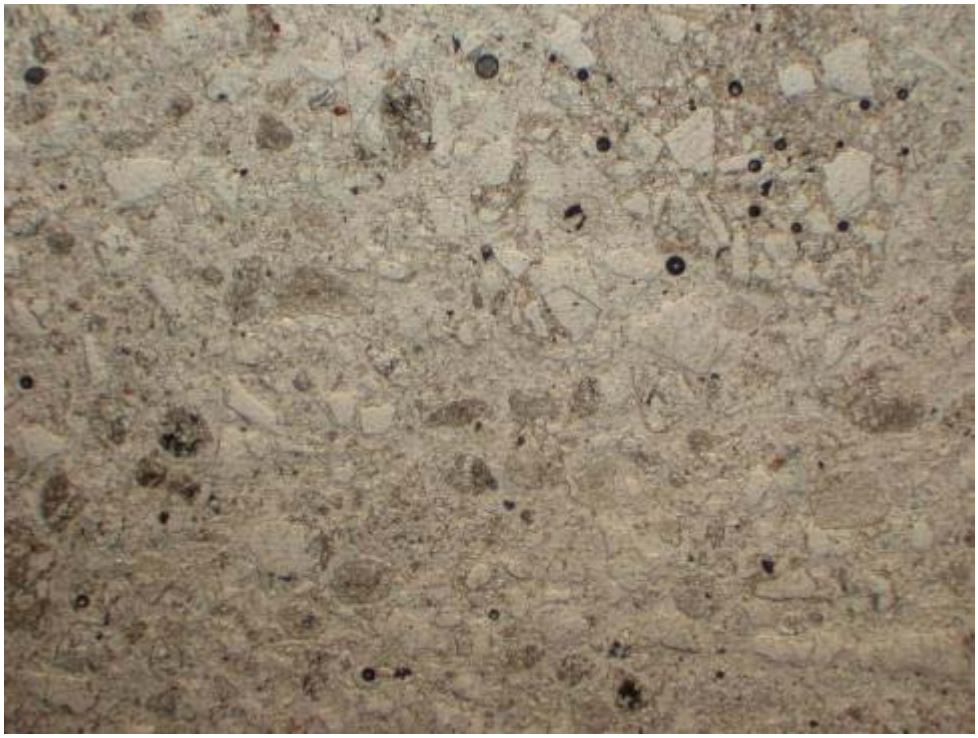
Project #: 0441
Sample ID: "A" 11486-003

Chip/Powder and Offcut Mount Description:
Yellowish-gray, fine grains and powder (< 1mm size). Trace reaction of chips to cold dilute HCl. No reaction to magnet.

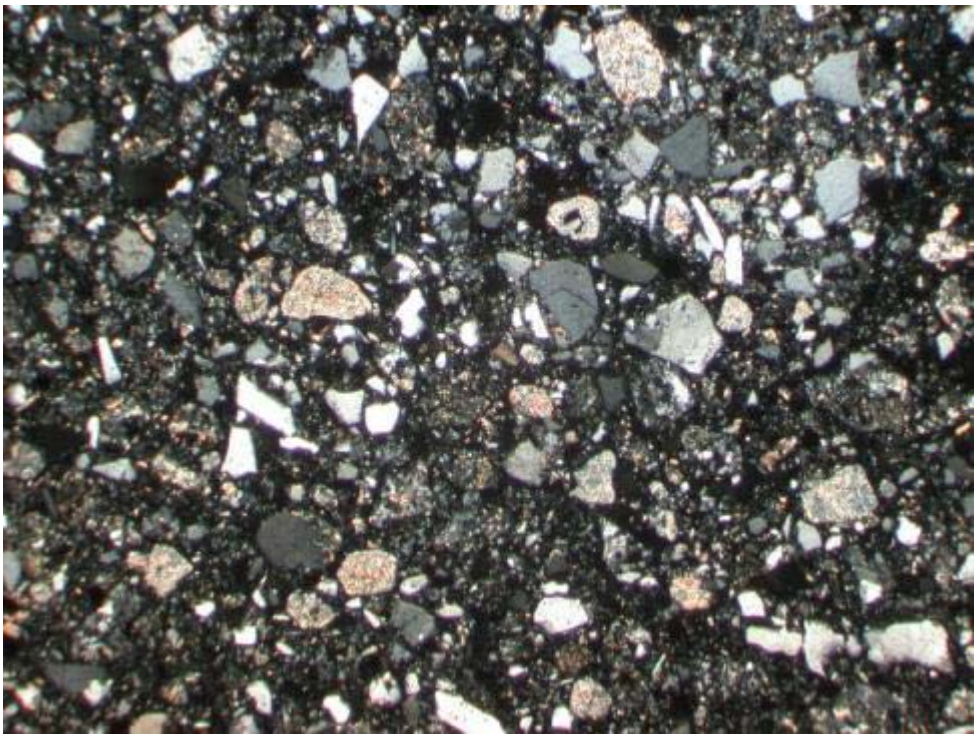
Polished Thin Section Description:
Mixed fine chips (< 0.7 mm) and powder comprising muscovite (sericite) aggregate, quartz-sericite-biotite aggregate, quartz-carbonate-sericite aggregate, anhedral quartz grains and aggregates and liberated carbonate, biotite, muscovite (sericite), hematite, pyrite and chalcopyrite. Muscovite (sericite)-altered aggregate comprises approximately 15% of the section and occurs as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Brown biotite occurs in trace amounts as fine liberated plates and very fine-grained aggregates within quartz-biotite-sericite aggregate; biotite is partly replaced by sericite and locally by chlorite. Chlorite occurs as approximately 1% of the section. Traces of liberated titanite grains.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as fine to very fine-grained, colourless anhedral grains and patchy aggregates with sericite-quartz and quartz aggregate and as liberated grains and aggregates. Rare traces of very fine-grained brown carbonate occur replacing colourless carbonate.

Sulphide occurs in trace amounts dominantly as pyrite and chalcopyrite with traces of sphalerite. Pyrite, is fine to very fine-grained (< 0.07mm), sub-anhedral and variably pitted. It occurs as disseminated grains and aggregates in fragments and as liberated grains. Pyrite is locally enclosed by chalcopyrite aggregate. Pyrite boundaries are irregular but clean and unaltered. Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within fragments and liberated grains. One grain of sphalerite was observed as a liberated grain. Traces of very fine-grained hematite (numerous grains) occur as liberated grains and within sericite-altered fragments. The fragment adjacent to the hematite grains is typically stained a red-brown to yellow colour. Traces of an unknown yellow Fe-ox/hydroxide grain occur locally.

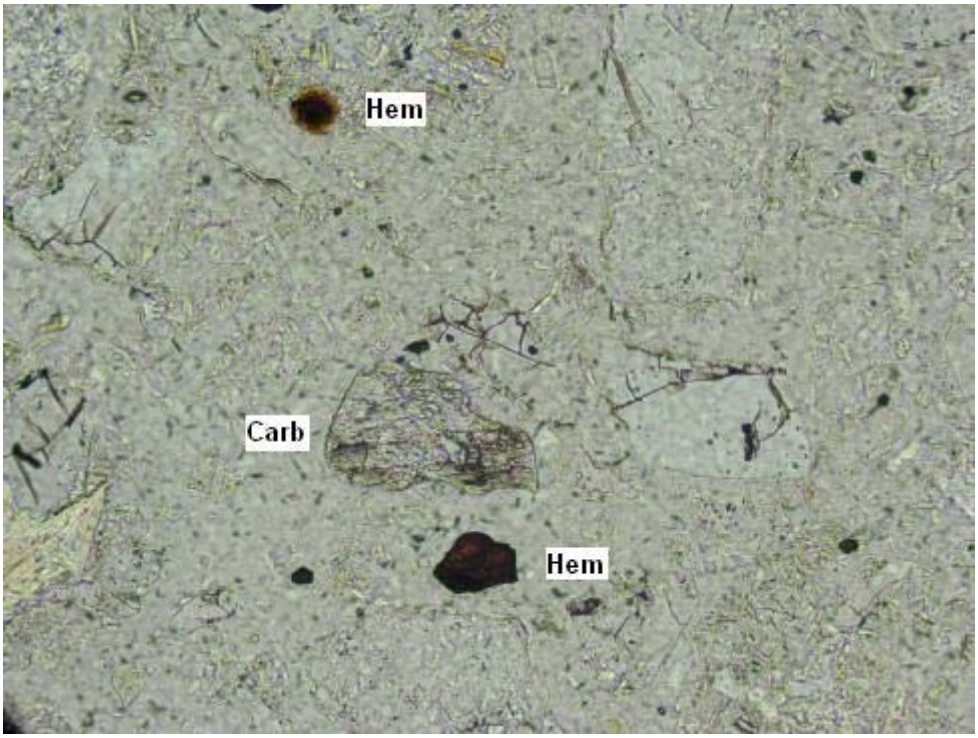


A



B

"A" 11486-003: Representative chips of muscovite (sericite) aggregate, anhedral quartz grains and aggregates and traces of sulphide (opaque). A) PPL, B) XPL, FOV =~ 4.5 mm.



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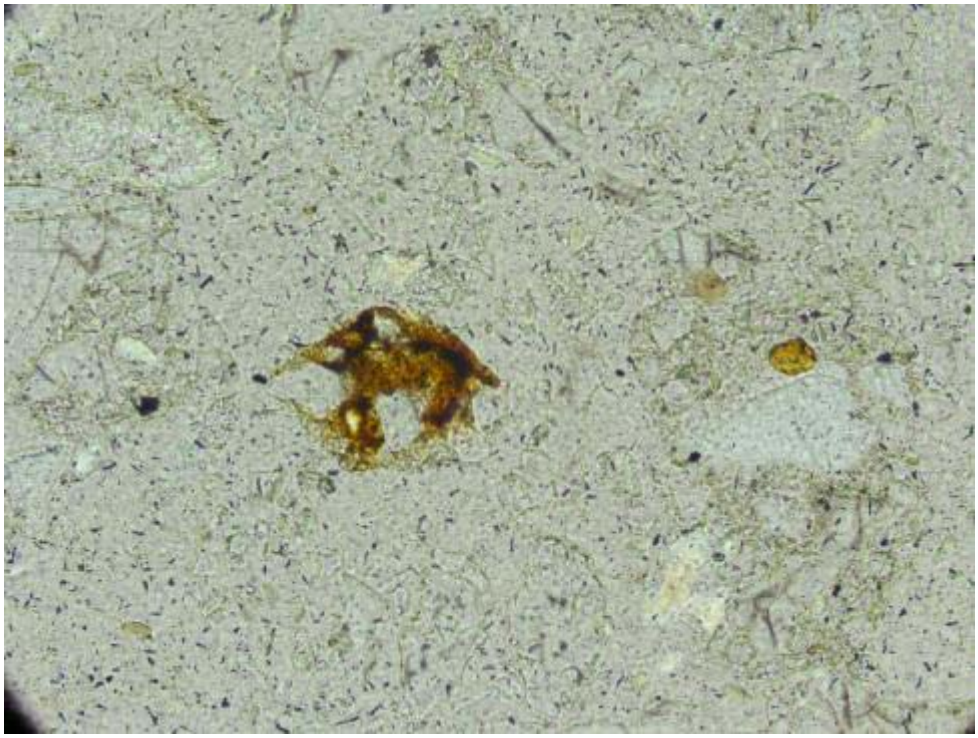
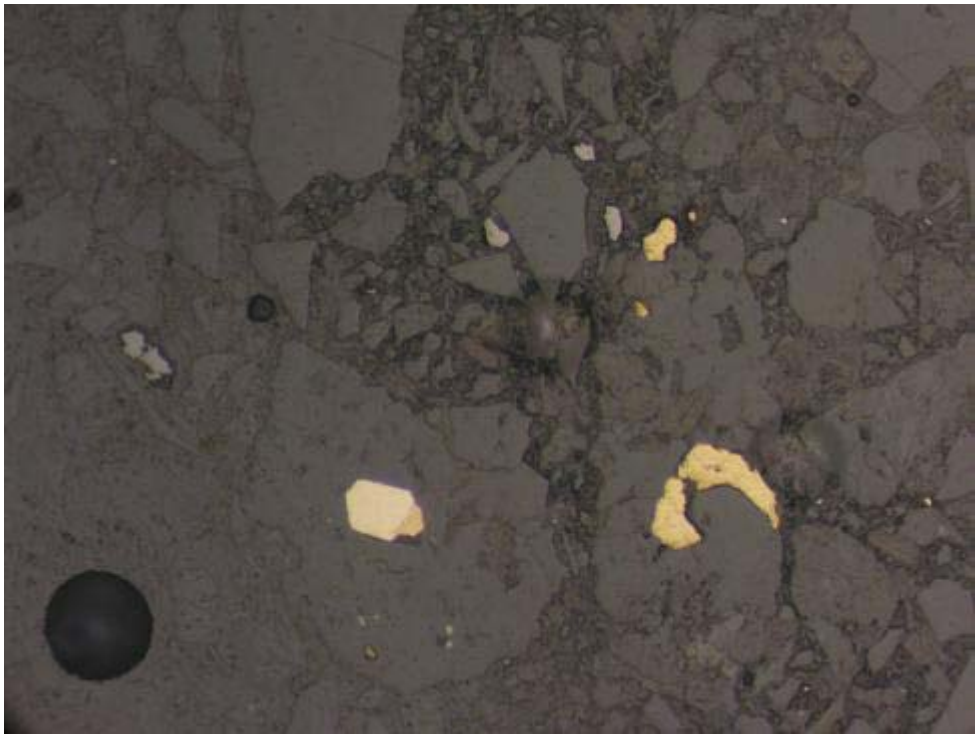


D

"A" 11486-003: C) Top: Liberated colourless carbonate and hematite grains. PPL, FOV =~ 0.7 mm, D) Bottom: Hematite with red-brown stained host fragment (centre). Note yellow Fe-ox grain to right of photo. PPL, FOV =~ 0.7 mm

E



F

"A" 11486-003: E) Top: Representative view of trace pyrite and chalcopyrite distribution RL, FOV =~ 2.8 mm, F) Bottom: Disseminated pyrite and chalcopyrite grains with clean unaltered boundaries. Note disseminated rutile grains (left and top). RL, FOV =~ 0.7 mm.

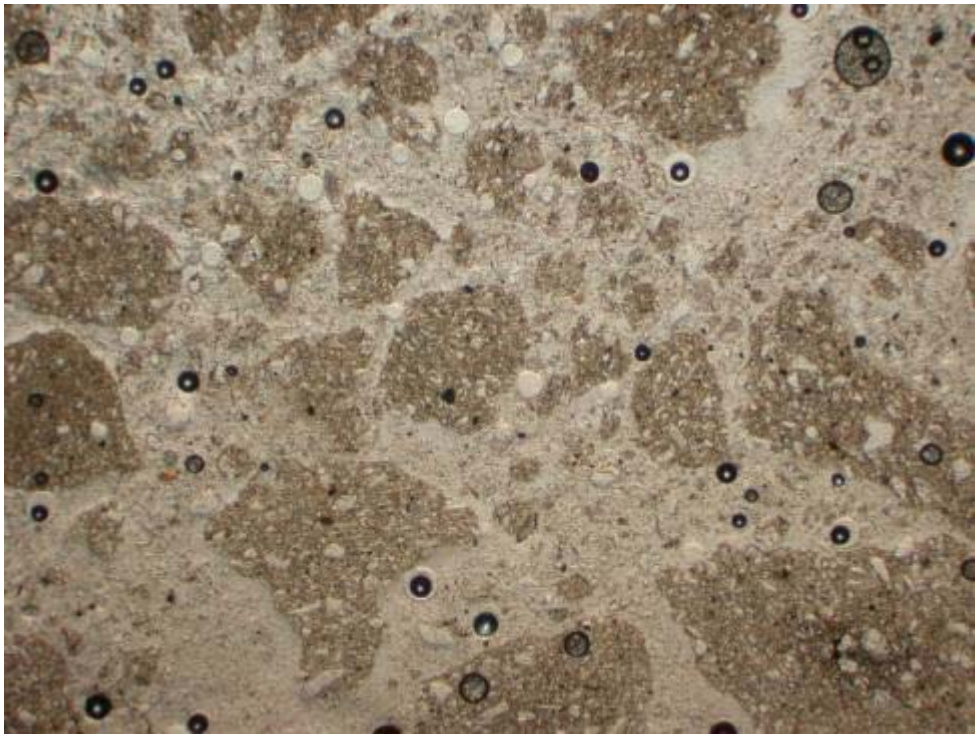
Project #: 0441
Sample ID: 11486-005

Chip/Powder and Offcut Mount Description:
Yellowish-gray, fine grains and powder (< 1mm size). No reaction of chips to cold dilute HCl. No reaction to magnet.

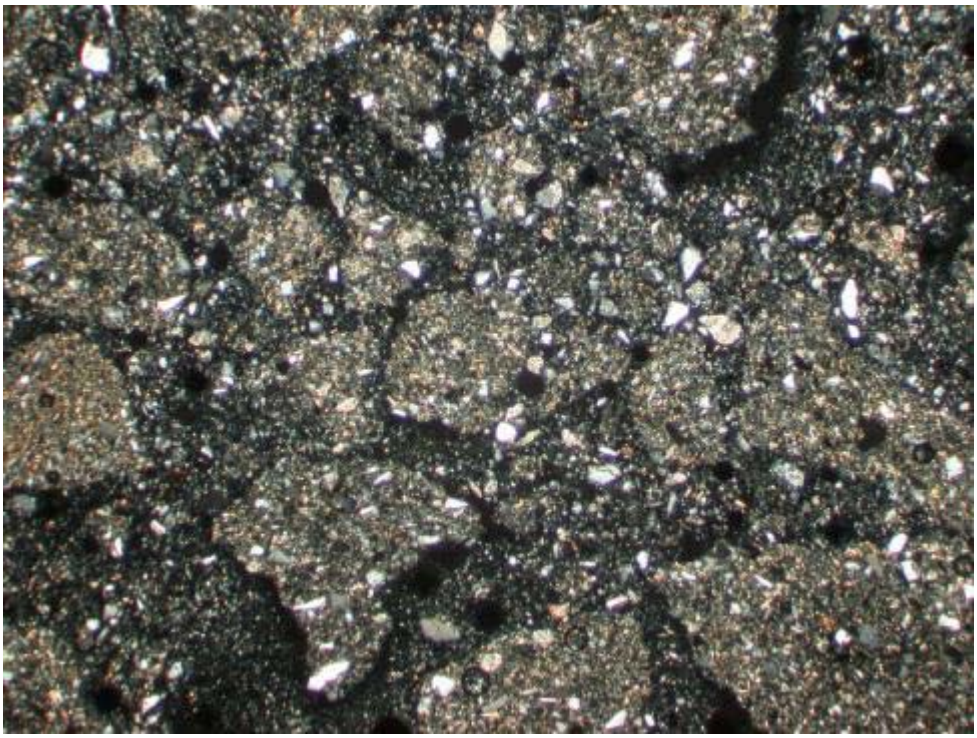
Polished Thin Section Description:
Mixed fine grains (< 0.2 mm) and clumping powder comprising muscovite (sericite) aggregate, anhedral quartz grains and aggregates, rare quartz-carbonate aggregate and liberated carbonate, biotite, muscovite (sericite), hematite, pyrite and chalcopyrite. Muscovite (sericite)-altered aggregate and liberated plates comprise approximately 20% of the section and occur as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Minor brown biotite, approximately 1%, occurs as fine liberated plates; biotite is partly replaced by traces of chlorite.

Total carbonate occurs as rare trace amounts in the section. Carbonate occurs as fine to very fine-grained, colourless anhedral grains and patchy aggregates with sericite-quartz aggregate and as liberated grains and aggregates.

Sulphide occurs rarely in trace amounts dominantly as pyrite with lesser chalcopyrite. Pyrite, is very fine-grained and sub-anhedral. It occurs as liberated grains. Pyrite boundaries are irregular but mostly clean and unaltered. One grain of pyrite was observed with a red-brown Fe-oxy/hydroxide rim (see photos). Trace chalcopyrite occurs disseminated as very fine-grained, ragged, anhedral liberated grains. Minor hematite, approximately 1%, occurs as very fine liberated grains and as aggregates within clumping powder.

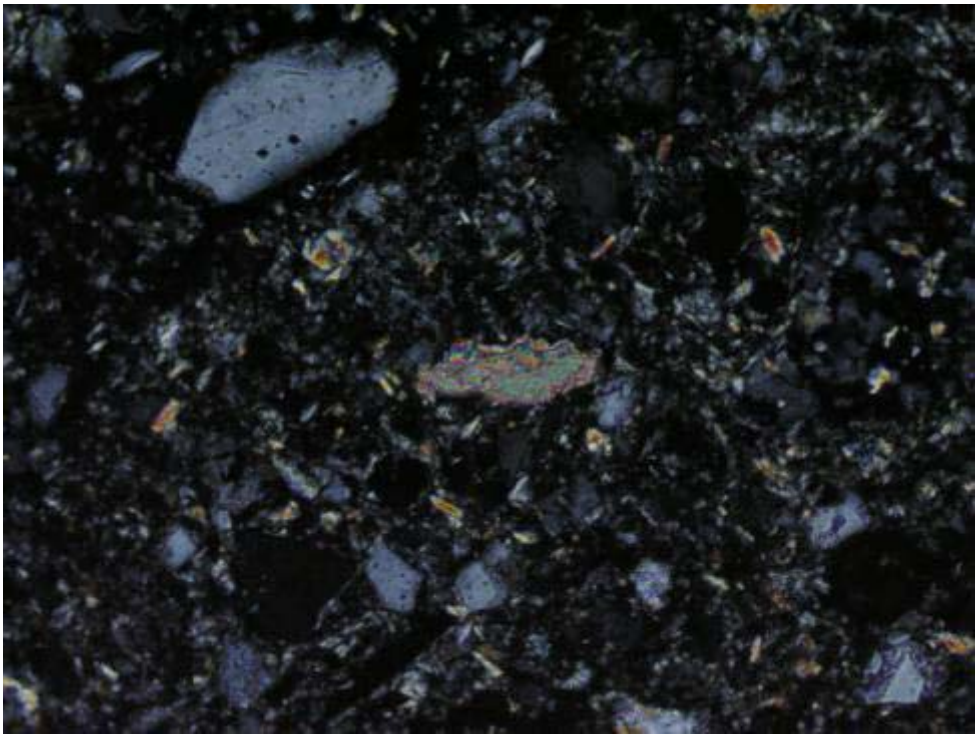


A

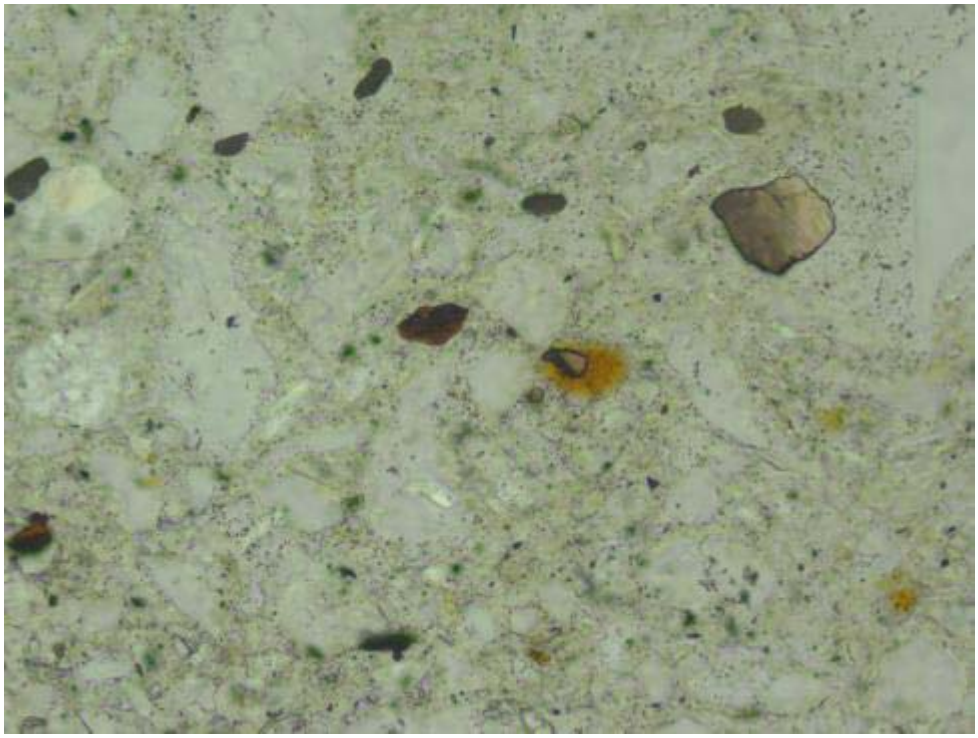


B

11486-005: General view of fine muscovite (sericite) aggregate, quartz grains and aggregates and clumping powder. A) PPL, B) XPL, FOV =~ 4.5 mm.

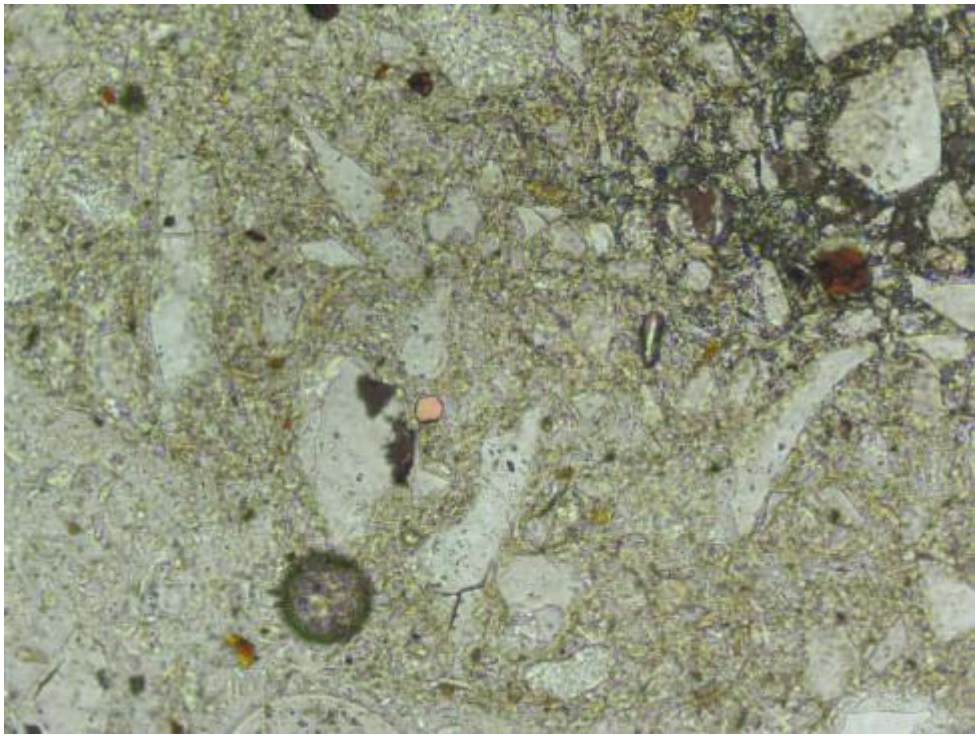


C

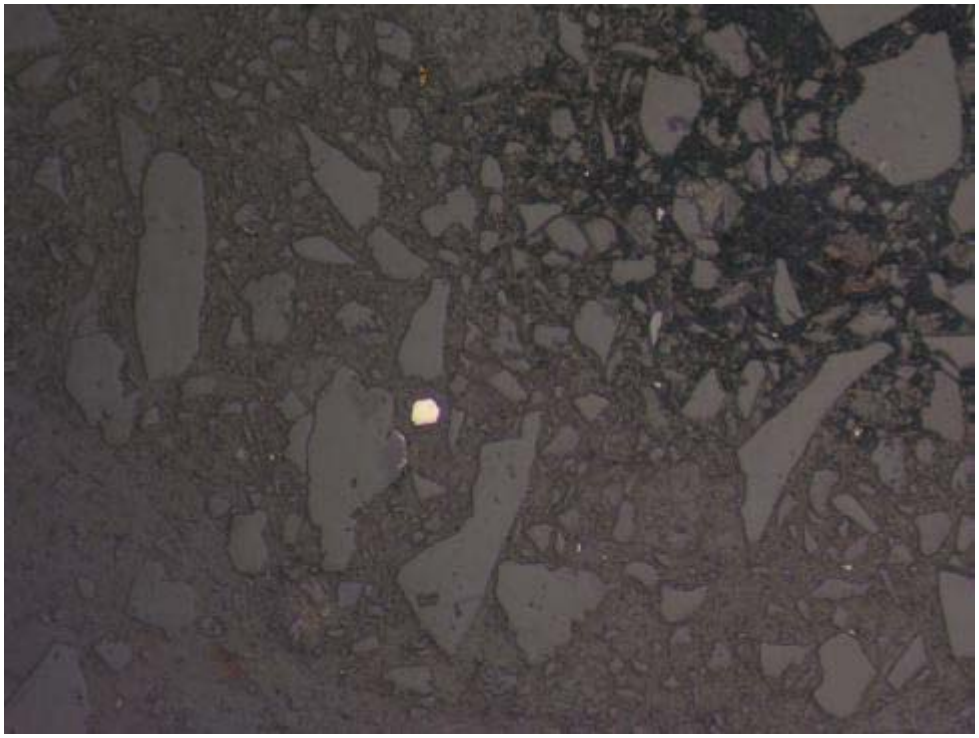


D

11486-005: C) Top: Liberated grain of colourless carbonate (centre). XPL, FOV =~ 0.7 mm. D) Bottom: Rare grain of pyrite rimmed by red-brown Fe-oxy/hydroxide stain (just right of centre). Liberated hematite grain (centre). PPL+RL, FOV =~ 0.35 mm



E



F

11486-005: E & F) Top: Grain of pyrite (centre) with clean unaltered boundaries. Grains of very fine-grained hematite adjacent to pyrite, at far right and top & bottom of photo. E) PPL+RL, F) RL, FOV =~ 0.7 mm.

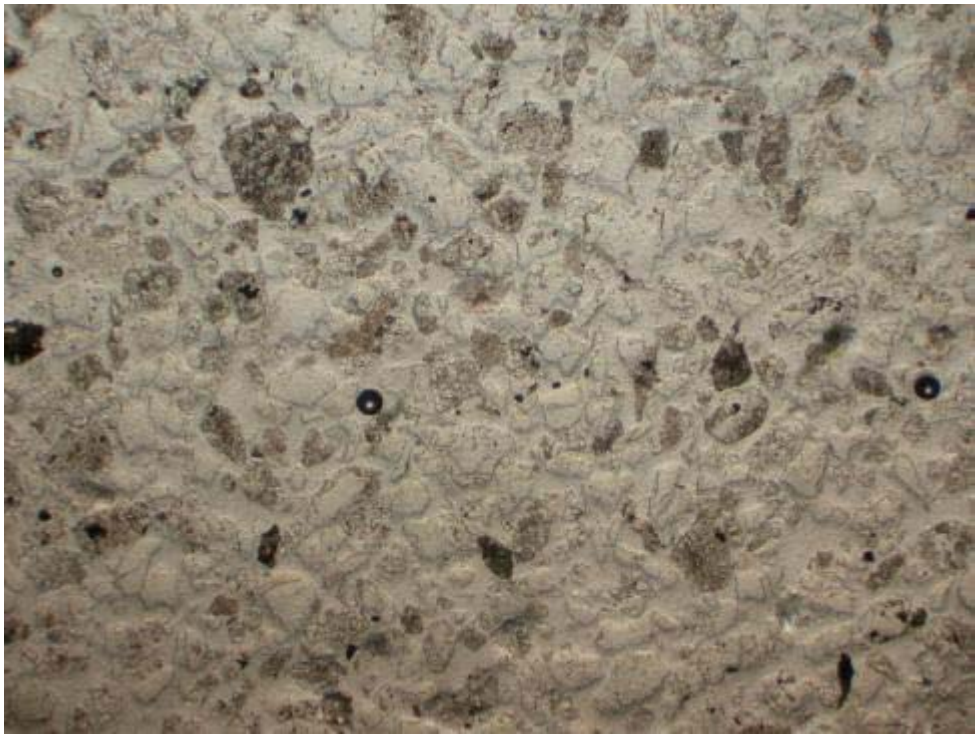
Project #: 0441
Sample ID: 11486-006

Chip/Powder and Offcut Mount Description:
Very light gray with traces of black, fine grains and powder (< 1mm size). Trace reaction of chips to cold dilute HCl. No reaction to magnet.

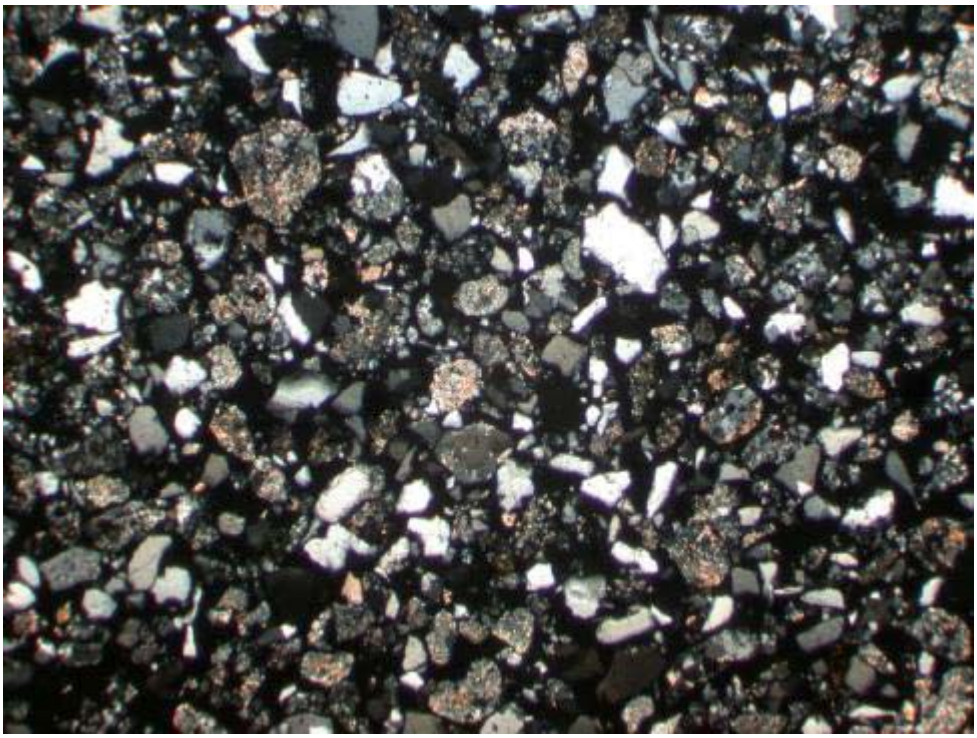
Polished Thin Section Description:
Mixed fine chips (< 0.7 mm) and powder comprising muscovite (sericite) aggregate, quartz-biotite aggregate, quartz-sericite-rutile aggregate, chlorite-carbonate-quartz-rutile aggregate, anhedral quartz grains and aggregates and liberated carbonate, biotite, hematite, pyrite and chalcopyrite. Muscovite (sericite)-altered aggregates comprise approximately 15% of the section and occurs as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Brown biotite, approximately 2%, occurs in trace amounts as fine liberated plates and very fine-grained aggregates within quartz-biotite aggregate. Chlorite occurs in trace amounts associated with carbonate aggregate. Traces of liberated rutile grains.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as fine to very fine-grained, colourless anhedral grains and patchy aggregates with chlorite and quartz, quartz aggregate and as liberated grains and aggregates. Very fine-grained hematite occurs partly replacing carbonate in one liberated grain.

Sulphide occurs in trace amounts dominantly as pyrite and chalcopyrite with one grain of ?arsenopyrite observed. Pyrite, is fine to very fine-grained (< 0.2mm), sub-anhedral and variably pitted and fractured. It occurs as disseminated grains and aggregates in fragments and as liberated grains. Pyrite is locally enclosed by chalcopyrite aggregate. Pyrite boundaries are irregular but clean and unaltered. Trace chalcopyrite occurs disseminated as very fine-grained, ragged, anhedral grains, aggregates within fragments and liberated grains. Very fine-grained hematite occurs rimming and virtually replacing a grain of ?arsenopyrite. Hematite also occurs as very fine-grained aggregates adjacent to quartz-sericite aggregate.

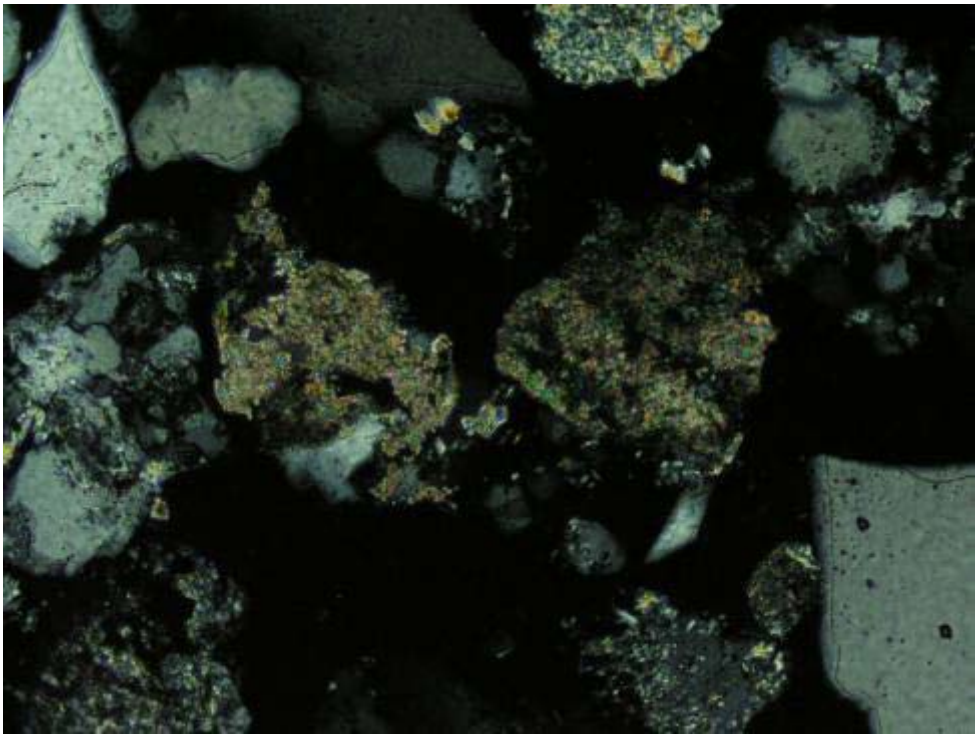


A

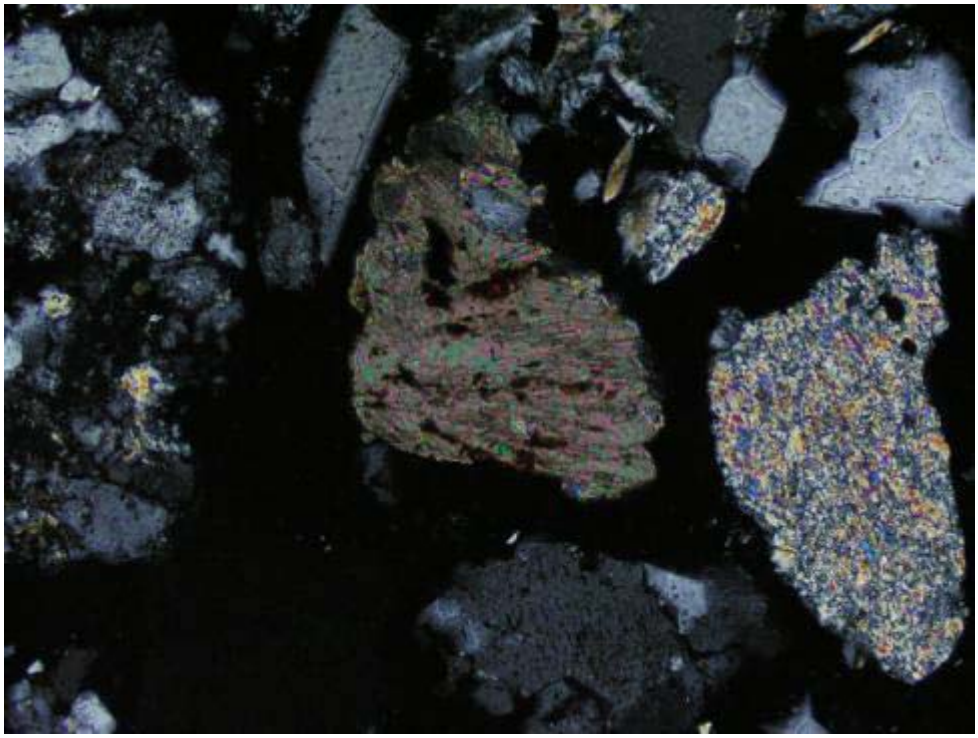


B

11486-006: General view of muscovite (sericite) aggregate and anhedral quartz grains and aggregates. Liberated carbonate grain centre. A) PPL, B) XPL, FOV =~ 4.5 mm.

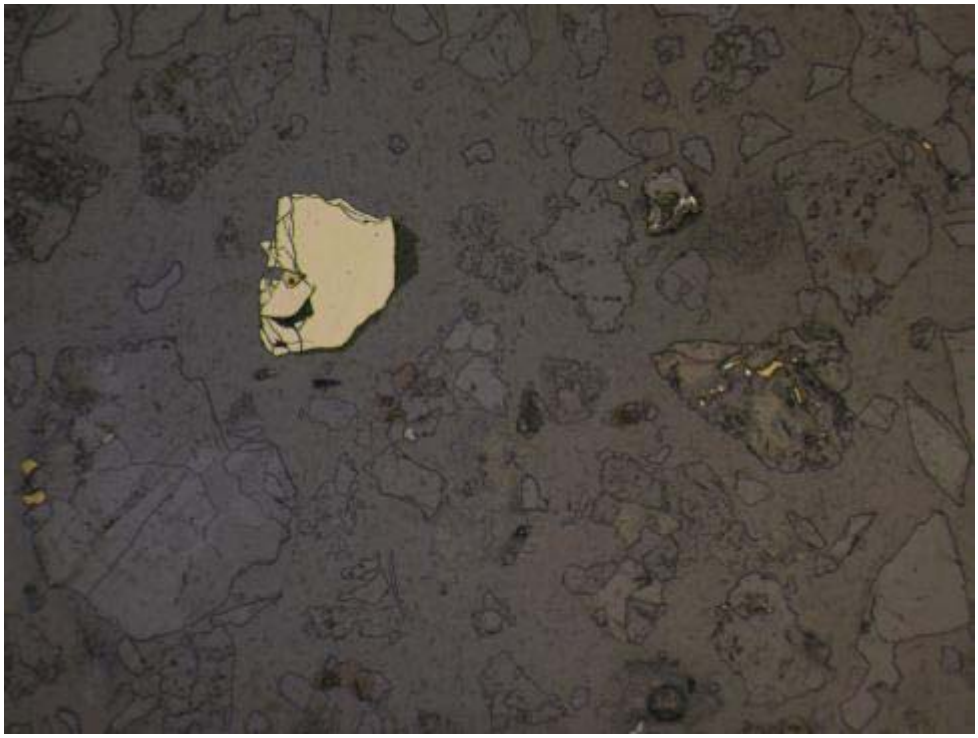


C



D

11486-006: C) Top: Very fine-grained carbonate-chlorite±quartz aggregate (centre) as two chips. XPL, FOV =~ 0.7 mm. D) Bottom: Liberated carbonate fragment partly replaced by very fine-grained hematite. XPL, FOV =~ 0.7 mm



E

F

11486-006: E) Top: Fine-grained anhedral fracture pyrite with no alteration rims (left), hematite-altered grain (top right) and epidote-carbonate-chalcopyrite aggregate (centre-right). RL, FOV =~ 1.3 mm. F) Bottom: Detailed view of hematite aggregate (enlarged from photo E) rimming and replacing relict ?arsenopyrite. RL, FOV = ~0.35 mm

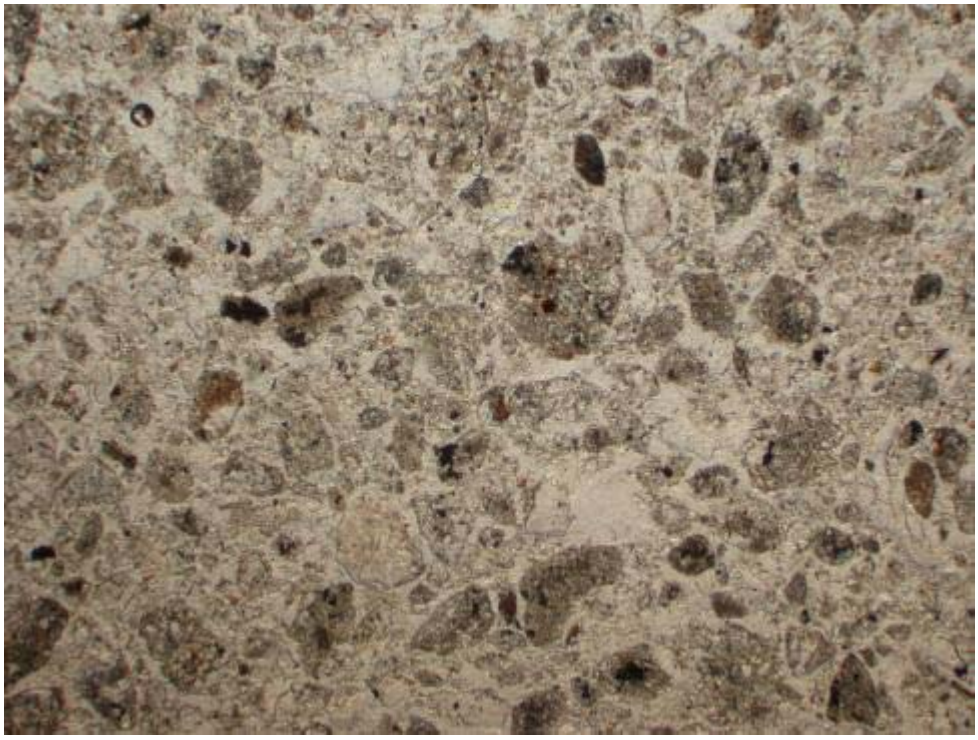
Project #: 0441
Sample ID: PP08-3365

Powder Description: (impregnated mount not available)
Fine pinkish-gray powder. Trace reaction of chips to cold dilute HCl. No reaction to magnet.

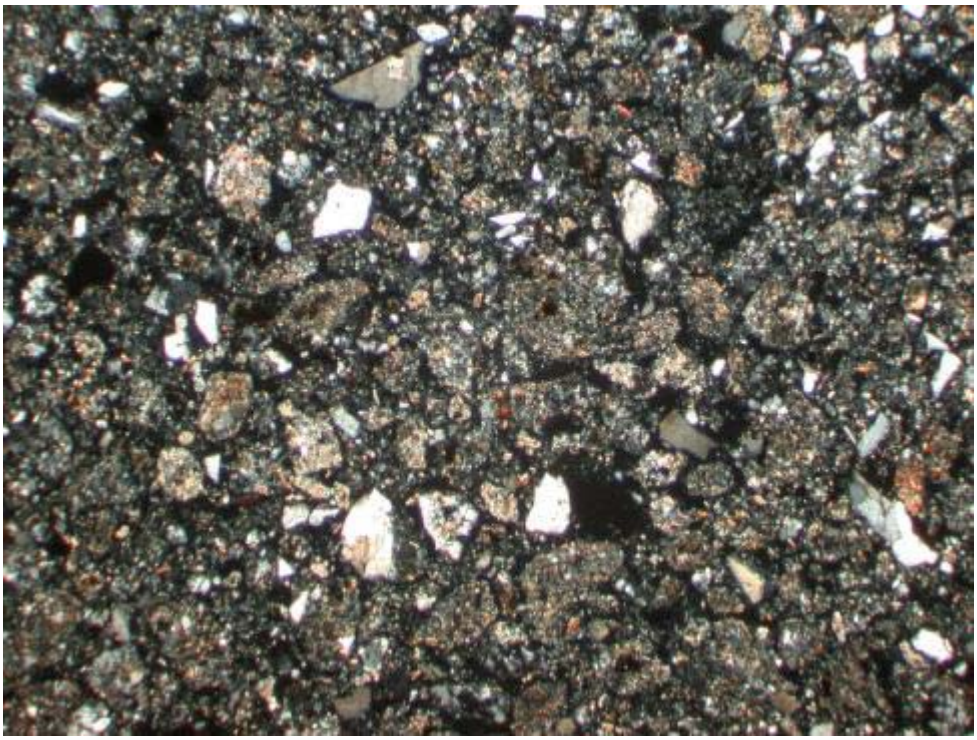
Polished Thin Section Description:
Mixed fine chips (< 1 mm) and powder comprising muscovite (sericite) ± rutile aggregate, quartz-biotite ± chlorite aggregate, biotite-sericite aggregate, anhedral quartz grains and aggregates and liberated biotite, chlorite aggregate, hematite, pyrite, chalcopyrite and rarely carbonate grains. Muscovite (sericite)-altered aggregate comprises approximately 10% of the section and occurs as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Brown biotite, approximately 15% of the section, occurs as fine liberated plates and very fine-grained aggregates within quartz-biotite and biotite-sericite aggregate; biotite is partly replaced by sericite and locally by traces of chlorite. Traces of liberated rutile grains.

Carbonate in the section is rare. Traces of very fine-grained, colourless anhedral grains and patchy aggregates occur with quartz and quartz-biotite aggregate and as liberated grains.

Sulphide occurs in minor amounts, approximately 2%, dominantly as pyrite and chalcopyrite with traces of molybdenite. Pyrite, approximately 1%, is fine to very fine-grained (< 0.15mm), sub-anhedral and occurs as disseminated grains and aggregates in fragments and as liberated grains. Pyrite is locally enclosed by chalcopyrite aggregate. Pyrite boundaries are irregular but typically clean and unaltered. One pyrite grains is observed with a black rim, possibly alteration material plucked from section (see photos). Chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within fragments and liberated grains. Traces of very fine-grained hematite (numerous grains) occur as liberated grains and within biotite-bearing fragments. The fragments adjacent to the hematite grains are typically stained a red-brown colour. One grain of relict ?unknown is rimmed and virtually replaced by hematite (see photos).

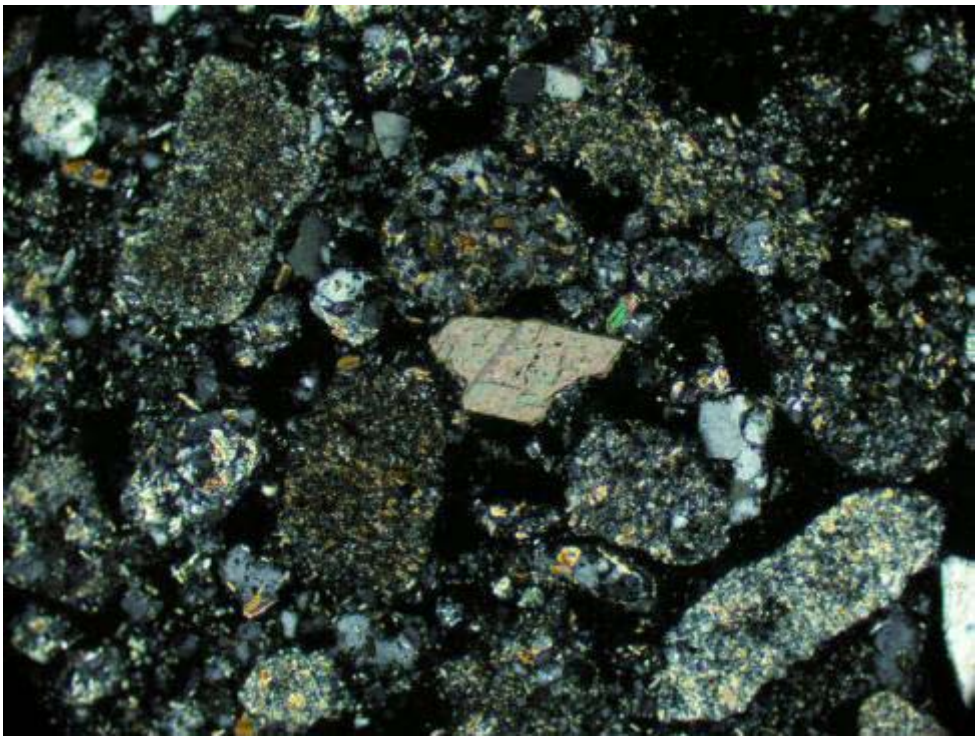


A

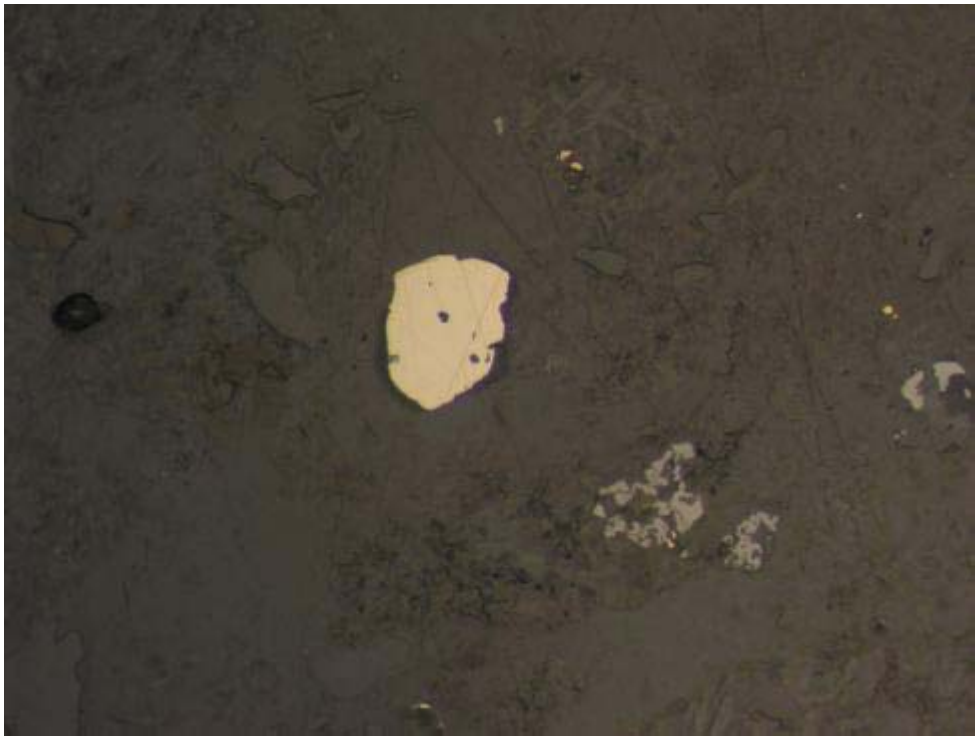


B

PP08-3365: Representative chips of pervasively muscovite (sericite), quartz-biotite and biotite-sericite aggregate and anhedral quartz grains and aggregates. A) PPL, B) XPL, FOV =~ 4.5 mm.

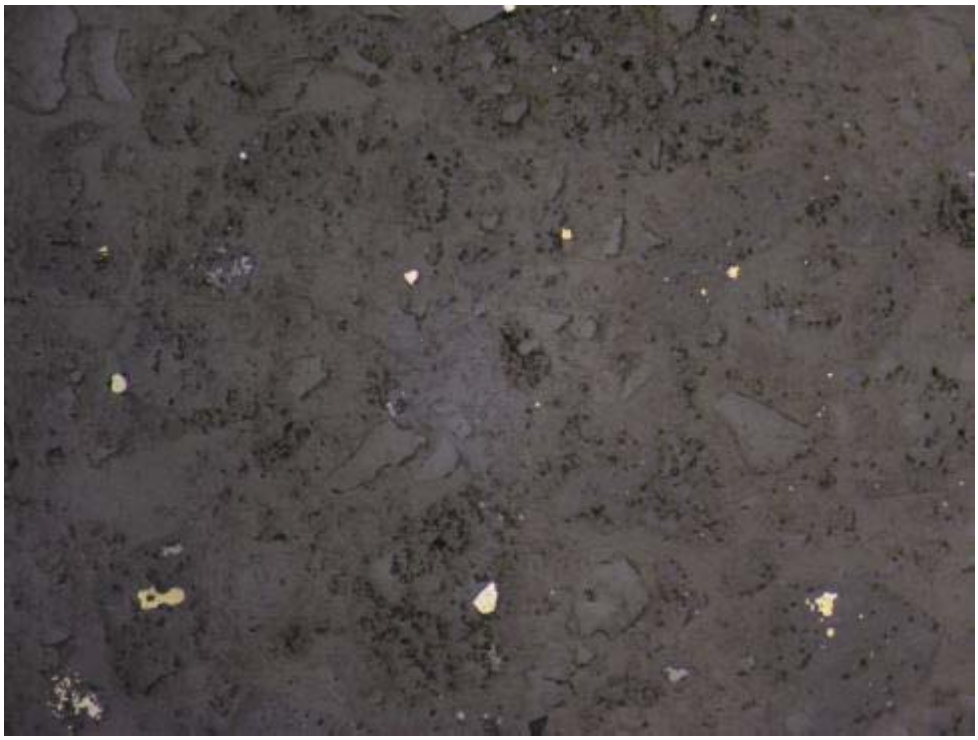


C

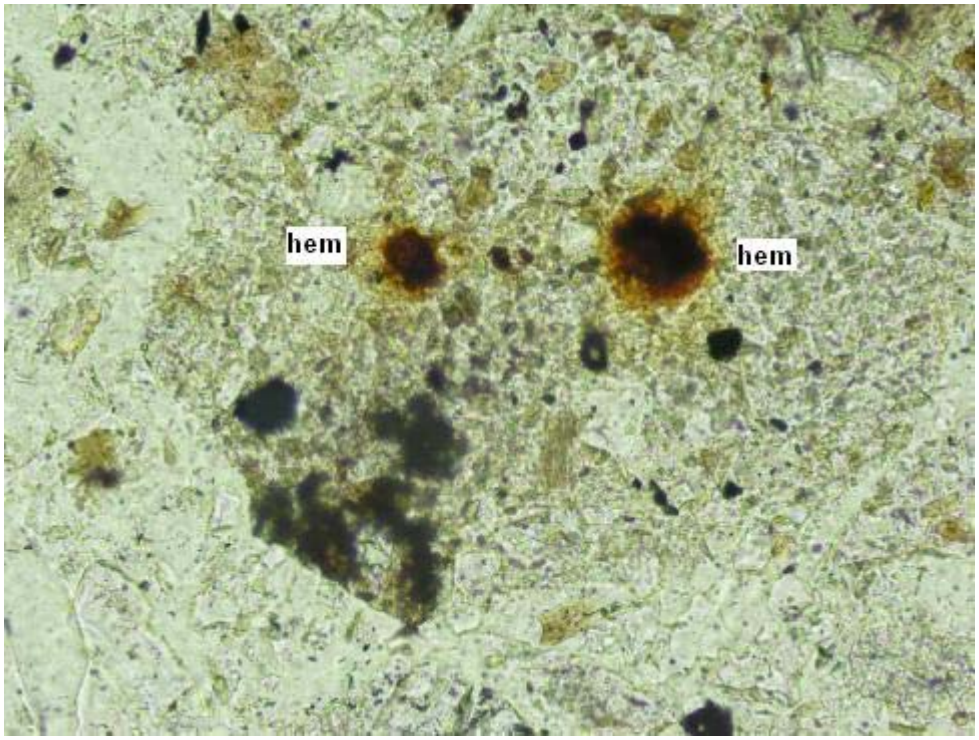


D

PP08-3365: C) Top, Liberated colourless carbonate grain (centre) with adjacent biotite and sericite-altered chips. XPL, FOV =~ 1.3 mm, D) Bottom: Liberated pyrite grain (centre) with unaltered boundaries. Aggregates of rutile (gray). RL, FOV = 1.0 mm

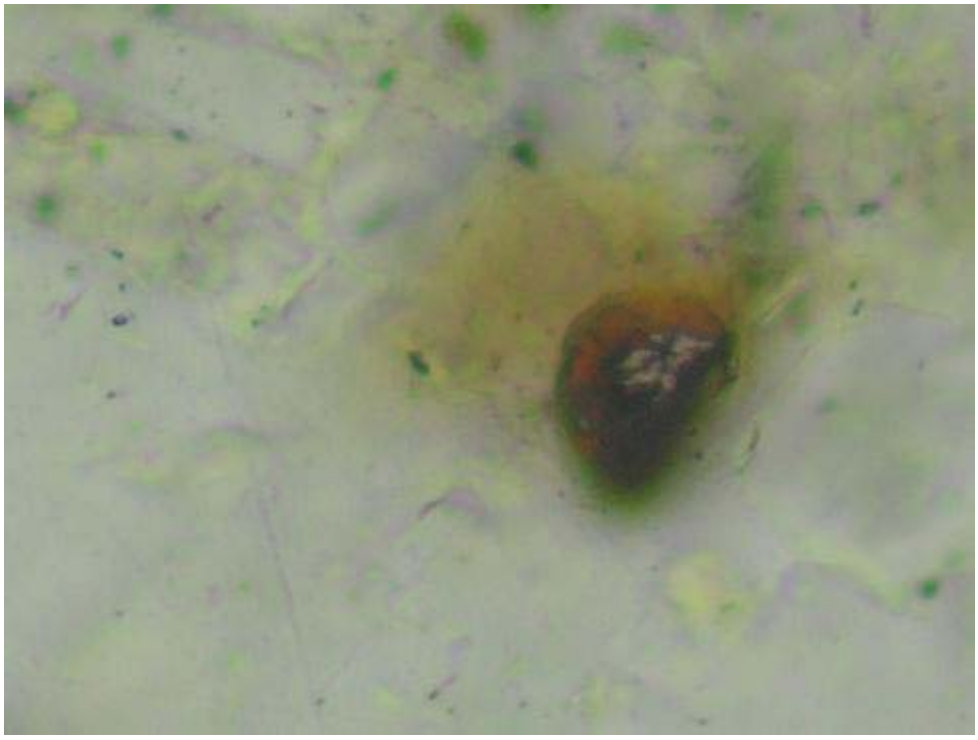


E

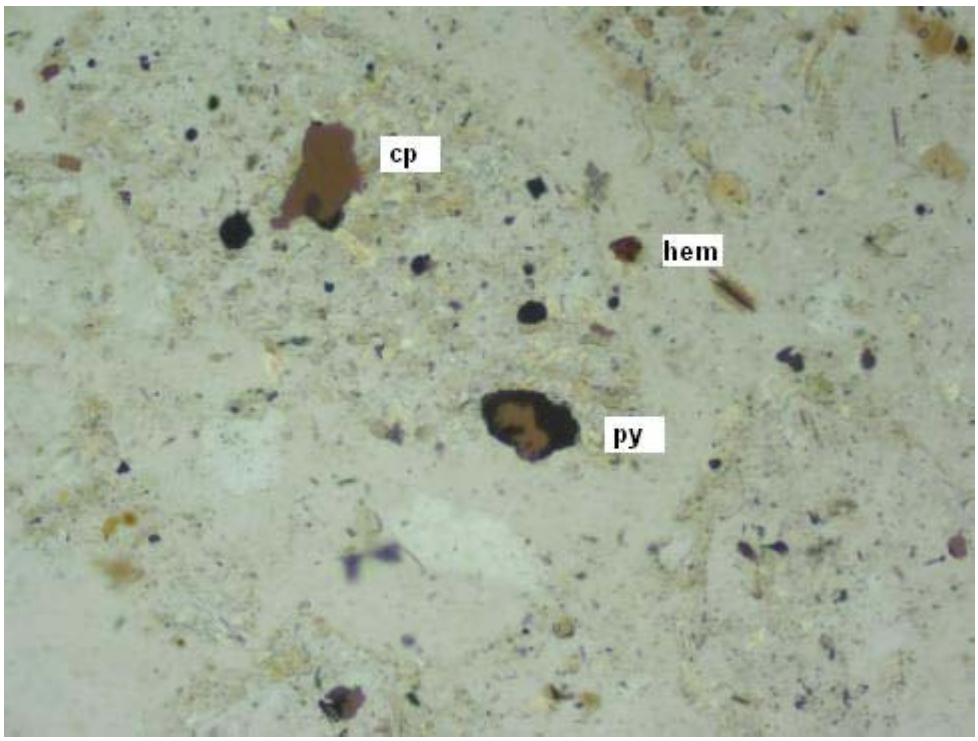


F

PP08-3365: E) Top: Overview of tailings showing distribution of pyrite and chalcopyrite grains. RL, FOV =~ 2.8 mm, F) Bottom, Two grains of hematite (label: hem) with red-brown stained hostrock (quartz-biotite chip). PPL, FOV =~ 0.7 mm.



G



H

PP08-3365: G) Top: Grain of ?unknown rimmed and virtually replaced by hematite. PPL+RL, FOV =~ 0.1 mm, H) Bottom: Disseminated grains of chalcopyrite (cp), hematite (hem) and pyrite (py). Note black rim around pyrite grain- possibly alteration material plucked from section. PPL+RL, FOV =~ 0.35 mm.

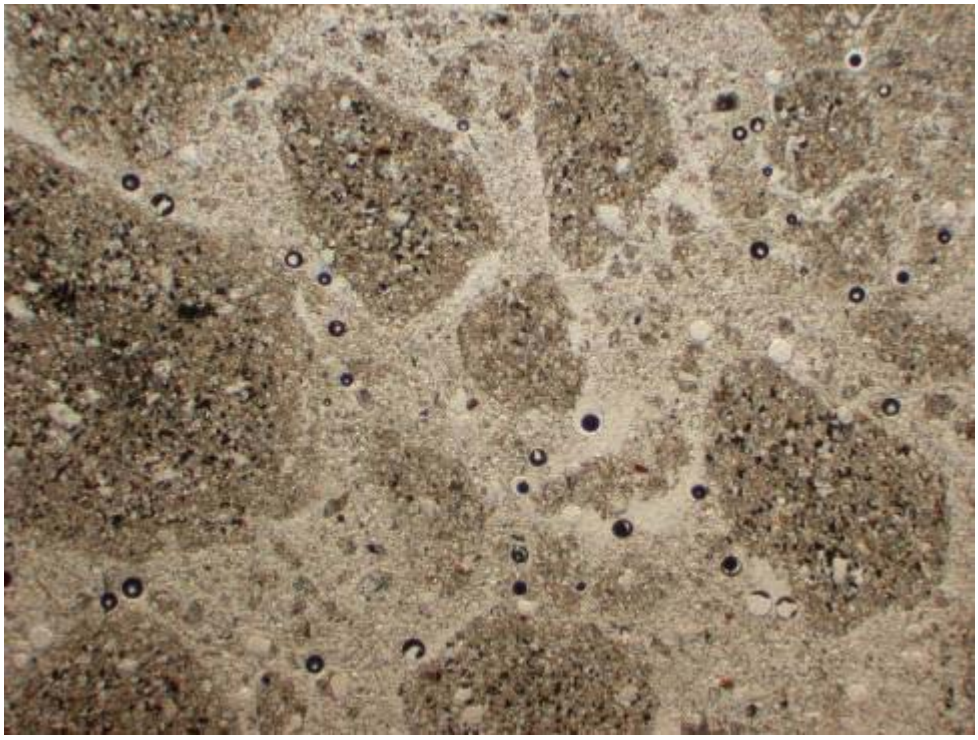
Project #: 0441
Sample ID: PP08-3607

Powder Description: (impregnated mount not available)
Fine pinkish-gray powder. Trace reaction of chips to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed fine grains (< 0.2 mm) and clumping powder comprising muscovite (sericite) aggregate, anhedral quartz grains and aggregates, liberated carbonate, biotite, muscovite (sericite), hematite, pyrite and chalcopyrite. Muscovite (sericite)-altered aggregate and liberated plates comprise approximately 10% of the section and occur as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Major brown biotite, approximately 20%, occurs as fine to very fine-grained liberated plates; biotite is partly replaced by traces of chlorite.

Traces of carbonate in the section occur as very fine-grained, colourless anhedral liberated grains.

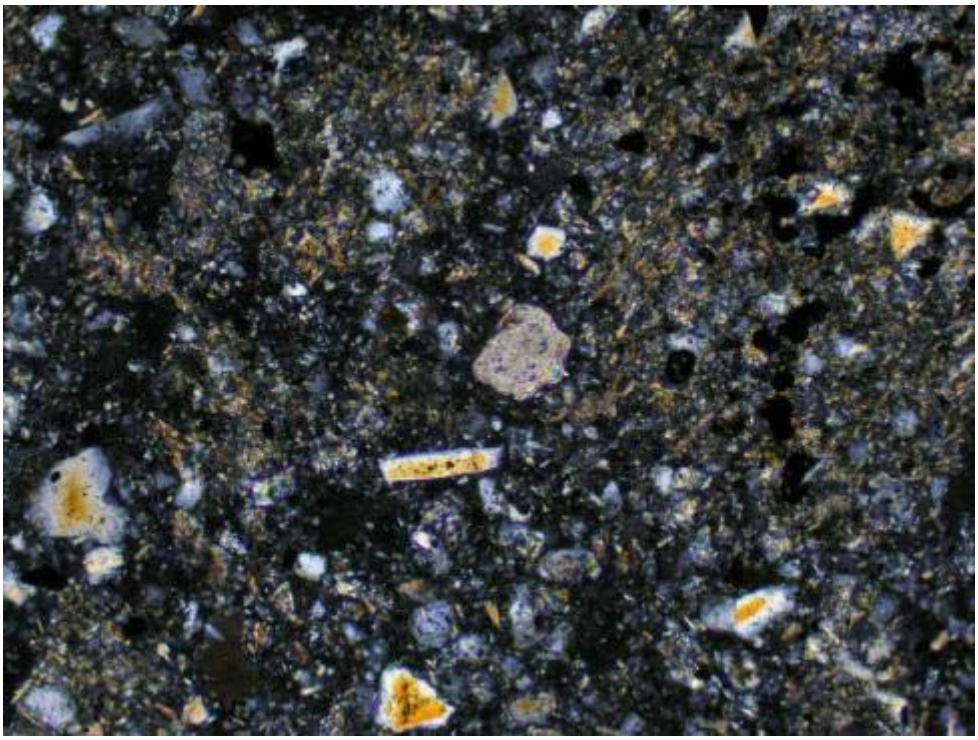
Sulphide occurs in minor amounts, approximately 1%, dominantly as pyrite with lesser chalcopyrite. Trace pyrite is very fine-grained, eu-anhedral (locally rounded) and occurs as disseminated liberated grains. Pyrite is occurs locally in contact with chalcopyrite. Pyrite boundaries vary from straight to irregular but are typically clean and unaltered. Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral liberated grains. Traces of very fine-grained hematite (numerous grains) occur as liberated grains.



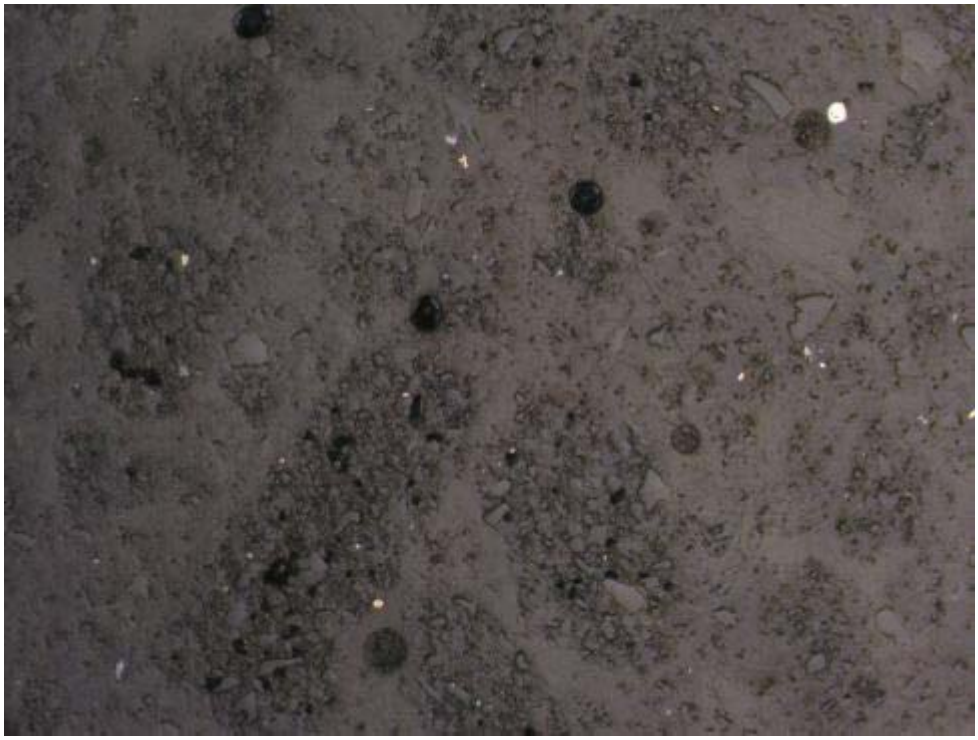
A

B

PP08-3607: General view of very fine-grained biotite, muscovite (sericite), quartz grains and aggregates and clumping powder. A) PPL, B) XPL, FOV =~ 4.5 mm.

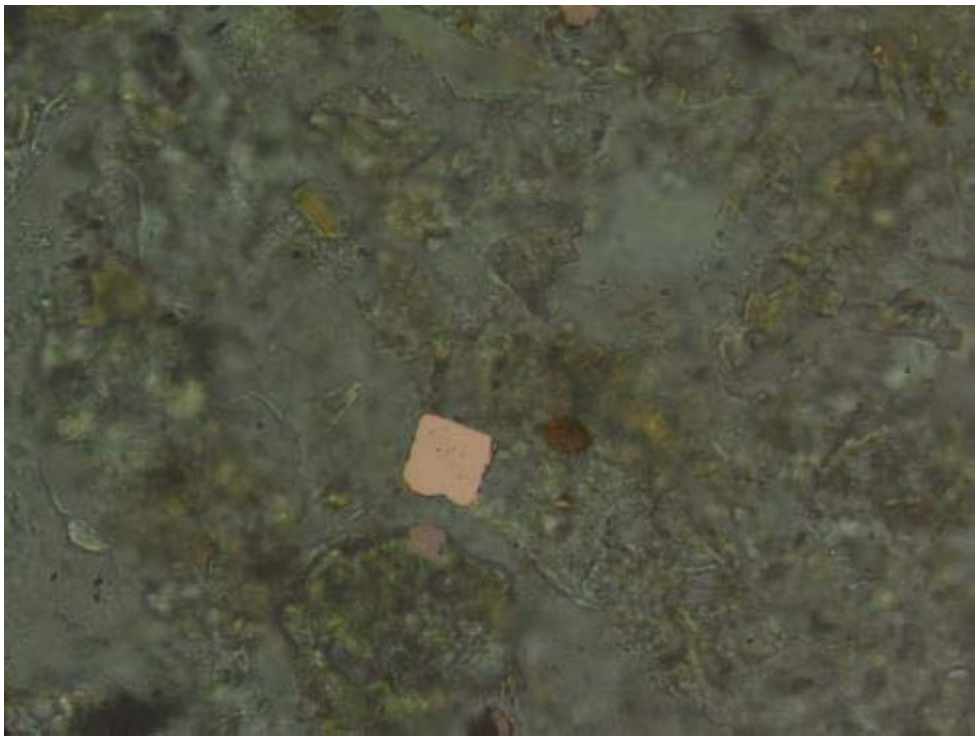


C

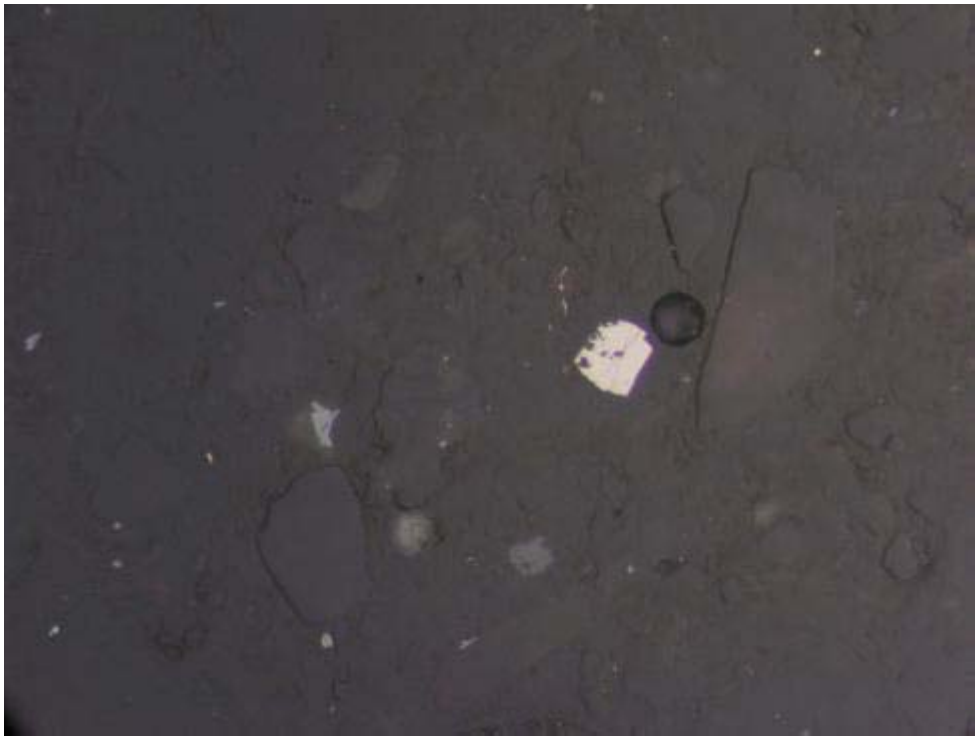


D

PP08-3607: C) Top, Liberated colourless carbonate grain (centre) with adjacent biotite and sericite grains and aggregates. XPL, FOV =~ 1.3 mm, D) Bottom: Overview of tailings showing distribution of pyrite and chalcopyrite grains. RL, FOV = 2.8 mm



E



F

PP08-3607: E) Top: Grain of euhedral pyrite without alteration rims (below centre of photo). Note liberated hematite grain to right of pyrite. PPL+RL, FOV =~ 0.35 mm, F) Bottom, Euhedral grain of pyrite (centre-right) with irregular boundaries but without alteration rims. RL, FOV =~ 0.35 mm.

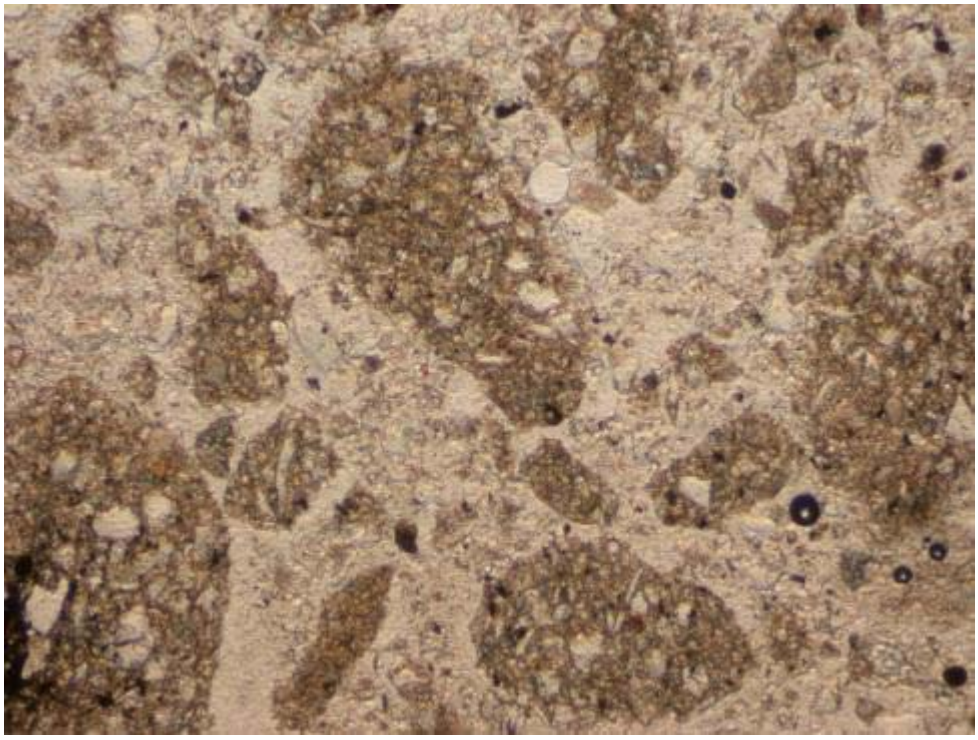
Project #: 0441
Sample ID: PP08-3610

Powder Description: (impregnated mount not available)
Fine pinkish-gray powder. Vigorous reaction of chips to cold dilute HCl. No reaction to magnet.

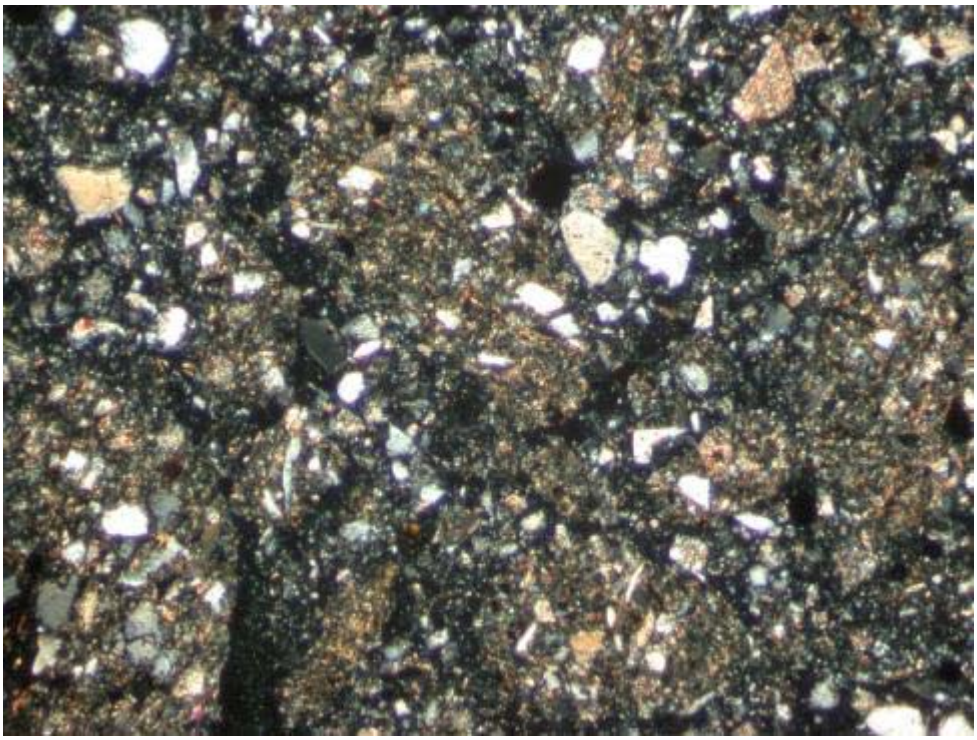
Polished Thin Section Description:
Mixed fine grains (< 0.2 mm) and clumping powder comprising muscovite (sericite) aggregate, anhedral quartz grains and aggregates and liberated carbonate, biotite, muscovite (sericite), hematite, pyrite and chalcopyrite. Muscovite (sericite)-altered aggregate and liberated plates comprise approximately 7% of the section and occur as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Major brown biotite, approximately 20%, occurs as fine liberated plates; biotite is partly replaced by traces of chlorite. Traces of liberated titanite grains.

Carbonate in the section is rare. Traces of very fine-grained, colourless anhedral grains and patchy aggregates occur as liberated grains.

Sulphide occurs in trace amounts dominantly as pyrite with lesser chalcopyrite. Trace pyrite is very fine-grained, eu-anhedral and occurs as disseminated liberated grains. Pyrite is locally in contact with chalcopyrite grains. Pyrite boundaries are straight to irregular but typically clean and unaltered. One pyrite grain is observed with a black rim, possibly alteration material plucked from section (see photos). Trace chalcopyrite occurs disseminated as very fine-grained, ragged, anhedral liberated grains. Very fine-grained hematite, approximately 1%, occurs as disseminated liberated rounded to anhedral grains.

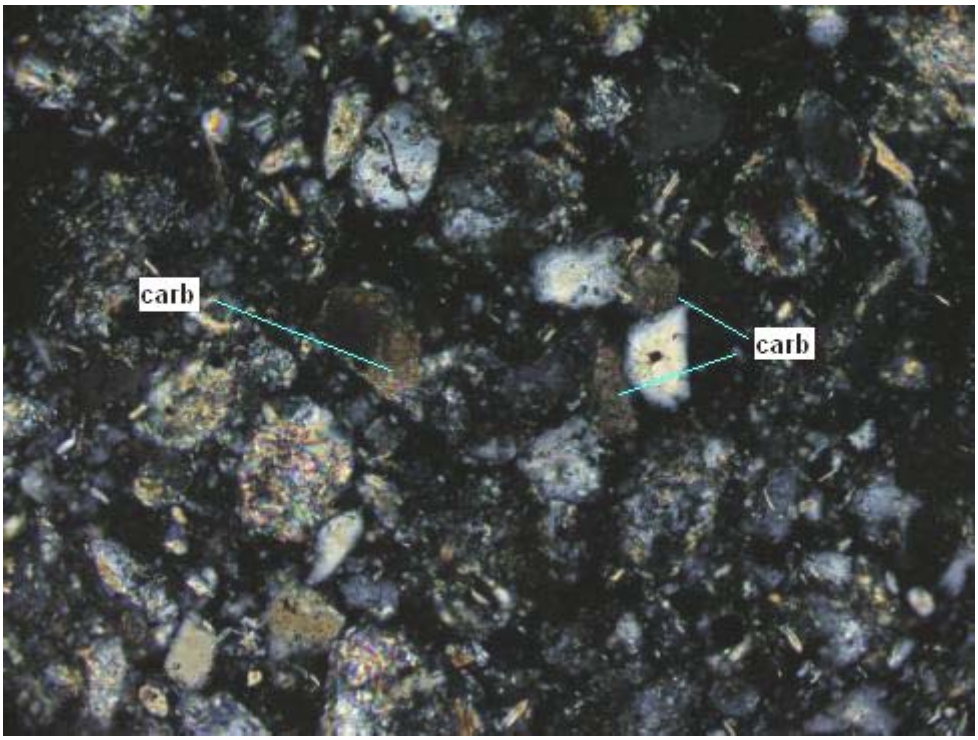


A



B

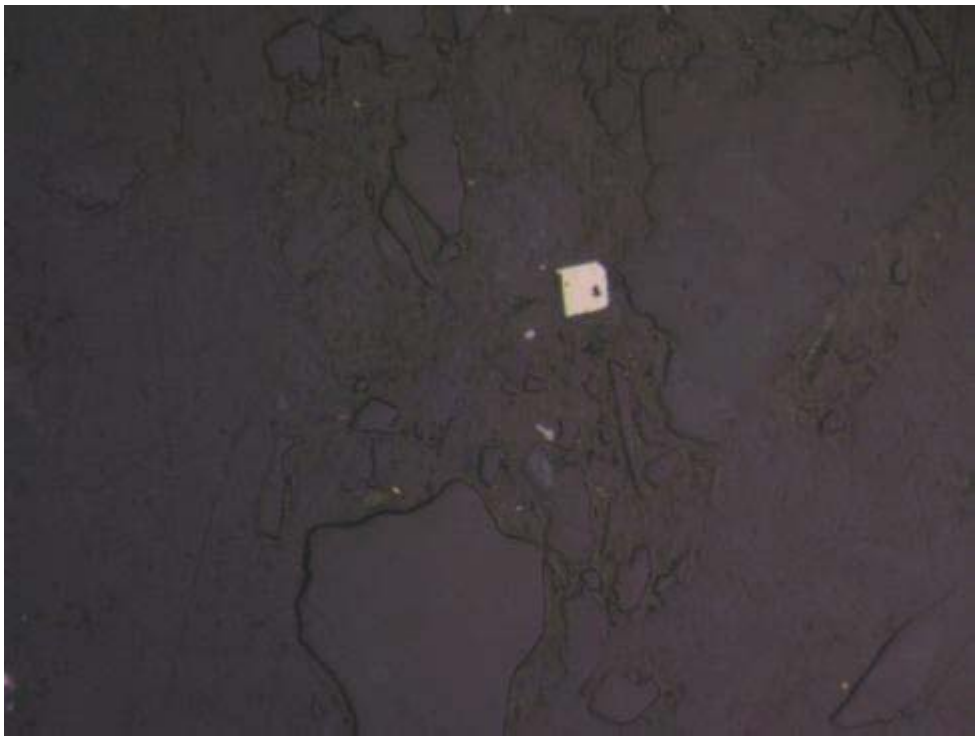
PP08-3610: Representative chips of of very fine-grained biotite, muscovite (sericite), quartz grains and aggregates and clumping powder. A) PPL, B) XPL, FOV =~ 4.5 mm.



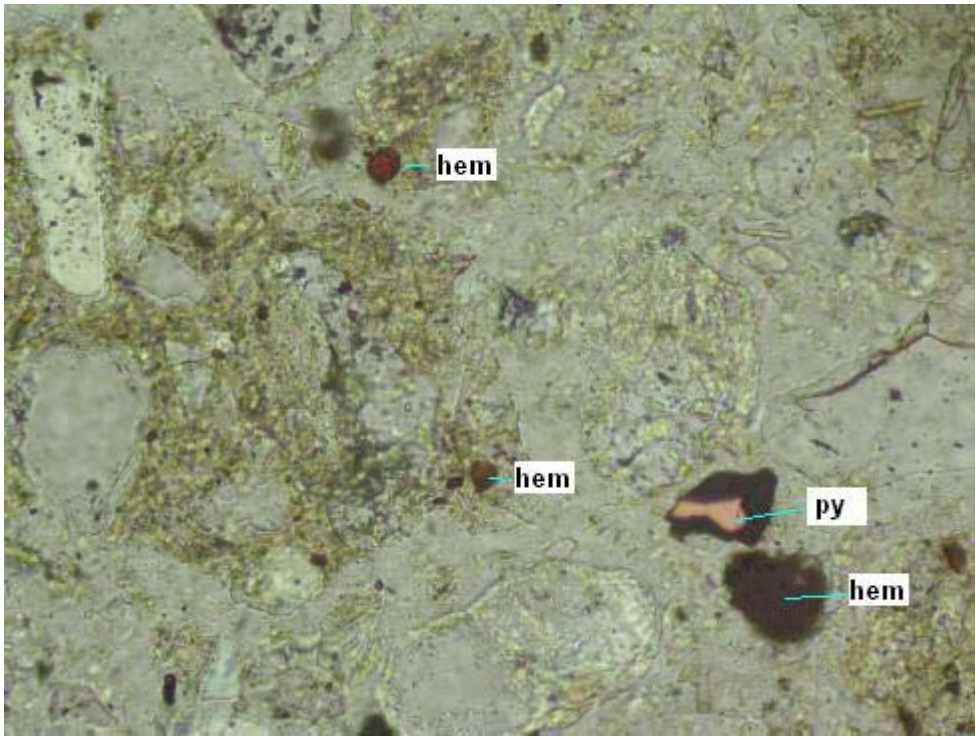
C

D

PP08-3610: C) Top, Three liberated colourless carbonate grains. XPL, FOV =~ 0.7 mm, D) Bottom: Overview of tailings showing distribution of very fine-grained pyrite grains. RL, FOV = 2.8 mm



E



F

PP08-3610: E) Top: Euhedral pyrite without alteration rims. RL, FOV =~ 0.2 mm, F) Bottom: Disseminated grains of hematite (hem) and pyrite (py). Note black rim around pyrite grain- possibly alteration material plucked from section. PPL+RL, FOV =~ 0.6 mm.

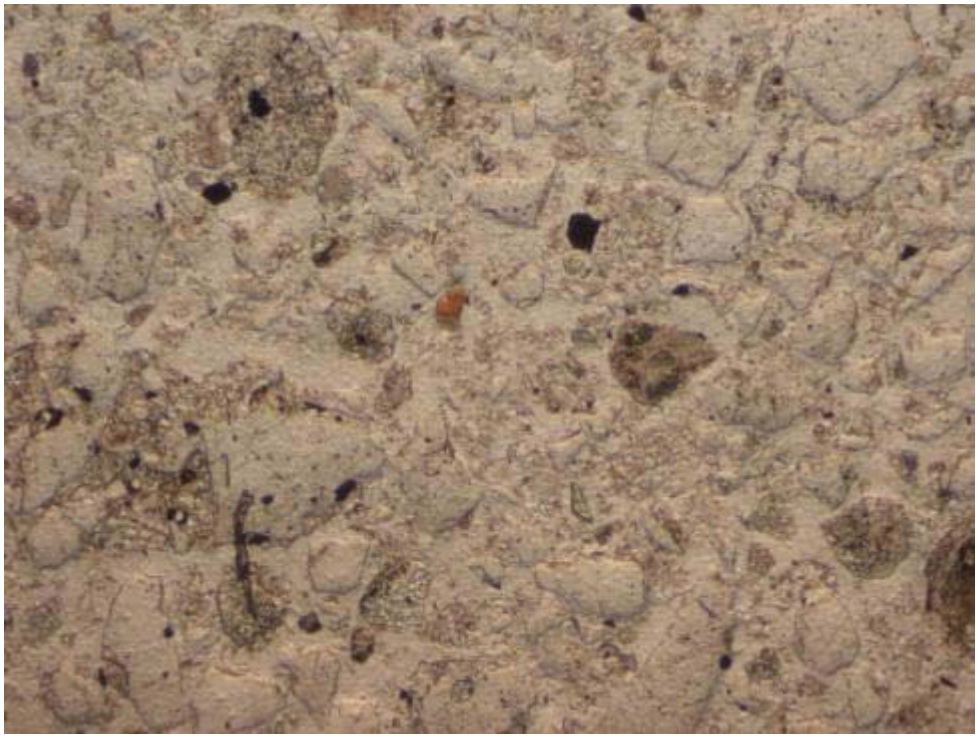
Project #: 0441
Sample ID: PP08-3614

Powder Description: (impregnated mount not available)
Fine yellowish-gray powder. Vigorous reaction of chips to cold dilute HCl. No reaction to magnet.

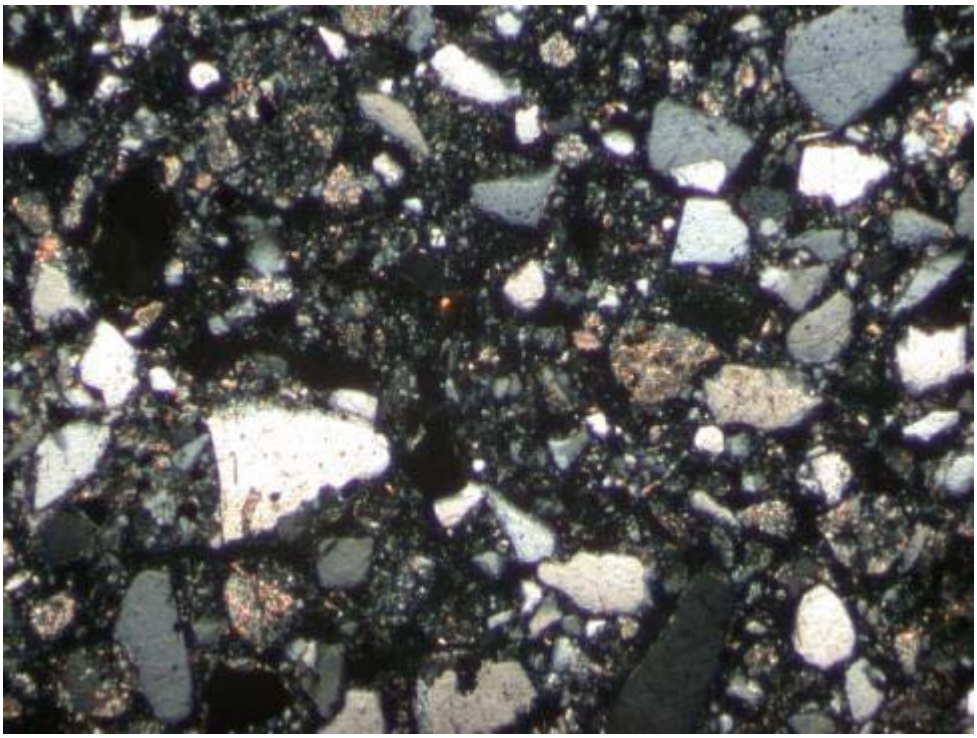
Polished Thin Section Description:
Mixed fine chips (< 1 mm) and clumping powder comprising muscovite (sericite) aggregate, carbonate-chlorite ± rutile ± hematite aggregate, biotite-quartz ± hematite aggregate, quartz-sericite aggregate, anhedral quartz grains and aggregates and liberated muscovite (sericite), chlorite aggregate, biotite, hematite, pyrite, chalcopyrite and rarely carbonate grains. Muscovite (sericite)-altered aggregate comprises approximately 20% of the section and occurs as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Brown biotite, approximately 1% of the section, occurs as fine liberated plates and very fine-grained aggregates within quartz-biotite and biotite-sericite aggregate; biotite is partly replaced by sericite and locally by chlorite, approximately 1%. Traces of epidote aggregate and liberated rutile grains.

Carbonate in the section is rare. Traces of very fine-grained, colourless anhedral grains and patchy aggregates occur with chlorite aggregate and as liberated grains. Colourless carbonate is partly replaced by very fine-grained brown carbonate.

Sulphide occurs in minor amounts, approximately 1%, dominantly as pyrite and chalcopyrite. Trace pyrite is fine to very fine-grained (< 0.2 mm), eu-anhedral and occurs as disseminated grains and aggregates in fragments and as liberated grains. Pyrite is locally associated with chalcopyrite aggregate. Pyrite boundaries are irregular but typically clean and unaltered. One pyrite grain is observed with a black rim, possibly alteration material plucked from section (see photos). Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within fragments and liberated grains. Traces of very fine-grained hematite (numerous grains) occur as liberated grains and within quartz-sericite, quartz-biotite and chlorite-carbonate fragments. A few quartz-sericite chips are rimmed by secondary hematite and stained yellow (see photo F).

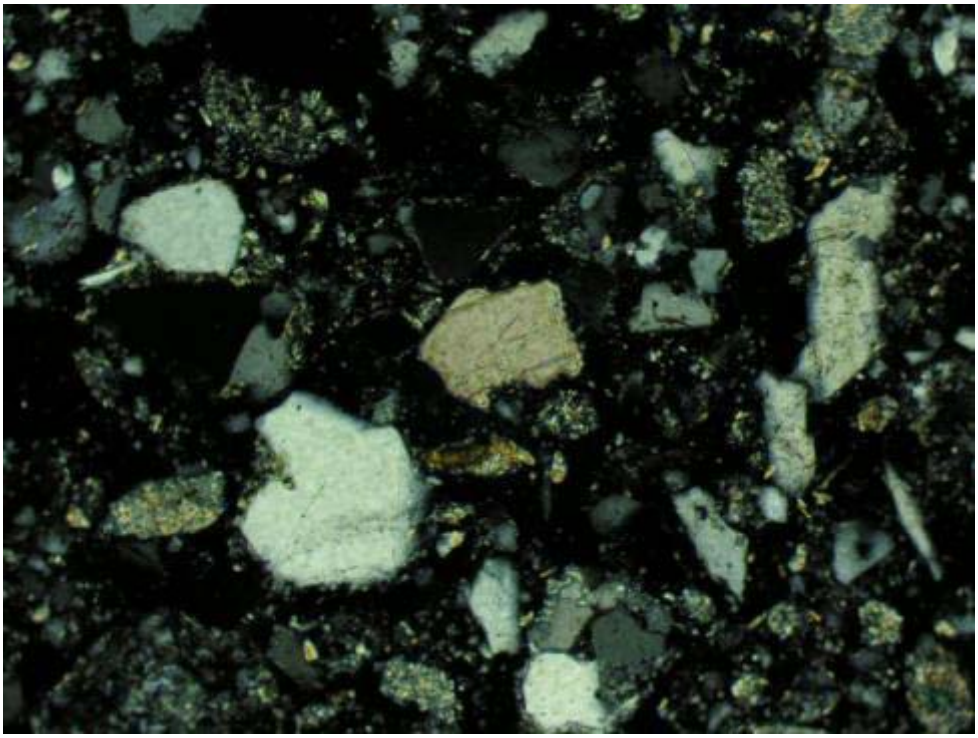


A

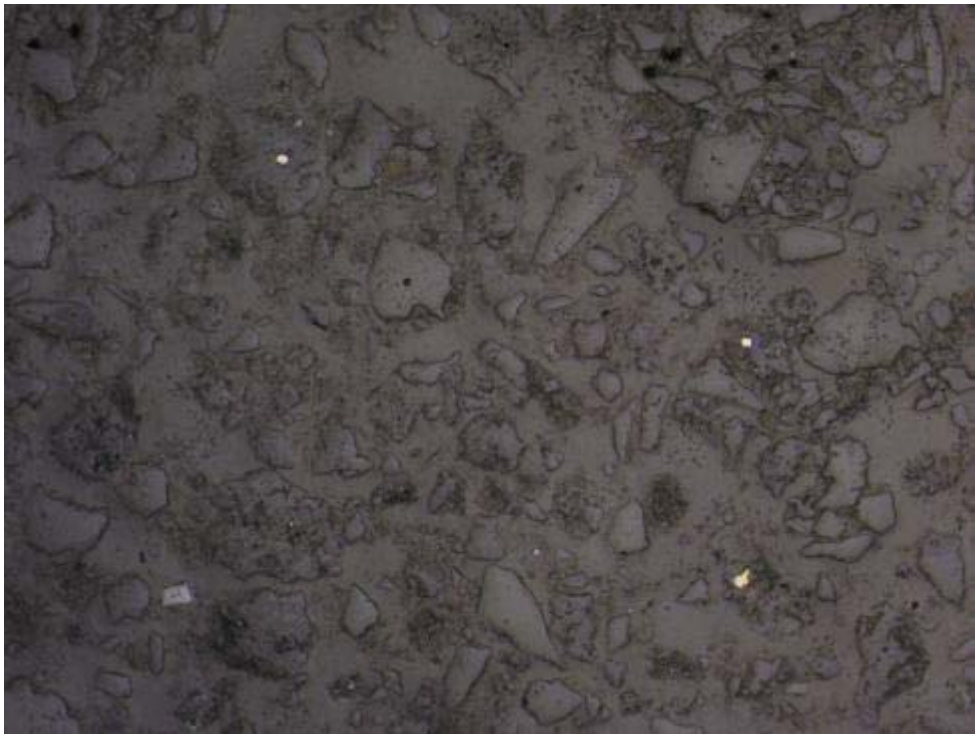


B

PP08-3614: Representative chips of pervasively muscovite (sericite), quartz-biotite, carbonate-chlorite and quartz-sericite aggregate and anhedral quartz grains and aggregates. Note liberated brown biotite plate (just above centre). A) PPL, B) XPL, FOV =~ 4.5 mm.

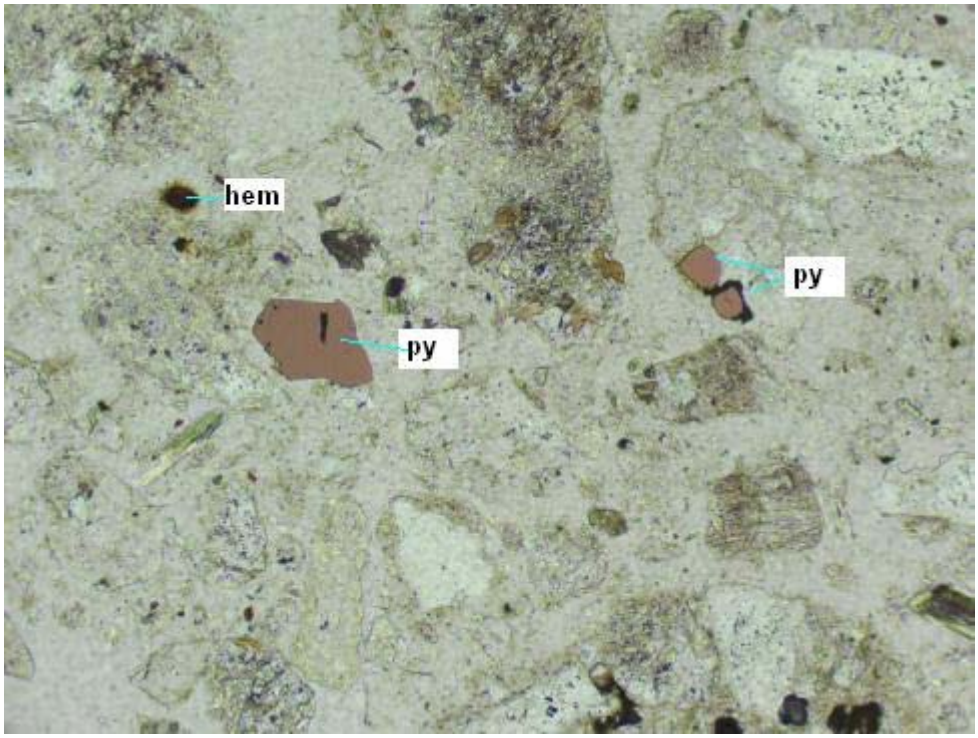


C

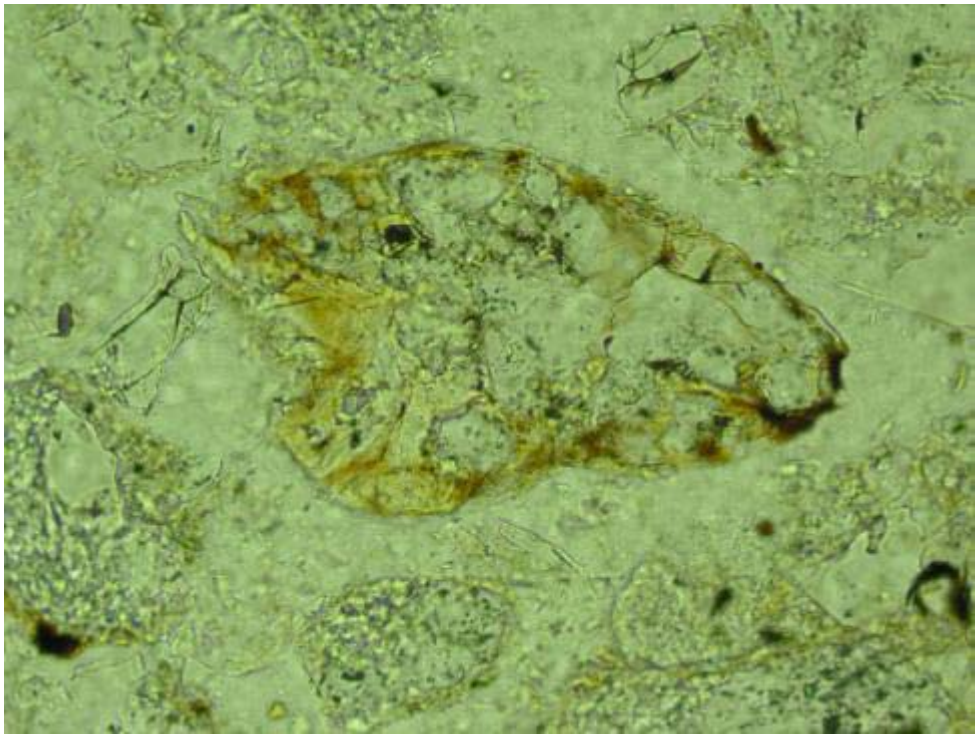


D

PP08-3614: C) Top, Liberated colourless carbonate grain (centre) with adjacent biotite and sericite-altered chips. XPL, FOV =~ 1.3 mm, D) Bottom: Overview of tailings showing distribution of very fine-grained pyrite grains (chalcopyrite lower right side of photo). RL, FOV = 2.8 mm



E



F

PP08-3614: E) Top: Disseminated grains of hematite (hem) and pyrite (py). Note black rim around one pyrite grain- possibly alteration material plucked from section. PPL+RL, FOV =~ 1.3 mm, F) Bottom, Chip of quartz-sericite aggregate is partly rimmed by hematite and stained yellow-brown. PPL, FOV =~ 0.7 mm.

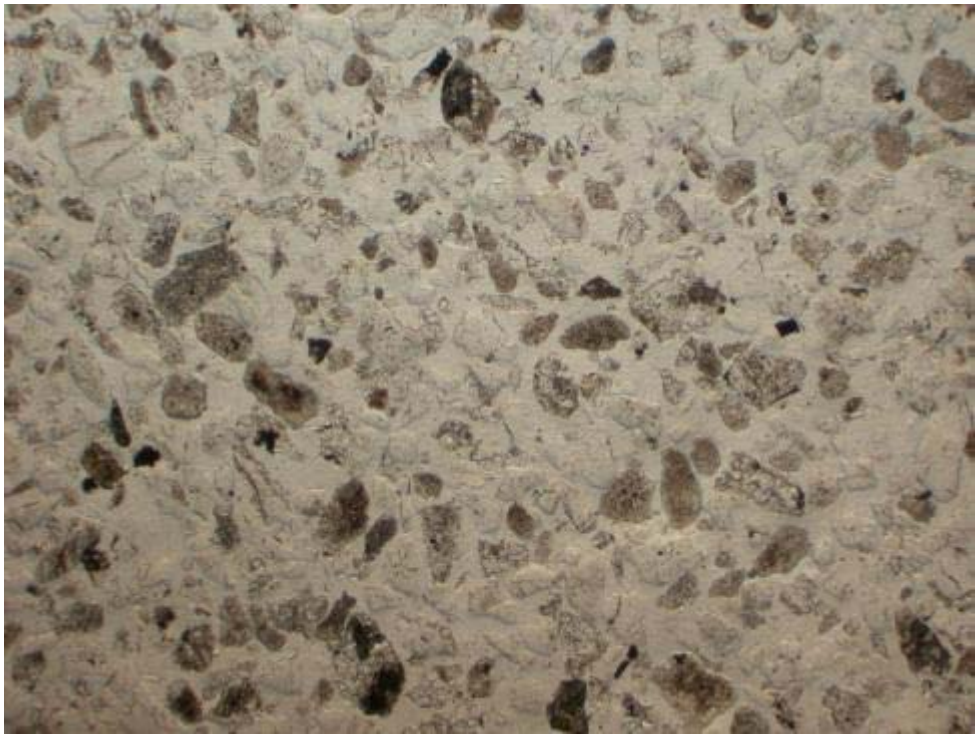
Project #: 0441
Sample ID: PP08-3849

Powder Description: (impregnated mount not available)
Fine light gray with traces of black grains. No reaction of chips to cold dilute HCl. No reaction to magnet.

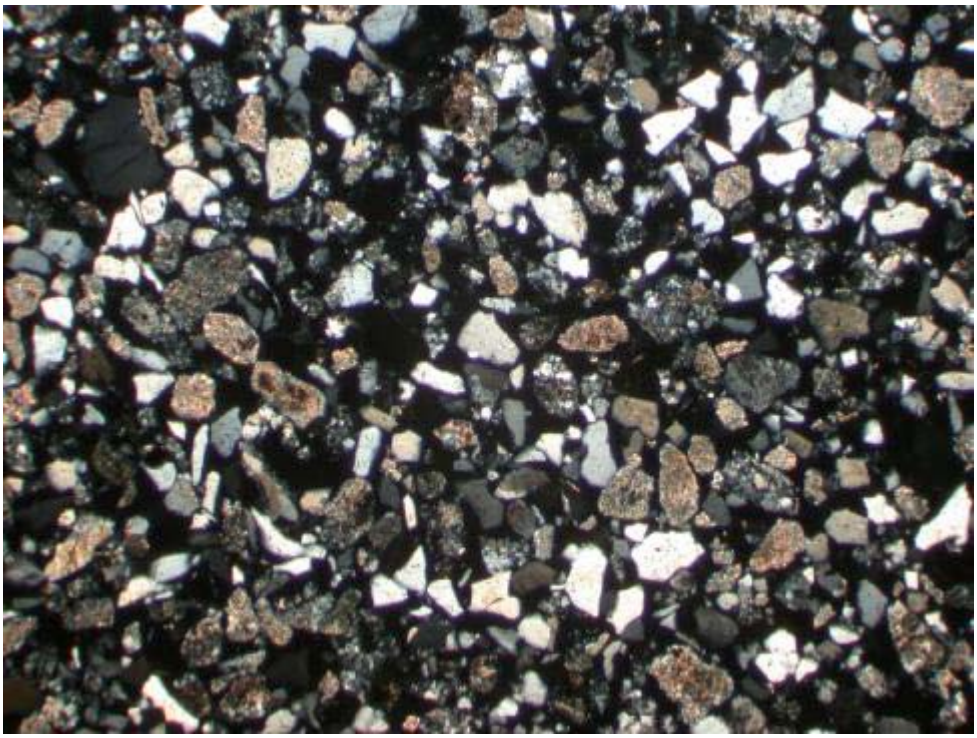
Polished Thin Section Description:
Mixed fine chips (< 0.3 mm) comprising muscovite (sericite)±biotite aggregate, quartz-sericite aggregate, quartz-biotite aggregate, chlorite-carbonate aggregate, anhedral quartz grains and aggregates and liberated carbonate, biotite, chlorite, muscovite (sericite), pyrite and chalcopyrite. Muscovite (sericite)-altered aggregates comprise approximately 15% of the section and occurs as very fine-grained flaky to anhedral aggregates and less commonly fine sheaves. Brown biotite occurs in trace amounts as fine liberated plates and very fine-grained aggregates within quartz-biotite or overprinted by sericite aggregate. Chlorite occurs in trace amounts associated with carbonate aggregate and partly replacing biotite. Traces of liberated rutile grains.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as fine to very fine-grained, colourless anhedral grains and patchy aggregates with chlorite ± quartz-sericite aggregate and as liberated grains and aggregates.

Sulphide occurs in trace amounts dominantly as chalcopyrite with lesser pyrite and rare grains of covellite observed associated with pyrite. Pyrite, is fine to very fine-grained (< 0.2mm), eu-anhedral and occurs as disseminated grains and aggregates in fragments and as liberated grains. Pyrite is locally in contact with chalcopyrite grains. Pyrite boundaries are irregular but clean and unaltered. Trace chalcopyrite occurs disseminated as very fine-grained, ragged, anhedral grains, aggregates within fragments and liberated grains. Rarely hematite occurs as very fine-grained aggregates within quartz-sericite aggregate or liberated rounded grains. A few quartz-sericite chips are rimmed by secondary hematite and stained yellow (see photos).

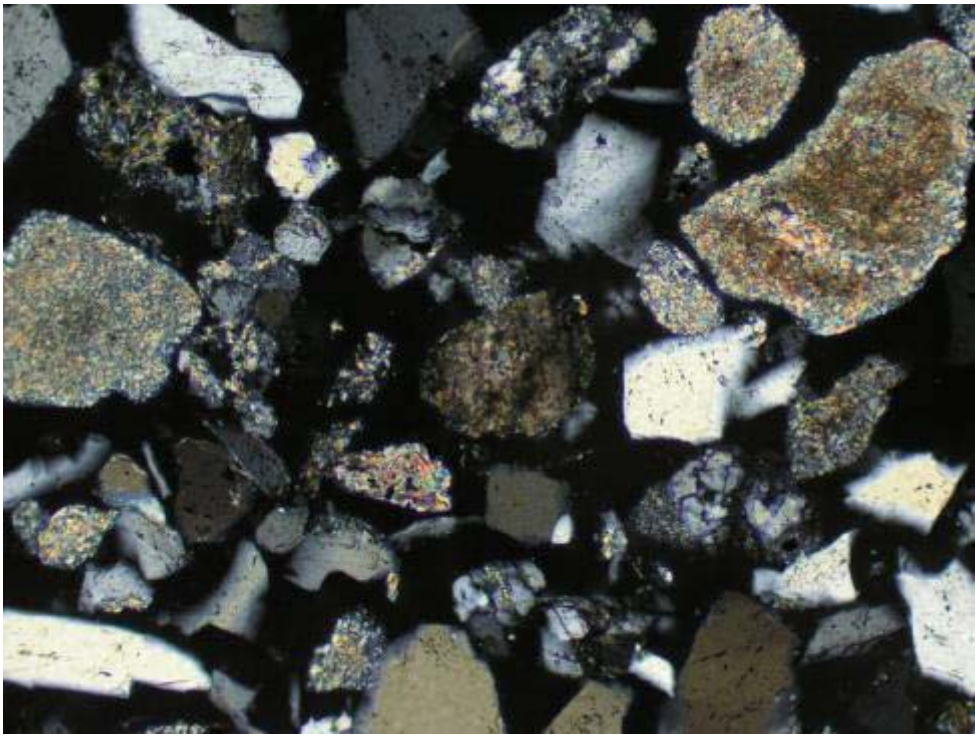


A

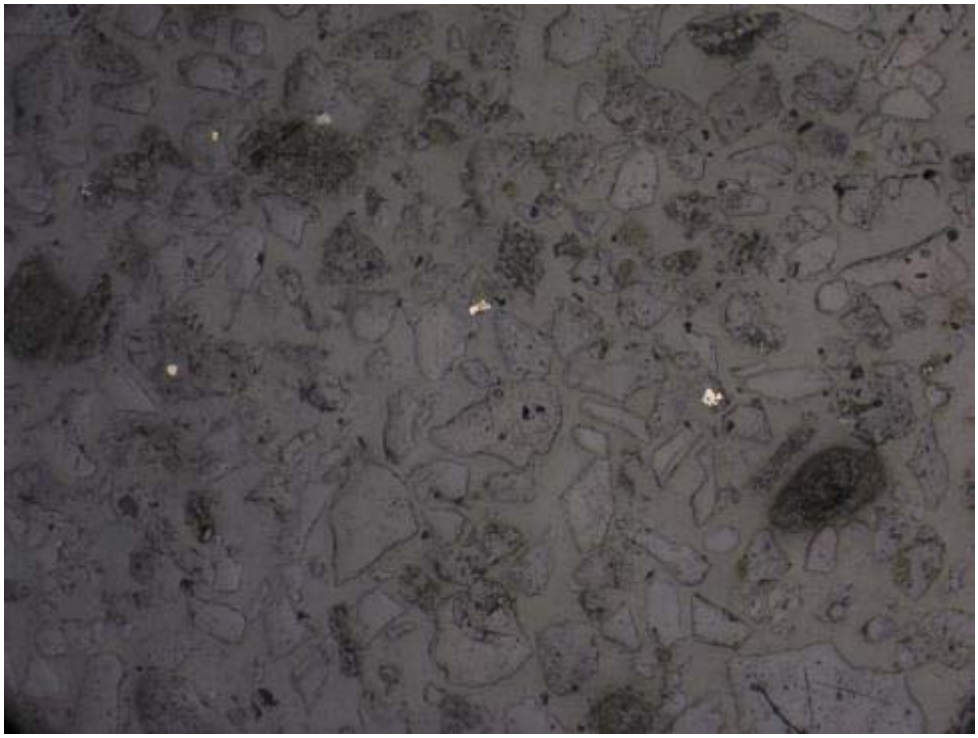


B

PP08-3849: General view of muscovite (sericite), quartz-sericite, quartz-biotite, sericite-biotite and chlorite ± carbonate aggregate and anhedral quartz grains and aggregates. A) PPL, B) XPL, FOV =~ 4.5 mm.

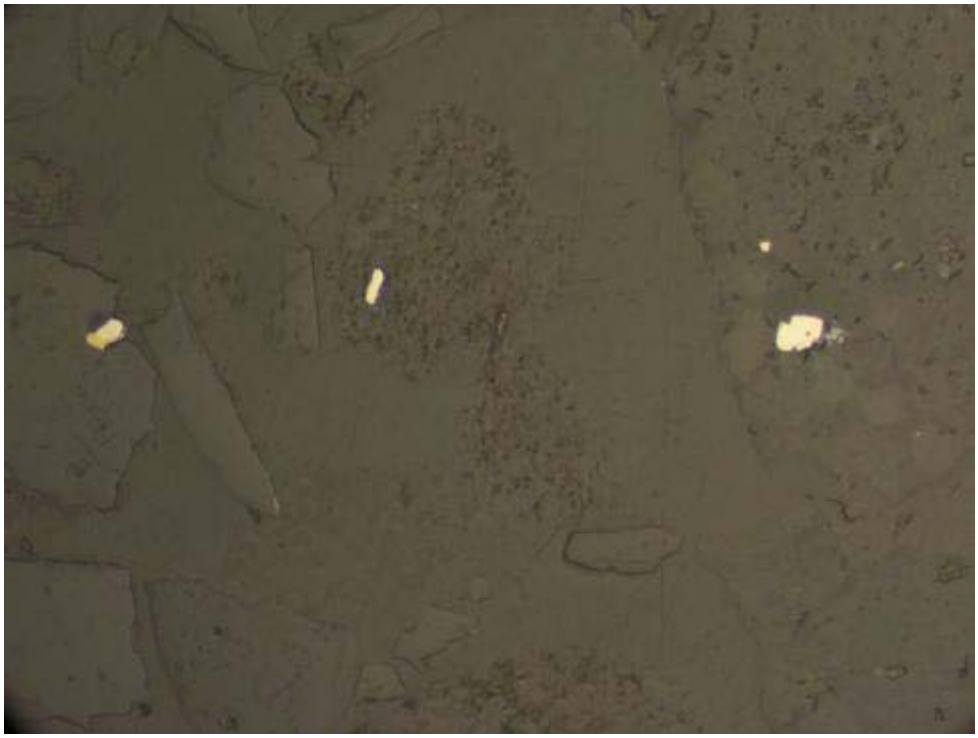


C

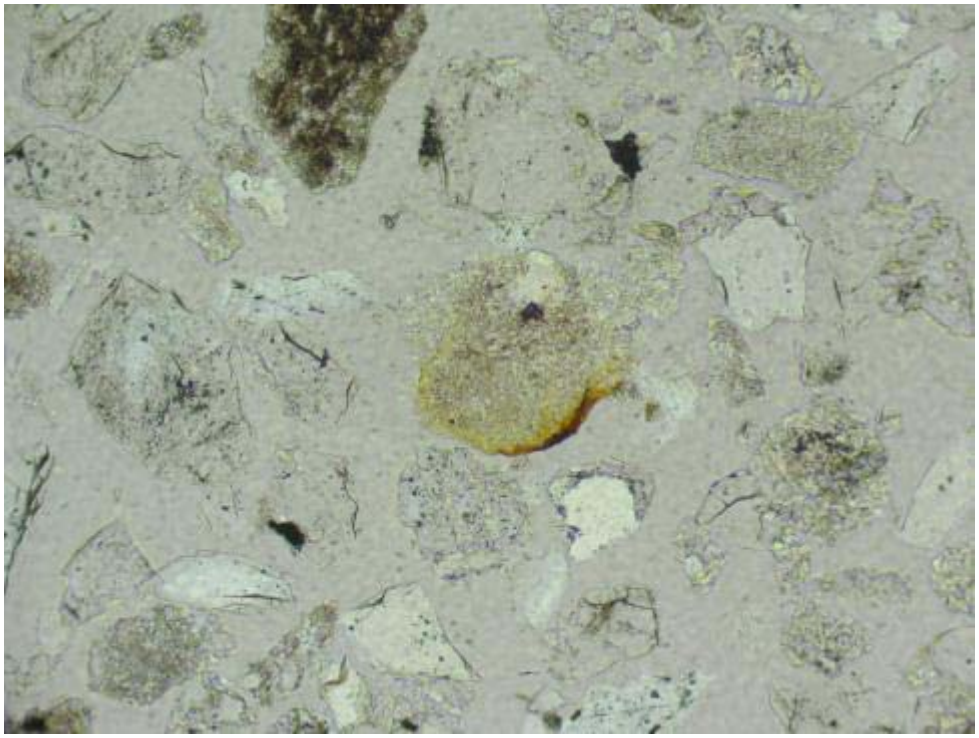


D

PP08-3849: C) Top: Liberated carbonate-chlorite aggregate (centre). XPL, FOV =~ 1.3 mm. D) Bottom: Overview of tailings showing distribution of very fine-grained pyrite grains. RL, FOV =~ 2.8 mm



E



F

PP08-3849: E) Top: Very fine-grained pyrite grains with no alteration rims. Pyrite in contact with chalcopyrite grain (left). RL, FOV =~ 0.7 mm. F) Bottom: Chip of quartz-sericite aggregate is partly rimmed by hematite and stained yellow-brown. PPL, FOV = ~1.3 mm

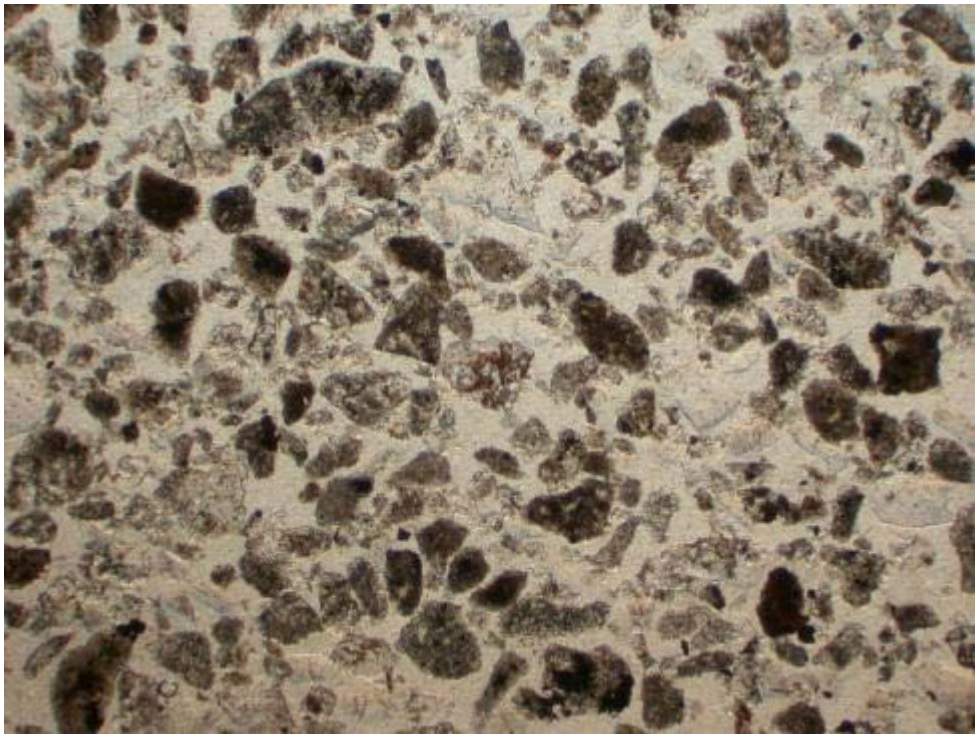
Project #: 0441
Sample ID: PP08-3850

Powder Description: (impregnated mount not available)
Fine light gray grains. Trace reaction of chips to cold dilute HCl. No reaction to magnet.

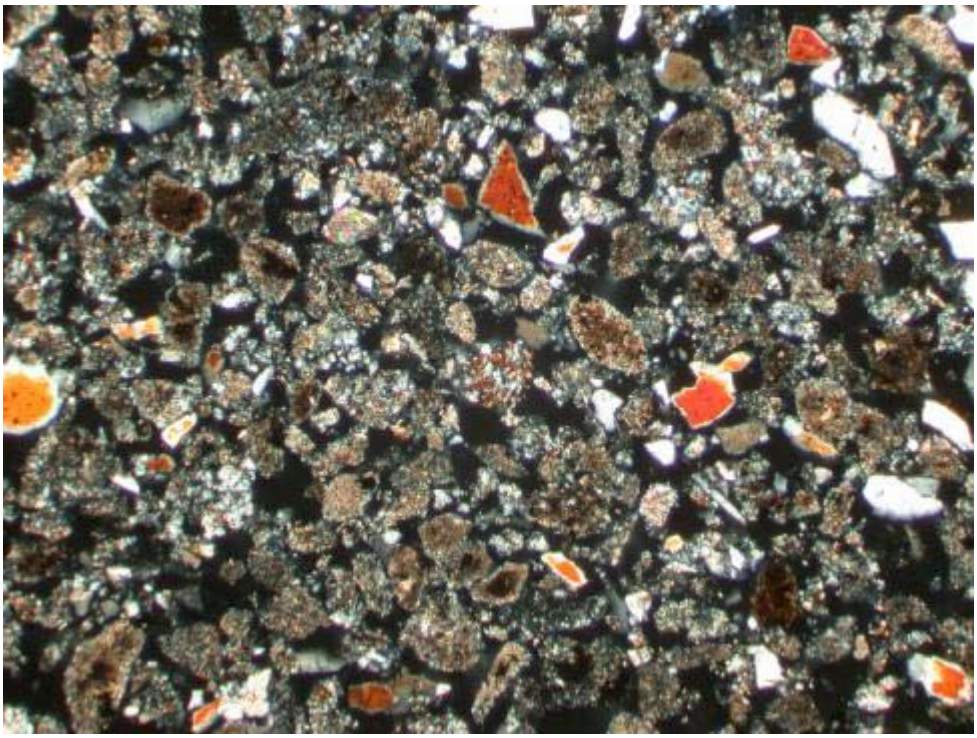
Polished Thin Section Description:
Mixed fine to medium chips of biotite-muscovite (sericite), quartz-biotite and quartz-sericite-altered fine-grained rock with abundant liberated quartz grains and minor liberated carbonate, pyrite, chalcopyrite. The muscovite (sericite)-altered rock is fine-grained and comprises dominantly pervasively muscovite (sericite) altered rock and sericite-altered tabular grains intergrown with quartz. Muscovite (sericite), approximately 10% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates. Brown biotite, approximately 20%, occurs very fine-grained aggregates within quartz-biotite-bearing rock fragments and as very fine-grained aggregates partly replaced by sericite. Biotite is locally replaced by traces of chlorite. Traces of disseminated rutile occur with the sericite aggregate.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as fine to very fine-grained, colourless anhedral grains and patchy aggregates with chlorite, overprinting biotite-sericite aggregate and as liberated grains and aggregates.

Total sulphide, approximately 2%, occurs dominantly as chalcopyrite with lesser pyrite. Pyrite, approximately 1%, is fine to very fine-grained (< 0.2mm), eu-anhedral and occurs as disseminated grains and aggregates in fragments and as rarely as liberated grains. Pyrite is locally enclosed by chalcopyrite grains. Pyrite boundaries are irregular but clean and unaltered. Locally rutile occurs adjacent to pyrite grains. Minor chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within fragments and liberated grains.

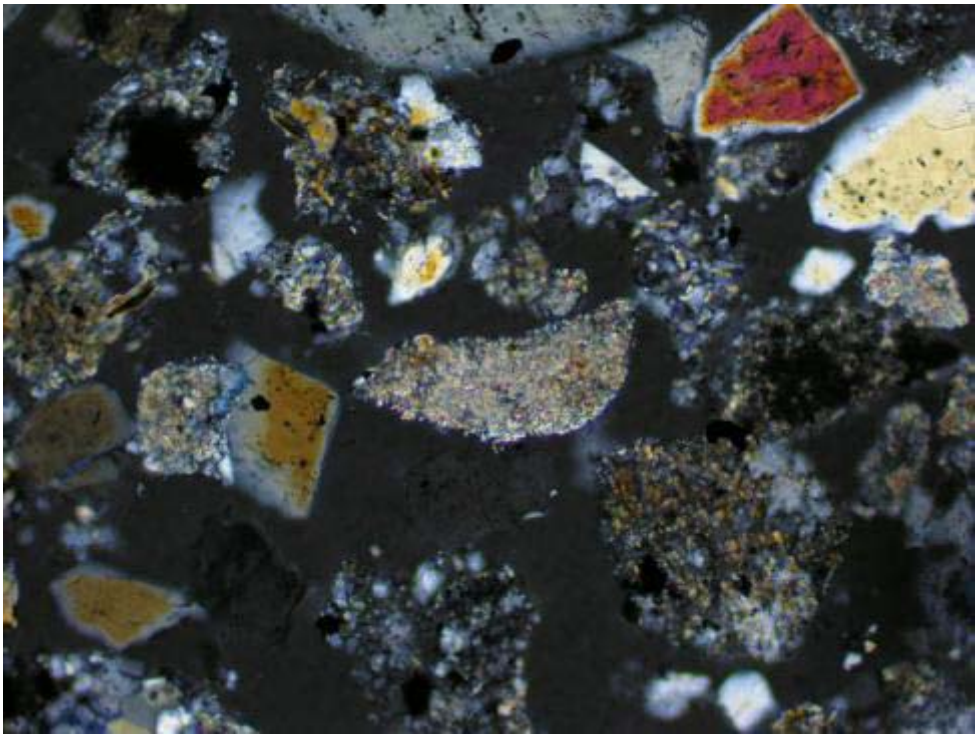


A

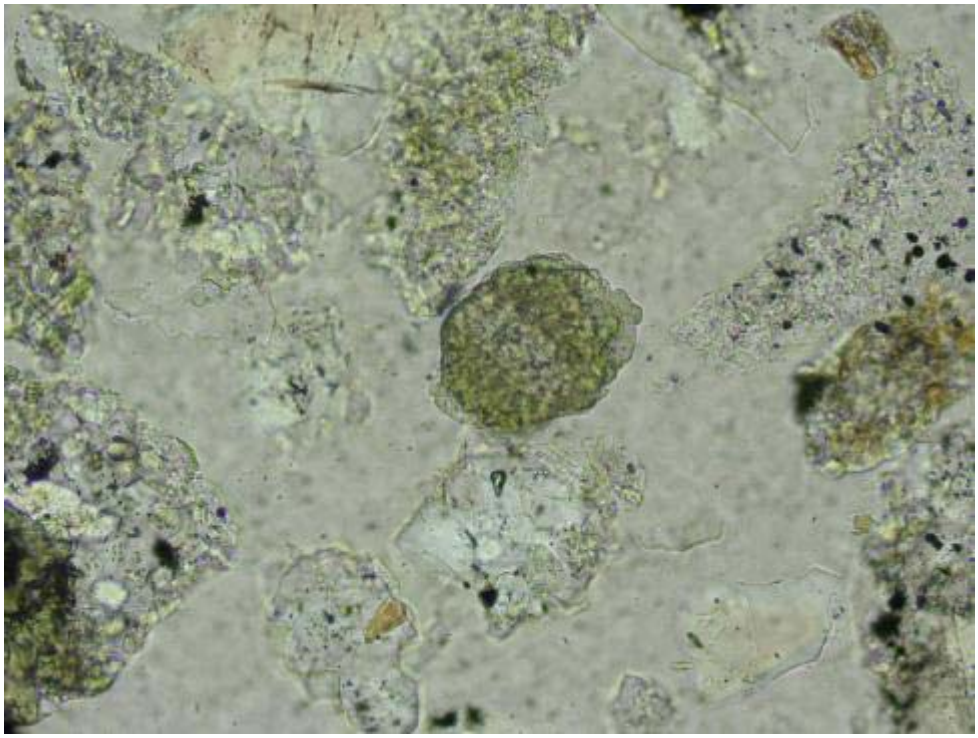


B

PP08-3850: General view of biotite-muscovite (sericite), quartz-sericite, quartz-biotite aggregate and anhedral quartz grains and aggregates. A) PPL, B) XPL, FOV =~ 4.5 mm.

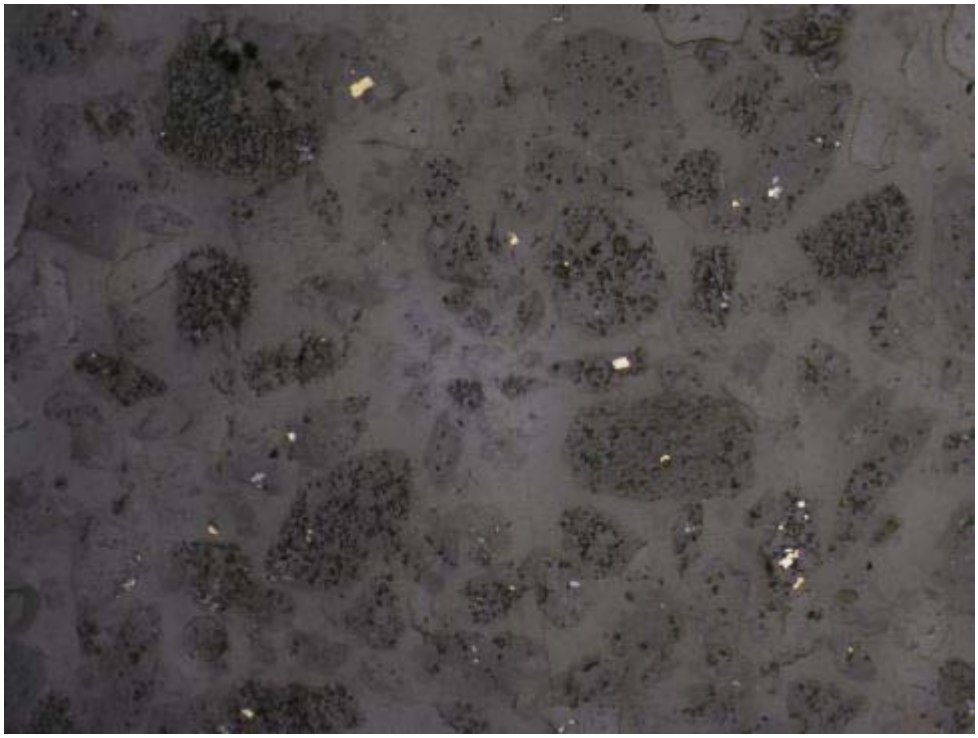


C



D

PP08-3850: C) Top: Fragment of very fine-grained carbonate-altered biotite-sericite rock (centre). XPL, FOV =~ 1.3 mm. D) Bottom: Chlorite-carbonate aggregate (centre). PPL, FOV =~ 0.7 mm



E

F

PP08-3850: E) Top: Overview of tailings showing distribution of very fine-grained pyrite and chalcopyrite grains. RL, FOV =~ 2.8 mm. F) Bottom: Anhedral pyrite grains (centre and right) with irregular boundaries but no alteration rims. Anhedral chalcopyrite grain (left). RL, FOV = ~0.7 mm

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the district of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, Suite 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.

6. I have practiced my profession as a geologist for approximately 20 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 13 years as an independent consultant.

7. The petrographic data of this report was collected by myself in June 2008.

……..……
Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
June 18, 2008

Petrography Report

CHARACTERIZATION OF COARSE CHIPS FROM HUMIDITY CELL TESTS, PEBBLE COPPER PROPERTY, ALASKA

June 19, 2008

Prepared for:

Stephen Day, P.Geo. and
Madeleine Corriveau, EIT/GIT
SRK Consulting (Canada) Inc.
Suite 2200-1066 West Hastings St.
Vancouver, BC
Canada V6E 3X2

Prepared by:

Kathryn Dunne, M.Sc. P.Geo.
Consulting Geologist
Bag 9000, Suite 207
190B Trans Can Hwy NE
Salmon Arm, BC
Canada V1E 1S3

phone: 250-804-0729
kgeo@telus.net

Background

Twenty-three samples of material from the Pebble Copper property, Alaska are characterized in this report. The material consists of impregnated mounts of coarse chips taken from humidity cell tests and prepared as polished thin sections. The impregnated mounts have not been etched and stained to test for K-feldspar. The samples were submitted by Madeleine Corriveau of SRK Consulting (Canada) Inc. on April 23, 2008 for characterization of the mineralogy. Start material rock type codes were not provided. The polished thin sections were examined optically. The purpose of the study was to characterize the mineralogy with particular emphasis on the sulphide, carbonate and secondary minerals present. An XRD report listing carbonate minerals for 13 of the samples was provided. The goal of the work was basic transmitted and reflected light observations, with emphasis on identification of secondary minerals, carbonate minerals and mineralogical controls. Kathryn Dunne, P.Geo. carried out the optical analysis at her office in Salmon Arm, B.C.

Sample descriptions with representative photomicrographs follow this summary. All percentages in the descriptions are approximate based on visual estimation.

Summary

The samples comprise fine to dominantly coarse chips of variably altered rock, veinlets and liberated mineral fragments including some of the following: carbonate, quartz, sulphides (dominantly pyrite and chalcopyrite), hematite, biotite and muscovite (sericite). The altered rock fragments include a wide variety of clastic sedimentary, volcaniclastic, volcanic and intrusive rocks:

- granule conglomerate, lithic sandstone (greywacke) and mudstone (siltstone)
- volcanic sandstone and breccia
- quartz ± feldspar porphyry
- volcanic rock (porphyritic and aphanitic)
- granitoid
- pervasively muscovite (sericite) altered rock

Veinlets include dominantly quartz and lesser quartz-carbonate, carbonate ± chlorite ± sulphide, muscovite-chlorite-carbonate and quartz-K-feldspar. These veinlets cut porphyritic rock fragments, granitoids, pervasively sericite-biotite and carbonate altered rock fragments and sedimentary rocks.

Alteration of the clastic sedimentary rocks varies according to rock type. Granule conglomerate comprises mostly lithic sandstone and mudstone rock fragments with monocrystalline and polycrystalline quartz grains in a very fine-grained matrix which is altered to carbonate-chlorite in one sample. The lithic sandstone (greywacke) units are dominated by pervasive, very fine-grained, green-brown secondary biotite which is variably replaced by patchy retrograde sericite or illite alteration. Colourless and locally brown Fe-carbonate occur in trace to minor amounts overprinting secondary biotite and sericite alteration. In some sections, biotite is replaced by chlorite. Mudstone chips are massive to laminated, locally hematitic and comprise mostly clay ± quartz-illite-chlorite with virtually no carbonate to locally major amounts of brown carbonate.

Alteration of volcanic, volcaniclastic and granitoid rocks includes: 1) major muscovite (sericite) as selectively pervasive replacement of former plagioclase laths or phenocrysts in seriate-textured and porphyritic rock fragments, 2) pervasive chlorite-carbonate-rutile-epidote clay altered seriate-textured rock, 3) pervasive illite (or sericite)-chlorite-carbonate-rutile altered aphanitic rock, 4) pervasive muscovite (sericite)-quartz altered rock, 5) pervasive sericite-carbonate-(rutile) ± biotite altered granitoid

rock. As with sedimentary rocks, biotite is locally replaced by sericite/illite or chlorite aggregate and carbonate occurs locally with chlorite and overprints biotite and sericite/illite alteration.

Carbonate occurs in trace to minor amounts (2%) in most of the samples, in major amounts (5-15%) in nine samples and is not observed in three samples (see tables following). Carbonate occurs typically as a colourless variety –likely calcite (reaction to cold, dilute HCl) and less commonly as a brown Fe-carbonate. The colourless carbonate forms fine to very fine-grained aggregates and occurs as patches that overprint sericite and biotite alteration, occurs directly replacing plagioclase laths, occurs as narrow veinlets ± quartz or ± chlorite ± epidote ± muscovite, occurs ± chlorite as replacement of seriate-textured rock matrix, occurs as amygdales and occurs as liberated grains. Colourless carbonate is rarely partly replaced by very fine-grained hematite aggregate in a few samples. Brown Fe-carbonate occurs as very fine-grained patchy aggregates that partly pseudomorph former mafic phenocrysts, occurs with epidote and chlorite alteration, overprints sericite alteration and occurs as discontinuous veinlets. Colourless carbonate is partly overprinted by brown Fe-carbonate in some sections.

Sulphides occur in trace to minor amounts (3%) in most of the samples and in major amounts (5-20%) in eight samples (see tables following). Sulphides occur dominantly as pyrite ± chalcopyrite and in some samples traces of some of the following: sphalerite, molybdenite, marcasite, bornite, chalcocite, covellite, galena and an opaque mineral with optical properties similar to arsenopyrite (sections 104472, 226293). Rare traces of an unknown gray anisotropic mineral occur in two samples. Pyrite grains and aggregates occur disseminated in chips and as liberated grains in most samples. Pyrite is eu-anhedral and is variably pitted and fractured. Pyrite boundaries vary from straight to irregular but most are clean without alteration rims. In some sections, traces of red-brown Fe-oxide/oxyhydroxide rims, rinds or margins are observed (sections 104472, 219135, 219189, 220394, 226293, 406502 and 406717) and rare chips are variably stained yellow-brown, orange-brown or yellow (see also sections 104775, 105391, 219084). Rims of opaque mineral with optical properities similar to arsenopyrite are without alteration but rarely subhedral grains within rock chips are surrounded by yellow-brown staining of the host rock. Hematite occurs as trace to 1% of most samples, in minor to major amounts (3-15%) in siltstone chips and absent in some sections (see tables following). Hematite occurs as discontinuous lenses and irregular veinlets in hematitic mudstone chips, partly replacing carbonate in some chips, disseminated and as patchy aggregates in chips, as liberated grains and aggregates and rarely as alteration rims (see above).

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K. P. E. DUNNE
BRITISH COLUMBIA
GEOSCIENTIST

Jun 19/08

Sample # 0441-	**Sulphide**	**%** ~	**Carbonate occurrence**	**%** ~	**Fe-Oxides and Oxyhydroxides**	**%** ~	**Some Other**	**%** ~
104472	*pyrite* opaque with optical properties similar to ?arsenopyrite sphalerite chalcopyrite	*3* tr tr tr	liberated grain (rare)	tr	?hematite unknown yellow-brown stain	tr tr	illite clay muscovite (sericite) chlorite	15 15 7 3-5
104775	*pyrite*	*tr*	patches, disseminated	tr	magnetite unknown orange-brown Fe-ox material	tr tr	chlorite sericite	1 tr
105391	*pyrite* sphalerite covellite	*20* tr tr		x	unknown yellow-brown stain ?hematite	tr tr	muscovite (sericite) clay biotite	70 1 tr
105456	*pyrite* covellite bornite ?unknown	*20* tr tr tr	patches	tr	?hematite	tr	muscovite (sericite) clay	70 1
107172	chalcopyrite *pyrite* molybdenite	3 *2* tr	patches, disseminated, liberated grains	2	?hematite	tr	illite chlorite muscovite (sericite)	20 3-5 3
107326	*pyrite* chalcopyrite molybdenite	*2* tr tr	patches, veinlets	1		x	chlorite illite muscovite (sericite) biotite	15 5 tr tr
219084	*pyrite* chalcopyrite	*tr* tr	patchy aggregates, amygdales, veinlets, liberated grains	10	hematite unknown yellow-brown stain	1 tr	clay chlorite biotite	15 5 tr
219135	*pyrite* chalcopyrite	*1* tr	patchy, veinlets, liberated grains	10	unknown red-brown Fe-ox unknown yellow stain	tr tr	clay	25
219189	*pyrite*	*tr*	grains, patches, veinlets, liberated grains	10	hematite unknown yellow stain	15 tr	clay	25
220076	*pyrite* chalcopyrite	*20* tr	liberated veinlets, granular aggregates, stringers	tr	hematite magnetite	tr tr	biotite (green) sericite	20 10
220364	*pyrite* chalcopyrite	*tr* tr	patches, veinlets, liberated grains	5	hematite magnetite	3 tr	clay illite muscovite (sericite)	15 1 tr

*tr = trace; x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

Sample # 0441-	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other**	**% ~**
220394	*pyrite* chalcopyrite	*tr* tr	patches, infill, veinlets, liberated grains	15	hematite	5	chlorite clay	20 5
220842	chalcopyrite *pyrite* molybdenite sphalerite	13 *2* tr tr	patches	tr	hematite	tr	sericite biotite (brown) clay	20 7 5
222788	*pyrite* chalcopyrite	*5* tr	patches, veins, liberated grains	5		x	biotite sericite	30 15
224182	chalcopyrite *pyrite* chalcocite bornite ?unknown sphalerite	1 *1* tr tr tr tr	patches (rare)	tr		x	muscovite (sericite)	15
224956	*pyrite* chalcopyrite molybdenite marcasite	*2* 1 tr tr	patches, veinlets, liberated grains	tr	hematite	1	biotite muscovite (sericite) chlorite	30 5 3
225026	*pyrite* chalcopyrite molybdenite	*2* 1 tr	patches (rare)	tr	hematite	tr	muscovite (sericite) chlorite biotite	15 7 3
226293	*pyrite* chalcopyrite sphalerite opaque with optical properties similar to ?arsenopyrite	*1* 1 tr tr	patches, veinlets, liberated grains	2	hematite (rare)	tr	muscovite (sericite)	30
226785	*pyrite* chalcopyrite	*tr* tr	patches, amygdales, veins, liberated fragments	7	hematite (rare)	tr	chlorite clay illite biotite	20 15 tr tr
406502	*pyrite*	*tr*	patches, liberated grains	5	hematite	1	clay chlorite	15 5
406558	*pyrite* galena sphalerite chalcopyrite	*3* tr tr tr	patches, liberated grains	10	hematite	tr	muscovite (sericite) chlorite clay	20 15 2
406692	*pyrite* chalcopyrite	*20* tr		x	?unknown red-brown Fe-ox	tr	muscovite (sericite) clay	70 tr
406717	*pyrite* chalcopyrite	*20* tr		x	unknown yellow stain unknown orange-brown material	tr tr	muscovite (sericite) clay	70 tr

*tr = trace; x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

Project #: 0441
Sample ID: 104472

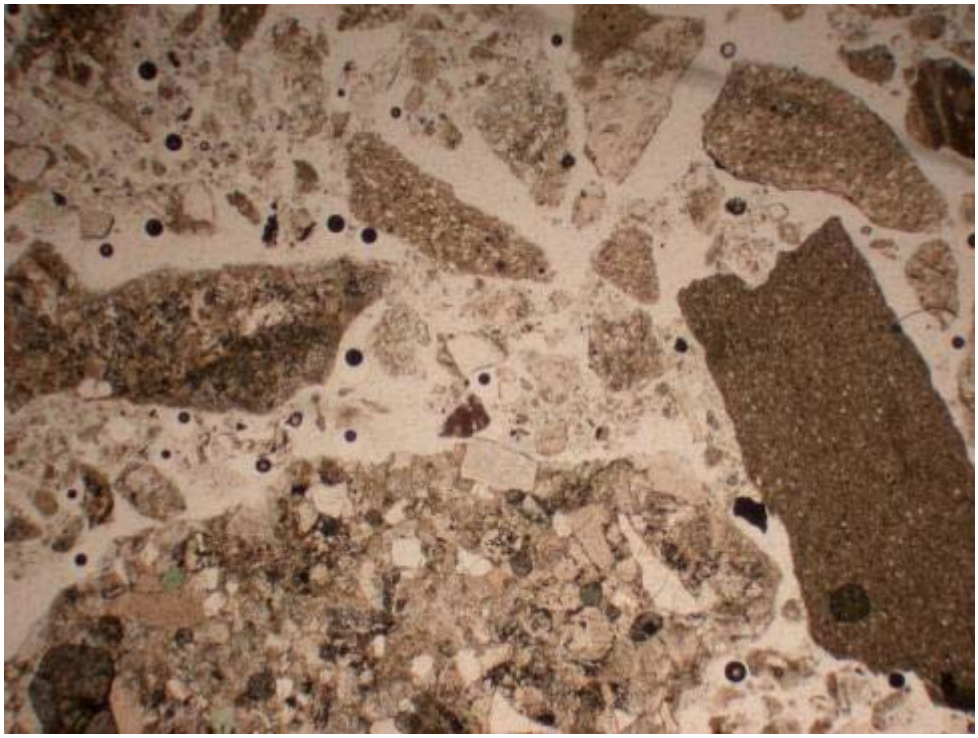
Offcut Mount Description:
Fine grains to coarse-sized chips (up to 12mm size) comprise light to medium-gray granule conglomerate, graywacke, shale and siltstone. Minor disseminated fine to medium-grained pyrite. No reaction to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed powder and fine to coarse chips of granule conglomerate, lithic sandstone (graywacke) and mudstone (siltstone/shale) with minor liberated pyrite grains and rarely very fine-grained silicified rock and quartz vein fragments. Granule conglomerate chips are poorly sorted and comprise granules of subrounded lithic sandstone, pyritic mica schist and mudstone rock fragments with fine-grained monocrystalline and polycrystalline quartz grains in a very fine-grained matrix. Lithic sandstone chips are poorly sorted and comprise dominantly angular, monocrystalline and lesser polycrystalline quartz grains, minor sericite-altered plagioclase, platy chlorite (after mafic phases) and very fine-grained sericite-altered rock fragments in a very fine-grained sericite-altered matrix, locally with disseminated rutile or ?hematite aggregate. Mudstone chips are massive to laminated and comprise very fine quartz grains, locally abundant very fine-grained illite and chlorite aggregate and brown clay.

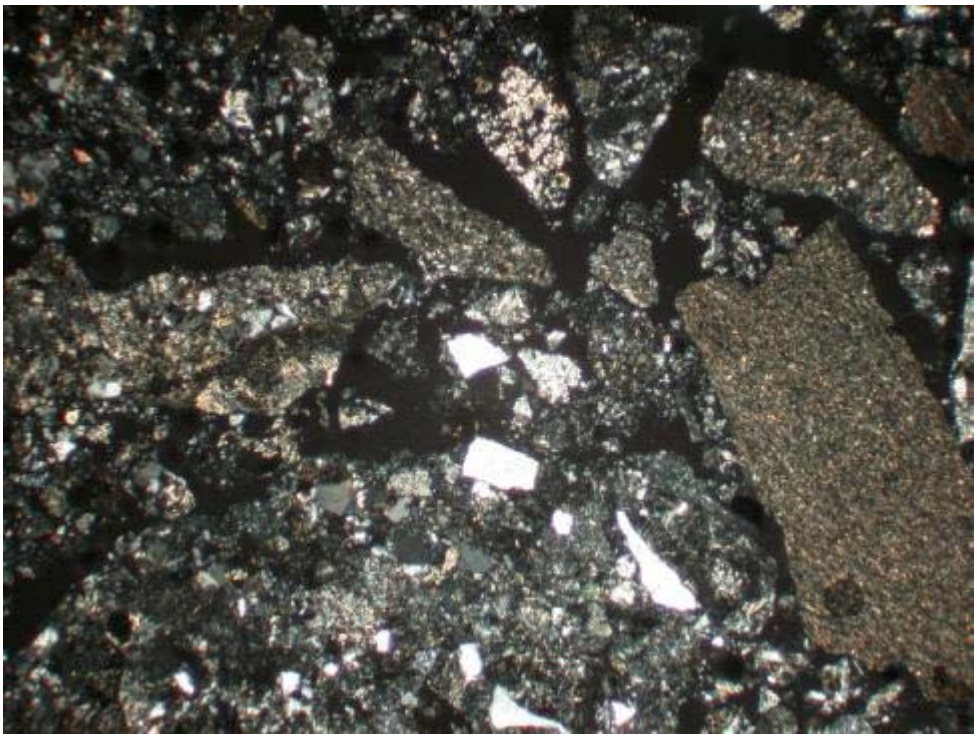
Carbonate is virtually absent in this section. One liberated fine grain of colourless carbonate was observed.

Illite occurs in abundant amounts, likely as much as 15%, within the mudstone. Muscovite (sericite) occurs dominantly within lithic sandstone and comprises approximately 7% of the section. Aphanitic brown clay minerals within mudstone and in the matrix of the lithic sandstone contribute at least 15% of the section. Very fine-grained chlorite comprises at least 3-5% of the section. Rutile occurs disseminated in trace amounts as ragged aggregates and small crystals.

Sulphide occurs in minor amounts, approximately 3%, dominantly as pyrite with traces of opaque mineral with optical properties similar to arsenopyrite and rarely sphalerite, chalcopyrite, chalcocite and covellite. Pyrite, approximately 3%, occurs disseminated as very fine to medium-grained, sub-anhedral grains and aggregates within rock chips and as liberated grains. Pyrite grains are pitted. Rims of pyrite grains are sometimes irregular, typically without alteration but a few grains have red-brown oxide/oxyhydroxide rims. Pyrite aggregates within rock chips are sometimes surrounded by yellow-brown staining of the host rock (see photos). Traces of a mineral with optical properties similar to arsenopyrite occur as euhedral rhombs and subhedral grains within fragments and as liberated grains. Rims of these mineral grains are without alteration but rarely subhedral grains within rock chips are surrounded by yellow-brown staining of the host rock (see photos). Trace sphalerite occurs within a silicified rock fragment as disseminated, fine-grained, ragged honey-coloured grains. One grain of anhedral unaltered chalcopyrite was observed within lithic sandstone. One grain of pyrite occurs with very fine-grained covellite aggregate. Traces of very fine-grained red-brown ?hematite occur as patchy grains and aggregates in some fine-grained sericite-altered rock fragments.

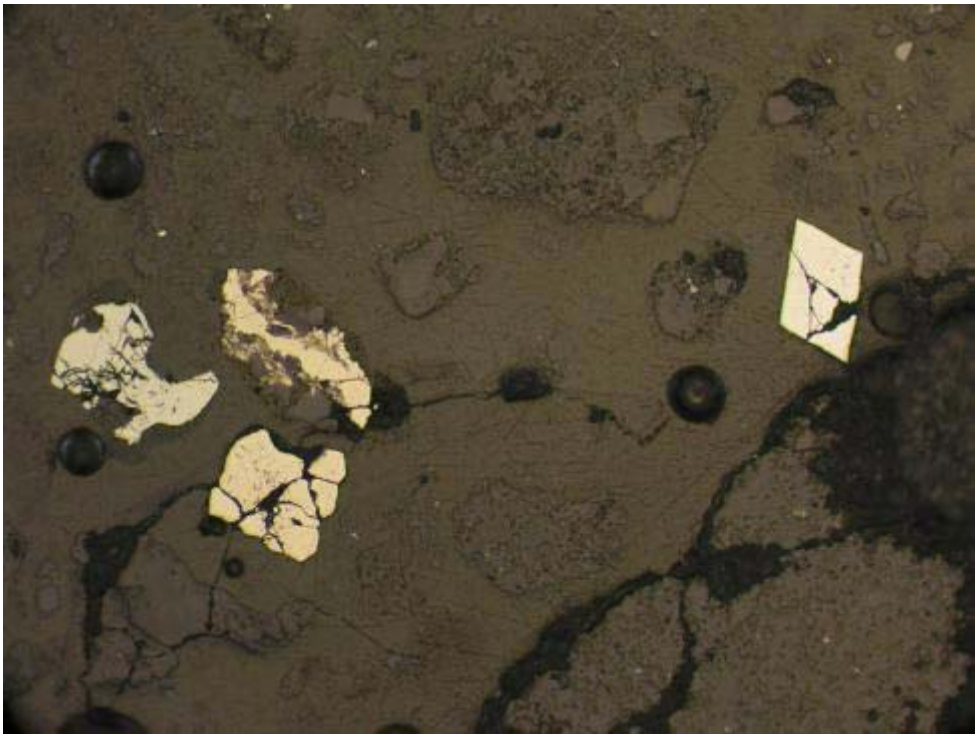


A

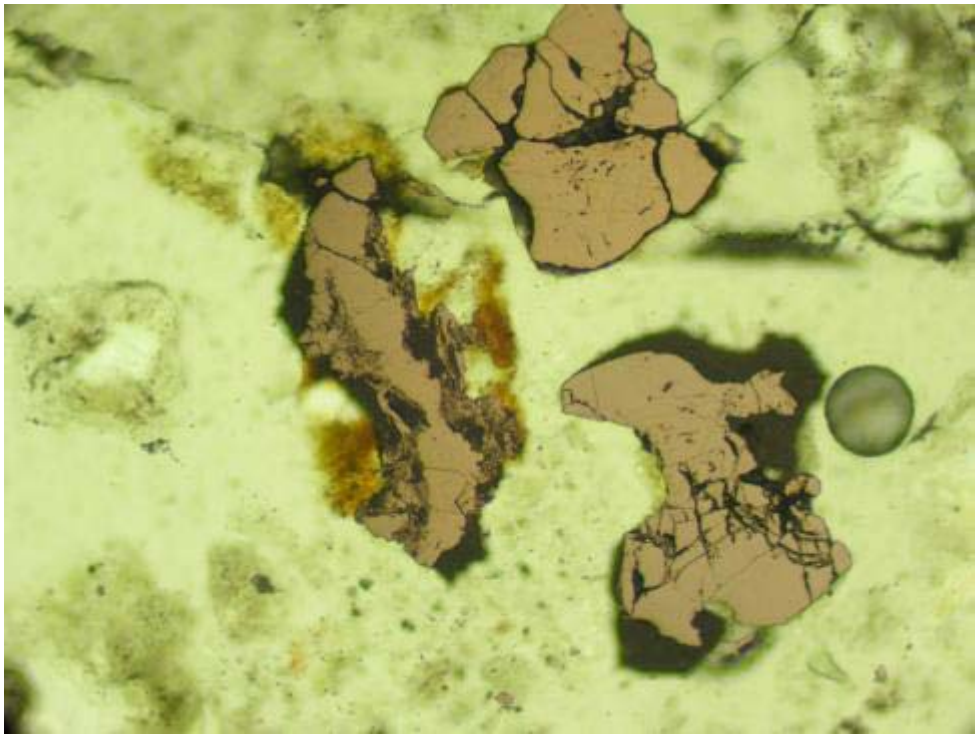


B

104472: Representative chips of mudstone and lithic sandstone. A) PPL, B) XPL, FOV =~ 4.5 mm.

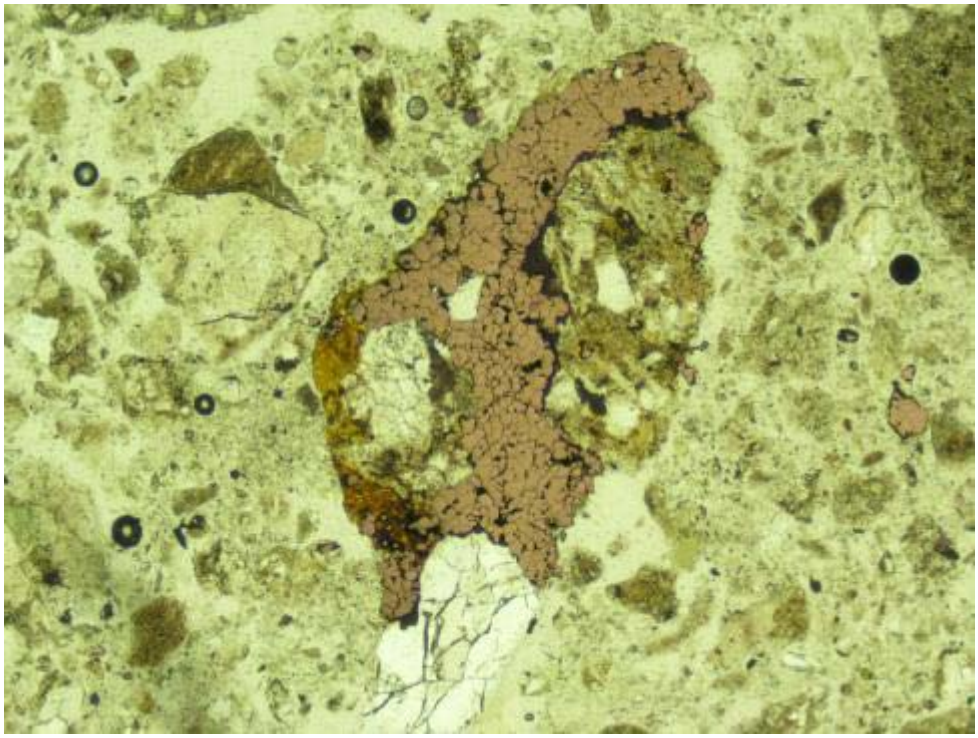


C

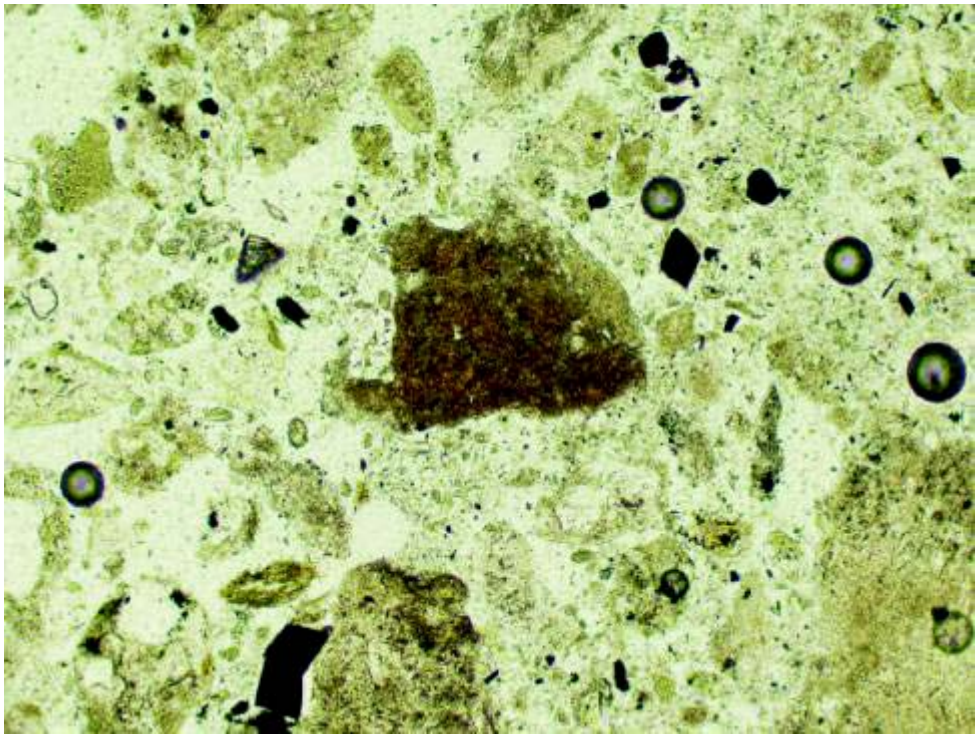


D

104472: C) Top: Two grains of mineral with optical properties similar to arsenopyrite (white - far left and right) and two pyrite grains with irregular boundaries. RL, FOV =~ 1.3 mm. D) Bottom: Detailed rotated view of left side of photo C. Note one of the pyrite grains with rim of red-brown Fe-oxide/oxyhydroxide. PPL+RL, FOV =~ 0.7 mm



E



F

104472: E) Top: pyrite aggregate with adjacent red/yellow-brown Fe-oxide/oxyhydroxide stained chip. PPL+RL, FOV =~ 2.8 mm, F) Bottom: Patchy very fine-grained ?hematite aggregate replaces fragment (centre). PPL, FOV =~ 0.7 mm.

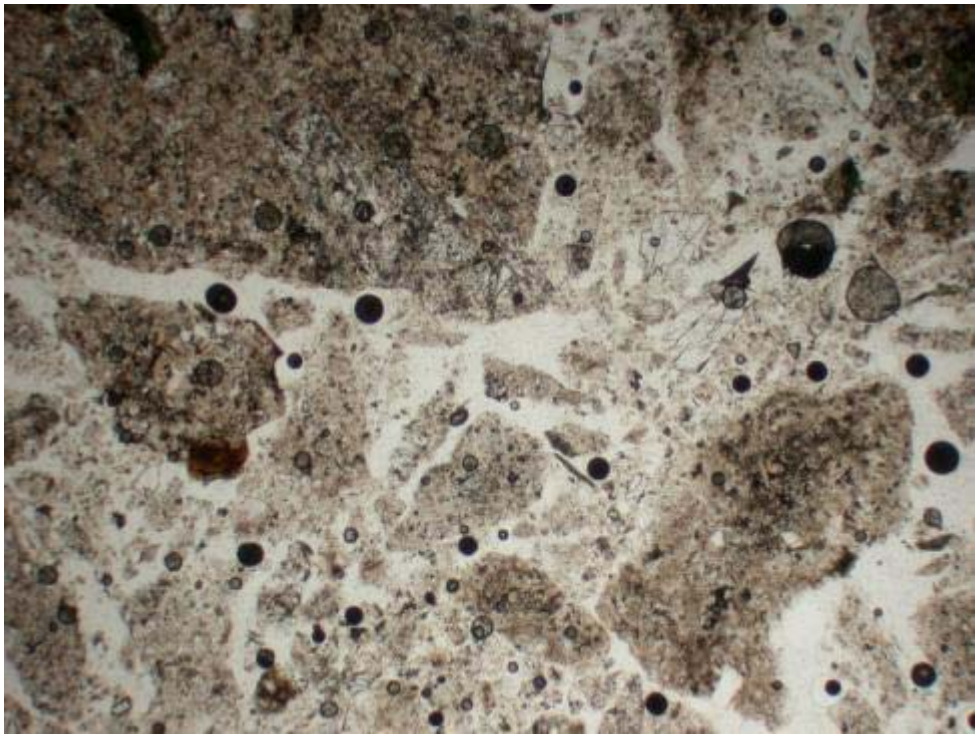
Project #: 0441
Sample ID: 104775

Chip/Powder and Offcut Mount Description:
Fine grains to coarse-sized chips (up to 16mm size) comprise white and very light gray to light gray quartz feldspar porphyry. Trace reaction of chips to cold dilute HCl. Reaction of some large chips to magnet.

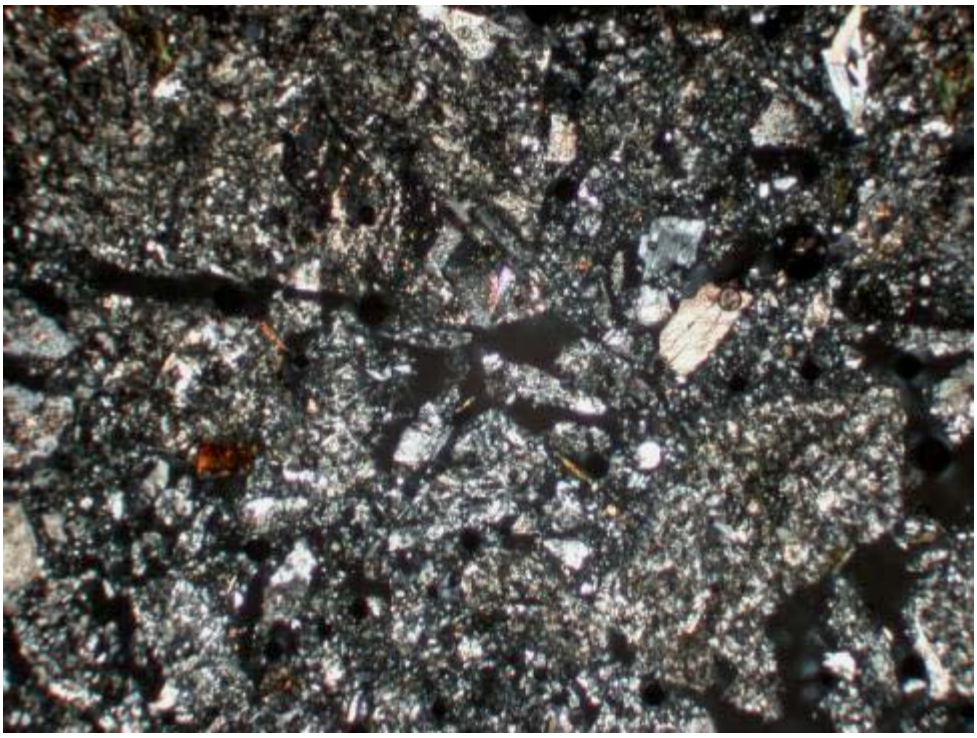
Polished Thin Section Description:
Mixed fine-grains and dominantly medium to coarse chips representing varieties of quartz feldspar porphyry lithotype. The groundmass comprises a microgranular aggregate of fine to very fine-grained quartz, plagioclase laths, interstitial chlorite and disseminated rutile grains and aggregates. The phenocryst assemblage comprises fine-grained, partly resorbed quartz (approximately 3% of the section), fine-grained, tabular plagioclase (approximately 5% of the section) and fine-grained, former mafic phenocrysts, likely platy biotite (approximately 1-2% of the section). Tabular plagioclase phenocrysts are locally partly replaced by traces of a felted aggregate of sericite, traces of epidote and patchy carbonate aggregate. Former mafic phenocrysts are replaced by chlorite, patchy brown carbonate, and epidote aggregate. The lithotype is likely a dacite due to the presence of abundant quartz, plagioclase and former mafic phenocrysts. Traces of brown oxidized grains with very fine-grained, patchy brown carbonate aggregates.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as fine to very fine-grained, colourless anhedral grains and patchy aggregates that overprint sericite replacement of plagioclase. Brown carbonate aggregates partly pseudomorph former mafic phenocrysts. Rarely, colourless carbonate can occur as liberated grains. Brown carbonate occurs as very fine-grained aggregates in brown oxidized fragments.

Sulphide occurs in trace amounts, dominantly as pyrite. Pyrite occurs as fine anhedral grains (< 0.1 mm) disseminated within rock chips and as liberated grains. Rims of pyrite grains are clean. Traces of magnetite occur disseminated as pitted eu-subhedral grains. Traces of an unknown orange/red-brown Fe-?oxyhydroxide occurs, locally with cubic forms, as fracture infill to veins and plagioclase phenocrysts and as patchy aggregates within brown oxidized fragments.

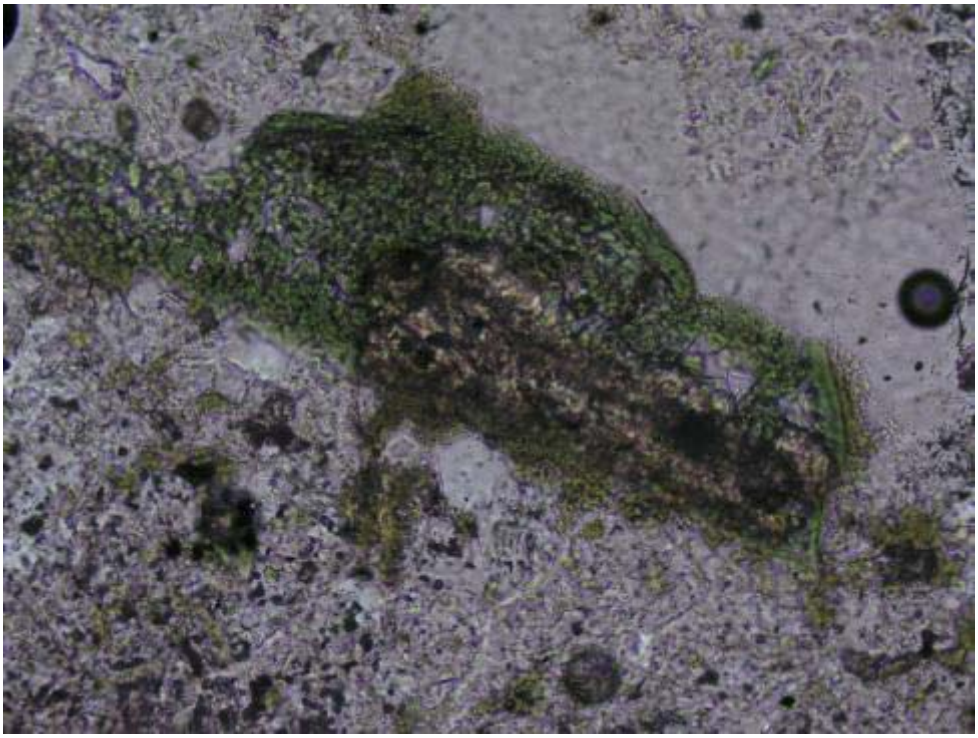


A

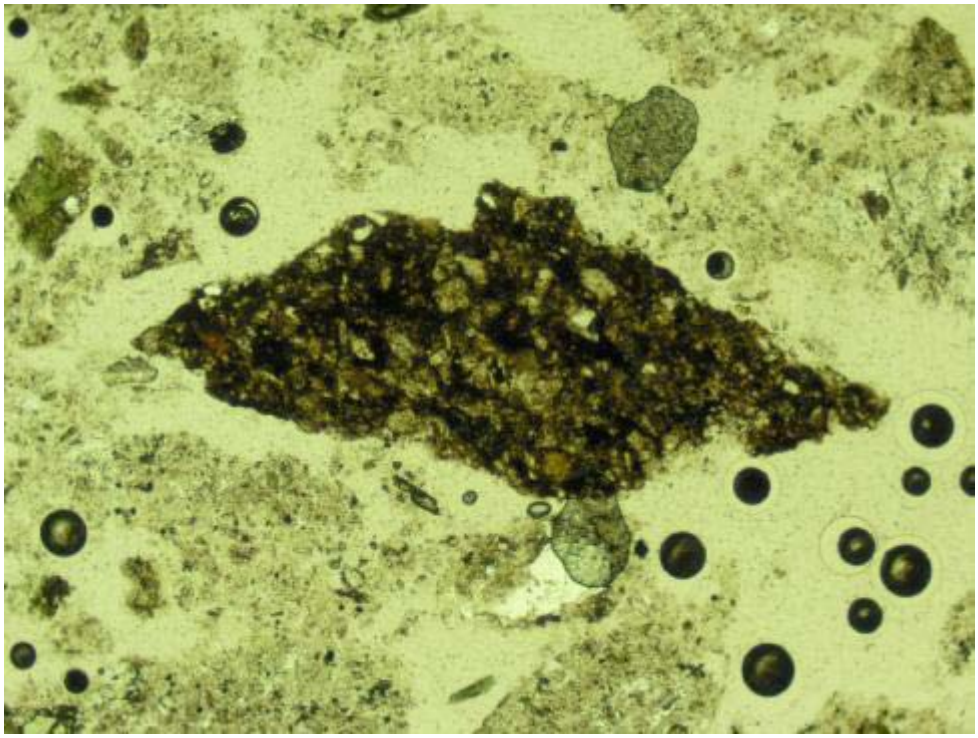


B

104775: Representative chips of feldspar porphyry fragments with liberated carbonate grains (mid-right) and red-brown Fe-oxide grain within fragment (mid left) . A) PPL, B) XPL, FOV =~ 4.5 mm.

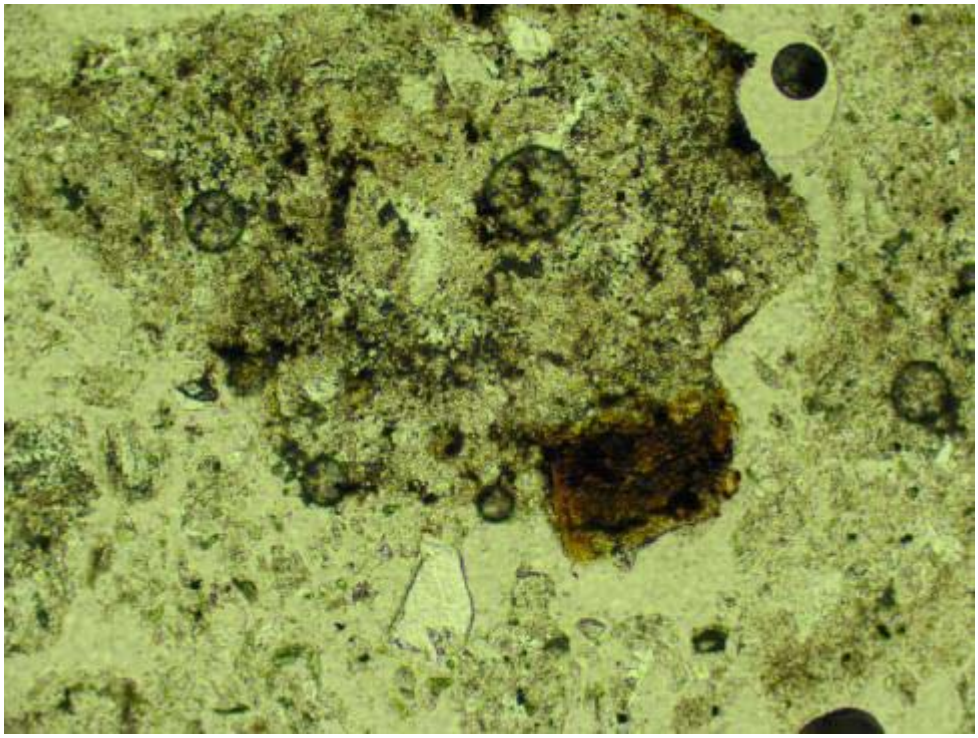


C

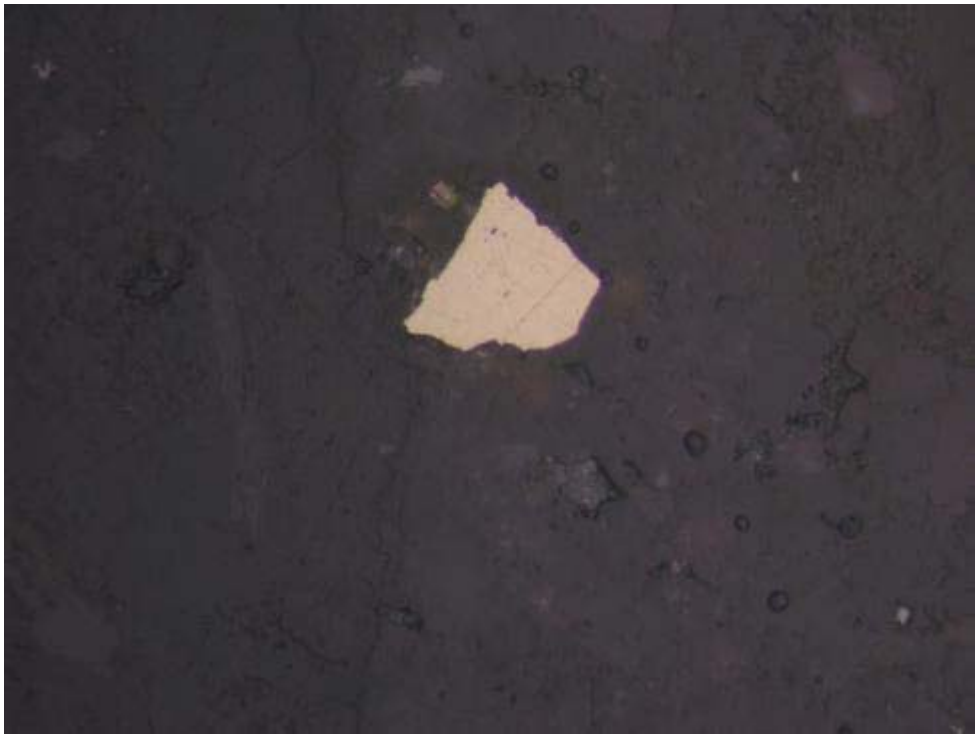


D

104775: C) Top: Chlorite and brown carbonate replace former mafic phenocryst. PPL, FOV =~ 0.7 mm, D) Bottom: Brown carbonate aggregate partly replaces former rock fragment. PPL, FOV =~ 2.5 mm



E



F

104775: E) Top: Detailed view of red-brown ?Fe-oxide grain (after cubic form) within fragment (from photos A/B). PPL, FOV =~ 1.3 mm, F) Bottom: Pyrite grain with clean, unaltered boundaries. RL, FOV =~ 0.35 mm.

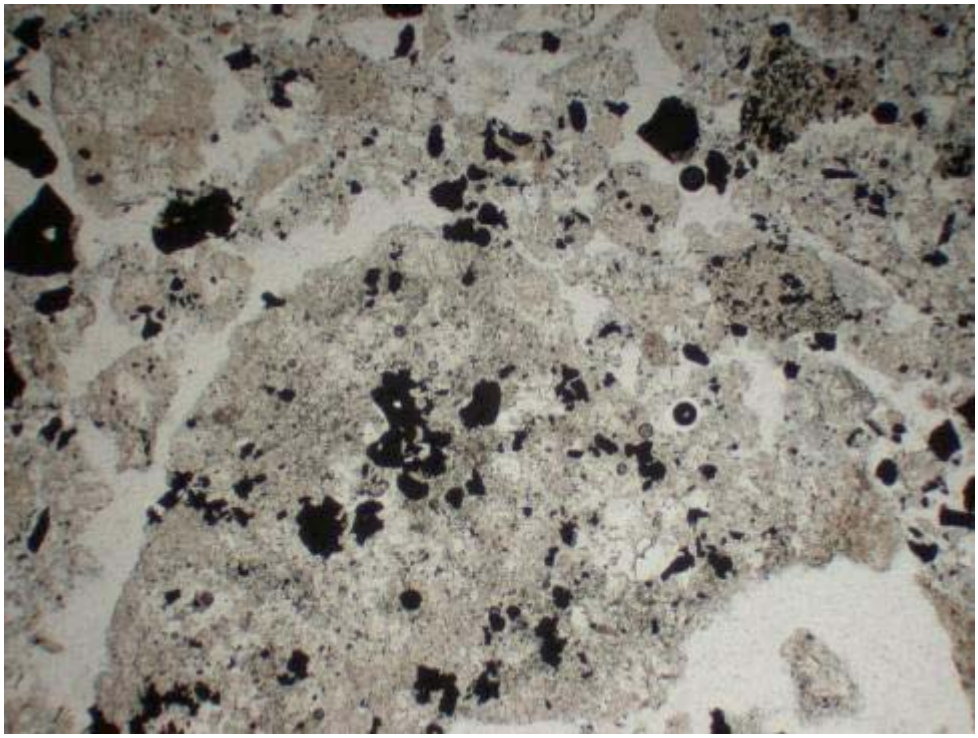
Project #: 0441
Sample ID: 105391

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 13mm size) comprise light to medium-gray pervasively sericite-pyrite altered rock fragments. Major patchy to disseminated fine to medium-grained pyrite. Pyrite also occurs as liberated grains. No reaction to cold dilute HCl. No reaction to magnet.

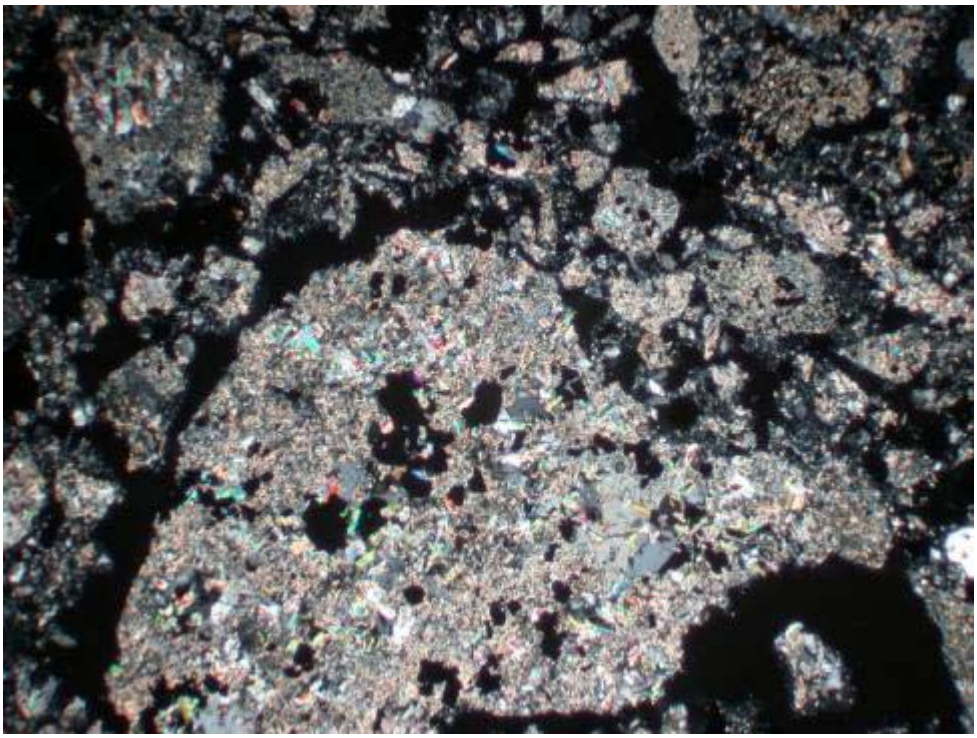
Polished Thin Section Description:
Mixed powder and fine to coarse chips of pervasively muscovite (sericite)-pyrite altered rock fragments with abundant liberated pyrite grains. The muscovite (sericite), approximately 70%, occurs as fine-grained sheaves (< 0.2mm) and very fine-grained anhedral to flaky aggregates that occur with disseminated pyrite, very fine-grained disseminated rutile and patchy quartz grains and aggregates as pervasive replacement of rock fragments. Locally, a few fragments are overprinted by patchy clay aggregates, approximately 1% of section. The rock fragments are cut by sub-mm quartz-pyrite veinlets. One fragment of very fine-grained biotite aggregate was observed.

Carbonate is absent in this section.

Sulphide occurs in major amounts, approximately 20%, dominantly as pyrite with traces of sphalerite and covellite. Pyrite, approximately 20%, occurs disseminated as fine to medium-grained (< 5 mm), sub-anhedral grains, very fine-grained anhedral patchy aggregates within rock chips and as liberated grains. Pyrite grains are pitted and variably fractured. Rims of pyrite grains are irregular and without alteration. Traces of honey-coloured sphalerite occur with pyrite and covellite as liberated aggregates and associated with sericite-quartz rock fragments. Covellite occurs as infill and encloses pyrite in some rock fragments. Pyrite-sphalerite-covellite aggregates within rock chips are rarely surrounded by yellow-brown staining of the host rock (see photos). One grain of very fine-grained red-brown ?hematite occurs in a sericite-altered rock fragment.

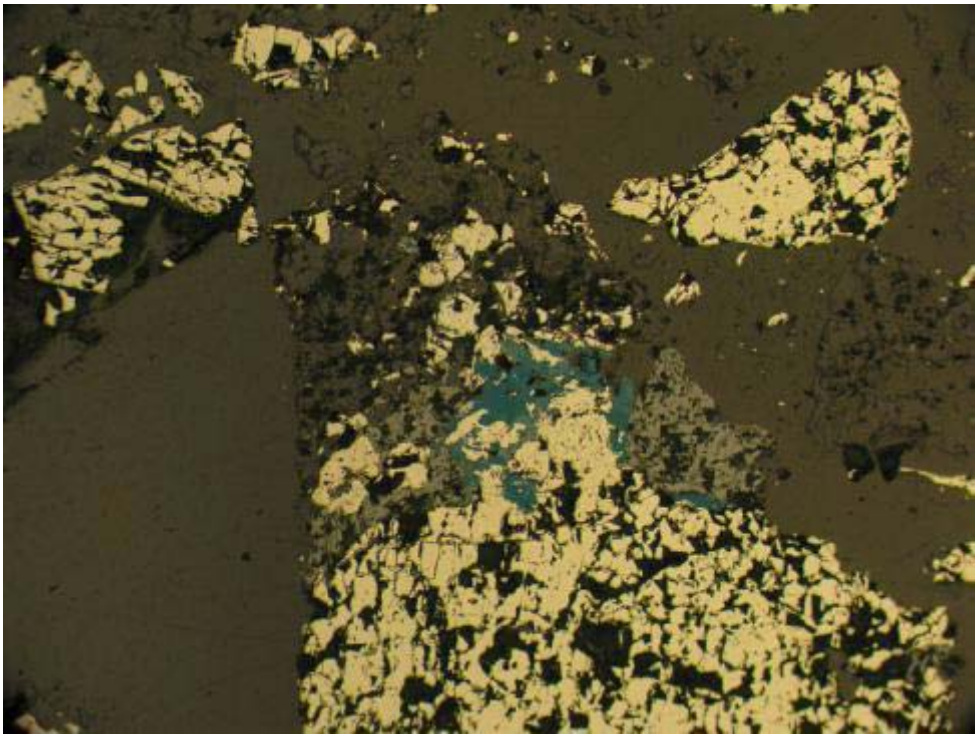


A

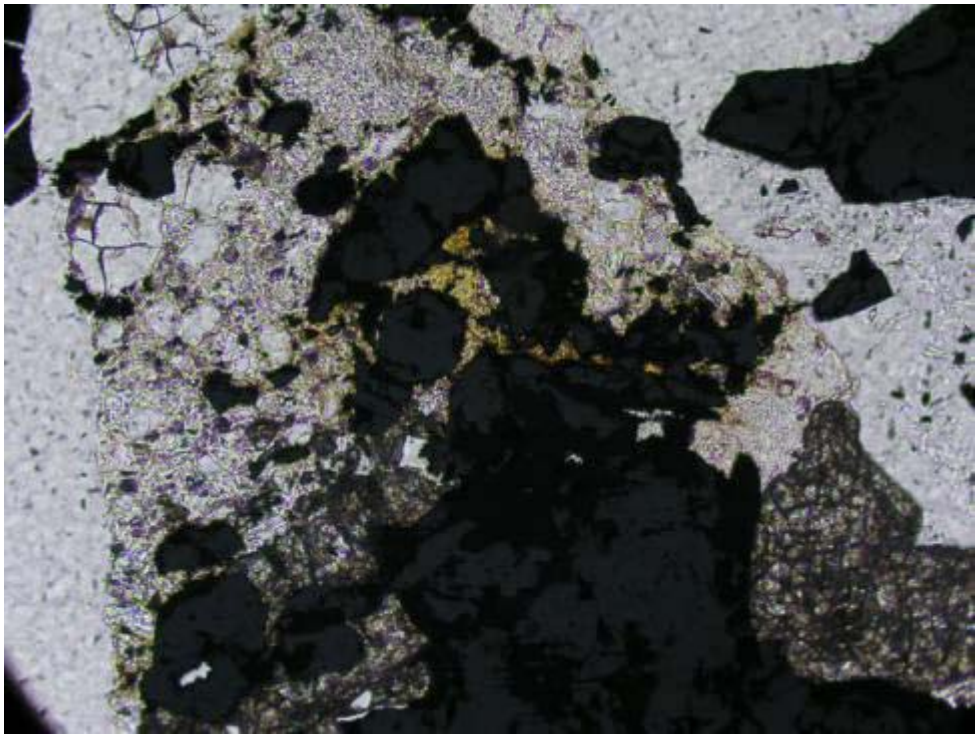


B

105391: General view of pervasively muscovite (sericite)-pyrite altered rock chips. A) PPL, B) XPL, FOV =~ 4.5 mm.

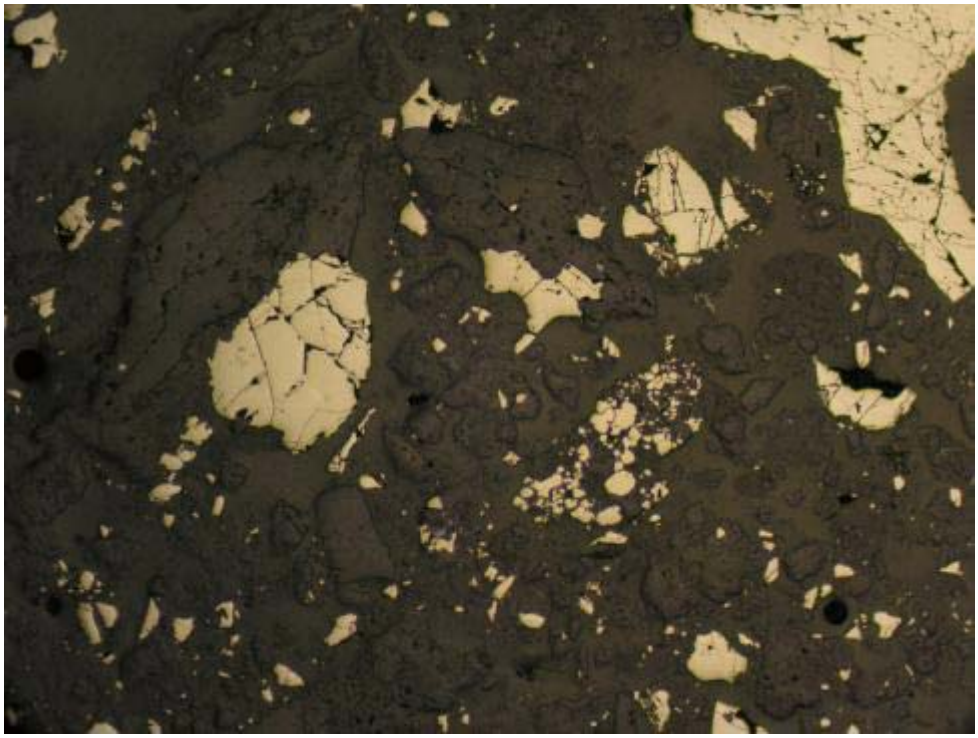


C

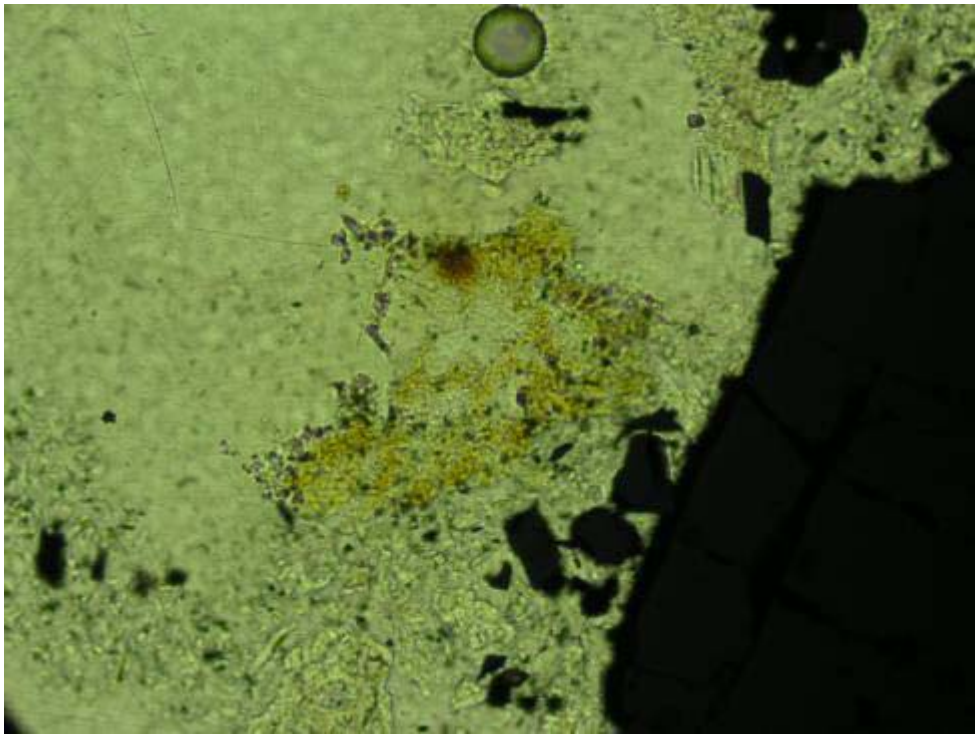


D

105391: C) Top: Strongly fractured and pitted pyrite (and sphalerite) aggregate with associated covellite (blue). RL, FOV =~ 1.3 mm. D) Bottom: Detailed view of centre of photo C. Note yellow/brown Fe-oxide/oxyhydroxide stained chip adjacent to pyrite grains. PPL, FOV =~ 0.7 mm



E



F

105391: E) Top: Fine to medium-grained disseminated pyrite grains and very fine-grained anhedral pyrite aggregate within rock chips and as liberated grains. RL, FOV =~ 2.8 mm. F) Bottom: Red-brown grain of ?hematite and yellow-brown Fe-oxide/oxyhydroxide stained chip adjacent to fine-grained pyrite (opaque). PPL, FOV =~ 0.7 mm

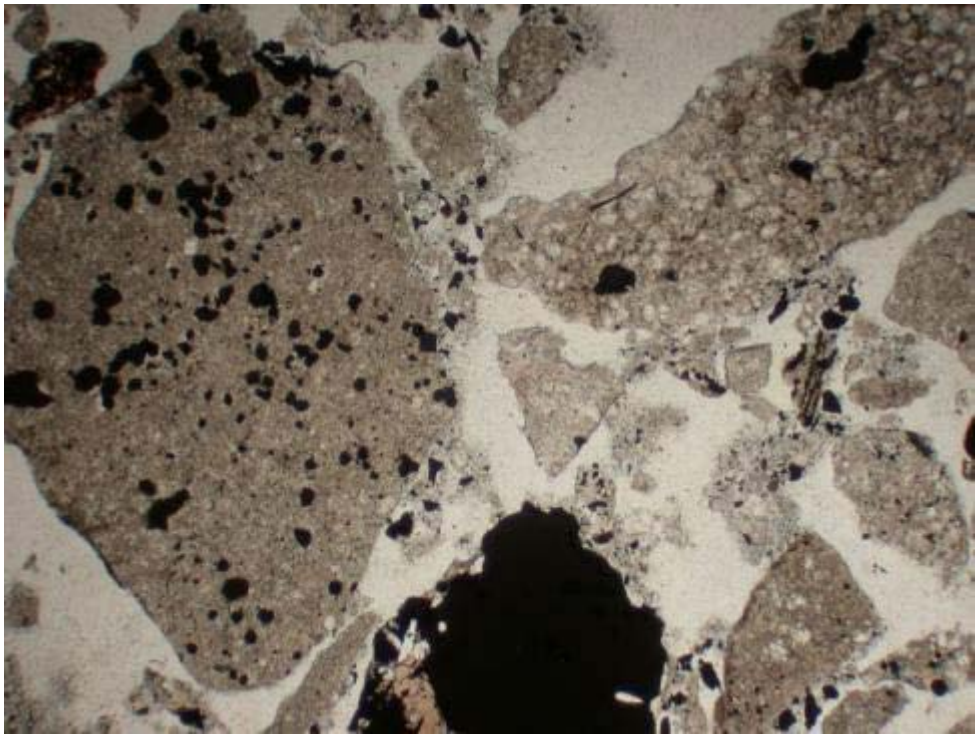
Project #: 0441
Sample ID: 105456

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 11mm size) comprise light to medium-gray pervasively sericite-pyrite altered rock fragments. Major patchy to disseminated fine to medium-grained pyrite. Pyrite also occurs as liberated grains. No reaction to cold dilute HCl. No reaction to magnet.

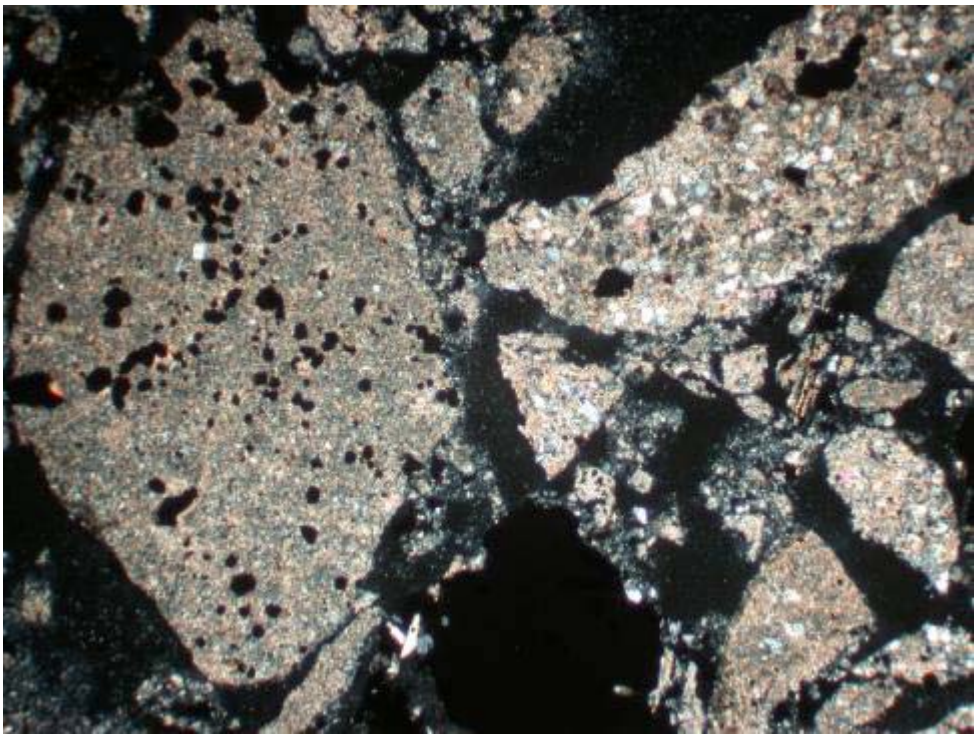
Polished Thin Section Description:
Mixed powder and fine to coarse chips of dominantly pervasively muscovite (sericite)-pyrite altered rock fragments, a few epidote-sericite-carbonate altered fragments, carbonate-?hematite altered fragments and abundant liberated pyrite grains. The muscovite (sericite), approximately 70%, occurs as very fine-grained anhedral to flaky aggregates that occur with disseminated pyrite, very fine-grained disseminated rutile and patchy quartz grains and aggregates as pervasive replacement of rock fragments. Locally, a few fragments are overprinted by patchy clay aggregates, approximately 1% of section. The rock fragments are cut by sub-mm quartz-pyrite veinlets.

Carbonate occurs in trace amounts in this section within epidote-sericite-carbonate altered and carbonate-?hematite altered fragments. The carbonate occurs as very fine-grained brown aggregates that are partly replaced by very fine-grained red-brown ?hematite aggregate.

Sulphide occurs in major amounts, approximately 20%, dominantly as pyrite with traces of bornite and covellite and an unknown gray anisotropic mineral. Pyrite, approximately 20%, occurs disseminated as fine to medium-grained (< 5 mm), sub-anhedral grains, very fine-grained anhedral patchy aggregates within rock chips and as liberated grains. Pyrite grains are pitted and variably fractured. Rims of pyrite grains are irregular and without alteration. Traces of a fine-grained unknown gray anisotropic mineral occur enclosing pyrite grains and locally with very fine-grained bornite that is mostly replaced by covellite. Traces of very fine-grained red-brown ?hematite occurs rimming and partly replacing grains of carbonate in some fragments.

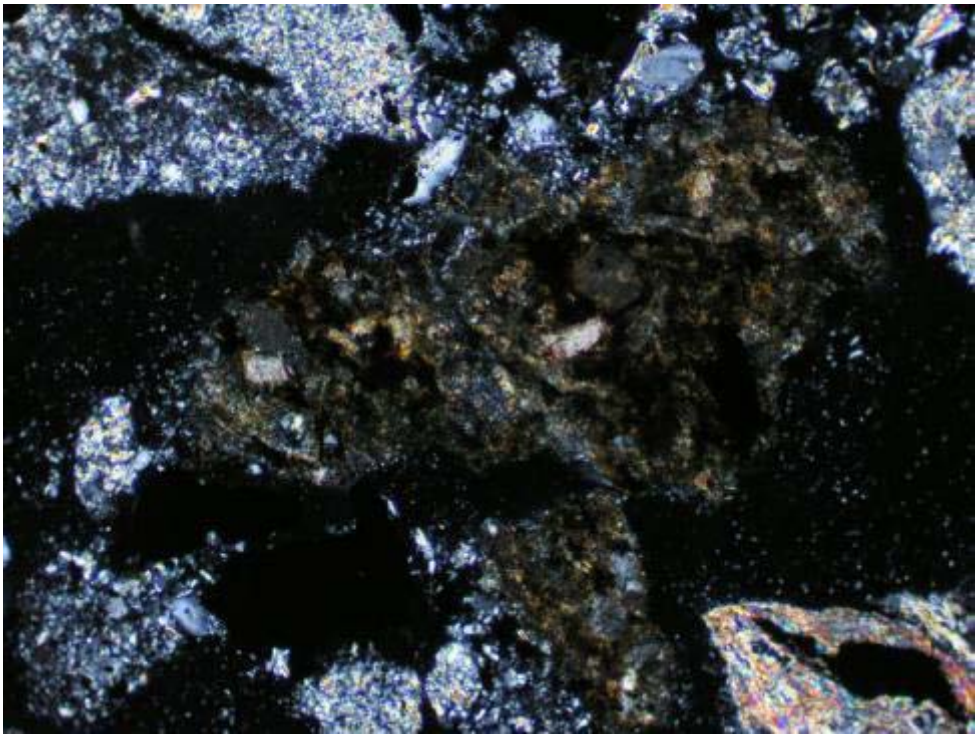


A

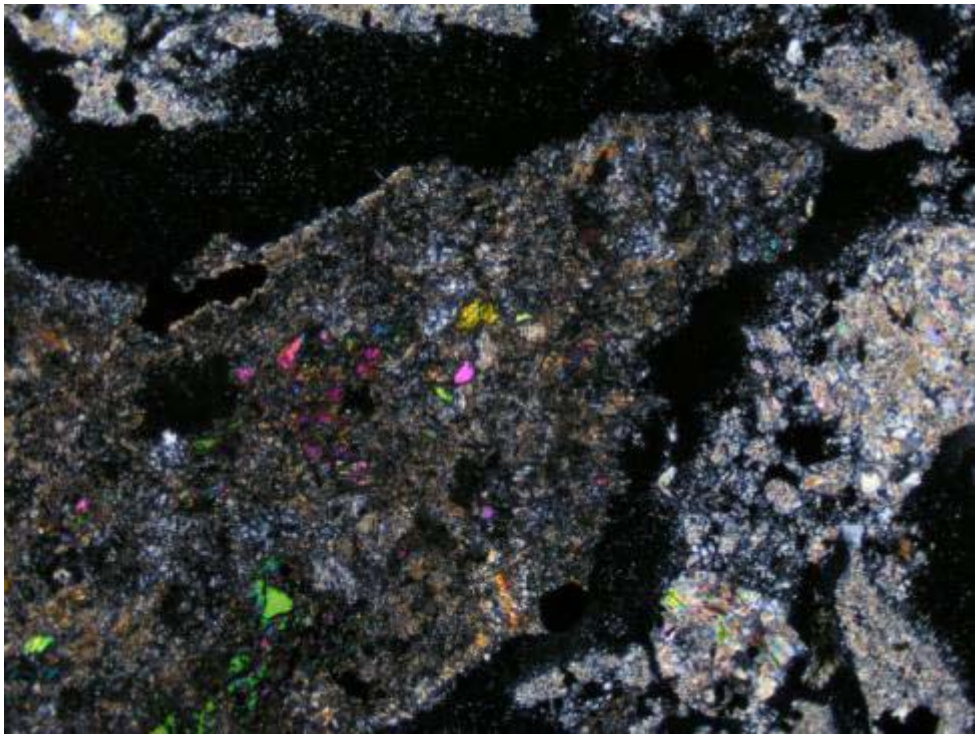


B

105456: General view of dominantly pervasively muscovite (sericite)-pyrite altered rock chips. Carbonate-?hematite-altered fragment top left of photo. A) PPL, B) XPL, FOV =~ 4.5 mm.

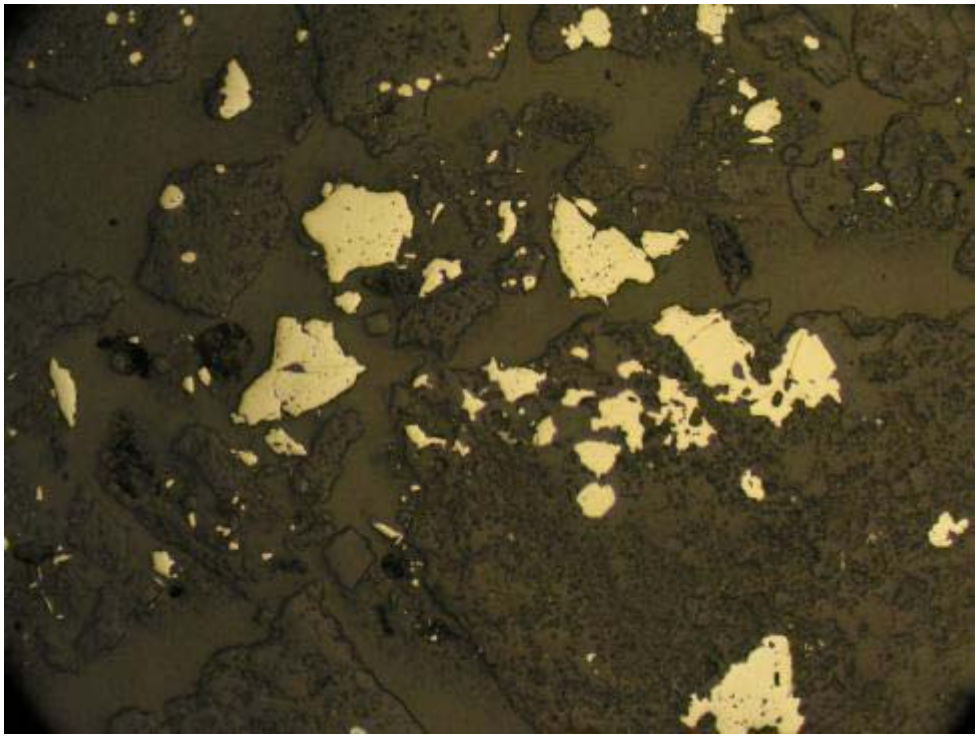


C

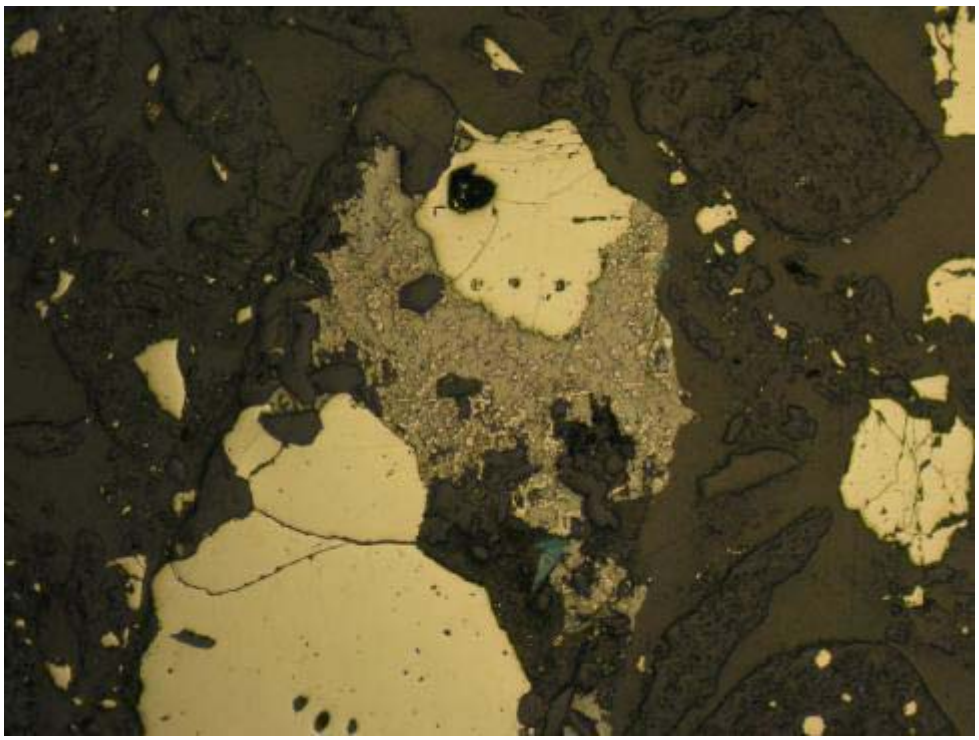


D

105456: C) Top: Strongly carbonate-altered fragment with brown carbonate partly replaced by very fine-grained ?hematite aggregate. XPL, FOV =~ 1.3 mm. D) Bottom: Rare epidote-sericite-carbonate altered fragment. XPL, FOV =~ 2.8 mm



E



F

105456: E) Top: Fine-grained disseminated pyrite grains and aggregates within rock chips and as liberated grains. RL, FOV =~ 2.8 mm. F) Bottom: Pyrite partly enclosed by unknown mineral (gray). Unknown mineral is intergrown with bornite which is partly replaced by covellite (blue). RL, FOV = ~2.8 mm

Project #: 0441
Sample ID: 107172

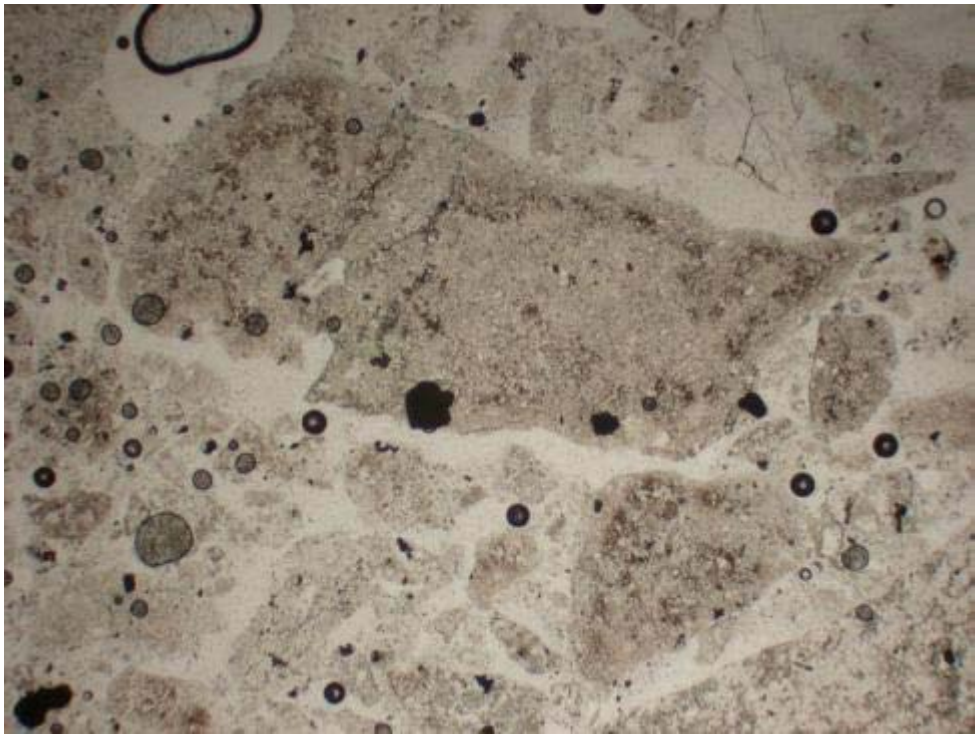
Offcut Mount Description:
Fine grains to coarse-sized chips (up to 10mm size) comprise light to medium-gray graywacke, shale and siltstone. Minor disseminated fine-grained pyrite and chalcopyrite. Reaction of some fragments to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed powder and fine to coarse chips of pervasively illite-muscovite (sericite) altered lithic sandstone (graywacke) cut by quartz ± chlorite ± sulphide ± (carbonate) veinlets and with traces of liberated carbonate, quartz and pyrite grains. Lithic sandstone chips are poorly sorted and comprise dominantly angular, monocrystalline and lesser polycrystalline quartz grains and traces of rutile in a pervasively illite-sericite-altered matrix overprinted by patchy very fine-grained brown carbonate aggregate and patchy fine-grained colourless carbonate.

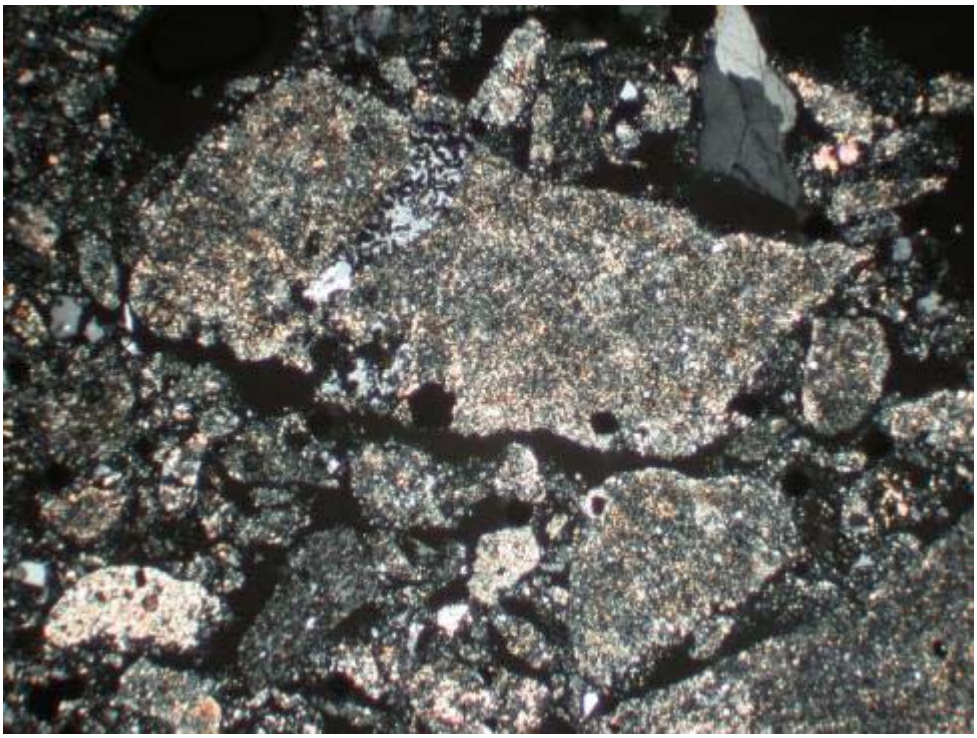
Total carbonate comprises approximately 2% of the section. Traces of colourless anhedral carbonate occur as fine to very fine-grained patchy aggregates overprinting sericite aggregate in the lithic sandstone. Colourless carbonate also occurs as traces of liberated fine-grains. Brown carbonate, approximately 2%, occurs as very fine-grained to aphanitic patchy anhedral aggregates overprinting sericite in the lithic sandstone, as rhombic grains in sub-mm quartz-chlorite veinlets and as colloform-textured aggregates forming sub-mm veinlets.

Illite occurs in abundant amounts, likely as much as 20%, within the lithic sandstone. Muscovite (sericite) comprises approximately 3% of the section. Chlorite comprises at least 3-5% of the section as replacement of host rock and as veins. Rutile occurs disseminated in trace amounts as ragged aggregates and small crystals.

Sulphide occurs in major amounts, approximately 5%, dominantly as pyrite with lesser chalcopyrite and rare traces of molybdenite within quartz vein fragments and as liberated laths. Pyrite, approximately 2%, occurs disseminated as very fine-grained, sub-anhedral grains and aggregates within rock chips and as liberated grains. Locally, pyrite contains inclusions of chalcopyrite. Pyrite grains are sometimes pitted. Rims of pyrite grains are without Fe-oxide/oxyhydroxide alteration. Commonly, pyrite is rimmed by brown carbonate or clinozoisite-epidote aggregate. Chalcopyrite, approximately 3%, occurs as anhedral grains within rock and quartz vein fragments and as liberated grains. Chalcopyrite grains are sometimes partly rimmed by brown carbonate. Rare traces of very fine-grained red-brown ?hematite were observed as patchy grains and aggregates in fragment.

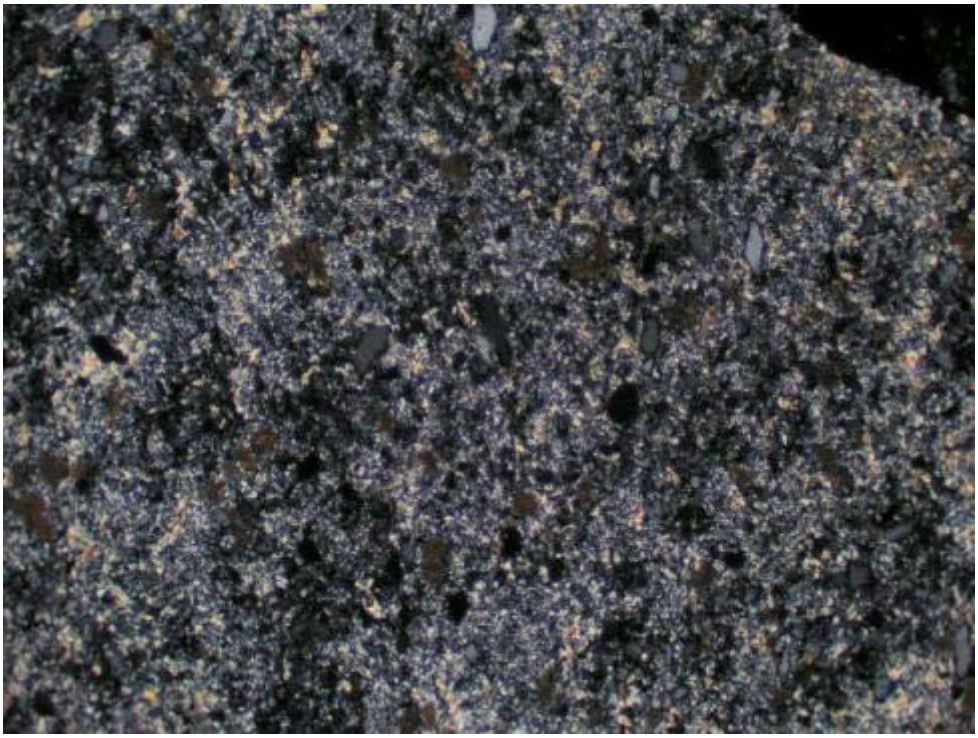


A

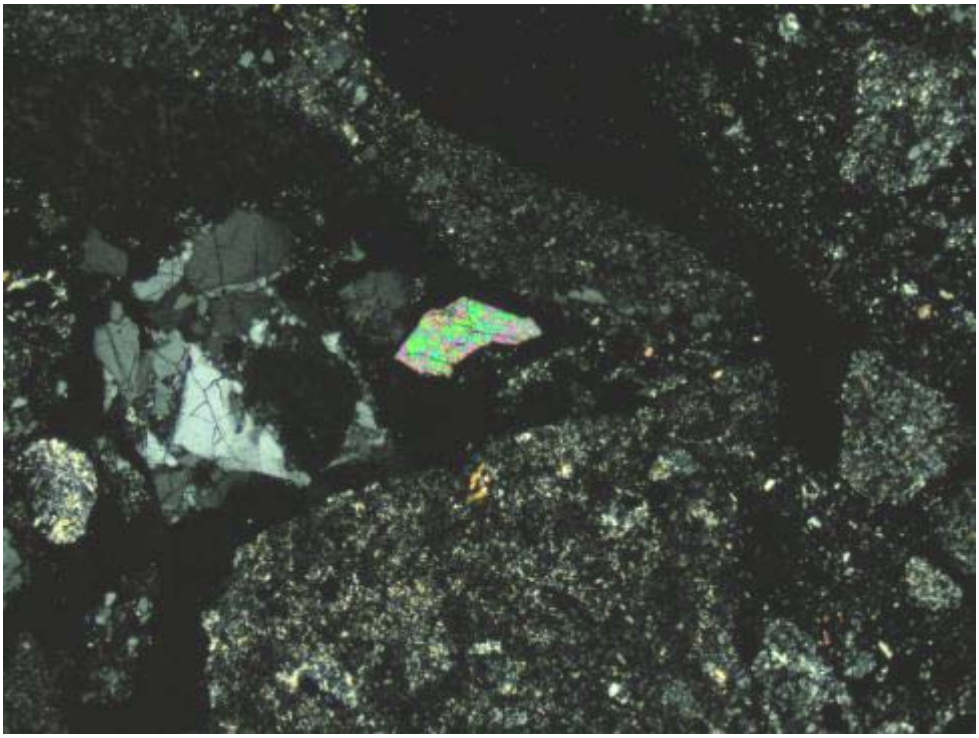


B

107172: Representative chips of pervasively illite-muscovite (sericite) altered lithic sandstone fragments and quartz vein fragment (top right). Note sub-mm veinlet of quartz-chlorite cuts left side of large fragment (centre). A) PPL, B) XPL, FOV =~ 4.5 mm.

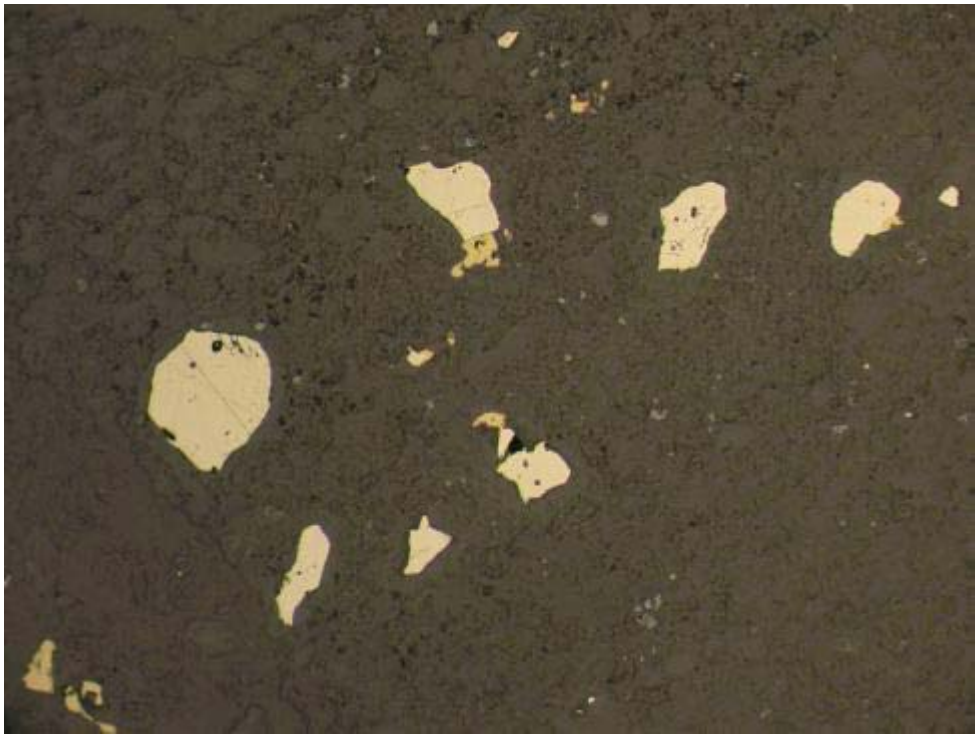


C

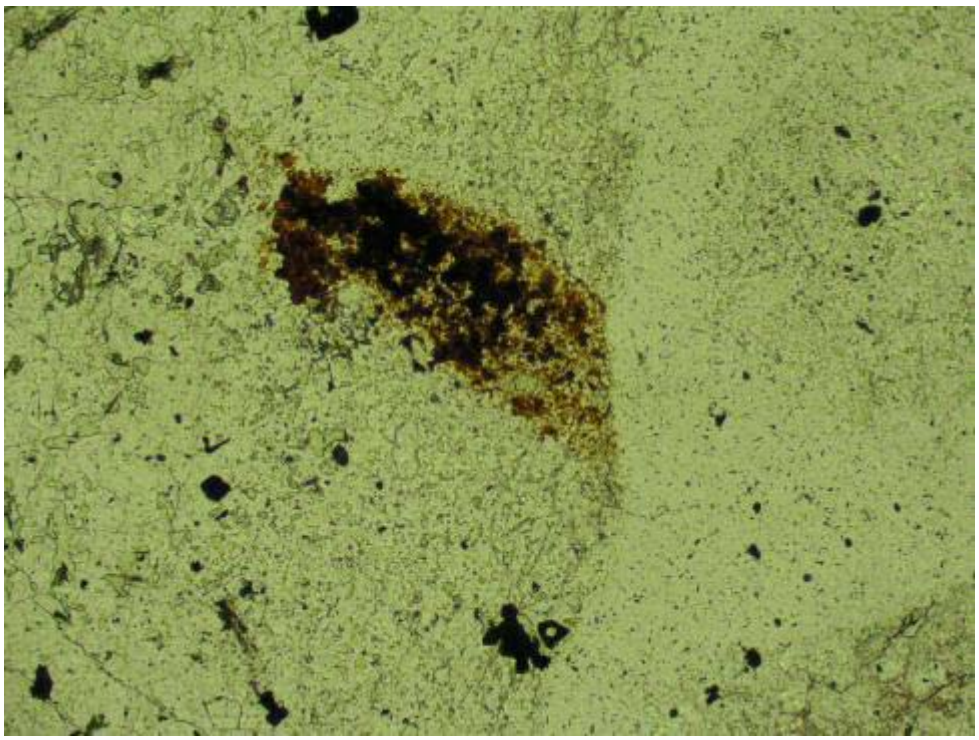


D

107172: C) Top, Patchy very fine-grained brown carbonate aggregates overprint illite-sericite alteration. XPL, FOV =~ 1.3 mm, D) Bottom: Liberated colourless carbonate grain (centre). XPL, FOV = 2.8 mm



E



F

107172: E) Top: Pyrite ± chalcopyrite grains with fine chlorite rims. RL, FOV =~ 2.8 mm, F) Bottom, Patchy very fine-grained ?hematite aggregate replaces fragment. PPL, FOV =~ 1.3 mm.

Project #: 0441
Sample ID: 107326

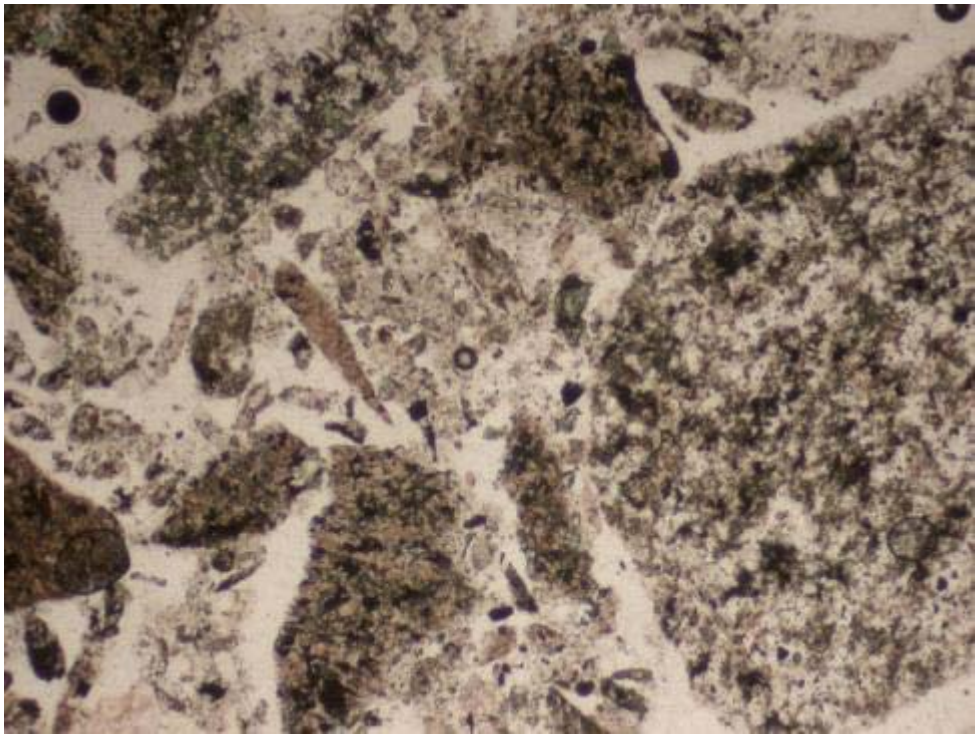
Chip/Powder and Offcut Mount Description:
Fine grains to medium-sized chips (up to 5mm size) comprise medium blue-gray aphanitic rock. No reaction of chips to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed fine-grains and dominantly medium sized chips representing various rock types: fine-grained pervasively chlorite-carbonate-rutile-epidote-clay altered seriate-textured andesite, pervasively illite-chlorite-carbonate-rutile altered very fine-grained rock (?rhyolite), pervasively sericite-quartz altered fragments, carbonate-chlorite-green muscovite vein fragments and liberated carbonate, quartz, epidote, pyrite and chalcopyrite grains.

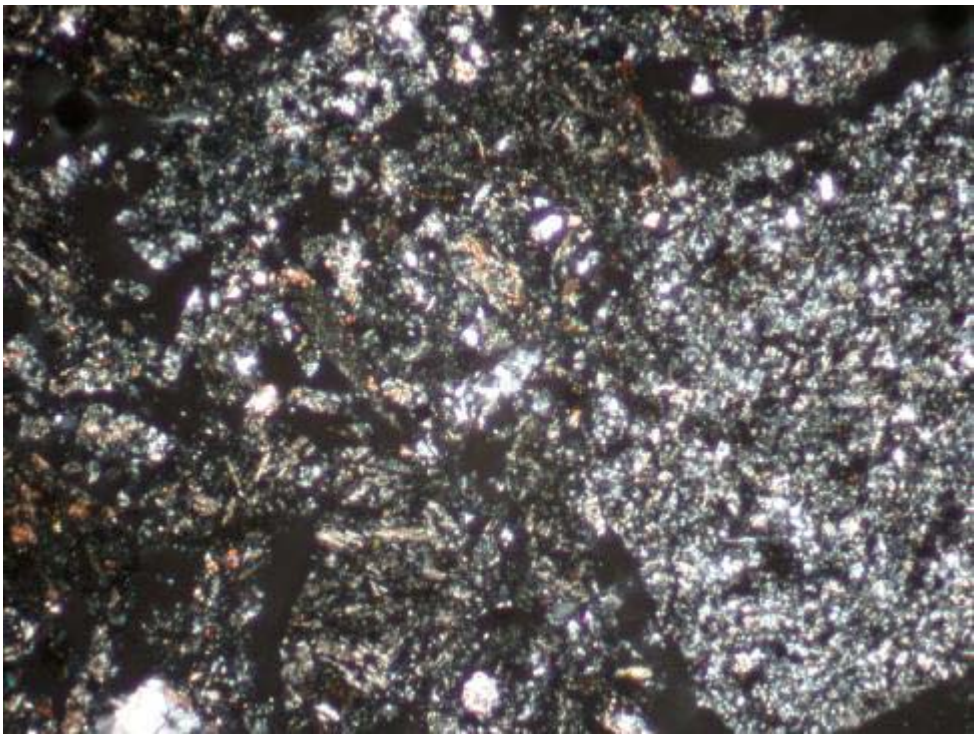
Total carbonate comprises approximately 1% of the section. Carbonate occurs as fine to very fine-grained, colourless anhedral aggregates with chlorite and epidote forming sub mm wide veinlets that cut the seriate-textured andesite, as patchy aggregates overprinting the seriate-textured andesite and rhyolite fragments and as vein fragments with lesser chlorite and green muscovite.

Illite occurs as approximately 5% of the section within the very fine-grained altered ?rhyolite. Muscovite (sericite) occurs in trace amounts. Chlorite comprises at least 15% of the section as replacement of biotite in rhyolite fragments and within seriate-textured fragments. Minor rutile occurs as very fine-grained, dark brown patchy aggregates, locally overprinting colourless patchy carbonate, and occurring as spotty replacement of seriate-textured andesite and rhyolite.

Sulphide occurs in minor amounts, approximately 2%, dominantly as pyrite with lesser chalcopyrite and rare traces of molybdenite. Pyrite, approximately 2%, occurs as fine eu-anhedral grains (< 0.2 mm) disseminated within illite and sericite-altered rock chips and as liberated grains. Rims of pyrite grains are clean. Trace to almost 1% chalcopyrite occurs as anhedral grains with clean rims in illite-altered rock chips and as liberated grains. Rare molybdenite occurs as bent laths and plates with pyrite.

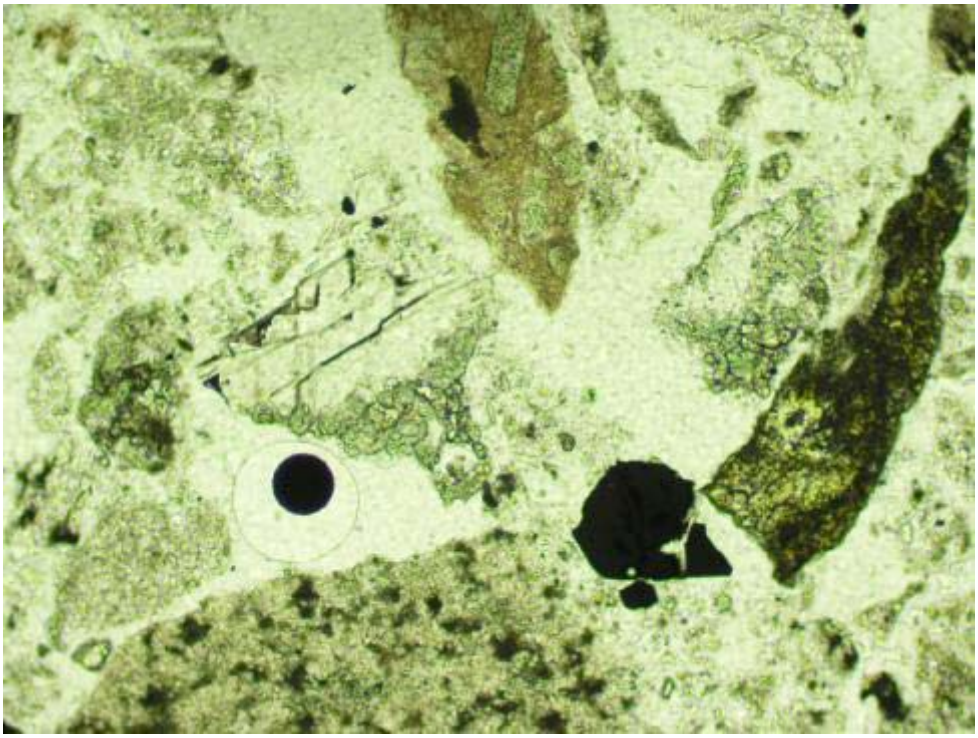


A

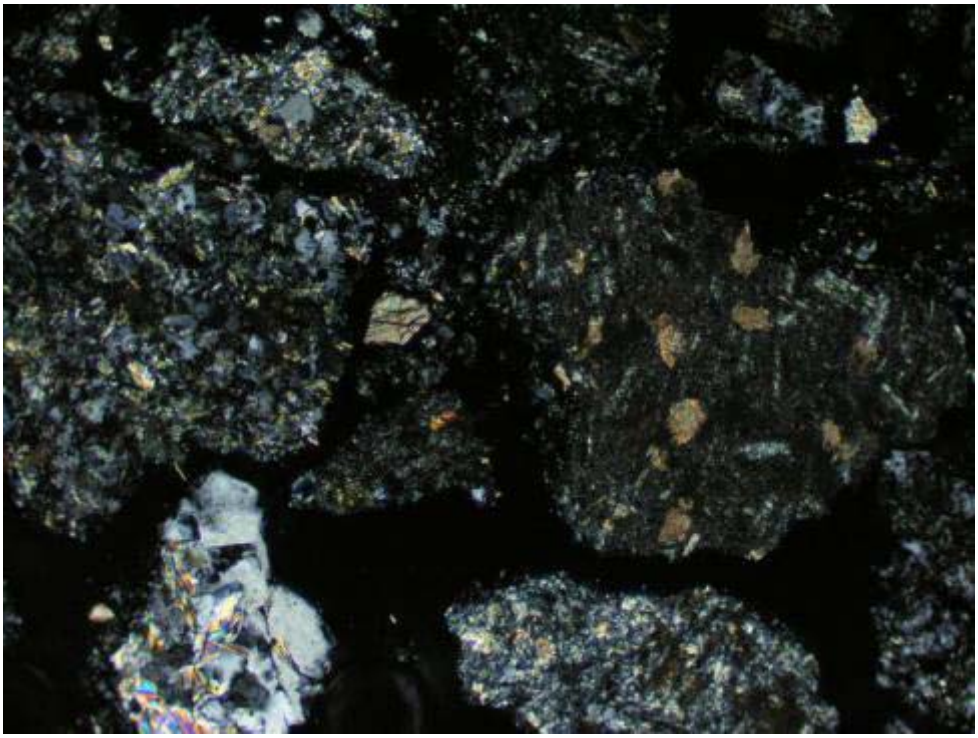


B

107326: Representative chips of pervasively chlorite-carbonate-rutile-epidote-clay altered seriate-textured andesite (top-centre and bottom-centre) and pervasively illite-chlorite-carbonate-rutile altered very fine-grained rock (right). A) PPL, B) XPL, FOV =~ 4.5 mm.

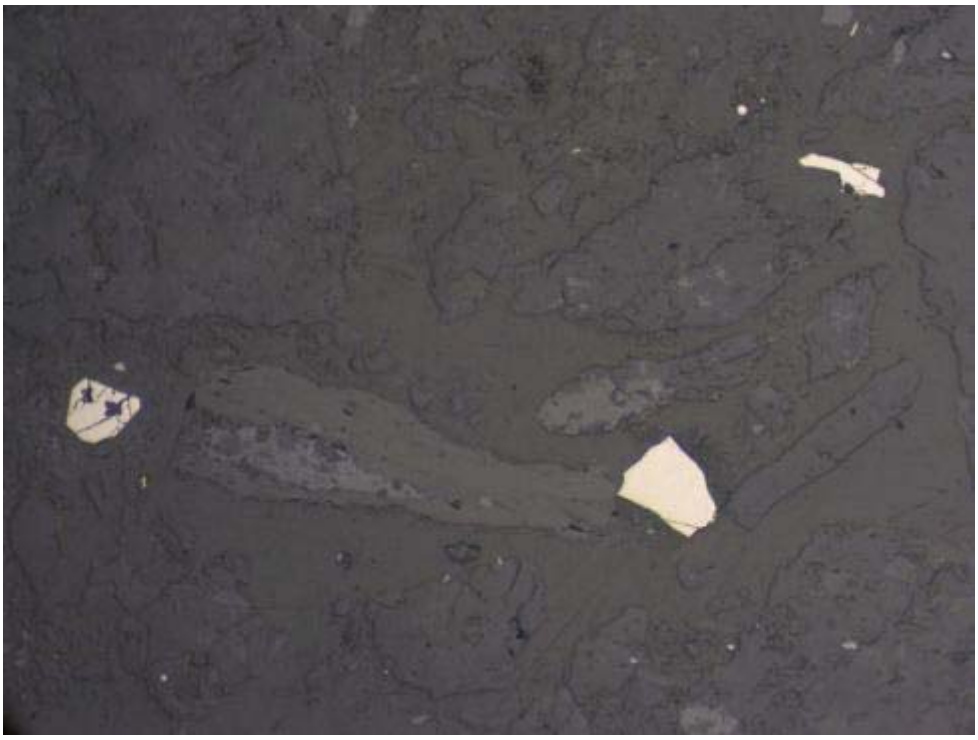


C



D

107326: C) Top: Fragments of clay-chlorite altered mafic volcanic (top-centre), quartz-sericite altered rock (top right), carbonate-chlorite-epidote-muscovite veinlet (centre), epidote veinlet (right), liberated pyrite (opaque) and illite-chlorite-carbonate-rutile altered rock (bottom). PPL, FOV =~ 1.3 mm, D) Bottom: Liberated carbonate grain (centre) and patchy carbonate aggregate (right) partly replaces former seriate-textured rock fragment. XPL, FOV =~ 1.3 mm



E

107326: E) Bottom: Pyrite grains with clean, unaltered boundaries. RL, FOV =~ 0.7 mm.

Project #: 0441
Sample ID: 219084

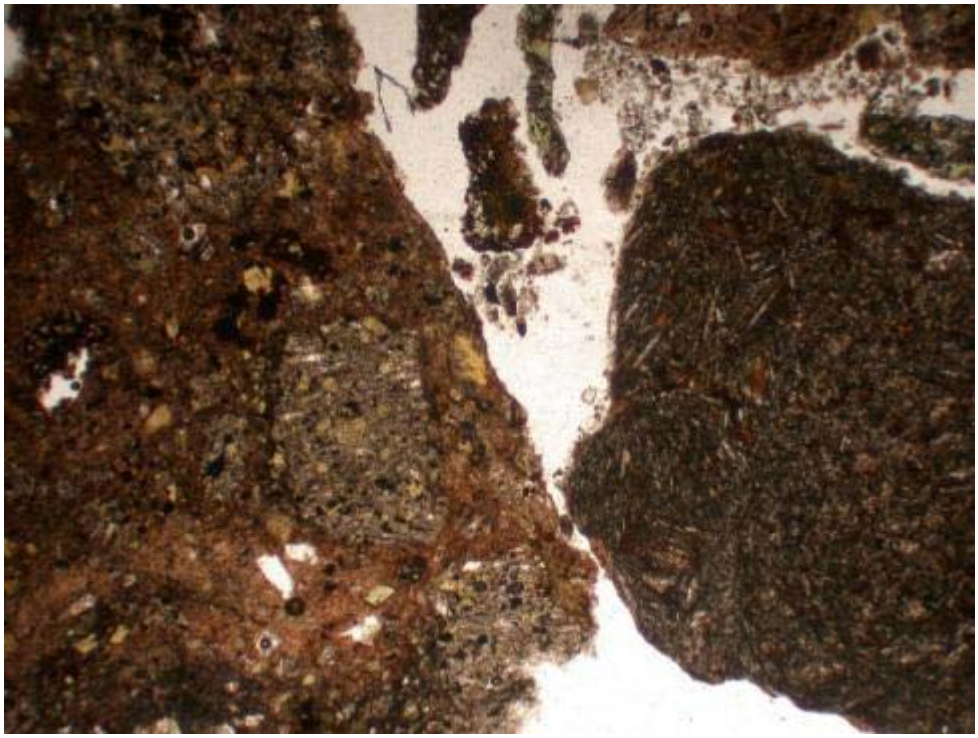
Offcut Mount Description:
Medium to coarse-sized chips (up to 10mm size) comprise gray-green and dark green volcanic breccia and dark gray aphanitic rock fragments. Minor disseminated very fine-grained red-brown Fe-oxide within mottled pale green fragments. Reaction of some fragments to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Medium to coarse chips of brown volcanic breccia (probable lapilli tuff), seriate-textured rock, carbonate-altered quartz-phyric very fine-grained rock and yellow-brown stained radiating chalcedonic quartz aggregate with traces of liberated pyrite, hematite grains and carbonate aggregate. Volcanic breccia comprise subangular to rounded fragments (from 1 to 3mm size) of seriate-textured rock, carbonate-altered tabular phases, yellow-brown stained radiating chalcedonic quartz aggregate and broken quartz crystals in a very fine-grained brown matrix. Seriate-textured rock fragments vary from biotite-bearing to progressively altered with chlorite and carbonate replacing phenocrysts and groundmass laths of plagioclase. Radiating carbonate-chlorite filled amygdales are observed in some seriate-textured fragments. Sub-mm carbonate-chlorite veinlets cut seriate textured fragments

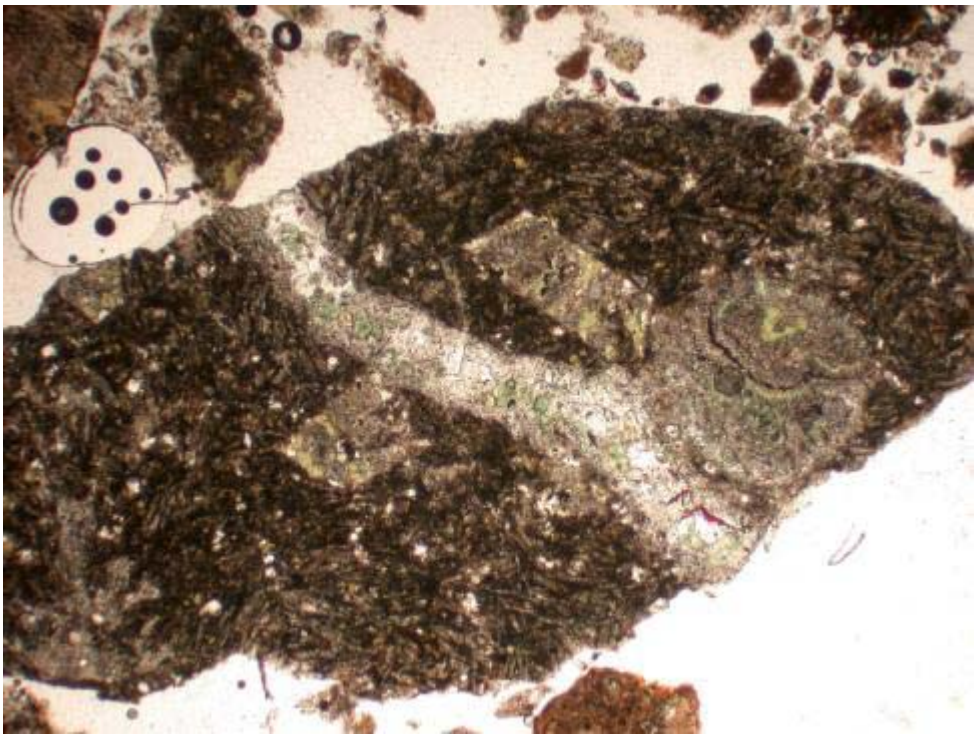
Total carbonate comprises approximately 10% of the section. Colourless carbonate occurs as fine-grained patchy replacement of former feldspar laths, phenocrysts and matrix in volcanic rock fragments and feldspar crystals. Colourless carbonate also occurs with chlorite as amygdales and sub-mm veinlets. Very fine-grained brown carbonate occurs partly replacing colourless carbonate and as patchy aggregates and veinlets.

Aphanitic brown clay minerals within volcanic breccia matrix contribute at least 15% of the section. Very fine-grained chlorite comprises at least 5% of the section. Green biotite occurs in trace amounts.

Sulphide occurs in trace amounts as pyrite with one rare grain of chalcopyrite observed. Pyrite occurs disseminated as fine-grained (< 0.1 mm), eu-anhedral grains within seriate-textured rock and as liberated grains. Rims of pyrite grains are clean with no traces of alteration. Minor, approximately 1%, fine to very fine-grained hematite (< 0.1 mm) occurs as pseudomorphs after cubic forms in volcanic breccia rock fragments, as stringers and as liberated grains. Traces of yellow-brown stained rock fragments occur adjacent to hematite grains within fragments.

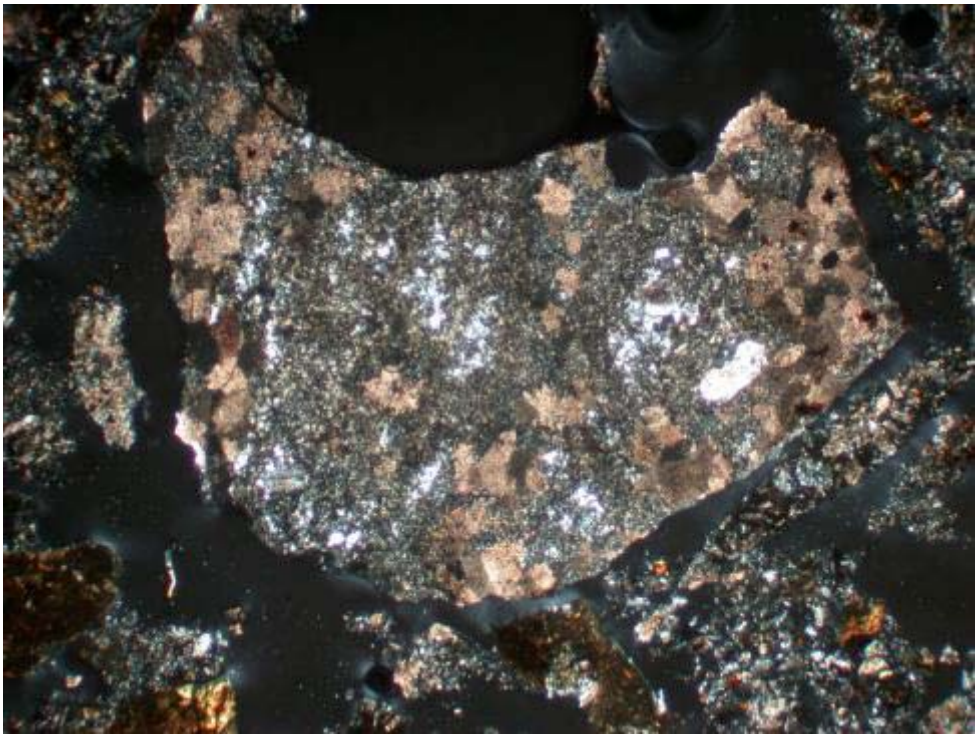


A

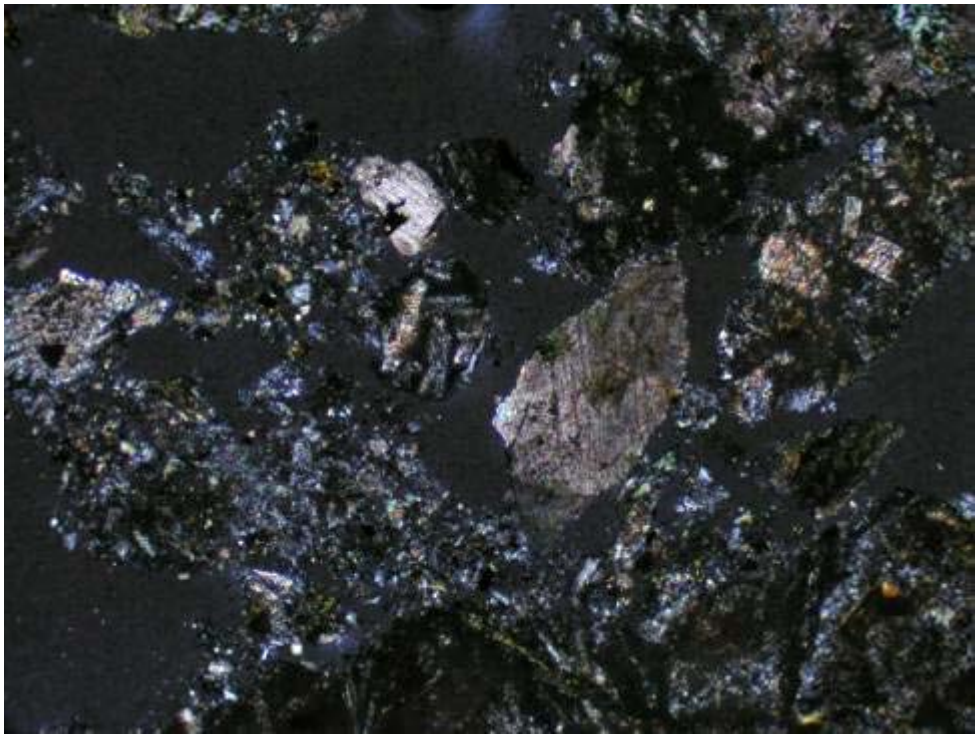


B

219084: A) Representative chips of volcanic breccia (left) and seriate textured rock fragment (right). Note fragments of seriate-textured rock within volcanic breccia fragment. PPL, FOV =~ 4.5 mm. B) Seriate-textured rock fragment with amygdale filled with radiating aggregates of chlorite and carbonate (right), tabular phenocrysts replaced by chlorite-carbonate and cut by sub-mm veinlet of chlorite-carbonate. PPL, FOV =~ 4.5 mm.

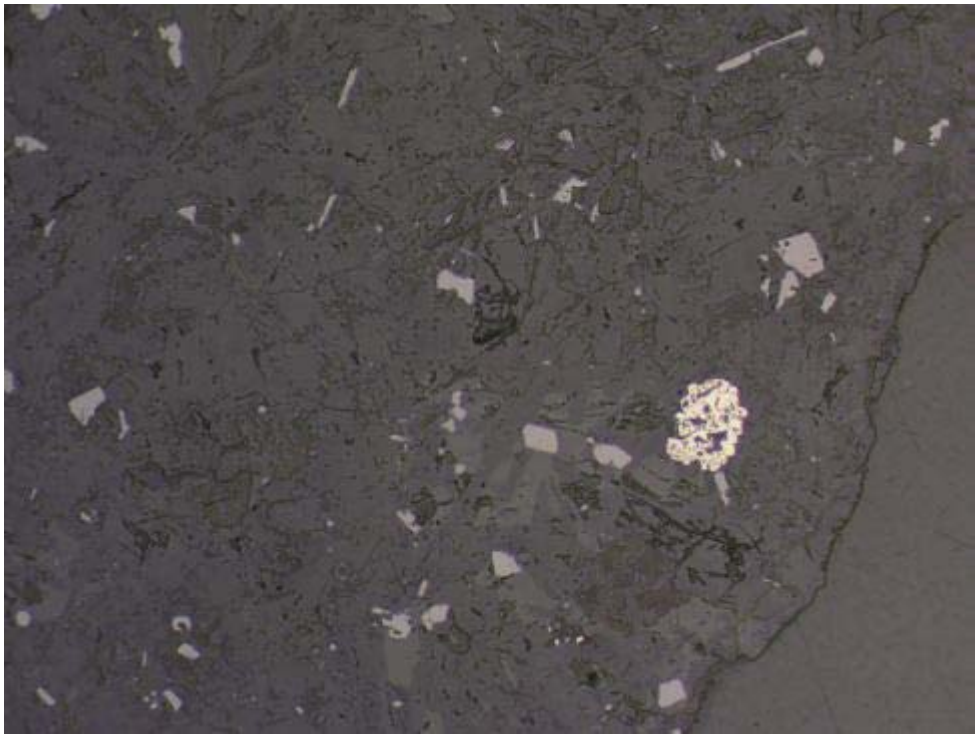


C

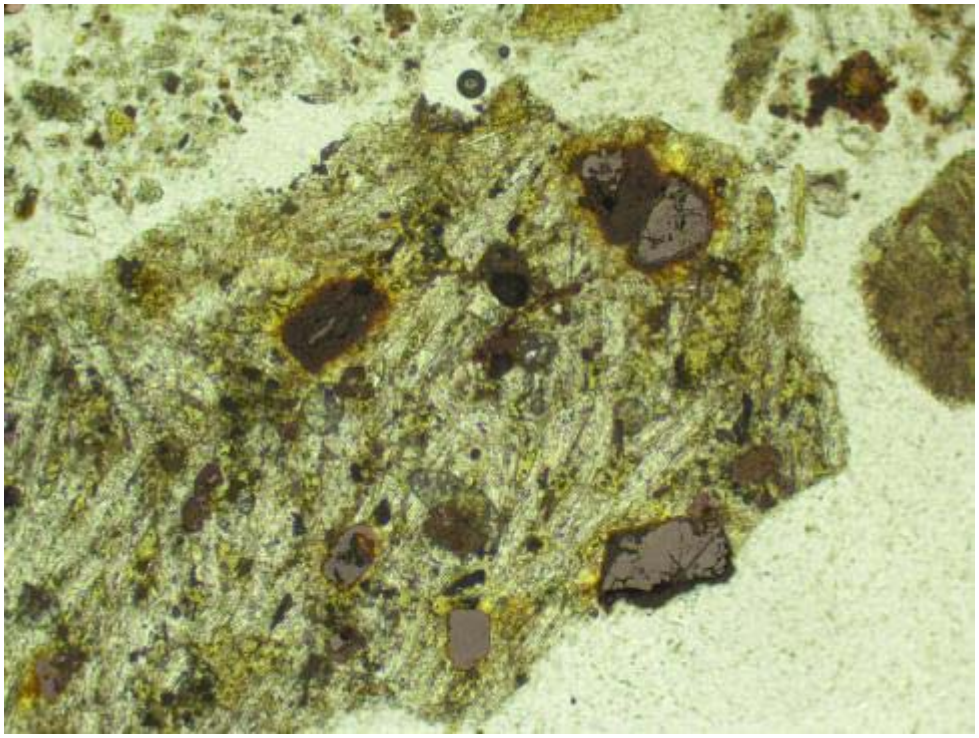


D

219084: C) Top: Fragment of quartz-phyric aphanitic rock with patchy replacement by brown carbonate aggregate. XPL, FOV =~ 4.5 mm. D) Bottom: Liberated grains of colourless carbonate (centre). XPL, FOV =~ 1.3 mm



E



F

219084: E) Top: Disseminated euhedral pyrite and ilmenite within biotite-bearing seriate-textured rock fragment. RL, FOV =~ 1.3 mm, F) Bottom: Disseminated hematite grains and yellow-brown staining of seriate-textured rock fragment. PPL+RL, FOV =~ 1.3 mm.

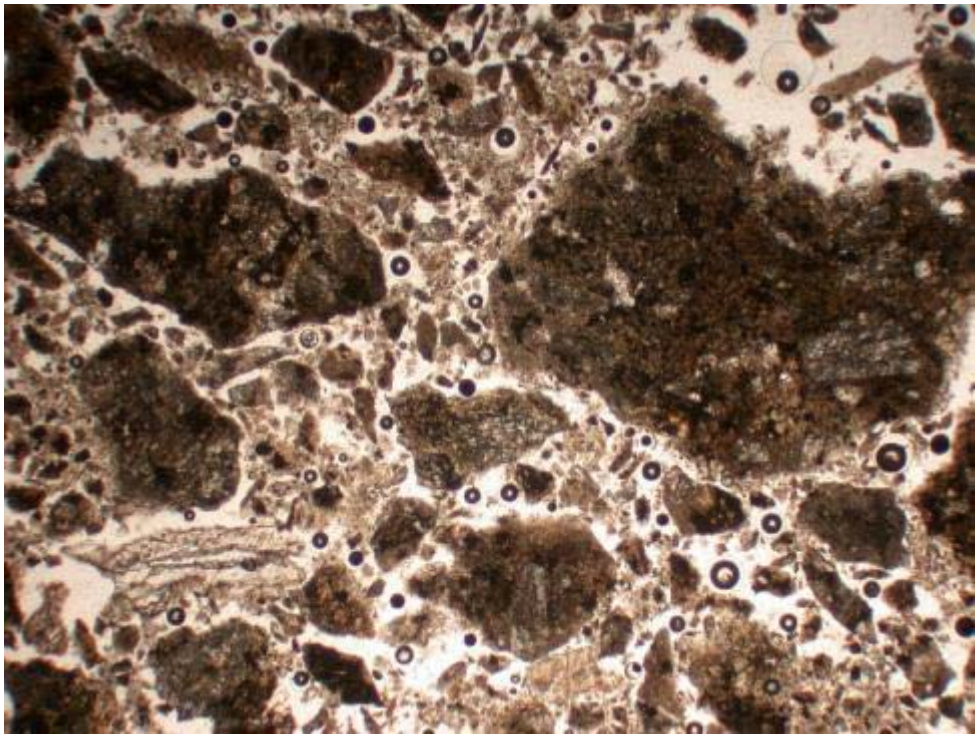
Project #: 0441
Sample ID: 219135

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 7mm size) comprise light gray porphyritic rock fragments with very fine-grained matrix. Traces of fine-grained pyrite in one rock fragment. Vigorous reaction to cold dilute HCl. No reaction to magnet.

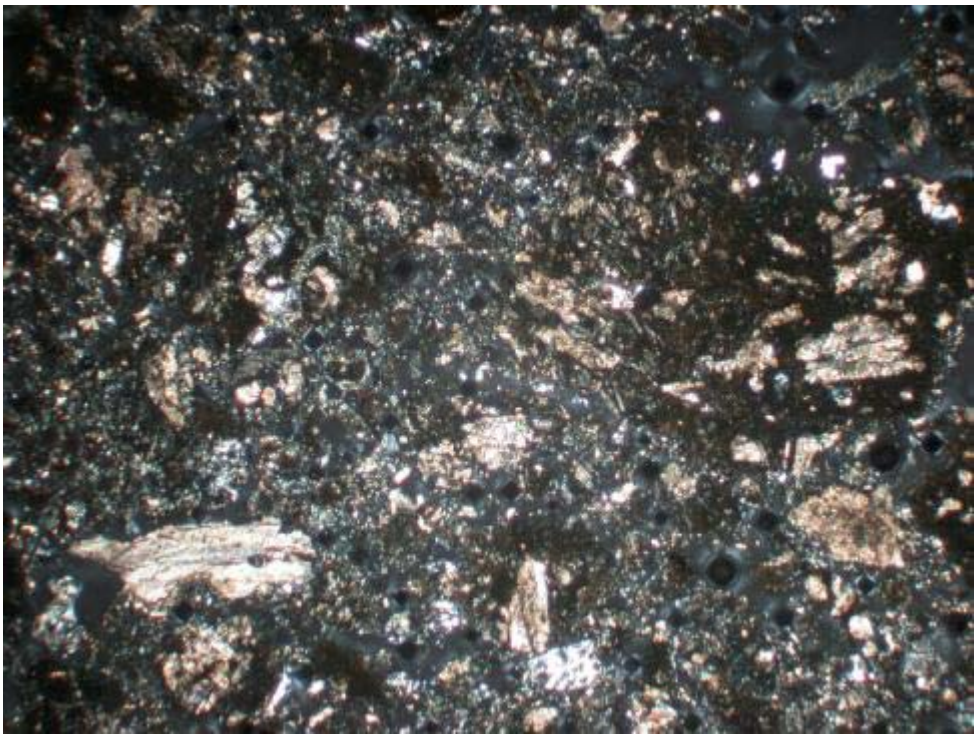
Polished Thin Section Description:
Mixed fine to coarse chips of mixed carbonate altered porphyritic and minor very fine-grained aphanitic rock and volcanic sandstone with traces of liberated pyrite and carbonate grains. Porphyritic fragments comprise fine-grained carbonate-altered tabular phenocrysts in a very fine-grained aphanitic to seriate-textured clay-rutile altered groundmass. The aphanitic rock comprises dominantly very fine-grained quartz grains, clay and patchy carbonate. Volcanic sandstone fragments comprise subrounded seriate-textured and aphanitic fragments (< 0.3 mm size), carbonate-altered tabular phases in an very fine-grained brown matrix.

Total carbonate comprises approximately 10% of the section. Colourless carbonate occurs as fine-to very fine-grained patchy replacement of former tabular phenocrysts, as veinlets and as liberated grains. Colourless carbonate is partly overprinted by very fine-grained brown carbonate aggregate. Carbonate occurs extensively with abundant, approximately 5% very fine-grained brown aggregates of rutile. Aphanitic brown clay minerals contribute at least 25% of the section.

Sulphide occurs in minor amounts, approximately 1%, dominantly as pyrite with traces of chalcopyrite. Pyrite occurs disseminated as fine-grained (< 0.1 mm), eu-anhedral grains and aggregates within rock fragments and as liberated grains. Rims of pyrite grains vary from 1) clean with no traces of alteration in carbonate vein fragments and some porphyritic rock fragments to 2) irregular with red-brown Fe-oxyhydroxide margins and yellow stained porphyritic rock fragments (see photos). Traces of very fine-grained (< 0.02 mm) red-brown Fe-oxyhydroxide aggregates occur disseminated and as irregular stringers some rock fragments.

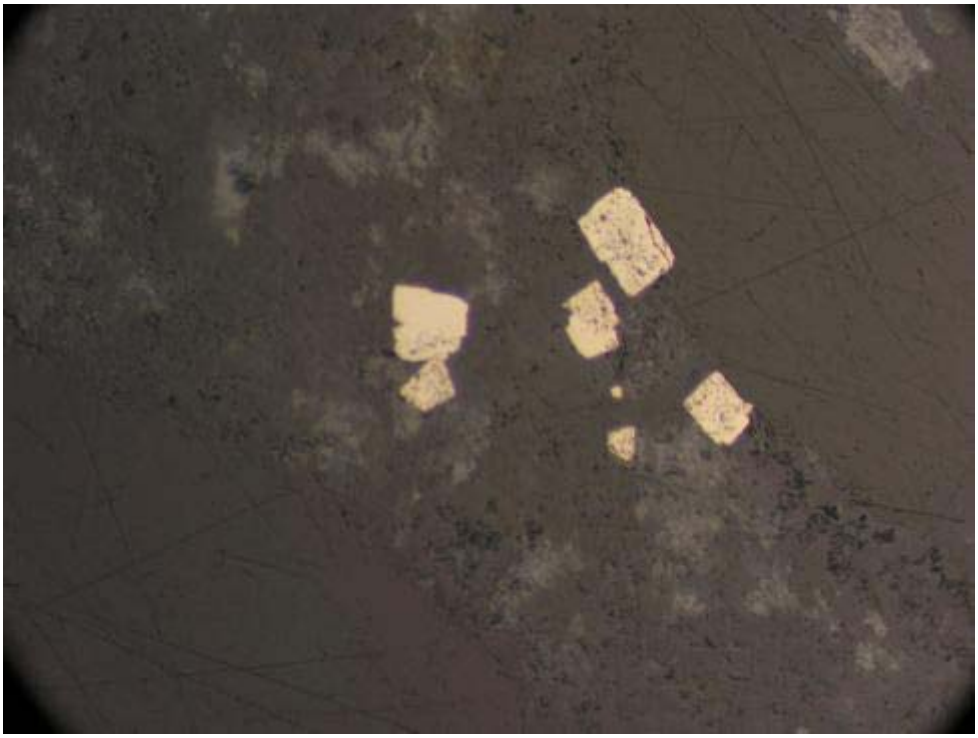


A

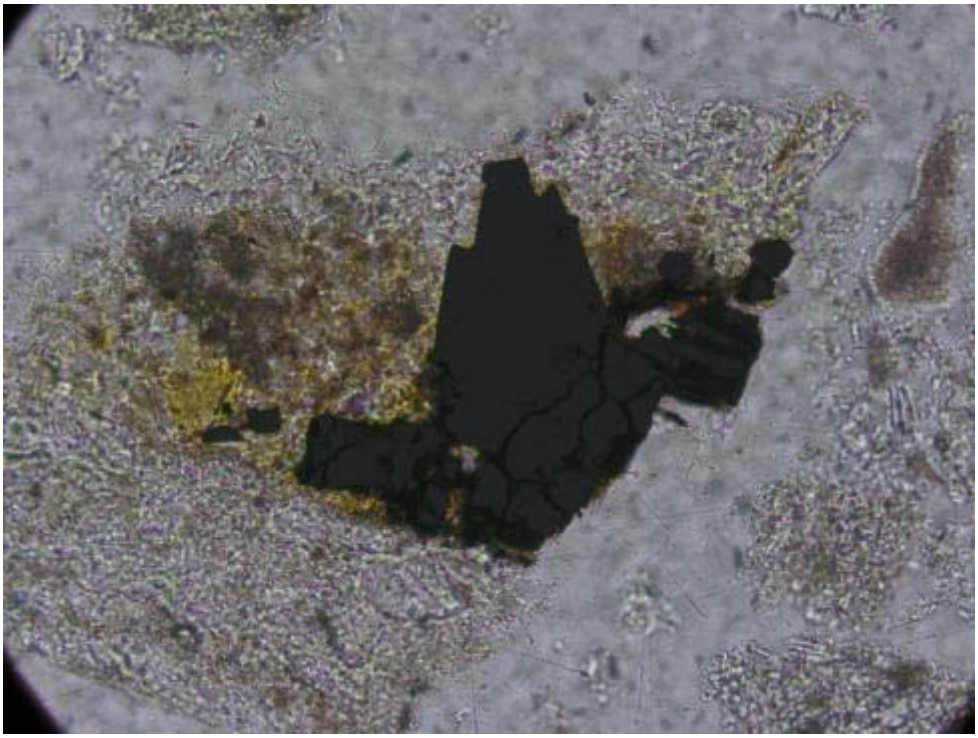


B

219135: General view of chips including carbonate-altered porphyritic rock (right) and liberated carbonate grain (lower left). A) PPL, B) XPL, FOV =~ 4.5 mm.

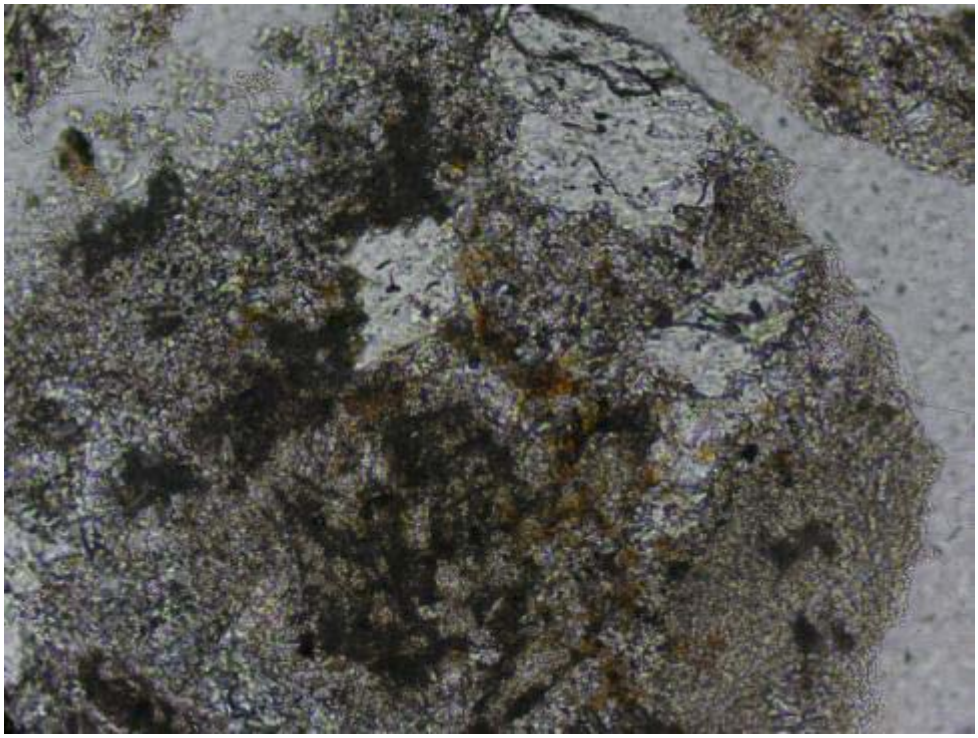


C

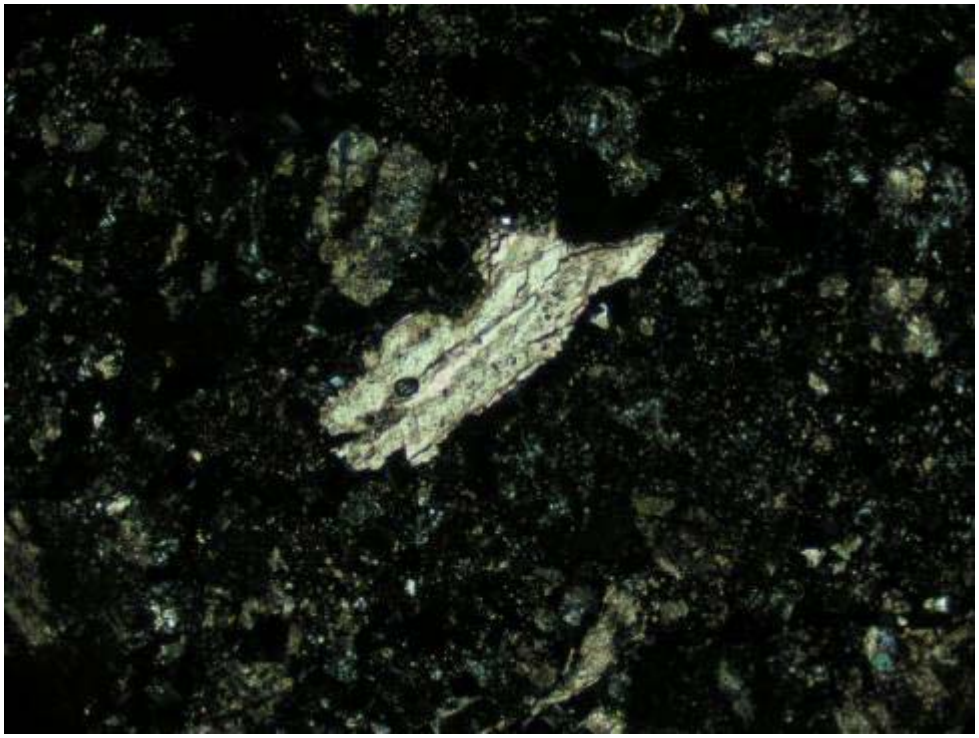


D

219135: C) Top: Disseminated euhedral pyrite grains with clean rims. RL, FOV =~ 0.7 mm. D) Bottom: Subhedral fractured pyrite grains with red-brown altered margins and yellow stained chip. PPL, FOV =~ 0.35 mm



E



F

219135: E) Top: Very fine-grained red-brown Fe-oxyhydroxide as irregular patchy aggregates and stringers. PPL, FOV =~ 0.7 mm, F) Bottom: Colourless carbonate as liberated grain. XPL, FOV = ~2.8mm.

Project #: 0441
Sample ID: 219189

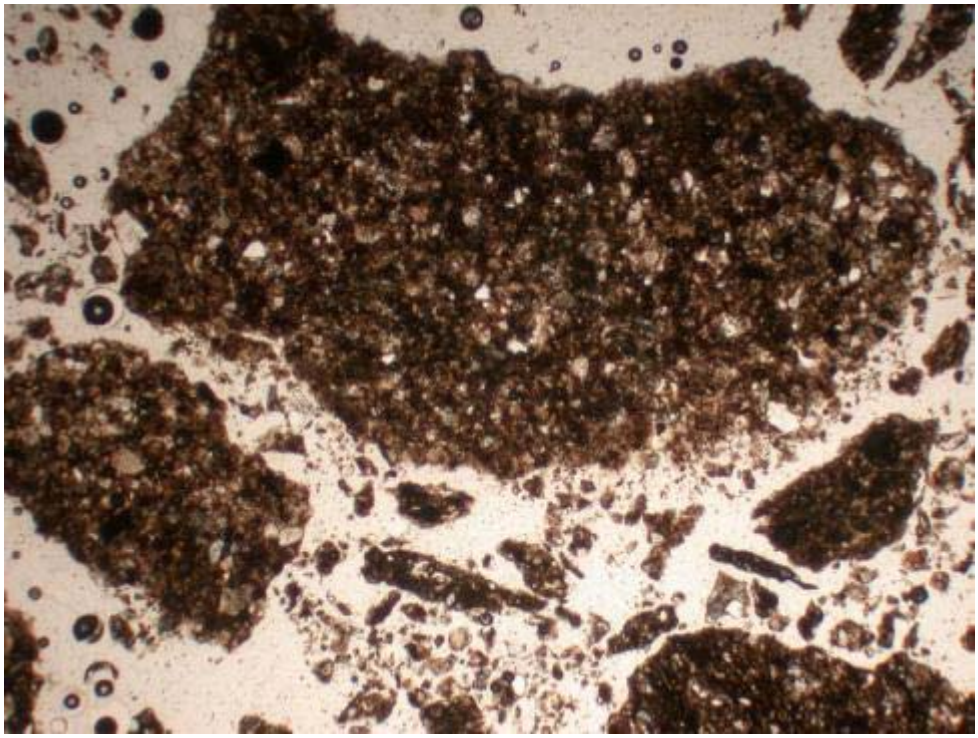
Offcut Mount Description:
Fine grains to coarse-sized chips (up to 11mm size) comprise medium-gray to brownish gray siltstone and white quartz vein fragments. Reaction of some fragments to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed fine to coarse chips of plucked and eroded brown siltstone fragments, locally cut by carbonate veinlets (0.5 to 1.5 mm wide), and quartz vein fragments. The siltstone chips are poorly sorted, hematitic and locally laminated and compacted. Siltstone fragments comprise angular monocrystalline quartz and plagioclase grains, carbonate grains and aggregates and rarely very fine-grained polycrystalline quartz aggregate in a very fine-grained red-brown clay-rich hematitic matrix.

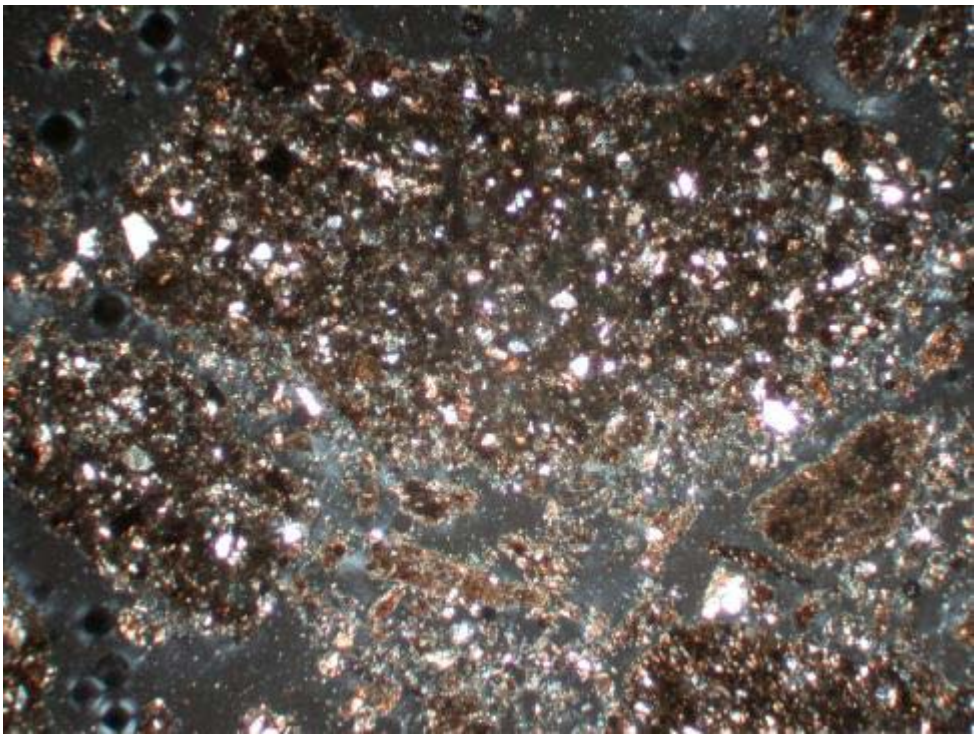
Total carbonate comprises approximately 10% of the section. Colourless carbonate occurs as fine anhedral grains within siltstone, as veinlets and as liberated grains. Colourless carbonate is locally overprinted by more abundant very fine-grained brown carbonate aggregate which occurs in the siltstone fragments. Within veinlets, colourless carbonate is partly replaced by very fine-grained red-brown hematite. Aphanitic brown clay minerals contribute at least 25% of the section.

Sulphide occurs in trace amounts as pyrite. Pyrite occurs disseminated as very fine-grained (< 0.05 mm) sub-anhedral and locally rounded grains. Rims of pyrite grains are irregular with red-brown Fe-oxydydroxide margins and red-brown to yellow stained rock fragments.

Very fine-grained irregular aggregates and stringers of red-brown hematite comprise about 15% of the section and occur as replacement of siltstone matrix.

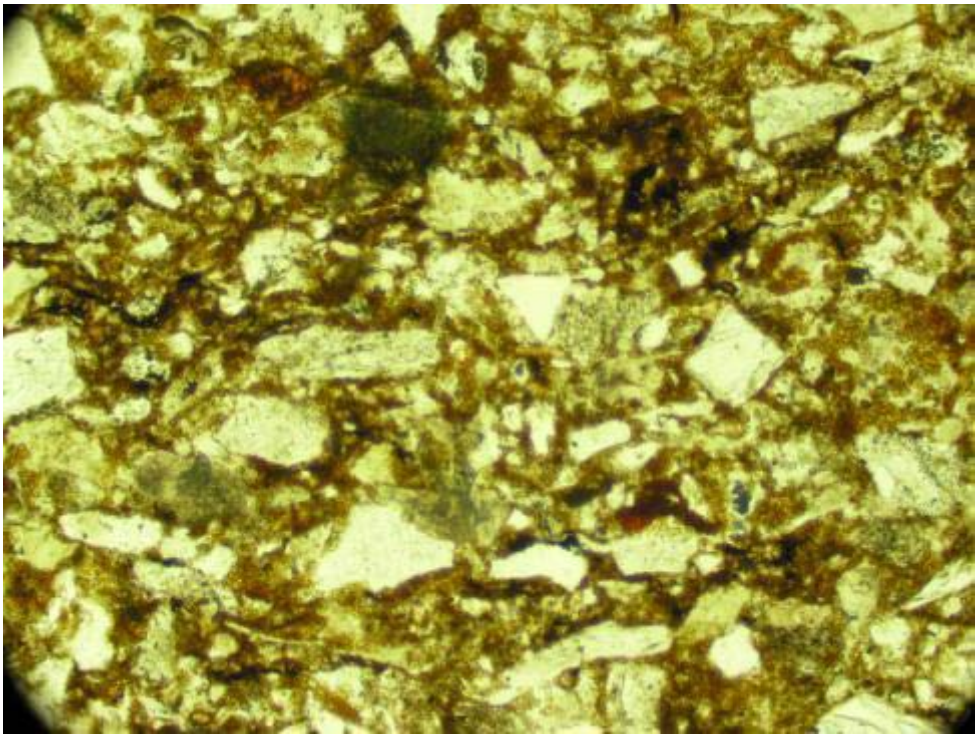


A

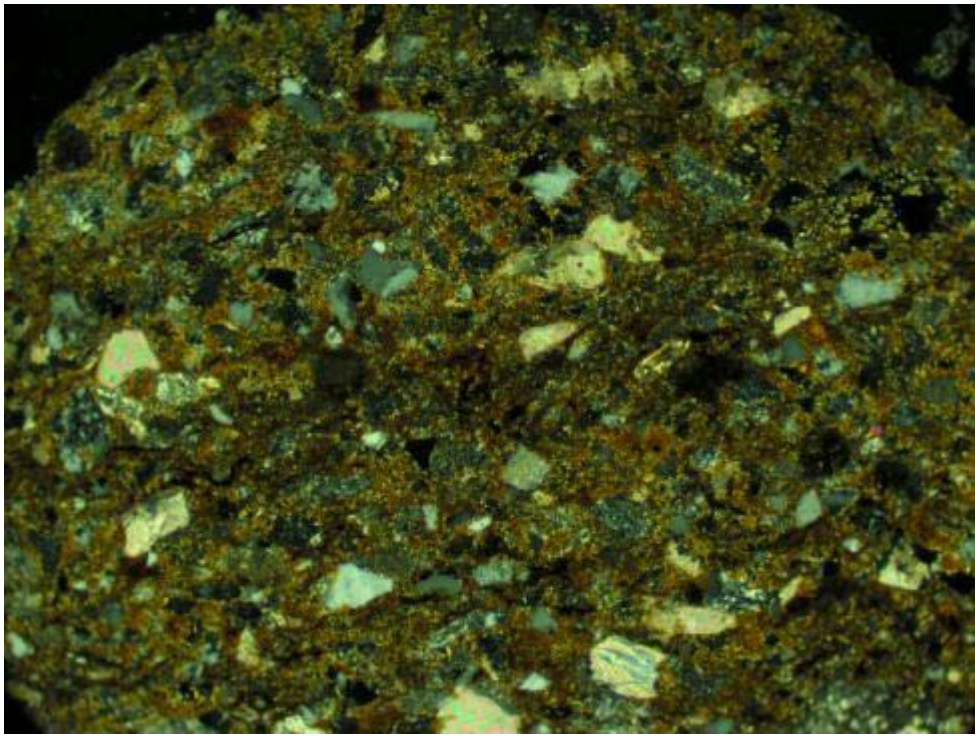


B

219189: General view of siltstone with scattered quartz, carbonate and lithic fragments in a brown clay-rich hematitic matrix. A) PPL, B) XPL, FOV =~ 4.5 mm.

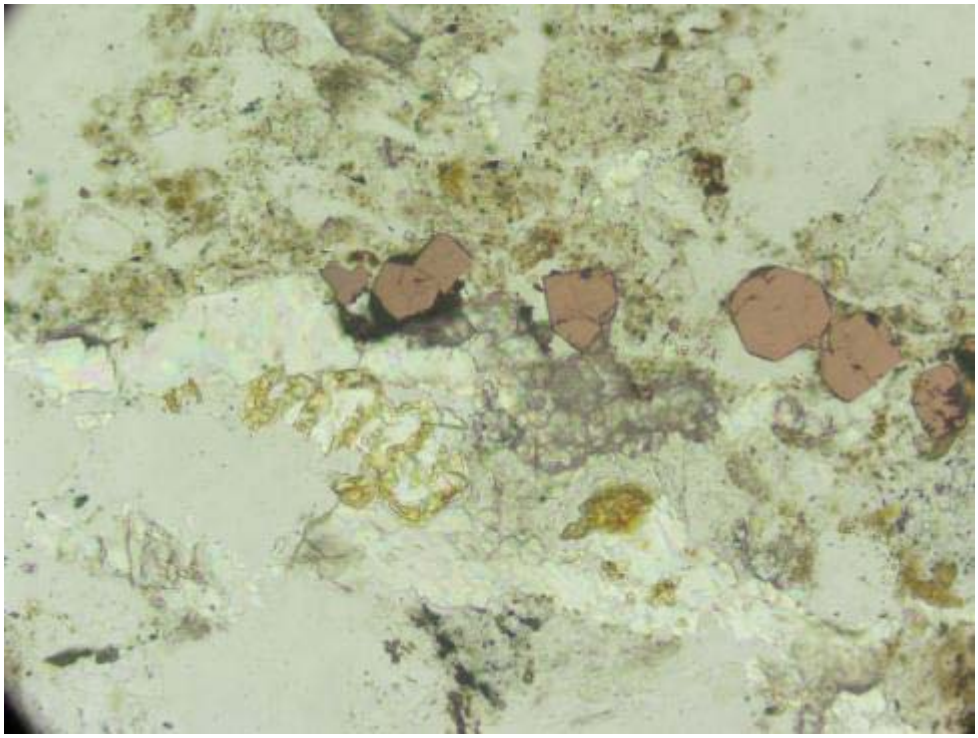


C



D

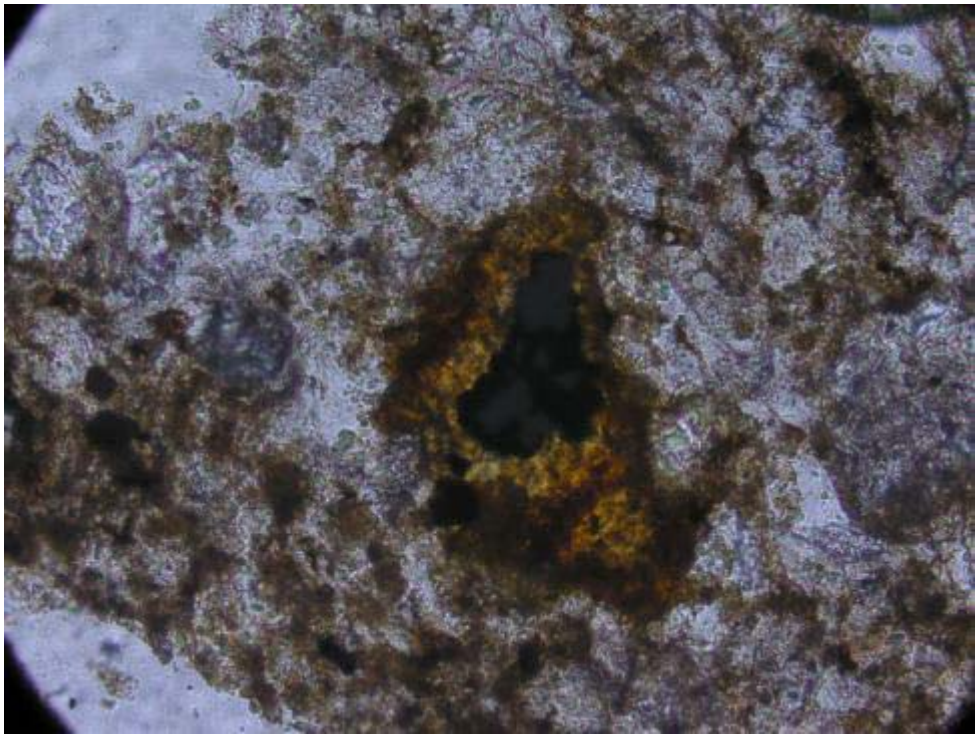
219189: C) Top: Detailed view of siltstone shows brown clay-rich hematitic matrix. PPL, FOV =~ 0.7 mm. D) Bottom: Same grain as photo C but larger view. Note disseminated carbonate grains. XPL, FOV =~ 1.3 mm



E

F

219189: E) Top: Detailed view of euhedral pyrite grains adjacent to carbonate veinlet. Note carbonate partly replaced by hematite aggregate. PPL, FOV =~ 0.7 mm. F) Bottom: Disseminated very fine-grained pyrite within siltstone chip. RL, FOV =~ 2.8 mm


G

219189: G) Top: Pyrite grains within siltstone rimmed and partly replaced by yellow-stained to red hematite aggregate. PPL, FOV =~ 0.35 mm.

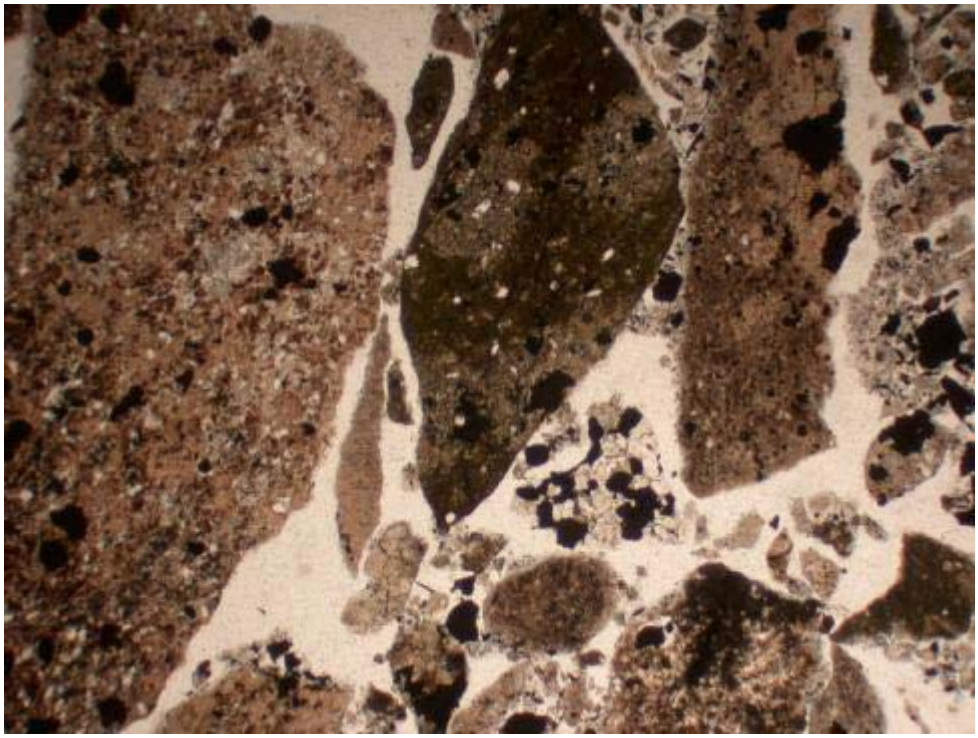
Project #: 0441
Sample ID: 220076

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 12mm size) comprise gray-white to medium-gray mottled aphanitic rock and mudstone. Major fine-grained pyrite occurs disseminated and as liberated grains. No reaction to cold dilute HCl. Strong reaction of some chips to magnet.

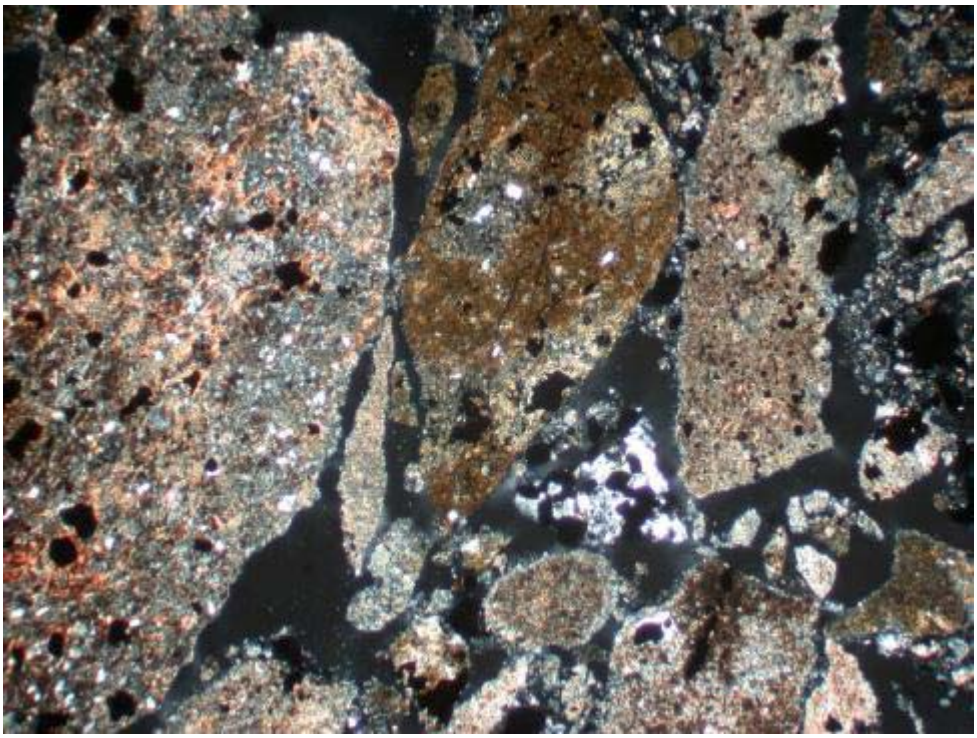
Polished Thin Section Description:
Mixed powder and fine to coarse chips of lithic sandstone (graywacke) and mudstone (siltstone/shale), major liberated pyrite grains and traces of liberated carbonate aggregate. The clastic sedimentary rock varies from fine-grained with abundant angular monocrystalline quartz grains and biotite altered fragments/tabular phases in a very fine-grained, green biotite-rich matrix (greywacke) to very fine-grained with dark layers of dominantly secondary green biotite aggregate. Green biotite within the clastic rocks occurs as very fine-grained shreddy aggregates which comprise approximately 20% of the section. Patchy to locally pervasive retrograde sericite alteration replaces some of the secondary biotite. Sericite comprises approximately 10% of the section. Very fine-grained brown carbonate grains and locally hematite aggregate occur in a few chips replacing sericite.

Carbonate occurs in trace amounts as fine-grained, colourless and very fine-grained to aphanitic brown varieties. Colourless carbonate occurs as liberated veinlets and granular aggregates with quartz and rock fragments. Colourless carbonate is locally partly replaced by very fine-grained brown carbonate aggregate. Brown carbonate occurs as rhombic grains and aggregates overprinting sericite alteration in rare chips and as irregular discontinuous stringers cutting biotite-rich alteration.

Total sulphide, approximately 20%, comprises dominantly as pyrite with traces of chalcopyrite and magnetite. Pyrite occurs disseminated as fractured, fine-grained (0.2 to 0.6mm), sub-anhedral grains and aggregates within the clastic rocks and as liberated grains and aggregates. Rims of pyrite grains are typically irregular but without alteration. Chalcopyrite encloses pyrite and occurs as fine to very fine-grained anhedral aggregates without alteration rims. Traces of eu-subhedral magnetite grains occur disseminated with unaltered rims. Traces of very fine-grained hematite occur as rims to rare granular carbonate-quartz-pyrite chips and rarely as patchy aggregates overprinting sericite altered clastic rock chips.

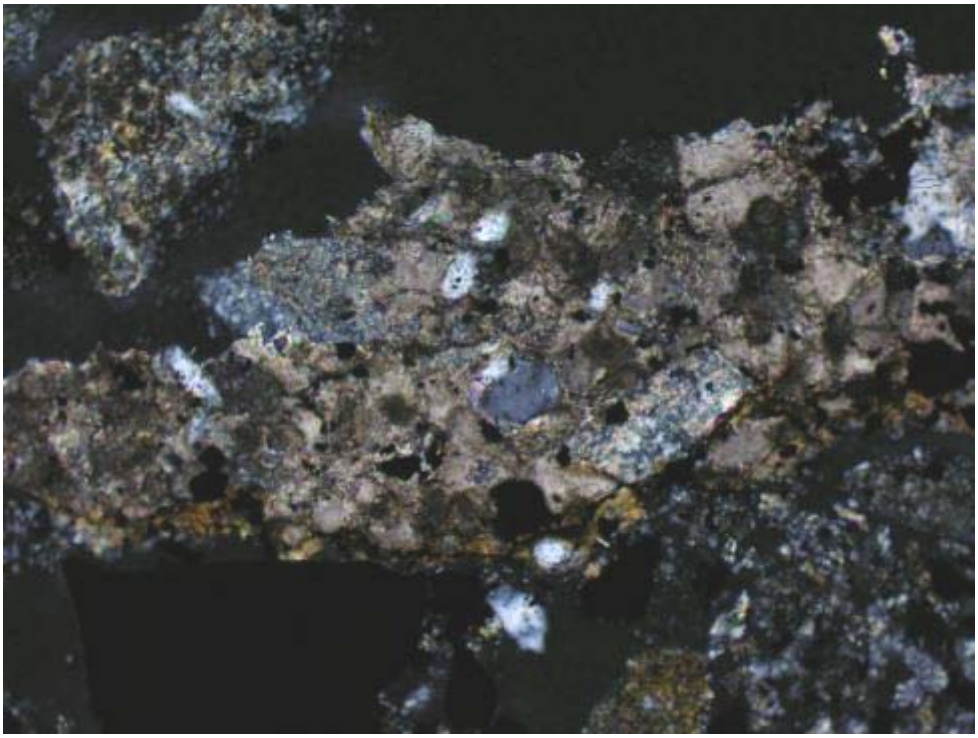


A

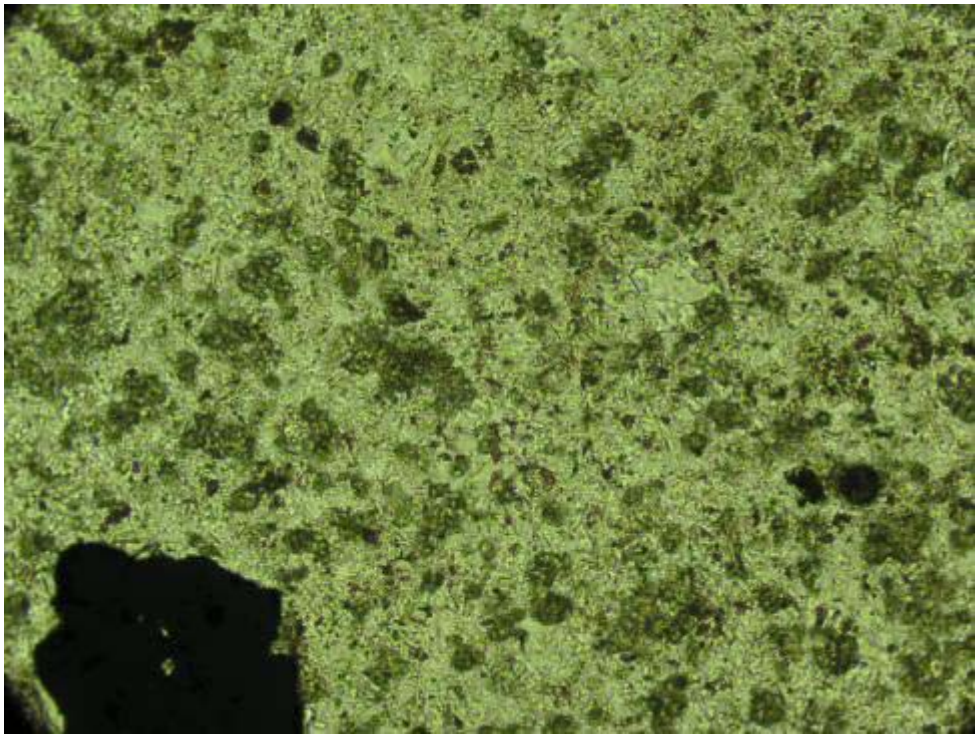


B

220076: A & B) Representative chips of very fine-grained green secondary biotite-altered lithic sandstone and mudstone with patchy to locally pervasive retrograde sericite alteration replacing biotite. A) PPL, B) XPL, FOV =~ 4.5 mm.

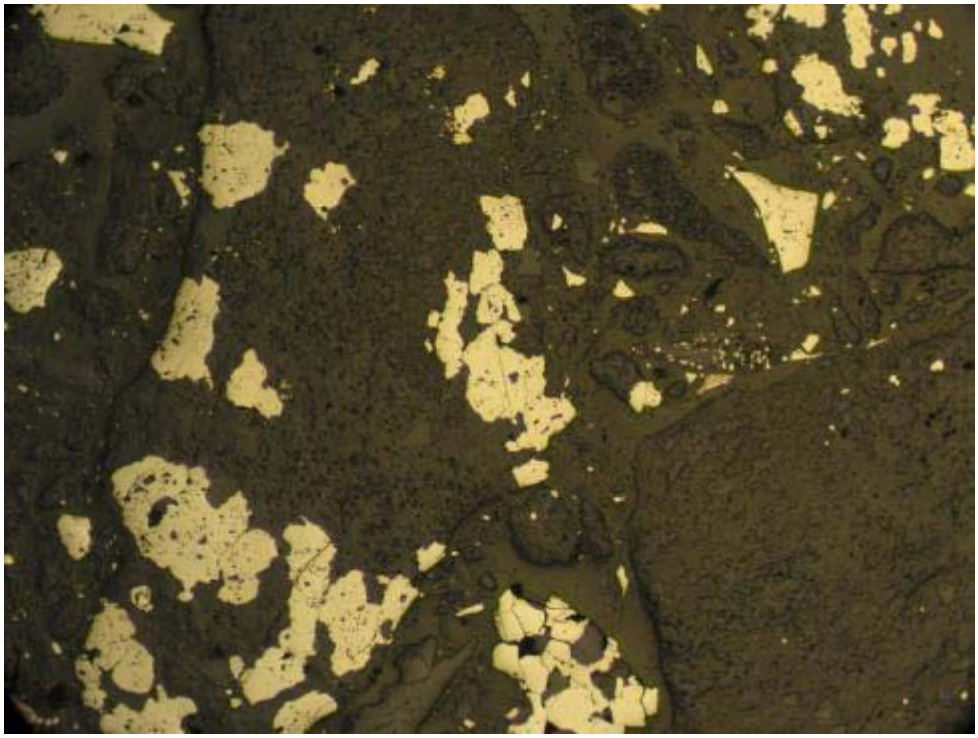


C

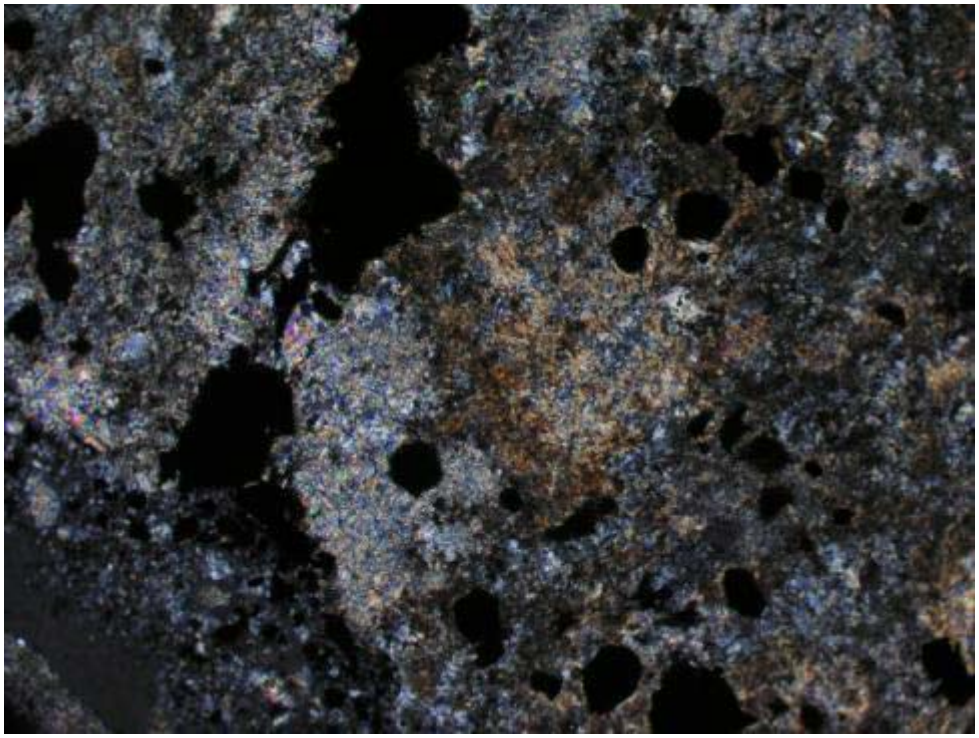


D

220076: C) Top: Fragment of granular carbonate-quartz-pyrite aggregate with rare rim and fracture infill by very fine-grained hematite. XPL, FOV =~ 1.3 mm. D) Bottom: Rhombic to anhedral grains of brown biotite overprinting sericite altered rock. PPL, FOV =~ 0.7 mm



E



F

220076: E) Top: Disseminated sub-anhedral pyrite with irregular grain boundaries but without alteration rims. RL, FOV =~ 2.8 mm, F) Bottom: Rare disseminated hematite grains (centre) overprint sericite-altered rock chip. XPL, FOV =~ 1.3 mm.

Project #: 0441
Sample ID: 220364

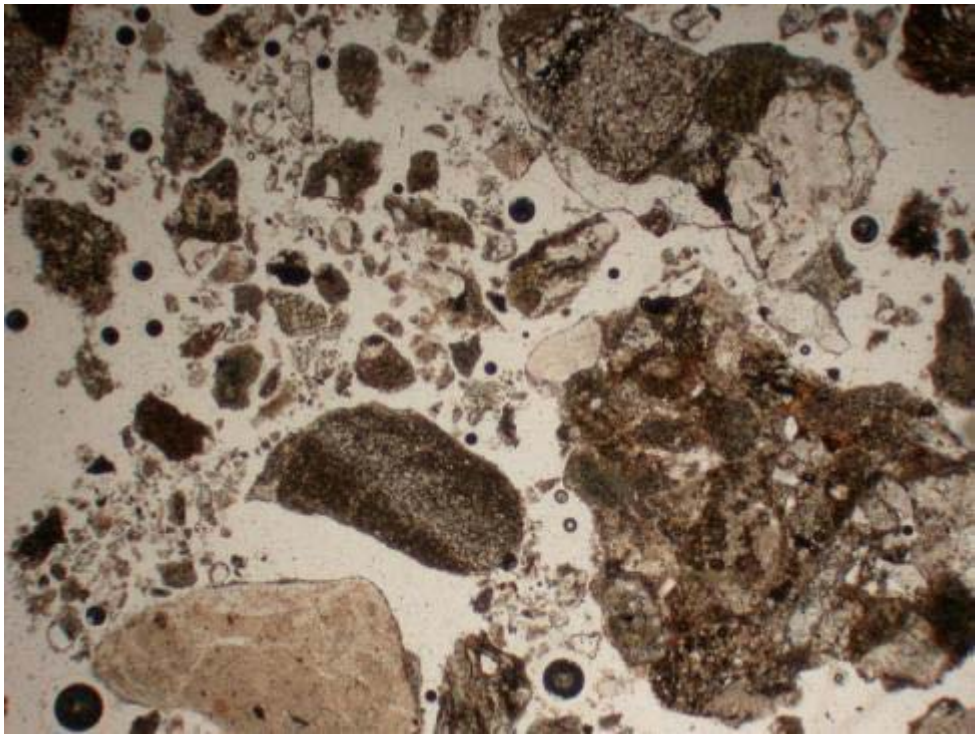
Offcut Mount Description:
Fine grains to coarse-sized chips (up to 12mm size) comprise light to medium-gray lithic sandstone, shale and siltstone. Vigorous reaction to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed powder and fine to coarse chips of lithic sandstone (graywacke) and mudstone (siltstone/shale) with traces of liberated pyrite and quartz grains and less commonly liberated carbonate fragments. Lithic sandstone chips are poorly sorted and comprise dominantly angular, monocrystalline and lesser polycrystalline quartz grains, mudstone fragments and lesser seriate-textured volcanic fragments, patchy carbonate and irregular carbonate grains in a very fine-grained partly illite-altered, hematitic variably clay-rich matrix. Mudstone chips are massive and comprise very fine quartz grains, locally abundant very fine-grained illite, clay and hematite.

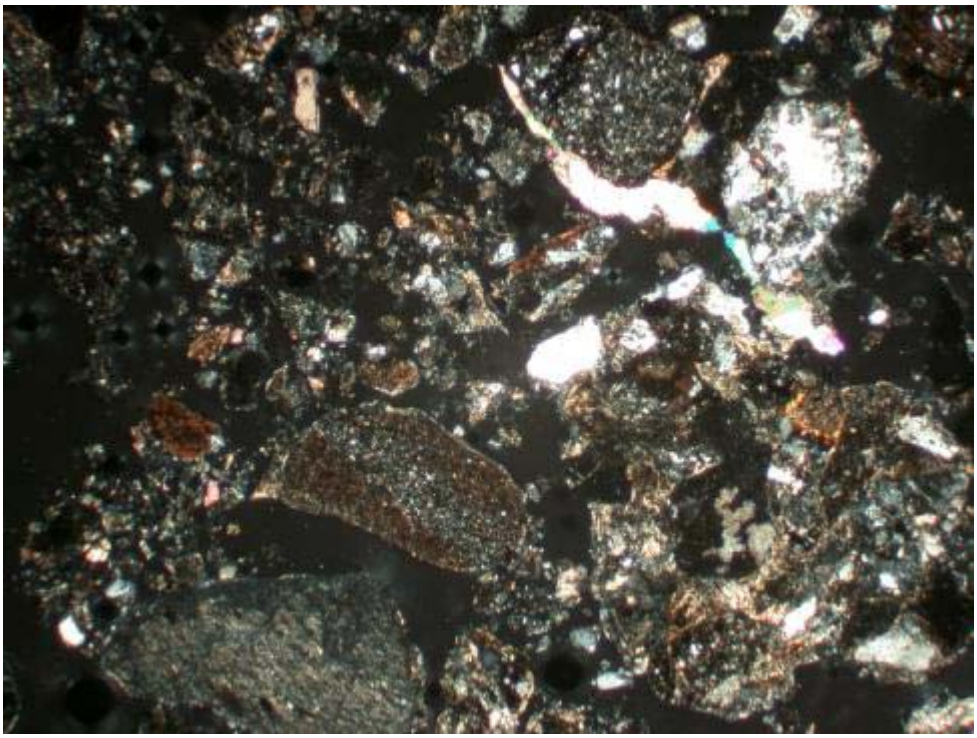
Total carbonate comprises approximately 5% of the section. Colourless carbonate occurs as irregular grains and patchy aggregates within lithic sandstone chips, as rare veinlets and liberated grains. Less commonly colourless carbonate replaces plagioclase phenocrysts in rare seriate-textured fragments. Colourless carbonate is locally partly replaced by very fine-grained brown carbonate or hematite aggregate. Brown carbonate occurs as patchy aggregates in clastic rock fragments.

Illite occurs in minor amounts, approximately 1%, within the lithic sandstone. Traces of muscovite (sericite) occurs locally. Aphanitic brown clay minerals within mudstone and in the matrix of the lithic sandstone contribute at least 15% of the section. Very fine-grained chlorite occurs in trace amounts.

Sulphide occurs in trace amounts dominantly as pyrite and rarely as grains of chalcopyrite or liberated magnetite. Pyrite occurs disseminated as very fine-grained rounded and anhedral, pitted grains within the clastic rocks and as liberated sub-anhedral grains and aggregates. Rims of pyrite grains are typically irregular but without alteration. Rare grains of disseminated chalcopyrite have black rims. One grain of liberated magnetite is unaltered. Minor hematite, approximately 3%, occurs disseminated in lithic sandstone fragments, partly replacing carbonate and rarely as liberated grains. Hematite also occurs as discontinuous lenses and irregular veinlets within siltstone and lithic sandstone chips.

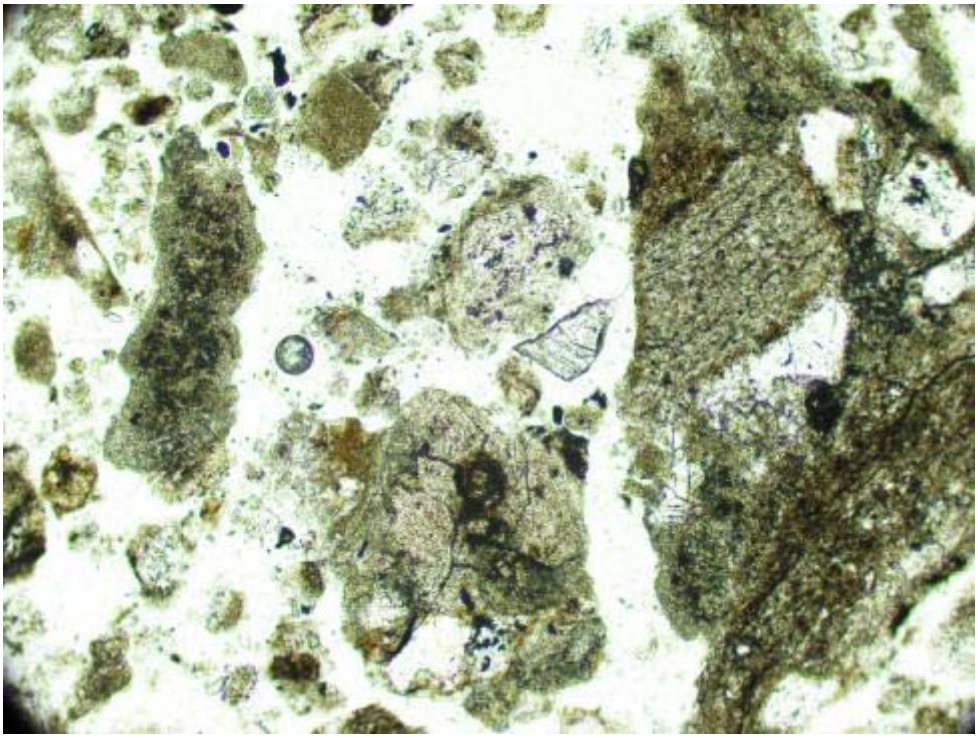


A

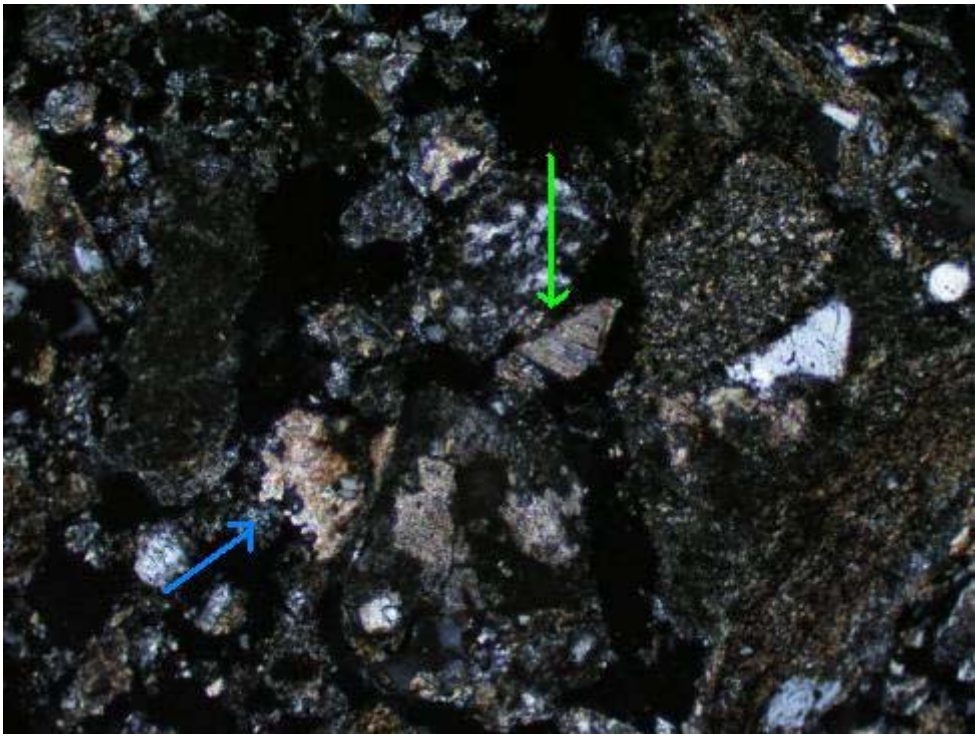


B

220364: General view of lithic sandstone and mudstone chips. Note carbonate veinlet cuts lithic sandstone chip (top right). A) PPL, B) XPL, FOV =~ 4.5 mm.



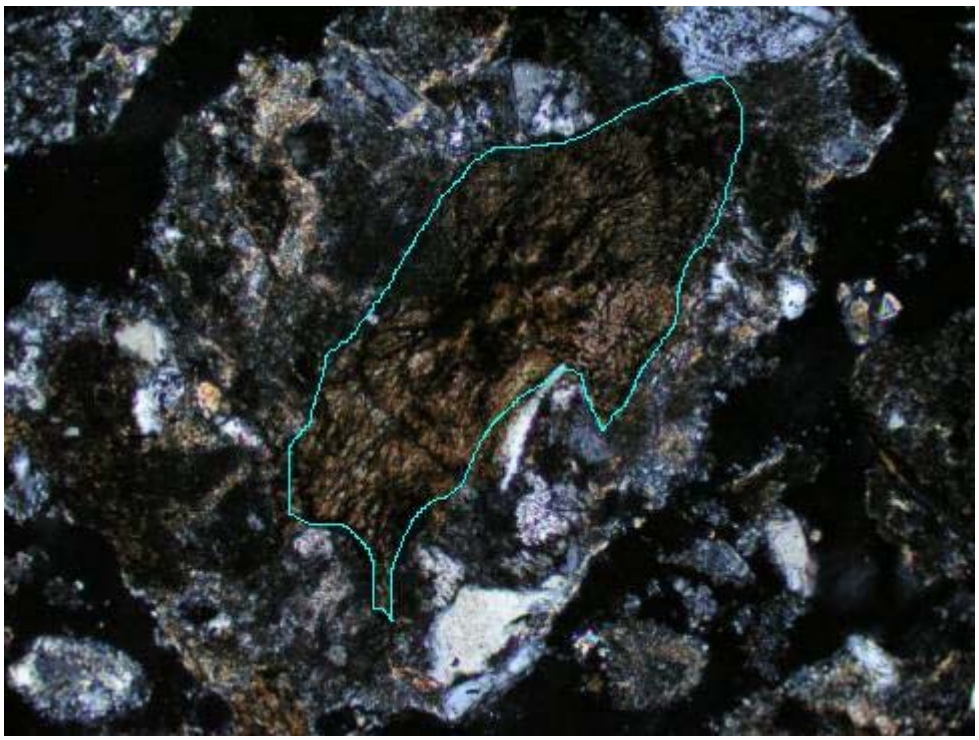
C



D

220364: C &D) Grain of liberated carbonate (green arrow-centre). Patchy colourless carbonate aggregate within lithic sandstone fragment partly replaced by hematite (blue arrow- lower left of centre). C) PPL, D) XPL, FOV =~ 1.3 mm

E



F

220364: E) Top: Very fine-grained euhedral pyrite aggregate as liberated grains with clean straight boundaries. RL, FOV =~ 0.35 mm, F) Bottom: Brown carbonate aggregate (centre – outlined in pale blue) within lithic sandstone partly replaced by anastamosing hematite aggregate (opaque). XPL, FOV = ~1.3mm.

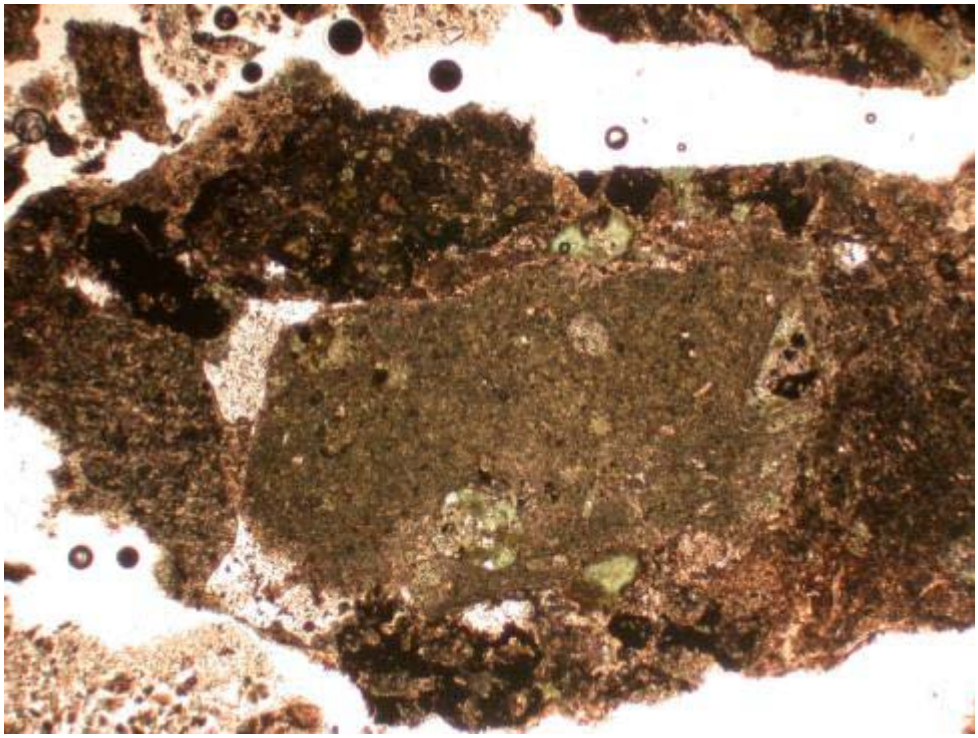
Project #: 0441
Sample ID: 220394

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 12mm size) comprise light green and maroon granule conglomerate fragments. Vigorous reaction to cold dilute HCl. No reaction to magnet.

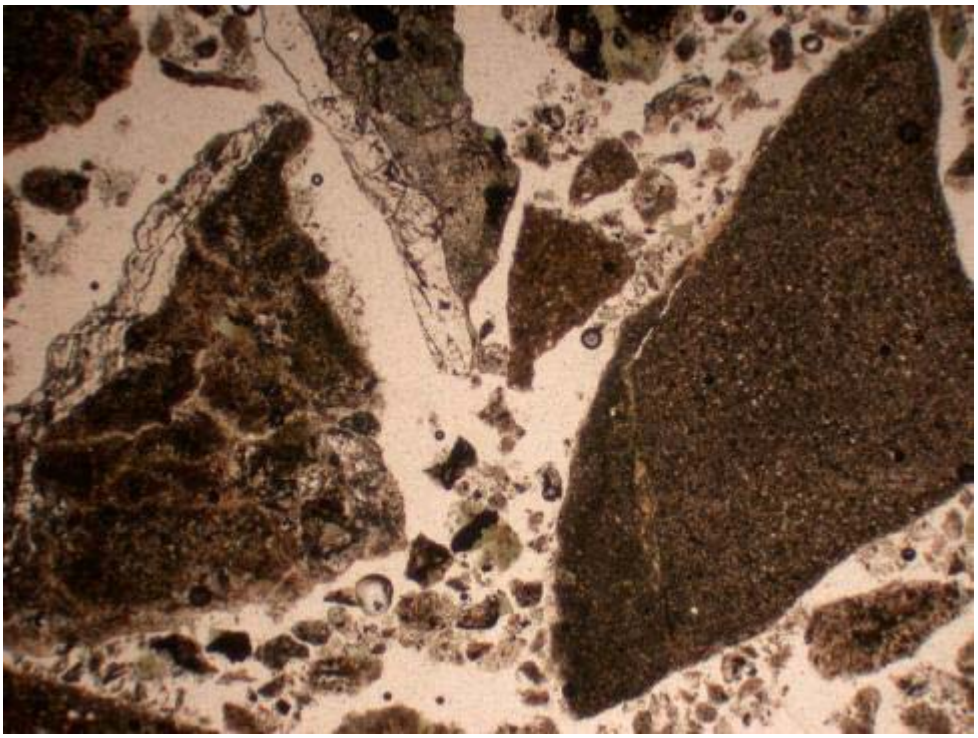
Polished Thin Section Description:
Mixed powder and fine to coarse chips of clast-supported granule conglomerate with minor liberated hematite, carbonate and chlorite and traces of liberated pyrite grains. Granule conglomerate chips are poorly sorted and comprise granules of subrounded to subangular laminated mudstone, sandstone, feldspar porphyry, amygdaloidal basalt and porphyritic ?andesite in a fine-grained matrix dominated by carbonate and chlorite.

Total carbonate comprises approximately 15% of the section. Colourless carbonate occurs as selective replacement of tabular phenocrysts and as patchy replacement of porphyritic rock matrix, as amygdale infill, as matrix to the conglomerate, as sub-mm veinlets and as liberated grains. Locally, carbonate is overprinted or partly replaced by very fine-grained hematite aggregate. Chlorite comprises approximately 20% of the section. Aphanitic brown clay minerals contribute at least 5% of the section.

Sulphide occurs in trace amounts as pyrite with one grain of chalcopyrite observed. Pyrite occurs disseminated as very fine-grained (< 0.05 mm) anhedral liberated grains. Typically rims of pyrite grains are irregular but unaltered; less commonly pyrite grains are rimmed by red-brown hematite aggregate. Minor fine-grained hematite occurs disseminated and as liberated grains and aggregates. Hematite grains are variably pitted and eroded from the section. Very fine-grained hematite occurs as selective replacement of matrix in some porphyritic rock fragments. Hematite comprises approximately 5% of the section.



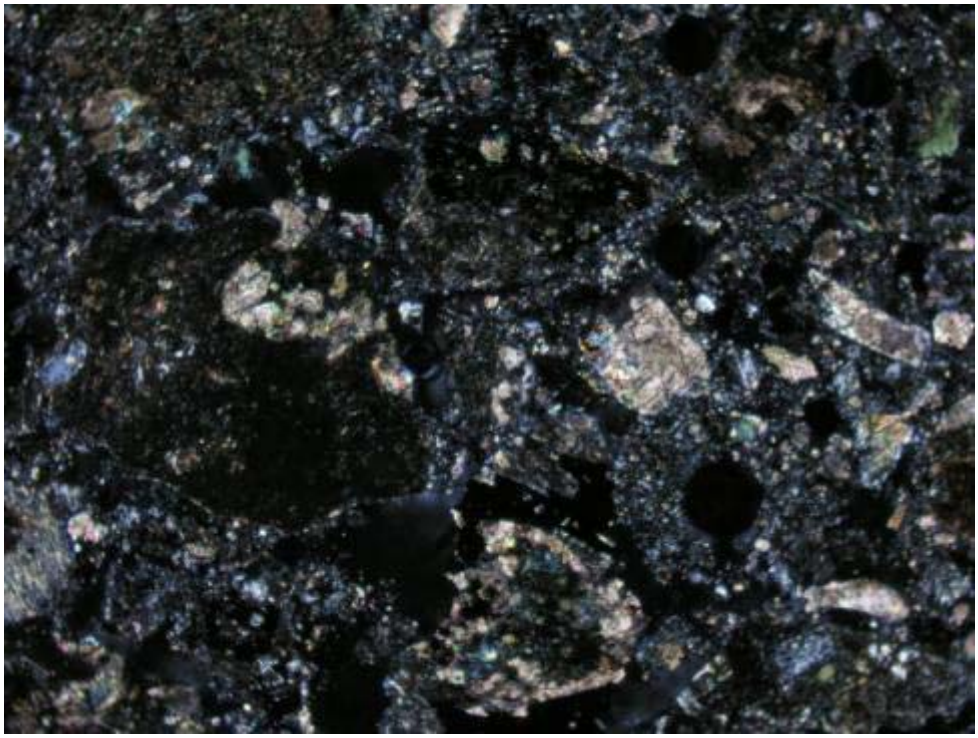
A



B

220394: General view of fragments of clast-supported granule conglomerate. A) Subangular to subrounded grains of amygdaloidal basalt, porphyritic andesite and siltstone. PPL, B) Fragments of basalt cut by sub-mm carbonate veinlets (left) and siltstone (right). PPL, FOV =~ 4.5 mm.

C



D

220394: C) General view of porphyritic andesite clast. PPL, FOV =~ 4.5 mm. D) Bottom: Carbonate grains as patchy aggregates and liberated fragments. XPL, FOV =~ 2.8 mm

E

F

220394: E) Top: Detailed view disseminated, variably pitted and eroded hematite grains (gray) and liberated pyrite grain with no alteration rims. RL, FOV =~ 1.3 mm. F) Bottom: Liberated pyrite grain rimmed by very fine-grained hematite aggregate. PPL+RL, FOV =~ 2.8 mm

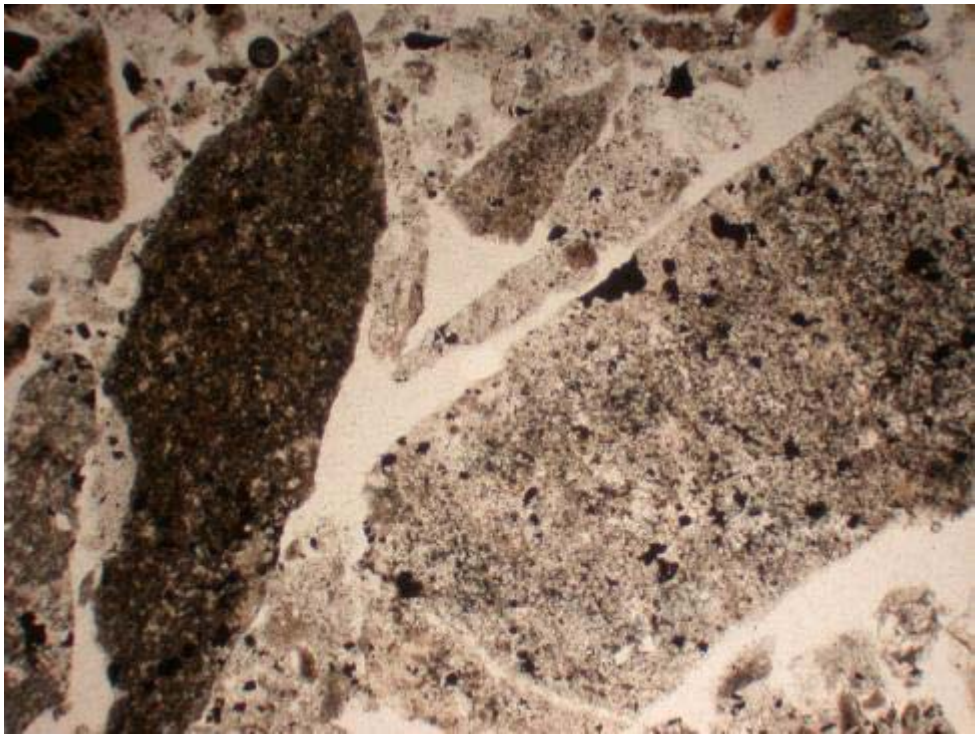
Project #: 0441
Sample ID: 220841 + 220842

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 10mm size) comprise light gray mottled fragments with major fine-grained disseminated chalcopyrite and pyrite. No reaction to cold dilute HCl. No reaction to magnet.

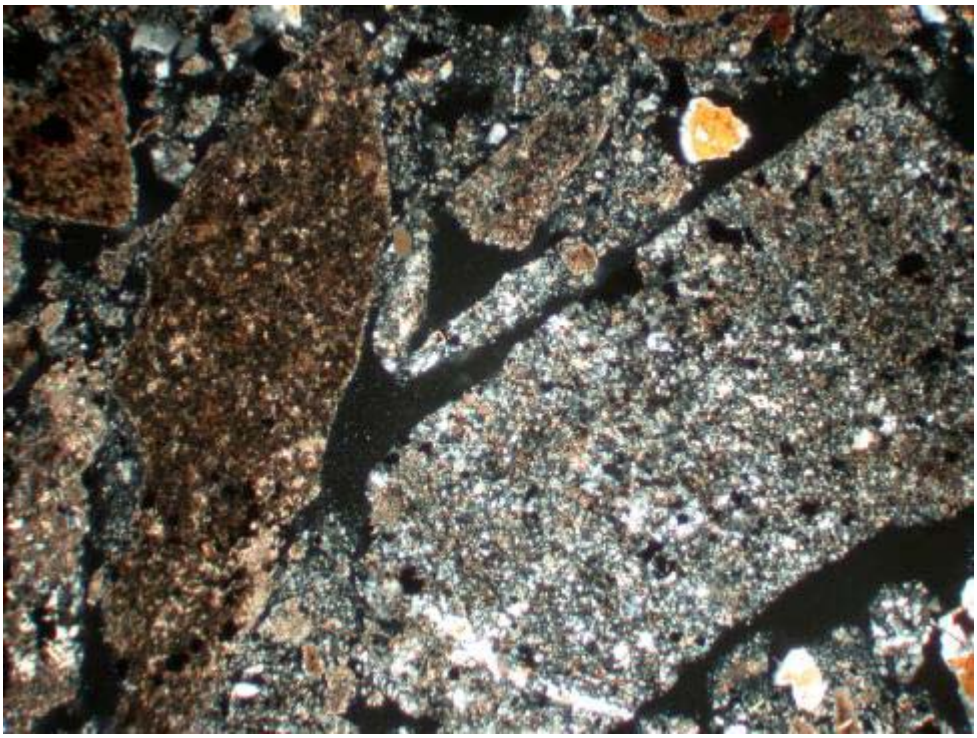
Polished Thin Section Description:
Mixed powder and fine to coarse chips of sulphide-bearing lithic sandstone (greywacke) and mudstone (siltstone/shale) as well as major liberated chalcopyrite± pyrite grains. The clastic sedimentary rock varies from 1) fine-grained with abundant angular monocrystalline quartz grains and tabular brown biotite aggregate overprinted by sericite (greywacke) to 2) very fine-grained and brown, comprising secondary brown biotite or sericite (after biotite) aggregate, patchy clay and rutile aggregate. Brown biotite within the clastic rocks occurs as very fine-grained shreddy aggregates which comprise approximately 7% of the section. Sericite comprises approximately 20% of the section. Aphanitic brown clay minerals contribute at least 5% of the section.

Carbonate is absent in this section.

Total sulphide, approximately 15%, comprises dominantly as chalcopyrite with lesser pyrite and traces of molybdenite and sphalerite. Pyrite, approximately 2%, occurs disseminated and enclosed by chalcopyrite as fine-grained (< 0.2 mm), sub-anhedral grains and aggregates within the clastic rocks and as liberated grains. Rims of pyrite grains are typically irregular but without alteration. Chalcopyrite, approximately 13%, encloses pyrite and locally sphalerite, and occurs as fine to very fine-grained anhedral aggregates without alteration rims. Traces of subhedral sphalerite occur associated with chalcopyrite and with unaltered rims. Molybdenite occurs as fine-grained liberated plates (~0.1 mm size). Rare traces of very fine-grained hematite occur as liberated clusters.

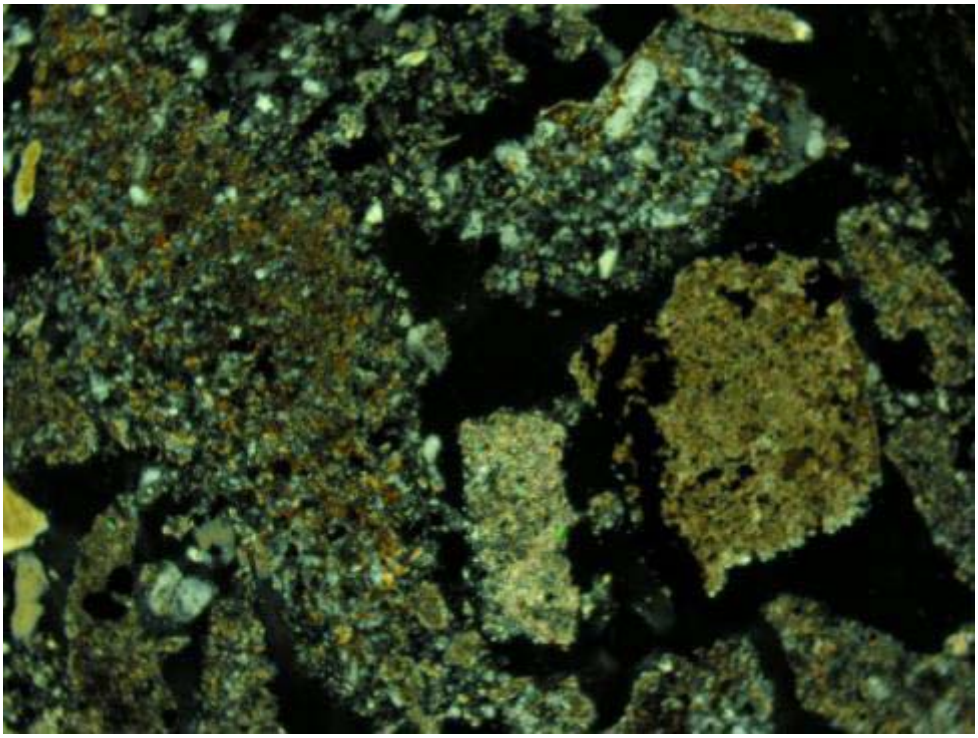


A

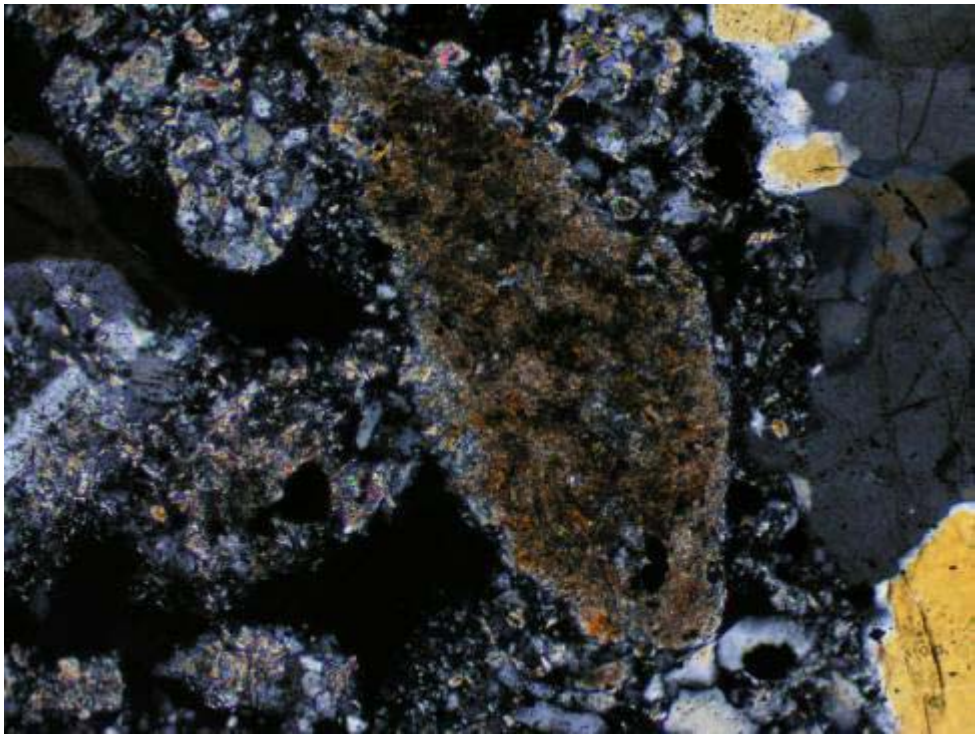


B

220842: General view of lithic sandstone and mudstone chips. A) PPL, B) XPL, FOV =~ 4.5 mm.

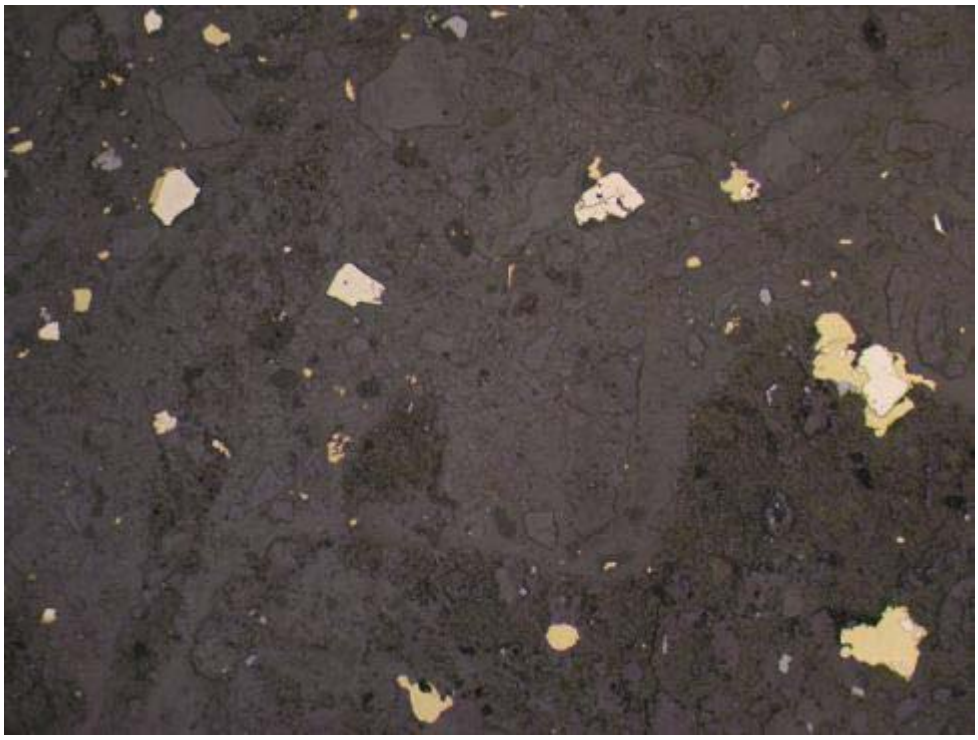


C



D

220842: C) Top: Representative view of clastic fragments with pervasive sericite and biotite alteration (right). XPL, FOV =~ 2.8 mm. D) Bottom: Pervasively brown biotite-rich fragment (centre-right). XPL, FOV =~ 1.3 mm


E

220842: E) Disseminated fine-grained liberated pyrite and pyrite enclosed by chalcopyrite within a rock fragment. RL, FOV =~ 1.3 mm

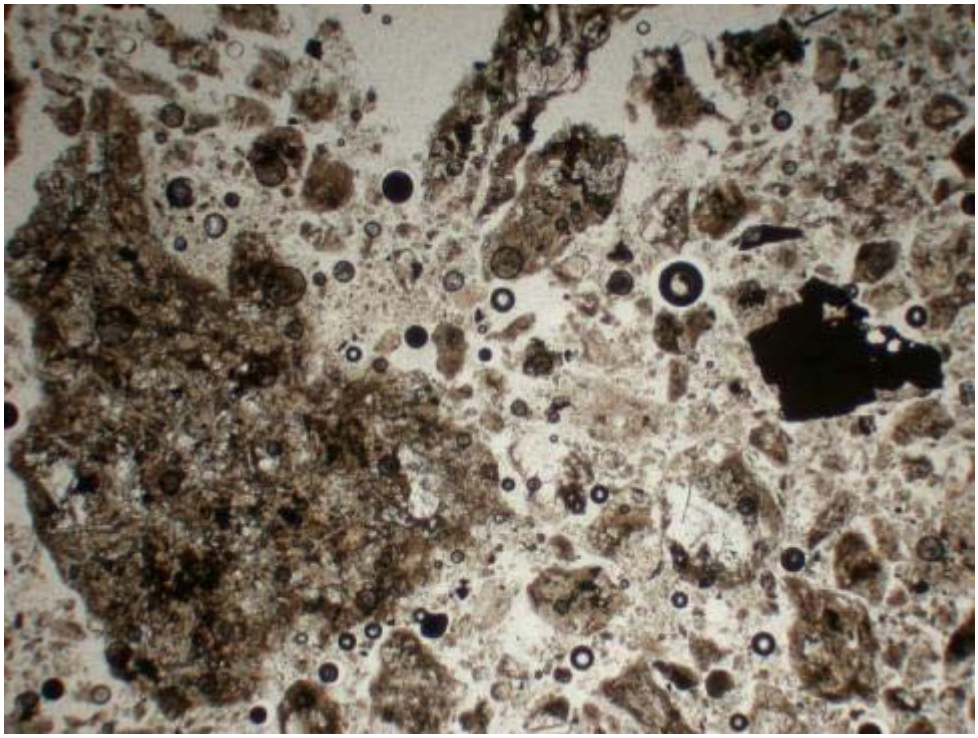
Project #: 0441
Sample ID: 222788

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 7mm size) comprise gray-white to medium-gray mottled vaguely porphyritic rock. Major fine-grained pyrite occurs disseminated and as liberated grains. Reaction of some fragments to cold dilute HCl. No reaction to magnet.

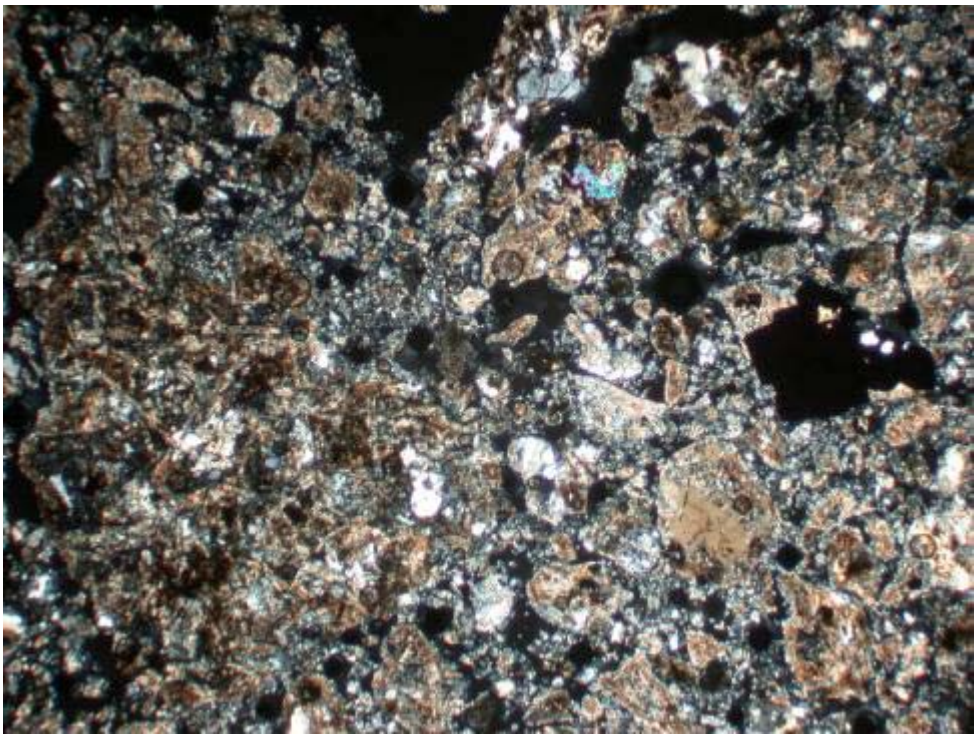
Polished Thin Section Description:
Mixed powder and fine to coarse chips of pervasively biotite-sericite-carbonate-(rutile)-altered fine-grained equigranular to porphyritic rock and seriate-textured rock with major liberated pyrite and rutile grains, liberated carbonate and quartz and quartz-carbonate-pyrite vein fragments. The fine-grained equigranular to porphyritic rock comprises tabular phases likely former plagioclase (replaced by sericite and overprinted by very fine-grained carbonate and rutile aggregate), lesser quartz aggregate and patchy biotite-rutile and locally carbonate aggregate. The seriate-textured rock comprises fine laths virtually replaced by sericite with patchy replacement of interstitial material by very fine-grained biotite and lesser-carbonate-rutile aggregates. Sericite comprises approximately 15% of the section. Biotite contributes at least 30% of the section as very fine-grained green aggregates.

Carbonate comprises approximately 5% of the section as colourless carbonate. Colourless carbonate occurs as veinlets, locally with quartz, and as very fine-grained aggregates overprinting sericite and biotite-alterated rock chips and as liberated grains.

Total sulphide, approximately 5%, is dominantly pyrite with minute traces of chalcopyrite. Pyrite (~5%) occurs disseminated as variably pitted and locally fractured, fine to medium-grained (< 1.5mm), eu-anhedral grains and aggregates. Pyrite occurs typically as liberated grains and aggregates and less commonly within rock and vein fragments. Rims of pyrite grains vary from straight to irregular but all are clean without alteration. Tiny grains of chalcopyrite as infill to pyrite grains within quartz-carbonate vein fragment.

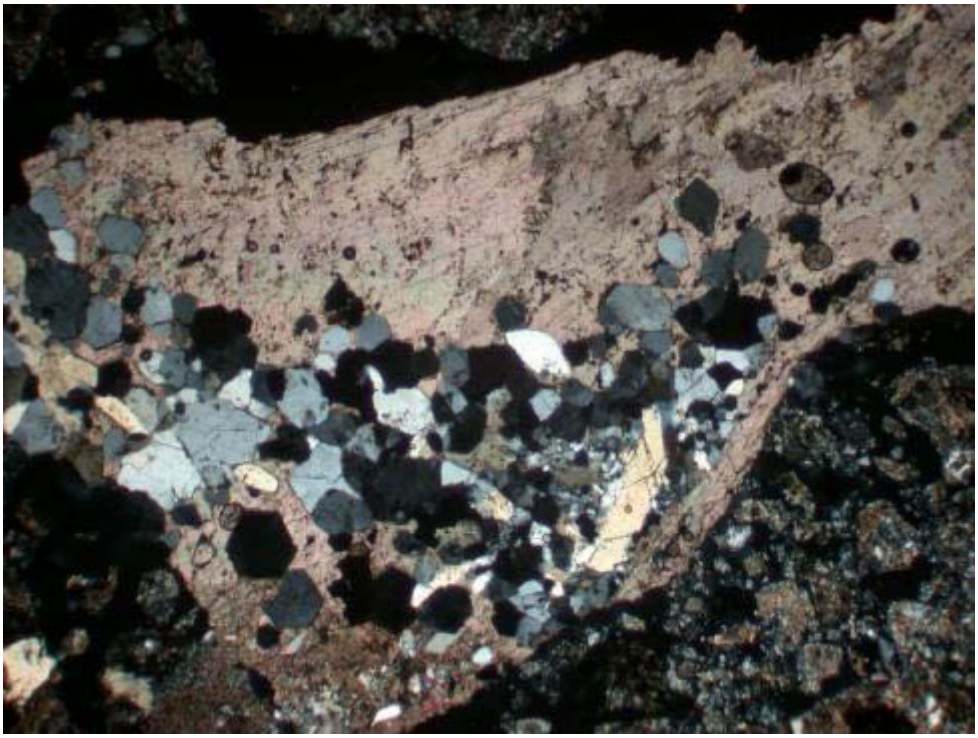


A

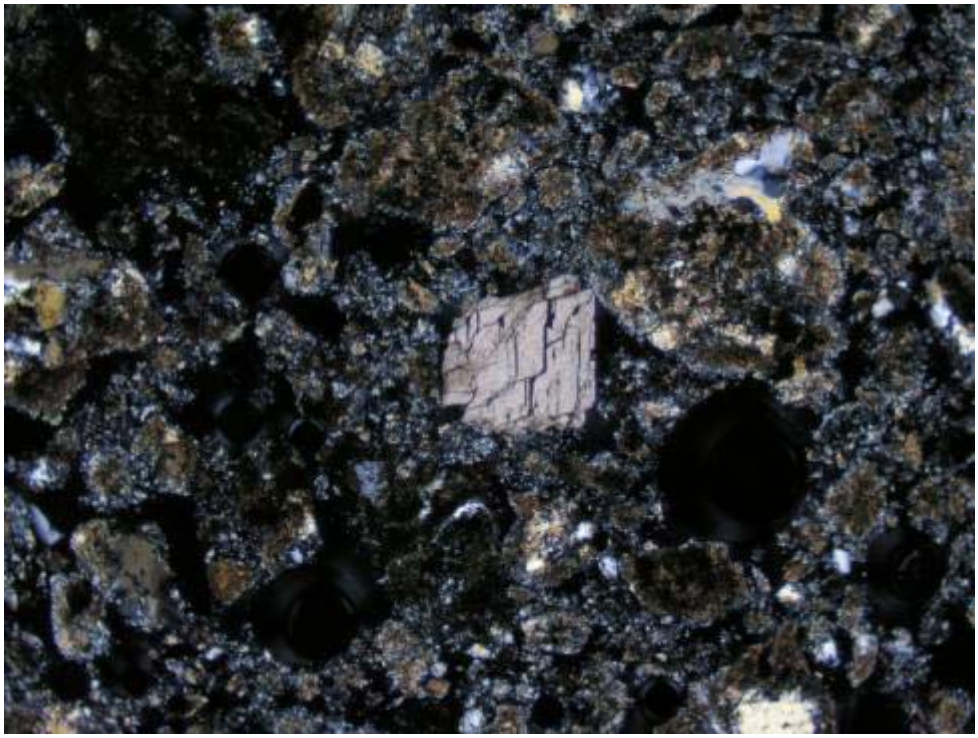


B

222788: A & B) Representative chips of pervasively sericite-biotite-carbonate-(rutile) altered fine-grained equigranular to porphyritic rock fragments and liberated pyrite grain (opaque-right). A) PPL, B) XPL, FOV =~ 4.5 mm.

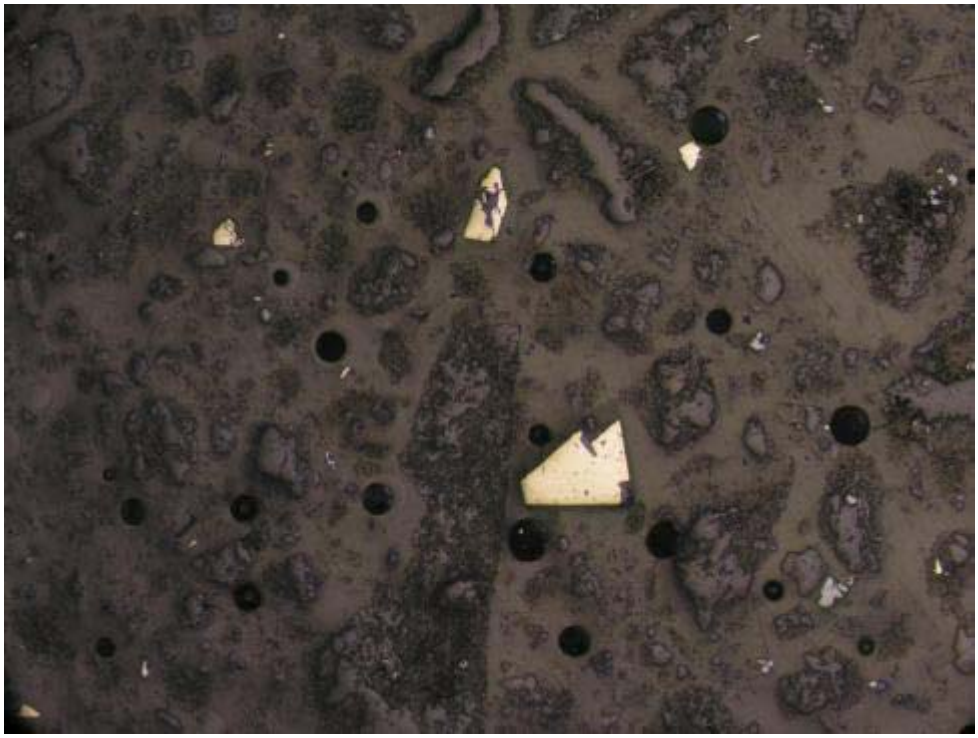


C



D

222788: C) Top: Fragment of quartz-carbonate vein with disseminated fine-grained pyrite (opaque). XPL, FOV =~ 4.5 mm. D) Bottom: Pervasively biotite-sericite-carbonate altered rock fragments and liberated colourless carbonate grain (centre). XPL, FOV =~ 2.8 mm


E

222788: E) Disseminated liberated eu-subhedral pyrite grains without alteration rims. RL, FOV =~ 2.8 mm.

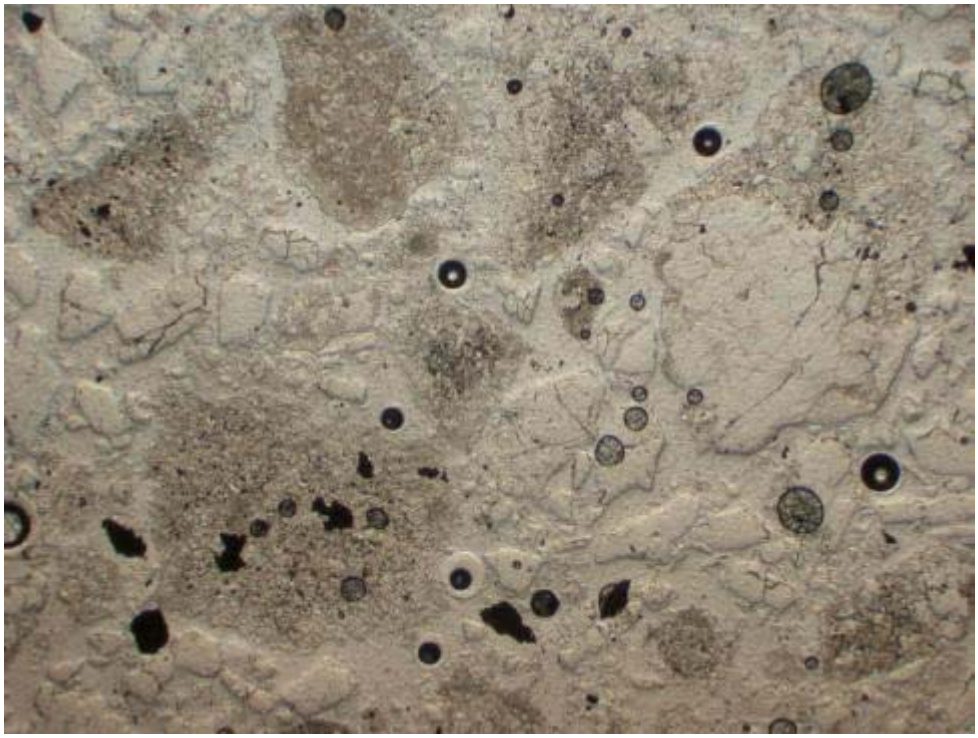
Project #: 0441
Sample ID: 224182

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 9mm size) comprise light gray aphanitic rock and white quartz vein fragments. Minor disseminated chalcopyrite and pyrite. No reaction to cold dilute HCl. No reaction to magnet.

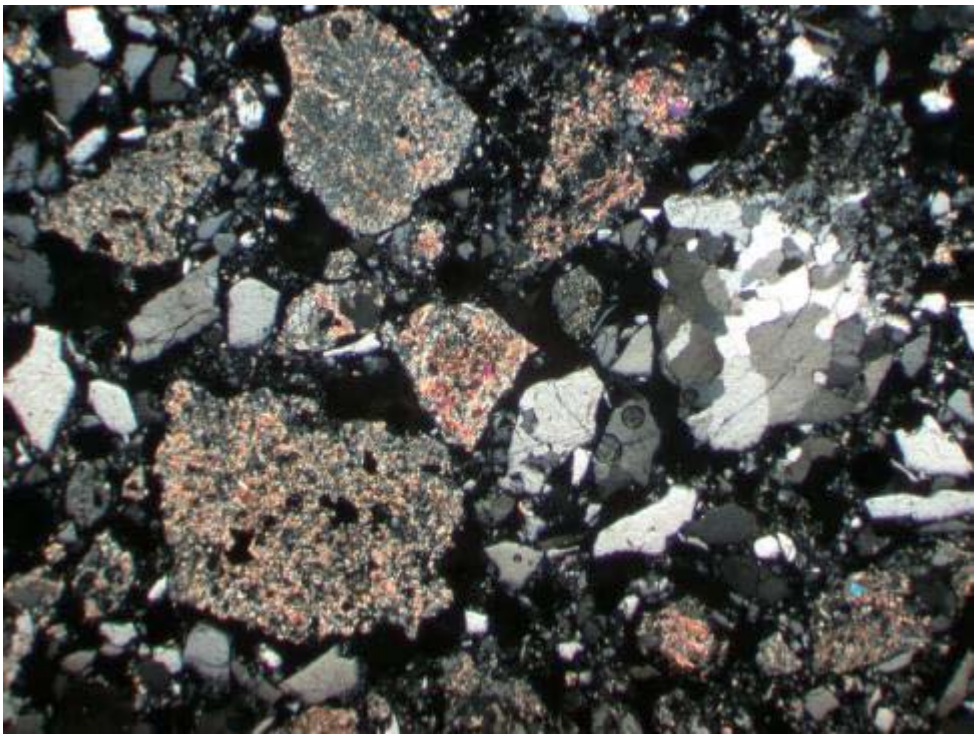
Polished Thin Section Description:
Mixed fine to coarse chips of sericite-altered fine-grained rock and quartz veinlets with liberated quartz grains and minor liberated pyrite, chalcopyrite and chalcocite. The sericite-altered rock is fine-grained and comprises dominantly pervasively muscovite (sericite) altered rock and sericite-altered tabular grains intergrown with quartz. Sericite, approximately 15% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates. Traces of disseminated rutile occur with the sericite aggregate.

Rare carbonate occurs as patchy aggregates overprinting sericite-quartz altered brown chips (only 2 chips observed).

Sulphide approximately 2%, occurs dominantly as pyrite and chalcopyrite with traces of chalcocite, sphalerite, bornite and an unknown gray anisotropic mineral. Pyrite, approximately 1%, is fine-grained (< 0.2mm), sub-anhedral and variably fractured. It occurs as disseminated grains and aggregates in quartz vein fragments and as liberated grains. Pyrite is locally enclosed by chalcopyrite aggregate. Pyrite boundaries are irregular but clean and unaltered. Minor chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within vein and rock fragments and liberated grains; it locally encloses pyrite. Chalcopyrite occurs rarely with bornite; it is locally rimmed and partly replaced by traces of chalcocite. One grain of pale sphalerite was observed associated with chalcopyrite. Traces of an unknown gray anisotropic mineral occur with chalcopyrite and as liberated fine grains.

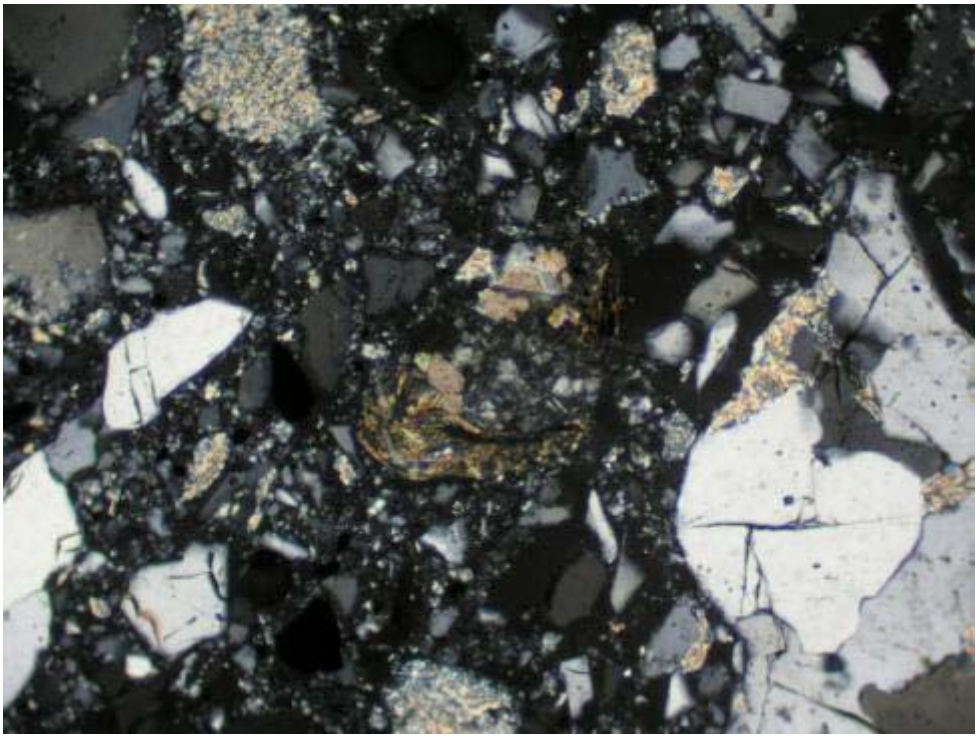


A

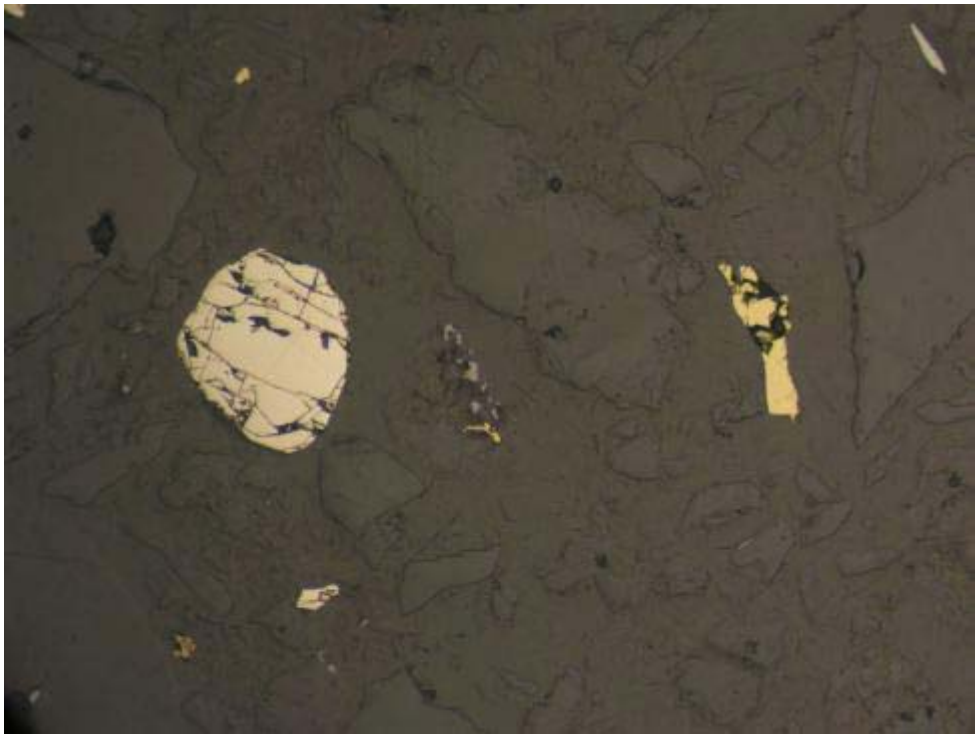


B

224182: A & B) General view of fine-grained sericite-altered rock and quartz vein chips with abundant liberated quartz grains and minor sulphide (opaque). A) PPL, B) XPL. FOV =~ 4.5 mm.

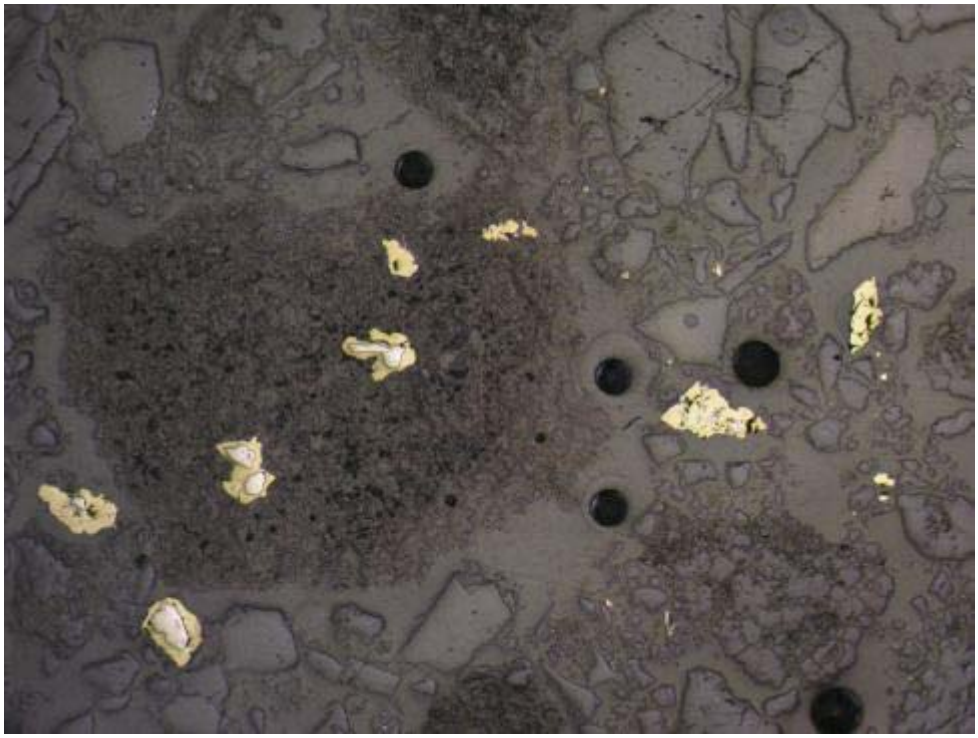


C

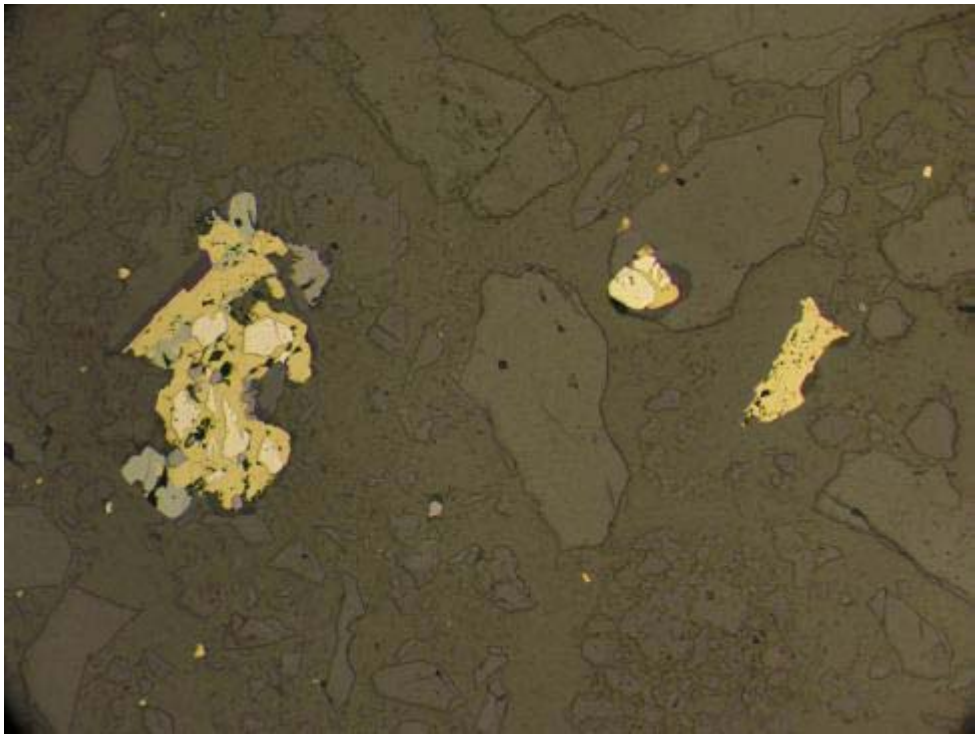


D

224182: C) Rare chip with patchy colourless carbonate (centre). XPL, FOV =~ 1.3 mm. D) Bottom: Liberated grains of anhedral fractured pyrite (left – clean rims), aggregate of very fine-grained rutile (centre) and chalcopyrite (right). RL, FOV =~ 0.7 mm



E



F

224182: E) Top: Disseminated and liberated chalcopyrite grains enclose pyrite. RL, FOV =~ 2.8 mm. F) Bottom: Liberated chalcopyrite grains enclose pyrite and are partly replaced by chalcocite (left). RL, FOV =~ 1.3 mm

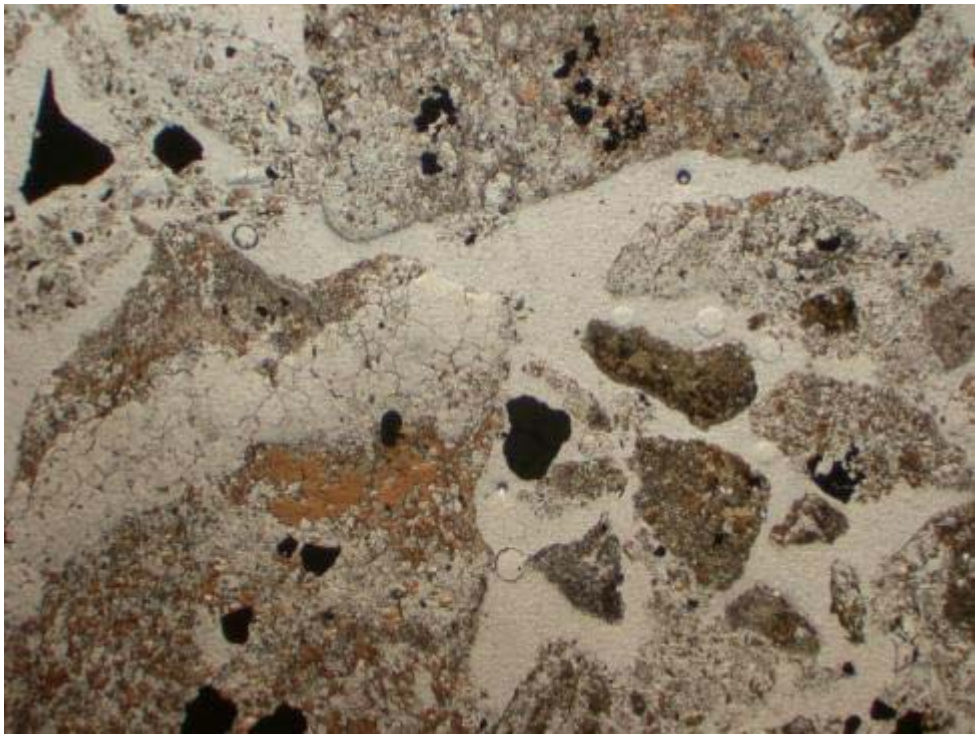
Project #: 0441
Sample ID: 224956

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 9mm size) comprise dark gray and white vaguely porphyritic rock fragments and translucent quartz vein fragments. Minor disseminated chalcopyrite and pyrite. No reaction to cold dilute HCl. No reaction to magnet.

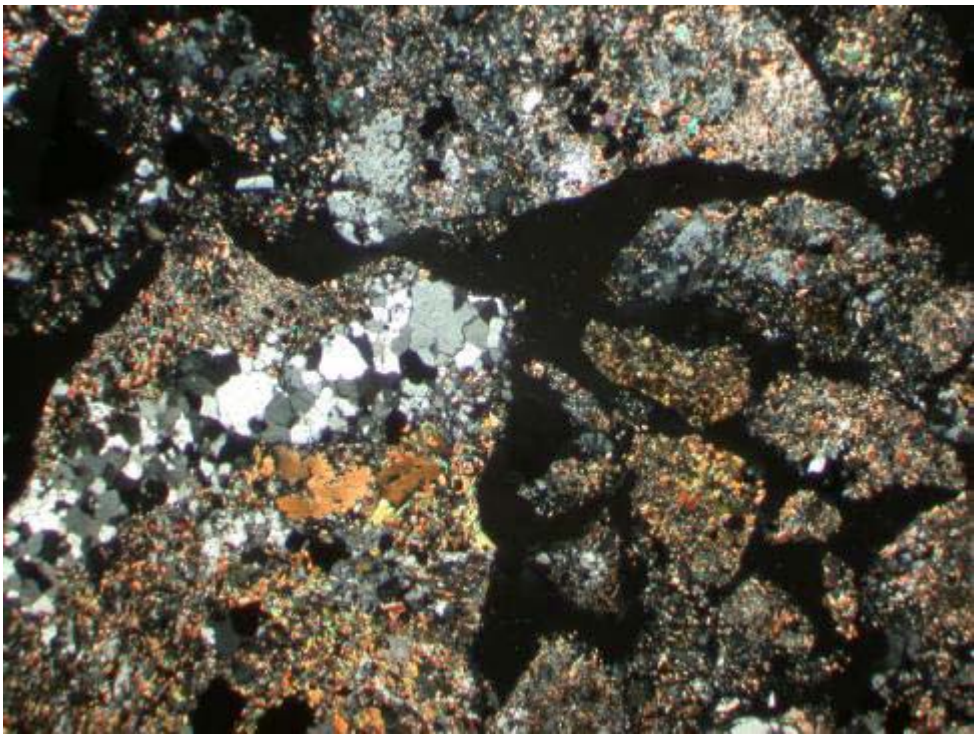
Polished Thin Section Description:
Mixed fine to coarse chips of sericite-biotite and locally carbonate altered rock fragments and quartz veinlets with minor liberated carbonate, pyrite and chalcopyrite grains. Biotite, approximately 30%, occurs as fine platy grains and aggregates with quartz and as very fine-grained anhedral patchy aggregates. Chlorite, approximately 3%, occurs as replacement of biotite in some fragments. Sericite, approximately 5% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates replacing tabular forms. Traces of disseminated rutile occur with the biotite and sericite aggregate.

Total carbonate occurs as trace amounts in the section. Carbonate occurs as fine to very fine-grained, colourless anhedral grains and patchy aggregates that overprint sericite alterated rock fragments, as sub-mm veinlets, locally with quartz, and as liberated grains and aggregates. Brown carbonate occurs as fine-grained aggregates replacing rock fragments.

Sulphide approximately 3%, occurs dominantly as pyrite with lesser chalcopyrite and traces of molybdenite and marcasite. Pyrite, approximately 2%, is fine-grained (< 0.6mm), sub-anhedral and variably fractured. It occurs as disseminated grains and aggregates in altered rock and quartz vein fragments and as liberated grains. Pyrite is locally enclosed by chalcopyrite aggregate and has inclusions of chalcopyrite. Pyrite occurs intergrown with very fine-grained marcasite in one biotite-carbonate altered rock chip. Pyrite boundaries are irregular but clean and unaltered. Minor chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within vein and rock fragments and liberated grains; it locally encloses pyrite. Rarely, chalcopyrite grains occur with rutile and rimmed by very fine-grained hematite aggregate. Minor hematite, approximately 1%, occurs as fine-grained pitted grains and aggregates (< 0.3mm), locally partly replacing chalcopyrite, within biotite-altered rock fragments, quartz veinlets and as liberated grains.

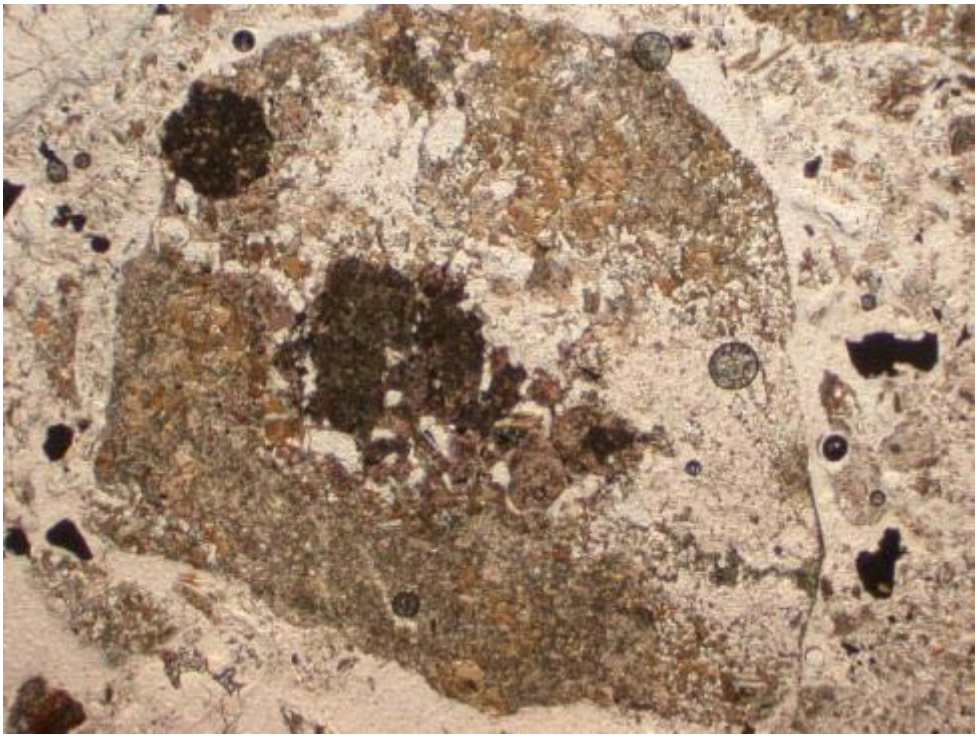


A

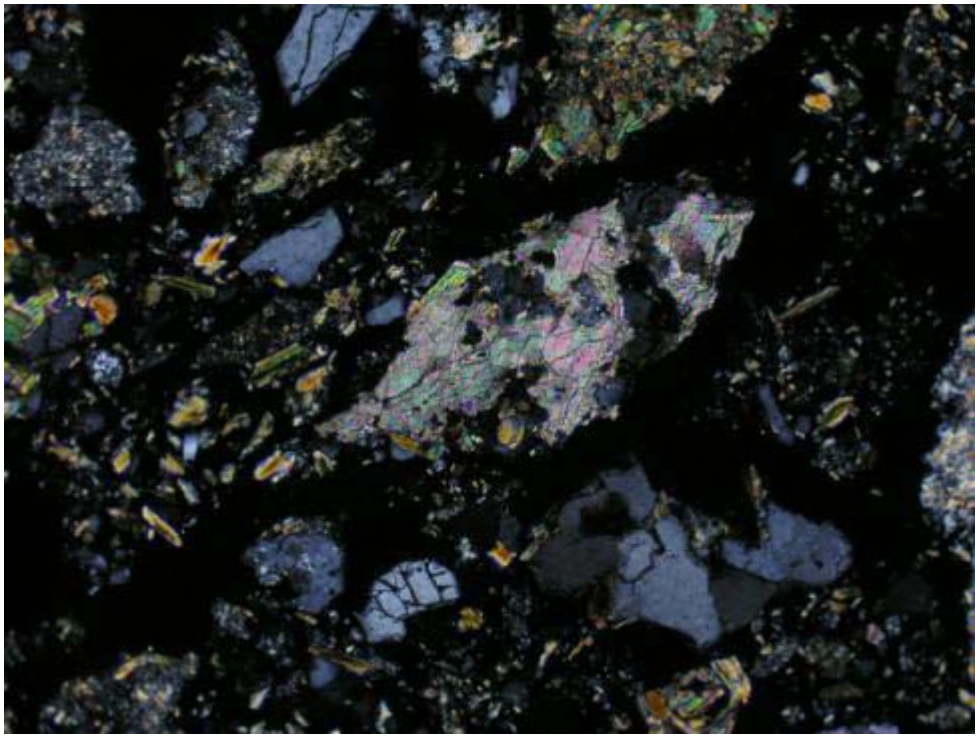


B

224956: A & B) General view of fine-grained biotite-sericite altered rock, quartz vein chips and minor sulphide (opaque). A) PPL, B) XPL. FOV =~ 4.5 mm.

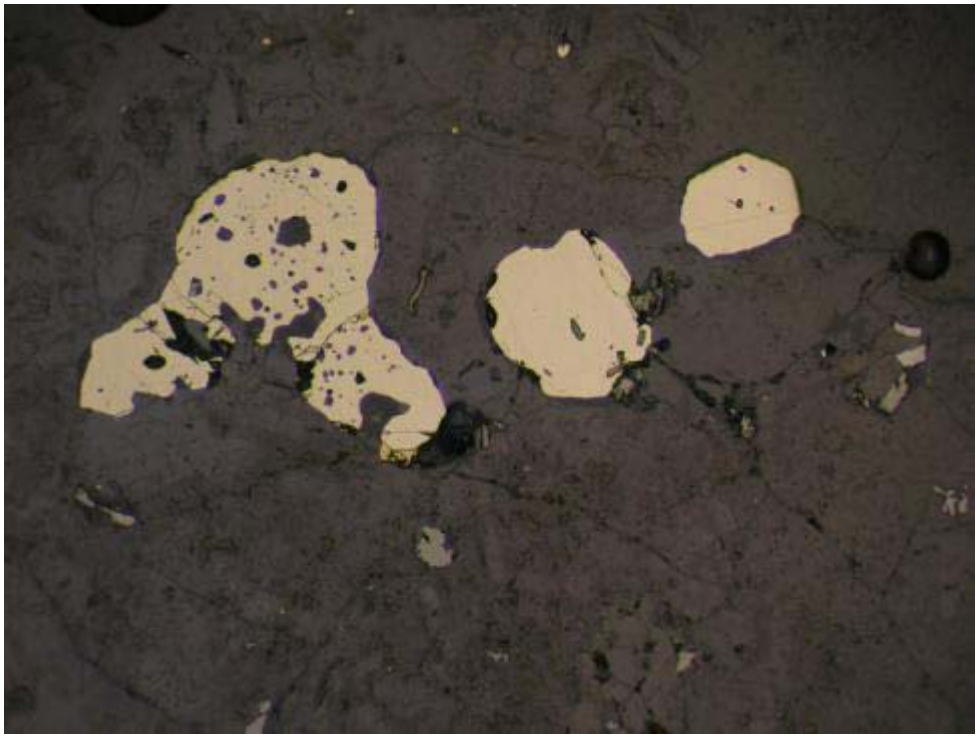


C

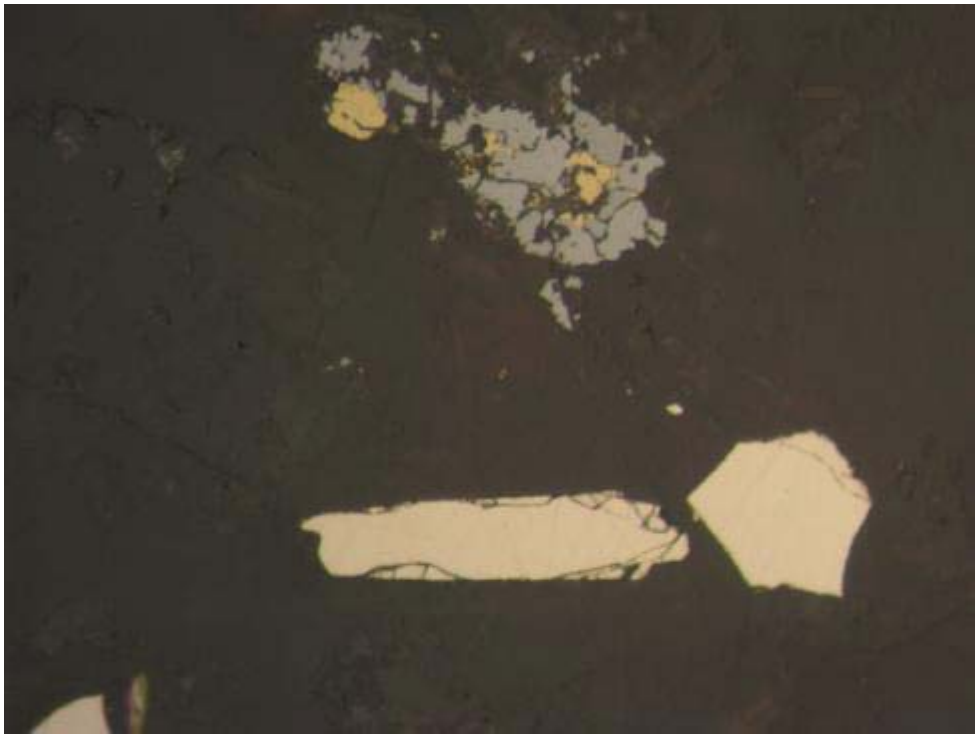


D

224956: C) Brown Fe-carbonate replaces core of biotite-altered rock chip. PPL, FOV =~ 4.5 mm. D) Bottom: Liberated colourless carbonate chip (centre). XPL, FOV =~ 1.3 mm

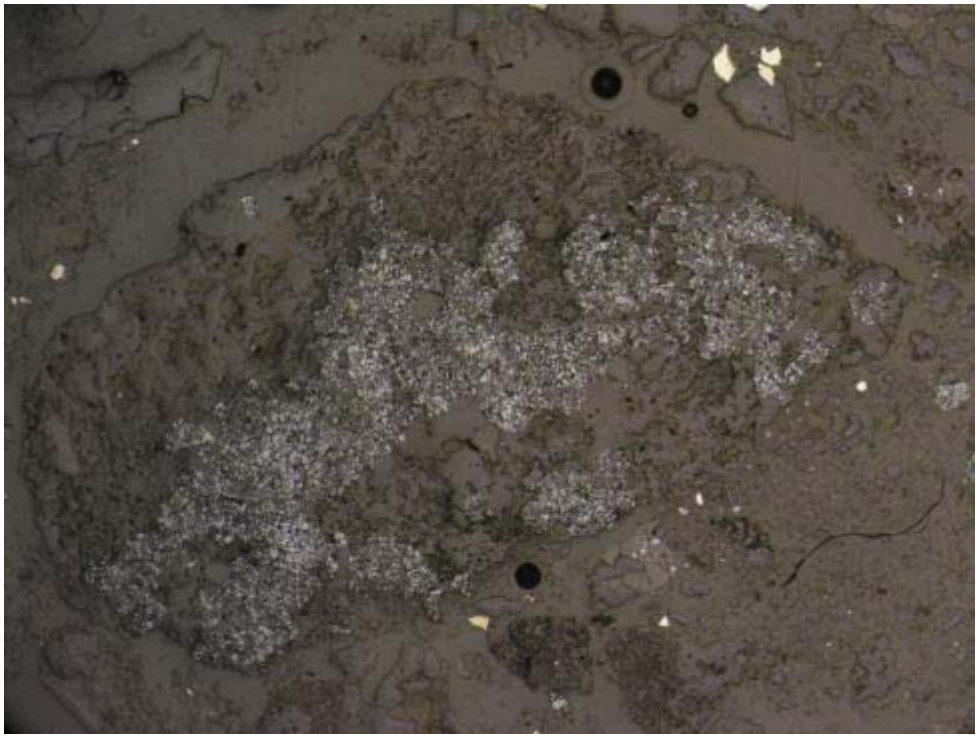


E



F

224956: E) Top: Very fine-grained platy molybdenite (centre and right) associated with anhedral pitted pyrite grains (no alteration rims). RL, FOV =~ 1.0 mm. F) Bottom: Liberated grains of pyrite (no alteration rims) and chalcopyrite partly replaced by very fine-grained hematite (top). RL, FOV =~ 0.35 mm


G

224956: G) Fine-grained, pitted hematite aggregate replaces biotite-altered rock chip. Liberated anhedral pyrite grains (top and bottom). RL, FOV =~ 2.8 mm.

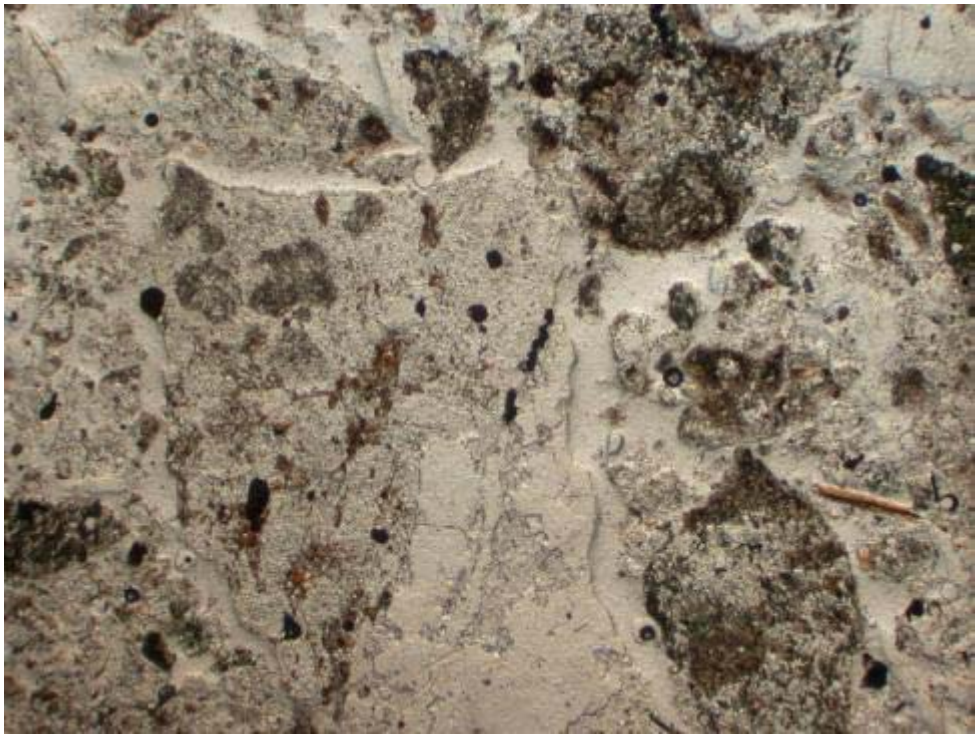
Project #: 0441
Sample ID: 225026

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 9mm size) comprise light gray vaguely porphyritic rock fragments and translucent quartz vein fragments. Minor disseminated chalcopyrite and pyrite. No reaction to cold dilute HCl. No reaction to magnet.

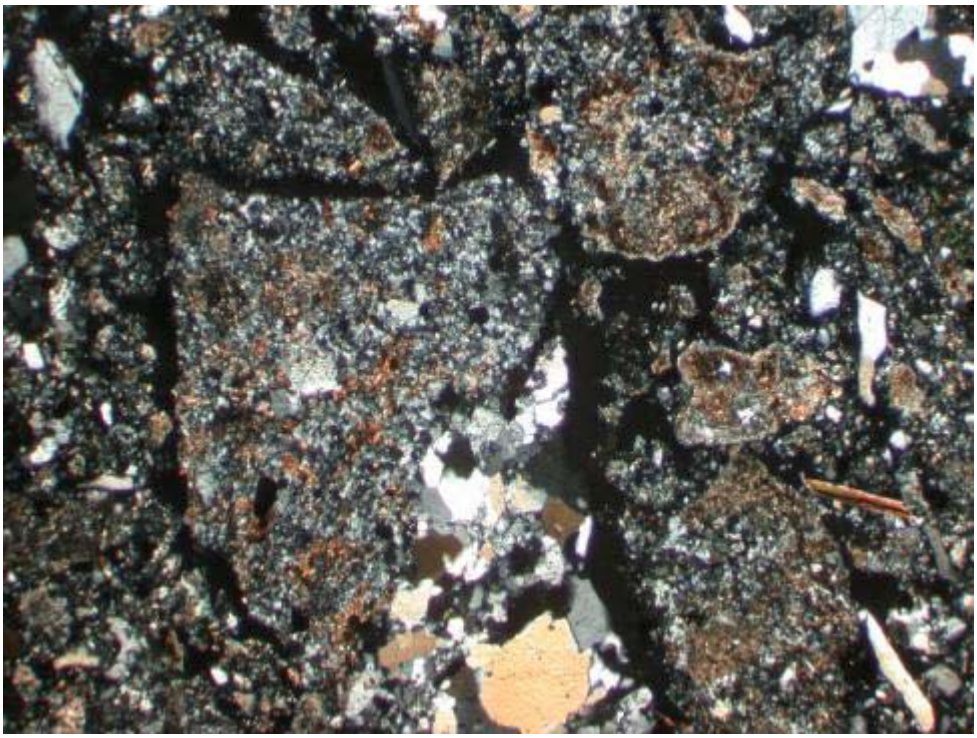
Polished Thin Section Description:
Mixed fine to coarse chips of sericite-biotite/chlorite altered rock fragments and quartz veinlets with minor liberated pyrite and chalcopyrite grains. Sericite, approximately 15% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates. Traces of disseminated rutile occur with the sericite aggregate. Biotite, approximately 3%, occurs as fine platy to very fine-grained anhedral aggregates with sericite or quartz aggregate. Chlorite, approximately 7%, occurs as replacement of biotite in some fragments.

Rare carbonate occurs as very fine-grained patchy aggregates with biotite-quartz altered brown chips (only 1 chip observed).

Sulphide approximately 3%, occurs dominantly as pyrite and chalcopyrite with traces of molybdenite (one grain observed). Pyrite, approximately 2%, is fine-grained (< 0.8mm), sub-anhedral and variably fractured. It occurs as disseminated grains and aggregates in altered rock and quartz vein fragments and as liberated grains. Pyrite is locally enclosed by chalcopyrite aggregate. Pyrite boundaries are irregular but clean and unaltered. Minor chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates within vein and rock fragments and liberated grains; it locally encloses pyrite. Rarely, chalcopyrite grains occur with rutile and traces of very fine-grained hematite altered aggregate.

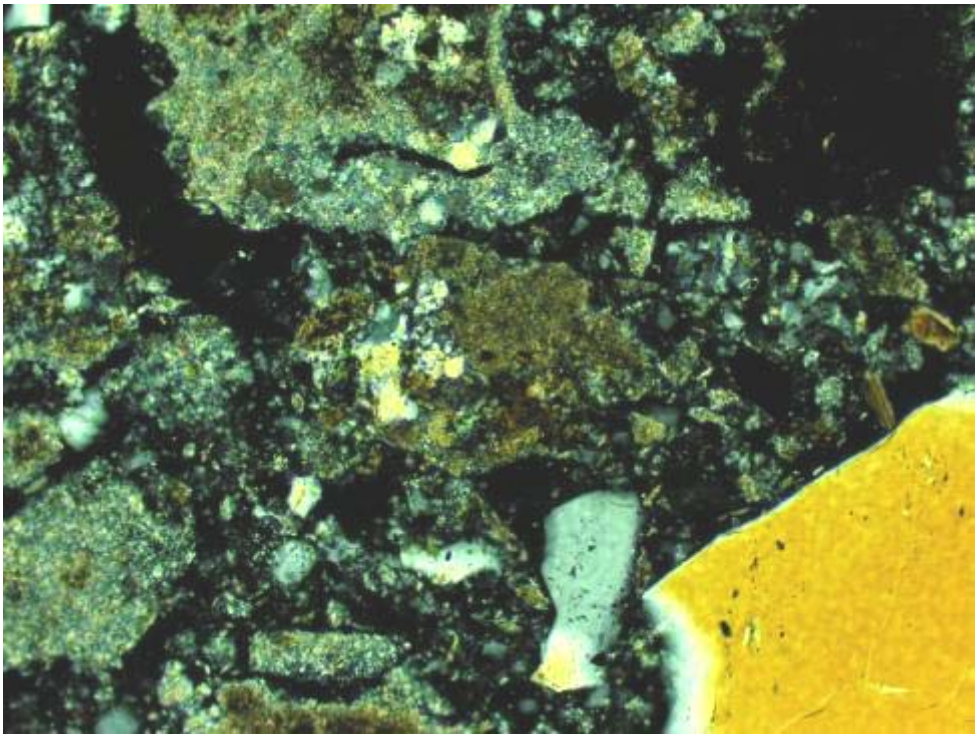


A

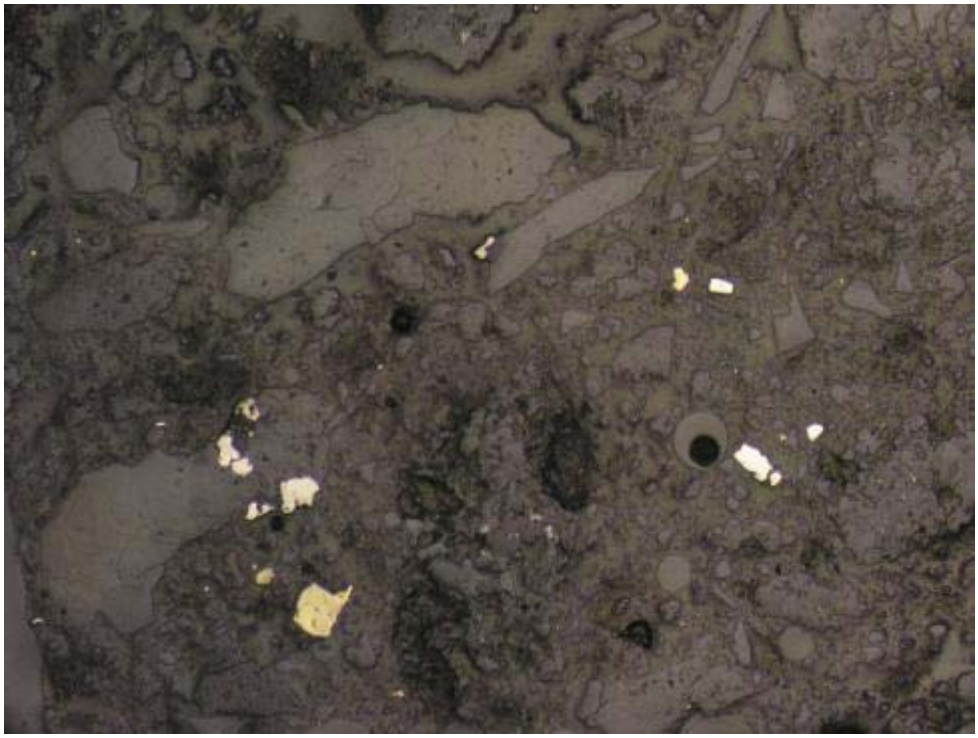


B

225026: A & B) General view of fine-grained sericite-biotite/chlorite altered rock and quartz vein chips with abundant liberated quartz grains and minor sulphide (opaque). A) PPL, B) XPL. FOV =~ 4.5 mm.

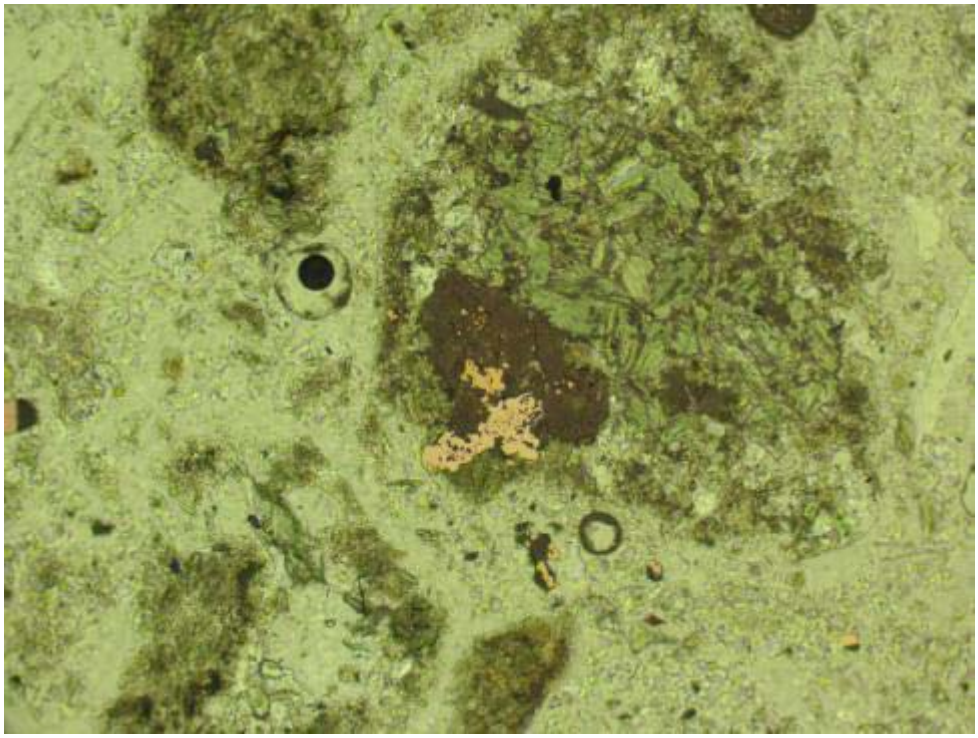


C

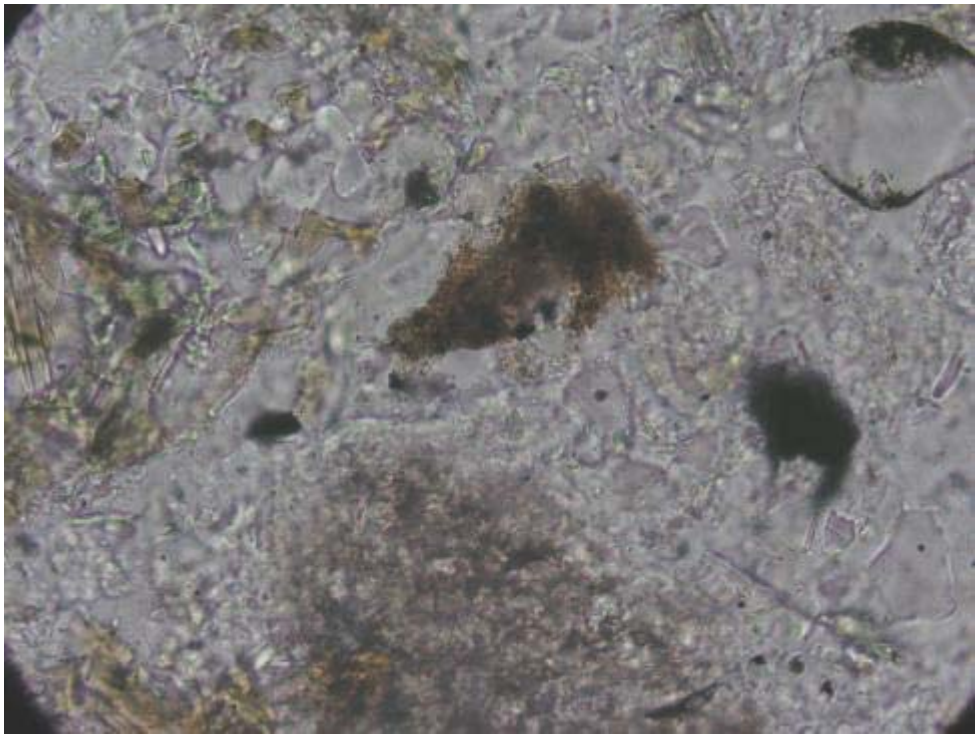


D

225026: C) Rare chip with very fine-grained carbonate aggregate (centre) with biotite and quartz. XPL, FOV =~ 1.3 mm. D) Bottom: Pyrite disseminated in quartz vein fragment and liberated grains of anhedral pyrite and chalcopyrite. RL, FOV =~ 2.8 mm



E



F

225026: E) Top: Anhedral chalcopyrite and pyrite surrounded by very fine-grained hematite aggregate within chlorite-altered fragment. PPL+RL, FOV =~ 1.3 mm. F) Bottom: Liberated aggregate of very fine-grained hematite (centre). PPL, FOV =~ 0.35 mm

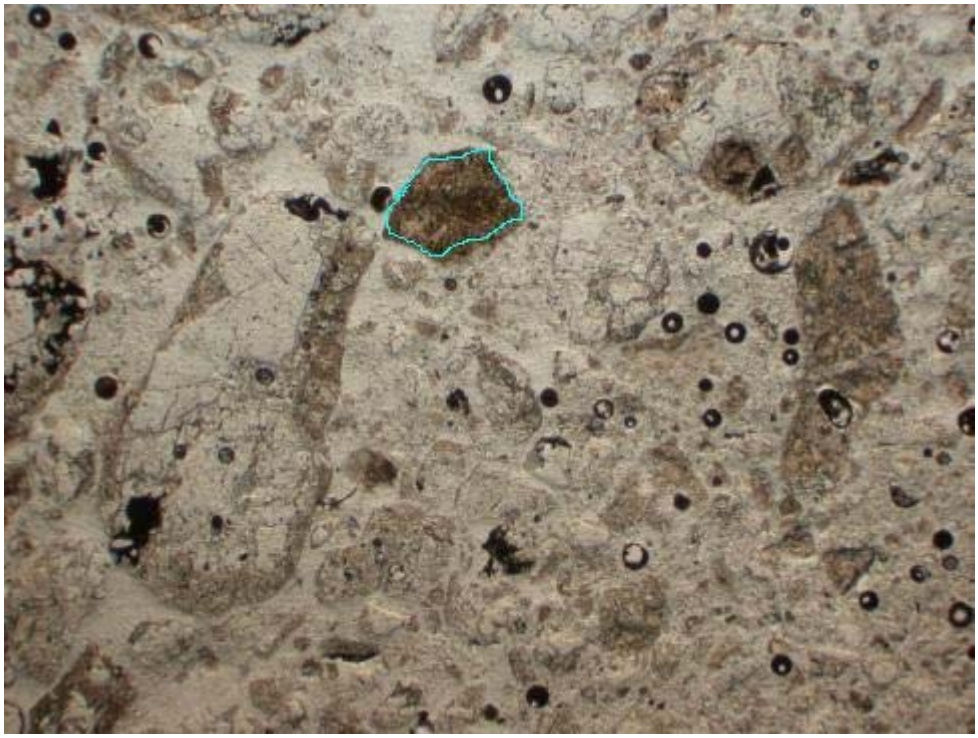
Project #: 0441
Sample ID: 226293

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 7mm size) comprise light gray leucocratic granitoid fragments. Minor disseminated chalcopyrite and pyrite. Trace reaction of some fragments to cold dilute HCl. No reaction to magnet.

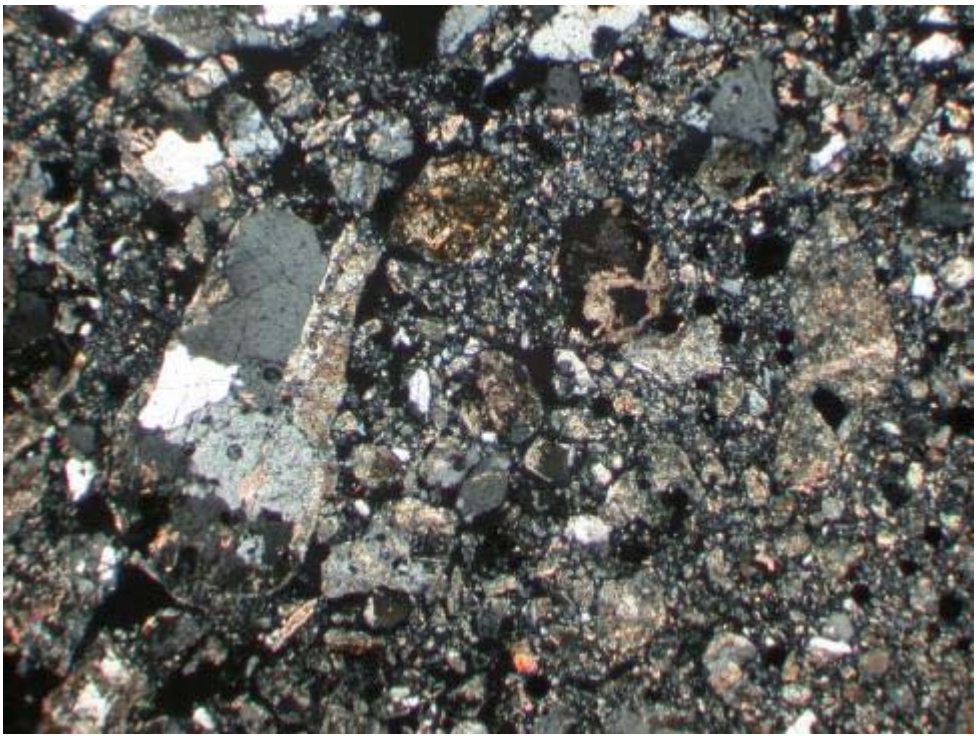
Polished Thin Section Description:
Mixed fine to coarse chips of sericite-altered leucocratic granitoid, quartz-K-feldspar veinlets, quartz-carbonate veinlets and with a few liberated aggregates of carbonate, pyrite and chalcopyrite. The leucocratic granitoid is fine to medium-grained and comprises dominantly pervasively muscovite (sericite) altered plagioclase, with local relict twinning, intergrown with quartz. Sericite, approximately 30% of the section, occurs as fine sheaves and very fine-grained flaky to anhedral aggregates. Traces of disseminated rutile occur with the sericite aggregate. Patchy fine to very fine-grained carbonate occurs overprinting the sericite alteration.

Carbonate comprises approximately 2% of the section essentially as colourless carbonate. The colourless carbonate occurs as patchy aggregates overprinting sericited granitoid, as veinlets with quartz and liberated fragments. Fine-grained carbonate is partly replaced by a very fine-grained colourless carbonate.

Sulphide approximately 2%, occurs dominantly as pyrite and chalcopyrite with traces of sphalerite and opaque mineral with optical properties similar to arsenopyrite. Pyrite, approximately 1%, is fine-grained (< 0.1mm), sub-anhedral and occurs as disseminated grains and aggregates in sericite-altered granitoid, in quartz vein fragments and as liberated grains. Pyrite is locally enclosed by chalcopyrite aggregate. Pyrite boundaries are irregular but mostly unaltered. In a few chips and liberated grains, a yellow stain is observed adjacent to pyrite grains, and rarely a partial red-brown alteration rim. Minor chalcopyrite, approximately 1%, occurs disseminated as fine to very fine-grained, ragged, anhedral grains, aggregates and liberated grains; it locally encloses pyrite. Trace sphalerite occurs with chalcopyrite. Rare grains of very fine-grained anhedral to rhombic opaque mineral with optical properties similar to arsenopyrite occurs enclosed by pyrite and as liberated grains. Traces of very fine-grained hematite aggregate occur in one sericite-altered chip and as rare liberated grains.

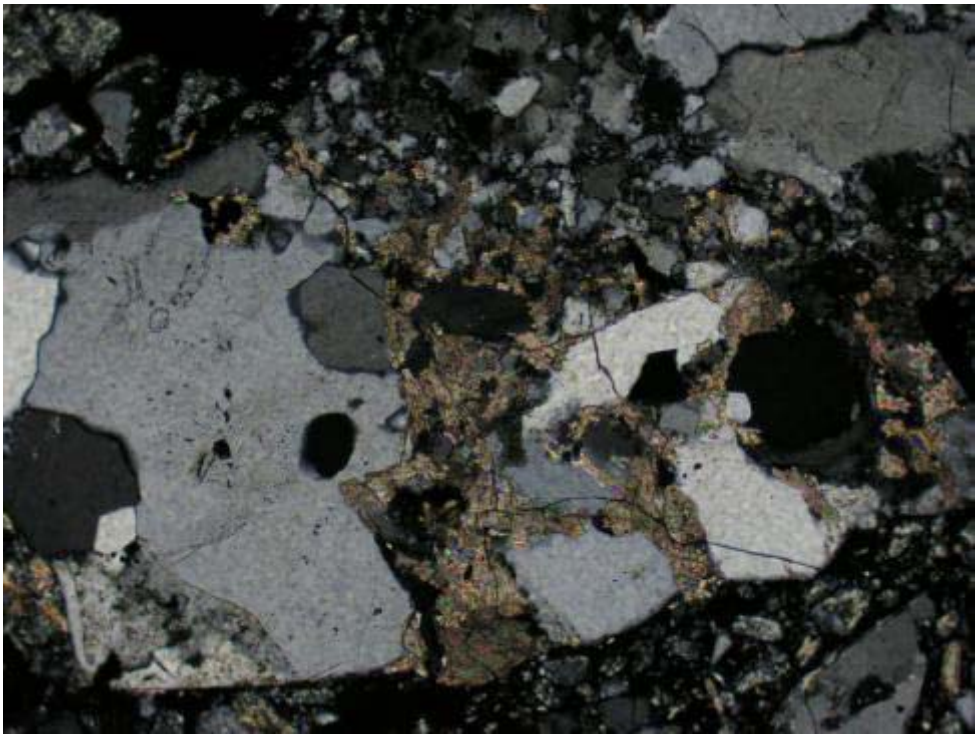


A

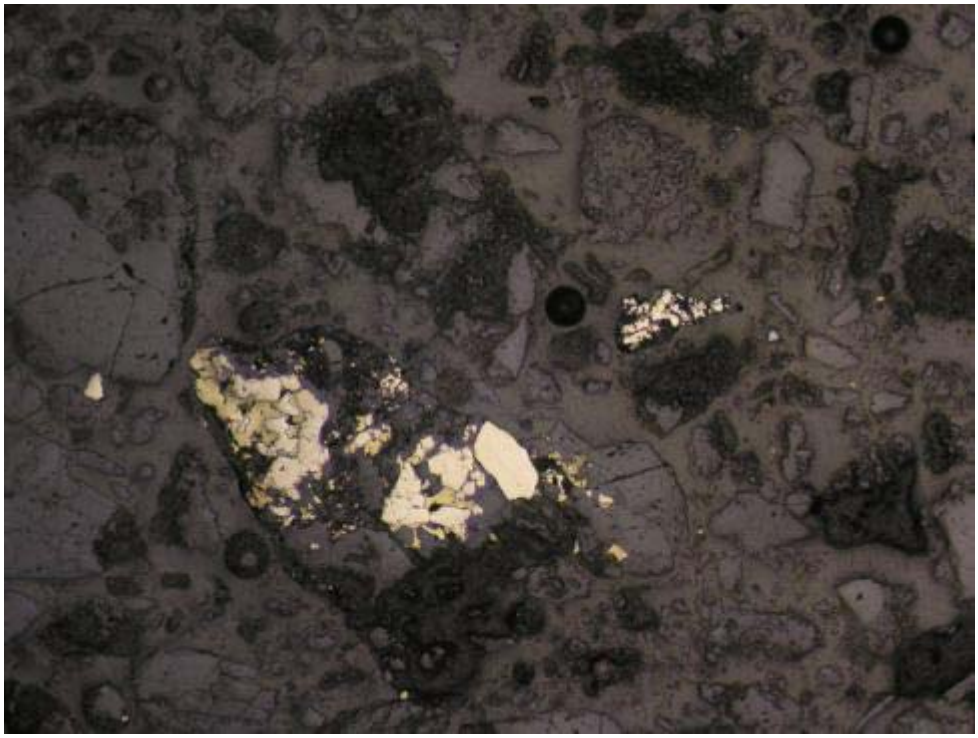


B

226293: A & B) General view of sericite-altered leucocratic granitoid chips with liberated carbonate aggregate (circled in blue- PPL photo) just above centre. A) PPL, B) XPL. FOV =~ 4.5 mm.

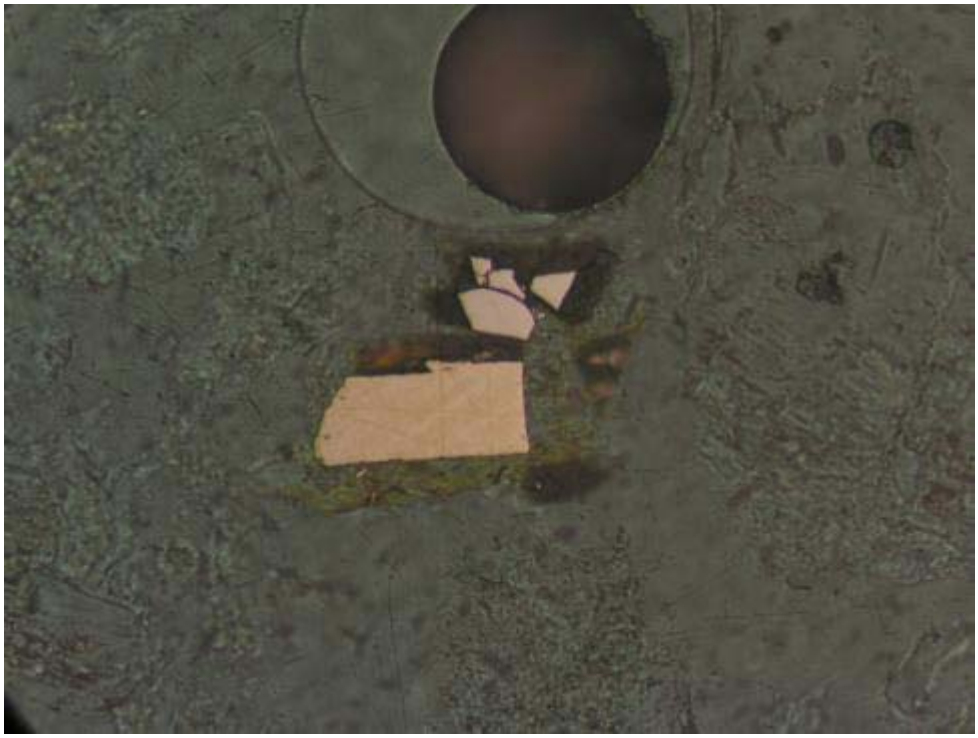


C



D

226293: C) View of carbonate-quartz vein fragment. XPL, FOV =~ 1.3 mm. D) Bottom: Patchy chalcopyrite encloses pyrite aggregate within sericite-altered granitoid fragment (centre) and isolated anhedral pyrite aggregate (right). RL, FOV =~ 2.8 mm



E

F

226293: E) Top: Grain of subhedral pyrite (pale yellow) with a red-brown hematitic partial rim and yellow-stained host rock. Note anhedral grains (white) of mineral with optical properties similar to arsenopyrite above pyrite. PPL+RL, FOV =~ 0.35 mm. F) Bottom: Rare liberated hematite grain (centre). PPL, FOV =~ 0.35 mm

Project #: 0441
Sample ID: 226785

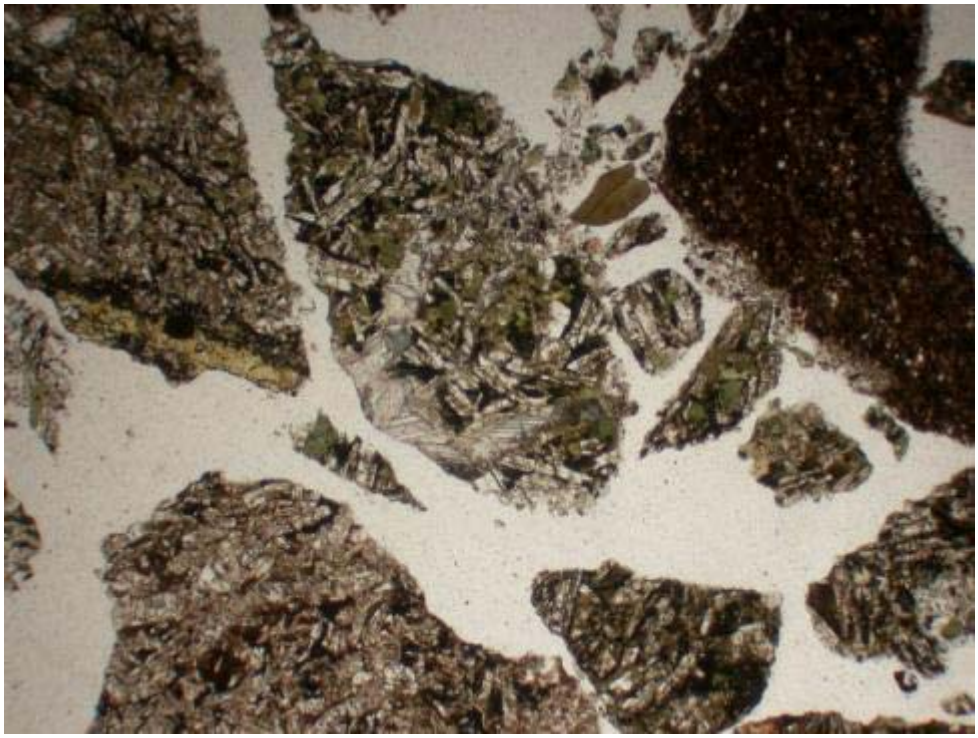
Offcut Mount Description:
Fine grains to coarse-sized chips (up to 10mm size) comprise light and medium gray fine-grained rock fragments. Traces of disseminated pyrite in one fragments. Reaction of some fragments to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed fine to coarse chips of chlorite-(epidote-carbonate) or clay-carbonate-(chlorite) altered seriate-textured basalt and lesser laminated siltstone with a few liberated grains of carbonate and traces of disseminated pyrite and chalcopyrite. The seriate-textured basalt consists of plagioclase laths and either selectively pervasive clay-carbonate-(chlorite) or chlorite-(epidote) replacement of former mafic phases (including traces of relict biotite) and groundmass. Irregular shaped amygdales and liberated fragments comprise carbonate, chlorite or epidote-(pyrite±chalcopyrite±hematite). Carbonate and quartz occurs as irregular sub-mm veinlets cutting basalt chips. The laminated siltstone chips comprise very fine-grained quartz grains, brown clay, lesser illite, carbonate grains and traces of very fine-grained disseminated pyrite.

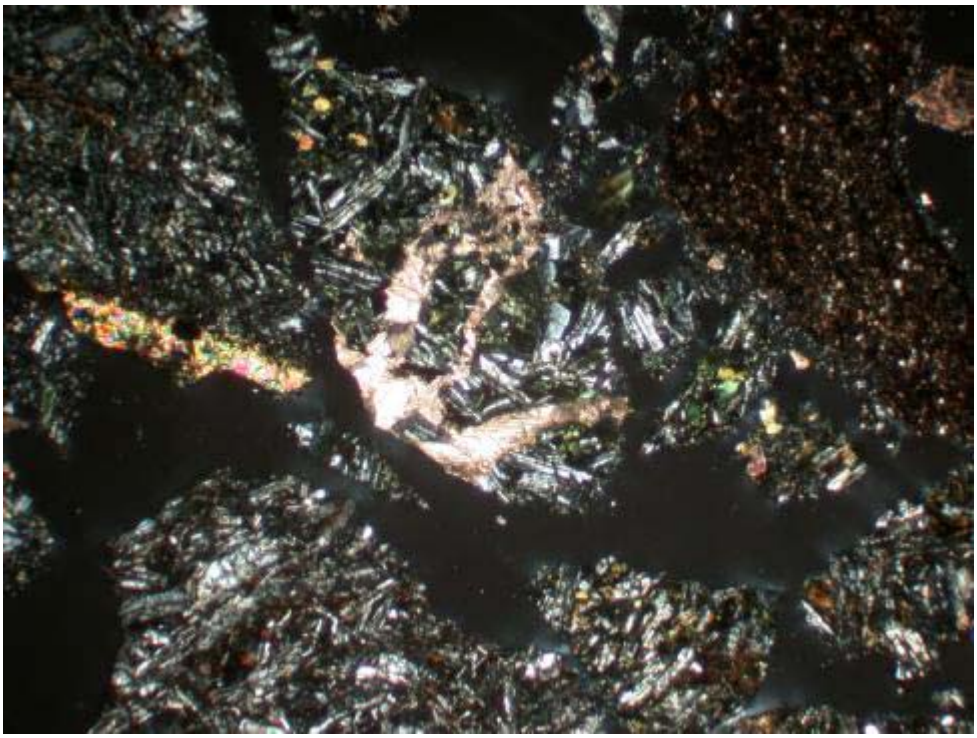
Carbonate comprises approximately 7% of the section as both fine-grained colourless and brown varieties. Carbonate occurs as amygdales, veinlets and liberated fragments. Minor very fine-grained brown carbonate occurs partly replacing the anhedral colourless carbonate and as patchy irregular aggregates overprinting the dominant chlorite or clay altered basalt chips.

Aphanitic brown clay minerals comprise approximately 15% of the section. Chlorite contributes at least 20% of the section.

Sulphide occurs in trace amounts dominantly as pyrite and chalcopyrite. Pyrite is fine to very fine-grained, anhedral and occurs disseminated in epidote and carbonate vein fragments and as liberated grains. Pyrite boundaries are irregular but unaltered. Pyrite grains are locally enclosed by chalcopyrite and locally occur as very fine-grained spongy aggregates in siltstone chips. Trace chalcopyrite occurs disseminated as fine to very fine-grained, ragged, anhedral aggregates; it locally encloses pyrite. Minor very fine-grained ilmenite, approximately 1% of the section, occurs disseminated within the basalt. Rare traces of very fine-grained hematite occur as radial aggregates within an amygdale of epidote in one basalt chip.

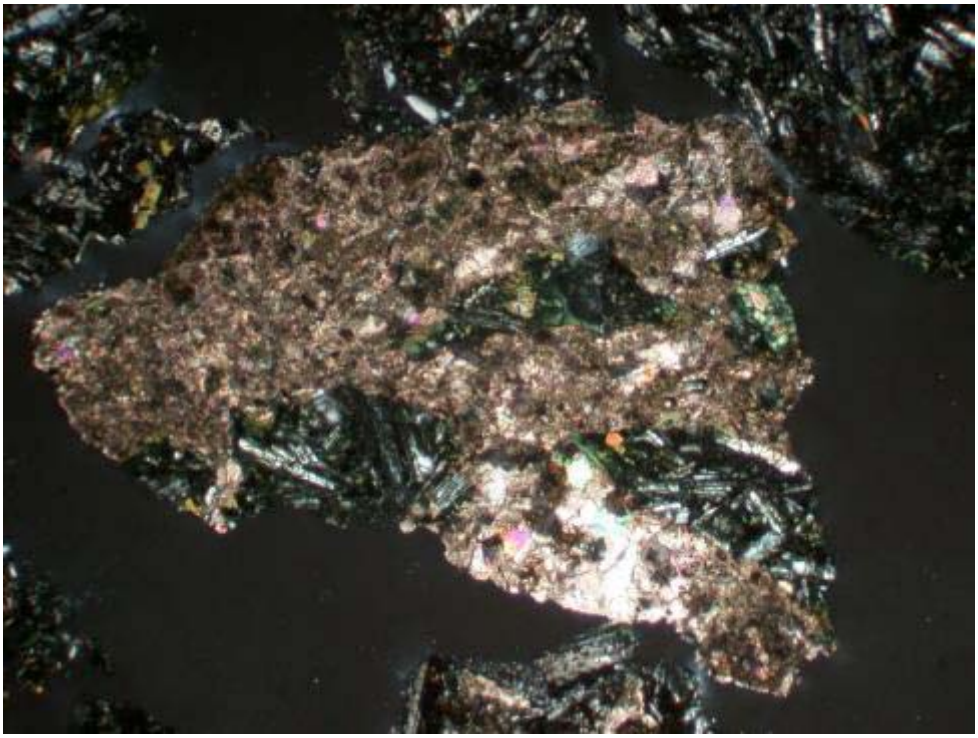


A

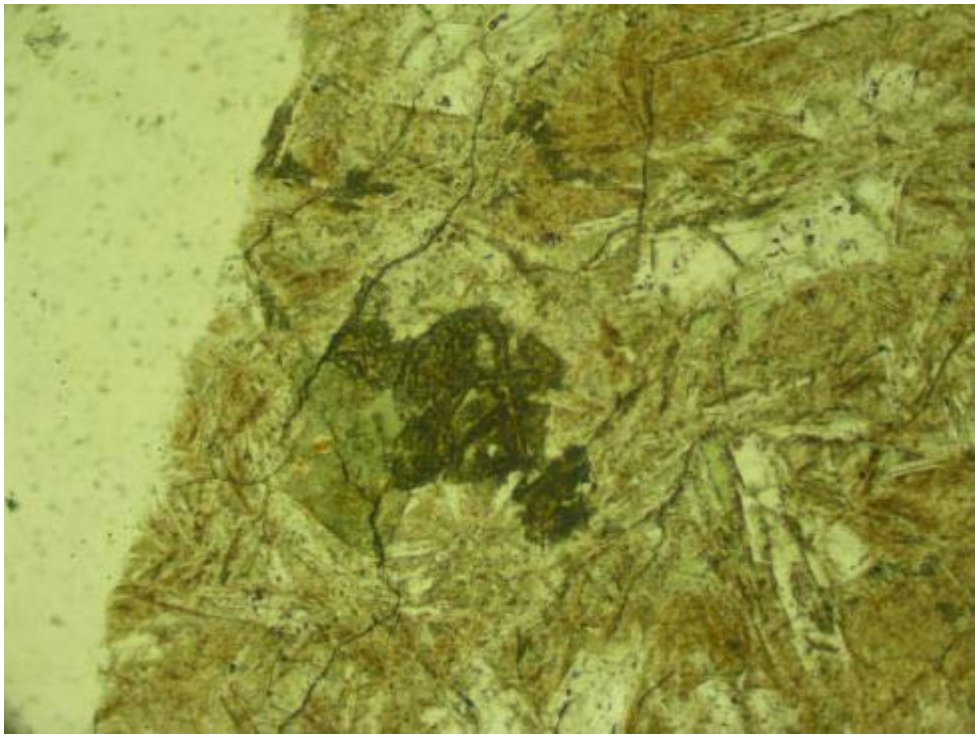


B

226785: A & B) General view of seriate-textured basalt fragments and siltstone fragment (top right). Note epidote veinlet (far left) and carbonate veinlets (centre). A) PPL, B) XPL. FOV =~ 4.5 mm.

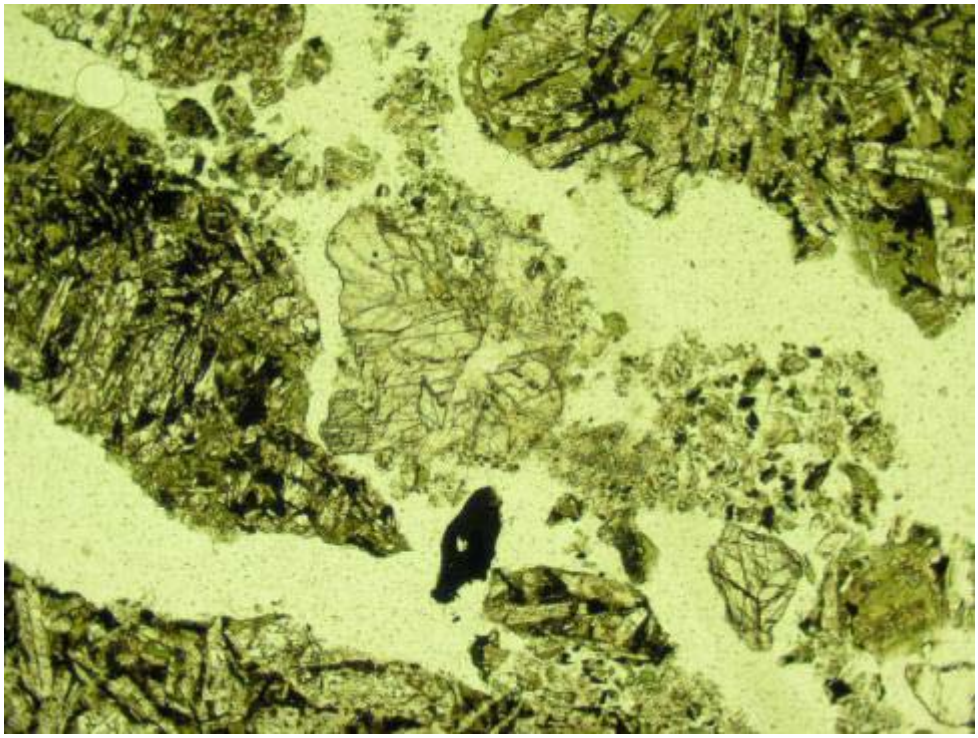


C

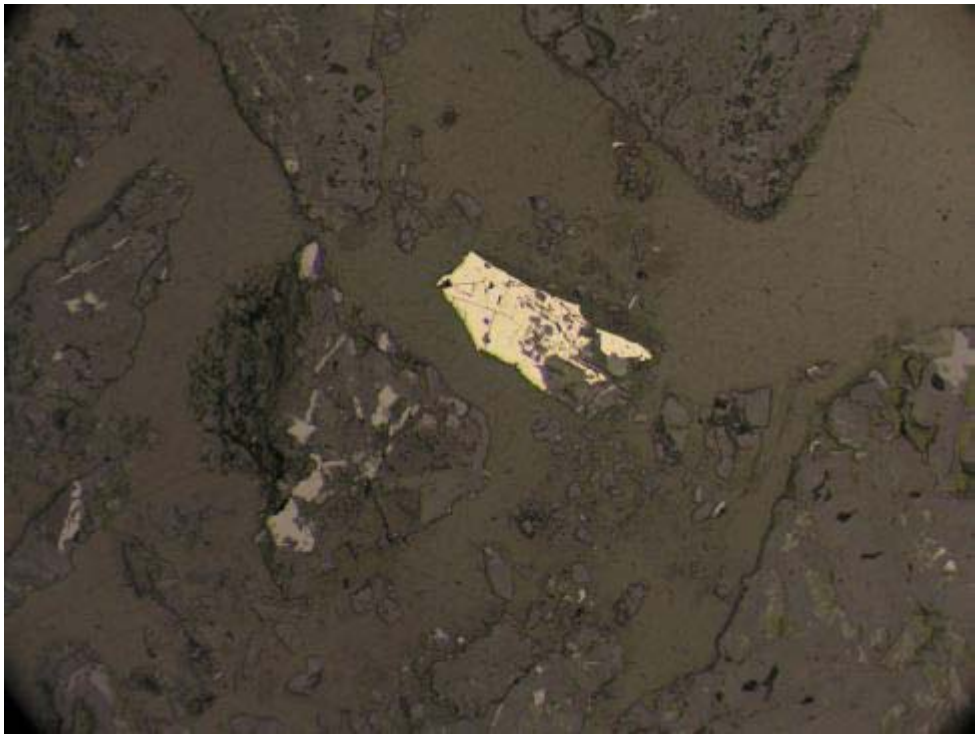


D

226785: C) View of basalt fragment cut by carbonate veinlets. Note patchy replacement of colourless carbonate by brown very fine-grained carbonate. XPL, FOV =~ 4.5 mm. D) Bottom: Detailed view of clay-chlorite-carbonate altered basalt fragment. Note very fine-grained patchy brown carbonate aggregate (centre). PPL, FOV =~ 0.7 mm



E



F

226785: E) Top: Liberated grains of colourless carbonate (centre and lower right). PPL, FOV =~ 2.8 mm. F) Bottom: Liberated pyrite grain (centre) without alteration rims. RL, FOV =~ 1.3 mm

Project #: 0441
Sample ID: 406502

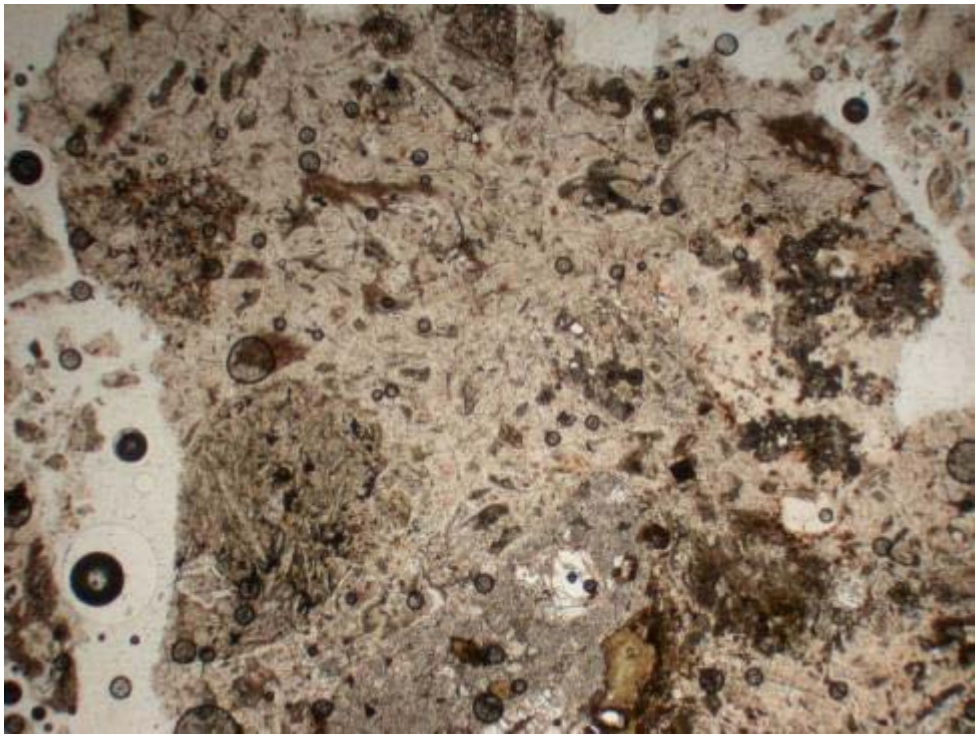
Offcut Mount Description:
Fine grains to coarse-sized chips (up to 12mm size) comprise light gray and pale green volcanic sandstone and breccia fragments. Minor disseminated fine-grained hematite within aphanitic pale green fragments. Reaction of some fragments to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed powder and fine to coarse chips of volcanic sandstone and breccia with traces of liberated pyrite, hematite grains and carbonate aggregate. Volcanic sandstone and breccia comprise subangular to rounded fragments (from 1 to 10mm size) of seriate-textured rock, biotite-feldspar porphyry, laminated mudstone or volcanic mudstone, clay-chlorite and locally carbonate altered fine tuff and broken quartz and former feldspar crystals in a very fine-grained matrix.

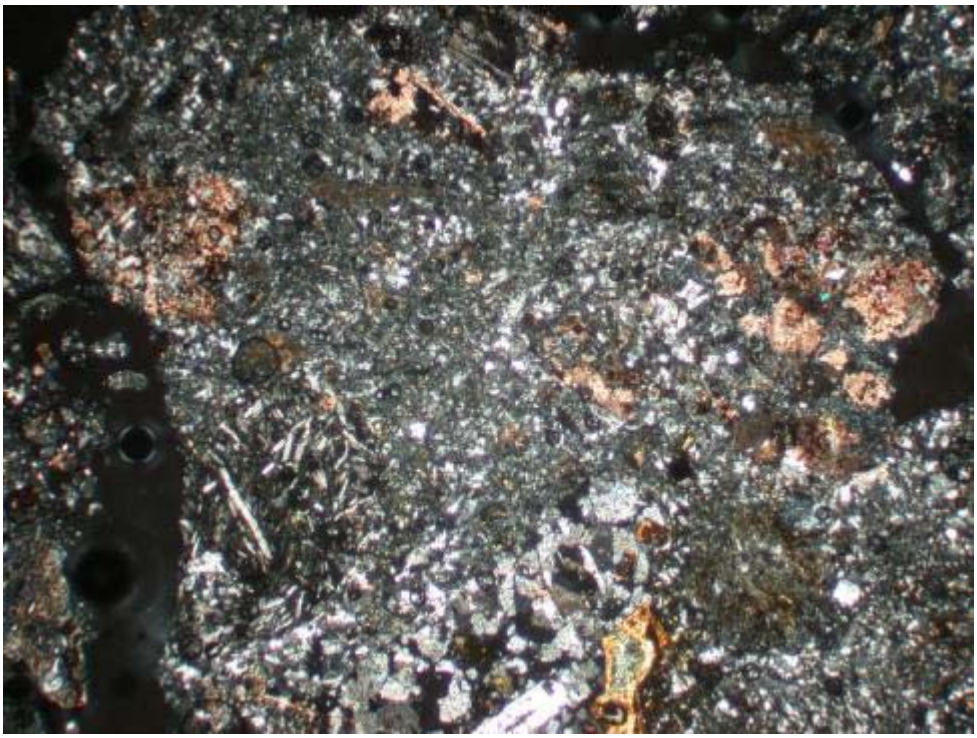
Total carbonate comprises approximately 5% of the section. Colourless carbonate occurs as fine-grained patchy replacement of former feldspar laths, phenocrysts and matrix in volcanic rock fragments and broken feldspar crystals and as alteration of fine tuff. Very fine-grained carbonate occurs extensively replacing colourless carbonate. Colourless carbonate is also locally replaced by very fine-grained red-brown ?hematite aggregates.

Aphanitic brown clay minerals within mudstone and fine tuff contribute at least 15% of the section. Very fine-grained chlorite comprises at least 5% of the section.

Sulphide occurs in trace amounts as pyrite. Pyrite occurs disseminated as fine-grained (< 0.12 mm), sub-anhedral grains and aggregates within seriate-textured rock and carbonate-altered fine tuff chips and as liberated grains. Rims of pyrite grains within seriate-textured rock chips are irregular with red-brown <u>hematite rims</u>. Rims of pyrite grains within carbonate-altered fine tuff chip fragments and liberated pyrite grains are <u>clean</u> with no traces of alteration. Minor, approximately 1%, fine to very fine-grained hematite (< 0.1 mm) occurs as pseudomorphs after ?pyrite (cubic forms) within mudstone and seriate-textured rock fragments and as liberated grains.

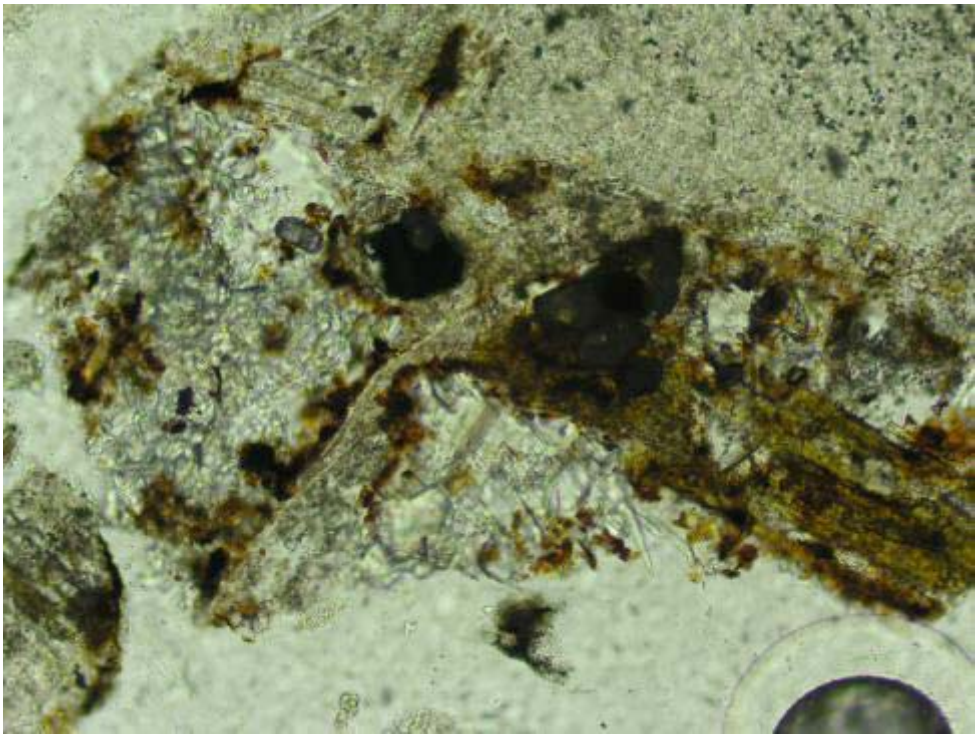


A

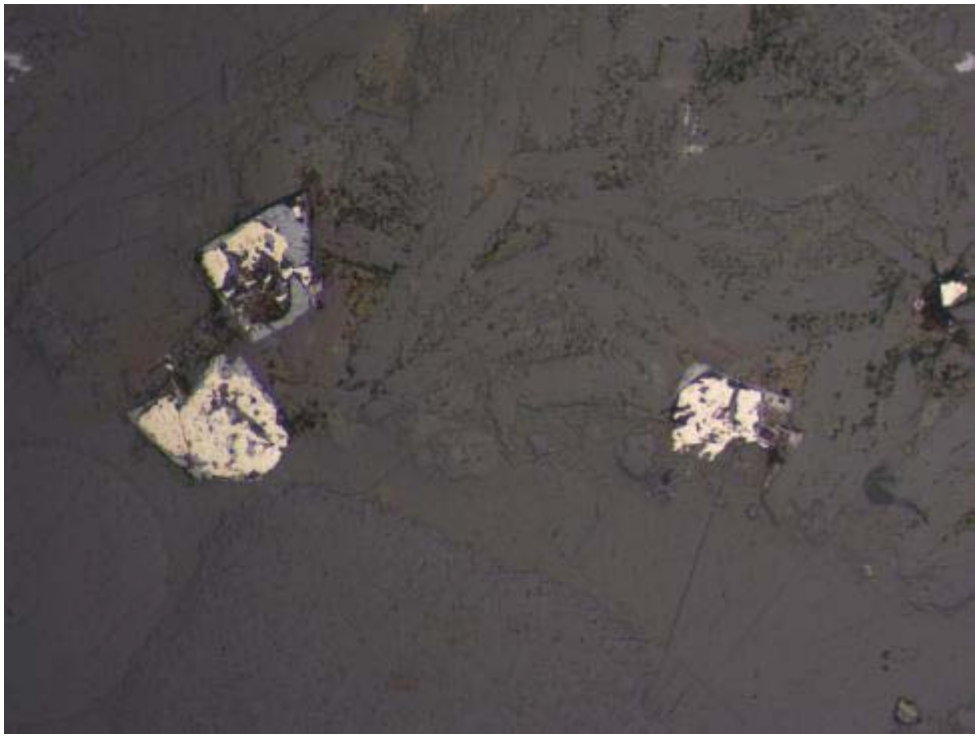


B

406502: Representative chip of volcanic sandstone. Note rounded seriate textured fragment (lower left), porphyritic rock fragment (bottom centre), patchy carbonate-altered fragment (top left) and scattered fine-grained broken quartz and former feldspar crystals (partly replaced by carbonate) in a very fine-grained matrix. A) PPL, B) XPL, FOV =~ 4.5 mm.

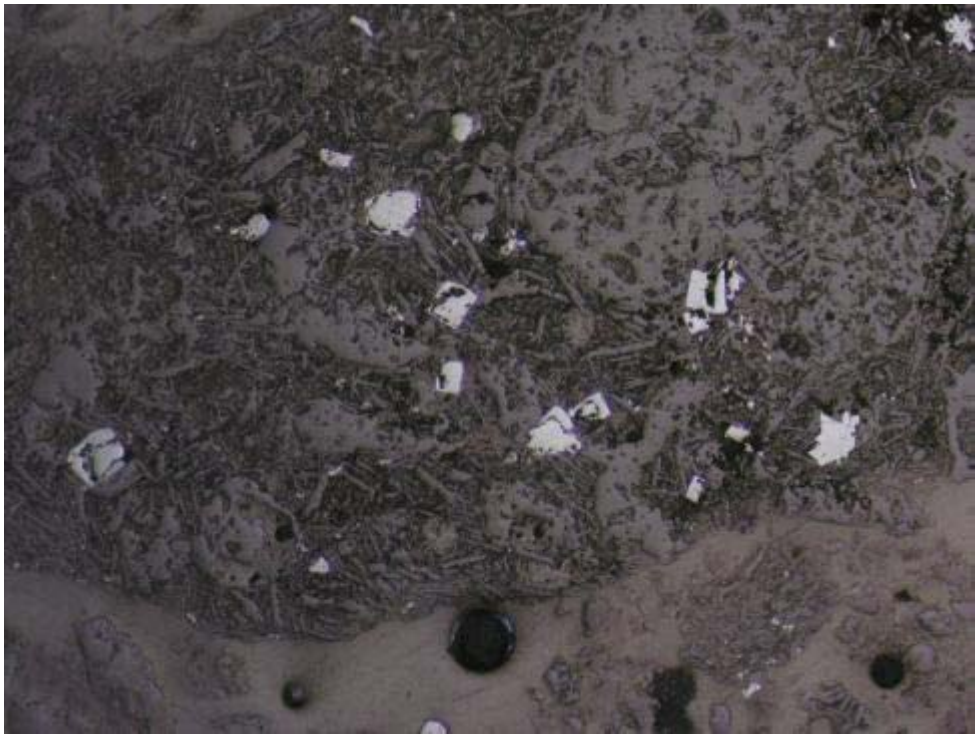


C



D

406502: C) Top: Patchy of colourless carbonate partly replaced by very fine-grained ?hematite aggregate PPL, FOV =~ 0.7 mm. D) Bottom: Seriate-textured rock fragment with pyrite grains rimmed by hematite. RL, FOV =~ 0.7 mm



E

F

406502: E) Top: Disseminated hematite (pseudomorphs cubic forms) within seriate-textured rock fragment. RL, FOV =~ 2.8 mm, F) Bottom: Pyrite grains with clean grain boundaries within carbonate-altered fine tuff. RL, FOV =~ 0.7 mm.

Project #: 0441
Sample ID: 406558

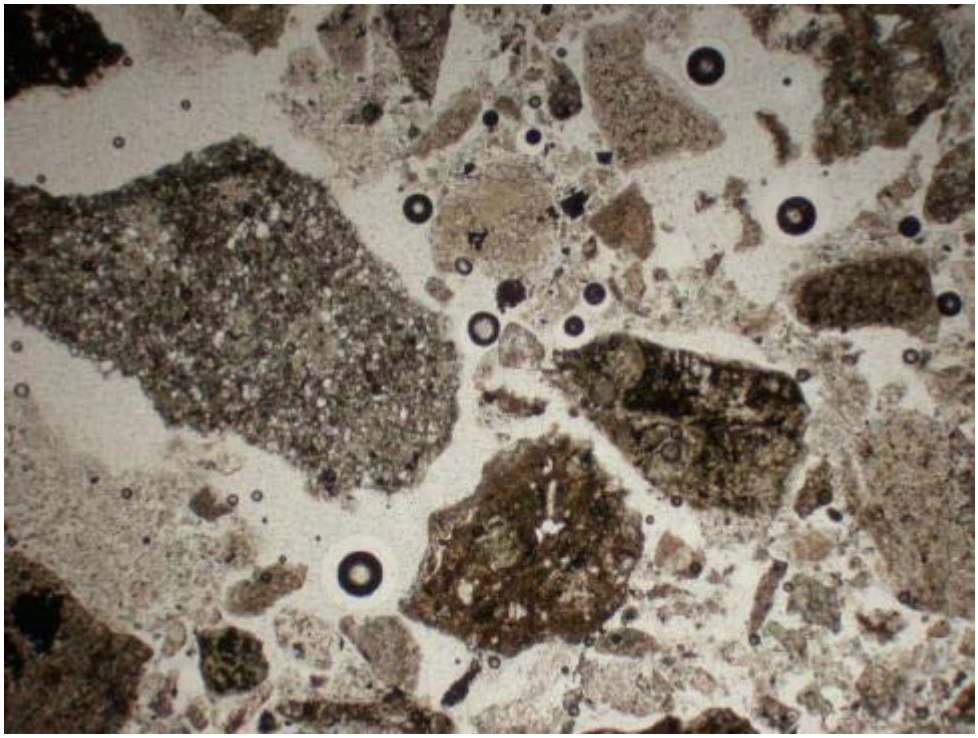
Offcut Mount Description:
Fine grains to coarse-sized chips (up to 9mm size) comprise mixed porphyritic, vein and aphanitic fragments. Minor patchy fine-grained pyrite and pyrite as liberated grains. Vigorous reaction to cold dilute HCl. No reaction to magnet.

Polished Thin Section Description:
Mixed fine to coarse chips of mixed carbonate ± chlorite altered porphyritic and volcaniclastic rock, muscovite-sericite altered quartz-feldspar porphyry, minor graywacke and minor liberated pyrite and carbonate grains. Porphyritic fragments comprise 1) fine-grained muscovite (sericite)-carbonate altered tabular phenocrysts in a very fine-grained carbonate-chlorite altered felt-textured groundmass, 2) fine-grained chlorite± carbonate-altered tabular phenocrysts in a very fine-grained epidote-carbonate or chlorite-altered groundmass, and 3) fine-grained muscovite (sericite)-altered tabular phenocrysts ± quartz phenocrysts in a very fine-grained quartz-muscovite (sericite)-altered groundmass. Volcaniclastic rock fragments are primarily volcanic sandstone with subrounded variably carbonate±chlorite±clay-altered rock fragments, tabular phases and monocrystalline and polycrystalline quartz crystals in a very fine-grained chlorite-altered matrix. The greywacke comprise dominantly angular quartz grains, chlorite and clay.

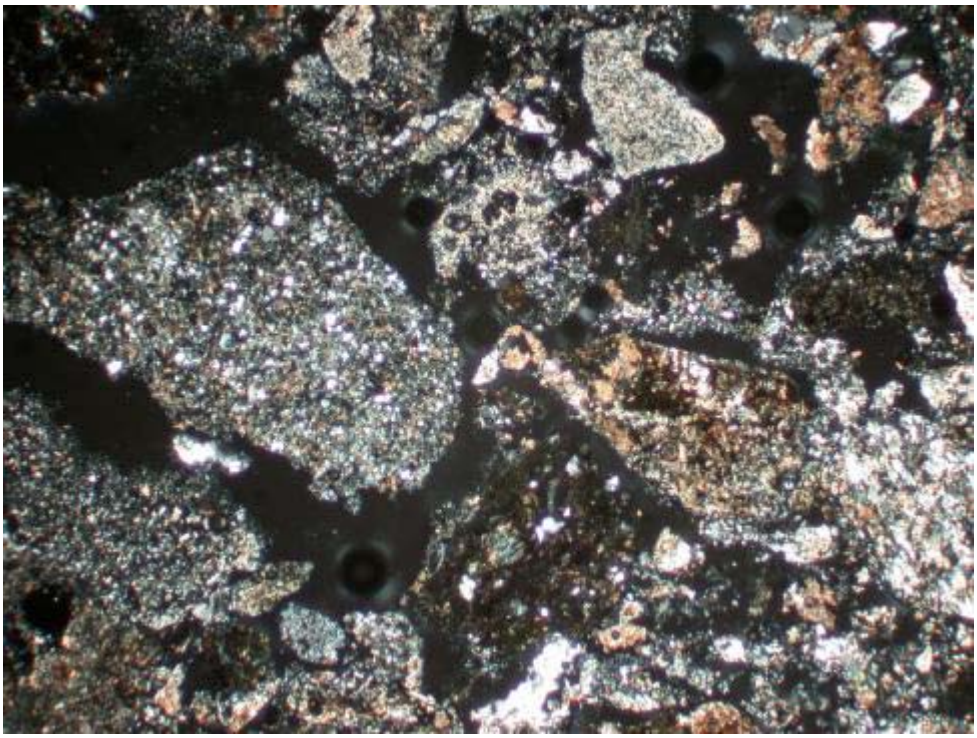
Total carbonate comprises approximately 10% of the section. Colourless carbonate occurs as fine-grained patchy replacement of former tabular phenocrysts and matrix in porphyritic fragments (overprints muscovite-sericite alteration) and as liberated grains ± quartz. More abundant very fine-grained carbonate occurs extensively replacing colourless carbonate and as very fine-grained patchy aggregates replacing porphyritic rock fragments. It also occurs locally with chlorite as patchy aggregates replacing rock fragments and tabular phases in volcanic sandstone fragments. Traces of brown carbonate occur overprinting colourless carbonate in volcaniclastic rock fragments. Colourless carbonate is locally replaced by very fine-grained red-brown ?hematite aggregates.

Muscovite (sericite), approximately 20%, occurs as fine-grained sheaves and very fine-grained anhedral aggregates. Very fine-grained chlorite comprises at least 15% of the section. Aphanitic brown clay minerals contribute at least 2% of the section.

Sulphide occurs in minor amounts, approximately 3%, dominantly as pyrite with traces of sphalerite, galena and chalcopyrite. Pyrite occurs disseminated as fine-grained (< 0.6 mm), eu-anhedral grains and aggregates within rock fragments and as liberated grains. Rims of pyrite grains are clean with no traces of alteration. Traces of sphalerite, with chalcopyrite disease, occur associated with pyrite and galena. Traces of fine-grained galena occur as liberated grains, intergrown with pyrite and with coarse sheaves of sericite and galena in veinlets. One grain of chalcopyrite was observed within a sericite-altered rock fragment. Traces of fine to very fine-grained hematite (< 0.2 mm) occur rarely as pseudomorphs after cubic forms within carbonate-chlorite altered porphyritic and sericite-altered rock fragments. Very rarely, pyritic rock fragments have tiny traces of yellow or red-brown stain (see photos).



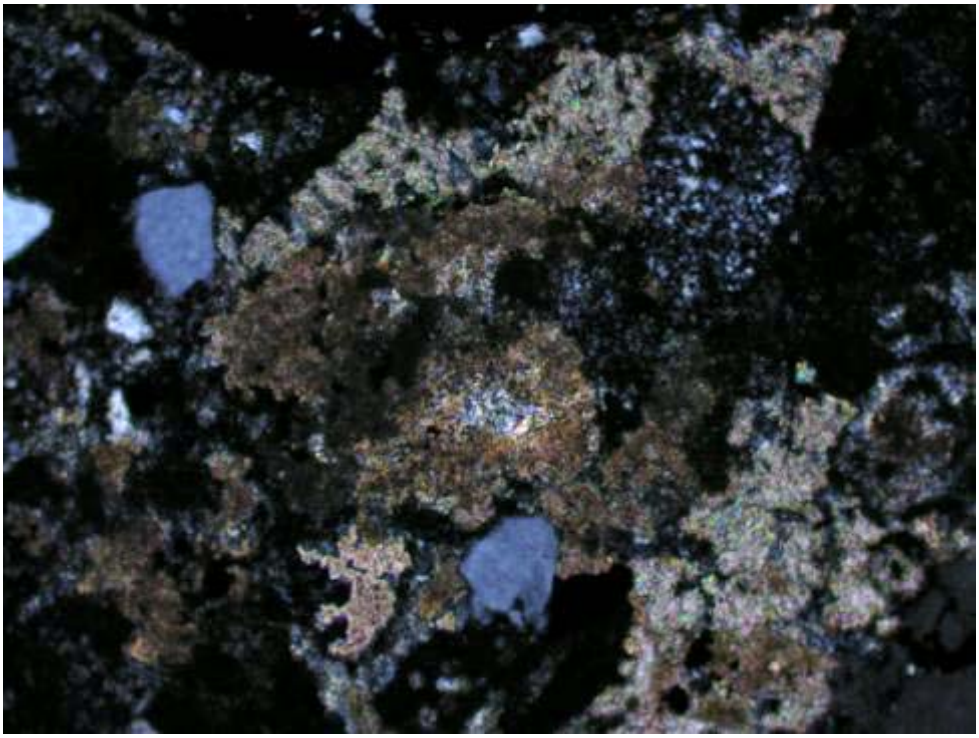
A



B

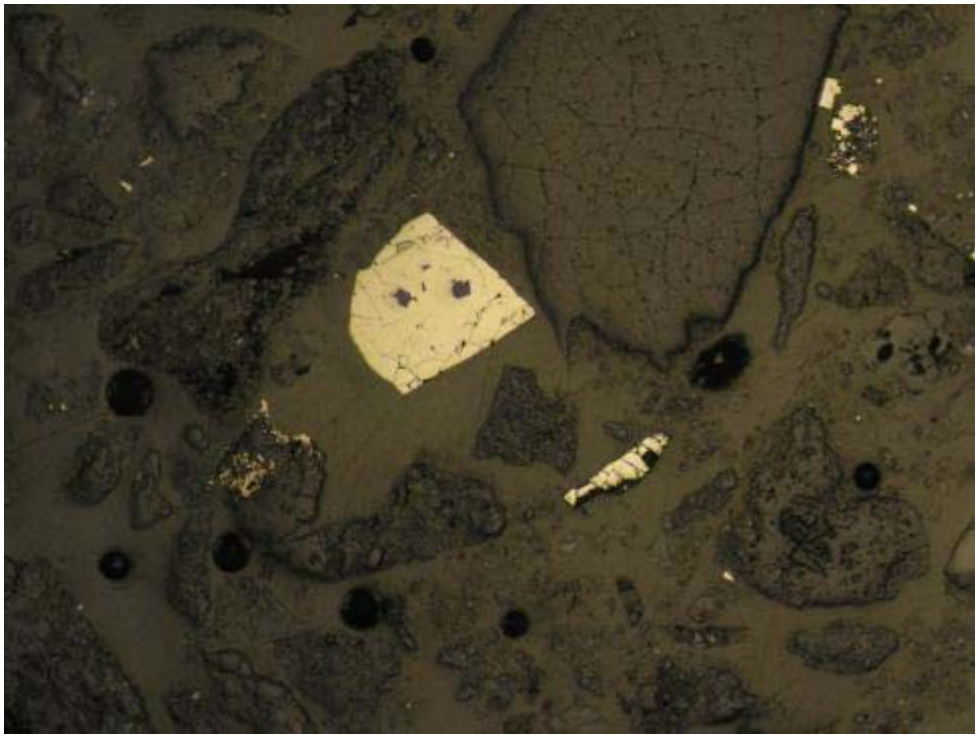
406558: Representative chips of carbonate-chlorite altered porphyritic rock (right), greywacke (left), sericite-altered rock (top and far right). A) PPL, B) XPL, FOV =~ 4.5 mm.

C

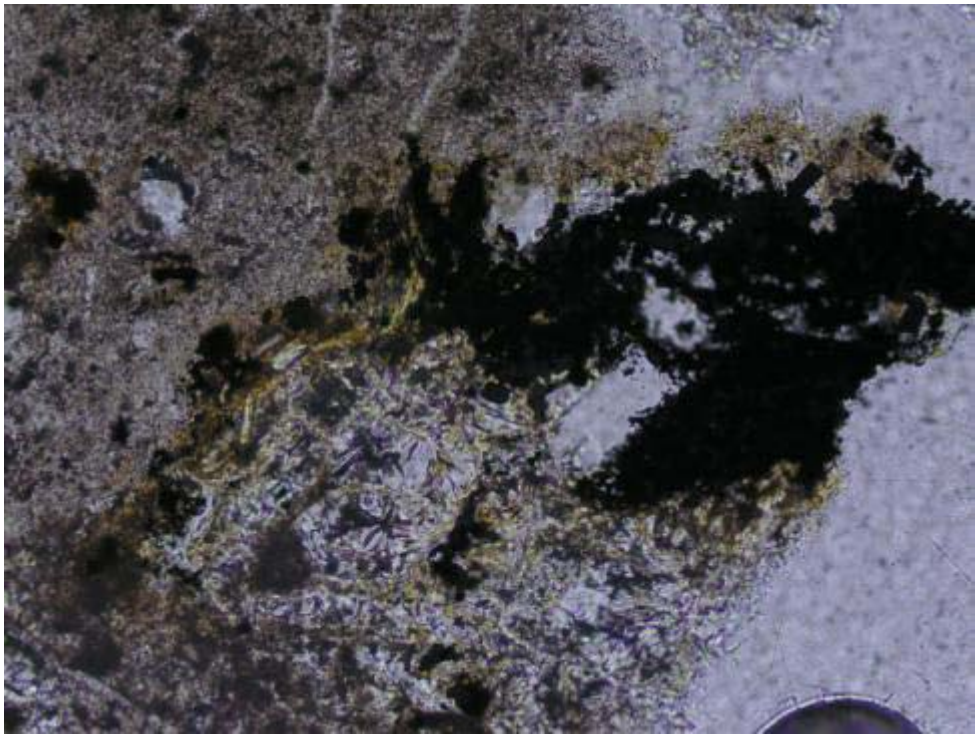


D

406558: C) Top: Porphyritic rock fragments replaced by carbonate (left) and sericite (right). XPL, FOV =~ 4.5 mm. D) Bottom: Colourless carbonate aggregate replaced by very fine-grained brown carbonate in volcaniclastic rock fragment. XPL, FOV =~ 1.3 mm



E



F

406558: E) Top: Overview of fine to very fine-grained pyrite grains and aggregates. RL, FOV =~ 2.8 mm, F) Bottom: Yellow-brown stained chip adjacent to very fine-grained pyrite aggregate (opaque). PPL, FOV =~ 0.65 mm.

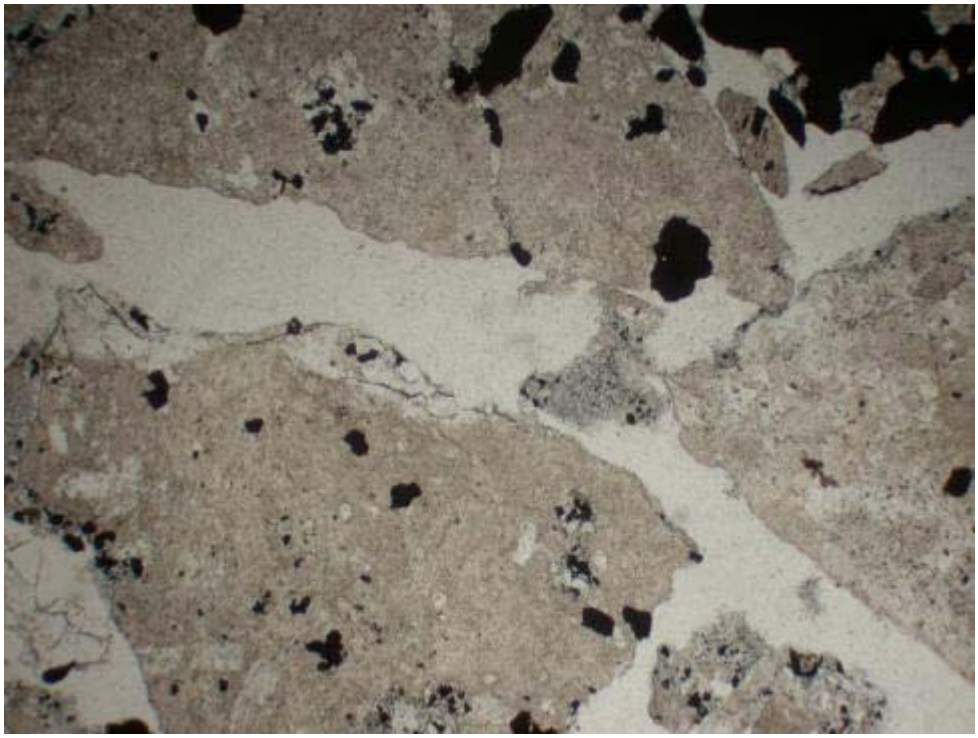
Project #: 0441
Sample ID: 406692

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 13mm size) comprise medium-gray very fine-grained rock fragments cut by white quartz veinlets (about 1 mm wide). Major patchy to disseminated fine to medium-grained pyrite. Pyrite also occurs as liberated grains. No reaction to cold dilute HCl. No reaction to magnet.

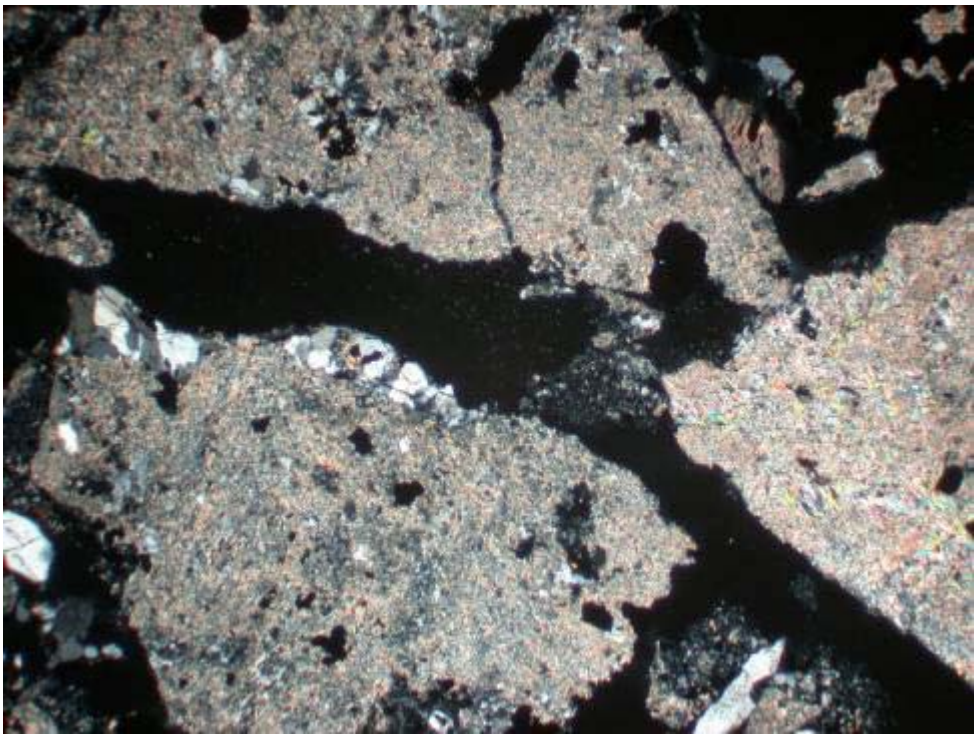
Polished Thin Section Description:
Mixed fine to coarse chips of pervasively muscovite (sericite)-pyrite altered, locally quartz-phyric rock fragments, locally cut by quartz veins, and abundant liberated pyrite grains. The muscovite (sericite), approximately 70%, occurs as fine-grained sheaves (< 0.2mm) and very fine-grained anhedral to flaky aggregates that occur with disseminated pyrite, chalcopyrite, very fine-grained disseminated rutile and patchy quartz grains and aggregates as pervasive replacement of rock fragments. Locally, a few fragments are overprinted by traces of patchy clay aggregate. The rock fragments are cut by 1-2 mm wide quartz-pyrite-(chalcopyrite) veinlets.

Carbonate is absent in this section.

Sulphide occurs in major amounts, approximately 20%, dominantly as pyrite with traces of chalcopyrite. Pyrite, approximately 20%, occurs disseminated as fine to medium-grained (< 3 mm), sub-anhedral grains, very fine-grained anhedral patchy aggregates within rock chips and as liberated grains. Pyrite grains are variably pitted and fractured. Rims of pyrite grains are irregular and without alteration. Traces of anhedral chalcopyrite occurs as infill to pyrite in sericite-altered rock, quartz vein fragments and as liberated grains. Chalcopyrite grains do not have alteration rims. A couple of very fine grains of unknown red-brown Fe-oxide/oxyhydroxide occur in a sericite-altered rock fragment.

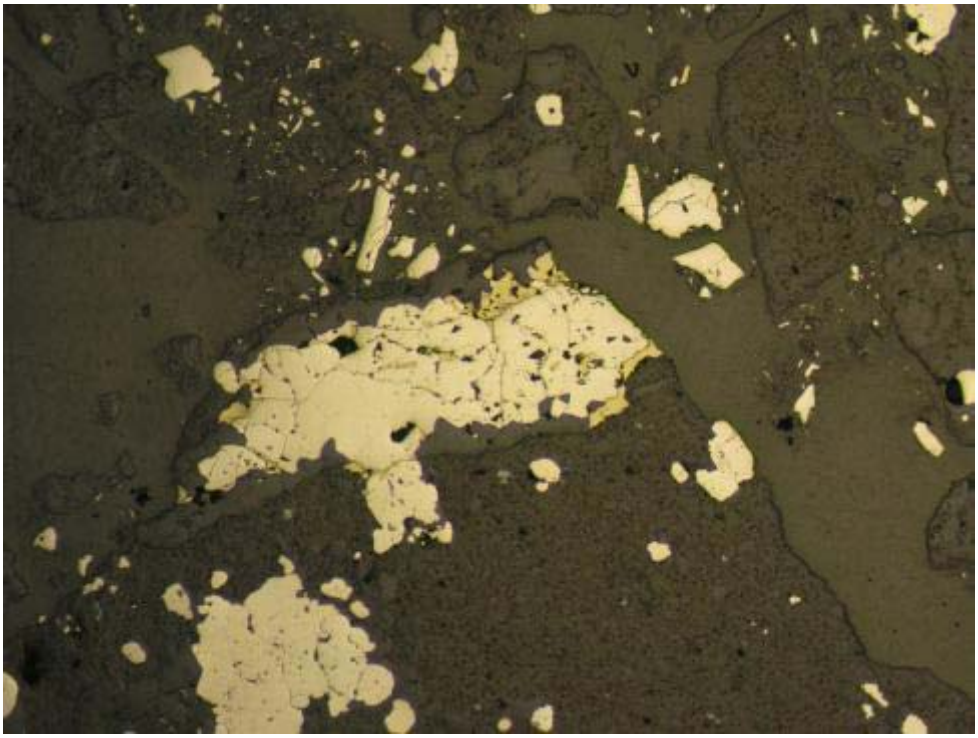


A

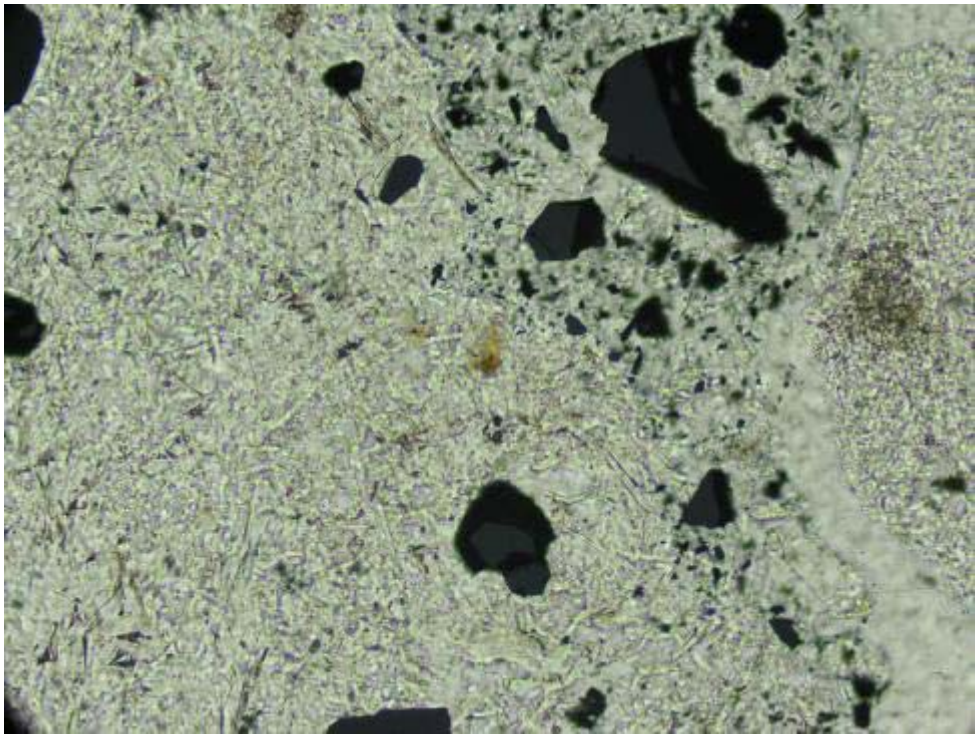


B

406692: General view of pervasively muscovite (sericite)-pyrite altered rock chips with very fine quartz veinlets. A) PPL, B) XPL, FOV =~ 4.5 mm.



C



D

406692: C) Top: Variably pitted and fractured pyrite grains and aggregates within muscovite (sericite)-altered rock, quartz veinlet (centre) and liberated pyrite. RL, FOV =~ 2.8 mm. D) Bottom: Rare very tiny traces of red/brown Fe- oxide/oxyhydroxide stain in sericite-altered chip near pyrite grains (opaque). PPL, FOV =~ 0.7 mm

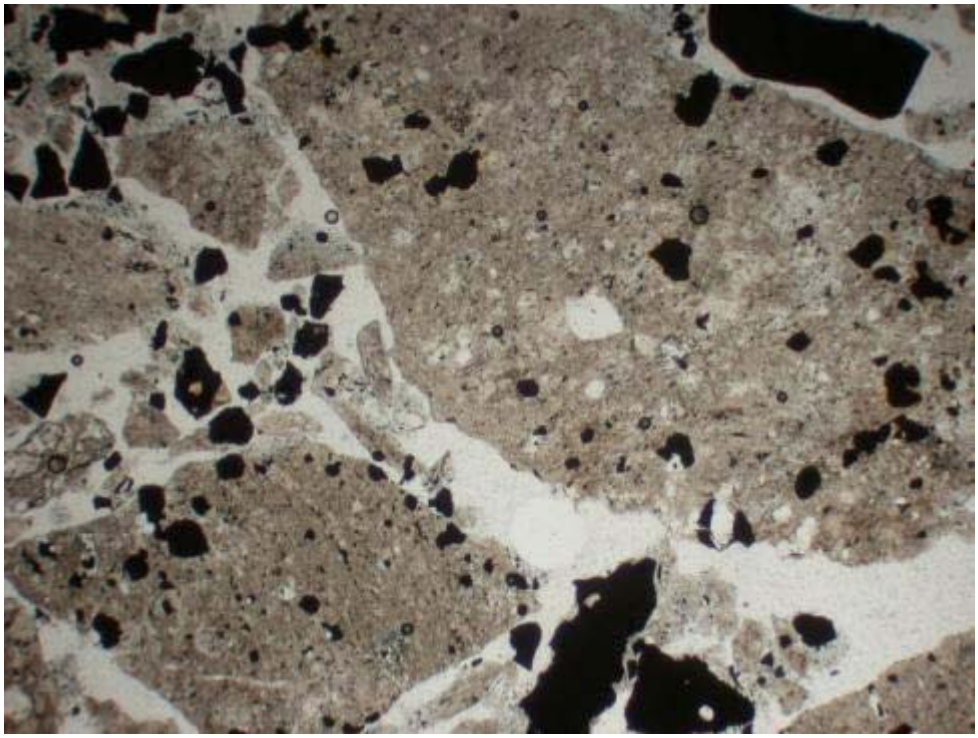
Project #: 0441
Sample ID: 406717

Offcut Mount Description:
Fine grains to coarse-sized chips (up to 7mm size) comprise light to medium-gray very fine-grained rock fragments. Major patchy to disseminated fine to medium-grained pyrite. Pyrite also occurs as liberated grains. No reaction to cold dilute HCl. No reaction to magnet.

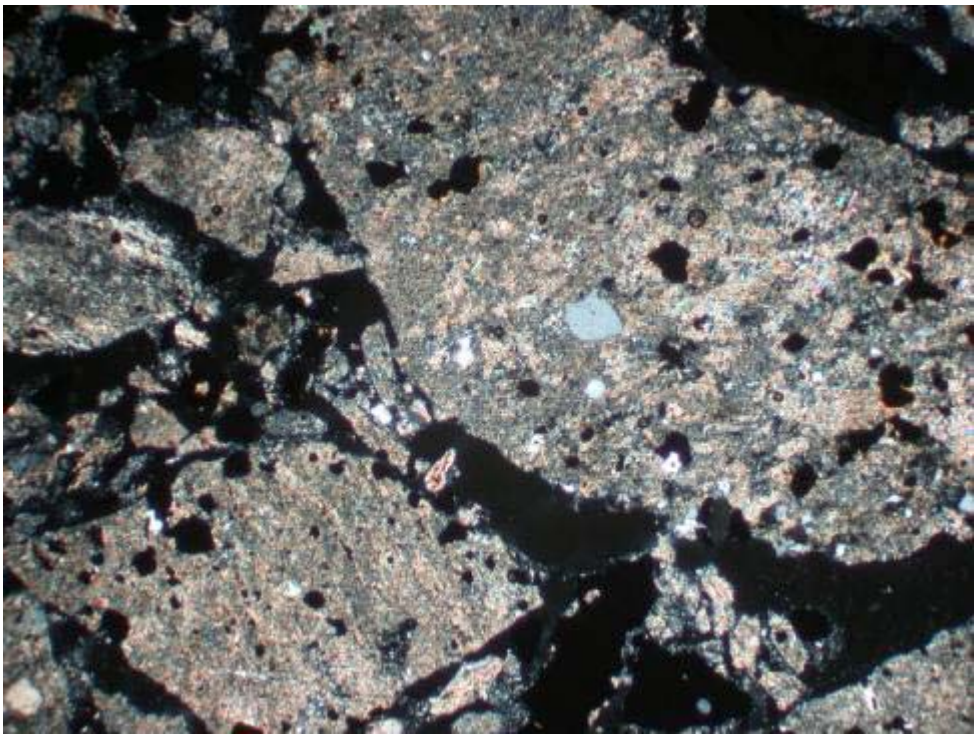
Polished Thin Section Description:
Mixed fine to coarse chips of pervasively muscovite (sericite)-pyrite altered, locally quartz-phyric rock fragments, locally cut by quartz veins, and abundant liberated pyrite grains. The muscovite (sericite), approximately 70%, occurs as fine-grained sheaves (< 0.2mm) and very fine-grained anhedral to flaky aggregates that occur with disseminated pyrite, chalcopyrite, very fine-grained disseminated rutile and patchy quartz grains and aggregates as pervasive replacement of rock fragments. Locally, a few fragments are overprinted by traces of patchy clay aggregate. The rock fragments are cut by sub-mm wide quartz-pyrite-(chalcopyrite) veinlets.

Carbonate is absent in this section.

Sulphide occurs in major amounts, approximately 20%, dominantly as pyrite with traces of chalcopyrite. Pyrite, approximately 20%, occurs disseminated as fine to medium-grained (< 3 mm), sub-anhedral grains, very fine-grained anhedral patchy aggregates within rock chips and as liberated grains. Pyrite grains are variably pitted and fractured. Rims of pyrite grains are irregular and without alteration; however, traces of yellow stain occur adjacent to rare pyrite grains within sericite-altered rock chips (see photos). An orange-brown alteration rind occurs around one pyritic rock chip (see photos). Traces of fine-grained anhedral chalcopyrite occurs as infill to pyrite in sericite-altered rock, enclose pyrite within quartz vein fragments, as disseminated grains and aggregates within sericite-altered rock chips and as liberated grains. Chalcopyrite grains do not have alteration rims.

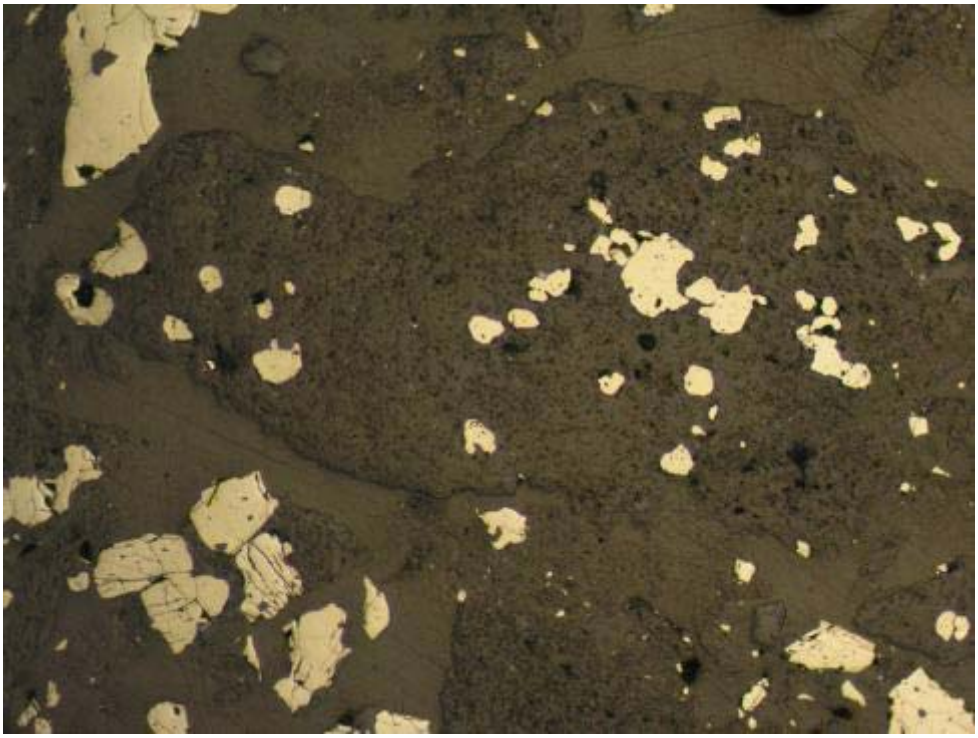


A

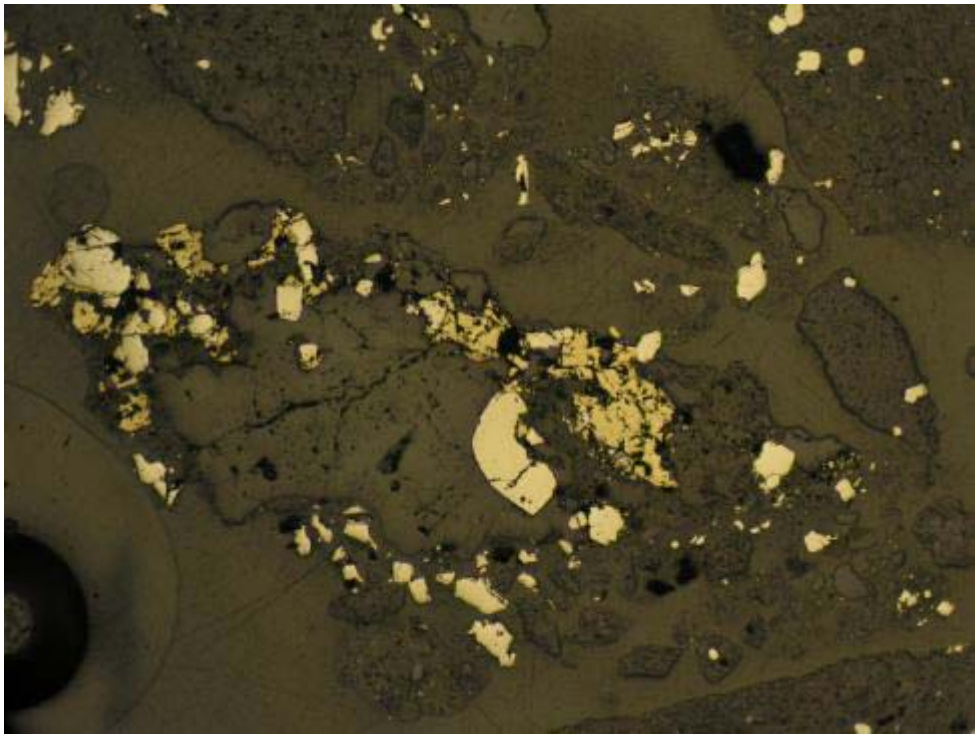


B

406717: General view of pervasively muscovite (sericite)-pyrite altered rock chips with very fine quartz veinlets. A) PPL, B) XPL, FOV =~ 4.5 mm.

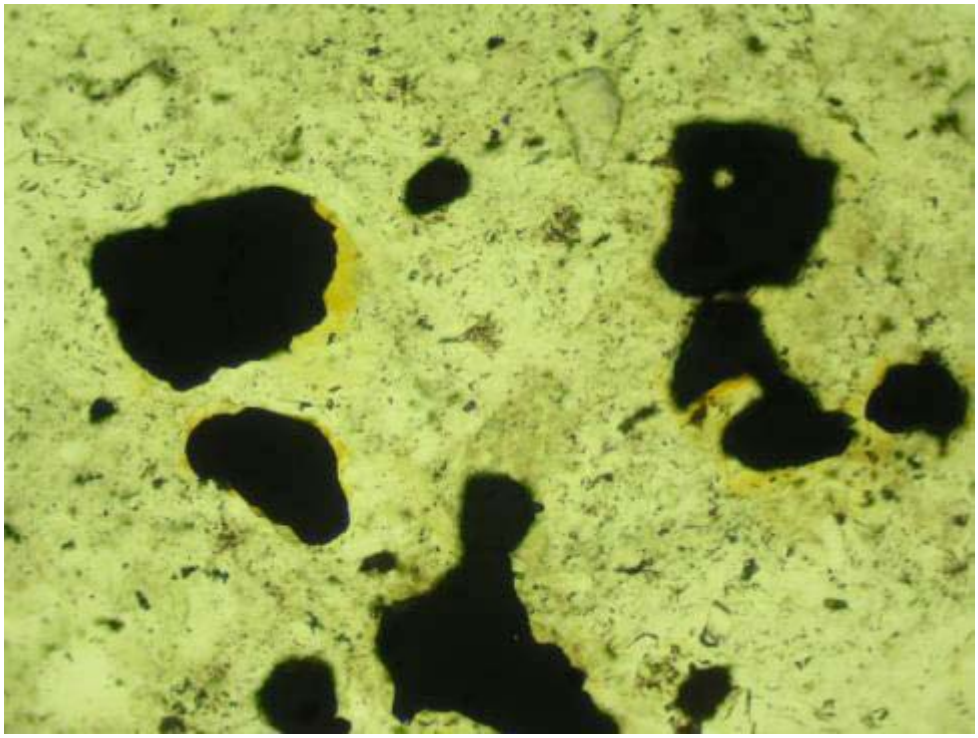


C

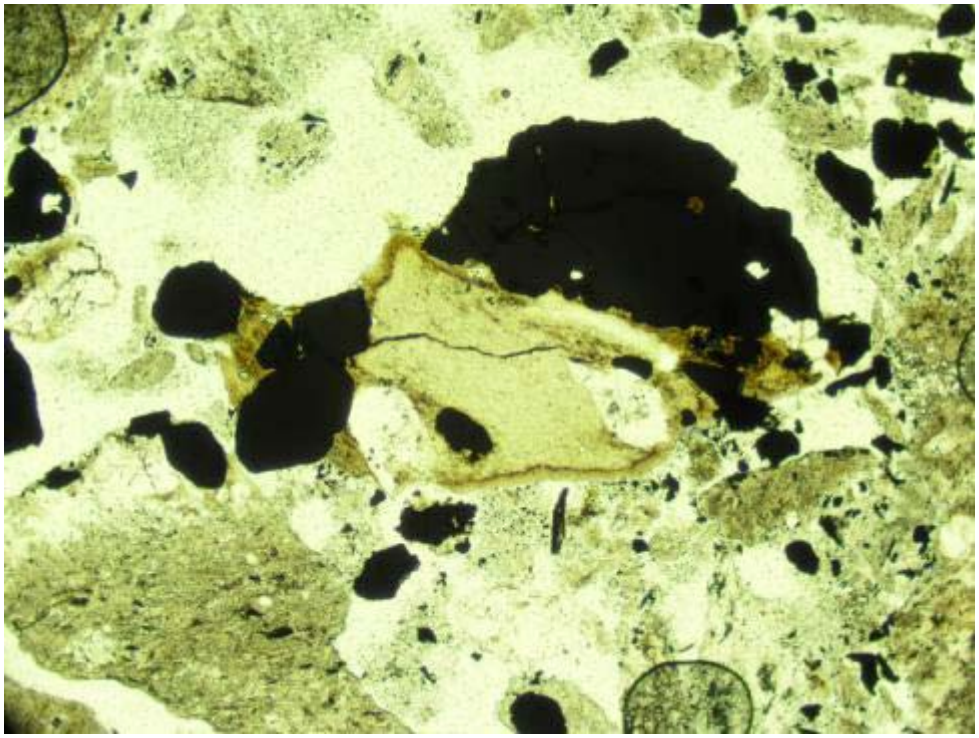


D

406717: C) Top: Variably pitted and fractured pyrite grains and aggregates within muscovite (sericite)-altered rock and as liberated grains. RL, FOV =~ 2.8 mm. D) Bottom: Anhedral chalcopyrite encloses subhedral pyrite within quartz veinlet. RL, FOV =~ 2.8 mm



E



F

406717: E) Top: Yellow stain adjacent to pyrite grains in a muscovite (sericite)-altered rock chip. PPL, FOV =~ 0.7 mm. F) Bottom: Orange/brown alteration rind around muscovite (sericite)-altered quartz-phyric chip in centre of photo (opaque minerals are pyrite). PPL, FOV =~ 2.8 mm

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the district of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, Suite 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.

6. I have practiced my profession as a geologist for approximately 20 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 13 years as an independent consultant.

7. The petrographic data of this report was collected by myself in June 2008.

……..……
Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
June 19, 2008

Petrography Report

CHARACTERIZATION OF TAILINGS, PEBBLE COPPER DEPOSIT, ALASKA

November 10, 2008

SRK Project #:
1CN007.00

Prepared for:
Stephen Day, P.Geo. and
Madeleine Corriveau, EIT/GIT
SRK Consulting (Canada) Inc.
Suite 2200-1066 West Hastings St.
Vancouver, BC
Canada V6E 3X2

Prepared by:
Kathryn Dunne, M.Sc. P.Geo.
Consulting Geologist
Bag 9000, # 207
190B Trans Can Hwy NE
Salmon Arm, BC
Canada V1E 1S3

phone: 250-804-0729
kgeo@telus.net

Background

Two samples of material from the Pebble Copper deposit, Alaska are characterized in this report (SRK Project No. 1CN007.00). The material consists of tailings prepared as four polished thin sections (A & B of each sample). The samples were submitted for polished thin section production at Vancouver Petrographics by Rik Vos of CEMI on September 10, 2008. The prepared samples were then sent to Kathryn Dunne for optical characterization of the mineralogy. The purpose of the study was to characterize the mineralogy with particular emphasis on the sulfide and any carbonate minerals present. Kathryn Dunne, P.Geo. carried out the optical analysis at her office in Salmon Arm, B.C.

Sample descriptions with representative photomicrographs follow this summary. All percentages in the descriptions are approximate based on visual estimation.

Summary

Sample List (SRK Project No. 1CN007.00)

0441-11840-003 Pyrite Tail-A	0441-11840-003 Blk Flo Tls-A
0441-11840-003 Pyrite Tail-B	0441-11840-003 Blk Flo Tls-B

The 0441-11840-003 Pyrite Tail and Blk Flo Tls samples are represented dominantly by biotite which makes up most of the sections as very fine-grained, anhedral green aggregates to brown plates. Broken grains and aggregates of quartz and feldspar comprise approximately 15-16% of the sections. Minor to trace amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves. Muscovite (sericite) commonly replaces biotite; in one section muscovite (sericite) occurs with rare carbonate aggregate.

In the 0441-11840-003 Pyrite Tail sections, carbonate occurs rarely as very fine-grained colourless anhedral grains and patchy aggregates. Carbonate is locally partly replaced by red-brown Fe-oxide aggregates. In the 0441-11840-003 Blk Flo Tls sections, carbonate occurs similarly but in slightly greater amounts, approximately 1 to 1.5%. The carbonate is visible as liberated anhedral grains, broken vein fragments, and in fragments with quartz grains. Locally a very fine-grained grungy carbonate aggregate overprints colourless carbonate grains.

In the 0441-11840-003 Pyrite Tail sections, sulphide occurs in minor amounts (< 2%) dominantly as pyrite with traces of ?marcasite, chalcopyrite (rarely intergrown with bornite) and an unknown phase. Pyrite, approximately 1%, and traces of ?marcasite occur scattered as anhedral liberated grains. Pyrite and ?marcasite grain boundaries are irregular but relatively clean with no rim replacement. Chalcopyrite occurs as very fine-grained, anhedral, ragged liberated grains. Rare traces of an unknown white phase (in reflected light) occur through the section; this phase is rarely partly replaced by red-brown Fe-oxide/ oxyhydroxide aggregate. Traces of magnetite are partly replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.

In the 0441-11840-003 Blk Flo Tls sections, sulphide occurs in trace amounts (< 1%) dominantly as pyrite with lesser chalcopyrite, locally marcasite and traces of an unknown phase. Pyrite occurs scattered as eu-anhedral grains within quartz-biotite aggregates and muscovite (sericite)-altered rock chips (rarely as liberated grains). Pyrite grain boundaries are irregular but clean with no rim replacement. Chalcopyrite locally encloses pyrite and occurs as very fine-grained, anhedral, ragged liberated grains. Traces of marcasite occur locally intergrown with pyrite. The unknown white phase (in reflected light) is partly to completely replaced by Fe-oxide/oxyhydroxide aggregate. Rare traces of magnetite are partly replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.

Tabular summary:

Sample # -	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other > 1%**	**% ~**
0441-11840-003 Hypogene Pyrite Tail - A	pyrite ?marcasite chalcopyrite bornite unknown	1 tr tr tr tr	anhedral grains and patchy aggregates	tr	Fe-oxide/ oxyhydroxide magnetite hematite	3 tr tr	biotite muscovite (sericite)	50+ tr
0441-11840-003 Hypogene Pyrite Tail - B	pyrite ?marcasite chalcopyrite unknown	1 tr tr tr	anhedral grains and patchy aggregates	tr	Fe-oxide/ oxyhydroxide magnetite hematite	3 tr tr	biotite muscovite (sericite)	50+ tr
0441-11840-003 Hypogene Blk Flo Tls - A	pyrite chalcopyrite unknown	tr tr tr	anhedral grains and patchy aggregates	1	Fe-oxide/ oxyhydroxide magnetite hematite	1 tr tr	biotite muscovite (sericite)	50+ 2
0441-11840-003 Hypogene Blk Flo Tls - B	pyrite chalcopyrite marcasite unknown	tr tr tr tr	anhedral grains and patchy aggregates	1.5	Fe-oxide/ oxyhydroxide magnetite hematite	tr tr tr	biotite muscovite (sericite)	40+ 3

tr = trace (< 1%); x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

Project #: 1CN007.00
Sample ID: 0441-11840-003 Hypogene Pyrite Tail-A

Offcut Mount and Pulps Description:
Light olive grey powder. Trace reaction to magnet. No reaction to cold, dilute HCl.

Polished Thin Section Description:

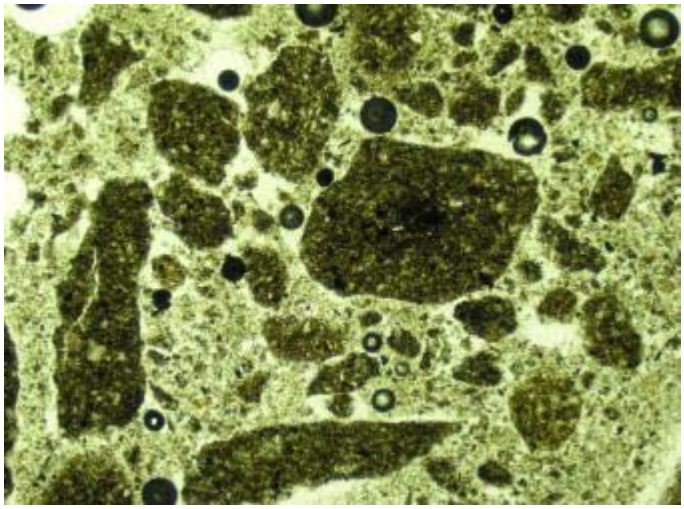
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Biotite	~50+	0.01	0.05
Quartz and Feldspar	~15	0.01	0.10
Fe-oxide/oxyhydroxide	3	0.01	0.10
Muscovite (sericite)	0.25	0.01	0.05
Rutile	0.25	<0.01	0.02
Carbonate	rare	<0.01	0.05
Magnetite	rare	0.01	0.02
Hematite	rare	< 0.01	0.01
Unidentified/clay	~30		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	1	0.01	0.06
?Marcasite	0.25	0.01	0.02
Chalcopyrite	0.25	0.01	0.02
Bornite	rare	<0.01	< 0.01
Unknown	rare	<0.01	0.01

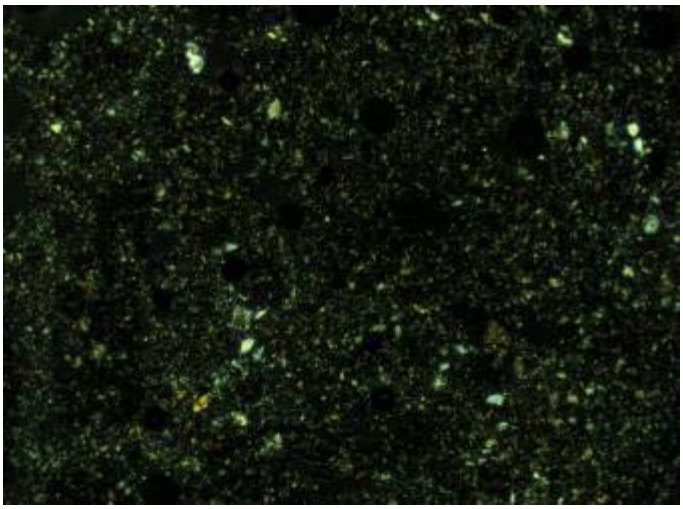
The section is represented by very fine-grained material (< 0.1 mm) comprising individual mineral grains as powder and mineral aggregates as very fine chips. Biotite makes up most of the section as very fine-grained, anhedral green aggregates to brown plates. Broken grains and aggregates of quartz and feldspar comprise approximately 15% of the section. Trace amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves. Muscovite (sericite) is locally associated with rare carbonate aggregate and occurs as replacement of biotite.

Carbonate occurs rarely as very fine-grained colourless anhedral grains and patchy aggregates associated with muscovite (sericite) alteration. Carbonate is locally partly replaced by red-brown Fe-oxide aggregates.

Sulphide occurs in minor amounts (< 2%) dominantly as pyrite with traces of ?marcasite, chalcopyrite, bornite and an unknown phase. Pyrite, approximately 1%, and traces of ?marcasite occur scattered as very fine-grained, anhedral liberated grains. Pyrite and ?marcasite grain boundaries are irregular but relatively clean with no rim replacement. Chalcopyrite, rarely intergrown with bornite, occurs as very fine-grained, anhedral, ragged liberated grains. Rare traces of an unknown white phase (in reflected light) occur through the section. Traces of magnetite occur scattered through the section. Magnetite is locally partly replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.



A



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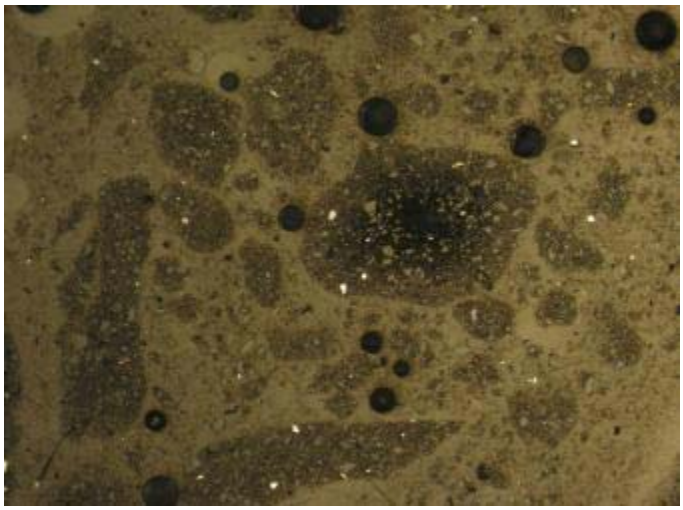
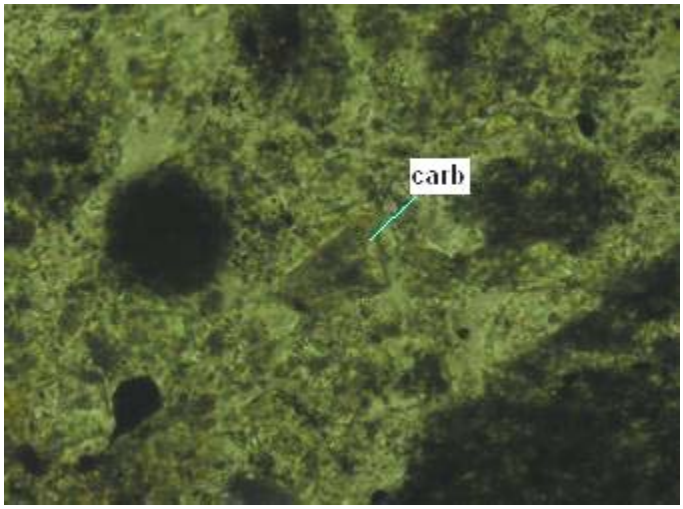


C

0441-11840-003 Hypogene Pyrite Tail-A: Representative powder. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



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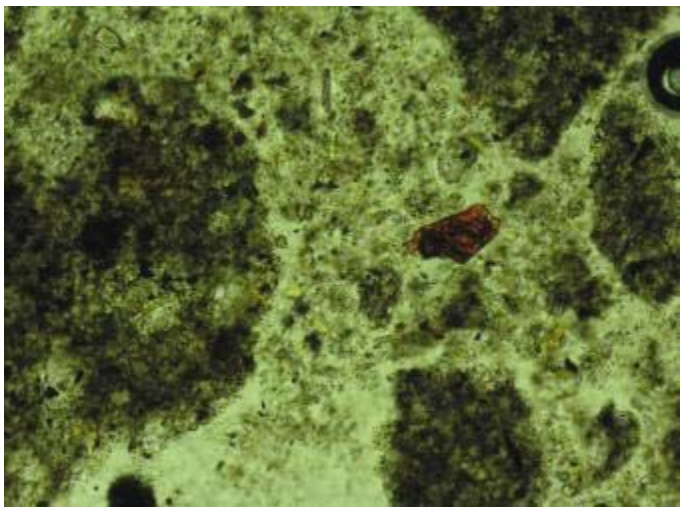


E

F

0441-11840-003 Hypogene Pyrite Tail-A: D) Liberated very fine-grained carbonate grain (labeled carb) PPL, FOV =~ 0.3 mm. E) Liberated very fine-grained Fe-oxide/oxyhydroxide grain (R. of centre) PPL, FOV =~ 0.7 mm F) Liberated pyrite grain with ragged grain boundaries but without oxidation rims. RL, FOV =~ 0.7 mm.

Project #: 1CN007.00
Sample ID: 0441-11840-003 Hypogene Pyrite Tail-B

Offcut Mount and Pulps Description:

Light olive grey powder. Trace reaction to magnet. No reaction to cold, dilute HCl.

Polished Thin Section Description:

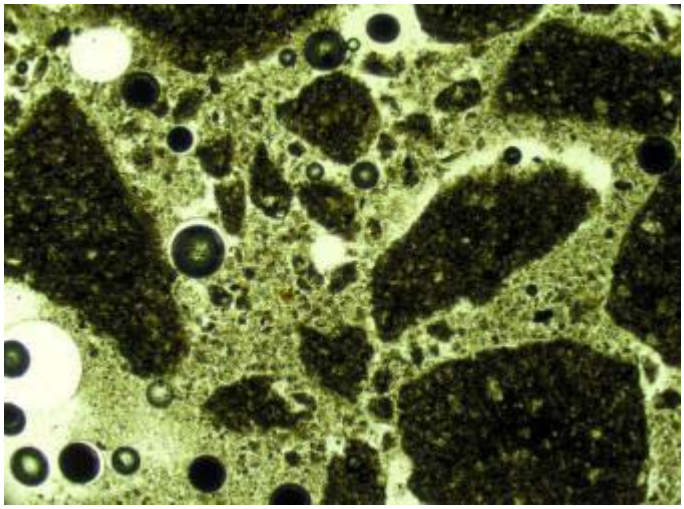
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Biotite	~50+	0.01	0.05
Quartz and Feldspar	~15	0.01	0.15
Fe-oxide/oxyhydroxide	3	0.01	0.05
Goethite	1		2.80
Muscovite (sericite)	0.5	0.01	0.10
Rutile	0.25	<0.01	0.02
Carbonate	rare	<0.01	0.05
Magnetite	rare	0.01	0.02
Hematite	rare	< 0.01	0.01
Unidentified	~28		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	1	0.01	0.08
?Marcasite	0.25	0.01	0.08
Chalcopyrite	0.25	0.01	0.30
Unknown	rare	<0.01	0.01

The section is represented by typically very fine-grained material (< 0.15 mm) comprising individual mineral grains as powder and mineral aggregates as very fine chips. Biotite makes up most of the section as very fine-grained, anhedral green aggregates to brown plates. Broken grains and aggregates of quartz and feldspar comprise approximately 15% of the section. Trace amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves.

Carbonate occurs rarely as very fine-grained colourless anhedral grains and patchy aggregates. Carbonate is locally partly replaced by red-brown Fe-oxide aggregates.

Sulphide occurs in minor amounts (< 2%) dominantly as pyrite with traces of ?marcasite, chalcopyrite and an unknown phase. Pyrite, approximately 1%, and traces of ?marcasite occur scattered as very fine-grained, anhedral liberated grains. Pyrite and ?marcasite grain boundaries are irregular but relatively clean with no rim replacement. Chalcopyrite rarely encloses pyrite and occurs as very fine-grained, anhedral, ragged liberated grains. Traces of an unknown white phase (in reflected light) occur through the section; this phase is rarely partly replaced by very fine-grained red-brown Fe-oxide/oxyhydroxide aggregate. A large grain of banded goethite occurs in the section. Rare traces of magnetite occur scattered through the section. Magnetite is locally partly replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.



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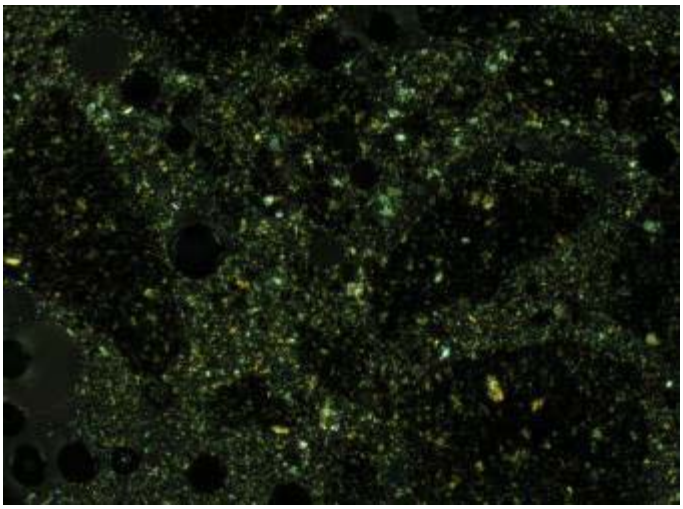

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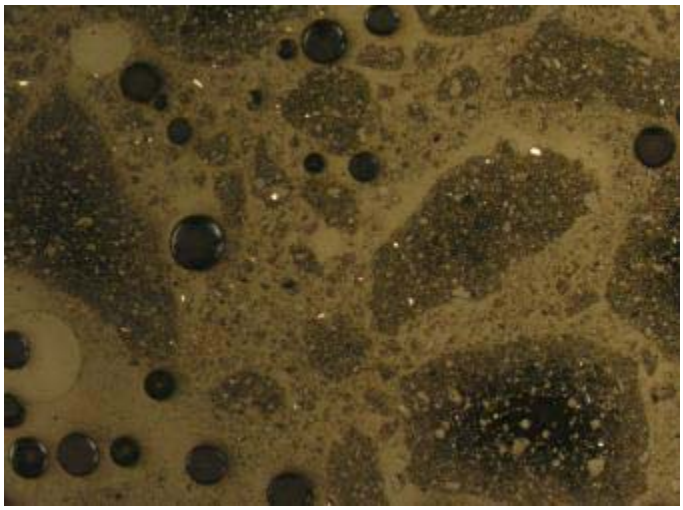
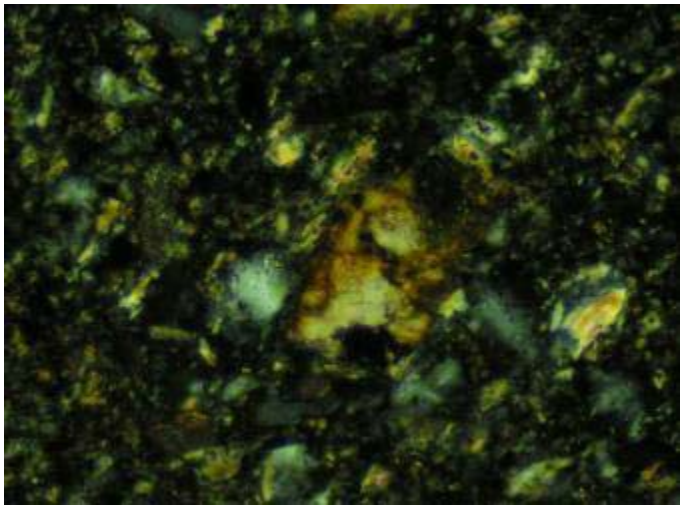


C

0441-11840-003 Hypogene Pyrite Tail-B: Representative powder. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



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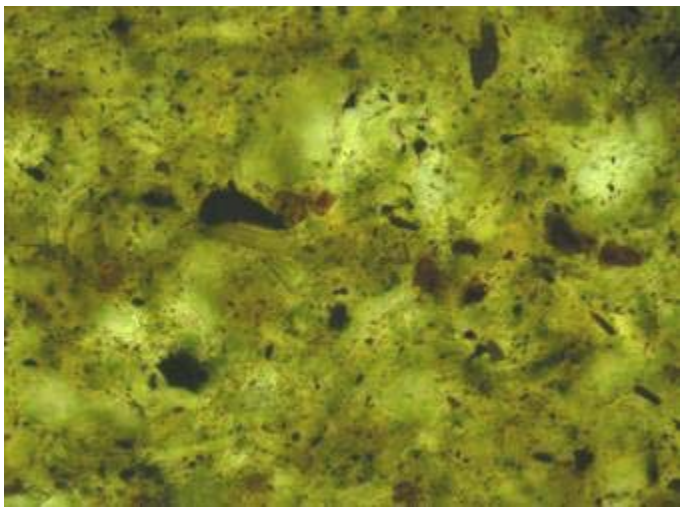

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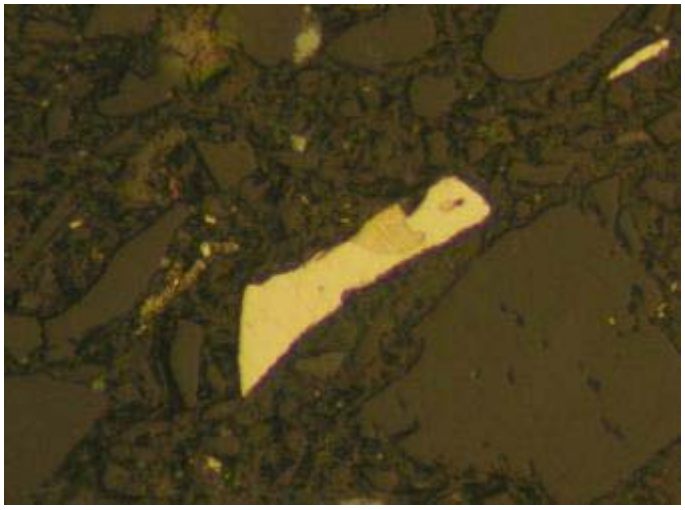
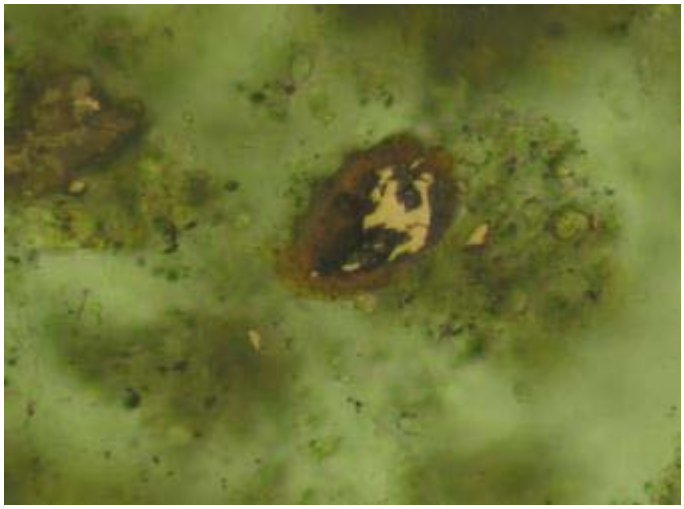


F

0441-11840-003 Hypogene Pyrite Tail-B: D) Carbonate grain (centre) partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. XPL, FOV =~ 0.1 mm. E) Scattered very fine-grained red-brown Fe-oxide/oxyhydroxide grains and aggregates. PPL condensed, FOV =~ 0.3 mm F) Pyrite grain encloses chalcopyrite and inclusion of pyrrhotite. Note boundaries of pyrite are irregular but without oxidation rims. RL, FOV =~ 0.1 mm.


G

0441-11840-003 Hypogene Pyrite Tail-B: G) Unknown white high reflectance mineral partly replaced by very fine-grained red-brown Fe- oxide/oxyhydroxide aggregates. PPL+RL, FOV =~ 0.1 mm.

Project #: 1CN007.00
Sample ID: 0441-11840-003 Hypogene Blk Flo Tls-A

Offcut Mount and Pulps Description:

Light olive grey powder. Trace reaction to magnet. Very slight reaction to cold, dilute HCl.

Polished Thin Section Description:

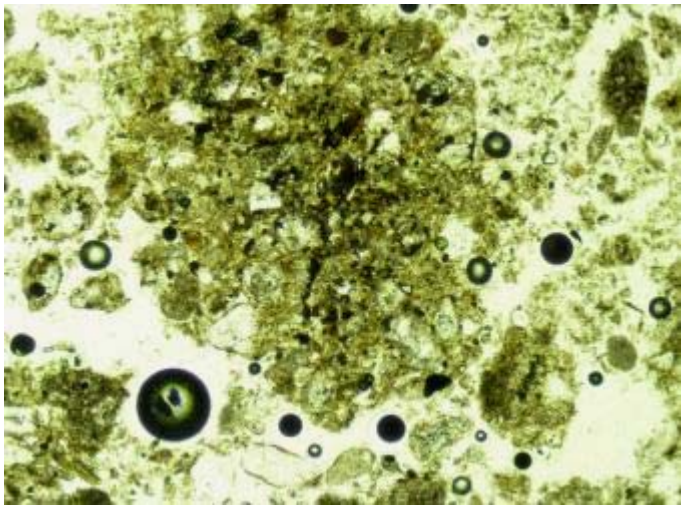
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Biotite	~50+	0.01	0.35
Quartz	~15	0.01	0.35
Muscovite (sericite)	2	0.01	0.03
Carbonate	1	<0.01	0.40
Fe-oxide/oxyhydroxide	1	0.01	0.02
Magnetite	0.75	0.05	0.13
Plagioclase	0.5	0.01	0.15
K-feldspar	0.5	0.01	0.10
Hematite	0.5	0.01	0.10
Rutile	0.25	<0.01	0.02
Unidentified	~27		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	0.5	0.01	0.30
Chalcopyrite	0.25	0.01	0.04
Unknown	rare	<0.01	0.08

The section is represented by very fine-grained material (< 0.4 mm) comprising individual mineral grains as powder and mineral aggregates as very fine chips. Biotite makes up most of the section as very fine-grained, anhedral green aggregates and brown plates. Broken grains and aggregates of quartz and feldspar comprise approximately 16% of the section. Minor amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves. Muscovite (sericite) occurs commonly replacing biotite.

Carbonate occurs in minor amounts, approximately 1%, as very fine-grained colourless anhedral grains, colourless patchy aggregates (broken vein fragments, locally with quartz grains) and very fine-grained grungy aggregate (overprinting colourless carbonate). Carbonate grain size varies from < 0.01 to ~0.4 mm. Carbonate is rarely partly pseudomorphed by pyrite and red-brown Fe-oxide aggregates.

Sulphide occurs in trace amounts (< 1%) dominantly as pyrite with lesser chalcopyrite and an unknown phase. Pyrite occurs scattered as very fine-grained, anhedral liberated grains and within muscovite (sericite)-altered rock chips. Pyrite grain boundaries are irregular but relatively clean with no rim replacement. Chalcopyrite rarely encloses pyrite and occurs as very fine-grained, anhedral, ragged liberated grains. Traces of an unknown white phase (in reflected light) occur through the section; this phase is locally partly replaced by very fine-grained yellow Fe-oxide/oxyhydroxide aggregate. Traces of magnetite occur scattered through the section. Magnetite is locally partly replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.



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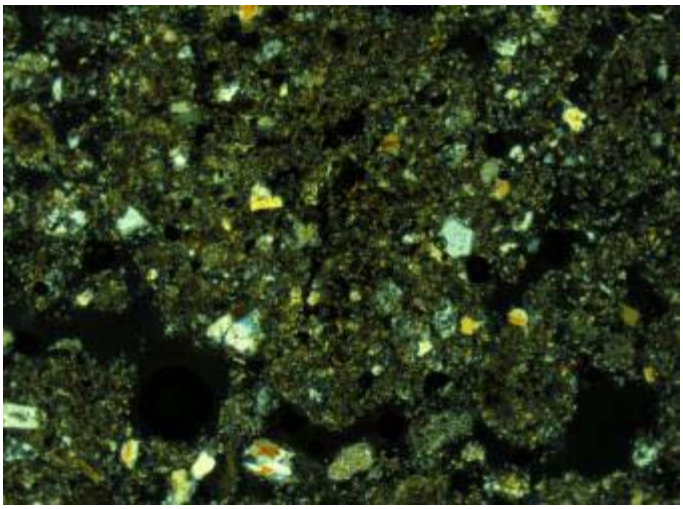
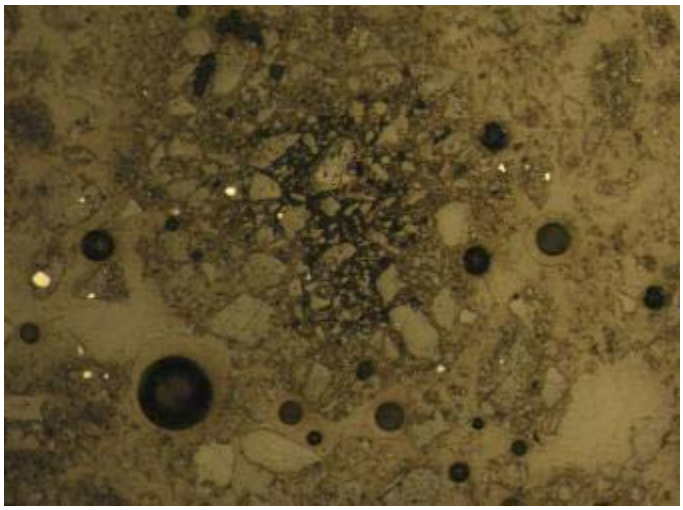
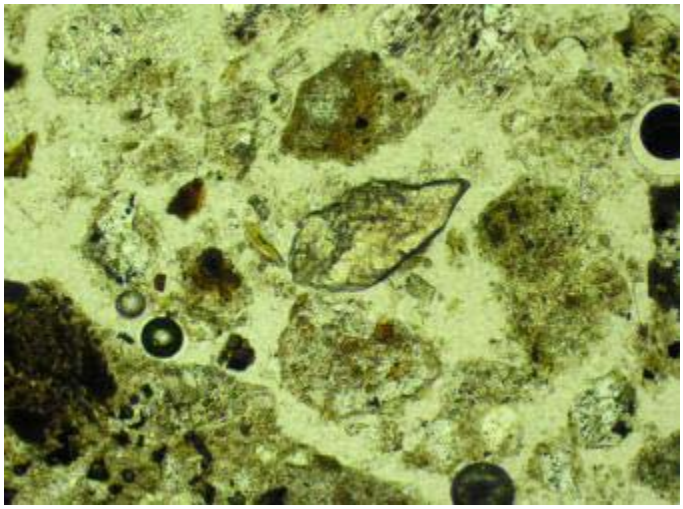


B

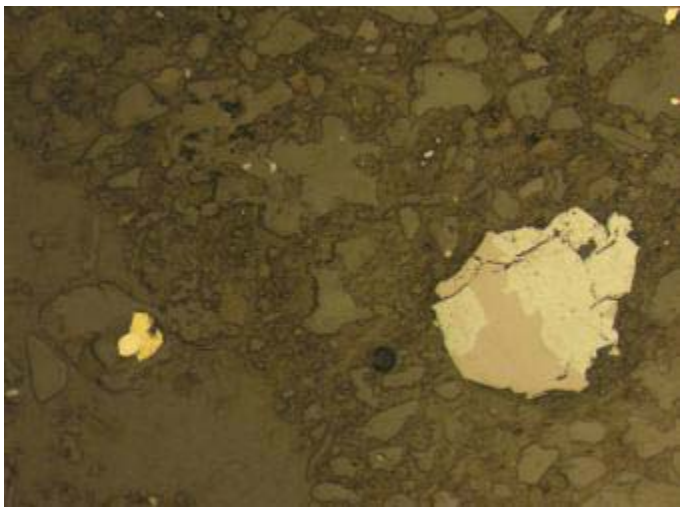


C

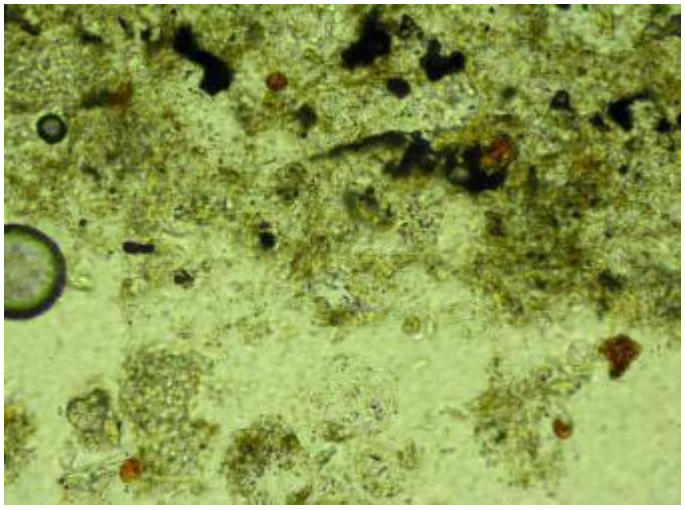
0441-11840-003 Hypogene Blk Flo Tls-A: Representative fine-grains and clumping powder. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



D

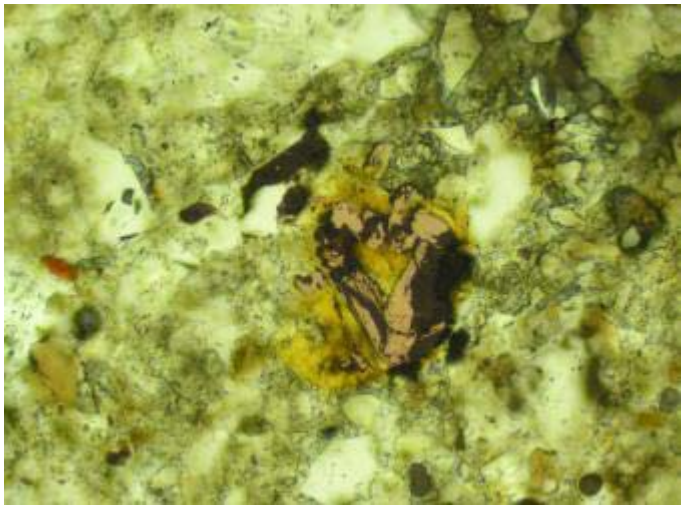


E

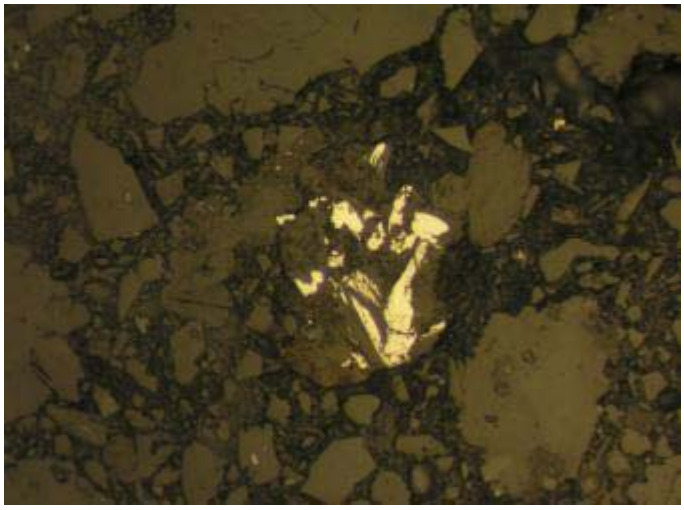


F

0441-11840-003 Hypogene Blk Flo Tls-A: D) Fine-grained liberated colourless carbonate grain (centre). PPL, FOV =~ 1.3 mm. E) Grain of magnetite partly replaced by hematite (right); grain of very fine-grained pyrite partly enclosed by chalcopyrite. RL, FOV =~ 0.7 mm F) Scattered very fine-grained red-brown Fe-oxide/oxyhydroxide grains and aggregates. PPL, FOV =~ 0.7 mm.



G



H

0441-11840-003 Hypogene Pyrite Tail-B: G & H) Unknown white high reflectance mineral partly replaced by very fine-grained yellow Fe- oxide/oxyhydroxide aggregates. G) PPL+RL, H) RL, FOV =~ 0.55 mm.

Project #: 1CN007.00
Sample ID: 0441-11840-003 Hypogene Blk Flo Tls-B

Offcut Mount and Pulps Description:
Light olive grey powder. Trace reaction to magnet. Very slight reaction to cold, dilute HCl.

Polished Thin Section Description:

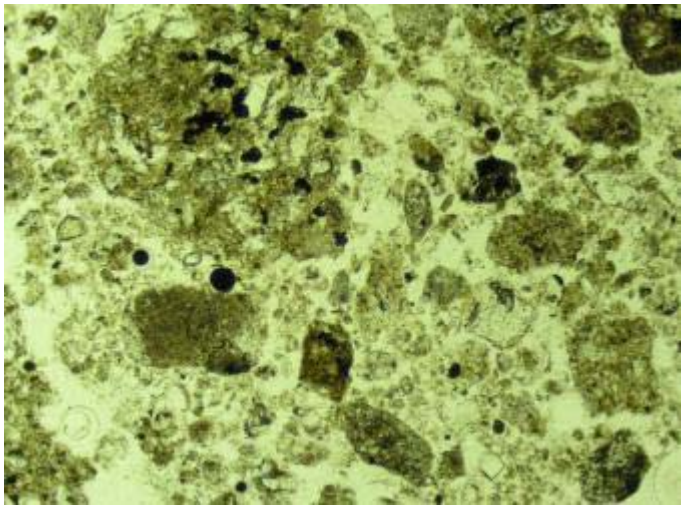
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Biotite	~40+	0.01	0.35
Quartz	~20	0.01	0.35
Muscovite (sericite)	3	0.01	0.03
Carbonate	1.5	<0.01	0.20
K-feldspar	1	0.01	0.25
Plagioclase	0.5	0.01	0.40
Hematite	0.5	0.01	0.10
Fe-oxide/oxyhydroxide	0.25	0.01	0.04
Rutile	0.25	<0.01	0.02
Magnetite	0.25	0.05	0.08
Unidentified	~31		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	0.75	0.01	0.07
Chalcopyrite	0.25	0.01	0.03
Marcasite	rare	0.01	0.04
Unknown	rare	<0.01	<0.01

The section is represented by very fine-grained material (< 0.4 mm) comprising individual mineral grains as powder and mineral aggregates as very fine chips. Biotite makes up most of the section as very fine-grained, anhedral green aggregates and brown plates. Broken grains and aggregates of quartz and feldspar comprise approximately 20% of the section. Minor amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves. Muscovite (sericite) occurs commonly replacing biotite.

Carbonate occurs in minor amounts, approximately 1.5%, dominantely as very fine-grained colourless anhedral grains and colourless patchy aggregates (broken vein fragments, locally with quartz grains) and rarely as very fine-grained grungy aggregates (overprinting colourless carbonate). Carbonate grain size varies from < 0.01 to ~0.2 mm. Carbonate is rarely partly replaced by red-brown Fe-oxide aggregates.

Sulphide occurs in trace amounts (< 1%) dominantly as pyrite with lesser chalcopyrite and marcasite. Pyrite occurs scattered as very fine-grained, eu-anhedral grains within quartz-biotite aggregates and muscovite (sericite)-altered rock chips (rarely as liberated grains). Pyrite grain boundaries are irregular but clean with no rim replacement. Chalcopyrite locally encloses pyrite and occurs as very fine-grained, anhedral, ragged liberated grains. Traces of marcasite occur intergrown with pyrite. Rare traces of an unknown white phase (in reflected light) virtually completely replaced by very fine-grained red-brown Fe-oxide/oxyhydroxide aggregate. Rare traces of magnetite occur scattered through the section. Magnetite is partly to completely replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.



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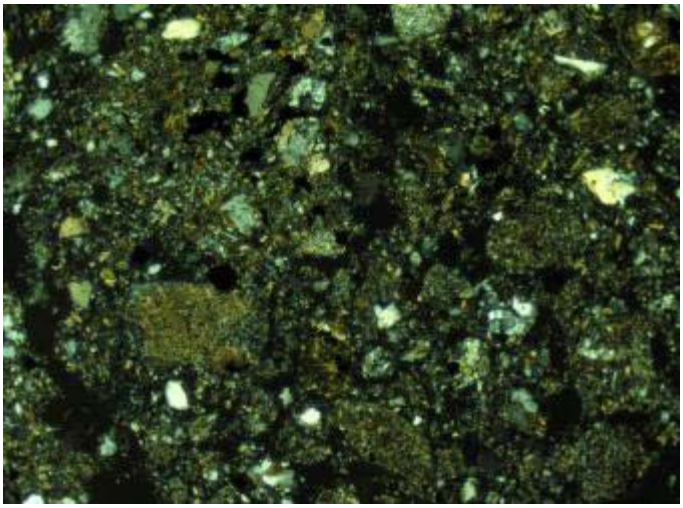

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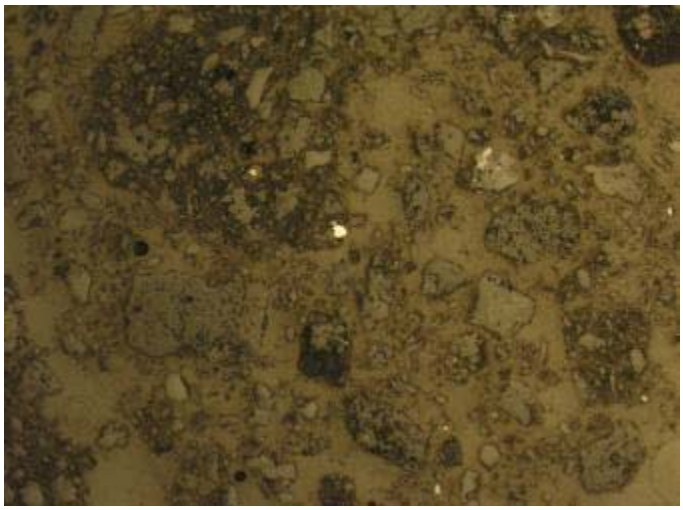
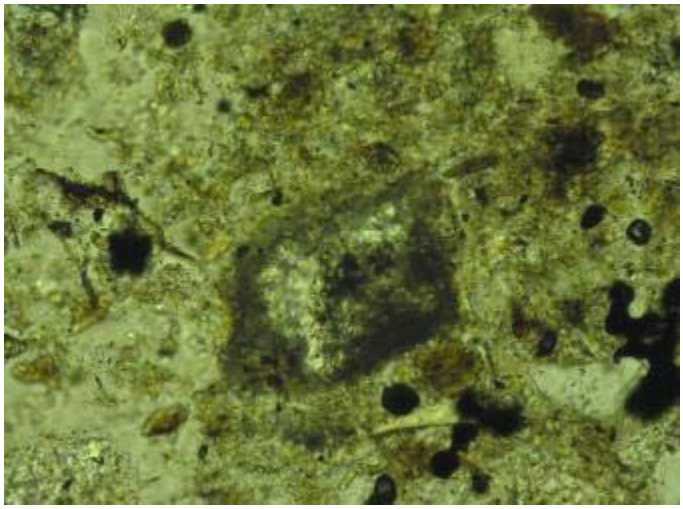


C

0441-11840-003 Hypogene Blk Flo Tls-B: Representative fine-grains and clumping powder. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



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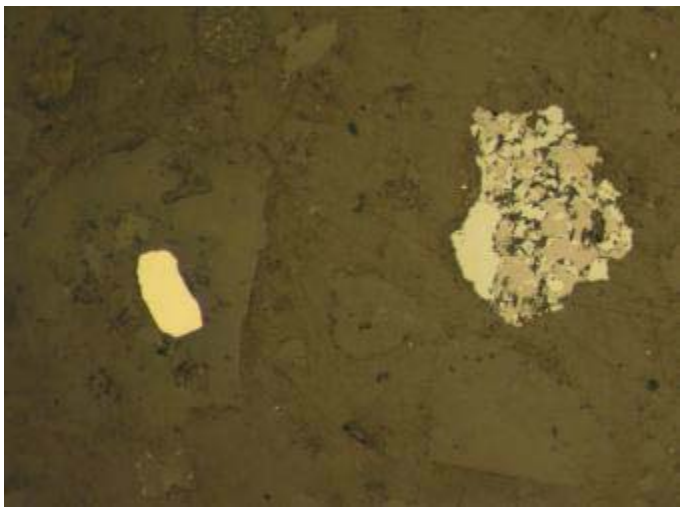

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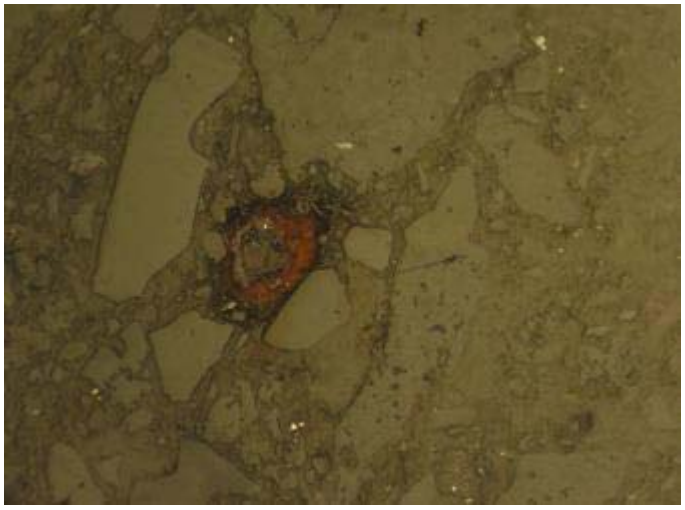


F

0441-11840-003 Hypogene Blk Flo Tls-B: D) Liberated grain of colourless carbonate rimmed and partly replaced by very fine-grained grungy carbonate aggregates. PPL, FOV =~ 0.7 mm E) Pyrite enclosed within quartz-biotite aggregate and magnetite partly replaced by hematite. Note pyrite has clean rims with no alteration. RL, FOV =~ 0.7 mm. F) Rare traces of white high reflectance mineral virtually completely replaced by very fine-grained red-brown Fe- oxide/oxyhydroxide aggregates. RL, FOV =~ 0.7 mm

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the City of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, # 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.

6. I have practiced my profession as a geologist for approximately 20 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 13 years as an independent consultant.

7. The petrographic data of this report was collected by me in November 2008.

……..……
Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
November 10, 2008

Petrography Report

CHARACTERIZATION OF TAILINGS:
0441-11846-003 PEBBLE EAST PHASE I
0441-11840-003 PEBBLE WEST PHASE II

PEBBLE COPPER DEPOSIT, ALASKA

December 4, 2008

SRK Project #:
1CN007.00

Prepared for:
Stephen Day, P.Geo. and
Madeleine Corriveau, EIT/GIT
SRK Consulting (Canada) Inc.
Suite 2200-1066 West Hastings St.
Vancouver, BC
Canada V6E 3X2

Prepared by:
Kathryn Dunne, M.Sc. P.Geo.
Consulting Geologist
Bag 9000, # 207
190B Trans Can Hwy NE
Salmon Arm, BC
Canada V1E 1S3

phone: 250-804-0729
kgeo@telus.net

Background

Five samples of material from the Pebble Copper deposit, Alaska are characterized in this report (SRK Project No. 1CN007.00). The material consists of tailings prepared as five polished thin sections. The samples were submitted for polished thin section production at Vancouver Petrographics by Rik Vos of CEMI on October 15, 2008. The prepared samples were then sent to Kathryn Dunne for optical characterization of the mineralogy. The purpose of the study was to characterize the mineralogy with particular emphasis on the sulfide and any carbonate minerals present. Kathryn Dunne, P.Geo. carried out the optical analysis at her office in Salmon Arm, B.C.

Sample descriptions with representative photomicrographs follow this summary. All percentages in the descriptions are approximate based on visual estimation.

Summary

Sample List (SRK Project No. 1CN007.00)

0441-11846-003 –Pebble East Phase I - Bulk Scav. Tails As-Is
0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone O/F
0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone U/F

0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Cyclone O/F
0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails -Sands

The 0441-11846-003 – Pebble East Phase I sections (Bulk Scav. Tails As-Is and 80G+20Y-Cyclone U/F) are represented dominantly by fine-grained broken fragments and mineral aggregates of quartz and K-feldspar with lesser muscovite (sericite) and minor biotite, chlorite ± plagioclase. In section 0441-11846-003 (80G+20Y-Cyclone O/F), material is generally very fine-grained, biotite is dominant with lesser quartz and K-feldspar and minor Fe-oxide/oxyhydroxides, chlorite and muscovite (sericite) (note much material cannot be identified in this section due to very fine grain size). Biotite, in all these three sections, occurs as very fine-grained, anhedral brown aggregates and brown plates. Muscovite (sericite) occurs as very fine-grained anhedral grains, patchy aggregates and fine sheaves.

The 0441-11840-003 – Pebble West Phase II sections (Bulk Scav. Tails – Cyclone O/F and Sands) are represented by fine and very fine-grained broken fragments and mineral aggregates of K-feldspar with lesser quartz, biotite and muscovite (sericite) and minor carbonate, plagioclase and Fe-oxide/oxyhydroxide or hematite. Biotite occurs as very fine-grained, anhedral green aggregates and as green-brown plates. Muscovite (sericite) occurs as very fine-grained anhedral grains, patchy aggregates and fine sheaves. Muscovite (sericite) occurs commonly replacing biotite.

In the 0441-11846-003 – Pebble East Phase I sections, carbonate occurs in trace amounts as very fine-grained colourless anhedral grains and patchy aggregates locally associated with aggregates of chlorite-rutile, with epidote after plagioclase, overprinting muscovite (sericite) aggregates and as liberated grains. Locally a very fine-grained grungy carbonate aggregate overprints colourless carbonate grains. In the 0441-11840-003 Pebble West Phase II sections, carbonate occurs in greater amounts, approximately 1 to 1.5%. The carbonate occurs as liberated anhedral grains, broken vein fragments, and in fragments with quartz grains. Rarely, a very fine-grained grungy carbonate aggregate overprints colourless carbonate grains and rarely carbonate is partly replaced by red-brown Fe-oxide aggregates.

In the 11846-003 – Pebble East Phase I sections, sulphide occurs in trace to minor amounts as pyrite, chalcopyrite and rare pyrrhotite. Pyrite grain boundaries are irregular but clean with no rim replacement. Traces of magnetite

occur scattered through the section. Magnetite is locally partly replaced by hematite. Trace to minor amounts of red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates. In section 0441-11846-003 – Pebble East Phase I - 80G+20Y – Cyclone U/F, a few chips are rimmed by a fine rind of red-brown Fe-oxide/oxyhydroxide aggregates.

In the 0441-11840-003 – Pebble West Phase II sections, sulphide occurs in minor amounts dominantly as pyrite with lesser chalcopyrite ± molybdenite and an unknown phase. Pyrite grain boundaries are irregular but mostly clean without rim replacement. Only one pyrite grain was observed with a very fine rim of pale brown Fe-oxide/oxyhydroxide aggregate. In one section, the unknown phase is partly replaced by very fine-grained red-brown Fe-oxide/oxyhydroxide aggregate. Traces of magnetite occur scattered through the section. Magnetite is partly to completely replaced by trace to minor hematite. Trace to minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.

Tabular summary:

Sample # -	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other > 1%**	**% ~**
0441-11846-003 – Pebble East Phase I - Bulk Scav. Tails As-Is	pyrite chalcopyrite pyrrotite	1 1 tr	anhedral grains and patchy aggregates	tr	Fe-oxide/ oxyhydroxide magnetite hematite	tr tr tr	muscovite (sericite) biotite chlorite	20 5 1
0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone O/F	pyrite chalcopyrite	tr tr	anhedral grains and patchy aggregates	tr	Fe-oxide/ oxyhydroxide magnetite hematite	2 tr tr	biotite muscovite (sericite) chlorite	~30 2 1+
0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone U/F	pyrite chalcopyrite	2 tr	anhedral grains and patchy aggregates	tr	Fe-oxide/ oxyhydroxide magnetite hematite	tr tr tr	muscovite (sericite) biotite chlorite	20 3 2
0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Cyclone O/F	pyrite chalcopyrite unknown	tr tr tr	anhedral grains and patchy aggregates	1.5	Fe-oxide/ oxyhydroxide magnetite hematite	2 tr tr	biotite muscovite (sericite)	20 10
0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails - Sands	pyrite chalcopyrite molybdenite unknown	1 tr tr tr	anhedral grains and patchy aggregates	1	hematite Fe-oxide/ oxyhydroxide magnetite	1 tr tr	biotite muscovite (sericite)	20 10

tr = trace (< 1%); x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

Project #: 1CN007.00
Sample ID: 0441-11846-003 –Pebble East Phase I Bulk Scav. Tails As-Is

Pulps Description (offcut mount not available):
Yellowish-grey powder. Trace reaction to magnet. Slight reaction to cold, dilute HCl.

Polished Thin Section Description:

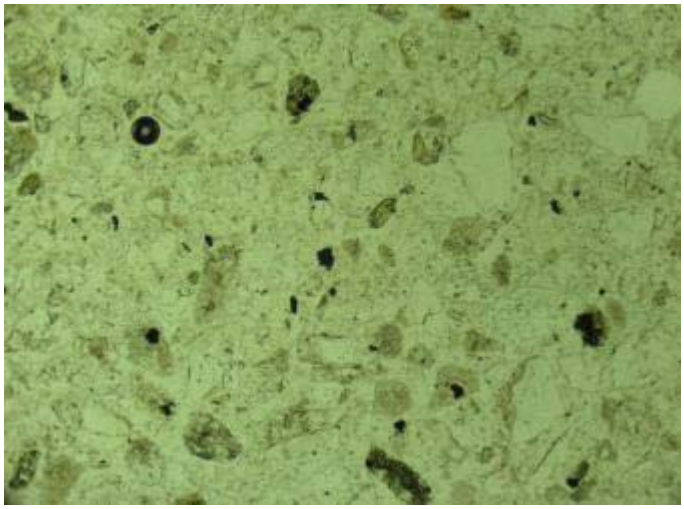
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Quartz	~30	0.01	0.60
K-feldspar	~25	0.01	0.20
Muscovite (sericite)	20	0.01	0.20
Biotite	5	0.01	0.30
Plagioclase	1	0.15	0.20
Chlorite	1	< 0.01	0.02
Fe-oxide/oxyhydroxide	0.75	0.01	0.01
Carbonate	0.25	0.01	0.40
Rutile	0.25	<0.01	0.02
Epidote	0.25	0.05	0.35
Magnetite	0.25	0.04	0.15
Hematite	rare	< 0.01	0.03
Anhydrite	rare		0.35
Amphibole	rare		0.25
Zircon	rare		0.15
Unidentified/clay	~14		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	1	0.01	0.06
Chalcopyrite	1	0.01	0.06
Pyrrhotite	rare		0.06

The section is represented by fine-grained material (< 0.6 mm) comprising individual mineral grains as powder and mineral aggregates as very fine chips. Quartz and K-feldspar grain fragments make up most of the section as broken grains and aggregates. Biotite occurs as very fine-grained, anhedral brown aggregates and brown plates. Major amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves. Muscovite (sericite) occurs locally as replacement of biotite.

Carbonate occurs in trace amounts as very fine-grained colourless anhedral grains and patchy aggregates. Carbonate is locally associated with aggregates of chlorite-rutile and with epidote after plagioclase.

Sulphide occurs in minor amounts (~2%) as pyrite, chalcopyrite and rare pyrrhotite. Pyrite, approximately 1%, occurs scattered as very fine-grained, eu-anhedral grains within silicate aggregate chips and as liberated grains. Pyrite grain boundaries are irregular but clean with no rim replacement. Chalcopyrite occurs as very fine-grained, anhedral, ragged grains within silicate aggregate chips and as liberated grains. Traces of magnetite occur scattered through the section. Magnetite is locally partly replaced by hematite. Traces of red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.



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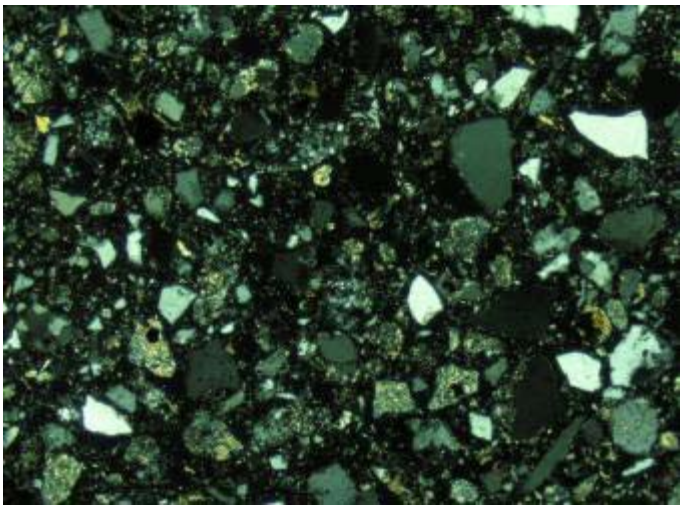

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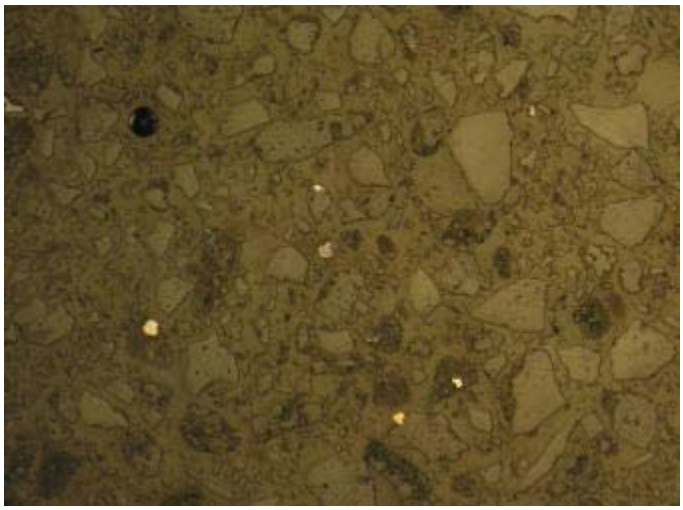
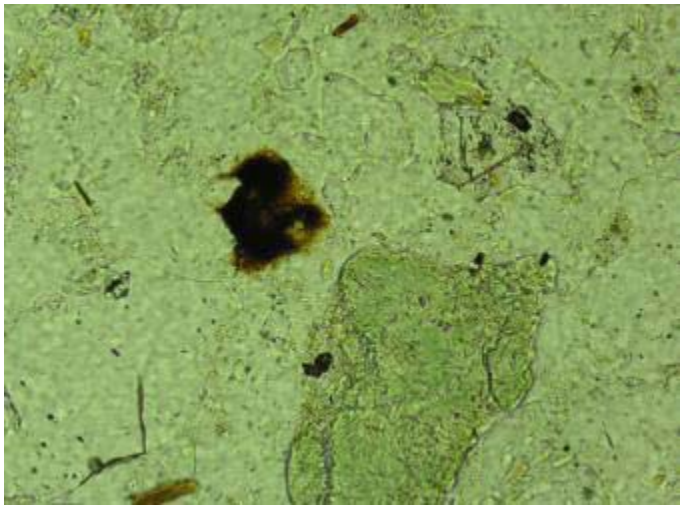


C

0441-11846-003 – Pebble East Phase I Bulk Scav. Tails As-Is: Representative fine chips and powder. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



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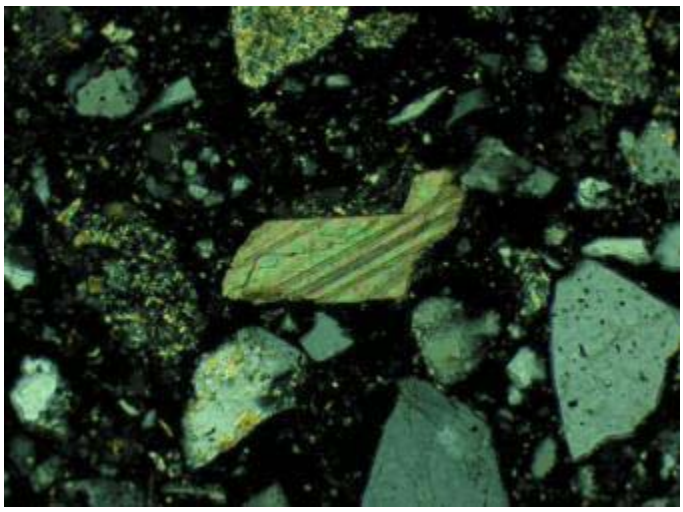
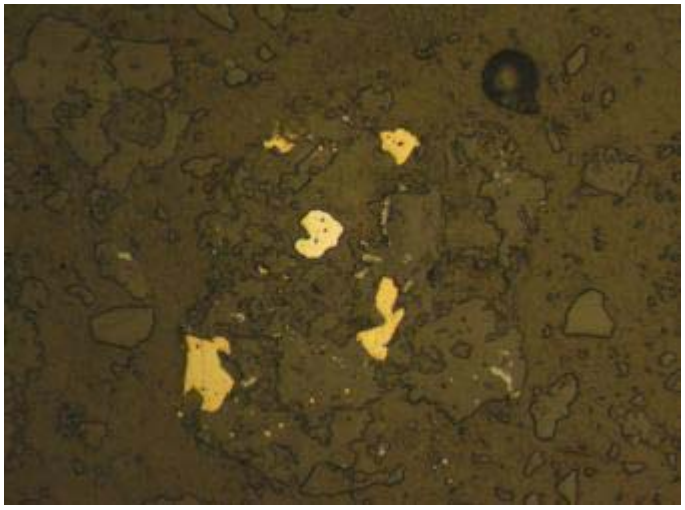


E



F

0441-11846-003 – Pebble East Phase I Bulk Scav. Tails As-Is: D) Red-brown Fe-oxide/oxyhydroxide aggregate replaces cubic form (centre). Chlorite-altered fragment (lower right). PPL, FOV =~ 0.7 mm. E) Colourless carbonate as liberated grain. XPL, FOV =~ 1.3 mm. F) Anhedral grains of pyrite and chalcopyrite within muscovite (sericite)-altered fragment. RL, FOV =~ 0.7 mm.

Project #: 1CN007.00
Sample ID: 0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone O/F

Stained Offcut Mount and Pulps Description:

Yellowish-grey powder and clumps of powder. Trace reaction to magnet. Slight reaction to cold, dilute HCl.

Polished Thin Section Description:

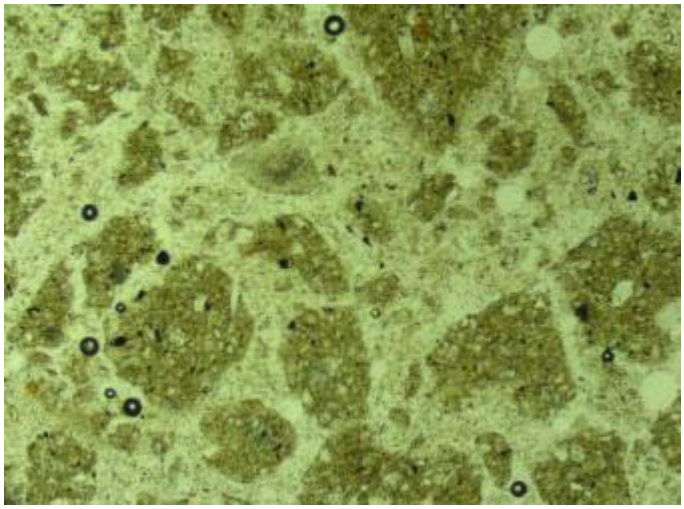
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Biotite	~30	0.01	0.15
Quartz	~20	0.01	0.24
K-feldspar	~15	0.01	0.20
Fe-oxide/oxyhydroxide	2	0.01	0.13
Muscovite (sericite)	2	0.01	0.10
Chlorite	~1+	< 0.01	0.02
Rutile	0.75	<0.01	0.05
Magnetite	0.25	0.04	0.05
Carbonate	rare	0.01	0.04
Hematite	rare	0.01	0.01
Zircon	rare		0.10
Unidentified/clay	~27		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	0.75	0.01	0.06
Chalcopyrite	rare	0.01	0.02

The section is represented by fine-grained material (< 0.25 mm) comprising individual mineral grains as powder and mineral aggregates as very fine chips. Biotite is dominant within powder clumps and occurs as very fine-grained, anhedral brown aggregates and brown plates. Broken grains and aggregates of quartz and feldspar comprise approximately 50% of the section. Minor amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves.

Carbonate occurs rarely as very fine-grained colourless anhedral grains and patchy aggregates.

Sulphide occurs in trace amounts (< 1%) as pyrite with traces of chalcopyrite. Pyrite occurs scattered as very fine-grained, eu-anhedral grains within silicate aggregate chips and as liberated grains. Pyrite grain boundaries are irregular but clean with no rim replacement. Chalcopyrite occurs as very fine-grained, anhedral, ragged grains within silicate aggregate chips and as liberated grains. Traces of magnetite occur scattered through the section. Magnetite is rarely partly replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.



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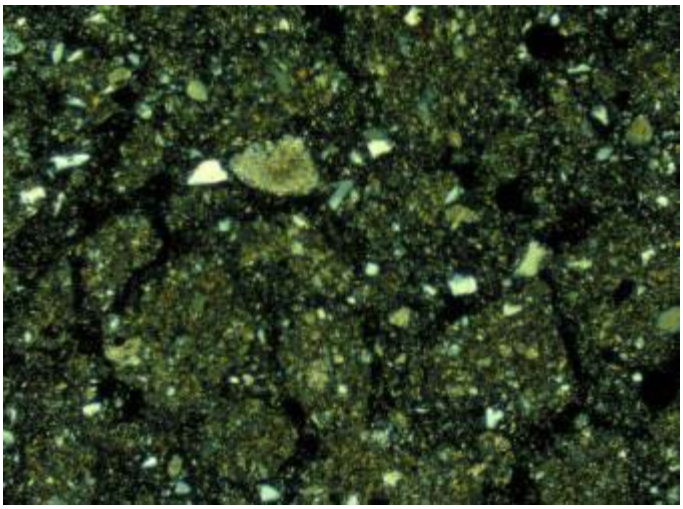

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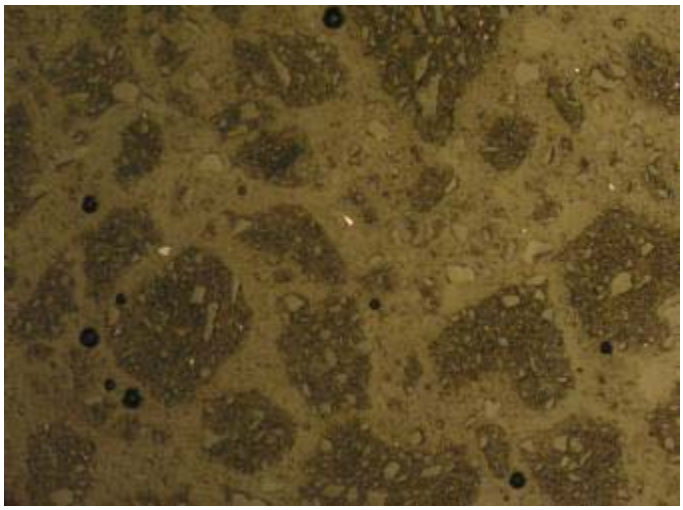
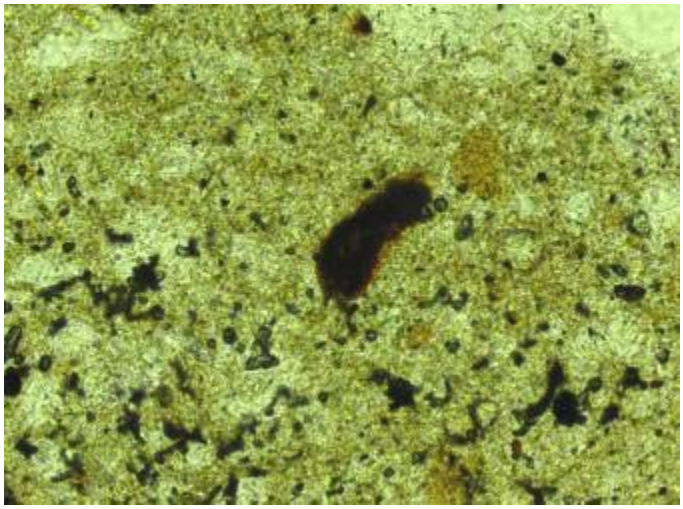
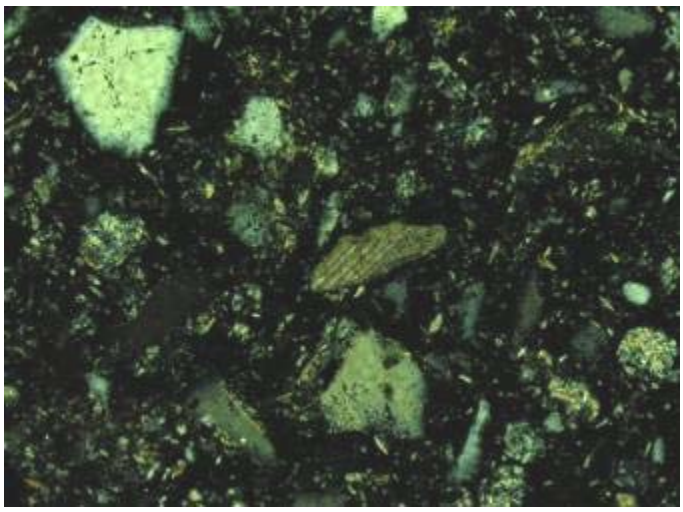


C

0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone O/F: Representative fine chips and powder. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



D



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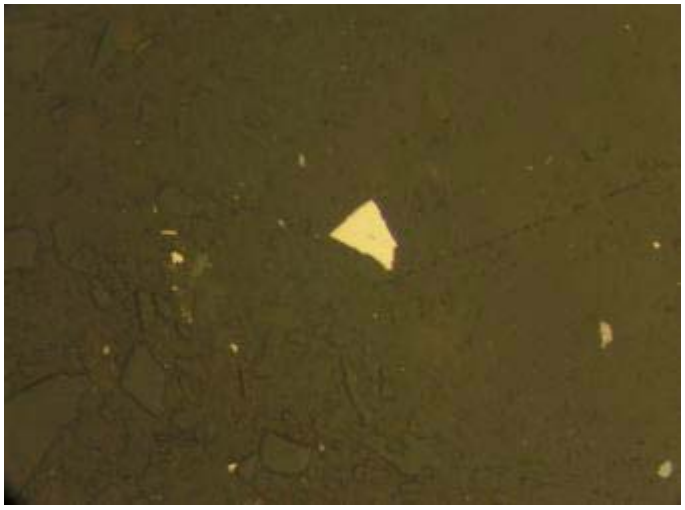


F

0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone O/F: D) Red-brown Fe-oxide/oxyhydroxide aggregate (centre) within clump of biotite-dominant powder. PPL, FOV =~ 0.7 mm. E) Liberated carbonate grain (centre). XPL, FOV =~ 0.7 mm F) Liberated pyrite grain without oxidation rims. RL, FOV =~ 0.35 mm.

Project #: 1CN007.00
Sample ID: 0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone U/F

Stained Offcut Mount and Pulps Description:

Fine grains (< 1 mm) of very light grey, white, yellowish grey and medium grey material. Reaction of a few grains to magnet. Reaction of some grains to cold, dilute HCl. Approximately 30% K-feldspar (based on reaction to etching of mount and staining with sodium cobaltinitrite).

Polished Thin Section Description:

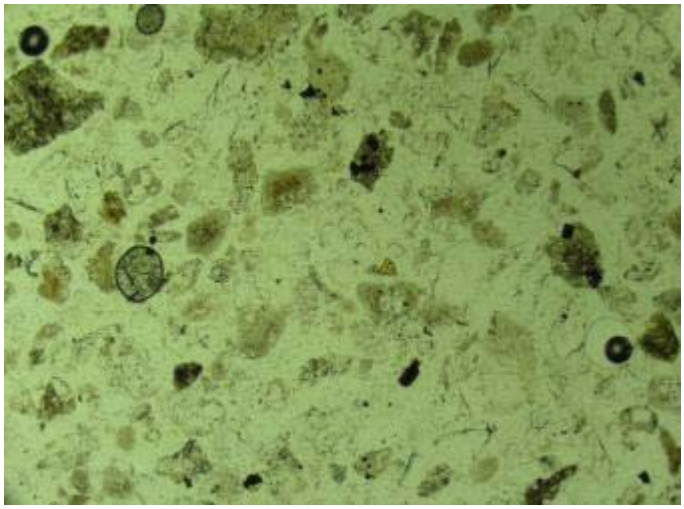
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Quartz	35	0.01	0.90
K-feldspar	35	0.01	0.80
Muscovite (sericite)	20	0.01	0.05
Biotite	3	0.01	0.15
Chlorite	2	< 0.01	0.05
Magnetite	0.5	0.04	0.05
Rutile	0.25	<0.01	0.02
Fe-oxide/oxyhydroxide	rare	0.01	0.12
Plagioclase	rare	0.15	0.20
Carbonate	rare	0.02	0.40
Epidote	rare		0.05
Hematite	rare	< 0.01	0.03
Unidentified/clay	~1		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	2	0.01	0.36
Chalcopyrite	0.75	0.01	0.30

The section is represented by fine-grained material (< 0.9 mm) comprising individual mineral grains as powder and mineral aggregates as very fine chips. Broken grains and aggregates of quartz and feldspar comprise most of the section. Minor biotite occurs as very fine-grained, anhedral brown aggregates and brown plates. Major amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves.

Carbonate is rare. It occurs as very fine-grained colourless anhedral grains, as patchy aggregates overprinting muscovite (sericite) altered feldspar aggregate and occurring as aggregates with chlorite and rutile. Locally carbonate is overprinted by very fine-grained grungy carbonate aggregate.

Sulphide occurs in minor amounts (< 3%) dominantly as pyrite with lesser chalcopyrite. Pyrite occurs scattered as very fine-grained, anhedral liberated grains, within muscovite (sericite)-altered rock chips and within fine-grained granular quartz-feldspar bearing clastic rock fragments. Pyrite grain boundaries are irregular but relatively clean with no rim replacement. Chalcopyrite rarely encloses pyrite (within muscovite (sericite)-altered rock fragments) and occurs within clastic rock fragments and as very fine-grained, anhedral, ragged liberated grains. Traces of magnetite occur scattered through the section. Magnetite is rarely partly replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs rarely as scattered very fine-grained aggregates. A few chips are rimmed by a fine rind of red-brown Fe-oxide/oxyhydroxides (see photo H).



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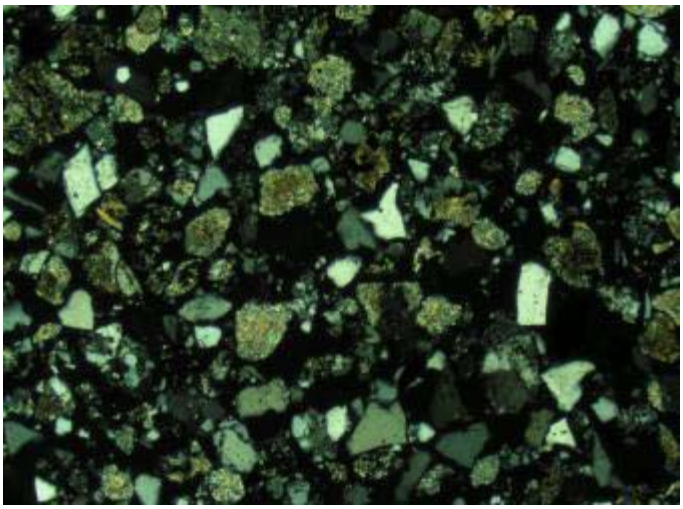
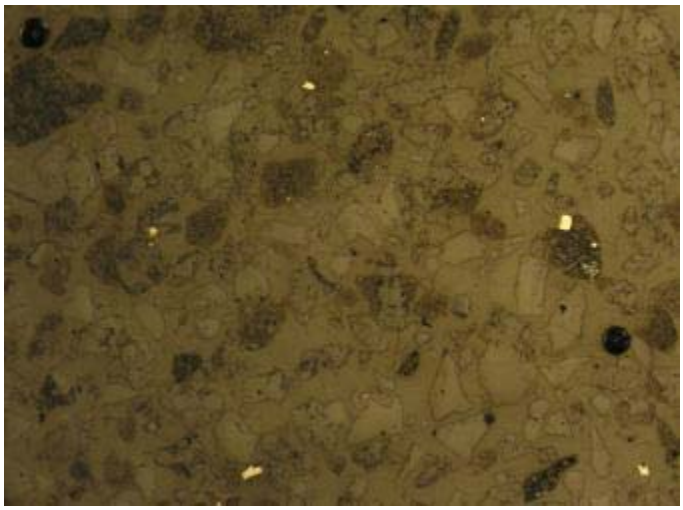
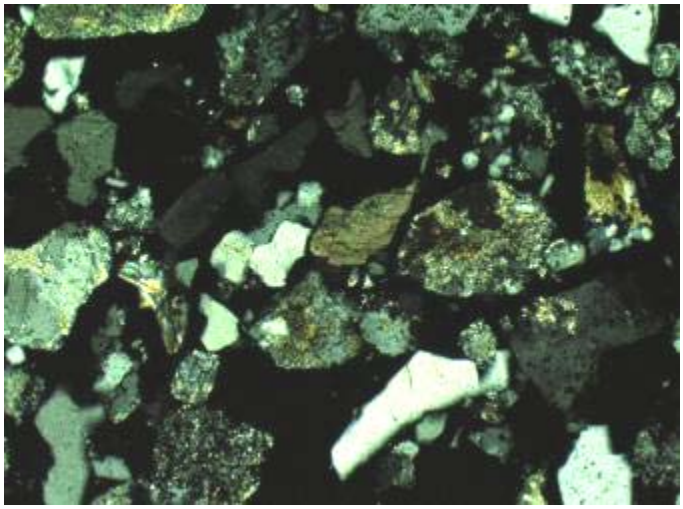


B



C

0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone U/F: Representative very fine-grained material comprising individual mineral grains and mineral aggregates as very fine chips. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



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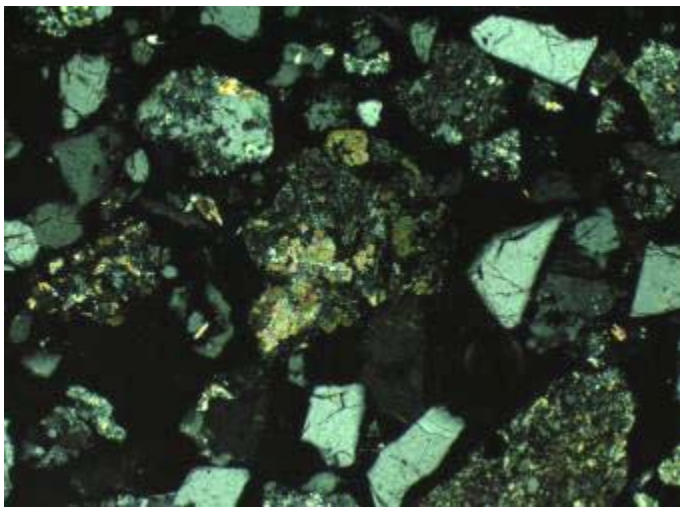

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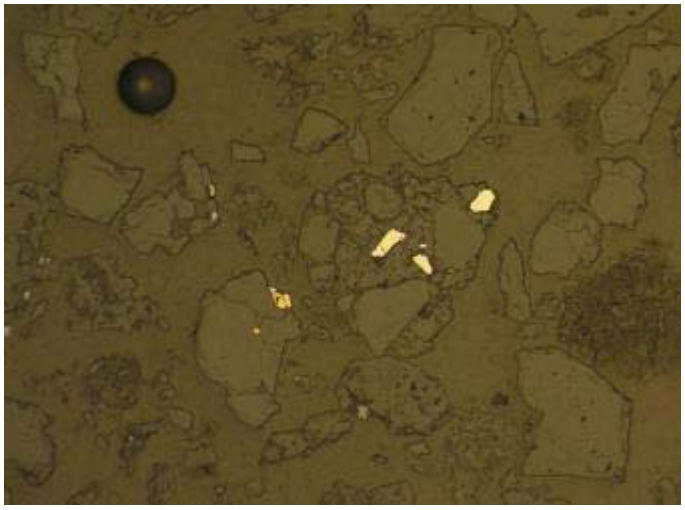
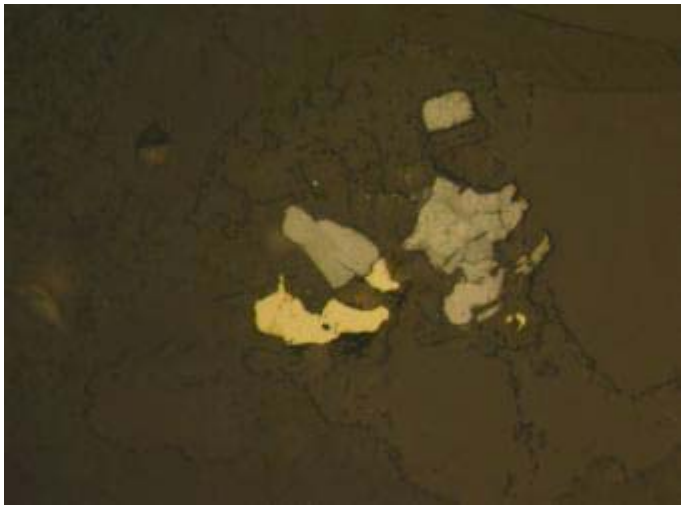


F

0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone U/F: D) Colourless carbonate grain (centre). XPL, FOV =~ 1.3 mm. E) Patchy carbonate aggregate replaces plagioclase. XPL, FOV =~ 1.3 mm. F) Scattered anhedral pyrite grains within fine-grained clastic rock fragment. Chalcopyrite grain within quartz aggregate. RL, FOV =~ 1.3 mm.



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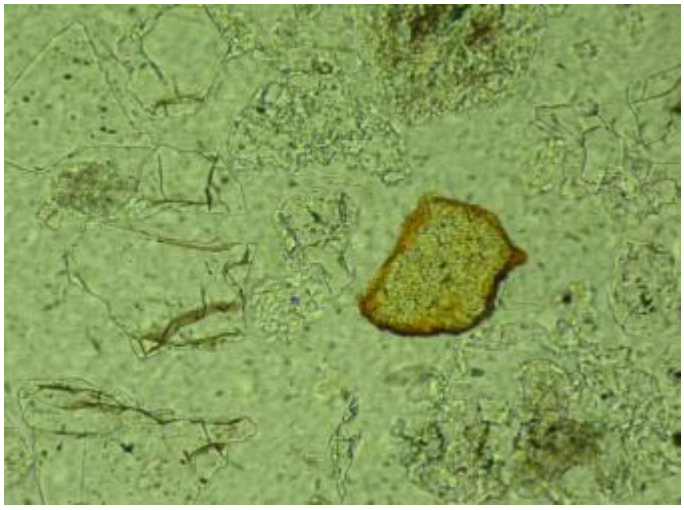

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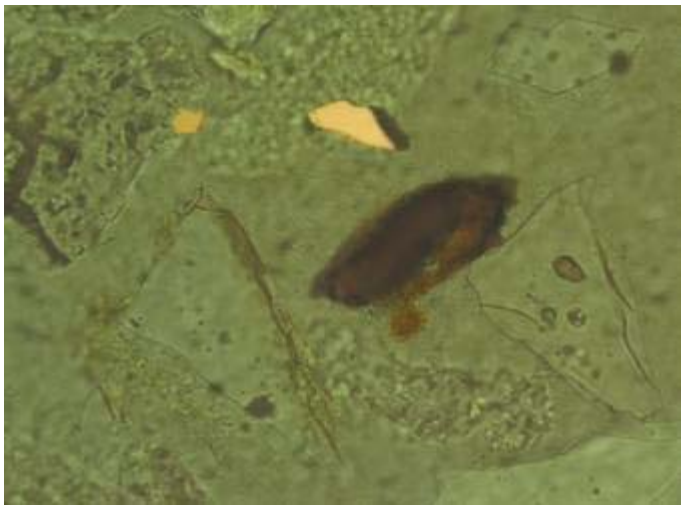


I

0441-11846-003 –Pebble East Phase I - 80G+20Y – Cyclone U/F: G) Grains of molybdenite and pyrite within fragment of fine-grained clastic rock. RL, FOV =~ 0.35 mm. H) Muscovite (sericite) altered rock fragment rimmed by red-brown rind of Fe-oxide/oxyhydroxide. PPL+RL, FOV =~ 0.7 mm. I) Grains of chalcopyrite (left) and pyrite (above centre) without alteration rims. Red-brown Fe-oxide/oxyhydroxide aggregate (centre). PPL+RL, FOV = ~0.35 mm.

Project #: 1CN007.00
Sample ID: 0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Cyclone O/F

Stained Offcut Mount and Pulps Description:

Yellowish-grey powder. Trace reaction to magnet. Very slight reaction to cold, dilute HCl. Approximately 30% K-feldspar (based on reaction to etching of mount and staining with sodium cobaltinitrite).

Polished Thin Section Description:

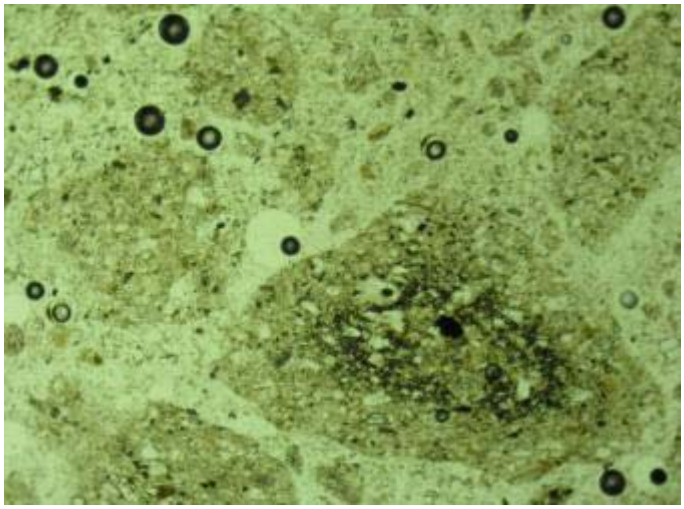
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
K-feldspar	~30 (see offcut)	0.01	0.40
Biotite	20	0.01	0.15
Quartz	10+	0.01	0.30
Muscovite (sericite)	10	0.01	0.10
Fe-oxide/oxyhydroxide	2	<0.01	0.01
Carbonate	1.5	<0.01	0.15
Plagioclase	1	0.10	0.15
Hematite	0.5	<0.01	0.02
Rutile	0.25	<0.01	0.12
Magnetite	0.25	0.05	0.14
Apatite	rare	0.01	0.08
Unidentified	~23		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	0.75	0.01	0.14
Chalcopyrite	0.25	0.01	0.04
Unknown	rare		0.1

The section is represented by fine-grained material (< 0.4 mm; typically < 0.2 mm) comprising individual mineral grains as powder and mineral aggregates as very fine chips. K-feldspar makes up most of the section. Biotite occurs as very fine-grained, anhedral green aggregates and brown plates. Major amounts of muscovite (sericite) occur as very fine-grained anhedral grains, patchy aggregates and fine sheaves. Muscovite (sericite) occurs locally replacing biotite.

Carbonate occurs in minor amounts, approximately 1.5%, dominantly as very fine-grained colourless anhedral grains and colourless patchy aggregates (broken vein fragments, locally with quartz grains) and rarely as very fine-grained grungy aggregates (overprinting colourless carbonate). Carbonate is rarely partly replaced by red-brown Fe-oxide aggregates.

Sulphide occurs in minor amounts (~ 1%) dominantly as pyrite with lesser chalcopyrite and an unknown phase. Pyrite occurs scattered as very fine-grained, eu-anhedral grains within quartz aggregates and muscovite (sericite)-altered rock chips and as liberated grains. Pyrite grain boundaries are irregular but clean with no rim replacement. Chalcopyrite locally partly encloses pyrite and occurs as very fine-grained, anhedral, ragged liberated grains. An unknown white phase (in reflected light) occur as a liberated grain. Traces of magnetite occur scattered through the section. Magnetite is partly to completely replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs scattered throughout powder clumps as very fine-grained aggregates.



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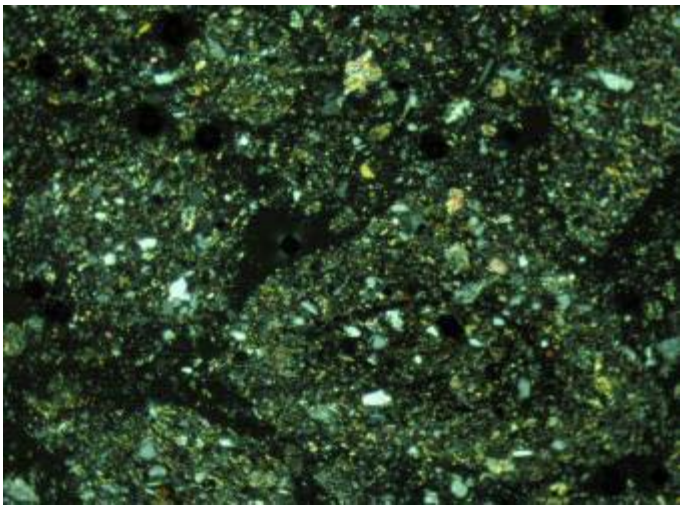

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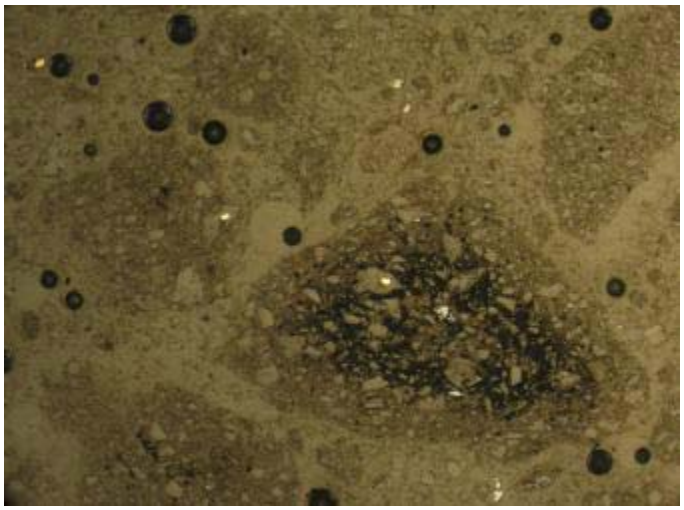
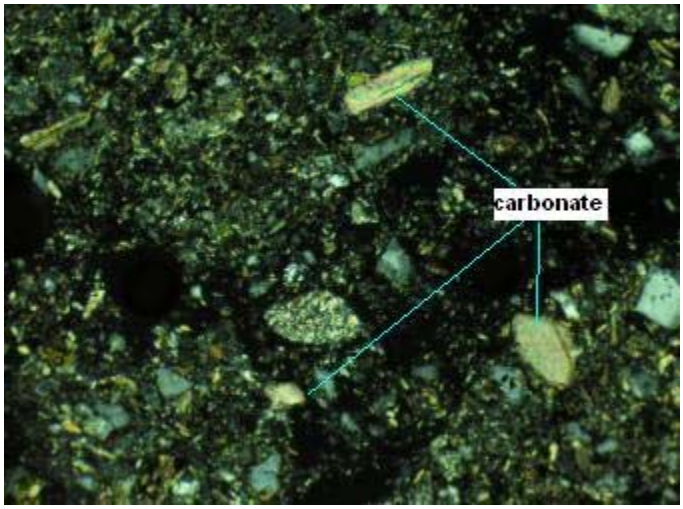


C

0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Cyclone O/F: Representative fine-grains and clumping powder. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



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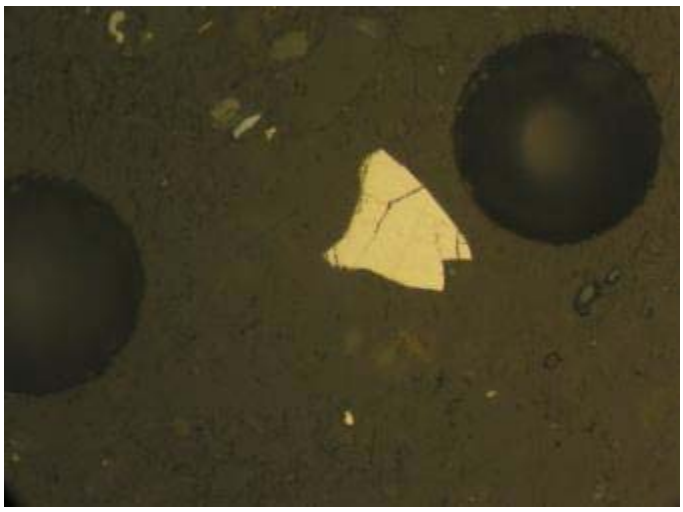

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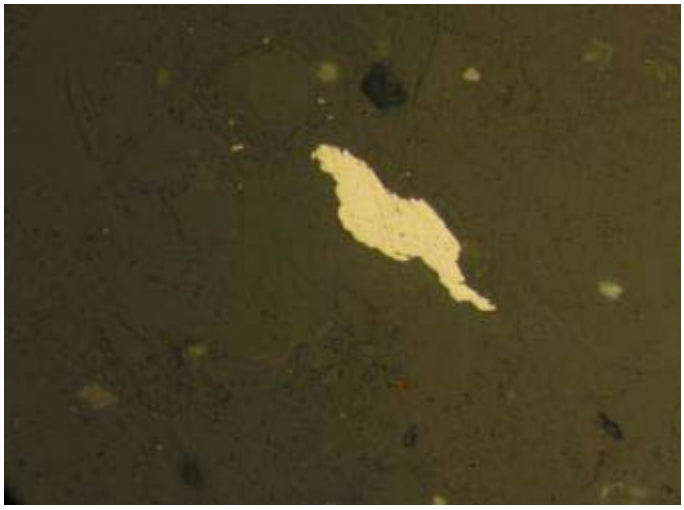
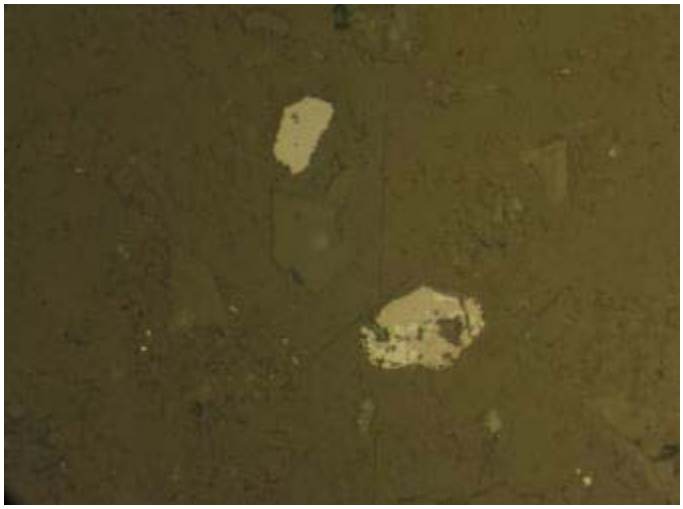


F

0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Cyclone O/F: D) Liberated grains of colourless carbonate. XPL, FOV =~ 0.7 mm E) Liberated anhedral pyrite grain with no alteration rims. RL, FOV =~ 0.35 mm. F) Unknown white high reflectance mineral (no alteration rims). RL, FOV =~ 0.35 mm



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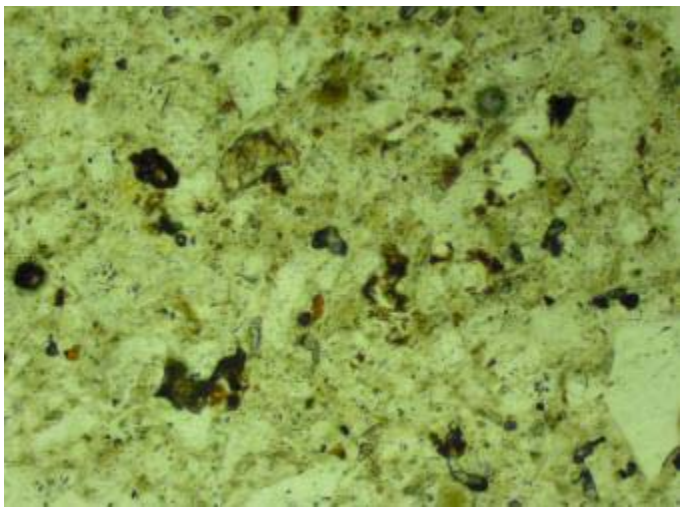


H

0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Cyclone O/F: G) Grains of magnetite partly replaced by hematite. RL, FOV =~ 0.35 mm H) Detailed view of clumping powder with scattered very fine-grained Fe-oxide/oxyhydroxide grains (red-brown). PPL+RL, FOV =~ 0.7 mm.

Project #: 1CN007.00
Sample ID: 0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Sands

Stained Offcut Mount and Pulps Description:

Fine grains (< 0.5 mm) of very light grey, white, yellowish grey and dark grey material. Trace reaction to magnet. Very slight reaction to cold, dilute HCl. Approximately 30% K-feldspar (based on reaction to etching of mount and staining with sodium cobaltinitrite).

Polished Thin Section Description:

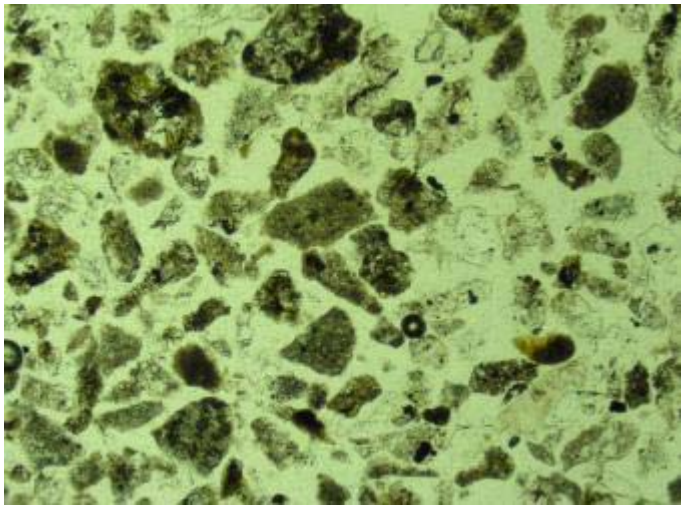
Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
K-feldspar	~38	0.01	0.30
Quartz	25	0.01	0.35
Biotite	20	0.01	0.40
Muscovite (sericite)	10	0.01	0.05
Carbonate	1	<0.01	0.20
Hematite	1	<0.01	0.02
Plagioclase	~1	0.10	0.20
Rutile	0.25	<0.01	0.10
Magnetite	0.25	0.05	0.18
Fe-oxide/oxyhydroxide	rare	<0.01	0.01
Apatite	rare	0.01	0.08
Unidentified	~1		

Sulphide Mineral	%	Grain Size (min) in mm	Grain Size (max) in mm
Pyrite	1	0.01	0.30
Chalcopyrite	0.5	0.03	0.15
Molybdenite	rare		0.32
Unknown	rare	<0.01	0.05

The section is represented by fine-grained material (< 0.4 mm) comprising individual mineral grains and mineral aggregates as very fine chips. Fine K-feldspar and quartz make up most of the section. Biotite occurs as very fine-grained, anhedral green aggregates within rock fragments and as green-brown plates. Muscovite (sericite) occurs as very fine-grained anhedral grains, patchy aggregates and fine sheaves. Muscovite (sericite) occurs commonly replacing biotite.

Carbonate occurs in minor amounts, approximately 1%, dominantly as very fine-grained colourless anhedral grains and colourless patchy aggregates (broken vein fragments, locally with quartz grains) and rarely as very fine-grained grungy aggregates (overprinting colourless carbonate). Carbonate grain size varies from < 0.01 to ~0.2 mm. Carbonate is rarely partly replaced by red-brown Fe-oxide aggregates.

Sulphide occurs in minor amounts (< 2%) dominantly as pyrite with lesser chalcopyrite, molybdenite and an unknown phase. Pyrite occurs scattered as very fine-grained, eu-anhedral grains within K-feldspar-biotite± quartz aggregates and muscovite (sericite)-altered rock chips (rarely as liberated grains). Pyrite grain boundaries are irregular. Only one pyrite grain was observed with a very fine rim of pale brown Fe-oxide/oxyhydroxide aggregate. Chalcopyrite locally encloses pyrite and occurs as very fine-grained, anhedral, ragged liberated grains. Rare traces of an unknown white phase (in reflected light) occur in one rock fragment. The unknown phase is partly replaced by very fine-grained red-brown Fe-oxide/oxyhydroxide aggregate. Rare traces of magnetite occur scattered through the section. Magnetite is partly to completely replaced by hematite. Minor red-brown Fe-oxide/oxyhydroxide occurs as scattered very fine-grained aggregates.



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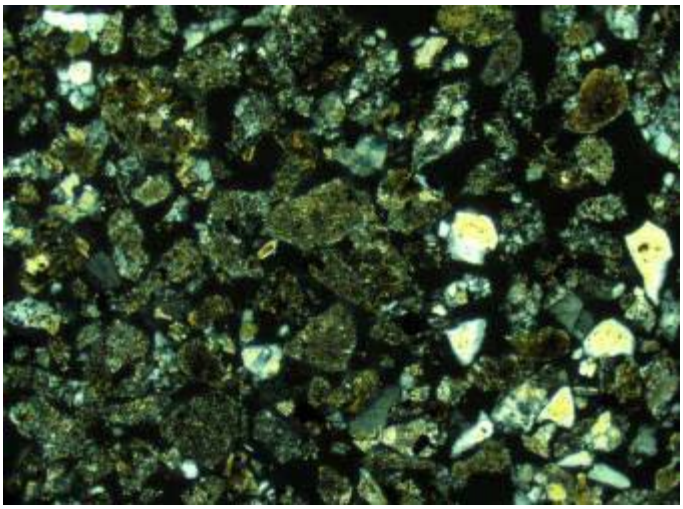
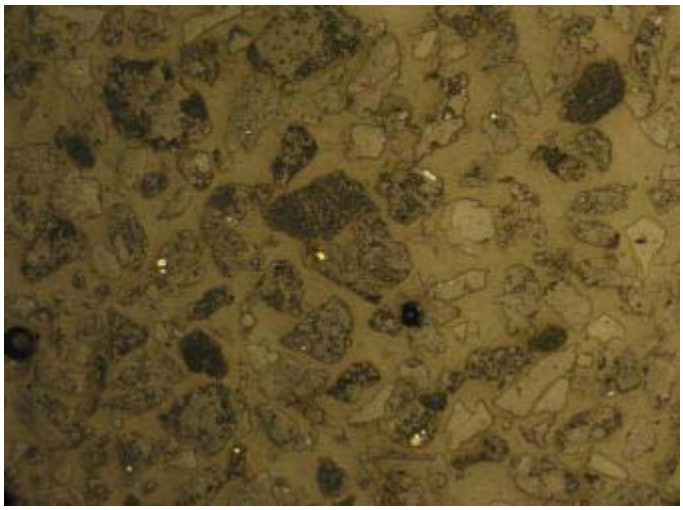
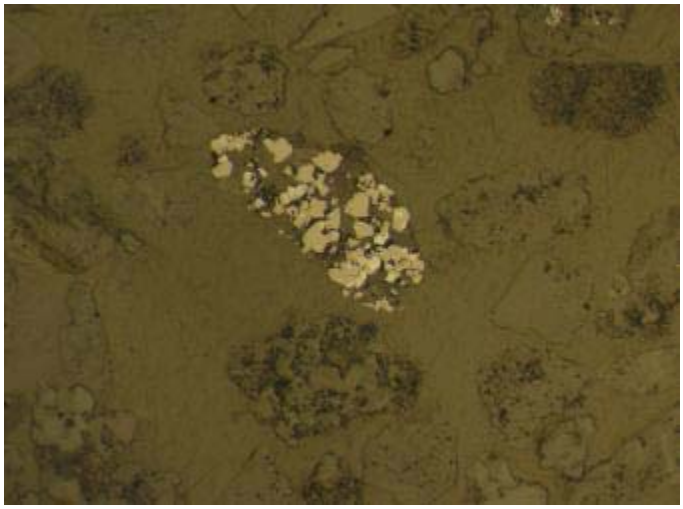


B



C

0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Sands: Representative very fine-grained material comprising individual mineral grains and mineral aggregates as very fine chips. A) PPL, B) XPL, C) RL, FOV =~ 2.8 mm.



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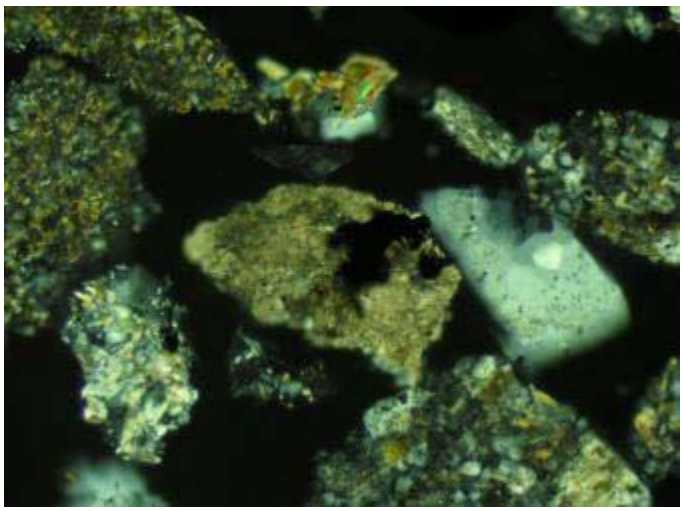

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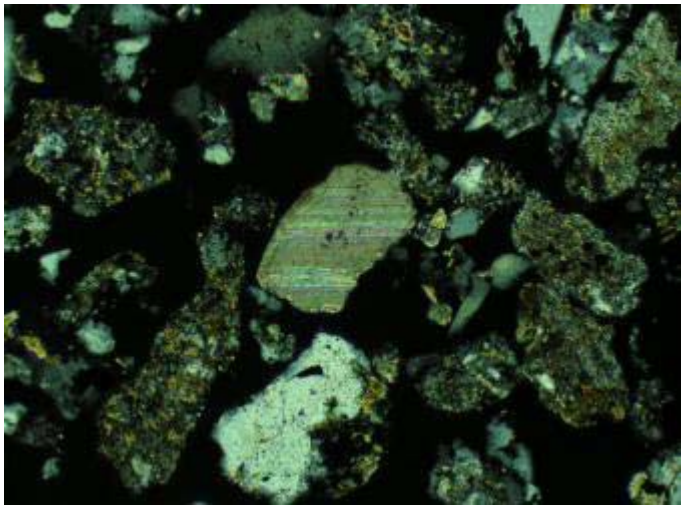
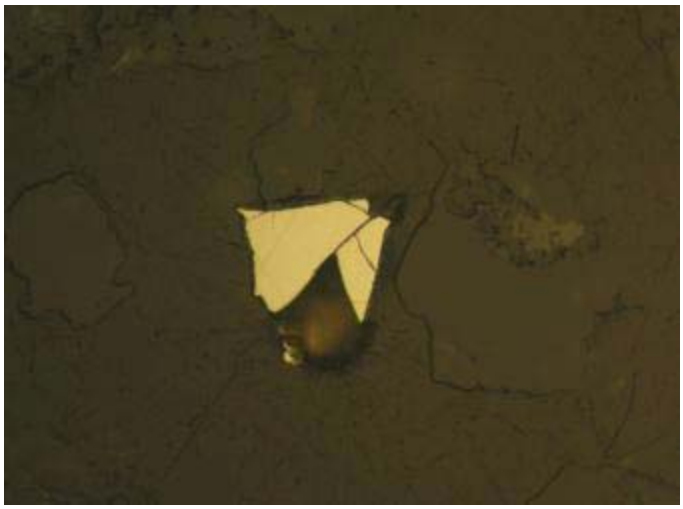


F

0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Sands: D) Fine-grained carbonate aggregate partly replaced by magnetite (which is partly altered to hematite). RL, FOV =~ 1.3 mm E) Very fine-grained carbonate aggregate (centre) partly replaced by hematite aggregate. RL, FOV =~ 0.7 mm. F) Liberated grain of fine-grained colourless carbonate (centre). XPL, FOV =~ 1.3 mm

G



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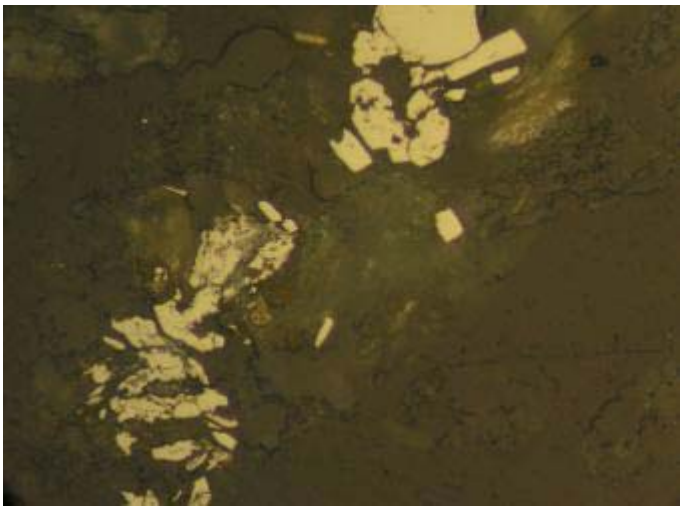


I

0441-11840-003 –Pebble West Phase II - Bulk Scav. Tails – Sands: G) Liberated aggregate of very fine-grained hematite. RL, FOV =~ 0.7 mm H) Fractured pyrite grain with rare very fine rim of pale brown Fe-oxide/oxyhydroxide aggregate. RL, FOV =~ 0.35 mm. I) Rare traces of white unknown mineral partly replaced by very fine-grained Fe- oxide/oxyhydroxide aggregates (grey). RL, FOV =~ 0.35 mm

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the City of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, # 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.

6. I have practiced my profession as a geologist for approximately 20 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 13 years as an independent consultant.

7. The petrographic data of this report was collected by me in December 2008.

……..……

Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
December 4, 2008

PETROGRAPHIC REPORT ON 1 SAMPLE (0441 Pebble)

Report for:	Rik Vos/Carolyn Jones	Invoice 121024
	SGS CEMI Inc.	P.O. # 42615
	6927 Antrim Avenue	
	Burnaby, B.C. V5J 4M5 (604)264-5536	Nov. 21, 2012.

SUMMARY:

Capsule description is as follows:

Pebble MPP Ro Tail: appears to represent very finely ground quartz-Kspar-sericite-biotite-carbonate-minor chlorite-pyrite-trace chalcopyrite (possible inclusions of tetrahedrite?)-hematite-ilmenite-sphene/rutile, apatite.

Detailed petrographic description and photomicrographs are appended (by email attachment). If you have any questions regarding the petrography, please do not hesitate to contact me.

Craig H.B. Leitch, Ph.D., P. Eng. (250) 653-9158 dromore61@gmail.com
492 Isabella Point Road, Salt Spring Island, B.C. Canada V8K 1V4

Pebble MPP Ro Tail: VERY FINELY GROUND QUARTZ-KSPAR-SERICITE-BIOTITE-CARBONATE-MINOR CHLORITE-PYRITE-TRACE CHALCOPYRITE (±TETRAHEDRITE?)-HEMATITE-ILMENITE-SPHENE/RUTILE, APATITE

Sample consists of pale grey-white coloured, extremely finely ground, locally aggregated siliceous material. The material is not magnetic, and shows no reaction to cold dilute HCl, but there is common stain for K-feldspar displayed in the etched offcut. Modal mineralogy in polished thin section is approximately:

Quartz (partly secondary?)	30%
Alkali feldspar (mainly K-feldspar?)	25%
Sericite (after feldspar)	15%
Biotite (largely secondary?)	15%
Carbonate (ankerite?)	5%
Chlorite	1-2%
Pyrite	1-2%
Chalcopyrite	<1%
Hematite	<1%
Ilmenite, sphene, rutile	<1%
Apatite	<<1%

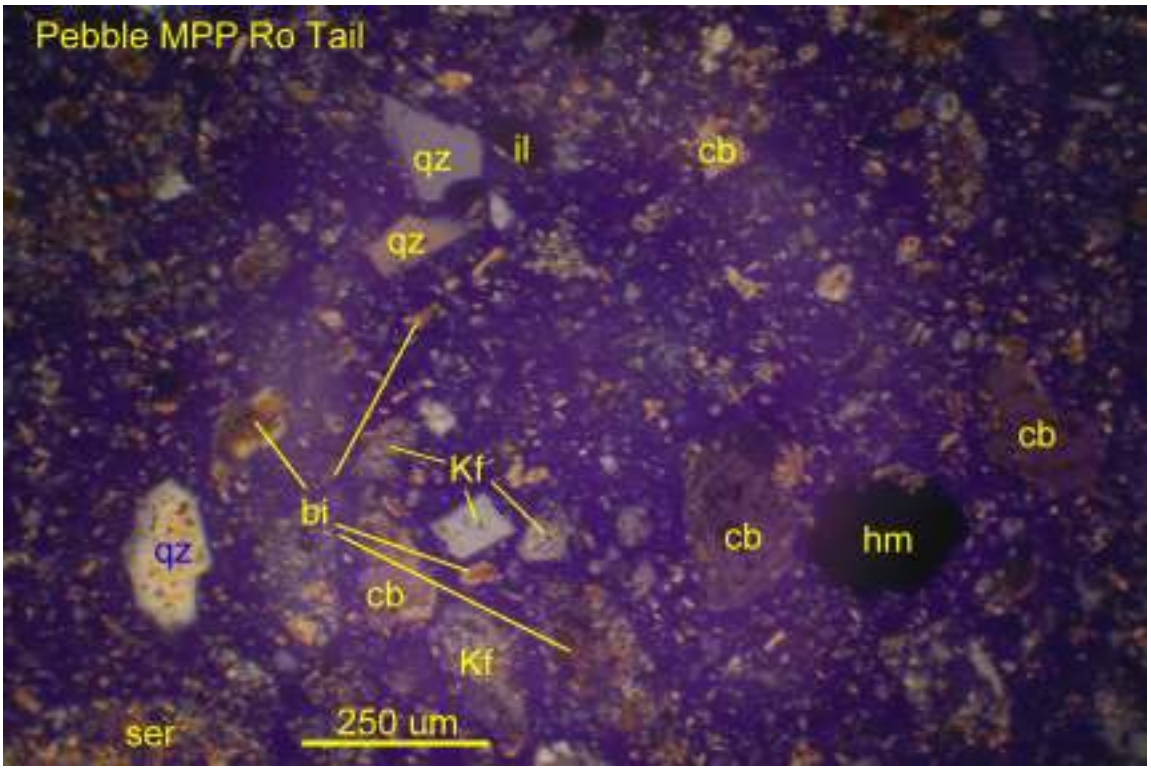
This sample consists of extremely finely ground, locally aggregated mineral shards (quartz, alkali feldspar partly altered to sericite and secondary biotite, lesser carbonate, chlorite, sulfides, and accessory hematite, ilmenite, sphene, rutile and rare apatite)

Quartz and feldspar are the coarsest, both typically occurring as angular to locally subhedral shards mostly <0.3 mm (rarely up to about 0.5 mm) long, locally difficult to distinguish from each other unless the latter is partly altered to sericite. Some of the quartz appears to represent former phenocrysts, since it is attached to finer-grained (groundmass?) grains as interlocking sub- to anhedral crystals mostly<30 um in diameter, intergrown with lesser alkali feldspar as sub/euhedra to 0.1 mm (strong negative relief compared to quartz, and common yellow stain in the etched offcut, indicate that it is likely mostly K-feldspar).

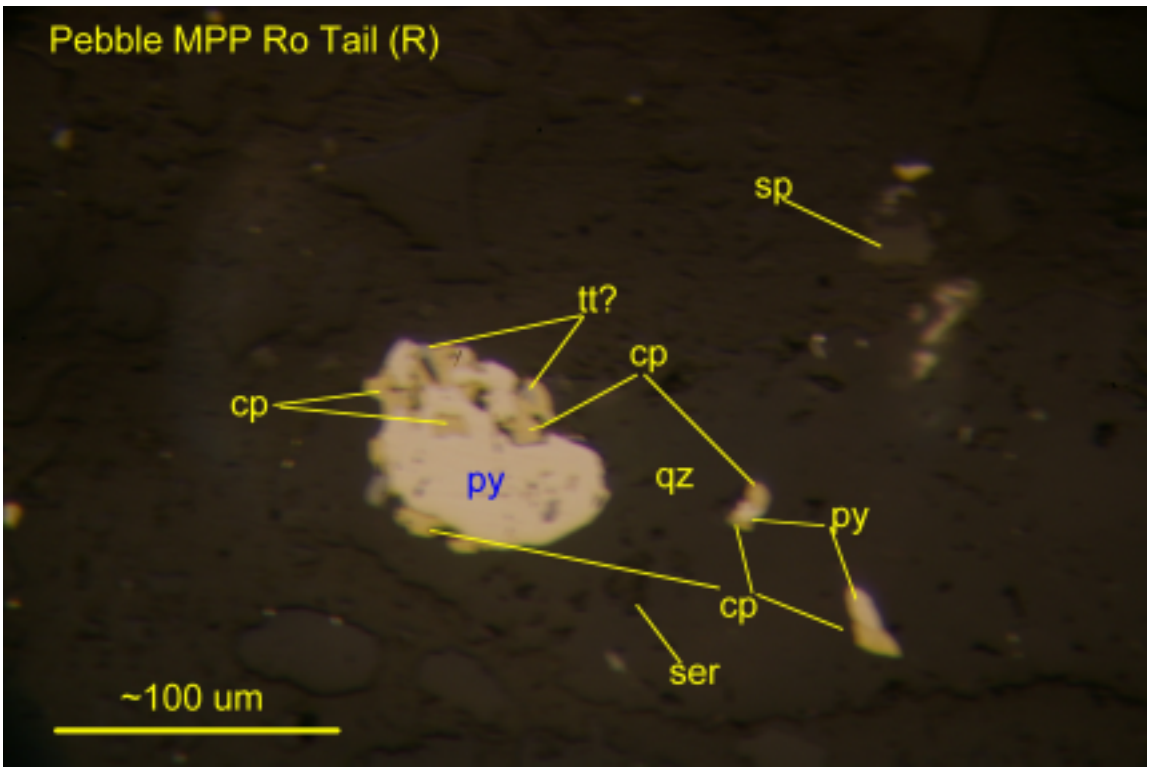
Sericite is common as mostly randomly oriented, matted subhedral flakes rarely over 30 um in diameter, typically replacing feldspar, or in aggregates with similar-sized, likely mostly secondary, biotite (euhedral to subhedral flakes with medium, slightly greenish-brown pleochroism); the latter may represent the sites of former mafic minerals, especially where associated with opaques (see below). Chlorite occurs as local relatively large (to 0.6 mm) irregular-shaped aggregates of very finely matted, randomly oriented flakes mostly<35 um in size with optical characteristics (weak green pleochroism, weakly length-slow, anomalous blue birefringence) suggestive of Fe:Fe+Mg, or F:M, ratio around 0.5 (?). Carbonate occurs mainly separated from the other minerals (rarely intergrown with quartz), forming sub/euhedral crystals or rhombic cleavage fragments up to about 0.2 mm in size that may be ankerite since there is no reaction to HCl in the powdered specimen.

Opaque minerals are mainly pyrite (sub/euhedra mostly <0.2 mm), with lesser chalcopyrite (subhedra to 0.1 mm); locally, pyrite contains rounded subhedral inclusions of chalcopyrite <25 um containing traces of a grey possible sulfosalt (tetrahedrite?) <10 um in size that would require SEM-EDS analysis to identify. Minor hematite (aggregates to 0.15 mm of interlocking subhedra <75 um, locally with inclusions <10 um in size of possible chalcopyrite?), ilmenite (tabular/acicular subhedra <0.1 mm long), and sphene (aggregates to 0.15 mm of rounded subhedra <20 um, locally containing variably abundant acicular rutile up to 30 um long) are present, rarely associated with apatite as rounded subhedra to 0.1 mm.

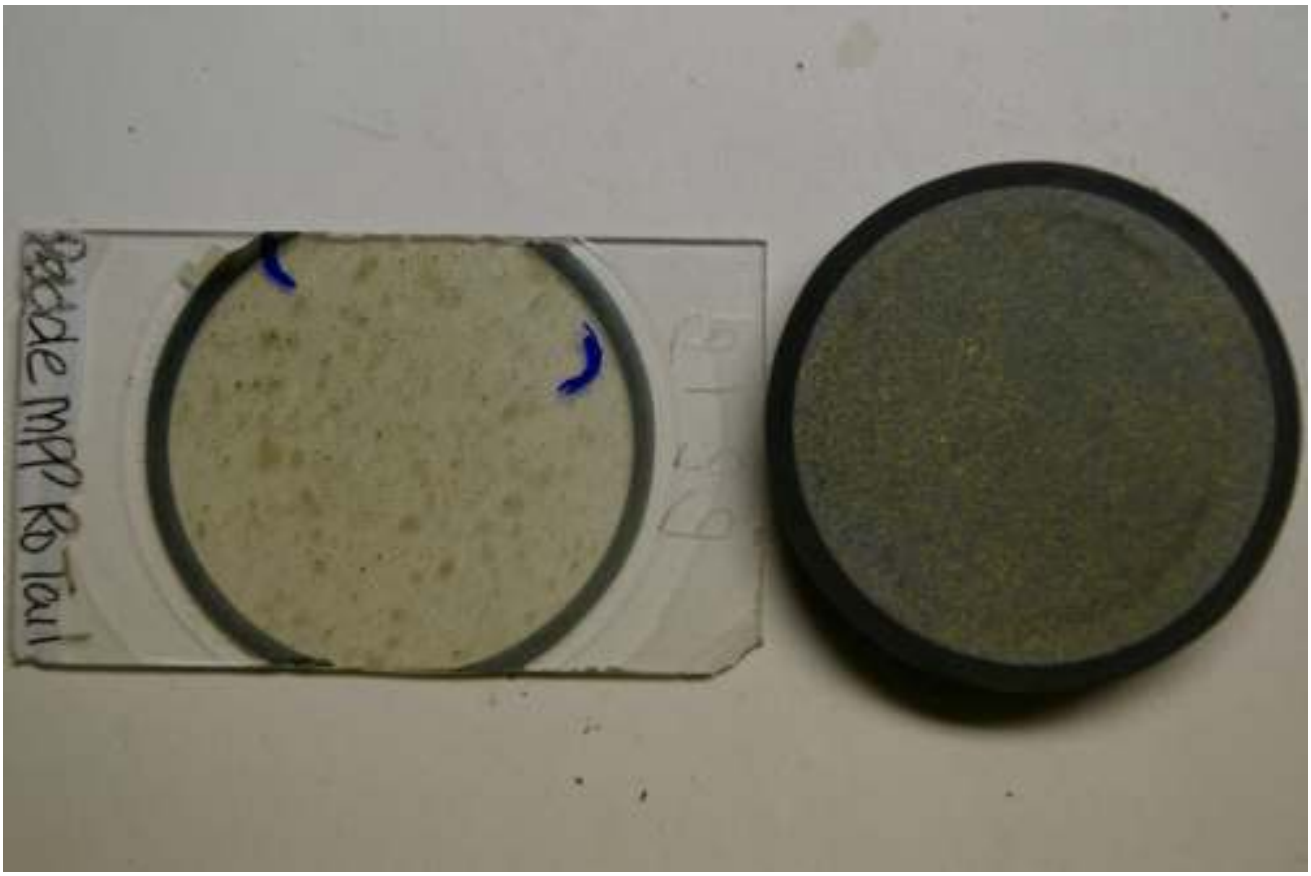
In summary, this appears to represent very finely ground quartz-Kspar-sericite-biotite-carbonate-minor chlorite-pyrite-trace chalcopyrite (possible inclusions of tetrahedrite?)-hematite-ilmenite-sphene/rutile, apatite.



Pebble MPP Ro Tail: Detailed view to show shards of quartz (qz), Kspar (Kf), rhomb-shaped carbonate (cb, possibly ankerite?), aggregates of sericite (ser) and secondary biotite (bi), hematite (hm) and ilmenite (il), plus abundant minute flakes of liberated sericite. Transmitted light, crossed polars, field of view 3.0 mm wide.



Pebble MPP Ro Tail(R):High magnification view showing pyrite (py) with inclusions of chalcopyrite (cp) that themselves contain traces of grey possible sulfosalt (tetrahedrite?), within rock chip composed mainly of (possibly secondary) quartz (qz) and minor sericite (ser), accessory sphene (sp). Reflected light, uncrossed polars, field of view ~440 um wide.



Overview of thin section and offcut (blue semi-circles mark photomicrograph locations).

Appendix 11D, Humidity Cell Test Data: Waste Rock

Key to abbreviations and acronyms used in this appendix

Abbreviation/acronym	**Explanation**
EC	Electrical conductivity
µS/cm	Micro-siemens per cm
mg/L	Milligrams per liter
$mgCaCO_3/L$	Milligrams calcium carbonate (equivalent) per liter
mL	Milliliters(s)
mV	Millivolt(s)
ORP	Oxidation-reduction potential

For chemical abbreviations see Appendix D of this environmental baseline document.

For rock type codes, and explanations, see Table 11-1.

11486-001 AT Comp -10 m HC 67 Ore

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Apr-08	0	750	520	7.63	420	950	<1	4.6	48.2	533	196	16.5	1.95	354	0.0221	0.00447	0.0067	0.0127	<0.0004	<0.001	0.054	<0.00045
16-Apr-08	7	500	435	7.45	395	393																
23-Apr-08	14	500	485	7.66	410	338	<1	4.63	53.9	252	130	<0.5	0.678	111	0.0131	0.00515	0.00449	0.0138	<0.0002	<0.0005	0.034	0.000169
30-Apr-08	21	500	465	7.62	390	346																
7-May-08	28	500	455	7.51	332	291	<1	4.63	31.1	205	124	<0.5	0.575	105	0.0106	0.00297	0.00248	0.0115	<0.0002	<0.0005	0.012	0.000128
14-May-08	35	500	445	7.48	282	315																
21-May-08	42	500	455	7.4	266	299	<1	4.89	27.1	185	130	<0.5	0.593	110	0.0075	0.00198	0.00104	0.00881	<0.0002	<0.0005	<0.01	0.000112
28-May-08	49	500	505		120	295																
4-Jun-08	56	500	400	7.58	398	267	<1	3.99	23.7	227	136	<0.5	0.77	123	0.0215	0.00166	0.00113	0.0108	<0.0002	<0.0005	<0.01	0.000074
11-Jun-08	63	500	445	7.57	348	196																
18-Jun-08	70	500	430	7.34	258	115	<1	4.78	10.6	93	60.5	<0.5	0.352	56.2	0.0133	0.00113	0.00059	0.00431	<0.0002	<0.0005	<0.01	0.000056
25-Jun-08	77	500	510	7.44	278	221																
2-Jul-08	84	500	360	7.24	349	204	<1	3.24	7.6	155	50.8	<0.5	0.487	92.9	0.0104	0.000947	0.00073	0.00645	<0.0002	<0.0005	<0.01	0.000101
9-Jul-08	91	500	415	7.11	288	195																
16-Jul-08	98	500	425	7.22	343	191	<1	3.6	8.2	132	88.1	<0.5	0.351	76.4	0.0082	0.00091	0.00088	0.0056	<0.0004	<0.001	<0.02	0.00012
23-Jul-08	105	500	445	7.19	354	226																
30-Jul-08	112	500	495	7.14	396	236	<1	3.13	13.2	151	110	<0.5	0.428	94.1	0.004	0.001	0.0005	0.00627	<0.0002	<0.0005	<0.01	0.000084
6-Aug-08	119	500	490	7.26	347	241																
13-Aug-08	126	500	465	7.22	275	162	<1	3.19	9.9	94	66.5	<0.5	0.369	56.7	0.0075	0.0009	0.00052	0.00465	<0.0002	<0.0005	<0.01	0.000108
20-Aug-08	133	500	470	7.4	234	265																
27-Aug-08	140	500	510	7.32	321	171	<1	3.88	24.7	110	75.8	<0.5	0.517	56.3	0.0047	0.00113	0.00035	0.00473	<0.0002	<0.0005	<0.01	0.000121
3-Sep-08	147	500	480	7.4	230	176																
10-Sep-08	154	500	500	7.33	234	182	<1	2.89	21.4	113	78.1	<0.5	0.517	63	0.0072	0.00118	0.00037	0.00453	<0.0002	<0.0005	<0.01	0.000115
17-Sep-08	161	500	490	7.38	240	189																
24-Sep-08	168	500	500	7.42	225	187	<1	3.54	22	119	81.7	<0.5	0.559	59.3	0.0047	0.00125	0.00027	0.00455	<0.0002	<0.0005	<0.01	0.000135
1-Oct-08	175	500	495	7.41	386	173																
8-Oct-08	182	500	500	7.37	313	166	<1	3.27	17.2	129	75.5	<0.5	0.594	54.1	0.008	0.00113	0.0003	0.00399	<0.0002	<0.0005	<0.01	0.000115
15-Oct-08	189	500	465	7.42	322	194																
22-Oct-08	196	500	510	7.27	377	132	<1	3.37	14.5	92.3	58.1	<0.5	0.497	45.2	0.0056	0.000958	0.00031	0.00364	<0.0002	<0.0005	<0.01	0.000107
29-Oct-08	203	500	480	7.21	428	147																
5-Nov-08	210	500	485	7.15	374	90	<1	3.48	13.6	54.6	38.7	<0.5	0.598	29.3	0.0138	0.000846	0.0002	0.00232	<0.0002	<0.0005	<0.01	0.000078
12-Nov-08	217	500	475	7.35	386	146																
19-Nov-08	224	500	415	7.35	383	123	<1	2.93	18	95.3	62.9	<0.5	0.617	48.4	0.0045	0.000996	0.00025	0.00361	<0.0002	<0.0005	<0.01	0.00011
26-Nov-08	231	500	485	7.22	368	123																
3-Dec-08	238	500	480	7.38	327	147	<1	2.93	22.2	91.5	65.2	<0.5	0.556	49.1	0.0038	0.001	0.00023	0.00352	<0.0002	<0.0005	<0.01	0.000116
10-Dec-08	245	500	470	7.4	276	133																
17-Dec-08	252	500	485	7.42	339	137				83.5	60.8	<0.5	0.638	44.2	0.0034	0.000942	0.00022	0.00337	<0.0002	<0.0005	<0.01	0.000099
24-Dec-08	259	500	475	7.57	263	158																
31-Dec-08	266	500	475	7.66	238	159	<1	9.63	28.9	107	78	<0.5	0.71	53.2	0.0038	0.00105	0.00024	0.00412	<0.0002	<0.0005	<0.01	0.000157
7-Jan-09	273	500	485	7.43	155	146																
14-Jan-09	280	500	435	7.38	339	173	<1	5.46	23.9	114	82.9	<0.5	0.732	59.7	0.0037	0.00107	0.00038	0.00428	<0.0002	<0.0005	<0.01	0.000178
21-Jan-09	287	500	465	7.14	386	146																
28-Jan-09	294	500	465	7.34	320	163	<1	6.08	17.8	108	75.6	<0.5	0.701	59.7	0.004	0.000892	0.00027	0.00367	<0.0002	<0.0005	<0.01	0.000144
4-Feb-09	301	500	460	7.34	321	210																
11-Feb-09	308	500	460	7.65	291	150	<1	6.04	20.9	101	65.9	<0.5	0.715	53.1	0.0035	0.000909	0.00028	0.0036	<0.0002	<0.0005	<0.01	0.000154
18-Feb-09	315	500	450	7.47	383	163																
25-Feb-09	322	500	485	7.52	407	147	<1	6.75	20.9	101	65.7	<0.5	0.702	51.4	0.0023	0.000889	0.00027	0.00315	<0.0002	<0.0005	<0.01	0.000159
4-Mar-09	329	500	485	7.27	210	150																
11-Mar-09	336	500	505	7.1	311	147	<1	5.77	23.6	79.3	68.2	<0.5	0.817	49.2	0.0034	0.000918	0.00026	0.0036	<0.0002	<0.0005	<0.01	0.000157
18-Mar-09	343	500	500	7.16	327	138																
25-Mar-09	350	500	475	7.27	338	164	<1	5.75	29.9	102	76.9	<0.5	0.923	50.8	0.0032	0.00107	0.00038	0.00421	<0.0002	<0.0005	<0.01	0.000196
1-Apr-09	357	500	510	7.13	325	125																
8-Apr-09	364	500	490	7.26	346	133	<1	4.46	23.7	90.5	61.7	<0.5	0.805	42.9	0.0021	0.000973	0.00027	0.00357	<0.0002	<0.0005	<0.01	0.000175
15-Apr-09	371	500	500	7.21	358	133																
22-Apr-09	378	500	490	7.36	362	149																
29-Apr-09	385	500	500																			
6-May-09	392	500	460	7.26	346	148	<1	4.46	24.9	94.8	66.3	<0.5	0.995	47.6	0.0035	0.000962	0.00031	0.00366	<0.0002	<0.0005	<0.01	0.000205
13-May-09	399	500	475																			
20-May-09	406	500	515	7.31	331	136																

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Apr-08	0	69.6	<0.001	0.00628	0.0228	<0.03	0.00057	5.48	0.13	<0.00001	0.177	0.0036	23.9	0.076	3.6	0.000021	111	0.00015	0.00021	0.0023	0.168
16-Apr-08	7																				
23-Apr-08	14	47.4	<0.0005	0.00296	0.0106	<0.03	0.000297	2.97	0.11	<0.00001	0.0574	0.00114	19.3	0.0061	4.29	<0.00001	7	0.000101	0.00021	0.00145	0.0789
30-Apr-08	21																				
7-May-08	28	44.4	<0.0005	0.00218	0.0138	<0.03	<0.00005	3.14	0.141	<0.00001	0.0313	0.00061	11.2	0.0036	2.43	<0.00001	<2	0.000063	0.00063	<0.0005	0.0609
14-May-08	35																				
21-May-08	42	48	<0.0005	0.0019	0.0143	<0.03	<0.00005	2.47	0.107	<0.00001	0.0257	0.00053	6.54	0.0026	2.08	<0.00001	<2	<0.00005	0.00069	<0.0005	0.0521
28-May-08	49																				
4-Jun-08	56	50.1	<0.0005	0.00101	0.00897	<0.03	<0.00005	2.6	0.104	<0.00001	0.0242	<0.0005	6.54	0.0032	1.98	<0.00001	<2	<0.00005	0.00044	<0.0005	0.0202
11-Jun-08	63																				
18-Jun-08	70	22.6	<0.0005	0.00058	0.0103	<0.03	0.000101	0.975	0.0552	0.000014	0.0146	0.00051	3.49	0.0018	1.09	<0.00001	<2	<0.00005	0.00047	<0.0005	0.0203
25-Jun-08	77																				
2-Jul-08	84	18	<0.0005	0.00052	0.0117	<0.03	0.00017	1.43	0.0573	<0.00001	0.0178	0.00052	4.51	0.0028	0.518	<0.00001	<2	<0.00005	0.00041	<0.0005	0.0197
9-Jul-08	91																				
16-Jul-08	98	33.1	<0.001	0.0007	0.0108	<0.03	<0.0001	1.31	0.0811	<0.00001	0.015	<0.001	3.49	0.0028	0.934	<0.00002	<2	<0.0001	0.00056	<0.001	0.0211
23-Jul-08	105																				
30-Jul-08	112	42	<0.0005	0.00084	0.0141	<0.03	<0.00005	1.3	0.0863	<0.00001	0.017	<0.0005	3.29	0.0024	1.21	<0.00001	<2	<0.00005	0.00042	<0.0005	0.0268
6-Aug-08	119																				
13-Aug-08	126	25.4	<0.0005	0.00075	0.0161	<0.03	0.00016	0.773	0.0774	<0.00001	0.0159	<0.0005	2.36	0.0019	1.03	<0.00001	<2	<0.00005	0.00036	<0.0005	0.0336
20-Aug-08	133																				
27-Aug-08	140	28.9	<0.0005	0.00096	0.0199	<0.03	0.000142	0.847	0.1	<0.00001	0.0194	<0.0005	2.51	0.0021	1.29	<0.00001	<2	<0.00005	0.00068	<0.0005	0.0315
3-Sep-08	147																				
10-Sep-08	154	29.8	<0.0005	0.00087	0.0165	<0.03	<0.00005	0.887	0.109	<0.00001	0.0226	<0.0005	2.7	0.0023	1.22	<0.00001	<2	<0.00005	0.00037	<0.0005	0.0273
17-Sep-08	161																				
24-Sep-08	168	31.4	<0.0005	0.00115	0.0215	<0.03	<0.00005	0.794	0.113	<0.00001	0.0229	<0.0005	2.49	0.0025	1.41	<0.00001	<2	<0.00005	0.00044	<0.0005	0.0348
1-Oct-08	175																				
8-Oct-08	182	29.2	<0.0005	0.00096	0.0196	<0.03	0.000057	0.647	0.116	<0.00001	0.0234	<0.0005	2.05	0.0024	1.22	<0.00001	<2	<0.00005	0.00036	<0.0005	0.0351
15-Oct-08	189																				
22-Oct-08	196	22.5	<0.0005	0.0008	0.0175	<0.03	<0.00005	0.492	0.0871	<0.00001	0.0222	<0.0005	1.63	0.002	1.03	<0.00001	<2	<0.00005	0.00049	<0.0005	0.0296
29-Oct-08	203																				
5-Nov-08	210	14.9	<0.0005	0.0005	0.0131	<0.03	<0.00005	0.343	0.0618	<0.00001	0.0157	<0.0005	1.45	0.0015	0.977	<0.00001	<2	<0.00005	0.00041	<0.0005	0.0164
12-Nov-08	217																				
19-Nov-08	224	24.5	<0.0005	0.00083	0.018	<0.03	<0.00005	0.433	0.0717	<0.00001	0.0234	<0.0005	1.56	0.002	1.06	<0.00001	<2	<0.00005	0.00047	<0.0005	0.0274
26-Nov-08	231																				
3-Dec-08	238	25.3	<0.0005	0.00095	0.0193	<0.03	<0.00005	0.469	0.0901	<0.00001	0.0228	<0.0005	1.57	0.0019	1.02	<0.00001	<2	<0.00005	0.00054	<0.0005	0.0318
10-Dec-08	245																				
17-Dec-08	252	23.7	<0.0005	0.00092	0.022	<0.03	0.000059	0.355	0.075	<0.00001	0.0204	<0.0005	1.43	0.002	1.05	<0.00001	<2	<0.00005	0.00034	<0.0005	0.034
24-Dec-08	259																				
31-Dec-08	266	30.4	<0.0005	0.0011	0.0248	<0.03	<0.00005	0.499	0.115	<0.00001	0.0269	<0.0005	1.58	0.0024	1.1	<0.00001	<2	<0.00005	0.00047	<0.0005	0.0424
7-Jan-09	273																				
14-Jan-09	280	32.3	<0.0005	0.00123	0.0255	<0.03		0.558	0.123	<0.00001	0.0314	<0.0005	1.53	0.0023	1.22	<0.00001	<2	<0.00005	0.00058	<0.0005	0.0426
21-Jan-09	287																				
28-Jan-09	294	29.4	<0.0005	0.00108	0.0196	<0.03	<0.00005	0.503	0.132	<0.00001	0.029	0.00053	1.32	0.0018	0.965	<0.00001	<2	<0.00005	0.00034	<0.0005	0.0398
4-Feb-09	301																				
11-Feb-09	308	25.6	<0.0005	0.00113	0.0213	<0.03	<0.00005	0.451	0.14	<0.00001	0.0306	<0.0005	1.29	0.002	0.95	<0.00001	<2	<0.00005	0.00049	<0.0005	0.0399
18-Feb-09	315																				
25-Feb-09	322	25.5	<0.0005	0.00105	0.0188	<0.03	<0.00005	0.462	0.137	<0.00001	0.0302	<0.0005	1.19	0.002	0.958	<0.00001	<2	<0.00005	0.00043	<0.0005	0.0386
4-Mar-09	329																				
11-Mar-09	336	26.7	<0.0005	0.00115	0.0265	<0.03	0.000057	0.391	0.115	<0.00001	0.0308	<0.0005	1.23	0.0021	1.08	<0.00001	<2	<0.00005	0.00086	<0.0005	0.0443
18-Mar-09	343																				
25-Mar-09	350	30.1	<0.0005	0.00142	0.0323	<0.03	<0.00005	0.44	0.133	<0.00001	0.035	0.00052	1.2	0.0022	1.2	<0.00001	<2	<0.00005	0.00061	<0.0005	0.049
1-Apr-09	357																				
8-Apr-09	364	24.1	<0.0005	0.00118	0.0256	<0.03	<0.00005	0.37	0.112	<0.00001	0.0278	<0.0005	1.18	0.0021	0.992	<0.00001	<2	<0.00005	0.00066	<0.0005	0.0464
15-Apr-09	371																				
22-Apr-09	378																				
29-Apr-09	385																				
6-May-09	392	25.9	<0.0005	0.00139	0.0259	<0.03	<0.00005	0.411	0.125	<0.00001	0.0318	0.0006	1.2	0.0021	1.14	<0.00001	<2	<0.00005	0.00043	<0.0005	0.0474
13-May-09	399																				
20-May-09	406																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
27-May-09	413	500	510																			
3-Jun-09	420	500	505	7.34	300	117	<1	3.91	22.6	71.1	62	<0.5	0.857	44.3	0.0033	0.000809	0.00026	0.00361	<0.0002	<0.0005	<0.01	0.000206
10-Jun-09	427	500	515																			
17-Jun-09	434	500	505	7.31	346	106																
24-Jun-09	441	500	500																			
1-Jul-09	448	500	505	7.25	297	97	<1	3.63	21.8	79	56.1	<0.5	0.84	38.4	0.008	0.000762	0.00024	0.00301	<0.0002	<0.0005	<0.01	0.000187
8-Jul-09	455	500	480																			
15-Jul-09	462	500	460	7.13	287	108																
22-Jul-09	469	500	505																			
29-Jul-09	476	500	505	7.21	299	111	<1	5.39	21.3	73.9	52.1	<0.5	0.848	36.4	0.0024	0.000652	0.00023	0.00287	<0.0002	<0.0005	<0.01	0.000199
5-Aug-09	483	500	495																			
12-Aug-09	490	500	495	6.99	330	111																
19-Aug-09	497	500	490																			
26-Aug-09	504	500	480	7.24	210	109	<1	4.32	16.9	66	50.6	<0.5	0.799	38.4	0.0033	0.000653	0.00034	0.00294	<0.0002	<0.0005	<0.01	0.000214
2-Sep-09	511	500	485																			
9-Sep-09	518	500	500	7.28	291	103																
16-Sep-09	525	500	495																			
23-Sep-09	532	500	490	7.19	301	104	<1	4.82	20.3	71	47.1	<0.5	0.768	33.4	0.0021	0.000516	0.00021	0.00259	<0.0002	<0.0005	<0.01	0.000207
30-Sep-09	539	500	490																			
7-Oct-09	546	500	460	7.1	260	100																
14-Oct-09	553	500	465																			
21-Oct-09	560	500	475	7.14	274	103	<1	4.36	13.9	68	47.4	<0.5	0.818	34.8	0.0049	0.000475	0.00017	0.00288	<0.0002	<0.0005	<0.01	0.000292
28-Oct-09	567	500	485																			
4-Nov-09	574	500	480	7.53	247	105																
11-Nov-09	581	500	495																			
18-Nov-09	588	500	500	7.73	278	103	<1	8.46	16.8	59	40	<0.5	0.796	29.4	0.0034	0.000498	0.00016	0.00259	<0.0002	<0.0005	<0.01	0.000273
25-Nov-09	595	500	490																			
2-Dec-09	602	500	475	7.52	303	91																
9-Dec-09	609	500	500																			
16-Dec-09	616	500	490	7.12	303	85	<1	4.82	12.9	53	35.7	<0.5	0.643	25.3	0.0027	0.000398	0.00031	0.00252	<0.0002	<0.0005	<0.01	0.000342
23-Dec-09	623	500	495																			
30-Dec-09	630	500	510	6.92	375	83																
6-Jan-10	637	500	495																			
13-Jan-10	644	500	490	6.94	292	88	<1	6.45	12	57	35.9	<0.5	0.622	25.3	0.002	0.000382	0.00012	0.00282	<0.0002	<0.0005	<0.01	0.00041
20-Jan-10	651	500	500																			
27-Jan-10	658	500	480	6.73	337	73																
3-Feb-10	665	500	470																			
10-Feb-10	672	500	495	6.61	275	88	<1	4.81	8.8	61	36.6	<0.5	0.669	30.5	0.0016	0.000321	0.00017	0.00288	<0.0002	<0.0005	<0.01	0.000484
17-Feb-10	679	500	490																			
24-Feb-10	686	500	460	6.49	267	90																
3-Mar-10	693	500	485																			
10-Mar-10	700	500	485	6.39	420	83	<1	5.16	5.7	49	35	<0.5	0.57	30	0.0014	0.000304	0.00012	0.00335	<0.0002	<0.0005	<0.01	0.00062
17-Mar-10	707	500	500																			
24-Mar-10	714	500	485	6.57	344	89																
31-Mar-10	721	500	500																			
7-Apr-10	728	500	475	6.43	344	84	<1	5.06	6.1	53	33.5	<0.5	0.604	28.9	0.0014	0.000266	0.00012	0.00337	<0.0002	<0.0005	<0.01	0.00073
14-Apr-10	735	500	495																			
21-Apr-10	742	500	490	6.44	287	89																
28-Apr-10	749	500	500																			
5-May-10	756	500	465	6.41	322	97	<1	5.83	6.7	63	42.1	<0.5	0.666	33.3	0.0021	0.000295	0.00014	0.00454	<0.0002	<0.0005	<0.01	0.000932
12-May-10	763	500	500																			
19-May-10	770	500	490	6.42	350	106																
26-May-10	777	500	480																			
2-Jun-10	784	500	495	6.24	344	82	<1	5.39	3.9	53	32.5	<0.5	0.481	29.3	0.0013	0.000273	0.00023	0.00662	<0.0002	<0.0005	<0.01	0.00105
9-Jun-10	791	500	495																			
16-Jun-10	798	500	485	6.43	325	86																
23-Jun-10	805	500	490																			
30-Jun-10	812	500	495	6.44	354	94	<1	6.22	5.9	54	39.9	<0.5	0.494	35.4	<0.001	0.000227	0.00013	0.00613	<0.0002	<0.0005	<0.01	0.00158
7-Jul-10	819	500	500																			
14-Jul-10	826	500	485	6.17	330	87																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
27-May-09	413																				
3-Jun-09	420	24.2	<0.0005	0.0013	0.0272	<0.03	0.000098	0.392	0.144	<0.00001	0.027	<0.0005	0.984	0.0023	0.985	<0.00001	<2	<0.00005	0.0005	<0.0005	0.0525
10-Jun-09	427																				
17-Jun-09	434																				
24-Jun-09	441																				
1-Jul-09	448	22	<0.0005	0.00127	0.0263	<0.03	<0.00005	0.299	0.0976	<0.00001	0.0237	<0.0005	0.803	0.0018	1.01	<0.00001	<2	<0.00005	0.00038	<0.0005	0.0545
8-Jul-09	455																				
15-Jul-09	462																				
22-Jul-09	469																				
29-Jul-09	476	20.4	<0.0005	0.00148	0.0288	<0.03	0.000063	0.307	0.137	<0.00001	0.0186	<0.0005	0.805	0.0017	0.968	<0.00001	<2	<0.00005	0.00045	<0.0005	0.0678
5-Aug-09	483																				
12-Aug-09	490																				
19-Aug-09	497																				
26-Aug-09	504	19.7	<0.0005	0.00154	0.0277	<0.03	<0.00005	0.325	0.131	<0.00001	0.0183	0.00061	0.805	0.0015	0.972	<0.00001	<2	<0.00005	0.0007	<0.0005	0.0653
2-Sep-09	511																				
9-Sep-09	518																				
16-Sep-09	525																				
23-Sep-09	532	18.4	<0.0005	0.00161	0.0303	<0.03	<0.00005	0.278	0.118	<0.00001	0.0152	0.00065	0.66	0.0014	1.02	0.00001	<2	<0.00005	0.00041	<0.0005	0.0767
30-Sep-09	539																				
7-Oct-09	546																				
14-Oct-09	553																				
21-Oct-09	560	18.5	<0.0005	0.00208	0.0423	<0.03		0.3	0.136	<0.00001	0.0143	0.00094	0.66	0.0013	0.981	<0.00001	<2	<0.00005	0.00059	<0.0005	0.117
28-Oct-09	567																				
4-Nov-09	574																				
11-Nov-09	581																				
18-Nov-09	588	15.6	<0.0005	0.002	0.0376	<0.03	<0.00005	0.249	0.124	<0.00001	0.0116	0.00096	0.648	0.0012	1.06	<0.00001	<2	<0.00005	0.00028	<0.0005	0.111
25-Nov-09	595																				
2-Dec-09	602																				
9-Dec-09	609																				
16-Dec-09	616	13.9	<0.0005	0.00229	0.0509	<0.03	<0.00005	0.236	0.13	<0.00001	0.00892	0.00095	0.618	0.0011	0.995	<0.00001	<2	<0.00005	0.00054	<0.0005	0.15
23-Dec-09	623																				
30-Dec-09	630																				
6-Jan-10	637																				
13-Jan-10	644	14	<0.0005	0.00255	0.0633	<0.03	0.000064	0.227	0.128	<0.00001	0.00819	0.00133	0.592	<0.001	1.02	<0.00001	<2	<0.00005	0.0005	<0.0005	0.191
20-Jan-10	651																				
27-Jan-10	658																				
3-Feb-10	665																				
10-Feb-10	672	14.3	<0.0005	0.00312	0.0898	<0.03	0.000065	0.229	0.137	<0.00001	0.00638	0.00161	0.574	<0.001	1.08	0.000014	<2	<0.00005	0.00041	<0.0005	0.258
17-Feb-10	679																				
24-Feb-10	686																				
3-Mar-10	693																				
10-Mar-10	700	13.6	<0.0005	0.00384	0.132	<0.03	0.000055	0.235	0.15	<0.00001	0.00596	0.00209	0.612	<0.001	1.01	0.000018	<2	<0.00005	0.00049	<0.0005	0.348
17-Mar-10	707																				
24-Mar-10	714																				
31-Mar-10	721																				
7-Apr-10	728	13	<0.0005	0.00416	0.173	<0.03	0.000112	0.228	0.152	<0.00001	0.00521	0.00252	0.631	<0.001	1.2	0.000014	<2	<0.00005	0.00039	<0.0005	0.422
14-Apr-10	735																				
21-Apr-10	742																				
28-Apr-10	749																				
5-May-10	756	16.4	<0.0005	0.00522	0.201	<0.03	0.000085	0.264	0.16	<0.00001	0.00604	0.00338	0.682	<0.001	1.62	<0.00001	<2	<0.00005	0.00027	<0.0005	0.58
12-May-10	763																				
19-May-10	770																				
26-May-10	777																				
2-Jun-10	784	12.6	<0.0005	0.0056	0.365	<0.03	0.000153	0.234	0.161	<0.00001	0.00387	0.00382	0.72	<0.001	1.43	0.000014	<2	<0.00005	0.00028	<0.0005	0.647
9-Jun-10	791																				
16-Jun-10	798																				
23-Jun-10	805																				
30-Jun-10	812	15.6	<0.0005	0.00717	0.653	<0.03	0.000218	0.262	0.186	<0.00001	0.00397	0.00574	0.709	0.0011	1.86	0.000016	<2	<0.00005	0.00023	<0.0005	0.971
7-Jul-10	819																				
14-Jul-10	826																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
21-Jul-10	833	500	475																			
28-Jul-10	840	500	510	5.98	318	84	<1	7.32	3.5	63	33	<0.5	0.443	32.8	<0.001	0.000166	0.00025	0.00593	<0.0002	<0.0005	<0.01	0.00153
4-Aug-10	847	500	470																			
11-Aug-10	854	500	495	6.14	315	78																
18-Aug-10	861	500	475																			
25-Aug-10	868	500	480	5.91	328	83	<1	8.97	2.7	53	31	<0.5	0.409	32.4	0.001	0.000136	0.00011	0.00604	<0.0002	<0.0005	<0.01	0.00154
1-Sep-10	875	500	495																			
8-Sep-10	882	500	500	5.81	363	79																
15-Sep-10	889	500	495																			
22-Sep-10	896	500	490	5.81	322	69	<1	8.34	1.6	60	30.8	<0.5	0.41	31.4	0.0013	0.000194	0.00015	0.00844	<0.0002	<0.0005	<0.01	0.0018
29-Sep-10	903	500	490																			
6-Oct-10	910	500	495	5.69	319	88																
13-Oct-10	917	500	495																			
20-Oct-10	924	500	485	5.71	325	81	<1	9.22	1.3	62	27.9	<0.5	0.328	30.4	0.0021	0.000164	0.0002	0.0086	<0.0002	<0.0005	<0.01	0.00189
27-Oct-10	931	500	500																			
3-Nov-10	938	500	495	5.58	284	88																
10-Nov-10	945	500	490																			
17-Nov-10	952	500	495	5.68	219	81	<1	10.6	1.7	61	27.8	<0.5	0.308	31.6	0.0026	0.000153	0.00018	0.00997	<0.0002	<0.0005	<0.01	0.00214
24-Nov-10	959	500	485																			
1-Dec-10	966	500	490	5.8	388	75																
8-Dec-10	973	500	500																			
15-Dec-10	980	500	500	5.9	372	76	<1	10.18	<1	44	24.9	<0.5	0.297	29	0.0036	0.000141	0.00016	0.0102	<0.0002	<0.0005	<0.01	0.00193
22-Dec-10	987	500	485																			
29-Dec-10	994	500	450	6.06	354	70																
5-Jan-11	1001	500	490																			
12-Jan-11	1008	500	490	6.01	365	63	<1	11.28	<1	45	21.8	<0.5	0.203	25.9	0.0059	0.000116	0.00013	0.00965	<0.0002	<0.0005	<0.01	0.00177
19-Jan-11	1015	500	485																			
26-Jan-11	1022	500	515	5.67	331	60																
2-Feb-11	1029	500	485																			
9-Feb-11	1036	500	500	5.01	390	52	<1	9.07	<1	39	18.5	<0.5	0.19	22.4	0.0047	0.000107	0.00015	0.00883	<0.0002	<0.0005	<0.01	0.00152
16-Feb-11	1043	500	485																			
23-Feb-11	1050	500	485	5.43	373	57																
2-Mar-11	1057	500	495																			
9-Mar-11	1064	500	495	5.21	370	61	<1	10.5	<1	39	17.2	<0.5	0.177	22.4	0.005	0.000082	0.00012	0.00834	<0.0002	<0.0005	<0.01	0.00146
16-Mar-11	1071	500	500																			
23-Mar-11	1078	500	490	5.16	342	62																
30-Mar-11	1085	500	495																			
6-Apr-11	1092	500	495	5.67	378	65	<1	11.3	<1	44	17.3	<0.5	0.178	23.5	0.0052	0.000099	0.00018	0.00949	<0.0002	<0.0005	<0.01	0.00152
13-Apr-11	1099	500	495																			
20-Apr-11	1106	500	505	5.37	326	63																
27-Apr-11	1113	500	475																			
4-May-11	1120	500	440	5.49	412	85	<1	14.37	<1	62	23.5	<0.5	0.197	31.4	0.0091	0.0001	0.00017	0.0128	<0.0002	<0.0005	<0.01	0.00217
11-May-11	1127	500	480																			
18-May-11	1134	500	485	5.41	431	87																
25-May-11	1141	500	480																			
1-Jun-11	1148	500	500	5.02	357	73	<1	15.69	<1	57	20	1.29	0.163	28.6	0.0101	0.000086	0.00021	0.0124	<0.0002	<0.0005	<0.01	0.00187
8-Jun-11	1155	500	480																			
15-Jun-11	1162	500	470	4.99	248	72																
22-Jun-11	1169	500	485																			
29-Jun-11	1176	500	500	5.18	236	74	<1	13.34	1	46	18.8	<0.5	0.187	28.7	0.0091	0.000078	0.00023	0.0131	<0.0002	<0.0005	<0.01	0.00182
6-Jul-11	1183	500	465																			
13-Jul-11	1190	500	500	5.03	366	66																
20-Jul-11	1197	500	495																			
27-Jul-11	1204	500	485	5	307	65	<1	12.27	<1	45	16.3	<0.5	0.185	25	0.0096	0.000075	0.00017	0.0118	<0.0002	<0.0005	<0.01	0.00164
3-Aug-11	1211	500	455																			
10-Aug-11	1218	500	395	5.23	280	81																
17-Aug-11	1225	500	470																			
24-Aug-11	1232	500	470	5.18	289	69	<1	14.59	1.6	49	17	<0.5	0.126	26.5	0.0122	0.000054	0.00019	0.0123	<0.0002	<0.0005	<0.01	0.00165
31-Aug-11	1239	500	460																			
7-Sep-11	1246	500	455	5.16	299	72																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-Jul-10	833																				
28-Jul-10	840	12.8	<0.0005	0.00679	0.775	<0.03	0.00028	0.23	0.155	<0.00001	0.00287	0.00554	0.633	<0.001	1.65	0.000018	<2	<0.00005	0.00021	<0.0005	0.991
4-Aug-10	847																				
11-Aug-10	854																				
18-Aug-10	861																				
25-Aug-10	868	12.1	<0.0005	0.00669	0.95	<0.03	0.000361	0.187	0.148	<0.00001	0.002	0.00616	0.559	<0.001	1.62	0.000013	<2	<0.00005	<0.0001	<0.0005	1.07
1-Sep-10	875																				
8-Sep-10	882																				
15-Sep-10	889																				
22-Sep-10	896	12	<0.0005	0.00762	1.33	<0.03	0.000415	0.218	0.159	<0.00001	0.00203	0.0075	0.814	<0.001	2	<0.00001	<2	<0.00005	0.00024	<0.0005	1.1
29-Sep-10	903																				
6-Oct-10	910																				
13-Oct-10	917																				
20-Oct-10	924	10.9	<0.0005	0.00792	1.7	<0.03	0.000703	0.193	0.154	<0.00001	0.00154	0.00851	0.702	<0.001	1.92	0.000017	<2	<0.00005	0.00023	<0.0005	1.27
27-Oct-10	931																				
3-Nov-10	938																				
10-Nov-10	945																				
17-Nov-10	952	10.8	<0.0005	0.00907	2.34	0.048	0.000794	0.202	0.162	<0.00001	0.00137	0.0106	0.77	<0.001	2.07	0.000015	<2	<0.00005	0.00024	<0.0005	1.4
24-Nov-10	959																				
1-Dec-10	966																				
8-Dec-10	973																				
15-Dec-10	980	9.67	<0.0005	0.00896	2.45	<0.03	0.00118	0.179	0.153	<0.00001	0.00111	0.0101	0.743	<0.001	1.92	0.000019	<2	<0.00005	0.00028	<0.0005	1.22
22-Dec-10	987																				
29-Dec-10	994																				
5-Jan-11	1001																				
12-Jan-11	1008	8.48	<0.0005	0.00768	2.59	<0.03	0.00126	0.148	0.126	<0.00001	0.000926	0.00938	0.608	<0.001	1.77	0.000014	<2	<0.00005	0.00028	<0.0005	1.14
19-Jan-11	1015																				
26-Jan-11	1022																				
2-Feb-11	1029																				
9-Feb-11	1036	7.18	<0.0005	0.0069	2.47	<0.03	0.00141	0.125	0.108	<0.00001	0.000671	0.00891	0.545	<0.001	1.44	0.000013	<2	<0.00005	0.00019	<0.0005	1.01
16-Feb-11	1043																				
23-Feb-11	1050																				
2-Mar-11	1057																				
9-Mar-11	1064	6.7	<0.0005	0.0068	2.61	<0.03	0.00128	0.117	0.103	<0.00001	0.000589	0.00871	0.493	<0.001	1.37	0.000016	<2	<0.00005	0.00028	<0.0005	0.951
16-Mar-11	1071																				
23-Mar-11	1078																				
30-Mar-11	1085																				
6-Apr-11	1092	6.75	<0.0005	0.00718	2.92	<0.03	0.00141	0.121	0.105	<0.00001	0.00055	0.00956	0.514	<0.001	1.45	0.000017	<2	<0.00005	0.00029	<0.0005	0.976
13-Apr-11	1099																				
20-Apr-11	1106																				
27-Apr-11	1113																				
4-May-11	1120	9.17	<0.0005	0.0101	4.27	<0.03	0.00201	0.156	0.135	<0.00001	0.000665	0.0136	0.56	<0.001	1.67	0.000027	<2	<0.00005	0.00015	<0.0005	1.31
11-May-11	1127																				
18-May-11	1134																				
25-May-11	1141																				
1-Jun-11	1148	7.76	<0.0005	0.00915	4.36	<0.03	0.00169	0.144	0.123	<0.00001	0.000472	0.0126	0.596	<0.001	1.8	0.000021	<2	<0.00005	0.00013	<0.0005	1.22
8-Jun-11	1155																				
15-Jun-11	1162																				
22-Jun-11	1169																				
29-Jun-11	1176	7.3	<0.0005	0.00931	4.63	<0.03	0.00223	0.131	0.115	<0.00001	0.00043	0.0129	0.574	0.001	1.79	0.000019	<2	<0.00005	0.0002	<0.0005	1.26
6-Jul-11	1183																				
13-Jul-11	1190																				
20-Jul-11	1197																				
27-Jul-11	1204	6.34	<0.0005	0.00843	4.37	<0.03		0.115	0.101	<0.00001	0.000394	0.0121	0.57	<0.001	1.73	0.000017	<2	<0.00005	0.00013	<0.0005	1.11
3-Aug-11	1211																				
10-Aug-11	1218																				
17-Aug-11	1225																				
24-Aug-11	1232	6.62	<0.0005	0.00914	5.25	0.039	0.0026	0.123	0.102	<0.00001	0.000308	0.0132	0.482	0.0011	1.41	0.000017	<2	<0.00005	0.00021	<0.0005	1.05
31-Aug-11	1239																				
7-Sep-11	1246																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
14-Sep-11	1253	500	455																			
21-Sep-11	1260	500	475	5.3	299	67	<1	14.32	1.4	44	16.1	<0.5	0.13	26.3	0.0157	0.000057	0.00021	0.0125	<0.0002	<0.0005	<0.01	0.00169
28-Sep-11	1267	500	465																			
5-Oct-11	1274	500	460	5.29	335	68																
12-Oct-11	1281	500	465																			
19-Oct-11	1288	500	495	5.59	336	61	<1	10.85	1	33	14	<0.5	0.122	23.4	0.0136	0.000063	0.00032	0.0117	<0.0002	<0.0005	<0.01	0.00148
26-Oct-11	1295	500	470																			
2-Nov-11	1302	500	475	5.48	340	63																
9-Nov-11	1309	500	480																			
16-Nov-11	1316	500	470	5.27	336	65	<1	13.91	1.1	38	14.7	<0.5	0.143	25	0.0165	0.000069	0.00037	0.0118	<0.0002	<0.0005	<0.01	0.00152
23-Nov-11	1323	500	460																			
30-Nov-11	1330	500	495	5.36	383	52																
7-Dec-11	1337	500	480																			
14-Dec-11	1344	500	495	5.12	360	52	<1	13.07	<1	33	11.2	<0.5	0.11	20	0.0155	0.000051	0.00019	0.01	<0.0002	<0.0005	<0.01	0.00122
21-Dec-11	1351	500	485																			
28-Dec-11	1358	500	480	5.27	369	58																
4-Jan-12	1365	500	485																			
11-Jan-12	1372	500	470	5.13	332	55	<1	10.88	<1	57	11.3	<0.5	0.114	20.4	0.0167	0.000054	0.00017	0.0102	<0.0002	<0.0005	<0.01	0.00125
18-Jan-12	1379	500	480																			
25-Jan-12	1386	500	465	5.22	414	50																
1-Feb-12	1393	500	470																			
8-Feb-12	1400	500	480	5.37	404	50	<1	9.89	1.5	32	9.61	<0.5	0.092	18.6	0.0137	0.000051	0.00013	0.00932	<0.0002	<0.0005	<0.01	0.00111
15-Feb-12	1407	500	470																			
22-Feb-12	1414	500	465	5.21	412	58																
29-Feb-12	1421	500	475																			
7-Mar-12	1428	500	470	5.38	466	64	<1	17.26	1.6	44	12.6	<0.5	0.126	24.1	0.0214	0.000054	0.0002	0.0114	<0.0002	<0.0005	<0.01	0.00138
14-Mar-12	1435	500	475																			
21-Mar-12	1442	500	460	5.22	401	59																
28-Mar-12	1449	500	450																			
4-Apr-12	1456	500	480	5.04	440	56	<1	13.98	<1	34	10.6	<0.5	0.098	20.7	0.0199	0.000055	0.00019	0.0101	0.00021	<0.0005	<0.01	0.00122
11-Apr-12	1463	500	450																			
18-Apr-12	1470	500	485	5.13	426	62																
25-Apr-12	1477	500	480																			
2-May-12	1484	500	490	5.25	434	55	<1	14.52	1.4	40	9.66	<0.5	0.101	19.4	0.0201	<0.00005	0.00016	0.0101	<0.0002	<0.0005	<0.01	0.00115
9-May-12	1491	500	440																			
16-May-12	1498	500	470	5.1	375	59																
23-May-12	1505	500	460																			
30-May-12	1512	500	465	5.31	388	65	<1	16.34	1	46	10.9	<0.5	0.094	22.5	0.0217	<0.00005	0.0002	0.0111	<0.0002	<0.0005	<0.01	0.0013
6-Jun-12	1519	500	475																			
13-Jun-12	1526	500	470	5.15	486	67																
20-Jun-12	1533	500	460																			
27-Jun-12	1540	500	460	5.09	463	72	<1	18.49	<1	60	12.2	<0.5	0.091	24.9	0.032	0.000073	0.0003	0.0133	0.00026	<0.0005	<0.01	0.00153
4-Jul-12	1547	500	465																			
11-Jul-12	1554	500	475	4.81	479	78																
18-Jul-12	1561	500	490																			
25-Jul-12	1568	500	465	5.27	442	57	<1	13.63	<1	39	10.1	<0.5	0.074	20.5	0.0289	<0.00005	0.00027	0.0141	<0.0002	<0.0005	0.01	0.0012
1-Aug-12	1575	500	465																			
8-Aug-12	1582	500	460	5.06	422	84																
15-Aug-12	1589	500	455																			
22-Aug-12	1596	500	465	5.16	381	80	<1	21.05	1.2	56	12.6	<5	<0.2		0.0367	<0.00005	0.00025	0.0137	0.00026	<0.0005	<0.01	0.00159
29-Aug-12	1603	500	480																			
5-Sep-12	1610	500	485	5.06	449	78																
12-Sep-12	1617	500	465																			
19-Sep-12	1624	500	490	5.08	416	70	<1	17.23	<1	51	10.7	<0.5	0.081	24.5	0.0347	<0.00005	0.00019	0.013	0.00025	<0.0005	<0.01	0.00135
26-Sep-12	1631	500	490																			
3-Oct-12	1638	500	470	5.11	437	77																
10-Oct-12	1645	500	485																			
17-Oct-12	1652	500	450	4.98	499	66	<1	17.46	<1	43	9.32	<0.5	0.091	24	0.0355	<0.00005	0.00022	0.0117	0.00023	<0.0005	<0.01	0.00122
24-Oct-12	1659	500	500																			
31-Oct-12	1666	500	490	5.08	421	68																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
14-Sep-11	1253																				
21-Sep-11	1260	6.25	<0.0005	0.00935	5.36	<0.03	0.00196	0.115	0.1	<0.00001	0.000276	0.0141	0.505	0.0013	1.5	0.000018	<2	<0.00005	0.00026	<0.0005	1.1
28-Sep-11	1267																				
5-Oct-11	1274																				
12-Oct-11	1281																				
19-Oct-11	1288	5.46	<0.0005	0.00853	5.05	<0.03	0.00126	0.104	0.0869	<0.00001	0.000269	0.0131	0.495	0.0013	1.46	0.000017	<2	<0.00005	0.00017	<0.0005	0.985
26-Oct-11	1295																				
2-Nov-11	1302																				
9-Nov-11	1309																				
16-Nov-11	1316	5.72	<0.0005	0.00891	5.98	<0.03	0.00147	0.107	0.0869	<0.00001	0.000252	0.0135	0.521	0.0013	1.58	0.000017	<2	<0.00005	0.00015	<0.0005	0.984
23-Nov-11	1323																				
30-Nov-11	1330																				
7-Dec-11	1337																				
14-Dec-11	1344	4.36	<0.0005	0.00753	4.66	<0.03	0.00124	0.0867	0.0683	<0.00001	0.000221	0.012	1.59	0.0013	1.29	0.00155	<2	<0.00005	0.00014	<0.0005	0.897
21-Dec-11	1351																				
28-Dec-11	1358																				
4-Jan-12	1365																				
11-Jan-12	1372	4.37	0.00051	0.00775	4.72	<0.03	0.00139	0.0828	0.0687	<0.00001	0.000205	0.0123	0.44	0.0012	1.44	0.000016	<2	<0.00005	0.00013	<0.0005	0.858
18-Jan-12	1379																				
25-Jan-12	1386																				
1-Feb-12	1393																				
8-Feb-12	1400	3.72	<0.0005	0.00677	4.21	<0.03	0.0012	0.077	0.0588	<0.00001	0.000207	0.0109	0.399	0.0011	1.22	0.000022	<2	<0.00005	0.00016	<0.0005	0.784
15-Feb-12	1407																				
22-Feb-12	1414																				
29-Feb-12	1421																				
7-Mar-12	1428	4.88	<0.0005	0.00893	5.56	<0.03	0.0014	0.0952	0.0755	<0.00001	0.000209	0.0146	0.444	0.0015	1.52	0.000018	<2	<0.00005	0.00014	<0.0005	1.02
14-Mar-12	1435																				
21-Mar-12	1442																				
28-Mar-12	1449																				
4-Apr-12	1456	4.1	<0.0005	0.008	5.3	<0.03	0.00119	0.0922	0.0668	<0.00001	0.000186	0.013	0.471	0.0014	1.38	0.000013	<2	<0.00005	0.00013	<0.0005	0.962
11-Apr-12	1463																				
18-Apr-12	1470																				
25-Apr-12	1477																				
2-May-12	1484	3.73	<0.0005	0.0078	5.18	<0.03	0.00299	0.0841	0.0602	<0.00001	0.00038	0.0131	0.432	0.0015	1.31	0.000019	<2	<0.00005	0.00014	<0.0005	0.859
9-May-12	1491																				
16-May-12	1498																				
23-May-12	1505																				
30-May-12	1512	4.22	<0.0005	0.009	5.98	<0.03	0.0012	0.0918	0.0692	<0.00001	0.000152	0.0151	0.426	0.0017	1.36	0.000021	<2	<0.00005	0.00011	<0.0005	0.957
6-Jun-12	1519																				
13-Jun-12	1526																				
20-Jun-12	1533																				
27-Jun-12	1540	4.72	<0.0005	0.0104	7.27	<0.03	0.00203	0.105	0.0769	<0.00001	0.00045	0.0172	0.559	0.002	1.75	0.000023	<2	<0.00005	0.00011	<0.0005	1.11
4-Jul-12	1547																				
11-Jul-12	1554																				
18-Jul-12	1561																				
25-Jul-12	1568	3.91	<0.0005	0.00893	6.33	<0.03	0.00136	0.0921	0.0642	<0.00001	0.000201	0.0156	0.446	0.0018	1.33	0.000045	<2	<0.00005	0.00025	<0.0005	0.962
1-Aug-12	1575																				
8-Aug-12	1582																				
15-Aug-12	1589																				
22-Aug-12	1596	4.86	<0.0005	0.0119	8.71	<0.03	0.00149	0.117	0.0796	<0.00001	0.000132	0.0207	0.46	0.0026	1.55	0.000019	<2	<0.00005	0.00011	<0.0005	1.21
29-Aug-12	1603																				
5-Sep-12	1610																				
12-Sep-12	1617																				
19-Sep-12	1624	4.13	<0.0005	0.0107	7.31	<0.03	0.00141	0.102	0.0686	<0.00001	0.000146	0.0185	0.475	0.0023	1.39	0.000019	<2	<0.00005	0.00013	<0.0005	1.06
26-Sep-12	1631																				
3-Oct-12	1638																				
10-Oct-12	1645																				
17-Oct-12	1652	3.58	<0.0005	0.0099	7.36	<0.03	0.00138	0.0927	0.0612	<0.00001	0.000122	0.0174	0.428	0.0023	1.3	0.000023	<2	<0.00005	<0.0001	<0.0005	0.986
24-Oct-12	1659																				
31-Oct-12	1666																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
7-Nov-12	1673	500	490																			
14-Nov-12	1680	500	475	5.05	439	72	<1	21.71	<1	39	9.81	<0.5	0.087	25.2	0.0392	<0.00005	0.00021	0.0127	0.00026	<0.0005	<0.01	0.00131
21-Nov-12	1687	500	455																			
28-Nov-12	1694	500	480	5.31	435	58																
5-Dec-12	1701	500	450																			
12-Dec-12	1708	500	470	5.01	445	63	<1	15.45	<1	42	7.58	<0.5	0.072	18.6	0.0312	<0.00005	0.00017	0.00986	0.0002	<0.0005	<0.01	0.000943
19-Dec-12	1715	500	440																			
26-Dec-12	1722	500	470	5.3	474	64																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
1-Nov-05	0	2000	1760	7.07	318	2710	<1	7.75	18.3	2580	1690	<5	<0.2	1830	<0.005	0.00561	<0.0005	0.0457	<0.001	<0.0025	0.176	<0.00025
8-Nov-05	7	2000	2015	6.6	419	1704																
15-Nov-05	14	2000	2035	7.6	297	1192	<1	4	32.8	890	645	<0.5	0.261	575	0.0026	0.00227	0.00026	0.0228	<0.0004	<0.001	0.071	<0.0001
22-Nov-05	21	2000	2010	7.71	372	860																
29-Nov-05	28	2000	1905	7.65	345	660	<1	3	42.5	416	291	<0.5	0.249	264	0.0033	0.00451	0.00013	0.0217	<0.0002	<0.0005	0.035	<0.00005
6-Dec-05	35	2000	1960	7.77	398	507																
13-Dec-05	42	2000	1925	7.72	413	419	<1	3.75	56.5	299	233	<0.5	0.197	176	0.0027	0.00442	0.00011	0.0286	<0.0002	<0.0005	0.026	<0.00005
20-Dec-05	49	2000	1980	7.62	445	281																
27-Dec-05	56	2000	1965	7.6	433	291	<1	3.5	35.8	186	143	<0.5	0.112	110	0.0029	0.00284	<0.0001	0.0126	<0.0002	<0.0005	0.013	<0.00005
3-Jan-06	63	2000	2040	7.63	466	318																
10-Jan-06	70	2000	2005	7.62	461	316	<1	3	46.8	182	135	<0.5	0.118	99.1	0.0036	0.00263	<0.0001	0.0102	<0.0002	<0.0005	0.013	<0.00005
17-Jan-06	77	2000	2080	7.66	408	233																
24-Jan-06	84	2000	2055	7.78	405	347	<1	4	53	206	166	<0.5	0.141	117	0.0089	0.00323	<0.0001	0.0171	<0.0002	<0.0005	0.017	<0.00005
31-Jan-06	91	2000	2140	7.48	385	346																
7-Feb-06	98	2000	2175	7.77	389	290	<1	2	55.5	164	134	<0.5	0.143	89.2	0.0036	0.00301	<0.0001	0.0109	<0.0002	<0.0005	0.017	<0.00005
14-Feb-06	105	2000	2460	7.62	392	244																
21-Feb-06	112	2000	1910	7.76	411	287	<1	3	70	153	156	<0.5	0.109	74.9	0.003	0.00351	<0.0001	0.0095	<0.0002	<0.0005	0.016	<0.00005
28-Feb-06	119	2000	1970	7.93	439	303																
7-Mar-06	126	2000	1970	8.06	418	357	<1	2	86.5	194	178	<0.5	0.128	83.4	0.0033	0.00545	<0.0001	0.015	<0.0002	<0.0005	0.019	<0.00005
14-Mar-06	133	2000	1995	8.01	366	301																
21-Mar-06	140	2000	2040	7.82	395	246	<1	3	61.5	126	105	<0.5	0.09	53.2	0.0023	0.00264	<0.0001	0.0106	<0.0002	<0.0005	0.013	<0.00005
28-Mar-06	147	2000	1950	7.72	356	206																
4-Apr-06	154	2000	2030	8.07	380	304	<1	1.5	87.5	166	49.9	<0.5	0.123	70.5	0.0019	0.00354	<0.0001	0.0106	<0.0002	<0.0005	0.019	<0.00005
11-Apr-06	161	2000	2045	7.61	410	159																
18-Apr-06	168	2000	2035	7.86	406	230	<1	2	60.8	118	101	<0.5	0.075	50.6	0.0113	0.00298	<0.0001	0.00811	<0.0002	<0.0005	0.015	<0.00005
25-Apr-06	175	2000	1970	8.08	398	244																
2-May-06	182	2000	2005	7.97	258	274	<1	2.50	75.9	164	149	<0.5	0.08	66	0.0023	0.00324	<0.0001	0.0101	<0.0002	<0.0005	0.014	<0.00005
9-May-06	189	2000	1950	7.86	227	199																
16-May-06	196	2000	1970	8.11	242	398	<1	3.05	88.1	236	192	<0.5	0.132	118	0.0019	0.00282	<0.0001	0.0135	<0.0002	<0.0005	0.023	<0.00005
23-May-06	203	2000	1975	8.02	194	338																
30-May-06	210	2000	2020	8.12	285	314	<1	2.41	101.6	176	152	<0.5	0.14	62.5	0.0115	0.00322	<0.0001	0.00951	<0.0002	<0.0005	0.023	<0.00005
6-Jun-06	217	2000	1970	8.05	240	289																
13-Jun-06	224	2000	2015	8.09	261	323	<1	2.48	105.3	171	164	<0.5	0.094	62.8	0.0026	0.00353	<0.0001	0.0113	<0.0002	<0.0005	0.02	<0.00005
20-Jun-06	231	2000	880	8	226	425																
27-Jun-06	238	2000	2010	8.29	297	385	<1	1.70	142	215	214	<0.5	0.108	71.9	0.0027	0.00262	<0.0001	0.0111	<0.0002	<0.0005	0.028	<0.00005
4-Jul-06	245	2000	1945	8.29	161	320																
11-Jul-06	252	2000	1920	8.2	299	350	<1	2.00	134.5	188	197	<0.5	0.103	56.5	0.0029	0.00306	<0.0001	0.0121	<0.0002	<0.0005	0.026	<0.00005
18-Jul-06	259	2000	2030	8.19	199	325																
25-Jul-06	266	2000	2020	8.04	328	315	<1	3.99	120.3	185	170	<0.5	0.094	50.6	0.0026	0.00206	<0.0001	0.00979	<0.0002	<0.0005	0.021	<0.00005
1-Aug-06	273	2000	1985	8.1	258	313																
8-Aug-06	280	2000	2010	7.85	300	311	<1	4.32	108.9	170	162	<0.5	0.073	54.3	0.0034	0.00154	<0.0001	0.00822	<0.0002	<0.0005	0.017	<0.00005
15-Aug-06	287	2000	2020	8.01	211	290																
22-Aug-06	294	2000	1935	8.11	323	337	<1	3.52	143.3	224	201	<0.5	0.093	55.9	0.0017	0.0019	<0.0001	0.00963	<0.0005	<0.0005	0.02	<0.00005
29-Aug-06	301	2000	2015	7.82	206	259																
5-Sep-06	308	2000	2025	8.03	315	299	<1	3.37	103.4	162	159	<0.5	0.087	54.8	0.0029	0.00122	<0.0001	0.00642	<0.0002	<0.0005	0.017	<0.00005
12-Sep-06	315	2000	2055	8.09	269	310																
19-Sep-06	322	2000	2100	8.08	318	305	<1	1.28	115	158	159	<0.5	0.081	49	0.0022	0.00114	<0.0001	0.00768	<0.0002	<0.0005	0.018	<0.00005
26-Sep-06	329	2000	1985	7.98	240	296																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
7-Nov-12	1673																				
14-Nov-12	1680	3.76	<0.0005	0.0111	7.98	<0.03	0.0017	0.104	0.0647	<0.00001	0.000105	0.0197	0.495	0.0027	1.36	0.000027	<2	<0.00005	0.0001	<0.0005	1.09
21-Nov-12	1687																				
28-Nov-12	1694																				
5-Dec-12	1701																				
12-Dec-12	1708	2.9	<0.0005	0.00832	6.54	<0.03	0.00107	0.0812	0.0501	<0.00001	0.000108	0.0146	0.373	0.002	1.05	0.000018	<2	<0.00005	0.00028	<0.0005	0.809
19-Dec-12	1715																				
26-Dec-12	1722																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
1-Nov-05	0	228	<0.0025	0.00128	0.0256	0.047	<0.00025	272	1	<0.00001	<0.00025	0.0073	5.61	0.392	0.538	<0.00005	46.1	0.00066	<0.0005	<0.0025	0.049
8-Nov-05	7																				
15-Nov-05	14	96.1	<0.001	<0.0002	0.00768	<0.03	<0.0001	98.3	0.144	<0.00001	<0.0001	0.0013	2.12	0.126	0.295	<0.00002	8.6	0.00027	<0.0002	<0.001	0.0101
22-Nov-05	21																				
29-Nov-05	28	43.3	<0.0005	<0.0001	0.00686	<0.03	<0.00005	44.4	0.0174	<0.00001	0.000353	<0.0005	1.27	0.0475	0.172	<0.00001	<2	0.000156	<0.0001	<0.0005	0.0037
6-Dec-05	35																				
13-Dec-05	42	33.5	<0.0005	<0.0001	0.00297	<0.03	<0.00005	36.2	0.0148	<0.00001	0.000098	<0.0005	1.07	0.0328	0.175	<0.00001	<2	0.000149	<0.0001	<0.0005	0.0038
20-Dec-05	49																				
27-Dec-05	56	19.6	<0.0005	<0.0001	0.00163	<0.03	<0.00005	22.8	0.00669	<0.00001	0.000091	0.00075	0.662	0.017	0.128	<0.00001	<2	0.000075	<0.0001	<0.0005	0.0023
3-Jan-06	63																				
10-Jan-06	70	16.7	<0.0005	<0.0001	0.00125	<0.03	<0.00005	22.7	0.00535	<0.00001	0.000109	<0.0005	0.617	0.0155	0.121	<0.00001	<2	0.00009	<0.0001	<0.0005	0.0014
17-Jan-06	77																				
24-Jan-06	84	20.1	<0.0005	<0.0001	0.00368	<0.03	<0.00005	28	0.00456	<0.00001	0.000243	<0.0005	0.768	0.0194	0.122	<0.00001	<2	0.000112	<0.0001	<0.0005	0.0023
31-Jan-06	91																				
7-Feb-06	98	16.5	<0.0005	<0.0001	0.00314	<0.03	<0.00005	22.5	0.00347	<0.00001	0.000281	<0.0005	0.712	0.0131	0.111	<0.00001	<2	0.000111	<0.0001	<0.0005	0.0016
14-Feb-06	105																				
21-Feb-06	112	15.4	<0.0005	<0.0001	0.00154	<0.03	<0.00005	28.5	0.00357	<0.00001	0.000191	<0.0005	0.618	0.0126	0.116	<0.00002	<2	0.0001	<0.0001	<0.0005	<0.001
28-Feb-06	119																				
7-Mar-06	126	18.6	<0.0005	<0.0001	0.00407	<0.03	0.000071	31.8	0.00537	<0.00001	0.000269	<0.0005	0.833	0.0175	0.136	<0.00001	<2	0.000135	0.00012	<0.0005	0.0015
14-Mar-06	133																				
21-Mar-06	140	11.5	<0.0005	<0.0001	0.00834	<0.03	0.000053	18.5	0.00444	<0.00001	0.000135	<0.0005	0.533	0.0096	0.122	<0.00001	<2	0.000091	<0.0001	<0.0005	0.0011
28-Mar-06	147																				
4-Apr-06	154	16.2	<0.0005	<0.0001	0.00534	<0.03	<0.00005	29.1	0.00617	<0.00001	0.000196	<0.0005	0.806	0.0125	0.133	<0.00001	<2	0.000126	0.00023	<0.0005	0.0011
11-Apr-06	161																				
18-Apr-06	168	10.4	<0.0005	<0.0001	0.0419	<0.03	0.00108	18.3	0.00472	<0.00001	0.000152	<0.0005	0.467	0.0086	0.088	0.000012	<2	0.000073	<0.0001	<0.0005	
25-Apr-06	175																				
2-May-06	182	12.9	<0.0005	<0.0001	0.00285	<0.03	<0.00005	28.2	0.00591	<0.00001	0.000177	<0.0005	0.602	0.0107	0.094	<0.00001	<2	0.000095	<0.0001	<0.0005	0.0014
9-May-06	189																				
16-May-06	196	18.2	<0.0005	<0.0001	0.00136	<0.03	<0.00005	35.6	0.00442	<0.00001	0.000375	<0.0005	0.87	0.0173	0.099	<0.00001	<2	0.000157	<0.0001	<0.0005	<0.001
23-May-06	203																				
30-May-06	210	14.8	<0.0005	<0.0001	0.0029	<0.03	<0.00005	28.1	0.003	<0.00001	0.000339	<0.0005	0.863	0.01	0.137	<0.00001	<2	0.000147	<0.0001	<0.0005	0.0019
6-Jun-06	217																				
13-Jun-06	224	14.9	<0.0005	<0.0001	0.00199	<0.03	<0.00005	30.8	0.00449	<0.00001	0.000252	<0.0005	0.797	0.0108	0.104	<0.00001	<2	0.00015	<0.0001	<0.0005	<0.001
20-Jun-06	231																				
27-Jun-06	238	18.1	<0.0005	<0.0001	0.00256	<0.03	<0.00005	40.9	0.0094	<0.00001	0.000222	0.00082	0.979	0.0122	0.147	<0.00001	<2	0.000189	<0.0001	<0.0005	0.001
4-Jul-06	245																				
11-Jul-06	252	17.4	<0.0005	<0.0001	0.00466	<0.03	<0.00005	37.4	0.011	<0.00001	0.000202	<0.0005	0.922	0.0133	0.127	<0.00001	<2	0.000166	<0.0001	<0.0005	<0.001
18-Jul-06	259																				
25-Jul-06	266	16.3	<0.0005	<0.0001	0.00356	<0.03	0.000069	31.4	0.0113	<0.00001	0.000154	<0.0005	0.746	0.0103	0.122	<0.00001	<2	0.000212	<0.0001	<0.0005	0.0036
1-Aug-06	273																				
8-Aug-06	280	15.2	<0.0005	<0.0001	0.00236	<0.03	<0.00005	30.1	0.00931	<0.00001	0.000152	<0.0005	0.624	0.009	0.083	<0.00001	<2	0.000125	0.00013	<0.0005	0.0011
15-Aug-06	287																				
22-Aug-06	294	18.3	<0.0005	<0.0001	0.00362	<0.03	<0.00005	37.8	0.0136	<0.00005	0.000148	<0.0005	<2	0.0096	0.117	<0.00001	<2	0.00014	<0.0001	<0.001	<0.001
29-Aug-06	301																				
5-Sep-06	308	14.1	<0.0005	<0.0001	0.0027	<0.03		30.1	0.00887	<0.00001	0.000149	<0.0005	0.585	0.0079	0.071	<0.00001	<2	0.000107	<0.0001	<0.0005	0.0019
12-Sep-06	315																				
19-Sep-06	322	15.1	<0.0005	<0.0001	0.00714	<0.03	<0.00005	29.5	0.0144	<0.00001	0.00013	<0.0005	0.581	0.0078	0.084	<0.00001	<2	0.000115	<0.0001	<0.0005	0.0013
26-Sep-06	329																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Oct-06	336	2000	2090	7.9	334	297	<1	4.68	114.3	150	161	<0.5	0.072	46.6	0.0022	0.00122	<0.0001	0.00735	<0.0002	<0.0005	0.02	<0.00005
10-Oct-06	343	2000	2020	7.86	189	274																
17-Oct-06	350	2000	2080	8	353	342	<1	5.87	131.9	164	165	<0.5	0.077	56.6	0.0013	0.00156	<0.0001	0.00756	<0.0002	<0.0005	0.018	<0.00005
24-Oct-06	357	2000	2130	8.18	344	346																
31-Oct-06	364	2000	2080	8.04	335	351	<1	1.79	146.7	184	206	<0.5	0.06	48.7	0.0019	0.00123	<0.0001	0.0101	<0.0002	<0.0005	0.022	<0.00005
7-Nov-06	371	2000	2030	8.33	335	369																
14-Nov-06	378	2000	2030	8.12	305	340	<1	1.78	134	174	179	<0.5	0.069	50.5	0.0013	0.00107	<0.0001	0.00913	<0.0002	<0.0005	0.018	<0.00005
21-Nov-06	385	2000	2150	7.94	309	346																
28-Nov-06	392	2000		8.06	325	310	<1		125.2	152	157	<0.5	0.077	44.2	0.0019	0.000618	<0.0001	0.00725	<0.0002	<0.0005	0.017	<0.00005
5-Dec-06	399	2000	2045	8.16	327	281																
12-Dec-06	406	2000	2025	8.14	298	378	<1	2.23	136.3	166	188	<0.5	0.08	42.2	0.0019	0.00112	<0.0001	0.00933	<0.0002	<0.0005	0.021	<0.00005
19-Dec-06	413	2000	2100	8.14	346	305																
26-Dec-06	420	2000	2050	8.16	382	315	<1	1.51	136.3	155	178	<0.5	0.076	39.8	0.0011	0.000818	0.00026	0.00961	<0.0002	<0.0005	0.019	<0.00005
2-Jan-07	427	2000	2005	8.07	342	274																
9-Jan-07	434	2000	2015	8.16	340	312	<1	1.65	138.4	151	176	<0.5	0.08	36.5	0.0033	0.00089	0.00018	0.00961	<0.0002	<0.0005	0.021	<0.00005
16-Jan-07	441	2000	1985	8.05	332	272																
23-Jan-07	448	2000	2065	8.05	342	302	<1	3.09	124.6	147	160	<0.5	0.083	35.4	0.0016	0.000728	<0.0001	0.00832	<0.0002	<0.0005	0.016	<0.00005
30-Jan-07	455	2000	2075	7.94	346	305																
6-Feb-07	462	2000	2075	8.08	354	290	<1	4.45	137.9	75	162	<0.5	0.022	27.5	0.0041	0.000735	<0.0001	0.0092	<0.0002	<0.0005	0.019	<0.00005
13-Feb-07	469	2000	2035	7.87	328	287																
20-Feb-07	476	2000	2040	8.04	381	319	<1	3.1	126.3	154	168	<0.5	0.098	44.4	0.0023	0.000643	<0.0001	0.00872	<0.0002	<0.0005	0.018	<0.00005
27-Feb-07	483	2000	1945	7.83	282	354																
6-Mar-07	490	2500	2515	7.98	364	233	<1	3.21	96.5	139	125	<0.5	0.068	32	0.0016	0.00054	0.00013	0.00607	<0.0002	<0.0005	0.016	<0.00005
13-Mar-07	497	2500	2470	7.93	374	225																
20-Mar-07	504	2500	2500	8.15	373	270	<1	1.45	110.8	132	144	<0.5	0.077	35.2	0.0014	0.000581	<0.0001	0.00837	<0.0002	<0.0005	0.018	<0.00005
27-Mar-07	511	2000	1940	8.14	358	257																
3-Apr-07	518	2000	1985	8.38	415	242	<1	<1	112.7	132	143	<0.5	0.081	35.3	<0.001	0.000516	<0.0001	0.00744	<0.0002	<0.0005	0.017	<0.00005
10-Apr-07	525	2000	1970	8.07	357	268																
17-Apr-07	532	2000	1965	8.11	383	265	<1	1.98	103.6	111	133	<0.5	0.073	33.5	0.001	0.000499	<0.0001	0.00686	<0.0002	<0.0005	0.016	<0.00005
24-Apr-07	539	2000	1835	8.19	345	281																
1-May-07	546	2000	1970	8.3	364	261	<1	<1	126.4	150	152	<0.5	0.068	37.8	<0.001	0.000576	0.00013	0.00785	<0.0002	<0.0005	0.019	<0.00005
8-May-07	553	2000	1975	8.02	343	217																
15-May-07	560	2000	1970	8.23	360	255	<1	1.76	100.2	116	126	<0.5	0.06	31.1	0.0011	0.000485	<0.0001	0.00677	<0.0002	<0.0005	0.016	<0.00005
22-May-07	567	2000	1915	7.83	363	218																
29-May-07	574	2000	1790	8.11	380	310	<1	2.45	76.1	202	174	<0.5	0.074	95.4	0.0029	0.00272	0.00028	0.0106	<0.0002	<0.0005	0.02	<0.00005
5-Jun-07	581	2000	1805	7.91	350	294																
12-Jun-07	588	2000	1840	8.03	365	242	<1	2.09	63.9	169	141	<0.5	0.057	79.9	0.0033	0.00143	<0.0001	0.00544	<0.0002	<0.0005	0.016	0.00022
19-Jun-07	595	2000	1845	8.25	336	314																
26-Jun-07	602	2000	1845	7.9	373	202	<1	2.46	54.6	121	100	<0.5	0.039	51.2	0.0025	0.00124	<0.0001	0.00374	<0.0002	<0.0005	0.012	<0.00005
3-Jul-07	609	2000	1805	8.21	325	191																
10-Jul-07	616	2000	1875	8.06	351	207	<1	2.8	70.5	128	110	<0.5	0.046	49.5	0.0017	0.000871	<0.0001	0.00511	<0.0002	<0.0005	0.016	<0.00005
17-Jul-07	623	2000	1910	7.91	342	250																
24-Jul-07	630	2000	1800	7.76	354	195	<1	5.35	48.2	110	92.2	<0.5	0.052	47.1	0.0034	0.00124	0.00077	0.00434	<0.0002	<0.0005	0.012	<0.00005
31-Jul-07	637	2000	1835	8.2	305	389																
7-Aug-07	644	2000	1945	8.15	375	293	<1	1.96	88.6	160		<0.5	0.077	64.3	0.0014	0.00117	0.00022	0.00457	<0.0002	<0.0005	0.022	<0.00005
14-Aug-07	651	2000	1840	7.94	368	191																
21-Aug-07	658	2000	1835	7.99	416	215	<1	2.55	67.1	145	134	<0.5	0.061	65.2	0.0041	0.00149	0.00011	0.00387	<0.0002	<0.0005	0.017	<0.00005
28-Aug-07	665	2000	1825	8.06	408	212																
4-Sep-07	672	2000	1845	8.04	403	181	<1	2.93	73.5	138	122	<0.5	0.069	57.2	0.0022	0.00159	<0.0001	0.00342	<0.0002	<0.0005	0.02	0.00006
11-Sep-07	679	2000	1825	8	414	160																
18-Sep-07	686	2000	1820	7.84	385	172	<1	4.66	60.2	123	111	<0.5	0.047	53.8	0.0018	0.00171	<0.0001	0.00307	<0.0002	<0.0005	0.016	<0.00005
25-Sep-07	693	2000	1765	7.84	375	243																
2-Oct-07	700	2000	1800	7.91	417	268	<1	6.75	84.9	153	150	<0.5	0.061	60.7	0.0018	0.00153	<0.0001	0.00372	<0.0002	<0.0005	0.02	<0.00005
9-Oct-07	707	2000	1790																			
16-Oct-07	714	2000	1890	8.03	412	222	<1	3.05	70.2	115	103	<0.5	0.043	36.5	0.0024	0.000909	<0.0001	0.00284	<0.0002	<0.0005	0.017	<0.00005
23-Oct-07	721	2000	1825																			
30-Oct-07	728	2000	1800	7.72	423	222																
6-Nov-07	735	2000	1895																			
13-Nov-07	742	2000	1820	7.9	464	219	<1	3.11	72	109	115	<0.5	0.049	45.3	0.0029	0.00131	0.00017	0.0033	<0.0002	<0.0005	0.019	<0.00005
20-Nov-07	749	2000	1775																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Oct-06	336	14.2	<0.0005	<0.0001	0.00358	<0.03	<0.00005	30.9	0.0133	<0.00001	0.000097	<0.0005	0.589	0.0066	0.115	<0.00001	<2	0.000127	<0.0001	<0.0005	<0.001
10-Oct-06	343																				
17-Oct-06	350	16.5	<0.0005	<0.0001	0.00307	<0.03	<0.00005	30.2	0.0106	<0.00001	0.000112	<0.0005	0.511	0.0069	0.102	<0.00001	<2	0.000104	<0.0001	<0.0005	0.0011
24-Oct-06	357																				
31-Oct-06	364	17.8	<0.0005	<0.0001	0.00398	<0.03	<0.00005	39.2	0.0205	<0.00001	0.000089	<0.0005	0.618	0.0078	0.12	<0.00001	<2	0.000138	<0.0001	<0.0005	0.0029
7-Nov-06	371																				
14-Nov-06	378	18.5	<0.0005	<0.0001	0.00316	<0.03	<0.00005	32.3	0.0221	<0.00001	0.000086	<0.0005	0.537	0.0079	0.108	<0.00001	<2	0.000117	<0.0001	<0.0005	0.0021
21-Nov-06	385																				
28-Nov-06	392	15.9	<0.0005	<0.0001	0.00202	<0.03	<0.00005	28.6	0.0221	<0.00001	0.000061	<0.0005	0.473	0.0069	0.086	<0.00001	<2	0.000099	<0.0001	<0.0005	<0.001
5-Dec-06	399																				
12-Dec-06	406	17.8	<0.0005	<0.0001	0.00395	<0.03	<0.00005	34.8	0.022	<0.00001	0.000082	<0.0005	0.526	0.0078	0.11	<0.00001	<2	0.000124	<0.0001	<0.0005	0.001
19-Dec-06	413																				
26-Dec-06	420	18.3	<0.0005	<0.0001	0.00346	<0.03		32.1	0.0264	<0.00001	0.00007	<0.0005	0.482	0.007	0.112	0.00001	<2	0.00011	<0.0001	<0.0005	0.0068
2-Jan-07	427																				
9-Jan-07	434	17.6	<0.0005	<0.0001	0.00428	<0.03	<0.00005	32	0.0247	<0.00001	0.000075	<0.0005	0.483	0.0062	0.122	<0.00001	<2	0.000113	0.0003	<0.0005	0.0022
16-Jan-07	441																				
23-Jan-07	448	17.5	<0.0005	<0.0001	0.00263	<0.03	<0.00005	28.3	0.0227	<0.00001	0.000055	<0.0005	0.402	0.0055	0.106	<0.00001	<2	0.000097	<0.0001	<0.0005	0.0013
30-Jan-07	455																				
6-Feb-07	462	18.6	<0.0005	<0.0001	0.00439	<0.03	<0.00005	28.1	0.0232	<0.00001	0.000059	<0.0005	0.413	0.0055	0.089	<0.00001	<2	0.000107	<0.0001	<0.0005	0.0073
13-Feb-07	469																				
20-Feb-07	476	17	<0.0005	<0.0001	0.0043	<0.03	<0.00005	30.4	0.0258	<0.00001	0.00006	<0.0005	0.447	0.006	0.124	<0.00001	<2	0.000103	<0.0001	<0.0005	
27-Feb-07	483																				
6-Mar-07	490	13	<0.0005	<0.0001	0.00339	<0.03	<0.00005	22.5	0.0196	<0.00001	0.000055	<0.0005	0.347	0.0038	0.083	<0.00001	<2	0.000087	<0.0001	<0.0005	0.0013
13-Mar-07	497																				
20-Mar-07	504	15	<0.0005	<0.0001	0.00171	<0.03	<0.00005	25.8	0.0276	<0.00001	<0.00005	<0.0005	0.396	0.0044	0.089	<0.00001	<2	0.000098	<0.0001	<0.0005	0.001
27-Mar-07	511																				
3-Apr-07	518	14.1	<0.0005	<0.0001	0.0015	<0.03	<0.00005	26.1	0.0278	<0.00001	<0.00005	<0.0005	0.396	0.0048	0.077	<0.00001	<2	0.000091	<0.0001	<0.0005	<0.001
10-Apr-07	525																				
17-Apr-07	532	13.3	<0.0005	<0.0001	0.00219	<0.03	<0.00005	24.3	0.0244	<0.00001	<0.00005	<0.0005	0.369	0.0049	0.086	<0.00001	<2	0.000095	<0.0001	<0.0005	<0.001
24-Apr-07	539																				
1-May-07	546	16	<0.0005	<0.0001	0.00225	<0.03	<0.00005	27.3	0.0291	<0.00001	<0.00005	<0.0005	0.442	0.0046	0.109	<0.00001	<2	0.000102	<0.0001	<0.0005	<0.001
8-May-07	553																				
15-May-07	560	13.2	<0.0005	<0.0001	0.00307	<0.03	<0.00005	22.5	0.0222	<0.00001	<0.00005	<0.0005	0.35	0.0037	0.084	<0.00001	<2	0.000086	<0.0001	<0.0005	<0.001
22-May-07	567																				
29-May-07	574	11.7	<0.0005	<0.0001	0.00543	<0.03	<0.00005	34.9	0.00517	<0.00001	0.000165	<0.0005	0.422	0.0089	0.08	<0.00001	<2	0.000089	<0.0001	<0.0005	0.0016
5-Jun-07	581																				
12-Jun-07	588	12.9	<0.0005	<0.0001	0.00563	<0.03	0.000054	26.5	0.00201	<0.00001	0.000145	<0.0005	0.375	0.0076	0.056	<0.00001	<2	0.000096	<0.0001	<0.0005	
19-Jun-07	595																				
26-Jun-07	602	8.16	<0.0005	<0.0001	0.0042	<0.03	<0.00005	19.3	0.00156	<0.00001	0.000122	<0.0005	0.295	0.0045	0.053	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0018
3-Jul-07	609																				
10-Jul-07	616	8.55	<0.0005	<0.0001	0.00185	<0.03	0.000059	21.6	0.00204	<0.00001	0.000066	<0.0005	0.278	0.0045	0.076	<0.00001	<2	0.000066	<0.0001	<0.0005	0.004
17-Jul-07	623																				
24-Jul-07	630	7.15	0.00066	<0.0001	0.00524	<0.03	<0.00005	18.1	0.00144	0.00001	0.000098	<0.0005	0.251	0.0042	0.054	<0.00001	<2	<0.00005	0.00012	<0.0005	<0.006
31-Jul-07	637																				
7-Aug-07	644	10.7	<0.0005	<0.0001	0.00097	<0.03	<0.00005	29.6	0.00128	<0.00001	0.00017	<0.0005	0.39	0.0049	0.057	<0.00001	<2	0.000082	<0.0001	<0.0005	<0.001
14-Aug-07	651																				
21-Aug-07	658	8.57	<0.0005	<0.0001	0.00154	<0.03	<0.00005	27.4	0.00163	<0.00001	0.00019	<0.0005	0.35	0.0056	0.064	<0.00001	<2	0.000075	<0.0001	<0.0005	0.0015
28-Aug-07	665																				
4-Sep-07	672	8.72	<0.0005	<0.0001	0.00183	<0.03	0.000816	24.4	0.0011	<0.00001	0.000233	<0.0005	0.363	0.0042	0.074	<0.00001	<2	0.000079	<0.0001	<0.0005	<0.001
11-Sep-07	679																				
18-Sep-07	686	7.39	<0.0005	<0.0001	0.00173	<0.03	<0.00005	22.4	0.00123	<0.00001	0.00019	<0.0005	0.278	0.0042	<0.05	<0.00001	<2	0.000052	<0.0001	<0.0005	<0.001
25-Sep-07	693																				
2-Oct-07	700	9.11	<0.0005	<0.0001	0.00186	<0.03	<0.00005	30.9	0.000989	<0.00001	0.000218	<0.0005	0.367	0.0053	0.073	<0.00001	<2	0.000066	<0.0001	<0.0005	<0.001
9-Oct-07	707																				
16-Oct-07	714	6.76	<0.0005	<0.0001	0.00144	<0.03	<0.00005	21	0.000902	<0.00001	0.00013	<0.0005	0.281	0.003	0.056	<0.00001	<2	0.000063	<0.0001	<0.0005	<0.001
23-Oct-07	721																				
30-Oct-07	728																				
6-Nov-07	735																				
13-Nov-07	742	8.03	<0.0005	<0.0001	0.0013	<0.03	<0.00005	23.1	0.000977	<0.00001	0.000157	<0.0005	0.31	0.0037	0.056	<0.00001	<2	0.00006	<0.0001	<0.0005	0.002
20-Nov-07	749																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
27-Nov-07	756	2000	1735	7.98	444	300																
4-Dec-07	763	2000	1820																			
11-Dec-07	770	2000	1880	8.13	426	284	<1	2.84	113.7	152	152	<0.5	0.052	49.3	0.0027	0.00136	0.0001	0.00397	<0.0002	<0.0005	0.022	<0.00005
18-Dec-07	777	2000	1815																			
25-Dec-07	784	2000	1455	8.24	391	316																
1-Jan-08	791	2000	1955																			
8-Jan-08	798	2000	1720	7.58	452	113	<1	2.97	32.4	65	54	<0.5	<0.02	24.5	0.0067	0.000985	0.00027	0.00251	<0.0002	<0.0005	<0.01	<0.00005
15-Jan-08	805	2000	1815																			
22-Jan-08	812	2000	1585	7.96	441	251																
29-Jan-08	819	2000	1875																			
5-Feb-08	826	2000	1850	8.14	420	250	<1	3.32	99.4	128	127	<0.5	0.062	39.8	0.0028	0.00156	<0.0001	0.00674	<0.0002	<0.0005	0.022	<0.00005
12-Feb-08	833	2000	1720																			
19-Feb-08	840	2000	1560	8.37	388	363																
26-Feb-08	847	2000	2085																			
4-Mar-08	854	2000	2025	8.21	372	337	<1	3.05	131.1	172	167	<0.5	0.056	53.5	0.0011	0.00103	<0.0001	0.00709	<0.0002	<0.0005	0.028	<0.00005
11-Mar-08	861	2000	1925																			
18-Mar-08	868	2000	1890	8.23	379	284																
25-Mar-08	875	2000	1905																			
1-Apr-08	882	2000	1925	8.26	385	266	<1	1.44	109.9	142	139	<0.5	0.053	43.1	0.0025	0.00101	<0.0001	0.00638	<0.0002	<0.0005	0.024	<0.00005
8-Apr-08	889	2000	1860																			
15-Apr-08	896	2000	1980	8.11	377	317																
22-Apr-08	903	2000	1935																			
29-Apr-08	910	2000	1965	8.31	358	346	<1	<1	142.2	199	180	<0.5	0.068	54	0.0015	0.00103	<0.0001	0.00816	<0.0002	<0.0005	0.029	<0.00005
6-May-08	917	2000	1930																			
13-May-08	924	2000	1960	8.27	320	301																
20-May-08	931	2000	1975																			
27-May-08	938	2000	1785	8.21	359	231	<1	2.89	86.8	138	128	<0.5	0.092	51.2	0.0021	0.00117	<0.0001	0.00612	<0.0002	<0.0005	0.021	<0.00005
3-Jun-08	945	2000	1955																			
10-Jun-08	952	2000	1735	8.2	341	242																
17-Jun-08	959	2000	1540																			
24-Jun-08	966	2000	1575	8.19	217	207	<1	5.89	109.2	174	149	<0.5	0.091	64.2	0.0014	0.00211	<0.0001	0.00672	<0.0002	<0.0005	0.023	<0.00005
1-Jul-08	973	2000	1755																			
8-Jul-08	980	2000	1500	8.28	225	367																
15-Jul-08	987	2000	1360																			
22-Jul-08	994	2000	1735	8.18	309	281	<1	2.81	97.8	168	140	<0.5	0.076	61.5	0.0018	0.00214	<0.0001	0.00602	<0.0002	<0.0005	0.022	<0.00005
29-Jul-08	1001	2000	1925																			
5-Aug-08	1008	2000	1955	8.17	327	273																
12-Aug-08	1015	2000	1875																			
19-Aug-08	1022	2000	1920	8.16	228	274	<1	2.2	97.8	166	145	<0.5	0.09	59.2	0.0015	0.00235	<0.0001	0.00598	<0.0002	<0.0005	0.026	<0.00005
26-Aug-08	1029	2000	1860																			
2-Sep-08	1036	2000	1990	8.23	245	302																
9-Sep-08	1043	2000	1925																			
16-Sep-08	1050	2000	1940	8.3	240	353	<1	2.26	136.8	196	185	<0.5	0.079	61.7	<0.001	0.00157	<0.0001	0.00748	<0.0002	<0.0005	0.029	<0.00005
23-Sep-08	1057	2000	1920																			
30-Sep-08	1064	2000	2035	8.19	184	308																
7-Oct-08	1071	2000	1745																			
14-Oct-08	1078	2000	1985	8.15	342	311	<1	4.71	119.5	177	169	<0.5	0.083	59.6	0.0034	0.00183	0.00019	0.00693	<0.0002	<0.0005	0.029	<0.00005
21-Oct-08	1085	2000	1945																			
28-Oct-08	1092	2000	1905	7.99	410	259																
4-Nov-08	1099	2000	1900																			
11-Nov-08	1106	2000	1985	7.99	394	255	<1	3.96	87.3	110	127	<0.5	0.082	54.3	0.0019	0.00166	0.0002	0.00578	<0.0002	<0.0005	0.022	<0.00005
18-Nov-08	1113	2000	1890																			
25-Nov-08	1120	2000	1885	8.15	320	253																
2-Dec-08	1127	2000	1945																			
9-Dec-08	1134	2000	1930	8.17	263	310	<1	2.19	132.5	164	175	<0.5	0.051	56	0.0017	0.0014	0.00019	0.0068	<0.0002	<0.0005	0.027	<0.00005
16-Dec-08	1141	2000	2030																			
23-Dec-08	1148	2000	1990	8.04	235	332																
30-Dec-08	1155	2000	1880																			
6-Jan-09	1162	2000	1960	8.13	229	342	<1	3.42	149.8	202	181	<0.5	0.07	60	0.0022	0.00146	0.00011	0.00744	<0.0002	<0.0005	0.03	<0.00005
13-Jan-09	1169	2000	1855																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
27-Nov-07	756																				
4-Dec-07	763																				
11-Dec-07	770	10.6	0.00088	<0.0001	0.00199	0.052	<0.00005	30.6	0.00105	<0.00001	0.000151	<0.0005	0.304	0.004	0.073	<0.00001	<2	0.000064	<0.0001	<0.0005	<0.001
18-Dec-07	777																				
25-Dec-07	784																				
1-Jan-08	791																				
8-Jan-08	798	3.52	<0.0005	<0.0001	0.00552	<0.03	<0.00005	11	0.00313	<0.00001	0.000088	<0.0005	0.137	0.0023	0.091	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
15-Jan-08	805																				
22-Jan-08	812																				
29-Jan-08	819																				
5-Feb-08	826	10.1	<0.0005	<0.0001	0.00183	<0.03	<0.00005	24.6	0.00132	<0.00001	0.000164	<0.0005	0.357	0.0032	0.084	<0.00001	<2	0.000071	<0.0001	<0.0005	<0.001
12-Feb-08	833																				
19-Feb-08	840																				
26-Feb-08	847																				
4-Mar-08	854	13.7	<0.0005	<0.0001	0.002	<0.03	<0.00005	32.3	0.00271	0.000012	0.00006	<0.0005	0.341	0.005	0.118	<0.00001	<2	0.000087	<0.0001	<0.0005	<0.001
11-Mar-08	861																				
18-Mar-08	868																				
25-Mar-08	875																				
1-Apr-08	882	12.3	<0.0005	<0.0001	0.00218	<0.03	<0.00005	26.2	0.00309	<0.00001	0.000077	<0.0005	0.293	0.0037	0.096	<0.00001	<2	0.000084	<0.0001	<0.0005	0.0033
8-Apr-08	889																				
15-Apr-08	896																				
22-Apr-08	903																				
29-Apr-08	910	15	<0.0005	<0.0001	0.00148	<0.03	<0.00005	34.6	0.00559	<0.00001	0.000063	<0.0005	0.333	0.0048	0.109	<0.00001	<2	0.0001	<0.0001	<0.0005	<0.001
6-May-08	917																				
13-May-08	924																				
20-May-08	931																				
27-May-08	938	12.5	<0.0005	<0.0001	0.00086	<0.03	<0.00005	23.4	0.00158	<0.00001	0.000073	<0.0005	0.249	0.0039	0.067	<0.00001	<2	0.000067	<0.0001	<0.0005	<0.001
3-Jun-08	945																				
10-Jun-08	952																				
17-Jun-08	959																				
24-Jun-08	966	13.7	<0.0005	<0.0001	0.00136	<0.03	<0.00005	27.9	0.001	<0.00001	0.000099	<0.0005	0.278	0.0042	0.059	<0.00001	<2	0.000089	<0.0001	<0.0005	<0.001
1-Jul-08	973																				
8-Jul-08	980																				
15-Jul-08	987																				
22-Jul-08	994	13.6	<0.0005	<0.0001	0.00127	<0.03	<0.00005	25.8	0.00107	<0.00001	0.000102	<0.0005	0.255	0.0035	0.066	<0.00001	<2	0.000082	<0.0001	<0.0005	<0.001
29-Jul-08	1001																				
5-Aug-08	1008																				
12-Aug-08	1015																				
19-Aug-08	1022	12.5	<0.0005	<0.0001	0.00064	<0.03	<0.00005	27.5	0.000741	<0.00001	0.000116	<0.0005	0.294	0.0042	0.058	<0.00001	<2	0.000094	<0.0001	<0.0005	<0.001
26-Aug-08	1029																				
2-Sep-08	1036																				
9-Sep-08	1043																				
16-Sep-08	1050	16.1	<0.0005	<0.0001	0.00092	<0.03	<0.00005	35.2	0.00288	<0.00001	0.000055	0.00177	0.287	0.0043	0.111	<0.00001	<2	0.000101	<0.0001	<0.0005	<0.001
23-Sep-08	1057																				
30-Sep-08	1064																				
7-Oct-08	1071																				
14-Oct-08	1078	15.1	<0.0005	<0.0001	0.00108	<0.03	<0.00005	32	0.00373	<0.00001	0.000101	<0.0005	0.256	0.0037	0.095	<0.00001	<2	0.000082	<0.0001	<0.0005	<0.001
21-Oct-08	1085																				
28-Oct-08	1092																				
4-Nov-08	1099																				
11-Nov-08	1106	11.9	<0.0005	<0.0001	0.00065	<0.03	<0.00005	23.6	0.000948	<0.00001	0.000079	<0.0005	0.234	0.0032	0.057	<0.00001	<2	0.000071	<0.0001	<0.0005	<0.001
18-Nov-08	1113																				
25-Nov-08	1120																				
2-Dec-08	1127																				
9-Dec-08	1134	14.4	<0.0005	<0.0001	0.00118	<0.03	<0.00005	33.8	0.00357	<0.00001	0.000084	<0.0005	0.264	0.0034	0.085	<0.00001	<2	0.000079	<0.0001	<0.0005	<0.001
16-Dec-08	1141																				
23-Dec-08	1148																				
30-Dec-08	1155																				
6-Jan-09	1162	16.2	<0.0005	<0.0001	0.00201	<0.03	<0.00005	34.1	0.00479	<0.00001	<0.00005	<0.0005	0.284	0.0037	0.098	<0.00001	<2	0.000092	<0.0001	<0.0005	0.0012
13-Jan-09	1169																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
20-Jan-09	1176	2000	1850	8.15	346	332																
27-Jan-09	1183	2000	1790																			
3-Feb-09	1190	2000	1795	7.93	384	268	<1	4.3	104.7	152	169	<0.5	0.09	59.5		0.00154	<0.0001	0.00609	<0.0002	<0.0005	0.025	<0.00005
10-Feb-09	1197	2000	1835																			
17-Feb-09	1204	2000	2070	8.21	367	282																
24-Feb-09	1211	2000	1850																			
3-Mar-09	1218	2000	1960	7.87	230	254	<1	4.52	90.8	134	122	<0.5	0.0998	55.6	0.0013	0.00148	<0.0001	0.00533	<0.0002	<0.0005	0.023	<0.00005
10-Mar-09	1225	2000	1860																			
17-Mar-09	1232	2000	1755	7.85	315	275																
24-Mar-09	1239	2000	1715																			
31-Mar-09	1246	2000	1900	7.84	307	269	<1	3.08	88.9	149	134	<0.5	0.096	60.7	0.0015	0.00147	0.00013	0.00533	<0.0002	<0.0005	0.024	<0.00005
7-Apr-09	1253	2000	1865																			
14-Apr-09	1260	2000	1630	8.05	341	373																
21-Apr-09	1267	2000	1945																			
28-Apr-09	1274	2000	1900	8.06	361	343	<1	2.91	130.6	188	164	<0.5	0.077	69.5	0.002	0.00183	<0.0001	0.00676	<0.0002	<0.0005	0.027	<0.00005
5-May-09	1281	2000	2240																			
12-May-09	1288	2000	1895	7.96	360	350																
19-May-09	1295	2000	1925																			
26-May-09	1302	2000	1935	8.07	351	312	<1	3.11	123.7	176	150	<0.5	0.075	65.7	0.001	0.00116	<0.0001	0.00646	<0.0002	<0.0005	0.025	<0.00005
2-Jun-09	1309	2000	1975																			
9-Jun-09	1316	2000	230	8.01	350	324																
16-Jun-09	1323	2000	1960																			
23-Jun-09	1330	2000	1965	7.98	363	276	<1	4.2	117.5	130	171	<0.5	0.066	61.7	<0.001	0.00093	<0.0001	0.0062	<0.0002	<0.0005	0.024	<0.00005
30-Jun-09	1337	2000	2005																			
7-Jul-09	1344	2000	1955	8.15	323	325																
14-Jul-09	1351	2000	2005																			
21-Jul-09	1358	2000	1950	8.14	300	307	<1	1.88	117.3	204	184	<0.5	0.081	67.6	0.0047	0.000983	<0.0001	0.00626	<0.0002	<0.0005	0.031	<0.00005
28-Jul-09	1365	2000	2065																			
4-Aug-09	1372	2000	2000	8	357	285																
11-Aug-09	1379	2000	2005																			
18-Aug-09	1386	2000	1985	7.88	327	296	<1	3.98	113.1	167	171	<0.5	0.064	65.3	<0.001	0.000811	<0.0001	0.00656	<0.0002	<0.0005	0.029	<0.00005
25-Aug-09	1393	2000	1990																			
1-Sep-09	1400	2000	2060	8.07	267	284																
8-Sep-09	1407	2000	2020																			
15-Sep-09	1414	2000	1940	7.97	312	328	<1	2.82	111.2	187	184	<0.5	0.122	85.1	0.0013	0.00114	<0.0001	0.00811	<0.0002	<0.0005	0.029	<0.00005
22-Sep-09	1421	2000	1945																			
29-Sep-09	1428	2000	2035	7.94	334	297																
6-Oct-09	1435	2000	1950																			
13-Oct-09	1442	2000	1910	7.82	307	297	<1	4.29	98.5	252	149	<5	<0.2	68.9	0.0012	0.000845	<0.0001	0.00654	<0.0002	<0.0005	0.025	<0.00005
20-Oct-09	1449	2000	2000																			
27-Oct-09	1456	2000	1940	7.93	316	277																
3-Nov-09	1463	2000	1985																			
10-Nov-09	1470	2000	1920	7.98	348	288	<1	3.43	101.8	174	157	<0.5	0.084	78.1	0.0019	0.00086	<0.0001	0.00636	<0.0002	<0.0005	0.029	<0.00005
17-Nov-09	1477	2000	1880																			
24-Nov-09	1484	2500	2390	7.56	298	288																
1-Dec-09	1491	2000	1885																			
8-Dec-09	1498	2000	2015	7.71	340	259	<1	5.75	96.7	142	152	<0.5	0.117	55.3	<0.001	0.000697	<0.0001	0.00629	<0.0002	<0.0005	0.029	<0.00005
15-Dec-09	1505	2000	1940																			
22-Dec-09	1512	2000	1945	8.03	337	271																
29-Dec-09	1519	2000	2035																			
5-Jan-10	1526	2000	1985	7.71	356	249	<1	4.17	82.7	139	123	<0.5	0.125	56.2	<0.001	0.000842	<0.0001	0.00577	<0.0002	<0.0005	0.026	<0.00005
12-Jan-10	1533	2000	2025																			
19-Jan-10	1540	2000	2015	7.98	349	273																
26-Jan-10	1547	2000	2095																			
2-Feb-10	1554	2000	2010	7.79	319	209	<1	3.88	87.5	149	144	<5	0.31	52.7	<0.001	0.000683	<0.0001	0.00656	<0.0002	<0.0005	0.024	<0.00005
9-Feb-10	1561	2000	1955																			
16-Feb-10	1568	2000	2005	8	298	266																
23-Feb-10	1575	2000	1940																			
2-Mar-10	1582	2000	1910	7.75	324	289	<1	4.1	96.3	167	154	<5	<0.2	68.6	0.0028	0.000748	0.00021	0.00742	<0.0002	<0.0005	0.025	<0.00005
9-Mar-10	1589	2000	1840																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Jan-09	1176																				
27-Jan-09	1183																				
3-Feb-09	1190	13.6	<0.0005	<0.0001	0.00094	<0.03	<0.00005	32.7	0.00212	<0.00001	0.000088	<0.0005	0.273	0.0034	0.07	<0.00001	<2	0.000084	<0.0001	<0.0005	<0.001
10-Feb-09	1197																				
17-Feb-09	1204																				
24-Feb-09	1211																				
3-Mar-09	1218	12.1	<0.0005	<0.0001	0.00066	<0.03	<0.00005	22.2	0.00161	<0.00001	0.000075	<0.0005	0.224	0.0032	<0.05	<0.00001	<2	0.000084	<0.0001	<0.0005	<0.001
10-Mar-09	1225																				
17-Mar-09	1232																				
24-Mar-09	1239																				
31-Mar-09	1246	12.6	<0.0005	<0.0001	0.00141	<0.03	<0.00005	25	0.00146	<0.00001	0.000083	<0.0005	0.252	0.0033	0.064	<0.00001	<2	0.000089	<0.0001	<0.0005	<0.001
7-Apr-09	1253																				
14-Apr-09	1260																				
21-Apr-09	1267																				
28-Apr-09	1274	16.3	<0.0005	<0.0001	0.00139	<0.03	<0.00005	29.8	0.00323	<0.00001	0.000057	<0.0005	0.26	0.0036	0.082	<0.00001	<2	0.0001	<0.0001	<0.0005	<0.001
5-May-09	1281																				
12-May-09	1288																				
19-May-09	1295																				
26-May-09	1302	14.9	<0.0005	<0.0001	0.00148	<0.03	<0.00005	27.4	0.00581	<0.00001	<0.00005	<0.0005	0.271	0.003	0.082	<0.00001	<2	0.000091	<0.0001	<0.0005	<0.001
2-Jun-09	1309																				
9-Jun-09	1316																				
16-Jun-09	1323																				
23-Jun-09	1330	14.5	<0.0005	<0.0001	0.00095	<0.03	<0.00005	32.8	0.00662	<0.00001	<0.00005	<0.0005	0.239	0.0029	0.088	<0.00001	<2	0.00008	<0.0001	<0.0005	<0.001
30-Jun-09	1337																				
7-Jul-09	1344																				
14-Jul-09	1351																				
21-Jul-09	1358	16	<0.0005	<0.0001	0.00103	<0.03	<0.00005	35	0.00642	<0.00001	<0.00005	<0.0005	0.243	0.003	0.071	<0.00001	<2	0.000082	<0.0001	<0.0005	<0.001
28-Jul-09	1365																				
4-Aug-09	1372																				
11-Aug-09	1379																				
18-Aug-09	1386	15.5	<0.0005	<0.0001	0.00083	<0.03	<0.00005	32	0.00905	<0.00001	<0.00005	<0.0005	0.234	0.0032	0.075	<0.00001	<2	0.000093	<0.0001	<0.0005	<0.001
25-Aug-09	1393																				
1-Sep-09	1400																				
8-Sep-09	1407																				
15-Sep-09	1414	16.7	<0.0005	<0.0001	0.00095	<0.03	<0.00005	34.5	0.00587	<0.00001	<0.00005	<0.0005	0.258	0.0039	0.078	0.000011	<2	0.000106	<0.0001	<0.0005	<0.001
22-Sep-09	1421																				
29-Sep-09	1428																				
6-Oct-09	1435																				
13-Oct-09	1442	15	<0.0005	<0.0001	0.00194	<0.03	0.000225	27.1	0.00405	<0.00001	0.00008	<0.0005	0.178	0.0031	0.071	<0.00001	<2	0.000102	<0.0001	<0.0005	0.0048
20-Oct-09	1449																				
27-Oct-09	1456																				
3-Nov-09	1463																				
10-Nov-09	1470	14.9	<0.0005	<0.0001	0.00111	<0.03	<0.00005	29.2	0.00424	<0.00001	<0.00005	<0.0005	0.198	0.003	0.066	<0.00001	<2	0.000086	<0.0001	<0.0005	<0.001
17-Nov-09	1477																				
24-Nov-09	1484																				
1-Dec-09	1491																				
8-Dec-09	1498	13.8	<0.0005	<0.0001	0.00132	<0.03	<0.00005	28.6	0.00649	<0.00001	<0.00005	<0.0005	0.196	0.0022	0.071	<0.00001	<2	0.000075	<0.0001	<0.0005	<0.001
15-Dec-09	1505																				
22-Dec-09	1512																				
29-Dec-09	1519																				
5-Jan-10	1526	12.5	<0.0005	<0.0001	0.00403	<0.03	<0.00005	22.3	0.00464	<0.00001	<0.00005	<0.0005	0.181	0.0021	<0.05	<0.00001	<2	0.000078	<0.0001	<0.0005	<0.001
12-Jan-10	1533																				
19-Jan-10	1540																				
26-Jan-10	1547																				
2-Feb-10	1554	14.1	<0.0005	<0.0001	0.00089	<0.03	<0.00005	26.4	0.0059	<0.00001	<0.00005	<0.0005	0.186	0.0029	0.061	<0.00001	<2	0.000084	<0.0001	<0.0005	<0.001
9-Feb-10	1561																				
16-Feb-10	1568																				
23-Feb-10	1575																				
2-Mar-10	1582	14.7	<0.0005	<0.0001	0.00211	<0.03	<0.00005	28.5	0.00867	<0.00001	<0.00005	<0.0005	0.169	0.0029	0.07	<0.00001	<2	0.000077	<0.0001	<0.0005	<0.001
9-Mar-10	1589																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Mar-10	1596	2000	1945	7.9	349	255																
23-Mar-10	1603	2000	1840																			
30-Mar-10	1610	2000	1895	7.8	359	276	<1	3.7	80.4	158	139	<5	<0.2	71.6	<0.001	0.000873	<0.0001	0.00681	<0.0002	<0.0005	0.025	<0.00005
6-Apr-10	1617	2000	1955																			
13-Apr-10	1624	2000	1970	7.9	296	299																
20-Apr-10	1631	2000	2010																			
27-Apr-10	1638	2000	2075	7.76	327	292	<1	3.02	95.1	168	161	<2.5	0.13	66.4	<0.001	0.000901	<0.0001	0.00756	<0.0002	<0.0005	0.027	<0.00005
4-May-10	1645	2000	1995																			
11-May-10	1652	2000	1930	7.92	344	284																
18-May-10	1659	2000	1395																			
25-May-10	1666	2000	1910	7.67	372	285	<1	6.46	86.4	163	183	<2.5	0.13	75.5	0.0015	0.00124	<0.0001	0.00725	<0.0002	<0.0005	0.028	<0.00005
1-Jun-10	1673	2000	1955																			
8-Jun-10	1680	2000	1930	7.88	352	277																
15-Jun-10	1687	2000	1940																			
22-Jun-10	1694	2000	1960	8.02	416	230	<1	2.03	69.1	124	122	<2.5	0.13	58.4	0.0018	0.00111	<0.0001	0.00606	<0.0002	<0.0005	0.023	<0.00005
29-Jun-10	1701	2000	2005																			
6-Jul-10	1708	2000	1985	7.88	355	237																
13-Jul-10	1715	2000	2020																			
20-Jul-10	1722	2000	1965	7.67	309	255	<1	6	76.6	155	136	<5	<0.2	64	<0.001	0.000952	<0.0001	0.00666	<0.0002	<0.0005	0.023	<0.00005
27-Jul-10	1729	2000	1980																			
3-Aug-10	1736	2000	1950	7.92	403	248																
10-Aug-10	1743	2000	1980																			
17-Aug-10	1750	2000	1990	7.88	310	296	<1	4.17	80	194	166	<5	<0.2	84.2	<0.001	0.000883	<0.0001	0.00818	<0.0002	<0.0005	0.028	<0.00005
24-Aug-10	1757	2000	1985																			
31-Aug-10	1764	2000	1950	7.87	415	229																
7-Sep-10	1771	2000	1930																			
14-Sep-10	1778	2000	1920	7.65	377	267	<1	4.22	73.2	187	154	<5	<0.2	88.9	0.0017	0.00129	<0.0001	0.00831	<0.0002	<0.0005	0.022	<0.00005
21-Sep-10	1785	2000	1995																			
28-Sep-10	1792	2000	1965	7.93	344	276																
5-Oct-10	1799	2000	1950																			
12-Oct-10	1806	2000	1875	7.76	308	280	<1	4.02	80.6	164	138	<5	<0.2	75	0.0011	0.000986	<0.0001	0.00685	<0.0002	<0.0005	0.028	<0.00005
19-Oct-10	1813	2000	1940																			
26-Oct-10	1820	2000	1955	7.84	373	269																
2-Nov-10	1827	2000	1960																			
9-Nov-10	1834	2000	2025	7.83	350	260	<1	3.55	80.9	139	132	<5	<0.2	66.1	0.0015	0.00103	0.00011	0.00734	<0.0002	<0.0005	0.027	<0.00005
16-Nov-10	1841	2000	1955																			
23-Nov-10	1848	2000	1960	7.82	334	283																
30-Nov-10	1855	2000	1925																			
7-Dec-10	1862	2000	1885	7.68	343	333	<1	4.94	97.1	174	148	<5	<0.2	75.8	0.0012	0.000785	0.0001	0.00789	<0.0002	<0.0005	0.028	<0.00005
14-Dec-10	1869	2000	2040																			
21-Dec-10	1876	2000	1995	7.65	360	259																
28-Dec-10	1883	2000	2050																			
4-Jan-11	1890	2000	1950	7.57	342	297	<1	7.97	87.8	166	148	<5	<0.2	80.6	0.0014	0.000586	<0.0001	0.00731	<0.0002	<0.0005	0.022	<0.00005
11-Jan-11	1897	2000	2000																			
18-Jan-11	1904	2000	1980	7.77	357	263																
25-Jan-11	1911	2000	2005																			
1-Feb-11	1918	2000	1985	7.67	361	229	<1	4.39	75.4	139	126	<2.5	0.1	61.8	<0.001	0.000629	0.0002	0.00648	<0.0002	<0.0005	0.023	<0.00005
8-Feb-11	1925	2000	1990																			
15-Feb-11	1932	2000	2075	7.72	351	240																
22-Feb-11	1939	2000	2015																			
1-Mar-11	1946	2000	2065	7.64	327	214	<1	3.86	63.4	136	107	<5	<0.2	52.8	<0.001	0.000617	<0.0001	0.00661	<0.0002	<0.0005	0.021	<0.00005
8-Mar-11	1953	2500	2455																			
15-Mar-11	1960	2000	1965	7.79	313	302																
22-Mar-11	1967	2000	1940																			
29-Mar-11	1974	2000	1920	7.69	252	256	<1	5.96	74.1	145	128	<5	<0.2	63.9	<0.001	0.0005	<0.0001	0.0079	<0.0002	<0.0005	0.019	<0.00005
5-Apr-11	1981	2000	1920																			
12-Apr-11	1988	2000	1955	7.67	288	234																
19-Apr-11	1995	2000	1520																			
26-Apr-11	2002	2000	1945	7.72	229	242	<1	3.31	62.7	136	131	<0.5	0.138	68.9	0.0011	0.000445	<0.0001	0.0079	<0.0002	<0.0005	0.021	<0.00005
3-May-11	2009	2000	1975																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Mar-10	1596																				
23-Mar-10	1603																				
30-Mar-10	1610	14.7	<0.0005	<0.0001	0.00061	<0.03	<0.00005	24.8	0.00364	<0.00001	<0.00005	<0.0005	0.163	0.0031	0.067	<0.00001	<2	0.000083	<0.0001	<0.0005	<0.001
6-Apr-10	1617																				
13-Apr-10	1624																				
20-Apr-10	1631																				
27-Apr-10	1638	15.3	<0.0005	<0.0001	0.00076	<0.03	<0.00005	29.8	0.00535	<0.00001	<0.00005	<0.0005	0.191	0.0028	0.095	<0.00001	<2	0.000099	<0.0001	<0.0005	<0.001
4-May-10	1645																				
11-May-10	1652																				
18-May-10	1659																				
25-May-10	1666	15	<0.0005	<0.0001	0.00094	<0.03	<0.00005	35.4	0.00206	<0.00001	<0.00005	<0.0005	0.22	0.0029	0.056	<0.00001	<2	0.000099	<0.0001	<0.0005	<0.001
1-Jun-10	1673																				
8-Jun-10	1680																				
15-Jun-10	1687																				
22-Jun-10	1694	12	<0.0005	<0.0001	0.00076	<0.03	<0.00005	22.3	0.00154	<0.00001	<0.00005	<0.0005	0.158	0.0024	0.057	<0.00001	<2	0.00008	<0.0001	<0.0005	<0.001
29-Jun-10	1701																				
6-Jul-10	1708																				
13-Jul-10	1715																				
20-Jul-10	1722	13.3	<0.0005	<0.0001	0.00062	<0.03	<0.00005	25	0.00263	<0.00001	0.000103	<0.0005	0.12	0.0022	0.056	<0.00001	<2	0.00008	<0.0001	<0.0005	<0.001
27-Jul-10	1729																				
3-Aug-10	1736																				
10-Aug-10	1743																				
17-Aug-10	1750	15.7	<0.0005	<0.0001	0.00121	<0.03	<0.00005	30.9	0.00377	<0.00001	<0.00005	<0.0005	0.185	0.003	0.059	0.000024	<2	0.000098	<0.0001	<0.0005	<0.001
24-Aug-10	1757																				
31-Aug-10	1764																				
7-Sep-10	1771																				
14-Sep-10	1778	14.6	<0.0005	<0.0001	0.00075	<0.03	<0.00005	28.5	0.00182	<0.00001	<0.00005	<0.0005	0.176	0.0027	<0.05	<0.00001	<2	0.000086	<0.0001	<0.0005	<0.001
21-Sep-10	1785																				
28-Sep-10	1792																				
5-Oct-10	1799																				
12-Oct-10	1806	14.4	<0.0005	<0.0001	0.00069	<0.03	<0.00005	24.7	0.00158	<0.00001	<0.00005	<0.0005	0.187	0.0029	0.054	<0.00001	<2	0.000107	<0.0001	<0.0005	<0.001
19-Oct-10	1813																				
26-Oct-10	1820																				
2-Nov-10	1827																				
9-Nov-10	1834	13.1	<0.0005	<0.0001	0.00067	<0.03	<0.00005	24.1	0.00242	<0.00001	<0.00005	<0.0005	0.179	0.0025	0.063	<0.00001	<2	0.000088	<0.0001	<0.0005	<0.001
16-Nov-10	1841																				
23-Nov-10	1848																				
30-Nov-10	1855																				
7-Dec-10	1862	14.5	<0.0005	<0.0001	0.00109	<0.03	0.000118	27	0.00258	<0.00001	<0.00005	<0.0005	0.205	0.0025	0.07	<0.00001	<2	0.000097	<0.0001	<0.0005	<0.001
14-Dec-10	1869																				
21-Dec-10	1876																				
28-Dec-10	1883																				
4-Jan-11	1890	14.1	<0.0005	<0.0001	0.00093	<0.03	<0.00005	27.4	0.00193	<0.00001	<0.00005	<0.0005	0.165	0.0031	0.064	<0.00001	<2	0.000073	<0.0001	<0.0005	<0.001
11-Jan-11	1897																				
18-Jan-11	1904																				
25-Jan-11	1911																				
1-Feb-11	1918	12.5	<0.0005	<0.0001	0.00078	<0.03	<0.00005	23	0.00297	<0.00001	0.000139	<0.0005	0.134	0.0018	0.062	<0.00001	<2	0.000079	<0.0001	<0.0005	<0.001
8-Feb-11	1925																				
15-Feb-11	1932																				
22-Feb-11	1939																				
1-Mar-11	1946	11.1	<0.0005	<0.0001	0.00069	<0.03	<0.00005	19.2	0.0027	<0.00001	<0.00005	<0.0005	0.128	0.0016	0.056	<0.00001	<2	0.000081	<0.0001	<0.0005	<0.001
8-Mar-11	1953																				
15-Mar-11	1960																				
22-Mar-11	1967																				
29-Mar-11	1974	12.8	<0.0005	<0.0001	0.00046	<0.03	<0.00005	23.4	0.00238	<0.00001	<0.00005	<0.0005	0.139	0.0023	0.065	<0.00001	<2	0.000086	<0.0001	<0.0005	<0.001
5-Apr-11	1981																				
12-Apr-11	1988																				
19-Apr-11	1995																				
26-Apr-11	2002	13.1	<0.0005	<0.0001	0.00051	<0.03	<0.00005	23.9	0.00283	<0.00001	<0.00005	<0.0005	0.155	0.0025	0.055	<0.00001	<2	0.000068	<0.0001	<0.0005	<0.001
3-May-11	2009																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-May-11	2016	2000	1990	7.74	387	246																
17-May-11	2023	2000	2085																			
24-May-11	2030	2000	1990	7.65	267	245	<1	5.89	60.7	176	123	<0.5	0.155	66.9	<0.001	0.000405	<0.0001	0.00825	<0.0002	<0.0005	0.02	<0.00005
31-May-11	2037	2000	1990																			
7-Jun-11	2044	2000	2010	7.88	344	282																
14-Jun-11	2051	2000	1950																			
21-Jun-11	2058	2000	1930	7.89	252	223	<1	2.31	63.7	131	112	<0.5	0.145	59.8	<0.001	0.000402	<0.0001	0.00774	<0.0002	<0.0005	0.02	<0.00005
28-Jun-11	2065	2000	2095																			
5-Jul-11	2072	2000	2055	7.72	318	257																
12-Jul-11	2079	2000	1990																			
19-Jul-11	2086	2000	2120	7.57	343	250	<1	7.43	64.9	142	122	<0.5	0.183	67.8	<0.001	0.000428	<0.0001	0.00859	<0.0002	<0.0005	0.02	<0.00005
26-Jul-11	2093	2000	1895																			
2-Aug-11	2100	2000	2045	7.68	299	200																
9-Aug-11	2107	2000	1995																			
16-Aug-11	2114	2000	2015	7.54	240	244	<1	8.75	60.7	160	122	<5	0.27	69.9	0.0011	0.00043	<0.0001	0.00867	<0.0002	<0.0005	0.019	<0.00005
23-Aug-11	2121	2000	1970																			
30-Aug-11	2128	2000	2005	7.66	361	259																
6-Sep-11	2135	2000	1950																			
13-Sep-11	2142	2000	1965	7.63	289	213	<1	5.57	44	146	113	<5	<0.2	65.4	0.0014	0.000488	<0.0001	0.00698	<0.0002	<0.0005	0.018	<0.00005
20-Sep-11	2149	2000	2000																			
27-Sep-11	2156	2000	1985	7.45	328	220																
4-Oct-11	2163	2000	2010																			
11-Oct-11	2170	2000	2010	7.58	248	215	<1	7.55	45.4	121	104	<5	<0.2	64.2	<0.001	0.000485	0.00011	0.00736	<0.0002	<0.0005	0.019	<0.00005
18-Oct-11	2177	2000	1920																			
25-Oct-11	2184	2000	1935	7.6	321	224																
1-Nov-11	2191	2000	1915																			
8-Nov-11	2198	2000	1965	7.57	293	225	<1	5.63	44.3	125	120	<5	0.21	71.3	0.0014	0.000551	<0.0001	0.00728	<0.0002	<0.0005	0.02	<0.00005
15-Nov-11	2205	2000	2000																			
22-Nov-11	2212	2000	2020	7.6	314	249																
29-Nov-11	2219	2000	1930																			
6-Dec-11	2226	2000	1910	7.59	300	223	<1	5.13	49.7	128	116	<5	<0.2	65.6	0.0019	0.000501	<0.0001	0.00774	<0.0002	<0.0005	0.02	<0.00005
13-Dec-11	2233	2000	1945																			
20-Dec-11	2240	2000	1995	7.62	303	214																
27-Dec-11	2247	2000	1915																			
3-Jan-12	2254	2000	1920	7.61	307	254	<1	4.47	69.6	143	126	<5	0.23	76.6	<0.001	0.000432	0.00012	0.00902	<0.0002	<0.0005	0.022	<0.00005
10-Jan-12	2261	2000	2035																			
17-Jan-12	2268	2000	2010	7.47	342	191																
24-Jan-12	2275	2000	1985																			
31-Jan-12	2282	2000	1600	7.47	313	194	<1	3.54	48.9	97	91.2	<0.5	0.239	54.1	<0.001	0.00052	<0.0001	0.00705	<0.0002	<0.0005	0.017	<0.00005
7-Feb-12	2289	2000	1655																			
14-Feb-12	2296	2000	1885	7.51	481	180																
21-Feb-12	2303	2000	1950																			
28-Feb-12	2310	2000	1975	7.55	373	128	<1	2.43	33.1	65	61	<0.5	0.11	35.6	<0.001	0.000326	<0.0001	0.00472	<0.0002	<0.0005	0.011	<0.00005
6-Mar-12	2317	2000	2040																			
13-Mar-12	2324	2000	2000	7.38	380	165																
20-Mar-12	2331	2000	1935																			
27-Mar-12	2338	2000	1965	7.29	317	139	<1	4.36	29.6	73	60.5	<0.5	0.131	38.5	<0.001	0.000298	<0.0001	0.0049	<0.0002	<0.0005	0.012	<0.00005
3-Apr-12	2345	2000	1910																			
10-Apr-12	2352	2000	1955	7.47	319	156																
17-Apr-12	2359	2000	1935																			
24-Apr-12	2366	2000	1910	7.5	430	228	<1	4.18	44.5	122	104	<5	0.21	69.8	<0.001	0.000488	<0.0001	0.00808	<0.0002	<0.0005	0.019	<0.00005
1-May-12	2373	2000	1940																			
8-May-12	2380	2000	1980	7.53	378	232																
15-May-12	2387	2000	1970																			
22-May-12	2394	2000	2025	7.45	312	194	<1	4.42	43.2	123	90.5	<0.5	0.248	54.7	<0.001	0.000369	<0.0001	0.00717	<0.0002	<0.0005	0.019	<0.00005
29-May-12	2401	2000	1910																			
5-Jun-12	2408	2000	2025	7.42	392	192																
12-Jun-12	2415	2000	1940																			
19-Jun-12	2422	2000	1945	7.52	361	175	<1	3.79	41	98	80.8	<0.5	0.189	47.1	0.0012	0.000416	<0.0001	0.00706	<0.0002	<0.0005	0.016	<0.00005
26-Jun-12	2429	2000	1970																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-May-11	2016																				
17-May-11	2023																				
24-May-11	2030	13.1	<0.0005	<0.0001	0.00086	<0.03	<0.00005	21.8	0.00406	<0.00001	<0.00005	<0.0005	0.139	0.0022	0.064	<0.00001	<2	0.000082	<0.0001	<0.0005	<0.001
31-May-11	2037																				
7-Jun-11	2044																				
14-Jun-11	2051																				
21-Jun-11	2058	12.1	<0.0005	<0.0001	0.00046	<0.03	<0.00005	20	0.00374	<0.00001	<0.00005	<0.0005	0.129	0.0019	0.06	<0.00001	<2	0.000077	<0.0001	<0.0005	<0.001
28-Jun-11	2065																				
5-Jul-11	2072																				
12-Jul-11	2079																				
19-Jul-11	2086	13.3	<0.0005	<0.0001	0.00053	<0.03	0.000126	21.6	0.005	<0.00001	<0.00005	<0.0005	0.138	0.0021	0.063	<0.00001	<2	0.000088	<0.0001	<0.0005	0.0028
26-Jul-11	2093																				
2-Aug-11	2100																				
9-Aug-11	2107																				
16-Aug-11	2114	13	<0.0005	<0.0001	0.00179	<0.03	<0.00005	21.8	0.0147	<0.00001	<0.00005	<0.0005	0.128	0.0019	0.066	<0.00001	<2	0.000093	<0.0001	<0.0005	0.002
23-Aug-11	2121																				
30-Aug-11	2128																				
6-Sep-11	2135																				
13-Sep-11	2142	12.9	<0.0005	<0.0001	0.00071	<0.03	<0.00005	19.5	0.00233	<0.00001	<0.00005	<0.0005	0.123	0.002	<0.05	<0.00001	<2	0.000073	<0.0001	<0.0005	<0.001
20-Sep-11	2149																				
27-Sep-11	2156																				
4-Oct-11	2163																				
11-Oct-11	2170	11.9	<0.0005	<0.0001	0.00058	<0.03	<0.00005	18	0.00217	<0.00001	<0.00005	<0.0005	0.128	0.0021	0.05	<0.00001	<2	0.000086	<0.0001	<0.0005	<0.001
18-Oct-11	2177																				
25-Oct-11	2184																				
1-Nov-11	2191																				
8-Nov-11	2198	12.5	<0.0005	<0.0001	0.0009	<0.03	<0.00005	21.5	0.00248	<0.00001	<0.00005	<0.0005	0.114	0.0021	0.07	<0.00001	<2	0.000097	<0.0001	<0.0005	<0.001
15-Nov-11	2205																				
22-Nov-11	2212																				
29-Nov-11	2219																				
6-Dec-11	2226	12.7	<0.0005	<0.0001	0.00123	<0.03	<0.00005	20.5	0.00232	<0.00001	<0.00005	<0.0005	0.134	0.0021	0.054	<0.00001	<2	0.000084	<0.0001	<0.0005	<0.001
13-Dec-11	2233																				
20-Dec-11	2240																				
27-Dec-11	2247																				
3-Jan-12	2254	14.3	<0.0005	<0.0001	0.00076	<0.03	<0.00005	21.9	0.00289	<0.00001	<0.00005	0.00057	0.141	0.0024	0.07	<0.00001	<2	0.000089	<0.0001	<0.0005	<0.001
10-Jan-12	2261																				
17-Jan-12	2268																				
24-Jan-12	2275																				
31-Jan-12	2282	11.5	<0.0005	<0.0001	0.00058	<0.03	<0.00005	15.2	0.00176	<0.00001	<0.00005	<0.0005	0.119	0.0018	0.054	<0.00001	<2	0.000082	<0.0001	<0.0005	<0.001
7-Feb-12	2289																				
14-Feb-12	2296																				
21-Feb-12	2303																				
28-Feb-12	2310	7.07	<0.0005	<0.0001	0.00077	<0.03	<0.00005	10.5	0.00132	<0.00001	<0.00005	<0.0005	0.071	0.0012	<0.05	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
6-Mar-12	2317																				
13-Mar-12	2324																				
20-Mar-12	2331																				
27-Mar-12	2338	7.59	<0.0005	<0.0001	0.00097	<0.03	<0.00005	10.1	0.00172	<0.00001	<0.00005	<0.0005	0.074	0.0012	<0.05	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
3-Apr-12	2345																				
10-Apr-12	2352																				
17-Apr-12	2359																				
24-Apr-12	2366	12.4	<0.0005	<0.0001	0.00112	<0.03	<0.00005	17.6	0.00272	<0.00001	<0.00005	<0.0005	0.123	0.0022	0.066	<0.00001	<2	0.000071	<0.0001	<0.0005	<0.001
1-May-12	2373																				
8-May-12	2380																				
15-May-12	2387																				
22-May-12	2394	11.3	<0.0005	<0.0001	0.00083	<0.03	<0.00005	15.1	0.00364	<0.00001	<0.00005	<0.0005	0.108	0.0018	0.07	<0.00001	<2	0.000066	<0.0001	<0.0005	<0.001
29-May-12	2401																				
5-Jun-12	2408																				
12-Jun-12	2415																				
19-Jun-12	2422	9.43	<0.0005	<0.0001	0.00089	<0.03	<0.00005	13.9	0.00229	<0.00001	0.000154	<0.0005	0.107	0.0014	0.059	<0.00001	<2	0.000055	<0.0001	<0.0005	<0.001
26-Jun-12	2429																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Jul-12	2436	2000	2020	7.31	439	72																
10-Jul-12	2443	2000	1960																			
17-Jul-12	2450	2000	1990	7.44	399	142	<1	3.06	29.6	92	65.4	<0.5	0.123	41.2	<0.001	0.000363	<0.0001	0.00562	<0.0002	<0.0005	0.013	<0.00005
24-Jul-12	2457	2000	1910																			
31-Jul-12	2464	2000	1945	7.54	380	185																
7-Aug-12	2471	2000	1945																			
14-Aug-12	2478	2000	1940	7.45	264	251	<1	4.08	36.6	174	120	<5	0.25	86.9	0.0011	0.00044	<0.0001	0.0088	<0.0002	<0.0005	0.018	<0.00005
21-Aug-12	2485	2000	1925																			
28-Aug-12	2492	2000	1920	7.36	335	174																
4-Sep-12	2499	2000	1890																			
11-Sep-12	2506	2000	1675	7.32	394	129	<1	3.67	27	74	56.5	<0.5	0.125	38.5	<0.001	0.000259	<0.0001	0.00456	<0.0002	<0.0005	0.011	<0.00005
18-Sep-12	2513	2000	1905																			
25-Sep-12	2520	2000	1925	7.35	393	166																
2-Oct-12	2527	2000	1910																			
9-Oct-12	2534	2000	1910	7.33	345	180	<1	5.77	33.7	110	85.3	<0.5	0.157	58.9	<0.001	0.000279	<0.0001	0.00668	<0.0002	<0.0005	0.015	<0.00005
16-Oct-12	2541	2000	1895																			
23-Oct-12	2548	2000	1935	7.26	389	186																
30-Oct-12	2555	2000	1920																			
6-Nov-12	2562	2000	1930	7.46	357	236	<1	3.82	37.6	154	117	<5	0.21	86.4	0.0013	0.000316	<0.0001	0.00848	<0.0002	<0.0005	0.016	<0.00005
13-Nov-12	2569	2000	1945																			
20-Nov-12	2576	2000	1970	7.69	400	313																
27-Nov-12	2583	2000	1860																			
4-Dec-12	2590	2000	1950	7.37	337	212	<1	3.45	32.8	115	97.7	<0.5	0.182	70	0.0011	0.000352	<0.0001	0.00785	<0.0002	<0.0005	0.015	<0.00005
11-Dec-12	2597	2000	1895																			
18-Dec-12	2604	2000	1940	7.42	359	268																
25-Dec-12	2611	2000	1865																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
1-Nov-05	0	2500	2095	7.35	345	1110	<1	6	29.8	734	83.7	0.9	0.067	468	0.0943	0.00675	0.00088	0.0652	<0.0004	<0.001	0.158	<0.0001
8-Nov-05	7	2500	2400	7.13	429	838																
15-Nov-05	14	2500	2805	7.38	323	461	<1	4.75	25	298	28.8	<0.5	0.097	178	0.0425	0.0063	0.00127	0.0355	<0.0002	<0.0005	0.071	<0.00005
22-Nov-05	21	2500	2460	7.58	393	313																
29-Nov-05	28	2500	2380	7.44	358	214	<1	2	26	150	14.3	<0.5	0.083	71.1	0.107	0.00653	0.00093	0.0287	<0.0002	<0.0005	0.033	<0.00005
6-Dec-05	35	2500	2445	7.44	398	188																
13-Dec-05	42	2500	2500	7.5	412	197	<1	5.5	33.5	134	27.4	<0.5	0.061	67.8	0.0441	0.00802	0.0006	0.0419	<0.0002	<0.0005	0.029	<0.00005
20-Dec-05	49	2500	2580	7.39	478	126																
27-Dec-05	56	2500	2380	7.44	447	155	<1	3	23.8	94	32.5	<0.5	0.036	51.8	0.015	0.00526	0.00035	0.031	<0.0002	<0.0005	0.015	<0.00005
3-Jan-06	63	2500	2350	7.49	488	173																
10-Jan-06	70	2500	2480	7.37	473	161	<1	2.75	27	92	36.9	<0.5	0.034	43.1	0.0144	0.00662	0.00032	0.0378	<0.0002	<0.0005	0.015	<0.00005
17-Jan-06	77	2500	2415	7.51	401	148																
24-Jan-06	84	2500	2450	7.33	429	131	<1	2.5	20.5	72	40.3	<0.5	0.022	39.3	0.0064	0.00553	0.00027	0.0303	<0.0002	<0.0005	0.011	<0.00005
31-Jan-06	91	2500	2465	7.17	408	136																
7-Feb-06	98	2500	2420	7.12	401	90	<1	2	15.5	44	28.7	<0.5	<0.02	28.4	0.0041	0.00453	0.00021	0.0189	<0.0002	<0.0005	<0.01	<0.00005
14-Feb-06	105	2500	2470	7.02	422	82																
21-Feb-06	112	2500	2440	6.99	428	117	<1	2.5	14	58	41.4	<0.5	<0.02	37	0.0037	0.00562	0.0002	0.019	<0.0002	<0.0005	<0.01	<0.00005
28-Feb-06	119	2500	2420	7.19	492	128																
7-Mar-06	126	2500	2445	7.34	449	157	<1	2.5	19.3	88	59	<0.5	0.02	50.1	0.0062	0.00901	0.00024	0.0264	<0.0002	<0.0005	<0.01	0.00005
14-Mar-06	133	2500	2480	7.37	395	140																
21-Mar-06	140	2500	2455	7.12	410	99	<1	3	14	56	34.3	<0.5	<0.02	28.6	0.0047	0.00498	0.00018	0.0166	<0.0002	<0.0005	<0.01	<0.00005
28-Mar-06	147	2500	2450	6.95	371	144																
4-Apr-06	154	2500	2370	7.51	390	173	<1	1.75	26.3	95	68.5	<0.5	0.03	53.9	0.0051	0.00756	0.00022	0.0257	<0.0002	<0.0005	0.011	<0.00005
11-Apr-06	161	2500	2545	7.03	425	75																
18-Apr-06	168	2500	2450	7.46	425	135	<1	2	20.3	73	49.4	<0.5	0.029	41	0.0045	0.00555	0.00017	0.0209	<0.0002	<0.0005	<0.01	<0.00005
25-Apr-06	175	2500	2450	7.46	436	163																
2-May-06	182	2500	2405	7.53	277	168	<1	1.94	30.3	99	71.5	<0.5	0.04	50.6	0.0085	0.00669	0.0002	0.0299	<0.0002	<0.0005	0.011	<0.00005
9-May-06	189	2500	2590	7.69	235	201																
16-May-06	196	2500	2395	7.83	256	183	<1	1.70	35.7	102	73.7	<0.5	0.054	50	0.0081	0.00468	0.0001	0.0429	<0.0002	<0.0005	0.018	<0.00005
23-May-06	203	2500	2500	7.62	207	171																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Jul-12	2436																				
10-Jul-12	2443																				
17-Jul-12	2450	7.65	<0.0005	<0.0001	0.00111	<0.03	<0.00005	11.2	0.00215	<0.00001	<0.00005	<0.0005	0.078	0.0012	<0.05	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Jul-12	2457																				
31-Jul-12	2464																				
7-Aug-12	2471																				
14-Aug-12	2478	13.4	<0.0005	<0.0001	0.00098	<0.03	<0.00005	21.1	0.00238	<0.00001	<0.00005	<0.0005	0.128	0.0023	0.055	<0.00001	<2	0.000072	<0.0001	<0.0005	<0.001
21-Aug-12	2485																				
28-Aug-12	2492																				
4-Sep-12	2499																				
11-Sep-12	2506	6.77	<0.0005	<0.0001	0.00153	<0.03	<0.00005	9.61	0.00205	<0.00001	<0.00005	<0.0005	0.063	0.0011	<0.05	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Sep-12	2513																				
25-Sep-12	2520																				
2-Oct-12	2527																				
9-Oct-12	2534	9.77	<0.0005	<0.0001	0.00489	<0.03	<0.00005	14.8	0.00442	<0.00001	<0.00005	<0.0005	0.094	0.0016	0.052	<0.00001	<2	0.000057	<0.0001	<0.0005	<0.001
16-Oct-12	2541																				
23-Oct-12	2548																				
30-Oct-12	2555																				
6-Nov-12	2562	14.1	<0.0005	<0.0001	0.00265	<0.03	<0.00005	20	0.00429	<0.00001	<0.00005	<0.0005	0.11	0.0021	0.06	<0.00001	<2	0.000079	<0.0001	<0.0005	<0.001
13-Nov-12	2569																				
20-Nov-12	2576																				
27-Nov-12	2583																				
4-Dec-12	2590	12.3	<0.0005	<0.0001	0.00205	<0.03	<0.00005	16.3	0.0093	<0.00001	<0.00005	<0.0005	0.101	0.0015	0.054	<0.00001	<2	0.000063	<0.0001	<0.0005	<0.001
11-Dec-12	2597																				
18-Dec-12	2604																				
25-Dec-12	2611																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
1-Nov-05	0	24.1	<0.001	0.00314	0.00468	0.066	<0.0001	5.74	0.108	0.000018	0.047	0.0032	4.28	0.0718	1.56	<0.00002	174	<0.0001	<0.0002	<0.001	0.0243
8-Nov-05	7																				
15-Nov-05	14	7.67	<0.0005	0.00045	0.0028	<0.03	<0.00005	2.35	0.0282	<0.00001	0.0603	<0.0005	2.52	0.0369	1.07	<0.00001	76.5	<0.00005	<0.0001	0.00067	0.0033
22-Nov-05	21																				
29-Nov-05	28	3.94	<0.0005	0.00013	0.00313	<0.03	<0.00005	1.08	0.0123	<0.00001	0.0431	<0.0005	1.82	0.0122	0.903	<0.00001	36.9	<0.00005	<0.0001	0.00086	0.0014
6-Dec-05	35																				
13-Dec-05	42	7.18	<0.0005	0.00015	0.0016	<0.03	<0.00005	2.31	0.0238	<0.00001	0.0461	<0.0005	3	0.012	1.04	<0.00001	35	<0.00005	<0.0001	0.00054	0.0021
20-Dec-05	49																				
27-Dec-05	56	8.37	<0.0005	0.00018	0.00137	<0.03	<0.00005	2.82	0.0337	<0.00001	0.0267	<0.0005	2.57	0.0075	0.64	<0.00001	18.7	<0.00005	<0.0001	<0.0005	0.0019
3-Jan-06	63																				
10-Jan-06	70	9.09	<0.0005	0.00022	0.00118	<0.03	<0.00005	3.45	0.0455	<0.00001	0.0269	<0.0005	2.76	0.0064	0.69	<0.00001	12.9	<0.00005	<0.0001	<0.0005	0.0027
17-Jan-06	77																				
24-Jan-06	84	9.9	<0.0005	0.00024	0.00235	<0.03	<0.00005	3.78	0.048	<0.00001	0.021	<0.0005	2.21	0.0058	0.494	<0.00001	8	<0.00005	<0.0001	<0.0005	0.0033
31-Jan-06	91																				
7-Feb-06	98	7.25	<0.0005	0.00018	0.00284	<0.03	<0.00005	2.57	0.032	<0.00001	0.0114	<0.0005	1.3	0.0033	0.312	<0.00001	4.9	<0.00005	<0.0001	<0.0005	0.0022
14-Feb-06	105																				
21-Feb-06	112	9.45	<0.0005	0.0002	0.00187	<0.03	<0.00005	4.31	0.0351	<0.00001	0.0113	<0.0005	1.45	0.0045	0.301	<0.00002	3.9	<0.00005	<0.0001	<0.0005	0.0022
28-Feb-06	119																				
7-Mar-06	126	14.2	<0.0005	0.00021	0.00542	<0.03	0.000081	5.73	0.0392	0.000053	0.0179	<0.0005	2.21	0.0066	0.407	<0.00001	4.3	<0.00005	0.00012	<0.0005	0.004
14-Mar-06	133																				
21-Mar-06	140	8.32	<0.0005	0.00016	0.00319	<0.03	<0.00005	3.28	0.0305	<0.00001	0.0081	<0.0005	1.27	0.0036	0.317	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0021
28-Mar-06	147																				
4-Apr-06	154	15.8	<0.0005	0.00025	0.00411	<0.03	<0.00005	7.07	0.0527	<0.00001	0.0168	<0.0005	2.35	0.0064	0.455	<0.00001	3.6	<0.00005	<0.0001	<0.0005	0.0029
11-Apr-06	161																				
18-Apr-06	168	11.1	<0.0005	0.00021	0.0023	<0.03	<0.00005	5.26	0.0409	<0.00001	0.0122	<0.0005	1.74	0.0051	0.325	<0.00001	2	<0.00005	<0.0001	<0.0005	0.0026
25-Apr-06	175																				
2-May-06	182	14.9	<0.0005	0.00019	0.00387	<0.03	<0.00005	8.34	0.0445	<0.00001	0.0145	<0.0005	2.28	0.0066	0.384	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
9-May-06	189																				
16-May-06	196	16.5	<0.0005	0.00011	0.0013	<0.03	0.000078	7.88	0.0401	<0.00001	0.029	<0.0005	2.91	0.0071	0.538	<0.00001	2.3	0.000063	<0.0001	<0.0005	0.001
23-May-06	203																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
30-May-06	210	2500	2545	7.67	294	169	<1	2.36	39	101	69.5	<0.5	0.035	41.5	0.0103	0.00375	0.00015	0.0409	<0.0002	<0.0005	0.011	<0.00005
6-Jun-06	217	2500	2545	7.63	254	160																
13-Jun-06	224	2500	2510	7.55	268	144	<1	2.27	34.7	82	58.8	<0.5	0.041	33.4	0.0066	0.0031	0.00011	0.0391	<0.0002	<0.0005	<0.01	<0.00005
20-Jun-06	231	2500	2385	7.51	246	216																
27-Jun-06	238	2500	2365	7.91	292	212	<1	1.85	55.3	127	96	<0.5	0.044	50.5	0.0055	0.00462	0.00017	0.0472	<0.0002	<0.0005	0.016	<0.00005
4-Jul-06	245	2500	2455	7.82	156	140																
11-Jul-06	252	2500	2470	7.72	290	181	<1	1.94	45.6	100	81.1	<0.5	0.039	41.8	0.0046	0.0034	0.00011	0.0467	<0.0002	<0.0005	0.011	<0.00005
18-Jul-06	259	2500	2460	7.71	224	160																
25-Jul-06	266	2500	2370	7.4	351	131	<1	2.47	31.6	87	60.7	<0.5	0.03	32.1	0.0054	0.00288	0.00011	0.0383	<0.0002	<0.0005	<0.01	<0.00005
1-Aug-06	273	2500	2525	7.82	264	138																
8-Aug-06	280	2500	2505	7.11	305	160	<1	4.49	35.3	92	73.1	<0.5	0.02	42.2	0.0045	0.00222	<0.0001	0.0382	<0.0002	<0.0005	<0.01	<0.00005
15-Aug-06	287	2500	2455	7.79	221	135																
22-Aug-06	294	2500	2250	7.35	346	157	<1	4.24	40.7	120	83.9	<0.5	0.034	41.8	0.0063	0.00182	<0.0001	0.0391	<0.0005	<0.0005	<0.01	<0.00005
29-Aug-06	301	2500	2570	7.87	207	117																
5-Sep-06	308	2500	2450	7.59	304	158	<1	2.24	35.6	89	69.5	<0.5	0.028	41.5	0.0055	0.00153	0.00012	0.0326	<0.0002	<0.0005	<0.01	0.000051
12-Sep-06	315	2500	2530	7.83	268	135																
19-Sep-06	322	2500	2510	7.56	329	141	<1	1.19	35.9	78	63.9	<0.5	0.028	33.5	0.0039	0.00147	<0.0001	0.0328	<0.0002	<0.0005	<0.01	<0.00005
26-Sep-06	329	2500	2425	7.74	240	117																
3-Oct-06	336	2500	2470	7.34	366	135	<1	3.99	35.9	69	64.2	<0.5	0.073	46.5	0.0097	0.00154	<0.0001	0.033	<0.0002	<0.0005	<0.01	<0.00005
10-Oct-06	343	2500	2340	7.59	188	116																
17-Oct-06	350	2500	2415		400	166	<1	4.57	39.9	87.5	73.3	<0.5	0.025	40.8	0.0039	0.00158	<0.0001	0.0354	<0.0002	<0.0005	<0.01	<0.00005
24-Oct-06	357	2500	2460	7.75	349	160																
31-Oct-06	364	2500	2520	7.54	367	127	<1	1.62	35.1	69	61.6	<0.5	0.023	29.2	0.0034	0.00121	0.00011	0.0313	<0.0002	<0.0005	<0.01	<0.00005
7-Nov-06	371	2500	2515	7.95	340	151																
14-Nov-06	378	2500	2490	7.54	344	150	<1	2.28	41.3	77.3	70.4	<0.5	0.026	32.1	0.0033	0.00128	<0.0001	0.0367	<0.0002	<0.0005	<0.01	<0.00005
21-Nov-06	385	2500	2495	7.74	322	156																
28-Nov-06	392	2500	2485	7.51	350	123	<1	6.79	37.1	48	54.2	<0.5	0.027	24	0.0017	0.000927	<0.0001	0.0272	<0.0002	<0.0005	<0.01	<0.00005
5-Dec-06	399	2500	2470	7.72	367	135																
12-Dec-06	406	2500	2300	7.53	319	150	<1	2.57	37.7	81	68.4	<0.5	0.036	33.5	0.0029	0.00146	<0.0001	0.035	<0.0002	<0.0005	<0.01	<0.00005
19-Dec-06	413	2500	2585	7.7	363	127																
26-Dec-06	420	2500	2555	7.54	492	143	<1	2.17	37.9	66	66.4	<0.5	0.03	33.3	0.0036	0.00122	0.00028	0.0352	<0.0002	<0.0005	<0.01	<0.00005
2-Jan-07	427	2500	2535	7.59	372	128																
9-Jan-07	434	2500	2370	7.73	345	137	<1	1.72	42.1	73	63.2	<0.5	0.03	29.3	0.0035	0.00118	0.00012	0.033	<0.0002	<0.0005	<0.01	<0.00005
16-Jan-07	441	2500	2635	7.57	330	119																
23-Jan-07	448	2500	2485	7.6	353	150	<1	3.14	39.2	78	70.5	<0.5	0.031	31.7	0.002	0.000885	<0.0001	0.0375	<0.0002	<0.0005	<0.01	<0.00005
30-Jan-07	455	2500	2530	7.44	373	142																
6-Feb-07	462	2500	2350	7.52	374	133	<1	4.5	44.7	75	65.1	<0.5	0.071	36.1	0.0026	0.000881	0.00062	0.0357	<0.0002	<0.0005	<0.01	<0.00005
13-Feb-07	469	2500	2440	7.34	342	118																
20-Feb-07	476	2500	2505	7.38	401	128	<1	3.3	30.6	60.3	54	<0.5	0.038	28.8	0.0024	0.00086	<0.0001	0.0287	<0.0002	<0.0005	<0.01	<0.00005
27-Feb-07	483	2500	2390	7.47	286	169																
6-Mar-07	490	2500	2400	7.59	381	141	<1	2.97	41.2	79.8	67.8	<0.5	0.026	32.6	0.0031	0.000917	<0.0001	0.0336	<0.0002	<0.0005	<0.01	<0.00005
13-Mar-07	497	2500	2455	7.52	391	151																
20-Mar-07	504	2500	2465	7.71	407	132	<1	1.91	41	71	62.8	<0.5	0.035	24.5	0.0022	0.000731	<0.0001	0.0373	<0.0002	<0.0005	<0.01	<0.00005
27-Mar-07	511	2500	2355	7.85	383	155																
3-Apr-07	518	2500	2495	7.63	447	120	<1	1.65	36.9	73.5	58.9	<0.5	0.043	27.5	0.0018	0.000716	<0.0001	0.0376	<0.0002	<0.0005	<0.01	<0.00005
10-Apr-07	525	2500	2195	7.64	375	142																
17-Apr-07	532	2500	2125	7.41	415	155	<1	2.47	35.5	67	66.2	<0.5	0.04	35.8	0.0024	0.000865	0.00023	0.0386	<0.0002	<0.0005	<0.01	<0.00005
24-Apr-07	539	2500	2345	7.73	348	118																
1-May-07	546	2500	2405	7.64	385	135	<1	1.87	40.5	81.5	68.8	<0.5	0.029	33.6	0.0032	0.00078	0.00013	0.0386	<0.0002	<0.0005	<0.01	<0.00005
8-May-07	553	2500	2725	7.74	300	136																
15-May-07	560	2500	2430	7.55	382	130	<1	2.4	36.4	62.5	56.3	<0.5	0.035	24.7	0.0027	0.000768	<0.0001	0.036	<0.0002	<0.0005	<0.01	<0.00005
22-May-07	567	2500	2415	7.68	351	131																
29-May-07	574	2500	2445	7.73	393	123	<1	2.69	34.4	71	60.4	<0.5	0.031	27.3	0.0024	0.00082	<0.0002	0.0351	<0.0004	<0.001	<0.02	<0.0001
5-Jun-07	581	2500	2395	7.61	353	128																
12-Jun-07	588	2500	2400	7.49	368	101	<1	2.47	25.2	73.1	49.8	<0.5	<0.02	26.7	0.0028	0.000848	<0.0001	0.0286	<0.0002	<0.0005	<0.01	<0.00005
19-Jun-07	595	2500	2435	7.42	460	129																
26-Jun-07	602	2500	2450	7.72	357	154	<1	3.07	36.5	92.3	69.9	<0.5	<0.02	40.1	0.0029	0.00077	<0.0001	0.0362	<0.0002	<0.0005	<0.01	<0.00005
3-Jul-07	609	2500	2385	7.77	321	142																
10-Jul-07	616	2500	2365	7.85	331	147	<1	3.13	43	81.5	71.6	<0.5	0.041	37.4	0.0027	0.000779	<0.0001	0.0343	<0.0002	<0.0005	0.011	<0.00005
17-Jul-07	623	2500	2375	7.62	335	152																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
30-May-06	210	15	<0.0005	0.00012	0.00181	<0.03	0.000054	7.78	0.039	<0.00001	0.0173	<0.0005	2.56	0.0063	0.457	<0.00001	<2	0.000055	<0.0001	<0.0005	0.0032
6-Jun-06	217																				
13-Jun-06	224	12.2	<0.0005	<0.0001	0.00142	0.123	<0.00005	6.86	0.0297	<0.00001	0.0135	<0.0005	2.36	0.0047	0.413	<0.00001	<2	0.000054	<0.0001	<0.0005	<0.001
20-Jun-06	231																				
27-Jun-06	238	19	<0.0005	0.00018	0.0029	<0.03	<0.00005	11.8	0.0494	<0.00001	0.0142	0.00067	3.13	0.0067	0.555	<0.00001	<2	0.000081	<0.0001	<0.0005	0.0013
4-Jul-06	245																				
11-Jul-06	252	16	<0.0005	0.00016	0.00263	<0.03	<0.00005	10	0.0481	<0.00001	0.0108	<0.0005	2.6	0.0063	0.443	<0.00001	<2	0.000067	<0.0001	<0.0005	0.0012
18-Jul-06	259																				
25-Jul-06	266	12	<0.0005	<0.0001	0.00225	<0.03	<0.00005	7.47	0.0295	<0.00001	0.00918	<0.0005	1.92	0.0049	0.331	<0.00001	<2	0.00006	<0.0001	<0.0005	0.0017
1-Aug-06	273																				
8-Aug-06	280	14.6	<0.0005	<0.0001	0.00153	<0.03	0.00005	8.91	0.0251	<0.00001	0.00694	<0.0005	1.67	0.0052	0.286	<0.00001	<2	0.000051	<0.0001	<0.0005	0.0014
15-Aug-06	287																				
22-Aug-06	294	15	<0.0005	<0.0001	0.00266	<0.03	0.000055	11.3	0.0304	<0.00005	0.00674	<0.0005	<2	0.0053	0.294	<0.00001	<2	<0.0001	0.00031	<0.001	0.006
29-Aug-06	301																				
5-Sep-06	308	12.8	<0.0005	<0.0001	0.00258	<0.03		9.14	0.0239	<0.00001	0.00683	<0.0005	1.59	0.0045	0.271	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.006
12-Sep-06	315																				
19-Sep-06	322	11.9	<0.0005	<0.0001	0.00432	<0.03	<0.00005	8.29	0.017	<0.00001	0.00646	<0.0005	1.51	0.0043	0.675	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0021
26-Sep-06	329																				
3-Oct-06	336	10.9	<0.0005	<0.0001	0.00221	<0.03	<0.00005	8.72	0.021	<0.00001	0.0051	<0.0005	1.51	0.0037	0.368	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Oct-06	343																				
17-Oct-06	350	13.7	<0.0005	<0.0001	0.00434	<0.03	<0.00005	9.49	0.0169	<0.00001	0.00474	<0.0005	1.39	0.0041	0.301	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0018
24-Oct-06	357																				
31-Oct-06	364	10.4	<0.0005	<0.0001	0.00486	<0.03	<0.00005	8.64	0.014	<0.00001	0.00441	<0.0005	1.24	0.0037	0.278	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
7-Nov-06	371																				
14-Nov-06	378	12.9	<0.0005	<0.0001	0.00247	<0.03	0.000131	9.28	0.0103	<0.00001	0.00346	<0.0005	1.28	0.004	0.271	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0023
21-Nov-06	385																				
28-Nov-06	392	9.68	<0.0005	<0.0001	0.00178	<0.03	<0.00005	7.3	0.0095	<0.00001	0.00255	<0.0005	1.06	0.0029	0.231	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
5-Dec-06	399																				
12-Dec-06	406	11.3	<0.0005	<0.0001	0.00382	<0.03	<0.00005	9.76	0.0101	<0.00001	0.00374	<0.0005	1.25	0.0046	0.249	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
19-Dec-06	413																				
26-Dec-06	420	11.2	<0.0005	<0.0001	0.00499	<0.03	0.000594	9.34	0.00494	<0.00001	0.00303	<0.0005	1.09	0.0043	0.241	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0059
2-Jan-07	427																				
9-Jan-07	434	10.4	<0.0005	<0.0001	0.00187	<0.03	<0.00005	9.03	0.00866	<0.00001	0.00303	<0.0005	1.09	0.0034	0.248	<0.00001	<2	<0.00005	0.00027	<0.0005	0.002
16-Jan-07	441																				
23-Jan-07	448	11.9	<0.0005	<0.0001	0.00172	<0.03	<0.00005	9.92	0.00699	<0.00001	0.00302	<0.0005	1.1	0.0038	0.229	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0014
30-Jan-07	455																				
6-Feb-07	462	11.2	<0.0005	0.00029	0.00234	<0.03	0.000107	9.04	0.0123	<0.00001	0.00233	0.00074	1.03	0.0032	0.245	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0099
13-Feb-07	469																				
20-Feb-07	476	8.36	<0.0005	<0.0001	0.00194	<0.03	<0.00005	8.04	0.00692	<0.00001	0.00267	<0.0005	0.975	0.0033	0.205	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0116
27-Feb-07	483																				
6-Mar-07	490	10.2	0.00062	<0.0001	0.00285	<0.03	<0.00005	10.3	0.00791	<0.00001	0.00271	<0.0005	1.12	0.0035	0.222	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
13-Mar-07	497																				
20-Mar-07	504	9.92	<0.0005	<0.0001	0.00125	<0.03	<0.00005	9.23	0.00347	<0.00001	0.00304	<0.0005	1.11	0.0029	0.226	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0014
27-Mar-07	511																				
3-Apr-07	518	8.69	<0.0005	<0.0001	0.00113	<0.03	<0.00005	9.03	0.00619	<0.00001	0.00258	<0.0005	1.14	0.0035	0.211	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Apr-07	525																				
17-Apr-07	532	9.96	<0.0005	<0.0001	0.00362	<0.03	<0.00005	10.8	0.00426	<0.00001	0.00286	<0.0005	1.1	0.0041	0.193	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
24-Apr-07	539																				
1-May-07	546	10.2	<0.0005	<0.0001	0.0021	<0.03	<0.00005	10.5	0.00622	<0.00001	0.00253	0.00071	1.13	0.0039	0.238	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-May-07	553																				
15-May-07	560	8.84	<0.0005	<0.0001	0.00151	<0.03	<0.00005	8.32	0.00595	<0.00001	0.00218	<0.0005	1.01	0.0026	0.193	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
22-May-07	567																				
29-May-07	574	8.39	<0.001	<0.0002	0.00231	<0.03	<0.0001	9.59	0.003	<0.00001	0.00214	<0.001	1.03	0.0031	0.194	<0.00002	<2	<0.0001	<0.0002	<0.001	<0.002
5-Jun-07	581																				
12-Jun-07	588	7.65	<0.0005	<0.0001	0.00169	<0.03	<0.00005	7.46	0.0024	<0.00001	0.00194	<0.0005	0.753	0.0036	0.151	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0044
19-Jun-07	595																				
26-Jun-07	602	9.87	<0.0005	<0.0001	0.0016	<0.03	<0.00005	11	0.00415	<0.00001	0.00222	<0.0005	0.959	0.0038	0.178	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0018
3-Jul-07	609																				
10-Jul-07	616	10.1	<0.0005	<0.0001	0.00266	<0.03	<0.00005	11.3	0.00235	<0.00001	0.00356	<0.0005	1.15	0.0038	0.247	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.003
17-Jul-07	623																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
24-Jul-07	630	2500	2495	7.54	403	148	<1	5.8	40.7	74.3	65.1	<0.5	0.034	30.8	0.0026	0.000615	<0.0001	0.0327	<0.0002	<0.0005	0.01	<0.00005
31-Jul-07	637	2500	2430	7.52	339	128																
7-Aug-07	644	2500	2435	7.51	409	129	<1	2.26	30.7	58.8		<0.5	0.03	28.2	0.0024	0.000621	0.00015	0.0305	<0.0002	<0.0005	<0.01	<0.00005
14-Aug-07	651	2500	2445	7.74	396	148																
21-Aug-07	658	2500	2375	7.52	438	142	<1	2.95	39.7	92.5	74.9	<0.5	0.033	41.3	0.0019	0.00097	<0.0001	0.0401	<0.0002	<0.0005	0.01	<0.00005
28-Aug-07	665	2500	2445	7.58	438	108																
4-Sep-07	672	2500	2420	7.36	420	106	<1	3.41	31.6	76	60.4	<0.5	0.026	32.6	0.0034	0.000731	<0.0001	0.0328	<0.0002	<0.0005	<0.01	<0.00005
11-Sep-07	679	2500	2390	7.62	437	100																
18-Sep-07	686	2500	2410	7.79	361	96	<1	4.38	36.4	83.7	64.4	<0.5	0.034	33.6	0.0023	0.000917	<0.0001	0.0346	<0.0002	<0.0005	<0.01	<0.00005
25-Sep-07	693	2500	1960	7.03	417	174																
2-Oct-07	700	2500	2255	7.79	412	154	<1	5.38	37.1	86.5	71	<0.5	0.031	39.6	0.0027	0.000888	<0.0001	0.0375	<0.0002	<0.0005	<0.01	<0.00005
9-Oct-07	707	2500	2380																			
16-Oct-07	714	2500	2415	7.48	438	122	<1	3.19	29.5	84.2	58.8	<0.5	0.039	29.8	0.0019	0.000657	<0.0001	0.0337	<0.0002	<0.0005	<0.01	<0.00005
23-Oct-07	721	2500	2370																			
30-Oct-07	728	2500	2365	7.25	442	124																
6-Nov-07	735	2500	2465																			
13-Nov-07	742	2500	2405	7.53	449	134	<1	3.12	33.6	69.8	62.4	<0.5	0.038	33.6	0.0054	0.000635	<0.0001	0.0327	<0.0002	<0.0005	<0.01	<0.00005
20-Nov-07	749	2500	2435																			
27-Nov-07	756	2500	2360	7.25	483	139																
4-Dec-07	763	2500	2435																			
11-Dec-07	770	2500	2425	7.46	466	117	<1	2.88	30.6	59	50.7	<0.5	0.044	26.8	0.0025	0.000548	<0.0001	0.0272	<0.0002	<0.0005	<0.01	<0.00005
18-Dec-07	777	2500	2410																			
25-Dec-07	784	2500	2390	7.68	413	140																
1-Jan-08	791	2500	1705																			
8-Jan-08	798	2500	2385	7.2	467	93	<1	3.5	23.9	49	41	<0.5	0.034	22.7	0.0077	0.000539	0.00029	0.0176	<0.0002	<0.0005	<0.01	<0.00005
15-Jan-08	805	2500	2425																			
22-Jan-08	812	2500	2445	7.46	470	124																
29-Jan-08	819	2500	2480																			
5-Feb-08	826	2500	2355	7.56	451	128	<1	3.29	38.6	75	61.7	<0.5	0.048	29.2	0.0019	0.000674	<0.0001	0.0357	<0.0002	<0.0005	<0.01	<0.00005
12-Feb-08	833	2500	2525																			
19-Feb-08	840	2500	2385	7.62	430	118																
26-Feb-08	847	2500	2265																			
4-Mar-08	854	2500	2370	7.67	407	155	<1	3.83	43	87.2	70.1	<0.5	0.054	37.5	0.0023	0.000624	<0.0001	0.0389	<0.0002	<0.0005	<0.01	<0.00005
11-Mar-08	861	2500	2455																			
18-Mar-08	868	2500	2380	7.65	408	140																
25-Mar-08	875	2500	2380																			
1-Apr-08	882	2500	2270	7.68	417	125	<1	2.53	35.4	75	60	<0.5	0.051	32.7	0.0017	0.000631	<0.0001	0.0361	<0.0002	<0.0005	<0.01	<0.00005
8-Apr-08	889	2500	2390																			
15-Apr-08	896	2500	2330	7.55	407	143																
22-Apr-08	903	2500	2405																			
29-Apr-08	910	2500	2320	7.71	386	146	<1	2.25	32.8	78.3	62.3	<0.5	0.07	38	0.0019	0.000572	<0.0001	0.0362	<0.0002	<0.0005	<0.01	<0.00005
6-May-08	917	2500	2460																			
13-May-08	924	2500	2415	7.7	346	137																
20-May-08	931	2500	2480																			
27-May-08	938	2500	2655	7.61	379	121	<1	3.16	30.4	66.4	59.2	<0.5	0.065	35.6	0.0013	0.000511	<0.0001	0.0295	<0.0002	<0.0005	<0.01	<0.00005
3-Jun-08	945	2500	2330																			
10-Jun-08	952	2500	2370	7.11	377	101																
17-Jun-08	959	2500	2405																			
24-Jun-08	966	2500	2320	7.03	238	96	<1	5.92	33.7	74.5	59.4	<0.5	0.056	35.6	0.0015	0.000904	<0.0001	0.0328	<0.0002	<0.0005	<0.01	<0.00005
1-Jul-08	973	2500	2295																			
8-Jul-08	980	2500	2320	7.23	252	160																
15-Jul-08	987	2500	2470																			
22-Jul-08	994	2500	2325	7.54	318	108	<1	3.29	27.3	61	53.1	<0.5	0.068	30.6	0.0036	0.000836	<0.0001	0.0303	<0.0002	<0.0005	<0.01	<0.00005
29-Jul-08	1001	2500	2485																			
5-Aug-08	1008	2500	2395	7.61	330	141																
12-Aug-08	1015	2500	2480																			
19-Aug-08	1022	2500	2405	7.59	230	110	<1	2.45	25.6	66.5	50.1	<0.5	0.064	31.3	0.0102	0.000867	<0.0001	0.0269	<0.0002	<0.0005	<0.01	<0.00005
26-Aug-08	1029	2500	2450																			
2-Sep-08	1036	2500	2365	7.56	258	129																
9-Sep-08	1043	2500	2460																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
24-Jul-07	630	8.95	<0.0005	<0.0001	0.00135	<0.03	<0.00005	10.4	0.00223	<0.00001	0.00259	<0.0005	0.99	0.0031	0.218	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
31-Jul-07	637																				
7-Aug-07	644	7.46	<0.0005	<0.0001	0.00085	<0.03	<0.00005	8.99	0.00225	<0.00001	0.00234	<0.0005	0.924	0.0029	0.171	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
14-Aug-07	651																				
21-Aug-07	658	9.89	<0.0005	<0.0001	0.0012	<0.03	<0.00005	12.2	0.00298	<0.00001	0.00248	0.001	1.12	0.004	0.208	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
28-Aug-07	665																				
4-Sep-07	672	7.99	<0.0005	<0.0001	0.00258	<0.03	<0.00005	9.81	0.00216	<0.00001	0.00235	<0.0005	0.965	0.0031	0.181	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
11-Sep-07	679																				
18-Sep-07	686	8.38	<0.0005	<0.0001	0.00086	<0.03	<0.00005	10.6	0.00227	<0.00001	0.00214	<0.0005	0.96	0.0033	0.193	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
25-Sep-07	693																				
2-Oct-07	700	9.17	<0.0005	<0.0001	0.00109	0.061	<0.00005	11.7	0.00266	<0.00001	0.00164	<0.0005	0.862	0.0033	0.235	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
9-Oct-07	707																				
16-Oct-07	714	7.46	<0.0005	<0.0001	0.00147	<0.03	<0.00005	9.75	0.00163	<0.00001	0.00149	<0.0005	0.87	0.0026	0.205	<0.00001	<2	0.000063	<0.0001	<0.0005	<0.001
23-Oct-07	721																				
30-Oct-07	728																				
6-Nov-07	735																				
13-Nov-07	742	7.72	<0.0005	<0.0001	0.00171	<0.03	<0.00005	10.5	0.0032	<0.00001	0.00129	<0.0005	0.897	0.003	0.197	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
20-Nov-07	749																				
27-Nov-07	756																				
4-Dec-07	763																				
11-Dec-07	770	6.59	<0.0005	<0.0001	0.00133	<0.03	<0.00005	8.32	0.00313	<0.00001	0.000943	<0.0005	0.679	0.0022	0.198	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0014
18-Dec-07	777																				
25-Dec-07	784																				
1-Jan-08	791																				
8-Jan-08	798	5.12	<0.0005	<0.0001	0.00224	<0.03	<0.00005	6.81	0.00838	<0.00001	0.0015	<0.0005	0.535	0.0024	0.184	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
15-Jan-08	805																				
22-Jan-08	812																				
29-Jan-08	819																				
5-Feb-08	826	7.55	<0.0005	<0.0001	0.00119	<0.03	<0.00005	10.4	0.00379	<0.00001	0.00121	<0.0005	0.936	0.0028	0.217	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
12-Feb-08	833																				
19-Feb-08	840																				
26-Feb-08	847																				
4-Mar-08	854	8.65	<0.0005	<0.0001	0.00146	<0.03	<0.00005	11.8	0.0024	<0.00001	0.00107	<0.0005	0.939	0.0036	0.231	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-Mar-08	861																				
18-Mar-08	868																				
25-Mar-08	875																				
1-Apr-08	882	7.65	<0.0005	<0.0001	0.00147	<0.03	<0.00005	9.93	0.00367	<0.00001	0.00122	<0.0005	0.822	0.0027	0.213	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0049
8-Apr-08	889																				
15-Apr-08	896																				
22-Apr-08	903																				
29-Apr-08	910	7.58	<0.0005	<0.0001	0.00084	<0.03	<0.00005	10.5	0.00552	<0.00001	0.000727	<0.0005	0.758	0.003	0.216	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
6-May-08	917																				
13-May-08	924																				
20-May-08	931																				
27-May-08	938	7.58	<0.0005	<0.0001	0.00078	0.039	<0.00005	9.78	0.00318	<0.00001	0.000895	<0.0005	0.687	0.0024	0.208	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
3-Jun-08	945																				
10-Jun-08	952																				
17-Jun-08	959																				
24-Jun-08	966	7.33	<0.0005	<0.0001	0.00075	<0.03	<0.00005	9.98	0.00599	<0.00001	0.000816	<0.0005	0.71	0.0024	0.204	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
1-Jul-08	973																				
8-Jul-08	980																				
15-Jul-08	987																				
22-Jul-08	994	6.45	<0.0005	<0.0001	0.00083	<0.03	0.000555	8.98	0.00443	<0.00001	0.000898	<0.0005	0.675	0.0021	0.196	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
29-Jul-08	1001																				
5-Aug-08	1008																				
12-Aug-08	1015																				
19-Aug-08	1022	5.82	<0.0005	<0.0001	0.00063	<0.03	<0.00005	8.63	0.00443	<0.00001	0.000909	<0.0005	0.686	0.0023	0.181	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Aug-08	1029																				
2-Sep-08	1036																				
9-Sep-08	1043																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Sep-08	1050	2500	2675	7.73	290	134	<1	2.28	29	77	56	<0.5	0.06	36	0.0018	0.000525	<0.0001	0.0331	<0.0002	<0.0005	<0.01	<0.00005
23-Sep-08	1057	2500	2460																			
30-Sep-08	1064	2500	2340	7.49	210	124																
7-Oct-08	1071	2500	2435																			
14-Oct-08	1078	2500	2480	7.47	365	133	<1	5.21	33.2	80	63.7	<0.5	0.066	36.6	0.0012	0.000711	<0.0001	0.0366	<0.0002	<0.0005	<0.01	<0.00005
21-Oct-08	1085	2500	2415																			
28-Oct-08	1092	2500	2435	7.52	418	112																
4-Nov-08	1099	2500	2410																			
11-Nov-08	1106	2500	2495	7.34	409	103	<1	3.51	24.6	35.5	46.9	<0.5	0.065	29.6	0.0018	0.0005	<0.0001	0.0271	<0.0002	<0.0005	<0.01	<0.00005
18-Nov-08	1113	2500	2520																			
25-Nov-08	1120	2500	2510	7.45	321	87																
2-Dec-08	1127	2500	2450																			
9-Dec-08	1134	2500	2415	7.52	256	120	<1	2.83	35.2	56	58.9	<0.5	0.051	30.6	<0.001	0.000504	<0.0001	0.0334	<0.0002	<0.0005	<0.01	<0.00005
16-Dec-08	1141	2500	2565																			
23-Dec-08	1148	2500	2530	7.52	211	119																
30-Dec-08	1155	2500	2320																			
6-Jan-09	1162	2500	2385	7.43	250	121	<1	4.28	33.5	78	55.2	<0.5	0.061	32.3	0.0017	0.000599	<0.0001	0.031	<0.0002	<0.0005	<0.01	<0.00005
13-Jan-09	1169	2500	2375																			
20-Jan-09	1176	2500	2385	7.43	376	113																
27-Jan-09	1183	2500	2385																			
3-Feb-09	1190	2500	2370	7.26	399	98	<1	5	23.2	57.3	55.2	<0.5	0.064	30.4	0.0011	0.000584	<0.0001	0.0278	<0.0002	<0.0005	<0.01	<0.00005
10-Feb-09	1197	2500	2285																			
17-Feb-09	1204	2500	2475	7.46	409	118																
24-Feb-09	1211	2500	2565																			
3-Mar-09	1218	2500	2410	7.31	255	95	<1	4.78	22.3	46.3	41.7	<0.5	0.079	27.8	0.0033	0.00048	<0.0001	0.0258	<0.0002	<0.0005	<0.01	<0.00005
10-Mar-09	1225	2500	2290																			
17-Mar-09	1232	2500	2310	7.24	332	116																
24-Mar-09	1239	2500	2400																			
31-Mar-09	1246	2500	2470	7.29	326	103	<1	3.26	23.8	61.5	46.5	<0.5	0.065	30.1	0.0013	0.000472	<0.0001	0.0257	<0.0002	<0.0005	<0.01	<0.00005
7-Apr-09	1253	2500	2320																			
14-Apr-09	1260	2500	2430	7.32	367	124																
21-Apr-09	1267	2500	2280																			
28-Apr-09	1274	2500	2360	7.43	380	124	<1	2.6	27.4	68	50.7	<0.5	0.057	35.5	0.0044	0.000576	0.00011	0.0268	<0.0002	<0.0005	<0.01	<0.00005
5-May-09	1281	2500	2745																			
12-May-09	1288	2500	2500	7.38	379	123																
19-May-09	1295	2500	2400																			
26-May-09	1302	2500	2490	7.49	375	118	<1	3.42	32.2	66.8	46.4	<0.5	0.081	32.6	0.0014	0.000374	<0.0001	0.0271	<0.0002	<0.0005	<0.01	<0.00005
2-Jun-09	1309	2500	2500																			
9-Jun-09	1316	2500	2385	7.33	379	111																
16-Jun-09	1323	2500	2415																			
23-Jun-09	1330	2500	2430	7.31	390	84	<1	4.25	24.9	59	45	<0.5	0.051	25.9	0.0019	0.000277	<0.0001	0.0229	<0.0002	<0.0005	<0.01	<0.00005
30-Jun-09	1337	2500	2455																			
7-Jul-09	1344	2500	2350	7.61	351	92																
14-Jul-09	1351	2500	2420																			
21-Jul-09	1358	2500	2375	7.36	290	94	<1	3.03	14.2	75	47.2	<0.5	0.055	32	0.0019	0.000587	<0.0001	0.0221	<0.0002	<0.0005	0.011	<0.00005
28-Jul-09	1365	2500	2390																			
4-Aug-09	1372	2500	2320	7.28	384	85																
11-Aug-09	1379	2500	2350																			
18-Aug-09	1386	2500	2350	7.01	358	129	<1	3.81	22.4	72.7	62.9	<0.5	0.047	45	0.0023	0.000554	<0.0001	0.0292	<0.0002	<0.0005	0.012	<0.00005
25-Aug-09	1393	2500	2425																			
1-Sep-09	1400	2500	2330	7.56	289	107																
8-Sep-09	1407	2500	2325																			
15-Sep-09	1414	2500	2415	7.04	342	106	<1	2.78	17.4	58	51.7	<0.5	0.076	37	0.0027	0.000715	<0.0001	0.0269	<0.0002	<0.0005	0.01	<0.00005
22-Sep-09	1421	2500	2400																			
29-Sep-09	1428	2500	2475	7.32	350	106																
6-Oct-09	1435	2500	2355																			
13-Oct-09	1442	2500	2335	6.99	329	93	<1	4.31	18.2	40	45.8	<0.5	0.067	33.8	0.0021	0.000692	<0.0001	0.0236	<0.0002	<0.0005	<0.01	<0.00005
20-Oct-09	1449	2500	2410																			
27-Oct-09	1456	2500	2305	7.36	329	115																
3-Nov-09	1463	2500	2345																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Sep-08	1050	6.61	<0.0005	<0.0001	0.00099	<0.03	<0.00005	9.6	0.00346	<0.00001	0.000522	<0.0005	0.62	0.0025	0.218	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
23-Sep-08	1057																				
30-Sep-08	1064																				
7-Oct-08	1071																				
14-Oct-08	1078	7.32	<0.0005	<0.0001	0.00116	<0.03	<0.00005	11	0.00559	<0.00001	0.000633	<0.0005	0.748	0.0028	0.244	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Oct-08	1085																				
28-Oct-08	1092																				
4-Nov-08	1099																				
11-Nov-08	1106	5.66	<0.0005	<0.0001	0.00078	0.037	<0.00005	7.95	0.00434	<0.00001	0.000582	<0.0005	0.588	0.002	0.182	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Nov-08	1113																				
25-Nov-08	1120																				
2-Dec-08	1127																				
9-Dec-08	1134	6.45	<0.0005	<0.0001	0.00109	<0.03	<0.00005	10.4	0.00688	<0.00001	0.000645	<0.0005	0.705	0.0025	0.215	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
16-Dec-08	1141																				
23-Dec-08	1148																				
30-Dec-08	1155																				
6-Jan-09	1162	6.54	<0.0005	<0.0001	0.00282	<0.03	0.000182	9.44	0.00695	<0.00001	0.000509	<0.0005	0.651	0.0024	0.23	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0033
13-Jan-09	1169																				
20-Jan-09	1176																				
27-Jan-09	1183																				
3-Feb-09	1190	5.37	<0.0005	<0.0001	0.00068	<0.03	<0.00005	10.2	0.00738	<0.00001	0.000487	<0.0005	0.621	0.0021	0.197	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Feb-09	1197																				
17-Feb-09	1204																				
24-Feb-09	1211																				
3-Mar-09	1218	4.9	<0.0005	<0.0001	0.00056	<0.03	<0.00005	7.16	0.00729	<0.00001	0.000517	<0.0005	0.57	0.002	0.195	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Mar-09	1225																				
17-Mar-09	1232																				
24-Mar-09	1239																				
31-Mar-09	1246	5.35	<0.0005	<0.0001	0.00106	<0.03	<0.00005	8.06	0.00943	<0.00001	0.000444	<0.0005	0.571	0.0024	0.207	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0018
7-Apr-09	1253																				
14-Apr-09	1260																				
21-Apr-09	1267																				
28-Apr-09	1274	6.12	<0.0005	<0.0001	0.00186	<0.03	<0.00005	8.59	0.0114	<0.00001	0.00047	<0.0005	0.501	0.0021	0.243	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
5-May-09	1281																				
12-May-09	1288																				
19-May-09	1295																				
26-May-09	1302	6.03	<0.0005	<0.0001	0.0011	<0.03	<0.00005	7.6	0.0106	<0.00001	0.000427	<0.0005	0.611	0.0022	0.268	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
2-Jun-09	1309																				
9-Jun-09	1316																				
16-Jun-09	1323																				
23-Jun-09	1330	4.72	<0.0005	<0.0001	0.00097	<0.03	<0.00005	8.07	0.0122	<0.00001	0.000352	<0.0005	0.513	0.0017	0.21	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
30-Jun-09	1337																				
7-Jul-09	1344																				
14-Jul-09	1351																				
21-Jul-09	1358	4.69	<0.0005	<0.0001	0.0026	<0.03	<0.00005	8.61	0.0123	<0.00001	0.000425	<0.0005	0.488	0.0019	0.177	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
28-Jul-09	1365																				
4-Aug-09	1372																				
11-Aug-09	1379																				
18-Aug-09	1386	6.58	<0.0005	<0.0001	0.00122	<0.03	<0.00005	11.3	0.0132	<0.00001	0.000411	<0.0005	0.618	0.0026	0.224	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
25-Aug-09	1393																				
1-Sep-09	1400																				
8-Sep-09	1407																				
15-Sep-09	1414	5.36	<0.0005	<0.0001	0.00116	<0.03	<0.00005	9.32	0.0106	<0.00001	0.000453	<0.0005	0.601	0.0021	0.231	0.000019	<2	<0.00005	<0.0001	<0.0005	<0.001
22-Sep-09	1421																				
29-Sep-09	1428																				
6-Oct-09	1435																				
13-Oct-09	1442	5.16	<0.0005	<0.0001	0.00162	<0.03		7.99	0.0113	<0.00001	0.000374	<0.0005	0.466	0.0019	0.225	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0049
20-Oct-09	1449																				
27-Oct-09	1456																				
3-Nov-09	1463																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Nov-09	1470	2500	2395	7.35	365	108	<1	2.96	21.5	51	41	<0.5	0.072	29.4	0.0039	0.000631	<0.0001	0.0225	<0.0002	<0.0005	<0.01	<0.00005
17-Nov-09	1477	2500	2370																			
24-Nov-09	1484	2000	2020	6.71	332	93																
1-Dec-09	1491	2500	2440																			
8-Dec-09	1498	2500	2395	6.74	359	115	<1	5.01	23.3	63	56.2	<0.5	0.087	34.4	0.0018	0.000538	0.00017	0.0299	<0.0002	<0.0005	0.012	<0.00005
15-Dec-09	1505	2500	2350																			
22-Dec-09	1512	2500	2460	7.38	367	87																
29-Dec-09	1519	2500	2495																			
5-Jan-10	1526	2500	2385	6.86	379	100	<1	4.26	21	56	43.5	<0.5	0.088	27.6	0.0018	0.000484	<0.0001	0.0258	<0.0002	<0.0005	<0.01	<0.00005
12-Jan-10	1533	2500	2425																			
19-Jan-10	1540	2500	2485	7.37	374	101																
26-Jan-10	1547	2500	2470																			
2-Feb-10	1554	2500	2360	6.9	347	77	<1	3.63	18	52	46.6	<0.5	0.115	28.8	0.0039	0.000571	0.0002	0.0274	<0.0002	<0.0005	<0.01	<0.00005
9-Feb-10	1561	2500	2355																			
16-Feb-10	1568	2500	2510	7.35	313	109																
23-Feb-10	1575	2500	2300																			
2-Mar-10	1582	2500	2590	7.01	347	99	<1	2.91	20.9	55	48	<0.5	0.109	29.2	0.0043	0.00047	<0.0001	0.0305	<0.0002	<0.0005	<0.01	<0.00005
9-Mar-10	1589	2500	2500																			
16-Mar-10	1596	2500	2425	7.24	382	79																
23-Mar-10	1603	2500	2450																			
30-Mar-10	1610	2500	2335	7	396	92	<1	3.39	17.9	51	41	<0.5	0.107	27.5	0.0015	0.000442	<0.0001	0.0273	<0.0002	<0.0005	<0.01	<0.00005
6-Apr-10	1617	2500	2335																			
13-Apr-10	1624	2500	2430	7.16	302	99																
20-Apr-10	1631	2500	2395																			
27-Apr-10	1638	2500	2370	6.79	360	100	<1	3.18	20.4	59	43.9	<0.5	0.116	28.2	0.0014	0.000509	<0.0001	0.03	<0.0002	<0.0005	<0.01	<0.00005
4-May-10	1645	2500	2345																			
11-May-10	1652	2500	2470	7.26	364	95																
18-May-10	1659	2500	2405																			
25-May-10	1666	2500	2520	6.7	400	90	<1	4.86	14	48	48.7	<0.5	0.117	27.7	0.0013	0.000501	<0.0001	0.0293	<0.0002	<0.0005	<0.01	<0.00005
1-Jun-10	1673	2500	2455																			
8-Jun-10	1680	2500	2430	7.21	372	100																
15-Jun-10	1687	2500	2370																			
22-Jun-10	1694	2500	2410	7.21	398	89	<1	2.48	13.8	41	40.6	<0.5	0.105	28.53	0.0016	0.000523	<0.0001	0.0268	<0.0002	<0.0005	<0.01	<0.00005
29-Jun-10	1701	2500	2370																			
6-Jul-10	1708	2500	2270	7.2	378	107																
13-Jul-10	1715	2500	2550																			
20-Jul-10	1722	2500	2465	6.81	331	93	<1	5.55	14.2	68	42.6	<0.5	0.118	31.1	0.0011	0.000474	<0.0001	0.0267	<0.0002	<0.0005	<0.01	<0.00005
27-Jul-10	1729	2500	2450																			
3-Aug-10	1736	2500	2460	7.2	411	91																
10-Aug-10	1743	2500	2480																			
17-Aug-10	1750	2500	2415	6.93	296	90	<1	4.42	13.6	64	43.9	<0.5	0.128	30	<0.001	0.000494	<0.0001	0.0269	<0.0002	<0.0005	<0.01	<0.00005
24-Aug-10	1757	2500	2455																			
31-Aug-10	1764	2500	2410	7.29	412	82																
7-Sep-10	1771	2500	2430																			
14-Sep-10	1778	2500	2315	6.81	393	81	<1	3.92	12.9	64	40.4	<0.5	0.104	29.1	0.0029	0.000543	<0.0001	0.0269	<0.0002	<0.0005	<0.01	<0.00005
21-Sep-10	1785	2500	2500																			
28-Sep-10	1792	2500	2320	7.25	360	97																
5-Oct-10	1799	2500	2375																			
12-Oct-10	1806	2500	2380	6.91	321	97	<1	4.07	13.9	63	40.9	<0.5	0.121	31.9	0.0017	0.000592	<0.0001	0.0283	<0.0002	<0.0005	<0.01	<0.00005
19-Oct-10	1813	2500	2405																			
26-Oct-10	1820	2500	2470	7.17	384	91																
2-Nov-10	1827	2500	2430																			
9-Nov-10	1834	2500	2460	6.96	364	91	<1	3.97	13.5	<10	39.3	<0.5	0.13	29.1	0.001	0.000595	<0.0001	0.0274	<0.0002	<0.0005	<0.01	<0.00005
16-Nov-10	1841	2500	1820																			
23-Nov-10	1848	2500	2410	7.09	349	90																
30-Nov-10	1855	2500	2500																			
7-Dec-10	1862	2500	2485	7.21	325	83	<1	4.36	15.5	64	36.1	<0.5	0.099	26.6	0.0018	0.000495	<0.0001	0.0261	<0.0002	<0.0005	<0.01	<0.00005
14-Dec-10	1869	2500	2395																			
21-Dec-10	1876	2500	2445	7.18	364	88																
28-Dec-10	1883	2500	2440																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Nov-09	1470	4.54	<0.0005	<0.0001	0.00091	<0.03	<0.00005	7.19	0.011	<0.00001	0.000343	<0.0005	0.47	0.0016	0.222	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
17-Nov-09	1477																				
24-Nov-09	1484																				
1-Dec-09	1491																				
8-Dec-09	1498	5.58	<0.0005	<0.0001	0.00125	<0.03	<0.00005	10.3	0.0142	<0.00001	0.000269	<0.0005	0.543	0.002	0.263	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
15-Dec-09	1505																				
22-Dec-09	1512																				
29-Dec-09	1519																				
5-Jan-10	1526	4.78	<0.0005	<0.0001	0.00412	<0.03	<0.00005	7.66	0.0115	<0.00001	0.000263	<0.0005	0.491	0.0015	0.256	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
12-Jan-10	1533																				
19-Jan-10	1540																				
26-Jan-10	1547																				
2-Feb-10	1554	4.8	<0.0005	<0.0001	0.00077	<0.03	<0.00005	8.4	0.0123	<0.00001	0.000296	<0.0005	0.487	0.0018	0.249	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
9-Feb-10	1561																				
16-Feb-10	1568																				
23-Feb-10	1575																				
2-Mar-10	1582	4.95	<0.0005	<0.0001	0.00147	<0.03	<0.00005	8.65	0.0166	<0.00001	0.00032	<0.0005	0.487	0.0022	0.275	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
9-Mar-10	1589																				
16-Mar-10	1596																				
23-Mar-10	1603																				
30-Mar-10	1610	4.73	<0.0005	<0.0001	0.00091	<0.03	<0.00005	7.09	0.0152	<0.00001	0.000254	<0.0005	0.434	0.0017	0.273	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
6-Apr-10	1617																				
13-Apr-10	1624																				
20-Apr-10	1631																				
27-Apr-10	1638	4.97	<0.0005	<0.0001	0.0013	<0.03	<0.00005	7.65	0.0191	<0.00001	0.000224	<0.0005	0.464	0.0017	0.336	0.000015	<2	<0.00005	<0.0001	<0.0005	<0.001
4-May-10	1645																				
11-May-10	1652																				
18-May-10	1659																				
25-May-10	1666	4.54	<0.0005	<0.0001	0.00154	<0.03	<0.00005	9.06	0.0203	<0.00001	0.000281	<0.0005	0.496	0.0018	0.271	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
1-Jun-10	1673																				
8-Jun-10	1680																				
15-Jun-10	1687																				
22-Jun-10	1694	4.52	<0.0005	<0.0001	0.00108	<0.03	<0.00005	7.12	0.0165	<0.00001	0.000286	<0.0005	0.437	0.0016	0.285	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
29-Jun-10	1701																				
6-Jul-10	1708																				
13-Jul-10	1715																				
20-Jul-10	1722	4.6	<0.0005	<0.0001	0.00101	<0.03	<0.00005	7.55	0.0175	<0.00001	0.000344	<0.0005	0.417	0.0017	0.265	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Jul-10	1729																				
3-Aug-10	1736																				
10-Aug-10	1743																				
17-Aug-10	1750	4.55	<0.0005	<0.0001	0.0011	<0.03	<0.00005	7.9	0.0199	<0.00001	0.000301	<0.0005	0.483	0.0019	0.29	0.000034	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Aug-10	1757																				
31-Aug-10	1764																				
7-Sep-10	1771																				
14-Sep-10	1778	4.4	<0.0005	<0.0001	0.00133	<0.03	<0.00005	7.15	0.0176	<0.00001	0.000252	<0.0005	0.448	0.0017	0.279	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Sep-10	1785																				
28-Sep-10	1792																				
5-Oct-10	1799																				
12-Oct-10	1806	4.75	<0.0005	<0.0001	0.00112	<0.03	<0.00005	7.06	0.0179	<0.00001	0.000278	<0.0005	0.457	0.0019	0.317	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
19-Oct-10	1813																				
26-Oct-10	1820																				
2-Nov-10	1827																				
9-Nov-10	1834	4.28	<0.0005	<0.0001	0.0012	<0.03	<0.00005	6.95	0.0169	<0.00001	0.000264	<0.0005	0.433	0.002	0.327	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
16-Nov-10	1841																				
23-Nov-10	1848																				
30-Nov-10	1855																				
7-Dec-10	1862	4.05	<0.0005	<0.0001	0.00129	<0.03	0.000315	6.31	0.0162	<0.00001	0.000212	<0.0005	0.434	0.0015	0.337	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
14-Dec-10	1869																				
21-Dec-10	1876																				
28-Dec-10	1883																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
4-Jan-11	1890	2500	2370	6.99	354	70	<1	6.5	12.7	40	34.7	<0.5	0.09	25.1	0.0013	0.000429	<0.0001	0.025	<0.0002	<0.0005	<0.01	<0.00005
11-Jan-11	1897	2500	2455																			
18-Jan-11	1904	2500	2345	7.07	371	76																
25-Jan-11	1911	2500	2380																			
1-Feb-11	1918	2500	2380	6.81	377	71	<1	3.75	12.1	39	33.5	<0.5	0.09	27	0.0043	0.000431	<0.0001	0.0234	<0.0002	<0.0005	<0.01	<0.00005
8-Feb-11	1925	2500	2365																			
15-Feb-11	1932	2500	2425	7.14	360	74																
22-Feb-11	1939	2500	2330																			
1-Mar-11	1946	2500	2180	6.84	334	78	<1	3.01	11.2	57	35	<0.5	0.091	26.6	0.0017	0.000547	<0.0001	0.0275	<0.0002	<0.0005	<0.01	<0.00005
8-Mar-11	1953	2500	2435																			
15-Mar-11	1960	2500	2320	7.07	320	68																
22-Mar-11	1967	2500	2415																			
29-Mar-11	1974	2500	2310	6.51	258	62	<1	4.87	9.6	33	28.1	<0.5	0.091	20.5	0.0032	0.000438	<0.0001	0.0242	<0.0002	<0.0005	<0.01	<0.00005
5-Apr-11	1981	2500	2355																			
12-Apr-11	1988	2500	2350	7.03	294	75																
19-Apr-11	1995	2500	2385																			
26-Apr-11	2002	2500	2340	6.87	234	76	<1	3.13	11.3	42	36.3	<0.5	0.096	24.6	0.0019	0.000537	<0.0001	0.0276	<0.0002	<0.0005	<0.01	<0.00005
3-May-11	2009	2500	2355																			
10-May-11	2016	2500	2175	7.19	395	85																
17-May-11	2023	2500	2340																			
24-May-11	2030	2500	2330	6.69	268	62	<1	4.99	8.1	53	27.5	<0.5	0.107	20.7	0.0014	0.000415	<0.0001	0.0235	<0.0002	<0.0005	<0.01	<0.00005
31-May-11	2037	2500	2290																			
7-Jun-11	2044	2500	2425	7.16	352	68																
14-Jun-11	2051	2500	2375																			
21-Jun-11	2058	2500	2350	7.07	230	70	<1	2.24	8.8	33	31.1	<0.5	0.092	24.2	0.0012	0.000495	<0.0001	0.0244	<0.0002	<0.0005	<0.01	<0.00005
28-Jun-11	2065	2500	2445																			
5-Jul-11	2072	2500	2350	7.07	328	67																
12-Jul-11	2079	2500	2435																			
19-Jul-11	2086	2500	1485	6.48	363	75	<1	5.52	8.2	46	32.1	<0.5	0.12	26.6	0.0014	0.00058	<0.0001	0.0258	<0.0002	<0.0005	<0.01	<0.00005
26-Jul-11	2093	2500	2285																			
2-Aug-11	2100	2500	1745	6.93	327	83																
9-Aug-11	2107	2500	2400																			
16-Aug-11	2114	2500	2400	6.51	250	78	<1	6.91	11.1	50	34.6	<0.5	0.115	27.4	0.0023	0.000499	<0.0001	0.0259	<0.0002	<0.0005	<0.01	<0.00005
23-Aug-11	2121	2500	2350																			
30-Aug-11	2128	2500	2355	7.15	338	74																
6-Sep-11	2135	2500	2410																			
13-Sep-11	2142	2500	2290	6.74	247	80	<1	5.01	12.1	68	37.7	<0.5	0.118	27.6	0.0022	0.000517	<0.0001	0.0309	<0.0002	<0.0005	<0.01	<0.00005
20-Sep-11	2149	2500	2390																			
27-Sep-11	2156	2500	2315	7.12	343	81																
4-Oct-11	2163	2500	2340																			
11-Oct-11	2170	2500	2425	6.67	266	74	<1	6.24	12.7	41	32.6	<0.5	0.117	23.2	0.002	0.000526	<0.0001	0.0281	<0.0002	<0.0005	<0.01	<0.00005
18-Oct-11	2177	2500	2425																			
25-Oct-11	2184	2500	2355	7.24	328	74																
1-Nov-11	2191	2500	2335																			
8-Nov-11	2198	2500	2290	6.73	305	85	<1	5.15	12.6	49	36.3	<0.5	0.116	27.7	0.0036	0.000439	<0.0001	0.0352	<0.0002	<0.0005	<0.01	<0.00005
15-Nov-11	2205	2500	2440																			
22-Nov-11	2212	2500	2370	7.16	323	72																
29-Nov-11	2219	2500	2355																			
6-Dec-11	2226	2500	2510	6.71	311	67	<1	4.8	9.5	41	29.2	<0.5	0.122	21.6	0.0042	0.000518	<0.0001	0.0264	<0.0002	<0.0005	<0.01	<0.00005
13-Dec-11	2233	2500	2340																			
20-Dec-11	2240	2500	2385	7.17	330	66																
27-Dec-11	2247	2500	2380																			
3-Jan-12	2254	2500	2340	7.2	304	67	<1	3.67	10.1	55	30	<0.5	0.113	24.3	0.0108	0.000557	0.00018	0.025	<0.0002	<0.0005	<0.01	<0.00005
10-Jan-12	2261	2500	2320																			
17-Jan-12	2268	2500	2405	7.02	354	57																
24-Jan-12	2275	2500	2420																			
31-Jan-12	2282	2500	2370	6.65	336	68	<1	3.94	10	38	28.5	<0.5	0.125	21.9	0.0026	0.000478	<0.0001	0.0222	<0.0002	<0.0005	<0.01	<0.00005
7-Feb-12	2289	2500	2480																			
14-Feb-12	2296	2500	2380	7.27	526	63																
21-Feb-12	2303	2500	2415																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Jan-11	1890	3.63	<0.0005	<0.0001	0.00174	<0.03	0.000108	6.24	0.0151	<0.00001	0.000199	<0.0005	0.395	0.0015	0.304	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
11-Jan-11	1897																				
18-Jan-11	1904																				
25-Jan-11	1911																				
1-Feb-11	1918	3.88	<0.0005	<0.0001	0.00169	<0.03	0.000984	5.77	0.0141	<0.00001	0.000241	<0.0005	0.33	0.0012	0.321	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0051
8-Feb-11	1925																				
15-Feb-11	1932																				
22-Feb-11	1939																				
1-Mar-11	1946	3.87	<0.0005	<0.0001	0.00145	<0.03	<0.00005	6.14	0.0153	<0.00001	0.000215	<0.0005	0.369	0.0012	0.339	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
8-Mar-11	1953																				
15-Mar-11	1960																				
22-Mar-11	1967																				
29-Mar-11	1974	3.13	<0.0005	<0.0001	0.00142	<0.03	<0.00005	4.93	0.0184	<0.00001	0.000186	<0.0005	0.317	0.0011	0.326	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
5-Apr-11	1981																				
12-Apr-11	1988																				
19-Apr-11	1995																				
26-Apr-11	2002	3.84	<0.0005	<0.0001	0.00155	<0.03	<0.00005	6.5	0.0167	<0.00001	0.000191	<0.0005	0.394	0.0015	0.346	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
3-May-11	2009																				
10-May-11	2016																				
17-May-11	2023																				
24-May-11	2030	3.15	<0.0005	<0.0001	0.00131	<0.03	<0.00005	4.77	0.0153	<0.00001	0.000195	<0.0005	0.31	0.0011	0.324	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
31-May-11	2037																				
7-Jun-11	2044																				
14-Jun-11	2051																				
21-Jun-11	2058	3.48	<0.0005	<0.0001	0.00134	<0.03	<0.00005	5.45	0.0178	<0.00001	0.000183	<0.0005	0.33	0.0013	0.34	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
28-Jun-11	2065																				
5-Jul-11	2072																				
12-Jul-11	2079																				
19-Jul-11	2086	3.59	<0.0005	<0.0001	0.00171	<0.03	<0.00005	5.61	0.0189	<0.00001	0.000176	<0.0005	0.347	0.0013	0.343	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0014
26-Jul-11	2093																				
2-Aug-11	2100																				
9-Aug-11	2107																				
16-Aug-11	2114	3.84	<0.0005	<0.0001	0.0016	<0.03	<0.00005	6.07	0.0159	<0.00001	0.000196	<0.0005	0.356	0.0014	0.364	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0022
23-Aug-11	2121																				
30-Aug-11	2128																				
6-Sep-11	2135																				
13-Sep-11	2142	4.5	<0.0005	<0.0001	0.00156	<0.03	<0.00005	6.42	0.0184	<0.00001	0.000183	<0.0005	0.38	0.0015	0.427	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
20-Sep-11	2149																				
27-Sep-11	2156																				
4-Oct-11	2163																				
11-Oct-11	2170	3.78	<0.0005	<0.0001	0.00142	<0.03	<0.00005	5.62	0.0168	<0.00001	0.000229	<0.0005	0.371	0.0013	0.402	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
18-Oct-11	2177																				
25-Oct-11	2184																				
1-Nov-11	2191																				
8-Nov-11	2198	4.29	<0.0005	<0.0001	0.00206	<0.03	<0.00005	6.21	0.0187	<0.00001	0.000196	<0.0005	0.358	0.0015	0.403	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0014
15-Nov-11	2205																				
22-Nov-11	2212																				
29-Nov-11	2219																				
6-Dec-11	2226	3.47	<0.0005	<0.0001	0.00329	<0.03	<0.00005	5	0.0177	<0.00001	0.000194	<0.0005	0.323	0.0013	0.412	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
13-Dec-11	2233																				
20-Dec-11	2240																				
27-Dec-11	2247																				
3-Jan-12	2254	3.82	<0.0005	<0.0001	0.00458	<0.03	<0.00005	4.97	0.0154	<0.00001	0.00204	<0.0005	0.31	0.0013	0.377	<0.00001	<2	<0.00005	0.00013	<0.0005	0.0022
10-Jan-12	2261																				
17-Jan-12	2268																				
24-Jan-12	2275																				
31-Jan-12	2282	3.45	<0.0005	<0.0001	0.00179	<0.03	<0.00005	4.83	0.0159	<0.00001	0.000203	<0.0005	0.324	0.0012	0.407	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
7-Feb-12	2289																				
14-Feb-12	2296																				
21-Feb-12	2303																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
28-Feb-12	2310	2500	2200	7.29	362	73	<1	2.43	10.7	43	32.3	<0.5	0.122	24.6	0.0025	0.000458	<0.0001	0.0266	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-12	2317	2500	2450																			
13-Mar-12	2324	2500	2420	7.04	388	66																
20-Mar-12	2331	2500	2350																			
27-Mar-12	2338	2500	2415	6.63	330	63	<1	4.33	8.2	35	26	<0.5	0.126	20	0.0029	0.000436	<0.0001	0.0234	<0.0002	<0.0005	<0.01	0.00005
3-Apr-12	2345	2500	2360																			
10-Apr-12	2352	2500	2450	7.1	334	66																
17-Apr-12	2359	2500	2390																			
24-Apr-12	2366	2500	2365	6.73	473	67	<1	4.04	8.1	40	28.3	<0.5	0.131	22.2	0.0032	0.000524	<0.0001	0.0253	<0.0002	<0.0005	<0.01	<0.00005
1-May-12	2373	2500	2420																			
8-May-12	2380	2500	2360	7.04	403	130																
15-May-12	2387	2500	2375																			
22-May-12	2394	2500	2390	6.59	332	63	<1	4.14	7.3	44	26.1	<0.5	0.126	21	0.0028	0.000408	<0.0001	0.0222	<0.0002	<0.0005	<0.01	<0.00005
29-May-12	2401	2500	2350																			
5-Jun-12	2408	2500	2455	7.01	394	63																
12-Jun-12	2415	2500	2350																			
19-Jun-12	2422	2500	2380	6.79	360	68	<1	3.11	7.6	36	28.6	<0.5	0.125	22.6	0.0019	0.000453	<0.0001	0.0225	<0.0002	<0.0005	<0.01	<0.00005
26-Jun-12	2429	2500	2315																			
3-Jul-12	2436	2500	2375	7.14	475	67																
10-Jul-12	2443	2500	2380																			
17-Jul-12	2450	2500	2460	6.77	422	67	<1	2.87	7.7	52	27.8	<0.5	0.115	22.7	0.0017	0.000514	<0.0001	0.0241	<0.0002	<0.0005	<0.01	<0.00005
24-Jul-12	2457	2500	2385																			
31-Jul-12	2464	2500	2485	7.09	395	68																
7-Aug-12	2471	2500	2390																			
14-Aug-12	2478	2500	2400	6.73	276	63	<1	2.77	6.7	35	27.5	<0.5	0.125	21.1	0.0022	0.000476	<0.0001	0.0237	<0.0002	<0.0005	<0.01	<0.00005
21-Aug-12	2485	2500	2325																			
28-Aug-12	2492	2500	2475	6.72	346	63																
4-Sep-12	2499	2500	2410																			
11-Sep-12	2506	2500	2375	6.72	430	64	<1	3.81	7.4	38	26.3	<0.5	0.117	22	0.0021	0.000515	<0.0001	0.0253	<0.0002	<0.0005	<0.01	<0.00005
18-Sep-12	2513	2500	2325																			
25-Sep-12	2520	2500	2240	6.73	411	63																
2-Oct-12	2527	2500	2282																			
9-Oct-12	2534	2500	2365	6.71	355	72	<1	4.88	7.7	35	28.3	<0.5	0.12	22.9	0.0025	0.00061	<0.0001	0.0288	<0.0002	<0.0005	<0.01	<0.00005
16-Oct-12	2541	2500	2350																			
23-Oct-12	2548	2500	2420	6.65	411	60																
30-Oct-12	2555	2500	2370																			
6-Nov-12	2562	2500	2340	7.01	332	55	<1	3.68	8.6	36	23	<0.5	0.103	18.6	0.0019	0.0005	<0.0001	0.0248	<0.0002	<0.0005	<0.01	<0.00005
13-Nov-12	2569	2500	2465																			
20-Nov-12	2576	2500	2365	6.52	436	77																
27-Nov-12	2583	2500	2190																			
4-Dec-12	2590	2500	2430	6.74	340	67	<1	3.2	8.8	38	28	<0.5	0.123	22.7	0.0036	0.00037	0.00079	0.028	<0.0002	<0.0005	<0.01	<0.00005
11-Dec-12	2597	2500	2395																			
18-Dec-12	2604	2500	2400	6.63	414	56																
25-Dec-12	2611	2500	2375																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
1-Nov-05	0	2500	2140	7.77	353	2620	<1	8.25	76	2190	823	<5	<0.2	1480	0.021	0.0103	0.00108	0.073	<0.001	<0.0025	0.226	0.00025
8-Nov-05	7	2500	2685	7.23	415	1176																
15-Nov-05	14	2500	2735	7.67	301	790	<1	3.25	47.3	514	279	<0.5	0.049	331	0.0269	0.00767	0.00085	0.0562	<0.0002	<0.0005	0.059	<0.00005
22-Nov-05	21	2500	2645	7.79	371	559																
29-Nov-05	28	2500	2370	7.71	375	505	<1	2.5	45	324	187	<0.5	0.03	184	0.0276	0.00651	0.00056	0.0529	<0.0002	<0.0005	0.03	<0.00005
6-Dec-05	35	2500	2460	7.87	399	408																
13-Dec-05	42	2500	2565	7.66	435	387	<1	3.5	42.8	284	180	<0.5	0.03	160	0.0308	0.0118	0.0006	0.0687	<0.0002	<0.0005	0.023	<0.00005
20-Dec-05	49	2500	2500	7.81	455	306																
27-Dec-05	56	2500	2610	7.65	432	311	<1	2.75	35	207	139	<0.5	0.024	115	0.039	0.00974	0.00047	0.0641	<0.0002	<0.0005	0.013	<0.00005
3-Jan-06	63	2500	2700	7.78	464	331																
10-Jan-06	70	2500	2695	7.6	472	305	<1	3.25	40	188	116	<0.5	0.023	96.6	0.0365	0.0101	0.00048	0.0639	<0.0002	<0.0005	0.011	<0.00005
17-Jan-06	77	2500	2480	7.85	409	278																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
28-Feb-12	2310	3.83	<0.0005	<0.0001	0.00218	<0.03	<0.00005	5.52	0.0178	<0.00001	0.000161	<0.0005	0.346	0.0014	0.436	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
6-Mar-12	2317																				
13-Mar-12	2324																				
20-Mar-12	2331																				
27-Mar-12	2338	3.27	<0.0005	<0.0001	0.0021	<0.03	0.000073	4.33	0.0167	<0.00001	0.00019	<0.0005	0.307	0.0012	0.41	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0053
3-Apr-12	2345																				
10-Apr-12	2352																				
17-Apr-12	2359																				
24-Apr-12	2366	3.32	<0.0005	<0.0001	0.00182	<0.03	<0.00005	4.85	0.0174	<0.00001	0.000203	<0.0005	0.335	0.0013	0.427	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0018
1-May-12	2373																				
8-May-12	2380																				
15-May-12	2387																				
22-May-12	2394	3.17	<0.0005	<0.0001	0.00229	<0.03	<0.00005	4.42	0.0149	<0.00001	0.000224	<0.0005	0.298	0.0014	0.4	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
29-May-12	2401																				
5-Jun-12	2408																				
12-Jun-12	2415																				
19-Jun-12	2422	3.42	<0.0005	<0.0001	0.00224	<0.03	0.000084	4.88	0.0143	<0.00001	0.000312	<0.0005	0.347	0.0013	0.43	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0022
26-Jun-12	2429																				
3-Jul-12	2436																				
10-Jul-12	2443																				
17-Jul-12	2450	3.42	<0.0005	<0.0001	0.00162	<0.03	<0.00005	4.69	0.016	<0.00001	0.000231	<0.0005	0.337	0.0013	0.449	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0017
24-Jul-12	2457																				
31-Jul-12	2464																				
7-Aug-12	2471																				
14-Aug-12	2478	3.14	<0.0005	<0.0001	0.00181	<0.03	<0.00005	4.76	0.015	<0.00001	0.000206	<0.0005	0.308	0.0011	0.411	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
21-Aug-12	2485																				
28-Aug-12	2492																				
4-Sep-12	2499																				
11-Sep-12	2506	3.31	<0.0005	<0.0001	0.00177	<0.03	<0.00005	4.39	0.0164	<0.00001	0.000211	<0.0005	0.308	0.0013	0.432	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0018
18-Sep-12	2513																				
25-Sep-12	2520																				
2-Oct-12	2527																				
9-Oct-12	2534	3.53	<0.0005	<0.0001	0.00217	<0.03	<0.00005	4.73	0.0174	<0.00001	0.000232	<0.0005	0.339	0.0014	0.445	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0017
16-Oct-12	2541																				
23-Oct-12	2548																				
30-Oct-12	2555																				
6-Nov-12	2562	2.96	<0.0005	<0.0001	0.00181	<0.03	<0.00005	3.8	0.016	<0.00001	0.000183	<0.0005	0.275	0.001	0.39	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
13-Nov-12	2569																				
20-Nov-12	2576																				
27-Nov-12	2583																				
4-Dec-12	2590	3.27	<0.0005	<0.0001	0.00193	<0.03	<0.00005	4.82	0.0176	<0.00001	0.000211	<0.0005	0.321	0.0013	0.407	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
11-Dec-12	2597																				
18-Dec-12	2604																				
25-Dec-12	2611																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
1-Nov-05	0	275	<0.0025	0.0199	0.00619	<0.03	<0.00025	33.5	1.65	<0.00001	0.00332	<0.0025	9.89	<0.005	2.2	<0.00005	295	<0.00025	<0.0005	<0.0025	0.027
8-Nov-05	7																				
15-Nov-05	14	98.3	<0.0005	0.00093	0.00227	<0.03	<0.00005	8.22	0.193	<0.00001	0.00185	<0.0005	3.53	<0.001	1.52	<0.00001	55.3	<0.00005	<0.0001	<0.0005	0.0028
22-Nov-05	21																				
29-Nov-05	28	66.8	<0.0005	0.00048	0.00267	<0.03	<0.00005	4.83	0.12	<0.00001	0.00146	<0.0005	2.58	<0.001	1.4	<0.00001	23.6	<0.00005	<0.0001	<0.0005	0.0033
6-Dec-05	35																				
13-Dec-05	42	64.4	<0.0005	0.00049	0.00109	<0.03	<0.00005	4.64	0.123	<0.00001	0.0017	<0.0005	2.57	<0.001	1.47	<0.00001	17	<0.00005	<0.0001	<0.0005	0.0023
20-Dec-05	49																				
27-Dec-05	56	50.3	<0.0005	0.00032	0.00075	<0.03	<0.00005	3.33	0.0837	<0.00001	0.00134	<0.0005	2.03	<0.001	1.21	<0.00001	11.3	<0.00005	<0.0001	<0.0005	0.0016
3-Jan-06	63																				
10-Jan-06	70	41.5	<0.0005	0.0003	0.0007	<0.03	<0.00005	2.92	0.0796	<0.00001	0.00148	<0.0005	1.77	<0.001	1.19	<0.00001	6.8	<0.00005	<0.0001	<0.0005	0.004
17-Jan-06	77																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
24-Jan-06	84	2500	2500	7.73	419	273	<1	3.5	44	169	119	<0.5	<0.02	84.8	0.0323	0.00997	0.00045	0.0624	<0.0002	<0.0005	<0.01	<0.00005
31-Jan-06	91	2500	2490	7.35	404	224																
7-Feb-06	98	2500	2445	7.67	405	234	<1	2.25	38.5	146	105	<0.5	<0.02	73.7	0.0204	0.00871	0.00034	0.0485	<0.0002	<0.0005	<0.01	<0.00005
14-Feb-06	105	2500	2030	7.37	411	257																
21-Feb-06	112	2500	2510	7.62	419	262	<1	2.5	43.8	152	116	<0.5	0.021	75.5	0.0252	0.00945	0.0004	0.0573	<0.0002	<0.0005	<0.01	<0.00005
28-Feb-06	119	2500	2600	7.73	466	243																
7-Mar-06	126	2500	2410	7.71	430	266	<1	2.5	38.3	164	121	<0.5	<0.02	82.1	0.0293	0.0127	0.00047	0.064	<0.0002	<0.0005	<0.01	<0.00005
14-Mar-06	133	2500	2555	7.71	384	204																
21-Mar-06	140	2500	2580	7.53	406	197	<1	3.5	30	100	82.4	<0.5	<0.02	55.4	0.0498	0.00746	0.00037	0.0447	<0.0002	<0.0005	<0.01	<0.00005
28-Mar-06	147	2500	2550	7.56	371	201																
4-Apr-06	154	2500	2540	7.79	396	231	<1	1.75	41.3	143	215	<0.5	0.02	69.8	0.0351	0.0102	0.00042	0.0568	<0.0002	<0.0005	<0.01	<0.00005
11-Apr-06	161	2500	2600	7.44	430	158																
18-Apr-06	168	2500	2560	7.77	413	221	<1	1.5	36.8	132	93.3	<0.5	<0.02	63.9	0.0336	0.00804	0.00033	0.048	<0.0002	<0.0005	<0.01	<0.00005
25-Apr-06	175	2500	2450	7.74	445	212																
2-May-06	182	2500	2470	7.72	271	219	<1	1.75	39.6	127	98.8	<0.5	0.023	67.1	0.0448	0.00953	0.00044	0.0518	<0.0002	<0.0005	<0.01	<0.00005
9-May-06	189	2500	2615	7.76	233	218																
16-May-06	196	2500	2210	7.81	256	244	<1	1.78	36.8	152	111	<0.5	<0.02	79.3	0.0422	0.0118	0.00045	0.0621	<0.0002	<0.0005	<0.01	<0.00005
23-May-06	203	2500	2580	7.63	208	203																
30-May-06	210	2500	2520	7.64	299	183	<1	2.31	34.4	109	83.2	<0.5	<0.02	51.5	0.0481	0.00651	0.0004	0.0434	<0.0002	<0.0005	<0.01	<0.00005
6-Jun-06	217	2500	2505	7.64	254	182																
13-Jun-06	224	2500	2510	7.49	274	162	<1	2.20	28.7	92	71.2	<0.5	0.021	46	0.0727	0.00575	0.00047	0.0399	<0.0002	<0.0005	<0.01	<0.00005
20-Jun-06	231	2500	2365	7.57	244	403																
27-Jun-06	238	2500	2430	7.79	308	239	<1	1.81	39.1	150	111	<0.5	0.024	76.9	0.0442	0.00792	0.00043	0.0506	<0.0002	<0.0005	<0.01	<0.00005
4-Jul-06	245	2500	2520	7.79	169	179																
11-Jul-06	252	2500	2520	7.67	314	191	<1	2.71	37.5	118	90	<0.5	<0.02	52.9	0.0511	0.00726	0.00048	0.0502	<0.0002	<0.0005	<0.01	<0.00005
18-Jul-06	259	2500	2525	7.75	212	186																
25-Jul-06	266	2500	2525	7.47	348	171	<1	2.41	34	110	84	<0.5	<0.02	47.3	0.0646	0.00636	0.00044	0.0476	<0.0002	<0.0005	<0.01	0.000052
1-Aug-06	273	2500	2510	7.65	274	171																
8-Aug-06	280	2500	2645	7.08	324	165	<1	3.96	30.3	106	75.9	<0.5	<0.02	47.9	0.0668	0.00551	0.00038	0.0386	<0.0002	<0.0005	<0.01	<0.00005
15-Aug-06	287	2500	2410	7.62	226	162																
22-Aug-06	294	2500	2570	7.25	357	159	<1	3.87	32.6	126	80.3	<0.5	<0.02	49.5	0.0464	0.00665	0.00034	0.0415	<0.0005	<0.0005	<0.01	<0.00005
29-Aug-06	301	2500	2545	7.6	214	145																
5-Sep-06	308	2500	2635	7.5	326	164	<1	2.20	28.8	99	73.3	<0.5	<0.02	48.5	0.0611	0.00642	0.00038	0.0329	<0.0002	<0.0005	<0.01	<0.00005
12-Sep-06	315	2500	2610	7.74	269	162																
19-Sep-06	322	2500	2640	7.53	338	162	<1	1.59	31.1	98	74.2	<0.5	<0.02	45.6	0.0358	0.00708	0.00053	0.0381	<0.0002	<0.0005	<0.01	<0.00005
26-Sep-06	329	2500	2410	7.63	248	160																
3-Oct-06	336	2500	2630	7.34	350	144	<1	4.21	32.7	81	67	1.55	<0.02	36	0.0659	0.00731	0.00042	0.034	<0.0002	<0.0005	<0.01	<0.00005
10-Oct-06	343	2500	2390	7.54	195	143																
17-Oct-06	350	2500	2575	7.29	381	148	<1	5.04	39.7	79.5	69.2	<0.5	<0.02	35	0.0368	0.00741	0.00031	0.0344	<0.0002	<0.0005	<0.01	<0.00005
24-Oct-06	357	2500	2610	7.69	374	145																
31-Oct-06	364	2500	2610	7.56	366	152	<1	1.84	39.8	96	73.6	<0.5	<0.02	35.2	0.0403	0.0075	0.00038	0.0412	<0.0002	<0.0005	<0.01	<0.00005
7-Nov-06	371	2500	2575	7.66	375	163																
14-Nov-06	378	2500	2500	7.56	338	161	<1	2.76	38.5	92.8	78.7	<0.5	<0.02	37.6	0.0327	0.00673	0.00033	0.039	<0.0002	<0.0005	<0.01	<0.00005
21-Nov-06	385	2500	2610	7.26	331	170																
28-Nov-06	392	2500	2475	7.57	345	139	<1	7.01	34.8	79	62.8	<0.5	<0.02	32.8	0.0408	0.00627	0.00043	0.028	<0.0002	<0.0005	<0.01	<0.00005
5-Dec-06	399	2500	2530	7.89	371	157																
12-Dec-06	406	2500	2560	7.7	321	165	<1	2.28	37.7	95	76.3	<0.5	<0.02	37.7	0.0397	0.00885	0.00032	0.04	<0.0002	<0.0005	<0.01	<0.00005
19-Dec-06	413	2500	2340	7.71	363	141																
26-Dec-06	420	2500	2700	7.75	446	170	<1	1.99	40.1	98	83	<0.5	<0.02	42.2	0.0386	0.0081	0.00034	0.0432	<0.0002	<0.0005	<0.01	<0.00005
2-Jan-07	427	2500	2460	7.74	370	177																
9-Jan-07	434	2500	2415	7.74	366	143	<1	1.79	42.5	88	69.4	<0.5	<0.02	28.8	0.0427	0.00699	0.00034	0.0375	<0.0002	<0.0005	<0.01	<0.00005
16-Jan-07	441	2500	2635	7.6	325	138																
23-Jan-07	448	2500	2490	7.6	368	181	<1	3.24	43.5	103	85.3	<0.5	<0.02	42.3	0.0263	0.00626	0.00046	0.0407	<0.0002	<0.0005	<0.01	<0.00005
30-Jan-07	455	2500	2580	7.45	377	151																
6-Feb-07	462	2500	2290	7.57	377	147	<1	4.26	38.9	92.5	76.4	<0.5	<0.02	37.9	0.0274	0.00677	0.00027	0.0361	<0.0002	<0.0005	<0.01	0.000055
13-Feb-07	469	2500	2600	7.43	352	169																
20-Feb-07	476	2500	2470	7.49	405	152	<1	3.22	34.6	80.3	66.1	<0.5	<0.02	34.4	0.0405	0.00605	0.00033	0.0355	<0.0002	<0.0005	<0.01	<0.00005
27-Feb-07	483	2500	2500	7.42	299	266																
6-Mar-07	490	2500	2530	7.64	382	155	<1	2.68	37.2	95.8	73.9	<0.5	<0.02	39.5	0.0361	0.00429	0.00026	0.0375	<0.0002	<0.0005	<0.01	<0.00005
13-Mar-07	497	2500	2450	7.73	405	195																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
24-Jan-06	84	42.9	<0.0005	0.00027	0.00145	<0.03	<0.00005	2.86	0.0811	<0.00001	0.00142	<0.0005	1.7	<0.001	1.22	<0.00001	4.9	<0.00005	<0.0001	<0.0005	0.0013
31-Jan-06	91																				
7-Feb-06	98	38.5	<0.0005	0.00023	0.00358	<0.03	0.000118	2.26	0.0691	<0.00001	0.00127	<0.0005	1.35	<0.001	1.07	<0.00001	3.9	<0.00005	0.00014	<0.0005	0.0026
14-Feb-06	105																				
21-Feb-06	112	41.4	<0.0005	0.00021	0.00053	0.031	<0.00005	3.02	0.0623	<0.00001	0.00148	<0.0005	1.37	<0.001	1.19	<0.00001	3.2	<0.00005	<0.0001	<0.0005	<0.001
28-Feb-06	119																				
7-Mar-06	126	44.2	<0.0005	0.00018	0.00543	<0.03	0.000079	2.59	0.062	<0.00001	0.00193	<0.0005	1.48	<0.001	1.12	<0.00001	2.6	<0.00005	0.00015	<0.0005	0.0021
14-Mar-06	133																				
21-Mar-06	140	30.3	<0.0005	<0.0001	0.00055	<0.03	<0.00005	1.63	0.0403	<0.00001	0.00105	<0.0005	1.08	<0.001	0.917	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
28-Mar-06	147																				
4-Apr-06	154	38.8	<0.0005	0.00012	0.00669	<0.03	0.00017	2.19	0.0474	<0.00001	0.00159	<0.0005	1.35	<0.001	1.11	<0.00001	<2	<0.00005	0.00034	<0.0005	0.0015
11-Apr-06	161																				
18-Apr-06	168	34.4	<0.0005	0.00012	0.00073	<0.03	<0.00005	1.82	0.0475	<0.00001	0.00131	<0.0005	1.14	<0.001	0.859	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0025
25-Apr-06	175																				
2-May-06	182	35.9	<0.0005	0.0001	0.00265	<0.03	0.000057	2.22	0.0422	<0.00001	0.00173	<0.0005	1.39	<0.001	1.05	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
9-May-06	189																				
16-May-06	196	41.1	<0.0005	<0.0001	0.00048	<0.03	<0.00005	1.99	0.0415	<0.00001	0.00203	<0.0005	1.38	<0.001	1.13	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
23-May-06	203																				
30-May-06	210	31	<0.0005	<0.0001	0.00161	<0.03	<0.00005	1.4	0.0352	<0.00001	0.0013	<0.0005	1.03	<0.001	0.885	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0043
6-Jun-06	217																				
13-Jun-06	224	26.4	<0.0005	<0.0001	0.00069	<0.03	<0.00005	1.25	0.0292	<0.00001	0.00118	<0.0005	0.957	<0.001	0.779	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
20-Jun-06	231																				
27-Jun-06	238	41.1	<0.0005	<0.0001	0.00044	<0.03	<0.00005	2.08	0.0438	<0.00001	0.00143	0.00064	1.31	<0.001	1.06	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
4-Jul-06	245																				
11-Jul-06	252	33.6	<0.0005	<0.0001	0.00122	0.032	<0.00005	1.51	0.0377	<0.00001	0.00148	<0.0005	1.13	<0.001	0.876	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Jul-06	259																				
25-Jul-06	266	31.5	<0.0005	<0.0001	0.00079	<0.03	0.000058	1.28	0.0339	<0.00001	0.00128	<0.0005	0.97	<0.001	0.805	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
1-Aug-06	273																				
8-Aug-06	280	28.5	<0.0005	<0.0001	0.00059	<0.03	<0.00005	1.18	0.0308	<0.00001	0.000968	<0.0005	0.79	<0.001	0.647	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
15-Aug-06	287																				
22-Aug-06	294	29.9	<0.0005	<0.0001	0.0007	<0.03	<0.00005	1.39	0.0291	<0.00005	0.00107	<0.0005	<2	<0.001	0.648	<0.00001	<2	<0.0001	<0.0001	<0.001	<0.001
29-Aug-06	301																				
5-Sep-06	308	27.5	<0.0005	<0.0001	0.00061	<0.03	<0.00005	1.14	0.0303	<0.00001	0.000946	<0.0005	0.751	<0.001	0.658	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
12-Sep-06	315																				
19-Sep-06	322	27.9	<0.0005	<0.0001	0.00346	<0.03	<0.00005	1.08	0.0329	<0.00001	0.00105	<0.0005	0.694	<0.001	1.36	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
26-Sep-06	329																				
3-Oct-06	336	25.1	<0.0005	<0.0001	0.00026	<0.03	<0.00005	1.03	0.0312	<0.00001	0.00103	<0.0005	0.779	<0.001	0.937	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Oct-06	343																				
17-Oct-06	350	26.2	<0.0005	<0.0001	0.00106	<0.03	<0.00005	0.908	0.0237	<0.00001	0.000858	<0.0005	0.615	<0.001	0.738	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Oct-06	357																				
31-Oct-06	364	27.7	<0.0005	<0.0001	0.00079	<0.03	<0.00005	1.07	0.0333	<0.00001	0.00097	<0.0005	0.714	<0.001	0.801	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
7-Nov-06	371																				
14-Nov-06	378	29.9	<0.0005	<0.0001	0.0006	<0.03	<0.00005	0.961	0.0332	<0.00001	0.000927	<0.0005	0.658	<0.001	0.733	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
21-Nov-06	385																				
28-Nov-06	392	23.8	<0.0005	<0.0001	0.0009	<0.03	<0.00005	0.825	0.025	<0.00001	0.000744	<0.0005	0.557	<0.001	0.56	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
5-Dec-06	399																				
12-Dec-06	406	28.9	<0.0005	<0.0001	0.00204	<0.03	<0.00005	1.04	0.0368	<0.00001	0.000968	<0.0005	0.632	<0.001	0.681	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
19-Dec-06	413																				
26-Dec-06	420	31.5	<0.0005	<0.0001	0.00218	<0.03	0.000084	1.03	0.0355	<0.00001	0.000966	<0.0005	0.688	<0.001	0.732	0.000028	<2	<0.00005	<0.0001	<0.0005	0.004
2-Jan-07	427																				
9-Jan-07	434	26.4	<0.0005	<0.0001	0.00275	<0.03	<0.00005	0.842	0.0343	<0.00001	0.000779	<0.0005	0.594	<0.001	0.654	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0052
16-Jan-07	441																				
23-Jan-07	448	32.4	<0.0005	<0.0001	0.00315	<0.03	<0.00005	1.06	0.0447	<0.00001	0.000822	<0.0005	0.645	<0.001	0.712	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0019
30-Jan-07	455																				
6-Feb-07	462	29.2	<0.0005	<0.0001	0.00203	<0.03	0.00005	0.847	0.0336	<0.00001	0.00087	<0.0005	0.559	<0.001	0.572	<0.00001	<2	<0.00005	<0.0001	<0.0005	
13-Feb-07	469																				
20-Feb-07	476	25.1	<0.0005	<0.0001	0.00152	<0.03	0.000054	0.824	0.0355	<0.00001	0.000905	<0.0005	0.635	<0.001	0.62	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0075
27-Feb-07	483																				
6-Mar-07	490	28.2	<0.0005	<0.0001	0.00057	<0.03	<0.00005	0.882	0.044	<0.00001	0.000772	<0.0005	0.664	<0.001	0.708	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Mar-07	497																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
20-Mar-07	504	2500	2265	7.8	402	164	<1	1.75	43.3	94	76.6	<0.5	<0.02	36	0.0284	0.00577	0.00032	0.0431	<0.0002	<0.0005	<0.01	<0.00005
27-Mar-07	511	2500	2500	7.98	359	125																
3-Apr-07	518	2500	2435	7.74	454	122	<1	1.64	30.6	80.5	59.6	<0.5	<0.02	33.5	0.039	0.00526	0.00028	0.0357	<0.0002	<0.0005	<0.01	<0.00005
10-Apr-07	525	2500	2500	7.47	389	128																
17-Apr-07	532	2500	2470	7.55	417	157	<1	2.38	33.2	71	65.5	<0.5	<0.02	38	0.0275	0.00521	0.00026	0.0399	<0.0002	<0.0005	<0.01	<0.00005
24-Apr-07	539	2500	2485	7.55	367	115																
1-May-07	546	2500	2410	7.65	393	115	<1	1.69	27.7	72.5	57.8	<0.5	<0.02	32.3	0.0351	0.00615	0.00083	0.0297	<0.0002	<0.0005	<0.01	<0.00005
8-May-07	553	2500	2550	7.45	375	114																
15-May-07	560	2500	2505	7.62	391	146	<1	2.38	26.6	79	63.9	<0.5	<0.02	37.1	0.0422	0.00586	0.00048	0.0342	<0.0002	<0.0005	<0.01	<0.00005
22-May-07	567	2500	2405	7.53	370	134																
29-May-07	574	2500	2390	7.65	401	143	<1	2.65	28.1	87	67	<0.5	<0.02	34.9	0.0396	0.00563	0.00037	0.0353	<0.0002	<0.0005	<0.01	<0.00005
5-Jun-07	581	2500	2395	7.32	372	105																
12-Jun-07	588	2500	2395	7.45	387	99	<1	2.42	17.9	77.6	50.8	<0.5	<0.02	29.5	0.0427	0.00466	0.00027	0.024	<0.0002	<0.0005	<0.01	0.000125
19-Jun-07	595	2500	2435	7.45	470	155																
26-Jun-07	602	2500	2480	7.53	381	142	<1	2.68	28.1	83.8	63.5	<0.5	<0.02	38.4	0.0399	0.00497	0.00076	0.0297	<0.0002	<0.0005	<0.01	<0.00005
3-Jul-07	609	2500	2340	7.62	348	166																
10-Jul-07	616	2500	2465	7.65	365	129	<1	2.87	28.3	82.5	62.1	<0.5	<0.02	37.9	0.0385	0.00536	0.00027	0.0265	<0.0002	<0.0005	<0.01	<0.00005
17-Jul-07	623	2500	2445	7.39	358	140																
24-Jul-07	630	2500	2460	7.36	365	129	<1	5.29	27.4	72.8	56.4	<0.5	<0.02	31.7	0.0387	0.00434	0.00029	0.024	<0.0002	<0.0005	<0.01	<0.00005
31-Jul-07	637	2500	2380	7.49	345	142																
7-Aug-07	644	2500	2485	7.58	407	130	<1	2.24	27.6	71.3		<0.5	<0.02	30.4	0.0347	0.00461	0.0004	0.0245	<0.0002	<0.0005	<0.01	<0.00005
14-Aug-07	651	2500	2395	7.64	385	116																
21-Aug-07	658	2500	2405	7.46	442	103	<1	2.47	23.3	69	51.1	<0.5	<0.02	30.9	0.0327	0.00478	0.00026	0.0222	<0.0002	<0.0005	<0.01	<0.00005
28-Aug-07	665	2500	2385	7.42	444	96																
4-Sep-07	672	2500	2285	7.53	426	84	<1	3.01	23.6	71.5	47.2	<0.5	<0.02	27.5	0.0318	0.00429	0.00022	0.0203	<0.0002	<0.0005	<0.01	<0.00005
11-Sep-07	679	2500	2315	7.45	442	85																
18-Sep-07	686	2500	2470	7.59	385	90	<1	4.64	27.2	76.7	60.9	<0.5	<0.02	36.4	0.036	0.00515	0.00043	0.024	<0.0002	<0.0005	<0.01	<0.00005
25-Sep-07	693	2500	2250	7.71	379	116																
2-Oct-07	700	2500	2290	7.52	434	115	<1	5.29	18.6	71	49.1	<0.5	<0.02	34	0.0206	0.0052	0.00024	0.0213	<0.0002	<0.0005	<0.01	<0.00005
9-Oct-07	707	2500	2400																			
16-Oct-07	714	2500	2445	7.37	439	109	<1	3.1	15.4	62.7	34.8	<0.5	<0.02	27.1	0.0157	0.0038	0.00015	0.0131	<0.0002	<0.0005	<0.01	<0.00005
23-Oct-07	721	2500	2370																			
30-Oct-07	728	2500	2225	7.56	453	90																
6-Nov-07	735	2500	2335																			
13-Nov-07	742	2500	2430	7.32	498	122	<1	3.4	15.8	66.3	53.7	<0.5	<0.02	39.3	0.023	0.00328	0.00025	0.0169	<0.0002	<0.0005	<0.01	<0.00005
20-Nov-07	749	2500	2175																			
27-Nov-07	756	2500	2280	7.01	487	108																
4-Dec-07	763	2500	2395																			
11-Dec-07	770	2500	2430	7.15	470	114	<1	2.88	11.2	71	49.7	<0.5	<0.02	39.6	0.0095	0.00244	0.00014	0.0159	<0.0002	<0.0005	<0.01	<0.00005
18-Dec-07	777	2500	2395																			
25-Dec-07	784	2500	2275	7.11	436	128																
1-Jan-08	791	2500	2500																			
8-Jan-08	798	2500	2330	7.16	471	194	<1	3.99	17.1	127	89	<0.5	<0.02	74	0.0206	0.00213	0.00024	0.0266	<0.0002	<0.0005	<0.01	<0.00005
15-Jan-08	805	2500	2250																			
22-Jan-08	812	2500	2475	7.42	468	110																
29-Jan-08	819	2500	2410																			
5-Feb-08	826	2500	2615	7.54	451	133	<1	3.35	26.5	86	62.2	<0.5	0.021	39.2	0.0202	0.00392	0.00024	0.0258	<0.0002	<0.0005	<0.01	<0.00005
12-Feb-08	833	2500	2430																			
19-Feb-08	840	2500	2510	7.6	429	127																
26-Feb-08	847	2500	2585																			
4-Mar-08	854	2500	2460	7.6	408	147	<1	3.83	28.7	90.2	65.7	<0.5	0.02	42.3	0.0251	0.00447	0.00029	0.0234	<0.0002	<0.0005	<0.01	<0.00005
11-Mar-08	861	2500	2415																			
18-Mar-08	868	2500	2455	7.77	406	169																
25-Mar-08	875	2500	2440																			
1-Apr-08	882	2500	2030	7.81	413	156	<1	2.38	41.2	102	78.6	<0.5	0.022	40.6	0.0173	0.00418	0.00023	0.0308	<0.0002	<0.0005	<0.01	<0.00005
8-Apr-08	889	2500	2480																			
15-Apr-08	896	2500	2430	7.68	403	164																
22-Apr-08	903	2500	2300																			
29-Apr-08	910	2500	2385	7.84	385	156	<1	2.11	39.1	89.3	69.9	<0.5	0.02	36.7	0.0242	0.00384	0.00026	0.0278	<0.0002	<0.0005	<0.01	<0.00005
6-May-08	917	2500	2560																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Mar-07	504	29.2	<0.0005	<0.0001	0.0003	<0.03	<0.00005	0.888	0.0509	<0.00001	0.00105	<0.0005	0.733	<0.001	0.794	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Mar-07	511																				
3-Apr-07	518	22.6	<0.0005	<0.0001	0.0002	<0.03	<0.00005	0.743	0.0421	<0.00001	0.00074	<0.0005	0.642	<0.001	0.698	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Apr-07	525																				
17-Apr-07	532	24.9	<0.0005	<0.0001	0.00073	<0.03	<0.00005	0.788	0.0475	<0.00001	0.000762	<0.0005	0.617	<0.001	0.596	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Apr-07	539																				
1-May-07	546	22.1	<0.0005	<0.0001	0.00041	<0.03	<0.00005	0.638	0.0331	<0.00001	0.000619	<0.0005	0.512	<0.001	0.506	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0022
8-May-07	553																				
15-May-07	560	24.5	<0.0005	<0.0001	0.00254	<0.03	<0.00005	0.677	0.0321	<0.00001	0.000597	<0.0005	0.56	<0.001	0.531	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
22-May-07	567																				
29-May-07	574	25.5	<0.0005	<0.0001	0.00288	<0.03	<0.00005	0.824	0.0433	<0.00001	0.000842	<0.0005	0.65	<0.001	0.587	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
5-Jun-07	581																				
12-Jun-07	588	19.4	<0.0005	<0.0001	0.0033	<0.03	<0.00005	0.555	0.0291	<0.00001	0.00042	<0.0005	0.412	<0.001	0.346	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0077
19-Jun-07	595																				
26-Jun-07	602	24.2	<0.0005	<0.0001	0.00081	0.04	0.000246	0.743	0.0298	<0.00001	0.000699	<0.0005	0.559	<0.001	0.558	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0116
3-Jul-07	609																				
10-Jul-07	616	23.7	<0.0005	<0.0001	0.00138	<0.03	<0.00005	0.741	0.0245	<0.00001	0.00069	<0.0005	0.574	<0.001	0.556	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0027
17-Jul-07	623																				
24-Jul-07	630	21.5	<0.0005	<0.0001	0.00135	<0.03	<0.00005	0.658	0.0279	<0.00001	0.00065	<0.0005	0.469	<0.001	0.541	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
31-Jul-07	637																				
7-Aug-07	644	21.7	<0.0005	<0.0001	0.00028	<0.03	<0.00005	0.647	0.0272	<0.00001	0.000664	<0.0005	0.508	<0.001	0.507	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
14-Aug-07	651																				
21-Aug-07	658	19.4	<0.0005	<0.0001	0.00045	<0.03	<0.00005	0.643	0.0291	<0.00001	0.000572	<0.0005	0.492	<0.001	0.472	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
28-Aug-07	665																				
4-Sep-07	672	18	<0.0005	<0.0001	0.00378	<0.03	0.000114	0.569	0.0278	<0.00001	0.000458	<0.0005	0.438	<0.001	0.436	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-Sep-07	679																				
18-Sep-07	686	23.2	<0.0005	<0.0001	0.00034	<0.03	<0.00005	0.7	0.0271	<0.00001	0.000618	<0.0005	0.496	<0.001	0.537	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
25-Sep-07	693																				
2-Oct-07	700	18.7	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.598	0.0454	<0.00001	0.00028	<0.0005	0.411	<0.001	0.35	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
9-Oct-07	707																				
16-Oct-07	714	13.2	<0.0005	<0.0001	0.00068	<0.03	<0.00005	0.441	0.0226	<0.00001	0.000225	<0.0005	0.305	<0.001	0.238	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
23-Oct-07	721																				
30-Oct-07	728																				
6-Nov-07	735																				
13-Nov-07	742	20.4	<0.0005	0.00014	0.0024	<0.03	<0.00005	0.663	0.0484	<0.00001	0.000396	<0.0005	0.518	<0.001	0.427	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
20-Nov-07	749																				
27-Nov-07	756																				
4-Dec-07	763																				
11-Dec-07	770	19	0.00074	0.00013	0.00046	<0.03	<0.00005	0.549	0.0667	<0.00001	0.000164	<0.0005	0.348	<0.001	0.272	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Dec-07	777																				
25-Dec-07	784																				
1-Jan-08	791																				
8-Jan-08	798	34	<0.0005	0.00051	0.00065	<0.03	<0.00005	1.02	0.0854	<0.00001	0.000426	<0.0005	0.863	<0.001	0.54	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
15-Jan-08	805																				
22-Jan-08	812																				
29-Jan-08	819																				
5-Feb-08	826	23.6	<0.0005	<0.0001	0.0007	<0.03	<0.00005	0.832	0.0308	<0.00001	0.000583	<0.0005	0.702	<0.001	0.591	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
12-Feb-08	833																				
19-Feb-08	840																				
26-Feb-08	847																				
4-Mar-08	854	25.3	<0.0005	<0.0001	0.00096	0.034	<0.00005	0.603	0.0273	<0.00001	0.0007	<0.0005	0.6	<0.001	0.621	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-Mar-08	861																				
18-Mar-08	868																				
25-Mar-08	875																				
1-Apr-08	882	30.3	<0.0005	<0.0001	0.00067	<0.03	<0.00005	0.712	0.0336	<0.00001	0.000929	<0.0005	0.679	<0.001	0.84	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Apr-08	889																				
15-Apr-08	896																				
22-Apr-08	903																				
29-Apr-08	910	26.8	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.69	0.031	<0.00001	0.000719	<0.0005	0.659	<0.001	0.823	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
6-May-08	917																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-May-08	924	2500	2435	7.81	344	136																
20-May-08	931	2500	2490																			
27-May-08	938	2500	2390	7.74	381	105	<1	2.92	30.4	66.4	50.3	<0.5	<0.02	26.9	0.0265	0.00283	0.00019	0.0185	<0.0002	<0.0005	<0.01	<0.00005
3-Jun-08	945	2500	2530																			
10-Jun-08	952	2500	2490	7.67	371	104																
17-Jun-08	959	2500	2490																			
24-Jun-08	966	2500	2430	7.71	227	83	<1	5.79	38	60.5	55.8	<0.5	<0.02	24.9	0.0241	0.00408	0.00024	0.0222	<0.0002	<0.0005	<0.01	<0.00005
1-Jul-08	973	2500	2420																			
8-Jul-08	980	2500	2355	7.73	245	140																
15-Jul-08	987	2500	2710																			
22-Jul-08	994	2500	2380	7.63	329	112	<1	3.13	30.5	67	57.2	<0.5	<0.02	28.6	0.0214	0.00354	0.00026	0.0213	<0.0002	<0.0005	<0.01	<0.00005
29-Jul-08	1001	2500	2560																			
5-Aug-08	1008	2500	2495	7.77	340	113																
12-Aug-08	1015	2500	2460																			
19-Aug-08	1022	2500	2420	7.65	237	92	<1	2.63	26	58	43.3	<0.5	<0.02	21.6	0.0269	0.00353	0.0002	0.0171	<0.0002	<0.0005	<0.01	<0.00005
26-Aug-08	1029	2500	2435																			
2-Sep-08	1036	2500	2370	7.66	267	112																
9-Sep-08	1043	2500	2490																			
16-Sep-08	1050	2500	2380	7.76	280	132	<1	2.38	31.1	87	59.7	<0.5	<0.02	33.6	0.0289	0.00363	0.0002	0.0225	<0.0002	<0.0005	<0.01	<0.00005
23-Sep-08	1057	2500	2550																			
30-Sep-08	1064	2500	2450	7.69	211	120																
7-Oct-08	1071	2500	2450																			
14-Oct-08	1078	2500	2490	7.7	362	96	<1	4.44	29.8	65	48.3	<0.5	<0.02	20.5	0.0306	0.00387	0.00022	0.0186	<0.0002	<0.0005	<0.01	<0.00005
21-Oct-08	1085	2500	2535																			
28-Oct-08	1092	2500	2385	7.56	421	93																
4-Nov-08	1099	2500	2360																			
11-Nov-08	1106	2500	2390	7.42	410	80	<1	3.32	21.7	29	38.5	<0.5	<0.02	20	0.0305	0.00315	0.00015	0.0152	<0.0002	<0.0005	<0.01	<0.00005
18-Nov-08	1113	2500	2460																			
25-Nov-08	1120	2500	2505	7.62	332	104																
2-Dec-08	1127	2500	2320																			
9-Dec-08	1134	2500	2535	7.66	269	98	<1	2.65	31.7	60.5	48.5	<0.5	<0.02	22.2	0.0211	0.003	0.00018	0.0192	<0.0002	<0.0005	<0.01	<0.00005
16-Dec-08	1141	2500	2545																			
23-Dec-08	1148	2500	2535	7.67	233	131																
30-Dec-08	1155	2500	2350																			
6-Jan-09	1162	2500	2420	7.57	254	131	<1	3.79	40.9	94.5	65.3	<0.5	<0.02	29.4	0.0224	0.00374	0.0002	0.0252	<0.0002	<0.0005	<0.01	<0.00005
13-Jan-09	1169	2500	2535																			
20-Jan-09	1176	2500	2325	7.55	378	128																
27-Jan-09	1183	2500	2265																			
3-Feb-09	1190	2500	2270	7.45	408	115	<1	5.1	39.7	78.8	59.6	<0.5	<0.02	25.7	0.0221	0.00355	0.0002	0.0239	<0.0002	<0.0005	<0.01	<0.00005
10-Feb-09	1197	2500	2555																			
17-Feb-09	1204	2500	2405	7.7	397	164																
24-Feb-09	1211	2500	2560																			
3-Mar-09	1218	2500	2450	7.35	242	118	<1	4.59	26.9	65.3	57.2	<0.5	<0.02	33.4	0.0187	0.00324	0.00015	0.0241	<0.0002	<0.0005	<0.01	<0.00005
10-Mar-09	1225	2500	2315																			
17-Mar-09	1232	2500	2170	7.3	333	116																
24-Mar-09	1239	2500	2200																			
31-Mar-09	1246	2500	2420	7.31	324	97	<1	3.02	23	58.5	45.1	<0.5	<0.02	26.1	0.0203	0.00388	0.00029	0.0174	<0.0002	<0.0005	<0.01	0.00006
7-Apr-09	1253	2500	2350																			
14-Apr-09	1260	2500	2480	7.35	365	99																
21-Apr-09	1267	2500	2355																			
28-Apr-09	1274	2500	2330	7.52	386	140	<1	2.71	32.7	84	65.5	<0.5	<0.02	36.8	0.0189	0.00432	0.00035	0.0239	<0.0002	<0.0005	<0.01	<0.00005
5-May-09	1281	2500	2815																			
12-May-09	1288	2500	2490	7.29	383	118																
19-May-09	1295	2500	2445																			
26-May-09	1302	2500	2315	7.53	378	135	<1	3.46	32.3	85.3		<0.5	<0.02	39.7								
2-Jun-09	1309	2500	2555																			
9-Jun-09	1316	2500	2445	7.51	375	114																
16-Jun-09	1323	2500	2410																			
23-Jun-09	1330	2500	2465	7.43	393	98	<1	4.08	28.8	70.5		<0.5	<0.02	28.5								
30-Jun-09	1337	2500	2440																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-May-08	924																				
20-May-08	931																				
27-May-08	938	19.2	<0.0005	<0.0001	0.0003	<0.03	<0.00005	0.602	0.0231	<0.00001	0.000441	<0.0005	0.436	<0.001	0.527	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
3-Jun-08	945																				
10-Jun-08	952																				
17-Jun-08	959																				
24-Jun-08	966	21.6	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.48	0.0219	<0.00001	0.000565	<0.0005	0.488	<0.001	0.616	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
1-Jul-08	973																				
8-Jul-08	980																				
15-Jul-08	987																				
22-Jul-08	994	22.1	<0.0005	<0.0001	0.00018	<0.03	<0.00005	0.469	0.0244	<0.00001	0.000488	<0.0005	0.414	<0.001	0.569	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
29-Jul-08	1001																				
5-Aug-08	1008																				
12-Aug-08	1015																				
19-Aug-08	1022	16.7	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.383	0.0177	<0.00001	0.000388	<0.0005	0.39	<0.001	0.477	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Aug-08	1029																				
2-Sep-08	1036																				
9-Sep-08	1043																				
16-Sep-08	1050	23	<0.0005	0.00011	0.00038	<0.03	<0.00005	0.527	0.0248	<0.00001	0.000456	0.00131	0.43	<0.001	0.607	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
23-Sep-08	1057																				
30-Sep-08	1064																				
7-Oct-08	1071																				
14-Oct-08	1078	18.7	<0.0005	<0.0001	0.00014	<0.03	<0.00005	0.401	0.0173	<0.00001	0.000438	<0.0005	0.407	<0.001	0.583	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Oct-08	1085																				
28-Oct-08	1092																				
4-Nov-08	1099																				
11-Nov-08	1106	14.9	<0.0005	<0.0001	0.0002	<0.03	<0.00005	0.31	0.018	<0.00001	0.000253	<0.0005	0.307	<0.001	0.376	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Nov-08	1113																				
25-Nov-08	1120																				
2-Dec-08	1127																				
9-Dec-08	1134	18.7	<0.0005	<0.0001	0.00015	<0.03	<0.00005	0.401	0.0248	<0.00001	0.000338	<0.0005	0.408	<0.001	0.494	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
16-Dec-08	1141																				
23-Dec-08	1148																				
30-Dec-08	1155																				
6-Jan-09	1162	25.1	<0.0005	<0.0001		<0.03	<0.00005	0.615	0.0254	0.000011	0.000428	<0.0005	0.483	<0.001	0.644	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Jan-09	1169																				
20-Jan-09	1176																				
27-Jan-09	1183																				
3-Feb-09	1190	23	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.527	0.0209	<0.00001	0.00041	<0.0005	0.476	<0.001	0.59	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Feb-09	1197																				
17-Feb-09	1204																				
24-Feb-09	1211																				
3-Mar-09	1218	22.2	<0.0005	<0.0001	0.00013	<0.03	<0.00005	0.422	0.0254	<0.00001	0.000343	<0.0005	0.417	<0.001	0.494	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Mar-09	1225																				
17-Mar-09	1232																				
24-Mar-09	1239																				
31-Mar-09	1246	17.5	<0.0005	<0.0001	0.0014	<0.03	<0.00005	0.349	0.0197	<0.00001	0.00028	<0.0005	0.381	<0.001	0.443	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
7-Apr-09	1253																				
14-Apr-09	1260																				
21-Apr-09	1267																				
28-Apr-09	1274	25.4	<0.0005	<0.0001	0.00051	<0.03	<0.00005	0.475	0.0194	<0.00001	0.000488	<0.0005	0.456	<0.001	0.66	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
5-May-09	1281																				
12-May-09	1288																				
19-May-09	1295																				
26-May-09	1302																				
2-Jun-09	1309																				
9-Jun-09	1316																				
16-Jun-09	1323																				
23-Jun-09	1330																				
30-Jun-09	1337																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
7-Jul-09	1344	2500	2495	7.7	352	116																
14-Jul-09	1351	2500	2330																			
21-Jul-09	1358	2500	2435	7.51	316	99	<1	2.57	28.1	67.5		<0.5	<0.02	25.5								
28-Jul-09	1365	2500	2190																			
4-Aug-09	1372	2500	2420	7.46	389	97																
11-Aug-09	1379	2500	2465																			
18-Aug-09	1386	2500	2370	7.27	353	84	<1	3.25	22.5	49.7		<0.5	<0.02	22.3								
25-Aug-09	1393	2500	2435																			
1-Sep-09	1400	2500	2380	7.58	293	113																
8-Sep-09	1407	2500	2430																			
15-Sep-09	1414	2500	2405	7.35	340	104	<1	2.85	24.3	63		<0.5	<0.02	30.7								
22-Sep-09	1421	2500	2425																			
29-Sep-09	1428	2500	2575	7.5	358	85																
6-Oct-09	1435	2500	2310																			
13-Oct-09	1442	2500	2315	7.21	332	74	<1	4.09	20.6	103		<0.5	<0.02	21.9								
20-Oct-09	1449	2500	2505																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-08	0	2500	1955	6.74	447	1118	<1	5.05	7.1	773	214	1.18	0.127	496	0.0044	0.00385	0.0103	0.0124	<0.0004	<0.001	0.08	0.00128
22-Jan-08	7	2500	2435	6.74	491	1127																
29-Jan-08	14	2500	2550	6.97	471	223	<1	4.7	4.7	148	34.9	<0.5	0.212	90.8	0.0069	0.00448	0.00835	0.00354	<0.0002	<0.0005	0.024	0.000307
5-Feb-08	21	2500	2505	6.76	488	151																
12-Feb-08	28	2500	2490	6.95	431	129	<1	5.46	3.6	80.3	23.6	<0.5	0.107	50.8	0.0038	0.00356	0.00896	0.00232	<0.0002	<0.0005	0.014	0.00031
19-Feb-08	35	2500	2465	6.91	444	114																
26-Feb-08	42	2500	2500	6.6	452	108	<1	4.57	2	79	25.2	<0.5	0.055	44.1	0.0026	0.00318	0.013	0.0028	<0.0002	<0.0005	0.01	0.000474
4-Mar-08	49	2500	2480	6.4	454	95																
11-Mar-08	56	2500	2530	6.01	459	94	<1	4.05	1.4	66.8	25.8	<0.5	0.045	38.2	0.003	0.00295	0.0152	0.00283	<0.0002	<0.0005	<0.01	0.000625
18-Mar-08	63	2500	2515	5.99	463	84																
25-Mar-08	70	2500	2590	5.82	460	83	<1	4	1.1	49.2	23.9	<0.5	0.036	33.3	0.0081	0.00226	0.0134	0.00227	<0.0002	<0.0005	<0.01	0.000623
1-Apr-08	77	2500	2575	5.82	474	76																
8-Apr-08	84	2500	2525	5.31	461	92	<1	4.43	<1	53.2	25.8	<0.5	0.025	33.5	0.0041	0.00214	0.0153	0.00271	<0.0002	<0.0005	<0.01	0.000831
15-Apr-08	91	2500	2560	5.85	445	78																
22-Apr-08	98	2500	2515	5.96	439	85	<1	4.67	1.5	55.7	25.4	<0.5	0.028	33.5	0.0066	0.00205	0.0157	0.00287	<0.0002	<0.0005	<0.01	0.00107
29-Apr-08	105	2500	2540	5.98	356	68																
6-May-08	112	2500	2140	5.73	281	97	<1	5.02	1	57.4	29.9	<0.5	0.029	36.1	0.0074	0.00181	0.0175	0.00314	<0.0002	<0.0005	<0.01	0.00127
13-May-08	119	2500	2495	5.94	247	72																
20-May-08	126	2500	2540	5.8	220	86	<1	4.24	<1	55.9	26.6	<0.5	0.023	32.1	0.0069	0.0015	0.0155	0.0026	<0.0002	<0.0005	<0.01	0.00116
27-May-08	133	2500	2440	5.6	215	80																
3-Jun-08	140	2500	2555	5.51	383	66	<1	5.03	<1	56.8	26	<0.5	0.022	30.1	0.0086	0.00163	0.0162	0.00273	<0.0002	<0.0005	<0.01	0.00141
10-Jun-08	147	2500	2470	5.78	310	56																
17-Jun-08	154	2500	2420	5.5	251	57	<1	5.86	<1	45.5	24.1	<0.5	0.027	29.6	0.0127	0.00158	0.0169	0.00266	<0.0002	<0.0005	<0.01	0.00146
24-Jun-08	161	2500	2290	5.81	264	58																
1-Jul-08	168	2500	2380	5.24	358	75	<1	4.66	<1	53.2	27.6	<0.5	0.021	33.3	0.0121	0.0014	0.0195	0.00313	<0.0002	<0.0005	<0.01	0.00182
8-Jul-08	175	2500	2340	5.37	275	81																
15-Jul-08	182	2500	2340	5.32	343	75	<1	4.75	<1	48.3	26	<0.5	0.026	29.9	0.0115	0.00102	0.0143	0.00258	<0.0002	<0.0005	<0.01	0.00172
22-Jul-08	189	2500	2365	5.39	355	70																
29-Jul-08	196	2500	2370	5.35	398	73	<1	4.17	1.9	39.8	22.9	<0.5	0.023	27.6	0.0125	0.00103	0.0151	0.00237	<0.0002	<0.0005	<0.01	0.00181
5-Aug-08	203	2500	2350	5.4	314	72																
12-Aug-08	210	2500	2340	5.29	269	74	<1	4.51	<1	44.8	23.7	<0.5	0.022	26.9	0.0149	0.000937	0.0144	0.00254	<0.0002	<0.0005	<0.01	0.00198
19-Aug-08	217	2500	2460	5.39	222	70																
26-Aug-08	224	2500	2345	5.4	227	71	<1	4.47	<1	48.9	22.6	<0.5	0.029	26.9	0.0151	0.000873	0.0142	0.00248	<0.0002	<0.0005	<0.01	0.00207
2-Sep-08	231	2500	2330	5.32	238	67																
9-Sep-08	238	2500	2370	5.29	236	69	<1	4.42	<1	45.8	22.2	<0.5	0.026	26.2	0.0229	0.000836	0.0156	0.00247	<0.0002	<0.0005	<0.01	0.0021
16-Sep-08	245	2500	2380	5.17	260	72																
23-Sep-08	252	2500	2345	5.24	232	52	<1	4.47	<1	42.1	19.4	<0.5	0.021	23.1	0.0158	0.000641	0.0121	0.00222	<0.0002	<0.0005	<0.01	0.00195
30-Sep-08	259	2500	2415	5.2	250	65																
7-Oct-08	266	2500	2430	5.4	341	62	<1	4.28	<1	41.1	19.4	<0.5	0.024	22.5	0.0147	0.000601	0.0117	0.00213	<0.0002	<0.0005	<0.01	0.0022
14-Oct-08	273	2500	2360	5.25	341	52																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
7-Jul-09	1344																				
14-Jul-09	1351																				
21-Jul-09	1358																				
28-Jul-09	1365																				
4-Aug-09	1372																				
11-Aug-09	1379																				
18-Aug-09	1386																				
25-Aug-09	1393																				
1-Sep-09	1400																				
8-Sep-09	1407																				
15-Sep-09	1414																				
22-Sep-09	1421																				
29-Sep-09	1428																				
6-Oct-09	1435																				
13-Oct-09	1442																				
20-Oct-09	1449																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-08	0	74.2	<0.001	0.0212	0.00332	0.212	<0.0001	7.02	0.643	<0.00001	0.0441	0.0341	11.1	0.0155	5.01	<0.00002	147	0.0005	<0.0002	<0.001	0.0215
22-Jan-08	7																				
29-Jan-08	14	12.2	<0.0005	0.00311	0.00309	<0.03	<0.00005	1.08	0.111	<0.00001	0.0199	0.00455	3.58	0.0049	5.29	<0.00001	25.7	0.000161	0.00027	<0.0005	0.0053
5-Feb-08	21																				
12-Feb-08	28	8.21	<0.0005	0.00317	0.00161	0.041	<0.00005	0.747	0.0935	<0.00001	0.00765	0.00402	2.84	0.0042	4.63	<0.00001	11.9	0.000124	<0.0001	<0.0005	0.008
19-Feb-08	35																				
26-Feb-08	42	8.84	<0.0005	0.00511	0.00252	<0.03	<0.00005	0.77	0.111	<0.00001	0.00402	0.00566	3.11	0.0046	4.4	<0.00001	6.8	0.000151	<0.0001	<0.0005	0.0155
4-Mar-08	49																				
11-Mar-08	56	8.99	<0.0005	0.00601	0.00195	0.035	<0.00005	0.813	0.136	<0.00001	0.00272	0.00618	2.62	0.005	4.01	<0.00001	4.1	0.000159	0.00035	<0.0005	0.0248
18-Mar-08	63																				
25-Mar-08	70	8.32	<0.0005	0.00584	0.00178	<0.03	<0.00005	0.763	0.126	<0.00001	0.00159	0.0106	2.02	0.0039	3.49	<0.00001	2.2	0.000124	<0.0001	<0.0005	0.0262
1-Apr-08	77																				
8-Apr-08	84	8.86	<0.0005	0.00804	0.00785	0.049	<0.00005	0.903	0.152	<0.00001	0.00123	0.00819	2.38	0.0042	3.45	<0.00001	<2	0.000127	<0.0001	<0.0005	0.0396
15-Apr-08	91																				
22-Apr-08	98	8.73	<0.0005	0.00954	0.00476	0.077	0.000091	0.877	0.166	<0.00001	0.00102	0.00944	2.17	0.0046	3.35	<0.00001	<2	0.000138	<0.0001	<0.0005	0.0569
29-Apr-08	105																				
6-May-08	112	9.98	<0.0005	0.0108	0.00752	0.109	0.000072	1.21	0.251	<0.00001	0.000728	0.0107	2.41	0.0051	3.5	<0.00001	<2	0.000161	<0.0001	<0.0005	0.0714
13-May-08	119																				
20-May-08	126	9.13	<0.0005	0.0095	0.00713	0.102	0.000055	0.931	0.156	<0.00001	0.000503	0.00964	1.84	0.0037	3.25	<0.00001	<2	0.000141	<0.0001	<0.0005	0.0648
27-May-08	133																				
3-Jun-08	140	8.72	<0.0005	0.0117	0.00705	0.103	0.000067	1.02	0.218	<0.00001	0.000497	0.011	1.84	0.004	3	<0.00001	<2	0.000141	<0.0001	<0.0005	0.081
10-Jun-08	147																				
17-Jun-08	154	8.09	<0.0005	0.0113	0.00903	0.118	0.000079	0.951	0.186	0.000011	0.000396	0.0118	1.89	0.0034	2.86	<0.00001	<2	0.000139	0.00012	<0.0005	0.0883
24-Jun-08	161																				
1-Jul-08	168	9.24	<0.0005	0.0138	0.00766	0.169	0.000092	1.09	0.227	<0.00001	0.000317	0.0135	1.89	0.0041	3.12	<0.00001	<2	0.000147	<0.0001	<0.0005	0.117
8-Jul-08	175																				
15-Jul-08	182	8.74	<0.0005	0.013	0.0112	0.17	0.000069	1.01	0.214	<0.00001	0.000197	0.0132	1.58	0.0032	2.8	<0.00001	<2	0.000097	<0.0001	<0.0005	0.115
22-Jul-08	189																				
29-Jul-08	196	7.59	<0.0005	0.0134	0.00686	0.168	0.000072	0.959	0.199	<0.00001	0.000173	0.0128	1.4	0.0037	2.4	<0.00001	<2	0.000117	0.00012	<0.0005	0.121
5-Aug-08	203																				
12-Aug-08	210	7.84	<0.0005	0.0141	0.00901	0.19	0.000093	1.01	0.206	<0.00001	0.00015	0.0135	1.35	0.003	2.36	<0.00001	<2	0.000116	0.00025	<0.0005	0.129
19-Aug-08	217																				
26-Aug-08	224	7.41	<0.0005	0.0131	0.00873	0.2	0.000082	1	0.212	<0.00001	0.000135	0.0132	1.14	0.003	2.26	<0.00001	<2	0.000117	0.00033	<0.0005	0.139
2-Sep-08	231																				
9-Sep-08	238	7.05	<0.0005	0.0142	0.00919	0.236	0.000053	1.12	0.239	<0.00001	0.000137	0.0139	1.28	0.0028	2.28	<0.00001	<2	0.00012	0.00037	<0.0005	0.145
16-Sep-08	245																				
23-Sep-08	252	6.35	<0.0005	0.0126	0.00946	0.197	0.000052	0.871	0.191	<0.00001	0.000118	0.0123	0.925	0.0023	1.87	<0.00001	<2	0.000092	0.00056	<0.0005	0.135
30-Sep-08	259																				
7-Oct-08	266	6.36	<0.0005	0.0128	0.0129	0.196	<0.00005	0.864	0.228	<0.00001	0.000077	0.0141	0.924	0.0024	1.82	<0.00001	<2	0.000085	0.00057	<0.0005	0.147
14-Oct-08	273																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
21-Oct-08	280	2500	2325	5.14	437	54	<1	4.44	<1	31.3	18.8	<0.5	0.025	21.8	0.0158	0.000573	0.012	0.00204	<0.0002	<0.0005	<0.01	0.00212
28-Oct-08	287	2500	2470	5.09	473	60																
4-Nov-08	294	2500	2315	5.16	430	56	<1	5.02	<1	35.6	19.5	<0.5	0.021	22.4	0.018	0.000454	0.0106	0.00212	<0.0002	<0.0005	<0.01	0.00232
11-Nov-08	301	2500	2385	5.14	417	53																
18-Nov-08	308	2500	2325	4.99	398	56	<1	5.46	<1	35	4.73	<0.5	0.023	25.7	0.0269	0.000615	0.0123	0.00248	0.00023	<0.0005	<0.01	0.00278
25-Nov-08	315	2500	2340	5.05	390	51																
2-Dec-08	322	2500	2420	5.21	323	63	<1	4.95	<1	50.6	20.9	<0.5	0.036	25.3	0.0236	0.00063	0.0109	0.00221	0.00021	<0.0005	<0.01	0.00248
9-Dec-08	329	2500	2310	5.2	264	58																
16-Dec-08	336	2500	2360	5.35	182	62	<1	7.21	1	35.5	20.6	<0.5	0.032	25.2	0.0259	0.000617	0.00922	0.00217	0.00023	<0.0005	<0.01	0.00266
23-Dec-08	343	2500	2325	5.47	247	55																
30-Dec-08	350	2500	2540	5.25	174	58	<1	8.06	<1	44.2	20.1	<0.5	0.026	23.8	0.0262	0.000543	0.00906	0.00231	0.00024	<0.0005	<0.01	0.00271
6-Jan-09	357	2500	2310	5.38	172	49																
13-Jan-09	364	2500	2320	5.14	228	60	<1	8.25	<1	30.3	20.6	<0.5	0.025	24	0.0278	0.00061	0.00921	0.00233	0.00021	<0.0005	<0.01	0.00278
20-Jan-09	371	2500	2435	5.09	390	57																
27-Jan-09	378	2500	2345	5.34	292	55	<1	7.05	1.1	38.8	19.2	<0.5	0.037	22.6	0.0257	0.000592	0.00916	0.00199	0.00024	<0.0005	<0.01	0.00266
3-Feb-09	385	2500	2330	5.05	317	52																
10-Feb-09	392	2500	2200	5.25	300	53	<1	8.64	<1	38.1	17.8	<0.5	0.035	20.8	0.0219	0.000601	0.0101	0.00183	0.00024	<0.0005	<0.01	0.00241
17-Feb-09	399	2500	2280	5.16	493	52																
24-Feb-09	406	2500	2250	5.25	451	51	<1	5.8	<1	36.7	16.9	<0.5	0.03	19.8	0.0252	0.000535	0.00724	0.00171	0.00025	<0.0005	<0.01	0.00244
3-Mar-09	413	2500	2335	4.99	258	49																
10-Mar-09	420	2500	2365	4.9	272	50	<1	5.5	<1	21.5	16.9	<0.5	0.036	20.2	0.0241	0.00048	0.00796	0.00187	0.00022	<0.0005	<0.01	0.00255
17-Mar-09	427	2500	2300	4.82	308	49																
24-Mar-09	434	2500	2345	4.9	392	51	<1	5.24	<1	30.3	16.7	<0.5	0.034	20.3	0.0278	0.000503	0.00809	0.0018	0.00025	<0.0005	<0.01	0.00267
31-Mar-09	441	2500	2410	4.89	322	55																
7-Apr-09	448	2500	2400	4.93	397	53	<1	5.31	<1	41	16.6	<0.5	0.042	20.1	0.0311	0.000507	0.00912	0.00207	0.00022	<0.0005	<0.01	0.00279
14-Apr-09	455	2500	2445	4.98	439	54																
21-Apr-09	462	2500	2500	4.77	428	56																
28-Apr-09	469	2500	2510																			
5-May-09	476	2500	2485	4.84	409	62	<1	5.26	<1	37.8	19	<0.5	0.04	23.1	0.0432	0.000449	0.00807	0.0022	0.00027	<0.0005	<0.01	0.00355
12-May-09	483	2500	2485																			
19-May-09	490	2500	2490	4.9	289	61																
26-May-09	497	2500	2420																			
2-Jun-09	504	2500	2490	5	340	63	<1	7.04	<1	41.1	23.8	<0.5	0.044	29.1	0.0609	0.000473	0.00836	0.00302	0.00048	<0.0005	<0.01	0.00487
9-Jun-09	511	2500	2505																			
16-Jun-09	518	2500	2410	4.96	390	65																
23-Jun-09	525	2500	2475																			
30-Jun-09	532	2500	2400	4.99	314	60	<1	6.35	<1	50.5	23.2	<0.5	0.033	29.1	0.0646	0.000346	0.0054	0.00292	0.0005	<0.0005	<0.01	0.00485
7-Jul-09	539	2500	2560																			
14-Jul-09	546	2500	2485	5.03	377	55																
21-Jul-09	553	2500	2415																			
28-Jul-09	560	2500	2430	5.07	378	73	<1	8.71	<1	46.4	24.1	<0.5	0.087	29.7	0.0778	0.000341	0.00581	0.00312	0.00051	<0.0005	<0.01	0.00518
4-Aug-09	567	2500	2445																			
11-Aug-09	574	2500	2380	4.83	328	77																
18-Aug-09	581	2500	2420																			
25-Aug-09	588	2500	2280	4.98	301	80	<1	7.19	<1	60.3	28	<0.5	0.059	34.7	0.102	0.000283	0.00423	0.00347	0.00072	<0.0005	<0.01	0.00595
1-Sep-09	595	2500	2450																			
8-Sep-09	602	2500	2410	4.82	379	82																
15-Sep-09	609	2500	2545																			
22-Sep-09	616	2500	2520	4.79	343	80	<1	9.8	5.7	65	26.4	<0.5	0.058	31	0.102	0.000261	0.00368	0.00336	0.00079	<0.0005	<0.01	0.00581
29-Sep-09	623	2500	2485																			
6-Oct-09	630	2500	2490	4.79	359	74																
13-Oct-09	637	2500	2365																			
20-Oct-09	644	2500	2525	4.61	347	66	<1	7.54	<1	45	22.3	<0.5	0.044	26.2	0.105	0.000205	0.00289	0.00372	0.00067	<0.0005	<0.01	0.00497
27-Oct-09	651	2500	2480																			
3-Nov-09	658	2500	2425	4.97	348	77																
10-Nov-09	665	2500	2435																			
17-Nov-09	672	2500	2345	4.77	354	81	<1	10	<1	46	26	<0.5	0.056	31	0.128	0.000212	0.00274	0.0035	0.00071	<0.0005	<0.01	0.00631
24-Nov-09	679	2500	2345																			
1-Dec-09	686	2500	2535	5.01	342	77																
8-Dec-09	693	2500	2305																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-Oct-08	280	6.03	<0.0005	0.0129	0.00913	0.191		0.903	0.211	<0.00001	0.000112	0.0135	0.854	0.0021	1.61	<0.00001	<2	0.000084	0.00077	<0.0005	0.146
28-Oct-08	287																				
4-Nov-08	294	6.34	<0.0005	0.0144	0.00904	0.202	0.000073	0.894	0.224	<0.00001	0.000062	0.0141	0.783	0.0024	1.66	<0.00001	<2	0.000076	0.00148	<0.0005	0.165
11-Nov-08	301																				
18-Nov-08	308	7.24	<0.0005	0.017	0.01	0.242	0.000055	0.979	0.203	<0.00001	0.000078	0.0173	1.03	0.0027	1.98	<0.00001	<2	0.000105	0.0007	<0.0005	0.207
25-Nov-08	315																				
2-Dec-08	322	6.81	<0.0005	0.0156	0.0126	0.227	0.000071	0.944	0.198	<0.00001	0.000071	0.0159	0.912	0.0023	2.11	<0.00001	<2	0.000107	0.00033	<0.0005	0.195
9-Dec-08	329																				
16-Dec-08	336	6.85	<0.0005	0.0155	0.0115	0.193	0.000061	0.855	0.176	<0.00001	0.000052	0.0162	0.925	0.0022	2.03	<0.00001	<2	0.000109	0.00018	<0.0005	0.212
23-Dec-08	343																				
30-Dec-08	350	6.53	<0.0005	0.0151	0.0108	0.191	0.000158	0.924	0.217	<0.00001	0.000062	0.0149	0.832	0.0021	1.68	<0.00001	<2	0.000097	0.00059	<0.0005	0.204
6-Jan-09	357																				
13-Jan-09	364	6.45	<0.0005	0.0177	0.014	0.218	0.000076	1.09	0.259	<0.00001	0.000052	0.0183	0.99	0.0019	1.85	<0.00001	<2	0.000101	0.00022	<0.0005	0.218
20-Jan-09	371																				
27-Jan-09	378	6.02	<0.0005	0.016	0.0119	0.194	0.000094	1.01	0.267	<0.00001	<0.00005	0.0172	0.889	0.0019	1.92	<0.00001	<2	0.000093	0.00013	<0.0005	0.225
3-Feb-09	385																				
10-Feb-09	392	5.52	<0.0005	0.0139	0.0106	0.184	<0.00005	0.978	0.236	<0.00001	0.000052	0.0144	0.873	0.0016	1.91	<0.00001	<2	0.000098	0.0001	<0.0005	0.2
17-Feb-09	399																				
24-Feb-09	406	5.18	<0.0005	0.014	0.0123	0.171	0.000055	0.953	0.26	<0.00001	<0.00005	0.0148	0.774	0.0016	1.76	<0.00001	<2	0.000082	<0.0001	<0.0005	0.2
3-Mar-09	413																				
10-Mar-09	420	5.32	<0.0005	0.0147	0.0132	0.143	<0.00005	0.871	0.214	<0.00001	0.000058	0.0151	0.748	0.0016	1.74	<0.00001	<2	0.000066	0.00021	<0.0005	0.21
17-Mar-09	427																				
24-Mar-09	434	5.37	<0.0005	0.0152	0.0126	0.145	<0.00005	0.793	0.201	<0.00001	<0.00005	0.0156	0.695	0.0016	1.77	<0.00001	<2	0.000075	0.00016	<0.0005	0.225
31-Mar-09	441																				
7-Apr-09	448	5.16	<0.0005	0.0157	0.0153	0.146	<0.00005	0.892	0.216	<0.00001	0.000051	0.0164	0.71	0.0016	1.78	<0.00001	<2	0.000076	0.00016	<0.0005	0.223
14-Apr-09	455																				
21-Apr-09	462																				
28-Apr-09	469																				
5-May-09	476	5.95	<0.0005	0.0176	0.0177	0.18	0.000064	0.994	0.225	<0.00001	<0.00005	0.0181	0.753	0.0017	2	<0.00001	<2	0.000094	0.00019	<0.0005	0.277
12-May-09	483																				
19-May-09	490																				
26-May-09	497																				
2-Jun-09	504	7.21	<0.0005	0.0232	0.0283	0.229	0.000112	1.41	0.356	<0.00001	<0.00005	0.0241	0.883	0.0023	2.48	<0.00001	<2	0.000114	0.00018	<0.0005	0.396
9-Jun-09	511																				
16-Jun-09	518																				
23-Jun-09	525																				
30-Jun-09	532	7.19	<0.0005	0.0218	0.0315	0.196	0.00009	1.26	0.282	<0.00001	<0.00005	0.0247	0.677	0.0019	2.29	<0.00001	<2	0.000099	0.00015	<0.0005	0.352
7-Jul-09	539																				
14-Jul-09	546																				
21-Jul-09	553																				
28-Jul-09	560	7.13	<0.0005	0.024	0.0343	0.208	0.000148	1.52	0.389	<0.00001	<0.00005	0.0265	0.768	0.002	2.27	<0.00001	<2	0.000124	0.0004	<0.0005	0.437
4-Aug-09	567																				
11-Aug-09	574																				
18-Aug-09	581																				
25-Aug-09	588	8.07	<0.0005	0.0271	0.0403	0.181	0.000346	1.91	0.413	<0.00001	<0.00005	0.0299	0.746	0.002	2.55	<0.00001	<2	0.000115	0.00028	<0.0005	0.476
1-Sep-09	595																				
8-Sep-09	602																				
15-Sep-09	609																				
22-Sep-09	616	7.81	<0.0005	0.0258	0.0388	0.172	0.000156	1.66	0.385	<0.00001	<0.00005	0.0293	0.705	0.0018	2.89	<0.00001	<2	0.000114	0.00012	<0.0005	0.479
29-Sep-09	623																				
6-Oct-09	630																				
13-Oct-09	637																				
20-Oct-09	644	6.46	<0.0005	0.0222	0.0471	0.109	0.00029	1.49	0.318	<0.00001	<0.00005	0.0259	0.63	0.0015	2.4	<0.00001	<2	0.000104	0.00029	<0.0005	0.439
27-Oct-09	651																				
3-Nov-09	658																				
10-Nov-09	665																				
17-Nov-09	672	7.59	<0.0005	0.0251	0.0449	0.097	0.000144	1.71	0.37	<0.00001	<0.00005	0.0296	0.61	0.0018	2.65	<0.00001	<2	0.000106	0.00022	<0.0005	0.515
24-Nov-09	679																				
1-Dec-09	686																				
8-Dec-09	693																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Dec-09	700	2500	2525	4.83	374	82	<1	7.79	<1	52	25.6	<0.5	0.073	28.9	0.135	0.000198	0.00247	0.0035	0.00079	<0.0005	<0.01	0.0063
22-Dec-09	707	2500	2455																			
29-Dec-09	714	2500	2380	4.72	447	86																
5-Jan-10	721	2500	2435																			
12-Jan-10	728	2500	2410	4.45	378	94	2.67	10.5	<1	63	27.5	<0.5	0.093	31.1	0.176	0.000216	0.00281	0.0042	0.0009	<0.0005	<0.01	0.00713
19-Jan-10	735	2500	2435																			
26-Jan-10	742	2500	2480	4.7	393	80																
2-Feb-10	749	2500	2420																			
9-Feb-10	756	2500	2345	4.33	407	87	1.3	8.98	<1	57	25.6	<0.5	0.068	32	0.175	<0.00025	0.00119	0.00405	<0.001	<0.0025	<0.05	0.00678
16-Feb-10	763	2500	2370																			
23-Feb-10	770	2500	2335	4.64	366	90																
2-Mar-10	777	2500	2350																			
9-Mar-10	784	2500	2375	4.66	479	86	<1	8.62	<1	49	26.1	<0.5	0.088	29.9	0.24	0.00015	0.00174	0.00427	0.00094	<0.0005	<0.01	0.00746
16-Mar-10	791	2500	2425																			
23-Mar-10	798	2500	2380	4.65	357	84																
30-Mar-10	805	2500	2365																			
6-Apr-10	812	2500	2320	4.45	381	101	1.43	10.25	<1	59	28.5	<0.5	0.106	35.2	0.303	0.00014	0.00219	0.00486	0.0013	<0.0005	<0.01	0.00828
13-Apr-10	819	2500	2350																			
20-Apr-10	826	2500	2460	4.41	366	108																
27-Apr-10	833	2500	2390																			
4-May-10	840	2500	2450	4.32	413	116	2.14	11.46	<1	65	33.9	<0.5	0.101	40.8	0.314	0.00013	0.002	0.0063	0.00136	<0.0005	<0.01	0.00965
11-May-10	847	2500	2570																			
18-May-10	854	2500	2500	4.32	449	115																
25-May-10	861	2500	2430																			
1-Jun-10	868	2500	2475	4.2	417	113	2.53	11.94	<1	76	33	<0.5	0.107	37.1	0.377	0.000123	0.00183	0.006	0.00192	<0.0005	<0.01	0.00948
8-Jun-10	875	2500	2475																			
15-Jun-10	882	2500	2260	4.17	441	118																
22-Jun-10	889	2500	2440																			
29-Jun-10	896	2500	2435	4.1	407	124	2.97	12.56	<1	79	36.5	<0.5	0.145	44.2	0.458	0.000105	0.00199	0.00676	0.0022	<0.0005	<0.01	0.0102
6-Jul-10	903	2500	2500																			
13-Jul-10	910	2500	2530	4.23	412	122																
20-Jul-10	917	2500	2535																			
27-Jul-10	924	2500	2480	4.26	432	118	3.11	13.9	<1	83	32.5	<0.5	0.153	42.4	0.5	0.000079	0.0021	0.00634	0.00191	<0.0005	<0.01	0.00948
3-Aug-10	931	2500	2480																			
10-Aug-10	938	2500	2455	4.6	335	121																
17-Aug-10	945	2500	2495																			
24-Aug-10	952	2500	2470	4.41	390	124	2.1	13.91	<1	88	32.3	<0.5	0.161	44.4	0.578	0.000074	0.00235	0.00758	0.00177	<0.0005	<0.01	0.0103
31-Aug-10	959	2500	2415																			
7-Sep-10	966	2500	2370	4.29	424	123																
14-Sep-10	973	2500	2515																			
21-Sep-10	980	2500	2480	4.19	397	99	3.42	14.04	<1	65	30.1	<0.5	0.154	40.5	0.644	0.000166	0.00244	0.00675	0.00215	<0.0005	<0.01	0.00939
28-Sep-10	987	2500	2480																			
5-Oct-10	994	2500	2475	4.15	381	131																
12-Oct-10	1001	2500	2420																			
19-Oct-10	1008	2500	2510	4.23	390	124	3.96	16.76	<1	80	30.6	<0.5	0.155	41.8	0.743	0.000082	0.00268	0.00686	0.00212	<0.0005	<0.01	0.00992
26-Oct-10	1015	2500	2500																			
2-Nov-10	1022	2500	2465	4.41	296	167																
9-Nov-10	1029	2500	2490																			
16-Nov-10	1036	2500	2475	4.32	237	169	2.69	14.93	<1	77	31.4	<0.5	0.157	44.5	0.871	0.000068	0.00297	0.00766	0.0021	<0.0005	<0.01	0.0102
23-Nov-10	1043	2500	2395																			
30-Nov-10	1050	2500	2335	4.15	403	116																
7-Dec-10	1057	2500	2285																			
14-Dec-10	1064	2500	2445	4.17	451	134	4.45	17.5	<1	89	34.6	<0.5	0.198	47.7	1.04	0.000081	0.00321	0.00981	0.00234	<0.0005	<0.01	0.0106
21-Dec-10	1071	2500	2450																			
28-Dec-10	1078	2500	2245	4.2	424	119																
4-Jan-11	1085	2500	2465																			
11-Jan-11	1092	2500	2485	4.12	454	130	4.62	18.71	<1	73	35.6	<0.5	0.166	49	1.06	0.000066	0.00345	0.00918	0.00245	<0.0005	<0.01	0.0109
18-Jan-11	1099	2500	2295																			
25-Jan-11	1106	2500	2475	4.11	405	147																
1-Feb-11	1113	2500	2350																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Dec-09	700	7.34	<0.0005	0.0252	0.0473	0.087	0.000125	1.77	0.364	<0.00001	<0.00005	0.0305	0.605	0.0017	2.8	<0.00001	<2	0.00011	0.0002	<0.0005	0.554
22-Dec-09	707																				
29-Dec-09	714																				
5-Jan-10	721																				
12-Jan-10	728	8.01	<0.0005	0.0265	0.058	0.113	0.000229	1.83	0.396	<0.00001	<0.00005	0.0328	0.687	0.0018	3.39	<0.00001	<2	0.000151	0.0003	<0.0005	0.604
19-Jan-10	735																				
26-Jan-10	742																				
2-Feb-10	749																				
9-Feb-10	756	7.16	<0.0025	0.0267	0.0742	0.055	<0.00025	1.88	0.392	<0.00001	<0.00025	0.0311	0.61	<0.005	2.87	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.581
16-Feb-10	763																				
23-Feb-10	770																				
2-Mar-10	777																				
9-Mar-10	784	7.08	<0.0005	0.0274	0.069	0.041	0.000116	2.04	0.406	<0.00001	<0.00005	0.0344	0.623	0.0015	2.51	<0.00001	<2	0.000141	0.00071	<0.0005	0.651
16-Mar-10	791																				
23-Mar-10	798																				
30-Mar-10	805																				
6-Apr-10	812	7.51	<0.0005	0.0285	0.0852	0.047	0.00028	2.36	0.443	<0.00001	<0.00005	0.036	0.672	0.0016	2.94	<0.00001	<2	0.000158	0.0004	<0.0005	0.713
13-Apr-10	819																				
20-Apr-10	826																				
27-Apr-10	833																				
4-May-10	840	9.28	<0.0005	0.0327	0.0903	0.06	0.000212	2.61	0.485	<0.00001	<0.00005	0.0408	0.739	0.002	3.97	<0.00001	<2	0.000172	0.00013	<0.0005	0.906
11-May-10	847																				
18-May-10	854																				
25-May-10	861																				
1-Jun-10	868	8.5	<0.0005	0.0339	0.0951	0.049	0.000221	2.87	0.511	<0.00001	<0.00005	0.0437	0.759	0.0017	3.83	<0.00001	<2	0.00018	<0.0001	<0.0005	0.863
8-Jun-10	875																				
15-Jun-10	882																				
22-Jun-10	889																				
29-Jun-10	896	9.5	<0.0005	0.0352	0.116	0.051	0.000282	3.09	0.536	<0.00001	<0.00005	0.0458	0.768	0.002	4.26	<0.00001	<2	0.000183	<0.0001	<0.0005	0.954
6-Jul-10	903																				
13-Jul-10	910																				
20-Jul-10	917																				
27-Jul-10	924	8.44	<0.0005	0.0292	0.113	0.042	0.000361	2.78	0.431	<0.00001	<0.00005	0.04	0.694	0.0016	4.37	<0.00001	<2	0.000202	<0.0001	<0.0005	0.871
3-Aug-10	931																				
10-Aug-10	938																				
17-Aug-10	945																				
24-Aug-10	952	8.31	<0.0005	0.031	0.125	0.042	0.000379	2.81	0.481	<0.00001	<0.00005	0.0432	0.708	0.0018	4.2	<0.00001	<2	0.00018	0.00018	<0.0005	0.991
31-Aug-10	959																				
7-Sep-10	966																				
14-Sep-10	973																				
21-Sep-10	980	7.42	<0.0005	0.0296	0.111	0.042	0.000367	2.81	0.447	<0.00001	<0.00005	0.0399	0.744	0.0017	4.05	<0.00001	<2	0.000207	0.0002	<0.0005	0.805
28-Sep-10	987																				
5-Oct-10	994																				
12-Oct-10	1001																				
19-Oct-10	1008	7.33	<0.0005	0.0303	0.117	0.038	0.000566	3	0.48	<0.00001	<0.00005	0.0388	0.717	0.0019	4.19	<0.00001	<2	0.000192	0.00015	<0.0005	0.882
26-Oct-10	1015																				
2-Nov-10	1022																				
9-Nov-10	1029																				
16-Nov-10	1036	7.35	<0.0005	0.0318	0.137	0.036	0.000364	3.16	0.497	<0.00001	<0.00005	0.0474	0.789	0.0016	4.28	<0.00001	<2	0.000215	<0.0001	<0.0005	0.973
23-Nov-10	1043																				
30-Nov-10	1050																				
7-Dec-10	1057																				
14-Dec-10	1064	8.21	<0.0005	0.035	0.157	0.043	0.00698	3.41	0.568	<0.00001	<0.00005	0.0482	0.867	0.0017	4.52	<0.00001	<2	0.000245	0.0001	<0.0005	0.954
21-Dec-10	1071																				
28-Dec-10	1078																				
4-Jan-11	1085																				
11-Jan-11	1092	8.42	<0.0005	0.0333	0.15	0.044	0.00049	3.55	0.564	<0.00001	<0.00005	0.0477	0.82	0.0017	4.8	<0.00001	<2	0.000212	0.00016	<0.0005	0.998
18-Jan-11	1099																				
25-Jan-11	1106																				
1-Feb-11	1113																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-11	1120	2500	2315	4.01	447	144	6.29	20.12	<1	88	36.6	<0.5	0.202	51.3	1.2	0.000067	0.00405	0.0105	0.00256	<0.0005	<0.01	0.0118
15-Feb-11	1127	2500	2300																			
22-Feb-11	1134	2500	2335	4.13	400	142																
1-Mar-11	1141	2500	2350																			
8-Mar-11	1148	2500	2465	4.09	390	144	5.02	18.77	<1	74	32.7	<0.5	0.181	47.4	1.19	0.000055	0.00378	0.00896	0.00222	<0.0005	<0.01	0.0105
15-Mar-11	1155	2500	2455																			
22-Mar-11	1162	2500	2425	4.18	377	131																
29-Mar-11	1169	2500	2490																			
5-Apr-11	1176	2500	2435	4.17	355	138	3.76	16.77	<1	66	31.1	<0.5	0.166	44.8	1.04	0.000059	0.00299	0.00776	0.00201	<0.0005	<0.01	0.0095
12-Apr-11	1183	2500	2455																			
19-Apr-11	1190	2500	2495	4.14	323	138																
26-Apr-11	1197	2500	2480																			
3-May-11	1204	2500	2465	4.14	431	135	4.39	19.7	<1	79	31.4	<0.5	0.182	42.9	1.15	0.000066	0.00342	0.00761	0.00221	<0.0005	<0.01	0.00952
10-May-11	1211	2500	2455																			
17-May-11	1218	2500	2475	4.14	422	133																
24-May-11	1225	2500	2375																			
31-May-11	1232	2500	2435	4.18	372	141	5.72	23.09	<1	78	32	<0.5	0.175	47.2	1.25	0.00005	0.00386	0.00818	0.00227	<0.0005	<0.01	0.00986
7-Jun-11	1239	2500	2405																			
14-Jun-11	1246	2500	2480	4.15	250	148																
21-Jun-11	1253	2500	2400																			
28-Jun-11	1260	2500	2355	4.17	251	150	5.88	22.13	<1	86	31.7	<0.5	0.231	50.5	1.57	0.000054	0.00394	0.00934	0.00252	<0.0005	<0.01	0.0095
5-Jul-11	1267	2500	2375																			
12-Jul-11	1274	2500	2425	4.04	398	157																
19-Jul-11	1281	2500	2395																			
26-Jul-11	1288	2500	2370	4.12	380	152	7.31	26.59	<1	97	31.7	<0.5	0.242	49.8	1.56	<0.00005	0.00437	0.00862	0.00238	<0.0005	<0.01	0.00959
2-Aug-11	1295	2500	2355																			
9-Aug-11	1302	2500	2345	4.04	356	158																
16-Aug-11	1309	2500	2325																			
23-Aug-11	1316	2500	2420	4	363	158	8.61	26.07	<1	104	32	<0.5	0.234	50.7	1.73	0.000059	0.0046	0.00942	0.00247	<0.0005	<0.01	0.00923
30-Aug-11	1323	2500	2400																			
6-Sep-11	1330	2500	2430	4.2	368	159																
13-Sep-11	1337	2500	2455																			
20-Sep-11	1344	2500	2360	4.08	334	154	7.42	26.27	<1	104	30.3	<0.5	0.228	49.6	1.99	0.000055	0.00487	0.00847	0.00241	<0.0005	<0.01	0.00884
27-Sep-11	1351	2500	2390																			
4-Oct-11	1358	2500	2175	4.13	433	153																
11-Oct-11	1365	2500	2455																			
18-Oct-11	1372	2500	2470	4.11	417	135	6.31	23.08	<1	63	24.5	<0.5	0.198	41.6	1.57	<0.00005	0.00404	0.00771	0.00212	<0.0005	<0.01	0.00775
25-Oct-11	1379	2500	2445																			
1-Nov-11	1386	2500	2460	4.07	428	140																
8-Nov-11	1393	2500	2420																			
15-Nov-11	1400	2500	2425	4.08	405	149	8.42	28.07	<1	73	26	<0.5	0.201	45	1.83	<0.00005	0.00347	0.00807	0.00218	<0.0005	<0.01	0.00779
22-Nov-11	1407	2500	2405																			
29-Nov-11	1414	2500	2445	4.12	469	142																
6-Dec-11	1421	2500	2425																			
13-Dec-11	1428	2500	2470	4.03	434	147	7.56	26.49	<1	69	25.1	<0.5	0.23	45.8	1.94	0.000051	0.00339	0.00804	0.00212	<0.0005	<0.01	0.00766
20-Dec-11	1435	2500	2460																			
27-Dec-11	1442	2500	2155	4.35	456	142																
3-Jan-12	1449	2500	2340																			
10-Jan-12	1456	2500	2460	3.96	454	148	6.98	21.86	<1	69	25	<0.5	0.22	44.6	1.91	0.000054	0.00343	0.00808	0.00213	<0.0005	<0.01	0.00746
17-Jan-12	1463	2500	2475																			
24-Jan-12	1470	2500	2505	4.04	537	131																
31-Jan-12	1477	2500	2445																			
7-Feb-12	1484	2500	2410	4.06	475	142	5.35	20.88	<1	68	23.3	<0.5	0.201	45.5	1.94	0.000053	0.00285	0.00777	0.00206	<0.0005	<0.01	0.00713
14-Feb-12	1491	2500	2380																			
21-Feb-12	1498	2500	2490	4	486	150																
28-Feb-12	1505	2500	2385																			
6-Mar-12	1512	2500	2445	3.96	560	151	8.79	25.88	<1	95	24.4	<0.5	0.221	46.9	2.08	<0.00005	0.00307	0.0081	0.00211	<0.0005	<0.01	0.00733
13-Mar-12	1519	2500	2500																			
20-Mar-12	1526	2500	2475	4.02	481	147																
27-Mar-12	1533	2500	2445																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-11	1120	8.43	<0.0005	0.0346	0.17	0.05	0.000693	3.79	0.593	<0.00001	<0.00005	0.0509	0.975	0.0018	6.02	<0.00001	<2	0.000268	<0.0001	<0.0005	1.09
15-Feb-11	1127																				
22-Feb-11	1134																				
1-Mar-11	1141																				
8-Mar-11	1148	7.36	<0.0005	0.031	0.15	0.047	0.00156	3.48	0.546	<0.00001	<0.00005	0.046	0.872	0.0016	5.46	<0.00001	<2	0.000228	<0.0001	<0.0005	0.956
15-Mar-11	1155																				
22-Mar-11	1162																				
29-Mar-11	1169																				
5-Apr-11	1176	7.34	<0.0005	0.0286	0.134	0.039	0.00938	3.1	0.482	<0.00001	<0.00005	0.0409	0.77	0.0014	4.43	<0.00001	<2	0.000218	0.00028	<0.0005	0.833
12-Apr-11	1183																				
19-Apr-11	1190																				
26-Apr-11	1197																				
3-May-11	1204	7.07	<0.0005	0.0278	0.14	0.043	0.000986	3.33	0.508	<0.00001	<0.00005	0.0403	0.778	0.0016	4.77	<0.00001	<2	0.000212	0.00058	<0.0005	0.893
10-May-11	1211																				
17-May-11	1218																				
24-May-11	1225																				
31-May-11	1232	7.14	<0.0005	0.0286	0.151	0.045	0.00062	3.44	0.514	<0.00001	<0.00005	0.0431	0.852	0.0016	5.58	<0.00001	<2	0.000247	0.00138	<0.0005	0.939
7-Jun-11	1239																				
14-Jun-11	1246																				
21-Jun-11	1253																				
28-Jun-11	1260	6.77	<0.0005	0.028	0.169	0.056	0.000881	3.6	0.501	<0.00001	<0.00005	0.0427	0.865	0.0017	5.54	<0.00001	<2	0.000269	0.00258	<0.0005	0.949
5-Jul-11	1267																				
12-Jul-11	1274																				
19-Jul-11	1281																				
26-Jul-11	1288	6.84	<0.0005	0.0278	0.166	0.059	0.000857	3.56	0.499	<0.00001	<0.00005	0.0435	0.893	0.0016	5.63	<0.00001	<2	0.000264	0.0029	<0.0005	0.961
2-Aug-11	1295																				
9-Aug-11	1302																				
16-Aug-11	1309																				
23-Aug-11	1316	6.61	<0.0005	0.0266	0.171	0.071	0.000651	3.76	0.503	<0.00001	<0.00005	0.0414	0.872	0.0017	5.71	<0.00001	<2	0.000275	0.00334	<0.0005	0.868
30-Aug-11	1323																				
6-Sep-11	1330																				
13-Sep-11	1337																				
20-Sep-11	1344	6.12	<0.0005	0.0257	0.173	0.067	0.000552	3.65	0.491	<0.00001	<0.00005	0.041	0.8	0.0017	5.35	<0.00001	<2	0.000271	0.00355	<0.0005	0.889
27-Sep-11	1351																				
4-Oct-11	1358																				
11-Oct-11	1365																				
18-Oct-11	1372	4.95	<0.0005	0.0215	0.145	0.057	0.000507	2.94	0.38	<0.00001	<0.00005	0.0334	0.748	0.0015	4.77	<0.00001	<2	0.000228	0.00355	<0.0005	0.752
25-Oct-11	1379																				
1-Nov-11	1386																				
8-Nov-11	1393																				
15-Nov-11	1400	5.31	<0.0005	0.0211	0.149	0.069	0.000559	3.09	0.383	<0.00001	<0.00005	0.0332	0.783	0.0015	5.21	<0.00001	<2	0.000265	0.00338	<0.0005	0.732
22-Nov-11	1407																				
29-Nov-11	1414																				
6-Dec-11	1421																				
13-Dec-11	1428	5.09	<0.0005	0.0212	0.157	0.066	0.000502	3.01	0.377	<0.00001	<0.00005	0.0345	0.822	0.0016	5.23	<0.00001	<2	0.000255	0.00333	<0.0005	0.802
20-Dec-11	1435																				
27-Dec-11	1442																				
3-Jan-12	1449																				
10-Jan-12	1456	4.9	<0.0005	0.0203	0.157	0.069	0.00195	3.11	0.377	<0.00001	<0.00005	0.0338	0.782	0.0014	5.28	<0.00001	<2	0.000283	0.00365	<0.0005	0.767
17-Jan-12	1463																				
24-Jan-12	1470																				
31-Jan-12	1477																				
7-Feb-12	1484	4.52	<0.0005	0.019	0.149	0.067	0.000676	2.92	0.343	<0.00001	<0.00005	0.0307	0.788	0.0013	4.93	<0.00001	<2	0.000274	0.00367	<0.0005	0.705
14-Feb-12	1491																				
21-Feb-12	1498																				
28-Feb-12	1505																				
6-Mar-12	1512	4.59	<0.0005	0.0197	0.156	0.072	0.0007	3.15	0.371	<0.00001	<0.00005	0.0331	0.771	0.0015	5.4	<0.00001	<2	0.000277	0.00373	<0.0005	0.787
13-Mar-12	1519																				
20-Mar-12	1526																				
27-Mar-12	1533																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Apr-12	1540	2500	2275	3.85	509	143	7.96	24.53	<1	69	23.1	<0.5	0.225	45.2	2.22	<0.00005	0.00246	0.00764	0.00203	<0.0005	<0.01	0.00674
10-Apr-12	1547	2500	2435																			
17-Apr-12	1554	2500	2385	3.96	486	158																
24-Apr-12	1561	2500	2425																			
1-May-12	1568	2500	2360	4	490	163	9.68	30.66	<1	82	25.6	<0.5	0.211	50.4	2.56	<0.00005	0.00326	0.00866	0.00224	<0.0005	<0.01	0.00761
8-May-12	1575	2500	2375																			
15-May-12	1582	2500	2395	3.73	519	165																
22-May-12	1589	2500	2445																			
29-May-12	1596	2500	2410	3.91	499	159	9.58	27.87	<1	104	23	<0.5	0.22	47.8	2.48	<0.00005	0.00267	0.0079	0.00214	<0.0005	<0.01	0.00693
5-Jun-12	1603	2500	2390																			
12-Jun-12	1610	2500	2460	3.93	509	167																
19-Jun-12	1617	2500	2450																			
26-Jun-12	1624	2500	2420	3.97	485	131	8.5	25.25	<1	99	18	<0.5	0.177	38.4	2.14	<0.00005	0.00246	0.00685	0.00168	<0.0005	<0.01	0.00545
3-Jul-12	1631	2500	2342																			
10-Jul-12	1638	2500	2385	3.92	482	149																
17-Jul-12	1645	2500	2415																			
24-Jul-12	1652	2500	2415	4.05	478	112	6.41	20.73	<1	74	14.2	<0.5	0.137	31	1.83	<0.00005	0.00229	0.00534	0.0013	<0.0005	<0.01	0.0041
31-Jul-12	1659	2500	2450																			
7-Aug-12	1666	2500	2335	3.78	499	215																
14-Aug-12	1673	2500	2410																			
21-Aug-12	1680	2500	2410	3.83	490	175	11.92	33.12	<1	95	28.3	<0.5	0.239	59.5	3.35	<0.00005	0.00416	0.00971	0.0025	<0.0005	<0.01	0.00837
28-Aug-12	1687	2500	2460																			
4-Sep-12	1694	2500	2355	3.89	501	196																
11-Sep-12	1701	2500	2455																			
18-Sep-12	1708	2500	2425	3.84	521	169	11.69	30.57	<1	96	25	<0.5	0.235	55.1	2.84	<0.00005	0.00409	0.00846	0.00227	<0.0005	<0.01	0.00718
25-Sep-12	1715	2500	2445																			
2-Oct-12	1722	2500	2535	3.76	498	159																
9-Oct-12	1729	2500	2375																			
16-Oct-12	1736	2500	2385	3.92	518	157	9.91	30.52	<1	93	25	<0.5	0.241	53.5	2.6	<0.00005	0.00401	0.00813	0.00221	<0.0005	<0.01	0.00751
23-Oct-12	1743	2500	2475																			
30-Oct-12	1750	2500	2420	3.85	484	142																
6-Nov-12	1757	2500	2445																			
13-Nov-12	1764	2500	2395	3.91	467	160	10.19	33.55	<1	74	22.3	<0.5	0.204	48.9	2.67	<0.00005	0.00268	0.0074	0.00189	<0.0005	<0.01	0.00626
20-Nov-12	1771	2500	2400																			
27-Nov-12	1778	2500	2370	3.99	525	201																
4-Dec-12	1785	2500	2480																			
11-Dec-12	1792	2500	2360	3.88	501	138	8.2	24.28	<1	72	18.8	<0.5	0.181	41.7	2.41	<0.00005	0.00276	0.00697	0.00166	<0.0005	<0.01	0.00535
18-Dec-12	1799	2500	2500																			
25-Dec-12	1806	2500	2430	3.76	542	140																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-08	0	2500	2010	7.97	377	227	<1	3.15	52.1	134	55.4	33.5	0.15	14	0.0599	0.00603	0.00636	0.0027	<0.0004	<0.001	0.085	<0.0001
22-Jan-08	7	2500	2445	7.84	458	138																
29-Jan-08	14	2500	2445	7.75	438	76	<1	4.21	42	33.7	28.2	0.79	0.051	0.94	0.0988	0.00235	0.00542	0.000875	<0.0002	<0.0005	0.019	<0.00005
5-Feb-08	21	2500	2625	7.84	439	60																
12-Feb-08	28	2500	2510	7.73	423	62	<1	4.9	38.3	36.3	26	<0.5	0.034	0.59	0.0989	0.00159	0.00383	0.000655	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-08	35	2500	2340	7.9	418	77																
26-Feb-08	42	2500	2715	7.76	411	65	<1	3.45	37.9	40	27.6	<0.5	0.021	<0.5	0.0998	0.00134	0.00363	0.000734	<0.0002	<0.0005	<0.01	<0.00005
4-Mar-08	49	2500	2560	7.76	403	53																
11-Mar-08	56	2500	2470	7.7	412	57	<1	3.29	34.1	37.8	26.2	<0.5	<0.02	<0.5	0.127	0.00101	0.00312	0.000695	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-08	63	2500	2490	7.84	401	61																
25-Mar-08	70	2500	2505	7.76	416	61	<1	2.65	35.4	35.7	27.8	<0.5	<0.02	<0.5	0.11	0.000868	0.00281	0.000748	<0.0002	<0.0005	<0.01	<0.00005
1-Apr-08	77	2500	2510	7.85	413	57																
8-Apr-08	84	2500	2395	7.82	397	81	<1	2.68	43.2	39.2	36.2	<0.5	<0.02	<0.5	0.0894	0.000923	0.00229	0.000907	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-08	91	2500	2530	7.7	401	69																
22-Apr-08	98	2500	2630	7.85	411	70	<1	2.86	40.5	40.7	32.5	<0.5	<0.02	<0.5	0.0992	0.000776	0.00191	0.000825	<0.0002	<0.0005	<0.01	<0.00005
29-Apr-08	105	2500	2575	7.71	355	64																
6-May-08	112	2500	2500	7.84	364	63	<1	2.99	35	32.9	29	<0.5	<0.02	<0.5	0.111	0.000646	0.00176	0.000766	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Apr-12	1540	4.09	<0.0005	0.0177	0.15	0.105	0.000618	3.12	0.35	<0.00001	<0.00005	0.0301	0.8	0.0014	5.01	<0.00001	<2	0.000255	0.00402	<0.0005	0.719
10-Apr-12	1547																				
17-Apr-12	1554																				
24-Apr-12	1561																				
1-May-12	1568	4.64	<0.0005	0.0204	0.178	0.089	0.000995	3.41	0.408	<0.00001	<0.00005	0.0357	0.808	0.0016	5.22	<0.00001	<2	0.000303	0.00361	<0.0005	0.8
8-May-12	1575																				
15-May-12	1582																				
22-May-12	1589																				
29-May-12	1596	4.15	<0.0005	0.0181	0.156	0.082	0.000544	3.06	0.351	<0.00001	<0.00005	0.0309	0.747	0.0014	5.08	<0.00001	<2	0.000267	0.0036	<0.0005	0.699
5-Jun-12	1603																				
12-Jun-12	1610																				
19-Jun-12	1617																				
26-Jun-12	1624	3.28	<0.0005	0.0137	0.127	0.071	0.000577	2.38	0.282	<0.00001	<0.00005	0.0232	0.665	0.0012	4.48	<0.00001	<2	0.00023	0.0039	<0.0005	0.535
3-Jul-12	1631																				
10-Jul-12	1638																				
17-Jul-12	1645																				
24-Jul-12	1652	2.49	<0.0005	0.0109	0.102	0.055	0.000402	1.93	0.225	<0.00001	<0.00005	0.0194	0.495	<0.001	3.64	<0.00001	<2	0.000177	0.00425	<0.0005	0.436
31-Jul-12	1659																				
7-Aug-12	1666																				
14-Aug-12	1673																				
21-Aug-12	1680	4.73	<0.0005	0.0207	0.192	0.084	0.000828	4.01	0.425	<0.00001	<0.00005	0.0363	0.817	0.0018	6.02	<0.00001	<2	0.000287	0.00369	<0.0005	0.83
28-Aug-12	1687																				
4-Sep-12	1694																				
11-Sep-12	1701																				
18-Sep-12	1708	4.38	<0.0005	0.0187	0.173	0.082	0.000616	3.43	0.405	<0.00001	<0.00005	0.0328	0.803	0.0016	5.79	<0.00001	<2	0.000287	0.0032	<0.0005	0.743
25-Sep-12	1715																				
2-Oct-12	1722																				
9-Oct-12	1729																				
16-Oct-12	1736	4.47	<0.0005	0.0194	0.17	0.074	0.000622	3.37	0.391	<0.00001	<0.00005	0.0328	0.716	0.0016	5.02	<0.00001	<2	0.000237	0.00271	<0.0005	0.748
23-Oct-12	1743																				
30-Oct-12	1750																				
6-Nov-12	1757																				
13-Nov-12	1764	3.85	<0.0005	0.0163	0.148	0.077	0.000555	3.08	0.333	<0.00001	<0.00005	0.0282	0.732	0.0016	5.4	<0.00001	<2	0.000251	0.00237	<0.0005	0.633
20-Nov-12	1771																				
27-Nov-12	1778																				
4-Dec-12	1785																				
11-Dec-12	1792	3.22	<0.0005	0.0137	0.133	0.069	0.00252	2.62	0.281	<0.00001	<0.00005	0.0236	0.653	0.0013	4.7	<0.00001	<2	0.000225	0.00259	<0.0005	0.56
18-Dec-12	1799																				
25-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-08	0	21.2	<0.001	<0.0002	0.00165	<0.03	0.00013	0.577	0.0107	<0.00001	0.00329	<0.001	1.11	0.0094	4.31	<0.00002	25.8	<0.0001	0.0008	0.0015	<0.002
22-Jan-08	7																				
29-Jan-08	14	10.8	<0.0005	<0.0001	0.00043	<0.03	0.000187	0.286	0.00482	0.000016	0.000833	<0.0005	0.373	0.0013	3.26	<0.00001	6.3	<0.00005	0.00138	0.0013	0.0024
5-Feb-08	21																				
12-Feb-08	28	9.998	<0.0005	<0.0001	0.00133	<0.03	<0.00005	0.26	0.00455	<0.00001	0.000548	<0.0005	0.236	<0.001	2.81	<0.00001	3.9	<0.00005	0.00092	0.00101	<0.001
19-Feb-08	35																				
26-Feb-08	42	10.6	<0.0005	<0.0001	0.00066	<0.03	<0.00005	0.261	0.00582	<0.00001	0.00058	<0.0005	0.207	<0.001	3.04	<0.00001	3.3	<0.00005	0.00095	0.001	<0.001
4-Mar-08	49																				
11-Mar-08	56	10	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.283	0.00505	<0.00001	0.000382	<0.0005	0.171	<0.001	2.82	<0.00001	2.5	<0.00005	0.00166	0.00085	<0.001
18-Mar-08	63																				
25-Mar-08	70	10.7	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.243	0.00439	<0.00001	0.000536	<0.0005	0.124	<0.001	2.93	<0.00001	<2	<0.00005	0.00109	0.00075	<0.001
1-Apr-08	77																				
8-Apr-08	84	13.9	<0.0005	<0.0001	0.00086	0.035	<0.00005	0.345	0.007	<0.00001	0.000437	<0.0005	0.151	<0.001	2.94	<0.00001	<2	<0.00005	0.00121	0.00059	<0.001
15-Apr-08	91																				
22-Apr-08	98	12.6	<0.0005	<0.0001	0.0007	<0.03	0.000065	0.275	0.00802	<0.00001	0.000374	<0.0005	0.115	<0.001	2.69	<0.00001	<2	<0.00005	0.001	0.00053	0.0038
29-Apr-08	105																				
6-May-08	112	11.1	<0.0005	<0.0001	0.00023	<0.03	<0.00005	0.297	0.00723	<0.00001	0.000318	<0.0005	0.131	<0.001	2.43	<0.00001	<2	<0.00005	0.00127	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-May-08	119	2500	2645	7.87	342	57																
20-May-08	126	2500	2355	7.91	339	56	<1	2.43	31.2	32.4	25.4	<0.5	<0.02	<0.5	0.141	0.000579	0.00186	0.000729	<0.0002	<0.0005	<0.01	<0.00005
27-May-08	133	2500	2435	7.95	330	60																
3-Jun-08	140	2500	2515	7.77	398	44	<1	3.23	29.4	33.8	24.7	<0.5	<0.02	<0.5	0.172	0.000494	0.00168	0.000696	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-08	147	2500	2615	7.84	364	39																
17-Jun-08	154	2500	2510	7.86	252	37	<1	3.63	30.3	27	24.5	<0.5	<0.02	<0.5	0.166	0.000472	0.00138	0.000637	<0.0002	<0.0005	<0.01	<0.00005
24-Jun-08	161	2500	2485	7.86	248	34																
1-Jul-08	168	2500	2465	7.81	350	41	<1	2.54	24.6	30.7	22.7	<0.5	<0.02	<0.5	0.198	0.000501	0.00172	0.000688	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-08	175	2500	2500	7.8	265	48																
15-Jul-08	182	2500	2485	7.76	343	45	<1	2.88	26.5	32.3	23.2	<0.5	<0.02	<0.5	0.185	0.000471	0.00151	0.00069	<0.0002	<0.0005	<0.01	<0.00005
22-Jul-08	189	2500	2460	7.76	340	40																
29-Jul-08	196	2500	2480	7.75	385	47	<1	2.08	25.9	21.8	22.1	<0.5	<0.02	<0.5	0.154	0.000356	0.00123	0.000613	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-08	203	2500	2445	7.77	348	46																
12-Aug-08	210	2500	2590	7.77	330	45	<1	2.34	24.6	26.3	21.9	<0.5	<0.02	<0.5	0.162	0.000329	0.00108	0.000591	<0.0002	<0.0005	<0.01	<0.00005
19-Aug-08	217	2500	2500	7.76	260	46																
26-Aug-08	224	2500	2535	7.73	294	45	<1	2.35	27.1	24.9	21.4	<0.5	<0.02	<0.5	0.157	0.000325	0.00103	0.000571	<0.0002	<0.0005	<0.01	<0.00005
2-Sep-08	231	2500	2430	7.72	282	44																
9-Sep-08	238	2500	2625	7.75	264	45	<1	1.86	30.4	29.3	21.9	<0.5	<0.02	<0.5	0.162	0.000319	0.00099	0.000644	<0.0002	<0.0005	<0.01	<0.00005
16-Sep-08	245	2500	2525	7.76	269	45																
23-Sep-08	252	2500	2545	7.7	232	35	<1	2.37	23.7	29.1	19.8	<0.5	<0.02	<0.5	0.134	0.000257	0.00077	0.000634	<0.0002	<0.0005	<0.01	<0.00005
30-Sep-08	259	2500	2530	7.74	221	44																
7-Oct-08	266	2500	2500	7.79	373	41	<1	2.48	24.8	25.6	19.9	<0.5	<0.02	<0.5	0.133	0.000238	0.00072	0.000635	<0.0002	<0.0005	<0.01	<0.00005
14-Oct-08	273	2500	2430	7.77	371	40																
21-Oct-08	280	2500	2535	7.65	385	41	<1	2.62	24.2	24.3	21.3	<0.5	<0.02	<0.5	0.106	0.000235	0.00059	0.000625	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-08	287	2500	2545	7.67	421	40																
4-Nov-08	294	2500	2475	7.7	407	41	<1	2.84	24.9	21.1	22	<0.5	<0.02	<0.5	0.107	0.000234	0.00056	0.000647	<0.0002	<0.0005	<0.01	<0.00005
11-Nov-08	301	2500	2525	7.65	408	37																
18-Nov-08	308	2500	2385	7.66	400	32	<1	2.56	23.8	17.5	20.2	<0.5	<0.02	<0.5	0.128	0.000215	0.00065	0.000597	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-08	315	2500	2585	7.76	340	37																
2-Dec-08	322	2500	2450	7.68	320	42	<1	3.07	28.9	61.6	21.8	<0.5	<0.02	<0.5	0.112	0.000228	0.00057	0.000733	<0.0002	<0.0005	<0.01	<0.00005
9-Dec-08	329	2500	2435	7.79	290	43																
16-Dec-08	336	2500	2360	7.78	251	49	<1	4.66	34.1	30.5	26.2	<0.5	<0.02	<0.5	0.0893	0.000221	0.00054	0.00122	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-08	343	2500	2785	7.81	264	47																
30-Dec-08	350	2500	2595	7.89	263	33	<1		28	27.2	18.4	<0.5	<0.02	<0.5	0.0767	0.000186	0.00047	0.000612	<0.0002	<0.0005	<0.01	<0.00005
6-Jan-09	357	2500	2340	7.66	252	61																
13-Jan-09	364	2500	2555	7.4	232	42	<1	5.06	28.5	27.3	22.5	<0.5	<0.02	<0.5	0.0668	0.000201	0.00042	0.000756	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-09	371	2500	2450	7.57	365	38																
27-Jan-09	378	2500	2595	7.66	358	51	<1	4.34	36.4	28.3	26.9	<0.5	<0.02	<0.5	0.0503	0.000204	0.00034	0.000756	<0.0002	<0.0005	<0.01	<0.00005
3-Feb-09	385	2500	2520	7.46	447	49																
10-Feb-09	392	2500	2495	7.76	353	36	<1	5.89	26.4	44.6	19.2	<0.5	<0.02	<0.5	0.1	0.000186	0.0005	0.000692	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-09	399	2500	2565	7.72	361	42																
24-Feb-09	406	2500	2500	7.8	304	37	<1	4.28	27.5	24.2	19.6	<0.5	<0.02	<0.5	0.104	0.000169	0.00053	0.000765	<0.0002	<0.0005	<0.01	<0.00005
3-Mar-09	413	2500	2485	7.58	252	37																
10-Mar-09	420	2500	2510	7.36	314	39	<1	3.97	25.5	20	21.1	<0.5	<0.02	<0.5	0.0768	0.000153	0.00041	0.000626	<0.0002	<0.0005	<0.01	<0.00005
17-Mar-09	427	2500	2625	7.38	334	41																
24-Mar-09	434	2500	2385	7.37	360	37	<1	3.42	25.5	25.8	20.5	<0.5	<0.02	<0.5	0.0913	0.000158	0.00037	0.000734	<0.0002	<0.0005	<0.01	<0.00005
31-Mar-09	441	2500	2645	7.43	317	33																
7-Apr-09	448	2500	2465	7.49	344	45	<1	3.58	28.5	26	21.8	<0.5	<0.02	<0.5	0.0731	0.000149	0.0003	0.000672	<0.0002	<0.0005	<0.01	<0.00005
14-Apr-09	455	2500	2685	7.47	360	36																
21-Apr-09	462	2500	2510	7.41	376	40																
28-Apr-09	469	2500	2485																			
5-May-09	476	2500	2500	7.34	339	34	<1	2.64	22.4	23.3	17.6	<0.5	<0.02	<0.5	0.126	0.000139	0.00056	0.000784	<0.0002	<0.0005	<0.01	<0.00005
12-May-09	483	2500	2490																			
19-May-09	490	2500	2510	7.42	364	33																
26-May-09	497	2500	2230																			
2-Jun-09	504	2500	2540	7.45	358	27	<1	3.08	23.8	<10		<0.5	<0.02	<0.5								
9-Jun-09	511	2500	2420																			
16-Jun-09	518	2500	2390	7.48	390	29																
23-Jun-09	525	2500	2465																			
30-Jun-09	532	2500	2515	7.52	329	32	<1	2.47	27.2	22		<0.5	<0.02	<0.5								

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-May-08	119																				
20-May-08	126	9.79	<0.0005	<0.0001	0.00092	<0.03	0.000055	0.224	0.00499	<0.00001	0.000331	<0.0005	0.111	<0.001	2.64	<0.00001	<2	<0.00005	0.00124	0.00062	<0.001
27-May-08	133																				
3-Jun-08	140	9.56	<0.0005	<0.0001	0.00049	<0.03	0.000066	0.203	0.00498	<0.00001	0.000979	<0.0005	0.1	<0.001	2.43	<0.00001	<2	<0.00005	0.00161	0.00052	0.0025
10-Jun-08	147																				
17-Jun-08	154	9.45	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.208	0.00499	0.000012	0.00031	<0.0005	0.099	<0.001	2.36	<0.00001	<2	<0.00005	0.00169	<0.0005	0.0014
24-Jun-08	161																				
1-Jul-08	168	8.78	<0.0005	<0.0001	0.00033	<0.03	<0.00005	0.19	0.00449	<0.00001	0.000376	<0.0005	0.107	<0.001	2.71	<0.00001	<2	<0.00005	0.00189	0.00062	<0.001
8-Jul-08	175																				
15-Jul-08	182	8.98	<0.0005	<0.0001	0.00068	<0.03	<0.00005	0.196	0.00492	<0.00001	0.000499	<0.0005	0.089	<0.001	2.41	<0.00001	<2	<0.00005	0.00247	<0.0005	<0.001
22-Jul-08	189																				
29-Jul-08	196	8.57	<0.0005	<0.0001	0.00044	<0.03	0.000079	0.174	0.00454	<0.00001	0.000377	<0.0005	0.078	<0.001	2.12	<0.00001	<2	<0.00005	0.00252	<0.0005	<0.001
5-Aug-08	203																				
12-Aug-08	210	8.49	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.171	0.0043	<0.00001	0.000345	<0.0005	0.07	<0.001	1.99	<0.00001	<2	<0.00005	0.00272	<0.0005	<0.001
19-Aug-08	217																				
26-Aug-08	224	8.28	<0.0005	<0.0001	<0.0001	<0.03	0.000054	0.169	0.0047	<0.00001	0.000412	<0.0005	0.076	<0.001	1.8	<0.00001	<2	<0.00005	0.00248	<0.0005	<0.001
2-Sep-08	231																				
9-Sep-08	238	8.5	<0.0005	<0.0001	0.0002	<0.03	<0.00005	0.172	0.00504	<0.00001	0.000381	<0.0005	0.087	<0.001	1.98	<0.00001	<2	<0.00005	0.00282	<0.0005	<0.001
16-Sep-08	245																				
23-Sep-08	252	7.7	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.152	0.00469	<0.00001	0.000371	<0.0005	0.069	<0.001	1.68	<0.00001	<2	<0.00005	0.00324	<0.0005	<0.001
30-Sep-08	259																				
7-Oct-08	266	7.72	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.141	0.00507	<0.00001	0.000358	<0.0005	0.064	<0.001	1.57	<0.00001	<2	<0.00005	0.00289	<0.0005	<0.001
14-Oct-08	273																				
21-Oct-08	280	8.29	<0.0005	<0.0001	0.00069	<0.03	<0.00005	0.146	0.00574	<0.00001	0.000352	<0.0005	0.052	<0.001	1.5	<0.00001	<2	<0.00005	0.00322	<0.0005	<0.001
28-Oct-08	287																				
4-Nov-08	294	8.57	<0.0005	<0.0001	0.00018	<0.03	<0.00005	0.149	0.0061	<0.00001	0.00029	<0.0005	0.07	<0.001	1.43	<0.00001	<2	<0.00005	0.0034	<0.0005	<0.001
11-Nov-08	301																				
18-Nov-08	308	7.85	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.144	0.0059	<0.00001	0.000293	<0.0005	0.088	<0.001	1.34	<0.00001	<2	<0.00005	0.00355	<0.0005	<0.001
25-Nov-08	315																				
2-Dec-08	322	8.49	<0.0005	<0.0001	0.00029	<0.03	<0.00005	0.154	0.00693	<0.00001	0.000335	<0.0005	0.057	<0.001	1.39	<0.00001	<2	<0.00005	0.0029	<0.0005	<0.001
9-Dec-08	329																				
16-Dec-08	336	10.2	<0.0005	<0.0001	0.00078	<0.03	<0.00005	0.178	0.00843	<0.00001	0.000374	<0.0005	<0.05	<0.001	1.39	<0.00001	<2	<0.00005	0.00275	<0.0005	0.0016
23-Dec-08	343																				
30-Dec-08	350	7.14	<0.0005	<0.0001	0.00065	<0.03	<0.00005	0.129	0.00733	<0.00001	0.000302	<0.0005	0.062	<0.001	1.06	<0.00001	<2	<0.00005	0.00352	<0.0005	<0.001
6-Jan-09	357																				
13-Jan-09	364	8.77	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.151	0.00956	<0.00001	0.000225	<0.0005	0.055	<0.001	1.24	<0.00001	<2	<0.00005	0.0029	<0.0005	<0.001
20-Jan-09	371																				
27-Jan-09	378	10.5	<0.0005	<0.0001	0.00043	<0.03	<0.00005	0.174	0.0135	<0.00001	0.000226	<0.0005	0.081	<0.001	1.27	<0.00001	<2	<0.00005	0.00231	<0.0005	<0.001
3-Feb-09	385																				
10-Feb-09	392	7.48	<0.0005	<0.0001	0.00166	<0.03	<0.00005	0.126	0.00806	<0.00001	0.000235	<0.0005	0.081	<0.001	1.16	<0.00001	<2	<0.00005	0.0033	<0.0005	<0.001
17-Feb-09	399																				
24-Feb-09	406	7.65	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.124	0.00867	<0.00001	0.000238	<0.0005	0.076	<0.001	1.09	<0.00001	<2	<0.00005	0.00295	<0.0005	<0.001
3-Mar-09	413																				
10-Mar-09	420	8.23	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.135	0.0102	<0.00001	0.000193	<0.0005	0.052	<0.001	1.03	<0.00001	<2	<0.00005	0.00278	<0.0005	<0.001
17-Mar-09	427																				
24-Mar-09	434	7.97	<0.0005	<0.0001	0.00057	<0.03	<0.00005	0.134	0.0102	<0.00001	0.000232	<0.0005	<0.05	<0.001	1.01	<0.00001	<2	<0.00005	0.00298	<0.0005	<0.001
31-Mar-09	441																				
7-Apr-09	448	8.52	<0.0005	<0.0001	0.00014	<0.03	<0.00005	0.133	0.0109	<0.00001	0.000198	<0.0005	0.063	<0.001	1.05	<0.00001	<2	<0.00005	0.00269	<0.0005	<0.001
14-Apr-09	455																				
21-Apr-09	462																				
28-Apr-09	469																				
5-May-09	476	6.88	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.111	0.00885	<0.00001	0.000231	<0.0005	0.058	<0.001	1.05	<0.00001	<2	<0.00005	0.00317	<0.0005	<0.001
12-May-09	483																				
19-May-09	490																				
26-May-09	497																				
2-Jun-09	504																				
9-Jun-09	511																				
16-Jun-09	518																				
23-Jun-09	525																				
30-Jun-09	532																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
7-Jul-09	539	2500	2355																			
14-Jul-09	546	2500	2455	7.54	321	24																
21-Jul-09	553	2500	2315																			
28-Jul-09	560	2500	2470	7.46	356	23	<1	3.88	16.6	16.4		<0.5	<0.02	<0.5								
4-Aug-09	567	2500	2400																			
11-Aug-09	574	2500	2385	7.34	322	25																
18-Aug-09	581	2500	2320																			
25-Aug-09	588	2500	2270	7.28	327	18	<1	2.65	12.9	<10		<0.5	<0.02	<0.5								
1-Sep-09	595	2500	2370																			
8-Sep-09	602	2500	2360	7.19	378	19																
15-Sep-09	609	2500	2280																			
22-Sep-09	616	2500	2465	7.16	360	22	<1	4.77	18.9	11		<0.5	<0.02	<0.5								
29-Sep-09	623	2500	2330																			
6-Oct-09	630	2500	2370	7.22	308	20																
13-Oct-09	637	2500	2350																			
20-Oct-09	644	2500	2355	7.25	324	30	<1	3.38	20.8	31		<0.5	<0.02	<0.5								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jan-08	0	2500	2130	7.24	414	154	<1	6.7	65.3	102	42.8	3.12	0.215	8.92	0.0386	0.00017	0.00066	0.00485	<0.0002	<0.0005	0.083	<0.00005
23-Jan-08	7	2500	2425	7.53	428	146																
30-Jan-08	14	2500	2485	7.61	414	128	<1	6.07	72	75.2	49.5	<0.5	0.103	1.51	0.0299	0.000133	0.00058	0.00717	<0.0002	<0.0005	0.038	<0.00005
6-Feb-08	21	2500	2545	7.52	421	107																
13-Feb-08	28	2500	2485	7.42	341	95	<1	5.93	56.3	57.5	43.2	<0.5	0.062	0.75	0.0392	0.000091	0.00051	0.00432	<0.0002	<0.0005	0.016	<0.00005
20-Feb-08	35	2500	2520	7.67	333	98																
27-Feb-08	42	2500	2615	7.35	372	91	<1	5.84	53.4	55	43.3	<0.5	0.044	<0.5	0.0404	0.000096	0.0005	0.00448	<0.0002	<0.0005	0.011	<0.00005
5-Mar-08	49	2500	2425	7.31	353	105																
12-Mar-08	56	2500	2520	7.46	358	98	<1	4.69	57.7	56.8	47.9	<0.5	0.033	<0.5	0.0267	0.00009	0.00049	0.00523	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-08	63	2500	2480	7.51	343	101																
26-Mar-08	70	2500	2495	7.37	366	105	<1	5.82	61.2	54.2	51.4	<0.5	0.026	<0.5	0.0263	0.00009	0.00091	0.0052	<0.0002	<0.0005	<0.01	<0.00005
2-Apr-08	77	2500	2435	7.53	363	85																
9-Apr-08	84	2500	2560	7.44	355	103	<1	4.53	52.5	51	47.8	<0.5	0.02	<0.5	0.0317	0.000061	0.00042	0.0046	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-08	91	2500	2445	7.53	333	111																
23-Apr-08	98	2500	2540	7.64	365	98	<1	3.86	55.1	61.2	47.4	<0.5	<0.02	<0.5	0.0279	0.000069	0.00038	0.00497	<0.0002	<0.0005	<0.01	<0.00005
30-Apr-08	105	2500	2560	7.57	312	94																
7-May-08	112	2500	2480	7.56	222	109	<1	4.37	58.3	52.9	56.5	<0.5	<0.02	<0.5	0.0265	0.000074	0.00038	0.00542	<0.0002	<0.0005	<0.01	<0.00005
14-May-08	119	2500	2515	7.6	169	99																
21-May-08	126	2500	2425	7.4	157	99	<1	5.11	52.4	57.9	48.1	<0.5	<0.02	<0.5	0.0306	0.000069	0.00044	0.00442	<0.0002	<0.0005	<0.01	<0.00005
28-May-08	133	2500	2425	7.6	156	84																
4-Jun-08	140	2500	2330	7.46	327	87	<1	3.79	54.4	63.3	53	<0.5	<0.02	<0.5	0.0313	0.000072	0.00035	0.00504	<0.0002	<0.0005	<0.01	<0.00005
11-Jun-08	147	2500	2570	7.55	233	79																
18-Jun-08	154	2500	2405	7.36	149	72	<1	4.9	51.3	49.5	49.5	<0.5	<0.02	<0.5	0.0315	0.000059	0.00033	0.00439	<0.0002	<0.0005	<0.01	<0.00005
25-Jun-08	161	2500	2390	7.56	167	95																
2-Jul-08	168	2500	2515	7.43	234	80	<1	3.85	41.9	43.7	47	<0.5	<0.02	<0.5	0.0414	0.00007	0.00042	0.00435	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-08	175	2500	2480	7.62	173	93																
16-Jul-08	182	2500	2340	7.53	238	84	<1	3.08	48.6	55.8	46.9	<0.5	<0.02	<0.5	0.0362	0.000062	0.00041	0.00434	<0.0002	<0.0005	<0.01	<0.00005
23-Jul-08	189	2500	2645	7.53	233	85																
30-Jul-08	196	2500	2470	7.5	290	80	<1	3.21	46.1	36.5	40.4	<0.5	<0.02	<0.5	0.0401	<0.00005	0.00037	0.00348	<0.0002	<0.0005	<0.01	<0.00005
6-Aug-08	203	2500	2510	7.88	371	84																
13-Aug-08	210	2500	2530	7.87	243	82	<1	3.46	43.8	39.8	40.2	<0.5	<0.02	<0.5	0.0425	<0.00005	0.00032	0.00349	<0.0002	<0.0005	<0.01	<0.00005
20-Aug-08	217	2500	2455	7.91	308	83																
27-Aug-08	224	2500	2535	7.73	323	81	<1	3.91	48	45.8	40.9	<0.5	<0.02	<0.5	0.0383	<0.00005	0.00034	0.00371	<0.0002	<0.0005	<0.01	<0.00005
3-Sep-08	231	2500	2455	7.83	291	91																
10-Sep-08	238	2500	2375	7.88	303	90	<1	2.43	55	48.8	45.1	<0.5	<0.02	<0.5	0.0402	<0.00005	0.00031	0.00388	<0.0002	<0.0005	<0.01	<0.00005
17-Sep-08	245	2500	2470	8.04	288	91																
24-Sep-08	252	2500	2520	7.83	278	86	<1	3.75	46.7	38.6	41.8	<0.5	<0.02	<0.5	0.0338	<0.00005	0.00028	0.00374	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-08	259	2500	2505	7.98	401	86																
8-Oct-08	266	2500	2540	7.83	184	82	<1	3.39	44.5	63.6	41.8	<0.5	<0.02	<0.5	0.0365	<0.0001	0.00026	0.00329	<0.0004	<0.001	<0.02	<0.0001
15-Oct-08	273	2500	2475	7.87	378	76																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
7-Jul-09	539																				
14-Jul-09	546																				
21-Jul-09	553																				
28-Jul-09	560																				
4-Aug-09	567																				
11-Aug-09	574																				
18-Aug-09	581																				
25-Aug-09	588																				
1-Sep-09	595																				
8-Sep-09	602																				
15-Sep-09	609																				
22-Sep-09	616																				
29-Sep-09	623																				
6-Oct-09	630																				
13-Oct-09	637																				
20-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jan-08	0	12.5	<0.0005	<0.0001	0.0022	<0.03	<0.00005	2.81	0.0098	<0.00001	0.00591	<0.0005	1.65	<0.001	3.49	<0.00001	16.2	<0.00005	0.00057	0.00356	<0.001
23-Jan-08	7																				
30-Jan-08	14	14.6	<0.0005	<0.0001	0.00056	<0.03	<0.00005	3.16	0.0147	0.000034	0.00229	<0.0005	1.6	<0.001	3.7	<0.00001	8.1	<0.00005	0.00094	0.00302	<0.001
6-Feb-08	21																				
13-Feb-08	28	12.8	<0.0005	<0.0001	0.0007	0.371	<0.00005	2.74	0.015	<0.00001	0.000886	<0.0005	1.28	<0.001	2.62	<0.00001	3.7	<0.00005	0.00134	0.00304	<0.001
20-Feb-08	35																				
27-Feb-08	42	13.4	<0.0005	<0.0001	0.00155	<0.03	<0.00005	2.36	0.012	<0.00001	0.000778	<0.0005	1.31	<0.001	2.67	<0.00001	2.3	<0.00005	0.00164	0.00333	<0.001
5-Mar-08	49																				
12-Mar-08	56	14.5	<0.0005	<0.0001	0.0002	<0.03	<0.00005	2.86	0.0122	<0.00001	0.000558	<0.0005	1.16	<0.001	2.66	<0.00001	<2	<0.00005	0.00189	0.00276	<0.001
19-Mar-08	63																				
26-Mar-08	70	15.7	<0.0005	<0.0001	0.00066	<0.03		2.99	0.0124	<0.00001	0.000389	<0.0005	1.04	<0.001	2.43	<0.00001	<2	<0.00005	0.00122	0.00201	<0.001
2-Apr-08	77																				
9-Apr-08	84	14.6	<0.0005	<0.0001	0.00107	0.04	<0.00005	2.77	0.0114	<0.00001	0.000295	<0.0005	1.06	<0.001	2.02	<0.00001	<2	<0.00005	0.00156	0.00241	0.0039
16-Apr-08	91																				
23-Apr-08	98	14.7	<0.0005	<0.0001	0.00125	<0.03	<0.00005	2.59	0.012	<0.00001	0.000316	<0.0005	1.03	<0.001	2.04	<0.00001	<2	<0.00005	0.00162	0.00227	0.0014
30-Apr-08	105																				
7-May-08	112	16.9	<0.0005	<0.0001	0.0004	0.042	<0.00005	3.45	0.0141	<0.00001	0.000337	<0.0005	1.14	<0.001	2.15	<0.00001	<2	<0.00005	0.00182	0.00215	<0.001
14-May-08	119																				
21-May-08	126	14.9	<0.0005	<0.0001	0.00037	<0.03		2.66	0.00962	<0.00001	0.000259	<0.0005	0.921	<0.001	1.97	<0.00001	<2	<0.00005	0.00178	0.00232	<0.001
28-May-08	133																				
4-Jun-08	140	16.4	<0.0005	<0.0001	0.00145	<0.03	<0.00005	2.96	0.0129	<0.00001	0.000237	<0.0005	0.98	<0.001	1.93	<0.00001	<2	<0.00005	0.0017	0.00231	<0.001
11-Jun-08	147																				
18-Jun-08	154	15.8	<0.0005	<0.0001	0.00019	<0.03	<0.00005	2.46	0.00986	0.00001	0.000215	<0.0005	0.912	<0.001	1.86	<0.00001	<2	<0.00005	0.00179	0.00206	<0.001
25-Jun-08	161																				
2-Jul-08	168	14.8	<0.0005	<0.0001	0.0002	<0.03	<0.00005	2.47	0.0107	<0.00001	0.000488	<0.0005	0.999	<0.001	1.94	<0.00001	<2	<0.00005	0.00209	0.00278	<0.001
9-Jul-08	175																				
16-Jul-08	182	14.7	<0.0005	<0.0001	0.0007	<0.03	<0.00005	2.51	0.00993	<0.00001	0.000309	<0.0005	0.894	<0.001	1.72	<0.00001	<2	<0.00005	0.00167	0.00235	<0.001
23-Jul-08	189																				
30-Jul-08	196	13	<0.0005	<0.0001	0.00077	<0.03	<0.00005	1.94	0.00678	<0.00001	0.000168	<0.0005	0.702	<0.001	1.39	<0.00001	<2	<0.00005	0.00201	0.00213	<0.001
6-Aug-08	203																				
13-Aug-08	210	12.9	<0.0005	<0.0001	0.0001	<0.03	0.000053	1.94	0.00656	<0.00001	0.000181	<0.0005	0.645	<0.001	1.31	<0.00001	<2	<0.00005	0.00224	0.00209	<0.001
20-Aug-08	217																				
27-Aug-08	224	13.1	<0.0005	<0.0001	0.0002	<0.03	<0.00005	1.97	0.00652	<0.00001	0.000158	<0.0005	0.621	<0.001	1.32	<0.00001	<2	<0.00005	0.00235	0.00204	<0.001
3-Sep-08	231																				
10-Sep-08	238	14.3	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	2.27	0.00673	<0.00001	0.000163	<0.0005	0.728	<0.001	1.42	<0.00001	<2	<0.00005	0.0023	0.00195	<0.001
17-Sep-08	245																				
24-Sep-08	252	13.6	<0.0005	<0.0001	0.00061	0.03	<0.00005	1.91	0.00594	<0.00001	0.000126	<0.0005	0.586	<0.001	1.29	<0.00001	<2	<0.00005	0.00257	0.00158	<0.001
1-Oct-08	259																				
8-Oct-08	266	13.9	<0.001	<0.0002	0.0005	<0.03	<0.0001	1.72	0.00499	<0.00001	<0.0001	<0.001	0.53	<0.002	1.18	<0.00002	<2	<0.0001	0.00239	0.0015	<0.002
15-Oct-08	273																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Oct-08	280	2500	2440	7.82	344	88	<1	4.24	51.4	72.3	46.2	<0.5	<0.02	<0.5	0.0278	<0.00005	0.00026	0.00379	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-08	287	2500	2460	7.81	427	88																
5-Nov-08	294	2500	2445	7.74	335	86	<1	3.84	51.9	47.6	47	<0.5	<0.02	<0.5	0.0306	<0.00005	0.00023	0.00408	<0.0002	<0.0005	<0.01	<0.00005
12-Nov-08	301	2500	2485	7.93	402	89																
19-Nov-08	308	2500	2395	7.91	407	75	<1	2.5	52.1	56.8	46.6	<0.5	<0.02	<0.5	0.03	<0.00005	0.00022	0.00402	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-08	315	2500	2435	7.87	354	82																
3-Dec-08	322	2500	2450	7.94	315	91	<1	2.59	59.1	50	50.7	<0.5	<0.02	<0.5	0.0317	<0.00005	0.00023	0.00442	<0.0002	<0.0005	<0.01	<0.00005
10-Dec-08	329	2500	2475	7.92	306	87																
17-Dec-08	336	2500	2525	7.78	306	83				42	46.1	<0.5	<0.02	<0.5	0.0365	<0.00005	0.0002	0.00388	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-08	343	2500	2275	7.25	133	95																
31-Dec-08	350	2500	2330	7.24	160	94	<1	10.4	57.3	45.7	45.6	<0.5	<0.02	<0.5	0.0288	<0.00005	0.0002	0.00394	<0.0002	<0.0005	<0.01	<0.00005
7-Jan-09	357	2500	2500	7.43	111	88																
14-Jan-09	364	2500	2400	7.44	272	118	<1	5.72	73.8	68.3	65.1	<0.5	<0.02	<0.5	0.0227	<0.00005	0.00015	0.00555	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-09	371	2500	2490	7.6	315	85																
28-Jan-09	378	2500	2435	7.44	181	115	<1	7.05	75.8	63.3	62.8	<0.5	<0.02	<0.5	0.0216	<0.00005	0.00014	0.00505	<0.0002	<0.0005	<0.01	<0.00005
4-Feb-09	385	2500	2380	7.36	184	116																
11-Feb-09	392	2500	2540	7.24	204	84	<1	6.88	54.5	22.1	46.9	<0.5	<0.02	<0.5	0.0346	<0.00005	0.00022	0.004	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-09	399	2500	2560	7.57	378	92																
25-Feb-09	406	2500	2395	7.37	278	90	<1	6.68	59	51.7	48.5	<0.5	<0.02	<0.5	0.0298	<0.00005	0.00018	0.0037	<0.0002	<0.0005	<0.01	<0.00005
4-Mar-09	413	2500	2475	7.37	108	88																
11-Mar-09	420	2500	2305	7.29	140	87	<1	6.61	55.9	45.3	47.6	<0.5	<0.02	<0.5	0.0302	<0.00005	0.00022	0.00367	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-09	427	2500	2390	7.55	170	94																
25-Mar-09	434	2500	2580	7.33	276	83	<1	5.56	53.1	50.3	44.9	<0.5	<0.02	<0.5	0.0331	<0.00005	0.00022	0.00358	<0.0002	<0.0005	<0.01	<0.00005
1-Apr-09	441	2500	2285	7.45	257	87																
8-Apr-09	448	2500	2300	7.51	267	87	<1	4.2	53.3	45.5	46.2	<0.5	<0.02	<0.5	0.0326	<0.00005	0.0002	0.0036	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-09	455	2500	2435	7.57	283	88																
22-Apr-09	462	2500	2445	7.57	277	89																
29-Apr-09	469	2500	2485																			
6-May-09	476	2500	2340	7.34	279	82	<1	5.11	51.5	46.3	42.6	<0.5	<0.02	<0.5	0.0395	<0.00005	0.00018	0.00344	<0.0002	<0.0005	<0.01	<0.00005
13-May-09	483	2500	2485																			
20-May-09	490	2500	2295	7.43	260	78																
27-May-09	497	2500	2395																			
3-Jun-09	504	2500	2370	7.53	184	64	<1	3.8	49.3	30.1		<0.5	<0.02	<0.5								
10-Jun-09	511	2500	2400																			
17-Jun-09	518	2500	2370	7.45	273	63																
24-Jun-09	525	2500	2410																			
1-Jul-09	532	2500	2430	7.31	169	59	<1	4.82	48.2	35.5		<0.5	<0.02	<0.5								
8-Jul-09	539	2500	2500																			
15-Jul-09	546	2500	2465	7.34	270	61																
22-Jul-09	553	2500	2260																			
29-Jul-09	560	2500	2430	7.26	227	66	<1	5.98	45.2	37.9		<0.5	0.026	<0.5								
5-Aug-09	567	2500	2445																			
12-Aug-09	574	2500	2330	7.27	188	85																
19-Aug-09	581	2500	2510																			
26-Aug-09	588	2500	2405	7.25	133	65	<1	4.82	43.5	41.8		<0.5	<0.02	<0.5								
2-Sep-09	595	2500	2335																			
9-Sep-09	602	2500	2465	7.45	214	72																
16-Sep-09	609	2500	2370																			
23-Sep-09	616	2500	2475	7.27	237	75	<1	5.56	50.5	44		<0.5	<0.02	<0.5								
30-Sep-09	623	2500	2495																			
7-Oct-09	630	2500	2440	7.14	238	73																
14-Oct-09	637	2500	2445																			
21-Oct-09	644	2500	2400	7.34	217	79	<1	4.29	52.1	46		<0.5	<0.02	<0.5								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-08	0	2500	2110	7.83	382	1058	<1	4.37	48.2	782	369	2.57	0.209	474	0.0351	0.00551	0.0139	0.00483	<0.001	<0.0025	0.176	<0.00025
22-Jan-08	7	2500	2525	7.74	470	468																
29-Jan-08	14	2500	2535	7.59	455	269	<1	5.34	47.4	168	70.4	<0.5	0.185	81.5	0.0824	0.00429	0.0176	0.000683	<0.0002	<0.0005	0.048	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Oct-08	280	15.3	<0.0005	<0.0001	0.00045	<0.03	<0.00005	1.95	0.00577	<0.00001	0.00014	<0.0005	0.557	<0.001	1.17	<0.00001	<2	<0.00005	0.00291	0.00133	<0.001
29-Oct-08	287																				
5-Nov-08	294	15.5	<0.0005	<0.0001	0.00016	<0.03	<0.00005	2.03	0.00552	<0.00001	0.000114	<0.0005	0.58	<0.001	1.13	<0.00001	<2	<0.00005	0.00322	0.00134	<0.001
12-Nov-08	301																				
19-Nov-08	308	15.8	0.00135	<0.0001	0.00052	<0.03	<0.00005	1.75	0.00547	<0.00001	0.000119	<0.0005	0.504	<0.001	1.12	<0.00001	<2	<0.00005	0.00281	0.00129	<0.001
26-Nov-08	315																				
3-Dec-08	322	16.8	<0.0005	<0.0001	0.00028	<0.03	<0.00005	2.11	0.00585	<0.00001	0.000101	<0.0005	0.587	<0.001	1.14	<0.00001	<2	<0.00005	0.00283	0.00138	<0.001
10-Dec-08	329																				
17-Dec-08	336	15.3	<0.0005	<0.0001	0.00018	<0.03	<0.00005	1.94	0.00598	<0.00001	0.000101	<0.0005	0.507	<0.001	0.954	<0.00001	<2	<0.00005	0.00337	0.00122	<0.001
24-Dec-08	343																				
31-Dec-08	350	15.3	<0.0005	<0.0001	0.00014	<0.03	<0.00005	1.78	0.00483	<0.00001	0.000097	<0.0005	0.459	<0.001	0.932	<0.00001	<2	<0.00005	0.00331	0.00115	<0.001
7-Jan-09	357																				
14-Jan-09	364	21.8	<0.0005	<0.0001	0.00072	<0.03	<0.00005	2.63	0.00729	<0.00001	0.000082	<0.0005	0.567	<0.001	1.04	<0.00001	<2	<0.00005	0.00377	0.00104	<0.001
21-Jan-09	371																				
28-Jan-09	378	21.3	<0.0005	<0.0001	0.00011	<0.03	<0.00005	2.31	0.00839	<0.00001	0.000075	<0.0005	0.476	<0.001	0.957	<0.00001	<2	<0.00005	0.00379	0.00074	<0.001
4-Feb-09	385																				
11-Feb-09	392	15.5	<0.0005	<0.0001	0.00011	<0.03	<0.00005	1.98	0.00614	<0.00001	0.000121	<0.0005	0.5	<0.001	0.926	<0.00001	<2	<0.00005	0.00465	0.0012	<0.001
18-Feb-09	399																				
25-Feb-09	406	16.2	<0.0005	<0.0001	0.00109	<0.03	<0.00005	1.97	0.0054	<0.00001	0.000119	<0.0005	0.425	<0.001	0.874	<0.00001	<2	<0.00005	0.00393	0.00095	0.0011
4-Mar-09	413																				
11-Mar-09	420	16.3	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	1.66	0.00512	<0.00001	0.000099	<0.0005	0.391	<0.001	0.814	<0.00001	<2	<0.00005	0.00388	0.00094	<0.001
18-Mar-09	427																				
25-Mar-09	434	15.5	<0.0005	<0.0001	0.00015	<0.03	<0.00005	1.49	0.00436	<0.00001	0.000125	<0.0005	0.372	<0.001	0.786	<0.00001	<2	<0.00005	0.00397	0.00106	<0.001
1-Apr-09	441																				
8-Apr-09	448	16	<0.0005	<0.0001	0.00021	<0.03	<0.00005	1.5	0.00435	<0.00001	0.000148	<0.0005	0.385	<0.001	0.863	<0.00001	<2	<0.00005	0.00389	0.00095	<0.001
15-Apr-09	455																				
22-Apr-09	462																				
29-Apr-09	469																				
6-May-09	476	14.8	<0.0005	<0.0001	0.00016	<0.03	<0.00005	1.38	0.0035	<0.00001	0.000159	<0.0005	0.413	<0.001	0.821	<0.00001	<2	<0.00005	0.0032	0.00111	<0.001
13-May-09	483																				
20-May-09	490																				
27-May-09	497																				
3-Jun-09	504																				
10-Jun-09	511																				
17-Jun-09	518																				
24-Jun-09	525																				
1-Jul-09	532																				
8-Jul-09	539																				
15-Jul-09	546																				
22-Jul-09	553																				
29-Jul-09	560																				
5-Aug-09	567																				
12-Aug-09	574																				
19-Aug-09	581																				
26-Aug-09	588																				
2-Sep-09	595																				
9-Sep-09	602																				
16-Sep-09	609																				
23-Sep-09	616																				
30-Sep-09	623																				
7-Oct-09	630																				
14-Oct-09	637																				
21-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-08	0	138	<0.0025	0.00528	0.0022	<0.03	<0.00025	5.81	0.552	<0.00001	0.384	<0.0025	0.88	0.0226	2.77	<0.00005	87.3	<0.00025	<0.0005	<0.0025	<0.005
22-Jan-08	7																				
29-Jan-08	14	26.9	<0.0005	0.00033	0.00042	<0.03	<0.00005	0.747	0.0672	<0.00001	0.0911	<0.0005	0.174	0.0022	2.5	<0.00001	26.6	<0.00005	0.00115	0.00306	0.0019

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
5-Feb-08	21	2500	2750	7.95	443	211																
12-Feb-08	28	2500	2525	7.7	431	205	<1	6.23	65.6	132	58.1	<0.5	0.145	40.5	0.0588	0.00434	0.0209	0.000402	<0.0002	<0.0005	0.036	<0.00005
19-Feb-08	35	2500	2500	8.11	410	161																
26-Feb-08	42	2500	2615	7.71	418	122	<1	4.4	47.1	74	36	<0.5	0.079	18.6	0.0992	0.00294	0.0214	0.000865	<0.0002	<0.0005	0.018	<0.00005
4-Mar-08	49	2500	2485	7.99	393	140																
11-Mar-08	56	2500	2595	7.68	419	107	<1	3.85	44.8	62.8	34.7	<0.5	0.055	12.8	0.1	0.00261	0.0212	0.000195	<0.0002	<0.0005	0.011	<0.00005
18-Mar-08	63	2500	2485	8.01	395	104																
25-Mar-08	70	2500	2505	7.78	425	117	<1	2.62	51.4	69.2	37.6	<0.5	0.05	13.3	0.0812	0.00261	0.023	0.000321	<0.0002	<0.0005	0.011	<0.00005
1-Apr-08	77	2500	2515	8.02	407	98																
8-Apr-08	84	2500	2445	7.94	394	132	<1	2.85	54.1	62.2	42.9	<0.5	0.041	12.3	0.0686	0.00265	0.023	0.00025	<0.0002	<0.0005	0.011	<0.00005
15-Apr-08	91	2500	2475	7.89	398	117																
22-Apr-08	98	2500	2545	8	406	120	<1	3.05	54.5	70.2	42.4	<0.5	0.032	10	0.0667	0.00239	0.0208	0.000224	<0.0002	<0.0005	<0.01	<0.00005
29-Apr-08	105	2500	2665	8.05	371	104																
6-May-08	112	2500	2795	8	361	119	<1	3	52.5	67.4	41.9	<0.5	0.029	11.3	0.0736	0.00229	0.0236	0.000158	<0.0002	<0.0005	<0.01	<0.00005
13-May-08	119	2500	2575	8.07	335	103																
20-May-08	126	2500	2500	7.99	343	114	<1	2.14	50.7	61.4	39.8	<0.5	0.033	8.03	0.0887	0.00221	0.023	0.000216	<0.0002	<0.0005	<0.01	<0.00005
27-May-08	133	2500	2395	7.8	350	110																
3-Jun-08	140	2500	2460	7.81	410	96	<1	3.11	51.8	68.3	43.1	<0.5	0.025	7.53	0.0881	0.00235	0.0248	0.000196	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-08	147	2500	2675	8.02	359	84																
17-Jun-08	154	2500	2410	7.78	254	77	<1	3.96	50.4	55.5	39.6	<0.5	0.039	6.53	0.106	0.00208	0.0247	0.000214	<0.0002	<0.0005	<0.01	<0.00005
24-Jun-08	161	2500	2610	8.04	235	72																
1-Jul-08	168	2500	2500	7.84	356	87	<1	2.73	40.6	58.2	36.3	<0.5	0.022	6.65	0.117	0.00209	0.0259	0.000328	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-08	175	2500	2510	8.03	251	98																
15-Jul-08	182	2500	2600	7.82	349	87	<1	3.22	44	55.8	36.3				0.103	0.00208	0.0299	0.00015	<0.0002	<0.0005	<0.01	<0.00005
22-Jul-08	189	2500	2460	7.99	330	87																
29-Jul-08	196	2500	2525	7.91	385	98	<1	2.1	43.3	39.3	37.3	<0.5	<0.02	5.62	0.101	0.00165	0.0232	0.000121	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-08	203	2500	2430	8.05	338	105																
12-Aug-08	210	2500	2425	7.93	329	101	<1	2.34	45	55.3	39.6	<0.5	<0.02	5.55	0.0923	0.00165	0.0209	0.000165	<0.0002	<0.0005	<0.01	<0.00005
19-Aug-08	217	2500	2595	8.02	243	103																
26-Aug-08	224	2500	2385	7.9	298	107	<1	2.44	52.8	59.4	42.3	<0.5	0.021	5.84	0.0817	0.00168	0.0205	0.000204	<0.0002	<0.0005	<0.01	<0.00005
2-Sep-08	231	2500	2640	7.98	268	107																
9-Sep-08	238	2500	2445	7.95	267	108	<1	1.88	59.6	59.3	42.6	<0.5	<0.02	5.39	0.0912	0.00167	0.0201	0.000154	<0.0002	<0.0005	<0.01	<0.00005
16-Sep-08	245	2500	2610	8.05	256	99																
23-Sep-08	252	2500	2520	7.89	237	78	<1	2.82	44	51.6	37	<0.5	<0.02	4.37	0.09	0.00134	0.0178	0.000223	<0.0002	<0.0005	<0.01	0.000055
30-Sep-08	259	2500	2520	7.99	204	95																
7-Oct-08	266	2500	2430	7.89	377	92	<1	2.56	43.1	50.6	37.2	<0.5	<0.02	4.37	0.0783	0.00121	0.0159	0.000147	<0.0002	<0.0005	<0.01	<0.00005
14-Oct-08	273	2500	2480	8	357	81																
21-Oct-08	280	2500	2430	7.78	390	87	<1	3.08	44.3	55.3	38.3	<0.5	<0.02	4.4	0.0764	0.00121	0.0149	0.000202	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-08	287	2500	2510	7.89	416	95																
4-Nov-08	294	2500	2450	7.73	405	94	<1	3.02	46.6	47.1	42.5	<0.5	<0.02	3.99	0.0654	0.00118	0.0137	0.000145	<0.0002	<0.0005	<0.01	<0.00005
11-Nov-08	301	2500	2575	7.89	402	91																
18-Nov-08	308	2500	2405	7.8	402	78	<1	2.83	48.2	48.5	42.1	<0.5	<0.02	3.98	0.0831	0.00126	0.0161	0.000173	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-08	315	2500	2540	7.97	328	80																
2-Dec-08	322	2500	2420	7.81	318	96	<1	3.1	56.3	25.1	43.1	<0.5	<0.02	3.9	0.0881	0.00111	0.0136	0.00023	<0.0002	<0.0005	<0.01	<0.00005
9-Dec-08	329	2500	2390	8.03	277	99																
16-Dec-08	336	2500	2405	7.61	257	95	<1	5.51	56.6	54	44.3	<0.5	<0.02	3.24	0.0631	0.001	0.0119	0.000131	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-08	343	2500	2460	7.97	250	111																
30-Dec-08	350	2500	2660	7.53	281	83	<1		51.5	51.7	39.3	<0.5	<0.02	3.56	0.0796	0.00097	0.0123	0.000132	<0.0002	<0.0005	<0.01	<0.00005
6-Jan-09	357	2500	2530	7.84	244	129																
13-Jan-09	364	2500	2535	7.57	228	99	<1	5.21	58.1	62.3	47.2	<0.5	<0.02	3.32	0.0596	0.00103	0.0101	0.000426	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-09	371	2500	2550	7.82	352	90																
27-Jan-09	378	2500	2525	7.65	365	106	<1	5.8	63.4	64.8	52	<0.5	<0.02	3.33	0.0429	0.000988	0.00827	0.000184	<0.0002	<0.0005	<0.01	<0.00005
3-Feb-09	385	2500	2500	7.74	427	102																
10-Feb-09	392	2500	2505	7.65	351	84	<1	6.97	50.4	45.6	39.2	<0.5	<0.02	3.3	0.0791	0.00104	0.0114	0.00035	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-09	399	2500	2605	7.94	363	75																
24-Feb-09	406	2500	2530	7.29	334	82	<1	4.75	48.3	50.2	37.2	<0.5	<0.02	3.32	0.064	0.000835	0.00947	0.000132	<0.0002	<0.0005	<0.01	<0.00005
3-Mar-09	413	2500	2570	7.77	236	87																
10-Mar-09	420	2500	2550	7.32	318	87	<1	4.18	50.1	44	42.9	<0.5	<0.02	3.16	0.0618	0.000845	0.0103	0.000113	<0.0002	<0.0005	<0.01	<0.00005
17-Mar-09	427	2500	2515	7.63	324	81																
24-Mar-09	434	2500	2380	7.34	378	87	<1	3.71	50.8	53.8	42.7	<0.5	<0.02	3.17	0.0623	0.000839	0.00976	0.000124	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
5-Feb-08	21																				
12-Feb-08	28	22.2	<0.0005	0.0003	0.00038	<0.03	<0.00005	0.667	0.0596	<0.00001	0.0665	<0.0005	0.124	<0.001	2.6	<0.00001	21.6	<0.00005	0.0002	0.00339	<0.001
19-Feb-08	35																				
26-Feb-08	42	13.8	<0.0005	0.00013	0.00068	<0.03	<0.00005	0.347	0.0325	<0.00001	0.0432	<0.0005	0.069	<0.001	2	<0.00001	13.1	<0.00005	0.00085	0.0036	<0.001
4-Mar-08	49																				
11-Mar-08	56	13.2	<0.0005	0.00013	0.0006	<0.03	<0.00005	0.402	0.0322	<0.00001	0.034	<0.0005	0.056	<0.001	1.9	<0.00001	10.4	<0.00005	0.00199	0.0034	<0.001
18-Mar-08	63																				
25-Mar-08	70	14.4	<0.0005	0.0001	0.00053	0.047	<0.00005	0.423	0.0274	<0.00001	0.0341	<0.0005	0.056	<0.001	2	<0.00001	10.2	<0.00005	0.00075	0.00327	<0.001
1-Apr-08	77																				
8-Apr-08	84	16.3	<0.0005	0.00014	0.00066	<0.03	<0.00005	0.518	0.034	<0.00001	0.0408	0.00135	0.065	<0.001	1.95	<0.00001	10	<0.00005	0.00086	0.00323	<0.001
15-Apr-08	91																				
22-Apr-08	98	16.2	<0.0005	0.00014	0.00055	<0.03	0.000104	0.45	0.0377	<0.00001	0.0345	<0.0005	<0.05	<0.001	1.87	<0.00001	8.5	<0.00005	0.00081	0.00303	0.0044
29-Apr-08	105																				
6-May-08	112	15.9	<0.0005	0.00012	0.00026	<0.03	<0.00005	0.515	0.0348	<0.00001	0.032	<0.0005	0.072	<0.001	1.82	<0.00001	8	<0.00005	0.00071	0.0032	<0.001
13-May-08	119																				
20-May-08	126	15.3	<0.0005	<0.0001	0.00067	<0.03	<0.00005	0.417	0.0276	<0.00001	0.0323	<0.0005	0.06	<0.001	1.92	<0.00001	8	<0.00005	0.00051	0.00378	<0.001
27-May-08	133																				
3-Jun-08	140	16.5	<0.0005	0.00015	0.00062	<0.03	<0.00005	0.447	0.0342	<0.00001	0.034	<0.0005	0.058	<0.001	1.92	<0.00001	7.9	<0.00005	0.00048	0.00362	<0.001
10-Jun-08	147																				
17-Jun-08	154	15.2	<0.0005	0.00013	0.00105	<0.03	0.000075	0.381	0.0276	0.000015	0.028	0.00119	0.059	<0.001	1.81	<0.00001	7.1	<0.00005	0.0008	0.00369	<0.001
24-Jun-08	161																				
1-Jul-08	168	14	<0.0005	<0.0001	0.00081	<0.03	<0.00005	0.325	0.0229	<0.00001	0.032	<0.0005	<0.05	<0.001	1.8	<0.00001	7.4	<0.00005	0.0009	0.00411	<0.001
8-Jul-08	175																				
15-Jul-08	182	13.9	<0.0005	<0.0001	0.00021	<0.03	<0.00005	0.371	0.0247	<0.00001	0.0339	<0.0005	<0.05	<0.001	1.63	<0.00001	6.3	<0.00005	0.00064	0.00393	<0.001
22-Jul-08	189																				
29-Jul-08	196	14.4	<0.0005	<0.0001	0.00072	<0.03	<0.00005	0.342	0.023	<0.00001	0.0286	<0.0005	<0.05	<0.001	1.51	<0.00001	5.7	<0.00005	0.00098	0.00306	<0.001
5-Aug-08	203																				
12-Aug-08	210	15.3	<0.0005	<0.0001	0.00026	<0.03	0.000057	0.367	0.0238	0.000011	0.0277	<0.0005	<0.05	<0.001	1.47	<0.00001	5.4	<0.00005	0.00108	0.00297	<0.001
19-Aug-08	217																				
26-Aug-08	224	16.3	<0.0005	<0.0001	0.00024	<0.03	<0.00005	0.399	0.0279	<0.00001	0.027	<0.0005	<0.05	<0.001	1.48	<0.00001	5.5	<0.00005	0.00102	0.0028	<0.001
2-Sep-08	231																				
9-Sep-08	238	16.4	<0.0005	<0.0001	0.00017	<0.03	<0.00005	0.414	0.0275	<0.00001	0.0255	<0.0005	<0.05	<0.001	1.51	<0.00001	5.7	<0.00005	0.00111	0.0029	<0.001
16-Sep-08	245																				
23-Sep-08	252	14.3	<0.0005	<0.0001	0.00022	<0.03	<0.00005	0.33	0.0207	<0.00001	0.0223	0.00063	<0.05	<0.001	1.28	<0.00001	4.8	<0.00005	0.00156	0.00249	<0.001
30-Sep-08	259																				
7-Oct-08	266	14.4	<0.0005	<0.0001	0.00022	<0.03	<0.00005	0.307	0.0195	<0.00001	0.0215	<0.0005	<0.05	<0.001	1.18	<0.00001	4.1	<0.00005	0.00167	0.00213	0.0012
14-Oct-08	273																				
21-Oct-08	280	14.8	<0.0005	<0.0001	0.00086	<0.03	<0.00005	0.304	0.0216	<0.00001	0.0226	<0.0005	<0.05	<0.001	1.16	<0.00001	4.3	<0.00005	0.00155	0.00207	0.0019
28-Oct-08	287																				
4-Nov-08	294	16.4	<0.0005	<0.0001	0.0002	<0.03	<0.00005	0.348	0.0243	<0.00001	0.0183	<0.0005	<0.05	<0.001	1.15	<0.00001	4.1	<0.00005	0.0019	0.00184	<0.001
11-Nov-08	301																				
18-Nov-08	308	16.4	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.291	0.0244	<0.00001	0.019	<0.0005	<0.05	<0.001	1.18	<0.00001	4	<0.00005	0.00164	0.00211	<0.001
25-Nov-08	315																				
2-Dec-08	322	16.7	<0.0005	<0.0001	0.00029	<0.03	<0.00005	0.335	0.0258	<0.00001	0.017	<0.0005	<0.05	<0.001	1.17	<0.00001	3.7	<0.00005	0.00161	0.00214	<0.001
9-Dec-08	329																				
16-Dec-08	336	17.3	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.295	0.0281	<0.00001	0.0149	<0.0005	<0.05	<0.001	1.05	<0.00001	3.3	<0.00005	0.0034	0.00159	<0.001
23-Dec-08	343																				
30-Dec-08	350	15.3	<0.0005	<0.0001	0.00013	<0.03	<0.00005	0.288	0.0255	<0.00001	0.0165	<0.0005	<0.05	<0.001	0.931	<0.00001	3	<0.00005	0.0022	0.00167	<0.001
6-Jan-09	357																				
13-Jan-09	364	18.3	<0.0005	<0.0001	0.00046	<0.03	<0.00005	0.33	0.0287	<0.00001	0.0142	<0.0005	<0.05	<0.001	1.11	<0.00001	3.2	<0.00005	0.00207	0.0015	<0.001
20-Jan-09	371																				
27-Jan-09	378	20.2	<0.0005	0.00014	0.00088	<0.03	<0.00005	0.361	0.0354	<0.00001	0.0133	<0.0005	<0.05	<0.001	1.07	<0.00001	3.4	<0.00005	0.00236	0.00118	<0.001
3-Feb-09	385																				
10-Feb-09	392	15.3	<0.0005	<0.0001	0.00262	<0.03	<0.00005	0.265	0.0215	<0.00001	0.0127	<0.0005	<0.05	<0.001	1.1	<0.00001	3.2	<0.00005	0.00279	0.00164	0.0035
17-Feb-09	399																				
24-Feb-09	406	14.5	<0.0005	<0.0001	0.0002	<0.03	<0.00005	0.248	0.0189	<0.00001	0.0135	<0.0005	<0.05	<0.001	0.874	<0.00001	2.8	<0.00005	0.0023	0.00128	<0.001
3-Mar-09	413																				
10-Mar-09	420	16.7	<0.0005	<0.0001	0.00015	<0.03	<0.00005	0.273	0.0212	<0.00001	0.0125	<0.0005	<0.05	<0.001	0.951	<0.00001	2.6	<0.00005	0.00246	0.00135	<0.001
17-Mar-09	427																				
24-Mar-09	434	16.6	<0.0005	<0.0001	0.00013	<0.03	<0.00005	0.285	0.0221	<0.00001	0.0125	<0.0005	<0.05	<0.001	0.95	<0.00001	2.6	<0.00005	0.00232	0.0013	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
31-Mar-09	441	2500	2650	7.7	312	83																
7-Apr-09	448	2500	2395	7.32	362	85	<1	3.79	47.3	45	39.7	<0.5	<0.02	3.06	0.0586	0.000753	0.00836	0.000099	<0.0002	<0.0005	<0.01	<0.00005
14-Apr-09	455	2500	2580	7.74	353	82																
21-Apr-09	462	2500	2520	7.47	390	84																
28-Apr-09	469	2500	2510																			
5-May-09	476	2500	2490	7.52	362	84	<1	2.96	44.6	51.8	37.8	<0.5	<0.02	3.11	0.0934	0.000799	0.0115	0.000115	<0.0002	<0.0005	<0.01	<0.00005
12-May-09	483	2500	2490																			
19-May-09	490	2500	2475	7.57	375	84																
26-May-09	497	2500	2455																			
2-Jun-09	504	2500	2560	7.7	356	73	<1	3.23	49.3	30.6		<0.5	<0.02	3.88								
9-Jun-09	511	2500	2485																			
16-Jun-09	518	2500	2245	7.69	396	71																
23-Jun-09	525	2500	2600																			
30-Jun-09	532	2500	2590	7.72	331	64	<1	2.56	46.4	44.5		<0.5	<0.02	3.4								
7-Jul-09	539	2500	2450																			
14-Jul-09	546	2500	2410	7.75	305	74																
21-Jul-09	553	2500	2495																			
28-Jul-09	560	2500	2450	7.71	391	69	<1	4.72	40.5	42.4		<0.5	<0.02	2.93								
4-Aug-09	567	2500	2455																			
11-Aug-09	574	2500	2375	7.21	354	69																
18-Aug-09	581	2500	2415																			
25-Aug-09	588	2500	2455	7.52	336	74	<1	2.79	42.7	39.3		<0.5	<0.02	3.37								
1-Sep-09	595	2500	2385																			
8-Sep-09	602	2500	2350	7.15	415	68																
15-Sep-09	609	2500	2470																			
22-Sep-09	616	2500	2420	7.16	372	74	<1	5.25	46.3	45		<0.5	<0.02	2.88								
29-Sep-09	623	2500	2395																			
6-Oct-09	630	2500	2470	7.29	311	70																
13-Oct-09	637	2500	2380																			
20-Oct-09	644	2500	2385	7.31	332	72	<1	3.81	43.6	45		<0.5	<0.02	2.61								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Jan-08	0	2500	2100	9.05	408	719	<1	<1	160.2	674	5.39	2.65	0.521	158	0.354	0.00254	0.00585	0.0436	<0.0004	<0.001	0.118	<0.0001
24-Jan-08	7	2500	2380	8.81	384	656																
31-Jan-08	14	2500	2580	8.77	412	508	<1	<1	213.6	319	4.42	<0.5	0.325	55.8	0.405	0.00197	0.00241	0.0448	<0.0004	<0.001	0.09979	0.00013
7-Feb-08	21	2500	2405	8.73	421	511																
14-Feb-08	28	2500	2465	8.9	389	450	<1	<1	212.4	301	4.17	<0.5	0.275	32.8	0.342	0.00124	0.00179	0.0483	<0.0004	<0.001	0.069	<0.0001
21-Feb-08	35	2500	2370	8.84	369	470																
28-Feb-08	42	2500	2530	8.63	394	368	<1	<1	192	240	3.9	<0.5	0.184	18.4	0.29	0.00081	0.00132	0.0433	<0.0004	<0.001	0.054	<0.0001
6-Mar-08	49	2500	2485	8.77	385	400																
13-Mar-08	56	2500	2515	8.83	400	374	<1	<1	200.2	248	4.29	<0.5	0.167	15	0.253	0.0007	0.00075	0.0578	<0.0004	<0.001	0.048	<0.0001
20-Mar-08	63	2500	2480	8.73	388	354																
27-Mar-08	70	2500	2510	8.68	415	305	<1	<1	169.9	188	3.67	<0.5	0.145	10.4	0.0889	0.000456	0.0008	0.0535	<0.0002	<0.0005	0.034	<0.00005
3-Apr-08	77	2500	2470	8.69	398	315																
10-Apr-08	84	2500	2330	8.37	417	312	<1	<1	160.9	187	4.33	<0.5	0.159	10.6	0.0855	0.000348	0.00038	0.0494	<0.0002	<0.0005	0.032	<0.00005
17-Apr-08	91	2500	2755	8.25	407	262																
24-Apr-08	98	2500	2530	8.44	394	267	<1	<1	143.8	170	4.74	<0.5	0.134	8.77	0.124	0.000301	0.00028	0.0645	<0.0002	<0.0005	0.029	<0.00005
1-May-08	105	2500	2595	8.5	369	307																
8-May-08	112	2500	2555	8.54	362	298	<1	<1	154.4	45.3	5.77	<0.5	0.158	9.05	0.0275	0.000312	0.00053	0.0807	<0.0002	<0.0005	0.032	<0.00005
15-May-08	119	2500	2440	8.52	343	318																
22-May-08	126	2500	2495	8.55	338	296	<1	<1	152.7	171	5.53	<0.5	0.152	8.23	0.0453	0.000245	0.00014	0.0533	<0.0002	<0.0005	0.03	<0.00005
29-May-08	133	2500	2465	8.53	348	289																
5-Jun-08	140	2500	2430	8.57	391	227	<1	<1	138.1	164	6.47	<0.5	0.132	7.93	0.0581	0.00021	0.0002	0.0748	<0.0002	<0.0005	0.025	<0.00005
12-Jun-08	147	2500	2390	8.55	378	214																
19-Jun-08	154	2500	2420	8.47	354	212	<1	<1	146.5	156	7.91	<0.5	0.159	7.97	0.0266	0.000219	0.00012	0.0684	<0.0002	<0.0005	0.025	<0.00005
26-Jun-08	161	2500	2490	8.55	367	252																
3-Jul-08	168	2500	2265	8.5	368	286	<1	<1	127.3	155	10.5	<0.5	0.147	8.62	0.0163	0.00019	0.00017	0.096	<0.0002	<0.0005	0.026	<0.00005
10-Jul-08	175	2500	2495	8.49	371	267																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
31-Mar-09	441																				
7-Apr-09	448	15.5	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.231	0.0178	<0.00001	0.0114	<0.0005	<0.05	<0.001	0.879	<0.00001	2.6	<0.00005	0.00254	0.0012	<0.001
14-Apr-09	455																				
21-Apr-09	462																				
28-Apr-09	469																				
5-May-09	476	14.7	<0.0005	<0.0001	0.00017	<0.03	<0.00005	0.243	0.0156	<0.00001	0.0134	<0.0005	<0.05	<0.001	0.922	<0.00001	2.7	<0.00005	0.00251	0.00166	<0.001
12-May-09	483																				
19-May-09	490																				
26-May-09	497																				
2-Jun-09	504																				
9-Jun-09	511																				
16-Jun-09	518																				
23-Jun-09	525																				
30-Jun-09	532																				
7-Jul-09	539																				
14-Jul-09	546																				
21-Jul-09	553																				
28-Jul-09	560																				
4-Aug-09	567																				
11-Aug-09	574																				
18-Aug-09	581																				
25-Aug-09	588																				
1-Sep-09	595																				
8-Sep-09	602																				
15-Sep-09	609																				
22-Sep-09	616																				
29-Sep-09	623																				
6-Oct-09	630																				
13-Oct-09	637																				
20-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jan-08	0	1.27	<0.001	<0.0002	0.00465	0.046	<0.0001	0.537	0.00245	<0.00001	0.0446	<0.001	1.09	0.0346	1	<0.00002	154	<0.0001	0.00064	0.0012	<0.002
24-Jan-08	7																				
31-Jan-08	14	0.997	<0.001	<0.0002	0.00233	0.053	0.00015	0.469	0.00413	<0.00001	0.0234	<0.001	1.06	0.0234	1.09	<0.00002	126	<0.0001	0.00099786	0.0011	<0.002
7-Feb-08	21																				
14-Feb-08	28	0.939	<0.001	<0.0002	0.00278	0.046	<0.0001	0.443	0.00404	<0.00001	0.0127	<0.001	0.89	0.0078	0.82	<0.00002	109	<0.0001	0.00114	<0.001	<0.002
21-Feb-08	35																				
28-Feb-08	42	0.918	<0.001	<0.0002	0.00134	0.041	<0.0001	0.39	0.00358	0.000019	0.00741	<0.001	0.81	0.0052	0.749	<0.00002	101	<0.0001	0.00116	<0.001	<0.002
6-Mar-08	49																				
13-Mar-08	56	0.94	<0.001	<0.0002	0.00094	<0.03	<0.0001	0.429	0.00254	<0.00001	0.0066	<0.001	0.86	0.005	0.6	<0.00002	99.4	<0.0001	0.00093	<0.001	<0.002
20-Mar-08	63																				
27-Mar-08	70	0.844	0.00129	<0.0001	0.00041	0.044	<0.00005	0.379	0.0024	<0.00001	0.00413	0.00063	0.686	0.0037	0.34	<0.00001	80.8	<0.00005	0.00081	<0.0005	<0.001
3-Apr-08	77																				
10-Apr-08	84	1.01	<0.0005	<0.0001	0.00245	<0.03	<0.00005	0.442	0.00452	<0.00001	0.00394	<0.0005	0.773	0.0036	0.317	<0.00001	78.5	<0.00005	0.00107	<0.0005	<0.001
17-Apr-08	91																				
24-Apr-08	98	1.16	<0.0005	<0.0001	0.00083	<0.03	<0.00005	0.449	0.00217	<0.00001	0.00332	<0.0005	0.701	0.0031	0.391	<0.00001	68.8	<0.00005	0.0013	<0.0005	<0.001
1-May-08	105																				
8-May-08	112	1.27	<0.0005	<0.0001	0.00037	<0.03	<0.00005	0.629	0.00139	<0.00001	0.00359	<0.0005	0.912	0.0031	0.225	<0.00001	69.7	<0.00005	0.00123	<0.0005	<0.001
15-May-08	119																				
22-May-08	126	1.26	<0.0005	<0.0001	0.00119	<0.03	<0.00005	0.58	0.00154	<0.00001	0.00282	<0.0005	0.91	0.0027	0.254	<0.00001	68.9	<0.00005	0.00112	<0.0005	<0.001
29-May-08	133																				
5-Jun-08	140	1.44	<0.0005	<0.0001	0.00114	<0.03	<0.00005	0.698	0.00139	<0.00001	0.00244	<0.0005	0.933	0.0023	0.258	<0.00001	61.6	<0.00005	0.00139	<0.0005	<0.001
12-Jun-08	147																				
19-Jun-08	154	1.72	0.00116	<0.0001	0.00033	0.136	<0.00005	0.878	0.00274	0.000011	0.00244	<0.0005	1.16	0.0023	0.221	<0.00001	65.3	<0.00005	0.00116	<0.0005	<0.001
26-Jun-08	161																				
3-Jul-08	168	2.36	<0.0005	<0.0001	0.0003	0.031	<0.00005	1.11	0.0017	<0.00001	0.00206	<0.0005	1.24	0.0026	0.224	<0.00001	66	<0.00005	0.0015	<0.0005	<0.001
10-Jul-08	175																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Jul-08	182	2500	2420	8.42	389	240	<1	<1	120.7	134	9.47	<0.5	0.138	6.8	0.0083	0.000167	0.00017	0.0757	<0.0002	<0.0005	0.023	<0.00005
24-Jul-08	189	2500	2445	8.42	391	259																
31-Jul-08	196	2500	2335	8.45	382	255	<1	<1	133.1	140	10.7	<0.5	0.142	7.41	0.0164	0.00015	0.00013	0.0818	<0.0002	<0.0005	0.023	<0.00005
7-Aug-08	203	2500	2465	8.45	357	242																
14-Aug-08	210	2500	2375	8.4	368	246	<1	<1	122.4	138	12.1	<0.5	0.129	6.49	0.02	0.000145	0.00011	0.0812	<0.0002	<0.0005	0.022	<0.00005
21-Aug-08	217	2500	2435	8.4	314	240																
28-Aug-08	224	2500	2520	8.28	361	209	<1	1.68	116.6	119	14.2	<0.5	0.116	6.15	0.0128	0.00013	<0.0001	0.0969	<0.0002	<0.0005	0.019	<0.00005
4-Sep-08	231	2500	2430	8.25	321	195																
11-Sep-08	238	2500	2390	8.28	321	223	<1	2.13	122.1	127	14.7	<0.5	0.118	6.37	0.0166	0.00013	<0.0001	0.0845	<0.0002	<0.0005	0.021	<0.00005
18-Sep-08	245	2500	2235	8.31	303	214																
25-Sep-08	252	2500	2560	8.24	305	201	<1	2.37	102.4	106	15.4	<0.5	0.094	5.37	0.006	0.00011	<0.0001	0.0927	<0.0002	<0.0005	0.019	<0.00005
2-Oct-08	259	2500	2445	8.32	395	200																
9-Oct-08	266	2500	2355	8.22	382	183	<1	2.16	93.6	102	16	<0.5	0.107	5.14	0.0057	0.000087	<0.0001	0.0789	<0.0002	<0.0005	0.014	<0.00005
16-Oct-08	273	2500	2410	8.29	384	182																
23-Oct-08	280	2500	2465	8.19	405	168	<1	2.72	90.7	92.5	18.8	<0.5	0.103	5.32	0.0138	0.000097	<0.0001	0.1	<0.0002	<0.0005	0.015	<0.00005
30-Oct-08	287	2500	2390	8.12	435	191																
6-Nov-08	294	2500	2420	8	428	187	<1	4.29	102	107	23.8	<0.5	0.114	5.63	0.0074	0.000107	<0.0001	0.107	<0.0002	<0.0005	0.017	<0.00005
13-Nov-08	301	2500	2395	8.16	423	172																
20-Nov-08	308	2500	2370	8.15	414	151	<1	2.17	100.4	94.5	25.2	<0.5	0.103	5.51	0.0042	0.000099	<0.0001	0.108	<0.0002	<0.0005	0.017	<0.00005
27-Nov-08	315	2500	2530	8.11	369	148																
4-Dec-08	322	2500	2305	8.17	348	175	<1	1.7	106.7	99.6	28.6	<0.5	0.096	5.22	0.0042	0.000086	<0.0001	0.127	<0.0002	<0.0005	0.016	<0.00005
11-Dec-08	329	2500	2450	8.46	311	247																
18-Dec-08	336	2500	2280	8.03	354	185	<1	3.14	111	100	24.4	<0.5	0.118	6.88	0.0068	0.000104	<0.0001	0.0846	<0.0002	<0.0005	0.02	<0.00005
25-Dec-08	343	2500	2275	8.01	347	124																
1-Jan-09	350	2500	2440	8.06	342	114	<1	10.32	75.8	70.2	21.2	<0.5	0.063	3.96	0.0149	0.000085	<0.0001	0.0925	<0.0002	<0.0005	0.014	<0.00005
8-Jan-09	357	2500	2380	8.03	385	147																
15-Jan-09	364	2500	2540	7.87	364	162	<1	4.43	99.3	91.3	38	<0.5	0.068	4.34	0.0038	0.00007	<0.0001	0.123	<0.0002	<0.0005	0.013	<0.00005
22-Jan-09	371	2500	2525	7.91	360	153																
29-Jan-09	378	2500	2440	7.83	391	151	<1	6.69	102	79.3	40.5	<0.5	0.065	4.02	0.0017	0.00007	<0.0001	0.163	<0.0002	<0.0005	0.013	<0.00005
5-Feb-09	385	2500	2545	7.93	319	148																
12-Feb-09	392	2500	2505	7.96	371	139	<1	2.37	84.1	79.1	41.8	<0.5	0.07	4.2	0.002	0.000076	<0.0001	0.155	<0.0002	<0.0005	0.013	<0.00005
19-Feb-09	399	2500	2405	8.33	304	185																
26-Feb-09	406	2500	2450	8	260	133	<1	5.76	86.5	69.8	34.4	<0.5	0.058	3.81	0.0025	0.000062	<0.0001	0.125	<0.0002	<0.0005	0.012	<0.00005
5-Mar-09	413	2500	2495	7.99	273	129																
12-Mar-09	420	2500	2390	7.75	331	115	<1	3.24	71	48	33.5	<0.5	0.052	3.32	0.0046	0.000054	<0.0001	0.11	<0.0002	<0.0005	0.012	<0.00005
19-Mar-09	427	2500	2440	7.84	352	123																
26-Mar-09	434	2500	2395	7.68	375	119	<1	4.11	70.7	66.8	34.7	<0.5	0.05	3.7	0.0022	0.000063	<0.0001	0.1	<0.0002	<0.0005	0.011	<0.00005
2-Apr-09	441	2500	2500	7.87	371	167																
9-Apr-09	448	2500	2440	7.81	365	133	<1	3.4	79.9	69.5	48.7	<0.5	0.064	4.69	0.0019	0.000066	<0.0001	0.159	<0.0002	<0.0005	0.012	<0.00005
16-Apr-09	455	2500	2585	7.76	380	102																
23-Apr-09	462	2500	2490	7.8	371	101																
30-Apr-09	469	2500	2430																			
7-May-09	476	2500	2400	7.87	354	127	<1	2.58	75.6	64.3	47.8	<0.5	0.053	4.43	0.002	0.000072	<0.0001	0.113	<0.0002	<0.0005	0.011	<0.00005
14-May-09	483	2500	2415																			
21-May-09	490	2500	2435	7.62	387	138																
28-May-09	497	2500	2520																			
4-Jun-09	504	2500	2420	7.83	372	83	<1	3.38	62.8	30.1		<0.5	0.048	4.04								
11-Jun-09	511	2500	2455																			
18-Jun-09	518	2500	2345	7.88	386	95																
25-Jun-09	525	2500	2320																			
2-Jul-09	532	2500	2450	8.02	345	131	<1	1.82	78.9	73.5		<0.5	0.042	6.39								
9-Jul-09	539	2500	2595																			
16-Jul-09	546	2500	2575	7.83	369	105																
23-Jul-09	553	2500	2420																			
30-Jul-09	560	2500	2440	7.75	351	119	<1	5.45	74	58.4		<0.5	0.065	5.28								
6-Aug-09	567	2500	2430																			
13-Aug-09	574	2500	2335	7.86	312	133																
20-Aug-09	581	2500	2485																			
27-Aug-09	588	2500	2385	7.82	297	110	<1	3.7	68.9	43.8		<0.5	0.087	4.84								
3-Sep-09	595	2500	2490																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jul-08	182	1.98	<0.0005	<0.0001	0.00176	<0.03	<0.00005	1.1	0.00113	<0.00001	0.00191	<0.0005	1.15	0.0018	0.168	<0.00001	56.9	<0.00005	0.00173	<0.0005	<0.001
24-Jul-08	189																				
31-Jul-08	196	2.2	<0.0005	<0.0001	0.0003	<0.03	<0.00005	1.26	0.00118	<0.00001	0.00181	<0.0005	1.2	0.0022	0.176	<0.00001	56.6	<0.00005	0.00163	<0.0005	<0.001
7-Aug-08	203																				
14-Aug-08	210	2.54	<0.0005	<0.0001	0.00012	<0.03	<0.00005	1.4	0.000912	<0.00001	0.00165	<0.0005	1.21	0.0017	0.189	<0.00001	49	<0.00005	0.0019	<0.0005	<0.001
21-Aug-08	217																				
28-Aug-08	224	2.81	<0.0005	<0.0001	0.00089	<0.03	<0.00005	1.74	0.00084	<0.00001	0.00141	<0.0005	1.21	0.0017	0.17	<0.00001	46.3	<0.00005	0.00203	<0.0005	<0.001
4-Sep-08	231																				
11-Sep-08	238	2.81	<0.0005	<0.0001	0.00029	<0.03	<0.00005	1.88	0.00093	<0.00001	0.00135	<0.0005	1.35	0.0015	0.186	<0.00001	45.2	<0.00005	0.00219	<0.0005	<0.001
18-Sep-08	245																				
25-Sep-08	252	3.08	<0.0005	<0.0001	0.00034	<0.03	<0.00005	1.88	0.000653	<0.00001	0.00111	<0.0005	1.24	0.0013	0.161	<0.00001	41.3	<0.00005	0.00206	<0.0005	<0.001
2-Oct-08	259																				
9-Oct-08	266	3.18	<0.0005	<0.0001	0.00112	<0.03	<0.00005	1.97	0.000673	<0.00001	0.00102	<0.0005	1.3	0.0013	0.152	<0.00001	36.4	<0.00005	0.00206	<0.0005	<0.001
16-Oct-08	273																				
23-Oct-08	280	3.93	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	2.19	0.000791	<0.00001	0.000962	<0.0005	1.23	0.0013	0.158	<0.00001	33.9	<0.00005	0.00277	<0.0005	<0.001
30-Oct-08	287																				
6-Nov-08	294	4.79	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	2.89	0.000861	<0.00001	0.000971	<0.0005	1.6	0.0014	0.191	<0.00001	38	<0.00005	0.00218	<0.0005	<0.001
13-Nov-08	301																				
20-Nov-08	308	5.08	<0.0005	<0.0001	0.00041	<0.03	<0.00005	3.03	0.000988	<0.00001	0.000966	<0.0005	1.72	0.0013	0.164	<0.00001	34.5	<0.00005	0.00258	<0.0005	<0.001
27-Nov-08	315																				
4-Dec-08	322	5.51	<0.0005	<0.0001	0.00014	<0.03	<0.00005	3.6	0.00107	<0.00001	0.000838	<0.0005	1.74	0.0011	0.165	<0.00001	31.1	0.000051	0.00264	<0.0005	<0.001
11-Dec-08	329																				
18-Dec-08	336	5.07	<0.0005	<0.0001	0.00013	<0.03	<0.00005	2.85	0.00119	<0.00001	0.00102	<0.0005	1.77	0.0014	0.193	<0.00001	35	0.000054	0.00304	<0.0005	<0.001
25-Dec-08	343																				
1-Jan-09	350	4.13	<0.0005	<0.0001	0.00064	<0.03	<0.00005	2.64	0.00457	<0.00001	0.000604	<0.0005	1.25	0.0012	0.125	<0.00001	20.4	<0.00005	0.00303	<0.0005	<0.001
8-Jan-09	357																				
15-Jan-09	364	6.85	<0.0005	<0.0001	0.00033	<0.03	<0.00005	5.07	0.00088	<0.00001	0.000532	<0.0005	1.69	<0.001	0.186	<0.00001	25	<0.00005	0.00324	<0.0005	0.0021
22-Jan-09	371																				
29-Jan-09	378	7.54	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	5.26	0.000747	<0.00001	0.000534	<0.0005	1.57	<0.001	0.167	<0.00001	20.2	<0.00005	0.00261	<0.0005	<0.001
5-Feb-09	385																				
12-Feb-09	392	7.02	<0.0005	<0.0001	0.00019	<0.03	<0.00005	5.88	0.000514	<0.00001	0.000621	<0.0005	1.68	<0.001	0.152	<0.00001	16.9	<0.00005	0.00308	<0.0005	<0.001
19-Feb-09	399																				
26-Feb-09	406	5.83	<0.0005	<0.0001	0.00043	<0.03	<0.00005	4.83	0.000468	<0.00001	0.00061	<0.0005	1.38	<0.001	0.135	<0.00001	18.6	<0.00005	0.00264	<0.0005	<0.001
5-Mar-09	413																				
12-Mar-09	420	6.2	<0.0005	<0.0001	0.00029	<0.03	<0.00005	4.38	0.000353	<0.00001	0.000494	<0.0005	1.41	<0.001	0.142	<0.00001	13.1	<0.00005	0.00328	<0.0005	<0.001
19-Mar-09	427																				
26-Mar-09	434	6.8	<0.0005	<0.0001	0.00016	<0.03	<0.00005	4.31	0.000502	<0.00001	0.000545	<0.0005	1.43	<0.001	0.147	<0.00001	11.7	<0.00005	0.00341	<0.0005	<0.001
2-Apr-09	441																				
9-Apr-09	448	8.39	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	6.73	0.000478	<0.00001	0.000624	<0.0005	1.57	<0.001	0.166	<0.00001	11.8	<0.00005	0.00386	<0.0005	<0.001
16-Apr-09	455																				
23-Apr-09	462																				
30-Apr-09	469																				
7-May-09	476	8.64	<0.0005	<0.0001	0.0003	<0.03	<0.00005	6.37	0.000546	<0.00001	0.000582	<0.0005	1.54	<0.001	0.178	<0.00001	8.5	<0.00005	0.0036	<0.0005	<0.001
14-May-09	483																				
21-May-09	490																				
28-May-09	497																				
4-Jun-09	504																				
11-Jun-09	511																				
18-Jun-09	518																				
25-Jun-09	525																				
2-Jul-09	532																				
9-Jul-09	539																				
16-Jul-09	546																				
23-Jul-09	553																				
30-Jul-09	560																				
6-Aug-09	567																				
13-Aug-09	574																				
20-Aug-09	581																				
27-Aug-09	588																				
3-Sep-09	595																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Sep-09	602	2500	2460	7.91	334	121																
17-Sep-09	609	2500	2290																			
24-Sep-09	616	2500	2560	7.84	332	123	<1	3.38	80	68		<0.5	0.044	4.94								
1-Oct-09	623	2500	2515																			
8-Oct-09	630	2500	2340	7.69	314	116																
15-Oct-09	637	2500	2475																			
22-Oct-09	644	2500	2370	7.82	291	126	<1	3.12	75.2	63		<0.5	0.049	5.92								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-08	0	2500	1860	8.14	402	1339	<1	3.23	101.5	878	86.9	0.99	0.18	472	0.132	0.00811	0.037	0.0298	<0.002	<0.005	0.11	<0.0005
22-Jan-08	7	2500	2600	7.84	457	989																
29-Jan-08	14	2500	2475	8.14	437	360	<1	2.94	96.6	224	13.1	<0.5	0.067	80.4	0.109	0.0073	0.0512	0.0328	<0.0002	<0.0005	0.039	<0.00005
5-Feb-08	21	2500	2905	8.23	433	257																
12-Feb-08	28	2500	2540	8.1	395	254	<1	4.5	91.8	155	12	<0.5	0.04	38.8	0.0773	0.0062	0.0345	0.0386	<0.0002	<0.0005	0.024	<0.00005
19-Feb-08	35	2500	2545	8.15	395	201																
26-Feb-08	42	2500	2605	8	404	181	<1	3.1	71.9	114	15	<0.5	<0.02	23.6	0.0557	0.00478	0.0225	0.051	<0.0002	<0.0005	0.017	<0.00005
4-Mar-08	49	2500	2570	7.91	405	156																
11-Mar-08	56	2500	2585	7.87	412	135	<1	2.98	56	79.8	21.9	<0.5	<0.02	15.8	0.0388	0.00378	0.0148	0.0757	<0.0002	<0.0005	0.01	<0.00005
18-Mar-08	63	2500	2575	7.84	405	132																
25-Mar-08	70	2500	2435	7.79	402	143	<1	2.96	59.7	72.2	36.2	<0.5	<0.02	17.1	0.0228	0.00373	0.00961	0.109	<0.0002	<0.0005	<0.01	<0.00005
1-Apr-08	77	2500	2535	7.85	405	126																
8-Apr-08	84	2500	2575	7.83	384	146	<1	2.89	57.4	74.2	47	<0.5	<0.02	14.8	0.021	0.00338	0.00756	0.131	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-08	91	2500	2670	7.68	388	118																
22-Apr-08	98	2500	2605	7.82	395	125	<1	3.18	53.7	75.7	47	<0.5	<0.02	12.6	0.0202	0.00304	0.00665	0.125	<0.0002	<0.0005	<0.01	<0.00005
29-Apr-08	105	2500	2645	7.89	375	110																
6-May-08	112	2500	2540	7.83	318	130	<1	3.52	52.3	68.9	53.9	<0.5	<0.02	13	0.0233	0.00305	0.00719	0.171	<0.0002	<0.0005	<0.01	<0.00005
13-May-08	119	2500	2480	7.81	293	112																
20-May-08	126	2500	2675	7.88	275	114	<1	2.68	45.2	66.9	46	<0.5	<0.02	10.8	0.0261	0.00259	0.00687	0.0949	<0.0002	<0.0005	<0.01	<0.00005
27-May-08	133	2500	2520	7.5	280	115																
3-Jun-08	140	2500	2495	7.73	395	92	<1	3.82	46.1	64.8	48.8	<0.5	<0.02	9.45	0.027	0.00258	0.00687	0.128	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-08	147	2500	2545	7.73	320	86																
17-Jun-08	154	2500	2320	7.69	244	81	<1	4.24	38.9	59	43.9	<0.5	<0.02	15.5	0.0275	0.00254	0.0064	0.0852	<0.0002	<0.0005	<0.01	<0.00005
24-Jun-08	161	2500	2400	7.73	248	72																
1-Jul-08	168	2500	2380	7.81	355	105	<1	3	42.5	62.2	50.2	<0.5	<0.02	12.7	0.0323	0.00298	0.00867	0.102	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-08	175	2500	2355	7.71	240	114																
15-Jul-08	182	2500	2280	7.77	326	101	<1	3.53	44.1	68.3	48.7	<0.5	<0.02	11.6	0.0305	0.00236	0.00725	0.0883	<0.0002	<0.0005	<0.01	<0.00005
22-Jul-08	189	2500	2200	7.74	351	95																
29-Jul-08	196	2500	2505	7.84	362	107	<1	3	49	49.3	47.1	<0.5	<0.02	10.4	0.0262	0.00214	0.00682	0.083	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-08	203	2500	2455	7.78	323	97																
12-Aug-08	210	2500	2355	7.83	268	101	<1	2.69	41.4	50.8	45.4	<0.5	<0.02	8.56	0.031	0.00197	0.00663	0.0714	<0.0002	<0.0005	<0.01	<0.00005
19-Aug-08	217	2500	2440	7.81	227	91																
26-Aug-08	224	2500	2380	7.75	241	91	<1	2.55	39.1	50.9	40.3	<0.5	<0.02	8.76	0.0394	0.00163	0.00545	0.0688	<0.0002	<0.0005	<0.01	<0.00005
2-Sep-08	231	2500	2360	7.8	243	91																
9-Sep-08	238	2500	2365	7.83	221	102	<1	2.13	46.3	54.3	44.6	<0.5	<0.02	8.79	0.0322	0.00177	0.00599	0.0727	<0.0002	<0.0005	<0.01	0.000082
16-Sep-08	245	2500	2390	7.82	229	97																
23-Sep-08	252	2500	2390	7.77	205	86	<1	3.06	42.4	54.6	44.6	<0.5	<0.02	8.46	0.0255	0.00162	0.00524	0.0693	<0.0002	<0.0005	<0.01	<0.00005
30-Sep-08	259	2500	2410	7.76	209	104																
7-Oct-08	266	2500	2390	7.79	335	102	<1	3.07	42.5	55.1	46.2	<0.5	<0.02	7.4	0.0236	0.00166	0.00522	0.0679	<0.0002	<0.0005	<0.01	<0.00005
14-Oct-08	273	2500	2355	7.58	332	93																
21-Oct-08	280	2500	2415	7.72	375	98	<1	2.98	44.4	61.8	46.5	<0.5	<0.02	7.74	0.0229	0.0015	0.00472	0.0664	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-08	287	2500	2365	7.72	403	93																
4-Nov-08	294	2500	2370	7.49	387	98	<1	3.85	42.5	55.6	46.5	<0.5	<0.02	6.99	0.024	0.00135	0.00429	0.065	<0.0002	<0.0005	<0.01	<0.00005
11-Nov-08	301	2500	2395	7.59	387	87																
18-Nov-08	308	2500	2360	7.73	387	83	<1	2.88	46	53	47.4	<0.5	<0.02	6.79	0.024	0.00155	0.00464	0.0632	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-08	315	2500	2365	7.82	334	86																
2-Dec-08	322	2500	2440	7.69	309	87	<1	2.86	47.1	53.1	42.2	<0.5	<0.02	6.35	0.0254	0.0012	0.00361	0.0602	<0.0002	<0.0005	<0.01	<0.00005
9-Dec-08	329	2500	2325	7.75	250	96																
16-Dec-08	336	2500	2200	7.66	204	105	<1	5.71	59.3	57.5	51.5	<0.5	<0.02	6.83	0.0176	0.00126	0.00347	0.0647	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Sep-09	602																				
17-Sep-09	609																				
24-Sep-09	616																				
1-Oct-09	623																				
8-Oct-09	630																				
15-Oct-09	637																				
22-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-08	0	28.2	<0.005	0.0013	0.0103	<0.03	<0.0005	4.04	0.0448	<0.00001	0.112	<0.005	4.24	0.076	2.37	<0.0001	241	<0.0005	<0.001	<0.005	<0.01
22-Jan-08	7																				
29-Jan-08	14	4.39	<0.0005	<0.0001	0.00207	<0.03	<0.00005	0.513	0.00847	<0.00001	0.046	<0.0005	1.65	0.0075	1.98	<0.00001	75	<0.00005	0.00025	0.00378	0.0013
5-Feb-08	21																				
12-Feb-08	28	4.06	<0.0005	<0.0001	0.00135	<0.03	<0.00005	0.455	0.00769	<0.00001	0.0362	<0.0005	1.48	0.0027	1.54	<0.00001	50.2	<0.00005	0.00012	0.00208	<0.001
19-Feb-08	35																				
26-Feb-08	42	5.12	<0.0005	<0.0001	0.00084	<0.03	<0.00005	0.54	0.011	<0.00001	0.0299	<0.0005	1.85	0.0015	1.34	<0.00001	35	<0.00005	0.00025	0.00143	<0.001
4-Mar-08	49																				
11-Mar-08	56	7.41	<0.0005	<0.0001	0.00139	<0.03	<0.00005	0.834	0.0123	<0.00001	0.0223	<0.0005	1.95	0.0014	1.32	<0.00001	22	<0.00005	0.00081	0.0009	<0.001
18-Mar-08	63																				
25-Mar-08	70	12.2	<0.0005	0.00017	0.00113	<0.03	<0.00005	1.42	0.0207	<0.00001	0.0227	<0.0005	2.3	0.0012	1.32	<0.00001	14.8	<0.00005	0.00016	0.00059	<0.001
1-Apr-08	77																				
8-Apr-08	84	15.7	<0.0005	0.00021	0.00145	<0.03	<0.00005	1.88	0.0249	<0.00001	0.0216	<0.0005	2.54	<0.001	1.27	<0.00001	8.7	<0.00005	0.00021	<0.0005	<0.001
15-Apr-08	91																				
22-Apr-08	98	16	<0.0005	0.00021	0.00097	<0.03	0.000065	1.71	0.0288	<0.00001	0.0209	<0.0005	2.04	<0.001	1.14	<0.00001	4.8	<0.00005	0.00033	<0.0005	0.0046
29-Apr-08	105																				
6-May-08	112	17.7	<0.0005	0.00023	0.00057	<0.03	<0.00005	2.4	0.0309	<0.00001	0.0216	<0.0005	2.25	0.0011	1.15	<0.00001	3.3	<0.00005	0.00046	<0.0005	0.0011
13-May-08	119																				
20-May-08	126	15.6	<0.0005	0.00015	0.0008	<0.03	<0.00005	1.72	0.0213	<0.00001	0.0178	<0.0005	1.75	<0.001	1.15	<0.00001	2	<0.00005	0.00058	0.00058	<0.001
27-May-08	133																				
3-Jun-08	140	16.4	<0.0005	0.0002	0.00128	<0.03	<0.00005	1.93	0.0254	<0.00001	0.0171	<0.0005	1.71	<0.001	1.07	<0.00001	<2	<0.00005	0.0007	<0.0005	<0.001
10-Jun-08	147																				
17-Jun-08	154	14.9	<0.0005	0.00017	0.00139	<0.03	0.000196	1.61	0.022	0.000013	0.018	<0.0005	1.51	<0.001	0.953	<0.00001	2.5	<0.00005	0.00246	0.00054	0.0021
24-Jun-08	161																				
1-Jul-08	168	17	<0.0005	0.00014	0.00103	<0.03	<0.00005	1.89	0.0215	<0.00001	0.0179	<0.0005	2.1	<0.001	1.32	<0.00001	<2	<0.00005	0.00053	0.00058	<0.001
8-Jul-08	175																				
15-Jul-08	182	16.4	<0.0005	0.00014	0.00212	<0.03	<0.00005	1.88	0.0199	<0.00001	0.0166	<0.0005	1.77	<0.001	1.14	<0.00001	<2	<0.00005	0.00097	<0.0005	<0.001
22-Jul-08	189																				
29-Jul-08	196	15.9	<0.0005	0.00014	0.00041	<0.03	<0.00005	1.82	0.02	<0.00001	0.0146	<0.0005	1.52	<0.001	1.03	<0.00001	<2	<0.00005	0.00128	<0.0005	<0.001
5-Aug-08	203																				
12-Aug-08	210	15.4	<0.0005	0.00012	0.00104	<0.03	<0.00005	1.72	0.0177	<0.00001	0.0118	<0.0005	1.54	<0.001	0.979	<0.00001	<2	<0.00005	0.00126	<0.0005	<0.001
19-Aug-08	217																				
26-Aug-08	224	13.5	<0.0005	0.00011	0.00082	<0.03	<0.00005	1.59	0.0175	<0.00001	0.0115	<0.0005	1.15	<0.001	0.784	<0.00001	<2	<0.00005	0.00169	<0.0005	<0.001
2-Sep-08	231																				
9-Sep-08	238	14.8	<0.0005	0.00011	0.00069	<0.03	<0.00005	1.88	0.0195	<0.00001	0.0111	<0.0005	1.33	<0.001	0.956	<0.00001	<2	<0.00005	0.00173	<0.0005	<0.001
16-Sep-08	245																				
23-Sep-08	252	15	<0.0005	0.00011	0.00049	<0.03	<0.00005	1.71	0.0187	<0.00001	0.0106	<0.0005	1.11	<0.001	0.921	<0.00001	<2	<0.00005	0.00131	<0.0005	<0.001
30-Sep-08	259																				
7-Oct-08	266	15.8	<0.0005	0.00012	0.00078	<0.03	<0.00005	1.64	0.0212	<0.00001	0.00986	<0.0005	1.1	<0.001	0.877	<0.00001	<2	<0.00005	0.00119	<0.0005	<0.001
14-Oct-08	273																				
21-Oct-08	280	15.8	<0.0005	0.00011	0.00082	<0.03	<0.00005	1.68	0.0213	<0.00001	0.00925	<0.0005	1.11	<0.001	0.856	<0.00001	<2	<0.00005	0.00158	<0.0005	<0.001
28-Oct-08	287																				
4-Nov-08	294	16	<0.0005	0.00012	0.00031	<0.03	<0.00005	1.6	0.0228	<0.00001	0.00764	<0.0005	1.02	<0.001	0.771	<0.00001	<2	<0.00005	0.00224	<0.0005	<0.001
11-Nov-08	301																				
18-Nov-08	308	16.4	<0.0005	0.00013	0.00023	<0.03	<0.00005	1.54	0.0245	<0.00001	0.0084	<0.0005	1.07	<0.001	0.805	<0.00001	<2	<0.00005	0.00185	<0.0005	<0.001
25-Nov-08	315																				
2-Dec-08	322	14.5	<0.0005	0.00011	0.00097	<0.03	<0.00005	1.46	0.0218	<0.00001	0.00724	<0.0005	0.859	<0.001	0.688	<0.00001	<2	<0.00005	0.00268	<0.0005	<0.001
9-Dec-08	329																				
16-Dec-08	336	18.1	<0.0005	0.00013	0.00066	<0.03	<0.00005	1.52	0.028	<0.00001	0.0073	<0.0005	0.878	<0.001	0.755	<0.00001	<2	<0.00005	0.00147	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Dec-08	343	2500	2400	7.61	274	111																
30-Dec-08	350	2500	2570	7.56	263	85	<1	8.42	48.9	48.7	43.2	0.6	0.051	6.61	0.0246	0.00112	0.00345	0.0737	<0.0002	<0.0005	<0.01	<0.00005
6-Jan-09	357	2500	2400	7.79	205	137																
13-Jan-09	364	2500	2420	7.65	217	113	<1	6.14	61.5	64.3	56.6	<0.5	<0.02	6.03	0.0169	0.00118	0.00312	0.0759	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-09	371	2500	2420	7.72	354	98																
27-Jan-09	378	2500	2480	7.65	306	127	<1	5.29	73.3	72.3	64.6	<0.5	<0.02	5.69	0.0143	0.00109	0.003	0.112	<0.0002	<0.0005	<0.01	<0.00005
3-Feb-09	385	2500	2455	7.63	333	112																
10-Feb-09	392	2500	2325	7.58	295	99	<1	7.16	53.4	58.1	49.6	<0.5	<0.02	6.49	0.0221	0.00112	0.00314	0.0799	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-09	399	2500	2505	7.75	393	62																
24-Feb-09	406	2500	2365	7.63	364	60	<1	4.76	35.8	35.7	31	<0.5	<0.02	3.78	0.0238	0.000526	0.00198	0.0521	<0.0002	<0.0005	<0.01	<0.00005
3-Mar-09	413	2500	2455	7.37	146	36																
10-Mar-09	420	2500	2585	7.55	161	85	<1	3.83	44.8	37	43.4	<0.5	<0.02	6.71	0.019	0.000736	0.00236	0.0609	<0.0002	<0.0005	<0.01	<0.00005
17-Mar-09	427	2500	2550	7.54	189	69																
24-Mar-09	434	2500	2150	7.56	316	78	<1	3.47	39.6	50.3	39	<0.5	<0.02	6.38	0.0205	0.000615	0.00207	0.0532	<0.0002	<0.0005	<0.01	<0.00005
31-Mar-09	441	2500	2595	7.51	256	54																
7-Apr-09	448	2500	2520	7.44	320	67	<1	3.49	35.1	35.5	32.8	<0.5	<0.02	5.35	0.038	0.000438	0.00232	0.0463	<0.0002	<0.0005	<0.01	<0.00005
14-Apr-09	455	2500	2380	7.28	375	42																
21-Apr-09	462	2500	2470	7.49	344	70																
28-Apr-09	469	2500	2560																			
5-May-09	476	2500	2515	7.55	320	84	<1	3.33	41.2	46.8	41.2	<0.5	<0.02	7.3	0.0244	0.000742	0.00322	0.0613	<0.0002	<0.0005	<0.01	<0.00005
12-May-09	483	2500	2530																			
19-May-09	490	2500	2560	7.57	293	60																
26-May-09	497	2500	2515																			
2-Jun-09	504	2500	2520	7.57	290	66	<1	3.88	40.1	33.6		<0.5	<0.02	8.41								
9-Jun-09	511	2500	2470																			
16-Jun-09	518	2500	2585	7.48	363	50																
23-Jun-09	525	2500	2485																			
30-Jun-09	532	2500	2600	7.72	270	73	<1	2.92	44.9	51		<0.5	<0.02	9.49								
7-Jul-09	539	2500	2375																			
14-Jul-09	546	2500	2450	7.75	331	73																
21-Jul-09	553	2500	2545																			
28-Jul-09	560	2500	2595	7.44	361	70	<1	4.55	35.8	37.9		<0.5	<0.02	8.71								
4-Aug-09	567	2500	2490																			
11-Aug-09	574	2500	2545	7.36	305	77																
18-Aug-09	581	2500	2505																			
25-Aug-09	588	2500	2550	7.65	279	66	<1	2.76	33.1	31.3		<0.5	<0.02	8.37								
1-Sep-09	595	2500	2560																			
8-Sep-09	602	2500	2535	7.4	307	75																
15-Sep-09	609	2500	2610																			
22-Sep-09	616	2500	2500	7.48	313	79	<1	5.37	42.9	48		<0.5	<0.02	8.36								
29-Sep-09	623	2500	2570																			
6-Oct-09	630	2500	2595	7.5	265	77																
13-Oct-09	637	2500	2480																			
20-Oct-09	644	2500	2650	7.58	292	68	<1	3.66	37.3	44		<0.5	<0.02	5.71								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
20-Nov-08	0	2500	1970	4.35	299	5087	8.75	259.33	<1	4970	2020	<500	<20	3070	14.4	0.00034	0.00169	0.0104	0.0203	<0.0025	0.054	0.0283
27-Nov-08	7	2500	2380	4.94	284	3141																
4-Dec-08	14	2500	2385	4.65	372	2608	<1	15.78	<1	2630	1570	<50	<2	1770	0.784	<0.0005	<0.001	0.013	<0.002	<0.005	<0.1	0.00367
11-Dec-08	21	2500	2630																			
18-Dec-08	28	2500	2410	4.38	409	2377	2.12	20.26	<1	2250	1490	<50	<2	1430	0.778	<0.0005	<0.001	0.0168	<0.002	<0.005	<0.1	0.00239
25-Dec-08	35	2500	2450	5.04	380	2049																
1-Jan-09	42	2500	2340	5.79	263	1470	<1	25.46	3.2	1350	961	<2.5	0.14	895	0.561	<0.00025	<0.0005	0.0263	0.0011	<0.0025	<0.05	0.00126
8-Jan-09	49	2500	2195	4.82	388	1646																
15-Jan-09	56	2500	2595	5.59	421	1428	<1	10.43	1.1	1270	952	<0.5	0.112	821	0.236	<0.00025	<0.0005	0.0337	<0.001	<0.0025	<0.05	0.00117
22-Jan-09	63	2500	2470	5.48	392	1241																
29-Jan-09	70	2500	2365	5.5	410	1186	<1	15.27	1.9	1000	723	<0.5	0.135	672	0.317	<0.00025	<0.0005	0.0314	<0.001	<0.0025	<0.05	0.00104
5-Feb-09	77	2500	2400	5.09	345	1022																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Dec-08	343																				
30-Dec-08	350	15	<0.0005	0.00012	0.00063	<0.03	<0.00005	1.42	0.0215	<0.00001	0.00756	<0.0005	0.742	<0.001	0.639	<0.00001	<2	<0.00005	0.00233	<0.0005	<0.001
6-Jan-09	357																				
13-Jan-09	364	19.5	<0.0005	0.00018	0.00075	<0.03	<0.00005	1.93	0.0325	<0.00001	0.00682	<0.0005	1.02	<0.001	0.823	<0.00001	<2	<0.00005	0.00184	<0.0005	0.0016
20-Jan-09	371																				
27-Jan-09	378	22.3	<0.0005	0.00021	0.00045	<0.03	<0.00005	2.18	0.0393	<0.00001	0.00544	<0.0005	1.05	<0.001	0.838	<0.00001	<2	<0.00005	0.0022	<0.0005	<0.001
3-Feb-09	385																				
10-Feb-09	392	17	<0.0005	0.00011	0.00026	<0.03	<0.00005	1.74	0.0233	<0.00001	0.00676	<0.0005	0.821	<0.001	0.761	<0.00001	<2	<0.00005	0.00277	<0.0005	<0.001
17-Feb-09	399																				
24-Feb-09	406	10.7	<0.0005	<0.0001	0.00017	<0.03	<0.00005	1.05	0.0149	<0.00001	0.00371	<0.0005	0.474	<0.001	0.413	<0.00001	<2	<0.00005	0.00379	<0.0005	<0.001
3-Mar-09	413																				
10-Mar-09	420	15.2	<0.0005	<0.0001	0.00024	<0.03	<0.00005	1.31	0.0241	<0.00001	0.00556	<0.0005	0.628	<0.001	0.546	<0.00001	<2	<0.00005	0.00288	<0.0005	<0.001
17-Mar-09	427																				
24-Mar-09	434	13.9	<0.0005	<0.0001	0.00024	<0.03	<0.00005	1.04	0.0164	<0.00001	0.00554	<0.0005	0.496	<0.001	0.49	<0.00001	<2	<0.00005	0.00339	<0.0005	<0.001
31-Mar-09	441																				
7-Apr-09	448	11.6	<0.0005	<0.0001	0.0004	<0.03	<0.00005	0.899	0.014	<0.00001	0.00396	<0.0005	0.449	<0.001	0.422	<0.00001	<2	<0.00005	0.0044	<0.0005	<0.001
14-Apr-09	455																				
21-Apr-09	462																				
28-Apr-09	469																				
5-May-09	476	14.5	<0.0005	<0.0001	0.0003	<0.03	0.000095	1.18	0.0147	<0.00001	0.00637	<0.0005	0.705	<0.001	0.623	<0.00001	<2	<0.00005	0.00266	<0.0005	<0.001
12-May-09	483																				
19-May-09	490																				
26-May-09	497																				
2-Jun-09	504																				
9-Jun-09	511																				
16-Jun-09	518																				
23-Jun-09	525																				
30-Jun-09	532																				
7-Jul-09	539																				
14-Jul-09	546																				
21-Jul-09	553																				
28-Jul-09	560																				
4-Aug-09	567																				
11-Aug-09	574																				
18-Aug-09	581																				
25-Aug-09	588																				
1-Sep-09	595																				
8-Sep-09	602																				
15-Sep-09	609																				
22-Sep-09	616																				
29-Sep-09	623																				
6-Oct-09	630																				
13-Oct-09	637																				
20-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Nov-08	0	492	<0.0025	1.48	0.194	56.2	0.00172	192	20.2	<0.00001	0.0004	1.98	5.1	0.0959	7.25	<0.00005	488	<0.00025	<0.0005	<0.0025	0.635
27-Nov-08	7																				
4-Dec-08	14	528	<0.005	0.0849	0.0068	0.656	<0.0005	61.3	6.05	<0.00001	<0.0005	0.0997	3.46	0.042	4.51	<0.0001	51.6	<0.0005	<0.001	<0.005	0.012
11-Dec-08	21																				
18-Dec-08	28	553	<0.005	0.0502	0.0076	0.929	0.00308	25.8	3.22	<0.00001	<0.0005	0.0569	2.4	0.03	5.56	<0.0001	11.7	<0.0005	<0.001	<0.005	<0.01
25-Dec-08	35																				
1-Jan-09	42	362	<0.0025	0.0347	0.0149	0.761	0.00198	14	2.2	<0.00001	<0.00025	0.0355	1.35	0.0165	3.6	<0.00005	3.5	<0.00025	<0.0005	<0.0025	0.009
8-Jan-09	49																				
15-Jan-09	56	359	<0.0025	0.0288	0.00708	0.214	0.0007	13.4	2.34	<0.00001	<0.00025	0.0354	1.61	0.0173	4.93	<0.00005	2	<0.00025	<0.0005	<0.0025	<0.005
22-Jan-09	63																				
29-Jan-09	70	274	<0.0025	0.0315	0.00656	0.369	0.00112	9.54	2.42	<0.00001	<0.00025	0.0374	1.27	0.0136	4.88	<0.00005	<2	<0.00025	<0.0005	<0.0025	<0.005
5-Feb-09	77																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
12-Feb-09	84	2500	2385	4.87	416	1076	<1	11.78	<1	1110	682	<0.5	0.167	614	0.434	<0.00025	<0.0005	0.0292	0.0016	<0.0025	<0.05	0.00099
19-Feb-09	91	2500	2360	5.12	469	1029																
26-Feb-09	98	2500	2430	5.28	342	976	<1	17.17	<1	323	576	<0.5	0.134	565	0.482	<0.00025	<0.0005	0.0298	0.001	<0.0025	<0.05	0.00092
5-Mar-09	105	2500	2370	4.75	278	974																
12-Mar-09	112	2500	2500	4.94	298	895	<1	10.44	<1	769	562	<0.5	0.177	506	0.414	<0.00025	<0.0005	0.0278	<0.001	<0.0025	<0.05	0.00087
19-Mar-09	119	2500	2590	5.37	333	501																
26-Mar-09	126	2500	2430	4.64	432	788	<1	13.36	<1	680	444	<0.5	0.169	434	0.398	<0.0001	0.0004	0.0315	0.00123	<0.001	<0.02	0.00079
2-Apr-09	133	2500	2390	4.61	421	835																
9-Apr-09	140	2500	2530	4.45	449	817	1.12	14.34	<1	542	470	<0.5	0.261	452	0.652	<0.0001	<0.0002	0.0288	0.00145	<0.001	<0.02	0.00093
16-Apr-09	147	2500	2375	4.29	479	844																
23-Apr-09	154	2500	2400	4.27	459	798																
30-Apr-09	161	2500	2505																			
7-May-09	168	2500	2415	4.19	461	812	2.91	18.99	<1	612	448	<0.5	0.349	443	0.819	<0.0001	0.00024	0.0279	0.00227	<0.001	<0.02	0.0011
14-May-09	175	2500	2440																			
21-May-09	182	2500	2415	4.28	458	786																
28-May-09	189	2500	2355																			
4-Jun-09	196	2500	2695	4.22	506	826	5.13	25.68	<1	704	491	<0.5	0.553	472	1.32	<0.0001	0.00026	0.0272	0.00312	<0.001	<0.02	0.00134
11-Jun-09	203	2500	2500																			
18-Jun-09	210	2500	2480	4.34	465	725																
25-Jun-09	217	2500	2580																			
2-Jul-09	224	2500	2510	4.18	405	709	3.58	19.92	<1	577	382	<0.5	0.553	375	0.89	<0.0001	<0.0002	0.0235	0.00234	<0.001	<0.02	0.00113
9-Jul-09	231	2500	2410																			
16-Jul-09	238	2500	2410	4.28	462	635																
23-Jul-09	245	2500	2445																			
30-Jul-09	252	2500	2335	3.99	406	750	8.43	35.33	<1	659	407	<0.5	0.774	414	1.42	<0.0001	0.00039	0.025	0.0034	<0.001	<0.02	0.00143
6-Aug-09	259	2500	2615																			
13-Aug-09	266	2500	2460	4.2	349	659																
20-Aug-09	273	2500	2385																			
27-Aug-09	280	2500	2450	4.1	359	672	5.36	28.94	<1	553	372	<2.5	0.37	374	1.52	<0.00025	<0.0005	0.0242	0.0038	<0.0025	<0.05	0.00143
3-Sep-09	287	2500	2350																			
10-Sep-09	294	2500	2505	4.12	374	665																
17-Sep-09	301	2500	2390																			
24-Sep-09	308	2500	2465	4.03	401	653	6.56	30.6	<1	543	347	<2.5	0.56	338	1.26	<0.0001	0.00023	0.0213	0.00305	<0.001	<0.02	0.00125
1-Oct-09	315	2500	2475																			
8-Oct-09	322	2500	2450	4.14	421	633																
15-Oct-09	329	2500	2390																			
22-Oct-09	336	2500	2471	3.93	343	623	7.61	34.47	<1	488	316	<2.5	0.59	318	1.45	<0.0001	0.00036	0.0227	0.00345	<0.001	<0.02	0.00125
29-Oct-09	343	2500	2445																			
5-Nov-09	350	2500	2300	3.86	391	661																
12-Nov-09	357	2500	2515																			
19-Nov-09	364	2500	2525	3.93	412	570	7.73	33.42	<1	416	262	<0.5	0.554	277	1.18	<0.0001	0.00025	0.0201	0.00263	<0.001	<0.02	0.00109
26-Nov-09	371	2500	2475																			
3-Dec-09	378	2500	2390	3.84	367	638																
10-Dec-09	385	2500	2470																			
17-Dec-09	392	2500	2465	3.96	414	570	7.93	32.65	<1	410	277	<5	0.6	268	1.36	<0.0001	0.00024	0.0212	0.00324	<0.001	<0.02	0.00114
24-Dec-09	399	2500	2550																			
31-Dec-09	406	2500	2435	3.71	425	593																
7-Jan-10	413	2500	2490																			
14-Jan-10	420	2500	2370	3.59	390	675	17.96	62.32	<1	501	356	<10	0.71	304	1.67	<0.0001	0.00042	0.0201	0.00367	<0.001	<0.02	0.00147
21-Jan-10	427	2500	2390																			
28-Jan-10	434	2500	2460	3.75	458	723																
4-Feb-10	441	2500	2475																			
11-Feb-10	448	2500	2485	3.57	409	590	13.31	38.83	<1	441	286	<10	<0.4	278	1.5	<0.0001	0.00027	0.0196	0.00315	<0.001	<0.02	0.00131
18-Feb-10	455	2500	2460																			
25-Feb-10	462	2500	2435	3.48	407	696																
4-Mar-10	469	2500	2405																			
11-Mar-10	476	2500	2360	3.54	406	597	16.74	46.08	<1	430	274	<10	0.64	295	1.79	<0.0001	<0.0002	0.0191	0.00348	<0.001	<0.02	0.0014
18-Mar-10	483	2500	2450																			
25-Mar-10	490	2500	2425	3.54	399	578																
1-Apr-10	497	2500	2480																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
12-Feb-09	84	260	<0.0025	0.0381	0.00895	0.74	0.00178	7.67	2.23	<0.00001	<0.00025	0.0392	1.22	0.012	5.59	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.0088
19-Feb-09	91																				
26-Feb-09	98	220	<0.0025	0.0405	0.00932	0.612	0.00078	6.75	2.33	<0.00001	<0.00025	0.0428	1.11	0.0105	5.1	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.0092
5-Mar-09	105																				
12-Mar-09	112	217	<0.0025	0.042	0.0127	0.615	0.00073	4.85	1.72	<0.00001	<0.00025	0.0472	0.98	0.0097	5.12	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.0105
19-Mar-09	119																				
26-Mar-09	126	172	<0.001	0.0405	0.0136	0.838	0.00079	3.4	1.35	<0.00001	<0.0001	0.045	0.9	0.008	4.78	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0117
2-Apr-09	133																				
9-Apr-09	140	181	<0.001	0.0525	0.0134	1.03	0.00137	4.3	1.9	<0.00001	<0.0001	0.0564	0.98	0.0091	5.29	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0151
16-Apr-09	147																				
23-Apr-09	154																				
30-Apr-09	161																				
7-May-09	168	173	<0.001	0.0696	0.0211	2.01	0.00083	3.75	1.68	<0.00001	<0.0001	0.0699	1.06	0.0095	5.74	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0212
14-May-09	175																				
21-May-09	182																				
28-May-09	189																				
4-Jun-09	196	189	<0.001	0.0922	0.0293	2.42	0.00096	4.41	2.57	<0.00001	<0.0001	0.0926	1.09	0.0098	6.66	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0269
11-Jun-09	203																				
18-Jun-09	210																				
25-Jun-09	217																				
2-Jul-09	224	147	<0.001	0.0705	0.0233	1.88	0.00046	3.34	1.61	<0.00001	<0.0001	0.077	0.77	0.0076	5.55	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0241
9-Jul-09	231																				
16-Jul-09	238																				
23-Jul-09	245																				
30-Jul-09	252	156	<0.001	0.0895	0.0366	3.57	0.0006	4.31	2.37	<0.00001	<0.0001	0.0949	0.95	0.008	7.01	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0376
6-Aug-09	259																				
13-Aug-09	266																				
20-Aug-09	273																				
27-Aug-09	280	141	<0.0025	0.0942	0.0354	3.11	0.00054	4.79	2.22	<0.00001	<0.00025	0.0975	0.89	0.0069	6.45	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.0392
3-Sep-09	287																				
10-Sep-09	294																				
17-Sep-09	301																				
24-Sep-09	308	133	<0.001	0.0813	0.0333	3.61	0.0006	3.82	1.78	<0.00001	<0.0001	0.0867	0.71	0.0058	6.8	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0372
1-Oct-09	315																				
8-Oct-09	322																				
15-Oct-09	329																				
22-Oct-09	336	120	<0.001	0.0847	0.0397	4.37	0.00085	4.05	1.69	<0.00001	<0.0001	0.0924	0.71	0.0058	6.93	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0448
29-Oct-09	343																				
5-Nov-09	350																				
12-Nov-09	357																				
19-Nov-09	364	99.4	<0.001	0.0717	0.0349	3.32	0.00056	3.36	1.4	<0.00001	<0.0001	0.078	0.57	0.0046	5.8	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0386
26-Nov-09	371																				
3-Dec-09	378																				
10-Dec-09	385																				
17-Dec-09	392	105	<0.001	0.0807	0.0405	3.98	0.00049	3.52	1.48	<0.00001	<0.0001	0.0874	0.6	0.0046	6.26	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0437
24-Dec-09	399																				
31-Dec-09	406																				
7-Jan-10	413																				
14-Jan-10	420	136	<0.001	0.0984	0.0531	6.51	0.00053	4.19	1.69	<0.00001	<0.0001	0.106	0.6	0.0053	7.57	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0626
21-Jan-10	427																				
28-Jan-10	434																				
4-Feb-10	441																				
11-Feb-10	448	108	<0.001	0.0838	0.0448	4.83	0.00056	4.07	1.45	<0.00001	<0.0001	0.088	0.57	0.0045	6.46	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0836
18-Feb-10	455																				
25-Feb-10	462																				
4-Mar-10	469																				
11-Mar-10	476	102	<0.001	0.0935	0.053	5.97	0.00095	4.59	1.51	<0.00001	<0.0001	0.0984	0.58	0.0047	6.74	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0649
18-Mar-10	483																				
25-Mar-10	490																				
1-Apr-10	497																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Apr-10	504	2500	2425	3.58	387	560	15.43	44.55	<1	400	245	<10	0.62	261	1.69	<0.0001	0.00027	0.0192	0.00364	<0.001	<0.02	0.00126
15-Apr-10	511	2500	2380																			
22-Apr-10	518	2500	2415	3.47	395	619																
29-Apr-10	525	2500	2455																			
6-May-10	532	2500	2420	3.64	390	612	17.07	51.34	<1	432	321	<10	0.61	283	1.85	<0.00005	0.0003	0.0183	0.00392	<0.0005	<0.01	0.00143
13-May-10	539	2500	2505																			
20-May-10	546	2500	2475	3.36	407	625																
27-May-10	553	2500	2470																			
3-Jun-10	560	2500	2385	3.34	421	602	22.95	59.22	<1	416	254	<5	0.77	283	2.37	<0.0001	0.00029	0.019	0.00441	<0.001	<0.02	0.00143
10-Jun-10	567	2500	2480																			
17-Jun-10	574	2500	2465	3.42	398	590																
24-Jun-10	581	2500	2405																			
1-Jul-10	588	2500	2465	3.61	398	595	19.86	60.13	<1	450	236	<5	0.5	278	2.6	<0.00005	0.00047	0.0167	0.00417	<0.0005	<0.01	0.00147
8-Jul-10	595	2500	2450																			
15-Jul-10	602	2500	2470	3.37	448	610																
22-Jul-10	609	2500	2475																			
29-Jul-10	616	2500	2475	3.35	461	604	26.23	71.12	<1	457	239	<5	0.78	285	2.4	<0.00005	0.00029	0.0176	0.00381	<0.0005	<0.01	0.00143
5-Aug-10	623	2500	2470																			
12-Aug-10	630	2500	2455	3.68	348	581																
19-Aug-10	637	2500	2495																			
26-Aug-10	644	2500	2440	3.56	394	583	22.69	64.51	<1	445	226	<5	0.66	268	2.24	<0.00005	0.00035	0.018	0.00339	<0.0005	<0.01	0.00141
2-Sep-10	651	2500	2465																			
9-Sep-10	658	2500	2505	3.43	385	573																
16-Sep-10	665	2500	2525																			
23-Sep-10	672	2500	2375	3.44	367	481	25.49	65.07	<1	396	210	<5	0.7	250	2.78	<0.00005	0.00038	0.0199	0.00379	<0.0005	<0.01	0.00134
30-Sep-10	679	2500	2475																			
7-Oct-10	686	2500	2375	3.33	381	623																
14-Oct-10	693	2500	2495																			
21-Oct-10	700	2500	2430	3.31	395	581	28.39	71.92	<1	405	202	<5	0.89	253	3.05	<0.00005	0.00028	0.0167	0.00334	<0.0005	<0.01	0.00132
28-Oct-10	707	2500	2435																			
4-Nov-10	714	2500	2555	3.62	305	579																
11-Nov-10	721	2500	2445																			
18-Nov-10	728	2500	2455	3.7	285	561	19.61	63.82	<1	334	191	<5	0.72	230	3.09	<0.00005	0.00033	0.0179	0.00326	<0.0005	<0.01	0.00129
25-Nov-10	735	2500	2485																			
2-Dec-10	742	2500	2475	3.63	369	487																
9-Dec-10	749	2500	2450																			
16-Dec-10	756	2500	2520	3.43	459	495	22.55	61.88	<1	332	172	<5	0.56	220	3.12	<0.00005	0.00053	0.0207	0.00312	<0.0005	<0.01	0.00117
23-Dec-10	763	2500	2500																			
30-Dec-10	770	2500	2485	3.48	427	511																
6-Jan-11	777	2500	2420																			
13-Jan-11	784	2500	2505	3.49	394	418	26.68	63.14	<1	326	178	<5	0.51	219	2.86	<0.00005	0.00083	0.0197	0.00274	<0.0005	<0.01	0.00119
20-Jan-11	791	2500	2390																			
27-Jan-11	798	2500	2565	3.37	410	488																
3-Feb-11	805	2500	2545																			
10-Feb-11	812	2500	2365	3.43	405	519	34.52	70.06	<1	428	217	<5	0.69	265	5	0.000226	0.0009	0.0188	0.0042	<0.0005	<0.01	0.00181
17-Feb-11	819	2500	2420																			
24-Feb-11	826	2500	2490	3.5	442	567																
3-Mar-11	833	2500	2535																			
10-Mar-11	840	2500	2505	3.44	467	609	31.66	64.06	<1	355	192	<5	0.69	244	4.43	<0.00005	0.00059	0.0191	0.00358	<0.0005	<0.01	0.00141
17-Mar-11	847	2500	2510																			
24-Mar-11	854	2500	2480	3.44	471	550																
31-Mar-11	861	2500	2390																			
7-Apr-11	868	2500	2520	3.54	467	561	25.47	58.56	<1	327	172	<5	0.61	216	4.39	<0.00005	0.0006	0.0186	0.00321	<0.0005	<0.01	0.00118
14-Apr-11	875	2500	2420																			
21-Apr-11	882	2500	2460	3.37	451	613																
28-Apr-11	889	2500	2510																			
5-May-11	896	2500	2550	3.43	492	563	33.1	67.75	<1	372	166	<5	0.69	210	4.32	<0.00005	0.00081	0.0197	0.00337	<0.0005	<0.01	0.00117
12-May-11	903	2500	2505																			
19-May-11	910	2500	2435	3.49	483	579																
26-May-11	917	2500	2445																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Apr-10	504	90.6	<0.001	0.0835	0.0501	6.51	0.00719	4.53	1.39	<0.00001	<0.0001	0.0883	0.58	0.0039	6.98	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0627
15-Apr-10	511																				
22-Apr-10	518																				
29-Apr-10	525																				
6-May-10	532	121	<0.0005	0.0917	0.0515	8.05	0.00384	4.68	1.33	<0.00001	<0.00005	0.0939	0.552	0.0045	8.63	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0756
13-May-10	539																				
20-May-10	546																				
27-May-10	553																				
3-Jun-10	560	92.5	<0.001	0.101	0.0639	9.56	0.00031	5.62	1.47	<0.00001	<0.0001	0.105	0.54	0.0046	7.92	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0811
10-Jun-10	567																				
17-Jun-10	574																				
24-Jun-10	581																				
1-Jul-10	588	84.8	<0.0005	0.0953	0.0628	11.1	0.000259	5.91	1.39	<0.00001	<0.00005	0.0977	0.568	0.0048	8.24	<0.00001	<2	<0.00005	0.00014	<0.0005	0.0877
8-Jul-10	595																				
15-Jul-10	602																				
22-Jul-10	609																				
29-Jul-10	616	86.6	<0.0005	0.0858	0.0591	11.3	0.00601	5.48	1.16	<0.00001	<0.00005	0.0901	0.506	0.004	8.72	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0837
5-Aug-10	623																				
12-Aug-10	630																				
19-Aug-10	637																				
26-Aug-10	644	82	<0.0005	0.0849	0.056	10	0.000283	5.15	1.18	<0.00001	<0.00005	0.0906	0.515	0.0044	8.44	<0.00001	<2	<0.00005	0.00011	<0.0005	0.0907
2-Sep-10	651																				
9-Sep-10	658																				
16-Sep-10	665																				
23-Sep-10	672	73.3	<0.0005	0.0892	0.0681	9.89	0.000328	6.62	1.23	<0.00001	<0.00005	0.095	0.572	0.0046	8.43	<0.00001	<2	<0.00005	0.00065	<0.0005	0.0845
30-Sep-10	679																				
7-Oct-10	686																				
14-Oct-10	693																				
21-Oct-10	700	71	<0.0005	0.0872	0.0636	12.1	0.000258	6.04	1.17	<0.00001	<0.00005	0.094	0.497	0.0039	9.45	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0974
28-Oct-10	707																				
4-Nov-10	714																				
11-Nov-10	721																				
18-Nov-10	728	67.1	<0.0005	0.0852	0.0671	10.1	0.000219	5.76	1.06	<0.00001	<0.00005	0.0969	0.493	0.0044	8.45	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0981
25-Nov-10	735																				
2-Dec-10	742																				
9-Dec-10	749																				
16-Dec-10	756	59.3	<0.0005	0.0844	0.072	10.4	0.000589	5.73	1.11	<0.00001	<0.00005	0.0914	0.524	0.0034	8.67	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0865
23-Dec-10	763																				
30-Dec-10	770																				
6-Jan-11	777																				
13-Jan-11	784	62	<0.0005	0.079	0.0654	8.23	0.00067	5.62	1.06	<0.00001	<0.00005	0.0849	0.524	0.0033	8.78	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0855
20-Jan-11	791																				
27-Jan-11	798																				
3-Feb-11	805																				
10-Feb-11	812	73.9	0.0006	0.101	0.076	7.8	0.000246	7.97	1.32	<0.00001	<0.00005	0.11	0.606	0.0038	10.8	<0.00001	<2	0.000236	0.00027	<0.0005	0.119
17-Feb-11	819																				
24-Feb-11	826																				
3-Mar-11	833																				
10-Mar-11	840	64.6	<0.0005	0.0942	0.0698	5.14	0.000326	7.47	1.18	<0.00001	<0.00005	0.1	0.536	0.0032	11.3	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.109
17-Mar-11	847																				
24-Mar-11	854																				
31-Mar-11	861																				
7-Apr-11	868	57.3	<0.0005	0.0805	0.0612	3.7	0.000293	7.14	0.993	<0.00001	<0.00005	0.088	0.479	0.0027	10.6	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.097
14-Apr-11	875																				
21-Apr-11	882																				
28-Apr-11	889																				
5-May-11	896	54.6	<0.0005	0.0816	0.0616	2.84	0.000478	7.24	0.934	<0.00001	<0.00005	0.085	0.505	0.0029	10.9	0.000011	<2	<0.00005	<0.0001	<0.0005	0.0988
12-May-11	903																				
19-May-11	910																				
26-May-11	917																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
2-Jun-11	924	2500	2500	3.36	428	618	41.94	91.38	<1	392	187	<5	0.95	255	6.38	<0.00005	0.0009	0.0186	0.00345	<0.0005	<0.01	0.00133
9-Jun-11	931	2500	2555																			
16-Jun-11	938	2500	2430	3.54	257	634																
23-Jun-11	945	2500	2550																			
30-Jun-11	952	2500	2375	3.44	280	633	38.25	89.7	<1	384	181	<5	1.19	271	7.77	<0.00005	0.00096	0.0191	0.00373	<0.0005	<0.01	0.00136
7-Jul-11	959	2500	2640																			
14-Jul-11	966	2500	2565	3.42	455	613																
21-Jul-11	973	2500	2490																			
28-Jul-11	980	2500	2575	3.38	435	583	41.36	87.06	<1	455	177	<5	1.27	253	7.6	<0.00005	0.00098	0.0199	0.00318	<0.0005	<0.01	0.00135
4-Aug-11	987	2500	2515																			
11-Aug-11	994	2500	2580	3.44	379	598																
18-Aug-11	1001	2500	2580																			
25-Aug-11	1008	2500	2535	3.47	406	594	39.76	94.33	<1	399	175	<5	0.99	251	8.51	<0.00005	0.00103	0.0171	0.00304	<0.0005	<0.01	0.00125
1-Sep-11	1015	2500	2065																			
8-Sep-11	1022	2500	2450	3.5	401	600																
15-Sep-11	1029	2500	2490																			
22-Sep-11	1036	2500	2465	3.41	499	585	36.15	82.66	<1	464	165	<5	0.98	242	9.44	<0.00005	0.00142	0.018	0.00297	<0.0005	<0.01	0.00115
29-Sep-11	1043	2500	2535																			
6-Oct-11	1050	2500	2550	3.49	460	526																
13-Oct-11	1057	2500	2525																			
20-Oct-11	1064	2500	2530	3.48	501	510	32.71	78.86	<1	310	142	<5	0.86	209	6.81	<0.00005	0.00108	0.0182	0.00252	<0.0005	<0.01	0.001
27-Oct-11	1071	2500	2520																			
3-Nov-11	1078	2500	2550	3.47	472	515																
10-Nov-11	1085	2500	2530																			
17-Nov-11	1092	2500	2510	3.48	505	512	29.39	73.36	<1	283	134	<5	0.91	202	6.95	<0.00005	0.00106	0.0188	0.00233	<0.0005	<0.01	0.000904
24-Nov-11	1099	2500	2515																			
1-Dec-11	1106	2500	2495	3.52	496	479																
8-Dec-11	1113	2500	2545																			
15-Dec-11	1120	2500	2535	3.47	502	487	31.92	78.03	<1	283	123	<5	0.76	191	7.48	<0.00005	0.00094	0.0198	0.00214	<0.0005	<0.01	0.000847
22-Dec-11	1127	2500	2475																			
29-Dec-11	1134	2500	2570	3.49	536	464																
5-Jan-12	1141	2500	2555																			
12-Jan-12	1148	2500	2535	3.47	528	454	22.28	55.44	<1	253	121	<5	0.76	183	7.58	<0.00005	0.0006	0.0197	0.00205	<0.0005	<0.01	0.000798
19-Jan-12	1155	2500	2495																			
26-Jan-12	1162	2500	2500	3.52	473	498																
2-Feb-12	1169	2500	2505																			
9-Feb-12	1176	2500	2490	3.5	550	473	22.77	57.99	<1	276	119	<5	0.63	179	7.04	<0.00005	0.00078	0.0211	0.00217	<0.0005	<0.01	0.000849
16-Feb-12	1183	2500	2520																			
23-Feb-12	1190	2500	2475	3.49	537	469																
1-Mar-12	1197	2500	2435																			
8-Mar-12	1204	2500	2500	3.5	561	468	27.41	71.53	<1	302	115	<5	0.75	181	7.4	<0.00005	0.00093	0.0209	0.00206	<0.0005	<0.01	0.000738
15-Mar-12	1211	2500	2485																			
22-Mar-12	1218	2500	2460	3.54	533	465																
29-Mar-12	1225	2500	2460																			
5-Apr-12	1232	2500	2450	3.5	587	445	26.97	69.79	<1	251	110	<5	0.79	179	7.52	<0.00005	0.00064	0.0194	0.00194	<0.0005	<0.01	0.000749
12-Apr-12	1239	2500	2570																			
19-Apr-12	1246	2500	2475	3.48	532	454																
26-Apr-12	1253	2500	2485																			
3-May-12	1260	2500	2455	3.51	521	444	26.6	69.11	<1	259	112	<5	0.62	170	7.55	<0.00005	0.00101	0.0208	0.00198	<0.0005	<0.01	0.000729
10-May-12	1267	2500	2475																			
17-May-12	1274	2500	2490	3.43	549	445																
24-May-12	1281	2500	2520																			
31-May-12	1288	2500	2460	3.53	507	445	24.64	66.4	<1	252	101	<5	0.83	165	7.48	<0.00005	0.00081	0.0204	0.00182	<0.0005	<0.01	0.000672
7-Jun-12	1295	2500	2475																			
14-Jun-12	1302	2500	2460	3.56	564	403																
21-Jun-12	1309	2500	2485																			
28-Jun-12	1316	2500	2515	3.54	524	408	25.68	68.32	<1	323	97.6	<5	0.66	153	6.67	<0.00005	0.00095	0.0223	0.00177	<0.0005	<0.01	0.000597
5-Jul-12	1323	2500	2535																			
12-Jul-12	1330	2500	2490	3.51	554	411																
19-Jul-12	1337	2500	2470																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
2-Jun-11	924	60.2	0.00061	0.0913	0.0692	2.31	0.000336	9.01	1.09	<0.00001	<0.00005	0.0962	0.536	0.003	12.8	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.119
9-Jun-11	931																				
16-Jun-11	938																				
23-Jun-11	945																				
30-Jun-11	952	55.3	0.0008	0.0937	0.0776	3.19	0.000729	10.4	1.06	<0.00001	<0.00005	0.105	0.559	0.0028	13.6	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.14
7-Jul-11	959																				
14-Jul-11	966																				
21-Jul-11	973																				
28-Jul-11	980	54.3	0.00071	0.0858	0.0703	1.68	0.0068	9.98	0.987	<0.00001	<0.00005	0.0934	0.58	0.0026	13.8	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.129
4-Aug-11	987																				
11-Aug-11	994																				
18-Aug-11	1001																				
25-Aug-11	1008	52.1	0.00082	0.0825	0.0734	2.16	0.00569	10.9	0.964	<0.00001	<0.00005	0.0923	0.53	0.0026	14	0.000014	<2	<0.00005	<0.0001	<0.0005	0.123
1-Sep-11	1015																				
8-Sep-11	1022																				
15-Sep-11	1029																				
22-Sep-11	1036	48.1	0.00082	0.0791	0.0695	2	0.000308	10.8	0.903	<0.00001	<0.00005	0.0852	0.529	0.0025	13.2	0.000015	<2	<0.00005	0.00011	<0.0005	0.116
29-Sep-11	1043																				
6-Oct-11	1050																				
13-Oct-11	1057																				
20-Oct-11	1064	41.6	0.00066	0.0647	0.0595	1.57	0.00192	9.29	0.711	<0.00001	<0.00005	0.0712	0.5	0.0022	11.9	0.00002	<2	<0.00005	<0.0001	<0.0005	0.104
27-Oct-11	1071																				
3-Nov-11	1078																				
10-Nov-11	1085																				
17-Nov-11	1092	37.9	0.00065	0.0576	0.0788	1.4	0.000539	9.44	0.655	<0.00001	<0.00005	0.0637	0.493	0.0019	11.7	0.000023	<2	<0.00005	<0.0001	<0.0005	0.0977
24-Nov-11	1099																				
1-Dec-11	1106																				
8-Dec-11	1113																				
15-Dec-11	1120	35.5	0.00065	0.0568	0.0545	1.04	0.00021	8.45	0.598	<0.00001	<0.00005	0.0642	0.508	0.0021	12	0.000032	<2	<0.00005	<0.0001	<0.0005	0.1
22-Dec-11	1127																				
29-Dec-11	1134																				
5-Jan-12	1141																				
12-Jan-12	1148	34.6	0.00061	0.0544	0.0529	0.719	0.000218	8.5	0.592	<0.00001	<0.00005	0.0627	0.483	0.0021	11.2	0.000044	<2	<0.00005	<0.0001	<0.0005	0.0921
19-Jan-12	1155																				
26-Jan-12	1162																				
2-Feb-12	1169																				
9-Feb-12	1176	34.5	0.0009	0.0531	0.0675	0.559	0.00076	8.02	0.556	<0.00001	<0.00005	0.0601	0.538	0.002	12.3	0.000057	<2	<0.00005	<0.0001	<0.0005	0.0948
16-Feb-12	1183																				
23-Feb-12	1190																				
1-Mar-12	1197																				
8-Mar-12	1204	32.4	0.00059	0.0529	0.0515	0.463	0.000765	8.43	0.577	<0.00001	<0.00005	0.0595	0.523	0.002	12.3	0.000054	<2	<0.00005	<0.0001	<0.0005	0.0914
15-Mar-12	1211																				
22-Mar-12	1218																				
29-Mar-12	1225																				
5-Apr-12	1232	30.2	0.00063	0.0494	0.0513	0.451	0.0138	8.51	0.547	<0.00001	<0.00005	0.0568	0.543	0.0018	11.7	0.00004	<2	<0.00005	<0.0001	<0.0005	0.0936
12-Apr-12	1239																				
19-Apr-12	1246																				
26-Apr-12	1253																				
3-May-12	1260	30.2	0.00059	0.0513	0.0554	0.344	0.0017	8.85	0.549	<0.00001	<0.00005	0.0598	0.552	0.002	11.9	0.000042	<2	<0.00005	0.00011	<0.0005	0.0898
10-May-12	1267																				
17-May-12	1274																				
24-May-12	1281																				
31-May-12	1288	26.3	0.00056	0.0489	0.0468	0.295	0.000675	8.55	0.514	<0.00001	<0.00005	0.0557	0.552	0.0018	12.1	0.000037	<2	<0.00005	0.00015	<0.0005	0.0824
7-Jun-12	1295																				
14-Jun-12	1302																				
21-Jun-12	1309																				
28-Jun-12	1316	26	<0.0005	0.0443	0.0445	0.243	0.000266	7.93	0.481	<0.00001	<0.00005	0.0499	0.571	0.0017	11.9	0.000032	<2	<0.00005	0.0002	<0.0005	0.076
5-Jul-12	1323																				
12-Jul-12	1330																				
19-Jul-12	1337																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
26-Jul-12	1344	2500	2515	3.56	522	403	24.53	62.89	<1	310	95.4	<5	0.66	152	7.27	<0.00005	0.00088	0.0219	0.00159	<0.0005	<0.01	0.000549
2-Aug-12	1351	2500	2520																			
9-Aug-12	1358	2500	2415	3.47	492	426																
16-Aug-12	1365	2500	2495																			
23-Aug-12	1372	2500	2470	3.62	521	402	24.97	73.97	<1	269	103	<5	0.67	152	7.27	<0.00005	0.00094	0.0201	0.00175	<0.0005	<0.01	0.000621
30-Aug-12	1379	2500	2475																			
6-Sep-12	1386	2500	2510	3.51	506	376																
13-Sep-12	1393	2500	2490																			
20-Sep-12	1400	2500	2280	3.65	528	376	20.18	55.24	<1	277	87.1	<5	0.65	142	6.79	<0.00005	0.00062	0.0227	0.00149	<0.0005	<0.01	0.000519
27-Sep-12	1407	2500	2520																			
4-Oct-12	1414	2500	2355	3.66	500	345																
11-Oct-12	1421	2500	2505																			
18-Oct-12	1428	2500	2460	3.67	533	326	17.26	50.64	<1	217	76.6	<5	0.56	126	5.24	<0.00005	0.00093	0.0226	0.00127	<0.0005	<0.01	0.000451
25-Oct-12	1435	2500	2465																			
1-Nov-12	1442	2500	2445	3.65	503	346																
8-Nov-12	1449	2500	2525																			
15-Nov-12	1456	2500	2505	3.83	505	332	21.76	61.16	<1	179	74.9	<5	0.45	122	5.69	<0.00005	0.00074	0.0243	0.00117	<0.0005	<0.01	0.000677
22-Nov-12	1463	2500	2505																			
29-Nov-12	1470	2500	2410	3.9	522	254																
6-Dec-12	1477	2500	2215																			
13-Dec-12	1484	2500	2400	3.73	480	338	16.48	44.94	<1	190	72	<5	0.58	118	5.87	<0.00005	0.00045	0.0263	0.00125	<0.0005	<0.01	0.00045
20-Dec-12	1491	2500	2445																			
27-Dec-12	1498	2500	2345	3.87	518	312																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Jan-08	0	2500	2175	9.1	408	270	<1	<1	138.9	399	3.81	1.5	0.263	14.3	0.856	0.00111	0.0114	0.0162	<0.0002	<0.0005	0.076	<0.00005
24-Jan-08	7	2500	2415	8.88	388	262																
31-Jan-08	14	2500	2560	8.85	414	218	<1	<1	120.4	165	3.64	<0.5	0.066	5.19	0.361	0.00128	0.00726	0.00578	<0.0002	<0.0005	0.032	<0.00005
7-Feb-08	21	2500	2485	8.81	417	219																
14-Feb-08	28	2500	2495	8.85	393	185	<1	<1	103.6	133	3.82	<0.5	0.038	3.41	0.28	0.00174	0.00603	0.00758	<0.0002	<0.0005	0.019	<0.00005
21-Feb-08	35	2500	2485	8.72	379	185																
28-Feb-08	42	2500	2565	8.2	411	161	<1	3.42	93	112	5.67	<0.5	0.021	1.85	0.16	0.00149	0.0036	0.0108	<0.0002	<0.0005	0.011	<0.00005
6-Mar-08	49	2500	2485	8.34	402	143																
13-Mar-08	56	2500	2525	8.23	423	117	<1	1.79	70.7	87.8	8.38	<0.5	<0.02	1.31	0.214	0.00132	0.00283	0.0203	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-08	63	2500	2480	8.08	413	105																
27-Mar-08	70	2500	2420	7.92	432	99	<1	2.65	60	66.7	17.5	<0.5	<0.02	1.09	0.0771	0.00101	0.0017	0.0349	<0.0002	<0.0005	<0.01	<0.00005
3-Apr-08	77	2500	2435	7.93	423	81																
10-Apr-08	84	2500	2485	7.8	427	100	<1	2.32	52.8	61	22.7	<0.5	<0.02	1.17	0.0804	0.000985	0.00158	0.0469	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-08	91	2500	2545	7.72	417	97																
24-Apr-08	98	2500	2385	7.81	407	83	<1	2.88	47.5	59.7	22.4	<0.5	<0.02	0.86	0.0879	0.000946	0.00158	0.0413	<0.0002	<0.0005	<0.01	<0.00005
1-May-08	105	2500	2605	7.95	394	99																
8-May-08	112	2500	2555	8	384	96	<1	2.4	51.2	45.3	30.6	<0.5	<0.02	0.86	0.0646	0.000972	0.00142	0.0649	<0.0002	<0.0005	<0.01	<0.00005
15-May-08	119	2500	2440	7.96	360	93																
22-May-08	126	2500	2410	7.96	354	83	<1	2.15	44.4	46.4	29.8	<0.5	<0.02	0.75	0.0755	0.000847	0.00133	0.0452	<0.0002	<0.0005	<0.01	<0.00005
29-May-08	133	2500	2500	7.89	377	88																
5-Jun-08	140	2500	2555	7.98	417	74	<1	2.85	46.6	56.8	31.8	<0.5	<0.02	0.61	0.0628	0.000795	0.00105	0.056	<0.0002	<0.0005	<0.01	<0.00005
12-Jun-08	147	2500	2440	8.01	397	69																
19-Jun-08	154	2500	2470	8.21	356	53	<1	2.18	38.6	48	15.3				0.078	0.00066	0.00133	0.0221	<0.0002	<0.0005	<0.01	<0.00005
26-Jun-08	161	2500	2435	8.01	370	83																
3-Jul-08	168	2500	2240	8.02	379	89	<1	2.87	41	39.2	31.7	<0.5	<0.02	0.85	0.0782	0.000963	0.00124	0.0512	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-08	175	2500	2560	7.96	378	84																
17-Jul-08	182	2500	2395	7.97	399	80	<1	2.22	41.1	42.8	30.3	<0.5	<0.02	0.58	0.0784	0.000732	0.00116	0.0515	<0.0002	<0.0005	<0.01	<0.00005
24-Jul-08	189	2500	2375	7.89	399	81																
31-Jul-08	196	2500	2480	7.91	411	79	<1	2.17	46.8	37	32.7	<0.5	<0.02	0.54	0.0776	0.000673	0.00103	0.0506	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-08	203	2500	2380	7.94	378	75																
14-Aug-08	210	2500	2405	7.89	385	82	<1	2.37	41.6	56.8	34.3	<0.5	<0.02	<0.5	0.0631	0.00065	0.00085	0.0471	<0.0002	<0.0005	<0.01	<0.00005
21-Aug-08	217	2500	2435	7.89	326	75																
28-Aug-08	224	2500	2520	7.85	378	76	<1	2.68	43.9	47.4	33.4	<0.5	<0.02	<0.5	0.0735	0.000586	0.00083	0.0512	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
26-Jul-12	1344	24.7	0.00069	0.0428	0.0466	0.178	0.00044	8.17	0.457	<0.00001	0.000066	0.0504	0.584	0.0017	11.4	0.00003	<2	<0.00005	0.00022	<0.0005	0.0774
2-Aug-12	1351																				
9-Aug-12	1358																				
16-Aug-12	1365																				
23-Aug-12	1372	26.3	<0.0005	0.0456	0.0408	0.132	0.000454	9.11	0.49	<0.00001	<0.00005	0.0527	0.55	0.002	11.5	0.00003	<2	<0.00005	0.00017	<0.0005	0.0773
30-Aug-12	1379																				
6-Sep-12	1386																				
13-Sep-12	1393																				
20-Sep-12	1400	21.6	<0.0005	0.0396	0.0448	0.118	0.00192	8.07	0.44	<0.00001	<0.00005	0.0459	0.542	0.0017	10.8	0.000021	<2	<0.00005	0.00021	<0.0005	0.0724
27-Sep-12	1407																				
4-Oct-12	1414																				
11-Oct-12	1421																				
18-Oct-12	1428	20.1	<0.0005	0.0346	0.035	0.094	0.00621	6.43	0.368	<0.00001	<0.00005	0.0391	0.469	0.0015	8.8	0.000018	<2	<0.00005	0.00013	<0.0005	0.0578
25-Oct-12	1435																				
1-Nov-12	1442																				
8-Nov-12	1449																				
15-Nov-12	1456	19	0.00056	0.034	0.0415	0.107	0.00883	6.69	0.34	<0.00001	<0.00005	0.0387	1.34	0.0016	9.23	0.00493	<2	<0.00005	0.00019	<0.0005	0.0684
22-Nov-12	1463																				
29-Nov-12	1470																				
6-Dec-12	1477																				
13-Dec-12	1484	18.7	<0.0005	0.0322	0.0365	0.086	0.0308	6.15	0.334	<0.00001	<0.00005	0.0368	0.489	0.0015	8.72	0.000019	<2	<0.00005	0.00012	<0.0005	0.0626
20-Dec-12	1491																				
27-Dec-12	1498																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jan-08	0	1.31	0.00126	<0.0001	0.00602	0.223	0.000124	0.131	0.00462	<0.00001	0.00291	0.00053	1.09	0.0013	5.01	<0.00001	69.7	<0.00005	0.00889	0.0336	0.001
24-Jan-08	7																				
31-Jan-08	14	1.38	<0.0005	<0.0001	0.00133	0.071	<0.00005	0.0484	0.00403	<0.00001	0.000464	<0.0005	0.695	<0.001	3.68	<0.00001	52.8	<0.00005	0.00718	0.0162	<0.001
7-Feb-08	21																				
14-Feb-08	28	1.46	<0.0005	<0.0001	0.00163	0.048	<0.00005	0.0436	0.00546	<0.00001	0.000235	<0.0005	0.719	<0.001	2.63	<0.00001	43.3	<0.00005	0.00668	0.0104	0.0013
21-Feb-08	35																				
28-Feb-08	42	2.19	<0.0005	<0.0001	0.00101	<0.03	<0.00005	0.0501	0.0106	<0.00001	0.000189	<0.0005	0.802	<0.001	2.11	<0.00001	39.8	<0.00005	0.00508	0.00468	<0.001
6-Mar-08	49																				
13-Mar-08	56	3.36	<0.0005	<0.0001	0.00072	0.041	<0.00005	0.0817	0.0133	<0.00001	0.000099	<0.0005	1.11	<0.001	1.93	<0.00001	28.1	<0.00005	0.00641	0.00332	<0.001
20-Mar-08	63																				
27-Mar-08	70	6.78	<0.0005	<0.0001	0.00047	<0.03	<0.00005	0.146	0.0182	<0.00001	0.000108	<0.0005	1.45	<0.001	1.58	<0.00001	16.7	<0.00005	0.00673	0.0018	0.0062
3-Apr-08	77																				
10-Apr-08	84	8.77	<0.0005	<0.0001	0.00129	<0.03	<0.00005	0.198	0.0258	<0.00001	0.000444	<0.0005	1.57	<0.001	1.42	<0.00001	11.8	<0.00005	0.0142	0.00179	<0.001
17-Apr-08	91																				
24-Apr-08	98	8.66	<0.0005	<0.0001	0.00053	<0.03	<0.00005	0.194	0.0234	<0.00001	0.0001	<0.0005	1.39	<0.001	1.39	<0.00001	9.3	<0.00005	0.00187	0.00192	0.001
1-May-08	105																				
8-May-08	112	11.8	<0.0005	<0.0001	0.00036	<0.03	<0.00005	0.296	0.0311	<0.00001	0.000118	<0.0005	1.62	<0.001	1.39	<0.00001	8.2	<0.00005	0.00204	0.00145	<0.001
15-May-08	119																				
22-May-08	126	11.5	<0.0005	<0.0001	0.00152	<0.03	0.000054	0.243	0.0246	<0.00001	0.000095	<0.0005	1.25	<0.001	1.34	<0.00001	5.8	<0.00005	0.00176	0.00169	<0.001
29-May-08	133																				
5-Jun-08	140	12.3	<0.0005	<0.0001	0.00219	<0.03	<0.00005	0.266	0.0298	<0.00001	0.000083	<0.0005	1.29	<0.001	1.25	<0.00001	5.1	<0.00005	0.00218	0.00137	<0.001
12-Jun-08	147																				
19-Jun-08	154	5.94	<0.0005	<0.0001	0.00139	<0.03	<0.00005	0.124	0.0183	0.000013	0.000137	<0.0005	0.727	<0.001	0.951	<0.00001	9.3	<0.00005	0.00718	0.00223	<0.001
26-Jun-08	161																				
3-Jul-08	168	12.2	<0.0005	<0.0001	0.00114	<0.03	<0.00005	0.276	0.0301	<0.00001	0.000114	<0.0005	1.33	<0.001	1.34	<0.00001	4.9	<0.00005	0.0027	0.00179	<0.001
10-Jul-08	175																				
17-Jul-08	182	11.7	<0.0005	<0.0001	0.00108	<0.03	0.000107	0.269	0.0284	<0.00001	0.00009	<0.0005	1.15	<0.001	1.16	<0.00001	4	<0.00005	0.00276	0.0016	<0.001
24-Jul-08	189																				
31-Jul-08	196	12.6	<0.0005	<0.0001	0.00042	<0.03	<0.00005	0.284	0.0284	<0.00001	0.000077	<0.0005	1.03	<0.001	1.09	<0.00001	3.1	<0.00005	0.00284	0.00139	<0.001
7-Aug-08	203																				
14-Aug-08	210	13.3	<0.0005	<0.0001	0.00022	<0.03	<0.00005	0.288	0.0287	<0.00001	0.000105	<0.0005	0.906	<0.001	1.02	<0.00001	2.5	<0.00005	0.00294	0.0012	0.0015
21-Aug-08	217																				
28-Aug-08	224	12.9	<0.0005	<0.0001	0.00074	<0.03	<0.00005	0.282	0.0283	<0.00001	0.000073	<0.0005	0.811	<0.001	0.981	<0.00001	2.1	<0.00005	0.00269	0.00115	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
4-Sep-08	231	2500	2450	7.82	333	76																
11-Sep-08	238	2500	2425	7.82	331	76	<1	3.25	43.4	40.8	33.5	<0.5	<0.02	<0.5	0.0898	0.000588	0.00084	0.0541	<0.0002	<0.0005	<0.01	<0.00005
18-Sep-08	245	2500	2435	7.92	310	67																
25-Sep-08	252	2500	2435	7.83	313	69	<1	2.85	36.9	39.1	29.7	<0.5	<0.02	<0.5	0.0973	0.000479	0.00071	0.0488	<0.0002	<0.0005	<0.01	<0.00005
2-Oct-08	259	2500	2455	7.92	406	75																
9-Oct-08	266	2500	2400	7.83	394	74	<1	2.89	40.1	42.6	33.3	<0.5	<0.02	<0.5	0.0702	0.000489	0.00064	0.0461	<0.0002	<0.0005	<0.01	<0.00005
16-Oct-08	273	2500	2395	7.92	390	73																
23-Oct-08	280	2500	2470	7.85	414	75	<1	3.08	42.2	43	37.3	<0.5	<0.02	<0.5	0.0653	0.000513	0.00055	0.0602	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-08	287	2500	2340	7.72	448	70																
6-Nov-08	294	2500	2495	7.58	439	69	<1	4.36	41.1	40.1	35.4	<0.5	<0.02	<0.5	0.0757	0.00044	0.00051	0.0431	<0.0002	<0.0005	<0.01	<0.00005
13-Nov-08	301	2500	2380	7.79	436	66																
20-Nov-08	308	2500	2395	7.78	427	63	<1	2.58	44.3	63	38.7	<0.5	<0.02	<0.5	0.0636	0.000546	0.00051	0.0595	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-08	315	2500	2470	7.8	384	73																
4-Dec-08	322	2500	2390	7.84	366	79	<1	2.6	50.9	61.6	39.6	<0.5	<0.02	<0.5	0.0584	0.000526	0.00045	0.0544	<0.0002	<0.0005	<0.01	<0.00005
11-Dec-08	329	2500	2580	7.8	332	53																
18-Dec-08	336	2500	2475	7.72	366	82	<1	4.46	53.6	46.3	39.9	<0.5	<0.02	0.51	0.0486	0.000619	0.0005	0.0479	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-08	343	2500	1810	7.88	346	61																
1-Jan-09	350	2500	2560	7.82	344	66	<1	11.73	50.6	38.2	35.5	<0.5	<0.02	<0.5	0.0642	0.000403	0.00046	0.0573	<0.0002	<0.0005	<0.01	<0.00005
8-Jan-09	357	2500	2440	7.85	383	81																
15-Jan-09	364	2500	2585	7.65	371	92	<1	4.73	59	59.3	48.9	<0.5	<0.02	<0.5	0.0418	0.000466	0.00035	0.0611	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-09	371	2500	2530	7.7	369	79																
29-Jan-09	378	2500	2515	7.64	396	80	<1	7.25	59.5	46.8	42.3	<0.5	<0.02	<0.5	0.0405	0.000436	0.00035	0.0675	<0.0002	<0.0005	<0.01	<0.00005
5-Feb-09	385	2500	2495	7.79	330	99																
12-Feb-09	392	2500	2485	7.74	384	76	<1	2.37	47.8	45.1	38.6	<0.5	<0.02	<0.5	0.0564	0.000465	0.00041	0.0653	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-09	399	2500	2505	7.72	341	72																
26-Feb-09	406	2500	2480	7.8	272	74	<1	6.42	50.5	17.8	36.8	<0.5	<0.02	<0.5	0.0629	0.000415	0.00037	0.063	<0.0002	<0.0005	<0.01	<0.00005
5-Mar-09	413	2500	2495	7.68	275	75																
12-Mar-09	420	2500	2480	7.57	341	73	<1	3.48	47.3	34	39.1	<0.5	<0.02	<0.5	0.0495	0.000378	0.00036	0.0531	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-09	427	2500	2500	7.65	360	76																
26-Mar-09	434	2500	2460	7.45	384	71	<1	4.13	45.6	45.8	37.3	<0.5	<0.02	<0.5	0.0569	0.000392	0.00033	0.046	<0.0002	<0.0005	<0.01	<0.00005
2-Apr-09	441	2500	2465	7.54	376	75																
9-Apr-09	448	2500	2430	7.52	379	73	<1	3.44	46.1	53.5	38.4	<0.5	<0.02	<0.5	0.0579	0.000436	0.00037	0.0622	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-09	455	2500	2295	7.63	391	74																
23-Apr-09	462	2500	1925	7.7	380	78																
30-Apr-09	469	2500	2515																			
7-May-09	476	2500	2390	7.65	364	69	<1	2.81	43.3	41.3	36.1	<0.5	<0.02	<0.5	0.0698	0.000383	0.00034	0.0511	<0.0002	<0.0005	<0.01	<0.00005
14-May-09	483	2500	2445																			
21-May-09	490	2500	2450	7.62	385	68																
28-May-09	497	2500	2450																			
4-Jun-09	504	2500	2455	7.77	373	59	<1	3.33	47.6	29.6		<0.5	<0.02	<0.5								
11-Jun-09	511	2500	2445																			
18-Jun-09	518	2500	2580	7.73	393	60																
25-Jun-09	525	2500	2455																			
2-Jul-09	532	2500	2355	7.69	336	75	<1	2.69	45.5	45		<0.5	<0.02	<0.5								
9-Jul-09	539	2500	2440																			
16-Jul-09	546	2500	2510	7.65	377	55																
23-Jul-09	553	2500	2435																			
30-Jul-09	560	2500	1935	7.57	411	45	<1	3.56	32.8	22.9		<0.5	<0.02	<0.5								
6-Aug-09	567	2500	2435																			
13-Aug-09	574	2500	2425	7.63	321	74																
20-Aug-09	581	2500	2525																			
27-Aug-09	588	2500	2445	7.61	306	68	<1	4.11	46.7	44.8		<0.5	<0.02	<0.5								
3-Sep-09	595	2500	2480																			
10-Sep-09	602	2500	2525	7.72	347	70																
17-Sep-09	609	2500	2440																			
24-Sep-09	616	2500	2505	7.62	340	66	<1	3.12	45.9	44		<0.5	<0.02	<0.5								
1-Oct-09	623	2500	2475																			
8-Oct-09	630	2500	2500	7.95	327	67																
15-Oct-09	637	2500	2460																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Sep-08	231																				
11-Sep-08	238	12.9	<0.0005	<0.0001	0.00033	<0.03	<0.00005	0.303	0.0314	<0.00001	0.000061	<0.0005	0.873	<0.001	0.99	<0.00001	<2	<0.00005	0.00214	0.00127	<0.001
18-Sep-08	245																				
25-Sep-08	252	11.5	<0.0005	<0.0001	0.00025	<0.03	<0.00005	0.251	0.0259	<0.00001	0.000064	<0.0005	0.712	<0.001	0.855	<0.00001	<2	<0.00005	0.00246	0.00108	<0.001
2-Oct-08	259																				
9-Oct-08	266	12.9	<0.0005	<0.0001	0.00094	<0.03	<0.00005	0.259	0.0286	<0.00001	0.000053	<0.0005	0.679	<0.001	0.852	<0.00001	<2	<0.00005	0.00182	0.00093	<0.001
16-Oct-08	273																				
23-Oct-08	280	14.5	<0.0005	<0.0001	0.00052	<0.03	<0.00005	0.268	0.0321	<0.00001	0.00006	<0.0005	0.66	<0.001	0.833	<0.00001	<2	<0.00005	0.00243	0.00079	<0.001
30-Oct-08	287																				
6-Nov-08	294	13.7	<0.0005	<0.0001	0.00018	<0.03	<0.00005	0.273	0.032	<0.00001	0.000053	<0.0005	0.661	<0.001	0.795	<0.00001	<2	<0.00005	0.00234	0.00071	<0.001
13-Nov-08	301																				
20-Nov-08	308	15	<0.0005	<0.0001	0.00097	<0.03	<0.00005	0.323	0.0379	<0.00001	<0.00005	<0.0005	0.673	<0.001	0.813	<0.00001	<2	<0.00005	0.0028	0.00071	<0.001
27-Nov-08	315																				
4-Dec-08	322	15.4	<0.0005	<0.0001	0.0005	<0.03	0.000051	0.302	0.0404	<0.00001	0.000058	<0.0005	0.651	<0.001	0.771	<0.00001	<2	<0.00005	0.00335	0.00068	<0.001
11-Dec-08	329																				
18-Dec-08	336	15.6	<0.0005	<0.0001	0.00055	<0.03	<0.00005	0.263	0.0389	<0.00001	0.000082	<0.0005	0.775	<0.001	0.924	<0.00001	<2	<0.00005	0.00365	0.00078	<0.001
25-Dec-08	343																				
1-Jan-09	350	13.7	<0.0005	<0.0001	0.00092	<0.03	<0.00005	0.286	0.0402	<0.00001	0.000054	<0.0005	0.557	<0.001	0.645	<0.00001	<2	<0.00005	0.00376	0.00059	<0.001
8-Jan-09	357																				
15-Jan-09	364	18.9	<0.0005	<0.0001	0.00102	<0.03	<0.00005	0.388	0.0523	<0.00001	<0.00005	<0.0005	0.636	<0.001	0.779	<0.00001	<2	<0.00005	0.00411	<0.0005	<0.001
22-Jan-09	371																				
29-Jan-09	378	16.4	<0.0005	<0.0001	0.00034	<0.03	<0.00005	0.328	0.0452	<0.00001	<0.00005	<0.0005	0.547	<0.001	0.689	<0.00001	<2	<0.00005	0.0038	<0.0005	<0.001
5-Feb-09	385																				
12-Feb-09	392	15	<0.0005	<0.0001	0.00052	<0.03	<0.00005	0.303	0.0456	<0.00001	0.000055	<0.0005	0.583	<0.001	0.685	<0.00001	<2	<0.00005	0.00418	0.00056	<0.001
19-Feb-09	399																				
26-Feb-09	406	14.3	<0.0005	<0.0001	0.00041	<0.03	<0.00005	0.275	0.0386	<0.00001	<0.00005	<0.0005	0.458	<0.001	0.622	<0.00001	<2	<0.00005	0.00369	<0.0005	<0.001
5-Mar-09	413																				
12-Mar-09	420	15.2	<0.0005	<0.0001	0.00134	<0.03	<0.00005	0.288	0.0408	<0.00001	<0.00005	<0.0005	0.496	<0.001	0.632	<0.00001	<2	<0.00005	0.00385	<0.0005	<0.001
19-Mar-09	427																				
26-Mar-09	434	14.5	<0.0005	<0.0001	0.00052	<0.03	<0.00005	0.278	0.0405	<0.00001	<0.00005	<0.0005	0.43	<0.001	0.594	<0.00001	<2	<0.00005	0.00433	<0.0005	<0.001
2-Apr-09	441																				
9-Apr-09	448	14.9	<0.0005	<0.0001	0.00026	<0.03	<0.00005	0.301	0.0392	<0.00001	<0.00005	<0.0005	0.479	<0.001	0.654	<0.00001	<2	<0.00005	0.00497	0.00053	<0.001
16-Apr-09	455																				
23-Apr-09	462																				
30-Apr-09	469																				
7-May-09	476	14	<0.0005	<0.0001	0.00018	<0.03	<0.00005	0.27	0.0384	<0.00001	<0.00005	<0.0005	0.413	<0.001	0.619	<0.00001	<2	<0.00005	0.00406	<0.0005	<0.001
14-May-09	483																				
21-May-09	490																				
28-May-09	497																				
4-Jun-09	504																				
11-Jun-09	511																				
18-Jun-09	518																				
25-Jun-09	525																				
2-Jul-09	532																				
9-Jul-09	539																				
16-Jul-09	546																				
23-Jul-09	553																				
30-Jul-09	560																				
6-Aug-09	567																				
13-Aug-09	574																				
20-Aug-09	581																				
27-Aug-09	588																				
3-Sep-09	595																				
10-Sep-09	602																				
17-Sep-09	609																				
24-Sep-09	616																				
1-Oct-09	623																				
8-Oct-09	630																				
15-Oct-09	637																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Oct-09	644	2500	2345	7.61	295	73	<1	3.76	47.4	44		<0.5	<0.02	<0.5								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
20-Nov-08	0	2500	2080	5.65	269	448	<1	5.74	1.1	323	159	0.86	0.064	201	0.132	0.000259	0.0002	0.0272	0.00042	<0.0005	0.126	0.000479
27-Nov-08	7	2500	2305	5.67	247	209																
4-Dec-08	14	2500	2485	6.06	259	115	<1	4.95	1.6	90.6	36.9	<0.5	0.049	49.3	0.0513	0.000197	0.00014	0.00496	<0.0002	<0.0005	0.046	0.000142
11-Dec-08	21	2500	2515	6.78	321	59																
18-Dec-08	28	2500	2405	6.52	369	49	<1	5.75	2.1	32.8	15	<0.5	0.035	18.8	0.0153	0.000191	0.00014	0.00216	<0.0002	<0.0005	0.017	0.000052
25-Dec-08	35	2500	2510	5.44	353	56																
1-Jan-09	42	2500	2205	5.68	347	32	<1	9.65	5.4	27.7	12.2	<0.5	0.025	13.7	0.0153	0.000126	<0.0001	0.00172	<0.0002	<0.0005	<0.01	<0.00005
8-Jan-09	49	2500	2380	5.9	383	30																
15-Jan-09	56	2500	2630	6.66	370	32	<1	5.58	2.3	36.8	11.7	<0.5	0.027	13.2	0.0118	0.000111	<0.0001	0.00177	<0.0002	<0.0005	<0.01	0.000052
22-Jan-09	63	2500	2585	6.49	373	33																
29-Jan-09	70	2500	2475	6.39	393	27	<1	7.79	3.7	25.3	10.1	<0.5	0.029	11.3	0.015	0.000091	<0.0001	0.00144	<0.0002	<0.0005	<0.01	<0.00005
5-Feb-09	77	2500	2315	6.25	342	40																
12-Feb-09	84	2500	2450	5.94	406	30	<1	3.55	1.3	26.1	11.8	<0.5	0.034	12.9	0.0198	0.000087	0.00011	0.0019	<0.0002	<0.0005	<0.01	0.000064
19-Feb-09	91	2500	2330	7.03	315	32																
26-Feb-09	98	2500	2375	7.35	262	32	<1	6.87	3	28.8	11.7	<0.5	0.028	13	0.0258	0.000081	<0.0001	0.00204	<0.0002	<0.0005	<0.01	0.000061
5-Mar-09	105	2500	2485	5.98	169	32																
12-Mar-09	112	2500	2375	5.77	285	28	<1	4.45	1.3	13.5	10.4	<0.5	0.037	12	0.0304	0.00007	<0.0001	0.00218	<0.0002	<0.0005	<0.01	0.000061
19-Mar-09	119	2500	2330	5.76	296	28																
26-Mar-09	126	2500	2225	5.68	336	29	<1	5.02	1.3	32.8	10.3	<0.5	0.034	12.2	0.0379	0.000078	0.00017	0.00219	<0.0002	<0.0005	<0.01	0.000064
2-Apr-09	133	2500	2410	5.79	271	27																
9-Apr-09	140	2500	2160	5.78	306	33	<1	4.91	1.1	27.5	11.5	<0.5	0.038	13.3	0.0373	0.000076	0.00013	0.00228	<0.0002	<0.0005	<0.01	0.00008
16-Apr-09	147	2500	2400	5.76	268	28																
23-Apr-09	154	2500	2265	5.81	276	29																
30-Apr-09	161	2500	2310																			
7-May-09	168	2500	2225	5.68	307	34	<1	4.17	<1	27.3	11.5	<0.5	0.038	13.1	0.0438	0.000067	0.00012	0.00243	<0.0002	<0.0005	<0.01	0.000144
14-May-09	175	2500	2360																			
21-May-09	182	2500	2295	6.06	234	33																
28-May-09	189	2500	2305																			
4-Jun-09	196	2500	2325	6.01	217	31	<1	5.34	1.8	26.6	12.5		0.065	15.3	0.0559	0.00006	0.00019	0.00319	0.00025	<0.0005	<0.01	0.000224
11-Jun-09	203	2500	2350																			
18-Jun-09	210	2500	2260	5.75	318	35																
25-Jun-09	217	2500	2795																			
2-Jul-09	224	2500	2200	5.67	263	31	<1	4.15	1.2	25	9.57	<0.5	0.029	12.1	0.0481	<0.00005	0.00012	0.00416	0.00022	<0.0005	<0.01	0.000091
9-Jul-09	231	2500	2210																			
16-Jul-09	238	2500	2110	5.93	298	23																
23-Jul-09	245	2500	2065																			
30-Jul-09	252	2500	2400	5.8	206	40	<1	7.36	1.7	59.4	13.3	<0.5	0.088	16.9	0.0746	<0.00005	0.00019	0.00456	0.00034	<0.0005	<0.01	0.00014
6-Aug-09	259	2500	2435																			
13-Aug-09	266	2500	2435	6.09	202	35																
20-Aug-09	273	2500	2560																			
27-Aug-09	280	2500	2505	5.92	262	35	<1	6.08	1.3	20.3	11.6	<0.5	0.053	15	0.0847	<0.00005	0.00025	0.00483	0.00032	<0.0005	<0.01	0.000131
3-Sep-09	287	2500	2355																			
10-Sep-09	294	2500	2610	5.58	291	32																
17-Sep-09	301	2500	2365																			
24-Sep-09	308	2500	2555	5.62	352	34	<1	5.3	4.5	31	10.4	<0.5	0.048	13	0.1	<0.00005	0.00018	0.00488	0.00038	<0.0005	<0.01	0.00015
1-Oct-09	315	2500	2455																			
8-Oct-09	322	2500	2400	5.72	338	32																
15-Oct-09	329	2500	2495																			
22-Oct-09	336	2500	2485	5.39	277	36	<1	6.11	<1	27	10.1	<0.5	0.059	13.1	0.13	<0.00005	0.00031	0.00591	0.00039	<0.0005	<0.01	0.000179
29-Oct-09	343	2500	2440																			
5-Nov-09	350	2500	2485	5.14	335	57																
12-Nov-09	357	2500	2470																			
19-Nov-09	364	2500	2390	5.29	352	44	<1	9.1	1.2	28	9.79	<0.5	0.055	13.3	0.149	<0.00005	0.00014	0.00586	0.00038	<0.0005	<0.01	0.000155
26-Nov-09	371	2500	2440																			
3-Dec-09	378	2500	2455	5.01	358	54																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Nov-08	0	51.3	<0.0005	0.0257	0.0105	0.745	0.000228	7.55	0.668	<0.00001	<0.00005	0.0031	3.86	0.0592	3.92	<0.00001	25	<0.00005	<0.0001	<0.0005	0.418
27-Nov-08	7																				
4-Dec-08	14	11.3	<0.0005	0.00663	0.0046	0.146	0.000122	2.07	0.196	<0.00001	<0.00005	0.0007	1.1	0.0155	4.37	<0.00001	5.1	<0.00005	<0.0001	<0.0005	0.117
11-Dec-08	21																				
18-Dec-08	28	4.8	<0.0005	0.00252	0.00273	<0.03	<0.00005	0.74	0.0743	<0.00001	<0.00005	<0.0005	0.649	0.0066	3.98	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0417
25-Dec-08	35																				
1-Jan-09	42	3.75	<0.0005	0.00215	0.00421	<0.03	<0.00005	0.685	0.0914	<0.00001	<0.00005	<0.0005	0.48	0.0044	2.42	<0.00001	<2	<0.00005	0.00011	<0.0005	0.0392
8-Jan-09	49																				
15-Jan-09	56	3.57	<0.0005	0.00218	0.00484	<0.03	<0.00005	0.674	0.08	<0.00001	<0.00005	<0.0005	0.437	0.0031	2.6	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0394
22-Jan-09	63																				
29-Jan-09	70	3.11	<0.0005	0.00198	0.00236	<0.03	<0.00005	0.572	0.0826	<0.00001	<0.00005	<0.0005	0.344	0.0024	2.2	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0422
5-Feb-09	77																				
12-Feb-09	84	3.56	<0.0005	0.00248	0.00947	0.031	<0.00005	0.712	0.0981	<0.00001	<0.00005	<0.0005	0.39	0.0023	2.36	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0552
19-Feb-09	91																				
26-Feb-09	98	3.56	<0.0005	0.00241	0.00619	0.038	<0.00005	0.687	0.108	<0.00001	<0.00005	<0.0005	0.348	0.0021	2.04	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0584
5-Mar-09	105																				
12-Mar-09	112	3.24	<0.0005	0.00236	0.0046	0.05	0.000091	0.558	0.0857	<0.00001	<0.00005	<0.0005	0.335	0.0019	1.95	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0645
19-Mar-09	119																				
26-Mar-09	126	3.3	<0.0005	0.00248	0.00512	0.061	0.000147	0.497	0.0772	<0.00001	<0.00005	<0.0005	0.322	0.0016	2	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0682
2-Apr-09	133																				
9-Apr-09	140	3.54	<0.0005	0.00276	0.00482	0.094	0.000091	0.644	0.104	<0.00001	<0.00005	<0.0005	0.314	0.0018	2.42	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.081
16-Apr-09	147																				
23-Apr-09	154																				
30-Apr-09	161																				
7-May-09	168	3.61	<0.0005	0.00312	0.00924	0.141		0.602	0.102	<0.00001	<0.00005	<0.0005	0.327	0.0016	2	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0935
14-May-09	175																				
21-May-09	182																				
28-May-09	189																				
4-Jun-09	196	3.93	<0.0005	0.00377	0.00948	0.26	0.000729	0.647	0.133	<0.00001	<0.00005	<0.0005	0.326	0.002	2.29	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.136
11-Jun-09	203																				
18-Jun-09	210																				
25-Jun-09	217																				
2-Jul-09	224	3.1	<0.0005	0.00296	0.00665	0.24	0.000095	0.444	0.0832	<0.00001	<0.00005	<0.0005	0.234	0.001	1.81	<0.00001	<2	<0.00005		<0.0005	0.107
9-Jul-09	231																				
16-Jul-09	238																				
23-Jul-09	245																				
30-Jul-09	252	4.26	<0.0005	0.00416	0.0141	0.384	0.000165	0.649	0.151	<0.00001	<0.00005	<0.0005	0.328	0.0015	3.07	<0.00001	<2	<0.00005	0.00118	<0.0005	0.163
6-Aug-09	259																				
13-Aug-09	266																				
20-Aug-09	273																				
27-Aug-09	280	3.68	<0.0005	0.00388	0.0176	0.294	0.000169	0.58	0.126	<0.00001	<0.00005	<0.0005	0.253	0.0013	2.7	<0.00001	<2	<0.00005	0.00069	<0.0005	0.161
3-Sep-09	287																				
10-Sep-09	294																				
17-Sep-09	301																				
24-Sep-09	308	3.39	<0.0005	0.00353	0.0175	0.272	0.000399	0.469	0.111	<0.00001	<0.00005	<0.0005	0.224	<0.001	2.67	<0.00001	<2	<0.00005	0.00166	<0.0005	0.165
1-Oct-09	315																				
8-Oct-09	322																				
15-Oct-09	329																				
22-Oct-09	336	3.33	<0.0005	0.00354	0.0311	0.243	0.000311	0.429	0.109	<0.00001	<0.00005	<0.0005	0.219	<0.001	2.53	<0.00001	<2	<0.00005	0.00171	<0.0005	0.194
29-Oct-09	343																				
5-Nov-09	350																				
12-Nov-09	357																				
19-Nov-09	364	3.27	<0.0005	0.00341	0.0165	0.153	0.000264	0.395	0.103	<0.00001	<0.00005	<0.0005	0.187	<0.001	2.19	<0.00001	<2	<0.00005	0.00179	<0.0005	0.188
26-Nov-09	371																				
3-Dec-09	378																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Dec-09	385	2500	2435																			
17-Dec-09	392	2500	2595	5.14	399	46	<1	6.16	1.4	27	10.2	<0.5	0.08	13.4	0.213	<0.00005	0.00013	0.00611	0.00042	<0.0005	<0.01	0.000166
24-Dec-09	399	2500	2475																			
31-Dec-09	406	2500	2495	4.93	453	53																
7-Jan-10	413	2500	2575																			
14-Jan-10	420	2500	2330	4.58	402	65	3.57	12.97	<1	40	13.7	<0.5	0.157	18.6	0.305	<0.00005	0.00023	0.00871	0.00053	<0.0005	<0.01	0.000249
21-Jan-10	427	2500	2370																			
28-Jan-10	434	2500	2260	4.82	464	58																
4-Feb-10	441	2500	2560																			
11-Feb-10	448	2500	2445	4.31	436	59	2.63	11.12	<1	33	11.9	<0.5	0.127	18	0.339	<0.00005	0.00017	0.00814	0.00063	<0.0005	<0.01	0.000227
18-Feb-10	455	2500	2465																			
25-Feb-10	462	2500	2455	4.15	444	65																
4-Mar-10	469	2500	2455																			
11-Mar-10	476	2500	2480	4.25	492	69	3.14	11.92	<1	37	13.4	<0.5	0.172	21	0.492	<0.00005	0.00012	0.0102	0.00049	<0.0005	<0.01	0.000284
18-Mar-10	483	2500	2470																			
25-Mar-10	490	2500	2370	4.12	468	72																
1-Apr-10	497	2500	2425																			
8-Apr-10	504	2500	2390	4.4	475	75	2.95	12.23	<1	39	13.6	<0.5	0.198	21.9	0.503	<0.00005	0.00011	0.0101	0.00072	<0.0005	<0.01	0.000281
15-Apr-10	511	2500	2430																			
22-Apr-10	518	2500	2505	4.13	450	78																
29-Apr-10	525	2500	2460																			
6-May-10	532	2500	2410	4.09	450	77	4.58	14.29	<1	45	14.4	<0.5	0.175	21.5	0.555	<0.00005	0.0002	0.0106	0.00059	<0.0005	<0.01	0.000293
13-May-10	539	2500	2550																			
20-May-10	546	2500	2470	4.03	459	86																
27-May-10	553	2500	2480																			
3-Jun-10	560	2500	2335	4.02	447	82	4.63	13.15	<1	37	14.5	<0.5	0.193	21.3	0.701	<0.00005	0.00018	0.0119	0.00073	<0.0005	<0.01	0.000307
10-Jun-10	567	2500	2440																			
17-Jun-10	574	2500	2430	4.14	438	85																
24-Jun-10	581	2500	2420																			
1-Jul-10	588	2500	2380	4.33	400	90	3.28	13.85	<1	49	16.9	<0.5	0.247	26.7	0.831	<0.00005	0.00018	0.0137	0.00101	<0.0005	<0.01	0.000366
8-Jul-10	595	2500	2470																			
15-Jul-10	602	2500	2405	4.1	439	93																
22-Jul-10	609	2500	2440																			
29-Jul-10	616	2500	2480	4.11	447	95	6.19	19.52	<1	42	16.3	<0.5	0.28	29.1	0.839	<0.00005	0.00015	0.0147	0.00077	<0.0005	<0.01	0.000347
5-Aug-10	623	2500	2475																			
12-Aug-10	630	2500	2485	4.51	317	89																
19-Aug-10	637	2500	2445																			
26-Aug-10	644	2500	2435	4.22	453	93	4.91	17.06	<1	52	15.1	<0.5	0.274	27.6	0.909	<0.00005	0.00019	0.0151	0.00069	<0.0005	<0.01	0.00034
2-Sep-10	651	2500	2445																			
9-Sep-10	658	2500	2500	4.38	439	86																
16-Sep-10	665	2500	2485																			
23-Sep-10	672	2500	2480	4.36	411	71	3.56	14.13	<1	43	14.2	<0.5	0.254	25.5	0.928	<0.00005	0.00013	0.0143	0.0007	<0.0005	<0.01	0.000301
30-Sep-10	679	2500	2495																			
7-Oct-10	686	2500	2425	4.09	432	97																
14-Oct-10	693	2500	2510																			
21-Oct-10	700	2500	2450	4.14	502	93	5.01	16.07	<1	60	13.6	<0.5	0.241	26	0.958	<0.00005	0.00012	0.0146	0.00057	<0.0005	<0.01	0.000313
28-Oct-10	707	2500	2500																			
4-Nov-10	714	2500	2460	4.44	327	91																
11-Nov-10	721	2500	2465																			
18-Nov-10	728	2500	2470	4.41	289	92	1.69	12.51	<1	38	12.7	<0.5	0.269	25	1.01	<0.00005	0.00014	0.0132	0.0007	<0.0005	<0.01	0.000287
25-Nov-10	735	2500	2545																			
2-Dec-10	742	2500	2650	4.55	419	87																
9-Dec-10	749	2500	2310																			
16-Dec-10	756	2500	2390	4.51	440	75	<1	12.38	<1	57	10.7	<0.5	0.196	20.2	0.866	<0.00005	0.00031	0.0112	0.00042	<0.0005	<0.01	0.000248
23-Dec-10	763	2500	2485																			
30-Dec-10	770	2500	2460	4.48	416	77																
6-Jan-11	777	2500	2515																			
13-Jan-11	784	2500	2440	4.45	421	70	2.67	13.59	<1	76	11.5	<0.5	0.157	23.4	0.97	<0.00005	0.00033	0.0151	0.0005	<0.0005	<0.01	0.000277
20-Jan-11	791	2500	2450																			
27-Jan-11	798	2500	2350	4.31	392	82																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Dec-09	385																				
17-Dec-09	392	3.41	<0.0005	0.0036	0.0137	0.093	0.000451	0.41	0.11	<0.00001	<0.00005	<0.0005	0.199	<0.001	2.41	<0.00001	<2	<0.00005	0.00019	<0.0005	0.209
24-Dec-09	399																				
31-Dec-09	406																				
7-Jan-10	413																				
14-Jan-10	420	4.59	<0.0005	0.00463	0.0212	0.107	0.000739	0.53	0.148	<0.00001	<0.00005	<0.0005	0.244	<0.001	2.92	<0.00001	<2	<0.00005	0.00024	<0.0005	0.304
21-Jan-10	427																				
28-Jan-10	434																				
4-Feb-10	441																				
11-Feb-10	448	3.94	<0.0005	0.00424	0.0224	0.079		0.492	0.132	<0.00001	<0.00005	<0.0005	0.217	<0.001	2.45	<0.00001	<2	<0.00005	0.00034	<0.0005	0.285
18-Feb-10	455																				
25-Feb-10	462																				
4-Mar-10	469																				
11-Mar-10	476	4.39	<0.0005	0.0049	0.0209	0.089	0.000844	0.593	0.166	<0.00001	<0.00005	<0.0005	0.219	<0.001	2.62	<0.00001	<2	<0.00005	0.00048	<0.0005	0.365
18-Mar-10	483																				
25-Mar-10	490																				
1-Apr-10	497																				
8-Apr-10	504	4.43	<0.0005	0.00446	0.023	0.09		0.623	0.164	<0.00001	<0.00005	<0.0005	0.216	<0.001	2.79	<0.00001	<2	<0.00005	0.00031	<0.0005	0.349
15-Apr-10	511																				
22-Apr-10	518																				
29-Apr-10	525																				
6-May-10	532	4.67	<0.0005	0.00468	0.0217	0.096	0.00136	0.656	0.166	<0.00001	<0.00005	<0.0005	0.22	<0.001	2.99	<0.00001	<2	<0.00005	0.00044	<0.0005	0.39
13-May-10	539																				
20-May-10	546																				
27-May-10	553																				
3-Jun-10	560	4.53	<0.0005	0.00489	0.0254	0.097	0.00136	0.77	0.192	<0.00001	<0.00005	<0.0005	0.215	<0.001	2.83	<0.00001	<2	<0.00005	0.00075	<0.0005	0.383
10-Jun-10	567																				
17-Jun-10	574																				
24-Jun-10	581																				
1-Jul-10	588	5.24	<0.0005	0.00544	0.0275	0.094	0.00149	0.933	0.225	<0.00001	<0.00005	<0.0005	0.25	<0.001	3.59	<0.00001	<2	<0.00005	0.00066	<0.0005	0.447
8-Jul-10	595																				
15-Jul-10	602																				
22-Jul-10	609																				
29-Jul-10	616	5.04	<0.0005	0.00478	0.0236	0.107	0.00177	0.891	0.199	<0.00001	<0.00005	<0.0005	0.216	<0.001	3.94	<0.00001	<2	<0.00005	0.00065	<0.0005	0.418
5-Aug-10	623																				
12-Aug-10	630																				
19-Aug-10	637																				
26-Aug-10	644	4.55	<0.0005	0.00482	0.0234	0.109	0.00168	0.918	0.22	<0.00001	<0.00005	<0.0005	0.233	<0.001	3.63	<0.00001	<2	<0.00005	0.00077	<0.0005	0.463
2-Sep-10	651																				
9-Sep-10	658																				
16-Sep-10	665																				
23-Sep-10	672	4.16	<0.0005	0.00403	0.0246	0.098	0.00161	0.919	0.198	<0.00001	<0.00005	<0.0005	0.184	<0.001	3.39	<0.00001	<2	<0.00005	0.00205	<0.0005	0.335
30-Sep-10	679																				
7-Oct-10	686																				
14-Oct-10	693																				
21-Oct-10	700	4.01	<0.0005	0.00419	0.0203	0.092	0.00189	0.871	0.205	<0.00001	<0.00005	<0.0005	0.192	<0.001	3.41	<0.00001	<2	<0.00005	0.00102	<0.0005	0.38
28-Oct-10	707																				
4-Nov-10	714																				
11-Nov-10	721																				
18-Nov-10	728	3.66	<0.0005	0.00397	0.0206	0.083	0.00157	0.875	0.193	<0.00001	<0.00005	<0.0005	0.188	<0.001	3.08	<0.00001	<2	<0.00005	0.00125	<0.0005	0.354
25-Nov-10	735																				
2-Dec-10	742																				
9-Dec-10	749																				
16-Dec-10	756	3.14	<0.0005	0.00336	0.0251	0.07	0.00809	0.703	0.171	<0.00001	<0.00005	<0.0005	0.15	<0.001	3	<0.00001	<2	<0.00005	0.00161	<0.0005	0.263
23-Dec-10	763																				
30-Dec-10	770																				
6-Jan-11	777																				
13-Jan-11	784	3.31	<0.0005	0.00338	0.0341	0.087	0.0074	0.781	0.18	<0.00001	<0.00005	<0.0005	0.213	<0.001	3.21	<0.00001	<2	<0.00005	0.0017	<0.0005	0.274
20-Jan-11	791																				
27-Jan-11	798																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Feb-11	805	2500	2525																			
10-Feb-11	812	2500	2415	4.56	422	109	<1	15.03	<1	49	14.1	<0.5	0.241	29.2	1.32	<0.00005	0.0003	0.016	0.00054	<0.0005	<0.01	0.000335
17-Feb-11	819	2500	2350																			
24-Feb-11	826	2500	2390	4.52	377	92																
3-Mar-11	833	2500	2525																			
10-Mar-11	840	2500	2405	4.51	421	97	<1	14.71	<1	38	11.9	<0.5	0.203	25.3	1.15	<0.00005	0.0003	0.0146	0.00044	<0.0005	<0.01	0.000286
17-Mar-11	847	2500	2490																			
24-Mar-11	854	2500	2505	4.55	378	85																
31-Mar-11	861	2500	2350																			
7-Apr-11	868	2500	2410	4.23	427	95	3.72	16.05	<1	35	11.2	<0.5	0.195	23.3	1.1	<0.00005	0.00035	0.0125	0.0004	<0.0005	<0.01	0.000253
14-Apr-11	875	2500	2545																			
21-Apr-11	882	2500	2400	4.48	349	99																
28-Apr-11	889	2500	2475																			
5-May-11	896	2500	2490	4.3	450	98	3.6	16.35	<1	40	10.9	<0.5	0.193	22.6	1.18	<0.00005	0.00034	0.0135	0.00042	<0.0005	<0.01	0.000259
12-May-11	903	2500	2510																			
19-May-11	910	2500	2460	4.29	461	102																
26-May-11	917	2500	2445																			
2-Jun-11	924	2500	2375	4.4	362	101	3.93	18.21	<1	29	11.4	<0.5	0.191	26.1	1.28	<0.00005	0.00033	0.0141	0.0004	<0.0005	<0.01	0.000261
9-Jun-11	931	2500	2550																			
16-Jun-11	938	2500	2050	4.48	316	112																
23-Jun-11	945	2500	2540																			
30-Jun-11	952	2500	2435	4.39	244	100	4.29	18.96	<1	39	10.3	<0.5	0.198	27.1	1.32	<0.00005	0.00034	0.0139	0.00041	<0.0005	<0.01	0.000243
7-Jul-11	959	2500	2435																			
14-Jul-11	966	2500	2485	4.35	388	113																
21-Jul-11	973	2500	2535																			
28-Jul-11	980	2500	2625	4.25	401	109	7.34	22.24	<1	41	11.7	<0.5	0.227	29.9	1.58	<0.00005	0.00031	0.0155	0.00041	<0.0005	<0.01	0.000275
4-Aug-11	987	2500	2480																			
11-Aug-11	994	2500	2490	4.23	342	114																
18-Aug-11	1001	2500	2565																			
25-Aug-11	1008	2500	2470	4.19	389	110	8.31	25.05	<1	70	10.3	<0.5	0.201	29.4	1.56	<0.00005	0.00033	0.0143	0.00035	<0.0005	<0.01	0.000246
1-Sep-11	1015	2500	2475																			
8-Sep-11	1022	2500	2500	4.34	400	112																
15-Sep-11	1029	2500	2485																			
22-Sep-11	1036	2500	2455	4.18	461	111	7.3	21.65	<1	56	10.6	<0.5	0.195	29.7	1.88	<0.00005	0.00047	0.0136	0.00034	<0.0005	<0.01	0.000245
29-Sep-11	1043	2500	2510																			
6-Oct-11	1050	2500	2475	4.24	412	106																
13-Oct-11	1057	2500	2510																			
20-Oct-11	1064	2500	2540	4.25	401	104	6.15	20.79	<1	38	9.95	<0.5	0.191	27.3	1.55	<0.00005	0.00047	0.0124	0.00028	<0.0005	<0.01	0.000261
27-Oct-11	1071	2500	2535																			
3-Nov-11	1078	2500	2510	4.24	393	106																
10-Nov-11	1085	2500	2505																			
17-Nov-11	1092	2500	2470	4.17	431	107	6.68	22.25	<1	45	10	<0.5	0.175	27.6	1.69	<0.00005	0.00057	0.0131	0.00029	<0.0005	<0.01	0.000215
24-Nov-11	1099	2500	2520																			
1-Dec-11	1106	2500	2465	4.29	460	114																
8-Dec-11	1113	2500	2650																			
15-Dec-11	1120	2500	2500	4.1	442	109	7.4	21.62	<1	39	9.36	<0.5	0.189	28.8	1.59	<0.00005	0.00046	0.0117	0.00026	<0.0005	<0.01	0.00021
22-Dec-11	1127	2500	2495																			
29-Dec-11	1134	2500	2470	3.97	512	115																
5-Jan-12	1141	2500	2490																			
12-Jan-12	1148	2500	2495	4.03	498	113	6.31	19.67	<1	45	9.86	<0.5	0.188	30.3	1.95	<0.00005	0.00036	0.0123	0.00027	<0.0005	<0.01	0.000231
19-Jan-12	1155	2500	2505																			
26-Jan-12	1162	2500	2465	4.06	434	133																
2-Feb-12	1169	2500	2495																			
9-Feb-12	1176	2500	2455	3.97	546	138	7.12	23.29	<1	59	11.5	<0.5	0.207	38.5	2.46	<0.00005	0.00052	0.018	0.0003	<0.0005	<0.01	0.000283
16-Feb-12	1183	2500	2565																			
23-Feb-12	1190	2500	2465	3.92	488	143																
1-Mar-12	1197	2500	2450																			
8-Mar-12	1204	2500	2540	3.94	503	149	10.42	31.98	<1	52	12.9	<0.5	0.225	43.1	3.24	<0.00005	0.00077	0.0153	0.00031	<0.0005	<0.01	0.000317
15-Mar-12	1211	2500	2460																			
22-Mar-12	1218	2500	2415	3.87	493	180																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Feb-11	805																				
10-Feb-11	812	3.97	<0.0005	0.00434	0.0323	0.102	0.00257	1.02	0.239	<0.00001	<0.00005	<0.0005	0.19	<0.001	4.1	<0.00001	<2	<0.00005	0.00118	<0.0005	0.373
17-Feb-11	819																				
24-Feb-11	826																				
3-Mar-11	833																				
10-Mar-11	840	3.36	<0.0005	0.00363	0.0206	0.097	0.00209	0.859	0.198	<0.00001	<0.00005	<0.0005	0.156	<0.001	3.68	<0.00001	<2	<0.00005	0.00167	<0.0005	0.291
17-Mar-11	847																				
24-Mar-11	854																				
31-Mar-11	861																				
7-Apr-11	868	3.15	<0.0005	0.00336	0.0186	0.083	0.00169	0.818	0.181	<0.00001	<0.00005	<0.0005	0.152	<0.001	3.31	<0.00001	<2	<0.00005	0.00151	<0.0005	0.252
14-Apr-11	875																				
21-Apr-11	882																				
28-Apr-11	889																				
5-May-11	896	3.02	<0.0005	0.00331	0.0172	0.107	0.00228	0.813	0.18	<0.00001	<0.00005	<0.0005	0.161	<0.001	3.57	<0.00001	<2	<0.00005	0.00165	<0.0005	0.265
12-May-11	903																				
19-May-11	910																				
26-May-11	917																				
2-Jun-11	924	3.13	<0.0005	0.00333	0.0177	0.11	0.00203	0.883	0.2	<0.00001	<0.00005	<0.0005	0.166	<0.001	3.86	<0.00001	<2	<0.00005	0.00111	<0.0005	0.272
9-Jun-11	931																				
16-Jun-11	938																				
23-Jun-11	945																				
30-Jun-11	952	2.73	<0.0005	0.00323	0.0189	0.139	0.00226	0.854	0.188	<0.00001	<0.00005	<0.0005	0.164	<0.001	3.54	<0.00001	<2	<0.00005	0.00148	<0.0005	0.27
7-Jul-11	959																				
14-Jul-11	966																				
21-Jul-11	973																				
28-Jul-11	980	3.04	<0.0005	0.00362	0.0203	0.124	0.0031	0.994	0.217	<0.00001	<0.00005	<0.0005	0.177	<0.001	3.87	<0.00001	<2	<0.00005	0.00147	<0.0005	0.299
4-Aug-11	987																				
11-Aug-11	994																				
18-Aug-11	1001																				
25-Aug-11	1008	2.65	<0.0005	0.00328	0.0172	0.138	0.00272	0.9	0.193	<0.00001	<0.00005	<0.0005	0.155	<0.001	3.81	<0.00001	<2	<0.00005	0.00176	<0.0005	0.247
1-Sep-11	1015																				
8-Sep-11	1022																				
15-Sep-11	1029																				
22-Sep-11	1036	2.66	<0.0005	0.00338	0.0163	0.144	0.00279	0.962	0.212	<0.00001	<0.00005	<0.0005	0.152	<0.001	3.7	<0.00001	<2	<0.00005	0.00155	<0.0005	0.26
29-Sep-11	1043																				
6-Oct-11	1050																				
13-Oct-11	1057																				
20-Oct-11	1064	2.52	<0.0005	0.00303	0.0194	0.15	0.0124	0.886	0.188	<0.00001	<0.00005	<0.0005	0.138	<0.001	3.39	<0.00001	<2	<0.00005	0.00174	<0.0005	0.249
27-Oct-11	1071																				
3-Nov-11	1078																				
10-Nov-11	1085																				
17-Nov-11	1092	2.51	0.00084	0.00292	0.0208	0.181	0.00266	0.918	0.19	<0.00001	<0.00005	<0.0005	0.132	<0.001	3.39	<0.00001	<2	<0.00005	0.00154	<0.0005	0.23
24-Nov-11	1099																				
1-Dec-11	1106																				
8-Dec-11	1113																				
15-Dec-11	1120	2.37	<0.0005	0.00277	0.0136	0.185	0.00269	0.835	0.174	<0.00001	<0.00005	<0.0005	0.141	<0.001	3.28	<0.00001	<2	<0.00005	0.00137	<0.0005	0.236
22-Dec-11	1127																				
29-Dec-11	1134																				
5-Jan-12	1141																				
12-Jan-12	1148	2.41	<0.0005	0.00303	0.0156	0.199	0.0031	0.935	0.198	<0.00001	<0.00005	<0.0005	0.134	<0.001	3.32	<0.00001	<2	<0.00005	0.00165	<0.0005	0.244
19-Jan-12	1155																				
26-Jan-12	1162																				
2-Feb-12	1169																				
9-Feb-12	1176	2.76	<0.0005	0.00354	0.0224	0.242	0.00403	1.12	0.233	<0.00001	<0.00005	<0.0005	0.155	<0.001	3.96	<0.00001	<2	<0.00005	0.00168	<0.0005	0.299
16-Feb-12	1183																				
23-Feb-12	1190																				
1-Mar-12	1197																				
8-Mar-12	1204	2.95	<0.0005	0.00399	0.0194	0.282	0.00406	1.34	0.278	<0.00001	<0.00005	<0.0005	0.158	<0.001	4.29	<0.00001	<2	<0.00005	0.0058	<0.0005	0.337
15-Mar-12	1211																				
22-Mar-12	1218																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
29-Mar-12	1225	2500	2445																			
5-Apr-12	1232	2500	2410	3.81	546	190	14.86	39.47	<1	66	15.2	<5	0.28	58.4	4.12	<0.00005	0.00062	0.0174	0.00038	<0.0005	<0.01	0.000383
21-Jun-12	1309	2500	2440																			
28-Jun-12	1316	2500	2415	3.53	496	263	28.22	61.83	<1	149	20.6	<5	0.33	77.6	5.47	<0.00005	0.00086	0.0191	0.00041	<0.0005	<0.01	0.000432
5-Jul-12	1323	2500	2570																			
12-Jul-12	1330	2500	2430	3.51	548	255																
19-Jul-12	1337	2500	2455																			
26-Jul-12	1344	2500	2400	3.48	500	285	31.27	64.3	<1	178	20.7	<5	0.31	87.6	6.98	<0.00005	0.00126	0.0195	0.00039	<0.0005	<0.01	0.000468
2-Aug-12	1351	2500	2425																			
9-Aug-12	1358	2500	2420	3.4	494	318																
16-Aug-12	1365	2500	2475																			
23-Aug-12	1372	2500	2445	3.33	513	370	45.2	92.22	<1	205	28	<5	0.38	118	9.7	<0.00005	0.00206	0.0206	0.00051	<0.0005	<0.01	0.000623
30-Aug-12	1379	2500	2450																			
6-Sep-12	1386	2500	2445	3.35	492	341																
13-Sep-12	1393	2500	2445																			
20-Sep-12	1400	2500	2450	3.23	523	439	60.68	107.69	<1	227	27.9	<5	0.45	128	9.66	<0.00005	<0.0001	0.0195	0.00056	<0.0005	<0.01	0.000694
27-Sep-12	1407	2500	2435																			
4-Oct-12	1414	2500	2450	3.18	522	436																
11-Oct-12	1421	2500	2425																			
18-Oct-12	1428	2500	2505	3.09	540	698	108.47	168.51	<1	445	35.9	<5	0.61	232	14.1	<0.00005	0.00301	0.0215	0.00059	<0.0005	<0.01	0.00091
25-Oct-12	1435	2500	2415																			
1-Nov-12	1442	2500	2490	2.93	517	744																
8-Nov-12	1449	2500	2530																			
15-Nov-12	1456	2500	2425	2.93	528	673	119.64	178.71	<1	239	29.8	<5	0.41	196	8.95	<0.00005	0.00224	0.0219	0.00042	<0.0005	<0.01	0.000663
22-Nov-12	1463	2500	2485																			
29-Nov-12	1470	2500	2475	3.08	540	589																
6-Dec-12	1477	2500	2370																			
13-Dec-12	1484	2500	2400	2.97	507	749	95.96	137.99	<1	292	29.8	<5	0.56	213	9.62	<0.00005	0.00248	0.0214	0.00043	<0.0005	<0.01	0.000575
20-Dec-12	1491	2500	2290																			
27-Dec-12	1498	2500	2295	2.97	553	746																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jan-08	0	2500	2045	8.59	395	341	<1	<1	103.5	244	6.83	2.39	0.626	59.5	0.292	0.00128	0.038	0.000503	<0.0002	<0.0005	<0.01	<0.0001
23-Jan-08	7	2500	2410	8.36	422	330																
30-Jan-08	14	2500	2480	8.34	413	221	<1	<1	100.6	135	5.26	<0.5	0.241	17.8	0.175	0.00163	0.0231	0.000975	<0.0002	<0.0005	<0.01	<0.00005
6-Feb-08	21	2500	2510	8.32	413	170																
13-Feb-08	28	2500	2500	8.17	395	163	<1	3.63	81.5	102	6.4	<0.5	0.148	10.4	0.141	0.00133	0.0134	0.000305	<0.0002	<0.0005	<0.01	<0.00005
20-Feb-08	35	2500	2460	8.07	371	129																
27-Feb-08	42	2500	2605	7.96	395	119	<1	4.38	62	69.5	8.07	<0.5	0.075	6.28	0.106	0.000973	0.00958	0.000412	<0.0002	<0.0005	<0.01	<0.0002
5-Mar-08	49	2500	2470	7.82	372	135																
12-Mar-08	56	2500	2545	7.91	397	124	<1	3.47	61	76.8	14.5	<0.5	0.058	7.66	0.0649	0.00115	0.0067	0.000416	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-08	63	2500	2405	7.89	382	119																
26-Mar-08	70	2500	2555	7.73	397	114	<1	4.69	57.2	68.7	22.7	<0.5	0.037	7.48	0.0465	0.000946	0.00337	0.000792	<0.0002	<0.0005	<0.01	<0.00005
2-Apr-08	77	2500	2495	7.79	394	90																
9-Apr-08	84	2500	2475	7.83	395	130	<1	3.49	53.5	66.5	25.1	<0.5	0.04	9.93	0.0409	0.000937	0.00321	0.000694	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-08	91	2500	2575	7.85	376	122																
23-Apr-08	98	2500	2585	7.82	394	103	<1	3.62	48.4	61.7	27.1	<0.5	0.031	7.35	0.0394	0.000947	0.00252	0.000703	<0.0002	<0.0005	<0.01	<0.00005
30-Apr-08	105	2500	2640	7.79	375	103																
7-May-08	112	2500	2520	7.87	321	113	<1	3.31	52.2	60.9	36.8	<0.5	0.03	7.08	0.0299	0.00104	0.00225	0.000797	<0.0002	<0.0005	<0.01	<0.00005
14-May-08	119	2500	2555	7.8	278	101																
21-May-08	126	2500	2440	7.77	247	100	<1	4.53	44.1	52.4	35.1	<0.5	0.022	6.94	0.0357	0.000819	0.00187	0.000652	<0.0002	<0.0005	<0.01	<0.00005
28-May-08	133	2500	2480	7.8	271	102																
4-Jun-08	140	2500	2435	7.92	386	85	<1	3.12	45	63.8	40.3	<0.5	<0.02	7.32	0.0317	0.000871	0.00166	0.000927	<0.0002	<0.0005	<0.01	<0.00005
11-Jun-08	147	2500	2565	7.82	314	79																
18-Jun-08	154	2500	2435	7.77	220	73	<1	4.9	44.6	51	41.2	<0.5	<0.02	7.17	0.0325	0.000847	0.00157	0.000685	<0.0002	<0.0005	<0.01	<0.00005
25-Jun-08	161	2500	2510	7.82	255	92																
2-Jul-08	168	2500	2540	7.75	335	81	<1	3.13	36.2	49.7	41.4	<0.5	<0.02	8.15	0.0393	0.000875	0.00164	0.000695	<0.0002	<0.0005	<0.01	0.000053
9-Jul-08	175	2500	2495	7.84	271	93																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
29-Mar-12	1225																				
5-Apr-12	1232	3.31	<0.0005	0.00458	0.0229	0.475	0.00657	1.69	0.355	<0.00001	<0.00005	<0.0005	0.193	<0.001	4.38	<0.00001	<2	<0.00005	0.00475	<0.0005	0.425
21-Jun-12	1309																				
28-Jun-12	1316	4.25	<0.0005	0.006	0.0249	1.11	0.011	2.42	0.497	<0.00001	<0.00005	<0.0005	0.235	<0.001	6.12	<0.00001	<2	<0.00005	0.0036	<0.0005	0.451
5-Jul-12	1323																				
12-Jul-12	1330																				
19-Jul-12	1337																				
26-Jul-12	1344	4.01	<0.0005	0.00664	0.0312	1.5	0.0139	2.6	0.556	<0.00001	<0.00005	<0.0005	0.237	<0.001	5.56	<0.00001	<2	<0.00005	0.00316	<0.0005	0.48
2-Aug-12	1351																				
9-Aug-12	1358																				
16-Aug-12	1365																				
23-Aug-12	1372	5.2	0.00071	0.00889	0.0335	2.39	0.0125	3.66	0.744	<0.00001	<0.00005	<0.0005	0.266	<0.001	6.53	<0.00001	<2	<0.00005	0.00318	<0.0005	0.618
30-Aug-12	1379																				
6-Sep-12	1386																				
13-Sep-12	1393																				
20-Sep-12	1400	5.09	<0.0005	0.00952	0.0407	4.71	0.0388	3.68	0.702	<0.00001	<0.00005	<0.0005	0.272	<0.001	6.68	0.00001	<2	<0.00005	0.00312	<0.0005	0.733
27-Sep-12	1407																				
4-Oct-12	1414																				
11-Oct-12	1421																				
18-Oct-12	1428	7.38	<0.0005	0.0138	0.0508	17	0.0232	4.25	0.855	<0.00001	<0.00005	<0.0005	0.3	<0.001	7.4	<0.00001	<2	<0.00005	0.00306	<0.0005	0.899
25-Oct-12	1435																				
1-Nov-12	1442																				
8-Nov-12	1449																				
15-Nov-12	1456	6.32	<0.0005	0.0113	0.0684	16.6	0.0196	3.4	0.685	<0.00001	<0.00005	<0.0005	0.525	<0.001	8.47	0.00049	<2	<0.00005	0.00282	<0.0005	0.619
22-Nov-12	1463																				
29-Nov-12	1470																				
6-Dec-12	1477																				
13-Dec-12	1484	6.3	<0.0005	0.0118	0.0346	23.2	0.0183	3.42	0.665	<0.00001	<0.00005	<0.0005	0.371	<0.001	8.39	0.00002	<2	<0.00005	0.00366	<0.0005	0.59
20-Dec-12	1491																				
27-Dec-12	1498																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jan-08	0	2.47	<0.0005	0.00025	0.0102	0.058	<0.00005	0.163	0.00246	<0.00001	0.134	<0.0005	1.97	0.004	1.8	<0.00001	79.2	<0.00005	0.00116	0.0276	0.0066
23-Jan-08	7																				
30-Jan-08	14	1.95	<0.0005	<0.0001	0.0016	0.03	<0.00005	0.095	0.00612	<0.00001	0.073	<0.0005	1.77	0.0014	1.35	<0.00001	49.9	<0.00005	0.00162	0.0148	0.095
6-Feb-08	21																				
13-Feb-08	28	2.37	<0.0005	<0.0001	0.00142	<0.03	<0.00005	0.114	0.00858	<0.00001	0.048	<0.0005	1.73	<0.001	0.996	<0.00001	36.6	<0.00005	0.00128	0.00822	<0.001
20-Feb-08	35																				
27-Feb-08	42	3.02	<0.0005	<0.0001	0.00224	<0.03	<0.00005	0.132	0.012	<0.00001	0.0451	<0.0005	1.97	<0.001	0.915	<0.00001	27	<0.00005	0.00177	0.00636	<0.001
5-Mar-08	49																				
12-Mar-08	56	5.37	<0.0005	<0.0001	0.0006	<0.03	<0.00005	0.258	0.0146	<0.00001	0.0759	<0.0005	2.35	<0.001	0.904	<0.00001	24.5	<0.00005	0.00217	0.00374	<0.001
19-Mar-08	63																				
26-Mar-08	70	8.44	<0.0005	<0.0001	0.00087	<0.03	<0.00005	0.387	0.0168	<0.00001	0.0772	0.00091	2.35	<0.001	0.873	<0.00001	16.5	<0.00005	0.00181	0.00197	0.0018
2-Apr-08	77																				
9-Apr-08	84	9.31	<0.0005	<0.0001	0.00143	<0.03	0.00007	0.441	0.014	<0.00001	0.109	<0.0005	2.64	<0.001	0.845	<0.00001	16	<0.00005	0.00182	0.00203	0.0037
16-Apr-08	91																				
23-Apr-08	98	10.1	<0.0005	<0.0001	0.00058	<0.03	<0.00005	0.448	0.0143	<0.00001	0.0892	<0.0005	2.37	<0.001	0.775	<0.00001	10.5	<0.00005	0.00178	0.00156	<0.001
30-Apr-08	105																				
7-May-08	112	13.6	<0.0005	<0.0001	0.0005	<0.03	<0.00005	0.692	0.0113	<0.00001	0.091	<0.0005	2.71	<0.001	0.873	<0.00001	8.4	<0.00005	0.00235	0.00136	<0.001
14-May-08	119																				
21-May-08	126	13.1	<0.0005	<0.0001	0.00072	<0.03		0.578	0.00956	<0.00001	0.076	<0.0005	2.17	<0.001	0.792	<0.00001	5	<0.00005	0.00215	0.00138	<0.001
28-May-08	133																				
4-Jun-08	140	15	<0.0005	<0.0001	0.00049	<0.03	<0.00005	0.695	0.0151	<0.00001	0.0824	<0.0005	2.33	<0.001	0.799	<0.00001	3.6	<0.00005	0.00232	0.00114	<0.001
11-Jun-08	147																				
18-Jun-08	154	15.5	<0.0005	<0.0001	0.00028	<0.03	<0.00005	0.621	0.0117	<0.00001	0.0723	<0.0005	2.19	<0.001	0.816	<0.00001	2.9	<0.00005	0.00233	0.00109	<0.001
25-Jun-08	161																				
2-Jul-08	168	15.5	<0.0005	<0.0001	0.00022	<0.03	<0.00005	0.678	0.0156	<0.00001	0.0836	<0.0005	2.26	<0.001	0.825	<0.00001	<2	<0.00005	0.00285	0.00135	<0.001
9-Jul-08	175																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jul-08	182	2500	2405	7.78	327	85	<1	3.38	40.2	54.3	41	<0.5	<0.02	7.8	0.0353	0.000747	0.00145	0.000685	<0.0002	<0.0005	<0.01	<0.00005
23-Jul-08	189	2500	2570	7.79	333	84																
30-Jul-08	196	2500	2465	7.71	372	82	<1	2.92	39.6	36	37.3	<0.5	<0.02	6.86	0.0376	0.000562	0.0013	0.000554	<0.0002	<0.0005	<0.01	<0.00005
6-Aug-08	203	2500	2485	7.78	391	81																
13-Aug-08	210	2500	2485	7.74	303	89	<1	3.01	36.3	44.8	38.7	<0.5	<0.02	7.67	0.0341	0.000628	0.00116	0.000565	<0.0002	<0.0005	<0.01	<0.00005
20-Aug-08	217	2500	2505	7.77	331	90																
27-Aug-08	224	2500	2540	7.65	358	88	<1	3.6	41.4	49.3	39.4	<0.5	<0.02	6.98	0.036	0.000669	0.00121	0.000612	<0.0002	<0.0005	<0.01	<0.00005
3-Sep-08	231	2500	2475	7.7	314	92																
10-Sep-08	238	2500	2455	7.82	316	94	<1	2.22	47.5	53.3	41.3	<0.5	<0.02	7.38	0.0363	0.000683	0.00123	0.000621	<0.0002	<0.0005	<0.01	<0.00005
17-Sep-08	245	2500	2550	7.82	314	92																
24-Sep-08	252	2500	2475	7.72	293	96	<1	3.32	41.6	60.6	41.5	<0.5	<0.02	6.81	0.032	0.000635	0.00119	0.000578	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-08	259	2500	2460	7.81	424	95																
8-Oct-08	266	2500	2510	7.71	278	89	<1	3.12	38.4	60.1	41.4	<0.5	<0.02	6.46	0.0306	0.000567	0.00094	0.000546	<0.0002	<0.0005	<0.01	<0.00005
15-Oct-08	273	2500	2455	7.67	400	78																
22-Oct-08	280	2500	2505	7.61	395	79	<1	3.52	37.1	58.3	38.9	<0.5	<0.02	5.97	0.0259	0.000455	0.00065	0.00045	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-08	287	2500	2430	7.67	444	85																
5-Nov-08	294	2500	2440	7.66	397	74	<1	3.8	36.3	46.1	37.3	<0.5	<0.02	5.83	0.0276	0.000438	0.00066	0.000464	<0.0002	<0.0005	<0.01	<0.00005
12-Nov-08	301	2500	2445	7.67	421	70																
19-Nov-08	308	2500	2460	7.65	431	61	<1	2.62	34.6	47.8	34.9	<0.5	<0.02	5.73	0.031	0.000408	0.0006	0.000567	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-08	315	2500	2480	7.62	374	66																
3-Dec-08	322	2500	2440	7.72	347	79	<1	2.57	42	46	39.4	<0.5	<0.02	5.33	0.0324	0.000459	0.00075	0.00048	<0.0002	<0.0005	<0.01	<0.00005
10-Dec-08	329	2500	2470	7.69	333	76																
17-Dec-08	336	2500	2540	7.52	348	71				37.5	36	<0.5	<0.02	4.86	0.0244	0.000424	0.00057	0.000401	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-08	343	2500	2450	7.67	264	90																
31-Dec-08	350	2500	2395	7.74	240	94	<1	9.5	45.4	50.2	39.7	<0.5	<0.02	5.42	0.0222	0.000423	0.00059	0.000666	<0.0002	<0.0005	<0.01	<0.00005
7-Jan-09	357	2500	2600	7.58	182	85																
14-Jan-09	364	2500	2330	7.73	330	115	<1	4.91	64.6	70.8	59.5	<0.5	<0.02	4.75	0.0167	0.000548	0.00062	0.000825	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-09	371	2500	2390	7.54	382	78																
28-Jan-09	378	2500	2395	7.63	314	99	<1	6.39	57.5	56.3	51.7	<0.5	<0.02	5.23	0.0138	0.000425	0.00047	0.000532	<0.0002	<0.0005	<0.01	<0.00005
4-Feb-09	385	2500	2400	7.6	310	102																
11-Feb-09	392	2500	2470	7.78	296	84	<1	6.75	47	45.1	42.5	<0.5	<0.02	5.3	0.027	0.000537	0.00061	0.000491	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-09	399	2500	2325	7.77	360	84																
25-Feb-09	406	2500	2220	7.68	275	85	<1	6.19	48	51.7	41.9	<0.5	<0.02	4.84	0.037	0.00038	0.0007	0.000445	<0.0002	<0.0005	<0.01	<0.00005
4-Mar-09	413	2500	2345	7.55	204	88																
11-Mar-09	420	2500	2140	7.42	298	86	<1	5.44	49.8	46.8	44.8	<0.5	<0.02	4.53	0.0257	0.000448	0.00066	0.000588	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-09	427	2500	2340	7.58	325	88																
25-Mar-09	434	2500	2510	7.43	347	80	<1	4.83	43.9	45.3	40.1	<0.5	<0.02	4.38	0.0299	0.000387	0.00067	0.000482	<0.0002	<0.0005	<0.01	<0.00005
1-Apr-09	441	2500	2240	7.46	346	83																
8-Apr-09	448	2500	2340	7.59	346	86	<1	3.69	47.5	51	44.2	<0.5	<0.02	5.17	0.0257	0.000438	0.00056	0.000492	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-09	455	2500	2545	7.63	361	81																
22-Apr-09	462	2500	2410	7.67	355	82																
29-Apr-09	469	2500	2460																			
6-May-09	476	2500	2385	7.53	353	83	<1	4.49	45.5	46.3	41.9	<0.5	<0.02	5.49	0.029	0.000394	0.00055	0.000465	<0.0002	<0.0005	<0.01	<0.00005
13-May-09	483	2500	2520																			
20-May-09	490	2500	2485	7.57	344	79																
27-May-09	497	2500	2385																			
3-Jun-09	504	2500	2320	7.68	325	70	<1	3.16	46.5	37.1		<0.5	<0.02	6.35								
10-Jun-09	511	2500	2430																			
17-Jun-09	518	2500	2480	7.69	388	63																
24-Jun-09	525	2500	2460																			
1-Jul-09	532	2500	2455	7.55	306	59	<1	3.42	40.9	43		<0.5	<0.02	4.9								
8-Jul-09	539	2500	2425																			
15-Jul-09	546	2500	2515	7.5	353	57																
22-Jul-09	553	2500	2145																			
29-Jul-09	560	2500	2460	7.4	312	58	<1	4.61	32.7	33.9		<0.5	<0.02	5.34								
5-Aug-09	567	2500	2445																			
12-Aug-09	574	2500	2245	7.42	257	76																
19-Aug-09	581	2500	2435																			
26-Aug-09	588	2500	2440	7.5	219	61	<1	4.17	34.7	34.8		<0.5	<0.02	4.73								
2-Sep-09	595	2500	2285																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jul-08	182	15.3	<0.0005	<0.0001	0.00047	<0.03	<0.00005	0.699	0.0142	<0.00001	0.0766	<0.0005	1.98	<0.001	0.742	<0.00001	<2	<0.00005	0.00308	0.00102	<0.001
23-Jul-08	189																				
30-Jul-08	196	14	<0.0005	<0.0001	0.00016	<0.03	<0.00005	0.584	0.015	<0.00001	0.0654	<0.0005	1.6	<0.001	0.631	<0.00001	<2	<0.00005	0.00299	0.00091	<0.001
6-Aug-08	203																				
13-Aug-08	210	14.5	<0.0005	<0.0001	0.00033	<0.03	<0.00005	0.616	0.014	<0.00001	0.074	<0.0005	1.48	<0.001	0.63	<0.00001	<2	<0.00005	0.00315	0.00082	<0.001
20-Aug-08	217																				
27-Aug-08	224	14.7	<0.0005	<0.0001	0.00035	<0.03	<0.00005	0.656	0.0145	<0.00001	0.0712	<0.0005	1.53	<0.001	0.661	<0.00001	<2	<0.00005	0.00339	0.00087	<0.001
3-Sep-08	231																				
10-Sep-08	238	15.3	<0.0005	<0.0001	0.00021	<0.03	<0.00005	0.712	0.0175	<0.00001	0.0711	<0.0005	1.63	<0.001	0.71	<0.00001	<2	<0.00005	0.00361	0.00086	<0.001
17-Sep-08	245																				
24-Sep-08	252	15.5	<0.0005	<0.0001	0.00017	<0.03	<0.00005	0.672	0.0162	<0.00001	0.0657	<0.0005	1.53	<0.001	0.728	<0.00001	<2	<0.00005	0.00337	0.00083	0.0012
1-Oct-08	259																				
8-Oct-08	266	15.6	<0.0005	<0.0001	0.00035	<0.03	<0.00005	0.608	0.0151	<0.00001	0.063	<0.0005	1.4	<0.001	0.656	<0.00001	<2	<0.00005	0.00309	0.0007	<0.001
15-Oct-08	273																				
22-Oct-08	280	14.6	<0.0005	<0.0001	0.00012	<0.03	<0.00005	0.578	0.0165	<0.00001	0.0561	<0.0005	1.11	<0.001	0.563	<0.00001	<2	<0.00005	0.00426	0.00051	<0.001
29-Oct-08	287																				
5-Nov-08	294	14	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.544	0.0172	<0.00001	0.0484	<0.0005	1.09	<0.001	0.529	<0.00001	<2	<0.00005	0.00459	<0.0005	<0.001
12-Nov-08	301																				
19-Nov-08	308	13.2	<0.0005	<0.0001	0.00179	<0.03	<0.00005	0.453	0.0162	<0.00001	0.0505	<0.0005	0.892	<0.001	0.476	<0.00001	<2	<0.00005	0.00411	<0.0005	<0.001
26-Nov-08	315																				
3-Dec-08	322	14.8	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.599	0.0227	<0.00001	0.054	<0.0005	1.25	<0.001	0.557	<0.00001	<2	<0.00005	0.00472	0.00062	<0.001
10-Dec-08	329																				
17-Dec-08	336	13.7	<0.0005	<0.0001	0.00011	<0.03	<0.00005	0.421	0.0185	<0.00001	0.044	<0.0005	0.999	<0.001	0.521	<0.00001	<2	<0.00005	0.00442	<0.0005	<0.001
24-Dec-08	343																				
31-Dec-08	350	14.9	<0.0005	<0.0001	0.00127	<0.03	<0.00005	0.578	0.0295	<0.00001	0.0524	<0.0005	1.03	<0.001	0.52	<0.00001	<2	<0.00005	0.00433	<0.0005	<0.001
7-Jan-09	357																				
14-Jan-09	364	22.3	<0.0005	<0.0001	0.00038	<0.03	<0.00005	0.96	0.0366	<0.00001	0.046	<0.0005	1.45	<0.001	0.777	<0.00001	<2	<0.00005	0.00434	0.00053	<0.001
21-Jan-09	371																				
28-Jan-09	378	19.5	<0.0005	<0.0001	0.00045	<0.03	<0.00005	0.731	0.0352	<0.00001	0.0401	<0.0005	1.09	<0.001	0.611	<0.00001	<2	<0.00005	0.00458	<0.0005	<0.001
4-Feb-09	385																				
11-Feb-09	392	15.8	<0.0005	<0.0001	0.00026	<0.03	<0.00005	0.72	0.0269	<0.00001	0.0512	<0.0005	1.21	<0.001	0.597	<0.00001	<2	<0.00005	0.00542	0.00057	<0.001
18-Feb-09	399																				
25-Feb-09	406	15.7	<0.0005	<0.0001	0.00027	<0.03	<0.00005	0.663	0.0279	<0.00001	0.0405	<0.0005	1.08	<0.001	0.55	<0.00001	<2	<0.00005	0.00473	<0.0005	<0.001
4-Mar-09	413																				
11-Mar-09	420	16.9	<0.0005	<0.0001	0.00035	0.036	<0.00005	0.599	0.032	<0.00001	0.0409	<0.0005	1.39	<0.001	0.637	<0.00001	<2	<0.00005	0.00434	<0.0005	<0.001
18-Mar-09	427																				
25-Mar-09	434	15.2	<0.0005	<0.0001	0.00024	<0.03	<0.00005	0.531	0.0264	<0.00001	0.0351	<0.0005	1.13	<0.001	0.552	<0.00001	<2	<0.00005	0.00423	<0.0005	<0.001
1-Apr-09	441																				
8-Apr-09	448	16.7	<0.0005	<0.0001	0.00033	<0.03	<0.00005	0.593	0.028	<0.00001	0.0391	<0.0005	1.09	<0.001	0.612	<0.00001	<2	<0.00005	0.00498	<0.0005	<0.001
15-Apr-09	455																				
22-Apr-09	462																				
29-Apr-09	469																				
6-May-09	476	15.9	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.516	0.0235	<0.00001	0.0415	<0.0005	0.948	<0.001	0.567	<0.00001	<2	<0.00005	0.00527	<0.0005	<0.001
13-May-09	483																				
20-May-09	490																				
27-May-09	497																				
3-Jun-09	504																				
10-Jun-09	511																				
17-Jun-09	518																				
24-Jun-09	525																				
1-Jul-09	532																				
8-Jul-09	539																				
15-Jul-09	546																				
22-Jul-09	553																				
29-Jul-09	560																				
5-Aug-09	567																				
12-Aug-09	574																				
19-Aug-09	581																				
26-Aug-09	588																				
2-Sep-09	595																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Sep-09	602	2500	2320	7.62	292	62																
16-Sep-09	609	2500	2390																			
23-Sep-09	616	2500	2380	7.48	310	65	<1	5.23	41.8	41		<0.5	0.076	4								
30-Sep-09	623	2500	2470																			
7-Oct-09	630	2500	2460	7.39	247	63																
14-Oct-09	637	2500	2465																			
21-Oct-09	644	2500	2415	7.54	232	67	<1	3.98	38.1	41		<0.5	<0.02	4.15								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jan-08	0	2500	2030	7.7	437	613	<1	5.6	63.9	392	72.9	3.74	1.27	202	0.129	0.00458	0.00279	0.0121	<0.001	<0.0025	<0.05	<0.00025
23-Jan-08	7	2500	2475	7.81	453	391																
30-Jan-08	14	2500	2605	7.76	444	248	<1	5.4	67.9	150	33.4	<0.5	0.536	56.2	0.0777	0.00479	0.00245	0.0142	<0.0002	<0.0005	0.021	<0.00005
6-Feb-08	21	2500	2515	7.69	450	173																
13-Feb-08	28	2500	2670	7.63	424	144	<1	6.03	51.7	85	31.7	<0.5	0.279	25.8	0.0982	0.00343	0.00167	0.0182	<0.0002	<0.0005	0.01	<0.00005
20-Feb-08	35	2500	2645	7.47	412	131																
27-Feb-08	42	2500	2615	7.38	424	123	<1	5.45	44.1	73.5	37.3	<0.5	0.167	20.3	0.096	0.00377	0.00146	0.0242	<0.0002	<0.0005	<0.01	<0.00005
5-Mar-08	49	2500	2400	7.39	401	151																
12-Mar-08	56	2500	2675	7.45	410	125	<1	4.98	49.8	74.3	46	<0.5	0.117	16.8	0.0526	0.00411	0.00125	0.0363	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-08	63	2500	2585	7.42	407	132																
26-Mar-08	70	2500	2435	7.33	408	138	<1	5.9	54.2	84.2	50.2	<0.5	0.095	16.2	0.0377	0.00337	0.00082	0.0304	<0.0002	<0.0005	<0.01	0.000085
2-Apr-08	77	2500	2600	7.45	406	109																
9-Apr-08	84	2500	2450	7.32	403	114	<1	4.06	42.2	57.5	44	<0.5	0.074	13.1	0.0619	0.00266	0.00099	0.0306	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-08	91	2500	2510	7.38	372	130																
23-Apr-08	98	2500	2565	7.44	404	109	<1	4.08	43.7	77.2	45.5	<0.5	0.063	12.2	0.0555	0.00317	0.00084	0.0359	<0.0002	<0.0005	<0.01	<0.00005
30-Apr-08	105	2500	2710	7.4	343	101																
7-May-08	112	2500	2430	7.48	269	124	<1	4.43	48.9	78.4	55	<0.5	0.062	13.4	0.0415	0.00339	0.00082	0.0424	<0.0002	<0.0005	<0.01	<0.00005
14-May-08	119	2500	2670	7.49	217	108																
21-May-08	126	2500	2460	7.36	205	111	<1	4.3	40.6	61.4	47.4	<0.5	0.062	13	0.0538	0.00272	0.00072	0.0343	<0.0002	<0.0005	<0.01	<0.00005
28-May-08	133	2500	2495	7.53	229	115																
4-Jun-08	140	2500	2435	7.39	353	97	<1	3.34	45.5	72.3	52.1	<0.5	0.046	12.6	0.0417	0.00302	0.00072	0.0359	<0.0002	<0.0005	<0.01	<0.00005
11-Jun-08	147	2500	2640	7.41	319	83																
18-Jun-08	154	2500	2545	7.26	221	76	<1	5.16	39.9	56.5	48.1	<0.5	0.045	12.5	0.0662	0.00294	0.00077	0.0356	<0.0002	<0.0005	<0.01	<0.00005
25-Jun-08	161	2500	2465	7.38	240	109																
2-Jul-08	168	2500	2540	7.29	286	91	<1	3.35	32.1	54.7	48.4	<0.5	0.057	14.5	0.0712	0.00309	0.00083	0.0367	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-08	175	2500	2515	7.46	235	110																
16-Jul-08	182	2500	2515	7.39	294	101	<1	4.31	39.3	67.3	50.3	<0.5	0.051	13.9	0.0633	0.00315	0.00076	0.041	<0.0002	<0.0005	<0.01	<0.00005
23-Jul-08	189	2500	2535	7.46	308	107																
30-Jul-08	196	2500	2535	7.46	340	104	<1	3.37	39.6	52	48.4	<0.5	0.039	12.4	0.0508	0.00251	0.00068	0.0358	<0.0002	<0.0005	<0.01	<0.00005
6-Aug-08	203	2500	2535	7.56	287	105																
13-Aug-08	210	2500	2535	7.44	202	104	<1	3.56	37.5	54.8	47.3	<0.5	0.033	11.6	0.0573	0.00246	0.00062	0.035	<0.0002	<0.0005	<0.01	<0.00005
20-Aug-08	217	2500	2540	7.56	166	102																
27-Aug-08	224	2500	2525	7.52	245	103	<1	3.8	42.5	59.8	47.4	<0.5	0.036	11.9	0.0555	0.0027	0.00071	0.0375	<0.0002	<0.0005	<0.01	<0.00005
3-Sep-08	231	2500	2600	7.37	159	102																
10-Sep-08	238	2500	2585	7.58	195	110	<1	2.66	47.2	57.3	50.4	<0.5	0.032	12.2	0.0572	0.00266	0.00062	0.0387	<0.0002	<0.0005	<0.01	<0.00005
17-Sep-08	245	2500	2535	7.54	184	104																
24-Sep-08	252	2500	2510	7.39	190	100	<1	3.47	37.8	58.1	44.3	<0.5	<0.02	10.5	0.0569	0.00212	0.00057	0.034	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-08	259	2500	2495	7.48	339	100																
8-Oct-08	266	2500	2535	7.35	284	94	<1	3.34	34.5	66.6	45.2	<0.5	0.026	10.3	0.059	0.00206	0.00054	0.0309	<0.0002	<0.0005	<0.01	<0.00005
15-Oct-08	273	2500	2510	7.34	306	94																
22-Oct-08	280	2500	2510	7.41	379	99	<1	3.68	39.7	65.8	49.6	<0.5	0.021	10.7	0.038	0.00202	0.00043	0.0353	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-08	287	2500	2500	7.34	367	90																
5-Nov-08	294	2500	2505	7.3	338	86	<1	3.68	34.6	50.6	43.7	<0.5	0.025	10.5	0.0539	0.00196	0.00048	0.0315	<0.0002	<0.0005	<0.01	<0.00005
12-Nov-08	301	2500	2500	7.38	304	82																
19-Nov-08	308	2500	2370	7.42	350	71	<1	2.76	33.9	49.3	42	<0.5	<0.02	10	0.0553	0.0018	0.00043	0.0316	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-08	315	2500	2560	7.29	316	80																
3-Dec-08	322	2500	2450	7.59	248	96	<1	2.53	47.1	63	49	<0.5	<0.02	9.24	0.0404	0.00195	0.00037	0.038	<0.0002	<0.0005	<0.01	<0.00005
10-Dec-08	329	2500	2445	7.42	183	95																
17-Dec-08	336	2500	2380	7.25	279	95				57	50.5	<0.5	<0.02	8.97	0.0365	0.00178	0.00032	0.0346	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Sep-09	602																				
16-Sep-09	609																				
23-Sep-09	616																				
30-Sep-09	623																				
7-Oct-09	630																				
14-Oct-09	637																				
21-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jan-08	0	28.2	<0.0025	<0.0005	0.00231	<0.03	0.00033	0.59	0.00922	<0.00001	0.0172	<0.0025	3.66	0.0498	1.77	<0.00005	97.2	<0.00025	0.00096	0.0026	<0.005
23-Jan-08	7																				
30-Jan-08	14	13.2	<0.0005	<0.0001	0.00062	<0.03	0.000165	0.146	0.00318	<0.00001	0.00682	<0.0005	1.83	0.0137	1.73	<0.00001	39.6	<0.00005	0.00143	0.0015	<0.001
6-Feb-08	21																				
13-Feb-08	28	12.5	<0.0005	<0.0001	0.00068	<0.03	0.000249	0.14	0.00352	<0.00001	0.00427	<0.0005	1.67	0.0078	1.26	<0.00001	17.7	<0.00005	0.0012	0.00115	<0.001
20-Feb-08	35																				
27-Feb-08	42	14.7	<0.0005	<0.0001	0.012	<0.03	0.000282	0.158	0.00502	<0.00001	0.00446	<0.0005	1.77	0.0081	1.19	<0.00001	11.4	<0.00005	0.00223	0.00092	0.0012
5-Mar-08	49																				
12-Mar-08	56	18.1	<0.0005	<0.0001	0.00223	<0.03	0.000346	0.192	0.00694	<0.00001	0.00459	<0.0005	1.86	0.0092	1.14	<0.00001	8.3	<0.00005	0.0016	0.00064	<0.001
19-Mar-08	63																				
26-Mar-08	70	19.8	<0.0005	<0.0001	0.00141	<0.03	0.0007	0.181	0.00735	<0.00001	0.00367	<0.0005	1.45	0.0075	1.02	<0.00001	6	<0.00005	0.00081	<0.0005	0.0011
2-Apr-08	77																				
9-Apr-08	84	17.3	<0.0005	<0.0001	0.00189	<0.03	0.000285	0.159	0.00517	<0.00001	0.00343	<0.0005	1.34	0.007	0.836	<0.00001	3.8	<0.00005	0.00139	<0.0005	0.0036
16-Apr-08	91																				
23-Apr-08	98	17.9	<0.0005	<0.0001	0.00056	<0.03	0.000292	0.178	0.00838	<0.00001	0.00385	<0.0005	1.4	0.0077	0.815	<0.00001	2.8	<0.00005	0.00125	<0.0005	0.0012
30-Apr-08	105																				
7-May-08	112	21.6	<0.0005	<0.0001	0.00104	<0.03	0.000366	0.241	0.00826	<0.00001	0.00417	<0.0005	1.59	0.0089	0.852	<0.00001	2.5	<0.00005	0.00141	<0.0005	0.0014
14-May-08	119																				
21-May-08	126	18.7	<0.0005	<0.0001	0.00045	<0.03	0.000273	0.181	0.00555	<0.00001	0.0038	<0.0005	1.2	0.008	0.787	<0.00001	<2	<0.00005	0.00151	<0.0005	<0.001
28-May-08	133																				
4-Jun-08	140	20.6	<0.0005	<0.0001	0.00071	<0.03	0.000269	0.183	0.00992	<0.00001	0.00423	<0.0005	1.25	0.0082	0.793	<0.00001	<2	<0.00005	0.0012	<0.0005	<0.001
11-Jun-08	147																				
18-Jun-08	154	19	<0.0005	<0.0001	0.00029	<0.03	0.000258	0.173	0.0053	<0.00001	0.00371	<0.0005	1.22	0.0088	0.757	<0.00001	<2	<0.00005	0.00171	<0.0005	<0.001
25-Jun-08	161																				
2-Jul-08	168	19.1	<0.0005	<0.0001	0.00039	<0.03	0.000284	0.17	0.0056	<0.00001	0.00494	<0.0005	1.26	0.0108	0.794	<0.00001	<2	<0.00005	0.00271	<0.0005	<0.001
9-Jul-08	175																				
16-Jul-08	182	19.8	<0.0005	<0.0001	0.00067	<0.03	0.000313	0.206	0.00679	0.000012	0.00509	<0.0005	1.31	0.0106	0.751	<0.00001	<2	<0.00005	0.003	<0.0005	<0.001
23-Jul-08	189																				
30-Jul-08	196	19.1	<0.0005	<0.0001	0.00048	<0.03	0.000295	0.172	0.00551	<0.00001	0.00401	<0.0005	1.02	0.0096	0.671	<0.00001	<2	<0.00005	0.00262	<0.0005	<0.001
6-Aug-08	203																				
13-Aug-08	210	18.7	<0.0005	<0.0001	0.00091	<0.03	0.000312	0.169	0.00565	<0.00001	0.00382	<0.0005	0.951	0.0077	0.632	<0.00001	<2	<0.00005	0.00324	<0.0005	<0.001
20-Aug-08	217																				
27-Aug-08	224	18.7	<0.0005	<0.0001	0.00087	<0.03	0.000317	0.169	0.00496	<0.00001	0.00418	<0.0005	0.895	0.0084	0.653	<0.00001	<2	<0.00005	0.0034	<0.0005	0.0013
3-Sep-08	231																				
10-Sep-08	238	19.9	<0.0005	<0.0001	0.00032	<0.03	0.000293	0.181	0.00585	<0.00001	0.00379	<0.0005	0.974	0.0088	0.646	<0.00001	<2	<0.00005	0.00363	<0.0005	<0.001
17-Sep-08	245																				
24-Sep-08	252	17.5	<0.0005	<0.0001	0.00107	<0.03	0.00028	0.16	0.0049	<0.00001	0.00339	<0.0005	0.776	0.007	0.561	<0.00001	<2	<0.00005	0.00463	<0.0005	0.0012
1-Oct-08	259																				
8-Oct-08	266	17.9	<0.0005	<0.0001	0.00058	<0.03	0.000202	0.138	0.00393	<0.00001	0.00324	<0.0005	0.775	0.0072	0.541	<0.00001	<2	<0.00005	0.00393	<0.0005	<0.001
15-Oct-08	273																				
22-Oct-08	280	19.6	<0.0005	<0.0001	0.00056	<0.03	0.000275	0.16	0.00509	<0.00001	0.00323	<0.0005	0.731	0.0068	0.544	<0.00001	<2	<0.00005	0.00455	<0.0005	<0.001
29-Oct-08	287																				
5-Nov-08	294	17.3	<0.0005	<0.0001	0.00034	<0.03	0.000216	0.146	0.00396	<0.00001	0.00316	<0.0005	0.729	0.0063	0.476	<0.00001	<2	<0.00005	0.00473	<0.0005	<0.001
12-Nov-08	301																				
19-Nov-08	308	16.6	<0.0005	<0.0001	0.00083	<0.03	0.000196	0.145	0.00404	<0.00001	0.00301	<0.0005	0.625	0.0055	0.455	<0.00001	<2	<0.00005	0.00476	<0.0005	<0.001
26-Nov-08	315																				
3-Dec-08	322	19.4	<0.0005	<0.0001	0.00104	<0.03	0.000306	0.155	0.0056	<0.00001	0.00297	0.00116	0.734	0.0056	0.491	<0.00001	<2	<0.00005	0.00547	<0.0005	<0.001
10-Dec-08	329																				
17-Dec-08	336	20	<0.0005	<0.0001	0.0003	<0.03	0.000376	0.147	0.00631	<0.00001	0.00271	<0.0005	0.687	0.0054	0.481	<0.00001	<2	<0.00005	0.006	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
24-Dec-08	343	2500	2430	7.2	174	104																
31-Dec-08	350	2500	2445	7.13	180	110	<1	10.27	45.2	59.2	45.8	<0.5	<0.02	9.24	0.0374	0.00176	0.00036	0.0325	<0.0002	<0.0005	<0.01	<0.00005
7-Jan-09	357	2500	2545	7.28	82	100																
14-Jan-09	364	2500	2450	7.41	309	106	<1	5.42	53.6	65.3	54.3	<0.5	<0.02	8.54	0.0302	0.0019	0.0003	0.0392	<0.0002	<0.0005	<0.01	0.000051
21-Jan-09	371	2500	2490	7.43	336	104																
28-Jan-09	378	2500	2395	7.32	242	108	<1	6.69	56.9	62.8	57.1	<0.5	0.024	9.15	0.0237	0.00192	0.0003	0.0424	<0.0002	<0.0005	<0.01	0.000057
4-Feb-09	385	2500	2630	7.4	251	130																
11-Feb-09	392	2500	2365	7.37	236	101	<1	6.88	50.3	88.6	51.8	<0.5	0.025	9.85	0.0346	0.00219	0.00035	0.0412	<0.0002	<0.0005	<0.01	0.000051
18-Feb-09	399	2500	2495	7.52	378	105																
25-Feb-09	406	2500	2570	7.34	294	93	<1	6.57	50.7	51.2	47.3	<0.5	<0.02	7.02	0.0353	0.0016	0.00037	0.0324	<0.0002	<0.0005	<0.01	<0.00005
4-Mar-09	413	2500	2560	7.29	128	86																
11-Mar-09	420	2500	2535	7.25	221	90	<1	5.6	45.6	36.8	47.2	<0.5	<0.02	7.86	0.0369	0.00148	0.00027	0.032	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-09	427	2500	2485	7.47	208	97																
25-Mar-09	434	2500	2540	7.19	282	90	<1	5.5	44.8	56.8	45.7	<0.5	<0.02	7.64	0.0395	0.00165	0.00031	0.0333	<0.0002	<0.0005	<0.01	<0.00005
1-Apr-09	441	2500	2555	7.37	256	94																
8-Apr-09	448	2500	2510	7.39	289	90	<1	4.3	44.5	61	45.3	<0.5	<0.02	8.4	0.0428	0.00174	0.00028	0.0306	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-09	455	2500	2565	7.55	306	96																
22-Apr-09	462	2500	2515	7.37	307	87																
29-Apr-09	469	2500	2455																			
6-May-09	476	2500	2435	7.3	273	97	<1	4.53	45.4	57.8	48.6	<0.5	<0.02	10	0.0386	0.00175	0.0003	0.0358	<0.0002	<0.0005	<0.01	0.000059
13-May-09	483	2500	2530																			
20-May-09	490	2500	2795	7.31	240	94																
27-May-09	497	2500	2565																			
3-Jun-09	504	2500	2415	7.46	174	82	<1	3.83	45	46.6		<0.5	0.028	11.3								
10-Jun-09	511	2500	2500																			
17-Jun-09	518	2500	2530	7.38	259	81																
24-Jun-09	525	2500	2490																			
1-Jul-09	532	2500	2365	7.41	209	71	<1	3.5	42.7	53.5		<0.5	<0.02	9.43								
8-Jul-09	539	2500	2505																			
15-Jul-09	546	2500	2440	7.31	282	70																
22-Jul-09	553	2500	2425																			
29-Jul-09	560	2500	2470	7.23	226	78	<1	5.29	38.2	49.9		<0.5	0.026	10								
5-Aug-09	567	2500	2425																			
12-Aug-09	574	2500	2340	7.3	174	103																
19-Aug-09	581	2500	2565																			
26-Aug-09	588	2500	2500	7.42	181	87	<1	4.25	43.7	53.3		<0.5	0.022	9.76								
2-Sep-09	595	2500	2300																			
9-Sep-09	602	2500	2460	7.47	246	90																
16-Sep-09	609	2500	2400																			
23-Sep-09	616	2500	2435	7.26	280	85	<1	4.68	43.9	55		<0.5	<0.02	8.81								
30-Sep-09	623	2500	2500																			
7-Oct-09	630	2500	2555	7.22	255	92																
14-Oct-09	637	2500	2365																			
21-Oct-09	644	2500	2435	7.35	257	88	<1	3.87	45.3	56		<0.5	<0.02	8.6								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Jan-08	0	2500	2010	7.89	462	222	<1	3.91	65.4	140	56.8	14.4	0.201	23.5	0.0248	0.00042	0.00429	0.0129	<0.0002	<0.0005	0.144	<0.00005
24-Jan-08	7	2500	2360	7.86	423	159																
31-Jan-08	14	2500	2550	7.86	439	98	<1	3.45	55.3	61.7	39.5	<0.5	0.068	2.2	0.0357	0.000225	0.00483	0.00732	<0.0002	<0.0005	0.036	<0.00005
7-Feb-08	21	2500	2545	7.81	441	101																
14-Feb-08	28	2500	2565	7.89	438	85	<1	2.54	47.3	52.5	39.3	<0.5	0.036	1.34	0.0384	0.000162	0.00478	0.00683	<0.0002	<0.0005	0.013	0.00011
21-Feb-08	35	2500	2475	7.89	410	99																
28-Feb-08	42	2500	2535	7.73	419	98	<1	5.41	57.8	58.5	47.9	<0.5	<0.02	0.64	0.0425	0.000152	0.00344	0.00817	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-08	49	2500	2495	7.71	414	84																
13-Mar-08	56	2500	2535	7.93	425	84	<1	2.68	49.2	50.3	44.6	<0.5	<0.02	0.63	0.0331	0.000148	0.00398	0.00688	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-08	63	2500	2505	7.83	412	84																
27-Mar-08	70	2500	2505	7.81	428	85	<1	3.24	50.6	54.2	42.9	<0.5	<0.02	0.58	0.0338	0.000098	0.00298	0.00679	<0.0002	<0.0005	<0.01	<0.00005
3-Apr-08	77	2500	2450	7.84	414	78																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
24-Dec-08	343																				
31-Dec-08	350	18.1	<0.0005	<0.0001	0.00032	<0.03	0.000239	0.141	0.00582	<0.00001	0.00291	<0.0005	0.618	0.005	0.43	<0.00001	<2	<0.00005	0.00674	<0.0005	<0.001
7-Jan-09	357																				
14-Jan-09	364	21.4	<0.0005	<0.0001	0.00062	<0.03	0.000381	0.176	0.00754	<0.00001	0.00283	<0.0005	0.767	0.0051	0.517	<0.00001	<2	<0.00005	0.00505	<0.0005	<0.001
21-Jan-09	371																				
28-Jan-09	378	22.6	<0.0005	<0.0001	0.0002	<0.03	0.000338	0.175	0.00777	<0.00001	0.00279	<0.0005	0.702	0.0051	0.501	<0.00001	<2	<0.00005	0.00537	<0.0005	<0.001
4-Feb-09	385																				
11-Feb-09	392	20.5	<0.0005	<0.0001	0.00021	<0.03	0.000275	0.158	0.00747	<0.00001	0.00351	<0.0005	0.756	0.0062	0.501	<0.00001	<2	<0.00005	0.00553	<0.0005	<0.001
18-Feb-09	399																				
25-Feb-09	406	18.7	<0.0005	<0.0001	0.00028	<0.03	0.00027	0.133	0.0063	<0.00001	0.00223	<0.0005	0.639	0.0048	0.436	<0.00001	<2	<0.00005	0.00354	<0.0005	<0.001
4-Mar-09	413																				
11-Mar-09	420	18.7	<0.0005	<0.0001	0.00049	<0.03	0.000283	0.137	0.00579	<0.00001	0.00237	<0.0005	0.571	0.0049	0.397	<0.00001	<2	<0.00005	0.00362	<0.0005	<0.001
18-Mar-09	427																				
25-Mar-09	434	18.1	<0.0005	<0.0001	0.00019	<0.03	0.000307	0.141	0.0055	<0.00001	0.00259	<0.0005	0.587	0.0048	0.402	<0.00001	<2	<0.00005	0.00363	<0.0005	<0.001
1-Apr-09	441																				
8-Apr-09	448	17.9	<0.0005	<0.0001	0.00031	<0.03	0.000259	0.128	0.00472	<0.00001	0.00266	<0.0005	0.593	0.0049	0.418	<0.00001	<2	<0.00005	0.00356	<0.0005	<0.001
15-Apr-09	455																				
22-Apr-09	462																				
29-Apr-09	469																				
6-May-09	476	19.3	<0.0005	<0.0001	0.00033	<0.03	0.000299	0.134	0.00462	<0.00001	0.00314	<0.0005	0.614	0.0052	0.425	<0.00001	<2	<0.00005	0.00427	<0.0005	<0.001
13-May-09	483																				
20-May-09	490																				
27-May-09	497																				
3-Jun-09	504																				
10-Jun-09	511																				
17-Jun-09	518																				
24-Jun-09	525																				
1-Jul-09	532																				
8-Jul-09	539																				
15-Jul-09	546																				
22-Jul-09	553																				
29-Jul-09	560																				
5-Aug-09	567																				
12-Aug-09	574																				
19-Aug-09	581																				
26-Aug-09	588																				
2-Sep-09	595																				
9-Sep-09	602																				
16-Sep-09	609																				
23-Sep-09	616																				
30-Sep-09	623																				
7-Oct-09	630																				
14-Oct-09	637																				
21-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jan-08	0	16.5	<0.0005	<0.0001	0.00164	<0.03	<0.00005	3.76	0.00974	<0.00001	0.0132	<0.0005	2.05	0.0047	4.89	0.000016	25.6	<0.00005	0.00569	0.00321	0.0012
24-Jan-08	7																				
31-Jan-08	14	11.7	<0.0005	<0.0001	0.00093	<0.03	<0.00005	2.5	0.00727	<0.00001	0.00436	<0.0005	1.51	<0.001	4.3	<0.00001	6.6	<0.00005	0.00433	0.00339	<0.001
7-Feb-08	21																				
14-Feb-08	28	11.5	<0.0005	<0.0001	0.00076	<0.03	0.000175	2.58	0.00589	<0.00001	0.0023	<0.0005	1.27	<0.001	3.35	<0.00001	2.8	<0.00005	0.00349	0.00297	0.0035
21-Feb-08	35																				
28-Feb-08	42	14.9	<0.0005	<0.0001	0.00249	<0.03	<0.00005	2.63	0.00857	<0.00001	0.00146	<0.0005	1.33	<0.001	3.31	<0.00001	<2	<0.00005	0.00417	0.00233	<0.001
6-Mar-08	49																				
13-Mar-08	56	12.8	<0.0005	<0.0001	0.0006	<0.03	<0.00005	2.54	0.00552	<0.00001	0.00136	<0.0005	1.06	<0.001	3.22	<0.00001	<2	<0.00005	0.00457	0.00228	<0.001
20-Mar-08	63																				
27-Mar-08	70	13.1	<0.0005	<0.0001	0.0004	<0.03	<0.00005	2.45	0.00613	<0.00001	0.00091	<0.0005	0.913	<0.001	2.52	<0.00001	<2	<0.00005	0.0035	0.00173	<0.001
3-Apr-08	77																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Apr-08	84	2500	2450	7.75	422	91	<1	2.63	47.9	47.5	43.4	<0.5	<0.02	0.71	0.0431	0.000124	0.00326	0.00667	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-08	91	2500	2485	7.68	410	95																
24-Apr-08	98	2500	2455	7.8	397	80	<1	3.45	45.6	53.7	39	<0.5	<0.02	<0.5	0.0412	0.000101	0.00269	0.00628	<0.0002	<0.0005	<0.01	<0.00005
1-May-08	105	2500	2460	7.9	373	95																
8-May-08	112	2500	2540	7.96	371	91	<1	2.4	48.1	42.4	46.5	<0.5	<0.02	0.52	0.0464	0.000118	0.00319	0.00686	<0.0002	<0.0005	<0.01	<0.00005
15-May-08	119	2500	2525	7.94	335	92																
22-May-08	126	2500	2490	7.98	340	88	<1	2.41	46.3	47.4	42.6	<0.5	<0.02	0.73	0.0516	0.000146	0.0029	0.00606	<0.0002	<0.0005	<0.01	<0.00005
29-May-08	133	2500	2530	8	382	89																
5-Jun-08	140	2500	2345	7.98	406	75	<1	2.72	47.6	57.3	44.6	<0.5	<0.02	0.53	0.0525	0.000121	0.003	0.00645	<0.0002	<0.0005	<0.01	<0.00005
12-Jun-08	147	2500	2375	7.99	385	70																
19-Jun-08	154	2500	2445	7.89	351	62	<1	4.09	46.6	45	42.5	<0.5	<0.02	0.58	0.0528	0.000106	0.00283	0.00578	<0.0002	<0.0005	<0.01	<0.00005
26-Jun-08	161	2500	2385	7.93	359	79																
3-Jul-08	168	2500	2300	7.92	370	89	<1	2.96	40.1	48.2	43.3	<0.5	<0.02	0.88	0.0591	0.000131	0.00317	0.00566	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-08	175	2500	2395	7.93	363	83																
17-Jul-08	182	2500	2525	7.97	390	83	<1	2.51	44.1	42.3	40.8	<0.5	<0.02	0.6	0.0621	0.000095	0.00279	0.00549	<0.0002	<0.0005	<0.01	<0.00005
24-Jul-08	189	2500	2440	7.86	384	84																
31-Jul-08	196	2500	2455	7.91	401	85	<1	2.42	46.3	46	43.7	<0.5	<0.02	0.58	0.0572	0.000095	0.00264	0.00569	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-08	203	2500	2525	7.93	356	77																
14-Aug-08	210	2500	2420	7.87	374	83	<1	2.7	41.4	47.8	41.3	<0.5	<0.02	0.56	0.0586	0.000089	0.00242	0.00536	<0.0002	<0.0005	<0.01	<0.00005
21-Aug-08	217	2500	2450	7.88	292	81																
28-Aug-08	224	2500	2420	7.83	357	77	<1	2.67	45.6	44.9	39.7	<0.5	<0.02	0.57	0.0652	0.000093	0.00254	0.0054	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-08	231	2500	2465	7.82	306	75																
11-Sep-08	238	2500	2500	7.85	312	77	<1	3.13	46.5	44.3	39.4	<0.5	<0.02	0.61	0.0757	0.000093	0.00249	0.00517	<0.0002	<0.0005	<0.01	<0.00005
18-Sep-08	245	2500	2440	7.89	285	76																
25-Sep-08	252	2500	2455	7.82	300	72	<1	2.87	38.8	43	34.7	<0.5	<0.02	0.51	0.0664	0.00008	0.0022	0.00457	<0.0002	<0.0005	<0.01	<0.00005
2-Oct-08	259	2500	2470	7.92	386	76																
9-Oct-08	266	2500	2460	7.86	381	76	<1	3.07	41.6	42.6	37.9	<0.5	<0.02	<0.5	0.0574	0.000072	0.002	0.00465	<0.0002	<0.0005	<0.01	<0.00005
16-Oct-08	273	2500	2465	7.88	375	73																
23-Oct-08	280	2500	2400	7.85	401	76	<1	3.17	43.9	39	42.4	<0.5	<0.02	0.6	0.0581	0.000085	0.00178	0.00532	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-08	287	2500	2400	7.74	438	80																
6-Nov-08	294	2500	2455	7.64	427	76	<1	3.8	44.7	46.1	42.1	<0.5	<0.02	0.56	0.0596	0.000068	0.00162	0.00521	<0.0002	<0.0005	<0.01	<0.00005
13-Nov-08	301	2500	2415	7.8	423	71																
20-Nov-08	308	2500	2415	7.81	415	66	<1	3	45.6	41	42.9	<0.5	<0.02	0.54	0.0573	0.000084	0.00164	0.00545	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-08	315	2500	2460	7.8	369	70																
4-Dec-08	322	2500	2385	7.86	350	82	<1	2.59	53.2	41.6	44.4	<0.5	<0.02	0.55	0.0555	0.000078	0.00144	0.00577	<0.0002	<0.0005	<0.01	<0.00005
11-Dec-08	329	2500	2495	7.74	311	72																
18-Dec-08	336	2500	2305	7.7	355	84	<1	4.87	54.4	45.3	45.7	<0.5	<0.02	0.57	0.0525	0.000083	0.00135	0.00538	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-08	343	2500	2375	7.78	334	70																
1-Jan-09	350	2500	2425	7.84	332	60	<1	11.14	47	34.7	35.2	<0.5	<0.02	<0.5	0.0789	0.000067	0.00139	0.00428	<0.0002	<0.0005	<0.01	<0.00005
8-Jan-09	357	2500	2250	7.75	360	77																
15-Jan-09	364	2500	2500	7.71	358	92	<1	4.91	59.6	56.8	52.9	<0.5	<0.02	0.58	0.044	0.000101	0.00106	0.00642	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-09	371	2500	2375	7.68	355	78																
29-Jan-09	378	2500	2410	7.69	380	77	<1	7.87	58.4	46.3	43.7	<0.5	<0.02	0.57	0.047	0.000099	0.00122	0.00489	<0.0002	<0.0005	<0.01	<0.00005
5-Feb-09	385	2500	2405	7.75	335	90																
12-Feb-09	392	2500	2440	7.71	377	69	<1	2.52	44.2	37.1	39.1	<0.5	<0.02	0.57	0.0669	0.000103	0.00152	0.00474	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-09	399	2500	2265	7.74	351	69																
26-Feb-09	406	2500	2395	7.82	272	68	<1	7.33	48.6	45.3	37.1	<0.5	<0.02	0.64	0.061	0.000089	0.00131	0.00407	<0.0002	<0.0005	<0.01	<0.00005
5-Mar-09	413	2500	2405	7.65	250	73																
12-Mar-09	420	2500	2395	7.58	324	69	<1	3.61	45.4	32	39.4	<0.5	<0.02	<0.5	0.0582	0.000075	0.00133	0.00445	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-09	427	2500	2450	7.6	348	72																
26-Mar-09	434	2500	2390	7.47	375	68	<1	4.24	43	35.8	37.7	<0.5	<0.02	0.64	0.068	0.000088	0.0013	0.00432	<0.0002	<0.0005	<0.01	<0.00005
2-Apr-09	441	2500	2360	7.56	368	75																
9-Apr-09	448	2500	2440	7.57	364	71	<1	3.76	45	51	40	<0.5	<0.02	<0.5	0.063	0.000086	0.00129	0.00443	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-09	455	2500	2380	7.63	379	69																
23-Apr-09	462	2500	2340	7.65	371	66																
30-Apr-09	469	2500	2445																			
7-May-09	476	2500	2280	7.66	357	70	<1	2.7	43.6	42.3	38.6	<0.5	<0.02	<0.5	0.0737	0.000081	0.00147	0.00437	<0.0002	<0.0005	<0.01	<0.00005
14-May-09	483	2500	2405																			
21-May-09	490	2500	2535	7.61	378	66																
28-May-09	497	2500	2470																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Apr-08	84	13.2	<0.0005	<0.0001	0.00064	<0.03		2.55	0.00618	<0.00001	0.000957	<0.0005	0.986	<0.001	2.46	<0.00001	<2	<0.00005	0.00743	0.00195	<0.001
17-Apr-08	91																				
24-Apr-08	98	12.4	<0.0005	<0.0001	0.0005	<0.03	<0.00005	1.98	0.00632	<0.00001	0.000765	<0.0005	0.815	<0.001	2.14	<0.00001	<2	<0.00005	0.00163	0.00167	<0.001
1-May-08	105																				
8-May-08	112	14.1	<0.0005	<0.0001	0.00018	<0.03	<0.00005	2.73	0.00679	<0.00001	0.00102	<0.0005	0.963	<0.001	2.45	<0.00001	<2	<0.00005	0.00187	0.00171	<0.001
15-May-08	119																				
22-May-08	126	13.5	<0.0005	<0.0001	0.00081	<0.03	0.000064	2.14	0.00671	<0.00001	0.00135	<0.0005	0.907	<0.001	2.37	<0.00001	<2	<0.00005	0.00155	0.00185	0.0013
29-May-08	133																				
5-Jun-08	140	13.9	<0.0005	<0.0001	0.00044	<0.03	<0.00005	2.38	0.00707	<0.00001	0.00107	<0.0005	0.831	<0.001	2.26	<0.00001	<2	<0.00005	0.00197	0.0018	<0.001
12-Jun-08	147																				
19-Jun-08	154	14	<0.0005	<0.0001	0.00101	<0.03	<0.00005	1.84	0.00634	<0.00001	0.000911	<0.0005	0.753	<0.001	2.2	<0.00001	<2	<0.00005	0.00145	0.00157	0.001
26-Jun-08	161																				
3-Jul-08	168	14.2	<0.0005	<0.0001	0.00028	<0.03	<0.00005	1.93	0.00517	<0.00001	0.0013	<0.0005	0.721	<0.001	2.39	<0.00001	<2	<0.00005	0.0018	0.00174	<0.001
10-Jul-08	175																				
17-Jul-08	182	13.4	<0.0005	<0.0001	0.00072	<0.03	<0.00005	1.8	0.00412	<0.00001	0.000976	<0.0005	0.705	<0.001	2.06	<0.00001	<2	<0.00005	0.00203	0.00163	<0.001
24-Jul-08	189																				
31-Jul-08	196	14.5	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	1.82	0.0044	<0.00001	0.000988	<0.0005	0.667	<0.001	1.93	<0.00001	<2	<0.00005	0.00185	0.0014	<0.001
7-Aug-08	203																				
14-Aug-08	210	13.8	<0.0005	<0.0001	0.00012	<0.03	<0.00005	1.65	0.00373	<0.00001	0.000943	<0.0005	0.595	<0.001	1.76	<0.00001	<2	<0.00005	0.00172	0.0014	<0.001
21-Aug-08	217																				
28-Aug-08	224	13.3	<0.0005	<0.0001	0.00054	<0.03	<0.00005	1.59	0.00331	<0.00001	0.000983	<0.0005	0.565	<0.001	1.65	<0.00001	<2	<0.00005	0.00179	0.00139	<0.001
4-Sep-08	231																				
11-Sep-08	238	13.1	<0.0005	<0.0001	0.00036	<0.03	<0.00005	1.64	0.00373	<0.00001	0.000962	<0.0005	0.602	<0.001	1.63	<0.00001	<2	<0.00005	0.00231	0.00139	<0.001
18-Sep-08	245																				
25-Sep-08	252	11.9	<0.0005	<0.0001	0.00014	<0.03	0.000199	1.2	0.00335	<0.00001	0.000887	<0.0005	0.46	<0.001	1.45	<0.00001	<2	<0.00005	0.00219	0.00121	<0.001
2-Oct-08	259																				
9-Oct-08	266	13.1	<0.0005	<0.0001	0.00073	<0.03	<0.00005	1.26	0.00388	<0.00001	0.000805	<0.0005	0.463	<0.001	1.37	<0.00001	<2	<0.00005	0.00187	0.00104	<0.001
16-Oct-08	273																				
23-Oct-08	280	14.8	<0.0005	<0.0001	0.00014	<0.03	<0.00005	1.32	0.00437	<0.00001	0.00081	<0.0005	0.481	<0.001	1.34	<0.00001	<2	<0.00005	0.00234	0.00094	<0.001
30-Oct-08	287																				
6-Nov-08	294	14.8	<0.0005	<0.0001	0.00018	<0.03	<0.00005	1.25	0.00409	<0.00001	0.000801	<0.0005	0.479	<0.001	1.26	<0.00001	<2	<0.00005	0.00215	0.00085	<0.001
13-Nov-08	301																				
20-Nov-08	308	15.3	<0.0005	<0.0001	0.00065	<0.03	<0.00005	1.16	0.00433	<0.00001	0.00081	<0.0005	0.482	<0.001	1.25	<0.00001	<2	<0.00005	0.00231	0.00086	<0.001
27-Nov-08	315																				
4-Dec-08	322	15.6	<0.0005	<0.0001	0.00084	<0.03	<0.00005	1.3	0.00433	<0.00001	0.000825	<0.0005	0.487	<0.001	1.2	<0.00001	<2	<0.00005	0.00302	0.00084	<0.001
11-Dec-08	329																				
18-Dec-08	336	16.7	<0.0005	<0.0001	0.00014	<0.03	<0.00005	0.994	0.00382	<0.00001	0.000768	<0.0005	0.449	<0.001	1.25	<0.00001	<2	<0.00005	0.00364	0.00075	<0.001
25-Dec-08	343																				
1-Jan-09	350	12.5	<0.0005	<0.0001	0.0005	<0.03	<0.00005	0.934	0.00357	<0.00001	0.000663	<0.0005	0.367	<0.001	0.856	<0.00001	<2	<0.00005	0.00335	0.00067	<0.001
8-Jan-09	357																				
15-Jan-09	364	18.9	<0.0005	<0.0001	0.00027	<0.03	<0.00005	1.36	0.005	<0.00001	0.000786	<0.0005	0.439	<0.001	1.06	<0.00001	<2	<0.00005	0.00361	0.00054	<0.001
22-Jan-09	371																				
29-Jan-09	378	15.7	<0.0005	<0.0001	0.00045	<0.03	<0.00005	1.09	0.00303	<0.00001	0.000785	<0.0005	0.362	<0.001	0.927	<0.00001	<2	<0.00005	0.00343	0.00054	<0.001
5-Feb-09	385																				
12-Feb-09	392	14	<0.0005	<0.0001	0.00013	<0.03	<0.00005	1.02	0.00287	<0.00001	0.000923	<0.0005	0.394	<0.001	0.919	<0.00001	<2	<0.00005	0.00423	0.00067	<0.001
19-Feb-09	399																				
26-Feb-09	406	13.3	<0.0005	<0.0001	0.00017	<0.03	<0.00005	0.933	0.0023	<0.00001	0.000747	<0.0005	0.321	<0.001	0.844	<0.00001	<2	<0.00005	0.0038	0.00055	<0.001
5-Mar-09	413																				
12-Mar-09	420	14.4	<0.0005	<0.0001	0.00089	<0.03	<0.00005	0.839	0.00263	<0.00001	0.00066	<0.0005	0.343	<0.001	0.829	<0.00001	<2	<0.00005	0.00363	0.00053	<0.001
19-Mar-09	427																				
26-Mar-09	434	13.9	<0.0005	<0.0001	0.00014	<0.03	<0.00005	0.724	0.00204	<0.00001	0.000661	<0.0005	0.317	<0.001	0.827	<0.00001	<2	<0.00005	0.00413	0.00055	<0.001
2-Apr-09	441																				
9-Apr-09	448	14.6	<0.0005	<0.0001	0.00049	<0.03	0.000168	0.847	0.00197	<0.00001	0.000717	<0.0005	0.334	<0.001	0.861	<0.00001	<2	<0.00005	0.0043	0.00059	<0.001
16-Apr-09	455																				
23-Apr-09	462																				
30-Apr-09	469																				
7-May-09	476	14.2	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	0.745	0.00222	<0.00001	0.000737	<0.0005	0.342	<0.001	0.85	<0.00001	<2	<0.00005	0.00465	0.00061	<0.001
14-May-09	483																				
21-May-09	490																				
28-May-09	497																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
4-Jun-09	504	2500	2405	7.71	366	52	<1	3.41	42.3	23.6		<0.5	<0.02	0.64								
11-Jun-09	511	2500	2400																			
18-Jun-09	518	2500	2425	7.72	387	56																
25-Jun-09	525	2500	2360																			
2-Jul-09	532	2500	2360	7.62	322	68	<1	2.84	40.9	41		<0.5	<0.02	0.54								
9-Jul-09	539	2500	2355																			
16-Jul-09	546	2500	2415	7.54	374	49																
23-Jul-09	553	2500	2450																			
30-Jul-09	560	2500	2485	7.49	344	57	<1	5.86	39.4	37.4		<0.5	<0.02	<0.5								
6-Aug-09	567	2500	2390																			
13-Aug-09	574	2500	2320	7.62	319	65																
20-Aug-09	581	2500	2350																			
27-Aug-09	588	2500	2335	7.57	301	60	<1	4.15	41.4	37.3		<0.5	0.02	<0.5								
3-Sep-09	595	2500	2415																			
10-Sep-09	602	2500	2445	7.64	336	63																
17-Sep-09	609	2500	2295																			
24-Sep-09	616	2500	2425	7.6	334	62	<1	3.16	42.8	23		<0.5	<0.02	<0.5								
1-Oct-09	623	2500	2410																			
8-Oct-09	630	2500	2420	7.5	303	61																
15-Oct-09	637	2500	2405																			
22-Oct-09	644	2500	2355	7.47	289	60	<1	4.09	39.2	36		<0.5	<0.02	<0.5								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Jan-08	0	2500	2095	8.2	464	376	<1	2.88	87.2	284	30	3.43	1.47	104	0.102	0.00421	0.0102	0.0108	<0.0002	<0.0005	0.027	<0.00005
24-Jan-08	7	2500	2515	8.21	434	280																
31-Jan-08	14	2500	2575	8.27	439	170	<1	2.28	68.9	100	10.1	<0.5	0.392	22.9	0.282	0.00355	0.0113	0.00637	<0.0002	<0.0005	0.011	<0.00005
7-Feb-08	21	2500	2520	8.21	453	180																
14-Feb-08	28	2500	2485	8.15	438	121	<1	2.01	56.6	76.5	12.2	<0.5	0.196	12.1	0.156	0.00265	0.00619	0.00867	<0.0002	<0.0005	<0.01	<0.00005
21-Feb-08	35	2500	2455	8.12	414	138																
28-Feb-08	42	2500	2485	7.88	417	114	<1	4.73	55.8	77.5	22.1	<0.5	0.131	9.2	0.0869	0.00244	0.00345	0.0138	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-08	49	2500	2540	7.86	414	111																
13-Mar-08	56	2500	2460	8.06	427	115	<1	2.21	55.9	71.3	26.2	<0.5	0.124	10.1	0.072	0.0029	0.00352	0.0178	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-08	63	2500	2470	8.04	410	106																
27-Mar-08	70	2500	2475	7.88	432	103	<1	2.9	54.3	64.7	31.2	<0.5	0.078	6.92	0.0571	0.00205	0.00231	0.0236	<0.0002	<0.0005	<0.01	<0.00005
3-Apr-08	77	2500	2475	7.96	416	91																
10-Apr-08	84	2500	2495	7.72	429	99	<1	2.48	44.3	54	33	<0.5	0.077	6.86	0.0729	0.00202	0.00238	0.0283	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-08	91	2500	2440	7.64	418	108																
24-Apr-08	98	2500	2460	7.8	403	87	<1	2.99	42.2	60.2	33.8	<0.5	0.051	5.8	0.0653	0.00166	0.00242	0.028	<0.0002	<0.0005	<0.01	<0.00005
1-May-08	105	2500	2610	7.88	382	99																
8-May-08	112	2500	2515	7.95	377	99	<1	2.19	46.2	42.4	41.2	<0.5	0.051	5.62	0.0613	0.00189	0.00195	0.0354	<0.0002	<0.0005	<0.01	<0.00005
15-May-08	119	2500	2550	7.92	346	98																
22-May-08	126	2500	2635	7.95	344	96	<1	2.54	44.1	52.4	38.9	<0.5	0.052	6.37	0.0674	0.00158	0.0018	0.0314	<0.0002	<0.0005	<0.01	<0.00005
29-May-08	133	2500	2480	7.85	384	85																
5-Jun-08	140	2500	2470	7.96	407	72	<1	2.71	37.8	58.8	36.2	<0.5	0.033	6.01	0.0915	0.00162	0.00187	0.0324	<0.0002	<0.0005	<0.01	<0.00005
12-Jun-08	147	2500	2460	7.94	390	65																
19-Jun-08	154	2500	2435	7.86	357	66	<1	3.8	41.4	51	38.9	<0.5	0.047	6.65	0.0754	0.00172	0.00173	0.0337	<0.0002	<0.0005	<0.01	<0.00005
26-Jun-08	161	2500	2485	8.04	359	82																
3-Jul-08	168	2500	2340	7.89	373	88	<1	2.85	33.6	45.2	38.3	<0.5	0.041	7.66	0.0851	0.00171	0.00174	0.034	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-08	175	2500	2405	7.91	369	88																
17-Jul-08	182	2500	2475	7.91	393	84	<1	2.35	34.7	45.3	35	<0.5	0.046	6.72	0.0859	0.0014	0.00177	0.0306	<0.0002	<0.0005	<0.01	<0.00005
24-Jul-08	189	2500	2460	7.81	389	83																
31-Jul-08	196	2500	2470	7.86	408	85	<1	2.44	42.6	49.5	39.3	<0.5	0.029	6.18	0.0713	0.00135	0.00152	0.0345	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-08	203	2500	2465	7.86	369	79																
14-Aug-08	210	2500	2460	7.87	379	91	<1	2.67	40	55.3	41.4	<0.5	0.029	6.2	0.063	0.00138	0.00138	0.0349	<0.0002	<0.0005	<0.01	<0.00005
21-Aug-08	217	2500	2470	7.83	305	81																
28-Aug-08	224	2500	2555	7.81	366	82	<1	2.77	40.5	47.4	38	<0.5	0.028	6.08	0.0727	0.0013	0.00142	0.0345	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-08	231	2500	2515	7.82	316	78																
11-Sep-08	238	2500	2440	7.79	319	82	<1	3.05	39.6	47.3	37.7	<0.5	0.028	6.23	0.0886	0.00119	0.00143	0.0337	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Jun-09	504																				
11-Jun-09	511																				
18-Jun-09	518																				
25-Jun-09	525																				
2-Jul-09	532																				
9-Jul-09	539																				
16-Jul-09	546																				
23-Jul-09	553																				
30-Jul-09	560																				
6-Aug-09	567																				
13-Aug-09	574																				
20-Aug-09	581																				
27-Aug-09	588																				
3-Sep-09	595																				
10-Sep-09	602																				
17-Sep-09	609																				
24-Sep-09	616																				
1-Oct-09	623																				
8-Oct-09	630																				
15-Oct-09	637																				
22-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jan-08	0	11.8	<0.0005	<0.0001	0.00075	<0.03	<0.00005	0.124	0.00417	<0.00001	0.0298	<0.0005	1.4	0.0172	2.01	<0.00001	84.1	<0.00005	0.0168	0.00734	<0.001
24-Jan-08	7																				
31-Jan-08	14	3.97	<0.0005	<0.0001	0.00058	<0.03	<0.00005	0.0387	0.00159	<0.00001	0.00978	<0.0005	0.788	0.0035	1.95	<0.00001	36.2	<0.00005	0.0108	0.00879	0.015
7-Feb-08	21																				
14-Feb-08	28	4.83	<0.0005	<0.0001	0.00049	<0.03	<0.00005	0.0479	0.00253	<0.00001	0.00568	<0.0005	0.902	0.0015	1.29	<0.00001	23	<0.00005	0.0118	0.004	<0.001
21-Feb-08	35																				
28-Feb-08	42	8.7	<0.0005	<0.0001	0.00124	<0.03	<0.00005	0.0849	0.00405	<0.00001	0.00492	<0.0005	1.19	0.0012	1.24	<0.00001	19.7	<0.00005	0.00819	0.00194	<0.001
6-Mar-08	49																				
13-Mar-08	56	10.3	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.0934	0.00453	<0.00001	0.00599	<0.0005	1.18	0.0014	1.23	<0.00001	16.3	<0.00005	0.0095	0.00187	<0.001
20-Mar-08	63																				
27-Mar-08	70	12.3	<0.0005	<0.0001	0.00054	<0.03	<0.00005	0.111	0.00512	<0.00001	0.00393	<0.0005	1.16	<0.001	1.02	<0.00001	10.4	<0.00005	0.00889	0.00119	<0.001
3-Apr-08	77																				
10-Apr-08	84	13	<0.0005	<0.0001	0.00042	<0.03	<0.00005	0.131	0.00528	<0.00001	0.00428	<0.0005	1.26	0.001	0.944	<0.00001	6.4	<0.00005	0.0017	0.00131	<0.001
17-Apr-08	91																				
24-Apr-08	98	13.3	<0.0005	<0.0001	0.00047	<0.03	<0.00005	0.118	0.00633	<0.00001	0.00395	<0.0005	1.02	<0.001	0.792	<0.00001	4.6	<0.00005	0.00159	0.00103	<0.001
1-May-08	105																				
8-May-08	112	16.3	<0.0005	<0.0001	0.00025	<0.03	<0.00005	0.152	0.00612	<0.00001	0.00408	<0.0005	1.3	0.0011	0.876	<0.00001	3.9	<0.00005	0.00212	0.00089	<0.001
15-May-08	119																				
22-May-08	126	15.2	<0.0005	<0.0001	0.00077	<0.03	0.000073	0.19	0.00699	<0.00001	0.00462	<0.0005	1.21	0.0011	0.837	<0.00001	3.1	<0.00005	0.00219	0.00101	<0.001
29-May-08	133																				
5-Jun-08	140	14.3	<0.0005	<0.0001	0.00047	<0.03	<0.00005	0.138	0.00462	<0.00001	0.00435	<0.0005	0.966	<0.001	0.739	<0.00001	2.2	<0.00005	0.00227	0.00102	<0.001
12-Jun-08	147																				
19-Jun-08	154	15.3	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.148	0.00436	<0.00001	0.00429	<0.0005	1.01	0.0011	0.78	<0.00001	2.4	<0.00005	0.00194	0.00088	<0.001
26-Jun-08	161																				
3-Jul-08	168	15.1	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.14	0.00435	<0.00001	0.00524	<0.0005	0.914	0.0012	0.747	<0.00001	<2	<0.00005	0.0022	0.00093	<0.001
10-Jul-08	175																				
17-Jul-08	182	13.8	<0.0005	<0.0001	0.00044	<0.03	0.000054	0.13	0.00375	<0.00001	0.00471	<0.0005	0.835	0.0011	0.668	<0.00001	2.5	<0.00005	0.00238	0.00093	<0.001
24-Jul-08	189																				
31-Jul-08	196	15.5	<0.0005	<0.0001	0.0004	<0.03	<0.00005	0.142	0.00392	<0.00001	0.0043	<0.0005	0.803	<0.001	0.668	<0.00001	<2	<0.00005	0.00238	0.00069	<0.001
7-Aug-08	203																				
14-Aug-08	210	16.3	<0.0005	<0.0001	0.00013	<0.03	<0.00005	0.146	0.00386	<0.00001	0.00433	<0.0005	0.792	<0.001	0.658	<0.00001	<2	<0.00005	0.00252	0.00067	<0.001
21-Aug-08	217																				
28-Aug-08	224	15	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.14	0.0036	<0.00001	0.00417	<0.0005	0.708	<0.001	0.599	<0.00001	<2	<0.00005	0.003	0.00068	<0.001
4-Sep-08	231																				
11-Sep-08	238	14.9	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.143	0.00368	<0.00001	0.0041	<0.0005	0.76	<0.001	0.59	<0.00001	<2	<0.00005	0.00276	0.00072	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Sep-08	245	2500	2440	7.89	294	81																
25-Sep-08	252	2500	2450	7.8	304	81	<1	3.01	35.8	47.6	34.2	<0.5	0.021	5.84	0.0727	0.00106	0.00122	0.0313	<0.0002	<0.0005	<0.01	<0.00005
2-Oct-08	259	2500	2480	7.91	394	81																
9-Oct-08	266	2500	2465	7.81	383	79	<1	2.78	35.8	47.6	36.2	<0.5	0.027	5.37	0.0642	0.00103	0.00121	0.0313	<0.0002	<0.0005	<0.01	<0.00005
16-Oct-08	273	2500	2460	7.87	376	85																
23-Oct-08	280	2500	2475	7.78	405	83	<1	3.17	40.1	36.5	42.1	<0.5	0.024	5.63	0.0528	0.00104	0.00098	0.0379	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-08	287	2500	2395	7.72	442	84																
6-Nov-08	294	2500	2445	7.62	432	82	<1	3.8	40.7	49.6	41.7	<0.5	0.023	5.33	0.0554	0.000987	0.00093	0.0347	<0.0002	<0.0005	<0.01	<0.00005
13-Nov-08	301	2500	2395	7.8	427	78																
20-Nov-08	308	2500	2380	7.75	419	70	<1	2.73	42.6	45.5	42.4	<0.5	0.022	5.59	0.0575	0.0011	0.00101	0.0376	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-08	315	2500	2480	7.76	370	72																
4-Dec-08	322	2500	2380	7.79	355	83	<1	2.53	46.1	46.6	41.3	<0.5	<0.02	5.43	0.0545	0.00104	0.0009	0.0366	<0.0002	<0.0005	<0.01	<0.00005
11-Dec-08	329	2500	2410	7.72	322	73																
18-Dec-08	336	2500	2595	7.72	354	83	<1	4.19	46.5	45.8	42.5	<0.5	<0.02	5.44	0.0571	0.0011	0.0009	0.0339	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-08	343	2500	2420	7.81	337	78																
1-Jan-09	350	2500	2390	7.9	333	60	<1	10.36	40.4	36.7	32	<0.5	<0.02	4.43	0.0709	0.000645	0.00081	0.0267	<0.0002	<0.0005	<0.01	<0.00005
8-Jan-09	357	2500	2500	7.74	359	75																
15-Jan-09	364	2500	2505	7.68	361	91	<1	4.93	51.4	60.3	48.2	<0.5	<0.02	5.83	0.0442	0.000924	0.0006	0.0401	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-09	371	2500	1615	7.69	360	100																
29-Jan-09	378	2500	2240	7.67	384	85	<1	7.86	53.4	47.3	44.3	<0.5	<0.02	6.36	0.0391	0.000944	0.00059	0.0382	<0.0002	<0.0005	<0.01	<0.00005
5-Feb-09	385	2500	2460		333	94																
12-Feb-09	392	2500	2490	7.65	384	73	<1	2.6	38.5	47.6	37.3	<0.5	<0.02	5.84	0.0586	0.000853	0.00071	0.031	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-09	399	2500	2515	7.73	348	71																
26-Feb-09	406	2500	2510	7.78	274	74	<1	7.89	42.7	44.8	36.5	<0.5	<0.02	5.38	0.0628	0.000778	0.00058	0.0284	<0.0002	<0.0005	<0.01	<0.00005
5-Mar-09	413	2500	2500	7.67	264	82																
12-Mar-09	420	2500	2555	7.52	334	71	<1	3.85	38.7	35.5	37.3	<0.5	<0.02	5.22	0.0519	0.000738	0.00065	0.0295	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-09	427	2500	2495	7.58	354	77																
26-Mar-09	434	2500	2415	7.63	378	75	<1	4.2	41.1	50.3	38.7	<0.5	<0.02	5.47	0.0529	0.000803	0.00066	0.03	<0.0002	<0.0005	<0.01	<0.00005
2-Apr-09	441	2500	2535	7.48	372	78																
9-Apr-09	448	2500	2385	7.49	372	73	<1	3.7	38.7	48.5	37.9	<0.5	<0.02	5.83	0.0538	0.000818	0.00059	0.0314	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-09	455	2500	2585	7.6	382	78																
23-Apr-09	462	2500	2440	7.63	375	70																
30-Apr-09	469	2500	2550																			
7-May-09	476	2500	2480	7.59	362	72	<1	2.64	36.9	47.8	36.7	<0.5	<0.02	5.99	0.0593	0.000719	0.00063	0.0279	<0.0002	<0.0005	<0.01	<0.00005
14-May-09	483	2500	2485																			
21-May-09	490	2500	2565	7.57	380	69																
28-May-09	497	2500	2540																			
4-Jun-09	504	2500	2525	7.64	372	57	<1	3.64	38.7	22.6		<0.5	0.021	6.65								
11-Jun-09	511	2500	2405																			
18-Jun-09	518	2500	2330	7.7	388	64																
25-Jun-09	525	2500	2510																			
2-Jul-09	532	2500	2275	7.58	333	85	<1	2.35	30.1	53.5		<0.5	0.027	16								
9-Jul-09	539	2500	2550																			
16-Jul-09	546	2500	2530	7.56	376	57																
23-Jul-09	553	2500	2375																			
30-Jul-09	560	2500	2325	7.49	344	73	<1	5.86	42.7	43.9		<0.5	<0.02	6.05								
6-Aug-09	567	2500	2320																			
13-Aug-09	574	2500	2265	7.64	317	85																
20-Aug-09	581	2500	2465																			
27-Aug-09	588	2500	2340	7.63	299	73	<1	3.94	40.2	44.8		<0.5	0.047	6.41								
3-Sep-09	595	2500	2245																			
10-Sep-09	602	2500	2495	7.98	304	81																
17-Sep-09	609	2500	2350																			
24-Sep-09	616	2500	2460	7.89	342	72	<1	2	43.6	50		<0.5	<0.02	4.99								
1-Oct-09	623	2500	2310																			
8-Oct-09	630	2500	2475	7.51	309	70																
15-Oct-09	637	2500	2310																			
22-Oct-09	644	2500	2400	7.5	292	74	<1	4.02	42.5	47		<0.5	<0.02	4.84								

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Sep-08	245																				
25-Sep-08	252	13.5	<0.0005	<0.0001	0.00066	<0.03	<0.00005	0.122	0.00324	<0.00001	0.00382	<0.0005	0.63	<0.001	0.551	<0.00001	<2	<0.00005	0.00295	0.00066	<0.001
2-Oct-08	259																				
9-Oct-08	266	14.3	<0.0005	<0.0001	0.00089	<0.03	<0.00005	0.12	0.00328	<0.00001	0.00348	<0.0005	0.609	<0.001	0.52	<0.00001	<2	<0.00005	0.00285	0.00057	<0.001
16-Oct-08	273																				
23-Oct-08	280	16.7	<0.0005	<0.0001	0.00016	<0.03	<0.00005	0.128	0.00394	<0.00001	0.00329	<0.0005	0.585	<0.001	0.543	<0.00001	<2	<0.00005	0.00388	<0.0005	<0.001
30-Oct-08	287																				
6-Nov-08	294	16.5	<0.0005	<0.0001	0.00033	<0.03	<0.00005	0.141	0.00424	<0.00001	0.00316	<0.0005	0.621	<0.001	0.537	<0.00001	<2	<0.00005	0.00355	<0.0005	<0.001
13-Nov-08	301																				
20-Nov-08	308	16.7	<0.0005	<0.0001	0.00032	<0.03	<0.00005	0.151	0.0042	<0.00001	0.00357	<0.0005	0.651	<0.001	0.519	<0.00001	<2	<0.00005	0.00362	<0.0005	<0.001
27-Nov-08	315																				
4-Dec-08	322	16.3	<0.0005	<0.0001	0.0003	<0.03	<0.00005	0.136	0.0041	<0.00001	0.00331	<0.0005	0.619	<0.001	0.497	<0.00001	<2	<0.00005	0.00386	<0.0005	<0.001
11-Dec-08	329																				
18-Dec-08	336	16.8	<0.0005	<0.0001	0.00022	<0.03	<0.00005	0.161	0.00942	<0.00001	0.00349	<0.0005	0.608	<0.001	0.514	<0.00001	<2	<0.00005	0.00679	<0.0005	<0.001
25-Dec-08	343																				
1-Jan-09	350	12.7	<0.0005	<0.0001	0.00071	<0.03	<0.00005	0.102	0.00381	<0.00001	0.00254	<0.0005	0.466	<0.001	0.339	<0.00001	<2	<0.00005	0.0045	<0.0005	<0.001
8-Jan-09	357																				
15-Jan-09	364	19	<0.0005	<0.0001	0.00047	<0.03	<0.00005	0.162	0.00575	<0.00001	0.00302	<0.0005	0.594	<0.001	0.47	<0.00001	<2	<0.00005	0.00463	<0.0005	<0.001
22-Jan-09	371																				
29-Jan-09	378	17.5	<0.0005	<0.0001	0.00039	<0.03	<0.00005	0.134	0.00442	<0.00001	0.00326	<0.0005	0.505	<0.001	0.436	<0.00001	<2	<0.00005	0.00485	<0.0005	<0.001
5-Feb-09	385																				
12-Feb-09	392	14.8	<0.0005	<0.0001	0.00017	<0.03	<0.00005	0.113	0.00355	<0.00001	0.00302	<0.0005	0.516	<0.001	0.384	<0.00001	<2	<0.00005	0.00587	<0.0005	<0.001
19-Feb-09	399																				
26-Feb-09	406	14.4	<0.0005	<0.0001	0.00024	<0.03	<0.00005	0.106	0.00283	<0.00001	0.00274	<0.0005	0.432	<0.001	0.363	<0.00001	<2	<0.00005	0.00495	<0.0005	<0.001
5-Mar-09	413																				
12-Mar-09	420	14.7	<0.0005	<0.0001	0.00397	<0.03	<0.00005	0.114	0.00283	<0.00001	0.00257	<0.0005	0.46	<0.001	0.363	<0.00001	<2	<0.00005	0.00511	<0.0005	0.0024
19-Mar-09	427																				
26-Mar-09	434	15.3	<0.0005	<0.0001	0.00032	<0.03	<0.00005	0.114	0.00255	<0.00001	0.0027	<0.0005	0.457	<0.001	0.379	<0.00001	<2	<0.00005	0.00474	<0.0005	<0.001
2-Apr-09	441																				
9-Apr-09	448	15	<0.0005	<0.0001	0.0002	<0.03	<0.00005	0.117	0.00249	<0.00001	0.00279	<0.0005	0.456	<0.001	0.371	<0.00001	<2	<0.00005	0.0051	<0.0005	<0.001
16-Apr-09	455																				
23-Apr-09	462																				
30-Apr-09	469																				
7-May-09	476	14.5	<0.0005	<0.0001	0.00016	<0.03	<0.00005	0.111	0.00232	<0.00001	0.00311	<0.0005	0.446	<0.001	0.365	<0.00001	<2	<0.00005	0.00538	<0.0005	<0.001
14-May-09	483																				
21-May-09	490																				
28-May-09	497																				
4-Jun-09	504																				
11-Jun-09	511																				
18-Jun-09	518																				
25-Jun-09	525																				
2-Jul-09	532																				
9-Jul-09	539																				
16-Jul-09	546																				
23-Jul-09	553																				
30-Jul-09	560																				
6-Aug-09	567																				
13-Aug-09	574																				
20-Aug-09	581																				
27-Aug-09	588																				
3-Sep-09	595																				
10-Sep-09	602																				
17-Sep-09	609																				
24-Sep-09	616																				
1-Oct-09	623																				
8-Oct-09	630																				
15-Oct-09	637																				
22-Oct-09	644																				

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jan-08	0	2500	2175	3.06	682	2661	188.9		<1	2350	196	<50	<2	1340	26.1	<0.0025	0.0501	0.0195	0.012	<0.025	<0.5	1.33
23-Jan-08	7	2500	2545	3.26	671	1065																
30-Jan-08	14	2500	2460	3.22	666	615	42.63	236.03	<1	409	31.4	<0.5	0.272	245	4.51	<0.0005	0.0046	0.0045	0.0025	<0.005	<0.1	0.179
6-Feb-08	21	2500	2580	3.21	665	479																
13-Feb-08	28	2500	2485	3.27	551	528	40.4	187.71	<1	302	15.5	<0.5	0.194	192	2.43	<0.00025	0.00465	0.00237	0.0012	<0.0025	<0.05	0.115
20-Feb-08	35	2500	2545	3.19	611	435																
27-Feb-08	42	2500	2570	3.17	637	455	44.61	151.52	<1	231	8.2	<0.5	0.155	150	1.78	<0.00025	0.00432	0.001	<0.001	<0.0025	<0.05	0.0794
5-Mar-08	49	2500	2490	3.02	619	513																
12-Mar-08	56	2500	2565	3.05	625	561	57.28	177.21	<1	223	7.96	<0.5	0.156	175	1.9	<0.00025	0.00883	0.00104	<0.001	<0.0025	<0.05	0.0906
19-Mar-08	63	2500	2435	3.12	617	504																
26-Mar-08	70	2500	2495	2.93	649	567	65.28	176.37	<1	238	7.58	<0.5	0.193	171	1.56	<0.00025	0.0103	0.00087	<0.001	<0.0025	<0.05	0.0661
2-Apr-08	77	2500	2665	3.01	645	467																
9-Apr-08	84	2500	2545	3.11	564	556	57.55	154.35	<1	215	6.36	<0.5	0.157	149	1.4	<0.00025	0.0104	0.00075	<0.001	<0.0025	<0.05	0.0613
16-Apr-08	91	2500	2495	3.01	612	624																
23-Apr-08	98	2500	2445	3.05	629	596	63.25	170.94	<1	231	6.35	<0.5	0.169	165	1.14	<0.00025	0.0164	0.00075	<0.001	<0.0025	<0.05	0.0676
30-Apr-08	105	2500	2665	2.99	424	496																
7-May-08	112	2500	2445	2.91	409	704	80.99	196.61	<1	265	6.35	<0.5	0.202	191	1.76	<0.00025	0.0244	0.00064	<0.001	<0.0025	<0.05	0.0741
14-May-08	119	2500	2495	2.96	408	621																
21-May-08	126	2500	2410	2.85	403	757	89.71	222.52	<1	309	5.99	<0.5	0.189	207	1.59	<0.00025	0.0276	0.00072	<0.001	<0.0025	<0.05	0.0656
28-May-08	133	2500	2450	3.3	490	402																
4-Jun-08	140	2500	2420	2.99	515	572	79.92	177.79	<1	257	4.82	<0.5	0.116	170	1.29	<0.00025	0.0313	0.00058	<0.001	<0.0025	<0.05	0.0577
11-Jun-08	147	2500	2510	2.95	571	501																
18-Jun-08	154	2500	2375	2.89	468	544	91.38	199.53	<1	245	4.64	<0.5	0.122	186	1.18	<0.00025	0.0371	0.00045	<0.001	<0.0025	<0.05	0.0531
25-Jun-08	161	2500	2530	2.87	521	707																
2-Jul-08	168	2500	2410	2.8	461	723	94.11	205.3	<1	291	6.16	<0.5	0.164	217	1.59	<0.00025	0.0597	0.00056	<0.001	<0.0025	<0.05	0.0664
9-Jul-08	175	2500	2445	2.81	483	751																
16-Jul-08	182	2500	2510	2.9	495	695	85.44	184.64	<1	268	3.87	<0.5	0.111	167	0.977	<0.0001	0.0448	0.00039	<0.0004	<0.001	<0.02	0.0472
23-Jul-08	189	2500	2450	2.91	529	783																
30-Jul-08	196	2500	2480	2.88	448	725	85.86	162.5	<1	251	3.83	<0.5	0.107	183	1.04	<0.00025	0.0453	0.00035	<0.001	<0.0025	<0.05	0.0435
6-Aug-08	203	2500	2450	2.9	519	779																
13-Aug-08	210	2500	2440	2.99	582	438	75	187.5	<1	260	3.74	<0.5	0.115	189	0.904	<0.0001	0.0518	0.00039	<0.0004	<0.001	<0.02	0.0468
20-Aug-08	217	2500	2390	2.98	497	887																
27-Aug-08	224	2500	2435	3.14	412	757	75	175	<1	232	3.59	<0.5	0.078	171	0.758	0.000069	0.0523	0.000691	<0.0002	<0.0005	<0.01	0.0406
3-Sep-08	231	2500	2310	3.2	397	806																
10-Sep-08	238	2500	2390	3.03	387	522	62.5	187.5	<1	240	3.21	<0.5	0.094	190	0.879	<0.0001	0.0713	0.00059	<0.0004	<0.001	<0.02	0.0388
17-Sep-08	245	2500	2610	3.79	392	826																
24-Sep-08	252	2500	2465	3.2	394	530	62.5	212.5	<1	218	2.69	<0.5	0.072	162	0.604	0.000063	0.0519	0.000756	<0.0002	<0.0005	<0.01	0.0305
1-Oct-08	259	2500	2420	3.06	411	755																
8-Oct-08	266	2500	2445	3.13	568	742	62.5	187.5	<1	241	2.6	<0.5	0.085	157	0.656	<0.0001	0.0462	0.00046	<0.0004	<0.001	<0.02	0.0315
15-Oct-08	273	2500	2470	3.26	551	810																
22-Oct-08	280	2500	2410	3.16	463	741	62.5	187.5	<1	229	2.54	<0.5	0.066	159	0.582	0.000066	0.0526	0.000424	<0.0002	<0.0005	<0.01	0.027
29-Oct-08	287	2500	2375	3.16	514	630																
5-Nov-08	294	2500	2470	3.22	501	688	62.5	175	<1	178	2.25	<0.5	0.053	148	0.509	0.000067	0.0519	0.000429	<0.0002	<0.0005	<0.01	0.0254
12-Nov-08	301	2500	2380	2.92	551	677																
19-Nov-08	308	2500	2440	3.12	529	697	50	162.5	<1	199	2.24	<0.5	0.043	147	0.411	0.000066	0.0582	0.000427	<0.0002	<0.0005	<0.01	0.0228
26-Nov-08	315	2500	2360	3.08	530	685																
3-Dec-08	322	2500	2360	3.03	505	705	50	112.5	<1	206	2.24	<0.5	0.049	152	0.498	0.000071	0.0624	0.000443	<0.0002	<0.0005	<0.01	0.0229
10-Dec-08	329	2500	2320	3.14	540	702																
17-Dec-08	336	2500	2490	3.02	384	533				137	1.76	<0.5	0.051	121	0.327	0.000063	0.0454	0.000368	<0.0002	<0.0005	<0.01	0.0169
24-Dec-08	343	2500	2485	2.82	427	794																
31-Dec-08	350	2500	2305	2.97	399		89.99	163.6	<1	186	1.79	<0.5	0.049	134	0.357	0.000061	0.045	0.000447	<0.0002	<0.0005	<0.01	0.0208
7-Jan-09	357	2500	2520	2.99	415	521																
14-Jan-09	364	2500	2420	2.96	443	613	90.32	165.67	<1	178	1.75	<0.5	0.054	143	0.405	0.000066	0.0559	0.000385	<0.0002	<0.0005	<0.01	0.0197
21-Jan-09	371	2500	2430	2.91	443	578																
28-Jan-09	378	2500	2490	2.93	457	584	86.91	165.8	<1	163	1.65	<0.5	0.05	135	0.375	0.00006	0.0525	0.000445	<0.0002	<0.0005	<0.01	0.0188
4-Feb-09	385	2500	2515	3.2	462	592																
11-Feb-09	392	2500	2420	2.91	532	643	104.78	187.69	<1	182	1.76	<0.5	0.052	151	0.401	0.00009	0.0797	0.00046	<0.0002	<0.0005	<0.01	0.0204
18-Feb-09	399	2500	2475	2.99	565	541																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jan-08	0	56.5	0.128	3.1	135	161	0.0199	13.4	0.63	<0.00001	<0.0025	0.715	20.1	<0.05	3.36	<0.0005	20.7	0.0031	<0.005	0.119	178
23-Jan-08	7																				
30-Jan-08	14	9.03	0.0188	0.337	26.7	41.9	0.00344	2.14	0.183	<0.00001	<0.0005	0.0894	1.17	0.013	5.13	<0.0001	<2	<0.0005	<0.001	0.0279	25.9
6-Feb-08	21																				
13-Feb-08	28	4.87	0.0122	0.12	16.2	46.9	0.00186	0.798	0.0713	<0.00001	0.00025	0.0357	0.65	0.009	3.66	<0.00005	<2	0.00026	0.00214	0.0259	18.7
20-Feb-08	35																				
27-Feb-08	42	2.58	0.0116	0.0527	8.42	38.9	0.00131	0.428	0.0386	<0.00001	<0.00025	0.0165	0.43	0.0062	2.72	<0.00005	<2	<0.00025	0.00053	0.0265	11.6
5-Mar-08	49																				
12-Mar-08	56	2.23	0.0125	0.0503	9.95	47.3	0.00115	0.582	0.0379	<0.00001	<0.00025	0.0173	0.42	0.008	2.98	<0.00005	<2	<0.00025	<0.0005	0.0296	15.3
19-Mar-08	63																				
26-Mar-08	70	1.95	0.0093	0.0341	7.24	44.5	0.00076	0.656	0.0212	<0.00001	0.00035	0.0124	0.36	0.0068	3.05	<0.00005	<2	<0.00025	<0.0005	0.0262	11.1
2-Apr-08	77																				
9-Apr-08	84	1.43	0.0102	0.0313	6.04	39.6	0.00179	0.674	0.0178	<0.00001	<0.00025	0.0112	0.36	0.0056	2.4	<0.00005	<2	<0.00025	<0.0005	0.0261	10.1
16-Apr-08	91																				
23-Apr-08	98	1.53	0.0101	0.0316	6.04	44.1	0.00197	0.613	0.016	<0.00001	0.00035	0.0122	0.37	0.0085	2.42	<0.00005	<2	0.0003	<0.0005	0.0271	9.81
30-Apr-08	105																				
7-May-08	112	1.63	0.0139	0.0362	8.25	53.4	0.00059	0.552	0.0175	<0.00001	0.00029	0.0138	0.52	0.0083	2.51	<0.00005	<2	0.00032	<0.0005	0.0318	14.1
14-May-08	119																				
21-May-08	126	1.61	0.0148	0.0326	6.26	58.3	0.00141	0.477	0.0141	<0.00001	0.00039	0.0128	0.4	0.0072	2.6	<0.00005	<2	0.00032	<0.0005	0.0347	10.7
28-May-08	133																				
4-Jun-08	140	1.41	0.0124	0.0292	6.74	47.2	0.00074	0.318	0.0117	<0.00001	0.00037	0.0123	0.38	0.0073	1.79	<0.00005	<2	0.00033	<0.0005	0.0269	10.1
11-Jun-08	147																				
18-Jun-08	154	1.41	0.0126	0.0284	5.33	52.7	0.00147	0.273	0.0112	0.00002	0.00043	0.0109	0.39	0.0066	1.9	<0.00005	<2	0.00034	<0.0005	0.0264	8.73
25-Jun-08	161																				
2-Jul-08	168	1.49	0.0183	0.0347	6.81	62.2	0.00228	0.595	0.0161	<0.00001	0.00149	0.014	0.52	0.0083	2.26	<0.00005	<2	0.00049	<0.0005	0.0355	11.2
9-Jul-08	175																				
16-Jul-08	182	1.14	0.0111	0.0248	5.39	49.8	0.00131	0.246	0.0104	<0.00001	0.00053	0.0103	0.32	0.007	1.63	<0.00002	<2	0.00035	0.00032	0.0243	7.9
23-Jul-08	189																				
30-Jul-08	196	1.12	0.011	0.025	5.41	51.3	0.00074	0.251	0.0117	<0.00001	0.00053	0.01	0.31	0.0067	1.46	<0.00005	<2	0.00037	<0.0005	0.0238	7.2
6-Aug-08	203																				
13-Aug-08	210	1.11	0.0117	0.0252	5.18	54.2	0.00094	0.233	0.00955	<0.00001	0.00094	0.0106	0.32	0.0075	1.51	<0.00002	<2	0.00037	0.00047	0.0253	7.15
20-Aug-08	217																				
27-Aug-08	224	1.15	0.00859	0.019	4.49	45.9	0.00211	0.175	0.00771	<0.00001	0.00056	0.00823	0.291	0.008	1.04	0.000017	<2	0.00041	0.00046	0.0189	6.16
3-Sep-08	231																				
10-Sep-08	238	0.946	0.0102	0.023	5.13	53.2	0.00102	0.205	0.00844	<0.00001	0.00078	0.0099	0.33	0.0088	1.37	<0.00002	<2	0.00044	0.00036	0.0236	6.52
17-Sep-08	245																				
24-Sep-08	252	0.821	0.00748	0.0194	4.3	45.4	0.00556	0.156	0.00703	<0.00001	0.000617	0.00819	0.26	0.009	1.11	0.000018	<2	0.000373	0.00047	0.0185	5
1-Oct-08	259																				
8-Oct-08	266	0.794	0.0082	0.0189	4.58	47.2	0.00081	0.151	0.00617	<0.00001	0.00061	0.0087	0.25	0.0073	1.06	<0.00002	<2	0.00036	0.0004	0.0194	4.81
15-Oct-08	273																				
22-Oct-08	280	0.787	0.00742	0.0175	3.7	45.1	0.000742	0.139	0.00573	<0.00001	0.000656	0.00769	0.234	0.0079	0.92	0.000014	<2	0.000367	0.00042	0.0175	4.19
29-Oct-08	287																				
5-Nov-08	294	0.695	0.00726	0.0169	3.32	42.4	0.000625	0.124	0.0052	<0.00001	0.000647	0.00734	0.221	0.0079	0.833	0.000013	<2	0.000353	0.00049	0.0179	3.96
12-Nov-08	301																				
19-Nov-08	308	0.699	0.00666	0.0157	2.53	42.6	0.00107	0.12	0.00471	0.000015	0.000689	0.00676	0.187	0.008	0.831	0.000012	<2	0.000327	0.00054	0.0166	2.73
26-Nov-08	315																				
3-Dec-08	322	0.697	0.00707	0.0165	2.82	42.5	0.000767	0.123	0.00489	<0.00001	0.000733	0.00723	0.223	0.0083	0.804	0.000014	<2	0.000372	0.0004	0.0191	3.16
10-Dec-08	329																				
17-Dec-08	336	0.556	0.00448	0.012	1.84	33.4	0.0005	0.0913	0.00341	<0.00001	0.000612	0.0055	0.153	0.0069	0.588	0.000014	<2	0.000313	0.00071	0.0163	2
24-Dec-08	343																				
31-Dec-08	350	0.544	0.00568	0.0153	3.39	37.4	0.000466	0.105	0.00441	<0.00001	0.000744	0.00638	0.202	0.0075	0.626	0.000013	<2	0.000344	0.00085	0.0142	3.55
7-Jan-09	357																				
14-Jan-09	364	0.534	0.00658	0.0157	3	40.2	0.000526	0.1	0.00412	<0.00001	0.000748	0.00648	0.203	0.0068	0.667	0.000018	<2	0.000344	0.00062	0.017	3.22
21-Jan-09	371																				
28-Jan-09	378	0.519	0.00586	0.0143	3.53	40.4	0.000456	0.0871	0.00409	<0.00001	0.000692	0.00641	0.162	0.0068	0.615	0.000014	<2	0.000301	0.00073	0.015	3.62
4-Feb-09	385																				
11-Feb-09	392	0.537	0.00675	0.0161	4	44.4	0.00042	0.101	0.00491	<0.00001	0.000869	0.00707	0.232	0.0085	0.737	0.000024	<2	0.000419	0.00069	0.0177	4.03
18-Feb-09	399																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
25-Feb-09	406	2500	2320	2.97	450	620	87.72	165.59	<1	170	1.79	<0.5	0.043	148	0.509	0.000066	0.0584	0.000558	<0.0002	<0.0005	<0.01	0.0182
4-Mar-09	413	2500	2420	2.89	441	594																
11-Mar-09	420	2500	2290	2.93	449	539	85.67	151.77	<1	154	1.6	<0.5	0.036	124	0.338	0.000059	0.0536	0.000848	<0.0002	<0.0005	<0.01	0.0154
18-Mar-09	427	2500	2370	2.91	452	585																
25-Mar-09	434	2500	2595	2.9	449	535	81.85	138.49	<1	157	1.38	<0.5	0.034	127	0.268	0.000072	0.0514	0.000463	<0.0002	<0.0005	<0.01	0.0149
1-Apr-09	441	2500	2435	2.95	460	577																
8-Apr-09	448	2500	2395	2.89	504	550	90.15	155.77	<1	168	1.43	<0.5	0.021	141	0.338	0.000072	0.0628	0.00038	<0.0002	<0.0005	<0.01	0.0163
15-Apr-09	455	2500	2425	2.9	542	565																
22-Apr-09	462	2500	2385	2.87	461	581																
29-Apr-09	469	2500	2370																			
6-May-09	476	2500	2535	2.85	515	615	105.05	178.36	<1	207	1.81	<0.5	0.045	157	0.363	0.000079	0.0752	0.000368	<0.0002	<0.0005	<0.01	0.0179
13-May-09	483	2500	2490																			
20-May-09	490	2500	2495	2.81	471	630																
27-May-09	497	2500	2485																			
3-Jun-09	504	2500	2495	2.75	481	747	119.21	218.91	<1	239	2.22	<0.5	0.074	191	0.564	<0.0001	0.121	0.00093	<0.0004	<0.001	<0.02	0.0218
10-Jun-09	511	2500	2515																			
17-Jun-09	518	2500	2525	2.88	514	658																
24-Jun-09	525	2500	2405																			
1-Jul-09	532	2500	2470	2.69	523	600	100.53	181.37	<1	186	1.63	<0.5	0.024	148	0.317	0.000083	0.0688	0.000378	<0.0002	<0.0005	<0.01	0.0157
8-Jul-09	539	2500	2515																			
15-Jul-09	546	2500	2425	2.69	493	609																
22-Jul-09	553	2500	2430																			
29-Jul-09	560	2500	2405	2.68	418	703	125.44	231.26	<1	236	1.88	<0.5	0.055	179	0.459	<0.0001	0.11	0.00113	<0.0004	<0.001	<0.02	0.018
5-Aug-09	567	2500	2430																			
12-Aug-09	574	2500	2410	2.79	412	763																
19-Aug-09	581	2500	2390																			
26-Aug-09	588	2500	2320	2.7	442	673	111.2	205.09	<1	214	1.79	<25	0.051	163	0.454	0.000078	0.084	0.00059	<0.0002	<0.0005	<0.01	0.0164
2-Sep-09	595	2500	2385																			
9-Sep-09	602	2500	2380	2.81	408	658																
16-Sep-09	609	2500	2400																			
23-Sep-09	616	2500	2495	2.68	456	691	121.34	209.81	<1	210	1.64	<25	0.045	163	0.401	0.000091	0.097	0.00123	<0.0002	<0.0005	<0.01	0.0147
30-Sep-09	623	2500	2480																			
7-Oct-09	630	2500	2450	2.78	474	620																
14-Oct-09	637	2500	2350																			
21-Oct-09	644	2500	2475	2.78	424	644	107.01	177.05	<1	199	1.3	<10	<0.4	154	0.301	0.000093	0.0947	0.000584	<0.0002	<0.0005	<0.01	0.0111
28-Oct-09	651	2500	2385																			
4-Nov-09	658	2500	2450	2.84	429	681																
11-Nov-09	665	2500	2385																			
18-Nov-09	672	2500	2455	2.97	479	599	93.5	157.91	<1	149	1	<10	<0.4	125	0.246	0.00008	0.0677	0.000352	<0.0002	<0.0005	<0.01	0.00979
25-Nov-09	679	2500	2425																			
2-Dec-09	686	2500	2390	2.9	411	688																
9-Dec-09	693	2500	2405																			
16-Dec-09	700	2500	2430	2.99	431	528	84.39	147.18	<1	145	0.93	<10	<0.4	119	0.228	0.000071	0.0627	0.000417	<0.0002	<0.0005	<0.01	0.00991
23-Dec-09	707	2500	2550																			
30-Dec-09	714	2500	2490	2.93	462	632																
6-Jan-10	721	2500	2460																			
13-Jan-10	728	2500	2425	2.77	419	787	125.55	218.28	<1	212	1.66	<10	<0.4	165	0.365	0.000107	0.116	0.000595	<0.0002	<0.0005	<0.01	0.0134
20-Jan-10	735	2500	2485																			
27-Jan-10	742	2500	2455	2.8	514	573																
3-Feb-10	749	2500	2330																			
10-Feb-10	756	2500	2390	2.79	475	635	100.13	167.18	<1	184	1.54	<10	<0.4	135	0.435	0.000088	0.0999524	0.000659	<0.0002	<0.0005	<0.01	0.00934
17-Feb-10	763	2500	2495																			
24-Feb-10	770	2500	2520	2.67	466	814																
3-Mar-10	777	2500	2455																			
10-Mar-10	784	2500	2385	2.76	453	694	118.48	190.37	<1	216	1.26	<10	<0.4	199	0.366	0.000093	0.0934	0.000302	<0.0002	<0.0005	<0.01	0.0101
17-Mar-10	791	2500	2430																			
24-Mar-10	798	2500	2375	2.76	453	650																
31-Mar-10	805	2500	2495																			
7-Apr-10	812	2500	2540	2.68	452	648	104.5	169.48	<1	176	1.07	<10	<0.4	142	0.289	0.000085	0.0833	0.000388	<0.0002	<0.0005	<0.01	0.00841
14-Apr-10	819	2500	2485																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
25-Feb-09	406	0.564	0.00666	0.0151	3.96	41.1	0.000838	0.0915	0.00513	<0.00001	0.000779	0.00647	0.206	0.0075	0.533	0.000013	<2	0.000342	0.00072	0.0166	3.66
4-Mar-09	413																				
11-Mar-09	420	0.518	0.00518	0.0132	2.65	34.3	0.00222	0.0748	0.00402	<0.00001	0.000753	0.00569	0.221	0.0074	0.367	0.000013	<2	0.000361	0.00062	0.014	2.41
18-Mar-09	427																				
25-Mar-09	434	0.431	0.00486	0.013	2.38	36.5	0.000288	0.0737	0.00333	<0.00001	0.000761	0.00542	0.137	0.0069	0.508	0.000015	<2	0.000316	0.00094	0.015	2.2
1-Apr-09	441																				
8-Apr-09	448	0.434	0.00615	0.0144	2.8	40.2	0.000125	0.0834	0.00573	<0.00001	0.000887	0.00606	0.166	0.007	0.567	0.000014	<2	0.000328	0.00086	0.0158	2.81
15-Apr-09	455																				
22-Apr-09	462																				
29-Apr-09	469																				
6-May-09	476	0.547	0.00695	0.0156	2.96	43.6	0.000598	0.107	0.00784	<0.00001	0.001	0.00693	0.198	0.0069	0.698	0.000017	<2	0.000395	0.00087	0.0174	2.78
13-May-09	483																				
20-May-09	490																				
27-May-09	497																				
3-Jun-09	504	0.637	0.0095	0.0194	5.15	53.8	0.00261	0.153	0.00628	<0.00001	0.00133	0.0079	0.24	0.0083	0.943	0.000042	<2	0.00052	0.00095	0.0208	3.95
10-Jun-09	511																				
17-Jun-09	518																				
24-Jun-09	525																				
1-Jul-09	532	0.508	0.00546	0.0133	2.93	42.9	0.00032	0.0882	0.00371	<0.00001	0.00102	0.00583	0.144	0.0066	0.611	0.00002	<2	0.00038	0.00158	0.0139	2.54
8-Jul-09	539																				
15-Jul-09	546																				
22-Jul-09	553																				
29-Jul-09	560	0.541	0.0074	0.0158	4.58	51.2	0.00045	0.129	0.00518	<0.00001	0.00125	0.0065	0.16	0.0065	0.785	0.000039	<2	0.00051	0.00153	0.0182	3.42
5-Aug-09	567																				
12-Aug-09	574																				
19-Aug-09	581																				
26-Aug-09	588	0.546	0.00626	0.0153	4.33	47	0.000953	0.104	0.00393	<0.00001	0.00119	0.00632	0.176	0.008	0.658	0.000023	<2	0.000455	0.00116	0.0163	3.04
2-Sep-09	595																				
9-Sep-09	602																				
16-Sep-09	609																				
23-Sep-09	616	0.498	0.00573	0.0154	4.01	48.3	0.00461	0.0956	0.00517	<0.00001	0.00131	0.00634	0.151	0.008	0.659	0.000023	<2	0.000455	0.00146	0.0161	2.63
30-Sep-09	623																				
7-Oct-09	630																				
14-Oct-09	637																				
21-Oct-09	644	0.407	0.00448	0.0131	3.21	42	0.00358	0.0693	0.00443	<0.00001	0.00139	0.00562	0.151	0.0082	0.486	0.000022	<2	0.000442	0.00117	0.0135	2.11
28-Oct-09	651																				
4-Nov-09	658																				
11-Nov-09	665																				
18-Nov-09	672	0.307	0.00375	0.0114	2.93	38.5	0.000249	0.0556	0.00219	<0.00001	0.00113	0.0047	0.115	0.0072	0.416	0.00002	<2	0.000338	0.00103	0.0121	1.78
25-Nov-09	679																				
2-Dec-09	686																				
9-Dec-09	693																				
16-Dec-09	700	0.285	0.00323	0.0109	2.64	36.1	0.00103	0.0528	0.00211	<0.00001	0.00114	0.00431	0.105	0.0072	0.369	0.000017	<2	0.000374	0.00145	0.0109	1.7
23-Dec-09	707																				
30-Dec-09	714																				
6-Jan-10	721																				
13-Jan-10	728	0.501	0.00629	0.0158	3.96	53.2	0.000547	0.1	0.00461	<0.00001	0.00164	0.00641	0.13	0.0074	0.703	0.000036	<2	0.000533	0.00177	0.0181	2.45
20-Jan-10	735																				
27-Jan-10	742																				
3-Feb-10	749																				
10-Feb-10	756	0.478	0.00394	0.0121	2.7	39.9	0.00107	0.0843	0.00349	<0.00001	0.00158	0.00487	0.232	0.0074	0.486	0.000018	<2	0.000593	0.00157	0.0128	1.71
17-Feb-10	763																				
24-Feb-10	770																				
3-Mar-10	777																				
10-Mar-10	784	0.385	0.00447	0.0147	3.05	46.7	0.00018	0.074	0.00274	<0.00001	0.00167	0.00572	0.162	0.0081	0.507	0.000019	<2	0.000492	0.00119	0.0136	1.94
17-Mar-10	791																				
24-Mar-10	798																				
31-Mar-10	805																				
7-Apr-10	812	0.328	0.00379	0.0128	2.52	43.1	0.00083	0.0617	0.00237	<0.00001	0.00149	0.00502	0.139	0.0072	0.441	0.000023	<2	0.000407	0.00165	0.0124	1.56
14-Apr-10	819																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
21-Apr-10	826	2500	2515	2.72	449	764																
28-Apr-10	833	2500	2550																			
5-May-10	840	2500	2450	2.72	445	691	115.6	184.72	<1	172	1.12	<0.5	0.028	153	0.285	0.000088	0.0896	0.000328	<0.0002	<0.0005	<0.01	0.00843
12-May-10	847	2500	2525																			
19-May-10	854	2500	2535	2.62	441	777																
26-May-10	861	2500	670																			
2-Jun-10	868	2500	2550	2.66	449	741	124.72	204.25	<1	186	1.85	<10	<0.4	162	0.423	0.000104	0.12	0.000604	<0.0002	<0.0005	<0.01	0.0104
9-Jun-10	875	2500	2460																			
16-Jun-10	882	2500	2350	2.69	484	766																
23-Jun-10	889	2500	2485																			
30-Jun-10	896	2500	2565	2.69	329	731	105.8	181.65	<1	200	1.61	<10	<0.4	154	0.356	0.000092	0.103	0.000808	<0.0002	<0.0005	<0.01	0.00872
7-Jul-10	903	2500	2490																			
14-Jul-10	910	2500	2445	2.67	438	795																
21-Jul-10	917	2500	2480																			
28-Jul-10	924	2500	2510	2.7	434	740	110.11	191.5	<1	263	1.54	<10	<0.4	170	0.403	0.000096	0.114	0.000393	<0.0002	<0.0005	<0.01	0.00947
4-Aug-10	931	2500	2505																			
11-Aug-10	938	2500	2530	2.87	278	729																
18-Aug-10	945	2500	2470																			
25-Aug-10	952	2500	2465	2.79	426	732	124.16	216.82	<1	245	1.47	<10	<0.4	170	0.347	0.000098	0.111	0.000364	<0.0002	<0.0005	<0.01	0.00923
1-Sep-10	959	2500	2490																			
8-Sep-10	966	2500	2500	2.76	404	707																
15-Sep-10	973	2500	2515																			
22-Sep-10	980	2500	2480	2.8	407	536	102.4	172.8	<1	212	1.22	<5	<0.2	146	0.327	0.000095	0.0887	0.000917	<0.0002	<0.0005	<0.01	0.00715
29-Sep-10	987	2500	2565																			
6-Oct-10	994	2500	2390	2.7	400	805																
13-Oct-10	1001	2500	2600																			
20-Oct-10	1008	2500	2470	2.83	406	656	96.37	170.77	<1	203	1.29	<10	<0.4	143	0.305	0.000098	0.0981	0.000417	<0.0002	<0.0005	<0.01	0.00739
27-Oct-10	1015	2500	2505																			
3-Nov-10	1022	2500	2550	2.98	197	779																
10-Nov-10	1029	2500	2505																			
17-Nov-10	1036	2500	2530	3.01	156	652	93.62	164.59	<1	192	1.33	<10	<0.4	148	0.296	0.000091	0.102	0.000375	<0.0002	<0.0005	<0.01	0.0072
24-Nov-10	1043	2500	2360																			
1-Dec-10	1050	2500	2350	2.93	426	649																
8-Dec-10	1057	2500	2280																			
15-Dec-10	1064	2500	2385	2.88	431	603	81.16	139.91	<1	173	1.17	<10	<0.4	142	0.271	0.000107	0.0945	0.000642	<0.0002	<0.0005	<0.01	0.00583
22-Dec-10	1071	2500	2415																			
29-Dec-10	1078	2500	2461	2.92	420	622																
5-Jan-11	1085	2500	2370																			
12-Jan-11	1092	2500	2510	2.93	380	602	112.7	187.08	<1	203	1.26	<5	<0.2	155	0.276	0.000099	0.118	0.000638	<0.0002	<0.0005	<0.01	0.00721
19-Jan-11	1099	2500	2335																			
26-Jan-11	1106	2500	2535	2.86	374	707																
2-Feb-11	1113	2500	2305																			
9-Feb-11	1120	2500	2395	2.86	447	743	144.63	200.32	<1	228	1.21	<10	<0.4	193	0.372	0.000106	0.0691	0.000564	<0.0002	<0.0005	<0.01	0.00811
16-Feb-11	1127	2500	2430																			
23-Feb-11	1134	2500	2220	2.84	486	880																
2-Mar-11	1141	2500	2445																			
9-Mar-11	1148	2500	2500	2.71	545	1083	258.39	312.03	<1	312	1.7	<10	<0.4	302	0.432	0.00011	0.113	0.00147	<0.0002	<0.0005	<0.01	0.00919
16-Mar-11	1155	2500	2475																			
23-Mar-11	1162	2500	2330	2.65	595	1448																
30-Mar-11	1169	2500	2420																			
6-Apr-11	1176	2500	2455	2.71	562	1719	499.43	598.92	<1	772	4.89	<10	<0.4	625	0.748	0.00012	0.388	0.0003	<0.0004	<0.001	<0.02	0.015
13-Apr-11	1183	2500	2410																			
20-Apr-11	1190	2500	2435	2.46	538	2138																
27-Apr-11	1197	2500	2430																			
4-May-11	1204	2500	2385	2.42	550	2168	759.43	888.75	<1	1000	7.68	<10	<0.4	844	0.989	0.000183	0.512	0.000246	<0.0002	<0.0005	<0.01	0.0236
11-May-11	1211	2500	2190																			
18-May-11	1218	2500	2460	3.21	535	1751																
25-May-11	1225	2500	2515																			
1-Jun-11	1232	2500	2460	2.75	518	1115	295.76	351.14	<1	307	2.58	<10	<0.4	317	0.796	0.000091	0.0813	0.000193	<0.0002	<0.0005	<0.01	0.00918
8-Jun-11	1239	2500	2480																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-Apr-10	826																				
28-Apr-10	833																				
5-May-10	840	0.34	0.0035	0.0132	2.51	46.7	0.000249	0.0655	0.00241	<0.00001	0.00167	0.00508	0.126	0.0078	0.488	0.000019	<2	0.000465	0.00097	0.0115	1.61
12-May-10	847																				
19-May-10	854																				
26-May-10	861																				
2-Jun-10	868	0.565	0.00504	0.0155	3.35	49.5	0.000185	0.107	0.00426	<0.00001	0.00179	0.00608	0.147	0.0071	0.664	0.000024	<2	0.000554	0.00056	0.0147	1.93
9-Jun-10	875																				
16-Jun-10	882																				
23-Jun-10	889																				
30-Jun-10	896	0.491	0.00427	0.0136	3.19	50.1	0.000447	0.0936	0.00413	<0.00001	0.00162	0.00553	0.157	0.0069	0.609	0.00002	<2	0.000521	0.00089	0.0122	1.62
7-Jul-10	903																				
14-Jul-10	910																				
21-Jul-10	917																				
28-Jul-10	924	0.449	0.00447	0.0148	3.42	51.8	0.000079	0.103	0.00338	<0.00001	0.00174	0.0063	0.142	0.0069	0.664	0.000034	<2	0.000617	0.00161	0.0131	1.84
4-Aug-10	931																				
11-Aug-10	938																				
18-Aug-10	945																				
25-Aug-10	952	0.462	0.00397	0.0135	3.22	49.6	<0.00005	0.0777	0.00281	<0.00001	0.00157	0.00517	0.121	0.009	0.586	0.00003	<2	0.000541	0.00084	0.0122	1.76
1-Sep-10	959																				
8-Sep-10	966																				
15-Sep-10	973																				
22-Sep-10	980	0.367	0.00387	0.0121	2.96	42.4	0.00019	0.0736	0.00273	<0.00001	0.00146	0.00486	0.119	0.0064	0.458	0.000025	<2	0.000495	0.0013	0.0112	1.24
29-Sep-10	987																				
6-Oct-10	994																				
13-Oct-10	1001																				
20-Oct-10	1008	0.407	0.00319	0.0128	2.95	41.9	0.000437	0.0658	0.00267	<0.00001	0.00159	0.00494	0.131	0.0078	0.455	0.000024	<2	0.000515	0.00058	0.011	1.41
27-Oct-10	1015																				
3-Nov-10	1022																				
10-Nov-10	1029																				
17-Nov-10	1036	0.421	0.00292	0.0129	2.78	42.9	0.000111	0.0675	0.00285	<0.00001	0.00175	0.00493	0.104	0.0077	0.486	0.000028	<2	0.000532	0.00128	0.0113	1.39
24-Nov-10	1043																				
1-Dec-10	1050																				
8-Dec-10	1057																				
15-Dec-10	1064	0.377	0.00286	0.013	2.49	38.8	0.00152	0.055	0.00223	<0.00001	0.00158	0.00499	0.129	0.0061	0.391	0.000035	<2	0.000498	0.00066	0.0115	1.02
22-Dec-10	1071																				
29-Dec-10	1078																				
5-Jan-11	1085																				
12-Jan-11	1092	0.399	0.00362	0.0141	2.93	43.8	0.000126	0.0652	0.00227	<0.00001	0.00153	0.00544	0.136	0.0073	0.427	0.000029	<2	0.000432	0.00063	0.0125	1.26
19-Jan-11	1099																				
26-Jan-11	1106																				
2-Feb-11	1113																				
9-Feb-11	1120	0.364	0.00441	0.017	3.26	55.2	0.000274	0.0737	0.00261	<0.00001	0.00157	0.00639	0.163	0.0074	0.529	0.000045	<2	0.000711	0.00095	0.0135	1.47
16-Feb-11	1127																				
23-Feb-11	1134																				
2-Mar-11	1141																				
9-Mar-11	1148	0.571	0.00597	0.0248	3.43	81.5	0.000294	0.0657	0.00312	<0.00001	0.0031	0.00923	0.142	0.0066	0.495	0.00008	<2	0.000781	0.0016	0.0193	1.6
16-Mar-11	1155																				
23-Mar-11	1162																				
30-Mar-11	1169																				
6-Apr-11	1176	1.76	0.0101	0.0547	3.79	177	0.00039	0.118	0.00604	<0.00001	0.00926	0.0187	0.16	0.0186	0.582	0.000177	<2	0.00087	0.00229	0.0385	2.25
13-Apr-11	1183																				
20-Apr-11	1190																				
27-Apr-11	1197																				
4-May-11	1204	2.73	0.0122	0.0777	4.55	251	0.000735	0.213	0.00774	<0.00001	0.0126	0.0241	0.203	0.0331	0.916	0.000201	<2	0.00117	0.00248	0.0495	3.61
11-May-11	1211																				
18-May-11	1218																				
25-May-11	1225																				
1-Jun-11	1232	0.906	0.00465	0.0281	2.77	89.8	0.000113	0.0769	0.00241	<0.00001	0.0022	0.00951	0.153	0.0117	0.717	0.000105	<2	0.000572	0.0013	0.0153	1.66
8-Jun-11	1239																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jun-11	1246	2500	2400	2.65	236	1343																
22-Jun-11	1253	2500	2485																			
29-Jun-11	1260	2500	2345	2.39	304	2448	905.33	1081.73	<1	1200	5.98	<25	<1	1120	1.38	0.00018	0.711	0.00028	<0.0004	<0.001	<0.02	0.0203
6-Jul-11	1267	2500	2480																			
13-Jul-11	1274	2500	2465	2.31	574	3038																
20-Jul-11	1281	2500	2490																			
27-Jul-11	1288	2500	2480	2.19	591	3397	1500	1625	<1	2100	12.4	<25	1	1790	1.67	0.00038	1.03	0.0003	<0.0004	<0.001	<0.02	0.0293
3-Aug-11	1295	2500	2480																			
10-Aug-11	1302	2500	2495	2.42	581	3620																
17-Aug-11	1309	2500	2480																			
24-Aug-11	1316	2500	2465	2.29	597	4230	1225	1950	<1	3350	11	<25	<1	1870	1.7	0.00036	0.579	0.00048	<0.001	<0.0025	<0.05	0.0285
31-Aug-11	1323	2500	2430																			
7-Sep-11	1330	2500	2435	2.39	519	4040																
14-Sep-11	1337	2500	2480																			
21-Sep-11	1344	2500	2470	2.37	503	4130	1275	1900	<1	2240	9.13	<10	0.41	1910	1.56	<0.00025	0.376	0.00031	<0.001	<0.0025	<0.05	0.0235
28-Sep-11	1351	2500	2455																			
5-Oct-11	1358	2500	2455	2.41	512	4090																
12-Oct-11	1365	2500	2460																			
19-Oct-11	1372	2500	2465	2.31	527	4430	1725	2700	<1	2060	7.22	<10	<0.4	1800	1.09	0.00025	0.287	0.00035	<0.001	<0.0025	<0.05	0.0189
26-Oct-11	1379	2500	2460																			
2-Nov-11	1386	2500	2435	2.39	512	4420																
9-Nov-11	1393	2500	2480																			
16-Nov-11	1400	2500	2490	2.32	541	4310	1550	2275	<1	2190	6.42	<10	<0.4	2060	1.15	0.00026	0.237	0.00028	<0.001	<0.0025	<0.05	0.0161
23-Nov-11	1407	2500	2450																			
30-Nov-11	1414	2500	2445	2.31	539	4370																
7-Dec-11	1421	2500	2465																			
14-Dec-11	1428	2500	2435	2.32	521	4091	1475	2300	<1	2240	4.36	<10	<0.4	1890	0.935	0.00017	0.204	0.0005	<0.0004	<0.001	<0.02	0.00918
21-Dec-11	1435	2500	2995																			
28-Dec-11	1442	2500	2405	2.37	539	4120																
4-Jan-12	1449	2500	2510																			
11-Jan-12	1456	2500	2470	2.35	549	4190	1525	2275	<1	2280	5.38	<10	<0.4	2030	1.1	<0.00025	0.175	0.00063	<0.001	<0.0025	<0.05	0.012
18-Jan-12	1463	2500	2450																			
25-Jan-12	1470	2500	2505	2.31	539	4180																
1-Feb-12	1477	2500	2515																			
8-Feb-12	1484	2500	2500	2.21	562	4420	1600	1975	<1	2230	4.07	<10	<0.4	2050	1.02	<0.00025	0.151	0.00061	<0.001	<0.0025	<0.05	0.00833
15-Feb-12	1491	2500	2430																			
22-Feb-12	1498	2500	2425	2.26	531	4390																
29-Feb-12	1505	2500	2415																			
7-Mar-12	1512	2500	2485	2.24	561	4580	1650	2025	<1	2750	3.69	<10	<0.4	2230	0.935	<0.00025	0.158	0.00032	<0.001	<0.0025	<0.05	0.00725
14-Mar-12	1519	2500	2485																			
21-Mar-12	1526	2500	2505	2.31	581	4470																
28-Mar-12	1533	2500	2465																			
4-Apr-12	1540	2500	2500	2.33	597	4730	1725	2300	<1	2250	3.57	<10	<0.4	2220	1.05	0.00026	0.159	0.00052	<0.001	<0.0025	<0.05	0.00687
11-Apr-12	1547	2500	2410																			
18-Apr-12	1554	2500	2455	2.41	593	4760																
25-Apr-12	1561	2500	2470																			
2-May-12	1568	2500	2530	2.43	889	3210	2200	2487.5	<1	12900	3.25	<10	<0.4	2210	0.941	0.00026	0.151	0.00103	<0.001	<0.0025	<0.05	0.00539
9-May-12	1575	2500	2435																			
16-May-12	1582	2500	2460	2.66	721	3110																
23-May-12	1589	2500	2425																			
30-May-12	1596	2500	2440	2.41	798	4810	1875	2800	<1	2910	2.82	<10	<0.4	2440	0.988	0.00028	0.147	0.00049	<0.001	<0.0025	<0.05	0.00489
6-Jun-12	1603	2500	2460																			
13-Jun-12	1610	2500	2540	2.53	791	4390																
20-Jun-12	1617	2500	2505																			
27-Jun-12	1624	2500	2440	2.31	797	4385	1975	2950	<1	3160	1.96	<10	<0.4	2190	0.818	<0.00025	0.123	0.00053	<0.001	<0.0025	<0.05	0.00327
4-Jul-12	1631	2500	2350																			
11-Jul-12	1638	2500	2520	2.41	789	4295																
18-Jul-12	1645	2500	1965																			
25-Jul-12	1652	2500	2505	2.31	791	4350	1975	2900	<1	2770	2.12	<10	<0.4	1990	1.03	<0.00025	0.127	0.00107	<0.001	<0.0025	<0.05	0.00406
1-Aug-12	1659	2500	2465																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jun-11	1246																				
22-Jun-11	1253																				
29-Jun-11	1260	2.07	0.0134	0.0914	5.16	308	0.00313	0.195	0.00785	<0.00001	0.0132	0.0285	0.2	0.036	1.15	0.000255	<2	0.00102	0.00292	0.0447	3.45
6-Jul-11	1267																				
13-Jul-11	1274																				
20-Jul-11	1281																				
27-Jul-11	1288	4.45	0.0167	0.145	5	496	0.0132	0.319	0.0152	<0.00001	0.0287	0.0455	0.35	0.0922	1.46	0.000375	<2	0.00133	0.00408	0.0655	5.27
3-Aug-11	1295																				
10-Aug-11	1302																				
17-Aug-11	1309																				
24-Aug-11	1316	3.85	0.0146	0.163	5.24	547	0.00272	0.334	0.012	<0.00001	0.0211	0.0491	<0.25	0.0884	1.7	0.000275	<2	0.00124	0.00459	0.0437	5
31-Aug-11	1323																				
7-Sep-11	1330																				
14-Sep-11	1337																				
21-Sep-11	1344	3.23	0.0124	0.165	4.19	552	0.00134	0.26	0.0104	<0.00001	0.0146	0.0499	<0.25	0.0846	1.48	0.000268	<2	0.00118	0.00434	0.0315	4.2
28-Sep-11	1351																				
5-Oct-11	1358																				
12-Oct-11	1365																				
19-Oct-11	1372	2.57	0.0102	0.174	3.3	570	0.00066	0.193	0.0081	<0.00001	0.0115	0.0509	<0.25	0.0924	1.16	0.000234	<2	0.00114	0.00414	0.0231	3.45
26-Oct-11	1379																				
2-Nov-11	1386																				
9-Nov-11	1393																				
16-Nov-11	1400	2.26	0.0093	0.18	3.55	603	0.00062	0.187	0.00752	<0.00001	0.00955	0.0529	<0.25	0.0937	1.17	0.000243	<2	0.00106	0.00429	0.0221	2.94
23-Nov-11	1407																				
30-Nov-11	1414																				
7-Dec-11	1421																				
14-Dec-11	1428	1.51	0.0069	0.155	2.09	568	0.00081	0.144	0.0066	<0.00001	0.00709	0.0445	0.12	0.113	0.985	0.000226	<2	0.00072	0.0035	0.0171	1.88
21-Dec-11	1435																				
28-Dec-11	1442																				
4-Jan-12	1449																				
11-Jan-12	1456	1.91	0.0072	0.183	3.5	598	0.00127	0.145	0.0065	<0.00001	0.00689	0.0535	<0.25	0.0998	1.11	0.000164	<2	0.00094	0.00504	0.0207	2.47
18-Jan-12	1463																				
25-Jan-12	1470																				
1-Feb-12	1477																				
8-Feb-12	1484	1.38	0.0065	0.185	2.66	636	0.0133	0.151	0.00651	<0.00001	0.00661	0.053	<0.25	0.0988	1	0.000311	<2	0.00101	0.00489	0.016	1.74
15-Feb-12	1491																				
22-Feb-12	1498																				
29-Feb-12	1505																				
7-Mar-12	1512	1.27	0.0056	0.194	2.38	680	0.00264	0.129	0.009	0.000011	0.00667	0.0555	<0.25	0.11	1.01	0.000335	<2	0.00104	0.00495	0.0151	1.44
14-Mar-12	1519																				
21-Mar-12	1526																				
28-Mar-12	1533																				
4-Apr-12	1540	1.17	0.0056	0.209	2.9	681	0.00283	0.157	0.00621	<0.00001	0.00645	0.0597	<0.25	0.102	1.04	0.000338	<2	0.00105	0.0049	0.0161	1.52
11-Apr-12	1547																				
18-Apr-12	1554																				
25-Apr-12	1561																				
2-May-12	1568	1.06	0.0051	0.207	2.92	630	0.00251	0.147	0.00865	0.000015	0.00663	0.0607	<0.25	0.108	0.948	0.000359	<2	0.00097	0.00469	0.0145	1.13
9-May-12	1575																				
16-May-12	1582																				
23-May-12	1589																				
30-May-12	1596	0.927	0.0044	0.209	2.93	696	0.00181	0.123	0.00616	<0.00001	0.00691	0.0603	<0.25	0.116	1.02	0.000357	<2	0.00088	0.00422	0.0138	0.999
6-Jun-12	1603																				
13-Jun-12	1610																				
20-Jun-12	1617																				
27-Jun-12	1624	0.612	0.0036	0.19	2.35	637	0.00328	0.105	0.00537	<0.00001	0.00585	0.0524	<0.25	0.104	0.891	0.000318	<2	0.0009	0.0022	0.0119	0.613
4-Jul-12	1631																				
11-Jul-12	1638																				
18-Jul-12	1645																				
25-Jul-12	1652	0.654	0.0036	0.178	2.85	585	0.00303	0.119	0.00562	<0.00001	0.00562	0.0511	<0.25	0.0925	1.03	0.000299	<2	0.00076	0.0042	0.0131	0.847
1-Aug-12	1659																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Aug-12	1666	2500	2490	2.31	780	4050																
15-Aug-12	1673	2500	2485																			
22-Aug-12	1680	2500	2475	2.37	793	4040	1825	2700	<1	3440	2.28	<10	<0.4	1990	1.03	0.00025	0.13	0.00066	<0.001	<0.0025	<0.05	0.00401
29-Aug-12	1687	2500	2465																			
5-Sep-12	1694	2500	2470	2.32	799	4190																
12-Sep-12	1701	2500	2475																			
19-Sep-12	1708	2500	2420	2.31	801	4650	1525	2450	<1	2700	2	<10	<0.4	2260	0.939	0.00028	0.135	0.00071	<0.001	<0.0025	<0.05	0.00334
26-Sep-12	1715	2500	2315																			
3-Oct-12	1722	2500	2355	2.96	820	4590																
10-Oct-12	1729	2500	2315																			
17-Oct-12	1736	2500	2395	2.38	819	4380	1425	2225	<1	2720	1.6	<10	<0.4	1750	0.719	<0.00025	0.101	0.00058	<0.001	<0.0025	<0.05	0.00216
24-Oct-12	1743	2500	2380																			
31-Oct-12	1750	2500	2470	2.41	830	4410																
7-Nov-12	1757	2500	2525																			
14-Nov-12	1764	2500	2470	2.39	815	4320	1400	2175	<1	2080	1.72	<10	<0.4	1660	0.706	<0.00025	0.104	0.00123	<0.001	<0.0025	<0.05	0.00242
21-Nov-12	1771	2500	2515																			
28-Nov-12	1778	2500	2500	2.41	840	4410																
5-Dec-12	1785	2500	2345																			
12-Dec-12	1792	2500	2365	2.31	830	4410	1425	2200	<1	1730	1.64	<25	<1	1760	0.642	<0.00025	0.103	0.00139	<0.001	<0.0025	<0.05	0.00203
19-Dec-12	1799	2500	2465																			
26-Dec-12	1806	2500	2460	2.41	840	4380																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jan-08	0	2500	2005	4.89	546	618	<1	23.2	<1	422	150	1.96	0.17	259	0.785	0.000225	0.00047	0.0342	0.00045	<0.0005	0.014	0.00302
23-Jan-08	7	2500	2415	4.89	574	547																
30-Jan-08	14	2500	2315	4.5	589	324	<1	28.14	<1	223	112	<0.5	0.354	142	1.4	<0.0001	0.00026	0.0363	0.00098	<0.001	<0.02	0.00203
6-Feb-08	21	2500	2515	4.19	612	225																
13-Feb-08	28	2500	2480	4.02	586	220	12.04	53.21	<1	147	44	<0.5	0.27	92.9	3.81	<0.00005	0.00033	0.0245	0.00139	<0.0005	<0.01	0.00123
20-Feb-08	35	2500	2540	3.78	597	218																
27-Feb-08	42	2500	2595	3.77	609	216	19.81	66.22	<1	134	25.7	<0.5	0.161	86.6	4.06	<0.00005	0.00062	0.0191	0.00112	<0.0005	<0.01	0.0012
5-Mar-08	49	2500	2435	3.6	594	250																
12-Mar-08	56	2500	2540	3.6	612	243	23.2	72.33	<1	142	24.4	<0.5	0.158	92.7	4.54	<0.00005	0.00085	0.0225	0.00093	<0.0005	<0.01	0.0014
19-Mar-08	63	2500	2480	3.53	609	229																
26-Mar-08	70	2500	2410	3.43	621	262	31.78	80.39	<1	131	18.7	<0.5	0.175	91.6	3.34	<0.00005	0.00088	0.0185	0.00056	<0.0005	<0.01	0.001
2-Apr-08	77	2500	2580	3.36	628	263																
9-Apr-08	84	2500	2485	3.43	612	278	29.49	71.46	<1	89.5	12.5	<0.5	0.145	75.7	2.47	<0.00005	0.0012	0.0148	0.00042	<0.0005	<0.01	0.000841
16-Apr-08	91	2500	2360	3.41	601	317																
23-Apr-08	98	2500	2495	3.35	619	292	33.76	80.69	<1	134	11	<0.5	0.148	82.6	2.16	<0.00005	0.00154	0.0175	0.00034	<0.0005	<0.01	0.000995
30-Apr-08	105	2500	2595	3.27	437	277																
7-May-08	112	2500	2405	3.22	416	360	45.15	100.09	<1	123	12.3	<0.5	0.05	104	3.59	<0.00005	0.00186	0.0159	0.00032	<0.0005	<0.01	0.00122
14-May-08	119	2500	2550	3.29	412	320																
21-May-08	126	2500	2435	3.23	415	357	42.94	99.36	<1	142	9.73	<0.5	0.167	98.8	2.68	<0.00005	0.00163	0.0127	0.00028	<0.0005	<0.01	0.000963
28-May-08	133	2500	2345	3.51	431	343																
4-Jun-08	140	2500	2530	3.31	560	294	40.99	92.31	<1	131	8.14	<0.5	0.108	89	2.45	0.000056	0.00183	0.0122	0.00026	<0.0005	<0.01	0.000926
11-Jun-08	147	2500	2600	3.27	560	253																
18-Jun-08	154	2500	2315	3.2	488	272	47.08	98.72	<1	129	7.24	<0.5	0.113	93.1	1.99	0.000067	0.00205	0.0129	<0.0002	<0.0005	<0.01	0.000852
25-Jun-08	161	2500	2485	3.19	506	365																
2-Jul-08	168	2500	2450	3.12	493	353	49.67	100.24	<1	151	7.54	<0.5	0.138	109	2.34	0.000075	0.00245	0.0121	<0.0002	<0.0005	<0.01	0.00102
9-Jul-08	175	2500	2470	3.16	491	379																
16-Jul-08	182	2500	2440	3.19	538	368	48.43	100.62	<1	142	6.32	<0.5	0.104	93.6	2.13	0.000073	0.00256	0.00981	0.00024	<0.0005	<0.01	0.000908
23-Jul-08	189	2500	2575	3.22	553	377																
30-Jul-08	196	2500	2425	3.19	471	376	44.72	93.04	<1	122	5.36	<0.5	0.091	91.8	1.62	0.000067	0.00255	0.00844	<0.0002	<0.0005	<0.01	0.000702
6-Aug-08	203	2500	2480	3.17	456	366																
13-Aug-08	210	2500	2495	3.18	409	387	47.44	94.28	<1	131	5.22	<0.5	0.116	89.7	1.54	0.000079	0.00277	0.00889	<0.0002	<0.0005	<0.01	0.000754
20-Aug-08	217	2500	2450	3.1	402	403																
27-Aug-08	224	2500	2470	3.15	415	371	49.84	96.38	<1	122	4.59	<0.5	0.096	87.8	1.48	0.000078	0.00303	0.00953	<0.0002	<0.0005	<0.01	0.000713
3-Sep-08	231	2500	2510	3.17	396	366																
10-Sep-08	238	2500	2495	3.1	417	399	54.8	103.07	<1	115	4.55	<0.5	0.074	92.3	1.58	0.000096	0.00397	0.00944	<0.0002	<0.0005	<0.01	0.000662

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Aug-12	1666																				
15-Aug-12	1673																				
22-Aug-12	1680	0.733	0.0028	0.177	3.3	592	0.00168	0.108	0.00537	<0.00001	0.00546	0.0517	<0.25	0.104	1.12	0.000331	<2	0.00069	0.004	0.0131	0.749
29-Aug-12	1687																				
5-Sep-12	1694																				
12-Sep-12	1701																				
19-Sep-12	1708	0.65	0.0027	0.193	2.77	612	0.00722	0.091	0.00518	<0.00001	0.00589	0.0544	<0.25	0.104	0.967	0.000295	<2	0.0008	0.00396	0.013	0.652
26-Sep-12	1715																				
3-Oct-12	1722																				
10-Oct-12	1729																				
17-Oct-12	1736	0.53	<0.0025	0.138	1.88	445	0.00259	0.068	0.00431	<0.00001	0.00477	0.0381	<0.25	0.0744	0.742	0.000224	<2	0.00078	0.00306	0.0099	0.428
24-Oct-12	1743																				
31-Oct-12	1750																				
7-Nov-12	1757																				
14-Nov-12	1764	0.556	<0.0025	0.141	2.12	452	0.00187	0.081	0.0153	<0.00001	0.00453	0.0398	<0.25	0.0807	0.809	0.00023	<2	0.00081	0.00364	0.0108	0.453
21-Nov-12	1771																				
28-Nov-12	1778																				
5-Dec-12	1785																				
12-Dec-12	1792	0.554	<0.0025	0.142	2.02	481	0.00152	0.062	0.0117	<0.00001	0.00428	0.0401	<0.25	0.0829	0.757	0.000284	<2	0.00066	0.00332	0.0105	0.39
19-Dec-12	1799																				
26-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jan-08	0	44.8	0.00082	0.0508	2.69	2.23	0.0075	9.16	0.542	<0.00001	<0.00005	0.0503	36.6	0.0042	2.07	0.000024	28.5	0.000389	<0.0001	<0.0005	0.515
23-Jan-08	7																				
30-Jan-08	14	35.3	<0.001	0.0429	3.93	1.42	0.00106	5.87	0.572	<0.00001	<0.0001	0.0449	7.32	0.0055	7.14	<0.00002	2.2	0.00014	0.00028	<0.001	0.48
6-Feb-08	21																				
13-Feb-08	28	14.1	<0.0005	0.0247	4.34	5.17	0.0055	2.16	0.286	<0.00001	<0.00005	0.0288	2.88	0.0039	5.65	0.000014	<2	0.000072	0.00023	<0.0005	0.372
20-Feb-08	35																				
27-Feb-08	42	7.67	0.00073	0.0196	3.12	9.25	0.000852	1.58	0.271	<0.00001	<0.00005	0.0253	1.77	0.0036	4.92	0.000022	<2	0.000058	0.00029	<0.0005	0.351
5-Mar-08	49																				
12-Mar-08	56	6.07	0.00104	0.0198	3.2	12.4	0.000846	2.25	0.361	<0.00001	<0.00005	0.0268	1.36	0.0044	4.61	0.000011	<2	0.000055	0.00063	<0.0005	0.438
19-Mar-08	63																				
26-Mar-08	70	4.7	0.0012	0.0139	2.04	16.1	0.000694	1.7	0.226	<0.00001	<0.00005	0.0192	0.849	0.0034	3.96	0.000013	<2	<0.00005	<0.0001	<0.0005	0.312
2-Apr-08	77																				
9-Apr-08	84	3.23	0.00189	0.0124	1.54	14.5	0.000526	1.09	0.126	<0.00001	<0.00005	0.0158	0.757	0.0028	2.71	<0.00001	<2	<0.00005	0.00019	<0.0005	0.281
16-Apr-08	91																				
23-Apr-08	98	3.02	0.00273	0.013	1.56	18.5	0.000671	0.84	0.0944	<0.00001	<0.00005	0.0171	0.726	0.0032	3.04	0.000018	<2	<0.00005	0.00025	<0.0005	0.3
30-Apr-08	105																				
7-May-08	112	3.11	0.00416	0.0168	2.21	23.5	0.000353	1.11	0.108	<0.00001	<0.00005	0.0204	0.784	0.004	3.39	0.000021	<2	<0.00005	0.00017	<0.0005	0.399
14-May-08	119																				
21-May-08	126	2.68	0.00416	0.0137	1.4	24.7	0.000277	0.738	0.0536	<0.00001	<0.00005	0.0166	0.581	0.0032	3.11	0.000011	<2	<0.00005	0.00014	<0.0005	0.304
28-May-08	133																				
4-Jun-08	140	2.25	0.00444	0.0143	1.62	23.4	0.000277	0.614	0.0451	<0.00001	<0.00005	0.0164	0.54	0.0035	2.62	0.000021	<2	<0.00005	0.00011	<0.0005	0.303
11-Jun-08	147																				
18-Jun-08	154	2.07	0.00425	0.0135	1.22	24.9	0.000216	0.501	0.0331	<0.00001	<0.00005	0.0157	0.533	0.0036	2.54	0.000019	<2	<0.00005	0.00014	0.00057	0.291
25-Jun-08	161																				
2-Jul-08	168	2.01	0.00591	0.0155	1.33	30.7	0.000323	0.61	0.0362	<0.00001	<0.00005	0.0171	0.58	0.0042	3.09	0.000023	<2	0.000055	0.00024	0.00101	0.34
9-Jul-08	175																				
16-Jul-08	182	1.65	0.00569	0.015	1.3	26.4	0.000168	0.536	0.0306	<0.00001	<0.00005	0.0171	0.522	0.0041	2.4	0.00002	<2	<0.00005	0.00025	0.00116	0.306
23-Jul-08	189																				
30-Jul-08	196	1.48	0.0045	0.0127	1.08	23.5	0.000077	0.402	0.0217	<0.00001	<0.00005	0.0135	0.395	0.0035	2.04	0.000016	<2	<0.00005	0.00026	0.0011	0.248
6-Aug-08	203																				
13-Aug-08	210	1.42	0.00458	0.013	0.97	24.5	0.00019	0.405	0.0212	<0.00001	<0.00005	0.0141	0.388	0.0033	1.92	0.000015	<2	<0.00005	0.00025	0.00133	0.242
20-Aug-08	217																				
27-Aug-08	224	1.24	0.0039	0.0116	0.911	23	0.00015	0.361	0.0179	<0.00001	<0.00005	0.0124	0.33	0.0034	1.79	0.000013	<2	<0.00005	0.0003	0.00131	0.232
3-Sep-08	231																				
10-Sep-08	238	1.15	0.00445	0.0126	0.918	25	0.000157	0.409	0.0181	<0.00001	<0.00005	0.0132	0.388	0.0036	1.81	0.000019	<2	<0.00005	0.00031	0.00162	0.229

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Sep-08	245	2500	2470	3.1	423	401																
24-Sep-08	252	2500	2475	3.18	427	389	47.41	88.96	<1	110	3.87	<0.5	0.053	84.1	1.22	0.00009	0.00326	0.00812	<0.0002	<0.0005	<0.01	0.000597
1-Oct-08	259	2500	2410	3.17	454	368																
8-Oct-08	266	2500	2440	3.18	503	372	46.9	87.57	<1	166	3.68	<0.5	0.079	82.7	1.18	0.000092	0.00367	0.00867	<0.0002	<0.0005	<0.01	0.000612
15-Oct-08	273	2500	2535	3.09	592	365																
22-Oct-08	280	2500	2380	3.18	613	354	46.97	85.62	<1	103	3.32	<0.5	0.056	82.7	1.07	0.000104	0.00363	0.00799	<0.0002	<0.0005	<0.01	0.000545
29-Oct-08	287	2500	2455	3.21	569	337																
5-Nov-08	294	2500	2380	3.29	601	350	45.01	85.11	<1	102	3.01	<0.5	0.043	78.7	0.918	0.000109	0.00418	0.00813	<0.0002	<0.0005	<0.01	0.000501
12-Nov-08	301	2500	2375	3.18	447	334																
19-Nov-08	308	2500	2300	3.19	610	305	49.04	86.84	<1	89.8	2.93	<0.5	0.042	79.6	0.736	0.000108	0.00429	0.00821	<0.0002	<0.0005	<0.01	0.000466
26-Nov-08	315	2500	2450	3.19	436	292																
3-Dec-08	322	2500	2390	3.21	421	340	46.9	84.13	<1	90.5	2.52	<0.5	0.038	75.8	0.786	0.000125	0.00455	0.00818	<0.0002	<0.0005	<0.01	0.000429
10-Dec-08	329	2500	2405	3.21	410	331																
17-Dec-08	336	2500	2400	3.25	432	298				75	2.14	<0.5	0.031	65.2	0.481	0.000106	0.00382	0.00673	<0.0002	<0.0005	<0.01	0.000358
24-Dec-08	343	2500	2410	3.17	443	369																
31-Dec-08	350	2500	2285	3.25	472	371	48.29	87.03	<1	86.2	2.43	<0.5	0.045	69.7	0.658	0.000107	0.004	0.00694	<0.0002	<0.0005	<0.01	0.000424
7-Jan-09	357	2500	2370	3.21	429	314																
14-Jan-09	364	2500	2500	3.19	443	322	41.56	75.37	<1	93.8	2.32	<0.5	0.048	71.3	0.716	0.000124	0.00428	0.00728	<0.0002	<0.0005	<0.01	0.000413
21-Jan-09	371	2500	2440	3.2	465	320																
28-Jan-09	378	2500	2415	3.15	491	326	45.46	81.79	<1	93.3	2.3	<0.5	0.038	73.3	0.759	0.00012	0.00427	0.007	<0.0002	<0.0005	<0.01	0.000401
4-Feb-09	385	2500	2520	3.4	502	380																
11-Feb-09	392	2500	2430	3.15	551	356	51.65	95.28	<1	120	2.47	<0.5	0.04	80.9	0.862	0.000153	0.00611	0.00785	<0.0002	<0.0005	<0.01	0.000428
18-Feb-09	399	2500	2490	3.21	570	327																
25-Feb-09	406	2500	2365	3.24	316	338	48.79	95.63	<1	94.7	2.36	<0.5	0.034	77.3	0.926	0.000136	0.00475	0.0066	<0.0002	<0.0005	<0.01	0.00038
4-Mar-09	413	2500	2495	3.12	407	321																
11-Mar-09	420	2500	2420	3.12	421	314	47.48	83.62	<1	91.3	2.27	<0.5	0.03	70.4	0.633	0.000105	0.00431	0.00612	<0.0002	<0.0005	<0.01	0.000362
18-Mar-09	427	2500	2340	3.15	418	331																
25-Mar-09	434	2500	2375	3.07	440	318	47.64	79.44	<1	91.3	2.24	<0.5	0.028	72.7	0.631	0.000132	0.0052	0.00624	<0.0002	<0.0005	<0.01	0.000356
1-Apr-09	441	2500	2365	3.16	443	329																
8-Apr-09	448	2500	2350	3.09	515	317	49.66	86.71	<1	92.5	2.22	<0.5	0.03	77.5	0.686	0.000148	0.00595	0.00628	<0.0002	<0.0005	<0.01	0.000368
15-Apr-09	455	2500	2470	3.13	536	297																
22-Apr-09	462	2500	2465	3.11	483	318																
29-Apr-09	469	2500	2360																			
6-May-09	476	2500	2510	3.08	510	338	53.78	93.53	<1	104	2.49	<0.5	0.038	82	0.714	0.000169	0.0067	0.00626	<0.0002	<0.0005	<0.01	0.000403
13-May-09	483	2500	2385																			
20-May-09	490	2500	2460	3.06	513	331																
27-May-09	497	2500	2460																			
3-Jun-09	504	2500	2325	3	525	376	62.4	110.28	<1	94.6		<0.5	0.056	94.4								
10-Jun-09	511	2500	2500																			
17-Jun-09	518	2500	2435	3.11	559	349																
24-Jun-09	525	2500	2455																			
1-Jul-09	532	2500	2390	3.03	528	284	47	78.48	<1	95.5		<0.5	0.025	68.2								
8-Jul-09	539	2500	2410																			
15-Jul-09	546	2500	2420	3.03	529	311																
22-Jul-09	553	2500	2395																			
29-Jul-09	560	2500	2460	3.05	433	348	59.43	102.23	<1	105		<0.5	<0.02	85.5								
5-Aug-09	567	2500	2390																			
12-Aug-09	574	2500	2440	3.05	442	414																
19-Aug-09	581	2500	2445																			
26-Aug-09	588	2500	2400	3.08	434	336	50.16	87.2	<1	96.8		<0.5	0.032	81.1								
2-Sep-09	595	2500	2365																			
9-Sep-09	602	2500	2490	3.1	417	306																
16-Sep-09	609	2500	2380																			
23-Sep-09	616	2500	2485	3.07	488	356	60.14	100.93	<1	112		<0.5	0.025	81.3								
30-Sep-09	623	2500	2425																			
7-Oct-09	630	2500	2425	3.12	474	327																
14-Oct-09	637	2500	2445																			
21-Oct-09	644	2500	2430	3.12	431	341	55.59	90.43	<1	80		<10	<0.4	72								

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Sep-08	245																				
24-Sep-08	252	1.02	0.00349	0.0117	0.848	23.6	0.000078	0.323	0.0153	<0.00001	<0.00005	0.012	0.292	0.0033	1.57	0.000017	<2	<0.00005	0.00034	0.00128	0.203
1-Oct-08	259																				
8-Oct-08	266	1	0.0035	0.0114	0.876	23.7		0.286	0.0142	<0.00001	<0.00005	0.0132	0.291	0.0034	1.52	0.000015	<2	<0.00005	0.00029	0.00141	0.209
15-Oct-08	273																				
22-Oct-08	280	0.883	0.00308	0.0112	0.753	22	0.00069	0.271	0.0132	<0.00001	<0.00005	0.0117	0.27	0.0032	1.36	0.000015	<2	<0.00005	0.00038	0.00134	0.185
29-Oct-08	287																				
5-Nov-08	294	0.785	0.00293	0.011	0.672	21.1	0.000098	0.255	0.0119	<0.00001	<0.00005	0.0114	0.265	0.0035	1.24	0.000019	<2	<0.00005	0.00036	0.00143	0.175
12-Nov-08	301																				
19-Nov-08	308	0.77	0.00274	0.0102	0.516	21.9	0.000094	0.244	0.0107	<0.00001	<0.00005	0.011	0.233	0.0032	1.17	0.000017	<2	<0.00005	0.00032	0.00131	0.164
26-Nov-08	315																				
3-Dec-08	322	0.673	0.00254	0.0103	0.529	20.2	0.000096	0.204	0.0102	<0.00001	<0.00005	0.0111	0.232	0.0033	1.09	0.000015	<2	<0.00005	0.00025	0.00154	0.157
10-Dec-08	329																				
17-Dec-08	336	0.58	0.00182	0.00831	0.384	16.9	0.000084	0.167	0.00864	<0.00001	<0.00005	0.00904	0.181	0.0029	0.854	0.000011	<2	<0.00005	0.00045	0.00092	0.133
24-Dec-08	343																				
31-Dec-08	350	0.624	0.0023	0.0101	0.623	19.1	0.0001	0.212	0.0109	<0.00001	<0.00005	0.0108	0.206	0.003	0.932	0.000015	<2	<0.00005	0.00084	0.00115	0.159
7-Jan-09	357																				
14-Jan-09	364	0.594	0.00258	0.0103	0.585	20	0.000112	0.204	0.0104	<0.00001	<0.00005	0.011	0.216	0.0029	0.928	0.000023	<2	<0.00005	0.00058	0.00142	0.143
21-Jan-09	371																				
28-Jan-09	378	0.612	0.00242	0.00973	0.718	20.3	<0.00005	0.188	0.0103	<0.00001	<0.00005	0.0107	0.179	0.0028	0.933	0.000015	<2	<0.00005	0.00062	0.00149	0.153
4-Feb-09	385																				
11-Feb-09	392	0.637	0.00308	0.0107	0.744	22.4	<0.00005	0.214	0.0114	<0.00001	<0.00005	0.0114	0.231	0.0031	1.09	0.000023	<2	<0.00005	0.00071	0.00228	0.151
18-Feb-09	399																				
25-Feb-09	406	0.612	0.00255	0.01	0.756	20.7	0.000257	0.202	0.0106	<0.00001	<0.00005	0.0107	0.196	0.0029	0.955	0.00002	<2	<0.00005	0.00077	0.00177	0.139
4-Mar-09	413																				
11-Mar-09	420	0.573	0.00239	0.00969	0.565	19.3	0.000234	0.203	0.0103	<0.00001	<0.00005	0.0105	0.146	0.0026	0.876	0.000014	<2	<0.00005	0.00072	0.00169	0.138
18-Mar-09	427																				
25-Mar-09	434	0.558	0.00238	0.00957	0.525	19.8	0.000078	0.206	0.00964	<0.00001	<0.00005	0.0101	0.144	0.0027	0.891	0.000017	<2	<0.00005	0.00102	0.00191	0.13
1-Apr-09	441																				
8-Apr-09	448	0.553	0.0026	0.00996	0.582	21.2	<0.00005	0.204	0.0109	<0.00001	<0.00005	0.0105	0.179	0.0027	0.979	0.000018	<2	<0.00005	0.00092	0.00213	0.135
15-Apr-09	455																				
22-Apr-09	462																				
29-Apr-09	469																				
6-May-09	476	0.605	0.00305	0.0116	0.585	22	0.000652	0.238	0.012	<0.00001	<0.00005	0.0119	0.219	0.0034	1.06	0.000014	<2	<0.00005	0.00095	0.00256	0.139
13-May-09	483																				
20-May-09	490																				
27-May-09	497																				
3-Jun-09	504																				
10-Jun-09	511																				
17-Jun-09	518																				
24-Jun-09	525																				
1-Jul-09	532																				
8-Jul-09	539																				
15-Jul-09	546																				
22-Jul-09	553																				
29-Jul-09	560																				
5-Aug-09	567																				
12-Aug-09	574																				
19-Aug-09	581																				
26-Aug-09	588																				
2-Sep-09	595																				
9-Sep-09	602																				
16-Sep-09	609																				
23-Sep-09	616																				
30-Sep-09	623																				
7-Oct-09	630																				
14-Oct-09	637																				
21-Oct-09	644																				

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Jan-08	0	2500	2050	7.71	492	373	<1	4.45	57.3	290	72.8	3.53	1.37	131	0.035	0.00399	0.0314	0.0029	<0.0002	<0.0005	0.069	<0.00005
24-Jan-08	7	2500	2550	7.36	476	249																
31-Jan-08	14	2500	2605	7.6	467	124	<1	3.28	36.2	78.7	34.3	<0.5	0.85	25.3	0.102	0.00347	0.0286	0.00105	<0.0002	<0.0005	0.026	<0.00005
7-Feb-08	21	2500	2455	7.5	468	131																
14-Feb-08	28	2500	2510	7.7	457	96	<1	2.47	34.2	58	35.9	<0.5	0.751	14.8	0.0853	0.00251	0.0148	0.00106	<0.0002	<0.0005	0.014	<0.00005
21-Feb-08	35	2500	2420	7.52	424	116																
28-Feb-08	42	2500	2520	7.5	435	98	<1	5.63	39.2	65.5	42.4	<0.5	0.729	13.6	0.0643	0.00218	0.00821	0.000905	<0.0002	<0.0005	0.011	<0.00005
6-Mar-08	49	2500	2500	7.16	441	103																
13-Mar-08	56	2500	2475	7.64	447	101	<1	2.97	35.2	71.3	46.3	<0.5	0.792	17.4	0.0568	0.00229	0.0067	0.00098	<0.0002	<0.0005	0.01	<0.00005
20-Mar-08	63	2500	2490	7.23	439	99																
27-Mar-08	70	2500	2525	7.54	450	90	<1	3.29	32.4	63.2	38.8	<0.5	0.694	15.1	0.0486	0.00168	0.00404	0.00129	<0.0002	<0.0005	<0.01	<0.00005
3-Apr-08	77	2500	2485	7.24	444	80																
10-Apr-08	84	2500	2495	7.48	445	95	<1	2.78	28.9	72	39.4	<0.5	0.693	15.1	0.0528	0.0015	0.00327	0.00101	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-08	91	2500	2510	7.19	431	89																
24-Apr-08	98	2500	2325	7.5	407	88	<1	3.48	28.1	62.2	39.1	<0.5	0.658	16.6	0.0388	0.00139	0.00239	0.000791	<0.0002	<0.0005	<0.01	<0.00005
1-May-08	105	2500	2560	7.38	354	93																
8-May-08	112	2500	2545	7.66	378	91	<1	2.84	28.5	41.4	40.7	<0.5	0.726	14	0.0539	0.00135	0.00267	0.000762	<0.0002	<0.0005	<0.01	<0.00005
15-May-08	119	2500	2495	7.48	330	90																
22-May-08	126	2500	2545	7.59	350	93	<1	2.61	26.7	54.9	41.1	<0.5	0.742	16.2	0.0512	0.00112	0.00203	0.000687	<0.0002	<0.0005	<0.01	0.000052
29-May-08	133	2500	2500	7.35	460	90																
5-Jun-08	140	2500	2350	7.55	415	77	<1	3.35	27.1	64.3	40.5	<0.5	0.696	15.3	0.0451	0.00111	0.00184	0.000634	<0.0002	<0.0005	<0.01	<0.00005
12-Jun-08	147	2500	2425	7.29	411	65																
19-Jun-08	154	2500	2430	7.47	364	65	<1	4.12	25.5	43.5	38.5	<0.5	0.748	15	0.0424	0.00104	0.0016	0.000662	<0.0002	<0.0005	<0.01	<0.00005
26-Jun-08	161	2500	2470	7.25	384	81																
3-Jul-08	168	2500	2360	7.53	379	96	<1	2.98	23	63.2	42.3	<0.5	0.805	18.2	0.0465	0.00103	0.00171	0.000613	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-08	175	2500	2470	7.59	361	87																
17-Jul-08	182	2500	2455	7.5	402	80	<1	2.64	21.3	43.8	35.3	<0.5	0.637	14.5	0.0415	0.00071	0.00114	0.000501	<0.0002	<0.0005	<0.01	<0.00005
24-Jul-08	189	2500	2470	7.21	392	84																
31-Jul-08	196	2500	2420	7.52	409	80	<1	2.43	24	44	36.6	<0.5	0.703	15.1	0.0332	0.000735	0.00115	0.00069	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-08	203	2500	2545	7.31	339	75																
14-Aug-08	210	2500	2465	7.47	380	81	<1	2.79	22.3	52.8	36.2	<0.5	0.691	14	0.0326	0.000685	0.00099624	0.00046	<0.0002	<0.0005	<0.01	<0.00005
21-Aug-08	217	2500	2540	7.34	273	76																
28-Aug-08	224	2500	2455	7.46	366	74	<1	2.81	23.1	44.9	33.2	<0.5	0.662	13.4	0.0353	0.000666	0.00098	0.000544	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-08	231	2500	2460	7.25	304	67																
11-Sep-08	238	2500	2400	7.38	319	74	<1	3.06	22.4	42.8	33.1	<0.5	0.652	14.1	0.0392	0.000624	0.00089	0.000465	<0.0002	<0.0005	<0.01	<0.00005
18-Sep-08	245	2500	2435	7.22	297	69																
25-Sep-08	252	2500	2410	7.46	306	69	<1	3.16	17.8	39.1	28.9	<0.5	0.573	12.4	0.0305	0.000505	0.00069	0.000449	<0.0002	<0.0005	<0.01	0.000077
2-Oct-08	259	2500	2505	7.26	379	67																
9-Oct-08	266	2500	2460	7.44	389	65	<1	3.15	17.8	36.1	29.2	<0.5	0.573	11	0.0299	0.000443	0.00075	0.000509	<0.0002	<0.0005	<0.01	<0.00005
16-Oct-08	273	2500	2390	7.31	386	65																
23-Oct-08	280	2500	2365	7.36	412	61	<1	3.15	17.5	40	30.5	<0.5	0.599	11.4	0.0231	0.000432	0.00054	0.000398	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-08	287	2500	2475	7.08	439	61																
6-Nov-08	294	2500	2400	7.25	441	59	<1	3.95	20.5	40.6	29.6	<0.5	0.591	10.8	0.0198	0.000416	0.00051	0.000366	<0.0002	<0.0005	<0.01	<0.00005
13-Nov-08	301	2500	2375	7.09	417	56																
20-Nov-08	308	2500	2425	7.39	432	53	<1	3.2	21.4	36	30.3	<0.5	0.627	10.9	0.0203	0.00046	0.00056	0.000478	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-08	315	2500	2525	7.2	349	49																
4-Dec-08	322	2500	2340	7.38	350	59	<1	3.12	24	38.6	28.8	<0.5	0.64	10.1	0.0188	0.000405	0.00047	0.000495	<0.0002	<0.0005	<0.01	<0.00005
11-Dec-08	329	2500	2430	7.18	272	52																
18-Dec-08	336	2500	2250	7.26	359	62	<1	5.09	25.1	37.8	31.1	<0.5	0.689	10.5	0.0209	0.000397	0.00048	0.000371	<0.0002	<0.0005	<0.01	0.000052
25-Dec-08	343	2500	2380	7.34	316	54																
1-Jan-09	350	2500	2410	7.53	331	43	<1	9.04	22.7	27	22.5	<0.5	0.41	8.71	0.0204	0.000305	0.00036	0.000323	<0.0002	<0.0005	<0.01	<0.00005
8-Jan-09	357	2500	2475	7.19	371	47																
15-Jan-09	364	2500	2505	7.28	360	54	<1	4.77	23.8	42.3	28	<0.5	0.483	8.26	0.0167	0.00029	0.00031	0.000351	<0.0002	<0.0005	<0.01	0.000061
22-Jan-09	371	2500	2570	7.13	352	48																
29-Jan-09	378	2500	2450	7.32	378	46	<1	7.52	26	23.3	23.9	<0.5	0.42	7.87	0.0111	0.000245	0.00028	0.000246	<0.0002	<0.0005	<0.01	<0.00005
5-Feb-09	385	2500	2390	7.46	352	60																
12-Feb-09	392	2500	2425	7.22	393	48	<1	2.83	16.2	23.1	24.1	<0.5	0.473	9.04	0.0187	0.00027	0.00036	0.000314	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-09	399	2500	2435	7.12	385	49																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jan-08	0	27.9	<0.0005	0.00031	0.00369	<0.03	<0.00005	0.754	0.00995	<0.00001	0.0197	0.00203	12.6	0.0353	2.41	0.000039	52.5	0.000095	0.00084	0.00685	<0.001
24-Jan-08	7																				
31-Jan-08	14	13.2	<0.0005	0.00012	0.00185	<0.03	<0.00005	0.305	0.00554	<0.00001	0.00533	0.0007	4.65	0.0077	2.13	<0.00001	10.3	<0.00005	0.0014	0.00699	<0.001
7-Feb-08	21																				
14-Feb-08	28	13.8	<0.0005	0.00014	0.00286	<0.03	<0.00005	0.315	0.00721	<0.00001	0.003	0.00053	3.31	0.0034	1.62	<0.00001	4.1	<0.00005	0.00167	0.00337	<0.001
21-Feb-08	35																				
28-Feb-08	42	16.5	<0.0005	0.00023	0.00351	<0.03	<0.00005	0.3	0.0118	<0.00001	0.00264	0.00066	2.94	0.0028	1.56	<0.00001	2.2	<0.00005	0.0016	0.00177	<0.001
6-Mar-08	49																				
13-Mar-08	56	17.9	<0.0005	0.00027	0.00455	<0.03	<0.00005	0.348	0.0142	<0.00001	0.00303	0.00056	2.64	0.0034	1.58	<0.00001	<2	<0.00005	0.00186	0.00122	<0.001
20-Mar-08	63																				
27-Mar-08	70	15.1	<0.0005	0.00022	0.00444	<0.03	<0.00005	0.255	0.0125	<0.00001	0.00227	<0.0005	1.91	0.0025	1.26	<0.00001	<2	<0.00005	0.00147	0.00074	<0.001
3-Apr-08	77																				
10-Apr-08	84	15.3	<0.0005	0.00026	0.00608	<0.03	<0.00005	0.278	0.0147	<0.00001	0.00251	<0.0005	2.01	0.0027	1.21	<0.00001	<2	<0.00005	0.00192	0.00069	<0.001
17-Apr-08	91																				
24-Apr-08	98	15.3	<0.0005	0.00036	0.00704	<0.03	0.000063	0.251	0.0175	<0.00001	0.00316	0.00079	1.8	0.0027	1.14	<0.00001	<2	<0.00005	0.00157	0.00055	0.0015
1-May-08	105																				
8-May-08	112	15.8	<0.0005	0.00029	0.00579	<0.03	0.000131	0.294	0.0177	<0.00001	0.00274	<0.0005	1.94	0.003	1.2	<0.00001	<2	<0.00005	0.00221	<0.0005	0.0013
15-May-08	119																				
22-May-08	126	16.1	<0.0005	0.00024	0.00472	<0.03	0.000073	0.24	0.0159	<0.00001	0.0028	<0.0005	1.56	0.0028	1.17	<0.00001	<2	<0.00005	0.00197	<0.0005	0.0013
29-May-08	133																				
5-Jun-08	140	15.8	<0.0005	0.00025	0.00575	<0.03	0.000089	0.218	0.0185	<0.00001	0.00309	<0.0005	1.52	0.0025	1.12	<0.00001	<2	<0.00005	0.0024	<0.0005	<0.001
12-Jun-08	147																				
19-Jun-08	154	15.1	<0.0005	0.00024	0.00574	<0.03	<0.00005	0.218	0.0188	<0.00001	0.00281	<0.0005	1.52	0.0022	1.08	<0.00001	<2	<0.00005	0.00174	<0.0005	0.0012
26-Jun-08	161																				
3-Jul-08	168	16.6	<0.0005	0.00019	0.00469	<0.03	0.000057	0.214	0.0175	<0.00001	0.00371	<0.0005	1.46	0.0025	1.11	<0.00001	<2	<0.00005	0.00263	<0.0005	<0.001
10-Jul-08	175																				
17-Jul-08	182	13.9	<0.0005	0.00019	0.00514	<0.03	<0.00005	0.179	0.0168	<0.00001	0.00284	<0.0005	1.21	0.0018	0.929	<0.00001	<2	<0.00005	0.00256	<0.0005	<0.001
24-Jul-08	189																				
31-Jul-08	196	14.4	<0.0005	0.00023	0.00567	<0.03	<0.00005	0.188	0.0194	<0.00001	0.00322	<0.0005	1.19	0.0021	0.935	<0.00001	<2	<0.00005	0.0028	<0.0005	<0.001
7-Aug-08	203																				
14-Aug-08	210	14.2	<0.0005	0.00024	0.006	<0.03	<0.00005	0.174	0.0201	<0.00001	0.00319	<0.0005	1.1	0.0017	0.875	<0.00001	<2	<0.00005	0.00299	<0.0005	<0.001
21-Aug-08	217																				
28-Aug-08	224	13	<0.0005	0.00024	0.00626	<0.03	0.000059	0.17	0.0206	<0.00001	0.00323	<0.0005	1.05	0.0018	0.807	<0.00001	<2	<0.00005	0.00325	<0.0005	0.0014
4-Sep-08	231																				
11-Sep-08	238	13	<0.0005	0.00022	0.00529	<0.03	<0.00005	0.177	0.0227	<0.00001	0.00323	0.00055	1.16	0.0016	0.824	0.00001	<2	<0.00005	0.00284	<0.0005	<0.001
18-Sep-08	245																				
25-Sep-08	252	11.3	<0.0005	0.00021	0.00492	<0.03	<0.00005	0.14	0.0194	<0.00001	0.00304	<0.0005	0.909	0.0015	0.722	0.000011	<2	<0.00005	0.00361	<0.0005	0.0018
2-Oct-08	259																				
9-Oct-08	266	11.5	<0.0005	0.00023	0.00679	<0.03	<0.00005	0.135	0.0214	<0.00001	0.00285	<0.0005	0.894	0.0014	0.663	0.000011	<2	<0.00005	0.00355	<0.0005	0.0014
16-Oct-08	273																				
23-Oct-08	280	12	<0.0005	0.00027	0.00613	<0.03	<0.00005	0.128	0.0227	<0.00001	0.00276	<0.0005	0.81	0.0012	0.647	0.000011	<2	<0.00005	0.0047	<0.0005	<0.001
30-Oct-08	287																				
6-Nov-08	294	11.6	<0.0005	0.00033	0.00733	<0.03	<0.00005	0.134	0.0259	<0.00001	0.00288	<0.0005	0.897	0.0012	0.641	0.000011	<2	<0.00005	0.00398	<0.0005	<0.001
13-Nov-08	301																				
20-Nov-08	308	11.9	<0.0005	0.00035	0.00893	<0.03	<0.00005	0.151	0.0277	<0.00001	0.0032	<0.0005	0.937	0.0013	0.626	0.000012	<2	<0.00005	0.00507	<0.0005	0.0012
27-Nov-08	315																				
4-Dec-08	322	11.3	<0.0005	0.00035	0.00758	<0.03	<0.00005	0.131	0.0261	<0.00001	0.003	<0.0005	0.85	0.001	0.61	<0.00001	<2	<0.00005	0.00541	<0.0005	0.0011
11-Dec-08	329																				
18-Dec-08	336	12.3	<0.0005	0.00037	0.0118	<0.03	<0.00005	0.119	0.0252	<0.00001	0.00301	<0.0005	0.81	0.0012	0.652	<0.00001	<2	<0.00005	0.00544	<0.0005	0.002
25-Dec-08	343																				
1-Jan-09	350	8.84	<0.0005	0.00032	0.00643	<0.03	<0.00005	0.101	0.0219	<0.00001	0.00257	<0.0005	0.658	<0.001	0.425	<0.00001	<2	<0.00005	0.00559	<0.0005	0.0015
8-Jan-09	357																				
15-Jan-09	364	11	<0.0005	0.00061	0.0116	<0.03	<0.00005	0.125	0.0339	<0.00001	0.00283	0.00053	0.756	<0.001	0.54	<0.00001	<2	<0.00005	0.00529	<0.0005	0.0019
22-Jan-09	371																				
29-Jan-09	378	9.4	<0.0005	0.00039	0.00784	<0.03	<0.00005	0.0944	0.0247	<0.00001	0.00256	<0.0005	0.578	<0.001	0.411	<0.00001	<2	<0.00005	0.00512	<0.0005	0.0014
5-Feb-09	385																				
12-Feb-09	392	9.5	<0.0005	0.00031	0.00642	<0.03	0.000199	0.0998	0.0244	<0.00001	0.00384	<0.0005	0.665	<0.001	0.434	<0.00001	<2	<0.00005	0.0053	<0.0005	<0.001
19-Feb-09	399																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
26-Feb-09	406	2500	2420	7.44	290	52	<1	6.77	21.8	33.3	24.6	<0.5	0.455	9.77	0.0147	0.000277	0.00031	0.000298	<0.0002	<0.0005	<0.01	<0.00005
5-Mar-09	413	2500	2395	7.26	229	53																
12-Mar-09	420	2500	2435	7.25	334	46	<1	3.77	17.1	19.5	23.9	<0.5	0.522	8.01	0.0143	0.00027	0.00038	0.000407	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-09	427	2500	2350	7.09	306	46																
26-Mar-09	434	2500	2420	7.18	379	48	<1	4.21	21.7	24.3	21.7	<0.5	0.413	6.89	0.0187	0.00025	0.00037	0.000314	<0.0002	<0.0005	<0.01	<0.00005
2-Apr-09	441	2500	2315	7.16	368	48																
9-Apr-09	448	2500	2420	7.15	379	50	<1	3.93	17.7	33.5	25	<0.5	0.566	8.72	0.0152	0.0003	0.00035	0.000284	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-09	455	2500	2415	7.09	377	48																
23-Apr-09	462	2500	2430	7.24	381	46																
30-Apr-09	469	2500	2485																			
7-May-09	476	2500	2390	7.07	394	53	<1	2.51	17.4	34.8	25.8	<0.5	0.524	8.74	0.0156	0.000295	0.00039	0.000293	<0.0002	<0.0005	<0.01	0.000059
14-May-09	483	2500	2350																			
21-May-09	490	2500	2360	6.89	397	47																
28-May-09	497	2500	2335																			
4-Jun-09	504	2500	2375	7.11	385	41	<1	3.79	16	11.6	24.5	<0.5	0.615	10.5	0.018	0.000322	0.00042	0.000318	<0.0002	<0.0005	<0.01	0.000056
11-Jun-09	511	2500	2370																			
18-Jun-09	518	2500	2410	7.07	402	40																
25-Jun-09	525	2500	2410																			
2-Jul-09	532	2500	2375	6.99	342	46	<1	2.92	14.3	33	21.6	<0.5	0.474	8.5	0.0126	0.000231	0.00028	0.00029	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-09	539	2500	2335																			
16-Jul-09	546	2500	2360	6.75	407	34																
23-Jul-09	553	2500	2400																			
30-Jul-09	560	2500	2390	6.81	391	43	<1	5.61	14.3	29.4	22.2	<0.5	0.544	9.5	0.0136	0.000262	0.00033	0.000294	<0.0002	<0.0005	<0.01	0.000054
6-Aug-09	567	2500	2375																			
13-Aug-09	574	2500	2280	7.01	337	46																
20-Aug-09	581	2500	1990																			
27-Aug-09	588	2500	2280	6.89	305	43	<1	4.51	15.1	<10	22.2	<0.5	0.519	9.91	0.0157	0.000214	0.00026	0.000222	<0.0002	<0.0005	<0.01	0.000051
3-Sep-09	595	2500	2460																			
10-Sep-09	602	2500	2400	6.95	359	44																
17-Sep-09	609	2500	2370																			
24-Sep-09	616	2500	2450	6.84	344	40	<1	3.6	20.7	14	20.6	<0.5	0.463	7.68	0.0106	0.000201	0.00023	0.000359	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-09	623	2500	2400																			
8-Oct-09	630	2500	2495	6.9	312	38																
15-Oct-09	637	2500	2290																			
22-Oct-09	644	2500	2345	6.6	299	38	<1	4.56	12.8	25	19.9	<0.5	0.462	7.57	0.0092	0.00021	0.00027	0.000884	<0.0002	<0.0005	<0.01	0.000051
29-Oct-09	651	2500	2305																			
5-Nov-09	658	2500	2435	6.51	333	38																
12-Nov-09	665	2500	1730																			
19-Nov-09	672	2500	2375	7.11	318	51	<1	5.33	18.3	30	23.1	<0.5	0.47	8.22	0.0076	0.000171	0.00017	0.000607	<0.0002	<0.0005	<0.01	0.000067
26-Nov-09	679	2500	2475																			
3-Dec-09	686	2500	2435	6.5	358	41																
10-Dec-09	693	2500	2415																			
17-Dec-09	700	2500	2405	6.68	307	39	<1	2.9	13.9	27	17.7	<0.5	0.427	6.11	0.0108	0.000175	0.00017	0.000356	<0.0002	<0.0005	<0.01	0.000052
24-Dec-09	707	2500	2480																			
31-Dec-09	714	2500	2370	6.38	393	39																
7-Jan-10	721	2500	2445																			
14-Jan-10	728	2500	2385	6.61	319	41	<1	5.2	12.6	33	19.3	<0.5	0.443	7.13	0.0093	0.000189	0.00025	0.0003	<0.0002	<0.0005	<0.01	0.000066
21-Jan-10	735	2500	2390																			
28-Jan-10	742	2500	2365	6.51	324	30																
4-Feb-10	749	2500	2510																			
11-Feb-10	756	2500	2455	6.48	339	35	<1	4.44	10.1	23	17.1	<0.5	0.41	7.13	0.0068	0.000159	0.00018	0.000554	<0.0002	<0.0005	<0.01	0.000064
18-Feb-10	763	2500	2460																			
25-Feb-10	770	2500	2465	6.48	369	33																
4-Mar-10	777	2500	2425																			
11-Mar-10	784	2500	2535	6.66	410	37	<1	4.1	11.2	21	17.7	<0.5	0.41	7.4	0.0084	0.000145	0.00014	0.000288	<0.0002	<0.0005	<0.01	0.000073
18-Mar-10	791	2500	2435																			
25-Mar-10	798	2500	2381	6.68	376	34																
1-Apr-10	805	2500	2410																			
8-Apr-10	812	2500	2460	6.69	361	33	<1	2.97	9.9	21	16.1	<0.5	0.394	6.54	0.0091	0.000132	0.00011	0.000322	<0.0002	<0.0005	<0.01	0.000068
15-Apr-10	819	2500	2375																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
26-Feb-09	406	9.69	<0.0005	0.00031	0.00555	<0.03	<0.00005	0.0973	0.0226	<0.00001	0.00429	<0.0005	0.573	<0.001	0.426	<0.00001	<2	<0.00005	0.00577	<0.0005	0.0011
5-Mar-09	413																				
12-Mar-09	420	9.41	<0.0005	0.00033	0.00824	<0.03	<0.00005	0.0946	0.0229	<0.00001	0.00375	<0.0005	0.606	<0.001	0.45	<0.00001	<2	<0.00005	0.00554	<0.0005	0.002
19-Mar-09	427																				
26-Mar-09	434	8.53	<0.0005	0.00028	0.00584	<0.03	<0.00005	0.0894	0.0208	<0.00001	0.00346	<0.0005	0.559	<0.001	0.403	<0.00001	<2	<0.00005	0.00596	<0.0005	0.0011
2-Apr-09	441																				
9-Apr-09	448	9.84	<0.0005	0.00035	0.00696	<0.03	<0.00005	0.103	0.0251	<0.00001	0.00453	<0.0005	0.621	<0.001	0.456	<0.00001	<2	<0.00005	0.00672	<0.0005	0.0012
16-Apr-09	455																				
23-Apr-09	462																				
30-Apr-09	469																				
7-May-09	476	10.2	<0.0005	0.00037	0.00774	<0.03	<0.00005	0.105	0.0255	<0.00001	0.00441	<0.0005	0.631	<0.001	0.482	<0.00001	<2	<0.00005	0.00635	<0.0005	0.0011
14-May-09	483																				
21-May-09	490																				
28-May-09	497																				
4-Jun-09	504	9.66	<0.0005	0.00028	0.00615	<0.03	<0.00005	0.0933	0.0225	<0.00001	0.00421	<0.0005	0.653	0.001	0.491	<0.00001	<2	<0.00005	0.00683	<0.0005	<0.001
11-Jun-09	511																				
18-Jun-09	518																				
25-Jun-09	525																				
2-Jul-09	532	8.51	<0.0005	0.00032	0.00623	<0.03	<0.00005	0.0817	0.0212	<0.00001	0.00322	<0.0005	0.519	<0.001	0.409	<0.00001	<2	<0.00005	0.00573	<0.0005	0.0016
9-Jul-09	539																				
16-Jul-09	546																				
23-Jul-09	553																				
30-Jul-09	560	8.76	<0.0005	0.00034	0.00669	<0.03	<0.00005	0.0837	0.0224	<0.00001	0.00347	<0.0005	0.612	0.001	0.451	<0.00001	<2	<0.00005	0.00697	<0.0005	0.0017
6-Aug-09	567																				
13-Aug-09	574																				
20-Aug-09	581																				
27-Aug-09	588	8.75	<0.0005	0.00037	0.00701	<0.03	<0.00005	0.0869	0.023	<0.00001	0.00306	<0.0005	0.562	<0.001	0.433	<0.00001	<2	<0.00005	0.00604	<0.0005	0.0011
3-Sep-09	595																				
10-Sep-09	602																				
17-Sep-09	609																				
24-Sep-09	616	8.1	<0.0005	0.00035	0.00751	<0.03	<0.00005	0.0774	0.0209	<0.00001	0.00268	<0.0005	0.459	<0.001	0.432	<0.00001	<2	<0.00005	0.00668	<0.0005	0.0013
1-Oct-09	623																				
8-Oct-09	630																				
15-Oct-09	637																				
22-Oct-09	644	7.84	<0.0005	0.00035	0.00701	<0.03	<0.00005	0.0744	0.0214	<0.00001	0.00275	<0.0005	0.51	<0.001	0.402	<0.00001	<2	<0.00005	0.00604	<0.0005	0.0013
29-Oct-09	651																				
5-Nov-09	658																				
12-Nov-09	665																				
19-Nov-09	672	9.1	<0.0005	0.00048	0.00997	<0.03	<0.00005	0.0916	0.0268	<0.00001	0.00315	<0.0005	0.444	<0.001	0.425	<0.00001	<2	<0.00005	0.00592	<0.0005	0.0019
26-Nov-09	679																				
3-Dec-09	686																				
10-Dec-09	693																				
17-Dec-09	700	6.99	<0.0005	0.00042	0.00732	<0.03	<0.00005	0.068	0.0233	<0.00001	0.00312	<0.0005	0.44	<0.001	0.373	<0.00001	<2	<0.00005	0.00664	<0.0005	0.0015
24-Dec-09	707																				
31-Dec-09	714																				
7-Jan-10	721																				
14-Jan-10	728	7.62	<0.0005	0.00037	0.0077	<0.03	<0.00005	0.065	0.0204	<0.00001	0.005	<0.0005	0.423	<0.001	0.414	<0.00001	<2	<0.00005	0.00688	<0.0005	0.0019
21-Jan-10	735																				
28-Jan-10	742																				
4-Feb-10	749																				
11-Feb-10	756	6.74	<0.0005	0.00046	0.00863	<0.03	<0.00005	0.0681	0.0226	<0.00001	0.00445	0.00056	0.403	<0.001	0.362	<0.00001	<2	<0.00005	0.00624	<0.0005	0.0023
18-Feb-10	763																				
25-Feb-10	770																				
4-Mar-10	777																				
11-Mar-10	784	6.97	<0.0005	0.00059	0.00914	<0.03	<0.00005	0.0684	0.0262	<0.00001	0.00486	<0.0005	0.42	<0.001	0.336	<0.00001	<2	<0.00005	0.00719	<0.0005	0.0027
18-Mar-10	791																				
25-Mar-10	798																				
1-Apr-10	805																				
8-Apr-10	812	6.33	<0.0005	0.0005	0.00858	<0.03	<0.00005	0.0622	0.022	<0.00001	0.00385	<0.0005	0.391	<0.001	0.35	<0.00001	<2	<0.00005	0.00583	<0.0005	0.0027
15-Apr-10	819																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Apr-10	826	2500	2405	6.6	320	33																
29-Apr-10	833	2500	2480																			
6-May-10	840	2500	2465	6.8	335	34	<1	4.17	10.6	23	17.4	<0.5	0.376	6.8	0.0069	0.000134	0.00012	0.000225	<0.0002	<0.0005	<0.01	0.000075
13-May-10	847	2500	2435																			
20-May-10	854	2500	2475	6.64	364	35																
27-May-10	861	2500	2395																			
3-Jun-10	868	2500	2290	6.76	328	34	<1	2.77	9.7	17	16.5	<0.5	0.415	6.66	0.0096	0.000148	0.00013	0.000283	<0.0002	<0.0005	<0.01	0.000079
10-Jun-10	875	2500	2405																			
17-Jun-10	882	2500	2390	6.78	302	33																
24-Jun-10	889	2500	2380																			
1-Jul-10	896	2500	2410	6.89	355	32	<1	3.01	9.3	19	16	<0.5	0.353	7.16	0.0066	0.000114	0.00014	0.000253	<0.0002	<0.0005	<0.01	0.000075
8-Jul-10	903	2500	2355																			
15-Jul-10	910	2500	2425	6.52	321	33																
22-Jul-10	917	2500	2325																			
29-Jul-10	924	2500	2395	6.56	332	35	<1	4.9	8.8	25	16.7	<0.5	0.424	8.74	0.0071	0.000125	0.00012	0.000247	<0.0002	<0.0005	<0.01	0.000079
5-Aug-10	931	2500	2500																			
12-Aug-10	938	2500	2445	6.77	285	30																
19-Aug-10	945	2500	2395																			
26-Aug-10	952	2500	2470	6.87	373	30	<1	2.58	8.3	18	13.7	<0.5	0.309	6.55	0.0079	0.000098	0.0001	0.000423	<0.0002	<0.0005	<0.01	0.00008
2-Sep-10	959	2500	2445																			
9-Sep-10	966	2500	2430	6.51	366	33																
16-Sep-10	973	2500	2465																			
23-Sep-10	980	2500	2440	6.75	332	25	<1	3.39	7.7	23	14.6	<0.5	0.375	7.48	0.008	0.000105	<0.0001	0.000628	<0.0002	<0.0005	<0.01	0.000084
30-Sep-10	987	2500	2470																			
7-Oct-10	994	2500	2420	6.63	329	34																
14-Oct-10	1001	2500	2500																			
21-Oct-10	1008	2500	2400	6.68	447	37	<1	3.01	9.3	27	17.2	<0.5	0.406	8.96	0.0058	0.000114	<0.0001	0.000282	<0.0002	<0.0005	<0.01	0.000103
28-Oct-10	1015	2500	2445																			
4-Nov-10	1022	2500	2400	7.04	289	29																
11-Nov-10	1029	2500	2475																			
18-Nov-10	1036	2500	2440	6.89	260	35	<1	2.94	9.3	22	15.1	<0.5	0.371	7.05	0.0054	0.000095	<0.0001	0.000277	<0.0002	<0.0005	<0.01	0.000106
25-Nov-10	1043	2500	2520																			
2-Dec-10	1050	2500	2310	6.71	355	31																
9-Dec-10	1057	2500	2385																			
16-Dec-10	1064	2500	2435	6.58	347	28	<1	4.35	8.9	32	14.2	<0.5	0.381	6.38	0.0054	0.000108	<0.0001	0.000346	<0.0002	<0.0005	<0.01	0.000091
23-Dec-10	1071	2500	2415																			
30-Dec-10	1078	2500	2465	6.54	303	24																
6-Jan-11	1085	2500	2470																			
13-Jan-11	1092	2500	2455	6.65	351	24	<1	4.52	7.7	24	13	<0.5	0.346	6.01	0.0044	0.000093	<0.0001	0.000256	<0.0002	<0.0005	<0.01	0.000086
20-Jan-11	1099	2500	2515																			
27-Jan-11	1106	2500	2475	6.55	306	24																
3-Feb-11	1113	2500	2435																			
10-Feb-11	1120	2500	2205	6.55	346	32	<1	4.62	6.3	27	16.1	<0.5	0.366	9	0.0033	0.000092	<0.0001	0.000278	<0.0002	<0.0005	<0.01	0.000109
17-Feb-11	1127	2500	2390																			
24-Feb-11	1134	2500	2195	6.59	308	33																
3-Mar-11	1141	2500	2565																			
10-Mar-11	1148	2500	2270	6.65	308	30	<1	3.69	7.1	19	13.1	<0.5	0.351	6.45	0.0066	0.000095	<0.0001	0.000243	<0.0002	<0.0005	<0.01	0.000096
17-Mar-11	1155	2500	2500																			
24-Mar-11	1162	2500	2465	6.6	302	24																
31-Mar-11	1169	2500	2485																			
7-Apr-11	1176	2500	2445	6.56	256	27	<1	4.8	7.6	16	12	<0.5	0.313	5.49	0.0036	0.00008	0.00016	0.000276	<0.0002	<0.0005	<0.01	0.00009
14-Apr-11	1183	2500	2550																			
21-Apr-11	1190	2500	2490	6.71	266	27																
28-Apr-11	1197	2500	2455																			
5-May-11	1204	2500	2430	6.71	357	26	<1	2.77	7.1	27	11.9	<0.5	0.33	5.83	0.0051	0.000085	<0.0001	0.000237	<0.0002	<0.0005	<0.01	0.000093
12-May-11	1211	2500	2455																			
19-May-11	1218	2500	2435	6.81	351	31																
26-May-11	1225	2500	2440																			
2-Jun-11	1232	2500	2460	6.57	240	27	<1	5.91	6.9	21	12.2	<0.5	0.323	6.76	0.0032	0.000072	<0.0001	0.000198	<0.0002	<0.0005	<0.01	0.000109
9-Jun-11	1239	2500	2455																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Apr-10	826																				
29-Apr-10	833																				
6-May-10	840	6.88	<0.0005	0.00059	0.00889	<0.03	<0.00005	0.064	0.0236	<0.00001	0.00376	<0.0005	0.405	<0.001	0.358	<0.00001	<2	<0.00005	0.00585	<0.0005	0.003
13-May-10	847																				
20-May-10	854																				
27-May-10	861																				
3-Jun-10	868	6.51	<0.0005	0.00055	0.00944	<0.03	<0.00005	0.0692	0.0234	<0.00001	0.00335	<0.0005	0.456	<0.001	0.376	<0.00001	<2	<0.00005	0.00646	<0.0005	0.0027
10-Jun-10	875																				
17-Jun-10	882																				
24-Jun-10	889																				
1-Jul-10	896	6.32	<0.0005	0.00055	0.00873	<0.03	<0.00005	0.0605	0.0206	<0.00001	0.00275	<0.0005	0.39	<0.001	0.364	<0.00001	<2	<0.00005	0.00464	<0.0005	0.0028
8-Jul-10	903																				
15-Jul-10	910																				
22-Jul-10	917																				
29-Jul-10	924	6.57	<0.0005	0.00059	0.00928	<0.03	<0.00005	0.0648	0.0219	<0.00001	0.0032	<0.0005	0.404	<0.001	0.384	<0.00001	<2	<0.00005	0.00485	<0.0005	0.0022
5-Aug-10	931																				
12-Aug-10	938																				
19-Aug-10	945																				
26-Aug-10	952	5.39	<0.0005	0.00058	0.0113	0.077	<0.00005	0.0543	0.0207	<0.00001	0.00235	0.00057	0.38	<0.001	0.351	<0.00001	<2	<0.00005	0.00383	<0.0005	0.0038
2-Sep-10	959																				
9-Sep-10	966																				
16-Sep-10	973																				
23-Sep-10	980	5.74	<0.0005	0.00058	0.0116	<0.03	0.000054	0.0589	0.0202	<0.00001	0.00224	0.00062	0.379	<0.001	0.356	<0.00001	<2	<0.00005	0.00621	<0.0005	0.0032
30-Sep-10	987																				
7-Oct-10	994																				
14-Oct-10	1001																				
21-Oct-10	1008	6.78	<0.0005	0.00084	0.0148	<0.03	<0.00005	0.0709	0.0249	<0.00001	0.00223	0.00072	0.415	<0.001	0.404	<0.00001	<2	<0.00005	0.00492	<0.0005	0.0045
28-Oct-10	1015																				
4-Nov-10	1022																				
11-Nov-10	1029																				
18-Nov-10	1036	5.96	<0.0005	0.0008	0.0164	<0.03	<0.00005	0.0633	0.0219	<0.00001	0.00176	0.0007	0.403	<0.001	0.366	<0.00001	<2	<0.00005	0.00451	<0.0005	0.0051
25-Nov-10	1043																				
2-Dec-10	1050																				
9-Dec-10	1057																				
16-Dec-10	1064	5.59	<0.0005	0.00082	0.0174	<0.03	0.000253	0.06	0.022	<0.00001	0.00161	0.00092	0.413	<0.001	0.357	<0.00001	<2	<0.00005	0.00354	<0.0005	0.0063
23-Dec-10	1071																				
30-Dec-10	1078																				
6-Jan-11	1085																				
13-Jan-11	1092	5.13	<0.0005	0.00073	0.0154	<0.03	<0.00005	0.0532	0.0185	<0.00001	0.00166	0.00088	0.315	<0.001	0.331	<0.00001	<2	<0.00005	0.00373	<0.0005	0.0048
20-Jan-11	1099																				
27-Jan-11	1106																				
3-Feb-11	1113																				
10-Feb-11	1120	6.32	<0.0005	0.00088	0.0178	<0.03	0.000328	0.0657	0.0229	<0.00001	0.00171	0.00104	0.394	<0.001	0.351	<0.00001	<2	<0.00005	0.00403	<0.0005	0.0062
17-Feb-11	1127																				
24-Feb-11	1134																				
3-Mar-11	1141																				
10-Mar-11	1148	5.14	<0.0005	0.0007	0.0163	<0.03	<0.00005	0.0505	0.0171	<0.00001	0.00178	0.00077	0.286	<0.001	0.337	<0.00001	<2	<0.00005	0.00385	<0.0005	0.0048
17-Mar-11	1155																				
24-Mar-11	1162																				
31-Mar-11	1169																				
7-Apr-11	1176	4.73	<0.0005	0.00075	0.0183	<0.03	<0.00005	0.0484	0.0168	<0.00001	0.00142	0.00087	0.299	<0.001	0.303	<0.00001	<2	<0.00005	0.00265	<0.0005	0.0052
14-Apr-11	1183																				
21-Apr-11	1190																				
28-Apr-11	1197																				
5-May-11	1204	4.7	<0.0005	0.00072	0.0182	<0.03	<0.00005	0.0484	0.0153	<0.00001	0.00142	0.00082	0.322	<0.001	0.327	<0.00001	<2	<0.00005	0.0035	<0.0005	0.0053
12-May-11	1211																				
19-May-11	1218																				
26-May-11	1225																				
2-Jun-11	1232	4.79	<0.0005	0.00075	0.0214	<0.03	<0.00005	0.0513	0.0159	<0.00001	0.00116	0.00091	0.331	<0.001	0.315	<0.00001	<2	<0.00005	0.00284	<0.0005	0.0064
9-Jun-11	1239																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jun-11	1246	2500	2420	6.73	228	27																
23-Jun-11	1253	2500	2426																			
30-Jun-11	1260	2500	2405	6.9	217	28	<1	4.39	7	16	12.4	<0.5	0.383	7.24	0.0035	0.000071	<0.0001	0.000237	<0.0002	<0.0005	<0.01	0.000101
7-Jul-11	1267	2500	2450																			
14-Jul-11	1274	2500	2540	6.54	284	26																
21-Jul-11	1281	2500	2520																			
28-Jul-11	1288	2500	2550	6.57	286	24	<1	4.72	5.5	16	11.4	<0.5	0.353	6.15	0.0041	0.000062	<0.0001	0.000206	<0.0002	<0.0005	<0.01	0.000098
4-Aug-11	1295	2500	2495																			
11-Aug-11	1302	2500	2520	6.46	205	24																
18-Aug-11	1309	2500	2375																			
25-Aug-11	1316	2500	2535	6.47	235	24	<1	5.77	5.1	15	10.3	<0.5	0.314	6.33	0.0041	0.000059	<0.0001	0.000221	<0.0002	<0.0005	<0.01	0.000089
1-Sep-11	1323	2500	2475																			
8-Sep-11	1330	2500	2435	6.62	239	22																
15-Sep-11	1337	2500	2490																			
22-Sep-11	1344	2500	2480	6.61	291	23	<1	2.94	4.8	<10	9.85	<0.5	0.234	6.05	0.0035	0.00005	<0.0001	0.000239	<0.0002	<0.0005	<0.01	0.000097
29-Sep-11	1351	2500	2545																			
6-Oct-11	1358	2500	2520	6.48	276	21																
13-Oct-11	1365	2500	2535																			
20-Oct-11	1372	2500	2505	6.6	275	20	<1	4.06	4.3	10	8.82	<0.5	0.237	5.37	0.0024	<0.00005	<0.0001	0.000172	<0.0002	<0.0005	<0.01	0.000109
27-Oct-11	1379	2500	2530																			
3-Nov-11	1386	2500	2575	6.51	276	23																
10-Nov-11	1393	2500	2555																			
17-Nov-11	1400	2500	2510	6.56	280	22	<1	3.91	4.9	11	9.56	<0.5	0.277	5.75	0.0025	<0.00005	<0.0001	0.000242	<0.0002	<0.0005	<0.01	0.0001
24-Nov-11	1407	2500	2500																			
1-Dec-11	1414	2500	2530	6.53	333	20																
8-Dec-11	1421	2500	2435																			
15-Dec-11	1428	2500	2430	6.49	328	23	<1	4.43	4.9	13	9.68	<0.5	0.288	5.43	0.0033	<0.00005	<0.0001	0.000165	<0.0002	<0.0005	<0.01	0.000105
22-Dec-11	1435	2500	2535																			
29-Dec-11	1442	2500	2525	6.97	328	26																
5-Jan-12	1449	2500	2440																			
12-Jan-12	1456	2500	2475	6.46	425	23	<1	3.97	5.8	12	9.47	<0.5	0.296	5.32	0.0023	<0.00005	<0.0001	0.000178	<0.0002	<0.0005	<0.01	0.000112
19-Jan-12	1463	2500	2475																			
26-Jan-12	1470	2500	2460	6.44	380	22																
2-Feb-12	1477	2500	2425																			
9-Feb-12	1484	2500	2510	6.36	461	24	<1	5.91	6.1	14	9.49	<0.5	0.312	5.57	0.0023	0.000053	<0.0001	0.000189	<0.0002	<0.0005	<0.01	0.000117
16-Feb-12	1491	2500	2490																			
23-Feb-12	1498	2500	2475	6.41	371	21																
1-Mar-12	1505	2500	2395																			
8-Mar-12	1512	2500	2545	6.33	418	24	<1	6.05	4.6	<10	9.83	<0.5	0.306	5.79	0.0027	0.000054	0.0002	0.000511	<0.0002	<0.0005	<0.01	0.000124
15-Mar-12	1519	2500	2370																			
22-Mar-12	1526	2500	2475	7.13	319	23																
29-Mar-12	1533	2500	2405																			
5-Apr-12	1540	2500	2415	6.37	496	20	<1	5.02	3.8	15	8.49	<0.5	0.261	5.36	0.0019	<0.00005	<0.0001	0.000203	<0.0002	<0.0005	<0.01	0.000234
12-Apr-12	1547	2500	2430																			
19-Apr-12	1554	2500	2510	6.35	330	26																
26-Apr-12	1561	2500	2460																			
3-May-12	1568	2500	2430	6.24	388	22	<1	5.82	4.3	15	8.69	<0.5	0.24	5.26	0.0023	0.000053	0.00039	0.000224	<0.0002	<0.0005	<0.01	0.000104
10-May-12	1575	2500	2440																			
17-May-12	1582	2500	2400	6.32	336	21																
24-May-12	1589	2500	2440																			
31-May-12	1596	2500	2375	6.26	382	18	<1	5.53	3.7	12	8.39	<0.5	0.229	5.58	0.0021	<0.00005	0.00025	0.00019	<0.0002	<0.0005	<0.01	0.000117
7-Jun-12	1603	2500	2435																			
14-Jun-12	1610	2500	2485	6.26	430	20																
21-Jun-12	1617	2500	2425																			
28-Jun-12	1624	2500	2455	6.24	369	21	<1	5.36	3.8	16	8.78	<0.5	0.25	5.77	0.0026	<0.00005	<0.0001	0.000251	<0.0002	<0.0005	<0.01	0.000121
5-Jul-12	1631	2500	2535																			
12-Jul-12	1638	2500	2505	6.31	417	22																
19-Jul-12	1645	2500	2480																			
26-Jul-12	1652	2500	2440	6.32	369	23	<1	5.76	3.6	14	9.26	<0.5	0.264	6.6	0.0024	<0.00005	0.0001	0.000226	<0.0002	<0.0005	<0.01	0.00015
2-Aug-12	1659	2500	2475																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jun-11	1246																				
23-Jun-11	1253																				
30-Jun-11	1260	4.88	<0.0005	0.00076	0.0215	<0.03	<0.00005	0.0505	0.0151	<0.00001	0.00126	0.00094	0.328	<0.001	0.379	<0.00001	<2	<0.00005	0.00271	<0.0005	0.0063
7-Jul-11	1267																				
14-Jul-11	1274																				
21-Jul-11	1281																				
28-Jul-11	1288	4.48	<0.0005	0.00069	0.0211	<0.03	<0.00005	0.0471	0.0133	<0.00001	0.00112	0.00084	0.328	<0.001	0.316	<0.00001	<2	<0.00005	0.00289	<0.0005	0.0058
4-Aug-11	1295																				
11-Aug-11	1302																				
18-Aug-11	1309																				
25-Aug-11	1316	4.04	<0.0005	0.00064	0.0219	<0.03	<0.00005	0.0418	0.0114	<0.00001	0.000989	0.00076	0.269	<0.001	0.322	<0.00001	<2	<0.00005	0.00224	<0.0005	0.0053
1-Sep-11	1323																				
8-Sep-11	1330																				
15-Sep-11	1337																				
22-Sep-11	1344	3.88	<0.0005	0.00066	0.0288	<0.03	<0.00005	0.0416	0.0114	<0.00001	0.000751	0.00086	0.269	<0.001	0.262	<0.00001	<2	<0.00005	0.00171	<0.0005	0.0068
29-Sep-11	1351																				
6-Oct-11	1358																				
13-Oct-11	1365																				
20-Oct-11	1372	3.46	<0.0005	0.00063	0.0341	<0.03	0.000062	0.042	0.0103	<0.00001	0.000636	0.00088	0.249	<0.001	0.241	<0.00001	<2	<0.00005	0.00159	<0.0005	0.0077
27-Oct-11	1379																				
3-Nov-11	1386																				
10-Nov-11	1393																				
17-Nov-11	1400	3.74	<0.0005	0.00065	0.0355	<0.03	0.000117	0.0572	0.0106	<0.00001	0.000717	0.00106	0.263	<0.001	0.254	<0.00001	<2	<0.00005	0.00146	<0.0005	0.0088
24-Nov-11	1407																				
1-Dec-11	1414																				
8-Dec-11	1421																				
15-Dec-11	1428	3.81	<0.0005	0.00072	0.0398	<0.03	<0.00005	0.0426	0.0109	<0.00001	0.000745	0.00105	0.307	<0.001	0.283	0.00001	<2	<0.00005	0.0016	<0.0005	0.0088
22-Dec-11	1435																				
29-Dec-11	1442																				
5-Jan-12	1449																				
12-Jan-12	1456	3.73	<0.0005	0.00071	0.0414	<0.03	<0.00005	0.0399	0.0113	<0.00001	0.000741	0.00109	0.267	<0.001	0.282	<0.00001	<2	<0.00005	0.00166	<0.0005	0.0086
19-Jan-12	1463																				
26-Jan-12	1470																				
2-Feb-12	1477																				
9-Feb-12	1484	3.73	<0.0005	0.00074	0.0438	<0.03	<0.00005	0.0411	0.011	<0.00001	0.000786	0.00119	0.284	<0.001	0.296	<0.00001	<2	<0.00005	0.00184	<0.0005	0.01
16-Feb-12	1491																				
23-Feb-12	1498																				
1-Mar-12	1505																				
8-Mar-12	1512	3.86	<0.0005	0.00074	0.0416	<0.03	<0.00005	0.0428	0.0117	<0.00001	0.000932	0.00114	0.285	<0.001	0.304	<0.00001	<2	<0.00005	0.00167	<0.0005	0.0098
15-Mar-12	1519																				
22-Mar-12	1526																				
29-Mar-12	1533																				
5-Apr-12	1540	3.33	<0.0005	0.00067	0.0438	<0.03	0.000701	0.0411	0.01	<0.00001	0.000653	0.00108	0.256	<0.001	0.258	<0.00001	<2	<0.00005	0.00166	<0.0005	0.0098
12-Apr-12	1547																				
19-Apr-12	1554																				
26-Apr-12	1561																				
3-May-12	1568	3.41	<0.0005	0.0007	0.0473	<0.03	<0.00005	0.0413	0.0108	<0.00001	0.000706	0.00114	0.257	<0.001	0.275	<0.00001	<2	<0.00005	0.00177	<0.0005	0.0094
10-May-12	1575																				
17-May-12	1582																				
24-May-12	1589																				
31-May-12	1596	3.3	<0.0005	0.0007	0.0498	<0.03	<0.00005	0.039	0.00983	<0.00001	0.000593	0.00108	0.253	<0.001	0.272	<0.00001	<2	<0.00005	0.00176	<0.0005	0.0099
7-Jun-12	1603																				
14-Jun-12	1610																				
21-Jun-12	1617																				
28-Jun-12	1624	3.45	<0.0005	0.00071	0.0488	<0.03	0.000056	0.0401	0.00993	<0.00001	0.0006	0.00111	0.272	<0.001	0.277	0.00001	<2	<0.00005	0.00177	<0.0005	0.0109
5-Jul-12	1631																				
12-Jul-12	1638																				
19-Jul-12	1645																				
26-Jul-12	1652	3.63	<0.0005	0.00081	0.0673	<0.03	0.000067	0.0461	0.0112	<0.00001	0.000595	0.0018	0.287	<0.001	0.276	<0.00001	<2	<0.00005	0.00158	<0.0005	0.0134
2-Aug-12	1659																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Aug-12	1666	2500	2360	6.3	299	22																
16-Aug-12	1673	2500	2370																			
23-Aug-12	1680	2500	2415	6.23	342	23	<1	6.83	3.6	11	9.65	<0.5	0.262	6.88	0.0017	<0.00005	0.00016	0.000264	<0.0002	<0.0005	<0.01	0.000145
30-Aug-12	1687	2500	2460																			
6-Sep-12	1694	2500	2535	6.27	396	20																
13-Sep-12	1701	2500	2335																			
20-Sep-12	1708	2500	2375	6.27	412	23	<1	5.89	4	<10	7.65	<0.5	0.265	5.92	0.0016	<0.00005	<0.0001	0.000291	<0.0002	<0.0005	<0.01	0.000183
27-Sep-12	1715	2500	2515																			
4-Oct-12	1722	2500	2430	6.24	409	21																
11-Oct-12	1729	2500	2425																			
18-Oct-12	1736	2500	2550	6.9	417	26	<1	5	6.1	15	10.7	<0.5	0.303	7.46	0.0015	<0.00005	<0.0001	0.000221	<0.0002	<0.0005	<0.01	0.000186
25-Oct-12	1743	2500	2370																			
1-Nov-12	1750	2500	2430	6.29	408	22																
8-Nov-12	1757	2500	2550																			
15-Nov-12	1764	2500	2415	6.32	382	18	<1	8.51	4.2	14	8.31	<0.5	0.265	5.81	0.002	<0.00005	<0.0001	0.000259	<0.0002	<0.0005	<0.01	0.000143
22-Nov-12	1771	2500	2435																			
29-Nov-12	1778	2500	2515	6.29	415	21																
6-Dec-12	1785	2500	2385																			
13-Dec-12	1792	2500	2405	6.33	375	26	<1	5.29	3.9	18	8.72	<0.5	0.28	6.18	0.0019	<0.00005	<0.0001	0.000228	<0.0002	<0.0005	<0.01	0.000151
20-Dec-12	1799	2500	2440																			
27-Dec-12	1806	2500	2440	6.33	393	24																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jan-08	0	2500	2110	7.71	417	189	<1	5.03	47.5	116	28.6	1.17	0.608	40.5	0.159	0.00258	0.00292	0.001	<0.0002	<0.0005	0.027	<0.00005
23-Jan-08	7	2500	2455	7.68	433	171																
30-Jan-08	14	2500	2395	7.72	420	127	<1	5.54	49.5	68.7	44.1	<0.5	0.55	17.4	0.156	0.00221	0.00246	0.000858	<0.0002	<0.0005	0.017	<0.00005
6-Feb-08	21	2500	2555	7.74	418	92																
13-Feb-08	28	2500	2535	7.73	382	75	<1	4.95	35.6	47	30.8	<0.5	0.394	7.8	0.249	0.00117	0.00181	0.000477	<0.0002	<0.0005	<0.01	<0.00005
20-Feb-08	35	2500	2545	7.71	359	72																
27-Feb-08	42	2500	2570	7.69	381	69	<1	5.09	32.6	48	32.1	<0.5	0.326	6.49	0.212	0.00095	0.00167	0.000726	<0.0002	<0.0005	<0.01	<0.00005
5-Mar-08	49	2500	2435	7.65	355	86																
12-Mar-08	56	2500	2435	7.7	378	77	<1	3.92	36.9	46.3	36	<0.5	0.357	5.93	0.196	0.00101	0.00169	0.000414	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-08	63	2500	2525	7.74	361	79																
26-Mar-08	70	2500	2425	7.63	375	83	<1	4.87	40.7	54.7	39.7	<0.5	0.368	6.37	0.147	0.000873	0.00119	0.000461	<0.0002	<0.0005	<0.01	0.000116
2-Apr-08	77	2500	2550	7.72	372	63																
9-Apr-08	84	2500	2480	7.65	376	68	<1	3.88	31.4	49	29.7	<0.5	0.243	3.92	0.191	0.00053	0.00101	0.000405	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-08	91	2500	2475	7.74	354	77																
23-Apr-08	98	2500	2510	7.75	375	76	<1	3.77	37.7	46.2	35.9	<0.5	0.277	4.67	0.144	0.000632	0.00088	0.000452	<0.0002	<0.0005	<0.01	0.000055
30-Apr-08	105	2500	2645	7.69	351	64																
7-May-08	112	2500	2475	7.79	284	85	<1	3.48	39.7	43.9	41	<0.5	0.339	5.58	0.118	0.00067	0.00089	0.000475	<0.0002	<0.0005	<0.01	0.000054
14-May-08	119	2500	2515	7.76	229	66																
21-May-08	126	2500	2500	7.73	201	69	<1	3.86	30	40.9	31.4	<0.5	0.283	5.15	0.175	0.000485	0.00089	0.000293	<0.0002	<0.0005	<0.01	<0.00005
28-May-08	133	2500	2480	7.76	221	79																
4-Jun-08	140	2500	2340	7.9	362	63	<1	3.12	35.5	52.8	36.7	<0.5	0.277	4.37	0.139	0.000562	0.00081	0.000431	<0.0002	<0.0005	<0.01	0.000061
11-Jun-08	147	2500	2656	7.79	273	56																
18-Jun-08	154	2500	2470	7.73	179	49	<1	4.6	31.7	37.5	32.5	<0.5	0.285	4.78	0.172	0.00047	0.00081	0.000269	<0.0002	<0.0005	<0.01	<0.00005
25-Jun-08	161	2500	2415	7.86	212	67																
2-Jul-08	168	2500	2470	7.75	296	57	<1	3.01	24.6	29.7	32.2	<0.5	0.303	6.08	0.191	0.000499	0.00103	0.000327	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-08	175	2500	2505	7.77	228	64																
16-Jul-08	182	2500	2345	7.77	287	57	<1	3.12	28.4	41.8	30.9	<0.5	0.252	5.08	0.15	0.000414	0.00072	0.000318	<0.0002	<0.0005	<0.01	0.000058
23-Jul-08	189	2500	2605	7.78	290	62																
30-Jul-08	196	2500	2445	7.68	350	58	<1	2.59	29.6	28.5	28	<0.5	0.215	4.56	0.14	0.00033	0.00062	0.00027	<0.0002	<0.0005	<0.01	<0.00005
6-Aug-08	203	2500	2485	7.76	382	60																
13-Aug-08	210	2500	2485	7.67	277	62	<1	3.03	27.2	33.3	29.7	<0.5	0.233	4.86	0.129	0.000364	0.00062	0.00029	<0.0002	<0.0005	<0.01	<0.00005
20-Aug-08	217	2500	2445	7.72	318	62																
27-Aug-08	224	2500	2480	7.56	343	60	<1	3.51	28.1	38.8	28.6	<0.5	0.241	4.46	0.13	0.000348	0.00065	0.000293	<0.0002	<0.0005	<0.01	<0.00005
3-Sep-08	231	2500	2485	7.7	301	65																
10-Sep-08	238	2500	2340	7.7	311	66	<1	2.19	33.7	38.8	30.8	<0.5	0.252	4.87	0.143	0.000353	0.00062	0.000303	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Aug-12	1666																				
16-Aug-12	1673																				
23-Aug-12	1680	3.79	<0.0005	0.0008	0.0732	<0.03	0.000052	0.0461	0.0109	<0.00001	0.000532	0.00148	0.245	<0.001	0.294	<0.00001	<2	<0.00005	0.00152	<0.0005	0.0126
30-Aug-12	1687																				
6-Sep-12	1694																				
13-Sep-12	1701																				
20-Sep-12	1708	2.99	<0.0005	0.00079	0.0687	<0.03	0.00033	0.0434	0.0103	<0.00001	0.000556	0.00141	0.286	<0.001	0.317	0.00001	<2	<0.00005	0.0015	<0.0005	0.0162
27-Sep-12	1715																				
4-Oct-12	1722																				
11-Oct-12	1729																				
18-Oct-12	1736	4.19	<0.0005	0.00101	0.0914	<0.03	<0.00005	0.0523	0.0123	<0.00001	0.000668	0.00177	0.294	<0.001	0.341	<0.00001	<2	<0.00005	0.00143	<0.0005	0.0164
25-Oct-12	1743																				
1-Nov-12	1750																				
8-Nov-12	1757																				
15-Nov-12	1764	3.26	<0.0005	0.00083	0.0796	<0.03	0.000062	0.0432	0.00959	<0.00001	0.000588	0.00151	0.279	<0.001	0.296	<0.00001	<2	<0.00005	0.0012	<0.0005	0.0138
22-Nov-12	1771																				
29-Nov-12	1778																				
6-Dec-12	1785																				
13-Dec-12	1792	3.42	<0.0005	0.00079	0.0685	<0.03	0.000912	0.0453	0.00969	<0.00001	0.000683	0.00144	0.252	<0.001	0.295	<0.00001	<2	<0.00005	0.00104	<0.0005	0.0166
20-Dec-12	1799																				
27-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jan-08	0	10.7	0.00188	<0.0001	0.00213	0.141	<0.00005	0.449	0.00785	<0.00001	0.0224	0.00113	8	0.0053	1.72	<0.00001	23.9	<0.00005	0.00087	0.00392	<0.001
23-Jan-08	7																				
30-Jan-08	14	16.7	<0.0005	<0.0001	0.00171	<0.03	<0.00005	0.543	0.00999904	<0.00001	0.0103	<0.0005	3.27	0.0022	2.16	<0.00001	8.2	<0.00005	0.00153	0.00452	0.0013
6-Feb-08	21																				
13-Feb-08	28	11.8	<0.0005	<0.0001	0.00135	<0.03	0.000108	0.339	0.00707	<0.00001	0.00599	<0.0005	1.69	<0.001	1.54	<0.00001	2.8	<0.00005	0.00164	0.00418	0.0013
20-Feb-08	35																				
27-Feb-08	42	12.4	<0.0005	<0.0001	0.0021	<0.03	<0.00005	0.302	0.00816	<0.00001	0.00582	<0.0005	1.45	<0.001	1.6	<0.00001	<2	<0.00005	0.00178	0.00378	0.0011
5-Mar-08	49																				
12-Mar-08	56	13.9	<0.0005	<0.0001	0.00101	<0.03	<0.00005	0.326	0.0109	<0.00001	0.00608	<0.0005	1.25	<0.001	1.7	<0.00001	<2	<0.00005	0.00256	0.00323	<0.001
19-Mar-08	63																				
26-Mar-08	70	15.4	<0.0005	<0.0001	0.00154	<0.03		0.292	0.012	<0.00001	0.00587	0.00176	1.03	<0.001	1.68	<0.00001	<2	<0.00005	0.00169	0.00229	0.0066
2-Apr-08	77																				
9-Apr-08	84	11.5	<0.0005	<0.0001	0.0016	<0.03	<0.00005	0.216	0.00907	<0.00001	0.00477	<0.0005	0.85	<0.001	1.27	<0.00001	<2	<0.00005	0.00203	0.00221	0.0039
16-Apr-08	91																				
23-Apr-08	98	14	<0.0005	<0.0001	0.00127	<0.03	<0.00005	0.238	0.0143	<0.00001	0.00614	<0.0005	0.911	<0.001	1.36	<0.00001	<2	<0.00005	0.00185	0.00183	<0.001
30-Apr-08	105																				
7-May-08	112	15.9	<0.0005	<0.0001	0.00087	<0.03	<0.00005	0.306	0.019	<0.00001	0.0077	<0.0005	1.02	<0.001	1.5	<0.00001	<2	<0.00005	0.00233	0.0017	<0.001
14-May-08	119																				
21-May-08	126	12.2	<0.0005	<0.0001	0.00072	<0.03	<0.00005	0.196	0.0113	<0.00001	0.007	<0.0005	0.704	<0.001	1.35	<0.00001	<2	<0.00005	0.00222	0.00212	<0.001
28-May-08	133																				
4-Jun-08	140	14.3	<0.0005	<0.0001	0.00134	<0.03	<0.00005	0.225	0.018	<0.00001	0.00724	<0.0005	0.801	<0.001	1.44	<0.00001	<2	<0.00005	0.00247	0.00171	<0.001
11-Jun-08	147																				
18-Jun-08	154	12.7	<0.0005	<0.0001	0.00067	<0.03	<0.00005	0.177	0.0145	0.000011	0.00701	<0.0005	0.711	<0.001	1.32	<0.00001	<2	<0.00005	0.00235	0.00165	<0.001
25-Jun-08	161																				
2-Jul-08	168	12.6	<0.0005	<0.0001	0.00082	<0.03	<0.00005	0.18	0.0142	<0.00001	0.0103	<0.0005	0.771	0.0013	1.49	<0.00001	<2	<0.00005	0.00297	0.0021	<0.001
9-Jul-08	175																				
16-Jul-08	182	12.1	<0.0005	<0.0001	0.00083	<0.03	<0.00005	0.177	0.0153	<0.00001	0.00926	<0.0005	0.681	<0.001	1.23	<0.00001	<2	<0.00005	0.00335	0.00143	<0.001
23-Jul-08	189																				
30-Jul-08	196	10.9	<0.0005	<0.0001	0.0007	<0.03	<0.00005	0.15	0.0146	<0.00001	0.00895	<0.0005	0.579	<0.001	1.09	<0.00001	<2	<0.00005	0.00291	0.00123	<0.001
6-Aug-08	203																				
13-Aug-08	210	11.6	<0.0005	<0.0001	0.00066	<0.03	<0.00005	0.157	0.0157	<0.00001	0.01	<0.0005	0.55	<0.001	1.12	<0.00001	<2	<0.00005	0.00336	0.00115	<0.001
20-Aug-08	217																				
27-Aug-08	224	11.2	<0.0005	<0.0001	0.00091	<0.03	0.000051	0.151	0.0165	<0.00001	0.0105	<0.0005	0.514	<0.001	1.07	<0.00001	<2	<0.00005	0.0036	0.00113	<0.001
3-Sep-08	231																				
10-Sep-08	238	12.1	<0.0005	<0.0001	0.00118	<0.03	0.000053	0.165	0.0204	<0.00001	0.0111	<0.0005	0.615	<0.001	1.15	<0.00001	<2	<0.00005	0.00371	0.00117	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Sep-08	245	2500	2520	7.75	300	64																
24-Sep-08	252	2500	2500	7.61	287	60	<1	3.05	26.5	45.1	27.3	<0.5	0.204	4.08	0.111	0.000308	0.00047	0.000344	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-08	259	2500	2460	7.73	414	60																
8-Oct-08	266	2500	2475	7.65	239	57	<1	3.06	25.7	49.6	27.8	<0.5	0.225	4.03	0.1	0.000287	0.00047	0.000237	<0.0002	<0.0005	<0.01	<0.00005
15-Oct-08	273	2500	2490	7.71	387	54																
22-Oct-08	280	2500	2430	7.53	376	60	<1	3.6	28.4	55.8	30.5	<0.5	0.21	3.86	0.0716	0.000281	0.00034	0.000248	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-08	287	2500	2400	7.48	436	72																
5-Nov-08	294	2500	2480	7.56	372	63	<1	3.94	29.2	36.6	32.7	<0.5	0.263	5.58	0.103	0.000287	0.00047	0.000436	<0.0002	<0.0005	<0.01	0.000052
12-Nov-08	301	2500	2445	7.67	411	53																
19-Nov-08	308	2500	2440	7.64	419	47	<1	2.55	29	34.3	28.5	<0.5	0.195	3.61	0.0945	0.000237	0.00037	0.000348	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-08	315	2500	2465	7.59	362	51																
3-Dec-08	322	2500	2435	7.62	331	55	<1	2.76	31.6	32	28.8	<0.5	0.167	3.46	0.0922	0.000237	0.00036	0.000269	<0.0002	<0.0005	<0.01	<0.00005
10-Dec-08	329	2500	2400	7.7	316	51																
17-Dec-08	336	2500	2390	7.63	316	45				23.5	24	<0.5	0.166	3.11	0.0917	0.000197	0.00031	0.000262	<0.0002	<0.0005	<0.01	0.000072
24-Dec-08	343	2500	2440	7.75	216	54																
31-Dec-08	350	2500	2325	7.77	203	55	<1	8.94	33.6	40.2	28.2	<0.5	0.182	3.69	0.0675	0.000231	0.00034	0.000309	<0.0002	<0.0005	<0.01	<0.00005
7-Jan-09	357	2500	2515	7.3	145	49																
14-Jan-09	364	2500	2400	7.64	301	60	<1	4.98	34.2	43.3	31.1	<0.5	0.13	2.95	0.0312	0.000206	0.00022	0.000284	<0.0002		<0.01	0.000106
21-Jan-09	371	2500	2495	7.47	364	47																
28-Jan-09	378	2500	2365	7.57	279	61	<1	6.25	36.9	34.3	32.2	<0.5	0.172	3.27	0.0272	0.000189	0.00021	0.00027	<0.0002	<0.0005	<0.01	0.000076
4-Feb-09	385	2500	2415	7.5	292	65																
11-Feb-09	392	2500	2565	7.86	250	50	<1	6.04	30.2	59.1	26.3	<0.5	0.2	3.22	0.0861	0.000237	0.00037	0.000296	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-09	399	2500	2475	7.69	363	47																
25-Feb-09	406	2500	2410	7.73	273	48	<1	5.75	30.7	30.7	24.8	<0.5	0.137	3.09	0.0817	0.000186	0.00027	0.000257	<0.0002	<0.0005	<0.01	<0.00005
4-Mar-09	413	2500	2435	7.51	176	49																
11-Mar-09	420	2500	2240	7.24	260	47	<1	5.07	27.3	21.8	24.9	<0.5	0.126	2.87	0.0576	0.00017	0.00025	0.000316	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-09	427	2500	2360	7.35	299	51																
25-Mar-09	434	2500	2500	7.3	323	45	<1	4.67	25	17.3	23.1	<0.5	0.128	3.09	0.0557	0.000187	0.00027	0.000304	<0.0002	<0.0005	<0.01	<0.00005
1-Apr-09	441	2500	2300	7.29	316	43																
8-Apr-09	448	2500	2265	7.4	326	48	<1	3.66	26.5	27.5	25.3	<0.5	0.175	3.7	0.0774	0.000215	0.00034	0.000305	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-09	455	2500	2425	7.44	341	48																
22-Apr-09	462	2500	2715	7.51	335	47																
29-Apr-09	469	2500	2430																			
6-May-09	476	2500	2370	7.34	335	43	<1	4.01	23.9	31.3	22.6	<0.5	0.142	3.63	0.0703	0.000181	0.00031	0.0005	<0.0002	<0.0005	<0.01	<0.00005
13-May-09	483	2500	2580																			
20-May-09	490	2500	2245	7.4	325	42																
27-May-09	497	2500	2350																			
3-Jun-09	504	2500	2330	7.49	293	37	<1	3.34	24.6	15.1		<0.5	0.195	4.7								
10-Jun-09	511	2500	2415																			
17-Jun-09	518	2500	2525	7.62	334	44																
24-Jun-09	525	2500	2460																			
1-Jul-09	532	2500	2340	7.33	276	35	<1	3.71	22.8	26		<0.5	0.116	3.75								
8-Jul-09	539	2500	2470																			
15-Jul-09	546	2500	2450	7.25	338	33																
22-Jul-09	553	2500	2480																			
29-Jul-09	560	2500	2400	7.25	289	31	<1	4.72	16.3	23.9		<0.5	0.152	3.92								
5-Aug-09	567	2500	2405																			
12-Aug-09	574	2500	2420	7.55	222	44																
19-Aug-09	581	2500	2505																			
26-Aug-09	588	2500	2375	7.36	189	34	<1	4.16	17.9	25.3		<0.5	0.078	3.74								
2-Sep-09	595	2500	2320																			
9-Sep-09	602	2500	2480	7.41	265	34																
16-Sep-09	609	2500	2310																			
23-Sep-09	616	2500	2350	7.35	284	40	<1	4.62	26.3	42		<0.5	0.122	3.63								
30-Sep-09	623	2500	2580																			
7-Oct-09	630	2500	2390	7.31	229	38																
14-Oct-09	637	2500	2515																			
21-Oct-09	644	2500	2490	7.63	245	37	<1	3.26	21.7	24		<0.5	0.146	3.61								

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Sep-08	245																				
24-Sep-08	252	10.7	<0.0005	<0.0001	0.00107	<0.03	<0.00005	0.137	0.0186	<0.00001	0.0102	<0.0005	0.473	<0.001	1.01	<0.00001	<2	<0.00005	0.00387	0.00085	<0.001
1-Oct-08	259																				
8-Oct-08	266	10.9	<0.0005	<0.0001	0.00076	<0.03	<0.00005	0.123	0.0193	<0.00001	0.0103	<0.0005	0.46	<0.001	0.936	<0.00001	<2	<0.00005	0.00331	0.0008	<0.001
15-Oct-08	273																				
22-Oct-08	280	12	<0.0005	<0.0001	0.00116	<0.03	<0.00005	0.142	0.0264	<0.00001	0.0103	<0.0005	0.482	<0.001	0.966	<0.00001	<2	<0.00005	0.00366	0.00064	<0.001
29-Oct-08	287																				
5-Nov-08	294	12.8	<0.0005	<0.0001	0.00129	<0.03	<0.00005	0.156	0.0265	<0.00001	0.012	<0.0005	0.576	<0.001	0.996	<0.00001	<2	<0.00005	0.00378	0.00081	<0.001
12-Nov-08	301																				
19-Nov-08	308	11.2	<0.0005	<0.0001	0.00182	<0.03	<0.00005	0.137	0.024	<0.00001	0.0106	<0.0005	0.444	<0.001	0.812	<0.00001	<2	<0.00005	0.00329	0.00063	<0.001
26-Nov-08	315																				
3-Dec-08	322	11.3	<0.0005	<0.0001	0.00115	<0.03	<0.00005	0.132	0.0281	<0.00001	0.0114	<0.0005	0.491	<0.001	0.819	<0.00001	<2	<0.00005	0.00323	0.00062	<0.001
10-Dec-08	329																				
17-Dec-08	336	9.44	<0.0005	<0.0001	0.00096	<0.03	<0.00005	0.118	0.0238	<0.00001	0.00915	<0.0005	0.382	<0.001	0.709	<0.00001	<2	<0.00005	0.00353	0.0007	<0.001
24-Dec-08	343																				
31-Dec-08	350	11.1	<0.0005	<0.0001	0.0012	<0.03	<0.00005	0.128	0.0303	<0.00001	0.0113	<0.0005	0.441	<0.001	0.756	<0.00001	<2	<0.00005	0.00384	0.00057	<0.001
7-Jan-09	357																				
14-Jan-09	364	12.2	<0.0005	<0.0001	0.00167	<0.03	<0.00005	0.137	0.0477	<0.00001	0.00966	<0.0005	0.447	<0.001	0.824	<0.00001	<2	<0.00005	0.00359	<0.0005	<0.001
21-Jan-09	371																				
28-Jan-09	378	12.7	<0.0005	<0.0001	0.00135	<0.03	<0.00005	0.13	0.0527	<0.00001	0.01	<0.0005	0.405	<0.001	0.803	<0.00001	<2	<0.00005	0.00343	<0.0005	<0.001
4-Feb-09	385																				
11-Feb-09	392	10.4	<0.0005	<0.0001	0.00097	<0.03	<0.00005	0.109	0.0289	<0.00001	0.0124	<0.0005	0.447	<0.001	0.767	<0.00001	<2	<0.00005	0.00451	0.00062	<0.001
18-Feb-09	399																				
25-Feb-09	406	9.77	<0.0005	<0.0001	0.00052	<0.03	<0.00005	0.0967	0.0291	<0.00001	0.0105	<0.0005	0.344	<0.001	0.659	<0.00001	<2	<0.00005	0.00408	<0.0005	<0.001
4-Mar-09	413																				
11-Mar-09	420	9.79	<0.0005	<0.0001	0.00107	<0.03	<0.00005	0.103	0.0322	<0.00001	0.0105	<0.0005	0.344	<0.001	0.637	<0.00001	<2	<0.00005	0.00454	<0.0005	<0.001
18-Mar-09	427																				
25-Mar-09	434	9.11	<0.0005	<0.0001	0.00096	<0.03	<0.00005	0.0948	0.0289	<0.00001	0.011	<0.0005	0.313	<0.001	0.579	<0.00001	<2	<0.00005	0.00446	<0.0005	<0.001
1-Apr-09	441																				
8-Apr-09	448	9.96	<0.0005	<0.0001	0.00095	<0.03	<0.00005	0.0925	0.0272	<0.00001	0.0126	<0.0005	0.349	<0.001	0.711	<0.00001	<2	<0.00005	0.0046	<0.0005	<0.001
15-Apr-09	455																				
22-Apr-09	462																				
29-Apr-09	469																				
6-May-09	476	8.9	<0.0005	<0.0001	0.00074	<0.03	<0.00005	0.0876	0.025	<0.00001	0.0131	<0.0005	0.356	<0.001	0.617	<0.00001	<2	<0.00005	0.00485	<0.0005	<0.001
13-May-09	483																				
20-May-09	490																				
27-May-09	497																				
3-Jun-09	504																				
10-Jun-09	511																				
17-Jun-09	518																				
24-Jun-09	525																				
1-Jul-09	532																				
8-Jul-09	539																				
15-Jul-09	546																				
22-Jul-09	553																				
29-Jul-09	560																				
5-Aug-09	567																				
12-Aug-09	574																				
19-Aug-09	581																				
26-Aug-09	588																				
2-Sep-09	595																				
9-Sep-09	602																				
16-Sep-09	609																				
23-Sep-09	616																				
30-Sep-09	623																				
7-Oct-09	630																				
14-Oct-09	637																				
21-Oct-09	644																				

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jan-08	0	2500	2005	6.85	437	1042	<1	8.38	12.3	794	387	1.74	0.085	514	0.0053	0.000153	0.00013	0.0312	<0.0002	<0.0005	<0.01	0.00246
23-Jan-08	7	2500	2410	7.08	451	751																
30-Jan-08	14	2500	2395	6.95	445	652	<1	6.56	11.1	487	298	<0.5	0.154	323	0.0027	0.00008	<0.0001	0.0184	<0.0002	<0.0005	<0.01	0.000859
6-Feb-08	21	2500	2465	6.9	450	515																
13-Feb-08	28	2500	2510	6.97	436	359	<1	6.96	9.7	243	156	<0.5	0.112	163	0.0028	0.000064	<0.0001	0.0182	<0.0002	<0.0005	<0.01	0.000458
20-Feb-08	35	2500	2525	6.93	414	316																
27-Feb-08	42	2500	2515	6.9	433	318	<1	6.29	7.3	222	130	<0.5	0.068	146	0.0029	<0.00005	<0.0001	0.0198	<0.0002	<0.0005	<0.01	0.000522
5-Mar-08	49	2500	2420	7.01	397	259																
12-Mar-08	56	2500	2570	6.97	426	289	<1	5.28	8.8	198	123	<0.5	0.065	129	0.0093	<0.00005	<0.0001	0.0244	<0.0002	<0.0005	<0.01	0.000522
19-Mar-08	63	2500	2425	7.09	406	249																
26-Mar-08	70	2500	2435	7	416	278	<1	5.49	9.4	172	112	<0.5	0.058	126	0.0018	<0.00005	<0.0001	0.0246	<0.0002	<0.0005	<0.01	0.000483
2-Apr-08	77	2500	2495	6.97	419	223																
9-Apr-08	84	2500	2400	7.04	417	256	<1	4.46	6.2	150	100	<0.5	0.042	106	<0.001	<0.00005	<0.0001	0.0256	<0.0002	<0.0005	<0.01	0.000532
16-Apr-08	91	2500	2375	6.91	409	247																
23-Apr-08	98	2500	2545	6.96	424	227	<1	4.29	7.1	163	89.4	<0.5	0.046	98.5	0.0015	<0.00005	<0.0001	0.0261	<0.0002	<0.0005	<0.01	0.000602
30-Apr-08	105	2500	2490	6.94	393	227																
7-May-08	112	2500	2400	7.03	351	251	<1	4.68	6.5	158	115	<0.5	0.046	110	0.0012	<0.00005	<0.0001	0.026	<0.0002	<0.0005	<0.01	0.000798
14-May-08	119	2500	2550	6.97	312	225																
21-May-08	126	2500	2525	6.94	288	252	<1	5.16	4.7	163	102	<0.5	0.046	109	0.0019	<0.00005	<0.0001	0.0263	<0.0002	<0.0005	<0.01	0.000768
28-May-08	133	2500	2490		519	251																
4-Jun-08	140	2500	2425	7.24	412	206	<1	4.15	3.8	170	102	<0.5	0.04	108	0.0011	<0.00005	<0.0001	0.0243	<0.0002	<0.0005	<0.01	0.000949
11-Jun-08	147	2500	2440	6.97	353	166																
18-Jun-08	154	2500	2475	7.04	265	178	<1	6.27	4.2	146	92.9	<0.5	0.052	104	<0.001	<0.00005	<0.0001	0.0222	<0.0002	<0.0005	<0.01	0.000919
25-Jun-08	161	2500	2470	7.12	299	243																
2-Jul-08	168	2500	2550	6.95	373	235	<1	4.51	3.9	173	110	<0.5	0.052	116	0.001	<0.00005	<0.0001	0.0243	<0.0002	<0.0005	<0.01	0.00122
9-Jul-08	175	2500	2485	6.77	316	255																
16-Jul-08	182	2500	2485	6.89	367	250	<1	4.68	3.9	110	101	<0.5	0.049	108	0.0046	<0.00005	<0.0001	0.0203	<0.0002	<0.0005	<0.01	0.00123
23-Jul-08	189	2500	2490	6.84	375	244																
30-Jul-08	196	2500	2490	6.72	407	234	<1	3.77	5.8	142	90	<0.5	0.049	102	<0.001	<0.00005	<0.0001	0.0204	<0.0002	<0.0005	<0.01	0.00119
6-Aug-08	203	2500	2530	6.71	362	221																
13-Aug-08	210	2500	2465	6.75	343	238	<1	4.22	3.7	149	93	<0.5	0.051	99.7	0.0046	<0.00005	<0.0001	0.0218	<0.0002	<0.0005	<0.01	0.00131
20-Aug-08	217	2500	2420	6.62	363	252																
27-Aug-08	224	2500	2490	6.59	389	220	<1	4.7	3.8	152	87	<0.5	0.054	97.2	0.0011	<0.00005	<0.0001	0.0211	<0.0002	<0.0005	<0.01	0.00138
3-Sep-08	231	2500	2450	6.97	337	213																
10-Sep-08	238	2500	2500	6.6	344	234	<1	3.55	5.3	143	96.1	<0.5	0.05	101	0.0016	<0.00005	<0.0001	0.0229	<0.0002	<0.0005	<0.01	0.00143
17-Sep-08	245	2500	2510	6.67	341	229																
24-Sep-08	252	2500	2485	6.67	319	225	<1	4.37	2.9	153	83.4	<0.5	0.041	94.2	0.0011	<0.00005	<0.0001	0.0215	<0.0002	<0.0005	<0.01	0.00166
1-Oct-08	259	2500	2410	6.7	437	198																
8-Oct-08	266	2500	2435	6.84	324	193	<1	4.28	2	143	72.7	<0.5	0.063	81.4	0.003	<0.00005	<0.0001	0.0183	<0.0002	<0.0005	<0.01	0.00145
15-Oct-08	273	2500	2450	6.93	430	213																
22-Oct-08	280	2500	2375	6.4	425	201	<1	4.43	1.9	143	76.4	<0.5	0.047	91	<0.001	<0.00005	<0.0001	0.0182	<0.0002	<0.0005	<0.01	0.00164
29-Oct-08	287	2500	2440	6.68	477	179																
5-Nov-08	294	2500	2385	6.32	442	180	<1	5.05	1.8	116	69.5	<0.5	0.049	80.3	0.0028	<0.00005	<0.0001	0.0205	<0.0002	<0.0005	<0.01	0.00158
12-Nov-08	301	2500	2425	6.34	451	173																
19-Nov-08	308	2500	2230	6.24	472	155	<1	3.39	1.8	125	64.5	<0.5	0.048	81.2	0.0035	<0.00005	<0.0001	0.0191	<0.0002	<0.0005	<0.01	0.00159
26-Nov-08	315	2500	2390	6.22	410	149																
3-Dec-08	322	2500	2160	6.36	370	175	<1	4.62	2.1	113	67.1	<0.5	0.036	78	0.0057	<0.00005	<0.0001	0.0154	<0.0002	<0.0005	<0.01	0.00175
10-Dec-08	329	2500	2445	6.52	363	194																
17-Dec-08	336	2500	970	6.64	310	277				180	97.2	<0.5	0.052	131	0.0042	<0.00005	<0.0001	0.0279	<0.0002	<0.0005	<0.01	0.00277
24-Dec-08	343	2500	2445	7	312	255																
31-Dec-08	350	2500	2480	6.43	279	260	<1	10.58	4.8	120	62.9	<0.5	0.039	73.7	0.0146	<0.00005	<0.0001	0.0146	0.00022	<0.0005	<0.01	0.00194
7-Jan-09	357	2500	2430	6.15	233	150																
14-Jan-09	364	2500	2410	6.78	351	162	<1	6.54	2.7	113	63.6	<0.5	0.038	71.9	0.0119	<0.00005	<0.0001	0.0142	<0.0002	<0.0005	<0.01	0.00213
21-Jan-09	371	2500	2480	6.07	427	152																
28-Jan-09	378	2500	2450	6.7	369	158	<1	8.22	2.7	105	60	<0.5	0.054	71.1	0.0157	<0.00005	<0.0001	0.0127	<0.0002	<0.0005	<0.01	0.00211
4-Feb-09	385	2500	2445	6.06	374	182																
11-Feb-09	392	2500	2490	6.51	358	171	<1	8.63	2.5	51.1	74.9	<0.5	0.056	78.5	0.0272	<0.00005	<0.0001	0.017	0.00031	<0.0005	<0.01	0.00259
18-Feb-09	399	2500	2380	6.42	428	171																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jan-08	0	66.9	<0.0005	0.00372	0.0449	<0.03	0.000256	53.5	2.34	<0.00001	0.000114	0.053	38.2	0.0055	3.08	<0.00001	22.5	0.000287	0.00222	<0.0005	0.148
23-Jan-08	7																				
30-Jan-08	14	51.1	<0.0005	0.00115	0.00376	<0.03	<0.00005	41.4	2.07	<0.00001	0.00009	0.00761	9.73	0.0046	3.63	<0.00001	4.6	0.00011	0.00387	<0.0005	0.0223
6-Feb-08	21																				
13-Feb-08	28	26.8	<0.0005	0.00075	0.0042	<0.03	<0.00005	21.7	1.29	<0.00001	0.000057	0.00405	5.29	0.002	2.7	<0.00001	<2	0.000062	0.00167	<0.0005	0.0188
20-Feb-08	35																				
27-Feb-08	42	24.9	<0.0005	0.00088	0.00803	<0.03	<0.00005	16.6	1.22	<0.00001	<0.00005	0.00402	4.38	0.0019	2.32	<0.00001	<2	0.000053	0.00105	<0.0005	0.0258
5-Mar-08	49																				
12-Mar-08	56	22.1	<0.0005	0.00087	0.00438	<0.03	<0.00005	16.5	1.49	<0.00001	0.000075	0.00355	3.81	0.0018	2.2	<0.00001	<2	0.000052	0.00264	<0.0005	0.0209
19-Mar-08	63																				
26-Mar-08	70	21.5	<0.0005	0.00085	0.00445	<0.03	<0.00005	14.1	1.36	<0.00001	0.000322	0.00329	2.96	0.0015	2.06	<0.00001	<2	<0.00005	0.00179	<0.0005	0.0235
2-Apr-08	77																				
9-Apr-08	84	18.7	<0.0005	0.00087	0.00611	<0.03	<0.00005	13	1.36	<0.00001	<0.00005	0.00292	2.8	0.0014	1.52	<0.00001	<2	<0.00005	0.0018	<0.0005	0.0304
16-Apr-08	91																				
23-Apr-08	98	16.7	<0.0005	0.00105	0.00675	<0.03	<0.00005	11.6	1.45	<0.00001	<0.00005	0.00339	2.55	0.0012	1.44	<0.00001	<2	<0.00005	0.00013	<0.0005	0.026
30-Apr-08	105																				
7-May-08	112	19.3	<0.0005	0.00146	0.0111	<0.03	<0.00005	16.2	2.51	<0.00001	0.000145	0.00438	2.91	0.0014	1.5	<0.00001	<2	<0.00005	0.00013	<0.0005	0.0404
14-May-08	119																				
21-May-08	126	18.6	<0.0005	0.00136	0.0113	<0.03	<0.00005	13.4	1.83	<0.00001	<0.00005	0.00412	2.34	0.0013	1.41	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0371
28-May-08	133																				
4-Jun-08	140	18.4	<0.0005	0.00189	0.0154	<0.03	<0.00005	13.7	2.71	<0.00001	0.000065	0.00516	2.32	0.0015	1.4	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0495
11-Jun-08	147																				
18-Jun-08	154	17.5	<0.0005	0.00183	0.0138	<0.03	<0.00005	11.9	2.3	0.000011	0.000068	0.00487	2.21	0.0012	1.39	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0498
25-Jun-08	161																				
2-Jul-08	168	19.5	<0.0005	0.00238	0.0156	<0.03	<0.00005	14.8	3.22	<0.00001	0.000083	0.00593	2.53	0.0017	1.52	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0602
9-Jul-08	175																				
16-Jul-08	182	18.2	<0.0005	0.00233	0.0197	<0.03	<0.00005	13.6	3.22	<0.00001	0.000052	0.00628	2.27	0.0014	1.44	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0655
23-Jul-08	189																				
30-Jul-08	196	15.4	<0.0005	0.00264	0.0217	<0.03	<0.00005	12.5	3.01	<0.00001	0.000066	0.00631	2.02	0.0015	1.27	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0675
6-Aug-08	203																				
13-Aug-08	210	15.7	<0.0005	0.00278	0.0213	<0.03	0.000075	13	3.17	<0.00001	0.000054	0.00687	1.97	0.0013	1.26	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0649
20-Aug-08	217																				
27-Aug-08	224	14.2	<0.0005	0.00275	0.023	<0.03	0.00009	12.5	3.37	<0.00001	0.000057	0.0067	1.72	0.0013	1.21	<0.00001	<2	<0.00005	0.00021	<0.0005	0.0719
3-Sep-08	231																				
10-Sep-08	238	14.7	<0.0005	0.00324	0.0244	<0.03	0.000066	14.4	4.09	<0.00001	<0.00005	0.00765	1.96	0.0013	1.28	<0.00001	<2	<0.00005	0.00026	<0.0005	0.0777
17-Sep-08	245																				
24-Sep-08	252	13.3	<0.0005	0.0036	0.0319	<0.03	<0.00005	12.2	3.49	<0.00001	0.000061	0.00797	1.63	0.0013	1.25	<0.00001	<2	<0.00005	0.0004	<0.0005	0.0836
1-Oct-08	259																				
8-Oct-08	266	12.2	<0.0005	0.00316	0.0391	<0.03	0.000076	10.3	3.58	<0.00001	0.000094	0.00805	1.36	0.001	0.978	<0.00001	<2	<0.00005	0.00109	<0.0005	0.0896
15-Oct-08	273																				
22-Oct-08	280	12.7	<0.0005	0.0042	0.0407	<0.03	0.000069	10.9	3.8	<0.00001	<0.00005	0.0094	1.51	0.0012	1.25	<0.00001	<2	<0.00005	0.00026	<0.0005	0.109
29-Oct-08	287																				
5-Nov-08	294	11.2	<0.0005	0.00425	0.0548	<0.03	0.000115	10.1	3.6	<0.00001	0.000054	0.00966	1.47	0.0012	1.13	<0.00001	<2	<0.00005	0.00056	<0.0005	0.113
12-Nov-08	301																				
19-Nov-08	308	11.1	<0.0005	0.00425	0.0595	<0.03	0.000106	8.92	2.59	<0.00001	0.000063	0.00976	1.31	0.001	1.1	<0.00001	<2	<0.00005	0.00077	<0.0005	0.119
26-Nov-08	315																				
3-Dec-08	322	10.7	<0.0005	0.00481	0.0872	<0.03	0.000108	9.83	2.93	<0.00001	<0.00005	0.0115	1.39	0.0011	1.07	<0.00001	<2	<0.00005	0.00101	<0.0005	0.143
10-Dec-08	329																				
17-Dec-08	336	18	<0.0005	0.00767	0.107	<0.03	0.000153	12.7	4.07	<0.00001	0.000053	0.018	1.64	0.0017	1.52	0.000012	<2	<0.00005	0.00071	<0.0005	0.219
24-Dec-08	343																				
31-Dec-08	350	9.84	<0.0005	0.00546	0.119	<0.03	0.000131	9.31	3.15	<0.00001	<0.00005	0.0124	1.32	<0.001	1.16	<0.00001	<2	<0.00005	0.00086	<0.0005	0.184
7-Jan-09	357																				
14-Jan-09	364	9.42	<0.0005	0.00604	0.124	<0.03	0.000085	9.73	3.31	<0.00001	0.000051	0.0138	1.29	<0.001	1.15	<0.00001	<2	<0.00005	0.0013	<0.0005	0.207
21-Jan-09	371																				
28-Jan-09	378	9.27	<0.0005	0.00603	0.17	<0.03	0.000069	8.95	3.7	<0.00001	0.000072	0.0146	1.13	<0.001	1.1	<0.00001	<2	<0.00005	0.00137	<0.0005	0.246
4-Feb-09	385																				
11-Feb-09	392	10.1	<0.0005	0.00737	0.231	<0.03	0.000081	12.1	4.85	<0.00001	0.000069	0.0175	1.47	0.001	1.33	<0.00001	<2	<0.00005	0.0012	<0.0005	0.276
18-Feb-09	399																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
25-Feb-09	406	2500	2380	6.46	345	178	<1	9.72	2.6	123	72.7	<0.5	0.05	82.1	0.0402	<0.00005	<0.0001	0.0145	0.00038	<0.0005	<0.01	0.00251
4-Mar-09	413	2500	2385	6.09	289	171																
11-Mar-09	420	2500	2340	5.67	370	170	<1	5.7	1.7	102	62.5	<0.5	0.057	76.8	0.0761	<0.00005	<0.0001	0.0122	0.00067	<0.0005	<0.01	0.00248
18-Mar-09	427	2500	2440	5.61	393	162																
25-Mar-09	434	2500	2550	5.82	413	160	<1	7.54	1.4	105	56.6	<0.5	0.054	72.5	0.0739	<0.00005	0.00016	0.0123	0.00051	<0.0005	<0.01	0.00238
1-Apr-09	441	2500	2435	5.58	413	177																
8-Apr-09	448	2500	2485	5.73	423	165	<1	7.12	1.2	111	60.8	<0.5	0.052	75.3	0.0706	<0.00005	<0.0001	0.0192	0.00051	<0.0005	<0.01	0.00244
15-Apr-09	455	2500	2415	5.52	442	186																
22-Apr-09	462	2500	2520	5.74	432	187																
29-Apr-09	469	2500	2450																			
6-May-09	476	2500	2440	5.67	427	193	<1	8.81	1.5	128	73.3	<0.5	0.07	88.5	0.129	<0.0001	<0.0002	0.0219	0.00092	<0.001	<0.02	0.0031
13-May-09	483	2500	2435																			
20-May-09	490	2500	2500	5.58	424	202																
27-May-09	497	2500	2475																			
3-Jun-09	504	2500	2480	5.34	434	220	<1	11	<1	146	91.7	<0.5	0.12	107	0.221	<0.0001	<0.0002	0.0198	0.00176	<0.001	<0.02	0.00377
10-Jun-09	511	2500	2390																			
17-Jun-09	518	2500	2365	5.2	470	248																
24-Jun-09	525	2500	2410																			
1-Jul-09	532	2500	2355	5.12	452	206	<1	11.52	<1	157	78.7	<0.5	0.097	103	0.234	<0.0001	<0.0002	0.0213	0.00183	<0.001	<0.02	0.0033
8-Jul-09	539	2500	2430																			
15-Jul-09	546	2500	2340	4.8	471	199																
22-Jul-09	553	2500	2770																			
29-Jul-09	560	2500	2370	4.43	408	250	3.01	18.87	<1	170	87.9	<0.5	0.179	112	0.384	<0.0001	<0.0002	0.0207	0.0026	<0.001	<0.02	0.00371
5-Aug-09	567	2500	2440																			
12-Aug-09	574	2500	2370	4.48	375	270																
19-Aug-09	581	2500	2415																			
26-Aug-09	588	2500	2525	4.45	361	227	2.65	16.36	<1	146	82.4	<0.5	0.088	104	0.432	<0.00005	0.00016	0.0148	0.00271	<0.0005	<0.01	0.00299
2-Sep-09	595	2500	2410																			
9-Sep-09	602	2500	2480	4.34	411	223																
16-Sep-09	609	2500	2340																			
23-Sep-09	616	2500	2330	4.17	450	267	5.44	22.3	<1	173	84.8	<0.5	0.173	115	0.544	<0.0001	0.00028	0.0143	0.00289	<0.001	<0.02	0.00312
30-Sep-09	623	2500	2380																			
7-Oct-09	630	2500	2370	4.29	412	239																
14-Oct-09	637	2500	2505																			
21-Oct-09	644	2500	2465	4.08	378	227	5.73	19.3	<1	134	71.1	<0.5	0.207	93.8	0.531	<0.00005	0.0002	0.0148	0.0026	<0.0005	<0.01	0.00248
28-Oct-09	651	2500	2490																			
4-Nov-09	658	2500	2555	3.97	330	256																
11-Nov-09	665	2500	2185																			
18-Nov-09	672	2500	2400	4.48	454	239	3.4	21.96	<1	133	65.5	<0.5	0.174	91.2	0.529	<0.00005	<0.0001	0.0136	0.00221	<0.0005	<0.01	0.0023
25-Nov-09	679	2500	2545																			
2-Dec-09	686	2500	2365	3.83	361	255																
9-Dec-09	693	2500	2430																			
16-Dec-09	700	2500	2405	3.82	383	226	7.77	21.89	<1	128	62	<0.5	0.18	86.2	0.611	<0.00005	<0.0001	0.0147	0.00273	<0.0005	<0.01	0.00216
23-Dec-09	707	2500	2475																			
30-Dec-09	714	2500	2485	3.79	460	235																
6-Jan-10	721	2500	2455																			
13-Jan-10	728	2500	2475	3.67	377	280	14.99	32.22	<1	155	70.1	<10	<0.4	101	0.861	<0.00005	0.00011	0.0159	0.00278	<0.0005	<0.01	0.00247
20-Jan-10	735	2500	2465																			
27-Jan-10	742	2500	2470	3.6	442	239																
3-Feb-10	749	2500	2260																			
10-Feb-10	756	2500	2330	3.51	494	279	14.84	32.85	<1	143	66.1	<10	<0.4	95	1.12	<0.00005	<0.0001	0.0105	0.00302	<0.0005	<0.01	0.00221
17-Feb-10	763	2500	2310																			
24-Feb-10	770	2500	2400	3.34	497	321																
3-Mar-10	777	2500	2465																			
10-Mar-10	784	2500	1955	3.43	499	302	18.2	37.74	<1	164	74.1	<10	<0.4	108	1.47	<0.00005	<0.0001	0.0143	0.00322	<0.0005	<0.01	0.00255
17-Mar-10	791	2500	2060																			
24-Mar-10	798	2500	2325	3.37	484	304																
31-Mar-10	805	2500	2320																			
7-Apr-10	812	2500	2270	3.3	487	288	19.39	37.02	<1	137	62.4	<5	0.26	92.3	1.35	<0.00005	0.00016	0.0101	0.00277	<0.0005	<0.01	0.00198
14-Apr-10	819	2500	2340																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
25-Feb-09	406	10.1	<0.0005	0.00719	0.348	<0.03	0.000126	11.5	4.73	<0.00001	0.000051	0.017	1.35	0.0011	1.3	<0.00001	<2	<0.00005	0.00088	<0.0005	0.285
4-Mar-09	413																				
11-Mar-09	420	9.37	<0.0005	0.00721	0.378	<0.03	0.00023	9.5	3.63	<0.00001	<0.00005	0.0175	1.47	<0.001	1.32	<0.00001	<2	<0.00005	0.0009	<0.0005	0.3
18-Mar-09	427																				
25-Mar-09	434	8.83	<0.0005	0.0068	0.341	<0.03	0.000196	8.4	3.17	<0.00001	<0.00005	0.017	1.29	<0.001	1.26	<0.00001	<2	<0.00005	0.00109	<0.0005	0.283
1-Apr-09	441																				
8-Apr-09	448	9.28	<0.0005	0.00683	0.368	<0.03	0.000221	9.15	3.46	<0.00001	0.000053	0.017	1.26	<0.001	1.38	<0.00001	<2	<0.00005	0.00102	<0.0005	0.268
15-Apr-09	455																				
22-Apr-09	462																				
29-Apr-09	469																				
6-May-09	476	10.4	<0.001	0.00879	0.541	0.037	0.00046	11.5	3.9	<0.00001	<0.0001	0.022	1.58	<0.002	1.59	<0.00002	<2	<0.0001	0.00089	<0.001	0.336
13-May-09	483																				
20-May-09	490																				
27-May-09	497																				
3-Jun-09	504	12.6	<0.001	0.0113	1.08	0.063	0.00094	14.6	6.22	<0.00001	0.00013	0.028	1.95	<0.002	2.13	<0.00002	<2	<0.0001	0.00061	<0.001	0.435
10-Jun-09	511																				
17-Jun-09	518																				
24-Jun-09	525																				
1-Jul-09	532	11.9	<0.001	0.00969	0.842	0.13	0.00099606	11.9	4.03	<0.00001	<0.0001	0.0242	1.76	<0.002	2.16	0.000025	<2	<0.0001	<0.0002	<0.001	0.364
8-Jul-09	539																				
15-Jul-09	546																				
22-Jul-09	553																				
29-Jul-09	560	12	<0.001	0.0115	1.27	0.271	0.00173	14	4.75	<0.00001	<0.0001	0.0286	2.27	<0.002	2.39	0.00004	<2	<0.0001	0.00028	<0.001	0.435
5-Aug-09	567																				
12-Aug-09	574																				
19-Aug-09	581																				
26-Aug-09	588	11	<0.0005	0.00989	1.3	0.17	0.00121	13.4	4.53	<0.00001	<0.00005	0.0231	1.9	0.0015	2.34	0.000025	<2	0.000074	0.00026	<0.0005	0.36
2-Sep-09	595																				
9-Sep-09	602																				
16-Sep-09	609																				
23-Sep-09	616	12.3	<0.001	0.0111	1.53	0.284	0.00205	13.1	4.75	<0.00001	<0.0001	0.0258	2.02	<0.002	2.91	0.000037	<2	<0.0001	<0.0002	<0.001	0.39
30-Sep-09	623																				
7-Oct-09	630																				
14-Oct-09	637																				
21-Oct-09	644	10.2	<0.0005	0.00906	1.3	0.227	0.00183	11.1	3.58	<0.00001	<0.00005	0.0211	1.96	0.0014	2.55	0.000022	<2	0.000089	0.00019	<0.0005	0.321
28-Oct-09	651																				
4-Nov-09	658																				
11-Nov-09	665																				
18-Nov-09	672	9.79	<0.0005	0.00825	1.32	0.208	0.0012	9.97	3.18	<0.00001	<0.00005	0.0184	1.74	0.0012	2.51	0.000023	<2	0.000077	0.00055	<0.0005	0.294
25-Nov-09	679																				
2-Dec-09	686																				
9-Dec-09	693																				
16-Dec-09	700	9.42	<0.0005	0.00878	1.27	0.365	0.0014	9.34	3.16	<0.00001	<0.00005	0.0184	1.97	0.0013	2.48	0.000031	<2	0.000086	0.00018	<0.0005	0.286
23-Dec-09	707																				
30-Dec-09	714																				
6-Jan-10	721																				
13-Jan-10	728	11.2	<0.0005	0.00994	1.51	0.779	0.00192	10.2	3.28	<0.00001	<0.00005	0.0206	1.94	0.0015	3.11	0.000049	<2	0.000108	0.00053	<0.0005	0.324
20-Jan-10	735																				
27-Jan-10	742																				
3-Feb-10	749																				
10-Feb-10	756	9.75	<0.0005	0.00994	1.59	0.554	0.0015	10.1	2.9	<0.00001	<0.00005	0.0197	2.27	0.0011	2.66	0.000054	<2	0.000112	0.0002	<0.0005	0.311
17-Feb-10	763																				
24-Feb-10	770																				
3-Mar-10	777																				
10-Mar-10	784	10.6	<0.0005	0.012	1.9	0.65	0.0013	11.6	3.3	<0.00001	<0.00005	0.0229	2.52	0.0014	2.7	0.000057	<2	0.000128	0.0002	<0.0005	0.365
17-Mar-10	791																				
24-Mar-10	798																				
31-Mar-10	805																				
7-Apr-10	812	8.91	<0.0005	0.00974	1.59	0.936	0.00123	9.74	2.64	<0.00001	<0.00005	0.0183	2.26	0.0011	2.68	0.000059	<2	0.000117	0.00018	<0.0005	0.283
14-Apr-10	819																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
21-Apr-10	826	2500	2420	3.34	472	316																
28-Apr-10	833	2500	2410																			
5-May-10	840	2500	2400	3.39	461	289	19.44	37.79	<1	156	60.6	<0.5	0.287	94.9	1.2	<0.00005	<0.0001	0.0129	0.00215	<0.0005	<0.01	0.0019
12-May-10	847	2500	2480																			
19-May-10	854	2500	2480	3.28	436	324																
26-May-10	861	2500	2460																			
2-Jun-10	868	2500	2565	3.35	430	283	18.38	36.77	<1	142	65.3	<5	0.29	89.4	1.47	<0.00005	0.00027	0.0148	0.00234	<0.0005	<0.01	0.0019
9-Jun-10	875	2500	2445																			
16-Jun-10	882	2500	2470	3.36	418	306																
23-Jun-10	889	2500	2390																			
30-Jun-10	896	2500	2525	3.58	335	328	19.25	44.49	<1	175	71.8	<5	<0.2	110	2	<0.00005	0.00015	0.0107	0.0026	<0.0005	<0.01	0.00202
7-Jul-10	903	2500	2440																			
14-Jul-10	910	2500	2430	3.32	409	337																
21-Jul-10	917	2500	2435																			
28-Jul-10	924	2500	2385	3.3	418	335	25.74	51.45	<1	185	71.5	<5	0.33	118	1.97	<0.00005	<0.0001	0.0134	0.00265	<0.0005	<0.01	0.00204
4-Aug-10	931	2500	2440																			
11-Aug-10	938	2500	2450	3.59	297	324																
18-Aug-10	945	2500	2470																			
25-Aug-10	952	2500	2395	3.45	418	326	24.34	52.09	<1	188	58	<5	0.25	108	1.65	<0.00005	0.00025	0.0116	0.00226	<0.0005	<0.01	0.00177
1-Sep-10	959	2500	2455																			
8-Sep-10	966	2500	2190	3.33	422	327																
15-Sep-10	973	2500	2450																			
22-Sep-10	980	2500	2500	3.3	412	281	26.39	51.06	<1	194	70.2	<5	0.29	107	2.3	<0.00005	0.0002	0.0166	0.00254	<0.0005	<0.01	0.00181
29-Sep-10	987	2500	2515																			
6-Oct-10	994	2500	2400	3.3	393	341																
13-Oct-10	1001	2500	2520																			
20-Oct-10	1008	2500	2480	3.36	401	318	23.63	47.54	<1	157	58.2	<5	0.23	97.7	2.05	<0.00005	0.00024	0.0144	0.00179	<0.0005	<0.01	0.00161
27-Oct-10	1015	2500	2520																			
3-Nov-10	1022	2500	2460	3.53	253	331																
10-Nov-10	1029	2500	2470																			
17-Nov-10	1036	2500	2415	3.58	185	341	19.92	47.94	<1	143	56.3	<5	0.27	99.2	1.98	<0.00005	<0.0001	0.0143	0.00168	<0.0005	<0.01	0.00156
24-Nov-10	1043	2500	2300																			
1-Dec-10	1050	2500	2295	3.89	439	277																
8-Dec-10	1057	2500	2055																			
15-Dec-10	1064	2500	2145	3.41	424	307	23.11	48.14	<1	141	57.9	<5	0.28	101	2.41	<0.00005	0.00019	0.0182	0.00185	<0.0005	<0.01	0.00149
22-Dec-10	1071	2500	2555																			
29-Dec-10	1078	2500	2445	3.42	411	304																
5-Jan-11	1085	2500	2385																			
12-Jan-11	1092	2500	2550	3.43	410	278	26.88	54.07	<1	137	54	<5	<0.2	95.7	2.29	<0.00005	0.00014	0.0172	0.00192	<0.0005	<0.01	0.00139
19-Jan-11	1099	2500	2430																			
26-Jan-11	1106	2500	2355	3.38	377	324																
2-Feb-11	1113	2500	2305																			
9-Feb-11	1120	2500	2230	3.6	368	345	25.11	55.49	<1	168	67.1	<5	0.3	124	3.67	<0.00005	0.00031	0.0208	0.00212	<0.0005	<0.01	0.00182
16-Feb-11	1127	2500	2335																			
23-Feb-11	1134	2500	2430	3.41	454	347																
2-Mar-11	1141	2500	2545																			
9-Mar-11	1148	2500	2500	3.34	468	377	30.8	59.61	<1	151	54.9	<5	<0.2	111	3.24	<0.00005	0.00014	0.0201	0.00162	<0.0005	<0.01	0.00141
16-Mar-11	1155	2500	2375																			
23-Mar-11	1162	2500	2255	3.55	402	357																
30-Mar-11	1169	2500	2265																			
6-Apr-11	1176	2500	2310	3.65	386	330	21.58	47.22	<1	154	45.4	<5	<0.2	93.7	2.79	<0.00005	<0.0001	0.0166	0.00147	<0.0005	<0.01	0.00115
13-Apr-11	1183	2500	2350																			
20-Apr-11	1190	2500	2235	3.63	393	350																
27-Apr-11	1197	2500	2345																			
4-May-11	1204	2500	2310	3.69	423	305	24.45	52.43	<1	111	41.4	<5	<0.2	90.4	2.82	<0.00005	0.00028	0.0155	0.00151	<0.0005	<0.01	0.00101
11-May-11	1211	2500	2235																			
18-May-11	1218	2500	2510	3.61	421	317																
25-May-11	1225	2500	2475																			
1-Jun-11	1232	2500	2455	3.5	447	333	27.31	60.21	<1	180	48.2	<5	0.34	101	3.1	<0.00005	0.00026	0.0218	0.00176	<0.0005	<0.01	0.00118
8-Jun-11	1239	2500	2420																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-Apr-10	826																				
28-Apr-10	833																				
5-May-10	840	9.42	<0.0005	0.00948	1.39	1.21	0.000963	8.99	2.28	<0.00001	<0.00005	0.0177	2.01	0.0013	3.09	0.000049	<2	0.00012	0.00023	<0.0005	0.285
12-May-10	847																				
19-May-10	854																				
26-May-10	861																				
2-Jun-10	868	9.23	<0.0005	0.0101	1.44	1.3	0.000999	10.3	2.61	<0.00001	<0.00005	0.0185	2.08	0.0013	3.15	0.000059	<2	0.000116	0.00024	<0.0005	0.269
9-Jun-10	875																				
16-Jun-10	882																				
23-Jun-10	889																				
30-Jun-10	896	10.6	<0.0005	0.0109	1.58	2.16	0.000855	11	2.67	<0.00001	<0.00005	0.0198	2.06	0.0015	3.48	0.000062	<2	0.000114	0.00017	<0.0005	0.304
7-Jul-10	903																				
14-Jul-10	910																				
21-Jul-10	917																				
28-Jul-10	924	10.3	<0.0005	0.0109	1.55	2.8	0.000804	11.1	2.45	<0.00001	<0.00005	0.0192	2.32	0.0015	3.8	0.000074	<2	0.00014	<0.0001	<0.0005	0.299
4-Aug-10	931																				
11-Aug-10	938																				
18-Aug-10	945																				
25-Aug-10	952	9.25	<0.0005	0.00958	1.42	2.57	0.000605	8.48	2.12	<0.00001	<0.00005	0.0174	1.97	0.0014	3.51	0.000081	<2	0.000105	0.0001	<0.0005	0.281
1-Sep-10	959																				
8-Sep-10	966																				
15-Sep-10	973																				
22-Sep-10	980	9.25	0.00069	0.0112	1.76	2.99	0.000601	11.4	2.44	<0.00001	<0.00005	0.0192	2.53	0.0017	3.44	0.000075	<2	0.000145	0.00078	<0.0005	0.253
29-Sep-10	987																				
6-Oct-10	994																				
13-Oct-10	1001																				
20-Oct-10	1008	8.07	<0.0005	0.0104	1.55	3.1	0.000834	9.24	2.16	<0.00001	<0.00005	0.0178	2.17	0.0013	3.38	0.000075	<2	0.000134	0.00013	<0.0005	0.244
27-Oct-10	1015																				
3-Nov-10	1022																				
10-Nov-10	1029																				
17-Nov-10	1036	8.02	<0.0005	0.0104	1.49	3.11		8.82	2.01	<0.00001	<0.00005	0.0177	2.2	0.0015	3.46	0.000068	<2	0.000136	0.00011	<0.0005	0.238
24-Nov-10	1043																				
1-Dec-10	1050																				
8-Dec-10	1057																				
15-Dec-10	1064	8.02	<0.0005	0.0113	1.64	2.42	0.000993	9.19	2.24	<0.00001	<0.00005	0.0179	2.29	0.0013	3.47	0.000086	<2	0.000139	0.00192	<0.0005	0.206
22-Dec-10	1071																				
29-Dec-10	1078																				
5-Jan-11	1085																				
12-Jan-11	1092	7.74	<0.0005	0.0102	1.53	2.95		8.42	1.95	<0.00001	0.000052	0.0166	2.19	0.0012	3.36	0.000101	<2	0.000168	0.00294	<0.0005	0.189
19-Jan-11	1099																				
26-Jan-11	1106																				
2-Feb-11	1113																				
9-Feb-11	1120	8.77	0.0007	0.0137	1.95	3.85	0.00113	11	2.52	<0.00001	<0.00005	0.0224	2.56	0.0016	4.61	0.000144	<2	0.000167	0.00295	<0.0005	0.259
16-Feb-11	1127																				
23-Feb-11	1134																				
2-Mar-11	1141																				
9-Mar-11	1148	7.69	0.00068	0.0119	1.66	3.35	0.000659	8.67	2.03	<0.00001	<0.00005	0.0187	2.28	0.0012	3.88	0.000136	<2	0.000136	0.00295	<0.0005	0.203
16-Mar-11	1155																				
23-Mar-11	1162																				
30-Mar-11	1169																				
6-Apr-11	1176	6.27	0.0007	0.0104	1.4	3.3	0.000432	7.23	1.64	<0.00001	<0.00005	0.0157	2.05	0.0011	3.01	0.00011	<2	0.000134	0.00375	<0.0005	0.164
13-Apr-11	1183																				
20-Apr-11	1190																				
27-Apr-11	1197																				
4-May-11	1204	5.41	0.00068	0.0095	1.24	3.08	0.000879	6.78	1.45	<0.00001	<0.00005	0.0144	1.81	0.001	2.84	0.00009	<2	0.000122	0.0035	<0.0005	0.143
11-May-11	1211																				
18-May-11	1218																				
25-May-11	1225																				
1-Jun-11	1232	6.08	0.00066	0.0103	1.52	3.41	0.000311	8.02	1.69	<0.00001	<0.00005	0.0168	2.73	0.0012	3.66	0.000106	<2	0.000146	0.00285	<0.0005	0.169
8-Jun-11	1239																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jun-11	1246	2500	2425	3.52	275	345																
22-Jun-11	1253	2500	2495																			
29-Jun-11	1260	2500	2530	3.52	247	361	28.29	62.73	<1	147	53.1	<0.5	0.315	111	3.09	<0.00005	0.00024	0.022	0.0018	<0.0005	<0.01	0.00129
6-Jul-11	1267	2500	2470																			
13-Jul-11	1274	2500	2450	3.43	482	353																
20-Jul-11	1281	2500	2485																			
27-Jul-11	1288	2500	2455	3.47	368	329	26.71	55.42	<1	193	48.2	<5	0.39	108	3.09	<0.00005	0.00024	0.0191	0.00146	<0.0005	<0.01	0.00119
3-Aug-11	1295	2500	2450																			
10-Aug-11	1302	2500	2490	3.49	365	343																
17-Aug-11	1309	2500	2475																			
24-Aug-11	1316	2500	2440	3.48	372	347	27.83	58.28	<1	224	52.5	<5	0.26	110	3.53	<0.00005	0.00025	0.0179	0.00153	<0.0005	<0.01	0.00115
31-Aug-11	1323	2500	2420																			
7-Sep-11	1330	2500	2460	3.53	341	368																
14-Sep-11	1337	2500	2415																			
21-Sep-11	1344	2500	2450	3.43	381	374	32.51	66.11	<1	228	52.6	<5	0.29	120	4.2	<0.00005	0.00022	0.0174	0.00162	<0.0005	<0.01	0.00114
28-Sep-11	1351	2500	2480																			
5-Oct-11	1358	2500	2455	3.47	430	364																
12-Oct-11	1365	2500	2460																			
19-Oct-11	1372	2500	2455	3.45	474	360	32.62	65.56	<1	151	47.9	<5	0.27	116	4.38	<0.00005	0.00026	0.0176	0.00158	<0.0005	<0.01	0.00105
26-Oct-11	1379	2500	2190																			
2-Nov-11	1386	2500	2385	3.36	471	410																
9-Nov-11	1393	2500	2130																			
16-Nov-11	1400	2500	2515	3.37	480	397	37.94	73.75	<1	153	50.1	<5	0.26	126	4.86	<0.00005	0.00036	0.0171	0.00142	<0.0005	<0.01	0.00102
23-Nov-11	1407	2500	2500																			
30-Nov-11	1414	2500	2455	3.35	468	438																
7-Dec-11	1421	2500	2490																			
14-Dec-11	1428	2500	2465	3.28	495	476	48.81	95.54	<1	200	57.7	<5	0.29	155	7.54	<0.00005	0.00027	0.0197	0.00184	<0.0005	<0.01	0.0012
21-Dec-11	1435	2500	2520																			
28-Dec-11	1442	2500	2320	3.2	509	550																
4-Jan-12	1449	2500	2550																			
11-Jan-12	1456	2500	2360	3.25	500	558	46.91	86.83	<1	241	60.7	<5	0.32	182	9.12	<0.00005	0.00037	0.0207	0.00173	<0.0005	<0.01	0.00136
18-Jan-12	1463	2500	2475																			
25-Jan-12	1470	2500	2450	3.16	504	558																
1-Feb-12	1477	2500	2395																			
8-Feb-12	1484	2500	2560	3.11	502	615	58	105.66	<1	355	63.6	<5	0.27	199	9.1	<0.00005	0.00027	0.016	0.00194	<0.0005	<0.01	0.00136
15-Feb-12	1491	2500	2475																			
22-Feb-12	1498	2500	2450	3.1	516	635																
29-Feb-12	1505	2500	2420																			
7-Mar-12	1512	2500	2480	3.11	520	675	82.83	147.57	<1	324	68.8	<5	0.35	221	10.5	<0.00005	0.00053	0.0142	0.00191	<0.0005	<0.01	0.00138
14-Mar-12	1519	2500	2470																			
21-Mar-12	1526	2500	2450	3.01	534	744																
28-Mar-12	1533	2500	2415																			
4-Apr-12	1540	2500	2490	2.96	533	785	114.02	185.8	<1	347	78.7	<5	0.45	280	13.1	<0.00005	0.00042	0.0111	0.00201	<0.0005	<0.01	0.00142
11-Apr-12	1547	2500	2425																			
18-Apr-12	1554	2500	2340	2.91	548	913																
25-Apr-12	1561	2500	2415																			
2-May-12	1568	2500	2430	2.88	546	968	139.11	214.78	<1	512	92.5	<5	0.37	347	16.7	<0.00005	0.00086	0.0133	0.00219	<0.0005	<0.01	0.0017
9-May-12	1575	2500	2420																			
16-May-12	1582	2500	2455	2.83	560	1031																
23-May-12	1589	2500	2435																			
30-May-12	1596	2500	2400	2.82	573	1138	208.78	314.85	<1	728	101	<5	0.58	412	20.1	<0.00005	0.00061	0.00829	0.00244	<0.0005	<0.01	0.00168
6-Jun-12	1603	2500	2420																			
13-Jun-12	1610	2500	2460	2.81	579	1131																
20-Jun-12	1617	2500	2460																			
27-Jun-12	1624	2500	2400	2.73	584	1244	274.3	380.83	<1	933	101	<5	0.55	462	20.1	<0.00005	0.0009	0.00655	0.00241	<0.0005	<0.01	0.00165
4-Jul-12	1631	2500	2425																			
11-Jul-12	1638	2500	2415	2.72	584	1337																
18-Jul-12	1645	2500	2375																			
25-Jul-12	1652	2500	2410	2.65	618	1480	336.37	454.26	<1	1260	133	<5	0.74	623	28.4	<0.00005	0.00163	0.00506	0.0029	<0.0005	<0.01	0.00201
1-Aug-12	1659	2500	2495																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jun-11	1246																				
22-Jun-11	1253																				
29-Jun-11	1260	6.69	0.00087	0.0113	1.58	4.13	0.00391	8.84	1.83	<0.00001	<0.00005	0.0183	2.48	0.0014	3.94	0.000156	<2	0.00014	0.00281	<0.0005	0.192
6-Jul-11	1267																				
13-Jul-11	1274																				
20-Jul-11	1281																				
27-Jul-11	1288	6.51	0.00055	0.0106	1.32	4.17	0.00163	7.77	1.6	<0.00001	<0.00005	0.0168	2.26	0.0014	3.68	0.00014	<2	0.000128	0.00236	<0.0005	0.166
3-Aug-11	1295																				
10-Aug-11	1302																				
17-Aug-11	1309																				
24-Aug-11	1316	6.44	0.00073	0.0116	1.43	4.61	0.000719	8.84	1.74	<0.00001	<0.00005	0.0177	2.07	0.0014	3.98	0.000178	<2	0.000125	0.00254	<0.0005	0.156
31-Aug-11	1323																				
7-Sep-11	1330																				
14-Sep-11	1337																				
21-Sep-11	1344	6.44	0.00086	0.0126	1.43	4.91	0.000535	8.86	1.71	<0.00001	<0.00005	0.0191	2.21	0.0015	3.83	0.000201	<2	0.000136	0.00186	<0.0005	0.152
28-Sep-11	1351																				
5-Oct-11	1358																				
12-Oct-11	1365																				
19-Oct-11	1372	5.94	0.00101	0.0124	1.42	4.45	0.000322	8.04	1.52	<0.00001	<0.00005	0.0296	2.19	0.0013	3.71	0.000179	<2	0.000132	0.00178	<0.0005	0.147
26-Oct-11	1379																				
2-Nov-11	1386																				
9-Nov-11	1393																				
16-Nov-11	1400	6.08	0.00129	0.013	1.61	4.71	0.00028	8.47	1.6	<0.00001	<0.00005	0.0183	2.13	0.0012	3.71	0.000192	<2	0.000141	0.0027	<0.0005	0.139
23-Nov-11	1407																				
30-Nov-11	1414																				
7-Dec-11	1421																				
14-Dec-11	1428	7.05	0.00211	0.0173	1.9	5.39	0.000342	9.74	1.72	<0.00001	<0.00005	0.0237	2.68	0.0014	4.46	0.000235	<2	0.000169	0.00192	<0.0005	0.182
21-Dec-11	1435																				
28-Dec-11	1442																				
4-Jan-12	1449																				
11-Jan-12	1456	7.32	0.00266	0.0197	2.09	7.89	0.0101	10.3	1.76	<0.00001	<0.00005	0.0265	2.98	0.0013	4.34	0.000268	<2	0.000204	0.00216	<0.0005	0.19
18-Jan-12	1463																				
25-Jan-12	1470																				
1-Feb-12	1477																				
8-Feb-12	1484	7.72	0.00304	0.0221	2.4	7.94	0.00102	10.8	1.76	<0.00001	<0.00005	0.0291	3	0.0012	5.13	0.00028	<2	0.000238	0.00231	<0.0005	0.197
15-Feb-12	1491																				
22-Feb-12	1498																				
29-Feb-12	1505																				
7-Mar-12	1512	8.04	0.00404	0.0254	2.56	10.4	0.00153	11.8	1.93	<0.00001	<0.00005	0.0323	3.02	0.0012	5.68	0.000262	<2	0.000248	0.00236	<0.0005	0.212
14-Mar-12	1519																				
21-Mar-12	1526																				
28-Mar-12	1533																				
4-Apr-12	1540	7.78	0.00551	0.0311	2.82	16.6	0.000569	14.4	2.07	<0.00001	<0.00005	0.0383	3.41	0.0011	5.76	0.000285	<2	0.000254	0.00252	<0.0005	0.23
11-Apr-12	1547																				
18-Apr-12	1554																				
25-Apr-12	1561																				
2-May-12	1568	9.49	0.00773	0.0431	3.29	25.4	0.0012	16.7	2.4	<0.00001	<0.00005	0.0525	3.68	0.0012	6.76	0.000299	<2	0.00032	0.00297	<0.0005	0.267
9-May-12	1575																				
16-May-12	1582																				
23-May-12	1589																				
30-May-12	1596	10	0.00924	0.0496	3.4	34.5	0.000423	18.5	2.65	<0.00001	<0.00005	0.057	3.56	0.0011	8.02	0.000265	<2	0.000321	0.00352	<0.0005	0.274
6-Jun-12	1603																				
13-Jun-12	1610																				
20-Jun-12	1617																				
27-Jun-12	1624	9.998	0.00981	0.0535	3.34	49.2	0.00794	18.5	2.61	<0.00001	0.000089	0.0597	3.42	<0.001	8.69	0.000286	<2	0.000349	0.00347	0.00055	0.288
4-Jul-12	1631																				
11-Jul-12	1638																				
18-Jul-12	1645																				
25-Jul-12	1652	12.3	0.0148	0.0751	4.05	76.6	0.00214	24.8	3.34	<0.00001	<0.00005	0.0843	3.71	0.0011	10.8	0.000255	<2	0.000383	0.00385	0.00072	0.361
1-Aug-12	1659																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Aug-12	1666	2500	2485	2.65	612	1514																
15-Aug-12	1673	2500	2470																			
22-Aug-12	1680	2500	2435	2.67	603	1546	372.53	526.33	<1	1150	139	<0.5	0.663	612	26.8	<0.00005	0.00236	0.00304	0.0027	<0.0005	<0.01	0.00187
29-Aug-12	1687	2500	2460																			
5-Sep-12	1694	2500	2355	2.62	589	1610																
12-Sep-12	1701	2500	2550																			
19-Sep-12	1708	2500	2430	2.64	602	1647	407.12	559.22	<1	1150	137	<10	0.84	708	27.8	<0.00005	0.00256	0.00282	0.0026	<0.0005	<0.01	0.00171
26-Sep-12	1715	2500	2385																			
3-Oct-12	1722	2500	2265	2.58	597	1735																
10-Oct-12	1729	2500	2530																			
17-Oct-12	1736	2500	2390	2.59	606	1581	423.73	562.77	<1	1240	112	<10	0.74	711	24	<0.00005	0.00442	0.00252	0.00196	<0.0005	<0.01	0.00139
24-Oct-12	1743	2500	2390																			
31-Oct-12	1750	2500	2420	2.59	595	1610																
7-Nov-12	1757	2500	2480																			
14-Nov-12	1764	2500	2395	2.63	599	1569	418.22	566.62	<1	1020	116	<10	0.61	698	23.4	<0.00005	0.00463	0.0022	0.00196	<0.0005	<0.01	0.00135
21-Nov-12	1771	2500	2425																			
28-Nov-12	1778	2500	2495	2.67	586	1513																
5-Dec-12	1785	2500	2475																			
12-Dec-12	1792	2500	2565	2.68	611	1526	390.9	524.24	<1	963	112	<10	0.82	650	22.5	<0.00005	0.00437	0.0019	0.00177	<0.0005	<0.01	0.00121
19-Dec-12	1799	2500	2495																			
26-Dec-12	1806	2500	2450	2.69	605	1583																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-08	0	2500	2105	6.33	453	753	<1	11.81	3.4	505	114	3.2	0.136	320	0.0182	0.00096	0.00075	0.0129	<0.0004	<0.001	0.09	0.00629
22-Jan-08	7	2500	2610	4.22	617	650																
29-Jan-08	14	2500	2500	5.99	512	171	<1	7.84	1.9	98.7	34.1	<0.5	0.07	71.2	0.0125	0.000329	0.00064	0.00547	<0.0002	<0.0005	0.025	0.00244
5-Feb-08	21	2500	2725	6.02	514	120																
12-Feb-08	28	2500	2460	6.04	492	150	<1	10.1	3.2	101	37.5	<0.5	0.045	59.4	0.0271	0.000243	0.00048	0.00665	0.00031	<0.0005	0.018	0.00275
19-Feb-08	35	2500	2455	5.7	476	114																
26-Feb-08	42	2500	2605	5.73	478	107	<1	9.46	1.5	80	27.7	<0.5	0.037	43.4	0.0377	0.000154	0.00017	0.00639	0.00048	<0.0005	0.011	0.00261
4-Mar-08	49	2500	2460	5.64	487	91																
11-Mar-08	56	2500	2570	5.62	487	100	<1	10.5	1.1	65.3	26.6	<0.5	0.029	41.1	0.0287	0.000124	0.00016	0.00692	0.00039	<0.0005	<0.01	0.00309
18-Mar-08	63	2500	2450	5.51	486	96																
25-Mar-08	70	2500	2490	5.35	488	97	<1	11.53	<1	59.7	24.6	<0.5	0.03	39.7	0.0367	0.000105	0.00011	0.00707	0.00038	<0.0005	<0.01	0.00311
1-Apr-08	77	2500	2500	5.24	512	87																
8-Apr-08	84	2500	2395	5.32	476	106	<1	13.22	<1	61.2	25	<0.5	0.033	39.9	0.0478	0.000088	0.00011	0.00735	0.0005	<0.0005	<0.01	0.00364
15-Apr-08	91	2500	2475	5.21	490	93																
22-Apr-08	98	2500	2510	5.43	482	119	<1	14.52	1	66.2	25.9	<0.5	0.032	44.1	0.0512	<0.0001	<0.0002	0.0086	0.00069	<0.001	<0.02	0.00477
29-Apr-08	105	2500	2515	5.05	432	93																
6-May-08	112	2500	2595	5.06	371	101	<1	15.09	<1	56.4	21.4	<0.5	0.031	37.9	0.0555	<0.0001	<0.0002	0.00748	0.00066	<0.001	<0.02	0.00407
13-May-08	119	2500	2430	5.15	347	82																
20-May-08	126	2500	2575	4.79	344	115	<1	18.58	<1	63.9	22.8	<0.5	0.048	40.7	0.0736	<0.0001	<0.0002	0.00828	0.00073	<0.001	<0.02	0.00443
27-May-08	133	2500	2425	4.56	340	120																
3-Jun-08	140	2500	2530	4.73	468	78	<1	16.14	<1	61.3	17.8	<0.5	0.024	33.3	0.0637	<0.0001	<0.0002	0.0072	0.0007	<0.001	<0.02	0.00427
10-Jun-08	147	2500	2400	4.72	405	78																
17-Jun-08	154	2500	2270	4.66	344	72	<1	18.83	<1	52	17.2	<0.5	0.038	34.6	0.0776	0.000073	0.00024	0.00795	0.0008	<0.0005	<0.01	0.00444
24-Jun-08	161	2500	2205	5.22	332	57																
1-Jul-08	168	2500	2250	4.68	447	75	<1	14.52	<1	51.2	14.3	<0.5	0.03	30.9	0.0578	0.00011	0.00038	0.00658	0.00069	<0.0005	<0.01	0.00382
8-Jul-08	175	2500	2345	4.61	347	94																
15-Jul-08	182	2500	2260	4.43	406	86	<1	17.53	<1	52.3	15.5	<0.5	0.04	31.8	0.077	<0.0001	0.00062	0.00769	0.00073	<0.001	<0.02	0.00436
22-Jul-08	189	2500	2260	4.6	457	79																
29-Jul-08	196	2500	2240	4.53	483	85	<1	15.64	<1	46.3	13.1	<0.5	0.031	29.2	0.0605	0.00007	0.00041	0.00596	0.00067	<0.0005	<0.01	0.00356
5-Aug-08	203	2500	2225	4.58	439	83																
12-Aug-08	210	2500	2375	4.53	378	82	<1	14.98	<1	45.3	12.4	<0.5	0.035	26.8	0.0617	<0.0001	0.00039	0.0062	0.00068	<0.001	<0.02	0.00361
19-Aug-08	217	2500	2285	4.44	334	84																
26-Aug-08	224	2500	2260	4.4	344	90	1.16	18.28	<1	57.4	13.1	<0.5	0.038	30.1	0.0756	<0.0001	0.0004	0.00694	0.00079	<0.001	<0.02	0.00406
2-Sep-08	231	2500	2270	4.45	346	84																
9-Sep-08	238	2500	2305	4.26	352	100	1.81	20.26	<1	55.8	13.6	<0.5	0.044	33.1	0.0849	0.00006	0.00049	0.00701	0.00082	<0.0005	<0.01	0.00423

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Aug-12	1666																				
15-Aug-12	1673																				
22-Aug-12	1680	11.7	0.0155	0.0757	3.46	84.3	0.0224	26.6	3.19	<0.00001	<0.00005	0.0819	2.72	0.0011	10.3	0.000189	<2	0.0003	0.00352	0.00134	0.321
29-Aug-12	1687																				
5-Sep-12	1694																				
12-Sep-12	1701																				
19-Sep-12	1708	12.3	0.0162	0.0824	3.27	98.9	0.000263	26	3.08	<0.00001	<0.00005	0.0879	2.61	0.0011	10.8	0.00016	<2	0.000297	0.00309	0.00221	0.319
26-Sep-12	1715																				
3-Oct-12	1722																				
10-Oct-12	1729																				
17-Oct-12	1736	10.2	0.0148	0.0803	2.97	119	0.00141	21	2.6	<0.00001	<0.00005	0.0822	2.12	0.0011	8.41	0.000119	<2	0.000243	0.00261	0.00238	0.261
24-Oct-12	1743																				
31-Oct-12	1750																				
7-Nov-12	1757																				
14-Nov-12	1764	11	0.0158	0.0827	2.77	120	0.0033	21.4	2.41	<0.00001	<0.00005	0.0801	1.51	0.0011	8.83	0.000107	<2	0.000211	0.00306	0.00271	0.256
21-Nov-12	1771																				
28-Nov-12	1778																				
5-Dec-12	1785																				
12-Dec-12	1792	10.4	0.0148	0.0749	2.5	114	0.000356	20.9	2.43	<0.00001	<0.00005	0.0757	1.16	0.001	8.58	0.000089	<2	0.000163	0.00203	0.0033	0.243
19-Dec-12	1799																				
26-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-08	0	41.6	<0.001	0.14	3.06	<0.03	0.00058	2.38	0.258	0.000036	0.00679	0.287	20.9	0.102	3.69	<0.00002	93.4	0.00029	<0.0002	<0.001	2.42
22-Jan-08	7																				
29-Jan-08	14	12.7	<0.0005	0.0461	1.13	<0.03	0.000272	0.598	0.0857	<0.00001	0.000993	0.096	5.78	0.0144	3.78	<0.00001	12.1	0.000099	0.00044	<0.0005	0.946
5-Feb-08	21																				
12-Feb-08	28	13.9	<0.0005	0.055	2.13	<0.03	0.00831	0.66	0.0958	<0.00001	0.000407	0.107	5.03	0.0111	3.91	<0.00001	4.4	0.000089	<0.0001	<0.0005	1.22
19-Feb-08	35																				
26-Feb-08	42	10.4	<0.0005	0.0454	2.04	0.038	0.000338	0.443	0.0674	<0.00001	0.000247	0.088	3.89	0.0082	3.03	<0.00001	<2	0.000067	0.00011	<0.0005	1.01
4-Mar-08	49																				
11-Mar-08	56	9.9	<0.0005	0.0468	2.83	0.057	0.00034	0.449	0.0728	<0.00001	0.000121	0.0904	2.91	0.0088	2.57	<0.00001	<2	0.000055	0.00055	<0.0005	1.4
18-Mar-08	63																				
25-Mar-08	70	9.16	<0.0005	0.0451	3.28	0.092	0.00037	0.427	0.0653	<0.00001	0.000149	0.0847	2.42	0.0079	2.45	<0.00001	<2	<0.00005	<0.0001	<0.0005	1.39
1-Apr-08	77																				
8-Apr-08	84	9.3	<0.0005	0.0495	3.88	0.132	0.00045	0.44	0.0656	<0.00001	0.000087	0.095	2.47	0.0084	2.35	<0.00001	<2	<0.00005	<0.0001	<0.0005	1.61
15-Apr-08	91																				
22-Apr-08	98	9.64	<0.001	0.0574	4.62	0.264	0.00074	0.444	0.0754	<0.00001	<0.0001	0.116	2.3	0.0104	2.41	<0.00002	<2	<0.0001	<0.0002	<0.001	1.79
29-Apr-08	105																				
6-May-08	112	7.9	<0.001	0.0478	5.08	0.283	0.00052	0.399	0.061	<0.00001	<0.0001	0.0883	2.31	0.0091	2.3	<0.00002	<2	<0.0001	<0.0002	<0.001	2.07
13-May-08	119																				
20-May-08	126	8.44	<0.001	0.0476	4.52	0.477	0.00063	0.422	0.0584	<0.00001	<0.0001	0.0896	1.95	0.0086	2.35	<0.00002	<2	<0.0001	<0.0002	<0.001	1.87
27-May-08	133																				
3-Jun-08	140	6.59	<0.001	0.0461	4.81	0.47	0.00072	0.32	0.0518	<0.00001	0.00017	0.0822	1.73	0.0081	1.91	<0.00002	<2	<0.0001	<0.0002	<0.001	1.89
10-Jun-08	147																				
17-Jun-08	154	6.32	<0.0005	0.0442	4.43	0.559	0.000557	0.339	0.0477	0.000018	0.000184	0.0812	1.88	0.0083	1.61	<0.00001	<2	<0.00005	<0.0001	<0.0005	1.92
24-Jun-08	161																				
1-Jul-08	168	5.24	<0.0005	0.0369	3.71	0.539	0.000701	0.285	0.0411	<0.00001	0.000081	0.0651	2.5	0.0086	1.87	<0.00001	<2	<0.00005	<0.0001	<0.0005	1.71
8-Jul-08	175																				
15-Jul-08	182	5.62	<0.001	0.044	4.7	0.548	0.00068	0.347	0.0479	<0.00001	<0.0001	0.0784	2.27	0.0094	1.71	<0.00002	<2	<0.0001	<0.0002	<0.001	1.86
22-Jul-08	189																				
29-Jul-08	196	4.78	<0.0005	0.0373	4.06	0.473	0.0018	0.275	0.0363	<0.00001	0.000057	0.0636	1.69	0.0085	1.34	<0.00001	<2	<0.00005	<0.0001	<0.0005	1.64
5-Aug-08	203																				
12-Aug-08	210	4.52	<0.001	0.0383	3.85	0.492	0.00042	0.275	0.036	<0.00001	<0.0001	0.0649	1.53	0.007	1.32	<0.00002	<2	<0.0001	<0.0002	<0.001	1.46
19-Aug-08	217																				
26-Aug-08	224	4.74	<0.001	0.0391	4.5	0.606	0.00044	0.301	0.0382	<0.00001	<0.0001	0.0698	1.48	0.0077	1.35	<0.00002	<2	<0.0001	<0.0002	<0.001	1.69
2-Sep-08	231																				
9-Sep-08	238	4.91	<0.0005	0.0416	4.84	0.778	0.000387	0.314	0.0397	<0.00001	0.000068	0.0703	1.53	0.0084	1.58	<0.00001	<2	<0.00005	<0.0001	<0.0005	1.95

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Sep-08	245	2500	2225	4.31	356	98																
23-Sep-08	252	2500	2260	4.38	320	78	1.46	18.56	<1	53.6	12.3	<0.5	0.032	30	0.0748	0.000054	0.00037	0.00625	0.00082	<0.0005	<0.01	0.00422
30-Sep-08	259	2500	2280	4.3	338	91																
7-Oct-08	266	2500	2335	4.36	446	93	1.37	20.04	<1	49.6	12.2	<0.5	0.036	30.5	0.0941	<0.0001	0.0003	0.00674	0.00075	<0.001	<0.02	0.00448
14-Oct-08	273	2500	2260	4.41	448	88																
21-Oct-08	280	2500	2280	4.31	501	85	1.71	18.64	<1	50.8	11	<0.5	0.03	29.1	0.0708	<0.00005	0.00035	0.00611	0.00074	<0.0005	<0.01	0.00413
28-Oct-08	287	2500	2255	4.35	552	82																
4-Nov-08	294	2500	2240	4.17	536	87	2.36	20.61	<1	45.6	10.5	<0.5	0.031	28.7	0.0807	<0.00005	0.0003	0.00605	0.00073	<0.0005	<0.01	0.0043
11-Nov-08	301	2500	2255	4.28	531	85																
18-Nov-08	308	2500	2270	4.33	525	69	1.59	19.67	<1	47	9.87	<0.5	0.026	27.3	0.0769	<0.00005	0.00034	0.00569	0.00069	<0.0005	<0.01	0.00419
25-Nov-08	315	2500	2255	4.23	442	75																
2-Dec-08	322	2500	2255	4.25	419	85	2.24	21.45	<1	55.6	9.19	<0.5	0.03	28.8	0.0815	<0.00005	0.00031	0.00592	0.00066	<0.0005	<0.01	0.00421
9-Dec-08	329	2500	2280	4.26	395	88																
16-Dec-08	336	2500	2260	4.2	350	90	2.68	25.98	<1	54	9.66	<0.5	0.03	30.3	0.0788	<0.00005	0.00023	0.0055	0.0007	<0.0005	<0.01	0.00451
23-Dec-08	343	2500	2125	4.32	403	80																
30-Dec-08	350	2500	2400	4.53	388	92	2.19	28.27	<1	53.2	9.94	<0.5	0.027	31.6	0.0932	<0.0001	<0.0002	0.00633	0.00062	<0.001	0.025	0.00486
6-Jan-09	357	2500	2270	4.18	327	80																
13-Jan-09	364	2500	2175	4.23	330	92	2.55	28.51	<1	34.8	9.31	<0.5	0.03	31.2	0.0903	<0.0001	0.00021	0.00628	0.00073	<0.001	<0.02	0.00456
20-Jan-09	371	2500	2205	4.08	489	94																
27-Jan-09	378	2500	2180	4.08	447	102	3.98	29.44	<1	46.3	9.41	<0.5	0.035	33.6	0.094	<0.0001	0.0002	0.00653	0.00077	<0.001	<0.02	0.00494
3-Feb-09	385	2500	2220	3.99	450	98																
10-Feb-09	392	2500	2345	3.97	431	108	5.45	32.39	<1	55.1	8.82	<0.5	<0.02	34.1	0.0949	<0.0001	<0.0002	0.0061	0.00059	<0.001	<0.02	0.00469
17-Feb-09	399	2500	2235	4.12	546	105																
24-Feb-09	406	2500	2190	4.13	491	116	3.56	32.72	<1	52.7	9.83	<0.5	0.029	38.6	0.222	<0.0001	<0.0002	0.00749	0.00077	<0.001	<0.02	0.00566
3-Mar-09	413	2500	2195	3.87	380	117																
10-Mar-09	420	2500	2345	3.76	398	113	5.11	32	<1	52	8.83	<0.5	0.028	36.5	0.117	<0.0001	<0.0002	0.00678	0.00075	<0.001	<0.02	0.00528
17-Mar-09	427	2500	2195	3.71	418	112																
24-Mar-09	434	2500	2330	3.74	505	121	6.24	32.71	<1	62.8	8.89	<0.5	0.031	38.3	0.138	<0.0001	<0.0002	0.00696	0.00077	<0.001	<0.02	0.00567
31-Mar-09	441	2500	2255	3.66	423	123																
7-Apr-09	448	2500	2200	3.63	508	122	6.97	34.05	<1	61.5	8.01	<0.5	0.031	40.1	0.138	<0.00025	<0.0005	0.00738	<0.001	<0.0025	<0.05	0.00559
14-Apr-09	455	2500	2270	3.82	551	136																
21-Apr-09	462	2500	2385	3.63	521	123																
28-Apr-09	469	2500	2415																			
5-May-09	476	2500	2350	3.65	510	133	7.28	37.23	<1	63.8	8.5	<0.5	0.037	43.2	0.171	<0.00025	<0.0005	0.00828	0.0011	<0.0025	<0.05	0.00603
12-May-09	483	2500	2400																			
19-May-09	490	2500	2350	3.65	476	129																
26-May-09	497	2500	2480																			
2-Jun-09	504	2500	2450	3.68	492	128	8.79	43.51	<1	65.1	8.65	<0.5	0.041	47	0.185	<0.00025	<0.0005	0.0101	<0.001	<0.0025	<0.05	0.00679
9-Jun-09	511	2500	2300																			
16-Jun-09	518	2500	2570	3.76	529	116																
23-Jun-09	525	2500	2340																			
30-Jun-09	532	2500	2385	3.75	455	107	6.26	39.62	<1	81.5	7.48	<0.5	0.033	42.7	0.146	<0.00025	<0.0005	0.00795	<0.001	<0.0025	<0.05	0.00537
7-Jul-09	539	2500	2445																			
14-Jul-09	546	2500	2485	4.05	488	94																
21-Jul-09	553	2500	2385																			
28-Jul-09	560	2500	2450	3.75	481	118	7.91	36.69	<1	71.4	6.13	<0.5	0.048	37.6	0.142	<0.00025	<0.0005	0.00639	<0.001	<0.0025	<0.05	0.00483
4-Aug-09	567	2500	2315																			
11-Aug-09	574	2500	2390	3.76	437	110																
18-Aug-09	581	2500	2330																			
25-Aug-09	588	2500	2415	3.79	424	124	6.39	38.32	<1	73.8	6.51	<0.5	0.046	43.1	0.16	<0.00025	<0.0005	0.00669	<0.001	<0.0025	<0.05	0.00524
1-Sep-09	595	2500	2380																			
8-Sep-09	602	2500	2295	3.71	421	123																
15-Sep-09	609	2500	2335																			
22-Sep-09	616	2500	2340	3.68	438	131	8.11	41.51	<1	71	6.01	<0.5	0.033	40.2	0.224	<0.00025	<0.0005	0.00815	<0.001	<0.0025	<0.05	0.0057
29-Sep-09	623	2500	2390																			
6-Oct-09	630	2500	2425	3.73	428	115																
13-Oct-09	637	2500	2335																			
20-Oct-09	644	2500	2400	3.76	415	103	6.34	32.02	<1	57	4.6	<0.5	0.024	31.9	0.118	<0.0001	<0.0002	0.00599	<0.0004	<0.001	<0.02	0.00403
27-Oct-09	651	2500	2465																			
3-Nov-09	658	2500	2525	3.76	394	125																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Sep-08	245																				
23-Sep-08	252	4.48	<0.0005	0.039	4.52	0.75	0.000349	0.26	0.0342	<0.00001	<0.00005	0.0642	1.19	0.0078	1.33	<0.00001	<2	<0.00005	0.00014	<0.0005	1.8
30-Sep-08	259																				
7-Oct-08	266	4.43	<0.001	0.0395	4.92	0.861	0.00039	0.281	0.036	<0.00001	<0.0001	0.0668	1.14	0.0074	1.39	<0.00002	<2	<0.0001	0.0003	<0.001	1.81
14-Oct-08	273																				
21-Oct-08	280	4.03	<0.0005	0.0354	4.7	0.855	0.000315	0.235	0.0323	<0.00001	0.00007	0.0615	1.12	0.0072	1.2	<0.00001	<2	<0.00005	0.00019	<0.0005	1.75
28-Oct-08	287																				
4-Nov-08	294	3.83	<0.0005	0.0357	4.53	0.891	0.000318	0.222	0.0298	<0.00001	<0.00005	0.0584	1.02	0.0073	1.21	<0.00001	<2	<0.00005	0.00035	<0.0005	1.8
11-Nov-08	301																				
18-Nov-08	308	3.58	<0.0005	0.0349	3.54	0.908	0.000255	0.226	0.0292	<0.00001	<0.00005	0.0564	1.02	0.0073	1.16	<0.00001	<2	<0.00005	0.00038	<0.0005	1.37
25-Nov-08	315																				
2-Dec-08	322	3.36	<0.0005	0.0336	4.15	0.973	0.000427	0.192	0.0275	<0.00001	<0.00005	0.0559	0.932	0.007	1.09	<0.00001	<2	<0.00005	0.00031	<0.0005	1.53
9-Dec-08	329																				
16-Dec-08	336	3.54	<0.0005	0.0348	4.07	1.11	0.000282	0.201	0.0273	<0.00001	<0.00005	0.0575	0.845	0.0067	1.11	<0.00001	<2	<0.00005	0.00027	<0.0005	1.56
23-Dec-08	343																				
30-Dec-08	350	3.62	<0.001	0.036	5.65	1.28	0.0006	0.217	0.0285	<0.00001	<0.0001	0.0578	0.84	0.0067	1.35	<0.00002	<2	<0.0001	0.00042	<0.001	1.97
6-Jan-09	357																				
13-Jan-09	364	3.38	<0.001	0.036	5.53	1.2	0.00129	0.213	0.0277	<0.00001	<0.0001	0.0572	0.9	0.0065	1.07	<0.00002	<2	<0.0001	0.00033	<0.001	1.98
20-Jan-09	371																				
27-Jan-09	378	3.43	<0.001	0.0378	7.77	1.38	0.00029	0.206	0.0291	<0.00001	<0.0001	0.0624	0.98	0.0072	1.16	<0.00002	<2	<0.0001	0.00033	<0.001	2.38
3-Feb-09	385																				
10-Feb-09	392	3.21	<0.001	0.0326	7.21	1.43	0.00027	0.192	0.025	<0.00001	<0.0001	0.0518	0.92	0.0067	1.21	<0.00002	<2	<0.0001	0.00027	<0.001	2.14
17-Feb-09	399																				
24-Feb-09	406	3.58	<0.001	0.0405	10.3	1.63	0.00033	0.215	0.0294	<0.00001	<0.0001	0.0624	0.82	0.0073	1.31	<0.00002	<2	<0.0001	0.00109	<0.001	3.01
3-Mar-09	413																				
10-Mar-09	420	3.22	<0.001	0.0358	7.76	1.53	0.00038	0.193	0.0272	<0.00001	<0.0001	0.0571	0.85	0.0069	1.2	<0.00002	<2	<0.0001	0.00048	<0.001	2.3
17-Mar-09	427																				
24-Mar-09	434	3.22	<0.001	0.0381	7.95	1.48	0.00033	0.21	0.0283	<0.00001	<0.0001	0.0575	0.81	0.0065	1.2	<0.00002	<2	<0.0001	0.00021	<0.001	2.23
31-Mar-09	441																				
7-Apr-09	448	3.08	<0.0025	0.0357	8.65	1.5	0.00036	0.189	0.0262	<0.00001	<0.00025	0.0543	0.84	0.0069	1.25	<0.00005	<2	<0.00025	<0.0005	<0.0025	2.45
14-Apr-09	455																				
21-Apr-09	462																				
28-Apr-09	469																				
5-May-09	476	3.08	<0.0025	0.0378	8.88	1.89	0.00064	0.198	0.0275	<0.00001	<0.00025	0.0561	0.88	0.0071	1.62	<0.00005	<2	<0.00025	<0.0005	<0.0025	2.83
12-May-09	483																				
19-May-09	490																				
26-May-09	497																				
2-Jun-09	504	3.14	<0.0025	0.0401	12.5	2.38	0.00085	0.198	0.0283	<0.00001	<0.00025	0.0578	0.94	0.009	1.91	<0.00005	<2	<0.00025	<0.0005	<0.0025	3.3
9-Jun-09	511																				
16-Jun-09	518																				
23-Jun-09	525																				
30-Jun-09	532	2.76	<0.0025	0.0292	7.82	1.98	0.00061	0.144	0.0221	<0.00001	<0.00025	0.0422	0.57	0.007	1.62	<0.00005	<2	<0.00025	<0.0005	<0.0025	2.24
7-Jul-09	539																				
14-Jul-09	546																				
21-Jul-09	553																				
28-Jul-09	560	2.24	<0.0025	0.0272	9.51	1.73	0.00075	0.133	0.0203	<0.00001	<0.00025	0.0386	0.63	0.0071	1.36	<0.00005	<2	<0.00025	<0.0005	<0.0025	2.41
4-Aug-09	567																				
11-Aug-09	574																				
18-Aug-09	581																				
25-Aug-09	588	2.36	<0.0025	0.0294	10.4	1.93	0.00132	0.147	0.0203	<0.00001	<0.00025	0.0404	0.65	0.007	1.51	<0.00005	<2	<0.00025	<0.0005	<0.0025	2.46
1-Sep-09	595																				
8-Sep-09	602																				
15-Sep-09	609																				
22-Sep-09	616	2.18	<0.0025	0.0311	11.2	2	0.00077	0.139	0.0206	<0.00001	<0.00025	0.0448	0.69	0.0085	1.61	<0.00005	<2	<0.00025	0.0007	<0.0025	2.7
29-Sep-09	623																				
6-Oct-09	630																				
13-Oct-09	637																				
20-Oct-09	644	1.66	<0.001	0.0222	8.26	1.51	0.00053	0.108	0.0148	<0.00001	<0.0001	0.0318	0.55	0.0062	1.17	<0.00002	<2	<0.0001	0.0003	<0.001	1.98
27-Oct-09	651																				
3-Nov-09	658																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Nov-09	665	2500	2495																			
17-Nov-09	672	2500	2415	3.91	414	99	3.56	33.09	<1	55	4.58	<0.5	0.025	32.6	0.111	<0.0001	<0.0002	0.00628	0.00045	<0.001	<0.02	0.00432
24-Nov-09	679	2500	2455																			
1-Dec-09	686	2500	2485	3.87	391	119																
8-Dec-09	693	2500	2310																			
15-Dec-09	700	2500	2440	3.83	433	121	5.82	32.35	<1	64	4.84	<0.5	0.027	34.7	0.128	<0.0001	<0.0002	0.00659	0.00044	<0.001	<0.02	0.00478
22-Dec-09	707	2500	2435																			
29-Dec-09	714	2500	2455	3.79	486	123																
5-Jan-10	721	2500	2430																			
12-Jan-10	728	2500	2475	3.64	411	144	14.12	53.26	<1	76	5.16	<0.5	0.038	39.4	0.139	<0.00025	<0.0005	0.00769	<0.001	<0.0025	<0.05	0.00507
19-Jan-10	735	2500	2340																			
26-Jan-10	742	2500	2415	3.71	439	115																
2-Feb-10	749	2500	2345																			
9-Feb-10	756	2500	2380	3.68	446	128	7.58	37.64	<1	53	4.1	<0.5	0.024	37.4	0.145	<0.00025	<0.0005	0.00699	<0.001	<0.0025	<0.05	0.00474
16-Feb-10	763	2500	2305																			
23-Feb-10	770	2500	2325	3.63	435	123																
2-Mar-10	777	2500	2310																			
9-Mar-10	784	2500	2390	3.75	455	146	8.22	42.99	<1	68	4.53	<0.5	0.041	38.9	0.23	<0.00025	0.00055	0.00848	<0.001	<0.0025	<0.05	0.00588
16-Mar-10	791	2500	2455																			
23-Mar-10	798	2500	2360	3.83	418	113																
30-Mar-10	805	2500	2375																			
6-Apr-10	812	2500	2360	3.76	425	134	7.23	40.78	<1	71	4.16	<0.5	0.028	39	0.216	<0.00025	<0.0005	0.00751	<0.001	<0.0025	<0.05	0.00545
13-Apr-10	819	2500	2390																			
20-Apr-10	826	2500	2425	3.61	428	164																
27-Apr-10	833	2500	2360																			
4-May-10	840	2500	2400	3.61	434	141	8.69	37.54	<1	63	3.94	<0.5	0.028	37.9	0.166	<0.00025	<0.0005	0.00617	<0.001	<0.0025	<0.05	0.00456
11-May-10	847	2500	2375																			
18-May-10	854	2500	2310	3.68	445	128																
25-May-10	861	2500	2270																			
1-Jun-10	868	2500	2325	3.75	430	98	5.48	28.72	<1	44	2.74	<0.5	0.021	23	0.114	<0.00025	<0.0005	0.0048	0.0011	<0.0025	<0.05	0.00319
8-Jun-10	875	2500	2395																			
15-Jun-10	882	2500	2290	3.9	455	75																
22-Jun-10	889	2500	2315																			
29-Jun-10	896	2500	2270	3.84	416	80	4.98	23.03	<1	33	2.06	<0.5	<0.02	20.5	0.0997	<0.0001	<0.0002	0.00466	<0.0004	<0.001	<0.02	0.00237
6-Jul-10	903	2500	2345																			
13-Jul-10	910	2500	2410	3.63	446	178																
20-Jul-10	917	2500	2415																			
27-Jul-10	924	2500	2405	3.52	465	206	11.46	63.36	<1	94	6.64	<0.5	0.069	67.2	0.662	<0.0005	<0.001	0.0113	<0.002	<0.005	<0.1	0.00886
3-Aug-10	931	2500	2410																			
10-Aug-10	938	2500	2555	3.91	314	180																
17-Aug-10	945	2500	2580																			
24-Aug-10	952	2500	2515	3.88	418	168	8.65	52.25	<1	80	4.28	<0.5	0.041	51.2	0.312	<0.00025	<0.0005	0.00944	<0.001	<0.0025	<0.05	0.00559
31-Aug-10	959	2500	2415																			
7-Sep-10	966	2500	2390	3.64	427	169																
14-Sep-10	973	2500	2470																			
21-Sep-10	980	2500	2490	3.57	404	161	10.98	55.44	<1	109	5.86	<0.5	0.056	57.6	0.334	<0.00025	<0.0005	0.0115	<0.001	<0.0025	<0.05	0.00637
28-Sep-10	987	2500	2480																			
5-Oct-10	994	2500	2385	3.6	400	193																
12-Oct-10	1001	2500	2435																			
19-Oct-10	1008	2500	2485	3.68	415	168	9.25	47.05	<1	95	4.44	<0.5	0.049	48.7	0.246	<0.00025	<0.0005	0.00984	<0.001	<0.0025	<0.05	0.0049
26-Oct-10	1015	2500	2445																			
2-Nov-10	1022	2500	2440	3.89	268	159																
9-Nov-10	1029	2500	2485																			
16-Nov-10	1036	2500	2465	3.91	209	161	6.58	41.72	<1	75	3.84	<0.5	0.059	45.5	0.19	<0.00025	<0.0005	0.00791	0.0011	<0.0025	<0.05	0.00398
23-Nov-10	1043	2500	2390																			
30-Nov-10	1050	2500	2240	3.91	450	233																
7-Dec-10	1057	2500	2350																			
14-Dec-10	1064	2500	2420	3.79	455	148	8.36	39.84	<1	74	4.65	<0.5	0.045	41.7	0.152	<0.00005	0.00022	0.00873	0.00027	<0.0005	<0.01	0.00406
21-Dec-10	1071	2500	2455																			
28-Dec-10	1078	2500	2380	3.79	435	126																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Nov-09	665																				
17-Nov-09	672	1.66	<0.001	0.0219	8.98	1.51	0.00048	0.105	0.0144	<0.00001	<0.0001	0.0317	0.52	0.0066	1.11	<0.00002	<2	<0.0001	0.00041	<0.001	2.08
24-Nov-09	679																				
1-Dec-09	686																				
8-Dec-09	693																				
15-Dec-09	700	1.74	<0.001	0.0252	10.1	1.58	0.00051	0.119	0.0166	<0.00001	<0.0001	0.036	0.57	0.0074	1.22	<0.00002	<2	<0.0001	0.00039	<0.001	2.4
22-Dec-09	707																				
29-Dec-09	714																				
5-Jan-10	721																				
12-Jan-10	728	1.88	<0.0025	0.0252	10.8	2.04	0.00065	0.111	0.0162	<0.00001	<0.00025	0.0358	0.6	0.0077	1.51	<0.00005	<2	<0.00025	<0.0005	<0.0025	2.36
19-Jan-10	735																				
26-Jan-10	742																				
2-Feb-10	749																				
9-Feb-10	756	1.46	<0.0025	0.0243	10.7	1.69	0.00042	0.109	0.0146	<0.00001	<0.00025	0.0333	0.58	0.0064	1.12	<0.00005	<2	<0.00025	<0.0005	<0.0025	2.29
16-Feb-10	763																				
23-Feb-10	770																				
2-Mar-10	777																				
9-Mar-10	784	1.6	<0.0025	0.0296	13.3	1.76	0.00075	0.13	0.0185	<0.00001	<0.00025	0.04	0.66	0.0082	1.2	<0.00005	<2	<0.00025	0.00067	<0.0025	2.77
16-Mar-10	791																				
23-Mar-10	798																				
30-Mar-10	805																				
6-Apr-10	812	1.46	<0.0025	0.0266	13.1	1.49	0.00048	0.128	0.0178	<0.00001	<0.00025	0.0362	0.57	0.0071	0.988	<0.00005	<2	<0.00025	0.0011	<0.0025	2.59
13-Apr-10	819																				
20-Apr-10	826																				
27-Apr-10	833																				
4-May-10	840	1.42	<0.0025	0.0239	11.9	1.37	0.00037	0.098	0.0158	<0.00001	<0.00025	0.0312	0.54	0.0066	1.1	<0.00005	<2	<0.00025	0.00058	<0.0025	2.27
11-May-10	847																				
18-May-10	854																				
25-May-10	861																				
1-Jun-10	868	0.962	<0.0025	0.0171	8.74	0.841	0.00027	0.082	0.0117	<0.00001	<0.00025	0.0227	0.44	<0.005	0.669	<0.00005	<2	<0.00025	0.00153	<0.0025	1.58
8-Jun-10	875																				
15-Jun-10	882																				
22-Jun-10	889																				
29-Jun-10	896	0.73	<0.001	0.0129	7.02	0.617	0.00055	0.058	0.00665	<0.00001	<0.0001	0.0171	0.44	0.0043	0.578	<0.00002	<2	<0.0001	0.00176	<0.001	1.15
6-Jul-10	903																				
13-Jul-10	910																				
20-Jul-10	917																				
27-Jul-10	924	2.07	<0.005	0.0465	23.4	1.95	0.00111	0.36	0.223	<0.00001	<0.0005	0.062	1.06	0.01	1.7	<0.0001	<2	<0.0005	<0.001	<0.005	4.23
3-Aug-10	931																				
10-Aug-10	938																				
17-Aug-10	945																				
24-Aug-10	952	1.5	<0.0025	0.0261	14.4	1.66	0.00084	0.129	0.0173	<0.00001	<0.00025	0.032	0.67	0.0064	1.52	<0.00005	<2	<0.00025	<0.0005	<0.0025	2.91
31-Aug-10	959																				
7-Sep-10	966																				
14-Sep-10	973																				
21-Sep-10	980	2.08	<0.0025	0.0321	19.6	1.95	0.00087	0.16	0.0229	<0.00001	<0.00025	0.0406	0.82	0.0085	1.55	<0.00005	<2	<0.00025	0.00134	<0.0025	3.04
28-Sep-10	987																				
5-Oct-10	994																				
12-Oct-10	1001																				
19-Oct-10	1008	1.59	<0.0025	0.0253	16.7	1.71	0.00075	0.112	0.0163	<0.00001	<0.00025	0.0309	0.64	0.0067	1.56	<0.00005	<2	<0.00025	0.0005	<0.0025	2.48
26-Oct-10	1015																				
2-Nov-10	1022																				
9-Nov-10	1029																				
16-Nov-10	1036	1.39	<0.0025	0.0202	14.5	1.36	0.00062	0.088	0.0128	<0.00001	<0.00025	0.025	0.66	0.0057	1.39	<0.00005	<2	<0.00025	0.00056	<0.0025	2
23-Nov-10	1043																				
30-Nov-10	1050																				
7-Dec-10	1057																				
14-Dec-10	1064	1.7	<0.0005	0.0218	15.6	0.981	0.000662	0.0973	0.0148	<0.00001	<0.00005	0.0272	0.717	0.0071	1.49	0.000027	<2	<0.00005	0.00042	<0.0005	2.04
21-Dec-10	1071																				
28-Dec-10	1078																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
4-Jan-11	1085	2500	2315																			
11-Jan-11	1092	2500	2435	3.74	448	147	8.38	43.78	<1	184	4.77	<0.5	0.034	47.2	0.196	<0.00005	0.00013	0.00916	0.00029	<0.0005	<0.01	0.00434
18-Jan-11	1099	2500	2525																			
25-Jan-11	1106	2500	2440	3.62	407	184																
1-Feb-11	1113	2500	2380																			
8-Feb-11	1120	2500	2305	3.85	441	179	8.65	45.16	<1	78	5.13	<0.5	0.054	53.1	0.24	<0.00005	0.00047	0.0128	0.00031	<0.0005	<0.01	0.00474
15-Feb-11	1127	2500	2405																			
22-Feb-11	1134	2500	2400	3.77	411	169																
1-Mar-11	1141	2500	2375																			
8-Mar-11	1148	2500	2400	3.7	410	189	9.39	48.27	<1	68	4.79	<0.5	0.056	53.3	0.279	<0.0001	<0.0002	0.0121	<0.0004	<0.001	<0.02	0.00491
15-Mar-11	1155	2500	2390																			
22-Mar-11	1162	2500	2460	3.69	358	176																
29-Mar-11	1169	2500	2515																			
5-Apr-11	1176	2500	2490	3.76	352	169	7.64	39.7	<1	79	4.11	<0.5	0.063	46.5	0.232	<0.0001	<0.0002	0.00945	<0.0004	<0.001	<0.02	0.00392
12-Apr-11	1183	2500	2455																			
19-Apr-11	1190	2500	2455	3.76	332	186																
26-Apr-11	1197	2500	2465																			
3-May-11	1204	2500	2430	3.69	440	206	10.4	55.97	<1	103	5.35	<0.5	0.074	58.6	0.387	<0.00025	<0.0005	0.0124	<0.001	<0.0025	<0.05	0.00518
10-May-11	1211	2500	2540																			
17-May-11	1218	2500	2405	3.69	444	196																
24-May-11	1225	2500	2435																			
31-May-11	1232	2500	2345	3.74	374	197	11.47	55.15	<1	99	4.58	<0.5	0.068	55.6	0.337	<0.0001	<0.0002	0.0119	<0.0004	<0.001	<0.02	0.00432
7-Jun-11	1239	2500	2420																			
14-Jun-11	1246	2500	2325	3.74	237	213																
21-Jun-11	1253	2500	2380																			
28-Jun-11	1260	2500	2430	3.71	233	226	13.28	63.6	<1	107	5.31	<0.5	0.104	67.2	0.45	<0.00025	<0.0005	0.0143	<0.001	<0.0025	<0.05	0.00469
5-Jul-11	1267	2500	2400																			
12-Jul-11	1274	2500	2455	3.55	399	223																
19-Jul-11	1281	2500	2475																			
26-Jul-11	1288	2500	2380	3.66	379	218	14.6	63.33	<1	87	5.03	<0.5	0.121	63	0.456	<0.00025	<0.0005	0.0133	<0.001	<0.0025	<0.05	0.00444
2-Aug-11	1295	2500	2400																			
9-Aug-11	1302	2500	2385	3.69	360	209																
16-Aug-11	1309	2500	2460																			
23-Aug-11	1316	2500	2470	3.57	364	240	15.3	63.06	<1	93	5.39	<5	<0.2	69.3	0.547	<0.00025	<0.0005	0.014	<0.001	<0.0025	<0.05	0.00454
30-Aug-11	1323	2500	2455																			
6-Sep-11	1330	2500	2460	3.7	381	238																
13-Sep-11	1337	2500	2350																			
20-Sep-11	1344	2500	2570	3.62	381	243	15.37	64.87	<1	160	5.37	<5	<0.2	72.6	0.636	<0.00025	<0.0005	0.0146	<0.001	<0.0025	<0.05	0.00451
27-Sep-11	1351	2500	2455																			
4-Oct-11	1358	2500	2345	3.65	436	229																
11-Oct-11	1365	2500	2350																			
18-Oct-11	1372	2500	2430	3.58	430	249	16.2	66.11	<1	108	5.16	<5	<0.2	70.9	0.558	<0.0001	<0.0002	0.0146	<0.0004	<0.001	<0.02	0.0047
25-Oct-11	1379	2500	2440																			
1-Nov-11	1386	2500	2475	3.66	472	212																
8-Nov-11	1393	2500	2435																			
15-Nov-11	1400	2500	2435	3.58	413	254	15.87	66.55	<1	106	4.96	<5	<0.2	72.1	0.577	<0.00025	0.00052	0.0134	<0.001	<0.0025	<0.05	0.00435
22-Nov-11	1407	2500	2395																			
29-Nov-11	1414	2500	2500	3.61	480	238																
6-Dec-11	1421	2500	2420																			
13-Dec-11	1428	2500	2325	3.54	442	257	15.85	63.11	<1	104	4.88	<5	<0.2	71.8	0.65	<0.00025	<0.0005	0.0144	<0.001	<0.0025	<0.05	0.00428
20-Dec-11	1435	2500	1525																			
27-Dec-11	1442	2500	2415	3.6	458	268																
3-Jan-12	1449	2500	2390																			
10-Jan-12	1456	2500	2395	3.48	496	273	14.26	53.9	<1	116	4.92	<5	<0.2	76.1	0.614	<0.00025	<0.0005	0.0144	<0.001	<0.0025	<0.05	0.00442
17-Jan-12	1463	2500	2340																			
24-Jan-12	1470	2500	2355	3.48	564	276																
31-Jan-12	1477	2500	2375																			
7-Feb-12	1484	2500	2240	3.47	492	268	14.44	51.48	<1	124	4.35	<5	<0.2	72.3	0.551	<0.00025	<0.0005	0.0131	<0.001	<0.0025	<0.05	0.00384
14-Feb-12	1491	2500	2435																			
21-Feb-12	1498	2500	2370	3.48	514	274																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Jan-11	1085																				
11-Jan-11	1092	1.74	<0.0005	0.0219	17.1	1.08	0.00054	0.104	0.0146	<0.00001	<0.00005	0.0282	0.705	0.0078	1.56	0.000029	<2	<0.00005	0.00052	<0.0005	2.1
18-Jan-11	1099																				
25-Jan-11	1106																				
1-Feb-11	1113																				
8-Feb-11	1120	1.85	<0.0005	0.024	19.4	0.843	0.0037	0.124	0.0162	0.000013	<0.00005	0.0311	0.858	0.0089	1.88	0.000045	<2	<0.00005	0.00038	<0.0005	2.45
15-Feb-11	1127																				
22-Feb-11	1134																				
1-Mar-11	1141																				
8-Mar-11	1148	1.73	<0.001	0.0246	20.8	0.754	0.00183	0.112	0.017	<0.00001	<0.0001	0.0319	0.81	0.0086	1.75	0.000043	<2	<0.0001	0.00095	<0.001	2.3
15-Mar-11	1155																				
22-Mar-11	1162																				
29-Mar-11	1169																				
5-Apr-11	1176	1.49	<0.001	0.0212	18.2	0.511	0.00109	0.093	0.0146	<0.00001	<0.0001	0.0264	0.67	0.007	1.41	0.000039	<2	<0.0001	0.00279	<0.001	1.72
12-Apr-11	1183																				
19-Apr-11	1190																				
26-Apr-11	1197																				
3-May-11	1204	1.94	<0.0025	0.0281	25.5	0.64	0.00144	0.125	0.0189	<0.00001	<0.00025	0.0346	0.83	0.0085	1.68	<0.00005	<2	<0.00025	0.00998	<0.0025	2.34
10-May-11	1211																				
17-May-11	1218																				
24-May-11	1225																				
31-May-11	1232	1.67	<0.001	0.0238	21.9	0.472	0.00491	0.104	0.0162	<0.00001	<0.0001	0.0289	0.84	0.0075	1.8	0.000056	<2	<0.0001	0.00992	<0.001	2.13
7-Jun-11	1239																				
14-Jun-11	1246																				
21-Jun-11	1253																				
28-Jun-11	1260	1.92	<0.0025	0.0277	26.5	0.554	0.00098	0.124	0.0175	<0.00001	<0.00025	0.0339	0.91	0.0083	1.97	0.000073	<2	<0.00025	0.0118	<0.0025	2.4
5-Jul-11	1267																				
12-Jul-11	1274																				
19-Jul-11	1281																				
26-Jul-11	1288	1.83	<0.0025	0.0255	24.6	0.519	0.0009	0.114	0.0176	<0.00001	<0.00025	0.0308	0.89	0.0074	1.92	0.000068	<2	<0.00025	0.0104	<0.0025	2.2
2-Aug-11	1295																				
9-Aug-11	1302																				
16-Aug-11	1309																				
23-Aug-11	1316	1.95	<0.0025	0.0261	26.8	0.576	0.00146	0.128	0.0169	<0.00001	<0.00025	0.0306	0.95	0.0077	2.14	0.000082	<2	<0.00025	0.011	<0.0025	2.33
30-Aug-11	1323																				
6-Sep-11	1330																				
13-Sep-11	1337																				
20-Sep-11	1344	1.94	<0.0025	0.0263	26.6	0.644	0.00116	0.13	0.0171	<0.00001	<0.00025	0.0308	0.89	0.0079	1.97	0.000079	<2	<0.00025	0.0127	<0.0025	2.21
27-Sep-11	1351																				
4-Oct-11	1358																				
11-Oct-11	1365																				
18-Oct-11	1372	1.85	<0.001	0.0266	27.6	0.6	0.00128	0.134	0.0163	<0.00001	<0.0001	0.0301	0.95	0.0071	1.88	0.000084	<2	<0.0001	0.0105	<0.001	2.24
25-Oct-11	1379																				
1-Nov-11	1386																				
8-Nov-11	1393																				
15-Nov-11	1400	1.77	<0.0025	0.0244	27.5	0.564	0.00102	0.13	0.0158	<0.00001	<0.00025	0.0274	0.93	0.007	1.99	0.00009	<2	<0.00025	0.00861	<0.0025	2.04
22-Nov-11	1407																				
29-Nov-11	1414																				
6-Dec-11	1421																				
13-Dec-11	1428	1.72	<0.0025	0.0258	26.9	0.574	0.00363	0.139	0.0163	<0.00001	<0.00025	0.0296	1.03	0.007	2.1	0.000104	<2	<0.00025	0.00761	<0.0025	2.18
20-Dec-11	1435																				
27-Dec-11	1442																				
3-Jan-12	1449																				
10-Jan-12	1456	1.72	<0.0025	0.0257	27.7	0.747	0.00147	0.153	0.0151	<0.00001	<0.00025	0.0285	1.03	0.0071	2.13	0.000087	<2	<0.00025	0.00684	<0.0025	1.9
17-Jan-12	1463																				
24-Jan-12	1470																				
31-Jan-12	1477																				
7-Feb-12	1484	1.53	<0.0025	0.0224	23.1	0.652	0.00114	0.127	0.0133	<0.00001	<0.00025	0.0253	0.91	0.0062	2.08	0.000109	<2	<0.00025	0.00618	<0.0025	1.84
14-Feb-12	1491																				
21-Feb-12	1498																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
28-Feb-12	1505	2500	2455																			
6-Mar-12	1512	2500	2415	3.43	594	298	18.52	65.56	<1	120	5.05	<5	<0.2	80.9	0.678	<0.00025	<0.0005	0.0148	<0.001	<0.0025	<0.05	0.00421
13-Mar-12	1519	2500	2385																			
20-Mar-12	1526	2500	2440	3.48	507	284																
27-Mar-12	1533	2500	2385																			
3-Apr-12	1540	2500	2371	3.48	518	279	19.37	69.36	<1	120	4.81	<5	<0.2	85.2	0.699	<0.00005	0.00011	0.0154	0.00021	<0.0005	<0.01	0.0043
10-Apr-12	1547	2500	2525																			
17-Apr-12	1554	2500	2440	3.46	506	270																
24-Apr-12	1561	2500	2355																			
1-May-12	1568	2500	2420	3.47	506	287	19.8	65.91	<1	113	4.71	<5	<0.2	76.8	0.673	<0.00025	0.00537	0.0148	<0.001	<0.0025	<0.05	0.00373
8-May-12	1575	2500	2440																			
15-May-12	1582	2500	2485	3.38	515	300																
22-May-12	1589	2500	2260																			
29-May-12	1596	2500	2445	3.43	510	295	20.65	70.59	<1	130	4.67	<5	<0.2	75.6	0.606	<0.00025	<0.0005	0.0143	<0.001	<0.0025	<0.05	0.00354
5-Jun-12	1603	2500	2410																			
12-Jun-12	1610	2500	2465	3.52	510	261																
19-Jun-12	1617	2500	2450																			
26-Jun-12	1624	2500	2410	3.57	487	247	15.73	57.24	<1	155	4.24	<5	<0.2	69.3	0.538	<0.00025	<0.0005	0.0128	<0.001	<0.0025	<0.05	0.00316
3-Jul-12	1631	2500	2295																			
10-Jul-12	1638	2500	2325	3.51	484	254																
17-Jul-12	1645	2500	2310																			
24-Jul-12	1652	2500	2375	3.51	493	265	16.14	57.05	<1	149	4.19	<5	<0.2	74.2	0.595	<0.00025	<0.0005	0.0131	<0.001	<0.0025	<0.05	0.0029
31-Jul-12	1659	2500	2460																			
7-Aug-12	1666	2500	2375	3.4	490	276																
14-Aug-12	1673	2500	2400																			
21-Aug-12	1680	2500	2435	3.45	487	270	19.35	67.84	<1	137	4.79	<5	<0.2	74.1	0.599	<0.00025	<0.0005	0.0142	<0.001	<0.0025	<0.05	0.00321
28-Aug-12	1687	2500	2425																			
4-Sep-12	1694	2500	2325	3.54	485	246																
11-Sep-12	1701	2500	2395																			
18-Sep-12	1708	2500	2350	3.49	490	260	16.43	58.38	<1	102	4.47	<5	<0.2	72.5	0.618	<0.00025	<0.0005	0.014	<0.001	<0.0025	<0.05	0.00285
25-Sep-12	1715	2500	2390																			
2-Oct-12	1722	2500	2255	3.58	466	249																
9-Oct-12	1729	2500	2365																			
16-Oct-12	1736	2500	2470	3.49	542	253	16.19	57.83	<1	129	4.51	<5	<0.2	73.2	0.614	<0.00025	<0.0005	0.0133	<0.001	<0.0025	<0.05	0.00289
23-Oct-12	1743	2500	2330																			
30-Oct-12	1750	2500	2310	3.46	450	234																
6-Nov-12	1757	2500	2430																			
13-Nov-12	1764	2500	2340	3.53	478	234	14.74	52.8	<1	92	4.04	<5	<0.2	60.8	0.471	<0.00025	<0.0005	0.0101	<0.001	<0.0025	<0.05	0.00222
20-Nov-12	1771	2500	2440																			
27-Nov-12	1778	2500	2425	3.52	501	230																
4-Dec-12	1785	2500	2450																			
11-Dec-12	1792	2500	2445	3.58	483	199	11.82	39.85	<1	97	3.26	<5	<0.2	48.6	0.367	<0.0001	<0.0002	0.0104	<0.0004	<0.001	<0.02	0.00183
18-Dec-12	1799	2500	2310																			
25-Dec-12	1806	2500	2340	3.59	505	191																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Jan-08	0	2500	1940	7.52	432	266	<1	5.6	22.5	202	33.3	18	0.253	72.6	0.0358	0.00865	0.0316	0.00445	<0.0002	<0.0005	0.092	0.000099
23-Jan-08	7	2500	2270	7.51	446	98																
30-Jan-08	14	2500	2445	7.58	431	56	<1	4.6	11.8	26.2	8.24	<0.5	0.062	9.88	0.0136	0.0198	0.0444	0.00144	<0.0002	<0.0005	0.029	<0.00005
6-Feb-08	21	2500	2455	7.46	436	32																
13-Feb-08	28	2500	2440	7.55	410	29	<1	4.96	5.8	20.5	8.08	<0.5	<0.02	9.24	0.0152	0.0162	0.0278	0.00195	<0.0002	<0.0005	0.011	0.000063
20-Feb-08	35	2500	2535	7.3	401	24																
27-Feb-08	42	2500	2630	7.45	422	24	<1	4.39	4.3	21.5	7.2	<0.5	<0.02	8.07	0.0058	0.0112	0.0192	0.00213	<0.0002	<0.0005	<0.01	0.000066
5-Mar-08	49	2500	2420	7.4	389	23																
12-Mar-08	56	2500	2670	6.96	427	22	<1	4.02	3	11.8	6.77	<0.5	<0.02	7.26	0.0056	0.0116	0.0156	0.0024	<0.0002	<0.0005	<0.01	0.000092
19-Mar-08	63	2500	2460	7.26	407	21																
26-Mar-08	70	2500	2430	6.67	424	24	<1	4.83	2.6	20.7	7.14	<0.5	<0.02	8.47	0.0321	0.0101	0.0107	0.0026	<0.0002	<0.0005	<0.01	0.000098
2-Apr-08	77	2500	2765	6.79	423	16																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
28-Feb-12	1505																				
6-Mar-12	1512	1.73	<0.0025	0.0264	27.7	0.878	0.0013	0.179	0.0165	<0.00001	<0.00025	0.03	1.02	0.0073	2.35	0.000125	<2	<0.00025	0.00668	<0.0025	2.16
13-Mar-12	1519																				
20-Mar-12	1526																				
27-Mar-12	1533																				
3-Apr-12	1540	1.65	<0.0005	0.026	29.3	0.847	0.00121	0.165	0.0165	<0.00001	<0.00005	0.0292	1.17	0.0071	2.38	0.000132	<2	<0.00005	0.00667	<0.0005	2.22
10-Apr-12	1547																				
17-Apr-12	1554																				
24-Apr-12	1561																				
1-May-12	1568	1.62	<0.0025	0.0239	27.7	0.898	0.00146	0.165	0.0158	<0.00001	0.00028	0.0278	1.1	0.0071	2.38	0.000149	<2	<0.00025	0.00615	<0.0025	1.8
8-May-12	1575																				
15-May-12	1582																				
22-May-12	1589																				
29-May-12	1596	1.63	<0.0025	0.0227	26.1	0.917	0.00106	0.148	0.0154	<0.00001	<0.00025	0.0253	1.02	0.0066	2.57	0.000145	<2	<0.00025	0.00538	<0.0025	1.62
5-Jun-12	1603																				
12-Jun-12	1610																				
19-Jun-12	1617																				
26-Jun-12	1624	1.46	<0.0025	0.02	23.5	0.777	0.00102	0.142	0.014	<0.00001	<0.00025	0.0221	0.89	0.0064	2.32	0.000143	<2	<0.00025	0.00554	<0.0025	1.45
3-Jul-12	1631																				
10-Jul-12	1638																				
17-Jul-12	1645																				
24-Jul-12	1652	1.45	<0.0025	0.0194	23.6	0.838	0.00272	0.14	0.0144	<0.00001	<0.00025	0.0219	0.97	0.0067	2.44	0.000143	<2	<0.00025	0.00492	<0.0025	1.41
31-Jul-12	1659																				
7-Aug-12	1666																				
14-Aug-12	1673																				
21-Aug-12	1680	1.66	<0.0025	0.021	26.5	0.926	0.00104	0.155	0.0146	<0.00001	<0.00025	0.024	0.99	0.0077	2.73	0.000145	<2	<0.00025	0.00501	<0.0025	1.48
28-Aug-12	1687																				
4-Sep-12	1694																				
11-Sep-12	1701																				
18-Sep-12	1708	1.54	<0.0025	0.0196	24.1	0.855	0.00094	0.152	0.0142	<0.00001	<0.00025	0.0223	0.998	0.0072	2.39	0.000188	<2	<0.00025	0.00504	<0.0025	1.42
25-Sep-12	1715																				
2-Oct-12	1722																				
9-Oct-12	1729																				
16-Oct-12	1736	1.57	<0.0025	0.0203	26.3	0.709	0.00076	0.144	0.0146	<0.00001	<0.00025	0.023	0.96	0.0071	2.13	0.000129	<2	<0.00025	0.0039	<0.0025	1.37
23-Oct-12	1743																				
30-Oct-12	1750																				
6-Nov-12	1757																				
13-Nov-12	1764	1.42	<0.0025	0.0159	19.9	0.559	0.00064	0.118	0.012	<0.00001	<0.00025	0.0176	0.88	0.0065	2.29	0.000114	<2	<0.00025	0.00274	<0.0025	1.09
20-Nov-12	1771																				
27-Nov-12	1778																				
4-Dec-12	1785																				
11-Dec-12	1792	1.14	<0.001	0.0129	17.4	0.518	0.00063	0.098	0.0102	<0.00001	<0.0001	0.0149	0.79	0.0058	1.88	0.000129	<2	<0.0001	0.00275	<0.001	0.893
18-Dec-12	1799																				
25-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jan-08	0	10.1	<0.0005	0.00277	0.0662	<0.03	0.000274	1.93	0.043	<0.00001	0.0164	0.00296	5.85	0.0126	2.87	<0.00001	38.4	<0.00005	0.0026	0.00746	0.0197
23-Jan-08	7																				
30-Jan-08	14	2.46	<0.0005	0.00062	0.0148	<0.03	0.000066	0.511	0.0158	<0.00001	0.00665	0.00079	2.2	0.0057	2.3	<0.00001	4.6	<0.00005	0.00162	0.00309	0.0118
6-Feb-08	21																				
13-Feb-08	28	2.42	<0.0005	0.00084	0.0137	<0.03	0.000081	0.495	0.0188	<0.00001	0.00268	0.00058	1.77	0.0031	1.65	<0.00001	<2	<0.00005	0.00098	0.00106	0.0194
20-Feb-08	35																				
27-Feb-08	42	2.25	<0.0005	0.0009	0.0305	<0.03	0.000116	0.382	0.0191	<0.00001	0.0015	0.00066	1.5	0.0026	1.22	<0.00001	<2	<0.00005	0.0009	0.00055	0.0264
5-Mar-08	49																				
12-Mar-08	56	2.04	<0.0005	0.00108	0.0622	<0.03	0.000185	0.408	0.0202	<0.00001	0.00137	0.00069	1.23	0.0026	1	<0.00001	<2	<0.00005	0.00185	<0.0005	0.0402
19-Mar-08	63																				
26-Mar-08	70	2.2	<0.0005	0.001	0.162	<0.03	0.00068	0.401	0.018	<0.00001	0.00128	0.00097	1.03	0.0021	0.988	<0.00001	<2	<0.00005	0.0012	<0.0005	0.0441
2-Apr-08	77																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Apr-08	84	2500	2565	6.62	430	21	<1	3.4	2.3	<10	5.94	<0.5	<0.02	6.75	0.0058	0.00789	0.011	0.00292	<0.0002	<0.0005	<0.01	0.000093
16-Apr-08	91	2500	2510	6.44	429	21																
23-Apr-08	98	2500	2540	6.46	449	21	<1	3.3	2.2	26.7	6.17	<0.5	<0.02	7.14	0.0086	0.00927	0.0093	0.00272	<0.0002	<0.0005	<0.01	0.00013
30-Apr-08	105	2500	2620	6.48	409	18																
7-May-08	112	2500	2395	6.79	370	22	<1	4.03	2.2	20.4	7.13	<0.5	<0.02	7.72	0.0066	0.00957	0.00894	0.00317	<0.0002	<0.0005	<0.01	0.000148
14-May-08	119	2500	2595	6.64	333	19																
21-May-08	126	2500	2465	6.79	319	23	<1	4.27	1.9	10.9	6.84	<0.5	<0.02	7.97	0.0066	0.00711	0.00809	0.00323	<0.0002	<0.0005	<0.01	0.000154
28-May-08	133	2500	2475	6.73	353	13																
4-Jun-08	140	2500	2445	7.09	424	18	<1	3.99	2.2	18.3	6.15	<0.5	<0.02	7.01	0.0026	0.00801	0.00871	0.00305	<0.0002	<0.0005	<0.01	0.000161
11-Jun-08	147	2500	2585	6.43	395	18																
18-Jun-08	154	2500	2085	6.74	302	16	<1	5.16	1.7	14.5	7.05	<0.5	<0.02	8.82	0.0065	0.00834	0.00868	0.00338	<0.0002	<0.0005	<0.01	0.000185
25-Jun-08	161	2500	2430	7.23	322	20																
2-Jul-08	168	2500	2550	6.66	395	18	<1	3.76	1.7	14.7	6.75	<0.5	<0.02	8.45	0.0101	0.00856	0.0123	0.0038	<0.0002	<0.0005	<0.01	0.000189
9-Jul-08	175	2500	2485	7.17	357	19																
16-Jul-08	182	2500	2275	6.54	397	19	<1	4.33	1.9	11.3	6.9	<0.5	<0.02	7.99	0.0071	0.00803	0.0117	0.00394	<0.0002	<0.0005	<0.01	0.000218
23-Jul-08	189	2500	2605	6.37	410	17																
30-Jul-08	196	2500	2480	6.12	430	18	<1	3.83	4.5	<10	5.5	<0.5	<0.02	6.65	0.0042	0.00553	0.0106	0.00306	<0.0002	<0.0005	<0.01	0.000168
6-Aug-08	203	2500	2510	6.23	410	17																
13-Aug-08	210	2500	2495	6.24	377	19	<1	4.03	1.6	<10	5.71	<0.5	<0.02	6.69	0.0067	0.00674	0.0114	0.00335	<0.0002	<0.0005	<0.01	0.000192
20-Aug-08	217	2500	2525	6.05	385	19																
27-Aug-08	224	2500	2535	6.04	422	16	<1	4.56	1.4	14.8	5.01	<0.5	<0.02	6.28	0.0063	0.00675	0.0137	0.00324	<0.0002	<0.0005	<0.01	0.000211
3-Sep-08	231	2500	2500	5.63	347	16																
10-Sep-08	238	2500	2475	6.01	384	19	<1	3.78	3.7	12.3	5.38	<0.5	<0.02	6.71	0.0082	0.00701	0.0145	0.0034	<0.0002	<0.0005	<0.01	0.000204
17-Sep-08	245	2500	2560	6.04	377	17																
24-Sep-08	252	2500	2485	6.11	356	17	<1	4.12	1.1	18.1	4.74	<0.5	<0.02	5.81	0.0063	0.00596	0.0127	0.00308	<0.0002	<0.0005	<0.01	0.000192
1-Oct-08	259	2500	2430	6.05	466	16																
8-Oct-08	266	2500	2490	6.4	371	16	<1	4.09	1	30.1	4.73	<0.5	<0.02	5.94	0.0054	0.00589	0.0136	0.00295	<0.0002	<0.0005	<0.01	0.000213
15-Oct-08	273	2500	2565	6.56	430	15																
22-Oct-08	280	2500	2370	5.95	461	14	<1	4.23	<1	17.3	4.35	<0.5	<0.02	5.61	0.0063	0.00612	0.0134	0.00279	<0.0002	<0.0005	<0.01	0.000173
29-Oct-08	287	2500	2450	5.93	471	12																
5-Nov-08	294	2500	2480	6.07	457	13	<1	4.65	1.3	<10	4.34	<0.5	<0.02	5.86	0.0063	0.00623	0.0154	0.00285	<0.0002	<0.0005	<0.01	0.000192
12-Nov-08	301	2500	2480	5.97	460	12																
19-Nov-08	308	2500	2340	5.86	501	10	<1	4.1	1	<10	5.06	<0.5	<0.02	5.79		0.00598	0.0163	0.00292	<0.0002	<0.0005	<0.01	0.000183
26-Nov-08	315	2500	2520	5.87	433	9																
3-Dec-08	322	2500	2435	5.99	411	13	<1	4.48	1.2	10	4.15	<0.5	<0.02	5.35	0.0051	0.00638	0.0177	0.00279	<0.0002	<0.0005	<0.01	0.0002
10-Dec-08	329	2500	2525	6.43	376	11																
17-Dec-08	336	2500	2635	5.44	283	10				<10	3.31	<0.5	<0.02	4.6	0.0057	0.00502	0.0165	0.00226	<0.0002	<0.0005	<0.01	0.000167
24-Dec-08	343	2500	2550	5.64	334	28																
31-Dec-08	350	2500	2530	5.65	283	31	<1	7.43	4.4	16.7	3.47	<0.5	<0.02	4.78	0.006	0.00537	0.0137	0.00251	<0.0002	<0.0005	<0.01	0.000188
7-Jan-09	357	2500	2480	5.81	264	10																
14-Jan-09	364	2500	2470	5.88	384	12	<1	5.02	2	11.3	3.77	<0.5	<0.02	4.84	0.0043	0.00574	0.0151	0.00264	<0.0002	<0.0005	<0.01	0.0002
21-Jan-09	371	2500	2545	5.71	454	11																
28-Jan-09	378	2500	2565	5.92	378	12	<1	5.9	2.3	<10	3.53	<0.5	<0.02	5.05	0.0034	0.00528	0.0158	0.0024	<0.0002	<0.0005	<0.01	0.00019
4-Feb-09	385	2500	2525	5.72	386	18																
11-Feb-09	392	2500	2515	6.1	369	11	<1	6.38	3	<10	3.77	<0.5	<0.02	5.34	0.0059	0.00611	0.0199	0.003	<0.0002	<0.0005	<0.01	0.000217
18-Feb-09	399	2500	2490	6.01	456	11																
25-Feb-09	406	2500	2450	5.67	366	12	<1	6.56	2.6	<10	3.53	<0.5	<0.02	5.01	0.0046	0.00509	0.0158	0.00264	<0.0002	<0.0005	<0.01	0.000205
4-Mar-09	413	2500	2560	6.29	279	11																
11-Mar-09	420	2500	2445	5.6	346	11	<1	4.8	1.3	<10	3.48	<0.5	<0.02	4.91	0.0035	0.00498	0.0162	0.00279	<0.0002	<0.0005	<0.01	0.000208
18-Mar-09	427	2500	2465	5.66	372	11																
25-Mar-09	434	2500	2450	5.87	411	12	<1	6.04	1.8	10.3	3.43	<0.5	<0.02	5.04	0.0054	0.005	0.0168	0.0028	<0.0002	<0.0005	<0.01	0.00021
1-Apr-09	441	2500	2425	5.65	428	13																
8-Apr-09	448	2500	2320	5.72	431	14	<1	5.26	1.1	10.5	3.6	<0.5	<0.02	5.69	0.0053	0.00549	0.0172	0.00296	<0.0002	<0.0005	<0.01	0.000236
15-Apr-09	455	2500	2605	5.65	452	13																
22-Apr-09	462	2500	2490	5.75	423	13																
29-Apr-09	469	2500	2435																			
6-May-09	476	2500	2455	5.58	426	14	<1	5.52	1.2	12.3	3.68	<0.5	<0.02	5.68	0.0047	0.0052	0.0184	0.00392	<0.0002	<0.0005	<0.01	0.000255
13-May-09	483	2500	2495																			
20-May-09	490	2500	2430	5.64	435	15																
27-May-09	497	2500	2465																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Apr-08	84	1.81	<0.0005	0.00098	0.149	<0.03	0.000367	0.348	0.0146	<0.00001	0.000997	0.00058	0.926	0.0021	0.7	<0.00001	<2	<0.00005	0.00093	<0.0005	0.0497
16-Apr-08	91																				
23-Apr-08	98	1.88	<0.0005	0.00109	0.186	<0.03	0.00041	0.355	0.0182	<0.00001	0.000927	0.00075	0.889	0.0022	0.741	<0.00001	<2	<0.00005	0.0002	<0.0005	0.0558
30-Apr-08	105																				
7-May-08	112	2.11	<0.0005	0.00126	0.306	<0.03	0.000474	0.451	0.0197	<0.00001	0.000827	0.00084	0.909	0.0023	0.761	<0.00001	<2	<0.00005	0.00017	<0.0005	0.0733
14-May-08	119																				
21-May-08	126	2.1	<0.0005	0.00122	0.272	<0.03	0.00068	0.385	0.0177	<0.00001	0.000667	0.0009	0.709	0.0022	0.716	<0.00001	<2	<0.00005	0.00015	<0.0005	0.0699
28-May-08	133																				
4-Jun-08	140	1.87	<0.0005	0.00135	0.366	<0.03	0.000419	0.358	0.0178	<0.00001	0.000721	0.00082	0.639	0.0023	0.639	<0.00001	<2	<0.00005	0.00025	<0.0005	0.0787
11-Jun-08	147																				
18-Jun-08	154	2.18	<0.0005	0.00142	0.391	<0.03	0.000494	0.389	0.0183	0.000011	0.000521	0.00099	0.684	0.0025	0.734	0.000011	<2	<0.00005	0.00015	<0.0005	0.0948
25-Jun-08	161																				
2-Jul-08	168	2.06	<0.0005	0.00147	0.435	<0.03	0.000887	0.39	0.019	<0.00001	0.000688	0.00091	0.69	0.0032	0.751	<0.00001	<2	<0.00005	0.0001	<0.0005	0.103
9-Jul-08	175																				
16-Jul-08	182	2.06	<0.0005	0.00158	0.522	<0.03	0.000845	0.428	0.0195	<0.00001	0.000642	0.00112	0.649	0.0033	0.695	<0.00001	<2	<0.00005	0.00013	<0.0005	0.11
23-Jul-08	189																				
30-Jul-08	196	1.67	<0.0005	0.00124	0.435	<0.03	0.000731	0.321	0.0158	<0.00001	0.000424	0.00086	0.449	0.0025	0.505	<0.00001	<2	<0.00005	0.00044	<0.0005	0.0899
6-Aug-08	203																				
13-Aug-08	210	1.73	<0.0005	0.00125	0.438	<0.03	0.000819	0.337	0.0139	<0.00001	0.00044	0.00079	0.423	0.0024	0.541	<0.00001	<2	<0.00005	0.0003	<0.0005	0.091
20-Aug-08	217																				
27-Aug-08	224	1.49	<0.0005	0.0012	0.492	<0.03	0.000863	0.311	0.0135	<0.00001	0.000483	0.00075	0.4	0.0028	0.489	<0.00001	<2	<0.00005	0.00035	<0.0005	0.099
3-Sep-08	231																				
10-Sep-08	238	1.58	<0.0005	0.00128	0.54	<0.03	0.00166	0.347	0.0148	<0.00001	0.000438	0.0008	0.432	0.0028	0.514	<0.00001	<2	<0.00005	0.00036	<0.0005	0.107
17-Sep-08	245																				
24-Sep-08	252	1.44	<0.0005	0.00117	0.501	<0.03	0.000851	0.279	0.0119	<0.00001	0.00038	0.0007	0.329	0.0026	0.453	<0.00001	<2	<0.00005	0.00052	<0.0005	0.0984
1-Oct-08	259																				
8-Oct-08	266	1.45	<0.0005	0.0011	0.574	<0.03	0.000906	0.269	0.0123	<0.00001	0.000376	0.00078	0.317	0.0024	0.43	<0.00001	<2	<0.00005	0.00045	<0.0005	0.11
15-Oct-08	273																				
22-Oct-08	280	1.33	<0.0005	0.00102	0.488	<0.03	0.000879	0.25	0.0114	<0.00001	0.000429	0.00069	0.289	0.0022	0.408	<0.00001	<2	<0.00005	0.00038	<0.0005	0.0931
29-Oct-08	287																				
5-Nov-08	294	1.32	<0.0005	0.00107	0.488	<0.03	0.000943	0.251	0.0113	<0.00001	0.000438	0.00071	0.288	0.0023	0.381	<0.00001	<2	<0.00005	0.00033	<0.0005	0.1
12-Nov-08	301																				
19-Nov-08	308	1.59		0.00099	0.39	<0.03	0.000946	0.267	0.0109	<0.00001	0.000501	0.00072	0.252	0.0025	0.374	<0.00001	<2	<0.00005	0.00035	<0.0005	0.0942
26-Nov-08	315																				
3-Dec-08	322	1.28	<0.0005	0.0011	0.453	<0.03	0.00102	0.232	0.0113	<0.00001	0.000454	0.00067	0.278	0.0025	0.384	<0.00001	<2	<0.00005	0.00026	<0.0005	0.106
10-Dec-08	329																				
17-Dec-08	336	1.01	<0.0005	0.00085	0.327	<0.03	0.000798	0.189	0.0086	<0.00001	0.000399	0.00053	0.21	0.002	0.289	<0.00001	<2	<0.00005	0.00053	<0.0005	0.0888
24-Dec-08	343																				
31-Dec-08	350	1.05	<0.0005	0.00091	0.504	<0.03	0.000882	0.206	0.00942	<0.00001	0.000349	0.00063	0.229	0.0019	0.313	<0.00001	<2	<0.00005	0.00071	<0.0005	0.0967
7-Jan-09	357																				
14-Jan-09	364	1.15	<0.0005	0.00099	0.501	<0.03	0.000983	0.218	0.00951	<0.00001	0.000454	0.00056	0.223	0.0019	0.323	<0.00001	<2	<0.00005	0.00037	<0.0005	0.0984
21-Jan-09	371																				
28-Jan-09	378	1.09	<0.0005	0.00095	0.627	<0.03	0.000897	0.2	0.00929	<0.00001	0.000433	0.00072	0.203	0.002	0.293	<0.00001	<2	<0.00005	0.00039	<0.0005	0.107
4-Feb-09	385																				
11-Feb-09	392	1.14	<0.0005	0.00106	0.729	<0.03	0.00116	0.223	0.0103	<0.00001	0.000454	0.00071	0.268	0.0024	0.353	<0.00001	<2	<0.00005	0.00045	<0.0005	0.114
18-Feb-09	399																				
25-Feb-09	406	1.08	<0.0005	0.00099758	0.742	<0.03	0.00108	0.203	0.00942	<0.00001	0.000368	0.00065	0.219	0.0021	0.307	<0.00001	<2	<0.00005	0.0006	<0.0005	0.11
4-Mar-09	413																				
11-Mar-09	420	1.05	<0.0005	0.00096	0.58	<0.03	0.00103	0.209	0.00974	<0.00001	0.000347	0.00072	0.181	0.0021	0.285	<0.00001	<2	<0.00005	0.00057	<0.0005	0.111
18-Mar-09	427																				
25-Mar-09	434	1.03	<0.0005	0.00098	0.569	<0.03	0.00108	0.209	0.00932	<0.00001	0.000344	0.00067	0.173	0.002	0.296	<0.00001	<2	<0.00005	0.00065	<0.0005	0.111
1-Apr-09	441																				
8-Apr-09	448	1.1	<0.0005	0.00102	0.639	<0.03	0.00119	0.205	0.00947	<0.00001	0.000326	0.00068	0.215	0.002	0.352	<0.00001	<2	<0.00005	0.00043	<0.0005	0.114
15-Apr-09	455																				
22-Apr-09	462																				
29-Apr-09	469																				
6-May-09	476	1.13	<0.0005	0.00105	0.644	<0.03	0.0015	0.212	0.00971	<0.00001	0.000363	0.00064	0.212	0.0023	0.354	<0.00001	<2	<0.00005	0.00037	<0.0005	0.125
13-May-09	483																				
20-May-09	490																				
27-May-09	497																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Jun-09	504	2500	2525	5.58	443	12	<1	5.44	1.1	<10		<0.5	<0.02	6.77								
10-Jun-09	511	2500	2420																			
17-Jun-09	518	2500	2375	5.65	463	15																
24-Jun-09	525	2500	2430																			
1-Jul-09	532	2500	2350	5.63	420	13	<1	5.19	1.3	11.5		<0.5	<0.02	5.76								
8-Jul-09	539	2500	2470																			
15-Jul-09	546	2500	2500	5.17	452	18																
22-Jul-09	553	2500	2495																			
29-Jul-09	560	2500	2515	5.67	374	12	<1	6.98	1.6	<10		<0.5	<0.02	6.35								
5-Aug-09	567	2500	2475																			
12-Aug-09	574	2500	2300	5.83	347	15																
19-Aug-09	581	2500	2520																			
26-Aug-09	588	2500	2485	5.7	319	12	<1	6.16	1.7	16.3		<0.5	0.024	5.83								
2-Sep-09	595	2500	2400																			
9-Sep-09	602	2500	2530	5.4	376	11																
16-Sep-09	609	2500	2460																			
23-Sep-09	616	2500	2495	5.51	399	13	<1	6.58	4.4	11		<0.5	<0.02	5.24								
30-Sep-09	623	2500	2515																			
7-Oct-09	630	2500	2505	5.37	353	11																
14-Oct-09	637	2500	2415																			
21-Oct-09	644	2500	2375	5.15	336	12	<1	6.05	<1	10		<0.5	<0.02	5.63								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Jan-08	0	2500	2120	7.84	469	420	<1	3.69	59.5	323	86.3	3.88	0.761	148	0.0367	0.00195	0.00357	0.00928	<0.0002	<0.0005	<0.01	<0.00005
24-Jan-08	7	2500	2430	7.65	443	248																
31-Jan-08	14	2500	2535	7.66	455	158	<1	3.77	36.9	96.7	38.5	<0.5	0.149	40.5	0.0651	0.00134	0.00223	0.00537	<0.0002	<0.0005	<0.01	<0.00005
7-Feb-08	21	2500	2560	7.71	463	156																
14-Feb-08	28	2500	2665	7.69	454	174	<1	2.86	32.9	107	57.7	<0.5	0.086	50	0.0406	0.00133	0.00098	0.00714	<0.0002	<0.0005	<0.01	<0.00005
21-Feb-08	35	2500	2565	7.69	429	196																
28-Feb-08	42	2500	2500	7.41	435	128	<1	5.21	27.7	78.5	47.6	<0.5	0.034	35.1	0.0287	0.000852	0.0007	0.00546	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-08	49	2500	2490	7.46	428	155																
13-Mar-08	56	2500	2470	7.73	439	149	<1	3.1	35.5	108	63.4	<0.5	0.035	38.4	0.0288	0.00118	0.00103	0.00635	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-08	63	2500	2520	7.58	424	133																
27-Mar-08	70	2500	2510	7.57	440	124	<1	3.21	26.6	80.7	48.8	<0.5	0.021	35.4	0.0322	0.00075	0.00085	0.00422	<0.0002	<0.0005	<0.01	<0.00005
3-Apr-08	77	2500	2400	7.44	429	89																
10-Apr-08	84	2500	2350	7.31	438	128	<1	2.79	20.5	66	48.9	<0.5	0.021	36.6	0.0197	0.000589	0.00056	0.00437	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-08	91	2500	2615	7.3	428	128																
24-Apr-08	98	2500	2390	7.51	414	101	<1	3.5	24.9	64.7	40.2	<0.5	<0.02	25.3	0.0269	0.000703	0.00064	0.00375	<0.0002	<0.0005	<0.01	<0.00005
1-May-08	105	2500	2615	7.67	393	129																
8-May-08	112	2500	2505	7.71	386	110	<1	2.55	27.8	48.8	46.4	<0.5	<0.02	24.4	0.037	0.000719	0.00076	0.00388	<0.0002	<0.0005	<0.01	<0.00005
15-May-08	119	2500	2420	7.7	359	120																
22-May-08	126	2500	2445	7.68	355	116	<1	2.71	27.9	61.9	47.6	<0.5	<0.02	26.9	0.0395	0.000644	0.00062	0.00373	<0.0002	<0.0005	<0.01	<0.00005
29-May-08	133	2500	2440	7.65	382	117																
5-Jun-08	140	2500	2425	7.77	415	95	<1	3.14	30	73.8	46.7	<0.5	<0.02	24.5	0.0348	0.000643	0.00062	0.00375	<0.0002	<0.0005	<0.01	<0.00005
12-Jun-08	147	2500	2445	7.88	398	87																
19-Jun-08	154	2500	2450	7.68	365	80	<1	4.25	29.1	65.5	46.1	<0.5	<0.02	24.2	0.0374	0.000601	0.00062	0.00351	<0.0002	<0.0005	<0.01	<0.00005
26-Jun-08	161	2500	2425	7.73	375	106																
3-Jul-08	168	2500	2365	7.73	382	123	<1	3.25	27.3	67.7	51.4	<0.5	<0.02	27.1	0.0438	0.000671	0.00065	0.00393	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-08	175	2500	2505	7.71	380	107																
17-Jul-08	182	2500	2465	7.68	404	106	<1	2.69	27	58.3	44.1	<0.5	<0.02	21.7	0.0391	0.000516	0.00054	0.00329	<0.0002	<0.0005	<0.01	<0.00005
24-Jul-08	189	2500	2465	7.7	398	107																
31-Jul-08	196	2500	2385	7.67	420	100	<1	2.5	33.9	53	43.3	<0.5	<0.02	21.5	0.0403	0.000484	0.00052	0.0032	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-08	203	2500	2465	7.68	379	91																
14-Aug-08	210	2500	2054	7.66	390	111	<1	2.72	28	57.3	47.1	<0.5	<0.02	23.1	0.033	0.000458	0.00044	0.0034	<0.0002	<0.0005	<0.01	<0.00005
21-Aug-08	217	2500	2575	7.65	321	98																
28-Aug-08	224	2500	2375	7.62	377	97	<1	2.99	29.8	58.4	42.4	<0.5	<0.02	20.3	0.0399	0.00046	0.00045	0.00319	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-08	231	2500	2475	7.62	329	88																
11-Sep-08	238	2500	2480	7.59	329	90	<1	3.29	28.5	48.8	39.8	<0.5	<0.02	18.7	0.0467	0.000383	0.00042	0.00277	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Jun-09	504																				
10-Jun-09	511																				
17-Jun-09	518																				
24-Jun-09	525																				
1-Jul-09	532																				
8-Jul-09	539																				
15-Jul-09	546																				
22-Jul-09	553																				
29-Jul-09	560																				
5-Aug-09	567																				
12-Aug-09	574																				
19-Aug-09	581																				
26-Aug-09	588																				
2-Sep-09	595																				
9-Sep-09	602																				
16-Sep-09	609																				
23-Sep-09	616																				
30-Sep-09	623																				
7-Oct-09	630																				
14-Oct-09	637																				
21-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jan-08	0	24.5	<0.0005	0.00027	0.00921	<0.03	<0.00005	6.1	0.0494	<0.00001	0.0116	0.00076	17.3	0.0121	1.65	0.000013	52.6	0.000077	0.0075	0.00321	<0.001
24-Jan-08	7																				
31-Jan-08	14	11	<0.0005	<0.0001	0.00308	<0.03	<0.00005	2.7	0.037	<0.00001	0.00309	<0.0005	8.9	0.0037	1.64	<0.00001	10.5	<0.00005	0.0103	0.00286	<0.001
7-Feb-08	21																				
14-Feb-08	28	16	<0.0005	0.00015	0.00534	<0.03	<0.00005	4.31	0.0851	<0.00001	0.00814	<0.0005	8.16	0.0026	1.5	<0.00001	5	<0.00005	0.00863	0.00117	<0.001
21-Feb-08	35																				
28-Feb-08	42	14	<0.0005	0.00014	0.00658	<0.03	<0.00005	3.08	0.0768	<0.00001	0.0133	<0.0005	5.25	0.0014	1.05	<0.00001	<2	<0.00005	0.00669	0.00063	<0.001
6-Mar-08	49																				
13-Mar-08	56	17.1	<0.0005	0.00015	0.00369	0.046	<0.00005	4.27	0.1	<0.00001	0.0187	<0.0005	5.54	0.0019	1.51	<0.00001	2	<0.00005	0.00924	0.00073	<0.001
20-Mar-08	63																				
27-Mar-08	70	13.9	<0.0005	<0.0001	0.00293	<0.03	<0.00005	3.46	0.0744	<0.00001	0.0157	<0.0005	4	0.0014	1.07	<0.00001	<2	<0.00005	0.00839	0.00059	<0.001
3-Apr-08	77																				
10-Apr-08	84	13.6	<0.0005	0.00012	0.00388	<0.03		3.63	0.0804	<0.00001	0.0187	<0.0005	3.47	0.0013	0.744	<0.00001	<2	<0.00005	0.00211	<0.0005	<0.001
17-Apr-08	91																				
24-Apr-08	98	11.5	<0.0005	<0.0001	0.00303	<0.03		2.76	0.0638	<0.00001	0.0135	<0.0005	3.16	0.0012	0.982	<0.00001	<2	<0.00005	0.00191	<0.0005	<0.001
1-May-08	105																				
8-May-08	112	12.3	<0.0005	<0.0001	0.00256	<0.03	<0.00005	3.81	0.083	<0.00001	0.0133	<0.0005	3.45	0.0014	0.986	<0.00001	<2	<0.00005	0.00233	<0.0005	<0.001
15-May-08	119																				
22-May-08	126	13.4	<0.0005	<0.0001	0.00277	<0.03	<0.00005	3.43	0.0607	<0.00001	0.0125	<0.0005	2.94	0.0015	0.951	<0.00001	<2	<0.00005	0.00255	<0.0005	0.0011
29-May-08	133																				
5-Jun-08	140	13.1	<0.0005	<0.0001	0.00277	<0.03	<0.00005	3.39	0.0634	<0.00001	0.0128	<0.0005	2.87	0.0012	0.96	<0.00001	<2	<0.00005	0.00324	<0.0005	<0.001
12-Jun-08	147																				
19-Jun-08	154	12.9	<0.0005	<0.0001	0.00223	<0.03	<0.00005	3.38	0.0602	0.000013	0.0121	<0.0005	3.01	0.0014	0.921	<0.00001	<2	<0.00005	0.00293	<0.0005	<0.001
26-Jun-08	161																				
3-Jul-08	168	14.4	<0.0005	<0.0001	0.00193	<0.03	<0.00005	3.76	0.0558	<0.00001	0.0152	<0.0005	3.17	0.0018	1.02	<0.00001	<2	<0.00005	0.00349	0.00057	<0.001
10-Jul-08	175																				
17-Jul-08	182	12.3	<0.0005	<0.0001	0.00215	<0.03	<0.00005	3.24	0.0498	<0.00001	0.0124	<0.0005	2.63	0.0015	0.886	<0.00001	<2	<0.00005	0.00355	<0.0005	<0.001
24-Jul-08	189																				
31-Jul-08	196	12.1	<0.0005	<0.0001	0.00182	<0.03	<0.00005	3.17	0.0446	<0.00001	0.0123	<0.0005	2.42	0.0015	0.826	<0.00001	<2	<0.00005	0.00368	<0.0005	<0.001
7-Aug-08	203																				
14-Aug-08	210	13.2	<0.0005	<0.0001	0.00173	<0.03	<0.00005	3.41	0.0438	<0.00001	0.014	<0.0005	2.33	0.0013	0.792	<0.00001	<2	<0.00005	0.00453	<0.0005	<0.001
21-Aug-08	217																				
28-Aug-08	224	11.8	<0.0005	<0.0001	0.00213	<0.03	<0.00005	3.17	0.0363	<0.00001	0.0132	<0.0005	2.06	0.0013	0.75	<0.00001	<2	<0.00005	0.00455	<0.0005	<0.001
4-Sep-08	231																				
11-Sep-08	238	10.7	<0.0005	<0.0001	0.00165	<0.03	<0.00005	3.16	0.0304	<0.00001	0.0129	<0.0005	2.09	0.0012	0.696	<0.00001	<2	<0.00005	0.00483	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Sep-08	245	2500	2435	7.63	311	88																
25-Sep-08	252	2500	2410	7.64	311	90	<1	3.06	27	45.6	37.2	<0.5	<0.02	17.4	0.0339	0.000324	0.00031	0.00264	<0.0002	<0.0005	<0.01	<0.00005
2-Oct-08	259	2500	2505	7.71	406	86																
9-Oct-08	266	2500	2465	7.64	391	83	<1	3.19	24.5	48.1	35	<0.5	<0.02	15.5	0.0317	0.000296	0.00033	0.0024	<0.0002	<0.0005	<0.01	<0.00005
16-Oct-08	273	2500	2465	7.65	393	81																
23-Oct-08	280	2500	2475	7.53	415	76	<1	3.01	26.4	41	35.3	<0.5	<0.02	15.3	0.0311	0.000285	0.00027	0.0025	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-08	287	2500	2385	7.49	451	77																
6-Nov-08	294	2500	2480	7.42	440	75	<1	4.07	25.9	46.1	34.9	<0.5	<0.02	14.4	0.0265	0.000266	0.00023	0.00223	<0.0002	<0.0005	<0.01	<0.00005
13-Nov-08	301	2500	2420	7.57	437	72																
20-Nov-08	308	2500	2385	7.59	430	66	<1	2.82	28.8	42	36.1	<0.5	<0.02	14.5	0.0317	0.000279	0.00028	0.00258	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-08	315	2500	2400	7.51	376	61																
4-Dec-08	322	2500	2455	7.57	361	69	<1	2.71	28.5	35.6	32.6	<0.5	<0.02	12.9	0.0792	0.000227	0.00021	0.00239	<0.0002	<0.0005	<0.01	<0.00005
11-Dec-08	329	2500	2400	7.55	329	70																
18-Dec-08	336	2500	2370	7.53	367	85	<1	5.27	35.5	44.8	38.8	<0.5	<0.02	14.5	0.0283	0.000303	0.00027	0.00276	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-08	343	2500	2400	7.73	344	74																
1-Jan-09	350	2500	2235	7.89	335	53	<1	9.85	27.5	30.2	26.3	<0.5	<0.02	11.7	0.0232	0.000178	0.00019	0.00196	<0.0002	<0.0005	<0.01	<0.00005
8-Jan-09	357	2500	2360	7.33	377	79																
15-Jan-09	364	2500	2575	7.49	365	73	<1	4.96	31.4	55.3	36.4	<0.5	<0.02	12.3	0.0264	0.000227	0.00018	0.00246	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-09	371	2500	2575	7.49	367	69																
29-Jan-09	378	2500	2525	7.64	388	72	<1	7.58	39.1	40.8	36.2	<0.5	<0.02	11.4	0.0162	0.000191	0.00017	0.00213	<0.0002	<0.0005	<0.01	<0.00005
5-Feb-09	385	2500	2385	6.99	333	94																
12-Feb-09	392	2500	2570	7.54	388	61	<1	2.19	25.7	26.6	28.4	<0.5	<0.02	10.8	0.0127	0.000145	0.00014	0.00187	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-09	399	2500	2460	7.61	347	68																
26-Feb-09	406	2500	2520	7.73	279	61	<1	7.09	27.8	37.8	29.4	<0.5	<0.02	11.3	0.0248	0.000152	0.00016	0.0019	<0.0002	<0.0005	<0.01	<0.00005
5-Mar-09	413	2500	2480	7.39	273	69																
12-Mar-09	420	2500	2450	7.26	345	59	<1	3.8	24.2	27	29	<0.5	<0.02	10.7	0.0169	0.000157	0.00017	0.00206	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-09	427	2500	2530	7.34	363	63																
26-Mar-09	434	2500	2505	7.39	385	57	<1	4.26	21.8	41.3	26.8	<0.5	<0.02	11	0.013	0.000134	0.00018	0.00196	<0.0002	<0.0005	<0.01	<0.00005
2-Apr-09	441	2500	2400	7.3	372	69																
9-Apr-09	448	2500	2405	7.2	374	52	<1	3.51	18.5	35	25.5	<0.5	<0.02	10.4	0.0171	0.000122	0.00015	0.00177	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-09	455	2500	2390	7.19	388	44																
23-Apr-09	462	2500	2105	7.44	382	79																
30-Apr-09	469	2500	2160																			
7-May-09	476	2500	2365	7.46	367	88	<1	2.62	30.6	55.8	42.6	<0.5	<0.02	17.9	0.0202	0.000201	0.00024	0.00303	<0.0002	<0.0005	<0.01	<0.00005
14-May-09	483	2500	2605																			
21-May-09	490	2500	2480	7.32	383	51																
28-May-09	497	2500	2460																			
4-Jun-09	504	2500	2420	7.26	377	31	<1	3.45	11.9	11.1	17.9	<0.5	<0.02	10.1	0.0182	0.000086	0.00014	0.00149	<0.0002	<0.0005	<0.01	<0.00005
11-Jun-09	511	2500	2375																			
18-Jun-09	518	2500	2495	7.36	395	49																
25-Jun-09	525	2500	2490																			
2-Jul-09	532	2500	2365	7.17	340	49	<1	2.56	14.6	31	21	<0.5	<0.02	11.5	0.0066	0.000078	0.00011	0.00151	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-09	539	2500	2565																			
16-Jul-09	546	2500	2570	7.22	381	42																
23-Jul-09	553	2500	2360																			
30-Jul-09	560	2500	2305	7.15	344	37	<1	4.83	12.8	23.9	18.9	<0.5	<0.02	10.2	0.0089	0.000073	0.00013	0.00142	<0.0002	<0.0005	<0.01	<0.00005
6-Aug-09	567	2500	2385																			
13-Aug-09	574	2500	2630	7.4	316	53																
20-Aug-09	581	2500	2430																			
27-Aug-09	588	2500	2315	7.32	297	25	<1	3.84	8.7	21.3	13.1	<0.5	<0.02	7.59	0.0051	<0.00005	<0.0001	0.000914	<0.0002	<0.0005	<0.01	<0.00005
3-Sep-09	595	2500	2410																			
10-Sep-09	602	2500	2360	7.06	337	40																
17-Sep-09	609	2500	2385																			
24-Sep-09	616	2500	2445	7.18	335	54	<1	3.07	15.4	43	26.1	<0.5	<0.02	14.1	0.0062	0.00009981	0.00014	0.00163	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-09	623	2500	2460																			
8-Oct-09	630	2500	2465	7.26	316	51																
15-Oct-09	637	2500	2340																			
22-Oct-09	644	2500	2350	7.29	298	125	<1	3.85	22.4	83	58.3	<0.5	<0.02	42.7	0.0118	0.000156	0.00028	0.00394	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-09	651	2500	2455																			
5-Nov-09	658	2500	2250	7.36	324	54																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Sep-08	245																				
25-Sep-08	252	10.2	<0.0005	<0.0001	0.00158	<0.03	<0.00005	2.82	0.0237	<0.00001	0.0137	<0.0005	1.83	0.0011	0.652	<0.00001	<2	<0.00005	0.00444	<0.0005	<0.001
2-Oct-08	259																				
9-Oct-08	266	9.75	<0.0005	<0.0001	0.00215	<0.03	<0.00005	2.58	0.0204	<0.00001	0.0128	<0.0005	1.69	0.0011	0.585	<0.00001	<2	<0.00005	0.00413	<0.0005	<0.001
16-Oct-08	273																				
23-Oct-08	280	10.1	<0.0005	<0.0001	0.00132	<0.03	<0.00005	2.43	0.0183	<0.00001	0.0131	<0.0005	1.54	<0.001	0.578	<0.00001	<2	<0.00005	0.00522	<0.0005	<0.001
30-Oct-08	287																				
6-Nov-08	294	9.72	<0.0005	<0.0001	0.00137	<0.03	<0.00005	2.59	0.0173	<0.00001	0.0145	<0.0005	1.71	<0.001	0.563	<0.00001	<2	<0.00005	0.00487	<0.0005	<0.001
13-Nov-08	301																				
20-Nov-08	308	10.3	<0.0005	<0.0001	0.00196	<0.03	<0.00005	2.52	0.015	<0.00001	0.0166	<0.0005	1.81	0.001	0.565	<0.00001	<2	<0.00005	0.00506	<0.0005	0.0016
27-Nov-08	315																				
4-Dec-08	322	9.01	<0.0005	<0.0001	0.00178	<0.03	<0.00005	2.46	0.0124	<0.00001	0.0151	<0.0005	1.59	<0.001	0.49	<0.00001	<2	<0.00005	0.00136	<0.0005	<0.001
11-Dec-08	329																				
18-Dec-08	336	11.3	<0.0005	<0.0001	0.00187	<0.03	<0.00005	2.57	0.0408	<0.00001	0.0177	<0.0005	1.91	<0.001	0.608	<0.00001	<2	<0.00005	0.00533	<0.0005	0.0024
25-Dec-08	343																				
1-Jan-09	350	7.25	<0.0005	<0.0001	0.00876	<0.03	<0.00005	2	0.0079	<0.00001	0.0153	<0.0005	1.24	<0.001	0.346	<0.00001	<2	<0.00005	0.00404	<0.0005	0.0017
8-Jan-09	357																				
15-Jan-09	364	9.71	<0.0005	<0.0001	0.00343	<0.03	<0.00005	2.94	0.00847	<0.00001	0.018	<0.0005	1.7	<0.001	0.52	<0.00001	<2	<0.00005	0.00551	<0.0005	<0.001
22-Jan-09	371																				
29-Jan-09	378	9.92	<0.0005	<0.0001	0.00304	<0.03	<0.00005	2.77	0.0072	<0.00001	0.0161	<0.0005	1.41	<0.001	0.466	<0.00001	<2	<0.00005	0.00454	<0.0005	<0.001
5-Feb-09	385																				
12-Feb-09	392	7.47	<0.0005	<0.0001	0.00303	<0.03	0.000099	2.36	0.00412	<0.00001	0.0164	<0.0005	1.11	<0.001	0.307	<0.00001	<2	<0.00005	0.00432	<0.0005	<0.001
19-Feb-09	399																				
26-Feb-09	406	7.71	<0.0005	<0.0001	0.00176	<0.03	<0.00005	2.47	0.00298	<0.00001	0.0171	<0.0005	1.12	<0.001	0.338	<0.00001	<2	<0.00005	0.00425	<0.0005	<0.001
5-Mar-09	413																				
12-Mar-09	420	7.96	<0.0005	<0.0001	0.00334	<0.03	<0.00005	2.23	0.00328	<0.00001	0.0157	<0.0005	1.23	<0.001	0.344	<0.00001	<2	<0.00005	0.00464	<0.0005	0.002
19-Mar-09	427																				
26-Mar-09	434	7.64	<0.0005	<0.0001	0.00183	<0.03	<0.00005	1.89	0.00266	<0.00001	0.0156	<0.0005	1.07	<0.001	0.314	<0.00001	<2	<0.00005	0.00504	<0.0005	<0.001
2-Apr-09	441																				
9-Apr-09	448	6.66	<0.0005	<0.0001	0.00173	<0.03	<0.00005	2.15	0.00253	<0.00001	0.0154	<0.0005	1.02	<0.001	0.293	<0.00001	<2	<0.00005	0.00421	<0.0005	0.0019
16-Apr-09	455																				
23-Apr-09	462																				
30-Apr-09	469																				
7-May-09	476	11.4	<0.0005	<0.0001	0.00412	<0.03	0.000055	3.44	0.00484	<0.00001	0.0248	0.00056	1.76	0.0011	0.457	<0.00001	<2	<0.00005	0.00671	<0.0005	<0.001
14-May-09	483																				
21-May-09	490																				
28-May-09	497																				
4-Jun-09	504	4.73	<0.0005	<0.0001	0.00393	<0.03	0.000051	1.47	0.00461	<0.00001	0.0129	<0.0005	0.898	<0.001	0.212	<0.00001	<2	<0.00005	0.0077	<0.0005	0.0061
11-Jun-09	511																				
18-Jun-09	518																				
25-Jun-09	525																				
2-Jul-09	532	5.81	<0.0005	<0.0001	0.00166	<0.03	<0.00005	1.57	0.00329	<0.00001	0.0123	<0.0005	0.744	<0.001	0.206	<0.00001	<2	<0.00005	0.00551	<0.0005	<0.001
9-Jul-09	539																				
16-Jul-09	546																				
23-Jul-09	553																				
30-Jul-09	560	5.02	<0.0005	<0.0001	0.00265	<0.03	<0.00005	1.54	0.00599	<0.00001	0.0107	<0.0005	0.806	<0.001	0.21	<0.00001	<2	<0.00005		<0.0005	0.0041
6-Aug-09	567																				
13-Aug-09	574																				
20-Aug-09	581																				
27-Aug-09	588	3.38	<0.0005	<0.0001	0.00132	<0.03	<0.00005	1.14	0.00575	<0.00001	0.00582	<0.0005	0.528	<0.001	0.139	<0.00001	<2	<0.00005	0.0158	<0.0005	<0.001
3-Sep-09	595																				
10-Sep-09	602																				
17-Sep-09	609																				
24-Sep-09	616	6.94	<0.0005	<0.0001	0.00147	<0.03	<0.00005	2.13	0.00442	<0.00001	0.0115	<0.0005	0.85	<0.001	0.246	<0.00001	<2	<0.00005	0.0151	<0.0005	<0.001
1-Oct-09	623																				
8-Oct-09	630																				
15-Oct-09	637																				
22-Oct-09	644	16.3	<0.0005	<0.0001	0.00567	<0.03	<0.00005	4.25		<0.00001	0.0146	<0.0005	1.73	0.0011	0.406	<0.00001	<2	<0.00005	0.014	<0.0005	<0.001
29-Oct-09	651																				
5-Nov-09	658																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
12-Nov-09	665	2500	2410																			
19-Nov-09	672	2500	2360	7.21	324	64	<1	6.46	24.9	37	27.6	<0.5	<0.02	9.46	0.0331	0.000146	0.00018	0.00216	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-09	679	2500	2450																			
3-Dec-09	686	2500	2300	7.27	351	83																
10-Dec-09	693	2500	2330																			
17-Dec-09	700	2500	2625	7.58	334	69	<1	2.77	28.4	38	32.3	<0.5	<0.02	9.46	0.0402	0.000168	0.0002	0.00235	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-09	707	2500	2550																			
31-Dec-09	714	2500	2385	7.23	386	76																
7-Jan-10	721	2500	2505																			
14-Jan-10	728	2500	2295	7.27	317	85	<1	5.75	31.8	59	39.2	<0.5	<0.02	15.9	0.0248	0.00017	0.00019	0.00269	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-10	735	2500	2500																			
28-Jan-10	742	2500	2625	7.09	322	57																
4-Feb-10	749	2500	2580																			
11-Feb-10	756	2500	2525	6.99	318	65	<1	3.88	24.2	41	30.9	<0.5	0.028	12.2	0.0159	0.00012	0.00029	0.00232	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-10	763	2500	2480																			
25-Feb-10	770	2500	2515	7.16	338	67																
4-Mar-10	777	2500	2450																			
11-Mar-10	784	2500	2245	7.23	386	75	<1	3.89	28.3	52	36.4	<0.5	<0.02	14.1	0.0245	0.000127	0.00012	0.00263	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-10	791	2500	2555																			
25-Mar-10	798	2500	2395	7.13	354	45																
1-Apr-10	805	2500	2545																			
8-Apr-10	812	2500	2425	7.18	342	62	<1	3.44	22.4	33	29.3	<0.5	<0.02	11.7	0.0146	0.00008	0.0001	0.00207	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-10	819	2500	2465																			
22-Apr-10	826	2500	2460	7.22	308	72																
29-Apr-10	833	2500	2445																			
6-May-10	840	2500	2405	7.11	332	60	<1	3.98	21.5	45	30	<0.5	<0.02	11.7	0.0141	0.000094	0.00013	0.00197	<0.0002	<0.0005	<0.01	<0.00005
13-May-10	847	2500	2420																			
20-May-10	854	2500	2430	7.24	352	70																
27-May-10	861	2500	2430																			
3-Jun-10	868	2500	2395	7.08	318	30	<1	2.33	11.8	17	15	<0.5	<0.02	4.72	0.0226	0.000063	0.0001	0.00108	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-10	875	2500	2490																			
17-Jun-10	882	2500	2490	7.29	298	72																
24-Jun-10	889	2500	2415																			
1-Jul-10	896	2500	2470	7.21	380	73	<1	2.88	21.5	54	35.4	<0.5	<0.02	18.1	0.0162	0.0001	0.00015	0.00206	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-10	903	2500	2365																			
15-Jul-10	910	2500	2415	7.06	317	69																
22-Jul-10	917	2500	2510																			
29-Jul-10	924	2500	2530	7.17	322	64	<1	5.19	17.1	34	29.9	<0.5	<0.02	17.5	0.0173	0.000073	0.00012	0.00191	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-10	931	2500	2500																			
12-Aug-10	938	2500	2545	7.27	302	62																
19-Aug-10	945	2500	2465																			
26-Aug-10	952	2500	2525	7.22	371	63	<1	3.2	17.6	36	29.4	<0.5	<0.02	15.4	0.0162	0.000086	0.00013	0.00229	<0.0002	<0.0005	<0.01	<0.00005
2-Sep-10	959	2500	2490																			
9-Sep-10	966	2500	2455	7.03	361	63																
16-Sep-10	973	2500	2510																			
23-Sep-10	980	2500	2470	7.19	332	52	<1	3.35	17.3	39	30.4	<0.5	<0.02	16	0.0169	0.000071	<0.0001	0.0028	<0.0002	<0.0005	<0.01	<0.00005
30-Sep-10	987	2500	2465																			
7-Oct-10	994	2500	2480	7.06	332	66																
14-Oct-10	1001	2500	2455																			
21-Oct-10	1008	2500	2430	7.09	425	66	<1	3.87	20.6	44	30.7	<0.5	<0.02	15.7	0.0129	0.000065	0.00014	0.0021	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-10	1015	2500	2495																			
4-Nov-10	1022	2500	2465	7.33	309	57																
11-Nov-10	1029	2500	2525																			
18-Nov-10	1036	2500	2360	7.31	277	65	<1	3	21.2	37	29.6	<0.5	<0.02	14.7	0.0182	0.000069	<0.0001	0.00186	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-10	1043	2500	2220																			
2-Dec-10	1050	2500	2375	7.26	359	90																
9-Dec-10	1057	2500	2390																			
16-Dec-10	1064	2500	2440	7.15	345	65	<1	4.5	22.3	49	30.6	<0.5	<0.02	15.5	0.0107	0.000079	0.00013	0.00213	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-10	1071	2500	2560																			
30-Dec-10	1078	2500	2520	7.15	304	54																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
12-Nov-09	665																				
19-Nov-09	672	7.33	<0.0005	<0.0001	0.00137	<0.03	<0.00005	2.26	0.00584	<0.00001	0.00918	<0.0005	1.19	<0.001	0.423	<0.00001	<2	<0.00005	0.00966	<0.0005	<0.001
26-Nov-09	679																				
3-Dec-09	686																				
10-Dec-09	693																				
17-Dec-09	700	8.67	<0.0005	<0.0001	0.00105	<0.03	<0.00005	2.58	0.00397	<0.00001	0.00934	<0.0005	1.4	<0.001	0.525	<0.00001	<2	<0.00005	0.0185	<0.0005	<0.001
24-Dec-09	707																				
31-Dec-09	714																				
7-Jan-10	721																				
14-Jan-10	728	10.7	<0.0005	<0.0001	0.00197	<0.03	<0.00005	3.04	0.00257	<0.00001	0.0119	<0.0005	1.45	<0.001	0.534	<0.00001	<2	<0.00005	0.0224	<0.0005	<0.001
21-Jan-10	735																				
28-Jan-10	742																				
4-Feb-10	749																				
11-Feb-10	756	8.21	<0.0005	<0.0001	0.00206	<0.03	0.000067	2.53	0.00165	<0.00001	0.00938	<0.0005	1.17	<0.001	0.404	<0.00001	<2	<0.00005	0.0141	<0.0005	<0.001
18-Feb-10	763																				
25-Feb-10	770																				
4-Mar-10	777																				
11-Mar-10	784	9.47	<0.0005	<0.0001	0.00107	<0.03	<0.00005	3.09	0.000967	<0.00001	0.0116	<0.0005	1.37	<0.001	0.421	<0.00001	<2	<0.00005	0.0137	<0.0005	<0.001
18-Mar-10	791																				
25-Mar-10	798																				
1-Apr-10	805																				
8-Apr-10	812	7.65	<0.0005	<0.0001	0.00156	<0.03	<0.00005	2.49	0.00187	<0.00001	0.00766	<0.0005	1.1	<0.001	0.347	<0.00001	<2	<0.00005	0.0109	<0.0005	<0.001
15-Apr-10	819																				
22-Apr-10	826																				
29-Apr-10	833																				
6-May-10	840	7.92	<0.0005	<0.0001	0.00111	<0.03	<0.00005	2.49	0.000983	<0.00001	0.00753	<0.0005	1.17	<0.001	0.343	<0.00001	<2	<0.00005	0.0114	<0.0005	<0.001
13-May-10	847																				
20-May-10	854																				
27-May-10	861																				
3-Jun-10	868	3.76	<0.0005	<0.0001	0.00116	<0.03	<0.00005	1.36	0.000967	<0.00001	0.00446	<0.0005	0.78	<0.001	0.243	<0.00001	<2	<0.00005	0.00796	<0.0005	<0.001
10-Jun-10	875																				
17-Jun-10	882																				
24-Jun-10	889																				
1-Jul-10	896	9.24	<0.0005	<0.0001	0.00131	<0.03	<0.00005	3	0.000967	<0.00001	0.00814	<0.0005	1.32	<0.001	0.403	<0.00001	<2	<0.00005	0.00744	<0.0005	<0.001
8-Jul-10	903																				
15-Jul-10	910																				
22-Jul-10	917																				
29-Jul-10	924	7.87	<0.0005	<0.0001	0.0009	<0.03	0.000082	2.49	0.000731	<0.00001	0.00726	<0.0005	1.17	<0.001	0.356	<0.00001	<2	<0.00005	0.00661	<0.0005	<0.001
5-Aug-10	931																				
12-Aug-10	938																				
19-Aug-10	945																				
26-Aug-10	952	7.61	<0.0005	<0.0001	0.0012	<0.03	<0.00005	2.53	0.000792	<0.00001	0.00628	<0.0005	1.31	<0.001	0.372	<0.00001	<2	<0.00005	0.00475	<0.0005	<0.001
2-Sep-10	959																				
9-Sep-10	966																				
16-Sep-10	973																				
23-Sep-10	980	7.73	<0.0005	<0.0001	0.00159	<0.03	<0.00005	2.69	0.000846	<0.00001	0.00548	<0.0005	1.16	<0.001	0.34	<0.00001	<2	<0.00005	0.00509	<0.0005	<0.001
30-Sep-10	987																				
7-Oct-10	994																				
14-Oct-10	1001																				
21-Oct-10	1008	7.92	<0.0005	<0.0001	0.00166	<0.03	<0.00005	2.66	0.000814	<0.00001	0.00569	<0.0005	1.17	<0.001	0.364	<0.00001	<2	<0.00005	0.00424	<0.0005	<0.001
28-Oct-10	1015																				
4-Nov-10	1022																				
11-Nov-10	1029																				
18-Nov-10	1036	7.62	<0.0005	<0.0001	0.00144	<0.03	<0.00005	2.56	0.00117	<0.00001	0.00563	<0.0005	1.22	<0.001	0.386	<0.00001	<2	<0.00005	0.00304	<0.0005	0.0013
25-Nov-10	1043																				
2-Dec-10	1050																				
9-Dec-10	1057																				
16-Dec-10	1064	8.03	<0.0005	<0.0001	0.00166	<0.03	0.000266	2.57	0.00136	<0.00001	0.0052	<0.0005	1.23	<0.001	0.384	<0.00001	<2	<0.00005	0.00202	<0.0005	0.0015
23-Dec-10	1071																				
30-Dec-10	1078																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
6-Jan-11	1085	2500	2500																			
13-Jan-11	1092	2500	2545	7.17	347	50	<1	4.42	17.7	52	26.6	<0.5	<0.02	14.3	0.0115	0.000067	<0.0001	0.00201	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-11	1099	2500	2520																			
27-Jan-11	1106	2500	2400	7.09	304	54																
3-Feb-11	1113	2500	2425																			
10-Feb-11	1120	2500	2260	7.09	347	56	<1	3.5	15.8	43	30.2	<0.5	<0.02	18.2	0.0102	0.000059	<0.0001	0.00236	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-11	1127	2500	2280																			
24-Feb-11	1134	2500	2260	7.1	309	68																
3-Mar-11	1141	2500	2535																			
10-Mar-11	1148	2500	2485	7.1	313	67	<1	3.67	17.3	37	28.9	<0.5	<0.02	16.1	0.0144	0.000059	<0.0001	0.00221	<0.0002	<0.0005	<0.01	<0.00005
17-Mar-11	1155	2500	2545																			
24-Mar-11	1162	2500	2465	7.16	305	59																
31-Mar-11	1169	2500	2495																			
7-Apr-11	1176	2500	2385	7.07	248	54	<1	4.96	14.5	31	23.2	<0.5	<0.02	13.2	0.0124	0.00005	0.00013	0.00179	<0.0002	<0.0005	<0.01	<0.00005
14-Apr-11	1183	2500	2520																			
21-Apr-11	1190	2500	2495	7.15	277	58																
28-Apr-11	1197	2500	2415																			
5-May-11	1204	2500	2485	7.13	358	62	<1	2.99	15.1	43	27.2	<0.5	<0.02	16.4	0.0099	0.000094	0.00047	0.00205	<0.0002	<0.0005	<0.01	<0.00005
12-May-11	1211	2500	2515																			
19-May-11	1218	2500	2480	7.29	362	71																
26-May-11	1225	2500	2420																			
2-Jun-11	1232	2500	2520	7.3	247	64	<1	5.81	15.3	40	28.2	<0.5	<0.02	17.9	0.0214	0.000054	<0.0001	0.00223	<0.0002	<0.0005	<0.01	<0.00005
9-Jun-11	1239	2500	2550																			
16-Jun-11	1246	2500	2540	7.36	236	65																
23-Jun-11	1253	2500	2510																			
30-Jun-11	1260	2500	2460	7.38	231	64	<1	3.99	14.7	33	28.1	<0.5	<0.02	18.5	0.0157	<0.00005	<0.0001	0.00201	<0.0002	<0.0005	<0.01	<0.00005
7-Jul-11	1267	2500	2425																			
14-Jul-11	1274	2500	2595	7.23	286	64																
21-Jul-11	1281	2500	2545																			
28-Jul-11	1288	2500	2525	7.32	295	60	<1	5.46	12.1	30	26.6	<0.5	0.022	17.8	0.0223	<0.00005	0.00011	0.00206	<0.0002	<0.0005	<0.01	<0.00005
4-Aug-11	1295	2500	2535																			
11-Aug-11	1302	2500	2505	7.3	206	62																
18-Aug-11	1309	2500	2380																			
25-Aug-11	1316	2500	2550	7.24	238	58	<1	5.54	11.1	37	23.6	<0.5	<0.02	18.2	0.0203	<0.00005	<0.0001	0.00203	<0.0002	<0.0005	<0.01	<0.00005
1-Sep-11	1323	2500	2490																			
8-Sep-11	1330	2500	2510	7.22	241	60																
15-Sep-11	1337	2500	2315																			
22-Sep-11	1344	2500	2435	7.02	301	63	<1	3.72	10.9	30	26.6	<0.5	0.024	19.8	0.0228	<0.00005	<0.0001	0.00255	<0.0002	<0.0005	<0.01	<0.00005
29-Sep-11	1351	2500	2525																			
6-Oct-11	1358	2500	2385	7.09	276	63																
13-Oct-11	1365	2500	2470																			
20-Oct-11	1372	2500	2470	7.18	267	54	<1	4.24	9.6	26	22.7	<0.5	0.025	16.3	0.0247	<0.00005	<0.0001	0.00193	<0.0002	<0.0005	<0.01	<0.00005
27-Oct-11	1379	2500	2555																			
3-Nov-11	1386	2500	2480	7.37	261	42																
10-Nov-11	1393	2500	2515																			
17-Nov-11	1400	2500	2450	7	280	39	<1	3.97	5.3	16	15.6	<0.5	<0.02	13.1	0.0093	<0.00005	<0.0001	0.00139	<0.0002	<0.0005	<0.01	<0.00005
24-Nov-11	1407	2500	2465																			
1-Dec-11	1414	2500	2475	7.14	332	40																
8-Dec-11	1421	2500	2500																			
15-Dec-11	1428	2500	2530	7.13	322	40	<1	5.13	4.3	20	15.9	<0.5	<0.02	13.7	0.0104	<0.00005	<0.0001	0.00134	<0.0002	<0.0005	<0.01	<0.00005
22-Dec-11	1435	2500	2570																			
29-Dec-11	1442	2500	2430	7.55	328	45																
5-Jan-12	1449	2500	2595																			
12-Jan-12	1456	2500	2580	7.1	382	28	<1	4.39	3.6	14	11	<0.5	<0.02	9.6	0.0088	<0.00005	<0.0001	0.00114	<0.0002	<0.0005	<0.01	<0.00005
19-Jan-12	1463	2500	2550																			
26-Jan-12	1470	2500	2420	6.9	366	70																
2-Feb-12	1477	2500	2535																			
9-Feb-12	1484	2500	2525	7.29	419	65	<1	5.83	11.1	38	25.3	<0.5	0.029	21.3	0.0189	<0.00005	0.00028	0.00221	<0.0002	<0.0005	<0.01	<0.00005
16-Feb-12	1491	2500	2405																			
23-Feb-12	1498	2500	2565	7.01	360	41																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
6-Jan-11	1085																				
13-Jan-11	1092	7.16	<0.0005	<0.0001	0.00193	<0.03	<0.00005	2.11	0.00401	<0.00001	0.00408	<0.0005	1.03	<0.001	0.348	<0.00001	<2	<0.00005	0.00177	<0.0005	0.0023
20-Jan-11	1099																				
27-Jan-11	1106																				
3-Feb-11	1113																				
10-Feb-11	1120	7.95	<0.0005	<0.0001		<0.03	0.000152	2.51	0.00766	<0.00001	0.00453	<0.0005	1.17	<0.001	0.358	<0.00001	<2	<0.00005	0.00215	<0.0005	<0.001
17-Feb-11	1127																				
24-Feb-11	1134																				
3-Mar-11	1141																				
10-Mar-11	1148	7.48	<0.0005	<0.0001	0.00329	<0.03	<0.00005	2.48	0.00469	<0.00001	0.004	<0.0005	1.17	<0.001	0.414	<0.00001	<2	<0.00005	0.0019	<0.0005	<0.001
17-Mar-11	1155																				
24-Mar-11	1162																				
31-Mar-11	1169																				
7-Apr-11	1176	6.01	<0.0005	<0.0001	0.00233	<0.03	<0.00005	1.99	0.00218	<0.00001	0.00299	<0.0005	0.986	<0.001	0.334	<0.00001	<2	<0.00005	0.00144	<0.0005	<0.001
14-Apr-11	1183																				
21-Apr-11	1190																				
28-Apr-11	1197																				
5-May-11	1204	7.08	<0.0005	<0.0001	0.00347	<0.03	<0.00005	2.3	0.0109	<0.00001	0.00314	<0.0005	1.1	<0.001	0.393	<0.00001	<2	<0.00005	0.00122	<0.0005	<0.001
12-May-11	1211																				
19-May-11	1218																				
26-May-11	1225																				
2-Jun-11	1232	7.23	<0.0005	0.00011	0.00888	<0.03	<0.00005	2.45	0.0155	<0.00001	0.00337	<0.0005	1.21	<0.001	0.434	<0.00001	<2	<0.00005	0.00101	<0.0005	<0.001
9-Jun-11	1239																				
16-Jun-11	1246																				
23-Jun-11	1253																				
30-Jun-11	1260	7.18	<0.0005	<0.0001	0.00477	<0.03	<0.00005	2.47	0.00665	<0.00001	0.00341	<0.0005	1.23	<0.001	0.462	<0.00001	<2	<0.00005	0.0012	<0.0005	<0.001
7-Jul-11	1267																				
14-Jul-11	1274																				
21-Jul-11	1281																				
28-Jul-11	1288	6.8	<0.0005	0.0001	0.0118	<0.03	<0.00005	2.34	0.0118	<0.00001	0.00266	<0.0005	1.19	<0.001	0.441	<0.00001	<2	<0.00005	0.00103	<0.0005	<0.001
4-Aug-11	1295																				
11-Aug-11	1302																				
18-Aug-11	1309																				
25-Aug-11	1316	6.06	<0.0005	<0.0001	0.0117	<0.03	<0.00005	2.05	0.00768	<0.00001	0.00229	<0.0005	0.991	<0.001	0.401	<0.00001	<2	<0.00005	0.00121	<0.0005	<0.001
1-Sep-11	1323																				
8-Sep-11	1330																				
15-Sep-11	1337																				
22-Sep-11	1344	6.85	<0.0005	0.0001	0.0123	<0.03	<0.00005	2.31	0.00867	<0.00001	0.0022	<0.0005	1.11	<0.001	0.439	<0.00001	<2	<0.00005	0.00091	<0.0005	<0.001
29-Sep-11	1351																				
6-Oct-11	1358																				
13-Oct-11	1365																				
20-Oct-11	1372	5.78	<0.0005	0.00012	0.0114	<0.03	<0.00005	2	0.00759	<0.00001	0.00195	<0.0005	1.09	<0.001	0.415	<0.00001	<2	<0.00005	0.00085	<0.0005	<0.001
27-Oct-11	1379																				
3-Nov-11	1386																				
10-Nov-11	1393																				
17-Nov-11	1400	4.02	<0.0005	<0.0001	0.0188	<0.03	<0.00005	1.36	0.00491	<0.00001	0.00081	<0.0005	0.561	<0.001	0.152	<0.00001	<2	<0.00005	0.00122	<0.0005	<0.001
24-Nov-11	1407																				
1-Dec-11	1414																				
8-Dec-11	1421																				
15-Dec-11	1428	4.08	<0.0005	<0.0001	0.0185	<0.03	<0.00005	1.39	0.00496	<0.00001	0.00071	<0.0005	0.542	<0.001	0.145	<0.00001	<2	<0.00005	0.00138	<0.0005	<0.001
22-Dec-11	1435																				
29-Dec-11	1442																				
5-Jan-12	1449																				
12-Jan-12	1456	2.81	<0.0005	0.0001	0.019	<0.03	<0.00005	0.976	0.00524	<0.00001	0.000569	<0.0005	0.409	<0.001	0.116	<0.00001	<2	<0.00005	0.0013	<0.0005	<0.001
19-Jan-12	1463																				
26-Jan-12	1470																				
2-Feb-12	1477																				
9-Feb-12	1484	6.59	<0.0005	0.00014	0.014	<0.03	<0.00005	2.15	0.00686	<0.00001	0.00191	<0.0005	1.07	<0.001	0.409	0.00001	<2	<0.00005	0.00072	<0.0005	<0.001
16-Feb-12	1491																				
23-Feb-12	1498																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
1-Mar-12	1505	2500	2505																			
8-Mar-12	1512	2500	2495	7.21	379	41	<1	6.05	5.6	20	16.4	<0.5	<0.02	13.2	0.0173	<0.00005	<0.0001	0.00157	<0.0002	<0.0005	<0.01	<0.00005
15-Mar-12	1519	2500	2545																			
22-Mar-12	1526	2500	2495	6.69	400	41																
29-Mar-12	1533	2500	2480																			
5-Apr-12	1540	2500	2435	6.84	460	32	<1	4.83	3.7	18	12.7	<0.5	<0.02	11.4	0.0101	<0.00005	<0.0001	0.00125	<0.0002	<0.0005	<0.01	<0.00005
12-Apr-12	1547	2500	2490																			
19-Apr-12	1554	2500	2520	7.03	311	45																
26-Apr-12	1561	2500	2495																			
3-May-12	1568	2500	2480	7.41	368	53	<1	6.66	7	32	20.8	<0.5	0.023	17.3	0.0147	<0.00005	<0.0001	0.00192	<0.0002	<0.0005	<0.01	<0.00005
10-May-12	1575	2500	2380																			
17-May-12	1582	2500	2480	6.81	326	55																
24-May-12	1589	2500	2505																			
31-May-12	1596	2500	2485	7.32	362	50	<1	6.13	6.3	28	19.9	<0.5	0.026	17.2	0.0184	<0.00005	0.0001	0.00173	<0.0002	<0.0005	<0.01	<0.00005
7-Jun-12	1603	2500	2500																			
14-Jun-12	1610	2500	2535	7.11	403	51																
21-Jun-12	1617	2500	2515																			
28-Jun-12	1624	2500	2540	7.15	340	27	<1	6.52	3.6	18	10.8	<0.5	<0.02	9.53	0.0081	<0.00005	<0.0001	0.00105	<0.0002	<0.0005	<0.01	0.000188
5-Jul-12	1631	2500	2590																			
12-Jul-12	1638	2500	2540	6.84	415	33																
19-Jul-12	1645	2500	2500																			
26-Jul-12	1652	2500	2470	7.09	334	34	<1	5.1	2.9	20	12.7	<0.5	<0.02	12.3	0.0089	<0.00005	0.00011	0.00134	<0.0002	<0.0005	<0.01	<0.00005
2-Aug-12	1659	2500	2525																			
9-Aug-12	1666	2500	2465	6.61	310	91																
16-Aug-12	1673	2500	2495																			
23-Aug-12	1680	2500	2500	7.37	320	26	<1	6.7	3.3	14	10.3	<0.5	<0.02	9.91	0.0045	<0.00005	<0.0001	0.00106	<0.0002	<0.0005	<0.01	<0.00005
30-Aug-12	1687	2500	2450																			
6-Sep-12	1694	2500	2535	6.79	407	60																
13-Sep-12	1701	2500	2490																			
20-Sep-12	1708	2500	2480	7.2	385	69	<1	6.15	6	39	24.6	<0.5	0.045	24.6	0.0126	<0.00005	<0.0001	0.00262	<0.0002	<0.0005	<0.01	<0.00005
27-Sep-12	1715	2500	2525																			
4-Oct-12	1722	2500	2450	7.16	389	53																
11-Oct-12	1729	2500	2525																			
18-Oct-12	1736	2500	2500	6.52	365	53	<1	5.22	5.7	29	19.4	<0.5	0.048	17.2	0.0149	<0.00005	0.00012	0.0017	<0.0002	<0.0005	<0.01	<0.00005
25-Oct-12	1743	2500	2420																			
1-Nov-12	1750	2500	2575	6.86	401	54																
8-Nov-12	1757	2500	2570																			
15-Nov-12	1764	2500	2485	7.59	371	48	<1	9.77	11.1	31	19	<0.5	0.042	16.3	0.0096	<0.00005	<0.0001	0.0017	<0.0002	<0.0005	<0.01	<0.00005
22-Nov-12	1771	2500	2265																			
29-Nov-12	1778	2500	2445	7.44	393	56																
6-Dec-12	1785	2500	2260																			
13-Dec-12	1792	2500	2405	7.49	336	53	<1	5.76	6.3	36	19.4	<0.5	0.036	17.3	0.0175	<0.00005	<0.0001	0.00138	<0.0002	<0.0005	<0.01	<0.00005
20-Dec-12	1799	2500	2545																			
27-Dec-12	1806	2500	2370	7.55	345	52																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-08	0	2500	2020	7.64	406	509	<1	4.44	51.8	403	127	6.35	0.605	215	0.0401	0.00644	0.011	0.0107	<0.0004	<0.001	<0.02	<0.0001
22-Jan-08	7	2500	2420	7.42	477	508																
29-Jan-08	14	2500	2340	7.24	464	139	<1	4.75	29	77.7	26.7	<0.5	0.139	37.5	0.0449	0.00549	0.0106	0.00522	<0.0002	<0.0005	<0.01	<0.00005
5-Feb-08	21	2500	2695	7.14	468	105																
12-Feb-08	28	2500	2565	6.94	415	86	<1	5.25	18	55.3	22.6	<0.5	0.058	22.4	0.0473	0.00382	0.0048	0.00565	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-08	35	2500	2495	6.92	414	91																
26-Feb-08	42	2500	2510	6.84	419	80	<1	4.1	12.4	55	23.1	<0.5	0.033	23.7	0.024	0.00335	0.00279	0.00608	<0.0002	<0.0005	<0.01	<0.00005
4-Mar-08	49	2500	2575	6.76	433	54																
11-Mar-08	56	2500	2520	6.8	427	61	<1	3.43	8.7	48.8	18	<0.5	0.026	18.8	0.0176	0.003	0.00248	0.0044	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-08	63	2500	2540	6.71	424	64																
25-Mar-08	70	2500	2495	6.65	415	59	<1	3.41	8.3	44.7	17	<0.5	0.023	17.5	0.0172	0.00282	0.00206	0.0047	<0.0002	<0.0005	<0.01	<0.00005
1-Apr-08	77	2500	2490	6.7	435	49																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
1-Mar-12	1505																				
8-Mar-12	1512	4.32	<0.0005	0.00012	0.0142	<0.03	0.000156	1.38	0.00733	<0.00001	0.001	<0.0005	0.578	<0.001	0.214	<0.00001	<2	<0.00005	0.00111	<0.0005	<0.001
15-Mar-12	1519																				
22-Mar-12	1526																				
29-Mar-12	1533																				
5-Apr-12	1540	3.16	<0.0005	<0.0001	0.012	<0.03	0.000124	1.18	0.00426	<0.00001	0.000648	<0.0005	0.53	<0.001	0.155	<0.00001	<2	<0.00005	0.00112	<0.0005	0.0022
12-Apr-12	1547																				
19-Apr-12	1554																				
26-Apr-12	1561																				
3-May-12	1568	5.24	<0.0005	0.00013	0.0142	<0.03	<0.00005	1.87	0.00695	<0.00001	0.00142	<0.0005	0.864	<0.001	0.336	<0.00001	<2	<0.00005	0.00074	<0.0005	<0.001
10-May-12	1575																				
17-May-12	1582																				
24-May-12	1589																				
31-May-12	1596	5.09	<0.0005	0.00012	0.0138	<0.03	0.000618	1.75	0.00604	<0.00001	0.0013	<0.0005	0.861	<0.001	0.366	<0.00001	<2	<0.00005	0.00058	<0.0005	<0.001
7-Jun-12	1603																				
14-Jun-12	1610																				
21-Jun-12	1617																				
28-Jun-12	1624	2.77	<0.0005	0.00012	0.0195	<0.03	0.000887	0.938	0.00499	<0.00001	0.000495	<0.0005	0.441	<0.001	0.153	<0.00001	<2	<0.00005	0.00098	<0.0005	0.0024
5-Jul-12	1631																				
12-Jul-12	1638																				
19-Jul-12	1645																				
26-Jul-12	1652	3.22	<0.0005	0.00013	0.0221	<0.03	<0.00005	1.13	0.00721	<0.00001	0.000359	<0.0005	0.542	<0.001	0.154	<0.00001	<2	<0.00005	0.00093	<0.0005	0.0011
2-Aug-12	1659																				
9-Aug-12	1666																				
16-Aug-12	1673																				
23-Aug-12	1680	2.61	<0.0005	0.00011	0.0208	<0.03	<0.00005	0.913	0.0065	<0.00001	0.000202	<0.0005	0.346	<0.001	0.113	<0.00001	<2	<0.00005	0.00096	<0.0005	<0.001
30-Aug-12	1687																				
6-Sep-12	1694																				
13-Sep-12	1701																				
20-Sep-12	1708	6.11	<0.0005	0.00015	0.0159	<0.03	0.000204	2.26	0.0114	<0.00001	0.00124	<0.0005	1.12	<0.001	0.566	<0.00001	<2	<0.00005	0.00035	<0.0005	<0.001
27-Sep-12	1715																				
4-Oct-12	1722																				
11-Oct-12	1729																				
18-Oct-12	1736	4.95	<0.0005	0.00015	0.0162	<0.03	0.000067	1.71	0.00985	<0.00001	0.00113	<0.0005	0.98	<0.001	0.5	<0.00001	<2	<0.00005	0.00025	<0.0005	<0.001
25-Oct-12	1743																				
1-Nov-12	1750																				
8-Nov-12	1757																				
15-Nov-12	1764	4.75	<0.0005	0.0001	0.00872	<0.03	<0.00005	1.73	0.00664	<0.00001	0.00136	<0.0005	1.01	<0.001	0.49	<0.00001	<2	<0.00005	0.00024	<0.0005	0.0011
22-Nov-12	1771																				
29-Nov-12	1778																				
6-Dec-12	1785																				
13-Dec-12	1792	4.95	<0.0005	<0.0001	0.00895	<0.03	<0.00005	1.7	0.00787	<0.00001	0.00131	<0.0005	0.982	<0.001	0.503	<0.00001	<2	<0.00005	0.00013	<0.0005	<0.001
20-Dec-12	1799																				
27-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-08	0	38.5	<0.001	0.00651	0.0733	<0.03	<0.0001	7.44	0.0893	0.00004	0.0204	0.0051	18.4	0.022	3.39	0.000021	65	0.00014	0.00046	0.0198	0.0027
22-Jan-08	7																				
29-Jan-08	14	8.48	<0.0005	0.00047	0.00625	<0.03	<0.00005	1.34	0.0189	<0.00001	0.00526	<0.0005	7.02	0.0032	3	<0.00001	11.8	0.000058	0.00058	0.018	<0.001
5-Feb-08	21																				
12-Feb-08	28	7.15	<0.0005	0.00034	0.00428	<0.03	<0.00005	1.14	0.0202	<0.00001	0.00384	<0.0005	5.18	0.0018	2.4	<0.00001	3.7	<0.00005	0.00052	0.00796	0.0024
19-Feb-08	35																				
26-Feb-08	42	7.46	<0.0005	0.00044	0.0044	<0.03	<0.00005	1.08	0.0262	<0.00001	0.00766	<0.0005	4.92	0.0015	2.02	<0.00001	2	<0.00005	0.00074	0.00465	<0.001
4-Mar-08	49																				
11-Mar-08	56	5.72	<0.0005	0.00042	0.00686	<0.03	<0.00005	0.892	0.0217	<0.00001	0.00827	<0.0005	3.49	0.0013	1.95	<0.00001	<2	<0.00005	0.00137	0.00335	<0.001
18-Mar-08	63																				
25-Mar-08	70	5.37	<0.0005	0.00033	0.0046	<0.03	<0.00005	0.864	0.0214	<0.00001	0.00835	<0.0005	3.31	0.0015	2.07	<0.00001	<2	<0.00005	0.00068	0.00296	0.0015
1-Apr-08	77																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Apr-08	84	2500	2010	6.6	397	71	<1	3.85	8.9	42.7	20.7	<0.5	<0.02	19.2	0.0144	0.00293	0.00148	0.00571	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-08	91	2500	2875	6.66	389	46																
22-Apr-08	98	2500	2505	6.7	401	53	<1	4.17	6.7	35.7	15.3	<0.5	<0.02	15.1	0.0152	0.00272	0.00123	0.00458	<0.0002	<0.0005	<0.01	<0.00005
29-Apr-08	105	2500	2760	6.71	330	42																
6-May-08	112	2500	2485	6.7	236	56	<1	3.58	6.7	30.9	17.1	<0.5	<0.02	16.1	0.0137	0.00235	0.00095	0.00489	<0.0002	<0.0005	<0.01	<0.00005
13-May-08	119	2500	2610	6.68	226	41																
20-May-08	126	2500	2395	6.62	189	46	<1	3.08	3.5	25.9	13.2	<0.5	<0.02	13.8	0.0109	0.0016	0.00078	0.0037	<0.0002	<0.0005	<0.01	<0.00005
27-May-08	133	2500	2560	6.5	175	40																
3-Jun-08	140	2500	2570	6.37	350	35	<1	4	2.9	33.8	13.1	<0.5	<0.02	13.5	0.0097	0.00154	0.00069	0.00431	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-08	147	2500	2555	6.42	265	32																
17-Jun-08	154	2500	2535	6.29	208	30	<1	4.58	1.4	24.5	12.6	<0.5	<0.02	13.9	0.0107	0.00148	0.0006	0.00427	<0.0002	<0.0005	<0.01	<0.00005
24-Jun-08	161	2500	2460	6.74	232	30																
1-Jul-08	168	2500	2570	6.48	315	43	<1	3.12	3.2	17.7	14.2	<0.5	<0.02	16.6	0.0092	0.00133	0.00062	0.00501	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-08	175	2500	2505	6.64	216	46																
15-Jul-08	182	2500	2295	6.82	370	42	<1	3.27	1.5	29.3	14.4	<0.5	<0.02	16.1	0.0036	0.00111	0.00016	0.00459	<0.0002	<0.0005	<0.01	<0.00005
22-Jul-08	189	2500	2525	6.13	339	36																
29-Jul-08	196	2500	2475	6.16	374	43	<1	2.85	1.5	13.8	12.9	<0.5	<0.02	14.7	0.009	0.000879	0.00044	0.00436	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-08	203	2500	2475	6.11	303	41																
12-Aug-08	210	2500	2540	6.13	250	41	<1	2.99	1.1	23.3	12.7	<0.5	<0.02	13.6	0.0085	0.000823	0.00038	0.00429	<0.0002	<0.0005	<0.01	<0.00005
19-Aug-08	217	2500	2465	6.19	195	41																
26-Aug-08	224	2500	2490	6.54	202	44	<1	2.84	3.8	27.9	12.1	<0.5	<0.02	13.9	0.0085	0.00074	0.00038	0.00462	<0.0002	<0.0005	<0.01	<0.00005
2-Sep-08	231	2500	2475	6.11	202	39																
9-Sep-08	238	2500	2505	6.04	212	40	<1	3.25	3	26.8	12.4	<0.5	<0.02	14.4	0.0102	0.000696	0.00045	0.00456	<0.0002	<0.0005	<0.01	<0.00005
16-Sep-08	245	2500	2495	5.82	243	41																
23-Sep-08	252	2500	2490	5.87	213	33	<1	3.03	<1	29.1	11.6	<0.5	<0.02	13.4	0.006	0.000558	0.0004	0.00455	<0.0002	<0.0005	<0.01	<0.00005
30-Sep-08	259	2500	2460	5.77	225	37																
7-Oct-08	266	2500	2445	5.92	333	39	<1	3.11	<1	24.6	11.8	<0.5	<0.02	13.4	0.0074	0.000516	0.00044	0.00445	<0.0002	<0.0005	<0.01	<0.00005
14-Oct-08	273	2500	2420	5.99	338	36																
21-Oct-08	280	2500	2465	5.7	418	36	<1	3.36	<1	30.8	11.6	<0.5	<0.02	13.7	0.0063	0.000464	0.0004	0.00471	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-08	287	2500	2505	5.66	452	32																
4-Nov-08	294	2500	2440	5.69	413	32	<1	3.44	<1	21.1	10.9	<0.5	<0.02	12.6	0.0057	0.000458	0.00042	0.00444	<0.0002	<0.0005	<0.01	<0.00005
11-Nov-08	301	2500	2585	5.58	416	30																
18-Nov-08	308	2500	2410	5.64	400	26	<1	3.65	<1	13	10.3	<0.5	<0.02	11.8	0.0062	0.000431	0.0005	0.00422	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-08	315	2500	2580	5.68	394	25																
2-Dec-08	322	2500	2455	5.86	297	30	<1	4.15	1.5	25.6	10.1	<0.5	<0.02	12.1	0.0036	0.000385	0.00055	0.00414	<0.0002	<0.0005	<0.01	<0.00005
9-Dec-08	329	2500	2435	5.87	230	30																
16-Dec-08	336	2500	2225	6.21	152	30	<1	4.99	1.9	21	10.1	<0.5	<0.02	12.2	0.0053	0.000324	0.00047	0.00405	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-08	343	2500	2740	6.63	213	28																
30-Dec-08	350	2500	1470		292	46				38.2	16.2	<0.5	<0.02	18.9	0.0033	0.000301	0.00042	0.00678	<0.0002	<0.0005	<0.01	<0.00005
6-Jan-09	357	2500	1490	6.13	155	45																
13-Jan-09	364	2500	1725	5.67	188	38	<1	7.32	1.4	17.8	13.5	<0.5	<0.02	14.9	0.0027	0.000295	0.00045	0.0057	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-09	371	2500	2460	5.73	377	28																
27-Jan-09	378	2500	2545	6.59	237	28	<1	5.45	2.5	15.3	10.1	<0.5	<0.02	11.1	0.0039	0.000249	0.0005	0.00407	<0.0002	<0.0005	<0.01	<0.00005
3-Feb-09	385	2500	2500	5.88	298	26																
10-Feb-09	392	2500	2515	6.08	209	27	<1	7.11	1.5	18.1	9.24	<0.5	<0.02	10.9	0.004	0.000274	0.00058	0.0037	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-09	399	2500	2630	5.73	461	28																
24-Feb-09	406	2500	2515	5.88	405	27	<1	5.02	1.2	17.2	9.3	<0.5	<0.02	10.5	0.0028	0.000247	0.00051	0.00362	<0.0002	<0.0005	<0.01	<0.00005
3-Mar-09	413	2500	2565	5.48	249	28																
10-Mar-09	420	2500	2475	5.42	267	26	<1	4.41	<1	11.5	9.26	<0.5	<0.02	10.8	0.0027	0.000221	0.00055	0.00382	<0.0002	<0.0005	<0.01	<0.00005
17-Mar-09	427	2500	2555	5.54	313	26																
24-Mar-09	434	2500	2455	5.47	378	27	<1	3.61	1	14.8	9.3	<0.5	<0.02	11	0.0027	0.000235	0.00059	0.00402	<0.0002	<0.0005	<0.01	<0.00005
31-Mar-09	441	2500	2640	5.41	302	22																
7-Apr-09	448	2500	2445	5.63	364	28	<1	4.18	1.2	16	8.69	<0.5	<0.02	10.4	0.0017	0.000231	0.00067	0.0038	<0.0002	<0.0005	<0.01	<0.00005
14-Apr-09	455	2500	2630	5.72	418	29																
21-Apr-09	462	2500	2565	5.51	404	28																
28-Apr-09	469	2500	2555																			
5-May-09	476	2500	2500	5.72	390	29	<1	4.33	<1	24.3	9.36	<0.5	<0.02	11.1	0.0049	0.000199	0.00076	0.00417	<0.0002	<0.0005	<0.01	<0.00005
12-May-09	483	2500	2555																			
19-May-09	490	2500	2530	5.49	334	28																
26-May-09	497	2500	2525																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Apr-08	84	6.48	<0.0005	0.00053	0.00485	<0.03	<0.00005	1.09	0.0309	<0.00001	0.0106	0.00099	4.1	0.0015	2.08	<0.00001	<2	<0.00005	0.00062	0.00234	0.0012
15-Apr-08	91																				
22-Apr-08	98	4.83	<0.0005	0.00061	0.00502	<0.03	0.000087	0.774	0.0269	<0.00001	0.0079	0.00208	3.17	0.0014	2.06	<0.00001	<2	<0.00005	0.00053	0.00207	0.0055
29-Apr-08	105																				
6-May-08	112	5.18	<0.0005	0.00077	0.00642	0.036	<0.00005	1.01	0.0313	<0.00001	0.00642	0.00053	3.33	0.0014	2.09	<0.00001	<2	<0.00005	0.00058	0.00155	0.0011
13-May-08	119																				
20-May-08	126	4.15	<0.0005	0.0007	0.00763	<0.03	<0.00005	0.684	0.0246	<0.00001	0.00406	<0.0005	2.54	0.0012	1.79	<0.00001	<2	<0.00005	0.00069	0.00147	0.0013
27-May-08	133																				
3-Jun-08	140	4.13	<0.0005	0.00097	0.0112	<0.03	<0.00005	0.68	0.0295	<0.00001	0.00322	<0.0005	2.43	0.0014	1.76	<0.00001	<2	<0.00005	0.0007	0.00112	0.0018
10-Jun-08	147																				
17-Jun-08	154	3.93	<0.0005	0.00098	0.0129	<0.03	<0.00005	0.685	0.0301	0.000018	0.00285	0.00068	2.7	0.0012	1.73	0.000013	<2	<0.00005	0.00075	0.00099	0.0016
24-Jun-08	161																				
1-Jul-08	168	4.46	<0.0005	0.00117	0.0184	<0.03	<0.00005	0.743	0.0345	<0.00001	0.00226	0.00061	2.59	0.0013	1.9	<0.00001	<2	<0.00005	0.00061	0.00092	0.0025
8-Jul-08	175																				
15-Jul-08	182	4.42	<0.0005	0.00142	0.0297	<0.03	<0.00005	0.81	0.0373	<0.00001	0.00147	0.00069	2.65	0.0015	1.82	<0.00001	<2	<0.00005	0.00043	<0.0005	0.0038
22-Jul-08	189																				
29-Jul-08	196	4.05	<0.0005	0.00135	0.0279	<0.03	<0.00005	0.687	0.0324	<0.00001	0.00113	0.00056	2.23	0.0015	1.64	<0.00001	<2	<0.00005	0.00054	0.00055	0.002
5-Aug-08	203																				
12-Aug-08	210	4	<0.0005	0.00141	0.0314	<0.03	<0.00005	0.667	0.0332	<0.00001	0.000871	0.00072	2.16	0.0015	1.57	<0.00001	<2	<0.00005	0.00051	0.00054	0.0027
19-Aug-08	217																				
26-Aug-08	224	3.67	<0.0005	0.00144	0.036	<0.03	0.000052	0.699	0.0336	<0.00001	0.000706	0.00076	2	0.0014	1.48	<0.00001	<2	<0.00005	0.0005	<0.0005	0.0026
2-Sep-08	231																				
9-Sep-08	238	3.72	<0.0005	0.00154	0.0395	<0.03	<0.00005	0.759	0.0361	<0.00001	0.000655	0.00078	2.17	0.0013	1.57	<0.00001	<2	<0.00005	0.00055	0.00051	0.0027
16-Sep-08	245																				
23-Sep-08	252	3.58	<0.0005	0.00153	0.0435	<0.03	<0.00005	0.639	0.0331	<0.00001	0.000486	0.00088	1.8	0.0014	1.43	<0.00001	<2	<0.00005	0.00061	<0.0005	0.0034
30-Sep-08	259																				
7-Oct-08	266	3.67	<0.0005	0.00163	0.0542	<0.03	<0.00005	0.643	0.0349	<0.00001	0.000393	0.00098	1.82	0.0014	1.37	<0.00001	<2	<0.00005	0.00062	<0.0005	0.0029
14-Oct-08	273																				
21-Oct-08	280	3.58	<0.0005	0.00169	0.0525	<0.03	0.000122	0.644	0.0368	<0.00001	0.000344	0.00268	1.77	0.0012	1.34	<0.00001	<2	<0.00005	0.00063	<0.0005	0.0046
28-Oct-08	287																				
4-Nov-08	294	3.4	<0.0005	0.00163	0.0536	<0.03	<0.00005	0.58	0.0332	<0.00001	0.000306	0.00096	1.71	0.0012	1.25	<0.00001	<2	<0.00005	0.00071	<0.0005	0.0029
11-Nov-08	301																				
18-Nov-08	308	3.27	<0.0005	0.00161	0.0572	<0.03	<0.00005	0.522	0.0348	<0.00001	0.000281	0.00082	1.73	0.0013	1.2	<0.00001	<2	<0.00005	0.00077	<0.0005	0.0042
25-Nov-08	315																				
2-Dec-08	322	3.1	<0.0005	0.00166	0.0603	<0.03	<0.00005	0.564	0.034	<0.00001	0.000243	0.00096	1.62	0.0012	1.12	<0.00001	<2	<0.00005	0.0012	<0.0005	0.0042
9-Dec-08	329																				
16-Dec-08	336	3.21	<0.0005	0.00171	0.0668	<0.03	0.000052	0.498	0.0347	<0.00001	0.000201	0.00109	1.49	0.0012	1.05	<0.00001	<2	<0.00005	0.00124	<0.0005	0.0038
23-Dec-08	343																				
30-Dec-08	350	5.03	<0.0005	0.00282	0.114	<0.03	<0.00005	0.893	0.0574	<0.00001	0.000252	0.0016	1.82	0.0019	1.28	<0.00001	<2	<0.00005	0.00153	<0.0005	0.0061
6-Jan-09	357																				
13-Jan-09	364	4.1	<0.0005	0.00241	0.0962	<0.03	<0.00005	0.807	0.0485	<0.00001	0.00018	0.00139	1.66	0.0013	1.24	<0.00001	<2	<0.00005	0.00149	<0.0005	0.0051
20-Jan-09	371																				
27-Jan-09	378	3.08	<0.0005	0.00182	0.0794	<0.03	<0.00005	0.586	0.0377	<0.00001	0.000171	0.00135	1.46	0.001	0.979	<0.00001	<2	<0.00005	0.00178	<0.0005	0.0059
3-Feb-09	385																				
10-Feb-09	392	2.83	<0.0005	0.00164	0.0761	<0.03	<0.00005	0.525	0.034	<0.00001	0.000163	0.00117	1.32	0.0011	1.05	<0.00001	<2	<0.00005	0.0018	<0.0005	0.0036
17-Feb-09	399																				
24-Feb-09	406	2.74	<0.0005	0.00171	0.0774	<0.03	<0.00005	0.595	0.0345	<0.00001	0.000131	0.00209	1.21	0.001	0.938	<0.00001	<2	<0.00005	0.00146	<0.0005	0.0032
3-Mar-09	413																				
10-Mar-09	420	2.84	<0.0005	0.00174	0.0823	<0.03	<0.00005	0.529	0.0357	<0.00001	0.000115	0.00096	1.25	<0.001	0.986	<0.00001	<2	<0.00005	0.0013	<0.0005	0.004
17-Mar-09	427																				
24-Mar-09	434	2.88	<0.0005	0.00183	0.0922	<0.03	<0.00005	0.514	0.0394	<0.00001	0.000103	0.00109	1.25	0.001	0.983	<0.00001	<2	<0.00005	0.00136	<0.0005	0.0038
31-Mar-09	441																				
7-Apr-09	448	2.64	<0.0005	0.00177	0.0841	<0.03	<0.00005	0.512	0.0348	<0.00001	0.000101	0.00102	1.22	<0.001	0.93	<0.00001	<2	<0.00005	0.00141	<0.0005	0.0033
14-Apr-09	455																				
21-Apr-09	462																				
28-Apr-09	469																				
5-May-09	476	2.83	<0.0005	0.00197	0.0958	<0.03	<0.00005	0.559	0.0413	<0.00001	0.000085	0.00114	1.33	0.0011	0.96	<0.00001	<2	<0.00005	0.00152	<0.0005	0.004
12-May-09	483																				
19-May-09	490																				
26-May-09	497																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
2-Jun-09	504	2500	2595	5.59	291	27	<1	4.88	1.5	<10	11	<0.5	<0.02	12.5	0.0035	0.000199	0.00092	0.00542	<0.0002	<0.0005	<0.01	<0.00005
9-Jun-09	511	2500	2490																			
16-Jun-09	518	2500	2435	5.61	347	29																
23-Jun-09	525	2500	2480																			
30-Jun-09	532	2500	2250	5.28	276	28	<1	4.28	<1	23.5	11	<0.5	<0.02	13.5	0.0043	0.000134	0.00062	0.00422	<0.0002	<0.0005	<0.01	<0.00005
7-Jul-09	539	2500	2495																			
14-Jul-09	546	2500	2490	5.71	375	26																
21-Jul-09	553	2500	2550																			
28-Jul-09	560	2500	2450	5.52	344	31	<1	6.19	1.2	28.4	10.9	<0.5	<0.02	13.3	0.0039	0.000114	0.00087	0.00486	<0.0002	<0.0005	<0.01	<0.00005
4-Aug-09	567	2500	2325																			
11-Aug-09	574	2500	2500	5.43	314	30																
18-Aug-09	581	2500	2210																			
25-Aug-09	588	2500	2755	5.41	264	31	<1	4.41	1.8	24.8	11.2	<0.5	0.027	13.5	0.0064	0.000144	0.00091	0.00486	<0.0002	<0.0005	<0.01	<0.00005
1-Sep-09	595	2500	2465																			
8-Sep-09	602	2500	2505	5.28	304	28																
15-Sep-09	609	2500	2345																			
22-Sep-09	616	2500	2465	5.26	308	33	<1	6.82	6.5	44	11.4	<0.5	<0.02	12.8	0.0045	0.000109	0.00075	0.00471	<0.0002	<0.0005	<0.01	<0.00005
29-Sep-09	623	2500	2395																			
6-Oct-09	630	2500	2410	5.14	337	29																
13-Oct-09	637	2500	2410																			
20-Oct-09	644	2500	2395	5.03	319	25	<1	4.2	<1	23	9.47	<0.5	<0.02	10.5	0.0023	0.000077	0.00073	0.00434	<0.0002	<0.0005	<0.01	<0.00005
27-Oct-09	651	2500	2455																			
3-Nov-09	658	2500	2490	5.19	275	34																
10-Nov-09	665	2500	2405																			
17-Nov-09	672	2500	2480	5.73	329	30	<1	6.28	3.1	23	10.5	<0.5	<0.02	12.2	0.0053	0.000111	0.0008	0.0046	<0.0002	<0.0005	<0.01	0.000089
24-Nov-09	679	2500	2415																			
1-Dec-09	686	2500	2625	5.16	306	31																
8-Dec-09	693	2500	2390																			
15-Dec-09	700	2500	2490	5.01	336	30	<1	5.46	<1	24	9.68	<0.5	<0.02	10.5	0.0034	0.000208	0.00085	0.00405	<0.0002	<0.0005	<0.01	0.000128
22-Dec-09	707	2500	2480																			
29-Dec-09	714	2500	2460	4.93	412	30																
5-Jan-10	721	2500	2450																			
12-Jan-10	728	2500	2510	4.81	318	36	<1	6.83	<1	29	11.2	<0.5	<0.02	11.9	0.0057	0.00014	0.00103	0.00523	<0.0002	<0.0005	<0.01	<0.00005
19-Jan-10	735	2500	2440																			
26-Jan-10	742	2500	2465	4.86	359	24																
2-Feb-10	749	2500	2430																			
9-Feb-10	756	2500	2375	4.67	334	32	<1	5.35	<1	21	9.9	<0.5	<0.02	11.9	0.005	0.000087	0.0008	0.00457	<0.0002	<0.0005	<0.01	<0.00005
16-Feb-10	763	2500	2375																			
23-Feb-10	770	2500	2345	4.7	334	31																
2-Mar-10	777	2500	2395																			
9-Mar-10	784	2500	2465	4.91	451	33	<1	5.05	<1	18	10.6	<0.5	<0.02	11.9	0.0047	0.0000996	0.00089	0.00488	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-10	791	2500	2455																			
23-Mar-10	798	2500	2320	5.2	322	28																
30-Mar-10	805	2500	2495																			
6-Apr-10	812	2500	2405	4.99	361	30	<1	4.53	<1	19	9.82	<0.5	<0.02	11.1	0.0068	0.000088	0.00102	0.0048	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-10	819	2500	2400																			
20-Apr-10	826	2500	2445	4.73	314	33																
27-Apr-10	833	2500	2320																			
4-May-10	840	2500	2400	4.75	363	35	<1	5.1	<1	23	11	<0.5	<0.02	12.1	0.0076	0.000085	0.00121	0.00549	<0.0002	<0.0005	<0.01	<0.00005
11-May-10	847	2500	2365																			
18-May-10	854	2500	2370	4.82	419	37																
25-May-10	861	2500	2360																			
1-Jun-10	868	2500	2340	4.75	340	30	<1	4.69	<1	14	9.25	<0.5	<0.02	10.2	0.008	0.000086	0.00101	0.00484	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-10	875	2500	2415																			
15-Jun-10	882	2500	2310	4.86	357	32																
22-Jun-10	889	2500	2390																			
29-Jun-10	896	2500	2300	4.76	331	34	<1	4.84	<1	10	11	<0.5	<0.02	12.3	0.0068	0.000078	0.00111	0.0054	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-10	903	2500	2440																			
13-Jul-10	910	2500	2485	4.76	356	34																
20-Jul-10	917	2500	2450																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
2-Jun-09	504	3.25	<0.0005	0.00236	0.13	<0.03	0.00011	0.71	0.0504	<0.00001	0.000078	0.00143	1.39	0.0011	1.14	<0.00001	<2	<0.00005	0.00123	<0.0005	0.0053
9-Jun-09	511																				
16-Jun-09	518																				
23-Jun-09	525																				
30-Jun-09	532	3.36	<0.0005	0.00247	0.127	0.073	<0.00005	0.625	0.0451	<0.00001	<0.00005	0.00163	0.967	<0.001	0.942	<0.00001	<2	<0.00005	0.00212	<0.0005	0.0044
7-Jul-09	539																				
14-Jul-09	546																				
21-Jul-09	553																				
28-Jul-09	560	3.2	<0.0005	0.00243	0.142	<0.03	<0.00005	0.697	0.0534	<0.00001	<0.00005	0.00157	1.19	0.0011	0.943	<0.00001	<2	<0.00005	0.0019	<0.0005	0.0075
4-Aug-09	567																				
11-Aug-09	574																				
18-Aug-09	581																				
25-Aug-09	588	3.2	<0.0005	0.00261	0.148	<0.03	0.000074	0.778	0.0534	<0.00001	<0.00005	0.00159	1.12	0.0012	1.06	<0.00001	<2	<0.00005	0.00146	<0.0005	0.0063
1-Sep-09	595																				
8-Sep-09	602																				
15-Sep-09	609																				
22-Sep-09	616	3.34	<0.0005	0.00274	0.17	<0.03	0.00009	0.746	0.0559	<0.00001	<0.00005	0.00213	0.989	0.0011	1.08	<0.00001	<2	<0.00005	0.00154	<0.0005	0.0063
29-Sep-09	623																				
6-Oct-09	630																				
13-Oct-09	637																				
20-Oct-09	644	2.72	<0.0005	0.00224	0.144	<0.03	<0.00005	0.649	0.0477	<0.00001	<0.00005	0.00157	0.897	<0.001	0.864	<0.00001	<2	<0.00005	0.00187	<0.0005	0.0061
27-Oct-09	651																				
3-Nov-09	658																				
10-Nov-09	665																				
17-Nov-09	672	3.04	<0.0005	0.0026	0.179	<0.03	0.000217	0.696	0.0515	<0.00001	<0.00005	0.00165	0.894	<0.001	0.982	<0.00001	<2	<0.00005	0.00111	<0.0005	0.01
24-Nov-09	679																				
1-Dec-09	686																				
8-Dec-09	693																				
15-Dec-09	700	2.82	<0.0005	0.00246	0.155	<0.03	0.000219	0.639	0.051	<0.00001	<0.00005	0.00175	0.93	<0.001	1	<0.00001	<2	0.000052	0.00076	<0.0005	0.0183
22-Dec-09	707																				
29-Dec-09	714																				
5-Jan-10	721																				
12-Jan-10	728	3.3	<0.0005	0.00275	0.197	<0.03	0.000079	0.708	0.0573	<0.00001	0.000054	0.00181	1.04	<0.001	1.24	<0.00001	<2	<0.00005	0.00083	<0.0005	0.0061
19-Jan-10	735																				
26-Jan-10	742																				
2-Feb-10	749																				
9-Feb-10	756	2.83	<0.0005	0.00243	0.188	<0.03	<0.00005	0.687	0.0509	<0.00001	0.000073	0.00174	0.898	<0.001	0.997	<0.00001	<2	<0.00005	0.00059	<0.0005	0.0045
16-Feb-10	763																				
23-Feb-10	770																				
2-Mar-10	777																				
9-Mar-10	784	2.97	<0.0005	0.00285	0.215	<0.03	<0.00005	0.761	0.0591	<0.00001	0.000115	0.002	0.945	<0.001	0.976	<0.00001	<2	<0.00005	0.0007	<0.0005	0.0054
16-Mar-10	791																				
23-Mar-10	798																				
30-Mar-10	805																				
6-Apr-10	812	2.73	<0.0005	0.00244	0.202	<0.03	0.000077	0.729	0.0519	<0.00001	0.000089	0.00175	0.924	<0.001	0.898	<0.00001	<2	<0.00005	0.00068	<0.0005	0.0055
13-Apr-10	819																				
20-Apr-10	826																				
27-Apr-10	833																				
4-May-10	840	3.14	<0.0005	0.00286	0.238	<0.03	0.000054	0.768	0.0587	<0.00001	0.00006	0.00188	0.949	<0.001	1.08	<0.00001	<2	<0.00005	0.00061	<0.0005	0.0065
11-May-10	847																				
18-May-10	854																				
25-May-10	861																				
1-Jun-10	868	2.52	<0.0005	0.00263	0.212	<0.03	<0.00005	0.721	0.0546	<0.00001	<0.00005	0.0018	1.18	<0.001	0.88	<0.00001	<2	<0.00005	0.00066	<0.0005	0.0054
8-Jun-10	875																				
15-Jun-10	882																				
22-Jun-10	889																				
29-Jun-10	896	3.04	<0.0005	0.003	0.248	<0.03	<0.00005	0.825	0.0663	<0.00001	<0.00005	0.00197	1.14	0.001	1.01	<0.00001	<2	<0.00005	0.0005	<0.0005	0.0067
6-Jul-10	903																				
13-Jul-10	910																				
20-Jul-10	917																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
27-Jul-10	924	2500	2190	4.59	384	44	<1	6.59	<1	30	14.2	<0.5	<0.02	16.9	0.0075	0.00006	0.00124	0.00714	<0.0002	<0.0005	<0.01	0.000055
3-Aug-10	931	2500	1465																			
10-Aug-10	938	2500	2395	4.95	292	40																
17-Aug-10	945	2500	2590																			
24-Aug-10	952	2500	2520	4.7	360	39	<1	6.03	<1	25	12.5	<0.5	<0.02	14.9	0.0067	0.000062	0.00175	0.00663	<0.0002	<0.0005	<0.01	0.000072
31-Aug-10	959	2500	2470																			
7-Sep-10	966	2500	2465	4.67	368	33																
14-Sep-10	973	2500	2485																			
21-Sep-10	980	2500	2480	4.52	314	30	<1	5.73	<1	24	12.1	<0.5	<0.02	14	0.0082	0.000063	0.00129	0.00652	0.00024	<0.0005	<0.01	<0.00005
28-Sep-10	987	2500	2430																			
5-Oct-10	994	2500	2470	4.55	308	46																
12-Oct-10	1001	2500	2435																			
19-Oct-10	1008	2500	2470	4.7	326	41	<1	6.02	<1	26	13.1	<0.5	<0.02	14.8	0.0083	0.000063	0.00148	0.00629	0.00022	<0.0005	<0.01	0.000052
26-Oct-10	1015	2500	2495																			
2-Nov-10	1022	2500	2341	4.81	233	29																
9-Nov-10	1029	2500	2525																			
16-Nov-10	1036	2500	2455	4.71	170	31	<1	5.51	<1	25	13.4	<0.5	<0.02	15.2	0.0095	0.000058	0.00154	0.00739	<0.0002	<0.0005	<0.01	0.000051
23-Nov-10	1043	2500	2315																			
30-Nov-10	1050	2500	2410	4.71	325	31																
7-Dec-10	1057	2500	2245																			
14-Dec-10	1064	2500	2360	4.6	375	39	<1	6.64	<1	18	12.3	<0.5	<0.02	14.2	0.0078	0.000058	0.00152	0.00757	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-10	1071	2500	2555																			
28-Dec-10	1078	2500	2250	4.82	348	34																
4-Jan-11	1085	2500	2440																			
11-Jan-11	1092	2500	2490	4.57	399	43	<1	5.71	<1	22	13.9	<0.5	<0.02	15.8	0.0101	0.000058	0.00161	0.00709	0.00022	<0.0005	<0.01	<0.00005
18-Jan-11	1099	2500	2520																			
25-Jan-11	1106	2500	2505	4.66	317	46																
1-Feb-11	1113	2500	2385																			
8-Feb-11	1120	2500	2330	5.13	353	35	<1	3.36	<1	22	13.1	<0.5	<0.02	15	0.013	0.00006	0.00157	0.00726	0.00021	<0.0005	<0.01	<0.00005
15-Feb-11	1127	2500	2240																			
22-Feb-11	1134	2500	2340	4.76	297	40																
1-Mar-11	1141	2500	2435																			
8-Mar-11	1148	2500	2470	4.65	257	42	<1	5.73	<1	28	12.3	<0.5	<0.02	14.4	0.013	0.000055	0.00136	0.00675	0.00022	<0.0005	<0.01	0.000056
15-Mar-11	1155	2500	2405																			
22-Mar-11	1162	2500	2425	5.01	326	36																
29-Mar-11	1169	2500	2420																			
5-Apr-11	1176	2500	2530	4.7	233	44	<1	6.35	<1	26	12.7	<0.5	<0.02	15.2	0.0121	0.000063	0.00066	0.00701	0.00023	<0.0005	<0.01	<0.00005
12-Apr-11	1183	2500	2500																			
19-Apr-11	1190	2500	2460	4.92	253	39																
26-Apr-11	1197	2500	2500																			
3-May-11	1204	2500	2450	4.84	356	36	<1	6.06	<1	32	10.9	<0.5	<0.02	12.4	0.0137	0.00007	0.00087	0.00552	<0.0002	<0.0005	<0.01	<0.00005
10-May-11	1211	2500	2495																			
17-May-11	1218	2500	2500	4.81	351	37																
24-May-11	1225	2500	2515																			
31-May-11	1232	2500	2470	4.61	274	39	<1	7.06	<1	32	11.8	<0.5	<0.02	14.3	0.0148	0.000055	0.00077	0.00642	0.00021	<0.0005	<0.01	<0.00005
7-Jun-11	1239	2500	2435																			
14-Jun-11	1246	2500	2420	4.87	222	43																
21-Jun-11	1253	2500	2345																			
28-Jun-11	1260	2500	2520	4.93	200	46	<1	5.17	<1	24	13.5	<0.5	<0.02	16.6	0.0151	0.000057	0.00085	0.00725	0.00027	<0.0005	<0.01	0.000051
5-Jul-11	1267	2500	2370																			
12-Jul-11	1274	2500	2575	4.82	283	46																
19-Jul-11	1281	2500	2495																			
26-Jul-11	1288	2500	2345	4.94	260	46	<1	7.53	1.2	23	13.4	<0.5	<0.02	16	0.0156	<0.00005	0.00084	0.0079	0.00023	<0.0005	<0.01	0.000055
2-Aug-11	1295	2500	2555																			
9-Aug-11	1302	2500	2545	4.9	264	46																
16-Aug-11	1309	2500	2450																			
23-Aug-11	1316	2500	2475	4.83	263	46	<1	7.32	<1	33	14.2	<0.5	<0.02	16.7	0.0187	<0.00005	0.00083	0.00762	0.00027	<0.0005	<0.01	0.000053
30-Aug-11	1323	2500	2555																			
6-Sep-11	1330	2500	2430	5.13	301	55																
13-Sep-11	1337	2500	2545																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
27-Jul-10	924	3.92	<0.0005	0.00379	0.318	<0.03	0.000075	1.09	0.0831	<0.00001	<0.00005	0.00232	1.08	0.0011	1.31	<0.00001	<2	<0.00005	0.00064	<0.0005	0.008
3-Aug-10	931																				
10-Aug-10	938																				
17-Aug-10	945																				
24-Aug-10	952	3.44	<0.0005	0.00343	0.317	<0.03	0.000109	0.944	0.076	<0.00001	<0.00005	0.00242	0.965	<0.001	1.05	<0.00001	<2	<0.00005	0.00092	<0.0005	0.0139
31-Aug-10	959																				
7-Sep-10	966																				
14-Sep-10	973																				
21-Sep-10	980	3.27	<0.0005	0.00353	0.314	<0.03	0.000137	0.955	0.0738	<0.00001	<0.00005	0.00234	0.895	0.0012	0.963	<0.00001	<2	<0.00005	0.00155	<0.0005	0.0072
28-Sep-10	987																				
5-Oct-10	994																				
12-Oct-10	1001																				
19-Oct-10	1008	3.57	<0.0005	0.00375	0.345	<0.03	0.000107	1.02	0.0835	<0.00001	<0.00005	0.00254	0.917	<0.001	1.12	<0.00001	<2	<0.00005	0.0013	<0.0005	0.0086
26-Oct-10	1015																				
2-Nov-10	1022																				
9-Nov-10	1029																				
16-Nov-10	1036	3.48	<0.0005	0.00406	0.395	<0.03	0.000068	1.15	0.0921	<0.00001	<0.00005	0.00295	1.06	<0.001	1.19	<0.00001	<2	<0.00005	0.0009	<0.0005	0.0089
23-Nov-10	1043																				
30-Nov-10	1050																				
7-Dec-10	1057																				
14-Dec-10	1064	3.25	<0.0005	0.0038	0.391	<0.03	0.000202	1.01	0.0854	<0.00001	<0.00005	0.00258	0.893	<0.001	1.09	<0.00001	<2	<0.00005	0.00052	<0.0005	0.0088
21-Dec-10	1071																				
28-Dec-10	1078																				
4-Jan-11	1085																				
11-Jan-11	1092	3.65	<0.0005	0.00423	0.458	<0.03	0.000092	1.17	0.0923	<0.00001	<0.00005	0.00303	0.914	0.0011	1.11	<0.00001	<2	<0.00005	0.00076	<0.0005	0.0087
18-Jan-11	1099																				
25-Jan-11	1106																				
1-Feb-11	1113																				
8-Feb-11	1120	3.37	<0.0005	0.00402	0.423	<0.03	0.000092	1.14	0.0919	<0.00001	<0.00005	0.00295	0.999	0.0025	1.33	0.00001	<2	<0.00005	0.00057	<0.0005	0.0085
15-Feb-11	1127																				
22-Feb-11	1134																				
1-Mar-11	1141																				
8-Mar-11	1148	3.15	<0.0005	0.00376	0.4	<0.03	0.00253	1.07	0.0888	<0.00001	<0.00005	0.00267	0.914	<0.001	1.27	0.000015	<2	<0.00005	0.00078	<0.0005	0.011
15-Mar-11	1155																				
22-Mar-11	1162																				
29-Mar-11	1169																				
5-Apr-11	1176	3.27	<0.0005	0.00373	0.414	<0.03	0.00657	1.09	0.0902	<0.00001	<0.00005	0.0025	0.972	<0.001	1.02	0.000012	<2	<0.00005	0.0012	<0.0005	0.008
12-Apr-11	1183																				
19-Apr-11	1190																				
26-Apr-11	1197																				
3-May-11	1204	2.8	<0.0005	0.00312	0.365	<0.03	0.000381	0.953	0.0772	<0.00001	<0.00005	0.00219	0.888	<0.001	1.07	<0.00001	<2	<0.00005	0.00239	<0.0005	0.0069
10-May-11	1211																				
17-May-11	1218																				
24-May-11	1225																				
31-May-11	1232	3	<0.0005	0.00363	0.418	<0.03	0.00815	1.05	0.0881	<0.00001	<0.00005	0.00252	0.952	<0.001	1.2	0.000012	<2	<0.00005	0.00381	<0.0005	0.0075
7-Jun-11	1239																				
14-Jun-11	1246																				
21-Jun-11	1253																				
28-Jun-11	1260	3.38	<0.0005	0.00414	0.502	<0.03	0.000105	1.24	0.1	<0.00001	<0.00005	0.00288	1.07	0.001	1.4	0.000011	<2	<0.00005	0.00321	<0.0005	0.0089
5-Jul-11	1267																				
12-Jul-11	1274																				
19-Jul-11	1281																				
26-Jul-11	1288	3.37	<0.0005	0.00413	0.493	<0.03	0.000091	1.21	0.102	<0.00001	<0.00005	0.003	1	<0.001	1.3	<0.00001	<2	<0.00005	0.00459	<0.0005	0.0094
2-Aug-11	1295																				
9-Aug-11	1302																				
16-Aug-11	1309																				
23-Aug-11	1316	3.49	<0.0005	0.00452	0.567	<0.03	0.000102	1.32	0.108	<0.00001	<0.00005	0.00312	0.867	<0.001	1.25	0.000011	<2	<0.00005	0.00732	<0.0005	0.0089
30-Aug-11	1323																				
6-Sep-11	1330																				
13-Sep-11	1337																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
20-Sep-11	1344	2500	2515	5	290	50	<1	6.63	<1	25	15.2	<0.5	<0.02	18.3	0.0257	<0.00005	0.00078	0.00855	0.00033	<0.0005	<0.01	0.000057
27-Sep-11	1351	2500	2420																			
4-Oct-11	1358	2500	2500	5.16	293	42																
11-Oct-11	1365	2500	2525																			
18-Oct-11	1372	2500	2520	4.96	315	47	<1	7.11	<1	28	14.3	<0.5	<0.02	17.1	0.021	<0.00005	0.00079	0.0088	0.00029	<0.0005	<0.01	0.000078
25-Oct-11	1379	2500	2465																			
1-Nov-11	1386	2500	2450	5.06	273	51																
8-Nov-11	1393	2500	2465																			
15-Nov-11	1400	2500	2460	5.04	278	50	<1	7.34	1.1	23	14.7	<0.5	<0.02	17.8	0.0239	<0.00005	0.00076	0.00901	0.00032	<0.0005	<0.01	0.000058
22-Nov-11	1407	2500	2510																			
29-Nov-11	1414	2500	2550	4.98	380	43																
6-Dec-11	1421	2500	2470																			
13-Dec-11	1428	2500	2455	4.78	296	65	<1	7.49	<1	35	20.4	<0.5	0.024	24.8	0.0403	0.000051	0.00088	0.0128	0.00047	<0.0005	<0.01	0.000076
20-Dec-11	1435	2500	2460																			
27-Dec-11	1442	2500	2405	5.51	316	36																
3-Jan-12	1449	2500	2510																			
10-Jan-12	1456	2500	2500	4.87	298	53	<1	6.48	<1	30	15.4	<0.5	0.023	18.9	0.034	<0.00005	0.00088	0.0102	0.00037	<0.0005	<0.01	0.000062
17-Jan-12	1463	2500	2455																			
24-Jan-12	1470	2500	2480	4.92	469	50																
31-Jan-12	1477	2500	2490																			
7-Feb-12	1484	2500	2440	5.26	417	61	<1	6.24	<1	38	17.8	<0.5	0.023	22.5	0.0461	<0.00005	0.00081	0.0119	0.00045	<0.0005	<0.01	0.000072
14-Feb-12	1491	2500	2430																			
21-Feb-12	1498	2500	2415	4.96	363	46																
28-Feb-12	1505	2500	2400																			
6-Mar-12	1512	2500	2455	4.76	503	76	<1	7.49	<1	44	22.2	<0.5	0.032	27.5	0.0503	<0.00005	0.00156	0.0134	0.00055	<0.0005	<0.01	0.000084
13-Mar-12	1519	2500	2470																			
20-Mar-12	1526	2500	2490	4.98	354	59																
27-Mar-12	1533	2500	2465																			
3-Apr-12	1540	2500	2375	4.71	423	77	<1	7.82	<1	48	23.9	<0.5	0.03	29.1	0.0571	<0.00005	0.00132	0.0147	0.0006	<0.0005	<0.01	0.000085
10-Apr-12	1547	2500	2465																			
17-Apr-12	1554	2500	2465	4.92	368	48																
24-Apr-12	1561	2500	2500																			
1-May-12	1568	2500	2510	5.04	405	57	<1	9.8	1.5	28	15.7	<0.5	0.026	19.3	0.0413	<0.00005	0.00089	0.0103	0.00041	<0.0005	<0.01	0.000058
8-May-12	1575	2500	2515																			
15-May-12	1582	2500	2405	4.41	443	63																
22-May-12	1589	2500	2470																			
29-May-12	1596	2500	2425	4.54	417	71	<1	7.8	<1	40	17.8	<0.5	0.031	22.6	0.0525	<0.00005	0.00073	0.0121	0.00046	<0.0005	<0.01	0.000065
5-Jun-12	1603	2500	2185																			
12-Jun-12	1610	2500	2500	4.7	455	79																
19-Jun-12	1617	2500	2445																			
26-Jun-12	1624	2500	2515	5.08	396	55	<1	5.99	<1	48	16.4	<0.5	0.025	19.8	0.0503	<0.00005	0.00076	0.0111	0.00047	<0.0005	<0.01	0.000059
3-Jul-12	1631	2500	2300																			
10-Jul-12	1638	2500	2405	5.13	399	72																
17-Jul-12	1645	2500	2400																			
24-Jul-12	1652	2500	2425	5.02	397	58	<1	4.95	<1	35	15.6	<0.5	0.028	19.7	0.0521	<0.00005	0.00061	0.0112	0.0005	<0.0005	<0.01	0.000063
31-Jul-12	1659	2500	2370																			
7-Aug-12	1666	2500	2430	5.09	383	73																
14-Aug-12	1673	2500	2480																			
21-Aug-12	1680	2500	2455	5.01	357	73	<1	7.17	<1	50	21.5	<0.5	0.043	27.5	0.078	<0.00005	0.00074	0.0156	0.0007	<0.0005	<0.01	0.000085
28-Aug-12	1687	2500	2515																			
4-Sep-12	1694	2500	2415	5.31	450	65																
11-Sep-12	1701	2500	2505																			
18-Sep-12	1708	2500	2345	5.25	479	43	<1	4.3	<1	26	11.4	<0.5	0.025	14.5	0.0384	<0.00005	0.00058	0.00774	0.00038	<0.0005	<0.01	<0.00005
25-Sep-12	1715	2500	2470																			
2-Oct-12	1722	2500	2680	5.39	417	92																
9-Oct-12	1729	2500	2470																			
16-Oct-12	1736	2500	2300	5.61	431	53	<1	6.24	1.4	30	15.2	<0.5	0.033	20	0.0519	<0.00005	0.00055	0.0106	0.00045	<0.0005	<0.01	0.000053
23-Oct-12	1743	2500	2450																			
30-Oct-12	1750	2500	2415	5.24	403	72																
6-Nov-12	1757	2500	2505																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Sep-11	1344	3.73	<0.0005	0.00494	0.627	<0.03	0.000104	1.44	0.122	<0.00001	<0.00005	0.00355	0.884	<0.001	1.23	0.000011	<2	<0.00005	0.00616	<0.0005	0.0099
27-Sep-11	1351																				
4-Oct-11	1358																				
11-Oct-11	1365																				
18-Oct-11	1372	3.49	<0.0005	0.00466	0.629	<0.03	0.000103	1.36	0.111	<0.00001	<0.00005	0.00326	0.864	<0.001	1.16	0.000011	<2	<0.00005	0.00532	<0.0005	0.0099832
25-Oct-11	1379																				
1-Nov-11	1386																				
8-Nov-11	1393																				
15-Nov-11	1400	3.55	<0.0005	0.00467	0.702	<0.03	0.000213	1.42	0.115	<0.00001	<0.00005	0.00333	0.953	<0.001	1.22	0.000011	<2	<0.00005	0.00557	<0.0005	0.0101
22-Nov-11	1407																				
29-Nov-11	1414																				
6-Dec-11	1421																				
13-Dec-11	1428	4.87	<0.0005	0.00699	0.991	<0.03	0.000731	2.01	0.167	<0.00001	<0.00005	0.00492	1.18	0.0013	1.6	0.000013	<2	<0.00005	0.00578	<0.0005	0.0155
20-Dec-11	1435																				
27-Dec-11	1442																				
3-Jan-12	1449																				
10-Jan-12	1456	3.65	<0.0005	0.00517	0.745	<0.03	0.000336	1.54	0.126	<0.00001	<0.00005	0.00372	1	<0.001	1.4	0.000029	<2	<0.00005	0.0036	<0.0005	0.0133
17-Jan-12	1463																				
24-Jan-12	1470																				
31-Jan-12	1477																				
7-Feb-12	1484	4.1	<0.0005	0.00614	0.907	<0.03	0.000197	1.83	0.147	<0.00001	<0.00005	0.00425	0.956	<0.001	1.07	0.000016	<2	<0.00005	0.00504	<0.0005	0.0146
14-Feb-12	1491																				
21-Feb-12	1498																				
28-Feb-12	1505																				
6-Mar-12	1512	5.22	<0.0005	0.00758	1.14	<0.03	0.000207	2.23	0.178	<0.00001	<0.00005	0.00548	1.31	0.0014	1.95	0.00002	<2	<0.00005	0.00368	<0.0005	0.0156
13-Mar-12	1519																				
20-Mar-12	1526																				
27-Mar-12	1533																				
3-Apr-12	1540	5.27	<0.0005	0.00797	1.27	<0.03	0.000256	2.62	0.195	<0.00001	<0.00005	0.00583	1.53	0.0013	1.92	0.000021	<2	<0.00005	0.0045	<0.0005	0.0191
10-Apr-12	1547																				
17-Apr-12	1554																				
24-Apr-12	1561																				
1-May-12	1568	3.49	<0.0005	0.00559	0.924	<0.03	0.000131	1.7	0.135	<0.00001	<0.00005	0.00415	0.926	0.001	1.4	0.000015	<2	<0.00005	0.00495	<0.0005	0.0125
8-May-12	1575																				
15-May-12	1582																				
22-May-12	1589																				
29-May-12	1596	4.01	<0.0005	0.00634	1.08	0.055	0.000158	1.9	0.156	<0.00001	<0.00005	0.00449	1.04	0.0011	1.75	0.000019	<2	<0.00005	0.00415	<0.0005	0.0128
5-Jun-12	1603																				
12-Jun-12	1610																				
19-Jun-12	1617																				
26-Jun-12	1624	3.72	<0.0005	0.00567	0.997	<0.03	0.000202	1.73	0.141	<0.00001	<0.00005	0.00411	0.971	0.001	1.62	0.000018	<2	<0.00005	0.0045	<0.0005	0.0124
3-Jul-12	1631																				
10-Jul-12	1638																				
17-Jul-12	1645																				
24-Jul-12	1652	3.47	<0.0005	0.00553	1.04	0.048	0.00105	1.68	0.141	<0.00001	<0.00005	0.00405	0.941	0.0011	1.59	0.000019	<2	<0.00005	0.00421	<0.0005	0.0129
31-Jul-12	1659																				
7-Aug-12	1666																				
14-Aug-12	1673																				
21-Aug-12	1680	4.69	<0.0005	0.00745	1.49	<0.03	0.000205	2.39	0.185	<0.00001	<0.00005	0.00544	1.1	0.0015	2.15	0.000025	<2	<0.00005	0.00444	<0.0005	0.0172
28-Aug-12	1687																				
4-Sep-12	1694																				
11-Sep-12	1701																				
18-Sep-12	1708	2.5	<0.0005	0.00397	0.744	<0.03	0.000161	1.25	0.1	<0.00001	<0.00005	0.0034	0.767	<0.001	1.18	0.000019	<2	<0.00005	0.00343	<0.0005	0.0084
25-Sep-12	1715																				
2-Oct-12	1722																				
9-Oct-12	1729																				
16-Oct-12	1736	3.37	<0.0005	0.00524	1.06	0.157	0.000199	1.64	0.13	<0.00001	<0.00005	0.00395	0.85	0.0011	1.47	0.000024	<2	<0.00005	0.00281	<0.0005	0.0124
23-Oct-12	1743																				
30-Oct-12	1750																				
6-Nov-12	1757																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-Nov-12	1764	2500	2490	5.09	408	57	<1	8.98	<1	33	17	<0.5	0.035	22.2	0.0604	<0.00005	0.00054	0.0105	0.00051	<0.0005	<0.01	0.000061
20-Nov-12	1771	2500	2450																			
27-Nov-12	1778	2500	2450	5.01	450	66																
4-Dec-12	1785	2500	2435																			
11-Dec-12	1792	2500	2405	5.16	424	37	<1	4.99	<1	45	10.3	<0.5	0.023	13.4	0.0402	<0.00005	0.00039	0.00698	0.00034	<0.0005	<0.01	<0.00005
18-Dec-12	1799	2500	2495																			
25-Dec-12	1806	2500	2440	5.48	481	37																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-Jan-08	0	2500	1900	8.39	470	1099	<1	<1	99.1	1100	28.6	6.94	3.27	389	0.169	0.00482	0.0627	0.00482	<0.001	<0.0025	0.207	<0.00025
24-Jan-08	7	2500	2530	8.71	419	645																
31-Jan-08	14	2500	2450	8.79	429	330	<1	<1	103.6	221	6.08	<0.5	0.973	62.5	0.109	0.00362	0.038	0.00152	<0.0002	<0.0005	0.073	<0.00005
7-Feb-08	21	2500	2480	8.7	433	330																
14-Feb-08	28	2500	2475	8.57	426	199	<1	<1	83.8	134	4.91	<0.5	0.486	22.9	0.1	0.00298	0.0233	0.00144	<0.0002	<0.0005	0.038	<0.00005
21-Feb-08	35	2500	2440	8.26	407	185																
28-Feb-08	42	2500	2420	7.93	420	153	<1	4.64	66.3	99.5	13.9	<0.5	0.252	16.1	0.0413	0.0023	0.00974	0.00702	<0.0002	<0.0005	0.029	<0.00005
6-Mar-08	49	2500	2495	7.86	418	145																
13-Mar-08	56	2500	2460	7.99	435	132	<1	2.46	58.2	92.8	24.5	<0.5	0.172	14.7	0.0483	0.00217	0.00683	0.00839	<0.0002	<0.0005	0.023	0.000156
20-Mar-08	63	2500	2570	7.85	420	117																
27-Mar-08	70	2500	2465	7.78	440	116	<1	3.3	51.6	90.2	27.8	<0.5	0.118	13	0.0246	0.00139	0.0044	0.00827	<0.0002	<0.0005	0.016	<0.00005
3-Apr-08	77	2500	2520	7.79	427	102																
10-Apr-08	84	2500	2465	7.74	433	126	<1	2.63	48.2	71	36.6	<0.5	0.111	13	0.0197	0.00134	0.00336	0.011	<0.0002	<0.0005	0.015	<0.00005
17-Apr-08	91	2500	2520	7.58	420	115																
24-Apr-08	98	2500	2495	7.72	402	101	<1	3.61	42.2	72.2	35.7	<0.5	0.08	11.4	0.0229	0.00115	0.00267	0.0115	<0.0002	<0.0005	0.012	<0.00005
1-May-08	105	2500	2510	7.83	373	119																
8-May-08	112	2500	2540	7.9	379	117	<1	2.56	47.6	68.9	45.2	<0.5	0.082	10.9	0.0174	0.00123	0.0023	0.0117	<0.0002	<0.0005	0.013	<0.00005
15-May-08	119	2500	2345	7.85	335	117																
22-May-08	126	2500	2540	7.88	347	107	<1	2.64	42.3	60.4	42.1	<0.5	0.073	11.3	0.0205	0.00103	0.00209	0.00965	<0.0002	<0.0005	0.011	<0.00005
29-May-08	133	2500	2430	7.75	450	116																
5-Jun-08	140	2500	2165	7.86	415	98	<1	3.17	43.5	81.8	48	<0.5	0.059	14.1	0.0177	0.00107	0.00189	0.0112	<0.0002	<0.0005	<0.01	<0.00005
12-Jun-08	147	2500	2480	7.85	396	84																
19-Jun-08	154	2500	2325	7.76	361	83	<1	4.36	43.2	63.5	46	<0.5	0.071	13.3	0.0179	0.00101	0.00179	0.00959	<0.0002	<0.0005	<0.01	<0.00005
26-Jun-08	161	2500	2510	7.79	367	103																
3-Jul-08	168	2500	2320	7.74	376	116	<1	3.15	27.9	73.7	43.6	<0.5	0.091	21.9	0.0168	0.000935	0.00174	0.0104	<0.0002	<0.0005	0.012	<0.00005
10-Jul-08	175	2500	2510	7.84	369	109																
17-Jul-08	182	2500	2465	7.81	399	106	<1	2.68	37.7	58.3	43.4	<0.5	0.062	12.8	0.0222	0.000875	0.00189	0.00971	<0.0002	<0.0005	<0.01	<0.00005
24-Jul-08	189	2500	2380	7.76	386	106																
31-Jul-08	196	2500	2345	7.79	408	103	<1	2.58	43.1	60.5	44	<0.5	0.048	13.4	0.021	0.00077	0.00176	0.0089	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-08	203	2500	2490	7.79	352	98																
14-Aug-08	210	2500	2350	7.79	377	109	<1	2.93	39.4	66.8	45.2	<0.5	0.047	13.1	0.0182	0.000753	0.00154	0.00851	<0.0002	<0.0005	<0.01	<0.00005
21-Aug-08	217	2500	2480	7.74	285	101																
28-Aug-08	224	2500	2460	7.72	361	94	<1	2.79	39.3	56.9	40.9	<0.5	0.046	11.9	0.0236	0.000641	0.00157	0.00797	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-08	231	2500	2440	7.71	305	96																
11-Sep-08	238	2500	2450	7.7	318	99	<1	3.01	40.7	55.3	43.3	<0.5	0.038	12.8	0.0384	0.00065	0.00152	0.00873	<0.0002	<0.0005	<0.01	
18-Sep-08	245	2500	2495	7.78	291	96																
25-Sep-08	252	2500	2410	7.73	304	95	<1	3.03	36.3	57.6	38.8	<0.5	0.032	11.3	0.0246	0.000534	0.00132	0.00713	<0.0002	<0.0005	<0.01	<0.00005
2-Oct-08	259	2500	2410	7.8	385	95																
9-Oct-08	266	2500	2405	7.67	391	91	<1	3.35	34.2	50.1	39.2	<0.5	0.03	10.4	0.0235	0.000486	0.00137	0.00657	<0.0002	<0.0005	<0.01	0.000056
16-Oct-08	273	2500	2350	7.78	377	89																
23-Oct-08	280	2500	2370	7.68	409	86	<1	3.3	35.6	50.5	42	<0.5	0.028	11	0.022	0.000464	0.00124	0.00728	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-08	287	2500	2385	7.58	441	89																
6-Nov-08	294	2500	2425	7.5	436	86	<1	4.14	36.4	52.6	41.4	<0.5	0.029	10.5	0.0202	0.000436	0.00103	0.0066	<0.0002	<0.0005	<0.01	<0.00005
13-Nov-08	301	2500	2230	7.62	425	85																
20-Nov-08	308	2500	2215	7.65	422	75	<1	3.09	37.6	53.5	42.3	<0.5	0.028	10.9	0.023	0.000458	0.00114	0.00715	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-08	315	2500	2495	7.73	367	76																
4-Dec-08	322	2500	2380	7.69	357	88	<1	2.75	41.9	50.1	41.7	<0.5	0.024	10.3	0.0197	0.000442	0.00101	0.00662	<0.0002	<0.0005	<0.01	<0.00005
11-Dec-08	329	2500	2440	7.54	307	76																
18-Dec-08	336	2500	2445	7.54	361	88	<1	4.6	43.7	50.3	42.4	<0.5	0.023	9.24	0.0236	0.000416	0.00091	0.00753	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Nov-12	1764	3.57	<0.0005	0.0059	1.12	<0.03	0.000161	1.96	0.145	<0.00001	<0.00005	0.00428	1.26	0.0013	1.9	0.000025	<2	<0.00005	0.00214	<0.0005	0.0132
20-Nov-12	1771																				
27-Nov-12	1778																				
4-Dec-12	1785																				
11-Dec-12	1792	2.15	<0.0005	0.00363	0.702	<0.03	0.000086	1.2	0.0876	<0.00001	<0.00005	0.00265	0.728	<0.001	1.16	0.000023	<2	<0.00005	0.00239	<0.0005	0.0086
18-Dec-12	1799																				
25-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jan-08	0	9.57	<0.0025	<0.0005	0.0106	<0.03	<0.00025	1.14	0.00969	<0.00001	0.139	<0.0025	8.3	0.0724	2.58	<0.00005	228	<0.00025	0.00089	0.0122	<0.005
24-Jan-08	7																				
31-Jan-08	14	2.14	0.00056	<0.0001	0.00203	0.126	<0.00005	0.181	0.00418	<0.00001	0.0472	<0.0005	3.45	0.0129	2.14	<0.00001	74.7	<0.00005	0.0011	0.00635	<0.001
7-Feb-08	21																				
14-Feb-08	28	1.74	<0.0005	<0.0001	0.00282	<0.03	<0.00005	0.137	0.00516	<0.00001	0.0275	<0.0005	3.13	0.007	1.49	<0.00001	41.1	<0.00005	0.00114	0.00296	<0.001
21-Feb-08	35																				
28-Feb-08	42	5	<0.0005	0.0001	0.0025	<0.03	<0.00005	0.332	0.0178	<0.00001	0.0207	<0.0005	5.71	0.0043	1.37	<0.00001	28.9	0.00005	0.00127	0.00114	<0.001
6-Mar-08	49																				
13-Mar-08	56	8.57	<0.0005	0.00021	0.00236	<0.03	0.000208	0.685	0.0338	<0.00001	0.0213	<0.0005	6.4	0.0051	1.28	<0.00001	18.2	0.000084	0.00133	0.0007	0.0046
20-Mar-08	63																				
27-Mar-08	70	9.92	<0.0005	0.0002	0.00233	<0.03	0.000052	0.724	0.0371	<0.00001	0.0147	<0.0005	4.95	0.0032	1.06	<0.00001	10.4	0.000051	0.00122	<0.0005	0.0031
3-Apr-08	77																				
10-Apr-08	84	13	<0.0005	0.00035	0.00304	<0.03	<0.00005	1.01	0.0553	<0.00001	0.0186	<0.0005	5.58	0.0032	0.998	<0.00001	6.2	0.000055	0.00143	<0.0005	<0.001
17-Apr-08	91																				
24-Apr-08	98	12.8	<0.0005	0.00034	0.00302	<0.03	0.000089	0.916	0.053	<0.00001	0.0163	<0.0005	4.85	0.0035	0.949	<0.00001	3.6	0.000053	0.00176	<0.0005	0.001
1-May-08	105																				
8-May-08	112	15.9	<0.0005	0.00042	0.0025	<0.03	<0.00005	1.35	0.0822	<0.00001	0.0172	<0.0005	5.18	0.0038	0.995	<0.00001	2.5	0.00005	0.00212	<0.0005	<0.001
15-May-08	119																				
22-May-08	126	15.1	<0.0005	0.00034	0.00293	<0.03	0.000122	1.07	0.0571	<0.00001	0.0171	<0.0005	3.92	0.0037	0.909	<0.00001	<2	0.000051	0.00205	<0.0005	0.0016
29-May-08	133																				
5-Jun-08	140	17.1	<0.0005	0.00043	0.0042	<0.03	<0.00005	1.29	0.0762	<0.00001	0.022	<0.0005	3.88	0.0034	0.886	<0.00001	<2	<0.00005	0.00212	<0.0005	<0.001
12-Jun-08	147																				
19-Jun-08	154	16.6	<0.0005	0.00039	0.00364	<0.03	0.000061	1.08	0.0687	<0.00001	0.0202	<0.0005	3.48	0.0034	0.877	<0.00001	<2	<0.00005	0.002	<0.0005	<0.001
26-Jun-08	161																				
3-Jul-08	168	15.8	<0.0005	0.00036	0.00398	<0.03	0.000118	1.01	0.0598	<0.00001	0.0286	<0.0005	3.19	0.0035	0.744	<0.00001	<2	<0.00005	0.00259	<0.0005	<0.001
10-Jul-08	175																				
17-Jul-08	182	15.6	<0.0005	0.00035	0.00472	<0.03	0.00008	1.06	0.0669	<0.00001	0.0225	<0.0005	3.18	0.0031	0.799	<0.00001	<2	<0.00005	0.00284	<0.0005	<0.001
24-Jul-08	189																				
31-Jul-08	196	15.9	<0.0005	0.00039	0.00443	<0.03	<0.00005	1.01	0.0685	<0.00001	0.0223	<0.0005	2.72	0.0034	0.743	<0.00001	<2	<0.00005	0.00298	<0.0005	<0.001
7-Aug-08	203																				
14-Aug-08	210	16.4	<0.0005	0.00036	0.00388	<0.03	<0.00005	1.02	0.0699	<0.00001	0.0225	<0.0005	2.52	0.0028	0.739	<0.00001	<2	<0.00005	0.00316	<0.0005	<0.001
21-Aug-08	217																				
28-Aug-08	224	14.9	<0.0005	0.0003	0.00414	<0.03	0.00007	0.913	0.0603	<0.00001	0.0204	<0.0005	2.12	0.0027	0.676	<0.00001	<2	<0.00005	0.00312	<0.0005	0.001
4-Sep-08	231																				
11-Sep-08	238	15.6	<0.0005	0.00036	0.00474	<0.03	0.000062	1.05	0.0771	<0.00001	0.0227	<0.0005	2.36	0.0028	0.696	<0.00001	<2	<0.00005	0.00327	<0.0005	<0.001
18-Sep-08	245																				
25-Sep-08	252	14.2	<0.0005	0.00032	0.0048	<0.03	0.000092	0.812	0.0645	<0.00001	0.0193	<0.0005	1.86	0.0024	0.632	<0.00001	<2	<0.00005	0.00303	<0.0005	<0.001
2-Oct-08	259																				
9-Oct-08	266	14.4	<0.0005	0.00031	0.00599	<0.03	0.000056	0.779	0.0692	<0.00001	0.0181	<0.0005	1.75	0.0031	0.579	<0.00001	<2	<0.00005	0.00267	<0.0005	<0.001
16-Oct-08	273																				
23-Oct-08	280	15.6	<0.0005	0.00036	0.00484	<0.03	0.00007	0.77	0.0729	<0.00001	0.0186	<0.0005	1.7	0.002	0.567	<0.00001	<2	<0.00005	0.00439	<0.0005	<0.001
30-Oct-08	287																				
6-Nov-08	294	15.4	<0.0005	0.00036	0.00566	<0.03	0.000053	0.743	0.0754	<0.00001	0.0179	<0.0005	1.65	0.0019	0.564	<0.00001	<2	<0.00005	0.00358	<0.0005	<0.001
13-Nov-08	301																				
20-Nov-08	308	15.7	<0.0005	0.00041	0.00578	<0.03	0.000057	0.741	0.0869	<0.00001	0.0207	<0.0005	1.78	0.0021	0.545	<0.00001	<2	<0.00005	0.00439	<0.0005	<0.001
27-Nov-08	315																				
4-Dec-08	322	15.4	<0.0005	0.0004	0.00698	<0.03	0.000068	0.778	0.0679	<0.00001	0.0196	<0.0005	1.68	0.0017	0.521	<0.00001	<2	<0.00005	0.00406	<0.0005	<0.001
11-Dec-08	329																				
18-Dec-08	336	16	<0.0005	0.00036	0.00593	<0.03	<0.00005	0.606	0.0575	<0.00001	0.0173	<0.0005	1.54	0.0017	0.546	<0.00001	<2	<0.00005	0.004	<0.0005	0.0016

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
25-Dec-08	343	2500	2425	7.68	332	81																
1-Jan-09	350	2500	2420	7.78	330	64	<1	10.93	37.9	41	32.4	<0.5	<0.02	7.7	0.0292	0.000298	0.00097	0.00505	<0.0002	<0.0005	<0.01	<0.00005
8-Jan-09	357	2500	2370	7.47	354	77																
15-Jan-09	364	2500	2490	7.54	365	93	<1	5.01	47.2	63.8	47.2	<0.5	<0.02	8.57	0.0174	0.000348	0.00081	0.00709	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-09	371	2500	2510	7.49	359	78																
29-Jan-09	378	2500	2465	7.54	383	83	<1	7.62	51	39.3	42.1	<0.5	<0.02	8.06	0.0127	0.000313	0.00077	0.00579	<0.0002	<0.0005	<0.01	<0.00005
5-Feb-09	385	2500	2420	7.56	343	95																
12-Feb-09	392	2500	2375	7.59	381	82	<1	2.82	39.4	50.6	40.4	<0.5	0.024	9.26	0.0182	0.000401	0.00098	0.00616	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-09	399	2500	2435	7.59	366	74																
26-Feb-09	406	2500	2415	7.64	280	75	<1	7.48	38.7	39.8	35.8	<0.5	<0.02	8.52	0.0233	0.000276	0.00084	0.00464	<0.0002	<0.0005	<0.01	<0.00005
5-Mar-09	413	2500	2470	7.42	240	79																
12-Mar-09	420	2500	2410	7.42	329	74	<1	3.89	36.5	39	38.5	<0.5	<0.02	8.02	0.0199	0.000288	0.0009	0.00513	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-09	427	2500	2430	7.44	340	72																
26-Mar-09	434	2500	2470	7.34	381	71	<1	4.66	34	39.8	35.1	<0.5	<0.02	7.71	0.0196	0.000266	0.00086	0.00473	<0.0002	<0.0005	<0.01	<0.00005
2-Apr-09	441	2500	2380	7.4	380	79																
9-Apr-09	448	2500	2430	7.41	375	81	<1	3.86	39.2	62.5	40.4	<0.5	0.023	8.6	0.0179	0.00034	0.00092	0.00514	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-09	455	2500	2505	7.47	387	73																
23-Apr-09	462	2500	2480	7.55	378	74																
30-Apr-09	469	2500	2440																			
7-May-09	476	2500	2405	7.54	373	84	<1	2.78	39	52.3	40.9	<0.5	0.021	9.67	0.0187	0.000326	0.00098	0.00523	<0.0002	<0.0005	<0.01	<0.00005
14-May-09	483	2500	2485																			
21-May-09	490	2500	2430	7.49	384	82																
28-May-09	497	2500	2480																			
4-Jun-09	504	2500	2415	7.67	374	74	<1	3.58	43.2	39.6		<0.5	0.036	11.3								
11-Jun-09	511	2500	2345																			
18-Jun-09	518	2500	2360	7.58	397	68																
25-Jun-09	525	2500	2025																			
2-Jul-09	532	2500	2405	7.45	331	82	<1	3.07	36.2	51.5		<0.5	<0.02	10.2								
9-Jul-09	539	2500	2360																			
16-Jul-09	546	2500	2480	7.38	388	62																
23-Jul-09	553	2500	2405																			
30-Jul-09	560	2500	2440	7.28	362	76	<1	5.82	36.3	47.4		<0.5	0.022	10.7								
6-Aug-09	567	2500	2395																			
13-Aug-09	574	2500	2320	7.44	331	86																
20-Aug-09	581	2500	2505																			
27-Aug-09	588	2500	2420	7.26	299	81	<1	3.74	36.3	53.3		<0.5	0.055	11.9								
3-Sep-09	595	2500	2400																			
10-Sep-09	602	2500	2480	7.48	353	75																
17-Sep-09	609	2500	2480																			
24-Sep-09	616	2500	2470	7.44	342	73	<1	3.36	36.1	<10		<0.5	<0.02	9.18								
1-Oct-09	623	2500	2495																			
8-Oct-09	630	2500	2480	7.3	307	71																
15-Oct-09	637	2500	2500																			
22-Oct-09	644	2500	2505	7.31	294	71	<1	4.51	34.9	46		<0.5	<0.02	7.95								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-08	0	2500	2220	4.57	535	756	<1	91.04	<1	543	192	4.07	1.07	344	8.71	0.00092	0.00179	0.0614	0.0467	<0.0025	<0.05	0.0184
22-Jan-08	7	2500	2425	4.26	627	750																
29-Jan-08	14	2500	2640	3.96	632	302	16.14	92.23	<1	200	47.3	<0.5	0.467	132	7.55	0.000265	0.00069	0.0108	0.0228	<0.0005	<0.01	0.00398
5-Feb-08	21	2500	2740	3.8	647	279																
12-Feb-08	28	2500	2475	3.64	584	309	29.61	107.03	<1	203	27.4	<0.5	0.365	121	6.18	0.000202	0.00077	0.00373	0.0145	<0.0005	<0.01	0.003
19-Feb-08	35	2500	2455	3.61	619	309																
26-Feb-08	42	2500	2440	3.41	619	360	35.22	119.93	<1	196	21	<0.5	0.327	131	4.37	0.000185	0.00093	0.00155	0.0103	<0.0005	<0.01	0.00312
4-Mar-08	49	2500	2540	3.51	613	307																
11-Mar-08	56	2500	2660	3.44	619	314	30.21	100.28	<1	169	13.7	<0.5	0.207	106	3.05	0.000156	0.00074	0.00088	0.00563	<0.0005	<0.01	0.00251
18-Mar-08	63	2500	2535	3.41	613	304																
25-Mar-08	70	2500	2460	3.33	630	360	38.09	119.89	<1	178	12.3	<0.5	0.225	123	2.66	0.000148	0.00081	0.000992	0.00441	<0.0005	<0.01	0.0025
1-Apr-08	77	2500	2490	3.36	636	290																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
25-Dec-08	343																				
1-Jan-09	350	12	<0.0005	0.00031	0.0046	<0.03	<0.00005	0.586	0.0715	<0.00001	0.0151	<0.0005	1.25	0.0015	0.406	<0.00001	<2	<0.00005	0.00353	<0.0005	0.001
8-Jan-09	357																				
15-Jan-09	364	17.5	<0.0005	0.00063	0.00788	<0.03	0.000052	0.863	0.106	<0.00001	0.0198	<0.0005	1.6	0.0013	0.525	<0.00001	<2	<0.00005	0.00386	<0.0005	0.0011
22-Jan-09	371																				
29-Jan-09	378	15.7	<0.0005	0.00047	0.00527	<0.03	<0.00005	0.73	0.106	<0.00001	0.0206	<0.0005	1.29	0.0012	0.459	<0.00001	<2	<0.00005	0.00388	<0.0005	<0.001
5-Feb-09	385																				
12-Feb-09	392	14.9	<0.0005	0.00039	0.00504	<0.03	<0.00005	0.786	0.0975	<0.00001	0.0282	<0.0005	1.4	0.0016	0.481	<0.00001	<2	<0.00005	0.00516	<0.0005	<0.001
19-Feb-09	399																				
26-Feb-09	406	13.3	<0.0005	0.00031	0.0044	<0.03	<0.00005	0.644	0.0944	<0.00001	0.0234	<0.0005	1.08	0.0012	0.397	<0.00001	<2	<0.00005	0.00428	<0.0005	0.0011
5-Mar-09	413																				
12-Mar-09	420	14.5	<0.0005	0.00036	0.0081	<0.03	0.000147	0.589	0.0875	<0.00001	0.0221	<0.0005	1.2	0.0014	0.428	<0.00001	<2	<0.00005	0.0037	<0.0005	0.0015
19-Mar-09	427																				
26-Mar-09	434	13.2	<0.0005	0.0003	0.0039	<0.03	<0.00005	0.488	0.0709	<0.00001	0.0218	<0.0005	1.15	0.0012	0.391	<0.00001	<2	<0.00005	0.00452	<0.0005	<0.001
2-Apr-09	441																				
9-Apr-09	448	15.1	<0.0005	0.00035	0.0048	<0.03	<0.00005	0.669	0.102	<0.00001	0.0268	<0.0005	1.24	0.0016	0.453	<0.00001	<2	<0.00005	0.0048	<0.0005	<0.001
16-Apr-09	455																				
23-Apr-09	462																				
30-Apr-09	469																				
7-May-09	476	15.4	<0.0005	0.00034	0.00528	<0.03	<0.00005	0.59	0.0976	<0.00001	0.0282	<0.0005	1.22	0.0018	0.448	<0.00001	<2	<0.00005	0.00477	<0.0005	<0.001
14-May-09	483																				
21-May-09	490																				
28-May-09	497																				
4-Jun-09	504																				
11-Jun-09	511																				
18-Jun-09	518																				
25-Jun-09	525																				
2-Jul-09	532																				
9-Jul-09	539																				
16-Jul-09	546																				
23-Jul-09	553																				
30-Jul-09	560																				
6-Aug-09	567																				
13-Aug-09	574																				
20-Aug-09	581																				
27-Aug-09	588																				
3-Sep-09	595																				
10-Sep-09	602																				
17-Sep-09	609																				
24-Sep-09	616																				
1-Oct-09	623																				
8-Oct-09	630																				
15-Oct-09	637																				
22-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-08	0	69.9	<0.0025	0.171	6.47	15.7	0.00391	4.33	0.623	<0.00001	<0.00025	0.218	41.1	0.0109	4.28	<0.00005	16.8	0.0006	0.00089	<0.0025	2.82
22-Jan-08	7																				
29-Jan-08	14	18	0.00067	0.0353	2.91	12	0.00609	0.595	0.118	<0.00001	<0.00005	0.0327	4.2	0.0063	7.48	<0.00001	<2	0.000102	0.00025	<0.0005	0.629
5-Feb-08	21																				
12-Feb-08	28	10.4	0.00088	0.0218	3.14	22.9	0.000963	0.373	0.0884	<0.00001	0.00008	0.0136	1.7	0.0057	6.01	0.00002	<2	0.000051	0.00024	<0.0005	0.6
19-Feb-08	35																				
26-Feb-08	42	7.81	0.00139	0.0215	3.02	31.6	0.000267	0.365	0.0727	<0.00001	<0.00005	0.0118	1.14	0.0057	5.65	0.00003	<2	<0.00005	0.00015	0.00115	0.58
4-Mar-08	49																				
11-Mar-08	56	5.04	0.00111	0.015	2.88	28.5	0.000154	0.271	0.0473	<0.00001	<0.00005	0.00662	0.62	0.0043	4.03	0.000012	<2	<0.00005	0.00014	0.00109	0.485
18-Mar-08	63																				
25-Mar-08	70	4.51	0.00127	0.0139	3.12	34.1	0.000304	0.243	0.0365	<0.00001	0.000053	0.00565	0.47	0.0044	4.13	0.000017	<2	<0.00005	0.00012	0.00136	0.45
1-Apr-08	77																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Apr-08	84	2500	2410	3.26	608	346	39.14	110.29	<1	159	10.1	<0.5	0.182	110	2.32	0.00015	0.00088	0.000682	0.00306	<0.0005	<0.01	0.00247
15-Apr-08	91	2500	2490	3.38	605	328																
22-Apr-08	98	2500	2515	3.31	628	383	43.17	126.75	<1	174	10.8	<0.5	0.214	125	2.27	0.000177	0.00087	0.000728	0.00364	<0.0005	<0.01	0.00305
29-Apr-08	105	2500	2605	3.32	403	308																
6-May-08	112	2500	2495	3.26	384	403	45.33	128.65	<1	197	10.2	<0.5	0.239	127	2.75	0.000165	0.00103	0.000711	0.00284	<0.0005	<0.01	0.00277
13-May-08	119	2500	2530	3.32	391	310																
20-May-08	126	2500	2420	3.21	390	417	44.83	125.01	<1	178	8.14	<0.5	0.181	122	1.92	0.000165	0.00106	0.000613	0.00261	<0.0005	<0.01	0.00226
27-May-08	133	2500	2505	3.31	360	401																
3-Jun-08	140	2500	2390	3.29	443	306	41.45	104.86	<1	158	6.91	<0.5	0.136	102	1.8	0.000158	0.00105	0.000441	0.00173	<0.0005	<0.01	0.00194
10-Jun-08	147	2500	2460	3.25	530	290																
17-Jun-08	154	2500	2220	3.24	439	272	45.94	100.37	<1	135	7.4	<0.5	0.159	89.5	1.56	0.000196	0.00159	0.000356	0.00146	<0.0005	<0.01	0.0013
24-Jun-08	161	2500	2215	3.25	450	240																
1-Jul-08	168	2500	2300	3.18	444	334	43.59	91.26	<1	145	6.26	<0.5	0.174	94.6	1.88	0.000218	0.00278	0.000311	0.00185	<0.0005	<0.01	0.000828
8-Jul-08	175	2500	2330	3.18	461	388																
15-Jul-08	182	2500	2490	3.22	494	340	43.06	92.8	<1	130	5.39	<0.5	0.162	83.3	1.53	0.000192	0.00241	0.00038	0.00125	<0.0005	<0.01	0.000607
22-Jul-08	189	2500	2320	3.33	501	268																
29-Jul-08	196	2500	2300	3.2	421	378	44.37	99.89	<1	120	5	<0.5	0.138	96.4	2.02	0.000158	0.00247	0.000134	0.00143	<0.0005	<0.01	0.000739
5-Aug-08	203	2500	2305	3.14	411	367																
12-Aug-08	210	2500	2380	3.2	386	341	42.66	82.56	<1	119	4.42	<0.5	0.114	77.7	1.15	0.000184	0.00312	0.000179	0.00122	<0.0005	<0.01	0.00049
19-Aug-08	217	2500	2305	3.16	384	349																
26-Aug-08	224	2500	2320	3.15	376	381	50.7	100.83	<1	120	4.71	<0.5	0.113	90.6	1.67	0.000187	0.00341	0.000115	0.00108	<0.0005	<0.01	0.000487
2-Sep-08	231	2500	2235	3.15	392	378																
9-Sep-08	238	2500	2275	3.12	395	391	52.82	100.15	<1	134	4.36	<0.5	0.11	89.1	1.41	0.000219	0.00528	0.000206	0.00105	<0.0005	<0.01	0.000391
16-Sep-08	245	2500	2310	3.2	400	351																
23-Sep-08	252	2500	2280	3.24	381	281	40.11	75.85	<1	96.6	3.09	<0.5	0.092	71.5	0.887	0.000214	0.0044	0.000493	0.00073	<0.0005	<0.01	0.000487
30-Sep-08	259	2500	2285	3.17	391	352																
7-Oct-08	266	2500	2310	3.2	520	375	47.54	92.92	<1	115	4.07	<0.5	0.133	87.5	1.5	0.000141	0.0037	0.000129	0.00102	<0.0005	<0.01	0.000502
14-Oct-08	273	2500	2225	3.14	557	362																
21-Oct-08	280	2500	2305	3.22	575	349	44.7	83.39	<1	113	4.16	<0.5	0.115	79.9	1.15	0.000167	0.00425	0.000349	0.00073	<0.0005	<0.01	0.000358
28-Oct-08	287	2500	2270	3.2	554	339																
4-Nov-08	294	2500	2225	2.86	557	369	49.1	90.38	<1	93.1	3.72	<0.5	0.105	82.4	1.08	0.000159	0.00458	0.000202	0.00076	<0.0005	<0.01	0.000348
11-Nov-08	301	2500	2245	3.18	556	357																
18-Nov-08	308	2500	2325	3.16	542	304	47.77	86.63	<1	99.5	3.71	<0.5	0.091	77	0.809	0.000147	0.00484	0.000178	0.00058	<0.0005	<0.01	0.000303
25-Nov-08	315	2500	2290	3.19	436	307																
2-Dec-08	322	2500	2230	3.2	406	357	46.28	85.56	<1	101	3.55	<0.5	0.102	82	1.03	0.000147	0.00438	0.000104	0.00061	<0.0005	<0.01	0.000283
9-Dec-08	329	2500	2235	3.18	404	365																
16-Dec-08	336	2500	2320	3.17	387	357	47.86	91.63	<1	111	4.86	<0.5	0.123	83	0.794	0.000123	0.00344	0.00026	0.00059	<0.0005	<0.01	0.000395
23-Dec-08	343	2500	2165	3.21	425	341																
30-Dec-08	350	2500	1780	3.11	396	361			<1	170	8.04	<0.5	0.19	142	2.08	0.000133	0.00419	0.000146	0.00117	<0.0005	<0.01	0.00117
6-Jan-09	357	2500	2595	3.29	424	299																
13-Jan-09	364	2500	2180	3.14	399	335	47.46	87.53	<1	92.3	3.77	<0.5	0.068	73.1	0.697	0.000142	0.00427	0.000218	0.0004	<0.0005	<0.01	0.000467
20-Jan-09	371	2500	2260	3.12	442	328																
27-Jan-09	378	2500	2185	3.12	457	360	47.95	85.89	<1	86.3	3.59	<0.5	0.095	79.9	0.789	0.000138	0.0049	0.000139	0.00043	<0.0005	<0.01	0.000372
3-Feb-09	385	2500	2330	3.12	442	345																
10-Feb-09	392	2500	2555	3.11	499	369	50.42	100.65	<1	103	4.66	<0.5	0.12	89.3	1.03	0.000145	0.00476	0.000143	0.00058	<0.0005	<0.01	0.000638
17-Feb-09	399	2500	2240	3.21	559	343																
24-Feb-09	406	2500	2160	3.2	493	373	50.75	96.99	<1	113	3.84	<0.5	0.084	86.6	1.04	0.000131	0.0053	0.000295	0.00042	<0.0005	<0.01	0.000413
3-Mar-09	413	2500	2235	3.07	417	366																
10-Mar-09	420	2500	2210	3	415	368	48.99	90.9	<1	103	4.23	<0.5	0.105	87	0.825	0.000115	0.0046	0.000148	0.00045	<0.0005	<0.01	0.000438
17-Mar-09	427	2500	2175	2.99	422	365																
24-Mar-09	434	2500	2335	3.06	461	395	56.43	108.36	<1	132	4.59	<0.5	0.116	100	0.926	0.000116	0.00454	0.000132	0.00053	<0.0005	<0.01	0.000729
31-Mar-09	441	2500	2310	2.98	414	362																
7-Apr-09	448	2500	2300	2.97	496	348	56.14	103.99	<1	123	4.62	<0.5	0.108	91.6	0.767	0.000128	0.00429	0.000173	0.00048	<0.0005	<0.01	0.000913
14-Apr-09	455	2500	2500	3.06	532	339																
21-Apr-09	462	2500	2465	3	482	358																
28-Apr-09	469	2500	2435																			
5-May-09	476	2500	2405	2.98	480	396	60.32	114.18	<1	132	4.72	<0.5	0.092	104	0.759	0.000121	0.0048	0.000204	0.00046	<0.0005	<0.01	0.00129
12-May-09	483	2500	2460																			
19-May-09	490	2500	2435																			
26-May-09	497	2500	2480																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Apr-08	84	3.66	0.00143	0.0148	3.13	32.9	0.000136	0.224	0.0321	<0.00001	<0.00005	0.00554	0.466	0.0046	3.44	0.000013	<2	<0.00005	0.00014	0.00151	0.458
15-Apr-08	91																				
22-Apr-08	98	3.94	0.00169	0.0171	3.61	37.2	0.000356	0.228	0.0342	<0.00001	<0.00005	0.00669	0.436	0.0053	3.61	0.000029	<2	<0.00005	0.0003	0.00183	0.484
29-Apr-08	105																				
6-May-08	112	3.62	0.00166	0.0174	4.15	40.3	0.000312	0.269	0.0302	<0.00001	<0.00005	0.00638	0.451	0.0053	3.73	0.000021	<2	<0.00005	0.00035	0.00196	0.517
13-May-08	119																				
20-May-08	126	2.9	0.00146	0.0148	2.73	37.2		0.217	0.0224	<0.00001	<0.00005	0.00528	0.39	0.0044	3.34	0.000017	<2	<0.00005	0.00028	0.00233	0.433
27-May-08	133																				
3-Jun-08	140	2.52	0.00123	0.0146	2.82	33.3	0.000171	0.151	0.0195	<0.00001	<0.00005	0.00503	0.333	0.0045	2.76	0.000027	<2	<0.00005	0.0003	0.00181	0.355
10-Jun-08	147																				
17-Jun-08	154	2.73	0.00192	0.0133	1.87	28.6	0.000108	0.143	0.0148	0.000015	<0.00005	0.00588	0.389	0.004	1.31	0.000025	<2	<0.00005	0.00028	0.00201	0.238
24-Jun-08	161																				
1-Jul-08	168	2.26	0.00253	0.0154	1.23	28.2		0.148	0.0148	<0.00001	<0.00005	0.00538	0.37	0.0041	1.41	0.000027	<2	<0.00005	0.00014	0.00337	0.152
8-Jul-08	175																				
15-Jul-08	182	1.96	0.00186	0.0122	0.965	26.1	0.000243	0.121	0.0126	<0.00001	<0.00005	0.00447	0.291	0.0033	1.24	0.000017	<2	<0.00005	0.00016	0.00309	0.119
22-Jul-08	189																				
29-Jul-08	196	1.8	0.0025	0.0148	1.09	25.7	0.000124	0.122	0.0132	<0.00001	<0.00005	0.00463	0.272	0.0041	1.17	0.00002	<2	<0.00005	0.00013	0.00376	0.146
5-Aug-08	203																				
12-Aug-08	210	1.6	0.00158	0.0115	0.71	22	0.000191	0.101	0.0109	<0.00001	<0.00005	0.00412	0.254	0.0033	0.983	0.000017	<2	<0.00005	0.00019	0.00295	0.0919
19-Aug-08	217																				
26-Aug-08	224	1.71	0.00215	0.0123	0.712	24.8	0.000848	0.107	0.0106	<0.00001	0.000164	0.00432	0.221	0.0034	1	0.000025	<2	<0.00005	0.00014	0.00397	0.0862
2-Sep-08	231																				
9-Sep-08	238	1.57	0.0018	0.0128	0.633	24.7	<0.00005	0.104	0.0111	<0.00001	<0.00005	0.00428	0.269	0.0038	1.02	0.000023	<2	<0.00005	0.00012	0.00374	0.073
16-Sep-08	245																				
23-Sep-08	252	1.12	0.00109	0.0102	0.528	20.8		0.0731	0.00811	<0.00001	<0.00005	0.00346	0.216	0.0035	0.827	0.000015	<2	<0.00005	0.00013	0.00258	0.103
30-Sep-08	259																				
7-Oct-08	266	1.46	0.00173	0.0128	0.744	25.1	0.00041	0.099964	0.0109	<0.00001	<0.00005	0.00478	0.206	0.0031	0.755	0.000019	<2	<0.00005	0.00016	0.00348	0.0928
14-Oct-08	273																				
21-Oct-08	280	1.52	0.00136	0.0116	0.549	22.1	<0.00005	0.0867	0.011	<0.00001	<0.00005	0.00422	0.198	0.0031	0.763	0.000013	<2	<0.00005	0.00015	0.0028	0.0666
28-Oct-08	287																				
4-Nov-08	294	1.35	0.00137	0.0124	0.5	23	0.000335	0.0861	0.0107	<0.00001	<0.00005	0.00426	0.2	0.0033	0.699	0.000019	<2	<0.00005	0.0002	0.0029	0.0641
11-Nov-08	301																				
18-Nov-08	308	1.35	0.00108	0.0113	0.353	21.3	0.000054	0.081	0.0107	<0.00001	<0.00005	0.00394	0.177	0.0032	0.681	0.000016	<2	<0.00005	0.00016	0.00258	0.0598
25-Nov-08	315																				
2-Dec-08	322	1.29	0.00101	0.0115	0.387	21.6	0.000135	0.0818	0.01	<0.00001	<0.00005	0.00397	0.167	0.003	0.674	0.000019	<2	<0.00005	0.00027	0.00291	0.058
9-Dec-08	329																				
16-Dec-08	336	1.81	0.00087	0.0118	0.42	22.6	0.000091	0.0821	0.0113	<0.00001	<0.00005	0.00414	0.158	0.0035	0.608	0.000015	<2	<0.00005	0.00026	0.00229	0.0841
23-Dec-08	343																				
30-Dec-08	350	2.98	0.00188	0.0211	1.45	46.4	<0.00005	0.149	0.0201	<0.00001	<0.00005	0.00722	0.214	0.0054	2.39	0.000039	<2	<0.00005	0.0004	0.00527	0.229
6-Jan-09	357																				
13-Jan-09	364	1.39	0.00076	0.00995	0.715	20.5	0.000094	0.0707	0.00956	<0.00001	<0.00005	0.00355	0.176	0.003	0.548	0.000033	<2	<0.00005	0.00024	0.00164	0.0875
20-Jan-09	371																				
27-Jan-09	378	1.33	0.00078	0.0106	0.733	22	0.000125	0.0687	0.00928	<0.00001	<0.00005	0.00403	0.173	0.0034	0.629	0.000025	<2	<0.00005	0.00023	0.002	0.0723
3-Feb-09	385																				
10-Feb-09	392	1.71	0.00088	0.0116	0.961	26.1	0.000083	0.0922	0.0125	<0.00001	<0.00005	0.00406	0.192	0.0034	1.03	0.000042	<2	<0.00005	0.00024	0.00254	0.123
17-Feb-09	399																				
24-Feb-09	406	1.4	0.00074	0.0112	0.875	24.1	0.000061	0.0819	0.011	<0.00001	<0.00005	0.00421	0.184	0.0033	0.661	0.000028	<2	<0.00005	0.00016	0.00232	0.0777
3-Mar-09	413																				
10-Mar-09	420	1.56	0.00073	0.0116	0.746	24.9	<0.00005	0.0836	0.0117	<0.00001	<0.00005	0.00408	0.171	0.0034	0.662	0.00002	<2	<0.00005	0.00026	0.00237	0.0829
17-Mar-09	427																				
24-Mar-09	434	1.66	0.00063	0.0136	0.994	31.1	<0.00005	0.106	0.0146	<0.00001	<0.00005	0.00467	0.146	0.004	1.32	0.000035	<2	<0.00005	0.00019	0.00295	0.142
31-Mar-09	441																				
7-Apr-09	448	1.7	0.00056	0.0115	1.43	27.3	0.000082	0.093	0.0144	<0.00001	<0.00005	0.00395	0.167	0.0038	1.1	0.000055	<2	<0.00005	0.0002	0.00194	0.169
14-Apr-09	455																				
21-Apr-09	462																				
28-Apr-09	469																				
5-May-09	476	1.72	0.00081	0.0138	2.13	31.5	0.000219	0.103	0.0158	<0.00001	0.000054	0.00482	0.183	0.0041	1.12	0.000071	<2	<0.00005	0.00027	0.00208	0.235
12-May-09	483																				
19-May-09	490																				
26-May-09	497																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
2-Jun-09	504	2500	2320	2.92	473	466	72.82	144.4	<1	158	5.32	<0.5	0.097	142	0.929	0.000145	0.00565	0.00109	0.00058	<0.0005	<0.01	0.00162
9-Jun-09	511	2500	2475																			
16-Jun-09	518	2500	2295	3.03	522	429																
23-Jun-09	525	2500	2385																			
30-Jun-09	532	2500	2260	3.01	461	409	63.08	124.39	<1	152	5.94	<0.5	0.087	108	0.564	0.000113	0.00379	0.000156	0.0004	<0.0005	<0.01	0.00119
7-Jul-09	539	2500	2325																			
14-Jul-09	546	2500	2360	2.97	486	426																
21-Jul-09	553	2500	2405																			
28-Jul-09	560	2500	2550	2.96	466	391	64.94	120.28	<1	153	4.38	<0.5	0.085	102	0.649	0.000118	0.00494	0.00017	0.00036	<0.0005	<0.01	0.00139
4-Aug-09	567	2500	2450																			
11-Aug-09	574	2500	2485	2.99	429	380																
18-Aug-09	581	2500	2310																			
25-Aug-09	588	2500	1595	2.93	456	539	79.87	161.22	<1	230	6.05	<0.5	0.091	148	0.974	0.000115	0.00548	0.000334	0.0005	<0.0005	<0.01	0.00151
1-Sep-09	595	2500	2460																			
8-Sep-09	602	2500	2435	2.96	404	396																
15-Sep-09	609	2500	2445																			
22-Sep-09	616	2500	2430	2.95	480	414	66.94	123.29	<1	141	4.15	<25	0.091	77	0.512	0.000116	0.005	0.000202	0.00025	<0.0005	<0.01	0.00092
29-Sep-09	623	2500	2520																			
6-Oct-09	630	2500	2515	3	492	369																
13-Oct-09	637	2500	2435																			
20-Oct-09	644	2500	2425	3.08	409	340	53.41	95.26	<1	116	4.91	<5	<0.2	73.2	0.358	0.000106	0.0045	0.00104	0.00022	<0.0005	<0.01	0.000628
27-Oct-09	651	2500	2495																			
3-Nov-09	658	2500	2545	3.03	394	420																
10-Nov-09	665	2500	2425																			
17-Nov-09	672	2500	2425	3.16	447	350	53.07	93.62	<1	116	3.35	<5	<0.2	73	0.34	0.000098	0.00397	0.000391	<0.0002	<0.0005	<0.01	0.000613
24-Nov-09	679	2500	2465																			
1-Dec-09	686	2500	2495	3.13	392	366																
8-Dec-09	693	2500	2445																			
15-Dec-09	700	2500	2445	3.16	428	353	49.84	89.78	<1	84	3.2	<5	<0.2	70.4	0.339	0.000102	0.00396	0.000254	0.00021	<0.0005	<0.01	0.000596
22-Dec-09	707	2500	2465																			
29-Dec-09	714	2500	2375	3.11	417	383																
5-Jan-10	721	2500	2500																			
12-Jan-10	728	2500	2495	2.97	406	436	84.88	137.86	<1	133	3.84	<10	<0.4	83	0.394	0.000153	0.00661	0.000375	<0.0002	<0.0005	<0.01	0.000694
19-Jan-10	735	2500	2385																			
26-Jan-10	742	2500	2485	3.03	412	338																
2-Feb-10	749	2500	2350																			
9-Feb-10	756	2500	2375	2.96	463	377	56.97	100.7	<1	121	3.28	<10	<0.4	82	0.39	0.000107	0.00478	0.000226	0.00021	<0.0005	<0.01	0.000574
16-Feb-10	763	2500	2345																			
23-Feb-10	770	2500	2335	2.98	456	365																
2-Mar-10	777	2500	2380																			
9-Mar-10	784	2500	2375	3.17	453	380	60.38	101.69	<1	122	3.98	<10	<0.4	89	0.456	0.000098	0.00445	0.00397	0.00027	<0.0005	<0.01	0.000612
16-Mar-10	791	2500	2380																			
23-Mar-10	798	2500	2380	3.17	437	357																
30-Mar-10	805	2500	2415																			
6-Apr-10	812	2500	2350	3.1	441	377	57.67	100.35	<1	113	3.35	<5	<0.2	83.4	0.398	0.000111	0.00428	0.000561	0.00024	<0.0005	<0.01	0.000519
13-Apr-10	819	2500	2370																			
20-Apr-10	826	2500	2450	2.88	448	436																
27-Apr-10	833	2500	2385																			
4-May-10	840	2500	2400	2.98	442	418	63.86	107.51	<1	133	4.42	<10	<0.4	88	0.454	0.000109	0.00481	0.000585	<0.0002	<0.0005	<0.01	0.00054
11-May-10	847	2500	2385																			
18-May-10	854	2500	2390	2.99	427	432																
25-May-10	861	2500	2310																			
1-Jun-10	868	2500	2360	2.97	434	354	52.84	87.65	<1	81	4.7	<5	<0.2	74.4	0.429	0.000123	0.00505	0.00033	0.00022	<0.0005	<0.01	0.00027
8-Jun-10	875	2500	2350																			
15-Jun-10	882	2500	2310	2.95	437	428																
22-Jun-10	889	2500	2355																			
29-Jun-10	896	2500	2285	2.92	435	436	63.39	111.36	<1	134	5.79	<5	0.3	97	0.674	0.00012	0.00532	0.000435	0.00044	<0.0005	<0.01	0.000294
6-Jul-10	903	2500	2460																			
13-Jul-10	910	2500	2325	2.94	442	452																
20-Jul-10	917	2500	2475																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
2-Jun-09	504	1.93	0.00071	0.0156	3.46	38.3	0.000337	0.121	0.0149	<0.00001	0.000052	0.0053	0.2	0.0046	1.42	0.000087	<2	<0.00005	0.00034	0.00238	0.315
9-Jun-09	511																				
16-Jun-09	518																				
23-Jun-09	525																				
30-Jun-09	532	2.23	<0.0005	0.0115	2.19	31.8	0.000107	0.087	0.0113	<0.00001	0.000059	0.00422	0.119	0.004	1.07	0.000047	<2	<0.00005	0.00037	0.00147	0.212
7-Jul-09	539																				
14-Jul-09	546																				
21-Jul-09	553																				
28-Jul-09	560	1.63	<0.0005	0.0118	2.73	30.6		0.0781	0.00976	<0.00001	<0.00005	0.00429	0.139	0.0039	0.952	0.000065	<2	<0.00005	0.00059	0.00181	0.217
4-Aug-09	567																				
11-Aug-09	574																				
18-Aug-09	581																				
25-Aug-09	588	2.24	0.00056	0.0174	3.92	44.7	0.000954	0.113	0.013	<0.00001	0.000053	0.00621	0.182	0.006	1.4	0.000069	<2	<0.00005	0.00051	0.00243	0.287
1-Sep-09	595																				
8-Sep-09	602																				
15-Sep-09	609																				
22-Sep-09	616	1.55	<0.0005	0.0112	2.36	30.6	0.000278	0.0686	0.00876	<0.00001	0.000058	0.00428	0.125	0.0039	0.972	0.000043	<2	<0.00005	0.00029	0.00141	0.176
29-Sep-09	623																				
6-Oct-09	630																				
13-Oct-09	637																				
20-Oct-09	644	1.89	<0.0005	0.0091	1.82	24.5	0.000444	0.0452	0.00748	<0.00001	<0.00005	0.00346	0.112	0.0037	0.697	0.000038	<2	<0.00005	0.00032	0.00086	0.132
27-Oct-09	651																				
3-Nov-09	658																				
10-Nov-09	665																				
17-Nov-09	672	1.28	<0.0005	0.0086	1.76	23	0.000414	0.0386	0.00619	<0.00001	<0.00005	0.00325	0.094	0.0037	0.616	0.000031	<2	<0.00005	0.00026	0.00079	0.119
24-Nov-09	679																				
1-Dec-09	686																				
8-Dec-09	693																				
15-Dec-09	700	1.22	<0.0005	0.00932	1.6	24	0.00118	0.0392	0.00633	<0.00001	<0.00005	0.00341	0.084	0.0037	0.613	0.00003	<2	<0.00005	0.00035	0.00084	0.116
22-Dec-09	707																				
29-Dec-09	714																				
5-Jan-10	721																				
12-Jan-10	728	1.45	<0.0005	0.0114	1.92	31.7	0.000192	0.051	0.00767	<0.00001	0.000061	0.00424	0.104	0.0041	0.846	0.000052	<2	<0.00005	0.00044	0.00127	0.14
19-Jan-10	735																				
26-Jan-10	742																				
2-Feb-10	749																				
9-Feb-10	756	1.23	<0.0005	0.00961	1.65	26	<0.00005	0.0482	0.00718	<0.00001	0.000057	0.00353	0.093	0.0033	0.58	0.000032	<2	<0.00005	0.00039	0.00099	0.116
16-Feb-10	763																				
23-Feb-10	770																				
2-Mar-10	777																				
9-Mar-10	784	1.5	<0.0005	0.0107	1.68	26.2	0.000076	0.0595	0.00885	<0.00001	0.000058	0.00413	0.114	0.0036	0.572	0.000036	<2	<0.00005	0.00057	0.00122	0.124
16-Mar-10	791																				
23-Mar-10	798																				
30-Mar-10	805																				
6-Apr-10	812	1.25	<0.0005	0.00981	1.4	25.5	0.000306	0.0528	0.00751	<0.00001	0.000069	0.00368	0.115	0.003	0.513	0.000036	<2	<0.00005	0.00052	0.00101	0.101
13-Apr-10	819																				
20-Apr-10	826																				
27-Apr-10	833																				
4-May-10	840	1.66	<0.0005	0.0108	1.46	30.1	0.000056	0.0655	0.00899	<0.00001	0.000068	0.00395	0.112	0.0034	0.613	0.000031	<2	<0.00005	0.00051	0.00132	0.112
11-May-10	847																				
18-May-10	854																				
25-May-10	861																				
1-Jun-10	868	1.77	<0.0005	0.00935	0.789	21.2	0.000077	0.071	0.00966	<0.00001	0.000067	0.0037	0.147	0.0032	0.394	0.000021	<2	<0.00005	0.00031	0.00144	0.052
8-Jun-10	875																				
15-Jun-10	882																				
22-Jun-10	889																				
29-Jun-10	896	2.18	0.00052	0.0122	1.07	31	0.000529	0.0809	0.0119	<0.00001	<0.00005	0.00474	0.164	0.0035	0.553	0.000016	<2	<0.00005	0.00025	0.00249	0.0606
6-Jul-10	903																				
13-Jul-10	910																				
20-Jul-10	917																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
27-Jul-10	924	2500	2440	2.9	480	458	69.31	120.94	<1	164	5.01	<5	<0.2	108	0.511	0.000113	0.00717	0.000244	0.00033	<0.0005	<0.01	0.000379
3-Aug-10	931	2500	2455																			
10-Aug-10	938	2500	2480	3.11	286	449																
17-Aug-10	945	2500	2555																			
24-Aug-10	952	2500	2505	3.19	423	429	63.23	112.98	<1	110	5.03	<5	<0.2	96.1	0.403	0.000102	0.00771	0.000461	0.00021	<0.0005	<0.01	0.000372
31-Aug-10	959	2500	2425																			
7-Sep-10	966	2500	2445	3.01	402	417																
14-Sep-10	973	2500	2500																			
21-Sep-10	980	2500	2475	2.97	374	370	63.42	111.09	<1	141	4.2	<5	<0.2	93.9	0.388	0.000128	0.00948	0.000295	0.00025	<0.0005	<0.01	0.000348
28-Sep-10	987	2500	2445																			
5-Oct-10	994	2500	2450	2.91	379	475																
12-Oct-10	1001	2500	2350																			
19-Oct-10	1008	2500	2520	3.05	386	433	55.27	100.71	<1	134	4.24	<5	<0.2	91.8	0.343	0.000132	0.0103	0.000226	<0.0002	<0.0005	<0.01	0.00036
26-Oct-10	1015	2500	2440																			
2-Nov-10	1022	2500	2445	3.24	203	362																
9-Nov-10	1029	2500	2465																			
16-Nov-10	1036	2500	2470	3.27	155	370	50.93	96.71	<1	100	3.82	<5	<0.2	89.7	0.327	0.000121	0.00989	0.000454	<0.0002	<0.0005	<0.01	0.000339
23-Nov-10	1043	2500	2365																			
30-Nov-10	1050	2500	2330	3.14	401	381																
7-Dec-10	1057	2500	2215																			
14-Dec-10	1064	2500	2335	3.11	430	400	49.78	89.82	<1	95	3.86	<5	<0.2	88.9	0.289	0.000159	0.0108	0.00155	<0.0002	<0.0005	<0.01	0.000304
21-Dec-10	1071	2500	2525																			
28-Dec-10	1078	2500	2325	3.12	430	336																
4-Jan-11	1085	2500	2385																			
11-Jan-11	1092	2500	2475	3.3	378	283	35.12	62.98	<1	83	2.27	<5	<0.2	66.3	0.243	0.000107	0.00666	0.000207	<0.0002	<0.0005	<0.01	0.00021
18-Jan-11	1099	2500	2420																			
25-Jan-11	1106	2500	2530	3.18	363	382																
1-Feb-11	1113	2500	2265																			
8-Feb-11	1120	2500	2370	3.11	407	404	62.11	107.97	<1	131	4.56	<5	<0.2	102	0.448	0.000148	0.0114	0.00111	0.0002	<0.0005	<0.01	0.000414
15-Feb-11	1127	2500	2460																			
22-Feb-11	1134	2500	2370	3.2	352	467																
1-Mar-11	1141	2500	2460																			
8-Mar-11	1148	2500	2435	3.06	361	621	74.06	144.19	<1	163	7.73	<5	<0.2	138	0.6	0.00016	0.013	0.000448	0.00039	<0.0005	<0.01	0.000694
15-Mar-11	1155	2500	2495																			
22-Mar-11	1162	2500	2500	3.31	364	383																
29-Mar-11	1169	2500	2490																			
5-Apr-11	1176	2500	2430	3.21	365	437	46.68	85.51	<1	106	3.63	<5	<0.2	88.9	0.293	0.000129	0.00849	0.000279	<0.0002	<0.0005	<0.01	0.000322
12-Apr-11	1183	2500	2430																			
19-Apr-11	1190	2500	2535	3.24	345	424																
26-Apr-11	1197	2500	2410																			
3-May-11	1204	2500	2440	3.26	375	407	50.33	89.62	<1	125	3.32	<5	<0.2	81.8	0.288	0.00013	0.0091	0.000381	<0.0002	<0.0005	<0.01	0.000278
10-May-11	1211	2500	2545																			
17-May-11	1218	2500	2410	3.24	379	426																
24-May-11	1225	2500	2371																			
31-May-11	1232	2500	2340	3.24	369	448	57.86	104.62	<1	103	3.87	<5	0.24	94.9	0.358	0.000137	0.0115	0.000385	<0.0002	<0.0005	<0.01	0.000285
7-Jun-11	1239	2500	2390																			
14-Jun-11	1246	2500	2380	3.23	209	458																
21-Jun-11	1253	2500	2330																			
28-Jun-11	1260	2500	2380	3.25	224	442	57.64	108.72	<1	128	4.19	<5	0.24	102	0.393	0.000121	0.0119	0.00033	<0.0002	<0.0005	<0.01	0.000246
5-Jul-11	1267	2500	2420																			
12-Jul-11	1274	2500	2480	3.1	367	450																
19-Jul-11	1281	2500	2460																			
26-Jul-11	1288	2500	2395	3.19	351	432	55.98	100.79	<1	126	5.02	<5	0.27	97.6	0.389	0.000114	0.012	0.000456	<0.0002	<0.0005	<0.01	0.000231
2-Aug-11	1295	2500	2405																			
9-Aug-11	1302	2500	2440	3.15	369	492																
16-Aug-11	1309	2500	2415																			
23-Aug-11	1316	2500	2510	3.19	363	430	58.56	99.18	<1	163	4.71	<5	<0.2	93.9	0.34	0.000143	0.0135	0.000415	<0.0002	<0.0005	<0.01	0.000214
30-Aug-11	1323	2500	2375																			
6-Sep-11	1330	2500	2505	3.28	431	425																
13-Sep-11	1337	2500	2425																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
27-Jul-10	924	1.9	<0.0005	0.0104	1.05	31.7	<0.00005	0.0636	0.00815	<0.00001	0.000052	0.00356	0.098	0.0035	0.909	0.000031	<2	<0.00005	0.0003	0.00146	0.0793
3-Aug-10	931																				
10-Aug-10	938																				
17-Aug-10	945																				
24-Aug-10	952	1.93	<0.0005	0.0104	1	27.2	0.000101	0.0523	0.00826	<0.00001	0.00006	0.00382	0.098	0.0041	0.732	0.000039	<2	<0.00005	0.00038	0.0012	0.0831
31-Aug-10	959																				
7-Sep-10	966																				
14-Sep-10	973																				
21-Sep-10	980	1.6	0.0006	0.0105	0.969	28	0.000141	0.0515	0.00735	<0.00001	0.000062	0.00382	0.13	0.0041	0.687	0.000039	<2	<0.00005	0.00034	0.00107	0.0685
28-Sep-10	987																				
5-Oct-10	994																				
12-Oct-10	1001																				
19-Oct-10	1008	1.62	<0.0005	0.0104	1.03	28.2	0.000069	0.0452	0.00703	<0.00001	0.000098	0.00381	0.097	0.0038	0.697	0.000029	<2	<0.00005	0.00034	0.00099	0.08
26-Oct-10	1015																				
2-Nov-10	1022																				
9-Nov-10	1029																				
16-Nov-10	1036	1.45	<0.0005	0.0103	0.986	24.3	0.000431	0.0457	0.00736	<0.00001	0.000096	0.00413	0.098	0.0043	0.622	0.000034	<2	<0.00005	0.00039	0.00099	0.0682
23-Nov-10	1043																				
30-Nov-10	1050																				
7-Dec-10	1057																				
14-Dec-10	1064	1.49	<0.0005	0.0106	0.97	24.7	0.0229	0.0358	0.00753	<0.00001	0.000095	0.00402	0.111	0.0041	0.583	0.000047	<2	0.000061	0.00038	0.0009	0.0581
21-Dec-10	1071																				
28-Dec-10	1078																				
4-Jan-11	1085																				
11-Jan-11	1092	0.859	<0.0005	0.00793	0.701	20.7	<0.00005	0.0306	0.00462	<0.00001	0.000064	0.00313	0.081	0.0029	0.42	0.000036	<2	<0.00005	0.00019	0.00066	0.042
18-Jan-11	1099																				
25-Jan-11	1106																				
1-Feb-11	1113																				
8-Feb-11	1120	1.69	<0.0005	0.0119	1.17	31.2	0.000683	0.0807	0.0101	<0.00001	0.000123	0.00479	0.117	0.0036	0.865	0.000062	<2	<0.00005	0.00015	0.00169	0.0817
15-Feb-11	1127																				
22-Feb-11	1134																				
1-Mar-11	1141																				
8-Mar-11	1148	2.97	<0.0005	0.0172	2.82	40.4	0.0099	0.0768	0.0158	<0.00001	0.000174	0.00658	0.15	0.0038	0.832	0.000134	<2	0.000051	0.00464	0.00173	0.139
15-Mar-11	1155																				
22-Mar-11	1162																				
29-Mar-11	1169																				
5-Apr-11	1176	1.4	<0.0005	0.0103	1.11	26.1	0.00295	0.0335	0.00674	<0.00001	0.000099	0.00379	0.092	0.0037	0.551	0.000065	<2	<0.00005	0.00465	0.00083	0.0619
12-Apr-11	1183																				
19-Apr-11	1190																				
26-Apr-11	1197																				
3-May-11	1204	1.27	<0.0005	0.00968	0.92	24.5	0.00272	0.0374	0.00632	<0.00001	0.000092	0.00364	0.088	0.004	0.563	0.000052	<2	<0.00005	0.00946	0.00091	0.0548
10-May-11	1211																				
17-May-11	1218																				
24-May-11	1225																				
31-May-11	1232	1.47	<0.0005	0.0104	0.928	27.9	0.00081	0.0476	0.00766	<0.00001	0.000095	0.00399	0.096	0.004	0.681	0.000058	<2	<0.00005	0.00896	0.00111	0.0534
7-Jun-11	1239																				
14-Jun-11	1246																				
21-Jun-11	1253																				
28-Jun-11	1260	1.59	<0.0005	0.0111	0.893	28.3	<0.00005	0.053	0.00854	<0.00001	0.000108	0.00432	0.1	0.0038	0.686	0.000057	<2	<0.00005	0.00989	0.00123	0.0543
5-Jul-11	1267																				
12-Jul-11	1274																				
19-Jul-11	1281																				
26-Jul-11	1288	1.92	<0.0005	0.0107	0.835	27.1	0.000113	0.0527	0.01	<0.00001	0.000102	0.00411	0.115	0.0039	0.677	0.000042	<2	<0.00005	0.00896	0.00126	0.0517
2-Aug-11	1295																				
9-Aug-11	1302																				
16-Aug-11	1309																				
23-Aug-11	1316	1.81	<0.0005	0.0103	0.75	27.3	0.00126	0.0451	0.00865	<0.00001	0.000093	0.00393	0.109	0.0038	0.708	0.00005	<2	<0.00005	0.012	0.00109	0.0431
30-Aug-11	1323																				
6-Sep-11	1330																				
13-Sep-11	1337																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
20-Sep-11	1344	2500	2400	3.25	391	397	48.62	83.95	<1	126	4.15	<5	<0.2	91.1	0.394	0.000118	0.0102	0.000411	<0.0002	<0.0005	<0.01	0.000198
27-Sep-11	1351	2500	2355																			
4-Oct-11	1358	2500	2475	3.3	406	365																
11-Oct-11	1365	2500	2645																			
18-Oct-11	1372	2500	2460	3.27	423	362	48.15	83.09	<1	105	3.38	<5	<0.2	80.6	0.289	0.000106	0.00869	0.000705	<0.0002	<0.0005	<0.01	0.000176
25-Oct-11	1379	2500	2455																			
1-Nov-11	1386	2500	2450	3.26	397	378																
8-Nov-11	1393	2500	2420																			
15-Nov-11	1400	2500	2395	3.26	406	399	49.71	90.01	<1	119	4.1	<5	<0.2	91.1	0.358	0.00011	0.00871	0.000404	<0.0002	<0.0005	<0.01	0.000188
22-Nov-11	1407	2500	2450																			
29-Nov-11	1414	2500	2435	3.28	463	380																
6-Dec-11	1421	2500	2480																			
13-Dec-11	1428	2500	2510	3.2	405	398	48.75	80.52	<1	99	4.96	<5	<0.2	85.9	0.293	0.000159	0.0127	0.000418	<0.0002	<0.0005	<0.01	0.000171
20-Dec-11	1435	2500	2470																			
27-Dec-11	1442	2500	2405	3.14	407	508																
3-Jan-12	1449	2500	2390																			
10-Jan-12	1456	2500	2545	3.18	396	405	45.27	75.9	<1	104	3.2	<5	<0.2	86.8	0.265	0.000139	0.0101	0.000438	<0.0002	<0.0005	<0.01	0.000182
17-Jan-12	1463	2500	2415																			
24-Jan-12	1470	2500	2645	3.25	441	368																
31-Jan-12	1477	2500	2495																			
7-Feb-12	1484	2500	2350	3.11	420	493	52.67	89.61	<1	146	4.08	<5	<0.2	114	0.372	0.000142	0.0112	0.000746	<0.0002	<0.0005	<0.01	0.000222
14-Feb-12	1491	2500	2485																			
21-Feb-12	1498	2500	2505	3.19	415	421																
28-Feb-12	1505	2500	2465																			
6-Mar-12	1512	2500	2510	3.17	498	418	58.06	95.37	<1	120	4.35	<5	<0.2	93.8	0.315	0.000124	0.0105	0.000474	<0.0002	<0.0005	<0.01	0.000165
13-Mar-12	1519	2500	2490																			
20-Mar-12	1526	2500	2470	3.19	417	418																
27-Mar-12	1533	2500	2390																			
3-Apr-12	1540	2500	2365	3.14	427	434	61.18	100.49	<1	125	4.41	5.7	<0.2	105	0.366	0.000114	0.00936	0.000511	<0.0002	<0.0005	<0.01	0.000162
10-Apr-12	1547	2500	2445																			
17-Apr-12	1554	2500	2390	3.03	434	571																
24-Apr-12	1561	2500	2515																			
1-May-12	1568	2500	2450	3	451	607	100.54	149.9	<1	177	6.81	<5	<0.2	145	0.6	0.000134	0.00903	0.000796	0.00022	<0.0005	<0.01	0.000295
8-May-12	1575	2500	2460																			
15-May-12	1582	2500	2465	2.84	496	836																
22-May-12	1589	2500	2455																			
29-May-12	1596	2500	2240	2.68	534	1200	295.51	357.72	<1	528	18	<5	0.48	377	0.992	0.000139	0.0971	0.000502	0.00032	<0.0005	<0.01	0.000486
5-Jun-12	1603	2500	2465																			
12-Jun-12	1610	2500	2495	2.51	575	1783																
19-Jun-12	1617	2500	2480																			
26-Jun-12	1624	2500	2445	2.37	620	2419	781.2	1000.1	<1	1920	88.2	<10	3.18	1080	1.91	0.00056	0.481	0.0007	0.00116	<0.001	<0.02	0.00096
3-Jul-12	1631	2500	2345																			
10-Jul-12	1638	2500	2390	2.31	627	2860																
17-Jul-12	1645	2500	2365																			
24-Jul-12	1652	2500	2460	2.56	681	3360	750	1150	<1	2410	153	<10	6.56	1430	3.26	0.00075	0.457	0.00076	0.00194	<0.001	<0.02	0.00106
31-Jul-12	1659	2500	2360																			
7-Aug-12	1666	2500	2465	2.41	699	2140																
14-Aug-12	1673	2500	2425																			
21-Aug-12	1680	2500	2460	2.36	763	2990	850	1250	<1	2060	166	<10	6.67	1400	2.75	0.00081	0.344	0.0009	0.00163	<0.001	<0.02	0.00085
28-Aug-12	1687	2500	2470																			
4-Sep-12	1694	2500	2450	2.3	783	3140																
11-Sep-12	1701	2500	2445																			
18-Sep-12	1708	2500	2385	2.34	781	3540	950	2950	<1	2560	195	<10	7.48	1620	2.28	0.00102	0.338	0.00095	0.0013	<0.0025	<0.05	0.00064
25-Sep-12	1715	2500	2405																			
2-Oct-12	1722	2500	2440	2.33	793	3390																
9-Oct-12	1729	2500	2380																			
16-Oct-12	1736	2500	2385	2.41	787	3490	900	2900	<1	2160	159	<10	5.82	1310	1.5	0.00076	0.204	0.00086	0.00084	<0.001	<0.02	0.00039
23-Oct-12	1743	2500	2385																			
30-Oct-12	1750	2500	2445	2.37	789	3380																
6-Nov-12	1757	2500	2505																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Sep-11	1344	1.59	<0.0005	0.0103	0.743	25.4	0.000188	0.0441	0.00835	<0.00001	0.000098	0.00399	0.09954	0.0036	0.597	0.000038	<2	<0.00005	0.00636	0.00113	0.0417
27-Sep-11	1351																				
4-Oct-11	1358																				
11-Oct-11	1365																				
18-Oct-11	1372	1.29	<0.0005	0.00869	0.663	22.8	0.000169	0.0368	0.00645	<0.00001	0.000096	0.0033	0.092	0.0033	0.515	0.00004	<2	<0.00005	0.00548	0.0009	0.0379
25-Oct-11	1379																				
1-Nov-11	1386																				
8-Nov-11	1393																				
15-Nov-11	1400	1.57	<0.0005	0.00974	0.792	26.1	0.000229	0.0448	0.00765	<0.00001	0.000097	0.0036	0.099	0.0033	0.591	0.000048	<2	<0.00005	0.00593	0.00108	0.0402
22-Nov-11	1407																				
29-Nov-11	1414																				
6-Dec-11	1421																				
13-Dec-11	1428	1.93	<0.0005	0.00934	0.675	23	0.000097	0.0331	0.00992	<0.00001	0.000086	0.00365	0.12	0.0043	0.5	0.000043	<2	<0.00005	0.00255	0.00086	0.0397
20-Dec-11	1435																				
27-Dec-11	1442																				
3-Jan-12	1449																				
10-Jan-12	1456	1.24	<0.0005	0.00918	0.66	24	0.0018	0.0278	0.00624	<0.00001	0.000112	0.00356	0.096	0.0036	0.49	0.000061	<2	<0.00005	0.00482	0.00079	0.0379
17-Jan-12	1463																				
24-Jan-12	1470																				
31-Jan-12	1477																				
7-Feb-12	1484	1.56	<0.0005	0.0122	0.859	32.4	0.000125	0.0445	0.00814	<0.00001	0.00016	0.00465	0.137	0.004	0.644	0.00008	<2	0.000063	0.00559	0.00115	0.0495
14-Feb-12	1491																				
21-Feb-12	1498																				
28-Feb-12	1505																				
6-Mar-12	1512	1.68	<0.0005	0.0102	0.684	26.3	0.000094	0.0354	0.00842	<0.00001	0.000115	0.00401	0.105	0.0037	0.556	0.000072	<2	<0.00005	0.00408	0.00092	0.0378
13-Mar-12	1519																				
20-Mar-12	1526																				
27-Mar-12	1533																				
3-Apr-12	1540	1.7	<0.0005	0.0113	0.719	27	<0.00005	0.0417	0.00896	<0.00001	0.000109	0.00432	0.105	0.0034	0.57	0.000079	<2	<0.00005	0.0049	0.00103	0.0403
10-Apr-12	1547																				
17-Apr-12	1554																				
24-Apr-12	1561																				
1-May-12	1568	2.64	<0.0005	0.018	1.07	40.9	0.000609	0.0518	0.0149	<0.00001	0.000199	0.00736	0.149	0.0034	0.655	0.000069	<2	0.000075	0.00537	0.00143	0.0567
8-May-12	1575																				
15-May-12	1582																				
22-May-12	1589																				
29-May-12	1596	7.05	0.00127	0.0421	1.46	118	0.000098	0.0885	0.0384	<0.00001	0.000847	0.0152	0.17	0.0074	0.998	0.00011	<2	0.00009	0.00545	0.00254	0.102
5-Jun-12	1603																				
12-Jun-12	1610																				
19-Jun-12	1617																				
26-Jun-12	1624	35	0.0035	0.112	2.43	347	0.00118	0.213	0.162	<0.00001	0.00296	0.0392	0.38	0.0366	1.95	0.0003	<2	0.00029	0.0164	0.0109	0.224
3-Jul-12	1631																				
10-Jul-12	1638																				
17-Jul-12	1645																				
24-Jul-12	1652	60.7	0.0042	0.14	2.09	430	0.00076	0.44	0.316	<0.00001	0.00283	0.0506	0.69	0.052	3.57	0.000207	<2	0.00058	0.0213	0.0171	0.257
31-Jul-12	1659																				
7-Aug-12	1666																				
14-Aug-12	1673																				
21-Aug-12	1680	65.7	0.0037	0.14	2	407	0.00082	0.371	0.33	<0.00001	0.002	0.0491	0.68	0.06	3.38	0.000269	<2	0.00066	0.0192	0.0139	0.187
28-Aug-12	1687																				
4-Sep-12	1694																				
11-Sep-12	1701																				
18-Sep-12	1708	77.7	0.0028	0.149	1.79	489	0.00038	0.308	0.368	<0.00001	0.00186	0.0539	0.69	0.0643	2.85	0.000313	<2	0.00075	0.0214	0.0109	0.146
25-Sep-12	1715																				
2-Oct-12	1722																				
9-Oct-12	1729																				
16-Oct-12	1736	63.4	0.0018	0.112	1.36	331	0.00024	0.182	0.257	<0.00001	0.00112	0.0382	0.62	0.0476	2.14	0.000224	<2	0.00064	0.0129	0.0061	0.0827
23-Oct-12	1743																				
30-Oct-12	1750																				
6-Nov-12	1757																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-Nov-12	1764	2500	2415	2.36	801	3420	950	2900	<1	2020	206	<10	7.49	1600	1.88	0.00096	0.251	0.00089	<0.001	<0.0025	<0.05	0.00045
20-Nov-12	1771	2500	2380																			
27-Nov-12	1778	2500	2455	2.31	789	3390																
4-Dec-12	1785	2500	2505																			
11-Dec-12	1792	2500	2435	2.21	781	3630	1000	2950	<1	1910	165	<10	5.71	1510	1.8	0.00086	0.214	0.00111	<0.001	<0.0025	<0.05	0.00037
18-Dec-12	1799	2500	2420																			
25-Dec-12	1806	2500	2470	2.33	793	3170																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-08	0	2500	2110	4.13	564	1131	8.15	102.46	<1	827	352	4.25	0.514	544	6.61	0.00111	0.0023	0.0619	0.0534	<0.005	<0.1	0.00196
22-Jan-08	7	2500	2660	4.14	613	1121																
29-Jan-08	14	2500	2585	3.97	617	401	8.87	50.94	<1	243	106	<0.5	0.213	164	1.35	0.00046	0.00144	0.00939	0.0213	<0.001	<0.02	0.00083
5-Feb-08	21	2500	2735	3.8	630	264																
12-Feb-08	28	2500	2585	3.65	571	297	17.38	57.13	<1	159	53.3	<0.5	0.128	105	1.06	0.000321	0.00123	0.00361	0.0153	<0.0005	<0.01	0.000587
19-Feb-08	35	2500	2575	3.51	603	291																
26-Feb-08	42	2500	2645	3.5	605	297	23.06	67.09	<1	146	37.3	<0.5	0.117	99.3	0.86	0.000294	0.0014	0.00192	0.0132	<0.0005	<0.01	0.00072
4-Mar-08	49	2500	2645	3.57	604	260																
11-Mar-08	56	2500	2625	3.47	606	282	23.37	67.42	<1	140	25.3	<0.5	0.08	88.8	0.884	0.000275	0.00134	0.000973	0.00877	<0.0005	<0.01	0.000591
18-Mar-08	63	2500	2600	3.4	606	298																
25-Mar-08	70	2500	2665	3.38	607	288	27.78	74.5	<1	102	20.8	<0.5	0.101	90.5	0.9	0.000251	0.00142	0.000658	0.00763	<0.0005	<0.01	0.000593
1-Apr-08	77	2500	2650	3.39	619	273																
8-Apr-08	84	2500	2495	3.3	590	322	31.27	84.44	<1	134	19	<0.5	0.114	95.7	0.997	0.000259	0.00172	0.00126	0.00719	<0.0005	<0.01	0.00067
15-Apr-08	91	2500	2665	3.38	597	280																
22-Apr-08	98	2500	2495	3.54	597	288	26.17	79.39	<1	129	14.5	<0.5	0.104	89.3	0.92	0.000226	0.00147	0.000495	0.00581	<0.0005	<0.01	0.000698
29-Apr-08	105	2500	2745	3.39	417	270																
6-May-08	112	2500	2520	3.27	400	370	38.64	99.65	<1	163	16.2	<0.5	0.139	107	1.29	0.00028	0.00222	0.00026	0.00607	<0.001	<0.02	0.00082
13-May-08	119	2500	2515	3.33	396	316																
20-May-08	126	2500	2550	3.27	393	383	37.95	101.73	<1	161	13.9	<0.5	0.135	106	1.05	0.00027	0.00221	0.00043	0.00578	<0.001	<0.02	0.00074
27-May-08	133	2500	2615	3.15	390	410																
3-Jun-08	140	2500	2560	3.32	474	280	34.91	86.7	<1	143	11.1	<0.5	0.095	90.4	0.977	0.000274	0.00207	0.000307	0.00432	<0.0005	<0.01	0.000676
10-Jun-08	147	2500	2595	3.33	502	245																
17-Jun-08	154	2500	2385	3.29	434	257	39.84	91.9	<1	111	10.5	<0.5	0.128	90.5	0.976	0.00029	0.00226	0.000187	0.00391	<0.0005	<0.01	0.000599
24-Jun-08	161	2500	2385	3.3	446	235																
1-Jul-08	168	2500	2380	3.21	451	334	39.21	89.81	<1	145	11	<0.5	0.152	102	1.43	0.000351	0.0037	0.000143	0.0044	<0.0005	<0.01	0.000699
8-Jul-08	175	2500	2285	3.31	443	306																
15-Jul-08	182	2500	2130	3.24	482	340	39.19	91.38	<1	138	9.86	<0.5	0.155	88.4	1.32	0.000305	0.00304	0.00011	0.00419	<0.0005	<0.01	0.000562
22-Jul-08	189	2500	2230	3.28	508	309																
29-Jul-08	196	2500	2350	3.27	438	327	34.66	80.13	<1	92.3	7.85	<0.5	0.105	82.3	1.32	0.000505	0.00402	0.000104	0.00328	<0.0005	<0.01	0.000493
5-Aug-08	203	2500	2285	3.24	424	317																
12-Aug-08	210	2500	2185	3.23	393	344	40.39	84.01	<1	132	7.93	<0.5	0.132	84	1.28	0.000251	0.00328	0.000091	0.00333	<0.0005	<0.01	0.000477
19-Aug-08	217	2500	2290	3.19	387	366																
26-Aug-08	224	2500	2265	3.19	383	372	46.23	98.16	<1	138	8.14	<0.5	0.125	93.5	1.56	0.000235	0.00328	0.000073	0.00298	<0.0005	<0.01	0.000506
2-Sep-08	231	2500	2365	3.23	396	360																
9-Sep-08	238	2500	2275	3.16	396	381	47.41	98.86	<1	118	7.51	<0.5	0.131	93.2	1.59	0.000245	0.00417	0.000098	0.00298	<0.0005	<0.01	0.0005
16-Sep-08	245	2500	2455	3.23	396	349																
23-Sep-08	252	2500	2395	3.25	373	266	36.9	74.79	<1	105	5.61	<0.5	0.09	74.5	0.984	0.000187	0.00294	0.000154	0.00203	<0.0005	<0.01	0.000372
30-Sep-08	259	2500	2325	3.17	392	336																
7-Oct-08	266	2500	2365	3.22	484	351	40.97	87.46	<1	153	6.3	<0.5	0.119	84.3	1.42	0.000187	0.00315	0.000084	0.00237	<0.0005	<0.01	0.000465
14-Oct-08	273	2500	2275	3.14	511	351																
21-Oct-08	280	2500	2360	3.3	555	302	37.39	75.98	<1	83.8	5.21	<0.5	0.091	73.2	1.02	0.000187	0.00301	0.000131	0.0017	<0.0005	<0.01	0.000333
28-Oct-08	287	2500	2215	3.29	537	310																
4-Nov-08	294	2500	2370	3.02	541	319	41.77	80.34	<1	102	4.94	<0.5	0.083	75.1	1.01	0.000186	0.00322	0.00008	0.00163	<0.0005	<0.01	0.000354
11-Nov-08	301	2500	2325	3.23	543	314																
18-Nov-08	308	2500	2285	3.22	536	279	43.09	81.3	<1	98	22.1	<0.5	0.079	74.5	0.863	0.000187	0.00357	0.000078	0.00164	<0.0005	<0.01	0.000304
25-Nov-08	315	2500	2310	3.25	438	280																
2-Dec-08	322	2500	2365	3.28	409	305	39.26	77.19	<1	92.6	4.14	<0.5	0.082	72.4	0.926	0.00017	0.00323	0.000083	0.0014	<0.0005	<0.01	0.000262
9-Dec-08	329	2500	2280	3.26	399	314																
16-Dec-08	336	2500	2200	3.24	380	327	38.03	79.89	<1	93.5	4.93	<0.5	0.1	79.8	0.858	0.000148	0.00283	0.000088	0.00159	<0.0005	<0.01	0.00031

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Nov-12	1764	82.1	<0.0025	0.144	1.68	462	0.00042	0.243	0.469	<0.00001	0.00136	0.0482	0.52	0.0686	2.37	0.000265	<2	0.00065	0.0154	0.0086	0.101
20-Nov-12	1771																				
27-Nov-12	1778																				
4-Dec-12	1785																				
11-Dec-12	1792	65.8	<0.0025	0.128	1.19	435	0.00058	0.209	0.387	<0.00001	0.00111	0.0437	0.47	0.0643	2.02	0.000313	<2	0.00057	0.0126	0.0075	0.0829
18-Dec-12	1799																				
25-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-08	0	127	<0.005	0.558	18.3	15.6	0.0217	8.27	1.68	<0.00001	<0.0005	0.531	42.7	0.019	4.5	<0.0001	38.6	<0.0005	<0.001	<0.005	1.16
22-Jan-08	7																				
29-Jan-08	14	39.4	<0.001	0.146	4.7	9.64	0.00168	1.83	0.448	0.000023	<0.0001	0.153	7.06	0.0094	6.72	0.00005	3.8	0.00012	0.00044	<0.001	0.542
5-Feb-08	21																				
12-Feb-08	28	19.8	<0.0005	0.0789	3.67	13.4	0.000366	0.959	0.244	<0.00001	<0.00005	0.0774	3.35	0.0068	5.02	0.00005	<2	0.00006	<0.0001	<0.0005	0.482
19-Feb-08	35																				
26-Feb-08	42	13.9	<0.0005	0.0589	3.27	18.1	0.000452	0.649	0.159	<0.00001	0.000111	0.0557	2.65	0.0055	4.25	0.00006	<2	0.000056	0.00012	<0.0005	0.48
4-Mar-08	49																				
11-Mar-08	56	9.31	<0.0005	0.0436	3.39	18	0.000198	0.507	0.125	<0.00001	<0.00005	0.0397	1.59	0.0052	3.14	0.000023	<2	<0.00005	0.00039	<0.0005	0.488
18-Mar-08	63																				
25-Mar-08	70	7.54	<0.0005	0.0373	3.59	21.3	0.000176	0.481	0.102	<0.00001	<0.00005	0.0333	1.29	0.0049	2.77	0.000038	<2	<0.00005	0.00017	0.00061	0.456
1-Apr-08	77																				
8-Apr-08	84	6.76	0.00059	0.0421	4.13	23.1	0.000093	0.505	0.0944	<0.00001	<0.00005	0.0356	1.33	0.0053	2.57	0.00003	<2	<0.00005	0.00011	0.00075	0.532
15-Apr-08	91																				
22-Apr-08	98	5.12	0.00064	0.0359	3.85	23.2	0.00017	0.423	0.0774	<0.00001	0.000051	0.0317	0.979	0.0051	2.06	0.000045	<2	<0.00005	0.00034	0.00079	0.461
29-Apr-08	105																				
6-May-08	112	5.46	<0.001	0.0437	5.79	27.9	<0.0001	0.636	0.0929	<0.00001	<0.0001	0.036	1.23	0.0062	2.5	0.000044	<2	<0.0001	0.00021	<0.001	0.601
13-May-08	119																				
20-May-08	126	4.66	<0.001	0.0363	4.04	29.5		0.548	0.0723	<0.00001	<0.0001	0.0295	0.95	0.0054	2.44	0.000029	<2	<0.0001	<0.0002	0.0011	0.497
27-May-08	133																				
3-Jun-08	140	3.65	0.00062	0.035	4.26	25.6	0.000133	0.48	0.0668	<0.00001	0.000087	0.0277	0.805	0.0062	1.98	0.000033	<2	<0.00005	0.00014	0.00086	0.455
10-Jun-08	147																				
17-Jun-08	154	3.43	0.00085	0.031	3.48	24.8	0.000224	0.473	0.0573	0.000016	0.000066	0.0262	0.94	0.0058	1.51	0.000053	<2	<0.00005	0.00025	0.001	0.396
24-Jun-08	161																				
1-Jul-08	168	3.38	0.00105	0.0362	3.41	27.4	0.000078	0.617	0.063	<0.00001	0.000077	0.0286	1.22	0.0069	1.72	0.000069	<2	<0.00005	0.00016	0.00155	0.426
8-Jul-08	175																				
15-Jul-08	182	2.94	0.00081	0.0316	2.7	24.4	0.000263	0.609	0.054	<0.00001	0.00006	0.026	1.14	0.0057	1.52	0.000048	<2	<0.00005	0.00013	0.00129	0.33
22-Jul-08	189																				
29-Jul-08	196	2.29	0.0035	0.0298	2.27	23.9		0.519	0.0774	<0.00001		0.0254	0.803	0.0065	1.21	0.000049	<2	<0.00005	0.00145	0.00213	0.273
5-Aug-08	203																				
12-Aug-08	210	2.28	0.00099	0.0301	1.98	21.5	0.000079	0.545	0.0448	<0.00001	0.000069	0.0247	0.825	0.0059	1.21	0.000051	<2	<0.00005	0.00034	0.00153	0.246
19-Aug-08	217																				
26-Aug-08	224	2.3	0.00096	0.0283	2.01	24.2	0.000066	0.585	0.0428	<0.00001	0.000063	0.024	0.62	0.0058	1.29	0.00005	<2	<0.00005	0.00024	0.00166	0.243
2-Sep-08	231																				
9-Sep-08	238	1.98	0.00106	0.0293	2.11	24.9	<0.00005	0.619	0.044	<0.00001	0.000075	0.0239	0.709	0.006	1.33	0.000061	<2	<0.00005	0.00027	0.00164	0.234
16-Sep-08	245																				
23-Sep-08	252	1.56	0.0009953	0.0221	1.64	20.6	0.000053	0.419	0.0298	<0.00001	0.00006	0.018	0.47	0.0048	0.925	0.000041	<2	<0.00005	0.0005	0.00109	0.174
30-Sep-08	259																				
7-Oct-08	266	1.7	0.00099	0.0273	2.24	23.9	0.000146	0.501	0.0367	<0.00001	0.000052	0.0246	0.516	0.0058	1	0.000055	<2	<0.00005	0.00044	0.0014	0.217
14-Oct-08	273																				
21-Oct-08	280	1.39	0.00072	0.0223	1.57	19.6	0.000079	0.42	0.0295	<0.00001	0.000058	0.0191	0.531	0.0047	0.875	0.000036	<2	<0.00005	0.00051	0.00102	0.157
28-Oct-08	287																				
4-Nov-08	294	1.32	0.00069	0.0224	1.4	19.9		0.402	0.0273	<0.00001	0.000056	0.019	0.473	0.0052	0.824	0.00004	<2	<0.00005	0.00053	0.00111	0.152
11-Nov-08	301																				
18-Nov-08	308	1.3	0.00072	0.0229	1.05	20	<0.00005	0.361	0.0277	<0.00001	<0.00005	0.0193	0.472	0.0056	0.831	0.000049	<2	<0.00005	0.00043	0.00109	0.149
25-Nov-08	315																				
2-Dec-08	322	1.08	0.00075	0.0212	1.07	18.7	0.000218	0.348	0.0233	<0.00001	0.000059	0.0176	0.386	0.0051	0.757	0.000036	<2	<0.00005	0.00049	0.00112	0.133
9-Dec-08	329																				
16-Dec-08	336	1.41	0.0006	0.0233	1.13	21.1		0.344	0.0264	<0.00001	0.000064	0.0205	0.373	0.0054	0.763	0.000035	<2	<0.00005	0.00047	0.00102	0.16

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Dec-08	343	2500	2235	3.32	423	305																
30-Dec-08	350	2500	2380	3.25	361	330			<1	163	7.5	<0.5	0.505	113	2.1	0.000169	0.00272	0.00014	0.0023	<0.0005	<0.01	0.000498
6-Jan-09	357	2500	2485	3.28	373	274																
13-Jan-09	364	2500	2245	3.23	379	297	39.07	81.66	<1	96.3	4.13	<0.5	0.07	70	0.846	0.000175	0.00284	0.000079	0.00123	<0.0005	<0.01	0.00028
20-Jan-09	371	2500	2515	3.24	438	311																
27-Jan-09	378	2500	2465	3.24	438	309	40.32	83.07	<1	102	4.06	<0.5	0.085	75.5	0.943	0.000148	0.0026	0.000076	0.00115	<0.0005	<0.01	0.000289
3-Feb-09	385	2500	2495	3.22	439	292																
10-Feb-09	392	2500	2305	3.14	489	305	40.74	77.37	<1	80.6	3.36	<0.5	0.061	68.8	0.645	0.000177	0.00321	0.000085	0.00091	<0.0005	<0.01	0.000225
17-Feb-09	399	2500	2320	3.29	562	309																
24-Feb-09	406	2500	2285	3.29	515	326	42.72	90.45	<1	88.2	3.91	<0.5	0.061	79.8	1.1	0.000152	0.00325	0.000095	0.00104	<0.0005	<0.01	0.000252
3-Mar-09	413	2500	2295	3.13	403	348																
10-Mar-09	420	2500	2320	3.08	410	331	44.08	91.06	<1	103	4.25	<0.5	0.072	84	0.985	0.000141	0.00275	0.000083	0.00104	<0.0005	<0.01	0.000285
17-Mar-09	427	2500	2400	3.09	417	292																
24-Mar-09	434	2500	2315	3.14	467	318	44.9	85.08	<1	97.8	3.8	<0.5	0.066	76.5	0.751	0.00016	0.00314	0.000053	0.00096	<0.0005	<0.01	0.00024
31-Mar-09	441	2500	2145	3.03	418	324																
7-Apr-09	448	2500	2335	2.99	479	317	45.56	81.73	<1	106	3.79	<0.5	0.068	80.5	0.867	0.000156	0.00354	0.000058	0.00094	<0.0005	<0.01	0.000238
14-Apr-09	455	2500	2375	3.06	535	324																
21-Apr-09	462	2500	2350	3.03	492	315																
28-Apr-09	469	2500	2465																			
5-May-09	476	2500	2510	3.06	480	342	50.54	100.67	<1	123	4.51	<0.5	0.079	92	1.02	0.000176	0.00375	0.00007	0.00096	<0.0005	<0.01	0.000323
12-May-09	483	2500	2440																			
19-May-09	490	2500	2510	3.12	486	341																
26-May-09	497	2500	2645																			
2-Jun-09	504	2500	2560	3.03	462	384	58.28	124.17	<1	156		<0.5	0.082	105								
9-Jun-09	511	2500	2615																			
16-Jun-09	518	2500	2480	3.13	513	338																
23-Jun-09	525	2500	2420																			
30-Jun-09	532	2500	2320	3.12	453	347	51.19	116.58	<1	161		<0.5	0.062	101								
7-Jul-09	539	2500	2535																			
14-Jul-09	546	2500	2455	3.34	450	307																
21-Jul-09	553	2500	2350																			
28-Jul-09	560	2500	2695	3.14	460	320	50.45	106.28	<1	133		<0.5	0.078	89.8								
4-Aug-09	567	2500	2590																			
11-Aug-09	574	2500	2565	3.15	415	324																
18-Aug-09	581	2500	2450																			
25-Aug-09	588	2500	2545	3.23	440	334	45.54	106.57	<1	134		<0.5	0.047	96.5								
1-Sep-09	595	2500	2510																			
8-Sep-09	602	2500	2495	3.11	401	342																
15-Sep-09	609	2500	2675																			
22-Sep-09	616	2500	2525	3.12	458	355	54.76	119.13	<1	118		<25	0.067	73								
29-Sep-09	623	2500	2580																			
6-Oct-09	630	2500	2600	3.15	458	324																
13-Oct-09	637	2500	2510																			
20-Oct-09	644	2500	2670	3.23	417	282	41.04	86.37	<1	99		<5	<0.2	68.4								

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	325	5.24	563	1582	<1	23.24	5.9	1210	641	14.8	0.196	751	0.382	0.00119	0.00166	0.0132	<0.001	<0.0025	0.299	0.0115
25-Jan-08	7	500	465	5.93	533	709																
1-Feb-08	14	500	500	6.07	510	411	<1	6.62	2	306	156	0.82	0.189	191	0.0516	0.000974	0.00158	0.00747	<0.0002	<0.0005	0.09	0.00219
8-Feb-08	21	500	435	6.09	511	413																
15-Feb-08	28	500	480	6.27	474	414	<1	6.03	3.2	305	200	<0.5	0.154	199	0.0401	0.000781	0.00111	0.00544	0.00026	<0.0005	0.048	0.000811
22-Feb-08	35	500	515	6.28	487	206																
29-Feb-08	42	500	470	6.4	469	250	<1	5.85	2.7	152	102	<0.5	0.175	116	0.0485	0.000936	0.0012	0.00582	<0.0002	<0.0005	0.041	0.0012
7-Mar-08	49	500	440	5.65	517	269																
14-Mar-08	56	500	455	6.13	482	225	<1	5	1.7	150	93.1	<0.5	0.163	103	0.0615	0.000766	0.00091	0.00517	<0.0002	<0.0005	0.027	0.00104
21-Mar-08	63	500	515	5.86	510	172																
28-Mar-08	70	500	440	5.97	490	270	<1	5.94	1.7	180	120	<0.5	0.162	129	0.0751	0.000628	0.00083	0.00612	0.00022	<0.0005	0.024	0.00118
4-Apr-08	77	500	415	5.51	527	236																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Dec-08	343																				
30-Dec-08	350	2	0.0013	0.0347	2.54	33.2	0.00023	0.611	0.0421	<0.00001	0.00009	0.0293	0.465	0.0071	1.67	0.000053	<2	<0.00005	0.00036	0.00172	0.245
6-Jan-09	357																				
13-Jan-09	364	1.05	0.00057	0.0217	1.54	20.2	0.000131	0.365	0.0246	<0.00001	0.000062	0.0185	0.47	0.0051	0.727	0.000038	<2	<0.00005	0.00067	0.00079	0.14
20-Jan-09	371																				
27-Jan-09	378	1.08	0.00058	0.0212	2.11	21.6	0.000077	0.334	0.0232	<0.00001	0.000056	0.0187	0.38	0.0055	0.844	0.000047	<2	<0.00005	0.00052	0.00077	0.158
3-Feb-09	385																				
10-Feb-09	392	0.881	<0.0005	0.0169	1.79	18.8	<0.00005	0.282	0.0171	<0.00001	0.000072	0.0146	0.381	0.0048	0.653	0.000063	<2	<0.00005	0.0007	0.0006	0.123
17-Feb-09	399																				
24-Feb-09	406	0.979	0.00056	0.0212	2.28	22	0.00027	0.355	0.0213	<0.00001	0.000086	0.0179	0.355	0.0055	0.742	0.000042	<2	<0.00005	0.00068	0.00091	0.129
3-Mar-09	413																				
10-Mar-09	420	1.11	0.00064	0.0222	2.14	24.5	0.000122	0.358	0.0234	<0.00001	0.000079	0.0192	0.344	0.006	0.93	0.000049	<2	<0.00005	0.00038	0.00089	0.152
17-Mar-09	427																				
24-Mar-09	434	0.994	0.00056	0.0203	1.76	21.3	0.000123	0.319	0.0199	<0.00001	0.000089	0.0174	0.292	0.0053	0.684	0.000064	<2	<0.00005	0.00083	0.00091	0.123
31-Mar-09	441																				
7-Apr-09	448	0.962	0.00061	0.021	1.87	22	0.000462	0.338	0.0217	<0.00001	0.000091	0.0184	0.334	0.0057	0.718	0.000074	<2	<0.00005	0.00067	0.00095	0.117
14-Apr-09	455																				
21-Apr-09	462																				
28-Apr-09	469																				
5-May-09	476	1.14	0.00089	0.0246	2.29	26.6	0.000141	0.406	0.027	<0.00001	0.000114	0.0214	0.368	0.0063	1.1	0.00008	<2	<0.00005	0.00031	0.00105	0.155
12-May-09	483																				
19-May-09	490																				
26-May-09	497																				
2-Jun-09	504																				
9-Jun-09	511																				
16-Jun-09	518																				
23-Jun-09	525																				
30-Jun-09	532																				
7-Jul-09	539																				
14-Jul-09	546																				
21-Jul-09	553																				
28-Jul-09	560																				
4-Aug-09	567																				
11-Aug-09	574																				
18-Aug-09	581																				
25-Aug-09	588																				
1-Sep-09	595																				
8-Sep-09	602																				
15-Sep-09	609																				
22-Sep-09	616																				
29-Sep-09	623																				
6-Oct-09	630																				
13-Oct-09	637																				
20-Oct-09	644																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	153	<0.0025	0.168	4.51	0.06	0.00148	63.2	2.08	0.000012	<0.00025	0.251	15.1	0.0628	3.66	<0.00005	67.5	0.00128	<0.0005	<0.0025	0.684
25-Jan-08	7																				
1-Feb-08	14	41.6	<0.0005	0.0332	0.485	<0.03	0.000153	12.7	0.451	<0.00001	0.000218	0.0513	7.8	0.0134	2.77	<0.00001	13	0.000615	<0.0001	<0.0005	0.123
8-Feb-08	21																				
15-Feb-08	28	56.8	<0.0005	0.0241	0.959	<0.03	0.000578	14	1.02	<0.00001	0.000162	0.073	5.05	0.0054	3.29	<0.00001	2.6	0.000476	<0.0001	<0.0005	0.109
22-Feb-08	35																				
29-Feb-08	42	29	<0.0005	0.0206	0.291	<0.03	0.000067	7.19	0.3	<0.00001	0.000236	0.029	5.51	0.0072	2.74	<0.00001	2.4	0.000479	<0.0001	<0.0005	0.0735
7-Mar-08	49																				
14-Mar-08	56	24.7	<0.0005	0.0184	0.335	<0.03	0.000098	7.64	0.319	<0.00001	0.000112	0.0257	4.17	0.007	2.49	<0.00001	<2	0.000403	<0.0001	<0.0005	0.0682
21-Mar-08	63																				
28-Mar-08	70	33.5	<0.0005	0.0198	0.409	<0.03	0.000129	8.84	0.366	<0.00001	0.000128	0.0275	3.83	0.0079	2.87	<0.00001	<2	0.000422	<0.0001	<0.0005	0.0761
4-Apr-08	77																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
11-Apr-08	84	500	440	5.55	468	185	<1	4.72	<1	156	71.1	<0.5	0.149	74.9	0.0724	0.000587	0.00079	0.00479	<0.0002	<0.0005	0.018	0.000832
18-Apr-08	91	500	455	5.59	494	209																
25-Apr-08	98	500	455	5.83	415	197	<1	4.76	<1	137	79.8	<0.5	0.135	92.3	0.0775	0.000617	0.00095	0.0052	0.00023	<0.0005	0.017	0.001
2-May-08	105	500	470	5.62	468	200																
9-May-08	112	500	465	5.86	411	222	<1	5.81	<1	149	92.7	<0.5	0.158	99.9	0.106	0.000646	0.00101	0.0061	0.00028	<0.0005	0.022	0.00104
16-May-08	119	500	465	5.66	456	166																
23-May-08	126	500	470	5.81	409	198	<1	5.5	1.1	142	77.8	<0.5	0.172	85.7	0.114	0.000482	0.00098	0.00468	0.00037	<0.0005	0.02	0.000837
30-May-08	133	500	455	6.36	476	198																
6-Jun-08	140	500	400	5.94	429	179	<1	5.96	1.2	146	85.6	<0.5	0.176	92	0.126	0.000851	0.00159	0.00716	0.00041	<0.0005	0.016	0.00108
13-Jun-08	147	500	440	5.37	478	183																
20-Jun-08	154	500	470	5.71	428	159	<1	7.58	1.3	135	82.4	<0.5	0.187	90.6	0.139	0.000506	0.00122	0.00565	0.00037	<0.0005	0.017	0.000999
27-Jun-08	161	500	445	5.3	469	186																
4-Jul-08	168	500	415	5.63	424	210	<1	6.62	1	124	81.1	<0.5	0.17	89.4	0.151	0.000377	0.00164	0.00717	0.00048	<0.0005	0.016	0.00105
11-Jul-08	175	500	455	5.29	500	236																
18-Jul-08	182	500	445	5.58	440	213	<1	6.74	<1	133	83.9	<0.5	0.157	87.5	0.162	0.000328	0.00115	0.00543	0.00062	<0.0005	0.017	0.00112
25-Jul-08	189	500	435	5.41	488	219																
1-Aug-08	196	500	440	5.24	432	241	<1	7.56	<1	165	95.8	<0.5	0.194	105	0.202	0.000303	0.00129	0.00595	0.00056	<0.0005	0.017	0.00131
8-Aug-08	203	500	460	5.12	477	209																
15-Aug-08	210	500	460	5.27	410	191	<1	7.05	<1	126	72.5	<0.5	0.157	79.1	0.151	0.000269	0.00111	0.00605	0.00059	<0.0005	0.015	0.00116
22-Aug-08	217	500	440	5.1	412	194																
29-Aug-08	224	500	440	5.34	392	208	<1	7.76	<1	139	81.7	<0.5	0.194	92.3	0.194	0.000246	0.00111	0.00556	0.00064	<0.0005	0.014	0.00126
5-Sep-08	231	500	460	5.07	433	255																
12-Sep-08	238	500	450	5.21	404	238	<1	10	<1	163	101	<0.5	0.213	106	0.278	0.000283	0.00132	0.00646	0.00097	<0.0005	0.018	0.00153
19-Sep-08	245	500	450	5.12	416	217																
26-Sep-08	252	500	465	5.34	404	179	<1	8.14	1.2	118	66.6	<0.5	0.156	75.3	0.199	0.000228	0.00098	0.00461	0.00073	<0.0005	0.012	0.00118
3-Oct-08	259	500	480	5.22	503	176																
10-Oct-08	266	500	435	5.33	486	193	<1	9.16	<1	135	73.9	<0.5	0.212	83.5	0.219	0.0002	0.00096	0.00514	0.00082	<0.0005	<0.01	0.00132
17-Oct-08	273	500	465	4.98	517	204																
24-Oct-08	280	500	450	5.17	523	202	<1	9.25	<1	133	81.2	<0.5	0.228	93	0.268	0.000231	0.00109	0.00636	0.00095	<0.0005	0.012	0.00143
31-Oct-08	287	500	460	4.91	549	197																
7-Nov-08	294	500	440	5.3	517	161	<1	8.36	<1	107	60.6	<0.5	0.195	71.2	0.206	0.000176	0.00089	0.00427	0.00066	<0.0005	<0.01	0.0011
14-Nov-08	301	500	475	5.09	529	152																
21-Nov-08	308	500	455	5.04	341	223	<1	10.18	<1	141	84	<0.5	0.253	94.8	0.249	0.000213	0.0011	0.00685	0.00115	<0.0005	0.011	0.00157
28-Nov-08	315	500	465	5.01	326	144																
5-Dec-08	322	500	415	5.32	404	148	<1	8.61	<1	114	54.3	<0.5	0.131	64	0.184	0.000276	0.00109	0.0046	0.00077	<0.0005	<0.01	0.001
12-Dec-08	329	500	460	4.97	458	203																
19-Dec-08	336	500	425	4.9	446	238	<1	13.68	<1	178	98.2	<0.5	0.218	110	0.206	0.000207	0.00111	0.01	0.00095	<0.0005	<0.01	0.00134
26-Dec-08	343	500	430	5.14	469	138																
2-Jan-09	350	500	485	5.62	417	161	<1	14.52	2.5	122	63	<0.5	0.179	71.5	0.21	0.000154	0.00078	0.00562	0.00085	<0.0005	<0.01	0.00113
9-Jan-09	357	500	465	4.74	483	182																
16-Jan-09	364	500	510	5.16	466	217	<1	16.53	<1	148	88	<0.5	0.213	98.1	0.319	0.000172	0.00107	0.00709	0.00124	<0.0005	0.011	0.0016
23-Jan-09	371	500	460	4.94	464	165																
30-Jan-09	378	500	475	5.48	444	164	<1	15.48	1.7	104	60.5	<0.5	0.21	71.6	0.235	0.000246	0.00139	0.00599	0.00114	<0.0005	<0.01	0.00112
6-Feb-09	385	500	470	4.81	468	191																
13-Feb-09	392	500	480	4.81	447	160	<1	11.36	<1	112	61.9	<0.5	0.198	69.5	0.245	0.000187	0.00105	0.00582	0.00114	<0.0005	<0.01	0.00122
20-Feb-09	399	500	460	4.82	493	165																
27-Feb-09	406	500	455	4.93	472	191	<1	16.94	<1	124	74.7	<0.5	0.193	85.9	0.357	0.00015	0.00094	0.00609	0.00135	<0.0005	<0.01	0.00143
6-Mar-09	413	500	485	4.56	332	167																
13-Mar-09	420	500	485	4.34	348	157	1.01	11.04	<1	97	58.7	<0.5	0.148	67.6	0.237	0.000161	0.00092	0.00613	0.00118	<0.0005	0.01	0.00119
20-Mar-09	427	500	485	4.71	395	143																
27-Mar-09	434	500	465	4.24	475	166	1.89	12.56	<1	108	54.3	<0.5	0.19	70	0.202	0.000144	0.00085	0.00559	0.00121	<0.0005	0.011	0.00113
3-Apr-09	441	500	455	5.08	388	175																
10-Apr-09	448	500	450	4.3	528	163	1.74	12.59	<1	120	59.1	<0.5	0.15	70.9	0.259	0.000149	0.0007	0.00571	0.00138	<0.0005	0.014	0.00119
17-Apr-09	455	500	445	4.21	526	177																
24-Apr-09	462	500	465	4.29	505	179																
1-May-09	469	500	450																			
8-May-09	476	500	455	4.12	515	167	1.95	11.88	<1	107	58.9	<0.5	0.208	70.5	0.248	0.000113	0.00054	0.00627	0.0012	<0.0005	0.011	0.00107
15-May-09	483	500	465																			
22-May-09	490	500	455	4.54	466	188																
29-May-09	497	500	465																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Apr-08	84	18.7	<0.0005	0.0142	0.328	<0.03	0.000244	5.95	0.249	<0.00001	0.000095	0.02	3.11	0.0055	2.13	<0.00001	<2	0.000349	<0.0001	<0.0005	0.0622
18-Apr-08	91																				
25-Apr-08	98	21.8	<0.0005	0.0163	0.394	<0.03	0.000099	6.15	0.284	<0.00001	0.000079	0.0227	2.86	0.0065	2.62	<0.00001	<2	0.000366	<0.0001	<0.0005	0.068
2-May-08	105																				
9-May-08	112	23.2	<0.0005	0.0183	0.586	<0.03	0.000134	8.43	0.431	<0.00001	0.000056	0.0259	3.3	0.0073	3.37	<0.00001	<2	0.000408	<0.0001	<0.0005	0.0765
16-May-08	119																				
23-May-08	126	21.2	<0.0005	0.0153	0.448	<0.03	0.000159	6.04	0.256	<0.00001	<0.00005	0.0218	2.32	0.0064	2.69	<0.00001	<2	0.000298	<0.0001	<0.0005	0.0704
30-May-08	133																				
6-Jun-08	140	22	<0.0005	0.0185	0.673	0.06	0.000276	7.46	0.396	0.000018	0.000072	0.0266	3.96	0.0082	2.87	<0.00001	<2	0.000344	<0.0001	<0.0005	0.0819
13-Jun-08	147																				
20-Jun-08	154	22.7	<0.0005	0.0175	0.627	0.064	0.000153	6.25	0.322	0.000015	<0.00005	0.0263	2.92	0.0077	3.05	<0.00001	<2	0.000261	<0.0001	<0.0005	0.0868
27-Jun-08	161																				
4-Jul-08	168	22.2	<0.0005	0.0184	0.675	0.083	0.000179	6.24	0.339	<0.00001	<0.00005	0.027	2.41	0.008	2.25	<0.00001	<2	0.000274	<0.0001	<0.0005	0.0944
11-Jul-08	175																				
18-Jul-08	182	23	<0.0005	0.0187	0.797	0.066	0.000115	6.44	0.377	<0.00001	<0.00005	0.0297	2.08	0.0084	2.26	<0.00001	<2	0.000238	<0.0001	<0.0005	0.104
25-Jul-08	189																				
1-Aug-08	196	26.1	<0.0005	0.0236	1.06	0.106	0.000104	7.47	0.43	<0.00001	<0.00005	0.0357	2.01	0.0103	2.85	<0.00001	<2	0.000272	<0.0001	<0.0005	0.124
8-Aug-08	203																				
15-Aug-08	210	19.4	<0.0005	0.0189	0.901	0.097	0.000222	5.82	0.362	<0.00001	<0.00005	0.0305	1.51	0.0073	2.17	<0.00001	<2	0.00023	<0.0001	<0.0005	0.108
22-Aug-08	217																				
29-Aug-08	224	22	<0.0005	0.02	1.11	0.136	0.000151	6.5	0.43	<0.00001	0.000064	0.0333	1.33	0.0072	2.35	<0.00001	<2	0.000258	<0.0001	<0.0005	0.117
5-Sep-08	231																				
12-Sep-08	238	26.2	<0.0005	0.0252	1.43	0.182	0.000202	8.64	0.593	0.00001	<0.00005	0.0414	1.74	0.0095	3.21	<0.00001	<2	0.000301	<0.0001	<0.0005	0.157
19-Sep-08	245																				
26-Sep-08	252	17.6	<0.0005	0.0188	1.08	0.149		5.53	0.389	<0.00001	<0.00005	0.03	1.18	0.0068	2.22	<0.00001	<2	0.000224	<0.0001	<0.0005	0.115
3-Oct-08	259																				
10-Oct-08	266	20	<0.0005	0.0198	1.33	0.186	0.000449	5.8	0.489	<0.00001	<0.00005	0.0365	1.11	0.0071	2.1	<0.00001	<2	0.000216	<0.0001	<0.0005	0.131
17-Oct-08	273																				
24-Oct-08	280	22.1	<0.0005	0.0245	1.51	0.249	0.00211	6.35	0.567	<0.00001	<0.00005	0.0405	1.28	0.0073	2.67	<0.00001	<2	0.000271	0.00012	<0.0005	0.142
31-Oct-08	287																				
7-Nov-08	294	16.8	<0.0005	0.0174	1.13	0.194	0.000117	4.53	0.425	<0.00001	<0.00005	0.0306	0.983	0.0053	1.9	<0.00001	<2	0.000203	<0.0001	<0.0005	0.112
14-Nov-08	301																				
21-Nov-08	308	22.2	<0.0005	0.0268	1.5	0.314	0.000221	6.26	0.534	<0.00001	<0.00005	0.0463	1.32	0.0079	2.77	<0.00001	<2	0.000282	<0.0001	<0.0005	0.182
28-Nov-08	315																				
5-Dec-08	322	14.9	<0.0005	0.016	0.948	0.187	0.000134	4.12	0.329	<0.00001	<0.00005	0.0286	1.52	0.0045	2.18	<0.00001	<2	0.000228	0.00014	<0.0005	0.105
12-Dec-08	329																				
19-Dec-08	336	31.3	<0.0005	0.021	0.972	0.34	0.000285	4.86	0.377	<0.00001	<0.00005	0.0367	1.95	0.0059	2.37	<0.00001	<2	0.000223		<0.0005	0.143
26-Dec-08	343																				
2-Jan-09	350	17.3	<0.0005	0.0184	1.25	0.209	0.000137	4.78	0.413	<0.00001	<0.00005	0.0327	1.38	0.0054	1.67	<0.00001	<2	0.000183	0.00018	<0.0005	0.127
9-Jan-09	357																				
16-Jan-09	364	23.1	<0.0005	0.0261	1.83	0.34	0.000107	7.35	0.643	<0.00001	<0.00005	0.0471	1.66	0.007	3.25	<0.00001	<2	0.000212	<0.0001	<0.0005	0.18
23-Jan-09	371																				
30-Jan-09	378	15.9	<0.0005	0.019	1.7	0.282	0.000079	5.05	0.544	<0.00001	<0.00005	0.0356	1.3	0.0048	2.36	<0.00001	<2	0.000213	<0.0001	<0.0005	0.134
6-Feb-09	385																				
13-Feb-09	392	15.6	<0.0005	0.0193	1.8	0.341	0.00127	5.57	0.611	<0.00001	<0.00005	0.0354	1.36	0.0054	2.58	<0.00001	<2	0.000236	<0.0001	<0.0005	0.144
20-Feb-09	399																				
27-Feb-09	406	19.4	<0.0005	0.0236	2.48	0.421	0.000232	6.4	0.792	<0.00001	<0.00005	0.0423	1.38	0.0061	3	<0.00001	<2	0.000249	<0.0001	<0.0005	0.173
6-Mar-09	413																				
13-Mar-09	420	15.8	<0.0005	0.0186	1.63	0.325	0.00298	4.68	0.498	<0.00001	<0.00005	0.0335	1.27	0.0049	2.5	<0.00001	<2	0.000226	<0.0001	<0.0005	0.14
20-Mar-09	427																				
27-Mar-09	434	15.2	<0.0005	0.0182	1.5	0.344	0.000073	3.97	0.445	<0.00001	<0.00005	0.032	1.2	0.0046	2.24	<0.00001	<2	0.000234	<0.0001	<0.0005	0.136
3-Apr-09	441																				
10-Apr-09	448	15.8	<0.0005	0.0198	1.82	0.428	0.000077	4.76	0.534	<0.00001	<0.00005	0.0364	1.31	0.0046	2.31	0.000013	<2	0.000256	<0.0001	<0.0005	0.154
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	15.8	<0.0005	0.0168	2.35	0.338	0.000334	4.7	0.622	<0.00001	<0.00005	0.0313	1.24	0.0037	2.2	0.00001	<2	0.000261	<0.0001	<0.0005	0.132
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
5-Jun-09	504	500	475	3.86	568	203	4.84	18.58	<1	135	74.5	<0.5	0.277	98.2	0.432	0.000103	0.00053	0.00868	0.00229	<0.0005	0.026	0.00157
12-Jun-09	511	500	470																			
19-Jun-09	518	500	475	3.98	569	206																
26-Jun-09	525	500	515																			
3-Jul-09	532	500	490	3.98	493	184	3.55	15.06	<1	120	57.6	<0.5	0.163	76.1	0.278	0.000083	0.00026	0.00646	0.00191	<0.0005	<0.01	0.00126
10-Jul-09	539	500	485																			
17-Jul-09	546	500	460	3.79	467	173																
24-Jul-09	553	500	490																			
31-Jul-09	560	500	475	3.72	501	234	7.67	23.68	<1	155	74	<0.5	0.29	99.5	0.479	<0.00005	0.00031	0.00894	0.00275	<0.0005	<0.01	0.00168
7-Aug-09	567	500	440																			
14-Aug-09	574	500	470	3.61	458	251																
21-Aug-09	581	500	470																			
28-Aug-09	588	500	470	3.64	439	273	9	25.89	<1	167	89.2	<0.5	0.257	117	0.674	0.000054	0.0005	0.0104	0.00355	<0.0005	<0.01	0.00198
4-Sep-09	595	500	485																			
11-Sep-09	602	500	485	3.54	460	291																
18-Sep-09	609	500	495																			
25-Sep-09	616	500	455	3.51	486	319	15.01	38.27	<1	207	96.6	<0.5	0.364	133	0.81	<0.0001	0.00049	0.0109	0.00422	<0.001	<0.02	0.00219
2-Oct-09	623	500	510																			
9-Oct-09	630	500	490	3.75	465	243																
16-Oct-09	637	500	465																			
23-Oct-09	644	500	470	3.74	443	279	12.89	33.05	<1	162	75.9	<0.5	0.27	107	0.734	<0.00005	0.00043	0.00855	0.00341	<0.0005	<0.01	0.0017
30-Oct-09	651	500	470																			
6-Nov-09	658	500	465	3.61	464	349																
13-Nov-09	665	500	480																			
20-Nov-09	672	500	425	3.5	465	329	17.1	39.61	<1	175	77.8	<0.5	0.303	118	0.751	<0.00005	0.00045	0.00931	0.00318	<0.0005	0.01	0.0017
27-Nov-09	679	500	505																			
4-Dec-09	686	500	480	3.42	490	309																
11-Dec-09	693	500	490																			
18-Dec-09	700	500	500	3.56	503	282	16.11	34.67	<1	136	70	<0.5	0.239	96.5	0.735	<0.00005		0.00916	0.00294	<0.0005	<0.01	0.00147
25-Dec-09	707	500	475																			
1-Jan-10	714	500	480	3.4	529	302																
8-Jan-10	721	500	465																			
15-Jan-10	728	500	455	3.27	499	408	33.98	60.65	<1	212	86.7	<5	0.35	119	1.25	<0.0001	0.00056	0.00933	0.00399	<0.001	<0.02	0.00196
22-Jan-10	735	500	480																			
29-Jan-10	742	500	445	3.39	486	356																
5-Feb-10	749	500	450																			
12-Feb-10	756	500	455	3.11	558	393	33.51	56.03	<1	186	73.2	<5	<0.2	122	1.35	<0.0001	0.00046	0.00586	0.00356	<0.001	<0.02	0.00167
19-Feb-10	763	500	455																			
26-Feb-10	770	500	465	3.04	577	464																
5-Mar-10	777	500	465																			
12-Mar-10	784	500	460	3.05	563	442	40.77	67.15	<1	207	81	<0.5	0.447	141	2.13	<0.0001	0.00057	0.00837	0.00383	<0.001	<0.02	0.00189
19-Mar-10	791	500	455																			
26-Mar-10	798	500	455	3.02	540	432																
2-Apr-10	805	500	480																			
9-Apr-10	812	500	440	3.09	543	364	35.9	57.42	<1	151	58.8	<5	0.23	106	1.54	<0.00005	0.00047	0.00388	0.00283	<0.0005	<0.01	0.00133
16-Apr-10	819	500	430																			
23-Apr-10	826	500	475	2.92	527	448																
30-Apr-10	833	500	460																			
7-May-10	840	500	440	3.02	530	448	47.61	75.3	<1	202	71.8	<5	0.34	130	1.93	<0.00005	0.00073	0.00546	0.0034	<0.0005	<0.01	0.00156
14-May-10	847	500	455																			
21-May-10	854	500	455	2.95	523	464																
28-May-10	861	500	430																			
4-Jun-10	868	500	510	2.99	502	462	50.03	82.13	<1	228	73.7	<5	0.44	148	2.71	<0.00005	0.00121	0.00473	0.00399	<0.0005	<0.01	0.00156
11-Jun-10	875	500	430																			
18-Jun-10	882	500	440	3.12	517	386																
25-Jun-10	889	500	455																			
2-Jul-10	896	500	450	3.33	389	385	35.97	67.44	<1	183	65.1	<5	0.62	117	2.56	<0.00005	0.00075	0.00253	0.00357	<0.0005	<0.01	0.00128
9-Jul-10	903	500	435																			
16-Jul-10	910	500	425	3.16	478	357																
23-Jul-10	917	500	485																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
5-Jun-09	504	20	0.00059	0.0266	3.03	0.564	0.000371	5.98	0.859	<0.00001	<0.00005	0.0478	1.66	0.0046	3.03	0.000022	<2	0.000422	<0.0001	<0.0005	0.187
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	16.4	<0.0005	0.0186	1.9	0.388	0.000138	4.05	0.48	<0.00001	<0.00005	0.0351	1.24	0.0034	2.62	0.000013	<2	0.000317	<0.0001	<0.0005	0.147
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	19.9	<0.0005	0.0256	3.55	0.504	0.000701	5.93	0.836	<0.00001	<0.00005	0.0473	2	0.004	3.83	0.000021	<2	0.000489	<0.0001	<0.0005	0.213
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	23.3	<0.0005	0.0303	4.36	0.583	0.000616	7.52	0.967	0.000014	<0.00005	0.0553	2.46	0.0042	4.21	0.00002	<2	0.000618	<0.0001	<0.0005	0.242
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	26.2	<0.001	0.0339	5.05	0.686	0.00127	7.56	1.02	<0.00001	<0.0001	0.0636	2.8	0.0034	6.52	0.000028	<2	0.00079	<0.0002	<0.001	0.27
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	20.5	<0.0005	0.0265	4.22	0.513		5.98	0.761	<0.00001	<0.00005	0.0512	2.6	0.0029	5.22	0.000025	<2	0.000736	0.00013	<0.0005	0.23
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	21.6	<0.0005	0.0258	4.16	0.532	0.00301	5.76	0.745	<0.00001	<0.00005	0.0479	2.64	0.003	5.31	0.000022	<2	0.000683	<0.0001	<0.0005	0.217
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	18.7	<0.0005	0.0249	3.74	0.205	0.000594	4.87	0.673	<0.00001	<0.00005	0.0475	2.54	0.0025	4.82	0.000019	<2	0.000733	<0.0001	<0.0005	0.203
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	23.9	<0.001	0.0316	4.96	0.975	0.00115	6.59	0.831	<0.00001	<0.0001	0.0594	3.37	0.003	5.72	0.00003	<2	0.00099	<0.0002	<0.001	0.261
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	19.9	<0.001	0.0293	4.4	1.25	0.00021	5.74	0.701	<0.00001	<0.0001	0.0533	3.44	0.0026	4.85	0.000038	<2	0.00099	<0.0002	<0.001	0.23
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	21.2	0.0012	0.0352	5.4	1.67	0.0009	6.83	0.824	<0.00001	<0.0001	0.0633	3.77	0.0027	4.8	0.000048	<2	0.00105	<0.0002	<0.001	0.269
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	15.8	<0.0005	0.0241	3.84	1.28	0.000318	4.71	0.569	<0.00001	<0.00005	0.0428	3.13	0.002	4.08	0.000034	<2	0.00088	<0.0001	<0.0005	0.19
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	19.8	<0.0005	0.0282	4.32	2.17	0.000835	5.45	0.591	<0.00001	<0.00005	0.0504	3.53	0.0024	5.7	0.00003	<2	0.00105	<0.0001	<0.0005	0.235
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	19.4	0.00055	0.0323	5.03	4.04	0.000135	6.11	0.692	<0.00001	<0.00005	0.0568	4.21	0.0025	7.64	0.000038	<2	0.00117	<0.0001	<0.0005	0.223
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	18	0.00057	0.0255	3.84	2.67	0.000141	4.92	0.533	<0.00001	<0.00005	0.0437	2.64	0.0022	4.54	0.000042	<2	0.000696	0.00047	<0.0005	0.181
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
30-Jul-10	924	500	465	3.09	490	401	43.44	76.27	<1	216	59.6	<5	0.46	127	2.88	<0.00005	0.00084	0.00321	0.00295	<0.0005	0.011	0.00149
6-Aug-10	931	500	470																			
13-Aug-10	938	500	470	3.35	307	427																
20-Aug-10	945	500	460																			
27-Aug-10	952	500	475	3.24	350	485	46.93	85.56	<1	207	67.5	<5	0.44	152	2.95	<0.00005	0.00075	0.00287	0.00343	<0.0005	<0.01	0.00152
3-Sep-10	959	500	490																			
10-Sep-10	966	500	480	3.01	496	501																
17-Sep-10	973	500	480																			
24-Sep-10	980	500	470	2.99	489	429	58.43	94.28	<1	229	71.7	<5	0.53	152	3.47	<0.00005	0.00085	0.00234	0.00375	<0.0005	<0.01	0.00159
1-Oct-10	987	500	475																			
8-Oct-10	994	500	475	2.97	475	553																
15-Oct-10	1001	500	475																			
22-Oct-10	1008	500	475	3.07	513	479	54.07	86.74	<1	199	60.3	<5	0.38	135	3.14	<0.00005	0.00075	0.00275	0.00361	<0.0005	0.011	0.00142
29-Oct-10	1015	500	470																			
5-Nov-10	1022	500	465	3.17	314	591																
12-Nov-10	1029	500	460																			
19-Nov-10	1036	500	455	3.2	330	711	71.2	131.5	<1	260	84.2	<5	0.66	205	5.16	<0.0001	0.00087	0.0025	0.00505	<0.001	<0.02	0.00192
26-Nov-10	1043	500	485																			
3-Dec-10	1050	500	495	3.17	489	407																
10-Dec-10	1057	500	485																			
17-Dec-10	1064	500	450	3.04	495	602	72.88	128.26	<1	318	82.3	<5	0.51	196	5.74	<0.00005	0.00108	0.00266	0.00406	<0.0005	<0.01	0.0018
24-Dec-10	1071	500	510																			
31-Dec-10	1078	500	485	3.16	480	453																
7-Jan-11	1085	500	475																			
14-Jan-11	1092	500	485	3.13	483	467	74.18	126.16	<1	247	74.2	<5	0.36	190	6.01	<0.00005	0.00094	0.0015	0.00385	<0.0005	<0.01	0.00167
21-Jan-11	1099	500	465																			
28-Jan-11	1106	500	435	2.91	548	898																
4-Feb-11	1113	500	480																			
11-Feb-11	1120	500	455	3.01	491	761	82.95	133.12	<1	273	77.6	<5	0.49	211	6.24	<0.00005	0.00142	0.00216	0.00376	<0.0005	<0.01	0.00178
18-Feb-11	1127	500	460																			
25-Feb-11	1134	500	480	3.01	501	750																
4-Mar-11	1141	500	485																			
11-Mar-11	1148	500	480	2.97	500	803	91.62	147.05	<1	323	74.1	<5	0.46	219	6.45	<0.00005	0.00163	0.00259	0.00373	<0.0005	<0.01	0.00168
18-Mar-11	1155	500	490																			
25-Mar-11	1162	500	500	3.03	498	691																
1-Apr-11	1169	500	485																			
8-Apr-11	1176	500	500	2.95	488	786	92.07	146.49	<1	292	67.4	<5	0.43	215	6.29	<0.00005	0.00174	0.00218	0.0032	<0.0005	<0.01	0.00143
15-Apr-11	1183	500	495																			
22-Apr-11	1190	500	485	2.88	500	872																
29-Apr-11	1197	500	495																			
6-May-11	1204	500	485	2.91	513	895	120.49	182.29	<1	315	64.4	<5	0.5	229	7.08	<0.00005	0.00175	0.0027	0.00343	<0.0005	<0.01	0.00141
13-May-11	1211	500	480																			
20-May-11	1218	500	465	2.94	517	920																
27-May-11	1225	500	500																			
3-Jun-11	1232	500	475	2.85	461	934	134.63	206.04	<1	395	64.9	<5	0.63	267	9.18	<0.00005	0.00176	0.00205	0.00301	<0.0005	<0.01	0.00142
10-Jun-11	1239	500	470																			
17-Jun-11	1246	500	440	2.93	257	891																
24-Jun-11	1253	500	485																			
1-Jul-11	1260	500	485	2.84	268	1066	146.46	230.13	<1	468	65.8	<5	0.77	302	10.3	<0.00005	0.00205	0.00115	0.003	<0.0005	<0.01	0.00132
8-Jul-11	1267	500	475																			
15-Jul-11	1274	500	470	2.82	493	1093																
22-Jul-11	1281	500	475																			
29-Jul-11	1288	500	480	2.82	459	1049	171.56	252.4	<1	397	59.6	<5	0.84	325	11.2	<0.00005	0.00233	0.00178	0.00269	<0.0005	<0.01	0.00125
5-Aug-11	1295	500	475																			
12-Aug-11	1302	500	480	2.82	484	1072																
19-Aug-11	1309	500	475																			
26-Aug-11	1316	500	475	2.74	507	1079	183.52	262.44	<1	485	54.2	<5	0.6	298	11.6	<0.00005	0.0017	0.000864	0.00224	<0.0005	<0.01	0.00104
2-Sep-11	1323	500	465																			
9-Sep-11	1330	500	475	2.79	481	1121																
16-Sep-11	1337	500	480																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
30-Jul-10	924	15.7	<0.0005	0.0256	4.07	3.62	0.000223	4.98	0.496	<0.00001	<0.00005	0.0468	2.49	0.0022	5.2	0.00004	<2	0.000736	0.00034	<0.0005	0.193
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	18.8	0.00063	0.0283	4.36	4.58	0.00102	4.98	0.534	<0.00001	<0.00005	0.052	2.78	0.0023	5.94	0.000044	<2	0.000837	<0.0001	<0.0005	0.228
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	18.2	0.00097	0.0312	5.19	4.8	0.000056	6.39	0.627	<0.00001	<0.00005	0.0568	3.4	0.0025	6.41	0.000039	<2	0.00105	<0.0001	<0.0005	0.22
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	15.8	0.00086	0.029	4.48	4.47	0.000119	5.06	0.521		<0.00005	0.0538	2.98	0.002	5.71	0.000039	<2	0.000964	0.00017	<0.0005	0.211
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	22.7	0.0012	0.043	6.24	7.11	0.00013	6.7	0.672	<0.00001	<0.0001	0.0718	4.39	0.0026	7.98	0.000043	<2	0.00129	<0.0002	<0.001	0.28
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	21.6	0.0017	0.042	6.5	6.03	0.0048	6.9	0.679	<0.00001	<0.00005	0.0723	4.1	0.0021	7.96	0.000053	<2	0.00118	0.00023	<0.0005	0.255
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	19.5	0.00188	0.038	5.59	7.45	0.000171	6.17	0.605	<0.00001	<0.00005	0.0643	3.29	0.0019	6.61	0.000048	<2	0.00111	0.0004	<0.0005	0.229
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	20.6	0.00198	0.0425	6	9.87	0.00211	6.34	0.589	<0.00001	<0.00005	0.0729	4.2	0.0018	7.45	0.000054	<2	0.00131	0.00017	<0.0005	0.263
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	18.8	0.00196	0.0429	5.78	12.4	0.000105	6.57	0.596	<0.00001	<0.00005	0.0701	4.7	0.0017	8.16	0.000063	<2	0.00143	0.00018	<0.0005	0.242
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	17.5	0.00177	0.0404	5.14	14.7	0.000058	5.72	0.506	<0.00001	<0.00005	0.0653	4.39	0.0015	7.72	0.000066	<2	0.00144	0.0005	<0.0005	0.215
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	16.3	0.00237	0.0426	5.02	16.1	0.000797	5.77	0.478	<0.00001	<0.00005	0.0679	4.51	0.0014	7.64	0.000067	<2	0.00157	0.00378	<0.0005	0.208
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	15.8	0.00292	0.0472	5.28	20.2	0.000084	6.14	0.49	<0.00001	<0.00005	0.0738	4.34	0.0014	8.42	0.000047	<2	0.00132	0.00934	<0.0005	0.237
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	15.4	0.00329	0.0521	5.36	24	0.00184	6.64	0.469	<0.00001	0.000053	0.0795	4.8	0.0015	9.27	0.000067	<2	0.00151	0.0111	0.00079	0.22
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	13.4	0.00347	0.0531	4.87	25.4	0.00676	6.36	0.421	<0.00001	<0.00005	0.0796	4.72	0.0015	9.16	0.000073	<2	0.00148	0.0123	0.0009	0.206
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	11.7	0.00368	0.0525	4.65	27.9	0.00031	6.08	0.362	<0.00001	<0.00005	0.0766	3.85	0.0014	9.64	0.000081	<2	0.0013	0.0127	0.00084	0.164
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Sep-11	1344	500	475	2.78	520	1065	167.57	242.54	<1	455	48.9	<5	0.47	288	10.9	<0.00005	0.00199	0.0012	0.00193	<0.0005	<0.01	0.000883
30-Sep-11	1351	500	480																			
7-Oct-11	1358	500	485	2.79	507	1100																
14-Oct-11	1365	500	475																			
21-Oct-11	1372	500	470	2.83	527	983	170.57	254.27	<1	437	39.5	<5	0.52	269	9.63	<0.00005	0.00162	0.000837	0.00147	<0.0005	<0.01	0.000737
28-Oct-11	1379	500	480																			
4-Nov-11	1386	500	475	2.77	518	1062																
11-Nov-11	1393	500	505																			
18-Nov-11	1400	500	480	2.84	528	886	130.07	183.34	<1	312	31.9	<5	0.39	219	6.96	<0.00005	0.00125	0.000727	0.00109	<0.0005	<0.01	0.000527
25-Nov-11	1407	500	480																			
2-Dec-11	1414	500	490	2.82	504	1010																
9-Dec-11	1421	500	500																			
16-Dec-11	1428	500	510	2.82	506	993	168.83	238.51	<1	297	33.8	<5	0.37	243	7.05	<0.00005	0.00143	0.000724	0.00098	<0.0005	<0.01	0.000587
23-Dec-11	1435	500	490																			
30-Dec-11	1442	500	480	2.77	514	1100																
6-Jan-12	1449	500	480																			
13-Jan-12	1456	500	495	2.75	518	1058	132.12	183.53	<1	323	37.3	<5	0.46	281	9.19	<0.00005	0.00149	0.000544	0.00107	<0.0005	<0.01	0.000625
20-Jan-12	1463	500	480																			
27-Jan-12	1470	500	510	2.79	527	994																
3-Feb-12	1477	500	490																			
10-Feb-12	1484	500	485	2.69	531	1251	178.78	254.12	<1	462	43.7	<5	0.47	344	11.9	<0.00005	0.00209	0.000613	0.00129	<0.0005	<0.01	0.000849
17-Feb-12	1491	500	460																			
24-Feb-12	1498	500	455	2.69	533	1283																
2-Mar-12	1505	500	460																			
9-Mar-12	1512	500	465	2.82	540	1105		166.71	<1	402	39	<5	0.62	309	12	<0.00005	0.00227	0.000439	0.00101	<0.0005	<0.01	0.000646
16-Mar-12	1519	500	460																			
23-Mar-12	1526	500	465	2.71	534	1312																
30-Mar-12	1533	500	465																			
6-Apr-12	1540	500	455	2.67	532	1239	222.06	304.16	<1	492	45.7	<5	0.65	368	15.3	<0.00005	0.0034	0.00074	0.00114	<0.0005	<0.01	0.000747
13-Apr-12	1547	500	455																			
20-Apr-12	1554	500	465	2.66	522	1352																
27-Apr-12	1561	500	460																			
4-May-12	1568	500	455	2.69	547	1238	244.46	344.45	<1	421	40	<5	0.47	356	13.4	<0.00005	0.00344	0.00128	0.00093	<0.0005	<0.01	0.000649
11-May-12	1575	500	455																			
18-May-12	1582	500	455	2.66	537	1278																
25-May-12	1589	500	455																			
1-Jun-12	1596	500	450	2.67	531	1358	255.17	359.29	<1	550	42.3	<5	0.69	402	15.6	<0.00005	0.00341	0.000884	0.00096	<0.0005	<0.01	0.000566
8-Jun-12	1603	500	450																			
15-Jun-12	1610	500	460	2.62	530	1458																
22-Jun-12	1617	500	445																			
29-Jun-12	1624	500	450	2.72	526	1263	249.4	347.88	<1	741	40.2	<5	0.58	355	13.7	<0.00005	0.00299	0.00076	0.00086	<0.0005	<0.01	0.000496
6-Jul-12	1631	500	455																			
13-Jul-12	1638	500	445	2.69	537	1259																
20-Jul-12	1645	500	450																			
27-Jul-12	1652	500	450	2.67	515	1348	277.49	384.25	<1	573	44.7	<5	0.69	404	16.6	<0.00005	0.00307	0.000353	0.00094	<0.0005	<0.01	0.000553
3-Aug-12	1659	500	450																			
10-Aug-12	1666	500	445	2.7	527	1210																
17-Aug-12	1673	500	445																			
24-Aug-12	1680	500	450	2.67	523	1322	265.93	368.36	<1	601	45.4	<5	0.63	382	17	<0.00005	0.00334	0.00033	0.00093	<0.0005	<0.01	0.000553
31-Aug-12	1687	500	460																			
7-Sep-12	1694	500	460	2.73	531	1217																
14-Sep-12	1701	500	445																			
21-Sep-12	1708	500	450	2.76	519	1136	200.29	287.75	<1	518	40.1	<5	0.62	345	14.4	<0.00005	0.00186	0.000443	0.00078	<0.0005	<0.01	0.00048
28-Sep-12	1715	500	455																			
5-Oct-12	1722	500	460	2.7	530	1127																
12-Oct-12	1729	500	455																			
19-Oct-12	1736	500	455	2.71	527	1091	217.33	291.99	<1	577	35.8	<10	0.57	324	12.1	<0.00005	0.003	0.00122	0.00067	<0.0005	<0.01	0.000384
26-Oct-12	1743	500	445																			
2-Nov-12	1750	500	460	2.68	516	1146																
9-Nov-12	1757	500	460																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Sep-11	1344	10.1	0.00386	0.0492	3.9	26.9	0.00128	5.76	0.295	<0.00001	<0.00005	0.0727	3.41	0.0013	9.06	0.000072	<2	0.00124	0.0146	0.00094	0.138
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	8.17	0.00331	0.0456	3.42	25.2	0.00234	4.63	0.241	<0.00001	<0.00005	0.0647	2.89	0.0011	7.39	0.000072	<2	0.000979	0.0167	0.00071	0.12
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	6.62	0.00221	0.0365	2.9	21.4	0.000307	3.74	0.182	<0.00001	<0.00005	0.0503	2.77	<0.001	7.25	0.00006	<2	0.00092	0.0154	<0.0005	0.0878
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	6.99	0.00217	0.0397	2.74	27	0.00642	3.98	0.187	<0.00001	<0.00005	0.0555	3.38	0.0011	9.9	0.000058	<2	0.0011	0.0183	0.00084	0.0953
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	7.37	0.00276	0.0462	2.82	30.4	0.000693	4.59	0.207	<0.00001	<0.00005	0.0643	3.2	0.001	10.2	0.000078	<2	0.00112	0.0206	0.00102	0.103
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	8.42	0.00417	0.0617	3.46	40.8	0.000904	5.49	0.242	<0.00001	<0.00005	0.0844	3.08	0.0013	9.79	0.000103	<2	0.00116	0.0273	0.00174	0.141
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	6.74	0.00396	0.0556	2.73	33.4	0.000071	5.38	0.218	<0.00001	<0.00005	0.0766	2.44	0.0011	8.04	0.000124	<2	0.000875	0.0229	0.00197	0.116
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	7.47	0.0052	0.0699	3.29	45.5	0.0128	6.57	0.262	<0.00001	<0.00005	0.0961	3.62	0.0014	10.2	0.000129	<2	0.00107	0.027	0.00498	0.13
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	6.24	0.00489	0.0644	2.74	40.2	0.0621	5.92	0.214	<0.00001	0.000061	0.0864	2.46	0.0012	8.85	0.000137	<2	0.000808	0.0222	0.00621	0.109
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	6.21	0.00543	0.0706	2.98	45.8	0.00434	6.5	0.229	<0.00001	0.000097	0.093	2.24	0.0013	8.7	0.000162	2.1	0.000742	0.0255	0.00803	0.0999
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	5.7	0.00449	0.0657	2.57	44.7	0.000261	6.3	0.214	0.000011	<0.00005	0.0853	2.17	0.0012	9.49	0.000116	<2	0.000686	0.0213	0.00789	0.0904
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	6.28	0.00529	0.0702	2.73	45	0.00123	7.04	0.233	<0.00001	0.000072	0.0939	2.04	0.0013	10.8	0.00012	2.1	0.000655	0.0212	0.00835	0.0957
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	6.08	0.0055	0.072	2.63	43.6	0.000351	7.34	0.23	<0.00001	<0.00005	0.0939	1.62	0.0015	10.6	0.000102	2.1	0.000566	0.0198	0.00883	0.0931
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	5.37	0.00481	0.0631	2.14	39.2	0.00501	6.49	0.204	<0.00001	0.000074	0.0829	1.36	0.0012	8.84	0.000089	<2	0.000463	0.0157	0.00838	0.0876
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	4.91	0.00385	0.0577	2.11	33.1	0.00163	5.71	0.173	<0.00001	0.000065	0.0757	1.4	0.001	8	0.00009976	<2	0.000417	0.0182	0.00568	0.071
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Nov-12	1764	500	455	2.74	548	960	175.26	240.55	<1	286	31	<5	0.36	276	11.4	<0.00005	0.00168	0.000486	0.00056	<0.0005	<0.01	0.000395
23-Nov-12	1771	500	495																			
30-Nov-12	1778	500	485	2.87	518	860																
7-Dec-12	1785	500	485																			
14-Dec-12	1792	500	425	2.84	500	1016	149.59	215.02	<1	366	30.2	<5	0.43	270	10.1	<0.00005	0.00107	0.000329	0.00053	<0.0005	<0.01	0.000239
21-Dec-12	1799	500	520																			
28-Dec-12	1806	500	480	2.91	550	1025																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	310	5.14	547	1698	<1	36.4	3.2	1360	791	4.01	0.268	856	0.678	0.00114	0.00263	0.0124	0.0014	<0.0025	0.242	0.00578
25-Jan-08	7	500	510	5.62	547	817																
1-Feb-08	14	500	490	6.1	512	601	<1	9.52	2.8	470	275	<0.5	0.177	308	0.169	0.000722	0.00241	0.00536	0.00052	<0.0005	0.064	0.00148
8-Feb-08	21	500	435	6.13	501	603																
15-Feb-08	28	500	480	6.23	479	202	<1	4.75	2	134	78.7	<0.5	0.159	87.4	0.0462	0.000593	0.00095	0.00462	<0.0002	<0.0005	0.033	0.000855
22-Feb-08	35	500	490	6.05	497	370																
29-Feb-08	42	500	430	6.14	487	420	<1	8.35	2.7	322	194	<0.5	0.149	211	0.118	0.000851	0.00134	0.00859	0.00047	<0.0005	0.042	0.000891
7-Mar-08	49	500	495	6.07	500	272																
14-Mar-08	56	500	475	5.74	502	283	<1	7.13	1.3	200	125	<0.5	0.132	135	0.102	0.000597	0.00115	0.00558	0.0004	<0.0005	0.023	0.000614
21-Mar-08	63	500	485	5.74	520	190																
28-Mar-08	70	500	410	5.43	518	338	<1	9.66	1.2	238	152	<0.5	0.165	166	0.166	0.000477	0.00132	0.00566	0.00061	<0.0005	0.022	0.000687
4-Apr-08	77	500	470	5.45	530	252																
11-Apr-08	84	500	490	5.34	488	269	<1	7.02	<1	172	113	<0.5	0.134	119	0.144	0.000522	0.00125	0.0057	0.00057	<0.0005	0.019	0.00062
18-Apr-08	91	500	450	5.26	514	267																
25-Apr-08	98	500	445	5.22	446	267	<1	8.08	<1	193	122	<0.5	0.159	130	0.176	0.000436	0.00116	0.00601	0.00065	<0.0005	0.016	0.00074
2-May-08	105	500	475	5.19	476	266																
9-May-08	112	500	470	5.17	439	295	<1	11.01	<1	206	133	<0.5	0.206	137	0.291	0.000377	0.00128	0.00633	0.00094	<0.0005	0.02	0.0008
16-May-08	119	500	460	4.96	481	293																
23-May-08	126	500	430	4.85	458	340	<1	12.47	<1	253	142	<0.5	0.255	157	0.309	0.000316	0.0013	0.00511	0.00108	<0.0005	0.024	0.000892
30-May-08	133	500	475	5.6	551	321																
6-Jun-08	140	500	400	4.67	503	229	<1	12.1	<1	192	107	<0.5	0.224	117	0.289	0.000711	0.00207	0.00539	0.00113	<0.0005	0.018	0.000808
13-Jun-08	147	500	415	4.78	510	208																
20-Jun-08	154	500	435	4.8	475	214	<1	13.89	<1	188	114	<0.5	0.244	123	0.312	0.000363	0.00164	0.00482	0.0012	<0.0005	0.02	0.000862
27-Jun-08	161	500	440	4.73	499	256																
4-Jul-08	168	500	415	4.94	460	177	<1	9.01	<1	92	63	<0.5	0.175	72.5	0.215	0.000272	0.00141	0.00302	0.00089	<0.0005	0.015	0.000559
11-Jul-08	175	500	440	4.57	522	326																
18-Jul-08	182	500	465	4.9	474	177	<1	9.6	<1	111	62.7	<0.5	0.162	70.2	0.232	0.000196	0.00106	0.00227	0.00086	<0.0005	0.011	0.000591
25-Jul-08	189	500	425	5.12	497	81																
1-Aug-08	196	500	445	4.54	439	285	<1	14.16	<1	193	112	<0.5	0.276	123	0.427	0.000208	0.00146	0.00268	0.00132	<0.0005	0.013	0.000958
8-Aug-08	203	500	450	4.82	464	159																
15-Aug-08	210	500	435	4.82	427	163	<1	9.4	<1	99.8	56.8	<0.5	0.154	64.9	0.218	0.000158	0.00088	0.00195	0.00081	<0.0005	<0.01	0.000643
22-Aug-08	217	500	450	5.6	358	121																
29-Aug-08	224	500	435	4.79	393	157	<1	9.42	<1	100	53	<0.5	0.157	65.2	0.218	0.000139	0.00085	0.00161	0.0007	<0.0005	<0.01	0.000517
5-Sep-08	231	500	415	4.48	416	264																
12-Sep-08	238	500	425	4.73	408	179	<1	10.52	<1	108	67.5	<0.5	0.198	75	0.337	0.000171	0.00114	0.00132	0.00103	<0.0005	0.013	0.00116
19-Sep-08	245	500	435	4.94	409	106																
26-Sep-08	252	500	475	4.97	407	122	<1	7.85	<1	85	40.3	<0.5	0.101	48.2	0.2	0.000092	0.0006	0.000587	0.00068	<0.0005	<0.01	0.000416
3-Oct-08	259	500	450	4.91	507	117																
10-Oct-08	266	500	455	5.12	454	101	<1	5.86	<1	65	34.6	<0.5	0.122	42	0.186	0.000089	0.00057	0.000864	0.00054	<0.0005	<0.01	0.000425
17-Oct-08	273	500	440	4.75	525	143																
24-Oct-08	280	500	460	4.8	542	167	<1	10.41	<1	109	61.1	<0.5	0.192	73.9	0.37	0.000111	0.00069	0.00236	0.00102	<0.0005	<0.01	0.0007
31-Oct-08	287	500	455	4.7	542	142																
7-Nov-08	294	500	445	4.88	530	130	<1	9.52	<1	82.1	44.4	<0.5	0.167	55.7	0.268	0.00009	0.00064	0.000426	0.00078	<0.0005	<0.01	0.00057
14-Nov-08	301	500	440	4.78	531	115																
21-Nov-08	308	500	435	4.51	410	163	<1	9.84	<1	98.8	53.2	<0.5	0.201	65.4	0.312	0.000096	0.00074	0.00142	0.0011	<0.0005	<0.01	0.000701
28-Nov-08	315	500	470	4.43	388	158																
5-Dec-08	322	500	420	4.6	451	153	<1	12.36	<1	113	50.2	<0.5	0.16	64.2	0.399	0.000126	0.00083	0.000543	0.00127	<0.0005	<0.01	0.000682
12-Dec-08	329	500	465	4.55	462	158																
19-Dec-08	336	500	445	4.19	435	588	4.87	37.02	<1	338	248	<0.5	0.622	290	0.973	0.000159	0.00213	0.00669	0.00341	<0.0005	0.01	0.00206

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Nov-12	1764	4.28	0.00349	0.0507	1.77	30.3	0.00276	4.92	0.144	<0.00001	0.000056	0.0682	1.01	<0.001	7.12	0.000066	<2	0.000308	0.0138	0.0055	0.0719
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	4.71	0.00246	0.0445	1.65	35.6	0.000751	4.48	0.145	<0.00001	<0.00005	0.0565	1.12	<0.001	12	0.00009	<2	0.00036	0.0142	0.00299	0.0539
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	189	<0.0025	0.142	11.3	0.091	0.00314	77.5	5.15	<0.00001	<0.00025	0.468	12.7	0.0257	4.03	<0.00005	43.5	0.00173	<0.0005	<0.0025	0.758
25-Jan-08	7																				
1-Feb-08	14	77.9	<0.0005	0.0379	2.17	0.043	0.00147	19.5	1.46	<0.00001	0.000061	0.122	6.42	0.0073	4.07	<0.00001	6.8	0.000705	0.00019	<0.0005	0.193
8-Feb-08	21																				
15-Feb-08	28	20.8	<0.0005	0.0151	0.29	<0.03	0.000103	6.49	0.231	<0.00001	0.000169	0.0223	4.34	0.0057	1.53	<0.00001	3	0.000354	<0.0001	<0.0005	0.054
22-Feb-08	35																				
29-Feb-08	42	58.5	<0.0005	0.0252	1.43	0.036	0.00126	11.6	1.05	<0.00001	0.000051	0.0766	4.65	0.0057	4.93	<0.00001	<2	0.000542	<0.0001	<0.0005	0.125
7-Mar-08	49																				
14-Mar-08	56	35.6	<0.0005	0.017	1.26	<0.03	0.00155	8.87	0.816	<0.00001	<0.00005	0.0518	3	0.0038	3.92	<0.00001	<2	0.000426	<0.0001	<0.0005	0.0904
21-Mar-08	63																				
28-Mar-08	70	44.5	<0.0005	0.0183	1.64	0.066	0.00318	9.97	0.936	<0.00001	<0.00005	0.0559	2.67	0.0047	4.47	<0.00001	<2	0.000434	<0.0001	<0.0005	0.104
4-Apr-08	77																				
11-Apr-08	84	32.1	<0.0005	0.0156	1.37	0.052	0.00335	7.98	0.791	<0.00001	<0.00005	0.049	2.58	0.0039	3.62	<0.00001	<2	0.000408	<0.0001	<0.0005	0.0976
18-Apr-08	91																				
25-Apr-08	98	36.1	<0.0005	0.017	1.61	0.083	0.00458	7.61	0.863	<0.00001	<0.00005	0.0527	2.14	0.0045	3.71	<0.00001	<2	0.000381	<0.0001	<0.0005	0.107
2-May-08	105																				
9-May-08	112	36.3	<0.0005	0.0191	2.35	0.132	0.00365	10.4	1.3	<0.00001	<0.00005	0.0571	2.21	0.005	3.88	0.000014	<2	0.000384	<0.0001	<0.0005	0.128
16-May-08	119																				
23-May-08	126	41.7	<0.0005	0.0204	2.13	0.14	0.00385	9.16	1.04	<0.00001	<0.00005	0.0605	2.02	0.0046	4.52	0.000014	<2	0.00036	<0.0001	<0.0005	0.141
30-May-08	133																				
6-Jun-08	140	30.4	<0.0005	0.0177	2.31	0.18	0.00412	7.47	1.08	<0.00001	<0.00005	0.0518	3.77	0.0046	5.05	0.000017	<2	0.000414	<0.0001	<0.0005	0.121
13-Jun-08	147																				
20-Jun-08	154	33.3	<0.0005	0.0186	2.32	0.253	0.00744	7.46	1.04	0.000021	<0.00005	0.056	3.27	0.005	4.77	0.000019	<2	0.000289	<0.0001	<0.0005	0.142
27-Jun-08	161																				
4-Jul-08	168	17.7	<0.0005	0.0122	1.48	0.196	0.0012	4.57	0.688	<0.00001	<0.00005	0.0347	2.25	0.0031	2.39	0.000015	<2	0.000195	0.00011	<0.0005	0.0922
11-Jul-08	175																				
18-Jul-08	182	17.8	<0.0005	0.0117	1.61	0.145	0.00143	4.43	0.725	<0.00001	<0.00005	0.0346	1.62	0.0029	1.84	0.000014	<2	0.00015	0.00013	<0.0005	0.0981
25-Jul-08	189																				
1-Aug-08	196	33.4	<0.0005	0.0202	2.68	0.259	0.00145	6.87	1.15	<0.00001	<0.00005	0.056	2.21	0.0049	2.58	0.000017	<2	0.000191	0.00016	<0.0005	0.155
8-Aug-08	203																				
15-Aug-08	210	16.3	<0.0005	0.0117	1.5	0.145	0.00158	3.95	0.69	<0.00001	<0.00005	0.0339	1.4	0.0023	1.39	<0.00001	<2	0.000115	0.00054	<0.0005	0.0922
22-Aug-08	217																				
29-Aug-08	224	15	<0.0005	0.0103	1.4	0.154	0.000411	3.75	0.682	<0.00001	<0.00005	0.0298	1.37	0.002	1.38	<0.00001	<2	0.000113	0.00047	<0.0005	0.0785
5-Sep-08	231																				
12-Sep-08	238	18.5	<0.0005	0.0133	1.79	0.2	0.00807	5.15	0.962	<0.00001	<0.00005	0.0367	1.91	0.003	1.77	<0.00001	<2	0.000129	0.00032	<0.0005	0.125
19-Sep-08	245																				
26-Sep-08	252	11.5	<0.0005	0.00841	1.15	0.111	0.00167	2.82	0.543	<0.00001	<0.00005	0.0226	0.938	0.0017	0.87	<0.00001	<2	0.000071	0.0006	<0.0005	0.0656
3-Oct-08	259																				
10-Oct-08	266	9.8	<0.0005	0.00759	1.14	0.082	0.0004	2.46	0.57	<0.00001	<0.00005	0.0226	0.814	0.0015	0.693	<0.00001	<2	0.000055	0.00062	<0.0005	0.0645
17-Oct-08	273																				
24-Oct-08	280	18	<0.0005	0.0138	1.8	0.122	0.000363	3.94	0.971	<0.00001	<0.00005	0.0366	1.46	0.0022	1.34	<0.00001	<2	0.000091	0.00068	<0.0005	0.101
31-Oct-08	287																				
7-Nov-08	294	12.8	<0.0005	0.0107	1.36	0.097	0.00131	3	0.741	<0.00001	<0.00005	0.0285	1.19	0.0019	1.02	<0.00001	<2	0.000069	0.00056	<0.0005	0.0863
14-Nov-08	301																				
21-Nov-08	308	15.2	<0.0005	0.0144	1.54	0.129	0.000337	3.6	0.83	<0.00001	<0.00005	0.0377	1.44	0.0024	1.18	<0.00001	<2	0.000084	0.00067	<0.0005	0.118
28-Nov-08	315																				
5-Dec-08	322	14	<0.0005	0.0131	1.46	0.097	0.000234	3.69	0.77	<0.00001	<0.00005	0.0346	1.39	0.0019	1.33	<0.00001	<2	0.000095	0.0006	<0.0005	0.105
12-Dec-08	329																				
19-Dec-08	336	84.3	<0.0005	0.0372	3.65	1.16	0.00206	9.19	1.99	<0.00001	<0.00005	0.103	3.58	0.0058	3.3	0.000015	<2	0.00023		<0.0005	0.306

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
26-Dec-08	343	500	450	4.18	500	407																
2-Jan-09	350	500	450	4.51	479	274	<1	28.05	<1	183	104	<0.5	0.347	124	0.574	0.000127	0.00121	0.00108	0.00259	<0.0005	0.01	0.00154
9-Jan-09	357	500	455	4.06	515	266																
16-Jan-09	364	500	500	4.14	523	341	5.19	34.52	<1	236	125	<0.5	0.399	154	0.753	0.00013	0.00149	0.00199	0.00354	<0.001	<0.02	0.00184
23-Jan-09	371	500	500	3.99	498	285																
30-Jan-09	378	500	465	3.92	536	319	7.72	32.97	<1	207	103	<0.5	0.433	133	0.826	0.00013	0.00193	0.00138	0.00401	<0.001	<0.02	0.00161
6-Feb-09	385	500	450	3.62	540	401																
13-Feb-09	392	500	455	3.96	521	336	11.83	34.34	<1	214	101	<0.5	0.444	134	1.18	0.00012	0.00224	0.00153	0.00533	<0.001	<0.02	0.00194
20-Feb-09	399	500	435	3.72	533	338																
27-Feb-09	406	500	450	3.61	530	432	19.05	56.52	<1	260	124	<0.5	0.543	175	2.07	0.00012	0.00216	0.00112	0.00612	<0.001	<0.02	0.00226
6-Mar-09	413	500	455	3.43	492	425																
13-Mar-09	420	500	440	3.34	465	333	16.47	37.39	<1	183	83.5	<0.5	0.449	129	1.19	0.000095	0.0015	0.00112	0.00459	<0.0005	0.011	0.00165
20-Mar-09	427	500	450	3.46	491	328																
27-Mar-09	434	500	450	3.4	509	304	15.76	36.66	<1	156	65.8	<0.5	0.426	110	1.09	0.000082	0.00121	0.000787	0.00395	<0.0005	0.011	0.00143
3-Apr-09	441	500	440	3.38	509	334																
10-Apr-09	448	500	435	3.42	555	425	25.51	55.77	<1	238	109	<0.5	0.539	166	2.24	<0.0001	0.00239	0.0013	0.00601	<0.001	<0.02	0.00211
17-Apr-09	455	500	500	3.36	576	545																
24-Apr-09	462	500	435	3.25	531	380																
1-May-09	469	500	420																			
8-May-09	476	500	440	3.27	537	312	21.55	43.98	<1	167	71.9	<0.5	0.491	115	1.94	0.000087	0.00136	0.00438	0.00361	<0.0005	<0.01	0.00143
15-May-09	483	500	465																			
22-May-09	490	500	435	2.99	547	588																
29-May-09	497	500	460																			
5-Jun-09	504	500	450	3.09	610	395	36.89	66.98	<1	200	81.3	<0.5	0.53	146	2.83	<0.0001	0.00133	0.00055	0.00508	<0.001	0.021	0.00196
12-Jun-09	511	500	435																			
19-Jun-09	518	500	425	3.01	611	493																
26-Jun-09	525	500	455																			
3-Jul-09	532	500	480	3.12	542	470	43.36	86.34	<1	269	99.1	<0.5	0.546	177	3.35	<0.0001	0.00123	0.00035	0.00518	<0.001	<0.02	0.00256
10-Jul-09	539	500	430																			
17-Jul-09	546	500	460	2.96	471	550																
24-Jul-09	553	500	460																			
31-Jul-09	560	500	475	2.92	515	621	67.78	125.34	<1	391	136	<0.5	0.911	251	5.34	<0.00025	0.00158	0.00086	0.0068	<0.0025	<0.05	0.0037
7-Aug-09	567	500	470																			
14-Aug-09	574	500	490	3.02	475	531																
21-Aug-09	581	500	455																			
28-Aug-09	588	500	440	2.99	481	478	48.75	86.31	<1	270	92.8	<0.5	0.457	175	4.02	<0.00025	0.00127	0.00306	0.0048	<0.0025	<0.05	0.00281
4-Sep-09	595	500	485																			
11-Sep-09	602	500	475	2.91	485	658																
18-Sep-09	609	500	470																			
25-Sep-09	616	500	475	2.88	501	648	80.58	137.79	<1	365	124	<2.5	0.69	234	5.19	<0.00025	0.00134	0.00164	0.0058	<0.0025	<0.05	0.00358
2-Oct-09	623	500	490																			
9-Oct-09	630	500	465	2.88	498	700																
16-Oct-09	637	500	425																			
23-Oct-09	644	500	435	2.94	499	792	97.28	180.29	<1	401	143	<2.5	0.72	283	7.46	<0.0001	0.00178	0.00057	0.00735	<0.001	<0.02	0.00456
30-Oct-09	651	500	470																			
6-Nov-09	658	500	445	2.88	481	879																
13-Nov-09	665	500	460																			
20-Nov-09	672	500	435	2.94	496	836	106.81	188.64	<1	463	117	<5	0.54	279	6.64	0.0001	0.00229	0.00086	0.00568	<0.001	<0.02	0.00404
27-Nov-09	679	500	510																			
4-Dec-09	686	500	450	2.9	497	845																
11-Dec-09	693	500	495																			
18-Dec-09	700	500	480	2.9	494	739	104.76	178.86	<1	322	98.1	<5	0.57	229	6.79	<0.00025	0.00216	0.0032	0.0048	<0.0025	<0.05	0.00353
25-Dec-09	707	500	465																			
1-Jan-10	714	500	480	2.93	507	866																
8-Jan-10	721	500	465																			
15-Jan-10	728	500	455	2.81	503	836	139.47	215.57	<1	334	75.3	<10	<0.4	222	7.28	<0.0001	0.00241	0.00089	0.00321	<0.001	<0.02	0.0031
22-Jan-10	735	500	460																			
29-Jan-10	742	500	460	2.75	509	929																
5-Feb-10	749	500	455																			
12-Feb-10	756	500	475	2.62	541	972	165.04	239.74	<1	380	88	<10	<0.4	308	9.38	0.00017	0.00348	0.0006	0.004	<0.001	<0.02	0.00378

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
26-Dec-08	343																				
2-Jan-09	350	30.5	<0.0005	0.0244	3.47	0.266		6.66	1.65	<0.00001	<0.00005	0.0647	3.07	0.0038	2.14	<0.00001	<2	0.000176	0.00037	<0.0005	0.23
9-Jan-09	357																				
16-Jan-09	364	36.8	<0.001	0.0307	4.7	0.397	0.00158	7.94	2.24	<0.00001	<0.0001	0.0773	3.98	0.0042	5.06	<0.00002	<2	0.00025	0.00023	<0.001	0.281
23-Jan-09	371																				
30-Jan-09	378	29.2	<0.001	0.0274	5.09	0.391	0.00142	7.23	2.21	<0.00001	<0.0001	0.0727	4.13	0.0034	3.56	<0.00002	<2	0.00028	0.00027	<0.001	0.294
6-Feb-09	385																				
13-Feb-09	392	26.9	<0.001	0.0294	5.82	0.759	0.0043	8.12	2.47	<0.00001	<0.0001	0.0748	4.52	0.0028	3.44	0.000029	<2	0.00039	0.0003	<0.001	0.288
20-Feb-09	399																				
27-Feb-09	406	33.7	<0.001	0.0371	8.01	1.27	0.0011	9.66	3.05	<0.00001	<0.0001	0.0915	4.74	0.0032	4.43	0.000025	<2	0.00045	<0.0002	<0.001	0.359
6-Mar-09	413																				
13-Mar-09	420	22.9	<0.0005	0.0266	4.63	1.34	0.00108	6.4	1.76	<0.00001	<0.00005	0.0641	4.05	0.0023	3.33	0.000017	<2	0.000428	0.00031	<0.0005	0.259
20-Mar-09	427																				
27-Mar-09	434	18.6	<0.0005	0.0228	3.68	1.38	0.0016	4.69	1.33	<0.00001	0.000057	0.0536	2.94	0.0019	2.44	0.000013	<2	0.000332	0.00104	<0.0005	0.232
3-Apr-09	441																				
10-Apr-09	448	30	<0.001	0.0333	6.84	2.54	0.00176	8.28	2.45	<0.00001	<0.0001	0.084	5.12	0.0029	3.73	<0.00002	<2	0.00062	0.00024	<0.001	0.342
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	20	0.00052	0.0214	5.23	1.3	0.00358	5.32	1.84	<0.00001	<0.00005	0.0498	3.01	0.0018	3	0.000021	<2	0.000412	0.00028	<0.0005	0.226
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	22.6	0.0013	0.0291	5.82	2.67	0.00067	6.02	2.02	<0.00001	<0.0001	0.0641	3.1	<0.002	3.16	0.000039	<2	0.00054	0.00079	<0.001	0.303
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	29.9	0.0011	0.0306	5.29	4.01	0.00037	5.92	1.57	<0.00001	<0.0001	0.0689	2.25	<0.002	3.8	0.000032	<2	0.0005	0.00047	<0.001	0.369
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	39.5	<0.0025	0.0422	9.77	6.07	0.00098	9.14	2.79	<0.00001	<0.00025	0.093	3.17	<0.005	6.26	<0.00005	<2	0.00073	0.00057	<0.0025	0.586
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	24.9	<0.0025	0.0328	6.76	3.63	0.00487	7.45	1.89	<0.00001	<0.00025	0.0695	2.88	<0.005	4.15	<0.00005	<2	0.00065	<0.0005	<0.0025	0.426
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	36.2	<0.0025	0.0407	8.25	7.28	0.00097	8.22	2.14	<0.00001	<0.00025	0.0849	3.51	<0.005	8.19	0.000105	<2	0.0009	<0.0005	<0.0025	0.548
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	40.7	0.0026	0.0506	9.82	9.56	0.0007	9.97	2.4	<0.00001	<0.0001	0.104	4.35	0.0028	8.21	0.000054	<2	0.00123	0.00039	<0.001	0.676
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	33.4	0.0027	0.0434	8.31	12.3	0.00078	8.25	1.81	<0.00001	<0.0001	0.0867	4.64	0.0024	7.81	0.000053	<2	0.00128	0.00031	<0.001	0.602
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	26.4	<0.0025	0.0424	6.88	12	0.00164	7.13	1.42	<0.00001	<0.00025	0.0806	4.04	<0.005	6.59	0.000053	<2	0.00122	0.0009	<0.0025	0.537
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	20.4	0.0032	0.0358	5.21	16.3	0.00103	5.91	0.93	<0.00001	<0.0001	0.0647	3.17	<0.002	6.15	0.000102	<2	0.00115	0.00035	<0.001	0.465
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	23.1	0.0043	0.0473	6.36	19.4	0.00088	7.38	1.06	<0.00001	<0.0001	0.0842	4.72	0.0024	7.24	0.000101	<2	0.00151	0.00057	0.0011	0.571

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
19-Feb-10	763	500	465																			
26-Feb-10	770	500	475	2.59	536	1162																
5-Mar-10	777	500	465																			
12-Mar-10	784	500	480	2.61	532	1052	191.08	281.41	<1	480	87	<10	1.02	342	11.2	0.0002	0.00337	0.00086	0.00343	<0.001	<0.02	0.00431
19-Mar-10	791	500	460																			
26-Mar-10	798	500	450	2.62	533	924																
2-Apr-10	805	500	475																			
9-Apr-10	812	500	450	2.62	534	941	161.05	224.38	<1	310	61.4	<10	0.54	255	7.88	0.00018	0.00293	0.000348	0.00243	<0.0005	<0.01	0.00316
16-Apr-10	819	500	405																			
23-Apr-10	826	500	480	2.6	517	838																
30-Apr-10	833	500	430																			
7-May-10	840	500	470	2.65	510	918	172.21	253.02	<1	358	61.4	<10	0.5	262	6.6	0.00014	0.00219	0.000808	0.00231	<0.0005	<0.01	0.00288
14-May-10	847	500	460																			
21-May-10	854	500	455	2.64	513	831																
28-May-10	861	500	410																			
4-Jun-10	868	500	410	2.76	508	669	108.59	160.42	<1	257	43	<5	0.41	178	4.09	0.000109	0.00349	0.000482	0.00179	<0.0005	0.01	0.00197
11-Jun-10	875	500	440																			
18-Jun-10	882	500	435	2.81	521	648																
25-Jun-10	889	500	440																			
2-Jul-10	896	500	465	2.96	411	669	97.74	155.83	<1	236	44.3	<10	0.87	171	4.85	0.000054	0.00102	0.000428	0.00173	<0.0005	<0.01	0.00216
9-Jul-10	903	500	445																			
16-Jul-10	910	500	415	2.81	495	647																
23-Jul-10	917	500	465																			
30-Jul-10	924	500	460	2.81	496	643	104.6	159.59	<1	241	40.1	<10	0.46	180	4.55	<0.00005	0.00085	0.000325	0.00137	<0.0005	0.012	0.002
6-Aug-10	931	500	455																			
13-Aug-10	938	500	480	2.99	349	612																
20-Aug-10	945	500	450																			
27-Aug-10	952	500	475	2.93	408	717	115	180.27	<1	268	39.6	<5	0.42	197	4.67	<0.00005	0.00079	0.00037	0.00109	<0.0005	<0.01	0.0022
3-Sep-10	959	500	465																			
10-Sep-10	966	500	465	2.74	500	684																
17-Sep-10	973	500	465																			
24-Sep-10	980	500	475	2.75	495	620	126.86	184.69	<1	346	40.7	<5	0.49	192	6.14	<0.00005	0.00092	0.00014	0.00117	<0.0005	<0.01	0.00228
1-Oct-10	987	500	460																			
8-Oct-10	994	500	475	2.78	474	733																
15-Oct-10	1001	500	460																			
22-Oct-10	1008	500	440	2.87	521	599	89.13	127.05	<1	229	27.4	<5	0.28	140	4.24	<0.00005	0.00063	0.000373	0.00107	<0.0005	0.013	0.00155
29-Oct-10	1015	500	450																			
5-Nov-10	1022	500	495	2.93	358	785																
12-Nov-10	1029	500	445																			
19-Nov-10	1036	500	460	3.06	354	839	105.18	174.15	<1	265	42.7	<5	0.58	218	7.24	0.000059	0.00084	0.00431	0.00105	<0.0005	<0.01	0.00254
26-Nov-10	1043	500	475																			
3-Dec-10	1050	500	470	2.89	483	632																
10-Dec-10	1057	500	485																			
17-Dec-10	1064	500	425	2.85	505	785	127.19	198.59	<1	281	36.9	<5	0.38	218	7.16	0.000082	0.00099	0.000559	0.00115	<0.0005	<0.01	0.00238
24-Dec-10	1071	500	510																			
31-Dec-10	1078	500	485	2.89	500	691																
7-Jan-11	1085	500	460																			
14-Jan-11	1092	500	510	2.94	480	620	125.14	187.39	<1	266	34.1	<5	0.26	209	6.91	0.000074	0.00111	0.00112	0.00109	<0.0005	<0.01	0.00245
21-Jan-11	1099	500	450																			
28-Jan-11	1106	500	450	2.86	498	675																
4-Feb-11	1113	500	475																			
11-Feb-11	1120	500	450	2.88	493	905	134.88	200.1	<1	289	36.3	<5	0.4	230	9.65	0.000064	0.00147	0.00465	0.00111	<0.0005	<0.01	0.00254
18-Feb-11	1127	500	455																			
25-Feb-11	1134	500	435	3.14	482	707																
4-Mar-11	1141	500	460																			
11-Mar-11	1148	500	475	2.87	500	830	113.59	169.17	<1	250	28.4	<5	0.26	197	7.34	0.00008	0.00118	0.00033	0.00086	<0.0005	<0.01	0.00202
18-Mar-11	1155	500	430																			
25-Mar-11	1162	500	425	2.86	506	856																
1-Apr-11	1169	500	480																			
8-Apr-11	1176	500	490	2.89	478	813	108.6	160.73	<1	240	28.6	<5	0.24	200	6.21	0.000077	0.00107	0.000569	0.00082	<0.0005	<0.01	0.00196

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	21.6	0.0051	0.0536	6.96	24.5	0.00046	8.02	1.06	<0.00001	<0.0001	0.0928	4.93	0.0022	8.13	0.000095	<2	0.00177	0.0004	0.0018	0.649
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	14.8	0.00412	0.0394	4.92	19.4	0.000541	5.96	0.748	<0.00001	<0.00005	0.066	4.34	0.0016	5.8	0.000132	<2	0.00152	0.0003	0.00216	0.474
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	15.8	0.00308	0.0362	4.79	27.2	0.000346	5.35	0.605	<0.00001	<0.00005	0.0622	4.18	0.0018	9.61	0.000084	<2	0.00152	0.00037	0.0014	0.453
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	10.2	0.00228	0.0258	3.47	18.4	0.0007	4.28	0.522	<0.00001	0.00009	0.0443	3.48	0.0016	5.85	0.000064	<2	0.0011	0.00018	0.00081	0.292
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	10.3	0.00245	0.0273	3.67	18.8	0.000244	4.49	0.514	<0.00001	<0.00005	0.0449	2.8	0.0017	7.56	0.000082	<2	0.000961	0.00015	0.00051	0.326
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	9.48	0.00232	0.0241	3.4	16.3	0.000311	3.99	0.424	<0.00001	<0.00005	0.0414	2.57	0.0016	6.99	0.000072	<2	0.000953	0.00019	<0.0005	0.298
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	9.94	0.00269	0.025	3.46	17.3	0.000305	3.6	0.399	<0.00001	<0.00005	0.0431	2.34	0.0015	6.94	0.000082	<2	0.000905	<0.0001	<0.0005	0.346
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	8.93	0.00302	0.0278	4.15	16.9	0.000683	4.48	0.432	<0.00001	<0.00005	0.0465	3.04	0.002	7.25	0.000063	<2	0.0011	0.00014	<0.0005	0.327
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	6.21	0.00213	0.0203	2.92	10.9	0.000588	2.89	0.273		<0.00005	0.0346	2.31	0.0012	6	0.000044	<2	0.000768	0.00025	<0.0005	0.234
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	9.97	0.00341	0.0338	4.6	17.2	0.000948	4.33	0.423	<0.00001	<0.00005	0.0558	3.19	0.002	8.52	0.000076	<2	0.00112	0.00016	0.0006	0.387
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	8.48	0.00368	0.0333	4.45	18.4	0.00109	3.82	0.412	<0.00001	<0.00005	0.053	3.43	0.0017	9.27	0.000092	<2	0.00115	0.00021	0.00057	0.34
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	7.54	0.0034	0.0318	4.28	20.9	0.00135	3.72	0.364	<0.00001	<0.00005	0.0495	3.53	0.0015	8.38	0.000081	<2	0.00114	0.00056	0.00052	0.329
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	7.63	0.00469	0.0374	4.4	21.3	0.00125	4.19	0.382	<0.00001	<0.00005	0.0589	3.39	0.0016	7.05	0.000104	<2	0.00104	0.00017	0.0013	0.353
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	6.1	0.00357	0.031	3.6	18.3	0.000286	3.21	0.288	<0.00001	<0.00005	0.0479	2.99	0.0013	7.74	0.000088	<2	0.000909	0.00036	0.00054	0.274
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	6.41	0.00264	0.0317	3.42	20.6	0.0005	3.07	0.284	<0.00001	<0.00005	0.0477	3.26	0.0013	7.97	0.000076	<2	0.00099	0.00108	0.00054	0.277

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Apr-11	1183	500	485																			
22-Apr-11	1190	500	495	2.84	499	909																
29-Apr-11	1197	500	500																			
6-May-11	1204	500	495	2.86	528	928	134.08	192.8	<1	269	25.8	<5	0.26	221	8.85	0.000078	0.00158	0.000597	0.00083	<0.0005	<0.01	0.00206
13-May-11	1211	500	450																			
20-May-11	1218	500	485	2.87	538	946																
27-May-11	1225	500	470																			
3-Jun-11	1232	500	440	2.78	488	984	156.89	223.73	<1	392	28.5	<5	0.46	266	11.5	0.000086	0.00239	0.000404	0.00073	<0.0005	<0.01	0.00221
10-Jun-11	1239	500	505																			
17-Jun-11	1246	500	435	2.86	288	970																
24-Jun-11	1253	500	460																			
1-Jul-11	1260	500	465	2.8	300	1066	177.73	262.86	<1	442	31.8	<5	0.57	284	11.1	0.000101	0.00196	0.000243	0.00087	<0.0005	<0.01	0.00236
8-Jul-11	1267	500	460																			
15-Jul-11	1274	500	475	2.83	504	1063																
22-Jul-11	1281	500	475																			
29-Jul-11	1288	500	465	2.77	519	1120	198.99	275.76	<1	456	33.8	<5	0.61	336	12.9	0.000102	0.00226	0.000488	0.00088	<0.0005	<0.01	0.00268
5-Aug-11	1295	500	455																			
12-Aug-11	1302	500	465	2.75	517	1221																
19-Aug-11	1309	500	465																			
26-Aug-11	1316	500	465	2.67	543	1247	242.49	327.15	<1	638	37.7	<5	0.42	362	15.1	0.000146	0.00345	0.00184	0.00088	<0.0005	<0.01	0.00286
2-Sep-11	1323	500	450																			
9-Sep-11	1330	500	465	2.71	523	1242																
16-Sep-11	1337	500	470																			
23-Sep-11	1344	500	470	2.67	561	1277	240.2	325.57	<1	505	36.4	<5	0.37	351	13	0.000129	0.00374	0.000397	0.0008	<0.0005	<0.01	0.0027
30-Sep-11	1351	500	470																			
7-Oct-11	1358	500	470	2.68	538	1322																
14-Oct-11	1365	500	490																			
21-Oct-11	1372	500	450	2.69	565	1255	222.76	307.36	<1	526	29.2	<5	0.39	345	11.4	0.000143	0.00619	0.00117	0.00064	<0.0005	<0.01	0.00237
28-Oct-11	1379	500	495																			
4-Nov-11	1386	500	465	2.62	567	1447																
11-Nov-11	1393	500	440																			
18-Nov-11	1400	500	475	2.71	556	1166	196.91	261.75	<1	321	27.5	<5	0.3	270	8.03	0.000129	0.00406	0.000272	0.00057	<0.0005	<0.01	0.00209
25-Nov-11	1407	500	470																			
2-Dec-11	1414	500	460	2.7	521	1250																
9-Dec-11	1421	500	520																			
16-Dec-11	1428	500	450	2.63	538	1574	301.68	417.13	<1	496	35.3	<10	0.42	439	15.2	0.000192	0.0104	0.000325	0.00075	<0.0005	<0.01	0.00278
23-Dec-11	1435	500	480																			
30-Dec-11	1442	500	480	2.62	550	1511																
6-Jan-12	1449	500	485																			
13-Jan-12	1456	500	455	2.61	549	1488	215.18	287.36	<1	509	32.7	<5	0.39	432	14.3	0.000212	0.0139	0.000558	0.00067	<0.0005	<0.01	0.00257
20-Jan-12	1463	500	470																			
27-Jan-12	1470	500	470	2.63	562	1398																
3-Feb-12	1477	500	475																			
10-Feb-12	1484	500	470	2.62	559	1439	220.81	296.92	<1	480	31.3	<5	0.24	396	11.3	0.000201	0.0121	0.00196	0.00065	<0.0005	<0.01	0.00252
17-Feb-12	1491	500	460																			
24-Feb-12	1498	500	450	2.61	551	1503																
2-Mar-12	1505	500	450																			
9-Mar-12	1512	500	475	2.65	554	1371	241.5	315.55	<1	381	30.2	<5	0.43	344	9.09	0.000165	0.00477	0.000205	0.0006	<0.0005	<0.01	0.00247
16-Mar-12	1519	500	485																			
23-Mar-12	1526	500	480	2.64	558	1492																
30-Mar-12	1533	500	455																			
6-Apr-12	1540	500	465	2.6	555	1445	277.97	359.76	<1	520	36	<5	0.47	425	13.6	0.000223	0.0119	0.00054	0.00068	<0.0005	<0.01	0.00277
13-Apr-12	1547	500	460																			
20-Apr-12	1554	500	465	2.6	532	1505																
27-Apr-12	1561	500	445																			
4-May-12	1568	500	475	2.6	565	1469	283.47	376.95	<1	486	33	<5	0.3	392	11.4	0.000202	0.0094	0.000416	0.00053	<0.0005	<0.01	0.00234
11-May-12	1575	500	465																			
18-May-12	1582	500	455	2.61	558	1387																
25-May-12	1589	500	455																			
1-Jun-12	1596	500	450	2.63	555	1392	267.35	358.41	<1	499	33.4	<5	0.48	361	12.1	0.000187	0.00956	0.00605	0.00054	<0.0005	<0.01	0.00217

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	5.3	0.00432	0.034	3.01	19.6	0.000583	3.06	0.239	<0.00001	<0.00005	0.0504	2.65	0.0013	6.73	0.000126	<2	0.000996	0.0037	0.00056	0.281
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	5.35	0.00557	0.0395	3.16	24.5	0.000159	3.67	0.258	<0.00001	<0.00005	0.0578	2.2	0.0013	6.91	0.000121	<2	0.000826	0.00835	0.00096	0.285
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	5.57	0.00515	0.0442	3.43	26.7	0.000131	4.35	0.282	<0.00001	<0.00005	0.0636	2.28	0.0013	8.7	0.000123	<2	0.00078	0.015	0.00117	0.338
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	5.6	0.00587	0.0508	3.46	30.5	0.000645	4.8	0.311	<0.00001	<0.00005	0.0729	2.48	0.0014	9	0.000138	<2	0.000803	0.0191	0.00142	0.374
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	5.75	0.00684	0.0598	3.67	38.2	0.00713	5.68	0.308	<0.00001	<0.00005	0.0843	2.21	0.0014	9.86	0.000161	<2	0.00077	0.0224	0.00203	0.37
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	5.23	0.0059	0.0571	3.12	36.8	0.00407	5.68	0.268	<0.00001	<0.00005	0.0813	1.95	0.0013	9.88	0.000158	<2	0.00071	0.0221	0.00246	0.358
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	4.43	0.00534	0.0537	2.75	39.8	0.000799	4.4	0.214	<0.00001	0.000051	0.0745	1.63	0.0012	7.33	0.000183	<2	0.000579	0.0208	0.00231	0.315
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	4.04	0.00372	0.0468	2.78	29.7	0.000641	4.24	0.197	<0.00001	<0.00005	0.0638	1.73	<0.001	8.4	0.000148	<2	0.000541	0.0205	0.00268	0.281
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	5.38	0.00661	0.0712	3.49	54.2	0.01	5.3	0.262	<0.00001	0.00009	0.0979	1.87	0.0016	9.2	0.000291	<2	0.000604	0.0263	0.004	0.396
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	4.4	0.00595	0.0671	2.77	57.7	0.000763	5.26	0.245	<0.00001	0.000128	0.0912	1.62	0.0014	9.08	0.000209	<2	0.000543	0.0197	0.00471	0.349
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	4.15	0.00517	0.0647	2.66	55.5	0.000524	5.08	0.216	<0.00001	0.000145	0.086	1.37	0.0013	8.68	0.00019	<2	0.000451	0.0195	0.00518	0.342
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	3.97	0.0041	0.0589	2.79	42.3	0.000259	4.92	0.206	<0.00001	0.000099	0.0792	1.37	0.0012	10.6	0.000165	<2	0.000464	0.0222	0.00541	0.349
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	4.21	0.00564	0.0774	2.88	59.6	0.00327	6.19	0.239	<0.00001	0.000173	0.0986	1.49	0.0015	10.5	0.00018	<2	0.000416	0.0215	0.00693	0.398
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	3.84	0.00475	0.0694	2.58	51.5	0.00143	5.68	0.202	<0.00001	0.00013	0.0916	1.16	0.0014	9.62	0.000174	<2	0.000324	0.0188	0.00625	0.318
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	4.08	0.00488	0.0641	2.49	48.6	0.000749	5.63	0.207	<0.00001	0.000125	0.0845	1.05	0.0014	8.34	0.000182	<2	0.00027	0.0167	0.00639	0.284

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Jun-12	1603	500	465																			
15-Jun-12	1610	500	485	2.58	558	1469																
22-Jun-12	1617	500	460																			
29-Jun-12	1624	500	450	2.65	549	1368	262.68	353.99	<1	767	35	<5	0.48	386	12.4	0.000162	0.00833	0.00149	0.00057	<0.0005	<0.01	0.00218
6-Jul-12	1631	500	475																			
13-Jul-12	1638	500	445	2.63	560	1381																
20-Jul-12	1645	500	465																			
27-Jul-12	1652	500	445	2.64	521	1363	258.6	348.38	<1	509	33.7	<5	0.49	371	12.5	0.000151	0.00636	0.0002	0.00055	<0.0005	<0.01	0.00202
3-Aug-12	1659	500	450																			
10-Aug-12	1666	500	430	2.59	549	1486																
17-Aug-12	1673	500	455																			
24-Aug-12	1680	500	460	2.64	559	1346	256.31	347.78	<1	489	39.9	<5	0.55	364	13.2	0.000218	0.00485	0.000211	0.00067	<0.0005	<0.01	0.00237
31-Aug-12	1687	500	475																			
7-Sep-12	1694	500	465	2.64	584	1381																
14-Sep-12	1701	500	445																			
21-Sep-12	1708	500	460	2.63	554	1437	224.53	298.5	<1	714	48	<5	0.72	531	20.5	0.000259	0.00864	0.000518	0.0008	<0.0005	<0.01	0.00279
28-Sep-12	1715	500	455																			
5-Oct-12	1722	500	490	2.54	566	1554																
12-Oct-12	1729	500	440																			
19-Oct-12	1736	500	460	2.49	576	1658	361.84	465.78	<1	883	38.4	<10	0.56	519	18.2	0.00036	0.0124	0.0007	0.00056	<0.0005	<0.01	0.00236
26-Oct-12	1743	500	490																			
2-Nov-12	1750	500	450	2.48	576	1745																
9-Nov-12	1757	500	470																			
16-Nov-12	1764	500	450	2.51	637	1829	350.54	457.71	<1	682	40.6	<10	<0.4	546	19.2	0.000313	0.0181	0.000534	0.0006	<0.0005	<0.01	0.0023
23-Nov-12	1771	500	515																			
30-Nov-12	1778	500	475	2.65	571	1348																
7-Dec-12	1785	500	495																			
14-Dec-12	1792	500	450	2.69	507	1387	210.17	277.02	<1	502	31.6	<5	0.51	339	9.84	0.000203	0.00391	0.000217	0.00045	<0.0005	<0.01	0.00175
21-Dec-12	1799	500	520																			
28-Dec-12	1806	500	480	2.73	510	1401																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	275	7.56	440	3261	<1	8.7	84.8	2670	1370	11.3	<1	1610	0.0053	0.00108	0.00059	0.0173	<0.001	<0.0025	0.151	0.00047
25-Jan-08	7	500	490	7.54	475	791																
1-Feb-08	14	500	495	7.81	440	665	<1	5.48	71.1	496	297	<0.5	0.672	285	0.0111	0.000752	0.00059	0.0106	<0.0002	<0.0005	0.072	0.000073
8-Feb-08	21	500	480	7.89	432	661																
15-Feb-08	28	500	495	7.73	433	289	<1	3.96	55.8	188	136	<0.5	0.535	93.2	0.0104	0.000656	0.00057	0.0052	<0.0002	<0.0005	0.039	<0.00005
22-Feb-08	35	500	495	7.9	418	276																
29-Feb-08	42	500	470	7.93	411	324	<1	5.79	84.1	213	156	<0.5	0.734	91.4	0.0087	0.000875	0.00083	0.00863	<0.0002	<0.0005	0.052	<0.00005
7-Mar-08	49	500	480	7.84	421	261																
14-Mar-08	56	500	480	7.9	414	266	<1	4.07	78.8	160	132	<0.5	0.57	63.9	0.0071	0.000857	0.00078	0.009	<0.0002	<0.0005	0.032	<0.00005
21-Mar-08	63	500	475	7.82	440	198																
28-Mar-08	70	500	460	7.81	411	283	<1	5.23	83.1	158	141	<0.5	0.53	73.4	0.0067	0.000769	0.00081	0.00952	<0.0002	<0.0005	0.024	<0.00005
4-Apr-08	77	500	460	7.9	423	229																
11-Apr-08	84	500	475	7.67	394	255	<1	3.67	54.8	152	117	<0.5	0.283	68	0.0096	0.00072	0.0009	0.00918	<0.0002	<0.0005	0.017	<0.00005
18-Apr-08	91	500	460	7.83	406	249																
25-Apr-08	98	500	455	7.81	380	248	<1	2.5	55.8	169	128	<0.5	0.258	77.4	0.0097	0.000711	0.00079	0.00917	<0.0002	<0.0005	0.014	<0.00005
2-May-08	105	500	480	7.85	388	241																
9-May-08	112	500	470	7.92	347	271	<1	3.5	68.8	169	141	<0.5	0.301	72.5	0.0094	0.00084	0.00089	0.0101	<0.0002	<0.0005	0.018	<0.00005
16-May-08	119	500	470	7.86	370	219																
23-May-08	126	500	455	7.77	378	234	<1	2.92	45.7	150	111	<0.5	0.24	69.4	0.0131	0.000663	0.00078	0.00745	<0.0002	<0.0005	0.015	<0.00005
30-May-08	133	500	440	7.1	424	221																
6-Jun-08	140	500	390	7.73	405	229	<1	3.22	46.6	178	131	<0.5	0.307	86.7	0.0164	0.0013	0.00106	0.0102	<0.0002	<0.0005	0.014	<0.00005
13-Jun-08	147	500	445	7.8	394	178																
20-Jun-08	154	500	450	7.84	353	186	<1	4.19	54.2	161	117	<0.5	0.185	70.7	0.0108	0.000759	0.00088	0.00884	<0.0002	<0.0005	0.011	<0.00005
27-Jun-08	161	500	440	7.75	369	214																
4-Jul-08	168	500	425	7.66	370	240	<1	3.45	35.7	133	110	<0.5	0.158	74.6	0.0144	0.000638	0.00087	0.0074	<0.0002	<0.0005	0.011	<0.00005
11-Jul-08	175	500	435	7.72	419	251																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	4.08	0.00506	0.0659	2.5	51	0.00635	6.03	0.21	0.000013	0.000135	0.0851	0.98	0.0014	9.63	0.000168	<2	0.000243	0.0146	0.00877	0.283
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	3.98	0.00496	0.063	2.53	47.6	0.00117	5.78	0.202	<0.00001	0.000107	0.083	0.992	0.0014	10.7	0.000149	<2	0.000247	0.0138	0.00715	0.268
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	4.71	0.00502	0.0664	3.11	40.6	0.000729	6.83	0.235	<0.00001	0.00008	0.0875	1.25	0.0015	13.7	0.000141	2.5	0.000333	0.0184	0.00732	0.301
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	5.99	0.00806	0.0942	3.42	60.2	0.0139	8.02	0.286	<0.00001	0.000534	0.122	1.28	0.0018	13.5	0.000207	2.6	0.000387	0.0202	0.0113	0.385
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	4.67	0.00696	0.087	2.94	63.6	0.00953	6.49	0.222	<0.00001	0.000288	0.11	1.38	0.0016	11.4	0.000228	2	0.000371	0.017	0.00985	0.307
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	4.79	0.00713	0.1	2.5	79.9	0.000362	6.95	0.221	<0.00001	0.000262	0.122	1.08	0.0016	10.6	0.000224	<2	0.000311	0.0123	0.0108	0.317
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	4.5	0.00319	0.0576	2.05	42.6	0.0024	4.94	0.173	<0.00001	0.000136	0.0713	0.947	0.001	12.8	0.000173	<2	0.00029	0.00888	0.012	0.234
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	365	<0.0025	0.00833	0.029	<0.03	<0.00025	111	1.88	0.000085	0.0198	0.0081	22.2	0.0861	2.46	0.000831	148	0.00064	<0.0005	<0.0025	0.0387
25-Jan-08	7																				
1-Feb-08	14	84.2	<0.0005	0.00121	0.00768	<0.03	<0.00005	21	0.369	<0.00001	0.0259	0.00099	9.14	0.0133	1.82	<0.00001	19	0.000198	0.00029	<0.0005	0.0054
8-Feb-08	21																				
15-Feb-08	28	39.1	<0.0005	0.00042	0.00405	<0.03	<0.00005	9.31	0.138	<0.00001	0.021	0.00057	5.36	0.0036	1.21	<0.00001	4.8	0.000111	0.00018	<0.0005	0.0021
22-Feb-08	35																				
29-Feb-08	42	47.1	<0.0005	0.00033	0.0112	<0.03	<0.00005	9.41	0.11	<0.00001	0.0368	<0.0005	6.58	0.0035	1.61	<0.00001	3.9	0.000139	<0.0001	<0.0005	0.0026
7-Mar-08	49																				
14-Mar-08	56	37.9	<0.0005	0.00027	0.00493	<0.03	<0.00005	9.11	0.105	<0.00001	0.0339	<0.0005	5.28	0.0026	1.41	<0.00001	<2	0.000124	<0.0001	<0.0005	0.001
21-Mar-08	63																				
28-Mar-08	70	41.3	<0.0005	0.00021	0.0051	<0.03	<0.00005	9.21	0.0915	<0.00001	0.0299	<0.0005	4.53	0.0027	1.37	<0.00001	<2	0.000109	<0.0001	<0.0005	0.0013
4-Apr-08	77																				
11-Apr-08	84	33.9	<0.0005	0.00016	0.00487	<0.03	0.000052	7.86	0.0635	<0.00001	0.0239	<0.0005	4.12	0.0026	1.1	<0.00001	<2	0.000094	0.00027	<0.0005	0.0048
18-Apr-08	91																				
25-Apr-08	98	38	<0.0005	0.00017	0.00358	<0.03	0.000092	8.03	0.0678	<0.00001	0.0233	<0.0005	3.81	0.003	1.1	<0.00001	<2	0.000085	0.00023	<0.0005	0.0015
2-May-08	105																				
9-May-08	112	38	<0.0005	0.00018	0.00301	<0.03	<0.00005	11.2	0.0981	<0.00001	0.0276	<0.0005	4.67	0.0029	1.19	<0.00001	<2	0.000106	<0.0001	<0.0005	0.001
16-May-08	119																				
23-May-08	126	32.1	<0.0005	0.00013	0.00387	<0.03	<0.00005	7.46	0.0507	<0.00001	0.0209	<0.0005	3.41	0.0027	1.02	<0.00001	<2	0.000075	0.00016	<0.0005	0.0012
30-May-08	133																				
6-Jun-08	140	36.3	<0.0005	0.00012	0.00454	<0.03	0.000051	9.82	0.0506	<0.00001	0.027	<0.0005	5.55	0.0036	1.17	0.000017	<2	0.000105	<0.0001	<0.0005	0.0026
13-Jun-08	147																				
20-Jun-08	154	33.7	<0.0005	0.00011	0.00361	<0.03	0.000072	7.96	0.0502	<0.00001	0.0211	<0.0005	4.56	0.0031	1.14	0.000016	<2	0.000076	<0.0001	<0.0005	0.0022
27-Jun-08	161																				
4-Jul-08	168	31.7	<0.0005	<0.0001	0.00283	<0.03	<0.00005	7.44	0.04	<0.00001	0.0189	<0.0005	4.34	0.003	0.991	<0.00001	<2	0.000075	0.0003	<0.0005	0.0012
11-Jul-08	175																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jul-08	182	500	440	7.66	392	230	<1	3.44	38.4	139	107	<0.5	0.121	67	0.0171	0.000551	0.00076	0.00647	<0.0002	<0.0005	<0.01	<0.00005
25-Jul-08	189	500	410	7.64	410	230																
1-Aug-08	196	500	435	7.71	357	249	<1	3.16	47.7	152	118	<0.5	0.131	76.6	0.0115	0.000626	0.00087	0.00731	<0.0002	<0.0005	<0.01	<0.00005
8-Aug-08	203	500	455	7.74	366	204																
15-Aug-08	210	500	435	7.66	341	218	<1	3.59	39.8	133	96.1	<0.5	0.104	63.1	0.0233	0.000544	0.00076	0.00658	<0.0002	<0.0005	<0.01	0.000126
22-Aug-08	217	500	440	7.76	309	206																
29-Aug-08	224	500	445	7.66	314	208	<1	3.18	40.9	132	91.4	<0.5	0.104	63.4	0.0145	0.000882	0.00072	0.00642	<0.0002	<0.0005	<0.01	<0.00005
5-Sep-08	231	500	445	7.75	319	213																
12-Sep-08	238	500	435	7.71	302	220	<1	3.92	49	124	112	<0.5	0.092	63.5	0.0169	0.000559	0.00071	0.00689	<0.0002	<0.0005	<0.01	<0.00005
19-Sep-08	245	500	440	7.7	317	219																
26-Sep-08	252	500	450	7.64	314	193	<1	3.17	39.9	134	85.2	<0.5	0.068	52.6	0.0133	0.000475	0.00061	0.00586	<0.0002	<0.0005	<0.01	<0.00005
3-Oct-08	259	500	450	7.7	416	195																
10-Oct-08	266	500	440	7.69	389	179	<1	3.38	38.4	109	78.8	<0.5	0.082	49.2	0.0123	0.00043	0.00061	0.00517	<0.0002	<0.0005	<0.01	<0.00005
17-Oct-08	273	500	430	7.75	421	221																
24-Oct-08	280	500	440	7.76	434	205	<1	3.17	48.6	133	100	<0.5	0.084	57.6	0.0103	0.000529	0.00059	0.00703	<0.0002	<0.0005	<0.01	<0.00005
31-Oct-08	287	500	435	7.71	433	196																
7-Nov-08	294	500	455	7.54	427	170	<1	3.24	38.1	110	78	<0.5	0.083	48.6	0.0223	0.000447	0.00062	0.0053	<0.0002	<0.0005	<0.01	<0.00005
14-Nov-08	301	500	450	7.71	427	167																
21-Nov-08	308	500	445	7.76	338	216	<1	2.17	50.4	131	97.3	<0.5	0.086	55.4	0.0096	0.000531	0.00057	0.00883	<0.0002	<0.0005	<0.01	0.000174
28-Nov-08	315	500	480	7.4	319	136																
5-Dec-08	322	500	400	7.69	349	189	<1	3.25	51.1	114	84.2	<0.5	0.077	51.4	0.0146	0.000752	0.00065	0.00655	<0.0002	<0.0005	<0.01	<0.00005
12-Dec-08	329	500	440	7.69	340	162																
19-Dec-08	336	500	410	7.68	302	320	<1	5.55	41.7	225	158	<0.5	0.066	128	0.0099	0.000348	0.00047	0.0122	<0.0002	<0.0005	<0.01	0.000052
26-Dec-08	343	500	440	7.8	327	110																
2-Jan-09	350	500	475	7.82	332	164	<1	11.74	42.3	106	77.3	<0.5	0.042	52	0.0099	0.000379	0.00048	0.00498	<0.0002	<0.0005	<0.01	<0.00005
9-Jan-09	357	500	500	7.6	374	143																
16-Jan-09	364	500	520	7.78	379	189	<1	7.7	53.3	96.3	94.1	<0.5	0.045	52.9	0.0074	0.000458	0.00055	0.00626	<0.0002	<0.0005	<0.01	<0.00005
23-Jan-09	371	500	520	7.81	374	149																
30-Jan-09	378	500	495	7.79	352	170	<1	10.33	64.5	113	80.9	<0.5	0.051	37.5	0.0065	0.00048	0.00045	0.00557	<0.0002	<0.0005	<0.01	<0.00005
6-Feb-09	385	500	455	7.65	366	200																
13-Feb-09	392	500	460	7.66	327	155	<1	3.27	48.6	93.6	76.9	<0.5	0.055	37.8	0.0084	0.000498	0.00053	0.00529	<0.0002	<0.0005	<0.01	<0.00005
20-Feb-09	399	500	460	7.78	379	161																
27-Feb-09	406	500	455	7.9	401	187	<1	7.11	64.8	120	95	<0.5	0.046	47.5	0.006	0.000544	0.00052	0.00629	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-09	413	500	465	7.76	238	170																
13-Mar-09	420	500	460	7.51	233	156	<1	3.8	54.5	89	77.9	<0.5	0.043	35.4	0.0077	0.000483	0.00046	0.00543	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-09	427	500	465	7.62	324	136																
27-Mar-09	434	500	450	7.66	338	158	<1	4.62	47	92.3	69.6	<0.5	0.037	39.3	0.0167	0.000436	0.00042	0.00491	<0.0002	<0.0005	0.01	<0.00005
3-Apr-09	441	500	445	7.61	357	171																
10-Apr-09	448	500	445	7.58	365	149	<1	3.68	45.5	95.9	73.6	<0.5	0.024	37.9	0.0101	0.000425	0.00045	0.00487	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-09	455	500	450	7.63	380	167																
24-Apr-09	462	500	445	7.61	334	159																
1-May-09	469	500	450																			
8-May-09	476	500	445	7.56	357	156	<1	3.66	47.1	101	77.8	<0.5	0.053	39.7	0.0092	0.000423	0.00049	0.00467	<0.0002	<0.0005	<0.01	<0.00005
15-May-09	483	500	450																			
22-May-09	490	500	475	7.61	323	134																
29-May-09	497	500	455																			
5-Jun-09	504	500	465	7.5	386	135	<1	3.7	37.4	83.1	71.4	<0.5	0.034	47	0.0116	0.000369	0.00047	0.00471	<0.0002	<0.0005	0.021	0.000095
12-Jun-09	511	500	460																			
19-Jun-09	518	500	440	7.37	383	164																
26-Jun-09	525	500	460																			
3-Jul-09	532	500	495	7.34	314	141	<1	3.4	35.7	88	63.7	<0.5	<0.02	40.8	0.0098	0.000299	0.00039	0.00385	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-09	539	500	485																			
17-Jul-09	546	500	450	7.26	379	121																
24-Jul-09	553	500	425																			
31-Jul-09	560	500	445	7.36	358	180	<1	4.37	42.9	121	87.4	<0.5	0.044	57.8	0.0082	0.000323	0.00038	0.00551	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-09	567	500	425																			
14-Aug-09	574	500	470	7.22	326	154																
21-Aug-09	581	500	450																			
28-Aug-09	588	500	455	7.43	287	153	<1	3.71	42.6	114	78.2	<0.5	0.024	45.4	0.0098	0.000308	0.00041	0.00492	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-09	595	500	475																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jul-08	182	31.7	<0.0005	<0.0001	0.00313	<0.03	<0.00005	6.72	0.0355	<0.00001	0.0167	<0.0005	3.63	0.0026	0.907	<0.00001	<2	<0.00005	0.00038	<0.0005	0.0016
25-Jul-08	189																				
1-Aug-08	196	34	<0.0005	<0.0001	0.0021	<0.03	<0.00005	8	0.0364	<0.00001	0.0198	<0.0005	3.92	0.0033	0.978	<0.00001	<2	0.00007	0.00022	<0.0005	<0.001
8-Aug-08	203																				
15-Aug-08	210	26.9	<0.0005	<0.0001	0.009	<0.03		7.01	0.033	<0.00001	0.016	0.00066	3.28	0.0025	0.831	<0.00001	<2	0.00006	0.00065	<0.0005	
22-Aug-08	217																				
29-Aug-08	224	25.6	<0.0005	<0.0001	0.00198	<0.03	<0.00005	6.68	0.0286	<0.00001	0.015	<0.0005	2.78	0.0021	0.782	<0.00001	<2	0.000056	0.00086	<0.0005	<0.001
5-Sep-08	231																				
12-Sep-08	238	31.2	<0.0005	<0.0001	0.00245	<0.03	0.000067	8.34	0.0343	<0.00001	0.0155	<0.0005	3.33	0.0025	0.944	<0.00001	<2	0.000061	0.0006	<0.0005	0.0018
19-Sep-08	245																				
26-Sep-08	252	23.7	<0.0005	<0.0001	0.00183	<0.03	0.000075	6.33	0.0264	<0.00001	0.0127	<0.0005	2.72	0.0022	0.8	<0.00001	<2	0.000051	0.00104	<0.0005	<0.001
3-Oct-08	259																				
10-Oct-08	266	22.5	<0.0005	<0.0001	0.00227	<0.03	<0.00005	5.48	0.022	<0.00001	0.0111	<0.0005	2.49	0.0018	0.734	<0.00001	<2	<0.00005	0.00102	<0.0005	<0.001
17-Oct-08	273																				
24-Oct-08	280	29.1	<0.0005	<0.0001	0.00337	<0.03	<0.00005	6.74	0.0312	<0.00001	0.0134	0.00074	2.79	0.0019	0.837	<0.00001	<2	0.000064	0.00045	<0.0005	<0.001
31-Oct-08	287																				
7-Nov-08	294	22.9	<0.0005	<0.0001	0.00334	<0.03	<0.00005	5.07	0.0208	<0.00001	0.0114	<0.0005	2.43	0.0017	0.723	<0.00001	<2	<0.00005	0.0009	<0.0005	<0.001
14-Nov-08	301																				
21-Nov-08	308	30.3	<0.0005	<0.0001	0.00291	<0.03		6.68	0.0388	<0.00001	0.0129	<0.0005	2.87	0.002	0.865	<0.00001	<2	0.000066	0.00049	<0.0005	0.0037
28-Nov-08	315																				
5-Dec-08	322	23.8	<0.0005	<0.0001	0.00248	<0.03	0.000061	6.03	0.0238	<0.00001	0.0131	<0.0005	3.91	0.0016	0.891	0.000014	<2	0.000062	0.00103	<0.0005	<0.001
12-Dec-08	329																				
19-Dec-08	336	52.2	<0.0005	<0.0001	0.00438	<0.03	<0.00005	6.65	0.0358	<0.00001	0.00895	<0.0005	3.2	0.0019	0.818	<0.00001	<2	0.000052		<0.0005	0.0016
26-Dec-08	343																				
2-Jan-09	350	22.7	<0.0005	<0.0001	0.00555	<0.03	<0.00005	4.99	0.0119	<0.00001	0.00844	<0.0005	2.47	0.0017	0.63	<0.00001	<2	<0.00005	0.00145	<0.0005	<0.001
9-Jan-09	357																				
16-Jan-09	364	26.3	<0.0005	<0.0001	0.00199	<0.03	<0.00005	6.92	0.0163	<0.00001	0.0093	<0.0005	2.91	0.0017	0.756	<0.00001	<2	<0.00005	0.00056	<0.0005	<0.001
23-Jan-09	371																				
30-Jan-09	378	22.8	0.00061	<0.0001	0.00234	<0.03	<0.00005	5.82	0.0202	<0.00001	0.00803	<0.0005	2.48	0.0011	0.765	<0.00001	<2	<0.00005	0.00073	<0.0005	0.002
6-Feb-09	385																				
13-Feb-09	392	20.8	<0.0005	<0.0001	0.00288	<0.03	<0.00005	6.08	0.019	<0.00001	0.00923	<0.0005	2.49	0.0012	0.728	<0.00001	<2	<0.00005	0.00124	<0.0005	<0.001
20-Feb-09	399																				
27-Feb-09	406	25.9	<0.0005	<0.0001	0.00267	<0.03	<0.00005	7.33	0.022	<0.00001	0.0104	<0.0005	2.63	0.0016	0.772	<0.00001	<2	<0.00005	0.00045	<0.0005	0.0011
6-Mar-09	413																				
13-Mar-09	420	21.7	<0.0005	<0.0001	0.00383	<0.03	<0.00005	5.72	0.0197	<0.00001	0.00886	<0.0005	2.43	0.0012	0.708	<0.00001	<2	<0.00005	0.00139	<0.0005	<0.001
20-Mar-09	427																				
27-Mar-09	434	20	<0.0005	<0.0001	0.00196	<0.03	<0.00005	4.75	0.0202	<0.00001	0.00791	<0.0005	2.06	0.0013	0.596	<0.00001	<2	<0.00005	0.00143	<0.0005	<0.001
3-Apr-09	441																				
10-Apr-09	448	20.3	<0.0005	<0.0001	0.00171	<0.03	0.000065	5.59	0.0207	<0.00001	0.00796	<0.0005	2.26	0.0011	0.615	<0.00001	<2	<0.00005	0.00111	<0.0005	<0.001
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	20.8	<0.0005	<0.0001	0.00138	<0.03	<0.00005	6.29	0.0191	<0.00001	0.00852	<0.0005	2.22	0.0015	0.63	<0.00001	<2	<0.00005	0.00075	<0.0005	<0.001
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	19.6	0.00054	<0.0001	0.00114	<0.03		5.43	0.0179	<0.00001	0.00816	<0.0005	2.02	0.0015	0.547	<0.00001	<2	<0.00005	0.0016	<0.0005	<0.001
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	18.2	<0.0005	<0.0001	0.00093	<0.03	<0.00005	4.44	0.0119	<0.00001	0.00636	<0.0005	1.64	0.0012	0.46	<0.00001	<2	<0.00005	0.00292	<0.0005	<0.001
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	24.4	<0.0005	<0.0001	0.00154	<0.03	<0.00005	6.4	0.0118	<0.00001	0.00811	<0.0005	2.03	0.0017	0.591	<0.00001	<2	0.000052	0.00239	<0.0005	<0.001
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	21.1	<0.0005	<0.0001	0.00255	<0.03	<0.00005	6.22	0.0165	<0.00001	0.00776	<0.0005	1.88	0.0014	0.578	<0.00001	<2	<0.00005	0.00205	<0.0005	0.0015
4-Sep-09	595																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
11-Sep-09	602	500	470	7.43	274	181																
18-Sep-09	609	500	470																			
25-Sep-09	616	500	475	7.43	333	211	<1	5.75	68	139	110	<0.5	0.039	56.2	0.007	0.000382	0.00044	0.00611	<0.0002	<0.0005	<0.01	<0.00005
2-Oct-09	623	500	490																			
9-Oct-09	630	500	475	7.26	304	187																
16-Oct-09	637	500	445																			
23-Oct-09	644	500	445	7.55	277	168	<1	5.28	51.1	111	88.1	<0.5	0.038	45.3	0.0084	0.000357	0.00039	0.00589	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-09	651	500	465																			
6-Nov-09	658	500	465	7.48	316	179																
13-Nov-09	665	500	470																			
20-Nov-09	672	500	435	7.61	298	210	<1	7.42	67.9	121	100	<0.5	0.033	49.2	0.0077	0.000351	0.00036	0.00569	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-09	679	500	490																			
4-Dec-09	686	500	465	7.28	295	177																
11-Dec-09	693	500	465																			
18-Dec-09	700	500	450	7.48	352	150	<1	5.04	42.8	88	73.3	<0.5	0.025	37.7	0.0072	0.000272	0.0007	0.00474	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-09	707	500	460																			
1-Jan-10	714	500	465	7.19	345	162																
8-Jan-10	721	500	455																			
15-Jan-10	728	500	455	7.27	271	181	<1	15.88	49.2	120	89.5	<0.5	0.025	47.3	0.0078	0.000327	0.0004	0.00598	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-10	735	500	470																			
29-Jan-10	742	500	455	7.19	312	134																
5-Feb-10	749	500	450																			
12-Feb-10	756	500	470	7.15	181	158	<1	5.13	41.1	102	78.1	<0.5	<0.02	43.9	0.0068	0.000259	0.00031	0.00466	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-10	763	500	460																			
26-Feb-10	770	500	460	7.06	158	164																
5-Mar-10	777	500	485																			
12-Mar-10	784	500	455	6.97	345	161	<1	6.4	45.9	102	81	<0.5	0.03	43	0.0074	0.000287	0.00031	0.00526	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-10	791	500	455																			
26-Mar-10	798	500	460	6.95	332	148																
2-Apr-10	805	500	475																			
9-Apr-10	812	500	470	7.11	268	124	<1	4.9	33.6	74	60.6	<0.5	0.022	32	0.0105	0.000204	0.00024	0.00391	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-10	819	500	430																			
23-Apr-10	826	500	460	6.93	245	164																
30-Apr-10	833	500	485																			
7-May-10	840	500	470	6.85	290	168	<1	6.93	40	130	85	<0.5	0.026	48.9	0.0084	0.000255	0.00028	0.00492	<0.0002	<0.0005	<0.01	<0.00005
14-May-10	847	500	500																			
21-May-10	854	500	450	6.94	346	162																
28-May-10	861	500	415																			
4-Jun-10	868	500	440	7.17	307	149	<1	5.58	32.6	93	71.5	<0.5	0.029	45.4	0.0112	0.000224	0.00051	0.00469	<0.0002	<0.0005	0.017	<0.00005
11-Jun-10	875	500	440																			
18-Jun-10	882	500	450	7.26	308	152																
25-Jun-10	889	500	450																			
2-Jul-10	896	500	450	7.16	375	156	<1	4.67	34.1	103	78.9	<0.5	0.023	48.7	0.0094	0.00019	0.00025	0.00446	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-10	903	500	425																			
16-Jul-10	910	500	410	7.08	311	159																
23-Jul-10	917	500	470																			
30-Jul-10	924	500	465	7.07	308	173	<1	5.13	34.2	109	84.6	<0.5	0.022	46.1	0.0092	0.000197	0.00027	0.0054	<0.0002	<0.0005	0.011	<0.00005
6-Aug-10	931	500	470																			
13-Aug-10	938	500	465	7.19	354	176																
20-Aug-10	945	500	465																			
27-Aug-10	952	500	490	7.03	377	160	<1	4.66	27.7	106	74.5	<0.5	0.027	54.7	0.0098	0.000164	0.00027	0.00868	<0.0002	<0.0005	0.01	<0.00005
3-Sep-10	959	500	495																			
10-Sep-10	966	500	485	7.17	328	205																
17-Sep-10	973	500	475																			
24-Sep-10	980	500	475	7.06	299	155	<1	6.13	44.8	120	94.9	<0.5	0.038	51.4	0.0084	0.000252	0.00027	0.00617	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-10	987	500	480																			
8-Oct-10	994	500	465	7.24	293	192																
15-Oct-10	1001	500	480																			
22-Oct-10	1008	500	480	7.12	349	174	<1	5.69	43.8	116	83.9	<0.5	0.031	48.4	0.008	0.0002	0.00023	0.00642	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-10	1015	500	475																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	31.5	<0.0005	<0.0001	0.0019	<0.03	<0.00005	7.63	0.0161	<0.00001	0.00976	<0.0005	2.16	0.0016	0.754	<0.00001	<2	0.000062	0.00082	<0.0005	<0.001
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	24.5	<0.0005	<0.0001	0.00211	<0.03	0.000238	6.55	0.0145	<0.00001	0.0101	<0.0005	1.93	0.0012	0.638	<0.00001	<2	0.000063	0.00091	<0.0005	<0.001
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	28.5	<0.0005	<0.0001	0.00145	<0.03	<0.00005	7.06	0.0152	<0.00001	0.00848	<0.0005	1.83	0.0013	0.65	<0.00001	<2	0.000054	0.00083	<0.0005	<0.001
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	19.8	<0.0005	<0.0001	0.00215	<0.03	<0.00005	5.42	0.0138	<0.00001	0.00592	0.00064	1.56	0.001	0.53	<0.00001	<2	0.000051	0.00184	<0.0005	<0.001
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	25.4	<0.0005	<0.0001	0.00182	<0.03	<0.00005	6.36	0.0148	<0.00001	0.00739	<0.0005	1.85	0.0014	0.611	<0.00001	<2	0.000062	0.00148	<0.0005	<0.001
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	22	<0.0005	<0.0001	0.00123	<0.03	<0.00005	5.64	0.0154	<0.00001	0.00603	<0.0005	1.58	0.0012	0.528	<0.00001	<2	0.000055	0.0014	<0.0005	<0.001
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	22.2	<0.0005	<0.0001	0.00145	<0.03	<0.00005	6.18	0.0166	<0.00001	0.00695	<0.0005	1.65	0.0011	0.504	<0.00001	<2	0.00006	0.00121	<0.0005	<0.001
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	16.7	<0.0005	<0.0001	0.00102	<0.03	<0.00005	4.61	0.0166	<0.00001	0.00481	<0.0005	1.34	<0.001	0.454	<0.00001	<2	0.000053	0.00149	<0.0005	<0.001
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	24.5	<0.0005	<0.0001	0.00134	<0.03	<0.00005	5.76	0.0111	<0.00001	0.00621	<0.0005	1.68	0.0012	0.577	<0.00001	<2	0.000058	0.0011	<0.0005	<0.001
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	19.8	<0.0005	<0.0001	0.00143	<0.03	<0.00005	5.36	0.0125	<0.00001	0.00563	<0.0005	1.74	0.0011	0.514	<0.00001	<2	<0.00005	0.00097	<0.0005	<0.001
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	22	<0.0005	<0.0001	0.00115	<0.03	<0.00005	5.81	0.00902	<0.00001	0.00475	<0.0005	1.6	0.0012	0.493	<0.00001	<2	<0.00005	0.00118	<0.0005	<0.001
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	23.2	<0.0005	<0.0001	0.00141	<0.03	<0.00005	6.45	0.0133	<0.00001	0.00481	<0.0005	1.85	0.0014	0.511	<0.00001	<2	0.00005	0.00126	<0.0005	<0.001
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	21.7	<0.0005	<0.0001	0.00109	<0.03	<0.00005	4.94	0.00677	<0.00001	0.00436	<0.0005	1.47	<0.001	0.479	<0.00001	<2	<0.00005	0.00139	<0.0005	<0.001
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	25.1	<0.0005	<0.0001	0.00158	<0.03	<0.00005	7.84	0.00919	<0.00001	0.00631	<0.0005	1.89	0.0014	0.561	<0.00001	<2	0.000062	0.001	<0.0005	<0.001
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	22.9	<0.0005	<0.0001	0.0011	<0.03	<0.00005	6.49	0.00884		0.00516	0.00247	1.63	<0.001	0.539	<0.00001	<2	0.000055	0.00154	<0.0005	<0.001
29-Oct-10	1015																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
5-Nov-10	1022	500	475	7.45	332	183																
12-Nov-10	1029	500	470																			
19-Nov-10	1036	500	465	7.31	317	235	<1	6.59	76.4	145	123	<0.5	0.046	53.3	0.0064	0.000281	0.00026	0.0076	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-10	1043	500	490																			
3-Dec-10	1050	500	465	7.28	290	185																
10-Dec-10	1057	500	495																			
17-Dec-10	1064	500	450	7.36	289	239	<1	8.61	73.6	151	129	<0.5	0.046	63.8	0.007	0.000284	0.00028	0.00843	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-10	1071	500	510																			
31-Dec-10	1078	500	475	7.22	308	176																
7-Jan-11	1085	500	475																			
14-Jan-11	1092	500	480	7.29	325	143	<1	5.3	54.5	107	92.7	<0.5	0.029	44.8	0.0066	0.000241	0.00025	0.00598	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-11	1099	500	470																			
28-Jan-11	1106	500	475	7.2	277	141																
4-Feb-11	1113	500	480																			
11-Feb-11	1120	500	435	7.1	312	190	<1	6.61	38	114	88.8	<0.5	0.024	55.1	0.0081	0.000177	0.00021	0.00552	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-11	1127	500	435																			
25-Feb-11	1134	500	495	7.41	303	225																
4-Mar-11	1141	500	495																			
11-Mar-11	1148	500	490	7.12	283	162	<1	7.15	37.9	97	73.7	<0.5	0.036	40.5	0.0079	0.00017	0.00023	0.00501	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-11	1155	500	485																			
25-Mar-11	1162	500	505	7.37	278	164																
1-Apr-11	1169	500	490																			
8-Apr-11	1176	500	490	7.33	282	164	<1	10.87	41	105	76.7	<0.5	0.029	44.5	0.0074	0.000149	0.00026	0.00476	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-11	1183	500	500																			
22-Apr-11	1190	500	485	7.09	257	154																
29-Apr-11	1197	500	495																			
6-May-11	1204	500	485	7.12	336	164	<1	5.98	37	99	76.3	<0.5	0.028	45.6	0.015	0.000177	0.00027	0.00494	<0.0002	<0.0005	<0.01	<0.00005
13-May-11	1211	500	465																			
20-May-11	1218	500	480	6.99	247	175																
27-May-11	1225	500	480																			
3-Jun-11	1232	500	475	7.08	269	187	<1	5.52	38.7	99	86.5	<0.5	0.027	55.3	0.0067	0.000157	0.00021	0.00553	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-11	1239	500	475																			
17-Jun-11	1246	500	475	7.35	282	184																
24-Jun-11	1253	500	470																			
1-Jul-11	1260	500	470	7.36	244	206	<1	6.25	42.9	126	95	<0.5	0.039	62.4	0.0079	0.000171	0.00022	0.00564	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-11	1267	500	475																			
15-Jul-11	1274	500	470	7.05	272	199																
22-Jul-11	1281	500	485																			
29-Jul-11	1288	500	480	7.11	311	202	<1	7	39.2	114	95.2	<0.5	0.045	59.8	0.0072	0.000163	0.00023	0.0058	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-11	1295	500	465																			
12-Aug-11	1302	500	475	7.31	295	200																
19-Aug-11	1309	500	490																			
26-Aug-11	1316	500	480	7.15	320	193	<1	9.04	40.3	131	90.5	<0.5	0.057	56.3	0.0069	0.000181	0.00025	0.00616	<0.0002	<0.0005	<0.01	<0.00005
2-Sep-11	1323	500	465																			
9-Sep-11	1330	500	500	6.99	301	202																
16-Sep-11	1337	500	460																			
23-Sep-11	1344	500	480	7.07	322	206	<1	7.11	43.1	124	96.5	<0.5	0.043	59.3	0.007	0.000177	0.00027	0.00614	<0.0002	<0.0005	<0.01	<0.00005
30-Sep-11	1351	500	480																			
7-Oct-11	1358	500	475	7.29	314	231																
14-Oct-11	1365	500	480																			
21-Oct-11	1372	500	470	7.24	301	176	<1	8.62	40.3	104	81.5	<0.5	0.042	47.6	0.007	0.000153	0.0002	0.00502	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-11	1379	500	520																			
4-Nov-11	1386	500	500	7.1	324	208																
11-Nov-11	1393	500	480																			
18-Nov-11	1400	500	495	7.14	319	170	<1	6.22	42.1	100	79.4	<0.5	0.046	42.6	0.0052	0.00023	0.00032	0.00484	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-11	1407	500	490																			
2-Dec-11	1414	500	510	6.99	333	192																
9-Dec-11	1421	500	465																			
16-Dec-11	1428	500	475	6.85	353	217	<1	10.77	54.4	129	103	<5	<0.2	56.5	0.008	0.000161	0.00024	0.00613	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-11	1435	500	490																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	33.7	<0.0005	<0.0001	0.00372	<0.03	0.000159	9.32	0.0122	<0.00001	0.00782	<0.0005	2.24	0.0014	0.708	<0.00001	<2	0.000063	0.00024	<0.0005	0.0015
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	35.8	<0.0005	<0.0001	0.00233	<0.03	0.000084	9.69	0.0129	<0.00001	0.00719	<0.0005	2.2	0.0013	0.722	<0.00001	<2	0.000068	0.00036	<0.0005	<0.001
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	25.5	<0.0005	<0.0001	0.00192	<0.03	<0.00005	7.04	0.00958	<0.00001	0.00603	<0.0005	1.72	0.0017	0.604	<0.00001	<2	<0.00005	0.00086	<0.0005	<0.001
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	24.1	<0.0005	<0.0001	0.00175	<0.03	<0.00005	6.93	0.0101	<0.00001	0.00473	<0.0005	1.7	0.0012	0.513	<0.00001	<2	<0.00005	0.00089	<0.0005	0.0018
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	20.7	<0.0005	<0.0001	0.00157	<0.03	<0.00005	5.34	0.00979	<0.00001	0.00405	<0.0005	1.48	<0.001	0.517	<0.00001	<2	<0.00005	0.00045	<0.0005	<0.001
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	21.4	<0.0005	<0.0001	0.00099	<0.03	<0.00005	5.65	0.0103	<0.00001	0.00357	<0.0005	1.4	<0.001	0.451	<0.00001	<2	<0.00005	0.00948	<0.0005	<0.001
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	21.3	<0.0005	<0.0001	0.00201	<0.03	<0.00005	5.62	0.0101	<0.00001	0.004	<0.0005	1.45	0.0011	0.479	0.000011	<2	0.000059	0.0122	<0.0005	<0.001
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	24.2	<0.0005	<0.0001	0.00129	<0.03	<0.00005	6.34	0.0102	<0.00001	0.0041	<0.0005	1.54	0.0012	0.515	<0.00001	<2	0.000058	0.0106	<0.0005	<0.001
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	26.3	<0.0005	<0.0001	0.00133	<0.03	<0.00005	7.12	0.00838	<0.00001	0.00489	<0.0005	1.64	0.0013	0.579	<0.00001	<2	0.000054	0.0112	<0.0005	<0.001
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	26.5	<0.0005	<0.0001	0.00109	<0.03	<0.00005	7.05	0.00741	<0.00001	0.00489	<0.0005	1.74	0.0014	0.543	<0.00001	<2	0.00006	0.0115	<0.0005	<0.001
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	24.7	<0.0005	<0.0001	0.00223	<0.03	<0.00005	7.03	0.00772	<0.00001	0.00505	<0.0005	1.58	0.0013	0.564	<0.00001	<2	0.000055	0.0116	<0.0005	0.0013
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	26.7	<0.0005	<0.0001	0.00135	<0.03	<0.00005	7.26	0.00724	<0.00001	0.00518	<0.0005	1.57	0.0013	0.598	<0.00001	<2	0.000063	0.0108	<0.0005	<0.001
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	22.9	<0.0005	<0.0001	0.00301	<0.03	0.000535	5.91	0.00616	<0.00001	0.0039	<0.0005	1.49	0.0011	0.527	<0.00001	<2	0.000055	0.00988	<0.0005	0.0018
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	22.4	<0.0005	<0.0001	0.00114	<0.03	<0.00005	5.7	0.0061	<0.00001	0.00396	0.00057	1.44	<0.001	0.552	<0.00001	<2	0.000062	0.00782	<0.0005	<0.001
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	29.5	<0.0005	<0.0001	0.00102	<0.03	<0.00005	7.12	0.00878	<0.00001	0.00403	<0.0005	1.67	0.0013	0.6	<0.00001	<2	0.000061	0.00788	<0.0005	<0.001
23-Dec-11	1435																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
30-Dec-11	1442	500	475	7.29	302	211																
6-Jan-12	1449	500	475																			
13-Jan-12	1456	500	475	7.1	329	230	<1	7.51	72.3	131	114	<5	<0.2	54.3	0.0051	0.000201	0.00029	0.00698	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-12	1463	500	475																			
27-Jan-12	1470	500	480	7.19	353	198																
3-Feb-12	1477	500	480																			
10-Feb-12	1484	500	470	7.22	368	233	<1	10.3	74.2	136	109	<5	<0.2	55	0.0048	0.000215	0.00031	0.00702	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-12	1491	500	465																			
24-Feb-12	1498	500	445	7.11	359	225																
2-Mar-12	1505	500	475																			
9-Mar-12	1512	500	470	6.91	359	173	<1	7.69	37.1	101	78.1	<0.5	0.047	46.4	0.0052	0.000158	0.00025	0.00485	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-12	1519	500	465																			
23-Mar-12	1526	500	465	7.24	341	221																
30-Mar-12	1533	500	460																			
6-Apr-12	1540	500	475	7.16	380	195	<1	5.23	45.1	116	101	<0.5	0.053	55.3	0.0056	0.000182	0.00029	0.00576	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-12	1547	500	470																			
20-Apr-12	1554	500	465	7.06	366	214																
27-Apr-12	1561	500	520																			
4-May-12	1568	500	475	7.3	395	180	<1	11.53	40.2	98	80.8	<0.5	0.048	49	0.005	0.000166	0.00025	0.00599	<0.0002	<0.0005	<0.01	<0.00005
11-May-12	1575	500	465																			
18-May-12	1582	500	455	7.03	298	178																
25-May-12	1589	500	455																			
1-Jun-12	1596	500	450	7.15	328	206	<1	7.83	34	123	89.8	<0.5	0.044	61.3	0.0048	0.000132	0.00034	0.00601	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-12	1603	500	465																			
15-Jun-12	1610	500	485	7.21	369	235																
22-Jun-12	1617	500	475																			
29-Jun-12	1624	500	465	6.96	345	189	<1	8.07	34.7	121	84	<0.5	0.049	55.5	0.0056	0.000115	0.00022	0.00489	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-12	1631	500	465																			
13-Jul-12	1638	500	505	7.17	383	236																
20-Jul-12	1645	500	455																			
27-Jul-12	1652	500	440	7.28	314	246	<1	11.66	49.9	154	111	<5	<0.2	71.7	0.0071	0.000159	0.00023	0.00595	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-12	1659	500	420																			
10-Aug-12	1666	500	440	7.23	376	259																
17-Aug-12	1673	500	460																			
24-Aug-12	1680	500	455	7.62	346	237	<1	8.55	49.2	153	116	<5	<0.2	69.6	0.0065	0.000141	0.00023	0.00647	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-12	1687	500	495																			
7-Sep-12	1694	500	475	7.22	428	229																
14-Sep-12	1701	500	460																			
21-Sep-12	1708	500	460	7.13	387	205	<1	7.48	41.2	120	92.9	<0.5	0.048	62.6	0.0049	0.000121	0.00026	0.00549	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-12	1715	500	480																			
5-Oct-12	1722	500	465	7.17	390	191																
12-Oct-12	1729	500	480																			
19-Oct-12	1736	500	460	7.03	401	183	<1	7.73	34.4	113	79.2	<0.5	0.043	55.5	0.0051	0.000117	0.00025	0.00562	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-12	1743	500	450																			
2-Nov-12	1750	500	465	6.96	400	199																
9-Nov-12	1757	500	450																			
16-Nov-12	1764	500	450	6.95	401	186	<1	4.89	32.9	115	84.8	<0.5	0.043	57.1	0.0059	0.000112	0.00018	0.00444	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-12	1771	500	490																			
30-Nov-12	1778	500	485	7.12	380	205																
7-Dec-12	1785	500	470																			
14-Dec-12	1792	500	480	7.67	329	235	<1	12.98	63.6	133	106	<5	<0.2	53.7	0.0132	0.000162	0.00115	0.00607	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-12	1799	500	510																			
28-Dec-12	1806	500	495	7.65	340	301																

ARLB004 HC 60 PEZ+PWZ

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	270	8.35	391	1761	<1	<1	164.6	1110	116	5.51	<0.2	555	0.0972	0.0036	0.0185	0.0566	<0.001	<0.0025	0.147	<0.00025
25-Jan-08	7	500	490	8.66	424	510																
1-Feb-08	14	500	495	8.71	414	480	<1	<1	209.6	318	7.56	<0.5	0.374	55	0.21	0.00478	0.0464	0.0259	<0.0002	<0.0005	0.148	0.000297

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	32.2	<0.0005	<0.0001	0.00158	<0.03	0.000094	8.03	0.00799	<0.00001	0.00483	<0.0005	1.76	0.0012	0.66	<0.00001	<2	0.000073	0.00674	<0.0005	0.0012
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	31.6	<0.0005	<0.0001	0.0011	<0.03	<0.00005	7.37	0.00705	<0.00001	0.00483	<0.0005	1.79	0.0012	0.664	<0.00001	<2	0.000076	0.0065	<0.0005	<0.001
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	22.2	<0.0005	<0.0001	0.00119	<0.03	<0.00005	5.51	0.00645	<0.00001	0.00362	<0.0005	1.35	<0.001	0.539	<0.00001	<2	0.000063	0.00713	<0.0005	<0.001
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	28.9	<0.0005	<0.0001	0.00106	<0.03	<0.00005	6.9	0.007	<0.00001	0.00432	<0.0005	1.77	0.0012	0.639	<0.00001	<2	0.00007	0.00648	<0.0005	<0.001
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	23.3	<0.0005	<0.0001	0.00196	<0.03	0.000533	5.48	0.00627	<0.00001	0.00369	<0.0005	1.34	0.0012	0.562	<0.00001	<2	0.000066	0.00667	<0.0005	0.0013
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	25.5	<0.0005	<0.0001	0.00207	<0.03	<0.00005	6.38	0.00614	<0.00001	0.00333	<0.0005	1.4	0.0013	0.555	<0.00001	<2	0.000059	0.00595	<0.0005	<0.001
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	24.3	<0.0005	<0.0001	0.00079	<0.03	0.000111	5.66	0.00788	<0.00001	0.00362	<0.0005	1.4	0.0013	0.567	<0.00001	<2	0.000054	0.00511	<0.0005	<0.001
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	32.2	<0.0005	<0.0001	0.00081	<0.03	<0.00005	7.47	0.0066	<0.00001	0.00454	<0.0005	1.75	0.0017	0.665	<0.00001	<2	0.000064	0.00464	<0.0005	<0.001
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	33.1	<0.0005	<0.0001	0.00122	<0.03	<0.00005	8	0.00778	<0.00001	0.00395	<0.0005	1.67	0.0019	0.682	<0.00001	<2	0.000065	0.0137	<0.0005	<0.001
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	26.5	<0.0005	<0.0001	0.00124	<0.03	<0.00005	6.5	0.00678	<0.00001	0.00364	<0.0005	1.48	0.0015	0.563	<0.00001	<2	0.000059	0.00762	<0.0005	<0.001
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	22.7	<0.0005	<0.0001	0.00095	<0.03	0.000111	5.49	0.00605	<0.00001	0.00293	<0.0005	1.12	0.0013	0.529	<0.00001	<2	<0.00005	0.00544	<0.0005	<0.001
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	24.4	<0.0005	<0.0001	0.00535	<0.03	<0.00005	5.77	0.00753	<0.00001	0.00324	<0.0005	1.33	0.0015	0.545	<0.00001	<2	0.000054	0.00443	<0.0005	<0.001
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	30.8	<0.0005	0.00011	0.0037	0.131	0.000098	6.99	0.00419	<0.00001	0.00396	<0.0005	1.6	0.0014	0.663	<0.00001	<2	0.000067	0.00364	<0.0005	0.0035
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	33	<0.0025	0.00082	0.011	<0.03	<0.00025	8.1	0.0249	<0.00001	0.124	0.0025	2.94	0.0262	1.27	<0.00005	316	<0.00025	0.00086	<0.0025	<0.005
25-Jan-08	7																				
1-Feb-08	14	2.1	<0.0009	0.00011	0.00193	<0.03	0.000054	0.564	0.00254	<0.00001	0.0971	<0.0005	1.41	0.0034	1.29	0.000048	118	<0.00005	0.00096	0.00323	0.0014

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-08	21	500	475	8.81	413	501																
15-Feb-08	28	500	475	8.78	388	352	<1	<1	169	225	4.86	<0.5	0.311	27.1	0.173	0.00332	0.0295	0.0204	<0.0002	<0.0005	0.089	<0.00005
22-Feb-08	35	500	495	8.79	390	357																
29-Feb-08	42	500	495	8.79	390	395	<1	<1	196.9	280	5.99	<0.5	0.295	28.2	0.63	0.0043	0.0211	0.0309	<0.0004	<0.001	0.087	<0.0001
7-Mar-08	49	500	455	8.74	401	412																
14-Mar-08	56	500	435	8.68	401	429	<1	<1	221.7	335	7.54	<0.5	0.241	21.7	0.682	0.00535	0.0193	0.0389	<0.0004	<0.001	0.084	<0.0001
21-Mar-08	63	500	510	8.85	405	212																
28-Mar-08	70	500	435	8.63	396	215	<1	<1	116.5	111	3.62	<0.5	0.071	10.7	0.131	0.00175	0.00931	0.0183	<0.0002	<0.0005	0.026	<0.00005
4-Apr-08	77	500	425	8.88	399	171																
11-Apr-08	84	500	480	8.24	385	235	<1	1.42	113.1	148	5.04	<0.5	0.066	10.4	0.233	0.002	0.00957	0.0233	<0.0002	<0.0005	0.027	<0.00005
18-Apr-08	91	500	435	8.53	393	175																
25-Apr-08	98	500	455	8.61	351	278	<1	<1	148	188	5.64	<0.5	0.08	13.5	0.151	0.00246	0.0108	0.0278	<0.0002	<0.0005	0.029	<0.00005
2-May-08	105	500	490	8.56	365	288																
9-May-08	112	500	445	8.55	333	220	<1	<1	114.7	136	5.78	<0.5	0.062	7.94	0.18	0.00176	0.00666	0.0254	<0.0002	<0.0005	0.025	<0.00005
16-May-08	119	500	490	8.53	348	203																
23-May-08	126	500	445	8.55	349	151	<1	<1	74.2	110	3.59	<0.5	0.059	7.51	0.266	0.00111	0.00551	0.0165	<0.0002	<0.0005	0.02	<0.00005
30-May-08	133	500	445	8.83	320	201																
6-Jun-08	140	500	355	8.71	361	234	<1	<1	132.5	238	6.24	<0.5	0.137	15.4	0.356	0.00343	0.0107	0.0305	<0.0002	<0.0005	0.035	<0.00005
13-Jun-08	147	500	485	8.64	363	218																
20-Jun-08	154	500	445	8.66	333	189	<1	<1	128.2	151	5.79	<0.5	0.087	8.86	0.0851	0.00193	0.00774	0.026	<0.0002	<0.0005	0.027	<0.00005
27-Jun-08	161	500	430	8.59	349	229																
4-Jul-08	168	500	415	8.6	344	212	<1	<1	90	148	5.63	<0.5	0.086	9.6	0.215	0.00158	0.00625	0.0289	<0.0002	<0.0005	0.025	<0.00005
11-Jul-08	175	500	450	8.52	389	191																
18-Jul-08	182	500	435	8.6	361	204	<1	<1	97.3	113	6.91	<0.5	0.069	8.69	0.143	0.00145	0.00544	0.0328	<0.0002	<0.0005	0.022	<0.00005
25-Jul-08	189	500	425	8.48	386	202																
1-Aug-08	196	500	430	8.49	346	213	<1	<1	107.4	123	8.87	<0.5	0.051	8.09	0.198	0.0012	0.0038	0.0404	<0.0002	<0.0005	0.019	<0.00005
8-Aug-08	203	500	445	8.56	339	194																
15-Aug-08	210	500	430	8.39	329	210	<1	<1	103.8	105	12.2	<0.5	0.049	7.1	0.124	0.00114	0.00357	0.0523	<0.0002	<0.0005	0.02	<0.00005
22-Aug-08	217	500	435	8.42	297	188																
29-Aug-08	224	500	430	8.38	303	196	<1	<1	109	114	13.2	<0.5	0.057	7.34	0.483	0.00107	0.00287	0.0577	<0.0002	<0.0005	0.019	<0.00005
5-Sep-08	231	500	405	8.35	309	216																
12-Sep-08	238	500	450	8.24	294	180	<1	2.43	100.2	99	20.3	<0.5	0.041	6.04	0.0415	0.00083	0.00225	0.0764	<0.0002	<0.0005	0.016	0.000091
19-Sep-08	245	500	435	8.31	302	181																
26-Sep-08	252	500	450	8.15	303	164	<1	2.23	82.3	116	23.2	<0.5	0.034	5.51	0.0259	0.000646	0.00136	0.0891	<0.0002	<0.0005	0.014	<0.00005
3-Oct-08	259	500	440	8.29	394	176																
10-Oct-08	266	500	435	8.11	377	158	<1	2.21	81.4	86	29.5	<0.5	0.036	5.12	0.0196	0.000543	0.00099	0.107	<0.0002	<0.0005	0.012	<0.00005
17-Oct-08	273	500	440	8.22	401	151																
24-Oct-08	280	500	430	8.14	414	145	<1	2.1	77.3	74.5	40.8	<0.5	0.035	5.68	0.014	0.000513	0.00079	0.153	<0.0002	<0.0005	0.012	<0.00005
31-Oct-08	287	500	425	8.16	420	180																
7-Nov-08	294	500	430	7.99	414	145	<1	3.28	80	80.6	43.9	<0.5	0.033	4.99	0.0106	0.000441	0.0006	0.141	<0.0002	<0.0005	<0.01	<0.00005
14-Nov-08	301	500	435	8.07	417	129																
21-Nov-08	308	500	440	8.12	333	165	<1	1.61	85.4	91.3	54.6	<0.5	0.038	6.01	0.0107	0.000425	0.00057	0.187	<0.0002	<0.0005	0.011	<0.00005
28-Nov-08	315	500	450	7.93	320	153																
5-Dec-08	322	500	380	8.01	354	129	<1	2.56	77.4	73.6	49.3	<0.5	0.025	4.96	0.0124	0.000617	0.00072	0.163	<0.0002	<0.0005	0.011	
12-Dec-08	329	500	420	8.03	342	145																
19-Dec-08	336	500	450	7.93	325	119	<1	3.87	72.8	59.8	49.9	<0.5	<0.02	4.76	0.0111	0.000285	0.00042	0.14	<0.0002	<0.0005	<0.01	<0.00005
26-Dec-08	343	500	460	7.86	334	46																
2-Jan-09	350	500	455	7.9	336	112	<1	11.22	69.3	58	50.7	<0.5	0.02	5.93	0.0112	0.000283	0.00042	0.157	<0.0002	<0.0005	<0.01	<0.00005
9-Jan-09	357	500	435	7.74	365	78																
16-Jan-09	364	500	510	7.9	380	161	<1	6.58	97.5	81.8	80	<0.5	0.025	5.58	0.008	0.000274	0.00035	0.218	<0.0002	<0.0005	<0.01	<0.00005
23-Jan-09	371	500	450	7.95	371	141																
30-Jan-09	378	500	505	7.9	376	179	<1	10.14	112.5	101	86.8	<0.5	0.032	5.49	0.0071	0.00033	0.00042	0.309	<0.0002	<0.0005	<0.01	<0.00005
6-Feb-09	385	500	470	7.88	361	175																
13-Feb-09	392	500	460	7.96	358	144	<1	2.73	85.1	74.6	73.5	<0.5	0.038	6.43	0.0078	0.000314	0.00039	0.243	<0.0002	<0.0005	<0.01	0.000068
20-Feb-09	399	500	465	8.05	355	153																
27-Feb-09	406	500	465	8.04	366	164	<1	6.4	104.4	89.2	87.5	<0.5	0.03	6.67	0.0054	0.000299	0.00036	0.298	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-09	413	500	465	7.88	280	166																
13-Mar-09	420	500	465	7.84	292	158	<1	3.67	95.4	75	81.7	<0.5	0.03	5.99	0.0056	0.000281	0.00033	0.232	<0.0002	<0.0005	0.011	<0.00005
20-Mar-09	427	500	500	7.95	335	134																
27-Mar-09	434	500	460	7.87	342	150	<1	4.56	87	82.8	72.4	<0.5	0.028	6.36	0.007	0.000284	0.00037	0.194	<0.0002	<0.0005	0.013	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-08	21																				
15-Feb-08	28	1.41	<0.0005	<0.0001	0.00462	<0.03	0.000147	0.326	0.00215	<0.00001	0.0479	<0.0005	1.02	0.0035	1.16	<0.00001	88.3	<0.00005	0.00096	0.00282	<0.001
22-Feb-08	35																				
29-Feb-08	42	1.69	<0.001	0.00022	0.00673	0.137	0.00015	0.431	0.00335	<0.00001	0.0458	<0.001	1.32	<0.002	2.32	<0.00002	110	<0.0001	0.00091	0.0031	<0.002
7-Mar-08	49																				
14-Mar-08	56	2.05	<0.001	0.00021	0.00339	0.088	<0.0001	0.591	0.00325	<0.00001	0.0339	<0.001	1.59	0.0027	1.93	<0.00002	116	<0.0001	0.00043	0.0026	<0.002
21-Mar-08	63																				
28-Mar-08	70	1.08	<0.0005	<0.0001	0.00179	<0.03	0.000053	0.225	0.00201	<0.00001	0.0141	<0.0005	0.717	0.0011	0.712	<0.00001	57.7	<0.00005	0.00126	0.00098	0.0015
4-Apr-08	77																				
11-Apr-08	84	1.52	<0.0005	<0.0001	0.00373	0.03		0.301	0.00182	<0.00001	0.0153	0.00067	0.964	0.0014	1.03	<0.00001	56	<0.00005	0.00117	0.00117	0.0041
18-Apr-08	91																				
25-Apr-08	98	1.68	<0.0005	<0.0001	0.00122	<0.03	0.000084	0.348	0.00166	<0.00001	0.0198	<0.0005	1.12	0.0018	0.95	<0.00001	73.3	<0.00005	0.00099895	0.00104	0.0011
2-May-08	105																				
9-May-08	112	1.59	<0.0005	<0.0001	0.00165	<0.03	0.000073	0.443	0.00108	<0.00001	0.0132	<0.0005	1.13	0.0014	0.808	<0.00001	50.9	<0.00005	0.00187	0.00081	0.0018
16-May-08	119																				
23-May-08	126	1.04	<0.0005	<0.0001	0.00208	0.058	0.00007	0.238	0.00113	<0.00001	0.0114	<0.0005	0.713	0.0012	0.933	0.000011	33.4	<0.00005	0.00236	0.00126	<0.001
30-May-08	133																				
6-Jun-08	140	1.65	<0.0005	0.00014	0.00248	0.096	0.00008	0.518	0.00171	<0.00001	0.0287	<0.0005	1.27	0.0044	1.37	<0.00001	70.5	<0.00005	0.00061	0.00172	0.0054
13-Jun-08	147																				
20-Jun-08	154	1.62	<0.0005	<0.0001	0.00099	<0.03	0.000056	0.42	0.00106	<0.00001	0.0141	<0.0005	1.35	0.0015	0.802	<0.00001	58.3	<0.00005	0.00072	0.00091	<0.001
27-Jun-08	161																				
4-Jul-08	168	1.57	<0.0005	<0.0001	0.00125	0.058	<0.00005	0.415	0.00175	<0.00001	0.0146	<0.0005	1.27	0.0014	1.04	<0.00001	49.3	<0.00005	0.00141	0.00123	<0.001
11-Jul-08	175																				
18-Jul-08	182	1.94	<0.0005	<0.0001	0.00371	<0.03	0.000141	0.501	0.00137	<0.00001	0.0142	<0.0005	1.36	0.0012	0.795	<0.00001	45.2	<0.00005	0.00146	0.00086	0.0027
25-Jul-08	189																				
1-Aug-08	196	2.43	<0.0005	<0.0001	0.00081	<0.03	<0.00005	0.678	0.00162	<0.00001	0.0121	<0.0005	1.57	0.0011	0.925	<0.00001	45.6	<0.00005	0.00067	0.00087	<0.001
8-Aug-08	203																				
15-Aug-08	210	3.3	<0.0005	<0.0001	0.00064	<0.03	0.000098	0.959	0.00278	<0.00001	0.0108	<0.0005	1.75	<0.001	0.798	<0.00001	42	<0.00005	0.00114	0.00074	<0.001
22-Aug-08	217																				
29-Aug-08	224	3.41	<0.0005	<0.0001	0.00193	<0.03	0.000158	1.14	0.00281	<0.00001	0.011	<0.0005	1.87	<0.001	0.664	<0.00001	41.7	<0.00005	0.00098	0.00064	0.0011
5-Sep-08	231																				
12-Sep-08	238	5.2	0.00066	0.00046	0.0022		0.000096	1.77		<0.00001	0.00755	0.00152	2.21	0.001	0.749	<0.00001	33.8	<0.00005	0.00108	<0.0005	0.0017
19-Sep-08	245																				
26-Sep-08	252	6.06	<0.0005	<0.0001	0.00042	<0.03	<0.00005	1.95	0.00382	<0.00001	0.00634	<0.0005	2.13	<0.001	0.605	<0.00001	28.6	<0.00005	0.00141	<0.0005	<0.001
3-Oct-08	259																				
10-Oct-08	266	7.86	<0.0005	<0.0001	0.00057	<0.03	<0.00005	2.4	0.00441	<0.00001	0.00573	<0.0005	2.33	<0.001	0.58	<0.00001	22.8	<0.00005	0.00132	<0.0005	<0.001
17-Oct-08	273																				
24-Oct-08	280	10.8	<0.0005	<0.0001	0.00131	<0.03	0.000224	3.37	0.00653	<0.00001	0.00603	<0.0005	2.62	<0.001	0.612	<0.00001	18.4	<0.00005	0.0009	<0.0005	<0.001
31-Oct-08	287																				
7-Nov-08	294	11.6	<0.0005	<0.0001	0.002	<0.03	<0.00005	3.6	0.00551	<0.00001	0.00506	<0.0005	2.72	<0.001	0.584	<0.00001	14.2	<0.00005	0.0012	<0.0005	<0.001
14-Nov-08	301																				
21-Nov-08	308	14.5	<0.0005	<0.0001	0.0015	<0.03	<0.00005	4.58	0.00819	<0.00001	0.00522	<0.0005	3	<0.001	0.621	<0.00001	11.6	<0.00005	0.00119	<0.0005	<0.001
28-Nov-08	315																				
5-Dec-08	322	12.5	<0.0005	<0.0001	0.00278	<0.03		4.38	0.00669	<0.00001	0.00548	<0.0005	2.79	<0.001	0.614	<0.00001	6.6	<0.00005	0.00133	<0.0005	<0.001
12-Dec-08	329																				
19-Dec-08	336	13.7	<0.0005	<0.0001	0.0012	<0.03	<0.00005	3.81	0.00642	<0.00001	0.00319	<0.0005	2.34	<0.001	0.545	<0.00001	4.3	<0.00005	0.00285	<0.0005	<0.001
26-Dec-08	343																				
2-Jan-09	350	13.1	<0.0005	<0.0001	0.00197	<0.03	<0.00005	4.37	0.00475	0.000019	0.00388	<0.0005	2.17	0.001	0.466	<0.00001	3.7	<0.00005	0.0033	<0.0005	<0.001
9-Jan-09	357																				
16-Jan-09	364	20.5	<0.0005	<0.0001	0.00168	<0.03	<0.00005	6.98	0.00594	<0.00001	0.00326	<0.0005	2.46	<0.001	0.588	<0.00001	2.8	<0.00005	0.00289	<0.0005	<0.001
23-Jan-09	371																				
30-Jan-09	378	21.9	<0.0005	<0.0001	0.00121	<0.03	<0.00005	7.77	0.00313	<0.00001	0.00322	<0.0005	2.49	<0.001	0.647	<0.00001	2.3	<0.00005	0.00331	<0.0005	0.0014
6-Feb-09	385																				
13-Feb-09	392	17.8	<0.0005	<0.0001	0.00131	<0.03	0.000066	7.05	0.00321	<0.00001	0.00466	<0.0005	2.4	<0.001	0.582	<0.00001	<2	<0.00005	0.00148	<0.0005	0.0017
20-Feb-09	399																				
27-Feb-09	406	21.6	<0.0005	<0.0001	0.00078	<0.03	<0.00005	8.14	0.00176	<0.00001	0.00446	<0.0005	2.3	<0.001	0.595	<0.00001	<2	<0.00005	0.00069	<0.0005	<0.001
6-Mar-09	413																				
13-Mar-09	420	20.8	<0.0005	<0.0001	0.00201	<0.03	<0.00005	7.21	0.0015	<0.00001	0.00427	<0.0005	2.25	<0.001	0.581	<0.00001	<2	<0.00005	0.00107	<0.0005	<0.001
20-Mar-09	427																				
27-Mar-09	434	19	<0.0005	<0.0001	0.00032	<0.03	<0.00005	6.06	0.00168	<0.00001	0.00428	<0.0005	2.06	<0.001	0.528	<0.00001	<2	<0.00005	0.00166	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Apr-09	441	500	470	7.92	347	160																
10-Apr-09	448	500	445	7.92	359	141	<1	3.55	82.1	75	72.9	<0.5	<0.02	6.79	0.0086	0.000238	0.00031	0.196	<0.0002	<0.0005	0.013	<0.00005
17-Apr-09	455	500	460	7.99	370	154																
24-Apr-09	462	500	430	7.94	351	143																
1-May-09	469	500	495																			
8-May-09	476	500	450	7.79	352	116	<1	3.33	64.3	69	63.3	<0.5	0.028	6.67	0.0109	0.000186	0.0003	0.191	<0.0002	<0.0005	0.013	<0.00005
15-May-09	483	500	480																			
22-May-09	490	500	485	7.85	355	151																
29-May-09	497	500	475																			
5-Jun-09	504	500	440	7.9	370	127	<1	3.87	86.7	72.6	75.6	<0.5	0.026	9.48	0.0078	0.000205	0.00025	0.225	<0.0002	<0.0005	0.023	<0.00005
12-Jun-09	511	500	470																			
19-Jun-09	518	500	470	7.86	375	148																
26-Jun-09	525	500	465																			
3-Jul-09	532	500	470	7.87	305	124	<1	2.79	69.5	68.5	60.1	<0.5	<0.02	7.92	0.0072	0.000181	0.00026	0.135	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-09	539	500	465																			
17-Jul-09	546	500	475	7.8	333	115																
24-Jul-09	553	500	500																			
31-Jul-09	560	500	460	7.84	359	139	<1	3.51	82.8	84.3	73.1	<0.5	0.041	9.24	0.0077	0.000191	0.00021	0.206	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-09	567	500	465																			
14-Aug-09	574	500	455	7.75	324	147																
21-Aug-09	581	500	450																			
28-Aug-09	588	500	460	7.82	281	128	<1	3.37	76.1	77.8	71.6	<0.5	<0.02	6.43	0.0082	0.000155	0.0002	0.194	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-09	595	500	470																			
11-Sep-09	602	500	480	7.85	295	150																
18-Sep-09	609	500	480																			
25-Sep-09	616	500	475	7.87	324	167	<1	4.71	105.1	79	90	<0.5	0.025	7.47	0.0059	0.000187	0.00024	0.24	<0.0002	<0.0005	0.013	<0.00005
2-Oct-09	623	500	480																			
9-Oct-09	630	500	480	7.75	317	158																
16-Oct-09	637	500	460																			
23-Oct-09	644	500	455	7.81	278	144	<1	4.23	86.7	79	78.9	<0.5	0.023	6.84	0.0063	0.000142	0.00021	0.204	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-09	651	500	450																			
6-Nov-09	658	500	455	7.86	312	169																
13-Nov-09	665	500	480																			
20-Nov-09	672	500	465	7.97	298	187	<1	6.01	111.4	97	90.3	<0.5	0.024	6.32	0.0045	0.000153	0.00018	0.24	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-09	679	500	485																			
4-Dec-09	686	500	465	7.79	302	159																
11-Dec-09	693	500	475																			
18-Dec-09	700	500	490	7.44	316	163	<1	7.49	99.9	88	91.1	<0.5	0.022	4.73	0.005	0.000144	0.00028	0.255	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-09	707	500	485																			
1-Jan-10	714	500	490	7.94	349	191																
8-Jan-10	721	500	485																			
15-Jan-10	728	500	485	7.92	282	216	<1	9.55	131.5	123	135	<0.5	0.025	6.84	0.0035	0.000165	0.00023	0.337	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-10	735	500	495																			
29-Jan-10	742	500	485	7.85	307	165																
5-Feb-10	749	500	500																			
12-Feb-10	756	500	515	7.83	250	190	<1	5.36	119.5	113	112	<0.5	<0.02	5.82	0.0031	0.000128	0.00011	0.316	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-10	763	500	505																			
26-Feb-10	770	500	500	7.84	227	202																
5-Mar-10	777	500	505																			
12-Mar-10	784	500	510	7.79	359	188	<1	5.89	117.4	107	107	<0.5	0.035	6.59	0.0035	0.000123	0.00012	0.318	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-10	791	500	505																			
26-Mar-10	798	500	505	7.77	335	190																
2-Apr-10	805	500	500																			
9-Apr-10	812	500	510	7.78	301	184	<1	5.28	124.4	100	102	<0.5	0.029	6.1	0.0033	0.000123	0.00012	0.31	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-10	819	500	510																			
23-Apr-10	826	500	510	7.68	263	192																
30-Apr-10	833	500	500																			
7-May-10	840	500	500	7.76	296	183	<1	7.63	112.7	119	124	<0.5	0.026	6.17	0.0039	0.000119	<0.0001	0.302	<0.0002	<0.0005	<0.01	<0.00005
14-May-10	847	500	500																			
21-May-10	854	500	505	7.8	338	182																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Apr-09	441																				
10-Apr-09	448	18.2	<0.0005	<0.0001	0.00052	<0.03	<0.00005	6.67	0.00171	<0.00001	0.004	<0.0005	1.96	<0.001	0.518	<0.00001	<2	<0.00005	0.00184	<0.0005	<0.001
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	14.8	0.00067	<0.0001	0.00165	<0.03	0.000252	6.37	0.00159	<0.00001	0.00317	<0.0005	1.41	<0.001	0.432	<0.00001	<2	<0.00005	0.00257	<0.0005	<0.001
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	18.9	<0.0005	<0.0001	0.00044	<0.03	0.000181	6.88	0.00184	<0.00001	0.00358	<0.0005	1.54	0.0011	0.52	<0.00001	<2	<0.00005	0.0012	<0.0005	<0.001
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	15.7	<0.0005	<0.0001	0.00039	<0.03	<0.00005	5.08	0.00109	<0.00001	0.00341	<0.0005	1.18	<0.001	0.408	<0.00001	<2	<0.00005	0.0019	<0.0005	<0.001
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	18.1	<0.0005	<0.0001	0.00112	<0.03	<0.00005	6.76	0.00107	<0.00001	0.00362	<0.0005	1.45	<0.001	0.496	<0.00001	<2	<0.00005	0.00222	<0.0005	<0.001
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	17.1	<0.0005	<0.0001	0.00121	<0.03	<0.00005	7.04	0.00133	<0.00001	0.00344	<0.0005	1.26	<0.001	0.465	<0.00001	<2	<0.00005	0.00188	<0.0005	<0.001
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	22.2	0.00065	<0.0001	0.00086	<0.03	<0.00005	8.39	0.0011	<0.00001	0.00347	<0.0005	1.39	<0.001	0.562	<0.00001	<2	<0.00005	0.00089	<0.0005	<0.001
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	19.2	<0.0005	<0.0001	0.00226	<0.03		7.52	0.00118	<0.00001	0.00377	<0.0005	1.28	<0.001	0.501	<0.00001	<2	<0.00005	0.00111	<0.0005	<0.001
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	22.5	<0.0005	<0.0001	0.00055	<0.03	<0.00005	8.29	0.000774	<0.00001	0.00344	<0.0005	1.17	<0.001	0.501	<0.00001	<2	<0.00005	0.00021	<0.0005	<0.001
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	21.9	<0.0005	<0.0001	0.00101	<0.03	<0.00005	8.62	0.000509	<0.00001	0.0027	<0.0005	1.1	<0.001	0.512	<0.00001	<2	<0.00005	0.00119	<0.0005	<0.001
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	35.2	<0.0005	<0.0001	0.00053	<0.03	<0.00005	11.4	0.000138	<0.00001	0.0027	<0.0005	1.44	<0.001	0.655	<0.00001	<2	<0.00005	0.00048	<0.0005	<0.001
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	29.3	<0.0005	<0.0001	0.00069	<0.03	<0.00005	9.34	0.000192	<0.00001	0.00196	<0.0005	1.03	<0.001	0.572	<0.00001	<2	<0.00005	0.0003	<0.0005	<0.001
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	26.2	<0.0005	<0.0001	0.00053	<0.03	<0.00005	10.1	0.000438	<0.00001	0.00285	<0.0005	1.17	<0.001	0.55	<0.00001	<2	<0.00005	0.00019	<0.0005	<0.001
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	24.8	<0.0005	<0.0001	0.00017	<0.03	<0.00005	9.7	0.000285	<0.00001	0.00269	<0.0005	1.09	<0.001	0.541	<0.00001	<2	<0.00005	0.00023	<0.0005	<0.001
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	34.3	<0.0005	<0.0001	0.00046	<0.03	<0.00005	9.26	0.000246	<0.00001	0.00243	<0.0005	1.02	<0.001	0.593	<0.00001	<2	<0.00005	0.00031	<0.0005	<0.001
14-May-10	847																				
21-May-10	854																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
28-May-10	861	500	510																			
4-Jun-10	868	500	510	7.79	305	181	<1	6.07	112.8	96	107	<0.5	0.024	6.19	0.004	0.000134	0.00013	0.324	<0.0002	<0.0005	<0.01	<0.00005
11-Jun-10	875	500	520																			
18-Jun-10	882	500	515	7.8	310	171																
25-Jun-10	889	500	515																			
2-Jul-10	896	500	505	7.93	355	170	<1	4.37	107.7	90	99	<0.5	0.022	6.59	0.0041	0.000104	0.00011	0.272	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-10	903	500	505																			
16-Jul-10	910	500	515	7.77	302	176																
23-Jul-10	917	500	510																			
30-Jul-10	924	500	515	7.79	308	176	<1	4.96	108.3	97	100	<0.5	0.025	7.01	0.0036	0.000105	0.00012	0.291	<0.0002	<0.0005	0.011	<0.00005
6-Aug-10	931	500	515																			
13-Aug-10	938	500	505	7.88	357	176																
20-Aug-10	945	500	510																			
27-Aug-10	952	500	510	7.96	378	171	<1	4	108.7	97	93.4	<0.5	0.022	6.5	0.0039	0.000113	<0.0001	0.264	<0.0002	<0.0005	<0.01	<0.00005
3-Sep-10	959	500	505																			
10-Sep-10	966	500	510	7.71	344	176																
17-Sep-10	973	500	505																			
24-Sep-10	980	500	500	7.83	300	150	<1	5.3	110.4	102	103	<0.5	0.027	6.47	0.0041	0.000123	<0.0001	0.286	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-10	987	500	485																			
8-Oct-10	994	500	420	7.94	300	199																
15-Oct-10	1001	500	485																			
22-Oct-10	1008	500	440	7.88	356	170	<1	4.51	106.6	92	92.6	<0.5	0.041	8.82	0.0054	0.00013	0.00015	0.229	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-10	1015	500	490																			
5-Nov-10	1022	500	480	8.12	329	197																
12-Nov-10	1029	500	475																			
19-Nov-10	1036	500	465	8.05	308	196	<1	5.49	122.8	97	104	<0.5	0.032	6.75	0.0048	0.000114	0.00014	0.255	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-10	1043	500	475																			
3-Dec-10	1050	500	480	7.84	305	179																
10-Dec-10	1057	500	480																			
17-Dec-10	1064	500	465	7.85	306	183	<1	7.61	120	99	101	<0.5	0.03	6.35	0.0049	0.000119	0.00014	0.29	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-10	1071	500	485																			
31-Dec-10	1078	500	475	7.72	310	155																
7-Jan-11	1085	500	475																			
14-Jan-11	1092	500	475	7.94	328	133	<1	4.67	111.6	89	95.8	<0.5	<0.02	5.28	0.0036	0.000114	0.00013	0.276	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-11	1099	500	475																			
28-Jan-11	1106	500	465	7.76	283	124																
4-Feb-11	1113	500	480																			
11-Feb-11	1120	500	460	7.84	317	169	<1	5.47	96.8	84	86	<0.5	<0.02	6.47	0.0042	0.000108	0.00012	0.239	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-11	1127	500	455																			
25-Feb-11	1134	500	490	7.84	297	178																
4-Mar-11	1141	500	470																			
11-Mar-11	1148	500	475	7.75	283	174	<1	6.98	99.8	86	87.2	<0.5	<0.02	5.62	0.0047	0.000105	0.00016	0.243	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-11	1155	500	460																			
25-Mar-11	1162	500	480	7.83	283	165																
1-Apr-11	1169	500	480																			
8-Apr-11	1176	500	490	7.74	287	168	<1	12.15	106.6	87	86.5	<0.5	<0.02	4.42		0.000093	0.00011	0.243	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-11	1183	500	490																			
22-Apr-11	1190	500	480	7.84	256	159																
29-Apr-11	1197	500	485																			
6-May-11	1204	500	485	7.79	333	143	<1	5.27	86.4	76	73.7	<0.5	<0.02	4.55	0.0046	0.000087	0.00018	0.208	<0.0002	<0.0005	<0.01	<0.00005
13-May-11	1211	500	480																			
20-May-11	1218	500	480	7.93	229	140																
27-May-11	1225	500	480																			
3-Jun-11	1232	500	465	7.77	269	161	<1	5.66	93.7	92	83.3	<0.5	<0.02	5.83	0.0047	0.000102	0.00042	0.245	<0.0002	<0.0005	0.01	<0.00005
10-Jun-11	1239	500	475																			
17-Jun-11	1246	500	465	7.96	299	161																
24-Jun-11	1253	500	460																			
1-Jul-11	1260	500	470	8.01	258	166	<1	5.28	99.4	82	85.6	<0.5	0.023	6.37	0.0064	0.000102	0.00019	0.239	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-11	1267	500	455																			
15-Jul-11	1274	500	470	7.8	271	167																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
28-May-10	861																				
4-Jun-10	868	25.7	<0.0005	<0.0001	0.00034	<0.03	<0.00005	10.4	0.000145	<0.00001	0.00204	<0.0005	1.03	<0.001	0.56	<0.00001	<2	<0.00005	0.00076	<0.0005	0.001
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	25.3	<0.0005	<0.0001	0.00037	<0.03	<0.00005	8.68	0.000264	<0.00001	0.00173	<0.0005	0.817	<0.001	0.55	<0.00001	<2	<0.00005	0.00078	<0.0005	<0.001
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	25.1	<0.0005	<0.0001	0.00064	<0.03	<0.00005	9.19	0.000793	<0.00001	0.00336	<0.0005	0.873	<0.001	0.557	<0.00001	<2	<0.00005	0.00082	<0.0005	<0.001
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	24.4	<0.0005	<0.0001	0.00015	<0.03	<0.00005	7.9	0.000412	<0.00001	0.00161	<0.0005	0.776	<0.001	0.547	<0.00001	<2	<0.00005	0.00075	<0.0005	<0.001
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	25.4	<0.0005	<0.0001	0.00103	<0.03	<0.00005	9.63	0.000514	<0.00001	0.00167	<0.0005	0.829	<0.001	0.549	<0.00001	<2	<0.00005	0.00066	<0.0005	<0.001
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	21.7	<0.0005	<0.0001	0.0006	<0.03	<0.00005	9.3	0.000756		0.00354	<0.0005	0.951	<0.001	0.563	<0.00001	<2	<0.00005	0.00041	<0.0005	<0.001
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	23.7	<0.0005	<0.0001	0.00067	<0.03	<0.00005	10.9	0.000667	<0.00001	0.00386	<0.0005	1.05	<0.001	0.568	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	24	<0.0005	<0.0001	0.00033	<0.03	0.000266	10.1	0.00133	<0.00001	0.00343	<0.0005	0.977	<0.001	0.607	<0.00001	<2	<0.00005	0.0002	<0.0005	0.001
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	22.8	<0.0005	<0.0001	0.00082	<0.03	<0.00005	9.43	0.001	<0.00001	0.0034	<0.0005	0.882	<0.001	0.577	<0.00001	<2	<0.00005	0.0002	<0.0005	<0.001
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	20.3	<0.0005	<0.0001	0.00066	<0.03	<0.00005	8.57	0.00105	<0.00001	0.00333	<0.0005	0.859	<0.001	0.53	<0.00001	<2	<0.00005	0.00014	<0.0005	<0.001
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	20.8	<0.0005	<0.0001	0.00089	<0.03	<0.00005	8.58	0.000835	<0.00001	0.00299	<0.0005	0.813	<0.001	0.56	<0.00001	<2	<0.00005	0.00018	<0.0005	<0.001
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	20.4	<0.0005	<0.0001	0.00048	<0.03	<0.00005	8.63	0.00109	<0.00001	0.00272	<0.0005	0.791	<0.001	0.536	<0.00001	<2	<0.00005	0.00208	<0.0005	0.0024
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	17.4	<0.0005	<0.0001	0.001	<0.03	<0.00005	7.31	0.000864	<0.00001	0.00243	<0.0005	0.699	<0.001	0.478	<0.00001	<2	<0.00005	0.0095	<0.0005	<0.001
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	19.7	<0.0005	<0.0001	0.00075	<0.03	<0.00005	8.3	0.00108	<0.00001	0.00308	<0.0005	0.758	<0.001	0.549	<0.00001	<2	<0.00005	0.00949	<0.0005	<0.001
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	20.1	<0.0005	<0.0001	0.00059	<0.03	<0.00005	8.59	0.00096	<0.00001	0.00285	<0.0005	0.745	<0.001	0.587	<0.00001	<2	<0.00005	0.0101	<0.0005	<0.001
8-Jul-11	1267																				
15-Jul-11	1274																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Jul-11	1281	500	465																			
29-Jul-11	1288	500	470	7.88	295	155	<1	6.11	87.9	79	80.5	<0.5	0.027	6.22	0.0047	0.000101	0.00019	0.223	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-11	1295	500	455																			
12-Aug-11	1302	500	460	7.88	281	156																
19-Aug-11	1309	500	455																			
26-Aug-11	1316	500	455	7.86	304	150	<1	7.75	87.2	84	79.1	<0.5	0.03	6.65	0.0048	0.000107	0.00019	0.234	<0.0002	<0.0005	0.011	<0.00005
2-Sep-11	1323	500	445																			
9-Sep-11	1330	500	445	7.92	293	156																
16-Sep-11	1337	500	460																			
23-Sep-11	1344	500	455	7.82	302	159	<1	6.55	91.5	77	82.6	<0.5	0.022	5.92	0.0047	0.000103	0.00014	0.224	<0.0002	<0.0005	0.01	<0.00005
30-Sep-11	1351	500	460																			
7-Oct-11	1358	500	455	7.79	300	153																
14-Oct-11	1365	500	465																			
21-Oct-11	1372	500	445	7.77	284	127	<1	7.84	73.5	64	66.3	<0.5	<0.02	4.88	0.0059	0.000087	0.00013	0.182	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-11	1379	500	455																			
4-Nov-11	1386	500	460	7.85	301	148																
11-Nov-11	1393	500	450																			
18-Nov-11	1400	500	460	7.8	301	140	<1	5.39	81.2	70	75.8	<0.5	<0.02	5.1	0.013	0.0001	0.00034	0.201	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-11	1407	500	465																			
2-Dec-11	1414	500	455	7.82	312	146																
9-Dec-11	1421	500	455																			
16-Dec-11	1428	500	455	7.83	338	166	<1	8.55	100.3	87	85.5	<0.5	<0.02	5.07	0.0049	0.000083	0.00021	0.239	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-11	1435	500	470																			
30-Dec-11	1442	500	465	7.93	306	154																
6-Jan-12	1449	500	460																			
13-Jan-12	1456	500	455	7.83	318	162	<1	6.77	107.3	88	85.2	<0.5	<0.02	5.21	0.0061	0.000103	0.00018	0.215	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-12	1463	500	460																			
27-Jan-12	1470	500	455	7.8	345	139																
3-Feb-12	1477	500	460																			
10-Feb-12	1484	500	460	7.8	359	160	<1	10.09	106.9	84	79	<0.5	<0.02	5.02	0.0053	0.000092	0.00018	0.217	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-12	1491	500	455																			
24-Feb-12	1498	500	455	7.79	347	156																
2-Mar-12	1505	500	460																			
9-Mar-12	1512	500	440	7.76	336	130	<1	7.49	74.6	60	66.7	<0.5	<0.02	4.63	0.0061	0.000088	0.0002	0.171	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-12	1519	500	450																			
23-Mar-12	1526	500	470	7.76	343	147																
30-Mar-12	1533	500	450																			
6-Apr-12	1540	500	455	7.84	361	141	<1	5.11	80.9	74	74.2	<0.5	0.021	5.07	0.008	0.000091	0.00019	0.192	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-12	1547	500	445																			
20-Apr-12	1554	500	450	7.87	344	146																
27-Apr-12	1561	500	455																			
4-May-12	1568	500	440	7.8	379	133	<1	11.49	75.6	63	67.3	<0.5	<0.02	5.35	0.0056	0.000094	0.00017	0.175	<0.0002	<0.0005	<0.01	<0.00005
11-May-12	1575	500	445																			
18-May-12	1582	500	445	7.79	302	111																
25-May-12	1589	500	460																			
1-Jun-12	1596	500	450	7.74	319	114	<1	6.35	61.6	56	56.9	<0.5	<0.02	5.44	0.008	0.000076	0.00029	0.144	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-12	1603	500	450																			
15-Jun-12	1610	500	480	7.72	371	140																
22-Jun-12	1617	500	460																			
29-Jun-12	1624	500	455	7.71	343	114	<1	8.48	63.5	59	59	<0.5	<0.02	6.04	0.0071	0.000071	0.00016	0.148	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-12	1631	500	460																			
13-Jul-12	1638	500	445	7.82	367	123																
20-Jul-12	1645	500	450																			
27-Jul-12	1652	500	450	7.82	313	149	<1	10.14	84.2	79	73	<0.5	<0.02	6.66	0.0067	0.000085	0.0002	0.2	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-12	1659	500	460																			
10-Aug-12	1666	500	450	7.88	357	152																
17-Aug-12	1673	500	450																			
24-Aug-12	1680	500	420	7.51	325	147	<1	9.38	75.8	74	73.8	<0.5	<0.02	7.05	0.0057	0.00009	0.00018	0.202	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-12	1687	500	460																			
7-Sep-12	1694	500	455	7.75	411	144																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Jul-11	1281																				
29-Jul-11	1288	18.9	<0.0005	<0.0001	0.00055	<0.03	<0.00005	8.09	0.000816	<0.00001	0.00312	<0.0005	0.76	<0.001	0.543	<0.00001	<2	<0.00005	0.0105	<0.0005	<0.001
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	18.1	<0.0005	<0.0001	0.00075	<0.03	<0.00005	8.26	0.00321	<0.00001	0.00311	<0.0005	0.711	<0.001	0.562	<0.00001	<2	<0.00005	0.0122	<0.0005	0.0011
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	19.3	<0.0005	<0.0001	0.00041	<0.03	<0.00005	8.39	0.0016	<0.00001	0.00308	<0.0005	0.688	<0.001	0.592	<0.00001	<2	<0.00005	0.0124	<0.0005	<0.001
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	15.6	<0.0005	<0.0001	0.00049	<0.03	<0.00005	6.62	0.000912	<0.00001	0.0022	<0.0005	0.606	<0.001	0.497	<0.00001	<2	<0.00005	0.0158	<0.0005	<0.001
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	17.1	<0.0005	<0.0001	0.00037	<0.03	<0.00005	8.03	0.0011	<0.00001	0.00229	<0.0005	0.652	<0.001	0.519	<0.00001	<2	<0.00005	0.0147	<0.0005	0.0022
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	20.4	<0.0005	<0.0001	0.00028	<0.03	<0.00005	8.39	0.00155	<0.00001	0.00208	<0.0005	0.703	<0.001	0.587	<0.00001	<2	<0.00005	0.0142	<0.0005	<0.001
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	20.2	<0.0005	<0.0001	0.00094	<0.03	0.000279	8.42	0.00181	<0.00001	0.00207	<0.0005	0.663	<0.001	0.592	<0.00001	<2	<0.00005	0.0145	<0.0005	0.0017
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	19.1	0.0006	<0.0001	0.00086	<0.03	<0.00005	7.59	0.00134	<0.00001	0.00206	<0.0005	0.646	<0.001	0.578	<0.00001	<2	<0.00005	0.0136	<0.0005	<0.001
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	15.8	<0.0005	<0.0001	0.00031	<0.03	<0.00005	6.64	0.00121	<0.00001	0.00216	<0.0005	0.56	<0.001	0.516	<0.00001	<2	<0.00005	0.0126	<0.0005	<0.001
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	17.4	<0.0005	<0.0001	0.00173	<0.03	0.000082	7.46	0.000962	<0.00001	0.00214	<0.0005	0.636	<0.001	0.586	<0.00001	<2	<0.00005	0.0122	<0.0005	0.0022
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	16	<0.0005	<0.0001	0.00035	<0.03	<0.00005	6.65	0.00108	<0.00001	0.00213	<0.0005	0.543	<0.001	0.525	<0.00001	<2	<0.00005	0.012	<0.0005	<0.001
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	13.4	<0.0005	<0.0001	0.00235	<0.03	0.000051	5.68	0.000755	<0.00001	0.00193	<0.0005	0.467	<0.001	0.473	<0.00001	<2	<0.00005	0.0109	<0.0005	0.0011
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	14.2	<0.0005	<0.0001	0.00032	<0.03	<0.00005	5.69	0.00131	<0.00001	0.00194	<0.0005	0.473	<0.001	0.468	<0.00001	<2	<0.00005	0.00991	<0.0005	<0.001
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	17.9	<0.0005	<0.0001	0.00029	<0.03	<0.00005	6.84	0.00106	<0.00001	0.00226	<0.0005	0.585	<0.001	0.582	<0.00001	<2	<0.00005	0.00858	<0.0005	<0.001
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	17.5	<0.0005	<0.0001	0.00017	<0.03	<0.00005	7.3	0.000994	<0.00001	0.00231	<0.0005	0.567	<0.001	0.602	<0.00001	<2	<0.00005	0.00902	<0.0005	<0.001
31-Aug-12	1687																				
7-Sep-12	1694																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
14-Sep-12	1701	500	440																			
21-Sep-12	1708	500	450	7.75	384	141	<1	7.35	82.5	70	73.8	<0.5	<0.02	6.56	0.0058	0.000086	0.00017	0.194	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-12	1715	500	450																			
5-Oct-12	1722	500	445	7.75	378	130																
12-Oct-12	1729	500	460																			
19-Oct-12	1736	500	445	7.73	388	136	<1	7.65	79.5	71	68.5	<0.5	<0.02	5.37	0.0065	0.000079	0.00037	0.178	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-12	1743	500	450																			
2-Nov-12	1750	500	450	7.71	389	138																
9-Nov-12	1757	500	440																			
16-Nov-12	1764	500	455	7.82	375	145	<1	3.99	83.5	80	73.6	<0.5	<0.02	5.08	0.0043	0.00008	0.00021	0.185	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-12	1771	500	455																			
30-Nov-12	1778	500	505	7.74	371	136																
7-Dec-12	1785	500	490																			
14-Dec-12	1792	500	490	8.02	318	177	<1	11.91	104.9	85	87.9	<0.5	<0.02	4.76	0.0047	0.000079	0.00015	0.26	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-12	1799	500	460																			
28-Dec-12	1806	500	460	7.91	380	185																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	315	7.65	398	1945	<1	6.47	48	1330	480	4.94	0.121	836	0.0119	0.0021	0.00158	0.0268	<0.0004	<0.001	0.081	0.00022
25-Jan-08	7	500	500	7.78	460	1450																
1-Feb-08	14	500	475	7.79	436	1026	<1	5.48	70	625	355	0.71	0.2	477	0.0141	0.00244	0.00257	0.0212	<0.0004	<0.001	0.103	<0.0001
8-Feb-08	21	500	450	7.83	439	998																
15-Feb-08	28	500	500	7.86	417	347	<1	3.63	61.5	227	122	<0.5	0.158	116	0.0165	0.00192	0.00218	0.0239	<0.0002	<0.0005	0.064	<0.00005
22-Feb-08	35	500	480	8.06	405	309																
29-Feb-08	42	500	470	7.91	404	273	<1	4.42	77.9	173	104	<0.5	0.164	67.9	0.013	0.00235	0.00227	0.0363	<0.0002	<0.0005	0.063	<0.00005
7-Mar-08	49	500	495	7.98	409	271																
14-Mar-08	56	500	480	8.04	400	257	<1	3.41	89.2	149	114	<0.5	0.162	51.2	0.0083	0.00246	0.00243	0.0484	<0.0002	<0.0005	0.06	<0.00005
21-Mar-08	63	500	500	7.85	421	151																
28-Mar-08	70	500	435	7.61	419	158	<1	3.68	44.3	121	66.2	<0.5	0.089	40.3	0.0162	0.00112	0.00192	0.026	<0.0002	<0.0005	0.021	<0.00005
4-Apr-08	77	500	480	7.91	418	207																
11-Apr-08	84	500	460	7.81	389	235	<1	3.44	64.9	133	105	<0.5	0.104	50	0.0103	0.00176	0.00205	0.0364	<0.0002	<0.0005	0.034	<0.00005
18-Apr-08	91	500	475	8.01	400	212																
25-Apr-08	98	500	480	8.1	372	245	<1	1.83	86.1	157	126	<0.5	0.129	51.6	0.0086	0.00182	0.00167	0.0389	<0.0002	<0.0005	0.033	<0.00005
2-May-08	105	500	510	8.03	390	214																
9-May-08	112	500	495	8.12	350	239	<1	2.92	83.9	144	119	<0.5	0.125	44.7	0.0083	0.00184	0.00167	0.0441	<0.0002	<0.0005	0.03	<0.00005
16-May-08	119	500	415	8.15	363	245																
23-May-08	126	500	435	8.06	376	240	<1	2.68	65.6	155	114	<0.5	0.102	56.4	0.0134	0.00144	0.00163	0.0364	<0.0002	<0.0005	0.027	<0.00005
30-May-08	133	500	470	7.6	384	217																
6-Jun-08	140	500	425	7.93	386	171	<1	2.65	55.1	133	95	<0.5	0.114	47	0.0132	0.00159	0.00168	0.0318	<0.0002	<0.0005	0.018	<0.00005
13-Jun-08	147	500	450	8.05	375	187																
20-Jun-08	154	500	460	8.05	339	194	<1	3.89	73.9	162	126	<0.5	0.09	57.5	0.0099	0.00159	0.00151	0.0379	<0.0002	<0.0005	0.02	<0.00005
27-Jun-08	161	500	485	8.04	351	239																
4-Jul-08	168	500	460	7.91	358	222	<1	3.23	50.4	134	104	<0.5	0.083	52	0.0124	0.00148	0.00152	0.0333	<0.0002	<0.0005	0.017	0.000098
11-Jul-08	175	500	475	8.07	405	255																
18-Jul-08	182	500	470	7.92	380	190	<1	2.91	50.4	114	93	<0.5	0.053	40.8	0.0139	0.00113	0.00132	0.0263	<0.0002	<0.0005	0.012	<0.00005
25-Jul-08	189	500	470	7.94	394	221																
1-Aug-08	196	500	470	7.96	391	216	<1	2.55	56.5	129	104	<0.5	0.046	52.2	0.0132	0.00116	0.00139	0.0291	<0.0002	<0.0005	0.011	<0.00005
8-Aug-08	203	500	480	7.97	375	199																
15-Aug-08	210	500	475	7.93	352	209	<1	3.29	54.5	126	99.9	<0.5	0.038	47.4	0.0172	0.00108	0.00127	0.0273	<0.0002	<0.0005	0.011	<0.00005
22-Aug-08	217	500	470	7.94	322	191																
29-Aug-08	224	500	470	7.96	329	208	<1	2.62	60.4	124	102	<0.5	0.048	49.9	0.0145	0.0011	0.00118	0.0289	<0.0002	<0.0005	0.011	<0.00005
5-Sep-08	231	500	470	8.03	330	219																
12-Sep-08	238	500	480	7.96	303	207	<1	3.5	64.3	121	110	<0.5	0.048	46.2	0.0301	0.00113	0.0011	0.0282	<0.0002	<0.0005	0.012	<0.00005
19-Sep-08	245	500	475	8.01	305	190																
26-Sep-08	252	500	480	7.9	302	187	<1	3.08	51.7	108	90.9	<0.5	0.033	40.1	0.0161	0.000833	0.00096	0.024	<0.0002	<0.0005	<0.01	<0.00005
3-Oct-08	259	500	475	8.02	401	198																
10-Oct-08	266	500	475	7.91	379	154	<1	2.64	47.4	92	71.8	<0.5	0.029	31.2	0.0186	0.000723	0.00094	0.0196	<0.0002	<0.0005	<0.01	<0.00005
17-Oct-08	273	500	465	7.92	405	171																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
14-Sep-12	1701																				
21-Sep-12	1708	17.4	<0.0005	<0.0001	0.00041	<0.03	<0.00005	7.36	0.000773	<0.00001	0.00236	<0.0005	0.58	<0.001	0.592	<0.00001	<2	<0.00005	0.00796	<0.0005	<0.001
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	16.2	0.0006	<0.0001	0.00099	<0.03	<0.00005	6.82	0.000653	<0.00001	0.00199	<0.0005	0.445	<0.001	0.54	<0.00001	<2	<0.00005	0.00619	<0.0005	<0.001
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	17.7	<0.0005	<0.0001	0.00038	<0.03	0.000057	7.1	0.00138	<0.00001	0.00175	<0.0005	0.533	<0.001	0.549	<0.00001	<2	<0.00005	0.00516	<0.0005	<0.001
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	21.2	<0.0005	<0.0001	0.00016	<0.03	<0.00005	8.5	0.000557	<0.00001	0.00175	<0.0005	0.551	<0.001	0.645	<0.00001	<2	<0.00005	0.00295	<0.0005	<0.001
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	166	<0.001	0.00934	0.00229	<0.03	<0.0001	15.9	0.301	<0.00001	0.0174	0.0094	4.79	0.0325	1.31	<0.00002	192	0.0002	0.00029	<0.001	0.009
25-Jan-08	7																				
1-Feb-08	14	121	<0.001	0.00364	0.00234	<0.03	<0.0001	12.9	0.22	<0.00001	0.0227	0.0027	3.96	0.0081	1.65	<0.00002	99.7	0.00011	0.00034	<0.001	0.0043
8-Feb-08	21																				
15-Feb-08	28	41.5	<0.0005	0.00099	0.00226	<0.03	<0.00005	4.4	0.0579	<0.00001	0.0189	0.00092	2.11	0.0019	1.24	<0.00001	25.1	0.000055	0.00063	<0.0005	0.0017
22-Feb-08	35																				
29-Feb-08	42	36.2	<0.0005	0.00073	0.00658	<0.03	<0.00005	3.42	0.0407	<0.00001	0.0264	0.00069	1.98	0.0017	1.45	<0.00001	18.8	<0.00005	0.00018	<0.0005	0.0013
7-Mar-08	49																				
14-Mar-08	56	38	<0.0005	0.00077	0.00134	0.058	<0.00005	4.72	0.0431	<0.00001	0.0311	0.0006	1.88	0.0016	1.55	<0.00001	12.7	<0.00005	<0.0001	<0.0005	<0.001
21-Mar-08	63																				
28-Mar-08	70	22.4	<0.0005	0.00034	0.00143	<0.03	0.000246	2.49	0.0157	<0.00001	0.0136	<0.0005	1.02	0.0012	0.858	<0.00001	4.8	<0.00005	0.00065	<0.0005	0.0012
4-Apr-08	77																				
11-Apr-08	84	35.5	<0.0005	0.00048	0.0027	<0.03	0.000059	4.01	0.0163	<0.00001	0.0216	0.00054	1.43	0.0016	1.23	<0.00001	5	<0.00005	0.00015	<0.0005	0.0045
18-Apr-08	91																				
25-Apr-08	98	42.5	<0.0005	0.0004	0.00214	<0.03	0.000067	4.75	0.0112	<0.00001	0.027	<0.0005	1.45	0.0014	1.43	<0.00001	4.8	<0.00005	<0.0001	<0.0005	0.0012
2-May-08	105																				
9-May-08	112	38.5	<0.0005	0.00033	0.00039	<0.03	<0.00005	5.63	0.00842	<0.00001	0.0261	0.00061	1.47	0.0014	1.33	<0.00001	3.7	<0.00005	<0.0001	<0.0005	<0.001
16-May-08	119																				
23-May-08	126	38	<0.0005	0.00022	0.00179	<0.03	0.000063	4.74	0.00491	<0.00001	0.0223	<0.0005	1.21	0.0017	1.23	<0.00001	2.8	<0.00005	0.0002	<0.0005	0.0013
30-May-08	133																				
6-Jun-08	140	31.4	<0.0005	0.00013	0.00165	<0.03	<0.00005	4.03	0.00212	<0.00001	0.0264	<0.0005	1.1	0.0016	1.05	<0.00001	2.4	<0.00005	0.00014	<0.0005	0.0016
13-Jun-08	147																				
20-Jun-08	154	42	<0.0005	0.00015	0.00113	<0.03	0.000058	5.12	0.00399	<0.00001	0.0225	0.00058	1.26	0.002	1.27	<0.00001	2.5	<0.00005	0.00013	<0.0005	0.0024
27-Jun-08	161																				
4-Jul-08	168	34.1	<0.0005	0.00012	0.0013	<0.03	<0.00005	4.66	0.00322	<0.00001	0.0214	<0.0005	1.18	0.002	1.05	<0.00001	<2	<0.00005	0.00025	<0.0005	0.0011
11-Jul-08	175																				
18-Jul-08	182	31	<0.0005	<0.0001	0.00134	<0.03	<0.00005	3.78	0.00206	<0.00001	0.016	<0.0005	0.896	0.0012	0.903	<0.00001	<2	<0.00005	0.00059	<0.0005	0.0012
25-Jul-08	189																				
1-Aug-08	196	34.5	<0.0005	<0.0001	0.00081	<0.03	<0.00005	4.39	0.00229	<0.00001	0.0179	<0.0005	0.919	0.002	0.938	<0.00001	<2	<0.00005	0.000092	<0.0005	<0.001
8-Aug-08	203																				
15-Aug-08	210	32.9	<0.0005	<0.0001	0.00072	<0.03	0.000215	4.32	0.00259	<0.00001	0.0162	<0.0005	0.851	0.0016	0.862	<0.00001	<2	<0.00005	0.00074	<0.0005	<0.001
22-Aug-08	217																				
29-Aug-08	224	33.5	<0.0005	<0.0001	0.00064	<0.03	0.000077	4.57	0.00209	<0.00001	0.0168	<0.0005	0.805	0.0017	0.851	<0.00001	<2	<0.00005	0.00087	<0.0005	0.0013
5-Sep-08	231																				
12-Sep-08	238	35.2	<0.0005	<0.0001	0.00098	<0.03	0.000059	5.31	0.0015	<0.00001	0.0168	<0.0005	0.903	0.0017	0.977	<0.00001	<2	<0.00005	0.00043	<0.0005	0.0014
19-Sep-08	245																				
26-Sep-08	252	29.9	<0.0005	<0.0001	0.00036	<0.03	<0.00005	3.97	0.00139	<0.00001	0.0135	<0.0005	0.667	0.0015	0.802	<0.00001	<2	<0.00005	0.00094	<0.0005	<0.001
3-Oct-08	259																				
10-Oct-08	266	23.3	<0.0005	<0.0001	0.0009	<0.03	<0.00005	3.32	0.00104	<0.00001	0.0114	<0.0005	0.602	0.0012	0.665	<0.00001	<2	<0.00005	0.00145	<0.0005	<0.001
17-Oct-08	273																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
24-Oct-08	280	500	475	7.93	415	166	<1	2.66	50.8	106	82.3	<0.5	0.033	37.8	0.0151	0.000792	0.0009	0.0246	<0.0002	<0.0005	<0.01	<0.00005
31-Oct-08	287	500	480	7.96	426	157																
7-Nov-08	294	500	480	7.83	418	141	<1	3.09	45.6	89.6	69	<0.5	0.021	30	0.0268	0.000613	0.00079	0.0181	<0.0002	<0.0005	<0.01	<0.00005
14-Nov-08	301	500	460	7.9	423	141																
21-Nov-08	308	500	485	7.96	340	187	<1	1.78	55.9	118	87.1	<0.5	0.037	40.6	0.0137	0.000821	0.00082	0.0253	<0.0002	<0.0005	<0.01	<0.00005
28-Nov-08	315	500	480	7.81	323	165																
5-Dec-08	322	500	470	7.89	362	151	<1	2.69	54.9	87.6	72.9	<0.5	0.022	31.3	0.0153	0.000742	0.00083	0.0197	<0.0002	<0.0005	<0.01	<0.00005
12-Dec-08	329	500	475	7.89	349	156																
19-Dec-08	336	500	470	7.73	349	136	<1	4.39	37.3	81.3	65.4	<0.5	0.027	37.3	0.0133	0.000661	0.00112	0.0201	<0.0002	<0.0005	<0.01	<0.00005
26-Dec-08	343	500	490	7.7	349	90																
2-Jan-09	350	500	465	7.87	338	141	<1	11.44	49.1	87	69.7	<0.5	<0.02	36.1	0.0194	0.000554	0.0007	0.0193	<0.0002	<0.0005	<0.01	<0.00005
9-Jan-09	357	500	480	7.83	368	174																
16-Jan-09	364	500	500	7.86	382	171	<1	6.78	72.4	108	92.8	<0.5	0.024	28.8	0.0102	0.000739	0.00068	0.0229	<0.0002	<0.0005	<0.01	<0.00005
23-Jan-09	371	500	485	7.95	373	156																
30-Jan-09	378	500	480	7.83	385	176	<1	9.11	81.7	113	90.7	<0.5	0.027	27	0.0074	0.000689	0.00062	0.0245	<0.0002	<0.0005	<0.01	<0.00005
6-Feb-09	385	500	480	7.8	363	185																
13-Feb-09	392	500	480	7.9	376	172	<1	2.66	64.6	101	96.2	<0.5	0.033	34.8	0.0101	0.000716	0.00069	0.0241	<0.0002	<0.0005	<0.01	<0.00005
20-Feb-09	399	500	495	8.02	349	166																
27-Feb-09	406	500	480	8	355	188	<1	6.57	81.9	111	100	<0.5	0.027	34.8	0.0109	0.000689	0.00064	0.026	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-09	413	500	485	7.81	297	173																
13-Mar-09	420	500	485	7.76	317	164	<1	3.48	72.8	89.5	93.1	<0.5	0.023	26.3	0.0084	0.000671	0.00064	0.0235	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-09	427	500	485	7.85	345	133																
27-Mar-09	434	500	475	7.76	346	143	<1	3.9	56.5	80.8	67.9	<0.5	<0.02	25.2	0.0108	0.000562	0.00066	0.0187	<0.0002	<0.0005	<0.01	<0.00005
3-Apr-09	441	500	480	7.86	354	173																
10-Apr-09	448	500	490	7.81	364	140	<1	3.5	57.4	91	72.5	<0.5	<0.02	25	0.0134	0.000569	0.0006	0.02	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-09	455	500	485	7.85	376	159																
24-Apr-09	462	500	485	7.81	366	135																
1-May-09	469	500	485																			
8-May-09	476	500	485	7.71	359	135	<1	3.09	50.5	87	68.7	<0.5	<0.02	26.5	0.0148	0.000525	0.00061	0.0175	<0.0002	<0.0005	<0.01	<0.00005
15-May-09	483	500	485																			
22-May-09	490	500	495	7.78	364	155																
29-May-09	497	500	485																			
5-Jun-09	504	500	495	7.8	373	142	<1	3.66	56.7	90.1	79.2	<0.5	<0.02	38.2	0.0119	0.000607	0.00066	0.0215	<0.0002	<0.0005	0.022	0.000074
12-Jun-09	511	500	480																			
19-Jun-09	518	500	440	7.78	381	159																
26-Jun-09	525	500	490																			
3-Jul-09	532	500	495	7.81	314	145	<1	2.66	53	91.5	71.5	<0.5	<0.02	30.5	0.0115	0.000485	0.00057	0.0185	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-09	539	500	450																			
17-Jul-09	546	500	480	7.74	358	128																
24-Jul-09	553	500	495																			
31-Jul-09	560	500	460	7.77	361	156	<1	3.38	59	105	80.8	<0.5	0.028	35.1	0.0096	0.000581	0.00058	0.0209	<0.0002	<0.0005	0.011	<0.00005
7-Aug-09	567	500	415																			
14-Aug-09	574	500	490	7.67	327	154																
21-Aug-09	581	500	480																			
28-Aug-09	588	500	485	7.79	286	158	<1	3.07	63.9	110	84.4	<0.5	<0.02	31.5	0.0099573	0.00056	0.00057	0.0223	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-09	595	500	495																			
11-Sep-09	602	500	500	7.83	302	165																
18-Sep-09	609	500	505																			
25-Sep-09	616	500	485	7.84	331	179	<1	4.09	78.6	75	95.5	<0.5	<0.02	32.2	0.0075	0.000578	0.00051	0.0241	<0.0002	<0.0005	0.011	<0.00005
2-Oct-09	623	500	500																			
9-Oct-09	630	500	515	7.65	297	160																
16-Oct-09	637	500	490																			
23-Oct-09	644	500	480	7.78	285	171	<1	3.92	71.5	100	94.6	<0.5	<0.02	31.1	0.0082	0.000592	0.00053	0.0246	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-09	651	500	500																			
6-Nov-09	658	500	480	7.8	316	177																
13-Nov-09	665	500	495																			
20-Nov-09	672	500	480	7.89	305	175	<1	6.08	74.8	104	83.3	<0.5	<0.02	26.4	0.0071	0.000471	0.00042	0.0231	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-09	679	500	505																			
4-Dec-09	686	500	485	7.69	316	165																
11-Dec-09	693	500	505																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
24-Oct-08	280	26.6	<0.0005	<0.0001	0.00097	<0.03	<0.00005	3.89	0.00106	<0.00001	0.0127	<0.0005	0.642	0.0013	0.71	<0.00001	<2	<0.00005	0.00127	<0.0005	<0.001
31-Oct-08	287																				
7-Nov-08	294	22.6	<0.0005	<0.0001	0.00221	<0.03	<0.00005	3.06	0.00116	<0.00001	0.00884	<0.0005	0.519	0.001	0.603	<0.00001	<2	<0.00005	0.00149	<0.0005	<0.001
14-Nov-08	301																				
21-Nov-08	308	31.5	<0.0005	<0.0001	0.00273	<0.03	<0.00005	3.99	0.00117	<0.00001	0.0124	<0.0005	0.652	0.0013	0.751	<0.00001	<2	<0.00005	0.00108	<0.0005	<0.001
28-Nov-08	315																				
5-Dec-08	322	23.5	<0.0005	<0.0001	0.0005	<0.03	<0.00005	3.43	0.000957	<0.00001	0.0127	<0.0005	0.597	<0.001	0.665	<0.00001	<2	<0.00005	0.00107	<0.0005	0.0011
12-Dec-08	329																				
19-Dec-08	336	22.4	<0.0005	0.00011	0.00086	<0.03	<0.00005	2.31	0.0058	<0.00001	0.00896	<0.0005	0.438	<0.001	0.597	<0.00001	<2	<0.00005	0.00499	<0.0005	<0.001
26-Dec-08	343																				
2-Jan-09	350	22.3	0.0016	<0.0001	0.00228	<0.03	0.00008	3.41	0.000761	<0.00001	0.00887	<0.0005	0.498	0.0013	0.537	<0.00001	<2	<0.00005	0.00226	<0.0005	0.002
9-Jan-09	357																				
16-Jan-09	364	29.4	<0.0005	<0.0001	0.00184	<0.03	<0.00005	4.72	0.00025	<0.00001	0.0106	<0.0005	0.683	<0.001	0.759	<0.00001	<2	<0.00005	0.00141	<0.0005	<0.001
23-Jan-09	371																				
30-Jan-09	378	28.8	<0.0005	<0.0001	0.00097	<0.03	<0.00005	4.54	0.000597	<0.00001	0.00868	<0.0005	0.601	<0.001	0.752	<0.00001	<2	<0.00005	0.00137	<0.0005	<0.001
6-Feb-09	385																				
13-Feb-09	392	30.2	<0.0005	<0.0001	0.00138	<0.03	<0.00005	5.05	0.000415	<0.00001	0.0116	<0.0005	0.656	0.0012	0.711	<0.00001	<2	<0.00005	0.0008	<0.0005	<0.001
20-Feb-09	399																				
27-Feb-09	406	31.4	<0.0005	<0.0001	0.00033	<0.03	<0.00005	5.36	0.000215	<0.00001	0.0129	<0.0005	0.627	<0.001	0.766	<0.00001	<2	<0.00005	0.00018	<0.0005	<0.001
6-Mar-09	413																				
13-Mar-09	420	30	<0.0005	<0.0001	0.00053	<0.03	<0.00005	4.43	0.000375	<0.00001	0.0114	<0.0005	0.603	<0.001	0.728	<0.00001	<2	<0.00005	0.00025	<0.0005	<0.001
20-Mar-09	427																				
27-Mar-09	434	22.1	<0.0005	<0.0001	0.00055	<0.03	<0.00005	3.08	0.000612	<0.00001	0.00798	<0.0005	0.445	<0.001	0.565	<0.00001	<2	<0.00005	0.00075	<0.0005	<0.001
3-Apr-09	441																				
10-Apr-09	448	22.9	<0.0005	<0.0001	0.0004	<0.03	0.000165	3.74	0.000317	<0.00001	0.00822	<0.0005	0.508	<0.001	0.606	<0.00001	<2	<0.00005	0.00148	<0.0005	<0.001
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	20.9	<0.0005	<0.0001	0.00045	<0.03	<0.00005	4.02	0.000373	<0.00001	0.00765	<0.0005	0.46	<0.001	0.559	<0.00001	<2	<0.00005	0.00105	<0.0005	<0.001
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	25	<0.0005	<0.0001	0.00064	<0.03	0.00021	4.08	0.00108	<0.00001	0.00942	<0.0005	0.531	0.0011	0.629	<0.00001	<2	<0.00005	0.00135	<0.0005	<0.001
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	23.1	<0.0005	<0.0001	0.00016	<0.03	<0.00005	3.39	0.000471	<0.00001	0.00831	<0.0005	0.443	<0.001	0.557	<0.00001	<2	<0.00005	0.00136	<0.0005	<0.001
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	25.6	<0.0005	<0.0001	0.00134	<0.03	<0.00005	4.12	0.000506	<0.00001	0.00937	<0.0005	0.535	<0.001	0.695	<0.00001	<2	<0.00005	0.00122	<0.0005	<0.001
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	26	<0.0005	<0.0001	0.00164	<0.03	<0.00005	4.74	0.000684	<0.00001	0.00984	<0.0005	0.545	<0.001	0.714	<0.00001	<2	<0.00005	0.00078	<0.0005	<0.001
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	30.5	<0.0005	<0.0001	0.00115	<0.03	<0.00005	4.7	0.000729	<0.00001	0.0105	<0.0005	0.537	<0.001	0.793	<0.00001	<2	<0.00005	0.00014	<0.0005	<0.001
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	29.8	<0.0005	<0.0001	0.00066	<0.03	<0.00005	4.92	0.00102	<0.00001	0.00993	<0.0005	0.545	<0.001	0.78	<0.00001	<2	<0.00005	0.00038	<0.0005	<0.001
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	26.3	<0.0005	<0.0001	0.00053	<0.03	<0.00005	4.27	0.000269	<0.00001	0.00847	<0.0005	0.446	<0.001	0.678	<0.00001	<2	<0.00005	0.00026	<0.0005	<0.001
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Dec-09	700	500	470	7.63	315	153	<1	6.22	63.6	96	79.3	<0.5	<0.02	24.7	0.0085	0.00045	0.00041	0.0216	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-09	707	500	465																			
1-Jan-10	714	500	480	7.89	357	158																
8-Jan-10	721	500	485																			
15-Jan-10	728	500	480	7.77	291	163	<1	7.67	61.6	106	96.5	<0.5	<0.02	30.6	0.0089	0.000514	0.00051	0.0211	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-10	735	500	480																			
29-Jan-10	742	500	460	7.67	318	105																
5-Feb-10	749	500	470																			
12-Feb-10	756	500	470	7.61	296	126	<1	4	48.2	85	65	<0.5	<0.02	25.6	0.0104	0.000371	0.00043	0.016	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-10	763	500	470																			
26-Feb-10	770	500	480	7.55	283	123																
5-Mar-10	777	500	470																			
12-Mar-10	784	500	470	7.56	372	123	<1	4.86	43.7	80	62.8	<0.5	<0.02	28.2	0.0126	0.000334	0.00042	0.0161	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-10	791	500	470																			
26-Mar-10	798	500	450	7.6	346	146																
2-Apr-10	805	500	485																			
9-Apr-10	812	500	455	7.58	321	122	<1	4.19	44.9	73	61.6	<0.5	<0.02	24	0.0143	0.000342	0.0004	0.0166	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-10	819	500	435																			
23-Apr-10	826	500	470	7.57	284	140																
30-Apr-10	833	500	470																			
7-May-10	840	500	465	7.59	313	134	<1	6.17	50.3	106	73.3	<0.5	<0.02	28.6	0.0107	0.000363	0.00041	0.0164	<0.0002	<0.0005	<0.01	<0.00005
14-May-10	847	500	470																			
21-May-10	854	500	445	7.62	345	137																
28-May-10	861	500	430																			
4-Jun-10	868	500	430	7.6	315	147	<1	5.25	48.8	95	75.5	<0.5	<0.02	33.4	0.0144	0.000444	0.00058	0.0185	<0.0002	<0.0005	0.013	<0.00005
11-Jun-10	875	500	435																			
18-Jun-10	882	500	450	7.68	321	144																
25-Jun-10	889	500	455																			
2-Jul-10	896	500	455	7.75	370	136	<1	3.41	49.2	85	72	<0.5	<0.02	30.8	0.0143	0.000357	0.00052	0.0179	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-10	903	500	445																			
16-Jul-10	910	500	430	7.64	308	139																
23-Jul-10	917	500	470																			
30-Jul-10	924	500	470	7.56	322	140	<1	4.03	42.6	93	70.9	<0.5	<0.02	35.5	0.0125	0.000345	0.00056	0.0169	<0.0002	<0.0005	0.015	<0.00005
6-Aug-10	931	500	470																			
13-Aug-10	938	500	425	7.68	368	151																
20-Aug-10	945	500	465																			
27-Aug-10	952	500	470	7.71	384	138	<1	3.37	44.3	89	68.5	<0.5	<0.02	35.6	0.0128	0.000347	0.00049	0.0165	<0.0002	<0.0005	0.01	<0.00005
3-Sep-10	959	500	425																			
10-Sep-10	966	500	480	7.59	345	153																
17-Sep-10	973	500	480																			
24-Sep-10	980	500	475	7.64	310	122	<1	3.78	48.5	96	76.2	<0.5	<0.02	35	0.0128	0.000369	0.00047	0.017	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-10	987	500	470																			
8-Oct-10	994	500	460	7.68	314	147																
15-Oct-10	1001	500	475																			
22-Oct-10	1008	500	470	7.66	365	143	<1	4.23	50.7	94	71.1	<0.5	<0.02	31.6	0.0116	0.000387	0.00048	0.0165	<0.0002	<0.0005	0.01	<0.00005
29-Oct-10	1015	500	465																			
5-Nov-10	1022	500	475	7.89	342	138																
12-Nov-10	1029	500	440																			
19-Nov-10	1036	500	445	7.81	320	178	<1	5.05	70.3	105	90.9	<0.5	<0.02	31.3	0.0091	0.000389	0.00055	0.0204	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-10	1043	500	415																			
3-Dec-10	1050	500	460	7.66	319	136																
10-Dec-10	1057	500	485																			
17-Dec-10	1064	500	460	7.72	322	163	<1	6.45	66.2	104	86.8	<0.5	<0.02	32.3	0.0074	0.000455	0.0005	0.0216	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-10	1071	500	470																			
31-Dec-10	1078	500	470	7.67	314	124																
7-Jan-11	1085	500	465																			
14-Jan-11	1092	500	465	7.8	335	113	<1	3.42	56.3	89	75.1	<0.5	<0.02	29.2	0.009	0.000377	0.00044	0.0182	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-11	1099	500	460																			
28-Jan-11	1106	500	440	7.66	289	119																
4-Feb-11	1113	500	445																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Dec-09	700	24.6	<0.0005	<0.0001	0.00042	<0.03	<0.00005	4.22	0.000471	<0.00001	0.00729	<0.0005	0.461	<0.001	0.668	<0.00001	<2	<0.00005	0.00092	<0.0005	<0.001
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	32	<0.0005	<0.0001	0.00075	<0.03	<0.00005	4.05	0.00028	<0.00001	0.007	<0.0005	0.459	<0.001	0.691	<0.00001	<2	<0.00005	0.00141	<0.0005	<0.001
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	21	<0.0005	<0.0001	0.00055	<0.03	<0.00005	3.06	0.000591	<0.00001	0.00477	<0.0005	0.356	<0.001	0.547	<0.00001	<2	<0.00005	0.00204	<0.0005	<0.001
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	20	<0.0005	<0.0001	0.0005	<0.03	<0.00005	3.13	0.000569	<0.00001	0.00475	<0.0005	0.33	<0.001	0.462	<0.00001	<2	<0.00005	0.00232	<0.0005	<0.001
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	19.6	<0.0005	<0.0001	0.00041	<0.03	<0.00005	3.06	0.000621	<0.00001	0.00542	<0.0005	0.359	<0.001	0.524	<0.00001	<2	<0.00005	0.00196	<0.0005	<0.001
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	24.1	<0.0005	<0.0001	0.00032	<0.03	<0.00005	3.18	0.000584	<0.00001	0.0059	<0.0005	0.401	<0.001	0.613	<0.00001	<2	<0.00005	0.00163	<0.0005	<0.001
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	24	0.00071	<0.0001	0.0006	<0.03	<0.00005	3.75	0.000929	<0.00001	0.00675	<0.0005	0.627	<0.001	0.669	<0.00001	<2	<0.00005	0.00133	<0.0005	<0.001
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	23.1	<0.0005	<0.0001	0.00037	<0.03	<0.00005	3.48	0.00121	<0.00001	0.00679	<0.0005	0.519	<0.001	0.624	<0.00001	<2	<0.00005	0.00125	<0.0005	<0.001
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	22.7	<0.0005	<0.0001	0.00026	<0.03	<0.00005	3.46	0.000568	<0.00001	0.00643	<0.0005	0.503	<0.001	0.623	<0.00001	<2	<0.00005	0.00154	<0.0005	<0.001
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	22.3	<0.0005	<0.0001	0.0003	<0.03	<0.00005	3.07	0.000462	<0.00001	0.00576	<0.0005	0.421	<0.001	0.585	<0.00001	<2	<0.00005	0.00132	<0.0005	<0.001
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	24.2	<0.0005	<0.0001	0.00098	<0.03	<0.00005	3.84	0.00124	<0.00001	0.00597	<0.0005	0.474	<0.001	0.637	<0.00001	<2	<0.00005	0.00123	<0.0005	<0.001
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	23.2	0.0007	<0.0001	0.00061	<0.03	<0.00005	3.22	0.00108		0.00534	<0.0005	0.44	<0.001	0.658	<0.00001	<2	<0.00005	0.00113	<0.0005	<0.001
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	29.7	<0.0005	<0.0001	0.00097	<0.03	<0.00005	4.09	0.000824	<0.00001	0.00695	<0.0005	0.507	<0.001	0.754	<0.00001	<2	<0.00005	0.00039	<0.0005	<0.001
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	28.1	<0.0005	<0.0001	0.00057	<0.03	0.000321	4.03	0.00102	<0.00001	0.00734	<0.0005	0.477	<0.001	0.791	<0.00001	<2	<0.00005	0.00035	<0.0005	0.0014
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	24.6	<0.0005	<0.0001	0.00087	<0.03	<0.00005	3.29	0.00102	<0.00001	0.00568	<0.0005	0.397	<0.001	0.684	<0.00001	<2	<0.00005	0.00067	<0.0005	
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
11-Feb-11	1120	500	465	7.64	320	141	<1	4.75	44	81	64.9	<0.5	<0.02	29.4	0.0095	0.00032	0.00043	0.0155	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-11	1127	500	455																			
25-Feb-11	1134	500	500	7.73	303	179																
4-Mar-11	1141	500	470																			
11-Mar-11	1148	500	465	7.58	287	117	<1	5.68	38.4	69	52.4	<0.5	<0.02	23.2	0.012	0.000292	0.00043	0.0138	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-11	1155	500	465																			
25-Mar-11	1162	500	480	7.78	288	152																
1-Apr-11	1169	500	475																			
8-Apr-11	1176	500	485	7.74	281	139	<1	10.32	55.9	80	65.3	<0.5	<0.02	27.4	0.009	0.0003	0.0004	0.0149	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-11	1183	500	485																			
22-Apr-11	1190	500	375	7.72	265	169																
29-Apr-11	1197	500	430																			
6-May-11	1204	500	455	7.64	335	130	<1	4.36	45.2	81	62.5	<0.5	<0.02	25.6	0.013	0.000385	0.00048	0.0146	<0.0002	<0.0005	<0.01	<0.00005
13-May-11	1211	500	435																			
20-May-11	1218	500	440	7.75	233	127																
27-May-11	1225	500	460																			
3-Jun-11	1232	500	465	7.56	281	173	<1	5.18	52.2	112	85.4	<0.5	<0.02	40.4	0.0102	0.00035	0.00046	0.0194	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-11	1239	500	470																			
17-Jun-11	1246	500	460	7.86	306	154																
24-Jun-11	1253	500	465																			
1-Jul-11	1260	500	460	7.86	275	159	<1	5.48	55.4	90	75.7	<0.5	<0.02	35	0.0111	0.00037	0.00043	0.0172	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-11	1267	500	455																			
15-Jul-11	1274	500	470	7.69	281	163																
22-Jul-11	1281	500	465																			
29-Jul-11	1288	500	475	7.72	301	145	<1	5.18	43.1	79	69.5	<0.5	<0.02	33.8	0.0114	0.000326	0.00045	0.0156	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-11	1295	500	455																			
12-Aug-11	1302	500	455	7.83	276	146																
19-Aug-11	1309	500	470																			
26-Aug-11	1316	500	465	7.77	303	142	<1	7.2	41.7	92	67.1	<0.5	<0.1	35.7	0.0114	0.000292	0.0004	0.0153	<0.0002	<0.0005	0.01	<0.00005
2-Sep-11	1323	500	440																			
9-Sep-11	1330	500	460	7.82	283	150																
16-Sep-11	1337	500	470																			
23-Sep-11	1344	500	460	7.66	319	155	<1	5.21	46.9	94	74.3	<0.5	<0.02	36.8	0.0106	0.000335	0.00041	0.0165	<0.0002	<0.0005	0.01	<0.00005
30-Sep-11	1351	500	470																			
7-Oct-11	1358	500	470	7.72	298	174																
14-Oct-11	1365	500	470																			
21-Oct-11	1372	500	455	7.66	287	142	<1	7.62	44.4	86	68.1	<0.5	<0.02	31.1	0.0104	0.000327	0.00046	0.0156	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-11	1379	500	475																			
4-Nov-11	1386	500	475	7.73	302	151																
11-Nov-11	1393	500	455																			
18-Nov-11	1400	500	470	7.62	305	123	<1	5.24	42.1	70	61	<0.5	<0.02	24.2	0.0087	0.00028	0.00037	0.0151	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-11	1407	500	470																			
2-Dec-11	1414	500	460	7.69	318	124																
9-Dec-11	1421	500	465																			
16-Dec-11	1428	500	470	7.76	339	135	<1	7.75	50.8	82	65	<0.5	<0.02	27.6	0.0091	0.000275	0.00038	0.0145	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-11	1435	500	470																			
30-Dec-11	1442	500	465	7.7	293	132																
6-Jan-12	1449	500	470																			
13-Jan-12	1456	500	465	7.7	324	141	<1	6.33	55.2	80	69.2	<0.5	<0.02	29.7	0.0096	0.000297	0.00037	0.015	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-12	1463	500	465																			
27-Jan-12	1470	500	470	7.63	352	109																
3-Feb-12	1477	500	470																			
10-Feb-12	1484	500	470	7.72	365	132	<1	9.11	49.2	77	60	<0.5	<0.02	28.3	0.0091	0.000292	0.00032	0.0136	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-12	1491	500	460																			
24-Feb-12	1498	500	430	7.55	354	129																
2-Mar-12	1505	500	470																			
9-Mar-12	1512	500	465	7.56	334	104	<1	6.07	31.2	63	49.8	<0.5	<0.02	24.2	0.01	0.000222	0.00029	0.0106	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-12	1519	500	455																			
23-Mar-12	1526	500	460	7.68	353	154																
30-Mar-12	1533	500	465																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Feb-11	1120	21.3	<0.0005	<0.0001	0.00093	<0.03	<0.00005	2.88	0.000832	<0.00001	0.00515	<0.0005	0.384	<0.001	0.596	<0.00001	<2	<0.00005	0.00075	<0.0005	<0.001
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	17.3	<0.0005	<0.0001	0.00025	<0.03	<0.00005	2.22	0.000596	<0.00001	0.00394	<0.0005	0.287	<0.001	0.522	<0.00001	<2	<0.00005	0.00096	<0.0005	0.0011
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	21.5	<0.0005	<0.0001	0.00045	<0.03	<0.00005	2.8	0.000563	<0.00001	0.00464	<0.0005	0.342	<0.001	0.6	<0.00001	<2	<0.00005	0.00076	<0.0005	<0.001
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	20.6	<0.0005	<0.0001	0.00064	<0.03	<0.00005	2.66	0.000594	<0.00001	0.00438	<0.0005	0.349	<0.001	0.595	<0.00001	<2	<0.00005	0.00083	<0.0005	<0.001
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	28.3	<0.0005	<0.0001	0.0005	<0.03	<0.00005	3.59	0.000531	<0.00001	0.00508	<0.0005	0.404	<0.001	0.725	<0.00001	<2	<0.00005	0.00029	<0.0005	<0.001
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	24.9	<0.0005	<0.0001	0.00038	<0.03	<0.00005	3.27	0.00055	<0.00001	0.00579	<0.0005	0.412	<0.001	0.763	<0.00001	<2	<0.00005	0.00026	<0.0005	<0.001
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	22.9	<0.0005	<0.0001	0.00038	<0.03	<0.00005	3.01	0.000526	<0.00001	0.00515	<0.0005	0.395	<0.001	0.646	<0.00001	<2	<0.00005	0.00062	<0.0005	<0.001
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	22.2	<0.0005	<0.0001	0.00066	<0.03	<0.00005	2.84	0.000987	<0.00001	0.00427	<0.0005	0.343	<0.001	0.613	<0.00001	<2	<0.00005	0.00082	<0.0005	<0.001
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	24.9	<0.0005	<0.0001	0.00124	<0.03	<0.00005	2.92	0.000896	<0.00001	0.00556	<0.0005	0.382	<0.001	0.718	<0.00001	<2	<0.00005	0.00076	<0.0005	0.0015
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	23	<0.0005	<0.0001	0.00225	<0.03	0.000079	2.61	0.000708	<0.00001	0.00456	<0.0005	0.383	<0.001	0.682	<0.00001	<2	<0.00005	0.00083	<0.0005	0.0022
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	20.5	<0.0005	<0.0001	0.00054	<0.03	<0.00005	2.4	0.000395	<0.00001	0.00334	<0.0005	0.339	<0.001	0.624	<0.00001	<2	<0.00005	0.00118	<0.0005	<0.001
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	22	<0.0005	<0.0001	0.00024	<0.03	<0.00005	2.47	0.000719	<0.00001	0.00324	<0.0005	0.356	<0.001	0.639	<0.00001	<2	<0.00005	0.00097	<0.0005	<0.001
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	23.2	0.00064	<0.0001	0.0006	<0.03	<0.00005	2.72	0.000476	<0.00001	0.00339	<0.0005	0.334	<0.001	0.666	<0.00001	<2	<0.00005	0.00106	<0.0005	<0.001
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	20.4	<0.0005	<0.0001	0.00048	<0.03	<0.00005	2.23	0.000559	<0.00001	0.00287	<0.0005	0.307	<0.001	0.579	<0.00001	<2	<0.00005	0.00118	<0.0005	<0.001
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	16.9	<0.0005	<0.0001	0.00049	<0.03	<0.00005	1.87	0.000356	<0.00001	0.00239	<0.0005	0.248	<0.001	0.47	<0.00001	<2	<0.00005	0.00114	<0.0005	<0.001
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
6-Apr-12	1540	500	475	7.67	372	139	<1	4.85	46	80	68.5	<0.5	<0.02	28.6	0.0104	0.000312	0.00041	0.0139	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-12	1547	500	460																			
20-Apr-12	1554	500	460	7.78	353	156																
27-Apr-12	1561	500	460																			
4-May-12	1568	500	455	7.64	386	138	<1	10.19	45.4	77	66.1	<0.5	<0.02	29.2	0.0091	0.000296	0.00037	0.0139	<0.0002	<0.0005	<0.01	<0.00005
11-May-12	1575	500	465																			
18-May-12	1582	500	460	7.64	317	127																
25-May-12	1589	500	460																			
1-Jun-12	1596	500	460	7.55	337	135	<1	6.73	36.5	50	61.6	<0.5	<0.02	18.1	0.0107	0.000269	0.00031	0.0121	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-12	1603	500	435																			
15-Jun-12	1610	500	485	7.62	376	170																
22-Jun-12	1617	500	465																			
29-Jun-12	1624	500	435	7.6	355	144	<1	8.27	40.7	89	67.7	<0.5	<0.02	34.7	0.0094	0.000238	0.00035	0.0136	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-12	1631	500	470																			
13-Jul-12	1638	500	460	7.63	380	132																
20-Jul-12	1645	500	460																			
27-Jul-12	1652	500	450	7.72	326	156	<1	8.75	48.7	97	70.3	<0.5	<0.02	35.5	0.0097	0.00029	0.00036	0.015	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-12	1659	500	450																			
10-Aug-12	1666	500	440	7.68	370	152																
17-Aug-12	1673	500	450																			
24-Aug-12	1680	500	455	7.64	330	163	<1	8.52	49.9	100	79.8	<0.5	<0.02	38.4	0.0083	0.000303	0.00039	0.0166	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-12	1687	500	460																			
7-Sep-12	1694	500	450	7.57	416	144																
14-Sep-12	1701	500	450																			
21-Sep-12	1708	500	450	7.64	385	146	<1	6.69	47.9	90	70.6	<0.5	<0.02	32.9	0.0094	0.000283	0.00039	0.0153	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-12	1715	500	455																			
5-Oct-12	1722	500	450	7.69	382	137																
12-Oct-12	1729	500	470																			
19-Oct-12	1736	500	460	7.63	392	132	<1	7.54	47.3	87	61.4	<0.5	<0.02	27.6	0.0089	0.000249	0.00033	0.0135	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-12	1743	500	455																			
2-Nov-12	1750	500	440	7.64	384	129																
9-Nov-12	1757	500	455																			
16-Nov-12	1764	500	460	7.68	370	126	<1	3.82	43.6	78	59.9	<0.5	<0.02	26.3	0.0095	0.000229	0.00032	0.0117	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-12	1771	500	250																			
30-Nov-12	1778	500	440	7.6	383	153																
7-Dec-12	1785	500	490																			
14-Dec-12	1792	500	485	7.91	328	163	<1	10.19	63.2	96	76.4	<0.5	<0.02	29.1	0.0088	0.000349	0.00044	0.0161	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-12	1799	500	425																			
28-Dec-12	1806	500	445	7.95	330	165																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	295	7.66	417	2522	<1	8.93	81.6	1820	869	6.5	0.41	1190	0.0073	0.00214	0.00251	0.0184	<0.001	<0.0025	0.182	<0.00035
25-Jan-08	7	500	485	7.85	453	897																
1-Feb-08	14	500	500	7.94	428	345	<1	4.65	72.8	219	103	<0.5	0.739	102	0.0206	0.00171	0.00652	0.0104	<0.0002	<0.0005	0.112	<0.00005
8-Feb-08	21	500	460	7.99	421	353																
15-Feb-08	28	500	395	8.01	419	235	<1	3.36	72.4	137	79.6	<0.5	0.559	51.2	0.0124	0.00153	0.00506	0.00933	<0.0002	<0.0005	0.065	<0.00005
22-Feb-08	35	500	480	8.06	408	218																
29-Feb-08	42	500	480	8.06	402	232	<1	4.43	84.7	142	89.5	<0.5	0.699	41.2	0.0125	0.00233	0.00655	0.0108	<0.0002	<0.0005	0.067	<0.00005
7-Mar-08	49	500	470	8.02	411	211																
14-Mar-08	56	500	470	8.03	405	208	<1	3.51	79.5	117	89.3	<0.5	0.661	34	0.0102	0.00232	0.00717	0.0115	<0.0002	<0.0005	0.042	<0.00005
21-Mar-08	63	500	470	7.99	424	171																
28-Mar-08	70	500	485	7.87	412	197	<1	4.39	74.1	94	86	<0.5	0.632	34.7	0.011	0.00217	0.00691	0.0101	<0.0002	<0.0005	0.032	<0.00005
4-Apr-08	77	500	465	8.08	414	192																
11-Apr-08	84	500	470	7.82	392	188	<1	3.21	61	89	79	<0.5	0.55	30.3	0.0135	0.00205	0.00754	0.00876	<0.0002	<0.0005	0.024	<0.00005
18-Apr-08	91	500	455	8.07	401	192																
25-Apr-08	98	500	480	8.06	374	180	<1	1.91	68.2	105	84.2	<0.5	0.508	29.6	0.0101	0.0023	0.00713	0.00996	<0.0002	<0.0005	0.019	<0.00005
2-May-08	105	500	485	8.05	396	188																
9-May-08	112	500	470	8.11	354	200	<1	2.69	72.5	114	103	<0.5	0.447	32.8	0.0101	0.0024	0.00729	0.0113	<0.0002	<0.0005	0.02	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
6-Apr-12	1540	23.1	<0.0005	<0.0001	0.00044	<0.03	<0.00005	2.6	0.000521	<0.00001	0.00368	<0.0005	0.362	<0.001	0.704	<0.00001	<2	<0.00005	0.00069	<0.0005	<0.001
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	22.6	<0.0005	<0.0001	0.00045	<0.03	0.000096	2.36	0.000833	<0.00001	0.00329	<0.0005	0.328	<0.001	0.644	<0.00001	<2	<0.00005	0.00071	<0.0005	<0.001
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	21	<0.0005	<0.0001	0.00071	<0.03	<0.00005	2.25	0.000742	<0.00001	0.00301	<0.0005	0.298	<0.001	0.607	<0.00001	<2	<0.00005	0.00096	<0.0005	<0.001
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	23.6	<0.0005	<0.0001	0.00035	<0.03	<0.00005	2.15	0.000625	<0.00001	0.0031	<0.0005	0.296	<0.001	0.598	<0.00001	<2	<0.00005	0.00114	<0.0005	<0.001
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	24.3	<0.0005	<0.0001	0.00036	<0.03	<0.00005	2.33	0.000433	<0.00001	0.00329	<0.0005	0.351	<0.001	0.668	<0.00001	<2	<0.00005	0.00097	<0.0005	<0.001
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	27.6	<0.0005	<0.0001	0.00024	<0.03	<0.00005	2.66	0.000249	<0.00001	0.00374	<0.0005	0.363	<0.001	0.759	<0.00001	<2	<0.00005	0.00071	<0.0005	<0.001
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	24.5	<0.0005	<0.0001	0.00034	<0.03	<0.00005	2.32	0.000242	<0.00001	0.00361	<0.0005	0.346	<0.001	0.7	<0.00001	<2	<0.00005	0.00082	<0.0005	<0.001
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	21.2	0.0016	<0.0001	0.00026	<0.03	0.000109	2.06	0.00024	<0.00001	0.00301	<0.0005	0.311	<0.001	0.65	<0.00001	<2	<0.00005	0.00074	<0.0005	0.0012
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	20.7	<0.0005	<0.0001	0.00066	<0.03	<0.00005	1.99	0.000249	<0.00001	0.00311	<0.0005	0.303	<0.001	0.612	<0.00001	<2	<0.00005	0.00066	<0.0005	0.001
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	26.5	<0.0005	<0.0001	0.00032	<0.03	<0.00005	2.5	0.000267	<0.00001	0.00462	<0.0005	0.367	<0.001	0.847	<0.00001	<2	<0.00005	0.00047	<0.0005	0.0011
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	218	<0.0025	0.00574	0.0312	<0.03	<0.00025	78.6	0.538	0.00004	0.12	0.0048	14.9	0.15	2.27	0.000294	161	0.00037	<0.0005	<0.0025	0.0185
25-Jan-08	7																				
1-Feb-08	14	26.7	<0.0005	0.00039	0.0068	<0.03	<0.00005	8.83	0.0546	<0.00001	0.117	0.00056	5.77	0.0158	1.74	<0.00001	30.1	0.0001	0.00027	0.00055	<0.001
8-Feb-08	21																				
15-Feb-08	28	20.7	<0.0005	0.00028	0.00654	<0.03	<0.00005	6.8	0.0412	<0.00001	0.1	<0.0005	4.67	0.008	1.45	<0.00001	16.3	0.000077	0.00024	<0.0005	<0.001
22-Feb-08	35																				
29-Feb-08	42	24.6	<0.0005	0.00027	0.018	<0.03	<0.00005	6.79	0.0414	<0.00001	0.125	0.00057	5.44	0.0078	1.81	<0.00001	12.6	0.000081	<0.0001	0.00053	0.0023
7-Mar-08	49																				
14-Mar-08	56	23.2	<0.0005	0.00021	0.00619	<0.03	<0.00005	7.63	0.037	<0.00001	0.106	<0.0005	4.98	0.0071	1.71	<0.00001	7.1	0.000085	<0.0001	<0.0005	<0.001
21-Mar-08	63																				
28-Mar-08	70	22.6	<0.0005	0.00016	0.00539	<0.03	<0.00005	7.19	0.0313	<0.00001	0.0848	<0.0005	4.33	0.0066	1.69	<0.00001	3.6	0.000076	<0.0001	0.00051	<0.001
4-Apr-08	77																				
11-Apr-08	84	20.5	<0.0005	0.00013	0.00498	<0.03	0.000052	6.77	0.0259	<0.00001	0.069	<0.0005	4.43	0.0061	1.56	<0.00001	<2	0.000074	0.00011	0.00057	0.0048
18-Apr-08	91																				
25-Apr-08	98	22	<0.0005	0.00015	0.00503	<0.03	0.000052	7.1	0.033	<0.00001	0.0661	<0.0005	4.16	0.0056	1.68	<0.00001	<2	0.000072	<0.0001	0.00057	<0.001
2-May-08	105																				
9-May-08	112	25.4	<0.0005	0.00017	0.00421	<0.03	0.000065	9.65	0.0379	<0.00001	0.0636	<0.0005	4.7	0.0068	1.75	<0.00001	<2	0.000083	<0.0001	0.00057	0.002

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-May-08	119	500	450	8.13	366	191																
23-May-08	126	500	455	8.04	376	190	<1	2.81	57.3	122	85.6	<0.5	0.467	38.2	0.0174	0.0021	0.0072	0.0095	<0.0002	<0.0005	0.018	<0.00005
30-May-08	133	500	455	7.62	382	175																
6-Jun-08	140	500	390	7.93	398	146	<1	2.75	41.6	112	76.9	<0.5	0.481	41.8	0.0434	0.0025	0.0104	0.00911	<0.0002	<0.0005	0.013	<0.00005
13-Jun-08	147	500	420	8.02	384	144																
20-Jun-08	154	500	450	8.05	345	148	<1	3.71	56.3	121	87.3	<0.5	0.329	42.5	0.0133	0.00211	0.00775	0.00986	<0.0002	<0.0005	0.012	<0.00005
27-Jun-08	161	500	430	7.96	357	175																
4-Jul-08	168	500	420	7.88	367	173	<1	3.42	35.2	110	74.2	<0.5	0.315	41.3	0.0196	0.00186	0.00951	0.00822	<0.0002	<0.0005	0.011	<0.00005
11-Jul-08	175	500	435	7.99	410	191																
18-Jul-08	182	500	435	7.94	387	181	<1	2.76	43.8	105	79.5	<0.5	0.276	40.5	0.0144	0.00198	0.00926	0.00875	<0.0002	<0.0005	0.011	<0.00005
25-Jul-08	189	500	390	7.92	400	191																
1-Aug-08	196	500	435	7.94	394	192	<1	2.58	51	123	82.1	<0.5	0.27	43.6	0.0122	0.00199	0.00852	0.00933	<0.0002	<0.0005	0.01	<0.00005
8-Aug-08	203	500	455	7.98	383	168																
15-Aug-08	210	500	440	7.91	363	178	<1	3.26	47.3	94.8	73.9	<0.5	0.232	36.7	0.0128	0.00189	0.00831	0.00852	<0.0002	<0.0005	<0.01	<0.00005
22-Aug-08	217	500	440	7.88	333	174																
29-Aug-08	224	500	435	7.95	338	177	<1	2.88	55	103	78	<0.5	0.235	38.7	0.0122	0.00198	0.00816	0.00839	<0.0002	<0.0005	<0.01	<0.00005
5-Sep-08	231	500	450	7.99	343	181																
12-Sep-08	238	500	435	7.9	313	182	<1	3.27	54.8	103	85.7	<0.5	0.19	38.8	0.019	0.002	0.00826	0.0104	<0.0002	<0.0005	<0.01	<0.00005
19-Sep-08	245	500	425	7.94	313	177																
26-Sep-08	252	500	445	7.93	309	168	<1	3.16	47.1	104	73.3	<0.5	0.158	34.7	0.0156	0.00176	0.00763	0.00893	<0.0002	<0.0005	<0.01	0.000087
3-Oct-08	259	500	445	7.93	412	166																
10-Oct-08	266	500	440	7.84	386	155	<1	3.07	42.7	88	68.2	<0.5	0.183	33.2	0.0138	0.00152	0.0073	0.00736	<0.0002	<0.0005	<0.01	<0.00005
17-Oct-08	273	500	425	8	404	172																
24-Oct-08	280	500	435	7.97	419	163	<1	2.66	51	86	79.4	<0.5	0.166	34.7	0.0114	0.00174	0.00668	0.00906	<0.0002	<0.0005	<0.01	<0.00005
31-Oct-08	287	500	435	7.94	436	161																
7-Nov-08	294	500	435	7.85	426	151	<1	3.2	48.5	90.6	69.3	<0.5	0.154	31.5	0.0111	0.00156	0.00671	0.00716	<0.0002	<0.0005	<0.01	<0.00005
14-Nov-08	301	500	435	7.87	429	141																
21-Nov-08	308	500	440	7.96	341	177	<1	1.77	53.8	104	79	<0.5	0.15	35.1	0.0107	0.00185	0.00659	0.0095	<0.0002	<0.0005	<0.01	<0.00005
28-Nov-08	315	500	450	7.72	330	141																
5-Dec-08	322	500	390	7.82	369	140	<1	2.69	46.3	75.6	62.4	<0.5	0.135	31.7	0.0216	0.0017	0.00723	0.00694	<0.0002	<0.0005	<0.01	<0.00005
12-Dec-08	329	500	435	7.83	358	127																
19-Dec-08	336	500	450	7.7	361	139	<1	3.98	39.6	81.3	62.8	<0.5	0.095	37.7	0.0156	0.00101	0.00391	0.00872	<0.0002	<0.0005	<0.01	<0.00005
26-Dec-08	343	500	475	7.8	353	101																
2-Jan-09	350	500	455	7.87	343	144	<1	11.28	46.9	60	68.3	<0.5	0.083	37.8	0.0114	0.0013	0.00603	0.00779	<0.0002	<0.0005	<0.01	<0.00005
9-Jan-09	357	500	435	7.82	367	156																
16-Jan-09	364	500	470	7.8	392	159	<1	6.4	54.7	96.8	77.7	<0.5	0.083	36.6	0.0099	0.00159	0.00542	0.00876	<0.0002	<0.0005	<0.01	<0.00005
23-Jan-09	371	500	450	7.91	378	162																
30-Jan-09	378	500	490	7.86	392	195	<1	9.85	82.6	118	94.1	<0.5	0.092	36	0.0061	0.00168	0.0047	0.0105	<0.0002	<0.0005	<0.01	<0.00005
6-Feb-09	385	500	455	7.75	371	188																
13-Feb-09	392	500	450	7.84	387	156	<1	2.85	55.6	90.1	79.2	<0.5	0.098	32.9	0.0107	0.00176	0.006	0.00876	<0.0002	<0.0005	<0.01	0.000204
20-Feb-09	399	500	450	7.94	348	165																
27-Feb-09	406	500	450	7.95	363	166	<1	6.8	67.7	103	85	<0.5	0.082	33.5	0.0086	0.00171	0.00545	0.00846	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-09	413	500	470	7.79	304	149																
13-Mar-09	420	500	460	7.7	332	152	<1	3.44	62.7	77	76.7	<0.5	0.091	27.6	0.0073	0.00166	0.00567	0.00846	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-09	427	500	450	7.79	352	133																
27-Mar-09	434	500	440	7.77	351	149	<1	4.45	54.3	83.8	69.5	<0.5	0.075	29.9	0.0087	0.00148	0.00534	0.00773	<0.0002	<0.0005	<0.01	<0.00005
3-Apr-09	441	500	445	7.82	360	158																
10-Apr-09	448	500	450	7.74	375	146	<1	3.58	52.8	85	71.5	<0.5	0.053	30	0.0095	0.00146	0.00521	0.00801	<0.0002	<0.0005	0.011	<0.00005
17-Apr-09	455	500	445	7.8	380	155																
24-Apr-09	462	500	440	7.78	373	149																
1-May-09	469	500	450																			
8-May-09	476	500	445	7.73	362	148	<1	3.17	51	92.5	74.4	<0.5	0.093	31.2	0.0093	0.00139	0.00518	0.00737	<0.0002	<0.0005	<0.01	<0.00005
15-May-09	483	500	430																			
22-May-09	490	500	465	7.76	371	159																
29-May-09	497	500	460																			
5-Jun-09	504	500	480	7.67	381	118	<1	3.35	42	77.1	65.8	<0.5	0.071	35.9	0.0131	0.00135	0.00584	0.00758	<0.0002	<0.0005	0.021	0.000138
12-Jun-09	511	500	440																			
19-Jun-09	518	500	445	7.74	386	145																
26-Jun-09	525	500	485																			
3-Jul-09	532	500	450	7.81		154	<1	2.52	52.1	95.5	71.2	<0.5	0.042	34.5	0.0098	0.00113	0.00491	0.00782	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-May-08	119																				
23-May-08	126	22.4	<0.0005	0.00013	0.00408	<0.03	0.000053	7.19	0.0268	<0.00001	0.0498	<0.0005	3.96	0.0065	1.68	<0.00001	<2	0.000069	<0.0001	0.00068	<0.001
30-May-08	133																				
6-Jun-08	140	19.2	<0.0005	<0.0001	0.00715	<0.03	0.000085	7	0.0181	<0.00001	0.0566	<0.0005	4.06	0.0076	1.66	<0.00001	<2	0.000063	<0.0001	0.00085	0.0026
13-Jun-08	147																				
20-Jun-08	154	23.1	<0.0005	0.00011	0.00332	<0.03	0.000059	7.19	0.0289	<0.00001	0.0416	<0.0005	4	0.0072	1.66	<0.00001	<2	0.000065	<0.0001	0.00069	0.0013
27-Jun-08	161																				
4-Jul-08	168	19.4	<0.0005	<0.0001	0.00333	<0.03	<0.00005	6.27	0.0208	<0.00001	0.0379	<0.0005	3.71	0.0073	1.5	<0.00001	<2	0.000063	0.00024	0.00085	<0.001
11-Jul-08	175																				
18-Jul-08	182	20.7	<0.0005	<0.0001	0.00345	<0.03	<0.00005	6.76	0.0194	<0.00001	0.0385	<0.0005	3.83	0.0065	1.54	<0.00001	<2	0.000062	0.00012	0.00073	0.0011
25-Jul-08	189																				
1-Aug-08	196	21.3	<0.0005	<0.0001	0.00297	<0.03	<0.00005	7.01	0.0214	<0.00001	0.0385	<0.0005	3.56	0.0064	1.57	<0.00001	<2	0.000065	<0.0001	0.00073	<0.001
8-Aug-08	203																				
15-Aug-08	210	19.2	<0.0005	<0.0001	0.0023	<0.03	0.000114	6.27	0.0199	<0.00001	0.0315	<0.0005	3.28	0.0057	1.51	<0.00001	<2	0.000058	0.00011	0.00073	<0.001
22-Aug-08	217																				
29-Aug-08	224	20	0.00157	<0.0001	0.00229	<0.03	<0.00005	6.84	0.0171	<0.00001	0.0317	<0.0005	3.19	0.0052	1.57	<0.00001	<2	0.000063	0.00012	0.00073	<0.001
5-Sep-08	231																				
12-Sep-08	238	21.9	<0.0005	<0.0001	0.00251	<0.03	0.000101	7.55	0.0199	<0.00001	0.0305	<0.0005	3.4	0.0061	1.73	<0.00001	<2	0.000063	<0.0001	0.00082	0.0018
19-Sep-08	245																				
26-Sep-08	252	18.7	<0.0005	<0.0001	0.0018	<0.03	<0.00005	6.48	0.0154	<0.00001	0.0257	<0.0005	3.14	0.0051	1.55	<0.00001	<2	0.000058	0.00045	0.00074	0.0011
3-Oct-08	259																				
10-Oct-08	266	18.1	<0.0005	<0.0001	0.00197	<0.03	<0.00005	5.56	0.0104	<0.00001	0.0221	<0.0005	2.82	0.0048	1.4	<0.00001	<2	0.00005	0.00058	0.00067	<0.001
17-Oct-08	273																				
24-Oct-08	280	20.7	<0.0005	<0.0001	0.00267	<0.03	<0.00005	6.75	0.0178	<0.00001	0.0258	0.00069	3.04	0.0046	1.5	<0.00001	<2	0.000061	0.00023	0.00067	<0.001
31-Oct-08	287																				
7-Nov-08	294	18.4	<0.0005	<0.0001	0.0027	<0.03	0.000087	5.68	0.0111	<0.00001	0.0211	<0.0005	2.92	0.0042	1.45	<0.00001	<2	0.000053	0.00047	0.00063	<0.001
14-Nov-08	301																				
21-Nov-08	308	21.4	<0.0005	<0.0001	0.00295	<0.03	<0.00005	6.3	0.02	<0.00001	0.0244	<0.0005	2.98	0.0047	1.55	<0.00001	<2	0.000055	0.00014	0.00065	<0.001
28-Nov-08	315																				
5-Dec-08	322	15.9	<0.0005	<0.0001	0.00288	<0.03		5.48	0.00812	<0.00001	0.0231	<0.0005	2.94	0.0036	1.38	0.000014	<2	0.000054	0.00068	0.00083	<0.001
12-Dec-08	329																				
19-Dec-08	336	18.1	<0.0005	<0.0001	0.0052	<0.03	<0.00005	4.3	0.0104	<0.00001	0.0139	<0.0005	2.31	0.0032	1.02	<0.00001	<2	<0.00005		<0.0005	<0.001
26-Dec-08	343																				
2-Jan-09	350	18	<0.0005	<0.0001	0.0024	<0.03	<0.00005	5.66	0.0125	<0.00001	0.0167	<0.0005	2.44	0.0039	1.13	<0.00001	<2	<0.00005	0.00094	0.00056	<0.001
9-Jan-09	357																				
16-Jan-09	364	19.8	<0.0005	<0.0001	0.00468	<0.03	<0.00005	6.86	0.0246	<0.00001	0.0194	<0.0005	2.74	0.0035	1.38	<0.00001	<2	0.000055	0.00021	0.00054	<0.001
23-Jan-09	371																				
30-Jan-09	378	24.3	<0.0005	<0.0001	0.00334	<0.03	<0.00005	8.08	0.0162	<0.00001	0.0198	<0.0005	2.81	0.0035	1.55	<0.00001	<2	0.000061	0.00023	<0.0005	<0.001
6-Feb-09	385																				
13-Feb-09	392	19.8	<0.0005	<0.0001	0.00475	<0.03	0.000119	7.22	0.0115	<0.00001	0.0203	<0.0005	2.68	0.0038	1.44	<0.00001	<2	0.000061	0.00034	0.00055	0.0046
20-Feb-09	399																				
27-Feb-09	406	21.5	<0.0005	<0.0001	0.0024	<0.03	<0.00005	7.58	0.00634	<0.00001	0.0228	<0.0005	2.63	0.0039	1.41	<0.00001	<2	0.000052	0.00011	0.00052	<0.001
6-Mar-09	413																				
13-Mar-09	420	20	<0.0005	<0.0001	0.00246	<0.03	<0.00005	6.5	0.0037	<0.00001	0.0211	<0.0005	2.7	0.0034	1.43	<0.00001	<2	0.000055	0.0002	0.00055	<0.001
20-Mar-09	427																				
27-Mar-09	434	18.7	<0.0005	<0.0001	0.00185	<0.03	<0.00005	5.54	0.00423	<0.00001	0.0197	<0.0005	2.45	0.0032	1.27	<0.00001	<2	0.000053	0.00036	0.00051	<0.001
3-Apr-09	441																				
10-Apr-09	448	18.3	<0.0005	<0.0001	0.00216	<0.03	<0.00005	6.26	0.0039	<0.00001	0.0195	<0.0005	2.51	0.0035	1.31	<0.00001	<2	0.000054	0.00034	0.00055	<0.001
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	18.2	<0.0005	<0.0001	0.00197	<0.03	<0.00005	7.04	0.00236	<0.00001	0.0212	<0.0005	2.47	0.0032	1.27	<0.00001	<2	<0.00005	0.00023	0.00056	<0.001
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	16.9	<0.0005	<0.0001	0.00196	<0.03		5.72	0.00212	<0.00001	0.0253	<0.0005	2.37	0.0038	1.22	<0.00001	<2	0.000055	0.00064	0.00063	<0.001
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	19.4	<0.0005	<0.0001	0.00216	<0.03	<0.00005	5.52	0.000778	<0.00001	0.0234	<0.0005	2.1	0.0029	1.17	<0.00001	<2	<0.00005	0.00108	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Jul-09	539	500	480																			
17-Jul-09	546	500	465	7.73	364	128																
24-Jul-09	553	500	475																			
31-Jul-09	560	500	415	7.72	366	151	<1	3.13	51.2	92.3	75	<0.5	0.087	37.3	0.0129	0.00118	0.00498	0.00812	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-09	567	500	445																			
14-Aug-09	574	500	480	7.6	331	136																
21-Aug-09	581	500	465																			
28-Aug-09	588	500	460	7.77	290	141	<1	2.74	55.2	92.8	74	<0.5	<0.02	11.3	0.0171	0.00121	0.00523	0.00775	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-09	595	500	485																			
11-Sep-09	602	500	425	7.83	310	166																
18-Sep-09	609	500	475																			
25-Sep-09	616	500	465	7.89	334	185	<1	3.65	85.1	99	93.7	<0.5	0.067	30.5	0.0082	0.00143	0.00499	0.0122	<0.0002	<0.0005	0.011	<0.00005
2-Oct-09	623	500	495																			
9-Oct-09	630	500	470	7.73	319	168																
16-Oct-09	637	500	460																			
23-Oct-09	644	500	460	7.8	290	163	<1	3.5	68.1	102	85.8	<0.5	0.066	27.6	0.0088	0.00144	0.00528	0.00954	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-09	651	500	435																			
6-Nov-09	658	500	470	7.83	322	168																
13-Nov-09	665	500	465																			
20-Nov-09	672	500	465	7.91	309	170	<1	6.24	73.3	99	77.5	<0.5	0.053	25	0.0073	0.00122	0.00457	0.00852	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-09	679	500	485																			
4-Dec-09	686	500	465	7.71	327	163																
11-Dec-09	693	500	470																			
18-Dec-09	700	500	470	7.62	327	144	<1	5.64	60.4	83	71.8	<0.5	0.048	23.5	0.0087	0.00113	0.00475	0.00826	<0.0002	<0.0005	0.01	<0.00005
25-Dec-09	707	500	460																			
1-Jan-10	714	500	465	7.84	374	150																
8-Jan-10	721	500	470																			
15-Jan-10	728	500	460	7.76	306	161	<1	7.8	57.6	101	81.1	<0.5	0.042	30.5	0.009	0.00115	0.0048	0.0101	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-10	735	500	455																			
29-Jan-10	742	500	465	7.75	326	137																
5-Feb-10	749	500	480																			
12-Feb-10	756	500	470	7.68	312	145	<1	3.73	57.3	90	73.8	<0.5	<0.02	27.2	0.0083	0.001	0.00441	0.00957	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-10	763	500	470																			
26-Feb-10	770	500	475	7.61	305	147																
5-Mar-10	777	500	470																			
12-Mar-10	784	500	475	7.69	379	142	<1	4.58	59.4	85	73.6	<0.5	0.046	25.2	0.0089	0.00101	0.00448	0.0088	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-10	791	500	465																			
26-Mar-10	798	500	450	7.6	355	127																
2-Apr-10	805	500	465																			
9-Apr-10	812	500	450	7.58	334	116	<1	4.2	43	68	57.1	<0.5	0.031	21.5	0.0109	0.000692	0.00417	0.0064	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-10	819	500	435																			
23-Apr-10	826	500	460	7.52	298	131																
30-Apr-10	833	500	470																			
7-May-10	840	500	460	7.6	326	136	<1	5.87	51.4	102	72.7	<0.5	0.031	26.1	0.0106	0.000769	0.00422	0.0104	<0.0002	<0.0005	<0.01	<0.00005
14-May-10	847	500	455																			
21-May-10	854	500	465	7.67	354	138																
28-May-10	861	500	425																			
4-Jun-10	868	500	425	7.63	324	133	<1	4.98	49.4	78	68.1	<0.5	0.036	26.4	0.0162	0.000822	0.00469	0.00767	<0.0002	<0.0005	0.012	<0.00005
11-Jun-10	875	500	425																			
18-Jun-10	882	500	450	7.63	329	117																
25-Jun-10	889	500	465																			
2-Jul-10	896	500	455	7.68	378	124	<1	3.48	42.4	75	64.6	<0.5	0.034	29.1	0.0148	0.000653	0.00432	0.00709	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-10	903	500	450																			
16-Jul-10	910	500	440	7.59	316	120																
23-Jul-10	917	500	475																			
30-Jul-10	924	500	465	7.56	333	128	<1	4.04	43.5	80	64.2	<0.5	0.034	29.7	0.0128	0.000626	0.00381	0.00722	<0.0002	<0.0005	0.011	<0.00005
6-Aug-10	931	500	465																			
13-Aug-10	938	500	465	7.56	370	131																
20-Aug-10	945	500	465																			
27-Aug-10	952	500	475	7.74	384	130	<1	3.07	46	79	64.6	<0.5	0.03	29	0.014	0.000653	0.00409	0.00751	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	19.6	<0.0005	<0.0001	0.00415	<0.03	<0.00005	6.36	0.000762	<0.00001	0.0314	<0.0005	2.4	0.0037	1.34	<0.00001	<2	0.000052	0.00088	0.00056	<0.001
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	18.5	<0.0005	<0.0001	0.00251	<0.03	<0.00005	6.76	0.000752	<0.00001	0.0272	<0.0005	2.38	0.0033	1.3	<0.00001	<2	<0.00005	0.00067	0.00057	<0.001
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	24.5	<0.0005	<0.0001	0.00403	<0.03	<0.00005	7.89	0.000632	<0.00001	0.0343	<0.0005	2.62	0.0034	1.63	<0.00001	<2	0.000061	0.00015	0.00057	<0.001
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	22.1	<0.0005	<0.0001	0.00266	<0.03	<0.00005	7.42	0.000847	<0.00001	0.0323	<0.0005	2.56	0.0035	1.58	<0.00001	<2	0.000057	0.00021	0.00057	<0.001
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	20.3	<0.0005	<0.0001	0.00209	<0.03	<0.00005	6.53	0.00062	<0.00001	0.0261	<0.0005	2.15	0.0026	1.35	<0.00001	<2	0.000052	0.00012	<0.0005	<0.001
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	18.1	<0.0005	<0.0001	0.00235	<0.03	<0.00005	6.05	0.000877	<0.00001	0.0242	<0.0005	2.17	0.0022	1.32	<0.00001	<2	<0.00005	0.00043	<0.0005	<0.001
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	21.6	<0.0005	<0.0001	0.00236	<0.03	<0.00005	6.62	0.000353	<0.00001	0.0298	<0.0005	2.32	0.0031	1.42	<0.00001	<2	0.000057	0.00033	0.00055	<0.001
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	19.5	<0.0005	<0.0001	0.00209	<0.03	<0.00005	6.13	0.000561	<0.00001	0.0271	<0.0005	2.05	0.0026	1.33	<0.00001	<2	0.000052	0.00038	<0.0005	<0.001
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	18.8	<0.0005	<0.0001	0.00205	<0.03	<0.00005	6.44	0.00077	<0.00001	0.0271	<0.0005	2.1	0.0025	1.21	<0.00001	<2	0.000056	0.00055	0.00052	<0.001
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	14.8	<0.0005	<0.0001	0.00152	<0.03	<0.00005	4.92	0.000673	<0.00001	0.0174	<0.0005	1.73	0.002	1.08	<0.00001	<2	<0.00005		0.00051	<0.001
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	20	<0.0005	<0.0001	0.00145	<0.03	<0.00005	5.55	0.000595	<0.00001	0.0207	<0.0005	1.89	0.0025	1.25	<0.00001	<2	0.000054	0.0006	0.00052	<0.001
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	17.2	<0.0005	<0.0001	0.00217	<0.03	<0.00005	6.13	0.000698	<0.00001	0.0229	<0.0005	2.14	0.0024	1.23	<0.00001	<2	<0.00005	0.00053	0.00059	<0.001
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	17.1	<0.0005	<0.0001	0.00156	<0.03	<0.00005	5.3	0.000781	<0.00001	0.0199	<0.0005	1.85	0.0023	1.17	<0.00001	<2	<0.00005	0.00065	0.00054	<0.001
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	16.9	<0.0005	<0.0001	0.00133	<0.03	<0.00005	5.35	0.000783	<0.00001	0.0179	<0.0005	1.84	0.0021	1.17	<0.00001	<2	<0.00005	0.00066	0.00053	<0.001
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	17.2	<0.0005	<0.0001	0.00142	<0.03	<0.00005	5.26	0.000701	<0.00001	0.018	<0.0005	1.83	0.0025	1.17	<0.00001	<2	<0.00005	0.00065	0.00053	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Sep-10	959	500	475																			
10-Sep-10	966	500	465	7.56	356	138																
17-Sep-10	973	500	470																			
24-Sep-10	980	500	470	7.67	316	110	<1	3.87	46.4	80	68.6	<0.5	0.033	27.9	0.0153	0.000674	0.00382	0.00719	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-10	987	500	475																			
8-Oct-10	994	500	480	7.73	320	138																
15-Oct-10	1001	500	465																			
22-Oct-10	1008	500	480	7.64	374	127	<1	3.92	47.6	83	62.4	<0.5	0.036	26.1	0.0141	0.000608	0.00387	0.00686	<0.0002	<0.0005	0.013	<0.00005
29-Oct-10	1015	500	470																			
5-Nov-10	1022	500	475	7.81	353	135																
12-Nov-10	1029	500	445																			
19-Nov-10	1036	500	465	7.95	320	173	<1	4.58	73	96	84.4	<0.5	0.037	27.5	0.0096	0.000759	0.00408	0.00985	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-10	1043	500	460																			
3-Dec-10	1050	500	490	7.71	328	144																
10-Dec-10	1057	500	465																			
17-Dec-10	1064	500	440	7.75	327	161	<1	6.61	71.6	94	85.1	<0.5	0.041	28.2	0.0098	0.000797	0.00366	0.00936	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-10	1071	500	425																			
31-Dec-10	1078	500	480	7.63	327	126																
7-Jan-11	1085	500	480																			
14-Jan-11	1092	500	475	7.85	341	111	<1	3.83	63.3	79	73.1	<0.5	0.029	23.5	0.0099	0.000674	0.0036	0.00828	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-11	1099	500	470																			
28-Jan-11	1106	500	460	7.6	294	97																
4-Feb-11	1113	500	475																			
11-Feb-11	1120	500	455	7.64	327	140	<1	4.95	46.6	76	65.6	<0.5	0.021	28.4	0.0103	0.000493	0.003	0.00849	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-11	1127	500	400																			
25-Feb-11	1134	500	445	7.69	306	142																
4-Mar-11	1141	500	460																			
11-Mar-11	1148	500	475	7.58	293	136	<1	5.36	47.6	73	60.5	<0.5	0.027	25.7	0.0116	0.000473	0.00289	0.00668	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-11	1155	500	485																			
25-Mar-11	1162	500	485	7.8	289	105																
1-Apr-11	1169	500	475																			
8-Apr-11	1176	500	475	7.74	280	124	<1	10.02	47.9	74	57.3	<0.5	0.024	24	0.0131	0.000402	0.00243	0.00652	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-11	1183	500	460																			
22-Apr-11	1190	500	515	7.62	273	107																
29-Apr-11	1197	500	490																			
6-May-11	1204	500	485	7.58	337	115	<1	4.38	40.3	64	54.1	<0.5	0.021	23.7	0.0144	0.000452	0.00255	0.00584	<0.0002	<0.0005	<0.01	<0.00005
13-May-11	1211	500	485																			
20-May-11	1218	500	485	7.65	242	102																
27-May-11	1225	500	485																			
3-Jun-11	1232	500	490	7.48	282	103	<1	4.75	34.9	67	48.5	<0.5	0.023	23	0.018	0.000422	0.00276	0.00538	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-11	1239	500	480																			
17-Jun-11	1246	500	465	7.81	308	107																
24-Jun-11	1253	500	475																			
1-Jul-11	1260	500	465	7.86	290	116	<1	4.56	43.5	62	53.8	<0.5	0.033	22.7	0.0158	0.000412	0.00239	0.00601	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-11	1267	500	500																			
15-Jul-11	1274	500	485	7.7	279	109																
22-Jul-11	1281	500	485																			
29-Jul-11	1288	500	480	7.68	304	98	<1	4.51	33.4	57	45.2	<0.5	0.03	20.8	0.0188	0.000367	0.00253	0.00576	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-11	1295	500	470																			
12-Aug-11	1302	500	480	7.81	270	101																
19-Aug-11	1309	500	475																			
26-Aug-11	1316	500	475	7.7	300	105	<1	6.82	37.2	63	49.7	<0.5	<0.1	23.1	0.0157	0.00038	0.00228	0.00526	<0.0002	<0.0005	0.011	<0.00005
2-Sep-11	1323	500	435																			
9-Sep-11	1330	500	480	7.78	292	108																
16-Sep-11	1337	500	470																			
23-Sep-11	1344	500	470	7.6	322	108	<1	4.84	39.1	61	51.3	<0.5	0.032	22	0.0188	0.000432	0.0026	0.00544	<0.0002	<0.0005	<0.01	<0.00005
30-Sep-11	1351	500	470																			
7-Oct-11	1358	500	450	7.67	293	98																
14-Oct-11	1365	500	490																			
21-Oct-11	1372	500	460	7.65	283	86	<1	6.44	32.4	48	40.2	<0.5	<0.02	16.9	0.0173	0.000298	0.00195	0.00476	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	17.4	<0.0005	<0.0001	0.00215	<0.03	<0.00005	6.14	0.00288	<0.00001	0.0182	<0.0005	1.86	0.0022	1.19	<0.00001	<2	<0.00005	0.00054	0.00055	<0.001
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	16.1	<0.0005	<0.0001	0.00172	<0.03	<0.00005	5.41	0.00185		0.0161	<0.0005	1.79	0.0019	1.18	<0.00001	<2	0.000052	0.0008	0.00057	<0.001
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	21.6	<0.0005	<0.0001	0.00189	<0.03	<0.00005	7.39	0.00236	<0.00001	0.021	<0.0005	2.15	0.0022	1.41	<0.00001	<2	0.000051	0.00022	0.00052	<0.001
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	21.7	<0.0005	<0.0001	0.00209	<0.03	0.000165	7.49	0.00213	<0.00001	0.0199	<0.0005	2.21	0.0022	1.44	<0.00001	<2	0.000055	0.00022	0.00056	0.0028
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	19	<0.0005	<0.0001	0.00184	<0.03	<0.00005	6.23	0.00164	<0.00001	0.0154	<0.0005	1.93	0.0019	1.39	<0.00001	<2	<0.00005	0.00035	0.00053	<0.001
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	17.1	<0.0005	<0.0001	0.00154	<0.03	<0.00005	5.58	0.00304	<0.00001	0.0134	<0.0005	1.71	0.0017	1.13	<0.00001	<2	<0.00005	0.00069	<0.0005	<0.001
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	16	<0.0005	<0.0001	0.00182	<0.03	<0.00005	5	0.00102	<0.00001	0.0124	<0.0005	1.51	0.0015	1.11	<0.00001	<2	<0.00005	0.00077	<0.0005	<0.001
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	15.1	<0.0005	<0.0001	0.0011	<0.03	<0.00005	4.78	0.0008	<0.00001	0.0108	<0.0005	1.42	0.0013	0.95	<0.00001	<2	<0.00005	0.00102	<0.0005	<0.001
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	14.3	<0.0005	<0.0001	0.00112	<0.03	<0.00005	4.48	0.000784	<0.00001	0.013	<0.0005	1.36	0.0015	0.94	<0.00001	<2	<0.00005	0.00094	<0.0005	<0.001
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	12.8	<0.0005	<0.0001	0.00104	<0.03	0.000064	4.03	0.00223	<0.00001	0.0107	<0.0005	1.27	0.0013	1.02	<0.00001	<2	<0.00005	0.00099	<0.0005	<0.001
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	14.1	0.00055	<0.0001	0.0013	<0.03	<0.00005	4.5	0.00197	<0.00001	0.0124	<0.0005	1.44	0.0014	1.15	<0.00001	<2	<0.00005	0.00068	<0.0005	<0.001
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	11.8	<0.0005	<0.0001	0.00099968	<0.03	<0.00005	3.82	0.00214	<0.00001	0.0111	<0.0005	1.36	0.0013	0.961	<0.00001	<2	<0.00005	0.00096	<0.0005	<0.001
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	12.8	<0.0005	<0.0001	0.00134	<0.03	<0.00005	4.28	0.00406	<0.00001	0.0116	<0.0005	1.29	0.0013	1.04	<0.00001	<2	<0.00005	0.00094	<0.0005	0.0012
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	13.5	<0.0005	<0.0001	0.00131	<0.03	<0.00005	4.29	0.00264	<0.00001	0.0118	<0.0005	1.33	0.0014	1.16	<0.00001	<2	<0.00005	0.00052	<0.0005	<0.001
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	10.6	<0.0005	<0.0001	0.00165	<0.03	0.000067	3.34	0.00309	<0.00001	0.00734	<0.0005	1.18	0.0011	0.903	<0.00001	<2	<0.00005	0.00095	<0.0005	0.0011

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
28-Oct-11	1379	500	475																			
4-Nov-11	1386	500	490	7.57	305	94																
11-Nov-11	1393	500	485																			
18-Nov-11	1400	500	490	7.55	305	99	<1	5.03	34.2	55	46.9	<0.5	<0.02	20	0.0121	0.000318	0.0019	0.00548	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-11	1407	500	495																			
2-Dec-11	1414	500	490	7.66	325	91																
9-Dec-11	1421	500	470																			
16-Dec-11	1428	500	460	7.72	340	93	<1	7.26	36.8	53	43.9	<0.5	<0.02	17.9	0.0146	0.000292	0.00159	0.00553	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-11	1435	500	480																			
30-Dec-11	1442	500	470	7.71	290	100																
6-Jan-12	1449	500	490																			
13-Jan-12	1456	500	475	7.62	330	99	<1	6.19	40.4	50	47.5	<0.5	<0.02	20	0.0105	0.000335	0.00156	0.00574	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-12	1463	500	480																			
27-Jan-12	1470	500	480	7.53	359	84																
3-Feb-12	1477	500	470																			
10-Feb-12	1484	500	470	7.71	367	114	<1	7.67	46	66	50.2	<0.5	<0.02	22.9	0.0101	0.00035	0.0015	0.00635	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-12	1491	500	465																			
24-Feb-12	1498	500	460	7.52	356	106																
2-Mar-12	1505	500	465																			
9-Mar-12	1512	500	460	7.57	340	125	<1	6.26	36	64	57.5	<0.5	0.032	29.1	0.0118	0.000403	0.00188	0.00698	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-12	1519	500	465																			
23-Mar-12	1526	500	475	7.67	356	129																
30-Mar-12	1533	500	470																			
6-Apr-12	1540	500	475	7.66	375	125	<1	4.96	44.8	72	59.3	<0.5	0.039	24.3	0.0101	0.000474	0.0022	0.00681	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-12	1547	500	465																			
20-Apr-12	1554	500	470	7.73	356	127																
27-Apr-12	1561	500	485																			
4-May-12	1568	500	455	7.75	384	112	<1	10.17	37.2	58	51.3	<0.5	0.032	24.3	0.011	0.000423	0.00214	0.00609	<0.0002	<0.0005	<0.01	<0.00005
11-May-12	1575	500	480																			
18-May-12	1582	500	475	7.63	320	111																
25-May-12	1589	500	465																			
1-Jun-12	1596	500	465	7.56	327	83	<1	5.85	26.8	83	37.2	<0.5	<0.02	32.1	0.0116	0.000242	0.00184	0.00605	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-12	1603	500	455																			
15-Jun-12	1610	500	475	7.53	378	114																
22-Jun-12	1617	500	470																			
29-Jun-12	1624	500	460	7.56	358	107	<1	7.58	32.8	64	50	<0.5	0.027	24.6	0.0129	0.00035	0.00222	0.00582	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-12	1631	500	465																			
13-Jul-12	1638	500	460	7.59	382	103																
20-Jul-12	1645	500	455																			
27-Jul-12	1652	500	460	7.78	324	128	<1	8.69	40.4	75	56.5	<0.5	0.027	29.2	0.0128	0.000388	0.00208	0.00619	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-12	1659	500	465																			
10-Aug-12	1666	500	440	7.56	348	125																
17-Aug-12	1673	500	440																			
24-Aug-12	1680	500	440	7.67	339	139	<1	8.02	43.6	72	66.5	<0.5	0.031	32.2	0.01	0.000413	0.00224	0.00694	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-12	1687	500	460																			
7-Sep-12	1694	500	460	7.55	418	117																
14-Sep-12	1701	500	440																			
21-Sep-12	1708	500	470	7.55	392	119	<1	6.4	38.8	65	55	<0.5	0.028	27.5	0.0101	0.000373	0.00217	0.00599	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-12	1715	500	460																			
5-Oct-12	1722	500	460	7.68	380	103																
12-Oct-12	1729	500	465																			
19-Oct-12	1736	500	465	7.6	394	100	<1	6.92	32.2	58	45.6	<0.5	0.024	23.8	0.0105	0.000289	0.00186	0.00492	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-12	1743	500	445																			
2-Nov-12	1750	500	455	7.6	390	116																
9-Nov-12	1757	500	455																			
16-Nov-12	1764	500	460	7.61	377	116	<1	3.71	37.8	70	53.4	<0.5	0.028	25.1	0.0116	0.000303	0.00171	0.00552	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-12	1771	500	500																			
30-Nov-12	1778	500	475	7.56	385	122																
7-Dec-12	1785	500	495																			
14-Dec-12	1792	500	465	7.89	326	129	<1	10.48	52.6	68	58.3	<0.5	0.03	23.1	0.011	0.000443	0.002	0.00642	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	12.5	<0.0005	<0.0001	0.00119	<0.03	<0.00005	3.83	0.00375	<0.00001	0.00769	<0.0005	1.23	0.0011	0.921	<0.00001	<2	<0.00005	0.00091	<0.0005	0.002
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	11.7	<0.0005	<0.0001	0.00077	<0.03	<0.00005	3.59	0.00364	<0.00001	0.00787	<0.0005	1.22	0.001	0.93	<0.00001	<2	<0.00005	0.00073	<0.0005	<0.001
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	12.6	<0.0005	<0.0001	0.00086	<0.03	<0.00005	3.91	0.00351	<0.00001	0.00944	<0.0005	1.22	0.0011	0.954	<0.00001	<2	<0.00005	0.00057	<0.0005	<0.001
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	13.6	<0.0005	<0.0001	0.00113	<0.03	<0.00005	3.97	0.0044	<0.00001	0.011	<0.0005	1.28	0.0012	0.968	<0.00001	<2	<0.00005	0.00071	<0.0005	<0.001
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	15.2	<0.0005	<0.0001	0.00119	<0.03	<0.00005	4.75	0.00545	<0.00001	0.0148	<0.0005	1.41	0.0014	1.12	<0.00001	<2	<0.00005	0.00083	<0.0005	<0.001
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	15.6	<0.0005	<0.0001	0.00116	<0.03	<0.00005	4.95	0.00572	<0.00001	0.0148	<0.0005	1.59	0.0013	1.3	<0.00001	<2	<0.00005	0.00038	<0.0005	<0.001
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	13.7	<0.0005	<0.0001	0.00157	<0.03	0.000245	4.13	0.00469	<0.00001	0.0122	<0.0005	1.32	0.0013	1.16	<0.00001	<2	<0.00005	0.00053	<0.0005	0.0013
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	9.9	<0.0005	<0.0001	0.00086	<0.03	<0.00005	3.05	0.00133	<0.00001	0.00707	<0.0005	0.972	<0.001	0.86	<0.00001	<2	<0.00005	0.00086	<0.0005	<0.001
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	13.4	<0.0005	<0.0001	0.00099	<0.03	<0.00005	4.03	0.00518	<0.00001	0.0112	<0.0005	1.24	0.0013	1.11	<0.00001	<2	<0.00005	0.00068	<0.0005	<0.001
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	15.1	<0.0005	<0.0001	0.00083	<0.03	<0.00005	4.54	0.00262	<0.00001	0.0129	<0.0005	1.41	0.0015	1.22	<0.00001	<2	<0.00005	0.00063	<0.0005	<0.001
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	17.6	<0.0005	<0.0001	0.00097	<0.03	<0.00005	5.47	0.00369	<0.00001	0.0137	<0.0005	1.53	0.0017	1.37	<0.00001	<2	<0.00005	0.00065	<0.0005	<0.001
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	14.5	<0.0005	<0.0001	0.00088	<0.03	0.000071	4.54	0.00214	<0.00001	0.0111	<0.0005	1.4	0.0014	1.24	<0.00001	<2	<0.00005	0.00069	<0.0005	<0.001
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	12	<0.0005	<0.0001	0.00094	<0.03	<0.00005	3.82	0.00176	<0.00001	0.00856	<0.0005	1.17	0.0011	1.06	<0.00001	<2	<0.00005	0.0007	<0.0005	<0.001
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	14	0.00071	<0.0001	0.00116	<0.03	<0.00005	4.46	0.00366	<0.00001	0.0097	<0.0005	1.37	0.0013	1.11	<0.00001	<2	<0.00005	0.00042	<0.0005	<0.001
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	15.5	<0.0005	<0.0001	0.00079	<0.03	<0.00005	4.77	0.00241	<0.00001	0.0121	<0.0005	1.38	0.0013	1.28	<0.00001	<2	<0.00005	0.00042	<0.0005	0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
21-Dec-12	1799	500	430																			
28-Dec-12	1806	500	440	7.81	335	135																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	220	8.21	417	3164	<1	3.61	145.3	1890	279	7.7	0.16	1180	0.192	0.00066	0.0064	0.0517	<0.002	<0.005	0.14	<0.0005
25-Jan-08	7	500	485	8.38	441	897																
1-Feb-08	14	500	520	8.59	417	518	<1	<1	198.9	329	10.4	<0.5	0.213	75.3	0.0849	0.00055	0.00377	0.0171	<0.0004	<0.001	0.106	<0.0001
8-Feb-08	21	500	515	8.51	420	550																
15-Feb-08	28	500	510	8.57	402	345	<1	<1	150.2	212	6.46	<0.5	0.153	37.4	0.0427	0.000332	0.00177	0.0124	<0.0002	<0.0005	0.059	<0.00005
22-Feb-08	35	500	495	8.67	399	435																
29-Feb-08	42	500	485	8.72	395	531	<1	<1	241.4	338	9.29	<0.5	0.267	53.1	0.249	0.00056	0.003	0.0217	<0.0004	<0.001	0.099	<0.0001
7-Mar-08	49	500	475	8.93	389	296																
14-Mar-08	56	500	470	8.7	392	335	<1	<1	152.9	177	5.14	<0.5	0.136	34.2	0.101	0.000331	0.00273	0.0109	<0.0002	<0.0005	0.049	<0.00005
21-Mar-08	63	500	470	8.81	406	234																
28-Mar-08	70	500	450	8.62	402	346	<1	<1	154.6	213	5.39	<0.5	0.137	41	0.0455	0.00029	0.00192	0.0103	<0.0002	<0.0005	0.045	<0.00005
4-Apr-08	77	500	445	8.78	413	443																
11-Apr-08	84	500	490	8.34	391	309	<1	<1	133.2	148	6.16	<0.5	0.082	28.4	0.233	0.000216	0.00156	0.0116	<0.0002	<0.0005	0.035	<0.00005
18-Apr-08	91	500	415	8.68	400	313																
25-Apr-08	98	500	465	8.55	365	391	<1	<1	181	255	13.2	<0.5	0.092	44.1	0.0475	0.000224	0.0009	0.0251	<0.0002	<0.0005	0.04	<0.00005
2-May-08	105	500	440	8.56	381	379																
9-May-08	112	500	520	8.57	350	441	<1	<1	210.9	260	22.1	<0.5	0.128	33.2	0.0159	0.00025	0.00105	0.0365	<0.0004	<0.001	0.05	<0.0001
16-May-08	119	500	465	8.61	358	336																
23-May-08	126	500	450	8.68	356	320	<1	<1	144.9	207	11.1	<0.5	0.096	25.1	0.0928	0.000161	0.00078	0.0182	<0.0002	<0.0005	0.038	<0.00005
30-May-08	133	500	460	8.45	339	261																
6-Jun-08	140	500	395	8.59	380	286	<1	<1	133.9	215	13.6	<0.5	0.173	42.2	0.453	0.000307	0.00114	0.0247	<0.0002	<0.0005	0.036	<0.00005
13-Jun-08	147	500	415	8.62	373	294																
20-Jun-08	154	500	435	8.63	344	319	<1	<1	193.2	253	18.1	<0.5	0.113	33.7	0.0373	0.000194	0.0008	0.0293	<0.0002	<0.0005	0.039	<0.00005
27-Jun-08	161	500	450	8.58	354	334																
4-Jul-08	168	500	405	8.49	367	303	<1	<1	114.2	182	17	<0.5	0.096	27.3	0.0537	0.000143	0.00069	0.0288	<0.0002	<0.0005	0.03	<0.00005
11-Jul-08	175	500	470	8.51	400	347																
18-Jul-08	182	500	410	8.45	381	281	<1	<1	120.9	156	25.7	<0.5	0.07	23.7	0.0207	0.000125	0.00048	0.039	<0.0002	<0.0005	0.028	<0.00005
25-Jul-08	189	500	405	8.42	398	293																
1-Aug-08	196	500	455	8.43	378	314	<1	<1	139.8	170	37	<0.5	0.062	25.1	0.0107	0.000104	0.00043	0.0496	<0.0002	<0.0005	0.026	<0.00005
8-Aug-08	203	500	445	8.4	375	250																
15-Aug-08	210	500	425	8.3	359	242	<1	<1	109.2	131	40.4	<0.5	0.054	17.8	0.0128	0.000087	0.00033	0.0509	<0.0002	<0.0005	0.023	<0.00005
22-Aug-08	217	500	435	8.27	332	230																
29-Aug-08	224	500	445	8.31	339	247	<1	<1	123.5	136	57.6	<0.5	0.06	19.1	0.0073	0.000085	0.00033	0.0667	<0.0002	<0.0005	0.023	<0.00005
5-Sep-08	231	500	405	8.34	340	251																
12-Sep-08	238	500	465	8.27	311	268	<1	2.22	137.3	142	91.8	<0.5	0.048	20	0.0102	0.000079	0.00031	0.0907	<0.0002	<0.0005	0.023	<0.00005
19-Sep-08	245	500	440	8.26	313	232																
26-Sep-08	252	500	450	8.16	304	222	<1	2.34	102.9	104	79.7	<0.5	0.041	15.4	0.0063	0.000062	0.00026	0.0818	<0.0002	<0.0005	0.02	<0.00005
3-Oct-08	259	500	460	8.25	404	221																
10-Oct-08	266	500	435	8.17	381	189	<1	2.46	88.2	100	74.3	<0.5	0.041	13.7	0.0068	0.000053	0.00019	0.0692	<0.0002	<0.0005	0.014	<0.00005
17-Oct-08	273	500	425	8.33	397	223																
24-Oct-08	280	500	425	8.25	407	214	<1	1.82	105.3	111	96.6	<0.5	0.05	16.9	0.0071	0.000054	0.00024	0.0884	<0.0002	<0.0005	0.018	<0.00005
31-Oct-08	287	500	440	8.23	427	223																
7-Nov-08	294	500	435	8.11	417	202	<1	3.32	102.8	111	90.9	<0.5	0.048	13.6	0.0073	0.000054	0.00024	0.0753	<0.0002	<0.0005	0.015	<0.00005
14-Nov-08	301	500	435	8.22	417	190																
21-Nov-08	308	500	415	8.23	337	227	<1	1.38	108.3	113	98.5	<0.5	0.053	16.7	0.006	<0.00005	0.00021	0.0849	<0.0002	<0.0005	0.017	<0.00005
28-Nov-08	315	500	470	8.06	325	177																
5-Dec-08	322	500	390	8.07	367	159	<1	2.36	85.9	75.6	75	<0.5	0.028	12.7	0.009	0.000072	0.00021	0.0653	<0.0002	<0.0005	0.013	<0.00005
12-Dec-08	329	500	430	7.99	355	141																
19-Dec-08	336	500	435	8	359	192	<1	4.18	104.2	98.3	86.7	<0.5	0.043	16.4	0.007	0.000054	0.00026	0.067	<0.0002	<0.0005	0.015	<0.00005
26-Dec-08	343	500	465	7.88	358	152																
2-Jan-09	350	500	425	7.91	348	162	<1	13.18	93	94	78.3	<0.5	0.02	13.5	0.0065	<0.00005	0.00015	0.0792	<0.0002	<0.0005	<0.01	<0.00005
9-Jan-09	357	500	465	8.06	364	182																
16-Jan-09	364	500	430	7.97	392	194	<1	6.21	108.4	104	96	<0.5	0.027	14.1	0.0056	<0.00005	0.00019	0.0673	<0.0002	<0.0005	0.013	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	64.8	<0.005	0.0014	0.0078	0.047	<0.0005	28.3	0.0881	<0.00001	0.0237	<0.005	6.55	0.015	1.33	<0.0001	512	<0.0005	<0.001	<0.005	<0.01
25-Jan-08	7																				
1-Feb-08	14	2.37	<0.001	<0.0002	0.00224	<0.03	<0.0001	1.08	0.00427	<0.00001	0.0188	<0.001	1.85	<0.002	0.812	<0.00002	122	<0.0001	0.00105	<0.001	<0.002
8-Feb-08	21																				
15-Feb-08	28	1.53	<0.0005	<0.0001	0.0022	<0.03	<0.00005	0.642	0.00271	<0.00001	0.00953	<0.0005	1.21	<0.001	0.515	<0.00001	82.3	<0.00005	0.00087	<0.0005	<0.001
22-Feb-08	35																				
29-Feb-08	42	2.17	<0.001	<0.0002	0.00803	0.054	<0.0001	0.94	0.00437	<0.00001	0.0171	<0.001	2.1	<0.002	1.21	<0.00002	138	<0.0001	0.00056	0.0011	<0.002
7-Mar-08	49																				
14-Mar-08	56	1.18	<0.0005	<0.0001	0.00245	<0.03	0.000545	0.533	0.00167	<0.00001	0.00662	<0.0005	1.37	<0.001	0.64	<0.00001	90.1	<0.00005	0.00082	0.00072	<0.001
21-Mar-08	63																				
28-Mar-08	70	1.26	<0.0005	<0.0001	0.00138	<0.03	<0.00005	0.547	0.00136	<0.00001	0.00633	<0.0005	1.32	<0.001	0.552	<0.00001	89.2	<0.00005	0.00072	<0.0005	<0.001
4-Apr-08	77																				
11-Apr-08	84	1.46	0.00102	<0.0001	0.00221	<0.03	0.000094	0.607	0.00183	<0.00001	0.00377	<0.0005	1.46	<0.001	0.669	<0.00001	73.1	<0.00005	0.00104	0.00059	0.004
18-Apr-08	91																				
25-Apr-08	98	3.03	<0.0005	<0.0001	0.0009	<0.03	0.000055	1.36	0.00242	<0.00001	0.00427	<0.0005	2.26	<0.001	0.628	<0.00001	96.3	<0.00005	0.00117	<0.0005	<0.001
2-May-08	105																				
9-May-08	112	4.48	<0.001	<0.0002	0.00044	<0.03	<0.0001	2.66	0.00701	<0.00001	0.00498	<0.001	2.94	<0.002	0.657	<0.00002	101	<0.0001	0.00062	<0.001	<0.002
16-May-08	119																				
23-May-08	126	2.4	<0.0005	<0.0001	0.00097	<0.03	0.00035	1.24	0.00176	<0.00001	0.00355	0.00114	1.99	<0.001	0.673	<0.00001	70.5	<0.00005	0.00067	<0.0005	<0.001
30-May-08	133																				
6-Jun-08	140	2.68	<0.0005	0.00011	0.00295	0.1	0.000111	1.67	0.00222	<0.00001	0.00664	<0.0005	2.29	<0.001	1.53	<0.00001	80.6	<0.00005	0.00052	0.00145	0.002
13-Jun-08	147																				
20-Jun-08	154	3.7	<0.0005	<0.0001	0.00117	<0.03	<0.00005	2.14	0.00211	<0.00001	0.00507	<0.0005	3.17	<0.001	0.753	<0.00001	96	<0.00005	<0.0001	<0.0005	<0.001
27-Jun-08	161																				
4-Jul-08	168	3.5	<0.0005	<0.0001	0.0016	0.037	<0.00005	2.01	0.000745	<0.00001	0.00367	<0.0005	2.85	<0.001	0.692	<0.00001	62.8	<0.00005	0.00075	<0.0005	<0.001
11-Jul-08	175																				
18-Jul-08	182	5.08	<0.0005	<0.0001	0.00119	<0.03	0.000065	3.16	0.000271	<0.00001	0.00326	<0.0005	3.56	<0.001	0.608	<0.00001	56	<0.00005	0.00069	<0.0005	0.0013
25-Jul-08	189																				
1-Aug-08	196	7.27	<0.0005	<0.0001	0.00074	<0.03	<0.00005	4.57	0.00106	<0.00001	0.00272	<0.0005	4.07	<0.001	0.608	<0.00001	51.7	<0.00005	0.0003	<0.0005	<0.001
8-Aug-08	203																				
15-Aug-08	210	7.94	<0.0005	<0.0001	0.001	<0.03	0.000106	5	0.00269	<0.00001	0.00212	<0.0005	3.98	<0.001	0.569	<0.00001	35.7	<0.00005	0.00077	<0.0005	<0.001
22-Aug-08	217																				
29-Aug-08	224	11	<0.0005	<0.0001	0.00063	<0.03	<0.00005	7.35	0.00295	<0.00001	0.00213	<0.0005	4.65	<0.001	0.59	<0.00001	30.7	<0.00005	0.00041	<0.0005	<0.001
5-Sep-08	231																				
12-Sep-08	238	17.3	<0.0005	<0.0001	0.0013	<0.03	0.000074	11.8	0.00526	<0.00001	0.00162	<0.0005	5.6	<0.001	0.716	<0.00001	22.5	<0.00005	0.00014	<0.0005	0.0016
19-Sep-08	245																				
26-Sep-08	252	15.4	<0.0005	<0.0001	0.00064	<0.03	<0.00005	9.99	0.00427	<0.00001	0.00142	<0.0005	4.98	<0.001	0.591	<0.00001	13	<0.00005	0.00047	<0.0005	<0.001
3-Oct-08	259																				
10-Oct-08	266	14.7	<0.0005	<0.0001	0.00087	<0.03	<0.00005	9.13	0.00381	<0.00001	0.0012	<0.0005	4.22	<0.001	0.508	<0.00001	6.3	<0.00005	0.00071	<0.0005	<0.001
17-Oct-08	273																				
24-Oct-08	280	19.2	<0.0005	<0.0001	0.00077	<0.06	<0.00005	11.8	0.00517	<0.00001	0.00147	<0.0005	4.78	<0.001	0.65	<0.00001	5.5	<0.00005	0.00013	<0.0005	<0.001
31-Oct-08	287																				
7-Nov-08	294	18.1	<0.0005	<0.0001	0.00172	<0.03	<0.00005	11.1	0.00501	<0.00001	0.00131	<0.0005	4.64	<0.001	0.594	<0.00001	3.4	<0.00005	0.00036	<0.0005	<0.001
14-Nov-08	301																				
21-Nov-08	308	20.4	<0.0005	<0.0001	0.00139	0.093	<0.00005	12	0.00544	<0.00001	0.00149	<0.0005	4.87	<0.001	0.668	<0.00001	2.6	<0.00005	0.00011	<0.0005	<0.001
28-Nov-08	315																				
5-Dec-08	322	14.2	<0.0005	<0.0001	0.00108	<0.03	<0.00005	9.58	0.00429	<0.00001	0.00136	<0.0005	4.15	<0.001	0.595	<0.00001	<2	<0.00005	0.00099	<0.0005	<0.001
12-Dec-08	329																				
19-Dec-08	336	18.2	<0.0005	<0.0001	0.0013	<0.03	<0.00005	10	0.00509	<0.00001	0.00134	<0.0005	4.56	<0.001	0.679	<0.00001	<2	<0.00005	0.00042	<0.0005	<0.001
26-Dec-08	343																				
2-Jan-09	350	15.3	<0.0005	<0.0001	0.00172	<0.03		9.72	0.0035	<0.00001	0.000899	<0.0005	3.22	<0.001	0.46	<0.00001	<2	<0.00005	0.00121	<0.0005	<0.001
9-Jan-09	357																				
16-Jan-09	364	17.5	<0.0005	<0.0001	0.00102	<0.03	<0.00005	12.7	0.00299	<0.00001	0.00103	<0.0005	3.89	<0.001	0.533	<0.00001	<2	<0.00005	0.00066	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Jan-09	371	500	450	8.06	375	183																
30-Jan-09	378	500	450	7.99	391	208	<1	7.92	123.2	111	102	<0.5	0.036	13.2	0.0096	<0.00005	0.00017	0.0926	<0.0002	<0.0005	0.012	<0.00005
6-Feb-09	385	500	425	8.02	366	229																
13-Feb-09	392	500	475	8.12	383	201	<1	2.16	116.6	104	113	<0.5	0.036	13.1	0.005	<0.00005	0.00016	0.104	<0.0002	<0.0005	0.012	<0.00005
20-Feb-09	399	500	460	8.16	340	191																
27-Feb-09	406	500	390	8.19	320	214	<1	4.55	129.8	117	117	<0.5	0.03	15.3	0.0087	<0.00005	0.00018	0.108	<0.0002	<0.0005	0.011	<0.00005
6-Mar-09	413	500	505	7.96	303	178																
13-Mar-09	420	500	455	7.92	330	185	<1	3.24	108.2	92	97.7	<0.5	0.026	11.4	0.0055	<0.00005	0.00014	0.0819	<0.0002	<0.0005	0.014	<0.00005
20-Mar-09	427	500	455	8	353	165																
27-Mar-09	434	500	445	7.97	347	176	<1	4.13	97.4	91.3	83.7	<0.5	0.023	11.9	0.0069	<0.00005	0.00019	0.0675	<0.0002	<0.0005	0.02	<0.00005
3-Apr-09	441	500	450	8.03	355	194																
10-Apr-09	448	500	445	7.98	364	172	<1	3.58	98.2	88	87.7	<0.5	<0.02	11.3	0.0077	<0.00005	0.00012	0.0716	<0.0002	<0.0005	0.015	<0.00005
17-Apr-09	455	500	440	8.06	374	193																
24-Apr-09	462	500	435	8.05	366	182																
1-May-09	469	500	445																			
8-May-09	476	500	440	8	354	183	<1	2.83	101.5	99.5	106	<0.5	0.036	12.8	0.0057	<0.00005	0.00015	0.101	<0.0002	<0.0005	0.016	<0.00005
15-May-09	483	500	440																			
22-May-09	490	500	475	7.99	364	185																
29-May-09	497	500	460																			
5-Jun-09	504	500	460	8	369	158	<1	3.3	100.6	87.6	89.3	<0.5	0.029	15.3	0.0069	<0.00005	0.00015	0.0812	<0.0002	<0.0005	0.037	<0.00005
12-Jun-09	511	500	455																			
19-Jun-09	518	500	460	7.99	376	172																
26-Jun-09	525	500	450																			
3-Jul-09	532	500	470	8.07	318	162	<1	2.14	90.4	89.5	78.7	<0.5	<0.02	12.5	0.0054	<0.00005	0.00012	0.0578	<0.0002	<0.0005	0.013	<0.00005
10-Jul-09	539	500	450																			
17-Jul-09	546	500	465	7.95	355	133																
24-Jul-09	553	500	460																			
31-Jul-09	560	500	445	7.98	355	167	<1	3	96	94.8	87.4	<0.5	0.041	15.2	0.0053	<0.00005	0.00012	0.0767	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-09	567	500	430																			
14-Aug-09	574	500	460	7.89	320	161																
21-Aug-09	581	500	450																			
28-Aug-09	588	500	465	8.02	279	175	<1	2.49	99.8	106	99.1	<0.5	<0.02	13.1	0.0055	<0.00005	0.00019	0.0895	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-09	595	500	480																			
11-Sep-09	602	500	485	8.07	298	208																
18-Sep-09	609	500	465																			
25-Sep-09	616	500	500	8.08	322	213	<1	3.07	132	79	115	<0.5	0.023	13.4	0.0038	<0.00005	0.00013	0.12	<0.0002	<0.0005	0.013	<0.00005
2-Oct-09	623	500	415																			
9-Oct-09	630	500	470	7.96	316	214																
16-Oct-09	637	500	465																			
23-Oct-09	644	500	450	8	282	190	<1	2.96	108.8	108	104	<0.5	0.026	13.6	0.0102	<0.00005	0.00011	0.108	<0.0002	<0.0005	0.013	<0.00005
30-Oct-09	651	500	465																			
6-Nov-09	658	500	465	7.95	325	176																
13-Nov-09	665	500	445																			
20-Nov-09	672	500	450	8.04	301	196	<1	5.4	108.7	98	93.9	<0.5	0.022	13.4	0.0044	<0.00005	0.0001	0.0902	<0.0002	<0.0005	0.013	<0.00005
27-Nov-09	679	500	425																			
4-Dec-09	686	500	460	7.88	322	176																
11-Dec-09	693	500	485																			
18-Dec-09	700	500	465	7.81	325	147	<1	5.05	80.4	75	77.5	<0.5	0.021	10.5	0.006	<0.00005	0.00016	0.0769	<0.0002	<0.0005	0.013	<0.00005
25-Dec-09	707	500	460																			
1-Jan-10	714	500	460	8.09	364	170																
8-Jan-10	721	500	455																			
15-Jan-10	728	500	450	7.97	304	165	<1	7.45	87.9	90	86.2	<0.5	<0.02	12.8	0.0055	<0.00005	0.00014	0.0792	<0.0002	<0.0005	0.01	<0.00005
22-Jan-10	735	500	460																			
29-Jan-10	742	500	455	8.01	316	164																
5-Feb-10	749	500	470																			
12-Feb-10	756	500	465	7.87	314	151	<1	3.46	86.4	87	81.9	<0.5	<0.02	11.3	0.0051	<0.00005	0.00011	0.0751	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-10	763	500	470																			
26-Feb-10	770	500	465	7.9	304	158																
5-Mar-10	777	500	465																			
12-Mar-10	784	500	470	7.95	371	179	<1	4.27	105.5	102	101	<0.5	0.026	12.6	0.0052	<0.00005	0.00011	0.0986	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Jan-09	371																				
30-Jan-09	378	18.6	<0.0005	<0.0001	0.00106	<0.03	<0.00005	13.6	0.00326	<0.00001	0.00107	<0.0005	3.62	<0.001	0.53	<0.00001	<2	<0.00005	0.00065	<0.0005	<0.001
6-Feb-09	385																				
13-Feb-09	392	19.9	<0.0005	<0.0001	0.00221	<0.03		15.4	0.00278	<0.00001	0.00105	<0.0005	3.59	<0.001	0.571	<0.00001	<2	<0.00005	0.0007	<0.0005	<0.001
20-Feb-09	399																				
27-Feb-09	406	21	<0.0005	<0.0001	0.00073	<0.03	<0.00005	15.7	0.0013	<0.00001	0.00111	<0.0005	3.5	<0.001	0.542	<0.00001	<2	<0.00005	0.00028	<0.0005	<0.001
6-Mar-09	413																				
13-Mar-09	420	18.3	<0.0005	<0.0001	0.00102	<0.03	0.000108	12.7	0.00104	<0.00001	0.000999	<0.0005	3.16	<0.001	0.496	<0.00001	<2	<0.00005	0.00099	<0.0005	<0.001
20-Mar-09	427																				
27-Mar-09	434	16	<0.0005	<0.0001	0.00038	<0.03	<0.00005	10.6	0.00122	<0.00001	0.000931	<0.0005	2.87	<0.001	0.432	<0.00001	<2	<0.00005	0.00139	<0.0005	<0.001
3-Apr-09	441																				
10-Apr-09	448	16.5	<0.0005	<0.0001	0.00126	<0.03	0.000063	11.3	0.00141	<0.00001	0.00087	<0.0005	2.61	<0.001	0.464	<0.00001	<2	<0.00005	0.0015	<0.0005	<0.001
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	17.3	<0.0005	<0.0001	0.0002	<0.03	<0.00005	15.1	0.00153	<0.00001	0.00107	<0.0005	2.75	<0.001	0.489	<0.00001	<2	<0.00005	0.00063	<0.0005	0.0022
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	16.1	0.00066	<0.0001	0.00227	<0.03	0.00024	11.9	0.00152	<0.00001	0.00113	<0.0005	2.64	<0.001	0.446	<0.00001	<2	<0.00005	0.00146	<0.0005	<0.001
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	15.2	<0.0005	<0.0001	0.00094	0.042	<0.00005	9.89	0.000659	<0.00001	0.000956	<0.0005	2.04	<0.001	0.398	<0.00001	<2	<0.00005	0.00119	<0.0005	<0.001
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	16.3	<0.0005	<0.0001	0.00161	<0.03	<0.00005	11.4	0.000342	<0.00001	0.00108	<0.0005	2.17	<0.001	0.466	<0.00001	<2	<0.00005	0.00123	<0.0005	<0.001
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	17	<0.0005	<0.0001	0.00113	<0.03	<0.00005	13.8	0.000828	<0.00001	0.00112	<0.0005	2.26	<0.001	0.472	<0.00001	<2	<0.00005	0.00091	<0.0005	<0.001
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	21.4	<0.0005	<0.0001	0.00089	<0.03	<0.00005	14.9	0.000412	<0.00001	0.00102	<0.0005	2.2	<0.001	0.601	0.000023	<2	<0.00005	0.00054	<0.0005	<0.001
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	18.7	<0.0005	<0.0001	0.0019	<0.03		13.9	0.000235	<0.00001	0.00132	<0.0005	2.16	<0.001	0.498	<0.00001	<2	<0.00005	0.0004	<0.0005	<0.001
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	17.3	<0.0005	<0.0001	0.0006	<0.03	<0.00005	12.3	0.000399	<0.00001	0.00112	<0.0005	1.66	<0.001	0.447	<0.00001	<2	<0.00005	0.00033	<0.0005	<0.001
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	13.4	0.00065	<0.0001	0.00083	0.052	<0.00005	10.5	0.000439	<0.00001	0.00106	<0.0005	1.54	<0.001	0.393	<0.00001	<2	<0.00005	0.00373	<0.0005	<0.001
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	16.1	<0.0005	<0.0001	0.00189	<0.03	<0.00005	11.2	0.000173	<0.00001	0.00107	<0.0005	1.5	<0.001	0.452	<0.00001	<2	<0.00005	0.00099	<0.0005	<0.001
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	15.1	<0.0005	<0.0001	0.00085	<0.03	<0.00005	10.7	0.000834	<0.00001	0.000894	<0.0005	1.34	<0.001	0.437	<0.00001	<2	<0.00005	0.00079	<0.0005	<0.001
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	18	<0.0005	<0.0001	0.00014	<0.03	<0.00005	13.5	0.000275	<0.00001	0.00121	<0.0005	1.56	<0.001	0.459	<0.00001	<2	<0.00005	0.00026	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
19-Mar-10	791	500	465																			
26-Mar-10	798	500	455	7.87	353	170																
2-Apr-10	805	500	470																			
9-Apr-10	812	500	460	7.87	334	145	<1	3.89	82.2	80	78.4	<0.5	<0.02	9.54	0.0059	<0.00005	<0.0001	0.0758	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-10	819	500	430																			
23-Apr-10	826	500	465	7.76	301	156																
30-Apr-10	833	500	465																			
7-May-10	840	500	470	7.82	325	153	<1	5.51	86.7	98	88	<0.5	<0.02	11.3	0.0056	<0.00005	<0.0001	0.0801	<0.0002	<0.0005	<0.01	<0.00005
14-May-10	847	500	455																			
21-May-10	854	500	460	7.87	352	146																
28-May-10	861	500	420																			
4-Jun-10	868	500	420	7.88	322	163	<1	4.48	92.9	80	94.6	<0.5	<0.02	12.9	0.006	<0.00005	0.00014	0.0899	<0.0002	<0.0005	0.013	<0.00005
11-Jun-10	875	500	435																			
18-Jun-10	882	500	455	7.95	323	164																
25-Jun-10	889	500	450																			
2-Jul-10	896	500	450	8.04	375	171	<1	2.97	101.7	92	99.9	<0.5	0.021	13	0.0054	<0.00005	0.00013	0.0848	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-10	903	500	425																			
16-Jul-10	910	500	425	7.93	312	173																
23-Jul-10	917	500	465																			
30-Jul-10	924	500	475	7.92	325	178	<1	4.15	102.3	105	100	<0.5	0.023	13.8	0.0054	<0.00005	0.00015	0.0943	<0.0002	<0.0005	0.014	<0.00005
6-Aug-10	931	500	465																			
13-Aug-10	938	500	460	7.99	363	178																
20-Aug-10	945	500	465																			
27-Aug-10	952	500	470	8.1	383	172	<1	2.68	102.7	95	94.2	<0.5	0.021	13.3	0.0061	<0.00005	0.00012	0.0902	<0.0002	<0.0005	0.014	<0.00005
3-Sep-10	959	500	475																			
10-Sep-10	966	500	470	7.85	356	174																
17-Sep-10	973	500	475																			
24-Sep-10	980	500	465	7.98	314	145	<1	3.66	101.4	97	102	<0.5	0.022	12.5	0.0058	<0.00005	0.00022	0.0973	<0.0002	<0.0005	0.01	<0.00005
1-Oct-10	987	500	470																			
8-Oct-10	994	500	475	7.99	315	167																
15-Oct-10	1001	500	470																			
22-Oct-10	1008	500	475	7.84	366	122	<1	3.67	73.6	63	65.2	<0.5	<0.02	8.93	0.0094	<0.00005	<0.0001	0.0656	<0.0002	<0.0005	0.013	<0.00005
29-Oct-10	1015	500	475																			
5-Nov-10	1022	500	475	8.05	353	170																
12-Nov-10	1029	500	445																			
19-Nov-10	1036	500	425	8.01	326	209	<1	3.89	120.8	111	110	<0.5	<0.02	13.8	0.005	<0.00005	<0.0001	0.105	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-10	1043	500	515																			
3-Dec-10	1050	500	475	7.9	321	177																
10-Dec-10	1057	500	480																			
17-Dec-10	1064	500	425	7.93	320	194	<1	6.44	118.5	109	106	<0.5	0.021	13.1	0.0057	<0.00005	<0.0001	0.115	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-10	1071	500	520																			
31-Dec-10	1078	500	465	7.81	320	154																
7-Jan-11	1085	500	480																			
14-Jan-11	1092	500	470	8.06	328	144	<1	3.62	113	87	101	<0.5	<0.02	10	0.0048	<0.00005	0.00011	0.117	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-11	1099	500	465																			
28-Jan-11	1106	500	435	7.86	289	129																
4-Feb-11	1113	500	470																			
11-Feb-11	1120	500	470	7.84	322	146	<1	4.99	76.3	70	73.7	<0.5	<0.02	11	0.0053	<0.00005	<0.0001	0.0791	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-11	1127	500	450																			
25-Feb-11	1134	500	465	7.96	303	191																
4-Mar-11	1141	500	470																			
11-Mar-11	1148	500	500	7.86	285	179	<1	5.32	97.6	86	87.3	<0.5	<0.02	10.1	0.0052	<0.00005	<0.0001	0.0971	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-11	1155	500	475																			
25-Mar-11	1162	500	500	7.89	288	165																
1-Apr-11	1169	500	485																			
8-Apr-11	1176	500	485	7.83	277	170	<1	11.19	102	94	85.5	<0.5	<0.02	10.1	0.0053	<0.00005	<0.0001	0.095	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-11	1183	500	490																			
22-Apr-11	1190	500	480	7.94	263	174																
29-Apr-11	1197	500	485																			
6-May-11	1204	500	480	7.85	328	147	<1	4.45	80	74	74.9	<0.5	<0.02	10.2	0.0065	<0.00005	0.00012	0.082	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	14	<0.0005	<0.0001	0.00043	<0.03	<0.00005	10.6	0.000377	<0.00001	0.000875	<0.0005	1.19	<0.001	0.393	<0.00001	<2	<0.00005	0.00093	<0.0005	<0.001
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	16.5	<0.0005	<0.0001	0.00042	<0.03	<0.00005	11.4	0.000255	<0.00001	0.00103	<0.0005	1.34	<0.001	0.479	<0.00001	<2	<0.00005	0.00068	<0.0005	<0.001
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	16	<0.0005	<0.0001	0.00039	<0.03	<0.00005	13.3	0.00021	<0.00001	0.00115	<0.0005	1.7	<0.001	0.527	<0.00001	<2	<0.00005	0.00058	<0.0005	<0.001
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	18.2	<0.0005	<0.0001	0.00037	<0.03	<0.00005	13.2	0.00148	<0.00001	0.00123	<0.0005	1.44	<0.001	0.573	<0.00001	<2	<0.00005	0.00027	<0.0005	<0.001
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	17.9	<0.0005	<0.0001	0.00028	<0.03	<0.00005	13.5	0.00162	<0.00001	0.0014	<0.0005	1.46	<0.001	0.567	<0.00001	<2	<0.00005	0.00018	<0.0005	<0.001
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	17.1	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	12.5	0.000875	<0.00001	0.00117	<0.0005	1.33	<0.001	0.546	<0.00001	<2	<0.00005	0.00012	<0.0005	<0.001
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	17.6	<0.0005	<0.0001	0.00067	<0.03	<0.00005	14.1	0.00197	<0.00001	0.000987	<0.0005	1.28	<0.001	0.548	<0.00001	<2	<0.00005	0.00028	<0.0005	<0.001
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	11.7	0.00055	<0.0001	0.00063	<0.03	<0.00005	8.74	0.00109		0.000586	<0.0005	0.833	<0.001	0.386	<0.00001	<2	<0.00005	0.00187	<0.0005	0.0022
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	19.3	<0.0005	<0.0001	0.00101	<0.03	<0.00005	15.1	0.000568	<0.00001	0.00095	<0.0005	1.26	<0.001	0.558	<0.00001	<2	<0.00005	0.00036	<0.0005	<0.001
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	19.9	<0.0005	<0.0001	0.00069	<0.03	0.000268	13.7	0.00108	<0.00001	0.000903	0.0005	1.17	<0.001	0.593	<0.00001	<2	<0.00005	0.0003	<0.0005	<0.001
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	19.1	<0.0005	<0.0001	0.00071	<0.03	<0.00005	12.9	0.000911	<0.00001	0.000936	<0.0005	1.07	<0.001	0.566	<0.00001	<2	<0.00005	0.00049	<0.0005	<0.001
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	13.7	<0.0005	<0.0001	0.00071	<0.03	<0.00005	9.6	0.00107	<0.00001	0.00075	<0.0005	0.881	<0.001	0.425	<0.00001	<2	<0.00005	0.00121	<0.0005	<0.001
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	17.1	<0.0005	<0.0001	0.00025	<0.03	<0.00005	10.9	0.000781	<0.00001	0.000608	<0.0005	0.851	<0.001	0.501	<0.00001	<2	<0.00005	0.00103	<0.0005	<0.001
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	16.3	<0.0005	<0.0001	0.00057	<0.03	<0.00005	10.8	0.00037	<0.00001	0.000822	<0.0005	0.871	<0.001	0.487	<0.00001	<2	<0.00005	0.00068	<0.0005	<0.001
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	14.1	<0.0005	<0.0001	0.00039	<0.03	<0.00005	9.63	0.000525	<0.00001	0.000915	<0.0005	0.802	<0.001	0.463	<0.00001	<2	<0.00005	0.00093	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-May-11	1211	500	485																			
20-May-11	1218	500	470	7.97	232	140																
27-May-11	1225	500	465																			
3-Jun-11	1232	500	450	7.79	278	157	<1	4.83	82.3	89	78.7	<0.5	<0.02	12.8	0.0054	<0.00005	0.00011	0.0828	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-11	1239	500	405																			
17-Jun-11	1246	500	360	7.91	319	158																
24-Jun-11	1253	500	415																			
1-Jul-11	1260	500	420	7.83	292	180	<1	3.89	96.8	91	87.7	<0.5	0.02	15	0.0061	<0.00005	0.00011	0.0945	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-11	1267	500	385																			
15-Jul-11	1274	500	305	7.9	275	208																
22-Jul-11	1281	500	450																			
29-Jul-11	1288	500	440	7.96	299	149	<1	3.89	74.9	78	75.1	<0.5	<0.02	12.6	0.0066	<0.00005	0.00012	0.0811	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-11	1295	500	460																			
12-Aug-11	1302	500	460	7.9	266	152																
19-Aug-11	1309	500	470																			
26-Aug-11	1316	500	460	7.87	294	150	<1	6.82	74.3	79	77.4	<0.5	<0.1	14.8	0.006	<0.00005	0.00014	0.0767	<0.0002	<0.0005	0.012	<0.00005
2-Sep-11	1323	500	455																			
9-Sep-11	1330	500	455	7.98	273	161																
16-Sep-11	1337	500	460																			
23-Sep-11	1344	500	475	7.93	304	177	<1	4.93	91.4	85	89.8	<0.5	0.023	14.3	0.0054	<0.00005	0.00012	0.0894	<0.0002	<0.0005	0.012	<0.00005
30-Sep-11	1351	500	465																			
7-Oct-11	1358	500	450	7.92	289	196																
14-Oct-11	1365	500	480																			
21-Oct-11	1372	500	455	7.82	283	154	<1	6.75	80.4	74	79.1	<0.5	<0.02	11	0.0058	<0.00005	0.00011	0.082	<0.0002	<0.0005	0.012	<0.00005
28-Oct-11	1379	500	460																			
4-Nov-11	1386	500	465	7.93	301	168																
11-Nov-11	1393	500	420																			
18-Nov-11	1400	500	500	7.88	298	176	<1	4.42	92.7	84	94.2	<0.5	<0.02	11.5	0.0041	<0.00005	0.00015	0.0964	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-11	1407	500	475																			
2-Dec-11	1414	500	465	7.82	325	153																
9-Dec-11	1421	500	470																			
16-Dec-11	1428	500	470	7.93	336	195	<1	7.72	107.2	99	99.5	<0.5	<0.02	12.2	0.0045	<0.00005	0.00011	0.108	<0.0002	<0.0005	0.01	<0.00005
23-Dec-11	1435	500	505																			
30-Dec-11	1442	500	445	8.05	302	164																
6-Jan-12	1449	500	475																			
13-Jan-12	1456	500	460	7.83	329	174	<1	6	107.5	86	88.5	<0.5	<0.02	11.2	0.005	<0.00005	0.00017	0.0925	<0.0002	<0.0005	0.01	<0.00005
20-Jan-12	1463	500	385																			
27-Jan-12	1470	500	470	7.8	358	150																
3-Feb-12	1477	500	465																			
10-Feb-12	1484	500	465	7.83	368	185	<1	8.81	112.3	97	89	<0.5	<0.02	12.3	0.0041	<0.00005	0.00012	0.0979	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-12	1491	500	390																			
24-Feb-12	1498	500	515	7.84	352	194																
2-Mar-12	1505	500	445																			
9-Mar-12	1512	500	430	7.78	332	142	<1	6.69	73.4	71	73	<0.5	<0.02	9.71	0.0059	<0.00005	0.0001	0.0751	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-12	1519	500	455																			
23-Mar-12	1526	500	445	7.71	351	170																
30-Mar-12	1533	500	435																			
6-Apr-12	1540	500	465	7.89	368	160	<1	4.51	86.7	80	82.7	<0.5	<0.02	12.5	0.0057	<0.00005	0.00012	0.0838	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-12	1547	500	445																			
20-Apr-12	1554	500	455	7.99	353	172																
27-Apr-12	1561	500	460																			
4-May-12	1568	500	450	7.79	385	159	<1	11.15	81.4	72	79.7	<0.5	<0.02	12.3	0.0044	<0.00005	0.00012	0.0819	<0.0002	<0.0005	<0.01	<0.00005
11-May-12	1575	500	445																			
18-May-12	1582	500	445	7.9	316	148																
25-May-12	1589	500	430																			
1-Jun-12	1596	500	470	7.76	332	136	<1	6.94	66.8	67	66	<0.5	<0.02	11.1	0.0071	<0.00005	0.00022	0.0654	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-12	1603	500	435																			
15-Jun-12	1610	500	500	7.84	374	195																
22-Jun-12	1617	500	455																			
29-Jun-12	1624	500	485	7.78	359	181	<1	8.97	93.9	94	92.2	<0.5	<0.02	13.7	0.0044	<0.00005	<0.0001	0.0928	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	14.8	<0.0005	<0.0001	0.00016	<0.03	<0.00005	10.1	0.000691	<0.00001	0.000943	<0.0005	0.854	<0.001	0.507	<0.00001	<2	<0.00005	0.00059	<0.0005	<0.001
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	16.5	<0.0005	<0.0001	0.00049	<0.03	<0.00005	11.3	0.00102	<0.00001	0.000916	<0.0005	0.823	<0.001	0.594	<0.00001	<2	<0.00005	0.00049	<0.0005	<0.001
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	14.1	<0.0005	<0.0001	0.00058	<0.03	<0.00005	9.65	0.000956	<0.00001	0.000734	<0.0005	0.806	<0.001	0.483	<0.00001	<2	<0.00005	0.00098	<0.0005	<0.001
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	14.1	<0.0005	<0.0001	0.00068	<0.03	<0.00005	10.2	0.00283	<0.00001	0.000809	<0.0005	0.737	<0.001	0.491	<0.00001	<2	<0.00005	0.00089	<0.0005	0.001
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	16.8	<0.0005	<0.0001	0.00025	<0.03	<0.00005	11.6	0.0012	<0.00001	0.00123	<0.0005	0.841	<0.001	0.585	<0.00001	<2	<0.00005	0.00039	<0.0005	0.0015
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	15.3	<0.0005	<0.0001	0.00045	<0.03	<0.00005	9.95	0.000843	<0.00001	0.000793	<0.0005	0.806	<0.001	0.56	<0.00001	<2	<0.00005	0.00042	<0.0005	0.0012
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	17.5	<0.0005	<0.0001	0.00025	<0.03	<0.00005	12.3	0.000864	<0.00001	0.000712	<0.0005	0.791	<0.001	0.566	<0.00001	<2	<0.00005	0.00034	<0.0005	<0.001
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	19	<0.0005	<0.0001	0.00016	<0.03	<0.00005	12.6	0.000947	<0.00001	0.000732	<0.0005	0.897	<0.001	0.617	<0.00001	<2	<0.00005	0.00022	<0.0005	<0.001
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	17.2	0.00123	<0.0001	0.00018	<0.03	<0.00005	11	0.00069	<0.00001	0.000707	<0.0005	0.752	<0.001	0.578	<0.00001	<2	<0.00005	0.00063	<0.0005	<0.001
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	17.6	0.00105	<0.0001	0.00022	<0.03	<0.00005	10.9	0.000774	<0.00001	0.000762	<0.0005	0.79	<0.001	0.607	<0.00001	<2	<0.00005	0.00082	<0.0005	<0.001
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	14.2	<0.0005	<0.0001	0.0005	<0.03	<0.00005	9.1	0.000794	<0.00001	0.00059	<0.0005	0.661	<0.001	0.508	<0.00001	<2	<0.00005	0.00094	<0.0005	0.0046
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	15.7	<0.0005	<0.0001	0.00032	<0.03	<0.00005	10.6	0.000684	<0.00001	0.00073	<0.0005	0.751	<0.001	0.58	<0.00001	<2	<0.00005	0.0006	<0.0005	0.0014
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	15.7	<0.0005	<0.0001	0.0008	<0.03	0.000257	9.84	0.00121	<0.00001	0.000754	<0.0005	0.682	<0.001	0.558	<0.00001	<2	<0.00005	0.00061	<0.0005	<0.001
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	12.9	<0.0005	<0.0001	0.00061	<0.03	<0.00005	8.19	0.000652	<0.00001	0.000626	<0.0005	0.562	<0.001	0.502	<0.00001	<2	<0.00005	0.00081	<0.0005	<0.001
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	18.8	<0.0005	<0.0001	0.00027	<0.03	<0.00005	11	0.0013	<0.00001	0.000703	<0.0005	0.698	<0.001	0.602	<0.00001	<2	<0.00005	0.00044	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
6-Jul-12	1631	500	470																			
13-Jul-12	1638	500	450	7.87	375	145																
20-Jul-12	1645	500	440																			
27-Jul-12	1652	500	450	7.89	324	191	<1	10.33	97.9	98	92.7	<0.5	0.021	16.7	0.0048	<0.00005	0.00014	0.1	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-12	1659	500	460																			
10-Aug-12	1666	500	445	7.93	361	196																
17-Aug-12	1673	500	445																			
24-Aug-12	1680	500	445	7.85	326	192	<1	8.53	96.1	104	99	<0.5	0.021	16.6	0.005	<0.00005	0.00016	0.101	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-12	1687	500	460																			
7-Sep-12	1694	500	450	7.85	408	178																
14-Sep-12	1701	500	440																			
21-Sep-12	1708	500	440	7.75	391	141	<1	6.49	75.3	72	71.5	<0.5	<0.02	11.9	0.0062	<0.00005	0.00023	0.0746	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-12	1715	500	450																			
5-Oct-12	1722	500	455	7.74	382	119																
12-Oct-12	1729	500	450																			
19-Oct-12	1736	500	455	7.7	396	115	<1	6.77	62.3	60	57.4	<0.5	<0.02	9.53	0.0087	<0.00005	<0.0001	0.0567	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-12	1743	500	445																			
2-Nov-12	1750	500	445	7.74	389	133																
9-Nov-12	1757	500	455																			
16-Nov-12	1764	500	445	7.84	372	134	<1	3.57	72	73	69.2	<0.5	<0.02	11	0.005	<0.00005	<0.0001	0.0628	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-12	1771	500	510																			
30-Nov-12	1778	500	490	7.78	384	143																
7-Dec-12	1785	500	490																			
14-Dec-12	1792	500	490	8.02	329	209	<1	10.91	115.5	99	106	<5	<0.2	11.3	0.0037	<0.00005	<0.0001	0.113	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-12	1799	500	475																			
28-Dec-12	1806	500	480	7.91	340	210																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	215	8.35	397	2265	<1	<1	191.5	1300	121	18.3	0.204	664	0.0425	0.00093	0.0048	0.0819	<0.001	<0.0025	0.123	<0.00025
25-Jan-08	7	500	480	8.47	426	351																
1-Feb-08	14	500	485	8.3	414	270	<1	2.17	112.2	181	4.5	<0.5	0.104	35.5	0.0502	0.000378	0.00266	0.0125	<0.0002	<0.0005	0.055	<0.00005
8-Feb-08	21	500	430	8.29	427	283																
15-Feb-08	28	500	495	8.41	406	284	<1	<1	131.2	181	5.51	<0.5	0.091	27.3	0.0462	0.000316	0.00126	0.0175	<0.0002	<0.0005	0.047	<0.00005
22-Feb-08	35	500	475	8.49	393	258																
29-Feb-08	42	500	480	8.62	396	506	<1	<1	230.4	318	9.88	<0.5	0.148	49.4	0.125	0.00044	0.00185	0.0273	<0.0004	<0.001	0.091	<0.0001
7-Mar-08	49	500	460	8.75	393	609																
14-Mar-08	56	500	455	8.71	389	648	<1	<1	321.1	429	11	<0.5	0.29	46.7	0.0787	0.00072	0.00212	0.0347	<0.0004	<0.001	0.12	<0.0001
21-Mar-08	63	500	515	8.78	401	495																
28-Mar-08	70	500	485	8.24	401	167	<1	1.88	87.1	128	2.29	<0.5	0.059	8.41	0.073	0.000153	0.00239	0.00677	<0.0002	<0.0005	0.026	<0.00005
4-Apr-08	77	500	470	8.88	396	416																
11-Apr-08	84	500	465	8.32	385	358	<1	<1	175	210	5.83	<0.5	0.127	14.8	0.0618	0.00037	0.00128	0.0179	<0.0002	<0.0005	0.055	<0.00005
18-Apr-08	91	500	505	8.53	325	517																
25-Apr-08	98	500	385	8.39	314	383	<1	<1	175.3	241	8.9	<0.5	0.103	22.2	0.21	0.000384	0.00108	0.0325	<0.0002	<0.0005	0.05	<0.00005
2-May-08	105	500	505	8.48	382	217																
9-May-08	112	500	475	8.49	348	225	<1	<1	116.6	145	6.79	<0.5	0.04	8.4	0.0565	0.000149	0.00082	0.0218	<0.0002	<0.0005	0.028	<0.00005
16-May-08	119	500	475	8.5	360	245																
23-May-08	126	500	465	8.62	354	296	<1	<1	143.2	201	7.87	<0.5	0.051	16.7	0.0974	0.000148	0.00072	0.0288	<0.0002	<0.0005	0.04	<0.00005
30-May-08	133	500	470	8.41	342	199																
6-Jun-08	140	500	445	8.88	361	228	<1	<1	99.3	198	5.64	<0.5	0.095	35.5	0.215	0.000178	0.00083	0.0202	<0.0002	<0.0005	0.031	<0.00005
13-Jun-08	147	500	455	8.67	368	211																
20-Jun-08	154	500	475	8.69	337	320	<1	<1	191.9	253	10.1	<0.5	0.084	33.8	0.0831	0.000189	0.0005	0.0379	<0.0002	<0.0005	0.042	<0.00005
27-Jun-08	161	500	440	8.69	345	292																
4-Jul-08	168	500	455	8.67	352	261	<1	<1	106.4	136	4.99	<0.5	0.064	15	0.114	0.000108	0.00057	0.0192	<0.0002	<0.0005	0.026	<0.00005
11-Jul-08	175	500	465	8.64	386	376																
18-Jul-08	182	500	460	8.68	367	314	<1	<1	153.1	177	8.11	<0.5	0.058	13.1	0.0796	0.000098	0.00039	0.0304	<0.0002	<0.0005	0.029	<0.00005
25-Jul-08	189	500	440	8.65	380	246																
1-Aug-08	196	500	475	8.63	366	271	<1	<1	132.1	155	6.74	<0.5	0.05	12.5	0.108	0.000085	0.00037	0.0227	<0.0002	<0.0005	0.022	<0.00005
8-Aug-08	203	500	445	8.68	357	240																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	18	<0.0005	<0.0001	0.00024	<0.03	<0.00005	11.6	0.000881	<0.00001	0.000938	<0.0005	0.796	<0.001	0.63	<0.00001	<2	<0.00005	0.00036	<0.0005	<0.001
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	19	<0.0005	<0.0001	0.00026	<0.03	<0.00005	12.5	0.000678	<0.00001	0.000987	<0.0005	0.788	<0.001	0.69	<0.00001	<2	<0.00005	0.00034	<0.0005	<0.001
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	14.4	<0.0005	<0.0001	0.00026	<0.03	<0.00005	8.66	0.000526	<0.00001	0.000798	<0.0005	0.629	<0.001	0.546	<0.00001	<2	<0.00005	0.00068	<0.0005	<0.001
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	11.3	0.00081	<0.0001	<0.0001	<0.03	<0.00005	7.09	0.000431	<0.00001	0.000556	<0.0005	0.474	<0.001	0.439	<0.00001	<2	<0.00005	0.0008	<0.0005	<0.001
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	13.7	<0.0005	<0.0001	0.0005	<0.03	<0.00005	8.52	0.000758	<0.00001	0.000636	<0.0005	0.559	<0.001	0.487	<0.00001	<2	<0.00005	0.00056	<0.0005	<0.001
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	20.9	<0.0005	<0.0001	0.00014	<0.03	<0.00005	13.1	0.000174	<0.00001	0.000767	<0.0005	0.719	<0.001	0.702	<0.00001	<2	<0.00005	0.00134	<0.0005	<0.001
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	29.7	<0.0025	<0.0005	0.00656	<0.03	<0.00025	11.5	0.0309	<0.00001	0.128	<0.0025	4.33	0.0221	1.27	<0.00005	373	<0.00025	0.00125	<0.0025	<0.005
25-Jan-08	7																				
1-Feb-08	14	1.08	<0.0005	<0.0001	0.00203	<0.03	<0.00005	0.436	0.0023	0.000011	0.0291	<0.0005	0.964	<0.001	0.664	<0.00001	68.5	<0.00005	0.00137	<0.0005	<0.001
8-Feb-08	21																				
15-Feb-08	28	1.35	<0.0005	<0.0001	0.00099	<0.03	<0.00005	0.52	0.00323	<0.00001	0.0194	<0.0005	0.919	<0.001	0.511	<0.00001	70.1	<0.00005	0.00137	<0.0005	<0.001
22-Feb-08	35																				
29-Feb-08	42	2.46	<0.001	<0.0002	0.00294	<0.03	<0.0001	0.91	0.00682	<0.00001	0.0335	<0.001	1.64	<0.002	0.891	<0.00002	134	<0.0001	0.00504	<0.001	<0.002
7-Mar-08	49																				
14-Mar-08	56	2.39	<0.001	<0.0002	0.00323	0.037	<0.0001	1.21	0.00521	<0.00001	0.0504	<0.001	2.12	<0.002	0.936	<0.00002	184	<0.0001	0.00245	<0.001	<0.002
21-Mar-08	63																				
28-Mar-08	70	0.576	<0.0005	<0.0001	0.00153	<0.03		0.206	0.00116	<0.00001	0.0083	<0.0005	0.648	<0.001	0.368	<0.00001	40.2	<0.00005	0.004	<0.0005	<0.001
4-Apr-08	77																				
11-Apr-08	84	1.38	<0.0005	<0.0001	0.00229	<0.03	0.000054	0.577	0.00257	<0.00001	0.0199	<0.0005	1.39	<0.001	0.619	<0.00001	86.4	<0.00005	0.00805	<0.0005	0.004
18-Apr-08	91																				
25-Apr-08	98	2.16	<0.0005	<0.0001	0.00308	0.061	0.000106	0.848	0.00356	<0.00001	0.0158	<0.0005	1.5	<0.001	1.05	<0.00001	83.6	<0.00005	0.00365	0.00088	0.0016
2-May-08	105																				
9-May-08	112	1.51	<0.0005	<0.0001	0.00106	<0.03	<0.00005	0.731	0.00289	<0.00001	0.00459	<0.0005	1.17	<0.001	0.437	<0.00001	54.7	<0.00005	0.0119	<0.0005	<0.001
16-May-08	119																				
23-May-08	126	1.84	<0.0005	<0.0001	0.00315	<0.03	0.000072	0.796	0.00233	<0.00001	0.00438	<0.0005	1.3	<0.001	0.634	<0.00001	68.1	<0.00005	0.00411	<0.0005	0.0011
30-May-08	133																				
6-Jun-08	140	1.33	<0.0005	<0.0001	0.0012	0.058	<0.00005	0.564	0.000987	<0.00001	0.00751	<0.0005	1.05	0.0014	0.817	<0.00001	66.6	<0.00005	0.00877	0.00088	<0.001
13-Jun-08	147																				
20-Jun-08	154	2.3	<0.0005	<0.0001	0.00136	<0.03	0.000055	1.06	0.00255	<0.00001	0.00566	<0.0005	1.96	0.0019	0.668	<0.00001	98	<0.00005	0.00339	<0.0005	0.0013
27-Jun-08	161																				
4-Jul-08	168	1.17	<0.0005	<0.0001	0.00382	<0.03	<0.00005	0.506	0.00131	<0.00001	0.00315	<0.0005	1.16	0.0012	0.578	<0.00001	61.4	<0.00005	0.0058	<0.0005	<0.001
11-Jul-08	175																				
18-Jul-08	182	1.74	<0.0005	<0.0001	0.00191	<0.03	<0.00005	0.913	0.00194	<0.00001	0.00291	<0.0005	1.75	0.0016	0.541	<0.00001	74.1	<0.00005	0.0048	<0.0005	<0.001
25-Jul-08	189																				
1-Aug-08	196	1.47	<0.0005	<0.0001	0.0006	<0.03	<0.00005	0.746	0.00148	<0.00001	0.00263	<0.0005	1.53	0.0016	0.56	<0.00001	60	<0.00005	0.00447	<0.0005	<0.001
8-Aug-08	203																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Aug-08	210	500	480	8.47	347	220	<1	<1	107.6	126	6.33	<0.5	0.044	8.71	0.0577	0.000075	0.00033	0.0205	<0.0002	<0.0005	0.019	<0.00005
22-Aug-08	217	500	485	8.54	318	201																
29-Aug-08	224	500	465	8.57	325	211	<1	<1	111.6	125	6.67	<0.5	0.065	11.7	0.0645	0.000076	0.00028	0.0232	<0.0002	<0.0005	0.019	<0.00005
5-Sep-08	231	500	465	8.52	331	226																
12-Sep-08	238	500	465	8.48	306	253	<1	<1	134.1	137	11.1	<0.5	0.062	12.8	0.0401	0.000076	0.00025	0.0349	<0.0002	<0.0005	0.018	<0.00005
19-Sep-08	245	500	465	8.55	304	226																
26-Sep-08	252	500	480	8.47	297	216	<1	<1	106	125	8.38	<0.5	0.053	8.66	0.0343	0.000057	0.00018	0.027	<0.0002	<0.0005	0.017	<0.00005
3-Oct-08	259	500	460	8.49	396	217																
10-Oct-08	266	500	465	8.47	372	196	<1	<1	99.2	111	9.71	<0.5	0.065	8.2	0.0247	0.000057	0.00017	0.0277	<0.0002	<0.0005	0.013	<0.00005
17-Oct-08	273	500	460	8.51	389	245																
24-Oct-08	280	500	460	8.44	402	241	<1	<1	130.1	144	16.3	<0.5	0.079	9.82	0.0216	0.000065	0.00017	0.0458	<0.0002	<0.0005	0.017	<0.00005
31-Oct-08	287	500	470	8.43	418	234																
7-Nov-08	294	500	455	8.32	412	197	<1	<1	108	105	14.2	<0.5	0.064	6.56	0.0184	<0.00005	0.00015	0.041	<0.0002	<0.0005	0.013	<0.00005
14-Nov-08	301	500	450	8.42	411	204																
21-Nov-08	308	500	490	8.42	325	292	<1	<1	157.7	168	27.6	<0.5	0.074	8.18	0.0141	<0.00005	0.00014	0.0695	<0.0002	<0.0005	0.019	<0.00005
28-Nov-08	315	500	465	8.2	310	167																
5-Dec-08	322	500	425	8.4	351	216	<1	<1	127.7	116	19.9	<0.5	0.078	9.3	0.0226	0.000057	0.00012	0.0483	<0.0002	<0.0005	0.017	<0.00005
12-Dec-08	329	500	430	8.34	347	216																
19-Dec-08	336	500	460	8.31	347	315	<1	<1	197	183	46.6	<0.5	0.072	8.34	0.0187	0.000055	0.00017	0.107	<0.0002	<0.0005	0.022	<0.00005
26-Dec-08	343	500	480	8.11	353	137																
2-Jan-09	350	500	460	8.17	344	222	<1	9.24	143.4	130	36.6	<0.5	0.044	6.38	0.0094	<0.00005	<0.0001	0.0919	<0.0002	<0.0005	0.016	<0.00005
9-Jan-09	357	500	475	8.25	354	271																
16-Jan-09	364	500	465	8.27	377	324	<1	3.95	206.8	177	71.5	<0.5	0.049	6.11	0.0042	<0.00005	0.00014	0.147	<0.0002	<0.0005	0.025	<0.00005
23-Jan-09	371	500	470	8.28	366	309																
30-Jan-09	378	500	460	7.98	390	96	<1	7.51	66.6	45.8	27.9	<0.5	<0.02	1.97	0.0058	<0.00005	0.00014	0.0767	<0.0002	<0.0005	<0.01	<0.00005
6-Feb-09	385	500	490	8.25	358	383																
13-Feb-09	392	500	450	7.88	390	74	<1	2.41	49.2	36.1	28.2	<0.5	<0.02	1.63	0.005	<0.00005	<0.0001	0.0709	<0.0002	<0.0005	<0.01	<0.00005
20-Feb-09	399	500	480	8.38	327	300																
27-Feb-09	406	500	480	8.26	330	310	<1	2.89	213.3	172	134	<0.5	0.045	6.32	0.0032	<0.00005	<0.0001	0.351	<0.0002	<0.0005	0.022	<0.00005
6-Mar-09	413	500	460	8.04	302	215																
13-Mar-09	420	500	480	8	331	201	<1	2.94	129.3	99.5	86.5	<0.5	0.034	4.22	0.0048	<0.00005	<0.0001	0.186	<0.0002	<0.0005	0.016	<0.00005
20-Mar-09	427	500	465	8.13	352	200																
27-Mar-09	434	500	465	8.13	343	254	<1	5.26	159.6	134	110	<0.5	0.048	5.35	0.0035	<0.00005	0.00013	0.233	<0.0002	<0.0005	0.028	<0.00005
3-Apr-09	441	500	465	8.14	354	218																
10-Apr-09	448	500	465	8.15	360	248	<1	3.19	158.7	131	120	<0.5	0.03	5.44	0.0041	<0.00005	0.00013	0.255	<0.0002	<0.0005	0.023	<0.00005
17-Apr-09	455	500	465	8.25	367	278																
24-Apr-09	462	500	460	8.19	361	268																
1-May-09	469	500	460																			
8-May-09	476	500	475	8.12	349	269	<1	2.64	169.7	145	156	<0.5	0.061	5.9	0.0042	<0.00005	0.00012	0.372	<0.0002	<0.0005	0.026	<0.00005
15-May-09	483	500	475																			
22-May-09	490	500	490	8.18	356	300																
29-May-09	497	500	505																			
5-Jun-09	504	500	465	8.16	361	210	<1	3.2	150.2	103	115	<0.5	0.048	6.25	0.0054	<0.00005	<0.0001	0.27	<0.0002	<0.0005	0.033	<0.00005
12-Jun-09	511	500	470																			
19-Jun-09	518	500	470	8.15	368	275																
26-Jun-09	525	500	480																			
3-Jul-09	532	500	495	8.16	319	274	<1	2.46	182.8	146	145	<0.5	0.029	5.4	0.0023	<0.00005	<0.0001	0.269	<0.0002	<0.0005	0.019	<0.00005
10-Jul-09	539	500	470																			
17-Jul-09	546	500	505	8.05	344	198																
24-Jul-09	553	500	475																			
31-Jul-09	560	500	460	7.98	353	134	<1	2.83	88.8	69.8	72.8	<0.5	0.041	4.19	0.0055	<0.00005	<0.0001	0.158	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-09	567	500	450																			
14-Aug-09	574	500	465	8.02	313	220																
21-Aug-09	581	500	460																			
28-Aug-09	588	500	465	8.16	271	271	<1	2.62	178.7	148	165	<0.5	0.033	5.5	0.0034	<0.00005	0.00013	0.345	<0.0002	<0.0005	0.017	<0.00005
4-Sep-09	595	500	515																			
11-Sep-09	602	500	505	8.14	293	281																
18-Sep-09	609	500	465																			
25-Sep-09	616	500	480	8.17	314	309	<1	3.4	211.4	174	176	<0.5	0.041	6.37	0.003	<0.00005	<0.0001	0.363	<0.0002	<0.0005	0.02	<0.00005
2-Oct-09	623	500	520																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Aug-08	210	1.37	<0.0005	<0.0001	0.00027	<0.03	0.000059	0.707	0.00118	<0.00001	0.00193	<0.0005	1.44	0.0011	0.409	<0.00001	45.6	<0.00005	0.00542	<0.0005	<0.001
22-Aug-08	217																				
29-Aug-08	224	1.38	<0.0005	<0.0001	0.00067	<0.03	<0.00005	0.783	0.00107	<0.00001	0.00279	<0.0005	1.47	0.0013	0.459	<0.00001	47.9	<0.00005	0.00516	<0.0005	<0.001
5-Sep-08	231																				
12-Sep-08	238	2.35	<0.0005	<0.0001	0.00114	<0.03	0.000061	1.27	0.00174	<0.00001	0.00288	<0.0005	1.92	0.0013	0.549	<0.00001	63.1	<0.00005	0.00368	<0.0005	0.001
19-Sep-08	245																				
26-Sep-08	252	1.79	<0.0005	<0.0001	0.00027	<0.03	<0.00005	0.952	0.000873	<0.00001	0.00244	<0.0005	1.6	<0.001	0.411	<0.00001	49.6	<0.00005	0.00389	<0.0005	<0.001
3-Oct-08	259																				
10-Oct-08	266	2.08	<0.0005	<0.0001	0.00063	<0.03	<0.00005	1.09	0.000887	<0.00001	0.0024	<0.0005	1.68	<0.001	0.377	<0.00001	39.9	<0.00005	0.0039	<0.0005	<0.001
17-Oct-08	273																				
24-Oct-08	280	3.38	<0.0005	<0.0001	0.00072	<0.03	<0.00005	1.91	0.00152	<0.00001	0.00299	<0.0005	2.26	<0.001	0.44	<0.00001	58.6	<0.00005	0.00253	<0.0005	<0.001
31-Oct-08	287																				
7-Nov-08	294	3.06	<0.0005	<0.0001	0.00063	<0.03	<0.00005	1.6	0.00172	<0.00001	0.00208	<0.0005	2.12	<0.001	0.365	<0.00001	43.9	<0.00005	0.00284	<0.0005	<0.001
14-Nov-08	301																				
21-Nov-08	308	5.96	<0.0005	<0.0001	0.00196	<0.03	0.000142	3.07	0.00504	<0.00001	0.00218	<0.0005	3.01	<0.001	0.594	<0.00001	60.4	<0.00005	0.00176	<0.0005	<0.001
28-Nov-08	315																				
5-Dec-08	322	4.13	<0.0005	<0.0001	0.00029	<0.03	<0.00005	2.33	0.00165	<0.00001	0.00362	<0.0005	2.59	<0.001	0.433	<0.00001	43.9	<0.00005	0.00144	<0.0005	<0.001
12-Dec-08	329																				
19-Dec-08	336	8.97	<0.0005	<0.0001	0.00096	<0.03	<0.00005	5.88	0.0031	<0.00001	0.00211	<0.0005	3.96	<0.001	0.589	<0.00001	60.4	<0.00005	0.00083	<0.0005	<0.001
26-Dec-08	343																				
2-Jan-09	350	7.15	<0.0005	<0.0001	0.0008	<0.03	0.000061	4.55	0.00116	<0.00001	0.0014	<0.0005	3.1	<0.001	0.371	<0.00001	38.5	<0.00005	0.00263	<0.0005	<0.001
9-Jan-09	357																				
16-Jan-09	364	13.1	<0.0005	<0.0001	0.00095	<0.03	<0.00005	9.4	0.00287	<0.00001	0.00139	<0.0005	4.95	<0.001	0.571	<0.00001	47.1	<0.00005	0.0007	<0.0005	<0.001
23-Jan-09	371																				
30-Jan-09	378	5.25	<0.0005	<0.0001	0.00205	<0.03	<0.00005	3.58	0.00271	<0.00001	0.000345	<0.0005	1.77	<0.001	0.204	<0.00001	9.5	<0.00005	0.0158	<0.0005	<0.001
6-Feb-09	385																				
13-Feb-09	392	5.11	<0.0005	<0.0001	0.00092	<0.03	<0.00005	3.74	0.0024	<0.00001	0.000333	<0.0005	1.83	<0.001	0.201	<0.00001	6.3	<0.00005	0.0179	<0.0005	<0.001
20-Feb-09	399																				
27-Feb-09	406	23.8	<0.0005	<0.0001	0.00077	<0.03	<0.00005	18	0.00653	<0.00001	0.000841	<0.0005	5.62	<0.001	0.656	<0.00001	23.4	<0.00005	0.00036	<0.0005	<0.001
6-Mar-09	413																				
13-Mar-09	420	16.7	<0.0005	<0.0001	0.00056	<0.03	<0.00005	10.9	0.00335	<0.00001	0.000652	<0.0005	4.11	<0.001	0.455	<0.00001	10.2	<0.00005	0.002	<0.0005	<0.001
20-Mar-09	427																				
27-Mar-09	434	20.7	<0.0005	<0.0001	0.00038	<0.03	<0.00005	14.3	0.00374	<0.00001	0.000912	<0.0005	5.05	<0.001	0.505	<0.00001	9.6	<0.00005	0.00089	<0.0005	<0.001
3-Apr-09	441																				
10-Apr-09	448	22.3	<0.0005	<0.0001	0.00073	<0.03	<0.00005	15.7	0.00405	<0.00001	0.000759	<0.0005	4.98	<0.001	0.554	<0.00001	7.6	<0.00005	0.00086	<0.0005	<0.001
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	25	<0.0005	<0.0001	0.00042	<0.03	<0.00005	22.7	0.00409	<0.00001	0.000672	<0.0005	5.17	<0.001	0.585	<0.00001	4.1	<0.00005	0.00035	<0.0005	<0.001
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	21.4	<0.0005	<0.0001	0.00033	<0.03	0.000213	15	0.0034	<0.00001	0.000746	<0.0005	4.17	<0.001	0.505	<0.00001	2	<0.00005	0.00067	<0.0005	<0.001
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	28.6	<0.0005	<0.0001	0.00029	<0.03	<0.00005	17.8	0.00197	<0.00001	0.000543	<0.0005	3.98	<0.001	0.546	<0.00001	<2	<0.00005	0.00015	<0.0005	<0.001
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	13.6	<0.0005	<0.0001	0.00122	<0.03	<0.00005	9.46	0.00182	<0.00001	0.000391	<0.0005	2.27	<0.001	0.339	<0.00001	<2	<0.00005	0.00196	<0.0005	<0.001
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	29.3	<0.0005	<0.0001	0.00061	<0.03	<0.00005	22.4	0.00321	<0.00001	0.000573	<0.0005	3.77	<0.001	0.597	<0.00001	<2	<0.00005	0.00027	<0.0005	<0.001
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	33.5	<0.0005	<0.0001	0.00256	<0.03	<0.00005	22.5	0.00278	<0.00001	0.000472	<0.0005	3.36	<0.001	0.692	0.000013	<2	<0.00005	0.00011	<0.0005	<0.001
2-Oct-09	623																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Oct-09	630	500	470	7.99	317	205																
16-Oct-09	637	500	455																			
23-Oct-09	644	500	475	8.13	275	294	<1	3.13	193.8	159	173	<0.5	0.039	6.11	0.0037	<0.00005	<0.0001	0.358	<0.0002	<0.0005	0.019	<0.00005
30-Oct-09	651	500	450																			
6-Nov-09	658	500	495	8.12	327	305																
13-Nov-09	665	500	475																			
20-Nov-09	672	500	470	8.16	294	300	<1	4.79	193.7	153	156	<0.5	0.036	5.94	0.0038	<0.00005	<0.0001	0.308	<0.0002	<0.0005	0.016	<0.00005
27-Nov-09	679	500	490																			
4-Dec-09	686	500	475	8.02	317	275																
11-Dec-09	693	500	515																			
18-Dec-09	700	500	465	7.92	320	217	<1	5.81	140.8	109	122	<0.5	0.036	4.1	0.0043	<0.00005	0.00014	0.254	<0.0002	<0.0005	0.016	<0.00005
25-Dec-09	707	500	470																			
1-Jan-10	714	500	475	8.25	351	268																
8-Jan-10	721	500	465																			
15-Jan-10	728	500	500	8.09	294	278	<1	9.28	181.2	148	159	<5	<0.2	5.3	0.0035	<0.00005	<0.0001	0.317	<0.0002	<0.0005	0.016	<0.00005
22-Jan-10	735	500	460																			
29-Jan-10	742	500	460	8.04	315	184																
5-Feb-10	749	500	475																			
12-Feb-10	756	500	490	8.02	310	264	<1	5.41	177.9	150	161	<5	<0.2	5.6	0.003	<0.00005	<0.0001	0.304	<0.0002	<0.0005	0.011	<0.00005
19-Feb-10	763	500	475																			
26-Feb-10	770	500	470	8.05	310	266																
5-Mar-10	777	500	480																			
12-Mar-10	784	500	480	8.04	362	258	<1	5.04	176.4	149	161	<0.5	0.045	6.2	0.003	<0.00005	<0.0001	0.318	<0.0002	<0.0005	0.013	<0.00005
19-Mar-10	791	500	490																			
26-Mar-10	798	500	480	7.97	351	212																
2-Apr-10	805	500	470																			
9-Apr-10	812	500	460	7.86	338	129	<1	3.5	77.9	67	69.3	<0.5	0.027	4.21	0.0042	<0.00005	<0.0001	0.138	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-10	819	500	465																			
23-Apr-10	826	500	475	7.82	305	157																
30-Apr-10	833	500	440																			
7-May-10	840	500	470	7.94	325	192	<1	5.78	122.5	118	118	<0.5	0.036	6.84	0.0047	<0.00005	<0.0001	0.214	<0.0002	<0.0005	0.012	<0.00005
14-May-10	847	500	475																			
21-May-10	854	500	485	7.97	350	188																
28-May-10	861	500	420																			
4-Jun-10	868	500	445	7.89	321	132	<1	3.99	79.6	65	77.9	<0.5	0.035	6.38	0.0074	<0.00005	0.0002	0.145	<0.0002	<0.0005	0.014	<0.00005
11-Jun-10	875	500	435																			
18-Jun-10	882	500	445	7.99	322	161																
25-Jun-10	889	500	480																			
2-Jul-10	896	500	450	7.99	379	124	<1	2.61	77.2	61	70.5	<0.5	0.028	6.65	0.0064	<0.00005	<0.0001	0.122	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-10	903	500	465																			
16-Jul-10	910	500	405	7.97	309	156																
23-Jul-10	917	500	470																			
30-Jul-10	924	500	455	7.94	324	162	<1	3.85	98.9	91	92.3	<0.5	0.045	8.23	0.0056	<0.00005	<0.0001	0.164	<0.0002	<0.0005	0.017	<0.00005
6-Aug-10	931	500	465																			
13-Aug-10	938	500	475	8.07	366	192																
20-Aug-10	945	500	465																			
27-Aug-10	952	500	470	8.14	384	177	<1	2.59	116.1	95	100	<5	<0.2	5.2	0.0061	<0.00005	<0.0001	0.178	<0.0002	<0.0005	0.02	<0.00005
3-Sep-10	959	500	470																			
10-Sep-10	966	500	465	7.98	348	250																
17-Sep-10	973	500	465																			
24-Sep-10	980	500	470	8.07	308	214	<1	4.41	175.8	141	155	<5	<0.2	5.6	0.0033	<0.00005	<0.0001	0.281	<0.0002	<0.0005	0.016	<0.00005
1-Oct-10	987	500	470																			
8-Oct-10	994	500	470	8.07	307	232																
15-Oct-10	1001	500	465																			
22-Oct-10	1008	500	475	8.05	354	220	<1	4.52	153	100	131	<0.5	0.049	5.64	0.0046	<0.00005	<0.0001	0.234	<0.0002	<0.0005	0.02	<0.00005
29-Oct-10	1015	500	475																			
5-Nov-10	1022	500	470	8.21	352	229																
12-Nov-10	1029	500	455																			
19-Nov-10	1036	500	465	8.11	325	276	<1	4.12	181.3	136	151	<0.5	0.047	5.73	0.004	<0.00005	<0.0001	0.251	<0.0002	<0.0005	0.011	<0.00005
26-Nov-10	1043	500	465																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	31.6	<0.0005	<0.0001	0.00032	<0.03	0.000065	22.8	0.00175	<0.00001	0.000543	<0.0005	3.36	<0.001	0.633	<0.00001	<2	<0.00005	0.00017	<0.0005	<0.001
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	29.3	<0.0005	<0.0001	0.0006	<0.03	<0.00005	20.2	0.00162	<0.00001	0.0005	<0.0005	2.65	<0.001	0.573	<0.00001	<2	<0.00005	0.00017	<0.0005	<0.001
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	21.5	<0.0005	<0.0001	0.00087	<0.03	<0.00005	16.2	0.00139	<0.00001	0.000516	<0.0005	2.29	<0.001	0.484	<0.00001	<2	<0.00005	0.00084	<0.0005	<0.001
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	29.6	<0.0005	<0.0001	0.00124	<0.03	<0.00005	20.7	0.00133	<0.00001	0.000455	<0.0005	2.54	<0.001	0.637	<0.00001	<2	<0.00005	0.00054	<0.0005	<0.001
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	30.8	<0.0005	<0.0001	0.00014	<0.03	0.000119	20.4	0.0034	<0.00001	0.000463	<0.0005	2.32	<0.001	0.602	<0.00001	<2	<0.00005	0.00015	<0.0005	<0.001
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	30.2	<0.0005	<0.0001	0.00021	<0.03	<0.00005	20.8	0.00121	<0.00001	0.000525	<0.0005	2.25	<0.001	0.556	<0.00001	<2	<0.00005	0.00014	<0.0005	<0.001
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	12.4	<0.0005	<0.0001	0.0005	<0.03	<0.00005	9.3	0.00087	<0.00001	0.000394	<0.0005	1.19	<0.001	0.301	<0.00001	<2	<0.00005	0.0015	<0.0005	<0.001
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	21.6	<0.0005	<0.0001	0.0002	<0.03	<0.00005	15.7	0.000381	<0.00001	0.000706	<0.0005	1.85	<0.001	0.496	<0.00001	<2	<0.00005	0.00078	<0.0005	<0.001
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	12.9	<0.0005	<0.0001	0.00046	<0.03	<0.00005	11.1	0.000307	<0.00001	0.000787	<0.0005	1.51	<0.001	0.38	<0.00001	<2	<0.00005	0.00147	<0.0005	<0.001
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	12.9	<0.0005	<0.0001	0.00048	<0.03	<0.00005	9.33	0.00109	<0.00001	0.000626	<0.0005	1.16	<0.001	0.345	<0.00001	<2	<0.00005	0.00137	<0.0005	<0.001
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	16.2	<0.0005	<0.0001	0.00077	<0.03	<0.00005	12.6	0.000628	<0.00001	0.000862	<0.0005	1.48	<0.001	0.454	<0.00001	<2	<0.00005	0.00084	<0.0005	<0.001
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	17.7	<0.0005	<0.0001	<0.0001	<0.03	<0.00005	13.6	0.00099	<0.00001	0.000714	<0.0005	1.48	<0.001	0.474	<0.00001	<2	<0.00005	0.00093	<0.0005	<0.001
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	28.2	<0.0005	<0.0001	0.0013	<0.03	<0.00005	20.4	0.00539	<0.00001	0.000608	<0.0005	1.89	<0.001	0.655	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	22.4	<0.0005	<0.0001	0.00045	<0.03	<0.00005	18.2	0.00153		0.000693	<0.0005	1.59	<0.001	0.593	<0.00001	<2	<0.00005	0.00037	<0.0005	<0.001
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	25.7	<0.0005	<0.0001	0.00078	<0.03	<0.00005	21	0.00172	<0.00001	0.000713	<0.0005	1.68	<0.001	0.616	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Nov-10	1043																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Dec-10	1050	500	460	7.98	319	247																
10-Dec-10	1057	500	500																			
17-Dec-10	1064	500	460	8.01	317	261	<1	6.9	180.9	142	150	<2.5	<0.1	4.9	0.0043	<0.00005	<0.0001	0.286	<0.0002	<0.0005	0.013	<0.00005
24-Dec-10	1071	500	480																			
31-Dec-10	1078	500	480	7.91	319	241																
7-Jan-11	1085	500	480																			
14-Jan-11	1092	500	455	8.15	325	193	<1	3.63	167.6	118	139	<2.5	<0.1	4.9	0.0038	<0.00005	<0.0001	0.277	<0.0002	<0.0005	0.013	<0.00005
21-Jan-11	1099	500	470																			
28-Jan-11	1106	500	455	7.79	364	226																
4-Feb-11	1113	500	480																			
11-Feb-11	1120	500	470	7.99	318	244	<1	5.93	147.8	116	135	<0.5	0.032	6.15	0.0038	<0.00005	<0.0001	0.263	<0.0002	<0.0005	0.012	<0.00005
18-Feb-11	1127	500	445																			
25-Feb-11	1134	500	475	8.04	296	251																
4-Mar-11	1141	500	465																			
11-Mar-11	1148	500	505	7.97	277	260	<1	5.92	158.7	126	135	<5	<0.2	<5	0.0042	<0.00005	<0.0001	0.269	<0.0002	<0.0005	0.012	<0.00005
18-Mar-11	1155	500	470																			
25-Mar-11	1162	500	510	7.97	287	271																
1-Apr-11	1169	500	495																			
8-Apr-11	1176	500	495	7.9	272	217	<1	11.26	144.9	113	114	<0.5	0.034	3.65	0.0041	<0.00005	0.0001	0.214	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-11	1183	500	470																			
22-Apr-11	1190	500	475	8.01	258	214																
29-Apr-11	1197	500	495																			
6-May-11	1204	500	470	7.95	322	182	<1	4.53	113.8	88	95	<0.5	0.022	3.87	0.0045	<0.00005	<0.0001	0.188	<0.0002	<0.0005	<0.01	<0.00005
13-May-11	1211	500	480																			
20-May-11	1218	500	470	8.11	222	235																
27-May-11	1225	500	470																			
3-Jun-11	1232	500	470	7.9	271	202	<1	5.48	122.9	106	107	<0.5	0.026	4.59	0.0034	<0.00005	0.00039	0.209	<0.0002	<0.0005	0.011	<0.00005
10-Jun-11	1239	500	465																			
17-Jun-11	1246	500	465	7.9	319	215																
24-Jun-11	1253	500	470																			
1-Jul-11	1260	500	475	8.17	301	229	<1	3.88	142.6	108	118	<0.5	0.035	6.62	0.0042	<0.00005	<0.0001	0.22	<0.0002	<0.0005	0.01	<0.00005
8-Jul-11	1267	500	470																			
15-Jul-11	1274	500	465	7.99	271	213																
22-Jul-11	1281	500	470																			
29-Jul-11	1288	500	480	8.1	294	224	<1	4.41	132.4	110	120	<0.5	0.038	6.21	0.0041	<0.00005	<0.0001	0.219	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-11	1295	500	465																			
12-Aug-11	1302	500	465	8.03	255	179																
19-Aug-11	1309	500	465																			
26-Aug-11	1316	500	475	8	283	225	<1	7.46	133.3	103	123	<0.5	<0.1	7.03	0.0013	<0.00005	<0.0001	0.234	<0.0002	<0.0005	0.013	<0.00005
2-Sep-11	1323	500	465																			
9-Sep-11	1330	500	470	8.06	285	156																
16-Sep-11	1337	500	460																			
23-Sep-11	1344	500	460	8.01	301	213	<1	5.46	121.8	100	110	<0.5	0.037	7.46	0.005	<0.00005	<0.0001	0.195	<0.0002	<0.0005	0.012	<0.00005
30-Sep-11	1351	500	475																			
7-Oct-11	1358	500	455	8.04	282	240																
14-Oct-11	1365	500	470																			
21-Oct-11	1372	500	465	7.92	278	171	<1	6.88	100.7	86	89.5	<0.5	0.031	4.05	0.0065	<0.00005	<0.0001	0.162	<0.0002	<0.0005	0.012	<0.00005
28-Oct-11	1379	500	470																			
4-Nov-11	1386	500	480	8.05	294	214																
11-Nov-11	1393	500	465																			
18-Nov-11	1400	500	470	7.89	295	143	<1	4.39	83.8	68	78.2	<0.5	0.025	3.74	0.0065	<0.00005	0.00015	0.133	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-11	1407	500	465																			
2-Dec-11	1414	500	475	7.95	318	179																
9-Dec-11	1421	500	470																			
16-Dec-11	1428	500	465	7.98	333	175	<1	6.85	105.5	81	90	<0.5	0.034	4.71	0.0098	<0.00005	<0.0001	0.162	<0.0002	<0.0005	0.012	<0.00005
23-Dec-11	1435	500	505																			
30-Dec-11	1442	500	475	7.91	292	172																
6-Jan-12	1449	500	470																			
13-Jan-12	1456	500	475	7.96	323	208	<1	5.56	140.1	99	108	<0.5	0.04	5.64	0.0058	<0.00005	<0.0001	0.176	<0.0002	<0.0005	0.011	<0.00005
20-Jan-12	1463	500	460																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	26.5	<0.0005	<0.0001	0.00073	<0.03	0.000233	20.3	0.00227	<0.00001	0.000643	<0.0005	1.71	<0.001	0.685	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	24.6	<0.0005	<0.0001	0.00087	<0.03	<0.00005	18.8	0.00128	<0.00001	0.000749	<0.0005	1.47	<0.001	0.627	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	23.4	<0.0005	<0.0001	0.00086	<0.03	<0.00005	18.6	0.00128	<0.00001	0.000746	<0.0005	1.44	<0.001	0.596	<0.00001	<2	<0.00005	0.00013	<0.0005	<0.001
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	24.3	<0.0005	<0.0001	0.00037	<0.03	<0.00005	18	0.00162	<0.00001	0.000661	<0.0005	1.32	<0.001	0.625	<0.00001	<2	<0.00005	0.00016	<0.0005	<0.001
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	20.9	<0.0005	<0.0001	0.00032	<0.03	<0.00005	14.9	0.0014	<0.00001	0.000635	<0.0005	1.12	<0.001	0.511	<0.00001	<2	<0.00005	0.00323	<0.0005	<0.001
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	17.2	<0.0005	<0.0001	0.0005	<0.03	<0.00005	12.6	0.00107	<0.00001	0.000507	<0.0005	0.946	<0.001	0.445	<0.00001	<2	<0.00005	0.0104	<0.0005	<0.001
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	19.5	<0.0005	<0.0001	0.00028	<0.03	<0.00005	14.1	0.00104	<0.00001	0.000553	<0.0005	1.02	<0.001	0.527	<0.00001	<2	<0.00005	0.0076	<0.0005	<0.001
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	21.4	<0.0005	<0.0001	0.00058	<0.03	<0.00005	15.7	0.00095	<0.00001	0.000644	<0.0005	1.04	<0.001	0.596	<0.00001	<2	<0.00005	0.00603	<0.0005	<0.001
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	21.6	<0.0005	<0.0001	0.0004	<0.03	<0.00005	16	0.00138	<0.00001	0.000681	<0.0005	1.11	<0.001	0.566	<0.00001	<2	<0.00005	0.00545	<0.0005	<0.001
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	21.6	<0.0005	<0.0001	0.0002	<0.03	<0.00005	16.7	0.00231	<0.00001	0.00125	<0.0005	1	<0.001	0.598	<0.00001	<2	<0.00005	0.00369	<0.0005	<0.001
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	20	<0.0005	<0.0001	0.0002	<0.03	<0.00005	14.6	0.0027	<0.00001	0.00076	<0.0005	0.917	<0.001	0.58	<0.00001	<2	<0.00005	0.00825	<0.0005	0.0011
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	16.3	<0.0005	<0.0001	0.00057	<0.03	<0.00005	11.9	0.00129	<0.00001	0.000562	<0.0005	0.809	<0.001	0.467	<0.00001	<2	<0.00005	0.00758	<0.0005	<0.001
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	13.7	<0.0005	<0.0001	0.00029	<0.03	<0.00005	10.7	0.0012	<0.00001	0.000437	<0.0005	0.694	<0.001	0.408	<0.00001	<2	<0.00005	0.00877	<0.0005	<0.001
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	16.3	<0.0005	<0.0001	0.0002	<0.03	<0.00005	12	0.00123	<0.00001	0.000578	<0.0005	0.812	<0.001	0.488	<0.00001	<2	<0.00005	0.00898	<0.0005	0.0011
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	19.4	<0.0005	<0.0001	0.00036	<0.03	0.000065	14.4	0.00115	<0.00001	0.000679	<0.0005	0.869	<0.001	0.561	<0.00001	<2	<0.00005	0.00489	<0.0005	<0.001
20-Jan-12	1463																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
27-Jan-12	1470	500	470	7.82	352	132																
3-Feb-12	1477	500	500																			
10-Feb-12	1484	500	475	8	359	229	<1	9.08	152.9	118	116	<5	<0.2	6.7	0.0061	<0.00005	<0.0001	0.2	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-12	1491	500	470																			
24-Feb-12	1498	500	465	7.95	341	194																
2-Mar-12	1505	500	450																			
9-Mar-12	1512	500	465	7.85	325	131	<1	6.37	76.7	62	68.4	<0.5	0.023	3.86	0.0085	<0.00005	<0.0001	0.11	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-12	1519	500	465																			
23-Mar-12	1526	500	480	7.89	352	201																
30-Mar-12	1533	500	495																			
6-Apr-12	1540	500	475	8	360	212	<1	4.55	125.8	100	116	<0.5	0.037	6.23	0.006	<0.00005	<0.0001	0.189	<0.0002	<0.0005	0.011	<0.00005
13-Apr-12	1547	500	460																			
20-Apr-12	1554	500	475	7.9	343	186																
27-Apr-12	1561	500	470																			
4-May-12	1568	500	435	7.89	376	110	<1	9.54	64.8	54	55.7	<0.5	0.026	4.51	0.0097	<0.00005	<0.0001	0.0939	<0.0002	<0.0005	<0.01	<0.00005
11-May-12	1575	500	460																			
18-May-12	1582	500	430	7.89	318	111																
25-May-12	1589	500	460																			
1-Jun-12	1596	500	430	7.73	333	98	<1	6.24	53.5	32	48.3	<0.5	0.023	5.29	0.0107	<0.00005	0.00017	0.0803	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-12	1603	500	425																			
15-Jun-12	1610	500	455	7.89	367	174																
22-Jun-12	1617	500	435																			
29-Jun-12	1624	500	465	7.88	349	219	<1	9.81	126.2	114	114	<0.5	0.036	8.24	0.0058	<0.00005	<0.0001	0.195	<0.0002	<0.0005	0.011	<0.00005
6-Jul-12	1631	500	440																			
13-Jul-12	1638	500	425	7.82	375	98																
20-Jul-12	1645	500	460																			
27-Jul-12	1652	500	465	7.93	322	166	<1	9.29	97.7	85	81.6	<0.5	0.026	6.26	0.0058	<0.00005	<0.0001	0.142	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-12	1659	500	475																			
10-Aug-12	1666	500	440	7.95	356	128																
17-Aug-12	1673	500	500																			
24-Aug-12	1680	500	455	7.91	323	146	<1	8.87	83	73	78.4	<0.5	0.047	6.8	0.0077	<0.00005	0.00011	0.126	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-12	1687	500	415																			
7-Sep-12	1694	500	425	7.9	404	159																
14-Sep-12	1701	500	460																			
21-Sep-12	1708	500	460	7.72	387	90	<1	5.71	55.8	44	46.3	<0.5	0.025	4.43	0.0102	<0.00005	<0.0001	0.0763	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-12	1715	500	465																			
5-Oct-12	1722	500	440	7.79	381	146																
12-Oct-12	1729	500	485																			
19-Oct-12	1736	500	475	7.78	392	117	<1	6.64	70.2	57	60.6	<0.5	0.03	4.5	0.0095	<0.00005	<0.0001	0.0953	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-12	1743	500	460																			
2-Nov-12	1750	500	515	8.09	301	201																
9-Nov-12	1757	500	460																			
16-Nov-12	1764	500	490	7.85	369	94	<1	3.31	53.8	48	47.1	<0.5	0.022	3.64	0.0113	<0.00005	0.00079	0.0703	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-12	1771	500	495																			
30-Nov-12	1778	500	480	7.84	382	147																
7-Dec-12	1785	500	495																			
14-Dec-12	1792	500	475	8.07	326	187	<1	7.92	112	89	94.9	<0.5	0.035	5.28	0.0064	<0.00005	<0.0001	0.152	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-12	1799	500	435																			
28-Dec-12	1806	500	485	8.01	380	190																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	365	7.98	377	322	<1	4.51	107.1	226	73.2	4.23	0.133	55.4	0.018	0.00234	0.00553	0.0334	<0.0002	<0.0005	0.132	<0.00005
25-Jan-08	7	500	510	7.99	443	237																
1-Feb-08	14	500	490	7.87	428	145	<1	3.84	71.1	90.7	28	<0.5	0.158	11	0.0427	0.0017	0.0085	0.0141	<0.0002	<0.0005	0.074	<0.00005
8-Feb-08	21	500	500	7.79	429	143																
15-Feb-08	28	500	515	7.93	417	101	<1	2.59	52.6	60	24.3	<0.5	0.11	6.34	0.0423	0.00195	0.00767	0.0105	<0.0002	<0.0005	0.031	<0.00005
22-Feb-08	35	500	475	7.99	407	115																
29-Feb-08	42	500	480	7.96	403	137	<1	3.94	72.9	96.5	40.5	<0.5	0.133	7.09	0.0278	0.0022	0.00931	0.0168	<0.0002	<0.0005	0.037	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	21.5	<0.0005	<0.0001	0.00044	<0.03	<0.00005	15.1	0.00133	<0.00001	0.000716	<0.0005	0.904	<0.001	0.615	<0.00001	<2	<0.00005	0.00487	<0.0005	<0.001
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	12.3	<0.0005	<0.0001	0.00035	<0.03	<0.00005	9.15	0.00099	<0.00001	0.000403	<0.0005	0.582	<0.001	0.38	<0.00001	<2	<0.00005	0.00812	<0.0005	<0.001
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	20.1	<0.0005	<0.0001	0.00021	<0.03	<0.00005	15.9	0.00112	<0.00001	0.000591	<0.0005	0.897	<0.001	0.606	<0.00001	<2	<0.00005	0.00545	<0.0005	<0.001
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	10.3	<0.0005	<0.0001	0.00022	<0.03	<0.00005	7.27	0.00152	<0.00001	0.000477	<0.0005	0.505	<0.001	0.354	<0.00001	<2	<0.00005	0.0101	<0.0005	<0.001
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	8.77	<0.0005	<0.0001	0.00035	<0.03	<0.00005	6.42	0.000643	<0.00001	0.000457	<0.0005	0.44	<0.001	0.332	<0.00001	<2	<0.00005	0.00941	<0.0005	<0.001
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	21	<0.0005	<0.0001	0.00018	<0.03	<0.00005	14.9	0.0041	<0.00001	0.000642	<0.0005	0.777	<0.001	0.599	<0.00001	<2	<0.00005	0.00458	<0.0005	<0.001
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	15	<0.0005	<0.0001	0.00014	<0.03	<0.00005	10.7	0.00116	<0.00001	0.000499	<0.0005	0.624	<0.001	0.473	<0.00001	<2	<0.00005	0.00957	<0.0005	<0.001
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	13.7	0.0009	<0.0001	0.00014	<0.03	<0.00005	10.7	0.000736	<0.00001	0.00105	<0.0005	0.705	<0.001	0.518	<0.00001	<2	<0.00005	0.00562	<0.0005	<0.001
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	8.43	<0.0005	<0.0001	0.00068	<0.03	<0.00005	6.13	0.000476	<0.00001	0.000554	<0.0005	0.426	<0.001	0.328	<0.00001	<2	<0.00005	0.00893	<0.0005	<0.001
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	10.6	0.00131	<0.0001	0.00135	<0.03	0.000342	8.28	0.000447	<0.00001	0.000611	<0.0005	0.478	<0.001	0.371	<0.00001	<2	<0.00005	0.00566	<0.0005	<0.001
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	8.66	<0.0005	<0.0001	0.00034	<0.03	<0.00005	6.19	0.000935	<0.00001	0.000472	<0.0005	0.413	<0.001	0.329	<0.00001	<2	<0.00005	0.00558	<0.0005	0.0045
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	16.7	<0.0005	<0.0001	0.00012	<0.03	<0.00005	12.9	0.000865	<0.00001	0.000763	<0.0005	0.637	<0.001	0.547	<0.00001	<2	<0.00005	0.00283	<0.0005	<0.001
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	25.9	<0.0005	0.00019	0.00507	<0.03	<0.00005	2.07	0.0331	<0.00001	0.0566	0.00056	1.68	0.0017	4.05	<0.00001	48.3	<0.00005	0.0001	0.00216	0.0011
25-Jan-08	7																				
1-Feb-08	14	9.58	<0.0005	<0.0001	0.00192	<0.03	<0.00005	0.986	0.0215	<0.00001	0.0414	<0.0005	1.22	<0.001	3.91	<0.00001	23.9	<0.00005	0.00034	0.00372	0.0027
8-Feb-08	21																				
15-Feb-08	28	8.42	<0.0005	<0.0001	0.00114	<0.03	<0.00005	0.803	0.0166	<0.00001	0.0189	<0.0005	0.906	<0.001	2.82	<0.00001	14.1	<0.00005	0.00099	0.00338	<0.001
22-Feb-08	35																				
29-Feb-08	42	14.3	<0.0005	<0.0001	0.00496	<0.03	<0.00005	1.15	0.0297	<0.00001	0.0226	<0.0005	1.23	<0.001	4.19	<0.00001	18.1	<0.00005	0.00012	0.00333	0.0015

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
7-Mar-08	49	500	470	7.93	400	114																
14-Mar-08	56	500	485	7.98	393	118	<1	2.92	64.6	73	40.1	<0.5	0.093	5.31	0.0258	0.00164	0.00907	0.0179	<0.0002	<0.0005	0.023	<0.00005
21-Mar-08	63	500	490	7.96	404	90																
28-Mar-08	70	500	480	7.81	412	115	<1	3.88	64.4	75	43.4	<0.5	0.076	3.66	0.0228	0.00137	0.00724	0.0171	<0.0002	<0.0005	0.016	<0.00005
4-Apr-08	77	500	470	8.07	403	108																
11-Apr-08	84	500	470	7.78	385	116	<1	3.07	58.1	53	47	<0.5	0.056	2.97	0.0224	0.00127	0.00677	0.0163	<0.0002	<0.0005	0.012	<0.00005
18-Apr-08	91	500	450	8.05	403	119																
25-Apr-08	98	500	415	7.99	377	111	<1	1.86	60.5	66	48.1	<0.5	0.051	2.98	0.0184	0.00122	0.0056	0.0173	<0.0002	<0.0005	<0.01	<0.00005
2-May-08	105	500	440	7.94	403	103																
9-May-08	112	500	440	7.99	365	117	<1	2.68	60.5	66.4	54.7	<0.5	0.043	3.44	0.0306	0.00137	0.00665	0.0196	<0.0002	<0.0005	0.011	<0.00005
16-May-08	119	500	400	7.99	375	105																
23-May-08	126	500	385	8.02	379	119	<1	2.37	60	82	52	<0.5	0.066	3.22	0.0226	0.00188	0.00627	0.0183	<0.0002	<0.0005	0.017	<0.00005
30-May-08	133	500	425	7.82	376	105																
6-Jun-08	140	500	390	8.03	385	114	<1	2.39	69	91	58.6	<0.5	0.04	2.83	0.0169	0.00257	0.00563	0.0245	<0.0002	<0.0005	<0.01	<0.00005
13-Jun-08	147	500	390	7.98	388	90																
20-Jun-08	154	500	390	8.04	346	92	<1	2.84	63.5	81	53.5	<0.5	0.041	3.77	0.0155	0.00194	0.00684	0.0211	<0.0002	<0.0005	0.011	<0.00005
27-Jun-08	161	500	385	7.89	363	106																
4-Jul-08	168	500	395	7.89	372	112	<1	2.63	48.3	30	48.1	<0.5	0.042	3.21	0.0238	0.00173	0.00695	0.0172	<0.0002	<0.0005	<0.01	<0.00005
11-Jul-08	175	500	400	8	406	109																
18-Jul-08	182	500	395	8.01	381	110	<1	2.01	53.4	70	49.8	<0.5	0.033	3.06	0.0213	0.00165	0.00729	0.019	<0.0002	<0.0005	<0.01	<0.00005
25-Jul-08	189	500	400	7.99	393	108																
1-Aug-08	196	500	405	8.02	405	116	<1	1.7	59.3	67	51.5	<0.5	0.033	3.81	0.0156	0.00158	0.00682	0.0192	<0.0002	<0.0005	<0.01	<0.00005
8-Aug-08	203	500	385	8	389	112																
15-Aug-08	210	500	385	7.95	373	115	<1	2.65	56.2	64	51.2	<0.5	0.029	3.11		0.00145	0.00594	0.0192	<0.0002	<0.0005	<0.01	0.000056
22-Aug-08	217	500	395	7.96	345	106																
29-Aug-08	224	500	380	7.98	352	111	<1	1.77	60.4	65	50.6	<0.5	0.028	2.79	0.0139	0.00155	0.00602	0.0194	<0.0002	<0.0005	<0.01	<0.00005
5-Sep-08	231	500	385	8.04	355	111																
12-Sep-08	238	500	385	8.01	317	118	<1	2.62	64.6	73	54.1	<0.5	0.021	3.23	0.019	0.00146	0.00578	0.0207	<0.0002	<0.0005	<0.01	0.000057
19-Sep-08	245	500	380	8.08	323	127																
26-Sep-08	252	500	400	7.95	311	107	<1	2.59	54.7	75	48.1	<0.5	<0.02	2.28	0.0169	0.00128	0.0052	0.0189	<0.0002	<0.0005	<0.01	0.000051
3-Oct-08	259	500	390	8.03	411	108																
10-Oct-08	266	500	420	8	385	104	<1	2.55	51.8	39	47.1	<0.5	0.026	2.54	0.0174	0.000964	0.00482	0.0169	<0.0002	<0.0005	<0.01	<0.00005
17-Oct-08	273	500	410	8.24	398	113																
24-Oct-08	280	500	415	8.01	416	100	<1	2.19	53.9	63.5	49.1	<0.5	<0.02	3.21	0.0164	0.000978	0.00459	0.0175	<0.0002	<0.0005	<0.01	<0.00005
31-Oct-08	287	500	415	8.03	432	113																
7-Nov-08	294	500	420	7.93	422	108	<1	2.92	59.7	65.1	54.3	<0.5	<0.02	2.63	0.0127	0.000863	0.00405	0.0178	<0.0002	<0.0005	<0.01	<0.00005
14-Nov-08	301	500	420	8.05	423	96																
21-Nov-08	308	500	495	8.06	334	125	<1	1.73	65.2	75.3	59.4	<0.5	0.021	3.55	0.0103	0.000995	0.00451	0.0213	<0.0002	<0.0005	<0.01	<0.00005
28-Nov-08	315	500	440	7.78	340	95																
5-Dec-08	322	500	385	8.02	371	123	<1	2.44	76.8	64	61.3	<0.5	<0.02	1.84	0.0108	0.0014	0.00396	0.0224	<0.0002	<0.0005	<0.01	<0.00005
12-Dec-08	329	500	430	7.94	353	86																
19-Dec-08	336	500	410	7.94	355	111	<1	3.82	68.3	63.3	56.1	<0.5	<0.02	3.06	0.0146	0.00092	0.00375	0.0193	<0.0002	<0.0005	<0.01	<0.00005
26-Dec-08	343	500	490	7.75	362	58																
2-Jan-09	350	500	405	7.88	344	90	<1	11.31	59.4	61	47	<0.5	<0.02	4.69	0.0299	0.000758	0.00383	0.0163	<0.0002	<0.0005	<0.01	<0.00005
9-Jan-09	357	500	415	7.94	354	106																
16-Jan-09	364	500	420	7.97	380	116	<1	6.16	73.1	62.8	60.7	<0.5	<0.02	2.24	0.0107	0.000814	0.00353	0.0202	<0.0002	<0.0005	<0.01	<0.00005
23-Jan-09	371	500	415	8.04	369	109																
30-Jan-09	378	500	415	7.78	404	138	<1	8.33	89.6	78.8	69.3	<0.5	<0.02	2.19	0.0076	0.000794	0.00304	0.0235	<0.0002	<0.0005	<0.01	<0.00005
6-Feb-09	385	500	415	7.88	359	123																
13-Feb-09	392	500	425	7.91	399	106	<1	2.61	64.9	62.6	56.8	<0.5	<0.02	2.31	0.0111	0.000816	0.00385	0.0186	<0.0002	<0.0005	<0.01	<0.00005
20-Feb-09	399	500	425	8.11	328	110																
27-Feb-09	406	500	385	7.97	341	111	<1	5.36	74.3	63.7	59.1	<0.5	<0.02	2.48	0.0081	0.000723	0.00331	0.0178	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-09	413	500	460	7.85	310	111																
13-Mar-09	420	500	425	7.79	338	110	<1	3.27	69.3	56.5	58	<0.5	<0.02	2.1	0.0098	0.00071	0.00318	0.0183	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-09	427	500	420	7.95	355	101																
27-Mar-09	434	500	465	7.91	347	110	<1	3.72	67.6	59.8	53.9	<0.5	<0.02	2.27	0.0115	0.000684	0.00309	0.0168	<0.0002	<0.0005	0.012	<0.00005
3-Apr-09	441	500	405	7.91	360	113																
10-Apr-09	448	500	440	7.9	366	104	<1	3.47	65.3	76	55.3	<0.5	<0.02	2.17	0.0125	0.000732	0.00317	0.0174	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-09	455	500	405	7.99	374	107																
24-Apr-09	462	500	420	7.98	366	103																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
7-Mar-08	49																				
14-Mar-08	56	13.8	<0.0005	<0.0001	0.00125	<0.03	<0.00005	1.41	0.024	<0.00001	0.0162	<0.0005	1.08	<0.001	3.82	<0.00001	14.2	<0.00005	<0.0001	0.00277	<0.001
21-Mar-08	63																				
28-Mar-08	70	15	<0.0005	<0.0001	0.00128	<0.03	0.000339	1.42	0.021	<0.00001	0.0132	<0.0005	0.955	<0.001	3.66	<0.00001	9	<0.00005	<0.0001	0.00237	<0.001
4-Apr-08	77																				
11-Apr-08	84	16.2	<0.0005	<0.0001	0.00391	<0.03	0.000051	1.56	0.0217	<0.00001	0.0111	<0.0005	0.995	<0.001	3.28	<0.00001	5.8	<0.00005	0.0002	0.00245	0.0042
18-Apr-08	91																				
25-Apr-08	98	16.8	<0.0005	<0.0001	0.00092	<0.03	<0.00005	1.53	0.0203	<0.00001	0.0107	<0.0005	0.909	<0.001	3.18	<0.00001	4.6	<0.00005	0.00016	0.00229	<0.001
2-May-08	105																				
9-May-08	112	18.6	<0.0005	<0.0001	0.00128	<0.03	0.000065	2.04	0.0213	<0.00001	0.0133	<0.0005	1.04	<0.001	3.33	<0.00001	4.2	<0.00005	<0.0001	0.00251	0.0011
16-May-08	119																				
23-May-08	126	18	<0.0005	<0.0001	0.00227	<0.03	<0.00005	1.7	0.021	<0.00001	0.0125	<0.0005	1.31	<0.001	4	<0.00001	3.8	<0.00005	<0.0001	0.00254	<0.001
30-May-08	133																				
6-Jun-08	140	20.1	<0.0005	<0.0001	0.00573	<0.03	<0.00005	2.05	0.0241	<0.00001	0.0115	<0.0005	1.75	<0.001	3.93	<0.00001	5	<0.00005	<0.0001	0.00213	0.0015
13-Jun-08	147																				
20-Jun-08	154	18.5	<0.0005	<0.0001	0.00309	<0.03	0.000083	1.78	0.0188	<0.00001	0.0125	<0.0005	1.64	<0.001	4.34	<0.00001	3.9	<0.00005	<0.0001	0.00265	0.002
27-Jun-08	161																				
4-Jul-08	168	16.8	<0.0005	<0.0001	0.00195	<0.03	0.000131	1.47	0.0163	<0.00001	0.0101	<0.0005	1.38	<0.001	4.06	<0.00001	2.8	<0.00005	<0.0001	0.00269	0.0011
11-Jul-08	175																				
18-Jul-08	182	17.1	<0.0005	<0.0001	0.00299	<0.03	0.000143	1.71	0.0148	<0.00001	0.00986	<0.0005	1.58	<0.001	3.89	<0.00001	2.7	<0.00005	<0.0001	0.00272	0.0015
25-Jul-08	189																				
1-Aug-08	196	17.8	<0.0005	<0.0001	0.00223	<0.03	<0.00005	1.74	0.0121	<0.00001	0.0106	<0.0005	1.52	<0.001	4.04	<0.00001	2.5	<0.00005	<0.0001	0.00268	<0.001
8-Aug-08	203																				
15-Aug-08	210	17.5	<0.0005	<0.0001	0.00097	<0.03	0.000151	1.81	0.0108	<0.00001	0.00842	<0.0005	1.51	<0.001	3.76	<0.00001	2.1	<0.00005	<0.0001	0.0026	<0.001
22-Aug-08	217																				
29-Aug-08	224	17.4	<0.0005	<0.0001	0.00106	<0.03	<0.00005	1.73	0.0129	<0.00001	0.00812	<0.0005	1.42	<0.001	3.71	<0.00001	<2	<0.00005	<0.0001	0.0025	<0.001
5-Sep-08	231																				
12-Sep-08	238	18.4	<0.0005	<0.0001	0.00173	<0.03	0.000096	2	0.01	<0.00001	0.00825	<0.0005	1.56	<0.001	4.09	<0.00001	2.3	<0.00005	<0.0001	0.00264	0.0017
19-Sep-08	245																				
26-Sep-08	252	16.5	<0.0005	<0.0001	0.00128	<0.03	0.000155	1.69	0.009	<0.00001	0.00617	<0.0005	1.43	<0.001	3.68	<0.00001	<2	<0.00005	<0.0001	0.00243	<0.001
3-Oct-08	259																				
10-Oct-08	266	16.4	<0.0005	<0.0001	0.00192	<0.03	<0.00005	1.49	0.00553	<0.00001	0.00505	0.00337	1.26	<0.001	3.21	<0.00001	<2	<0.00005	<0.0001	0.0022	<0.001
17-Oct-08	273																				
24-Oct-08	280	17	<0.0005	<0.0001	0.00116	<0.03	<0.00005	1.6	0.00274	<0.00001	0.00602	<0.0005	1.22	<0.001	3.24	<0.00001	<2	<0.00005	<0.0001	0.00216	<0.001
31-Oct-08	287																				
7-Nov-08	294	18.8	<0.0005	<0.0001	0.00098	<0.03	<0.00005	1.77	0.00414	<0.00001	0.00458	<0.0005	1.32	<0.001	2.99	<0.00001	<2	<0.00005	<0.0001	0.0019	<0.001
14-Nov-08	301																				
21-Nov-08	308	21.6	<0.0005	<0.0001	0.00358	<0.03	<0.00005	1.89	0.00121	<0.00001	0.00574	<0.0005	1.33	<0.001	3.32	<0.00001	<2	<0.00005	<0.0001	0.00203	<0.001
28-Nov-08	315																				
5-Dec-08	322	21.2	<0.0005	<0.0001	0.00086	<0.03	<0.00005	2.03	0.00775	<0.00001	0.00492	<0.0005	1.68	<0.001	3.05	<0.00001	<2	<0.00005	<0.0001	0.00179	<0.001
12-Dec-08	329																				
19-Dec-08	336	19.9	<0.0005	<0.0001	0.00143	<0.03	<0.00005	1.53	0.00312	<0.00001	0.0058	<0.0005	1.33	<0.001	3.09	<0.00001	<2	<0.00005	0.0001	0.00179	<0.001
26-Dec-08	343																				
2-Jan-09	350	16.1	<0.0005	<0.0001	0.00263	<0.03	<0.00005	1.62	0.00289	<0.00001	0.00521	<0.0005	1.18	<0.001	2.37	<0.00001	<2	<0.00005	0.0005	0.00175	<0.001
9-Jan-09	357																				
16-Jan-09	364	20.5	<0.0005	<0.0001	0.00291	<0.03	<0.00005	2.29	0.00481	<0.00001	0.00515	<0.0005	1.47	<0.001	2.78	<0.00001	<2	<0.00005	<0.0001	0.00168	<0.001
23-Jan-09	371																				
30-Jan-09	378	23.6	0.00055	<0.0001	0.00163	<0.03	<0.00005	2.53	0.00589	<0.00001	0.00419	<0.0005	1.38	<0.001	2.8	<0.00001	<2	<0.00005	0.00017	0.00137	<0.001
6-Feb-09	385																				
13-Feb-09	392	19.1	<0.0005	<0.0001	0.00205	<0.03	<0.00005	2.21	0.00566	<0.00001	0.00517	<0.0005	1.24	<0.001	2.59	<0.00001	<2	<0.00005	0.00013	0.00171	<0.001
20-Feb-09	399																				
27-Feb-09	406	20	<0.0005	<0.0001	0.00111	<0.03	0.000074	2.25	0.00274	<0.00001	0.00514	<0.0005	1.12	<0.001	2.44	<0.00001	<2	<0.00005	<0.0001	0.00148	<0.001
6-Mar-09	413																				
13-Mar-09	420	20	<0.0005	<0.0001	0.00136	<0.03	<0.00005	1.98	0.0032	<0.00001	0.00458	<0.0005	1.14	<0.001	2.35	<0.00001	<2	<0.00005	<0.0001	0.00146	<0.001
20-Mar-09	427																				
27-Mar-09	434	18.7	0.00152	<0.0001	0.00103	<0.03	<0.00005	1.77	0.0032	<0.00001	0.00481	<0.0005	1.08	<0.001	2.15	<0.00001	<2	<0.00005	<0.0001	0.00133	<0.001
3-Apr-09	441																				
10-Apr-09	448	19	<0.0005	<0.0001	0.00096	<0.03	<0.00005	1.91	0.00325	<0.00001	0.00501	<0.0005	1.1	<0.001	2.32	<0.00001	<2	<0.00005	<0.0001	0.0015	<0.001
17-Apr-09	455																				
24-Apr-09	462																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
1-May-09	469	500	415																			
8-May-09	476	500	415	7.86	355	97	<1	2.96	59	60.5	52.2	<0.5	0.022	2.4	0.0161	0.000672	0.00331	0.0169	<0.0002	<0.0005	0.012	<0.00005
15-May-09	483	500	435																			
22-May-09	490	500	455	7.93	363	92																
29-May-09	497	500	440																			
5-Jun-09	504	500	445	7.51	298	99	<1	3.93	54.9	38.6	48.9	<0.5	<0.02	3.62	0.0157	0.000592	0.00302	0.016	<0.0002	<0.0005	0.013	<0.00005
12-Jun-09	511	500	500																			
19-Jun-09	518	500	400	7.89	376	79																
26-Jun-09	525	500	440																			
3-Jul-09	532	500	460	7.95	326	85	<1	2.09	52.7	50.5	43.2	<0.5	<0.02	2.66	0.0167	0.000467	0.00259	0.0134	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-09	539	500	440																			
17-Jul-09	546	500	420	7.85	353	71																
24-Jul-09	553	500	455																			
31-Jul-09	560	500	440	7.84	361	85	<1	2.77	54.7	59.8	46.2	<0.5	0.026	2.73	0.0159	0.000581	0.00258	0.0143	<0.0002	<0.0005	<0.01	<0.00005
7-Aug-09	567	500	410																			
14-Aug-09	574	500	440	7.76	319	91																
21-Aug-09	581	500	430																			
28-Aug-09	588	500	435	7.92	280	90	<1	2.35	57	62.3	48.9	<0.5	<0.02	2.86	0.0166	0.000502	0.00241	0.0161	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-09	595	500	475																			
11-Sep-09	602	500	470	7.95	302	98																
18-Sep-09	609	500	455																			
25-Sep-09	616	500	460	8.01	323	103	<1	2.64	68.4	61	56.3	<0.5	<0.02	2.92	0.013	0.000609	0.00229	0.0175	<0.0002	<0.0005	<0.01	<0.00005
2-Oct-09	623	500	465																			
9-Oct-09	630	500	455	7.78	327	97																
16-Oct-09	637	500	420																			
23-Oct-09	644	500	400	7.84	284	101	<1	3.18	64.2	62	55.9	<0.5	<0.02	2.29	0.0167	0.000588	0.00237	0.0183	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-09	651	500	455																			
6-Nov-09	658	500	420	7.94	336	110																
13-Nov-09	665	500	465																			
20-Nov-09	672	500	420	7.99	303	115	<1	4.91	67.5	55	54.1	<0.5	<0.02	2.43	0.0123	0.000414	0.00189	0.0172	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-09	679	500	480																			
4-Dec-09	686	500	450	7.8	321	103																
11-Dec-09	693	500	455																			
18-Dec-09	700	500	420	7.69	329	95	<1	5.33	55.4	52	47.8	<0.5	<0.02	2.27	0.0169	0.000446	0.00207	0.0155	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-09	707	500	430																			
1-Jan-10	714	500	445	8.05	362	95																
8-Jan-10	721	500	435																			
15-Jan-10	728	500	430	7.91	299	94	<1	6.56	56.7	60	49.1	<0.5	<0.02	3.2	0.0181	0.000512	0.002	0.0159	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-10	735	500	440																			
29-Jan-10	742	500	500	7.78	345	86																
5-Feb-10	749	500	465																			
12-Feb-10	756	500	470	7.74	320	92	<1	3.52	56.5	58	50.1	<0.5	<0.02	3.02	0.0161	0.000418	0.00184	0.0168	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-10	763	500	475																			
26-Feb-10	770	500	470	7.74	319	80																
5-Mar-10	777	500	475																			
12-Mar-10	784	500	465	7.83	372	94	<1	4.21	57.8	60	51.6	<0.5	<0.02	3.43	0.0162	0.000479	0.00202	0.0181	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-10	791	500	470																			
26-Mar-10	798	500	445	7.73	358	89																
2-Apr-10	805	500	480																			
9-Apr-10	812	500	455	7.64	345	81	<1	3.62	47.3	50	43	<0.5	<0.02	2.74	0.0231	0.000393	0.00186	0.0141	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-10	819	500	440																			
23-Apr-10	826	500	470	7.66	314	89																
30-Apr-10	833	500	465																			
7-May-10	840	500	470	7.71	333	91	<1	5.41	55.8	72	54.3	<0.5	<0.02	3.44	0.0209	0.000507	0.00235	0.0165	<0.0002	<0.0005	<0.01	<0.00005
14-May-10	847	500	455																			
21-May-10	854	500	475	7.75	353	90																
28-May-10	861	500	420																			
4-Jun-10	868	500	430	7.71	331	86	<1	4.1	51.7	39	46.8	<0.5	<0.02	2.96	0.0257	0.000485	0.00249	0.0148	<0.0002	<0.0005	<0.01	<0.00005
11-Jun-10	875	500	430																			
18-Jun-10	882	500	460	7.8	328	86																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
1-May-09	469																				
8-May-09	476	17.3	<0.0005	<0.0001	0.00055	<0.03	<0.00005	2.19	0.00203	<0.00001	0.0048	<0.0005	1.09	<0.001	2.08	<0.00001	<2	<0.00005	0.00029	0.00149	<0.001
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	16.9	<0.0005	<0.0001	0.00109	<0.03	0.000118	1.6	0.000418	<0.00001	0.00511	<0.0005	0.955	<0.001	1.86	<0.00001	<2	<0.00005	0.00056	0.00148	<0.001
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	15.2	<0.0005	<0.0001	0.00047	<0.03	<0.00005	1.27	0.000521	<0.00001	0.00429	<0.0005	0.736	<0.001	1.52	<0.00001	<2	<0.00005	0.00053	0.00116	<0.001
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	16.1	<0.0005	<0.0001	0.00191	<0.03	<0.00005	1.47	0.000164	<0.00001	0.0052	<0.0005	0.817	<0.001	1.73	<0.00001	<2	<0.00005	0.00026	0.00133	<0.001
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	16.8	<0.0005	<0.0001	0.0016	<0.03	<0.00005	1.69	0.000462	<0.00001	0.00475	<0.0005	0.807	<0.001	1.66	<0.00001	<2	<0.00005	0.0003	0.00124	<0.001
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	19.8	<0.0005	<0.0001	0.00247	<0.03	<0.00005	1.66	0.000208	<0.00001	0.0061	<0.0005	0.785	<0.001	1.82	<0.00001	<2	<0.00005	<0.0001	0.00111	<0.001
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	19.6	<0.0005	<0.0001	0.00219	<0.03	0.000243	1.67	0.0002	<0.00001	0.00537	<0.0005	0.802	<0.001	1.64	<0.00001	<2	<0.00005	0.00018	0.00111	<0.001
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	19.2	<0.0005	<0.0001	0.00088	<0.03	<0.00005	1.49	0.000189	<0.00001	0.00446	<0.0005	0.617	<0.001	1.41	<0.00001	<2	<0.00005	<0.0001	0.00078	<0.001
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	16.6	<0.0005	<0.0001	0.00073	<0.03	<0.00005	1.5	0.000459	<0.00001	0.00438	<0.0005	0.675	<0.001	1.38	<0.00001	<2	<0.00005	0.00048	0.00091	<0.001
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				
15-Jan-10	728	17.4	<0.0005	<0.0001	0.00315	<0.03	<0.00005	1.4	0.000249	<0.00001	0.00547	<0.0005	0.662	<0.001	1.43	<0.00001	<2	<0.00005	0.00051	0.00096	<0.001
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	17.8	<0.0005	<0.0001	0.00035	<0.03	<0.00005	1.36	0.000827	<0.00001	0.00499	<0.0005	0.601	<0.001	1.35	<0.00001	<2	<0.00005	0.00049	0.00086	<0.001
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	18.2	<0.0005	<0.0001	0.00037	<0.03	<0.00005	1.52	0.000489	<0.00001	0.00618	<0.0005	0.647	<0.001	1.32	<0.00001	<2	<0.00005	0.00035	0.00093	<0.001
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	15.2	<0.0005	<0.0001	0.00044	<0.03	<0.00005	1.24	0.00257	<0.00001	0.00478	<0.0005	0.548	<0.001	1.16	<0.00001	<2	<0.00005	0.00032	0.00091	<0.001
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	19.3	<0.0005	<0.0001	0.00054	<0.03	<0.00005	1.46	0.00035	<0.00001	0.00594	<0.0005	0.684	<0.001	1.4	<0.00001	<2	<0.00005	0.00043	0.00101	<0.001
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	16.5	<0.0005	<0.0001	0.00055	<0.03	<0.00005	1.35	0.000344	<0.00001	0.00596	<0.0005	0.741	<0.001	1.42	<0.00001	<2	<0.00005	0.00054	0.00101	<0.001
11-Jun-10	875																				
18-Jun-10	882																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
25-Jun-10	889	500	435																			
2-Jul-10	896	500	445	7.82	386	85	<1	2.98	50.7	47	49	<0.5	<0.02	4.3	0.0231	0.000396	0.00201	0.0148	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-10	903	500	435																			
16-Jul-10	910	500	425	7.74	316	86																
23-Jul-10	917	500	475																			
30-Jul-10	924	500	475	7.71	333	88	<1	3.81	51.4	57	48.2	<0.5	<0.02	4.51	0.0221	0.000406	0.00205	0.0146	<0.0002	<0.0005	<0.01	<0.00005
6-Aug-10	931	500	480																			
13-Aug-10	938	500	460	7.85	373	88																
20-Aug-10	945	500	470																			
27-Aug-10	952	500	475	7.87	390	82	<1	2.5	52.4	50	45.1	<0.5	<0.02	4.04	0.027	0.000455	0.00209	0.0149	<0.0002	<0.0005	0.014	<0.00005
3-Sep-10	959	500	480																			
10-Sep-10	966	500	475	7.72	349	94																
17-Sep-10	973	500	480																			
24-Sep-10	980	500	475	7.81	312	74	<1	3.27	52.9	56	49	<0.5	<0.02	3.93	0.0252	0.000397	0.00188	0.014	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-10	987	500	480																			
8-Oct-10	994	500	475	7.82	319	92																
15-Oct-10	1001	500	475																			
22-Oct-10	1008	500	480	7.76	361	84	<1	3.56	54.6	48	43.8	<0.5	<0.02	3.49	0.0246	0.000391	0.00212	0.0136	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-10	1015	500	475																			
5-Nov-10	1022	500	475	7.98	358	89																
12-Nov-10	1029	500	455																			
19-Nov-10	1036	500	465	8.01	332	119	<1	4.18	72.7	57	59.7	<0.5	<0.02	3.46	0.0149	0.000372	0.0017	0.0178	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-10	1043	500	470																			
3-Dec-10	1050	500	460	7.77	332	103																
10-Dec-10	1057	500	480																			
17-Dec-10	1064	500	470	7.87	325	110	<1	5.46	71.9	62	61.3	<0.5	<0.02	3.26	0.0156	0.00043	0.00181	0.0195	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-10	1071	500	480																			
31-Dec-10	1078	500	460	7.81	319	83																
7-Jan-11	1085	500	480																			
14-Jan-11	1092	500	475	7.91	336	78	<1	3.54	63.9	60	54.7	<0.5	<0.02	2.83	0.0194	0.000336	0.00153	0.0165	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-11	1099	500	425																			
28-Jan-11	1106	500	470	7.75	289	73																
4-Feb-11	1113	500	400																			
11-Feb-11	1120	500	475	7.75	318	88	<1	4.13	49.4	50	44	<0.5	<0.02	3.49	0.0228	0.000265	0.00158	0.0135	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-11	1127	500	460																			
25-Feb-11	1134	500	450	7.84	300	103																
4-Mar-11	1141	500	485																			
11-Mar-11	1148	500	495	7.74	279	94	<1	5.42	53.8	46	44.7	<0.5	<0.02	3.05	0.0241	0.000296	0.0016	0.0131	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-11	1155	500	470																			
25-Mar-11	1162	500	465	7.92	287	94																
1-Apr-11	1169	500	465																			
8-Apr-11	1176	500	470	7.83	285	94	<1	9.52	59.7	55	46.7	<0.5	<0.02	2.81	0.0203	0.000298	0.00152	0.0143	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-11	1183	500	475																			
22-Apr-11	1190	500	475	7.8	277	100																
29-Apr-11	1197	500	490																			
6-May-11	1204	500	495	7.78	325	101	<1	4.49	59.8	56	51.9	<0.5	<0.02	3.26	0.0186	0.000385	0.00153	0.0156	<0.0002	<0.0005	<0.01	<0.00005
13-May-11	1211	500	480																			
20-May-11	1218	500	470	7.91	238	93																
27-May-11	1225	500	480																			
3-Jun-11	1232	500	470	7.7	287	95	<1	3.96	53.6	68	48	<0.5	<0.02	3.41	0.0205	0.000307	0.00155	0.014	<0.0002	<0.0005	<0.01	<0.00005
10-Jun-11	1239	500	470																			
17-Jun-11	1246	500	465	7.92	322	94																
24-Jun-11	1253	500	465																			
1-Jul-11	1260	500	420	7.91	354	89	<1	3.35	51.2	46	45.2	<0.5	<0.02	5.14	0.0228	0.000297	0.00161	0.0133	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-11	1267	500	465																			
15-Jul-11	1274	500	450	7.84	280	105																
22-Jul-11	1281	500	450																			
29-Jul-11	1288	500	450	7.94	298	104	<1	3.97	56.1	51	51.9	<0.5	<0.02	4.62	0.018	0.000335	0.00165	0.0153	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-11	1295	500	460																			
12-Aug-11	1302	500	450	7.93	256	90																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
25-Jun-10	889																				
2-Jul-10	896	17.4	<0.0005	<0.0001	0.00095	<0.03	<0.00005	1.34	0.000558	<0.00001	0.00467	<0.0005	0.649	<0.001	1.27	<0.00001	<2	<0.00005	0.00059	0.0009	<0.001
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	17.3	<0.0005	<0.0001	0.00024	<0.03	<0.00005	1.25	0.000224	<0.00001	0.00498	<0.0005	0.631	<0.001	1.35	<0.00001	<2	<0.00005	0.00035	0.00094	<0.001
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	16.1	<0.0005	<0.0001	0.00033	<0.03	<0.00005	1.16	0.000205	<0.00001	0.00444	<0.0005	0.588	<0.001	1.23	<0.00001	<2	<0.00005	0.00047	0.00091	<0.001
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	17.5	<0.0005	<0.0001	0.00058	<0.03	<0.00005	1.28	0.000302	<0.00001	0.00469	<0.0005	0.585	<0.001	1.25	<0.00001	<2	<0.00005	0.00033	0.00088	<0.001
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	15.7	<0.0005	<0.0001	0.00062	<0.03	<0.00005	1.14	0.000318		0.00428	<0.0005	0.571	<0.001	1.17	<0.00001	<2	<0.00005	0.00055	0.00094	<0.001
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	21.6	<0.0005	<0.0001	0.00101	<0.03	<0.00005	1.42	0.000159	<0.00001	0.00472	<0.0005	0.6	<0.001	1.29	<0.00001	<2	<0.00005	0.00012	0.0007	<0.001
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	22	<0.0005	<0.0001	0.00126	<0.03	0.000241	1.53	0.000322	<0.00001	0.00496	<0.0005	0.625	<0.001	1.4	<0.00001	<2	<0.00005	0.00012	0.0008	<0.001
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	20	<0.0005	<0.0001	0.0011	<0.03	<0.00005	1.16	0.000506	<0.00001	0.00377	<0.0005	0.509	<0.001	1.17	<0.00001	<2	<0.00005	0.00037	0.00069	<0.001
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	16	<0.0005	<0.0001	0.00085	<0.03	<0.00005	0.984	0.000266	<0.00001	0.00384	<0.0005	0.476	<0.001	1.01	<0.00001	<2	<0.00005	0.00037	0.00069	<0.001
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				
11-Mar-11	1148	16.4	<0.0005	<0.0001	0.00078	<0.03	<0.00005	0.931	0.000156	<0.00001	0.00382	<0.0005	0.444	<0.001	1.06	<0.00001	<2	<0.00005	0.00037	0.00071	<0.001
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	17.1	<0.0005	<0.0001	0.00084	<0.03	<0.00005	0.977	0.000124	<0.00001	0.00352	<0.0005	0.452	<0.001	1.05	<0.00001	<2	<0.00005	0.00036	0.00063	<0.001
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	19.1	<0.0005	<0.0001	0.00093	<0.03	<0.00005	1.04	0.000169	<0.00001	0.00497	<0.0005	0.491	<0.001	1.2	<0.00001	<2	<0.00005	0.00024	0.00069	<0.001
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	17.7	<0.0005	<0.0001	0.00034	<0.03	<0.00005	0.945	0.000212	<0.00001	0.00404	<0.0005	0.468	<0.001	1.11	<0.00001	<2	<0.00005	0.00029	0.00068	<0.001
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	16.6	<0.0005	<0.0001	0.00109	<0.03	<0.00005	0.894	0.000685	<0.00001	0.00421	<0.0005	0.449	<0.001	1.08	<0.00001	<2	<0.00005	0.00043	0.00071	<0.001
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	19.1	<0.0005	<0.0001	0.00051	<0.03	<0.00005	1.02	0.000292	<0.00001	0.00597	<0.0005	0.514	<0.001	1.18	<0.00001	<2	<0.00005	0.00016	0.00069	<0.001
5-Aug-11	1295																				
12-Aug-11	1302																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
19-Aug-11	1309	500	460																			
26-Aug-11	1316	500	450	7.94	282	89	<1	6.25	51.2	55	44.9	<0.5	<0.1	4.29	0.022	0.000311	0.00146	0.0143	<0.0002	<0.0005	0.012	<0.00005
2-Sep-11	1323	500	440																			
9-Sep-11	1330	500	450	7.89	263	87																
16-Sep-11	1337	500	440																			
23-Sep-11	1344	500	450	7.65	314	84	<1	4.79	47.4	44	42.6	<0.5	<0.02	3.69	0.0253	0.000261	0.00133	0.0126	<0.0002	<0.0005	<0.01	<0.00005
30-Sep-11	1351	500	455																			
7-Oct-11	1358	500	450	7.85	285	105																
14-Oct-11	1365	500	485																			
21-Oct-11	1372	500	450	7.74	281	85	<1	6.59	50.3	50	43.6	<0.5	<0.02	2.97	0.0231	0.000278	0.00139	0.0134	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-11	1379	500	460																			
4-Nov-11	1386	500	460	7.84	296	91																
11-Nov-11	1393	500	375																			
18-Nov-11	1400	500	510	7.63	292	96	<1	4.51	55.4	49	50.6	<0.5	<0.02	3.52	0.0174	0.00033	0.00152	0.0151	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-11	1407	500	465																			
2-Dec-11	1414	500	450	7.77	326	92																
9-Dec-11	1421	500	445																			
16-Dec-11	1428	500	450	7.73	322	104	<1	6.63	64	58	53.6	<0.5	<0.02	3.16	0.0172	0.000289	0.00117	0.017	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-11	1435	500	460																			
30-Dec-11	1442	500	440	7.91	308	105																
6-Jan-12	1449	500	485																			
13-Jan-12	1456	500	430	7.79	326	101	<1	5.22	67.8	63	52.4	<0.5	<0.02	3	0.0171	0.000315	0.00131	0.016	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-12	1463	500	485																			
27-Jan-12	1470	500	465	7.71	356	80																
3-Feb-12	1477	500	465																			
10-Feb-12	1484	500	460	7.74	355	91	<1	8.04	63.2	56	44.9	<0.5	<0.02	2.97	0.0227	0.00029	0.00122	0.014	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-12	1491	500	460																			
24-Feb-12	1498	500	470	7.69	351	95																
2-Mar-12	1505	500	450																			
9-Mar-12	1512	500	450	7.74	327	84	<1	6.51	47.7	46	43.1	<0.5	<0.02	2.92	0.0308	0.000264	0.0014	0.0131	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-12	1519	500	450																			
23-Mar-12	1526	500	445	7.75	360	98																
30-Mar-12	1533	500	450																			
6-Apr-12	1540	500	455	7.81	368	99	<1	4.22	55.9	58	49.6	<0.5	<0.02	3.38	0.0229	0.000267	0.00135	0.0159	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-12	1547	500	440																			
20-Apr-12	1554	500	445	7.78	349	103																
27-Apr-12	1561	500	450																			
4-May-12	1568	500	445	7.76	386	90	<1	8.89	51.3	48	46	<0.5	<0.02	3.44	0.0221	0.000275	0.00153	0.0145	<0.0002	<0.0005	<0.01	<0.00005
11-May-12	1575	500	450																			
18-May-12	1582	500	440	7.71	326	80																
25-May-12	1589	500	450																			
1-Jun-12	1596	500	445	7.65	341	87	<1	6.62	47.5	47	43.1	<0.5	<0.02	3.53	0.0272	0.000229	0.00151	0.0135	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-12	1603	500	445																			
15-Jun-12	1610	500	480	7.63	369	94																
22-Jun-12	1617	500	450																			
29-Jun-12	1624	500	445	7.78	354	84	<1	7.94	51.3	49	43.8	<0.5	<0.02	3.4	0.0374	0.000233	0.00144	0.0129	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-12	1631	500	460																			
13-Jul-12	1638	500	445	7.73	383	83																
20-Jul-12	1645	500	445																			
27-Jul-12	1652	500	435	7.87	328	105	<1	9.07	62.3	66	51.6	<0.5	<0.02	4.46	0.0205	0.000275	0.00165	0.0169	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-12	1659	500	460																			
10-Aug-12	1666	500	440	7.8	372	98																
17-Aug-12	1673	500	445																			
24-Aug-12	1680	500	425	7.77	333	107	<1	7.66	59	63	56	<0.5	<0.02	5.14	0.0174	0.000315	0.00155	0.0181	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-12	1687	500	480																			
7-Sep-12	1694	500	460	7.76	406	89																
14-Sep-12	1701	500	450																			
21-Sep-12	1708	500	445	7.65	397	91	<1	6.45	54.4	46	47.2	<0.5	<0.02	3.64	0.023	0.000278	0.0015	0.0151	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-12	1715	500	450																			
5-Oct-12	1722	500	430	7.73	385	85																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
19-Aug-11	1309																				
26-Aug-11	1316	16.6	<0.0005	<0.0001	0.00045	<0.03	<0.00005	0.872	0.000946	<0.00001	0.0051	<0.0005	0.437	<0.001	1.12	<0.00001	<2	<0.00005	0.00024	0.00073	<0.001
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	15.8	<0.0005	<0.0001	0.00057	<0.03	<0.00005	0.79	0.000363	<0.00001	0.00405	<0.0005	0.395	<0.001	1.05	<0.00001	<2	<0.00005	0.00036	0.00066	<0.001
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	16.2	<0.0005	<0.0001	0.00054	<0.03	<0.00005	0.786	0.000171	<0.00001	0.00358	<0.0005	0.438	<0.001	1.04	<0.00001	<2	<0.00005	0.00029	0.00066	0.001
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	18.7	<0.0005	<0.0001	0.00029	<0.03	<0.00005	0.934	0.000126	<0.00001	0.00343	<0.0005	0.474	<0.001	1.16	<0.00001	<2	<0.00005	0.00026	0.00059	<0.001
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	19.9	<0.0005	<0.0001	0.00033	<0.03	<0.00005	0.939	0.000196	<0.00001	0.00364	<0.0005	0.485	<0.001	1.17	<0.00001	<2	<0.00005	0.00013	0.00054	<0.001
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	19.5	<0.0005	<0.0001	0.00036	<0.03	<0.00005	0.923	0.000249	<0.00001	0.00327	<0.0005	0.46	<0.001	1.15	<0.00001	<2	<0.00005	0.00014	0.0006	<0.001
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	16.7	<0.0005	<0.0001	0.00176	<0.03	<0.00005	0.778	0.000298	<0.00001	0.00314	0.00095	0.431	<0.001	1.02	<0.00001	<2	<0.00005	0.00018	0.00058	0.0017
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	16	<0.0005	<0.0001	0.00063	<0.03	<0.00005	0.754	0.00048	<0.00001	0.0031	<0.0005	0.412	<0.001	0.973	<0.00001	<2	<0.00005	0.00038	0.00065	<0.001
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	18.4	<0.0005	<0.0001	0.00046	<0.03	<0.00005	0.881	0.00018	<0.00001	0.00344	<0.0005	0.469	<0.001	1.07	<0.00001	<2	<0.00005	0.00031	0.00056	<0.001
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				
4-May-12	1568	17.2	<0.0005	<0.0001	0.00028	<0.03	<0.00005	0.714	0.000164	<0.00001	0.00322	<0.0005	0.406	<0.001	1.02	<0.00001	<2	<0.00005	0.0004	0.00056	<0.001
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	16.1	<0.0005	<0.0001	0.00087	<0.03	<0.00005	0.667	0.000344	<0.00001	0.00301	<0.0005	0.369	<0.001	1.02	<0.00001	<2	<0.00005	0.00045	0.00056	<0.001
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	16.5	<0.0005	<0.0001	0.00064	<0.03	<0.00005	0.646	0.000316	<0.00001	0.00311	<0.0005	0.386	<0.001	0.957	<0.00001	<2	<0.00005	0.00048	0.00055	0.0022
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	19.4	<0.0005	<0.0001	0.00034	<0.03	<0.00005	0.762	0.000348	<0.00001	0.00407	<0.0005	0.475	<0.001	1.13	<0.00001	<2	<0.00005	0.00036	0.00059	<0.001
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	21	<0.0005	<0.0001	0.00025	<0.03	<0.00005	0.872	0.000266	<0.00001	0.0044	<0.0005	0.487	<0.001	1.25	<0.00001	<2	<0.00005	0.00043	0.0006	<0.001
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	17.8	<0.0005	<0.0001	0.00028	<0.03	<0.00005	0.694	0.000233	<0.00001	0.00334	<0.0005	0.445	<0.001	1.11	<0.00001	<2	<0.00005	0.00049	0.00064	<0.001
28-Sep-12	1715																				
5-Oct-12	1722																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
12-Oct-12	1729	500	460																			
19-Oct-12	1736	500	445	7.63	397	85	<1	6.5	51.5	48	42.5	<0.5	<0.02	2.87	0.0217	0.000203	0.00115	0.0135	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-12	1743	500	445																			
2-Nov-12	1750	500	440	7.66	392	84																
9-Nov-12	1757	500	450																			
16-Nov-12	1764	500	455	7.73	377	89	<1	3.79	53.1	53	44.8	<0.5	<0.02	3.03	0.0218	0.000226	0.00126	0.0143	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-12	1771	500	490																			
30-Nov-12	1778	500	485	7.71	386	89																
7-Dec-12	1785	500	475																			
14-Dec-12	1792	500	445	7.95	330	98	<1	8.37	62.2	56	49.7	<0.5	<0.02	2.71	0.0199	0.000281	0.00153	0.0156	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-12	1799	500	445																			
28-Dec-12	1806	500	445	7.95	370	105																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-08	0	500	395	8.03	393	281	<1	3.6	90.5	208	44.3	2.46	0.236	51.7	0.117	0.00223	0.00435	0.0249	<0.0002	<0.0005	0.097	<0.00005
25-Jan-08	7	500	505	7.98	448	178																
1-Feb-08	14	500	510	7.82	434	106	<1	3.64	49.4	66.7	24.8	<0.5	0.112	11	0.119	0.0013	0.00502	0.0176	<0.0002	<0.0005	0.037	<0.00005
8-Feb-08	21	500	485	7.83	432	106																
15-Feb-08	28	500	500	7.85	428	89	<1	2.78	38	53	27.6	<0.5	0.065	12.2	0.101	0.00112	0.00393	0.0176	<0.0002	<0.0005	0.019	<0.00005
22-Feb-08	35	500	505	7.86	417	93																
29-Feb-08	42	500	480	7.88	411	113	<1	4.23	51.9	72	43	<0.5	0.065	11.9	0.0622	0.00168	0.00485	0.0267	<0.0002	<0.0005	0.022	<0.00005
7-Mar-08	49	500	485	7.84	415	94																
14-Mar-08	56	500	480	7.8	411	84	<1	2.91	39.4	56	33.8	<0.5	0.035	8.67	0.087	0.00126	0.0052	0.0239	<0.0002	<0.0005	0.015	<0.00005
21-Mar-08	63	500	495	7.84	421	72																
28-Mar-08	70	500	480	7.77	414	98	<1	3.63	47.2	60	41.1	<0.5	0.035	9.07	0.0611	0.00107	0.00436	0.0253	<0.0002	<0.0005	0.011	<0.00005
4-Apr-08	77	500	455	7.97	416	96																
11-Apr-08	84	500	480	7.63	401	93	<1	2.84	39.8	41	38.3	<0.5	0.02	7.19	0.0704	0.000903	0.00428	0.0227	<0.0002	<0.0005	<0.01	<0.00005
18-Apr-08	91	500	485	7.93	411	97																
25-Apr-08	98	500	440	7.87	384	84	<1	1.95	40.1	55	36.6	<0.5	0.023	6.4	0.0835	0.000772	0.00412	0.0258	<0.0002	<0.0005	<0.01	<0.00005
2-May-08	105	500	450	7.85	405	82																
9-May-08	112	500	425	7.97	368	99	<1	2.61	44.9	59.9	45.5	<0.5	0.02	7.09	0.074	0.000981	0.00435	0.0282	<0.0002	<0.0005	<0.01	<0.00005
16-May-08	119	500	410	7.94	380	83																
23-May-08	126	500	420	8.01	383	97	<1	2.17	48.5	71	40.1	<0.5	<0.02	3.86	0.0746	0.00129	0.00413	0.0256	<0.0002	<0.0005	0.011	<0.00005
30-May-08	133	500	450	7.89	373	63																
6-Jun-08	140	500	400	8.01	397	83	<1	2.29	48.6	46.8	38.9	<0.5	<0.02	4.51	0.0727	0.00138	0.00451	0.0256	<0.0002	<0.0005	<0.01	<0.00005
13-Jun-08	147	500	430	8.01	395	73																
20-Jun-08	154	500	415	8.05	359	77	<1	3.03	54.4	64.5	43.2	<0.5	<0.02	2.86	0.058	0.00108	0.00477	0.0299	<0.0002	<0.0005	<0.01	<0.00005
27-Jun-08	161	500	430	7.94	370	88																
4-Jul-08	168	500	420	7.92	375	85	<1	2.66	37	23	36	<0.5	<0.02	2.15	0.0864	0.000724	0.00469	0.0248	<0.0002	<0.0005	<0.01	<0.00005
11-Jul-08	175	500	425	7.99	413	89																
18-Jul-08	182	500	415	8.09	387	91	<1	1.77	46.3	47	37.4	<0.5	<0.02	1.79	0.0842	0.000674	0.00467	0.0281	<0.0002	<0.0005	<0.01	<0.00005
25-Jul-08	189	500	385	8.02	401	88																
1-Aug-08	196	500	425	7.95	403	90	<1	1.89	48.6	60	39.5	<0.5	<0.02	2.04	0.0767	0.00061	0.00413	0.0294	<0.0002	<0.0005	<0.01	<0.00005
8-Aug-08	203	500	430	7.97	396	80																
15-Aug-08	210	500	415	7.9	381	84	<1	2.32	41.5	39.8	37	<0.5	<0.02	1.79	0.087	0.000477	0.00366	0.0254	<0.0002	<0.0005	<0.01	<0.00005
22-Aug-08	217	500	430	7.9	344	79																
29-Aug-08	224	500	425	7.98	352	86	<1	1.95	48.6	48.4	38.4	<0.5	<0.02	1.54	0.0814	0.000453	0.00354	0.0306	<0.0002	<0.0005	<0.01	<0.00005
5-Sep-08	231	500	445	7.96	359	88																
12-Sep-08	238	500	430	7.96	325	93	<1	2.61	52.6	52	43	<0.5	<0.02	1.55	0.0754	0.000458	0.00343	0.0337	<0.0002	<0.0005	<0.01	<0.00005
19-Sep-08	245	500	435	7.98	324	86																
26-Sep-08	252	500	425	7.86	315	82	<1	2.11	41.8	47	35.6	<0.5	<0.02	1.24	0.0777	0.000324	0.00264	0.027	<0.0002	<0.0005	<0.01	<0.00005
3-Oct-08	259	500	425	7.93	416	77																
10-Oct-08	266	500	420	7.85	390	73	<1	2.32	39.4	62	32.4	<0.5	<0.02	1.08	0.0814	0.000274	0.00272	0.0242	<0.0002	<0.0005	<0.01	<0.00005
17-Oct-08	273	500	415	8.06	409	86																
24-Oct-08	280	500	420	7.97	419	86	<1	2.07	49	51.5	43.7	<0.5	<0.02	1.5	0.062	0.000353	0.00256	0.0339	<0.0002	<0.0005	<0.01	<0.00005
31-Oct-08	287	500	430	7.94	439	87																
7-Nov-08	294	500	435	7.83	428	76	<1	2.47	43.8	47.1	38.8	<0.5	<0.02	1.07	0.0654	0.000265	0.00197	0.0274	<0.0002	<0.0005	<0.01	<0.00005
14-Nov-08	301	500	415	7.86	429	65																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
12-Oct-12	1729																				
19-Oct-12	1736	16	<0.0005	<0.0001	0.00019	<0.03	<0.00005	0.622	0.00027	<0.00001	0.00245	<0.0005	0.373	<0.001	0.966	<0.00001	<2	<0.00005	0.00037	0.00052	<0.001
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	16.8	<0.0005	<0.0001	0.00037	<0.03	<0.00005	0.694	0.000254	<0.00001	0.0028	<0.0005	0.446	<0.001	1.01	<0.00001	<2	<0.00005	0.00032	0.00056	<0.001
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	18.7	<0.0005	<0.0001	0.00021	<0.03	<0.00005	0.726	0.000186	<0.00001	0.00367	<0.0005	0.449	<0.001	1.16	<0.00001	<2	<0.00005	0.00435	0.00055	<0.001
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-08	0	16.7	<0.0005	0.00013	0.0159	<0.03	0.000402	0.627	0.0245	<0.00001	0.0222	0.0007	1.2	0.0016	2.04	<0.00001	50.2	<0.00005	0.00083	0.00094	0.0016
25-Jan-08	7																				
1-Feb-08	14	9.35	<0.0005	<0.0001	0.00825	<0.03	0.000213	0.342	0.0151	<0.00001	0.0103	<0.0005	0.727	<0.001	1.96	<0.00001	15.5	<0.00005	0.00115	0.00118	0.0017
8-Feb-08	21																				
15-Feb-08	28	10.4	<0.0005	<0.0001	0.00628	<0.03	0.000147	0.391	0.0167	<0.00001	0.0106	<0.0005	0.545	<0.001	1.52	<0.00001	9.1	<0.00005	0.0012	0.00094	<0.001
22-Feb-08	35																				
29-Feb-08	42	16.3	<0.0005	<0.0001	0.00997	<0.03	0.000149	0.518	0.0228	<0.00001	0.014	<0.0005	0.628	<0.001	2.31	<0.00001	9.7	<0.00005	0.00067	0.00088	0.0018
7-Mar-08	49																				
14-Mar-08	56	12.7	<0.0005	<0.0001	0.00554	<0.03	0.000335	0.506	0.0166	<0.00001	0.0113	<0.0005	0.444	<0.001	1.86	<0.00001	6.6	<0.00005	0.00129	0.0009	0.0015
21-Mar-08	63																				
28-Mar-08	70	15.6	<0.0005	<0.0001	0.00445	<0.03	0.000341	0.529	0.0139	<0.00001	0.0103	<0.0005	0.4	<0.001	1.87	<0.00001	5.2	<0.00005	0.00087	0.00066	0.0016
4-Apr-08	77																				
11-Apr-08	84	14.5	<0.0005	<0.0001	0.00403	<0.03	0.000169	0.503	0.00863	<0.00001	0.00955	<0.0005	0.379	<0.001	1.63	<0.00001	3.9	<0.00005	0.0011	0.00067	0.0047
18-Apr-08	91																				
25-Apr-08	98	13.9	<0.0005	<0.0001	0.00415	<0.03	0.000124	0.473	0.0067	<0.00001	0.00783	<0.0005	0.396	<0.001	1.56	<0.00001	3.2	<0.00005	0.00139	0.00071	0.001
2-May-08	105																				
9-May-08	112	17.2	<0.0005	<0.0001	0.0055	<0.03	0.000217	0.629	0.0106	<0.00001	0.0108	<0.0005	0.489	<0.001	1.76	<0.00001	3.6	<0.00005	0.00118	0.00062	0.003
16-May-08	119																				
23-May-08	126	15.2	<0.0005	<0.0001	0.00791	<0.03	0.000144	0.487	0.0105	<0.00001	0.00568	<0.0005	0.686	<0.001	1.85	<0.00001	4.2	<0.00005	0.00092	0.00071	<0.001
30-May-08	133																				
6-Jun-08	140	14.8	<0.0005	<0.0001	0.00791	<0.03	0.000119	0.499	0.0178	<0.00001	0.0074	<0.0005	0.717	<0.001	1.76	<0.00001	5.2	<0.00005	0.0055	0.00082	<0.001
13-Jun-08	147																				
20-Jun-08	154	16.4	<0.0005	<0.0001	0.008	<0.03	0.000179	0.538	0.0136	0.00001	0.00438	<0.0005	0.844	<0.001	2.06	<0.00001	4.9	<0.00005	0.00038	0.00079	0.0023
27-Jun-08	161																				
4-Jul-08	168	13.7	<0.0005	<0.0001	0.00574	<0.03	0.000215	0.423	0.0115	<0.00001	0.00326	<0.0005	0.77	<0.001	1.59	<0.00001	3.5	<0.00005	0.00116	0.00082	0.0019
11-Jul-08	175																				
18-Jul-08	182	14.2	<0.0005	<0.0001	0.00443	<0.03	0.000152	0.479	0.0122	<0.00001	0.00318	<0.0005	0.811	<0.001	1.5	<0.00001	3.3	<0.00005	0.00129	0.00075	0.0014
25-Jul-08	189																				
1-Aug-08	196	15	<0.0005	<0.0001	0.00444	<0.03	0.000085	0.481	0.014	<0.00001	0.00333	<0.0005	0.749	<0.001	1.48	<0.00001	2.8	<0.00005	0.00095	0.00066	<0.001
8-Aug-08	203																				
15-Aug-08	210	14.1	<0.0005	<0.0001	0.00295	<0.03	0.000215	0.42	0.0123	<0.00001	0.00293	<0.0005	0.661	<0.001	1.31	<0.00001	2.4	<0.00005	0.0019	0.00067	0.0025
22-Aug-08	217																				
29-Aug-08	224	14.6	<0.0005	<0.0001	0.00313	<0.03	0.000107	0.461	0.0144	<0.00001	0.0027	<0.0005	0.681	<0.001	1.28	<0.00001	2.3	<0.00005	0.00148	0.00063	<0.001
5-Sep-08	231																				
12-Sep-08	238	16.4	<0.0005	<0.0001	0.0037	<0.03	0.000171	0.504	0.016	<0.00001	0.00257	<0.0005	0.692	<0.001	1.41	<0.00001	2.5	<0.00005	0.00138	0.00058	0.0017
19-Sep-08	245																				
26-Sep-08	252	13.6	<0.0005	<0.0001	0.00298	<0.03	0.000158	0.391	0.0149	<0.00001	0.00222	<0.0005	0.62	<0.001	1.11	<0.00001	2.1	<0.00005	0.00179	<0.0005	0.0014
3-Oct-08	259																				
10-Oct-08	266	12.4	<0.0005	<0.0001	0.00348	<0.03	0.000066	0.353	0.0101	<0.00001	0.00181	<0.0005	0.565	<0.001	0.976	<0.00001	<2	<0.00005	0.00177	0.00062	<0.001
17-Oct-08	273																				
24-Oct-08	280	16.8	<0.0005	<0.0001	0.00255	<0.06	0.00012	0.45	0.0168	<0.00001	0.00242	<0.0005	0.64	<0.001	1.22	<0.00001	<4	<0.00005	0.00133	0.0005	0.0015
31-Oct-08	287																				
7-Nov-08	294	15	<0.0005	<0.0001	0.00238	<0.03	0.000063	0.354	0.0158	<0.00001	0.00164	<0.0005	0.574	<0.001	0.922	<0.00001	<2	<0.00005	0.00197	<0.0005	<0.001
14-Nov-08	301																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
21-Nov-08	308	500	425	7.91	343	85	<1	1.64	45.9	45	41.3	<0.5	<0.02	1.8	0.0663	0.000276	0.00204	0.0313	<0.0002	<0.0005	<0.01	<0.00005
28-Nov-08	315	500	445	7.5	340	59																
5-Dec-08	322	500	425	7.86	373	73	<1	2.37	45.5	47.1	36.6	<0.5	<0.02	1.04	0.0584	0.000263	0.00169	0.027	<0.0002	<0.0005	<0.01	<0.00005
12-Dec-08	329	500	445	7.82	361	56																
19-Dec-08	336	500	430	7.81	368	68	<1	3.87	43.8	34.8	36.4	<0.5	<0.02	1.95	0.0474	0.00021	0.00146	0.0228	<0.0002	<0.0005	<0.01	<0.00005
26-Dec-08	343	500	475	7.89	357	31																
2-Jan-09	350	500	430	7.95	343	47	<1	8.17	36.3	29	25.1	<0.5	<0.02	1.34	0.0579	0.00017	0.00138	0.0163	<0.0002	<0.0005	<0.01	<0.00005
9-Jan-09	357	500	430	7.68	365	55																
16-Jan-09	364	500	435	7.85	388	68	<1	5.94	43.5	57.3	34.1	<0.5	<0.02	1.41	0.0452	0.000222	0.00182	0.0223	<0.0002	<0.0005	<0.01	<0.00005
23-Jan-09	371	500	430	7.79	381	69																
30-Jan-09	378	500	440	7.8	400	68	<1	7.46	47.3	38.8	33.6	<0.5	<0.02	1.34	0.0386	0.000174	0.00146	0.024	<0.0002	<0.0005	<0.01	<0.00005
6-Feb-09	385	500	425	7.68	376	72																
13-Feb-09	392	500	425	7.75	401	62	<1	2.6	40.6	37.1	32.1	<0.5	<0.02	1.24	0.0438	0.000189	0.00133	0.0208	<0.0002	<0.0005	<0.01	<0.00005
20-Feb-09	399	500	440	7.89	326	66																
27-Feb-09	406	500	455	7.98	332	67	<1	5.61	44.4	48.2	34.1	<0.5	<0.02	2.94	0.044	0.000201	0.00182	0.0199	<0.0002	<0.0005	<0.01	<0.00005
6-Mar-09	413	500	440	7.71	315	68																
13-Mar-09	420	500	470	7.45	344	51	<1	2.98	31.3	22.6	27.4	<0.5	<0.02	1.66	0.0383	0.000139	0.00148	0.0163	<0.0002	<0.0005	<0.01	<0.00005
20-Mar-09	427	500	480	7.64	358	41																
27-Mar-09	434	500	455	7.72	349	61	<1	2.97	35.2	14.3	28.4	<0.5	<0.02	2.1	0.0478	0.000179	0.00179	0.0177	<0.0002	<0.0005	0.012	<0.00005
3-Apr-09	441	500	495	7.77	366	82																
10-Apr-09	448	500	510	7.63	375	64	<1	3.04	36.4	47	33.1	<0.5	<0.02	3.7	0.0497	0.000246	0.00237	0.0219	<0.0002	<0.0005	<0.01	<0.00005
17-Apr-09	455	500	430	7.71	386	77																
24-Apr-09	462	500	495	7.78	376	76																
1-May-09	469	500	420																			
8-May-09	476	500	440	7.64	365	69	<1	2.69	40.7	107	35.3	<0.5	<0.02	1.91	0.0889	0.000236	0.00233	0.0219	<0.0002	<0.0005	<0.01	<0.00005
15-May-09	483	500	440																			
22-May-09	490	500	455	7.65	376	57																
29-May-09	497	500	445																			
5-Jun-09	504	500	460	7.72	369	42	<1	3.04	34.2	17.6	25.5	<0.5	<0.02	2.21	0.0981	0.000153	0.00186	0.017	<0.0002	<0.0005	<0.01	<0.00005
12-Jun-09	511	500	415																			
19-Jun-09	518	500	440	7.58	389	42																
26-Jun-09	525	500	420																			
3-Jul-09	532	500	495	7.63		38	<1	2.05	23.6	29	19.7	<0.5	<0.02	1.82	0.0549	0.000095	0.00115	0.0103	<0.0002	<0.0005	<0.01	<0.00005
10-Jul-09	539	500	475																			
17-Jul-09	546	500	450	7.54	363	36																
24-Jul-09	553	500	455																			
31-Jul-09	560	500	415	7.49	366	38	<1	2.69	25.1	22.3	20.4	<0.5	<0.02	3.07	0.039	0.000115	0.00106	0.0121	<0.0002	<0.0005	0.014	<0.00005
7-Aug-09	567	500	425																			
14-Aug-09	574	500	460	7.36	327	39																
21-Aug-09	581	500	455																			
28-Aug-09	588	500	460	7.62	292	53	<1	2.22	32	36.3	26.9	<0.5	<0.02	2.85	0.0467	0.000175	0.00207	0.016	<0.0002	<0.0005	<0.01	<0.00005
4-Sep-09	595	500	470																			
11-Sep-09	602	500	520	7.7	316	63																
18-Sep-09	609	500	520																			
25-Sep-09	616	500	430	7.68	339	58	<1	2.72	38.6	27	30.1	<0.5	<0.02	4.03	0.0407	0.000229	0.00163	0.0171	<0.0002	<0.0005	<0.01	<0.00005
2-Oct-09	623	500	465																			
9-Oct-09	630	500	440	7.46	337	43																
16-Oct-09	637	500	435																			
23-Oct-09	644	500	420	7.6	316	63	<1	3.91	39.1	39	35.9	<0.5	<0.02	2.48	0.0299	0.000302	0.00135	0.0206	<0.0002	<0.0005	<0.01	<0.00005
30-Oct-09	651	500	435																			
6-Nov-09	658	500	380	7.75	343	87																
13-Nov-09	665	500	480																			
20-Nov-09	672	500	380	7.8	315	85	<1	4.63	48.2	45	39.6	<0.5	<0.02	2.8	0.0393	0.000229	0.00154	0.0211	<0.0002	<0.0005	<0.01	<0.00005
27-Nov-09	679	500	500																			
4-Dec-09	686	500	435	7.55	334	64																
11-Dec-09	693	500	455																			
18-Dec-09	700	500	475	7.51	337	52	<1	4.97	30.9	30	25.5	<0.5	<0.02	1.86	0.0559	0.000157	0.00134	0.0157	<0.0002	<0.0005	<0.01	<0.00005
25-Dec-09	707	500	470																			
1-Jan-10	714	500	460	7.74	382	58																
8-Jan-10	721	500	430																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-Nov-08	308	15.4	<0.0005	<0.0001	0.00439	<0.03	0.000065	0.367	0.0199	<0.00001	0.00219	<0.0005	0.54	<0.001	0.964	<0.00001	<2	<0.00005	0.00149	<0.0005	<0.001
28-Nov-08	315																				
5-Dec-08	322	14.1	<0.0005	<0.0001	0.00185	<0.03	0.000388	0.324	0.0209	<0.00001	0.00176	<0.0005	0.568	<0.001	0.837	<0.00001	<2	<0.00005	0.00189	<0.0005	<0.001
12-Dec-08	329																				
19-Dec-08	336	14.2	<0.0005	<0.0001	0.00195	<0.03	0.000313	0.245	0.0192	<0.00001	0.002	<0.0005	0.378	<0.001	0.878	<0.00001	<2	<0.00005	0.00177	<0.0005	<0.001
26-Dec-08	343																				
2-Jan-09	350		<0.0005	<0.0001	0.00407	<0.03	0.000056	0.227	0.0108	<0.00001	0.00178	<0.0005	0.368	<0.001	0.604	<0.00001	<2	<0.00005	0.00207	<0.0005	<0.001
9-Jan-09	357																				
16-Jan-09	364	13.1	<0.0005	<0.0001	0.00257	<0.03	0.000059	0.333	0.0205	<0.00001	0.00215	<0.0005	0.53	<0.001	0.82	<0.00001	<2	<0.00005	0.00225	<0.0005	<0.001
23-Jan-09	371																				
30-Jan-09	378	12.9	<0.0005	<0.0001	0.00221	<0.03	0.000082	0.322	0.0161	<0.00001	0.00192	<0.0005	0.406	<0.001	0.818	<0.00001	<2	<0.00005	0.00199	<0.0005	<0.001
6-Feb-09	385																				
13-Feb-09	392	12.4	<0.0005	<0.0001	0.00283	<0.03	<0.00005	0.259	0.0194	<0.00001	0.00177	<0.0005	0.477	<0.001	0.719	<0.00001	<2	<0.00005	0.00266	<0.0005	0.0016
20-Feb-09	399																				
27-Feb-09	406	13.2	<0.0005	<0.0001	0.0025	<0.03	<0.00005	0.289	0.0132	<0.00001	0.00243	<0.0005	0.372	<0.001	0.865	<0.00001	<2	<0.00005	0.00178	<0.0005	<0.001
6-Mar-09	413																				
13-Mar-09	420	10.6	<0.0005	<0.0001	0.00211	<0.03	<0.00005	0.233	0.0089	<0.00001	0.00197	<0.0005	0.269	<0.001	0.675	<0.00001	<2	<0.00005	0.00222	<0.0005	<0.001
20-Mar-09	427																				
27-Mar-09	434	10.9	0.0008	<0.0001	0.00228	<0.03	<0.00005	0.284	0.00865	<0.00001	0.00234	<0.0005	0.318	<0.001	0.786	<0.00001	<2	<0.00005	0.00213	<0.0005	<0.001
3-Apr-09	441																				
10-Apr-09	448	12.8	<0.0005	<0.0001	0.00212	<0.03	<0.00005	0.293	0.00451	<0.00001	0.00367	<0.0005	0.329	<0.001	0.894	<0.00001	<2	<0.00005	0.00217	<0.0005	<0.001
17-Apr-09	455																				
24-Apr-09	462																				
1-May-09	469																				
8-May-09	476	13.6	<0.0005	<0.0001		<0.03		0.316	0.0104	<0.00001	0.0019	<0.0005	0.466	<0.001	0.885	<0.00001	<2	<0.00005	0.00255	<0.0005	0.003
15-May-09	483																				
22-May-09	490																				
29-May-09	497																				
5-Jun-09	504	9.87	<0.0005	<0.0001	0.00225	<0.03	0.0003	0.219	0.00916	<0.00001	0.0021	<0.0005	0.359	<0.001	0.694	<0.00001	<2	<0.00005	0.00243	<0.0005	<0.001
12-Jun-09	511																				
19-Jun-09	518																				
26-Jun-09	525																				
3-Jul-09	532	7.64	<0.0005	<0.0001	0.00117	<0.03	0.000053	0.143	0.00566	<0.00001	0.00135	<0.0005	0.199	<0.001	0.488	<0.00001	<2	<0.00005	0.00288	<0.0005	<0.001
10-Jul-09	539																				
17-Jul-09	546																				
24-Jul-09	553																				
31-Jul-09	560	7.91	<0.0005	<0.0001	0.00248	<0.03	<0.00005	0.158	0.00442	<0.00001	0.00218	<0.0005	0.219	<0.001	0.56	<0.00001	<2	<0.00005	0.0027	<0.0005	<0.001
7-Aug-09	567																				
14-Aug-09	574																				
21-Aug-09	581																				
28-Aug-09	588	10.3	<0.0005	<0.0001	0.0054	<0.03	0.000056	0.262	0.0106	<0.00001	0.00228	<0.0005	0.322	<0.001	0.748	<0.00001	<2	<0.00005	0.00262	<0.0005	<0.001
4-Sep-09	595																				
11-Sep-09	602																				
18-Sep-09	609																				
25-Sep-09	616	11.6	<0.0005	<0.0001	0.00403	<0.03	<0.00005	0.248	0.0018	<0.00001	0.00383	<0.0005	0.259	<0.001	0.728	<0.00001	<2	<0.00005	0.00277	<0.0005	0.0011
2-Oct-09	623																				
9-Oct-09	630																				
16-Oct-09	637																				
23-Oct-09	644	13.9	<0.0005	<0.0001	0.00205	<0.03	<0.00005	0.318	0.0104	<0.00001	0.00338	<0.0005	0.358	<0.001	0.816	<0.00001	<2	<0.00005	0.00419	<0.0005	<0.001
30-Oct-09	651																				
6-Nov-09	658																				
13-Nov-09	665																				
20-Nov-09	672	15.3	<0.0005	<0.0001	0.0027	<0.03	<0.00005	0.322	0.0068	<0.00001	0.00289	<0.0005	0.326	<0.001	0.901	<0.00001	<2	<0.00005	0.00273	<0.0005	<0.001
27-Nov-09	679																				
4-Dec-09	686																				
11-Dec-09	693																				
18-Dec-09	700	9.82	<0.0005	<0.0001	0.00185	<0.03	<0.00005	0.224	0.00291	<0.00001	0.0021	<0.0005	0.242	<0.001	0.615	<0.00001	<2	<0.00005	0.00373	<0.0005	<0.001
25-Dec-09	707																				
1-Jan-10	714																				
8-Jan-10	721																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jan-10	728	500	445	7.66	318	59	<1	5.82	34.4	42	29.3	<0.5	<0.02	1.95	0.0506	0.000201	0.00149	0.0162	<0.0002	<0.0005	<0.01	<0.00005
22-Jan-10	735	500	520																			
29-Jan-10	742	500	465	7.6	325	38																
5-Feb-10	749	500	465																			
12-Feb-10	756	500	460	7.36	337	50	<1	3.4	28	32	25.8	<0.5	<0.02	3.24	0.0343	0.000183	0.00105	0.0139	<0.0002	<0.0005	<0.01	<0.00005
19-Feb-10	763	500	445																			
26-Feb-10	770	500	450	7.39	329	51																
5-Mar-10	777	500	450																			
12-Mar-10	784	500	520	7.53	385	58	<1	3.7	33.2	38	30.4	<0.5	<0.02	4.35	0.0321	0.000252	0.00143	0.0177	<0.0002	<0.0005	<0.01	<0.00005
19-Mar-10	791	500	465																			
26-Mar-10	798	500	445	7.48	367	51																
2-Apr-10	805	500	475																			
9-Apr-10	812	500	505	7.48	348	57	<1	3.43	31.3	39	29.1	<0.5	<0.02	3.36	0.0405	0.00025	0.00145	0.016	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-10	819	500	480																			
23-Apr-10	826	500	520	7.5	320	59																
30-Apr-10	833	500	520																			
7-May-10	840	500	510	7.5	343	62	<1	5.19	34.6	55	36	<0.5	<0.02	3.49	0.0424	0.000312	0.00188	0.0189	<0.0002	<0.0005	<0.01	<0.00005
14-May-10	847	500	510																			
21-May-10	854	500	495	7.57	362	59																
28-May-10	861	500	490																			
4-Jun-10	868	500	465	7.52	339	60	<1	4.27	35.6	34	30.9	<0.5	<0.02	3.16	0.0498	0.000302	0.00165	0.0167	<0.0002	<0.0005	<0.01	<0.00005
11-Jun-10	875	500	490																			
18-Jun-10	882	500	470	7.67	333	55																
25-Jun-10	889	500	460																			
2-Jul-10	896	500	480	7.64	395	55	<1	2.96	34.1	37	30.2	<0.5	<0.02	3.36	0.0461	0.000258	0.00134	0.0152	<0.0002	<0.0005	<0.01	<0.00005
9-Jul-10	903	500	435																			
16-Jul-10	910	500	420	7.56	324	49																
23-Jul-10	917	500	435																			
30-Jul-10	924	500	425	7.46	340	53	<1	3.91	32.6	29	27.8	<0.5	<0.02	2.05	0.0413	0.00032	0.00135	0.0158	<0.0002	<0.0005	0.013	<0.00005
6-Aug-10	931	500	460																			
13-Aug-10	938	500	480	7.65	380	55																
20-Aug-10	945	500	485																			
27-Aug-10	952	500	475	7.67	391	54	<1	2.54	32.7	33	27.8	<0.5	<0.02	3.05	0.0381	0.000237	0.00161	0.0143	<0.0002	<0.0005	0.011	<0.00005
3-Sep-10	959	500	475																			
10-Sep-10	966	500	470	7.47	360	59																
17-Sep-10	973	500	475																			
24-Sep-10	980	500	455	7.55	323	40	<1	3.13	30.6	30	25.6	<0.5	<0.02	2.59	0.0447	0.000213	0.00135	0.0113	<0.0002	<0.0005	<0.01	<0.00005
1-Oct-10	987	500	465																			
8-Oct-10	994	500	460	7.6	327	54																
15-Oct-10	1001	500	460																			
22-Oct-10	1008	500	470	7.51	372	50	<1	3.56	31.1	36	25.2	<0.5	<0.02	2.49	0.0343	0.000223	0.00124	0.0124	<0.0002	<0.0005	<0.01	<0.00005
29-Oct-10	1015	500	460																			
5-Nov-10	1022	500	465	7.71	363	59																
12-Nov-10	1029	500	460																			
19-Nov-10	1036	500	465	7.73	341	81	<1	4.11	49.5	41	39	<0.5	<0.02	2.4	0.0308	0.000294	0.00144	0.0172	<0.0002	<0.0005	<0.01	<0.00005
26-Nov-10	1043	500	470																			
3-Dec-10	1050	500	455	7.63	336	73																
10-Dec-10	1057	500	490																			
17-Dec-10	1064	500	465	7.74	334	78	<1	5.66	50.1	46	41.2	<0.5	<0.02	2.77	0.0329	0.000366	0.00152	0.0196	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-10	1071	500	480																			
31-Dec-10	1078	500	475	7.47	333	44																
7-Jan-11	1085	500	465																			
14-Jan-11	1092	500	470	7.7	343	44	<1	3.33	36.3	27	29.7	<0.5	<0.02	2.06	0.0261	0.000234	0.00112	0.0141	<0.0002	<0.0005	<0.01	<0.00005
21-Jan-11	1099	500	450																			
28-Jan-11	1106	500	445	7.63	296	45																
4-Feb-11	1113	500	440																			
11-Feb-11	1120	500	470	7.64	328	70	<1	4.2	39.9	38	33.8	<0.5	<0.02	2.31	0.0375	0.000261	0.00127	0.0163	<0.0002	<0.0005	<0.01	<0.00005
18-Feb-11	1127	500	455																			
25-Feb-11	1134	500	445	7.73	308	79																
4-Mar-11	1141	500	460																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jan-10	728	11.3	<0.0005	<0.0001	0.00437	<0.03	<0.00005	0.238	0.00271	<0.00001	0.00266	<0.0005	0.301	<0.001	0.782	<0.00001	<2	<0.00005	0.00435	<0.0005	<0.001
22-Jan-10	735																				
29-Jan-10	742																				
5-Feb-10	749																				
12-Feb-10	756	9.99	<0.0005	<0.0001	0.00162	<0.03	<0.00005	0.218	0.000229	<0.00001	0.00362	<0.0005	0.216	<0.001	0.591	<0.00001	<2	<0.00005	0.0044	<0.0005	<0.001
19-Feb-10	763																				
26-Feb-10	770																				
5-Mar-10	777																				
12-Mar-10	784	11.7	<0.0005	<0.0001	0.00137	<0.03	<0.00005	0.274	0.000471	<0.00001	0.00646	<0.0005	0.232	<0.001	0.655	<0.00001	<2	<0.00005	0.00436	<0.0005	<0.001
19-Mar-10	791																				
26-Mar-10	798																				
2-Apr-10	805																				
9-Apr-10	812	11.2	<0.0005	<0.0001	0.00142	<0.03	<0.00005	0.257	0.000223	<0.00001	0.00471	<0.0005	0.233	<0.001	0.682	<0.00001	<2	<0.00005	0.00415	<0.0005	<0.001
16-Apr-10	819																				
23-Apr-10	826																				
30-Apr-10	833																				
7-May-10	840	13.9	<0.0005	<0.0001	0.00153	<0.03	<0.00005	0.309	0.000233	<0.00001	0.00672	<0.0005	0.27	<0.001	0.764	<0.00001	<2	<0.00005	0.00396	<0.0005	<0.001
14-May-10	847																				
21-May-10	854																				
28-May-10	861																				
4-Jun-10	868	11.9	<0.0005	<0.0001	0.00137	<0.03	<0.00005	0.307	0.000195	<0.00001	0.00735	<0.0005	0.255	<0.001	0.675	<0.00001	<2	<0.00005	0.00382	<0.0005	<0.001
11-Jun-10	875																				
18-Jun-10	882																				
25-Jun-10	889																				
2-Jul-10	896	11.6	<0.0005	<0.0001	0.00152	<0.03	<0.00005	0.289	0.000262	<0.00001	0.00716	<0.0005	0.227	<0.001	0.673	<0.00001	<2	<0.00005	0.00359	<0.0005	<0.001
9-Jul-10	903																				
16-Jul-10	910																				
23-Jul-10	917																				
30-Jul-10	924	10.7	<0.0005	<0.0001	0.00231	<0.03	<0.00005	0.262	0.00107	<0.00001	0.00546	<0.0005	0.313	<0.001	0.638	<0.00001	<2	<0.00005	0.00397	<0.0005	<0.001
6-Aug-10	931																				
13-Aug-10	938																				
20-Aug-10	945																				
27-Aug-10	952	10.7	<0.0005	<0.0001	0.00106	<0.03	<0.00005	0.29	0.000157	<0.00001	0.00434	<0.0005	0.235	<0.001	0.609	<0.00001	<2	<0.00005	0.0039	<0.0005	<0.001
3-Sep-10	959																				
10-Sep-10	966																				
17-Sep-10	973																				
24-Sep-10	980	9.85	<0.0005	<0.0001	0.00139	<0.03	<0.00005	0.254	0.000259	<0.00001	0.0048	<0.0005	0.185	<0.001	0.548	<0.00001	<2	<0.00005	0.00414	<0.0005	<0.001
1-Oct-10	987																				
8-Oct-10	994																				
15-Oct-10	1001																				
22-Oct-10	1008	9.65	<0.0005	<0.0001	0.00127	<0.03	<0.00005	0.268	0.00021		0.00562	<0.0005	0.191	<0.001	0.548	<0.00001	<2	<0.00005	0.00425	<0.0005	0.0013
29-Oct-10	1015																				
5-Nov-10	1022																				
12-Nov-10	1029																				
19-Nov-10	1036	14.9	<0.0005	<0.0001	0.00155	<0.03	<0.00005	0.423	0.000225	<0.00001	0.00661	<0.0005	0.254	<0.001	0.738	<0.00001	<2	<0.00005	0.0038	<0.0005	<0.001
26-Nov-10	1043																				
3-Dec-10	1050																				
10-Dec-10	1057																				
17-Dec-10	1064	15.8	<0.0005	<0.0001	0.00163	<0.03	0.000323	0.448	0.000205	<0.00001	0.00813	<0.0005	0.268	<0.001	0.822	<0.00001	<2	<0.00005	0.00301	<0.0005	<0.001
24-Dec-10	1071																				
31-Dec-10	1078																				
7-Jan-11	1085																				
14-Jan-11	1092	11.4	<0.0005	<0.0001	0.00116	<0.03	<0.00005	0.286	0.000261	<0.00001	0.00652	<0.0005	0.18	<0.001	0.55	<0.00001	<2	<0.00005	0.0036	<0.0005	<0.001
21-Jan-11	1099																				
28-Jan-11	1106																				
4-Feb-11	1113																				
11-Feb-11	1120	12.9	<0.0005	<0.0001	0.00144	<0.03	<0.00005	0.366	0.000155	<0.00001	0.00711	<0.0005	0.231	<0.001	0.663	<0.00001	<2	<0.00005	0.00342	<0.0005	<0.001
18-Feb-11	1127																				
25-Feb-11	1134																				
4-Mar-11	1141																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
11-Mar-11	1148	500	500	7.62	288	67	<1	4.81	38.1	38	31.4	<0.5	<0.02	2.2	0.0333	0.000233	0.0009974	0.0128	<0.0002	<0.0005	<0.01	<0.00005
18-Mar-11	1155	500	460																			
25-Mar-11	1162	500	470	7.85	291	66																
1-Apr-11	1169	500	470																			
8-Apr-11	1176	500	485	7.76	283	62	<1	8.72	43.3	37	30	<0.5	<0.02	1.61	0.0325	0.000218	0.00097	0.0151	<0.0002	<0.0005	<0.01	<0.00005
15-Apr-11	1183	500	480																			
22-Apr-11	1190	500	470	7.68	272	64																
29-Apr-11	1197	500	475																			
6-May-11	1204	500	480	7.59	332	58	<1	4.41	36.3	32	28.8	<0.5	<0.02	1.96	0.0412	0.00023	0.00104	0.0142	<0.0002	<0.0005	<0.01	<0.00005
13-May-11	1211	500	480																			
20-May-11	1218	500	500	7.75	243	54																
27-May-11	1225	500	490																			
3-Jun-11	1232	500	470	7.53	295	61	<1	3.77	37.7	47	29.8	<0.5	<0.02	1.89	0.0449	0.000226	0.00094	0.015	<0.0002	<0.0005	0.011	<0.00005
10-Jun-11	1239	500	475																			
17-Jun-11	1246	500	455	7.71	327	62																
24-Jun-11	1253	500	450																			
1-Jul-11	1260	500	455	7.94	314	66	<1	3.96	40.6	34	31.9	<0.5	<0.02	2.02	0.0386	0.000225	0.00107	0.0161	<0.0002	<0.0005	<0.01	<0.00005
8-Jul-11	1267	500	460																			
15-Jul-11	1274	500	460	7.73	285	60																
22-Jul-11	1281	500	465																			
29-Jul-11	1288	500	465	7.81	304	58	<1	3.92	36	28	29	<0.5	<0.02	1.95	0.0404	0.000214	0.0013	0.0142	<0.0002	<0.0005	<0.01	<0.00005
5-Aug-11	1295	500	460																			
12-Aug-11	1302	500	465	7.9	255	63																
19-Aug-11	1309	500	465																			
26-Aug-11	1316	500	455	7.38	298	61	<1	5.25	37.3	40	31.5	<0.5	<0.1	1.98	0.0482	0.000228	0.00112	0.0154	<0.0002	<0.0005	<0.01	<0.00005
2-Sep-11	1323	500	440																			
9-Sep-11	1330	500	465	7.82	281	67																
16-Sep-11	1337	500	470																			
23-Sep-11	1344	500	465	7.67	319	66	<1	4.58	41.1	33	33.4	<0.5	<0.02	1.77	0.0594	0.000231	0.00117	0.0186	<0.0002	<0.0005	<0.01	<0.00005
30-Sep-11	1351	500	465																			
7-Oct-11	1358	500	500	7.78	289	89																
14-Oct-11	1365	500	470																			
21-Oct-11	1372	500	455	7.68	283	61	<1	6.36	36.5	34	31	<0.5	<0.02	1.53	0.0506	0.000182	0.00085	0.0146	<0.0002	<0.0005	<0.01	<0.00005
28-Oct-11	1379	500	465																			
4-Nov-11	1386	500	470	7.73	302	65																
11-Nov-11	1393	500	425																			
18-Nov-11	1400	500	500	7.6	300	63	<1	4.33	36.8	31	32.6	<0.5	<0.02	1.41	0.05	0.000163	0.00089	0.0152	<0.0002	<0.0005	<0.01	<0.00005
25-Nov-11	1407	500	470																			
2-Dec-11	1414	500	465	7.73	329	62																
9-Dec-11	1421	500	465																			
16-Dec-11	1428	500	460	7.82	332	77	<1	6.78	48.4	43	38.9	<0.5	<0.02	1.65	0.0385	0.000204	0.00066	0.0186	<0.0002	<0.0005	<0.01	<0.00005
23-Dec-11	1435	500	475																			
30-Dec-11	1442	500	460	7.82	286	68																
6-Jan-12	1449	500	470																			
13-Jan-12	1456	500	460	7.7	330	71	<1	5.23	49.3	44	36.2	<0.5	<0.02	1.7	0.037	0.0002	0.00067	0.0175	<0.0002	<0.0005	<0.01	<0.00005
20-Jan-12	1463	500	460																			
27-Jan-12	1470	500	465	7.62	358	57																
3-Feb-12	1477	500	460																			
10-Feb-12	1484	500	455	7.81	363	64	<1	7.04	45.9	40	31.1	<0.5	<0.02	1.71	0.039	0.000189	0.00059	0.0161	<0.0002	<0.0005	<0.01	<0.00005
17-Feb-12	1491	500	440																			
24-Feb-12	1498	500	515	7.58	356	70																
2-Mar-12	1505	500	455																			
9-Mar-12	1512	500	450	7.65	325	48	<1	5.72	30.9	34	24.6	<0.5	<0.02	1.47	0.0461	0.000135	0.00054	0.0112	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-12	1519	500	450																			
23-Mar-12	1526	500	450	7.69	363	66																
30-Mar-12	1533	500	455																			
6-Apr-12	1540	500	455	7.68	375	65	<1	3.85	39.4	34	32.4	<0.5	<0.02	1.72	0.0399	0.000188	0.00064	0.0148	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-12	1547	500	445																			
20-Apr-12	1554	500	450	7.69	353	66																
27-Apr-12	1561	500	450																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Mar-11	1148	12.1	<0.0005	<0.0001	0.00084	<0.03	<0.00005	0.286	0.000156	<0.00001	0.00654	<0.0005	0.153	<0.001	0.633	<0.00001	<2	<0.00005	0.00272	<0.0005	<0.001
18-Mar-11	1155																				
25-Mar-11	1162																				
1-Apr-11	1169																				
8-Apr-11	1176	11.5	<0.0005	<0.0001	0.00083	<0.03	<0.00005	0.295	0.00016	<0.00001	0.00552	<0.0005	0.173	<0.001	0.543	<0.00001	<2	<0.00005	0.00295	<0.0005	<0.001
15-Apr-11	1183																				
22-Apr-11	1190																				
29-Apr-11	1197																				
6-May-11	1204	11	<0.0005	<0.0001	0.00143	<0.03	<0.00005	0.288	0.00018	<0.00001	0.00675	<0.0005	0.182	<0.001	0.566	<0.00001	<2	<0.00005	0.003	<0.0005	<0.001
13-May-11	1211																				
20-May-11	1218																				
27-May-11	1225																				
3-Jun-11	1232	11.4	<0.0005	<0.0001	0.00086	<0.03	<0.00005	0.296	0.000111	<0.00001	0.00585	<0.0005	0.194	<0.001	0.608	<0.00001	<2	<0.00005	0.00306	<0.0005	<0.001
10-Jun-11	1239																				
17-Jun-11	1246																				
24-Jun-11	1253																				
1-Jul-11	1260	12.2	<0.0005	<0.0001	0.00095	<0.03	<0.00005	0.324	0.000127	<0.00001	0.00623	<0.0005	0.188	<0.001	0.64	<0.00001	<2	<0.00005	0.00259	<0.0005	<0.001
8-Jul-11	1267																				
15-Jul-11	1274																				
22-Jul-11	1281																				
29-Jul-11	1288	11.1	<0.0005	<0.0001	0.0009	0.041	<0.00005	0.298	0.000114	<0.00001	0.00591	<0.0005	0.183	<0.001	0.553	<0.00001	<2	<0.00005	0.00203	<0.0005	<0.001
5-Aug-11	1295																				
12-Aug-11	1302																				
19-Aug-11	1309																				
26-Aug-11	1316	12.1	<0.0005	<0.0001	0.00149	<0.03	<0.00005	0.329	0.000385	<0.00001	0.00657	<0.0005	0.179	<0.001	0.648	<0.00001	<2	<0.00005	0.0027	<0.0005	<0.001
2-Sep-11	1323																				
9-Sep-11	1330																				
16-Sep-11	1337																				
23-Sep-11	1344	12.8	<0.0005	<0.0001	0.00128	<0.03	<0.00005	0.388	0.000224	<0.00001	0.00564	<0.0005	0.224	<0.001	0.65	<0.00001	<2	<0.00005	0.0029	<0.0005	<0.001
30-Sep-11	1351																				
7-Oct-11	1358																				
14-Oct-11	1365																				
21-Oct-11	1372	11.9	<0.0005	<0.0001	0.00098	<0.03	<0.00005	0.301	0.00021	<0.00001	0.00451	<0.0005	0.18	<0.001	0.556	<0.00001	<2	<0.00005	0.00284	<0.0005	<0.001
28-Oct-11	1379																				
4-Nov-11	1386																				
11-Nov-11	1393																				
18-Nov-11	1400	12.5	<0.0005	<0.0001	0.00086	<0.03	<0.00005	0.322	0.000099	<0.00001	0.0039	<0.0005	0.178	<0.001	0.542	<0.00001	<2	<0.00005	0.00317	<0.0005	<0.001
25-Nov-11	1407																				
2-Dec-11	1414																				
9-Dec-11	1421																				
16-Dec-11	1428	15	<0.0005	<0.0001	0.00066	<0.03	<0.00005	0.386	0.000242	<0.00001	0.00485	<0.0005	0.201	<0.001	0.611	<0.00001	<2	<0.00005	0.0024	<0.0005	<0.001
23-Dec-11	1435																				
30-Dec-11	1442																				
6-Jan-12	1449																				
13-Jan-12	1456	13.9	<0.0005	<0.0001	0.00089	<0.03	<0.00005	0.35	0.000129	<0.00001	0.00508	<0.0005	0.174	<0.001	0.573	<0.00001	<2	<0.00005	0.00262	<0.0005	<0.001
20-Jan-12	1463																				
27-Jan-12	1470																				
3-Feb-12	1477																				
10-Feb-12	1484	12	<0.0005	<0.0001	0.00082	<0.03	<0.00005	0.29	0.000255	<0.00001	0.00571	<0.0005	0.159	<0.001	0.509	<0.00001	<2	<0.00005	0.00298	<0.0005	<0.001
17-Feb-12	1491																				
24-Feb-12	1498																				
2-Mar-12	1505																				
9-Mar-12	1512	9.44	<0.0005	<0.0001	0.00091	<0.03	<0.00005	0.24	0.000101	<0.00001	0.00476	<0.0005	0.133	<0.001	0.406	<0.00001	<2	<0.00005	0.00325	<0.0005	<0.001
16-Mar-12	1519																				
23-Mar-12	1526																				
30-Mar-12	1533																				
6-Apr-12	1540	12.4	<0.0005	<0.0001	0.00067	<0.03	<0.00005	0.34	0.000179	<0.00001	0.0059	<0.0005	0.175	<0.001	0.553	<0.00001	<2	<0.00005	0.0025	<0.0005	<0.001
13-Apr-12	1547																				
20-Apr-12	1554																				
27-Apr-12	1561																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
4-May-12	1568	500	445	7.8	382	54	<1	8.84	36.1	28	27.2	<0.5	<0.02	1.62	0.0426	0.000161	0.00059	0.0134	<0.0002	<0.0005	<0.01	<0.00005
11-May-12	1575	500	450																			
18-May-12	1582	500	445	7.6	327	45																
25-May-12	1589	500	455																			
1-Jun-12	1596	500	450	7.59	338	45	<1	5.71	28.1	28	23	<0.5	<0.02	1.72	0.034	0.000134	0.00045	0.0114	<0.0002	<0.0005	<0.01	0.000148
8-Jun-12	1603	500	495																			
15-Jun-12	1610	500	480	7.55	380	63																
22-Jun-12	1617	500	500																			
29-Jun-12	1624	500	455	7.58	364	51	<1	6.92	31.9	27	26	<0.5	<0.02	1.71	0.0368	0.000135	0.00044	0.0113	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-12	1631	500	450																			
13-Jul-12	1638	500	450	7.66	381	46																
20-Jul-12	1645	500	455																			
27-Jul-12	1652	500	445	7.8	333	71	<1	8.19	45.4	42	34.8	<0.5	<0.02	1.95	0.0437	0.000204	0.0006	0.0159	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-12	1659	500	450																			
10-Aug-12	1666	500	445	7.75	373	67																
17-Aug-12	1673	500	445																			
24-Aug-12	1680	500	505	7.7	336	72	<1	7.82	44.7	39	38.6	<0.5	<0.02	2.23	0.0317	0.000209	0.00049	0.0163	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-12	1687	500	455																			
7-Sep-12	1694	500	450	7.6	413	58																
14-Sep-12	1701	500	455																			
21-Sep-12	1708	500	445	7.63	392	56	<1	5.82	37.1	32	28.8	<0.5	<0.02	1.74	0.046	0.000156	0.00055	0.0125	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-12	1715	500	450																			
5-Oct-12	1722	500	445	7.74	381	49																
12-Oct-12	1729	500	455																			
19-Oct-12	1736	500	455	7.51	346	44	<1	6.28	28.7	25	21.5	<0.5	<0.02	1.39	0.0286	0.000109	0.00037	0.00945	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-12	1743	500	465																			
2-Nov-12	1750	500	450	7.59	390	47																
9-Nov-12	1757	500	430																			
16-Nov-12	1764	500	435	7.47	366	47	<1	2.96	27	28	21.4	<0.5	<0.02	2.08	0.0146	0.000124	0.00049	0.0094	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-12	1771	500	500																			
30-Nov-12	1778	500	475	7.5	391	41																
7-Dec-12	1785	500	490																			
14-Dec-12	1792	500	440	7.89	331	60	<1	7.16	39.7	27	31.8	<0.5	<0.02	1.81	0.049	0.000184	0.00059	0.0138	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-12	1799	500	445																			
28-Dec-12	1806	500	455	7.91	365	60																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-05	0	2500	1920	5.31	501	645	<1	8.5	2.5	462	161	7.76	<0.02	289	0.0202	0.00463	0.00043	0.0275	<0.0002	<0.0005	0.926	0.000755
15-Feb-05	7	2500	2530	5.59	479	253																
22-Feb-05	14	2500	2450	5.73	370	158	<1	5.75	2.3	122	39.8	0.71	0.093	67.1	0.0038	0.00302	0.00026	0.0278	<0.0002	<0.0005	0.248	0.000209
1-Mar-05	21	2500	2455	5.71	498	93																
8-Mar-05	28	2500	2480	5.68	531	80	<1	5.25	2	74	21.8	<0.5	0.059	33.4	0.0036	0.00289	0.0002	0.0196	<0.0002	<0.0005	0.128	0.000123
15-Mar-05	35	2500	2355	5.69	531	73																
22-Mar-05	42	2500	2440	5.74	536	61	<1	5.25	1.8	52	16.9	<0.5	0.092	24.7	0.003	0.00283	0.00017	0.0161	<0.0002	<0.0005	0.075	0.000109
29-Mar-05	49	2500	2505	5.82	514	47																
5-Apr-05	56	2500	2485	5.82	526	44	<1	4.25	1.5	56	12.4	<0.5	0.084	17.3	0.0026	0.00305	0.00017	0.0128	<0.0002	<0.0005	0.051	0.000068
12-Apr-05	63	2500	2480	5.7	382	38																
19-Apr-05	70	2500	2465	5.72	455	30	<1	4.25	1.8	27	10.2	<0.5	0.085	12.5	0.0128	0.00299	0.00013	0.0115	<0.0002	<0.0005	0.03	0.000076
26-Apr-05	77	2500	2435	5.76	498	25																
3-May-05	84	2500	2440	5.71	509	24	<1	3.75	1.8	20	8.41	<0.5	0.08	10.1	0.0066	0.00267	0.00012	0.0108	<0.0002	<0.0005	0.023	<0.00005
10-May-05	91	2500	2435	5.75	437	28																
17-May-05	98	2500	2425	5.67	436	25	<1	7	1.8	27	8.53	<0.5	0.054	10.9	0.0067	0.00317	0.00013	0.0109	<0.0002	<0.0005	0.026	0.00007
24-May-05	105	2500	2430	5.61	463	34																
31-May-05	112	2500	2470	5.75	460	29	<1	3.75	2	38	10.1	<0.5	0.087	13.4	0.007	0.00288	0.00015	0.0109	<0.0002	<0.0005	0.026	0.000077
7-Jun-05	119	2500	2435	5.73	467	24																
14-Jun-05	126	2500	2480	5.71	449	24	<1	3.75	1.5	29	9.24	<0.5	0.072	10.6	0.0131	0.00285	0.00013	0.0107	<0.0002	<0.0005	0.02	0.000068
21-Jun-05	133	2500	2455	5.63	443	20																
28-Jun-05	140	2500	2460	5.69	390	21	<1	3.25	1.5	17	8.36	<0.5	0.049	9.42	0.0059	0.00246	0.00012	0.00965	<0.0002	<0.0005	0.019	0.00007

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-May-12	1568	10.4	<0.0005	<0.0001	0.00071	<0.03	<0.00005	0.282	0.000155	<0.00001	0.00553	<0.0005	0.154	<0.001	0.467	<0.00001	<2	<0.00005	0.00285	<0.0005	<0.001
11-May-12	1575																				
18-May-12	1582																				
25-May-12	1589																				
1-Jun-12	1596	8.85	<0.0005	<0.0001	0.00419	<0.03	0.000918	0.22	0.000689	<0.00001	0.00525	<0.0005	0.729	<0.001	0.42	0.000182	<2	<0.00005	0.00275	<0.0005	0.0077
8-Jun-12	1603																				
15-Jun-12	1610																				
22-Jun-12	1617																				
29-Jun-12	1624	10	<0.0005	<0.0001	0.00065	<0.03	0.000305	0.241	0.000277	<0.00001	0.00605	<0.0005	0.122	<0.001	0.423	<0.00001	<2	<0.00005	0.00261	<0.0005	<0.001
6-Jul-12	1631																				
13-Jul-12	1638																				
20-Jul-12	1645																				
27-Jul-12	1652	13.4	<0.0005	<0.0001	0.0007	<0.03	<0.00005	0.334	0.00035	<0.00001	0.00804	<0.0005	0.187	<0.001	0.631	<0.00001	<2	<0.00005	0.00234	<0.0005	<0.001
3-Aug-12	1659																				
10-Aug-12	1666																				
17-Aug-12	1673																				
24-Aug-12	1680	14.9	<0.0005	<0.0001	0.00066	<0.03	<0.00005	0.345	0.000133	<0.00001	0.00723	<0.0005	0.16	<0.001	0.674	<0.00001	<2	<0.00005	0.00228	<0.0005	<0.001
31-Aug-12	1687																				
7-Sep-12	1694																				
14-Sep-12	1701																				
21-Sep-12	1708	11.1	0.0009	<0.0001	0.0007	<0.03	<0.00005	0.263	0.000222	<0.00001	0.00572	<0.0005	0.148	<0.001	0.522	<0.00001	<2	<0.00005	0.00279	<0.0005	<0.001
28-Sep-12	1715																				
5-Oct-12	1722																				
12-Oct-12	1729																				
19-Oct-12	1736	8.24	<0.0005	<0.0001	0.00072	<0.03	0.000111	0.221	0.000208	<0.00001	0.00347	<0.0005	0.11	<0.001	0.38	<0.00001	<2	<0.00005	0.00237	<0.0005	<0.001
26-Oct-12	1743																				
2-Nov-12	1750																				
9-Nov-12	1757																				
16-Nov-12	1764	8.2	<0.0005	<0.0001	0.00103	<0.03	<0.00005	0.224	0.000187	<0.00001	0.00382	<0.0005	0.152	<0.001	0.442	<0.00001	<2	<0.00005	0.00099	<0.0005	<0.001
23-Nov-12	1771																				
30-Nov-12	1778																				
7-Dec-12	1785																				
14-Dec-12	1792	12.2	<0.0005	<0.0001	0.00085	<0.03	<0.00005	0.306	0.000234	<0.00001	0.00525	<0.0005	0.18	<0.001	0.583	<0.00001	<2	<0.00005	0.0114	<0.0005	0.0016
21-Dec-12	1799																				
28-Dec-12	1806																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-05	0	46.3	<0.0005	0.0352	1.92	<0.06	<0.00005	11	1.32	<0.00001	0.00983	0.0162	4.29	0.211	14	0.000011	60.5	0.000065	<0.0001	<0.0005	0.21
15-Feb-05	7																				
22-Feb-05	14	11.6	<0.0005	0.0101	0.507	<0.06	<0.00005	2.64	0.306	<0.00001	0.00896	0.0039	2.07	0.0428	9.23	0.00001	13	<0.00005	<0.0001	<0.0005	0.0741
1-Mar-05	21																				
8-Mar-05	28	6.15	<0.0005	0.0067	0.365	0.129	<0.00005	1.57	0.214	<0.00001	0.00705	0.00247	1.52	0.0217	6.5	0.00001	5.6	<0.00005	<0.0001	<0.0005	0.0474
15-Mar-05	35																				
22-Mar-05	42	4.78	<0.0005	0.00594	0.25	<0.03	<0.00005	1.2	0.178	<0.00001	0.00828	0.00186	1.4	0.0152	7.61	<0.00001	2.7	<0.00005	<0.0001	<0.0005	0.0402
29-Mar-05	49																				
5-Apr-05	56	3.55	<0.0005	0.00428	0.215	<0.03	<0.00005	0.866	0.13	<0.00001	0.00695	0.00135	1.11	0.0094	7.03	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.029
12-Apr-05	63																				
19-Apr-05	70	2.91	<0.0005	0.00338	0.157	<0.03	<0.00005	0.717	0.103	<0.00001	0.00689	0.00099	0.93	0.0071	4.59	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0232
26-Apr-05	77																				
3-May-05	84	2.29	<0.0005	0.0029	0.142	<0.03	<0.00005	0.657	0.119	<0.00001	0.00605	0.00077	0.698	0.0044	3.91	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0192
10-May-05	91																				
17-May-05	98	2.35	<0.0005	0.00369	0.167	<0.03	<0.00005	0.647	0.111	<0.00001	0.00601	0.00098	0.808	0.0058	4.17	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0239
24-May-05	105																				
31-May-05	112	2.89	<0.0005	0.00402	0.196	0.03	0.000056	0.687	0.124	<0.00001	0.00627	0.00115	0.932	0.0057	5.06	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0251
7-Jun-05	119																				
14-Jun-05	126	2.51	<0.0005	0.00384	0.193	<0.03	<0.00005	0.721	0.118	<0.00001	0.00606	0.00101	0.886	0.0054	4.1	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0253
21-Jun-05	133																				
28-Jun-05	140	2.31	<0.0005	0.00368	0.166	<0.03	<0.00005	0.633	0.114	<0.00001	0.00523	0.00101	0.749	0.0048	3.96	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0231

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
5-Jul-05	147	2500	2500	5.63	389	22																
12-Jul-05	154	2500	2475	5.72	409	19	<1	3	2.3	28	8.6	<0.5	0.077	10.2	0.0162	0.00267	0.00013	0.00985	<0.0002	<0.0005	0.015	0.000068
19-Jul-05	161	2500	2325	5.67	404	26																
26-Jul-05	168	2500	2050	5.71	337	26	<1	3.25	2.3	20	9.29	<0.5	0.084	11.3	0.0079	0.00253	0.00015	0.0109	<0.0002	<0.0005	0.014	0.000064
2-Aug-05	175	2500	2430	5.7	345	21																
9-Aug-05	182	2500	2590	5.92	351	21	<1	2.25	2.3	25	8.02	<0.5	0.074	9.32	0.0058	0.00215	0.00012	0.00956	<0.0002	<0.0005	0.01	0.000061
16-Aug-05	189	2500	2410	5.6	384	27																
23-Aug-05	196	2500	2435	5.71	380	19	<1	2.5	3	24	7.43	<0.2	<0.1	8.68	0.0199	0.00181	0.00014	0.00868	<0.0002	<0.0005	<0.01	0.000059
30-Aug-05	203	2500	2450	5.69	306	17																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-05	0	2500	2050	4.03	361	2750	20	1267.5	<1	7540	3530	<10	7.7	4580	33	0.019	0.03	0.033	0.056	<0.1	<2	0.067
15-Feb-05	7	2500	2410	4.39	499	1527																
22-Feb-05	14	2500	2425	4.64	438	1181	<1	102.25	<1	1000	539	<0.5	0.484	634	0.651	0.00278	0.0135	0.00448	0.0029	<0.005	0.15	0.00426
1-Mar-05	21	2500	2445	4.76	497	821																
8-Mar-05	28	2500	2480	4.7	522	889	<1	52	<1	707	395	<0.5	0.179	446	0.256	0.0021	0.0107	0.00249	0.0016	<0.0025	0.128	0.00283
15-Mar-05	35	2500	2445	4.74	531	741																
22-Mar-05	42	2500	2465	4.77	530	641	<1	45.25	<1	498	286	<0.5	0.138	327	0.134	0.00149	0.00779	0.0017	0.0013	<0.0025	0.084	0.00174
29-Mar-05	49	2500	2510	4.78	523	577																
5-Apr-05	56	2500	2475	4.78	539	624	<1	30.5	<1	499	267	<0.5	0.133	310	0.104	0.00132	0.0071	0.00159	0.00112	<0.001	0.067	0.00153
12-Apr-05	63	2500	2470	4.73	462	528																
19-Apr-05	70	2500	2465	4.72	519	495	<1	25.5	<1	372	222	<0.5	0.104	242	0.0813	0.00147	0.00719	0.00125	0.00096	<0.001	0.043	0.00109
26-Apr-05	77	2500	2490	4.75	508	508																
3-May-05	84	2500	2485	4.71	531	523	<1	28	<1	398	271	<0.5	0.102	262	0.0751	0.00128	0.00646	0.00146	0.0011	<0.0025	0.051	0.00112
10-May-05	91	2500	2505	4.7	512	537																
17-May-05	98	2500	2495	4.7	486	510	<1	32	1	391	225	<0.5	0.09	263	0.0676	0.00153	0.0065	0.0009	0.00082	<0.001	0.039	0.00105
24-May-05	105	2500	2460	4.7	493	451																
31-May-05	112	2500	2485	4.7	484	520	<1	19	<1	414	237	<0.5	0.095	267	0.0786	0.00143	0.00657	0.000804	0.00089	<0.0005	0.04	0.000955
7-Jun-05	119	2500	2465	4.65	499	519																
14-Jun-05	126	2500	2475	4.61	471	520	<1	17.5	<1	401	244	<0.5	0.099	263	0.0772	0.00141	0.00656	0.00069	0.00091	<0.001	0.033	0.00094
21-Jun-05	133	2500	2480	4.62	475	514																
28-Jun-05	140	2500	2495	4.62	410	521	<1	17.75	<1	413	249	<0.5	0.091	267	0.0836	0.00119	0.00609	0.00095	0.00092	<0.001	0.039	0.00102
5-Jul-05	147	2500	2465	4.63	420	515																
12-Jul-05	154	2500	2485	4.6	422	511	<1	16.3	<1	409	232	<0.5	0.113	255	0.0813	0.00157	0.00642	0.00085	0.00092	<0.001	0.03	0.00088
19-Jul-05	161	2500	2180	4.54	399	548																
26-Jul-05	168	2500	2390	4.55	414	450	<1	14.75	<1	367	192	<0.5	0.113	224	0.0854	0.00128	0.0062	0.00079	0.00102	<0.001	0.027	0.00088
2-Aug-05	175	2500	2315	4.62	342	382																
9-Aug-05	182	2500	2420	4.56	429	386	<1	11.25	<1	324	171	<0.5	0.099	191	0.0846	0.00128	0.0054	0.00114	0.00088	<0.0005	0.021	0.000692
16-Aug-05	189	2500	2360	4.64	424	399																
23-Aug-05	196	2500	2350	4.59	444	387	<1	13.5	1	294	159	<0.2	<0.1	190	0.08	0.00135	0.00513	0.00155	0.00082	<0.0005	0.02	0.000645
30-Aug-05	203	2500	2340	4.56	384	425																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-05	0	2500	2180	7.38	352	715	<1	3.5	21.5	544	308	1.2	0.084	335	0.0355	0.00638	0.002	0.0293	<0.0002	<0.0005	0.46	0.000181
15-Feb-05	7	2500	2390	7.57	405	261																
22-Feb-05	14	2500	2345	7.66	318	150	<1	6.25	28.5	105	66.4	<0.5	0.156	45.6	0.0651	0.00901	0.00307	0.0255	<0.0002	<0.0005	0.088	<0.00005
1-Mar-05	21	2500	2335	7.74	436	126																
8-Mar-05	28	2500	2365	7.73	455	159	<1	4.25	28	109	70.9	<0.5	0.097	50.7	0.0777	0.00826	0.00251	0.0256	<0.0002	<0.0005	0.059	0.00005
15-Mar-05	35	2500	2235	7.76	469	131																
22-Mar-05	42	2500	2255	7.75	452	133	<1	2.75	27.5	80	55.8	<0.5	0.071	37.2	0.0702	0.00605	0.00159	0.0159	<0.0002	<0.0005	0.036	<0.00005
29-Mar-05	49	2500	2440	7.77	455	111																
5-Apr-05	56	2500	2445	7.81	438	144	<1	3	29	98	59.5	<0.5	0.076	38.7	0.0773	0.00685	0.00147	0.0185	<0.0002	<0.0005	0.036	<0.00005
12-Apr-05	63	2500	2435	7.8	394	114																
19-Apr-05	70	2500	2440	7.72	427	99	<1	4.5	23.3	55	43.5	<0.5	0.052	24.7	0.0817	0.00425	0.00135	0.0138	<0.0002	<0.0005	0.02	<0.00005
26-Apr-05	77	2500	2435	7.8	429	106																
3-May-05	84	2500	2445	7.83	429	98	<1	2.5	23.5	52	46.2	<0.5	0.049	24.9	0.101	0.00442	0.00111	0.0121	<0.0002	<0.0005	0.019	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
5-Jul-05	147																				
12-Jul-05	154	2.4	<0.0005	0.00363	0.182	<0.03	<0.00005	0.633	0.113	<0.00001	0.00593	0.00096	0.786	0.0042	3.85	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0222
19-Jul-05	161																				
26-Jul-05	168	2.69	<0.0005	0.00433	0.192	<0.03	<0.00005	0.629	0.123	<0.00001	0.00619	0.00105	0.786	0.0044	4.22	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.025
2-Aug-05	175																				
9-Aug-05	182	2.27	<0.0005	0.00359	0.151	<0.03	<0.00005	0.567	0.105	<0.00001	0.00605	0.00117	0.682	0.0034	3.76	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0209
16-Aug-05	189																				
23-Aug-05	196	2.08	<0.0005	0.00336	0.164	<0.03	<0.00005	0.545	0.105	<0.0001	0.00591	0.00095	0.683	0.0034	3.3	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0215
30-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-05	0	348	<0.1	4.33	937	42.7	<0.01	645	184	0.00022	<0.01	3.96	<10	<0.2	6.6	<0.002	<100	<0.01	<0.02	<0.1	21.2
15-Feb-05	7																				
22-Feb-05	14	112	<0.005	0.252	36.8	0.909	<0.0005	62.9	13.6	<0.00001	<0.0005	0.228	3.63	0.031	4.25	<0.0001	4.4	0.00194	<0.001	<0.005	1.35
1-Mar-05	21																				
8-Mar-05	28	69.2	<0.0025	0.166	21.1	0.56	<0.00025	53.9	11.8	<0.00001	<0.00025	0.155	3.66	0.0335	3.65	<0.00005	<4	0.00228	<0.0005	<0.0025	0.888
15-Mar-05	35																				
22-Mar-05	42	46.3	<0.0025	0.111	11.8	0.372	<0.00025	41.3	7.95	<0.00001	0.00046	0.103	3.05	0.0296	3.52	<0.00005	<2	0.00221	<0.0005	<0.0025	0.589
29-Mar-05	49																				
5-Apr-05	56	43	<0.001	0.0899	10	0.354	<0.0001	38.9	7.66	<0.00001	0.00014	0.0905	3.09	0.0298	4.17	<0.00002	<2	0.0029	<0.0002	<0.001	0.508
12-Apr-05	63																				
19-Apr-05	70	32.6	<0.001	0.0653	6.84	0.398	<0.0001	34.2	5.9	<0.00001	0.00019	0.0645	2.56	0.0252	2.9	<0.00002	<2	0.0025	<0.0002	<0.001	0.369
26-Apr-05	77																				
3-May-05	84	33.1	<0.0025	0.0663	7.82	0.395	<0.00025	45.6	8.66	<0.00001	<0.00025	0.0672	2.78	0.024	3.16	<0.00005	<2	0.00291	<0.0005	<0.0025	0.357
10-May-05	91																				
17-May-05	98	30.1	<0.001	0.0604	5.23	0.392	<0.0001	36.4	6.58	<0.00001	<0.0001	0.0633	2.78	0.0261	3.11	<0.00002	<2	0.00331	<0.0002	<0.001	0.334
24-May-05	105																				
31-May-05	112	28.6	<0.0005	0.0602	4.82	0.422	0.000089	40.2	6.9	<0.00001	0.000072	0.0638	3.05	0.0272	3.2	<0.00001	<2	0.00368	<0.0001	<0.0005	0.343
7-Jun-05	119																				
14-Jun-05	126	29.5	<0.001	0.0571	4.52	0.502	<0.0001	41.3	6.47	<0.00001	0.00011	0.0589	3.16	0.0266	3.32	<0.00002	<2	0.00409	<0.0002	<0.001	0.317
21-Jun-05	133																				
28-Jun-05	140	26.8	<0.001	0.0555	3.82	0.454	<0.0001	44.2	6.83	<0.00001	<0.0001	0.0614	3.63	0.0288	3.4	<0.00002	<2	0.00518	<0.0002	<0.001	0.316
5-Jul-05	147																				
12-Jul-05	154	26.2	<0.001	0.0491	3.4	0.54	<0.0001	40.5	6.06	<0.00001	<0.0001	0.0549	3.51	0.0247	3.36	<0.00002	<2	0.00473	<0.0002	<0.001	0.277
19-Jul-05	161																				
26-Jul-05	168	21.2	<0.001	0.0425	3.06	0.52	<0.0001	33.7	5.04	<0.00001	<0.0001	0.0475	3.57	0.0231	3.23	<0.00002	<2	0.00458	<0.0002	<0.001	0.255
2-Aug-05	175																				
9-Aug-05	182	17.5	<0.0005	0.0334	2.83	0.499	0.00019	31.1	4.16	<0.00001	<0.00005	0.0445	3.09	0.0189	2.61	<0.00001	<2	0.00422	<0.0001	<0.0005	0.214
16-Aug-05	189																				
23-Aug-05	196	16.7	<0.0005	0.0311	2.73	0.583	0.00012	28.5	3.97	<0.0001	<0.00005	0.0357	2.65	0.0181	2.43	<0.00001	<2	0.00372	<0.0001	<0.0005	0.202
30-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-05	0	85.6	<0.0005	0.00069	0.0296	<0.06	<0.00005	22.9	1.14	<0.00001	0.00872	0.0234	14.4	0.01	1.62	0.000011	9.9	0.000261	<0.0001	<0.0005	0.0195
15-Feb-05	7																				
22-Feb-05	14	17.6	<0.0005	<0.0001	0.00785	<0.06	<0.00005	5.48	0.188	<0.00001	0.00213	0.00126	4.37	0.0018	1.45	<0.00001	<4	0.00008	<0.0001	<0.0005	0.0073
1-Mar-05	21																				
8-Mar-05	28	17.8	<0.0005	<0.0001	0.00692	<0.06	0.00011	6.39	0.23	<0.00001	0.00193	0.00084	3.67	0.0022	1.22	<0.00001	<4	0.000078	<0.0001	0.00066	0.0086
15-Mar-05	35																				
22-Mar-05	42	14	<0.0005	<0.0001	0.00486	<0.03	<0.00005	5.04	0.153	<0.00001	0.00151	<0.0005	2.47	0.0014	1.21	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0027
29-Mar-05	49																				
5-Apr-05	56	14.9	<0.0005	<0.0001	0.00285	0.042	0.000244	5.4	0.159	<0.00001	0.00166	<0.0005	2.49	0.0015	1.41	<0.00001	<2	0.000056	<0.0001	0.00051	0.002
12-Apr-05	63																				
19-Apr-05	70	11.2	<0.0005	<0.0001	0.00512	<0.03	<0.00005	3.79	0.109	<0.00001	0.00149	<0.0005	1.86	<0.001	1	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0018
26-Apr-05	77																				
3-May-05	84	11.1	<0.0005	<0.0001	0.00334	<0.03	<0.00005	4.5	0.136	<0.00001	0.00125	<0.0005	1.68	<0.001	1.08	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-May-05	91	2500	2450	7.76	406	107																
17-May-05	98	2500	2465	7.67	382	104	<1	2.5	24	64	48.3	<0.5	0.043	28.9	0.0993	0.00549	0.00121	0.0134	<0.0002	<0.0005	0.021	<0.00005
24-May-05	105	2500	2440	7.66	431	84																
31-May-05	112	2500	2445	7.8	398	87	<1	3	21.8	54	38.1	<0.5	0.035	24.5	0.0785	0.0046	0.00087	0.0105	<0.0002	<0.0005	0.015	<0.00005
7-Jun-05	119	2500	2435	7.81	409	95																
14-Jun-05	126	2500	2450	7.81	390	94	<1	2.5	23	65	46.7	<0.5	0.036	25.1	0.0821	0.00496	0.00094	0.013	<0.0002	<0.0005	0.017	<0.00005
21-Jun-05	133	2500	2440	7.88	401	103																
28-Jun-05	140	2500	2470	7.86	315	110	<1	2	26	63	50.1	<0.5	0.035	29.4	0.0802	0.00566	0.001	0.0132	<0.0002	<0.0005	0.019	<0.00005
5-Jul-05	147	2500	2505	7.73	318	102																
12-Jul-05	154	2500	2495	7.76	326	90	<1	2	21.3	62	44.9	<0.5	0.036	26.7	0.0759	0.0051	0.00106	0.0125	<0.0002	<0.0005	0.014	<0.00005
19-Jul-05	161	2500	2465	8.14	328	90																
26-Jul-05	168	2500	2455	7.76	330	81	<1	1.75	22.8	48	37.3	<0.5	0.033	21.5	0.0671	0.00398	0.00088	0.0117	<0.0002	<0.0005	0.012	<0.00005
2-Aug-05	175	2500	2400	7.86	293	71																
9-Aug-05	182	2500	2435	7.78	352	69	<1	1.5	21	60	35.1	<0.5	0.027	18.1	0.0721	0.00357	0.00069	0.0109	<0.0002	<0.0005	<0.01	<0.00005
16-Aug-05	189	2500	2430	7.82	328	82																
23-Aug-05	196	2500	2410	7.81	360	72	<1	1.5	22.5	52	35	<0.2	<0.1	18.3	0.0683	0.00306	0.00065	0.0103	<0.0002	<0.0005	<0.01	<0.00005
30-Aug-05	203	2500	2440	7.8	373	89																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-05	0	2500	2135	5.3	485	958	<1	76.5	2.5	889	311	4.75	0.362	577	0.306	0.00253	0.0051	0.0559	<0.002	<0.005	0.71	0.0385
15-Feb-05	7	2500	2510	5.69	474	341																
22-Feb-05	14	2500	2465	5.9	444	187	<1	21	2.5	118	37.2	0.73	0.213	79.6	0.0231	0.00192	0.00181	0.0405	<0.0002	<0.0005	0.167	0.00345
1-Mar-05	21	2500	2440	6.08	476	127																
8-Mar-05	28	2500	2450	5.9	515	134	<1	9.75	2.3	94	32.3	<0.5	0.193	55.6	0.0245	0.00233	0.00133	0.0526	<0.0002	<0.0005	0.104	0.00299
15-Mar-05	35	2500	2435	5.88	521	117																
22-Mar-05	42	2500	2415	5.99	518	109	<1	12.25	2	64	27.1	<0.5	0.182	43.1	0.0197	0.0022	0.00091	0.0417	<0.0002	<0.0005	0.057	0.00249
29-Mar-05	49	2500	2500	5.95	519	90																
5-Apr-05	56	2500	2485	6.02	522	98	<1	14.5	2.8	70	25.9	<0.5			0.0227	0.00242	0.00081	0.0441	<0.0002	<0.0005	0.044	0.0026
12-Apr-05	63	2500	2485	6.01	446	91																
19-Apr-05	70	2500	2470	6.01	492	85	<1	11	2.3	51	25.4	<0.5	0.132	34.4	0.0182	0.00221	0.00061	0.0375	<0.0002	<0.0005	0.028	0.00216
26-Apr-05	77	2500	2475	5.9	484	89																
3-May-05	84	2500	2470	5.98	502	94	<1	10.5	2.3	51	30.9	<0.5	0.128	38.6	0.0195	0.00217	0.00046	0.036	<0.0002	<0.0005	0.025	0.00244
10-May-05	91	2500	2505	5.84	468	99																
17-May-05	98	2500	2510	5.81	460	99	<1	13.5	2	66	31.1	<0.5	0.11	42.2	0.0221	0.00253	0.00048	0.0401	<0.0002	<0.0005	0.027	0.00295
24-May-05	105	2500	2490	5.81	480	85																
31-May-05	112	2500	2475	5.94	458	93	<1	15	2	60	29.2	<0.5	0.111	40.2	0.0204	0.0024	0.00046	0.0323	<0.0002	<0.0005	0.022	0.0024
7-Jun-05	119	2500	2470	5.73	467	102																
14-Jun-05	126	2500	2480	5.8	458	95	<1	12.5	1.8	76	33.1	<0.5	0.097	40.5	0.0222	0.00238	0.00044	0.0339	<0.0002	<0.0005	0.019	0.00259
21-Jun-05	133	2500	2500	5.66	456	97																
28-Jun-05	140	2500	2500	5.84	399	88	<1	11.75	2.5	49	31	<0.5	0.078	38.2	0.0271	0.00223	0.00044	0.0318	<0.0002	<0.0005	0.019	0.00263
5-Jul-05	147	2500	2505	5.77	393	94																
12-Jul-05	154	2500	2495	5.71	404	93	<1	9.5	2	71	33.6	<0.5	0.097	42	0.0219	0.00269	0.00044	0.0295	<0.0002	<0.0005	0.016	0.00246
19-Jul-05	161	2500	2465	5.95	382	92																
26-Jul-05	168	2500	2430	5.89	415	84	<1	9	2.5	56	28.8	<0.5	0.095	38.1	0.0186	0.00226	0.00044	0.0262	<0.0002	<0.0005	0.013	0.00212
2-Aug-05	175	2500	2530	5.79	364	79																
9-Aug-05	182	2500	2475	5.87	400	80	<1	9.25	2	68	28.5	<0.5	0.077	36.4	0.0161	0.002	0.00039	0.0263	<0.0002	<0.0005	0.012	0.00199
16-Aug-05	189	2500	2520	5.8	392	86																
23-Aug-05	196	2500	2570	5.89	416	82	<1	8	3	65	28.5	<0.2	<0.1	37	0.0155	0.00166	0.00036	0.028	<0.0002	<0.0005	0.013	0.00191
30-Aug-05	203	2500	2600	5.65	307	70																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-05	0	2500	2135	7.55	393	509	<1	2.5	29.5	346	110	3.01	0.099	195	0.0407	0.00276	0.00042	0.032	<0.0002	<0.0005	0.33	<0.00005
15-Feb-05	7	2500	2425	7.33	412	287																
22-Feb-05	14	2500	2470	7.66	387	168	<1	4.25	26.8	107	46.7	<0.5	0.197	49.9	0.0252	0.00345	0.00096	0.0421	<0.0002	<0.0005	0.087	<0.00005
1-Mar-05	21	2500	2425	7.74	439	115																
8-Mar-05	28	2500	2385	7.76	434	122	<1	3	30.8	78	43.1	<0.5	0.113	29.7	0.0379	0.00406	0.0008	0.0584	<0.0002	<0.0005	0.055	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-May-05	91																				
17-May-05	98	11.8	<0.0005	<0.0001	0.00304	<0.03	<0.00005	4.59	0.13	<0.00001	0.00182	<0.0005	1.92	0.0011	1.06	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
24-May-05	105																				
31-May-05	112	9.94	<0.0005	<0.0001	0.00228	<0.03	<0.00005	3.21	0.0947	<0.00001	0.00166	<0.0005	1.34	<0.001	0.899	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
7-Jun-05	119																				
14-Jun-05	126	11.4	<0.0005	<0.0001	0.003	<0.03	<0.00005	4.41	0.113	<0.00001	0.00197	<0.0005	1.56	<0.001	0.896	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
21-Jun-05	133																				
28-Jun-05	140	12.4	<0.0005	<0.0001	0.00316	<0.03	0.000093	4.62	0.127	<0.00001	0.00249	<0.0005	1.57	0.001	0.997	<0.00001	<2	<0.00005	0.00011	<0.0005	0.0027
5-Jul-05	147																				
12-Jul-05	154	11.4	<0.0005	<0.0001	0.00267	<0.03	<0.00005	4	0.106	<0.00001	0.00312	<0.0005	1.34	<0.001	0.835	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
19-Jul-05	161																				
26-Jul-05	168	9.81	<0.0005	<0.0001	0.00504	<0.03	<0.00005	3.12	0.0917	<0.00001	0.00311	<0.0005	1.09	<0.001	0.755	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
2-Aug-05	175																				
9-Aug-05	182	8.92	<0.0005	<0.0001	0.00494	<0.03	<0.00005	3.13	0.0787	<0.00001	0.00302	<0.0005	0.994	<0.001	0.674	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
16-Aug-05	189																				
23-Aug-05	196	8.8	<0.0005	<0.0001	0.00315	0.09	<0.00005	3.16	0.0844	<0.0001	0.00276	<0.0005	1.03	<0.001	0.707	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
30-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-05	0	66.1	<0.005	0.109	34.1	0.686	<0.0005	35.4	1.11	0.00001	0.00059	0.0712	24.4	0.033	3.39	<0.0001	90.7	0.00161	<0.001	<0.005	1.81
15-Feb-05	7																				
22-Feb-05	14	8.16	<0.0005	0.0138	3.33	<0.06	0.000056	4.1	0.125	<0.00001	0.000096	0.00691	7.63	0.0067	2.14	<0.00001	14.6	0.000502	<0.0001	<0.0005	0.226
1-Mar-05	21																				
8-Mar-05	28	6.86	<0.0005	0.0122	3.2	0.862	0.000053	3.68	0.129	<0.00001	0.000108	0.00612	6.54	0.0049	1.92	<0.00001	6.6	0.000475	<0.0001	<0.0005	0.183
15-Mar-05	35																				
22-Mar-05	42	5.46	<0.0005	0.0105	2.85	<0.03	<0.00005	3.26	0.111	<0.00001	0.000073	0.00534	4.71	0.0037	1.82	<0.00001	2.6	0.000372	<0.0001	<0.0005	0.151
29-Mar-05	49																				
5-Apr-05	56	4.94	<0.0005	0.0102	3.3	<0.03	<0.00005	3.3	0.118	<0.00001	0.000092	0.00548	3.68	0.0032	1.72	<0.00001	<2	0.000351	<0.0001	<0.0005	0.149
12-Apr-05	63																				
19-Apr-05	70	4.99	<0.0005	0.00867	2.89	<0.03	0.000052	3.15	0.11	<0.00001	0.000054	0.00474	2.68	0.0028	1.36	<0.00001	<2	0.000264	<0.0001	<0.0005	0.13
26-Apr-05	77																				
3-May-05	84	5.58	<0.0005	0.00978	4.5	<0.03	0.000099	4.11	0.18	<0.00001	<0.00005	0.00552	2.21	0.0027	1.51	<0.00001	<2	0.000253	<0.0001	<0.0005	0.138
10-May-05	91																				
17-May-05	98	5.77	<0.0005	0.0117	4.22	<0.03	0.00007	4.05	0.174	<0.00001	0.000075	0.00658	2.2	0.0035	1.57	<0.00001	<2	0.000257	<0.0001	<0.0005	0.164
24-May-05	105																				
31-May-05	112	5.32	<0.0005	0.0111	3.87	<0.03	0.000058	3.87	0.179	<0.00001	0.000055	0.00621	1.77	0.0031	1.4	<0.00001	<2	0.000218	<0.0001	<0.0005	0.156
7-Jun-05	119																				
14-Jun-05	126	5.82	<0.0005	0.0116	4.19	<0.03	0.000062	4.51	0.19	<0.00001	0.000065	0.00657	1.63	0.0033	1.43	<0.00001	<2	0.000213	<0.0001	<0.0005	0.159
21-Jun-05	133																				
28-Jun-05	140	5.24	<0.0005	0.0111	3.76	<0.03		4.36	0.195	<0.00001	<0.00005	0.00656	1.37	0.0035	1.26	<0.00001	<2	0.000204	0.0002	<0.0005	0.155
5-Jul-05	147																				
12-Jul-05	154	5.88	<0.0005	0.0111	3.86	<0.03	0.000054	4.58	0.21	<0.00001	<0.00005	0.00676	1.32	0.0033	1.31	<0.00001	<2	0.000187	<0.0001	<0.0005	0.154
19-Jul-05	161																				
26-Jul-05	168	5.18	<0.0005	0.0106	3.19	<0.03	0.000079	3.86	0.19	<0.00001	0.000051	0.00644	0.995	0.0029	1.17	<0.00001	<2	0.000144	<0.0001	<0.0005	0.142
2-Aug-05	175																				
9-Aug-05	182	5.05	<0.0005	0.00932	3.12	<0.03	0.000054	3.86	0.182	<0.00001	<0.00005	0.00584	0.928	0.0028	1.15	<0.00001	<2	0.000145	<0.0001	<0.0005	0.125
16-Aug-05	189																				
23-Aug-05	196	4.83	<0.0005	0.00918	3.16	<0.03	0.000072	3.99	0.191	<0.0001	<0.00005	0.0058	0.888	0.0031	1.15	<0.00001	<2	0.000138	<0.0001	<0.0005	0.122
30-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-05	0	23	<0.0005	0.00218	0.485	0.105	<0.00005	12.6	0.0799	<0.00001	0.00442	0.00284	21.2	0.0066	1.91	0.000014	45.1	0.000079	<0.0001	0.00073	0.0265
15-Feb-05	7																				
22-Feb-05	14	10	<0.0005	0.00025	0.0643	<0.06	0.000052	5.26	0.0193	<0.00001	0.00151	0.0017	8.52	0.0014	1.49	<0.00001	12.2	0.000055	<0.0001	0.00054	0.0058
1-Mar-05	21																				
8-Mar-05	28	9.12	<0.0005	0.00018	0.0368	0.126	<0.00005	4.95	0.0179	<0.00001	0.00144	<0.0005	5.75	<0.001	1.17	<0.00001	4.3	<0.00005	<0.0001	0.00055	0.0033

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Mar-05	35	2500	2375	7.78	447	116																
22-Mar-05	42	2500	2380	7.86	450	131	<1	3.75	38	75	47.4	<0.5	0.102	25	0.0391	0.00449	0.00074	0.0492	<0.0002	<0.0005	0.043	<0.00005
29-Mar-05	49	2500	2500	7.9	454	99																
5-Apr-05	56	2500	2475	7.9	443	105	<1	5	36.3	71	38.2	<0.5	0.077	15.8	0.0364	0.00506	0.00054	0.0513	<0.0002	<0.0005	0.03	<0.00005
12-Apr-05	63	2500	2480	7.92	389	97																
19-Apr-05	70	2500	2470	7.84	425	75	<1	2.75	27.3	43	32.2	<0.5	0.051	12.1	0.0423	0.00382	0.00074	0.033	<0.0002	<0.0005	0.018	<0.00005
26-Apr-05	77	2500	2500	7.95	430	84																
3-May-05	84	2500	2485	7.95	420	115	<1	1.75	39	65	54.1	<0.5	0.069	20.3	0.0307	0.00508	0.00062	0.0626	<0.0002	<0.0005	0.021	<0.00005
10-May-05	91	2500	2495	7.9	409	85																
17-May-05	98	2500	2510	7.91	382	88	<1	2.25	34.5	55	39	<0.5	0.05	13.2	0.0423	0.00446	0.00067	0.0407	<0.0002	<0.0005	0.015	<0.00005
24-May-05	105	2500	2475	7.86	420	71																
31-May-05	112	2500	2495	7.96	383	76	<1	1.5	29.5	40	33.8	<0.5	0.055	12.8	0.0493	0.00394	0.00078	0.0313	<0.0002	<0.0005	0.012	<0.00005
7-Jun-05	119	2500	2500	7.89	395	78																
14-Jun-05	126	2500	2490	7.98	389	77	<1	2	31.3	50	39	<0.5	0.04	12.1	0.052	0.00375	0.0007	0.0322	<0.0002	<0.0005	0.011	<0.00005
21-Jun-05	133	2500	2505	7.92	389	72																
28-Jun-05	140	2500	2500	7.95	322	78	<1	4	32.5	35	39.7	<0.5	0.034	11.7	0.0486	0.00356	0.00069	0.0321	<0.0002	<0.0005	0.011	<0.00005
5-Jul-05	147	2500	2505	7.95	321	78																
12-Jul-05	154	2500	2500	8	308	77	<1	2.75	33	50	42.8	<0.5	0.047	12.4	0.051	0.00355	0.00075	0.0322	<0.0002	<0.0005	0.011	<0.00005
19-Jul-05	161	2500	2485	8.13	333	83																
26-Jul-05	168	2500	2470	7.88	328	73	<1	2	33.3	41	36.3	<0.5	0.043	10.2	0.0394	0.00306	0.0007	0.0269	<0.0002	<0.0005	<0.01	<0.00005
2-Aug-05	175	2500	2385	8.04	320	69																
9-Aug-05	182	2500	2495	8	273	73	<1	1.25	33.3	48	39	<0.5	0.039	9.37	0.0403	0.00287	0.00067	0.0286	<0.0002	<0.0005	<0.01	<0.00005
16-Aug-05	189	2500	2440	7.9	352	59																
23-Aug-05	196	2500	2525	7.93	364	63	<1	2	25.5	37	33.3	<0.2	<0.1	9.06	0.0362	0.00233	0.00062	0.022	<0.0002	<0.0005	<0.01	<0.00005
30-Aug-05	203	2500	2460	7.73	318	142																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-05	0	2500	2050	5.09	454	1617	<1	104.5	3.3	2740	1410	5.8	0.22	1650	0.848	0.0011	<0.002	0.0333	<0.004	<0.01	0.55	0.0733
15-Feb-05	7	2500	2375	5.57	452	824																
22-Feb-05	14	2500	2450	5.89	416	607	<1	20	2.3	466	267	0.58	0.438	307	0.0426	0.00064	0.00042	0.0196	<0.0004	<0.001	0.153	0.00986
1-Mar-05	21	2500	2430	6.03	482	410																
8-Mar-05	28	2500	2430	6.06	514	380	<1	8.5	2.5	284	167	<0.5	0.505	185	0.0245	0.000801	0.00033	0.0209	0.00021	<0.0005	0.104	0.00581
15-Mar-05	35	2500	2395	6.18	483	326																
22-Mar-05	42	2500	2405	6.38	510	295	<1	8.75	3.5	198	121	<0.5	0.543	134	0.0134	0.000649	0.00021	0.0147	<0.0002	<0.0005	0.062	0.00384
29-Mar-05	49	2500	2485	6.47	500	247																
5-Apr-05	56	2500	2480	6.49	483	247	<1	7	3.5	167	93.7	<0.5	0.555	104	0.0094	0.000574	0.00015	0.0102	<0.0002	<0.0005	0.047	0.00283
12-Apr-05	63	2500	2495	6.48	428	229																
19-Apr-05	70	2500	2475	6.44	468	203	<1	6.75	3.3	131	83.7	<0.5	0.651	87.9	0.0073	0.000567	0.00012	0.00836	<0.0002	<0.0005	0.035	0.00204
26-Apr-05	77	2500	2445	6.69	470	202																
3-May-05	84	2500	2465	6.55	482	199	<1	5	3.3	118	90.9	<0.5	0.762	86.4	0.007	0.00064	0.00012	0.00944	<0.0002	<0.0005	0.03	0.0019
10-May-05	91	2500	2450	6.68	437	197																
17-May-05	98	2500	2445	6.76	414	194	<1	3.5	4.3	122	80.5	<0.5	0.753	87.1	0.0051	0.00077	0.00012	0.00868	<0.0002	<0.0005	0.027	0.00177
24-May-05	105	2500	2450	6.75	428	189																
31-May-05	112	2500	2440	6.85	409	180	<1	3.5	5	116	72.4	<0.5	0.819	79.6	0.004	0.000949	0.00011	0.00814	<0.0002	<0.0005	0.024	0.00128
7-Jun-05	119	2500	2455	6.88	433	191																
14-Jun-05	126	2500	2450	6.96	409	180	<1	3.5	5	124	79.8	<0.5	0.81	78.2	0.003	0.000862	<0.0001	0.00823	<0.0002	<0.0005	0.02	0.00132
21-Jun-05	133	2500	2540	7.05	412	185																
28-Jun-05	140	2500	2345	6.99	333	176	<1	3.25	6.3	110	78	<0.5	0.818	76.2	0.0027	0.000725	0.0001	0.00761	<0.0002	<0.0005	0.022	0.0012
5-Jul-05	147	2500	2395	7.08	343	169																
12-Jul-05	154	2500	2500	6.86	344	159	<1	2.5	8.3	110	72.8	<0.5	0.828	70	0.0015	0.000768	<0.0001	0.00664	<0.0002	<0.0005	0.018	0.00107
19-Jul-05	161	2500	2200	7.48	349	164																
26-Jul-05	168	2500	2410	7.08	341	138	<1	2.5	7.5	93	57.6	<0.5	0.734	58.8	0.0011	0.00102	0.00012	0.00581	<0.0002	<0.0005	0.014	0.000776
2-Aug-05	175	2500	2435	7.24	329	126																
9-Aug-05	182	2500	2425	7.28	284	126	<1	3.25	7.5	90	53.5	<0.5	0.611	52.9	0.0014	0.000772	<0.0001	0.00509	<0.0002	<0.0005	0.012	0.000613
16-Aug-05	189	2500	2430	7.11	356	129																
23-Aug-05	196	2500	2430	7.21	386	128	<1	2.5	7.3	80	52.4	<0.2	0.59	53.7	0.0018	0.000703	<0.0001	0.00499	<0.0002	<0.0005	0.012	0.000574
30-Aug-05	203	2500	2495	7.15	321	179																
6-Sep-05	210	2500	2365	7.14	302	137	<1	1.75	9.3	96	63.3	<0.5	0.626	57.5	0.0022	0.000854	<0.0001	0.00564	<0.0002	<0.0005	0.013	0.00064

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Mar-05	35																				
22-Mar-05	42	10.1	<0.0005	0.00016	0.0299	<0.03	<0.00005	5.4	0.0188	<0.00001	0.00149	<0.0005	4.84	<0.001	1.46	<0.00001	3.8	<0.00005	<0.0001	0.0005	0.0017
29-Mar-05	49																				
5-Apr-05	56	8.05	<0.0005	0.00011	0.0143	<0.03	0.000361	4.4	0.0178	<0.00001	0.00114	<0.0005	3.72	<0.001	1.33	<0.00001	2.2	<0.00005	<0.0001	<0.0005	0.002
12-Apr-05	63																				
19-Apr-05	70	6.78	<0.0005	<0.0001	0.00772	<0.03	<0.00005	3.71	0.0119	<0.00001	0.000955	<0.0005	2.61	<0.001	0.986	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0014
26-Apr-05	77																				
3-May-05	84	10.8	<0.0005	<0.0001	0.0111	<0.03	<0.00005	6.61	0.0202	<0.00001	0.00135	<0.0005	2.57	<0.001	1.15	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
10-May-05	91																				
17-May-05	98	7.98	<0.0005	<0.0001	0.0101	<0.03	0.00005	4.64	0.0195	<0.00001	0.00107	<0.0005	2.1	<0.001	0.998	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0017
24-May-05	105																				
31-May-05	112	7.19	<0.0005	<0.0001	0.00534	<0.03	<0.00005	3.85	0.0134	<0.00001	0.000916	<0.0005	1.5	<0.001	0.92	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
7-Jun-05	119																				
14-Jun-05	126	7.87	<0.0005	<0.0001	0.00573	<0.03	<0.00005	4.69	0.0139	<0.00001	0.000883	<0.0005	1.37	<0.001	0.839	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Jun-05	133																				
28-Jun-05	140	7.74	<0.0005	<0.0001	0.0094	<0.03	<0.00005	4.94	0.0173	<0.00001	0.00093	<0.0005	1.28	<0.001	0.771	0.000011	<2	<0.00005	<0.0001	<0.0005	0.0011
5-Jul-05	147																				
12-Jul-05	154	8.52	<0.0005	<0.0001	0.00702	<0.03	<0.00005	5.21	0.0164	<0.00001	0.000937	<0.0005	1.25	<0.001	0.801	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
19-Jul-05	161																				
26-Jul-05	168	7.55	<0.0005	<0.0001	0.00876	<0.03	<0.00005	4.25	0.0146	<0.00001	0.000767	<0.0005	0.949	<0.001	0.679	0.000015	<2	<0.00005	<0.0001	<0.0005	0.0015
2-Aug-05	175																				
9-Aug-05	182	7.82	<0.0005	<0.0001	0.00652	<0.03	<0.00005	4.73	0.0134	<0.00001	0.000756	<0.0005	0.913	<0.001	0.666	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
16-Aug-05	189																				
23-Aug-05	196	6.54	<0.0005	<0.0001	0.00824	<0.03	<0.00005	4.11	0.011	<0.0001	0.000599	<0.0005	0.69	<0.001	0.53	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
30-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-05	0	250	<0.01	0.536	58.3	0.295	<0.001	191	15.9	0.000014	<0.001	0.261	19.6	0.086	4.38	<0.0002	53.3	<0.001	<0.002	<0.01	4.04
15-Feb-05	7																				
22-Feb-05	14	61.1	<0.001	0.0628	4.47	<0.06	<0.0001	27.7	2.64	<0.00001	<0.0001	0.032	5.95	0.0242	2.29	<0.00002	9.4	0.0003	<0.0002	<0.001	0.553
1-Mar-05	21																				
8-Mar-05	28	35.5	<0.0005	0.0351	2.04	<0.06	<0.00005	19.1	2.16	<0.00001	<0.00005	0.0198	4.54	0.0175	1.77	<0.00001	<4	0.000225	0.00014	<0.0005	0.314
15-Mar-05	35																				
22-Mar-05	42	24.6	<0.0005	0.0252	1.02	<0.03	<0.00005	14.5	1.67	<0.00001	<0.00005	0.0138	3.12	0.0137	1.72	<0.00001	<2	0.000155	<0.0001	<0.0005	0.209
29-Mar-05	49																				
5-Apr-05	56	19.2	<0.0005	0.0177	0.672	<0.03	<0.00005	11.1	1.5	<0.00001	<0.00005	0.0109	2.4	0.0107	1.54	<0.00001	<2	0.000139	<0.0001	<0.0005	0.147
12-Apr-05	63																				
19-Apr-05	70	16.7	<0.0005	0.0137	0.389	<0.03	<0.00005	10.2	1.29	<0.00001	0.000054	0.00815	2.04	0.0087	1.25	<0.00001	<2	0.000118	<0.0001	<0.0005	0.101
26-Apr-05	77																				
3-May-05	84	16.1	<0.0005	0.013	0.3	<0.03	<0.00005	12.3	1.91	<0.00001	<0.00005	0.00834	1.92	0.0081	1.28	<0.00001	<2	0.000111	<0.0001	<0.0005	0.081
10-May-05	91																				
17-May-05	98	15	<0.0005	0.0121	0.228	<0.03	<0.00005	10.5	1.61	<0.00001	<0.00005	0.00781	1.88	0.0092	1.17	<0.00001	<2	0.000116	<0.0001	<0.0005	0.0728
24-May-05	105																				
31-May-05	112	13.7	<0.0005	0.00895	0.14	<0.03	<0.00005	9.26	1.37	<0.00001	<0.00005	0.006	1.67	0.0073	1.1	<0.00001	<2	0.000095	<0.0001	<0.0005	0.0514
7-Jun-05	119																				
14-Jun-05	126	14.3	<0.0005	0.00863	0.113	<0.03	<0.00005	10.7	1.5	<0.00001	<0.00005	0.00588	1.63	0.0078	0.999	<0.00001	<2	0.000097	<0.0001	<0.0005	0.0471
21-Jun-05	133																				
28-Jun-05	140	13.6	<0.0005	0.00705	0.0751	<0.03	<0.00005	10.7	1.52	<0.00001	<0.00005	0.00502	1.6	0.0079	0.941	<0.00001	<2	0.000104	<0.0001	<0.0005	0.0376
5-Jul-05	147																				
12-Jul-05	154	12.4	<0.0005	0.00581	0.063	<0.03	<0.00005	10.2	1.41	<0.00001	<0.00005	0.00418	1.5	0.0067	0.819	<0.00001	<2	0.000098	<0.0001	<0.0005	0.0287
19-Jul-05	161																				
26-Jul-05	168	10.4	<0.0005	0.00408	0.0427	<0.03	<0.00005	7.66	1.07	<0.00001	<0.00005	0.00298	1.14	0.0055	0.704	<0.00001	<2	0.000072	<0.0001	<0.0005	0.024
2-Aug-05	175																				
9-Aug-05	182	9.68	<0.0005	0.00307	0.0353	<0.03	<0.00005	7.12	0.904	<0.00001	<0.00005	0.00226	0.999	0.0043	0.636	<0.00001	<2	0.00007	<0.0001	<0.0005	0.0183
16-Aug-05	189																				
23-Aug-05	196	9.14	<0.0005	0.00242	0.0255	<0.03	<0.00005	7.19	0.872	<0.0001	<0.00005	0.00187	0.958	0.0044	0.591	<0.00001	<2	0.000067	<0.0001	<0.0005	0.0148
30-Aug-05	203																				
6-Sep-05	210	10.8	<0.0005	0.00256	0.0254	<0.03	0.000068	8.85	1.01	<0.00001	<0.00005	0.00206	1.05	0.005	0.675	<0.00001	<2	0.000077	<0.0001	<0.0005	0.017

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-Sep-05	217	2500	2415	7.03	256	124																
20-Sep-05	224	2500	2425	7.2	258	135	<1	1.75	8.8	86	56.4	<0.5	0.594	55.1	0.0041	0.000791	<0.0001	0.00503	<0.0002	<0.0005	0.012	0.000555
27-Sep-05	231	2500	2410	6.5	277	111																
4-Oct-05	238	2500	2495	6.66	267	118	<1	4.75	5.8	72	48.9	<0.5	0.665	48.2	0.0016	0.000593	<0.0001	0.00394	<0.0002	<0.0005	<0.01	0.000443
11-Oct-05	245	2500	2425	7.13	368	130																
18-Oct-05	252	2500	2690	6.84	228	104	<1	2.25	7.5	56	43.4	<0.5	0.486	41.1	0.0012	0.00054	<0.0001	0.00374	<0.0002	<0.0005	<0.01	0.000432
25-Oct-05	259	2500	2680	6.84	432	117																
1-Nov-05	266	2500	2605	6.73	343	106	<1	5.25	4.8	64	45.4	<0.5	0.489	45.2	0.0029	0.000611	<0.0001	0.00382	<0.0002	<0.0005	<0.01	0.000392
8-Nov-05	273	2500	2430	6.83	329	105																
15-Nov-05	280	2500	2690	6.73	279	100	<1	4.25	5.5	61	44.2	<0.5	0.399	40.7	0.0023	0.000451	<0.0001	0.00316	<0.0002	<0.0005	<0.01	0.000318
22-Nov-05	287	2500	2615	6.9	412	93																
29-Nov-05	294	2500	2400	6.74	365	90	<1	4	6.5	58	41.8	<0.5	0.445	38.4	0.0026	0.000532	<0.0001	0.0031	<0.0002	<0.0005	<0.01	0.000282
6-Dec-05	301	2500	2520	6.92	357	89																
13-Dec-05	308	2500	2440	6.97	383	105	<1	6.5	12	71	53.8	<0.5	0.416	44.9	0.0023	0.000638	<0.0001	0.00382	<0.0002	<0.0005	<0.01	0.000375
20-Dec-05	315	2500	2510	7.01	473	73																
27-Dec-05	322	2500	2455	6.97	391	98	<1	3.75	9.3	48	40.5	<0.5	0.381	35.5	0.0022	0.000383	<0.0001	0.00266	<0.0002	<0.0005	<0.01	0.00026
3-Jan-06	329	2500	2540	6.91	479	102																
10-Jan-06	336	2500	2540	6.82	430	103	<1	3	8.5	63	38.9	<0.5	0.384	34.5	0.003	0.000427	<0.0001	0.00283	<0.0002	<0.0005	<0.01	0.000277
17-Jan-06	343	2500	2355	6.91	373	90																
24-Jan-06	350	2500	2420	6.94	395	105	<1	3.5	9.8	70	45	<0.5	0.375	38.2	0.0017	0.000573	<0.0001	0.0032	<0.0002	<0.0005	<0.01	0.000284
31-Jan-06	357	2500	2550	6.92	406	77																
7-Feb-06	364	2500	2420	6.8	398	71	<1	2.5	7.5	38	31.5	<0.5	0.304	28.2	<0.001	0.000404	<0.0001	0.00238	<0.0002	<0.0005	<0.01	0.000194
14-Feb-06	371	2500	2525	6.75	406	78																
21-Feb-06	378	2500	2423	6.74	469	96	<1	2.75	8.8	52	41.9	<0.5	0.289	35.8	0.0019	0.000396	<0.0001	0.00266	<0.0002	<0.0005	<0.01	0.000264
28-Feb-06	385	2500	2480	6.99	480	105																
7-Mar-06	392	2500	2495	7.03	455	118	<1	3	8.5	78	49.6	<0.5	0.308	42.1	0.0036	0.000488	<0.0001	0.00402	<0.0002	<0.0005	<0.01	0.000305
14-Mar-06	399	2500	2685	6.75	396	96																
21-Mar-06	406	2500	2615	6.84	389	92	<1	2.5	8.5	55	34.9	<0.5	0.284	31.3	0.0018	0.000402	<0.0001	0.00263	<0.0002	<0.0005	<0.01	0.000194
28-Mar-06	413	2500	2555	6.97	362	98																
4-Apr-06	420	2500	2490	6.96	378	113	<1	1.75	8.3	56	47.5	<0.5	0.298	41.5	0.0034	0.000472	<0.0001	0.00372	<0.0002	<0.0005	<0.01	0.00028
11-Apr-06	427	2500	2550	6.68	390	75																
18-Apr-06	434	2500	2580	7.04	408	105	<1	1.75	9	59	43	<0.5	0.26	37.4	0.0014	0.000454	<0.0001	0.00286	<0.0002	<0.0005	<0.01	0.000248
25-Apr-06	441	2500	2465	7.01	416	119																
2-May-06	448	2500	2525	7.06	303	127	<1	1.67	11.3	85	55.4	<0.5	0.294	47.2	0.0013	0.000684	<0.0001	0.00361	<0.0002	<0.0005	<0.01	0.000285
9-May-06	455	2500	2600	6.96	259	108																
16-May-06	462	2500	2530	6.96	293	97	<1	1.72	6.1	56	38.5	<0.5	0.269	36.3	<0.001	0.00048	<0.0001	0.00248	<0.0002	<0.0005	<0.01	0.000206
23-May-06	469	2500	2590	6.99	228	112																
30-May-06	476	2500	2610	6.82	324	114	<1	2.03	7	74	45.7	<0.5	0.277	42.4	0.0084	0.000376	<0.0001	0.00285	<0.0002	<0.0005	<0.01	0.000279
6-Jun-06	483	2500	2430	6.8	280	106																
13-Jun-06	490	2500	2525	6.66	296	103	<1	2.16	7.2	55	40.5	<0.5	0.279	37.6	0.002	0.000394	<0.0001	0.00256	<0.0002	<0.0005	<0.01	0.000209
20-Jun-06	497	2500	2365	6.96	266	120																
27-Jun-06	504	2500	2390	7	318	157	<1	2.53	8	94	67.1	<0.5	0.292	62.7	0.0058	0.000513	<0.0001	0.00448	<0.0002	<0.0005	<0.01	0.000341

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
8-Feb-05	0	2500	2035	4.84	443	1385	<1	63	2	1830	1070	<5	<0.2	1420	1.46	0.00423	0.0066	0.0555	0.0081	<0.005	0.37	0.0117
15-Feb-05	7	2500	2515	6.05	395	785																
22-Feb-05	14	2500	2445	6.77	420	479	<1	7.75	4.5	361	210	<0.5	0.291	233	0.0028	0.00212	0.00957	0.0458	<0.0004	<0.001	0.061	0.00086
1-Mar-05	21	2500	2505	6.86	449	322																
8-Mar-05	28	2500	2450	6.82	462	294	<1	9.5	5.8	220	127	<0.5	0.254	137	0.0031	0.00271	0.00607	0.044	<0.0002	<0.0005	0.036	0.000686
15-Mar-05	35	2500	2350	6.88	458	283																
22-Mar-05	42	2500	2410	6.93	472	237	<1	7.5	6.5	157	95.2	<0.5	0.206	102	0.0016	0.00264	0.00373	0.0324	<0.0002	<0.0005	0.023	0.000339
29-Mar-05	49	2500	2495	7.02	461	179																
5-Apr-05	56	2500	2480	7.02	449	181	<1	4.75	7	129	68.4	<0.5	0.167	72.4	0.0017	0.00296	0.00302	0.028	<0.0002	<0.0005	0.017	0.000219
12-Apr-05	63	2500	2485	7.05	406	159																
19-Apr-05	70	2500	2505	7.01	441	144	<1	7.75	5.8	93	57.1	<0.5	0.128	58.9	0.0018	0.00228	0.00219	0.0201	<0.0002	<0.0005	0.012	0.000199
26-Apr-05	77	2500	2500	7.1	420	146																
3-May-05	84	2500	2490	6.96	451	141	<1	4.5	5.5	90	60.2	<0.5	0.121	58.9	0.0017	0.00234	0.00205	0.02	<0.0002	<0.0005	0.011	0.000183
10-May-05	91	2500	2510	7	422	143																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Sep-05	217																				
20-Sep-05	224	10	<0.0005	0.00215	0.0254	<0.03	0.000069	7.61	0.891	<0.00001	<0.00005	0.00162	0.947	0.004	0.688	<0.00001	<2	0.000074	<0.0001	<0.0005	0.0139
27-Sep-05	231																				
4-Oct-05	238	8.8	<0.0005	0.00195	0.027	<0.03	<0.00005	6.55	0.832	<0.00001	<0.00005	0.00141	0.887	0.0033	0.535	<0.00001	<2	0.000068	<0.0001	<0.0005	0.0109
11-Oct-05	245																				
18-Oct-05	252	7.64	<0.0005	0.00154	0.0194	<0.03	<0.00005	5.9	0.647	<0.00001	<0.00005	0.00122	0.781	0.0032	0.52	<0.00001	<2	0.000056	0.0001	<0.0005	0.0089
25-Oct-05	259																				
1-Nov-05	266	7.34	<0.0005	0.00148	0.0167	<0.03	<0.00005	6.58	0.701	<0.00001	<0.00005		0.741	0.0034	0.479	<0.00001	<2	0.000055	<0.0001	<0.0005	0.0086
8-Nov-05	273																				
15-Nov-05	280	7.16	<0.0005	0.00127	0.0179	<0.03	<0.00005	6.39	0.663	<0.00001	<0.00005	0.00103	0.68	0.003	0.439	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0077
22-Nov-05	287																				
29-Nov-05	294	6.95	<0.0005	0.00096	0.0143	<0.03	<0.00005	5.94	0.576	<0.00001	0.000185	0.00072	0.648	0.0028	0.407	0.000012	<2	<0.00005	<0.0001	<0.0005	0.0067
6-Dec-05	301																				
13-Dec-05	308	8.93	<0.0005	0.00129	0.0168	0.036	<0.00005	7.65	0.718	<0.00001	<0.00005	0.001	0.752	0.0031	0.558	0.00003	<2	0.00006	<0.0001	<0.0005	0.0093
20-Dec-05	315																				
27-Dec-05	322	6.61	<0.0005	0.00096	0.0135	<0.03	<0.00005	5.82	0.565	<0.00001	<0.00005	0.00072	0.661	0.0023	0.424	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0069
3-Jan-06	329																				
10-Jan-06	336	6.13	<0.0005	0.00084	0.0117	<0.03	<0.00005	5.73	0.507	<0.00001	<0.00005	0.00066	0.579	0.0023	0.449	<0.00001	<2	<0.00005	0.00031	<0.0005	0.0059
17-Jan-06	343																				
24-Jan-06	350	7.18	<0.0005	0.00093	0.013	<0.03	<0.00005	6.57	0.577	<0.00001	<0.00005	0.0009	0.623	0.0027	0.466	<0.00001	<2	0.000054	<0.0001	<0.0005	0.0075
31-Jan-06	357																				
7-Feb-06	364	5.3	<0.0005	0.00064	0.0128	0.033	<0.00005	4.44	0.376	<0.00001	<0.00005	0.00053	0.494	0.0018	0.378	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.005
14-Feb-06	371																				
21-Feb-06	378	6.53	<0.0005	0.00072	0.0124	<0.03	<0.00005	6.22	0.468	<0.00001	<0.00005	0.00055	0.517	0.0023	0.425	<0.00002	<2	<0.00005	<0.0001	<0.0005	0.0052
28-Feb-06	385																				
7-Mar-06	392	7.68	<0.0005	0.00088	0.0167	<0.03	0.000071	7.38	0.561	<0.00001	<0.00005	0.00076	0.631	0.0029	0.442	<0.00001	<2	0.000059	0.00018	<0.0005	0.0073
14-Mar-06	399																				
21-Mar-06	406	5.53	<0.0005	0.00056	0.0143	<0.03	<0.00005	5.12	0.379	<0.00001	<0.00005	0.00054	0.479	0.0021	0.366	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0046
28-Mar-06	413																				
4-Apr-06	420	7.08	<0.0005	0.00079	0.0162	<0.03	0.000068	7.24	0.575	<0.00001	<0.00005	0.00076	0.648	0.0027	0.452	<0.00001	<2	0.000059	0.00047	<0.0005	0.0091
11-Apr-06	427																				
18-Apr-06	434	7.02	<0.0005	0.00074	0.0131	<0.03	<0.00005	6.17	0.504	<0.00001	<0.00005	0.00063	0.555	0.0023	0.437	<0.00001	<2	0.000056	<0.0001	<0.0005	0.0064
25-Apr-06	441																				
2-May-06	448	8.19	<0.0005	0.00086	0.0178	<0.03	<0.00005	8.49	0.594	<0.00001	<0.00005	0.0007	0.676	0.0031	0.518	<0.00001	<2	0.000067	<0.0001	<0.0005	0.0067
9-May-06	455																				
16-May-06	462	6.01	<0.0005	0.00054	0.0102	<0.03	<0.00005	5.71	0.387	<0.00001	<0.00005	<0.0005	0.532	0.002	0.428	<0.00001	<2	0.000065	<0.0001	<0.0005	0.004
23-May-06	469																				
30-May-06	476	7.12	<0.0005	0.0007	0.0151	<0.03	<0.00005	6.78	0.475	<0.00001	<0.00005	0.00058	0.607	0.0027	0.517	<0.00001	<2	0.000066	<0.0001	<0.0005	0.0065
6-Jun-06	483																				
13-Jun-06	490	6.18	<0.0005	0.00057	0.0108	<0.03	<0.00005	6.1	0.387	<0.00001	<0.00005	<0.0005	0.563	0.0021	0.443	<0.00001	<2	0.000066	<0.0001	<0.0005	0.004
20-Jun-06	497																				
27-Jun-06	504	9.77	<0.0005	0.00087	0.0147	<0.03	0.000057	10.4	0.622	<0.00001	<0.00005	0.00078	0.777	0.0036	0.6	<0.00001	<2	0.000083	0.00012	<0.0005	0.006

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
8-Feb-05	0	243	<0.005	0.139	17.7	7.72	0.0014	112	47.4	<0.00001	0.00058	0.455	19.3	0.04	5.13	<0.0001	34.5	0.00316	<0.001	<0.005	2.6
15-Feb-05	7																				
22-Feb-05	14	54	<0.001	0.0132	0.159	<0.06	<0.0001	18.3	6.47	<0.00001	0.00015	0.0418	3.5	0.0091	2.71	<0.00002	<4	0.00074	<0.0002	<0.001	0.157
1-Mar-05	21																				
8-Mar-05	28	31.7	<0.0005	0.00761	0.0555	<0.06	0.000157	11.5	4.56	<0.00001	0.000165	0.0219	2.54	0.0059	2.24	<0.00001	<4	0.000627	<0.0001	<0.0005	0.074
15-Mar-05	35																				
22-Mar-05	42	23.5	<0.0005	0.0053	0.0314	<0.03	0.000066	8.85	3.22	<0.00001	0.000161	0.0144	1.88	0.0045	2.32	<0.00001	<2	0.000477	<0.0001	<0.0005	0.0449
29-Mar-05	49																				
5-Apr-05	56	16.7	<0.0005	0.00359	0.0215	<0.03	<0.00005	6.52	2.53	<0.00001	0.000199	0.00956	1.47	0.003	2.14	<0.00001	<2	0.000447	<0.0001	<0.0005	0.0294
12-Apr-05	63																				
19-Apr-05	70	14.2	<0.0005	0.00268	0.0163	<0.03	<0.00005	5.26	1.99	<0.00001	0.000174	0.00635	1.18	0.0023	1.73	<0.00001	<2	0.000383	<0.0001	<0.0005	0.0214
26-Apr-05	77																				
3-May-05	84	13.7	<0.0005	0.00262	0.0169	<0.03	<0.00005	6.32	2.97	<0.00001	0.000172	0.00618	1.2	0.0021	1.76	<0.00001	<2	0.000405	<0.0001	<0.0005	0.0204
10-May-05	91																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
17-May-05	98	2500	2505	7.06	413	139	<1	3.5	6.8	90	52.9	<0.5	0.107	58.7	0.0042	0.00259	0.00196	0.0206	<0.0002	<0.0005	0.01	0.000172
24-May-05	105	2500	2480	6.98	423	125																
31-May-05	112	2500	2455	7.11	403	125	<1	2	7	82	47.3	<0.5	0.106	53.2	0.0028	0.00274	0.00193	0.0185	<0.0002	<0.0005	<0.01	0.000173
7-Jun-05	119	2500	2495	7.04	398	122																
14-Jun-05	126	2500	2500	7.03	403	130	<1	4	5.8	91	51.9	<0.5	0.092	54.6	0.0023	0.00246	0.00171	0.0182	<0.0002	<0.0005	<0.01	0.000181
21-Jun-05	133	2500	2505	7.03	403	130																
28-Jun-05	140	2500	2505	7.03	327	123	<1	2.25	5.5	74	48.2	<0.5	0.076	51.7	0.0021	0.00237	0.00166	0.0175	<0.0002	<0.0005	<0.01	0.000178
5-Jul-05	147	2500	2500	6.92	334	123																
12-Jul-05	154	2500	2465	7.04	344	120	<1	2.5	5	89	48.2	<0.5	0.096	52.3	0.0017	0.00262	0.00164	0.018	<0.0002	<0.0005	<0.01	0.000176
19-Jul-05	161	2500	2480	7.1	352	115																
26-Jul-05	168	2500	2160	6.88	351	100	<1	2	4.8	71	37.6	<0.5	0.088	42.8	0.0045	0.00333	0.00178	0.0193	<0.0002	<0.0005	<0.01	0.000142
2-Aug-05	175	2500	2240	6.3	342	140																
9-Aug-05	182	2500	2425	6.82	283	106	<1	2	4.3	85	41.6	<0.5	0.08	46	0.002	0.00233	0.00152	0.0137	<0.0002	<0.0005	<0.01	0.000157
16-Aug-05	189	2500	2410	6.79	374	99																
23-Aug-05	196	2500	2395	6.93	391	94	<1	2	6.3	70	35.3	<0.2	<0.1	41.5	0.0029	0.0022	0.00136	0.0125	<0.0002	<0.0005	<0.01	0.000156
30-Aug-05	203	2500	2435	6.74	310	96																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	1435	8.04	298	2360	<1	2.5	102	3120	1440	12.1	<0.2	2070	<0.01	0.00223	0.0024	0.0814	<0.002	<0.005	0.77	<0.0005
16-Feb-05	7	2500	2420	8.29	342	1019																
23-Feb-05	14	2500	2470	8.43	330	511	<1	<1	221.5	308	77	<0.5	0.324	59.8	0.0095	0.00474	0.00261	0.0895	<0.0002	<0.0005	0.427	<0.0001
2-Mar-05	21	2500	2460	8.52	335	460																
9-Mar-05	28	2500	2465	8.62	392	444	<1	<1	231.5	269	77.1	<0.5	0.205	18.6	0.0083	0.00607	0.00165	0.137	<0.0002	<0.0005	0.332	<0.00005
16-Mar-05	35	2500	2385	8.36	381	426																
23-Mar-05	42	2500	2470	8.43	390	430	<1	<1	232	246	84.4	<0.5	0.233	17	0.0054	0.00621	0.00114	0.132	<0.0002	<0.0005	0.254	<0.00005
30-Mar-05	49	2500	2475	8.46	377	401																
6-Apr-05	56	2500	2470	8.6	379	362	<1	<1	189.5	220	77.5	<0.5	0.209	14.7	0.0063	0.00643	0.0007	0.13	<0.0002	<0.0005	0.178	<0.00005
13-Apr-05	63	2500	2470	8.48	347	365																
20-Apr-05	70	2500	2475	8.49	366	335	<1	<1	172	188	93.5	<0.5	0.185	13.3	0.0059	0.00641	0.00068	0.147	<0.0002	<0.0005	0.149	<0.00005
27-Apr-05	77	2500	2465	8.44	361	354																
4-May-05	84	2500	2460	8.53	382	354	<1	<1	189	192	141	<0.5	0.138	12.8	0.0047	0.00621	0.00049	0.284	<0.0002	<0.0005	0.129	<0.00005
11-May-05	91	2500	2460	8.4	328	354																
18-May-05	98	2500	2455	8.42	319	316	<1	<1	171	172	135	<0.5	0.114	12.2	0.0038	0.0058	0.00043	0.245	<0.0002	<0.0005	0.104	<0.00005
25-May-05	105	2500	2465	8.37	347	321																
1-Jun-05	112	2500	2435	8.48	337	310	<1	<1	163	164	139	<0.5	0.122	12.7	0.0049	0.00577	0.00039	0.232	<0.0002	<0.0005	0.093	<0.00005
8-Jun-05	119	2500	2445	8.39	328	299																
15-Jun-05	126	2500	2500	8.5	333	318	<1	<1	172	175	165	<0.5	0.102	10.9	0.0036	0.00514	0.00031	0.257	<0.0002	<0.0005	0.076	<0.00005
22-Jun-05	133	2500	2455	8.43	325	286																
29-Jun-05	140	2500	2470	8.47	245	333	<1	<1	182	173	174	<0.5	0.08	11.2	0.0072	0.00492	0.00034	0.299	<0.0002	<0.0005	0.077	<0.00005
6-Jul-05	147	2500	2470	8.42	241	344																
13-Jul-05	154	2500	2465	8.42	260	319	<1	<1	174.5	174	169	<0.5	0.098	11.7	0.003	0.00446	0.00026	0.264	<0.0002	<0.0005	0.061	<0.00005
20-Jul-05	161	2500	2435	8.45	233	322																
27-Jul-05	168	2500	2440	8.53	265	305	<1	<1	175.5	165	157	<0.5	0.092	9.94	0.0039	0.0038	0.00034	0.237	<0.0002	<0.0005	0.052	<0.00005
3-Aug-05	175	2500	2480	8.33	293	308																
10-Aug-05	182	2500	2490	8.41	265	317	<1	<1	173	169	169	<0.5	0.083	8.76	0.0033	0.00354	0.00025	0.281	<0.0002	<0.0005	0.046	<0.00005
17-Aug-05	189	2500	2445	8.31	262	330																
24-Aug-05	196	2500	2435	8.34	297	308	<1	<1	175	173	159	<0.5	0.104	9.56	0.0036	0.00336	0.0002	0.283	<0.0002	<0.0005	0.044	<0.00005
31-Aug-05	203	2500	2325	8.37	244	297																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Feb-05	0	2500	1820	8.26	299	1847	<1	<1	126.8	4270	858	6.3	0.4	1290	0.017	0.00806	0.0025	0.103	<0.002	<0.005	0.6	<0.0005
1-Mar-05	7	2500	2470	8.43	347	920																
8-Mar-05	14	2500	2450	8.42	396	543	<1	<1	227.8	343	90.4	<0.5	0.255	71.6	0.0065	0.005	0.00222	0.113	<0.0002	<0.0005	0.484	<0.00015
15-Mar-05	21	2500	2480	8.33	398	486																
22-Mar-05	28	2500	2480	8.41	377	474	<1	<1	240	274	84.6	<0.5	0.201	26.2	0.0038	0.00474	0.00113	0.139	<0.0002	<0.0005	0.324	<0.00005
29-Mar-05	35	2500	2485	8.46	396	435																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-May-05	98	12.7	<0.0005	0.00263	0.019	<0.03	<0.00005	5.11	2.46	<0.00001	0.000199	0.00589	1.19	0.0023	1.67	<0.00001	<2	0.000427	<0.0001	<0.0005	0.0207
24-May-05	105																				
31-May-05	112	11.1	<0.0005	0.00237	0.026	<0.03	<0.00005	4.79	2.37	<0.00001	0.000201	0.00529	1.18	0.0021	1.55	<0.00001	<2	0.00041	<0.0001	<0.0005	0.0232
7-Jun-05	119																				
14-Jun-05	126	12.4	<0.0005	0.00223	0.0222	<0.03	<0.00005	5.09	2.45	<0.00001	0.000186	0.00481	1.09	0.0021	1.5	<0.00001	<2	0.000408	<0.0001	<0.0005	0.0213
21-Jun-05	133																				
28-Jun-05	140	10.9	<0.0005	0.00223	0.024	<0.03	<0.00005	5.08	2.73	<0.00001	0.000191	0.00481	1.13	0.0022	1.33	<0.00001	<2	0.00044	<0.0001	<0.0005	0.0214
5-Jul-05	147																				
12-Jul-05	154	11	<0.0005	0.00207	0.0295	<0.03	<0.00005	5.01	2.66	<0.00001	0.000401	0.00448	1.12	0.0019	1.32	<0.00001	<2	0.000458	<0.0001	<0.0005	0.021
19-Jul-05	161																				
26-Jul-05	168	8.73	<0.0005	0.00177	0.0302	<0.03	<0.00005	3.83	2.23	<0.00001	0.00129	0.00384	1.58	0.0015	1.19	<0.00001	<2	0.000323	<0.0001	<0.0005	0.0251
2-Aug-05	175																				
9-Aug-05	182	9.46	<0.0005	0.00174	0.0366	<0.03	<0.00005	4.37	2.34	<0.00001	0.000185	0.0038	1.49	0.0016	1.17	<0.00001	<2	0.000303	<0.0001	<0.0005	0.0265
16-Aug-05	189																				
23-Aug-05	196	8	<0.0005	0.0016	0.05	<0.03	<0.00005	3.71	2.25	<0.0001	0.000112	0.00364	1.13	0.0015	1.11	<0.00001	<2	0.000254	<0.0001	<0.0005	0.0296
30-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	348	<0.005	0.0108	0.021	<0.06	<0.0005	139	0.175	0.00001	0.148	0.0118	22.9	0.367	1.33	<0.0001	394	<0.0005	<0.001	<0.005	0.023
16-Feb-05	7																				
23-Feb-05	14	18.4	<0.0005	0.00015	0.00208	<0.06	<0.00005	7.52	0.00176	<0.00001	0.0501	0.00076	6.56	0.0042	1.3	<0.00001	91.5	0.000091	<0.0001	<0.0005	0.0024
2-Mar-05	21																				
9-Mar-05	28	18	<0.0005	<0.0001	0.00099	1.03	<0.00005	7.79	0.000118	<0.00001	0.0242	0.00052	6.44	0.0018	1.2	<0.00001	73.1	0.000102	<0.0001	<0.0005	0.0018
16-Mar-05	35																				
23-Mar-05	42	18.5	<0.0005	<0.0001	0.00098	<0.03	<0.00005	9.29	0.00161	<0.00001	0.0149	<0.0005	7.1	0.0015	1.14	<0.00001	67.2	0.000097	<0.0001	<0.0005	0.002
30-Mar-05	49																				
6-Apr-05	56	16.9	<0.0005	<0.0001	0.00058	<0.03	<0.00005	8.6	0.000163	<0.00001	0.0101	<0.0005	6.48	<0.001	0.986	<0.00001	50.3	0.000085	<0.0001	<0.0005	<0.001
13-Apr-05	63																				
20-Apr-05	70	20.3	<0.0005	<0.0001	0.0007	<0.03	<0.00005	10.4	0.000097	<0.00001	0.00813	<0.0005	7.12	0.0015	0.894	<0.00001	40.9	0.000093	<0.0001	<0.0005	<0.001
27-Apr-05	77																				
4-May-05	84	28.9	<0.0005	<0.0001	0.00062	<0.03	<0.00005	16.6	0.00024	<0.00001	0.00485	<0.0005	8.05	0.0012	1.02	<0.00001	28.2	0.00011	<0.0001	<0.0005	0.0017
11-May-05	91																				
18-May-05	98	28.8	<0.0005	<0.0001	0.00059	<0.03	<0.00005	15.4	0.000278	<0.00001	0.00431	<0.0005	9.07	0.0014	0.893	<0.00001	17	0.000109	<0.0001	<0.0005	0.001
25-May-05	105																				
1-Jun-05	112	30	<0.0005	<0.0001	0.00092	<0.03	<0.00005	15.5	0.000147	<0.00001	0.00364	<0.0005	8.88	0.0012	0.886	<0.00001	6.8	0.000111	<0.0001	<0.0005	0.0011
8-Jun-05	119																				
15-Jun-05	126	34.5	<0.0005	<0.0001	0.00051	<0.03	<0.00005	19.1	0.000216	<0.00001	0.00274	<0.0005	8.95	0.001	0.898	<0.00001	4.5	0.000112	<0.0001	<0.0005	0.0011
22-Jun-05	133																				
29-Jun-05	140	35.4	<0.001	<0.0001	0.00055	<0.03	<0.00005	20.8	0.000298	<0.00001	0.00226	<0.0005	9.24	0.0014	0.898	<0.00001	2.9	0.000134	<0.0001	<0.0005	0.0012
6-Jul-05	147																				
13-Jul-05	154	35.4	<0.0005	<0.0001	0.00047	<0.03	<0.00005	19.6	0.000284	<0.00001	0.00215	<0.0005	8.62	0.0012	0.849	<0.00001	<2	0.000115	<0.0001	<0.0005	<0.001
20-Jul-05	161																				
27-Jul-05	168	34.2	<0.0005	<0.0001	0.00049	<0.03	<0.00005	17.4	0.000292	<0.00001	0.00181	<0.0005	7.71	<0.001	0.78	0.00001	<2	0.000106	<0.0001	<0.0005	<0.001
3-Aug-05	175																				
10-Aug-05	182	35.9	<0.0005	<0.0001	0.00167	<0.03	<0.00005	19.4	0.000234	<0.00001	0.00158	<0.0005	8.19	<0.001	0.8	<0.00001	<2	0.000113	<0.0001	<0.0005	0.0011
17-Aug-05	189																				
24-Aug-05	196	33.1	<0.0005	<0.0001	0.00255	<0.03	<0.00005	18.6	0.0012	<0.0001	0.00152	<0.0005	7.01	<0.001	0.748	0.000014	<2	0.000101	<0.0001	<0.0005	0.0011
31-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Feb-05	0	197	<0.005	0.0073	0.0183	<0.06	<0.0005	89.1	0.101	0.000011	0.141	0.0091	17.9	0.268	1.3	<0.0001	269	<0.0005	<0.001	<0.005	0.054
1-Mar-05	7																				
8-Mar-05	14	20.7	<0.0005	0.00085	0.00146	<0.06	<0.00005	9.41	0.0138	<0.00001	0.0424	0.00106	6.91	0.0081	1.13	<0.00001	88.1	0.000103	<0.0001	<0.0005	0.0039
15-Mar-05	21																				
22-Mar-05	28	18.7	<0.0005	0.00077	0.00126	<0.03	<0.00005	9.17	0.0175	<0.00001	0.022	0.00086	6.93	0.0026	1.21	<0.00001	75.3	0.000098	<0.0001	<0.0005	0.0024
29-Mar-05	35																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
5-Apr-05	42	2500	2480	8.62	394	436	<1	<1	227.5	258	89	<0.5	0.165	16.7	0.0045	0.0043	0.00069	0.141	<0.0002	<0.0005	0.234	<0.00005
12-Apr-05	49	2500	2465	8.52	303	403																
19-Apr-05	56	2500	2470	8.55	365	370	<1	<1	188	208	90.3	<0.5	0.176	15.7	0.0081	0.00418	0.00057	0.136	<0.0002	<0.0005	0.171	<0.00005
26-Apr-05	63	2500	2455	8.44	376	366																
3-May-05	70	2500	2455	8.53	376	326	<1	<1	167.5	180	107	<0.5	0.177	13.7	0.006	0.00411	0.00051	0.207	<0.0002	<0.0005	0.128	<0.00005
10-May-05	77	2500	2440	8.42	345	361																
17-May-05	84	2500	2445	8.43	322	343	<1	<1	181	190	137	<0.5	0.124	13.6	0.0063	0.00496	0.0005	0.233	<0.0002	<0.0005	0.124	<0.00005
24-May-05	91	2500	2435	8.46	350	280																
31-May-05	98	2500	2440	8.59	331	338	<1	<1	182.5	188	139	<0.5	0.114	12.4	0.0039	0.00441	0.00035	0.206	<0.0002	<0.0005	0.101	<0.00005
7-Jun-05	105	2500	2450	8.5	352	275																
14-Jun-05	112	2500	2445	8.49	334	306	<1	<1	162.5	165	153	<0.5	0.112	11.3	0.005	0.00526	0.00039	0.216	<0.0002	<0.0005	0.095	<0.00005
21-Jun-05	119	2500	2465	8.47	334	316																
28-Jun-05	126	2500	2480	8.43	269	323	<1	<1	179	172	161	<0.5	0.078	10.5	0.0033	0.00403	0.00032	0.254	<0.0002	<0.0005	0.083	<0.00005
5-Jul-05	133	2500	2465	8.38	260	334																
12-Jul-05	140	2500	2460	8.54	265	306	<1	<1	168	171	159	<0.5	0.108	11.4	0.0037	0.00483	0.0003	0.224	<0.0002	<0.0005	0.062	<0.00005
19-Jul-05	147	2500	2435	8.66	265	310																
26-Jul-05	154	2500	2380	8.51	264	302	<1	<1	170.5	169	148	<0.5	0.096	9.75	0.005	0.00428	0.00032	0.198	<0.0002	<0.0005	0.053	<0.00005
2-Aug-05	161	2500	2405	8.44	247	279																
9-Aug-05	168	2500	2290	8.4	233	307	<1	<1	227.3	164	159	<0.5	0.086	8.97	0.0032	0.00407	0.00023	0.241	<0.0002	<0.0005	0.046	<0.00005
16-Aug-05	175	2500	2405	8.39	326	311																
23-Aug-05	182	2500	2380	8.37	325	281	<1	<1	161	157	141	<0.2	<0.1	8.74	0.0046	0.00375	0.00024	0.223	<0.0002	<0.0005	0.046	<0.00005
30-Aug-05	189	2500	2375	8.32	256	300																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Feb-05	0	2500	1630	8.24	292	1950	<1	1.25	132.3	4820	976	7.2	<0.2	1450	0.02	0.00499	0.0023	0.105	<0.002	<0.005	0.59	<0.0005
1-Mar-05	7	2500	2455	8.39	353	917																
8-Mar-05	14	2500	2450	8.48	374	533	<1	<1	219.8	338	81.9	<0.5	0.297	73.5	0.0094	0.00764	0.00308	0.106	<0.0002	<0.0005	0.538	<0.00015
15-Mar-05	21	2500	2285	8.49	390	428																
22-Mar-05	28	2500	2280	8.54	375	446	<1	<1	220	262	66.1	<0.5	0.273	26.6	0.0085	0.00754	0.00195	0.108	<0.0002	<0.0005	0.378	<0.00005
29-Mar-05	35	2500	2305	8.59	394	427																
5-Apr-05	42	2500	2405	8.66	389	433	<1	<1	224.5	265	75.2	<0.5	0.207	16.8	0.0061	0.00779	0.00103	0.127	<0.0002	<0.0005	0.286	<0.00005
12-Apr-05	49	2500	2410	8.56	323	390																
19-Apr-05	56	2500	2405	8.54	365	308	<1	<1	155.5	180	56.5	<0.5	0.205	13.5	0.0082	0.00609	0.00092	0.0903	<0.0002	<0.0005	0.161	<0.00005
26-Apr-05	63	2500	2410	8.52	369	343																
3-May-05	70	2500	2410	8.56	378	329	<1	<1	172	181	89.7	<0.5	0.148	12.1	0.0053	0.00586	0.00058	0.174	<0.0002	<0.0005	0.141	<0.00005
10-May-05	77	2500	2445	8.49	341	310																
17-May-05	84	2500	2415	8.5	318	322	<1	<1	170	181	107	<0.5	0.131	11.9	0.0068	0.00795	0.00061	0.181	<0.0002	<0.0005	0.143	<0.00005
24-May-05	91	2500	2420	8.44	350	283																
31-May-05	98	2500	2425	8.59	320	271	<1	<1	141	150	93	<0.5	0.132	11.1	0.0058	0.0064	0.00041	0.14	<0.0002	<0.0005	0.101	<0.00005
7-Jun-05	105	2500	2445	8.5	324	254																
14-Jun-05	112	2500	2440	8.51	322	268	<1	<1	146.5	148	126	<0.5	0.112	9.64	0.0053	0.00746	0.00044	0.178	<0.0002	<0.0005	0.097	<0.00005
21-Jun-05	119	2500	2435	8.43	324	287																
28-Jun-05	126	2500	2465	8.47	251	297	<1	<1	166.5	161	142	<0.5	0.079	9.28	0.0049	0.00604	0.00034	0.222	<0.0002	<0.0005	0.092	<0.00005
5-Jul-05	133	2500	2470	8.51	261	320																
12-Jul-05	140	2500	2460	8.52	280	267	<1	<1	144.5	152	140	<0.5	0.1	9.95	0.0039	0.00607	0.0003	0.207	<0.0002	<0.0005	0.065	<0.00005
19-Jul-05	147	2500	2400	8.5	254	280																
26-Jul-05	154	2500	2350	8.55	262	267	<1	<1	150	149	130	<0.5	0.094	8.43	0.0037	0.00487	0.00024	0.18	<0.0002	<0.0005	0.053	<0.00005
2-Aug-05	161	2500	2345	8.54	242	243																
9-Aug-05	168	2500	2470	8.48	238	306	<1	<1	170	177	162	<0.5	0.072	7.45	0.0029	0.00409	0.00021	0.261	<0.0002	<0.0005	0.049	<0.00005
16-Aug-05	175	2500	2340	8.48	272	326																
23-Aug-05	182	2500	2295	8.5	232	254	<1	<1	139	138	127	0.24	<0.1	8.77	0.0044	0.00391	0.00021	0.215	<0.0002	<0.0005	0.042	<0.00005
30-Aug-05	189	2500	2360	8.4	233	303																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	1295	8.06	260	4390	<1	9.5	257.3	9570	2220	11	<0.4	5300	<0.02	0.0026	<0.002	0.0243	<0.004	<0.01	1.32	0.0026
16-Feb-05	7	2500	2300	7.98	311	3590																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
5-Apr-05	42	20.2	<0.0005	0.00072	0.00078	<0.03	<0.00005	9.37	0.0222	<0.00001	0.0125	0.00071	6.79	0.0013	1.25	<0.00001	64.2	0.000106	<0.0001	<0.0005	0.0021
12-Apr-05	49																				
19-Apr-05	56	20.2	<0.0005	0.00035	0.00096	<0.03	<0.00005	9.68	0.00927	<0.00001	0.0108	<0.0005	6.73	0.0011	0.995	<0.00001	49.8	0.000092	<0.0001	<0.0005	0.0016
26-Apr-05	63																				
3-May-05	70	22.5	<0.0005	0.00029	0.00064	<0.03	<0.00005	12.5	0.00983	<0.00001	0.0081	<0.0005	6.82	<0.001	0.981	<0.00001	35.3	0.000099	<0.0001	<0.0005	<0.001
10-May-05	77																				
17-May-05	84	29.2	<0.0005	0.00045	0.00071	<0.03	<0.00005	15.5	0.02	<0.00001	0.00614	<0.0005	9.37	0.0014	1.03	<0.00001	25.9	0.000128	<0.0001	<0.0005	0.0015
24-May-05	91																				
31-May-05	98	30.8	<0.0005	0.00032	0.00073	<0.03	0.000054	15	0.0143	<0.00001	0.0041	<0.0005	8.74	0.001	1.02	<0.00001	16.1	0.00012	<0.0001	<0.0005	0.0013
7-Jun-05	105																				
14-Jun-05	112	30.4	<0.0005	0.00027	0.00064	<0.03	<0.00005	18.7	0.0106	<0.00001	0.00475	<0.0005	10.2	0.0012	0.9	<0.00001	11	0.000117	<0.0001	<0.0005	0.0013
21-Jun-05	119																				
28-Jun-05	126	33	<0.0005	0.00031	0.00066	<0.03	<0.00005	19	0.0227	<0.00001	0.00296	<0.0005	9.1	0.0013	0.928	<0.00001	7.7	0.000132	<0.0001	<0.0005	0.0011
5-Jul-05	133																				
12-Jul-05	140	33.6	<0.0005	0.00024	0.00058	<0.03	<0.00005	18.2	0.0185	<0.00001	0.00338	<0.0005	8.76	<0.001	0.869	<0.00001	6	0.00012	<0.0001	<0.0005	<0.001
19-Jul-05	147																				
26-Jul-05	154	32	<0.0005	0.00023	0.00114	<0.03	<0.00005	16.5	0.0147	<0.00001	0.00252		7.65	<0.001	0.81	<0.00001	4.7	0.000103	<0.0001	<0.0005	0.0011
2-Aug-05	161																				
9-Aug-05	168	33.1	<0.0005	0.00017	0.00366	<0.03	<0.00005	18.6	0.0112	<0.00001	0.00213	<0.0005	7.69	<0.001	0.807	<0.00001	4.2	0.000111	<0.0001	<0.0005	0.001
16-Aug-05	175																				
23-Aug-05	182	29.3	<0.0005	0.00013	0.00165	<0.03	<0.00005	16.4	0.00846	<0.0001	0.00218	<0.0005	6.67	<0.001	0.727	<0.00001	3.5	0.000097	<0.0001	<0.0005	0.0012
30-Aug-05	189																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Feb-05	0	229	<0.005	0.007	0.0186	<0.06	<0.0005	98.1	0.108	0.000012	0.132	0.0096	18.6	0.288	1.33	<0.0001	285	<0.0005	<0.001	<0.005	0.02
1-Mar-05	7																				
8-Mar-05	14	18.2	<0.0005	0.00066	0.00125	<0.06	<0.00005	8.88	0.00465	<0.00001	0.0547	0.00089	7	0.0066	1.06	<0.00001	88.1	0.000102	<0.0001	<0.0005	0.002
15-Mar-05	21																				
22-Mar-05	28	14.1	<0.0005	0.00031	0.00112	<0.03	<0.00005	7.5	0.00151	<0.00001	0.0298	<0.0005	6.63	0.0023	1.13	<0.00001	81.1	0.000079	<0.0001	<0.0005	0.0014
29-Mar-05	35																				
5-Apr-05	42	15.9	<0.0005	0.00027	0.00069	<0.03	<0.00005	8.6	0.00374	<0.00001	0.0151	<0.0005	6.76	0.0014	1.18	<0.00001	71.1	0.000094	<0.0001	<0.0005	0.0015
12-Apr-05	49																				
19-Apr-05	56	12.3	<0.0005	0.00012	0.00064	<0.03	<0.00005	6.26	0.00132	<0.00001	0.0116	<0.0005	5.55	0.0011	0.849	<0.00001	50.1	0.000066	<0.0001	<0.0005	<0.001
26-Apr-05	63																				
3-May-05	70	18	<0.0005	0.00016	0.00059	<0.03	<0.00005	10.8	0.00298	<0.00001	0.00694	<0.0005	6.47	0.001	0.942	<0.00001	44.6	0.000088	<0.0001	<0.0005	<0.001
10-May-05	77																				
17-May-05	84	21.2	<0.0005	0.0002	0.00072	<0.03	0.000061	13.1	0.00482	<0.00001	0.00664	<0.0005	9	0.0014	0.911	<0.00001	32.6	0.000103	<0.0001	<0.0005	0.0016
24-May-05	91																				
31-May-05	98	20.2	<0.0005	0.00014	0.00069	<0.03	0.000067	10.3	0.00395	<0.00001	0.00488	<0.0005	7.37	<0.001	0.802	<0.00001	18.2	0.000092	<0.0001	<0.0005	0.0013
7-Jun-05	105																				
14-Jun-05	112	24.2	<0.0005	0.00015	0.00069	<0.03	<0.00005	15.9	0.00453	<0.00001	0.00493	<0.0005	9.43	0.0011	0.8	<0.00001	11.8	0.000098	<0.0001	<0.0005	<0.001
21-Jun-05	119																				
28-Jun-05	126	28.5	<0.0005	0.00017	0.00046	<0.03	<0.00005	17.2	0.00835	<0.00001	0.0031	<0.0005	9	0.0011	0.838	<0.00001	7.7	0.000114	<0.0001	<0.0005	<0.001
5-Jul-05	133																				
12-Jul-05	140	27.9	<0.0005	0.00017	0.00059	<0.03	<0.00005	17	0.00957	<0.00001	0.00353	<0.0005	8.87	<0.001	0.788	<0.00001	3.9	0.000109	<0.0001	<0.0005	<0.001
19-Jul-05	147																				
26-Jul-05	154	27.7	<0.0005	0.00016	0.00099	<0.03	<0.00005	14.8	0.0091	<0.00001	0.00265	<0.0005	7.55	<0.001	0.731	<0.00001	2.8	0.000088	<0.0001	<0.0005	0.0012
2-Aug-05	161																				
9-Aug-05	168	32.9	<0.0005	0.0002	0.001	<0.03	<0.00005	19.3	0.0119	<0.00001	0.00184	<0.0005	8.15	<0.001	0.784	<0.00001	2.6	0.000099	<0.0001	<0.0005	0.0011
16-Aug-05	175																				
23-Aug-05	182	25.1	<0.0005	0.00012	0.00172	<0.03	<0.00005	15.6	0.00715	<0.0001	0.00258	<0.0005	6.88	<0.001	0.666	<0.00001	<2	0.000086	<0.0001	<0.0005	<0.001
30-Aug-05	189																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	448	<0.01	0.352	<0.008	0.137	<0.001	266	1.83	0.00001	0.0042	0.177	24.3	0.817	2.64	<0.0002	1600	0.0029	<0.002	<0.01	0.482
16-Feb-05	7																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Feb-05	14	2500	2310	8.16	295	2130	<1	8.75	246.3	2610	957	<5	0.76	1720	<0.01	0.00579	0.0061	0.0407	<0.002	<0.005	0.37	<0.0005
2-Mar-05	21	2500	2275	8.42	335	1475																
9-Mar-05	28	2500	2280	8.48	374	964	<1	<1	278.5	665	175	<0.5	1.13	259	0.0052	0.00689	0.00678	0.0662	<0.0004	<0.001	0.309	<0.0001
16-Mar-05	35	2500	2275	8.4	396	839																
23-Mar-05	42	2500	2300	8.58	394	758	<1	<1	271	471	98.5	<0.5	1.55	132	0.0059	0.00576	0.00736	0.0688	<0.0004	<0.001	0.257	<0.0001
30-Mar-05	49	2500	2365	8.64	349	677																
6-Apr-05	56	2500	2360	8.57	385	645	<1	<1	252.5	406	71.6	<0.5	1.64	93.9	0.0079	0.0055	0.0074	0.0735	<0.0004	<0.001	0.217	<0.0001
13-Apr-05	63	2500	2345	8.48	348	628																
20-Apr-05	70	2500	2410	8.62	362	572	<1	<1	235	350	67.5	<0.5	1.56	73.5	0.0113	0.00508	0.00862	0.0833	<0.0004	<0.001	0.198	<0.0001
27-Apr-05	77	2500	2430	8.58	360	580																
4-May-05	84	2500	2415	8.69	368	541	<1	<1	229	330	67.7	<0.5	1.4	65.3	0.0137	0.00567	0.00717	0.113	<0.0004	<0.001	0.188	<0.0001
11-May-05	91	2500	2440	8.51	328	541																
18-May-05	98	2500	2420	8.48	318	471	<1	<1	197	285	57.2	<0.5	1.18	56.8	0.0141	0.00564	0.0073	0.0938	<0.0004	<0.001	0.171	<0.0001
25-May-05	105	2500	2445	8.48	347	475																
1-Jun-05	112	2500	2435	8.59	328	438	<1	<1	191	262	60.7	<0.5	1.02	49.4	0.0116	0.00551	0.006	0.0961	<0.0004	<0.001	0.16	<0.0001
8-Jun-05	119	2500	2440	8.55	330	438																
15-Jun-05	126	2500	2460	8.57	332	407	<1	<1	182.5	249	72.4	<0.5	0.808	41.2	0.0121	0.00534	0.00525	0.101	<0.0002	<0.0005	0.129	<0.00005
22-Jun-05	133	2500	2455	8.52	329	397																
29-Jun-05	140	2500	2455	8.59	244	405	<1	<1	187	241	89	<0.5	0.596	38.8	0.01	0.00538	0.005	0.122	<0.0002	<0.0005	0.139	<0.00005
6-Jul-05	147	2500	2090	8.52	259	423																
13-Jul-05	154	2500	2330	8.51	260	389	<1	<1	183	231	108	<0.5	0.513	34.9	0.0056	0.00464	0.00349	0.123	<0.0002	<0.0005	0.126	<0.00005
20-Jul-05	161	2500	2350	8.53	245	358																
27-Jul-05	168	2500	2410	8.51	273	325	<1	<1	159	191	102	<0.5	0.477	30.4	0.0069	0.00405	0.00322	0.109	<0.0002	<0.0005	0.107	<0.00005
3-Aug-05	175	2500	2330	8.4	309	297																
10-Aug-05	182	2500	2370	8.49	314	284	<1	<1	145	190	118	<0.5	0.41	28.3	0.0056	0.00383	0.00297	0.14	<0.0002	<0.0005	0.093	<0.00005
17-Aug-05	189	2500	2350	8.44	314	326																
24-Aug-05	196	2500	2370	8.51	308	302	<1	<1	143	177	119	<0.5	0.416	28.5	0.0056	0.00336	0.00249	0.143	<0.0002	<0.0005	0.091	<0.00005
31-Aug-05	203	2500	2355	8.42	240	314																
7-Sep-05	210	2500	2355	8.45	327	304	<1	<1	149	182	139	<0.5	0.386	28.3	0.0063	0.00381	0.00267	0.168	<0.0002	<0.0005	0.094	<0.00005
14-Sep-05	217	2500	2355	8.35	265	312																
21-Sep-05	224	2500	2305	8.36	278	216	<1	<1	132	154	119	<0.5	0.32	25.4	0.0063	0.0025	0.00239	0.157	<0.0002	<0.0005	0.069	<0.00005
28-Sep-05	231	2500	2350	8.36	205	324																
5-Oct-05	238	2500	2385	8.26	213	298	<1	<1	133.5	160	134	<0.5	0.339	23.9	0.0058	0.00305	0.00198	0.194	<0.0002	<0.0005	0.078	<0.00005
12-Oct-05	245	2500	2390	8.34	308	285																
19-Oct-05	252	2500	2510	8.03	199	282	<1	6.25	130.5	158	135	<0.5	0.249	21.4	0.0041	0.00213	0.00186	0.218	<0.0002	<0.0005	0.071	<0.00005
26-Oct-05	259	2500	2455	8.16	300	332																
2-Nov-05	266	2500	2405	8.1	191	258	<1	3	125.5	141	125	<0.5	0.248	21.7	0.0056	0.00202	0.0017	0.248	<0.0002	<0.0005	0.061	<0.00005
9-Nov-05	273	2500	2540	8.15	256	292																
16-Nov-05	280	2500	2525	8.16	325	259	<1	1.5	129	139	135	<0.5	0.228	21	0.0043	0.002	0.00147	0.22	<0.0002	<0.0005	0.062	<0.00005
23-Nov-05	287	2500	2585	8.16	371	282																
30-Nov-05	294	2500	2450	8.1	410	243	<1	6.5	119.5	142	130	<0.5	0.238	19.8	0.0048	0.00212	0.00148	0.199	<0.0002	<0.0005	0.054	<0.00005
7-Dec-05	301	2500	2515	8.2	333	268																
14-Dec-05	308	2500	2485	8.2	279	262	<1	1.25	134.8	145	143	<0.5	0.203	17.8	0.0053	0.00213	0.00137	0.212	<0.0002	<0.0005	0.051	<0.00005
21-Dec-05	315	2500	2520	8.2	409	244																
28-Dec-05	322	2500	2470	8.2	373	256	<1	1.25	128.5	132	129	<0.5	0.198	17.3	0.0047	0.00173	0.00121	0.204	<0.0002	<0.0005	0.044	<0.00005
4-Jan-06	329	2500	2535	8.23	427	262																
11-Jan-06	336	2500	2455	8.09	433	294	<1	2.75	135	139	134	<0.5	0.186	16.5	0.0048	0.00178	0.00111	0.24	<0.0002	<0.0005	0.043	<0.00005
18-Jan-06	343	2500	2440	8.19	359	266																
25-Jan-06	350	2500	2460	8.14	268	257	<1	1.5	119	132	130	<0.5	0.208	17.1	0.0048	0.00213	0.00127	0.22	<0.0002	<0.0005	0.043	<0.00005
1-Feb-06	357	2500	2475	8.23	383	261																
8-Feb-06	364	2500	2460	8.1	343	256	<1	1.25	124.5	130	127	<0.5	0.187	15.9	0.0088	0.00177	0.00115	0.219	<0.0002	<0.0005	0.043	<0.00005
15-Feb-06	371	2500	2415	8.03	395	257																
22-Feb-06	378	2500	2490	7.97	421	249	<1	2.5	118	127	128	<0.5	0.173	15.9	0.0038	0.00173	0.00106	0.229	<0.0002	<0.0005	0.038	<0.00005
1-Mar-06	385	2500	2490	8.19	373	285																
8-Mar-06	392	2500	2490	8.18	432	273	<1	1.25	125.5	124	138	<0.5	0.159	16.6	0.0051	0.00191	0.00108	0.259	<0.0002	<0.0005	0.042	<0.00005
15-Mar-06	399	2500	2490	8.14	328	279																
22-Mar-06	406	2500	2550	8.14	338	301	<1	1.25	130.3	126	140	<0.5	0.148	15.9	0.0038	0.00186	0.00091	0.257	<0.0002	<0.0005	0.04	<0.00005
29-Mar-06	413	2500	2505	8.13	307	275																
5-Apr-06	420	2500	2545	8.23	317	285	<1	2	137	130	146	<0.5	0.147	16.6	0.0097	0.00196	0.00097	0.283	<0.0002	<0.0005	0.04	<0.00005
12-Apr-06	427	2500	2490	8.21	401	282																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Feb-05	14	230	<0.005	0.0182	0.0041	<0.06	<0.0005	93.1	0.362	<0.00001	0.00882	0.0101	14.2	0.05	1.92	<0.0001	393	0.00109	<0.001	<0.005	0.037
2-Mar-05	21																				
9-Mar-05	28	44.1	<0.001	0.00102	0.00092	0.109	<0.0001	15.7	0.0204	<0.00001	0.0125	0.0013	6.58	0.0266	1.51	<0.00002	157	0.00053	<0.0002	<0.001	0.0046
16-Mar-05	35																				
23-Mar-05	42	23.7	<0.001	0.0004	0.00155	<0.03	<0.0001	9.54	0.0115	<0.00001	0.0138	<0.001	5.39	0.0175	1.55	<0.00002	143	0.0004	<0.0002	<0.001	0.0021
30-Mar-05	49																				
6-Apr-05	56	16.9	<0.001	<0.0002	0.00098	<0.03	<0.0001	7.12	0.00384	<0.00001	0.0128	<0.001	4.42	0.0123	1.4	<0.00002	119	0.00033	<0.0002	<0.001	<0.002
13-Apr-05	63																				
20-Apr-05	70	15.8	<0.001	<0.0002	0.00125	<0.03	<0.0001	6.78	0.00269	<0.00001	0.0116	<0.001	4.37	0.0105	1.27	<0.00002	107	0.00034	<0.0002	<0.001	<0.002
27-Apr-05	77																				
4-May-05	84	15	<0.001	<0.0002	0.00108	<0.03	<0.0001	7.35	0.00165	<0.00001	0.00976	<0.001	4.27	0.0081	1.29	<0.00002	101	0.00036	<0.0002	<0.001	<0.002
11-May-05	91																				
18-May-05	98	13	<0.001	<0.0002	0.00084	<0.03	<0.0001	6.03	0.00166	<0.00001	0.00904	<0.001	4.63	0.0079	1.14	<0.00002	103	0.00035	<0.0002	<0.001	<0.002
25-May-05	105																				
1-Jun-05	112	14.2	<0.001	<0.0002	0.00178	<0.03	<0.0001	6.1	0.00209	<0.00001	0.00743	<0.001	4.77	0.0062	1.23	<0.00002	73.2	0.00034	<0.0002	<0.001	<0.002
8-Jun-05	119																				
15-Jun-05	126	16.9	<0.0005	<0.0001	0.001	<0.03	0.000058	7.33	0.00242	<0.00001	0.00603	<0.0005	4.98	0.0056	1.15	<0.00001	67.6	0.000338	<0.0001	<0.0005	0.002
22-Jun-05	133																				
29-Jun-05	140	20.1	<0.001	<0.0001	0.00115	<0.03	0.000066	9.46	0.0043	<0.00001	0.00555	<0.0005	6.12	0.0072	1.16	<0.00001	56.5	0.000426	<0.0001	<0.0005	0.0033
6-Jul-05	147																				
13-Jul-05	154	24.4	<0.0005	<0.0001	0.00082	<0.03	<0.00005	11.5	0.00685	<0.00001	0.00459	<0.0005	6.92	0.0054	1.18	<0.00001	46.7	0.000452	<0.0001	<0.0005	0.0017
20-Jul-05	161																				
27-Jul-05	168	23.7	<0.0005	<0.0001	0.00133	<0.03	0.000064	10.4	0.00647	<0.00001	0.00446	<0.0005	6.69	0.0043	1.03	<0.00001	31.4	0.000403	0.00011	<0.0005	0.0024
3-Aug-05	175																				
10-Aug-05	182	26.7	<0.0005	<0.0001	0.00057	<0.03	<0.00005	12.5	0.00681	<0.00001	0.00403	<0.0005	7.25	0.0048	1.06	<0.00001	23.3	0.000421	<0.0001	<0.0005	0.0014
17-Aug-05	189																				
24-Aug-05	196	26.7	<0.0005	<0.0001	0.00233	<0.03	<0.00005	12.7	0.00735	<0.0001	0.00381	<0.0005	7.08	0.0037	1.02	0.000037	16.2	0.000401	<0.0001	<0.0005	0.0013
31-Aug-05	203																				
7-Sep-05	210	30.7	<0.0005	<0.0001	0.00071	<0.03	<0.00005	15	0.00851	<0.00001	0.00381	<0.0005	7.3	0.0042	1.05	<0.00001	13	0.000426	<0.0001	<0.0005	0.0023
14-Sep-05	217																				
21-Sep-05	224	27.4	<0.0005	0.00015	0.00337	<0.03	<0.00005	12.4	0.00708	<0.00001	0.0033	0.00072	6.66	0.0029	0.988	<0.00001	9.5	0.000381	<0.0001	<0.0005	0.002
28-Sep-05	231																				
5-Oct-05	238	30.5	<0.0005	<0.0001	0.00304	<0.03	<0.00005	14	0.00547	<0.00001	0.00306	<0.0005	6.97	0.0028	1.06	<0.00001	6.2	0.000395	<0.0001	<0.0005	0.0041
12-Oct-05	245																				
19-Oct-05	252	30.6	<0.0005	<0.0001	0.00084	<0.03	<0.00005	14.2	0.00493	<0.00001	0.00249	<0.0005	6.76	0.0026	1.02	<0.00001	4.9	0.000385	0.00013	<0.0005	0.0014
26-Oct-05	259																				
2-Nov-05	266	26.2	<0.0005	0.00014	0.00259	0.035	<0.00005	14.6	0.00624	<0.00001	0.00229	<0.0005	5.83	0.0031	0.925	<0.00001	2.8	0.000365	<0.0001	<0.0005	0.0015
9-Nov-05	273																				
16-Nov-05	280	29.2	<0.0005	<0.0001	0.00084	<0.03	<0.00005	15.1	0.00484	<0.00001	0.00202	<0.0005	5.79	0.0026	0.958	<0.00001	3	0.000369	<0.0001	<0.0005	<0.001
23-Nov-05	287																				
30-Nov-05	294	28.8	<0.0005	<0.0001	0.00077	<0.03	<0.00005	14.1	0.00562	<0.00001	0.00219	<0.0005	5.23	0.0023	0.901	0.000012	<2	0.000319	<0.0001	<0.0005	<0.001
7-Dec-05	301																				
14-Dec-05	308	32.5	<0.0005	<0.0001	0.00142	<0.03	<0.00005	14.9	0.00527	<0.00001	0.002	<0.0005	5.41	0.0021	1.01	<0.00001	2	0.000386	<0.0001	<0.0005	0.0013
21-Dec-05	315																				
28-Dec-05	322	28.9	<0.0005	<0.0001	0.00084	<0.03	<0.00005	13.7	0.00586	<0.00001	0.0018	<0.0005	4.95	0.0018	0.869	<0.00001	<2	0.000321	<0.0001	<0.0005	0.0014
4-Jan-06	329																				
11-Jan-06	336	29.9	<0.0005	<0.0001	0.00069	<0.03	<0.00005	14.3	0.00671	<0.00001	0.00177	<0.0005	4.3	0.0016	0.957	<0.00001	<2	0.000315	<0.0001	<0.0005	0.0011
18-Jan-06	343																				
25-Jan-06	350	29.3	<0.0005	<0.0001	0.00235	<0.03	<0.00005	13.8	0.00588	<0.00001	0.00195	<0.0005	4.28	0.0019	0.903	<0.00001	<2	0.000316	<0.0001	<0.0005	0.0025
1-Feb-06	357																				
8-Feb-06	364	29.7	<0.0005	<0.0001	0.00045	0.032	<0.00005	12.8	0.00476	<0.00001	0.00177	<0.0005	3.97	0.0016	0.947	<0.00001	<2	0.000327	<0.0001	<0.0005	0.0019
15-Feb-06	371																				
22-Feb-06	378	28.6	<0.0005	<0.0001	0.00129	<0.03	0.000232	13.6	0.00444	<0.00001	0.00154	<0.0005	3.51	0.0015	0.856	<0.00002	<2	0.00028	<0.0001	<0.0005	0.0011
1-Mar-06	385																				
8-Mar-06	392	30.5	<0.0005	<0.0001	0.00074	<0.03	0.000117	15	0.00642	<0.00001	0.00169	<0.0005	3.73	0.002	0.903	<0.00001	<2	0.000326	0.00022	<0.0005	0.0041
15-Mar-06	399																				
22-Mar-06	406	32.3	<0.0005	<0.0001	0.00108	<0.03	<0.00005	14.3	0.00501	<0.00001	0.00146	<0.0005	3.32	0.0017	1.06	<0.00001	<2	0.000323	<0.0001	<0.0005	0.0012
29-Mar-06	413																				
5-Apr-06	420	32.1	<0.0005	<0.0001	0.00139	<0.03	0.000086	16.1	0.00603	<0.00001	0.00158	<0.0005	3.57	0.0017	0.946	<0.00001	<2	0.000326	0.00016	<0.0005	0.0067
12-Apr-06	427																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
19-Apr-06	434	2500	2505	8.13	408	270	<1	1.25	125	136	140	<0.5	0.147	16.7	0.0058	0.00184	0.00111	0.255	<0.0002	<0.0005	0.039	<0.00005
26-Apr-06	441	2500	2515	8.35	494	266																
3-May-06	448	2500	2530	8.23	267	268	<1	2.75	121.9	141	135	<0.5	0.158	19.7	0.003	0.00203	0.00084	0.235	<0.0002	<0.0005	0.038	<0.00005
10-May-06	455	2500	2540	8.24	227	274																
17-May-06	462	2500	2620	8.27	288	271	<1	1.75	126.4	144	133	<0.5	0.143	19.8	0.0041	0.00183	0.00078	0.238	<0.0002	<0.0005	0.043	<0.00005
24-May-06	469	2500	2595	8.17	190	261																
31-May-06	476	2500	2495	8.22	324	265	<1	2.54	119.3	139	131	<0.5	0.145	19	0.0046	0.00194	0.0009	0.228	<0.0002	<0.0005	0.035	<0.00005
7-Jun-06	483	2500	2475	8.15	162	259																
14-Jun-06	490	2500	2515	8.18	322	257	<1	3.08	118.2	134	129	<0.5	0.145	19.1	0.0028	0.00157	0.00079	0.209	<0.0002	<0.0005	0.034	<0.00005
21-Jun-06	497	2500	2485	8.17	131	251																
28-Jun-06	504	2500	2550	8.2	354	244	<1	2.29	118.1	135	131	<0.5	0.145	20.3	0.0029	0.00154	0.0008	0.22	<0.0002	<0.0005	0.038	<0.00005
5-Jul-06	511	2500	2490																			
12-Jul-06	518	2500	2430	8.24	325	267																
19-Jul-06	525	2500	2530																			
26-Jul-06	532	2500	2480	8.09	366	222	<1	3.03	101.7	128	118	<0.5	0.139	19.3	0.0034	0.00138	0.00073	0.186	<0.0002	<0.0005	0.028	<0.00005
2-Aug-06	539	2500	2440																			
9-Aug-06	546	2500	2470	8.1	316	236																
16-Aug-06	553	2500	2515																			
23-Aug-06	560	2500	2495	8.08	296	212				104	118	<0.5	0.133	17.4	0.0024	0.00117	0.00064	0.209	<0.0002	<0.0005	0.025	<0.00005
30-Aug-06	567	2500	2485																			
6-Sep-06	574	2500	2620	8.05	364	230																
13-Sep-06	581	2500	2470																			
20-Sep-06	588	2500	2435	7.94	355	226	<1	1.20	100.4	124	116	<0.5	0.138	19	0.0026	0.00159	0.00061	0.196	<0.0002	<0.0005	0.022	<0.00005
27-Sep-06	595	2500	2530																			
4-Oct-06	602	2500	2490	8.11	275	239																
11-Oct-06	609	2500	2365																			
18-Oct-06	616	2500	2535	8.12	366	251	<1	3.23	114	135	125	<0.5	0.121	18.2	0.0026	0.00171	0.00063	0.215	<0.0002	<0.0005	0.024	<0.00005
25-Oct-06	623	2500	2510																			
1-Nov-06	630	2500	2420	7.87	358	232																
8-Nov-06	637	2500	2415																			
15-Nov-06	644	2500	2375	8.11	326	244	<1	1.39	114.4	130	130	<0.5	0.119	18.1	0.0024	0.00179	0.00059	0.231	<0.0002	<0.0005	0.024	<0.00005
22-Nov-06	651	2500	2535																			
29-Nov-06	658	2500	2480	7.98	337	225																
6-Dec-06	665	2500	2535																			
13-Dec-06	672	2500	2555	8.05	279	219	<1	3.06	104.6	119	121	<0.5	0.117	16.5	0.004	0.0017	0.00063	0.229	<0.0002	<0.0005	0.025	<0.00005
20-Dec-06	679	2500	2460																			
27-Dec-06	686	2500	2500	8.04	339	229																
3-Jan-07	693	2500	2475																			
10-Jan-07	700	2500	2540	7.72	366	233	<1	4.59	107.3	105	126	<0.5	0.103	17.1	0.0024	0.00175	0.00057	0.247	<0.0002	<0.0005	0.025	<0.00005
17-Jan-07	707	2500	2470																			
24-Jan-07	714	2500	2440	7.95	340	226																
31-Jan-07	721	2500	2230																			
7-Feb-07	728	2500	2540		375	238			113.5	125	124	<0.5	0.084	16.9	0.0025	0.00186	0.00061	0.229	<0.0002	<0.0005	0.022	<0.00005
14-Feb-07	735	2500	2550																			
21-Feb-07	742	2500	2520	7.93	365	232																
28-Feb-07	749	2500	2500																			
7-Mar-07	756	2500	2465	8.09	298	232	<1	2.08	100.5	127	112	<0.5	0.088	15.8	0.0031	0.00153	0.00055	0.24	<0.0002	<0.0005	0.022	<0.00005
14-Mar-07	763	2500	2495																			
21-Mar-07	770	2500	2430	8.12	336	206																
28-Mar-07	777	2500	2475																			
4-Apr-07	784	2500	2455	8.14	423	213	<1	1.87	93.1	106	103	<0.5	0.108	16.2	0.0027	0.00155	0.00055	0.219	<0.0002	<0.0005	0.02	<0.00005
11-Apr-07	791	2500	2430																			
18-Apr-07	798	2500	2275	7.87	310	228																
25-Apr-07	805	2500	2535																			
2-May-07	812	2500	2450	8.19	307	233	<1	1.41	102.3	123	117	<0.5	0.083	17.1	0.0066	0.00169	0.00056	0.236	<0.0002	<0.0005	0.02	<0.00005
9-May-07	819	2500	2520																			
16-May-07	826	2500	2440	8.19	319	221																
23-May-07	833	2500	2375																			
30-May-07	840	2500	2400	8.19	328	227	<1	2.39	92.8	117	123	<0.5	0.099	20.4	0.0036	0.00194	0.00065	0.219	<0.0002	<0.0005	0.021	<0.00005
6-Jun-07	847	2500	2400																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
19-Apr-06	434	33.1	<0.0005	<0.0001	0.00159	<0.03	0.000201	14	0.00583	<0.00001	0.00157	<0.0005	3.24	0.0014	0.954	<0.00001	<2	0.000304	0.00012	<0.0005	0.0033
26-Apr-06	441																				
3-May-06	448	30.1	<0.0005	<0.0001	0.00167	<0.03	0.000277	14.5	0.00646	<0.00001	0.0016	<0.0005	3.07	0.0017	0.915	<0.00001	<2	0.000296	<0.0001	<0.0005	0.0013
10-May-06	455																				
17-May-06	462	30.3	<0.0005	<0.0001	0.00126	<0.03	<0.00005	14	0.0075	<0.00001	0.00158	<0.0005	2.88	0.0022	0.981	<0.00001	<2	0.000321	<0.0001	<0.0005	0.001
24-May-06	469																				
31-May-06	476	30.3	<0.0005	<0.0001	0.0012	<0.03	<0.00005	13.4	0.00609	<0.00001	0.00161	<0.0005	2.79	0.0018	0.867	<0.00001	<2	0.000273	<0.0001	<0.0005	0.0014
7-Jun-06	483																				
14-Jun-06	490	29.8	<0.0005	<0.0001	0.00078	<0.03	<0.00005	13.2	0.00459	<0.00001	0.00146	<0.0005	2.55	0.0017	0.906	<0.00001	<2	0.000268	<0.0001	<0.0005	<0.001
21-Jun-06	497																				
28-Jun-06	504	29.9	<0.0005	<0.0001	0.00265	<0.03		13.7	0.00497	<0.00001	0.00149	<0.0005	2.48	0.0015	0.96	<0.00001	<2	0.000284	<0.0001	<0.0005	0.0016
5-Jul-06	511																				
12-Jul-06	518																				
19-Jul-06	525																				
26-Jul-06	532	27.5	<0.0005	<0.0001	0.00111	<0.03		12	0.00307	<0.00001	0.00152	<0.0005	1.97	0.0014	0.784	<0.00001	<2	0.000214	<0.0001	<0.0005	0.0028
2-Aug-06	539																				
9-Aug-06	546																				
16-Aug-06	553																				
23-Aug-06	560	26.9	<0.0005	<0.0001	0.00073	<0.03	0.000506	12.4	0.00259	<0.00001	0.00132	<0.0005	1.79	0.0012	0.722	<0.00001	<2	0.000204	<0.0001	<0.0005	<0.001
30-Aug-06	567																				
6-Sep-06	574																				
13-Sep-06	581																				
20-Sep-06	588	26.5	<0.0005	<0.0001		<0.03	<0.00005	12.1	0.00194	<0.00001	0.00141	<0.0005	1.73	0.0013	0.667	<0.00001	<2	0.000175	<0.0001	<0.0005	0.0012
27-Sep-06	595																				
4-Oct-06	602																				
11-Oct-06	609																				
18-Oct-06	616	28.4	<0.0005	<0.0001	0.00205	<0.03	<0.00005	13.1	0.00132	<0.00001	0.00122	<0.0005	1.74	0.0012	0.796	<0.00001	<2	0.000189	<0.0001	<0.0005	0.0015
25-Oct-06	623																				
1-Nov-06	630																				
8-Nov-06	637																				
15-Nov-06	644	30.9	<0.0005	<0.0001	0.0028	<0.03	0.000088	12.8	0.00106	<0.00001	0.00119	<0.0005	1.56	0.0012	0.855	<0.00001	<2	0.000173	<0.0001	<0.0005	<0.001
22-Nov-06	651																				
29-Nov-06	658																				
6-Dec-06	665																				
13-Dec-06	672	27.2	<0.0005	<0.0001	0.00344	<0.03	<0.00005	12.8	0.00102	<0.00001	0.0013	<0.0005	1.45	0.0012	0.808	0.000026	<2	0.000172	<0.0001	<0.0005	0.001
20-Dec-06	679																				
27-Dec-06	686																				
3-Jan-07	693																				
10-Jan-07	700	28.6	<0.0005	<0.0001	0.00087	<0.03	<0.00005	13.1	0.000673	<0.00001	0.00128	<0.0005	1.39	<0.001	0.851	<0.00001	<2	0.000179	<0.0001	<0.0005	<0.001
17-Jan-07	707																				
24-Jan-07	714																				
31-Jan-07	721																				
7-Feb-07	728	29.5	0.00117	<0.0001	0.00148	<0.03	<0.00005	12.1	0.000478	<0.00001	0.00123	<0.0005	1.22	0.001	0.762	<0.00001	<2	0.000161	<0.0001	<0.0005	
14-Feb-07	735																				
21-Feb-07	742																				
28-Feb-07	749																				
7-Mar-07	756	25.2	<0.0005	<0.0001	0.00344	<0.03	0.000172	11.9	0.000574	<0.00001	0.00119	<0.0005	1.17	<0.001	0.844	<0.00001	<2	0.000161	<0.0001	<0.0005	0.0016
14-Mar-07	763																				
21-Mar-07	770																				
28-Mar-07	777																				
4-Apr-07	784	23.7	<0.0005	<0.0001	0.0018	<0.03	<0.00005	10.6	0.000353	<0.00001	0.00119	<0.0005	1.09	<0.001	0.774	<0.00001	<2	0.000137	<0.0001	<0.0005	<0.001
11-Apr-07	791																				
18-Apr-07	798																				
25-Apr-07	805																				
2-May-07	812	26.2	<0.0005	<0.0001	0.00125	<0.03	<0.00005	12.5	0.00087	<0.00001	0.00111	<0.0005	1.12	<0.001	0.843	<0.00001	<2	0.000147	<0.0001	<0.0005	0.0032
9-May-07	819																				
16-May-07	826																				
23-May-07	833																				
30-May-07	840	29.9	<0.0005	<0.0001	0.00109	<0.03	0.000052	11.7	0.000877	<0.00001	0.00139	<0.0005	1.07	0.0011	0.85	<0.00001	<2	0.000149	<0.0001	<0.0005	0.0034
6-Jun-07	847																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-Jun-07	854	2500	2375	8.31	328	189																
20-Jun-07	861	2500	2415																			
27-Jun-07	868	2500	2405	8.25	382	224	<1	1.69	100	125	113	<0.5	0.075	21.6	0.0073	0.00202	0.00059	0.213	<0.0002	<0.0005	0.02	<0.00005
4-Jul-07	875	2500	2410																			
11-Jul-07	882	2500	2380	8.11	270	200																
18-Jul-07	889	2500	2425																			
25-Jul-07	896	2500	2100	8.03	395	230	<1	3.44	95.4	129	123	<0.5	0.0995	22.9	0.0025	0.00188	0.00057	0.207	<0.0002	<0.0005	0.019	<0.00005
1-Aug-07	903	2500	2575																			
8-Aug-07	910	2500	2455	8.11	345	219																
15-Aug-07	917	2500	2490																			
22-Aug-07	924	2500	2465	8.05	405	177	<1	3.41	89.4	112	110	<0.5	0.089	20.2	0.0028	0.00161	0.00053	0.211	<0.0002	<0.0005	0.018	<0.00005
29-Aug-07	931	2500	2450																			
5-Sep-07	938	2500	2410	7.59	417	154																
12-Sep-07	945	2500	2435																			
19-Sep-07	952	2500	2435	7.78	404	164	<1	5.12	90.8	124	108	<0.5	0.09	21.3	0.0055	0.00183	0.00054	0.197	<0.0002	<0.0005	0.017	<0.00005
26-Sep-07	959	2500	2340																			
3-Oct-07	966	2500	2070	7.79	451	136																
10-Oct-07	973	2500	2475																			
17-Oct-07	980	2500	2390	7.87	398	207				124	105	<0.5	0.087	18.6	0.003	0.00159	0.00052	0.187	<0.0002	<0.0005	0.017	<0.00005
24-Oct-07	987	2500	2370																			
31-Oct-07	994	2500	2375	7.95	389	198																
7-Nov-07	1001	2500	2410																			
14-Nov-07	1008	2500	2335	7.98	436	191	<1	2.93	85.5	103	96.6	<0.5	0.092	17.9	0.0026	0.00162	0.00052	0.172	<0.0002	<0.0005	0.015	<0.00005
21-Nov-07	1015	2500	2395																			
28-Nov-07	1022	2500	2330	7.71	451	194																
5-Dec-07	1029	2500	2525																			
12-Dec-07	1036	2500	2445	7.95	429	186	<1	3.41	90.3	106	101	<0.5	0.084	15.3	0.0065	0.00164	0.00044	0.179	<0.0002	<0.0005	0.013	<0.00005
19-Dec-07	1043	2500	2380																			
26-Dec-07	1050	2500	2270	8	433	186																
2-Jan-08	1057	2500	2360																			
9-Jan-08	1064	2500	2365	8.01	428	193	<1	3.18	96.8	109	108	<0.5	0.076	15.5	0.0033	0.00198	0.00048	0.228	<0.0002	<0.0005	0.016	<0.00005
16-Jan-08	1071	2500	2370																			
23-Jan-08	1078	2500	2430	7.94	442	208																
30-Jan-08	1085	2500	2405																			
6-Feb-08	1092	2500	2380	7.95	423	195	<1	5.18	92	113	100	<0.5	0.082	16	0.0017	0.00182	0.00043	0.234	<0.0002	<0.0005	0.013	<0.00005
13-Feb-08	1099	2500	2425																			
20-Feb-08	1106	2500	2465	8.04	389	195																
27-Feb-08	1113	2500	2430																			
5-Mar-08	1120	2500	2420	7.88	381	199	<1	6.67	94	113	99.3	<0.5	0.075	15.5	0.002	0.00158	0.00045	0.206	<0.0002	<0.0005	0.015	<0.00005
12-Mar-08	1127	2500	2525																			
19-Mar-08	1134	2500	2365	7.93	396	199																
26-Mar-08	1141	2500	2395																			
2-Apr-08	1148	2500	2360	7.99	394	198	<1	3.39	96.7	118	105	<0.5	0.069	17.8	0.0031	0.00193	0.00043	0.221	<0.0002	<0.0005	0.015	<0.00005
9-Apr-08	1155	2500	2495																			
16-Apr-08	1162	2500	2235	7.96	393	198																
23-Apr-08	1169	2500	2315																			
30-Apr-08	1176	2500	2460	7.98	375	199	<1	2.29	87.5	109	100	<0.5	0.079	19.1	0.0031	0.00176	0.00055	0.214	<0.0002	<0.0005	0.016	0.000105
7-May-08	1183	2500	2380																			
14-May-08	1190	2500	2540	8	334	189																
21-May-08	1197	2500	2395																			
28-May-08	1204	2500	2485	8.17	373	178	<1	2.4	86.2	103	99.6	<0.5	0.073	16.9	0.0023	0.0015	0.00042	0.201	<0.0002	<0.0005	0.013	<0.00005
4-Jun-08	1211	2500	2450																			
11-Jun-08	1218	2500	2415	8.01	377	152																
18-Jun-08	1225	2500	2440																			
25-Jun-08	1232	2500	2410	7.99	338	196	<1	5.6	93.2	108	98.6	<0.5	0.075	16.4	0.0024	0.00147	0.00041	0.214	<0.0002	<0.0005	0.015	<0.00005
2-Jul-08	1239	2500	2385																			
9-Jul-08	1246	2500	2350	8.05	340	200																
16-Jul-08	1253	2500	2440																			
23-Jul-08	1260	2500	2410	8.08	377	194	<1	2.84	81.5	97	97.3	<0.5	0.071	17.2	0.0024	0.00159	0.00043	0.195	<0.0002	<0.0005	0.014	<0.00005
30-Jul-08	1267	2500	2450																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Jun-07	854																				
20-Jun-07	861																				
27-Jun-07	868	26.8	<0.0005	<0.0001	0.00652	<0.03	<0.00005	11.2	0.000725	<0.00001	0.00129	<0.0005	1.03	<0.001	0.891	<0.00001	<2	0.000153	<0.0001	<0.0005	0.0042
4-Jul-07	875																				
11-Jul-07	882																				
18-Jul-07	889																				
25-Jul-07	896	30.3	<0.0005	<0.0001	0.00068	<0.03	<0.00005	11.5	0.000676	<0.00001	0.00127	<0.0005	0.925	<0.001	0.883	<0.00001	<2	0.000139	<0.0001	<0.0005	<0.001
1-Aug-07	903																				
8-Aug-07	910																				
15-Aug-07	917																				
22-Aug-07	924	26.3	<0.0005	<0.0001	0.00094	<0.03	<0.00005	10.9	0.000671	<0.00001	0.00113	<0.0005	0.833	<0.001	0.876	<0.00001	<2	0.000136	<0.0001	<0.0005	<0.001
29-Aug-07	931																				
5-Sep-07	938																				
12-Sep-07	945																				
19-Sep-07	952	25.8	<0.0005	<0.0001	0.00197	<0.03	0.000186	10.7	0.000708	<0.00001	0.00115	<0.0005	0.802	<0.001	0.886	<0.00001	<2	0.000124	<0.0001	<0.0005	0.0013
26-Sep-07	959																				
3-Oct-07	966																				
10-Oct-07	973																				
17-Oct-07	980	24.8	<0.0005	<0.0001	0.00058	<0.03	<0.00005	10.4	0.0005	<0.00001	0.0011	<0.0005	0.771	<0.001	0.904	<0.00001	<2	0.00013	<0.0001	<0.0005	0.0021
24-Oct-07	987																				
31-Oct-07	994																				
7-Nov-07	1001																				
14-Nov-07	1008	22.9	<0.0005	<0.0001	0.00131	<0.03	<0.00005	9.58	0.000541	<0.00001	0.00107		0.75	<0.001	0.848	<0.00001	<2	0.000113	<0.0001	<0.0005	<0.001
21-Nov-07	1015																				
28-Nov-07	1022																				
5-Dec-07	1029																				
12-Dec-07	1036	24	<0.0005	<0.0001	0.00131	<0.03	<0.00005	10	0.000577	<0.00001	0.00102	<0.0005	0.714	<0.001	0.795	<0.00001	<2	0.000112	<0.0001	<0.0005	<0.001
19-Dec-07	1043																				
26-Dec-07	1050																				
2-Jan-08	1057																				
9-Jan-08	1064	25.7	<0.0005	<0.0001	0.00123	<0.03	<0.00005	10.7	0.000434	<0.00001	0.00106	<0.0005	0.755	<0.001	0.94	<0.00001	<2	0.000128	<0.0001	<0.0005	0.0012
16-Jan-08	1071																				
23-Jan-08	1078																				
30-Jan-08	1085																				
6-Feb-08	1092	23.8	<0.0005	<0.0001	0.00053	<0.03	<0.00005	9.89	0.000441	<0.00001	0.00097	<0.0005	0.672	<0.001	0.909	<0.00001	<2	0.000102	<0.0001	<0.0005	<0.001
13-Feb-08	1099																				
20-Feb-08	1106																				
27-Feb-08	1113																				
5-Mar-08	1120	24.5	<0.0005	<0.0001	0.00053	<0.03	<0.00005	9.25	0.000343	<0.00001	0.00091	<0.0005	0.65	<0.001	0.94	<0.00001	<2	0.000111	<0.0001	<0.0005	<0.001
12-Mar-08	1127																				
19-Mar-08	1134																				
26-Mar-08	1141																				
2-Apr-08	1148	25.7	<0.0005	<0.0001	0.00192	<0.03	<0.00005	9.82	0.000851	<0.00001	0.00102	<0.0005	0.655	<0.001	0.978	<0.00001	<2	0.000116	<0.0001	<0.0005	0.0011
9-Apr-08	1155																				
16-Apr-08	1162																				
23-Apr-08	1169																				
30-Apr-08	1176	24.1	<0.0005	<0.0001	0.00167	<0.03		9.77	0.000626	<0.00001	0.000917	<0.0005	0.574	<0.001	0.953	<0.00001	<2	0.000083	<0.0001	<0.0005	0.008
7-May-08	1183																				
14-May-08	1190																				
21-May-08	1197																				
28-May-08	1204	25	<0.0005	<0.0001	0.00036	<0.03	<0.00005	9.02	0.000241	<0.00001	0.000831	<0.0005	0.556	<0.001	0.931	<0.00001	<2	0.000101	<0.0001	<0.0005	<0.001
4-Jun-08	1211																				
11-Jun-08	1218																				
18-Jun-08	1225																				
25-Jun-08	1232	24.2	<0.0005	<0.0001	0.00041	<0.03	<0.00005	9.27	0.000346	<0.00001	0.000917	<0.0005	0.581	<0.001	0.923	<0.00001	<2	0.000115	<0.0001	<0.0005	<0.001
2-Jul-08	1239																				
9-Jul-08	1246																				
16-Jul-08	1253																				
23-Jul-08	1260	23.8	<0.0005	<0.0001	0.00091	<0.03		9.18	0.000452	<0.00001	0.00101	<0.0005	0.576	<0.001	0.903	<0.00001	<2	0.000112	<0.0001	<0.0005	<0.001
30-Jul-08	1267																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
6-Aug-08	1274	2500	2500	8.06	370	184																
13-Aug-08	1281	2500	2495																			
20-Aug-08	1288	2500	2420	8.01	305	188	<1	3.2	87.9	111	94.6	<0.5	0.076	17.8	0.0026	0.00151	0.00041	0.186	<0.0002	<0.0005	0.014	<0.00005
27-Aug-08	1295	2500	2500																			
3-Sep-08	1302	2500	2460	7.86	290	182																
10-Sep-08	1309	2500	2315																			
17-Sep-08	1316	2500	2425	8.13	283	192	<1	1.68	81.6	105	92.8	<0.5	0.082	17.4	0.0018	0.00153	0.00043	0.194	<0.0002	<0.0005	0.015	<0.00005
24-Sep-08	1323	2500	2490																			
1-Oct-08	1330	2500	2565	8.05	404	183																
8-Oct-08	1337	2500	2485																			
15-Oct-08	1344	2500	2490	7.85	376	173	<1	4.98	80.4	104	90.9	<0.5	0.067	16.5	0.0051	0.00166	0.00041	0.168	<0.0002	<0.0005	0.014	<0.00005
22-Oct-08	1351	2500	2495																			
29-Oct-08	1358	2500	2490	7.93	424	174																
5-Nov-08	1365	2500	2410																			
12-Nov-08	1372	2500	2475	7.98	402	167	<1	3.16	77.9	80	85.9	<0.5	0.072	14.6	0.0065	0.00133	0.00043	0.161	<0.0002	<0.0005	0.012	<0.00005
19-Nov-08	1379	2500	2500																			
26-Nov-08	1386	2500	2420	7.94	361	153																
3-Dec-08	1393	2500	2380																			
10-Dec-08	1400	2500	2470	7.96	304	176	<1	3.25	92.8	96.8	94.4	<0.5	0.07	13.8	0.002	0.00148	0.00048	0.201	<0.0002	<0.0005	0.013	<0.00005
17-Dec-08	1407	2500	2480																			
24-Dec-08	1414	2500	2435	7.75	331	179																
31-Dec-08	1421	2500	2630																			
7-Jan-09	1428	2500	2430	7.87	263	178	<1	4.23	92.2	113	94.4	<0.5	0.056	15.1	0.0026	0.00169	0.00043	0.216	<0.0002	<0.0005	0.013	<0.00005
14-Jan-09	1435	2500	2380																			
21-Jan-09	1442	2500	2420	7.84	381	167																
28-Jan-09	1449	2500	2425																			
4-Feb-09	1456	2500	2395	7.8	380	155	<1	3.5	83.1	89.3	91	<0.5	0.059	13.6	0.0024	0.00135	0.00043	0.233	<0.0002	<0.0005	0.011	<0.00005
11-Feb-09	1463	2500	2405																			
18-Feb-09	1470	2500	2410	7.92	360	167																
25-Feb-09	1477	2500	2360																			
4-Mar-09	1484	2500	2385	7.55	268	175	<1	6.08	89.7	86.3	92	<0.5	0.061	15.1	0.0038	0.00152	0.00055	0.217	<0.0002	<0.0005	0.013	<0.00005
11-Mar-09	1491	2500	2435																			
18-Mar-09	1498	2500	2455	7.72	359	167																
25-Mar-09	1505	2500	2465																			
1-Apr-09	1512	2500	2470	7.67	348	176	<1	4.41	86.5	93	91.3	<0.5	0.053	15.5	0.0026	0.00155	0.00045	0.217	<0.0002	<0.0005	0.012	<0.00005
8-Apr-09	1519	2500	2330																			
15-Apr-09	1526	2500	2365	7.79	371	171																
22-Apr-09	1533	2500	2405																			
29-Apr-09	1540	2500	2415	7.94	383	175	<1	2.39	89.4	99	89.2	<0.5	0.069	15.5	0.0024	0.00164	0.00041	0.19	<0.0002	<0.0005	0.012	<0.00005
6-May-09	1547	2500	2505																			
13-May-09	1554	2500	2290	7.76	375	174																
20-May-09	1561	2500	2600																			
27-May-09	1568	2500	2420	7.91	358	176	<1	3.3	91.5	103		<0.5	0.05	16.5								
3-Jun-09	1575	2500	2465																			
10-Jun-09	1582	2500	2505	7.86	346	166																
17-Jun-09	1589	2500	2415																			
24-Jun-09	1596	2500	2475	7.74	357	150	<1	4	84.7	101		<0.5	0.052	15.1								
1-Jul-09	1603	2500	2330																			
8-Jul-09	1610	2500	2510	7.87	334	166																
15-Jul-09	1617	2500	2425																			
22-Jul-09	1624	2500	2445	7.65	364	163	<1	4.15	83	102		<0.5	0.048	15.3								
29-Jul-09	1631	2500	2405																			
5-Aug-09	1638	2500	2430	7.95	330	148																
12-Aug-09	1645	2500	2465																			
19-Aug-09	1652	2500	2495	7.65	352	152	<1	4.19	79.1	87.7		<0.5	0.039	13.8								
26-Aug-09	1659	2500	2450																			
2-Sep-09	1666	2500	2485	7.53	278	162																
9-Sep-09	1673	2500	2425																			
16-Sep-09	1680	2500	2450	7.59	329	167	<1	5.47	84.6	93		<0.5	0.062	17								
23-Sep-09	1687	2500	2415																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
6-Aug-08	1274																				
13-Aug-08	1281																				
20-Aug-08	1288	23.2	<0.0005	<0.0001	0.00023	<0.03	<0.00005	8.89	0.000409	<0.00001	0.000979	<0.0005	0.553	<0.001	0.879	<0.00001	<2	0.000109	<0.0001	<0.0005	<0.001
27-Aug-08	1295																				
3-Sep-08	1302																				
10-Sep-08	1309																				
17-Sep-08	1316	22.9	<0.0005	<0.0001	0.00017	<0.03	<0.00005	8.68	0.000756	<0.00001	0.00102	<0.0005	0.543	<0.001	0.97	<0.00001	<2	0.000113	<0.0001	<0.0005	<0.001
24-Sep-08	1323																				
1-Oct-08	1330																				
8-Oct-08	1337																				
15-Oct-08	1344	23.1	<0.0005	<0.0001	0.00039	<0.03	<0.00005	8.08	0.00199	<0.00001	0.000939	<0.0005	0.527	<0.001	0.919	<0.00001	<2	0.000093	<0.0001	<0.0005	<0.001
22-Oct-08	1351																				
29-Oct-08	1358																				
5-Nov-08	1365																				
12-Nov-08	1372	22.1	<0.0005	<0.0001	0.00029	<0.03	<0.00005	7.45	0.000453	<0.00001	0.000874	<0.0005	0.498	<0.001	0.913	<0.00001	<2	0.00009985	<0.0001	<0.0005	<0.001
19-Nov-08	1379																				
26-Nov-08	1386																				
3-Dec-08	1393																				
10-Dec-08	1400	23.7	<0.0005	<0.0001	0.00054	<0.03		8.53	0.000268	<0.00001	0.000884	<0.0005	0.488	<0.001	0.891	<0.00001	<2	0.000087	<0.0001	<0.0005	<0.001
17-Dec-08	1407																				
24-Dec-08	1414																				
31-Dec-08	1421																				
7-Jan-09	1428	24	<0.0005	<0.0001	0.00035	<0.03		8.34	0.000265	0.00001	0.000883	<0.0005	0.496	<0.001	1	<0.00001	<2	0.000104	<0.0001	<0.0005	0.0011
14-Jan-09	1435																				
21-Jan-09	1442																				
28-Jan-09	1449																				
4-Feb-09	1456	21.7	<0.0005	<0.0001	0.00027	<0.03	<0.00005	8.95	0.000455	<0.00001	0.000866	<0.0005	0.465	<0.001	0.928	<0.00001	<2	0.000089	<0.0001	<0.0005	<0.001
11-Feb-09	1463																				
18-Feb-09	1470																				
25-Feb-09	1477																				
4-Mar-09	1484	24	<0.0005	<0.0001	0.00104	<0.03	<0.00005	7.78	0.000617	<0.00001	0.00086	<0.0005	0.43	<0.001	0.946	<0.00001	<2	0.000065	<0.0001	<0.0005	<0.001
11-Mar-09	1491																				
18-Mar-09	1498																				
25-Mar-09	1505																				
1-Apr-09	1512	23.2	<0.0005	<0.0001	0.00051	<0.03	<0.00005	8.09	0.000318	<0.00001	0.000833	<0.0005	0.482	<0.001	0.974	<0.00001	<2	0.000093	<0.0001	<0.0005	<0.001
8-Apr-09	1519																				
15-Apr-09	1526																				
22-Apr-09	1533																				
29-Apr-09	1540	23.8	<0.0005	<0.0001	0.00023	<0.03	<0.00005	7.23	0.000414	<0.00001	0.000825	<0.0005	0.415	<0.001	1.02	<0.00001	<2	0.000095	<0.0001	<0.0005	<0.001
6-May-09	1547																				
13-May-09	1554																				
20-May-09	1561																				
27-May-09	1568																				
3-Jun-09	1575																				
10-Jun-09	1582																				
17-Jun-09	1589																				
24-Jun-09	1596																				
1-Jul-09	1603																				
8-Jul-09	1610																				
15-Jul-09	1617																				
22-Jul-09	1624																				
29-Jul-09	1631																				
5-Aug-09	1638																				
12-Aug-09	1645																				
19-Aug-09	1652																				
26-Aug-09	1659																				
2-Sep-09	1666																				
9-Sep-09	1673																				
16-Sep-09	1680																				
23-Sep-09	1687																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
30-Sep-09	1694	2500	2450	7.86	348	161																
7-Oct-09	1701	2500	2495																			
14-Oct-09	1708	2500	2480	7.63	320	149	<1	4.69	81.6	95		<0.5	0.046	14.2								
21-Oct-09	1715	2500	2430																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	2085	5.16	429	1034	<1	13.75	2	822	446	1.99	0.021	548	0.0924	0.00076	0.0004	0.0337	<0.0004	<0.001	0.337	0.00708
16-Feb-05	7	2500	2600	5.97	413	612																
23-Feb-05	14	2500	2500	6.15	435	339	<1	7	2.5	240	140	<0.5	0.144	160	0.003	0.000462	0.0003	0.0397	<0.0002	<0.0005	0.098	0.00157
2-Mar-05	21	2500	2485	6.34	391	223																
9-Mar-05	28	2500	2480	6.4	468	201	<1	3.25	3	138	85.7	<0.5	0.177	92.6	0.0019	0.000626	0.00024	0.0307	<0.0002	<0.0005	0.055	0.00094
16-Mar-05	35	2500	2460	6.47	471	158																
23-Mar-05	42	2500	2465	6.45	506	143	<1	6.5	3.5	82	56.6	<0.5	0.198	59.4	0.0021	0.000708	0.00017	0.0275	<0.0002	<0.0005	0.029	0.00058
30-Mar-05	49	2500	2460	6.58	394	137																
6-Apr-05	56	2500	2470	6.56	428	148	<1	11.25	3.5	100	56.3	<0.5	0.218	61.4	0.0025	0.00117	0.00018	0.0313	<0.0002	<0.0005	0.027	0.000524
13-Apr-05	63	2500	2465	6.62	372	139																
20-Apr-05	70	2500	2470	6.66	444	129	<1	5.5	3.3	78	52.2	<0.5	0.194	54.3	0.0013	0.00173	0.00015	0.0257	<0.0002	<0.0005	0.021	0.000396
27-Apr-05	77	2500	2460	6.85	461	128																
4-May-05	84	2500	2465	6.83	454	114	<1	6	5	66	53	<0.5	0.194	47.5	0.0017	0.00211	0.00015	0.0212	<0.0002	<0.0005	0.018	0.000303
11-May-05	91	2500	2460	6.86	351	120																
18-May-05	98	2500	2435	6.78	369	113	<1	6.75	5	66	45.9	<0.5	0.172	47.3	0.0029	0.00176	0.00015	0.0198	<0.0002	<0.0005	0.015	0.000288
25-May-05	105	2500	2450	6.96	448	107																
1-Jun-05	112	2500	2470	6.95	382	113	<1	5.25	5.8	78	46.1	<0.5	0.171	47.6	0.0024	0.00192	0.00016	0.0194	<0.0002	<0.0005	0.015	0.000231
8-Jun-05	119	2500	2465	7.05	348	104																
15-Jun-05	126	2500	2505	7.07	368	107	<1	4.25	6.8	74	47.1	<0.5	0.161	43.3	0.0028	0.00197	0.00013	0.0173	<0.0002	<0.0005	0.013	0.000185
22-Jun-05	133	2500	2465	7.15	342	107																
29-Jun-05	140	2500	2495	7.18	289	120	<1	2.75	7.8	67	51.7	<0.5	0.128	48.5	0.0046	0.0015	0.00013	0.0215	<0.0002	<0.0005	0.015	0.000194
6-Jul-05	147	2500	2470	7.29	298	120																
13-Jul-05	154	2500	2470	7.09	279	115	<1	2.5	7.5	80	52.6	<0.5	0.144	48.6	0.005	0.00137	0.00014	0.0192	<0.0002	<0.0005	0.015	0.000154
20-Jul-05	161	2500	2430	7.35	263	111																
27-Jul-05	168	2500	2460	7.25	255	103	<1	2.5	8.3	64	43.3	<0.5	0.126	42.2	0.0054	0.0012		0.0149	<0.0002	<0.0005	0.013	0.000135
3-Aug-05	175	2500	2450	7.25	307	93																
10-Aug-05	182	2500	2470	7.24	313	106	<1	1.75	8	77	48.3	<0.5	0.104	42.6	0.0039	0.00113	0.00014	0.0162	<0.0002	<0.0005	0.012	0.000126
17-Aug-05	189	2500	2380	7.27	369	113																
24-Aug-05	196	2500	2435	7.27	333	105	<1	1.5	8.8	71	45	<0.5	0.116	41.9	0.0044	0.00128	0.0001	0.0159	<0.0002	<0.0005	0.013	0.000117
31-Aug-05	203	2500	2430	7.29	257	106																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	2015	8.52	272	619	<1	<1	132.5	498	28.2	1.69	1.95	151	1.33	0.00373	0.0136	0.0162	<0.0004	<0.001	0.237	<0.0005
16-Feb-05	7	2500	2385	8.72	324	446																
23-Feb-05	14	2500	2190	8.67	293	403	<1	<1	181	291	13.1	<0.5	2.53	33.4	1.94	0.00431	0.0177	0.00801	<0.0002	<0.0005	0.19	<0.00025
2-Mar-05	21	2500	2245	8.79	309	385																
9-Mar-05	28	2500	2355	8.68	319	347	<1	<1	177.5	238	10.1	<0.5	1.76	16.4	0.985	0.00526	0.0223	0.00608	<0.0002	<0.0005	0.162	<0.00015
16-Mar-05	35	2500	2470	8.69	367	436																
23-Mar-05	42	2500	2465	8.7	355	444	<1	<1	229.5	357	21.6	<0.5	1.88	13.5	5.88	0.00686	0.0207	0.0138	<0.0004	<0.001	0.18	<0.0001
30-Mar-05	49	2500	2475	8.8	347	425																
6-Apr-05	56	2500	2470	8.66	341	410	<1	<1	210.5	279	11.1	<0.5	1.3	13.9	0.728	0.00674	0.0262	0.00747	<0.0002	<0.0005	0.153	<0.00005
13-Apr-05	63	2500	2465	8.79	319	395																
20-Apr-05	70	2500	2470	8.72	353	378	<1	<1	195	251	10.9	<0.5	0.892	11.6	0.881	0.00664	0.0276	0.00741	<0.0004	<0.001	0.117	<0.0001
27-Apr-05	77	2500	2455	8.85	362	371																
4-May-05	84	2500	2460	8.74	343	368	<1	<1	183	236	12.6	<0.5	0.648	13.4	1.24	0.00859	0.026	0.0085	<0.0004	<0.001	0.102	<0.0001
11-May-05	91	2500	2450	8.85	308	345																
18-May-05	98	2500	2455	8.66	294	334	<1	<1	170.5	216	9.78	<0.5	0.489	11.2	0.595	0.00832	0.0265	0.00663	<0.0004	<0.001	0.086	<0.0001
25-May-05	105	2500	2460	8.73	350	329																
1-Jun-05	112	2500	2440	8.62	319	334	<1	<1	170	210	10.6	<0.5	0.393	13.1	0.57	0.00925	0.0219	0.006	<0.0004	<0.001	0.075	<0.0001
8-Jun-05	119	2500	2500	8.81	298	316																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
30-Sep-09	1694																				
7-Oct-09	1701																				
14-Oct-09	1708																				
21-Oct-09	1715																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	75.5	<0.001	0.0935	4.68	0.241	0.00011	62.5	3.13	<0.00001	<0.0001	0.0747	18.1	0.0346	2.98	<0.00002	24.3	0.00077	<0.0002	<0.001	0.415
16-Feb-05	7																				
23-Feb-05	14	26	<0.0005	0.0169	0.295	<0.06	<0.00005	18.3	0.947	<0.00001	<0.00005	0.0152	4.38	0.0157	1.93	<0.00001	<4	0.000238	<0.0001	<0.0005	0.0929
2-Mar-05	21																				
9-Mar-05	28	15.2	<0.0005	0.00917	0.161	<0.06	<0.00005	11.6	0.726	<0.00001	<0.00005	0.00852	2.8	0.0093	1.55	<0.00001	<4	0.000178	<0.0001	<0.0005	0.045
16-Mar-05	35																				
23-Mar-05	42	9.71	<0.0005	0.0056	0.111	<0.03	<0.00005	7.86	0.494	<0.00001	<0.00005	0.00528	1.84	0.0054	1.36	<0.00001	<2	0.000119	<0.0001	<0.0005	0.0284
30-Mar-05	49																				
6-Apr-05	56	9.29	<0.0005	0.00473	0.0813	<0.03	<0.00005	8.05	0.521	<0.00001	0.00005	0.00465	1.66	0.0048	1.36	<0.00001	<2	0.000124	<0.0001	<0.0005	0.0246
13-Apr-05	63																				
20-Apr-05	70	8.89	<0.0005	0.00337	0.0497	<0.03	0.000057	7.29	0.439	<0.00001	<0.00005	0.00334	1.38	0.0039	1.05	<0.00001	<2	0.0001	<0.0001	<0.0005	0.0183
27-Apr-05	77																				
4-May-05	84	7.69	<0.0005	0.00262	0.0365	<0.03	<0.00005	8.2	0.601	<0.00001	<0.00005	0.00274	1.18	0.0033	0.978	<0.00001	<2	0.000095	<0.0001	<0.0005	0.0148
11-May-05	91																				
18-May-05	98	7.41	<0.0005	0.00201	0.0258	<0.03	0.00007	6.66	0.443	<0.00001	0.00005	0.00222	1.12	0.0033	0.899	<0.00001	<2	0.000092	<0.0001	<0.0005	0.012
25-May-05	105																				
1-Jun-05	112	7.34	<0.0005	0.0016	0.0204	<0.03	0.000116	6.73	0.413	<0.00001	0.000063	0.00193	1.13	0.0031	0.883	<0.00001	<2	0.000087	<0.0001	<0.0005	0.0108
8-Jun-05	119																				
15-Jun-05	126	7.24	<0.0005	0.00113	0.0143	<0.03	<0.00005	7.05	0.364	<0.00001	0.000081	0.0013	0.935	0.0026	0.808	<0.00001	<2	0.000083	<0.0001	<0.0005	0.0086
22-Jun-05	133																				
29-Jun-05	140	7.51	<0.0005	0.00114	0.0137	<0.03	<0.00005	8	0.423	<0.00001	0.000058	0.00139	0.992	0.0031	0.714	<0.00001	<2	0.000092	<0.0001	<0.0005	0.0082
6-Jul-05	147																				
13-Jul-05	154	7.72	<0.0005	0.00085	0.0122	<0.03	<0.00005	8.09	0.367	<0.00001	0.000083	0.00104	0.955	0.0029	0.645	<0.00001	<2	0.000085	<0.0001	<0.0005	0.0059
20-Jul-05	161																				
27-Jul-05	168	6.72	<0.0005	0.00066	0.0116	<0.03	<0.00005	6.45	0.29	<0.00001	0.000082	0.00083	0.778	0.0023	0.556	<0.00001	<2	0.000071	<0.0001	<0.0005	0.0057
3-Aug-05	175																				
10-Aug-05	182	7.32	<0.0005	0.00058	0.0116	<0.03	<0.00005	7.28	0.294	<0.00001	0.000091	0.00074	0.781	0.0023	0.532	<0.00001	<2	0.000077	<0.0001	<0.0005	0.0052
17-Aug-05	189																				
24-Aug-05	196	6.5	<0.0005	0.00046	0.0102	<0.03	<0.00005	6.99	0.261	<0.0001	0.000084	0.00056	0.729	0.002	0.491	<0.00001	<2	0.000064	<0.0001	<0.0005	0.0052
31-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	7.55	0.0018	0.00167	0.0496	0.721	0.00012	2.27	0.00299	<0.00001	0.348	0.0056	2.69	0.016	7.3	<0.00002	127	<0.0001	<0.0002	0.0166	0.0082
16-Feb-05	7																				
23-Feb-05	14	3.08	0.00288	0.00074	0.0105	0.716	0.000086	1.32	0.00261	<0.00001	0.124	0.00318	2.37	0.002	8.37	<0.00001	85.9	<0.00005	<0.0001	0.0218	0.005
2-Mar-05	21																				
9-Mar-05	28	2.53	0.00124	0.00031	0.00341	0.216	<0.00005	0.92	0.00077	<0.00001	0.0513	0.00107	2.36	<0.001	3.93	<0.00001	80.9	<0.00005	<0.0001	0.0226	0.0021
16-Mar-05	35																				
23-Mar-05	42	4.39	0.0089	0.00141	0.00947	0.7	0.00019	2.59	0.00485	<0.00001	0.0385	0.0019	4.23	<0.002	6.14	0.000033	110	<0.0001	<0.0002	0.0378	0.0099
30-Mar-05	49																				
6-Apr-05	56	2.77	<0.001	0.00023	0.00246	0.292	<0.00005	1.03	0.000754	<0.00001	0.0457	<0.0005	3.24	<0.001	5.58	<0.00001	93.5	<0.00005	<0.0001	0.0162	0.002
13-Apr-05	63																				
20-Apr-05	70	2.68	0.0014	0.00026	0.00263	0.366	<0.0001	1.02	0.00092	<0.00001	0.0498	<0.001	3.09	<0.002	5.6	<0.00002	87.6	<0.0001	<0.0002	0.0189	0.0021
27-Apr-05	77																				
4-May-05	84	2.89	<0.001	0.00026	0.0037	0.365	0.00011	1.3	0.00254	<0.00001	0.0649	<0.001	3.14	<0.002	5.88	<0.00002	82.4	<0.0001	<0.0002	0.0202	0.0027
11-May-05	91																				
18-May-05	98	2.43	<0.001	<0.0002	0.00228	0.168	<0.0001	0.899	0.00104	<0.00001	0.0564	<0.001	3.04	<0.002	4.05	<0.00002	87.8	<0.0001	<0.0002	0.02	0.0022
25-May-05	105																				
1-Jun-05	112	2.75	<0.001	<0.0002	0.0029	0.177	0.00012	0.907	0.0011	<0.00001	0.0632	<0.001	3.11	<0.002	4.45	<0.00002	72.4	<0.0001	<0.0002	0.0168	<0.002
8-Jun-05	119																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Jun-05	126	2500	2500	8.83	307	304	<1	<1	162.5	198	10.5	<0.5	0.315	9.27	0.326	0.00863	0.0197	0.00506	<0.0002	<0.0005	0.057	<0.00005
22-Jun-05	133	2500	2505	8.77	318	294																
29-Jun-05	140	2500	2390	8.73	243	281	<1	<1	149.5	182	10.5	<0.5	0.235	9.46	0.199	0.00885	0.0208	0.00516	<0.0002	<0.0005	0.055	<0.00005
6-Jul-05	147	2500	2260	8.77	241	282																
13-Jul-05	154	2500	2495	8.69	260	254	<1	<1	137.5	168	10.3	<0.5	0.215	8.68	0.219	0.00782	0.0166	0.00446	<0.0002	<0.0005	0.046	<0.00005
20-Jul-05	161	2500	2450	8.72	240	245																
27-Jul-05	168	2500	2555	8.76	245	234	<1	<1	130.5	150	10.4	<0.5	0.167	6.96	0.177	0.00698	0.0135	0.00438	<0.0002	<0.0005	0.037	<0.00005
3-Aug-05	175	2500	2550	8.81	280	220																
10-Aug-05	182	2500	2605	8.74	243	237	<1	<1	129.5	155	12.4	<0.5	0.136	6.33	0.0692	0.00732	0.011	0.00481	<0.0002	<0.0005	0.034	<0.00005
17-Aug-05	189	2500	2540	8.7	316	243																
24-Aug-05	196	2500	2515	8.73	281	228	<1	<1	123	142	12.9	<0.5	0.136	6.53	0.0568	0.00661	0.00883	0.00466	<0.0002	<0.0005	0.033	<0.00005
31-Aug-05	203	2500	2520	8.65	246	236																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	2125	8.01	317	861	<1	2.25	57	646	382	3.96	1.79	393	0.0075	0.00295	0.00061	0.0261	<0.0002	<0.0005	0.415	<0.00005
16-Feb-05	7	2500	2450	7.98	336	539																
23-Feb-05	14	2500	2440	7.99	306	327	<1	3.5	57	218	136	<0.5	0.725	106	0.0188	0.00568	0.00096	0.0316	<0.0002	<0.0005	0.084	<0.00005
2-Mar-05	21	2500	2300	8.08	368	220																
9-Mar-05	28	2500	2350	8.08	374	257	<1	1.5	61.8	170	120	<0.5	0.564	74.2	0.0219	0.00737	0.0014	0.0435	<0.0002	<0.0005	0.048	<0.00005
16-Mar-05	35	2500	2380	8.08	403	217																
23-Mar-05	42	2500	2425	8.13	421	211	<1	3.25	64.3	118	96.6	<0.5	0.407	43	0.0214	0.00662	0.00126	0.0367	<0.0002	<0.0005	0.028	<0.00005
30-Mar-05	49	2500	2430	8.19	378	196																
6-Apr-05	56	2500	2440	8.11	401	189	<1	2	63	114	84.5	<0.5	0.297	33.4	0.0186	0.00609	0.00129	0.0337	<0.0002	<0.0005	0.019	<0.00005
13-Apr-05	63	2500	2450	8.16	399	177																
20-Apr-05	70	2500	2450	8.14	385	164	<1	1.75	58.5	75	77.3	<0.5	0.232	26.7	0.0204	0.00503	0.00127	0.0296	<0.0002	<0.0005	0.013	<0.00005
27-Apr-05	77	2500	2455	8.23	421	168																
4-May-05	84	2500	2440	8.19	376	163	<1	1	57.5	82	82.5	<0.5	0.184	25.3	0.0253	0.00516	0.00122	0.0307	<0.0002	<0.0005	0.011	<0.00005
11-May-05	91	2500	2455	8.2	338	153																
18-May-05	98	2500	2455	8.03	349	135	<1	2.5	50.5	75	63.9	<0.5	0.128	21	0.0273	0.00445	0.00121	0.0267	<0.0002	<0.0005	<0.01	<0.00005
25-May-05	105	2500	2445	8.13	374	142																
1-Jun-05	112	2500	2450	8.08	363	139	<1	1.5	53	78	67.5	<0.5	0.121	20.9	0.0233	0.00452	0.0011	0.0272	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-05	119	2500	2455	8.17	338	144																
15-Jun-05	126	2500	2500	8.19	341	142	<1	1	55.8	79	73.1	<0.5	0.125	20.3	0.0247	0.00407	0.00103	0.025	<0.0002	<0.0005	<0.01	<0.00005
22-Jun-05	133	2500	2425	8.21	352	137																
29-Jun-05	140	2500	2460	8.22	274	149	<1	2	59.5	88	77	<0.5	0.104	21.7	0.0271	0.00437	0.00113	0.0275	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-05	147	2500	2410	8.27	272	150																
13-Jul-05	154	2500	2415	8.2	274	133	<1	1	56	75	71	<0.5	0.115	17.9	0.0273	0.00401	0.00112	0.0223	<0.0002	<0.0005	<0.01	<0.00005
20-Jul-05	161	2500	2400	8.24	265	132																
27-Jul-05	168	2500	2375	8.13	263	117	<1	1	50.3	66	58.9	<0.5	0.095	15.9	0.0265	0.00319	0.00104	0.0187	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-05	175	2500	2405	8.26	295	113																
10-Aug-05	182	2500	2445	8.24	320	124	<1	<1	53	77	65.7	<0.5	0.088	14.9	0.0251	0.00314	0.00102	0.0201	<0.0002	<0.0005	<0.01	<0.00005
17-Aug-05	189	2500	2440	8.26	327	131																
24-Aug-05	196	2500	2385	8.15	306	122	<1	1	53	70	61.6	<0.5	0.083	17.2	0.026	0.00285	0.00086	0.0189	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-05	203	2500	2420	8.16	267	131																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	2225	5.39	381	1846	<1	102.5	3	3520	2320	<5	<0.2	2420	0.543	0.0025	0.0024	0.0558	<0.002	<0.005	0.26	0.00865
16-Feb-05	7	2500	2525	7.13	370	1279																
23-Feb-05	14	2500	2490	7.42	362	753	<1	4.5	18.8	828	541	<0.5	0.608	547	0.0036	0.0044	0.00197	0.0284	<0.0004	<0.001	0.055	0.00033
2-Mar-05	21	2500	2485	7.54	356	809																
9-Mar-05	28	2500	2480	7.61	366	757	<1	3.25	24.8	594	393	<0.5	0.445	380	0.0039	0.00555	0.00173	0.0238	<0.0004	<0.001	0.034	0.00017
16-Mar-05	35	2500	2480	7.62	401	620																
23-Mar-05	42	2500	2475	7.67	433	581	<1	5.5	27	418	315	<0.5	0.317	272	0.0051	0.00577	0.00186	0.0228	<0.0002	<0.0005	0.02	0.000115
30-Mar-05	49	2500	2475	7.73	378	520																
6-Apr-05	56	2500	2500	7.55	397	465	<1	4.5	22	333	227	<0.5	0.21	211	0.0048	0.00563	0.00182	0.0238	<0.0002	<0.0005	0.014	0.00009
13-Apr-05	63	2500	2475	7.62	403	374																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Jun-05	126	2.78	<0.0006	0.00012	0.00152	0.063	<0.00005	0.863	0.00058	<0.00001	0.0411	<0.0005	2.77	<0.001	3.35	<0.00001	72.6	<0.00005	<0.0001	0.0139	0.0013
22-Jun-05	133																				
29-Jun-05	140	2.79	<0.001	<0.0001	0.00158	0.038	<0.00005	0.858	0.000738	<0.00001	0.0477	<0.0005	2.96	<0.001	3.18	<0.00001	64.5	<0.00005	<0.0001	0.0155	<0.001
6-Jul-05	147																				
13-Jul-05	154	2.74	0.0005	<0.0001	0.00135	0.064	<0.00005	0.837	0.000688	<0.00001	0.0419	<0.0005	2.91	<0.001	3.22	<0.00001	59.6	<0.00005	<0.0001	0.0152	<0.001
20-Jul-05	161																				
27-Jul-05	168	2.9	<0.0005	<0.0001	0.00111	0.083	<0.00005	0.771	0.0008	<0.00001	0.0362	<0.0005	2.69	<0.001	3.11	<0.00001	54.6	<0.00005	<0.0001	0.0118	<0.001
3-Aug-05	175																				
10-Aug-05	182	3.39	<0.0005	<0.0001	0.001	<0.03	<0.00005	0.952	0.000608	<0.00001	0.0343	<0.0005	3.14	<0.001	2.87	<0.00001	52.9	<0.00005	<0.0001	0.00933	0.0012
17-Aug-05	189																				
24-Aug-05	196	3.52	<0.0005	<0.0001	0.00192	<0.03	<0.00005	1	0.000814	<0.0001	0.0348	<0.0005	3.07	<0.001	2.77	0.000018	48	<0.00005	<0.0001	0.00803	<0.001
31-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	86.1	<0.0005	0.00404	0.0152	<0.06	<0.00005	40.4	0.0874	<0.00001	0.0497	0.00197	13.1	0.0188	2.09	0.000013	22.8	0.00028	<0.0001	<0.0005	0.0113
16-Feb-05	7																				
23-Feb-05	14	31	<0.0005	0.00037	0.0077	<0.06	<0.00005	14.3	0.033	<0.00001	0.0098	<0.0005	5.38	0.0057	1.72	<0.00001	5.2	0.000139	<0.0001	<0.0005	0.0049
2-Mar-05	21																				
9-Mar-05	28	27.1	<0.0005	0.00025	0.00526	<0.06	<0.00005	12.7	0.0331	<0.00001	0.012	0.00198	4.58	0.0041	1.45	<0.00001	<4	0.000138	0.00013	<0.0005	0.0035
16-Mar-05	35																				
23-Mar-05	42	21.8	<0.0005	0.00021	0.00772	<0.03	<0.00005	10.2	0.0342	<0.00001	0.0119	<0.0005	3.62	0.0023	1.49	<0.00001	<2	0.000112	<0.0001	<0.0005	0.0026
30-Mar-05	49																				
6-Apr-05	56	18.6	<0.0005	0.00017	0.00795	0.03	<0.00005	9.25	0.032	<0.00001	0.00983	<0.0005	3.02	0.002	1.34	<0.00001	<2	0.000105	<0.0001	<0.0005	0.0016
13-Apr-05	63																				
20-Apr-05	70	18.1	<0.0005	0.00011	0.00702	<0.03	0.000075	7.8	0.0258	<0.00001	0.00783	<0.0005	2.53	0.0017	1.13	<0.00001	<2	0.000097	<0.0001	<0.0005	0.002
27-Apr-05	77																				
4-May-05	84	17.2	<0.0005	0.00012	0.00666	<0.03	<0.00005	9.61	0.0275	<0.00001	0.00793	<0.0005	2.31	0.002	1.11	<0.00001	<2	0.000097	<0.0001	<0.0005	0.0014
11-May-05	91																				
18-May-05	98	14.1	<0.0005	<0.0001	0.00612	<0.03	<0.00005	6.94	0.0232	<0.00001	0.00619	<0.0005	1.97	0.0018	0.878	<0.00001	<2	0.000092	<0.0001	<0.0005	0.001
25-May-05	105																				
1-Jun-05	112	15	<0.0005	<0.0001	0.00283	<0.03	<0.00005	7.28	0.0246	<0.00001	0.00526	<0.0005	1.89	0.0035	0.906	<0.00001	<2	0.000092	<0.0001	<0.0005	0.001
8-Jun-05	119																				
15-Jun-05	126	16.3	<0.0005	<0.0001	0.00571	<0.03	<0.00005	7.86	0.0221	<0.00001	0.0053	<0.0005	1.65	0.0015	0.871	<0.00001	<2	0.000085	<0.0001	<0.0005	0.0011
22-Jun-05	133																				
29-Jun-05	140	16.5	<0.0005	<0.0001	0.00657	<0.03	0.000109	8.67	0.0272	<0.00001	0.00592	<0.0005	1.7	0.0019	0.835	<0.00001	<2	0.000098	<0.0001	<0.0005	<0.001
6-Jul-05	147																				
13-Jul-05	154	15.7	<0.0005	<0.0001	0.00588	<0.03	<0.00005	7.74	0.0224	<0.00001	0.00516	<0.0005	1.4	0.0016	0.733	<0.00001	<2	0.000082	<0.0001	<0.0005	<0.001
20-Jul-05	161																				
27-Jul-05	168	13.3	<0.0005	<0.0001	0.0049	<0.03	<0.00005	6.25	0.019	<0.00001	0.00428	<0.0005	1.14	0.0014	0.613	<0.00001	<2	0.000066	<0.0001	<0.0005	<0.001
3-Aug-05	175																				
10-Aug-05	182	14.5	<0.0005	<0.0001	0.0052	<0.03	<0.00005	7.15	0.0185	<0.00001	0.00388	<0.0005	1.19	0.0013	0.633	<0.00001	<2	0.000071	<0.0001	<0.0005	0.001
17-Aug-05	189																				
24-Aug-05	196	13.3	<0.0005	<0.0001	0.00606	<0.03	<0.00005	6.93	0.0168	<0.0001	0.0037	<0.0005	0.99	0.0013	0.551	<0.00001	<2	0.000061	<0.0001	<0.0005	<0.001
31-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	417	<0.005	0.654	40.3	7.21	<0.0005	312	21.7	<0.00001	0.00137	1.22	11.9	0.036	3.12	<0.0001	8.5	0.00343	<0.001	<0.005	4.87
16-Feb-05	7																				
23-Feb-05	14	120	<0.001	0.0486	0.149	<0.06	<0.0001	58.3	2.97	<0.00001	0.00064	0.0752	2.41	0.0192	1.78	<0.00002	<4	0.00093	<0.0002	<0.001	0.0997
2-Mar-05	21																				
9-Mar-05	28	92.7	<0.001	0.0255	0.0485	0.817	<0.0001	39.3	2.05	<0.00001	0.00097	0.0354	1.99	0.014	1.7	<0.00002	<4	0.00088	<0.0002	<0.001	0.0409
16-Mar-05	35																				
23-Mar-05	42	83.5	<0.0005	0.0142	0.0319	<0.03	<0.00005	25.9	1.25	<0.00001	0.000928	0.0188	1.56	0.01	1.6	<0.00001	<2	0.00078	<0.0001	<0.0005	0.0226
30-Mar-05	49																				
6-Apr-05	56	59	<0.0005	0.00808	0.0302	<0.03	0.00006	19.4	0.842	0.00001	0.000916	0.0108	1.2	0.0072	1.22	<0.00001	<2	0.000644	<0.0001	<0.0005	0.016
13-Apr-05	63																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
20-Apr-05	70	2500	2465	7.43	409	333	<1	3.75	14.5	228	155	<0.5	0.136	145	0.0027	0.00475	0.003	0.0276	<0.0002	<0.0005	0.01	0.000084
27-Apr-05	77	2500	2500	7.64	428	421																
4-May-05	84	2500	2475	7.66	410	389	<1	2.75	21	276	204	<0.5	0.184	173	0.0037	0.00521	0.00202	0.0202	<0.0002	<0.0005	0.011	0.000068
11-May-05	91	2500	2510	7.6	361	344																
18-May-05	98	2500	2505	7.51	378	321	<1	4	17.8	220	149	<0.5	0.123	144	0.004	0.00468	0.00183	0.0175	<0.0002	<0.0005	<0.01	0.000056
25-May-05	105	2500	2440	7.61	387	305																
1-Jun-05	112	2500	2490	7.63	415	312	<1	2.5	19.5	216	153	<0.5	0.127	138	0.0046	0.00497	0.00225	0.0165	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-05	119	2500	2495	7.63	362	295																
15-Jun-05	126	2500	2500	7.67	369	299	<1	3.5	19.5	215	145	<0.5	0.126	124	0.004	0.00487	0.00185	0.0149	<0.0002	<0.0005	<0.01	0.000052
22-Jun-05	133	2500	2395	7.69	372	301																
29-Jun-05	140	2500	2505	7.67	286	300	<1	3.25	20.8	218	149	<0.5	0.107	130	0.005	0.00531	0.00211	0.0144	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-05	147	2500	2485	7.72	299	303																
13-Jul-05	154	2500	2500	7.66	304	278	<1	2	20	194	137	<0.5	0.121	120	0.0038	0.00469	0.00182	0.0118	<0.0002	<0.0005	<0.01	<0.00005
20-Jul-05	161	2500	2490	7.72	278	270																
27-Jul-05	168	2500	2520	7.68	243	254	<1	2.5	20.3	184	119	<0.5	0.119	107	0.0034	0.00433	0.00164	0.0104	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-05	175	2500	2555	7.69	325	238																
10-Aug-05	182	2500	2520	7.75	326	246	<1	2	21.3	168	121	<0.5	0.104	100	0.004	0.00448	0.00167	0.0106	<0.0002	<0.0005	<0.01	<0.00005
17-Aug-05	189	2500	2520	7.7	336	258																
24-Aug-05	196	2500	2530	7.75	336	248	<1	2.25	20	174	118	<0.5	0.101	104	0.0039	0.00419	0.00155	0.0105	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-05	203	2500	2560	7.63	303	297																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	2180	5.87	368	1525	<1	29.25	4.5	2380	1560	5.8	<0.2	1640	0.424	0.0037	<0.0005	0.0537	0.0012	<0.0025	0.192	0.0146
16-Feb-05	7	2500	2495	7.53	344	865																
23-Feb-05	14	2500	2300	7.58	376	662	<1	4	22.8	506	320	<0.5	0.547	326	0.0216	0.00491	0.00022	0.0493	<0.0004	<0.001	0.076	0.00035
2-Mar-05	21	2500	2415	7.83	358	554																
9-Mar-05	28	2500	2410	7.76	341	489	<1	2.75	34.3	356	224	<0.5	0.405	212	0.0229	0.00453	0.00038	0.0415	<0.0002	<0.0005	0.051	0.000168
16-Mar-05	35	2500	2425	7.8	397	558																
23-Mar-05	42	2500	2490	7.89	410	474	<1	3.25	41	328	239	<0.5	0.303	199	0.0221	0.0049	0.00039	0.0282	<0.0002	<0.0005	0.037	0.000132
30-Mar-05	49	2500	2490	7.93	459	384																
6-Apr-05	56	2500	2495	7.84	420	347	<1	5	36.3	236	156	<0.5	0.166	134	0.019	0.00487	0.00031	0.0191	<0.0002	<0.0005	0.024	0.000085
13-Apr-05	63	2500	2505	7.82	403	299																
20-Apr-05	70	2500	2500	7.78	409	251	<1	2.5	26.5	163	117	<0.5	0.096	94.3	0.0163	0.00412	0.00021	0.0139	<0.0002	<0.0005	0.014	0.000073
27-Apr-05	77	2500	2510	7.85	410	258																
4-May-05	84	2500	2505	7.85	419	245	<1	3.25	27	153	121	<0.5	0.09	92.9	0.0166	0.00427	0.0002	0.012	<0.0002	<0.0005	0.012	0.000078
11-May-05	91	2500	2500	7.82	368	238																
18-May-05	98	2500	2510	7.71	376	224	<1	6.5	25.5	140	101	<0.5	0.071	85.3	0.0163	0.00399	0.00017	0.0106	<0.0002	<0.0005	<0.01	0.000072
25-May-05	105	2500	2505	7.73	391	203																
1-Jun-05	112	2500	2495	7.86	394	239	<1	1.75	29.5	156	113	<0.5	0.082	90.3	0.0162	0.00436	0.00022	0.011	<0.0002	<0.0005	<0.01	0.000062
8-Jun-05	119	2500	2500	7.84	363	232																
15-Jun-05	126	2500	2505	7.87	357	233	<1	3.25	30	154	110	<0.5	0.072	84.9	0.0151	0.00378	0.00019	0.00862	<0.0002	<0.0005	<0.01	0.000077
22-Jun-05	133	2500	2500	7.92	363	229																
29-Jun-05	140	2500	2500	7.89	304	212	<1	2.5	31.5	139	102	<0.5	0.057	75.7	0.0188	0.00467	0.0002	0.0109	<0.0002	<0.0005	<0.01	0.000083
6-Jul-05	147	2500	2560	7.89	283	205																
13-Jul-05	154	2500	2510	7.83	299	182	<1	2.25	26.8	121	87.2	<0.5	0.058	65.5	0.0145	0.00403	0.00016	0.00821	<0.0002	<0.0005	<0.01	0.000074
20-Jul-05	161	2500	2490	7.81	285	176																
27-Jul-05	168	2500	2555	7.79	247	166	<1	1.5	24	106	76.9	<0.5	0.047	60.4	0.0136	0.00334	0.00017	0.0064	<0.0002	<0.0005	<0.01	0.000066
3-Aug-05	175	2500	2560	7.85	329	157																
10-Aug-05	182	2500	2630	7.86	324	165	<1	2	25.8	115	79.8	<0.5	0.044	56.4	0.0117	0.00335	0.00015	0.0065	<0.0002	<0.0005	<0.01	0.000059
17-Aug-05	189	2500	2560	7.86	330	176																
24-Aug-05	196	2500	2525	7.88	301	174	<1	2.25	27	113	81.3	<0.5	0.057	60.7	0.0128	0.00295	0.00013	0.006	<0.0002	<0.0005	<0.01	0.000064
31-Aug-05	203	2500	2510	7.75	321	169																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	2175	3.95	485	1491	8.5	181.5	<1	1800	963	<5	1.46	1180	4.88	0.0145	0.0034	0.114	0.0418	<0.01	<0.2	0.0199
16-Feb-05	7	2500	2500	4.28	476	780																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Apr-05	70	40	<0.0005	0.00807	0.0487	<0.03	<0.00005	13.3	0.698	0.000021	0.000646	0.0123	3.89	0.0066	1.19	<0.00001	<2	0.00094	<0.0001	<0.0005	0.0248
27-Apr-05	77																				
4-May-05	84	49.2	<0.0005	0.00628	0.0315	<0.03	<0.00005	19.6	1.05	0.000011	0.000863	0.00807	2.1	0.0074	1.15	<0.00001	<2	0.000605	<0.0001	<0.0005	0.0142
11-May-05	91																				
18-May-05	98	38.3	<0.0005	0.00426	0.0259	<0.03	<0.00005	13.1	0.592	0.000012	0.000827	0.00524	1.46	0.0056	0.822	<0.00001	<2	0.00049	<0.0001	<0.0005	0.0106
25-May-05	105																				
1-Jun-05	112	39.6	<0.0005	0.00373	0.0193	<0.03	<0.00005	13.1	0.565	<0.00001	0.000824	0.00442	1.4	0.0053	0.903	<0.00001	<2	0.000496	<0.0001	<0.0005	0.0088
8-Jun-05	119																				
15-Jun-05	126	38	<0.0005	0.00317	0.0183	<0.03	<0.00005	12.1	0.514	0.000015	0.000867	0.00354	1.12	0.0042	0.879	<0.00001	<2	0.000496	<0.0001	<0.0005	0.0078
22-Jun-05	133																				
29-Jun-05	140	37.6	<0.0005	0.00321	0.0188	<0.03	<0.00005	13.5	0.577	<0.00001	0.00105	0.00378	1.27	0.0049	0.83	<0.00001	<2	0.000575	<0.0001	<0.0005	0.0082
6-Jul-05	147																				
13-Jul-05	154	34.7	<0.0005	0.00263	0.0225	<0.03	<0.00005	12.2	0.474	<0.00001	0.00101	0.00303	1.11	0.0039	0.706	<0.00001	<2	0.000532	<0.0001	<0.0005	0.0065
20-Jul-05	161																				
27-Jul-05	168	31.9	<0.0005	0.00245	0.0205	<0.03	<0.00005	9.54	0.439	0.000014	0.000939	0.00291	0.926	0.0035	0.669	<0.00001	<2	0.000442	<0.0001	<0.0005	0.0067
3-Aug-05	175																				
10-Aug-05	182	31.6	<0.0005	0.00211	0.0197	<0.03	<0.00005	10.2	0.414	0.000016	0.000916	0.00251	0.955	0.0035	0.7	<0.00001	<2	0.000487	<0.0001	<0.0005	0.0064
17-Aug-05	189																				
24-Aug-05	196	30.5	<0.0005	0.00197	0.0225	<0.03	<0.00005	10.1	0.421	<0.0001	0.000944	0.00236	0.894	0.0032	0.652	<0.00001	<2	0.000489	<0.0001	<0.0005	0.0059
31-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	356	<0.0025	0.37	6.25	2.17	0.0012	164	4.1	<0.00001	0.00082	0.965	12.7	0.031	1.89	<0.00005	36.9	0.00033	<0.0005	<0.0025	1.91
16-Feb-05	7																				
23-Feb-05	14	78	<0.001	0.00766	0.0599	<0.06	<0.0001	30.5	0.297	<0.00001	0.00255	0.0159	5.48	0.0067	1.42	0.000025	4.2	<0.0001	<0.0002	<0.001	0.0163
2-Mar-05	21																				
9-Mar-05	28	56.3	<0.0005	0.00242	0.0166	0.104	<0.00005	20.4	0.151	0.000021	0.00317	0.005	12.5	0.005	1.52	<0.00001	<4	<0.00005	<0.0001	<0.0005	0.0058
16-Mar-05	35																				
23-Mar-05	42	65.2	<0.0005	0.00162	0.0128	<0.03	<0.00005	18.5	0.111	<0.00001	0.00348	0.00314	6.9	0.0043	1.78	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0045
30-Mar-05	49																				
6-Apr-05	56	40.8	<0.0005	0.00091	0.00897	<0.03	<0.00005	13.2	0.0749	<0.00001	0.00334	0.0016	3.68	0.0025	1.45	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0034
13-Apr-05	63																				
20-Apr-05	70	31.2	<0.0005	0.00056	0.0081	<0.03	0.000313	9.48	0.0454	<0.00001	0.00268	0.00085	2.22	0.0019	1.06	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
27-Apr-05	77																				
4-May-05	84	30.5	<0.0005	0.00049	0.00796	<0.03	<0.00005	10.9	0.0456	<0.00001	0.00317	0.00085	1.94	0.0019	1.11	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
11-May-05	91																				
18-May-05	98	26.7	<0.0005	0.00041	0.00754	<0.03	<0.00005	8.22	0.0416	<0.00001	0.00311	0.00072	1.73	0.0019	0.981	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0034
25-May-05	105																				
1-Jun-05	112	30.9	<0.0005	0.00042	0.00404	<0.03	<0.00005	8.68	0.0457	<0.00001	0.00316	0.00066	1.81	0.0021	1.24	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
8-Jun-05	119																				
15-Jun-05	126	30.8	<0.0005	0.00029	0.00468	<0.03	<0.00005	8.12	0.0366	<0.00001	0.00335	<0.0005	1.45	0.0018	1.14	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
22-Jun-05	133																				
29-Jun-05	140	27.1	<0.0005	0.00031	0.0051	<0.03	<0.00005	8.44	0.0381	<0.00001	0.00411	0.0006	1.59	0.0019	1.09	<0.00001	<2	<0.00005	<0.0001	0.00064	0.003
6-Jul-05	147																				
13-Jul-05	154	23.5	<0.0005	0.00025	0.00433	<0.03	<0.00005	6.92	0.0307	<0.00001	0.00363	<0.0005	1.26	0.0015	0.906	<0.00001	<2	<0.00005	<0.0001	0.00051	0.0029
20-Jul-05	161																				
27-Jul-05	168	21.7	<0.0005	0.00023	0.00481	<0.03	<0.00005	5.51	0.0292	<0.00001	0.00308	<0.0005	0.983	0.0014	0.758	<0.00001	<2	<0.00005	0.00011	<0.0005	0.0032
3-Aug-05	175																				
10-Aug-05	182	22	<0.0005	0.0002	0.00485	<0.03	<0.00005	6.02	0.0279	<0.00001	0.00299	<0.0005	1.04	0.0013	0.788	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0038
17-Aug-05	189																				
24-Aug-05	196	22.4	<0.0005	0.00019	0.00586	<0.03	<0.00005	6.13	0.0272	<0.0001	0.00317	<0.0005	1.01	0.0013	0.847	0.000018	<2	<0.00005	<0.0001	<0.0005	0.0029
31-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	194	<0.01	0.253	76.7	12.1	0.0023	116	29.6	0.00002	<0.001	0.649	36.6	0.069	3.34	<0.0002	21.4	0.0014	<0.002	<0.01	4.49
16-Feb-05	7																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Feb-05	14	2500	2395	4.3	485	381	1.5	31.5	<1	268	127	<0.5	0.245	176	0.255	0.00348	0.00131	0.0358	0.00537	<0.0005	0.034	0.00215
2-Mar-05	21	2500	2410	4.42	504	276																
9-Mar-05	28	2500	2485	4.47	536	229	<1	23.25	<1	161	72.5	<0.5	0.108	100	0.125	0.00195	0.00094	0.0321	0.00309	<0.0005	0.035	0.00114
16-Mar-05	35	2500	2450	4.53	548	198																
23-Mar-05	42	2500	2465	4.55	532	198	<1	15.25	<1	126	58.1	<0.5	0.114	82.2	0.0923	0.00142	0.00057	0.0311	0.00229	<0.0005	0.018	0.000907
30-Mar-05	49	2500	2460	4.59	550	178																
6-Apr-05	56	2500	2465	4.55	533	160	<1	16	<1	106	44.6	<0.5	0.098	64.1	0.0767	0.00111	0.00044	0.026	0.00204	<0.0005	0.012	0.000733
13-Apr-05	63	2500	2505	4.5	514	160																
20-Apr-05	70	2500	2505	4.5	533	152	<1	13.75	<1	92	43.3	<0.5	0.098	59.9	0.0707	0.00115	0.00042	0.0222	0.00197	<0.0005	<0.01	0.000665
27-Apr-05	77	2500	2510	4.51	536	154																
4-May-05	84	2500	2505	4.5	535	150	<1	15.5	<1	104	44.7	<0.5	0.113	59.5	0.0783	0.00142	0.00044	0.0241	0.00205	<0.0005	<0.01	0.000704
11-May-05	91	2500	2510	4.5	537	148																
18-May-05	98	2500	2505	4.42	494	145	<1	24	<1	89	39.5	<0.5	0.127	59.2	0.0947	0.00139	0.00051	0.0255	0.00227	<0.0005	<0.01	0.000753
25-May-05	105	2500	2510	4.4	544	138																
1-Jun-05	112	2500	2475	4.37	514	147	<1	15	<1	92	39.5	<0.5	0.134	60.1	0.105	0.00155	0.00135	0.0225	0.00242	<0.0005	<0.01	0.000793
8-Jun-05	119	2500	2500	4.37	521	156																
15-Jun-05	126	2500	2500	4.31	519	156	1.25	16.5	<1	105	42.2	<0.5	0.144	61.3	0.119	0.00156	0.00067	0.0243	0.00249	<0.0005	<0.01	0.000819
22-Jun-05	133	2500	2500	4.27	540	154																
29-Jun-05	140	2500	2510	4.25	441	152	1.5	18.5	<1	86	39.3	<0.5	0.132	59.2	0.133	0.00152	0.0008	0.0233	0.00267	<0.0005	<0.01	0.000878
6-Jul-05	147	2500	2545	4.25	469	145																
13-Jul-05	154	2500	2515	4.21	439	145	2.25	14.75	<1	91	37.8	<0.5	0.165	57.4	0.132	0.00153	0.00084	0.0216	0.00249	<0.0005	<0.01	0.000783
20-Jul-05	161	2500	2530	4.25	402	144																
27-Jul-05	168	2500	2450	4.22	405	132	2	17.75	<1	91	32.1	<0.5	0.154	52.5	0.13	0.00158	0.00092	0.0189	0.00243	<0.001	<0.02	0.00079
3-Aug-05	175	2500	2470	4.18	426	121																
10-Aug-05	182	2500	2485	4.18	466	134	1.75	14.25	<1	106	31.3	<0.5	0.138	49.3	0.13	0.0017	0.00094	0.0196	0.00258	<0.0005	<0.01	0.000748
17-Aug-05	189	2500	2460	4.17	467	140																
24-Aug-05	196	2500	2505	4.26	398	145	2.75	15.5	<1	85	31	<0.5	0.168	52.4	0.136	0.00175	0.00102	0.0188	0.00231	<0.0005	<0.01	0.000779
31-Aug-05	203	2500	2505	4.17	403	161																
7-Sep-05	210	2500	2500	4.11	460	148	3.25	21.75	<1	161	33.2	<0.5	0.186	53.9	0.162	0.00212	0.00144	0.0201	0.0025	<0.0005	<0.01	0.000871
14-Sep-05	217	2500	2430	3.98	412	139																
21-Sep-05	224	2500	2495	4.13	348	143	2.75	19.75	<1	86	29.2	<0.5	0.15	48.3	0.156	0.00167	0.0013	0.0148	0.00226	<0.0005	<0.01	0.000897
28-Sep-05	231	2500	2500	4.04	344	160																
5-Oct-05	238	2500	2490	4.08	336	138	5	28	<1	75	26.8	<0.5	0.152	46.2	0.141	0.00218	0.0013	0.0181	0.00214	<0.0005	<0.01	0.00076
12-Oct-05	245	2500	2505	4.12	467	134																
19-Oct-05	252	2500	2380	3.85	344	120	5	21	<1	60	23.4	<0.5	0.146	43.5	0.123	0.00188	0.00133	0.0147	0.00166	<0.0005	<0.01	0.00076
26-Oct-05	259	2500	2400	3.99	509	132																
2-Nov-05	266	2500	2400	4.02	431	120	3.75	21	<1	64	21.8	<0.5	0.144	42	0.127	0.00228	0.00139	0.0147	0.00154	<0.0005	<0.01	0.000833
9-Nov-05	273	2500	2665	4.01	459	115																
16-Nov-05	280	2500	2685	4.04	498	123	3.25	18	<1	66	22.5	<0.5	0.148	41	0.131	0.00173	0.00102	0.0153	0.00143	<0.0005	<0.01	0.000754
23-Nov-05	287	2500	2500	3.97	565	135																
30-Nov-05	294	2500	2405	3.98	575	116	4	22.75	<1	67	23.1	<0.5	0.155	42	0.138	0.00189	0.00098	0.0128	0.0017	<0.0005	<0.01	0.00085
7-Dec-05	301	2500	2595	3.95	523	138																
14-Dec-05	308	2500	2610	4	483	126	3.5	20	<1	65	24.5	<0.5	0.156	45.1	0.15	0.00182	0.00109	0.0146	0.00177	<0.0005	<0.01	0.000939
21-Dec-05	315	2500	2635	4	595	116																
28-Dec-05	322	2500	2620	4	580	127	3.75	22.5	<1	62	22.2	<0.5	0.147	41.9	0.143	0.00156	0.00094	0.0125	0.00146	<0.0005	<0.01	0.000783
4-Jan-06	329	2500	2625	4.02	613	132																
11-Jan-06	336	2500	2575	3.96	600	158	4.5	20.75	<1	68	22.9	<0.5	0.15	44.6	0.143	0.00177	0.001	0.0124	0.00155	<0.0005	<0.01	0.00093
18-Jan-06	343	2500	2500	3.98	572	118																
25-Jan-06	350	2500	2585	3.88	488	128	4.75	27	<1	59	19.4	<0.5	0.137	37.8	0.199	0.00149	0.00096	0.0097	0.00138	<0.0005	<0.01	0.000733
1-Feb-06	357	2500	2685	3.96	413	126																
8-Feb-06	364	2500	2500	3.85	527	138	5	20	<1	59	19.7	<0.5	0.135	39	0.124	0.0014	0.00098	0.0108	0.0014	<0.0005	<0.01	0.000818
15-Feb-06	371	2500	2645	3.82	592	127																
22-Feb-06	378	2500	2550	3.87	601	134	4.5	19.5	<1	59	19.6	<0.5	0.135	39.8	0.121	0.00134	0.00084	0.00898	0.00121	<0.0005	<0.01	0.000796
1-Mar-06	385	2500	2665	3.84	576	130																
8-Mar-06	392	2500	2685	3.91	595	146	5	20.5	<1	84	20.6	<0.5	0.139	41.7	0.14	0.00157	0.00086	0.0097	0.00144	<0.0005	<0.01	0.000845
15-Mar-06	399	2500	2525	3.89	552	143																
22-Mar-06	406	2500	2640	3.9	533	159	5.25	20.25	<1	75	20.4	<0.5	0.145	43.9	0.137	0.00183	0.00101	0.0112	0.00122	<0.0005	<0.01	0.000913
29-Mar-06	413	2500	2625	3.81	525	146																
5-Apr-06	420	2500	2630	3.82	522	170	6.5	36	<1	70	20.3	<0.5	0.138	42.6	0.149	0.00175	0.00099	0.0101	0.00142	<0.0005	<0.01	0.000915
12-Apr-06	427	2500	2585	3.79	540	173																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Feb-05	14	29.1	<0.0005	0.0249	7.89	1.9	0.000386	13.2	3.25	<0.00001	<0.00005	0.0629	8.77	0.0148	2	0.000018	<4	0.00033	0.00019	<0.0005	0.516
2-Mar-05	21																				
9-Mar-05	28	16.8	<0.0005	0.014	3.28	1.21	0.000331	7.43	3.15	<0.00001	0.000067	0.0345	8.93	0.0103	2.68	0.000012	<4	0.000207	<0.0001	<0.0005	0.303
16-Mar-05	35																				
23-Mar-05	42	13.8	<0.0005	0.0112	2.14	1.05	0.000419	5.73	2.96	<0.00001	<0.00005	0.0261	6.54	0.0081	2.94	0.000024	<2	0.000158	<0.0001	<0.0005	0.247
30-Mar-05	49																				
6-Apr-05	56	10.1	<0.0005	0.00901	1.7	0.789	0.000258	4.73	2.87	<0.00001	0.000059	0.0208	5.18	0.0063	2.56	<0.00001	<2	0.000144	<0.0001	<0.0005	0.199
13-Apr-05	63																				
20-Apr-05	70	9.91	<0.0005	0.00828	1.6	0.795	0.000194	4.51	2.68	<0.00001	<0.00005	0.0184	4.47	0.0058	2.41	0.000013	<2	0.00013	<0.0001	<0.0005	0.186
27-Apr-05	77																				
4-May-05	84	9.48	<0.0005	0.00837	2.2	0.907	0.000269	5.09	4.31	<0.00001	<0.00005	0.0192	3.85	0.0051	2.64	<0.00001	<2	0.000132	<0.0001	<0.0005	0.191
11-May-05	91																				
18-May-05	98	8.63	<0.0005	0.00926	1.94	0.89	0.000278	4.35	3.79	<0.00001	0.000054	0.0202	3.95	0.0059	2.48	<0.00001	<2	0.000139	<0.0001	<0.0005	0.212
25-May-05	105																				
1-Jun-05	112	8.97	<0.0005	0.00901	1.94	0.985	0.000448	4.16	3.76	<0.00001	<0.00005	0.0196	3.47	0.0053	2.74	<0.00001	<2	0.000138	<0.0001	<0.0005	0.215
8-Jun-05	119																				
15-Jun-05	126	9.49	<0.0005	0.00909	2.3	1.22	0.000306	4.5	4.01	<0.00001	0.000064	0.02	3.17	0.0061	2.67	<0.00001	<2	0.000134	<0.0001	<0.0005	0.22
22-Jun-05	133																				
29-Jun-05	140	8.55	<0.0005	0.00968	2.39	1.28	0.000324	4.36	4.41	<0.00001	0.000064	0.021	3.05	0.0065	2.61	<0.00001	<2	0.000155	0.0001	<0.0005	0.239
6-Jul-05	147																				
13-Jul-05	154	8.37	<0.0005	0.00909	2.42	1.39	0.000267	4.11	4.03	<0.00001	<0.00005	0.0198	2.8	0.0058	2.39	<0.00001	<2	0.000144	<0.0001	<0.0005	0.222
20-Jul-05	161																				
27-Jul-05	168	7.58	<0.001	0.00819	2.19	1.35	0.00027	3.2	3.35	<0.00001	<0.0001	0.0178	2.25	0.0052	2.18	<0.00002	<2	0.00011	<0.0002	<0.001	0.207
3-Aug-05	175																				
10-Aug-05	182	7.14	<0.0005	0.00748	2.4	1.35	0.000227	3.28	3.28	<0.00001	<0.00005	0.0164	2.23	0.0053	2.14	0.000011	<2	0.000125	<0.0001	<0.0005	0.196
17-Aug-05	189																				
24-Aug-05	196	7.1	<0.0005	0.00739	2.67	1.54	0.000263	3.22	3.38	<0.0001	<0.00005	0.0165	2.04	0.0054	2.19	0.000011	<2	0.000128	<0.0001	<0.0005	0.2
31-Aug-05	203																				
7-Sep-05	210	7.48	<0.0005	0.00823	3.33	1.68	0.000291	3.54	3.74	<0.00001	<0.00005	0.0178	2.08	0.0064	2.37	<0.00001	<2	0.000137	<0.0001	<0.0005	0.223
14-Sep-05	217																				
21-Sep-05	224	6.74	<0.0005	0.00779	3.05	1.67	0.000384	3.01	3.43	<0.00001	<0.00005	0.0165	1.86	0.0056	2.06	0.000011	<2	0.00013	0.00011	<0.0005	0.199
28-Sep-05	231																				
5-Oct-05	238	6.46	<0.0005	0.00697	2.99	1.66	0.00068	2.58	3.26	<0.00001	<0.00005	0.0146	1.8	0.005	2.11	<0.00001	<2	0.000137	<0.0001	<0.0005	0.182
12-Oct-05	245																				
19-Oct-05	252	5.58	<0.0005	0.00609	2.76	1.49	0.000194	2.29	2.65	<0.00001	<0.00005	0.0135	1.58	0.0051	1.83	<0.00001	<2	0.000115	0.0002	<0.0005	0.164
26-Oct-05	259																				
2-Nov-05	266	4.83	<0.0005	0.00648	3.08	1.36	0.000218	2.37	2.87	0.000012	<0.00005	0.0138	1.53	0.0053	1.57	<0.00001	<2	0.000118	<0.0001	<0.0005	0.181
9-Nov-05	273																				
16-Nov-05	280	5.15	<0.0005	0.00622	3.01	1.68	0.000184	2.34	2.95	<0.00001	<0.00005	0.0127	1.33	0.0049	1.78	0.000015	<2	0.000103	0.00033	<0.0005	0.166
23-Nov-05	287																				
30-Nov-05	294	5.28	<0.0005	0.00632	3.26	1.71	0.000169	2.4	2.98	<0.00001	<0.00005	0.0134	1.33	0.005	1.5	0.000015	<2	0.000104	0.00013	<0.0005	0.19
7-Dec-05	301																				
14-Dec-05	308	5.73	<0.0005	0.00691	3.68	1.95	0.000259	2.48	3.14	<0.00001	<0.00005	0.0148	1.41	0.0055	1.82	0.00002	<2	0.000115	0.00027	<0.0005	0.211
21-Dec-05	315																				
28-Dec-05	322	5.11	<0.0005	0.00645	3.51	1.83	0.000142	2.29	3	<0.00001	<0.00005	0.0134	1.3	0.0048	1.74	0.000013	<2	0.000106	0.00024	<0.0005	0.189
4-Jan-06	329																				
11-Jan-06	336	5.3	<0.0005	0.0066	3.82	2.32	0.000121	2.35	2.99	<0.00001	<0.00005	0.0137	1.29	0.005	2.03	<0.00001	<2	0.000119	0.0002	<0.0005	0.202
18-Jan-06	343																				
25-Jan-06	350	4.58	<0.0005	0.00537	3.28	1.77	0.000302	1.94	2.52	<0.00001	<0.00005	0.011	1.14	0.0046	1.67	0.000012	<2	0.000106	0.00016	<0.0005	0.171
1-Feb-06	357																				
8-Feb-06	364	4.75	<0.0005	0.00559	3.38	2.02	0.000129	1.91	2.41	<0.00001	<0.00005	0.0116	1.2	0.0046	1.8	0.000017	<2	0.000119	0.00023	<0.0005	0.181
15-Feb-06	371																				
22-Feb-06	378	4.62	<0.0005	0.00528	3.59	2.01	0.00281	1.97	2.37	<0.00001	<0.00005	0.0111	1.1	0.0046	1.8	<0.00002	<2	0.000111	0.00014	<0.0005	0.177
1-Mar-06	385																				
8-Mar-06	392	4.88	<0.0005	0.00592	4.05	2.42	0.00151	2.03	2.6	<0.00001	<0.00005	0.0122	1.24	0.005	2.09	0.000016	<2	0.000127	0.00038	<0.0005	0.192
15-Mar-06	399																				
22-Mar-06	406	4.87	<0.0005	0.006	4.12	2.57	0.000207	2.01	2.55	<0.00001	<0.00005	0.0126	1.34	0.0054	2.57	0.000013	<2	0.000147	0.00022	<0.0005	0.2
29-Mar-06	413																				
5-Apr-06	420	4.69	<0.0005	0.00634	4.64	2.57	0.000209	2.09	2.82	<0.00001	<0.00005	0.0132	1.45	0.0051	2.43	0.000014	<2	0.000146	0.0002	<0.0005	0.21
12-Apr-06	427																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
19-Apr-06	434	2500	2585	3.81	585	152	7.5	25	<1	72	19.7	<0.5	0.143	42.7	0.154	0.00185	0.00103	0.0105	0.00138	<0.0005	<0.01	0.000957
26-Apr-06	441	2500	2510	3.86	687	167																
3-May-06	448	2500	2595	3.6	430	173	9.17	26.40	<1	102	23.4	<0.5	0.174	51.8	0.201	0.00224	0.00101	0.0121	0.00165	<0.0005	<0.01	0.00112
10-May-06	455	2500	2585	3.55	449	177																
17-May-06	462	2500	2605	3.52	450	193	11.62	31.42	<1	79	22.8	<0.5	0.182	56.9	0.195	0.00192	0.00078	0.011	0.00154	<0.0005	<0.01	0.00117
24-May-06	469	2500	2550	3.55	463	191																
31-May-06	476	2500	2560	3.54	473	188	11.94	28.56	<1	84	21.8	<0.5	0.184	52.2	0.204	0.00137	0.00081	0.0102	0.00158	<0.0005	<0.01	0.00121
7-Jun-06	483	2500	2535	3.45	484	195																
14-Jun-06	490	2500	2510	3.45	483	201	12.99	29.95	<1	78	22.1	<0.5	0.186	55.5	0.223	0.00113	0.00072	0.00912	0.00141	<0.0005	<0.01	0.00113
21-Jun-06	497	2500	2510	3.45	489	201																
28-Jun-06	504	2500	2445	3.36	504	210	15.77	33.29	<1	101	24.4	<0.5	0.239	59.1	0.272	0.00102	0.00056	0.00907	0.00143	<0.0005	<0.01	0.00127
5-Jul-06	511	2500	2535																			
12-Jul-06	518	2500	2430	3.41	527	238																
19-Jul-06	525	2500	2495																			
26-Jul-06	532	2500	2580	3.33	519	222	16.36	36.44	<1	99	25.8	<0.5	0.203	61	0.303	0.0008	0.00069	0.00842	0.00135	<0.0005	<0.01	0.00156
2-Aug-06	539	2500	2485																			
9-Aug-06	546	2500	2480	3.45	538	241																
16-Aug-06	553	2500	2435																			
23-Aug-06	560	2500	2530	3.4	518	213			<1	92	23.5	<0.5	0.231	59.1	0.296	0.00068	0.00064	0.0067	0.00127	<0.001	<0.02	0.00153
30-Aug-06	567	2500	2530																			
6-Sep-06	574	2500	2500	3.64	512	240																
13-Sep-06	581	2500	2455																			
20-Sep-06	588	2500	2365	3.25	482	325	18.94	52.68	<1	124	35.6	<0.5	0.347	93.5	0.548	0.0013	0.00081	0.0102	0.00198	<0.001	<0.02	0.00248
27-Sep-06	595	2500	2455																			
4-Oct-06	602	2500	2500	3.39	467	355																
11-Oct-06	609	2500	2470																			
18-Oct-06	616	2500	2550	3.19	563	334	26.63	52.90	<1	120	31.2	<0.5	0.312	87.7	0.54	0.00145	0.00063	0.00792	0.0015	<0.0025	<0.05	0.00214
25-Oct-06	623	2500	2520																			
1-Nov-06	630	2500	2445	3.59	544	380																
8-Nov-06	637	2500	2505																			
15-Nov-06	644	2500	2440	3.12	562	382	30.86	65.7	<1	151	35.2	<0.5	0.375	107	0.719	0.00134	0.00077	0.00729	0.0021	<0.0025	<0.05	0.00261
22-Nov-06	651	2500	2585																			
29-Nov-06	658	2500	2485	3.11	542	392																
6-Dec-06	665	2500	2535																			
13-Dec-06	672	2500	2445	3.15	532	424	39.24	77.54	<1	179	35.3	<0.5	0.43	122	0.893	0.00143	0.00076	0.0064	0.0018	<0.0025	<0.05	0.00273
20-Dec-06	679	2500	2415																			
27-Dec-06	686	2500	2500	3.04	532	476																
3-Jan-07	693	2500	2510																			
10-Jan-07	700	2500	2560	3.04	547	491	46.39	86.61	<1	178	36.8	<0.5	0.449	128	1.19	0.00168	0.00057	0.00661	0.0022	<0.0025	<0.05	0.00319
17-Jan-07	707	2500	2525																			
24-Jan-07	714	2500	2505	2.96	547	459																
31-Jan-07	721	2500	2395																			
7-Feb-07	728	2500	2590	3	607	542	59.42	113.69	<1	196	34.2	<0.5	0.451	135	1.2	0.00149	0.00073	0.00783	0.0018	<0.0025	<0.05	0.00262
14-Feb-07	735	2500	2560																			
21-Feb-07	742	2500	2570	2.89	565	513																
28-Feb-07	749	2500	2530																			
7-Mar-07	756	2500	2425	2.9	557	512			<1	161	32	<0.5	0.432	138	1.33	0.00131	0.00083	0.00628	0.0019	<0.0025	<0.05	0.00271
14-Mar-07	763	2500	2275																			
21-Mar-07	770	2500	2470	2.97	618	498																
28-Mar-07	777	2500	2440																			
4-Apr-07	784	2500	2480	3	621	399	38.05	66.61	<1	123	21.9	<0.5	0.387	92.9	0.896	0.00116	0.00056	0.00393	0.0013	<0.0025	<0.05	0.0019
11-Apr-07	791	2500	2450																			
18-Apr-07	798	2500	2390	2.89	556	508																
25-Apr-07	805	2500	2510																			
2-May-07	812	2500	2455	2.87	612	641	65.39	120.26	<1	215	39.6	<0.5	0.648	169	2.24	0.00155	<0.001	0.00295	<0.002	<0.005	<0.1	0.00398
9-May-07	819	2500	2500																			
16-May-07	826	2500	2455	2.73	594	761																
23-May-07	833	2500	2470																			
30-May-07	840	2500	2400	2.78	625	728	92.01	146.95	<1	235	35.1	<0.5	0.55	185	3.12	0.00148	0.0024	0.00172	<0.002	<0.005	<0.1	0.00385
6-Jun-07	847	2500	2500																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
19-Apr-06	434	4.8	<0.0005	0.00618	4.46	2.81	0.000163	1.88	2.57	<0.00001	<0.00005	0.0128	1.49	0.0052	2.28	0.000023	<2	0.000157	0.00019	<0.0005	0.203
26-Apr-06	441																				
3-May-06	448	5.32	<0.0005	0.00722	5.44	2.88	0.00172	2.46	2.93	<0.00001	<0.00005	0.0148	1.74	0.0057	2.92	0.000025	<2	0.000185	0.0002	<0.0005	0.237
10-May-06	455																				
17-May-06	462	5.56	<0.0005	0.00706	5.51	2.71	0.000253	2.17	2.84	<0.00001	<0.00005	0.0143	1.67	0.006	3.26	0.000038	<2	0.000207	0.0001	<0.0005	0.242
24-May-06	469																				
31-May-06	476	5.42	<0.0005	0.00691	5.39	1.66	0.000256	2	2.7	<0.00001	<0.00005	0.0141	1.63	0.0055	2.86	0.000021	<2	0.000192	0.00016	<0.0005	0.246
7-Jun-06	483																				
14-Jun-06	490	5.44	<0.0005	0.00697	5.79	1.59	0.000122	2.06	2.76	<0.00001	<0.00005	0.0138	1.72	0.0051	3.01	0.000026	<2	0.000205	0.00015	<0.0005	0.241
21-Jun-06	497																				
28-Jun-06	504	6.02	<0.0005	0.00725	6.51	1.22	0.00114	2.28	2.85	<0.00001	<0.00005	0.0146	1.83	0.0053	3.33	0.000043	<2	0.000224	0.00011	<0.0005	0.262
5-Jul-06	511																				
12-Jul-06	518																				
19-Jul-06	525																				
26-Jul-06	532	6.49	<0.0005	0.00847	7.79	0.968	0.00198	2.34	3.07	<0.00001	<0.00005	0.0171	1.81	0.0053	3.12	0.000035	<2	0.000237	0.00028	<0.0005	0.312
2-Aug-06	539																				
9-Aug-06	546																				
16-Aug-06	553																				
23-Aug-06	560	6.02	<0.001	0.00791	8.03	0.818	0.00192	2.06	2.79	<0.00001	<0.0001	0.0156	1.67	0.0044	2.78	0.000042	<2	0.00023	<0.0002	<0.001	0.283
30-Aug-06	567																				
6-Sep-06	574																				
13-Sep-06	581																				
20-Sep-06	588	9.26	<0.001	0.0135	13.4	1.41	0.00064	3.02	4.15	<0.00001	<0.0001	0.0246	2.23	0.0054	4.18	0.000046	<2	0.0003	0.0002	<0.001	0.477
27-Sep-06	595																				
4-Oct-06	602																				
11-Oct-06	609																				
18-Oct-06	616	8.13	<0.0025	0.0116	11.5	1.39	0.00033	2.65	3.19	<0.00001	<0.00025	0.021	2.27	<0.005	4.14	0.000059	<2	0.00033	<0.0005	<0.0025	0.42
25-Oct-06	623																				
1-Nov-06	630																				
8-Nov-06	637																				
15-Nov-06	644	9.32	<0.0025	0.0144	14.7	1.76		2.89	4.16	<0.00001	<0.00025	0.0248	2.53	0.0057	5.02	0.000118	<2	0.00037	<0.0005	<0.0025	0.499
22-Nov-06	651																				
29-Nov-06	658																				
6-Dec-06	665																				
13-Dec-06	672	9.21	<0.0025	0.0155	15.2	2.31	0.00075	2.99	3.85	<0.00001	<0.00025	0.0237	2.59	<0.005	5.06	0.000176	<2	0.00042	<0.0005	<0.0025	0.519
20-Dec-06	679																				
27-Dec-06	686																				
3-Jan-07	693																				
10-Jan-07	700	9.6	<0.0025	0.0189	17.7	3.37	<0.00025	3.11	4.35	0.00001	<0.00025	0.0277	2.84	0.0051	5.84	0.00022	<2	0.00049	<0.0005	<0.0025	0.589
17-Jan-07	707																				
24-Jan-07	714																				
31-Jan-07	721																				
7-Feb-07	728	9.29	<0.0025	0.0167	15.6	4.47	0.00098	2.67	3.27	0.000028	<0.00025	0.0226	2.41	<0.005	5.49	0.000181	<2	0.00043	<0.0005	<0.0025	0.512
14-Feb-07	735																				
21-Feb-07	742																				
28-Feb-07	749																				
7-Mar-07	756	8.77	<0.0025	0.018	16.6	4.75	0.0083	2.46	3.07	<0.00001	<0.00025	0.0233	2.73	<0.005	6.24	0.000189	<2	0.00047	<0.0005	<0.0025	0.517
14-Mar-07	763																				
21-Mar-07	770																				
28-Mar-07	777																				
4-Apr-07	784	6.11	<0.0025	0.0125	11.8	2.21	<0.00025	1.61	2.18	<0.00001	<0.00025	0.0158	2.01	<0.005	4.47	0.000143	<2	0.00033	<0.0005	<0.0025	0.363
11-Apr-07	791																				
18-Apr-07	798																				
25-Apr-07	805																				
2-May-07	812	10.8	<0.005	0.0281	26.9	5.54	0.00135	3.1	4.31	<0.00001	<0.0005	0.0339	2.76	<0.01	6.26	0.00023	<2	0.00056	<0.001	<0.005	0.781
9-May-07	819																				
16-May-07	826																				
23-May-07	833																				
30-May-07	840	9.78	<0.005	0.0311	24.7	10.5	<0.0005	2.6	3.26	<0.00001	<0.0005	0.0324	2.25	<0.01	6.6	0.00033	<2	<0.0005	<0.001	<0.005	0.734
6-Jun-07	847																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-Jun-07	854	2500	2440	2.7	602	638																
20-Jun-07	861	2500	2420																			
27-Jun-07	868	2500	2465	2.64	656	983	167.36	258.88	<1	562	46.6	<0.5	0.605	301	6.1	0.00163	0.0051	0.00208	0.0028	<0.005	<0.1	0.00521
4-Jul-07	875	2500	2455																			
11-Jul-07	882	2500	2420	2.54	565	1080																
18-Jul-07	889	2500	2455																			
25-Jul-07	896	2500	2505	2.57	619	1088	189.13	274.02	<1	538	37.6	<0.5	0.747	312	6.55	0.0012	0.0061	0.00086	<0.002	<0.005	<0.1	0.00438
1-Aug-07	903	2500	2280																			
8-Aug-07	910	2500	2510	2.55	593	1365																
15-Aug-07	917	2500	2475																			
22-Aug-07	924	2500	2495	2.43	645	1142	273.61	381.2	<1	518	46.6	<0.5	0.931	410	8.73	0.00174	0.0102	0.00213	<0.002	<0.005	<0.1	0.0056
29-Aug-07	931	2500	2515																			
5-Sep-07	938	2500	2430	2.44	621	1058																
12-Sep-07	945	2500	2470																			
19-Sep-07	952	2500	2430	2.44	655	1479	288.67	380.04	<1	503	36.9	<0.5	0.817	417	8.59	0.00215	0.0118	0.0014	0.0016	<0.0025	<0.05	0.00382
26-Sep-07	959	2500	2390																			
3-Oct-07	966	2500	2370	2.41	675	1255																
10-Oct-07	973	2500	2350																			
17-Oct-07	980	2500	2425	2.52	625	1617				534	30.6	<0.5	0.677	417	7.84	0.00225	0.0159	0.00145	0.0011	<0.0025	<0.05	0.00312
24-Oct-07	987	2500	2425																			
31-Oct-07	994	2500	2355	2.42	661	1751																
7-Nov-07	1001	2500	2375																			
14-Nov-07	1008	2500	2360	2.53	704	1726	321.24	410.6	<1	609	25	<0.5	0.623	437	8.08	0.00272	0.0194	0.00187	<0.001	<0.0025	<0.05	0.00232
21-Nov-07	1015	2500	2480																			
28-Nov-07	1022	2500	2335	2.5	465	1615																
5-Dec-07	1029	2500	2580																			
12-Dec-07	1036	2500	2500	2.59	471	1629	225	325	<1	377	23.9	<0.5	0.514	351	6.16	0.00247	0.00844	0.00267	<0.001	<0.0025	<0.05	0.00219
19-Dec-07	1043	2500	2430																			
26-Dec-07	1050	2500	2375	2.57	469	1631																
2-Jan-08	1057	2500	2375																			
9-Jan-08	1064	2500	2290	2.51	472	1639	200	325	<1	339	20.9	<0.5	1.8	310	5.83	0.00267	0.00936	0.0016	<0.001	<0.0025	<0.05	0.00216
16-Jan-08	1071	2500	2415																			
23-Jan-08	1078	2500	2615	2.6	525	1789																
30-Jan-08	1085	2500	2500																			
6-Feb-08	1092	2500	2370	2.55	589	1617	225	350	<1	415	22.5	<0.5	2.1	378	5.97	0.00342	0.0113	0.00128	<0.001	<0.0025	<0.05	0.00174
13-Feb-08	1099	2500	2475																			
20-Feb-08	1106	2500	2545	2.67	596	1526																
27-Feb-08	1113	2500	2400																			
5-Mar-08	1120	2500	2465	2.54	590	1569	250	325	<1	400	17.4	<0.5	0.488	368	5.09	0.00232	0.00965	0.00092	<0.001	<0.0025	<0.05	0.00164
12-Mar-08	1127	2500	2485																			
19-Mar-08	1134	2500	2460	2.6	595	1745																
26-Mar-08	1141	2500	2410																			
2-Apr-08	1148	2500	2295	2.56	601	1789	250	525	<1	541	17.2	<0.5	1.4	389	5.9	0.00273	0.0112	0.0009977	<0.001	<0.0025	<0.05	0.00157
9-Apr-08	1155	2500	2370																			
16-Apr-08	1162	2500	2485	2.85	589	1630																
23-Apr-08	1169	2500	2330																			
30-Apr-08	1176	2500	2455	2.59	570	1628	250	325	<1	516	17.1	<0.5	0.492	370	5.07	0.00224	0.00932	0.00052	<0.001	<0.0025	<0.05	0.00148
7-May-08	1183	2500	2375																			
14-May-08	1190	2500	2495	2.64	606	1467																
21-May-08	1197	2500	2400																			
28-May-08	1204	2500	2405		615	1413	300	350	<1	374	15.4	0.63	0.395	324	4.07	0.00186	0.00671	0.00052	<0.0004	<0.001	<0.02	0.0011
4-Jun-08	1211	2500	2400																			
11-Jun-08	1218	2500	2290	2.94	615	1318																
18-Jun-08	1225	2500	2415																			
25-Jun-08	1232	2500	2380	2.75	630	1396	225	350	<1	347	13.5	<0.5	0.383	321	4.04	0.00183	0.00765	0.00061	<0.0004	<0.001	<0.02	0.00098
2-Jul-08	1239	2500	2290																			
9-Jul-08	1246	2500	2335	2.9	600	1402																
16-Jul-08	1253	2500	2470																			
23-Jul-08	1260	2500	2375	2.77	586	1179	225	325	<1	330	14.1	<0.5	0.363	310	4.42	0.00162	0.00867	0.00044	0.0004	<0.001	<0.02	0.00098
30-Jul-08	1267	2500	2345																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Jun-07	854																				
20-Jun-07	861																				
27-Jun-07	868	13.2	<0.005	0.0476	33.9	27.4	<0.0005	3.3	3.86	<0.00001	<0.0005	0.046	2.16	<0.01	9.61	0.00042	<2	0.00051	<0.001	<0.005	1.07
4-Jul-07	875																				
11-Jul-07	882																				
18-Jul-07	889																				
25-Jul-07	896	10.2	<0.005	0.0518	26.9	31.9	0.0006	2.97	2.78	<0.00001	<0.0005	0.0405	1.8	<0.01	9.63	0.0003	<2	<0.0005	<0.001	<0.005	0.906
1-Aug-07	903																				
8-Aug-07	910																				
15-Aug-07	917																				
22-Aug-07	924	12.6	<0.005	0.0646	29.2	54	<0.0005	3.68	2.84	<0.00001	<0.0005	0.0484	2.13	<0.01	12.4	0.00031	<2	0.00064	<0.001	<0.005	1.05
29-Aug-07	931																				
5-Sep-07	938																				
12-Sep-07	945																				
19-Sep-07	952	9.93	0.0026	0.0657	22.3	58.4	0.0005	2.93	2.09	<0.00001	<0.00025	0.0424	1.98	<0.005	12.6	0.000263	<2	0.00058	<0.0005	<0.0025	0.802
26-Sep-07	959																				
3-Oct-07	966																				
10-Oct-07	973																				
17-Oct-07	980	8.5	<0.0025	0.0666	17.2	68.1	0.00118	2.28	1.44	<0.00001	<0.00025	0.0403	1.86	<0.005	12.2	0.00027	<2	0.00056	<0.0005	<0.0025	0.626
24-Oct-07	987																				
31-Oct-07	994																				
7-Nov-07	1001																				
14-Nov-07	1008	6.97	<0.0025	0.0724	16.5	64	0.00028	1.86	1.31	<0.00001	0.00029	0.0404	1.99	<0.005	10.8	0.000248	<2	0.00056	<0.0005	<0.0025	0.569
21-Nov-07	1015																				
28-Nov-07	1022																				
5-Dec-07	1029																				
12-Dec-07	1036	7.07	<0.0025	0.0585	13.6	48.9	0.00038	1.51	1.15	<0.00001	<0.00025	0.032	1.9	<0.005	10.4	0.000203	<2	0.00053	<0.0005	<0.0025	0.473
19-Dec-07	1043																				
26-Dec-07	1050																				
2-Jan-08	1057																				
9-Jan-08	1064	6.24	<0.0025	0.0609	13.1	53.9	0.00111	1.3	0.935	<0.00001	0.00042	0.0333	2.23	<0.005	13.1	0.00027	<2	0.00068	<0.0005	<0.0025	0.423
16-Jan-08	1071																				
23-Jan-08	1078																				
30-Jan-08	1085																				
6-Feb-08	1092	5.94	<0.0025	0.0598	11	54.3	0.00027	1.87	0.601	<0.00001	0.00085	0.0308	2.11	<0.005	12.3	0.000332	<2	0.00065	<0.0005	<0.0025	0.351
13-Feb-08	1099																				
20-Feb-08	1106																				
27-Feb-08	1113																				
5-Mar-08	1120	5.28	<0.0025	0.0585	8.67	54.3	<0.00025	1.02	0.45	<0.00001	0.00045	0.0305	1.88	<0.005	13.1	0.000239	<2	0.00058	<0.0005	<0.0025	0.326
12-Mar-08	1127																				
19-Mar-08	1134																				
26-Mar-08	1141																				
2-Apr-08	1148	5.41	<0.0025	0.0651	9.75	59.6	0.00048	0.901	0.437	<0.00001	0.00039	0.033	1.94	<0.005	15.1	0.000245	<2	0.00063	<0.0005	<0.0025	0.327
9-Apr-08	1155																				
16-Apr-08	1162																				
23-Apr-08	1169																				
30-Apr-08	1176	5.29	<0.0025	0.0591	9.06	55.3		0.94	0.397	<0.00001	0.00049	0.0297	1.86	<0.005	15.4	0.000172	<2	0.00059	<0.0005	<0.0025	0.288
7-May-08	1183																				
14-May-08	1190																				
21-May-08	1197																				
28-May-08	1204	5.05	<0.001	0.0505	7.36	45.9	0.00035	0.682	0.283	<0.00001	0.0004	0.026	1.52	<0.002	13.2	0.000148	<2	0.00053	<0.0002	<0.001	0.234
4-Jun-08	1211																				
11-Jun-08	1218																				
18-Jun-08	1225																				
25-Jun-08	1232	4.41	<0.001	0.0486	6.69	45.8	0.00033	0.607	0.245	<0.00001	0.00043	0.025	1.61	<0.002	13.3	0.000147	<2	0.00058	<0.0002	0.001	0.198
2-Jul-08	1239																				
9-Jul-08	1246																				
16-Jul-08	1253																				
23-Jul-08	1260	4.56	<0.001	0.0546	6.57	45.8	0.00014	0.657	0.239	<0.00001	0.00044	0.0262	1.57	<0.002	12.4	0.000117	<2	0.00049	<0.0002	<0.001	0.207
30-Jul-08	1267																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
6-Aug-08	1274	2500	2450	2.5	605	1507																
13-Aug-08	1281	2500	2455																			
20-Aug-08	1288	2500	2465		573	1510	225	325	<1	467	14.9	<0.5	0.411	327	4.68	0.00182	0.00885	0.00041	<0.0004	<0.001	0.022	0.00106
27-Aug-08	1295	2500	2440																			
3-Sep-08	1302	2500	2495	2.8	533	1408																
10-Sep-08	1309	2500	2420																			
17-Sep-08	1316	2500	1750	2.56	535	1724	250	350	<1	561	16.7	<0.5	0.519	367	4.84	0.00191	0.0114	0.00042	<0.0004	<0.001	0.025	0.00103
24-Sep-08	1323	2500	1660																			
1-Oct-08	1330	2500	2505	2.66	542	1730																
8-Oct-08	1337	2500	2485																			
15-Oct-08	1344	2500	2455		590	1560	225	300	<1	271	12.7	<0.5	0.36	256	3.89	0.00175	0.00546	0.0006	<0.0004	<0.001	<0.02	0.00088
22-Oct-08	1351	2500	2470																			
29-Oct-08	1358	2500	2400	2.84	517	1813																
5-Nov-08	1365	2500	2415																			
12-Nov-08	1372	2500	2460	2.65	508	1162	200	250	<1	243	11.3	<0.5	0.32	246	2.89	0.00146	0.00485	0.000668	0.00024	<0.0005	0.014	0.000712
19-Nov-08	1379	2500	2470																			
26-Nov-08	1386	2500	2405	2.87	544	1239																
3-Dec-08	1393	2500	2470																			
10-Dec-08	1400	2500	2400	2.82	564	1253	175	225	<1	224	10.6	<0.5	0.314	241	3.09	0.00133	0.00364	0.000643	0.00027	<0.0005	0.016	0.000634
17-Dec-08	1407	2500	2490																			
24-Dec-08	1414	2500	2435	2.74	595	1345																
31-Dec-08	1421	2500	2360																			
7-Jan-09	1428	2500	2465	2.83	533	1287	200	225	<1	376	10.2	<0.5	0.296	264	3.55	0.00176	0.00513	0.000466	0.00021	<0.0005	0.019	0.000629
14-Jan-09	1435	2500	2420																			
21-Jan-09	1442	2500	2230	2.86	538	1418																
28-Jan-09	1449	2500	2375																			
4-Feb-09	1456	2500	2400	2.83	610	1171	208.9	254.4	<1	208	9.5	<0.5	0.266	243	3.52	0.00132	0.00365	0.00033	<0.0004	<0.001	<0.02	0.00057
11-Feb-09	1463	2500	2410																			
18-Feb-09	1470	2500	2395	2.51	595	1286																
25-Feb-09	1477	2500	2350																			
4-Mar-09	1484	2500	2420	2.88	556	1156	191.78	230.98	<1	215	8.92	<0.5	0.238	223	2.6	0.00137	0.00264	0.00048	<0.0004	<0.001	<0.02	0.00056
11-Mar-09	1491	2500	2430																			
18-Mar-09	1498	2500	2370	2.55	597	1205																
25-Mar-09	1505	2500	2385																			
1-Apr-09	1512	2500	2515	2.59	562	1205	223.31	268	<1	244	9.74	<0.5	<0.5	230	3.52	0.00149	0.0032	0.00047	<0.0004	<0.001	0.021	0.00063
8-Apr-09	1519	2500	2350																			
15-Apr-09	1526	2500	2230	2.52	605	1220																
22-Apr-09	1533	2500	2400																			
29-Apr-09	1540	2500	2270	2.55	602	1119	228.76	270.82	<1	322	9	<0.5	0.258	248	2.93	0.00166	0.00343	0.00025	<0.0004	<0.001	0.021	0.00056
6-May-09	1547	2500	2385																			
13-May-09	1554	2500	2450	2.59	588	1025																
20-May-09	1561	2500	2415																			
27-May-09	1568	2500	2460	2.58	598	950	174.66	211.45	<1	183	7.86	<0.5	0.24	196	2.18	0.00144	0.00239	0.000402	<0.0002	<0.0005	0.017	0.000462
3-Jun-09	1575	2500	2390																			
10-Jun-09	1582	2500	2585	2.57	615	967																
17-Jun-09	1589	2500	2445																			
24-Jun-09	1596	2500	2460	2.6	560	982	183.14	222.17	<1	253	9.62	<0.5	0.25	196	3.23	0.00107	0.00215	0.000434	<0.0002	<0.0005	0.016	0.000452
1-Jul-09	1603	2500	2475																			
8-Jul-09	1610	2500	2420	2.67	554	985																
15-Jul-09	1617	2500	2490																			
22-Jul-09	1624	2500	2440	2.68	555	1033	196.31	230.68	<1	430	9.6	<0.5	0.34	210	3.09	0.00136	0.00298	0.000546	<0.0002	<0.0005	0.018	0.000497
29-Jul-09	1631	2500	2485																			
5-Aug-09	1638	2500	2415	2.72	549	987																
12-Aug-09	1645	2500	2565																			
19-Aug-09	1652	2500	2505	2.54	526	862	160.08	188.84	<1	244	7.67	<0.5	<0.2	173	2.33	0.00106	0.00167	0.00062	<0.001	<0.0025	<0.05	0.00037
26-Aug-09	1659	2500	2495																			
2-Sep-09	1666	2500	2360	2.68	504	1001																
9-Sep-09	1673	2500	2590																			
16-Sep-09	1680	2500	2420	2.57	523	1046	188.91	225.1	<1	200	8.98	<0.5	<0.2	193	2.84	0.00151	0.00234	0.000679	<0.0002	<0.0005	0.019	0.000451
23-Sep-09	1687	2500	2315																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
6-Aug-08	1274																				
13-Aug-08	1281																				
20-Aug-08	1288	4.81	<0.001	0.0545	6.49	50.5	0.00018	0.712	0.242	<0.00001	0.00052	0.0262	1.66	<0.002	14.9	0.000138	<2	0.00058	<0.0002	0.0013	0.214
27-Aug-08	1295																				
3-Sep-08	1302																				
10-Sep-08	1309																				
17-Sep-08	1316	5.46	<0.001	0.0599	7.23	55.8	<0.0001	0.756	0.239	<0.00001	0.00057	0.029	1.82	<0.002	16.9	0.000138	<2	0.00063	0.00023	0.0014	0.224
24-Sep-08	1323																				
1-Oct-08	1330																				
8-Oct-08	1337																				
15-Oct-08	1344	4.19	<0.001	0.0456	5.85	31.6	0.00021	0.543	0.178	<0.00001	0.00043	0.0229	1.7	<0.002	12.9	0.000135	<2	0.00058	<0.0002	<0.001	0.179
22-Oct-08	1351																				
29-Oct-08	1358																				
5-Nov-08	1365																				
12-Nov-08	1372	3.74	<0.0005	0.0402	4.09	29.5	0.000123	0.47	0.141	<0.00001	0.000472	0.0187	1.63	<0.001	11.2	0.000137	<2	0.000585	0.00012	0.00086	0.149
19-Nov-08	1379																				
26-Nov-08	1386																				
3-Dec-08	1393																				
10-Dec-08	1400	3.52	<0.0005	0.0387	4.29	27.6	0.000551	0.442	0.14	<0.00001	0.000424	0.0186	1.46	<0.001	10.7	0.000078	<2	0.000542	0.00012	0.0006	0.141
17-Dec-08	1407																				
24-Dec-08	1414																				
31-Dec-08	1421																				
7-Jan-09	1428	3.3	0.00062	0.0422	4.59	30.2	0.000084	0.465	0.137	<0.00001	0.000545	0.0209	1.91	<0.001	13.2	0.000108	<2	0.000668	0.00014	0.0008	0.137
14-Jan-09	1435																				
21-Jan-09	1442																				
28-Jan-09	1449																				
4-Feb-09	1456	3.14	<0.001	0.0413	5.51	28.9	<0.0001	0.404	0.135	<0.00001	0.00055	0.0193	1.6	<0.002	12.4	0.000118	<2	0.00056	<0.0002	<0.001	0.135
11-Feb-09	1463																				
18-Feb-09	1470																				
25-Feb-09	1477																				
4-Mar-09	1484	2.92	<0.001	0.0399	4.03	24.7	<0.0001	0.393	0.112	<0.00001	0.00051	0.018	1.94	<0.002	13.1	0.000097	<2	0.00065	<0.0002	<0.001	0.124
11-Mar-09	1491																				
18-Mar-09	1498																				
25-Mar-09	1505																				
1-Apr-09	1512	3.22	<0.001	0.0465	4.83	27.5	0.00179	0.414	0.122	<0.00001	0.00063	0.0208	2.06	<0.002	14.7	0.000109	<2	0.00069	<0.0002	<0.001	0.145
8-Apr-09	1519																				
15-Apr-09	1526																				
22-Apr-09	1533																				
29-Apr-09	1540	3	<0.001	0.0399	5.25	29.6	0.00017	0.367	0.0872	<0.00001	0.00097	0.0184	1.95	<0.002	15.2	0.000116	<2	0.00065	<0.0002	<0.001	0.119
6-May-09	1547																				
13-May-09	1554																				
20-May-09	1561																				
27-May-09	1568	2.65	<0.0005	0.0338	3.76	20.1	0.000074	0.3	0.0778	<0.00001	0.00063	0.016	1.96	<0.001	13.6	0.000093	<2	0.00072	0.00013	0.0006	0.108
3-Jun-09	1575																				
10-Jun-09	1582																				
17-Jun-09	1589																				
24-Jun-09	1596	3.14	<0.0005	0.0364	4.55	18.2	0.000153	0.43	0.0919	<0.00001	0.000542	0.0164	1.97	<0.001	12.4	0.000088	<2	0.000659	<0.0001	0.00053	0.112
1-Jul-09	1603																				
8-Jul-09	1610																				
15-Jul-09	1617																				
22-Jul-09	1624	3.22	<0.0005	0.0366	4.31	18	0.000426	0.379	0.0895	<0.00001	0.000618	0.0172	2.15	<0.001	12.2	0.000092	<2	0.000685	0.0001	<0.0005	0.112
29-Jul-09	1631																				
5-Aug-09	1638																				
12-Aug-09	1645																				
19-Aug-09	1652	2.53	<0.0025	0.0294	3.41	12.5	0.00075	0.326	0.0717	<0.00001	0.00043	0.0124	2.3	<0.005	11.3	0.000075	<2	0.00073	<0.0005	<0.0025	0.0792
26-Aug-09	1659																				
2-Sep-09	1666																				
9-Sep-09	1673																				
16-Sep-09	1680	3.01	<0.0005	0.0338	4.07	16.5	0.000454	0.355	0.077	<0.00001	0.000755	0.0152	2.64	<0.001	15.4	0.000083	<2	0.000875	0.00014	<0.0005	0.102
23-Sep-09	1687																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
30-Sep-09	1694	2500	2500	2.76	545	926																
7-Oct-09	1701	2500	2420																			
14-Oct-09	1708	2500	2535	2.6	532	929	164.97	196.94	<1	193	8.03	<0.5	<0.2	168	2.46	0.00106	0.00136	0.00069	<0.001	<0.0025	<0.05	0.00035
21-Oct-09	1715	2500	2375																			
28-Oct-09	1722	2500	2530	2.91	544	902																
4-Nov-09	1729	2500	2500																			
11-Nov-09	1736	2500	2450	3.03	494	802	154.23	180.67	<1	220	6.69	<0.5	<0.2	154	2.31	0.00097	0.00111	0.00054	<0.001	<0.0025	<0.05	0.0003
18-Nov-09	1743	2500	2450																			
25-Nov-09	1750	2500	2365	3	549	839																
2-Dec-09	1757	2500	2515																			
9-Dec-09	1764	2500	2480	2.73	561	825	149.7	185.82	<1	130	6.89	<1	<0.2	157	2.68	0.000936	0.0012	0.000491	<0.0002	<0.0005	0.016	0.000316
16-Dec-09	1771	2500	2440																			
23-Dec-09	1778	2500	2480	2.86	550	703																
30-Dec-09	1785	2500	2490																			
6-Jan-10	1792	2500	2480	2.7	548	788	130.38	154.32	<1	115	6.07	<1	<0.2	138	2	0.00088	0.00106	0.00053	<0.001	<0.0025	<0.05	0.00027
13-Jan-10	1799	2500	2490																			
20-Jan-10	1806	2500	2430	2.74	554	786																
27-Jan-10	1813	2500	2370																			
3-Feb-10	1820	2500	2340	2.66	498	710	147.94	179.99	<1	141	7.27	<1	<0.4	152	2.59	0.000923	0.0012	0.000592	<0.0002	<0.0005	0.015	0.000304
10-Feb-10	1827	2500	2400																			
17-Feb-10	1834	2500	2270	2.64	603	785																
24-Feb-10	1841	2500	2280																			
3-Mar-10	1848	2500	2260	2.53	610	910	158.96	187.24	<1	194	7.13	<1	<0.4	156	2.5	0.0009967	0.00112	<0.00025	<0.001	<0.0025	<0.05	0.00028
10-Mar-10	1855	2500	2435																			
17-Mar-10	1862	2500	2415	2.73	591	833																
24-Mar-10	1869	2500	2400																			
31-Mar-10	1876	2500	2425	2.54	598	805	130.69	153.44	<1	169	6.32	<1	<0.4		2.21	0.00087	0.00093	0.00038	<0.0004	<0.001	<0.02	0.00025
7-Apr-10	1883	2500	2340																			
14-Apr-10	1890	2500	2275	2.66	589	818																
21-Apr-10	1897	2500	2435																			
28-Apr-10	1904	2500	2320	2.53	600	837	140.04	166.29	<1	143	6.29	<1	<0.4	130	2.01	0.000963	0.00094	0.000394	<0.0002	<0.0005	0.015	0.000257
5-May-10	1911	2500	2435																			
12-May-10	1918	2500	2350	2.67	605	849																
19-May-10	1925	2500	2265																			
26-May-10	1932	2500	2360	2.51	585	864	149.75	179.41	<1	156	6.8	<1	<0.4	149	2.62	0.00104	0.00109	0.000309	<0.0002	<0.0005	0.016	0.000291
2-Jun-10	1939	2500	2480																			
9-Jun-10	1946	2500	2500	2.75	577	749																
16-Jun-10	1953	2500	2470																			
23-Jun-10	1960	2500	2350	2.73	379	818	141	169.39	<1	113	6.78		<0.4	155	2.35	0.00102	0.0011	0.00079	<0.0002	<0.0005	0.016	0.000275
30-Jun-10	1967	2500	2410																			
7-Jul-10	1974	2500	2420	2.71	607	814																
14-Jul-10	1981	2500	2430																			
21-Jul-10	1988	2500	2335	2.67	584	734	120.83	146.36	<1	147	5.97	<1	<0.2	128	2.25	0.000814	0.00073	0.000389	<0.0002	<0.0005	0.015	0.000256
28-Jul-10	1995	2500	2345																			
4-Aug-10	2002	2500	2420	2.87	426	722																
11-Aug-10	2009	2500	2460																			
18-Aug-10	2016	2500	2375	2.82	338	772	127.62	157.22	<1	232	6.58	<1	<0.2	136	2.21	0.000868	0.00095	0.00041	0.0003	<0.0005	0.016	0.000244
25-Aug-10	2023	2500	2450																			
1-Sep-10	2030	2500	2485	2.91	404	678																
8-Sep-10	2037	2500	2535																			
15-Sep-10	2044	2500	2405	2.64	590	678	112.83	135.44	<1	98	6.18	<1	<0.2	139	2.24	0.000801	0.00069	0.000466	<0.0002	<0.0005	0.011	0.000234
22-Sep-10	2051	2500	2385																			
29-Sep-10	2058	2500	2380	2.66	512	683																
6-Oct-10	2065	2500	2425																			
13-Oct-10	2072	2500	2415	2.66	546	783	111	133.3	<1	55	5.86	<1	<0.2	130	1.98	0.000908	0.00084	0.000421	<0.0002	<0.0005	0.014	0.000238
20-Oct-10	2079	2500	2400																			
27-Oct-10	2086	2500	2385	2.79	533	741																
3-Nov-10	2093	2500	2320																			
10-Nov-10	2100	2500	2470	2.84	279	729	94.49	115.92	<1	89	5.9	<1	0.21	120	1.73	0.000791	0.0007	0.000592	0.00029	<0.0005	0.015	0.000242
17-Nov-10	2107	2500	2350																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
30-Sep-09	1694																				
7-Oct-09	1701																				
14-Oct-09	1708	2.71	<0.0025	0.0288	3.07	12.7	0.00442	0.308	0.0613	<0.00001	0.00056	0.0132	2.08	<0.005	12	0.000055	<2	0.00066	<0.0005	<0.0025	0.0794
21-Oct-09	1715																				
28-Oct-09	1722																				
4-Nov-09	1729																				
11-Nov-09	1736	2.23	<0.0025	0.0266	2.95	10.7	0.00154	0.27	0.058	<0.00001	0.00057	0.0128	1.97	<0.005	9.31	0.00007	<2	0.00062	<0.0005	<0.0025	0.0719
18-Nov-09	1743																				
25-Nov-09	1750																				
2-Dec-09	1757																				
9-Dec-09	1764	2.31	<0.0005	0.0292	3.27	11.2	0.00138	0.27	0.0658	<0.00001	0.000544	0.0132	2.11	<0.001	9.94	0.000065	<2	0.000631	0.00012	<0.0005	0.0745
16-Dec-09	1771																				
23-Dec-09	1778																				
30-Dec-09	1785																				
6-Jan-10	1792	2.03	<0.0025	0.0237	2.72	9.69	0.00139	0.241	0.0508	<0.00001	0.00047	0.011	2.16	<0.005	9.94	<0.00005	<2	0.00063	<0.0005	<0.0025	0.0619
13-Jan-10	1799																				
20-Jan-10	1806																				
27-Jan-10	1813																				
3-Feb-10	1820	2.47	<0.0005	0.0287	3.12	12.3	0.000174	0.269	0.0564	<0.00001	0.000599	0.0134	2.19	<0.001	11.2	0.000054	<2	0.000641	0.00017	<0.0005	0.0712
10-Feb-10	1827																				
17-Feb-10	1834																				
24-Feb-10	1841																				
3-Mar-10	1848	2.37	<0.0025	0.0277	3.04	12	<0.00025	0.295	0.06	<0.00001	0.00062	0.0127	2.27	<0.005	11.6	0.000063	<2	0.00074	<0.0005	<0.0025	0.0662
10-Mar-10	1855																				
17-Mar-10	1862																				
24-Mar-10	1869																				
31-Mar-10	1876	2.14	<0.001	0.0237	2.9	8.93	0.00041	0.235	0.0499	<0.00001	0.00061	0.0103	2.26	<0.002	9.88	0.000036	<2	0.00066	<0.0002	<0.001	0.06
7-Apr-10	1883																				
14-Apr-10	1890																				
21-Apr-10	1897																				
28-Apr-10	1904	2.12	<0.0005	0.0245	2.55	9.47	0.000451	0.238	0.0499	<0.00001	0.000633	0.0109	2.5	<0.001	12.3	0.000055	<2	0.000771	<0.0001	<0.0005	0.0591
5-May-10	1911																				
12-May-10	1918																				
19-May-10	1925																				
26-May-10	1932	2.26	<0.0005	0.0279	3.32	10.2	0.00011	0.282	0.0539	<0.00001	0.000774	0.0124	2.52	<0.001	11.3	0.000053	<2	0.000743	0.00012	<0.0005	0.066
2-Jun-10	1939																				
9-Jun-10	1946																				
16-Jun-10	1953																				
23-Jun-10	1960	2.27	<0.0005	0.0246	2.73	9.49	0.00016	0.272	0.0484	<0.00001	0.000775	0.0109	2.55	<0.001	11.2	0.000057	<2	0.000796	0.00022	<0.0005	0.0611
30-Jun-10	1967																				
7-Jul-10	1974																				
14-Jul-10	1981																				
21-Jul-10	1988	1.97	<0.0005	0.023	2.59	8.09	0.000104	0.252	0.0467	<0.00001	0.000641	0.0101	2.65	<0.001	10.8	0.00006	<2	0.000694	<0.0001	<0.0005	0.0561
28-Jul-10	1995																				
4-Aug-10	2002																				
11-Aug-10	2009																				
18-Aug-10	2016	2.19	<0.0005	0.0232	2.82	7.94	0.000055	0.269	0.0505	<0.00001	0.000679	0.0105	2.87	<0.001	12.3	0.000062	<2	0.000798	<0.0001	<0.0005	0.0623
25-Aug-10	2023																				
1-Sep-10	2030																				
8-Sep-10	2037																				
15-Sep-10	2044	2.04	0.00055	0.0232	2.43	7.3	0.000077	0.261	0.0494	<0.00001	0.000672	0.0105	2.53	<0.001	8.8	0.000059	<2	0.000667	0.00021	<0.0005	0.0493
22-Sep-10	2051																				
29-Sep-10	2058																				
6-Oct-10	2065																				
13-Oct-10	2072	1.93	<0.0005	0.0222	2.38	7.16	0.000064	0.256	0.0434	<0.00001	0.000691	0.01	2.66	<0.001	10.9	0.000069	<2	0.000766	0.00013	<0.0005	0.0558
20-Oct-10	2079																				
27-Oct-10	2086																				
3-Nov-10	2093																				
10-Nov-10	2100	1.92	<0.0005	0.0211	2.51	6.13	<0.00005	0.267	0.0488	<0.00001	0.000702	0.0101	3.05	<0.001	10.8	0.000077	<2	0.000793	<0.0001	<0.0005	0.0592
17-Nov-10	2107																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
24-Nov-10	2114	2500	2420	2.85	582	696																
1-Dec-10	2121	2500	2435																			
8-Dec-10	2128	2500	2435	2.8	554	667	92.88	110.8	<1	150	5.29	<1	<0.2	115	1.85	0.000789	0.00172	0.00165	<0.0002	<0.0005	0.014	0.000384
15-Dec-10	2135	2500	2370																			
22-Dec-10	2142	2500	2450	2.86	538	618																
29-Dec-10	2149	2500	2330																			
5-Jan-11	2156	2500	2550	2.85	526	544	87.94	113.24	<1	100	4.93	<1	<0.2	101	1.52	0.000664	0.00115	0.000659	<0.0002	<0.0005	0.012	0.00029
12-Jan-11	2163	2500	2430																			
19-Jan-11	2170	2500	2475	2.96	524	608																
26-Jan-11	2177	2500	2495																			
2-Feb-11	2184	2500	2420	2.92	531	552	78.41	96.14	<1	82	4.75	<1	<0.2	101	1.51	0.000772	0.00062	0.000477	<0.0002	<0.0005	0.013	0.000175
9-Feb-11	2191	2500	2420																			
16-Feb-11	2198	2500	2500	2.99	541	569																
23-Feb-11	2205	2500	2445																			
2-Mar-11	2212	2500	2405	2.95	549	611	73.32	90.49	<1	132	4.46	<1	<0.2	93.9	1.58	0.000649	0.0005	0.000497	<0.0002	<0.0005	0.011	0.000183
9-Mar-11	2219	2500	2375																			
16-Mar-11	2226	2500	2410	2.99	505	598																
23-Mar-11	2233	2500	2415																			
30-Mar-11	2240	2500	2445	2.98	547	599	65.96	82.39	<1	64	4.35	<1	<0.2	88.9	1.47	0.000601	0.0004	0.000543	<0.0002	<0.0005	<0.01	0.000164
6-Apr-11	2247	2500	2435																			
13-Apr-11	2254	2500	2450	3.05	526	607																
20-Apr-11	2261	2500	2430																			
27-Apr-11	2268	2500	2430	2.99	557	616	67.96	84.1	<1	97	4.4	<1	<0.2	91.7	1.66	0.000623	0.00057	0.000579	<0.0002	<0.0005	<0.01	0.00017
4-May-11	2275	2500	2500																			
11-May-11	2282	2500	2445	3.02	565	583																
18-May-11	2289	2500	2400																			
25-May-11	2296	2500	2500	3.23	473	399	46.33	64.27	<1	80	3.7	<1	0.23	60.3	1.12	0.000465	0.00039	0.00384	<0.0002	<0.0005	<0.01	0.000132
1-Jun-11	2303	2500	2530																			
8-Jun-11	2310	2500	2440	2.96	516	596																
15-Jun-11	2317	2500	2400																			
22-Jun-11	2324	2500	2445	3.01	238	562	68.04	85.14	<1	105	4.04	<1	<0.2	91.1	1.45	0.000561	0.00057	0.000457	<0.0002	<0.0005	0.011	0.000145
29-Jun-11	2331	2500	2405																			
6-Jul-11	2338	2500	2470	2.95	445	522																
13-Jul-11	2345	2500	2390																			
20-Jul-11	2352	2500	2440	2.99	476	549	76.57	95.46	<1	152	3.8	<5	0.36	87.3	1.4	0.00051	0.00064	0.000718	<0.0002	<0.0005	<0.01	0.000146
27-Jul-11	2359	2500	2525																			
3-Aug-11	2366	2500	2395	3.02	473	562																
10-Aug-11	2373	2500	2430																			
17-Aug-11	2380	2500	2455	2.98	460	525	61.48	76.56	<1	104	3.87	<5	<0.2	85.6	1.34	0.0005	0.00056	0.000674	<0.0002	<0.0005	<0.01	0.000146
24-Aug-11	2387	2500	2425																			
31-Aug-11	2394	2500	2450	3.17	469	534																
7-Sep-11	2401	2500	2490																			
14-Sep-11	2408	2500	2450	3.14	491	509	61.69	80.65	<1	182	4.73	<1	<0.2	84.1	1.55	0.000451	0.00069	0.00114	<0.0002	<0.0005	0.011	0.000204
21-Sep-11	2415	2500	2490																			
28-Sep-11	2422	2500	2420	3.03	566	492																
5-Oct-11	2429	2500	2450																			
12-Oct-11	2436	2500	2450	3.06	558	495	62	80.59	<1	78	4.42	<1	<0.2	79.5	1.4	0.000472	0.00067	0.00107	<0.0002	<0.0005	<0.01	0.000163
19-Oct-11	2443	2500	2450																			
26-Oct-11	2450	2500	2450	3	560	477																
2-Nov-11	2457	2500	2425																			
9-Nov-11	2464	2500	2400	3.03	577	495	63.31	81.06	<1	96	4.34	<1	<0.2	82.6	1.34	0.000448	0.00058	0.00123	<0.0002	<0.0005	<0.01	0.000153
16-Nov-11	2471	2500	2530																			
23-Nov-11	2478	2500	2430	3.03	560	458																
30-Nov-11	2485	2500	2475																			
7-Dec-11	2492	2500	2505	3.07	487	450	55.57	71.57	<1	77	3.72	<1	<0.2	74.4	1.21	0.000404	0.0004	0.00152	<0.0002	<0.0005	<0.01	0.000149
14-Dec-11	2499	2500	2415																			
21-Dec-11	2506	2500	2395	3.03	576	440																
28-Dec-11	2513	2500	2545																			
4-Jan-12	2520	2500	2425	3.04	580	459	47.17	60.91	<1	92	3.72	<5	<0.2	81.6	1.3	0.000384	0.00042	0.00137	<0.0002	<0.0005	<0.01	0.00016
11-Jan-12	2527	2500	2555																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
24-Nov-10	2114																				
1-Dec-10	2121																				
8-Dec-10	2128	1.75	<0.0005	0.02	2.19	5.79	0.00155	0.223	0.0427	<0.00001	0.000665	0.00882	2.55	<0.001	9.25	0.000074	<2	0.000636	0.00017	<0.0005	0.0651
15-Dec-10	2135																				
22-Dec-10	2142																				
29-Dec-10	2149																				
5-Jan-11	2156	1.6	<0.0005	0.018	2.15	4.74	0.000142	0.228	0.0418	<0.00001	0.000522	0.0085	2.76	<0.001	8.25	0.000064	<2	0.000611	0.00023	<0.0005	0.0459
12-Jan-11	2163																				
19-Jan-11	2170																				
26-Jan-11	2177																				
2-Feb-11	2184	1.57	<0.0005	0.0171	2.01	4.33	0.0013	0.204	0.0394	<0.00001	0.000655	0.00768	2.57	<0.001	8.52	0.000068	<2	0.000721	0.00015	<0.0005	0.0456
9-Feb-11	2191																				
16-Feb-11	2198																				
23-Feb-11	2205																				
2-Mar-11	2212	1.45	<0.0005	0.0171	1.97	3.87	<0.00005	0.206	0.0378	<0.00001	0.000565	0.00779	2.69	<0.001	7.94	0.000069	<2	0.000666	<0.0001	<0.0005	0.0426
9-Mar-11	2219																				
16-Mar-11	2226																				
23-Mar-11	2233																				
30-Mar-11	2240	1.42	<0.0005	0.0159	1.85	3.67	0.000564	0.197	0.0354	<0.00001	0.000516	0.00724	2.69	<0.001	8.35	0.000064	<2	0.000595	<0.0001	<0.0005	0.0383
6-Apr-11	2247																				
13-Apr-11	2254																				
20-Apr-11	2261																				
27-Apr-11	2268	1.43	<0.0005	0.0166	1.95	3.82	0.000057	0.198	0.0346	<0.00001	0.000544	0.00787	2.91	<0.001	8.21	0.000075	<2	0.000637	<0.0001	<0.0005	0.0419
4-May-11	2275																				
11-May-11	2282																				
18-May-11	2289																				
25-May-11	2296	1.23	<0.0005	0.0112	1.41	2.44	0.000243	0.154	0.0514	<0.00001	0.000324	0.00521	1.65	<0.001	7.8	0.000046	<2	0.00036	0.00015	<0.0005	0.0777
1-Jun-11	2303																				
8-Jun-11	2310																				
15-Jun-11	2317																				
22-Jun-11	2324	1.34	<0.0005	0.0145	1.58	3.32	<0.00005	0.169	0.0303	<0.00001	0.000473	0.00661	2.85	<0.001	8.84	0.000076	<2	0.000628	0.00014	<0.0005	0.0386
29-Jun-11	2331																				
6-Jul-11	2338																				
13-Jul-11	2345																				
20-Jul-11	2352	1.25	<0.0005	0.0146	1.56	3.04	0.00172	0.163	0.0302	<0.00001	0.000477	0.00664	2.51	<0.001	7.32	0.000066	<2	0.000556	<0.0001	<0.0005	0.0388
27-Jul-11	2359																				
3-Aug-11	2366																				
10-Aug-11	2373																				
17-Aug-11	2380	1.26	<0.0005	0.0138	1.49	2.95	0.00161	0.173	0.0297	<0.00001	0.000419	0.0063	2.53	<0.001	8.03	0.000081	<2	0.00056	<0.0001	<0.0005	0.0369
24-Aug-11	2387																				
31-Aug-11	2394																				
7-Sep-11	2401																				
14-Sep-11	2408	1.57	<0.0005	0.015	1.84	3.05	0.0115	0.196	0.0345	<0.00001	0.000429	0.00699	2.99	<0.001	8.49	0.000076	<2	0.00057	0.00013	<0.0005	0.0438
21-Sep-11	2415																				
28-Sep-11	2422																				
5-Oct-11	2429																				
12-Oct-11	2436	1.45	<0.0005	0.0144	1.58	2.73	0.00022	0.193	0.0335	<0.00001	0.000438	0.00659	2.86	<0.001	8.01	0.000077	<2	0.0006	<0.0001	<0.0005	0.0396
19-Oct-11	2443																				
26-Oct-11	2450																				
2-Nov-11	2457																				
9-Nov-11	2464	1.42	<0.0005	0.0141	1.53	2.63	0.000103	0.192	0.032	<0.00001	0.000426	0.00631	2.7	<0.001	7.86	0.000075	<2	0.000567	<0.0001	<0.0005	0.0427
16-Nov-11	2471																				
23-Nov-11	2478																				
30-Nov-11	2485																				
7-Dec-11	2492	1.22	<0.0005	0.0127	1.54	2.25	0.00994	0.162	0.0296	<0.00001	0.000446	0.00567	2.71	<0.001	7.29	0.000074	<2	0.000556	<0.0001	<0.0005	0.0379
14-Dec-11	2499																				
21-Dec-11	2506																				
28-Dec-11	2513																				
4-Jan-12	2520	1.22	<0.0005	0.0131	1.46	2.27	0.000674	0.165	0.0294	<0.00001	0.00039	0.00607	2.55	<0.001	6.96	0.00007	<2	0.000496	<0.0001	<0.0005	0.04
11-Jan-12	2527																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Jan-12	2534	2500	2380	3.03	587	433																
25-Jan-12	2541	2500	2505																			
1-Feb-12	2548	2500	2445	3.05	587	457	40.35	52.23	<1	85	3.7	<1	<0.2	75.7	1.26	0.000423	0.00037	0.00163	<0.0002	<0.0005	<0.01	0.000142
8-Feb-12	2555	2500	2525																			
15-Feb-12	2562	2500	2465	3.09	598	430																
22-Feb-12	2569	2500	2270																			
29-Feb-12	2576	2500	2445	3.11	631	407	46.82	60.74	<1	76	3.42	<1	<0.2	67.9	1.17	0.000345	0.00034	0.00173	<0.0002	<0.0005	<0.01	0.000123
7-Mar-12	2583	2500	2510																			
14-Mar-12	2590	2500	2390	3.15	590	433																
21-Mar-12	2597	2500	2485																			
28-Mar-12	2604	2500	2455	3.1	592	459	54.34	68.8	<1	67	3.51	<1	<0.2	70	1.2	0.000382	0.00064	0.0019	<0.0002	<0.0005	<0.01	0.000135
4-Apr-12	2611	2500	2395																			
11-Apr-12	2618	2500	2415	3.06	584	439																
18-Apr-12	2625	2500	2545																			
25-Apr-12	2632	2500	2455	3.07	647	442	51.77	65.96	<1	84	3.51	<5	<0.2	71.2	1.25	0.000412	0.00091	0.00318	<0.0002	<0.0005	<0.01	0.000179
2-May-12	2639	2500	2445																			
9-May-12	2646	2500	2365	3.07	581	432																
16-May-12	2653	2500	2430																			
23-May-12	2660	2500	2465	3.07	579	426	53.4	68.3	<1	89	3.43	<5	<0.2	69.4	1.25	0.000434	0.0004	0.00256	<0.0002	<0.0005	0.01	0.000139
30-May-12	2667	2500	2415																			
6-Jun-12	2674	2500	2470	3.12	560	413																
13-Jun-12	2681	2500	2325																			
20-Jun-12	2688	2500	2430	3.09	590	444	54.96	72.38	<1	68	3.63	<5	<0.2	73	1.39	0.0004	0.00095	0.00272	<0.0002	<0.0005	0.011	0.000134
27-Jun-12	2695	2500	2450																			
4-Jul-12	2702	2500	2240	3.08	685	475																
11-Jul-12	2709	2500	2490																			
18-Jul-12	2716	2500	2485	3.07	592	417	53.83	67.89	<1	152	3.55	<5	<0.2	67	1.42	0.000387	0.00037	0.00217	<0.0002	<0.0005	0.01	0.000126
25-Jul-12	2723	2500	2510																			
1-Aug-12	2730	2500	2310	3.07	588	426																
8-Aug-12	2737	2500	2405																			
15-Aug-12	2744	2500	2325	3.07	570	417	53.25	67.94	<1	108	3.59	<1	<0.2	71.3	1.39	0.00043	0.0003	0.00229	<0.0002	<0.0005	0.012	0.00013
22-Aug-12	2751	2500	2330																			
29-Aug-12	2758	2500	2575	3.09	581	405																
5-Sep-12	2765	2500	2275																			
12-Sep-12	2772	2500	2450	3.07	604	433	52.4	67.15	<1	124	3.58	<1	<0.2	65.7	1.41	0.000395	0.00035	0.00224	<0.0002	<0.0005	0.011	0.000141
19-Sep-12	2779	2500	2495																			
26-Sep-12	2786	2500	2475	3.1	580	373																
3-Oct-12	2793	2500	2485																			
10-Oct-12	2800	2500	2425	3.06	577	388	42.87	58	<1	74	3.4	<1	<0.2	66.4	1.23	0.000399	0.00048	0.00234	<0.0002	<0.0005	0.01	0.00013
17-Oct-12	2807	2500	2420																			
24-Oct-12	2814	2500	2295	3.07	580	398																
31-Oct-12	2821	2500	2495																			
7-Nov-12	2828	2500	2490	3.13	577	358	39.59	52.82	<1	78	3.11	<1	<0.2	61.8	1.23	0.000356	0.0002	0.00268	<0.0002	<0.0005	<0.01	0.000114
14-Nov-12	2835	2500	2485																			
21-Nov-12	2842	2500	2415	3.16	625	347																
28-Nov-12	2849	2500	2580																			
5-Dec-12	2856	2500	2435	3.22	565	355	38.57	52.44	<1	54	3.22	<1	0.094	57.5	1.27	0.00031	0.00027	0.00279	<0.0002	<0.0005	<0.01	0.000116
12-Dec-12	2863	2500	2480																			
19-Dec-12	2870	2500	2450	3.21	596	343																
26-Dec-12	2877	2500	2450																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Feb-05	0	2500	2165	7.38	382	1626	<1	3.75	20.5	2490	1770	<5	<0.2	1690	0.011	0.00905	0.0046	0.0352	<0.002	<0.005	0.25	0.00228
16-Feb-05	7	2500	2505	6.84	413	1053																
23-Feb-05	14	2500	2510	7.69	361	871	<1	3.25	27	682	431	<0.5	0.807	439	0.0098	0.0129	0.0101	0.0254	<0.0004	<0.001	0.038	0.00014
2-Mar-05	21	2500	2515	7.71	418	605																
9-Mar-05	28	2500	2470	7.76	389	510	<1	2.5	31.8	382	227	<0.5	0.451	232	0.0109	0.0132	0.00874	0.0224	<0.0002	<0.0005	0.014	0.00006
16-Mar-05	35	2500	2470	7.75	432	402																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jan-12	2534																				
25-Jan-12	2541																				
1-Feb-12	2548	1.21	<0.0005	0.0138	1.46	2.07	0.000431	0.165	0.0319	<0.00001	0.000405	0.00636	2.91	<0.001	7.68	0.000095	<2	0.000594	<0.0001	<0.0005	0.0402
8-Feb-12	2555																				
15-Feb-12	2562																				
22-Feb-12	2569																				
29-Feb-12	2576	1.13	<0.0005	0.012	1.32	1.75	0.00005	0.146	0.0274	<0.00001	0.00034	0.00541	2.68	<0.001	7.15	0.000078	<2	0.000521	<0.0001	<0.0005	0.0357
7-Mar-12	2583																				
14-Mar-12	2590																				
21-Mar-12	2597																				
28-Mar-12	2604	1.17	0.00056	0.0123	1.31	1.97	0.00159	0.143	0.0258	<0.00001	0.000371	0.0055	2.78	<0.001	7.64	0.000087	<2	0.00057	<0.0001	<0.0005	0.0372
4-Apr-12	2611																				
11-Apr-12	2618																				
18-Apr-12	2625																				
25-Apr-12	2632	1.16	<0.0005	0.0118	1.33	1.71	0.071	0.149	0.027	<0.00001	0.000311	0.00564	2.95	<0.001	7.36	0.00119	<2	0.000514	<0.0001	0.00057	0.0434
2-May-12	2639																				
9-May-12	2646																				
16-May-12	2653																				
23-May-12	2660	1.12	<0.0005	0.0121	1.33	1.57	<0.00005	0.15	0.0261	<0.00001	0.000328	0.0056	2.86	<0.001	8.07	0.000092	<2	0.000551	<0.0001	<0.0005	0.0443
30-May-12	2667																				
6-Jun-12	2674																				
13-Jun-12	2681																				
20-Jun-12	2688	1.2	<0.0005	0.0122	1.37	1.77	0.000664	0.155	0.0249	<0.00001	0.000313	0.00548	3.23	<0.001	8.66	0.000094	<2	0.000526	<0.0001	<0.0005	0.0422
27-Jun-12	2695																				
4-Jul-12	2702																				
11-Jul-12	2709																				
18-Jul-12	2716	1.16	<0.0005	0.0125	1.43	1.63	0.000996	0.16	0.026	<0.00001	0.00032	0.00569	3.13	<0.001	7.68	0.00009	<2	0.00052	<0.0001	<0.0005	0.0401
25-Jul-12	2723																				
1-Aug-12	2730																				
8-Aug-12	2737																				
15-Aug-12	2744	1.18	<0.0005	0.0118	1.34	1.5	0.000929	0.156	0.0257	<0.00001	0.000298	0.00551	3.11	<0.001	8.32	0.000085	<2	0.000517	<0.0001	<0.0005	0.0414
22-Aug-12	2751																				
29-Aug-12	2758																				
5-Sep-12	2765																				
12-Sep-12	2772	1.17	<0.0005	0.0121	1.26	1.49	0.0124	0.159	0.0284	<0.00001	0.000319	0.00556	2.94	<0.001	7.73	0.000085	<2	0.000538	<0.0001	<0.0005	0.0428
19-Sep-12	2779																				
26-Sep-12	2786																				
3-Oct-12	2793																				
10-Oct-12	2800	1.12	<0.0005	0.0112	1.19	1.4	0.00009	0.149	0.0294	<0.00001	0.000306	0.00515	2.74	<0.001	6.86	0.000093	<2	0.000484	<0.0001	<0.0005	0.0417
17-Oct-12	2807																				
24-Oct-12	2814																				
31-Oct-12	2821																				
7-Nov-12	2828	1.02	<0.0005	0.0102	1.11	1.05	<0.00005	0.138	0.0274	<0.00001	0.000244	0.00469	2.64	<0.001	6.43	0.00009	<2	0.000438	<0.0001	<0.0005	0.0388
14-Nov-12	2835																				
21-Nov-12	2842																				
28-Nov-12	2849																				
5-Dec-12	2856	1.05	<0.0005	0.0107	1.13	1.13	0.000457	0.141	0.0287	<0.00001	0.000192	0.0051	2.46	<0.001	5.49	0.000056	<2	0.000361	<0.0001	<0.0005	0.0392
12-Dec-12	2863																				
19-Dec-12	2870																				
26-Dec-12	2877																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Feb-05	0	525	<0.005	0.137	0.0753	<0.06	<0.0005	111	8.81	0.000017	0.00249	0.419	26.2	0.011	2.49	<0.0001	21.3	0.00803	<0.001	<0.005	0.434
16-Feb-05	7																				
23-Feb-05	14	138	<0.001	0.00546	0.0101	<0.06	<0.0001	20.8	0.973	<0.00001	0.003	0.0157	5.46	0.0026	2.39	<0.00002	<4	0.00186	<0.0002	<0.001	0.023
2-Mar-05	21																				
9-Mar-05	28	73.3	<0.0005	0.00126	0.00291	<0.06	<0.00005	10.8	0.401	<0.00001	0.00297	0.00453	3.12	0.0013	1.81	<0.00001	<4	0.00114	<0.0001	<0.0005	0.0075
16-Mar-05	35																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Mar-05	42	2500	2570	7.81	452	357	<1	3	32.3	236	163	<0.5	0.327	143	0.0137	0.0127	0.00795	0.0177	<0.0002	<0.0005	<0.01	0.00006
30-Mar-05	49	2500	2450	7.84	459	311																
6-Apr-05	56	2500	2495	7.8	426	280	<1	2.75	33.8	185	123	<0.5	0.271	103	0.015	0.0128	0.00745	0.0161	<0.0002	<0.0005	<0.01	0.000195
13-Apr-05	63	2500	2510	7.73	428	243																
20-Apr-05	70	2500	2500	7.82	440	212	<1	4.75	29.5	136	98.6	<0.5	0.214	72.5	0.0192	0.0121	0.00757	0.0164	<0.0002	<0.0005	<0.01	<0.00005
27-Apr-05	77	2500	2510	7.92	444	212																
4-May-05	84	2500	2505	7.87	411	193	<1	2	30.8	112	94.5	<0.5	0.192	63.5	0.0226	0.0115	0.00713	0.015	<0.0002	<0.0005	<0.01	<0.00005
11-May-05	91	2500	2500	7.91	402	193																
18-May-05	98	2500	2510	7.8	394	180	<1	4.25	28.8	109	80.6	<0.5	0.166	60.5	0.0214	0.0101	0.0061	0.0131	<0.0002	<0.0005	<0.01	<0.00005
25-May-05	105	2500	2500	7.88	398	175																
1-Jun-05	112	2500	2505	7.91	354	176	<1	2.5	31.8	110	81.5	<0.5	0.19	56.6	0.0213	0.011	0.0065	0.0136	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-05	119	2500	2500	7.87	396	178																
15-Jun-05	126	2500	2500	7.93	369	169	<1	2.5	32.3	112	80.7	<0.5	0.199	53	0.0198	0.00995	0.00563	0.0114	<0.0002	<0.0005	<0.01	<0.00005
22-Jun-05	133	2500	2505	7.9	386	158																
29-Jun-05	140	2500	2500	7.97	306	158	<1	2.25	34.5	94	75	<0.5	0.156	45.7	0.0238	0.00927	0.00565	0.0116	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-05	147	2500	2515	7.96	286	162																
13-Jul-05	154	2500	2500	7.91	320	149	<1	1.75	33.5	93	71.9	<0.5	0.196	44.5	0.0206	0.00789	0.00475	0.01	<0.0002	<0.0005	<0.01	<0.00005
20-Jul-05	161	2500	2535	7.92	312	137																
27-Jul-05	168	2500	2365	7.85	276	131	<1	2	27.5	88	62.1	<0.5	0.172	40.7	0.018	0.00808	0.00434	0.0108	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-05	175	2500	2400	7.8	352	127																
10-Aug-05	182	2500	2515	7.94	375	128	<1	1.75	26.8	85	63	<0.5	0.14	38	0.0197	0.00784	0.00413	0.0109	<0.0002	<0.0005	<0.01	<0.00005
17-Aug-05	189	2500	2475	7.61	378	134																
24-Aug-05	196	2500	2530	7.94	331	135	<1	1.75	29.8	89	62.9	<0.5	0.163	39.5	0.0202	0.00699	0.00401	0.0104	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-05	203	2500	2515	7.75	287	136																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	2540	8.85	258	556	<1	<1	95	374	17.6	<0.5	0.09	163	0.245	0.00766	0.16	0.00432	<0.0004	<0.001	0.169	<0.0001
17-Feb-05	7	2500	2500	9.05	312	439																
24-Feb-05	14	2500	2505	9.11	298	327	<1	<1	131.3	208	6.09	<0.5	0.299	40	0.198	0.00995	0.178	0.00593	<0.0004	<0.001	0.054	<0.0001
3-Mar-05	21	2500	2500	8.82	317	267																
10-Mar-05	28	2500	2355	9.09	324	275	<1	<1	125.3	172	5.66	<0.5	0.174	23.5	0.199	0.0113	0.142	0.00392	<0.0002	<0.0005	0.035	<0.00005
17-Mar-05	35	2500	2455	9.25	346	246																
24-Mar-05	42	2500	2420	9.01	308	247	<1	<1	115.5	161	3.93	<0.5	0.044	14.2	0.249	0.00479	0.0938	0.00414	<0.0002	<0.0005	0.016	<0.00005
31-Mar-05	49	2500	2465	9.19	323	263																
7-Apr-05	56	2500	2495	9.09	357	232	<1	<1	108.8	148	3.37	<0.5	0.1	13.8	0.208	0.00692	0.0683	0.00278	<0.0002	<0.0005	0.013	<0.00005
14-Apr-05	63	2500	2480	9.09	323	217																
21-Apr-05	70	2500	2465	9.15	326	222	<1	<1	105.5	149	4.59	<0.5	0.087	12.9	0.382	0.00433	0.0644	0.00372	<0.0002	<0.0005	0.01	<0.00005
28-Apr-05	77	2500	2470	8.85	356	216																
5-May-05	84	2500	2485	9.2	346	213	<1	<1	98.8	125	3.56	<0.5	0.094	16.6	0.329	0.0037	0.0571	0.0031	<0.0002	<0.0005	<0.01	<0.00005
12-May-05	91	2500	2455	9.02	294	214																
19-May-05	98	2500	2490	9.02	305	197	<1	<1	93.5	127	4.16	<0.5	0.059	13.6	0.273	0.00372	0.0511	0.00294	<0.0002	<0.0005	<0.01	<0.00005
26-May-05	105	2500	2465	9.02	319	183																
2-Jun-05	112	2500	2465	9.02	290	181	<1	<1	86	120	4.82	<0.5	0.07	14.5	0.414	0.00285	0.0478	0.00342	<0.0002	<0.0005	<0.01	<0.00005
9-Jun-05	119	2500	2470	8.85	291	171																
16-Jun-05	126	2500	2475	8.94	309	173	<1	<1	80.8	121	5.59	<0.5	0.066	15.3	0.416	0.00386	0.0435	0.00321	<0.0002	<0.0005	<0.01	<0.00005
23-Jun-05	133	2500	2475	8.67	338	192																
30-Jun-05	140	2500	2390	8.92	241	194	<1	<1	86.3	123	6.07	<0.5	0.059	20.4	0.294	0.00362	0.0531	0.00349	<0.0002	<0.0005	<0.01	<0.00005
7-Jul-05	147	2500	2360	8.87	248	179																
14-Jul-05	154	2500	2430	8.6	248	178	<1	<1	70.3	116	6.15	<0.5	0.077	26.5	0.109	0.00279	0.0399	0.0029	<0.0002	<0.0005	<0.01	<0.00005
21-Jul-05	161	2500	2395	8.71	212	148																
28-Jul-05	168	2500	2390	8.75	253	154	<1	<1	70	106	5.92	<0.5	0.06	18.4	0.212	0.00301	0.0329	0.00286	<0.0002	<0.0005	<0.01	<0.00005
4-Aug-05	175	2500	2545	8.86	266	167																
11-Aug-05	182	2500	2515	8.86	276	163	<1	<1	74.3	104	7.53	<0.5	0.068	17.3	0.0691	0.00421	0.0396	0.00264	<0.0002	<0.0005	<0.01	<0.00005
18-Aug-05	189	2500	2450	8.87	257	144																
25-Aug-05	196	2500	2475	8.54	289	140	<1	<1	66	94	6.59	<0.5	0.045	12.2	0.0552	0.00338	0.0307	0.00222	<0.0002	<0.0005	<0.01	<0.00005
1-Sep-05	203	2500	2410	8.75	240	128																
8-Sep-05	210	2500	2425	8.58	280	133	<1	<1	61.5	124	8.39	<0.5	0.05	12.4	0.0557	0.00403	0.0267	0.00275	<0.0002	<0.0005	<0.01	<0.00005
15-Sep-05	217	2500	2435	8.22	272	129																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Mar-05	42	51.5	<0.0005	0.00098	0.00325	<0.03	<0.00005	8.36	0.263	<0.00001	0.00299	0.00279	2.4	<0.001	1.98	<0.00001	<2	0.000973	<0.0001	<0.0005	0.0045
30-Mar-05	49																				
6-Apr-05	56	38.3	<0.0005	0.00078	0.00184	<0.03	<0.00005	6.73	0.221	<0.00001	0.00296	0.00165	1.97	<0.001	1.91	<0.00001	<2	0.000837	<0.0001	<0.0005	0.003
13-Apr-05	63																				
20-Apr-05	70	30	<0.0005	0.00048	0.0017	<0.03	<0.00005	5.78	0.171	<0.00001	0.00303	0.00081	1.76	<0.001	1.59	<0.00001	<2	0.000838	<0.0001	<0.0005	0.0022
27-Apr-05	77																				
4-May-05	84	27.1	<0.0005	0.0005	0.00192	<0.03	<0.00005	6.5	0.258	<0.00001	0.00334	0.00079	1.63	<0.001	1.57	<0.00001	<2	0.000762	<0.0001	<0.0005	0.0025
11-May-05	91																				
18-May-05	98	23.8	<0.0005	0.00055	0.00213	<0.03	<0.00005	5.14	0.212	<0.00001	0.00322	0.00075	1.54	<0.001	1.28	<0.00001	<2	0.000763	<0.0001	<0.0005	0.0021
25-May-05	105																				
1-Jun-05	112	24	<0.0005	0.00041	0.00104	<0.03	<0.00005	5.25	0.191	<0.00001	0.00285	<0.0005	1.58	<0.001	1.44	<0.00001	<2	0.000734	<0.0001	<0.0005	0.0018
8-Jun-05	119																				
15-Jun-05	126	23.5	<0.0005	0.00043	0.00342	<0.03	<0.00005	5.34	0.198	<0.00001	0.00319	<0.0005	1.39	<0.001	1.25	<0.00001	<2	0.000716	<0.0001	<0.0005	0.0018
22-Jun-05	133																				
29-Jun-05	140	21	<0.0005	0.0004	0.00338	<0.03	<0.00005	5.49	0.222	<0.00001	0.00364	<0.0005	1.41	<0.001	1.11	<0.00001	<2	0.000718	<0.0001	<0.0005	0.0021
6-Jul-05	147																				
13-Jul-05	154	20.1	<0.0005	0.00034	0.00315	<0.03	0.000158	5.28	0.208	<0.00001	0.00361	<0.0005	1.31	<0.001	0.959	<0.00001	<2	0.000649	<0.0001	<0.0005	0.0019
20-Jul-05	161																				
27-Jul-05	168	18	<0.0005	0.00023	0.00353	<0.03	<0.00005	4.16	0.15	<0.00001	0.00321	<0.0005	1.08	<0.001	0.794	<0.00001	<2	0.000526	<0.0001	<0.0005	0.0017
3-Aug-05	175																				
10-Aug-05	182	18.1	<0.0005	0.0002	0.00209	<0.03	<0.00005	4.32	0.138	<0.00001	0.00253	<0.0005	1.06	<0.001	0.75	<0.00001	<2	0.000551	<0.0001	<0.0005	0.0016
17-Aug-05	189																				
24-Aug-05	196	17.8	<0.0005	0.00019	0.0033	<0.03	<0.00005	4.46	0.144	<0.0001	0.0028	<0.0005	1.04	<0.001	0.758	<0.00001	<2	0.00057	<0.0001	<0.0005	0.0016
31-Aug-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	5.49	<0.001	<0.0002	0.00381	0.189	<0.0001	0.955	0.00251	<0.00001	0.0368	<0.001	1.18	0.0263	4.06	<0.00002	115	<0.0001	<0.0002	0.121	<0.002
17-Feb-05	7																				
24-Feb-05	14	1.76	<0.001	<0.0002	0.00414	0.084	0.0001	0.415	0.00368	<0.00001	0.0119	<0.001	0.9	0.0074	4.77	<0.00002	70.2	<0.0001	<0.0002	0.115	<0.002
3-Mar-05	21																				
10-Mar-05	28	1.76	<0.0005	<0.0001	0.00104	0.075	0.000123	0.308	0.00273	<0.00001	0.00688	<0.0005	0.829	0.0045	3.78	<0.00001	61.6	<0.00005	<0.0001	0.0807	<0.001
17-Mar-05	35																				
24-Mar-05	42	1.14	<0.0005	0.0001	0.00186	0.158	0.000115	0.264	0.00286	<0.00001	0.00368	<0.0005	0.705	0.0032	4.13	<0.00001	57.5	<0.00005	<0.0001	0.0561	<0.001
31-Mar-05	49																				
7-Apr-05	56	1.01	<0.0005	<0.0001	0.0017	0.072	0.000075	0.205	0.00223	<0.00001	0.00365	<0.0005	0.679	0.0024	3.67	<0.00001	50	<0.00005	0.00011	0.0413	0.0028
14-Apr-05	63																				
21-Apr-05	70	1.2	0.0005	0.00029	0.00327	0.38	0.00027	0.386	0.00304	<0.00001	0.00318	<0.0005	0.729	0.0027	4.06	<0.00001	54.4	<0.00005	<0.0001	0.0399	0.0011
28-Apr-05	77																				
5-May-05	84	1.07	<0.0005	0.00011	0.00182	0.161	0.000145	0.214	0.00173	<0.00001	0.00419	<0.0005	0.716	0.0025	3.79	<0.00001	49.9	<0.00005	<0.0001	0.0389	0.0011
12-May-05	91																				
19-May-05	98	1.15	<0.0005	0.00019	0.00223	0.213	0.000151	0.31	0.00267	<0.00001	0.00412	<0.0005	0.834	0.0026	3.47	<0.00001	50.3	<0.00005	<0.0001	0.0329	<0.001
26-May-05	105																				
2-Jun-05	112	1.24	<0.0005	0.00036	0.00446	0.398	0.000285	0.421	0.00358	<0.00001	0.00344	<0.0005	0.804	0.0025	3.85	<0.00001	39.7	<0.00005	<0.0001	0.0335	0.0013
9-Jun-05	119																				
16-Jun-05	126	1.44	<0.0006	0.00037	0.00451	0.474	0.000304	0.486	0.00385	<0.00001	0.00306	<0.0005	0.795	0.0025	3.61	<0.00001	41.2	<0.00005	<0.0001	0.0303	0.0011
23-Jun-05	133																				
30-Jun-05	140	1.64	0.00054	0.00028	0.00361	0.314	0.000245	0.478	0.00349	<0.00001	0.00399	<0.0005	1.09	0.0045	3.87	<0.00001	44.4	<0.00005	<0.0001	0.0377	0.001
7-Jul-05	147																				
14-Jul-05	154	1.86	<0.0005	<0.0001	0.00111	0.079	0.000058	0.364	0.00256	<0.00001	0.00551	<0.0005	1.03	0.0054	2.93	<0.00001	40.3	<0.00005	<0.0001	0.0302	<0.001
21-Jul-05	161																				
28-Jul-05	168	1.72	<0.0005	0.00023	0.00322	0.258	0.000165	0.395	0.00366	<0.00001	0.00307	<0.0005	0.963	0.0032	2.99	<0.00001	35.7	<0.00005	<0.0001	0.0242	<0.001
4-Aug-05	175																				
11-Aug-05	182	2.36	<0.0005	<0.0001	0.00109	<0.03	<0.00005	0.395	0.00215	<0.00001	0.00568	<0.0005	1.17	0.0031	3.19	<0.00001	37.5	<0.00005	<0.0001	0.0294	0.0015
18-Aug-05	189																				
25-Aug-05	196	2.07	<0.0005	<0.0001	0.00096	<0.03	<0.00005	0.345	0.00213	<0.0001	0.00448	<0.0005	1.01	0.002	2.81	0.000039	30.4	<0.00005	<0.0001	0.0233	<0.001
1-Sep-05	203																				
8-Sep-05	210	2.6	<0.0005	<0.0001	0.00113	<0.03	0.000067	0.461	0.00236	<0.00001	0.00377	<0.0005	1.21	0.002	2.83	<0.00001	30.1	<0.00005	0.00023	0.0197	0.002
15-Sep-05	217																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Sep-05	224	2500	2505	8.5	213	154	<1	<1	56.5	77	6.61	<0.5	0.037	10.7	0.135	0.00277	0.0248	0.00206	<0.0002	<0.0005	<0.01	<0.00005
29-Sep-05	231	2500	2490	8.85	282	114																
6-Oct-05	238	2500	2470	8.12	202	106	<1	<1	50	69	9.25	<0.5	0.024	9.42	0.0457	0.00368	0.0167	0.00243	<0.0002	<0.0005	<0.01	<0.00005
13-Oct-05	245	2500	2500	8.1	179	110																
20-Oct-05	252	2500	2520	7.55	354	102	<1	3	48	60	11.1	<0.5	<0.02	8.87	0.043	0.00387	0.0172	0.0054	<0.0002	<0.0005	<0.01	<0.00005
27-Oct-05	259	2500	2420	8.15	373	103																
3-Nov-05	266	2500	2475	7.65	347	92	<1	3	45.3	59	13.5	<0.5	0.028	8.3	0.0301	0.00362	0.0127	0.00375	<0.0002	<0.0005	<0.01	<0.00005
10-Nov-05	273	2500	2460	7.89	346	90																
17-Nov-05	280	2500	2525	7.91	314	97	<1	2	41.5	28	15.9	<0.5	0.026	8.94	0.0302	0.00417	0.013	0.00415	<0.0002	<0.0005	<0.01	<0.00005
24-Nov-05	287	2500	2455	7.96	422	87																
1-Dec-05	294	2500	2485	7.8	329	80	<1	2.5	42	56	17.9	<0.5	0.021	7.57	0.0251	0.00384	0.00779	0.00403	<0.0002	<0.0005	<0.01	<0.00005
8-Dec-05	301	2500	2400	7.75	399	71																
15-Dec-05	308	2500	2385	7.53	453	71	<1	3.25	38.8	44	20.2	<0.5	<0.02	7.35	0.0235	0.00437	0.00636	0.00447	<0.0002	<0.0005	<0.01	<0.00005
22-Dec-05	315	2500	2445	7.72	406	62																
29-Dec-05	322	2500	2410	7.71	429	74	<1	3	38.3	41	19.1	<0.5	0.022	7.24	0.024	0.00329	0.00746	0.00427	<0.0002	<0.0005	<0.01	<0.00005
5-Jan-06	329	2500	2345	8.66	426	142																
12-Jan-06	336	2500																				
19-Jan-06	343	2500	2490	7.74	391	127	<1	2.75	55.3	62	29.1	<0.5	0.025	9.21	0.0183	0.00421	0.00734	0.00711	<0.0002	<0.0005	<0.01	<0.00005
26-Jan-06	350	2500	2540	7.78	388	99	<1	1.5	44.8	60	25.7	<0.5	0.025	7.12	0.0234	0.00316	0.00885	0.00613	<0.0002	<0.0005	<0.01	<0.00005
2-Feb-06	357	2500	2475	7.67	377	101																
9-Feb-06	364	2500	2440	7.61	400	94	<1	2.5	41.5	48	24.4	<0.5	0.022	7.84	0.0236	0.00275	0.00877	0.00582	<0.0002	<0.0005	<0.01	<0.00005
16-Feb-06	371	2500	2465	7.98	445	95																
23-Feb-06	378	2500	2475	7.68	437	101	<1	2	47	53	28.5	<0.5	0.022	8.06	0.0176	0.00312	0.00751	0.00658	<0.0002	<0.0005	<0.01	<0.00005
2-Mar-06	385	2500	2450	8.03	461	108																
9-Mar-06	392	2500	2480	7.75	444	111	<1	2	48	54	28.8	<0.5	0.025	7.81	0.029	0.00352	0.00996	0.0068	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-06	399	2500	2405	7.96	368	125																
23-Mar-06	406	2500	2450	7.85	370	125	<1	1.75	52	62	32.1	<0.5	0.026	8.28	0.051	0.00415	0.00891	0.00679	<0.0002	<0.0005	<0.01	0.000074
30-Mar-06	413	2500	2460	7.7	380	108																
6-Apr-06	420	2500	2460	7.81	384	120	<1	1.75	51.5	66	35.4	<0.5	0.028	9.31	0.0197	0.00521	0.00958	0.0076	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-06	427	2500	2520	8.04	386	111																
20-Apr-06	434	2500	2450	7.93	439	112	<1	1.5	48	69	33.2	<0.5	0.027	9.28	0.0203	0.00422	0.0101	0.0063	<0.0002	<0.0005	<0.01	<0.00005
27-Apr-06	441	2500	2435	7.97	333	112																
4-May-06	448	2500	2520	7.64	206	107	<1	1.86	49.7	67	33.3	<0.5	0.028	8.88	0.0225	0.00558	0.0106	0.00706	<0.0002	<0.0005	<0.01	<0.00005
11-May-06	455	2500	2505	7.83	289	91																
18-May-06	462	2500	2420	7.43	324	91	<1	2.60	37.9	50	22.9	<0.5	<0.02	8.09	0.0238	0.00394	0.0108	0.00424	<0.0002	<0.0005	<0.01	<0.00005
25-May-06	469	2500	2485	7.84	228	99																
1-Jun-06	476	2500	2450	7.48	306	90	<1	2.89	39.6	51	26.9	<0.5	<0.02	6.65	0.0192	0.00369	0.00823	0.0047	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-06	483	2500	2470	7.73	175	83																
15-Jun-06	490	2500	2355	7.43	229	90	<1	2.36	39	50	26.8	<0.5	0.022	8.11	0.0186	0.00456	0.00873	0.00458	<0.0002	<0.0005	<0.01	<0.00005
22-Jun-06	497	2500	2505	7.84	218	96																
29-Jun-06	504	2500	2375	7.35	208	95	<1	3.21	45.3	56	31.3	<0.5	0.026	9.21	0.0187	0.0051	0.0101	0.00499	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-06	511	2500	2375																			
13-Jul-06	518	2500	2395	7.75	167	94																
20-Jul-06	525	2500	2350																			
27-Jul-06	532	2500	2340	7.51	318	104	<1	3.47	49.7	64	37.9	<0.5	0.021	9.34	0.0176	0.00743	0.00895	0.0062	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-06	539	2500	2560																			
10-Aug-06	546	2500	2390	7.78	229	85																
17-Aug-06	553	2500	2625																			
24-Aug-06	560	2500	2555	7.58	131	74				45	29.3	<0.5	<0.02	6.79	0.0168	0.00386	0.00892	0.00422	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-06	567	2500	2525																			
7-Sep-06	574	2500	2500	8.18	327	111																
14-Sep-06	581	2500	2600																			
21-Sep-06	588	2500	2470	7.46	340	82	<1	1.41	38.7	48	31.2	<0.5	<0.02	6.5	0.018	0.00399	0.00796	0.00427	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-06	595	2500	2495																			
5-Oct-06	602	2500	2380	7.87	246	86																
12-Oct-06	609	2500	2675																			
19-Oct-06	616	2500	2485	7.43	375	92	<1	5.01	43.9	52.5	35	<0.5	<0.02	6.6	0.0132	0.00391	0.00716	0.00435	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-06	623	2500	2545																			
2-Nov-06	630	2500	2600	7.27	385	96																
9-Nov-06	637	2500	2540																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Sep-05	224	1.93	<0.0005	0.00014	0.00681	0.201	0.000131	0.437	0.00463	<0.00001	0.00243	<0.0005	1.12	0.0015	2.64	<0.00001	27.9	<0.00005	0.00021	0.0229	0.0028
29-Sep-05	231																				
6-Oct-05	238	2.91	<0.0005	<0.0001	0.00187	<0.03	0.000067	0.484	0.00309	<0.00001	0.00241	<0.0005	1.24	0.0011	2.19	<0.00001	21.4	<0.00005	<0.0001	0.0135	<0.001
13-Oct-05	245																				
20-Oct-05	252	3.47	<0.0005	<0.0001	0.00169	<0.03	<0.00005	0.593	0.00352	<0.00001	0.00242	<0.0005	1.29	0.0013	2.11	<0.00001	20.5	<0.00005	<0.0001	0.0142	<0.001
27-Oct-05	259																				
3-Nov-05	266	4.1	<0.0005	<0.0001	0.00178	<0.03	<0.00005	0.788	0.00573	<0.00001	0.00196	<0.0005	1.29	0.0012	1.87	<0.00001	15.5	<0.00005	<0.0001	0.00921	<0.001
10-Nov-05	273																				
17-Nov-05	280	4.92	<0.0005	<0.0001	0.00107	<0.03	<0.00005	0.872	0.00475	<0.00001	0.00213	<0.0005	1.3	<0.001	1.94	<0.00001	15.9	<0.00005	<0.0001	0.0105	<0.001
24-Nov-05	287																				
1-Dec-05	294	5.65	<0.0005	<0.0001	0.00417	<0.03	<0.00005	0.93	0.00818	<0.00001	0.00162	<0.0005	1.22	<0.001	1.6	<0.00001	12.4	<0.00005	<0.0001	0.00614	<0.001
8-Dec-05	301																				
15-Dec-05	308	6.42	<0.0005	<0.0001	0.00276	<0.03	<0.00005	1.02	0.00822	<0.00001	0.0014	<0.0005	1.27	<0.001	1.55	<0.00001	11.8	<0.00005	<0.0001	0.00503	<0.001
22-Dec-05	315																				
29-Dec-05	322	6.01	<0.0005	<0.0001	0.0007	<0.03	<0.00005	0.992	0.00719	<0.00001	0.00132	<0.0005	1.24	<0.001	1.54	<0.00001	10.5	<0.00005	<0.0001	0.00617	<0.001
5-Jan-06	329																				
12-Jan-06	336																				
19-Jan-06	343	9.16	<0.0005	<0.0001	0.00337	<0.03	<0.00005	1.5	0.0125	<0.00001	0.00213	<0.0005	1.34	<0.001	2.08	<0.00001	15.6	<0.00005	<0.0001	0.00594	<0.001
26-Jan-06	350	8.07	<0.0005	<0.0001	0.00244	<0.03	<0.00005	1.35	0.00843	<0.00001	0.00151	<0.0005	1.36	<0.001	1.84	<0.00001	12.1	<0.00005	<0.0001	0.00728	<0.001
2-Feb-06	357																				
9-Feb-06	364	7.84	<0.0005	<0.0001	0.00194	<0.03	0.000137	1.18	0.00656	<0.00001	0.00159	<0.0005	1.23	<0.001	1.9	<0.00001	12.4	<0.00005	<0.0001	0.00676	0.0017
16-Feb-06	371																				
23-Feb-06	378	8.89	<0.0005	<0.0001	0.00334	<0.03	<0.00005	1.54	0.00205	<0.00001	0.00153	<0.0005	1.25	<0.001	1.77	<0.00001	12.2	<0.00005	<0.0001	0.00571	<0.001
2-Mar-06	385																				
9-Mar-06	392	8.95	<0.0005	<0.0001	0.00165	<0.03	<0.00005	1.57	0.00341	<0.00001	0.00185	<0.0005	1.4	<0.001	1.96	<0.00001	12.2	<0.00005	0.0002	0.00768	<0.001
16-Mar-06	399																				
23-Mar-06	406	10.2	<0.0005	<0.0001	0.0022	0.041	0.00176	1.59	0.00351	<0.00001	0.00193	<0.0005	1.37	0.0011	2.37	0.000021	13.4	<0.00005	<0.0001	0.00666	0.0053
30-Mar-06	413																				
6-Apr-06	420	10.9	<0.0005	<0.0001	0.00329	<0.03	<0.00005	2	0.00302	<0.00001	0.00257	<0.0005	1.66	<0.001	2.26	<0.00001	11.7	<0.00005	<0.0001	0.00801	<0.001
13-Apr-06	427																				
20-Apr-06	434	10.6	<0.0005	<0.0001	0.00139	<0.03	0.000063	1.61	0.00229	<0.00001	0.00372	<0.0005	1.46	<0.001	2.18	<0.00001	11.4	<0.00005	<0.0001	0.00778	0.0012
27-Apr-06	441																				
4-May-06	448	10.2	<0.0005	<0.0001	0.0045	<0.03	0.000663	1.9	0.00296	<0.00001	0.00234	<0.0005	1.58	<0.001	2.35	<0.00001	10	<0.00005	0.0001	0.0089	
11-May-06	455																				
18-May-06	462	7.21	<0.0005	<0.0001	0.001	<0.03	0.000255	1.18	0.00103	<0.00001	0.00189	<0.0005	1.15	<0.001	1.84	<0.00001	7	<0.00005	<0.0001	0.00955	<0.001
25-May-06	469																				
1-Jun-06	476	8.66	<0.0005	<0.0001	0.00732	<0.03	<0.00005	1.29	0.000923	<0.00001	0.00176	<0.0005	1.16	<0.001	1.78	<0.00001	8	<0.00005	<0.0001	0.00674	0.0011
8-Jun-06	483																				
15-Jun-06	490	8.53	<0.0005	<0.0001	0.00111	<0.03	<0.00005	1.32	0.000598	<0.00001	0.0021	<0.0005	1.17	<0.001	1.81	<0.00001	7.7	<0.00005	<0.0001	0.00746	0.0014
22-Jun-06	497																				
29-Jun-06	504	9.81	<0.0005	<0.0001	0.00103	<0.03	0.000953	1.66	0.000588	<0.00001	0.00257	<0.0005	1.33	<0.001	2.25	<0.00001	9	0.00005	<0.0001	0.00852	0.0012
6-Jul-06	511																				
13-Jul-06	518																				
20-Jul-06	525																				
27-Jul-06	532	12	<0.0005	<0.0001	0.00497	<0.03	0.000108	1.91	0.00078	<0.00001	0.00331	<0.0005	1.38	<0.001	2.24	<0.00001	8.8	<0.00005	<0.0001	0.00758	0.0031
3-Aug-06	539																				
10-Aug-06	546																				
17-Aug-06	553																				
24-Aug-06	560	9.26	<0.0005	<0.0001	0.00136	<0.03	0.000087	1.49	0.000197	<0.00001	0.00296	<0.0005	1.04	<0.001	1.65	<0.00001	5.7	<0.00005	<0.0001	0.00714	0.0021
31-Aug-06	567																				
7-Sep-06	574																				
14-Sep-06	581																				
21-Sep-06	588	9.92	<0.0005	<0.0001	0.00092	<0.03	<0.00005	1.55	0.000526	<0.00001	0.00296	<0.0005	1.11	<0.001	1.74	<0.00001	4.9	<0.00005	<0.0001	0.00692	<0.001
28-Sep-06	595																				
5-Oct-06	602																				
12-Oct-06	609																				
19-Oct-06	616	11.3	<0.0005	<0.0001	0.00656	<0.03	<0.00005	1.66	0.00188	<0.00001	0.00319	<0.0005	1.13	<0.001	1.77	<0.00001	5.8	<0.00005	<0.0001	0.00597	<0.001
26-Oct-06	623																				
2-Nov-06	630																				
9-Nov-06	637																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Nov-06	644	2500	2535	7.13	357	109	<1	4.92	52.4	59.8	45	<0.5	<0.02	6.41	0.0123	0.00505	0.00689	0.00569	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-06	651	2500	2395																			
30-Nov-06	658	2500	2670	7.11	355	95																
7-Dec-06	665	2500	2455																			
14-Dec-06	672	2500	2580	7.65	335	103	<1	2.77	47	55	41.1	<0.5	<0.02	6.53	0.0133	0.00512	0.00694	0.00533	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-06	679	2500	2545																			
28-Dec-06	686	2500	2595	7.29	312	106																
4-Jan-07	693	2500	2500																			
11-Jan-07	700	2500	2500	7.72	377	117	<1	3.68	58.7	66	49.9	<0.5	<0.02	5.73	0.0101	0.00427	0.00554	0.00595	<0.0002	<0.0005	<0.01	<0.00005
18-Jan-07	707	2500	2565																			
25-Jan-07	714	2500	2405	7.65	326	120																
1-Feb-07	721	2500	2500																			
8-Feb-07	728	2500	2420	7.49	371	113	<1	10.92	57.2	61	46.6	<0.5	<0.02	7.61	0.0104	0.00401	0.00521	0.00524	<0.0002	<0.0005	<0.01	<0.00005
15-Feb-07	735	2500	2585																			
22-Feb-07	742	2500	2470	7.54	399	120																
1-Mar-07	749	2500	2490																			
8-Mar-07	756	2500	2435	8.09	396	107	<1	6.64	53.3	68.8	50.1	<0.5	<0.02	8.07	0.0118	0.00456	0.00526	0.00579	<0.0002	<0.0005	<0.01	<0.00005
15-Mar-07	763	2500	2520																			
22-Mar-07	770	2500	1645	7.53	442	118																
29-Mar-07	777	2500	2310																			
5-Apr-07	784	2500	2400	8.04	408	123	<1	1.37	45.3	76.5	34.2	<0.5	0.023	14.4	0.0189	0.00359	0.00988	0.0051	<0.0002	<0.0005	<0.01	<0.00005
12-Apr-07	791	2500	2500																			
19-Apr-07	798	2500	2460	7.83	374	105																
26-Apr-07	805	2500	2455																			
3-May-07	812	2500	2575	7.6	401	111	<1	4.16	45.4	59	42.8	<0.5	<0.02	6.78	0.0123	0.00382	0.00613	0.00597	<0.0002	<0.0005	<0.01	<0.00005
10-May-07	819	2500	2540																			
17-May-07	826	2500	2500	7.91	383	97																
24-May-07	833	2500	2425																			
31-May-07	840	2500	2550	7.75	377	105	<1	2.24	42.3	54	41.5	<0.5	<0.02	7.3	0.0178	0.00392	0.00603	0.00398	<0.0002	<0.0005	<0.01	<0.00005
7-Jun-07	847	2500	2450																			
14-Jun-07	854	2500	2445	7.94	372	102																
21-Jun-07	861	2500	2385																			
28-Jun-07	868	2500	2425	7.65	410	92	<1	2.47	42.7	51.3	37.3	<0.5	<0.02	5.74	0.0184	0.00339	0.00594	0.00454	<0.0002	<0.0005	<0.01	<0.00005
5-Jul-07	875	2500	2480																			
12-Jul-07	882	2500	2445	7.89	385	90																
19-Jul-07	889	2500	2365																			
26-Jul-07	896	2500	2320	7.59	333	98	<1	4.19	42.6	48.3	39.6	<0.5	<0.02	6.44	0.0158	0.0037	0.00483	0.00364	<0.0002	<0.0005	<0.01	<0.00005
2-Aug-07	903	2500	2350																			
9-Aug-07	910	2500	2565	7.52	313	84																
16-Aug-07	917	2500	2450																			
23-Aug-07	924	2500	2450	7.87	377	79	<1	1.91	42	45.3	39.9	<0.5	<0.02	6.25	0.0133	0.00341	0.00459	0.00367	<0.0002	<0.0005	<0.01	<0.00005
30-Aug-07	931	2500	2385																			
6-Sep-07	938	2500	2420	7.41	434	66																
13-Sep-07	945	2500	2465																			
20-Sep-07	952	2500	2395	7.59	360	59	<1	4.98	42.3	53.2	41	<0.5	<0.02	7.3	0.0135	0.00333	0.0036	0.00353	<0.0002	<0.0005	<0.01	<0.00005
27-Sep-07	959	2500	2390																			
4-Oct-07	966	2500	2445	7.46	364	84																
11-Oct-07	973	2500	2375																			
18-Oct-07	980	2500	2410	7.69	420	89	<1	2.34	41.2	62.2	41	<0.5	<0.02	5.7	0.0121	0.00234	0.00314	0.00377	<0.0002	<0.0005	<0.01	<0.00005
25-Oct-07	987	2500	2400																			
1-Nov-07	994	2500	2415	7.6	436	88																
8-Nov-07	1001	2500	2440																			
15-Nov-07	1008	2500	2405	7.71	467	94	<1	2.7	42.6	49.8	43	<0.5	<0.02	6.71	0.0124	0.00245	0.0034	0.00369	<0.0002	<0.0005	<0.01	<0.00005
22-Nov-07	1015	2500	2435																			
29-Nov-07	1022	2500	2500	7.51	441	101																
6-Dec-07	1029	2500	2455																			
13-Dec-07	1036	2500	2460	7.76	457	102	<1	2.58	53.6	58.5	50.1	<0.5	<0.02	4.67	0.0112	0.00216	0.00261	0.00389	<0.0002	<0.0005	<0.01	<0.00005
20-Dec-07	1043	2500	2340																			
27-Dec-07	1050	2500	2000	7.69	448	83																
3-Jan-08	1057	2500	2200																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Nov-06	644	14.5	<0.0005	<0.0001	0.0011	<0.03	<0.00005	2.12	0.000456	<0.00001	0.00401	<0.0005	1.27	<0.001	2.14	<0.00001	5.4	<0.00005	<0.0001	0.00587	<0.001
23-Nov-06	651																				
30-Nov-06	658																				
7-Dec-06	665																				
14-Dec-06	672	12.9	<0.0005	<0.0001	0.00202	<0.03	<0.00005	2.17	0.000444	<0.00001	0.00425	<0.0005	1.29	<0.001	1.86	0.000015	5.1	<0.00005	<0.0001	0.00568	0.0031
21-Dec-06	679																				
28-Dec-06	686																				
4-Jan-07	693																				
11-Jan-07	700	15.7	<0.0005	<0.0001	0.0012	<0.03	<0.00005	2.59	0.000427	<0.00001	0.00468	<0.0005	1.32	<0.001	2.03	<0.00001	5.6	<0.00005	<0.0001	0.0048	<0.001
18-Jan-07	707																				
25-Jan-07	714																				
1-Feb-07	721																				
8-Feb-07	728	15	<0.0005	<0.0001	0.00296	<0.03	<0.00005	2.22	0.000683	<0.00001	0.00509	<0.0005	1.15	<0.001	1.69	<0.00001	4.9	<0.00005	<0.0001	0.00416	0.0054
15-Feb-07	735																				
22-Feb-07	742																				
1-Mar-07	749																				
8-Mar-07	756	15.7	<0.0005	<0.0001	0.00154	<0.03	<0.00005	2.66	0.000525	<0.00001	0.00653	<0.0005	1.34	<0.001	1.98	<0.00001	3.6	<0.00005	<0.0001	0.0044	<0.001
15-Mar-07	763																				
22-Mar-07	770																				
29-Mar-07	777																				
5-Apr-07	784	10.7	<0.0005	<0.0001	0.00951	<0.03	<0.00005	1.81	0.00635	<0.00001	0.00463	<0.0005	1.05	<0.001	1.8	<0.00001	9.9	<0.00005	<0.0001	0.00806	0.0019
12-Apr-07	791																				
19-Apr-07	798																				
26-Apr-07	805																				
3-May-07	812	13.3	<0.0005	<0.0001	0.0014	<0.03	<0.00005	2.33	0.00114	<0.00001	0.0042	<0.0005	1.28	<0.001	1.87	<0.00001	3.5	<0.00005	<0.0001	0.00513	<0.001
10-May-07	819																				
17-May-07	826																				
24-May-07	833																				
31-May-07	840	13.2	<0.0005	<0.0001	0.00155	<0.03	<0.00005	2.06	0.000598	<0.00001	0.00531	<0.0005	1.22	<0.001	1.87	<0.00001	3.3	<0.00005	<0.0001	0.00525	<0.001
7-Jun-07	847																				
14-Jun-07	854																				
21-Jun-07	861																				
28-Jun-07	868	11.8	<0.0005	<0.0001	0.0028	<0.03	0.000154	1.87	0.000949	<0.00001	0.00486	<0.0005	1.12	<0.001	1.87	<0.00001	3	<0.00005	<0.0001	0.00519	0.0019
5-Jul-07	875																				
12-Jul-07	882																				
19-Jul-07	889																				
26-Jul-07	896	12.5	<0.0005	<0.0001	0.00171	<0.03	<0.00005	2.06	0.00153	<0.00001	0.00495	<0.0005	1.06	<0.001	1.71	<0.00001	2.3	<0.00005	<0.0001	0.00411	<0.001
2-Aug-07	903																				
9-Aug-07	910																				
16-Aug-07	917																				
23-Aug-07	924	12.5	<0.0005	<0.0001	0.00109	<0.03	<0.00005	2.09	0.000983	<0.00001	0.00547	<0.0005	1.01	<0.001	1.64	<0.00001	<2	<0.00005	<0.0001	0.00367	<0.001
30-Aug-07	931																				
6-Sep-07	938																				
13-Sep-07	945																				
20-Sep-07	952	13.1	<0.0005	<0.0001	0.00227	<0.03	<0.00005	2.02	0.00104	<0.00001	0.00461	<0.0005	0.939	<0.001	1.52	<0.00001	<2	<0.00005	<0.0001	0.00321	<0.001
27-Sep-07	959																				
4-Oct-07	966																				
11-Oct-07	973																				
18-Oct-07	980	12.9	<0.0005	<0.0001	0.00101	<0.03	<0.00005	2.14	0.00113	0.00002	0.00383	<0.0005	0.961	<0.001	1.64	<0.00001	<2	<0.00005	<0.0001	0.00287	<0.001
25-Oct-07	987																				
1-Nov-07	994																				
8-Nov-07	1001																				
15-Nov-07	1008	13.5	<0.0005	<0.0001	0.00106	<0.03	0.000226	2.27	0.00078	<0.00001	0.00464	<0.0005	1.02	<0.001	1.57	<0.00001	<2	<0.00005	<0.0001	0.00278	0.001
22-Nov-07	1015																				
29-Nov-07	1022																				
6-Dec-07	1029																				
13-Dec-07	1036	16	<0.0005	<0.0001	0.00201	0.048	<0.00005	2.47	0.00124	<0.00001	0.00398	<0.0005	1.02	<0.001	1.59	<0.00001	<2	<0.00005	<0.0001	0.00223	<0.001
20-Dec-07	1043																				
27-Dec-07	1050																				
3-Jan-08	1057																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Jan-08	1064	2500	2425	7.53	460	86	<1	3.25	43.4	45.5	41.5	<0.5	<0.02	4.59	0.0138	0.00207	0.00303	0.00312	<0.0002	<0.0005	<0.01	<0.00005
17-Jan-08	1071	2500	2470																			
24-Jan-08	1078	2500	2485	7.52	459	95																
31-Jan-08	1085	2500	2480																			
7-Feb-08	1092	2500	2525	7.64	465	93	<1	3.58	46.7	63.5	44.9	<0.5	<0.02	6.4	0.0106	0.00239	0.00277	0.00387	<0.0002	<0.0005	<0.01	<0.00005
14-Feb-08	1099	2500	2445																			
21-Feb-08	1106	2500	2465	7.71	432	90																
28-Feb-08	1113	2500	2380																			
6-Mar-08	1120	2500	2400	7.59	420	91	<1	5.35	47	54.7	44	<0.5	<0.02	5.67	0.0132	0.00211	0.00289	0.00331	<0.0002	<0.0005	<0.01	<0.00005
13-Mar-08	1127	2500	2265																			
20-Mar-08	1134	2500	2360	7.66	417	88																
27-Mar-08	1141	2500	2285																			
3-Apr-08	1148	2500	2325	7.7	423	77	<1	3.01	41.4	51	40.6	<0.5	<0.02	6.36	0.0155	0.00214	0.00293	0.0028	<0.0002	<0.0005	<0.01	<0.00005
10-Apr-08	1155	2500	2350																			
17-Apr-08	1162	2500	2190	7.54	423	96																
24-Apr-08	1169	2500	2190																			
1-May-08	1176	2500	2260	7.82	386	115	<1	2.91	50.8	62.8	53.2	<0.5	<0.02	12.4	0.0125	0.00238	0.00284	0.00382	<0.0002	<0.0005	<0.01	<0.00005
8-May-08	1183	2500	2370																			
15-May-08	1190	2500	2445	7.83	356	105																
22-May-08	1197	2500	2130																			
29-May-08	1204	2500	2410	8.02	376	98	<1	2.5	45.2	96	49.3	<0.5	<0.02	12.2	0.0129	0.00178	0.00265	0.00321	<0.0002	<0.0005	<0.01	<0.00005
5-Jun-08	1211	2500	2410																			
12-Jun-08	1218	2500	2425	7.8	391	79																
19-Jun-08	1225	2500	2400																			
26-Jun-08	1232	2500	2280	7.76	358	110	<1	6.02	52.3	67	51.1	<0.5	<0.02	11.3	0.0119	0.00211	0.00322	0.00339	<0.0002	<0.0005	<0.01	<0.00005
3-Jul-08	1239	2500	2320																			
10-Jul-08	1246	2500	2435	7.82	370	100																
17-Jul-08	1253	2500	2370																			
24-Jul-08	1260	2500	2575	7.72	397	94	<1	3.4	40.8	42	42.4	<0.5	<0.02	7.78	0.0161	0.00153	0.0029	0.00256	<0.0002	<0.0005	<0.01	<0.00005
31-Jul-08	1267	2500	2485																			
7-Aug-08	1274	2500	2485	7.87	359	92																
14-Aug-08	1281	2500	2430																			
21-Aug-08	1288	2500	2515	7.75	322	91	<1	2.85	42.3	49	42	<0.5	<0.02	9.28	0.0117	0.00175	0.00275	0.00248	<0.0002	<0.0005	<0.01	<0.00005
28-Aug-08	1295	2500	2540																			
4-Sep-08	1302	2500	2545	7.72	319	92																
11-Sep-08	1309	2500	2445																			
18-Sep-08	1316	2500	2490	7.8	305	97	<1	2.64	42.6	204	44.5	<0.5	<0.02	9.72	0.0141	0.0021	0.00249	0.00307	<0.0002	<0.0005	<0.01	0.000184
25-Sep-08	1323	2500	2465																			
2-Oct-08	1330	2500	2495	7.78	403	83																
9-Oct-08	1337	2500	2490																			
16-Oct-08	1344	2500	2495	7.78	393	87	<1	2.47	38.8	48	40.5	<0.5	<0.02	8.2	0.0168	0.00218	0.00265	0.00271	<0.0002	<0.0005	<0.01	<0.00005
23-Oct-08	1351	2500	2500																			
30-Oct-08	1358	2500	2530	7.63	441	84																
6-Nov-08	1365	2500	2465																			
13-Nov-08	1372	2500	2460	7.57	442	73	<1	3.52	34.9	45.5	36.2	<0.5	<0.02	7.36	0.0163	0.00157	0.00206	0.00308	<0.0002	<0.0005	<0.01	<0.00005
20-Nov-08	1379	2500	2495																			
27-Nov-08	1386	2500	2465	7.61	371	64																
4-Dec-08	1393	2500	2485																			
11-Dec-08	1400	2500	2465	7.55	320	83	<1	3.91	43	50.8	41.9	<0.5	<0.02	7.43	0.0153	0.00164	0.00202	0.00236	<0.0002	<0.0005	<0.01	<0.00005
18-Dec-08	1407	2500	2450																			
25-Dec-08	1414	2500	2415	7.61	338	103																
1-Jan-09	1421	2500	2550																			
8-Jan-09	1428	2500	2375	7.71	356	96	<1	3.23	51.9	66.5	48.4	<0.5	<0.02	8.21	0.0119	0.00208	0.00223	0.00314	<0.0002	<0.0005	<0.01	<0.00005
15-Jan-09	1435	2500	2385																			
22-Jan-09	1442	2500	2020	7.5	350	74																
29-Jan-09	1449	2500	2390																			
5-Feb-09	1456	2500	2370	7.24	390	67	<1	4.8	34.7	44.3	35.9	<0.5	<0.02	7.13	0.0138	0.00155	0.00173	0.00194	<0.0002	<0.0005	<0.01	<0.00005
12-Feb-09	1463	2500	2400																			
19-Feb-09	1470	2500	2575	7.43	289	71																
26-Feb-09	1477	2500	2450																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Jan-08	1064	13.2	<0.0005	<0.0001	0.00143	<0.03	0.00007	2.05	0.00113	<0.00001	0.00458	<0.0005	0.966	<0.001	1.53	<0.00001	<2	<0.00005	<0.0001	0.00256	<0.001
17-Jan-08	1071																				
24-Jan-08	1078																				
31-Jan-08	1085																				
7-Feb-08	1092	14.4	<0.0005	<0.0001	0.00186	<0.03	0.000457	2.17	0.000995	<0.00001	0.00561	<0.0005	0.986	<0.001	1.58	<0.00001	<2	<0.00005	<0.0001	0.00224	<0.001
14-Feb-08	1099																				
21-Feb-08	1106																				
28-Feb-08	1113																				
6-Mar-08	1120	14.1	<0.0005	<0.0001	0.00114	<0.03	<0.00005	2.15	0.000998	<0.00001	0.00464	<0.0005	1.02	<0.001	1.51	<0.00001	<2	<0.00005	<0.0001	0.0023	<0.001
13-Mar-08	1127																				
20-Mar-08	1134																				
27-Mar-08	1141																				
3-Apr-08	1148	13	<0.0005	<0.0001	0.00158	<0.03	<0.00005	1.99	0.00444	<0.00001	0.00409	<0.0005	0.965	<0.001	1.51	<0.00001	<2	<0.00005	<0.0001	0.00257	<0.001
10-Apr-08	1155																				
17-Apr-08	1162																				
24-Apr-08	1169																				
1-May-08	1176	16.8	<0.0005	<0.0001	0.00144	0.05	<0.00005	2.74	0.00623	<0.00001	0.0044	<0.0005	1.34	<0.001	1.84	<0.00001	<2	<0.00005	<0.0001	0.00241	<0.001
8-May-08	1183																				
15-May-08	1190																				
22-May-08	1197																				
29-May-08	1204	15.6	<0.0005	<0.0001	0.00212	<0.03	<0.00005	2.49	0.00605	<0.00001	0.00355	<0.0005	1.12	<0.001	1.56	<0.00001	<2	<0.00005	<0.0001	0.00225	<0.001
5-Jun-08	1211																				
12-Jun-08	1218																				
19-Jun-08	1225																				
26-Jun-08	1232	16.2	<0.0005	<0.0001	0.00102	<0.03	<0.00005	2.56	0.00613	<0.00001	0.0054	<0.0005	1.14	0.0023	1.71	<0.00001	<2	<0.00005	<0.0001	0.00263	<0.001
3-Jul-08	1239																				
10-Jul-08	1246																				
17-Jul-08	1253																				
24-Jul-08	1260	13.4	<0.0005	<0.0001	0.0018	<0.03	<0.00005	2.19	0.00578	<0.00001	0.00417	<0.0005	0.995	<0.001	1.42	<0.00001	<2	<0.00005	<0.0001	0.00253	<0.001
31-Jul-08	1267																				
7-Aug-08	1274																				
14-Aug-08	1281																				
21-Aug-08	1288	13.3	<0.0005	<0.0001	0.00084	<0.03	<0.00005	2.13	0.00679	<0.00001	0.00494	<0.0005	0.981	<0.001	1.37	<0.00001	<2	<0.00005	<0.0001	0.0022	<0.001
28-Aug-08	1295																				
4-Sep-08	1302																				
11-Sep-08	1309																				
18-Sep-08	1316	14	<0.0005	<0.0001	0.00164	<0.03	0.00012	2.34	0.00735	<0.00001	0.00437	<0.0005	0.955	<0.001	1.51	<0.00001	<2	<0.00005	<0.0001	0.00217	0.0053
25-Sep-08	1323																				
2-Oct-08	1330																				
9-Oct-08	1337																				
16-Oct-08	1344	12.9	<0.0005	<0.0001	0.0013	<0.03	<0.00005	2.03	0.00712	<0.00001	0.00428	<0.0005	0.948	<0.001	1.36	<0.00001	<2	<0.00005	<0.0001	0.00233	<0.001
23-Oct-08	1351																				
30-Oct-08	1358																				
6-Nov-08	1365																				
13-Nov-08	1372	11.7	<0.0005	<0.0001	0.00141	<0.03	<0.00005	1.7	0.00677	<0.00001	0.00333	<0.0005	0.8	<0.001	1.18	<0.00001	<2	<0.00005	<0.0001	0.00183	<0.001
20-Nov-08	1379																				
27-Nov-08	1386																				
4-Dec-08	1393																				
11-Dec-08	1400	13.4	<0.0005	<0.0001	0.00137	<0.03	0.000088	2.05	0.00772	<0.00001	0.00328	<0.0005	0.815	<0.001	1.22	<0.00001	<2	<0.00005	<0.0001	0.0015	<0.001
18-Dec-08	1407																				
25-Dec-08	1414																				
1-Jan-09	1421																				
8-Jan-09	1428	15.6	<0.0005	<0.0001	0.0011	<0.03	<0.00005	2.32	0.00851	<0.00001	0.00434	<0.0005	1.02	<0.001	1.57	<0.00001	<2	<0.00005	<0.0001	0.00193	<0.001
15-Jan-09	1435																				
22-Jan-09	1442																				
29-Jan-09	1449																				
5-Feb-09	1456	10.9	<0.0005	<0.0001	0.00061	<0.03	<0.00005	2.11	0.00501	<0.00001	0.00414	<0.0005	0.786	<0.001	1.09	<0.00001	<2	<0.00005	<0.0001	0.00152	<0.001
12-Feb-09	1463																				
19-Feb-09	1470																				
26-Feb-09	1477																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
5-Mar-09	1484	2500	2390	7.33	278	80	<1	7.39	38.9	37.8	39.6	<0.5	<0.02	8.3	0.0147	0.00182	0.00201	0.00224	<0.0002	<0.0005	<0.01	<0.00005
12-Mar-09	1491	2500	2355																			
19-Mar-09	1498	2500	2360	7.55	364	79																
26-Mar-09	1505	2500	2415																			
2-Apr-09	1512	2500	2355	7.44	377	98	<1	4.38	49.4	58	48.2	<0.5	<0.02	8.94	0.0137	0.00217	0.00212	0.00266	<0.0002	<0.0005	<0.01	<0.00005
9-Apr-09	1519	2500	2360																			
16-Apr-09	1526	2500	2340	7.53	393	85																
23-Apr-09	1533	2500	2365																			
30-Apr-09	1540	2500	2420	7.37	400	73	<1	2.91	36.3	44.5	35.4	<0.5	<0.02	7.68	0.0153	0.00161	0.00192	0.00196	<0.0002	<0.0005	<0.01	<0.00005
7-May-09	1547	2500	2400																			
14-May-09	1554	2500	2435	7.38	395	83																
21-May-09	1561	2500	2445																			
28-May-09	1568	2500	2400	7.38	368	86	<1	2.9	46.8	47.8		<0.5	<0.02	8.23								
4-Jun-09	1575	2500	2415																			
11-Jun-09	1582	2500	2440	7.59	370	73																
18-Jun-09	1589	2500	2445																			
25-Jun-09	1596	2500	2425	7.47	371	59	<1	3.97	32.9	37.5		<0.5	<0.02	6.73								
2-Jul-09	1603	2500	2480																			
9-Jul-09	1610	2500	2470	7.87	394	68																
16-Jul-09	1617	2500	2430																			
23-Jul-09	1624	2500	2465	7.75	351	78	<1	2.03	39.4	35.5		<0.5	<0.02	7.02								
30-Jul-09	1631	2500	2405																			
6-Aug-09	1638	2500	2470	7.57	356	61																
13-Aug-09	1645	2500	2370																			
20-Aug-09	1652	2500	2210	7.34	354	84	<1	4.18	41.3	46.7		<0.5	<0.02	9.65								
27-Aug-09	1659	2500	2440																			
3-Sep-09	1666	2500	2435	7.55	333	77																
10-Sep-09	1673	2500	2280																			
17-Sep-09	1680	2500	2545	7.61	347	88	<1	3.76	47	49		<0.5	<0.02	9.73								
24-Sep-09	1687	2500	2470																			
1-Oct-09	1694	2500	2485	7.51	326	67																
8-Oct-09	1701	2500	2480																			
15-Oct-09	1708	2500	2435	7.37	353	58	<1	3.61	33.2	45		<0.5	<0.02	7.67								
22-Oct-09	1715	2500	2495																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	2345	8.72	285	576	<1	<1	114.3	410	22.5	0.52	0.506	157	0.196	0.0157	0.232	0.0157	<0.0004	<0.001	0.193	<0.0001
17-Feb-05	7	2500	2505	8.88	322	443																
24-Feb-05	14	2500	2510	8.66	311	264	<1	<1	107.3	171	7.39	<0.5	0.235	33.3	0.191	0.00904	0.149	0.00476	<0.0004	<0.001	0.052	<0.0001
3-Mar-05	21	2500	2505	8.61	320	237																
10-Mar-05	28	2500	2485	8.67	318	231	<1	<1	93.5	138	7.23	<0.5	0.128	23.4	0.168	0.00916	0.126	0.00475	<0.0002	<0.0005	0.03	<0.00005
17-Mar-05	35	2500	2480	8.85	375	194																
24-Mar-05	42	2500	2470	8.85	344	268	<1	<1	121	182	7.23	<0.5	0.12	21.3	0.245	0.00746	0.179	0.00516	<0.0002	<0.0005	0.021	<0.00005
31-Mar-05	49	2500	2475	9.09	328	301																
7-Apr-05	56	2500	2470	8.68	325	260	<1	<1	126.3	179	5.84	<0.5	0.115	16.2	0.24	0.00848	0.13	0.00459	<0.0002	<0.0005	0.016	<0.00005
14-Apr-05	63	2500	2470	9.04	323	255																
21-Apr-05	70	2500	2465	9.03	327	238	<1	<1	113	163	6.16	<0.5	0.094	14.5	0.339	0.00609	0.0943	0.00393	<0.0002	<0.0005	0.011	<0.00005
28-Apr-05	77	2500	2460	8.8	366	238																
5-May-05	84	2500	2470	9.11	328	238	<1	<1	116	155	6.31	<0.5	0.088	15	0.438	0.00638	0.0893	0.00399	<0.0002	<0.0005	<0.01	<0.00005
12-May-05	91	2500	2455	8.96	329	249																
19-May-05	98	2500	2470	8.98	303	236	<1	<1	117.8	155	5.47	<0.5	0.058	12.8	0.32	0.00781	0.0789	0.00371	<0.0002	<0.0005	<0.01	<0.00005
26-May-05	105	2500	2500	9.02	319	218																
2-Jun-05	112	2500	2495	9.01	289	202	<1	<1	99	129	5.08	<0.5	0.064	13.3	0.277	0.00655	0.0566	0.00302	<0.0002	<0.0005	<0.01	<0.00005
9-Jun-05	119	2500	2450	8.93	304	198																
16-Jun-05	126	2500	2470	8.94	314	195	<1	<1	97	126	6.34	<0.5	0.057	12.5	0.134	0.00609	0.0471	0.00276	<0.0002	<0.0005	<0.01	<0.00005
23-Jun-05	133	2500	2465	8.78	336	190																
30-Jun-05	140	2500	2505	8.77	232	184	<1	<1	91.3	115	7.57	<0.5	0.044	12	0.168	0.00725	0.0482	0.00383	<0.0002	<0.0005	<0.01	<0.00005
7-Jul-05	147	2500	2430	8.8	227	173																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
5-Mar-09	1484	12.7	<0.0005	<0.0001	0.00074	<0.03	<0.00005	1.9	0.004	<0.00001	0.00578	<0.0005	0.867	<0.001	1.23	<0.00001	<2	<0.00005	<0.0001	0.00172	<0.001
12-Mar-09	1491																				
19-Mar-09	1498																				
26-Mar-09	1505																				
2-Apr-09	1512	15.1	<0.0005	<0.0001	0.00103	<0.03	<0.00005	2.53	0.00424	<0.00001	0.00665	<0.0005	1.02	<0.001	1.45	<0.00001	<2	<0.00005	<0.0001	0.00185	<0.001
9-Apr-09	1519																				
16-Apr-09	1526																				
23-Apr-09	1533																				
30-Apr-09	1540	11.4	<0.0005	<0.0001	0.00097	<0.03	<0.00005	1.72	0.00241	<0.00001	0.00495	<0.0005	0.852	<0.001	1.2	<0.00001	<2	<0.00005	<0.0001	0.00184	<0.001
7-May-09	1547																				
14-May-09	1554																				
21-May-09	1561																				
28-May-09	1568																				
4-Jun-09	1575																				
11-Jun-09	1582																				
18-Jun-09	1589																				
25-Jun-09	1596																				
2-Jul-09	1603																				
9-Jul-09	1610																				
16-Jul-09	1617																				
23-Jul-09	1624																				
30-Jul-09	1631																				
6-Aug-09	1638																				
13-Aug-09	1645																				
20-Aug-09	1652																				
27-Aug-09	1659																				
3-Sep-09	1666																				
10-Sep-09	1673																				
17-Sep-09	1680																				
24-Sep-09	1687																				
1-Oct-09	1694																				
8-Oct-09	1701																				
15-Oct-09	1708																				
22-Oct-09	1715																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	6.92	<0.001	<0.0002	0.00242	0.157	0.00011	1.27	0.00291	<0.00001	0.0392	<0.001	1.37	0.0228	4.38	<0.00002	118	<0.0001	<0.0002	0.132	<0.002
17-Feb-05	7																				
24-Feb-05	14	2.2	<0.001	<0.0002	0.00588	0.145	0.00012	0.46	0.00571	<0.00001	0.0109	<0.001	0.9	0.0052	3.47	<0.00002	56.6	<0.0001	<0.0002	0.0766	<0.002
3-Mar-05	21																				
10-Mar-05	28	2.24	<0.0005	<0.0001	0.00118	0.069	0.000107	0.397	0.00435	<0.00001	0.0066	<0.0005	0.86	0.0041	2.54	<0.00001	45.6	<0.00005	<0.0001	0.0578	<0.001
17-Mar-05	35																				
24-Mar-05	42	2.15	<0.0005	0.00015	0.0023	0.192	0.00018	0.451	0.00299	<0.00001	0.00544	<0.0005	0.929	0.0049	4.32	<0.00001	59.8	<0.00005	<0.0001	0.0902	<0.001
31-Mar-05	49																				
7-Apr-05	56	1.69	<0.0005	0.00013	0.00173	0.164	0.00014	0.396	0.00245	<0.00001	0.00425	<0.0005	0.937	0.0036	4.59	<0.00001	57.8	<0.00005	<0.0001	0.071	<0.001
14-Apr-05	63																				
21-Apr-05	70	1.63	0.00053	0.00032	0.00345	0.435	0.000287	0.507	0.00291	<0.00001	0.00364	<0.0005	0.872	0.0027	4.57	0.000013	57.6	<0.00005	<0.0001	0.0549	0.0012
28-Apr-05	77																				
5-May-05	84	1.62	<0.0005	0.00028	0.0667	0.355	0.00033	0.553	0.00311	<0.00001	0.0042	<0.0005	0.924	0.0028	4.9	<0.00001	54.1	<0.00005	<0.0001	0.0561	0.0012
12-May-05	91																				
19-May-05	98	1.46	<0.0005	0.00025	0.00307	0.262	0.000233	0.444	0.0028	<0.00001	0.00451	<0.0005	1.13	0.0027	4.64	<0.00001	63.8	<0.00005	<0.0001	0.0487	0.001
26-May-05	105																				
2-Jun-05	112	1.41	<0.0005	0.0002	0.00263	0.187	0.000239	0.376	0.00246	<0.00001	0.0053	<0.0005	1.06	0.0023	4.28	<0.00001	42.9	<0.00005	<0.0001	0.0391	<0.001
9-Jun-05	119																				
16-Jun-05	126	1.89	<0.0005	<0.0001	0.00134	0.086	0.000098	0.39	0.00162	<0.00001	0.00454	<0.0005	0.986	0.0019	3.93	<0.00001	45.2	<0.00005	<0.0001	0.031	<0.001
23-Jun-05	133																				
30-Jun-05	140	2.17	<0.0005	0.0001	0.00182	0.097	0.0001	0.523	0.00246	<0.00001	0.00634	<0.0005	1.28	0.0022	3.84	<0.00001	40.9	<0.00005	<0.0001	0.0342	0.001
7-Jul-05	147																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
14-Jul-05	154	2500	2480	8.73	258	184	<1	<1	88.3	123	9.67	<0.5	0.068	15	0.218	0.00726	0.0453	0.00364	<0.0002	<0.0005	<0.01	<0.00005
21-Jul-05	161	2500	2420	9.05	201	158																
28-Jul-05	168	2500	2450	8.76	228	158	<1	<1	83.5	100	8.65	<0.5	0.052	10.2	0.157	0.0071	0.0342	0.00312	<0.0002	<0.0005	<0.01	<0.00005
4-Aug-05	175	2500	2490	8.75	278	144																
11-Aug-05	182	2500	2475	8.65	303	134	<1	<1	68.5	90	10.1	<0.5	0.036	9.75	0.106	0.00798	0.0234	0.00342	<0.0002	<0.0005	<0.01	<0.00005
18-Aug-05	189	2500	2485	8.58	296	139																
25-Aug-05	196	2500	2445	8.59	299	138	<1	<1	69	90	11.5	<0.5	0.038	9.24	0.0757	0.00662	0.0237	0.00354	<0.0002	<0.0005	<0.01	<0.00005
1-Sep-05	203	2500	2455	8.73	254	128																
8-Sep-05	210	2500	2460	8.42	281	132	<1	<1	63.5	92	14.7	<0.5	0.034	9.9	0.0692	0.00766	0.0219	0.00436	<0.0002	<0.0005	<0.01	<0.00005
15-Sep-05	217	2500	2480	8.42	285	132																
22-Sep-05	224	2500	2495	8.12	225	125	<1	1.25	60.8	76	16.4	<0.5	0.028	8.38	0.0536	0.00548	0.0179	0.00454	<0.0002	<0.0005	<0.01	<0.00005
29-Sep-05	231	2500	2485	8.66	291	133																
6-Oct-05	238	2500	2505	8.2	132	128	<1	<1	49.8	85	18.9	<0.5	0.034	9.11	0.0648	0.00763	0.0204	0.00431	<0.0002	<0.0005	<0.01	<0.00005
13-Oct-05	245	2500	2435	8.26	184	127																
20-Oct-05	252	2500	2530	7.66	356	115	<1	3.5	55.3	70	18.1	<0.5	<0.02	7.88	0.0723	0.00626	0.0198	0.004	<0.0002	<0.0005	<0.01	<0.00005
27-Oct-05	259	2500	2455	8.19	397	120																
3-Nov-05	266	2500	2665	7.78	361	111	<1	3.25	57.3	72	20.6	<0.5	0.031	7.9	0.0456	0.00713	0.017	0.00432	<0.0002	<0.0005	<0.01	<0.00005
10-Nov-05	273	2500	2605	8.05	355	109																
17-Nov-05	280	2500	2440	8.03	277	120	<1	1	63	75	27.5	<0.5	0.025	6.71	0.0407	0.00446	0.00994	0.00471	<0.0002	<0.0005	<0.01	<0.00005
24-Nov-05	287	2500	2540	7.94	448	108																
1-Dec-05	294	2500	2665	7.96	349	109	<1	1.75	56.5	74	26.6	<0.5	0.023	7.27	0.0408	0.00559	0.0112	0.00464	<0.0002	<0.0005	<0.01	<0.00005
8-Dec-05	301	2500	2620	7.97	401	108																
15-Dec-05	308	2500	2645	7.69	439	108	<1	4.75	55.8	62	28.6	<0.5	0.023	6.88	0.0403	0.00607	0.0113	0.00516	<0.0002	<0.0005	<0.01	<0.00005
22-Dec-05	315	2500	2615	7.95	413	97																
29-Dec-05	322	2500	2485	7.89	420	104	<1	3	51.5	58	25.2	<0.5	0.02	6.55	0.0322	0.00428	0.0108	0.00437	<0.0002	<0.0005	<0.01	<0.00005
5-Jan-06	329	2500	2460	8.01	424	106																
12-Jan-06	336	2500																				
19-Jan-06	343	2500	2555	7.78	425	123	<1	2.5	59.5	54	31.2	<0.5	0.022	4.79	0.0307	0.00393	0.00843	0.00585	<0.0002	<0.0005	<0.01	<0.00005
26-Jan-06	350	2500	2535	7.82	381	106	<1	2	49.8	60	28.4	<0.5	0.025	6.13	0.0589	0.00386	0.0106	0.00467	<0.0002	<0.0005	<0.01	<0.00005
2-Feb-06	357	2500	2505	7.77	384	107																
9-Feb-06	364	2500	2600	7.66	389	98	<1	2.75	45	56	27.8	<0.5	<0.02	6.41	0.0331	0.00415	0.0102	0.00443	<0.0002	<0.0005	<0.01	<0.00005
16-Feb-06	371	2500	2545	8.02	441	107																
23-Feb-06	378	2500	2595	7.73	427	102	<1	2	49.3	56	30.8	<0.5	0.02	6.12	0.0223	0.00355	0.00851	0.00522	<0.0002	<0.0005	<0.01	<0.00005
2-Mar-06	385	2500	2510	8.03	459	109																
9-Mar-06	392	2500	2600	7.75	439	116	<1	2.75	51.5	66	35.2	<0.5	0.022	6.48	0.0262	0.00432	0.00984	0.00541	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-06	399	2500	2585	8.01	373	116																
23-Mar-06	406	2500	2590	7.92	341	124	<1	2.25	53.3	63	36.1	<0.5	0.023	6.66	0.0209	0.00468	0.00923	0.00506	<0.0002	<0.0005	<0.01	<0.00005
30-Mar-06	413	2500	2555	7.8	398	112																
6-Apr-06	420	2500	2600	8.01	386	128	<1	3	54.3	61	35.7	<0.5	0.024	7.13	0.0242	0.00524	0.0109	0.00349	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-06	427	2500	2625	8.04	398	109																
20-Apr-06	434	2500	2610	7.86	439	119	<1	2	54.8	66	38.5	<0.5	0.023	6.43	0.0248	0.0043	0.0096	0.00568	<0.0002	<0.0005	<0.01	<0.00005
27-Apr-06	441	2500	2525	8.03	337	108																
4-May-06	448	2500	2605	7.79	283	111	<1	1.92	53	99	36.7	<0.5	0.025	7.2	0.0261	0.00494	0.0105	0.00594	<0.0002	<0.0005	<0.01	0.000155
11-May-06	455	2500	2595	7.74	315	95																
18-May-06	462	2500	2565	7.65	362	101	<1	1.99	42.9	54	29.1	<0.5	<0.02	7.52	0.0241	0.00375	0.0108	0.00413	<0.0002	<0.0005	<0.01	<0.00005
25-May-06	469	2500	2470	7.91	230	107																
1-Jun-06	476	2500	2450	7.67	343	96	<1	2.19	43.6	57	41.2	<0.5	<0.02	5.66	0.025	0.00301	0.0111	0.0046	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-06	483	2500	2425	7.84	174	94																
15-Jun-06	490	2500	2425	7.63	315	97	<1	2.38	42.8	54	31.1	<0.5	<0.02	6.74	0.0228	0.00313	0.0103	0.00431	<0.0002	<0.0005	<0.01	<0.00005
22-Jun-06	497	2500	2600	7.91	218	103																
29-Jun-06	504	2500	2520	7.5	299	95	<1	3.18	46.6	57	35.5	<0.5	<0.02	8.23	0.0222	0.00423	0.00978	0.00451	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-06	511	2500	2480																			
13-Jul-06	518	2500	2535	7.93	178	105																
20-Jul-06	525	2500	2350																			
27-Jul-06	532	2500	2445	7.61	371	98	<1	2.95	46.3	58	35.2	<0.5	<0.02	6.73	0.0252	0.0037	0.0104	0.00384	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-06	539	2500	2580																			
10-Aug-06	546	2500	2425	7.86	239	79																
17-Aug-06	553	2500	2445																			
24-Aug-06	560	2500	2510	7.67	136	79				52	31.9	<0.5	<0.02	5.65	0.0177	0.0025	0.008	0.00352	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-06	567	2500	2510																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
14-Jul-05	154	2.68	<0.0005	0.00023	0.00265	0.282	0.000153	0.721	0.00284	<0.00001	0.00725	<0.0005	1.34	0.002	3.94	<0.00001	40	<0.00005	<0.0001	0.0347	<0.001
21-Jul-05	161																				
28-Jul-05	168	2.56	<0.0005	0.00012	0.00205	0.136	0.000156	0.549	0.00258	<0.00001	0.00571	<0.0005	1.13	0.0016	3.49	<0.00001	36.5	<0.00005	<0.0001	0.0264	<0.001
4-Aug-05	175																				
11-Aug-05	182	3	<0.0005	<0.0001	0.00207	0.052	0.000072	0.637	0.00239	<0.00001	0.00488	<0.0005	1.19	0.0014	2.99	<0.00001	30.3	<0.00005	<0.0001	0.018	<0.001
18-Aug-05	189																				
25-Aug-05	196	3.44	<0.0005	<0.0001	0.00239	0.034	0.000058	0.701	0.00254	<0.0001	0.00452	<0.0005	1.15	0.0014	3.12	<0.00001	27.7	<0.00005	<0.0001	0.0197	<0.001
1-Sep-05	203																				
8-Sep-05	210	4.33	<0.0005	<0.0001	0.00279	0.043	0.000067	0.938	0.00314	<0.00001	0.00492	<0.0005	1.29	0.0014	3.04	<0.00001	26.5	<0.00005	<0.0001	0.0171	0.0012
15-Sep-05	217																				
22-Sep-05	224	4.92	<0.0005	<0.0001	0.00569	<0.03	<0.00005	0.993	0.0041	<0.00001	0.00417	<0.0005	1.29	0.0011	2.87	<0.00001	24.2	<0.00005	0.00011	0.0166	0.0019
29-Sep-05	231																				
6-Oct-05	238	5.84	<0.0005	<0.0001	0.00363	0.039	0.000091	1.04	0.00457	<0.00001	0.00442	<0.0005	1.36	<0.001	3.01	<0.00001	22.7	<0.00005	<0.0001	0.0183	<0.001
13-Oct-05	245																				
20-Oct-05	252	5.54	<0.0005	<0.0001	0.00095	0.042	<0.00005	1.02	0.0039	<0.00001	0.0038	<0.0005	1.31	0.0011	2.83	<0.00001	21	<0.00005	<0.0001	0.0176	<0.001
27-Oct-05	259																				
3-Nov-05	266	6.22	<0.0005	<0.0001	0.0017	<0.03	<0.00005	1.23	0.00514	<0.00001	0.0037	<0.0005	1.29	0.0011	2.63	<0.00001	18.1	<0.00005	<0.0001	0.0137	<0.001
10-Nov-05	273																				
17-Nov-05	280	8.9	<0.0005	<0.0001	0.00065	1.74	<0.00005	1.29	0.0064	<0.00001	0.00267	<0.0005	1.24	<0.001	2.51	<0.00001	20.4	<0.00005	<0.0001	0.00905	<0.001
24-Nov-05	287																				
1-Dec-05	294	8.18	<0.0005	<0.0001	0.00171	<0.03	<0.00005	1.51	0.00699	<0.00001	0.00321	<0.0005	1.31	<0.001	2.42	<0.00001	16.4	<0.00005	<0.0001	0.00999	<0.001
8-Dec-05	301																				
15-Dec-05	308	8.84	<0.0005	<0.0001	0.00156	<0.03	<0.00005	1.58	0.00752	<0.00001	0.00322	<0.0005	1.37	<0.001	2.62	<0.00001	16.3	<0.00005	<0.0001	0.01	<0.001
22-Dec-05	315																				
29-Dec-05	322	7.8	<0.0005	<0.0001	0.00066	<0.03	<0.00005	1.4	0.00655	<0.00001	0.00254	<0.0005	1.26	<0.001	2.27	<0.00001	13.4	<0.00005	<0.0001	0.0103	<0.001
5-Jan-06	329																				
12-Jan-06	336																				
19-Jan-06	343	9.64	<0.0005	<0.0001	0.00089	<0.03	<0.00005	1.73	0.00877	<0.00001	0.00193	<0.0005	1.25	<0.001	2.47	<0.00001	14.6	<0.00005	<0.0001	0.00794	<0.001
26-Jan-06	350	8.7	<0.0005	<0.0001	0.00271	<0.03	<0.00005	1.61	0.00792	<0.00001	0.00223	<0.0005	1.29	<0.001	2.3	<0.00001	12.7	<0.00005	<0.0001	0.00996	<0.001
2-Feb-06	357																				
9-Feb-06	364	8.72	<0.0005	<0.0001	0.00104	<0.03	0.000109	1.47	0.00766	<0.00001	0.00239	<0.0005	1.21	<0.001	2.32	<0.00001	11.9	<0.00005	<0.0001	0.00921	<0.001
16-Feb-06	371																				
23-Feb-06	378	9.41	<0.0005	<0.0001	0.00192	<0.03	<0.00005	1.78	0.00754	<0.00001	0.00205	<0.0005	1.17	<0.001	2.1	<0.00001	10.9	<0.00005	<0.0001	0.00757	<0.001
2-Mar-06	385																				
9-Mar-06	392	10.7	<0.0005	<0.0001	0.00091	<0.03	<0.00005	2.06	0.00912	<0.00001	0.00258	<0.0005	1.33	<0.001	2.28	<0.00001	10.1	<0.00005	0.00024	0.00864	<0.001
16-Mar-06	399																				
23-Mar-06	406	11.3	<0.0005	<0.0001	0.00136	0.031	0.000586	1.93	0.00907	<0.00001	0.00248	<0.0005	1.27	<0.001	2.66	0.000025	11.4	<0.00005	<0.0001	0.0085	<0.001
30-Mar-06	413																				
6-Apr-06	420	10.8	<0.0005	<0.0001	0.00228	<0.03	<0.00005	2.13	0.0121	<0.00001	0.00294	<0.0005	1.43	<0.001	2.4	<0.00001	10.3	<0.00005	<0.0001	0.0103	0.0025
13-Apr-06	427																				
20-Apr-06	434	12	<0.0005	<0.0001	0.00164	<0.03	0.00005	2.08	0.0105	<0.00001	0.00267	<0.0005	1.42	<0.001	2.46	<0.00001	9.8	<0.00005	<0.0001	0.00896	0.0013
27-Apr-06	441																				
4-May-06	448	11.1	<0.0005	<0.0001	0.0014	<0.03		2.18	0.00989	<0.00001	0.00272	<0.0005	1.43	0.0012	2.65	<0.00001	9	0.000119	<0.0001	0.0103	0.0075
11-May-06	455																				
18-May-06	462	8.99	<0.0005	<0.0001	0.00129	<0.03	<0.00005	1.61	0.00801	<0.00001	0.003	<0.0005	1.16	<0.001	2.15	<0.00001	6.9	<0.00005	<0.0001	0.0112	<0.001
25-May-06	469																				
1-Jun-06	476	13.8	<0.0005	<0.0001	0.0025		0.000129	1.62	0.0098	<0.00001	0.00232	<0.0005	1.19	<0.001	2.26	<0.00001	8.4	<0.00005	<0.0001	0.0103	0.0012
8-Jun-06	483																				
15-Jun-06	490	9.71	<0.0005	<0.0001	0.00122	<0.03	<0.00005	1.67	0.00816	<0.00001	0.00246	<0.0005	1.16	<0.001	2.24	<0.00001	7.4	<0.00005	<0.0001	0.00982	<0.001
22-Jun-06	497																				
29-Jun-06	504	10.9	<0.0005	<0.0001	0.00083	<0.03	<0.00005	2.02	0.00863	<0.00001	0.00332	<0.0005	1.21	<0.001	2.47	<0.00001	7.7	<0.00005	<0.0001	0.00944	<0.001
6-Jul-06	511																				
13-Jul-06	518																				
20-Jul-06	525																				
27-Jul-06	532	11	<0.0005	<0.0001	0.00176	<0.03	0.000057	1.89	0.00829	<0.00001	0.00292	<0.0005	1.12	<0.001	2.21	<0.00001	8.4	<0.00005	<0.0001	0.00977	0.0012
3-Aug-06	539																				
10-Aug-06	546																				
17-Aug-06	553																				
24-Aug-06	560	9.9	<0.0005	<0.0001	0.00145	<0.03	0.000221	1.74	0.00798	<0.00001	0.00224	<0.0005	0.951	<0.001	1.77	<0.00001	5.5	<0.00005	<0.0001	0.00731	0.0053
31-Aug-06	567																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
7-Sep-06	574	2500	2440	8.16	316	102																
14-Sep-06	581	2500	2510																			
21-Sep-06	588	2500	2430	7.54	351	92	<1	1.63	44.6	56	36.5	<0.5	<0.02	5.69	0.0165	0.00274	0.00811	0.00402	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-06	595	2500	2485																			
5-Oct-06	602	2500	2500	7.74	245	86																
12-Oct-06	609	2500	2550																			
19-Oct-06	616	2500	2430	7.53	379	102	<1	4.99	50.2	52	40.4	<0.5	<0.02	5.36	0.0142	0.00257	0.00737	0.00417	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-06	623	2500	2540																			
2-Nov-06	630	2500	2435	7.23	394	101																
9-Nov-06	637	2500	2510																			
16-Nov-06	644	2500	2485	7.26	356	111	<1	4.5	54.4	61.3	46.3	<0.5	<0.02	5.19	0.0128	0.00301	0.00703	0.00444	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-06	651	2500	2630																			
30-Nov-06	658	2500	2565	7.24	356	102																
7-Dec-06	665	2500	2575																			
14-Dec-06	672	2500	2525	7.87	336	107	<1	2.64	52	60.5	44.6	<0.5	<0.02	5.66	0.014	0.00331	0.00721	0.00465	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-06	679	2500	2460																			
28-Dec-06	686	2500	2545	7.86	326	106																
4-Jan-07	693	2500	2355																			
11-Jan-07	700	2500	2425	7.68	371	88	<1	3.27	43.3	53	37.3	<0.5	<0.02	4.21	0.0154	0.00174	0.00617	0.00362	<0.0002	<0.0005	<0.01	<0.00005
18-Jan-07	707	2500	2520																			
25-Jan-07	714	2500	2500	7.67	346	115																
1-Feb-07	721	2500	2465																			
8-Feb-07	728	2500	2100	7.82	374	116	<1	11.28	59.6	61	49.1	<0.5	<0.02	6.48	0.0117	0.00296	0.00521	0.00449	<0.0002	<0.0005	<0.01	<0.00005
15-Feb-07	735	2500	2805																			
22-Feb-07	742	2500	2470	7.61	400	108																
1-Mar-07	749	2500	2515																			
8-Mar-07	756	2500	2415	7.75	384	102	<1	5.63	56.7	68.3	48	<0.5	<0.02	5.93	0.0139	0.0028	0.00675	0.0048	<0.0002	<0.0005	<0.01	<0.00005
15-Mar-07	763	2500	2405																			
22-Mar-07	770	2500	2440	7.48	438	93																
29-Mar-07	777	2500	2460																			
5-Apr-07	784	2500	2485	7.86	410	100	<1	1.74	42.7	59	38.3	<0.5	<0.02	5.32	0.0146	0.002	0.00545	0.00367	<0.0002	<0.0005	<0.01	<0.00005
12-Apr-07	791	2500	2380																			
19-Apr-07	798	2500	2390	7.76	375	102																
26-Apr-07	805	2500	2395																			
3-May-07	812	2500	2385	7.49	404	107	<1	3.98	45.9	54.5	41.9	<0.5	<0.02	5.94	0.0335	0.00235	0.00589	0.00376	<0.0002	<0.0005	<0.01	<0.00005
10-May-07	819	2500	2435																			
17-May-07	826	2500	2320	7.9	383	99																
24-May-07	833	2500	2395																			
31-May-07	840	2500	2415	7.88	369	98	<1	2.17	38.8	51	38.9	<0.5	<0.02	6.08	0.0182	0.00228	0.00688	0.00319	<0.0002	<0.0005	<0.01	<0.00005
7-Jun-07	847	2500	2365																			
14-Jun-07	854	2500	2365	7.87	377	92																
21-Jun-07	861	2500	2315																			
28-Jun-07	868	2500	2490	7.9	407	96	<1	2.48	44.2	51.8	40.1	<0.5	<0.02	6.5	0.0183	0.00246	0.00613	0.00355	<0.0002	<0.0005	<0.01	<0.00005
5-Jul-07	875	2500	2480																			
12-Jul-07	882	2500	2360	7.84	390	89																
19-Jul-07	889	2500	2375																			
26-Jul-07	896	2500	2410	7.78	341	97	<1	3.89	40.3	51.3	38.9	<0.5	<0.02	6.58	0.0146	0.00199	0.00556	0.00304	<0.0002	<0.0005	<0.01	<0.00005
2-Aug-07	903	2500	2215																			
9-Aug-07	910	2500	2590	7.55	314	96																
16-Aug-07	917	2500	2415																			
23-Aug-07	924	2500	2375	7.87	385	75	<1	1.76	37.2	47.8	37.5	<0.5	<0.02	6.18	0.0144	0.00203	0.0049	0.00295	<0.0002	<0.0005	<0.01	<0.00005
30-Aug-07	931	2500	2460																			
6-Sep-07	938	2500	2465	7.61	430	68																
13-Sep-07	945	2500	2395																			
20-Sep-07	952	2500	2370	7.78	371	53	<1	4.75	38.6	41.2	37	<0.5	<0.02	5.82	0.0124	0.00205	0.00394	0.00287	<0.0002	<0.0005	<0.01	0.000096
27-Sep-07	959	2500	2340																			
4-Oct-07	966	2500	2405	7.82	363	90																
11-Oct-07	973	2500	2370																			
18-Oct-07	980	2500	2350	7.78	415	93	<1	2.31	44	62.7	41.5	<0.5	<0.02	5.25	0.012	0.00179	0.00396	0.00318	<0.0002	<0.0005	<0.01	<0.00005
25-Oct-07	987	2500	2395																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
7-Sep-06	574																				
14-Sep-06	581																				
21-Sep-06	588	11.4	<0.0005	<0.0001	0.0028	<0.03	<0.00005	1.96	0.00979	<0.00001	0.00228	<0.0005	1.09	<0.001	2.08	<0.00001	5.5	<0.00005	<0.0001	0.008	<0.001
28-Sep-06	595																				
5-Oct-06	602																				
12-Oct-06	609																				
19-Oct-06	616	12.8	<0.0005	<0.0001	0.00152	<0.03	0.000155	2.06	0.0102	<0.00001	0.00239	<0.0005	1.13	<0.001	2.1	<0.00001	5.8	<0.00005	0.00012	0.00691	0.0011
26-Oct-06	623																				
2-Nov-06	630																				
9-Nov-06	637																				
16-Nov-06	644	14.8	<0.0005	<0.0001	0.00136	<0.03	<0.00005	2.29	0.0102	<0.00001	0.00213	<0.0005	1.15	<0.001	2.43	<0.00001	5.5	<0.00005	<0.0001	0.00684	<0.001
23-Nov-06	651																				
30-Nov-06	658																				
7-Dec-06	665																				
14-Dec-06	672	13.7	<0.0005	<0.0001	0.00424	<0.03	0.000053	2.5	0.0103	<0.00001	0.0022	<0.0005	1.19	<0.001	2.18	0.000029	5.1	<0.00005	<0.0001	0.0067	0.0034
21-Dec-06	679																				
28-Dec-06	686																				
4-Jan-07	693																				
11-Jan-07	700	11.6	<0.0005	<0.0001	0.00086	<0.03	<0.00005	2.06	0.0111	<0.00001	0.0015	<0.0005	1.06	<0.001	1.86	<0.00001	4.4	<0.00005	<0.0001	0.00585	<0.001
18-Jan-07	707																				
25-Jan-07	714																				
1-Feb-07	721																				
8-Feb-07	728	15.5	<0.0005	<0.0001	0.00157	<0.03	0.000066	2.5	0.014	<0.00001	0.00201	<0.0005	1.11	<0.001	1.91	<0.00001	4.3	<0.00005	<0.0001	0.00486	0.0078
15-Feb-07	735																				
22-Feb-07	742																				
1-Mar-07	749																				
8-Mar-07	756	14.7	<0.0005	<0.0001	0.00246	<0.03	<0.00005	2.71	0.0152	<0.00001	0.00209	<0.0005	1.21	<0.001	2.1	<0.00001	2.9	<0.00005	<0.0001	0.00571	<0.001
15-Mar-07	763																				
22-Mar-07	770																				
29-Mar-07	777																				
5-Apr-07	784	11.9	<0.0005	<0.0001	0.00082	<0.03	<0.00005	2.09	0.00968	<0.00001	0.00169	<0.0005	1.07	<0.001	1.76	<0.00001	2.9	<0.00005	<0.0001	0.00506	<0.001
12-Apr-07	791																				
19-Apr-07	798																				
26-Apr-07	805																				
3-May-07	812	13	<0.0005	<0.0001	0.00092	<0.03	<0.00005	2.32	0.0104	<0.00001	0.00208	<0.0005	1.11	<0.001	1.96	<0.00001	3	<0.00005	<0.0001	0.00548	<0.001
10-May-07	819																				
17-May-07	826																				
24-May-07	833																				
31-May-07	840	12.2	<0.0005	<0.0001	0.00134	<0.03	0.000051	2.06	0.00941	<0.00001	0.00203	<0.0005	1.1	<0.001	1.99	<0.00001	2.8	<0.00005	<0.0001	0.00647	<0.001
7-Jun-07	847																				
14-Jun-07	854																				
21-Jun-07	861																				
28-Jun-07	868	12.6	<0.0005	<0.0001	0.00157	<0.03	<0.00005	2.13	0.0109	<0.00001	0.00206	<0.0005	1.08	<0.001	2.11	<0.00001	2.8	<0.00005	0.0001	0.00598	<0.001
5-Jul-07	875																				
12-Jul-07	882																				
19-Jul-07	889																				
26-Jul-07	896	12.1	<0.0005	<0.0001	0.00108	<0.03	<0.00005	2.07	0.00978	<0.00001	0.00182	<0.0005	0.947	<0.001	1.9	<0.00001	2.3	<0.00005	<0.0001	0.0047	0.001
2-Aug-07	903																				
9-Aug-07	910																				
16-Aug-07	917																				
23-Aug-07	924	11.7	<0.0005	<0.0001	0.0022	<0.03	<0.00005	1.99	0.00824	<0.00001	0.00168	<0.0005	0.892	<0.001	1.84	<0.00001	2.1	<0.00005	<0.0001	0.00452	0.001
30-Aug-07	931																				
6-Sep-07	938																				
13-Sep-07	945																				
20-Sep-07	952	11.6	<0.0005	<0.0001	0.0017	<0.03		1.93	0.00944	<0.00001	0.00173	<0.0005	0.809	<0.001	1.71	<0.00001	<2	<0.00005	<0.0001	0.00387	0.0021
27-Sep-07	959																				
4-Oct-07	966																				
11-Oct-07	973																				
18-Oct-07	980	13	<0.0005	<0.0001	0.00062	<0.03	<0.00005	2.21	0.0115	<0.00001	0.00155	<0.0005	0.919	<0.001	1.92	<0.00001	2	<0.00005	<0.0001	0.00384	<0.001
25-Oct-07	987																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
1-Nov-07	994	2500	2360	7.69	431	92																
8-Nov-07	1001	2500	2380																			
15-Nov-07	1008	2500	2360	7.86	460	95	<1	2.56	43.9	51.8	43.1	<0.5	<0.02	6.12	0.0126	0.00197	0.00385	0.00324	<0.0002	<0.0005	<0.01	
22-Nov-07	1015	2500	2390																			
29-Nov-07	1022	2500	2390	7.62	436	93																
6-Dec-07	1029	2500	2475																			
13-Dec-07	1036	2500	2380	7.83	449	95	<1	2.66	50.2	57	45.8	<0.5	<0.02	3.72	0.0109	0.00164	0.00308	0.00318	<0.0002	<0.0005	<0.01	<0.00005
20-Dec-07	1043	2500	2250																			
27-Dec-07	1050	2500	2330	7.52	447	77																
3-Jan-08	1057	2500	2355																			
10-Jan-08	1064	2500	2270	7.56	449	82	<1	3.4	42.6	43.5	40	<0.5	<0.02	4.13	0.0122	0.00163	0.00329	0.00273	<0.0002	<0.0005	<0.01	<0.00005
17-Jan-08	1071	2500	2455																			
24-Jan-08	1078	2500	2425	7.68	449	102																
31-Jan-08	1085	2500	2375																			
7-Feb-08	1092	2500	2410	7.78	457	101	<1	3.71	51.9	65.5	48.2	<0.5	<0.02	6.48	0.0105	0.00224	0.00355	0.00378	<0.0002	<0.0005	<0.01	<0.00005
14-Feb-08	1099	2500	2495																			
21-Feb-08	1106	2500	2245	7.86	425	106																
28-Feb-08	1113	2500	2185																			
6-Mar-08	1120	2500	2395	7.74	412	122	<1	5.18	54	70.2	54.9	<0.5	<0.02	12.7	0.0139	0.0026	0.00483	0.00443	<0.0002	<0.0005	<0.01	<0.00005
13-Mar-08	1127	2500	2215																			
20-Mar-08	1134	2500	2420	7.74	415	107																
27-Mar-08	1141	2500	2150																			
3-Apr-08	1148	2500	2355	7.82	417	94	<1	3.14	49.2	59.5	48.9	<0.5	<0.02	8.66	0.011	0.00183	0.00466	0.00377	<0.0002	<0.0005	<0.01	<0.00005
10-Apr-08	1155	2500	2310																			
17-Apr-08	1162	2500	2420	7.65	416	96																
24-Apr-08	1169	2500	2335																			
1-May-08	1176	2500	2465	7.93	382	118	<1	2.72	54.6	66.3	54.6	<0.5	<0.02	8.6	0.0109	0.0021	0.00418	0.00412	<0.0002	<0.0005	<0.01	<0.00005
8-May-08	1183	2500	2415																			
15-May-08	1190	2500	2735	7.88	355	92																
22-May-08	1197	2500	2460																			
29-May-08	1204	2500	2500	8.03	384	89	<1	2.37	43.7	62.3	45.1	<0.5	<0.02	6.27	0.0137	0.00147	0.00396	0.00384	<0.0002	<0.0005	<0.01	<0.00005
5-Jun-08	1211	2500	2420																			
12-Jun-08	1218	2500	2390	8.02	383	78																
19-Jun-08	1225	2500	2450																			
26-Jun-08	1232	2500	2470	7.9	351	96	<1	5.46	49.7	61	45.4	<0.5	<0.02	6.99	0.0132	0.00151	0.0039	0.00336	<0.0002	<0.0005	<0.01	<0.00005
3-Jul-08	1239	2500	2425																			
10-Jul-08	1246	2500	2455	7.9	366	95																
17-Jul-08	1253	2500	2425																			
24-Jul-08	1260	2500	2510	7.86	392	100	<1	3.24	44.8	45	46.6	<0.5	<0.02	6.19	0.017	0.00152	0.00393	0.00339	<0.0002	<0.0005	<0.01	<0.00005
31-Jul-08	1267	2500	2535																			
7-Aug-08	1274	2500	2495	7.95	364	94																
14-Aug-08	1281	2500	2535																			
21-Aug-08	1288	2500	2415	7.86	321	90	<1	2.57	46.8	49	43.6	<0.5	<0.02	7.25	0.0113	0.00161	0.0041	0.00393	<0.0002	<0.0005	<0.01	<0.00005
28-Aug-08	1295	2500	2525																			
4-Sep-08	1302	2500	2475	7.87	321	91																
11-Sep-08	1309	2500	2510																			
18-Sep-08	1316	2500	2460	7.91	302	93	<1	2.52	41.9	54.8	43.7	<0.5	<0.02	7.11	0.0143	0.00172	0.00374	0.00443	<0.0002	<0.0005	<0.01	0.000146
25-Sep-08	1323	2500	2495																			
2-Oct-08	1330	2500	2380	8.02	395	98																
9-Oct-08	1337	2500	2560																			
16-Oct-08	1344	2500	2425	7.87	393	82	<1	2.3	38	47	39.3	<0.5	<0.02	6.84	0.0168	0.0019	0.00371	0.00357	<0.0002	<0.0005	<0.01	<0.00005
23-Oct-08	1351	2500	2525																			
30-Oct-08	1358	2500	2390	7.74	437	96																
6-Nov-08	1365	2500	2490																			
13-Nov-08	1372	2500	2450	7.74	436	83	<1	3.05	41	62	42.5	<0.5	<0.02	6.42	0.0134	0.00144	0.00317	0.00342	<0.0002	<0.0005	<0.01	<0.00005
20-Nov-08	1379	2500	2420																			
27-Nov-08	1386	2500	2460	7.74	373	77																
4-Dec-08	1393	2500	2430																			
11-Dec-08	1400	2500	2470	7.76	319	98	<1	3.66	56.4	62.5	51.9	<0.5	<0.02	5.59	0.0105	0.00158	0.00332	0.00386	<0.0002	<0.0005	<0.01	<0.00005
18-Dec-08	1407	2500	2460																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
1-Nov-07	994																				
8-Nov-07	1001																				
15-Nov-07	1008	13.4	<0.0005	<0.0001	0.00077	<0.03		2.35	0.0134	<0.00001	0.0018	<0.0005	0.937	<0.001	1.81	<0.00001	<2	<0.00005	<0.0001	0.00354	0.0071
22-Nov-07	1015																				
29-Nov-07	1022																				
6-Dec-07	1029																				
13-Dec-07	1036	14.5	<0.0005	<0.0001	0.00076	<0.03	<0.00005	2.34	0.0157	<0.00001	0.00133	<0.0005	0.897	<0.001	1.74	<0.00001	<2	<0.00005	<0.0001	0.00302	<0.001
20-Dec-07	1043																				
27-Dec-07	1050																				
3-Jan-08	1057																				
10-Jan-08	1064	12.7	<0.0005	<0.0001	0.0013	<0.03	<0.00005	2.02	0.0133	<0.00001	0.00124	<0.0005	0.848	<0.001	1.74	<0.00001	<2	<0.00005	<0.0001	0.00322	<0.001
17-Jan-08	1071																				
24-Jan-08	1078																				
31-Jan-08	1085																				
7-Feb-08	1092	15.3	<0.0005	<0.0001	0.00097	<0.03	<0.00005	2.45	0.015	<0.00001	0.0022	<0.0005	1	<0.001	2.02	<0.00001	<2	<0.00005	<0.0001	0.00328	<0.001
14-Feb-08	1099																				
21-Feb-08	1106																				
28-Feb-08	1113																				
6-Mar-08	1120	17.2	<0.0005	<0.0001	0.00124	<0.03	<0.00005	2.9	0.017	<0.00001	0.00226	<0.0005	1.59	0.0015	2.61	<0.00001	<2	<0.00005	<0.0001	0.00375	<0.001
13-Mar-08	1127																				
20-Mar-08	1134																				
27-Mar-08	1141																				
3-Apr-08	1148	15.6	<0.0005	<0.0001	0.00106	<0.03	<0.00005	2.4	0.0126	<0.00001	0.00207	<0.0005	1.33	<0.001	2.38	<0.00001	<2	<0.00005	<0.0001	0.00466	<0.001
10-Apr-08	1155																				
17-Apr-08	1162																				
24-Apr-08	1169																				
1-May-08	1176	17.3	<0.0005	<0.0001	0.00107	<0.03	<0.00005	2.78	0.0121	<0.00001	0.00234	<0.0005	1.38	<0.001	2.52	<0.00001	<2	<0.00005	<0.0001	0.00442	<0.001
8-May-08	1183																				
15-May-08	1190																				
22-May-08	1197																				
29-May-08	1204	14.4	<0.0005	<0.0001	0.00249	<0.03	<0.00005	2.2	0.0135	<0.00001	0.0016	<0.0005	1.07	<0.001	1.94	<0.00001	<2	<0.00005	<0.0001	0.00375	<0.001
5-Jun-08	1211																				
12-Jun-08	1218																				
19-Jun-08	1225																				
26-Jun-08	1232	14.6	<0.0005	<0.0001	0.00204	<0.03	<0.00005	2.15	0.0132	<0.00001	0.00185	<0.0005	1.06	0.0011	1.94	<0.00001	<2	<0.00005	<0.0001	0.00385	<0.001
3-Jul-08	1239																				
10-Jul-08	1246																				
17-Jul-08	1253																				
24-Jul-08	1260	14.9	<0.0005	<0.0001	0.00105	<0.03	<0.00005	2.27	0.0133	<0.00001	0.00189	<0.0005	1.02	<0.001	1.98	<0.00001	<2	<0.00005	<0.0001	0.00392	<0.001
31-Jul-08	1267																				
7-Aug-08	1274																				
14-Aug-08	1281																				
21-Aug-08	1288	13.9	<0.0005	<0.0001	0.0012	<0.03	<0.00005	2.13	0.0097	<0.00001	0.0019	<0.0005	0.981	0.0014	1.72	<0.00001	<2	<0.00005	<0.0001	0.00424	<0.001
28-Aug-08	1295																				
4-Sep-08	1302																				
11-Sep-08	1309																				
18-Sep-08	1316	14.1	<0.0005	<0.0001	0.00176	<0.03	0.000156	2.07	0.0105	<0.00001	0.00174	<0.0005	0.869	<0.001	1.93	<0.00001	<2	<0.00005	<0.0001	0.00383	0.0053
25-Sep-08	1323																				
2-Oct-08	1330																				
9-Oct-08	1337																				
16-Oct-08	1344	12.7	<0.0005	<0.0001	0.00113	<0.03	<0.00005	1.84	0.00937	<0.00001	0.00179	<0.0005	0.88	<0.001	1.6	<0.00001	<2	<0.00005	<0.0001	0.00401	<0.001
23-Oct-08	1351																				
30-Oct-08	1358																				
6-Nov-08	1365																				
13-Nov-08	1372	13.9	<0.0005	<0.0001	0.00122	<0.03	<0.00005	1.91	0.0133	<0.00001	0.00168	<0.0005	0.884	<0.001	1.66	<0.00001	<2	<0.00005	<0.0001	0.00331	<0.001
20-Nov-08	1379																				
27-Nov-08	1386																				
4-Dec-08	1393																				
11-Dec-08	1400	16.7	<0.0005	<0.0001	0.00126	<0.03	<0.00005	2.45	0.0146	<0.00001	0.0018	<0.0005	0.959	<0.001	1.82	<0.00001	<2	<0.00005	<0.0001	0.00306	<0.001
18-Dec-08	1407																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
25-Dec-08	1414	2500	2440	7.81	332	110																
1-Jan-09	1421	2500	2460																			
8-Jan-09	1428	2500	2380	7.9	348	110	<1	2.81	62	73.5	56.9	<0.5	<0.02	7.12	0.01	0.00181	0.00283	0.00439	<0.0002	<0.0005	<0.01	<0.00005
15-Jan-09	1435	2500	2390																			
22-Jan-09	1442	2500	2010	7.61	347	100																
29-Jan-09	1449	2500	2385																			
5-Feb-09	1456	2500	2385	7.61		90	<1	4.9	49.2	59.8	49.4	<0.5	<0.02	6.64	0.0098	0.00139	0.00266	0.00305	<0.0002	<0.0005	<0.01	<0.00005
12-Feb-09	1463	2500	2350																			
19-Feb-09	1470	2500	2420	7.68	293	82																
26-Feb-09	1477	2500	2395																			
5-Mar-09	1484	2500	2360	7.51	265	98	<1	7.74	52.9	44.3	50.6	<0.5	<0.02	7.61	0.0119	0.00173	0.00309	0.00321	<0.0002	<0.0005	<0.01	<0.00005
12-Mar-09	1491	2500	2400																			
19-Mar-09	1498	2500	2375	7.58	357	90																
26-Mar-09	1505	2500	2300																			
2-Apr-09	1512	2500	2170	7.57	366	106	<1	4.15	53.3	61	53.4	<0.5	<0.02	8.66	0.0116	0.00202	0.00322	0.00366	<0.0002	<0.0005	<0.01	<0.00005
9-Apr-09	1519	2500	2550																			
16-Apr-09	1526	2500	2330	7.67	385	100																
23-Apr-09	1533	2500	2375																			
30-Apr-09	1540	2500	2340	7.73	384	96	<1	2.62	49.5	56	48	<0.5	<0.02	7.52	0.013	0.00169	0.00278	0.00321	<0.0002	<0.0005	<0.01	<0.00005
7-May-09	1547	2500	2270																			
14-May-09	1554	2500	2365	7.76	377	101																
21-May-09	1561	2500	2410																			
28-May-09	1568	2500	2405	7.75	365	93	<1	3.33	50.9	61.8		<0.5	<0.02	7.14								
4-Jun-09	1575	2500	2440																			
11-Jun-09	1582	2500	2460	7.76	362	90																
18-Jun-09	1589	2500	2415																			
25-Jun-09	1596	2500	2450	7.67	363	78	<1	4.1	47.1	52		<0.5	<0.02	6.37								
2-Jul-09	1603	2500	2410																			
9-Jul-09	1610	2500	2355	7.87	348	97																
16-Jul-09	1617	2500	1645																			
23-Jul-09	1624	2500	2415	7.52	369	83	<1	4.06	44.6	50.5		<0.5	<0.02	6.62								
30-Jul-09	1631	2500	2405																			
6-Aug-09	1638	2500	2470	7.96	352	76																
13-Aug-09	1645	2500	2460																			
20-Aug-09	1652	2500	2400	7.65	341	97	<1	3.75	50.9	62.7		<0.5	<0.02	8.36								
27-Aug-09	1659	2500	2485																			
3-Sep-09	1666	2500	2430	7.81	337	91																
10-Sep-09	1673	2500	2295																			
17-Sep-09	1680	2500	2455	7.8	326	104	<1	3.3	57.4	61		<0.5	<0.02	8.89								
24-Sep-09	1687	2500	2505																			
1-Oct-09	1694	2500	2450	7.74	334	89																
8-Oct-09	1701	2500	2445																			
15-Oct-09	1708	2500	2425	7.6	348	76	<1	3.36	44.5	30		<0.5	<0.02	6.71								
22-Oct-09	1715	2500																				

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	2210	8.83	281	442	<1	<1	104.3	337	11.1	<0.5	0.106	108	0.55	0.00408	0.178	0.00683	<0.0004	<0.001	0.151	<0.0001
17-Feb-05	7	2500	2505	9.01	287	364																
24-Feb-05	14	2500	2530	8.58	308	246	<1	<1	101.8	164	5.95	<0.5	0.17	29.4	0.201	0.00747	0.103	0.00409	<0.0004	<0.001	0.029	<0.0001
3-Mar-05	21	2500	2480	8.91	304	246																
10-Mar-05	28	2500	2455	9.02	281	247	<1	<1	114.3	164	4.98	<0.5	0.138	21.9	0.208	0.00869	0.115	0.0032	<0.0002	<0.0005	0.019	<0.00005
17-Mar-05	35	2500	2505	8.9	342	203																
24-Mar-05	42	2500	2510	8.91	347	208	<1	<1	91	137	4.45	<0.5	0.062	17.6	0.189	0.00718	0.0718	0.00475	<0.0002	<0.0005	0.011	<0.00005
31-Mar-05	49	2500	2500	8.99	373	227																
7-Apr-05	56	2500	2505	8.7	366	176	<1	<1	79.3	114	3.58	<0.5	0.084	13.8	0.163	0.00755	0.051	0.00371	<0.0002	<0.0005	0.01	<0.00005
14-Apr-05	63	2500	2490	8.97	336	188																
21-Apr-05	70	2500	2505	8.5	337	154	<1	<1	69.5	91	4.19	<0.5	0.073	11.4	0.141	0.00701	0.0387	0.00295	<0.0002	<0.0005	<0.01	<0.00005
28-Apr-05	77	2500	2500	8.41	379	156																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
25-Dec-08	1414																				
1-Jan-09	1421																				
8-Jan-09	1428	18.5	<0.0005	<0.0001	0.00131	<0.03	<0.00005	2.6	0.0126	0.00001	0.00236	<0.0005	1.09	<0.001	2.05	<0.00001	<2	<0.00005	<0.0001	0.00311	<0.001
15-Jan-09	1435																				
22-Jan-09	1442																				
29-Jan-09	1449																				
5-Feb-09	1456	15.2	<0.0005	<0.0001	0.00087	<0.03	<0.00005	2.8	0.00842	<0.00001	0.0023	<0.0005	1.03	<0.001	1.76	<0.00001	<2	<0.00005	<0.0001	0.00282	<0.001
12-Feb-09	1463																				
19-Feb-09	1470																				
26-Feb-09	1477																				
5-Mar-09	1484	16.4	<0.0005	<0.0001	0.00102	<0.03	<0.00005	2.35	0.00659	<0.00001	0.00287	<0.0005	1.01	<0.001	1.78	<0.00001	<2	<0.00005	<0.0001	0.00305	<0.001
12-Mar-09	1491																				
19-Mar-09	1498																				
26-Mar-09	1505																				
2-Apr-09	1512	17	<0.0005	<0.0001	0.00081	<0.03	<0.00005	2.65	0.00873	<0.00001	0.00332	<0.0005	1.07	<0.001	1.88	<0.00001	<2	<0.00005	0.00058	0.00325	<0.001
9-Apr-09	1519																				
16-Apr-09	1526																				
23-Apr-09	1533																				
30-Apr-09	1540	15.6	<0.0005	<0.0001	0.00078	<0.03	<0.00005	2.17	0.00707	<0.00001	0.00311	<0.0005	0.975	<0.001	1.79	<0.00001	<2	<0.00005	<0.0001	0.00313	<0.001
7-May-09	1547																				
14-May-09	1554																				
21-May-09	1561																				
28-May-09	1568																				
4-Jun-09	1575																				
11-Jun-09	1582																				
18-Jun-09	1589																				
25-Jun-09	1596																				
2-Jul-09	1603																				
9-Jul-09	1610																				
16-Jul-09	1617																				
23-Jul-09	1624																				
30-Jul-09	1631																				
6-Aug-09	1638																				
13-Aug-09	1645																				
20-Aug-09	1652																				
27-Aug-09	1659																				
3-Sep-09	1666																				
10-Sep-09	1673																				
17-Sep-09	1680																				
24-Sep-09	1687																				
1-Oct-09	1694																				
8-Oct-09	1701																				
15-Oct-09	1708																				
22-Oct-09	1715																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	3.16	<0.001	0.00029	0.0046	0.487	0.00022	0.783	0.00361	<0.00001	0.0259	<0.001	1.1	0.0163	5.02	<0.00002	93.7	<0.0001	<0.0002	0.111	0.0026
17-Feb-05	7																				
24-Feb-05	14	1.76	<0.001	<0.0002	0.00748	0.112	<0.0001	0.378	0.00488	<0.00001	0.00719	<0.001	0.73	0.0044	3.84	<0.00002	58.3	<0.0001	<0.0002	0.0662	<0.002
3-Mar-05	21																				
10-Mar-05	28	1.53	<0.0005	<0.0001	0.00111	<0.06	0.000052	0.281	0.00331	<0.00001	0.00523	<0.0005	0.827	0.0039	3.24	<0.00001	56.5	<0.00005	<0.0001	0.0629	<0.001
17-Mar-05	35																				
24-Mar-05	42	1.35	<0.0005	<0.0001	0.00109	0.076	0.000169	0.259	0.00284	<0.00001	0.00389	<0.0005	0.663	0.0031	2.9	<0.00001	44.6	<0.00005	<0.0001	0.0401	<0.001
31-Mar-05	49																				
7-Apr-05	56	1.08	<0.0005	<0.0001	0.00079	0.047	0.000067	0.215	0.00203	<0.00001	0.00286	<0.0005	0.629	0.0023	2.43	<0.00001	39	<0.00005	<0.0001	0.0294	<0.001
14-Apr-05	63																				
21-Apr-05	70	1.3	<0.0005	<0.0001	0.00103	0.068	0.000091	0.23	0.00179	<0.00001	0.00241	<0.0005	0.58	0.0016	2.1	<0.00001	36.3	<0.00005	<0.0001	0.0224	0.0018
28-Apr-05	77																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
5-May-05	84	2500	2495	8.81	359	155	<1	<1	71	92	4.2	<0.5	0.077	13.5	0.139	0.00773	0.044	0.00325	<0.0002	<0.0005	<0.01	<0.00005
12-May-05	91	2500	2495	8.72	342	184																
19-May-05	98	2500	2500	8.71	317	165	<1	<1	78.3	102	4.92	<0.5	0.066	12.2	0.166	0.00827	0.0578	0.00342	<0.0002	<0.0005	<0.01	<0.00005
26-May-05	105	2500	2500	8.65	329	143																
2-Jun-05	112	2500	2505	8.13	347	112	<1	<1	50.3	70	3.97	<0.5	0.053	11.4	0.101	0.00668	0.0277	0.00243	<0.0002	<0.0005	<0.01	<0.00005
9-Jun-05	119	2500	2495	8.3	346	115																
16-Jun-05	126	2500	2490	8.26	329	123	<1	<1	56.2	76	4.61	<0.5	0.057	11	0.0668	0.00741	0.0357	0.0025	<0.0002	<0.0005	<0.01	<0.00005
23-Jun-05	133	2500	2495	8.82	328	141																
30-Jun-05	140	2500	2500	8.59	251	151	<1	<1	64.3	97	6.44	<0.5	0.064	18.2	0.194	0.00588	0.0539	0.00432	<0.0002	<0.0005	<0.01	<0.00005
7-Jul-05	147	2500	2435	8.78	263	139																
14-Jul-05	154	2500	2500	8.76	246	140	<1	<1	63.8	83	6.49	<0.5	0.075	13.2	0.0922	0.00635	0.0449	0.00223	<0.0002	<0.0005	<0.01	<0.00005
21-Jul-05	161	2500	2460	8.77	239	127																
28-Jul-05	168	2500	2430	8.66	239	127	<1	<1	64.8	82	6.96	<0.5	0.064	10.6	0.0891	0.00718	0.038	0.00218	<0.0002	<0.0005	<0.01	<0.00005
4-Aug-05	175	2500	2600	8.65	288	101																
11-Aug-05	182	2500	2460	8.78	295	126	<1	<1	61.3	96	8.85	<0.5	0.06	10.6	0.0791	0.00861	0.0326	0.00165	<0.0002	<0.0005	<0.01	<0.00005
18-Aug-05	189	2500	2585	8.64	276	145																
25-Aug-05	196	2500	2570	8.72	274	137	<1	<1	67.5	94	9.44	<0.5	0.067	10	0.0718	0.00813	0.0403	0.00191	<0.0002	<0.0005	<0.01	<0.00005
1-Sep-05	203	2500	2730	8.69	236	130																
8-Sep-05	210	2500	2580	8.56	267	131	<1	<1	63	96	9.64	<0.5	0.055	9.2	0.0664	0.00884	0.0389	0.00213	<0.0002	<0.0005	<0.01	<0.00005
15-Sep-05	217	2500	2620	8.58	271	124																
22-Sep-05	224	2500	2490	8.14	217	122	<1	<1	61.5	76	8.99	<0.5	0.038	7.68	0.0597	0.00669	0.0261	0.00207	<0.0002	<0.0005	<0.01	<0.00005
29-Sep-05	231	2500	2495	8.8	207	119																
6-Oct-05	238	2500	2480	8.26	204	115	<1	<1	56	77	11	<0.5	0.036	7.47	0.0525	0.00834	0.0259	0.00256	<0.0002	<0.0005	<0.01	<0.00005
13-Oct-05	245	2500	2505	8.22	209	111																
20-Oct-05	252	2500	2530	7.66	340	101	<1	3.25	50	56	10.5	<0.5	<0.02	6.53	0.0534	0.00748	0.0194	0.00181	<0.0002	<0.0005	<0.01	<0.00005
27-Oct-05	259	2500	2535	8.04	331	96																
3-Nov-05	266	2500	2515	7.71	372	85	<1	2	44.5	54	9.99	<0.5	0.023	6.3	0.0381	0.00637	0.0128	0.00193	<0.0002	<0.0005	<0.01	<0.00005
10-Nov-05	273	2500	2520	7.89	362	102																
17-Nov-05	280	2500	2470	8.01	259	106	<1	1	53	62	13.9	<0.5	0.028	6.44	0.0376	0.00706	0.0119	0.00247	<0.0002	<0.0005	<0.01	<0.00005
24-Nov-05	287	2500	2570	7.93	447	92																
1-Dec-05	294	2500	2495	7.72	344	89	<1	2.5	44.3	60	12.6	<0.5	0.028	6.35	0.0333	0.00607	0.0118	0.00208	<0.0002	<0.0005	<0.01	<0.00005
8-Dec-05	301	2500	2445	7.85	409	75																
15-Dec-05	308	2500	2510	7.59	424	97	<1	5	50.5	60	15.2	<0.5	0.027	6.69	0.0321	0.00639	0.0118	0.00273	<0.0002	<0.0005	<0.01	<0.00005
22-Dec-05	315	2500	2425	7.81	419	79																
29-Dec-05	322	2500	2425	7.72	433	79	<1	3.25	42	46	14.3	<0.5	0.023	5.84	0.0327	0.00455	0.00814	0.00265	<0.0002	<0.0005	<0.01	<0.00005
5-Jan-06	329	2500	2405	7.9	462	90																
12-Jan-06	336	2500																				
19-Jan-06	343	2500	2670	7.7	429	107	<1	2.5	53	52	14.5	<0.5	<0.02	4.82	0.0417	0.00496	0.0108	0.0021	<0.0002	<0.0005	<0.01	<0.00005
26-Jan-06	350	2500	2615	7.81	391	94	<1	2.25	44.3	56	14.8	<0.5	0.023	5.6	0.042	0.00444	0.00971	0.00199	<0.0002	<0.0005	<0.01	<0.00005
2-Feb-06	357	2500	2425	7.74	402	80																
9-Feb-06	364	2500	2575	7.6	391	85	<1	3.5	37	50	16.1	<0.5	0.022	7.33	0.0416	0.00415	0.00964	0.00224	<0.0002	<0.0005	<0.01	<0.00005
16-Feb-06	371	2500	2420	8	447	86																
23-Feb-06	378	2500	2575	7.72	481	90	<1	2	41.8	52	18.7	<0.5	<0.02	7.03	0.0257	0.00348	0.00783	0.00253	<0.0002	<0.0005	<0.01	<0.00005
2-Mar-06	385	2500	2485	8.05	470	97																
9-Mar-06	392	2500	2575	7.76	444	109	<1	3	47.5	63	23.4	<0.5	0.022	6.89	0.0304	0.00475	0.00861	0.00357	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-06	399	2500	2525	7.97	404	101																
23-Mar-06	406	2500	2520	7.78	329	107	<1	2	44.3	55	25	<0.5	0.021	7.03	0.0231	0.00537	0.00739	0.00244	<0.0002	<0.0005	<0.01	<0.00005
30-Mar-06	413	2500	2600	7.73	401	90																
6-Apr-06	420	2500	2480	7.85	399	109	<1	1.75	44.5	47	27.4	<0.5	<0.02	6.26	0.0266	0.00541	0.00677	0.0029	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-06	427	2500	2545	7.93	416	85																
20-Apr-06	434	2500	2500	7.71	434	89	<1	2.25	39.8	52	25.6	<0.5	<0.02	5.89	0.026	0.0049	0.00742	0.00312	<0.0002	<0.0005	<0.01	<0.00005
27-Apr-06	441	2500	2465	7.91	342	86																
4-May-06	448	2500	2515	7.66	308	92	<1	1.75	43	40	28	<0.5	<0.02	6.44	0.0243	0.00597	0.0071	0.00368	<0.0002	<0.0005	<0.01	<0.00005
11-May-06	455	2500	2540	7.85	303	98																
18-May-06	462	2500	2505	7.6	374	85	<1	1.99	36.3	48	23	<0.5	<0.02	6.9	0.0264	0.00448	0.00816	0.0028	<0.0002	<0.0005	<0.01	<0.00005
25-May-06	469	2500	2435	7.83	233	90																
1-Jun-06	476	2500	2470	7.57	364	78	<1	2.39	33.1	42	21.8	<0.5	<0.02	6.03	0.0234	0.00364	0.00784	0.00273	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-06	483	2500	2460	7.72	176	70																
15-Jun-06	490	2500	2565	7.54	347	78	<1	2.21	34.8	46	23.4	<0.5	<0.02	6.11	0.0223	0.00343	0.00674	0.00252	<0.0002	<0.0005	<0.01	<0.00005
22-Jun-06	497	2500	2320	7.71	221	71																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
5-May-05	84	1.33	<0.0005	<0.0001	0.00101	0.039	0.000083	0.214	0.0019	<0.00001	0.00331	<0.0005	0.659	0.0019	2.39	<0.00001	36.7	<0.00005	<0.0001	0.0274	<0.001
12-May-05	91																				
19-May-05	98	1.46	<0.0005	<0.0001	0.00112	0.048	0.000102	0.308	0.00216	<0.00001	0.00352	<0.0005	0.838	0.0022	2.71	<0.00001	43.5	<0.00005	<0.0001	0.0352	<0.001
26-May-05	105																				
2-Jun-05	112	1.22	<0.0005	<0.0001	0.00128	0.033	0.00005	0.225	0.00188	<0.00001	0.00337	<0.0005	0.522	0.0015	1.75	<0.00001	24.1	<0.00005	<0.0001	0.018	<0.001
9-Jun-05	119																				
16-Jun-05	126	1.43	<0.0005	<0.0001	0.0007	<0.03	<0.00005	0.25	0.00176	<0.00001	0.00419	<0.0005	0.599	0.0016	1.98	<0.00001	27.3	<0.00005	<0.0001	0.0232	<0.001
23-Jun-05	133																				
30-Jun-05	140	1.93	<0.0005	0.00014	0.00282	0.135	0.000165	0.394	0.00686	<0.00001	0.00512	<0.0005	0.877	0.0039	2.77	<0.00001	33.1	<0.00005	0.00023	0.0365	0.0021
7-Jul-05	147																				
14-Jul-05	154	2.04	<0.0005	<0.0001	0.00101	<0.03	<0.00005	0.338	0.00275	<0.00001	0.00437	<0.0005	0.86	0.0022	2.43	<0.00001	30	<0.00005	<0.0001	0.0325	<0.001
21-Jul-05	161																				
28-Jul-05	168	2.18	<0.0005	<0.0001	0.00275	0.046	0.000054	0.37	0.00234	<0.00001	0.00351	<0.0005	0.826	0.0015	2.42	<0.00001	29.7	<0.00005	<0.0001	0.0267	<0.001
4-Aug-05	175																				
11-Aug-05	182	2.84	<0.0005	<0.0001	0.00151	<0.03	<0.00005	0.429	0.00574	<0.00001	0.00348	<0.0005	0.884	0.0016	2.44	<0.00001	28.7	<0.00005	<0.0001	0.0238	<0.001
18-Aug-05	189																				
25-Aug-05	196	2.99	<0.0005	<0.0001	0.00213	0.03	<0.00005	0.48	0.00346	<0.0001	0.00306	<0.0005	0.876	0.0016	2.7	<0.00001	28.5	<0.00005	<0.0001	0.0304	<0.001
1-Sep-05	203																				
8-Sep-05	210	3.03	0.00069	<0.0001	0.00268	0.062	<0.00005	0.505	0.00322	<0.00001	0.00288	<0.0005	0.891	0.0014	2.66	0.00001	28.8	<0.00005	<0.0001	0.0282	0.001
15-Sep-05	217																				
22-Sep-05	224	2.83	<0.0005	<0.0001	0.00424	<0.03	0.000058	0.468	0.00296	<0.00001	0.00228	<0.0005	0.889	0.001	2.29	<0.00001	27.4	<0.00005	<0.0001	0.0208	0.0019
29-Sep-05	231																				
6-Oct-05	238	3.56	<0.0005	<0.0001	0.00232	<0.03	<0.00005	0.5	0.00305	<0.00001	0.00213	<0.0005	0.904	<0.001	2.35	<0.00001	23.4	<0.00005	0.00011	0.0206	<0.001
13-Oct-05	245																				
20-Oct-05	252	3.34	<0.0005	<0.0001	0.00098	<0.03	<0.00005	0.52	0.00272	<0.00001	0.00206	<0.0005	0.869	<0.001	2	<0.00001	21.7	<0.00005	<0.0001	0.0147	<0.001
27-Oct-05	259																				
3-Nov-05	266	3.12	<0.0005	<0.0001	0.00093	<0.03	<0.00005	0.533	0.00299	<0.00001	0.00198	<0.0005	0.766	<0.001	1.55	<0.00001	16.8	<0.00005	<0.0001	0.00888	<0.001
10-Nov-05	273																				
17-Nov-05	280	4.29	<0.0005	<0.0001	0.00073	<0.03	<0.00005	0.774	0.00326	<0.00001	0.00209	<0.0005	0.953	<0.001	1.79	<0.00001	20.3	<0.00005	<0.0001	0.00906	<0.001
24-Nov-05	287																				
1-Dec-05	294	3.95	<0.0005	<0.0001	0.00086	<0.03	<0.00005	0.664	0.00302	<0.00001	0.00207	<0.0005	0.887	<0.001	1.66	<0.00001	17.5	<0.00005	<0.0001	0.00888	<0.001
8-Dec-05	301																				
15-Dec-05	308	4.79	<0.0005	<0.0001	0.00122	0.038	<0.00005	0.782	0.00333	<0.00001	0.00212	<0.0005	0.989	<0.001	1.89	<0.00001	19.8	<0.00005	<0.0001	0.009	<0.001
22-Dec-05	315																				
29-Dec-05	322	4.57	<0.0005	<0.0001	0.00074	<0.03	<0.00005	0.707	0.00356	<0.00001	0.0015	<0.0005	0.879	<0.001	1.5	<0.00001	15	<0.00005	<0.0001	0.00661	<0.001
5-Jan-06	329																				
12-Jan-06	336																				
19-Jan-06	343	4.61	<0.0005	<0.0001	0.00256	<0.03	<0.00005	0.734	0.00614	<0.00001	0.00182	<0.0005	0.889	<0.001	1.86	<0.00001	20.7	<0.00005	<0.0001	0.00791	<0.001
26-Jan-06	350	4.69	<0.0005	<0.0001	0.00344	<0.03	<0.00005	0.76	0.00549	<0.00001	0.00223	<0.0005	0.932	<0.001	1.56	<0.00001	16.6	<0.00005	<0.0001	0.00756	<0.001
2-Feb-06	357																				
9-Feb-06	364	5.18	<0.0005	<0.0001	0.00196	<0.03	<0.00005	0.777	0.00511	<0.00001	0.00284	<0.0005	0.917	<0.001	1.64	<0.00001	14.7	<0.00005	0.00017	0.0072	<0.001
16-Feb-06	371																				
23-Feb-06	378	5.89	<0.0005	<0.0001	0.00253	<0.03	0.000122	0.972	0.00551	<0.00001	0.00217	<0.0005	0.897	<0.001	1.53	<0.00001	14.1	<0.00005	<0.0001	0.00573	<0.001
2-Mar-06	385																				
9-Mar-06	392	7.38	<0.0005	<0.0001	0.00144	<0.03	<0.00005	1.22	0.00594	<0.00001	0.00319	<0.0005	1.08	<0.001	1.72	<0.00001	13.8	<0.00005	0.00021	0.00636	0.001
16-Mar-06	399																				
23-Mar-06	406	8.03	<0.0005	<0.0001	0.0016	<0.03	0.000223	1.21	0.0061	<0.00001	0.00317	<0.0005	0.972	<0.001	1.77	0.000017	13.2	<0.00005	<0.0001	0.00549	<0.001
30-Mar-06	413																				
6-Apr-06	420	8.56	<0.0005	<0.0001	0.00226	<0.03	<0.00005	1.45	0.0067	<0.00001	0.0035	<0.0005	1.19	<0.001	1.71	<0.00001	10.6	<0.00005	<0.0001	0.00559	<0.001
13-Apr-06	427																				
20-Apr-06	434	8.22	<0.0005	<0.0001	0.00167	<0.03	<0.00005	1.24	0.00562	<0.00001	0.00297	<0.0005	1.09	<0.001	1.62	<0.00001	9	<0.00005	<0.0001	0.00571	<0.001
27-Apr-06	441																				
4-May-06	448	8.71	<0.0005	<0.0001	0.00228	<0.03	<0.00005	1.51	0.00592	<0.00001	0.00328	<0.0005	1.22	<0.001	1.84	<0.00001	9	<0.00005	<0.0001	0.00612	0.0016
11-May-06	455																				
18-May-06	462	7.33	<0.0005	<0.0001	0.00142	<0.03	0.000128	1.14	0.00365	<0.00001	0.00327	<0.0005	0.998	<0.001	1.66	<0.00001	7.7	<0.00005	<0.0001	0.00724	<0.001
25-May-06	469																				
1-Jun-06	476	7.03	<0.0005	<0.0001	0.00217	<0.03	0.000132	1.04	0.00423	<0.00001	0.00225	<0.0005	0.932	<0.001	1.48	<0.00001	7.8	<0.00005	<0.0001	0.00651	<0.001
8-Jun-06	483																				
15-Jun-06	490	7.46	<0.0005	<0.0001	0.0014	<0.03	<0.00005	1.15	0.00372	<0.00001	0.00241	<0.0005	0.915	<0.001	1.49	<0.00001	6.6	<0.00005	<0.0001	0.00562	<0.001
22-Jun-06	497																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
29-Jun-06	504	2500	2450	7.39	334	79	<1	2.67	35.9	48	26.1	<0.5	<0.02	8.72	0.0267	0.00454	0.0072	0.00301	<0.0002	<0.0005	<0.01	<0.00005
6-Jul-06	511	2500	2360																			
13-Jul-06	518	2500	2395	7.85	190	86																
20-Jul-06	525	2500	2500																			
27-Jul-06	532	2500	2450	7.48	385	75	<1	3.03	33.9	44	25.8	<0.5	<0.02	6.25	0.024	0.00382	0.00588	0.00341	<0.0002	<0.0005	<0.01	<0.00005
3-Aug-06	539	2500	2440																			
10-Aug-06	546	2500	2395	7.78	249	59																
17-Aug-06	553	2500	2365																			
24-Aug-06	560	2500	2480	7.62	142	61				34	23.4	<0.5	<0.02	5.08	0.0217	0.00275	0.00452	0.00232	<0.0002	<0.0005	<0.01	<0.00005
31-Aug-06	567	2500	2410																			
7-Sep-06	574	2500	2445	8.1	307	86																
14-Sep-06	581	2500	2490																			
21-Sep-06	588	2500	2370	7.69	353	153	<1	1.38	47.2	92	30	<0.5	0.05		0.0276	0.00385		0.00284	<0.0002	<0.0005	<0.01	<0.00005
28-Sep-06	595	2500	2495																			
5-Oct-06	602	2500	2510	7.69	242	74																
12-Oct-06	609	2500	2565																			
19-Oct-06	616	2500	2480	7.3	389	76	<1	4.57	36.5	34	27.4	<0.5	<0.02	5.5	0.0159	0.00286	0.00555	0.00281	<0.0002	<0.0005	<0.01	<0.00005
26-Oct-06	623	2500	2495																			
2-Nov-06	630	2500	2440	7.11	401	98																
9-Nov-06	637	2500	2440																			
16-Nov-06	644	2500	2585	7.14	362	98	<1	4.83	47.4	50.8	36.7	<0.5	<0.02	5.05	0.0132	0.00354	0.00508	0.00312	<0.0002	<0.0005	<0.01	<0.00005
23-Nov-06	651	2500	2335																			
30-Nov-06	658	2500	2555	7.31	356	85																
7-Dec-06	665	2500	2465																			
14-Dec-06	672	2500	2425	7.83	343	94	<1	2.66	45.1	53	36.5	<0.5	<0.02	5.4	0.0133	0.00397	0.00456	0.00347	<0.0002	<0.0005	<0.01	<0.00005
21-Dec-06	679	2500	2445																			
28-Dec-06	686	2500	2515	7.87	337	99																
4-Jan-07	693	2500	2380																			
11-Jan-07	700	2500	2345	7.76	371	109	<1	3.11	50.3	61	44.3	<0.5	<0.02	7.84	0.0116	0.00337	0.00377	0.0039	<0.0002	<0.0005	<0.01	<0.00005
18-Jan-07	707	2500	2575																			
25-Jan-07	714	2500	2540	7.66	355	106																
1-Feb-07	721	2500	2500																			
8-Feb-07	728	2500	2440	7.8	380	100	<1	9.74	52.4	55	39.7	<0.5	<0.02	5.89	0.0118	0.00358	0.00428	0.00502	<0.0002	<0.0005	<0.01	<0.00005
15-Feb-07	735	2500	2465																			
22-Feb-07	742	2500	2400	7.68	401	107																
1-Mar-07	749	2500	2450																			
8-Mar-07	756	2500	2310	7.77	386	85	<1	4.9	47.6	60.8	38	<0.5	<0.02	6.15	0.0141	0.00387	0.00378	0.00402	<0.0002	<0.0005	<0.01	<0.00005
15-Mar-07	763	2500	2550																			
22-Mar-07	770	2500	2380	7.42	434	83																
29-Mar-07	777	2500	2400																			
5-Apr-07	784	2500	2410	7.77	411	82	<1	1.66	36	46	27.9	<0.5	<0.02	4.84	0.0166	0.00264	0.00456	0.00277	<0.0002	<0.0005	<0.01	<0.00005
12-Apr-07	791	2500	2370																			
19-Apr-07	798	2500	2360	7.66	380	90																
26-Apr-07	805	2500	2430																			
3-May-07	812	2500	2415	7.43	412	97	<1	3.48	38	47.5	33.4	<0.5	<0.02	6.49	0.0156	0.00361	0.00451	0.00363	<0.0002	<0.0005	<0.01	<0.00005
10-May-07	819	2500	2430																			
17-May-07	826	2500	2420	8.1	375	88																
24-May-07	833	2500	2375																			
31-May-07	840	2500	2500	7.85	371	95	<1	2.06	35.6	48	34.5	<0.5	<0.02	7.61	0.0194	0.00344	0.00534	0.00318	<0.0002	<0.0005	<0.01	<0.00005
7-Jun-07	847	2500	2380																			
14-Jun-07	854	2500	2410	7.88	380	96																
21-Jun-07	861	2500	2365																			
28-Jun-07	868	2500	2565	7.48	380	89	<1	4.37	41.6	53.3	36.7	<0.5	<0.02	6.39	0.0165	0.00313	0.00368	0.00402	<0.0002	<0.0005	<0.01	<0.00005
5-Jul-07	875	2500	2340																			
12-Jul-07	882	2500	2410	8.19	300	90																
19-Jul-07	889	2500	2445																			
26-Jul-07	896	2500	2390	7.76	348	92	<1	3.95	38.8	46.8	33.7	<0.5	<0.02	5.81	0.0161	0.00268	0.00436	0.00321	<0.0002	<0.0005	<0.01	<0.00005
2-Aug-07	903	2500	2135																			
9-Aug-07	910	2500	2415	7.81	310	102																
16-Aug-07	917	2500	2440																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
29-Jun-06	504	8.19	<0.0005	<0.0001	0.00101	<0.03	0.000765	1.38	0.0047	<0.00001	0.00329	<0.0005	1.01	<0.001	1.58	<0.00001	7.1	<0.00005	<0.0001	0.00587	0.0011
6-Jul-06	511																				
13-Jul-06	518																				
20-Jul-06	525																				
27-Jul-06	532	8.22	<0.0005	<0.0001	0.00313	<0.03	0.00022	1.29	0.00319	<0.00001	0.00242	<0.0005	0.926	<0.001	1.37	<0.00001	6.3	<0.00005	<0.0001	0.00498	0.003
3-Aug-06	539																				
10-Aug-06	546																				
17-Aug-06	553																				
24-Aug-06	560	7.45	<0.0005	<0.0001	0.00377	<0.03	0.000284	1.16	0.00261	<0.00001	0.00191	<0.0005	0.757	<0.001	1.08	<0.00001	4.8	<0.00005	<0.0001	0.00368	0.0084
31-Aug-06	567																				
7-Sep-06	574																				
14-Sep-06	581																				
21-Sep-06	588	9.64	<0.0005	<0.0001	0.0034	<0.03	0.000398	1.44	0.00448	<0.00001	0.00381	<0.0005	0.992	0.0014	2.2	<0.00001		<0.00005	<0.0001		<0.001
28-Sep-06	595																				
5-Oct-06	602																				
12-Oct-06	609																				
19-Oct-06	616	8.83	<0.0005	<0.0001	0.00223	<0.03	0.000067	1.31	0.00416	<0.00001	0.0023	<0.0005	0.914	<0.001	1.36	<0.00001	6.1	<0.00005	<0.0001	0.00459	<0.001
26-Oct-06	623																				
2-Nov-06	630																				
9-Nov-06	637																				
16-Nov-06	644	11.9	<0.0005	<0.0001	0.00656	<0.03	<0.00005	1.68	0.00297	<0.00001	0.00251	<0.0005	1.02	<0.001	1.66	<0.00001	6.3	<0.00005	<0.0001	0.00407	<0.001
23-Nov-06	651																				
30-Nov-06	658																				
7-Dec-06	665																				
14-Dec-06	672	11.5	<0.0005	<0.0001	0.0022	<0.03	<0.00005	1.88	0.00284	<0.00001	0.00254	<0.0005	1.02	<0.001	1.47	<0.00001	5.7	<0.00005	<0.0001	0.00355	0.0036
21-Dec-06	679																				
28-Dec-06	686																				
4-Jan-07	693																				
11-Jan-07	700	14	<0.0005	<0.0001	0.00104	<0.03	<0.00005	2.28	0.00448	<0.00001	0.00238	<0.0005	1.13	<0.001	1.53	<0.00001	5.8	<0.00005	<0.0001	0.00305	<0.001
18-Jan-07	707																				
25-Jan-07	714																				
1-Feb-07	721																				
8-Feb-07	728	12.9	0.00092	<0.0001	0.00099	<0.03	<0.00005	1.84	0.00339	<0.00001	0.00271	<0.0005	0.913	<0.001	1.26	<0.00001	5.7	<0.00005	<0.0001	0.00259	0.0062
15-Feb-07	735																				
22-Feb-07	742																				
1-Mar-07	749																				
8-Mar-07	756	12	<0.0005	<0.0001	0.00127	<0.03	<0.00005	1.95	0.00381	<0.00001	0.00278	<0.0005	0.981	<0.001	1.37	<0.00001	3.7	<0.00005	<0.0001	0.00294	<0.001
15-Mar-07	763																				
22-Mar-07	770																				
29-Mar-07	777																				
5-Apr-07	784	8.77	<0.0005	<0.0001	0.00126	<0.03	<0.00005	1.45	0.00371	<0.00001	0.00179	<0.0005	0.895	<0.001	1.22	<0.00001	4.4	<0.00005	<0.0001	0.00352	<0.001
12-Apr-07	791																				
19-Apr-07	798																				
26-Apr-07	805																				
3-May-07	812	10.4	<0.0005	<0.0001	0.00316	<0.03	<0.00005	1.82	0.00358	<0.00001	0.00244	0.00085	0.986	<0.001	1.37	<0.00001	4.5	<0.00005	<0.0001	0.00347	0.0011
10-May-07	819																				
17-May-07	826																				
24-May-07	833																				
31-May-07	840	10.9	<0.0005	<0.0001	0.00096	<0.03	<0.00005	1.75	0.00446	<0.00001	0.00255	<0.0005	1	<0.001	1.52	<0.00001	4.2	<0.00005	<0.0001	0.00417	<0.001
7-Jun-07	847																				
14-Jun-07	854																				
21-Jun-07	861																				
28-Jun-07	868	11.7	<0.0005	<0.0001	0.0014	<0.03	0.000123	1.83	0.0065	<0.00001	0.00238	<0.0005	0.954	<0.001	1.52	<0.00001	4.1	<0.00005	<0.0001	0.00314	<0.001
5-Jul-07	875																				
12-Jul-07	882																				
19-Jul-07	889																				
26-Jul-07	896	10.6	<0.0005	<0.0001	0.00219	<0.03	0.000219	1.75	0.00632	<0.00001	0.00219	<0.0005	0.912	<0.001	1.52	<0.00001	4.1	<0.00005	<0.0001	0.00342	0.0012
2-Aug-07	903																				
9-Aug-07	910																				
16-Aug-07	917																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Aug-07	924	2500	2565	7.82	397	71	<1	1.54	37.8	49.8	32.2	1.01	<0.02	6.02	0.0143	0.00258	0.00424	0.0029	<0.0002	<0.0005	<0.01	<0.00005
30-Aug-07	931	2500	2425																			
6-Sep-07	938	2500	2390	7.61	426	59																
13-Sep-07	945	2500	2390																			
20-Sep-07	952	2500	2350	7.79	380	55	<1	4.74	38.9	47.2	35	<0.5	<0.02	5.99	0.0141	0.00308	0.00383	0.00328	<0.0002	<0.0005	<0.01	0.000055
27-Sep-07	959	2500	2275																			
4-Oct-07	966	2500	2445	7.77	374	79																
11-Oct-07	973	2500	2395																			
18-Oct-07	980	2500	2310	7.75	419	88	<1	2.06	38.7	56.7	36.6	<0.5	<0.02	6.44	0.0121	0.00258	0.00263	0.00317	<0.0002	<0.0005	<0.01	<0.00005
25-Oct-07	987	2500	2405																			
1-Nov-07	994	2500	2375	7.64	431	81																
8-Nov-07	1001	2500	2390																			
15-Nov-07	1008	2500	2360	7.87	462	94	<1	2.47	41.4	46.3	39.8	<0.5	<0.02	6.46	0.0131	0.00229	0.00254	0.00343	<0.0002	<0.0005	<0.01	<0.00005
22-Nov-07	1015	2500	2345																			
29-Nov-07	1022	2500	2350	7.6	439	95																
6-Dec-07	1029	2500	2430																			
13-Dec-07	1036	2500	2380	7.84	451	91	<1	2.61	46.9	49.5	40.9	<0.5	<0.02	4.28	0.0184	0.00216	0.00228	0.00338	<0.0002	<0.0005	<0.01	<0.00005
20-Dec-07	1043	2500	2375																			
27-Dec-07	1050	2500	2150	7.75	442	75																
3-Jan-08	1057	2500	2435																			
10-Jan-08	1064	2500	2255	7.59	450	75	<1	3.21	35.4	45.5	33.9	<0.5	<0.02	6.26	0.0156	0.00229	0.00213	0.00269	<0.0002	<0.0005	<0.01	<0.00005
17-Jan-08	1071	2500	2410																			
24-Jan-08	1078	2500	2450	7.59	452	89																
31-Jan-08	1085	2500	2445																			
7-Feb-08	1092	2500	2580	7.74	457	86	<1	3.49	42.6	58	38.6	<0.5	<0.02	6.67	0.0113	0.00266	0.00262	0.00333	<0.0002	<0.0005	<0.01	<0.00005
14-Feb-08	1099	2500	2250																			
21-Feb-08	1106	2500	2425	7.78	427	88																
28-Feb-08	1113	2500	2325																			
6-Mar-08	1120	2500	2335	7.83	418	88	<1	3.76	45.1	49.2	40	<0.5	<0.02	6.22	0.0103	0.00256	0.00228	0.00317	<0.0002	<0.0005	<0.01	<0.00005
13-Mar-08	1127	2500	2235																			
20-Mar-08	1134	2500	2385	7.76	413	83																
27-Mar-08	1141	2500	2170																			
3-Apr-08	1148	2500	2565	7.77	419	86	<1	2.88	41.6	51.5	42.3	<0.5	<0.02	10.4	0.012	0.00259	0.00221	0.00329	<0.0002	<0.0005	<0.01	<0.00005
10-Apr-08	1155	2500	2400																			
17-Apr-08	1162	2500	2205	7.57	421	99																
24-Apr-08	1169	2500	2210																			
1-May-08	1176	2500	2155	7.89	389	127	<1	2.88	52.7	64.8	54.6	<0.5	<0.02	15.3	0.0111	0.00291	0.00255	0.00432	<0.0002	<0.0005	<0.01	<0.00005
8-May-08	1183	2500	2500																			
15-May-08	1190	2500	2485	7.85	358	80																
22-May-08	1197	2500	2190																			
29-May-08	1204	2500	2485	7.95	392	106	<1	2.31	42.4	82.8	49.4	<0.5	<0.02	17.5	0.0117	0.00186	0.00232	0.00395	<0.0002	<0.0005	<0.01	<0.00005
5-Jun-08	1211	2500	2470																			
12-Jun-08	1218	2500	2425	7.95	386	81																
19-Jun-08	1225	2500	2330																			
26-Jun-08	1232	2500	2385	7.88	354	88	<1	5.08	40.9	56	38.7	<0.5	<0.02	9.71	0.0145	0.00182	0.00273	0.00317	<0.0002	<0.0005	<0.01	<0.00005
3-Jul-08	1239	2500	2400																			
10-Jul-08	1246	2500	2405	7.43	363	90																
17-Jul-08	1253	2500	2450																			
24-Jul-08	1260	2500	2485	7.8	395	88	<1	3.07	35.3	42	38.4	<0.5	<0.02	9.1	0.0149	0.00197	0.00232	0.00272	<0.0002	<0.0005	<0.01	<0.00005
31-Jul-08	1267	2500	2505																			
7-Aug-08	1274	2500	2500	7.84	371	81																
14-Aug-08	1281	2500	2450																			
21-Aug-08	1288	2500	2515	7.74	332	82	<1	2.53	37.3	50.5	36.8	<0.5	<0.02	9.45	0.0134	0.00192	0.0024	0.00268	<0.0002	<0.0005	<0.01	<0.00005
28-Aug-08	1295	2500	2500																			
4-Sep-08	1302	2500	2530	7.79	325	81																
11-Sep-08	1309	2500	2495																			
18-Sep-08	1316	2500	2425	7.87	309	91	<1	2.49	37.2	53.8	40	<0.5	<0.02	10.5	0.0137	0.00221	0.00264	0.0039	<0.0002	<0.0005	<0.01	0.000198
25-Sep-08	1323	2500	2460																			
2-Oct-08	1330	2500	2490	7.78	403	72																
9-Oct-08	1337	2500	2470																			

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Aug-07	924	10.1	<0.0005	<0.0001	0.00137	<0.03	0.000052	1.66	0.00574	<0.00001	0.00232	<0.0005	0.86	<0.001	1.53	<0.00001	4.2	<0.00005	<0.0001	0.00334	<0.001
30-Aug-07	931																				
6-Sep-07	938																				
13-Sep-07	945																				
20-Sep-07	952	10.9	<0.0005	<0.0001	0.00171	<0.03	0.000285	1.87	0.00772	<0.00001	0.00243	<0.0005	0.911	<0.001	1.49	<0.00001	4.1	<0.00005	<0.0001	0.00323	0.0017
27-Sep-07	959																				
4-Oct-07	966																				
11-Oct-07	973																				
18-Oct-07	980	11.6	<0.0005	<0.0001	0.00078	<0.03	<0.00005	1.88	0.00781	<0.00001	0.00207	<0.0005	0.815	<0.001	1.43	<0.00001	2.8	<0.00005	<0.0001	0.00226	0.0015
25-Oct-07	987																				
1-Nov-07	994																				
8-Nov-07	1001																				
15-Nov-07	1008	12.5	<0.0005	<0.0001	0.0007	<0.03	0.000463	2.07	0.00859	<0.00001	0.00235	<0.0005	0.869	<0.001	1.37	<0.00001	2.9	<0.00005	<0.0001	0.00202	0.0023
22-Nov-07	1015																				
29-Nov-07	1022																				
6-Dec-07	1029																				
13-Dec-07	1036	13	<0.0005	<0.0001	0.00149	<0.03	<0.00005	2.07	0.0108	<0.00001	0.0023	<0.0005	0.871	<0.001	1.33	<0.00001	2.9	<0.00005	<0.0001	0.0019	<0.001
20-Dec-07	1043																				
27-Dec-07	1050																				
3-Jan-08	1057																				
10-Jan-08	1064	10.8	<0.0005	<0.0001	0.00165	<0.03	<0.00005	1.68	0.00698	<0.00001	0.00272	<0.0005	0.74	<0.001	1.14	<0.00001	2.2	<0.00005	<0.0001	0.00182	<0.001
17-Jan-08	1071																				
24-Jan-08	1078																				
31-Jan-08	1085																				
7-Feb-08	1092	12.4	<0.0005	<0.0001	0.00127	<0.03	<0.00005	1.87	0.00964	<0.00001	0.00458	<0.0005	0.861	<0.001	1.39	<0.00001	2.6	<0.00005	<0.0001	0.00206	<0.001
14-Feb-08	1099																				
21-Feb-08	1106																				
28-Feb-08	1113																				
6-Mar-08	1120	12.7	<0.0005	<0.0001	0.00054	<0.03	0.000113	1.98	0.00577	<0.00001	0.00457	<0.0005	0.906	<0.001	1.43	<0.00001	2.3	<0.00005	<0.0001	0.00179	<0.001
13-Mar-08	1127																				
20-Mar-08	1134																				
27-Mar-08	1141																				
3-Apr-08	1148	13.6	<0.0005	<0.0001	0.00156	<0.03	<0.00005	2	0.0114	<0.00001	0.00366	<0.0005	0.898	0.0011	1.44	<0.00001	2.4	<0.00005	<0.0001	0.00187	<0.001
10-Apr-08	1155																				
17-Apr-08	1162																				
24-Apr-08	1169																				
1-May-08	1176	17.2	<0.0005	<0.0001	0.00067	<0.03	<0.00005	2.82	0.0204	<0.00001	0.0034	<0.0005	1.24	0.0014	1.9	<0.00001	3.1	<0.00005	<0.0001	0.00208	<0.001
8-May-08	1183																				
15-May-08	1190																				
22-May-08	1197																				
29-May-08	1204	15.7	<0.0005	<0.0001	0.00121	<0.03	<0.00005	2.45	0.0188	<0.00001	0.00163	<0.0005	1.2	0.0025	1.66	<0.00001	2.1	<0.00005	<0.0001	0.00176	<0.001
5-Jun-08	1211																				
12-Jun-08	1218																				
19-Jun-08	1225																				
26-Jun-08	1232	12.3	<0.0005	<0.0001	0.00209	<0.03	<0.00005	1.92	0.0142	<0.00001	0.00211	<0.0005	1.08	<0.001	1.47	<0.00001	<2	<0.00005	<0.0001	0.00217	<0.001
3-Jul-08	1239																				
10-Jul-08	1246																				
17-Jul-08	1253																				
24-Jul-08	1260	12.2	<0.0005	<0.0001	0.00065	<0.03	<0.00005	1.91	0.0149	<0.00001	0.00266	<0.0005	0.924	<0.001	1.37	<0.00001	<2	<0.00005	<0.0001	0.00169	<0.001
31-Jul-08	1267																				
7-Aug-08	1274																				
14-Aug-08	1281																				
21-Aug-08	1288	11.7	<0.0005	<0.0001	0.00072	<0.03	<0.00005	1.87	0.0158	<0.00001	0.00278	<0.0005	0.889	<0.001	1.17	<0.00001	<2	<0.00005	<0.0001	0.00187	<0.001
28-Aug-08	1295																				
4-Sep-08	1302																				
11-Sep-08	1309																				
18-Sep-08	1316	12.8	<0.0005	<0.0001	0.00114	<0.03	0.000112	1.98	0.0167	<0.00001	0.00284	<0.0005	0.911	<0.001	1.47	<0.00001	<2	<0.00005	<0.0001	0.0021	0.0048
25-Sep-08	1323																				
2-Oct-08	1330																				
9-Oct-08	1337																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Oct-08	1344	2500	2500	7.85	397	95	<1	1.98	39.8	53	43.7	<0.5	<0.02	11	0.0127	0.00284	0.0026	0.00327	<0.0002	<0.0005	<0.01	<0.00005
23-Oct-08	1351	2500	2480																			
30-Oct-08	1358	2500	2410	7.65	441	83																
6-Nov-08	1365	2500	2585																			
13-Nov-08	1372	2500	2485	7.69	438	73	<1	2.91	34.4	43.5	36.2	<0.5	<0.02	8.26	0.0136	0.00203	0.00218	0.00263	<0.0002	<0.0005	<0.01	<0.00005
20-Nov-08	1379	2500	2435																			
27-Nov-08	1386	2500	2430	7.72	375	72																
4-Dec-08	1393	2500	2495																			
11-Dec-08	1400	2500	2435	7.69	324	75	<1	3.72	39	47.5	37.4	<0.5	<0.02	6.91	0.0102	0.00199	0.00195	0.0027	<0.0002	<0.0005	<0.01	<0.00005
18-Dec-08	1407	2500	2430																			
25-Dec-08	1414	2500	2450	7.83	335	87																
1-Jan-09	1421	2500	2475																			
8-Jan-09	1428	2500	2360	7.79	349	90	<1	2.93	48.1	63.5	46	<0.5	<0.02	8.89	0.0098	0.00273	0.00169	0.00325	<0.0002	<0.0005	<0.01	<0.00005
15-Jan-09	1435	2500	2380																			
22-Jan-09	1442	2500	2285	7.62	351	81																
29-Jan-09	1449	2500	2360																			
5-Feb-09	1456	2500	2350	7.59	391	70	<1	4.3	35.5	45.3	36.8	<0.5	<0.02	7.98	0.0085	0.00209	0.00145	0.00241	<0.0002	<0.0005	<0.01	<0.00005
12-Feb-09	1463	2500	2420																			
19-Feb-09	1470	2500	2505	7.63	294	71																
26-Feb-09	1477	2500	2315																			
5-Mar-09	1484	2500	2390	7.54	263	83	<1	7.07	41.1	38.8	39.2	<0.5	<0.02	9.09	0.014	0.00251	0.00208	0.0027	<0.0002	<0.0005	<0.01	<0.00005
12-Mar-09	1491	2500	2430																			
19-Mar-09	1498	2500	2420	7.46	362	69																
26-Mar-09	1505	2500	2385																			
2-Apr-09	1512	2500	2325	7.46	365	88	<1	4.12	42.8	47	42.9	<0.5	<0.02	9.46	0.0122	0.00267	0.00199	0.00274	<0.0002	<0.0005	<0.01	<0.00005
9-Apr-09	1519	2500	2365																			
16-Apr-09	1526	2500	2375	7.56	381	82																
23-Apr-09	1533	2500	2350																			
30-Apr-09	1540	2500	2395	7.62	381	77	<1	2.8	37.6	47.5	38.3	<0.5	<0.02	8.79	0.0131	0.00243	0.00203	0.00236	<0.0002	<0.0005	<0.01	<0.00005
7-May-09	1547	2500	2350																			
14-May-09	1554	2500	2395	7.65	378	82																
21-May-09	1561	2500	2455																			
28-May-09	1568	2500	2365	7.66	370	79	<1	3.21	39.9	56.3		<0.5	<0.02	9.13								
4-Jun-09	1575	2500	2390																			
11-Jun-09	1582	2500	2375	7.68	365	83																
18-Jun-09	1589	2500	2405																			
25-Jun-09	1596	2500	2520	7.32	352	65	<1	4.61	34.3	46		<0.5	<0.02	9.55								
2-Jul-09	1603	2500	2410																			
9-Jul-09	1610	2500	2365	7.79	349	83																
16-Jul-09	1617	2500	2395																			
23-Jul-09	1624	2500	2470	7.52	367	73	<1	3.75	37	46.5		<0.5	<0.02	7.87								
30-Jul-09	1631	2500	2410																			
6-Aug-09	1638	2500	2460	7.79	354	67																
13-Aug-09	1645	2500	2415																			
20-Aug-09	1652	2500	2490	7.59	345	87	<1	3.61	42.5	57.7		<0.5	<0.02	10.8								
27-Aug-09	1659	2500	2450																			
3-Sep-09	1666	2500	2390	7.73	339	80																
10-Sep-09	1673	2500	2260																			
17-Sep-09	1680	2500	2495	7.36	331	84	<1	3.95	40.7	48		<0.5	<0.02	13								
24-Sep-09	1687	2500	2395																			
1-Oct-09	1694	2500	2410	7.67	337	81																
8-Oct-09	1701	2500	2420																			
15-Oct-09	1708	2500	2360	7.56	345	75	<1	3.08	41.4	35		<0.5	<0.02	9.64								
22-Oct-09	1715	2500	2415																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	2105	7.79	311	502	<1	3	45	341	152	3.98	0.207	186	0.0275	0.00517	0.00808	0.0481	<0.0002	<0.0005	0.201	<0.00005
17-Feb-05	7	2500	2490	7.84	359	320																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Oct-08	1344	14	<0.0005	<0.0001	0.0006	<0.03	<0.00005	2.1	0.0192	<0.00001	0.00324	<0.0005	1.02	<0.001	1.48	<0.00001	<2	<0.00005	<0.0001	0.00204	<0.001
23-Oct-08	1351																				
30-Oct-08	1358																				
6-Nov-08	1365																				
13-Nov-08	1372	11.8	<0.0005	<0.0001	0.0012	<0.03	<0.00005	1.64	0.0153	<0.00001	0.00234	<0.0005	0.835	<0.001	1.23	<0.00001	<2	<0.00005	<0.0001	0.00183	<0.001
20-Nov-08	1379																				
27-Nov-08	1386																				
4-Dec-08	1393																				
11-Dec-08	1400	12	<0.0005	<0.0001	0.00051	<0.03	<0.00005	1.83	0.0171	<0.00001	0.00202	<0.0005	0.763	<0.001	1.12	<0.00001	<2	<0.00005	<0.0001	0.00148	<0.001
18-Dec-08	1407																				
25-Dec-08	1414																				
1-Jan-09	1421																				
8-Jan-09	1428	14.8	<0.0005	<0.0001	0.00075	<0.03	<0.00005	2.19	0.0214	<0.00001	0.00233	<0.0005	0.928	<0.001	1.36	<0.00001	<2	<0.00005	<0.0001	0.00151	<0.001
15-Jan-09	1435																				
22-Jan-09	1442																				
29-Jan-09	1449																				
5-Feb-09	1456	11.2	<0.0005	<0.0001	0.00046	<0.03	0.000052	2.12	0.0159	<0.00001	0.0022	<0.0005	0.763	<0.001	1.07	<0.00001	<2	<0.00005	<0.0001	0.00127	<0.001
12-Feb-09	1463																				
19-Feb-09	1470																				
26-Feb-09	1477																				
5-Mar-09	1484	12.6	<0.0005	<0.0001	0.00062	0.031	<0.00005	1.9	0.0167	<0.00001	0.00293	<0.0005	0.871	<0.001	1.27	<0.00001	<2	<0.00005	<0.0001	0.00182	<0.001
12-Mar-09	1491																				
19-Mar-09	1498																				
26-Mar-09	1505																				
2-Apr-09	1512	13.6	<0.0005	<0.0001	0.0005	<0.03	<0.00005	2.15	0.0177	<0.00001	0.00269	<0.0005	0.887	<0.001	1.26	<0.00001	<2	<0.00005	<0.0001	0.0016	<0.001
9-Apr-09	1519																				
16-Apr-09	1526																				
23-Apr-09	1533																				
30-Apr-09	1540	12.4	<0.0005	<0.0001	0.00064	<0.03	<0.00005	1.79	0.0137	<0.00001	0.00248	<0.0005	0.847	<0.001	1.3	<0.00001	<2	<0.00005	<0.0001	0.0018	<0.001
7-May-09	1547																				
14-May-09	1554																				
21-May-09	1561																				
28-May-09	1568																				
4-Jun-09	1575																				
11-Jun-09	1582																				
18-Jun-09	1589																				
25-Jun-09	1596																				
2-Jul-09	1603																				
9-Jul-09	1610																				
16-Jul-09	1617																				
23-Jul-09	1624																				
30-Jul-09	1631																				
6-Aug-09	1638																				
13-Aug-09	1645																				
20-Aug-09	1652																				
27-Aug-09	1659																				
3-Sep-09	1666																				
10-Sep-09	1673																				
17-Sep-09	1680																				
24-Sep-09	1687																				
1-Oct-09	1694																				
8-Oct-09	1701																				
15-Oct-09	1708																				
22-Oct-09	1715																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	38.8	<0.0005	0.00083	0.0131	<0.06	<0.00005	13.4	0.0415	<0.00001	0.032	0.00295	15.6	0.0145	2.48	0.000015	33.1	<0.00005	<0.0001	0.00251	0.0076
17-Feb-05	7																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
24-Feb-05	14	2500	2465	7.88	371	185	<1	5.75	43	119	67.3	0.54	0.165	50.3	0.0518	0.00654	0.00815	0.0643	<0.0002	<0.0005	0.037	<0.00005
3-Mar-05	21	2500	2495	7.9	340	150																
10-Mar-05	28	2500	2475	7.9	326	152	<1	2.25	42.8	95	62	<0.5	0.089	36.1	0.0539	0.00841	0.00515	0.063	<0.0002	<0.0005	0.018	<0.00005
17-Mar-05	35	2500	2480	7.84	430	130																
24-Mar-05	42	2500	2465	7.85	391	122	<1	2.5	35.3	75	47.9	<0.5	<0.02	23.1	0.0565	0.00642	0.00467	0.0376	<0.0002	<0.0005	<0.01	<0.00005
31-Mar-05	49	2500	2470	7.96	413	125																
7-Apr-05	56	2500	2495	7.81	413	114	<1	5.5	35.5	72	45.9	<0.5	0.031	21.7	0.0533	0.00659	0.00352	0.0354	<0.0002	<0.0005	<0.01	<0.00005
14-Apr-05	63	2500	2490	7.93	388	110																
21-Apr-05	70	2500	2460	7.87	391	105	<1	3	30.5	62	45.1	<0.5	0.035	21.5	0.0599	0.00576	0.00287	0.0342	<0.0002	<0.0005	<0.01	<0.00005
28-Apr-05	77	2500	2465	7.87	409	114																
5-May-05	84	2500	2425	7.89	401	100	<1	1.25	27.5	48	46.3	<0.5	0.03	22.6	0.0641	0.00582	0.00259	0.0298	<0.0002	<0.0005	<0.01	<0.00005
12-May-05	91	2500	2430	7.87	376	111																
19-May-05	98	2500	2425	7.84	353	105	<1	4	31.5	59	45.6	<0.5	0.02	22.2	0.0651	0.00667	0.00243	0.0286	<0.0002	<0.0005	<0.01	<0.00005
26-May-05	105	2500	2435	7.82	379	89																
2-Jun-05	112	2500	2435	7.77	354	94	<1	2.5	26	56	40	<0.5	0.022	22.2	0.0572	0.00551	0.00184	0.02	<0.0002	<0.0005	<0.01	<0.00005
9-Jun-05	119	2500	2470	7.84	352	95																
16-Jun-05	126	2500	2455	7.87	337	89	<1	2	26.3	56	42.4	<0.5	0.02	20.2	0.0758	0.00551	0.00167	0.0202	<0.0002	<0.0005	<0.01	<0.00005
23-Jun-05	133	2500	2460	7.85	362	84																
30-Jun-05	140	2500	2500	7.89	295	96	<1	2.5	27.8	59	43.9	<0.5	<0.02	21.8	0.0828	0.00599	0.0016	0.0201	<0.0002	<0.0005	<0.01	<0.00005
7-Jul-05	147	2500	2440	7.87	286	87																
14-Jul-05	154	2500	2445	7.82	297	85	<1	2.5	25.3	52	41.9	<0.5	0.02	21.1	0.0716	0.00565	0.00128	0.0156	<0.0002	<0.0005	<0.01	<0.00005
21-Jul-05	161	2500	2390	7.82	248	75																
28-Jul-05	168	2500	2490	7.81	271	79	<1	2	26	50	37.4	<0.5	0.023	18.2	0.0625	0.00522	0.00122	0.0144	<0.0002	<0.0005	<0.01	<0.00005
4-Aug-05	175	2500	2475	7.88	318	72																
11-Aug-05	182	2500	2425	7.96	325	79	<1	1.25	27.3	62	40.2	<0.5	<0.02	17.9	0.0544	0.00529	0.00103	0.0145	<0.0002	<0.0005	<0.01	<0.00005
18-Aug-05	189	2500	2465	7.91	333	78																
25-Aug-05	196	2500	2450	7.76	324	74	<1	2.5	25.8	55	36	<0.5	<0.02	17.8	0.054	0.00424	0.00086	0.0119	<0.0002	<0.0005	<0.01	<0.00005
1-Sep-05	203	2500	2430	7.82	266	76																
8-Sep-05	210	2500	2390	7.8	299	84	<1	1.25	25.3	74	41.4	<0.5	0.022	19.2	0.0615	0.00469	0.00089	0.0147	<0.0002	<0.0005	<0.01	<0.00005
15-Sep-05	217	2500	2410	7.78	298	80																
22-Sep-05	224	2500	2380	7.53	233	72	<1	3.25	24	37	34.6	<0.5	<0.02	15.5	0.0581	0.00329	0.0008	0.00969	<0.0002	<0.0005	<0.01	<0.00005
29-Sep-05	231	2500	2500	7.8	214	72																
6-Oct-05	238	2500	2500	7.77	187	76	<1	3.25	25	44	36.1	<0.5	<0.02	16.5	0.0518	0.00387	0.00112	0.0107	<0.0002	<0.0005	<0.01	<0.00005
13-Oct-05	245	2500	2480	7.77	209	70																
20-Oct-05	252	2500	2430	7.22	326	74	<1	3.25	23.8	47	37.3	<0.5	<0.02	16.8	0.0446	0.00336	0.00109	0.00917	<0.0002	<0.0005	<0.01	<0.00005
27-Oct-05	259	2500	2450	7.51	346	64																
3-Nov-05	266	2500	2510	7.25	338	58	<1	4	23	38	30.9	<0.5	<0.02	13.4	0.0386	0.00289	0.00067	0.0097	<0.0002	<0.0005	<0.01	<0.00005
10-Nov-05	273	2500	2560	7.16	358	61																
17-Nov-05	280	2500	2420	7.58	247	57	<1	2	23.3	31	31.5	<0.5	<0.02	12	0.0378	0.00266	0.00045	0.00886	<0.0002	<0.0005	<0.01	<0.00005
24-Nov-05	287	2500	2425	7.54	450	58																
1-Dec-05	294	2500	2460	7.41	376	54	<1	3	24.3	44	33.6	<0.5	<0.02	12.3	0.03	0.00259	0.00055	0.00807	<0.0002	<0.0005	<0.01	<0.00005
8-Dec-05	301	2500	2400	7.45	419	46																
15-Dec-05	308	2500	2390	7.34	463	61	<1	3.5	27	40	37.2	<0.5	<0.02	12.3	0.0274	0.0029	0.00041	0.00965	<0.0002	<0.0005	<0.01	<0.00005
22-Dec-05	315	2500	2390	7.51	418	53																
29-Dec-05	322	2500	2425	7.46	436	61	<1	3	24.8	32	33.1	<0.5	<0.02	12.1	0.0276	0.00243	0.00045	0.00888	<0.0002	<0.0005	<0.01	<0.00005
5-Jan-06	329	2500	2420	7.65	457	65																
12-Jan-06	336	2500																				
19-Jan-06	343	2500	2540	7.3	418	56	<1	4.75	24.5	25	28.7	<0.5	<0.02	9.5	0.0296	0.00211	0.00101	0.00658	<0.0002	<0.0005	<0.01	<0.00005
26-Jan-06	350	2500	2560	7.4	390	58	<1	3.5	24	54	30.6	<0.5	<0.02	10.3	0.0282	0.00208	0.00069	0.00599	<0.0002	<0.0005	<0.01	<0.00005
2-Feb-06	357	2500	2445	7.35	382	57																
9-Feb-06	364	2500	2490	7.26	411	54	<1	3	20.5	31	29.7	<0.5	<0.02	10.8	0.0305	0.00196	0.00049	0.00656	<0.0002	<0.0005	<0.01	<0.00005
16-Feb-06	371	2500	2465	7.78	428	53																
23-Feb-06	378	2500	2560	7.31	329	50	<1	1.5	21	29	29	<0.5	<0.02	9.98	0.0199	0.00157	0.00034	0.00586	<0.0002	<0.0005	<0.01	<0.00005
2-Mar-06	385	2500	2360	7.41	386	68																
9-Mar-06	392	2500	2770	7.44	470	65	<1	4	24	43	34.1	<0.5	<0.02	11.4	0.0336	0.00219	0.00048	0.00571	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-06	399	2500	2475	7.69	391	78																
23-Mar-06	406	2500	2405	7.63	373	95	<1	1.75	32	54	42.3	<0.5	<0.02	13.4	0.0233	0.00268	0.00058	0.00831	<0.0002	<0.0005	<0.01	<0.00005
30-Mar-06	413	2500	2410	7.56	393	82																
6-Apr-06	420	2500	2405	7.65	362	90	<1	1.75	30.3	46	43.2	<0.5	<0.02	14	0.0284	0.00282	0.00056	0.0099	<0.0002	<0.0005	<0.01	0.000094
13-Apr-06	427	2500	2545	7.74	397	73																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
24-Feb-05	14	17	<0.0005	0.00015	0.00244	<0.06	<0.00005	6.07	0.0229	<0.00001	0.00531	<0.0005	6.45	0.0048	2.66	<0.00001	7.6	<0.00005	<0.0001	0.00285	0.0027
3-Mar-05	21																				
10-Mar-05	28	15.6	<0.0005	0.00012	0.00158	0.125	<0.00005	5.6	0.025	<0.00001	0.00432	<0.0005	5.1	0.003	2.25	<0.00001	4.1	<0.00005	<0.0001	0.00232	0.0018
17-Mar-05	35																				
24-Mar-05	42	12	<0.0005	<0.0001	0.00184	<0.03	<0.00005	4.36	0.0195	<0.00001	0.00324	<0.0005	3.63	0.0022	2.1	<0.00001	<2	<0.00005	<0.0001	0.0018	<0.001
31-Mar-05	49																				
7-Apr-05	56	11.3	<0.0005	<0.0001	0.00211	<0.03	<0.00005	4.29	0.0227	<0.00001	0.00446	<0.0005	3.11	0.0016	2.09	<0.00001	<2	<0.00005	<0.0001	0.00129	<0.001
14-Apr-05	63																				
21-Apr-05	70	11.7	<0.0005	<0.0001	0.00177	<0.03	<0.00005	3.89	0.019	<0.00001	0.00506	<0.0005	2.53	0.0015	1.83	<0.00001	<2	<0.00005	<0.0001	0.00114	<0.001
28-Apr-05	77																				
5-May-05	84	11	<0.0005	<0.0001	0.00168	<0.03	<0.00005	4.55	0.0214	<0.00001	0.00554	<0.0005	2.24	0.0014	1.79	<0.00001	<2	<0.00005	<0.0001	0.00107	0.0011
12-May-05	91																				
19-May-05	98	11.3	<0.0005	<0.0001	0.00219	<0.03	<0.00005	4.23	0.0253	<0.00001	0.00568	<0.0005	2.44	0.0016	1.77	<0.00001	<2	<0.00005	<0.0001	0.0009	<0.001
26-May-05	105																				
2-Jun-05	112	10.3	<0.0005	<0.0001	0.00182	<0.03	<0.00005	3.46	0.0225	<0.00001	0.00455	<0.0005	1.9	0.002	1.67	<0.00001	<2	<0.00005	<0.0001	0.0007	<0.001
9-Jun-05	119																				
16-Jun-05	126	10.3	<0.0005	<0.0001	0.00222	<0.03	<0.00005	4.05	0.0241	<0.00001	0.00518	<0.0005	1.9	0.0012	1.5	<0.00001	<2	<0.00005	<0.0001	0.00073	<0.001
23-Jun-05	133																				
30-Jun-05	140	10.7	<0.0005	<0.0001	0.00245	<0.03	<0.00005	4.18	0.028	<0.00001	0.0058	<0.0005	1.89	0.0014	1.48	<0.00001	<2	<0.00005	<0.0001	0.00073	0.0013
7-Jul-05	147																				
14-Jul-05	154	10.4	<0.0005	<0.0001	0.00232	<0.03	<0.00005	3.88	0.0273	<0.00001	0.00578	<0.0005	1.65	0.0011	1.26	<0.00001	<2	<0.00005	<0.0001	0.00061	0.0012
21-Jul-05	161																				
28-Jul-05	168	9.51	<0.0005	<0.0001	0.00282	<0.03	<0.00005	3.3	0.0266	<0.00001	0.00532	<0.0005	1.38	<0.001	1.2	<0.00001	<2	<0.00005	<0.0001	0.00053	<0.001
4-Aug-05	175																				
11-Aug-05	182	10.1	<0.0005	<0.0001	0.00357	<0.03	<0.00005	3.64	0.0263	<0.00001	0.00532	<0.0005	1.39	<0.001	1.2	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
18-Aug-05	189																				
25-Aug-05	196	8.99	<0.0005	<0.0001	0.00345	<0.03	<0.00005	3.29	0.0237	<0.00001	0.00505	<0.0005	1.19	<0.001	1.06	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
1-Sep-05	203																				
8-Sep-05	210	10.2	<0.0005	<0.0001	0.00344	<0.03	0.000054	3.89	0.0283	<0.00001	0.00571	<0.0005	1.28	<0.001	1.11	<0.00001	<2	<0.00005	0.00038	<0.0005	0.0017
15-Sep-05	217																				
22-Sep-05	224	8.64	<0.0005	<0.0001	0.00583	<0.03	0.00006	3.16	0.0253	<0.00001	0.00461	<0.0005	1.16	<0.001	0.968	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0048
29-Sep-05	231																				
6-Oct-05	238	9.22	<0.0005	<0.0001	0.00424	<0.03	<0.00005	3.18	0.0302	<0.00001	0.00498	<0.0005	1.09	<0.001	0.949	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Oct-05	245																				
20-Oct-05	252	9.5	<0.0005	<0.0001	0.00462	<0.03	<0.00005	3.3	0.0318	<0.00001	0.00457	<0.0005	1.05	<0.001	0.826	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Oct-05	259																				
3-Nov-05	266	7.31	<0.0005	<0.0001	0.00424	<0.03	<0.00005	3.08	0.0331	<0.00001	0.00408	<0.0005	0.93	<0.001	0.703	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Nov-05	273																				
17-Nov-05	280	7.48	<0.0005	<0.0001	0.00314	<0.03	<0.00005	3.11	0.0342	<0.00001	0.00315	<0.0005	0.877	<0.001	0.643	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
24-Nov-05	287																				
1-Dec-05	294	8.22	<0.0005	<0.0001	0.00349	<0.03	<0.00005	3.17	0.0373	<0.00001	0.00268	<0.0005	0.812	<0.001	0.648	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Dec-05	301																				
15-Dec-05	308	9.11	<0.0005	<0.0001	0.00412	<0.03	<0.00005	3.51	0.0429	<0.00001	0.00276	<0.0005	0.894	<0.001	0.709	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
22-Dec-05	315																				
29-Dec-05	322	8.01	<0.0005	<0.0001	0.00391	<0.03	<0.00005	3.17	0.0427	<0.00001	0.0021	<0.0005	0.832	<0.001	0.592	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
5-Jan-06	329																				
12-Jan-06	336																				
19-Jan-06	343	6.97	<0.0005	<0.0001	0.0072	<0.03	<0.00005	2.75	0.0379	<0.00001	0.00161	<0.0005	0.747	<0.001	0.605	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Jan-06	350	7.37	<0.0005	<0.0001	0.00901	<0.03	<0.00005	2.97	0.0367	<0.00001	0.00164	<0.0005	0.759	<0.001	0.57	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
2-Feb-06	357																				
9-Feb-06	364	7.26	<0.0005	<0.0001	0.00546	<0.03	<0.00005	2.81	0.0353	<0.00001	0.00174	<0.0005	0.689	<0.001	0.504	<0.00001	<2	<0.00005	0.0002	<0.0005	0.0031
16-Feb-06	371																				
23-Feb-06	378	6.76	<0.0005	<0.0001	0.0065	<0.03	0.000229	2.93	0.0332	<0.00001	0.00123	<0.0005	0.566	<0.001	0.419	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0019
2-Mar-06	385																				
9-Mar-06	392	7.88	<0.0005	<0.0001	0.00584	<0.03	<0.00005	3.51	0.0408	<0.00001	0.00181	<0.0005	0.735	<0.001	0.516	<0.00001	<2	<0.00005	0.0002	<0.0005	0.0011
16-Mar-06	399																				
23-Mar-06	406	10.1	<0.0005	<0.0001	0.00616	<0.03	<0.00005	4.17	0.0516	<0.00001	0.00227	<0.0005	0.826	<0.001	0.673	0.000028	<2	<0.00005	<0.0001	<0.0005	0.0013
30-Mar-06	413																				
6-Apr-06	420	9.7	<0.0005	<0.0001	0.00938	<0.03		4.62	0.0528	<0.00001	0.00223	0.00137	0.9	<0.001	0.605	<0.00001	<2	<0.00005	<0.0001	<0.0005	
13-Apr-06	427																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
20-Apr-06	434	2500	2475	7.65	411	73	<1	2	25	38	36.7	<0.5	<0.02	13.4	0.0297	0.00222	0.00044	0.00716	<0.0002	<0.0005	<0.01	<0.00005
27-Apr-06	441	2500	2450	7.61	340	73																
4-May-06	448	2500	2420	7.43	329	86	<1	1.85	27.7	50	42.6	<0.5	<0.02	16.1	0.0345	0.00286	0.00045	0.00813	<0.0002	<0.0005	<0.01	<0.00005
11-May-06	455	2500	2505	7.45	309	73																
18-May-06	462	2500	2490	7.29	387	81	<1	2.28	21.3	41	34.7	<0.5	<0.02	17.2	0.0338	0.00229	0.00035	0.00667	<0.0002	<0.0005	<0.01	<0.00005
25-May-06	469	2500	2440	7.53	247	81																
1-Jun-06	476	2500	2440	7.31	375	73	<1	2.37	21.2	38	32.3	<0.5	<0.02	14	0.0266	0.00205	0.00036	0.00605	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-06	483	2500	2450	7.46	190	72																
15-Jun-06	490	2500	2475	7.25	364	73	<1	1.87	21	36	32.3	<0.5	<0.02	15	0.0288	0.00194	0.00034	0.00568	<0.0002	<0.0005	<0.01	<0.00005
22-Jun-06	497	2500	2410	7.49	230	77																
29-Jun-06	504	2500	2385	7.09	360	70	<1	2.29	20.7	43	34.6	<0.5	<0.02	17.1	0.0288	0.00238	0.00037	0.00553	<0.0002	<0.0005	<0.01	<0.00005

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	2145	7.74	333	368	<1	2.25	35.8	261	152	<0.5	0.146	137	0.0349	0.00428	0.00108	0.0384	<0.0002	<0.0005	0.138	<0.00005
17-Feb-05	7	2500	2465	7.67	386	285																
24-Feb-05	14	2500	2465	7.71	383	184	<1	5	32.5	109	76	<0.5	0.197	55.2	0.087	0.00407	0.00218	0.0425	<0.0002	<0.0005	0.051	<0.00005
3-Mar-05	21	2500	2480	7.78	341	138																
10-Mar-05	28	2500	2480	7.76	334	137	<1	3.25	31.3	88	57.3	<0.5	0.125	36.7	0.0749	0.00549	0.00171	0.0387	<0.0002	<0.0005	0.024	<0.00005
17-Mar-05	35	2500	2485	7.64	442	100																
24-Mar-05	42	2500	2435	7.61	420	98	<1	6.5	22.8	58	38.2	<0.5	0.048	22.7	0.0456	0.00548	0.00102	0.0261	<0.0002	<0.0005	0.01	<0.00005
31-Mar-05	49	2500	2440	7.68	428	99																
7-Apr-05	56	2500	2440	7.53	426	103	<1	5.25	21.3	64	39.4	<0.5	0.058	25.9	0.0402	0.0053	0.00106	0.0265	<0.0002	<0.0005	<0.01	<0.00005
14-Apr-05	63	2500	2470	7.64	395	97																
21-Apr-05	70	2500	2465	7.63	393	104	<1	3.75	20	59	42.3	<0.5	0.068	28.3	0.0355	0.00521	0.00102	0.0199	<0.0002	<0.0005	<0.01	<0.00005
28-Apr-05	77	2500	2470	7.67	428	131																
5-May-05	84	2500	2495	7.72	391	113	<1	2.25	20	58	48.3	<0.5	0.075	33.3	0.037	0.00544	0.00126	0.0168	<0.0002	<0.0005	<0.01	<0.00005
12-May-05	91	2500	2475	7.7	388	107																
19-May-05	98	2500	2505	7.7	356	97	<1	7.25	23	53	39.2	<0.5	0.06	23.5	0.0438	0.00576	0.00155	0.0161	<0.0002	<0.0005	<0.01	<0.00005
26-May-05	105	2500	2495	7.76	386	151																
2-Jun-05	112	2500	2500	7.81	368	140	<1	2.75	26.8	84	55.4	<0.5	0.136	41.3	0.0393	0.00581	0.00186	0.0176	<0.0002	<0.0005	<0.01	<0.00005
9-Jun-05	119	2500	2500	7.77	395	119																
16-Jun-05	126	2500	2500	7.89	364	117	<1	2	26.3	69	51.9	<0.5	0.09	30.6	0.0393	0.00532	0.00173	0.0171	<0.0002	<0.0005	<0.01	<0.00005
23-Jun-05	133	2500	2490	7.82	381	90																
30-Jun-05	140	2500	2495	7.81	301	95	<1	2.5	24.3	54	38.9	<0.5	0.064	22.8	0.0426	0.00459	0.0018	0.0206	<0.0002	<0.0005	<0.01	<0.00005
7-Jul-05	147	2500	2355	7.86	307	112																
14-Jul-05	154	2500	2395	7.78	305	83	<1	2	22	49	37.9	<0.5	0.062	21.7	0.0369	0.00402	0.00149	0.0161	<0.0002	<0.0005	<0.01	<0.00005
21-Jul-05	161	2500	2380	7.78	274	79																
28-Jul-05	168	2500	2375	7.81	290	76	<1	1.75	22.5	47	33.9	<0.5	0.044	18.9	0.028	0.00342	0.00139	0.0113	<0.0002	<0.0005	<0.01	<0.00005
4-Aug-05	175	2500	2460	7.88	325	79																
11-Aug-05	182	2500	2415	7.77	332	78	<1	2.5	26	56	37	<0.5	0.046	17.9	0.0285	0.00405	0.00127	0.0113	<0.0002	<0.0005	<0.01	<0.00005
18-Aug-05	189	2500	2360	7.89	327	89																
25-Aug-05	196	2500	2400	7.78	327	89	<1	2.5	26.5	60	38.9	<0.5	0.063	20.7	0.0244	0.00391	0.00155	0.0115	<0.0002	<0.0005	<0.01	<0.00005
1-Sep-05	203	2500	2400	7.89	267	93																

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	2300	4.25	463	1098	3	186.5	<1	1250	433	0.75	2.13	739	11.9	0.0079	<0.005	0.0477	<0.01	<0.025	<0.5	0.0141
17-Feb-05	7	2500	2525	4.41	495	674																
24-Feb-05	14	2500	2530	4.5	481	364	<1	77.75	<1	292	97.2	<0.5	0.644	175	1.78	0.0061	<0.002	0.0222	<0.004	<0.01	<0.2	0.0026
3-Mar-05	21	2500	2500	4.5	463	286																
10-Mar-05	28	2500	2580	4.46	489	276	<1	71.25	<1	220	66.8	<0.5	0.513	122	1.48	0.00646	<0.001	0.0252	<0.002	<0.005	<0.1	0.00199
17-Mar-05	35	2500	2585	4.48	568	250																
24-Mar-05	42	2500	2505	4.53	538	190	<1	58.25	<1	134	40.2	<0.5	0.311	79.2	0.882	0.00454	0.00052	0.0154	<0.001	<0.0025	<0.05	0.00115
31-Mar-05	49	2500	2500	4.44	557	230																
7-Apr-05	56	2500	2500	4.45	536	192	<1	64.25	<1	134	37	<0.5	0.399	78.6	0.962	0.00486	0.0006	0.0138	<0.001	<0.0025	<0.05	0.00106
14-Apr-05	63	2500	2505	4.41	524	198																
21-Apr-05	70	2500	2495	4.4	524	185	<1	55.25	<1	122	37.1	<0.5	0.406	75.6	0.95	0.00493	0.00059	0.012	0.0005	<0.0005	<0.01	0.00109

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Apr-06	434	8.76	<0.0005	<0.0001	0.0054	<0.03	<0.00005	3.6	0.0429	<0.00001	0.00191	<0.0005	0.728	<0.001	0.527	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Apr-06	441																				
4-May-06	448	9.39	<0.0005	<0.0001	0.00507	<0.03	0.000366	4.66	0.0442	<0.00001	0.00246	<0.0005	0.816	<0.001	0.555	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-May-06	455																				
18-May-06	462	8.13	<0.0005	<0.0001	0.00416	<0.03	<0.00005	3.5	0.0307	<0.00001	0.00274	<0.0005	0.663	<0.001	0.476	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
25-May-06	469																				
1-Jun-06	476	7.63	<0.0005	<0.0001	0.0042	<0.03	<0.00005	3.23	0.0305	<0.00001	0.00228	<0.0005	0.609	<0.001	0.45	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
8-Jun-06	483																				
15-Jun-06	490	7.38	<0.0005	<0.0001	0.00283	<0.03	<0.00005	3.37	0.0269	<0.00001	0.00257	<0.0005	0.591	<0.001	0.412	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
22-Jun-06	497																				
29-Jun-06	504	7.53	<0.0005	0.00014	0.00383	<0.03	<0.00005	3.84	0.0261	<0.00001	0.00303	<0.0005	0.589	<0.001	0.403	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	44.8	<0.0005	0.00036	0.00663	<0.06	<0.00005	9.65	0.0289	0.000013	0.00298	0.00151	11.5	0.0103	1.07	0.00006	7	<0.00005	<0.0001	0.0007	0.0052
17-Feb-05	7																				
24-Feb-05	14	21.8	<0.0005	<0.0001	0.00751	<0.06	<0.00005	5.23	0.0137	<0.00001	0.00146	<0.0005	6.46	0.0091	1.21	<0.00001	<4	<0.00005	<0.0001	0.00116	0.0025
3-Mar-05	21																				
10-Mar-05	28	16.2	<0.0005	<0.0001	0.00284	<0.06	<0.00005	4.08	0.0122	<0.00001	0.00125	0.00077	4.81	0.0047	0.88	<0.00001	<4	<0.00005	<0.0001	0.00099	0.0019
17-Mar-05	35																				
24-Mar-05	42	10.5	<0.0005	<0.0001	0.00169	<0.03	<0.00005	2.9	0.00711	<0.00001	0.000991	<0.0005	3.12	0.0028	0.635	<0.00001	<2	<0.00005	<0.0001	0.00055	<0.001
31-Mar-05	49																				
7-Apr-05	56	10.8	<0.0005	<0.0001	0.00186	<0.03	<0.00005	3.04	0.00718	<0.00001	0.00114	<0.0005	3.01	0.0029	0.645	<0.00001	<2	<0.00005	<0.0001	0.00053	<0.001
14-Apr-05	63																				
21-Apr-05	70	11.7	<0.0005	<0.0001	0.00222	<0.03	<0.00005	3.15	0.00691	<0.00001	0.00125	<0.0005	2.78	0.0032	0.572	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
28-Apr-05	77																				
5-May-05	84	12.4	<0.0005	<0.0001	0.00181	<0.03	<0.00005	4.19	0.00746	<0.00001	0.00147	<0.0005	2.84	0.0032	0.623	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
12-May-05	91																				
19-May-05	98	10.6	<0.0005	<0.0001	0.00711	<0.03	<0.00005	3.08	0.00637	<0.00001	0.00136	<0.0005	2.84	0.0027	0.607	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-May-05	105																				
2-Jun-05	112	15.3	<0.0005	<0.0001	0.0041	<0.03	<0.00005	4.2	0.0088	<0.00001	0.00205	<0.0005	3.77	0.0041	0.819	<0.00001	<2	<0.00005	<0.0001	0.00056	<0.001
9-Jun-05	119																				
16-Jun-05	126	13.9	<0.0005	<0.0001	0.00284	<0.03	<0.00005	4.18	0.00768	<0.00001	0.00186	<0.0005	3.4	0.0036	0.712	<0.00001	<2	<0.00005	<0.0001	0.0005	<0.001
23-Jun-05	133																				
30-Jun-05	140	10.4	<0.0005	<0.0001	0.00236	<0.03	<0.00005	3.12	0.00481	<0.00001	0.00162	<0.0005	3.67	0.0032	0.627	<0.00001	<2	<0.00005	0.0001	0.00053	<0.001
7-Jul-05	147																				
14-Jul-05	154	10.3	<0.0005	<0.0001	0.00185	<0.03	<0.00005	2.96	0.00433	<0.00001	0.00162	<0.0005	3.15	0.0027	0.535	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Jul-05	161																				
28-Jul-05	168	9.52	<0.0005	<0.0001	0.0031	<0.03	<0.00005	2.46	0.00412	<0.00001	0.00144	<0.0005	2.39	0.0025	0.5	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
4-Aug-05	175																				
11-Aug-05	182	10.2	<0.0005	<0.0001	0.0035	<0.03	<0.00005	2.8	0.00405	<0.00001	0.00126	<0.0005	2.53	0.0022	0.539	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Aug-05	189																				
25-Aug-05	196	10.6	<0.0005	<0.0001	0.0035	<0.03	<0.00005	3	0.00377	<0.00001	0.00141	<0.0005	2.88	0.0025	0.635	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
1-Sep-05	203																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	115	<0.025	0.572	148	3.32	<0.0025	35.4	1.14	<0.00001	0.0039	0.76	15	<0.05	5.7	<0.0005	<20	<0.0025	<0.005	<0.025	1.11
17-Feb-05	7																				
24-Feb-05	14	25.9	<0.01	0.108	34.4	0.573	<0.001	7.89	0.249	<0.00001	0.0011	0.155	4	0.022	3.97	<0.0002	<4	<0.001	<0.002	<0.01	0.24
3-Mar-05	21																				
10-Mar-05	28	17.4	<0.005	0.0694	28	0.68	<0.0005	5.66	0.171	<0.00001	0.00081	0.106	2.9	0.017	3.12	<0.0001	<4	<0.0005	<0.001	<0.005	0.176
17-Mar-05	35																				
24-Mar-05	42	10.4	<0.0025	0.0411	17.8	0.528	0.00034	3.48	0.099	<0.00001	0.00047	0.0622	1.61	0.0114	2.32	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.135
31-Mar-05	49																				
7-Apr-05	56	9.71	<0.0025	0.0361	18	0.725	<0.00025	3.1	0.0902	<0.00001	0.00056	0.0571	1.47	0.011	2.5	<0.00005	<2	0.00025	<0.0005	<0.0025	0.0983
14-Apr-05	63																				
21-Apr-05	70	9.92	<0.0005	0.0333	18.5	0.944	0.000101	2.99	0.073	<0.00001	0.000394	0.0527	1.35	0.0121	2.28	0.000019	<2	0.000273	<0.0001	0.0008	0.103

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
28-Apr-05	77	2500	2505	4.34	564	197																
5-May-05	84	2500	2500	4.37	552	187	<1	53.5	<1	128	36	<0.5	0.471	78.5	1.12	0.00471	0.00054	0.013	<0.001	<0.0025	<0.05	0.001
12-May-05	91	2500	2510	4.29	538	202																
19-May-05	98	2500	2520	4.28	503	200	1.5	60	<1	143	33.3	<0.5	0.477	86.6	1.48	0.00547	0.00064	0.0164	<0.001	<0.0025	<0.05	0.00114
26-May-05	105	2500	2505	4.3	544	162																
2-Jun-05	112	2500	2510	4.25	499	183	1.5	55	<1	114	26.8	<0.5	0.426	75.8	1.32	0.00476	0.00059	0.0118	<0.001	<0.0025	<0.05	0.00095
9-Jun-05	119	2500	2500	4.22	532	192																
16-Jun-05	126	2500	2500	4.2	514	189	2	64	<1	141	28.3	<0.5	0.446	77.4	1.61	0.00441	<0.0005	0.0108	<0.001	<0.0025	<0.05	0.00088
23-Jun-05	133	2500	2505	4.18	533	184																
30-Jun-05	140	2500	2505	4.13	433	186	3	65	<1	144	26.3	<0.5	0.377	76.9	1.85	0.00523	<0.001	0.0155	<0.002	<0.005	<0.1	0.00112
7-Jul-05	147	2500	2500	4.13	468	185																
14-Jul-05	154	2500	2510	4.1	442	204	3.5	70	<1	172	28.1	<0.5	0.458	85.6	2.12	0.00501	<0.001	0.0134	<0.002	<0.005	<0.1	0.00113
21-Jul-05	161	2500	2490	4.12	303	172																
28-Jul-05	168	2500	2580	4.12	382	174	3.25	65.5	<1	144	22.9	<0.5	0.393	73.8	1.83	0.00445	<0.001	0.0111	<0.002	<0.005	<0.1	0.00084
4-Aug-05	175	2500	2635	4.12	428	164																
11-Aug-05	182	2500	2360	4.1	451	186	4.5	52	<1	161	23.9	<0.5	0.377	79.1	1.97	0.00481	<0.001	0.0132	<0.002	<0.005	<0.1	0.0009
18-Aug-05	189	2500	2540	4.09	462	186																
25-Aug-05	196	2500	2505	4.17	411	177	3	52.5	<1	136	19.3	<0.5	0.528	71	1.68	0.00407	0.00051	0.01	<0.001	<0.0025	<0.05	0.00099
1-Sep-05	203	2500	2555	4.19	404	166																
8-Sep-05	210	2500	2550	4.03	428	178	4.25	63.5	<1	178	19.9	<0.5	0.361	73.7	1.86	0.00434	0.00062	0.0102	<0.001	<0.0025	<0.05	0.00086
15-Sep-05	217	2500	2530	4.06	408	183																
22-Sep-05	224	2500	2555	4.15	346	166	2.5	61.25	<1	111	17.6	<0.5	0.197	61.1	1.68	0.00332	<0.001	0.00806	<0.002	<0.005	<0.1	0.00088
29-Sep-05	231	2500	2505	4.14	421	172																
6-Oct-05	238	2500	2495	4.22	346	179	3	58.75	<1	116	17.6	<0.5	0.304	66.8	1.68	0.00426	0.00058	0.00922	<0.001	<0.0025	<0.05	0.00083
13-Oct-05	245	2500	2480	4.01	348	181																
20-Oct-05	252	2500	2400	3.83	421	201	5.75	62.75	<1	137	29.1	<0.5	0.421	84.4	1.59	0.00477	0.00054	0.0114	0.00068	<0.0005	<0.01	0.00103
27-Oct-05	259	2500	2530	3.86	508	194																
3-Nov-05	266	2500	2490	4.01	513	153	4	56	<1	88	13	<0.5	0.262	57.4	1.43	0.00387	<0.0005	0.00876	<0.001	<0.0025	<0.05	0.00088
10-Nov-05	273	2500	2480	3.96	505	148																
17-Nov-05	280	2500	2555	4	448	157	5.5	49	<1	84	13.1	<0.5	0.234	54.4	1.49	0.00342	<0.0005	0.00819	<0.001	<0.0025	<0.05	0.00074
24-Nov-05	287	2500	2470	4.02	583	133																
1-Dec-05	294	2500	2495	3.95	537	141	5.75	47	<1	85	11.8	<0.5	0.2	49.8	1.32	0.00303	0.00036	0.00715	0.00058	<0.0005	<0.01	0.000635
8-Dec-05	301	2500	2530	3.95	596	144																
15-Dec-05	308	2500	2395	3.85	609	149	6.25	49.5	<1	82	12.4	<0.5	0.252	53.1	1.53	0.00341	0.00041	0.00854	0.0006	<0.0005	<0.01	0.000734
22-Dec-05	315	2500	2535	3.93	593	127																
29-Dec-05	322	2500	2420	4	597	136	4.75	44.5	<1	66	9.82	<0.5	0.199	44.6	1.35	0.00308	<0.0005	0.00719	<0.001	<0.0025	<0.05	0.00059
5-Jan-06	329	2500	2415	3.93	626	140																
12-Jan-06	336	2500																				
19-Jan-06	343	2500	2580	4.01	610	111	3.25	46	<1	53	8.66	<0.5	0.168	37.6	0.956	0.00231	<0.0005	0.00732	<0.001	<0.0025	<0.05	0.00046
26-Jan-06	350	2500	2550	4.05	576	119	3.75	36	<1	70	8.49	<0.5	0.161	37.5	1.08	0.00238	<0.0005	0.00656	<0.001	<0.0025	<0.05	0.00044
2-Feb-06	357	2500	2500	3.92	543	129																
9-Feb-06	364	2500	2475	3.92	561	131	5	38.25	<1	63	8.72	<0.5	0.16	40.6	1.25	0.00251	<0.0005	0.00653	<0.001	<0.0025	<0.05	0.00058
16-Feb-06	371	2500	2510	3.85	583	138																
23-Feb-06	378	2500	2435	3.97	586	113	3.75	33.27	<1	58	7.32	<0.5	0.152	36.1	1.15	0.00198	0.00023	0.00856	0.00035	<0.0005	<0.01	0.000503
2-Mar-06	385	2500	2405	3.98	614	152																
9-Mar-06	392	2500	2205	3.85	596	171	6.5	47.5	<1	95	10.5	<0.5	0.2	52.9	2.02	0.00267	0.00033	0.00759	0.00055	<0.0005	<0.01	0.000763
16-Mar-06	399	2500	2390	3.93	607	156																
23-Mar-06	406	2500	2465	3.92	520	167	5.75	40.5	<1	97	9.38	<0.5	0.206	52.1	1.77	0.00235	<0.0005	0.00671	<0.001	<0.0025	<0.05	0.00068
30-Mar-06	413	2500	2620	3.78	591	144																
6-Apr-06	420	2500	2470	3.93	540	184	7.25	47.75	<1	77	9.57	<0.5	0.212	53.2	2	0.00237	<0.0005	0.00758	<0.001	<0.0025	<0.05	0.00083
13-Apr-06	427	2500	2545	3.89	546	130																
20-Apr-06	434	2500	2495	3.74	598	197	8.5	60	<1	103	11	<0.5	0.242	62.1	2.58	0.00244	<0.0005	0.00754	<0.001	<0.0025	<0.05	0.00091
27-Apr-06	441	2500	2470	3.78	338	196																
4-May-06	448	2500	2575	3.66	401	170	10.65	49.14	<1	87	9.38	<0.5	0.218	56.3	2.46	0.00181	0.00033	0.00697	0.00064	<0.0005	<0.01	0.000816
11-May-06	455	2500	2705	3.64	383	175																
18-May-06	462	2500	2535	3.55	405	194	12.21	55.87	<1	90	8.7	<0.5	0.214	61	2.02	0.00221	<0.0005	0.00697	<0.001	<0.0025	<0.05	0.00068
25-May-06	469	2500	2570	3.66	408	164																
1-Jun-06	476	2500	2450	3.64	408	164	11.27	45.52	<1	96	7.51	<0.5	0.16	49.9	1.83	0.00168	<0.0005	0.00532	<0.001	<0.0025	<0.05	0.00076
8-Jun-06	483	2500	2510	3.74	397	150																
15-Jun-06	490	2500	2375	3.61	406	179	10.04	51.49	<1	90	8.61	<0.5	0.161	57.5	2.29	0.00148	<0.0005	0.00596	<0.001	<0.0025	<0.05	0.0008

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
28-Apr-05	77																				
5-May-05	84	9.03	<0.0025	0.0316	24.3	1.37	<0.00025	3.28	0.0758	<0.00001	0.00031	0.0519	1.29	0.0105	2.41	<0.00005	<2	0.00027	<0.0005	<0.0025	0.101
12-May-05	91																				
19-May-05	98	8.69	<0.0025	0.0346	22.1	1.74	<0.00025	2.82	0.082	<0.00001	0.00048	0.0569	1.4	0.0127	2.49	0.000055	<2	0.00032	<0.0005	<0.0025	0.118
26-May-05	105																				
2-Jun-05	112	7.27	<0.0025	0.026	17.6	1.85	<0.00025	2.1	0.0623	<0.00001	0.00042	0.0438	1.12	0.011	2.27	<0.00005	<2	0.00025	<0.0005	<0.0025	0.101
9-Jun-05	119																				
16-Jun-05	126	7.61	<0.0025	0.0259	19.1	2.47	<0.00025	2.26	0.0611	<0.00001	0.00049	0.0433	1.08	0.0109	2.26	<0.00005	<2	0.00027	<0.0005	<0.0025	0.105
23-Jun-05	133																				
30-Jun-05	140	6.77	<0.005	0.0288	20.4	3.1	<0.0005	2.28	0.0673	<0.00001	<0.0005	0.051	1.25	0.013	2.35	<0.0001	<2	<0.0005	<0.001	<0.005	0.129
7-Jul-05	147																				
14-Jul-05	154	7.41	<0.005	0.0294	21.3	3.68	<0.0005	2.32	0.0676	<0.00001	<0.0005	0.0485	1.29	0.012	2.35	<0.0001	<2	<0.0005	<0.001	<0.005	0.133
21-Jul-05	161																				
28-Jul-05	168	6.19	<0.005	0.0242	17	3.42	<0.0005	1.82	0.0565	<0.00001	0.00059	0.0413	0.89	0.01	2.15	<0.0001	<2	<0.0005	<0.001	<0.005	0.12
4-Aug-05	175																				
11-Aug-05	182	6.52	<0.005	0.0237	18.7	3.9	<0.0005	1.85	0.0533	<0.00001	<0.0005	0.041	1.14	0.012	2.29	<0.0001	<2	<0.0005	<0.001	<0.005	0.125
18-Aug-05	189																				
25-Aug-05	196	5.23	<0.0025	0.0199	17	3.8	<0.00025	1.5	0.0423	<0.00001	0.00028	0.0342	1	0.0103	2	0.000018	<2	0.00027	<0.0005	<0.0025	0.107
1-Sep-05	203																				
8-Sep-05	210	5.45	<0.0025	0.0204	18.9	4.31	0.00065	1.51	0.0442	<0.00001	<0.00025	0.0355	1.06	0.0109	2.15	<0.00005	<2	0.00031	<0.0005	<0.0025	0.116
15-Sep-05	217																				
22-Sep-05	224	4.75	<0.005	0.0191	15.6	3.44	0.00054	1.4	0.0399	<0.00001	<0.0005	0.0309	0.92	<0.01	1.75	<0.0001	<2	<0.0005	<0.001	<0.005	0.108
29-Sep-05	231																				
6-Oct-05	238	4.9	<0.0025	0.019	16.5	4	0.00075	1.31	0.041	<0.00001	0.00029	0.032	1	0.0089	1.73	0.000064	<2	0.00027	<0.0005	<0.0025	0.106
13-Oct-05	245																				
20-Oct-05	252	8.29	<0.0005	0.0252	21.3	3.04	0.00022	2.05	0.0573	<0.00001	0.000407	0.0448	1.11	0.0115	2.27	0.000028	<2	0.000318	0.00022	0.00073	0.144
27-Oct-05	259																				
3-Nov-05	266	3.45	<0.0025	0.0166	15.6	3.1	<0.00025	1.06	0.0352	<0.00001	<0.00025	0.0283	0.96	0.0093	1.39	<0.00005	<2	0.00027	<0.0005	<0.0025	0.0974
10-Nov-05	273																				
17-Nov-05	280	3.5	<0.0025	0.0158	14.5	3.45	<0.00025	1.05	0.0308	<0.00001	<0.00025	0.0263	1	0.0086	1.44	<0.00005	<2	0.00026	<0.0005	<0.0025	0.09
24-Nov-05	287																				
1-Dec-05	294	3.32	<0.0005	0.0134	12.5	3.24	0.000148	0.861	0.0264	<0.00001	0.000133	0.0227	0.877	0.0075	1.41	0.000033	<2	0.000236	<0.0001	<0.0005	0.0869
8-Dec-05	301																				
15-Dec-05	308	3.43	<0.0005	0.0149	14	3.37	0.000119	0.92	0.0287	<0.00001	0.000151	0.0251	1.05	0.0087	1.6	0.000038	<2	0.000278	0.00021	<0.0005	0.0984
22-Dec-05	315																				
29-Dec-05	322	2.63	<0.0025	0.0128	11.9	2.59	<0.00025	0.789	0.0285	<0.00001	<0.00025	0.0221	1.07	0.0074	1.14	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.0859
5-Jan-06	329																				
12-Jan-06	336																				
19-Jan-06	343	2.42	<0.0025	0.0097	9.34	2.65	<0.00025	0.634	0.0191	<0.00001	<0.00025	0.0165	0.71	0.0055	1.28	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.0643
26-Jan-06	350	2.32	<0.0025	0.00967	9.08	2.45	0.00048	0.655	0.0187	<0.00001	<0.00025	0.0156	0.76	0.0062	1.08	<0.00005	<2	<0.00025	<0.0005	<0.0025	0.062
2-Feb-06	357																				
9-Feb-06	364	2.38	<0.0025	0.0115	10.3	2.99	0.00041	0.676	0.0213	<0.00001	<0.00025	0.0189	0.85	0.0067	1.17	0.000068	<2	<0.00025	<0.0005	<0.0025	0.0773
16-Feb-06	371																				
23-Feb-06	378	2	<0.0005	0.00895	9.22	2.25	0.000398	0.566	0.0171	<0.00001	0.000075	0.0149	0.645	0.0057	1.06	<0.00004	<2	0.000179	<0.0001	<0.0005	0.0663
2-Mar-06	385																				
9-Mar-06	392	2.88	<0.0005	0.0142	14.6	3.68	0.000214	0.793	0.0263	<0.00001	0.000122	0.0234	0.981	0.0092	1.49	0.000059	<2	0.000265	0.00035	<0.0005	0.102
16-Mar-06	399																				
23-Mar-06	406	2.59	<0.0025	0.0121	11.9	3.49	0.00598	0.705	0.0228	<0.00001	<0.00025	0.0206	0.82	0.0077	1.69	0.00008	<2	<0.00025	<0.0005	<0.0025	0.0918
30-Mar-06	413																				
6-Apr-06	420	2.63	<0.0025	0.0134	13.8	3.64	0.00679	0.728	0.0242	<0.00001	<0.00025	0.022	1.03	0.007	1.61	0.000075	<2	0.0003	0.00052	<0.0025	0.106
13-Apr-06	427																				
20-Apr-06	434	3.05	<0.0025	0.016	15.1	3.69	0.0014	0.818	0.0287	<0.00001	<0.00025	0.0266	1.15	0.0086	1.45	0.000082	<2	0.00027	<0.0005	<0.0025	0.114
27-Apr-06	441																				
4-May-06	448	2.45	<0.0005	0.0142	14.7	3.68	0.0094	0.791	0.0246	<0.00001	0.000103	0.0229	1.16	0.0085	1.81	0.0001	<2	0.000282	0.00027	<0.0005	0.108
11-May-06	455																				
18-May-06	462	2.42	<0.0025	0.0132	12.5	4.49	0.00414	0.648	0.0237	<0.00001	<0.00025	0.0207	1.03	0.0078	1.79	0.00014	<2	0.00028	<0.0005	<0.0025	0.0959
25-May-06	469																				
1-Jun-06	476	2.02	<0.0025	0.0123	11.2	3.2	0.00064	0.599	0.0211	<0.00001	<0.00025	0.0197	0.96	0.0074	1.3	0.00011	<2	<0.00025	<0.0005	<0.0025	0.09
8-Jun-06	483																				
15-Jun-06	490	2.26	<0.0025	0.0134	12.7	3.65	0.00098	0.721	0.0233	<0.00001	<0.00025	0.0215	1.06	0.0069	1.47	0.000085	<2	<0.00025	<0.0005	<0.0025	0.101

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Jun-06	497	2500	2620	3.55	406	207																
29-Jun-06	504	2500	2505	3.59	409	160	12.39	48.74	<1	82	7.35	<0.5	0.151	52.3	2.14	0.00134	<0.0005	0.00472	0.0011	<0.0025	<0.05	0.00066
6-Jul-06	511	2500	2510																			
13-Jul-06	518	2500	2435	3.85	404	156																
20-Jul-06	525	2500	2485																			
27-Jul-06	532	2500	2325	3.57	406	169	13.34	54.63	<1	96	7.94	<0.5	0.199	56.1	2.7	0.00113	<0.0005	0.00477	<0.001	<0.0025	<0.05	0.0008
3-Aug-06	539	2500	2235																			
10-Aug-06	546	2500	2430	4.19	377	164																
17-Aug-06	553	2500	2515																			
24-Aug-06	560	2500	2550	3.8	363	163				71	7.96	<0.5	0.209	54.7	2.34	0.00127	<0.0005	0.00451	<0.001	<0.0025	<0.05	0.00074
31-Aug-06	567	2500	2495																			
7-Sep-06	574	2500	2460	3.83	378	174																
14-Sep-06	581	2500	2540																			
21-Sep-06	588	2500	2500	3.81	375	189	6.53	54.50	<1	116	15	<0.5	0.313	69.1	2.35	0.00246	<0.0005	0.00978	<0.001	<0.0025	<0.05	0.00098
28-Sep-06	595	2500	2530																			
5-Oct-06	602	2500	2525	4.64	250	173																
12-Oct-06	609	2500	2560																			
19-Oct-06	616	2500	2470	3.6	415	173	14.68	51.55	<1	68	6.84	<0.5	0.172	54	2.07	0.00104	<0.0005	0.0053	<0.001	<0.0025	<0.05	0.00059
26-Oct-06	623	2500	2320																			
2-Nov-06	630	2500	2455	4.71	464	172																
9-Nov-06	637	2500	2575																			
16-Nov-06	644	2500	2460	3.48	456	207	16.42	55.64	<1	75.3	7.07	<0.5	0.159	61.4	2.24	0.00074	<0.0005	0.007	<0.001	<0.0025	<0.05	0.00051
23-Nov-06	651	2500	2495																			
30-Nov-06	658	2500	2425	3.69	492	164																
7-Dec-06	665	2500	2610																			
14-Dec-06	672	2500	2440	3.58	528	183	15.24	47.91	<1	75	5.78	<0.5	0.148	53.7	2.22	0.0005	<0.001	0.00579	<0.002	<0.005	<0.1	<0.0005
21-Dec-06	679	2500	2460																			
28-Dec-06	686	2500	2515	3.56	510	197																
4-Jan-07	693	2500	2380																			
11-Jan-07	700	2500	2420	3.52	529	186	15.19	47.53	<1	74	5.45	<0.5	0.126	51.3	1.8	0.00063	<0.0005	0.00633	<0.001	<0.0025	<0.05	0.00044
18-Jan-07	707	2500	2590																			
25-Jan-07	714	2500	2560	3.4	539	184																
1-Feb-07	721	2500	2450																			
8-Feb-07	728	2500	2460	3.58	589	190	19.77	54.99	<1	71	5.03	<0.5	0.13	50.8	1.62	0.00032	<0.0005	0.00559	<0.001	<0.0025	<0.05	0.00032
15-Feb-07	735	2500	2540																			
22-Feb-07	742	2500	2400	3.32	585	200																
1-Mar-07	749	2500	2545																			
8-Mar-07	756	2500	2425	3.45	571	191	22.09	55.14	<1	84.3	5.13	<0.5	0.141	56.3	1.9	<0.00025	<0.0005	0.00659	<0.001	<0.0025	<0.05	0.0004
15-Mar-07	763	2500	2550																			
22-Mar-07	770	2500	2395	3.28	521	144																
29-Mar-07	777	2500	2515																			
5-Apr-07	784	2500	2485	3.47	555	171	14.16	40.84	<1	65.5	3.67	<0.5	0.118	45.4	1.6	0.00027	0.00032	0.00523	<0.0004	<0.001	<0.02	0.00039
12-Apr-07	791	2500	2400																			
19-Apr-07	798	2500	2550	3.33	524	186																
26-Apr-07	805	2500	2435																			
3-May-07	812	2500	2445	3.14	517	204	21.47	50.53	<1	62.5	4.22	<0.5	0.143	54.7	1.99	0.00016	0.00022	0.00704	0.00048	<0.001	<0.02	0.00042
10-May-07	819	2500	2350																			
17-May-07	826	2500	2165	3.39	570	210																
24-May-07	833	2500	1820																			
31-May-07	840	2500	2070	3.37	457	220	19.27	51.74	<1	103	4.21	<0.5	0.126	55.7	2.13	0.00034	<0.0005	0.00646	<0.001	<0.0025	<0.05	0.00041
7-Jun-07	847	2500	2400																			
14-Jun-07	854	2500	2375	3.38	458	207																
21-Jun-07	861	2500	2350																			
28-Jun-07	868	2500	2460	3.24	566	137	18.26	36.44	<1	64.3	2.63	<0.5	0.076	37.1	1.39	0.00014	<0.0002	0.00572	<0.0004	<0.001	<0.02	0.0003
5-Jul-07	875	2500	2520																			
12-Jul-07	882	2500	2385	3.4	578	181																
19-Jul-07	889	2500	2420																			
26-Jul-07	896	2500	2400	3.49	355	178	17.64	44.36	<1	68.8	2.91	<0.5	0.117	46.6	1.7	0.00014	0.00043	0.00489	0.0004	<0.001	<0.02	0.00034
2-Aug-07	903	2500	2320																			
9-Aug-07	910	2500	2390	3.59	438	152																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Jun-06	497																				
29-Jun-06	504	1.95	<0.0025	0.012	11.5	3.28	0.00309	0.604	0.0199	<0.00001	<0.00025	0.0188	1.08	0.0068	1.72	0.000115	<2	0.00027	<0.0005	<0.0025	0.09
6-Jul-06	511																				
13-Jul-06	518																				
20-Jul-06	525																				
27-Jul-06	532	2.09	<0.0025	0.0133	12.7	3.54	0.00098	0.663	0.0217	<0.00001	<0.00025	0.0201	1.07	0.0072	1.64	0.000112	<2	<0.00025	<0.0005	<0.0025	0.0992
3-Aug-06	539																				
10-Aug-06	546																				
17-Aug-06	553																				
24-Aug-06	560	2.22	<0.0025	0.013	12.9	3.83	0.00384	0.583	0.0213	<0.00001	<0.00025	0.0209	1.03	0.0063	1.48	0.000115	<2	0.00026	<0.0005	<0.0025	0.108
31-Aug-06	567																				
7-Sep-06	574																				
14-Sep-06	581																				
21-Sep-06	588	4.22	<0.0025	0.0192	16.8	3.4	0.00494	1.09	0.0353	<0.00001	<0.00025	0.0312	1.08	0.0087	1.95	0.00008	<2	0.00029	<0.0005	<0.0025	0.158
28-Sep-06	595																				
5-Oct-06	602																				
12-Oct-06	609																				
19-Oct-06	616	1.89	<0.0025	0.012	11.2	3.5	0.00663	0.514	0.0193	<0.00001	<0.00025	0.0181	1.16	0.0069	1.53	0.000132	<2	0.00027	<0.0005	<0.0025	0.0804
26-Oct-06	623																				
2-Nov-06	630																				
9-Nov-06	637																				
16-Nov-06	644	1.95	<0.0025	0.0133	12	3.11	<0.00025	0.537	0.0212	<0.00001	<0.00025	0.0194	1.49	0.0078	1.91	0.000261	<2	0.00031	<0.0005	<0.0025	0.0836
23-Nov-06	651																				
30-Nov-06	658																				
7-Dec-06	665																				
14-Dec-06	672	1.47	<0.005	0.0115	9.63	1.86	0.00161	0.514	0.0203	<0.00001	<0.0005	0.0161	1.28	<0.01	1.73	0.00018	<2	<0.0005	<0.001	<0.005	0.072
21-Dec-06	679																				
28-Dec-06	686																				
4-Jan-07	693																				
11-Jan-07	700	1.44	<0.0025	0.0116	10	2.51	0.00068	0.448	0.0193	<0.00001	<0.00025	0.0168	1.44	0.0068	1.63	0.000215	<2	0.0003	<0.0005	<0.0025	0.0692
18-Jan-07	707																				
25-Jan-07	714																				
1-Feb-07	721																				
8-Feb-07	728	1.36	<0.0025	0.00989	8.51	2.42	0.00104	0.395	0.0153	0.000011	<0.00025	0.0142	1.19	0.0063	1.73	0.000171	<2	<0.00025	<0.0005	<0.0025	0.0664
15-Feb-07	735																				
22-Feb-07	742																				
1-Mar-07	749																				
8-Mar-07	756	1.34	<0.0025	0.0118	9.87	2.36	0.00028	0.432	0.0186	<0.00001	<0.00025	0.0162	1.47	0.0063	2.05	0.000168	<2	0.0003	<0.0005	<0.0025	0.0679
15-Mar-07	763																				
22-Mar-07	770																				
29-Mar-07	777																				
5-Apr-07	784	0.941	<0.001	0.00944	7.76	2.73	<0.0001	0.32	0.0147	<0.00001	<0.0001	0.0129	1.12	0.0061	1.48	0.000125	<2	0.00021	<0.0002	<0.001	0.0592
12-Apr-07	791																				
19-Apr-07	798																				
26-Apr-07	805																				
3-May-07	812	1.08	<0.001	0.0122	10.1	2.88	0.00026	0.372	0.0189	<0.00001	<0.0001	0.0196	1.41	0.0072	1.88	0.000188	<2	0.00027	<0.0002	<0.001	0.0706
10-May-07	819																				
17-May-07	826																				
24-May-07	833																				
31-May-07	840	1.05	<0.0025	0.0122	9.57	3.88	<0.00025	0.388	0.018	<0.00001	<0.00025	0.017	1.52	0.0069	2.16	0.000244	<2	0.00032	<0.0005	<0.0025	0.0704
7-Jun-07	847																				
14-Jun-07	854																				
21-Jun-07	861																				
28-Jun-07	868	0.663	<0.001	0.00776	5.65	1.72	0.00014	0.238	0.0117	<0.00001	<0.0001	0.0105	1.04	0.0048	1.85	0.000141	<2	0.0002	<0.0002	<0.001	0.0483
5-Jul-07	875																				
12-Jul-07	882																				
19-Jul-07	889																				
26-Jul-07	896	0.738	<0.001	0.00932	7.39	2.43	0.00099	0.259	0.013	<0.00001	<0.0001	0.0118	1.26	0.0058	1.86	0.000124	<2	0.00025	<0.0002	<0.001	0.0546
2-Aug-07	903																				
9-Aug-07	910																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
16-Aug-07	917	2500	2450																			
23-Aug-07	924	2500	2260	3.51	583	134	15.48	37.05	<1	71.8	2.31	<0.5	0.091	39.2	1.48	0.00037	0.00022	0.00447	<0.0004	<0.001	<0.02	0.00025
30-Aug-07	931	2500	2450																			
6-Sep-07	938	2500	2515	3.84	585	63																
13-Sep-07	945	2500	2440																			
20-Sep-07	952	2500	2375	3.54	579	121	17.77	45.57	<1	66.2	2.58	<0.5	0.112	45.5	2.04	0.00033	0.00026	0.00509	<0.0004	<0.001	<0.02	0.00032
27-Sep-07	959	2500	2370																			
4-Oct-07	966	2500	2405	3.61	594	140																
11-Oct-07	973	2500	2375																			
18-Oct-07	980	2500	2410	3.55	618	155	14.59	37.67	<1	55.2	1.99	<0.5	0.079	37.9	1.62	0.00023	<0.0002	0.00435	<0.0004	<0.001	<0.02	0.00023
25-Oct-07	987	2500	2480																			
1-Nov-07	994	2500	2430	3.59	621	135																
8-Nov-07	1001	2500	2380																			
15-Nov-07	1008	2500	2405	3.68	662	142	13.06	33.28	<1	35.3	1.75	<0.5	0.072	37.6	1.47	0.00025	0.0002	0.0045	<0.0004	<0.001	<0.02	0.00022
22-Nov-07	1015	2500	2390																			
29-Nov-07	1022	2500	2400	3.7	632	126																
6-Dec-07	1029	2500	2390																			
13-Dec-07	1036	2500	2445	3.73	656	117	11.89	29.99	<1	42	1.55	<0.5	0.058	30.3	1.02	0.000441	0.00026	0.00361	0.00026	<0.0005	<0.01	0.000167
20-Dec-07	1043	2500	2340																			
27-Dec-07	1050	2500	2295	3.68	647	112																
3-Jan-08	1057	2500	2275																			
10-Jan-08	1064	2500	2315	3.65	646	124	12.57	30.99	<1	39	1.38	<0.5	0.059	32.3	1.13	0.000593	0.00029	0.00344	0.00022	<0.0005	<0.01	0.000198
17-Jan-08	1071	2500	2400																			
24-Jan-08	1078	2500	2415	3.54	656	139																
31-Jan-08	1085	2500	2405																			
7-Feb-08	1092	2500	2485	3.62	663	138	14.9	37.11	<1	53	2.05	<0.5	0.073	37.8	1.5	0.0006	0.00041	0.00533	<0.0004	<0.001	<0.02	0.00019
14-Feb-08	1099	2500	2450																			
21-Feb-08	1106	2500	2420	3.51	628	156																
28-Feb-08	1113	2500	2425																			
6-Mar-08	1120	2500	2390	3.58	623	149	15.37	38.87	<1	38.7	1.77	<0.5	0.09	39.5	1.54	0.00043	0.00032	0.00474	<0.0004	<0.001	<0.02	0.0002
13-Mar-08	1127	2500	2460																			
20-Mar-08	1134	2500	2515	3.55	624	144																
27-Mar-08	1141	2500	2385																			
3-Apr-08	1148	2500	2435	3.51	636	139	17.01	38.94	<1	48.5	1.71	<0.5	0.075	39.6	1.44	0.00052	0.00029	0.00461	<0.0004	<0.001	<0.02	0.00021
10-Apr-08	1155	2500	2455																			
17-Apr-08	1162	2500	2430	3.41	624	182																
24-Apr-08	1169	2500	2325																			
1-May-08	1176	2500	2415	3.49	450	210	20.95	56.03	<1	95.3	2.91	<0.5	0.15	58.9	2.76	0.00041	0.00035	0.0059	<0.0004	<0.001	<0.02	0.00033
8-May-08	1183	2500	2425																			
15-May-08	1190	2500	2560	4.25	458	96																
22-May-08	1197	2500	2420																			
29-May-08	1204	2500	2445	3.78	516	130	11.54	33.64	<1	48.8	4.92	<0.5	0.082	36.8	1.41	0.000232	0.00016	0.00607	0.00029	<0.0005	<0.01	0.000348
5-Jun-08	1211	2500	2390																			
12-Jun-08	1218	2500	2470	3.72	577	117																
19-Jun-08	1225	2500	2435																			
26-Jun-08	1232	2500	1845	3.6	563	161	17.67	41.22	<1	51.5	2.97	<0.5	0.062	39.2	1.38	0.00025	0.00034	0.00514	<0.0004	<0.001	<0.02	0.00024
3-Jul-08	1239	2500	2395																			
10-Jul-08	1246	2500	2430	3.59	548	169																
17-Jul-08	1253	2500	2435																			
24-Jul-08	1260	2500	2515	3.62	564	184	16.47	41.99	<1	49	2.89	<0.5	0.064	42	1.81	0.00032	0.00039	0.00516	0.00041	<0.001	<0.02	0.00029
31-Jul-08	1267	2500	2480																			
7-Aug-08	1274	2500	2495	3.51	470	181																
14-Aug-08	1281	2500	2500																			
21-Aug-08	1288	2500	2355	3.47	425	211	21.43	55.14	<1	<200	3.47	<0.5	0.132	52.3	2.42	0.00033	0.00042	0.00543	0.00048	<0.001	<0.02	0.00039
28-Aug-08	1295	2500	2510																			
4-Sep-08	1302	2500	2435	3.53	447	166																
11-Sep-08	1309	2500	2405																			
18-Sep-08	1316	2500	2460	3.53	463	219	20.27	49.96	<1	95.8	2.8	<0.5	0.109	53.4	2.1	0.00026	0.00025	0.0076	<0.0004	<0.001	<0.02	0.00032
25-Sep-08	1323	2500	2400																			
2-Oct-08	1330	2500	2430	3.5	545	208																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Aug-07	917																				
23-Aug-07	924	0.585	<0.001	0.0076	5.68	2.38	0.00017	0.205	0.0113	<0.00001	<0.0001	0.0095	1.09	0.005	1.69	0.000106	<2	0.00022	<0.0002	<0.001	0.0426
30-Aug-07	931																				
6-Sep-07	938																				
13-Sep-07	945																				
20-Sep-07	952	0.677	<0.001	0.00897	6.92	2.68	0.00021	0.217	0.0128	<0.00001	<0.0001	0.0113	1.14	0.0053	1.65	0.000119	<2	0.00021	0.0002	<0.001	0.0524
27-Sep-07	959																				
4-Oct-07	966																				
11-Oct-07	973																				
18-Oct-07	980	0.5	<0.001	0.00749	5.71	2.32	0.00657	0.18	0.0109	<0.00001	<0.0001	0.0093	1.03	0.0045	1.64	0.000106	<2	0.00019	<0.0002	<0.001	0.0421
25-Oct-07	987																				
1-Nov-07	994																				
8-Nov-07	1001																				
15-Nov-07	1008	0.431	<0.001	0.00714	5.26	1.91	0.00024	0.164	0.01	<0.00001	<0.0001	0.0084	0.98	0.0044	1.44	0.000087	<2	0.00018	<0.0002	<0.001	0.0435
22-Nov-07	1015																				
29-Nov-07	1022																				
6-Dec-07	1029																				
13-Dec-07	1036	0.393	0.00064	0.0057	3.85	1.37	0.000288	0.139	0.00833	<0.00001	0.000066	0.00694	0.894	0.0036	1.32	0.000099	<2	0.000181	<0.0001	<0.0005	0.0305
20-Dec-07	1043																				
27-Dec-07	1050																				
3-Jan-08	1057																				
10-Jan-08	1064	0.338	<0.0005	0.00545	4.15	1.91	0.000668	0.13	0.00789	<0.00001	0.000058	0.00694	0.874	0.0043	1.3	0.000109	<2	0.000181	<0.0001	<0.0005	0.0336
17-Jan-08	1071																				
24-Jan-08	1078																				
31-Jan-08	1085																				
7-Feb-08	1092	0.4	<0.001	0.00704	5.21	1.92	<0.0001	0.256	0.0101	<0.00001	0.00045	0.0082	1.12	0.0043	1.64	0.000128	<2	0.00016	<0.0002	<0.001	0.0369
14-Feb-08	1099																				
21-Feb-08	1106																				
28-Feb-08	1113																				
6-Mar-08	1120	0.4	<0.001	0.00762	4.86	1.87	<0.0001	0.188	0.0109	<0.00001	0.00014	0.009	1.18	0.0048	1.74	0.000131	<2	0.0002	<0.0002	<0.001	0.0404
13-Mar-08	1127																				
20-Mar-08	1134																				
27-Mar-08	1141																				
3-Apr-08	1148	0.416	<0.001	0.00716	5.17	2.1	0.0001	0.162	0.0108	<0.00001	<0.0001	0.0084	1.11	0.0045	1.71	0.000156	<2	0.0002	<0.0002	<0.001	0.0382
10-Apr-08	1155																				
17-Apr-08	1162																				
24-Apr-08	1169																				
1-May-08	1176	0.718	<0.001	0.011	7.88	2.94	0.00018	0.27	0.0155	<0.00001	0.00015	0.0135	1.35	0.0064	2.5	0.000176	<2	0.00024	<0.0002	<0.001	0.0534
8-May-08	1183																				
15-May-08	1190																				
22-May-08	1197																				
29-May-08	1204	1.46	<0.0005	0.00728	4.9	1.22	0.00029	0.309	0.0115	<0.00001	<0.00005	0.0085	0.989	0.0039	1.44	0.000172	<2	0.00017	<0.0001	<0.0005	0.0384
5-Jun-08	1211																				
12-Jun-08	1218																				
19-Jun-08	1225																				
26-Jun-08	1232	0.826	<0.001	0.00703	4.27	1.4	0.00011	0.22	0.0113	<0.00001	<0.0001	0.0083	1.19	0.0035	1.69	0.000167	<2	0.00021	<0.0002	<0.001	0.0331
3-Jul-08	1239																				
10-Jul-08	1246																				
17-Jul-08	1253																				
24-Jul-08	1260	0.738	<0.001	0.0094	5.34	1.89	<0.0001	0.255	0.0145	<0.00001	<0.0001	0.0106	1.26	0.0042	1.97	0.00017	<2	0.0002	<0.0002	<0.001	0.0419
31-Jul-08	1267																				
7-Aug-08	1274																				
14-Aug-08	1281																				
21-Aug-08	1288	0.891	<0.001	0.0112	6.51	2.84	0.00024	0.301	0.0166	<0.00001	<0.0001	0.0129	1.42	0.0053	2.26	0.000123	<2	0.00024	<0.0002	<0.001	0.0509
28-Aug-08	1295																				
4-Sep-08	1302																				
11-Sep-08	1309																				
18-Sep-08	1316	0.675	<0.001	0.00987	5.95	2.47	<0.0001	0.271	0.0153	<0.00001	<0.0001	0.0121	1.25	0.0049	2.26	0.000152	<2	0.00021	<0.0002	<0.001	0.0467
25-Sep-08	1323																				
2-Oct-08	1330																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Oct-08	1337	2500	2500																			
16-Oct-08	1344	2500	2465	3.5	575	341	31.85	105.35	<1	171	14.9	<0.5	0.363	117	5.62	0.00098	0.00048	0.00525	0.00149	<0.0005	<0.01	0.00103
23-Oct-08	1351	2500	2500																			
30-Oct-08	1358	2500	2805	3.53	622	200																
6-Nov-08	1365	2500	2490																			
13-Nov-08	1372	2500	2430	3.56	560	154	16.14	35.96	<1	26.5	1.91	<0.5	0.047	36.3	1.18	0.000282	0.00018	0.00388	0.0002	<0.0005	<0.01	0.000199
20-Nov-08	1379	2500	2420																			
27-Nov-08	1386	2500	2475	3.49	461	182																
4-Dec-08	1393	2500	2510																			
11-Dec-08	1400	2500	2365	3.52	442	224	22.04	67.57	<1	97	5.11	<0.5	0.159	66	2.84	0.0003	<0.0005	0.00572	<0.001	<0.0025	<0.05	0.00042
18-Dec-08	1407	2500	2380																			
25-Dec-08	1414	2500	2380	3.56	507	240																
1-Jan-09	1421	2500	2410																			
8-Jan-09	1428	2500	2360	3.47	547	173	18.48	39.43	<1	54.8	2.09	<0.5	0.041	38.9	1.26	0.000206	0.00019	0.00479	0.00026	<0.0005	<0.01	0.000206
15-Jan-09	1435	2500	2360																			
22-Jan-09	1442	2500	2365	3.62	490	141																
29-Jan-09	1449	2500	2420																			
5-Feb-09	1456	2500	2415	3.38	584	177	19.9	42.4	<1	50.3	1.92	<0.5	0.054	40.2	1.61	0.00024	<0.0002	0.0043	<0.0004	<0.001	<0.02	0.00018
12-Feb-09	1463	2500	2425																			
19-Feb-09	1470	2500	2345	3.51	524	179																
26-Feb-09	1477	2500	1650																			
5-Mar-09	1484	2500	2375	3.34	440	198	25.36	50.74	<1	59.8	2.22	<0.5	0.067	46.5	1.91	0.00027	<0.0002	0.00498	<0.0004	<0.001	<0.02	0.00022
12-Mar-09	1491	2500	2455																			
19-Mar-09	1498	2500	2400	3.28	480	251																
26-Mar-09	1505	2500	2410																			
2-Apr-09	1512	2500	2560	3.48	528	118	13.75	26.32	<1	32	1.11	<0.5	0.026	25.6	0.826	0.000184	<0.0001	0.00251	<0.0002	<0.0005	<0.01	0.000121
9-Apr-09	1519	2500	2330																			
16-Apr-09	1526	2500	2370	3.37	560	164																
23-Apr-09	1533	2500	2375																			
30-Apr-09	1540	2500	2360	3.37	559	163	22.32	41.89	<1	44	1.71	<0.5	0.062	40.5	1.4	0.000269	0.00013	0.00422	0.00026	<0.0005	<0.01	0.000175
7-May-09	1547	2500	2405																			
14-May-09	1554	2500	2480	3.44	546	162																
21-May-09	1561	2500	2500																			
28-May-09	1568	2500	2405	3.45	573	164	22.13	42.52	<1	59.8	1.57	<0.5	0.051	39.9	1.29	0.000256	0.00015	0.00426	<0.0002	<0.0005	<0.01	0.000171
4-Jun-09	1575	2500	2430																			
11-Jun-09	1582	2500	2450	3.41	581	171																
18-Jun-09	1589	2500	2440																			
25-Jun-09	1596	2500	2465	3.51	583	140	19.8	40.01	<1	59.5	2.48	<0.5	0.045	36.5	1.65	0.000315	0.0003	0.0052	0.00027	<0.0005	<0.01	0.000171
2-Jul-09	1603	2500	2455																			
9-Jul-09	1610	2500	2425	3.51	514	159																
16-Jul-09	1617	2500	2460																			
23-Jul-09	1624	2500	2465	3.35	520	160	23.41	44.52	<1	66	1.72	<0.5	0.059	40.9	2.07	0.000262	0.00016	0.00396	0.00027	<0.0005	<0.01	0.000192
30-Jul-09	1631	2500	2400																			
6-Aug-09	1638	2500	2420	3.57	493	160																
13-Aug-09	1645	2500	2400																			
20-Aug-09	1652	2500	2500	3.27	491	195	31.56	56.83	<1	65.7	2.07	<0.5	0.051	54	2.72	0.0002	0.00019	0.00463	0.00028	<0.0005	<0.01	0.000257
27-Aug-09	1659	2500	2435																			
3-Sep-09	1666	2500	2385	3.61	463	188																
10-Sep-09	1673	2500	2180																			
17-Sep-09	1680	2500	2535	3.48	478	197	26.17	53.51	<1	64	2.86	<0.5	0.063	53.4	2.18	0.00027	0.00036	0.00564	<0.0004	<0.001	<0.02	0.00026
24-Sep-09	1687	2500	2285																			
1-Oct-09	1694	2500	2500	3.53	504	181																
8-Oct-09	1701	2500	2305																			
15-Oct-09	1708	2500	2445	3.36	481	169	25.2	47.29	<1	39	1.78	<0.5	0.045	42.6	1.87	0.00018	<0.0002	0.00366	<0.0004	<0.001	<0.02	0.0002
22-Oct-09	1715	2500	2365																			
29-Oct-09	1722	2500	2550	3.53	456	222																
5-Nov-09	1729	2500	2405																			
12-Nov-09	1736	2500	2460	3.33	488	220	40.27	63.64	<1	78	2.4	<0.5	0.061	59.3	3.27	0.00016	<0.0002	0.00431	<0.0004	<0.001	<0.02	0.00024
19-Nov-09	1743	2500	2410																			
26-Nov-09	1750	2500	2445	3.59	494	278																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Oct-08	1337																				
16-Oct-08	1344	4.48	<0.0005	0.0296	21.6	4.96	0.000209	0.914	0.0368	<0.00001	0.00026	0.0441	1.83	0.0108	3.26	0.000205	<2	0.000473	<0.0001	<0.0005	0.166
23-Oct-08	1351																				
30-Oct-08	1358																				
6-Nov-08	1365																				
13-Nov-08	1372	0.487	<0.0005	0.00704	3.42	1.6	0.000079	0.169	0.0108	<0.00001	<0.00005	0.00834	1.04	0.0031	1.53	0.000089	<2	0.000189	<0.0001	<0.0005	0.0303
20-Nov-08	1379																				
27-Nov-08	1386																				
4-Dec-08	1393																				
11-Dec-08	1400	1.31	<0.0025	0.0158	10.1	2.6	0.00072	0.447	0.0206	<0.00001	0.00066	0.0204	1.65	0.0064	2.3	0.000183	<2	0.0003	<0.0005	<0.0025	0.0728
18-Dec-08	1407																				
25-Dec-08	1414																				
1-Jan-09	1421																				
8-Jan-09	1428	0.527	<0.0005	0.00777	4.13	1.34	0.000133	0.189	0.0122	<0.00001	<0.00005	0.00899	1.25	0.0037	2.02	0.000221	<2	0.000219	<0.0001	<0.0005	0.0361
15-Jan-09	1435																				
22-Jan-09	1442																				
29-Jan-09	1449																				
5-Feb-09	1456	0.465	<0.001	0.00784	4.94	1.48	<0.0001	0.183	0.0125	<0.00001	<0.0001	0.009	1.28	0.0033	1.92	0.000231	<2	0.00023	<0.0002	<0.001	0.0302
12-Feb-09	1463																				
19-Feb-09	1470																				
26-Feb-09	1477																				
5-Mar-09	1484	0.502	<0.001	0.00989	4.71	1.84	<0.0001	0.234	0.0153	<0.00001	<0.0001	0.0108	1.5	0.0044	2.22	0.000234	<2	0.00024	<0.0002	<0.001	0.0401
12-Mar-09	1491																				
19-Mar-09	1498																				
26-Mar-09	1505																				
2-Apr-09	1512	0.243	<0.0005	0.00444	2.33	0.583	0.000967	0.121	0.00746	<0.00001	<0.00005	0.00514	0.783	0.0021	0.933	0.000144	<2	0.000128	<0.0001	<0.0005	0.0177
9-Apr-09	1519																				
16-Apr-09	1526																				
23-Apr-09	1533																				
30-Apr-09	1540	0.383	<0.0005	0.00743	3.35	1.68	0.000112	0.182	0.0124	<0.00001	<0.00005	0.00802	1.29	0.0031	1.85	0.00022	<2	0.000198	<0.0001	<0.0005	0.0285
7-May-09	1547																				
14-May-09	1554																				
21-May-09	1561																				
28-May-09	1568	0.372	<0.0005	0.00782	3.74	1.89	0.000209	0.156	0.0138	<0.00001	<0.00005	0.00864	1.3	0.0034	2.02	0.000223	<2	0.000206	<0.0001	<0.0005	0.0305
4-Jun-09	1575																				
11-Jun-09	1582																				
18-Jun-09	1589																				
25-Jun-09	1596	0.638	<0.0005	0.00734	4.07	1.79	0.000298	0.215	0.104	<0.00001	<0.00005	0.00775	1.16	0.003	1.87	0.000131	<2	0.000159	<0.0001	<0.0005	0.0298
2-Jul-09	1603																				
9-Jul-09	1610																				
16-Jul-09	1617																				
23-Jul-09	1624	0.367	<0.0005	0.00772	4.77	2.07	0.000427	0.194	0.0135	<0.00001	<0.00005	0.00871	1.16	0.0031	1.85	0.000174	<2	0.000159	<0.0001	<0.0005	0.0333
30-Jul-09	1631																				
6-Aug-09	1638																				
13-Aug-09	1645																				
20-Aug-09	1652	0.429	<0.0005	0.0102	5.68	1.91	0.0011	0.243	0.0168	<0.00001	<0.00005	0.0113	1.37	0.0038	2.49	0.000206	<2	0.000179	<0.0001	<0.0005	0.0438
27-Aug-09	1659																				
3-Sep-09	1666																				
10-Sep-09	1673																				
17-Sep-09	1680	0.705	<0.001	0.00954	5.15	1.87	0.00108	0.266	0.0318	<0.00001	<0.0001	0.0108	1.36	0.0035	2.75	0.000181	<2	0.00018	<0.0002	<0.001	0.0432
24-Sep-09	1687																				
1-Oct-09	1694																				
8-Oct-09	1701																				
15-Oct-09	1708	0.38	<0.001	0.00792	3.88	1.41	0.00104	0.201	0.0137	<0.00001	<0.0001	0.0087	1.07	0.0027	2.11	0.000192	<2	0.00015	<0.0002	<0.001	0.0354
22-Oct-09	1715																				
29-Oct-09	1722																				
5-Nov-09	1729																				
12-Nov-09	1736	0.518	<0.001	0.0107	5.73	1.38	0.00014	0.268	0.018	<0.00001	<0.0001	0.0121	1.31	0.0032	1.96	0.000224	<2	0.00018	<0.0002	<0.001	0.0423
19-Nov-09	1743																				
26-Nov-09	1750																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3-Dec-09	1757	2500	2450																			
10-Dec-09	1764	2500	2440	3.22	511	309	50.07	101.16	<1	116	4.15	<0.5	0.085	90.1	6.09	<0.00025	<0.0005	0.00628	<0.001	<0.0025	<0.05	0.00042
17-Dec-09	1771	2500	2410																			
24-Dec-09	1778	2500	2485	3.46	521	250																
31-Dec-09	1785	2500	2435																			
7-Jan-10	1792	2500	2415	3.54	505	256	27.41	70.49	<1	103	3.97	<0.5	0.076	80.7	4.6	<0.00025	<0.0005	0.00477	<0.001	<0.0025	<0.05	0.00035
14-Jan-10	1799	2500	2415																			
21-Jan-10	1806	2500	2430	3.38	518	319																
28-Jan-10	1813	2500	2450																			
4-Feb-10	1820	2500	2500	3.21	555	289	53.9	103.22	<1	161	5.3	<0.5	0.075	90.8	6.47	<0.00025	<0.0005	0.00494	<0.001	<0.0025	<0.05	0.00045
11-Feb-10	1827	2500	2480																			
18-Feb-10	1834	2500	2365	3.17	584	369																
25-Feb-10	1841	2500	2360																			
4-Mar-10	1848	2500	2370	3.17	595	379	64.32	112.34	<1	170	7.39	<0.5	0.17	129	8.01	<0.00025	<0.0005	0.0087	<0.001	<0.0025	<0.05	0.00065
11-Mar-10	1855	2500	2215																			
18-Mar-10	1862	2500	2350	3.21	559	332																
25-Mar-10	1869	2500	2425																			
1-Apr-10	1876	2500	2335	3.1	564	343	55.6	93.23	<1	107	4.67	<0.5	0.099	87.6	5.46	0.00016	0.00031	0.00368	<0.0004	<0.001	<0.02	0.00035
8-Apr-10	1883	2500	2340																			
15-Apr-10	1890	2500	2270	3.58	513	182																
22-Apr-10	1897	2500	2240																			
29-Apr-10	1904	2500	2360	3.03	556	431	33.55	51.86	<1	168	7.96	<0.5	0.186	118	8.89	<0.00025	0.00059	0.00483	<0.001	<0.0025	<0.05	0.00052
6-May-10	1911	2500	2310																			
13-May-10	1918	2500	2270	3.08	557	477																
20-May-10	1925	2500	2265																			
27-May-10	1932	2500	2395	3.06	526	459	85.6	157.1	<1	197	9.73	<0.5	0.208	137	10	<0.00025	0.00086	0.00399	0.0011	<0.0025	<0.05	0.00055
3-Jun-10	1939	2500	2380																			
10-Jun-10	1946	2500	2360	3.16	528	388																
17-Jun-10	1953	2500	2385																			
24-Jun-10	1960	2500	2385	3.18	379	397	54.5	107.91	<1	116	7.3	<0.5	0.167	109	6.44	0.00012	0.00036	0.00331	0.00068	<0.001	<0.02	0.00044
1-Jul-10	1967	2500	2390																			
8-Jul-10	1974	2500	2320	3.21	498	372																
15-Jul-10	1981	2500	2310																			
22-Jul-10	1988	2500	2275	3.03	513	371	59.51	100.74	<1	111	7.42	<0.5	0.151	100	6.6	<0.0001	0.00034	0.00254	0.00052	<0.001	<0.02	0.00043
29-Jul-10	1995	2500	2455																			
5-Aug-10	2002	2500	2325	3.29	425	420																
12-Aug-10	2009	2500	2255																			
19-Aug-10	2016	2500	2375	3.3	304	420	56.09	143.83	<1	210	10.8	<0.5	0.194	131	10	<0.00025	<0.0005	0.00442	<0.001	<0.0025	<0.05	0.00062
26-Aug-10	2023	2500	2395																			
2-Sep-10	2030	2500	2400	3.47	418	387																
9-Sep-10	2037	2500	2385																			
16-Sep-10	2044	2500	2315	3.11	510	297	54.67	93.68	<1	132	7.98	<0.5	0.116	91.7	6.68	<0.0001	<0.0002	0.00227	<0.0004	<0.001	<0.02	0.00034
23-Sep-10	2051	2500	2350																			
30-Sep-10	2058	2500	2385	3.19	474	352																
7-Oct-10	2065	2500	2325																			
14-Oct-10	2072	2500	2410	3.22	508	258	36.05	62.57	<1	108	5	<0.5	0.071	60.4	3.89	<0.00005	0.00018	0.00152	<0.0002	<0.0005	<0.01	0.000212
21-Oct-10	2079	2500	2430																			
28-Oct-10	2086	2500	2355	3.27	496	359																
4-Nov-10	2093	2500	2250																			
11-Nov-10	2100	2500	2435	3.31	300	414	46.13	116.53	<1	172	10.7	<0.5	0.219	122	10.5	<0.0001	0.00044	0.00195	0.00048	<0.001	<0.02	0.00043
18-Nov-10	2107	2500	2504																			
25-Nov-10	2114	2500	2370	3.49	493	275																
2-Dec-10	2121	2500	2455																			
9-Dec-10	2128	2500	2395	3.2	487	344	54.37	98.39	<1	131	8.94	<0.5	0.118	102	7.07	<0.0001	0.00032	0.00155	0.00063	<0.001	<0.02	0.00029
16-Dec-10	2135	2500	2345																			
23-Dec-10	2142	2500	2480	3.4	520	352																
30-Dec-10	2149	2500	2415																			
6-Jan-11	2156	2500	2490	3.18	490	351	79.06	149.59	<1	198	13.1	<0.5	0.145	136	13.3	0.000053	0.00076	0.00187	0.00055	<0.0005	0.01	0.000458
13-Jan-11	2163	2500	2520																			
20-Jan-11	2170	2500	2425	3.44	471	369																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Dec-09	1757																				
10-Dec-09	1764	0.892	<0.0025	0.0204	10.9	1.93	0.00037	0.467	0.0317	<0.00001	<0.00025	0.0211	1.81	<0.005	2.7	0.000288	<2	<0.00025	<0.0005	<0.0025	0.0681
17-Dec-09	1771																				
24-Dec-09	1778																				
31-Dec-09	1785																				
7-Jan-10	1792	0.887	<0.0025	0.0163	8.21	1.82	<0.00025	0.426	0.0284	<0.00001	<0.00025	0.0167	1.65	<0.005	2.5	0.000235	<2	<0.00025	<0.0005	<0.0025	0.0521
14-Jan-10	1799																				
21-Jan-10	1806																				
28-Jan-10	1813																				
4-Feb-10	1820	1.13	<0.0025	0.0223	10.8	2.47	<0.00025	0.603	0.0385	<0.00001	<0.00025	0.0221	2.07	<0.005	2.73	0.000328	<2	0.00027	<0.0005	<0.0025	0.0615
11-Feb-10	1827																				
18-Feb-10	1834																				
25-Feb-10	1841																				
4-Mar-10	1848	1.38	<0.0025	0.0323	12	3.71	0.00068	0.96	0.064	<0.00001	<0.00025	0.03	3.25	<0.005	4.36	0.00041	<2	0.00032	<0.0005	<0.0025	0.0793
11-Mar-10	1855																				
18-Mar-10	1862																				
25-Mar-10	1869																				
1-Apr-10	1876	0.912	<0.001	0.0191	8.66	2.62	0.00016	0.581	0.0375	<0.00001	<0.0001	0.0177	1.89	0.0023	2.33	0.000206	<2	0.00022	<0.0002	<0.001	0.048
8-Apr-10	1883																				
15-Apr-10	1890																				
22-Apr-10	1897																				
29-Apr-10	1904	1.55	<0.0025	0.0287	12	3.72	<0.00025	0.994	0.0634	<0.00001	<0.00025	0.0266	2.06	<0.005	3.41	0.000252	<2	<0.00025	<0.0005	<0.0025	0.0751
6-May-10	1911																				
13-May-10	1918																				
20-May-10	1925																				
27-May-10	1932	1.86	<0.0025	0.0325	16.6	3.92	0.00049	1.23	0.0756	<0.00001	<0.00025	0.0297	2.36	<0.005	3.88	0.000243	<2	0.00026	<0.0005	<0.0025	0.0748
3-Jun-10	1939																				
10-Jun-10	1946																				
17-Jun-10	1953																				
24-Jun-10	1960	1.35	<0.001	0.0236	9.68	2.86	<0.0001	0.956	0.0605	<0.00001	<0.0001	0.0224	1.97	0.003	3.25	0.000234	<2	0.00027	<0.0002	<0.001	0.0633
1-Jul-10	1967																				
8-Jul-10	1974																				
15-Jul-10	1981																				
22-Jul-10	1988	1.28	<0.001	0.0226	9.72	2.85	0.00011	1.03	0.0609	<0.00001	<0.0001	0.0215	1.74	<0.002	2.72	0.000175	<2	0.00022	<0.0002	<0.001	0.0542
29-Jul-10	1995																				
5-Aug-10	2002																				
12-Aug-10	2009																				
19-Aug-10	2016	1.85	<0.0025	0.0327	13.5	4.08	<0.00025	1.49	0.0904	<0.00001	<0.00025	0.0305	2.12	<0.005	3.25	0.000209	<2	<0.00025	<0.0005	<0.0025	0.0768
26-Aug-10	2023																				
2-Sep-10	2030																				
9-Sep-10	2037																				
16-Sep-10	2044	1.45	<0.001	0.0215	8.97	2.12	<0.0001	1.06	0.0627	<0.00001	<0.0001	0.0202	1.31	<0.002	2.69	0.000144	<2	0.00015	<0.0002	<0.001	0.0529
23-Sep-10	2051																				
30-Sep-10	2058																				
7-Oct-10	2065																				
14-Oct-10	2072	0.895	<0.0005	0.0139	4.48	1.44	<0.00005	0.672	0.0398	<0.00001	<0.00005	0.013	1.03	0.0018	2.21	0.000133	<2	0.000132	<0.0001	<0.0005	0.031
21-Oct-10	2079																				
28-Oct-10	2086																				
4-Nov-10	2093																				
11-Nov-10	2100	1.79	0.0013	0.0304	10.1	3.32	<0.0001	1.52	0.0903	<0.00001	<0.0001	0.0284	1.5	0.0028	3.9	0.000212	<2	0.00017	<0.0002	<0.001	0.0573
18-Nov-10	2107																				
25-Nov-10	2114																				
2-Dec-10	2121																				
9-Dec-10	2128	1.48	<0.001	0.0248	6.96	2.46	<0.0001	1.27	0.0717	<0.00001	<0.0001	0.022	1.2	<0.002	2.69	0.00017	<2	0.00014	<0.0002	<0.001	0.0389
16-Dec-10	2135																				
23-Dec-10	2142																				
30-Dec-10	2149																				
6-Jan-11	2156	2.09	0.00187	0.0374	11.3	3.68	0.000155	1.92	0.113	<0.00001	<0.00005	0.0334	1.19	0.002	3.09	0.000272	<2	0.000113	<0.0001	<0.0005	0.0501
13-Jan-11	2163																				
20-Jan-11	2170																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
27-Jan-11	2177	2500	2310																			
3-Feb-11	2184	2500	2455	3.18	500	420	87.8	161.41	<1	312	16.9	<0.5	0.112	178	16.9	0.000062	0.00092	0.00144	0.00072	<0.0005	0.011	0.000539
10-Feb-11	2191	2500	2375																			
17-Feb-11	2198	2500	2405	3.44	503	420																
24-Feb-11	2205	2500	2550																			
3-Mar-11	2212	2500	2425	3.26	530	427	66.82	130.17	<1	203	13.9	<0.5	0.167	135	12.8	<0.00005	0.00061	0.00118	0.00057	<0.0005	0.01	0.000421
10-Mar-11	2219	2500	2470																			
17-Mar-11	2226	2500	2460	3.39	521	465																
24-Mar-11	2233	2500	2490																			
31-Mar-11	2240	2500	2485	3.14	542	496	60.97	112.05	<1	205	13.7	<0.5	0.145	136	9.97	0.000076	0.00055	0.00142	0.00059	<0.0005	<0.01	0.000382
7-Apr-11	2247	2500	2435																			
14-Apr-11	2254	2500	2450	3.33	396	513																
21-Apr-11	2261	2500	2430																			
28-Apr-11	2268	2500	2430	3.15	549	614	69.14	152.73	<1	229	21.9	<0.5	0.214	189	17.3	0.000071	0.00127	0.00139	0.00075	<0.0005	0.012	0.000543
5-May-11	2275	2500	2515																			
12-May-11	2282	2500	2445	3.3	546	505																
19-May-11	2289	2500	2450																			
26-May-11	2296	2500	2440	3.08	511	738	106.81	243.16	<1	408	22.8	<5	0.43	209	17	<0.0001	0.00117	0.00163	0.00074	<0.001	<0.02	0.00051
2-Jun-11	2303	2500	2430																			
9-Jun-11	2310	2500	2470	3.19	540	548																
16-Jun-11	2317	2500	2435																			
23-Jun-11	2324	2500	2410	3.29	284	450	50.59	107.2	<1	142	14.5	<5	<0.2	125	8.82	<0.00005	0.00045	0.00114	0.00043	<0.0005	0.01	0.000296
30-Jun-11	2331	2500	2490																			
7-Jul-11	2338	2500	2465	3.07	480	737																
14-Jul-11	2345	2500	2370																			
21-Jul-11	2352	2500	2505	3.08	432	568	89.68	151.28	<1	243	17.1	<5	0.45	156	9.64	0.000069	0.00062	0.00136	0.00047	<0.0005	<0.01	0.000326
28-Jul-11	2359	2500	2205																			
4-Aug-11	2366	2500	2505	3.05	476	886																
11-Aug-11	2373	2500	2370																			
18-Aug-11	2380	2500	2410	3.05	516	612	81.2	143.01	<1	217	20	<5	0.3	170	11.8	0.000075	0.00089	0.00199	0.00054	<0.0005	0.01	0.000323
25-Aug-11	2387	2500	2425																			
1-Sep-11	2394	2500	2420	3.1	489	646																
8-Sep-11	2401	2500	2380																			
15-Sep-11	2408	2500	2425	3.32		865	107.83	231.88	<1	636	34.7	<5	0.52	273	19	0.00013	0.00145	0.00246	0.00091	<0.001	<0.02	0.00053
22-Sep-11	2415	2500	2465																			
29-Sep-11	2422	2500	2555	3.05	561	665																
6-Oct-11	2429	2500	2460																			
13-Oct-11	2436	2500	2550	3.07	561	667	119.83	228.61	<1	321	25.8	<5	0.51	219	16.6	0.000064	0.00174	0.00154	0.00064	<0.0005	0.013	0.000395
20-Oct-11	2443	2500	2510																			
27-Oct-11	2450	2500	2555	3.11	559	584																
3-Nov-11	2457	2500	2445																			
10-Nov-11	2464	2500	2505	3.02	578	688	109.29	201.98	<1	290	27.5	<5	0.57	225	16.5	<0.0001	0.00186	0.00161	0.00062	<0.001	<0.02	0.00044
17-Nov-11	2471	2500	2430																			
24-Nov-11	2478	2500	2480	3.08	566	671																
1-Dec-11	2485	2500	2460																			
8-Dec-11	2492	2500	2510	3.07	578	591	77.82	145.1	<1	236	22.9	<5	0.39	180	12.7	0.000059	0.00155	0.00122	0.00052	<0.0005	0.011	0.000309
15-Dec-11	2499	2500	2455																			
22-Dec-11	2506	2500	2560	3.18	524	534																
29-Dec-11	2513	2500	2510																			
5-Jan-12	2520	2500	2400	3.01	590	687	79.41	145.93	<1	330	28.2	<5	0.61	242	16.5	0.00007	0.00234	0.0014	0.00057	<0.0005	0.011	0.000375
12-Jan-12	2527	2500	2495																			
19-Jan-12	2534	2500	2405	2.91	607	1111																
26-Jan-12	2541	2500	2560																			
2-Feb-12	2548	2500	2430	2.91	591	771	95.48	158.83	<1	297	29.1	<5	0.47	232	12.5	0.000106	0.00179	0.00268	0.00066	<0.0005	0.011	0.000361
9-Feb-12	2555	2500	2430																			
16-Feb-12	2562	2500	2455	2.89	615	889																
23-Feb-12	2569	2500	2520																			
1-Mar-12	2576	2500	2470	2.97	600	689	97.19	154.7	<1	194	22.7	<5	0.42	194	11.5	0.000101	0.00169	0.00132	0.00047	<0.0005	0.01	0.00025
8-Mar-12	2583	2500	2440																			
15-Mar-12	2590	2500	2455	2.96	609	833																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
27-Jan-11	2177																				
3-Feb-11	2184	2.68	0.00221	0.0483	15	4.88	0.000179	2.49	0.147	<0.00001	<0.00005	0.0416	1.1	0.0019	3.79	0.00032	<2	0.000129	<0.0001	<0.0005	0.0707
10-Feb-11	2191																				
17-Feb-11	2198																				
24-Feb-11	2205																				
3-Mar-11	2212	2.17	0.00166	0.0386	11.1	3.2	<0.00005	2.05	0.119	0.000011	<0.00005	0.0334	0.838	0.0014	2.94	0.000219	<2	0.000101	<0.0001	<0.0005	0.0524
10-Mar-11	2219																				
17-Mar-11	2226																				
24-Mar-11	2233																				
31-Mar-11	2240	2.11	0.00157	0.0392	9.98	4.51	0.000335	2.05	0.12	<0.00001	<0.00005	0.0334	1.27	0.0012	3.62	0.000258	<2	0.000149	<0.0001	<0.0005	0.0449
7-Apr-11	2247																				
14-Apr-11	2254																				
21-Apr-11	2261																				
28-Apr-11	2268	3.05	0.00282	0.0618	14.3	7.24	0.000301	3.47	0.211	<0.00001	0.000083	0.0521	1.41	0.0017	4.64	0.000344	<2	0.000142	<0.0001	<0.0005	0.0677
5-May-11	2275																				
12-May-11	2282																				
19-May-11	2289																				
26-May-11	2296	3.33	0.0029	0.0585	12.7	6.94	0.00016	3.51	0.193	<0.00001	0.0001	0.0508	1.06	<0.002	4.98	0.000333	<2	0.00013	<0.0002	<0.001	0.0672
2-Jun-11	2303																				
9-Jun-11	2310																				
16-Jun-11	2317																				
23-Jun-11	2324	1.97	0.00152	0.0362	6.9	3.65	0.000974	2.32	0.12	<0.00001	<0.00005	0.0316	0.783	<0.001	3.28	0.000238	<2	0.000097	0.00069	<0.0005	0.0419
30-Jun-11	2331																				
7-Jul-11	2338																				
14-Jul-11	2345																				
21-Jul-11	2352	2.36	0.00187	0.048	8.04	6.67	0.000063	2.71	0.144	<0.00001	0.000137	0.041	1.3	0.0011	4.45	0.000215	<2	0.000165	<0.0001	<0.0005	0.0455
28-Jul-11	2359																				
4-Aug-11	2366																				
11-Aug-11	2373																				
18-Aug-11	2380	2.43	0.00215	0.0517	7.08	8.7	0.000079	3.38	0.16	<0.00001	0.000186	0.0448	1.31	0.001	5.04	0.000292	<2	0.000161	<0.0001	<0.0005	0.0455
25-Aug-11	2387																				
1-Sep-11	2394																				
8-Sep-11	2401																				
15-Sep-11	2408	4.34	0.0038	0.0853	13.1	15.4	0.00034	5.8	0.286	<0.00001	0.00041	0.074	1.96	<0.002	7.26	0.00038	<2	0.00023	<0.0002	0.0013	0.0709
22-Sep-11	2415																				
29-Sep-11	2422																				
6-Oct-11	2429																				
13-Oct-11	2436	2.96	0.00346	0.0686	8.72	10.8	0.000078	4.48	0.223	<0.00001	0.000288	0.0593	1.09	0.0013	5.67	0.000302	<2	0.000132	<0.0001	0.00065	0.0585
20-Oct-11	2443																				
27-Oct-11	2450																				
3-Nov-11	2457																				
10-Nov-11	2464	3.33	0.0037	0.0725	9.43	11.4	0.00027	4.65	0.241	<0.00001	0.00028	0.0624	0.9	<0.002	5.28	0.000317	<2	0.00011	<0.0002	<0.001	0.0636
17-Nov-11	2471																				
24-Nov-11	2478																				
1-Dec-11	2485																				
8-Dec-11	2492	2.68	0.00268	0.0581	8.16	9.17	0.00239	3.94	0.192	<0.00001	0.000262	0.0508	0.902	<0.001	4.91	0.000225	<2	0.00011	<0.0001	0.00062	0.0482
15-Dec-11	2499																				
22-Dec-11	2506																				
29-Dec-11	2513																				
5-Jan-12	2520	3.19	0.00353	0.0736	9.06	12.4	0.000061	4.9	0.233	<0.00001	0.000349	0.0639	0.84	0.0013	5.25	0.000284	<2	0.000098	<0.0001	0.00081	0.0639
12-Jan-12	2527																				
19-Jan-12	2534																				
26-Jan-12	2541																				
2-Feb-12	2548	3.5	0.00276	0.0734	8.32	12.7	0.000348	4.94	0.229	<0.00001	0.000516	0.0646	1.65	0.0013	6.54	0.000394	<2	0.000224	0.0001	0.00125	0.0609
9-Feb-12	2555																				
16-Feb-12	2562																				
23-Feb-12	2569																				
1-Mar-12	2576	2.59	0.00236	0.0615	5.89	13.2	0.000409	3.95	0.179	<0.00001	0.00062	0.0535	1.38	0.0011	5.64	0.000281	<2	0.000172	<0.0001	0.00157	0.0441
8-Mar-12	2583																				
15-Mar-12	2590																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Mar-12	2597	2500	2360																			
29-Mar-12	2604	2500	2545	2.86	594	986	162.38	269.19	<1	418	37.1	<5	0.73	311	20.6	0.00015	0.00449	0.00277	0.00064	<0.001	<0.02	0.00042
5-Apr-12	2611	2500	2460																			
12-Apr-12	2618	2500	2370	3.04	592	608																
19-Apr-12	2625	2500	2490																			
26-Apr-12	2632	2500	2385	3.04	610	591	93.2	147.71	<1	242	19.3	<5	0.38	162	10.3	0.000072	0.00149	0.00142	0.00038	<0.0005	0.013	0.000189
3-May-12	2639	2500	2530																			
10-May-12	2646	2500	2450	2.84	585	966																
17-May-12	2653	2500	2570																			
24-May-12	2660	2500	2445	3.02	591	583	87.25	135.75	<1	173	17.5	<5	0.33	152	8.12	0.000093	0.00105	0.00103	0.00031	<0.0005	0.013	0.000193
31-May-12	2667	2500	2360																			
7-Jun-12	2674	2500	2355	3.1	590	549																
14-Jun-12	2681	2500	2385																			
21-Jun-12	2688	2500	2320	2.88	586	824	145.8	222.3	<1	400	29.2	<5	0.57	235	12.4	0.000139	0.003	0.00234	0.00052	<0.0005	0.019	0.000279
28-Jun-12	2695	2500	2290																			
5-Jul-12	2702	2500	2350	2.94	612	782																
12-Jul-12	2709	2500	2325																			
19-Jul-12	2716	2500	2290	2.89	577	790	128.72	195.59	<1	424	27.3	<5	0.34	213	12.9	0.000139	0.0023	0.00172	0.00045	<0.0005	0.022	0.000273
26-Jul-12	2723	2500	2430																			
2-Aug-12	2730	2500	2440	2.92	571	754																
9-Aug-12	2737	2500	2405																			
16-Aug-12	2744	2500	2470	2.9	578	796	144.62	221.62	<1	337	29.5	<5	0.64	226	14.3	0.000122	0.00201	0.00185	0.00046	<0.0005	0.017	0.000273
23-Aug-12	2751	2500	2265																			
30-Aug-12	2758	2500	2480	3.25	542	379																
6-Sep-12	2765	2500	2320																			
13-Sep-12	2772	2500	2340	3.22	566	389	52.63	84.29	<1	170	10.6	<5	<0.2	92.8	5.39	0.000057	0.00062	0.000836	<0.0002	<0.0005	0.013	0.000087
20-Sep-12	2779	2500	2380																			
27-Sep-12	2786	2500	2330	3.13	569	509																
4-Oct-12	2793	2500	2475																			
11-Oct-12	2800	2500	2320	3.26	552	355	51.51	89.36	<1	147	12.2	<5	0.28	89.6	6.49	0.00007	0.00062	0.000917	0.0002	<0.0005	0.016	0.000123
18-Oct-12	2807	2500	2420																			
25-Oct-12	2814	2500	2425	3.12	563	503																
1-Nov-12	2821	2500	2385																			
8-Nov-12	2828	2500	2350	3.07	566	520	72.99	128.07	<1	202	20.7	<5	0.47	165	11.5	0.000069	0.00094	0.000769	0.00029	<0.0005	0.022	0.000204
15-Nov-12	2835	2500	2195																			
22-Nov-12	2842	2500	2430	3.01	639	531																
29-Nov-12	2849	2500	2525																			
6-Dec-12	2856	2500	2360	3.17	564	506	70.04	130.1	<1	234	23.5	<0.5	0.574	156	14.4	0.00007	0.00114	0.000819	0.00032	<0.0005	<0.01	0.000243
13-Dec-12	2863	2500	2485																			
20-Dec-12	2870	2500	2435	3.25	605	456																
27-Dec-12	2877	2500	2345																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	1800	7.91	302	1133	<1	2.5	68.3	1120	589	0.77	0.03	672	0.0099	0.00387	0.00095	0.0401	<0.0004	<0.001	0.152	0.00018
17-Feb-05	7	2500	2165	7.76	380	638																
24-Feb-05	14	2500	2340	7.84	401	500	<1	2.75	45.3	348	168	<0.5	0.243	208	0.0107	0.00532	0.00282	0.0369	<0.0004	<0.001	0.054	<0.0001
3-Mar-05	21	2500	2365	7.99	359	362																
10-Mar-05	28	2500	2360	7.99	353	349	<1	1.75	54	234	127	<0.5	0.175	125	0.0128	0.00724	0.00271	0.0306	<0.0002	<0.0005	0.037	<0.00005
17-Mar-05	35	2500	2365	7.86	462	239																
24-Mar-05	42	2500	2360	7.89	423	232	<1	2.75	39	143	84.1	<0.5	0.064	72.1	0.0171	0.00494	0.00202	0.0215	<0.0002	<0.0005	0.016	<0.00005
31-Mar-05	49	2500	2380	7.99	411	317																
7-Apr-05	56	2500	2385	7.86	435	237	<1	4.25	45.5	146	85.3	<0.5	0.108	69.9	0.0149	0.00664	0.00226	0.0201	<0.0002	<0.0005	0.013	<0.00005
14-Apr-05	63	2500	2395	7.98	418	224																
21-Apr-05	70	2500	2380	7.89	427	177	<1	2.25	36	102	69.4	<0.5	0.053	48.6	0.0205	0.00454	0.00219	0.017	<0.0002	<0.0005	<0.01	<0.00005
28-Apr-05	77	2500	2385	7.99	462	198																
5-May-05	84	2500	2375	7.94	438	165	<1	2.5	35	84	70.4	<0.5	0.064	47.5	0.0241	0.00441	0.00177	0.0153	<0.0002	<0.0005	<0.01	<0.00005
12-May-05	91	2500	2390	7.91	419	188																
19-May-05	98	2500	2415	7.96	382	191	<1	1.75	38.5	102	71.5	<0.5	0.057	48.4	0.0253	0.00664	0.00174	0.017	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Mar-12	2597																				
29-Mar-12	2604	4.01	0.0045	0.103	9.65	23.7	0.00022	6.57	0.305	<0.00001	0.00118	0.0897	1.59	<0.002	8.13	0.000443	<2	0.00021	<0.0002	0.0024	0.0654
5-Apr-12	2611																				
12-Apr-12	2618																				
19-Apr-12	2625																				
26-Apr-12	2632	1.9	0.00217	0.0532	4.36	10.1	0.000064	3.54	0.162	<0.00001	0.00052	0.048	1.02	<0.001	5.61	0.000282	<2	0.000113	0.0001	0.00094	0.0348
3-May-12	2639																				
10-May-12	2646																				
17-May-12	2653																				
24-May-12	2660	1.68	0.00184	0.0474	3.96	8.62	<0.00005	3.23	0.147	<0.00001	0.000499	0.042	0.907	<0.001	3.93	0.000278	<2	0.000125	<0.0001	0.00094	0.0331
31-May-12	2667																				
7-Jun-12	2674																				
14-Jun-12	2681																				
21-Jun-12	2688	2.7	0.00308	0.0723	6.37	15.5	0.0992	5.45	0.232	<0.00001	0.000835	0.0653	1.56	0.0015	6.64	0.000394	<2	0.00019	0.00011	0.00181	0.0523
28-Jun-12	2695																				
5-Jul-12	2702																				
12-Jul-12	2709																				
19-Jul-12	2716	2.31	0.00291	0.0732	5.94	13.5	0.0194	5.22	0.216	<0.00001	0.000795	0.0631	1.64	0.0013	6.9	0.000386	<2	0.000195	0.00017	0.00195	0.048
26-Jul-12	2723																				
2-Aug-12	2730																				
9-Aug-12	2737																				
16-Aug-12	2744	2.3	0.00346	0.0769	5.95	14.8	0.00402	5.77	0.239	<0.00001	0.00083	0.0705	1.45	0.0014	6.94	0.000336	<2	0.000161	0.00014	0.00197	0.051
23-Aug-12	2751																				
30-Aug-12	2758																				
6-Sep-12	2765																				
13-Sep-12	2772	0.874	0.00105	0.0298	2.07	4.48	0.00125	2.04	0.0919	<0.00001	0.00023	0.0266	0.551	<0.001	2.6	0.000137	<2	0.00006	<0.0001	<0.0005	0.0191
20-Sep-12	2779																				
27-Sep-12	2786																				
4-Oct-12	2793																				
11-Oct-12	2800	1.01	0.00147	0.0329	2.66	4.19	0.00135	2.35	0.104	<0.00001	0.000189	0.03	0.573	<0.001	2.42	0.000155	<2	0.000054	<0.0001	<0.0005	0.0261
18-Oct-12	2807																				
25-Oct-12	2814																				
1-Nov-12	2821																				
8-Nov-12	2828	1.52	0.00258	0.053	4.68	7.44	0.000172	4.11	0.184	<0.00001	0.000256	0.0471	0.646	0.001	3.55	0.00028	<2	0.000073	<0.0001	0.00058	0.0404
15-Nov-12	2835																				
22-Nov-12	2842																				
29-Nov-12	2849																				
6-Dec-12	2856	1.73	0.0032	0.0581	6.07	6.06	0.000263	4.66	0.216	<0.00001	0.000183	0.0543	0.784	0.0011	3.11	0.000174	<2	0.000061	<0.0001	0.00064	0.0467
13-Dec-12	2863																				
20-Dec-12	2870																				
27-Dec-12	2877																				

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	164	<0.001	0.0196	0.0166	<0.06	<0.0001	43.8	0.328	0.000013	0.0118	0.0258	6.07	0.0219	1.54	<0.00002	87.2	0.00019	<0.0002	<0.001	0.011
17-Feb-05	7																				
24-Feb-05	14	45.8	<0.001	0.00101	0.00673	<0.06	<0.0001	13	0.0523	<0.00001	0.00716	0.0012	3.71	0.0086	1.38	<0.00002	37.3	<0.0001	<0.0002	<0.001	0.003
3-Mar-05	21																				
10-Mar-05	28	34.7	<0.0005	0.00065	0.00479	<0.06	<0.00005	9.8	0.0355	<0.00001	0.00606	0.00065	3.34	0.0048	1.42	<0.00001	19.1	<0.00005	<0.0001	0.0007	0.0017
17-Mar-05	35																				
24-Mar-05	42	22.6	<0.0005	0.00034	0.00448	<0.03	<0.00005	6.73	0.0234	<0.00001	0.00411	<0.0005	2.48	0.0031	1.12	<0.00001	9.3	<0.00005	<0.0001	0.00059	<0.001
31-Mar-05	49																				
7-Apr-05	56	23	<0.0005	0.00027	0.00252	<0.03	<0.00005	6.76	0.0207	<0.00001	0.00461	<0.0005	3.94	0.0027	1.5	<0.00001	8.8	<0.00005	<0.0001	0.00069	<0.001
14-Apr-05	63																				
21-Apr-05	70	19.3	<0.0005	0.00015	0.00528	<0.03	<0.00005	5.15	0.0149	<0.00001	0.00356	<0.0005	3.36	0.0021	1.21	<0.00001	4.2	<0.00005	<0.0001	0.00087	0.0011
28-Apr-05	77																				
5-May-05	84	18.6	<0.0005	0.00014	0.00092	<0.03	0.000058	5.81	0.0164	<0.00001	0.00385	<0.0005	3.2	0.002	1.14	<0.00001	3.5	<0.00005	<0.0001	0.00081	<0.001
12-May-05	91																				
19-May-05	98	19.8	<0.0005	0.00014	0.00395	<0.03	0.000054	5.35	0.0176	<0.00001	0.00466	<0.0005	2.9	0.0022	1.09	<0.00001	3.2	<0.00005	<0.0001	0.00063	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
26-May-05	105	2500	2420	7.89	420	154																
2-Jun-05	112	2500	2425	7.93	396	181	<1	1.5	36.3	108	73.1	<0.5	0.07	55.3	0.0234	0.00605	0.0017	0.0146	<0.0002	<0.0005	<0.01	<0.00005
9-Jun-05	119	2500	2430	7.95	392	174																
16-Jun-05	126	2500	2435	8.01	377	151	<1	1.5	34.5	88	68.3	<0.5	0.049	42.3	0.03	0.00514	0.00143	0.0124	<0.0002	<0.0005	<0.01	<0.00005
23-Jun-05	133	2500	2440	8.06	386	154																
30-Jun-05	140	2500	2470	7.98	311	146	<1	2	33.8	87	63.5	<0.5	0.036	39.9	0.0318	0.00496	0.00153	0.0128	<0.0002	<0.0005	<0.01	<0.00005
7-Jul-05	147	2500	2300	8.02	339	144																
14-Jul-05	154	2500	2380	8.02	305	171	<1	1.25	37.3	106	78.9	<0.5	0.062	52.1	0.0212	0.00474	0.00146	0.0135	<0.0002	<0.0005	<0.01	<0.00005
21-Jul-05	161	2500	2330	8.02	282	160																
28-Jul-05	168	2500	2295	8.01	307	162	<1	1.25	43	102	72.5	<0.5	0.056	44.5	0.0166	0.0048	0.00139	0.0117	<0.0002	<0.0005	<0.01	<0.00005
4-Aug-05	175	2500	2330	7.95	360	115																
11-Aug-05	182	2500	2375	8.07	359	138	<1	1	36	101	68.4	<0.5	0.044	39.3	0.0202	0.00432	0.00117	0.0104	<0.0002	<0.0005	<0.01	<0.00005
18-Aug-05	189	2500	2370	7.84	352	146																
25-Aug-05	196	2500	2320	7.95	353	134	<1	2	33.5	91	59.8	<0.5	0.044	37.3	0.0191	0.00342	0.0009	0.00874	<0.0002	<0.0005	<0.01	<0.00005
1-Sep-05	203	2500	2435	7.95	312	136																
8-Sep-05	210	2500	2285	8.03	328	157	<1	1	41.3	123	75.7	<0.5	0.06	40.9	0.0197	0.00431	0.00131	0.0105	<0.0002	<0.0005	<0.01	<0.00005
15-Sep-05	217	2500	2325	8.01	329	153																
22-Sep-05	224	2500	2415	7.82	259	151	<1	1.75	38.5	78	68.8	<0.5	0.038	36.4	0.0177	0.00325	0.00107	0.0108	<0.0002	<0.0005	<0.01	<0.00005
29-Sep-05	231	2500	2490	7.84	329	170																
6-Oct-05	238	2500	2455	7.94	105	160	<1	2.75	43.5	100	73.5	<0.5	0.05	38.1	0.0156	0.00434	0.00106	0.00949	<0.0002	<0.0005	<0.01	<0.00005
13-Oct-05	245	2500	2395	7.93	224	158																
20-Oct-05	252	2500	2520	7.37	348	185	<1	3.75	47.3	115	88.9	<0.5	0.029	48	0.0134	0.00396	0.00094	0.0121	<0.0002	<0.0005	<0.01	<0.00005
27-Oct-05	259	2500	2425	8.02	328	164																
3-Nov-05	266	2500	2435	7.59	402	145	<1	3.75	46	87	67.6	<0.5	0.05	31.8	0.0143	0.00397	0.00102	0.0107	<0.0002	<0.0005	<0.01	<0.00005
10-Nov-05	273	2500	2440	7.84	331	146																
17-Nov-05	280	2500	2420	7.85	294	151	<1	1.75	49	78	71.4	<0.5	0.037	28.9	0.0141	0.00409	0.00085	0.0102	<0.0002	<0.0005	<0.01	<0.00005
24-Nov-05	287	2500	2420	7.79	450	135																
1-Dec-05	294	2500	2430	7.77	431	140	<1	4	46.5	92	72.4	<0.5	0.033	29	0.0146	0.00347	0.0007	0.00857	<0.0002	<0.0005	<0.01	<0.00005
8-Dec-05	301	2500	2420	7.84	458	138																
15-Dec-05	308	2500	2450	7.59	459	146	<1	4.25	51	88	76.2	<0.5	0.036	29.7	0.0134	0.00406	0.00074	0.00983	<0.0002	<0.0005	<0.01	<0.00005
22-Dec-05	315	2500	2390	7.84	431	124																
29-Dec-05	322	2500	2260	7.81	497	142	<1	2.5	45.5	84	67.6	<0.5	0.029	28	0.0136	0.00317	0.00062	0.00745	<0.0002	<0.0005	<0.01	<0.00005
5-Jan-06	329	2500	2445	7.91	474	151																
12-Jan-06	336	2500																				
19-Jan-06	343	2500	2600	7.73	442	149	<1	3.75	50.5	80	72.6	<0.5	0.031	25.2	0.0116	0.0033	0.00068	0.0111	<0.0002	<0.0005	<0.01	<0.00005
26-Jan-06	350	2500	2450	7.74	374	131	<1	1.25	41	82	65.9	<0.5	0.032	23.4	0.0167	0.00302	0.00056	0.00914	<0.0002	<0.0005	<0.01	<0.00005
2-Feb-06	357	2500	2325	7.65	396	130																
9-Feb-06	364	2500	2420	7.68	406	131	<1	2	40.5	70	64	<0.5	0.028	24.6	0.0155	0.00288	0.00058	0.00843	<0.0002	<0.0005	<0.01	<0.00005
16-Feb-06	371	2500	2435	7.8	422	140																
23-Feb-06	378	2500	2455	7.71	371	133	<1	1.5	46	70	64.4	<0.5	0.027	24.1	0.0121	0.00258	0.00049	0.00787	<0.0002	<0.0005	<0.01	<0.00005
2-Mar-06	385	2500	2465	7.89	462	157																
9-Mar-06	392	2500	2480	7.68	435	152	<1	2	45	88	72.7	<0.5	0.032	27.6	0.0149	0.0033	0.00054	0.00959	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-06	399	2500	2425	7.85	469	158																
23-Mar-06	406	2500	2425	7.84	330	173	<1	1.75	50.5	92	77	<0.5	0.034	29.2	0.0115	0.00363	0.00049	0.00934	<0.0002	<0.0005	<0.01	<0.00005
30-Mar-06	413	2500	2435	7.75	438	152																
6-Apr-06	420	2500	2425	7.79	455	183	<1	1.25	48.3	89	77.5	<0.5	0.035	30.3	0.0129	0.00378	0.00051	0.00972	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-06	427	2500	2425	7.99	418	147																
20-Apr-06	434	2500	2470	7.75	418	155	<1	2	48.8	90	75.9	<0.5	0.034	29.8	0.014	0.00331	0.0004	0.009	<0.0002	<0.0005	<0.01	<0.00005
27-Apr-06	441	2500	2340	7.94	334	164																
4-May-06	448	2500	2500	7.69	178	151	<1	1.81	46.2	104	75.5	<0.5	0.036	31.3	0.0182	0.00397	0.00047	0.00938	<0.0002	<0.0005	<0.01	<0.00005
11-May-06	455	2500	2520	7.55	201	127																
18-May-06	462	2500	2430	7.52	164	146	<1	1.88	36.8	82	64	<0.5	0.03	33.4	0.0174	0.00331	0.00046	0.00769	<0.0002	<0.0005	<0.01	<0.00005
25-May-06	469	2500	2430	7.7	198	143																
1-Jun-06	476	2500	2495	7.57	255	141	<1	2.88	40.1	86	65.8	<0.5	0.028	28.3	0.0164	0.00327	0.00047	0.00787	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-06	483	2500	2440	7.63	182	130																
15-Jun-06	490	2500	2470	7.57	226	143	<1	2.44	37.8	83	64.3	<0.5	0.032	31	0.0226	0.00324	0.00046	0.00701	<0.0002	<0.0005	<0.01	<0.00005
22-Jun-06	497	2500	2440	7.66	191	145																
29-Jun-06	504	2500	2400	7.36	226	145	<1	3.06	38.3	96	75.1	<0.5	0.033	38.9	0.016	0.00458	0.00044	0.00746	<0.0002	<0.0005	<0.01	<0.00005

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Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
26-May-05	105																				
2-Jun-05	112	20.8	<0.0005	0.00012	0.00238	<0.03	<0.00005	5.1	0.0177	<0.00001	0.00485	<0.0005	2.6	0.0021	1.2	<0.00001	2.8	<0.00005	<0.0001	0.00066	0.0014
9-Jun-05	119																				
16-Jun-05	126	18.9	<0.0005	0.0001	0.00078	<0.03	0.000058	5.13	0.0165	<0.00001	0.00417	<0.0005	2.21	0.0017	1	<0.00001	2.1	<0.00005	<0.0001	0.00065	0.0014
23-Jun-05	133																				
30-Jun-05	140	17.4	<0.0005	<0.0001	0.00079	<0.03	<0.00005	4.87	0.0189	<0.00001	0.00466	<0.0005	2.58	0.0018	0.965	<0.00001	<2	<0.00005	<0.0001	0.0007	0.0013
7-Jul-05	147																				
14-Jul-05	154	22.2	<0.0005	0.00011	0.00073	<0.03	<0.00005	5.7	0.0244	<0.00001	0.00565	<0.0005	2.98	0.0021	1.07	<0.00001	2	<0.00005	<0.0001	0.00067	<0.001
21-Jul-05	161																				
28-Jul-05	168	21.1	<0.0005	0.00012	0.00125	<0.03	<0.00005	4.81	0.0239	<0.00001	0.00511	<0.0005	2.7	0.0016	1.14	<0.00001	<2	<0.00005	<0.0001	0.00058	<0.001
4-Aug-05	175																				
11-Aug-05	182	19.6	<0.0005	<0.0001	0.00183	<0.03	<0.00005	4.72	0.0202	<0.00001	0.00422	<0.0005	2.21	0.0016	0.998	<0.00001	<2	<0.00005	<0.0001	0.00055	<0.001
18-Aug-05	189																				
25-Aug-05	196	17.2	<0.0005	<0.0001	0.00212	<0.03	<0.00005	4.08	0.0188	<0.00001	0.00362	<0.0005	1.76	0.0013	0.846	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
1-Sep-05	203																				
8-Sep-05	210	21.2	<0.0005	0.00012	0.00189	<0.03	<0.00005	5.52	0.0236	<0.00001	0.00484	<0.0005	2.13	0.0015	1.1	<0.00001	<2	<0.00005	0.00014	0.00055	0.0013
15-Sep-05	217																				
22-Sep-05	224	19.9	<0.0005	0.00012	0.00917	<0.03	<0.00005	4.64	0.0246	<0.00001	0.00392	<0.0005	1.91	0.0012	1.03	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0027
29-Sep-05	231																				
6-Oct-05	238	21.4	<0.0005	0.00013	0.0116	<0.03	0.000812	4.87	0.0258	<0.00001	0.00442	<0.0005	1.87	0.0012	1.04	<0.00001	<2	<0.00005	0.00055	<0.0005	0.0012
13-Oct-05	245																				
20-Oct-05	252	27.3	<0.0005	0.00017	0.0022	<0.03	<0.00005	5.03	0.0282	<0.00001	0.00411	<0.0005	1.85	0.0012	1.08	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Oct-05	259																				
3-Nov-05	266	18.6	<0.0005	0.00013	0.00261	<0.03	<0.00005	5.15	0.0223	<0.00001	0.00384	<0.0005	1.59	0.0011	0.945	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
10-Nov-05	273																				
17-Nov-05	280	19.9	<0.0005	0.00014	0.00117	<0.03	<0.00005	5.27	0.0247	<0.00001	0.00337	<0.0005	1.49	<0.001	0.908	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Nov-05	287																				
1-Dec-05	294	21.1	<0.0005	0.00014	0.0188	<0.03	<0.00005	4.77	0.0253	<0.00001	0.00306	<0.0005	1.28	<0.001	0.892	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Dec-05	301																				
15-Dec-05	308	22.1	<0.0005	0.00014	0.00109	<0.03	<0.00005	5.08	0.0283	<0.00001	0.0034	<0.0005	1.35	<0.001	0.902	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
22-Dec-05	315																				
29-Dec-05	322	19.7	<0.0005	0.00013	0.0184	<0.03	0.000608	4.48	0.0298	<0.00001	0.00304	<0.0005	1.2	<0.001	0.787	<0.00001	<2	<0.00005	<0.0001	<0.0005	
5-Jan-06	329																				
12-Jan-06	336																				
19-Jan-06	343	20.9	<0.0005	0.00019	0.00397	<0.03	<0.00005	4.98	0.0374	<0.00001	0.00301	<0.0005	1.14	<0.001	0.876	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Jan-06	350	19.2	<0.0005	0.00015	0.00458	<0.03	0.000056	4.39	0.0338	<0.00001	0.00256	<0.0005	1.05	<0.001	0.754	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
2-Feb-06	357																				
9-Feb-06	364	18.8	<0.0005	0.00015	0.00222	<0.03	<0.00005	4.15	0.0285	<0.00001	0.00295	<0.0005	0.978	<0.001	0.74	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
16-Feb-06	371																				
23-Feb-06	378	18.3	<0.0005	0.00013	0.00329	<0.03	0.000261	4.54	0.0282	<0.00001	0.00237	<0.0005	0.897	<0.001	0.702	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
2-Mar-06	385																				
9-Mar-06	392	20.9	<0.0005	0.00014	0.00237	<0.03	<0.00005	4.99	0.0319	<0.00001	0.00341	<0.0005	1.02	<0.001	0.718	<0.00001	<2	<0.00005	0.00023	<0.0005	<0.001
16-Mar-06	399																				
23-Mar-06	406	22.8	<0.0005	0.00015	0.00308	<0.03	0.000196	4.87	0.0343	<0.00001	0.0035	<0.0005	0.949	<0.001	0.878	0.000018	<2	<0.00005	<0.0001	<0.0005	0.0012
30-Mar-06	413																				
6-Apr-06	420	22.3	<0.0005	0.00018	0.00383	<0.03	<0.00005	5.31	0.0379	<0.00001	0.00373	<0.0005	1.06	<0.001	0.792	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0019
13-Apr-06	427																				
20-Apr-06	434	22.8	<0.0005	0.00015	0.00235	<0.03	<0.00005	4.59	0.0386	<0.00001	0.00346	<0.0005	0.94	<0.001	0.554	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Apr-06	441																				
4-May-06	448	21	0.00086	0.00016	0.00309	<0.03	0.000997	5.59	0.0384	<0.00001	0.00412	<0.0005	1.01	<0.001	0.755	<0.00001	<2	<0.00005	0.00014	<0.0005	0.002
11-May-06	455																				
18-May-06	462	19.1	<0.0005	0.0001	0.00733	<0.03	<0.00005	3.97	0.028	<0.00001	0.00396	<0.0005	0.818	<0.001	0.697	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
25-May-06	469																				
1-Jun-06	476	19.8	<0.0005	0.00011	0.00222	<0.03	0.000187	3.97	0.0288	<0.00001	0.00376	<0.0005	0.807	<0.001	0.7	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Jun-06	483																				
15-Jun-06	490	19.1	<0.0005	0.0001	0.00659	<0.03	0.000098	4.03	0.0256	<0.00001	0.00387	<0.0005	0.774	<0.001	0.66	<0.00001	<2	<0.00005	0.00048	<0.0005	<0.001
22-Jun-06	497																				
29-Jun-06	504	22.1	<0.0005	0.00011	0.00174	<0.03	<0.00005	4.82	0.0291	<0.00001	0.00438	<0.0005	0.78	<0.001	0.737	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	2015	9.19	252	370	<1	<1	131.5	396	6.96	0.86	0.335	52.3	1.4	0.00503	0.0131	0.0154	<0.0002	<0.0005	0.362	<0.00005
17-Feb-05	7	2500	1965	9.05	278	441																
24-Feb-05	14	2500	1990	9.15	291	386	<1	<1	191.8	308	9.26	<0.5	0.386	17.5	4.3	0.00737	0.0312	0.0355	<0.0002	<0.0005	0.251	<0.00005
3-Mar-05	21	2500	2050	8.96	271	384																
10-Mar-05	28	2500	2055	9.01	280	386	<1	<1	211.5	287	8.27	<0.5	0.24	8.48	3.35	0.00867	0.0201	0.0314	<0.0002	<0.0005	0.17	<0.00005
17-Mar-05	35	2500	2435	9.01	352	357																
24-Mar-05	42	2500	2440	9.05	358	342	<1	<1	183	213	4.03	<0.5	0.098	6.9	0.347	0.00705	0.0186	0.0114	<0.0002	<0.0005	0.092	<0.00005
31-Mar-05	49	2500	2445	9.11	355	332																
7-Apr-05	56	2500	2470	8.81	356	322	<1	<1	170.5	198	3.58	<0.5	0.09	5.59	0.269	0.00724	0.0138	0.0096	<0.0002	<0.0005	0.065	<0.00005
14-Apr-05	63	2500	2450	9.15	338	306																
21-Apr-05	70	2500	2455	8.93	339	299	<1	<1	162.5	178	3.81	<0.5	0.061	3.23	0.224	0.00675	0.0123	0.00816	<0.0002	<0.0005	0.049	<0.00005
28-Apr-05	77	2500	2505	8.99	380	290																
5-May-05	84	2500	2500	9.13	339	270	<1	<1	148	157	3.53	<0.5	0.058	4.17	0.476	0.00653	0.00999	0.00799	<0.0002	<0.0005	0.038	<0.00005
12-May-05	91	2500	2480	8.94	335	278																
19-May-05	98	2500	2430	9.04	298	266	<1	<1	146	159	3.71	<0.5	0.035	2.9	0.298	0.00741	0.00919	0.00854	<0.0002	<0.0005	0.033	<0.00005
26-May-05	105	2500	2485	8.92	336	234																
2-Jun-05	112	2500	2445	8.72	310	228	<1	<1	123	140	3.38	<0.5	0.042	3.3	0.27	0.00585	0.00574	0.0066	<0.0002	<0.0005	0.024	<0.00005
9-Jun-05	119	2500	2460	9.04	327	212																
16-Jun-05	126	2500	2450	8.71	294	206	<1	<1	112.5	126	3.98	<0.5	0.031	3.02	0.253	0.00577	0.00488	0.00744	<0.0002	<0.0005	0.022	<0.00005
23-Jun-05	133	2500	2440	8.98	321	202																
30-Jun-05	140	2500	2500	8.84	239	190	<1	<1	106	120	5.46	<0.5	0.023	2.37	0.238	0.00632	0.00493	0.00958	<0.0002	<0.0005	0.023	<0.00005
7-Jul-05	147	2500	2405	8.84	269	186																
14-Jul-05	154	2500	2460	8.82	251	176	<1	<1	100.5	106	7.96	<0.5	0.03	3.04	0.192	0.00566	0.00387	0.0112	<0.0002	<0.0005	0.019	<0.00005
21-Jul-05	161	2500	2430	8.89	202	140																
28-Jul-05	168	2500	2405	8.72	256	157	<1	<1	94.5	99	8.79	<0.5	<0.02	2.47	0.172	0.00461	0.00264	0.0116	<0.0002	<0.0005	0.017	<0.00005
4-Aug-05	175	2500	2480	8.83	307	143																
11-Aug-05	182	2500	2415	8.76	299	154	<1	<1	91.3	111	12.1	<0.5	0.02	1.87	0.15	0.00491	0.00224	0.0147	<0.0002	<0.0005	0.015	<0.00005
18-Aug-05	189	2500	2495	8.77	328	146																
25-Aug-05	196	2500	2445	8.65	291	140	<1	<1	80.5	90	14	<0.5	<0.02	2.12	0.109	0.00427	0.00162	0.0153	<0.0002	<0.0005	0.014	<0.00005
1-Sep-05	203	2500	2425	8.62	291	133																
8-Sep-05	210	2500	2415	8.45	295	133	<1	<1	72	114	18.5	<0.5	<0.02	2.67	0.112	0.00471	0.00144	0.0195	<0.0002	<0.0005	0.014	<0.00005
15-Sep-05	217	2500	2485	8.57	296	131																
22-Sep-05	224	2500	2450	8.59	214	148	<1	<1	78.8	107	17.6	<0.5	<0.02	5.43	0.214	0.00441	0.00197	0.0216	<0.0002	<0.0005	0.018	<0.00005
29-Sep-05	231	2500	2495	8.51	204	150																
6-Oct-05	238	2500	2445	8.4	156	151	<1	<1	82.8	98	21	<0.5	<0.02	3.28	0.145	0.00479	0.00155	0.0246	<0.0002	<0.0005	0.016	<0.00005
13-Oct-05	245	2500	2475	8.46	203	145																
20-Oct-05	252	2500	2505	7.85	329	132	<1	3.5	72.8	80	22.8	<0.5	<0.02	1.95	0.0926	0.00377	0.001	0.0232	<0.0002	<0.0005	0.013	<0.00005
27-Oct-05	259	2500	2420	8.01	335	135																
3-Nov-05	266	2500	2495	7.76	403	125	<1	3	71.5	74	24.9	<0.5	<0.02	2.2	0.0607	0.00349	0.00077	0.027	<0.0002	<0.0005	0.012	<0.00005
10-Nov-05	273	2500	2400	8.07	356	130																
17-Nov-05	280	2500	2435	8.08	295	130	<1	1.5	71	70	32.1	<0.5	<0.02	2.01	0.0455	0.00322	0.00043	0.0313	<0.0002	<0.0005	0.01	<0.00005
24-Nov-05	287	2500	2415	8.08	442	123																
1-Dec-05	294	2500	2540	7.89	368	120	<1	3.5	68.8	76	34.3	<0.5	<0.02	1.99	0.0281	0.00314	0.0004	0.0316	<0.0002	<0.0005	0.01	<0.00005
8-Dec-05	301	2500	2555	8.05	458	119																
15-Dec-05	308	2500	2565	7.77	453	126	<1	3.25	71.3	68	40.2	<0.5	<0.02	2.06	0.0218	0.00371	0.0004	0.0421	<0.0002	<0.0005	<0.01	<0.00005
22-Dec-05	315	2500	2480	8.02	418	111																
29-Dec-05	322	2500	2375	7.88	429	113	<1	2	61.8	56	37.2	<0.5	<0.02	1.71	0.031	0.00279	0.00037	0.0337	<0.0002	<0.0005	<0.01	<0.00005
5-Jan-06	329	2500	2400	8.15	457	130																
12-Jan-06	336	2500																				
19-Jan-06	343	2500	2550	7.7	451	120	<1	3.25	63.5	51	38.9	<0.5	<0.02	1.69	0.0236	0.00278	0.00055	0.0387	<0.0002	<0.0005	<0.01	<0.00005
26-Jan-06	350	2500	2540	8.01	439	129	<1	2.75	67.5	112	45.3	<0.5	<0.02	1.52	0.0221	0.00285	0.00051	0.0406	<0.0002	<0.0005	<0.01	<0.00005
2-Feb-06	357	2500	2480	7.8	422	118																
9-Feb-06	364	2500	2440	7.77	415	118	<1	2.75	60	63	44.3	<0.5	<0.02	1.97	0.0244	0.00246	0.00043	0.036	<0.0002	<0.0005	<0.01	<0.00005
16-Feb-06	371	2500	2505	7.98	444	115																
23-Feb-06	378	2500	2510	7.89	395	121	<1	1.75	63.8	56	50.1	<0.5	<0.02	1.8	0.0177	0.00229	0.00033	0.0441	<0.0002	<0.0005	<0.01	<0.00005
2-Mar-06	385	2500	2500	8.11	467	126																
9-Mar-06	392	2500	2535	7.83	436	119	<1	3	59.5	54	47.6	<0.5	<0.02	2.08	0.0238	0.00297	0.00037	0.0408	<0.0002	<0.0005	<0.01	<0.00005
16-Mar-06	399	2500	2490	8.06	470	123																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	1.81	0.00097	0.00044	0.00395	1.37	0.000213	0.592	0.00797	<0.00001	0.00966	<0.0005	1.25	0.0062	7.37	0.000011	87.3	<0.00005	<0.0001	0.0251	0.0022
17-Feb-05	7																				
24-Feb-05	14	1.65	0.00382	0.00109	0.00329	1.49	0.000419	1.25	0.0149	0.000011	0.00582	<0.0005	2.34	0.0028	9.95	0.000038	94.8	<0.00005	0.00029	0.0562	0.0053
3-Mar-05	21																				
10-Mar-05	28	1.74	0.00205	0.00077	0.00287	0.712	0.000267	0.951	0.0109	<0.00001	0.00287	<0.0005	1.79	0.0012	3.65	0.000029	95.7	<0.00005	0.00019	0.0544	0.0039
17-Mar-05	35																				
24-Mar-05	42	1.11	<0.0005	<0.0001	0.00104	0.12	<0.00005	0.307	0.00226	<0.00001	0.0026	<0.0005	0.83	<0.001	2.68	<0.00001	82.5	<0.00005	<0.0001	0.0445	<0.001
31-Mar-05	49																				
7-Apr-05	56	1.01	<0.0005	<0.0001	0.00147	0.071	<0.00005	0.255	0.00216	<0.00001	0.00174	<0.0005	0.777	<0.001	2.35	<0.00001	76.7	<0.00005	<0.0001	0.0331	<0.001
14-Apr-05	63																				
21-Apr-05	70	1.13	<0.0005	<0.0001	0.00172	0.063	<0.00005	0.239	0.00195	<0.00001	0.00114	<0.0005	0.728	<0.001	2.08	<0.00001	72.8	<0.00005	<0.0001	0.0291	0.0011
28-Apr-05	77																				
5-May-05	84	1.05	<0.0005	<0.0001	0.00436	0.076	0.000187	0.221	0.00232	<0.00001	0.000995	<0.0005	0.756	<0.001	2.07	<0.00001	64.4	<0.00005	<0.0001	0.0265	0.0034
12-May-05	91																				
19-May-05	98	1.04	<0.0005	<0.0001	0.00112	0.062	<0.00005	0.269	0.00242	<0.00001	0.000828	<0.0005	0.843	<0.001	1.79	<0.00001	75	<0.00005	<0.0001	0.0231	<0.001
26-May-05	105																				
2-Jun-05	112	1	<0.0005	<0.0001	0.00092	0.064	0.000056	0.214	0.00203	<0.00001	0.000647	<0.0005	0.709	<0.001	1.86	<0.00001	51	<0.00005	<0.0001	0.0169	<0.001
9-Jun-05	119																				
16-Jun-05	126	1.2	<0.0005	<0.0001	0.00051	0.064	<0.00005	0.241	0.00186	<0.00001	0.000614	<0.0005	0.768	<0.001	1.77	<0.00001	48.9	<0.00005	<0.0001	0.0132	0.0017
23-Jun-05	133																				
30-Jun-05	140	1.59	<0.0005	<0.0001	0.00054	0.074	<0.00005	0.362	0.00237	<0.00001	0.000639	<0.0005	0.987	<0.001	1.7	<0.00001	44.9	<0.00005	<0.0001	0.0132	<0.001
7-Jul-05	147																				
14-Jul-05	154	2.38	<0.0005	<0.0001	0.00061	0.053	<0.00005	0.492	0.0022	<0.00001	0.00055	<0.0005	1.11	<0.001	1.61	<0.00001	42.1	<0.00005	<0.0001	0.011	<0.001
21-Jul-05	161																				
28-Jul-05	168	2.67	<0.0005	<0.0001	0.0032	0.052	0.000187	0.515	0.00149	<0.00001	0.000438	<0.0005	1.16	<0.001	1.36	0.000036	34.8	<0.00005	<0.0001	0.0078	0.0128
4-Aug-05	175																				
11-Aug-05	182	3.67	<0.0005	<0.0001	0.00114	0.05	<0.00005	0.714	0.000473	<0.00001	0.000454	<0.0005	1.19	<0.001	1.52	<0.00001	34.8	<0.00005	<0.0001	0.00675	<0.001
18-Aug-05	189																				
25-Aug-05	196	4.27	<0.0005	<0.0001	0.00108	0.036	<0.00005	0.818	0.000381	<0.00001	0.000475	<0.0005	1.25	<0.001	1.37	<0.00001	28.1	<0.00005	<0.0001	0.00487	0.001
1-Sep-05	203																				
8-Sep-05	210	5.54	<0.0005	<0.0001	0.00144	0.046	0.000887	1.13	0.000589	<0.00001	0.000526	<0.0005	1.46	<0.001	1.42	<0.00001	26.1	<0.00005	<0.0001	0.00438	0.0038
15-Sep-05	217																				
22-Sep-05	224	5.24	<0.0005	<0.0001	0.00302	0.045	0.000092	1.1	0.000313	<0.00001	0.00123	<0.0005	1.42	<0.001	1.63	<0.00001	31.6	<0.00005	<0.0001	0.00692	0.0018
29-Sep-05	231																				
6-Oct-05	238	6.25	<0.0005	<0.0001	0.00302	<0.03	<0.00005	1.31	0.000293	<0.00001	0.000657	<0.0005	1.75	<0.001	1.45	<0.00001	28.5	<0.00005	<0.0001	0.00491	<0.001
13-Oct-05	245																				
20-Oct-05	252	6.98	<0.0005	<0.0001	0.00086	<0.03	<0.00005	1.3	0.000203	<0.00001	0.000392	<0.0005	1.64	<0.001	1.32	<0.00001	23.9	<0.00005	<0.0001	0.00348	0.003
27-Oct-05	259																				
3-Nov-05	266	7.19	<0.0005	<0.0001	0.00242	0.03	<0.00005	1.68	0.00042	<0.00001	0.00036	<0.0005	1.75	<0.001	1.19	<0.00001	19	<0.00005	<0.0001	0.00233	0.0019
10-Nov-05	273																				
17-Nov-05	280	9.48	<0.0005	<0.0001	0.00026	<0.03	<0.00005	2.05	0.000224	<0.00001	0.000298	<0.0005	1.89	<0.001	1.16	<0.00001	17.1	<0.00005	<0.0001	0.00156	<0.001
24-Nov-05	287																				
1-Dec-05	294	10.4	<0.0005	<0.0001	0.004	<0.03	<0.00005	2.01	0.000171	<0.00001	0.000287	<0.0005	1.81	<0.001	1.13	<0.00001	14.8	<0.00005	<0.0001	0.00128	<0.001
8-Dec-05	301																				
15-Dec-05	308	12.2	<0.0005	<0.0001	0.00037	<0.03	<0.00005	2.39	0.000094	<0.00001	0.000358	<0.0005	2.07	<0.001	1.18	<0.00001	14.9	<0.00005	<0.0001	0.00136	<0.001
22-Dec-05	315																				
29-Dec-05	322	11.2	<0.0005	<0.0001	0.00051	<0.03	<0.00005	2.26	0.000291	<0.00001	0.000277	<0.0005	1.95	<0.001	1.03	<0.00001	10.2	<0.00005	<0.0001	0.00138	<0.001
5-Jan-06	329																				
12-Jan-06	336																				
19-Jan-06	343	11.5	<0.0005	<0.0001	0.00376	<0.03	<0.00005	2.46	0.00168	<0.00001	0.000292	<0.0005	1.88	<0.001	1.17	<0.00001	11.2	<0.00005	<0.0001	0.00144	<0.001
26-Jan-06	350	13.5	<0.0005	<0.0001	0.00695	<0.03	<0.00005	2.83	0.000892	<0.00001	0.000276	<0.0005	2.04	<0.001	1.16	<0.00001	10.5	<0.00005	<0.0001	0.00139	<0.001
2-Feb-06	357																				
9-Feb-06	364	13.3	<0.0005	<0.0001	0.00286	<0.03	<0.00005	2.71	0.000504	0.000015	0.000297	<0.0005	2.04	<0.001	1.13	<0.00001	8.3	<0.00005	<0.0001	0.00133	<0.001
16-Feb-06	371																				
23-Feb-06	378	14.9	<0.0005	<0.0001	0.00213	<0.03	0.000597	3.14	0.000579	<0.00001	0.000261	<0.0005	1.85	<0.001	1.06	<0.00001	6.6	<0.00005	<0.0001	0.00101	0.0085
2-Mar-06	385																				
9-Mar-06	392	14.1	<0.0005	<0.0001	0.00193	<0.03	<0.00005	3.02	0.000387	<0.00001	0.000292	<0.0005	1.98	<0.001	1.04	<0.00001	5.5	<0.00005	0.00023	0.0012	<0.001
16-Mar-06	399																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
23-Mar-06	406	2500	2455	8.02	341	134	<1	1.5	63.5	66	50.5	<0.5	<0.02	2.08	0.0179	0.00349	0.00036	0.042	<0.0002	<0.0005	<0.01	<0.00005
30-Mar-06	413	2500	2475	7.94	444	119																
6-Apr-06	420	2500	2495	7.93	454	138	<1	1.25	59.5	62	49.6	<0.5	<0.02	1.88	0.0217	0.00364	0.00039	0.043	<0.0002	<0.0005	<0.01	<0.00005
13-Apr-06	427	2500	2620	8.14	446	118																
20-Apr-06	434	2500	2490	7.96	441	124	<1	1.75	61	64	44	<0.5	<0.02	2.16	0.0215	0.00304	0.00036	0.0385	<0.0002	<0.0005	<0.01	<0.00005
27-Apr-06	441	2500	2460	8.03	343	115																
4-May-06	448	2500	2565	7.9	258	115	<1	2.56	59.8	65	48	<0.5	<0.02	2.5	0.0283	0.0041	0.00042	0.0413	<0.0002	<0.0005	<0.01	<0.00005
11-May-06	455	2500	2585	7.78	203	97																
18-May-06	462	2500	2550	7.8	264	100	<1	1.65	50.8	52	39.1	<0.5	<0.02	2.29	0.0307	0.00327	0.00033	0.0325	<0.0002	<0.0005	<0.01	<0.00005
25-May-06	469	2500	2455	8	194	110																
1-Jun-06	476	2500	2530	7.83	321	108	<1	1.85	54	54	45.1	<0.5	<0.02	1.56	0.0298	0.00301	0.00047	0.0384	<0.0002	<0.0005	<0.01	<0.00005
8-Jun-06	483	2500	2530	7.91	170	99																
15-Jun-06	490	2500	2420	7.77	307	99	<1	1.97	50.8	54	41.1	<0.5	<0.02	1.79	0.0266	0.00259	0.00033	0.0301	<0.0002	<0.0005	<0.01	<0.00005
22-Jun-06	497	2500	2500	7.91	183	100																
29-Jun-06	504	2500	2485	7.67	305	98	<1	2.70	53.1	52	45.2	<0.5	<0.02	2.47	0.0258	0.0036	0.00036	0.0325	<0.0002	<0.0005	<0.01	<0.00005

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
10-Feb-05	0	2500	2040	8.42	260	263	<1	<1	101.3	188	21.1	2.52	0.057	31.4	0.123	0.00484	0.0137	0.0195	<0.0002	<0.0005	0.398	<0.00005
17-Feb-05	7	2500	2330	8.57	294	250																
24-Feb-05	14	2500	2335	8.26	329	209	<1	<1	101	141	16.1	<0.5	0.17	9.29	0.139	0.00721	0.0113	0.0306	<0.0002	<0.0005	0.1	<0.00005
3-Mar-05	21	2500	2375	8.38	295	222																
10-Mar-05	28	2500	2370	8.45	320	213	<1	<1	114.3	134	21.8	<0.5	0.141	8.44	0.0691	0.0085	0.00557	0.0493	<0.0002	<0.0005	0.067	<0.00005
17-Mar-05	35	2500	2375	8.39	366	183																
24-Mar-05	42	2500	2365	8.41	369	182	<1	<1	95.8	108	21.9	<0.5	0.046	5.5	0.07	0.00584	0.00371	0.0467	<0.0002	<0.0005	0.04	<0.00005
31-Mar-05	49	2500	2380	8.37	382	198																
7-Apr-05	56	2500	2385	8.23	397	172	<1	<1	89.3	78	24.7	<0.5	0.072	5.2	0.0575	0.00583	0.00263	0.0596	<0.0002	<0.0005	0.032	<0.00005
14-Apr-05	63	2500	2390	8.35	371	181																
21-Apr-05	70	2500	2380	8.32	372	167	<1	<1	84.8	98	34	<0.5	0.051	4.92	0.0617	0.00466	0.00208	0.0673	<0.0002	<0.0005	0.029	<0.00005
28-Apr-05	77	2500	2385	8.28	398	159																
5-May-05	84	2500	2375	8.34	368	148	<1	<1	77.3	74	37.4	<0.5	0.049	5.35	0.0469	0.00375	0.00154	0.0935	<0.0002	<0.0005	0.021	<0.00005
12-May-05	91	2500	2370	8.27	351	154																
19-May-05	98	2500	2390	8.26	334	143	<1	<1	73.3	81	39.9	<0.5	0.03	5.21	0.0448	0.00428	0.00154	0.088	<0.0002	<0.0005	0.02	<0.00005
26-May-05	105	2500	2375	8.27	366	149																
2-Jun-05	112	2500	2375	8.27	343	141	<1	<1	71.5	78	39.7	<0.5	0.042	5.6	0.0404	0.00354	0.00125	0.0754	<0.0002	<0.0005	0.019	<0.00005
9-Jun-05	119	2500	2385	8.12	357	102																
16-Jun-05	126	2500	2370	8.33	337	149	<1	<1	77.5	82	50.2	<0.5	0.036	6.13	0.0345	0.00346	0.00114	0.0943	<0.0002	<0.0005	0.019	<0.00005
23-Jun-05	133	2500	2385	8.33	359	148																
30-Jun-05	140	2500	2355	8.3	272	144	<1	<1	76	83	47.2	<0.5	0.031	4.98	0.0291	0.00368	0.00121	0.0954	<0.0002	<0.0005	0.022	<0.00005
7-Jul-05	147	2500	2240	8.26	299	123																
14-Jul-05	154	2500	2310	8.28	271	120	<1	<1	63	62	45.7	<0.5	0.037	5.79	0.0315	0.00328	0.00103	0.0857	<0.0002	<0.0005	0.017	<0.00005
21-Jul-05	161	2500	2160	8.2	330	115																
28-Jul-05	168	2500	2150	8.29	282	129	<1	<1	72	76	47.2	<0.5	0.032	5.14	0.0267	0.00336	0.00088	0.0733	<0.0002	<0.0005	0.015	<0.00005
4-Aug-05	175	2500	2320	8.18	345	121																
11-Aug-05	182	2500	2270	8.38	323	139	<1	<1	75.8	86	57.5	<0.5	0.025	4.72	0.0224	0.00326	0.00083	0.104	<0.0002	<0.0005	0.014	<0.00005
18-Aug-05	189	2500	2305	8.27	337	129																
25-Aug-05	196	2500	2230	8.32	284	133	<1	<1	64	74	53.2	<0.5	0.028	4.36	0.024	0.00296	0.00058	0.0983	<0.0002	<0.0005	0.013	<0.00005
1-Sep-05	203	2500	2315	8.28	290	115																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Mar-06	406	15.3	<0.0005	<0.0001	0.00219	<0.03	0.000076	3	0.000348	<0.00001	0.000321	<0.0005	1.9	<0.001	1.17	0.00004	6.2	<0.00005	<0.0001	0.00114	<0.001
30-Mar-06	413																				
6-Apr-06	420	14.6	<0.0005	<0.0001	0.00365	<0.03	0.00113	3.17	0.000338	<0.00001	0.000297	<0.0005	2.16	<0.001	1.15	<0.00001	6.1	<0.00005	<0.0001	0.00136	0.0032
13-Apr-06	427																				
20-Apr-06	434	13	<0.0005	<0.0001	0.00169	<0.03	<0.00005	2.78	0.000235	<0.00001	0.000304	<0.0005	1.87	<0.001	1.1	<0.00001	3.8	<0.00005	<0.0001	0.00085	0.0012
27-Apr-06	441																				
4-May-06	448	14	<0.0005	<0.0001	0.00202	<0.03	0.000863	3.16	0.000317	<0.00001	0.000419	<0.0005	1.93	<0.001	1.11	<0.00001	4.1	<0.00005	0.00011	0.00135	0.0022
11-May-06	455																				
18-May-06	462	12	<0.0005	<0.0001	0.00118	<0.03	0.000455	2.2	0.000322	<0.00001	0.000331	<0.0005	1.51	<0.001	1.03	<0.00001	3.1	<0.00005	<0.0001	0.00108	<0.001
25-May-06	469																				
1-Jun-06	476	13.8	<0.0005	<0.0001	0.00246	<0.03	0.000193	2.59	0.000535	<0.00001	0.000296	<0.0005	1.75	<0.001	1.06	<0.00001	4	<0.00005	<0.0001	0.00139	0.0016
8-Jun-06	483																				
15-Jun-06	490	12.5	<0.0005	<0.0001	0.00075	<0.03	<0.00005	2.4	0.000375	<0.00001	0.000481	<0.0005	1.49	<0.001	0.97	<0.00001	3.1	<0.00005	<0.0001	0.00122	<0.001
22-Jun-06	497																				
29-Jun-06	504	13.6	<0.0005	<0.0001	0.00118	<0.03	<0.00005	2.75	0.000202	<0.00001	0.000396	<0.0005	1.57	<0.001	1.08	<0.00001	3.4	<0.00005	<0.0001	0.0013	<0.001

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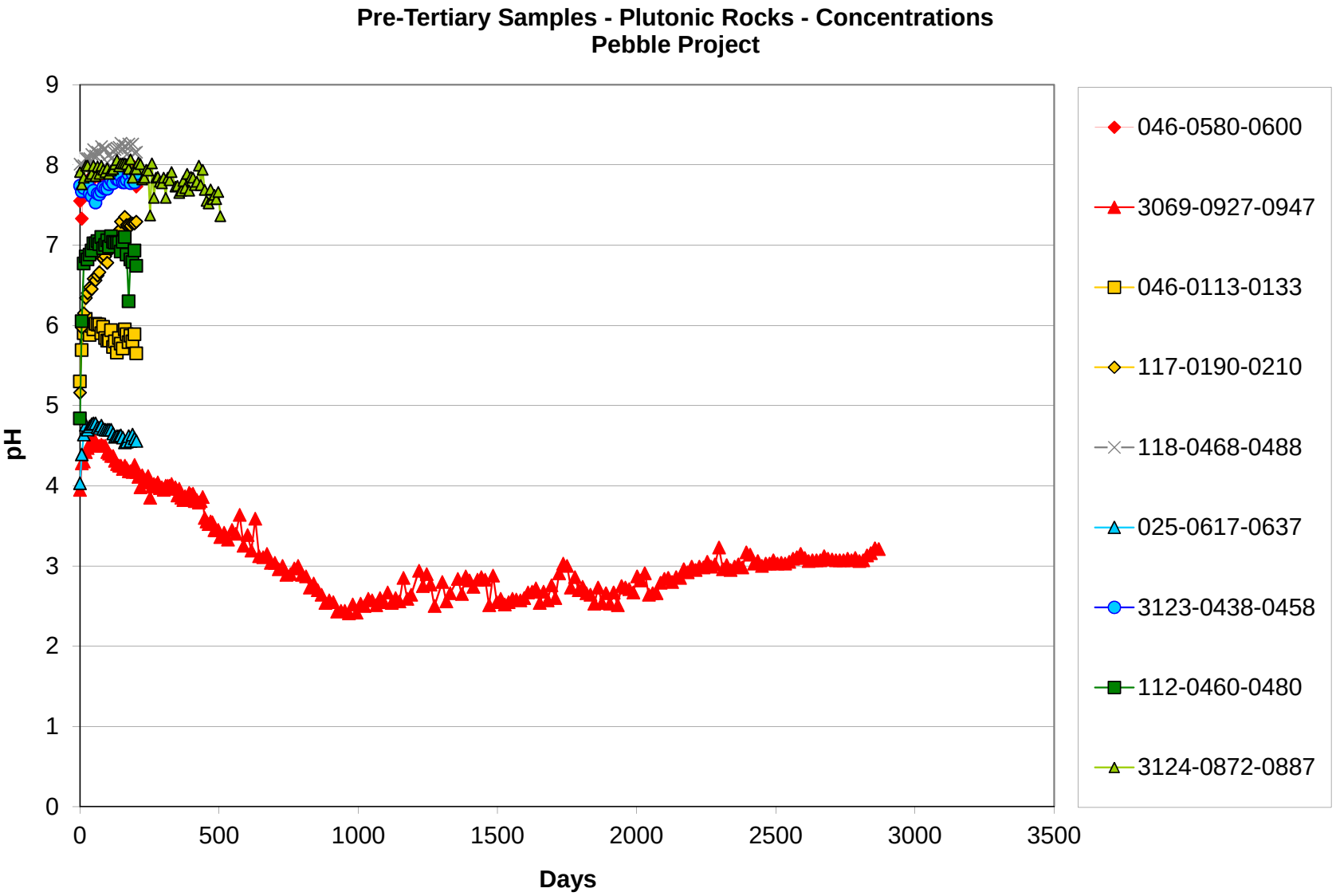
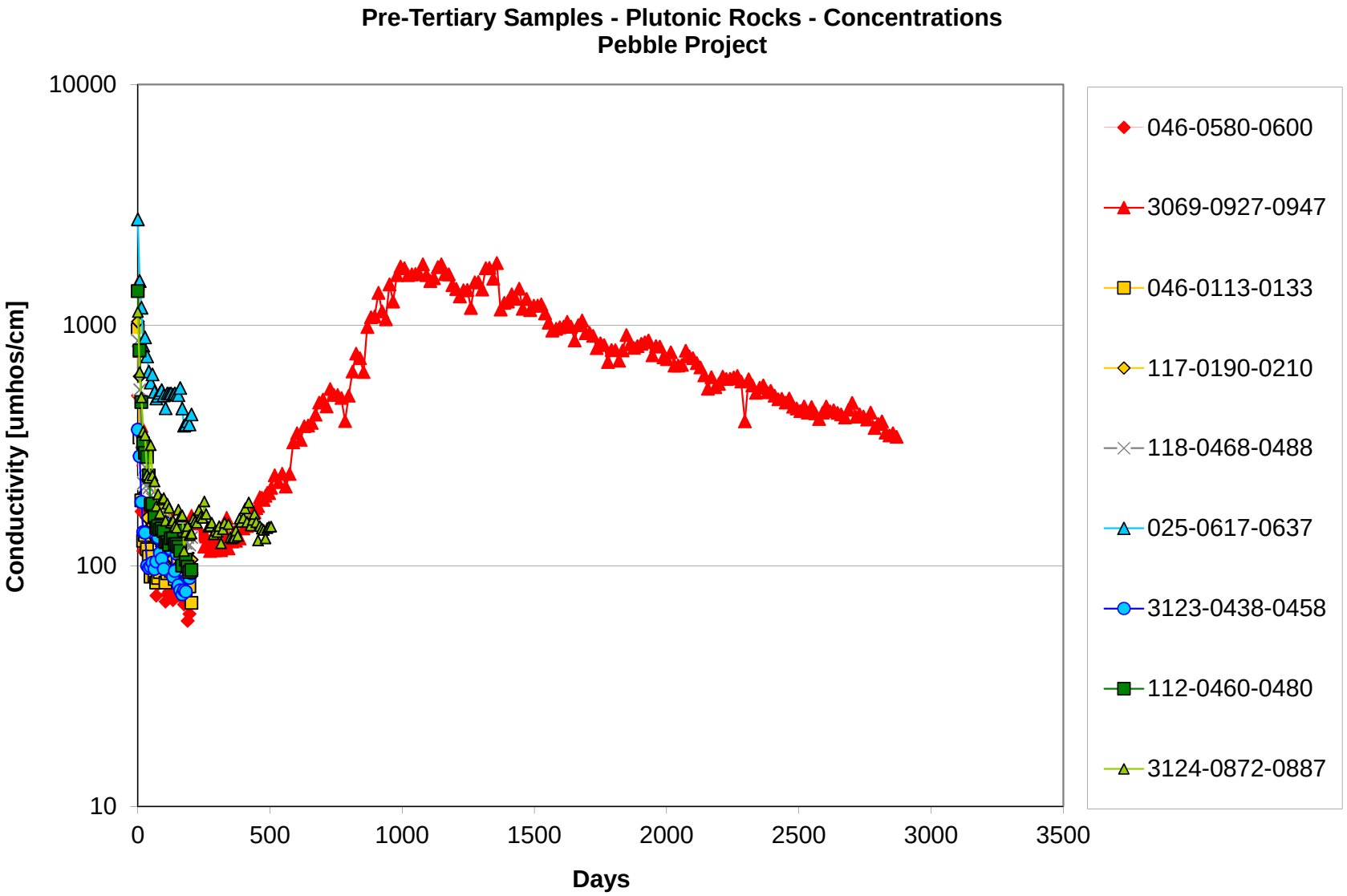
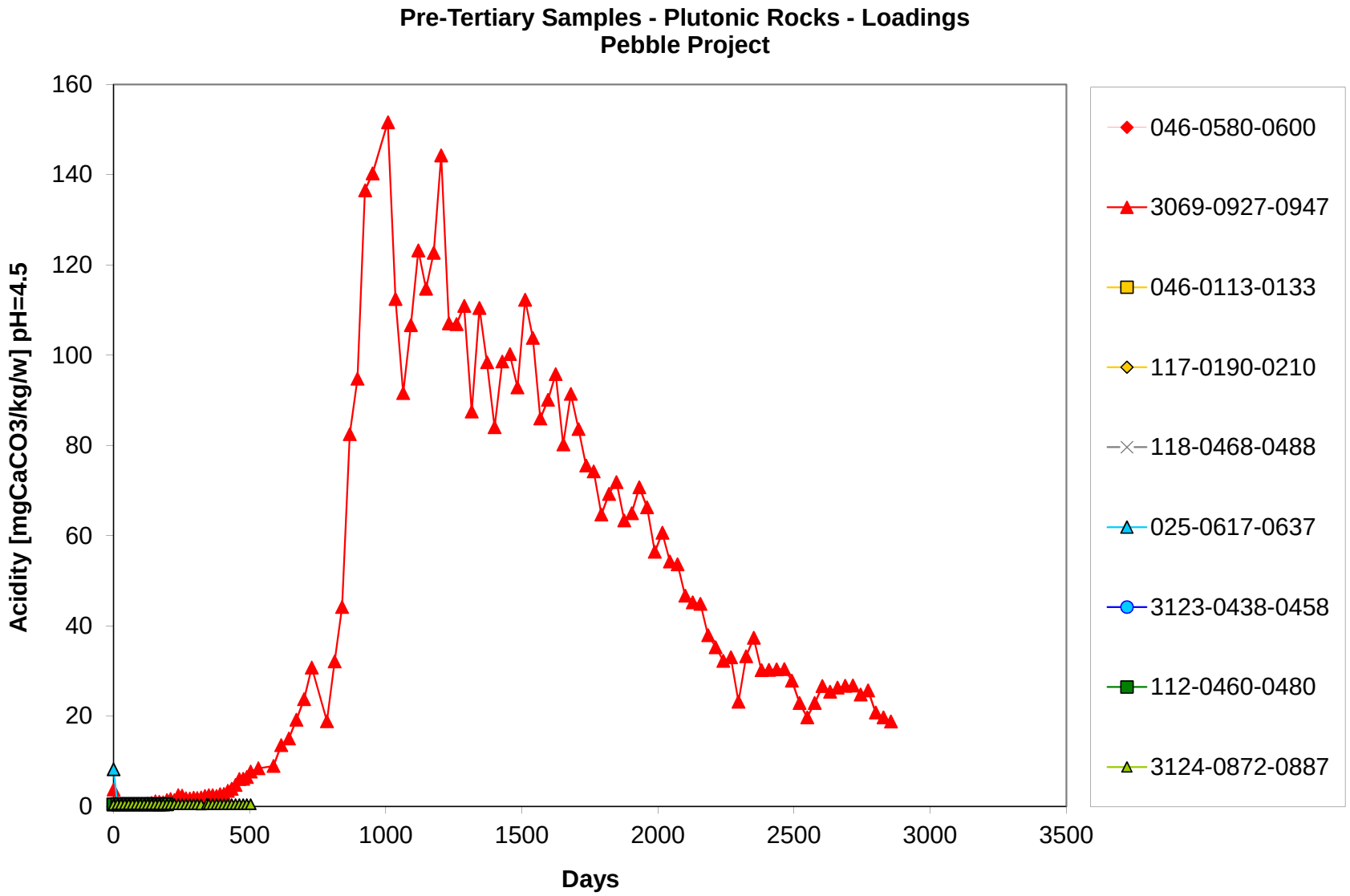
Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Feb-05	0	5.97	<0.0005	<0.0001	0.00355	<0.06	<0.00005	1.51	0.00303	<0.00001	0.0247	<0.0005	3.01	0.0021	1.8	<0.00001	53.5	<0.00005	0.00025	0.00813	<0.001
17-Feb-05	7																				
24-Feb-05	14	4.35	<0.0005	<0.0001	0.00322	<0.06	<0.00005	1.28	0.00255	<0.00001	0.0053	<0.0005	3.06	<0.001	2.14	<0.00001	49.3	<0.00005	<0.0001	0.00818	<0.001
3-Mar-05	21																				
10-Mar-05	28	5.85	<0.0005	<0.0001	0.00105	<0.06	<0.00005	1.76	0.00269	<0.00001	0.00328	<0.0005	3.59	<0.001	1.52	<0.00001	40.4	<0.00005	<0.0001	0.00439	<0.001
17-Mar-05	35																				
24-Mar-05	42	5.69	<0.0005	<0.0001	0.00126	<0.03	<0.00005	1.86	0.00356	<0.00001	0.00167	<0.0005	3.51	<0.001	1.42	<0.00001	30.9	<0.00005	<0.0001	0.00334	<0.001
31-Mar-05	49																				
7-Apr-05	56	6.35	<0.0005	<0.0001	0.00137	<0.03	0.000258	2.14	0.00272	<0.00001	0.00127	<0.0005	3.86	<0.001	1.5	<0.00001	27.4	<0.00005	<0.0001	0.00256	<0.001
14-Apr-05	63																				
21-Apr-05	70	9.09	<0.0005	<0.0001	0.00209	<0.03	<0.00005	2.75	0.00357	<0.00001	0.00119	<0.0005	4.09	<0.001	1.49	<0.00001	23.6	<0.00005	<0.0001	0.00202	<0.001
28-Apr-05	77																				
5-May-05	84	9.43	<0.0005	<0.0001	0.00148	<0.03	<0.00005	3.37	0.00285	<0.00001	0.000907	<0.0005	3.87	<0.001	1.4	<0.00001	18.3	<0.00005	<0.0001	0.00168	<0.001
12-May-05	91																				
19-May-05	98	10.2	<0.0005	<0.0001	0.00169	<0.03	<0.00005	3.51	0.00433	<0.00001	0.000856	<0.0005	4.83	<0.001	1.32	<0.00001	15.5	<0.00005	<0.0001	0.00152	<0.001
26-May-05	105																				
2-Jun-05	112	10.5	<0.0005	<0.0001	0.00306	<0.03	<0.00005	3.29	0.00402	<0.00001	0.000772	<0.0005	4.38	<0.001	1.36	<0.00001	11.8	<0.00005	<0.0001	0.0014	<0.001
9-Jun-05	119																				
16-Jun-05	126	12.7	<0.0005	<0.0001	0.00158	<0.03	<0.00005	4.47	0.00624	<0.00001	0.000917	<0.0005	4.77	<0.001	1.33	<0.00001	11.9	<0.00005	<0.0001	0.00116	0.0017
23-Jun-05	133																				
30-Jun-05	140	11.7	<0.0005	<0.0001	0.00171	<0.03	<0.00005	4.35	0.00411	<0.00001	0.000765	<0.0005	5.13	<0.001	1.45	<0.00001	11.1	<0.00005	<0.0001	0.00138	0.0016
7-Jul-05	147																				
14-Jul-05	154	11.8	<0.0005	<0.0001	0.00226	<0.03	<0.00005	3.95	0.00336	<0.00001	0.000785	<0.0005	4.66	<0.001	1.18	<0.00001	7.6	<0.00005	<0.0001	0.00125	<0.001
21-Jul-05	161																				
28-Jul-05	168	12.6	<0.0005	<0.0001	0.00149	<0.03	0.000051	3.8	0.00343	<0.00001	0.000635	<0.0005	4.34	<0.001	1.27	<0.00001	8.3	<0.00005	0.0001	0.00098	0.002
4-Aug-05	175																				
11-Aug-05	182	14.8	<0.0005	<0.0001	0.00273	<0.03	<0.00005	4.96	0.00308	<0.00001	0.000561	<0.0005	4.92	<0.001	1.22	<0.00001	7	<0.00005	<0.0001	0.00089	<0.001
18-Aug-05	189																				
25-Aug-05	196	13.6	<0.0005	<0.0001	0.00202	<0.03	<0.00005	4.63	0.00301	<0.00001	0.000461	<0.0005	4.22	<0.001	1.08	<0.00001	5.6	<0.00005	<0.0001	0.00072	<0.001
1-Sep-05	203																				

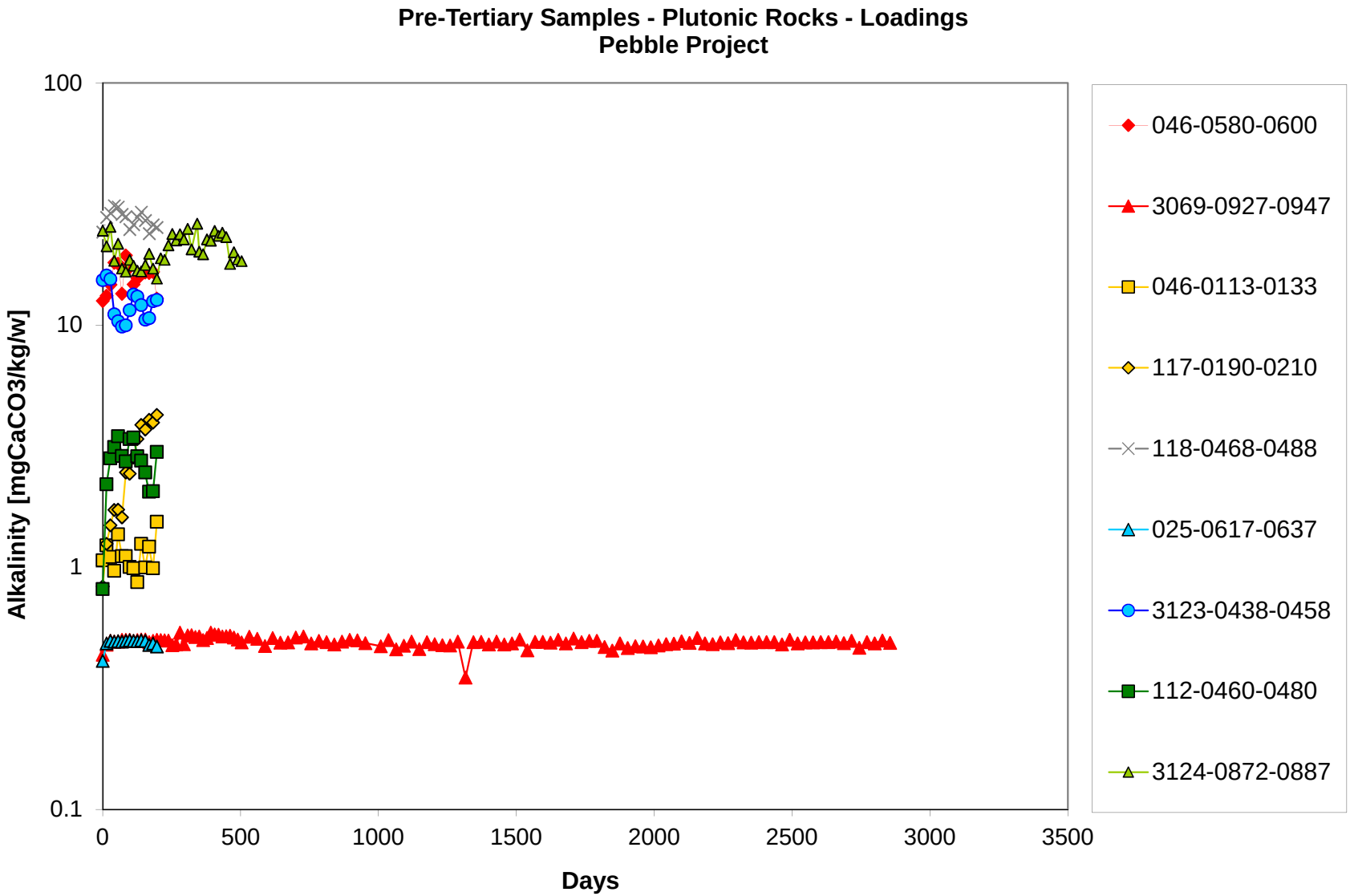
Appendix 11E, Loading Trend Charts for Humidity Cell Tests on Waste Rock


Pre-Tertiary Samples - Plutonic Rocks - Concentrations
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
0
500
1000
1500
2000
2500
3000
3500
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

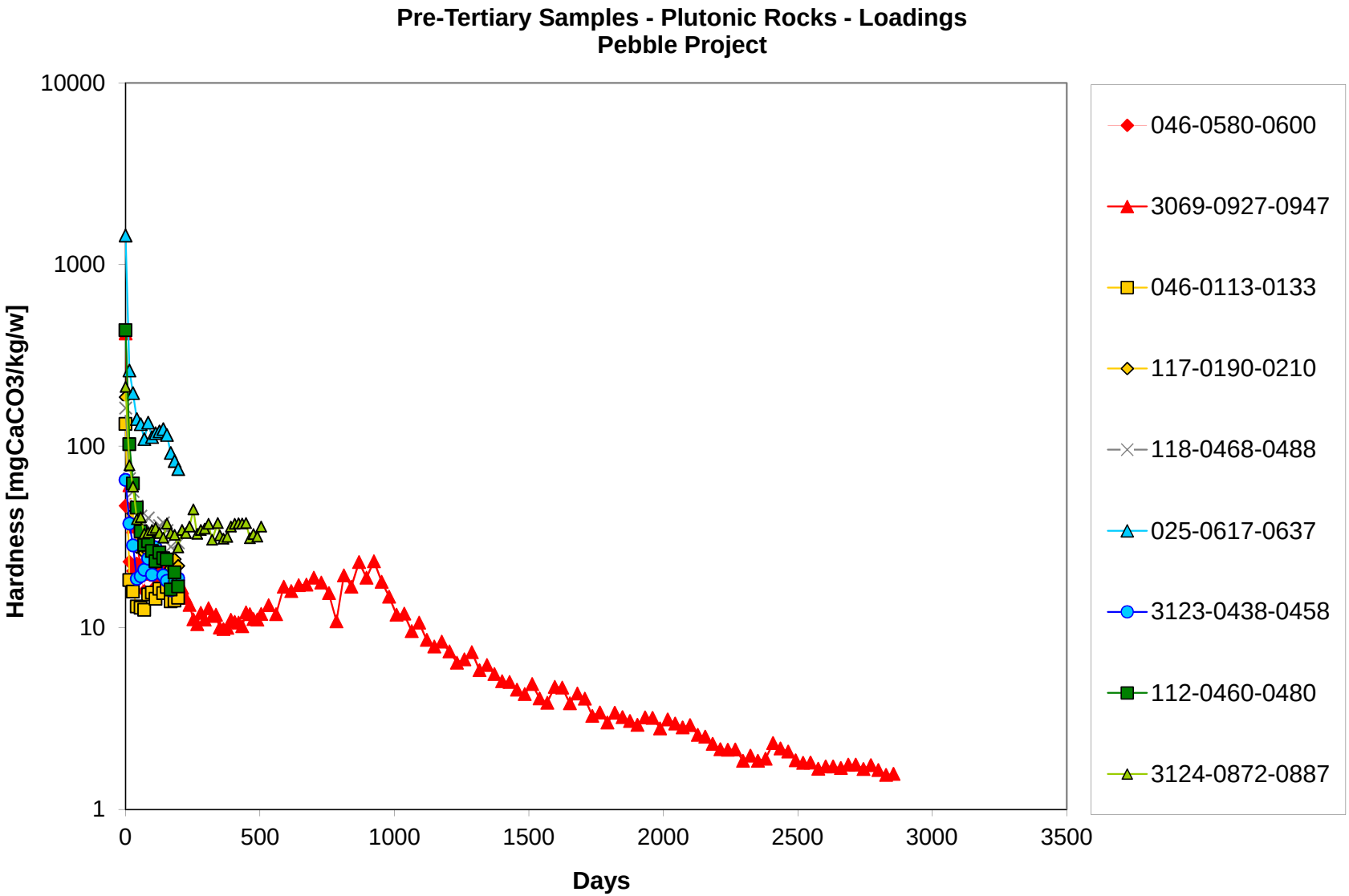

Pre-Tertiary Samples - Plutonic Rocks - Concentrations
Pebble Project
Conductivity [umhos/cm]
10000
1000
100
10
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

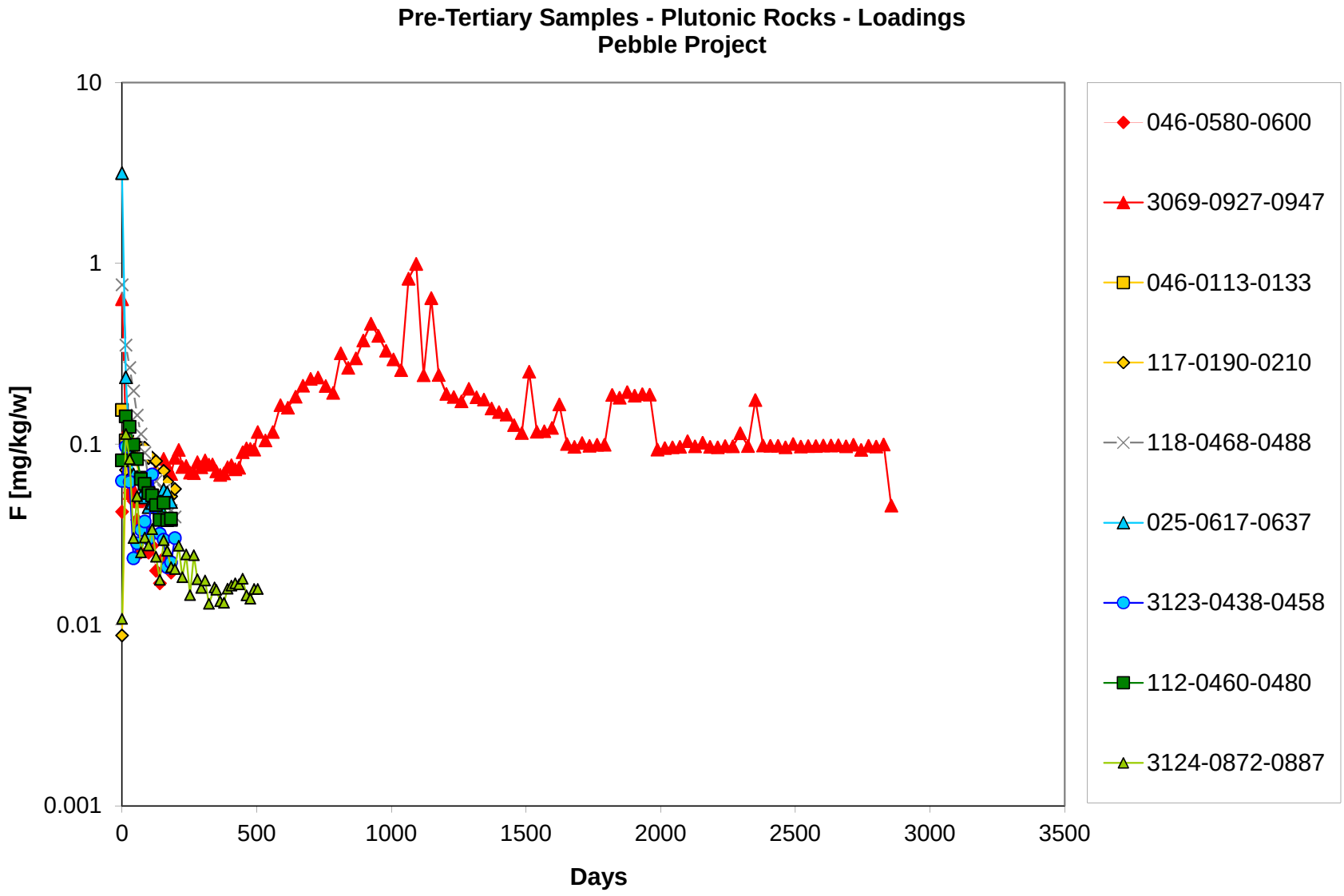

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=4.5
Days
0
20
40
60
80
100
120
140
160
0
500
1000
1500
2000
2500
3000
3500
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

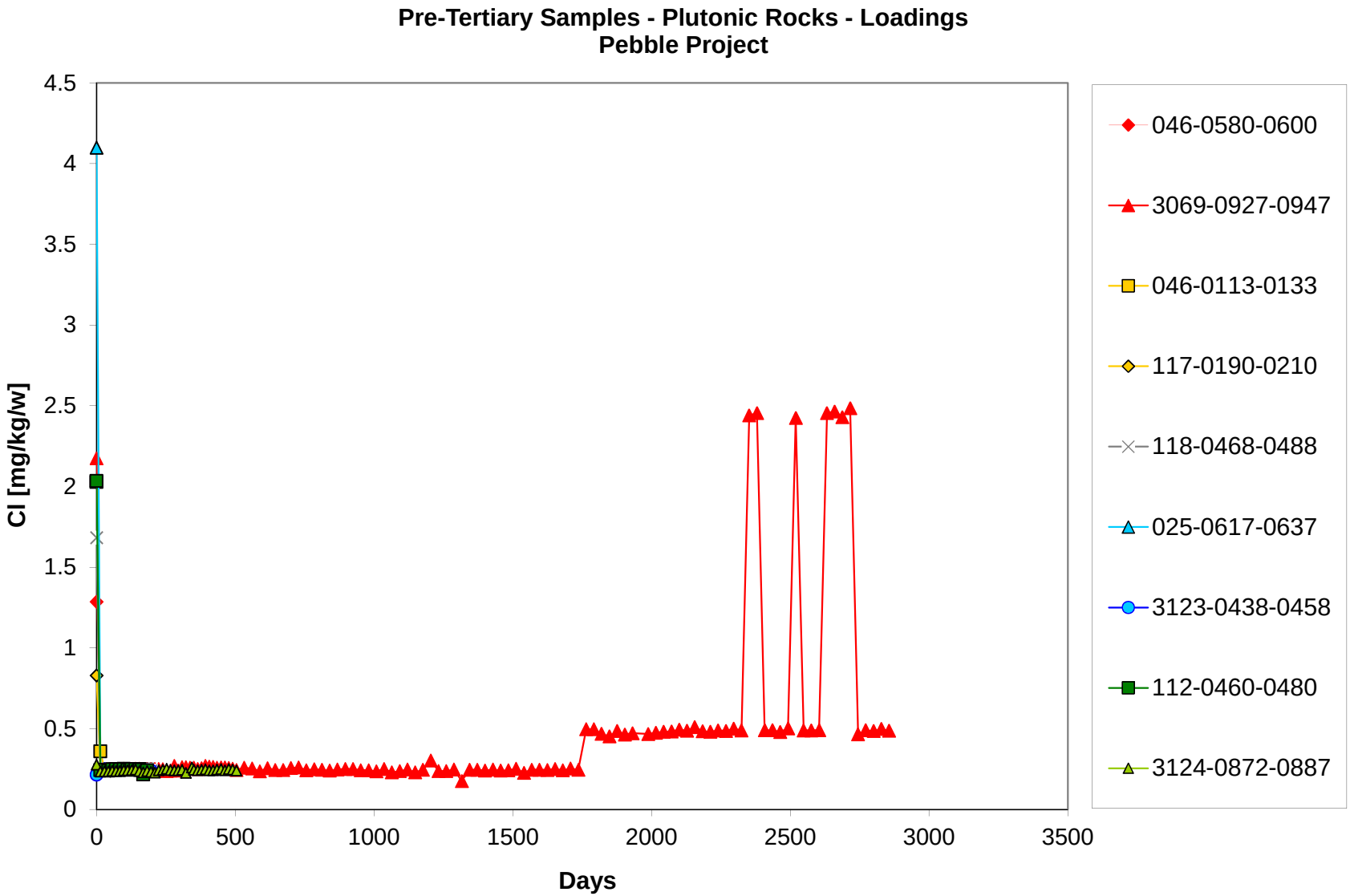

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=8.3
1000
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887


Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Alkalinity [mgCaCO3/kg/w]
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

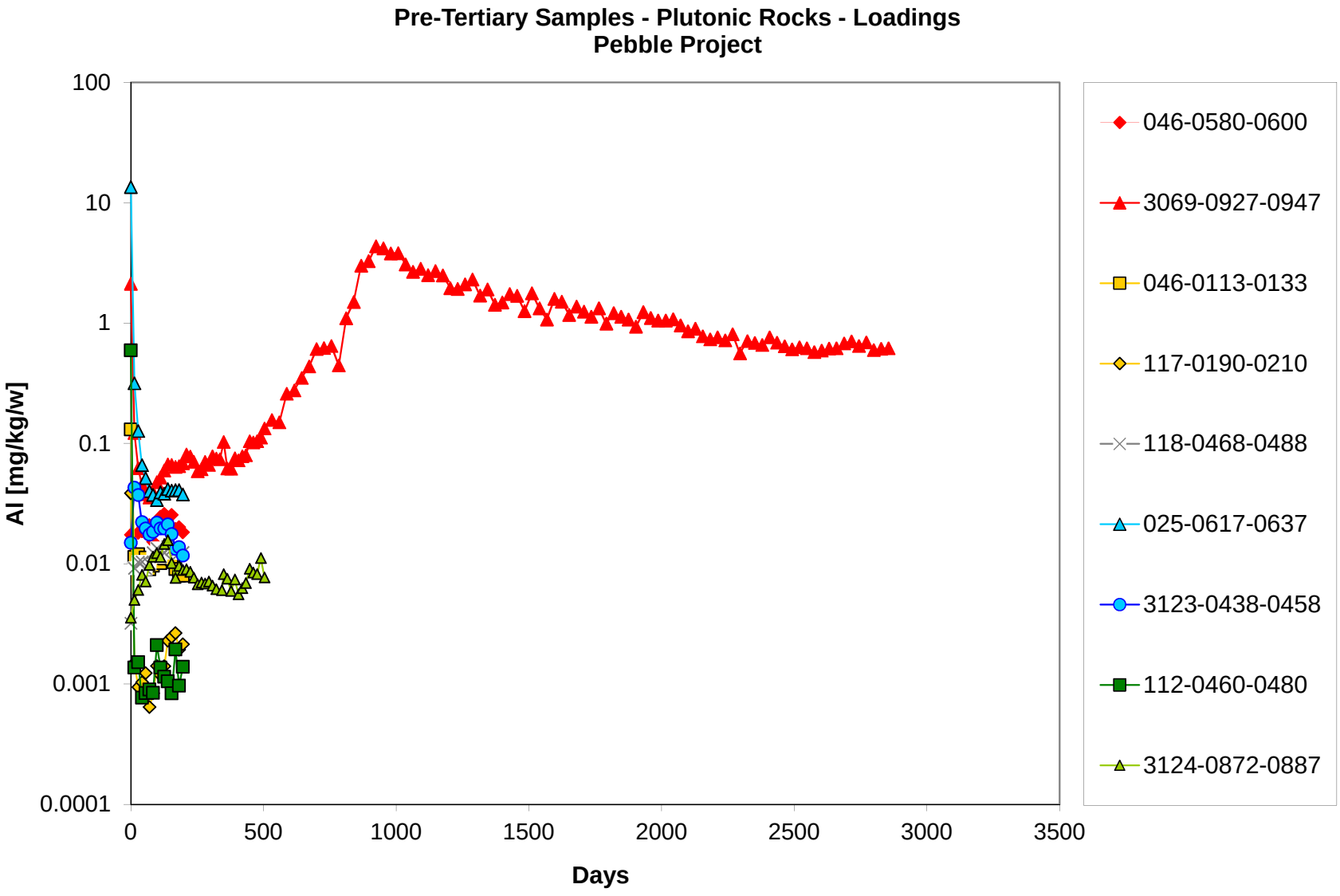

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Total Dissolved Solids [mg/kg/w]
10000
1000
100
10
1
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

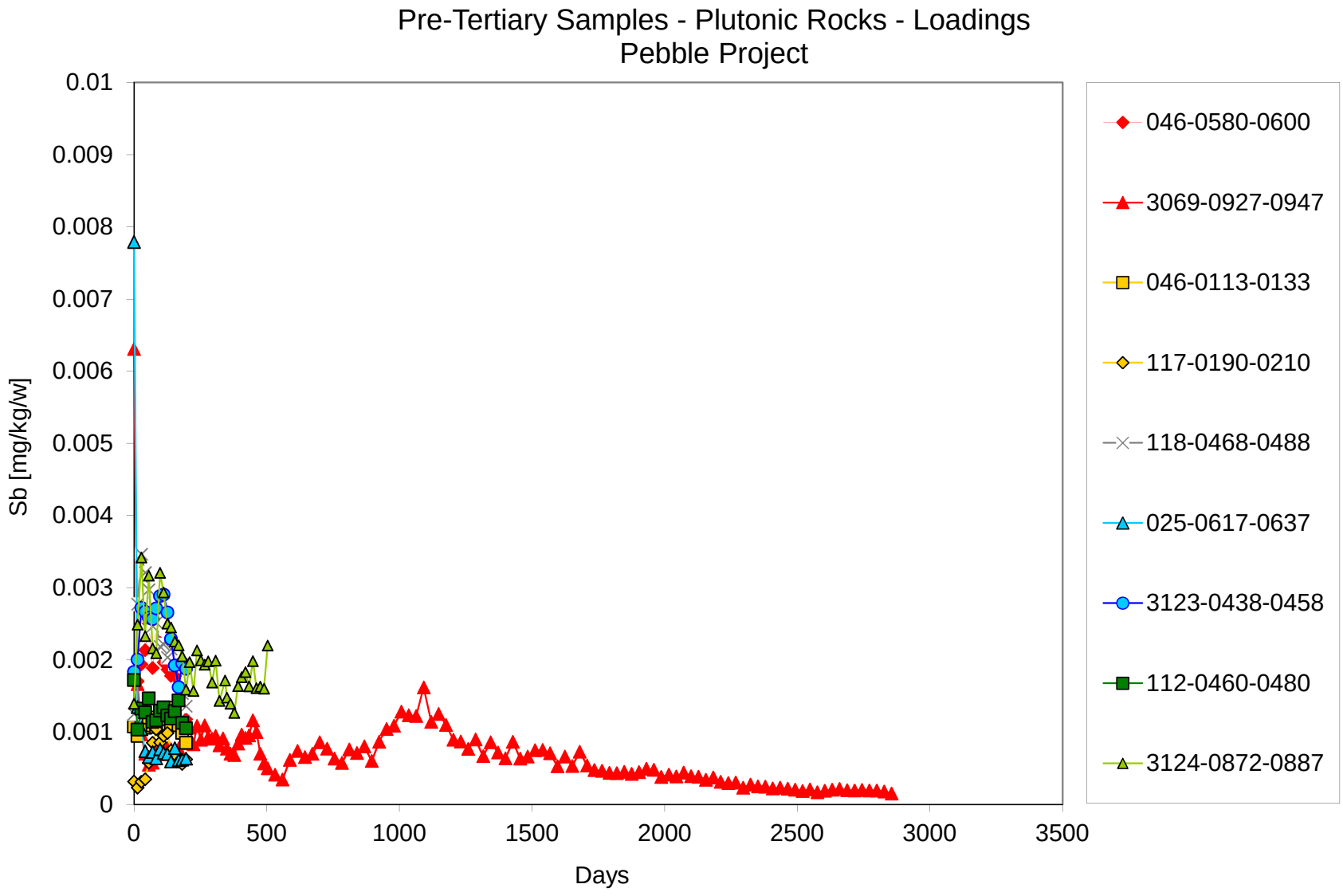

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Hardness [mgCaCO3/kg/w]
10000
1000
100
10
1
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

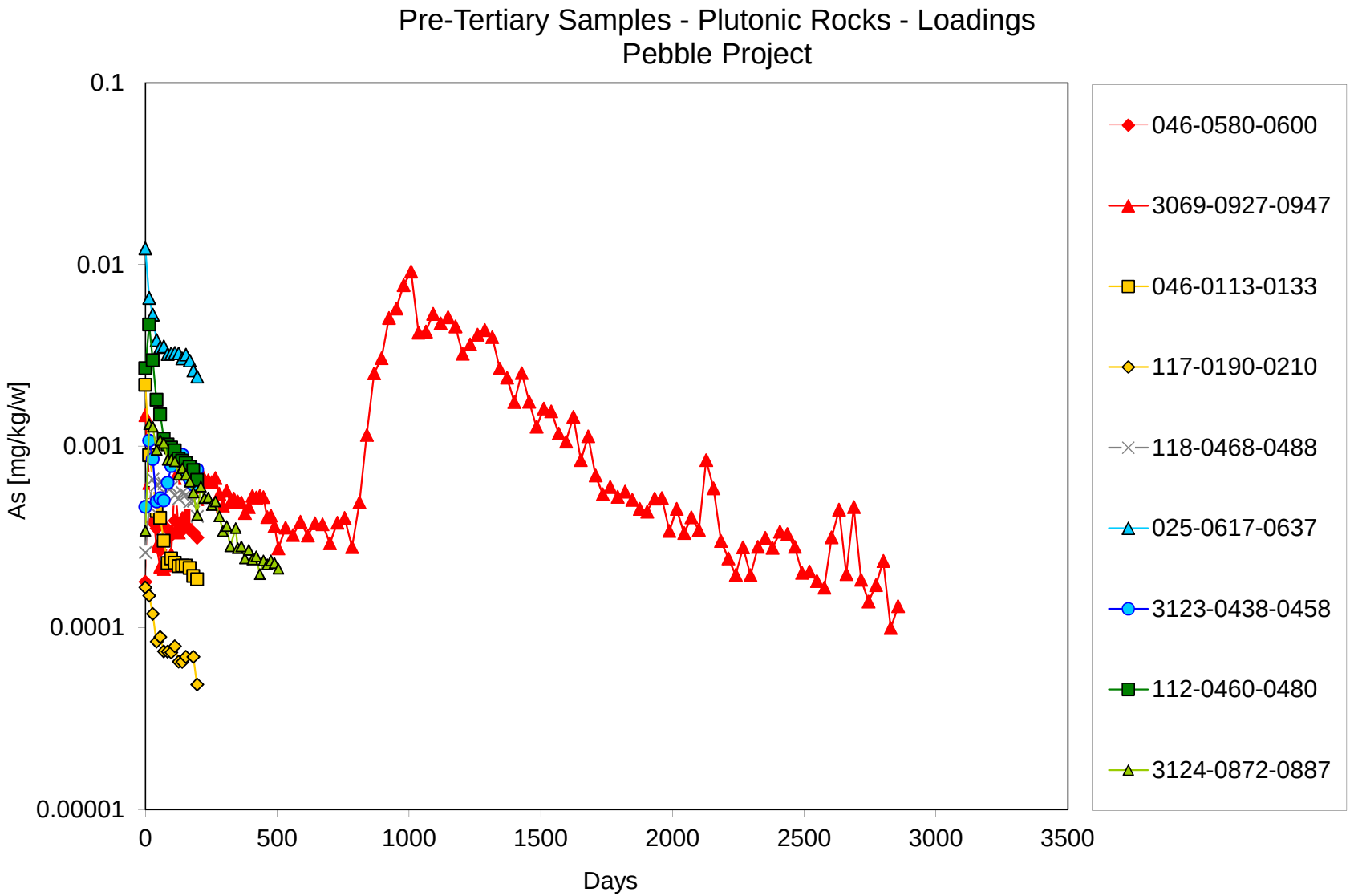

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
F [mg/kg/w]
10
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

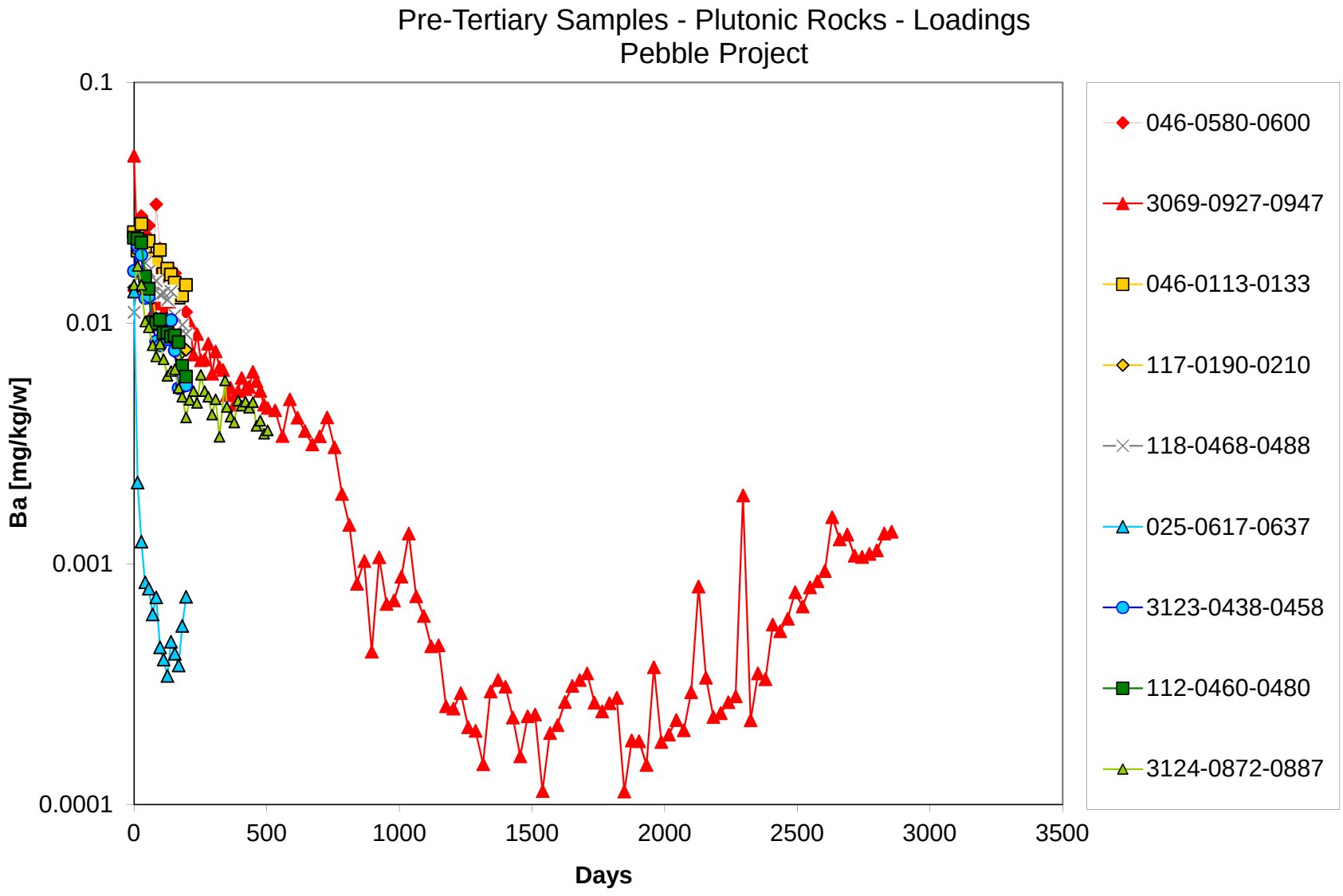

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Cl [mg/kg/w]
Days
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
0
500
1000
1500
2000
2500
3000
3500
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

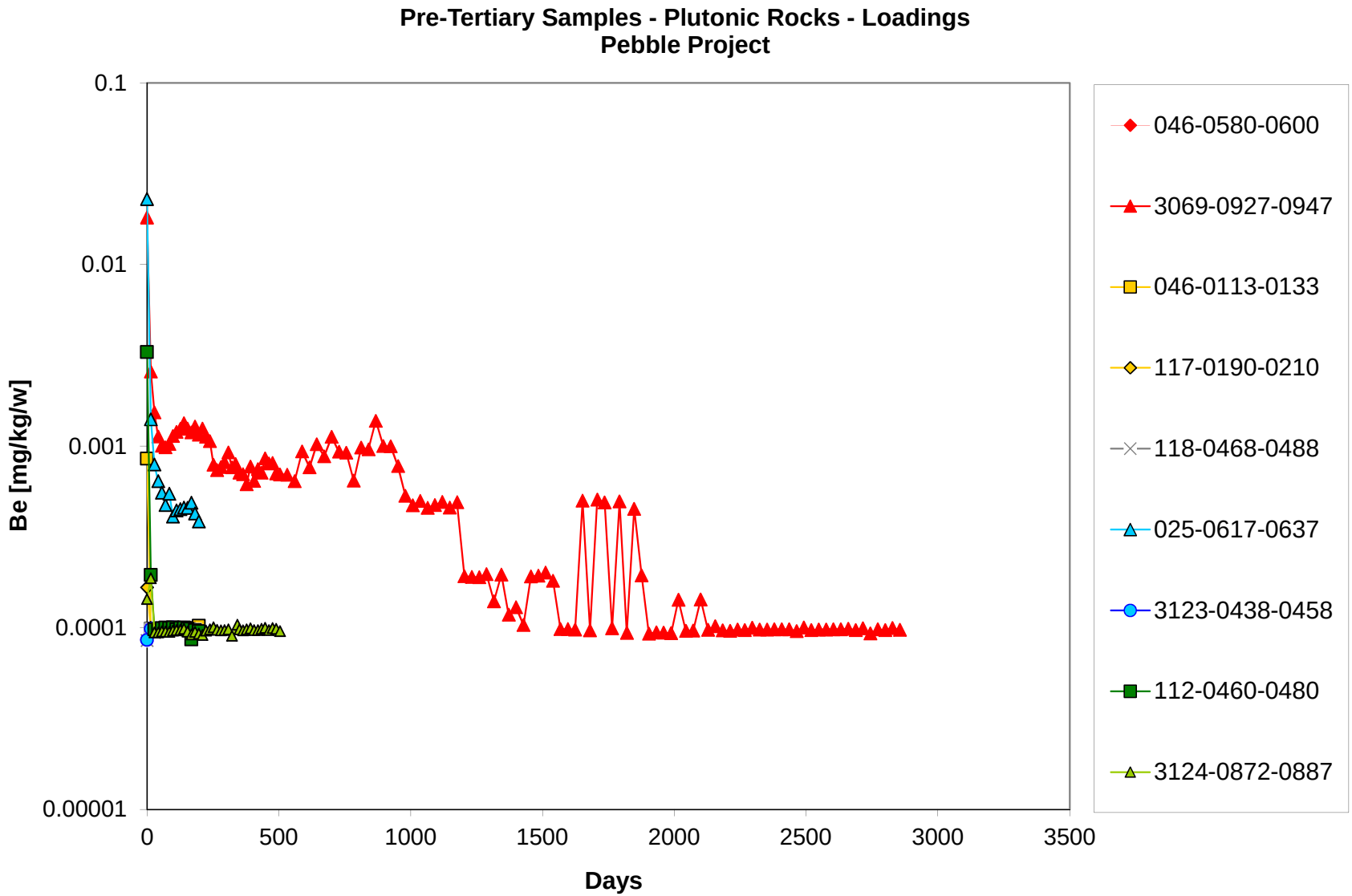

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
10000
1000
100
10
1
SO4 [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

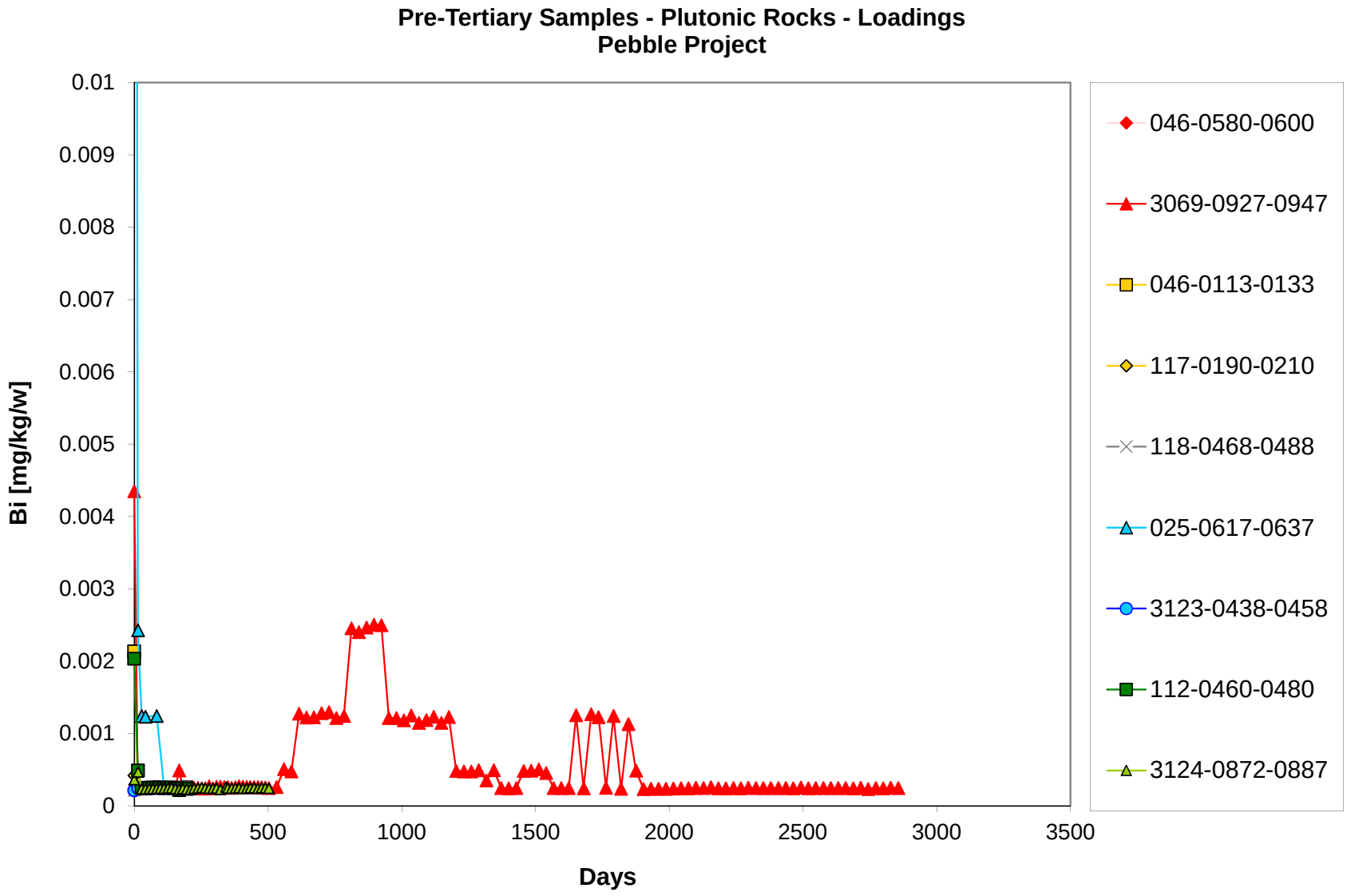

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Al [mg/kg/w]
100
10
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

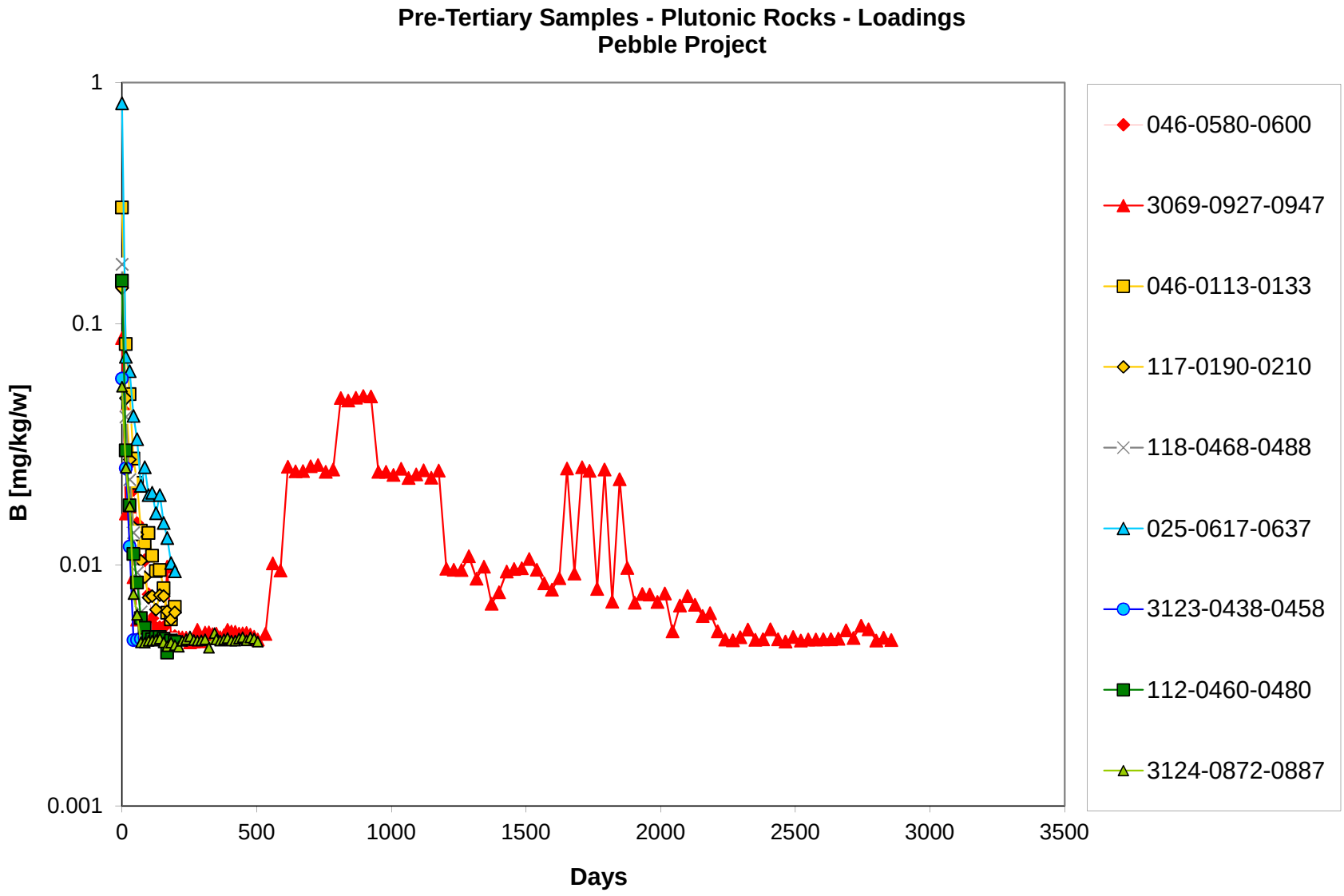

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Sb [mg/kg/w]
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

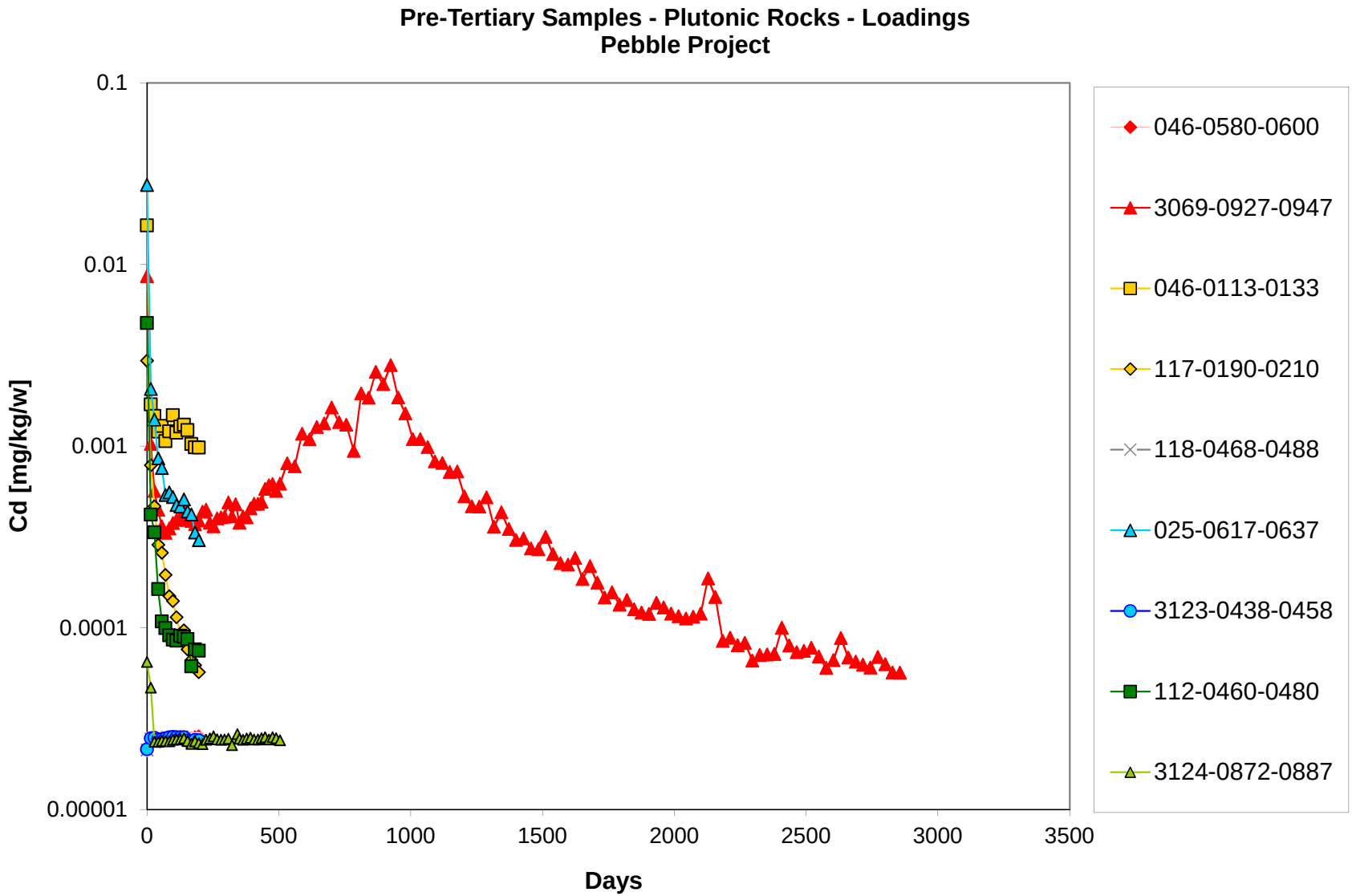

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
As [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887


Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Ba [mg/kg/w]
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

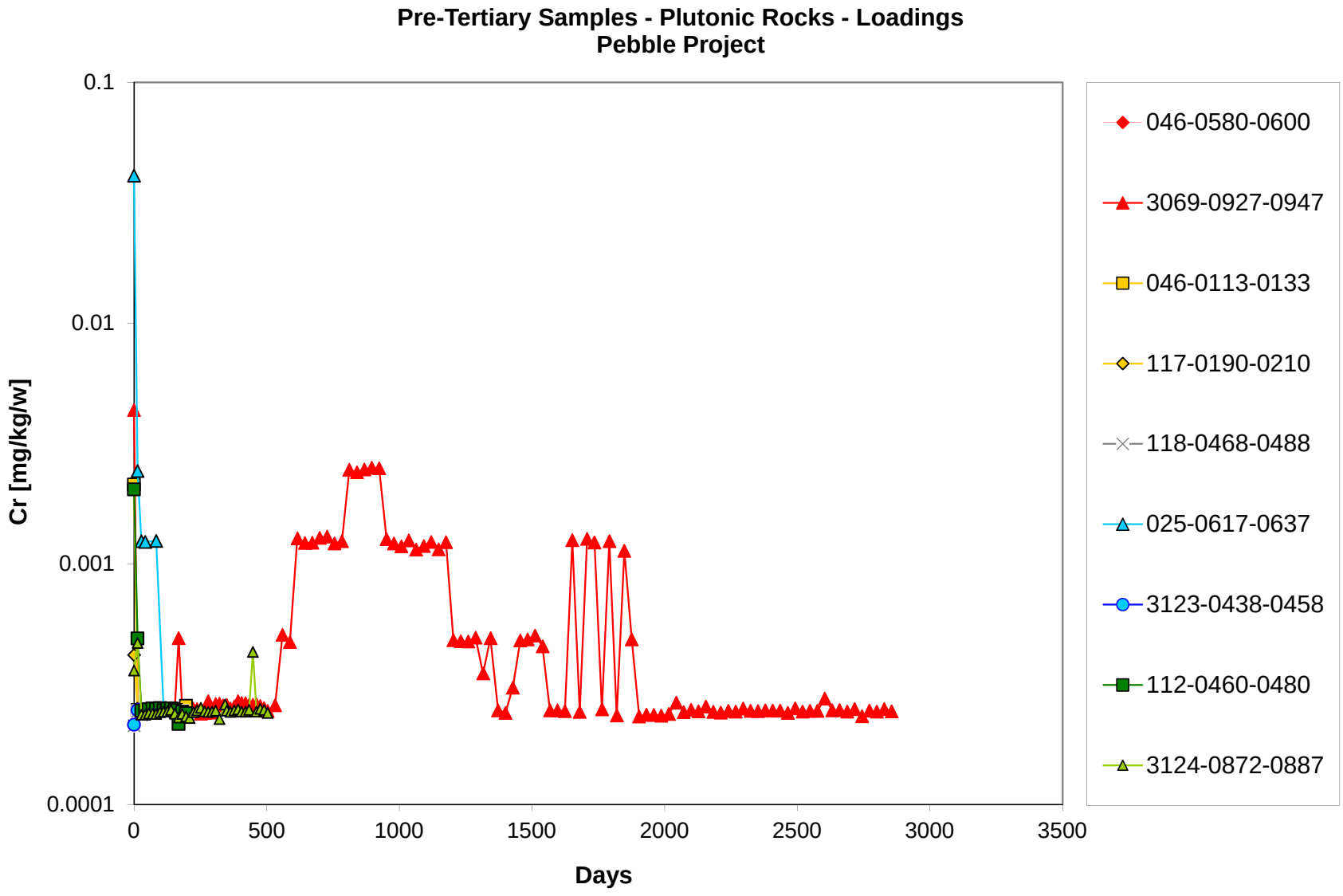

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Be [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887


Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Bi [mg/kg/w]
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

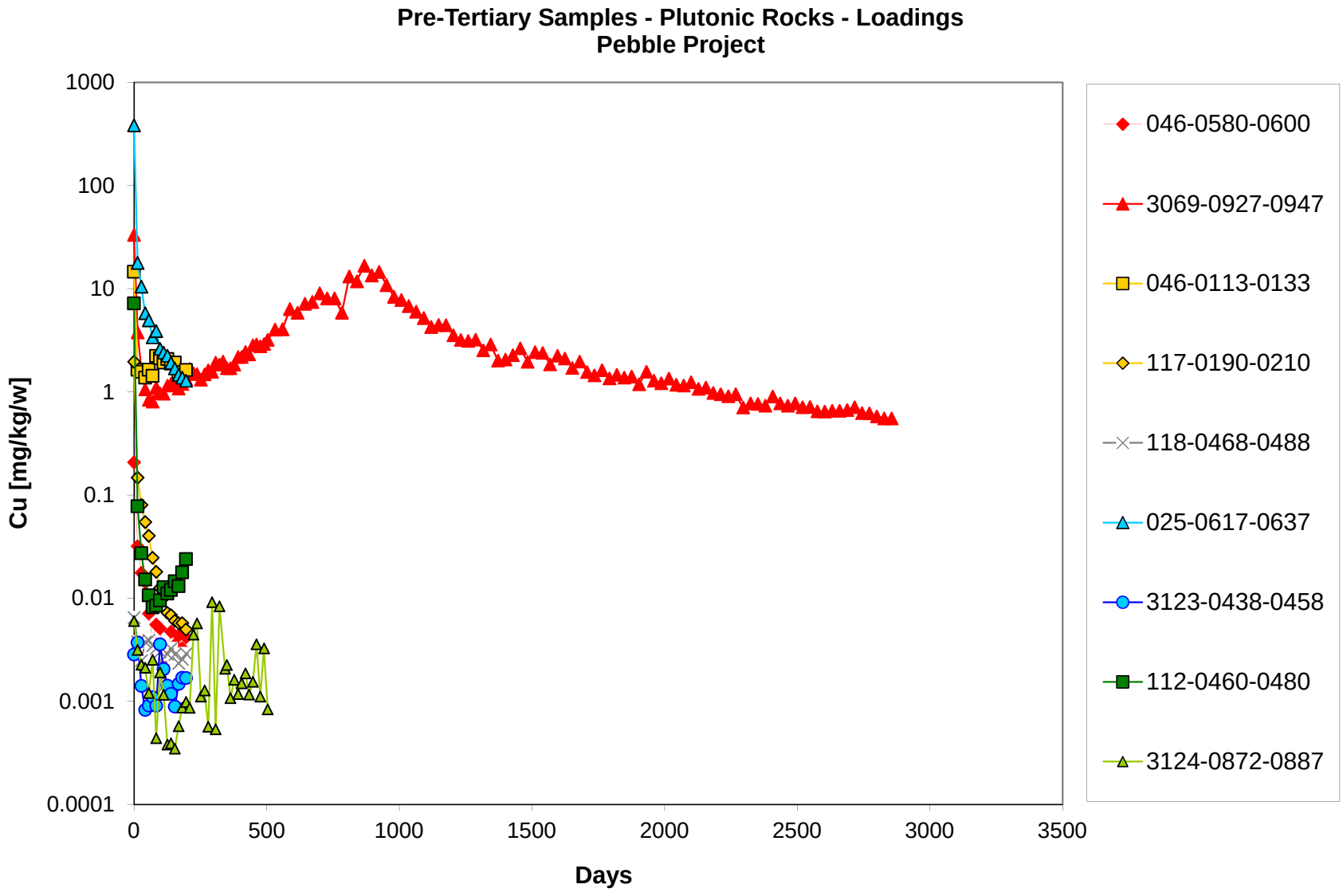

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
B [mg/kg/w]
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887


Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Cd [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

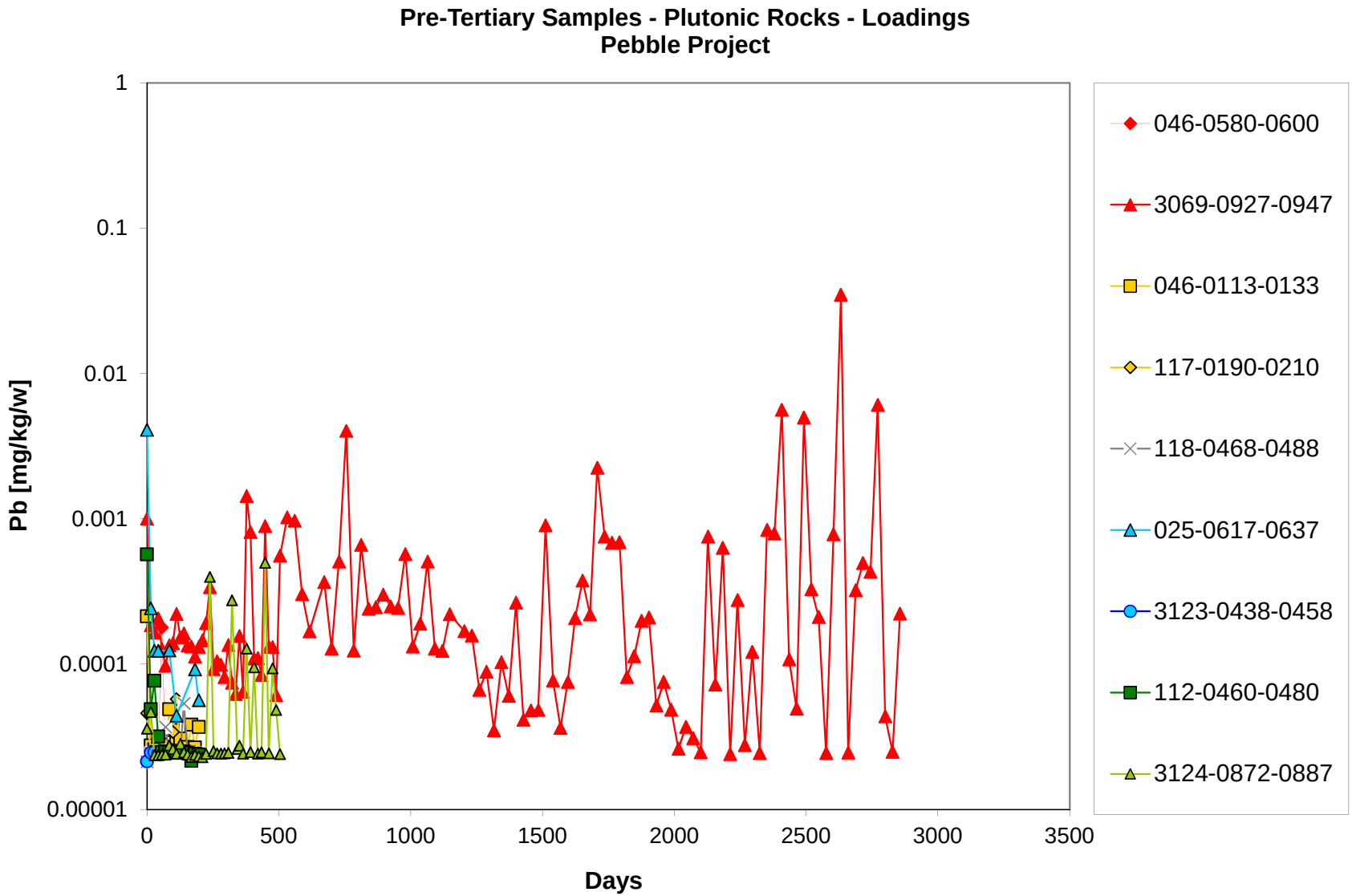

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Ca [mg/kg/w]
1000
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887


Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Cr [mg/kg/w]
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

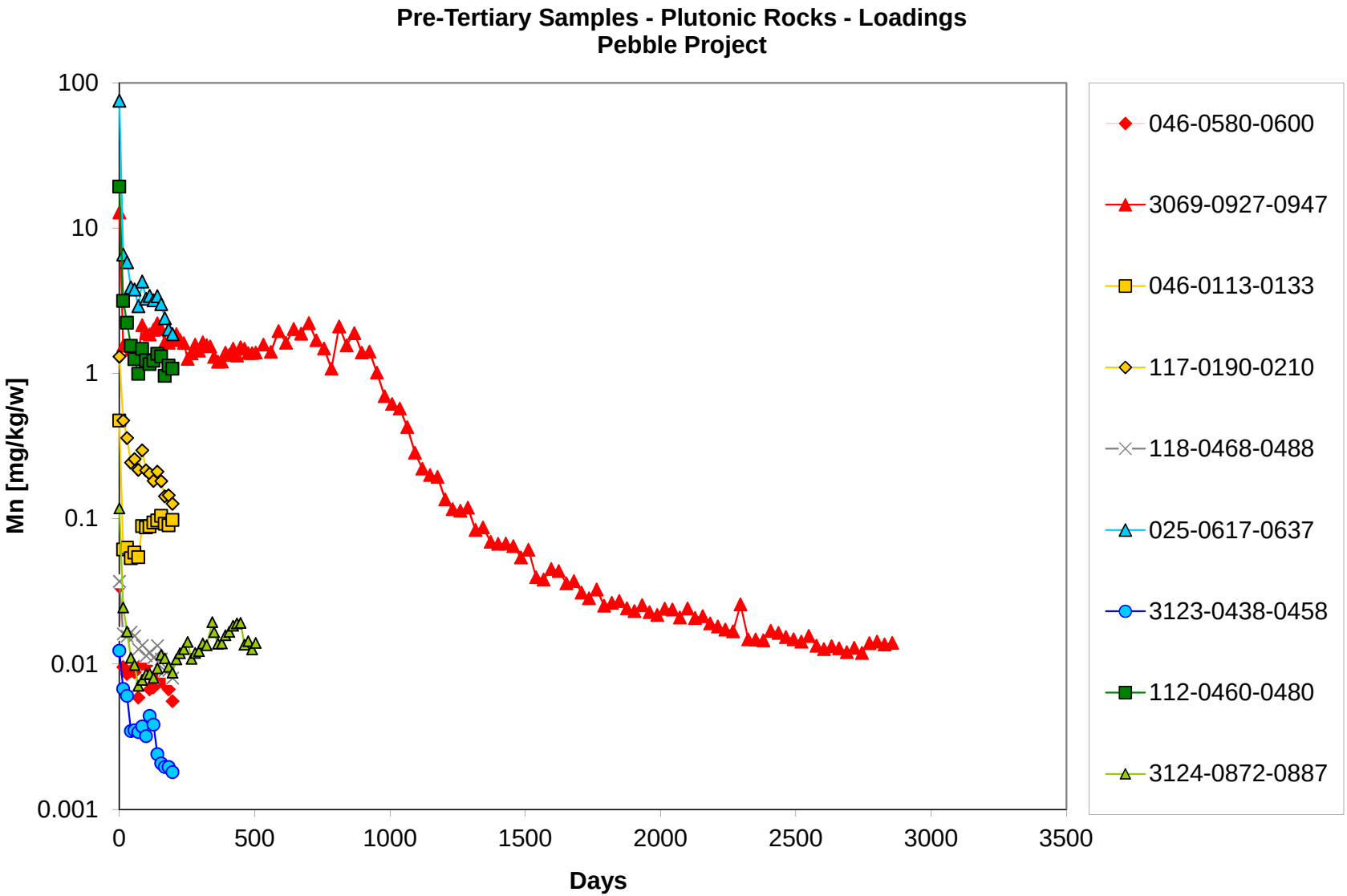

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Co [mg/kg/w]
10
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

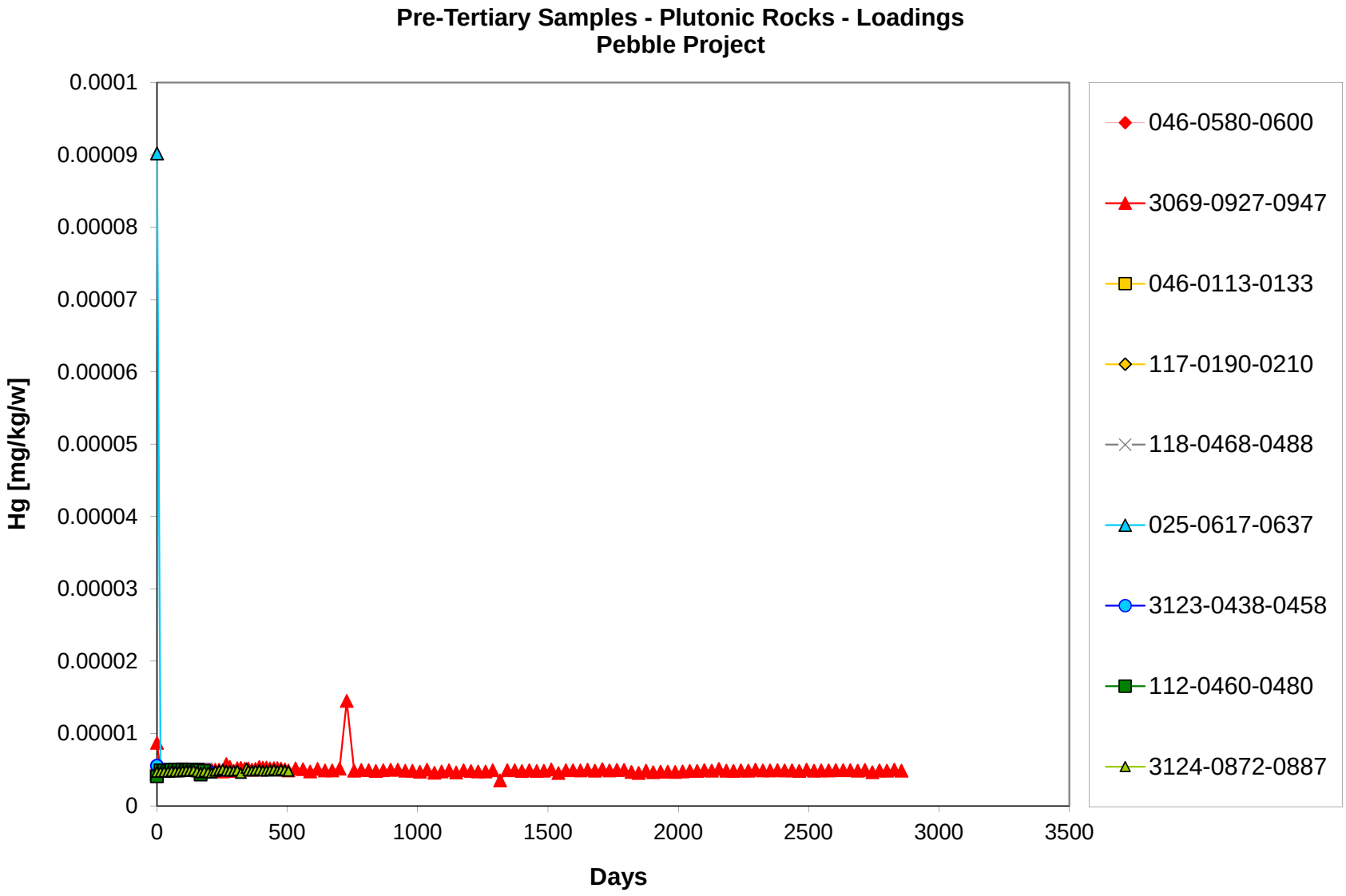

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Cu [mg/kg/w]
1000
100
10
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

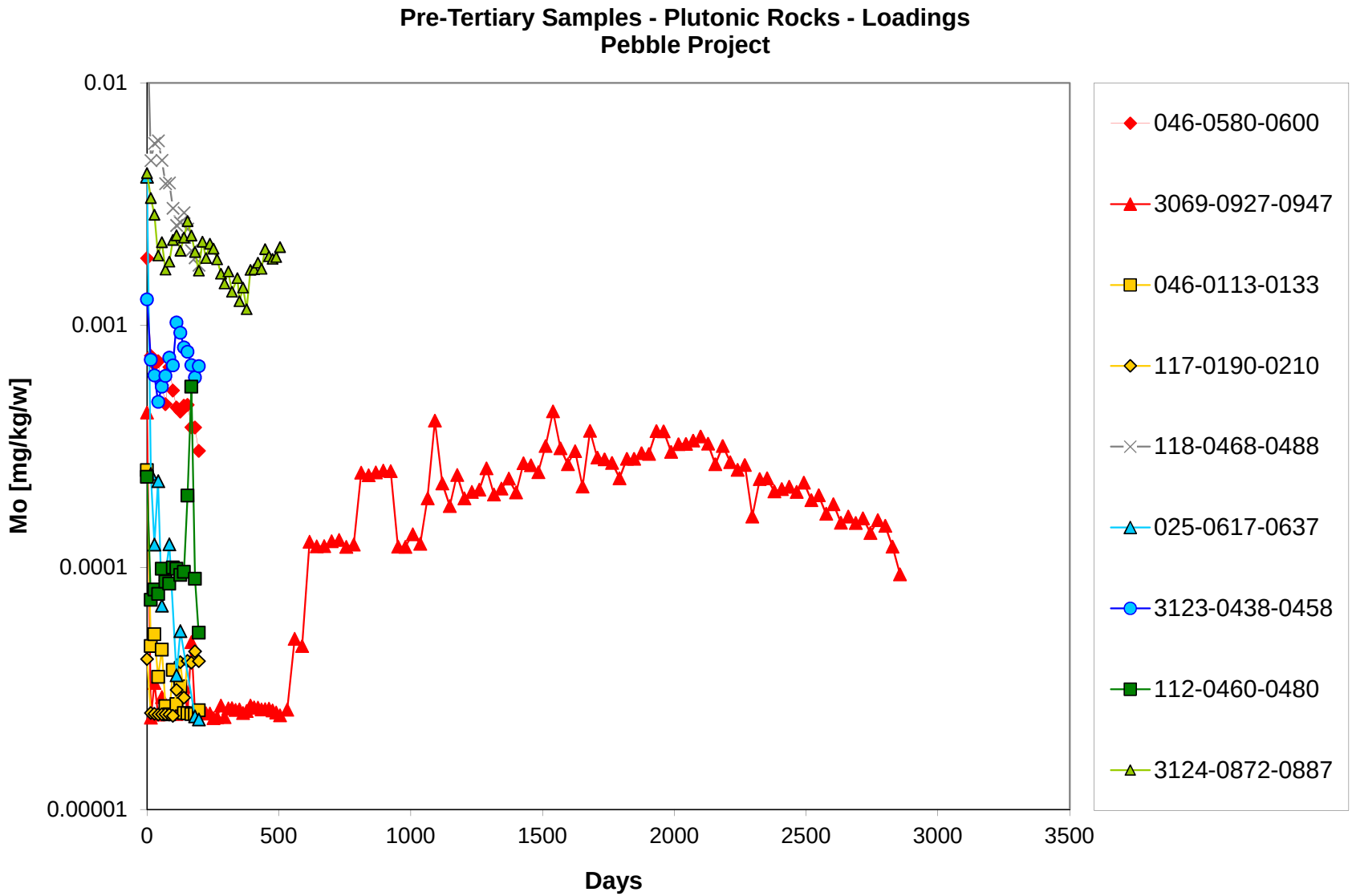

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Fe [mg/kg/w]
100
10
1
0.1
0.01
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

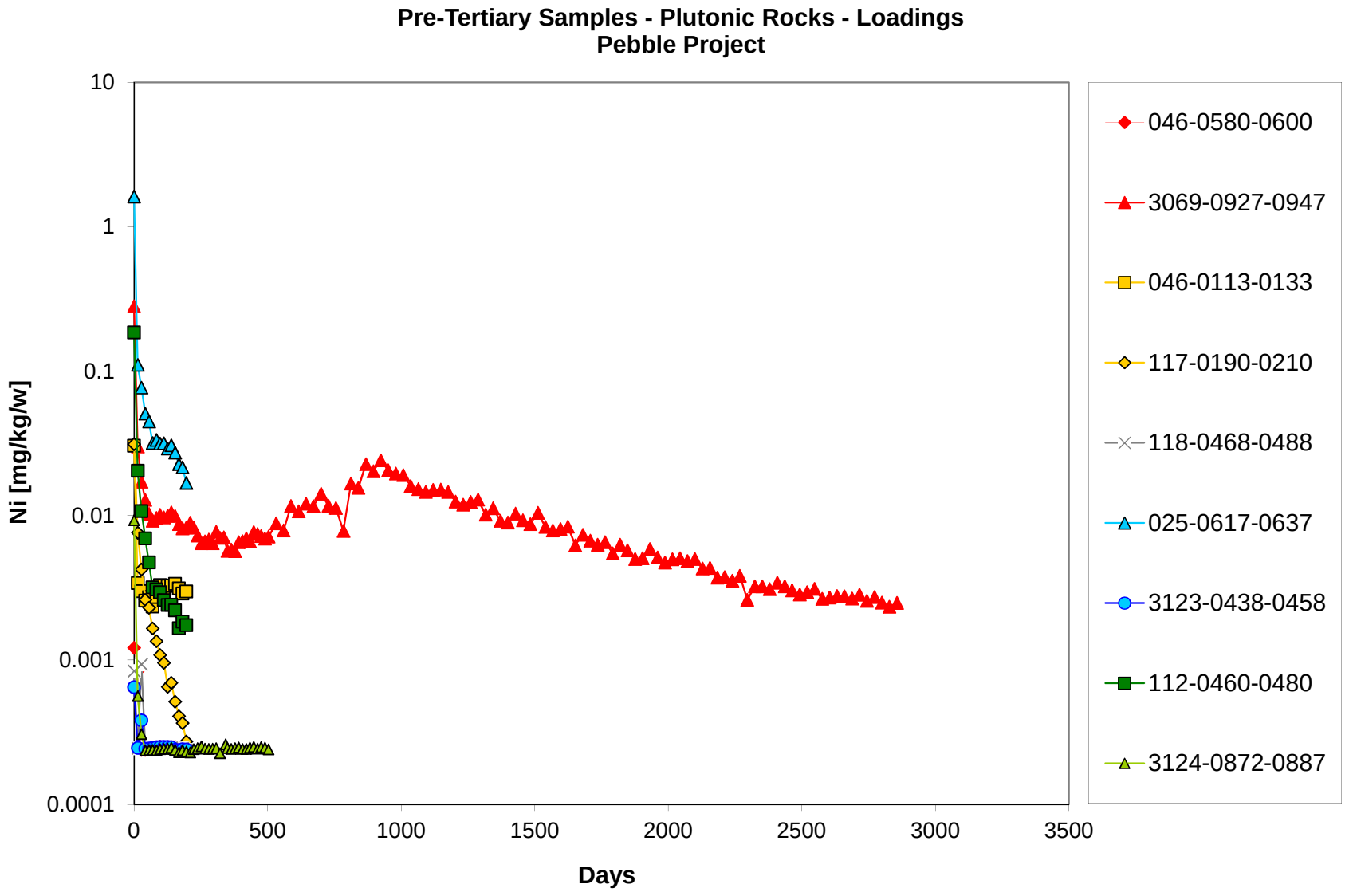

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Pb [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

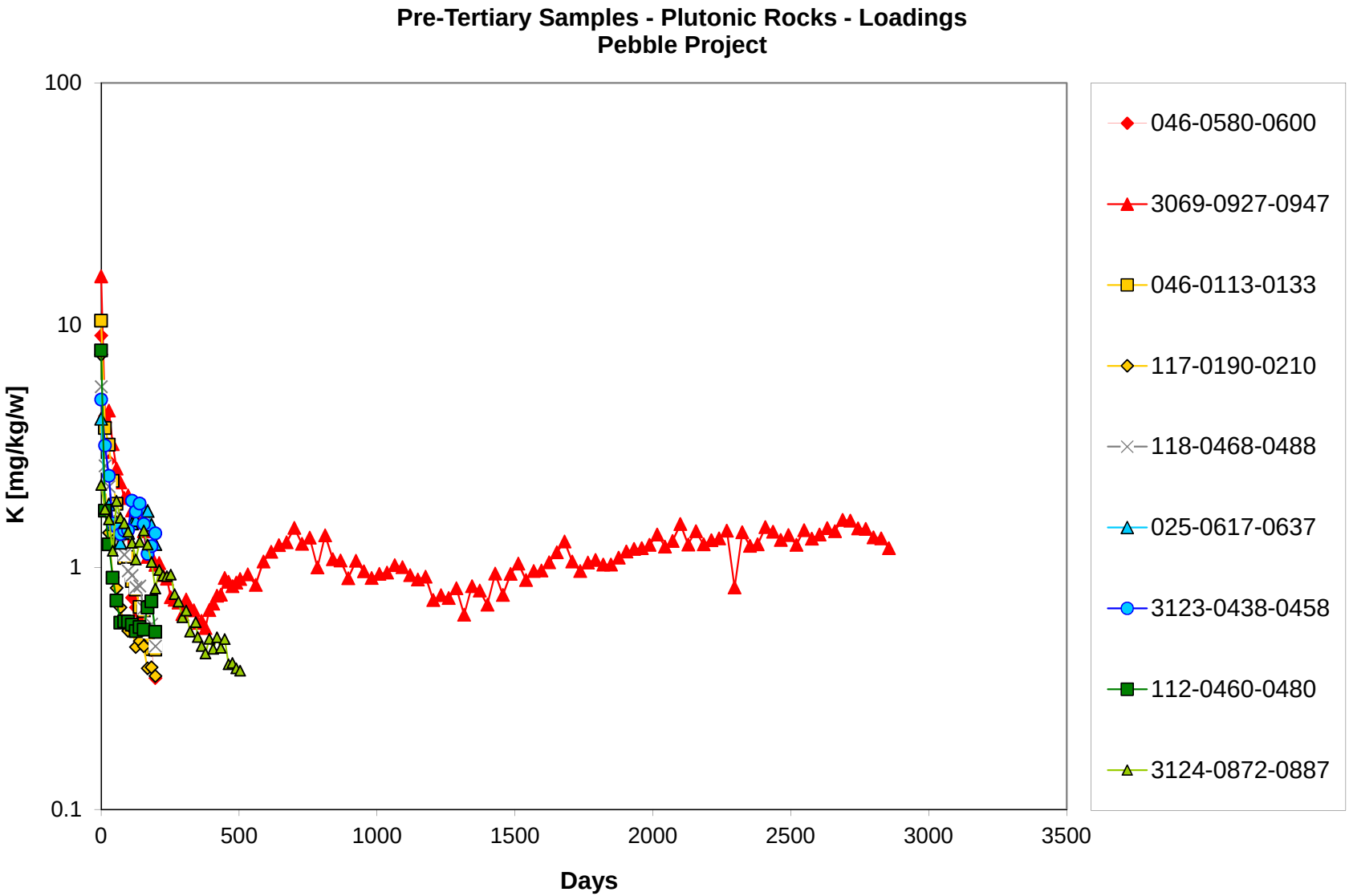

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Mg [mg/kg/w]
1000
100
10
1
0.1
0.01
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

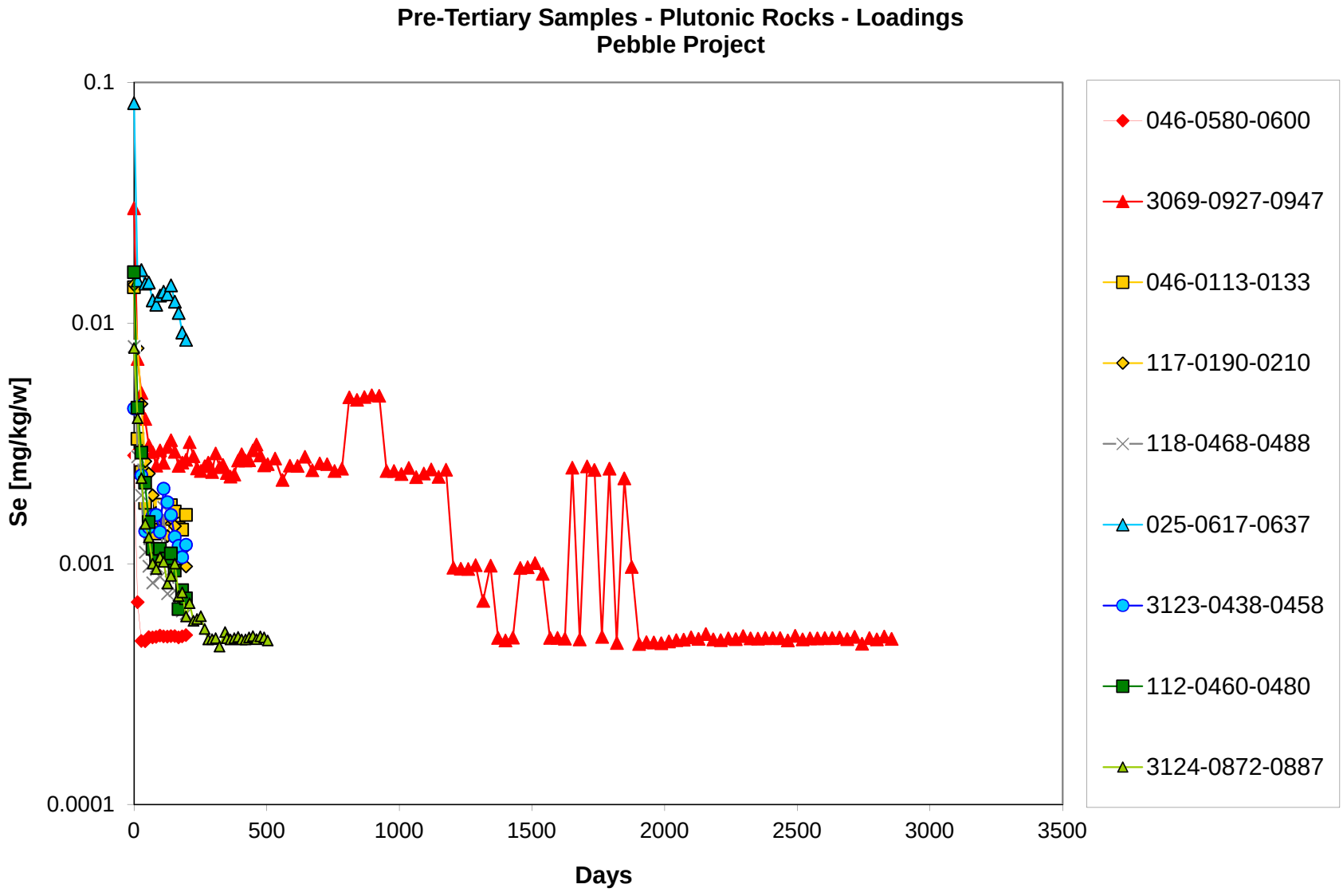

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Mn [mg/kg/w]
100
10
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

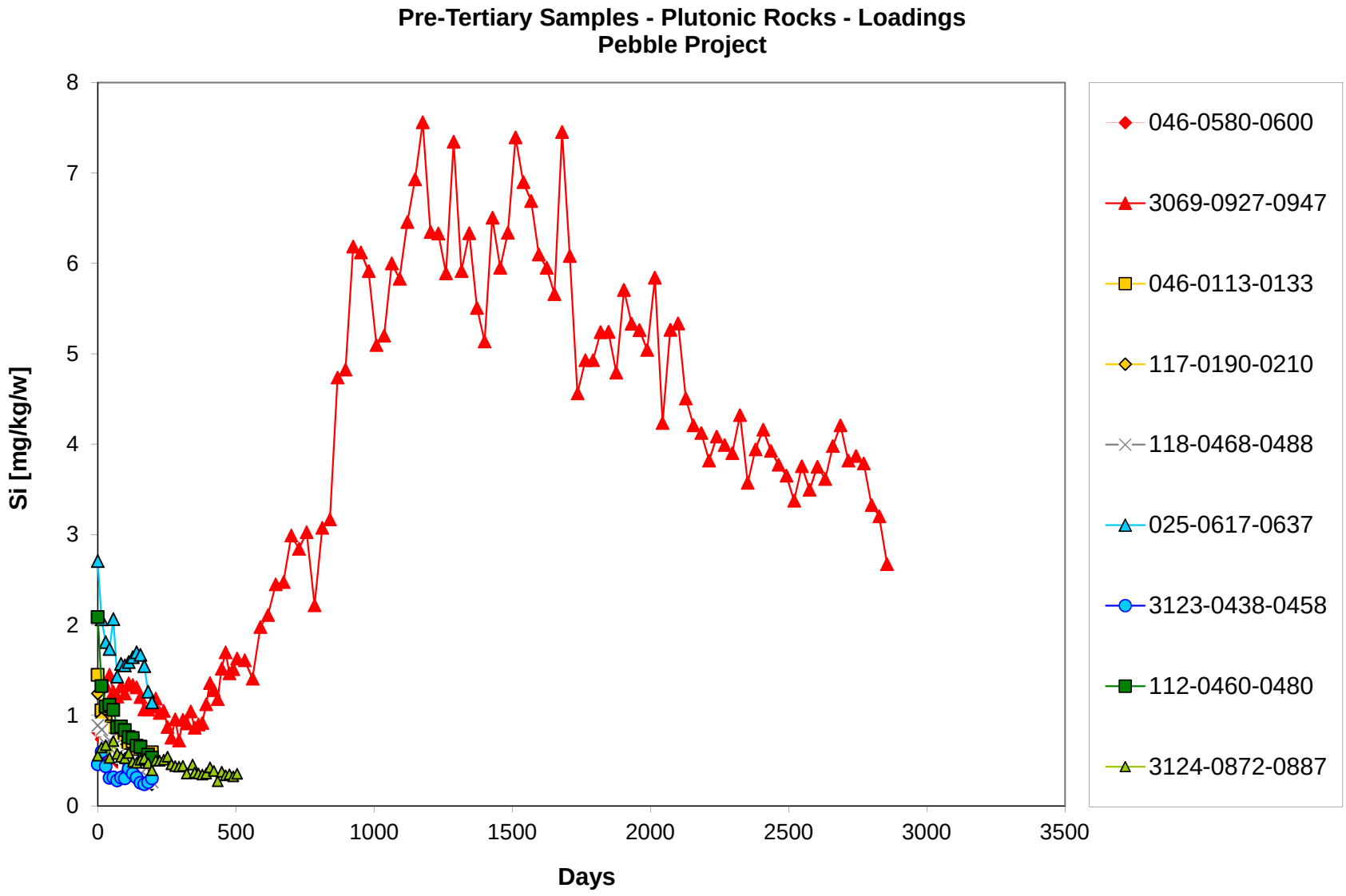

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Hg [mg/kg/w]
0.0001
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887


Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Mo [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

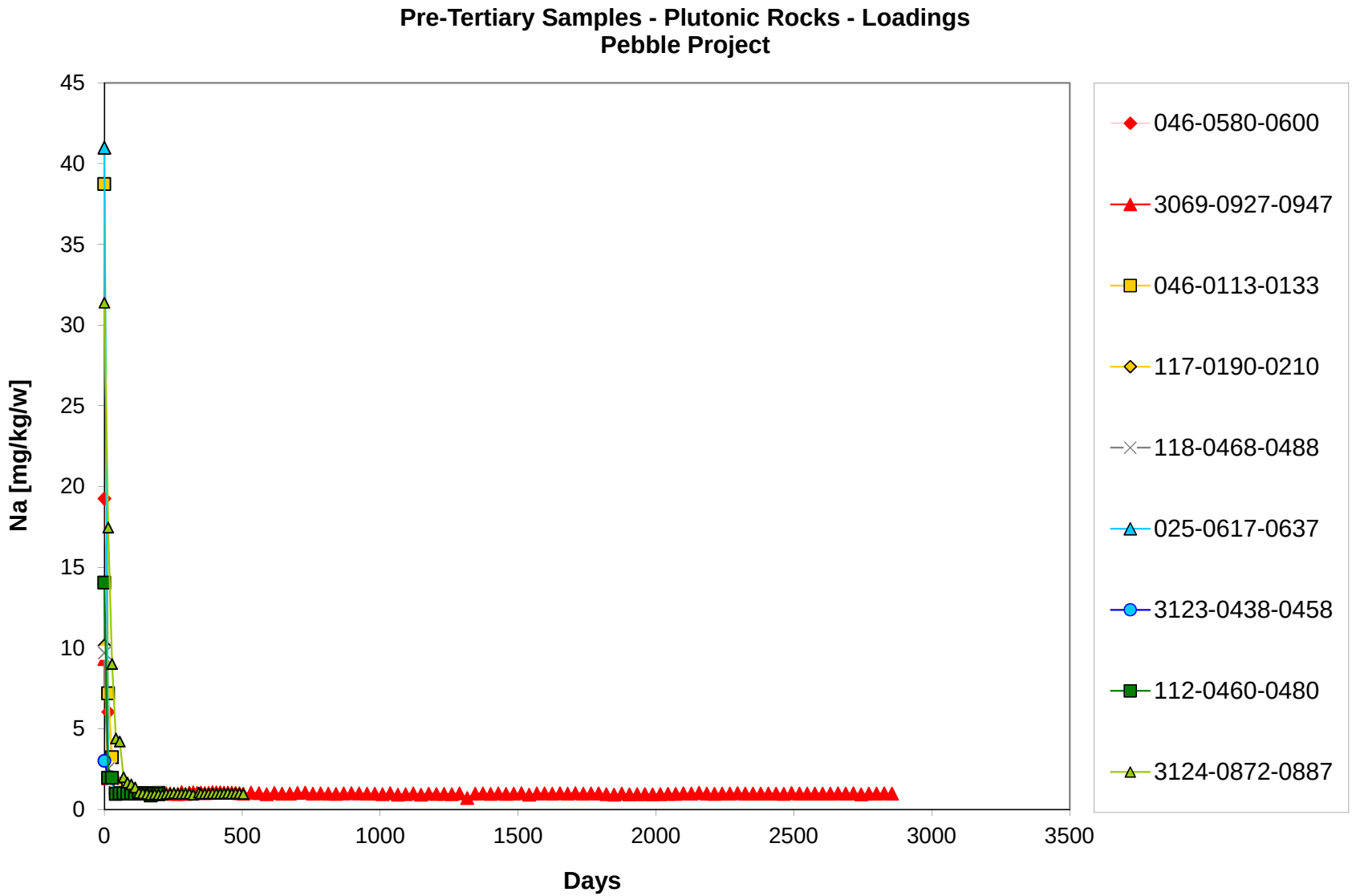

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Ni [mg/kg/w]
10
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

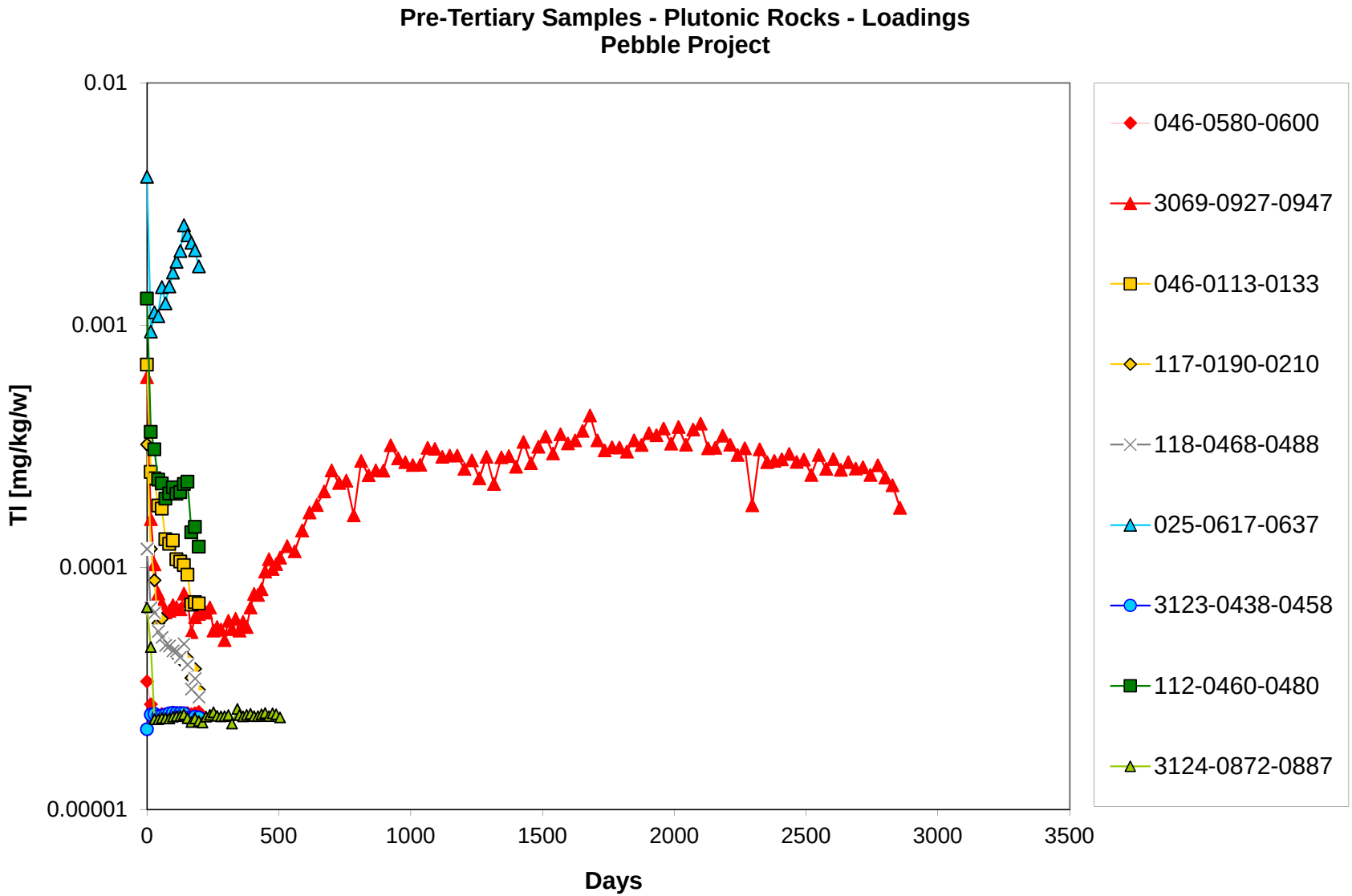

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
K [mg/kg/w]
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

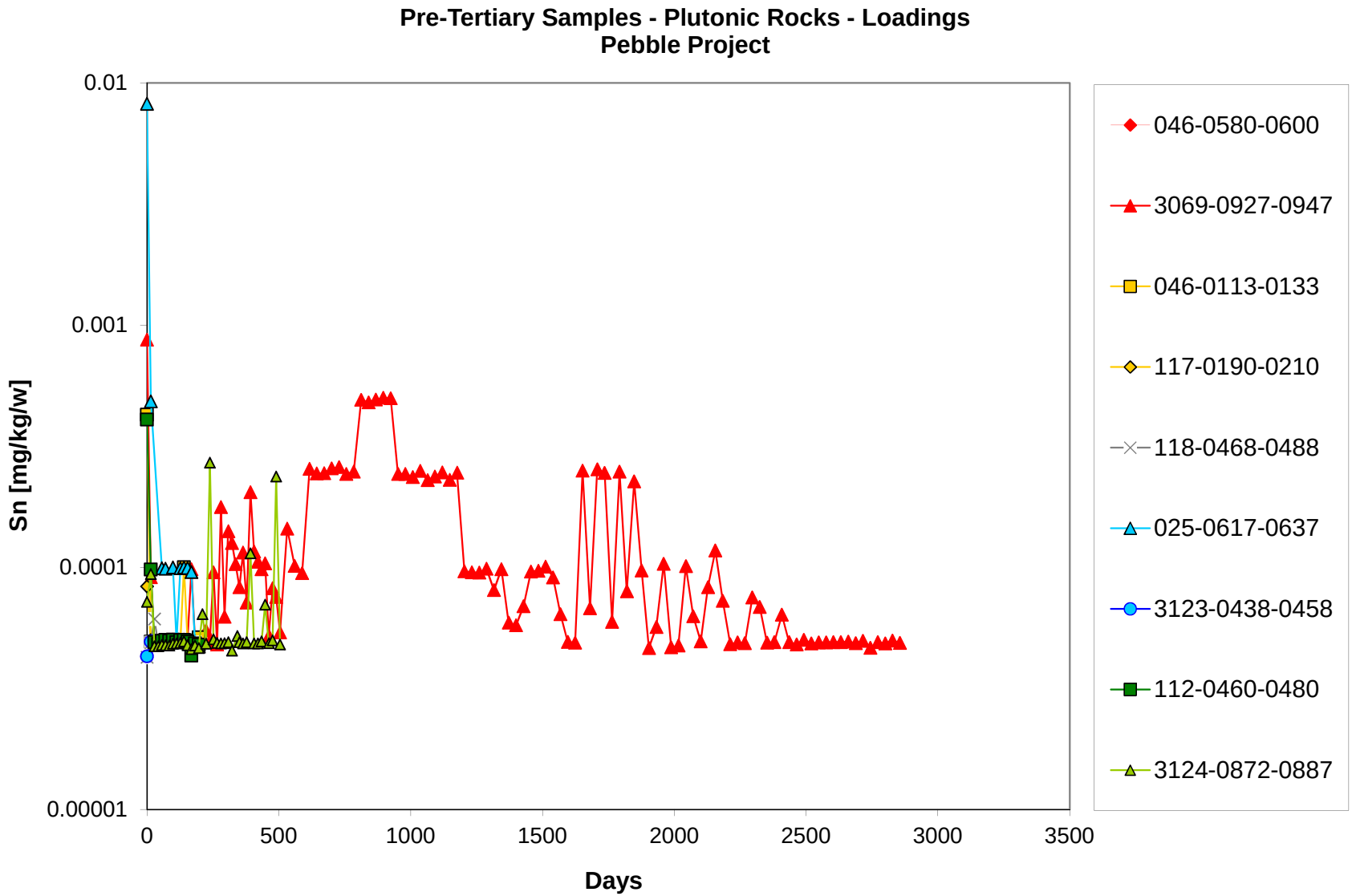

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Se [mg/kg/w]
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

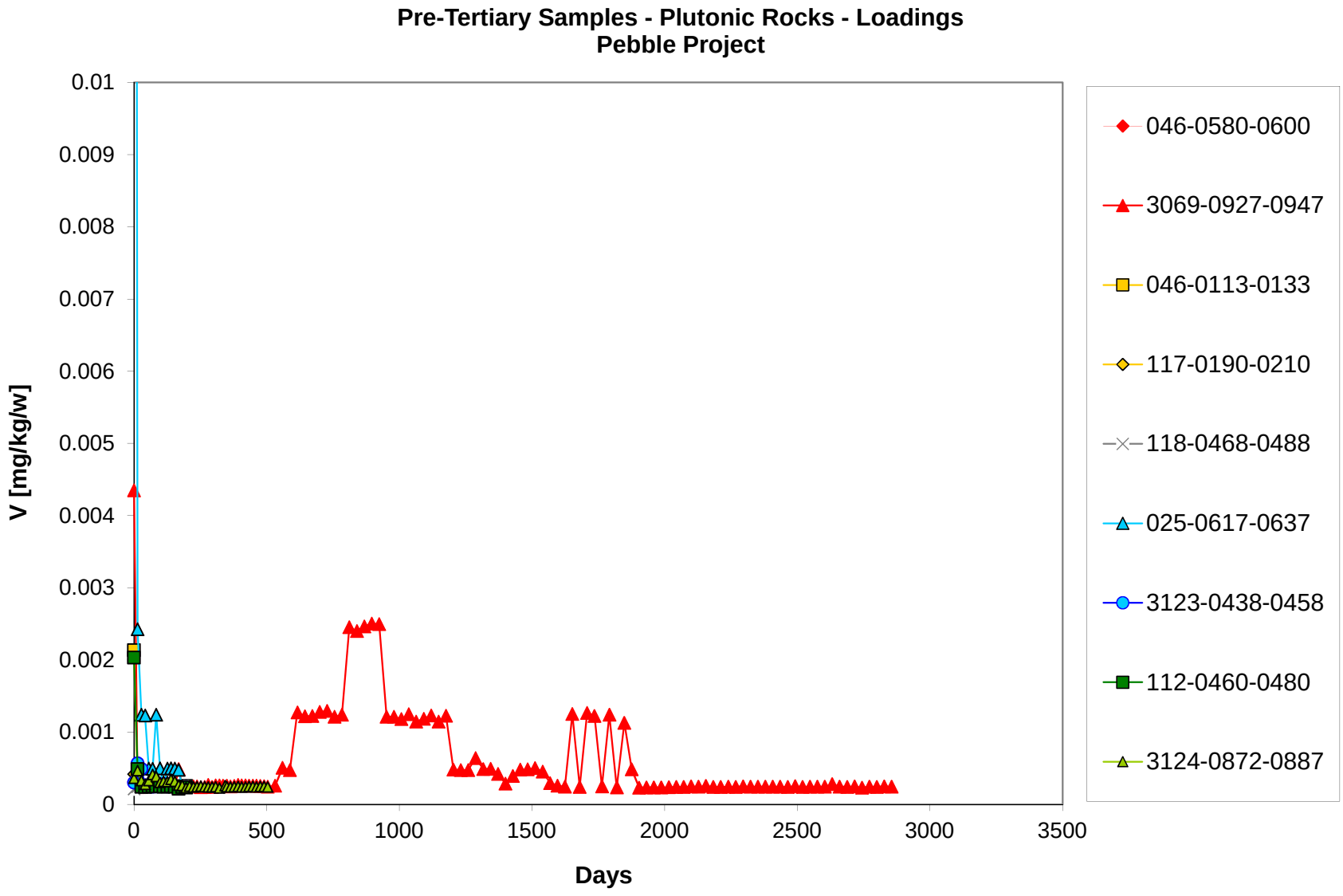

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Si [mg/kg/w]
Days
0
1
2
3
4
5
6
7
8
0
500
1000
1500
2000
2500
3000
3500
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

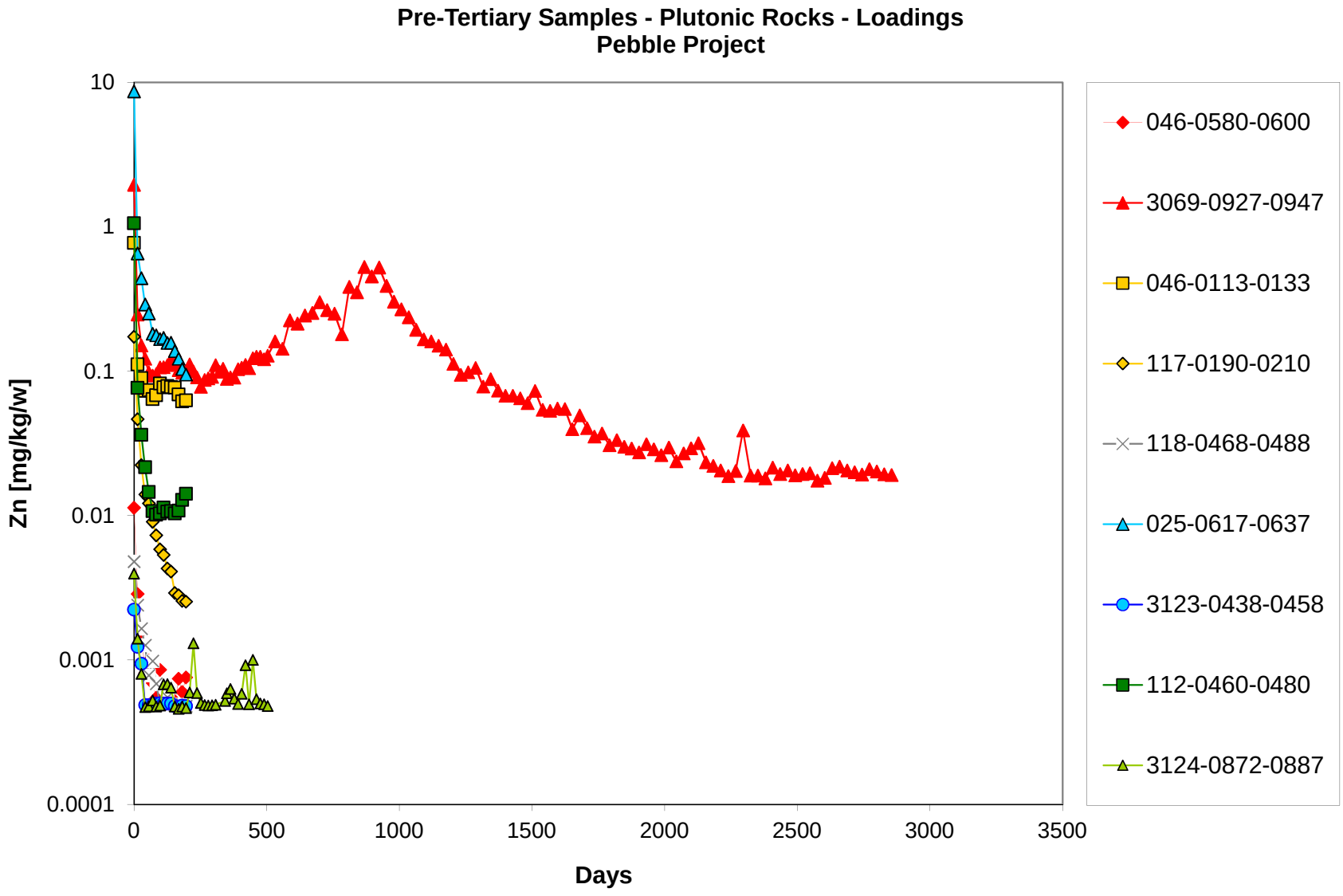

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Ag [mg/kg/w]
0.001
0.0001
0.00001
0.000001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

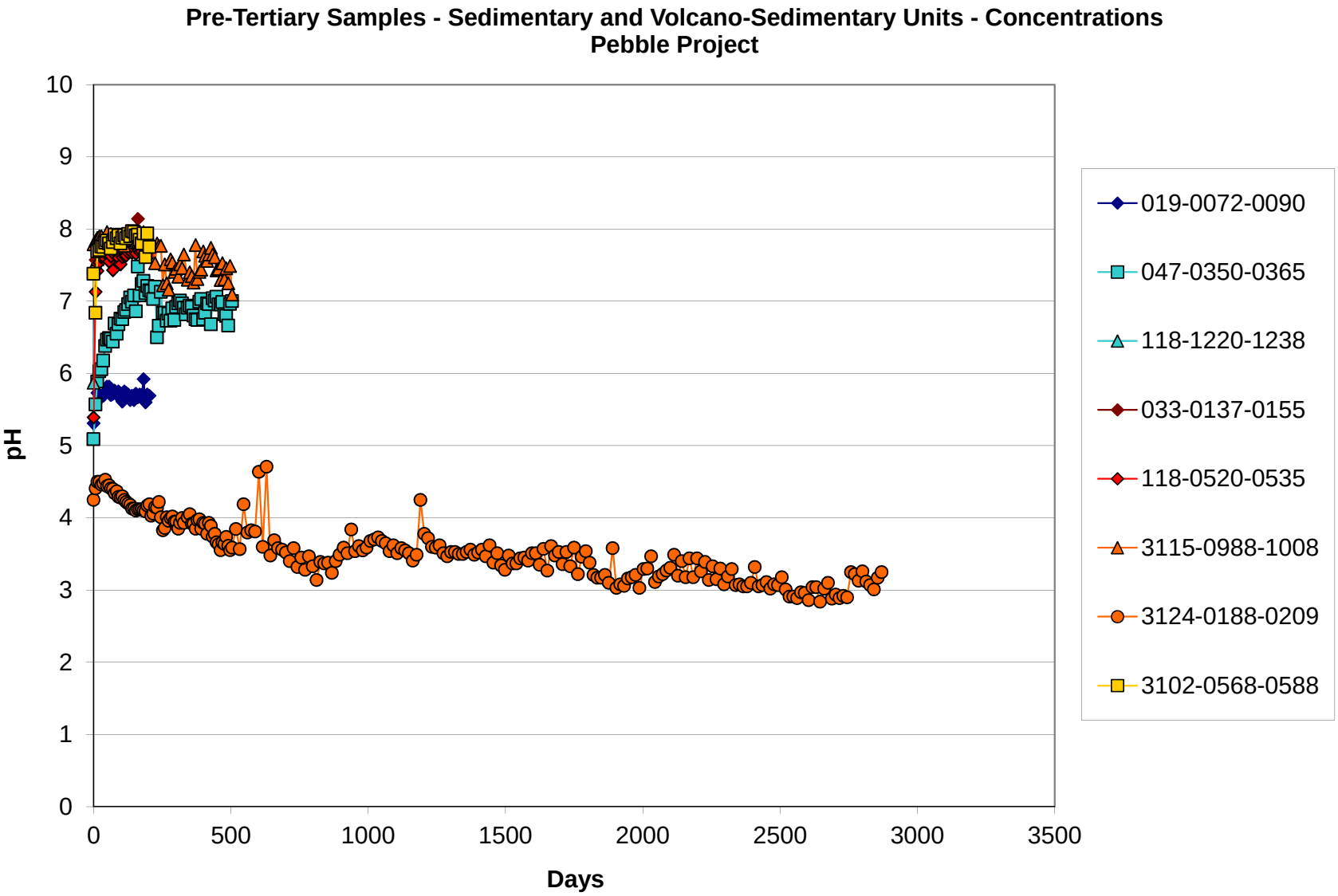

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Na [mg/kg/w]
Days
0
5
10
15
20
25
30
35
40
45
0
500
1000
1500
2000
2500
3000
3500
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

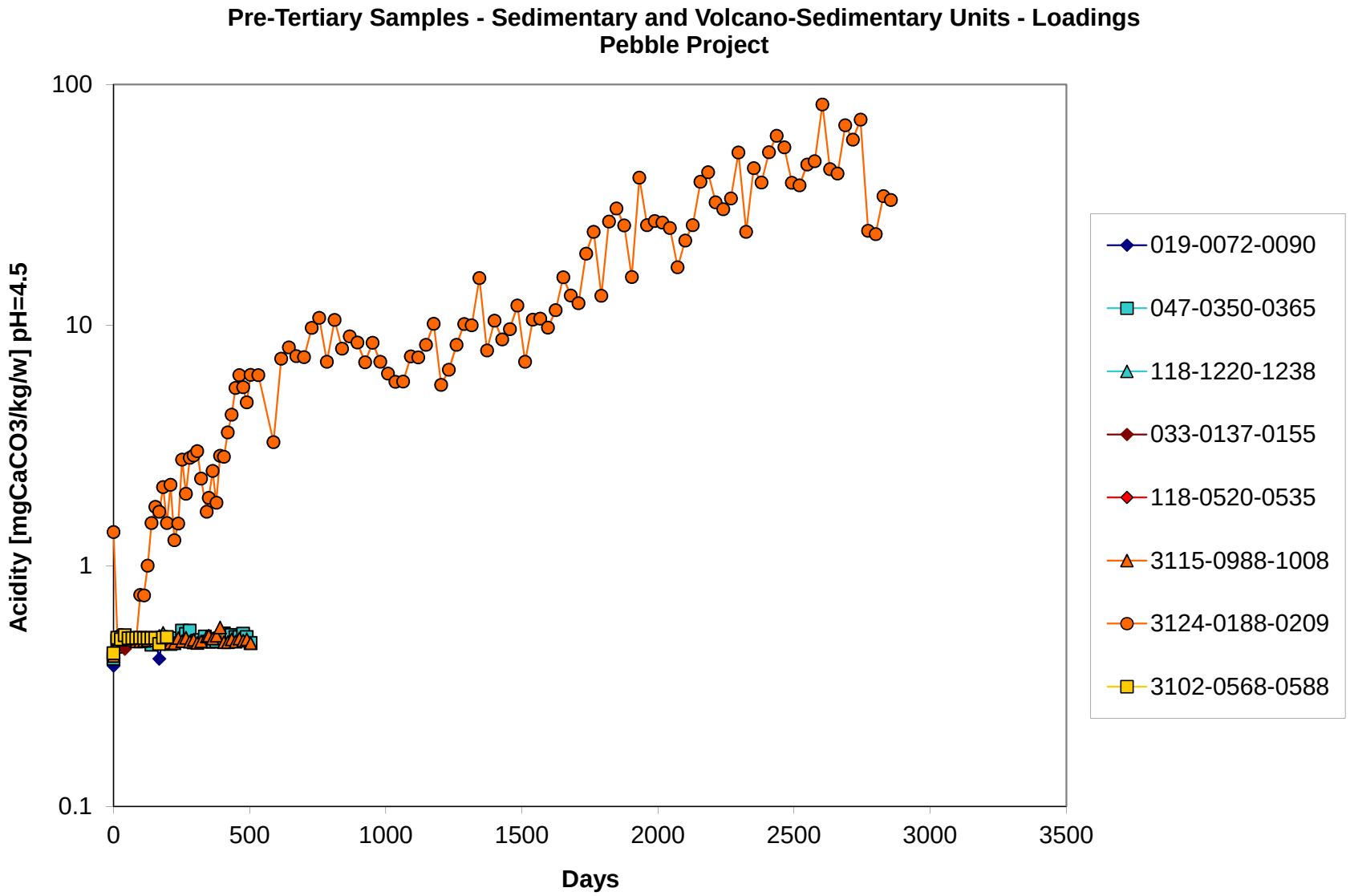

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Tl [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

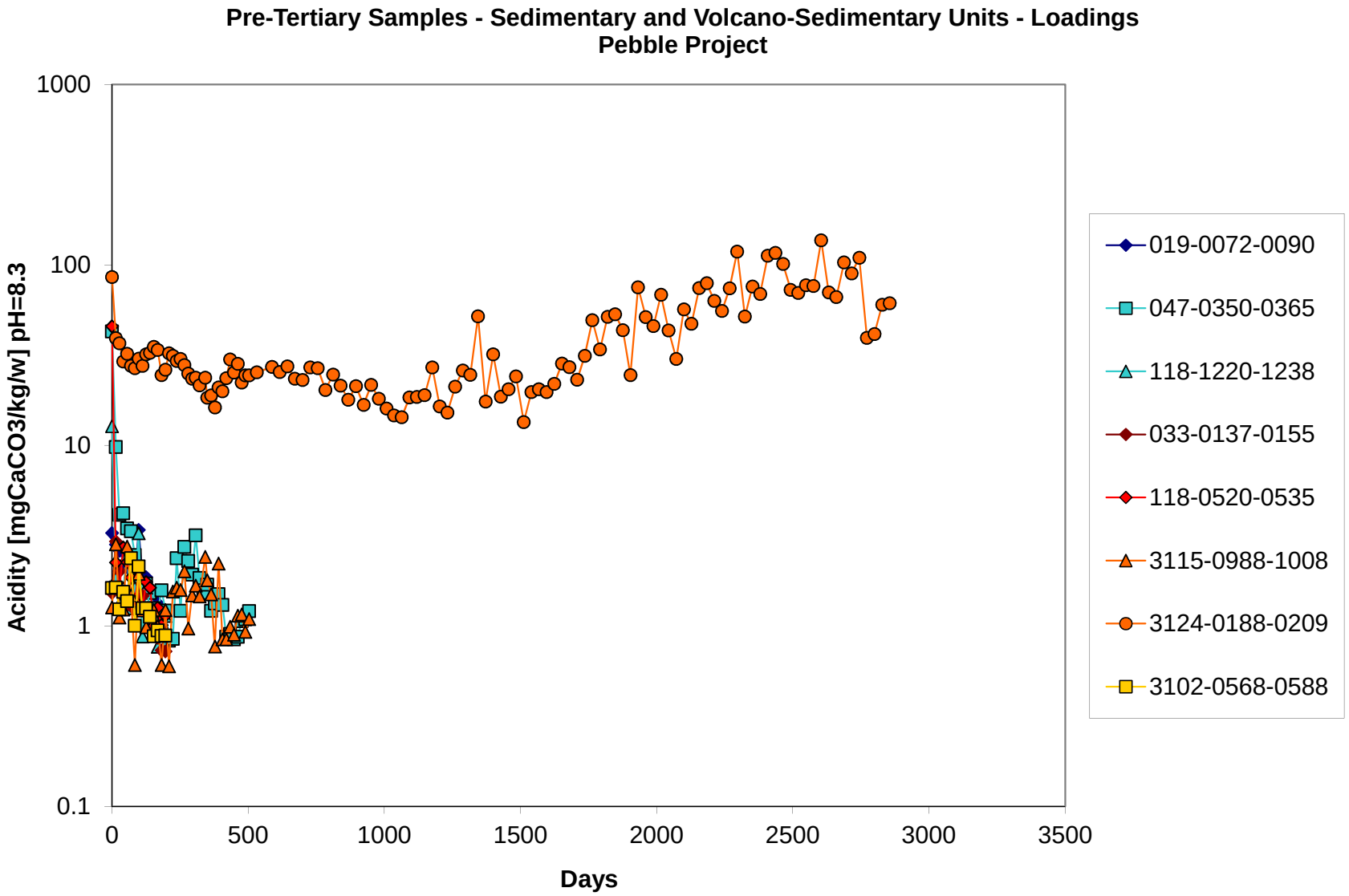

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Sn [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

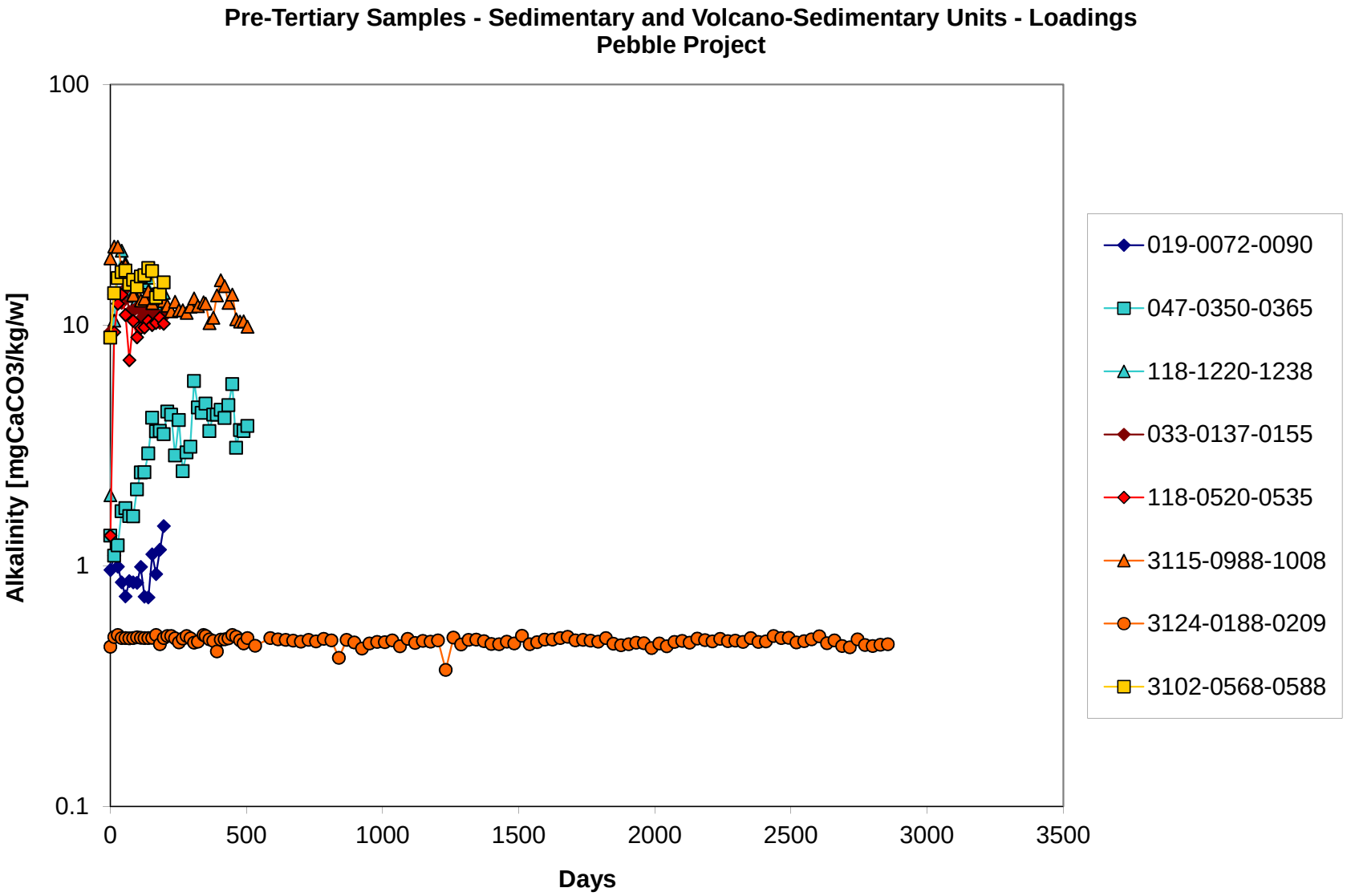

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
V [mg/kg/w]
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

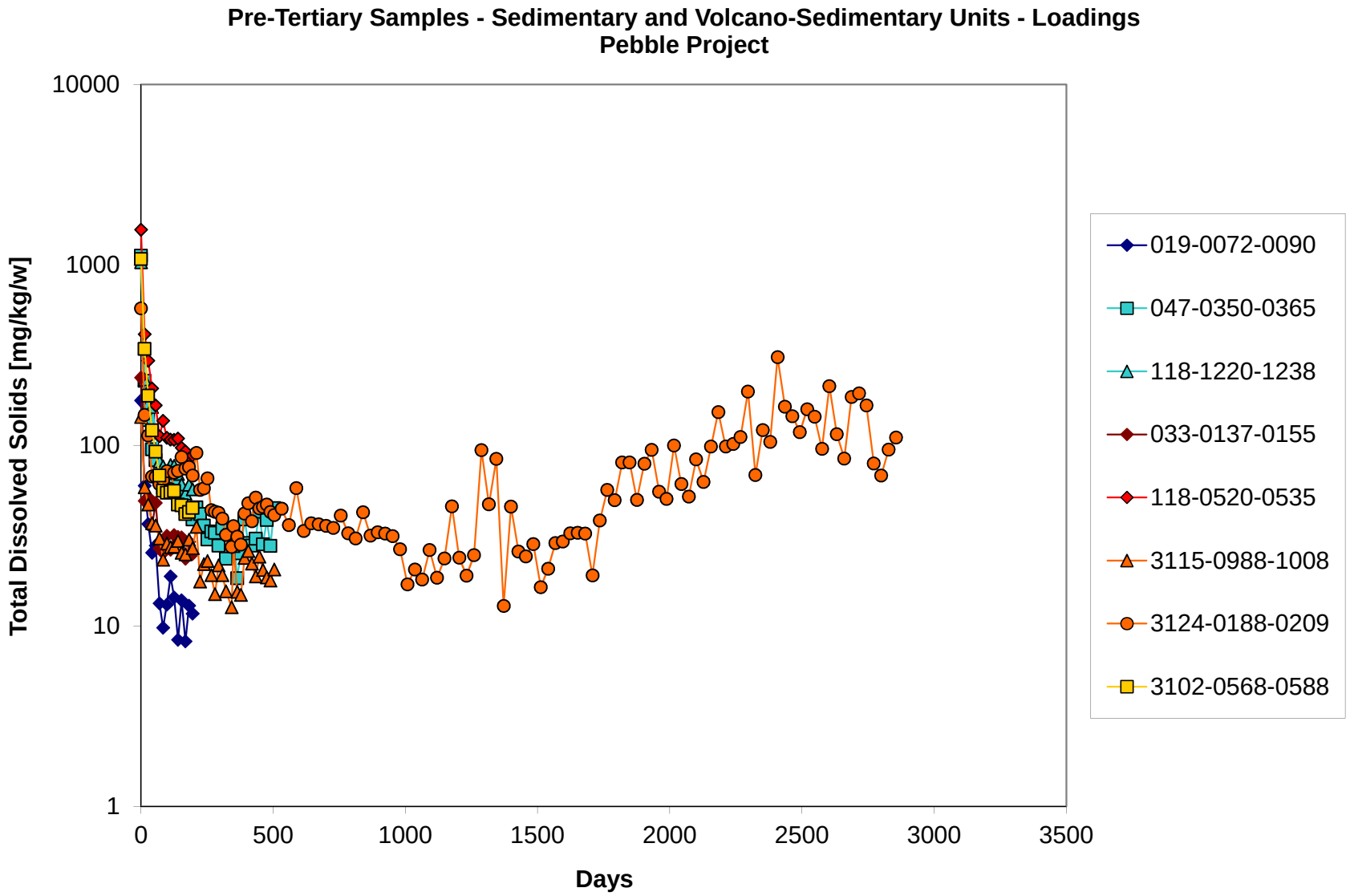

Pre-Tertiary Samples - Plutonic Rocks - Loadings
Pebble Project
Zn [mg/kg/w]
10
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
046-0580-0600
3069-0927-0947
046-0113-0133
117-0190-0210
118-0468-0488
025-0617-0637
3123-0438-0458
112-0460-0480
3124-0872-0887

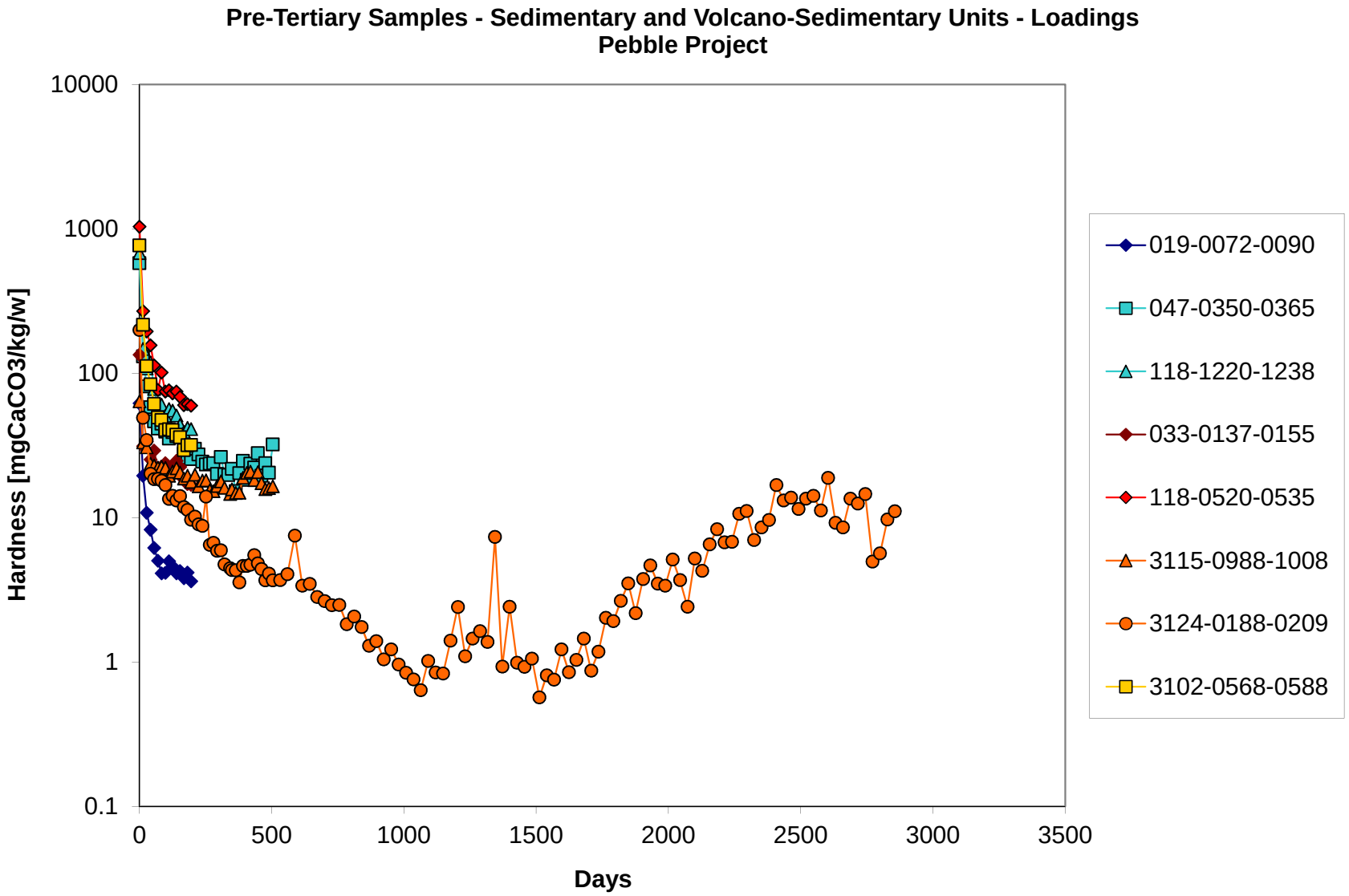

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Concentrations
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
10
0
500
1000
1500
2000
2500
3000
3500
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

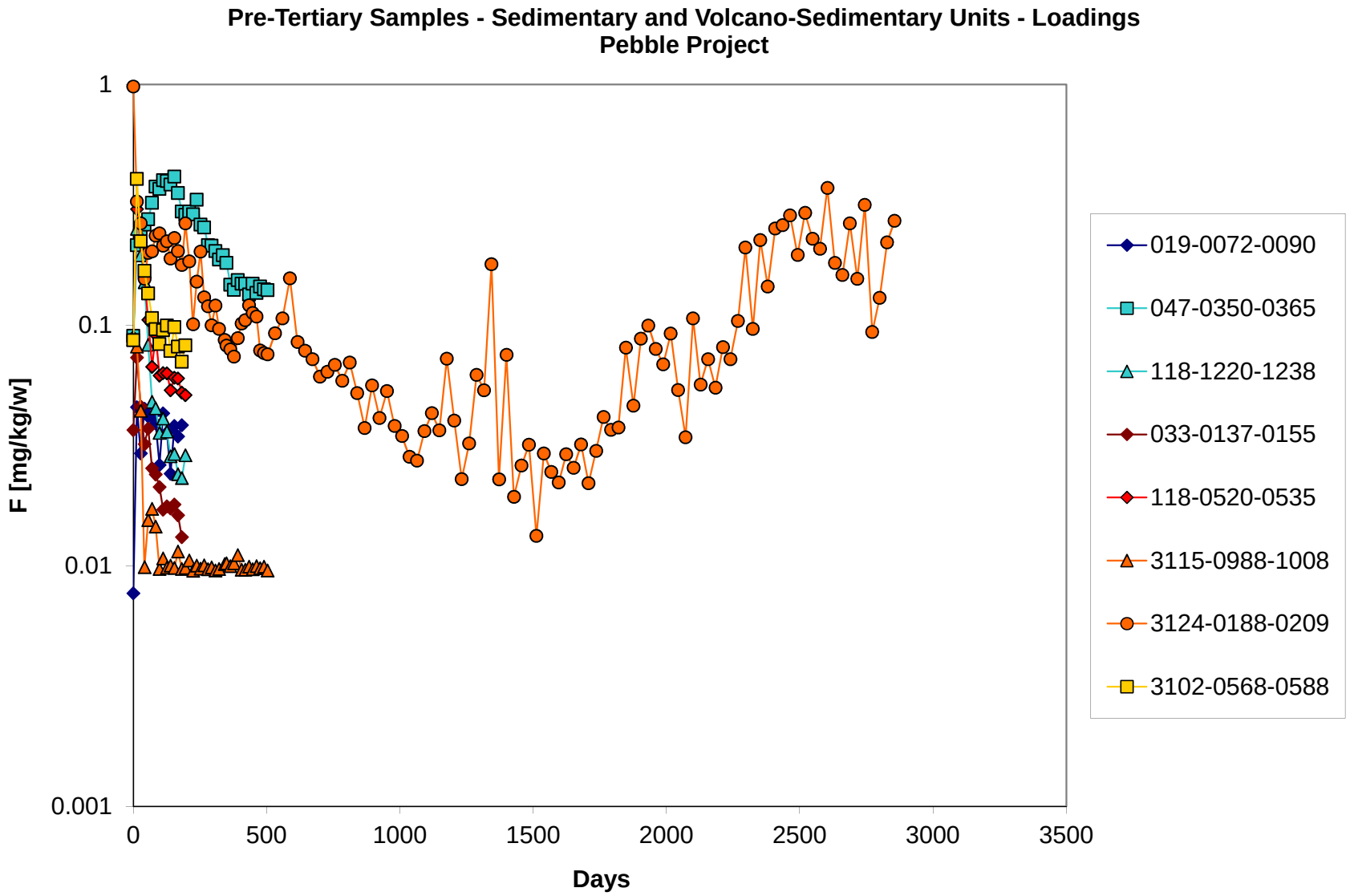

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=4.5
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

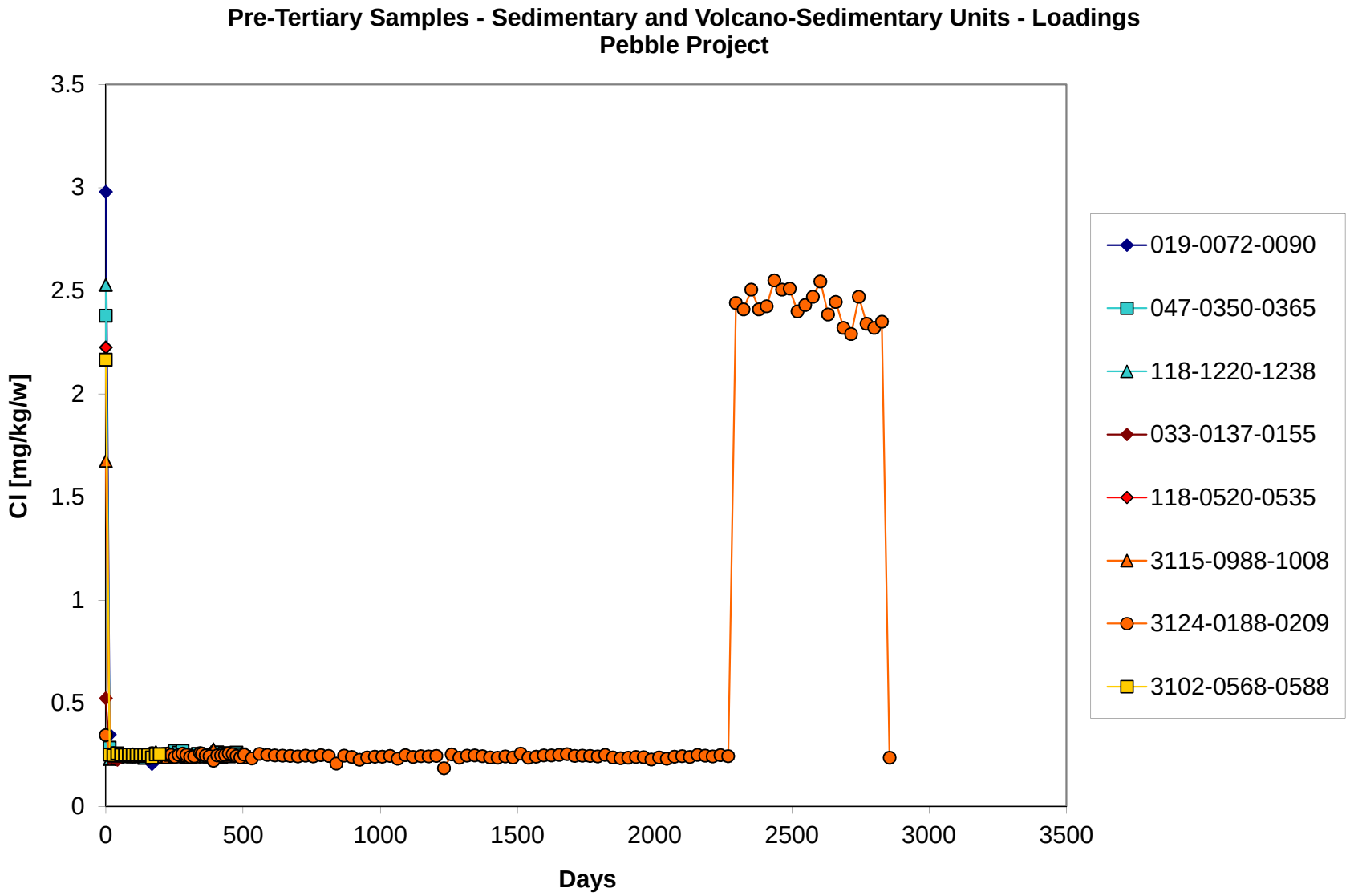

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=8.3
1000
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

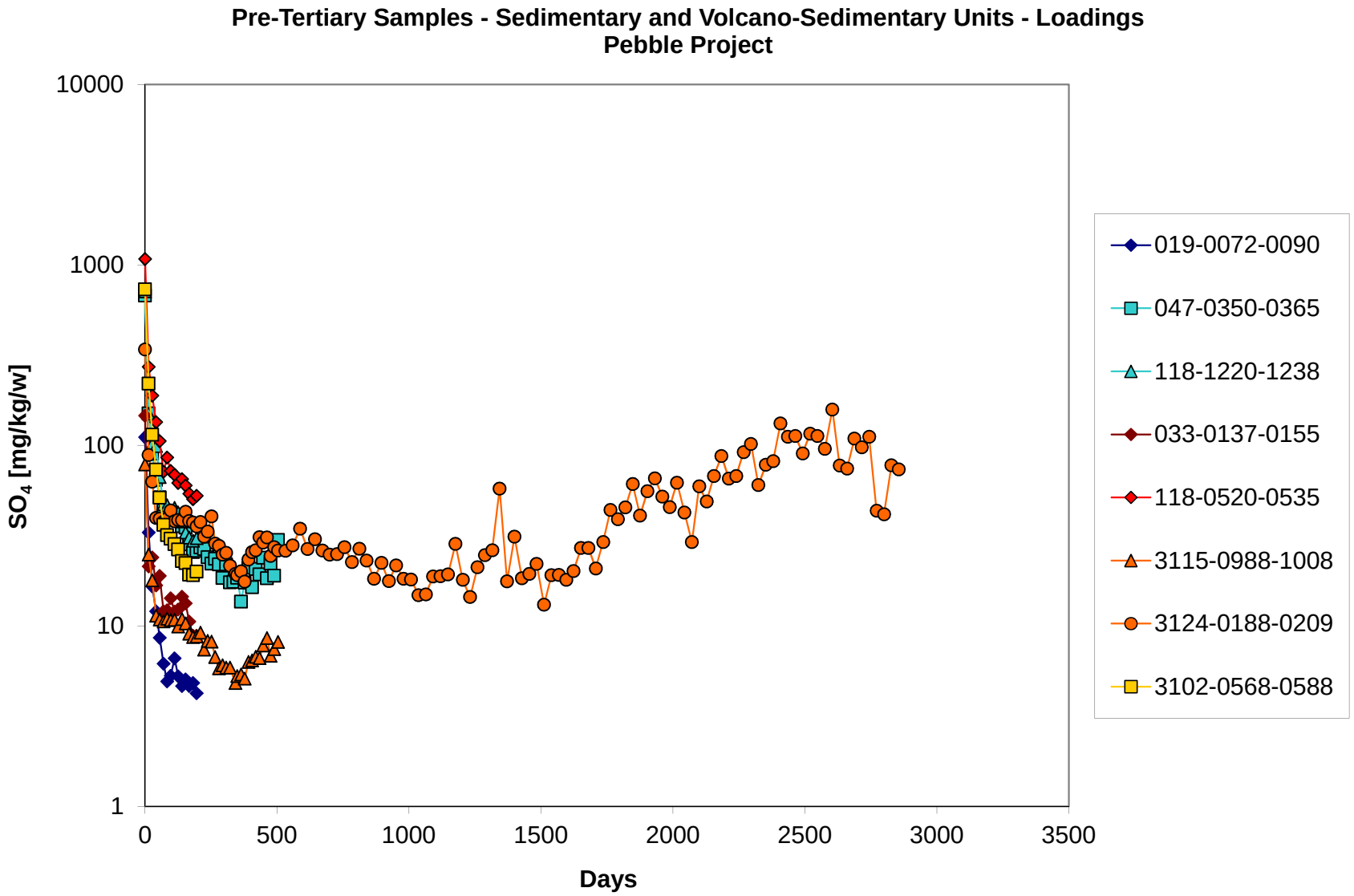

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Alkalinity [mgCaCO3/kg/w]
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

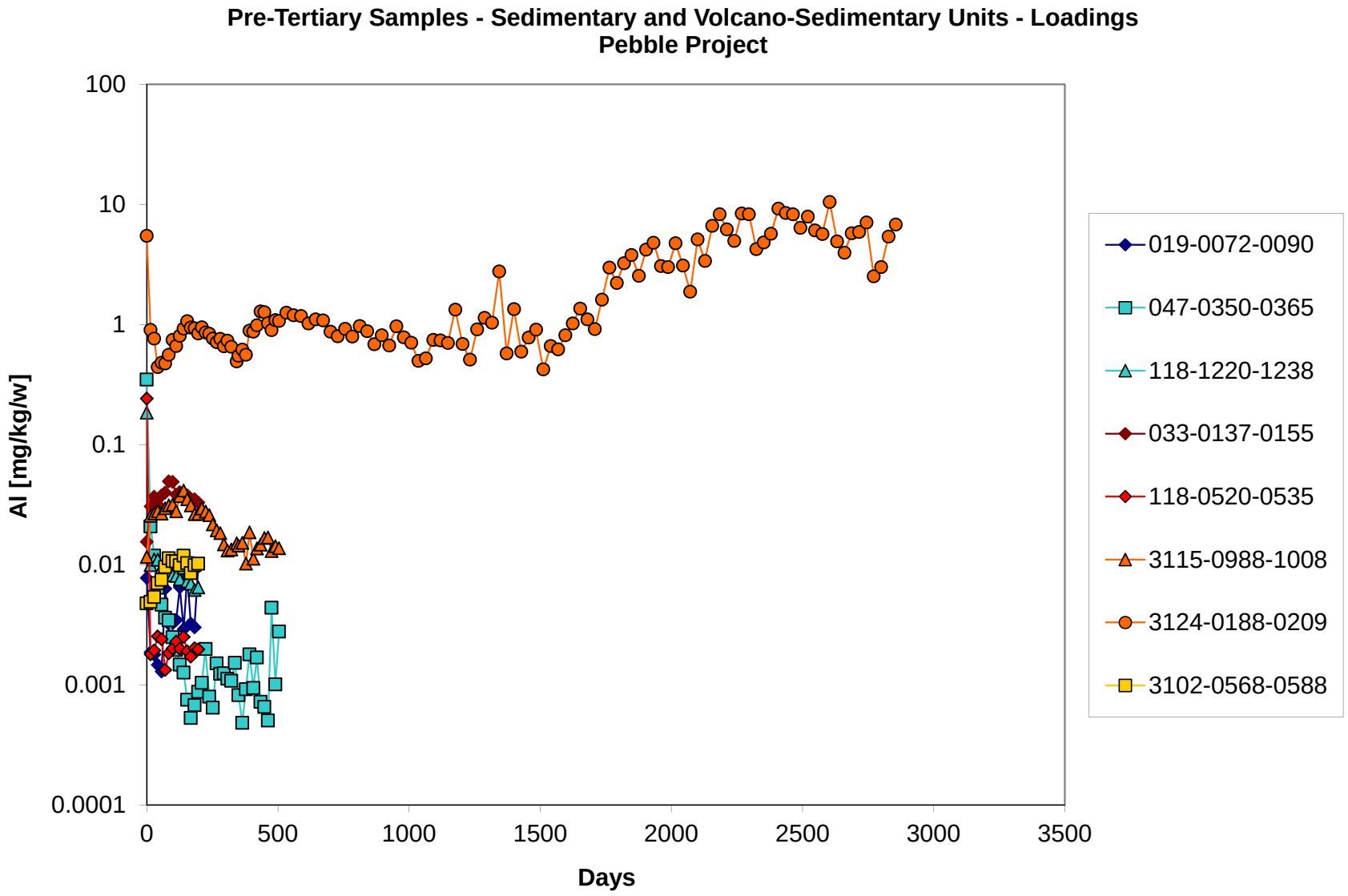

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Total Dissolved Solids [mg/kg/w]
10000
1000
100
10
1
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

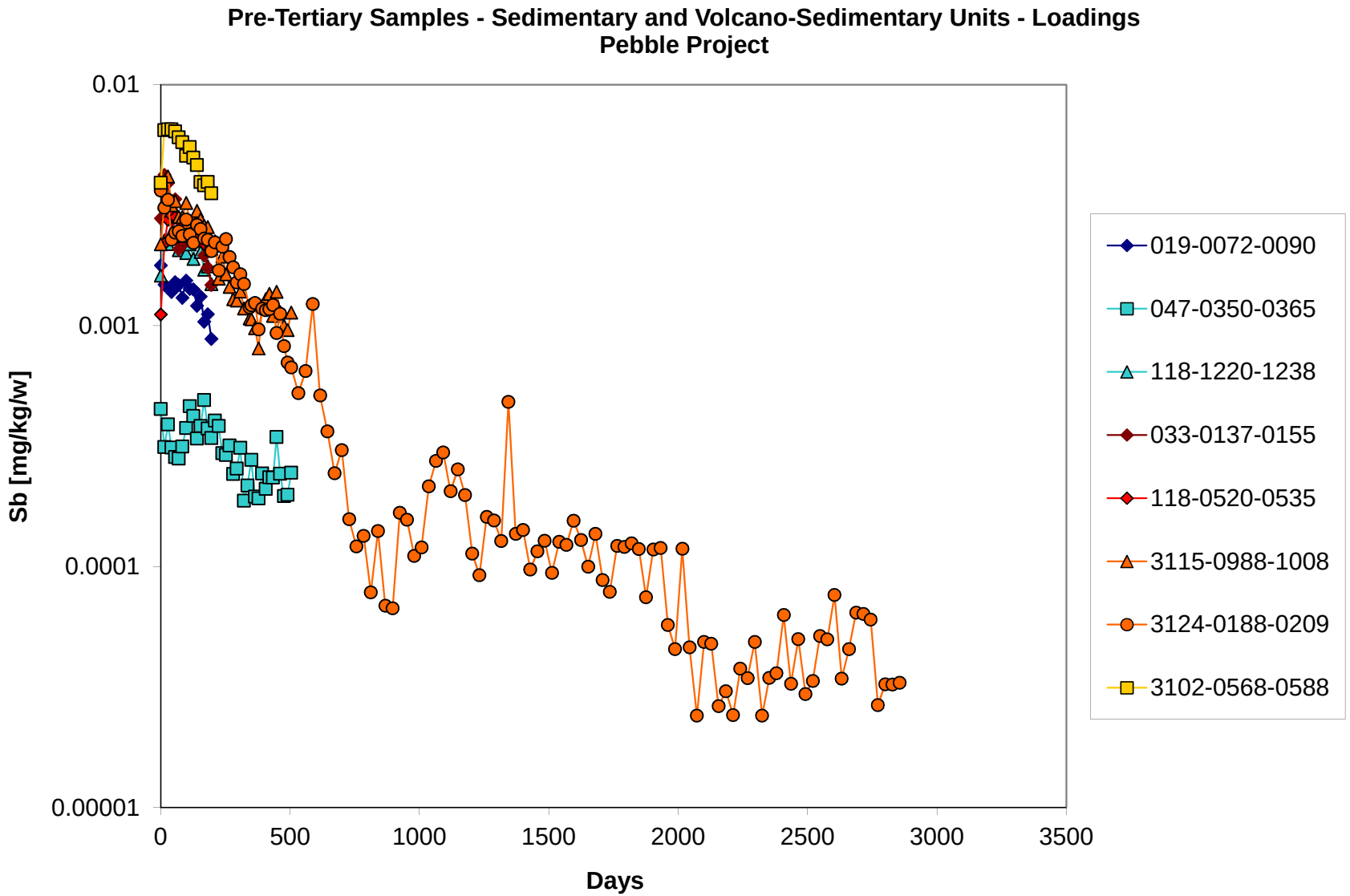

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Hardness [mgCaCO3/kg/w]
10000
1000
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

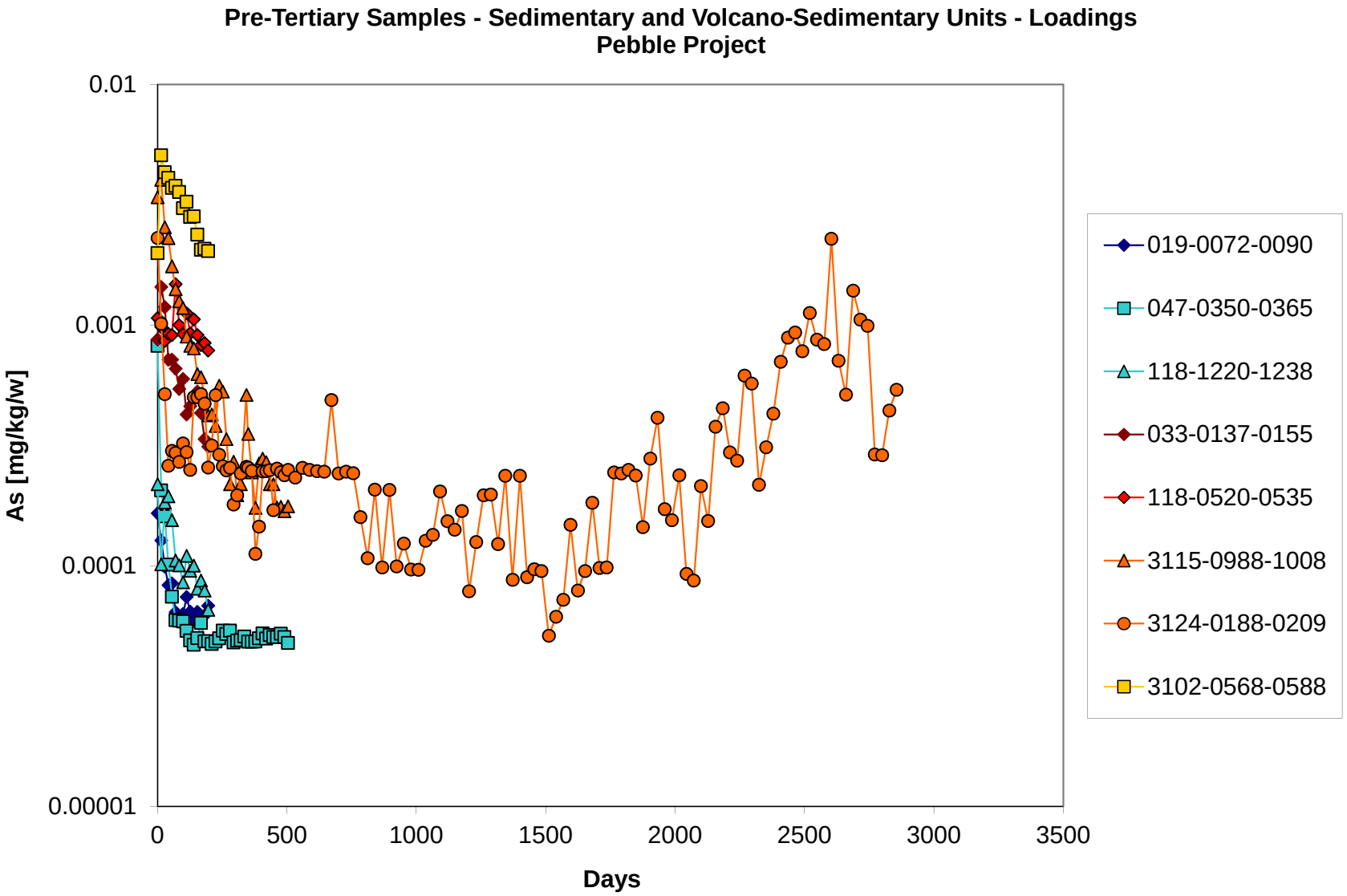

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
F [mg/kg/w]
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

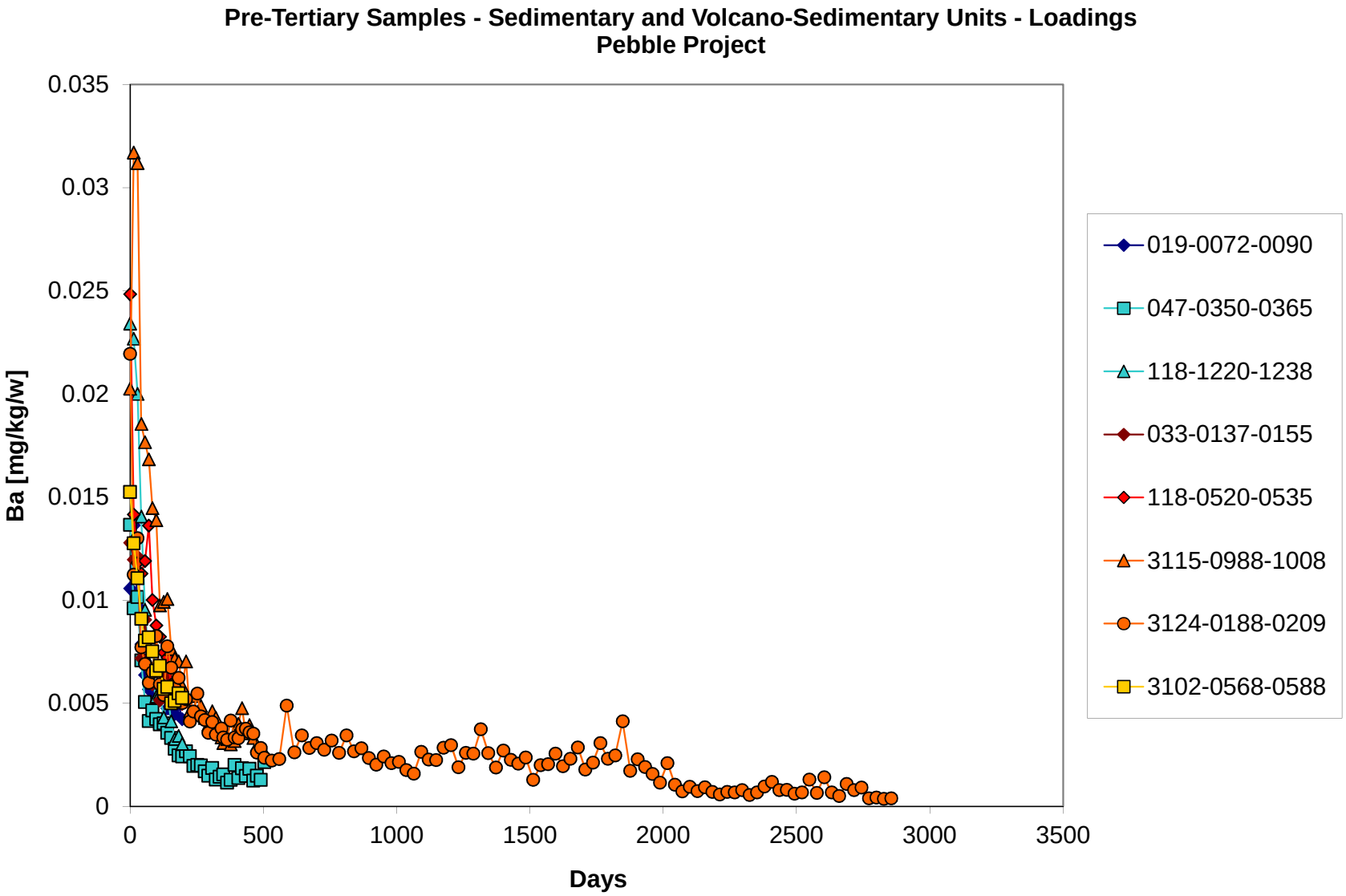

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Cl [mg/kg/w]
Days
0
0.5
1
1.5
2
2.5
3
3.5
0
500
1000
1500
2000
2500
3000
3500
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

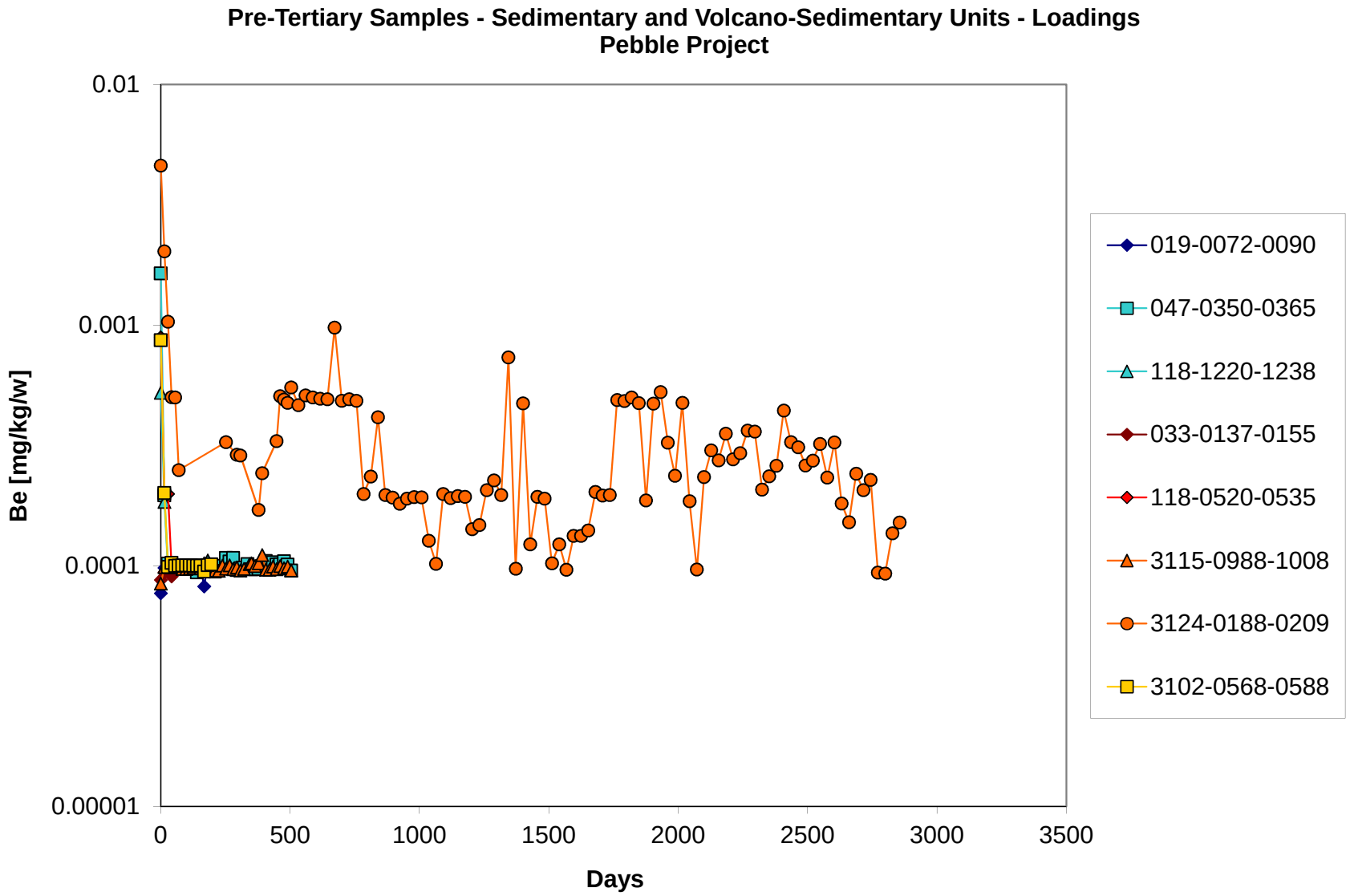

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
10000
1000
100
10
1
SO4 [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

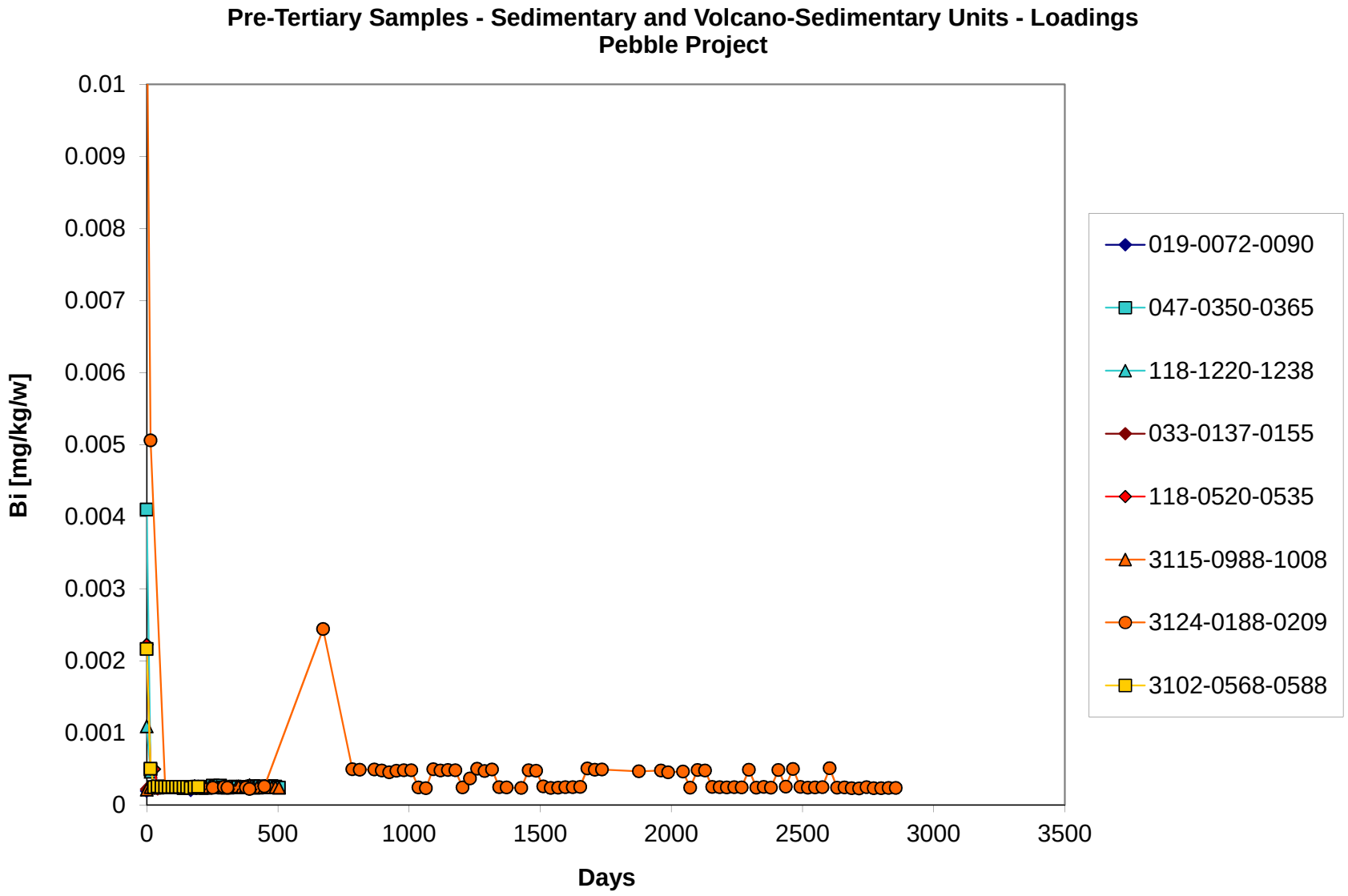

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Al [mg/kg/w]
100
10
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

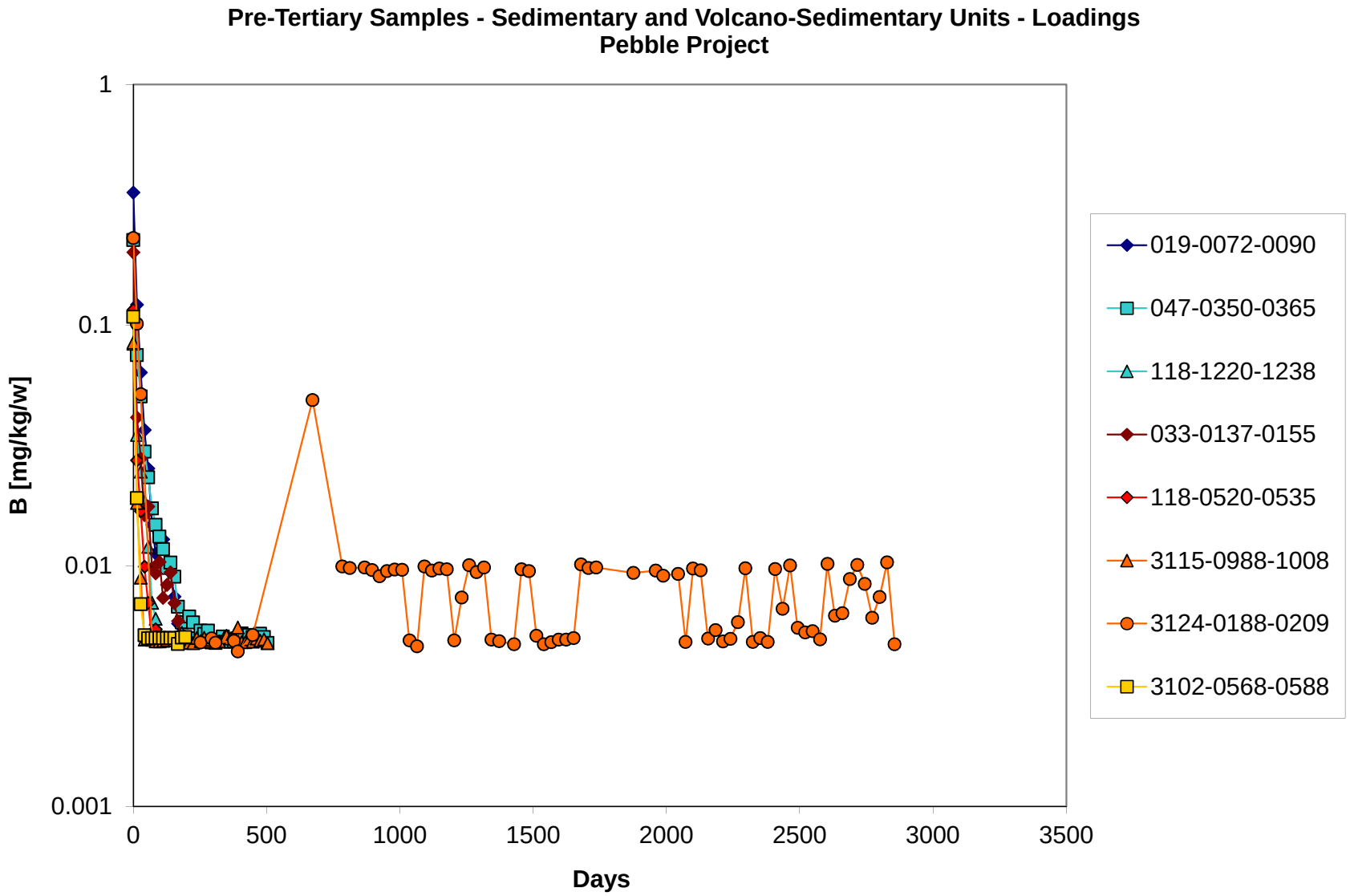

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
0.01
0.001
0.0001
0.00001
Sb [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

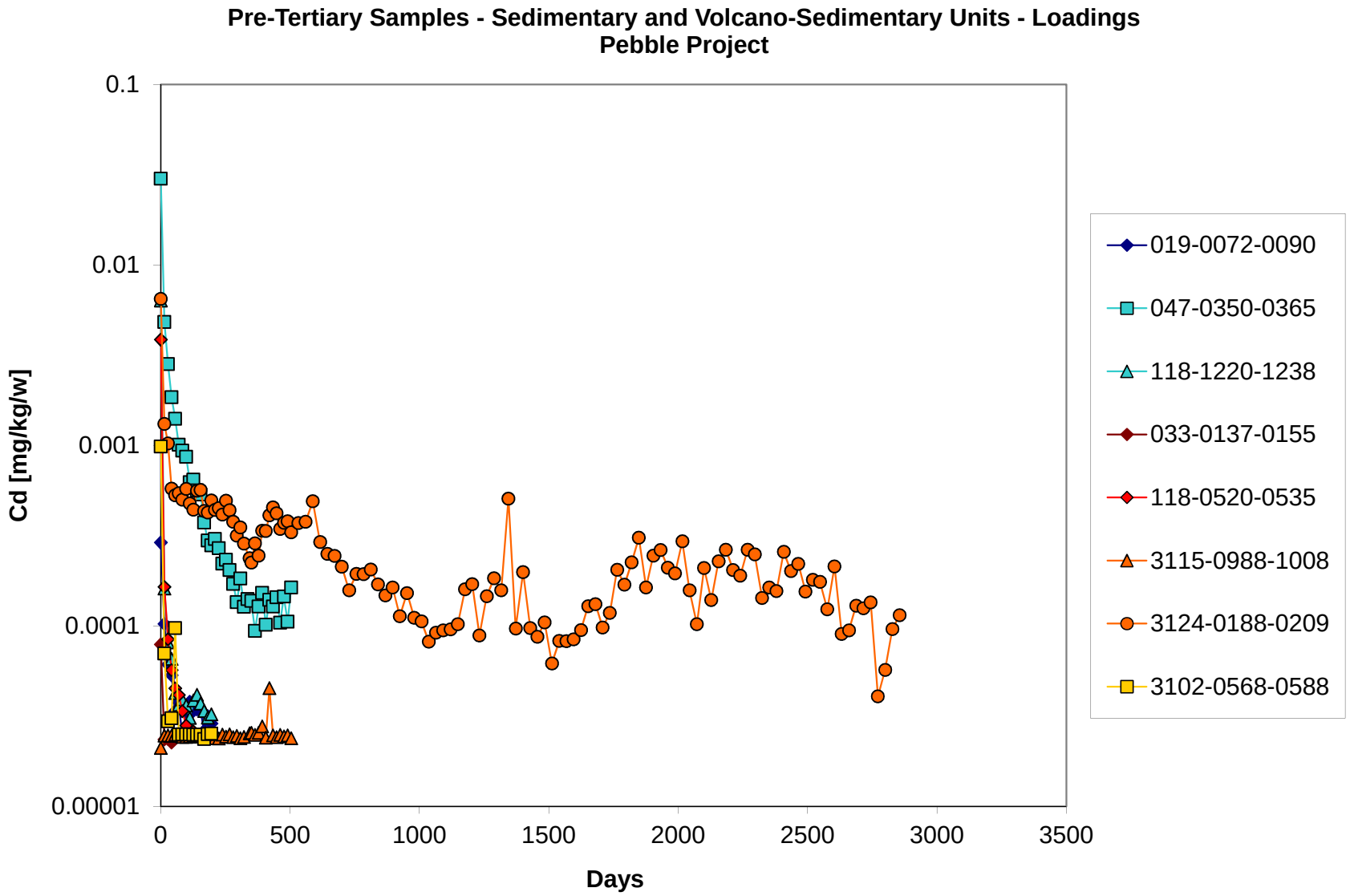

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
As [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

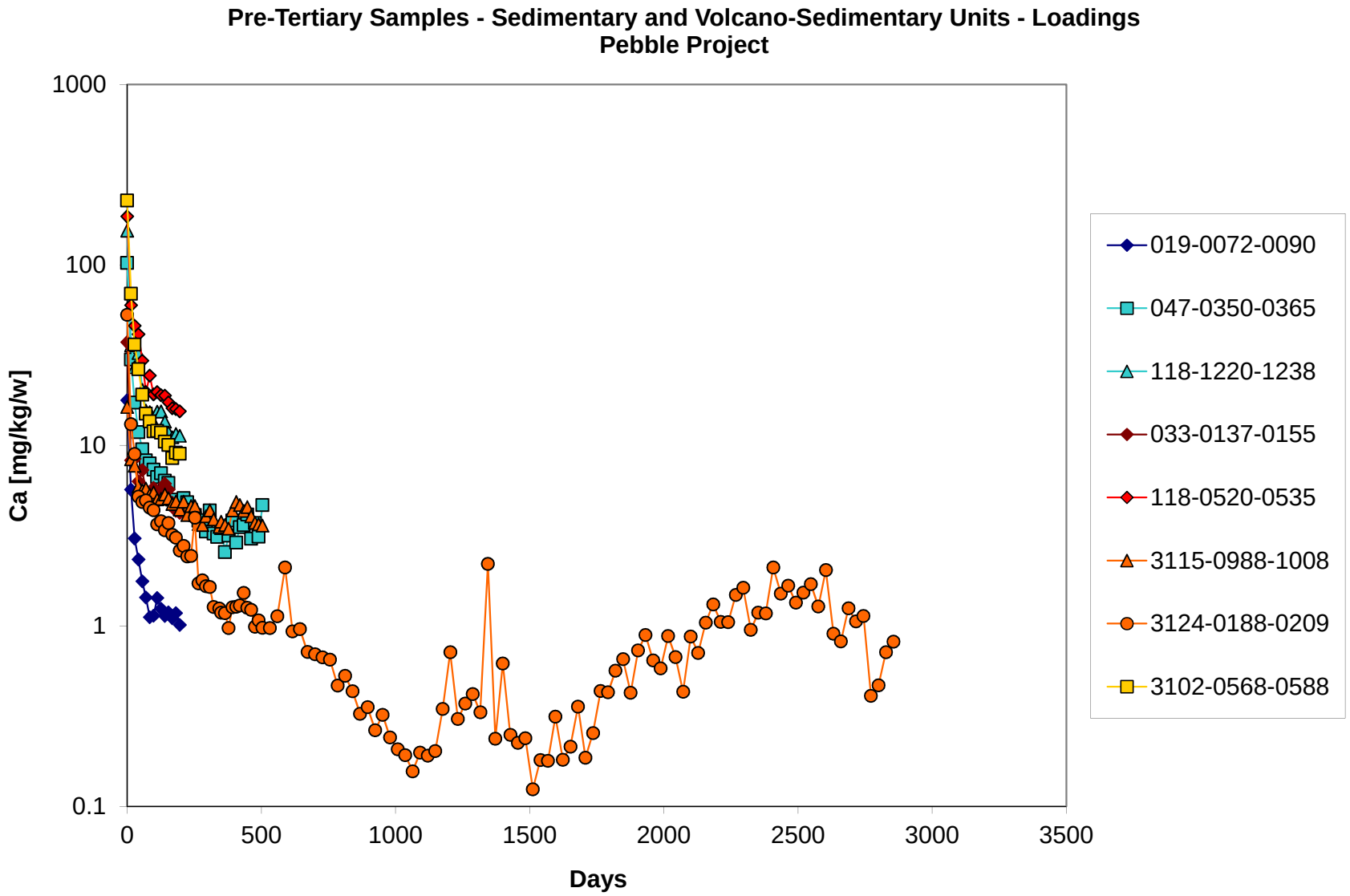

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Ba [mg/kg/w]
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

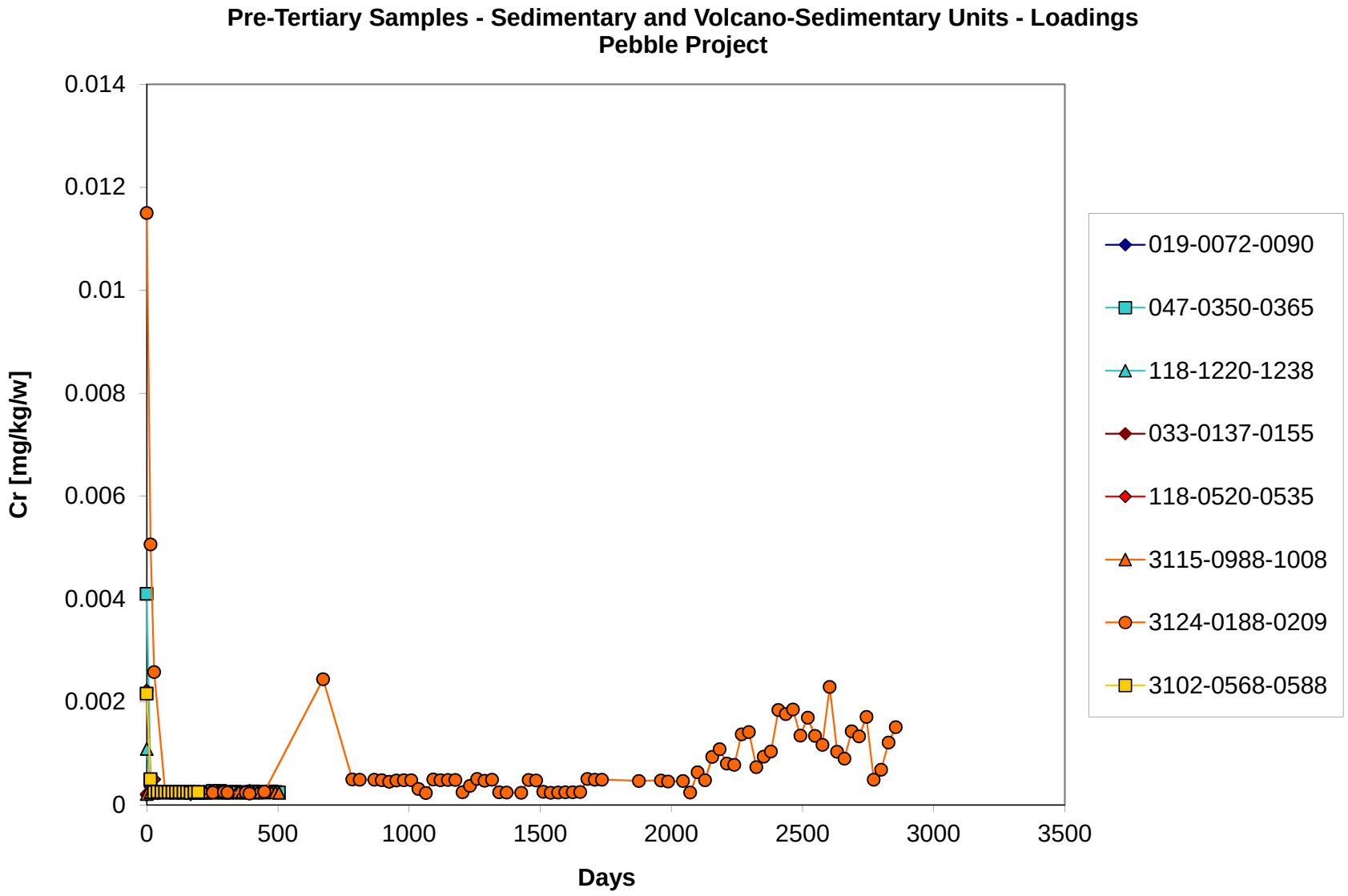

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Be [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

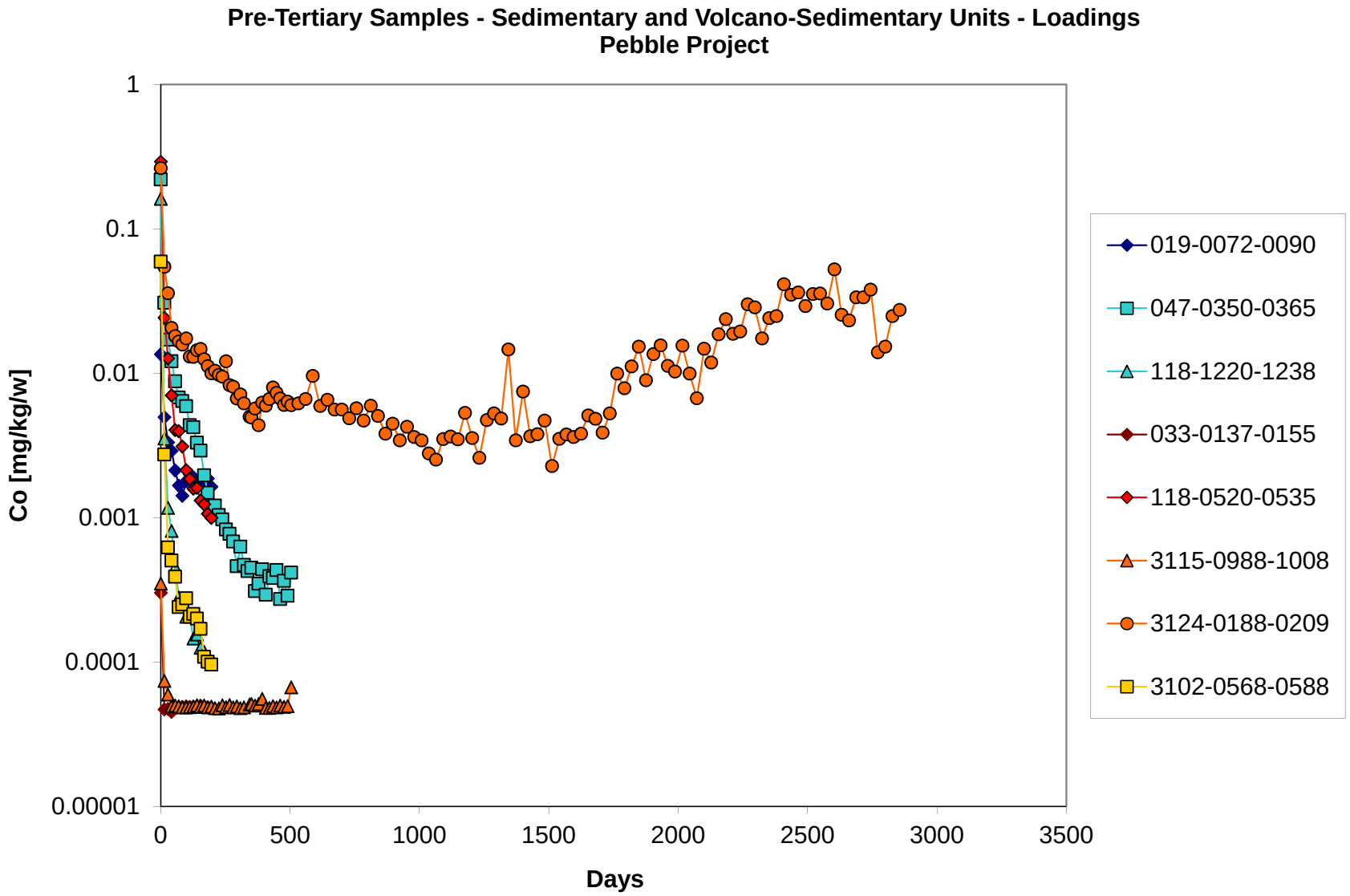

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Bi [mg/kg/w]
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

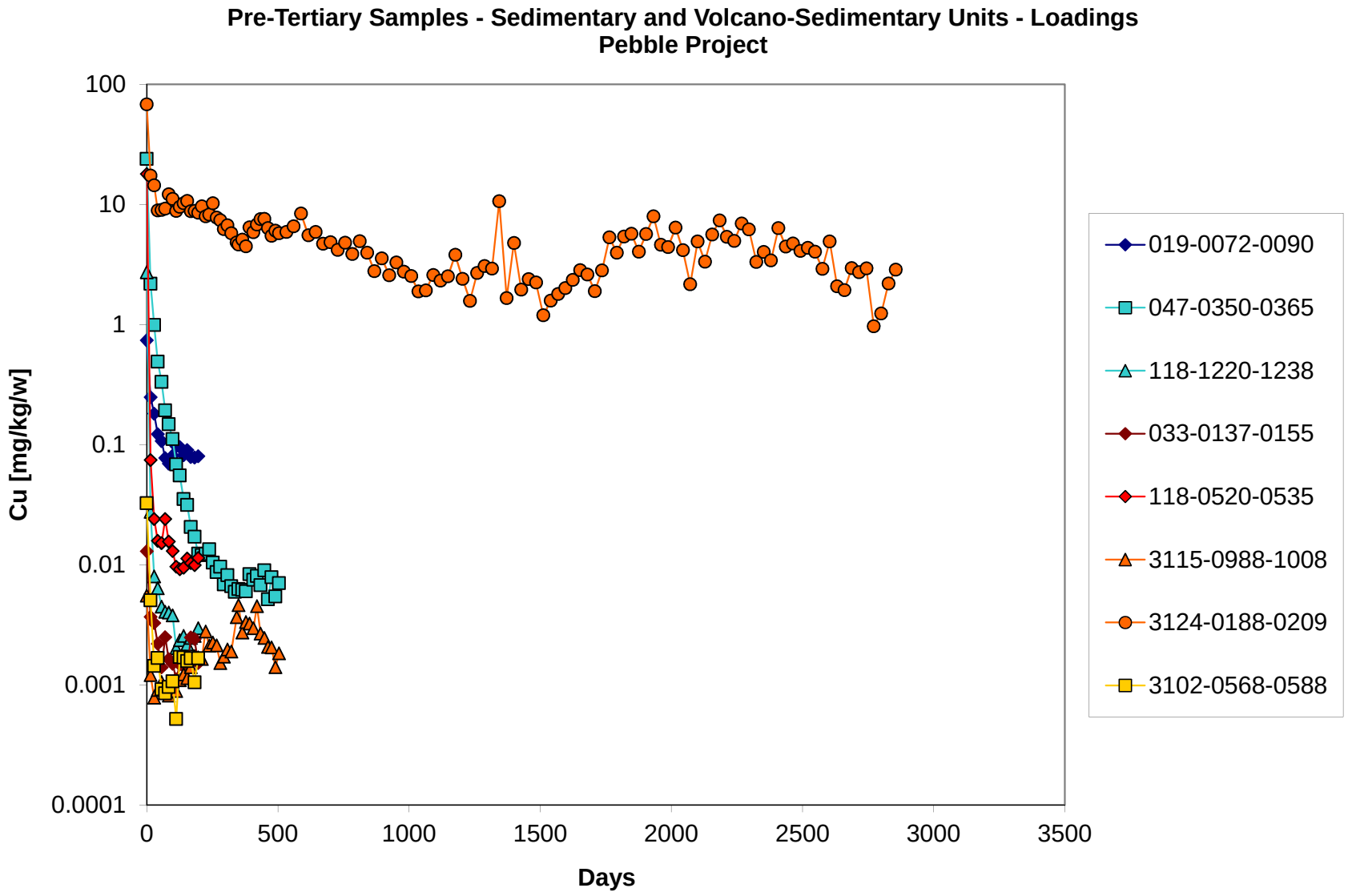

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
B [mg/kg/w]
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

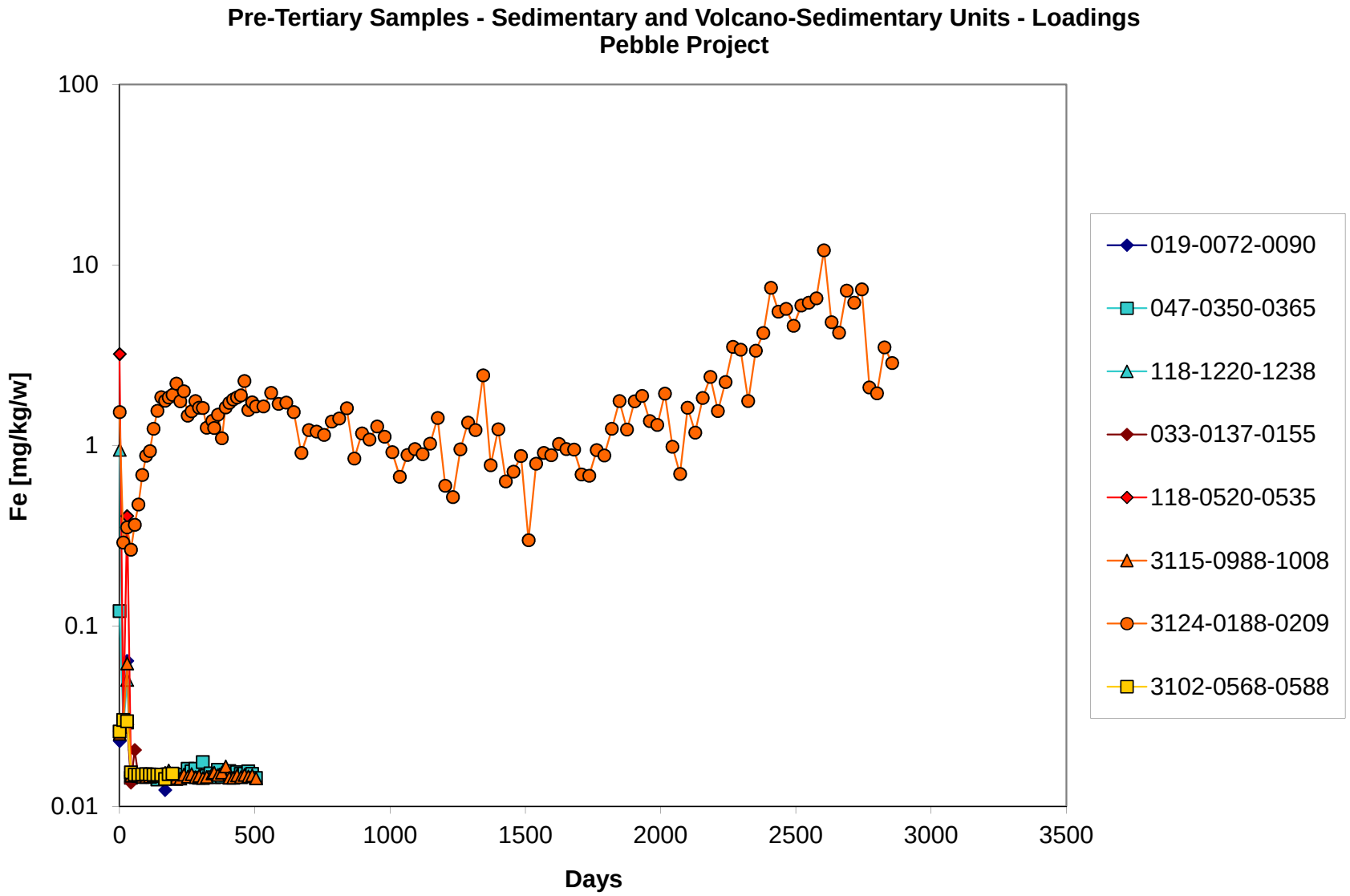

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Cd [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

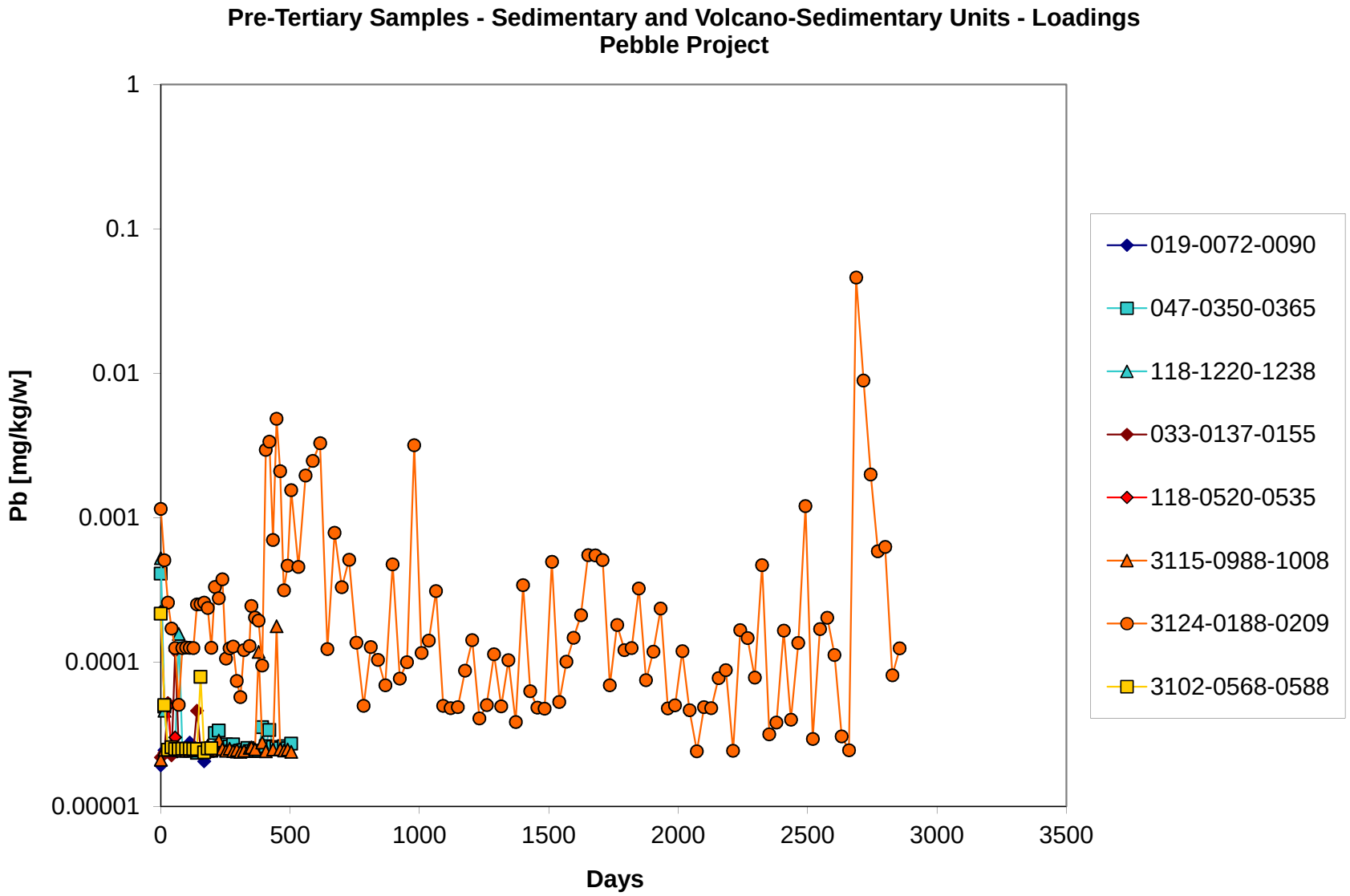

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Ca [mg/kg/w]
1000
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

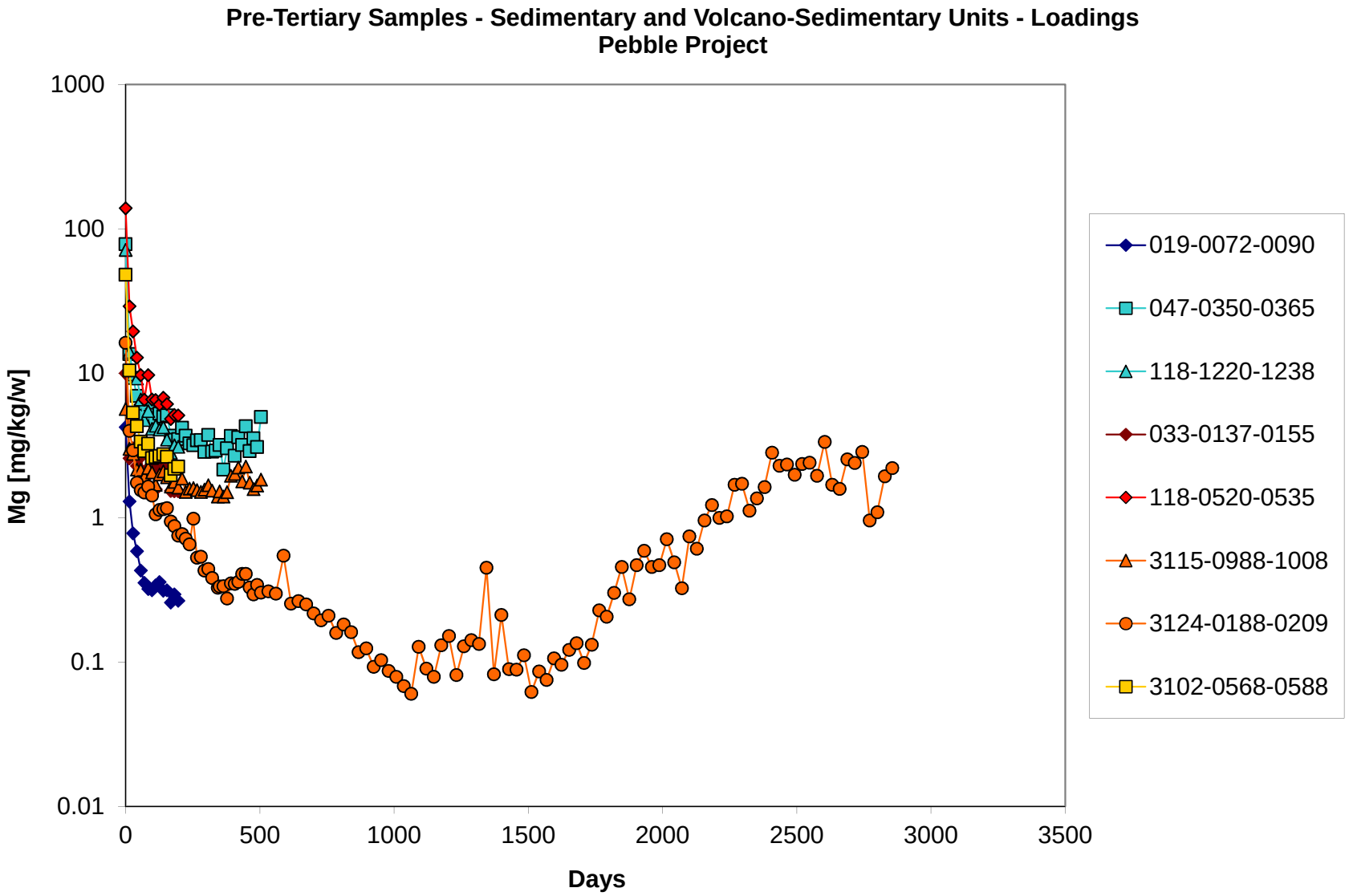

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Cr [mg/kg/w]
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

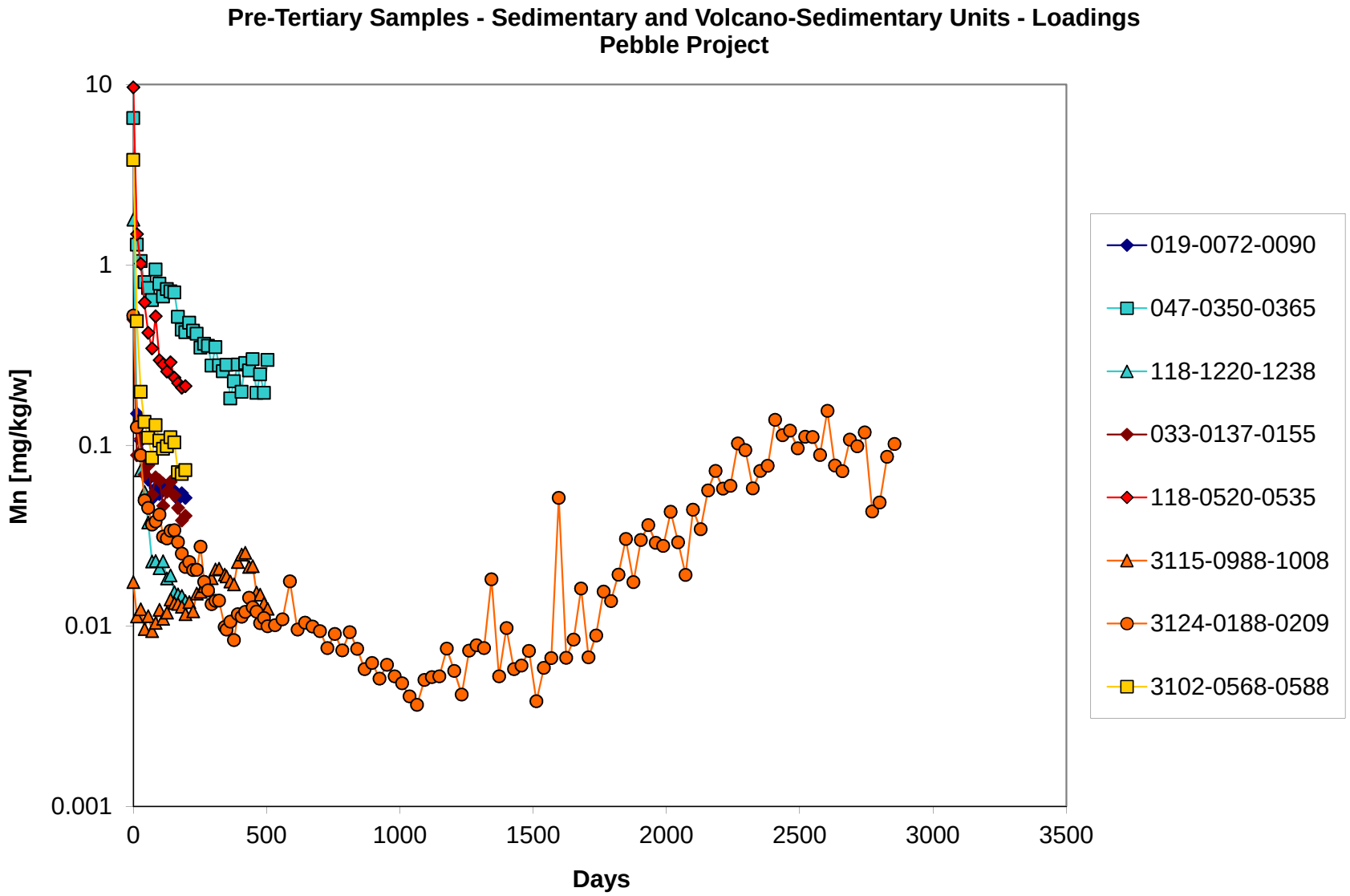

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Co [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

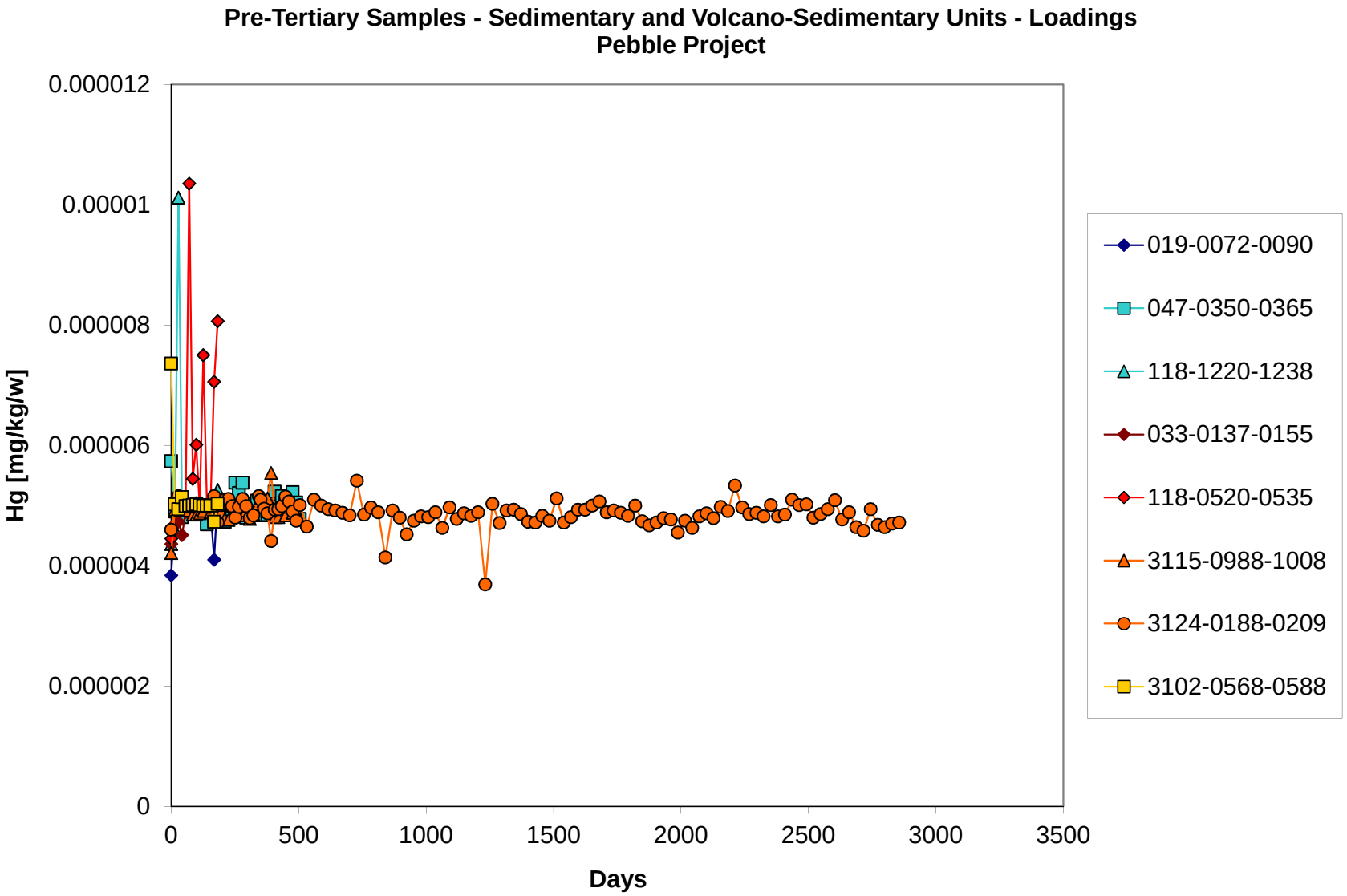

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Cu [mg/kg/w]
100
10
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

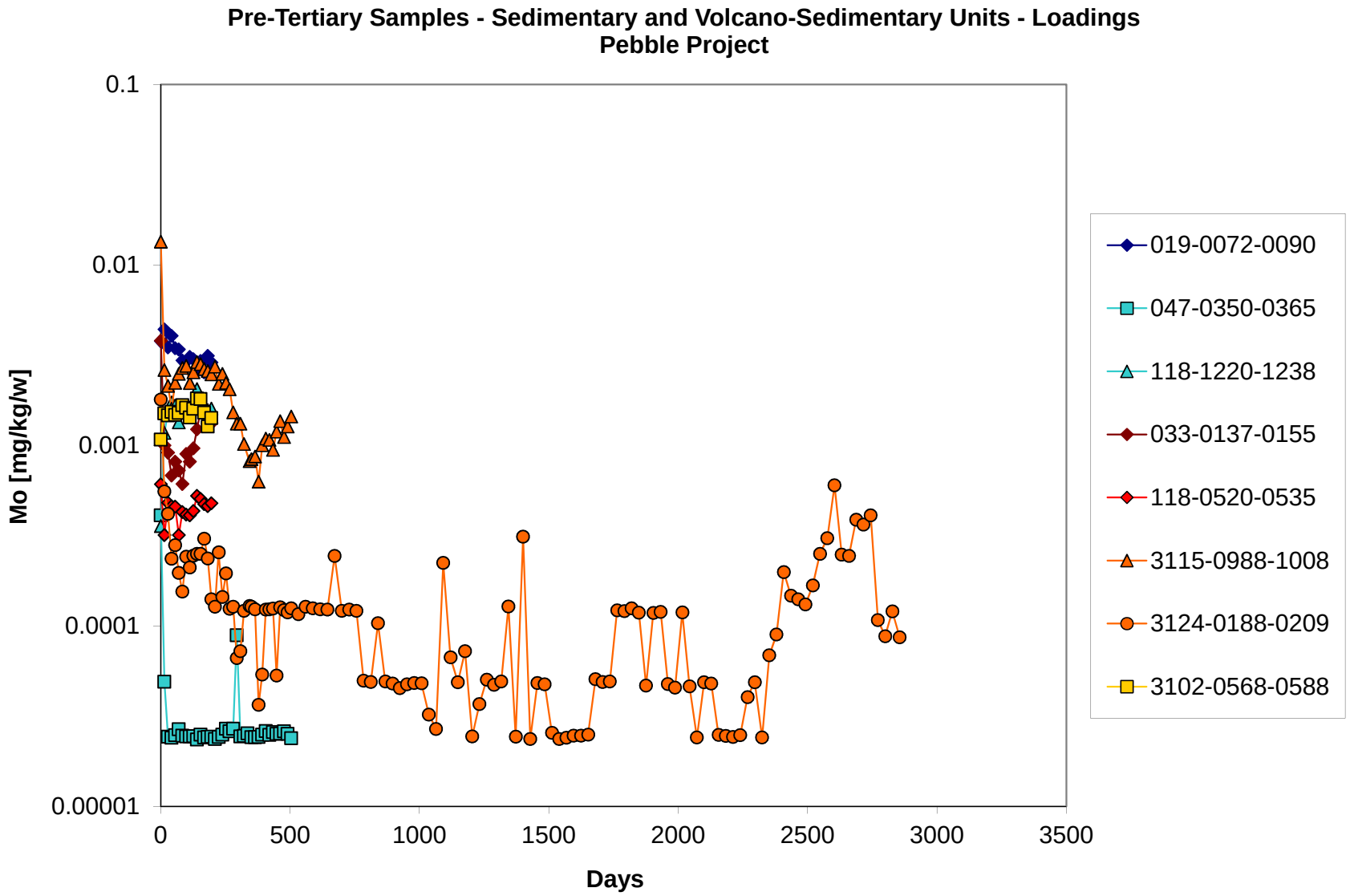

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Fe [mg/kg/w]
100
10
1
0.1
0.01
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

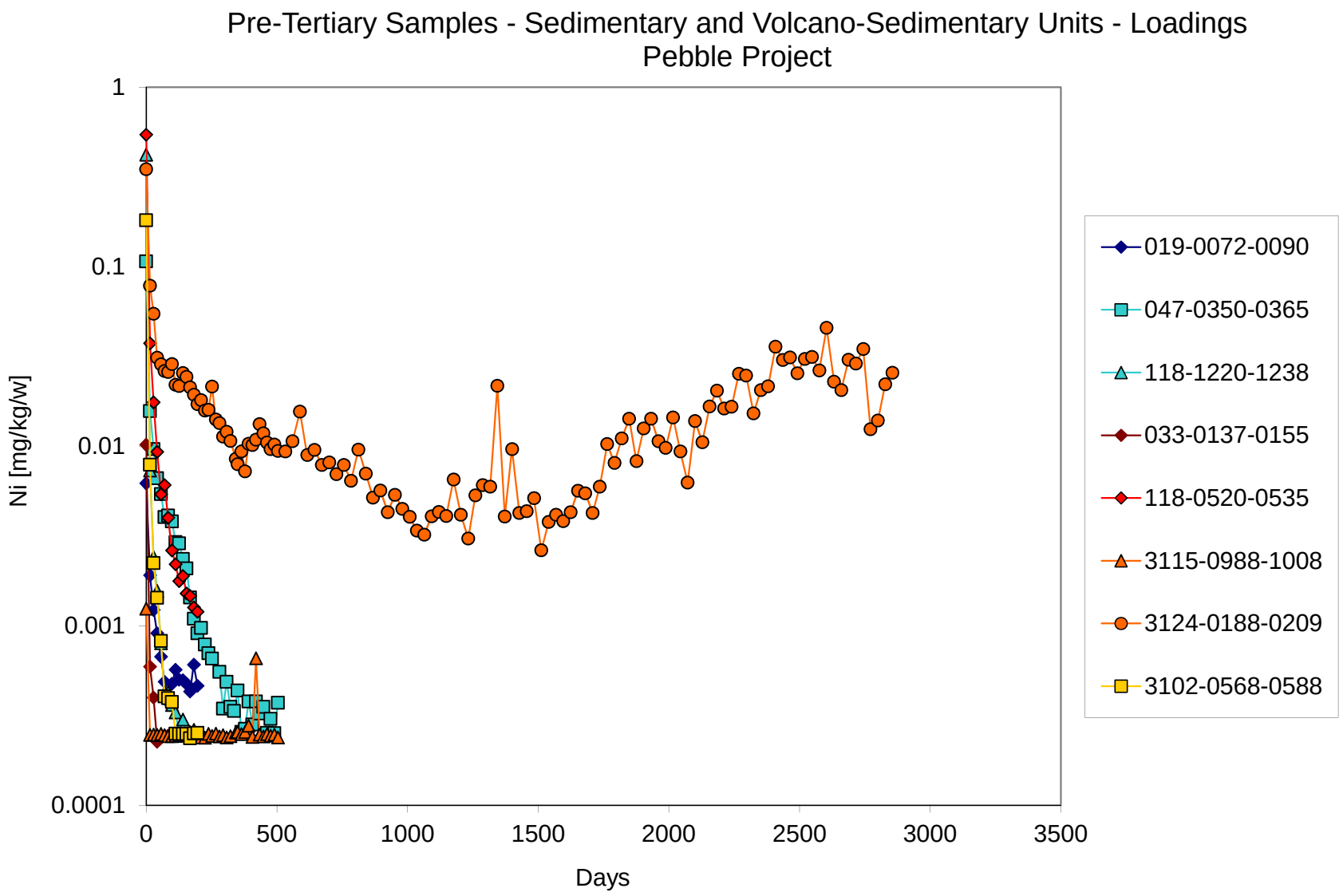

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Pb [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

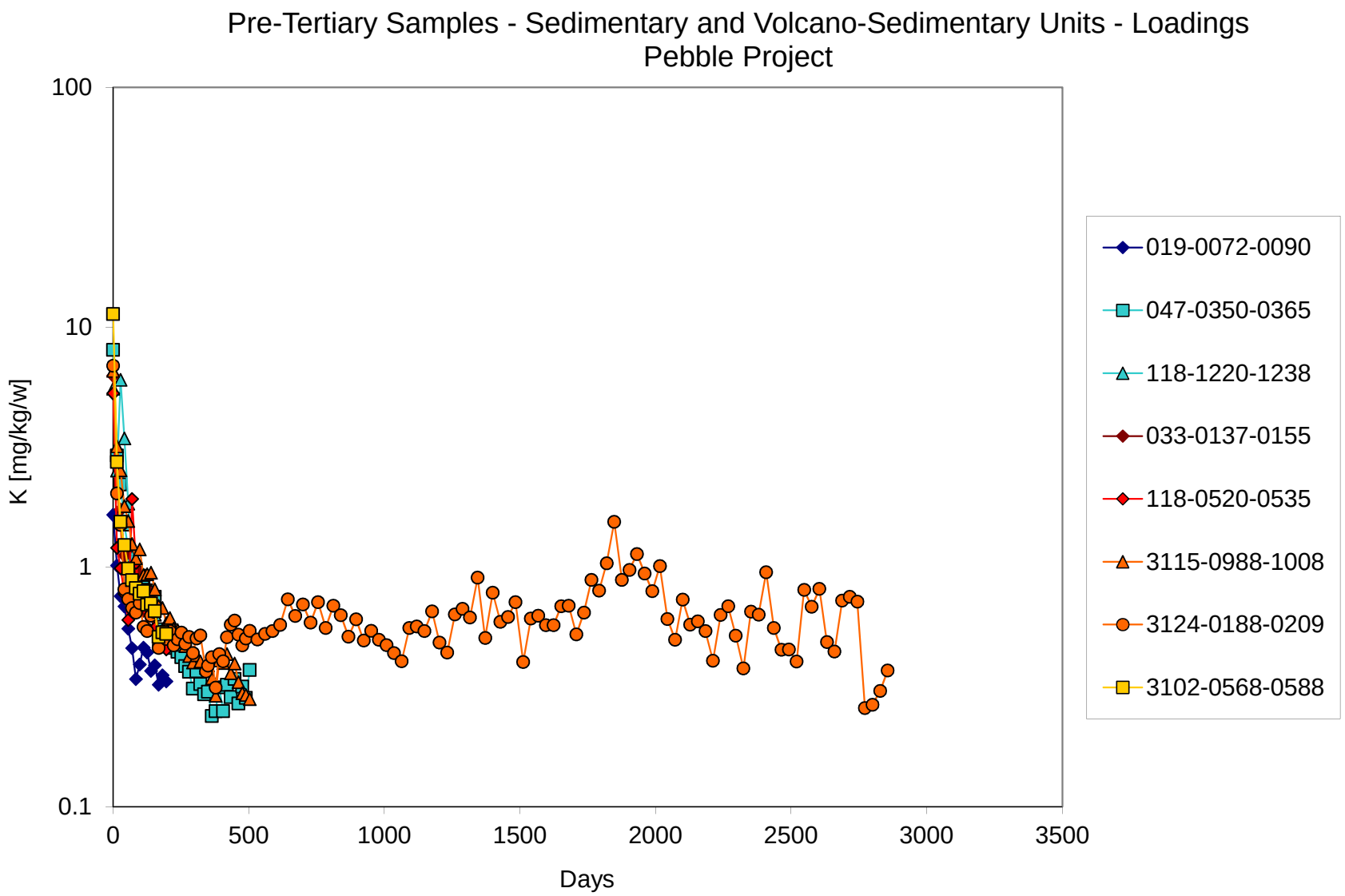

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Mg [mg/kg/w]
1000
100
10
1
0.1
0.01
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

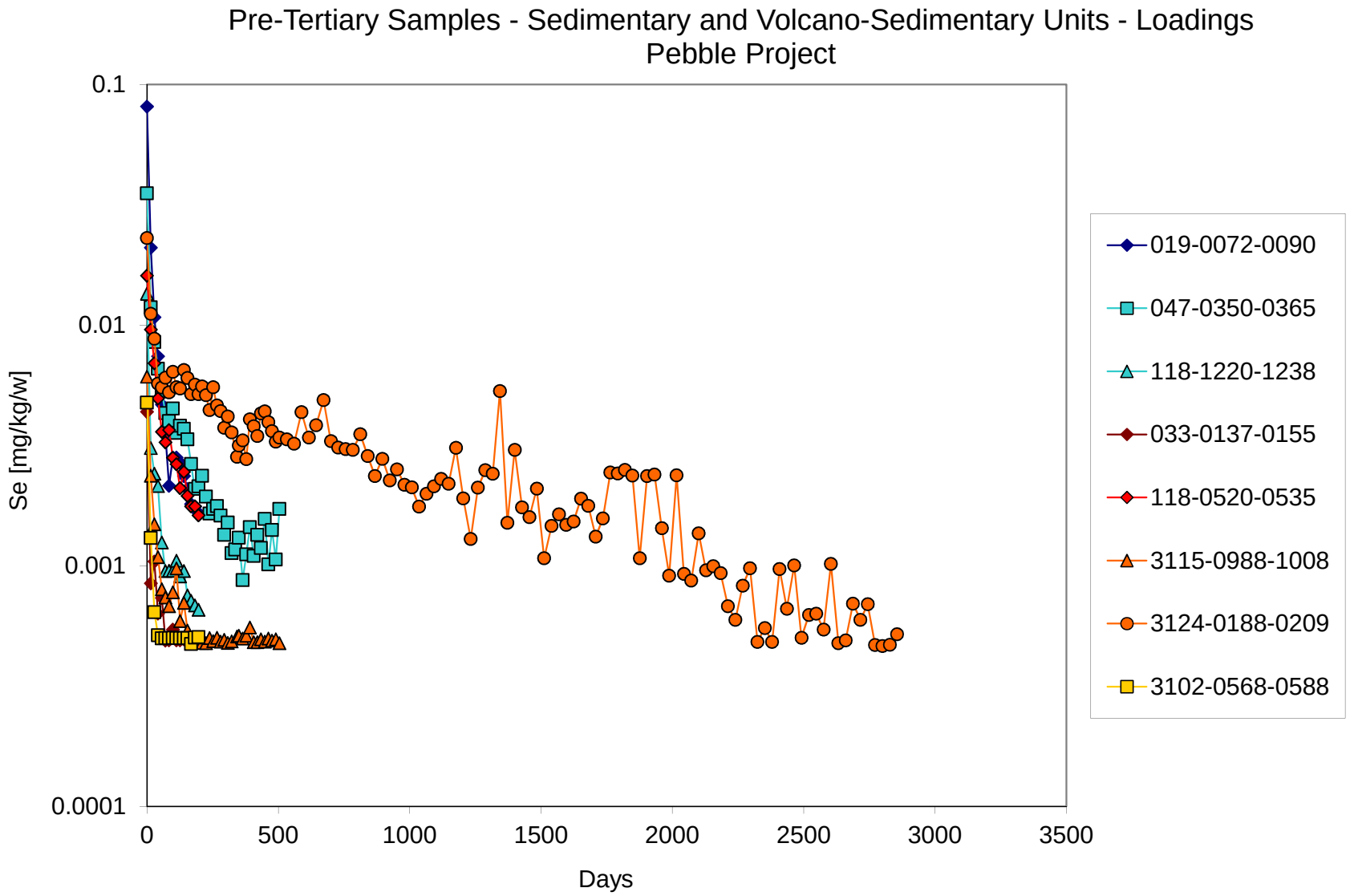

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Mn [mg/kg/w]
10
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

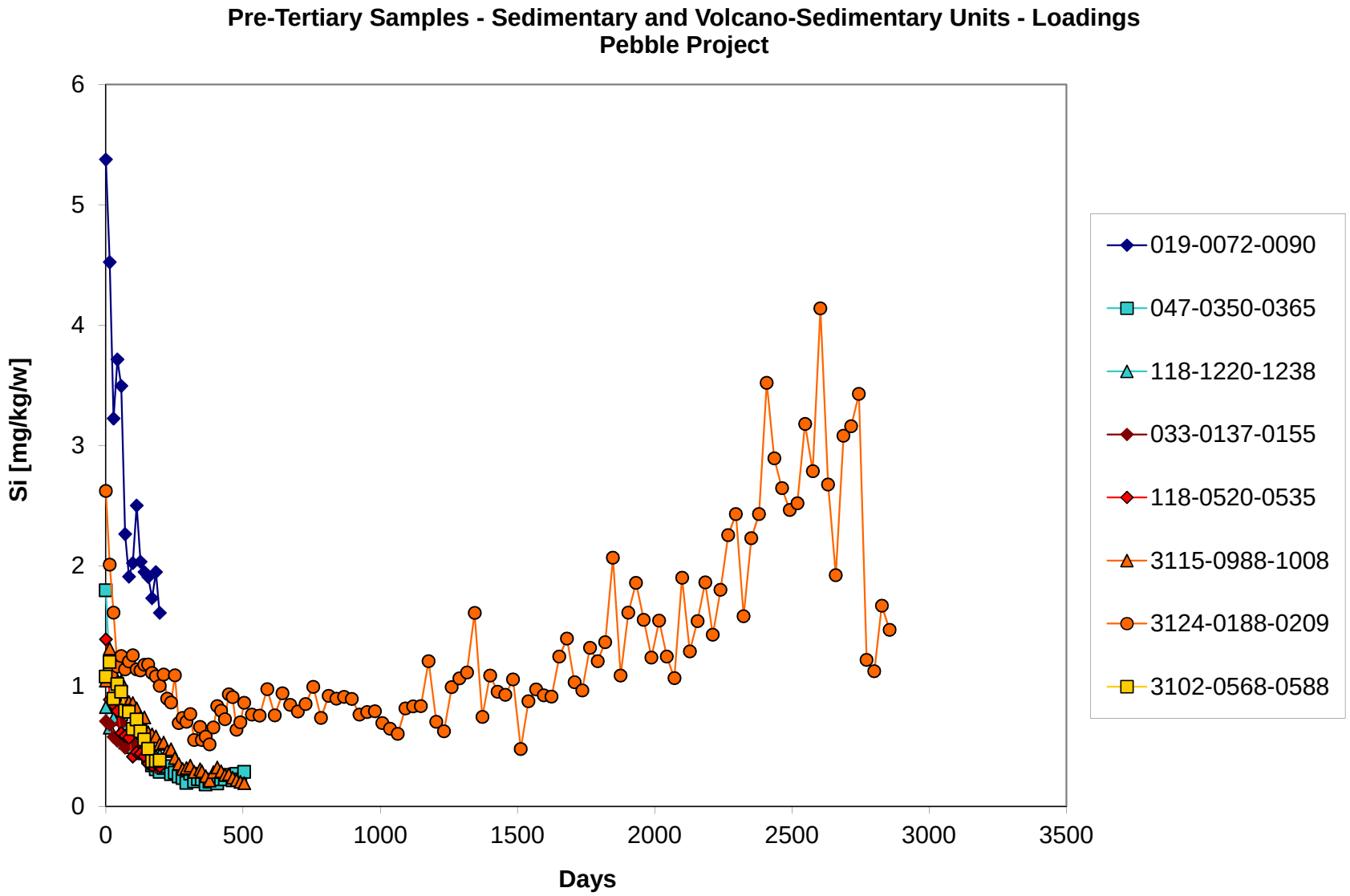

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Hg [mg/kg/w]
0.000012
0.00001
0.000008
0.000006
0.000004
0.000002
0
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

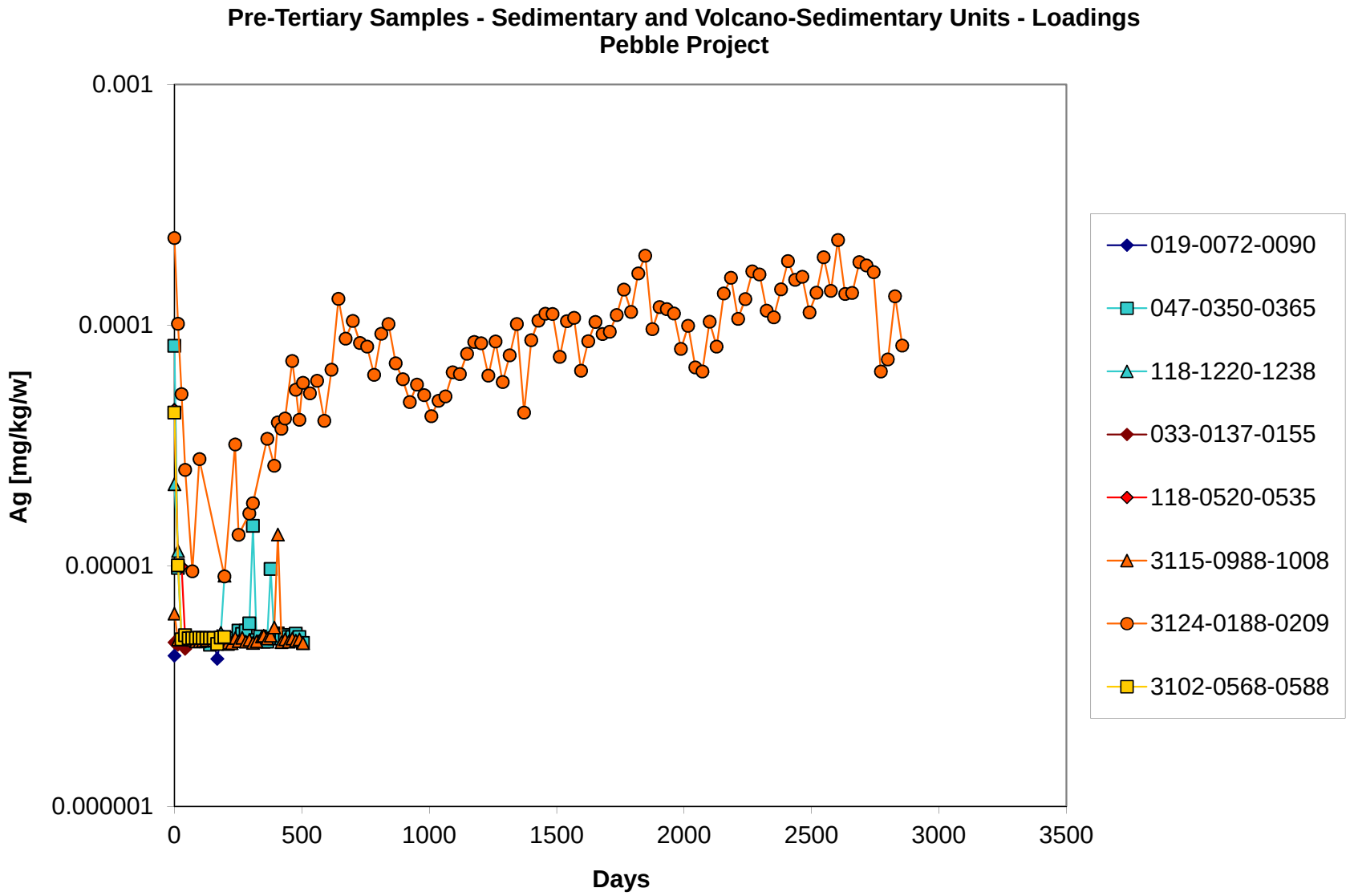

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Mo [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

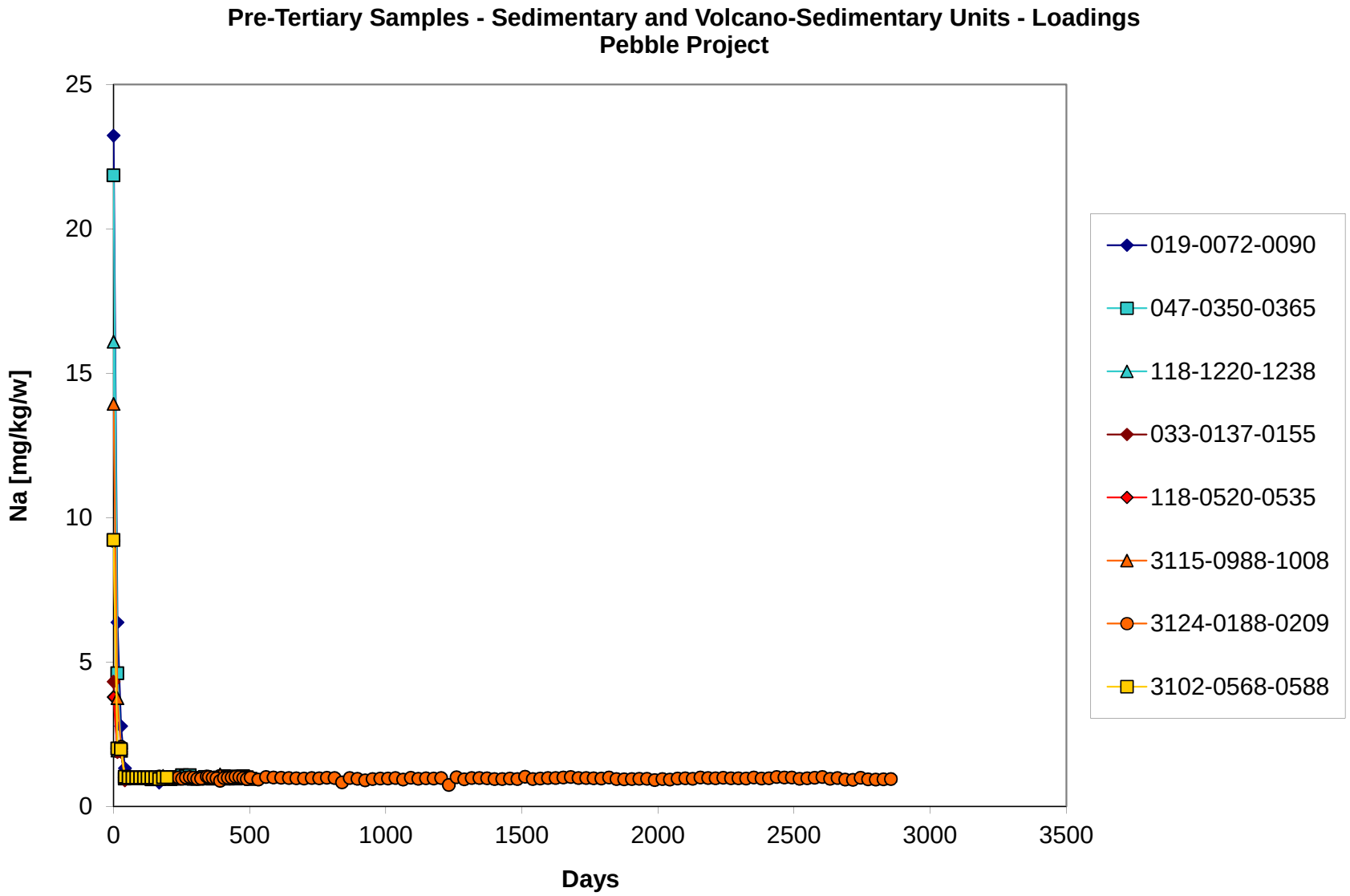

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Ni [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

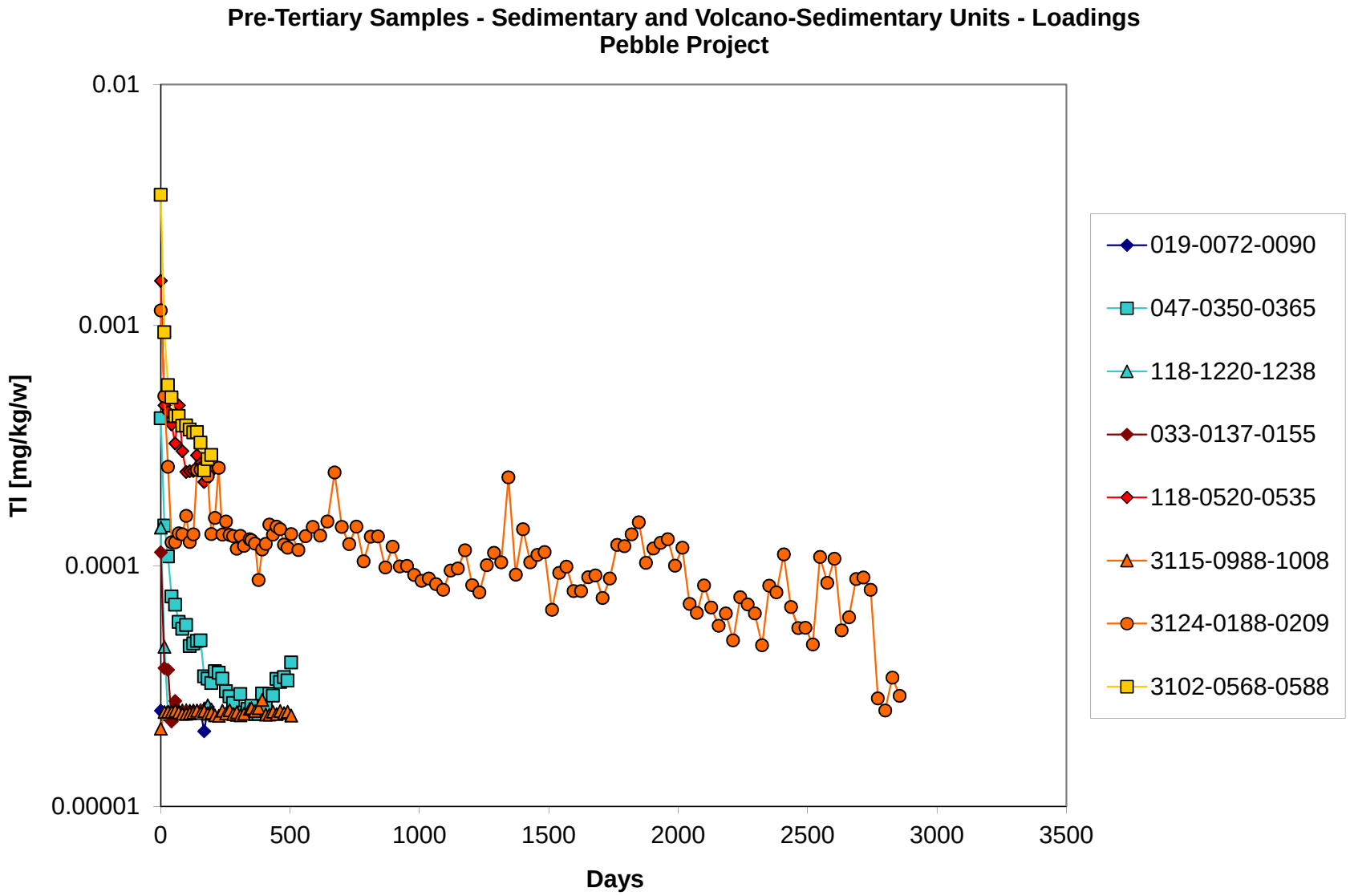

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
K [mg/kg/w]
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

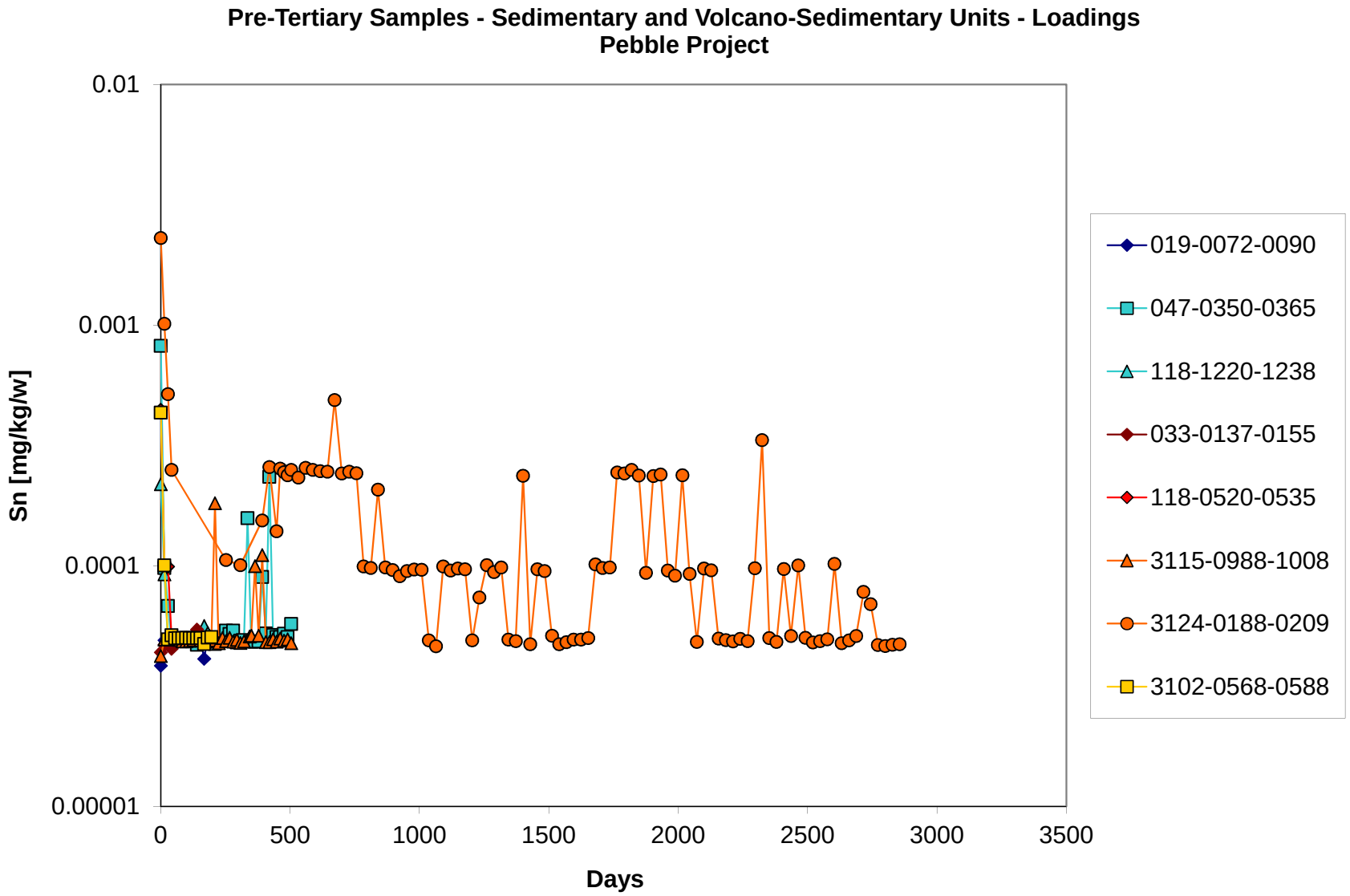

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Se [mg/kg/w]
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

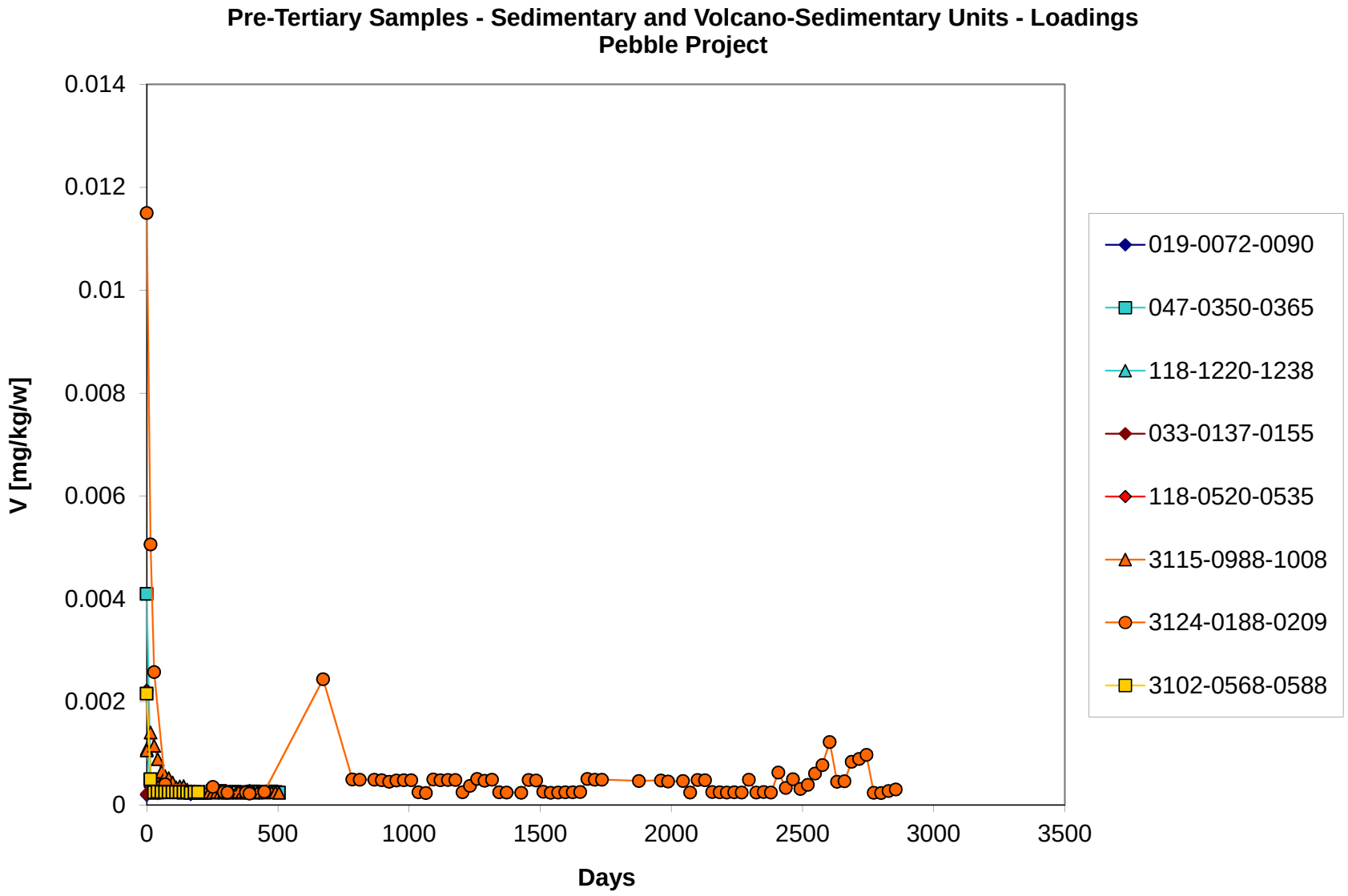

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Si [mg/kg/w]
Days
0
1
2
3
4
5
6
0
500
1000
1500
2000
2500
3000
3500
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

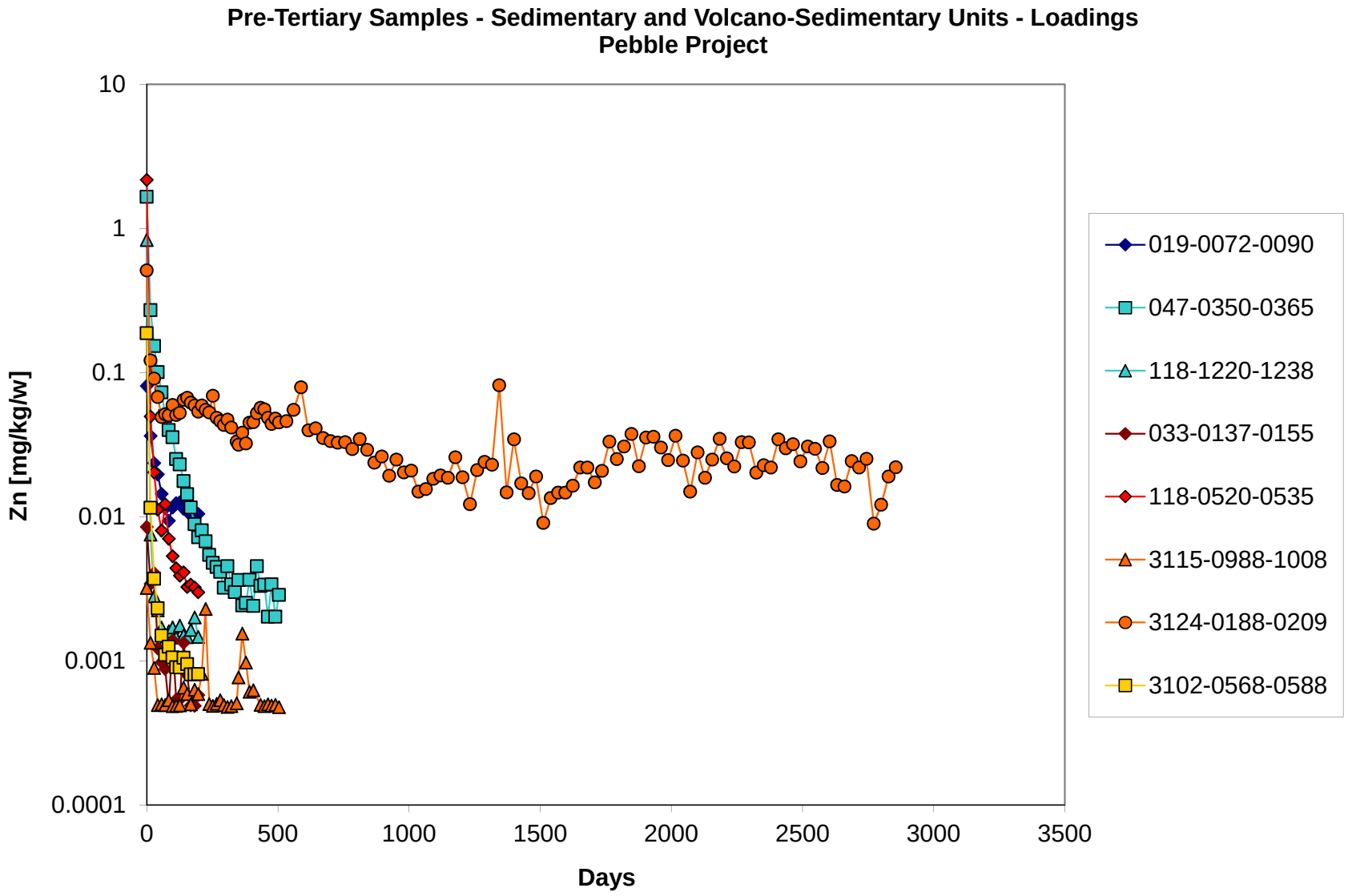

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Ag [mg/kg/w]
0.001
0.0001
0.00001
0.000001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

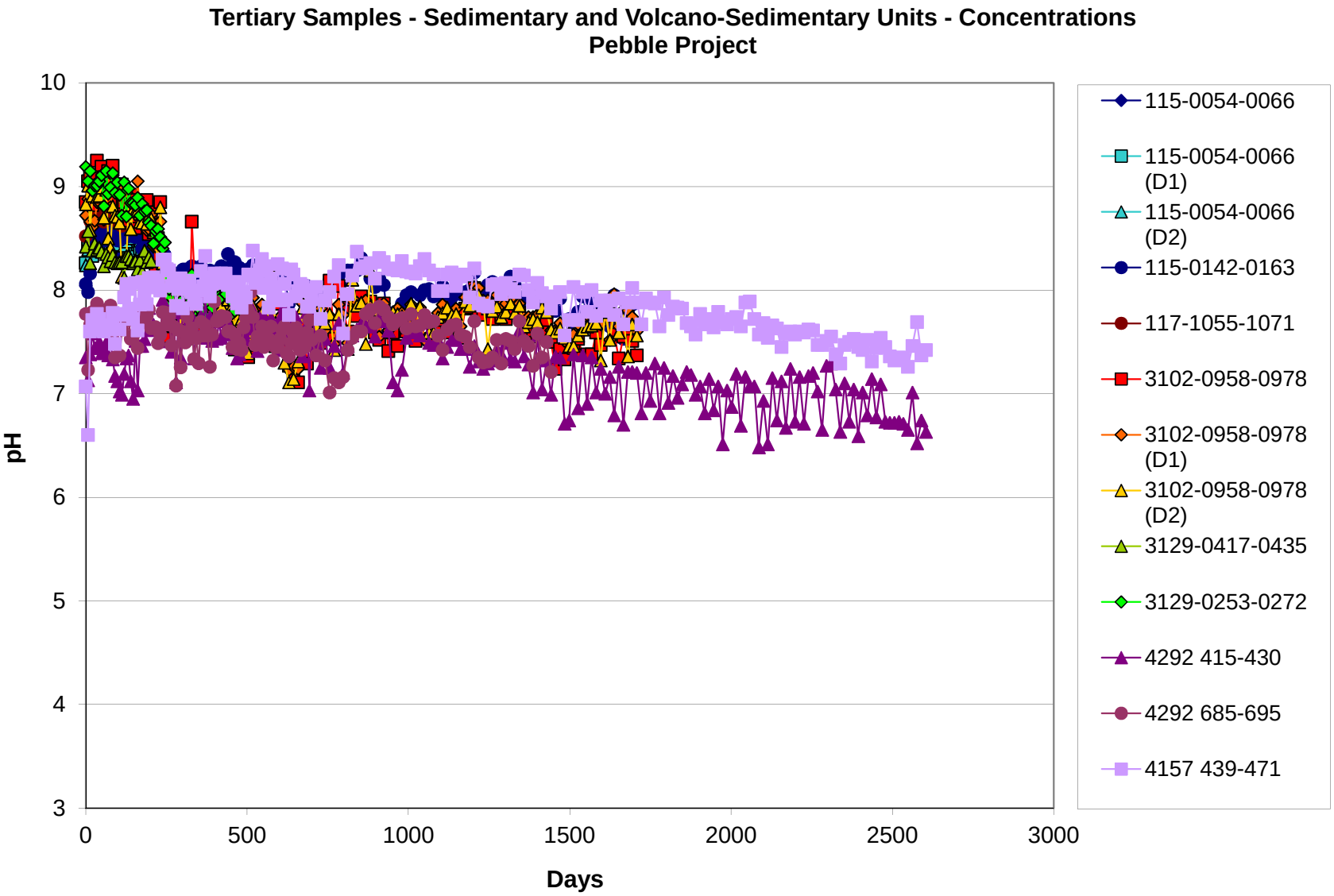

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Na [mg/kg/w]
25
20
15
10
5
0
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

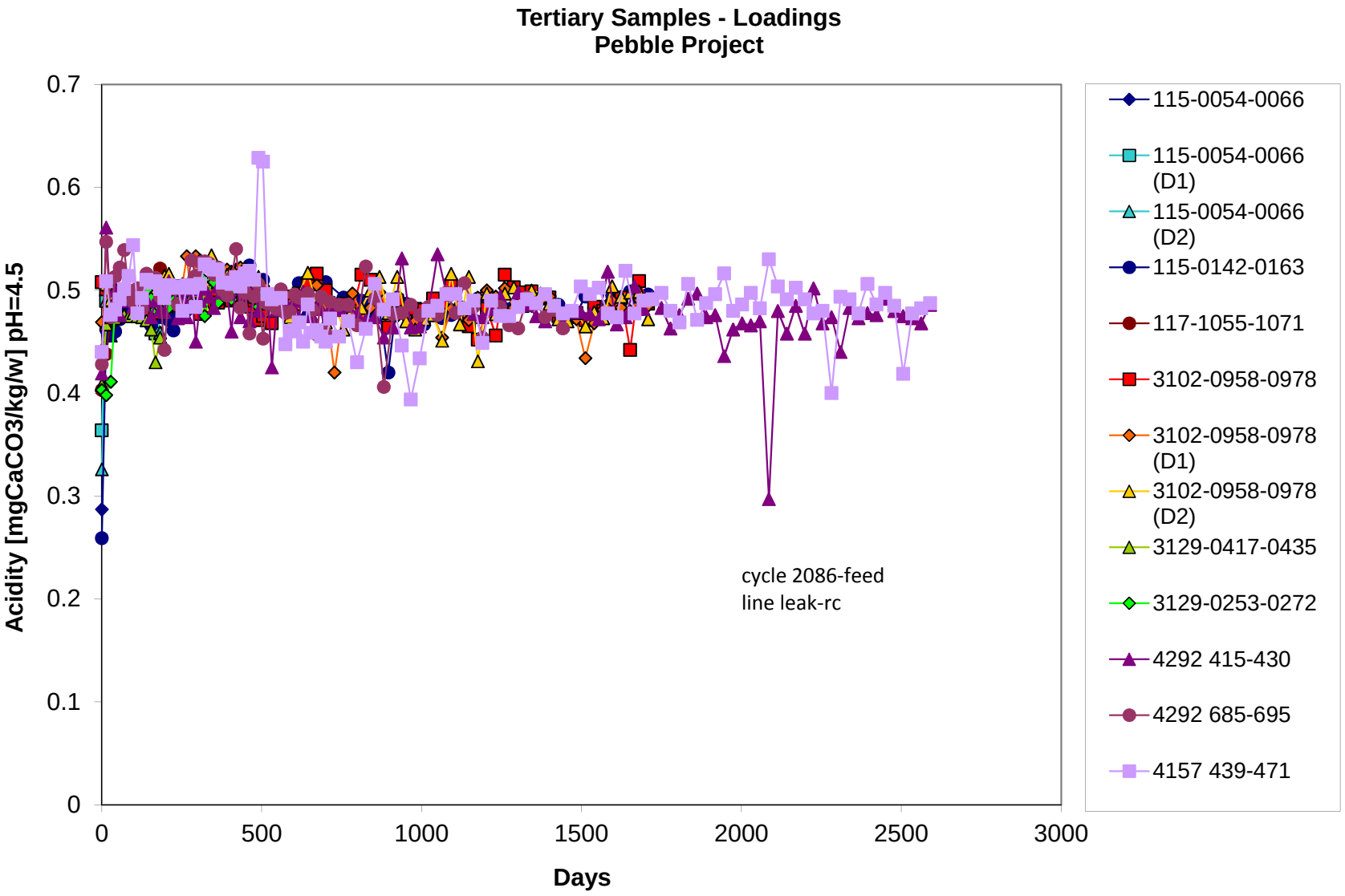

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Tl [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

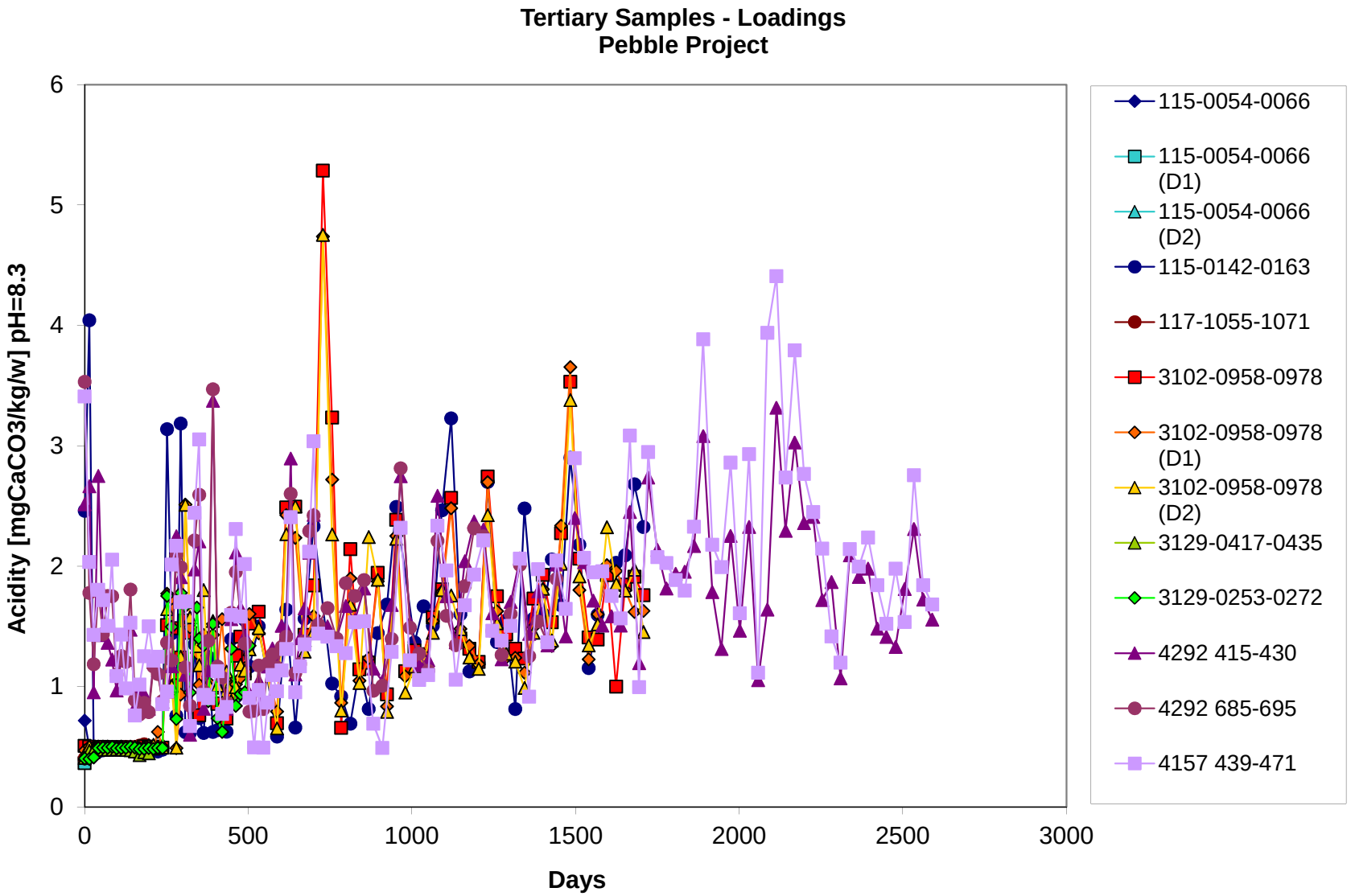

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Sn [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

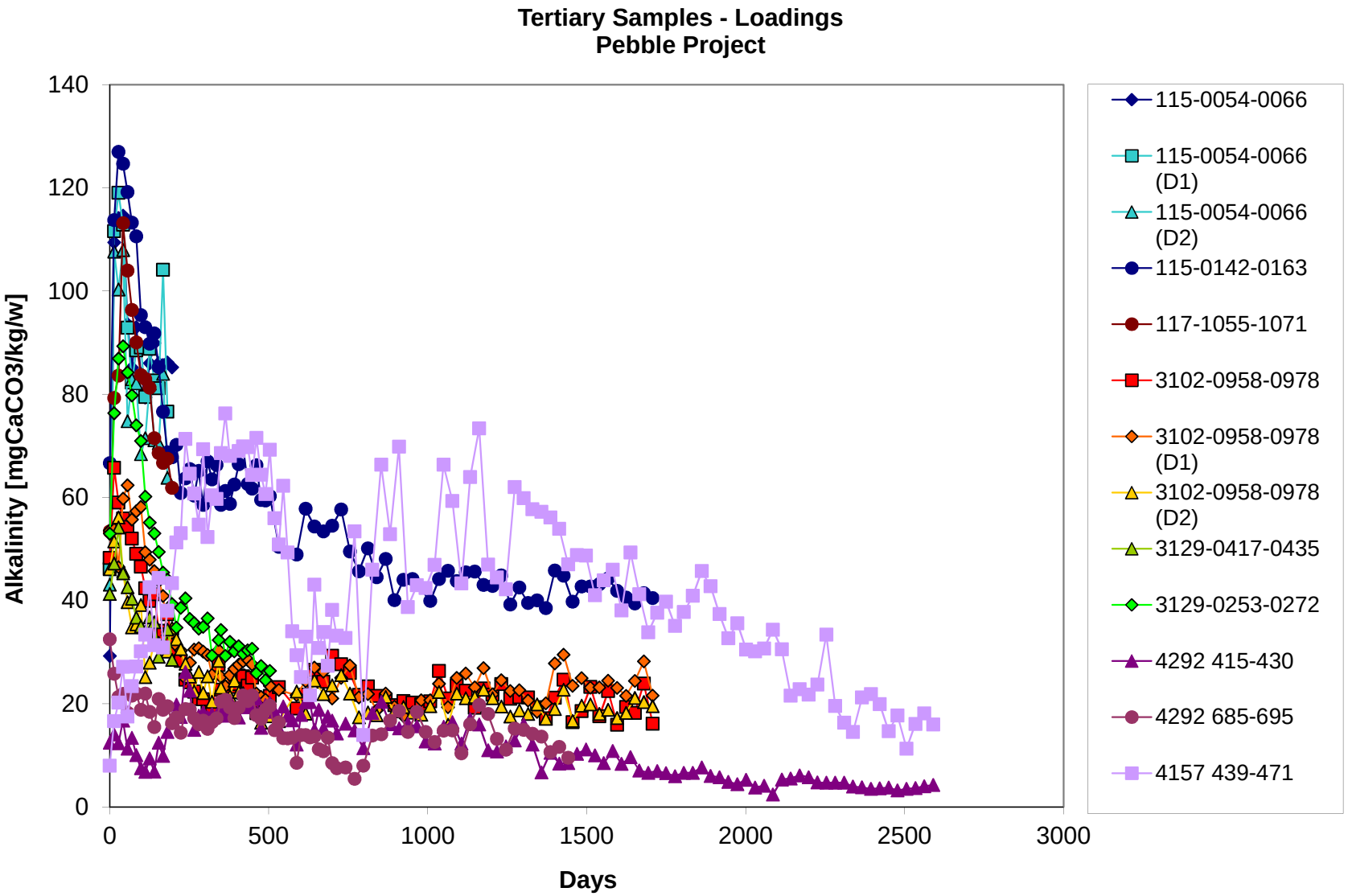

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
V [mg/kg/w]
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

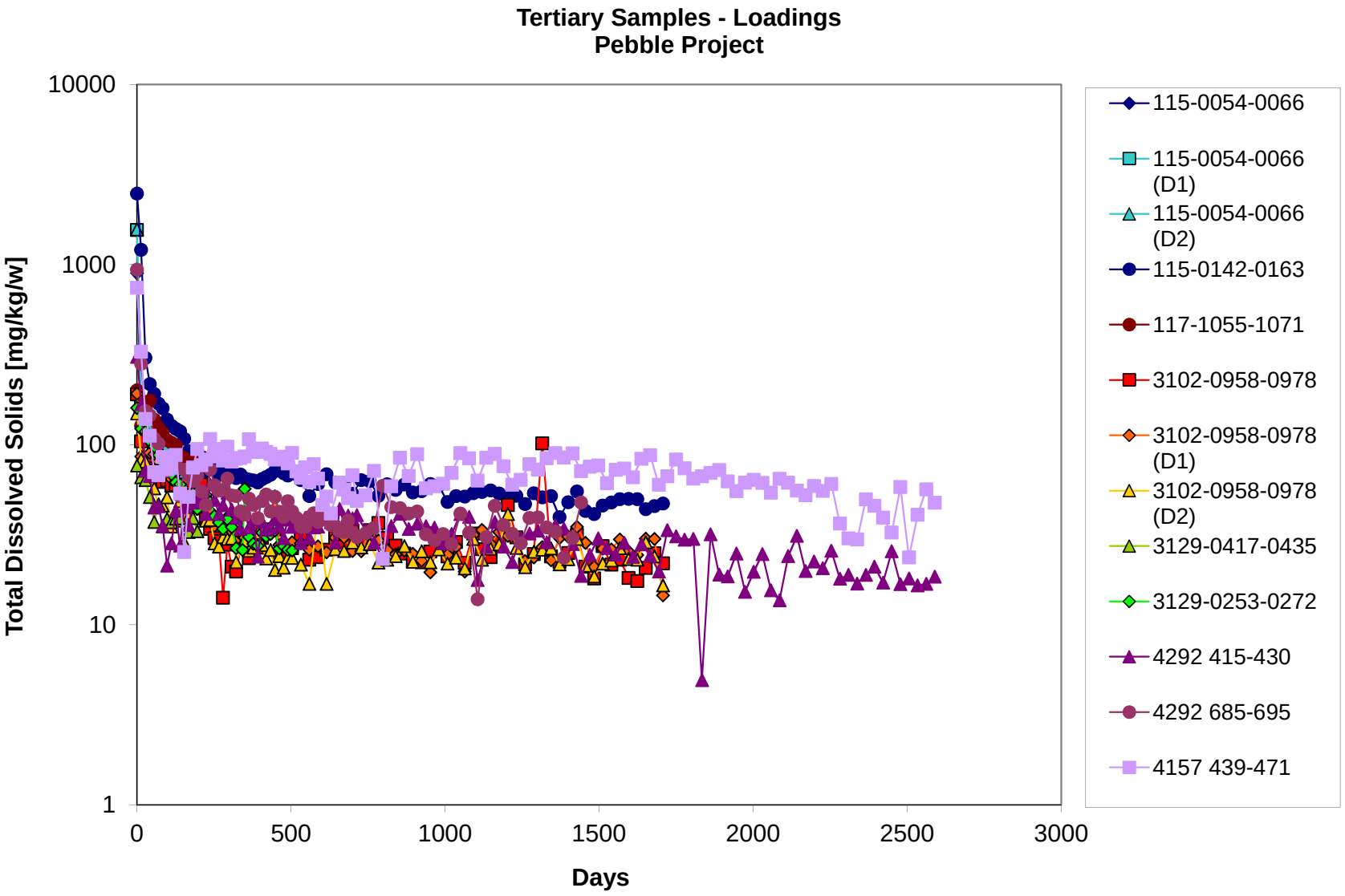

Pre-Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Loadings
Pebble Project
Zn [mg/kg/w]
10
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
3500
Days
019-0072-0090
047-0350-0365
118-1220-1238
033-0137-0155
118-0520-0535
3115-0988-1008
3124-0188-0209
3102-0568-0588

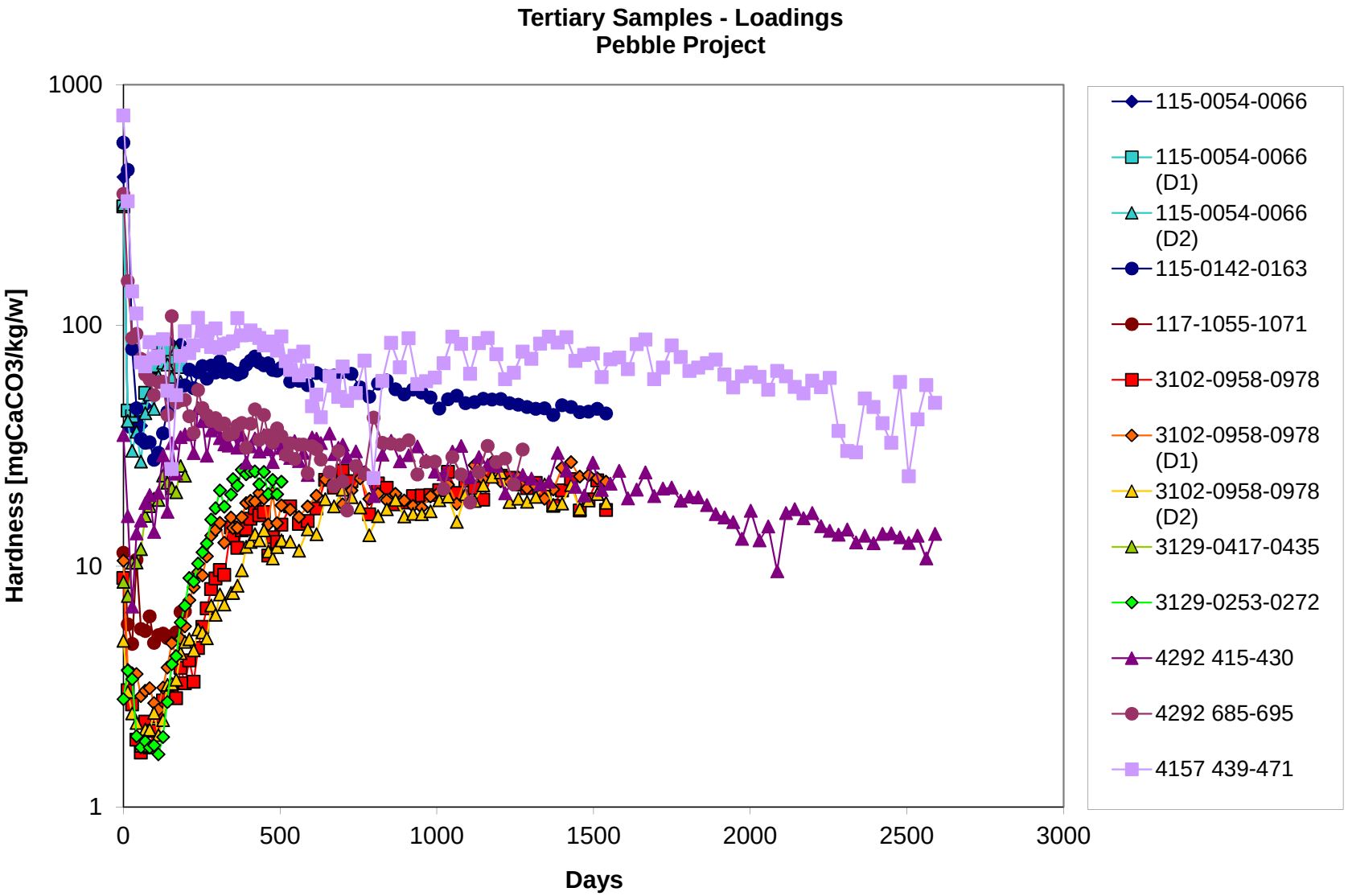

Tertiary Samples - Sedimentary and Volcano-Sedimentary Units - Concentrations
Pebble Project
pH
Days
10
9
8
7
6
5
4
3
0
500
1000
1500
2000
2500
3000
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

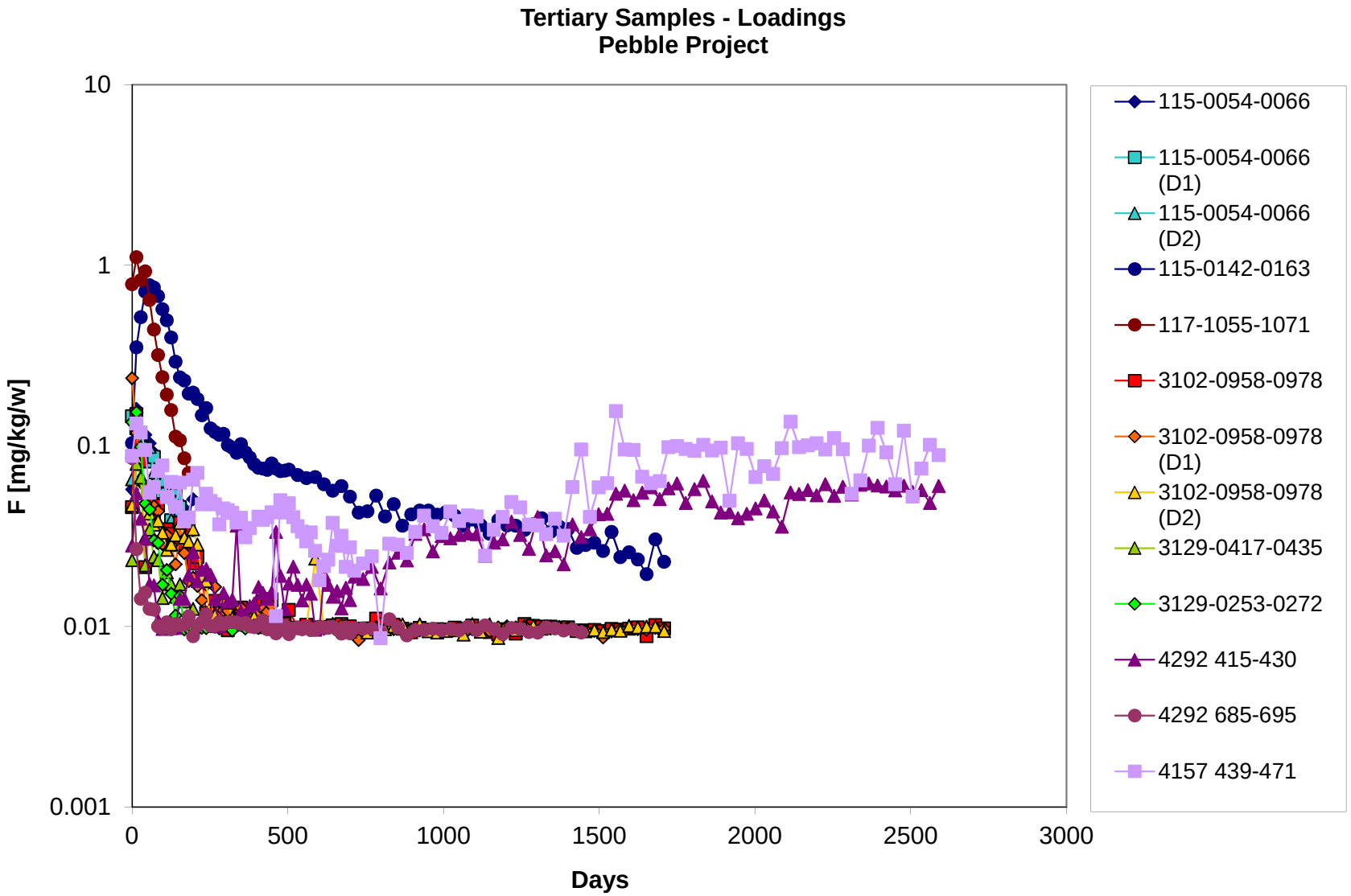

Tertiary Samples - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=4.5
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
500
1000
1500
2000
2500
3000
Days
cycle 2086-feed
line leak-rc
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

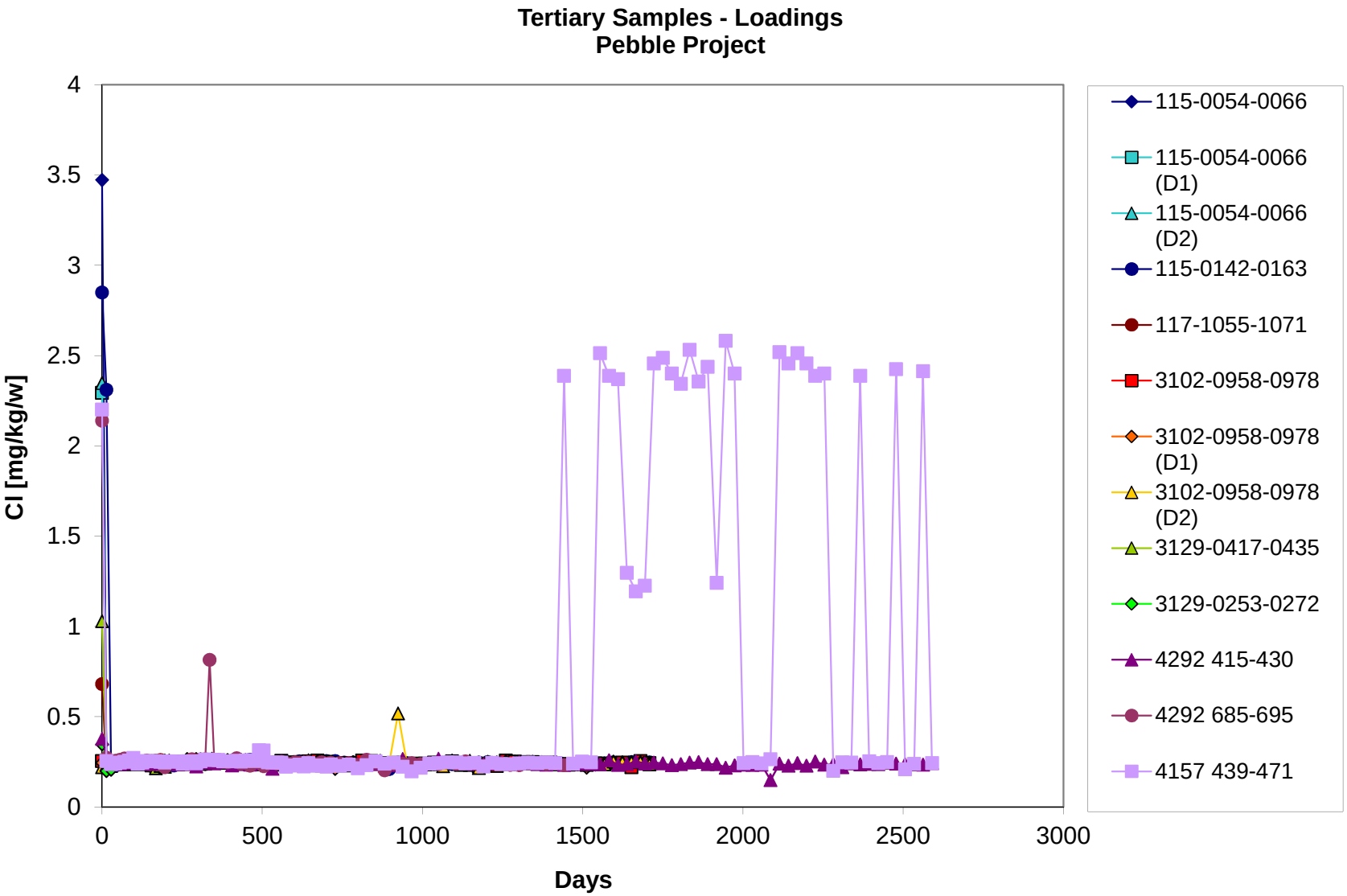

Tertiary Samples - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=8.3
Days
0
1
2
3
4
5
6
0
500
1000
1500
2000
2500
3000
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

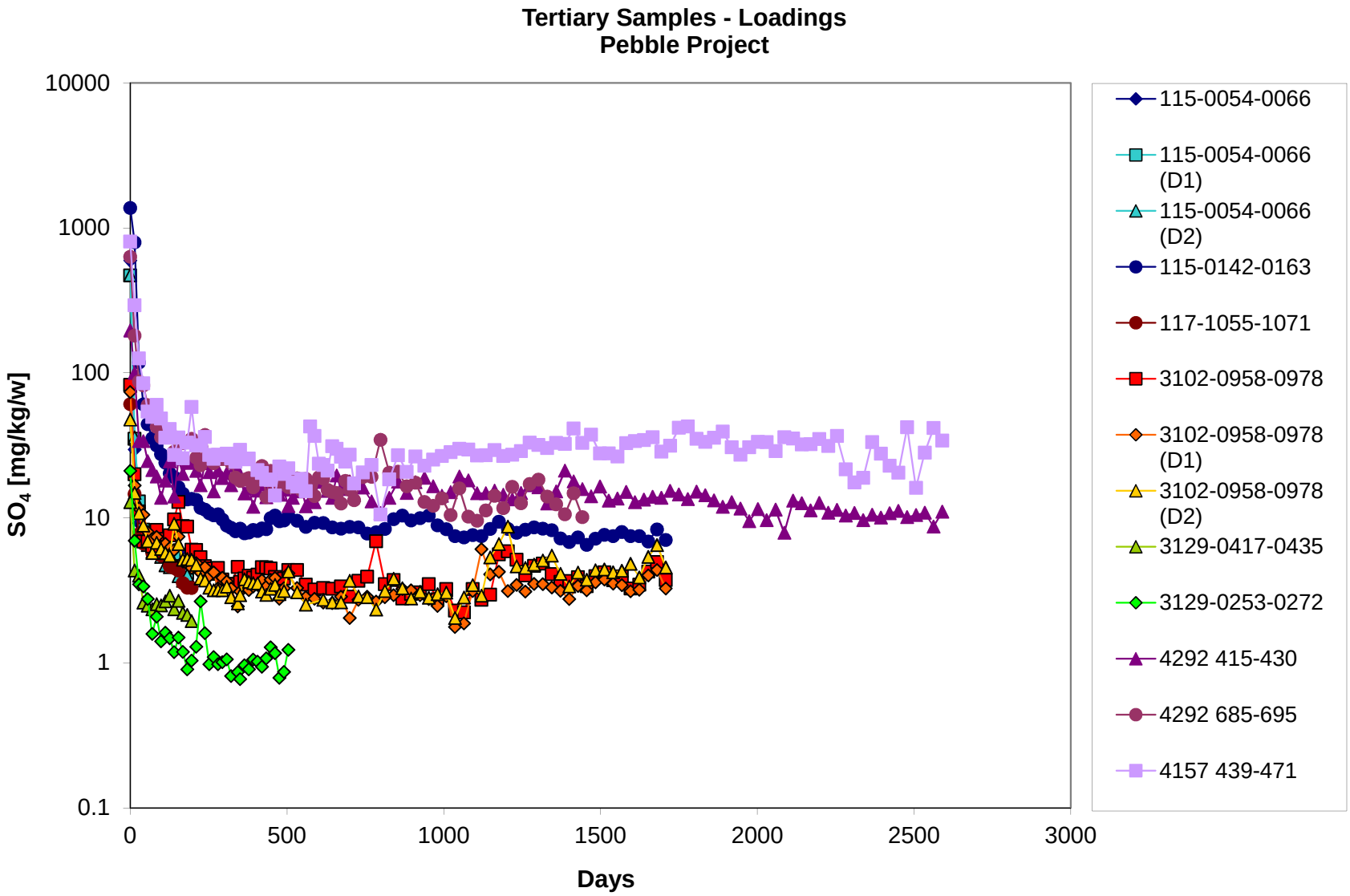

Tertiary Samples - Loadings
Pebble Project
Alkalinity [mgCaCO3/kg/w]
Days
0
20
40
60
80
100
120
140
0
500
1000
1500
2000
2500
3000
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

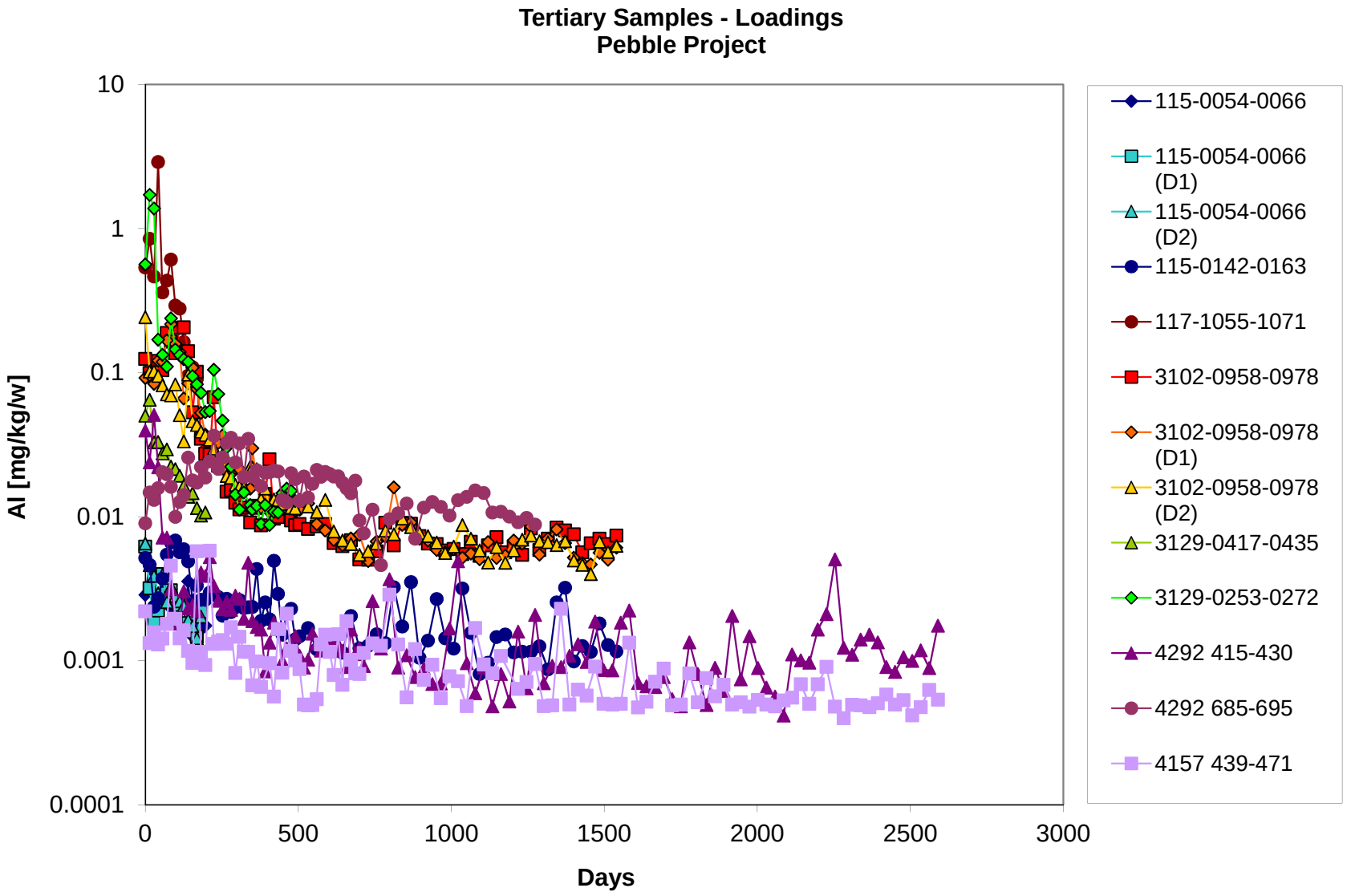

Tertiary Samples - Loadings
Pebble Project
Total Dissolved Solids [mg/kg/w]
10000
1000
100
10
1
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

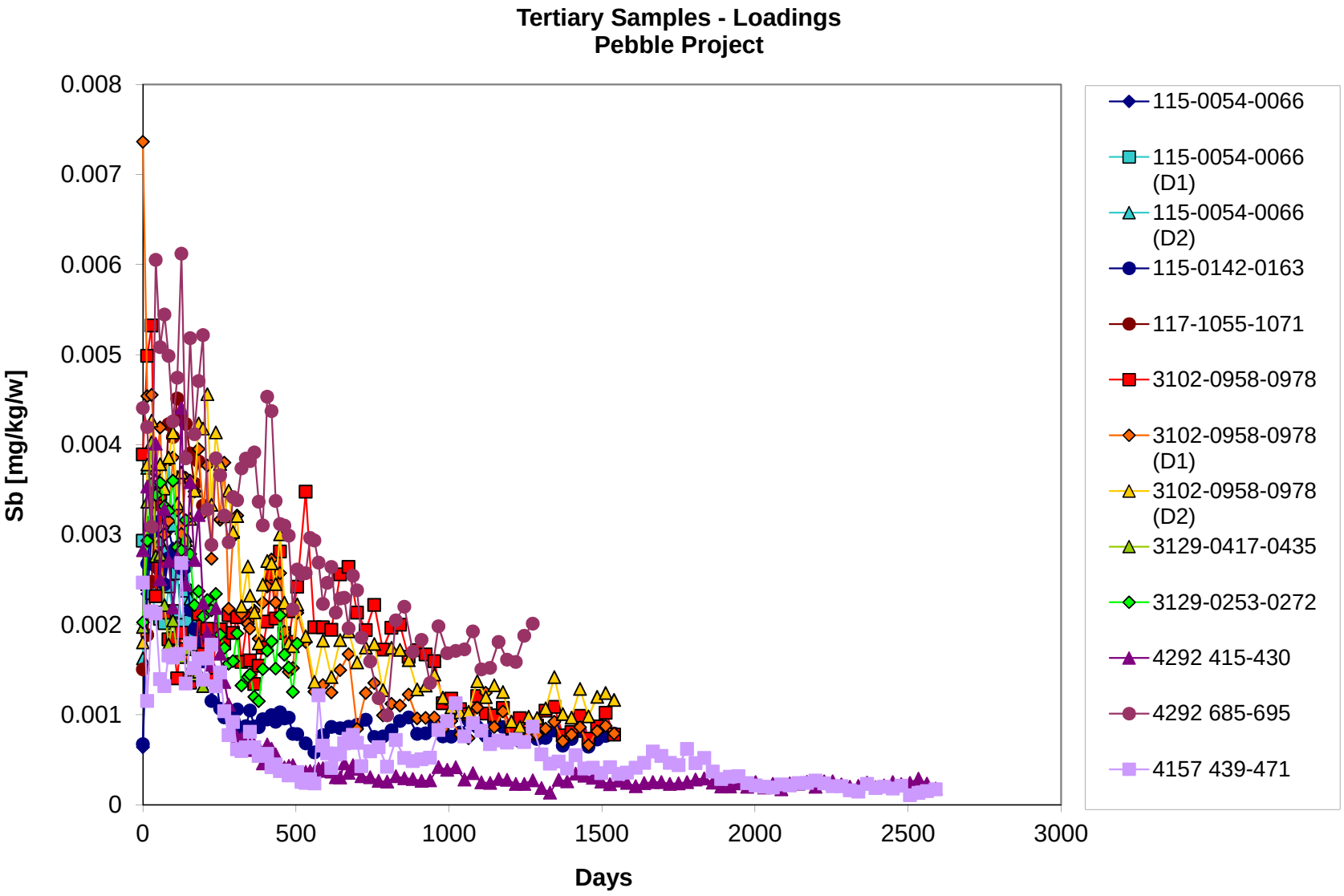

Tertiary Samples - Loadings
Pebble Project
Hardness [mgCaCO3/kg/w]
1000
100
10
1
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

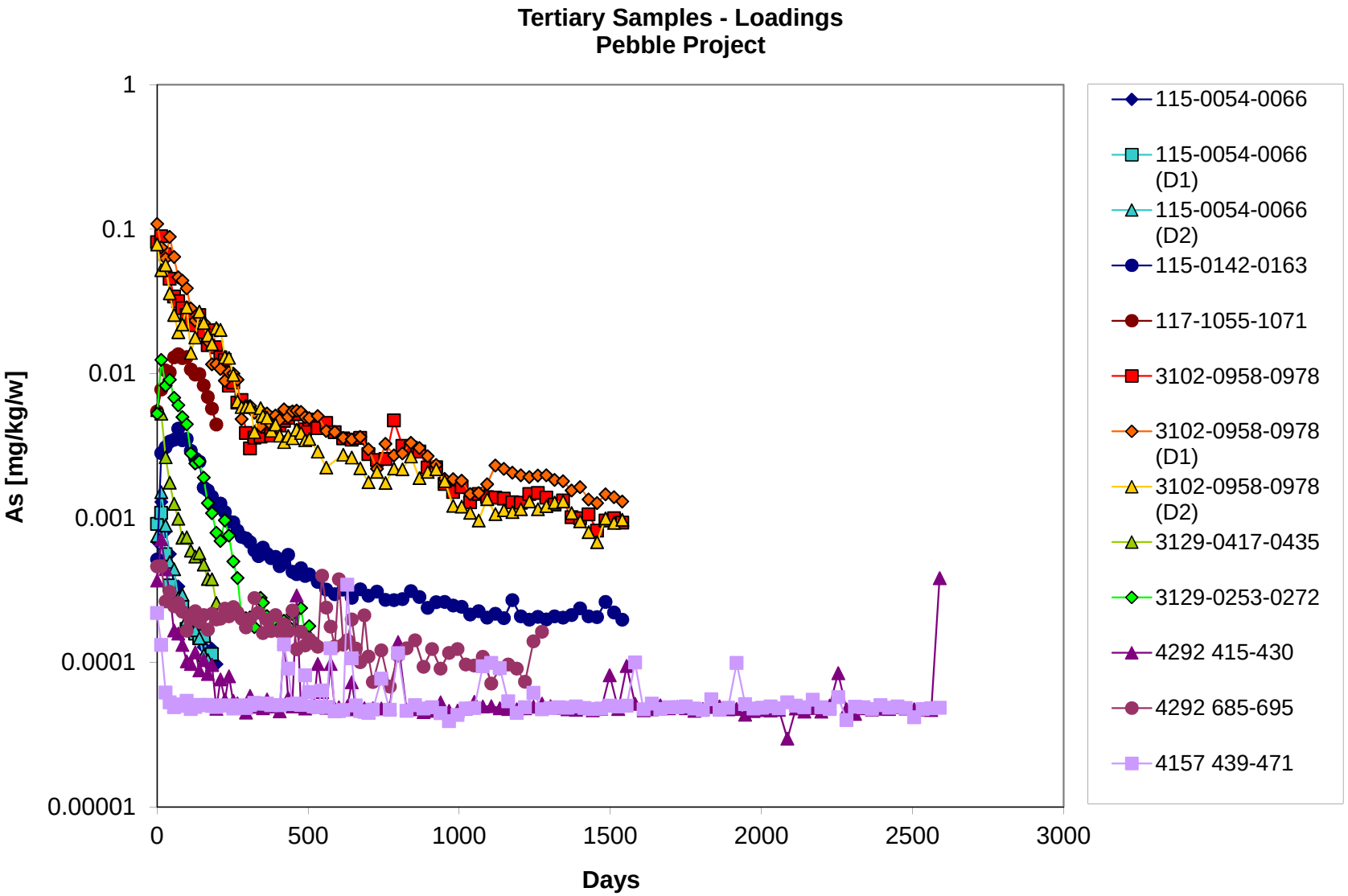

Tertiary Samples - Loadings
Pebble Project
F [mg/kg/w]
10
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

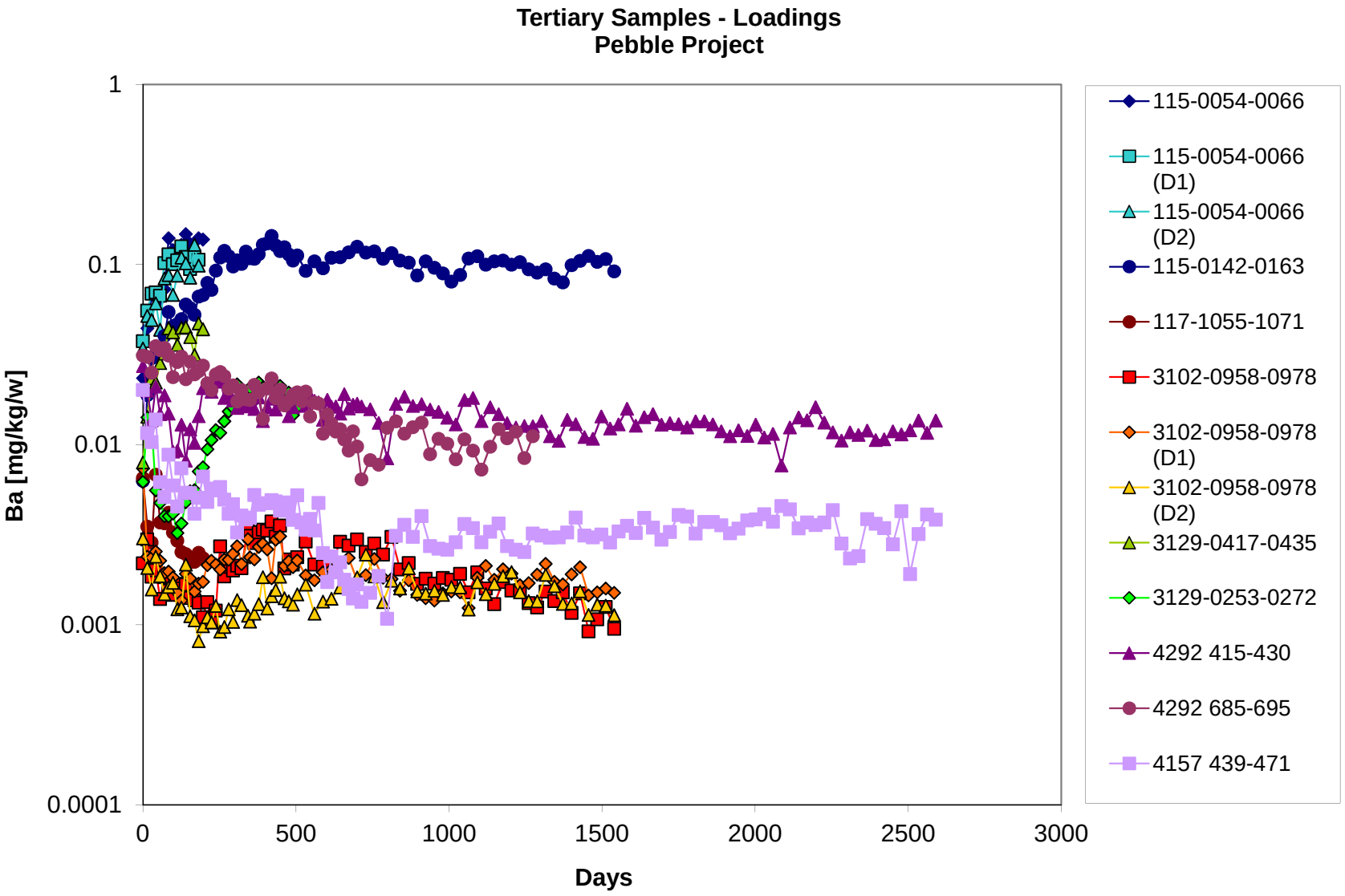

Tertiary Samples - Loadings
Pebble Project
Cl [mg/kg/w]
Days
0
0.5
1
1.5
2
2.5
3
3.5
4
0
500
1000
1500
2000
2500
3000
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

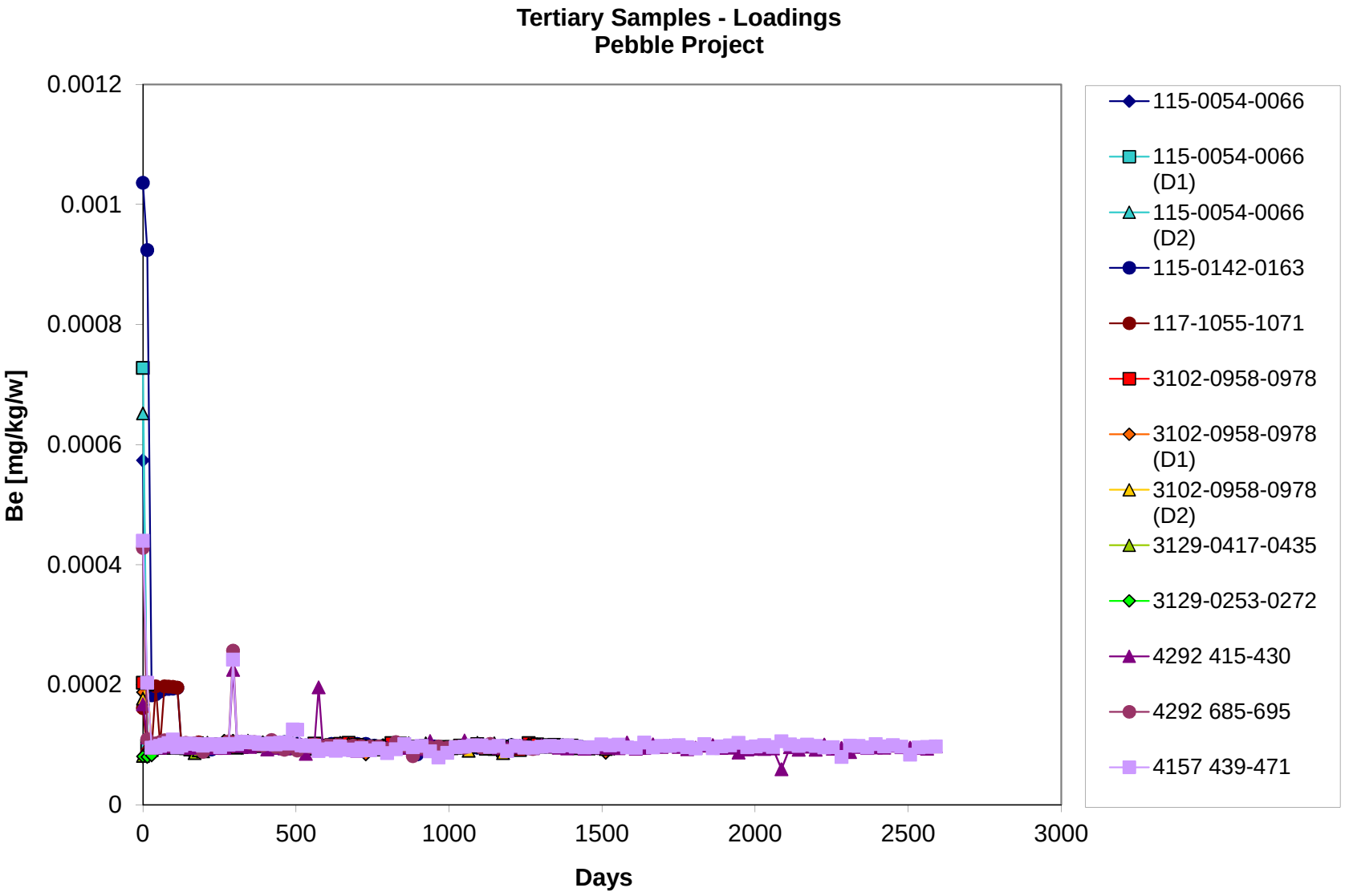

Tertiary Samples - Loadings
Pebble Project
10000
1000
100
10
1
0.1
SO4 [mg/kg/w]
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

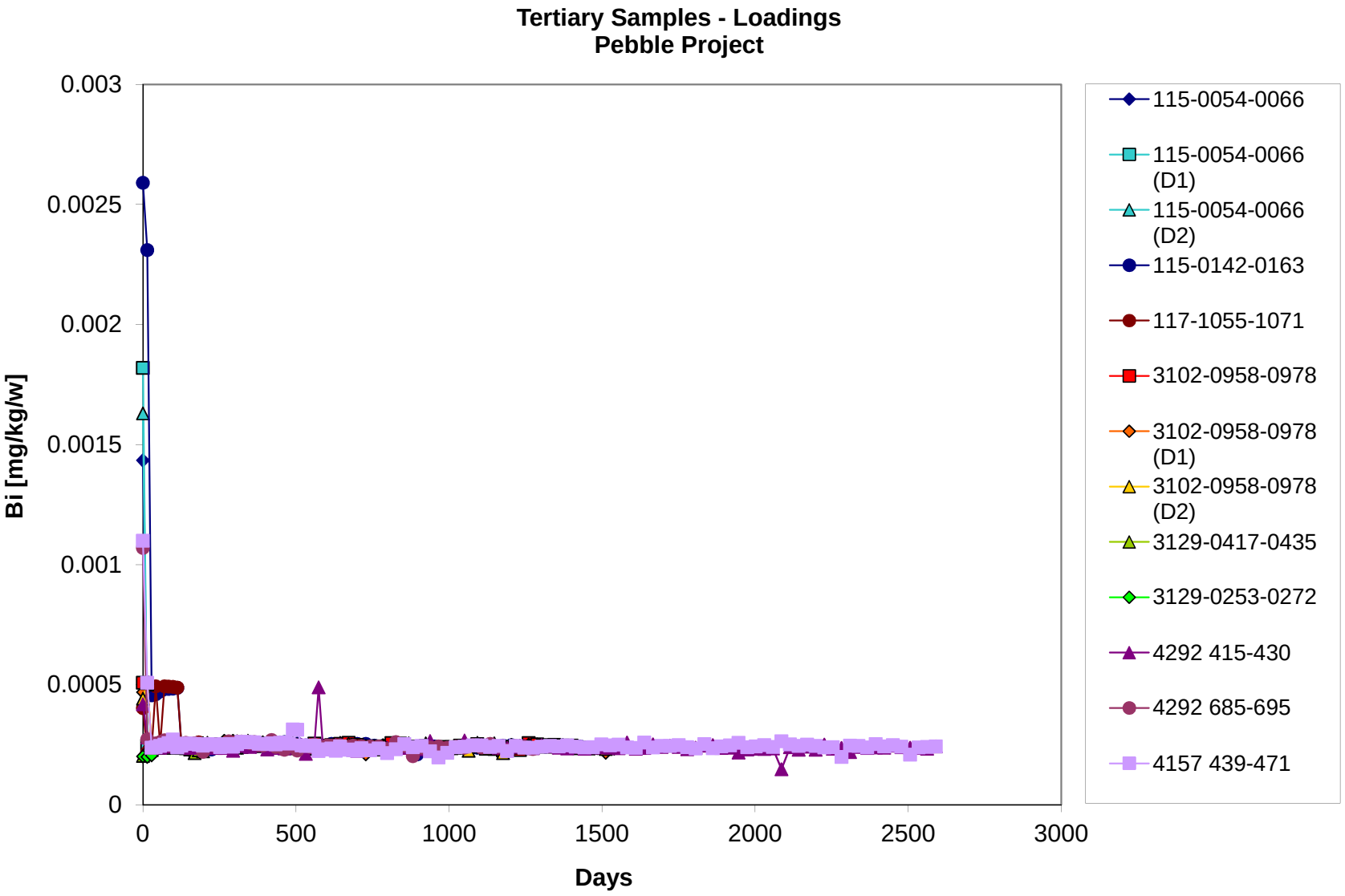

Tertiary Samples - Loadings
Pebble Project
Al [mg/kg/w]
10
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

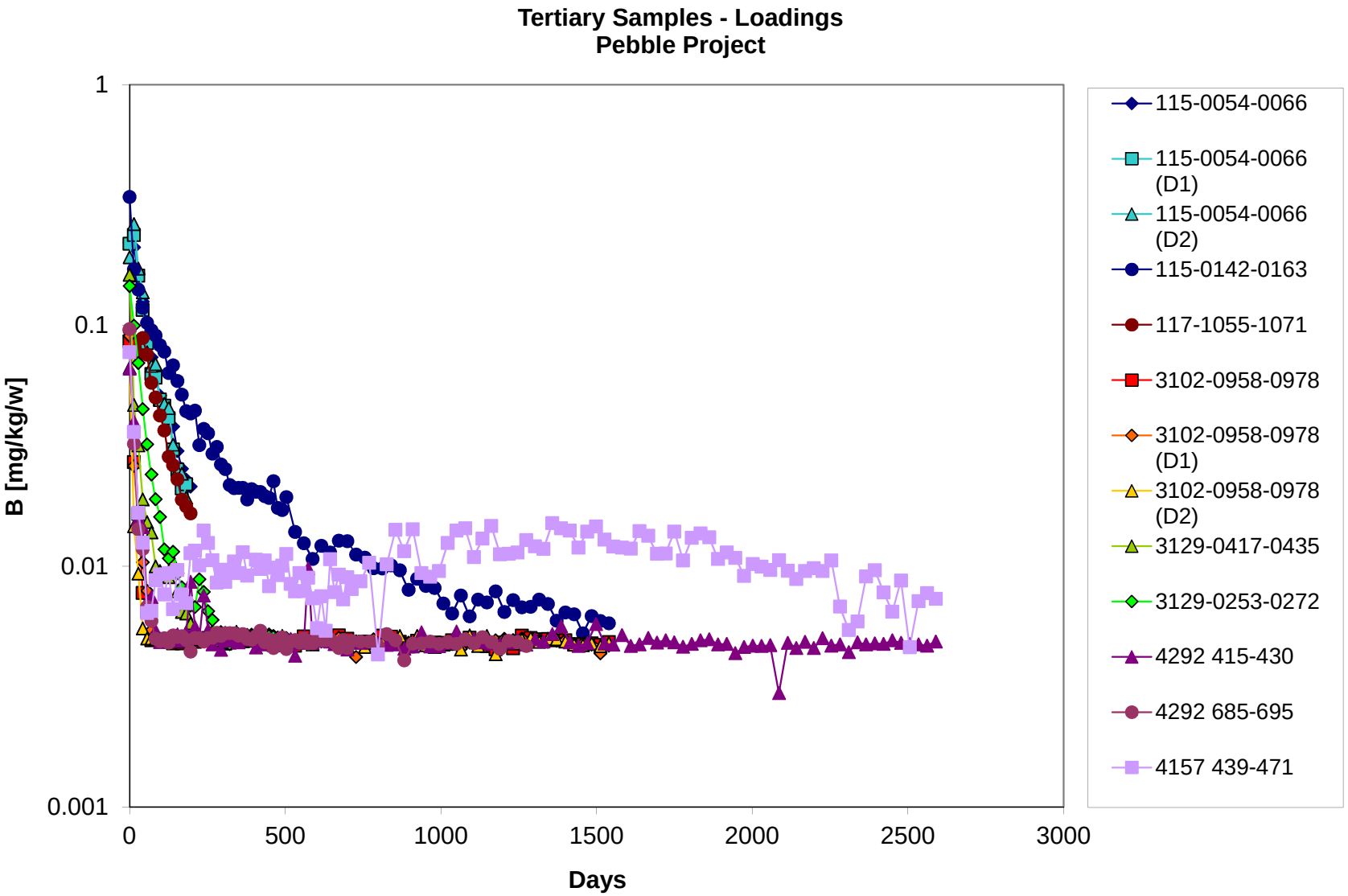

Tertiary Samples - Loadings
Pebble Project
Sb [mg/kg/w]
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

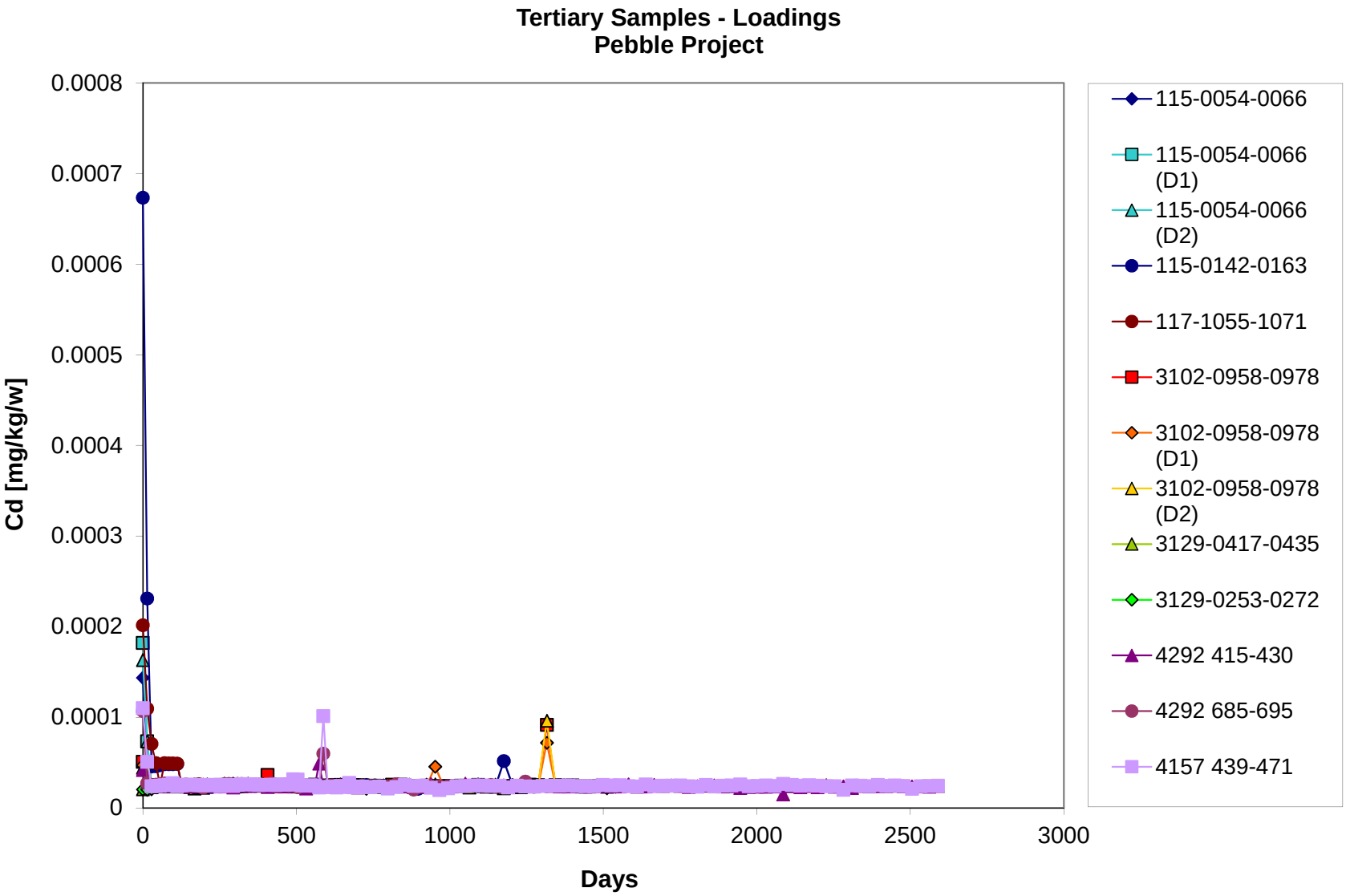

Tertiary Samples - Loadings
Pebble Project
As [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

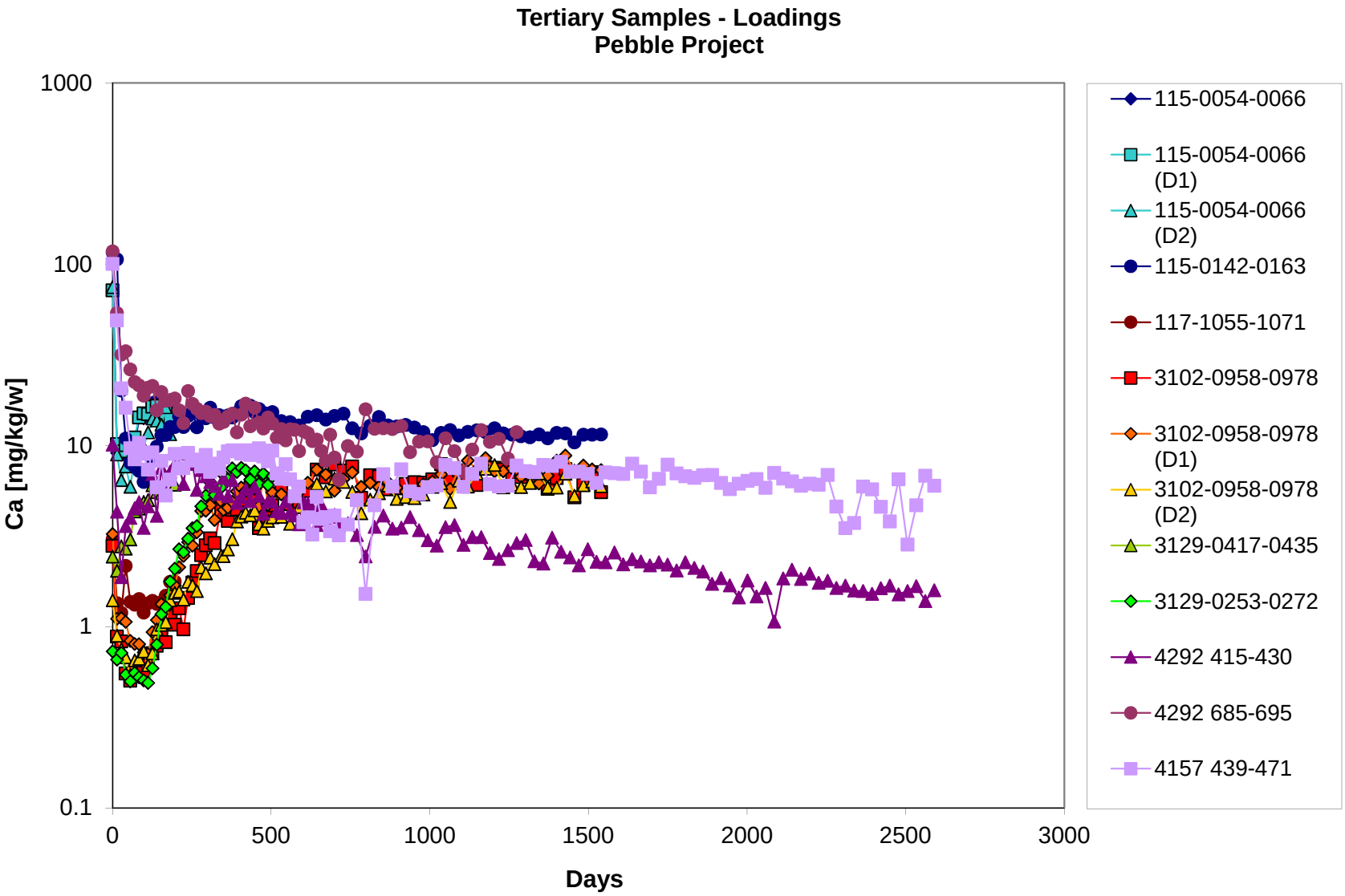

Tertiary Samples - Loadings
Pebble Project
Ba [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

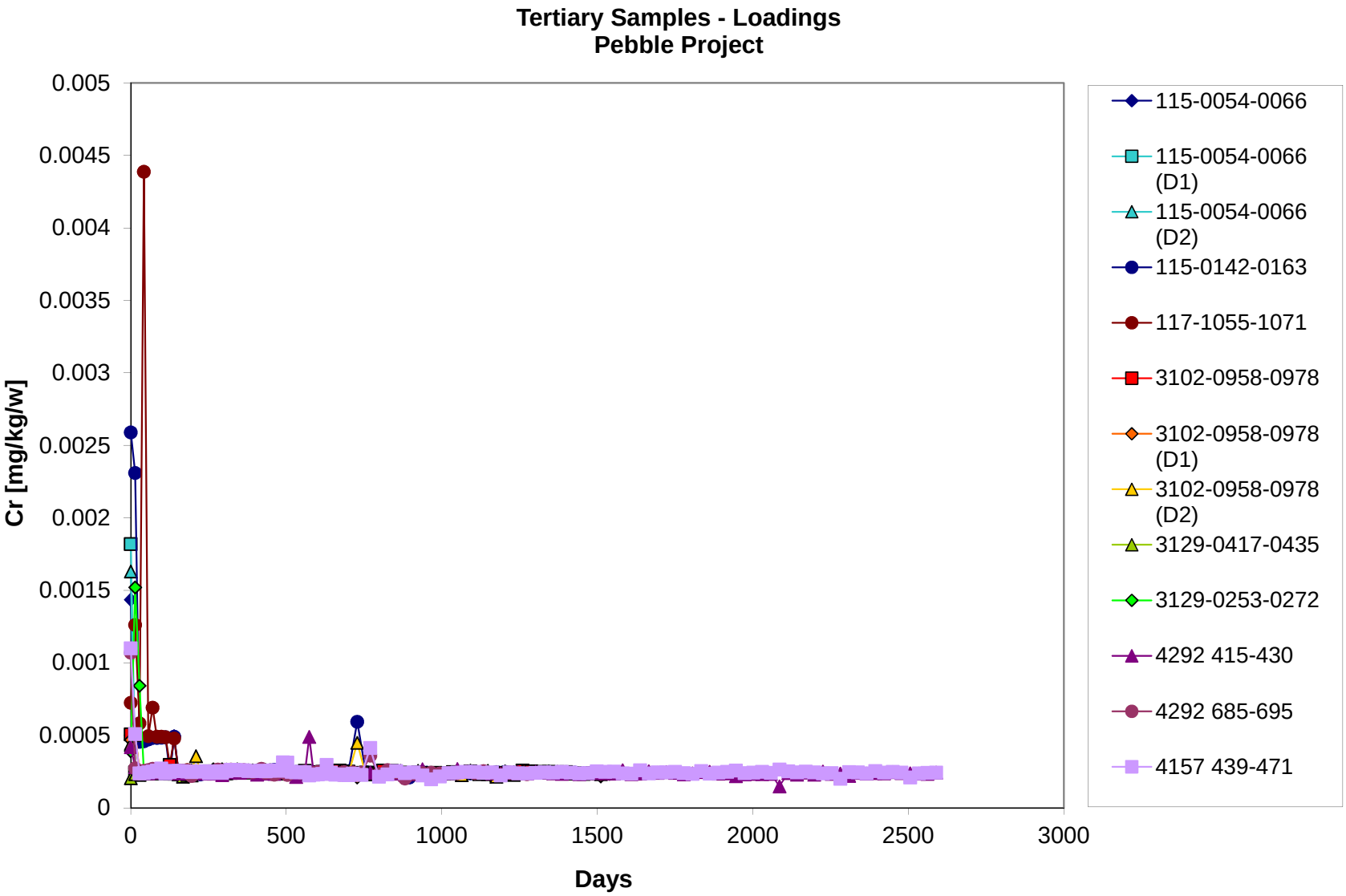

Tertiary Samples - Loadings
Pebble Project
Be [mg/kg/w]
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

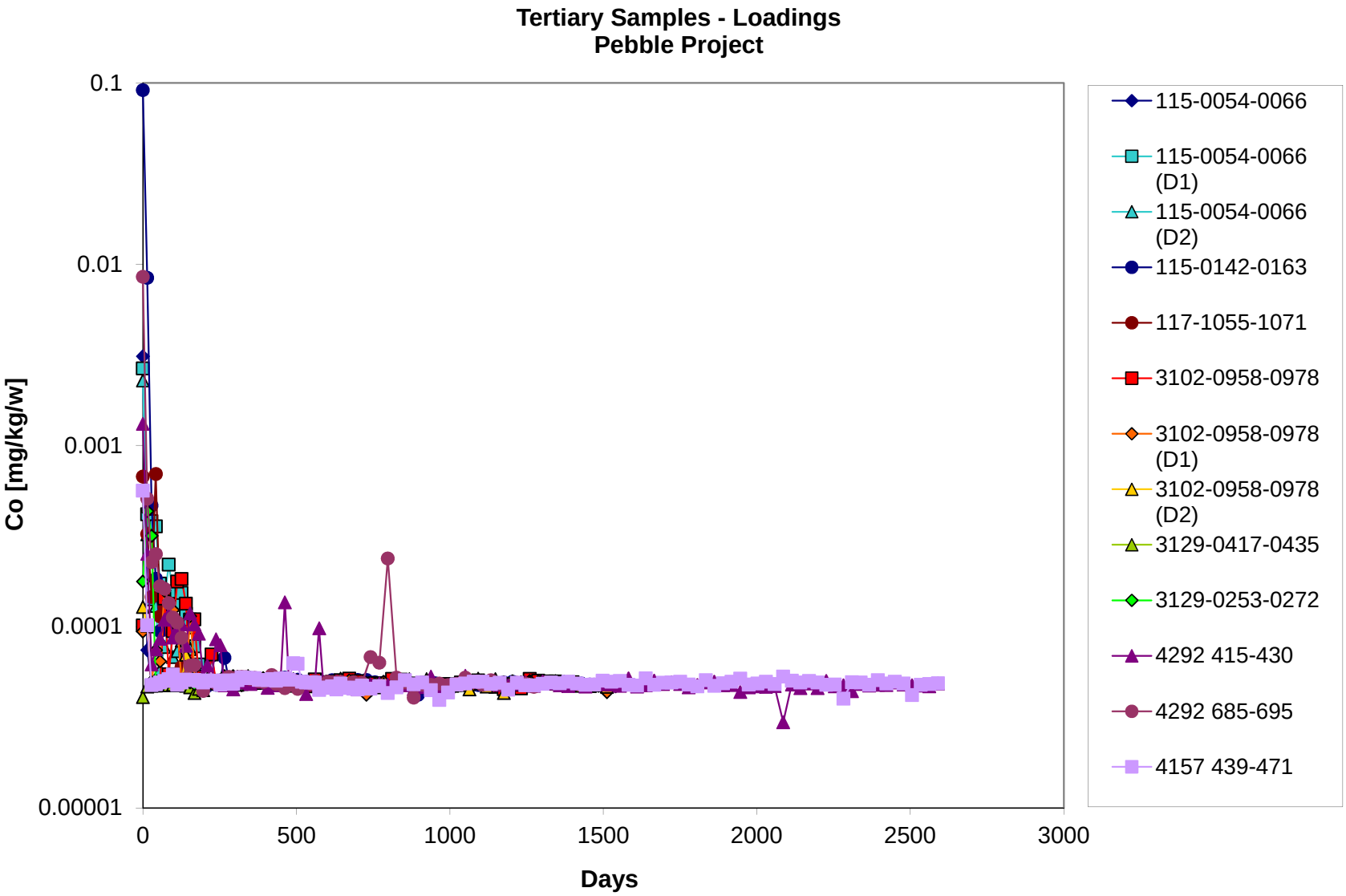

Tertiary Samples - Loadings
Pebble Project
Bi [mg/kg/w]
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

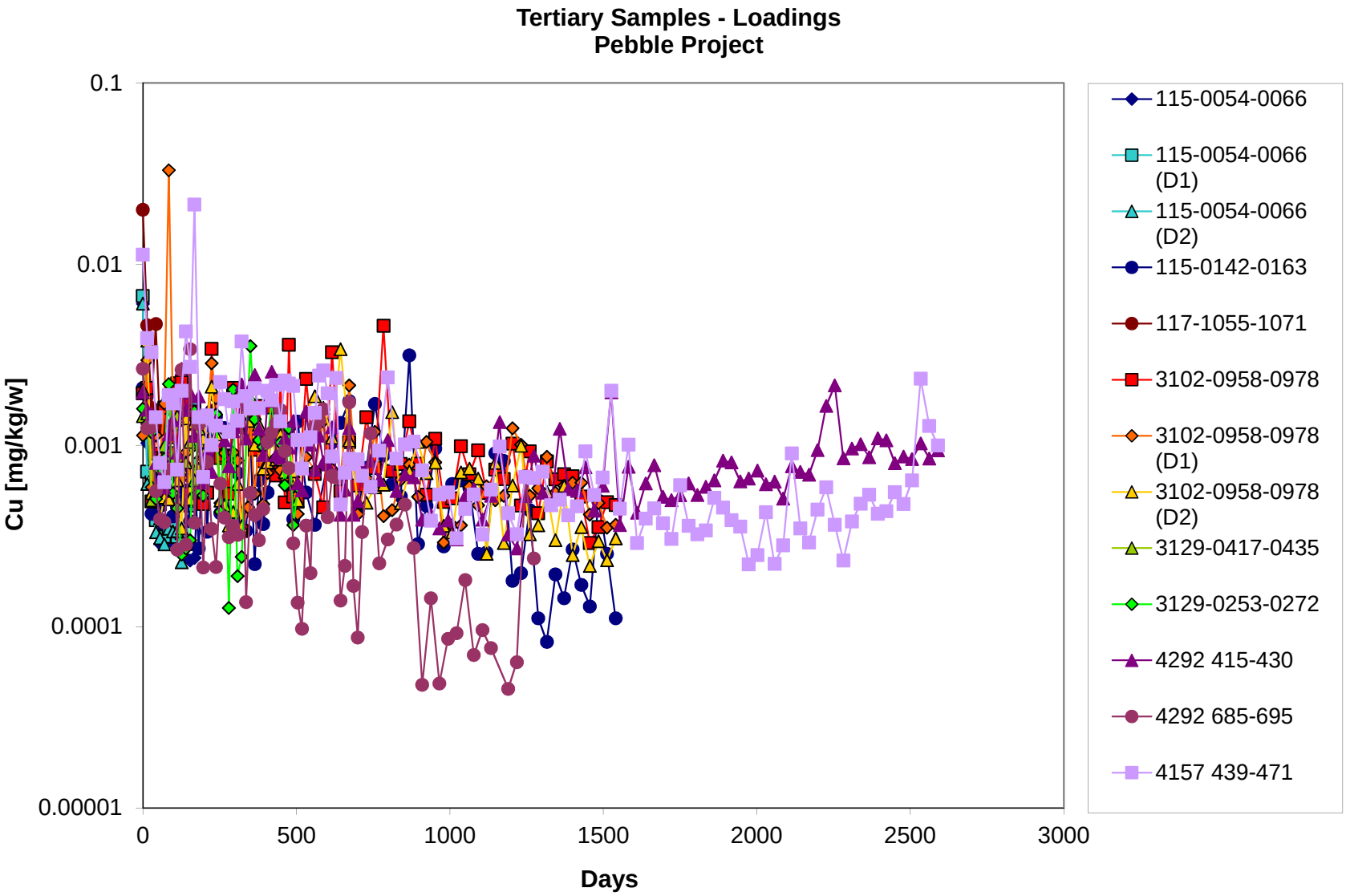

Tertiary Samples - Loadings
Pebble Project
B [mg/kg/w]
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

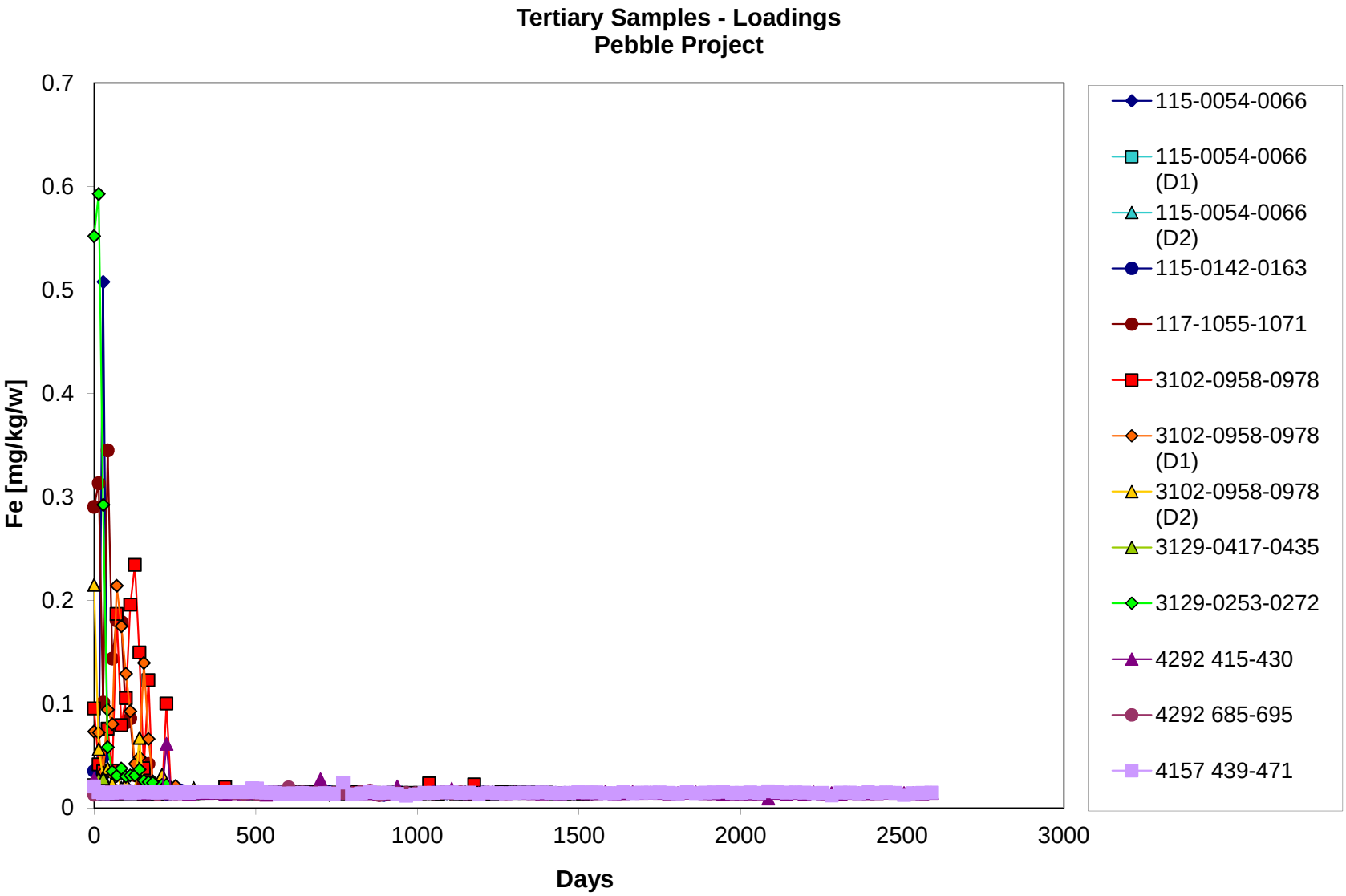

Tertiary Samples - Loadings
Pebble Project
Cd [mg/kg/w]
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

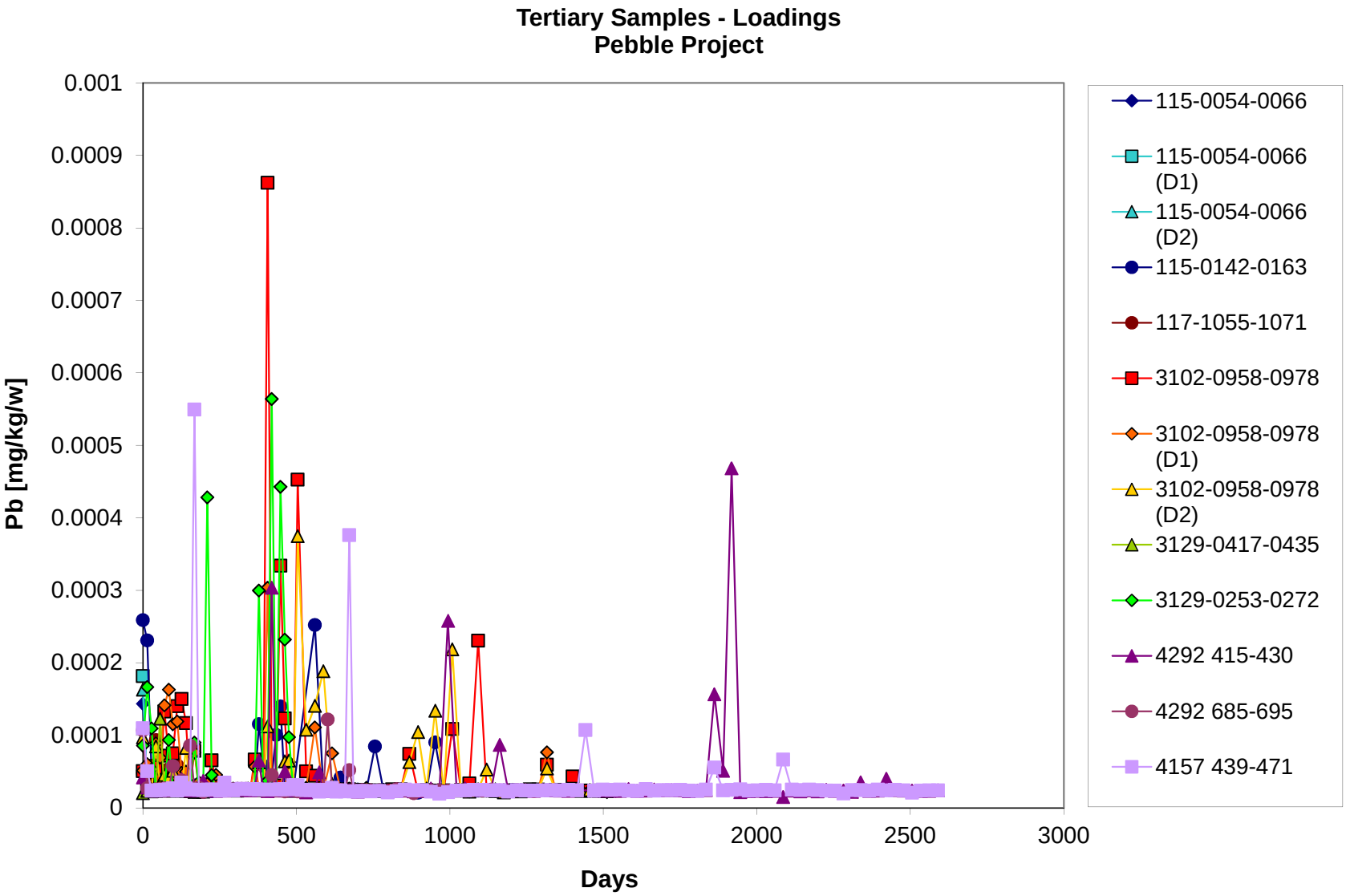

Tertiary Samples - Loadings
Pebble Project
Ca [mg/kg/w]
1000
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

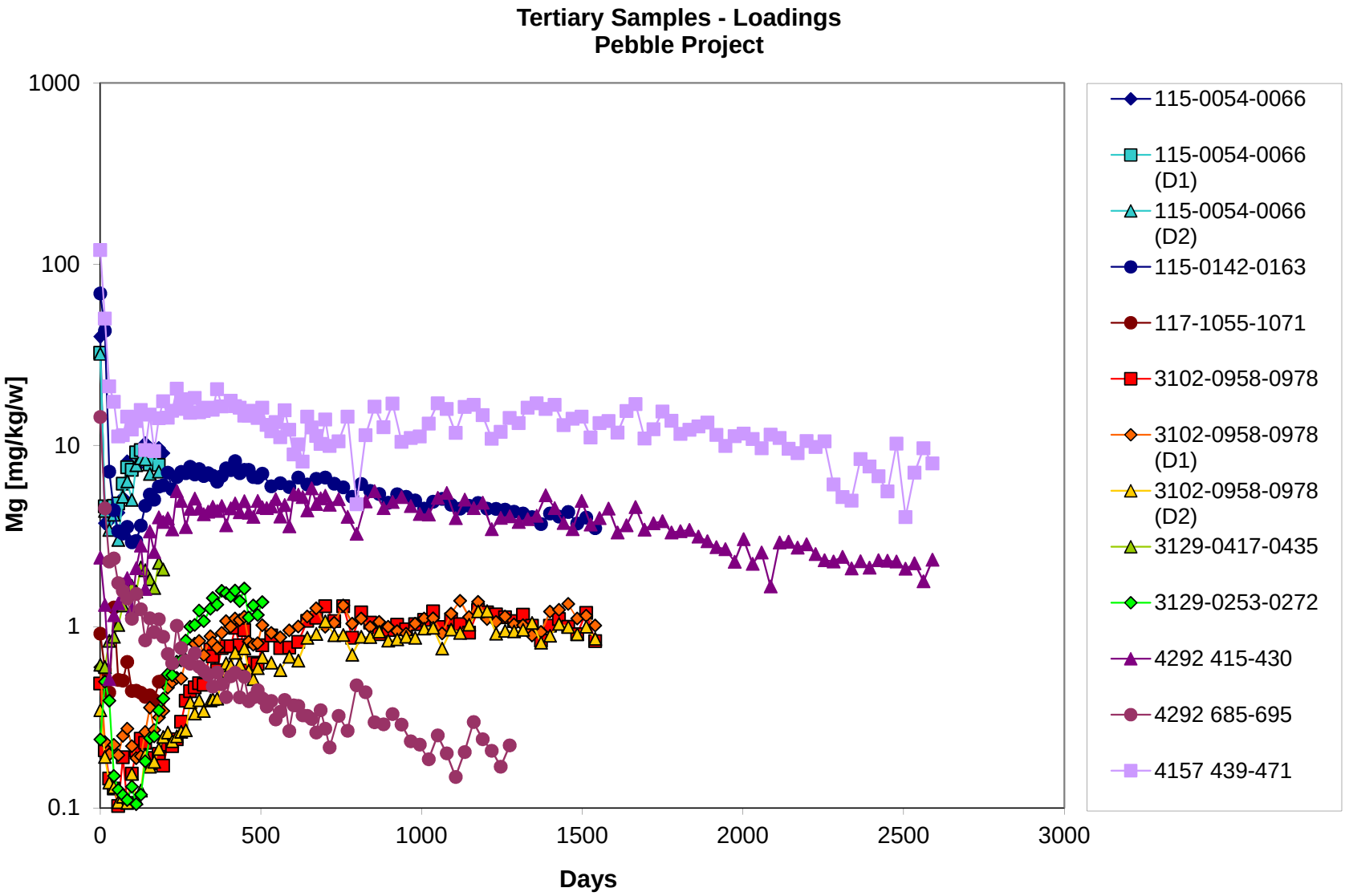

Tertiary Samples - Loadings
Pebble Project
Cr [mg/kg/w]
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

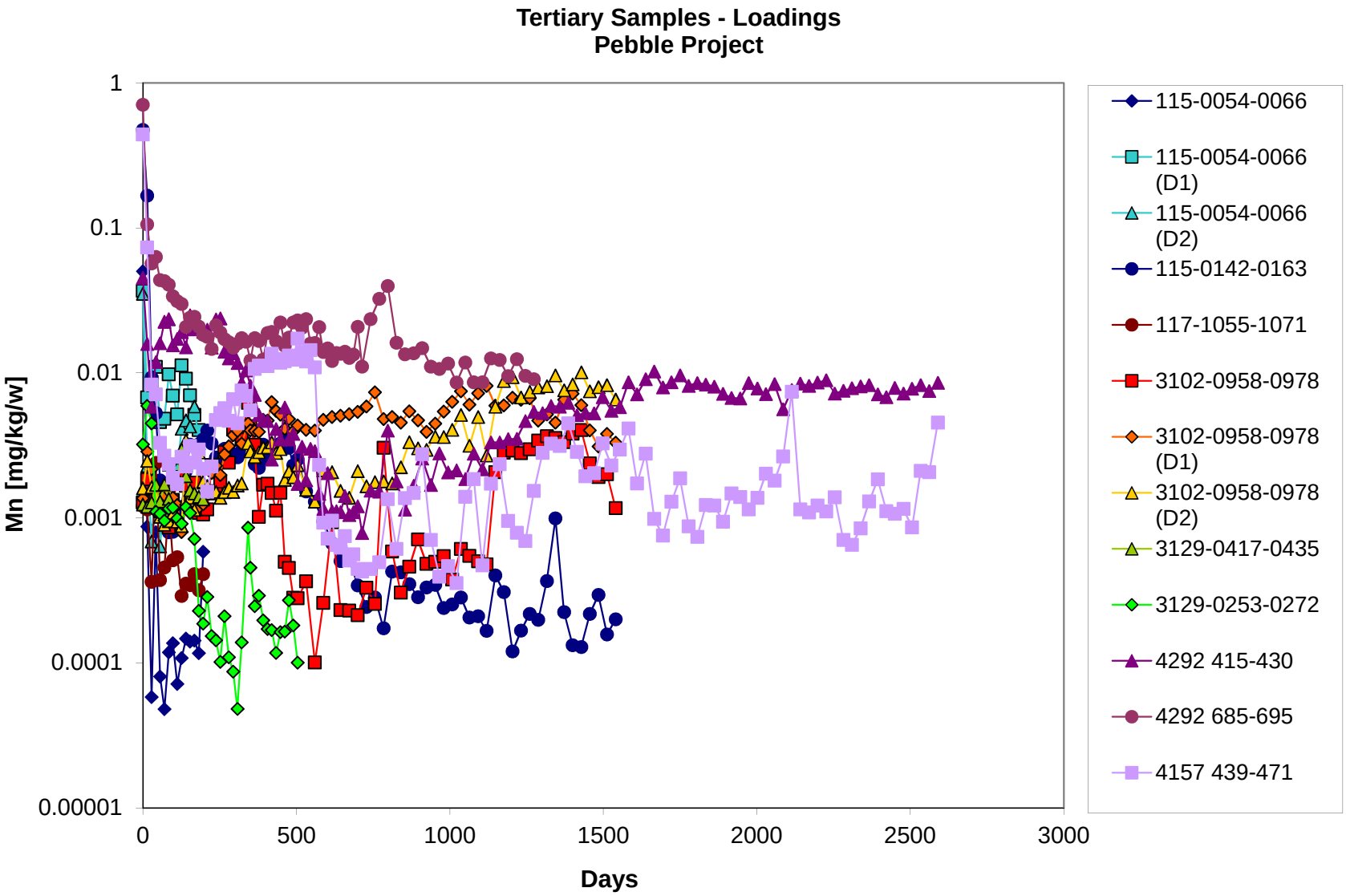

Tertiary Samples - Loadings
Pebble Project
Co [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

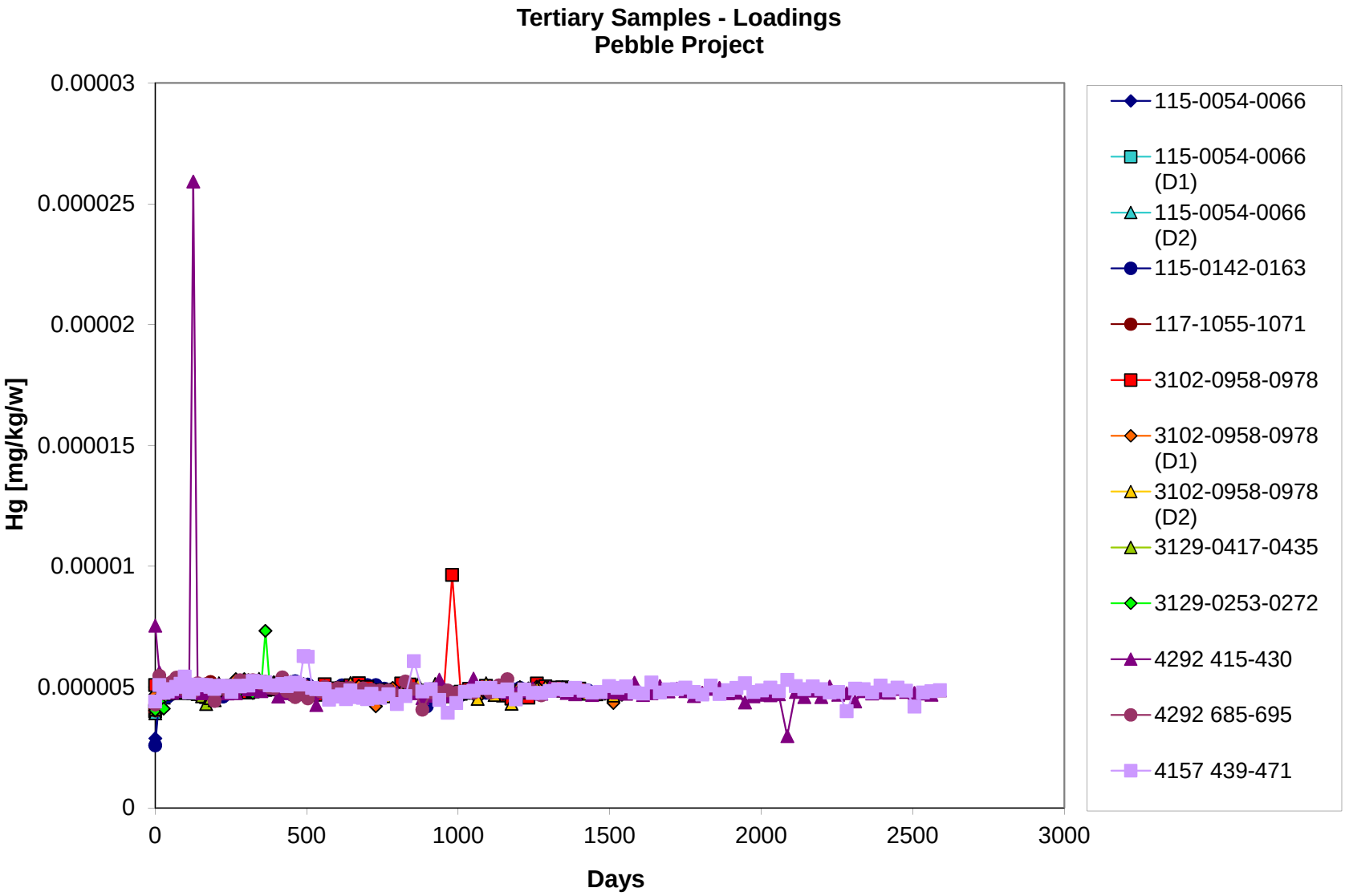

Tertiary Samples - Loadings
Pebble Project
Cu [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

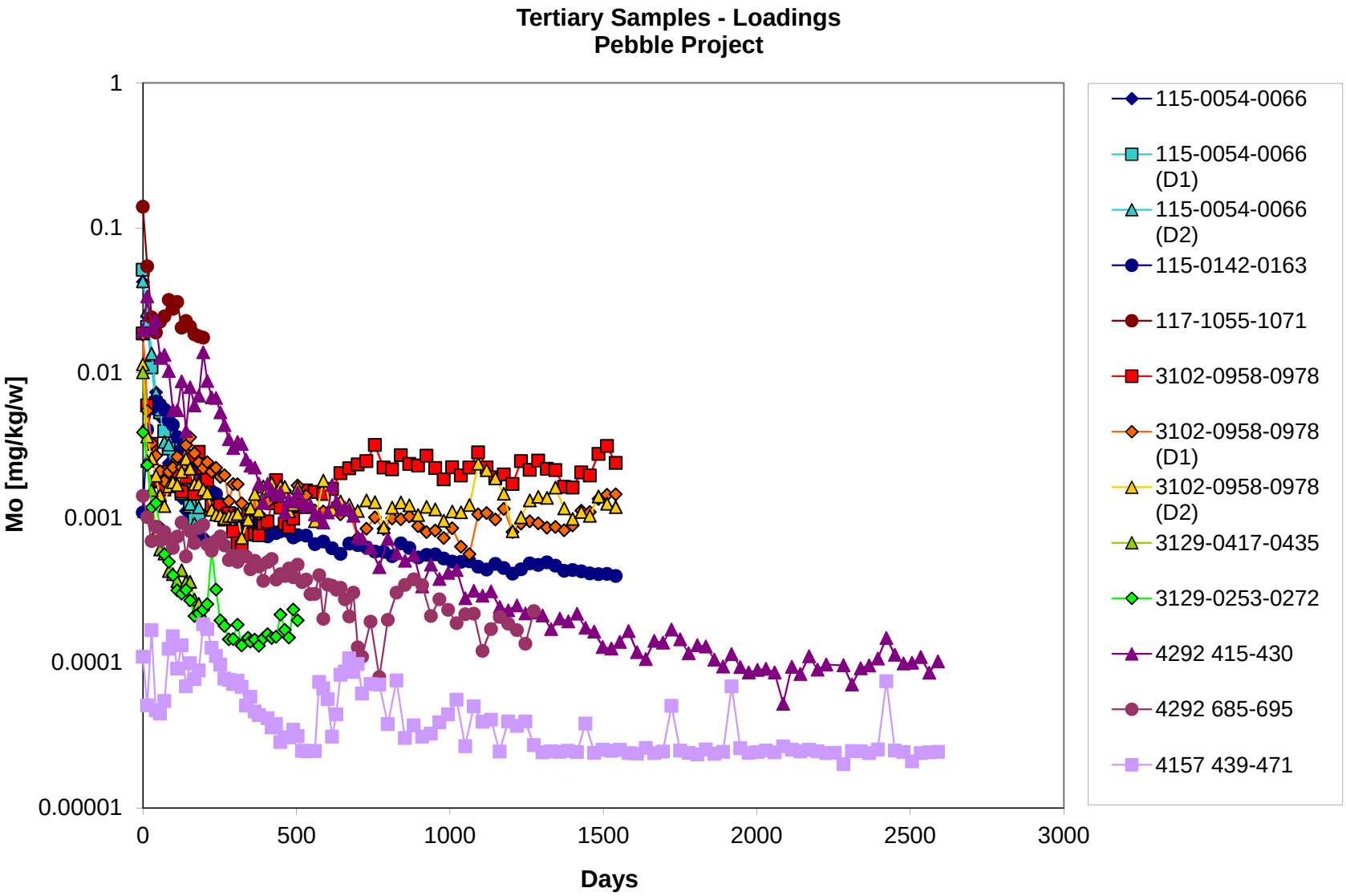

Tertiary Samples - Loadings
Pebble Project
Fe [mg/kg/w]
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

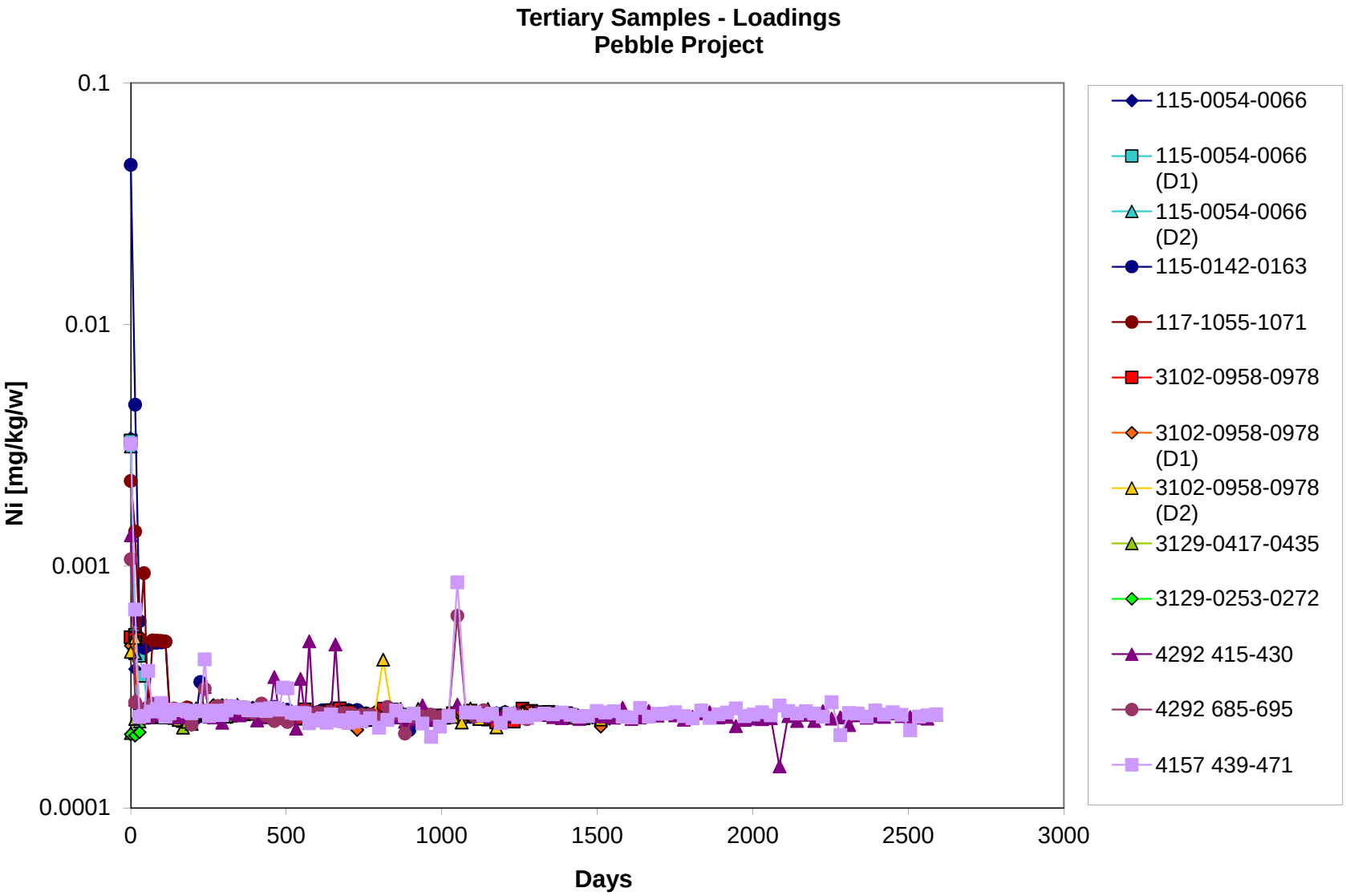

Tertiary Samples - Loadings
Pebble Project
Pb [mg/kg/w]
0.001
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

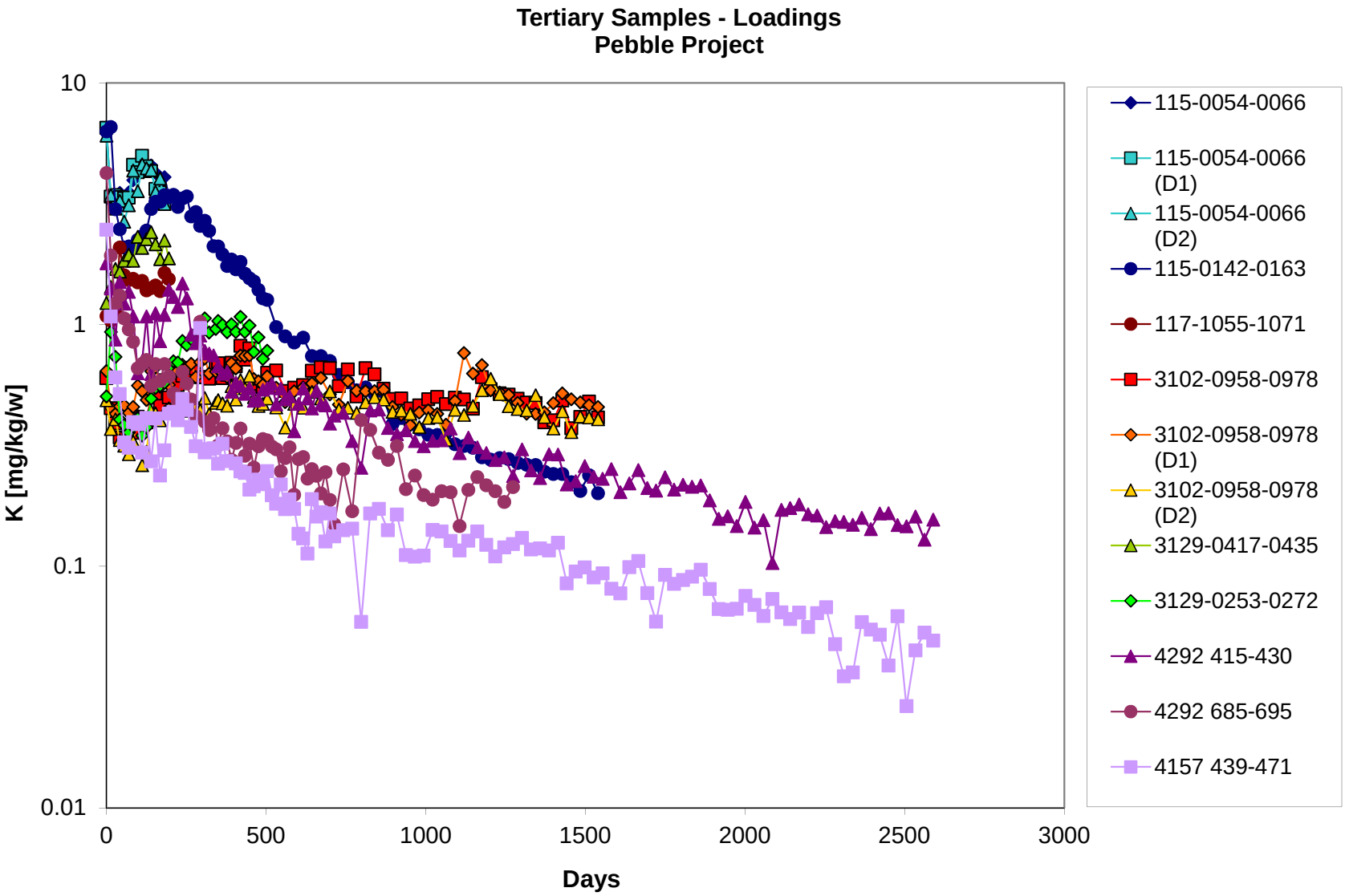

Tertiary Samples - Loadings
Pebble Project
Mg [mg/kg/w]
1000
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

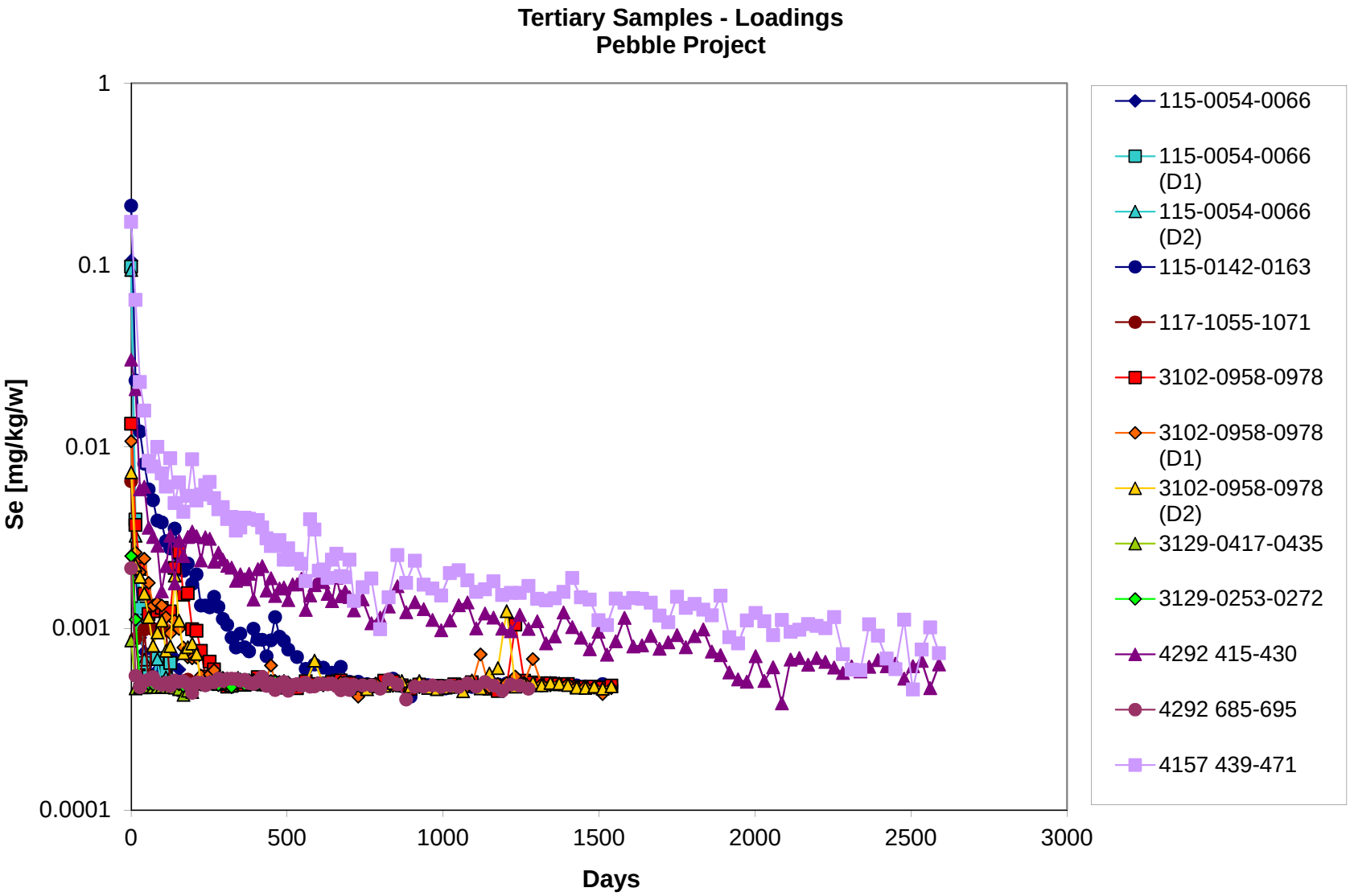

Tertiary Samples - Loadings
Pebble Project
Mn [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

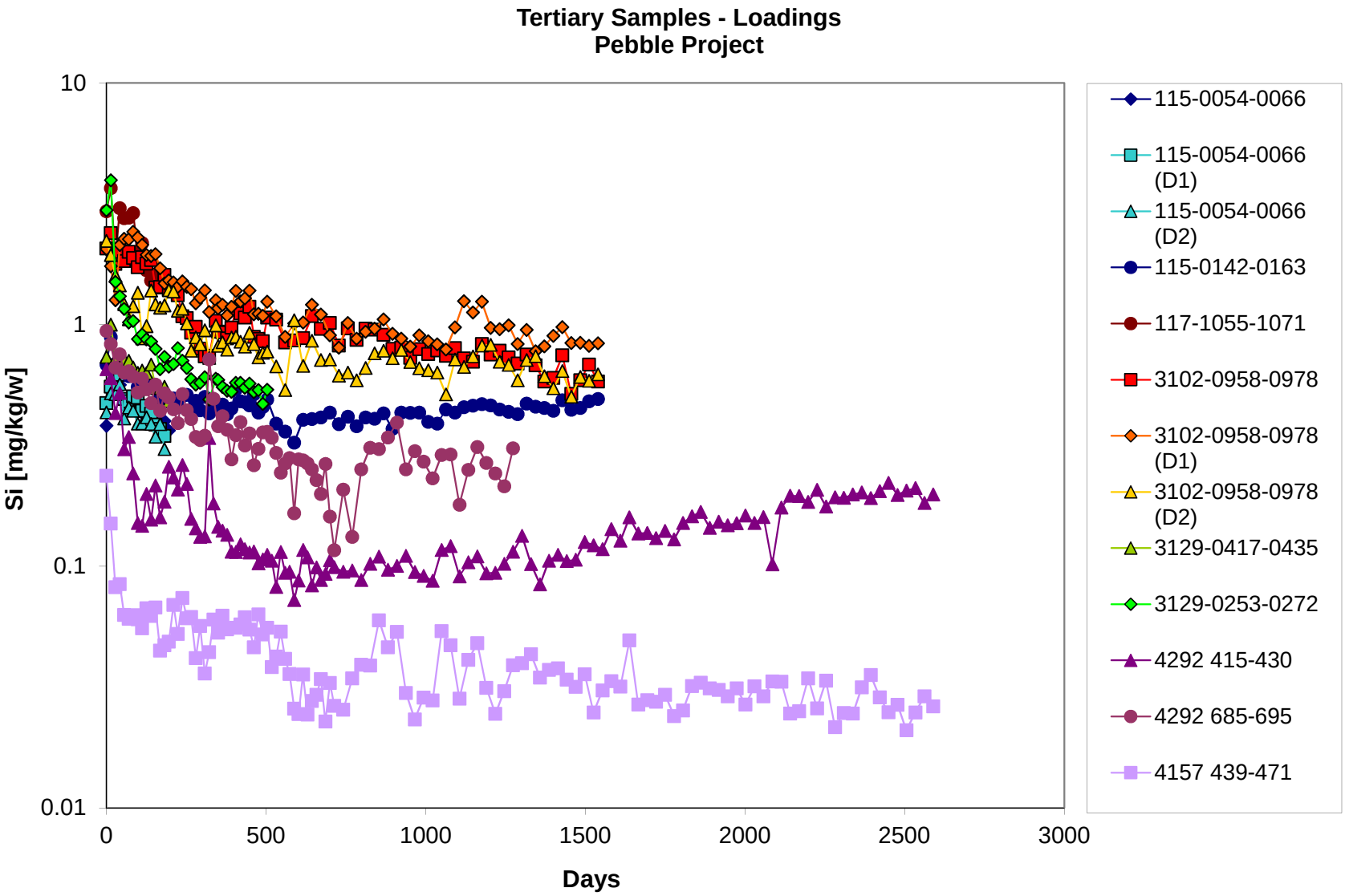

Tertiary Samples - Loadings
Pebble Project
Hg [mg/kg/w]
0.00003
0.000025
0.00002
0.000015
0.00001
0.000005
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

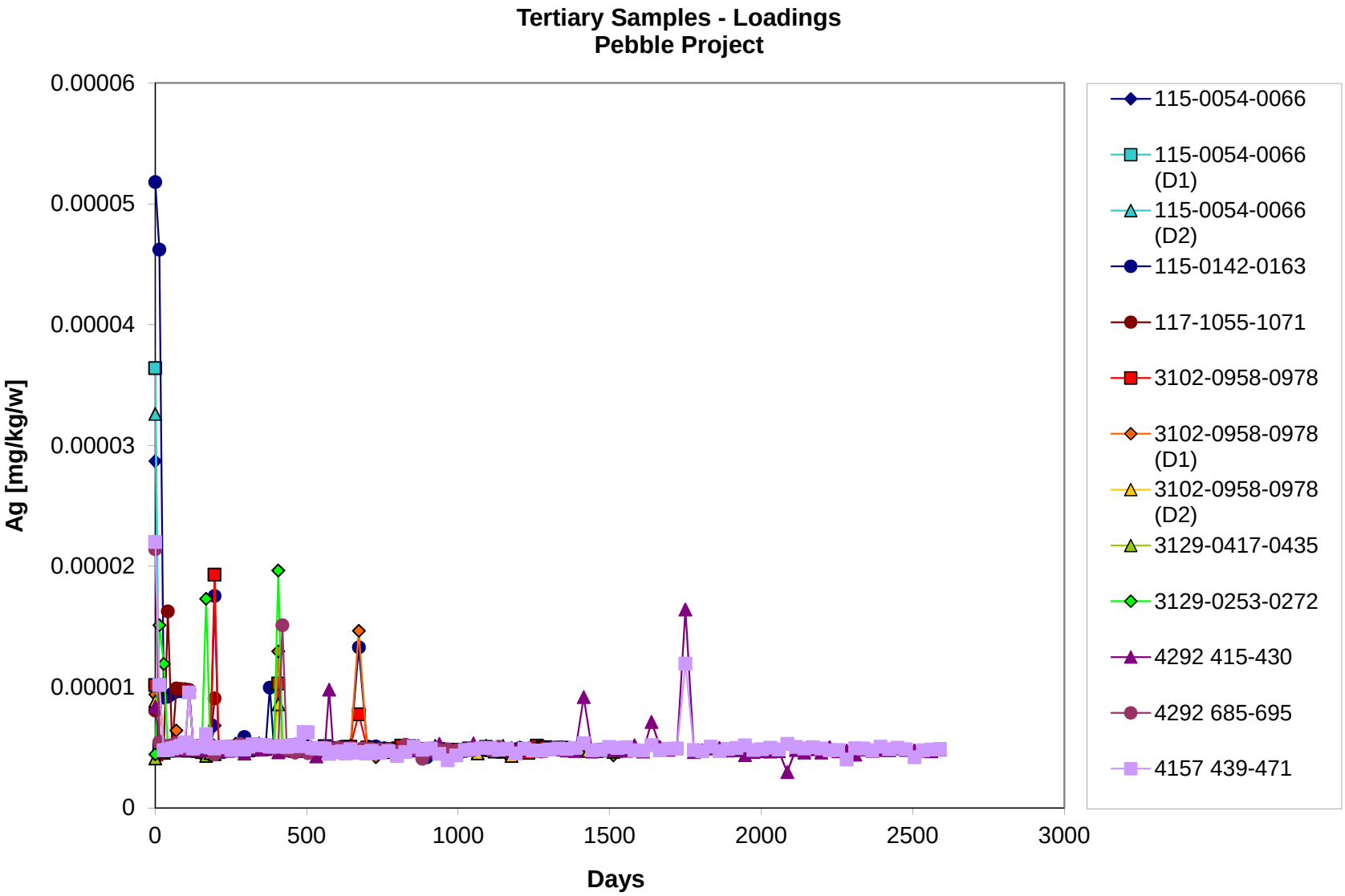

Tertiary Samples - Loadings
Pebble Project
Mo [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

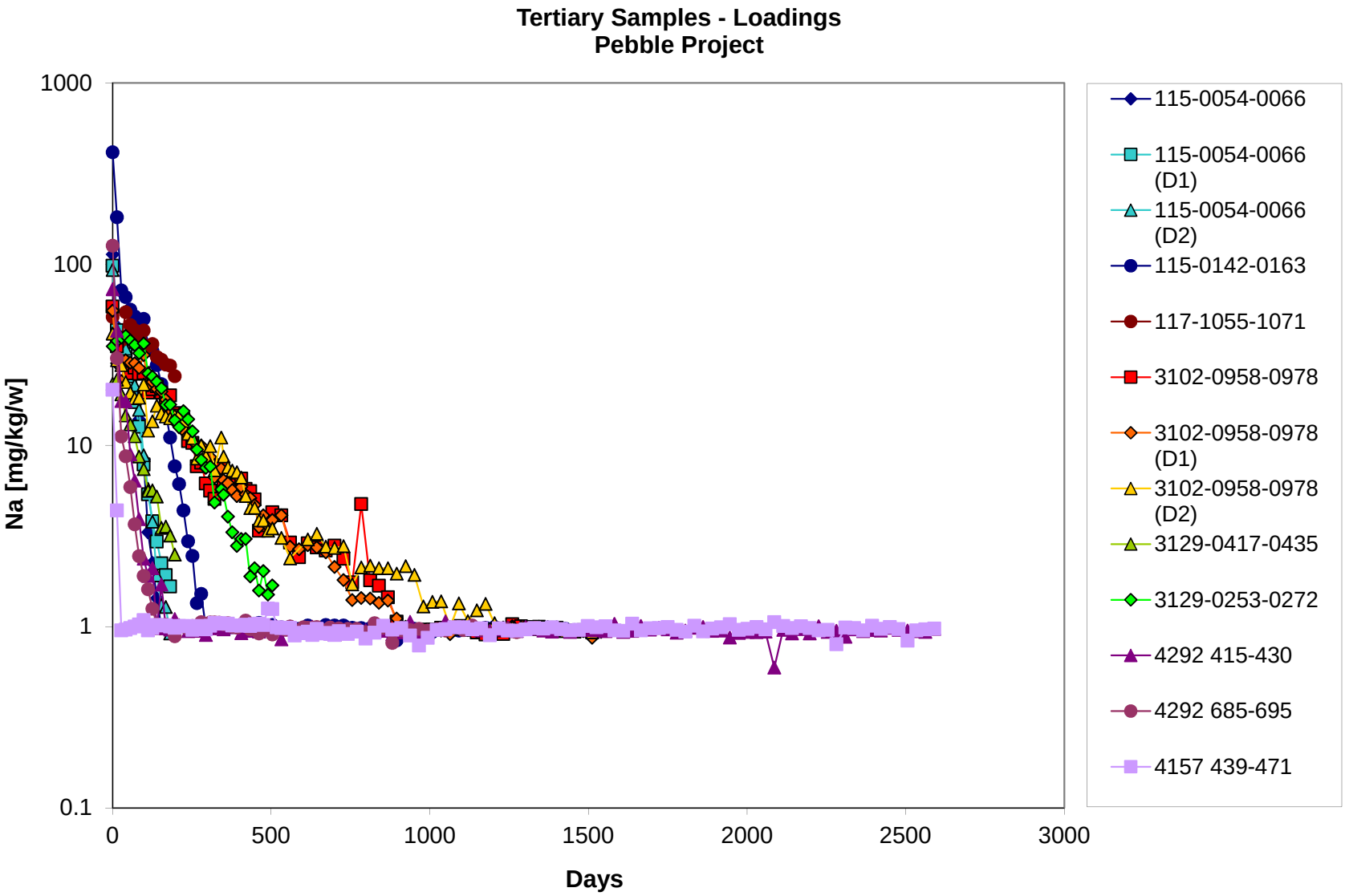

Tertiary Samples - Loadings
Pebble Project
Ni [mg/kg/w]
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

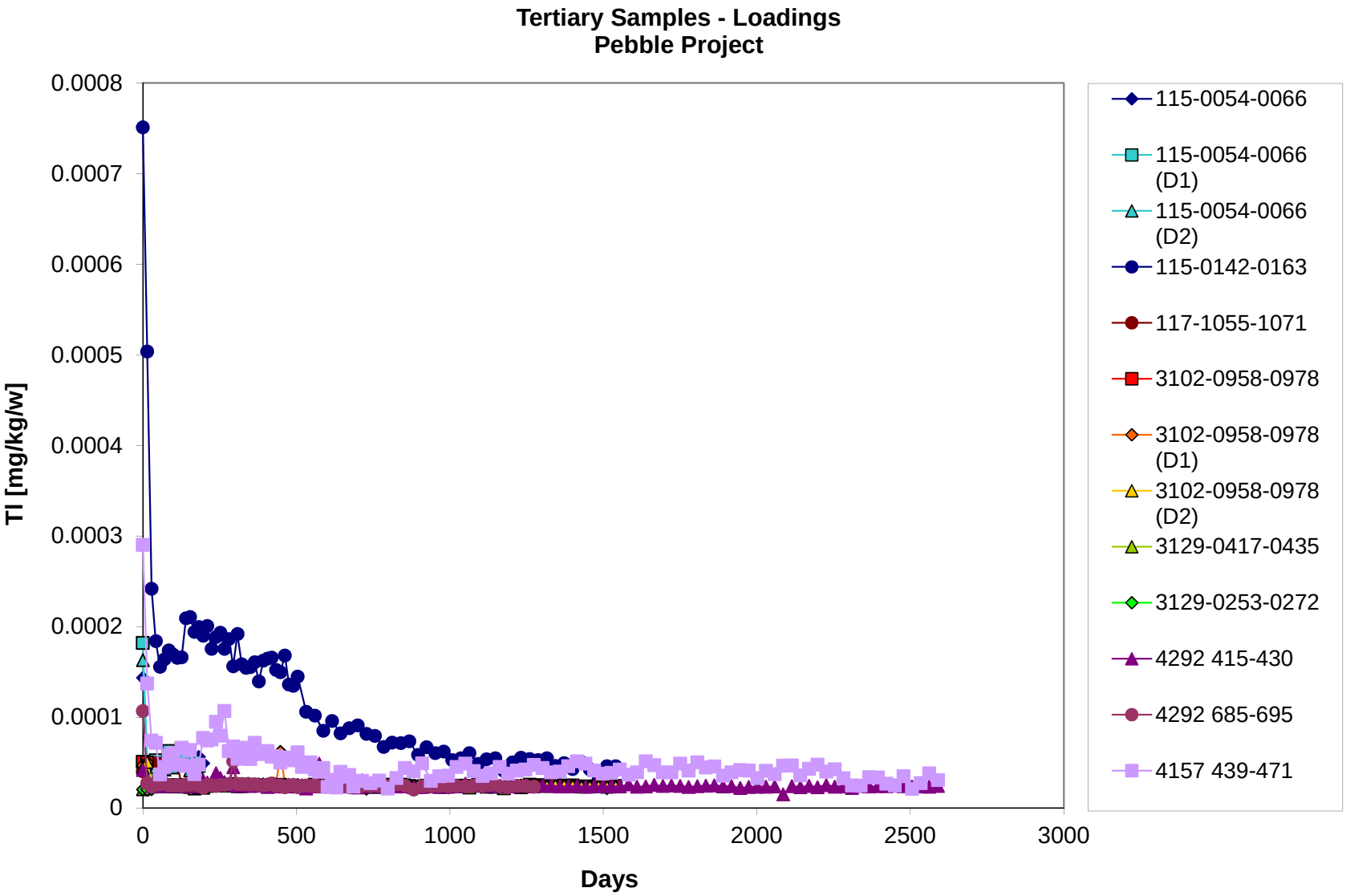

Tertiary Samples - Loadings
Pebble Project
K [mg/kg/w]
10
1
0.1
0.01
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

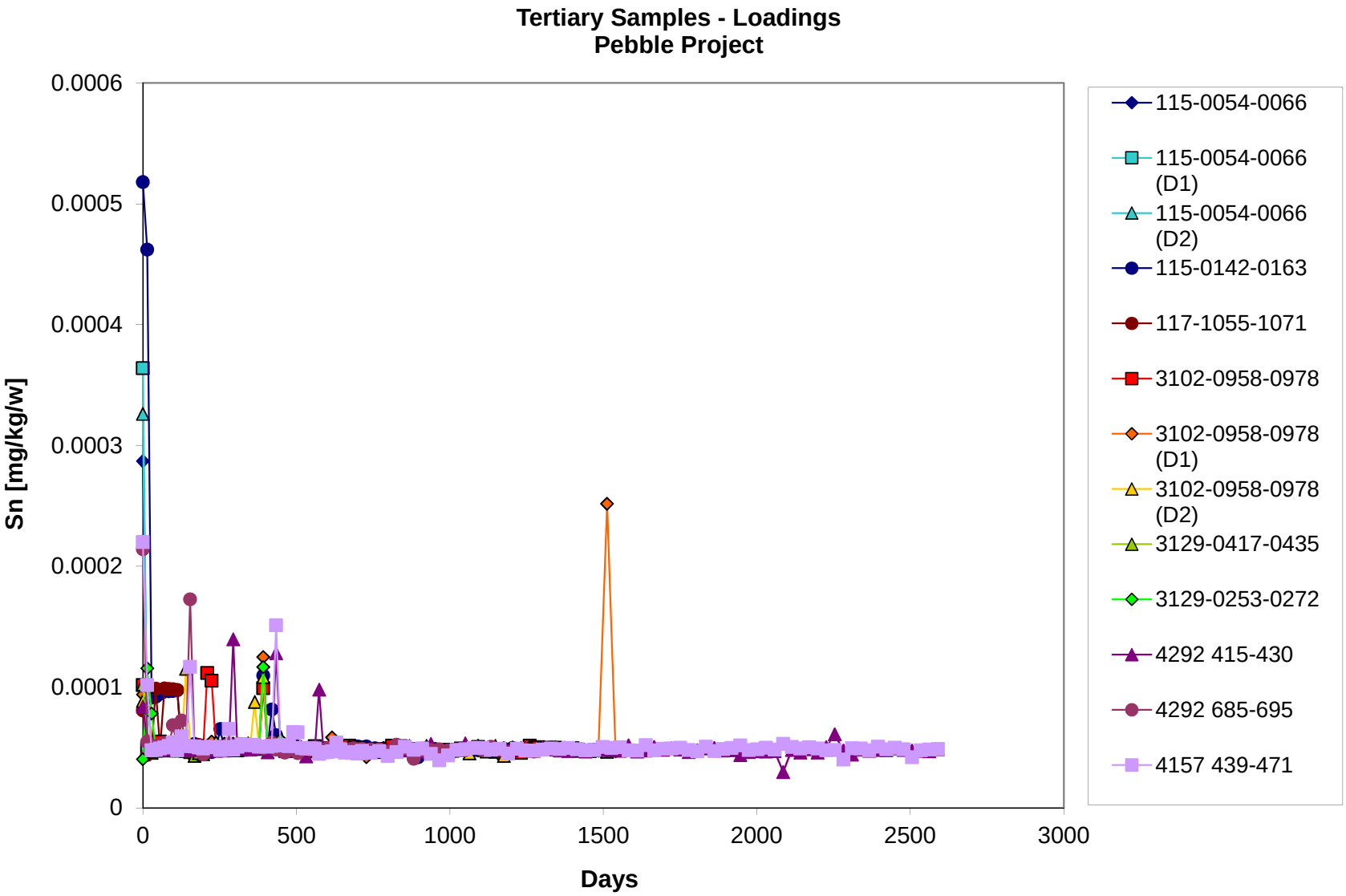

Tertiary Samples - Loadings
Pebble Project
Se [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

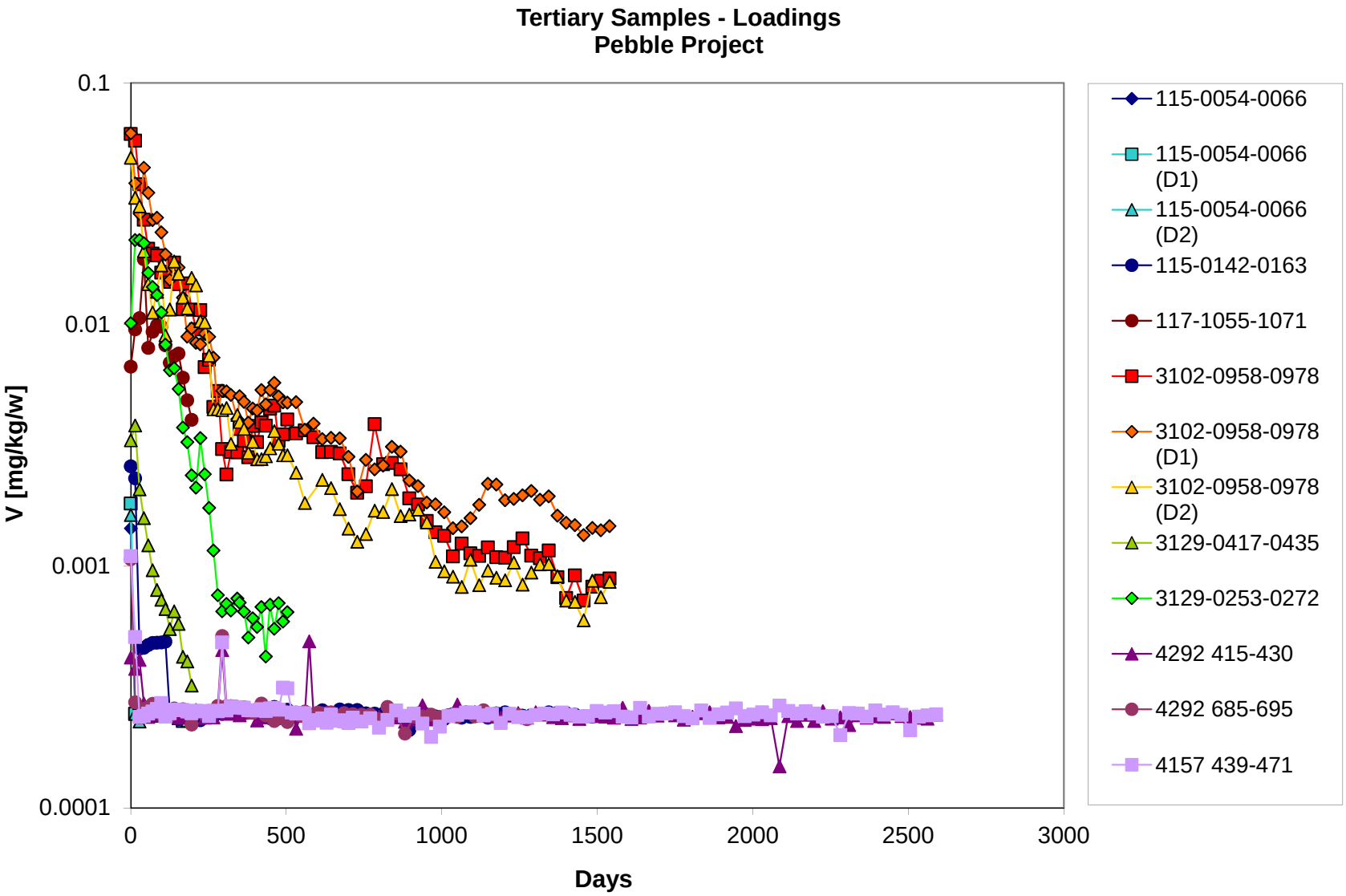

Tertiary Samples - Loadings
Pebble Project
Si [mg/kg/w]
10
1
0.1
0.01
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

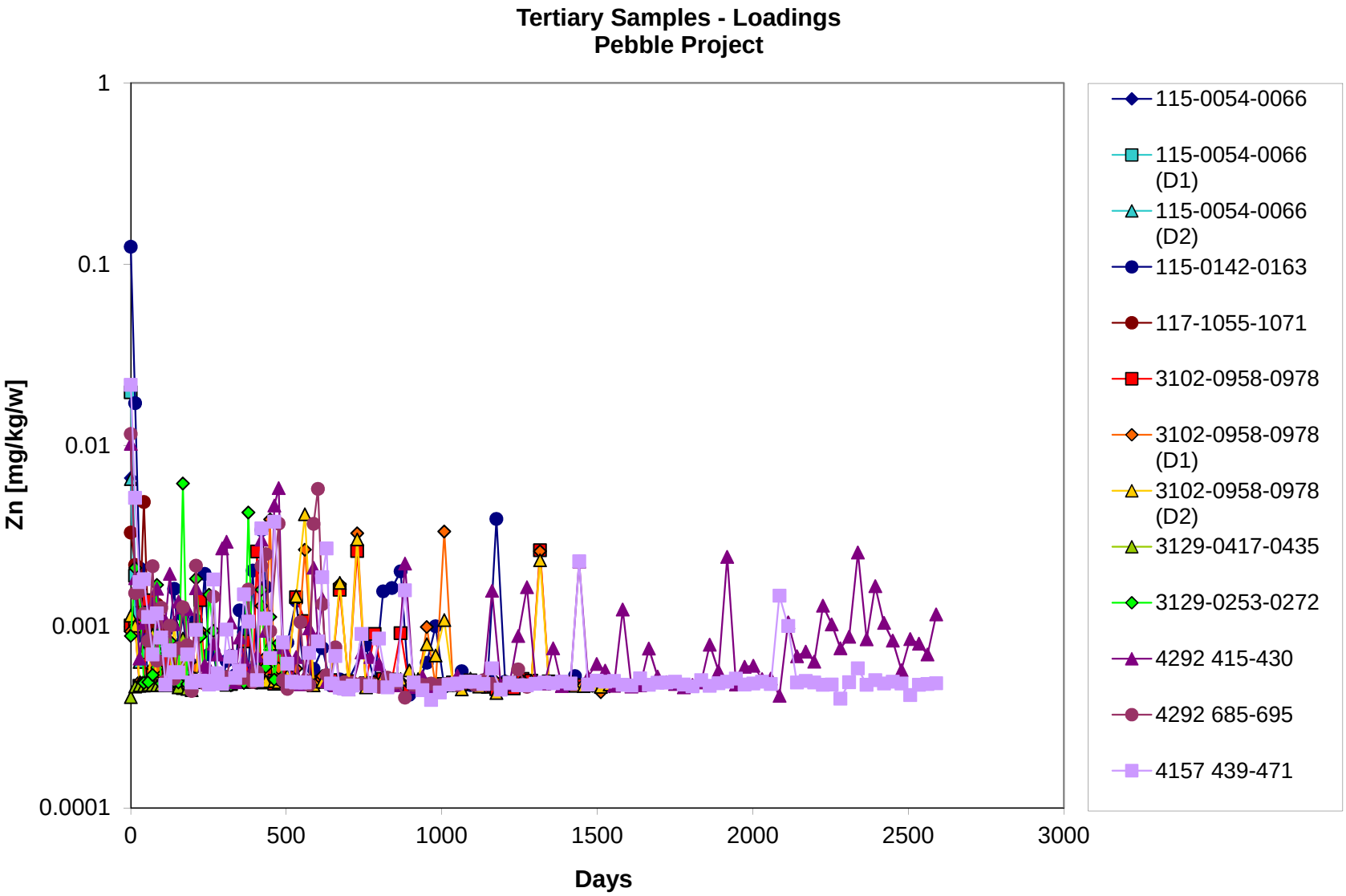

Tertiary Samples - Loadings
Pebble Project
Ag [mg/kg/w]
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

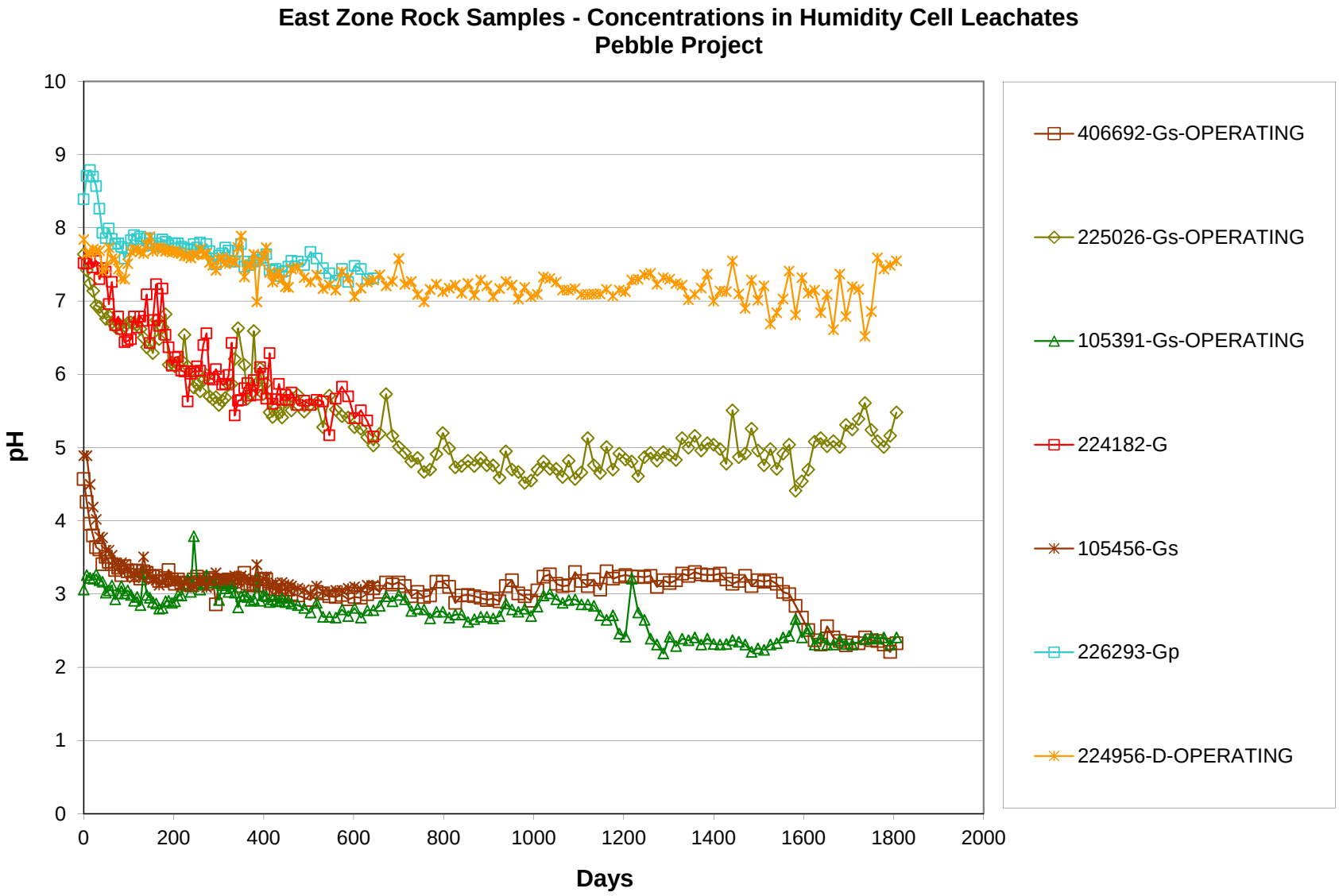

Tertiary Samples - Loadings
Pebble Project
Na [mg/kg/w]
1000
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

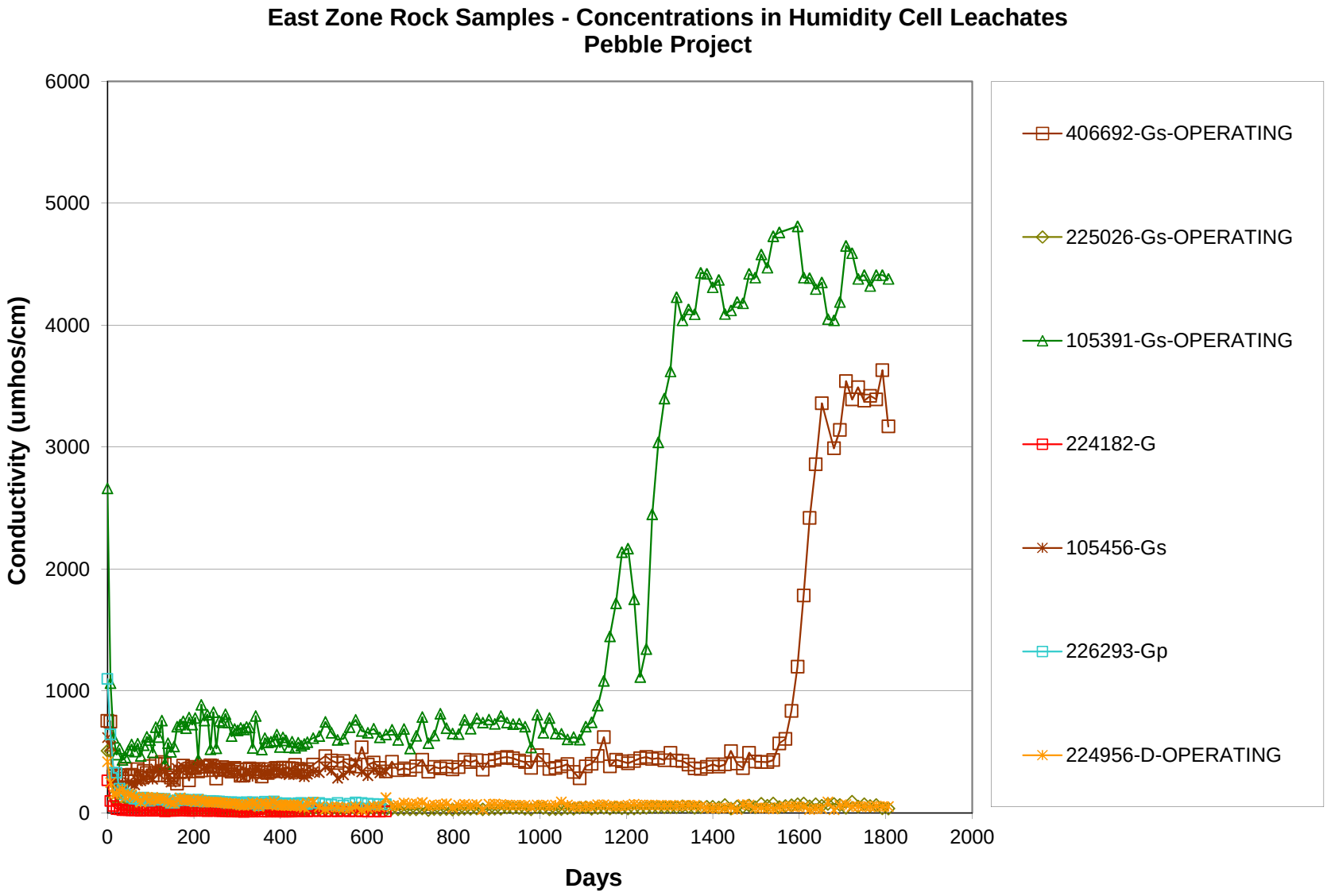

Tertiary Samples - Loadings
Pebble Project
Tl [mg/kg/w]
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

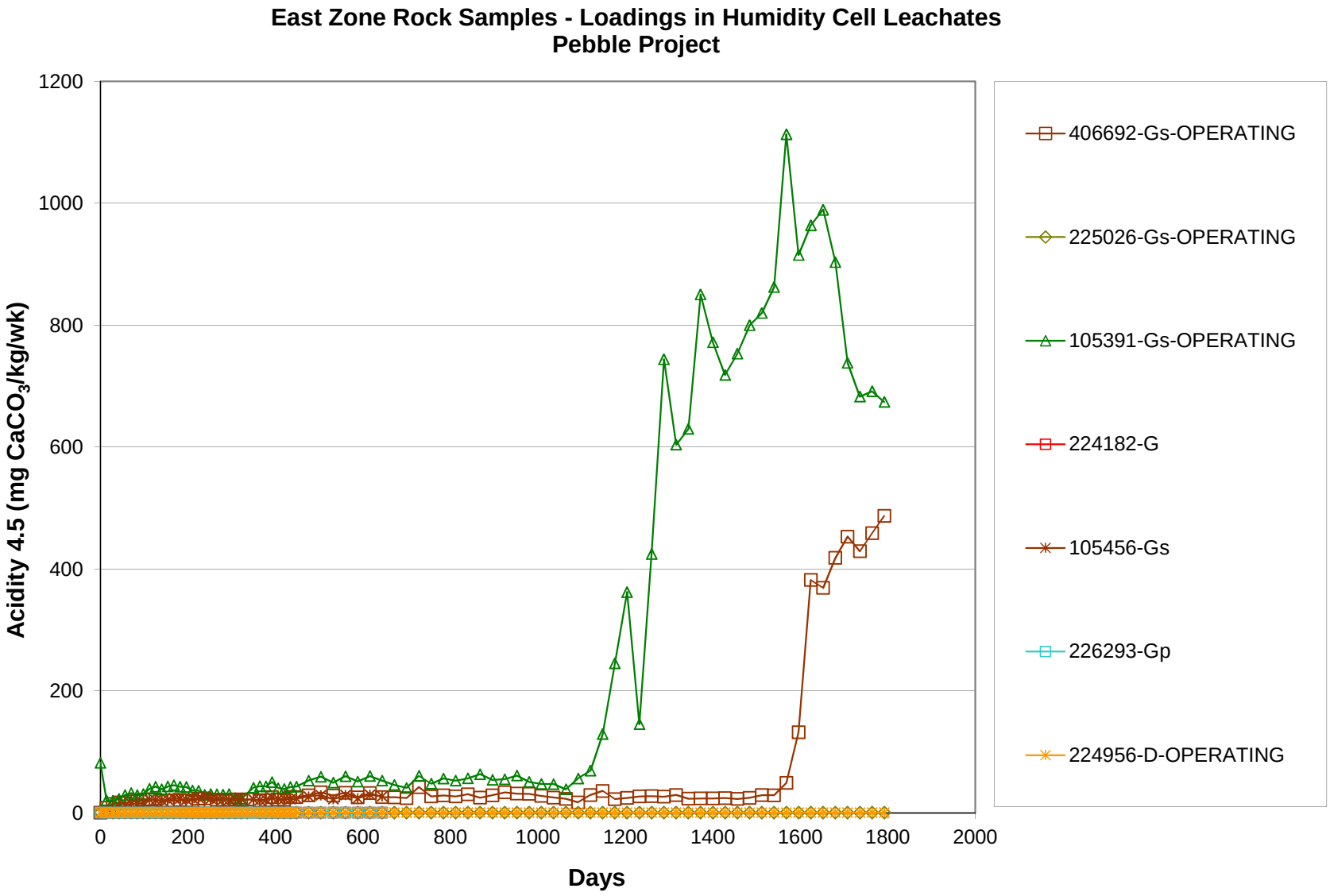

Tertiary Samples - Loadings
Pebble Project
Sn [mg/kg/w]
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

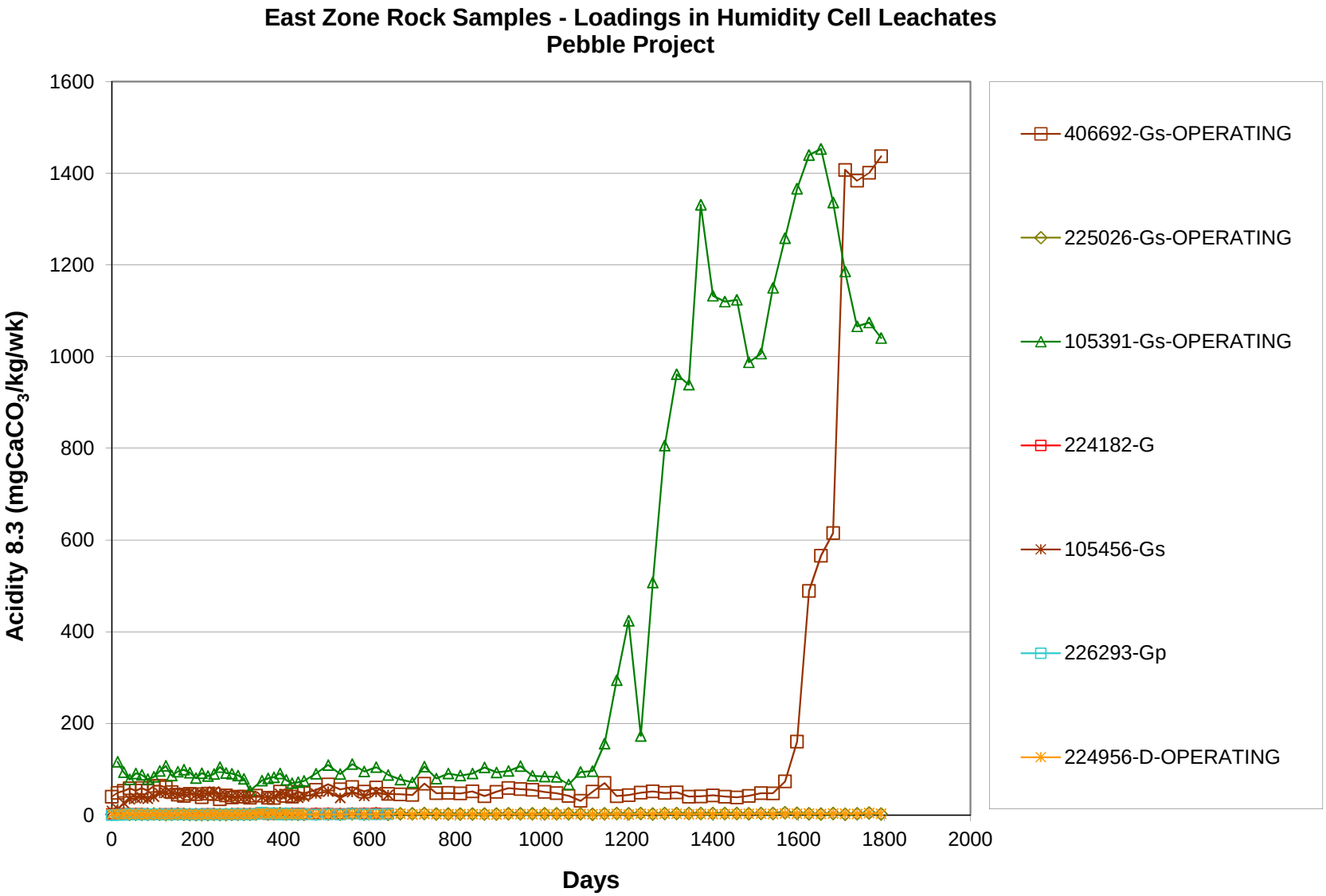

Tertiary Samples - Loadings
Pebble Project
V [mg/kg/w]
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

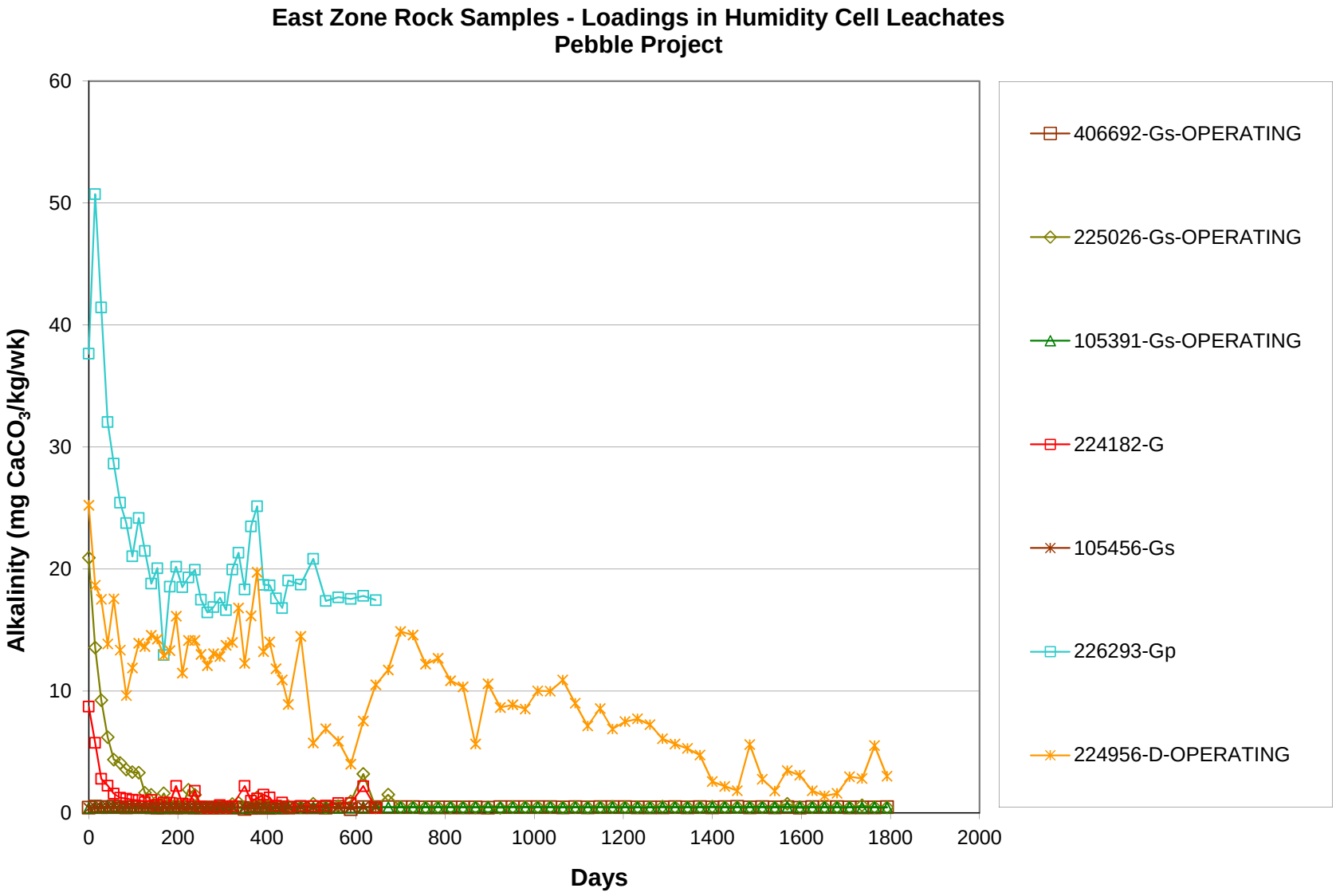

Tertiary Samples - Loadings
Pebble Project
Zn [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
Days
115-0054-0066
115-0054-0066 (D1)
115-0054-0066 (D2)
115-0142-0163
117-1055-1071
3102-0958-0978
3102-0958-0978 (D1)
3102-0958-0978 (D2)
3129-0417-0435
3129-0253-0272
4292 415-430
4292 685-695
4157 439-471

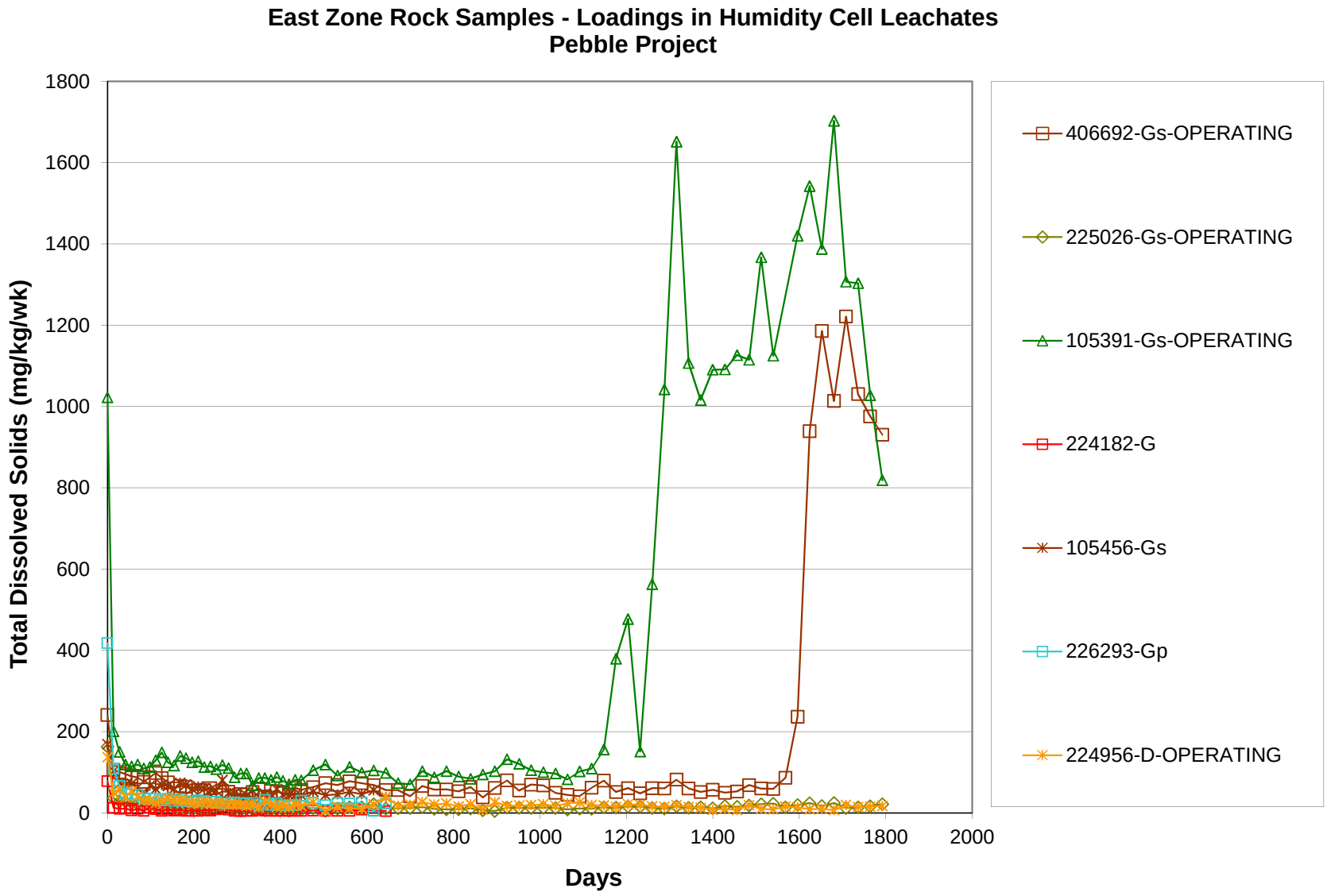

East Zone Rock Samples - Concentrations in Humidity Cell Leachates
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

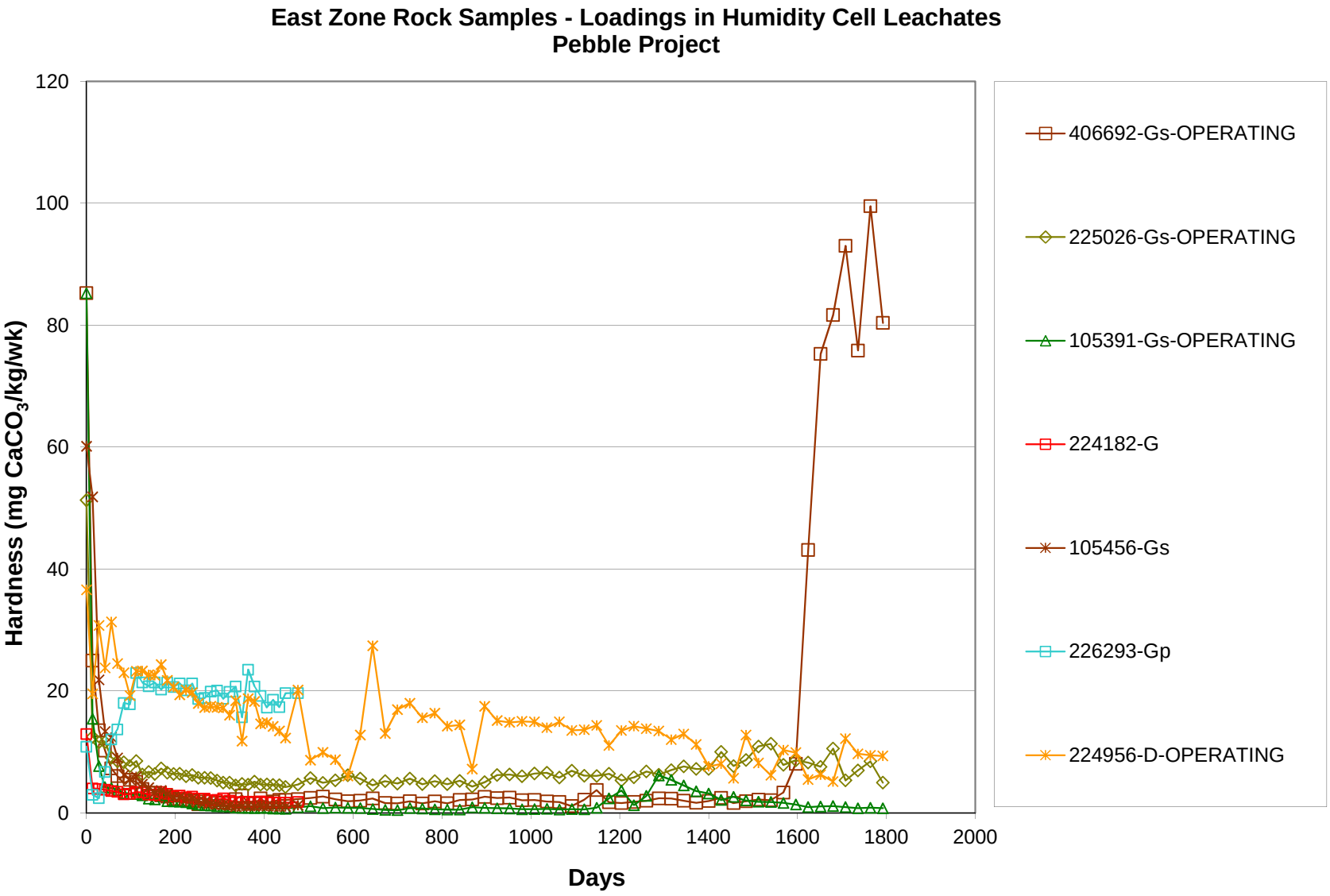

East Zone Rock Samples - Concentrations in Humidity Cell Leachates
Pebble Project
Conductivity (umhos/cm)
6000
5000
4000
3000
2000
1000
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

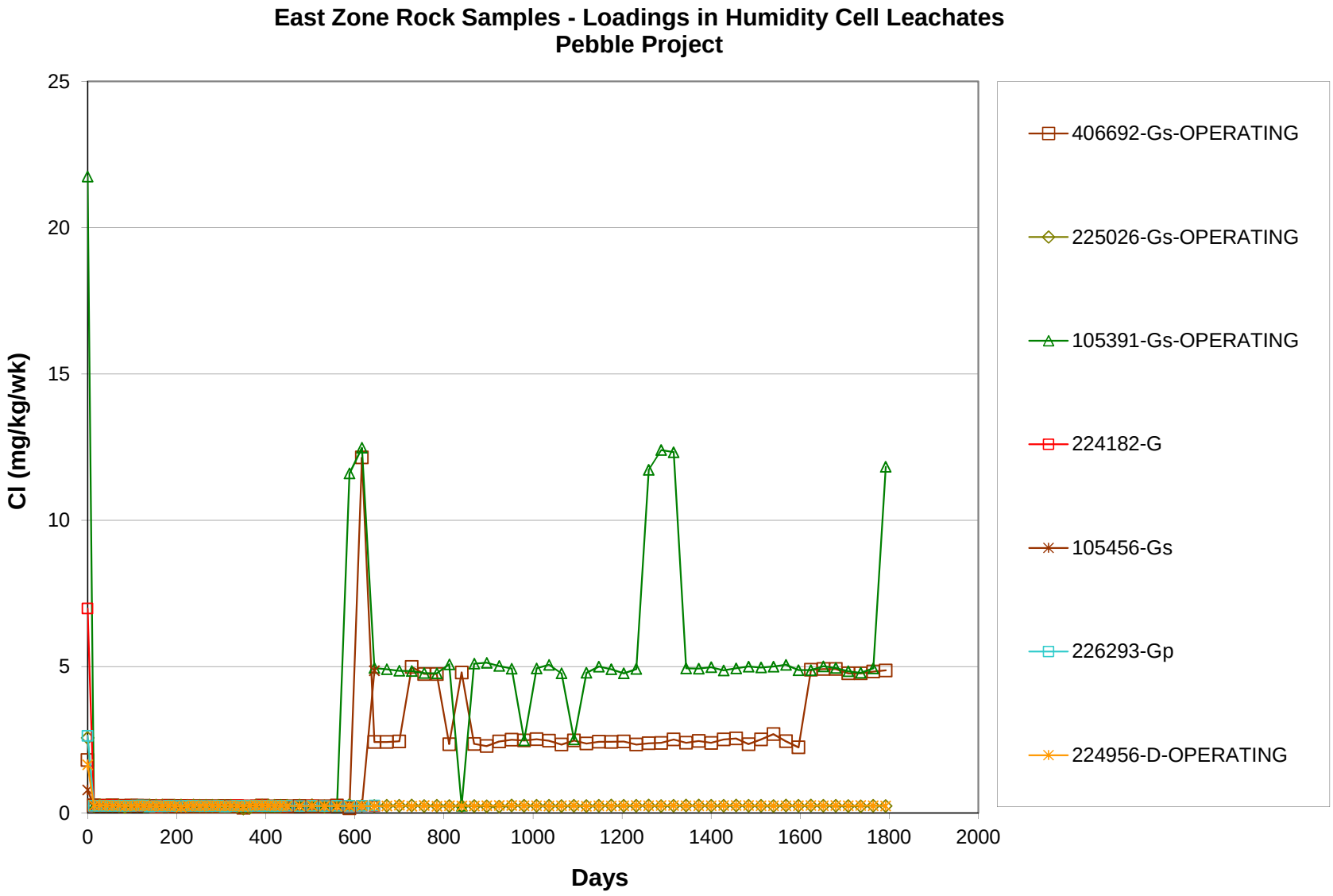

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 4.5 (mg CaCO3/kg/wk)
Days
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

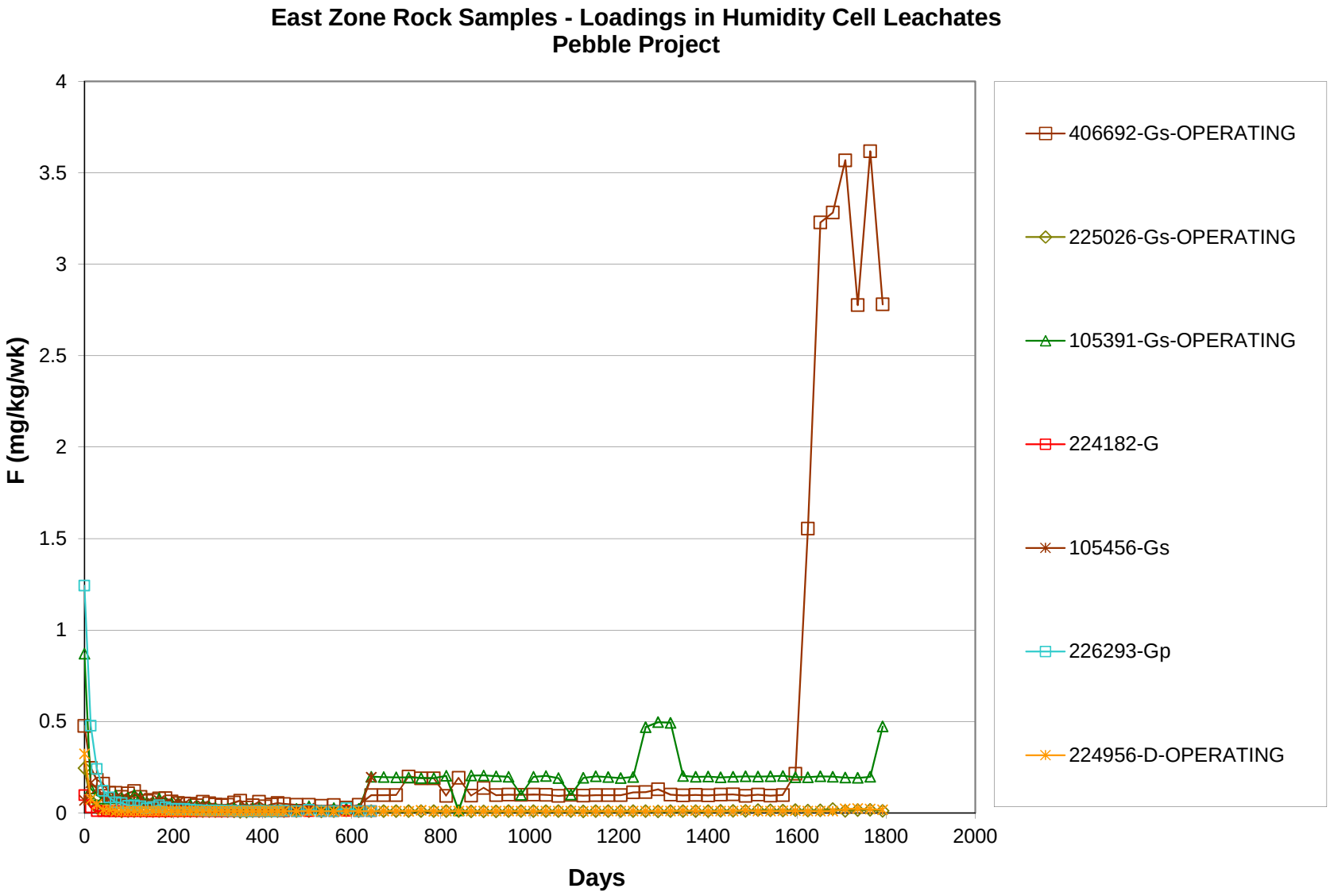

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 8.3 (mgCaCO3/kg/wk)
Days
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

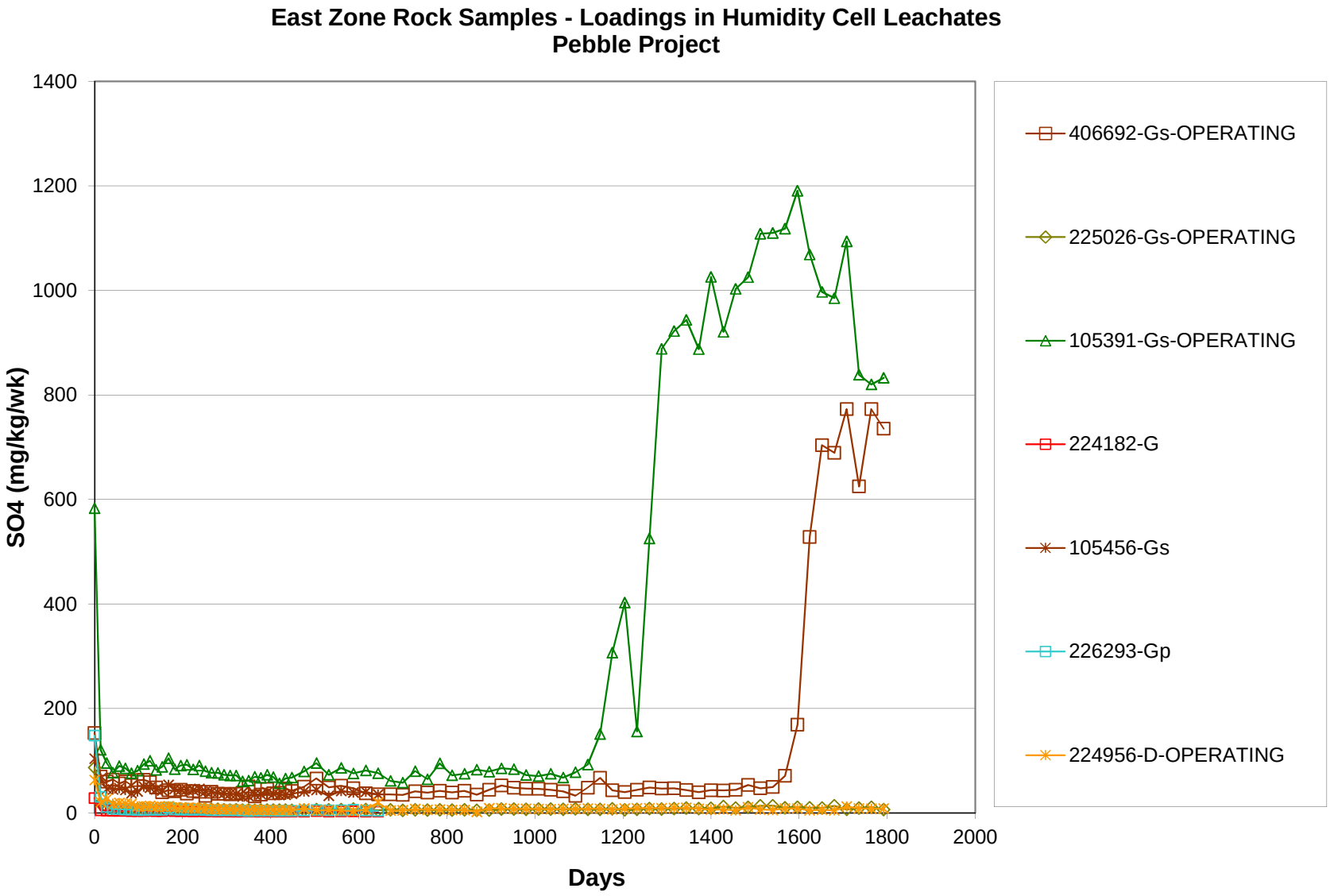

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Alkalinity (mg CaCO3/kg/wk)
Days
0
10
20
30
40
50
60
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

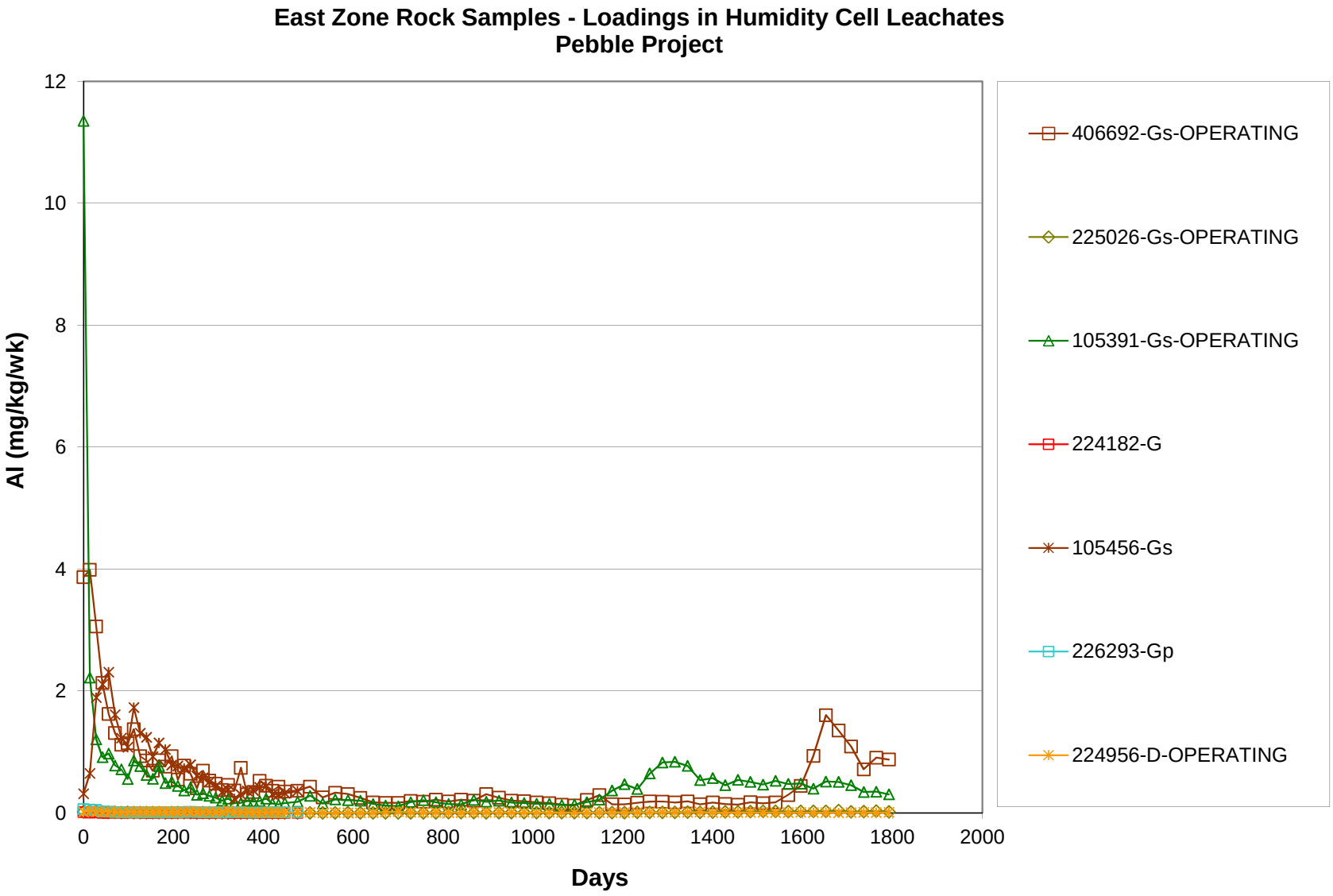

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Total Dissolved Solids (mg/kg/wk)
Days
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

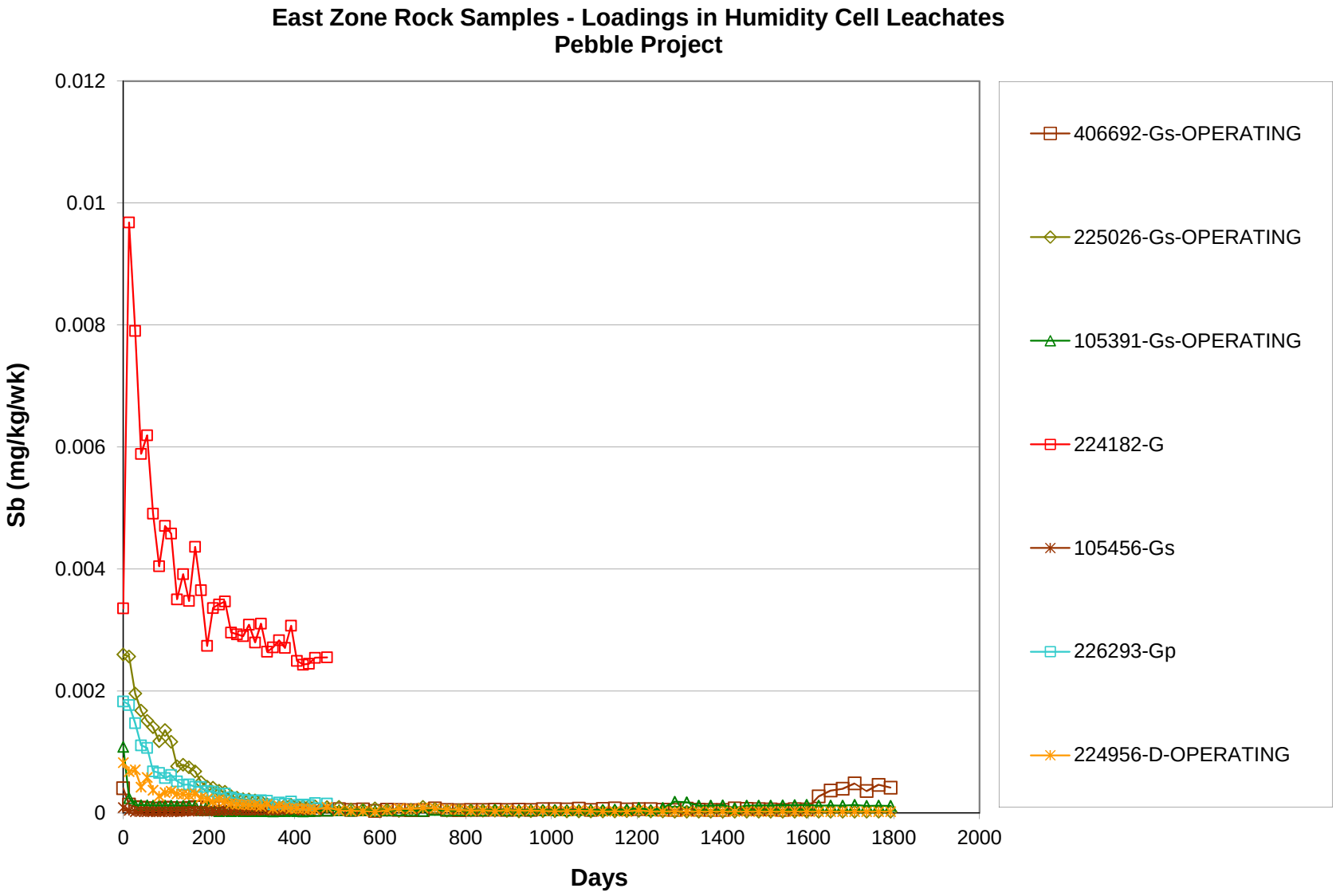

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Hardness (mg CaCO3/kg/wk)
Days
0
20
40
60
80
100
120
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

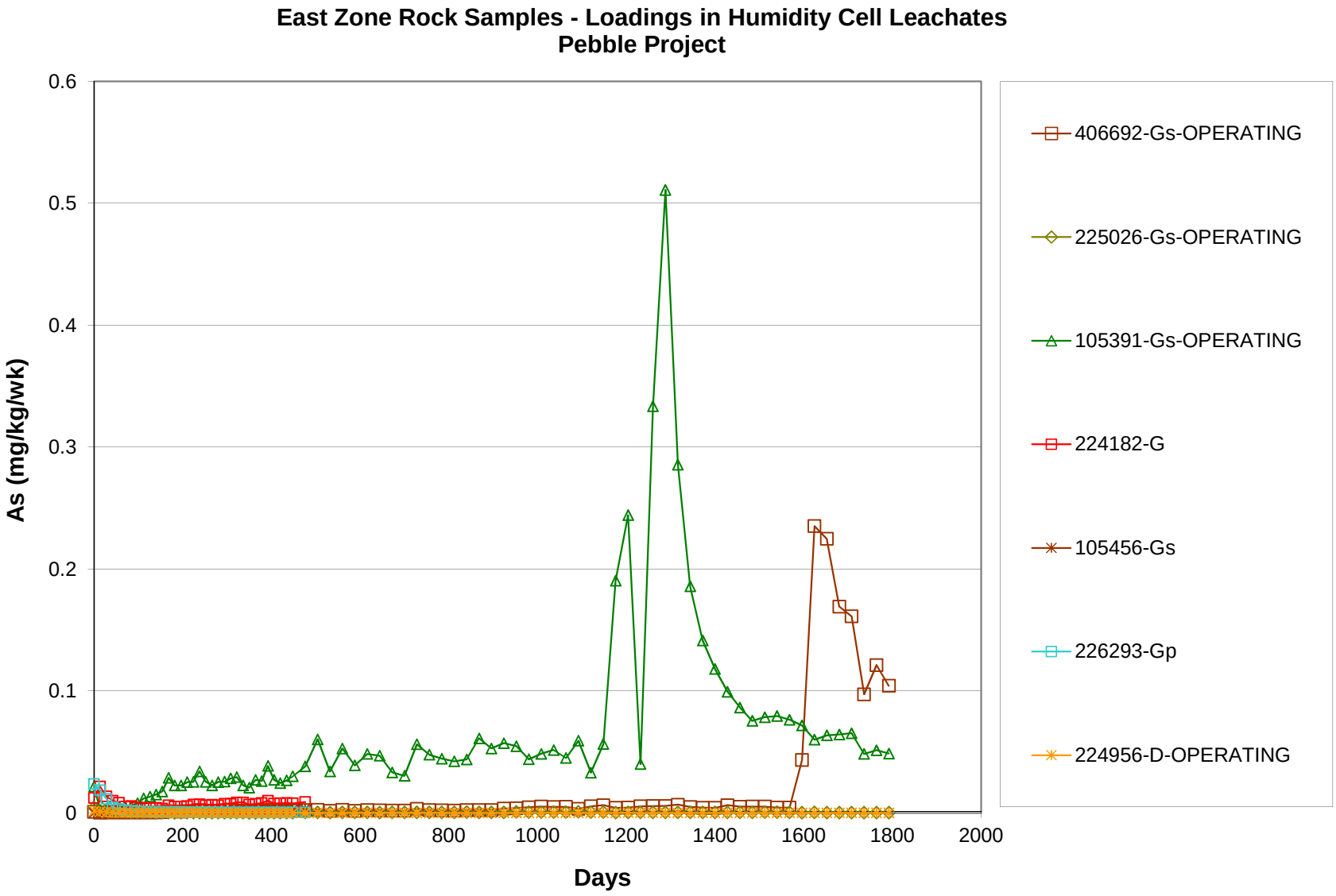

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cl (mg/kg/wk)
25
20
15
10
5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

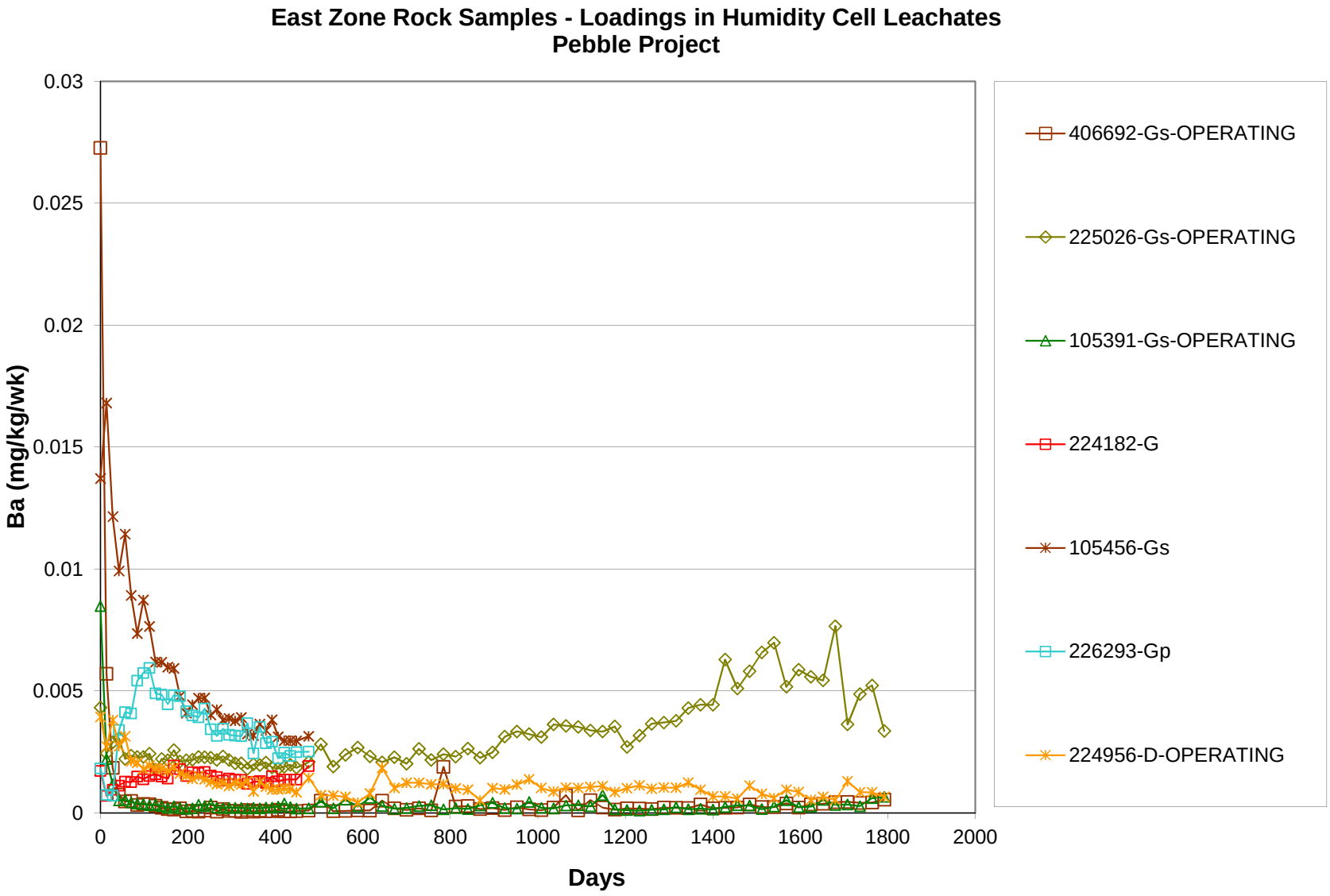

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
F (mg/kg/wk)
Days
0
0.5
1
1.5
2
2.5
3
3.5
4
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

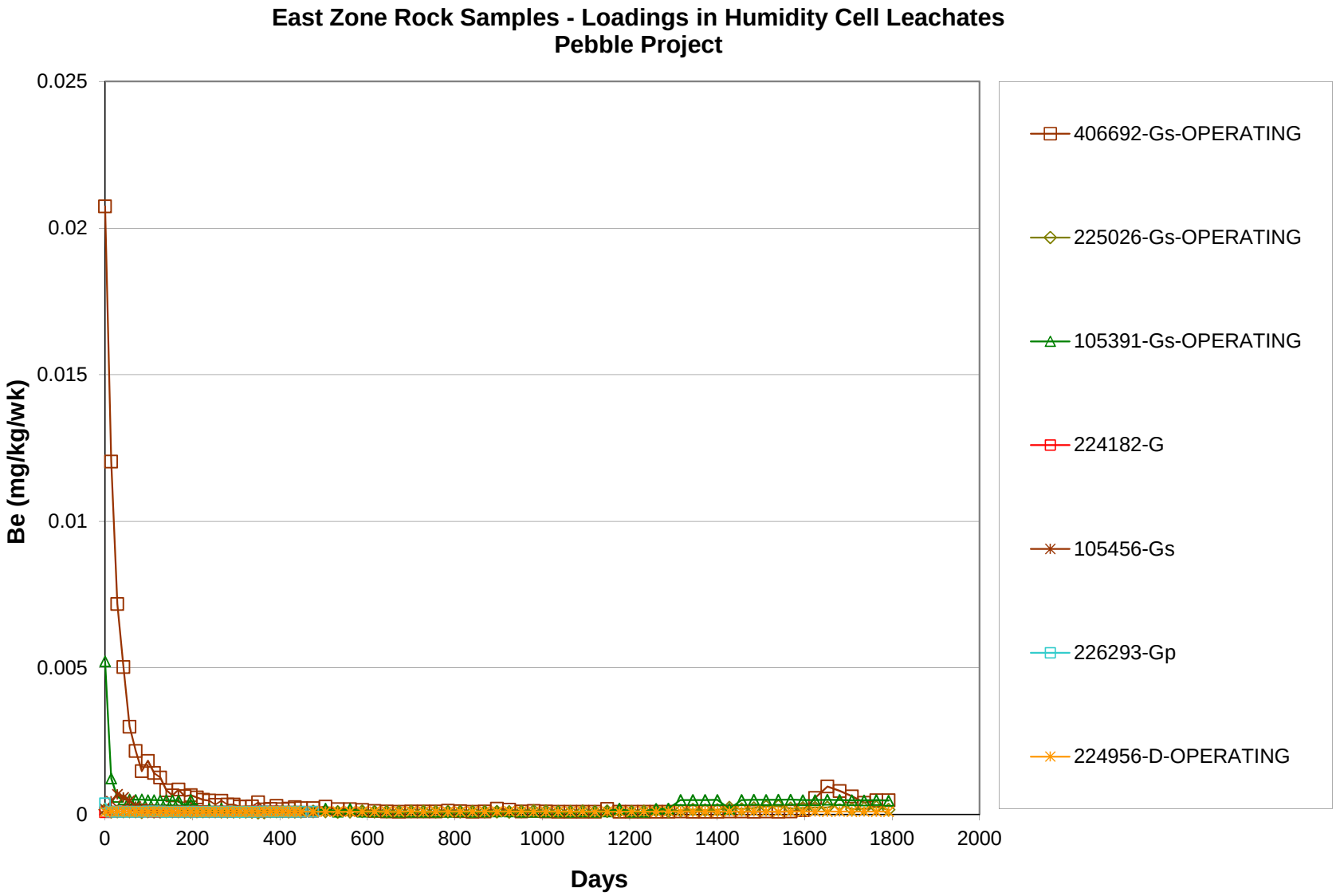

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
SO4 (mg/kg/wk)
Days
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

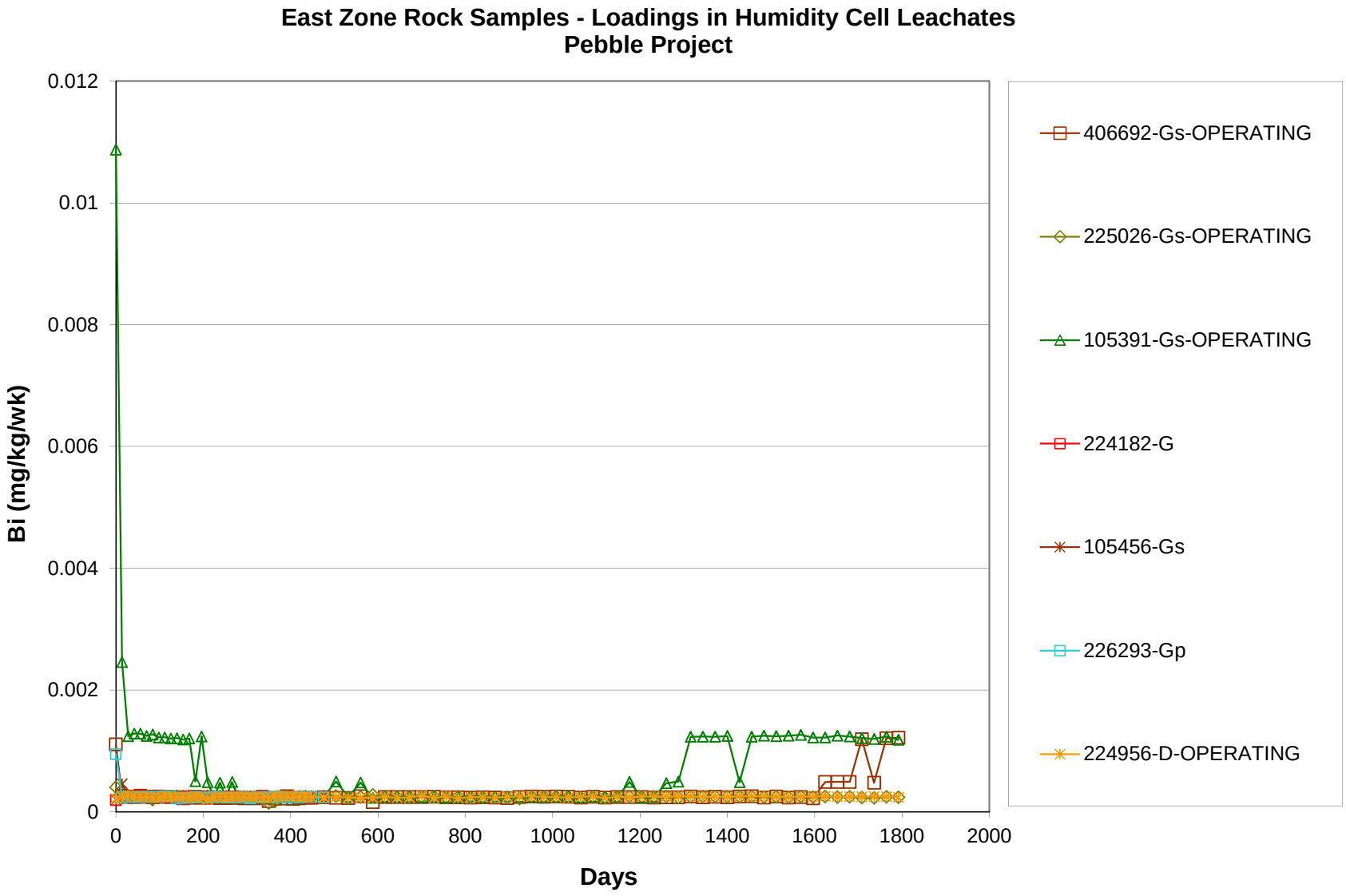

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Al (mg/kg/wk)
Days
0
2
4
6
8
10
12
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

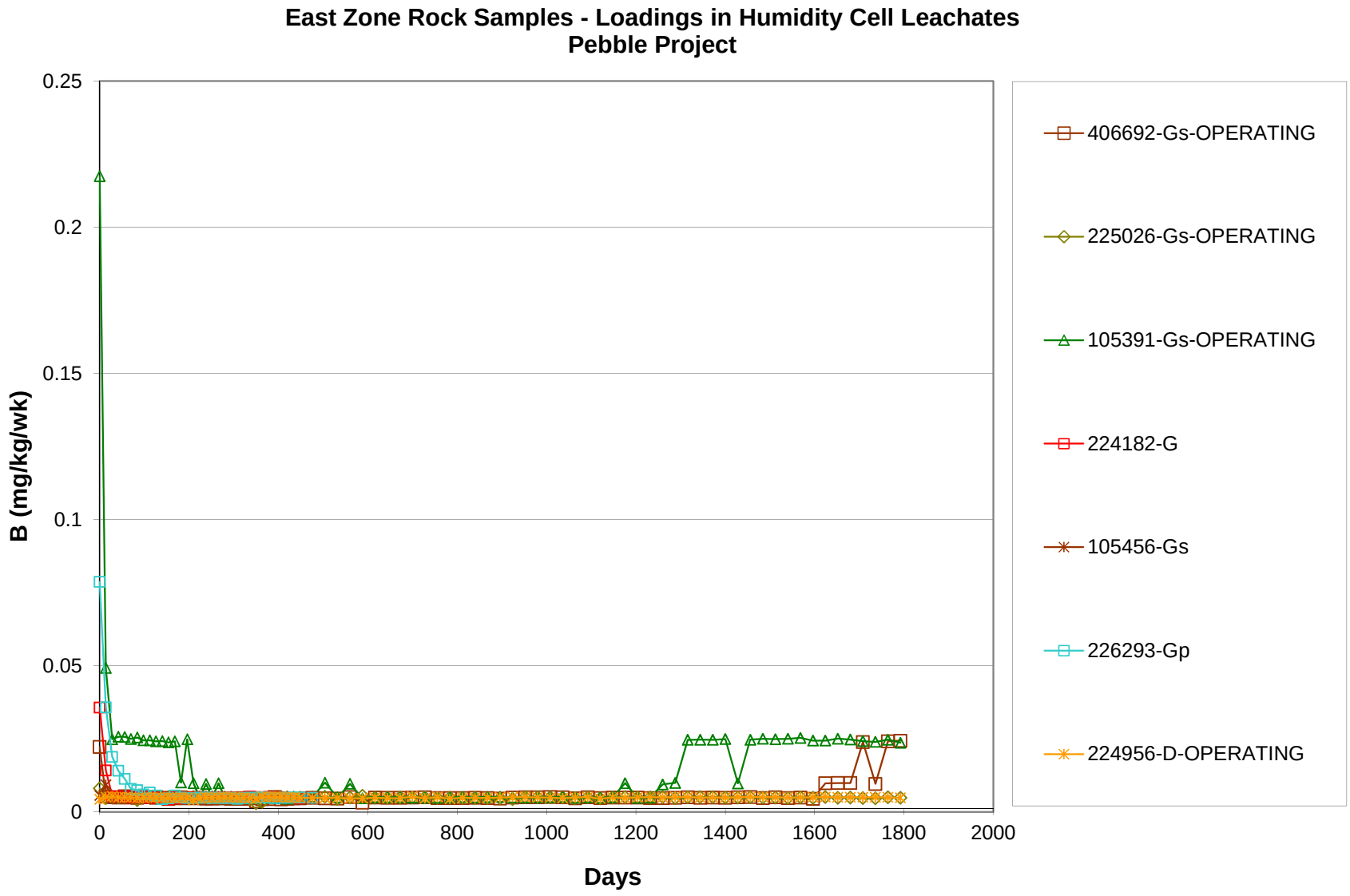

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Sb (mg/kg/wk)
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

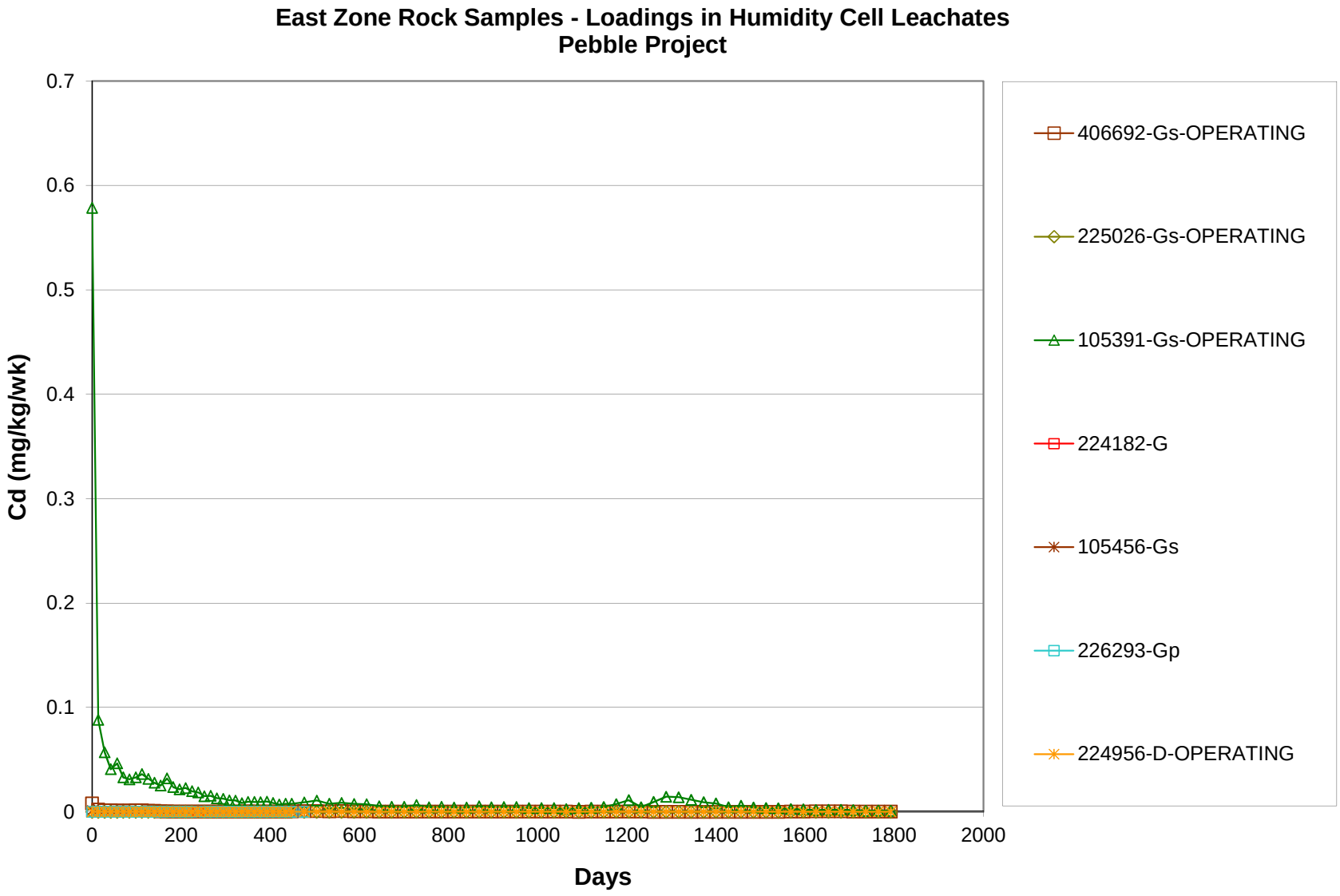

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
As (mg/kg/wk)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

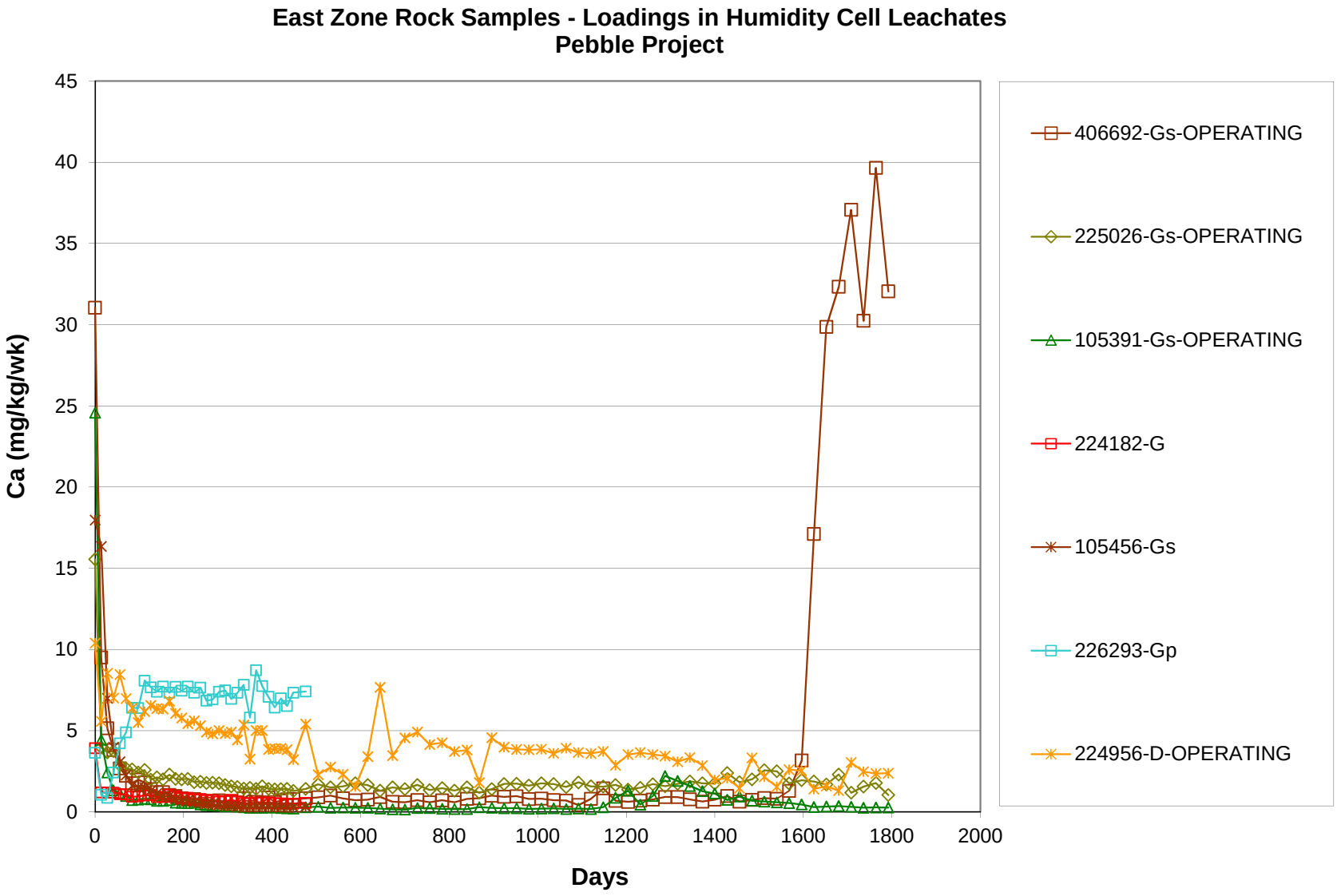

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ba (mg/kg/wk)
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

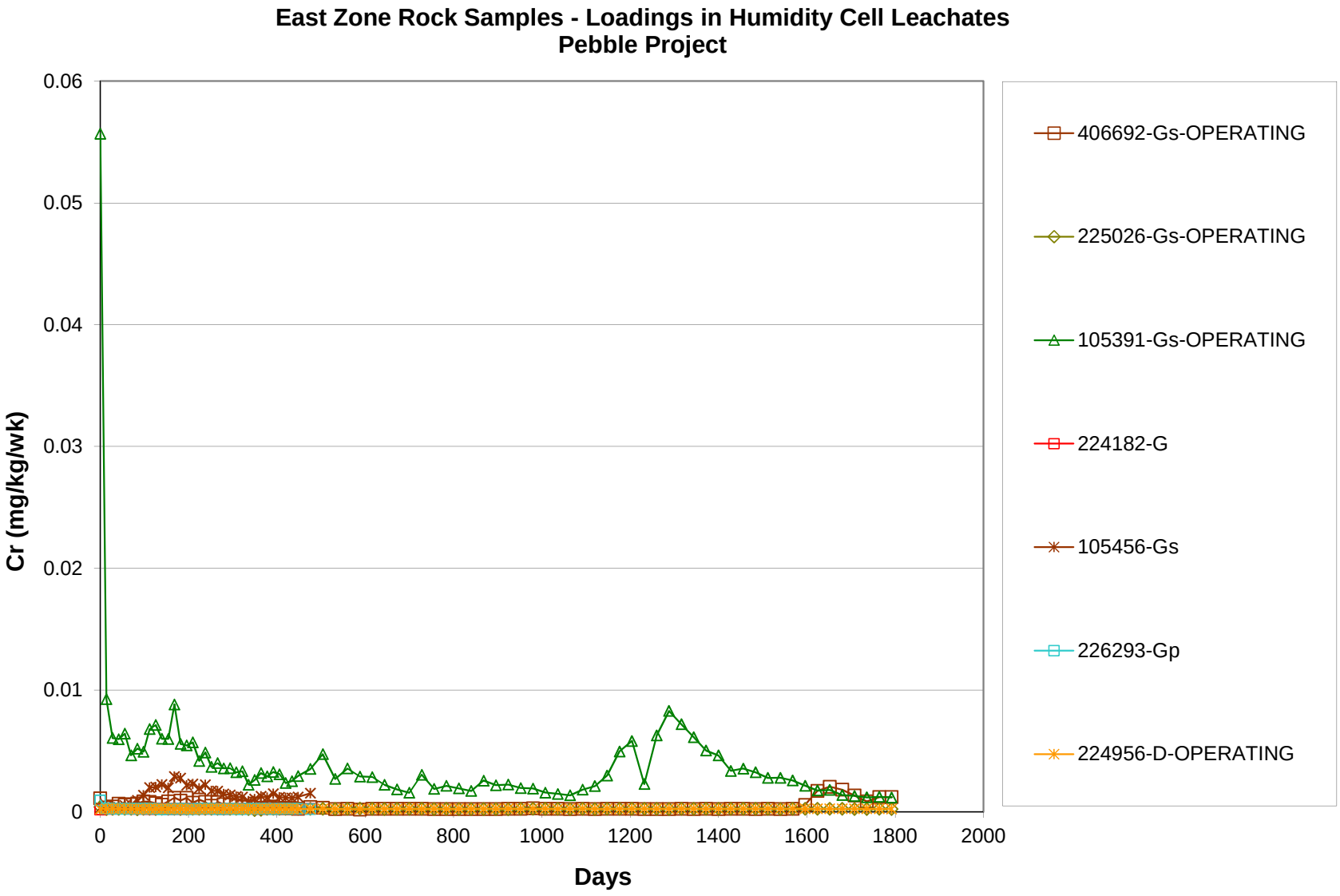

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Be (mg/kg/wk)
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

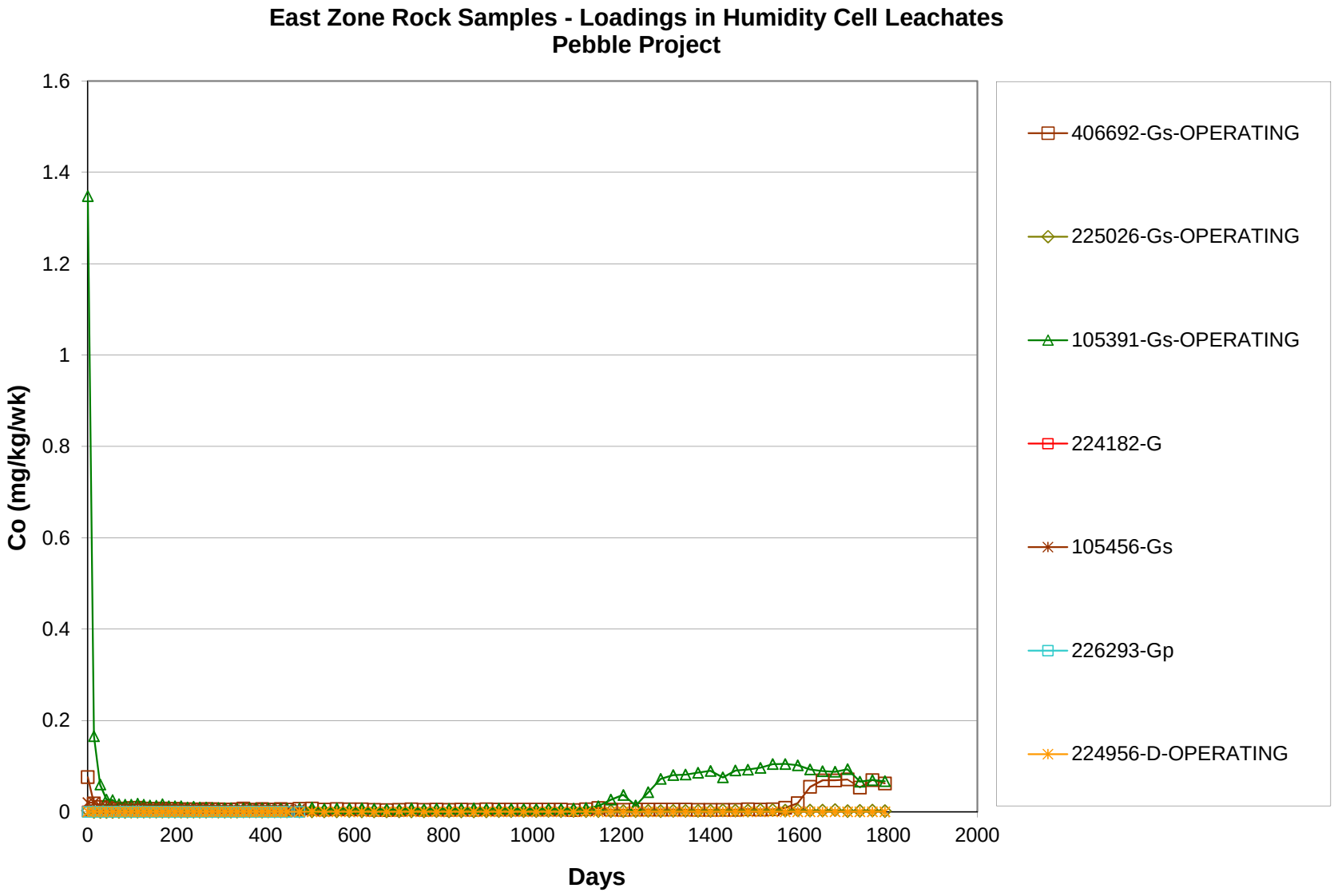

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Bi (mg/kg/wk)
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

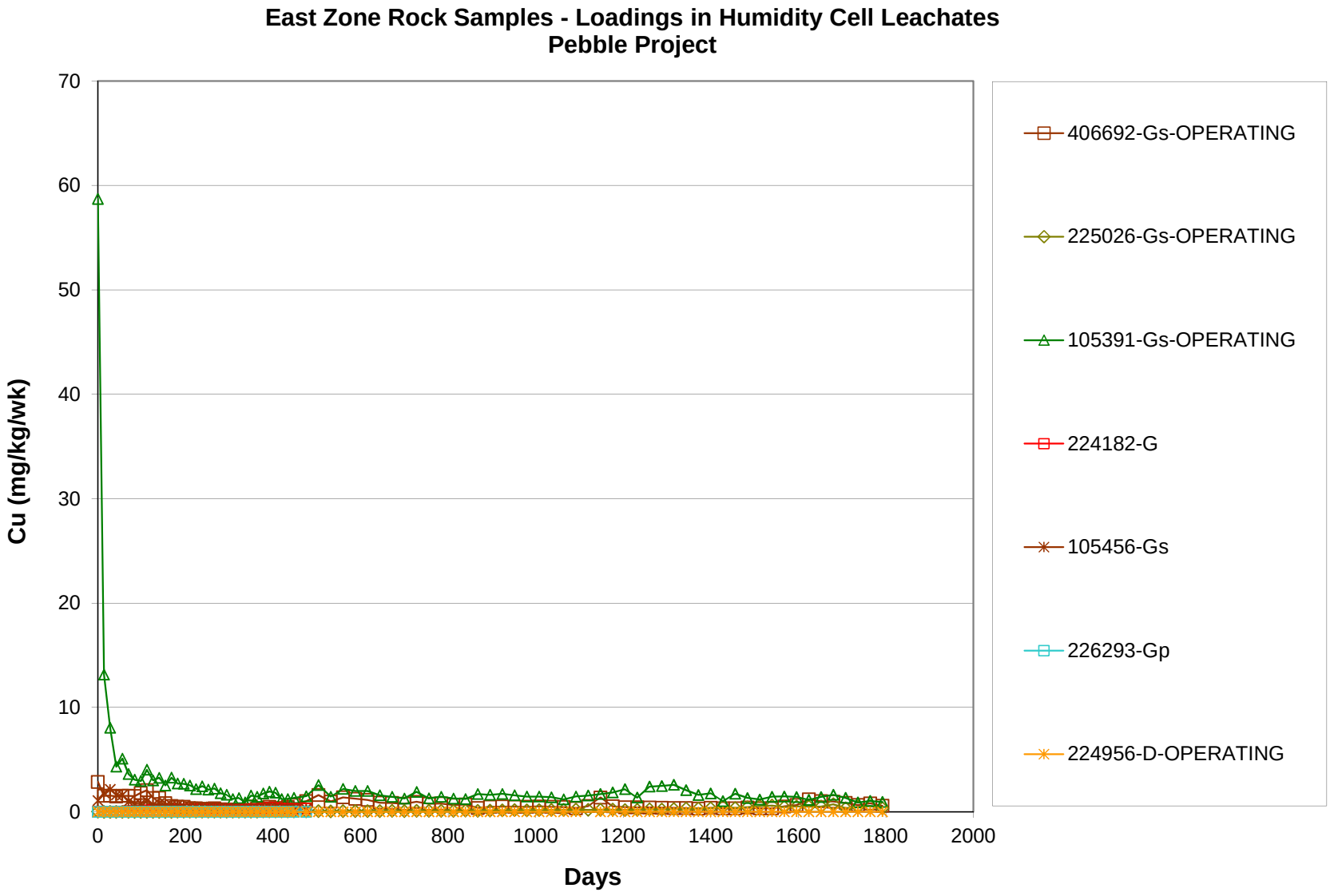

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
B (mg/kg/wk)
0.25
0.2
0.15
0.1
0.05
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

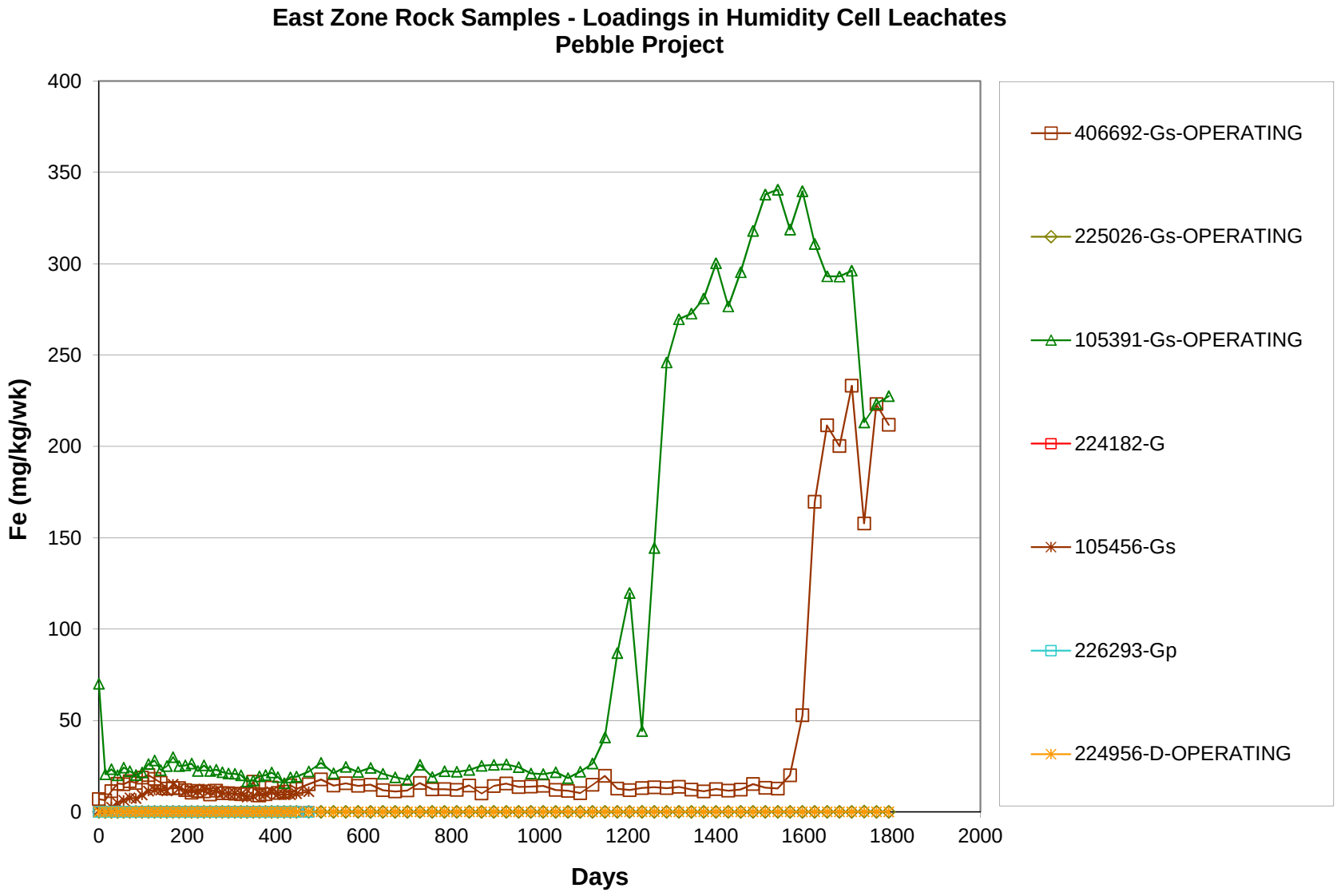

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cd (mg/kg/wk)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

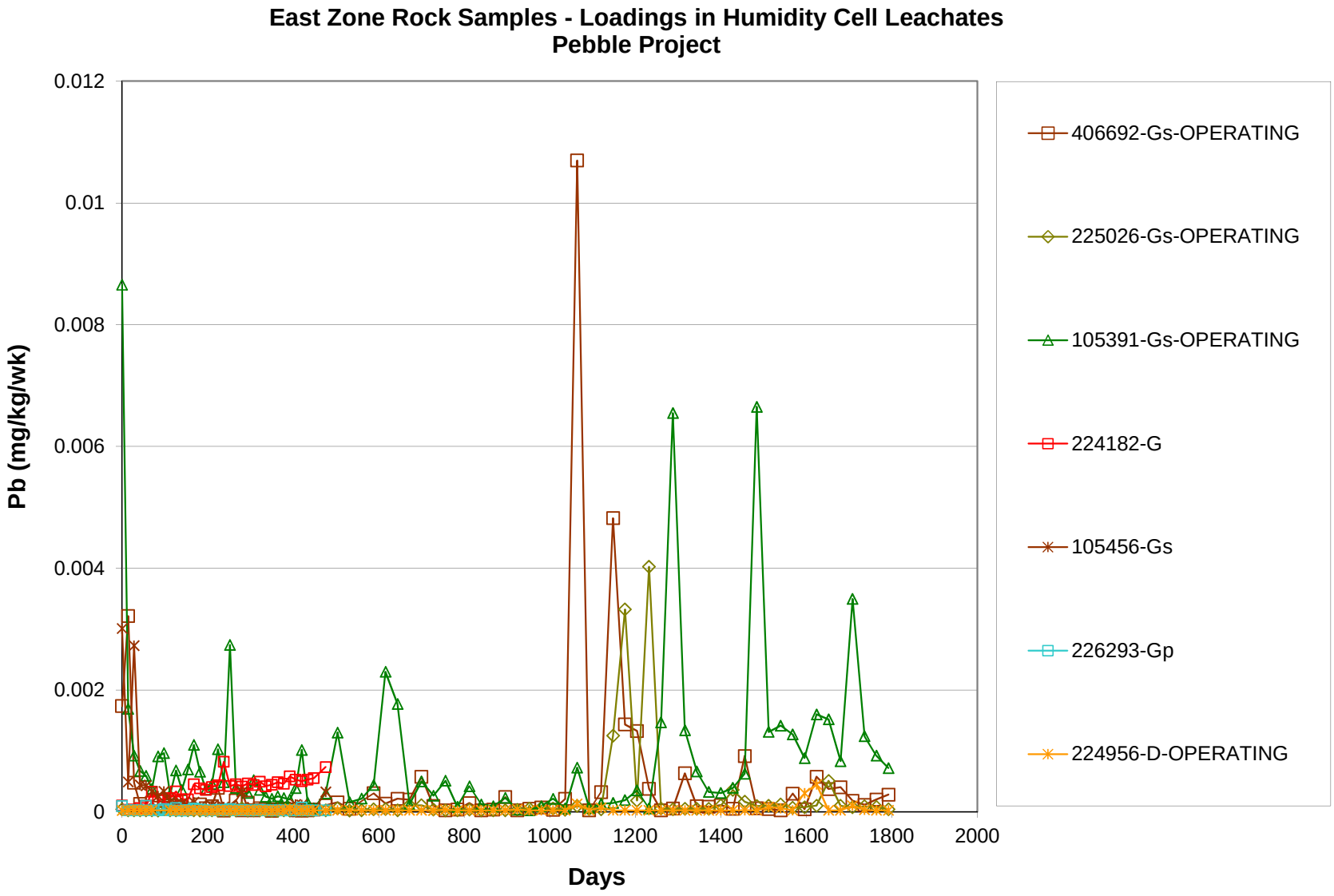

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ca (mg/kg/wk)
Days
0
5
10
15
20
25
30
35
40
45
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

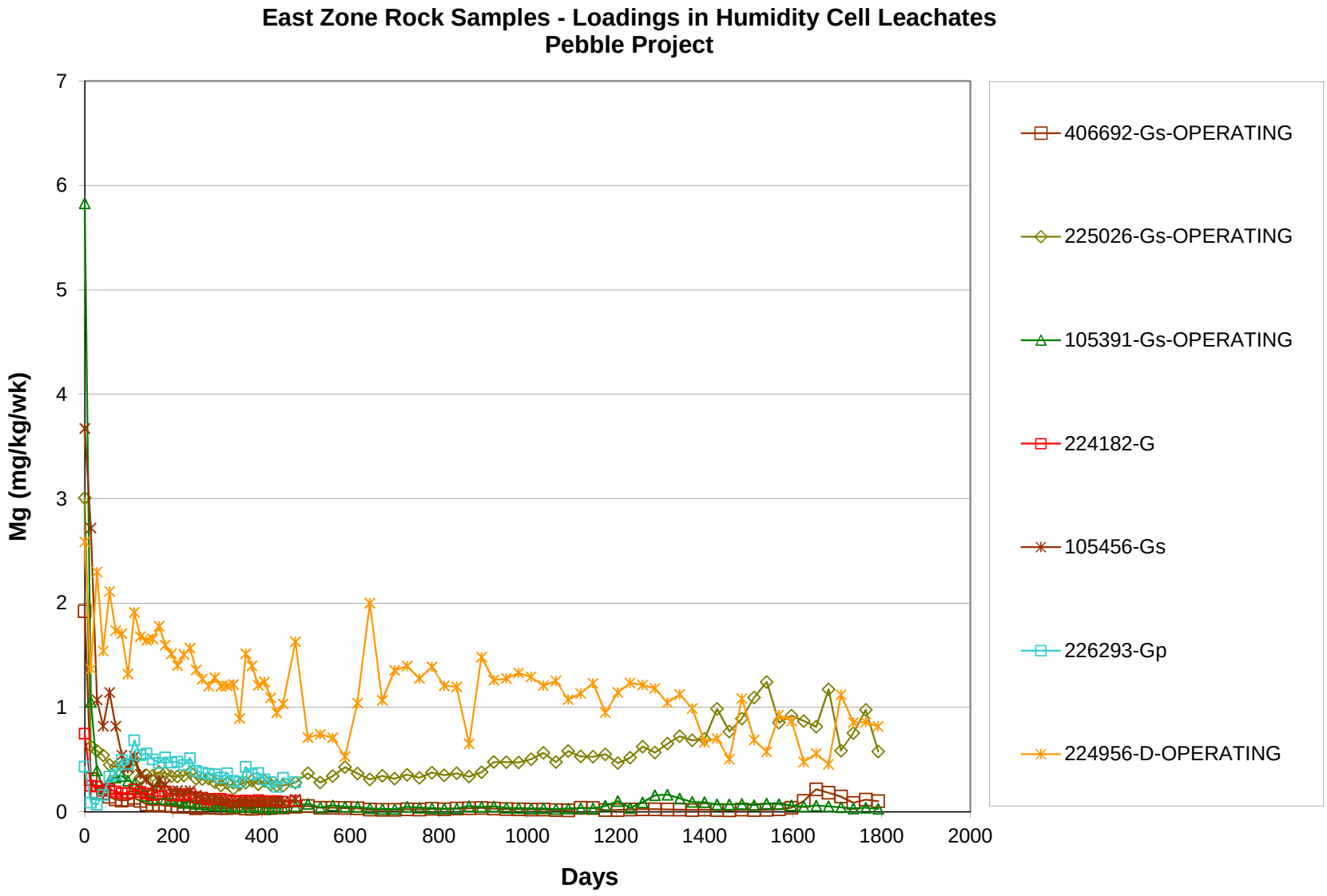

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cr (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

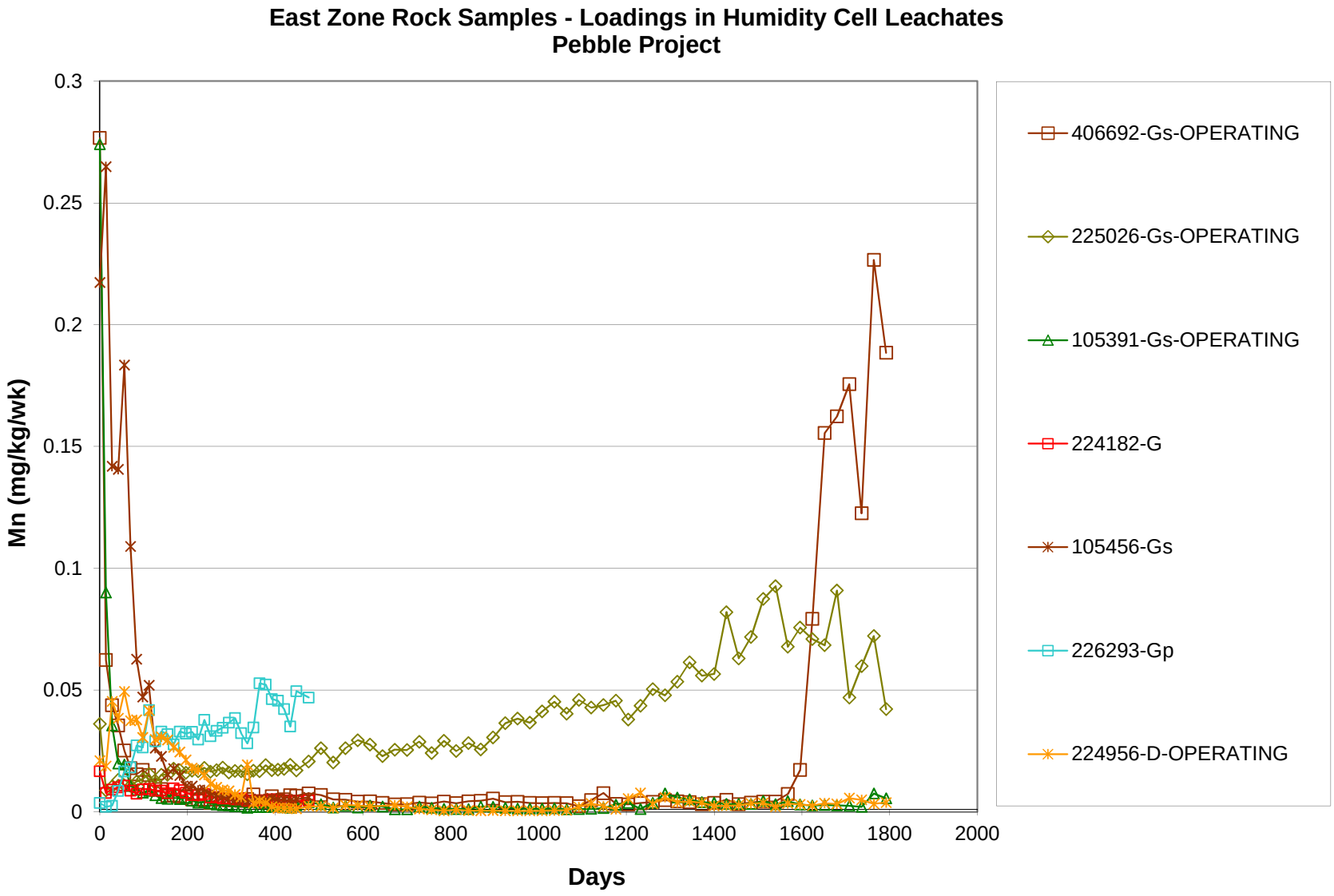

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Co (mg/kg/wk)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

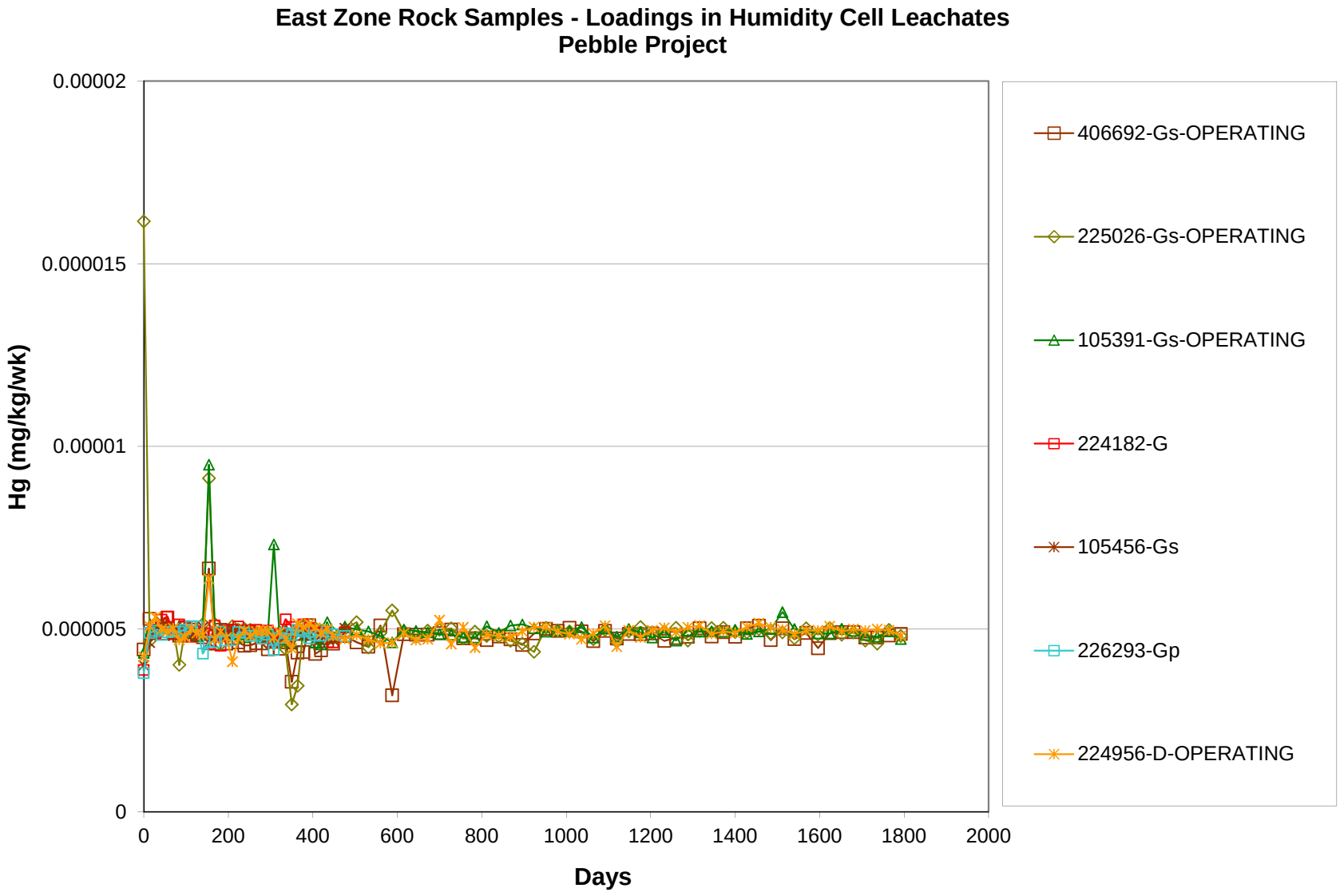

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cu (mg/kg/wk)
70
60
50
40
30
20
10
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

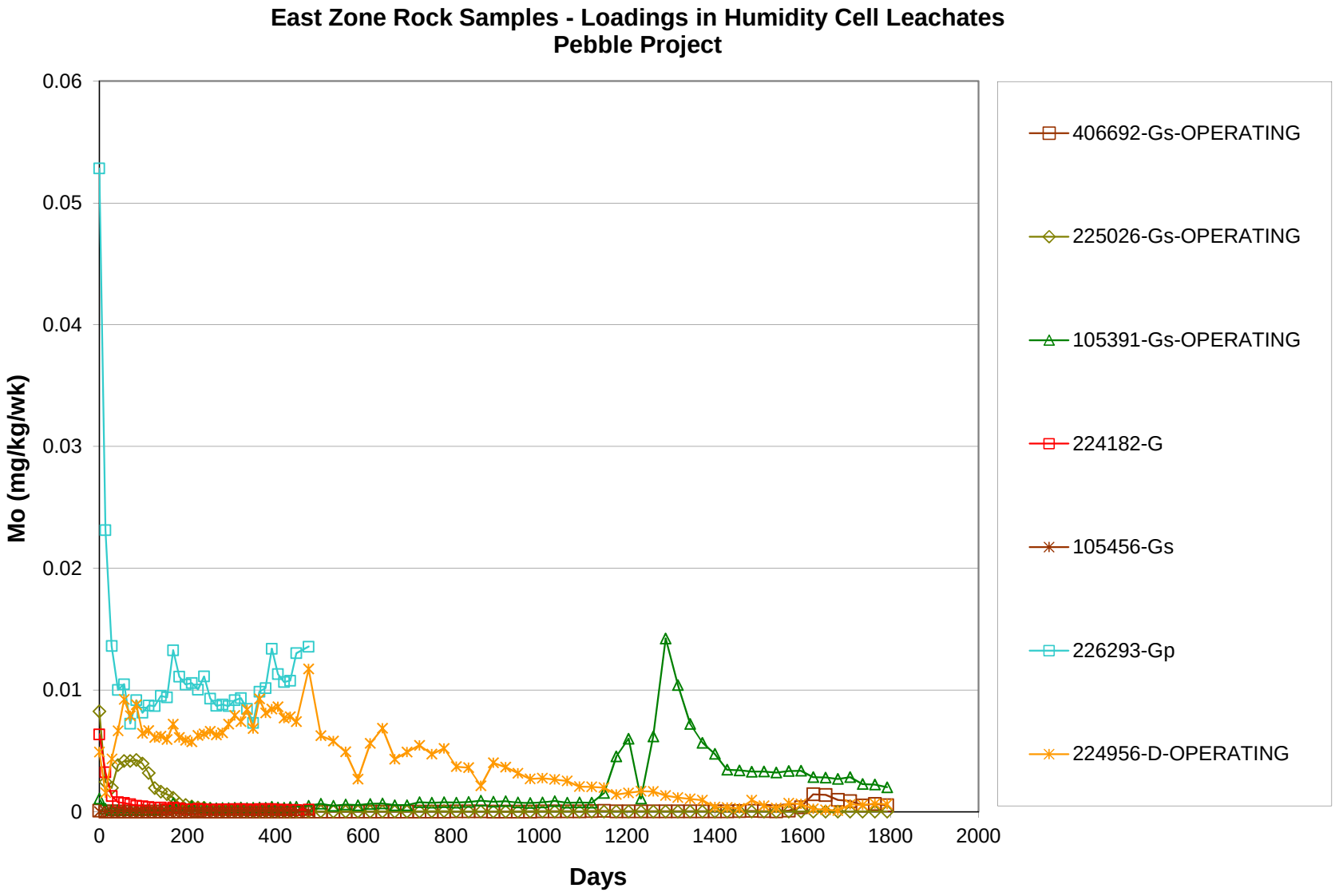

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Fe (mg/kg/wk)
400
350
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

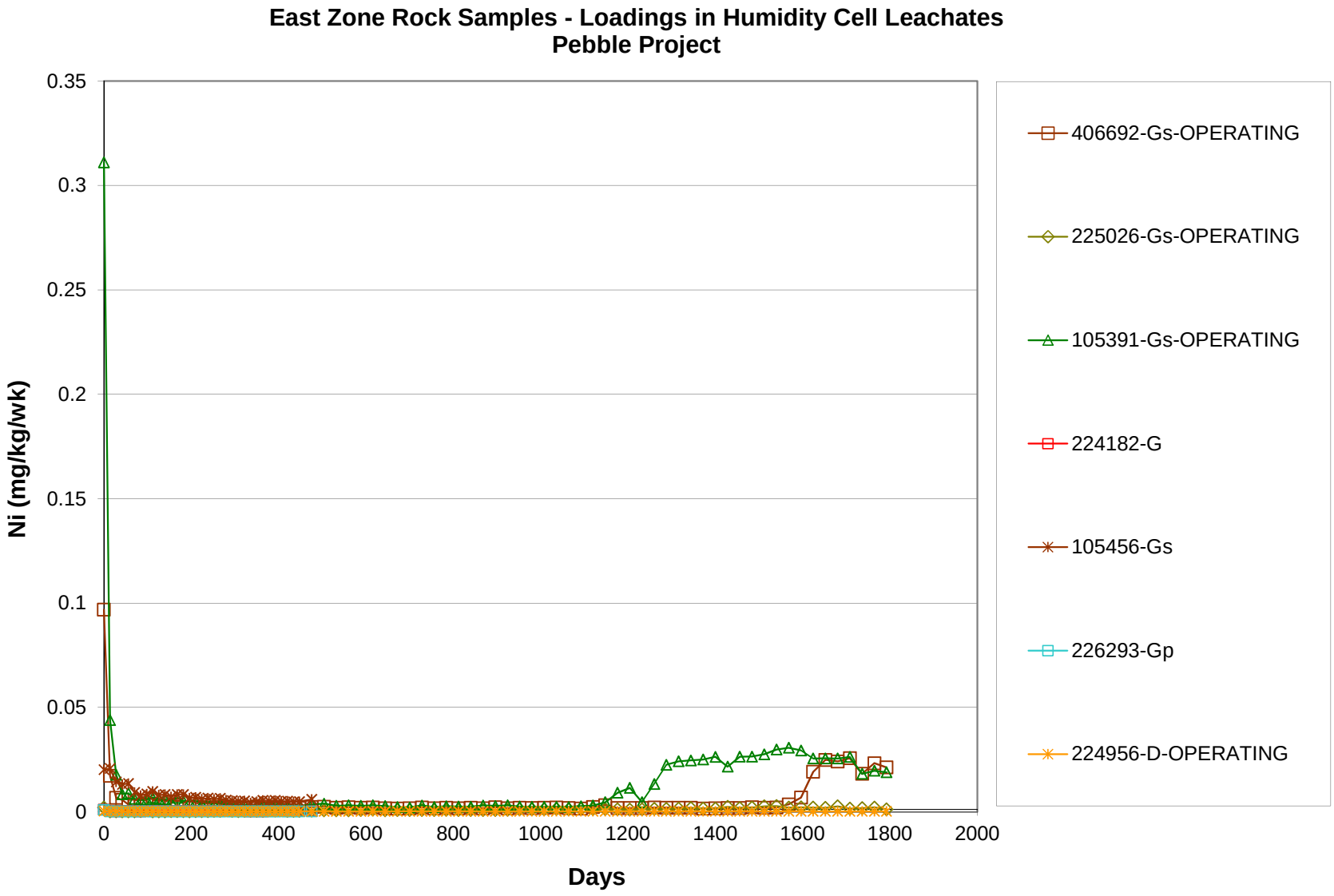

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Pb (mg/kg/wk)
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

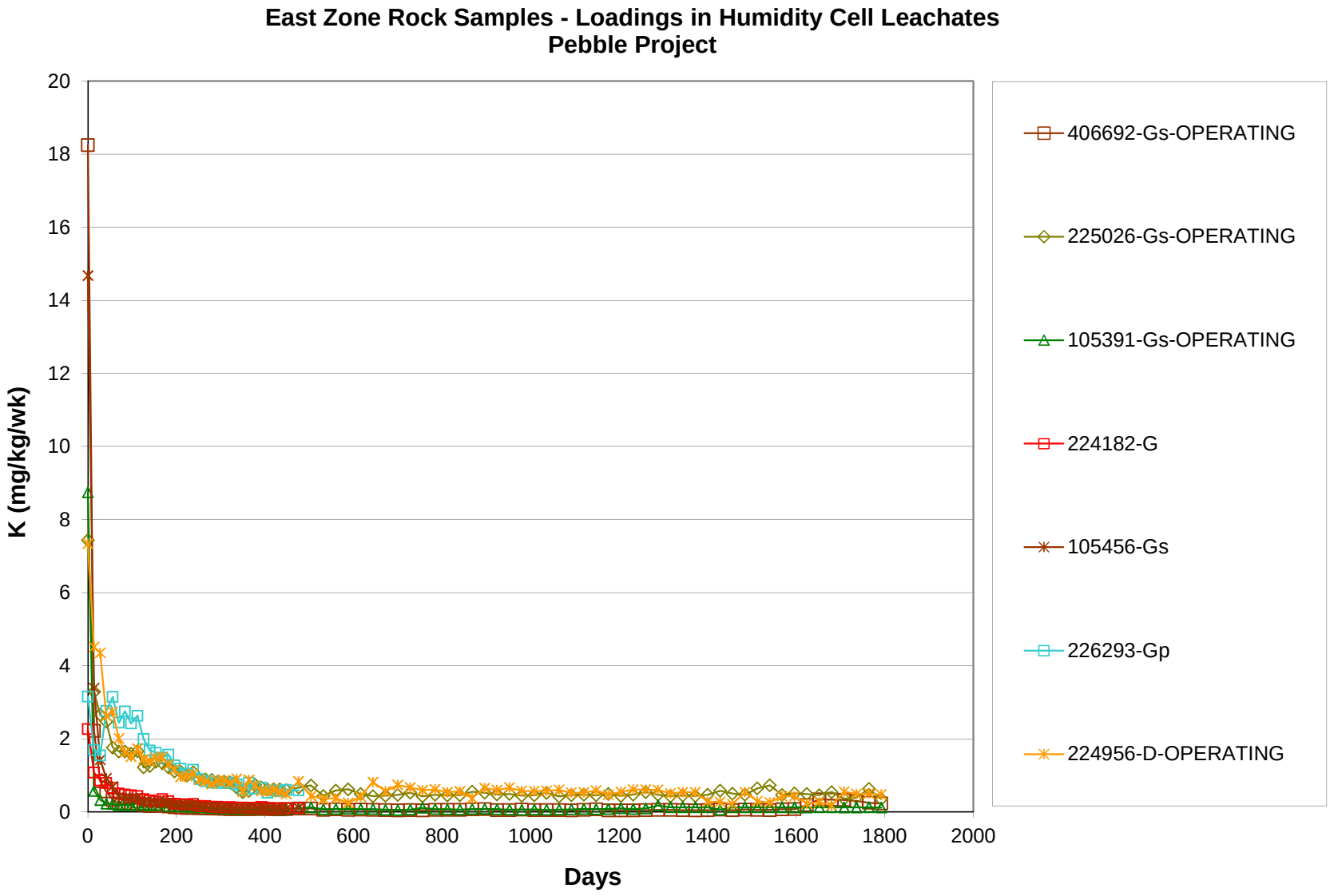

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mg (mg/kg/wk)
0
1
2
3
4
5
6
7
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

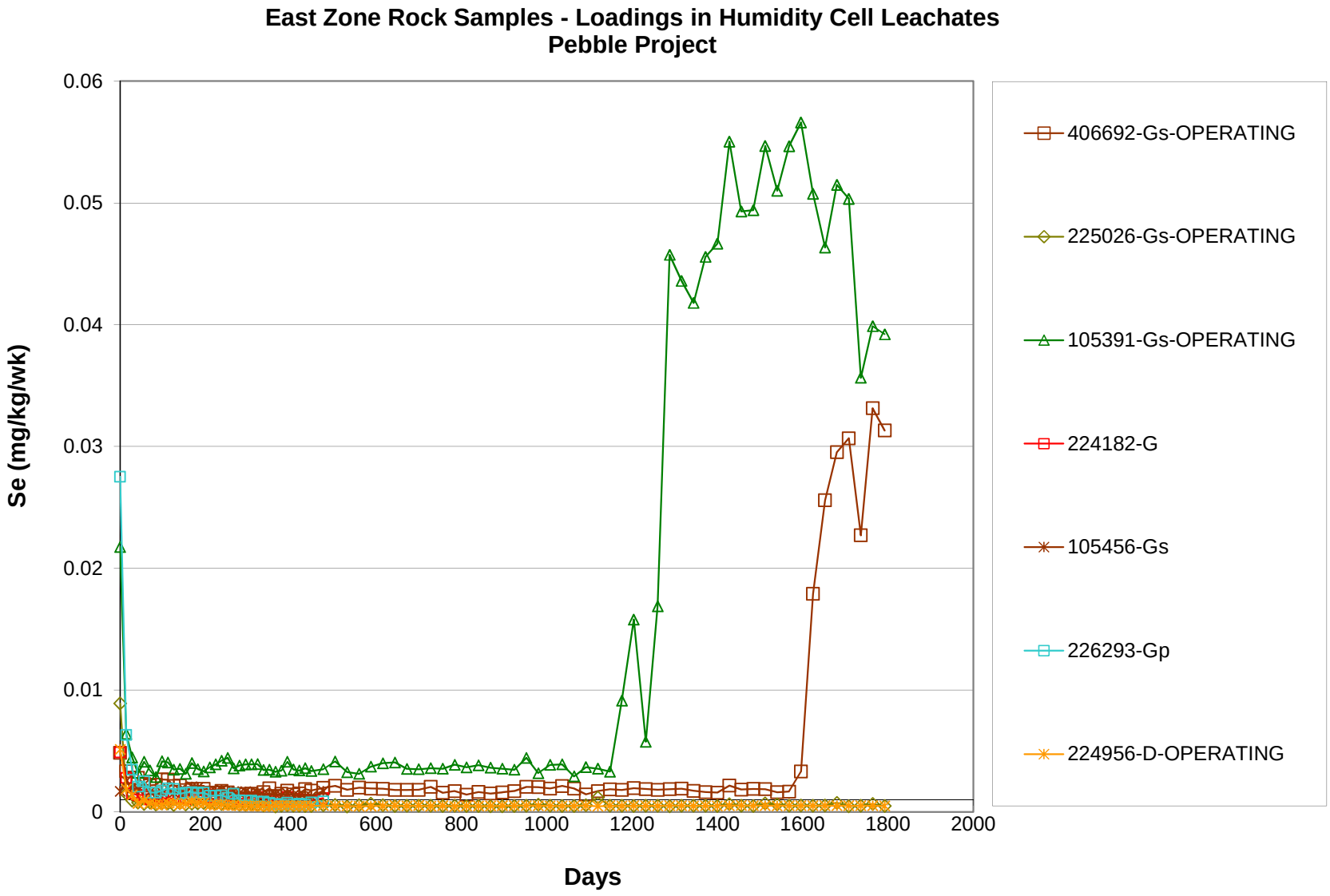

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mn (mg/kg/wk)
0.3
0.25
0.2
0.15
0.1
0.05
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

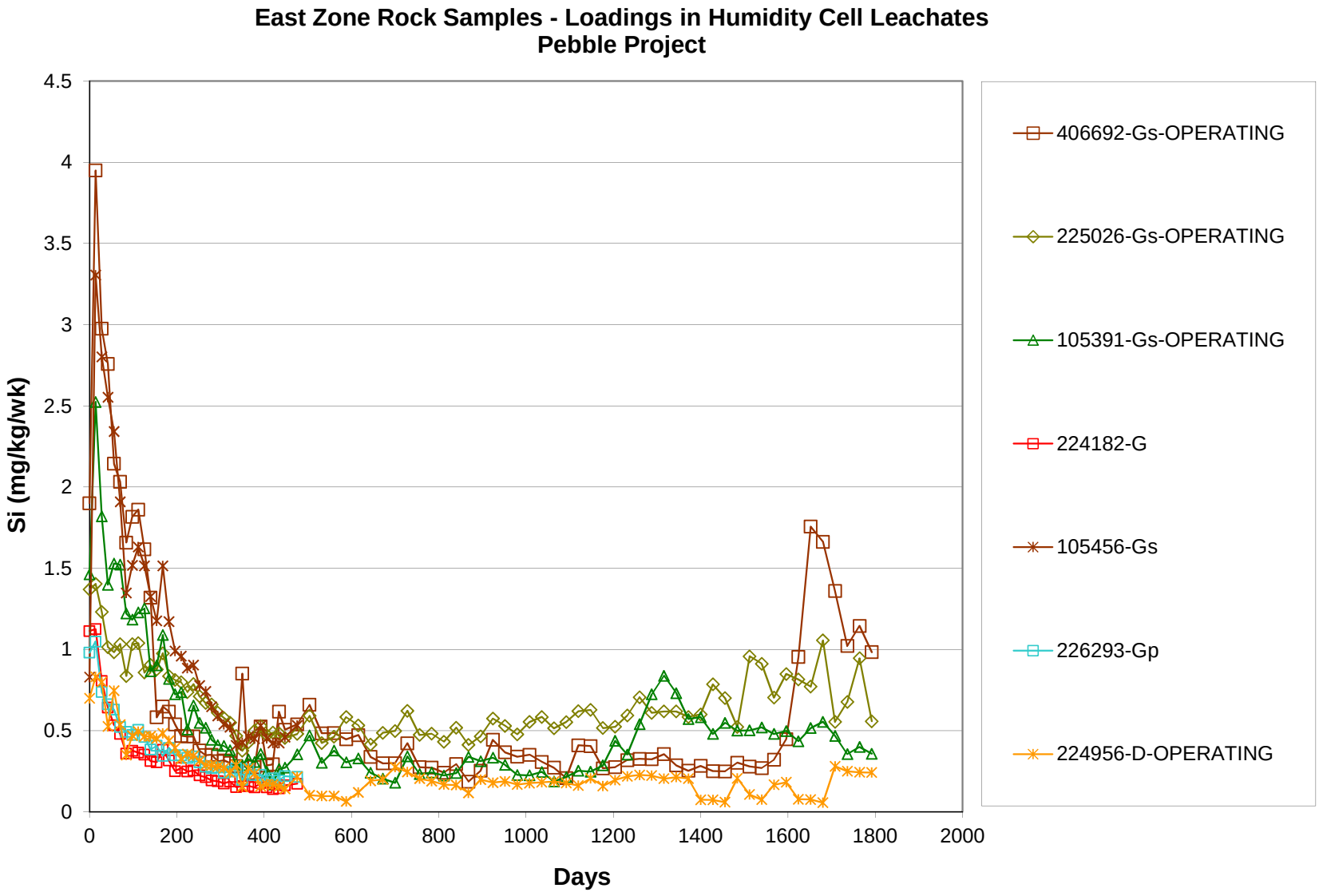

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Hg (mg/kg/wk)
0.00002
0.000015
0.00001
0.000005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

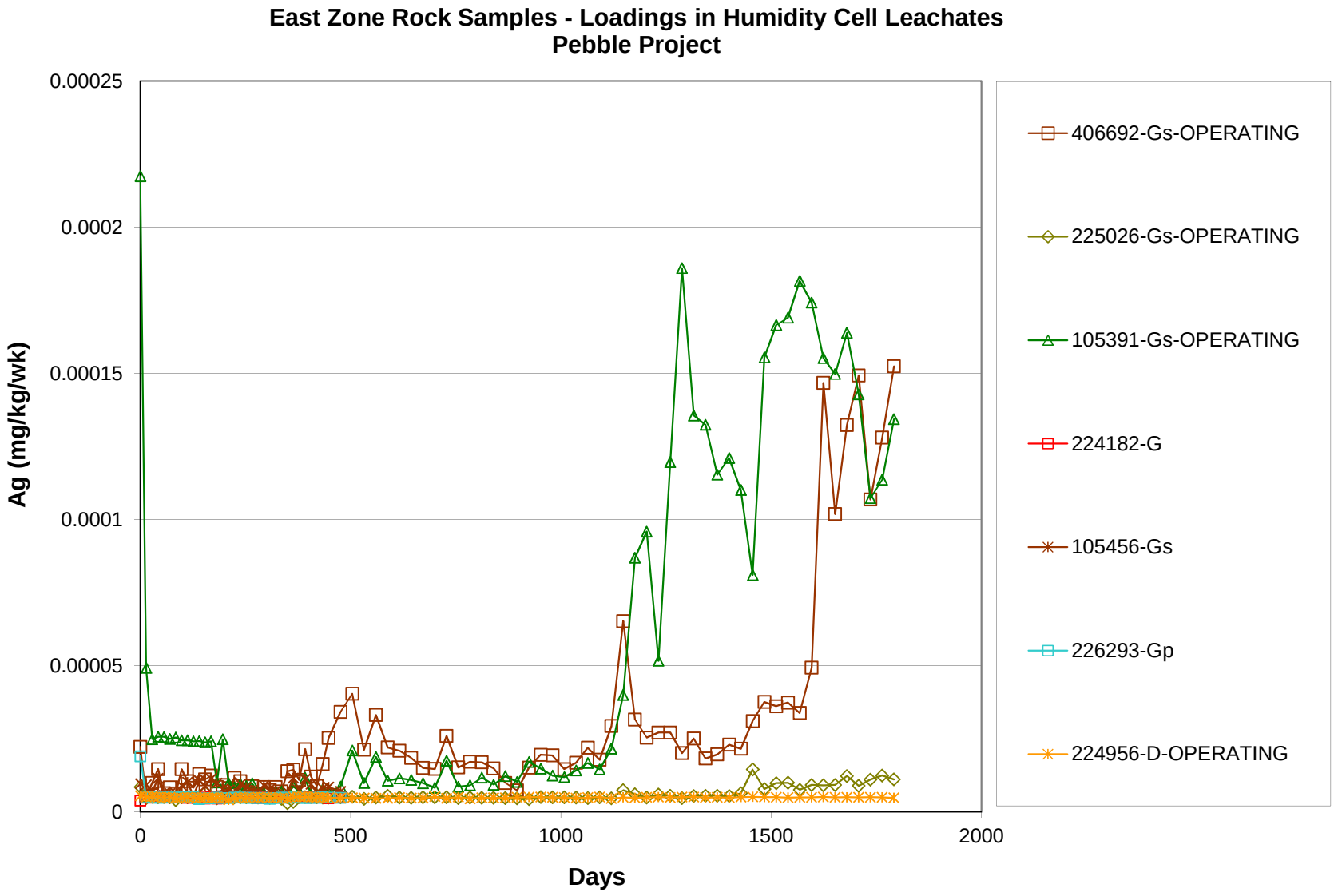

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mo (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

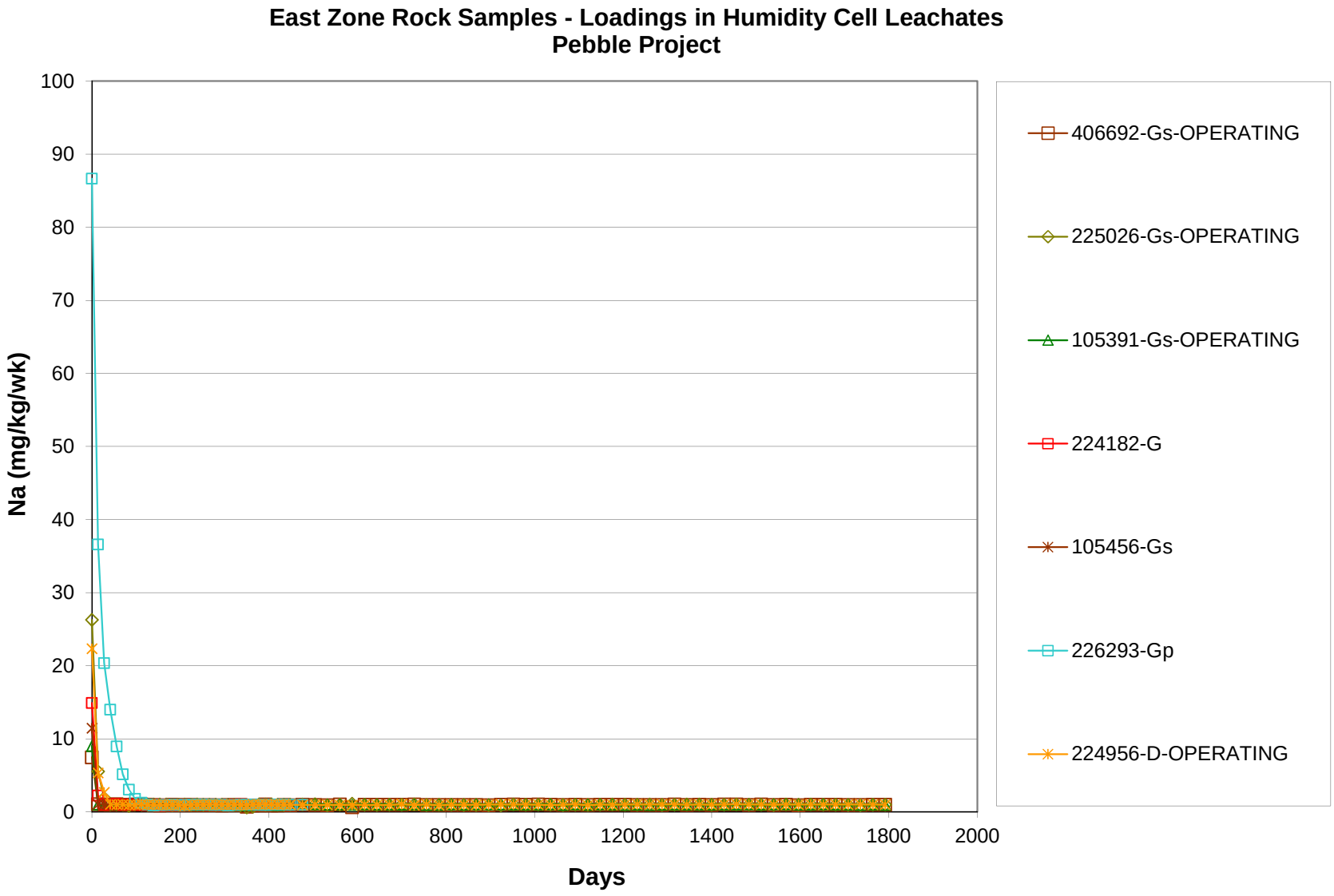

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ni (mg/kg/wk)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

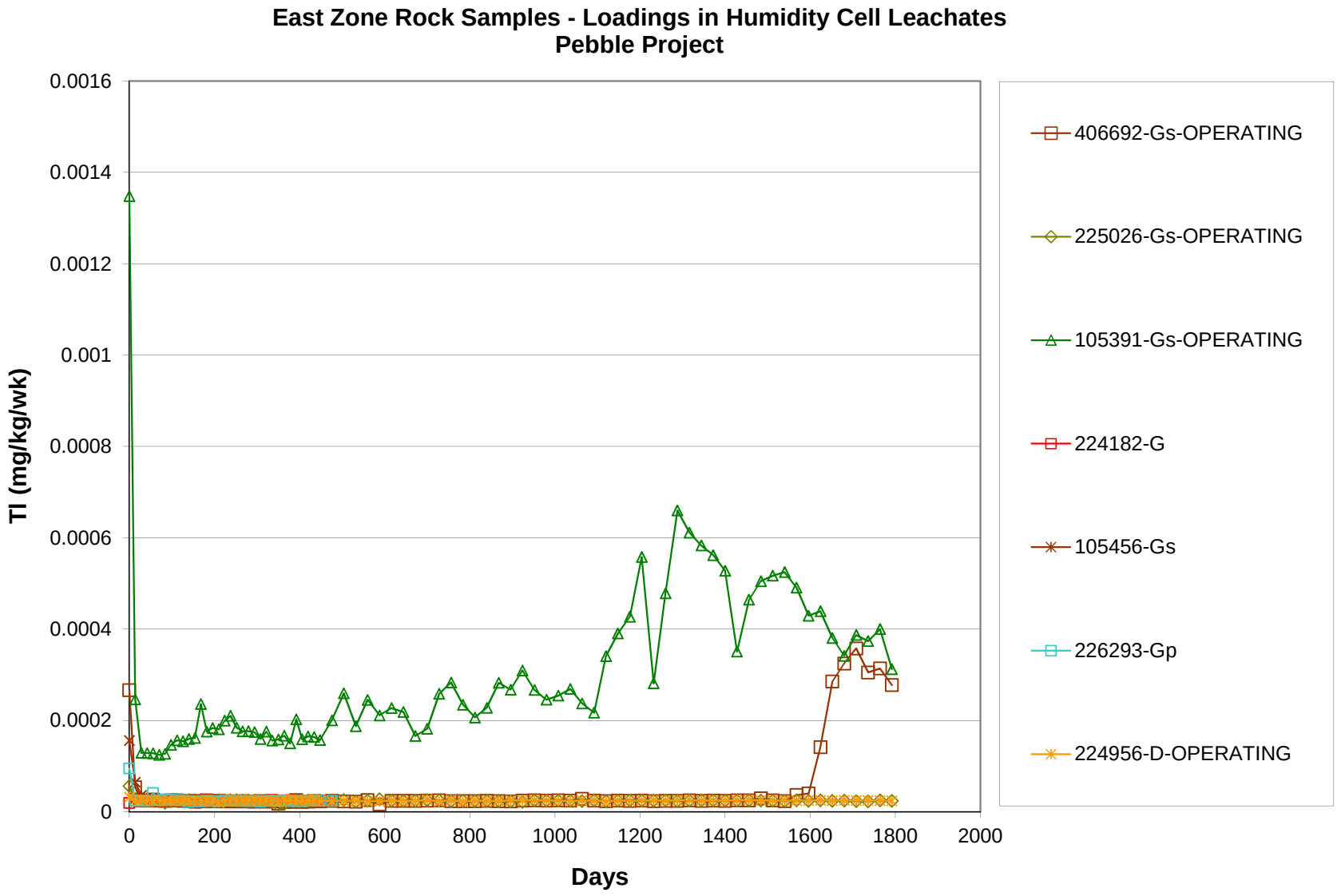

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
K (mg/kg/wk)
Days
0
2
4
6
8
10
12
14
16
18
20
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

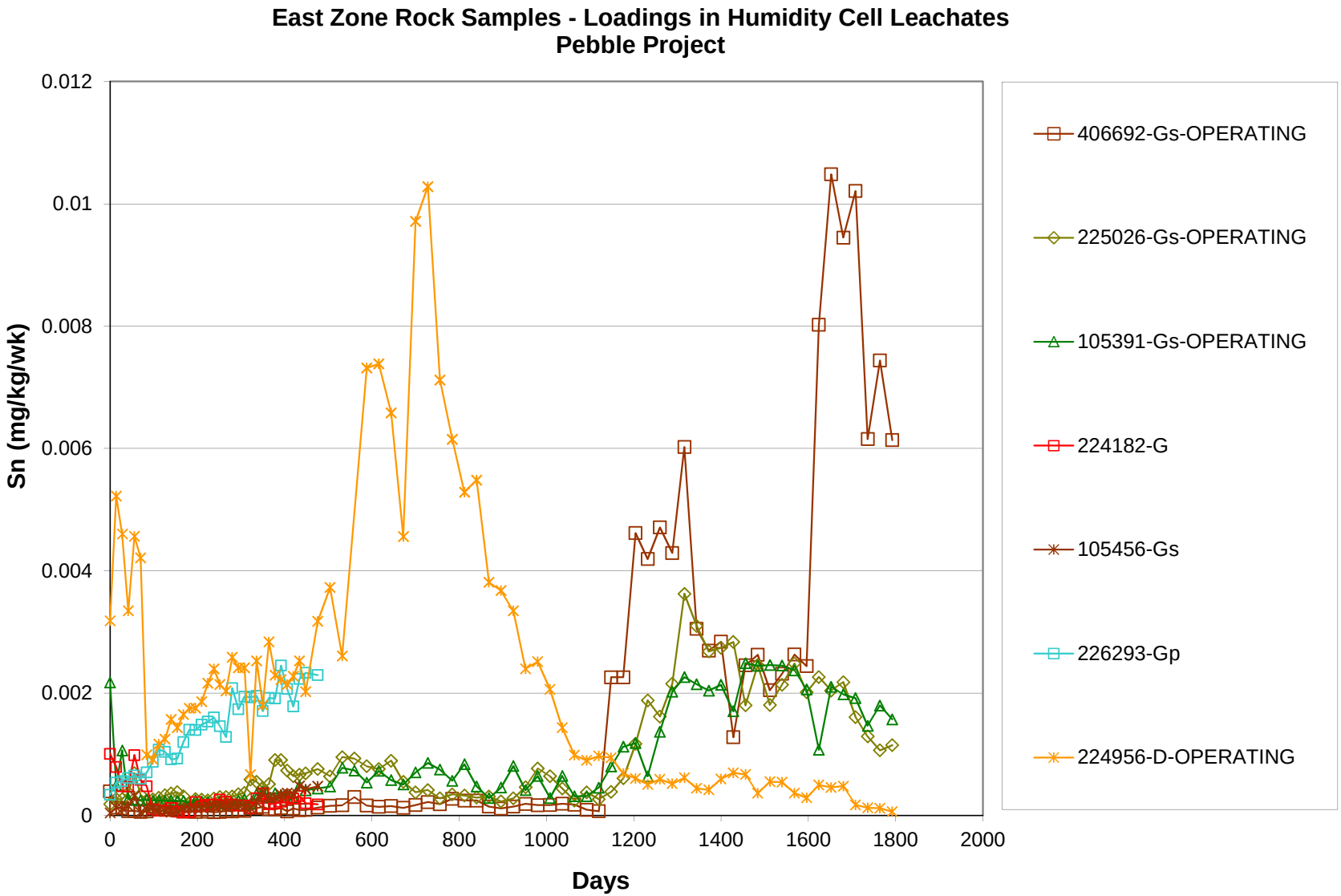

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Se (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

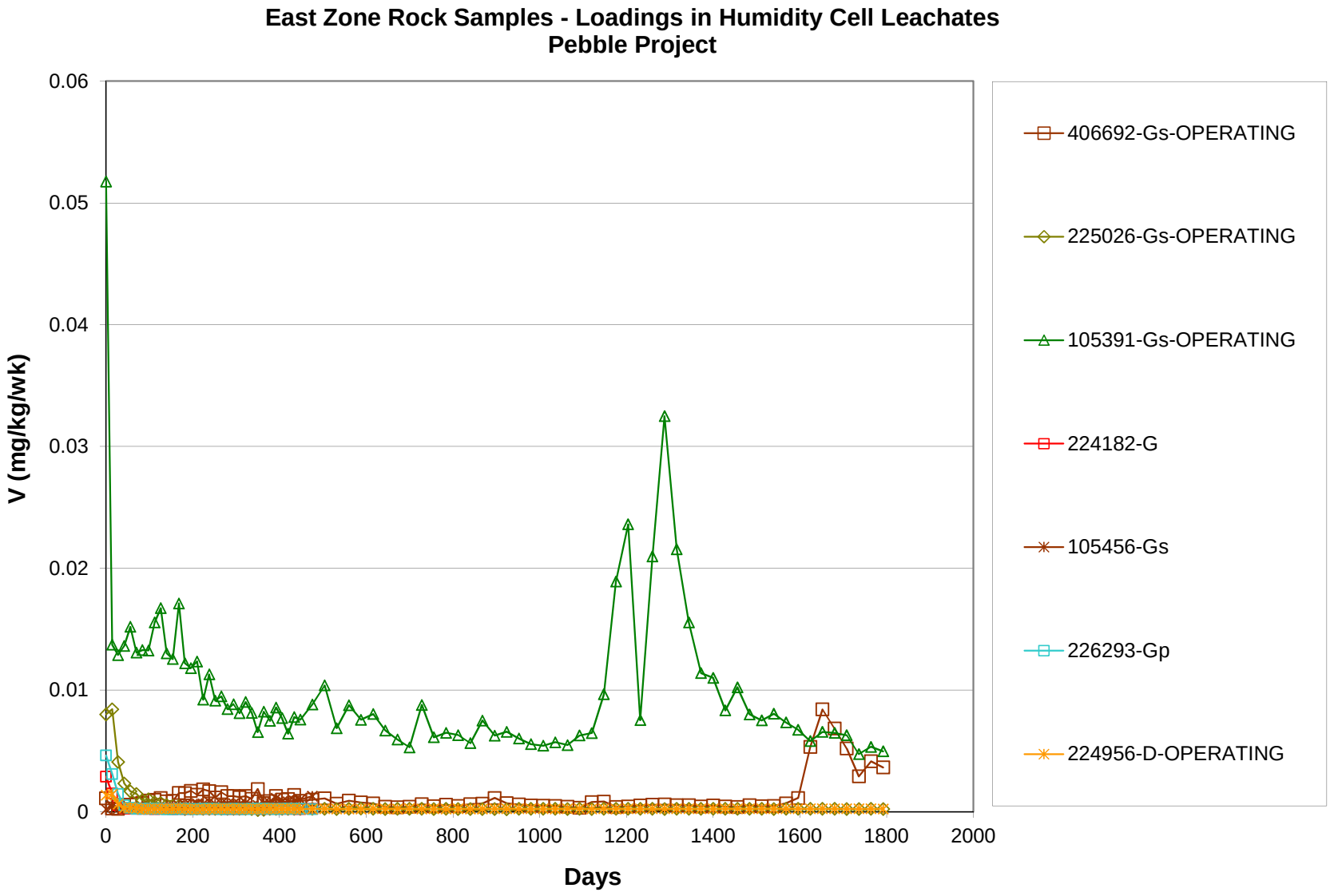

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Si (mg/kg/wk)
Days
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
0
200
400
600
800
1000
1200
1400
1600
1800
2000
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

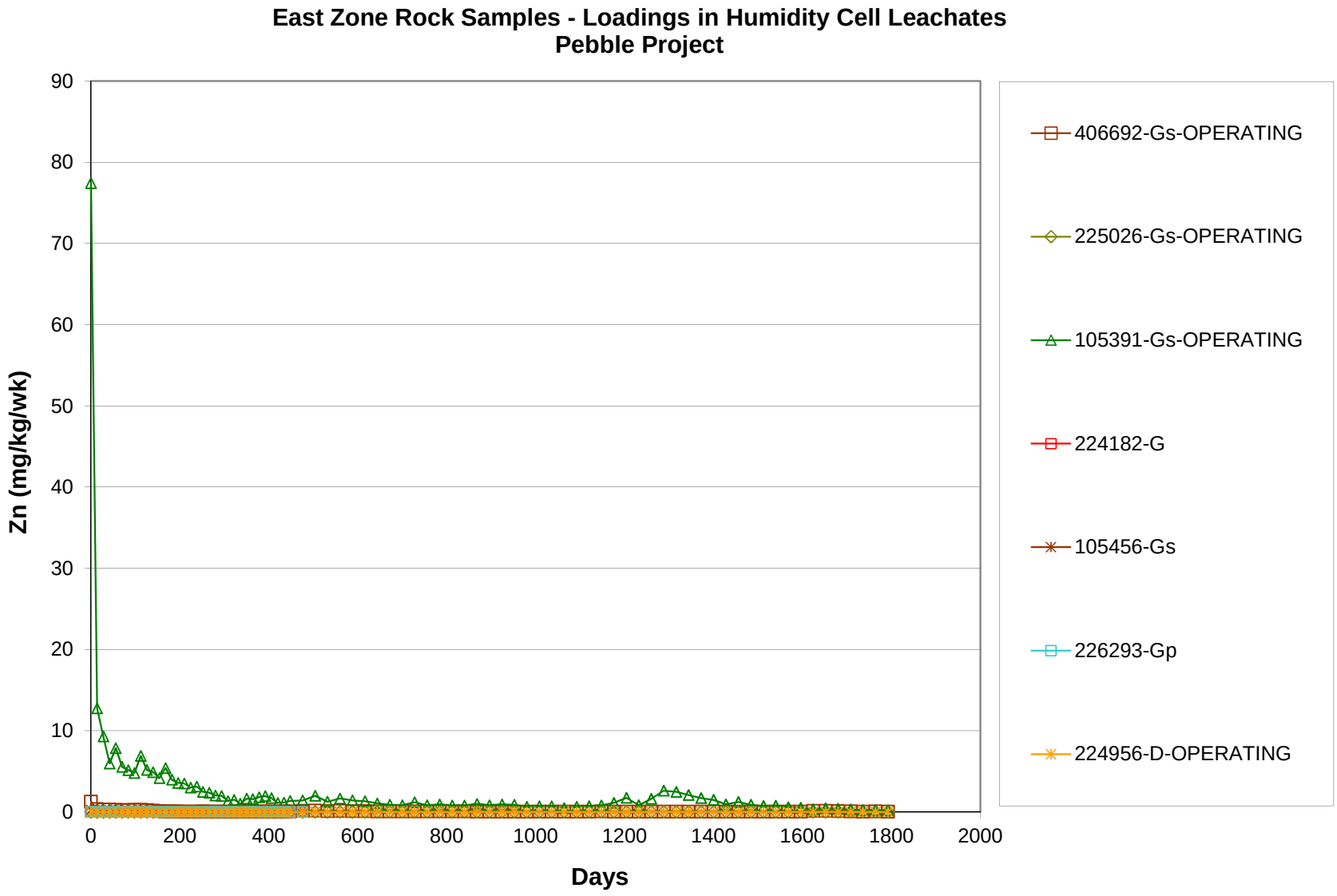

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ag (mg/kg/wk)
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
500
1000
1500
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

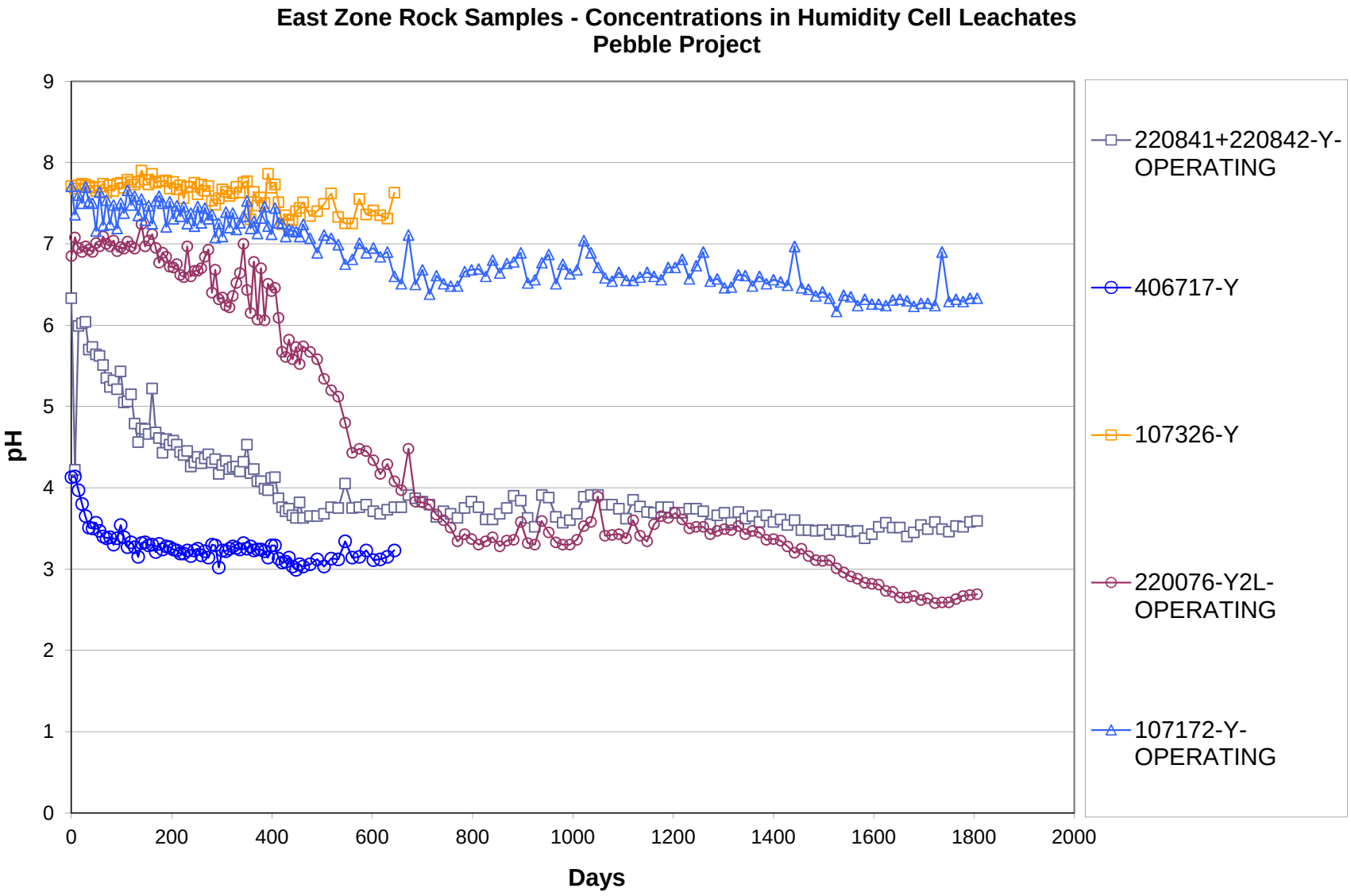

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Na (mg/kg/wk)
100
90
80
70
60
50
40
30
20
10
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

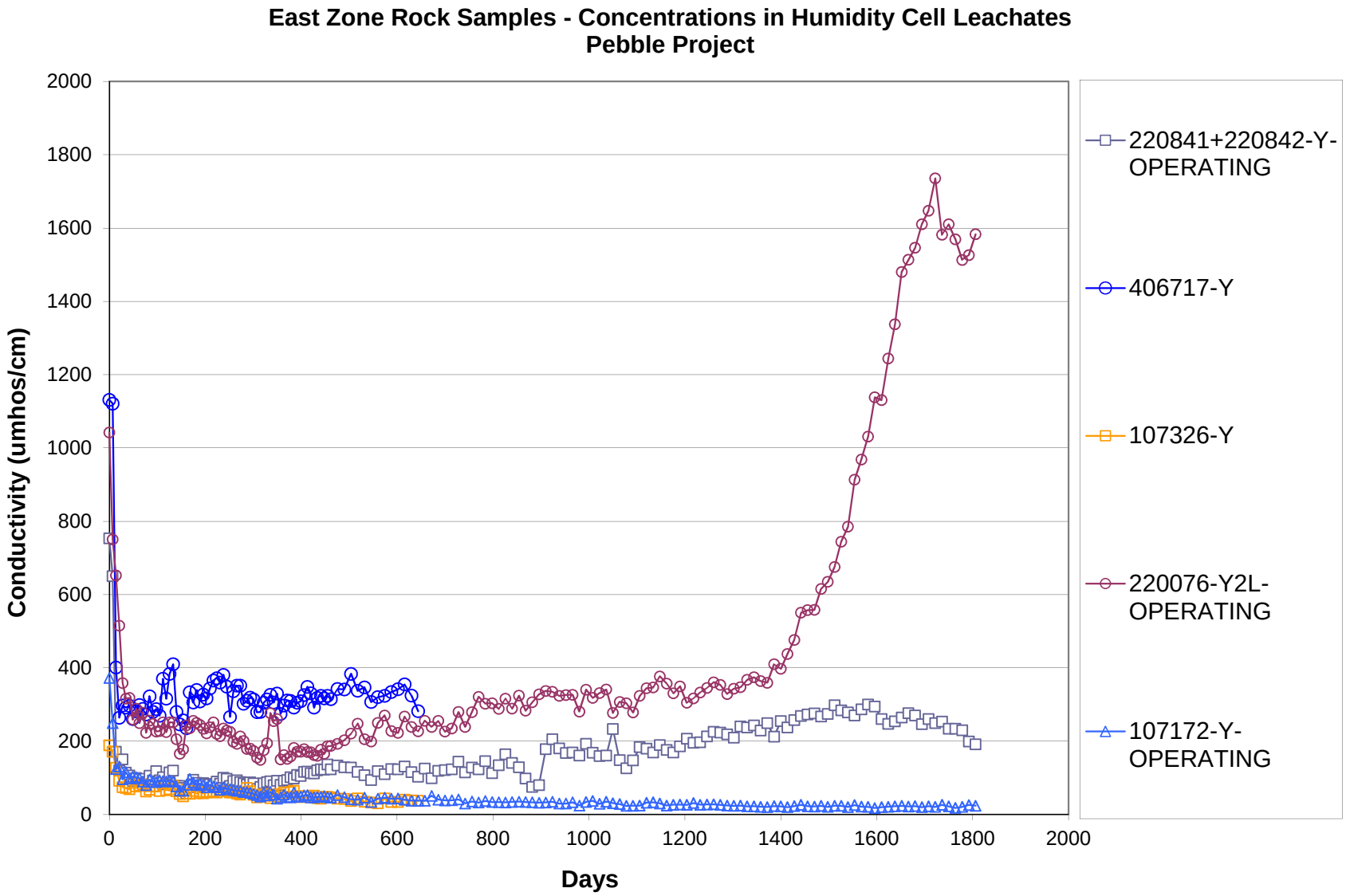

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Tl (mg/kg/wk)
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

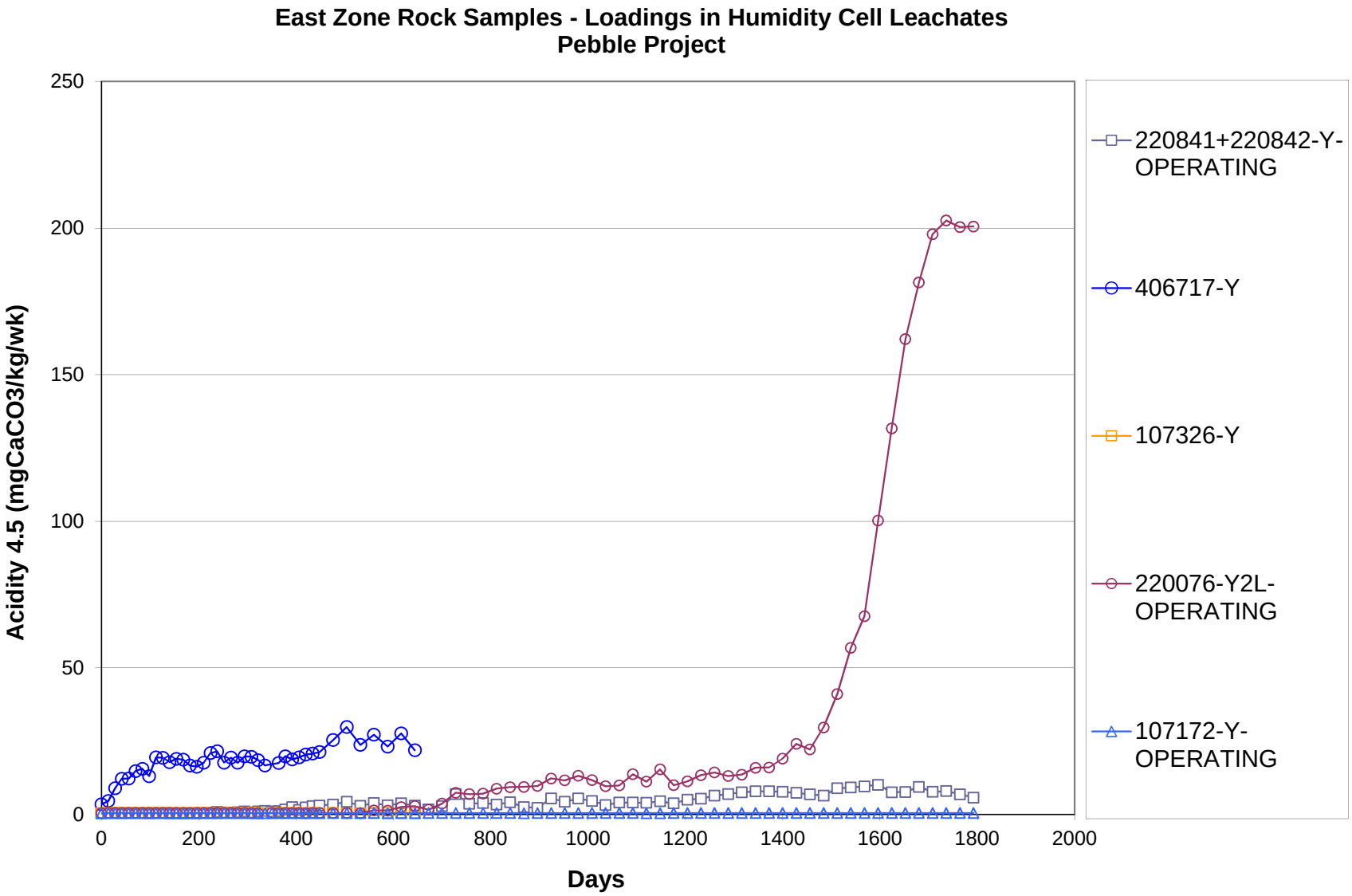

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Sn (mg/kg/wk)
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

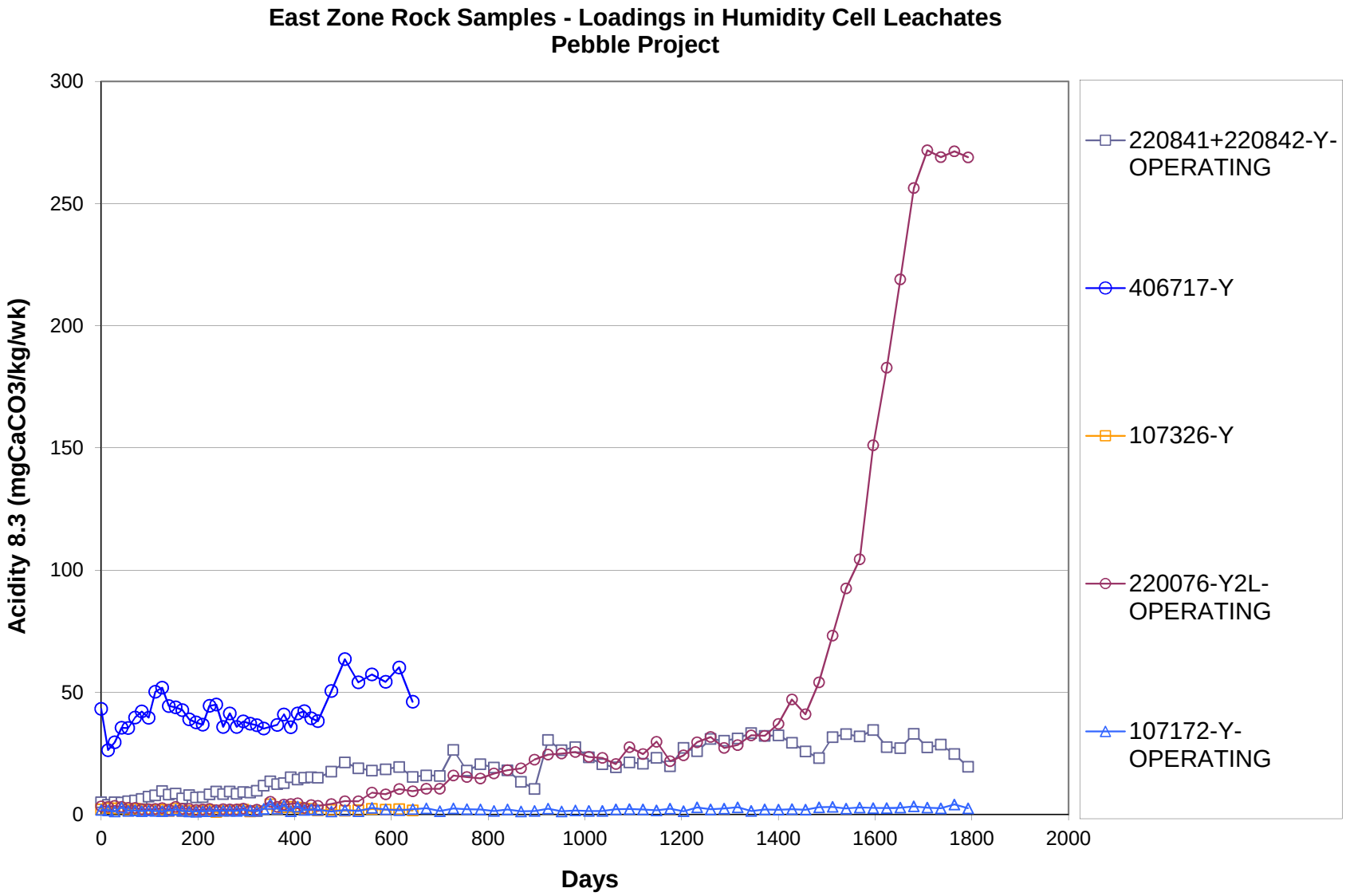

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
V (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

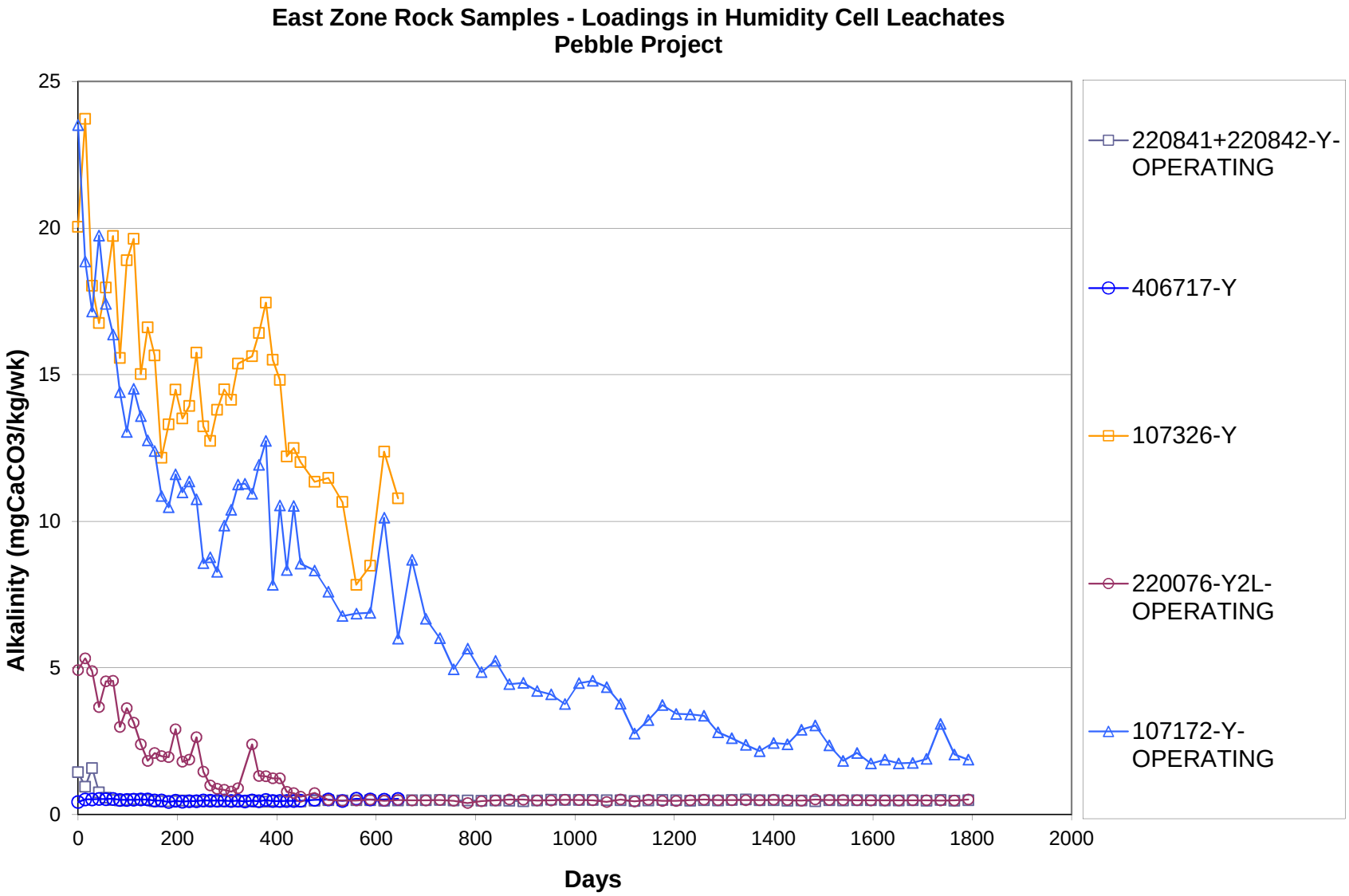

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Zn (mg/kg/wk)
90
80
70
60
50
40
30
20
10
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
406692-Gs-OPERATING
225026-Gs-OPERATING
105391-Gs-OPERATING
224182-G
105456-Gs
226293-Gp
224956-D-OPERATING

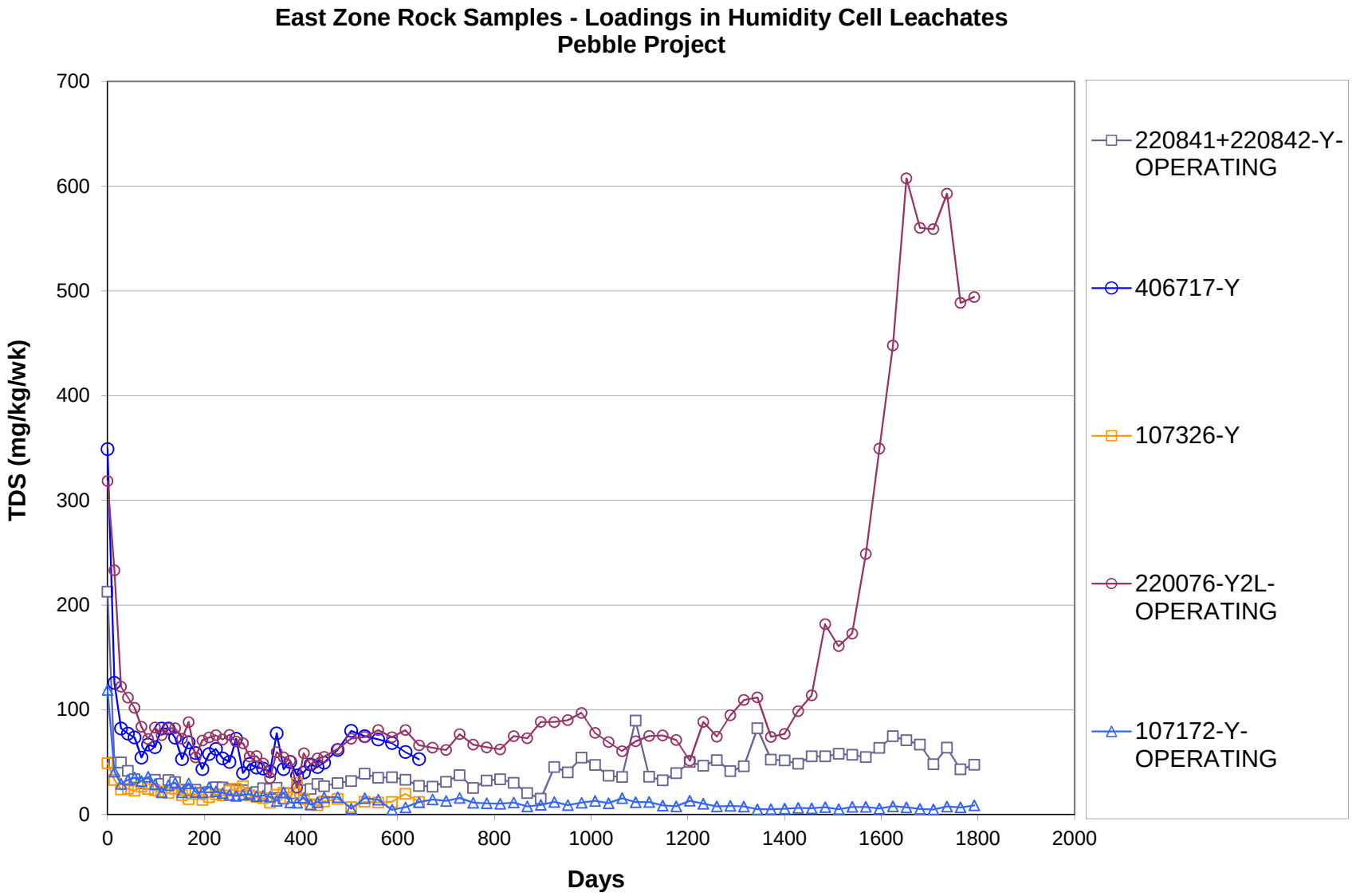

East Zone Rock Samples - Concentrations in Humidity Cell Leachates
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

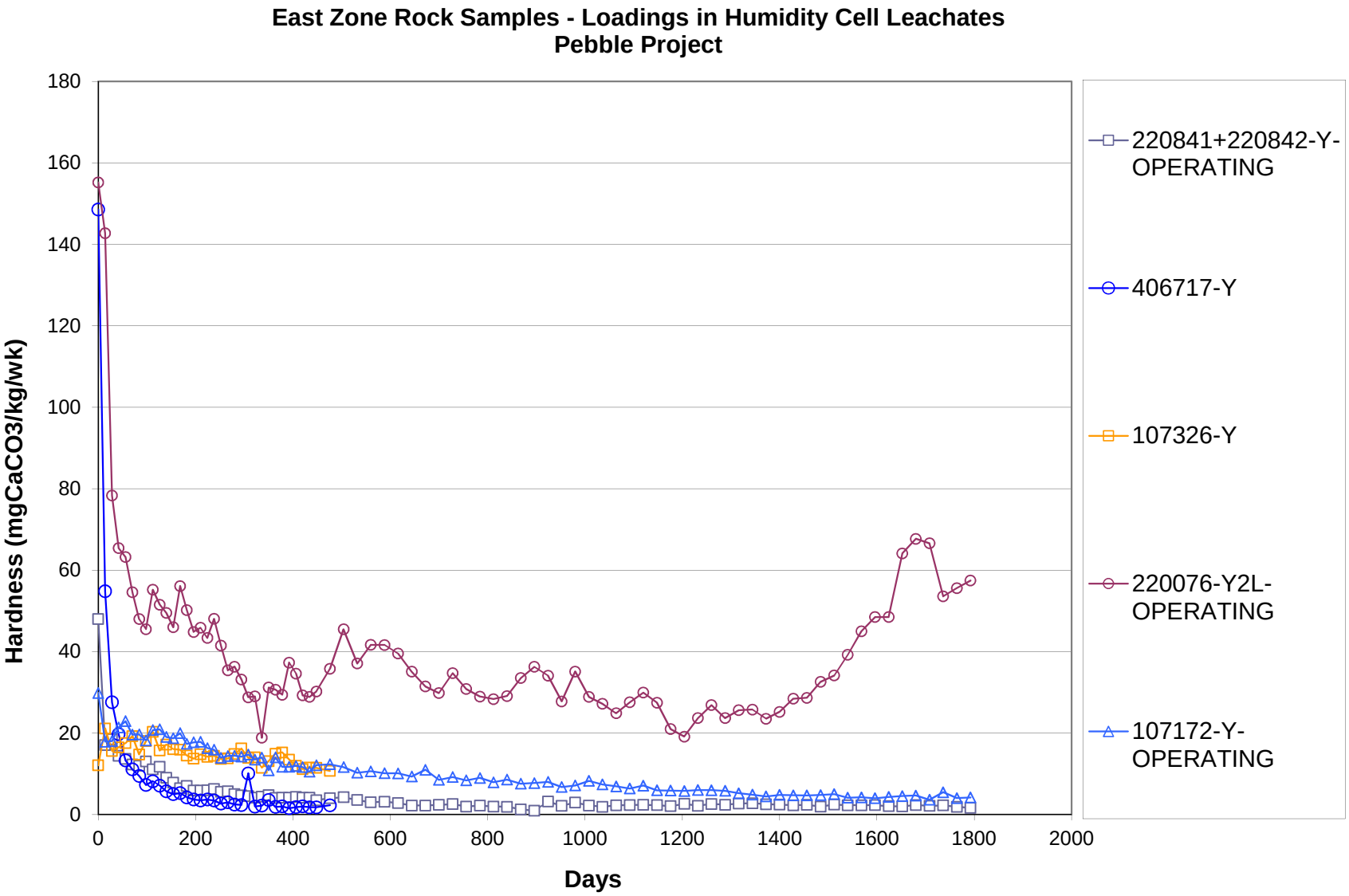

East Zone Rock Samples - Concentrations in Humidity Cell Leachates
Pebble Project
Conductivity (umhos/cm)
Days
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

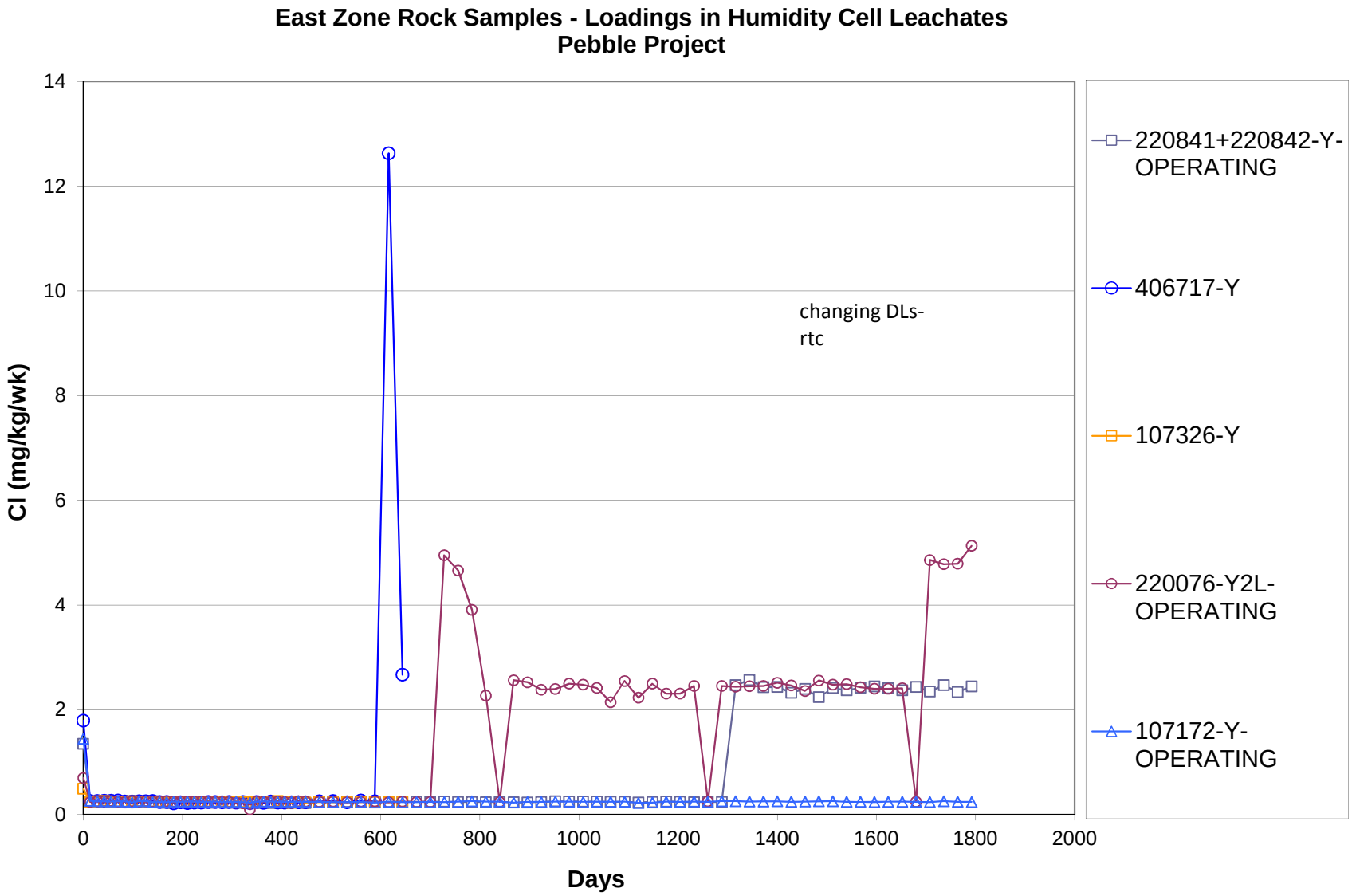

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 4.5 (mgCaCO3/kg/wk)
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

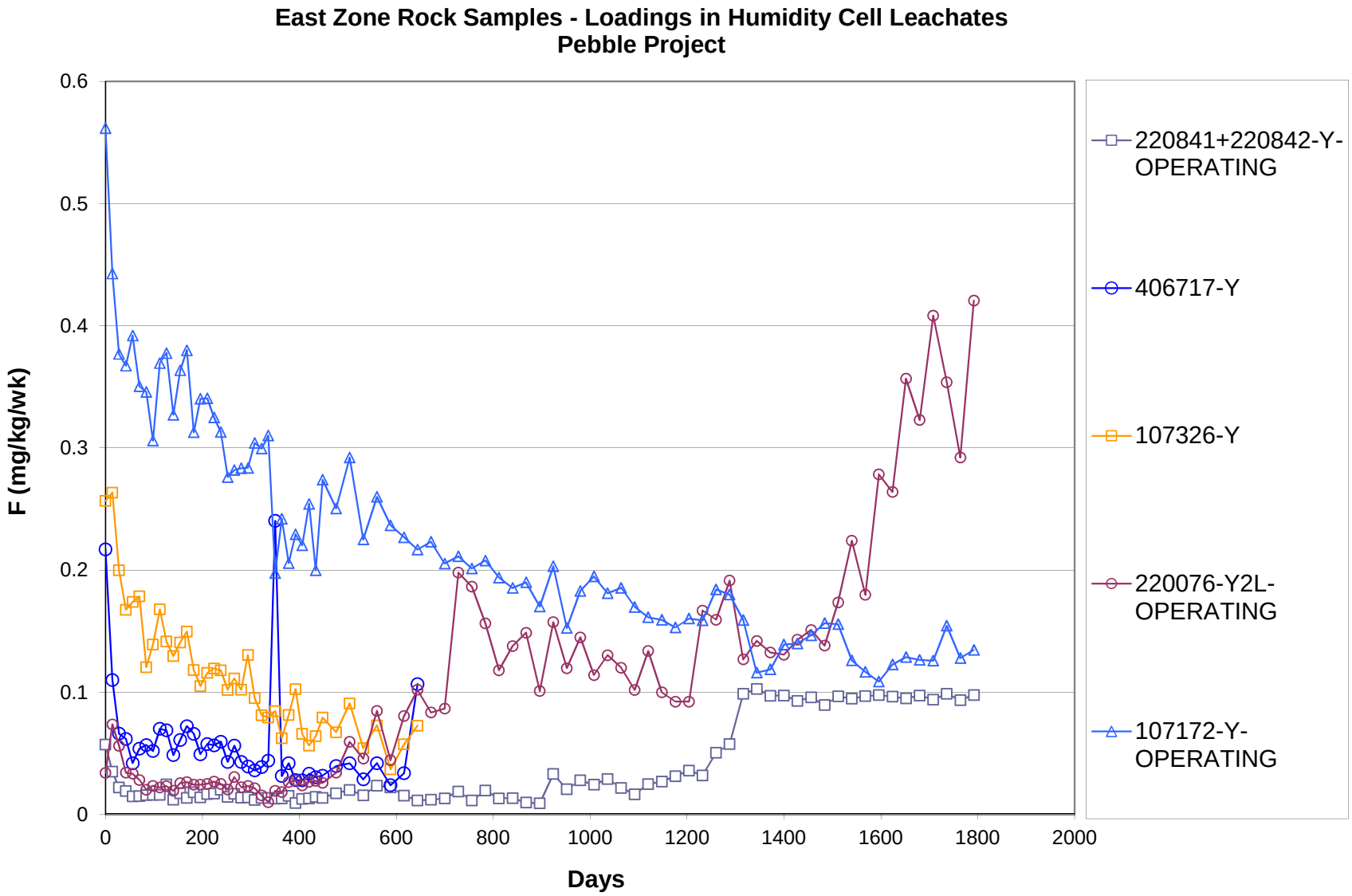

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 8.3 (mgCaCO3/kg/wk)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

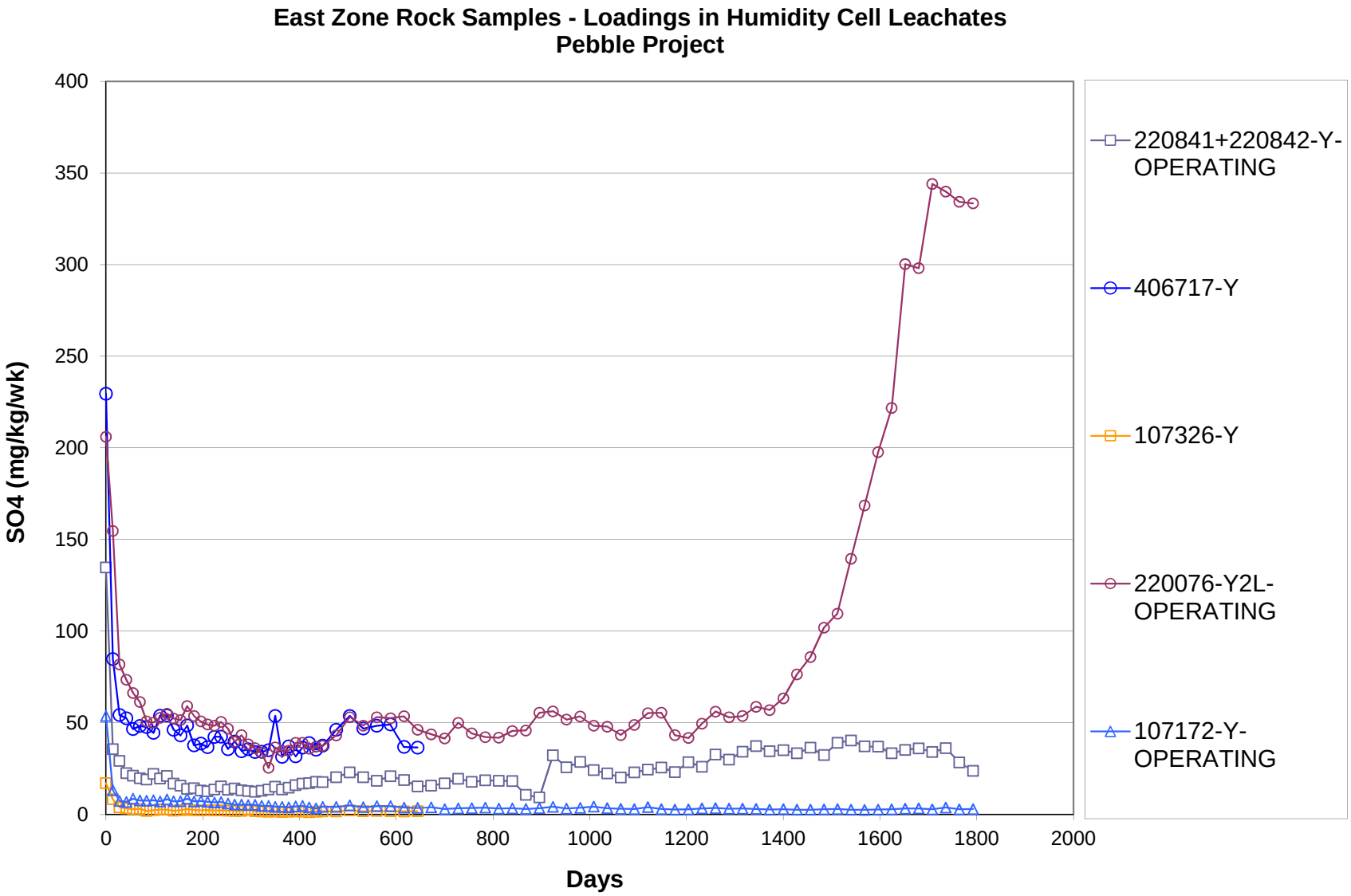

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Alkalinity (mgCaCO3/kg/wk)
Days
0
5
10
15
20
25
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

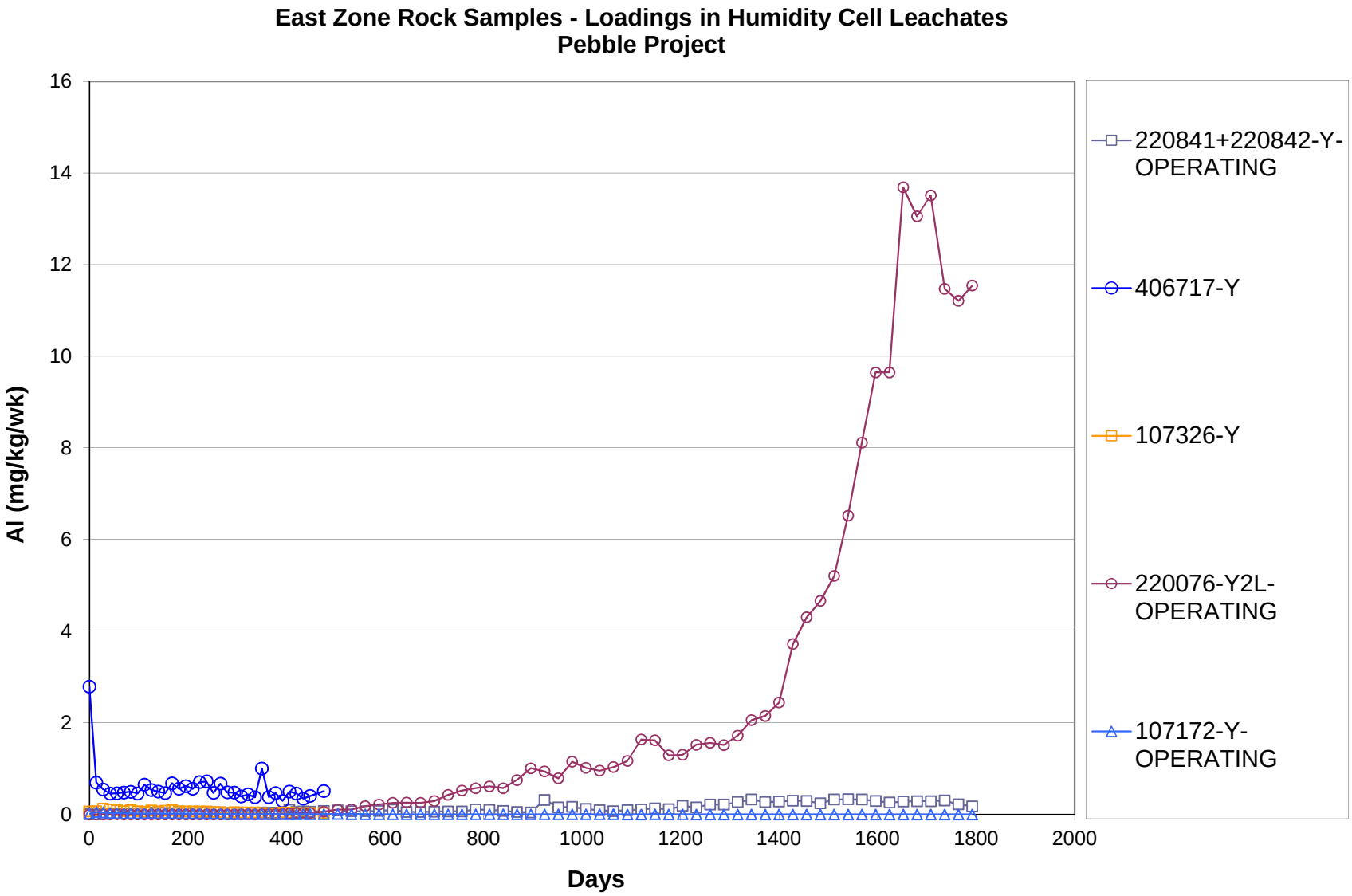

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
TDS (mg/kg/wk)
Days
0
100
200
300
400
500
600
700
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

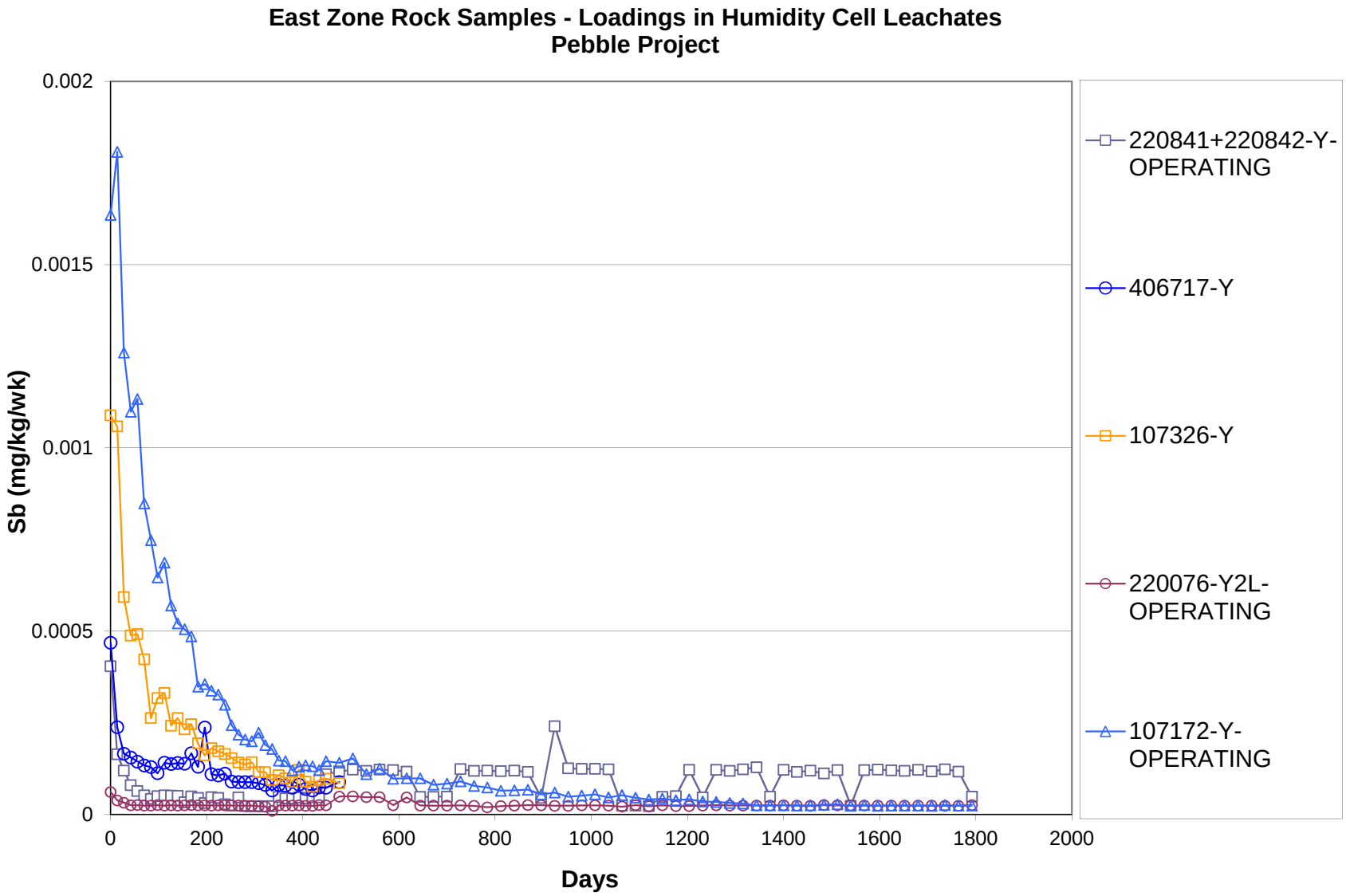

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Hardness (mgCaCO3/kg/wk)
Days
0
20
40
60
80
100
120
140
160
180
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

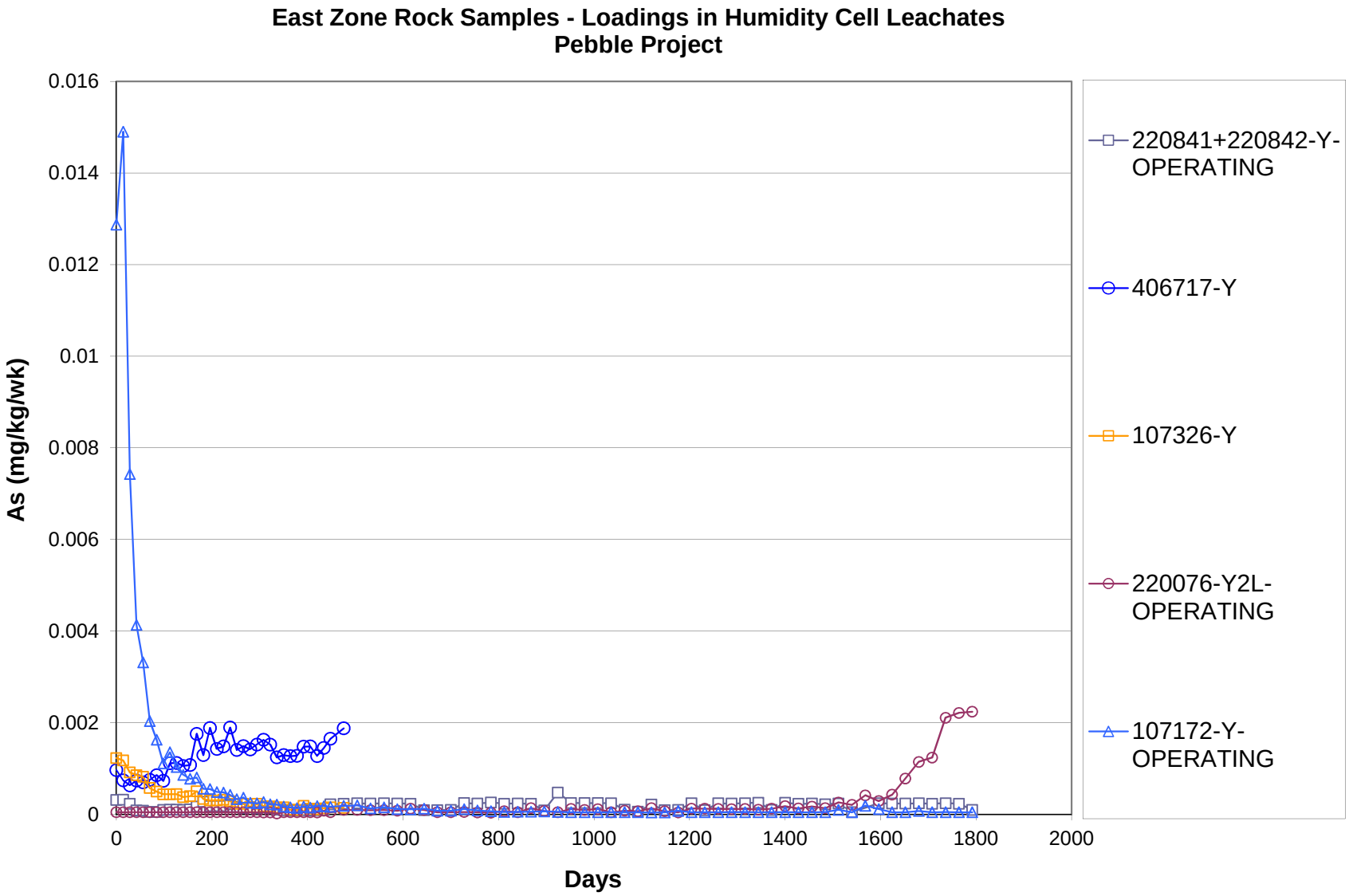

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cl (mg/kg/wk)
Days
0
2
4
6
8
10
12
14
0
200
400
600
800
1000
1200
1400
1600
1800
2000
changing DLs-
rtc
220841+220842-Y-
OPERATING
406717-Y
107326-Y
220076-Y2L-
OPERATING
107172-Y-
OPERATING

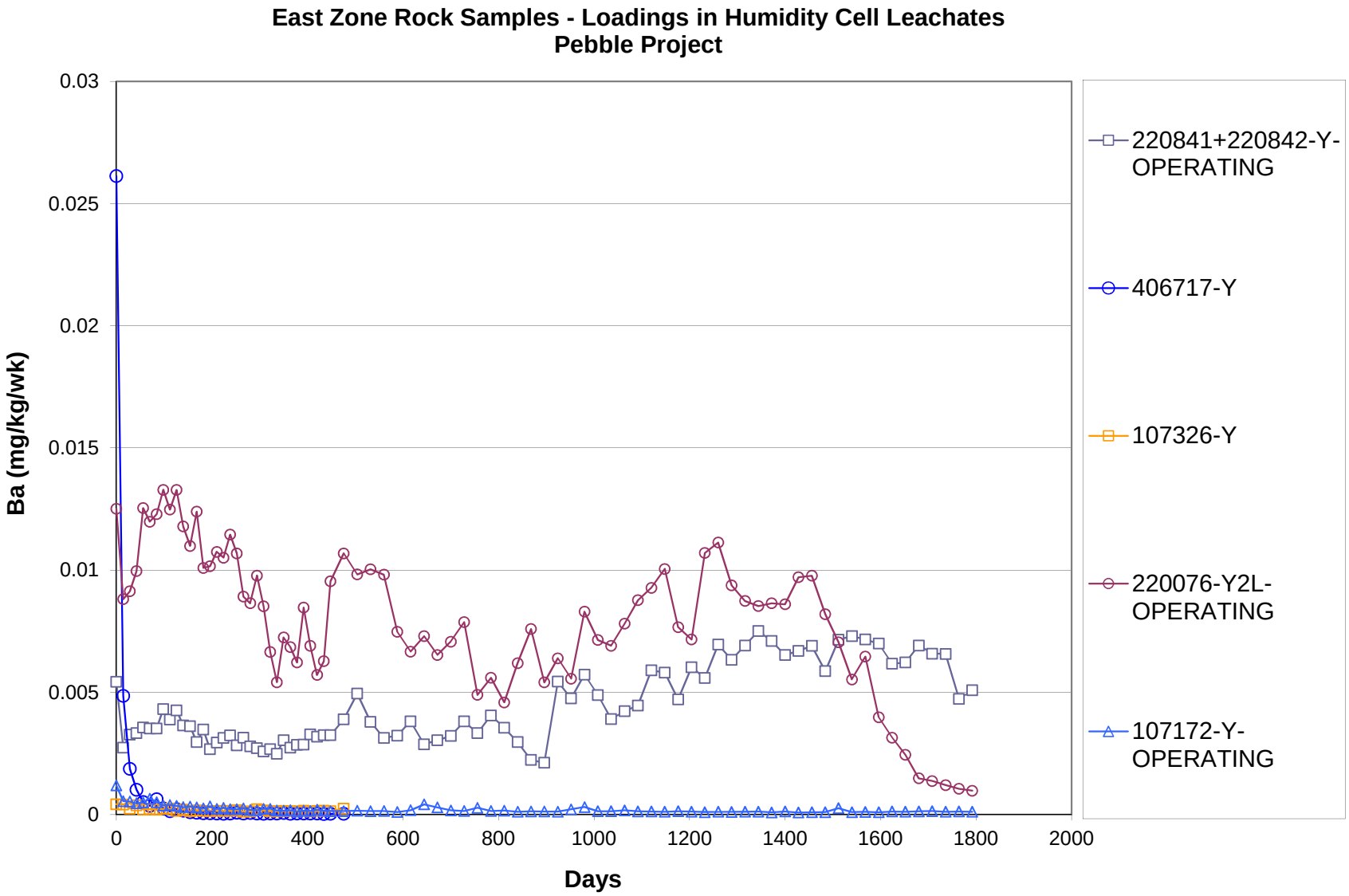

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
F (mg/kg/wk)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

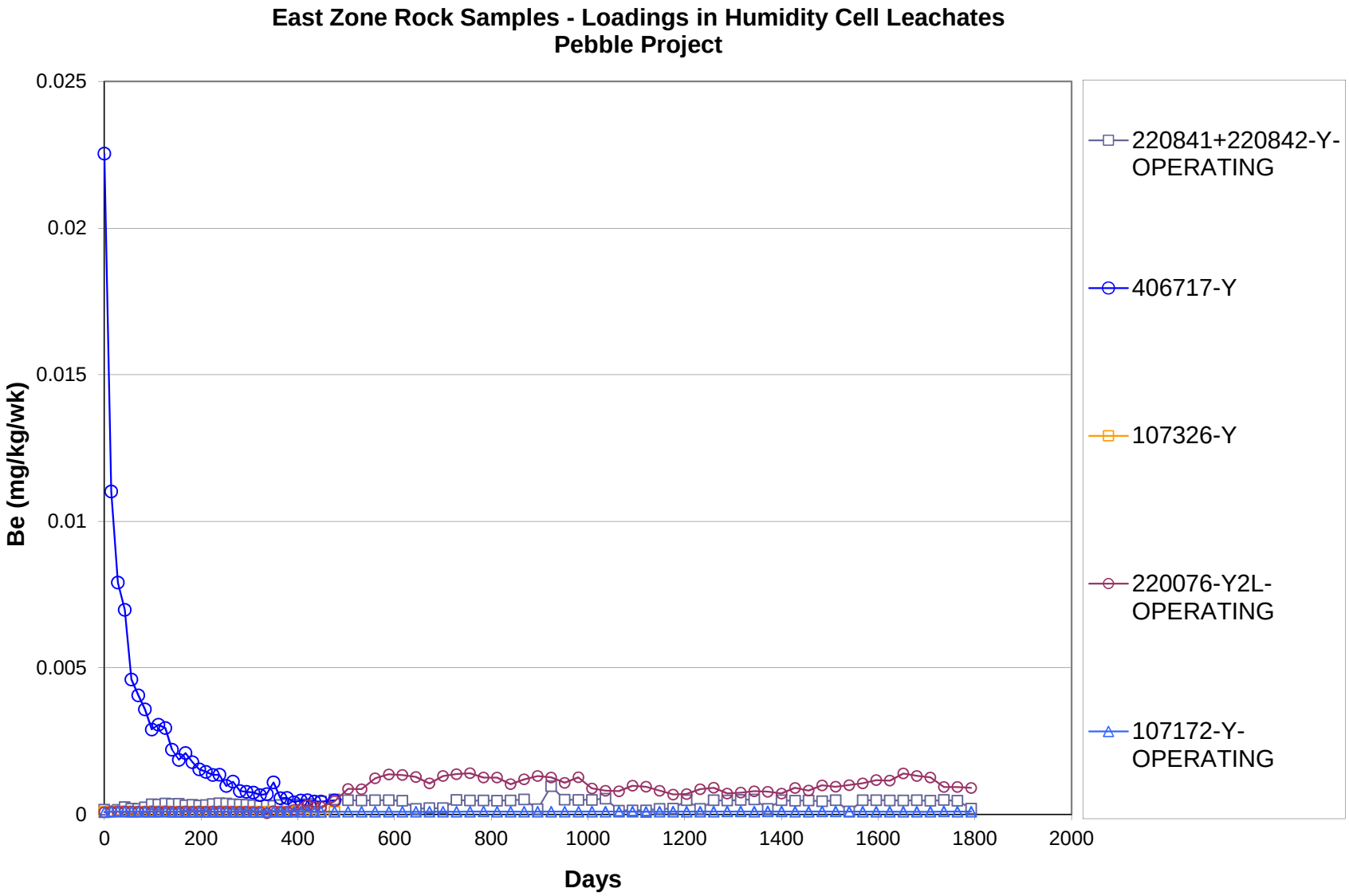

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
SO4 (mg/kg/wk)
Days
0
50
100
150
200
250
300
350
400
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

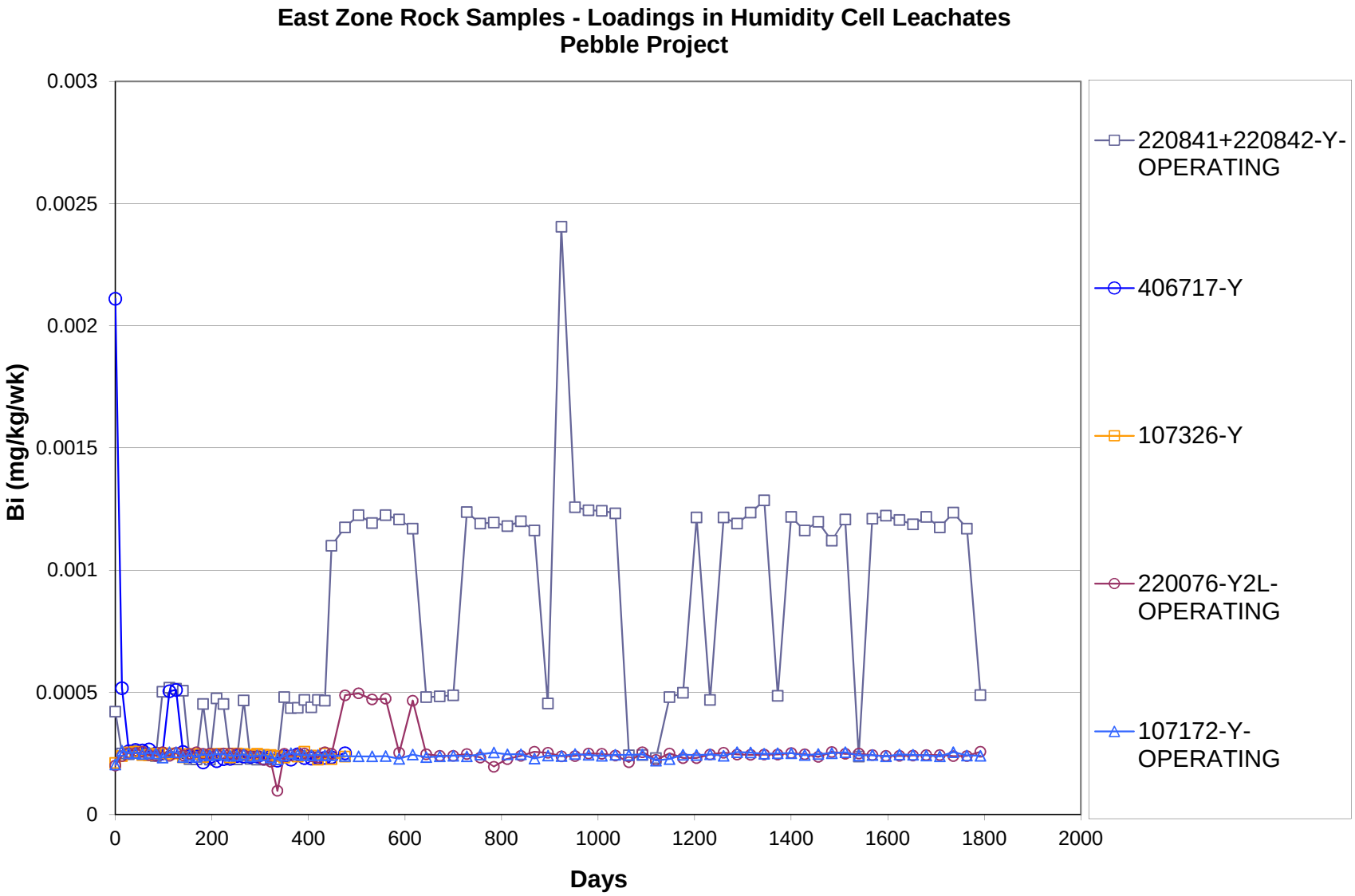

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Al (mg/kg/wk)
Days
0
2
4
6
8
10
12
14
16
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

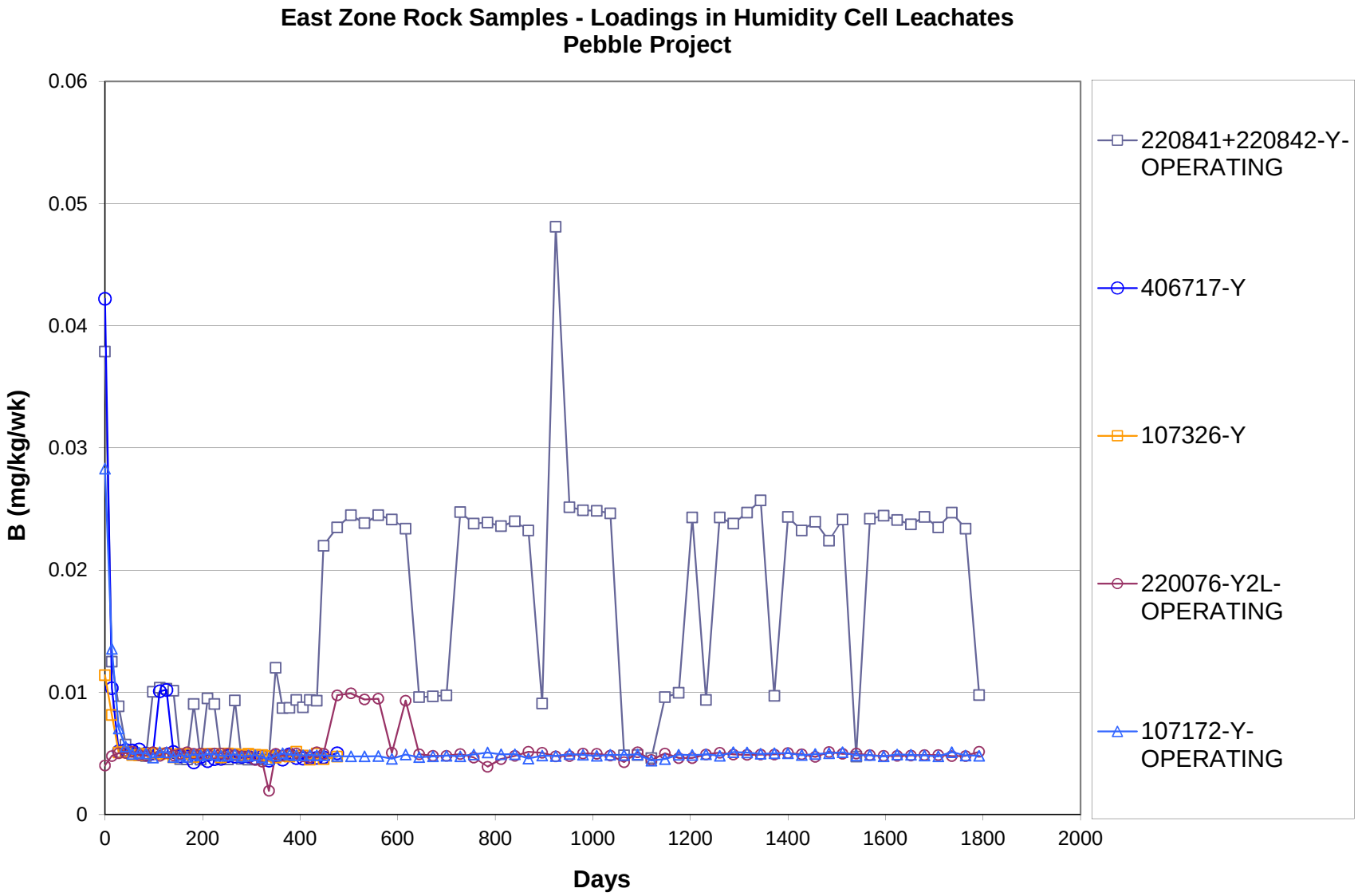

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Sb (mg/kg/wk)
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

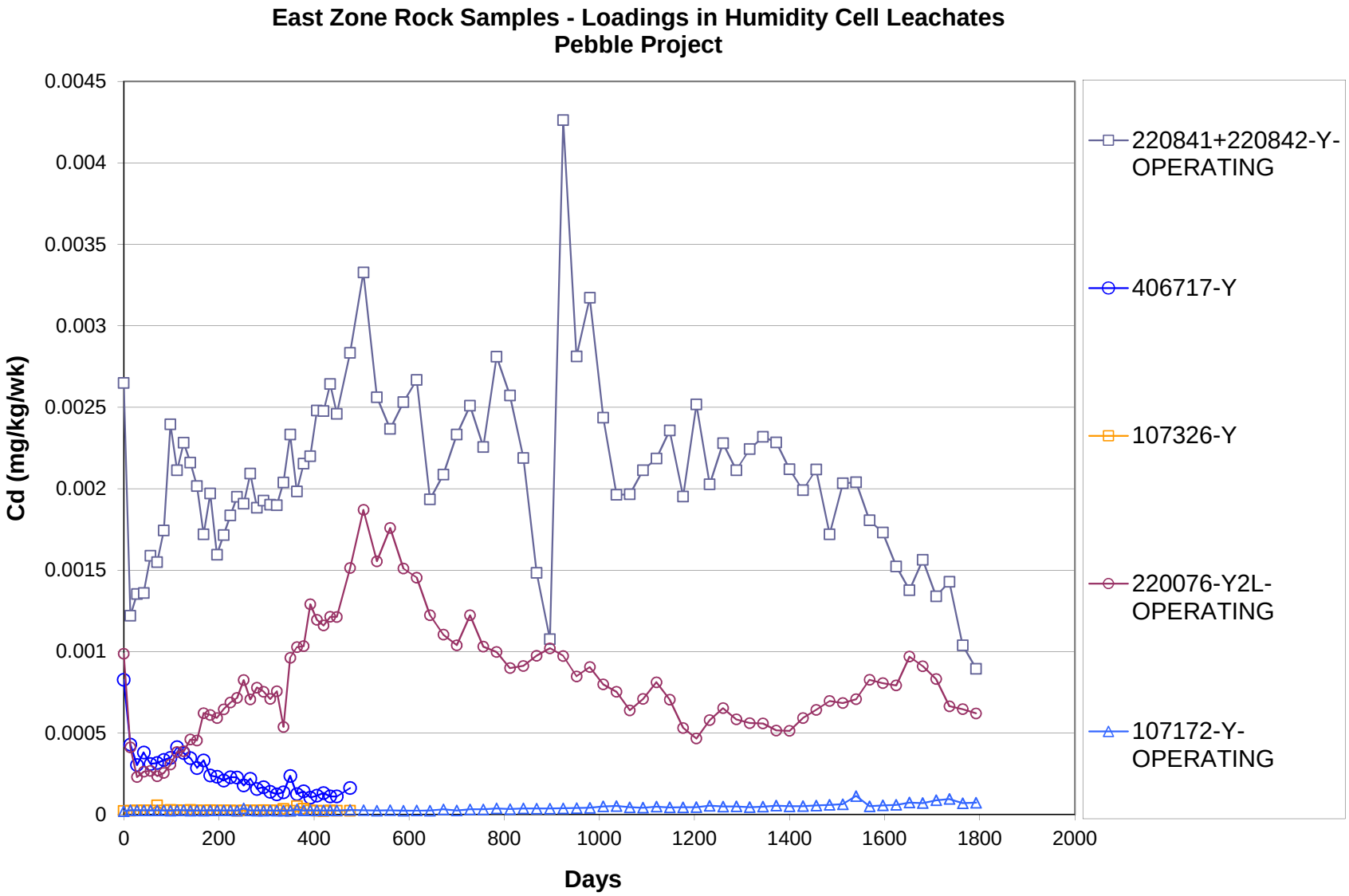

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
As (mg/kg/wk)
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

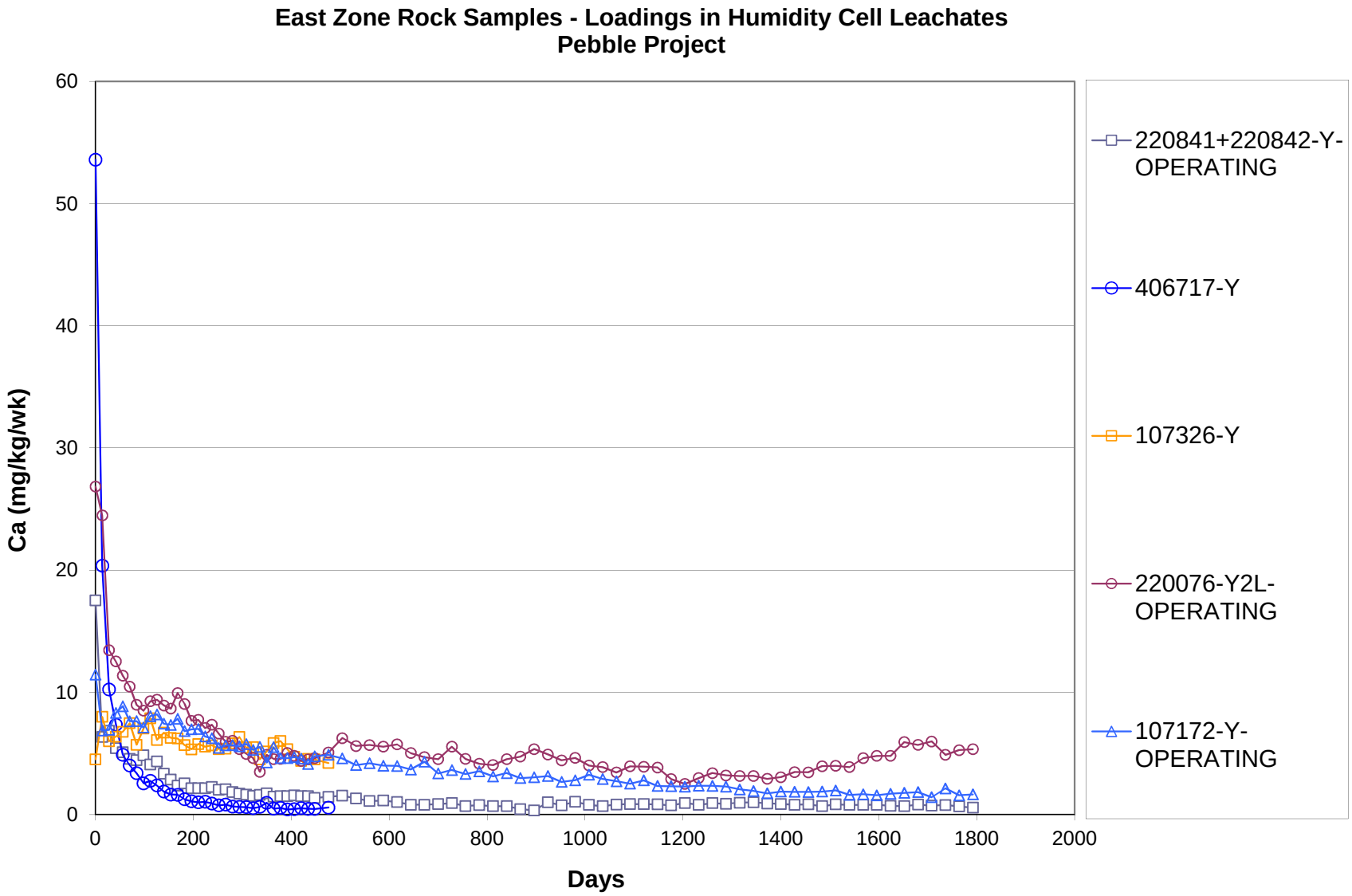

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ba (mg/kg/wk)
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

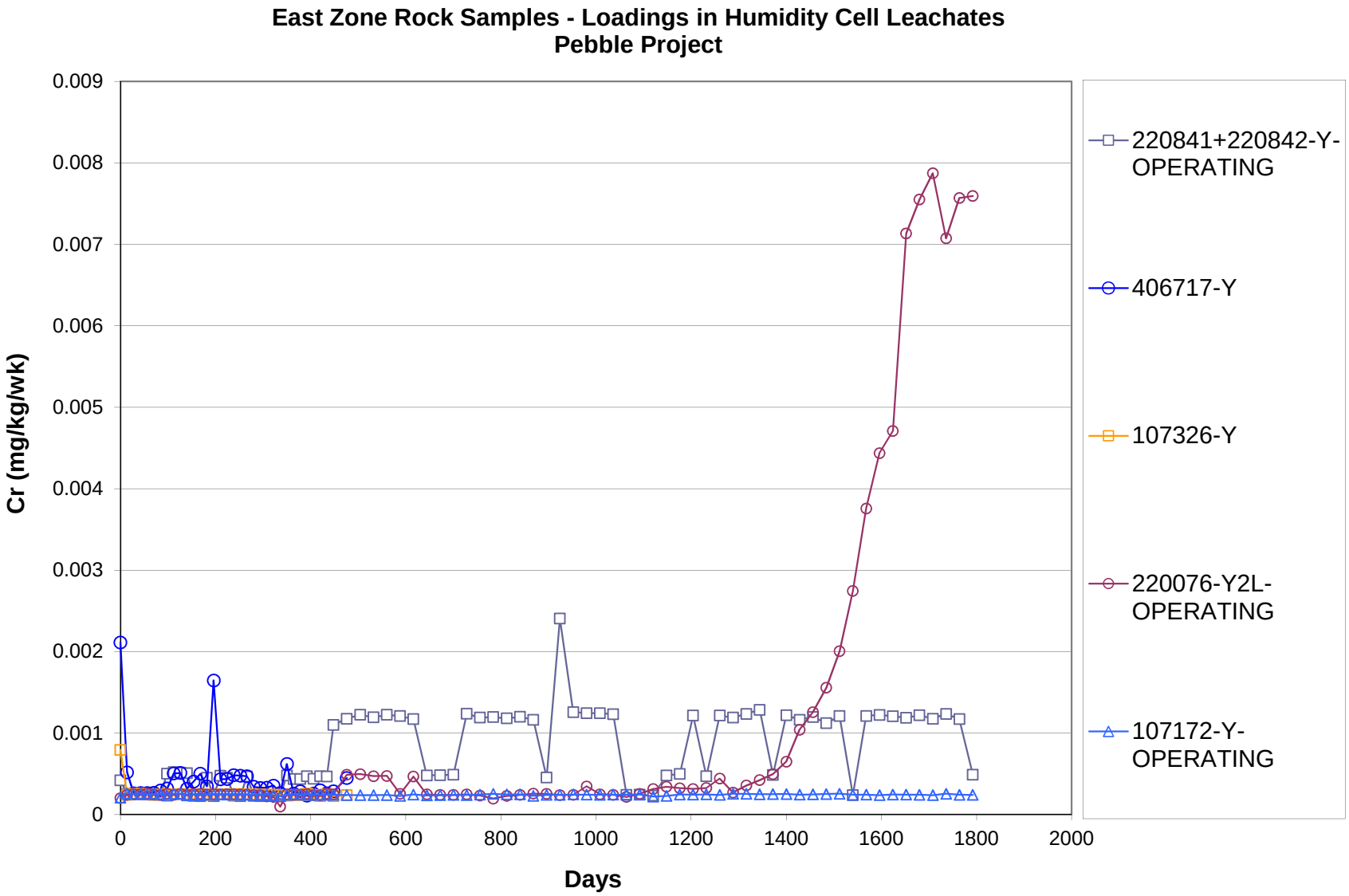

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Be (mg/kg/wk)
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

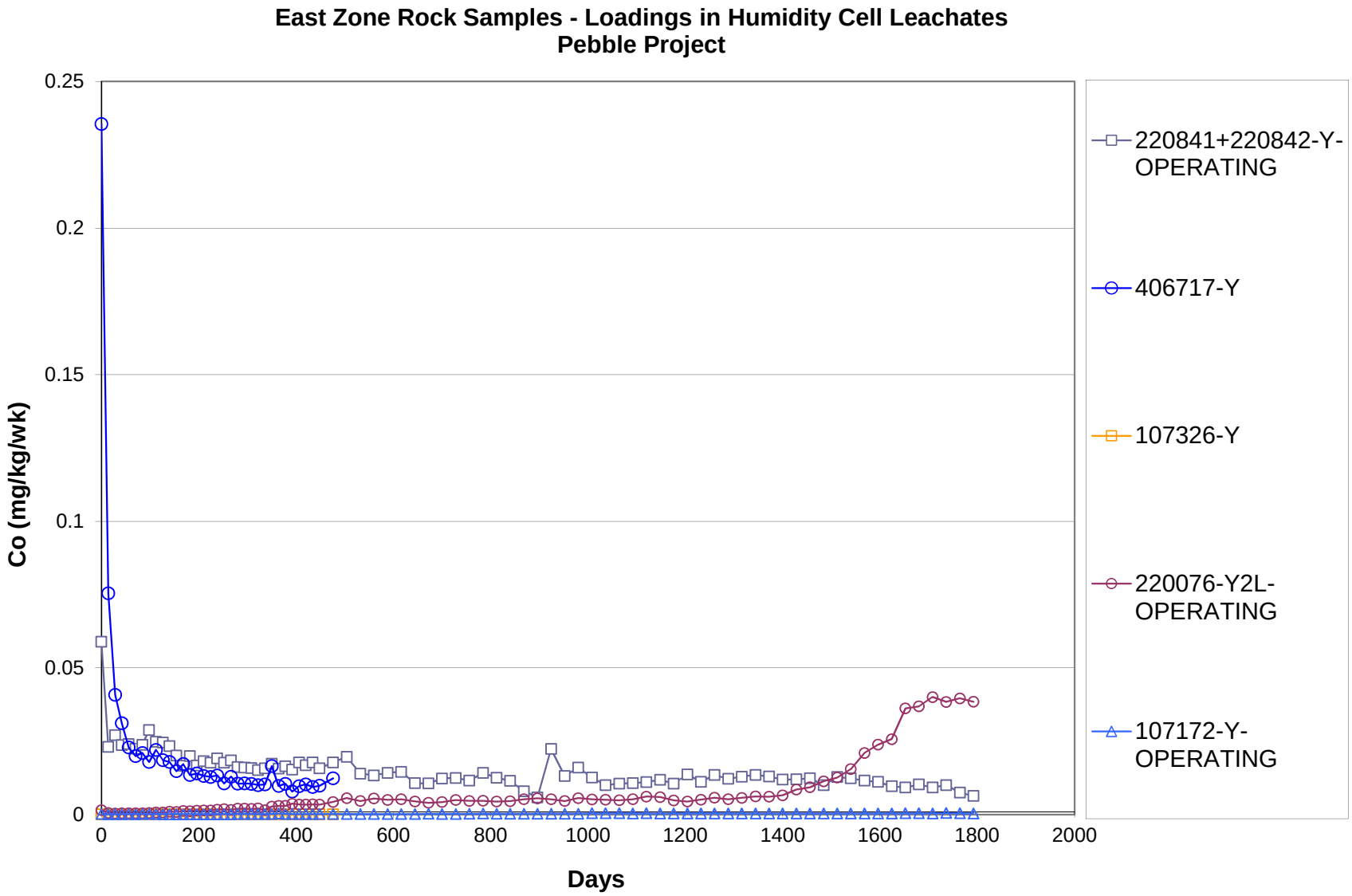

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Bi (mg/kg/wk)
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

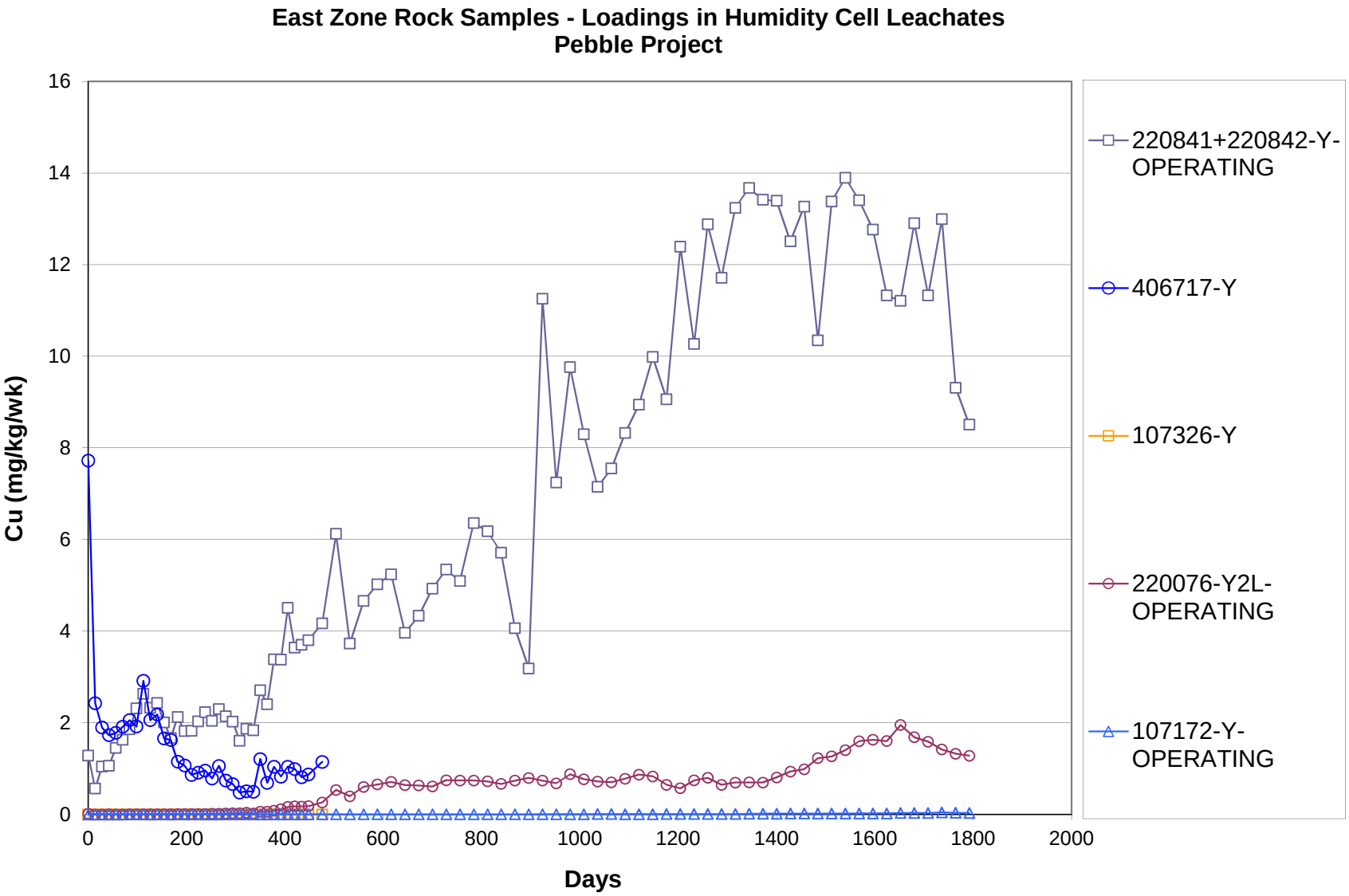

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
B (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

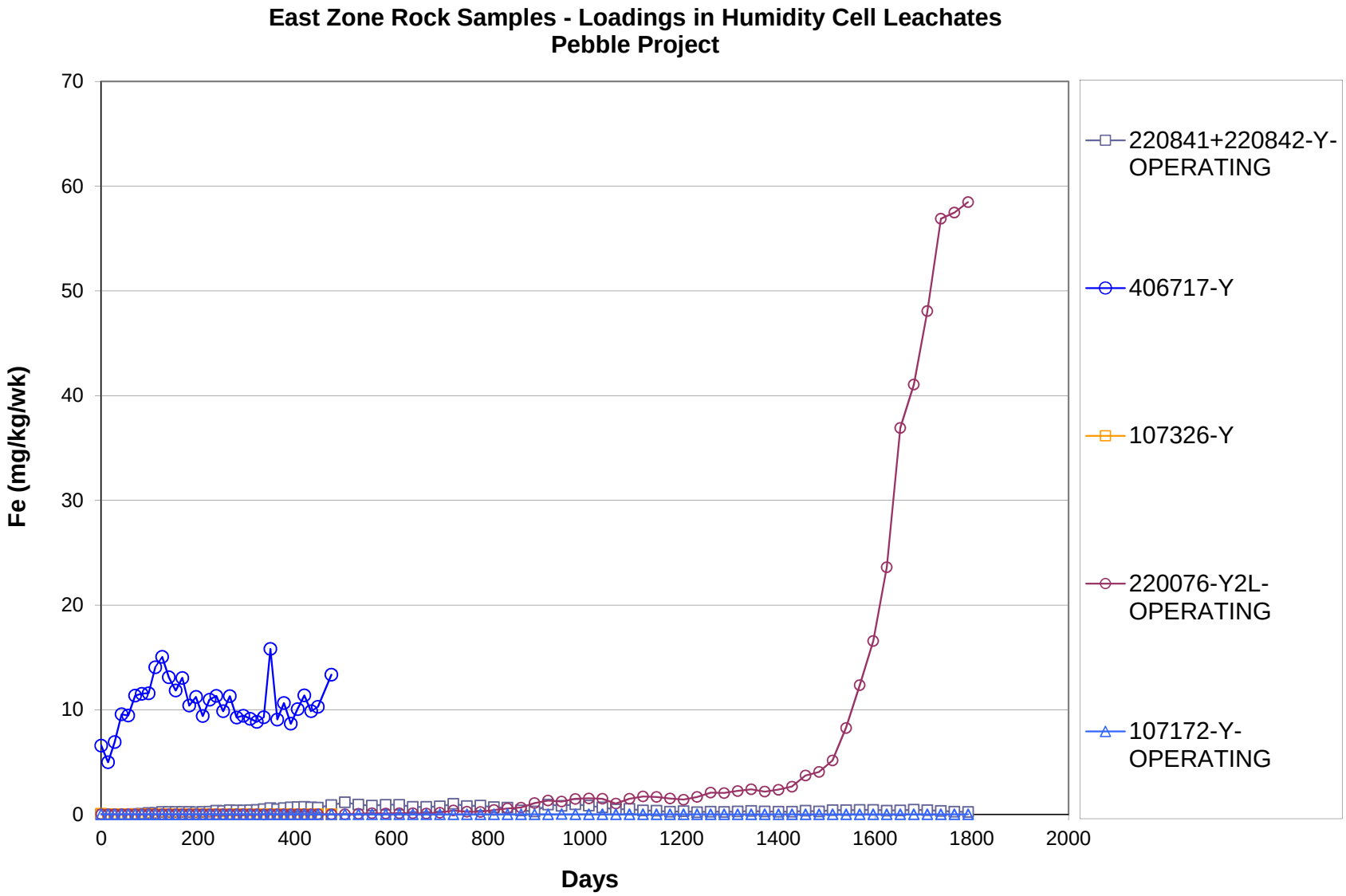

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cd (mg/kg/wk)
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

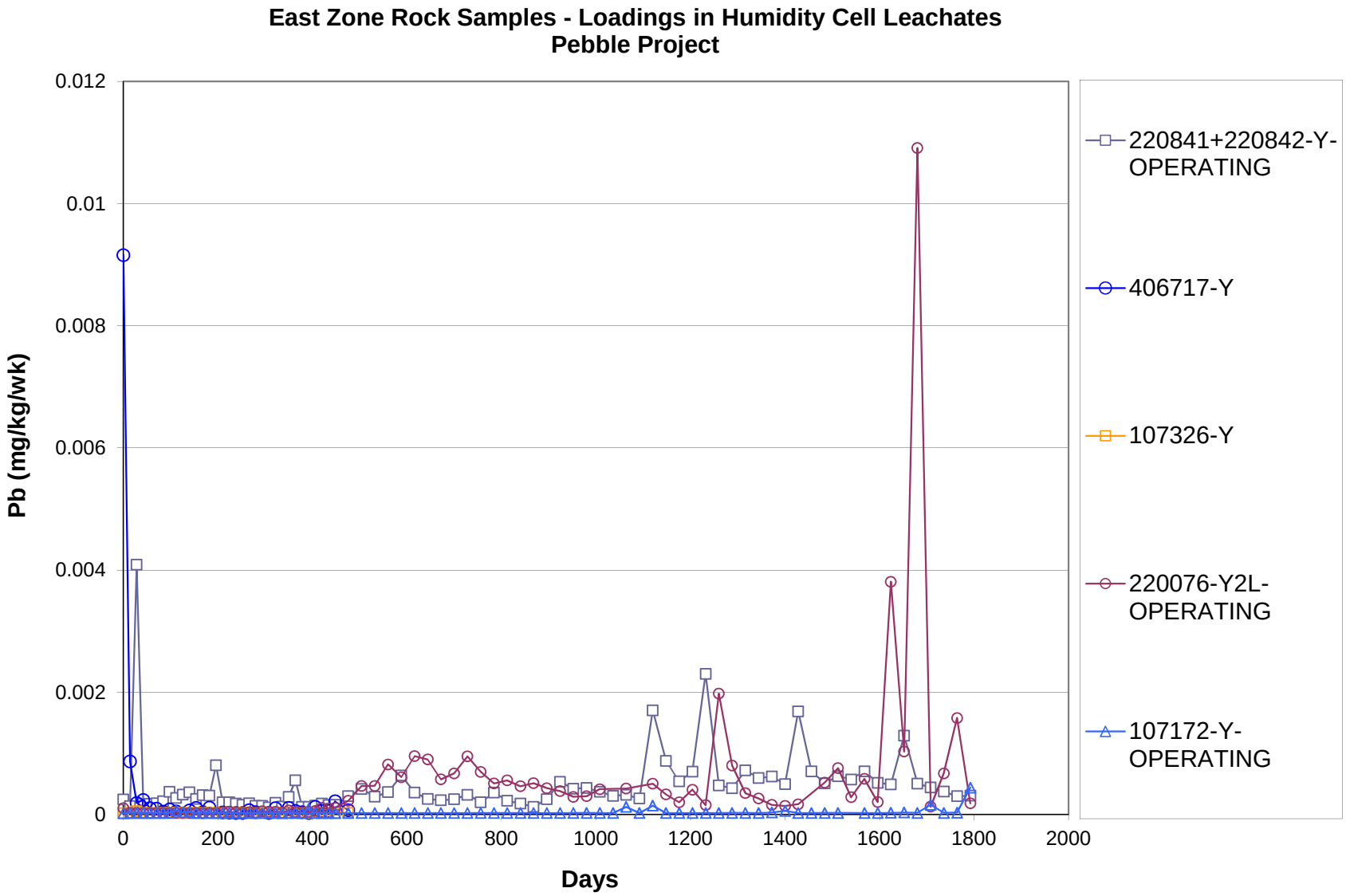

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ca (mg/kg/wk)
Days
0
10
20
30
40
50
60
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

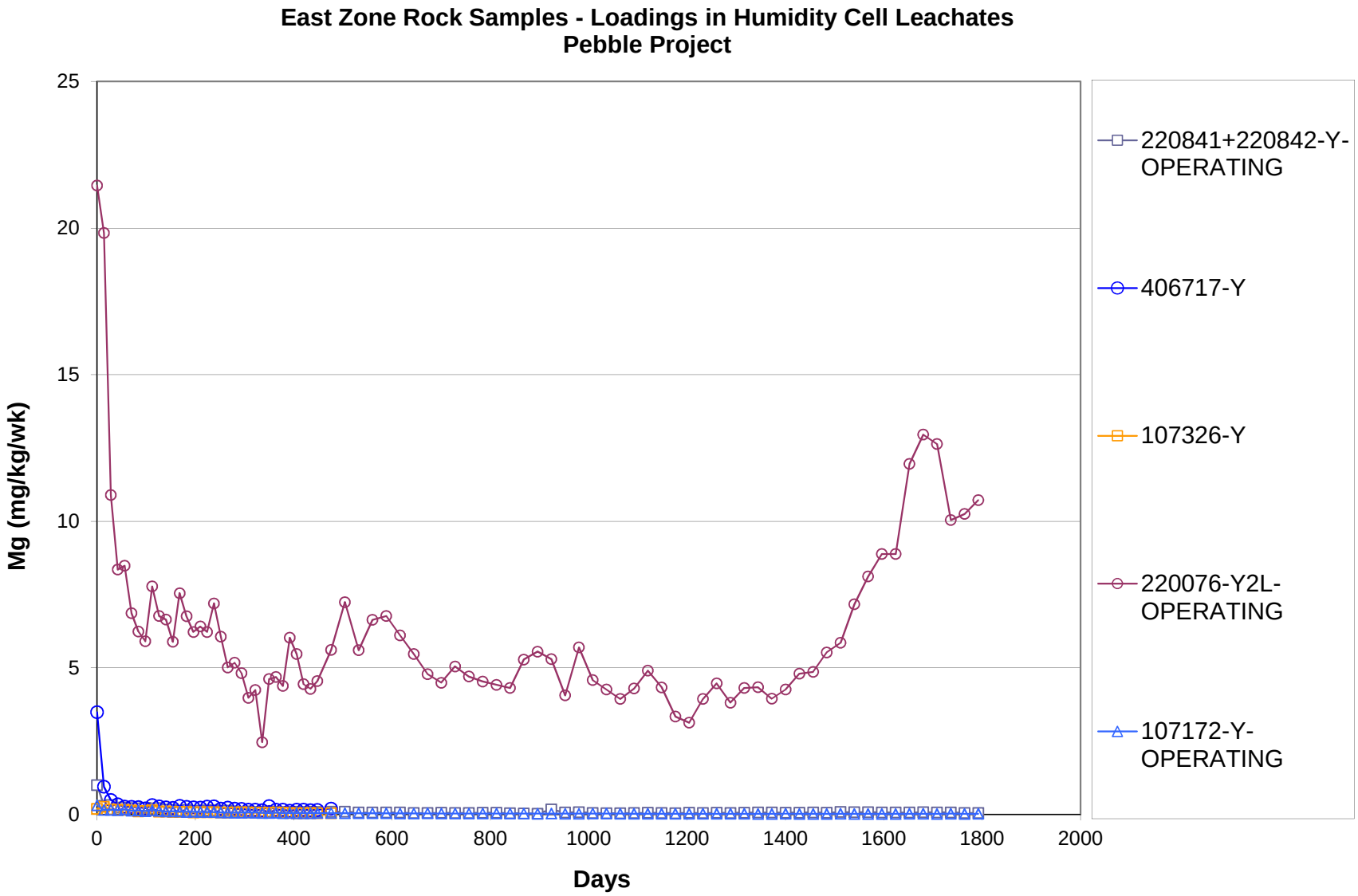

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cr (mg/kg/wk)
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

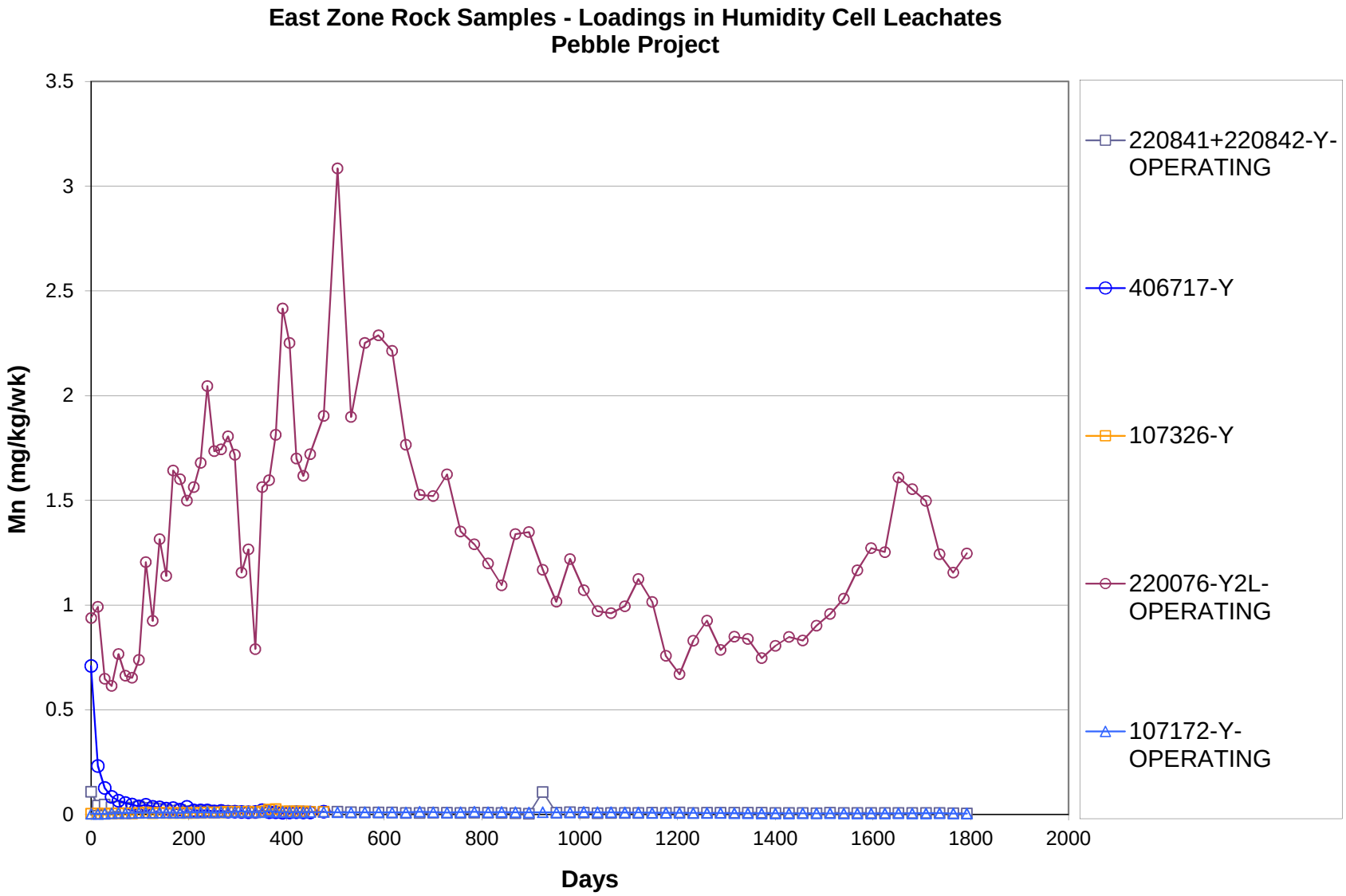

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Co (mg/kg/wk)
0.25
0.2
0.15
0.1
0.05
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

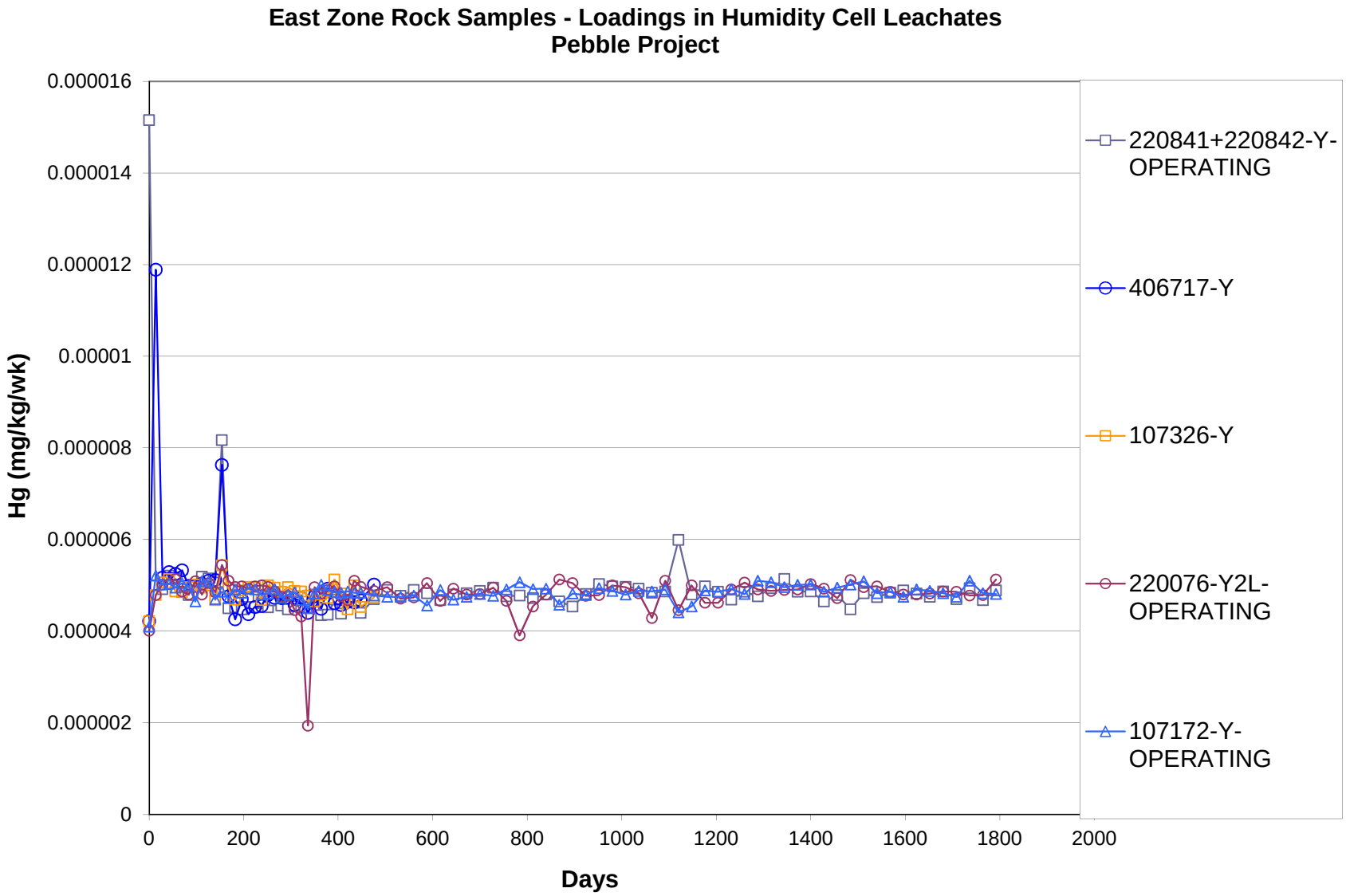

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cu (mg/kg/wk)
Days
0
2
4
6
8
10
12
14
16
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

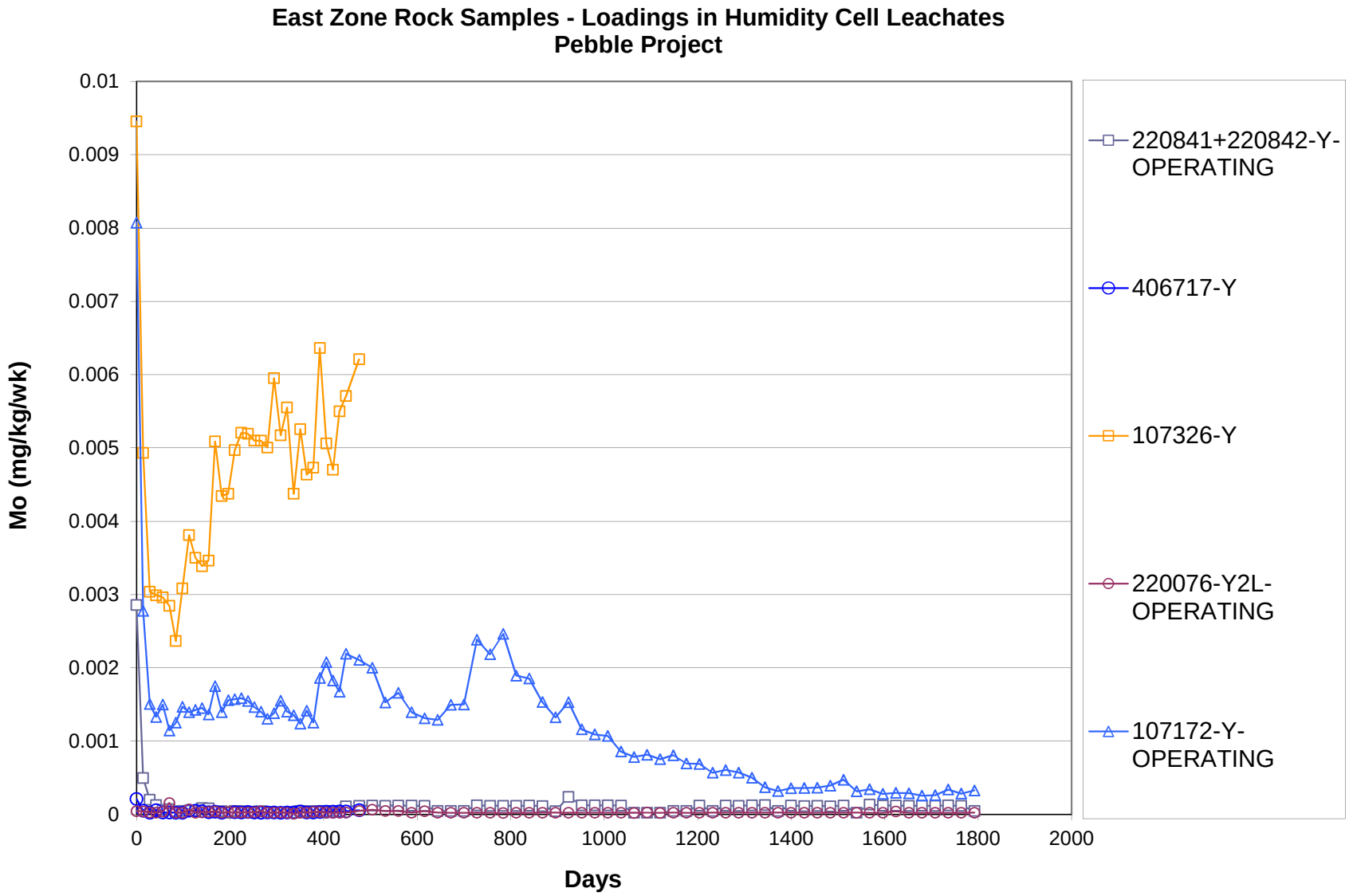

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Fe (mg/kg/wk)
70
60
50
40
30
20
10
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

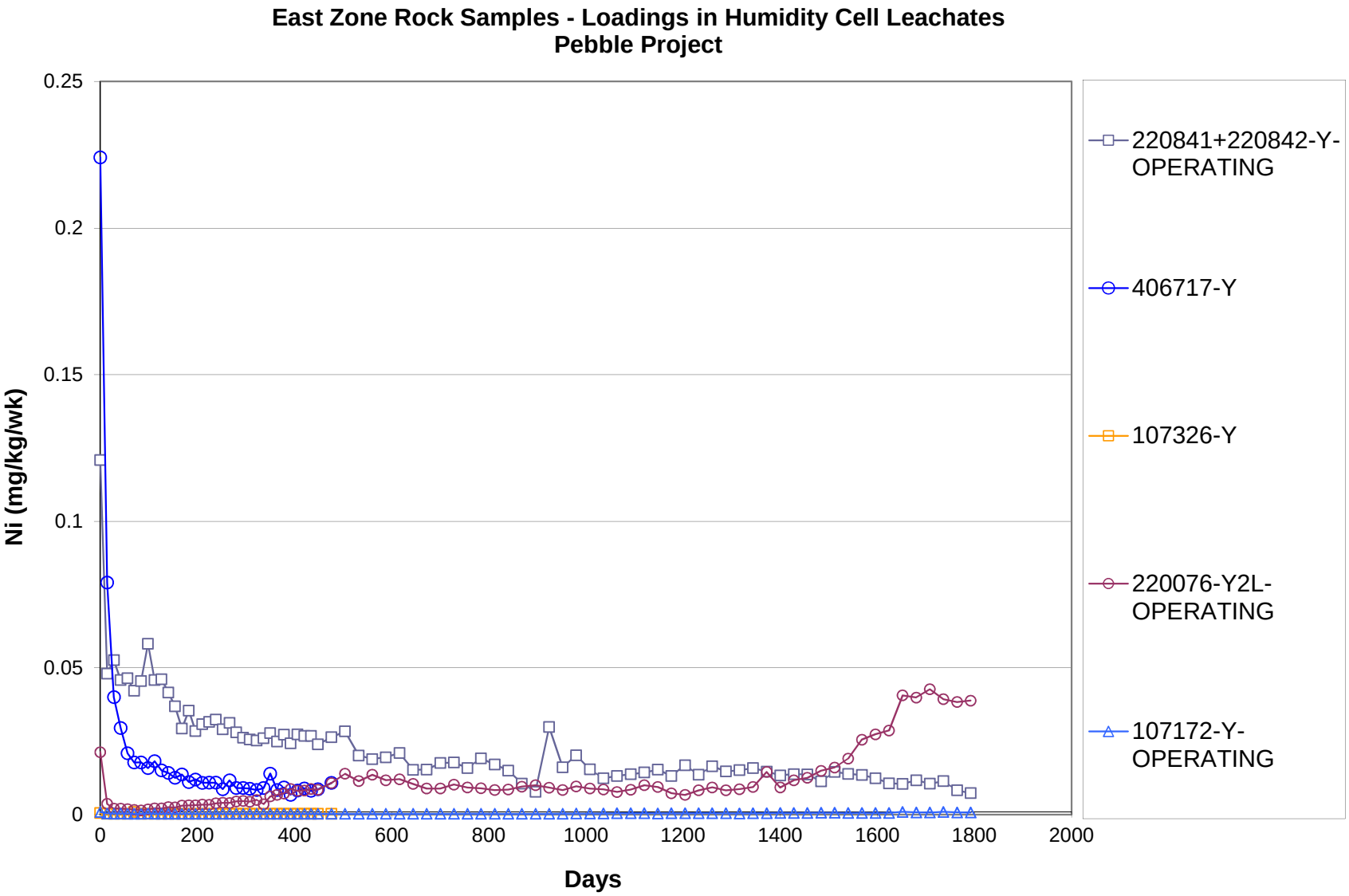

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Pb (mg/kg/wk)
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

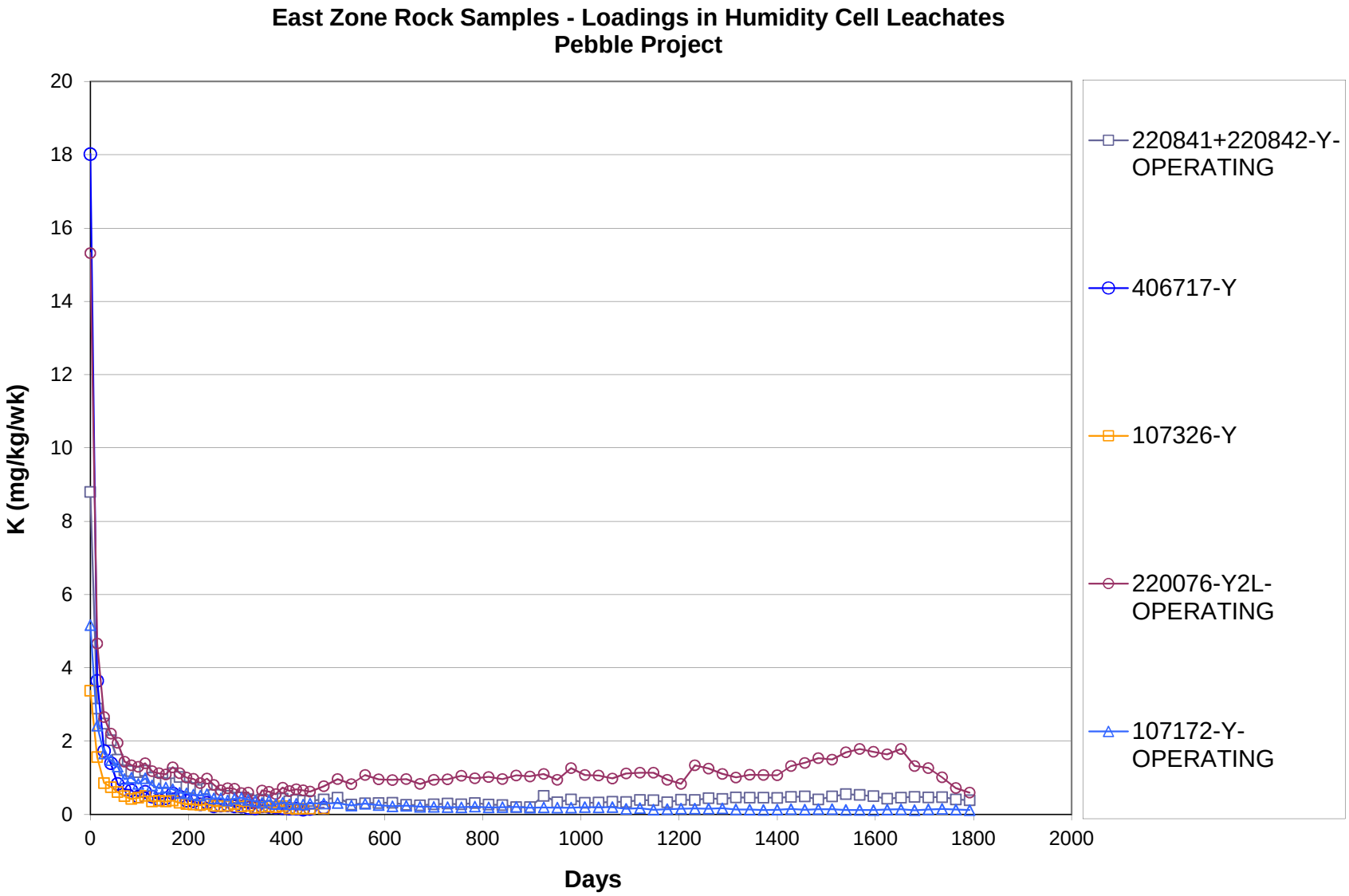

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mg (mg/kg/wk)
Days
0
5
10
15
20
25
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

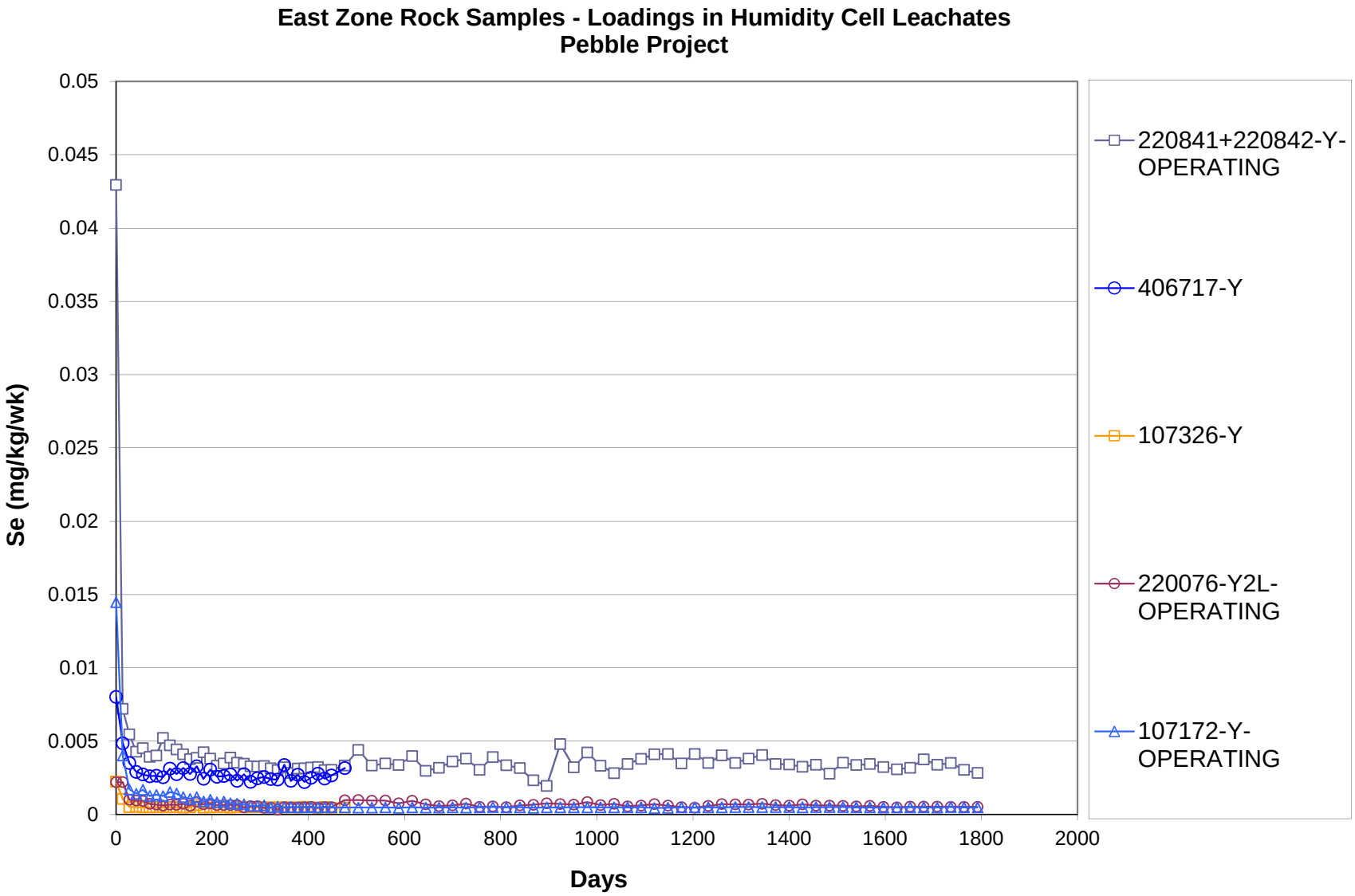

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mn (mg/kg/wk)
3.5
3
2.5
2
1.5
1
0.5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

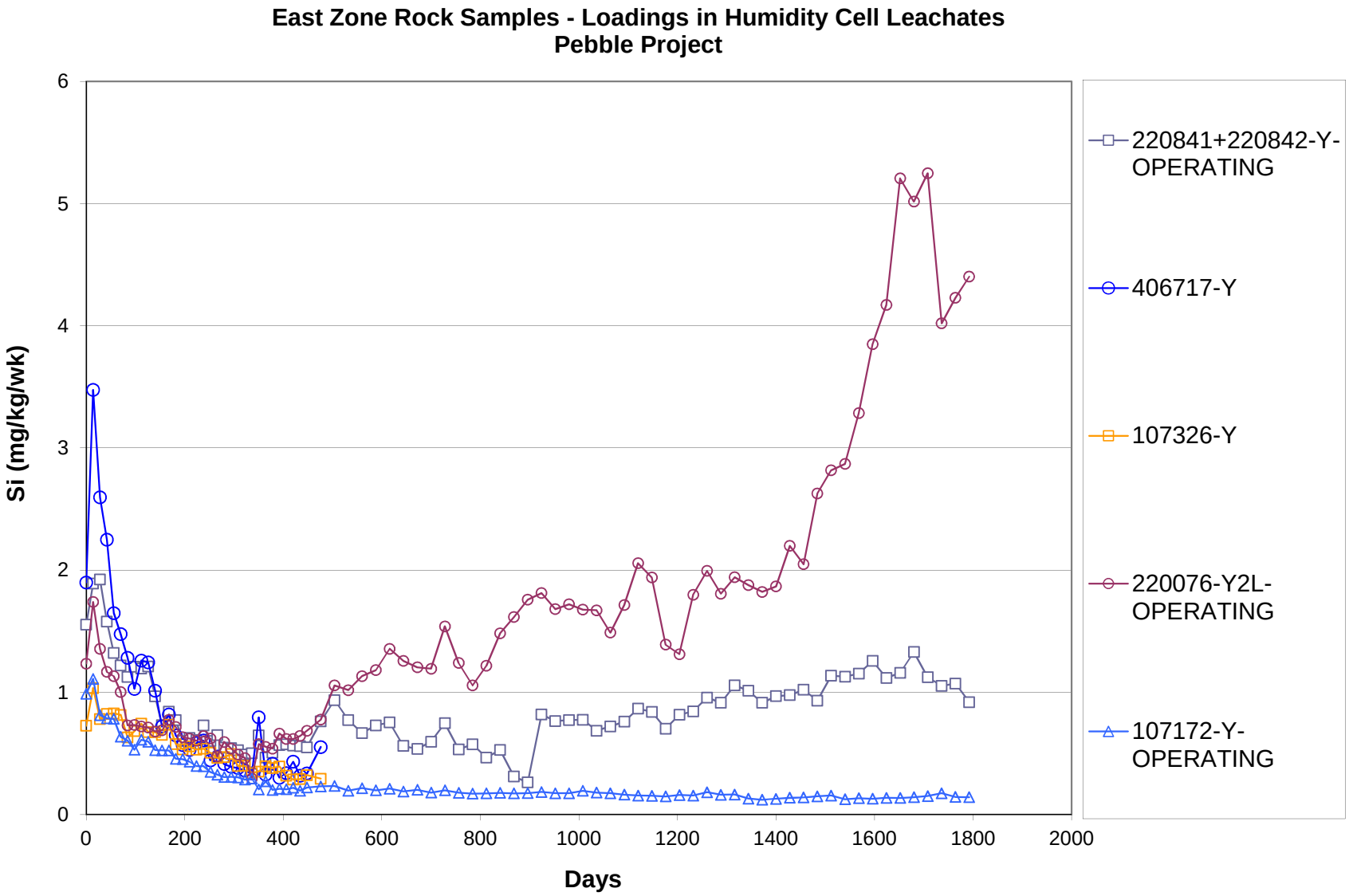

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Hg (mg/kg/wk)
0.000016
0.000014
0.000012
0.00001
0.000008
0.000006
0.000004
0.000002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

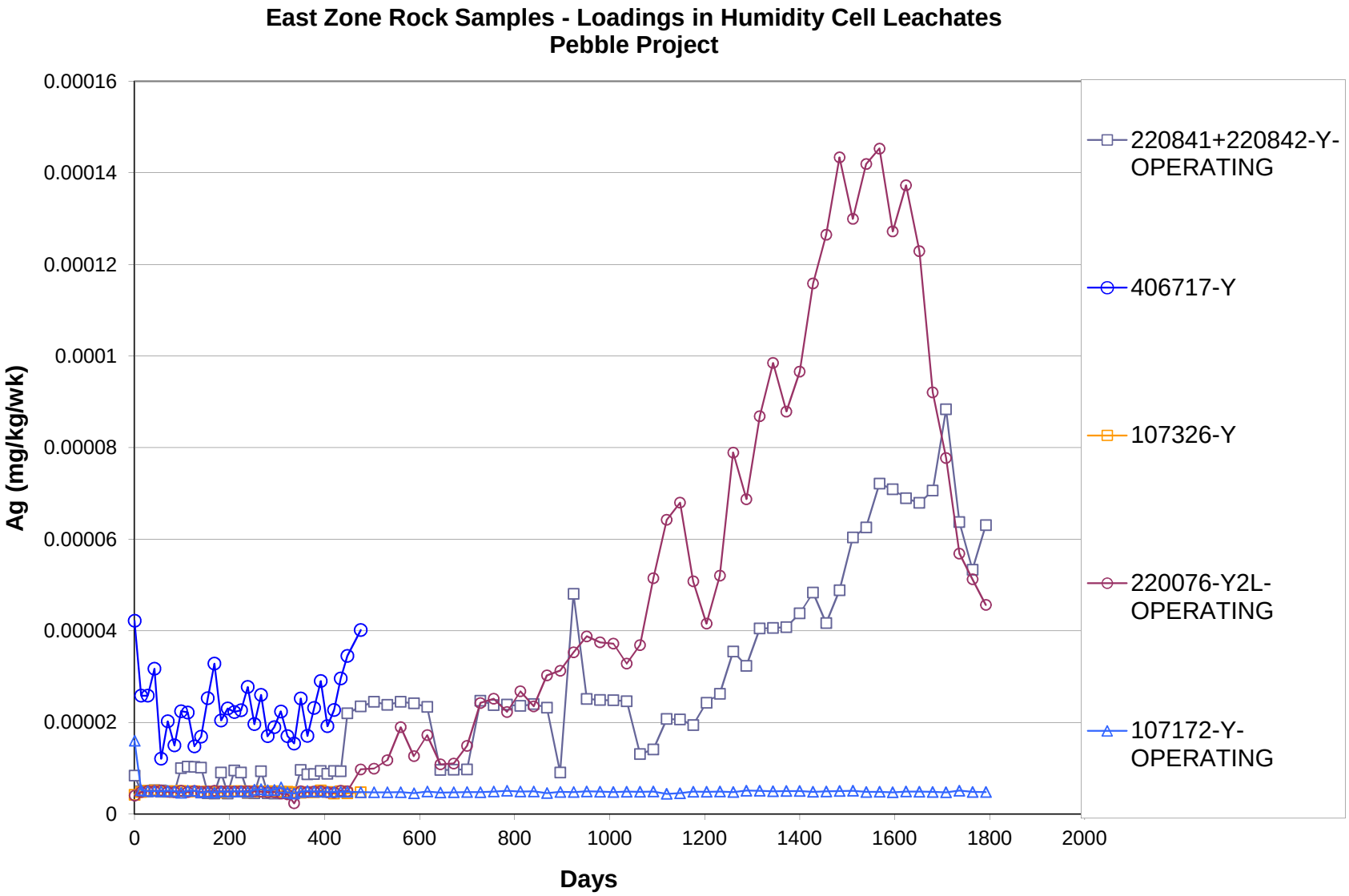

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mo (mg/kg/wk)
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

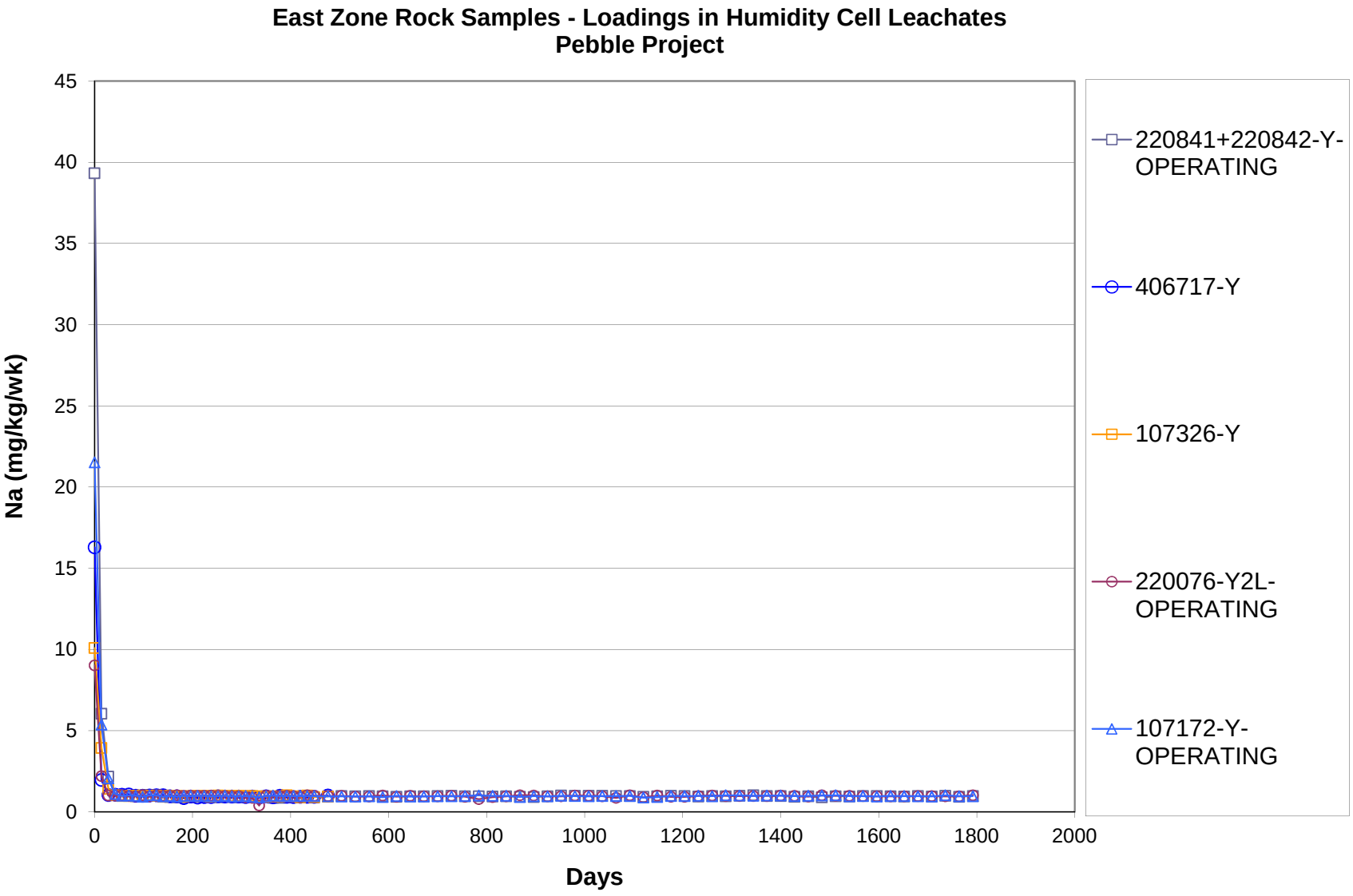

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ni (mg/kg/wk)
0.25
0.2
0.15
0.1
0.05
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

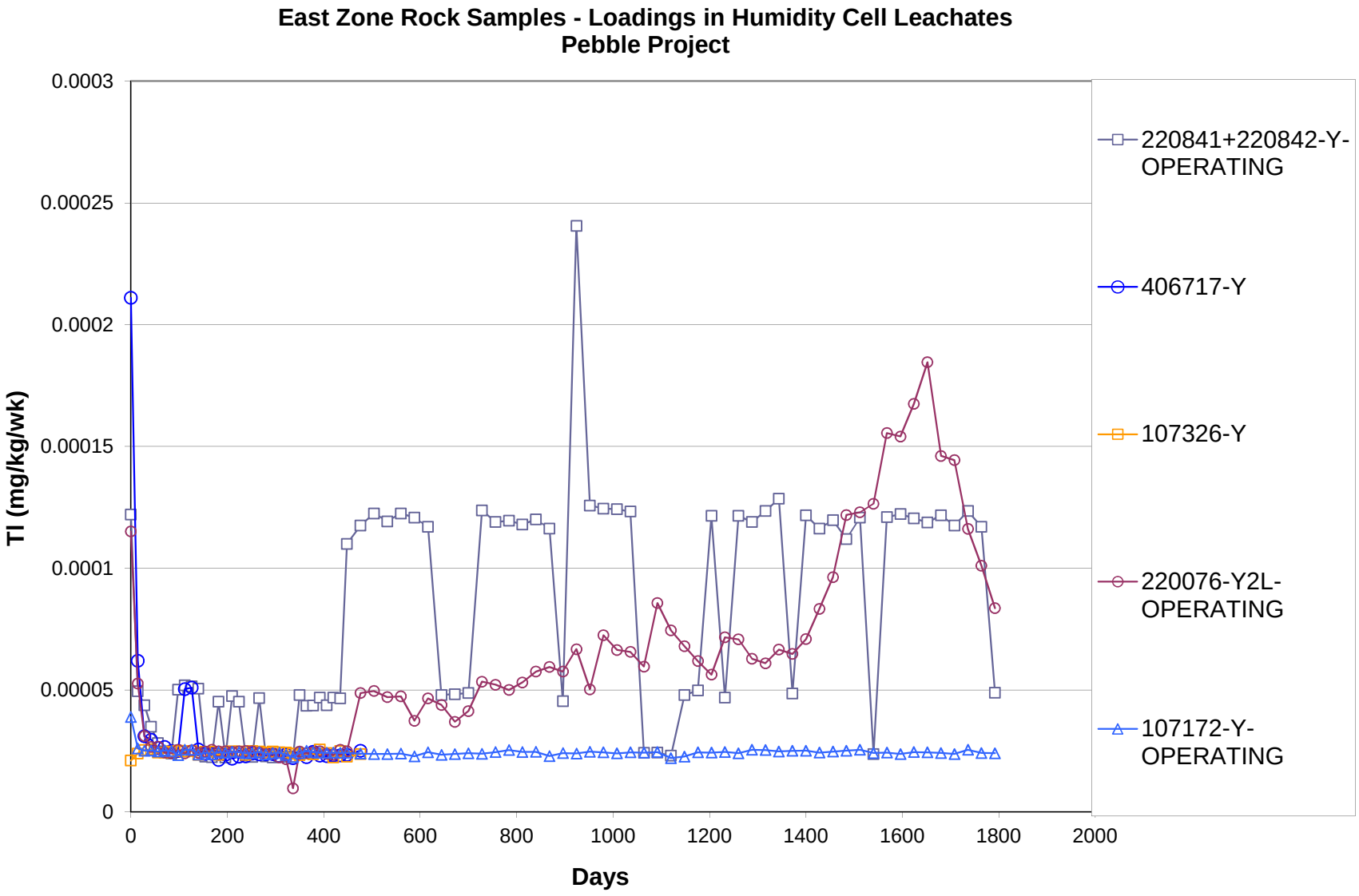

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
K (mg/kg/wk)
Days
0
2
4
6
8
10
12
14
16
18
20
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

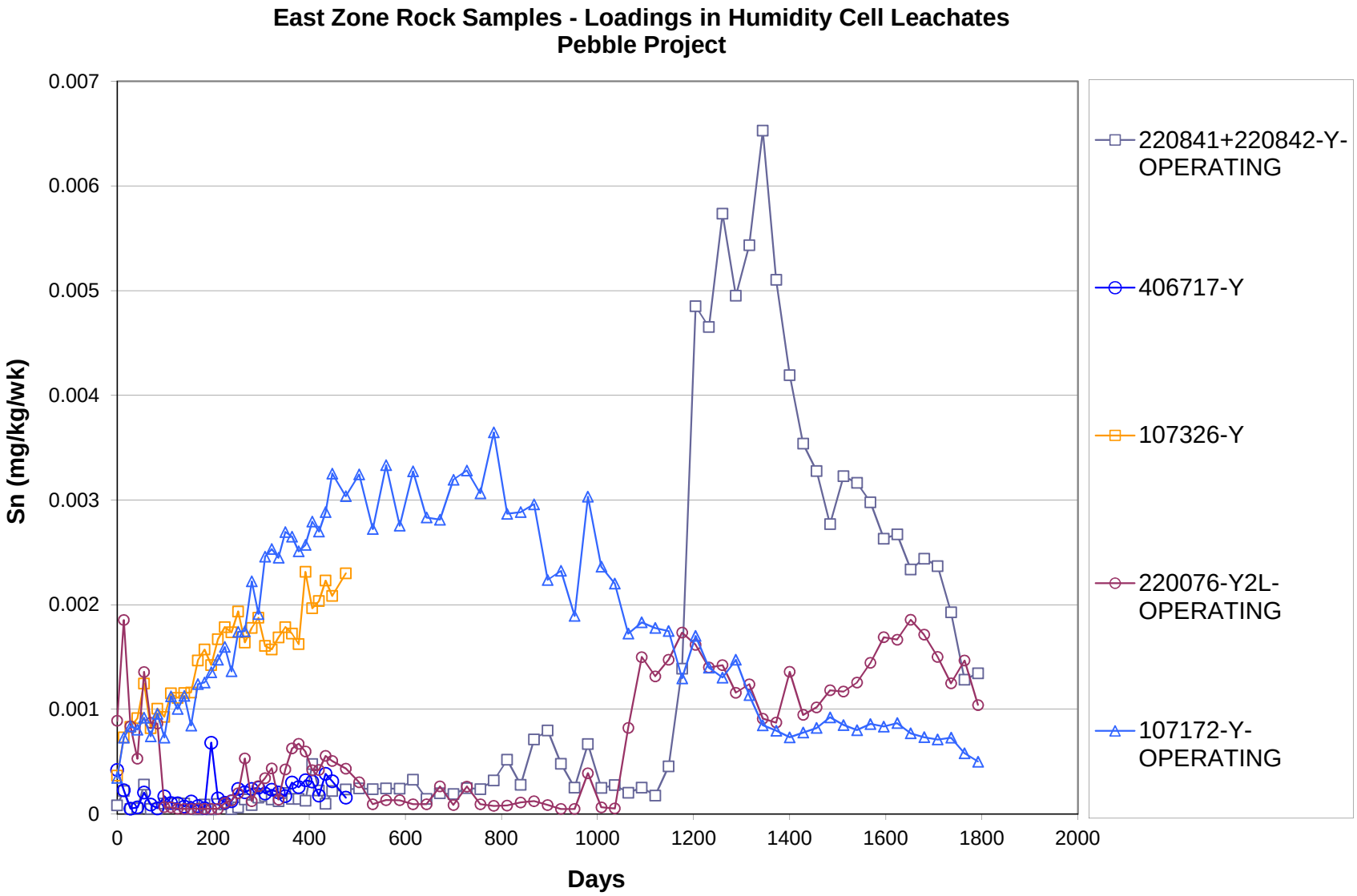

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Se (mg/kg/wk)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

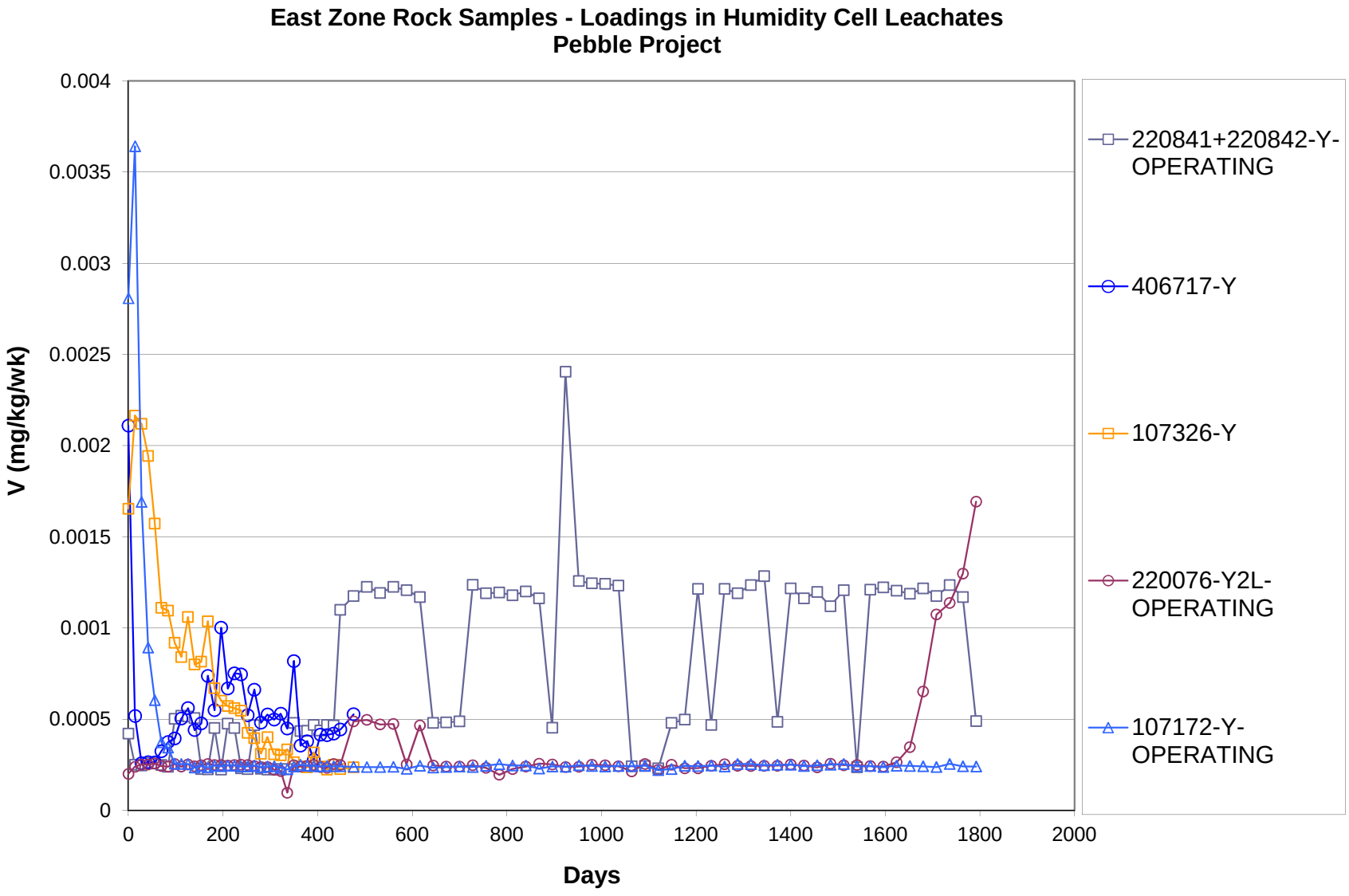

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Si (mg/kg/wk)
Days
0
1
2
3
4
5
6
0
200
400
600
800
1000
1200
1400
1600
1800
2000
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

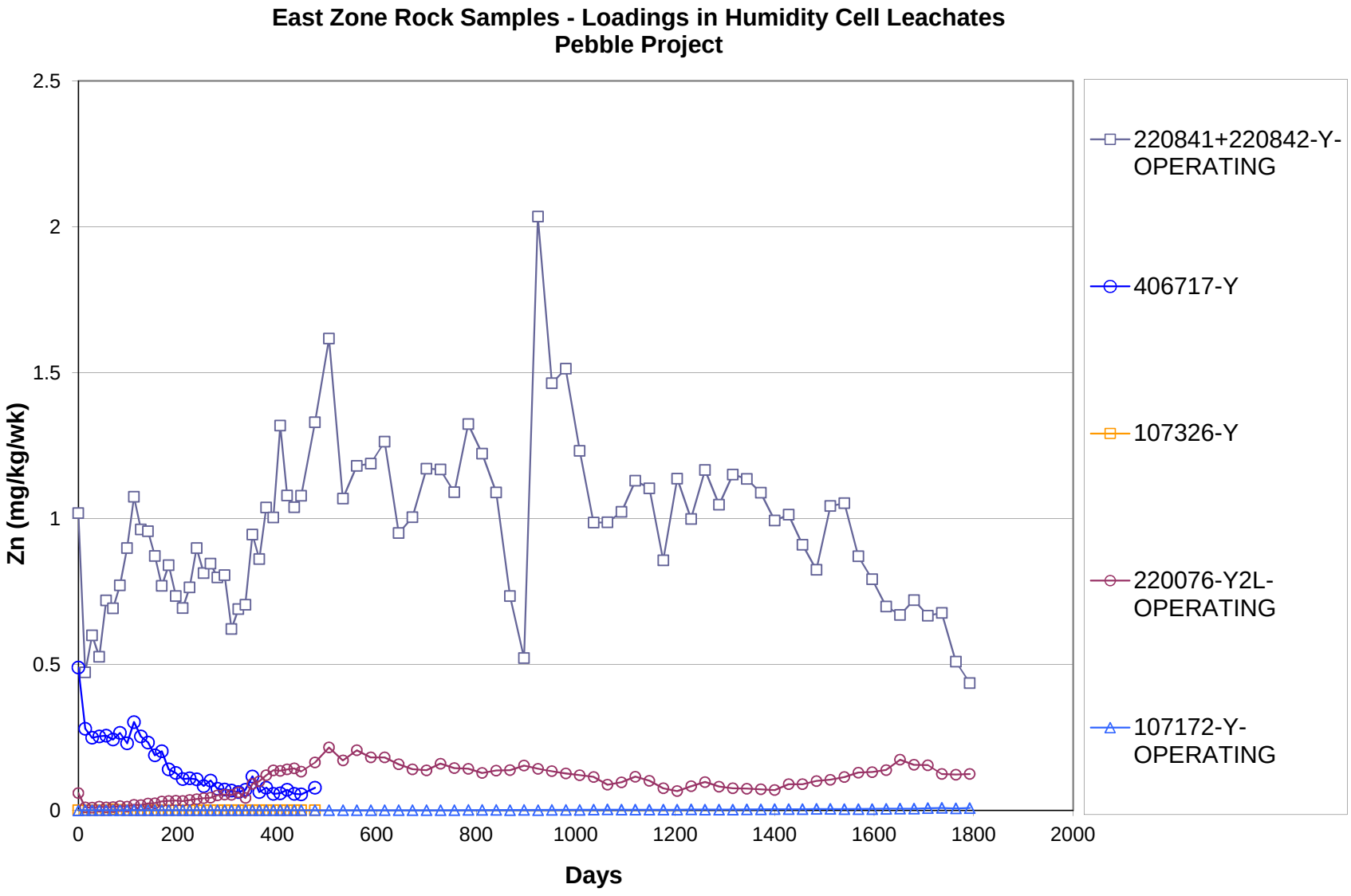

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ag (mg/kg/wk)
0.00016
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

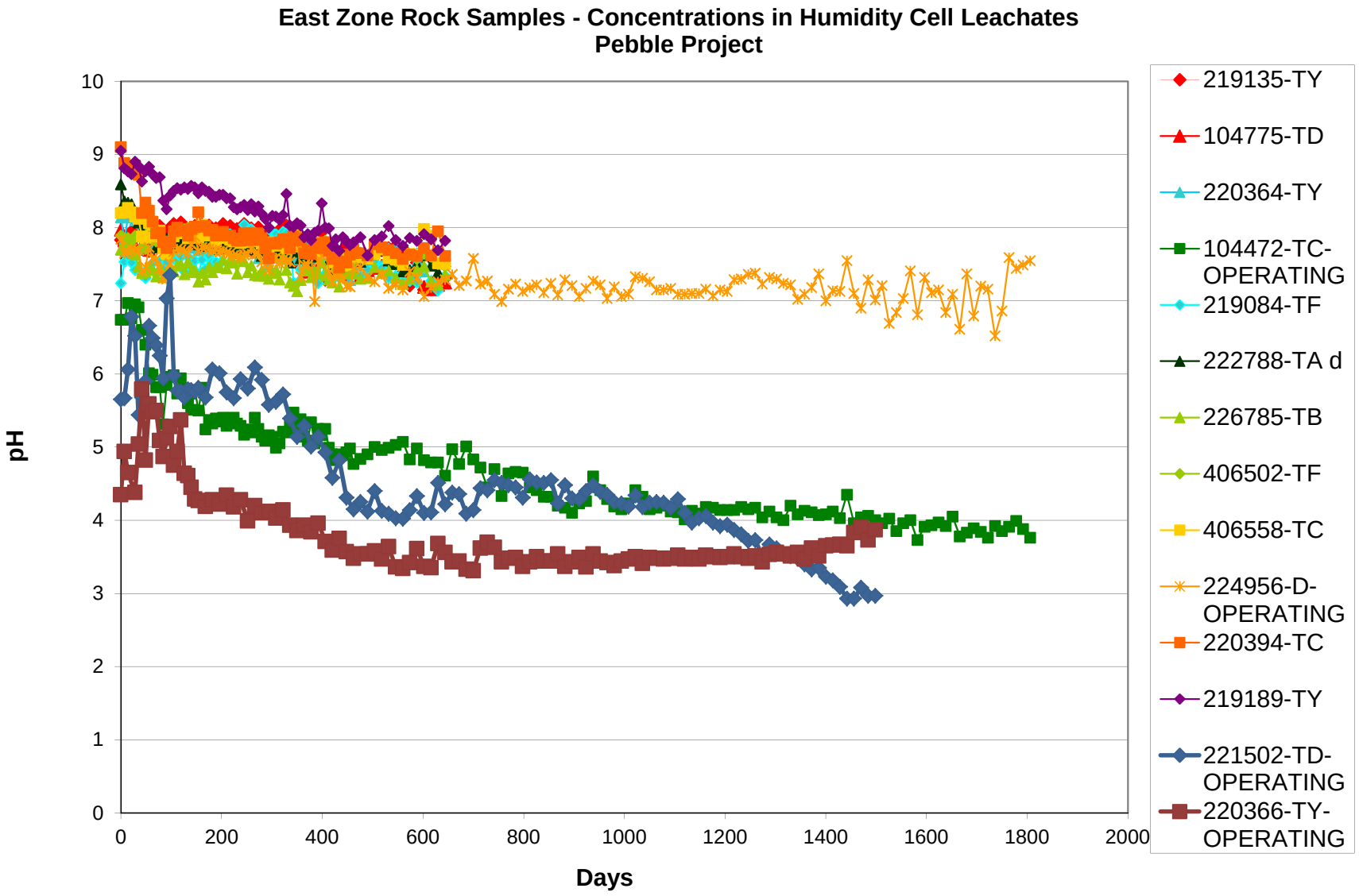

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Na (mg/kg/wk)
45
40
35
30
25
20
15
10
5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

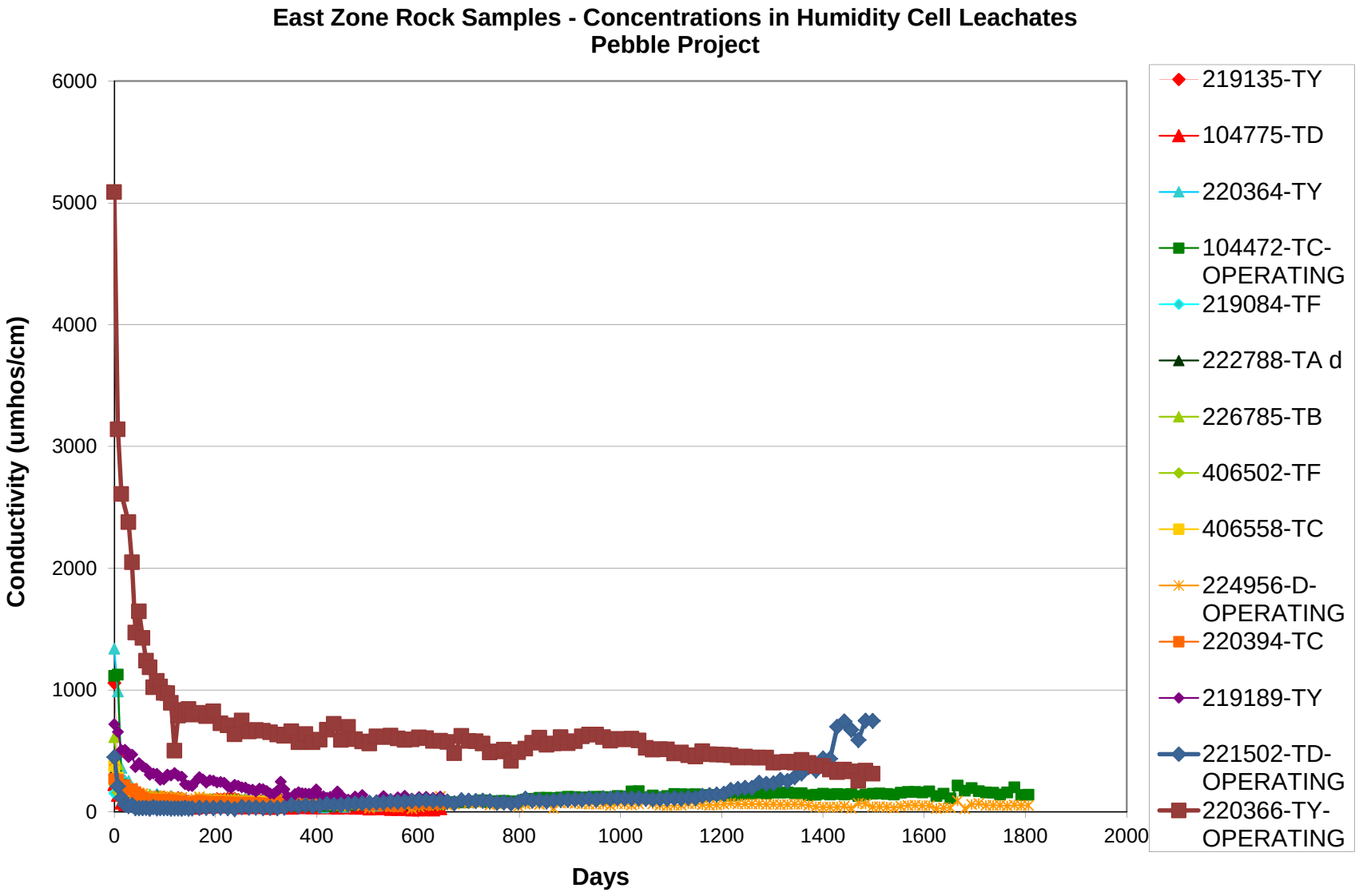

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Tl (mg/kg/wk)
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

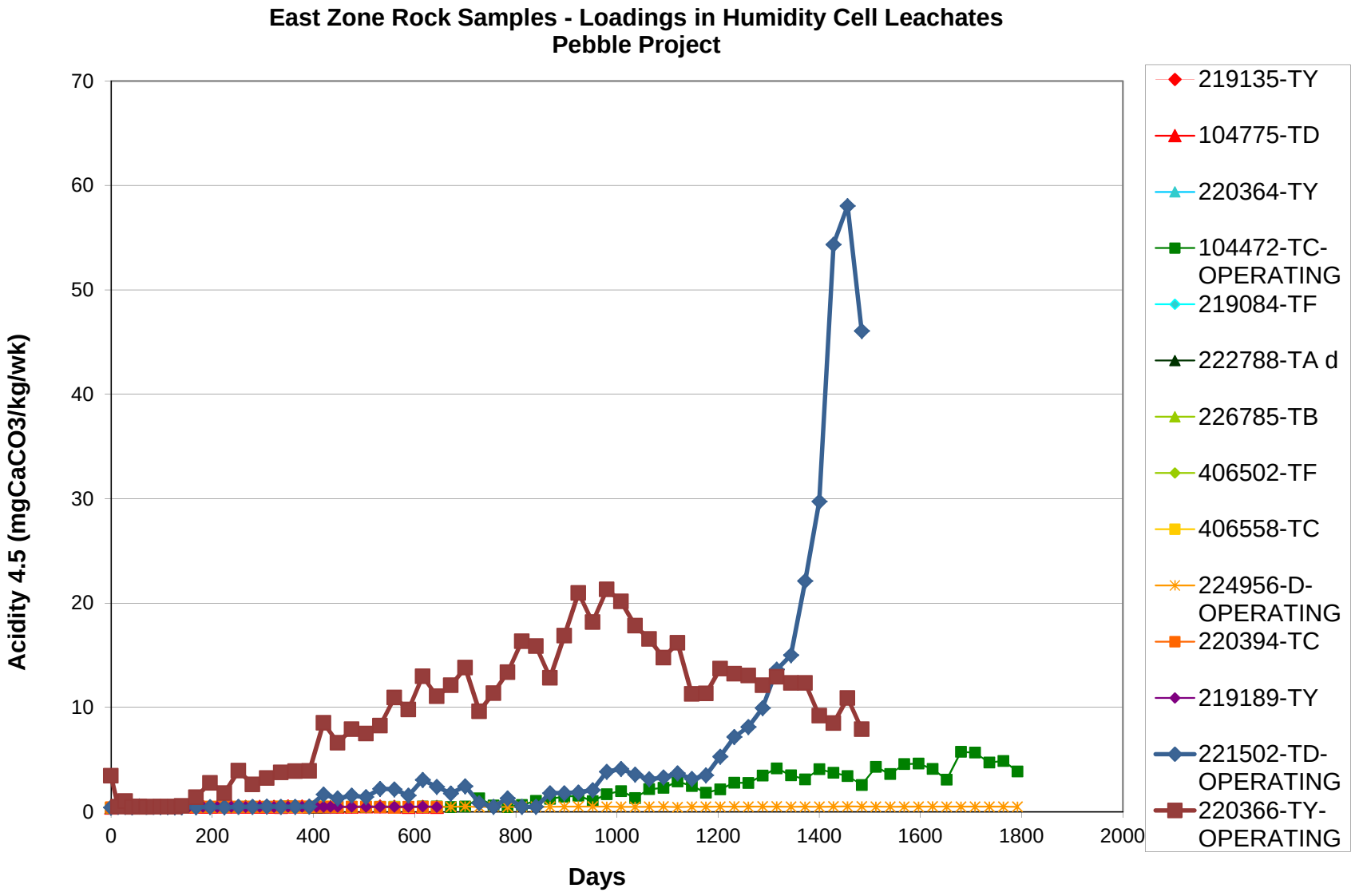

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Sn (mg/kg/wk)
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

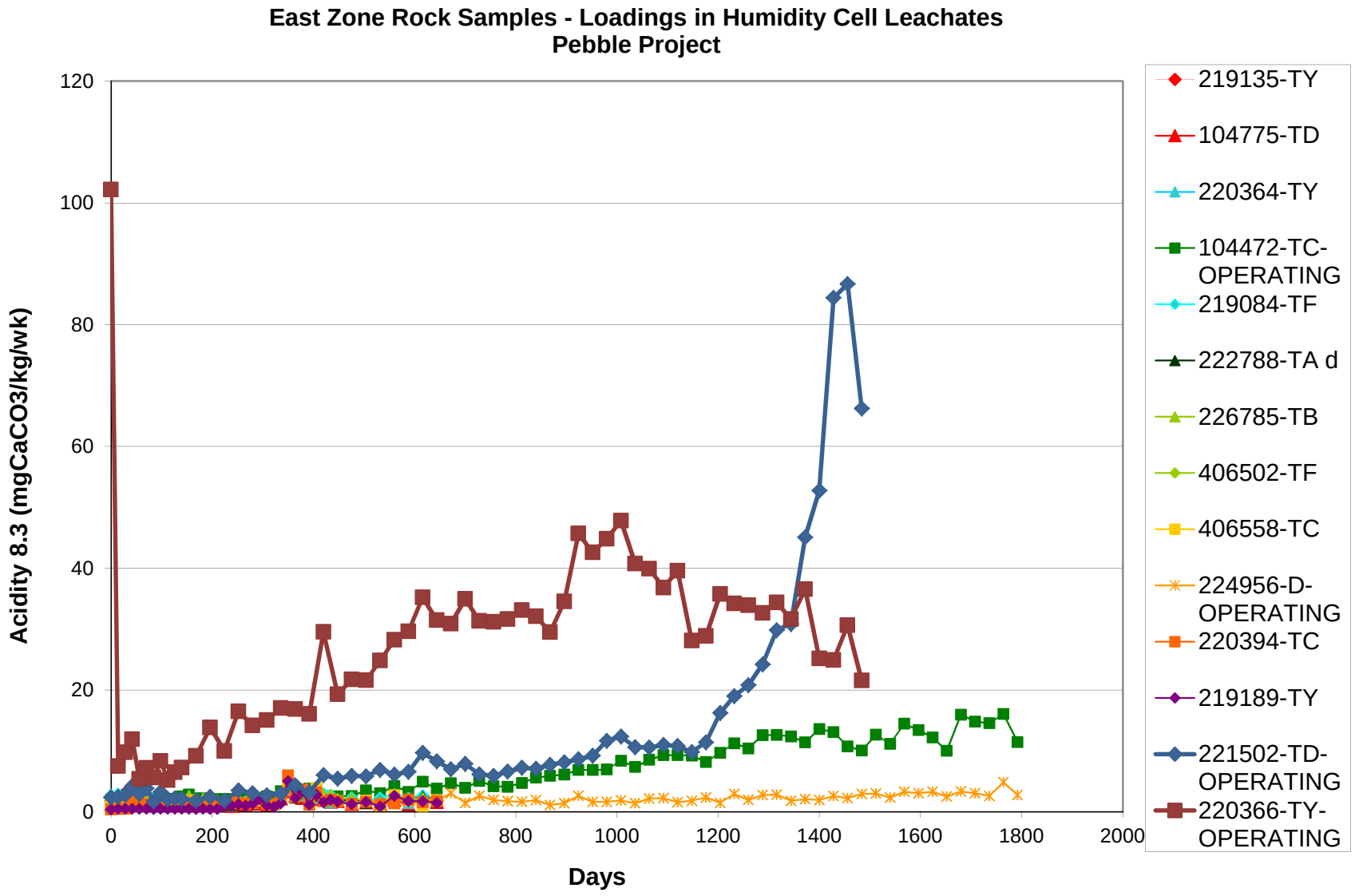

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
V (mg/kg/wk)
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

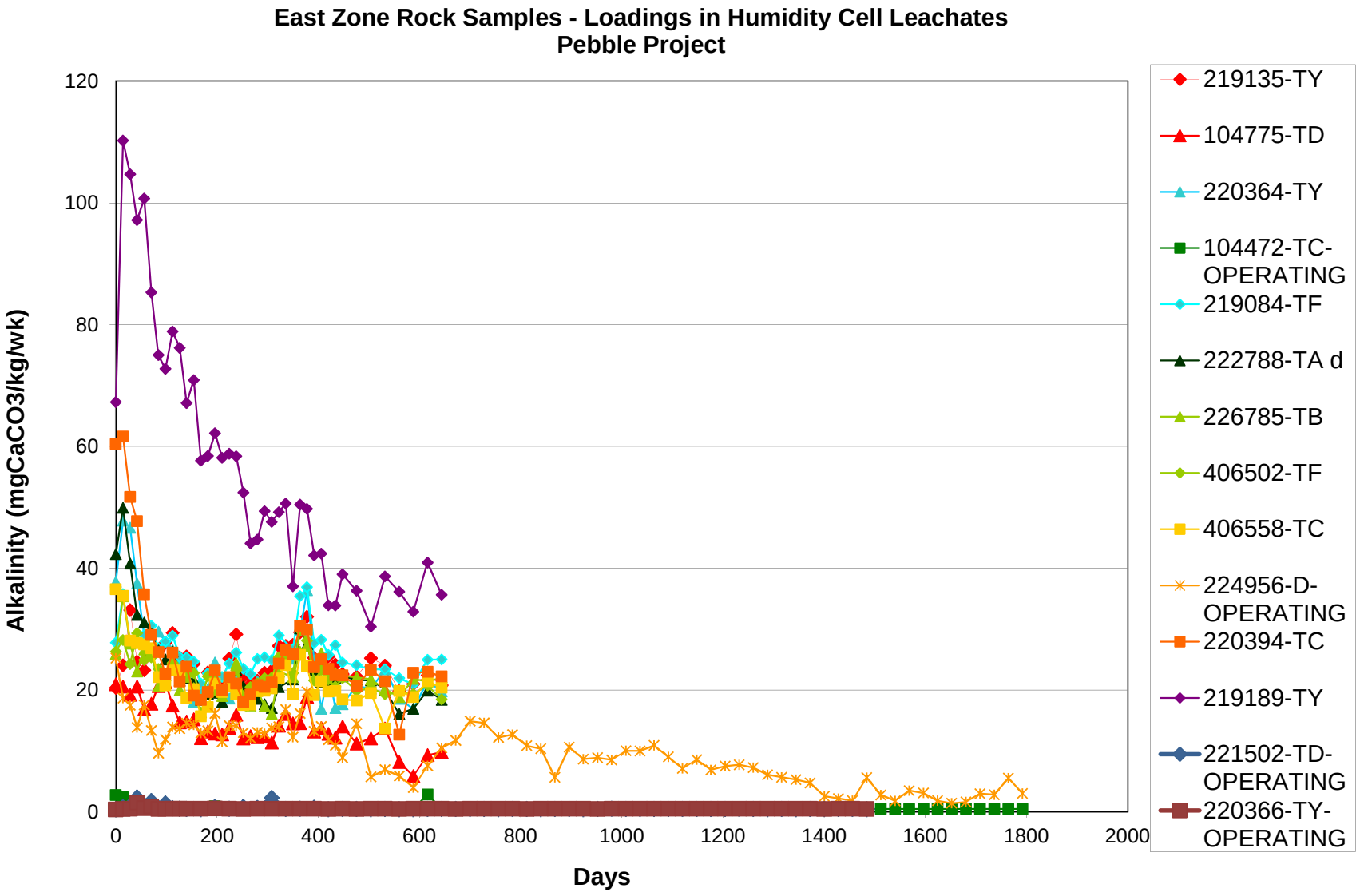

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Zn (mg/kg/wk)
2.5
2
1.5
1
0.5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
220841+220842-Y-OPERATING
406717-Y
107326-Y
220076-Y2L-OPERATING
107172-Y-OPERATING

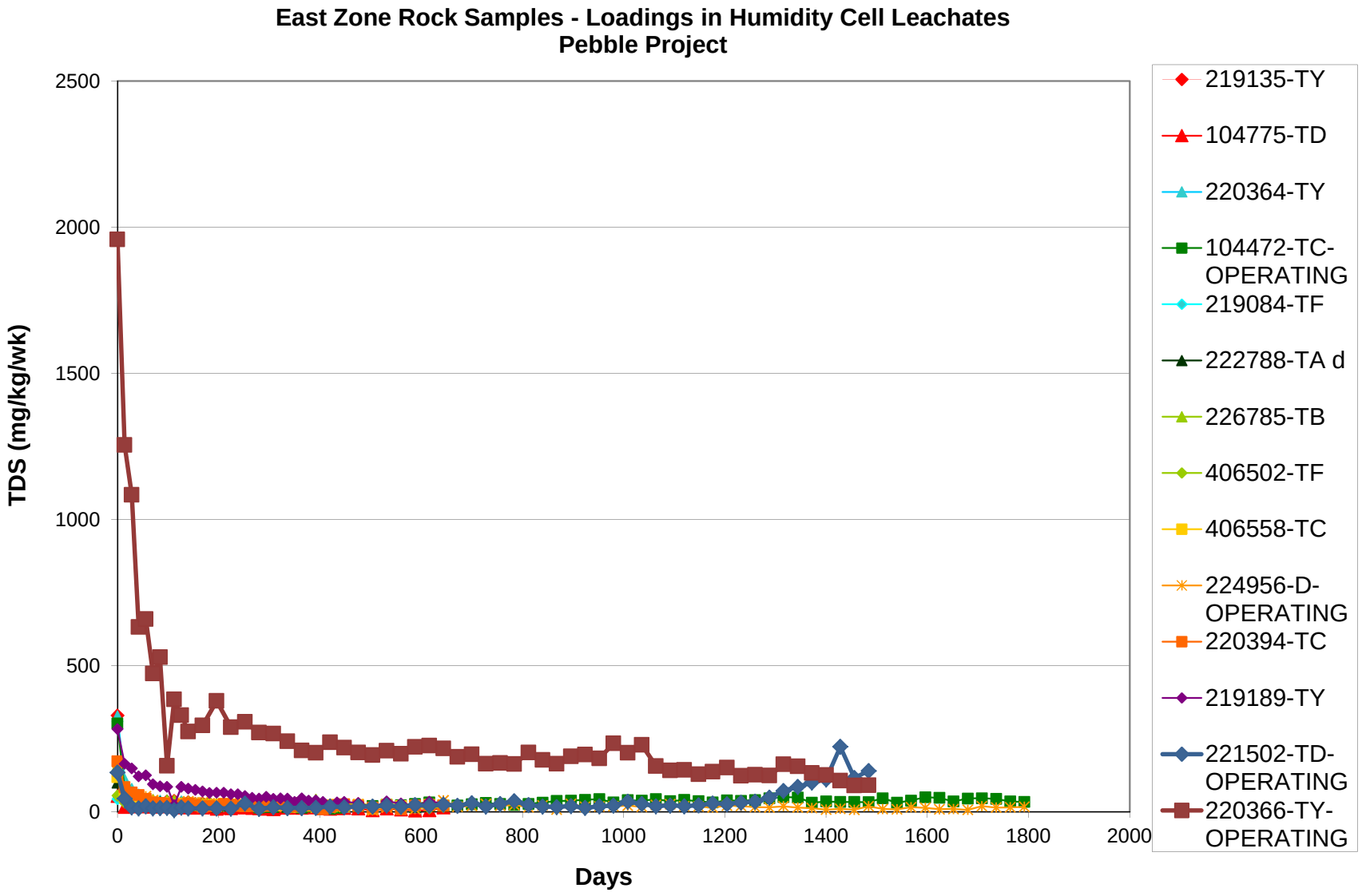

East Zone Rock Samples - Concentrations in Humidity Cell Leachates
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

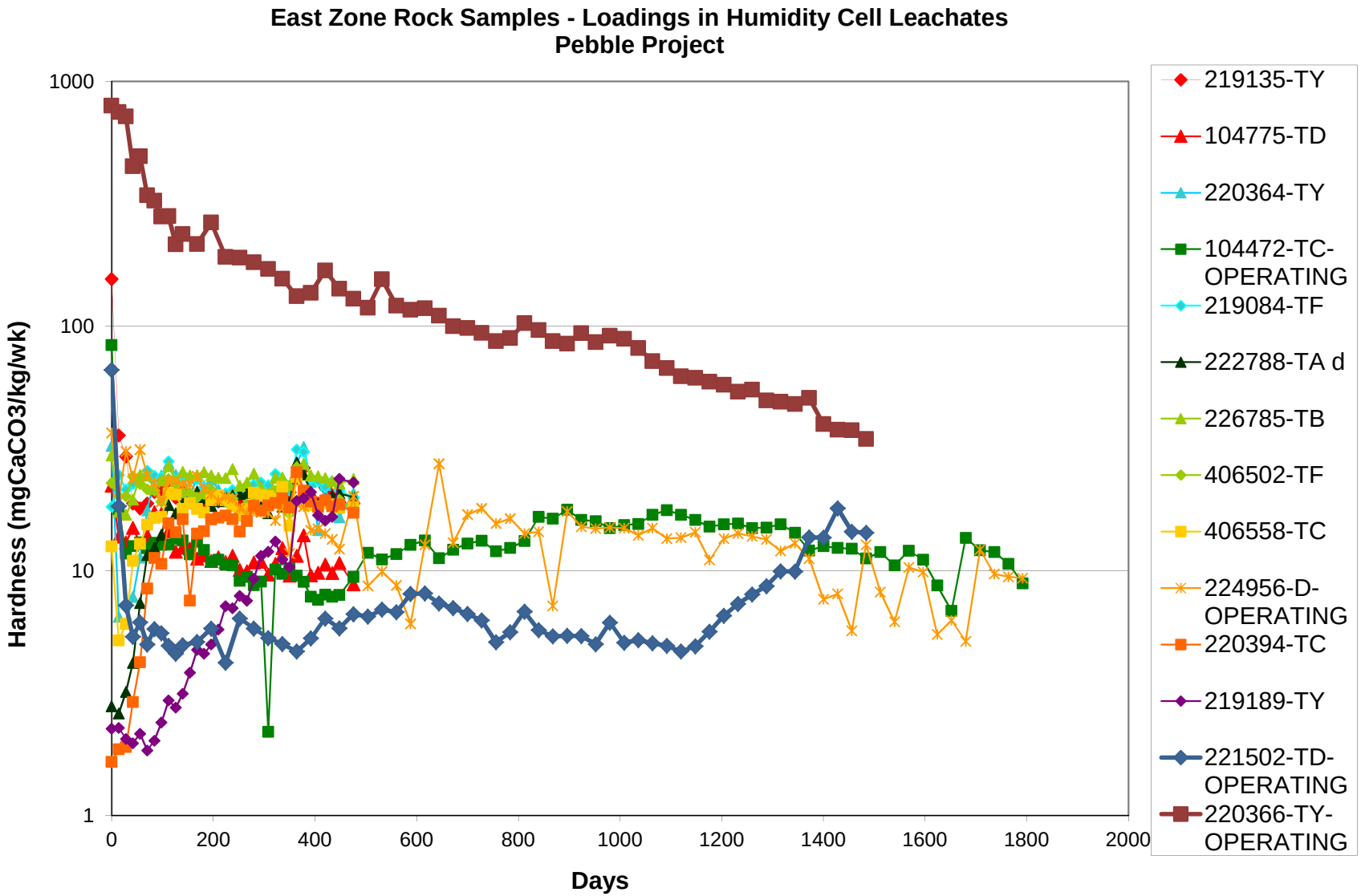

East Zone Rock Samples - Concentrations in Humidity Cell Leachates
Pebble Project
Conductivity (umhos/cm)
6000
5000
4000
3000
2000
1000
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

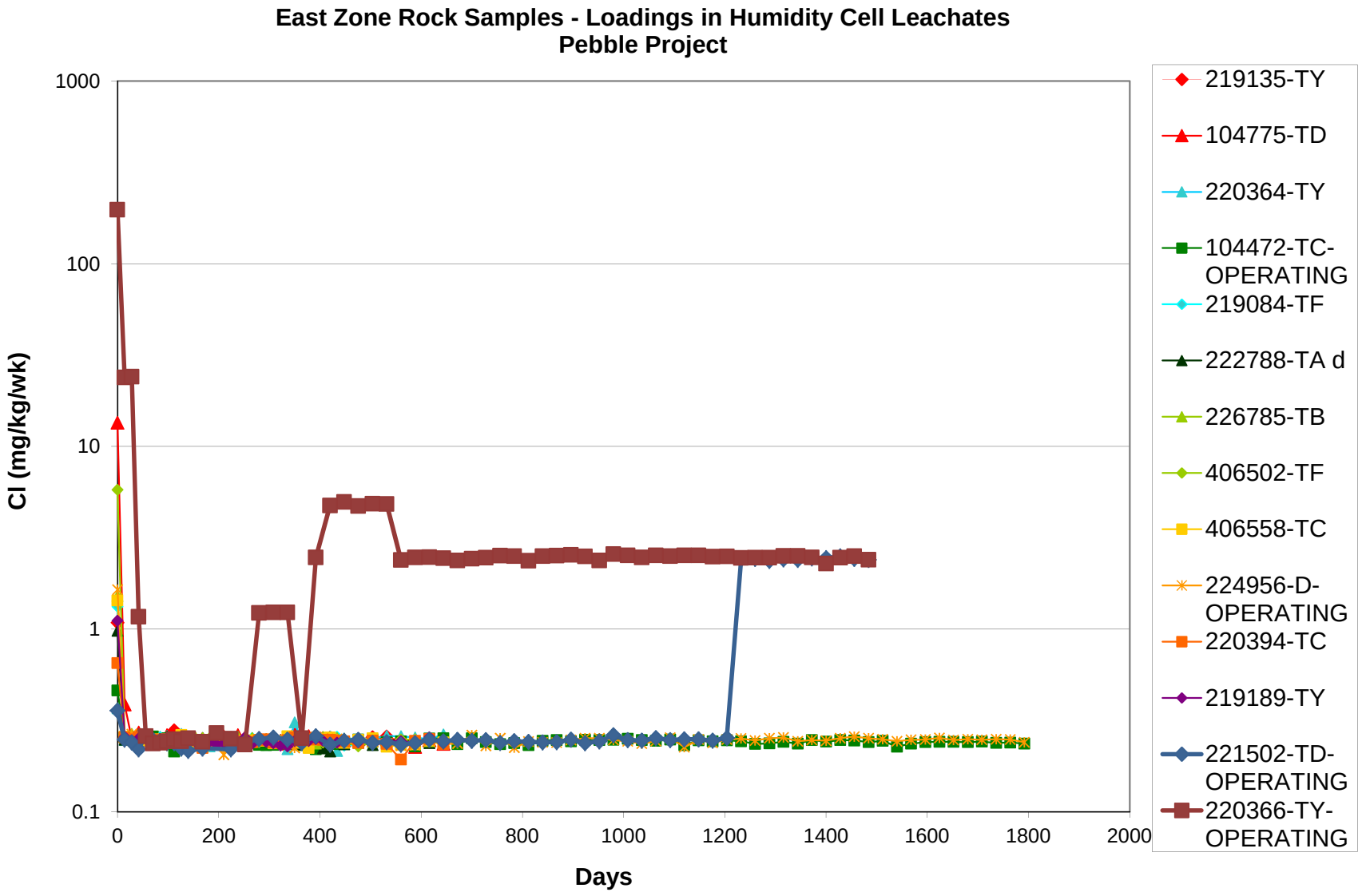

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 4.5 (mgCaCO3/kg/wk)
Days
0
10
20
30
40
50
60
70
0
200
400
600
800
1000
1200
1400
1600
1800
2000
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

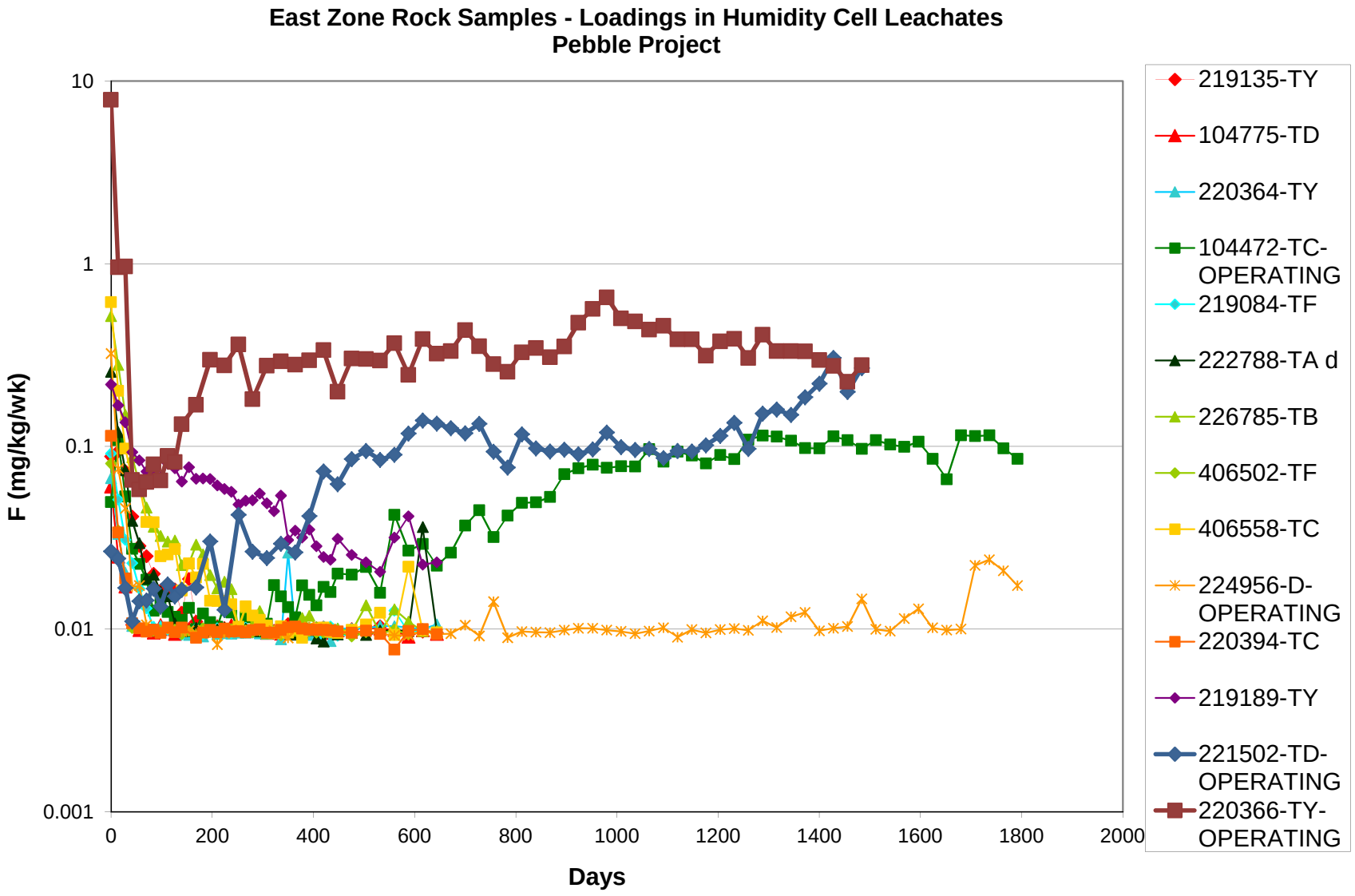

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 8.3 (mgCaCO3/kg/wk)
Days
0
20
40
60
80
100
120
0
200
400
600
800
1000
1200
1400
1600
1800
2000
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

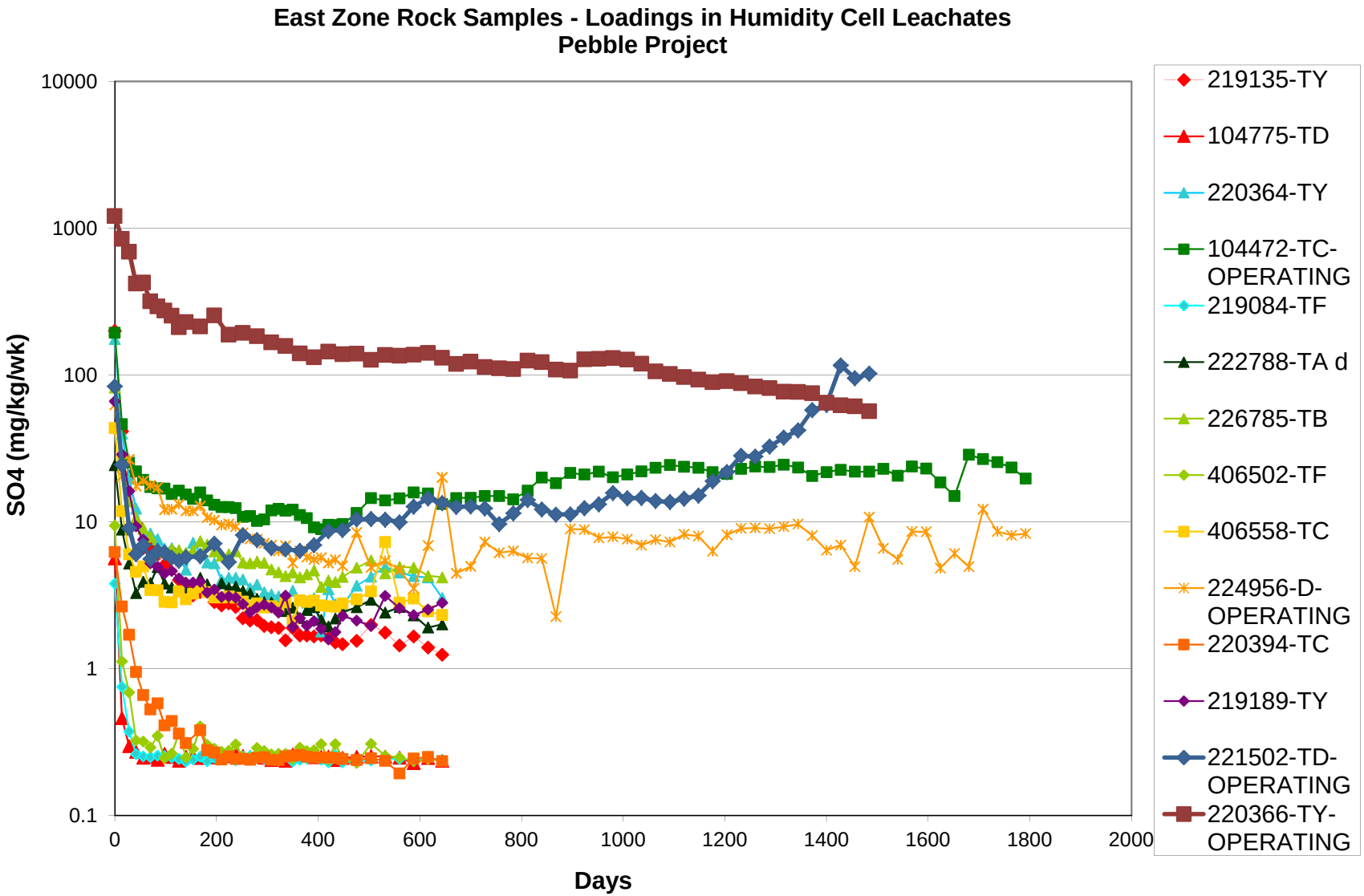

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Alkalinity (mgCaCO3/kg/wk)
Days
0
20
40
60
80
100
120
0
200
400
600
800
1000
1200
1400
1600
1800
2000
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

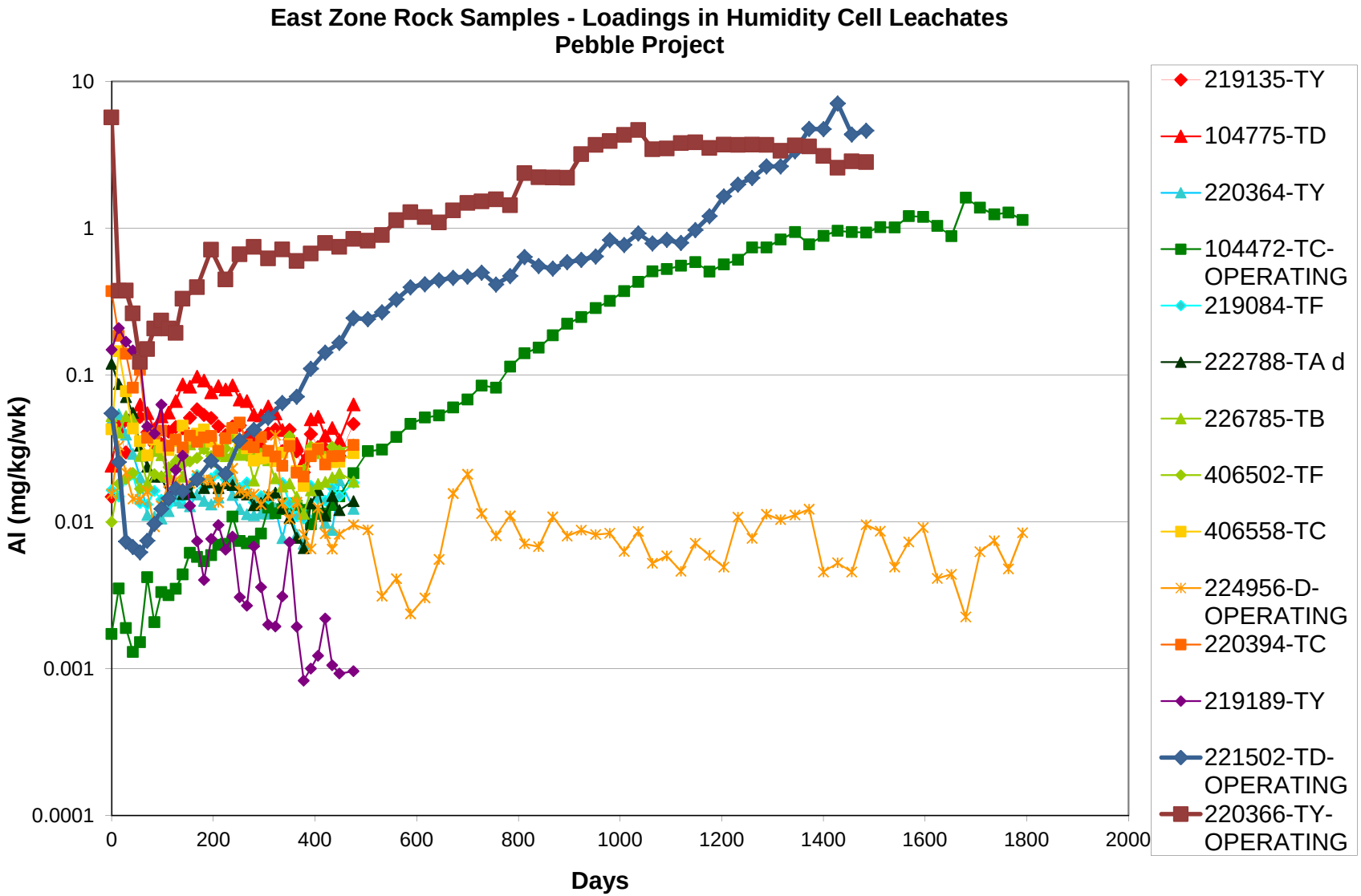

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
TDS (mg/kg/wk)
2500
2000
1500
1000
500
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

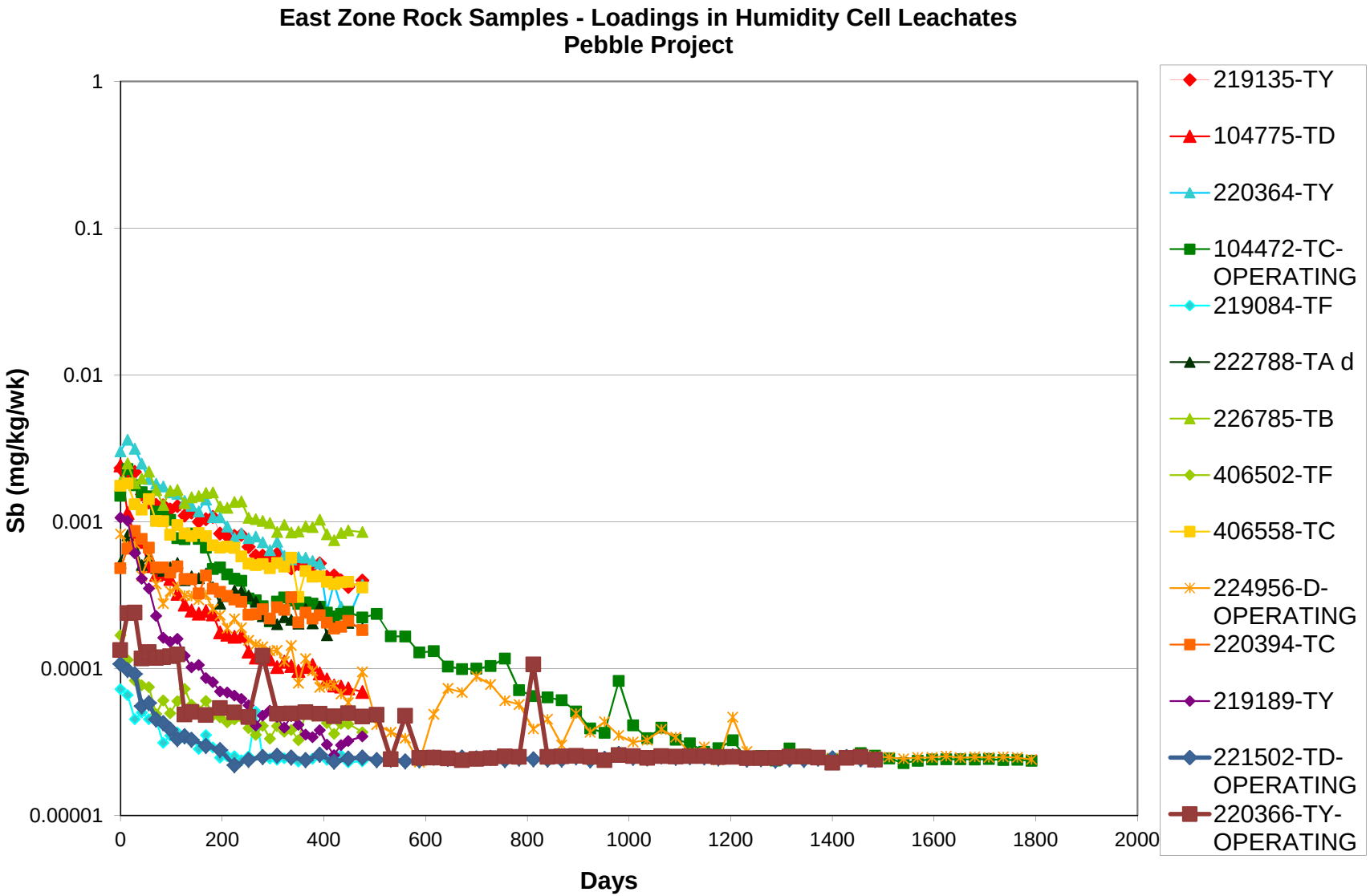

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Hardness (mgCaCO3/kg/wk)
1000
100
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

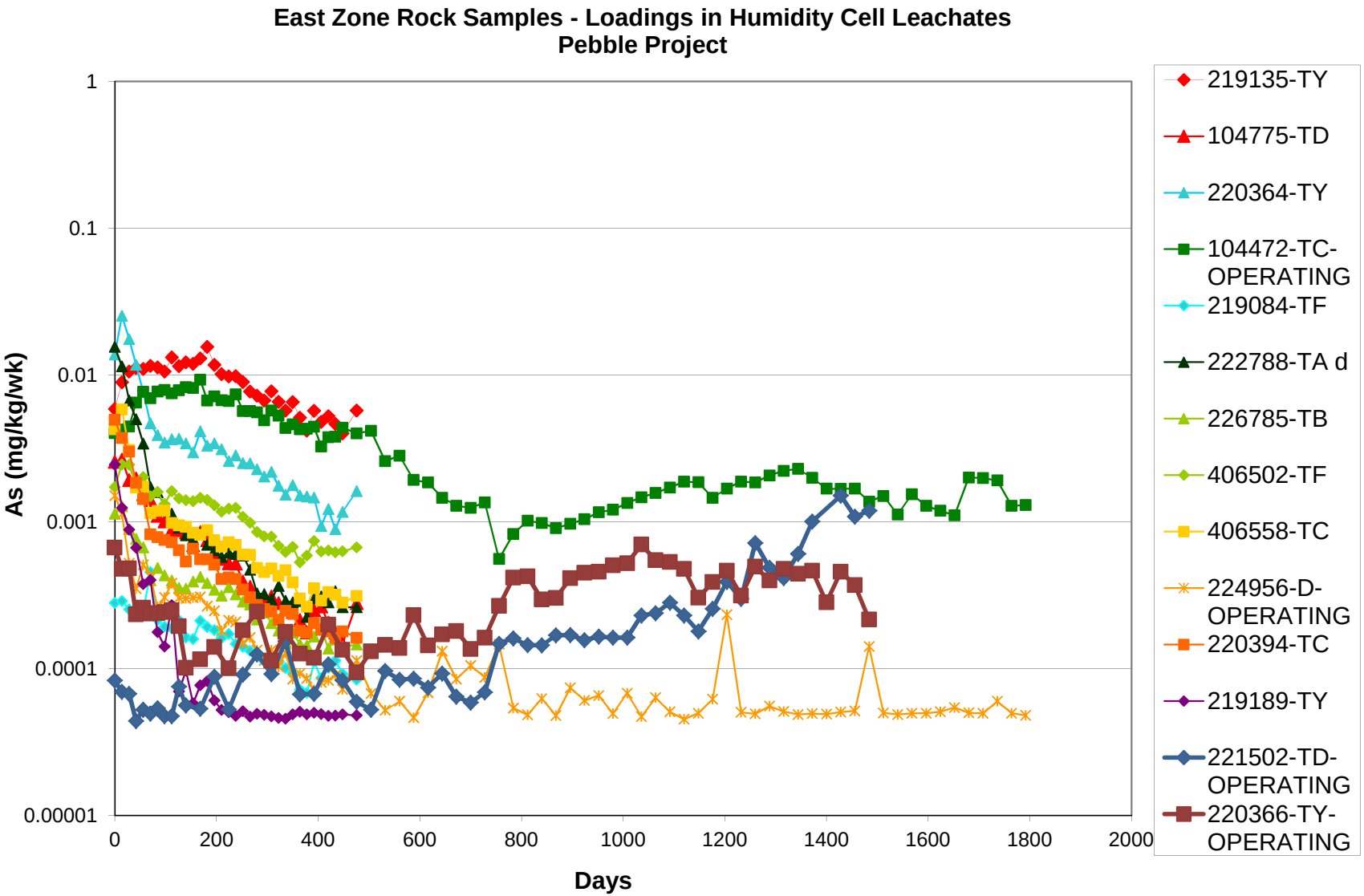

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cl (mg/kg/wk)
1000
100
10
1
0.1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

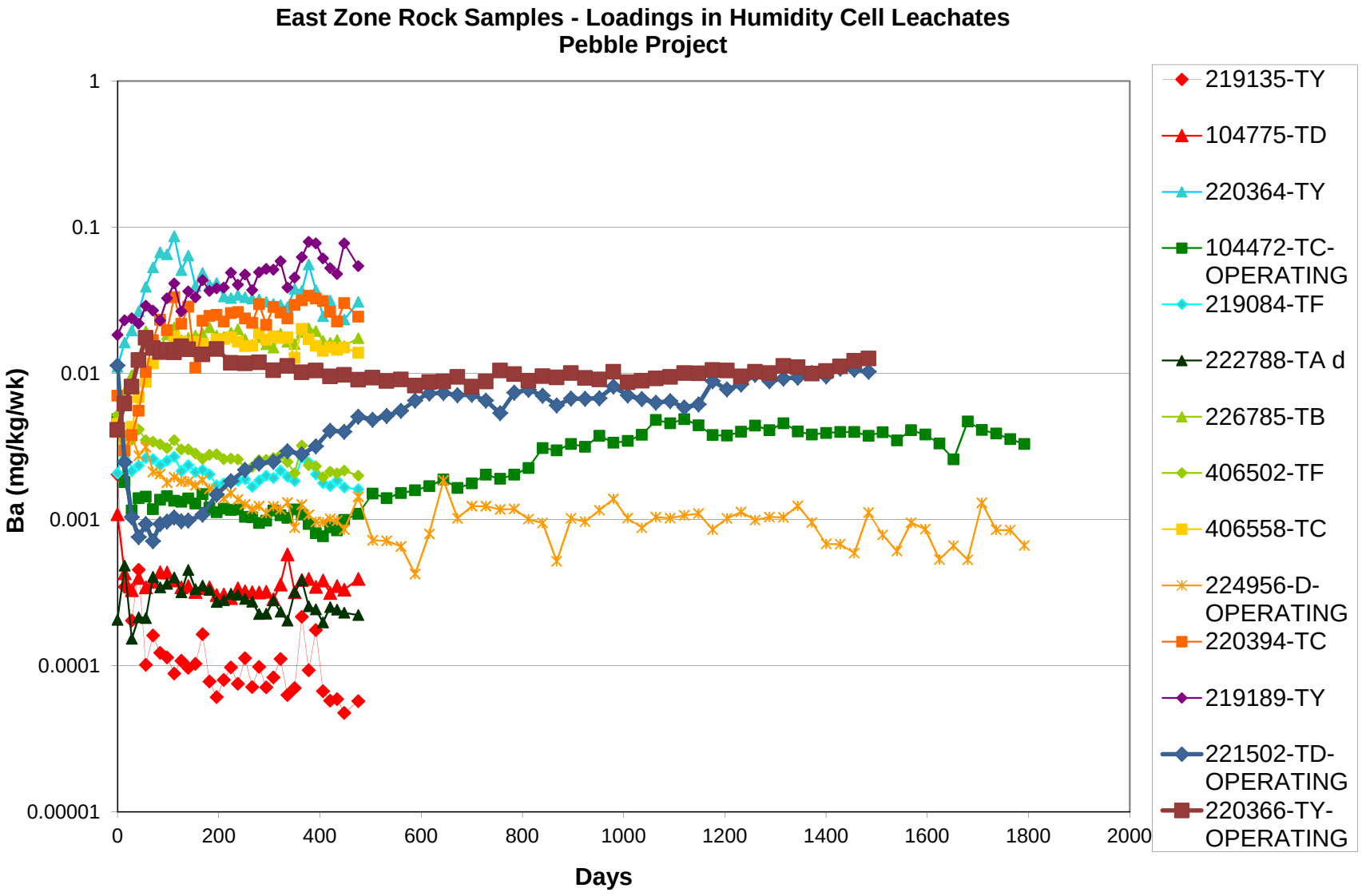

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
F (mg/kg/wk)
10
1
0.1
0.01
0.001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

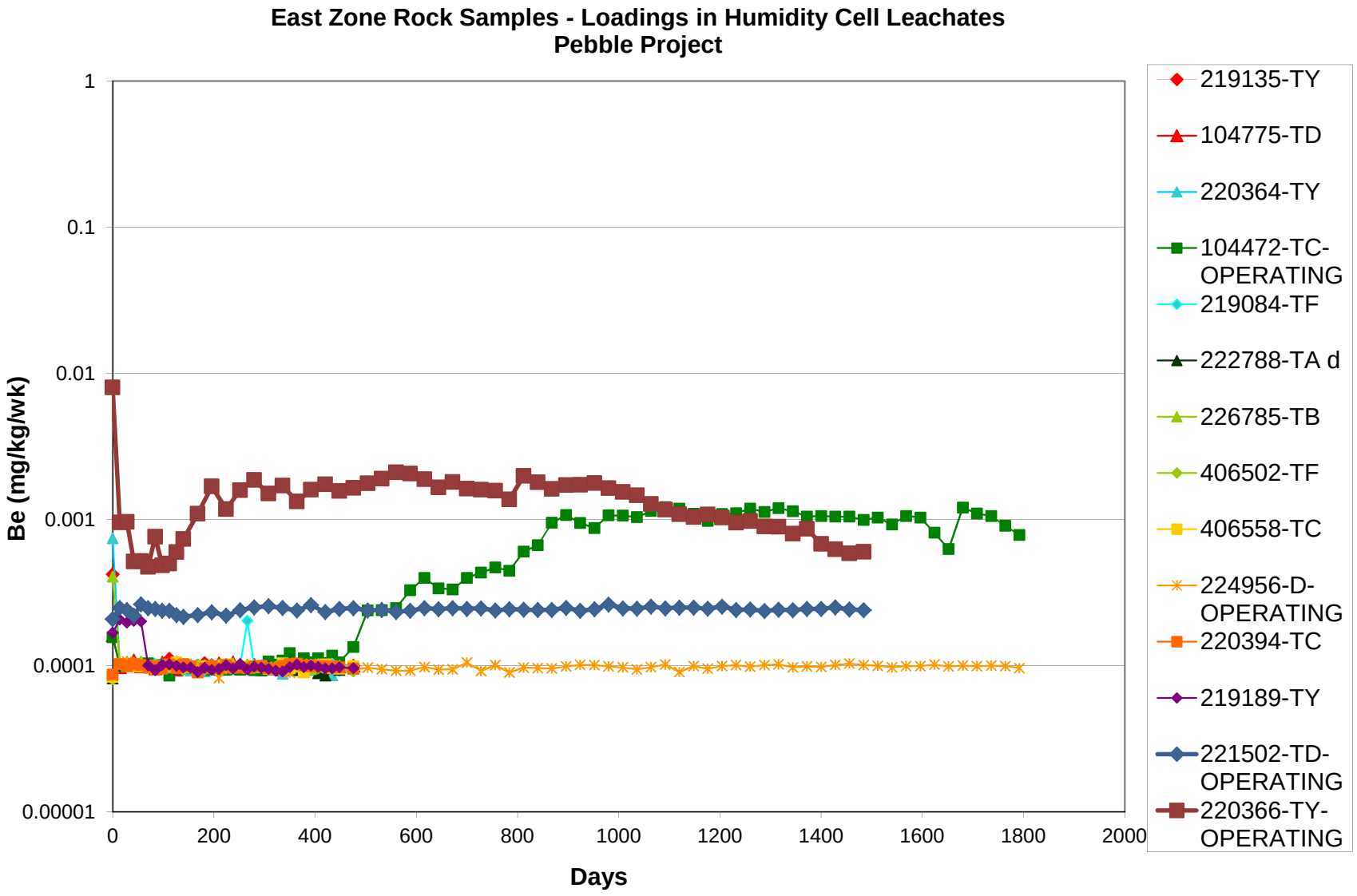

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
SO4 (mg/kg/wk)
10000
1000
100
10
1
0.1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

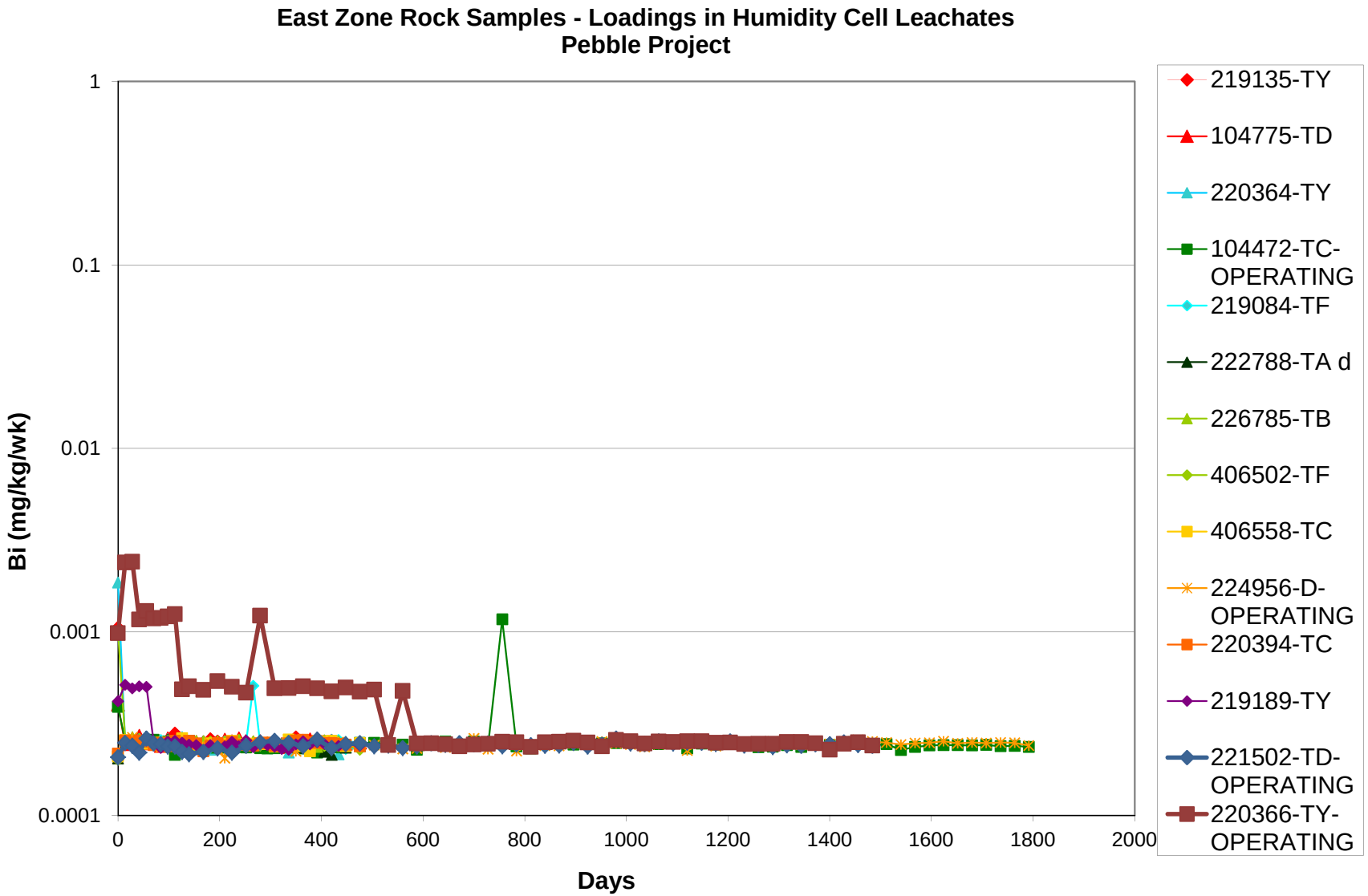

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Al (mg/kg/wk)
10
1
0.1
0.01
0.001
0.0001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

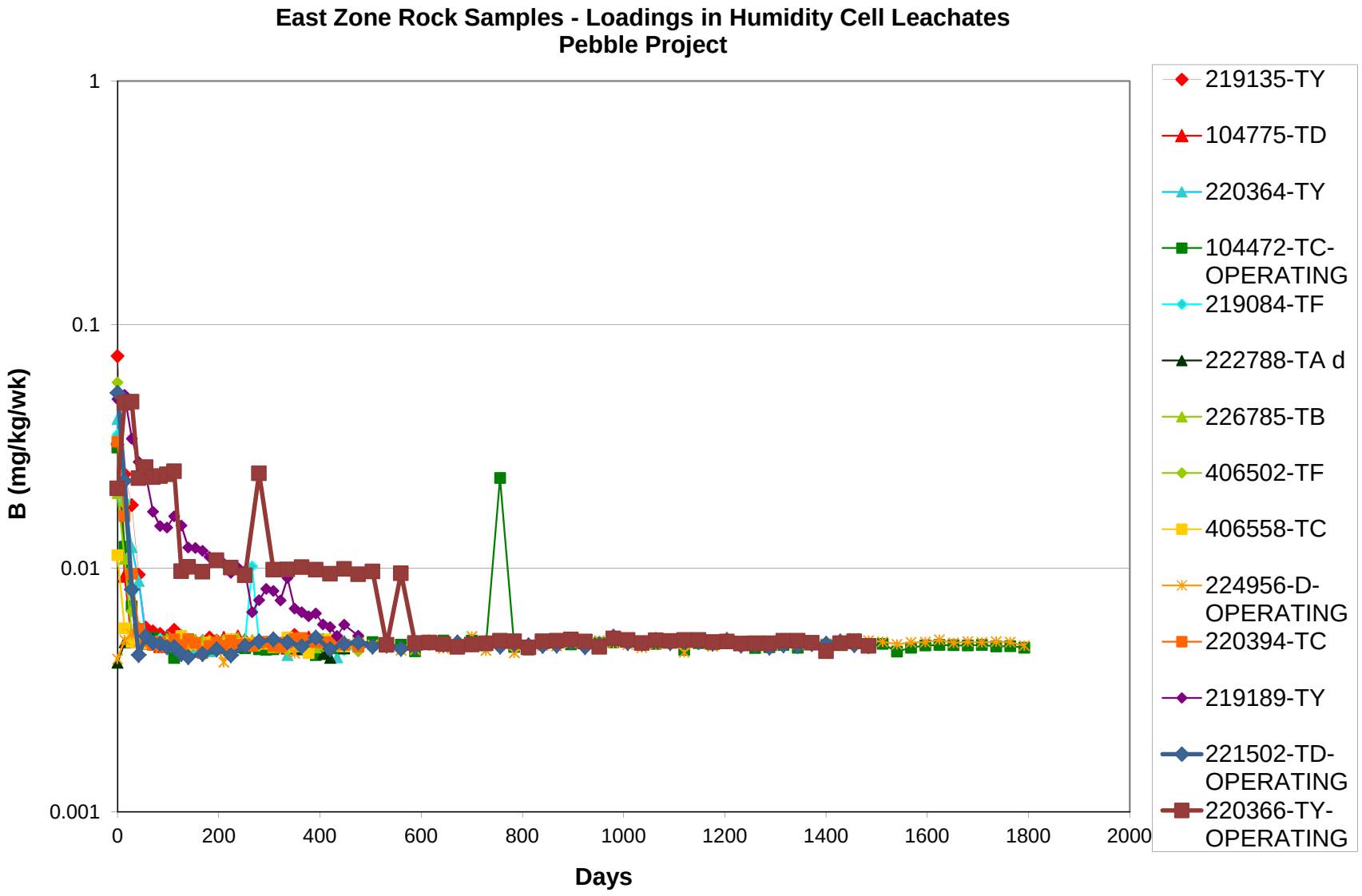

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Sb (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

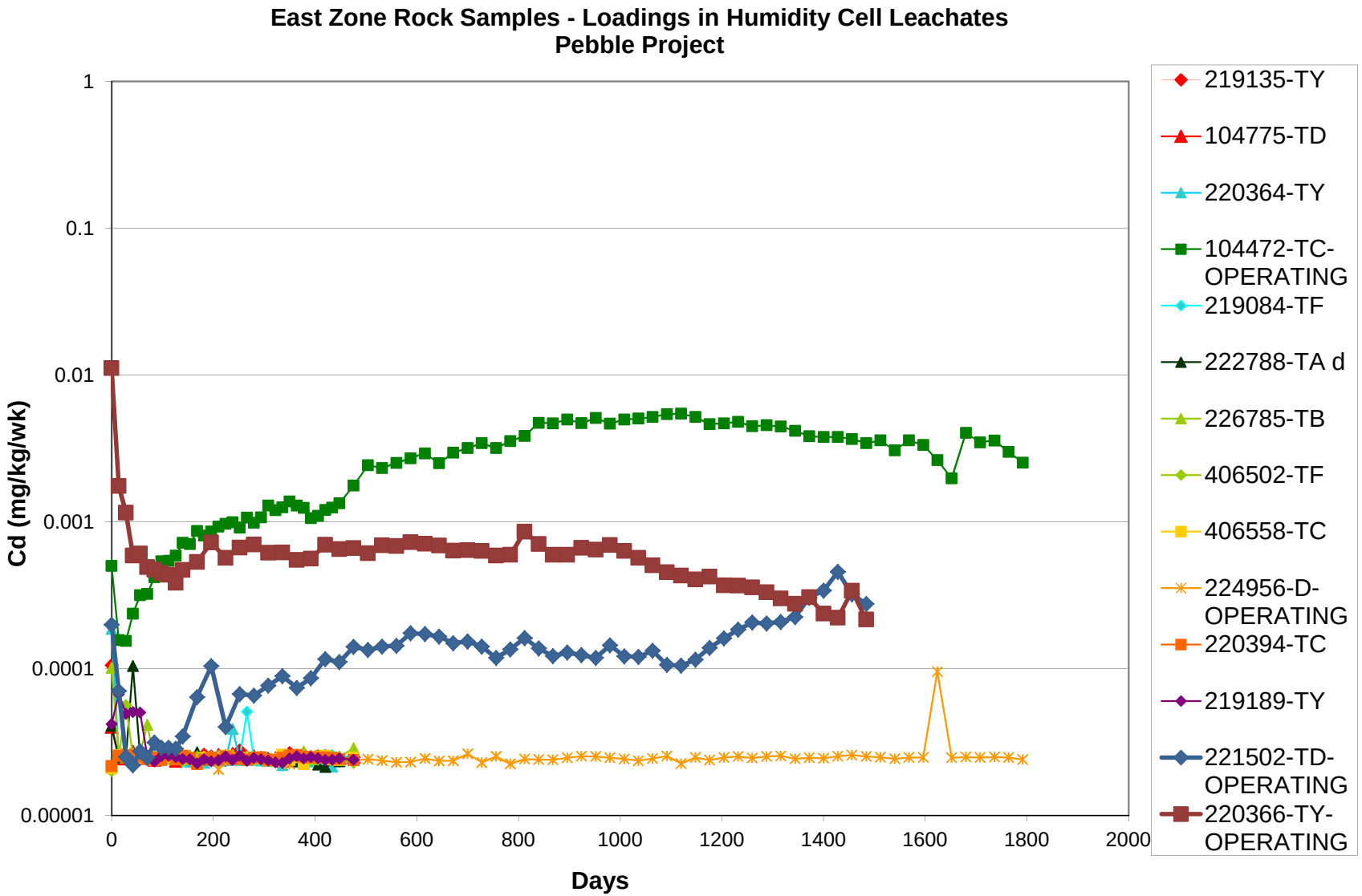

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
As (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

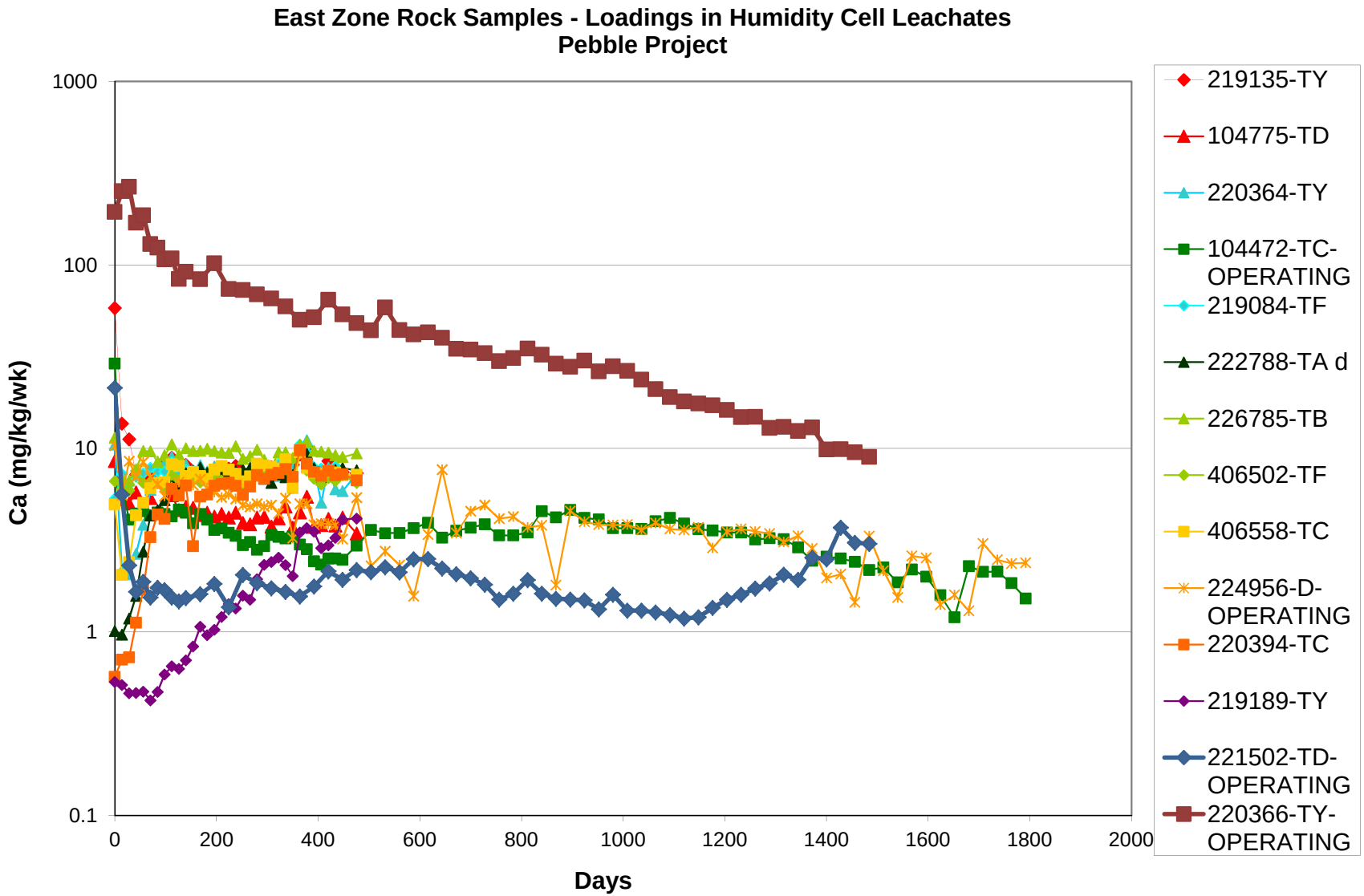

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ba (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

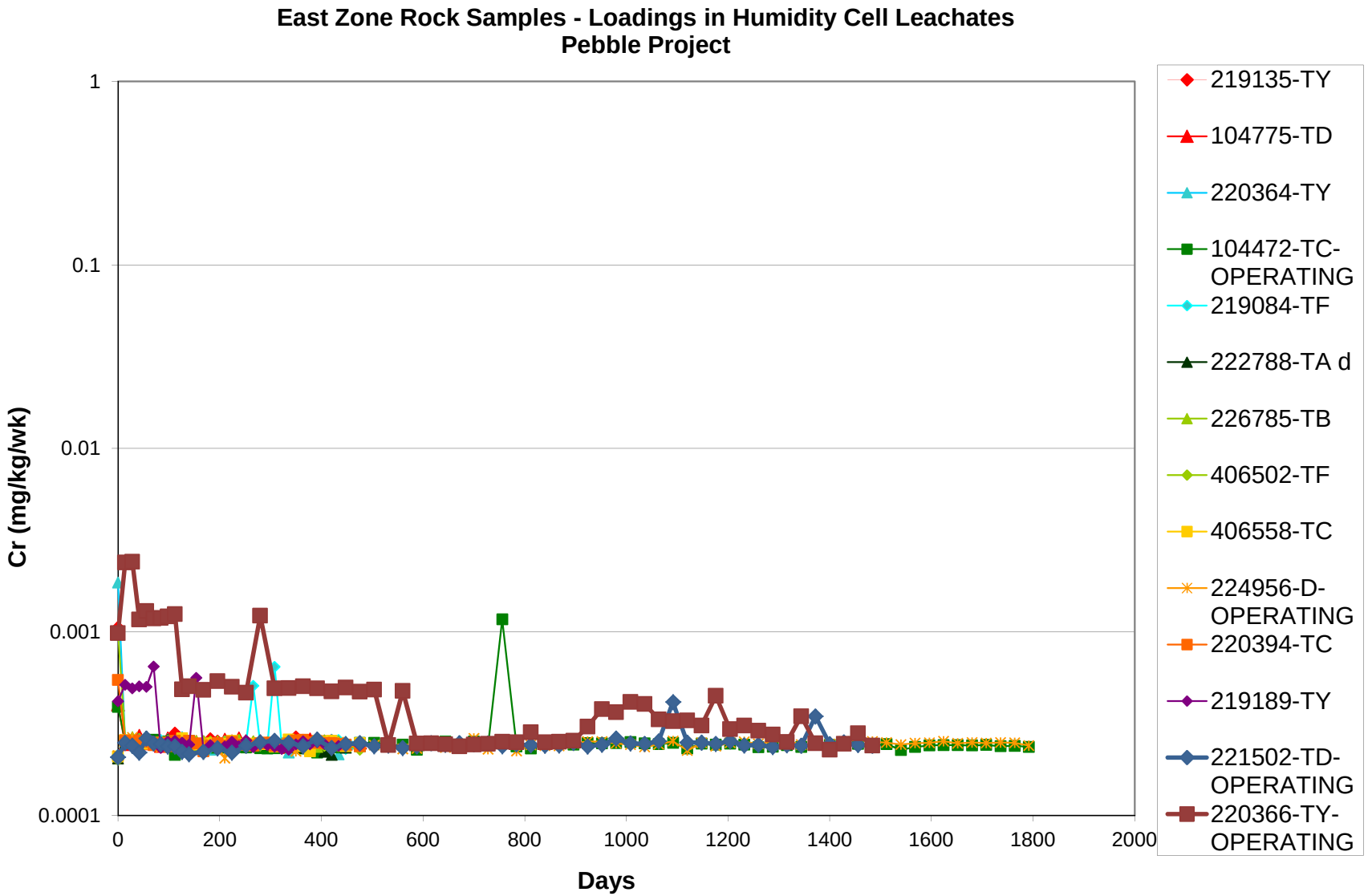

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Be (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

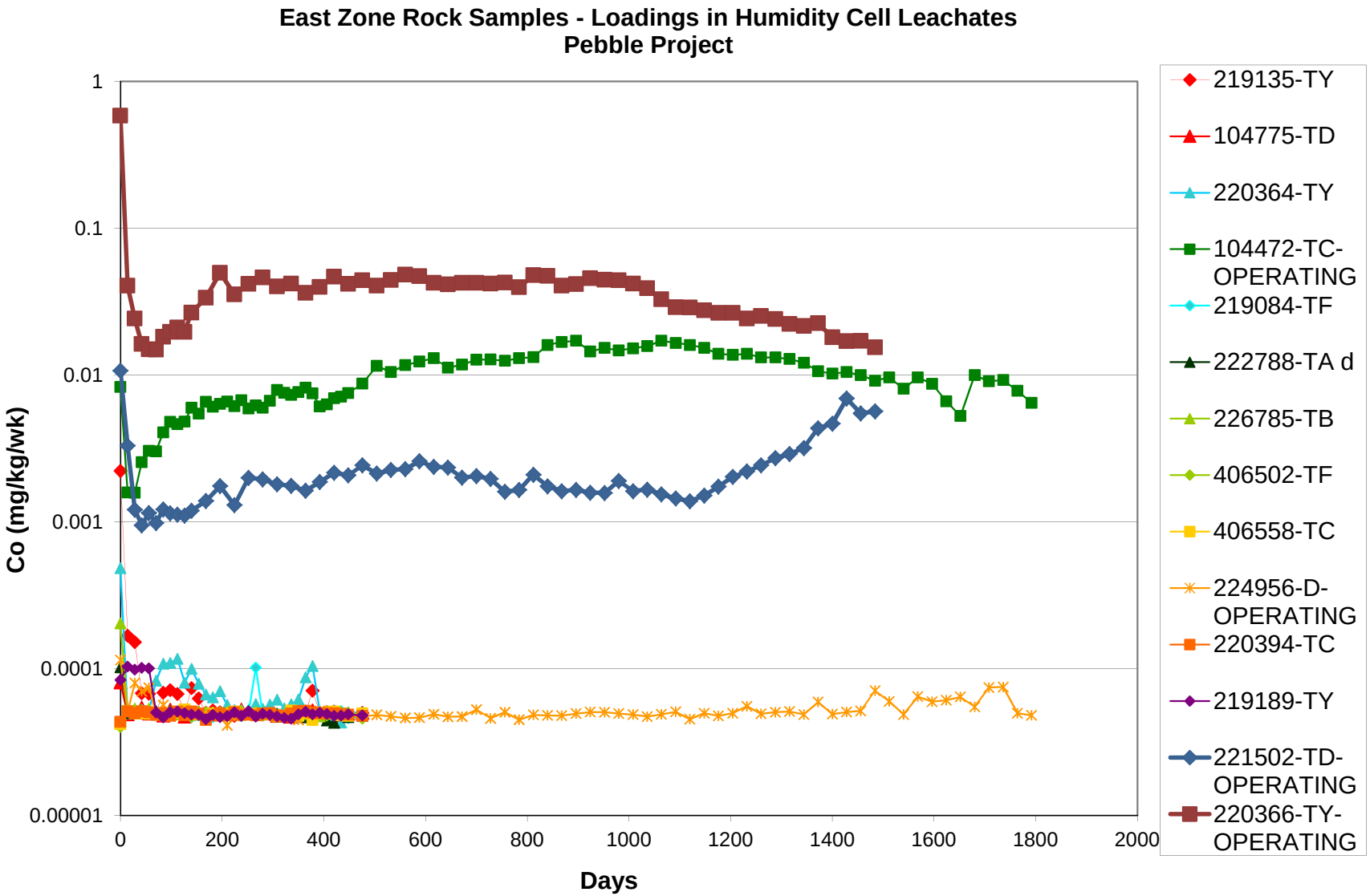

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Bi (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

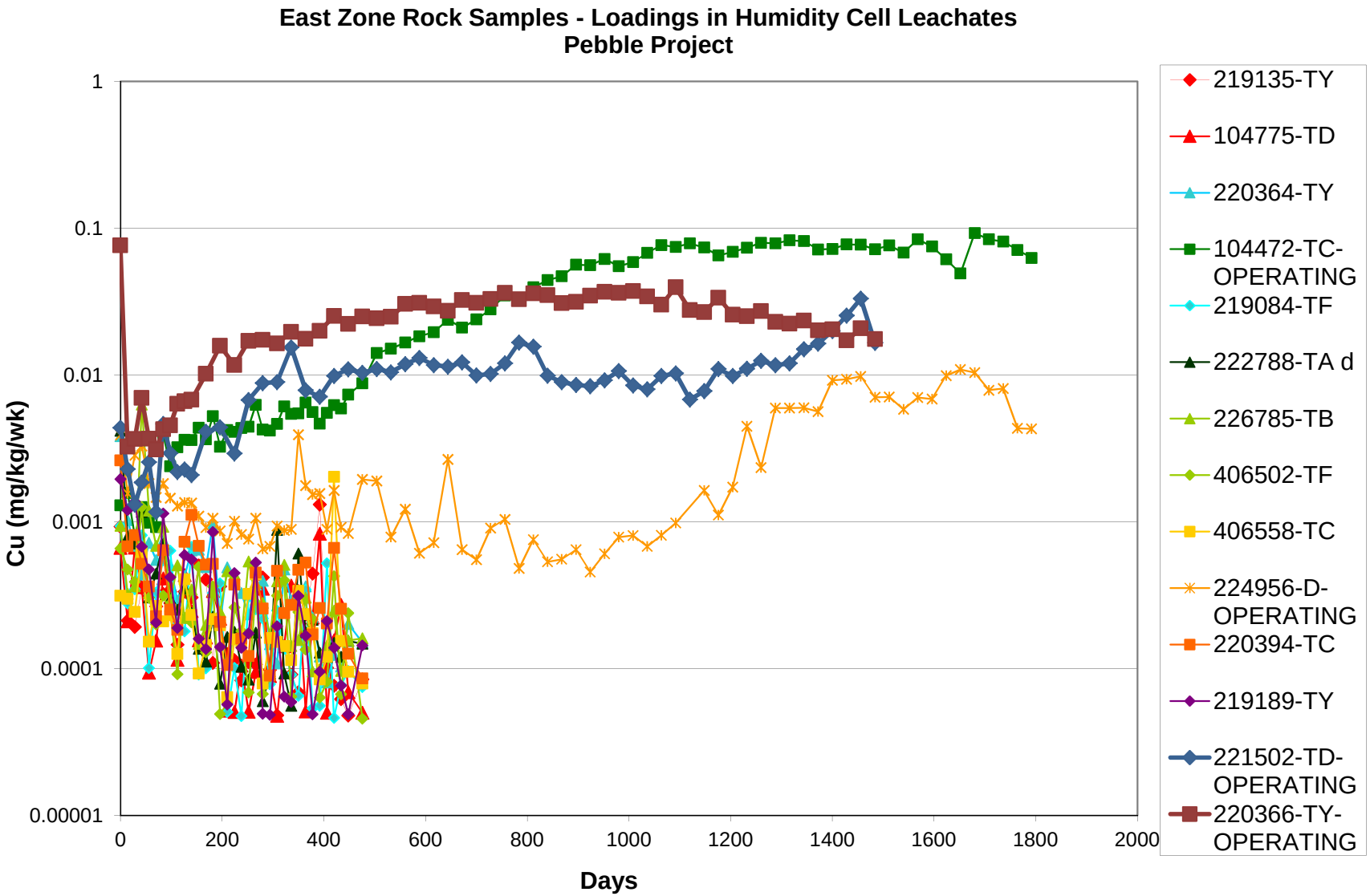

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
B (mg/kg/wk)
1
0.1
0.01
0.001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

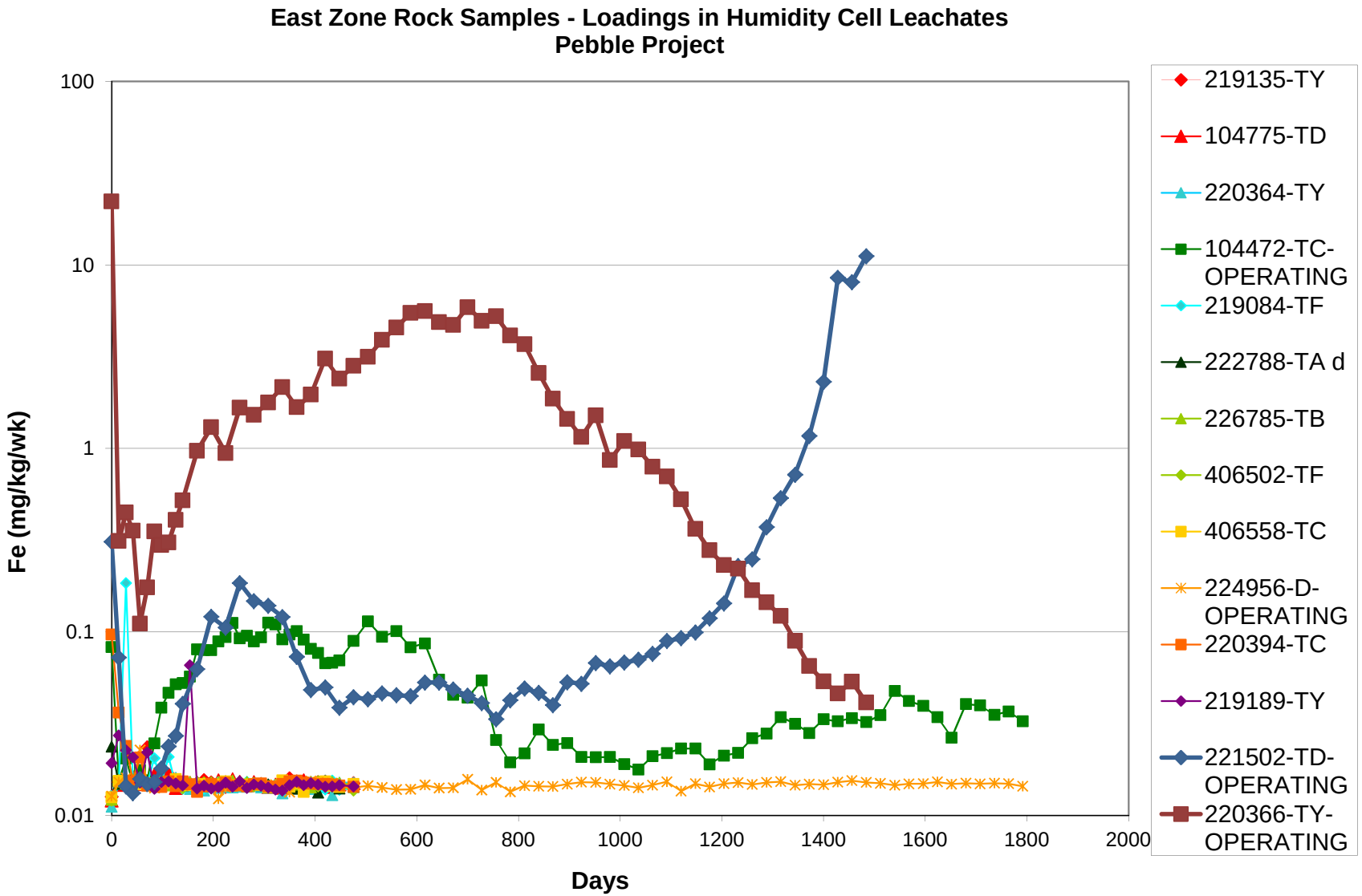

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cd (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

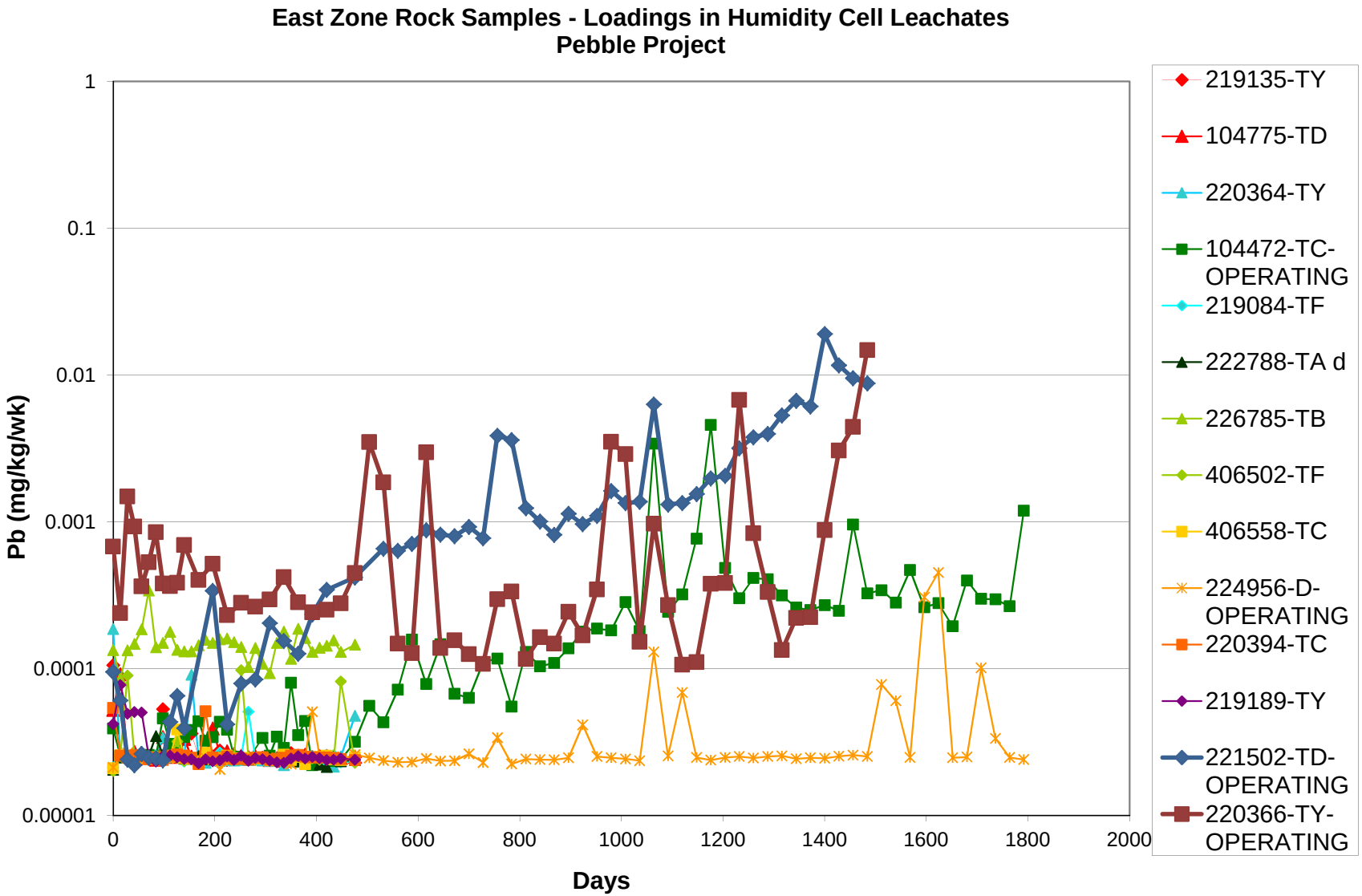

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ca (mg/kg/wk)
1000
100
10
1
0.1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

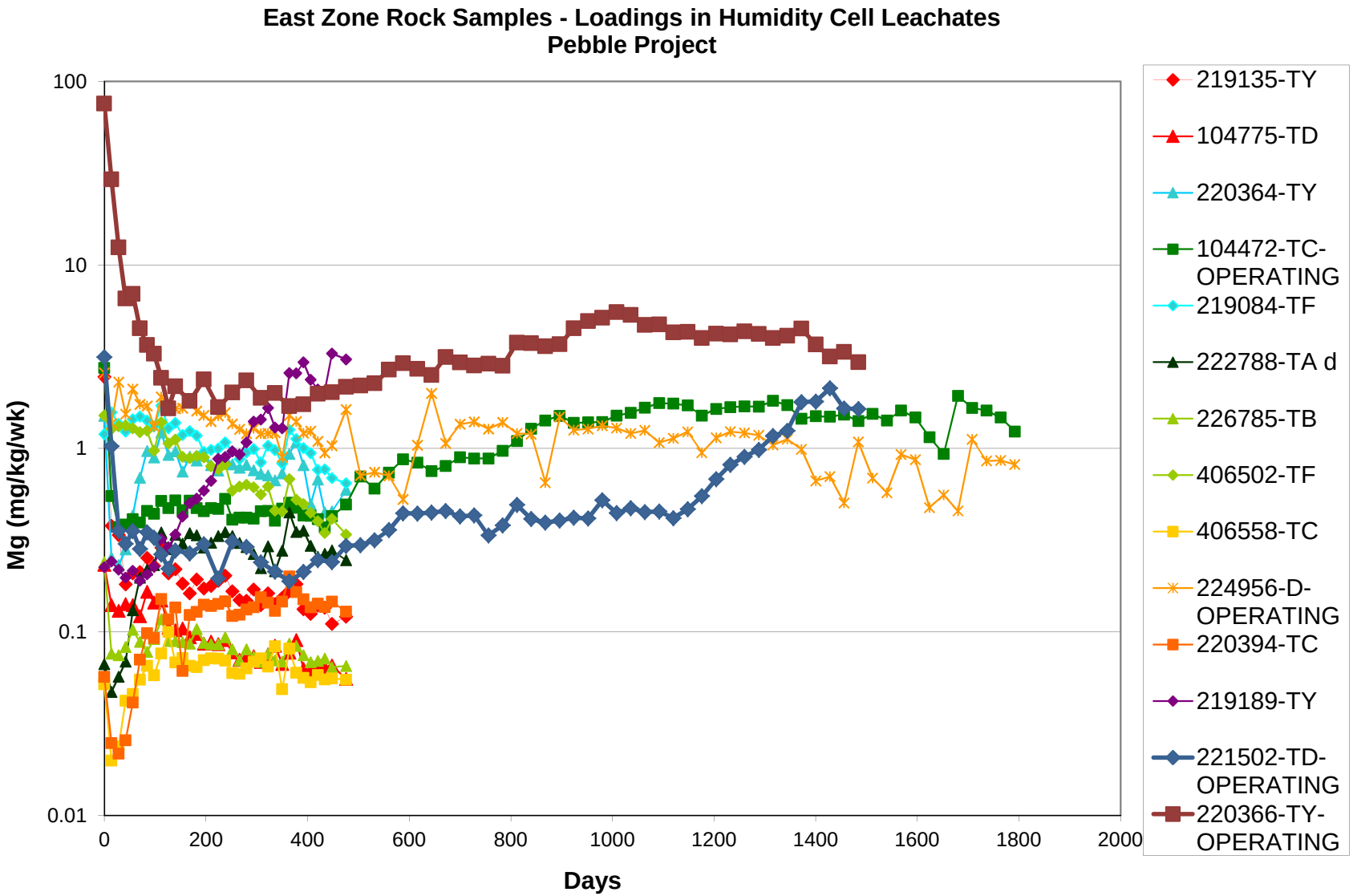

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cr (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

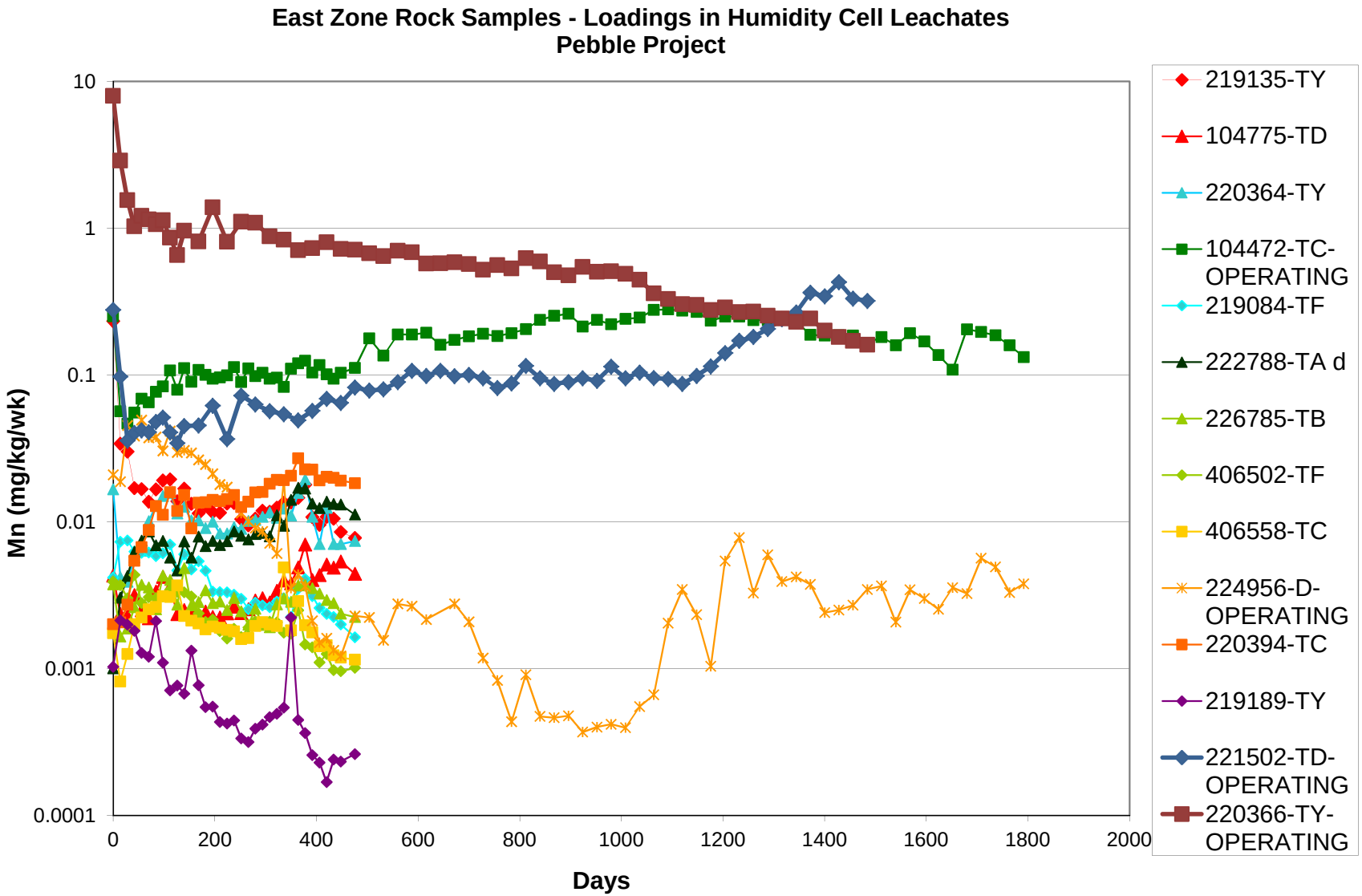

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Co (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

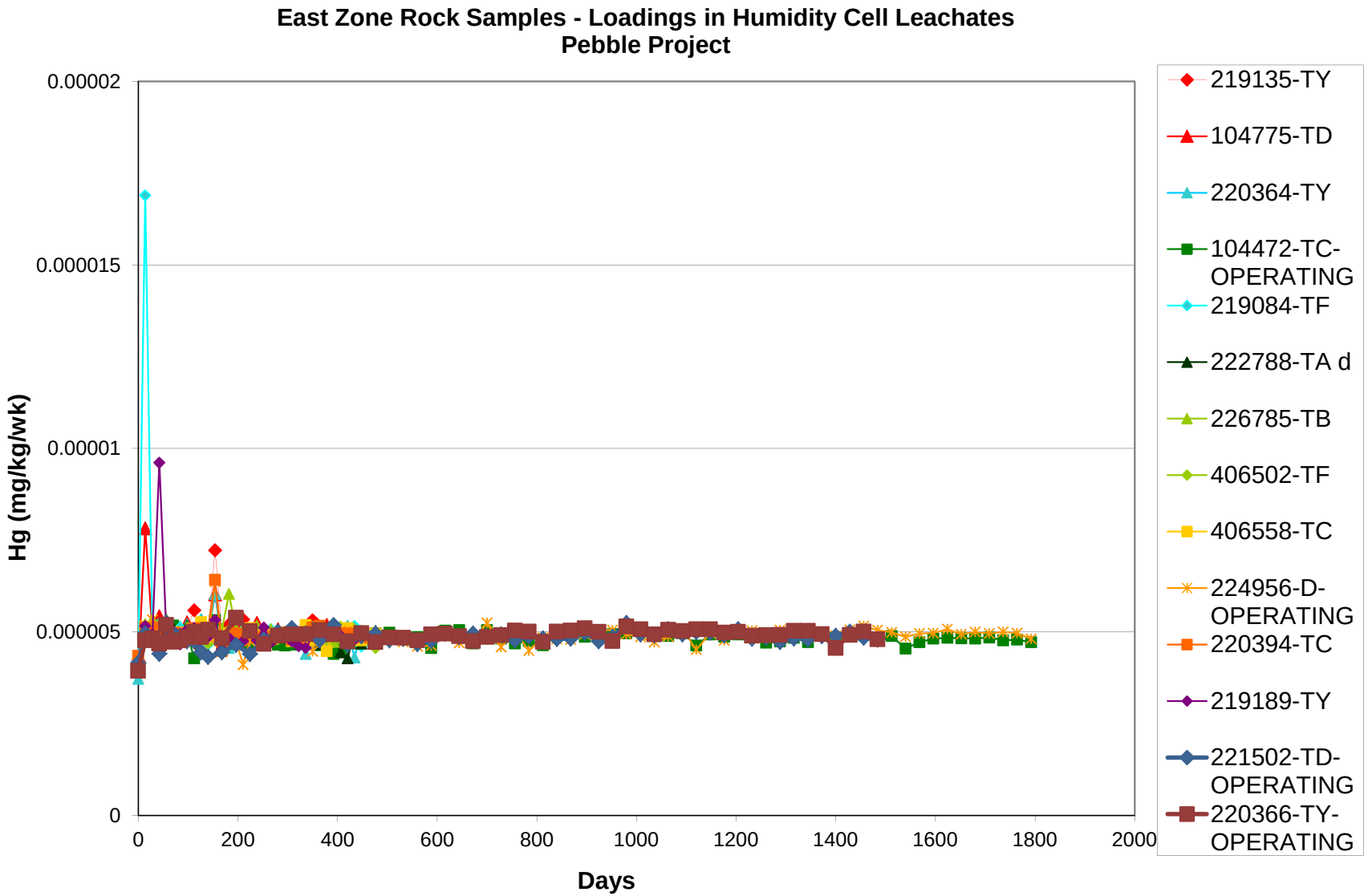

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cu (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

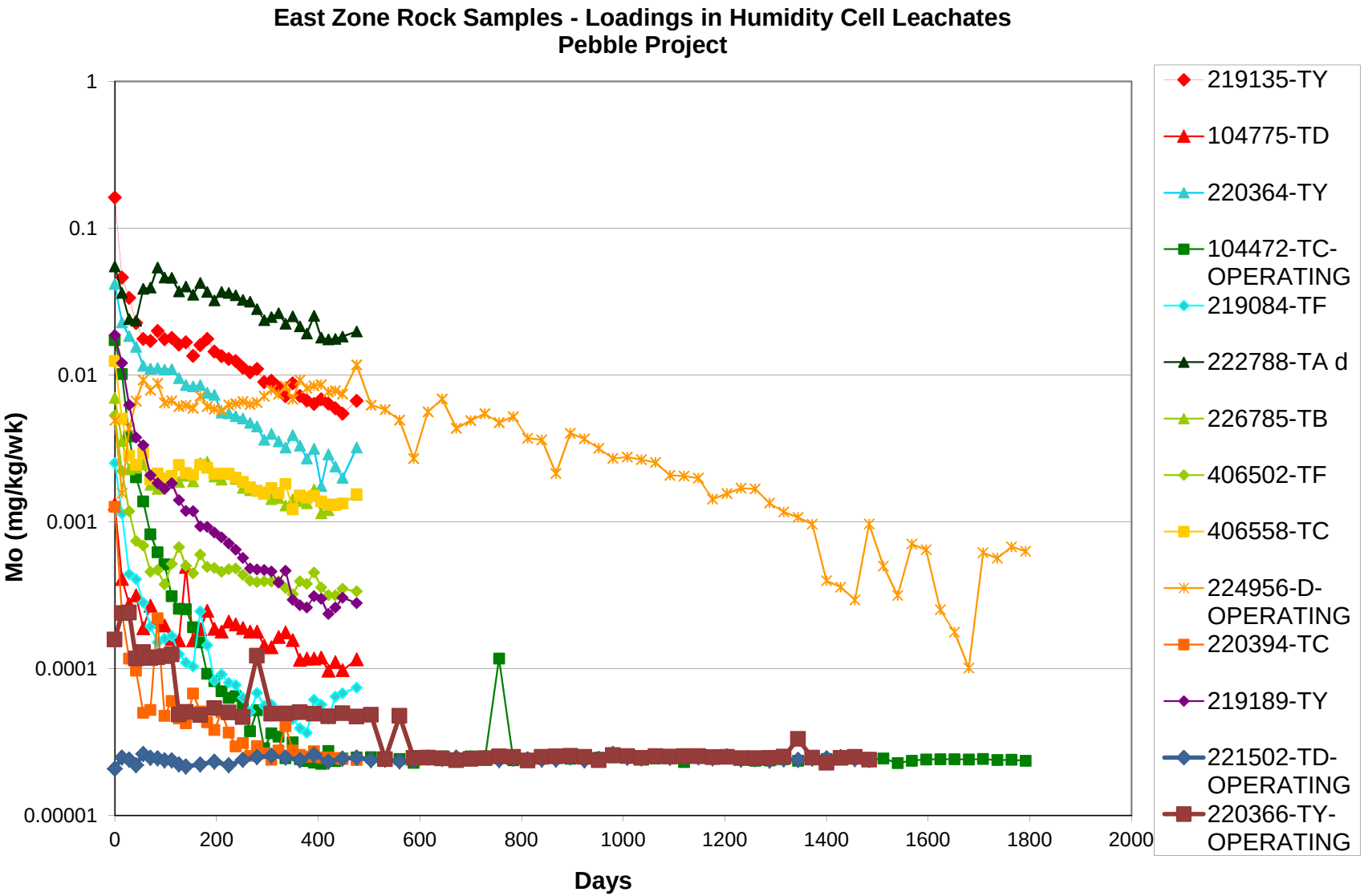

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Fe (mg/kg/wk)
100
10
1
0.1
0.01
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

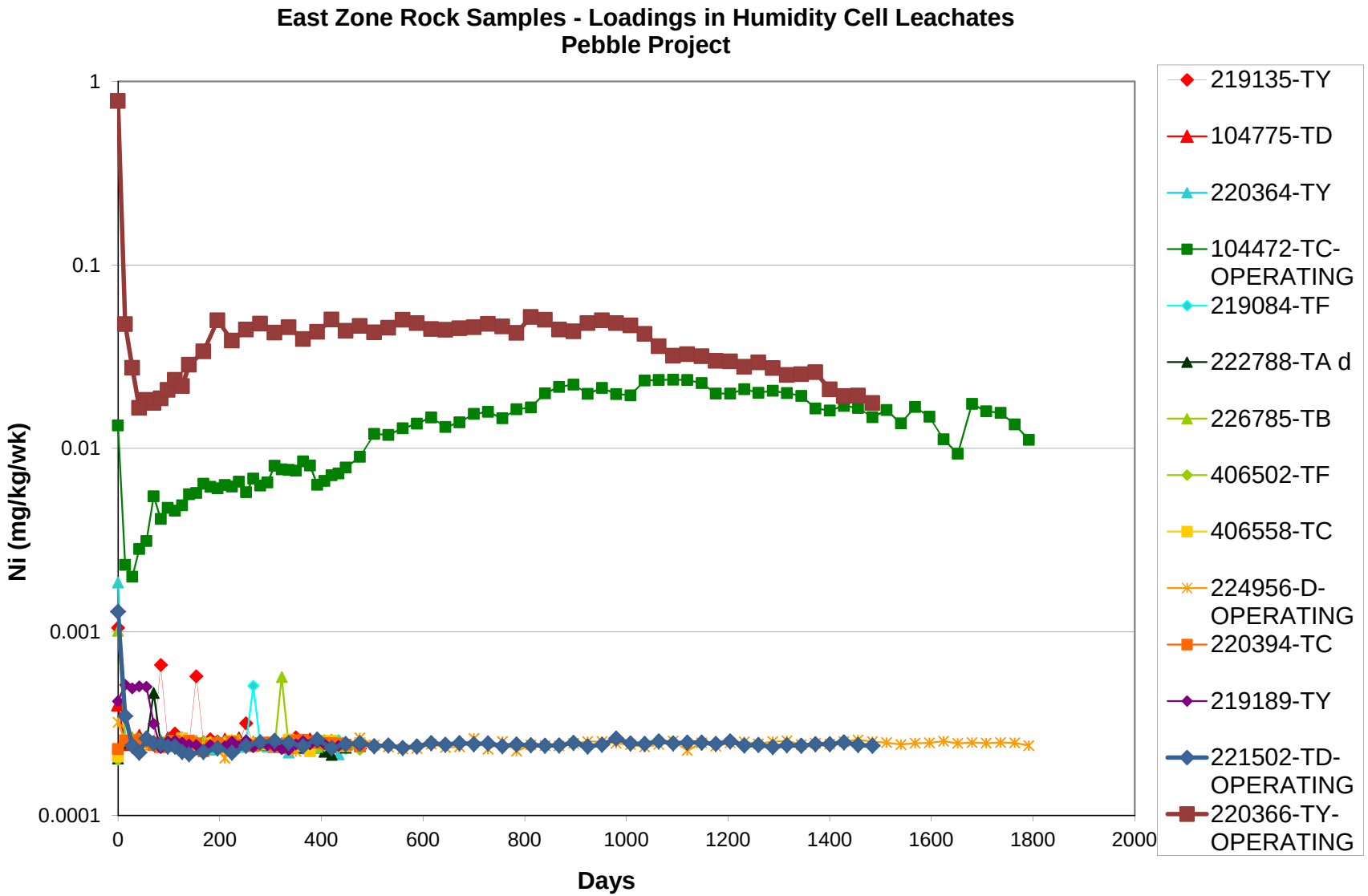

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Pb (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

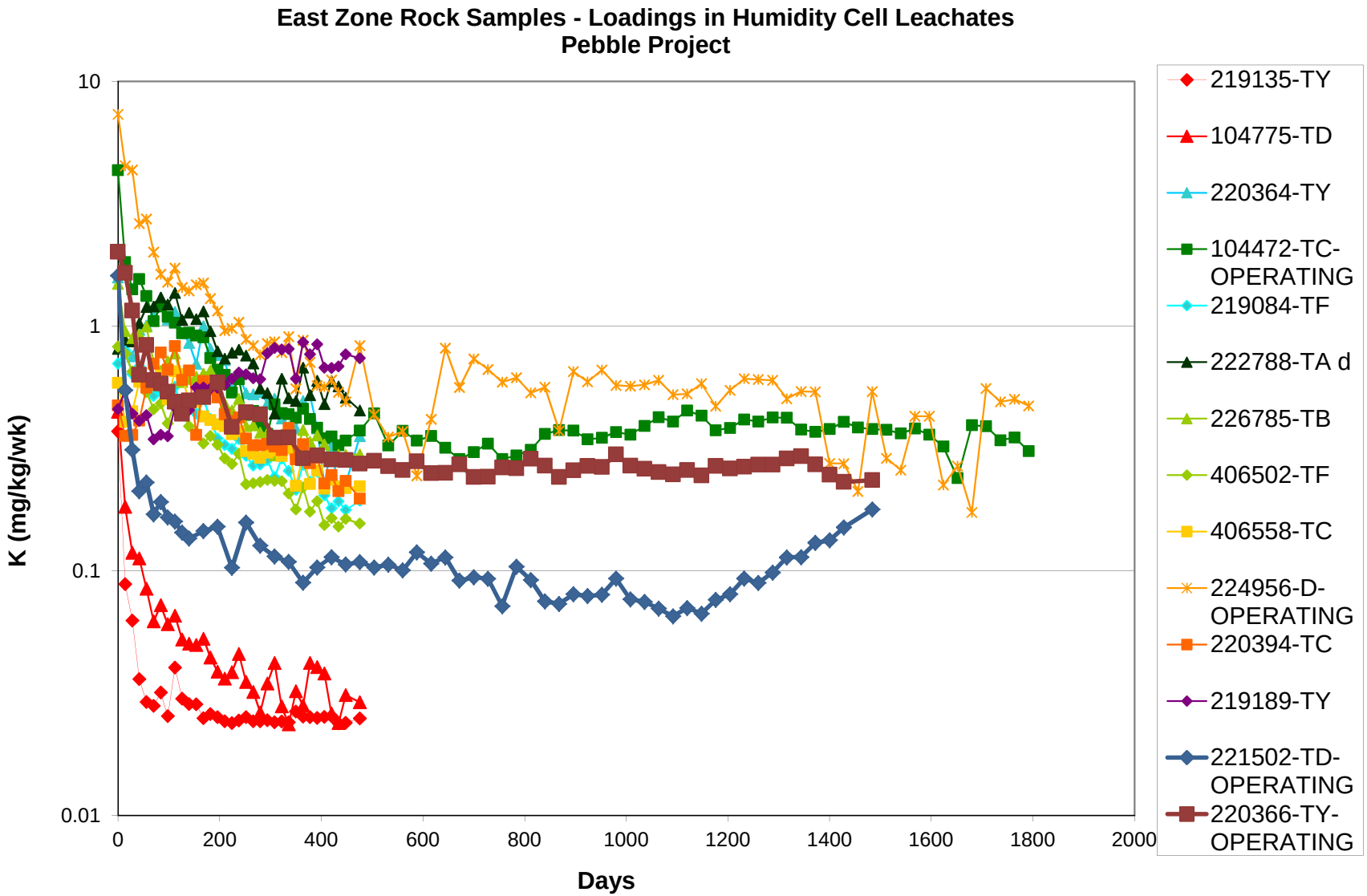

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mg (mg/kg/wk)
100
10
1
0.1
0.01
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

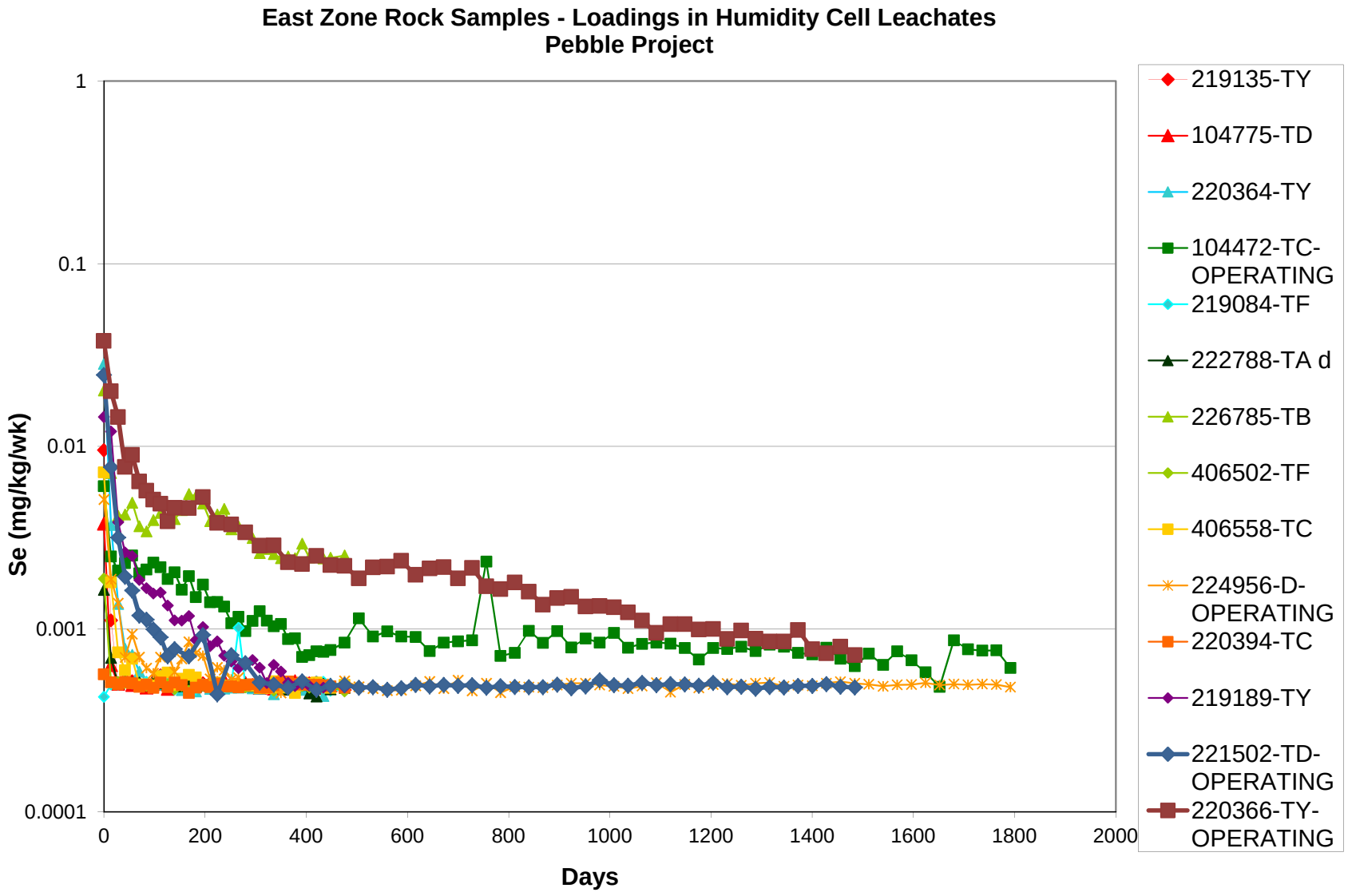

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mn (mg/kg/wk)
10
1
0.1
0.01
0.001
0.0001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

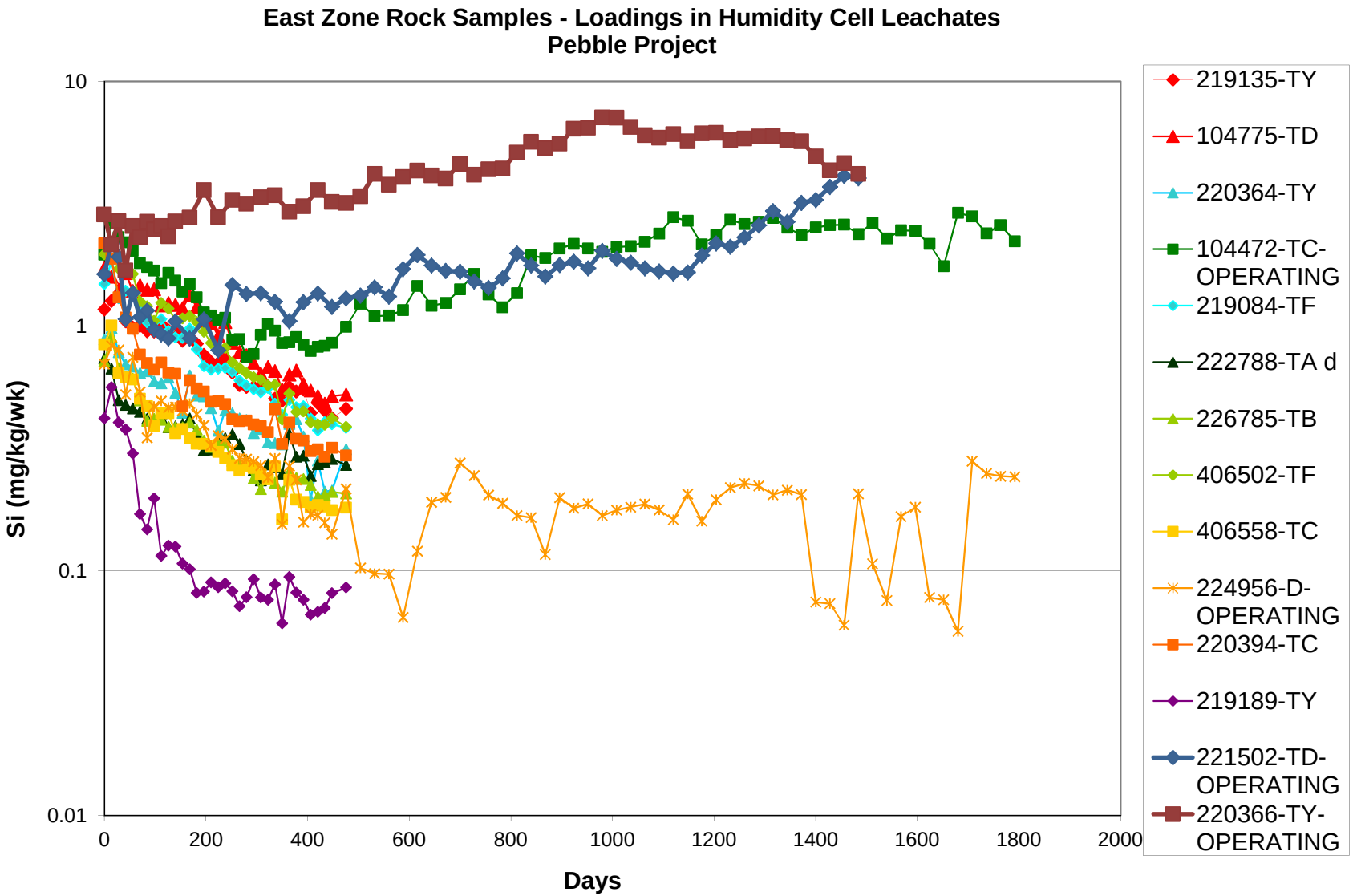

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Hg (mg/kg/wk)
0.00002
0.000015
0.00001
0.000005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

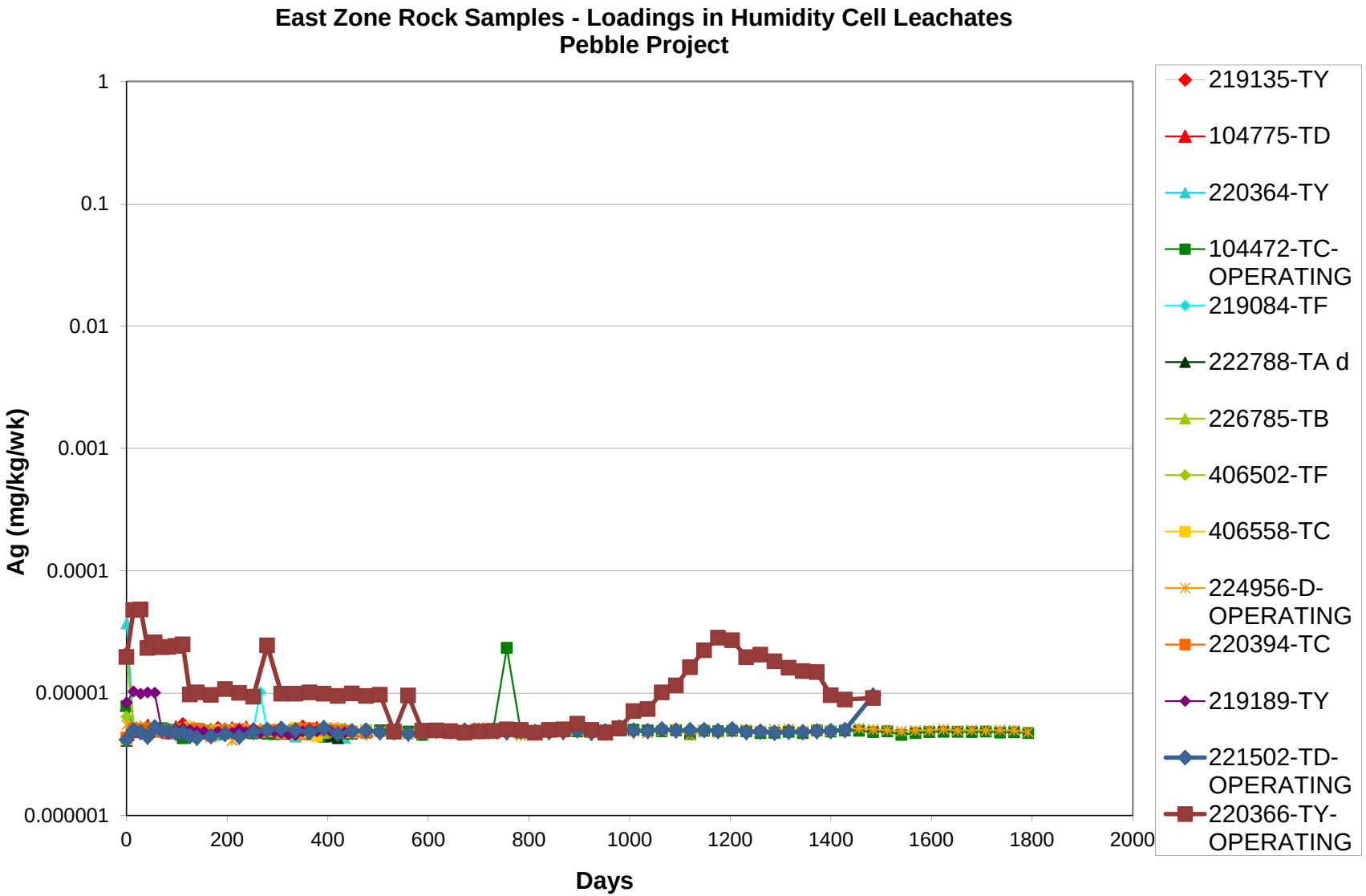

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mo (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

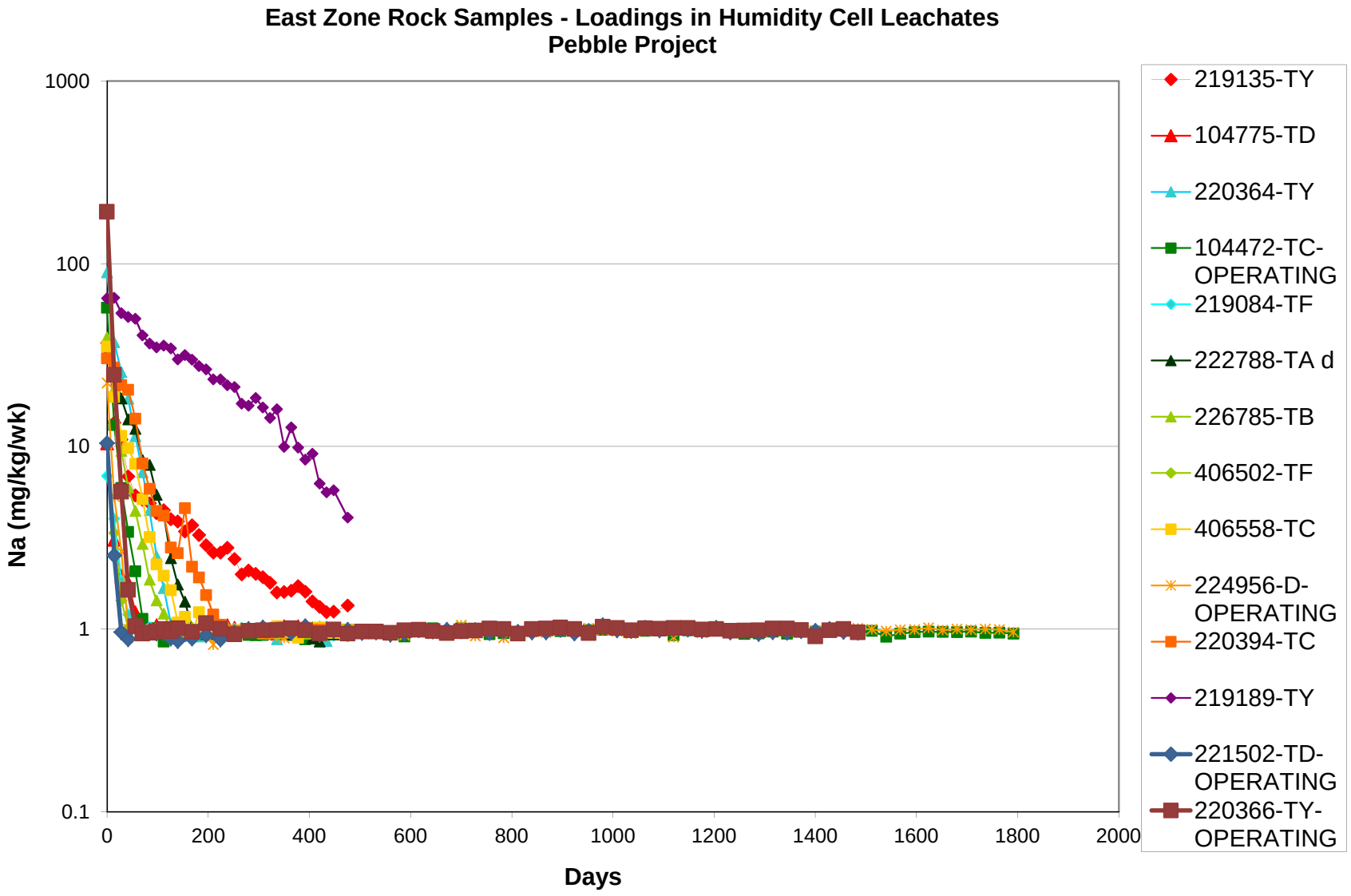

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ni (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

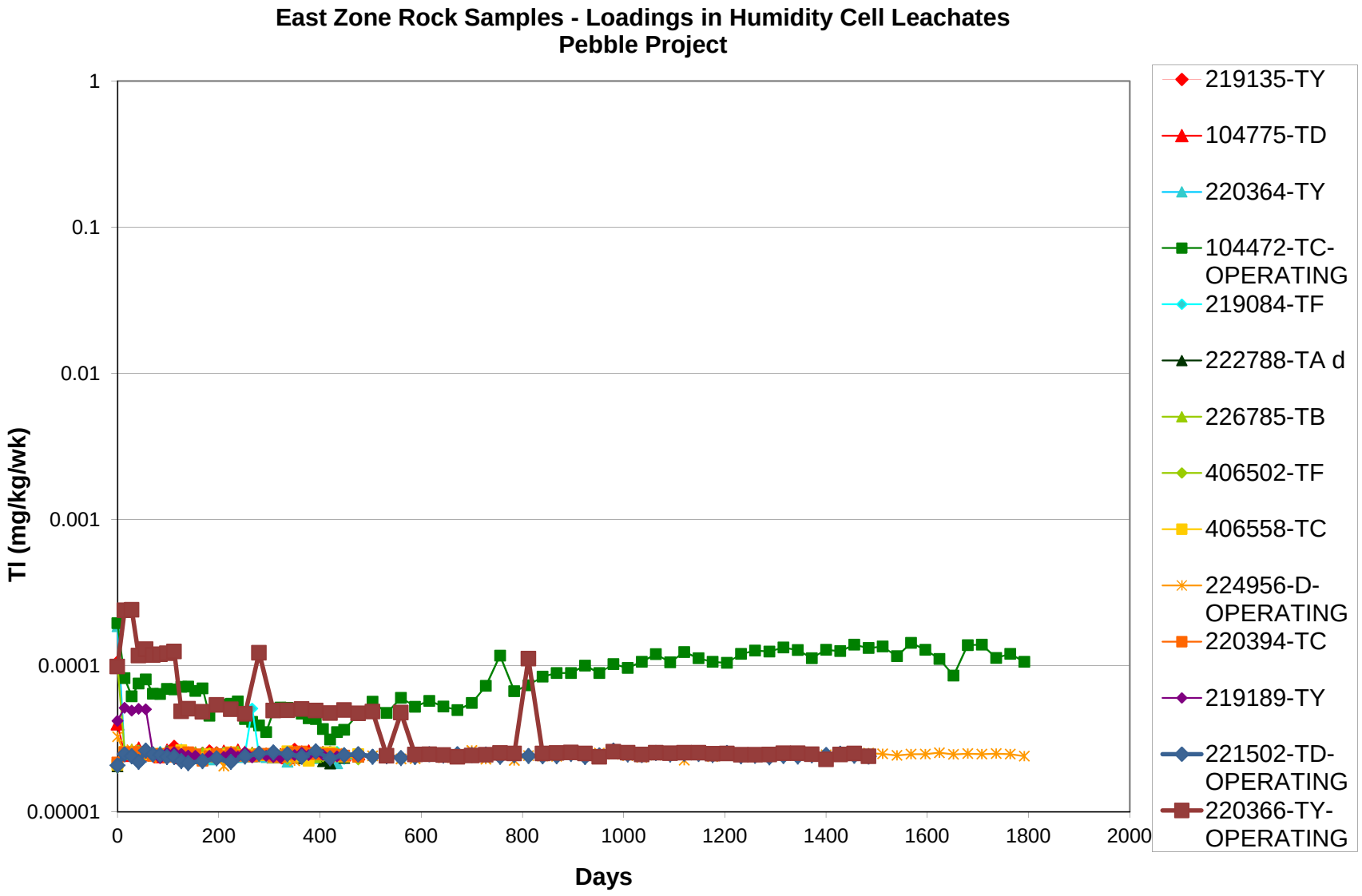

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
K (mg/kg/wk)
10
1
0.1
0.01
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

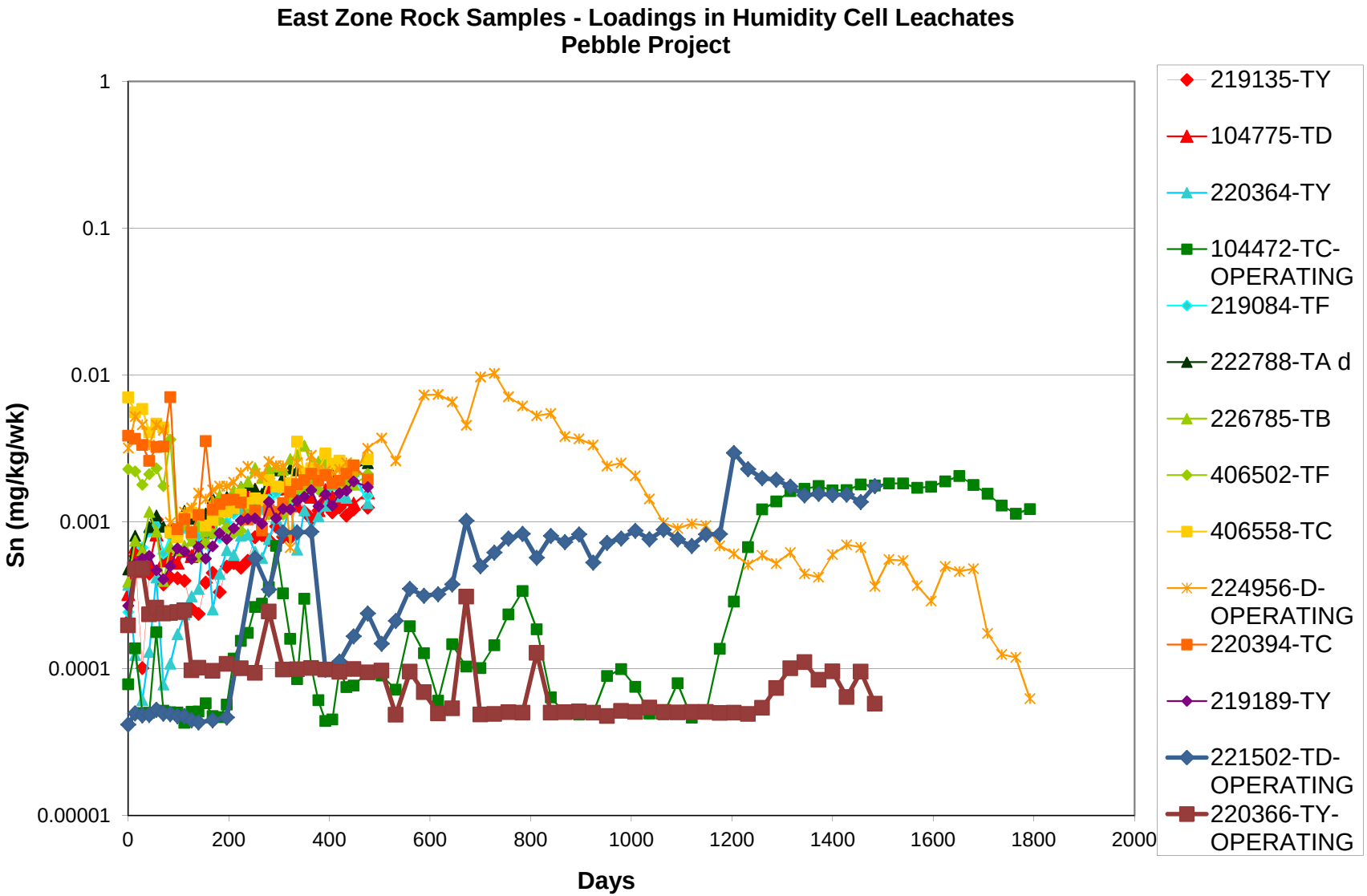

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Se (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

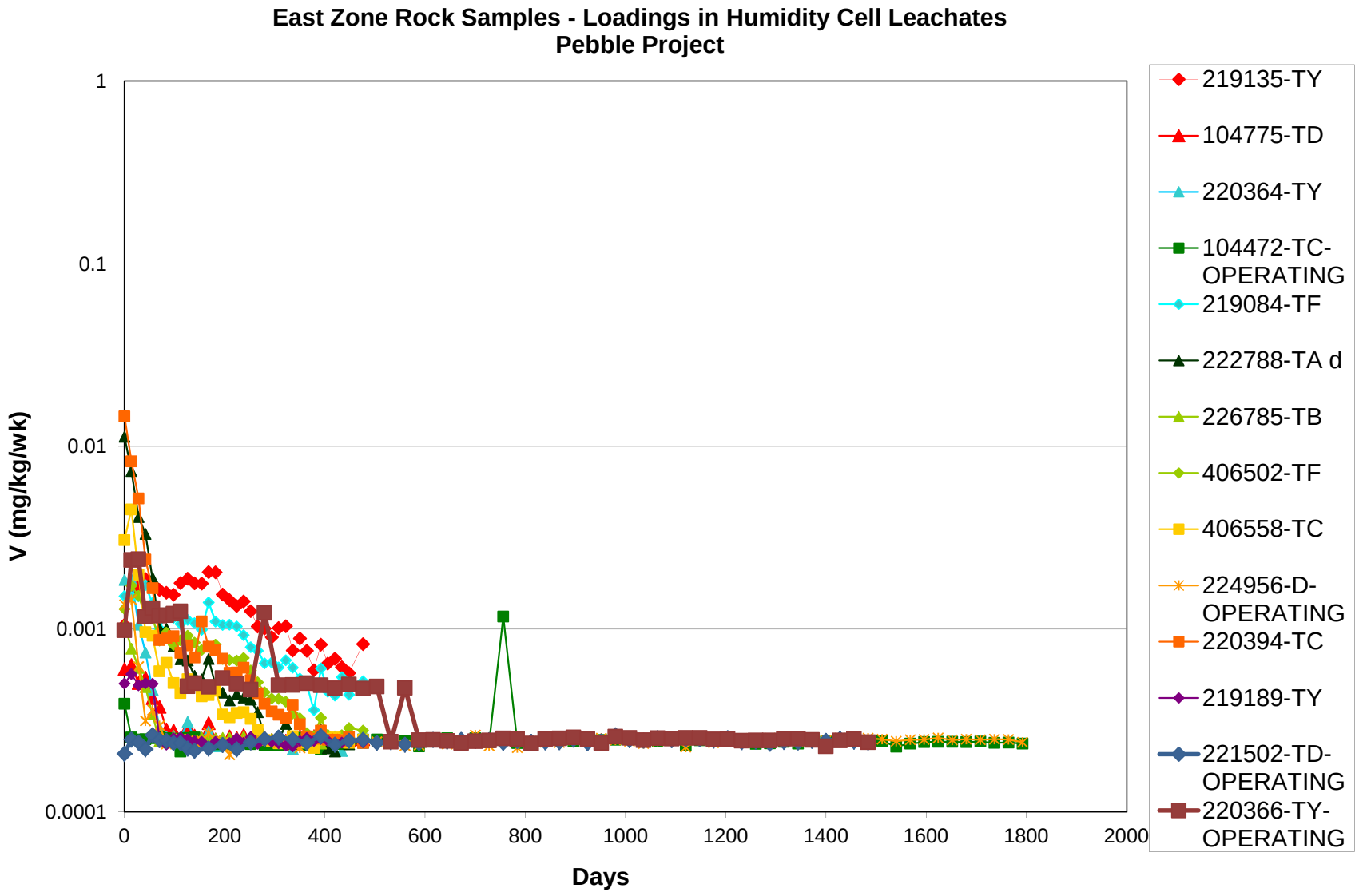

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Si (mg/kg/wk)
10
1
0.1
0.01
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

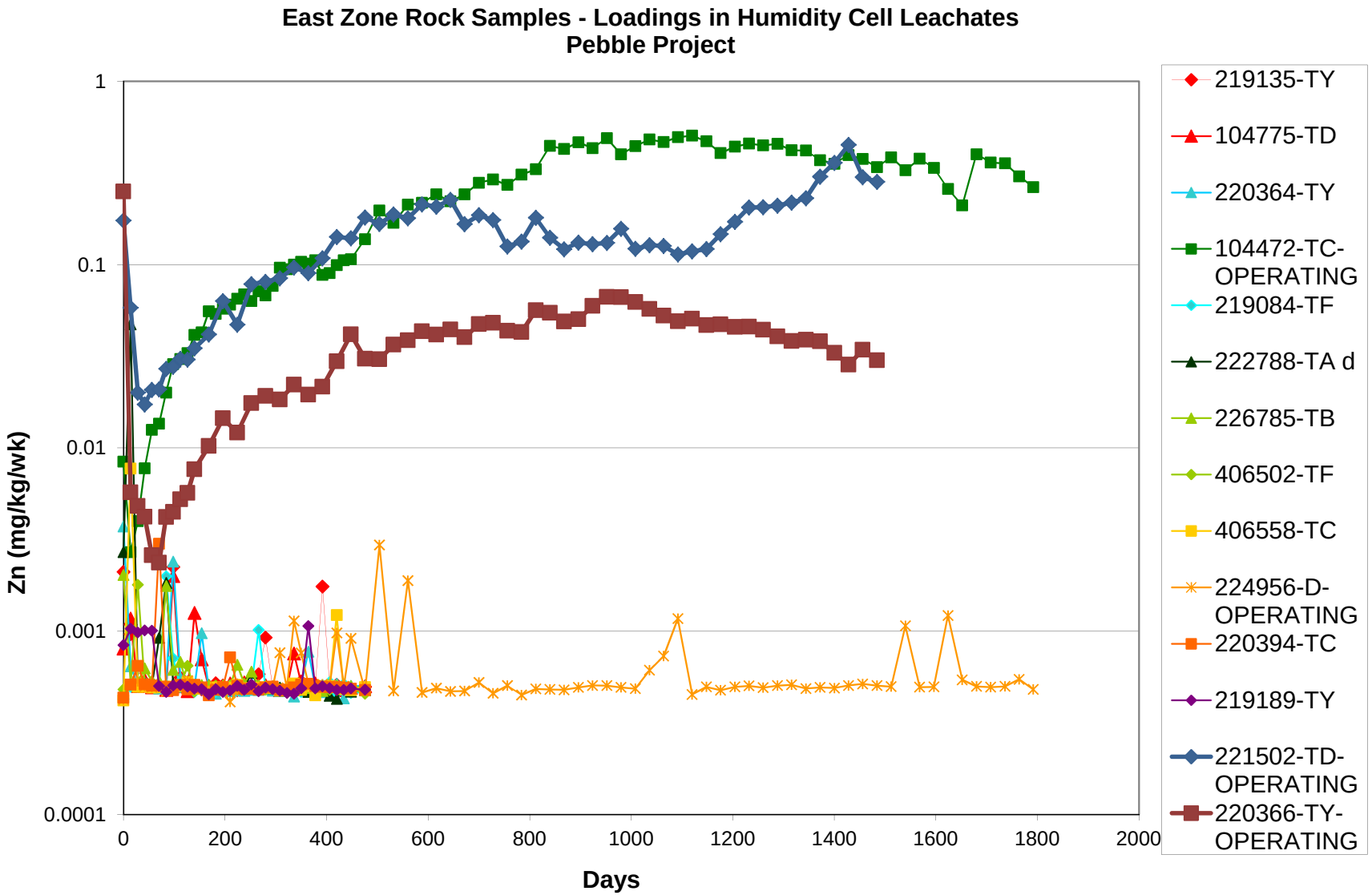

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ag (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

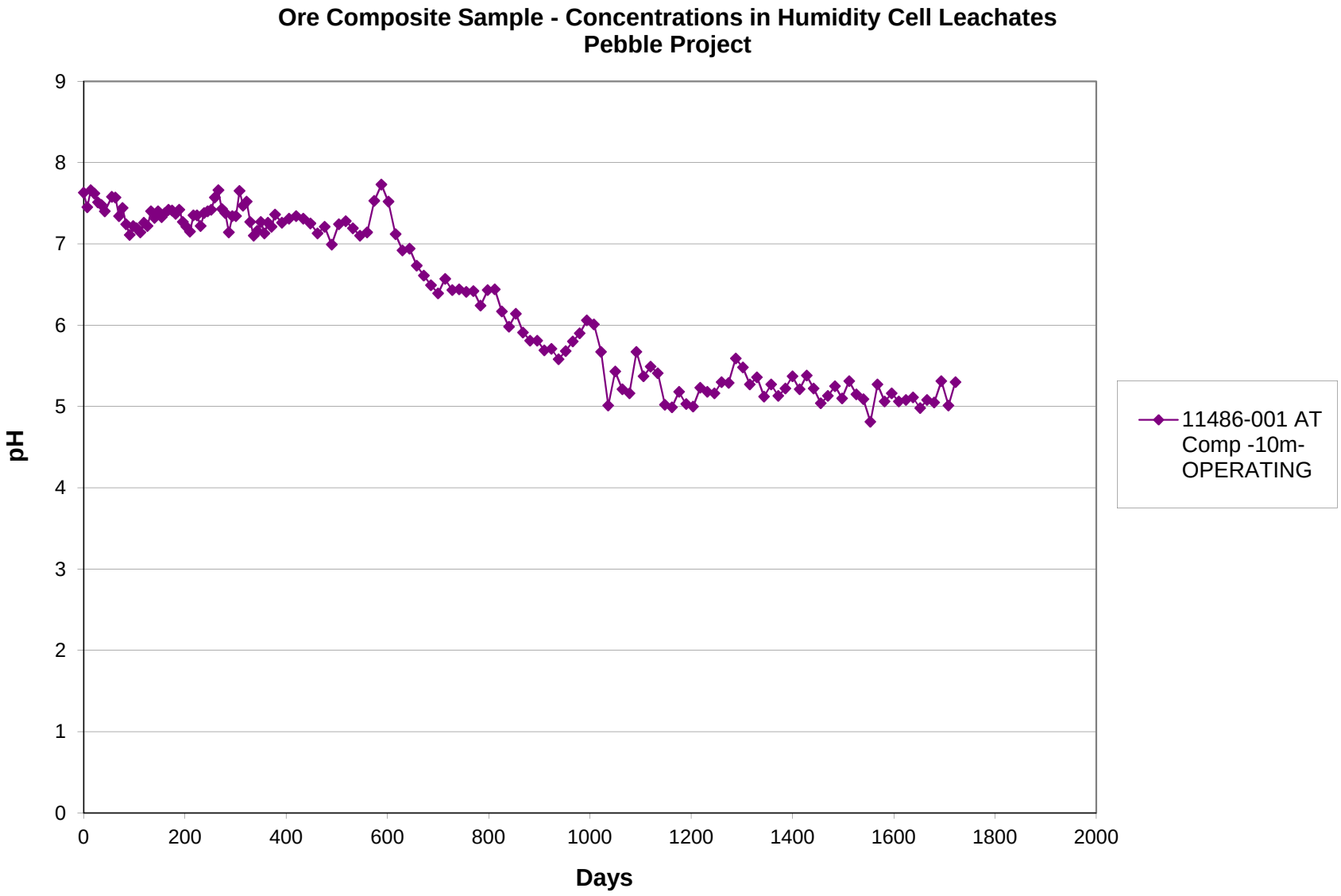

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Na (mg/kg/wk)
1000
100
10
1
0.1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

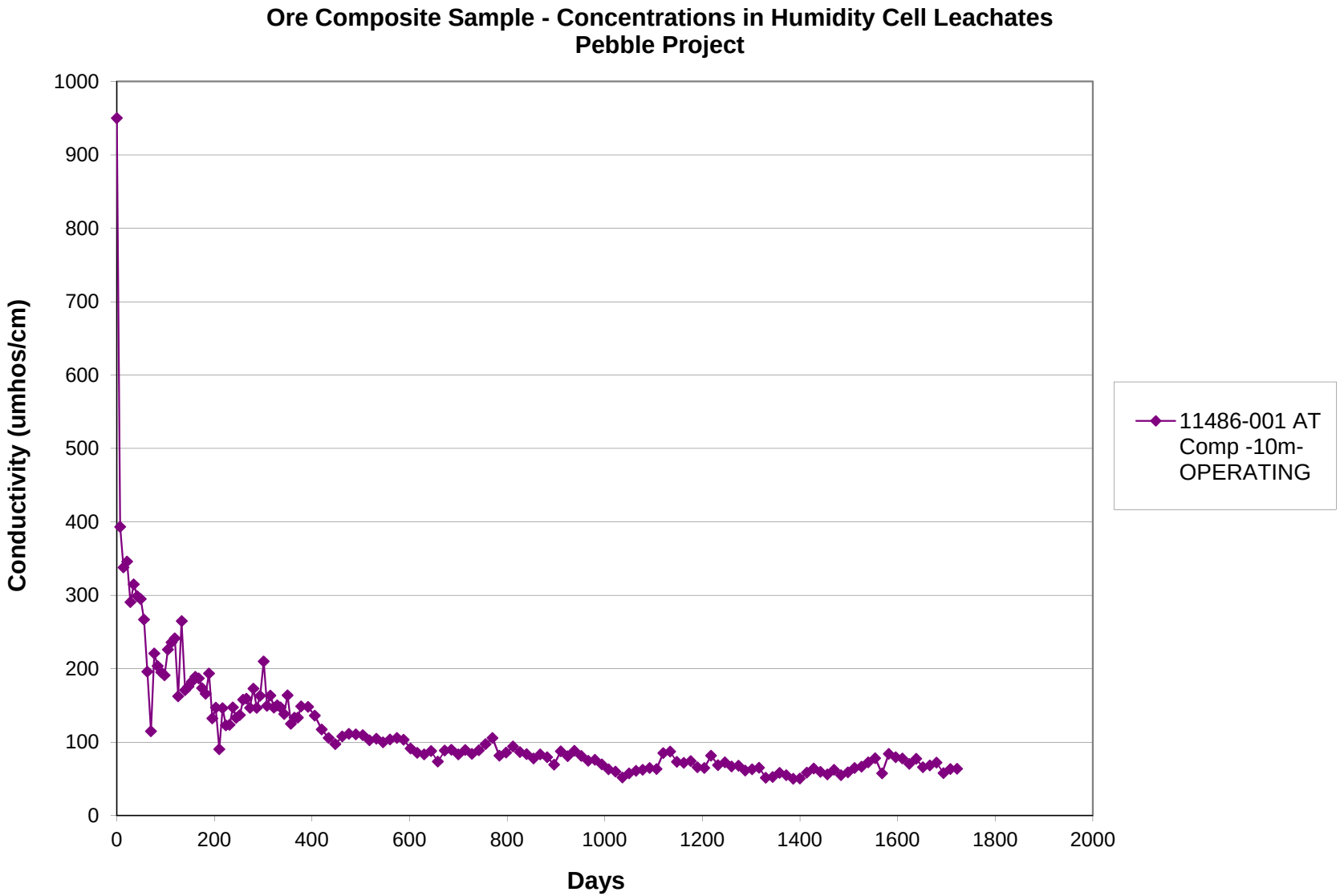

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Tl (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

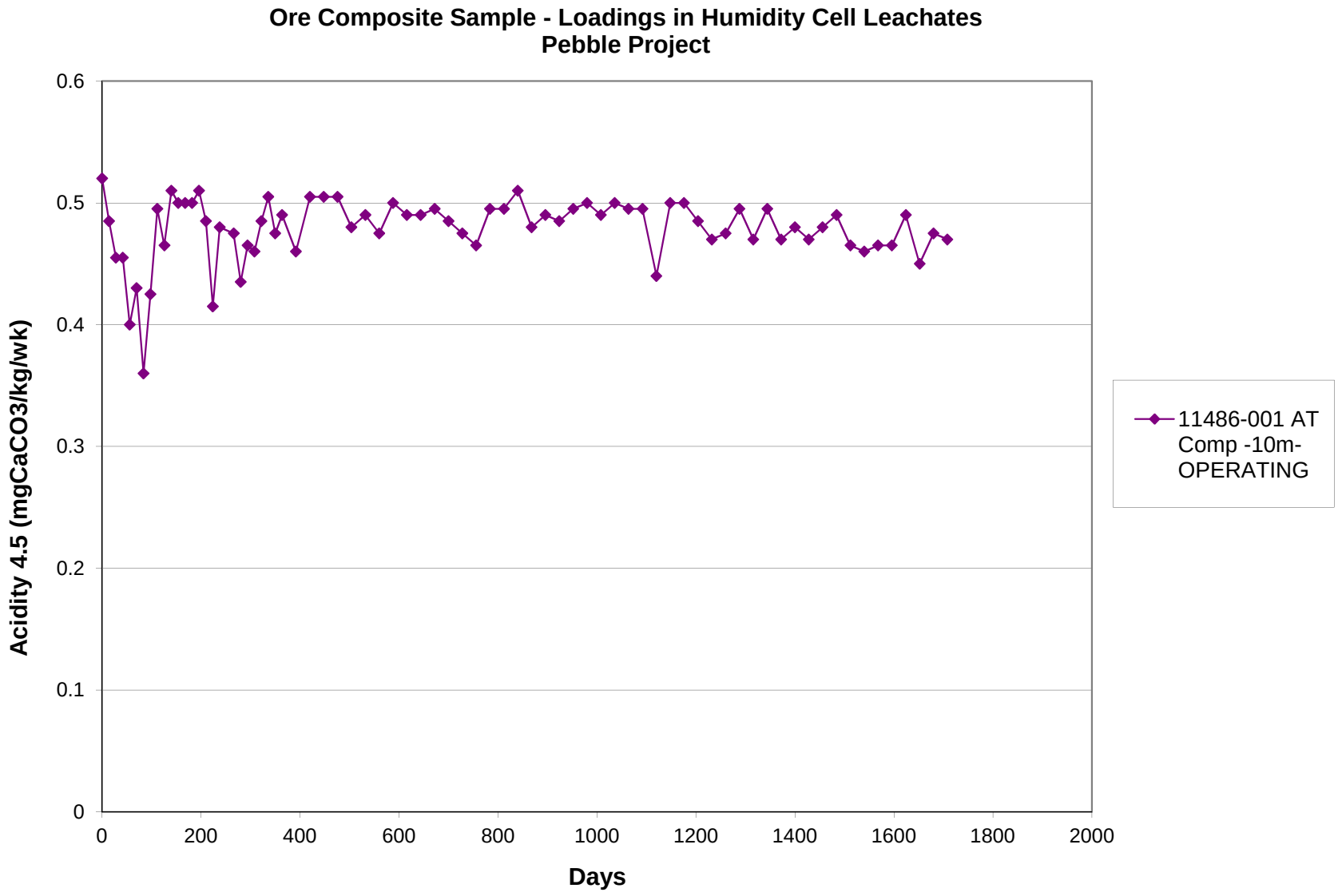

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Sn (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

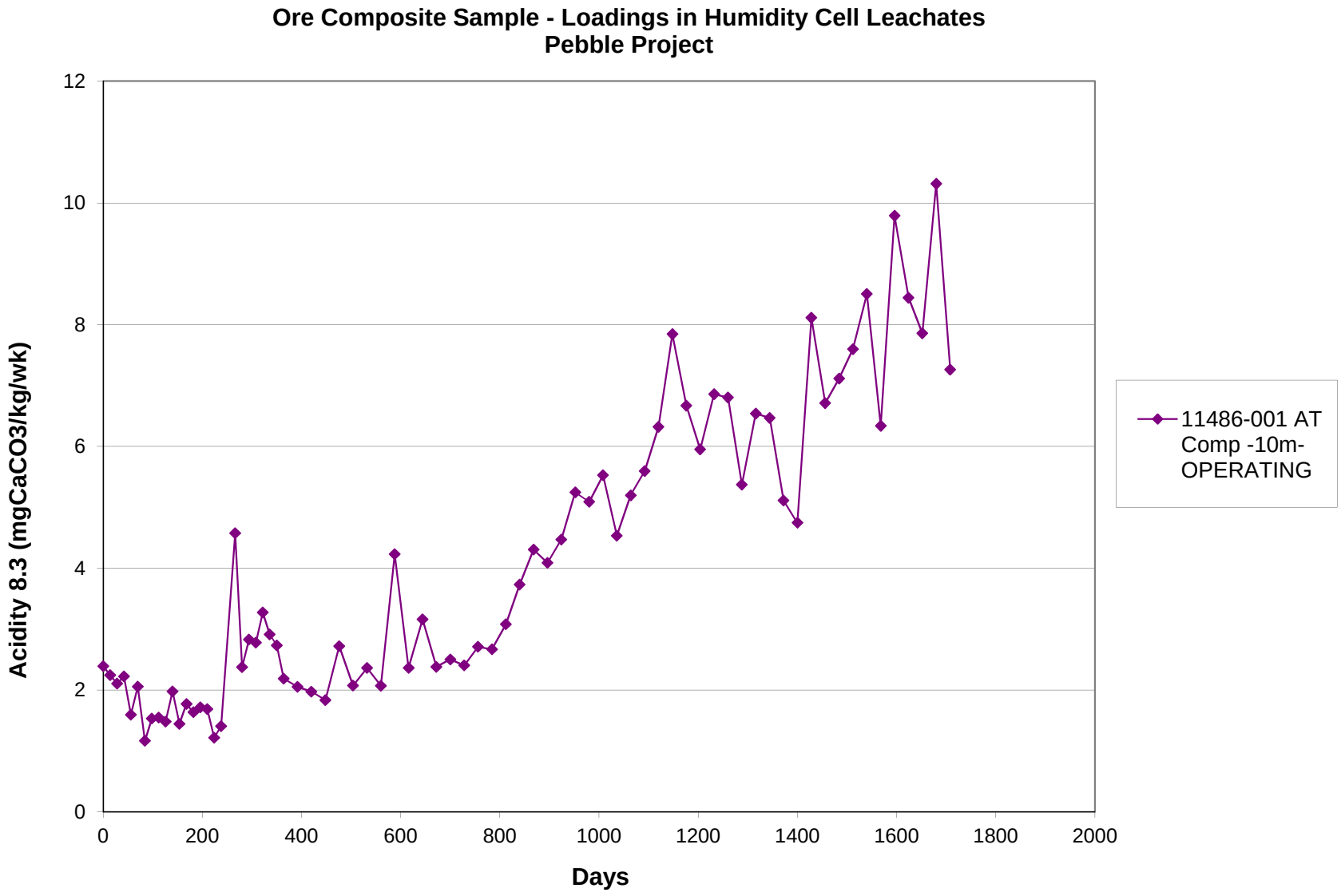

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
V (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

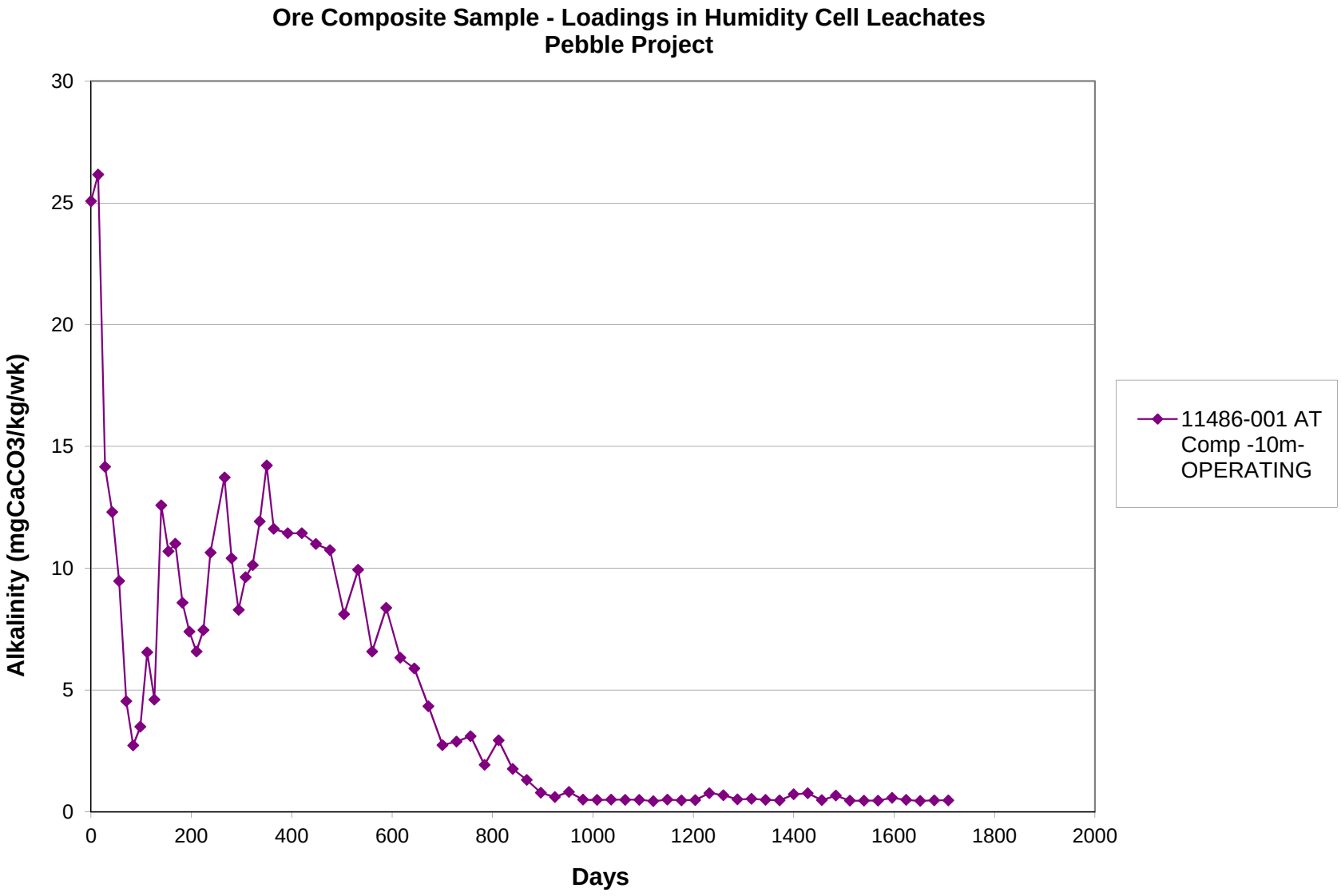

East Zone Rock Samples - Loadings in Humidity Cell Leachates
Pebble Project
Zn (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
219135-TY
104775-TD
220364-TY
104472-TC-OPERATING
219084-TF
222788-TA d
226785-TB
406502-TF
406558-TC
224956-D-OPERATING
220394-TC
219189-TY
221502-TD-OPERATING
220366-TY-OPERATING

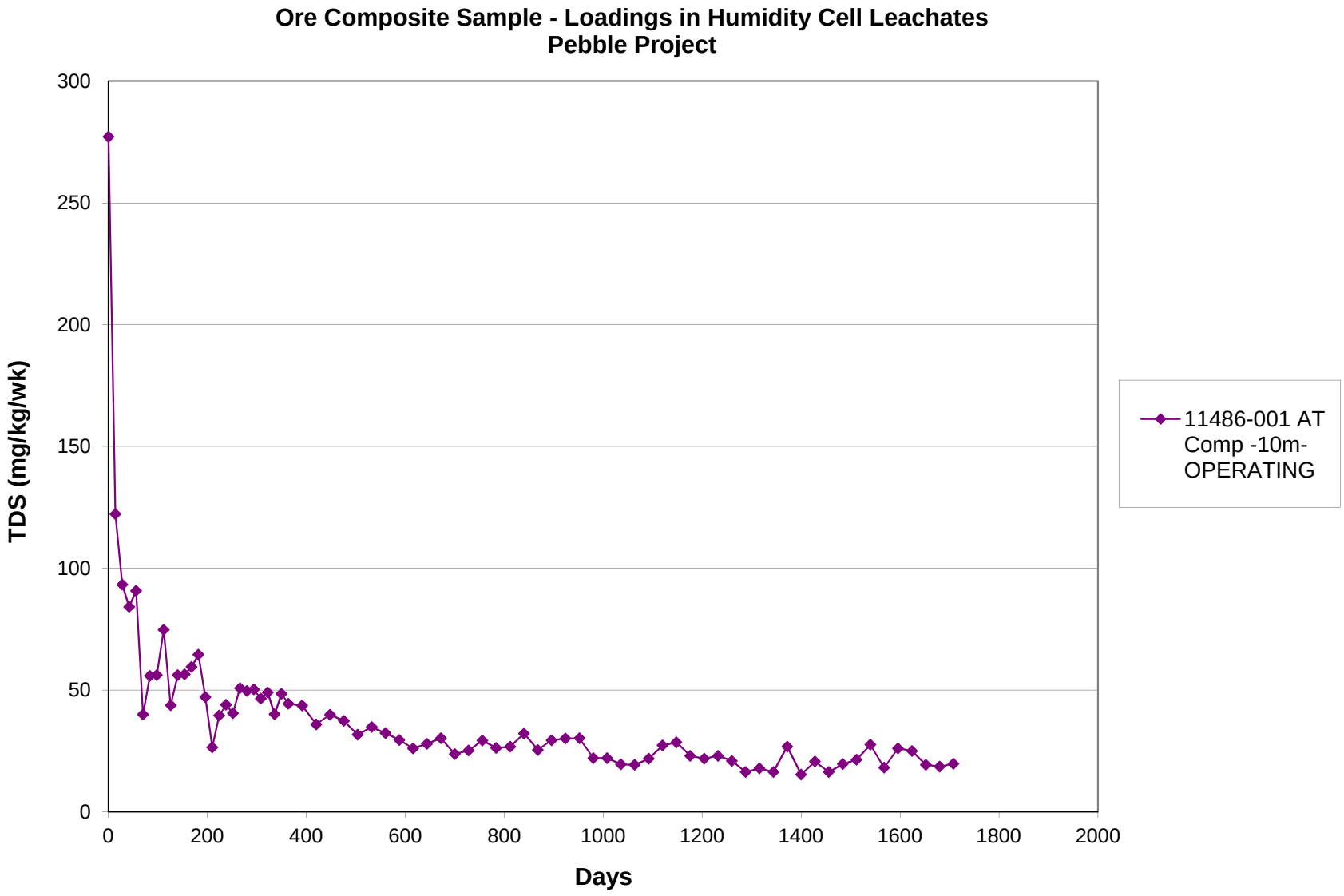

Ore Composite Sample - Concentrations in Humidity Cell Leachates
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
0
200
400
600
800
1000
1200
1400
1600
1800
2000
11486-001 AT Comp -10m-OPERATING

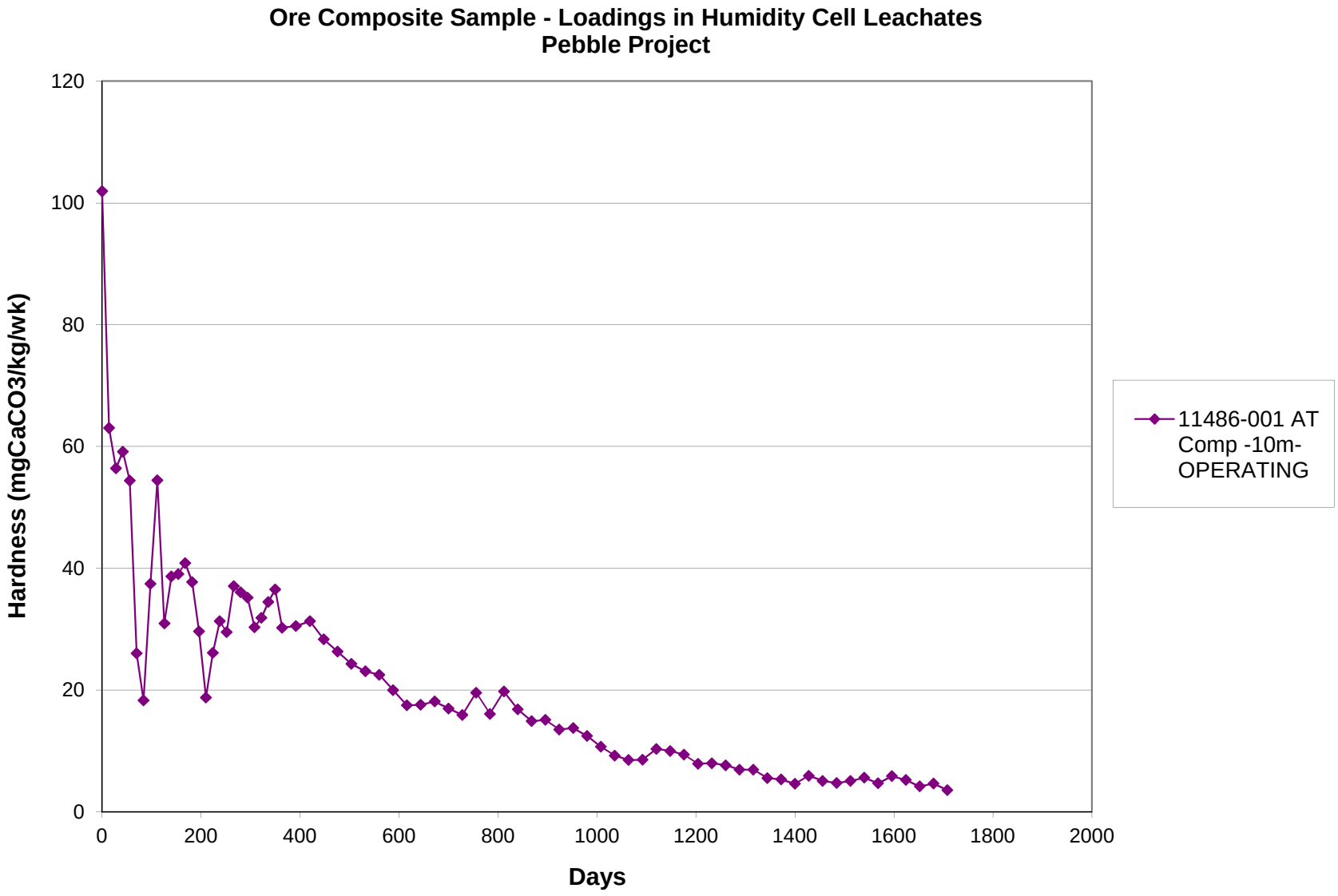

Ore Composite Sample - Concentrations in Humidity Cell Leachates
Pebble Project
Conductivity (umhos/cm)
1000
900
800
700
600
500
400
300
200
100
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

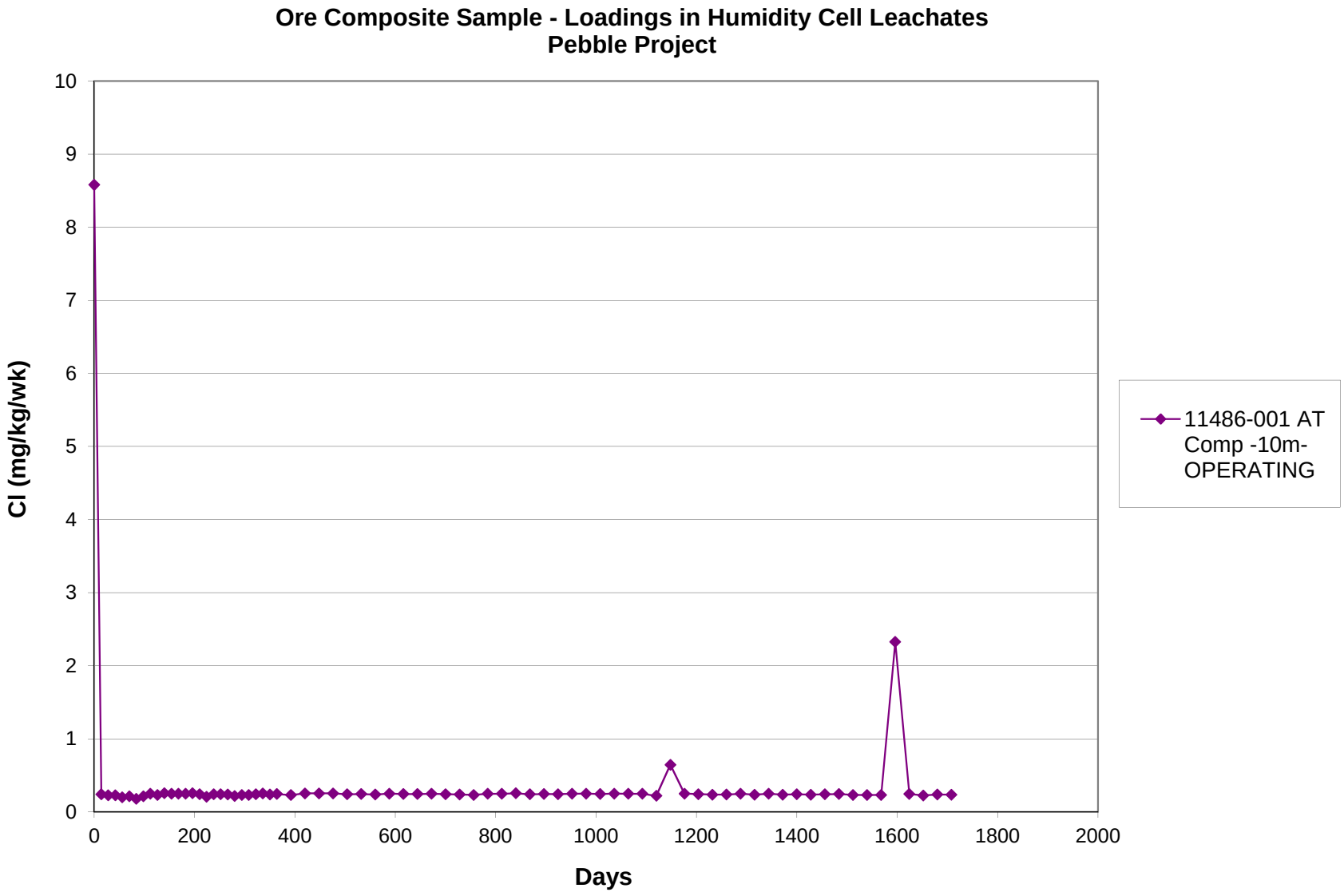

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 4.5 (mgCaCO3/kg/wk)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

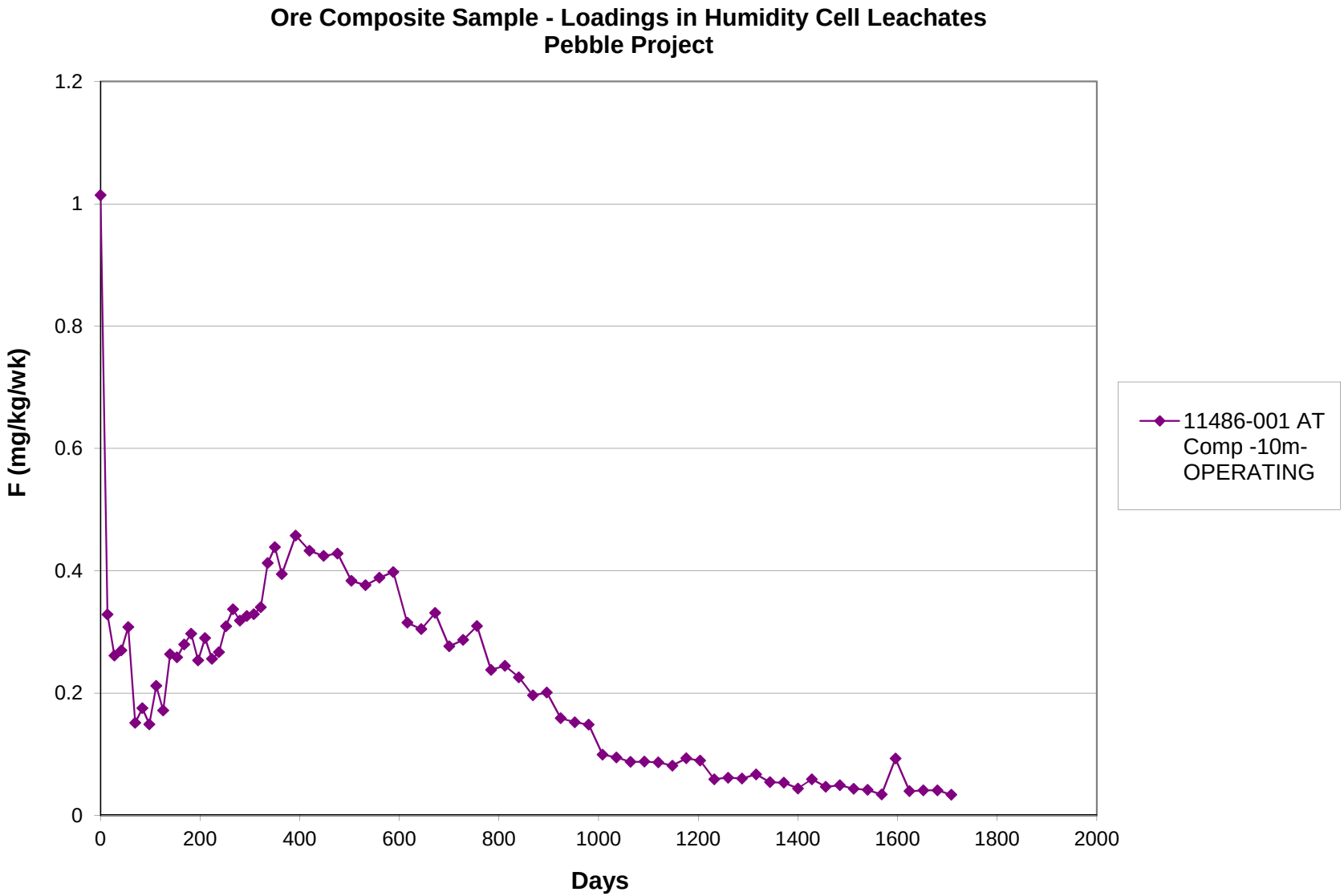

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 8.3 (mgCaCO3/kg/wk)
Days
0
2
4
6
8
10
12
0
200
400
600
800
1000
1200
1400
1600
1800
2000
11486-001 AT Comp -10m- OPERATING

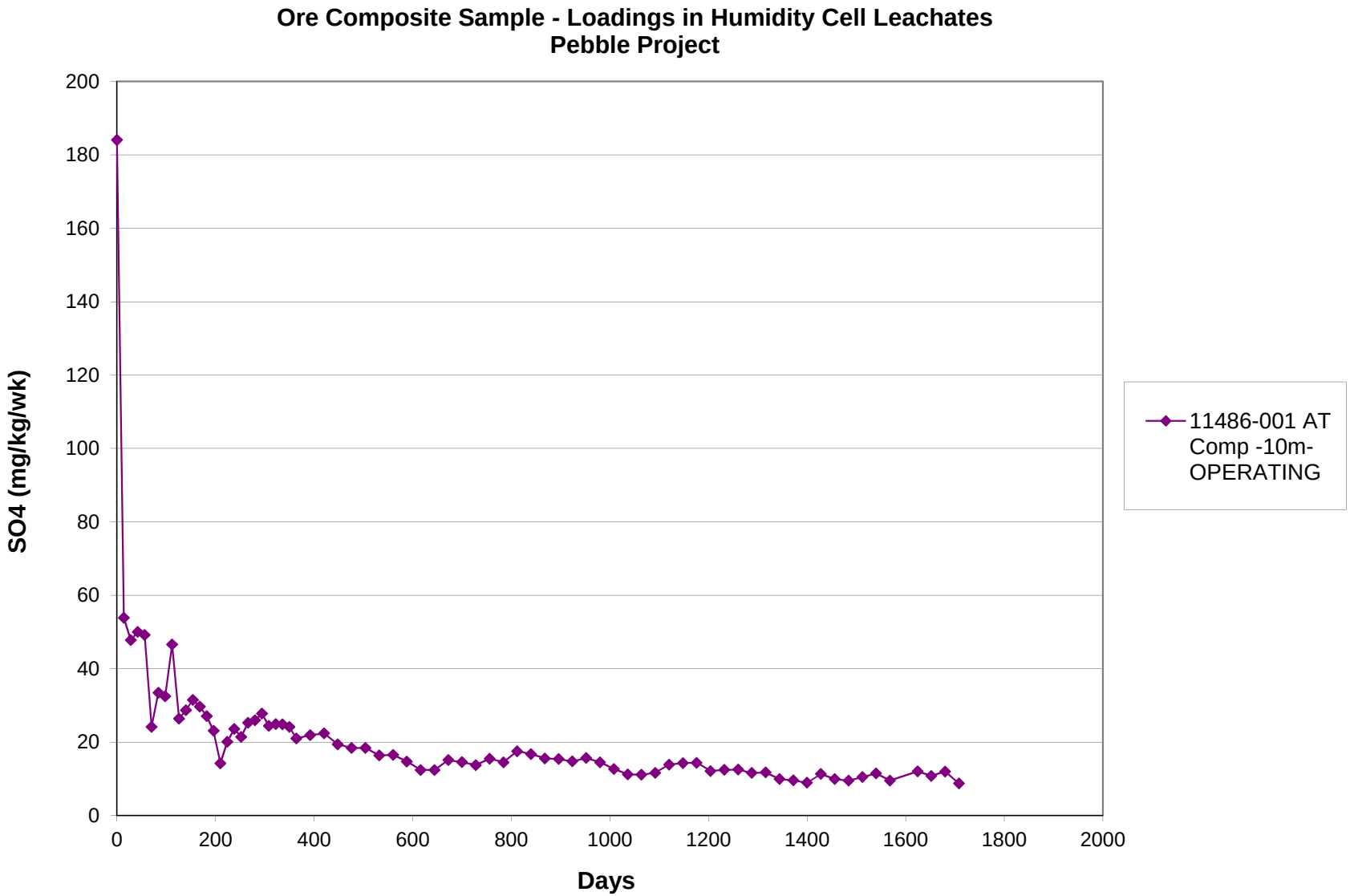

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Alkalinity (mgCaCO3/kg/wk)
30
25
20
15
10
5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

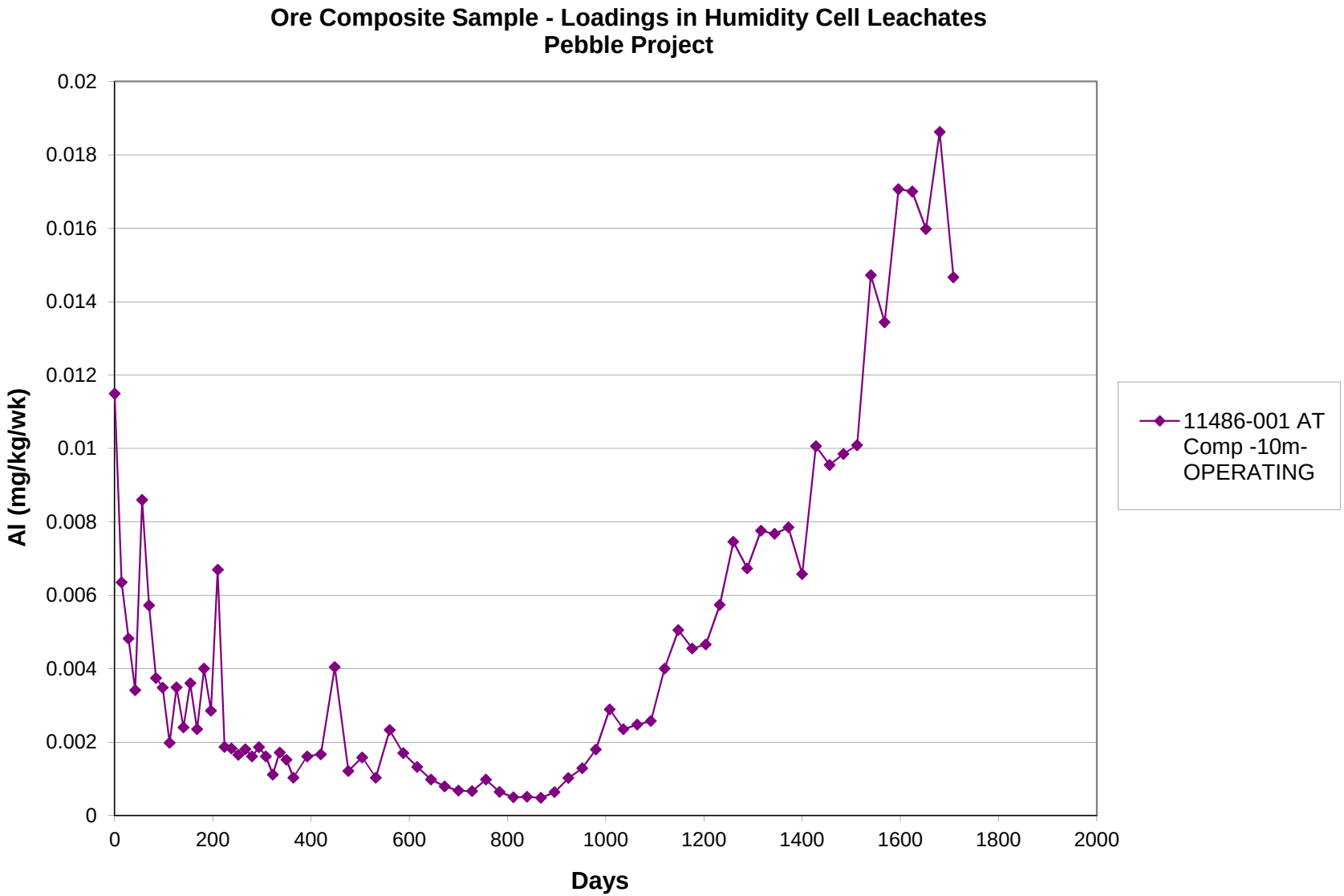

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
TDS (mg/kg/wk)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

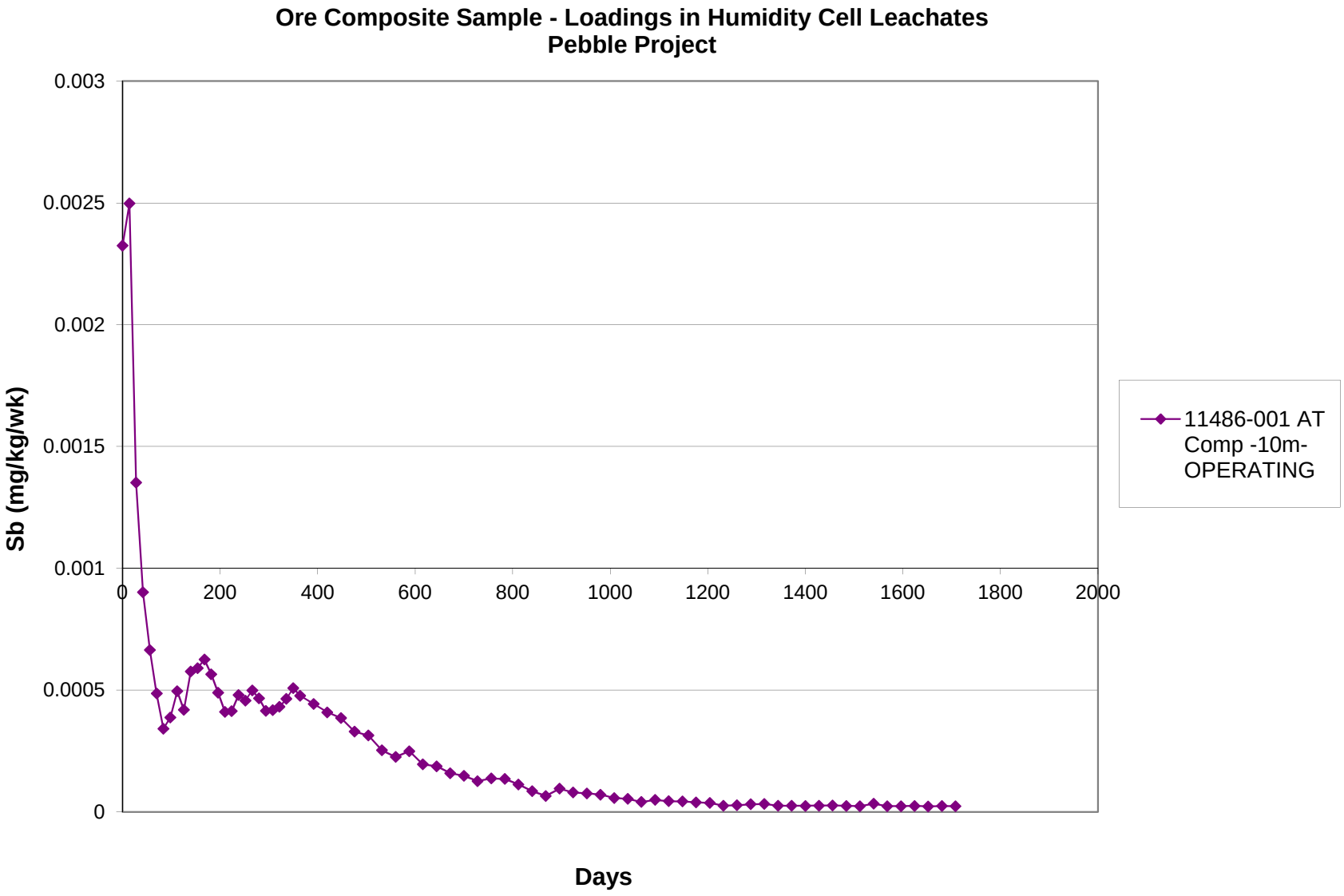

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Hardness (mgCaCO3/kg/wk)
120
100
80
60
40
20
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

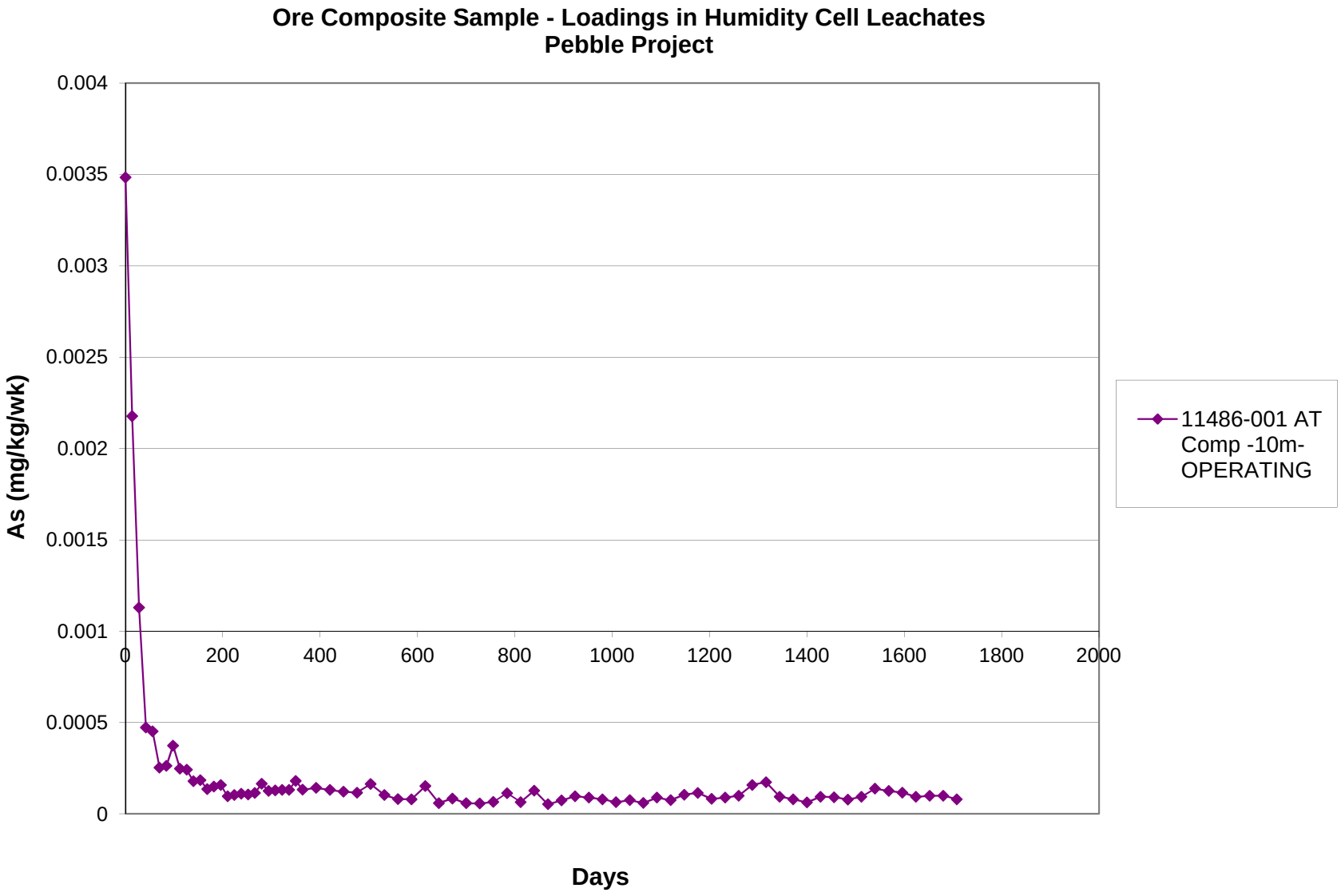

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Cl (mg/kg/wk)
10
9
8
7
6
5
4
3
2
1
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

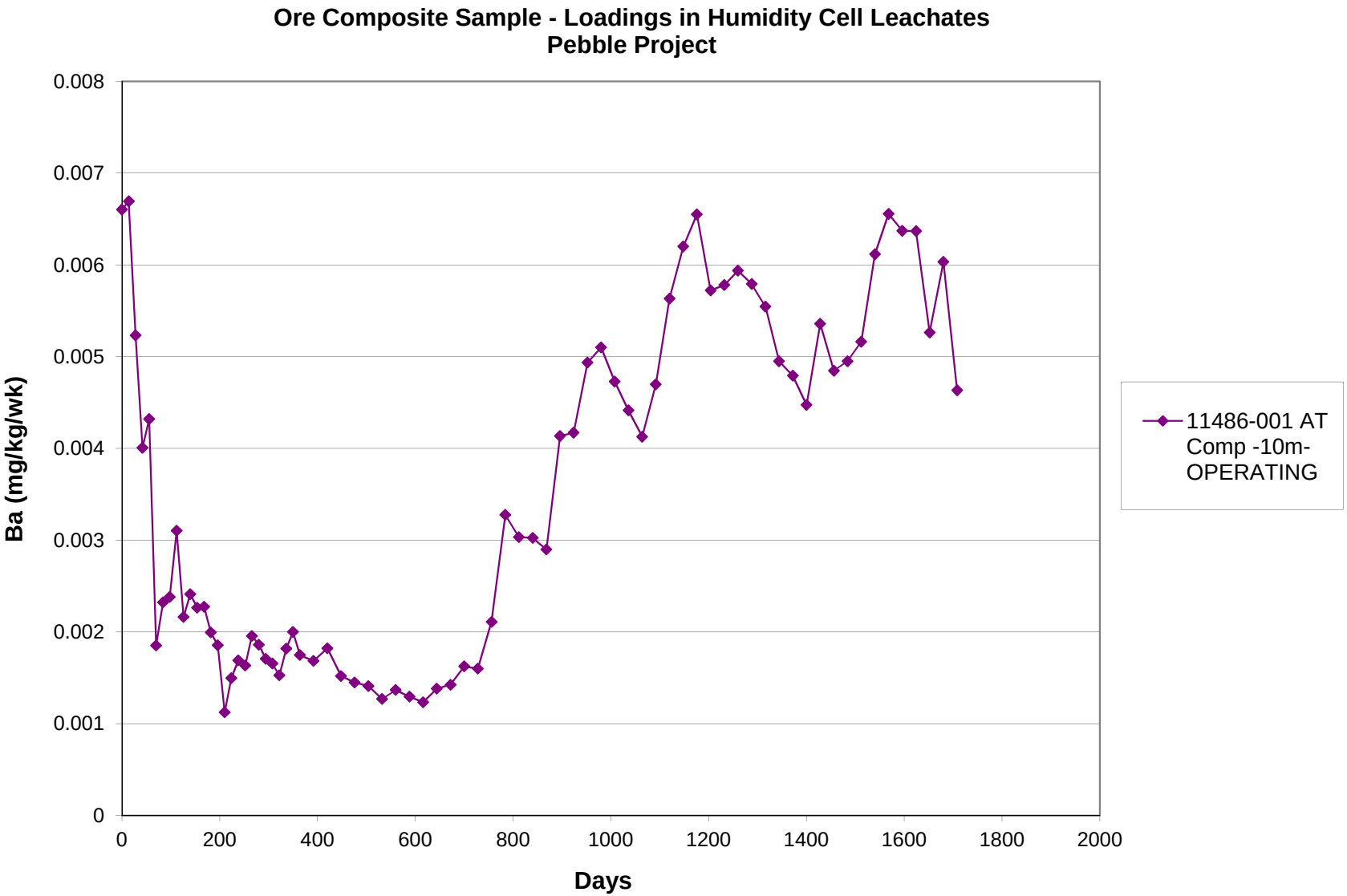

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
F (mg/kg/wk)
1.2
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

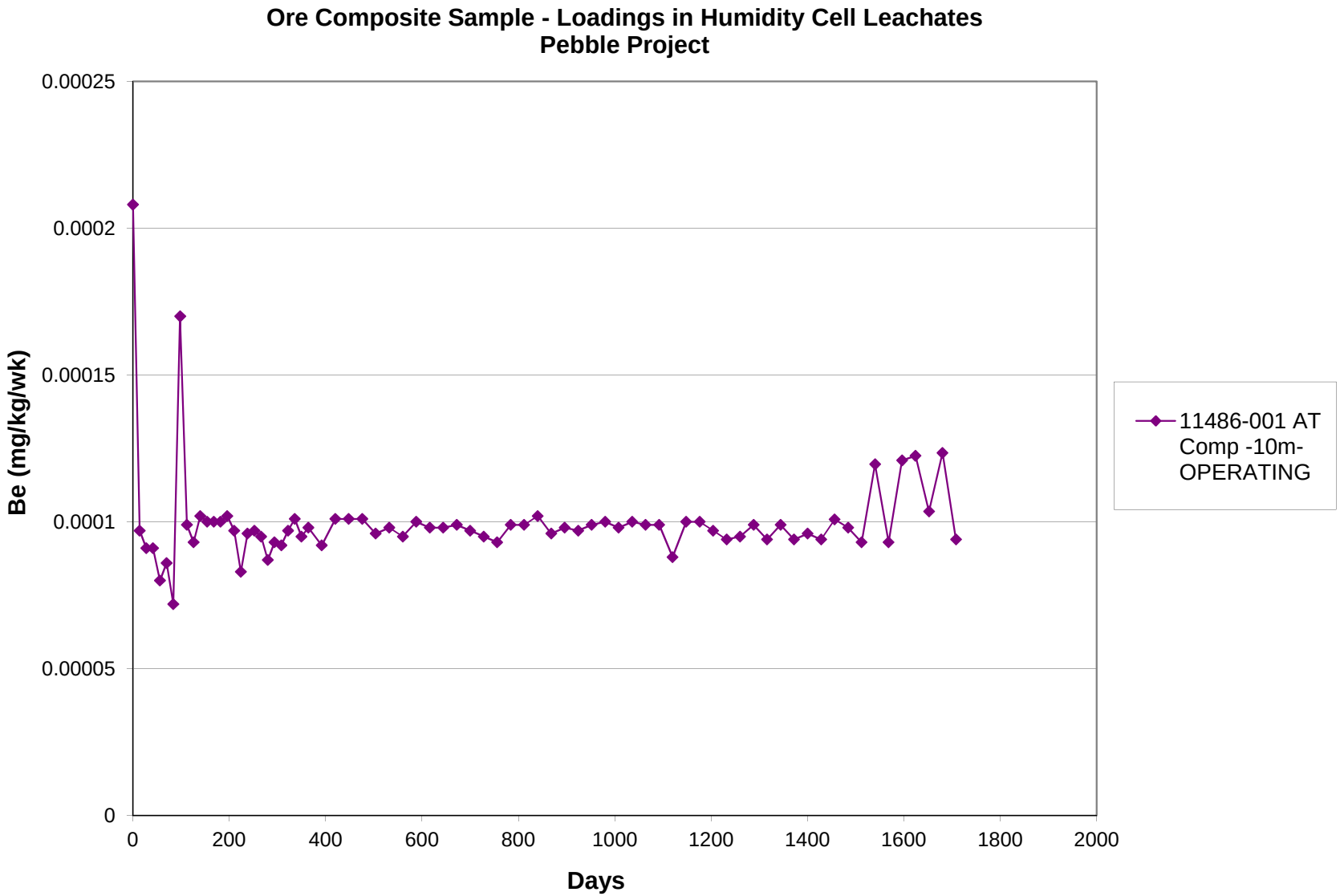

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
SO4 (mg/kg/wk)
200
180
160
140
120
100
80
60
40
20
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

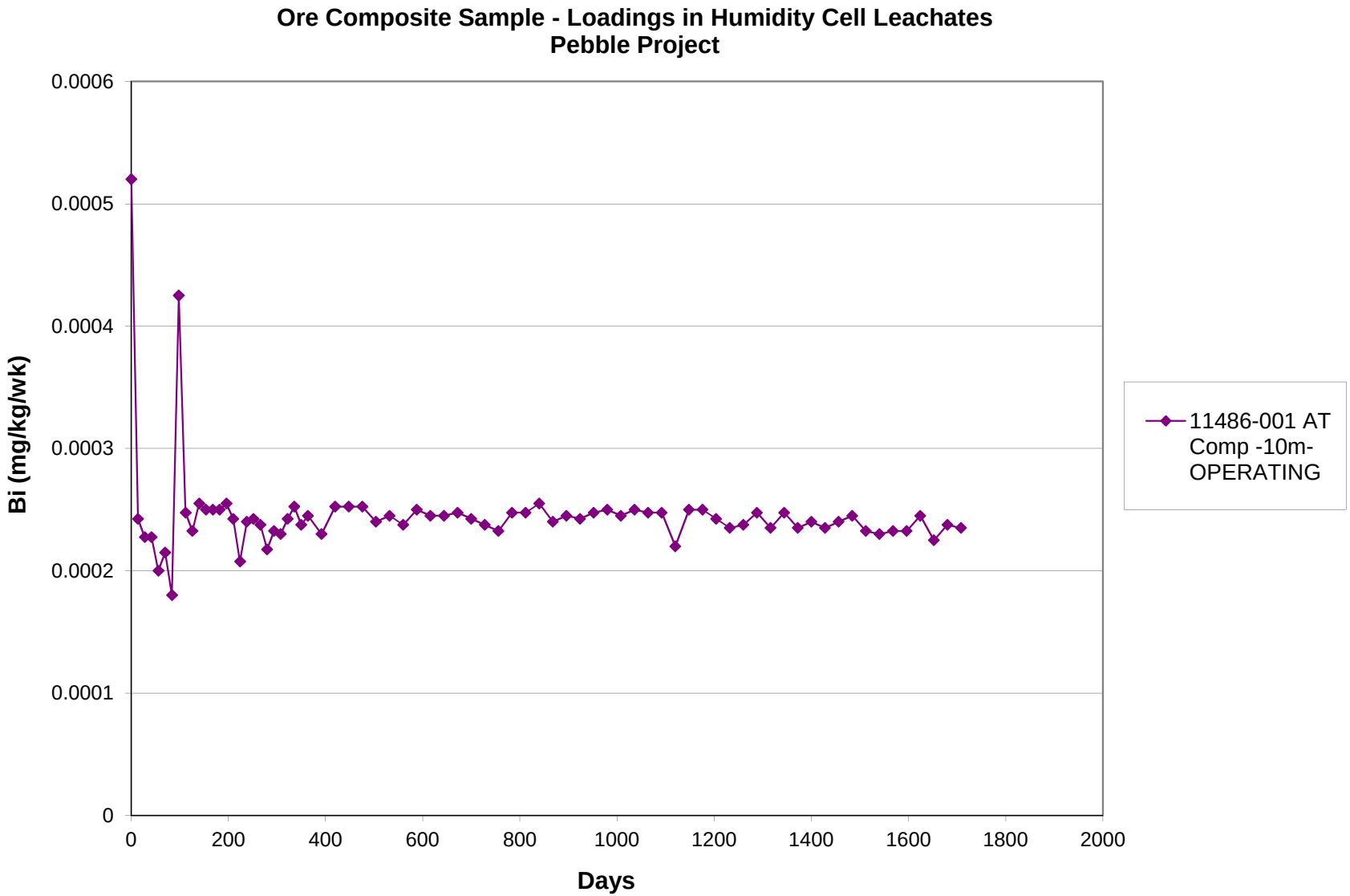

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Al (mg/kg/wk)
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

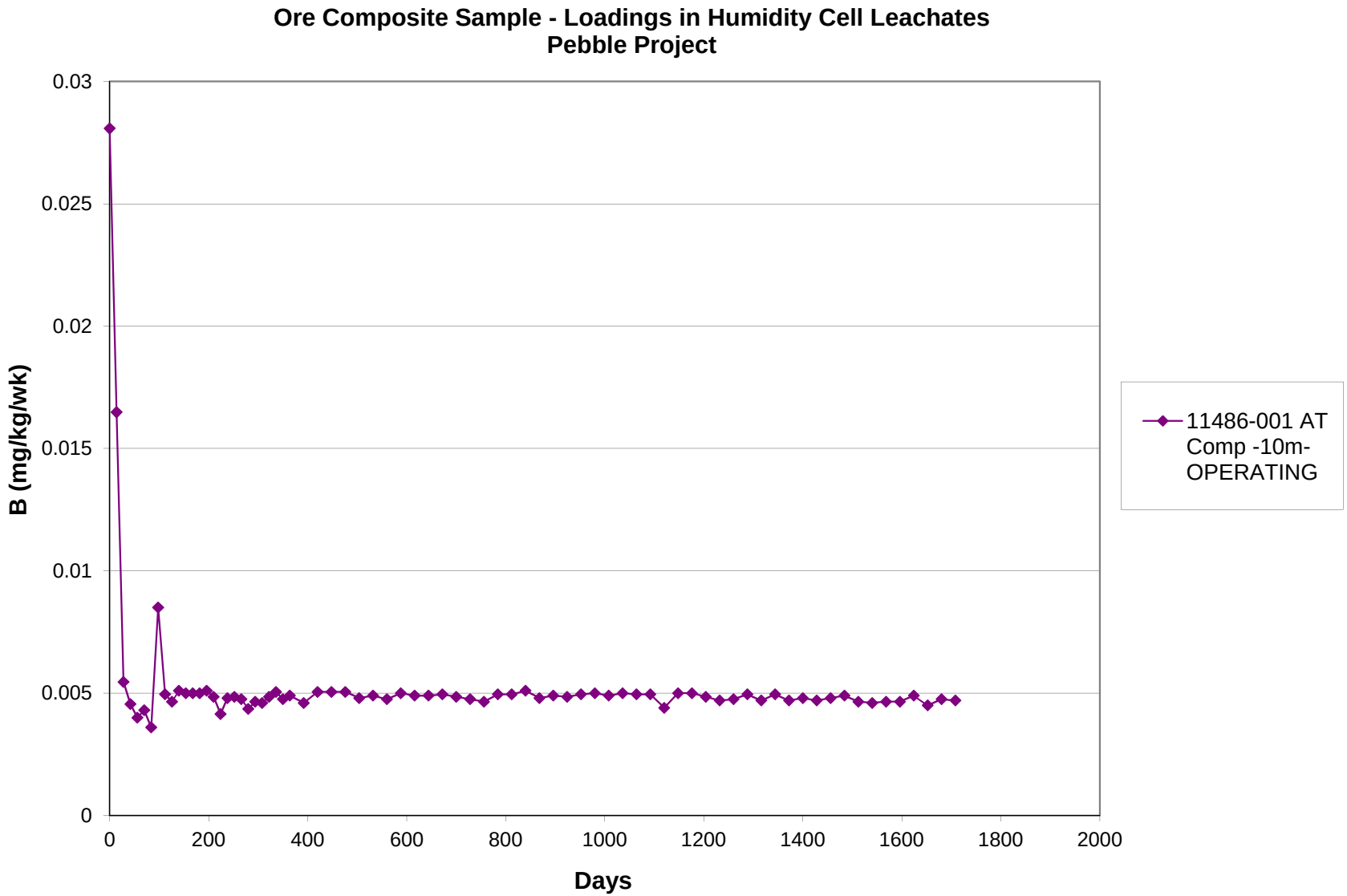

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Sb (mg/kg/wk)
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

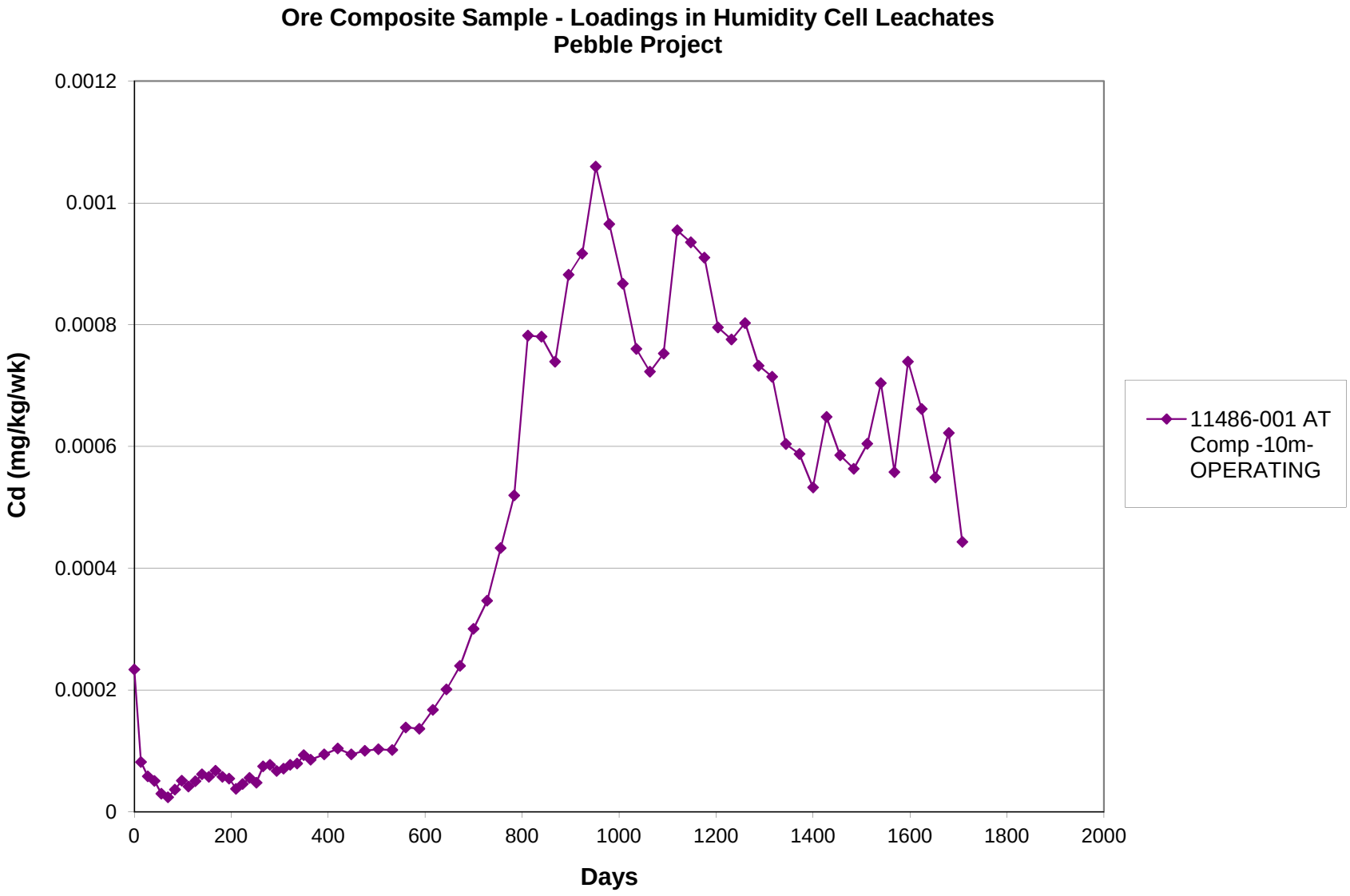

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
As (mg/kg/wk)
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

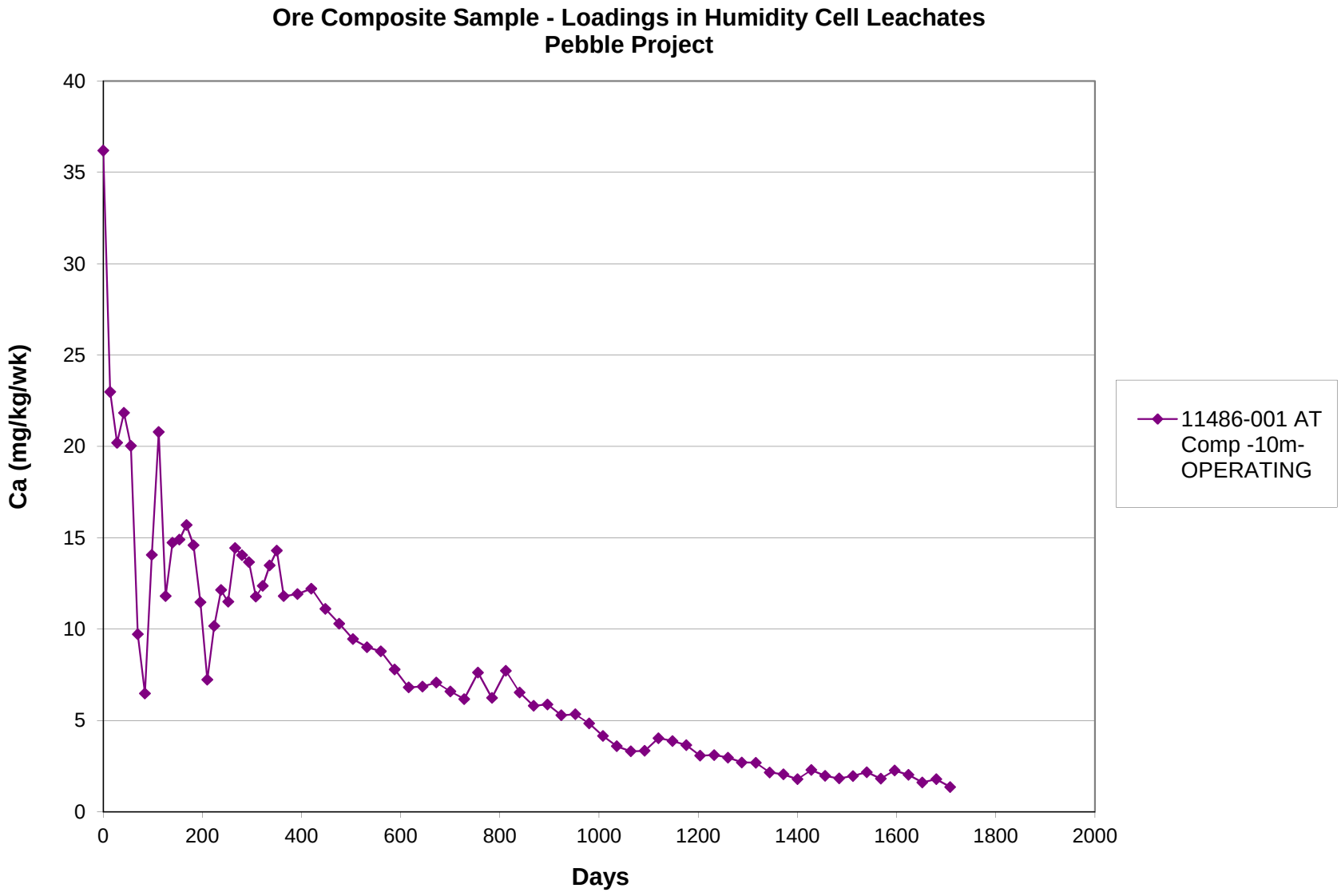

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Ba (mg/kg/wk)
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

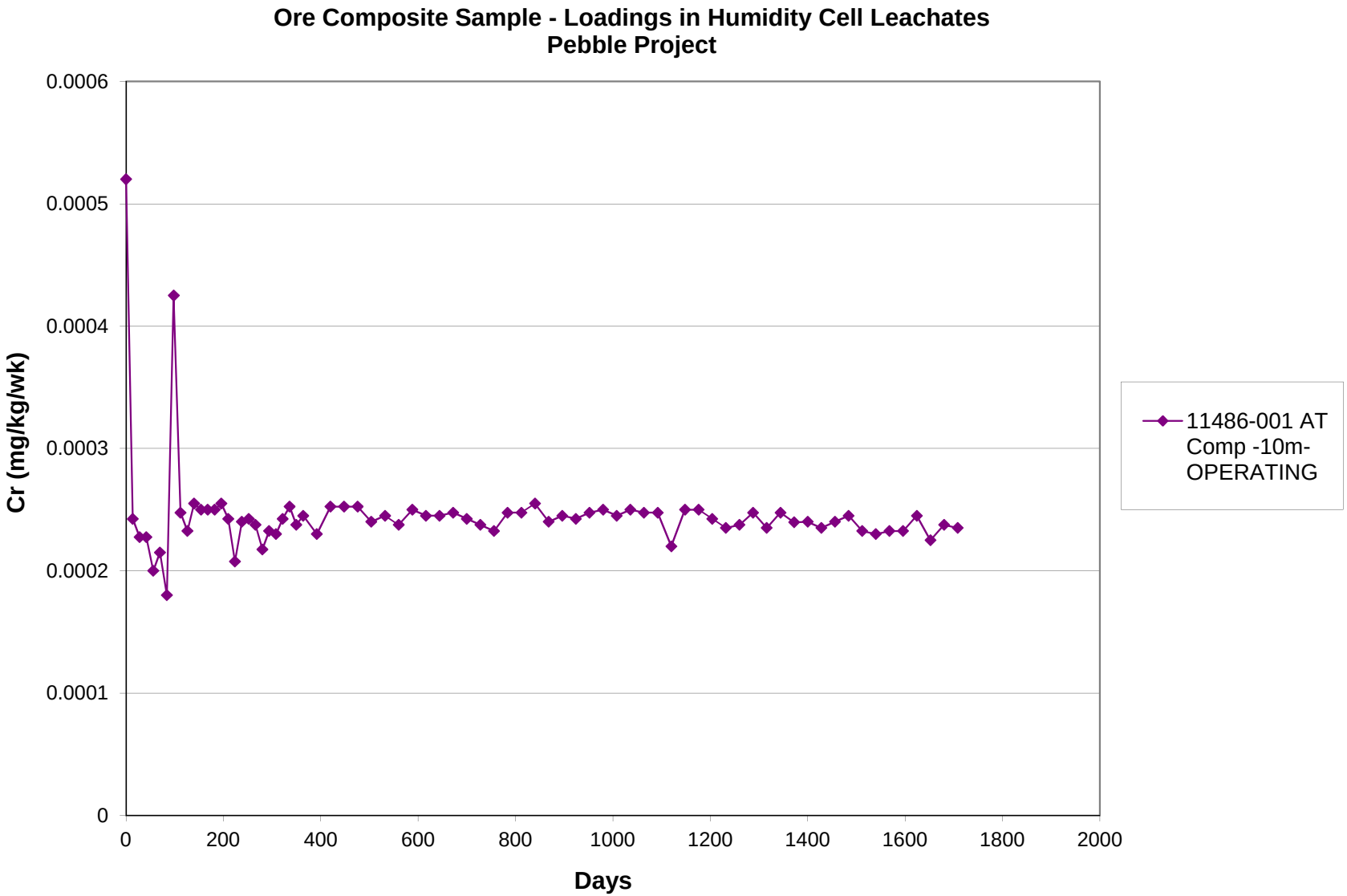

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Be (mg/kg/wk)
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

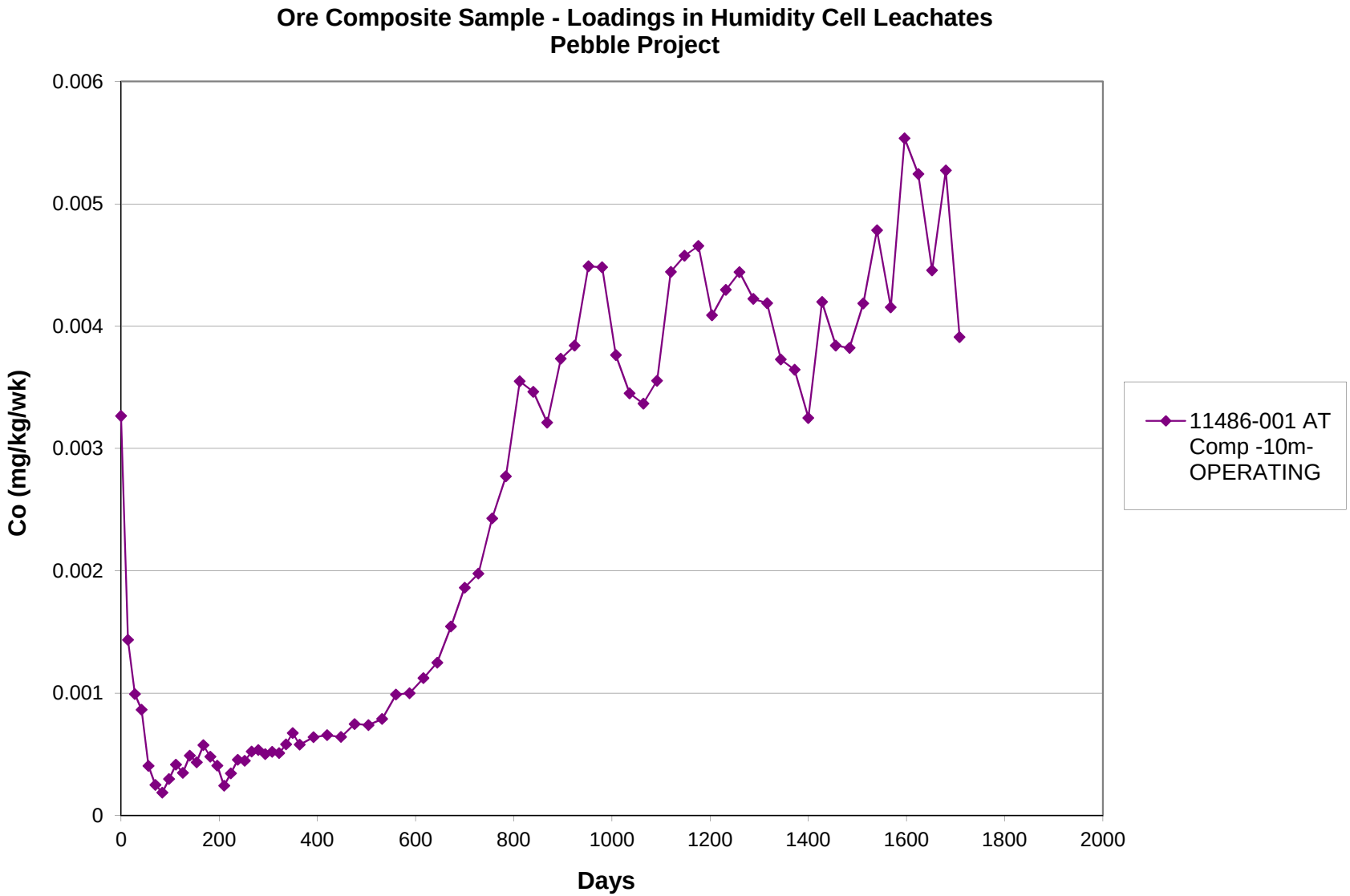

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Bi (mg/kg/wk)
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

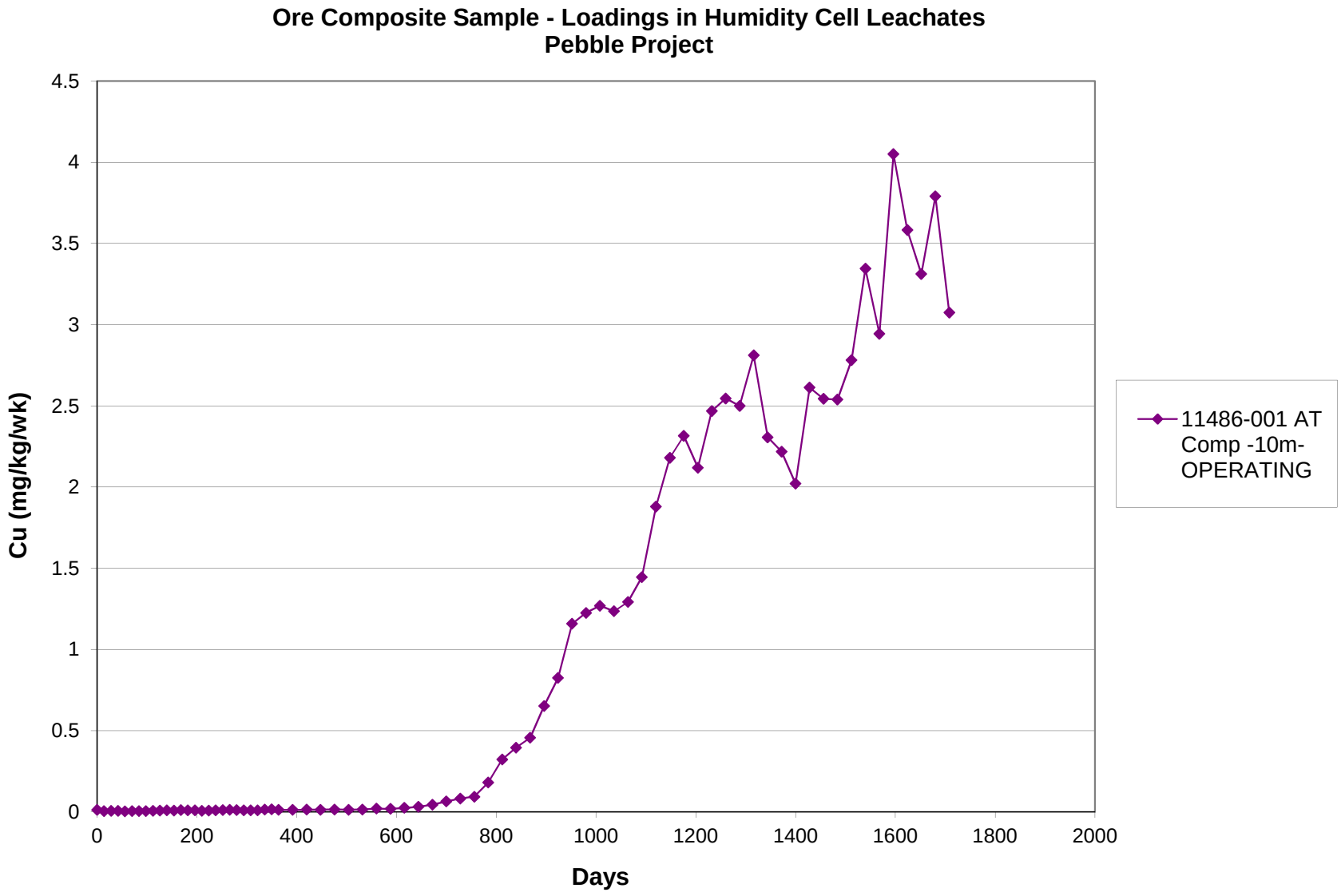

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
B (mg/kg/wk)
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

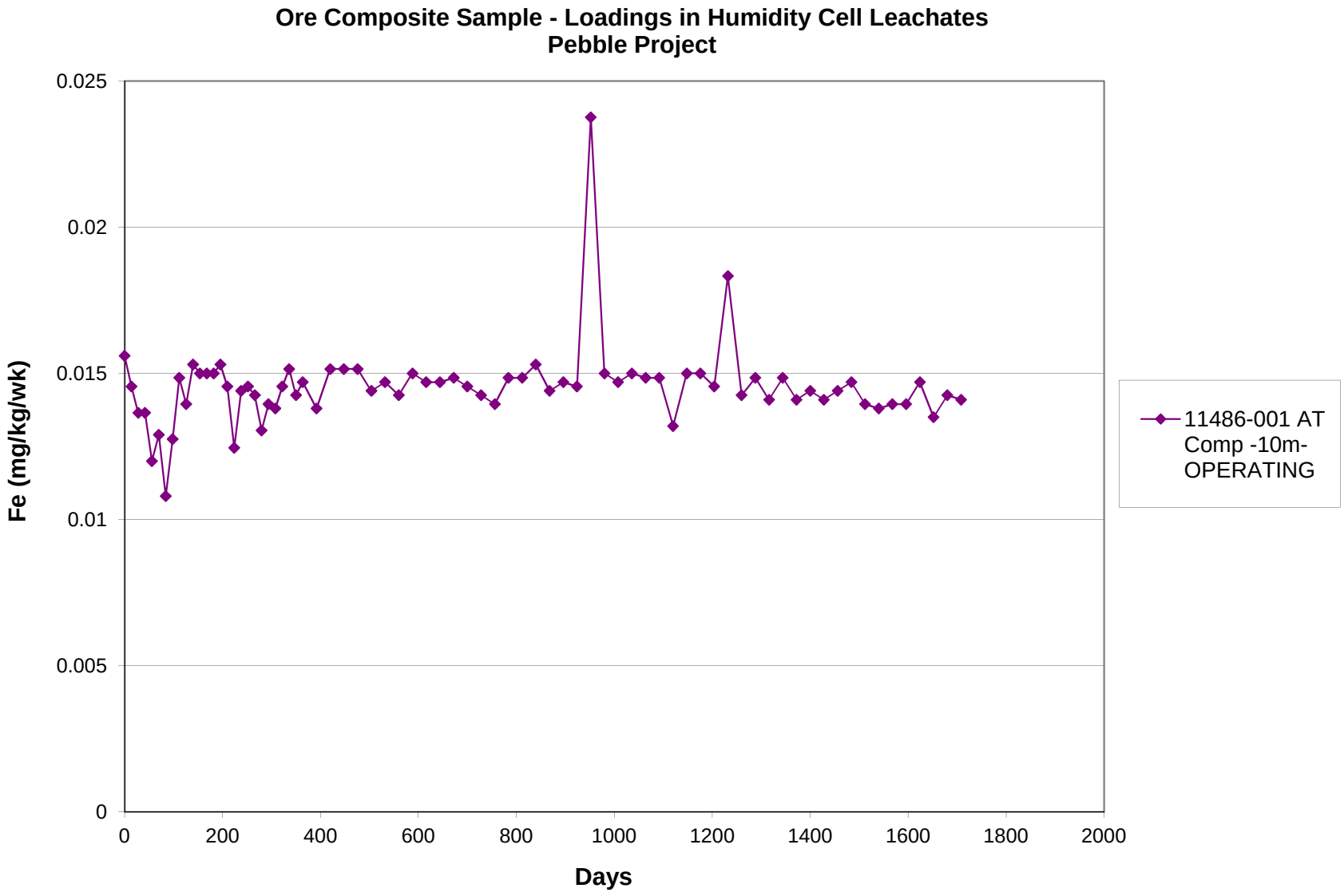

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Cd (mg/kg/wk)
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

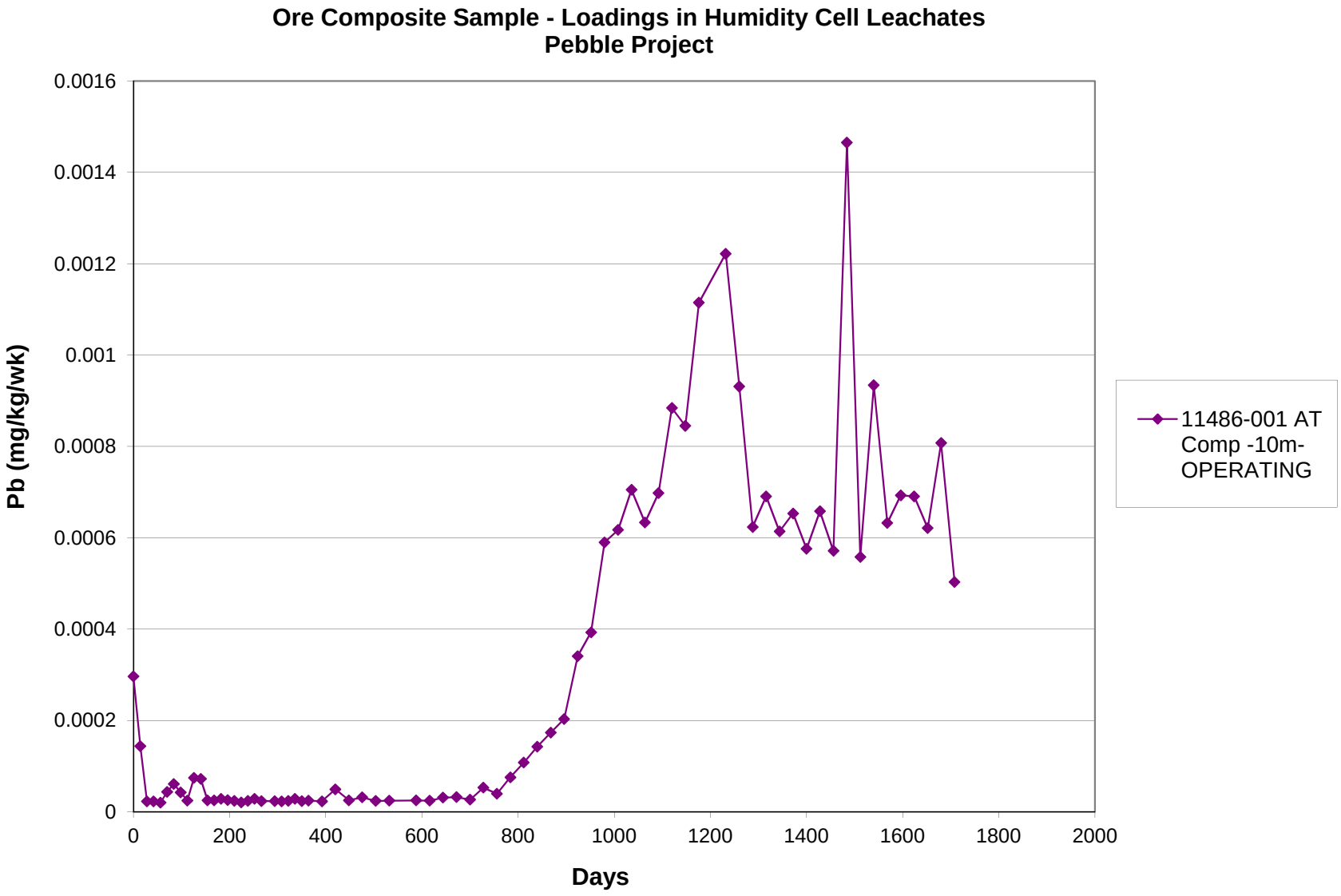

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Ca (mg/kg/wk)
Days
0
5
10
15
20
25
30
35
40
0
200
400
600
800
1000
1200
1400
1600
1800
2000
11486-001 AT Comp -10m- OPERATING

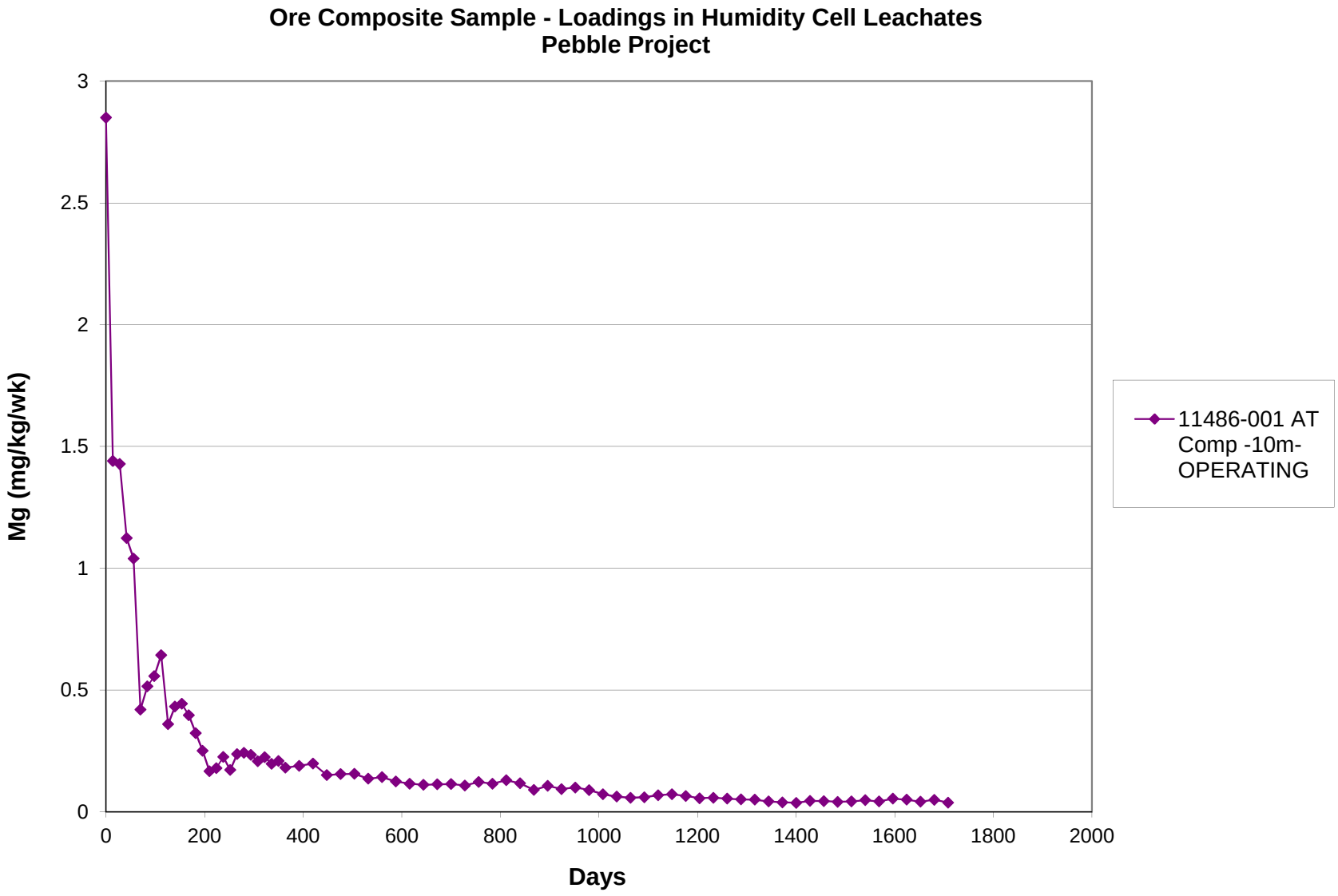

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Cr (mg/kg/wk)
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

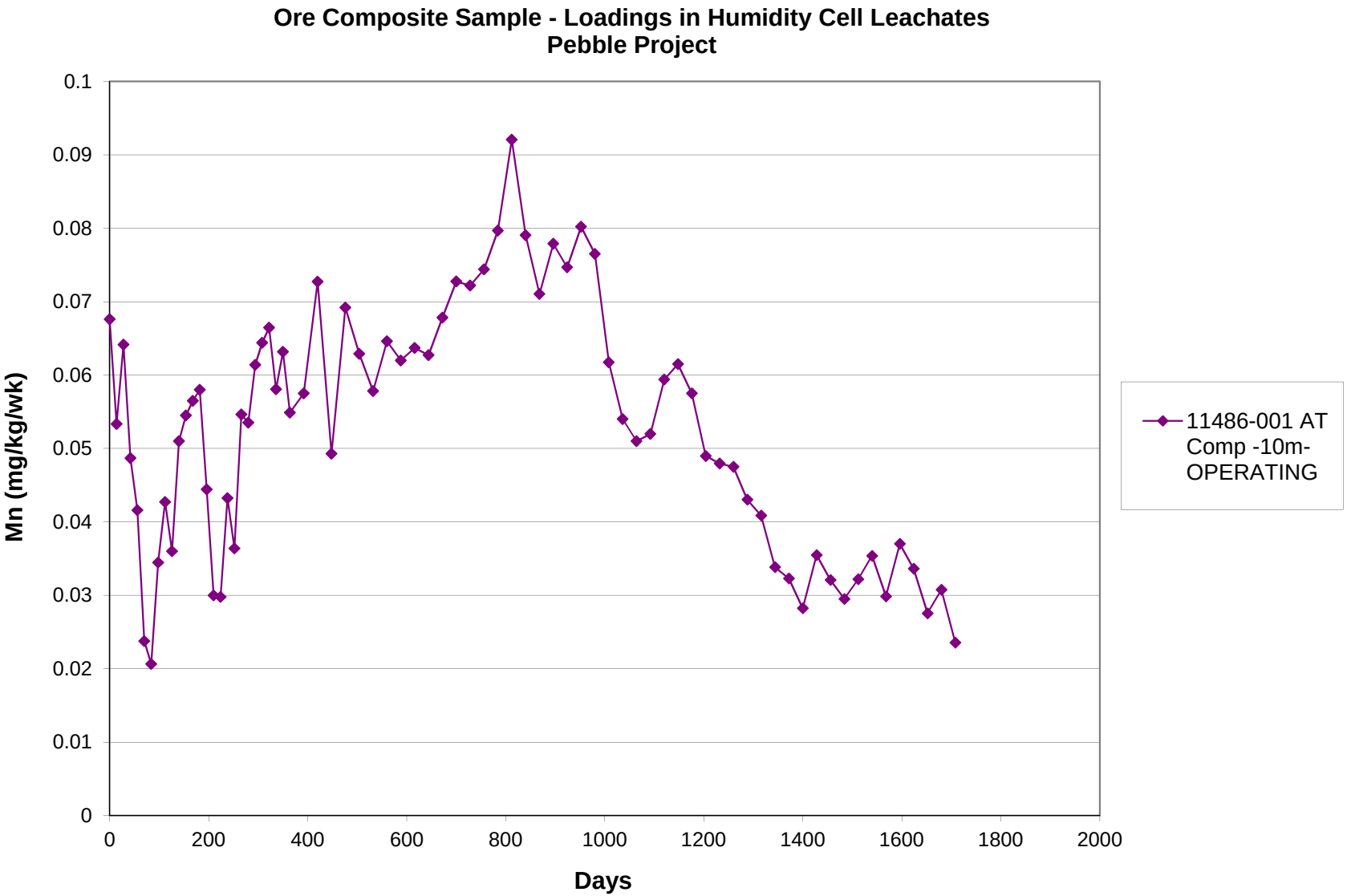

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Co (mg/kg/wk)
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

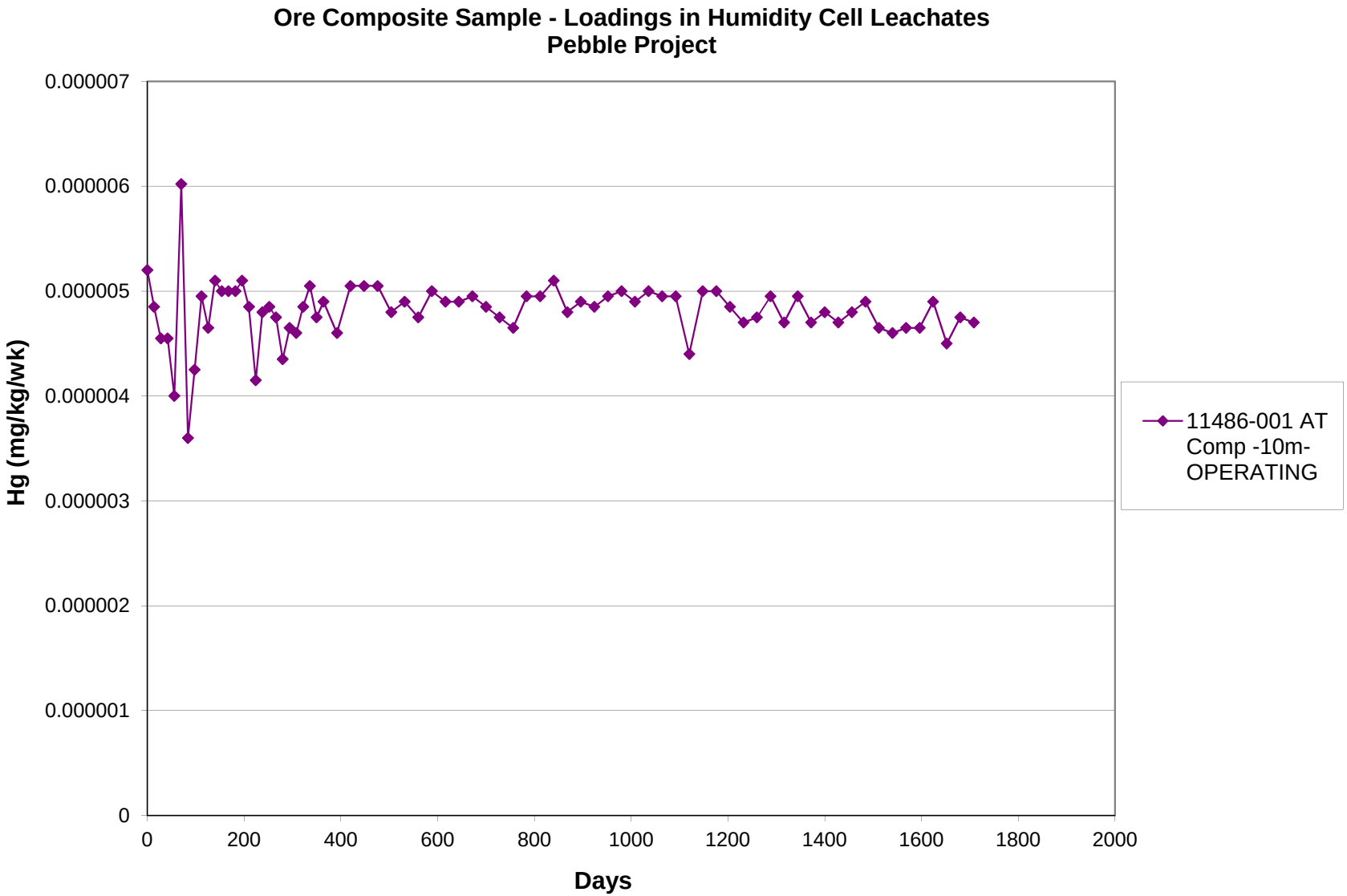

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Cu (mg/kg/wk)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

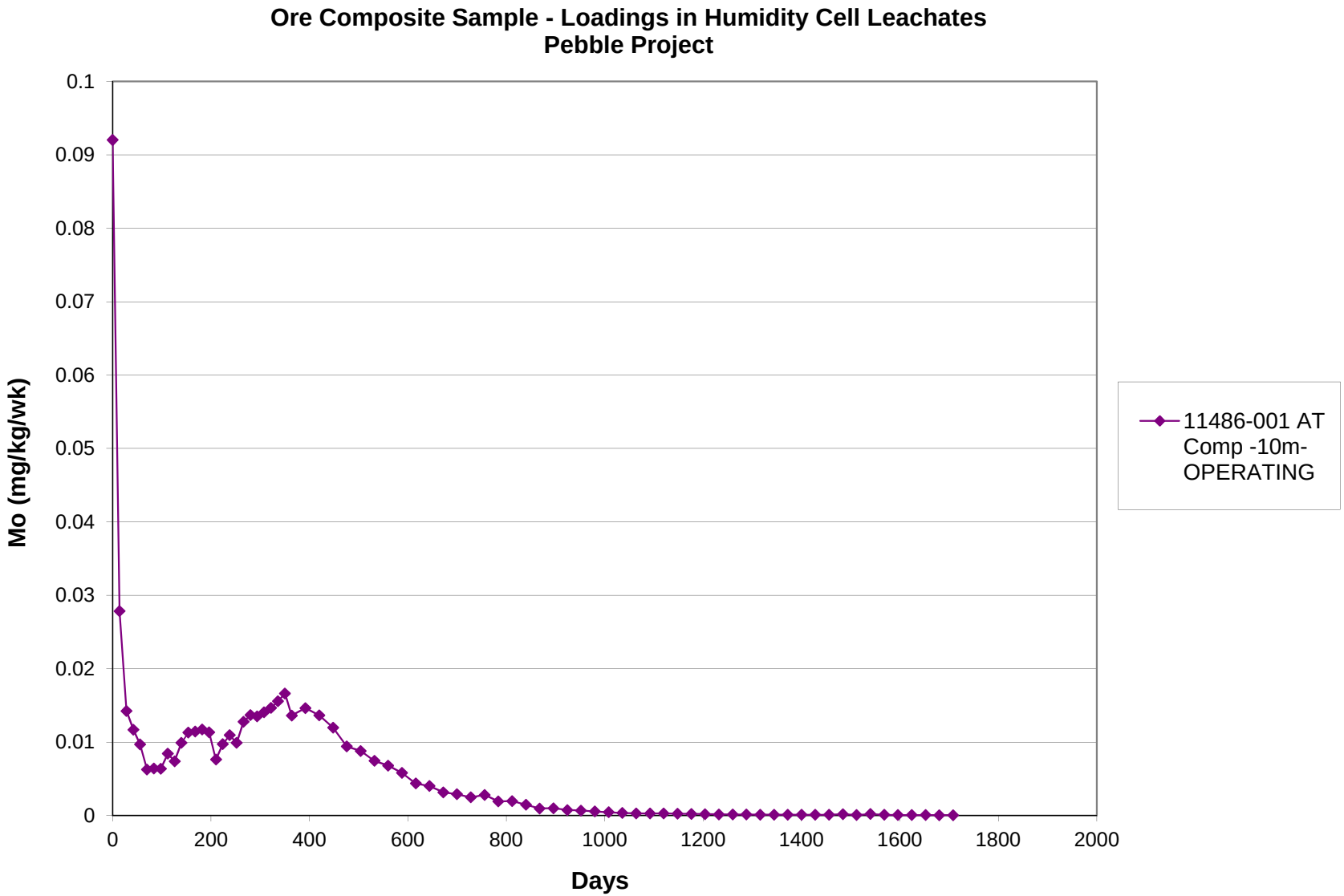

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Fe (mg/kg/wk)
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

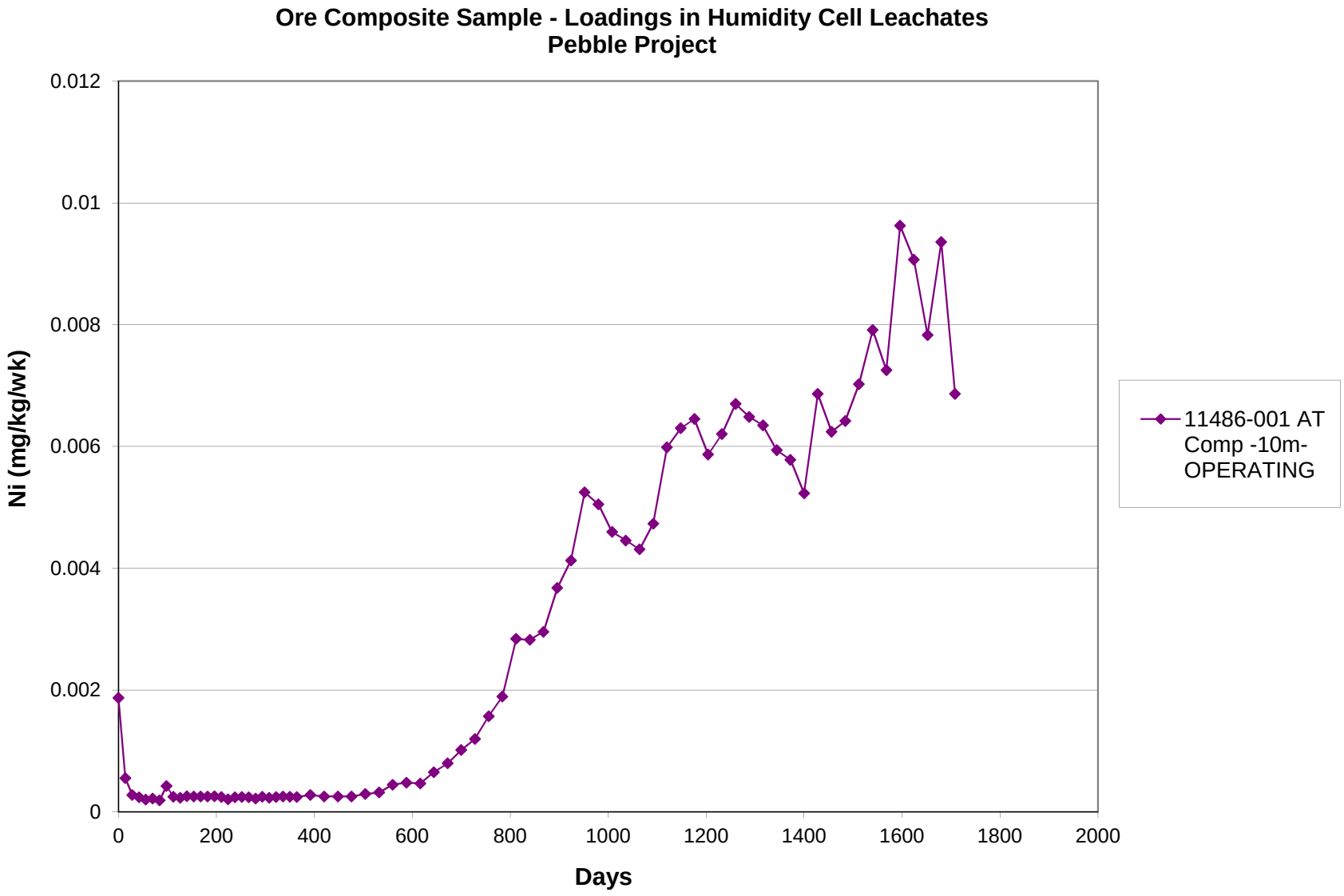

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Pb (mg/kg/wk)
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

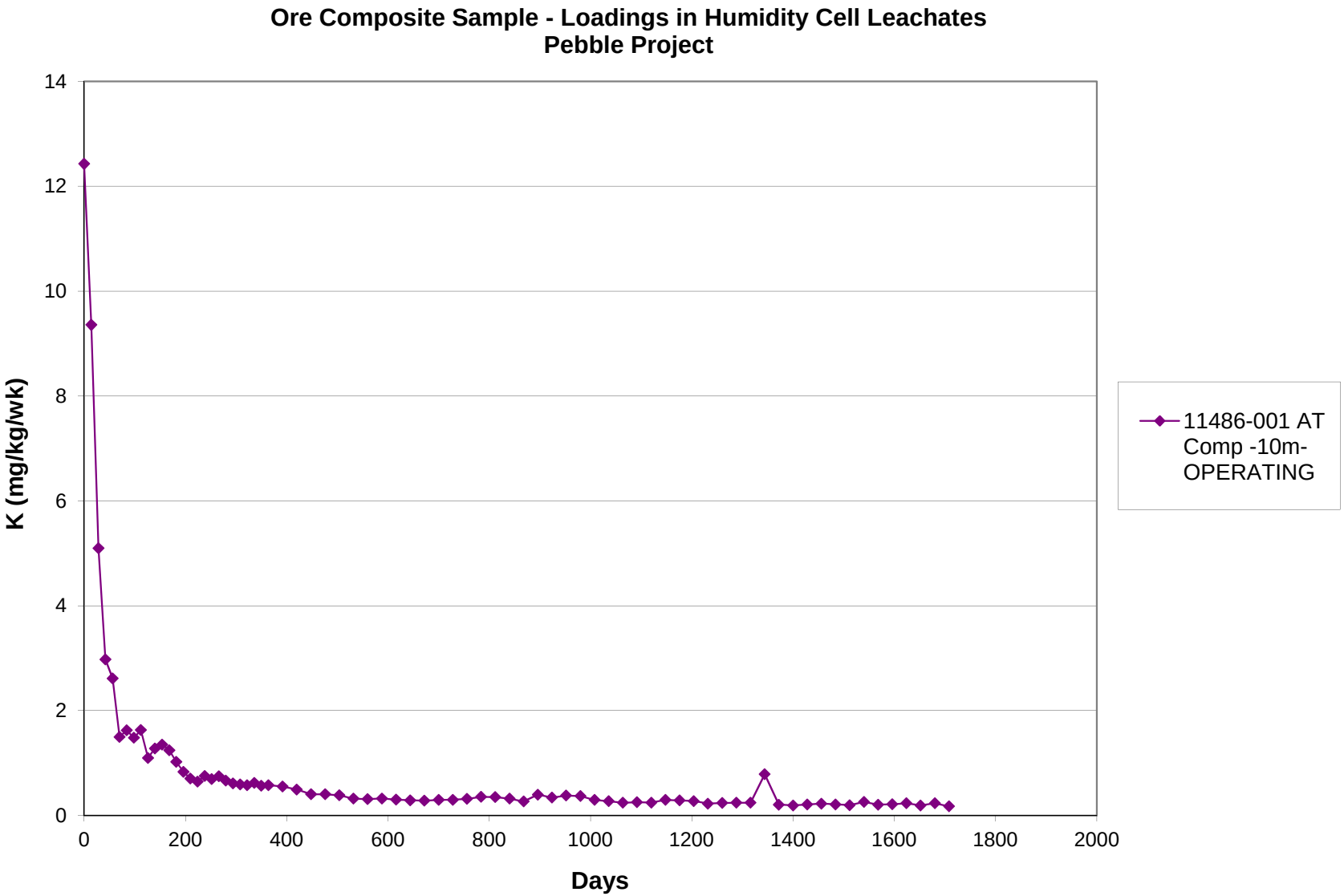

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Mg (mg/kg/wk)
3
2.5
2
1.5
1
0.5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

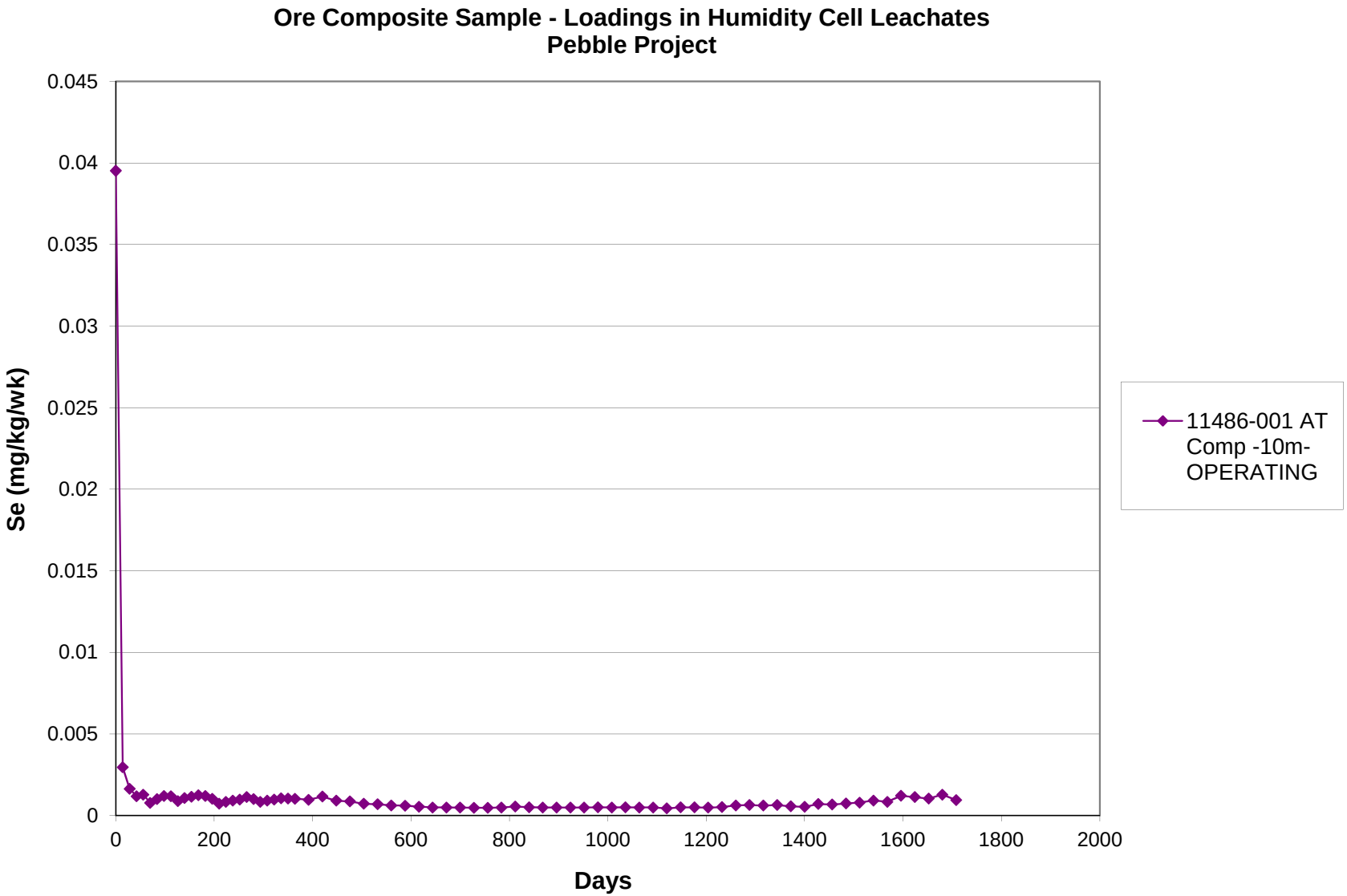

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Mn (mg/kg/wk)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

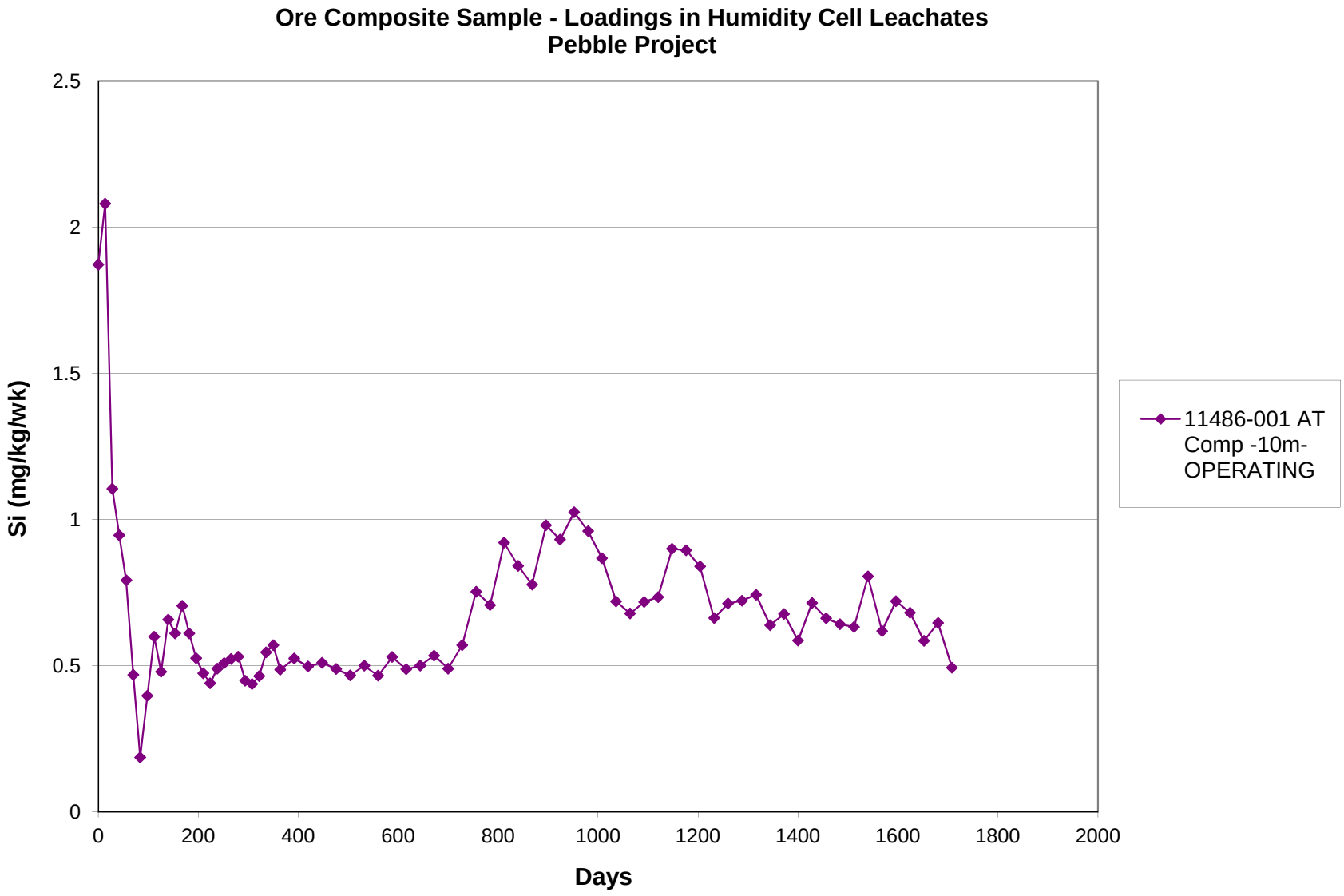

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Hg (mg/kg/wk)
0.000007
0.000006
0.000005
0.000004
0.000003
0.000002
0.000001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

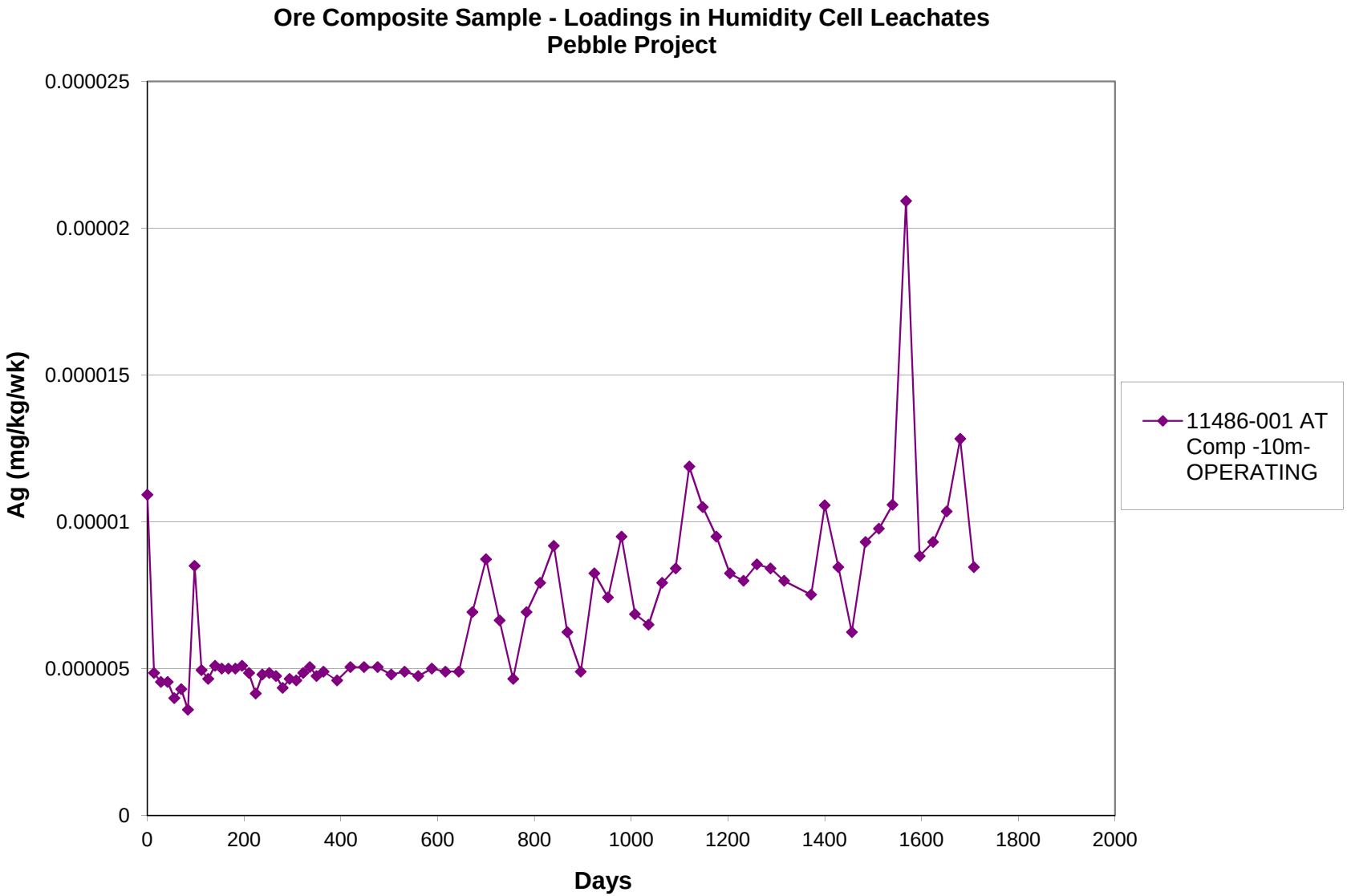

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Mo (mg/kg/wk)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

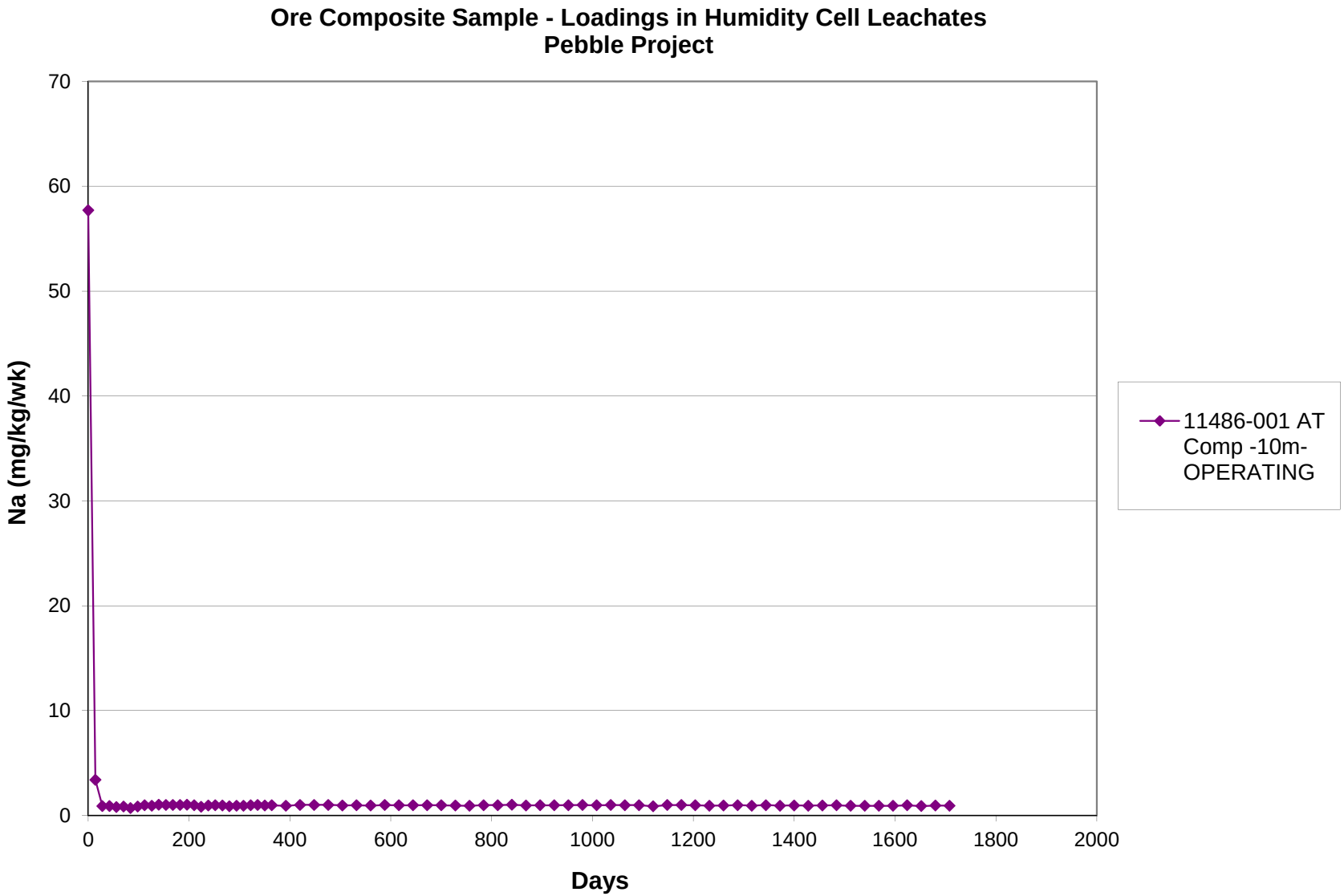

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Ni (mg/kg/wk)
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

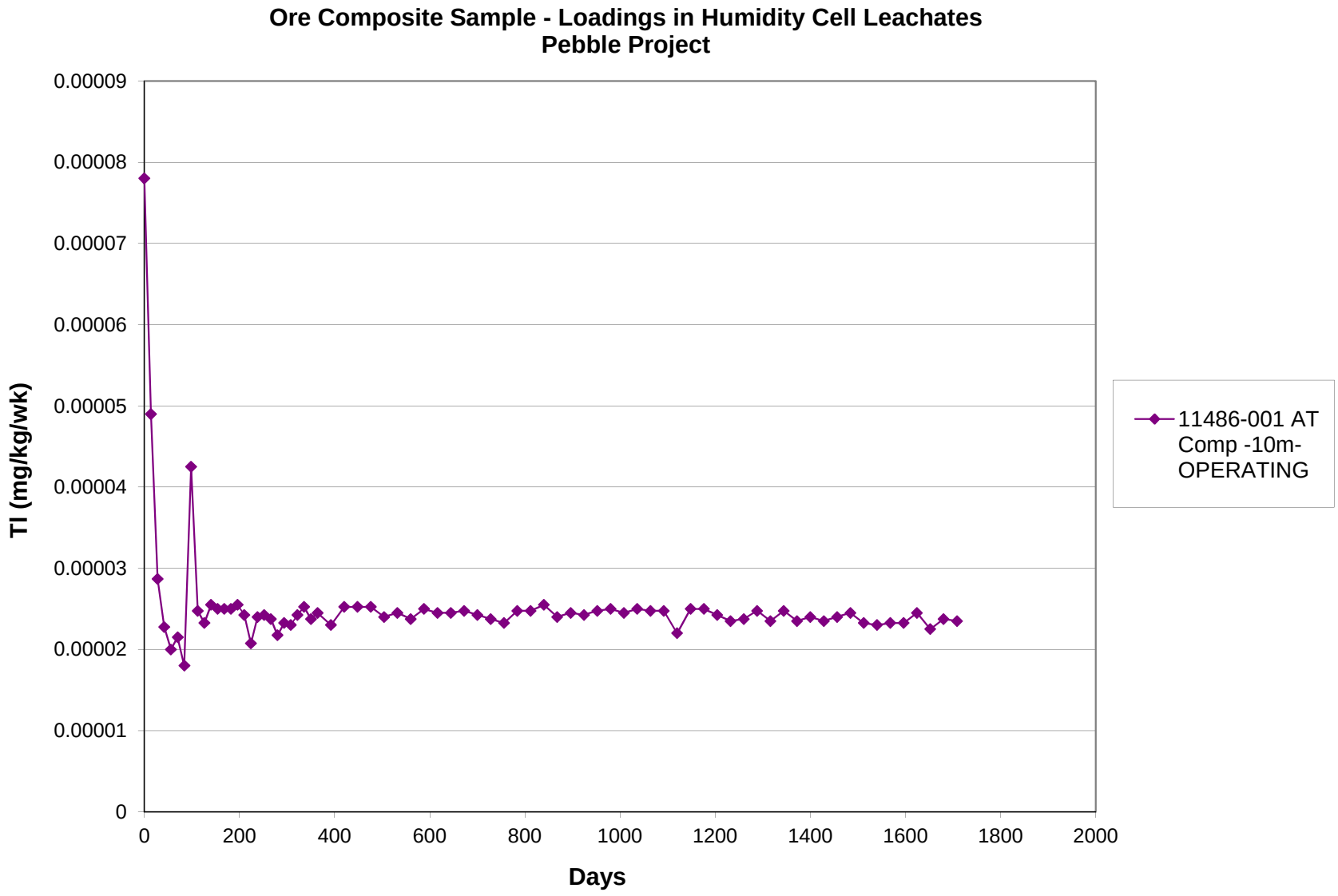

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
K (mg/kg/wk)
Days
0
2
4
6
8
10
12
14
0
200
400
600
800
1000
1200
1400
1600
1800
2000
11486-001 AT Comp -10m- OPERATING

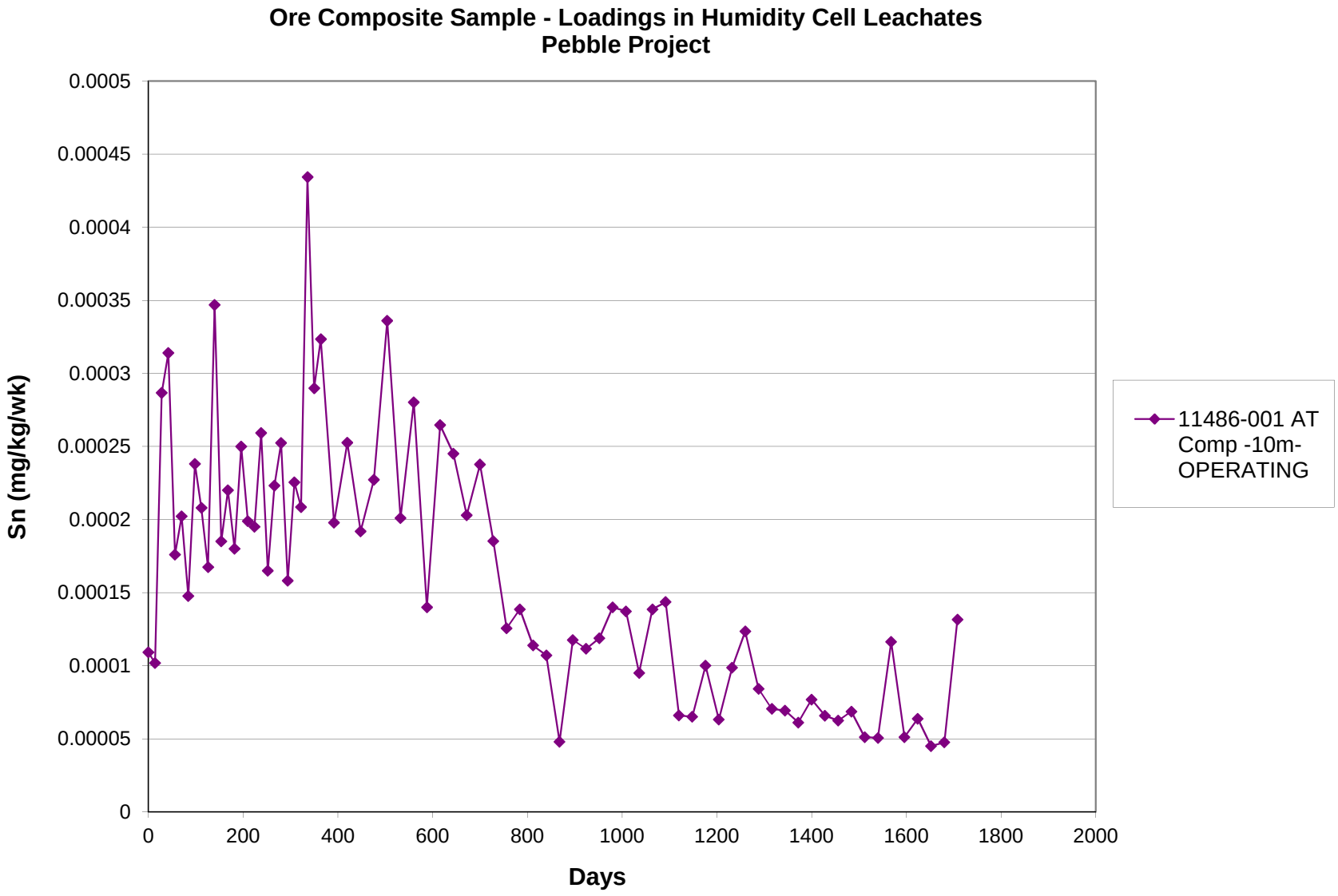

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Se (mg/kg/wk)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING

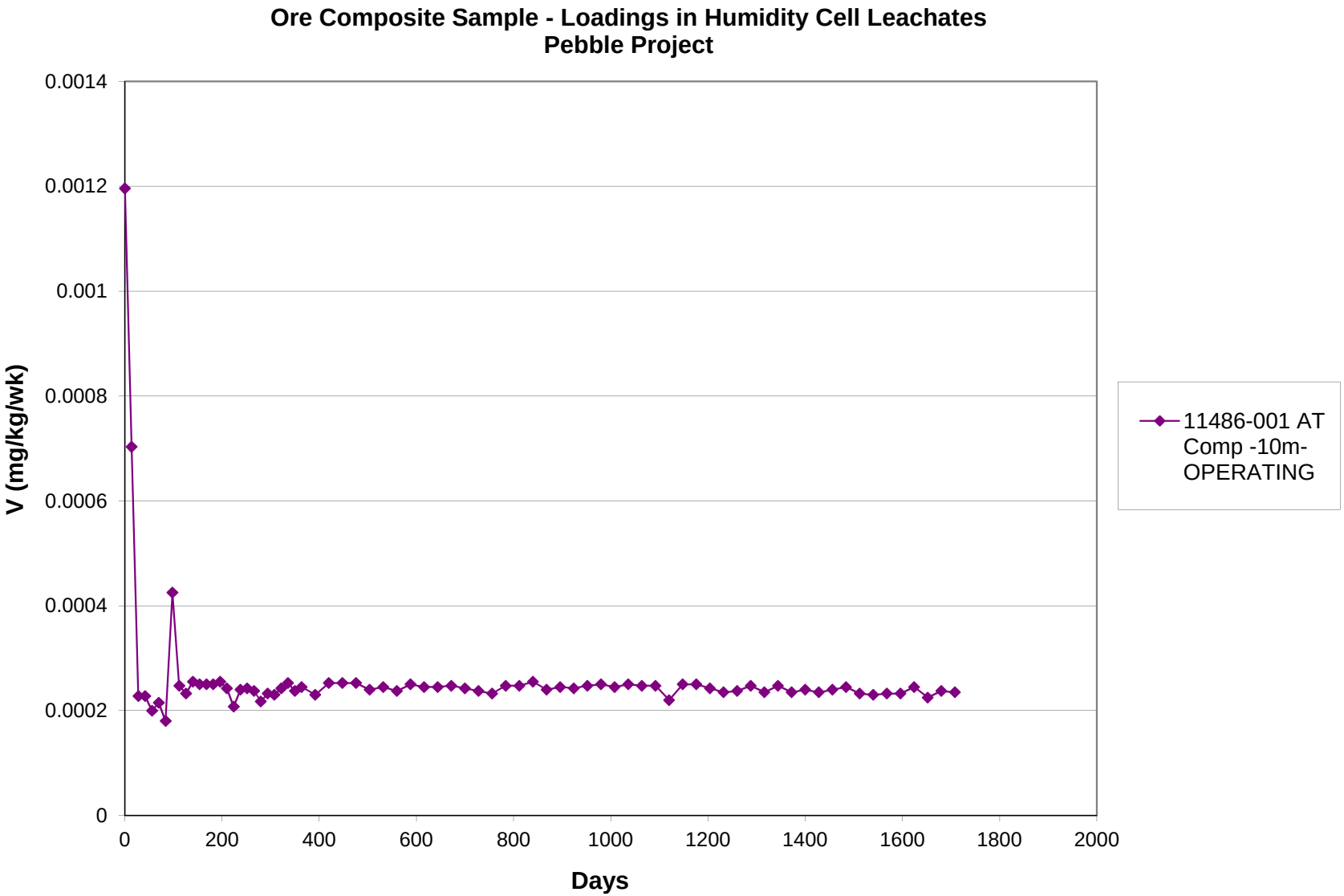

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Si (mg/kg/wk)
2.5
2
1.5
1
0.5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

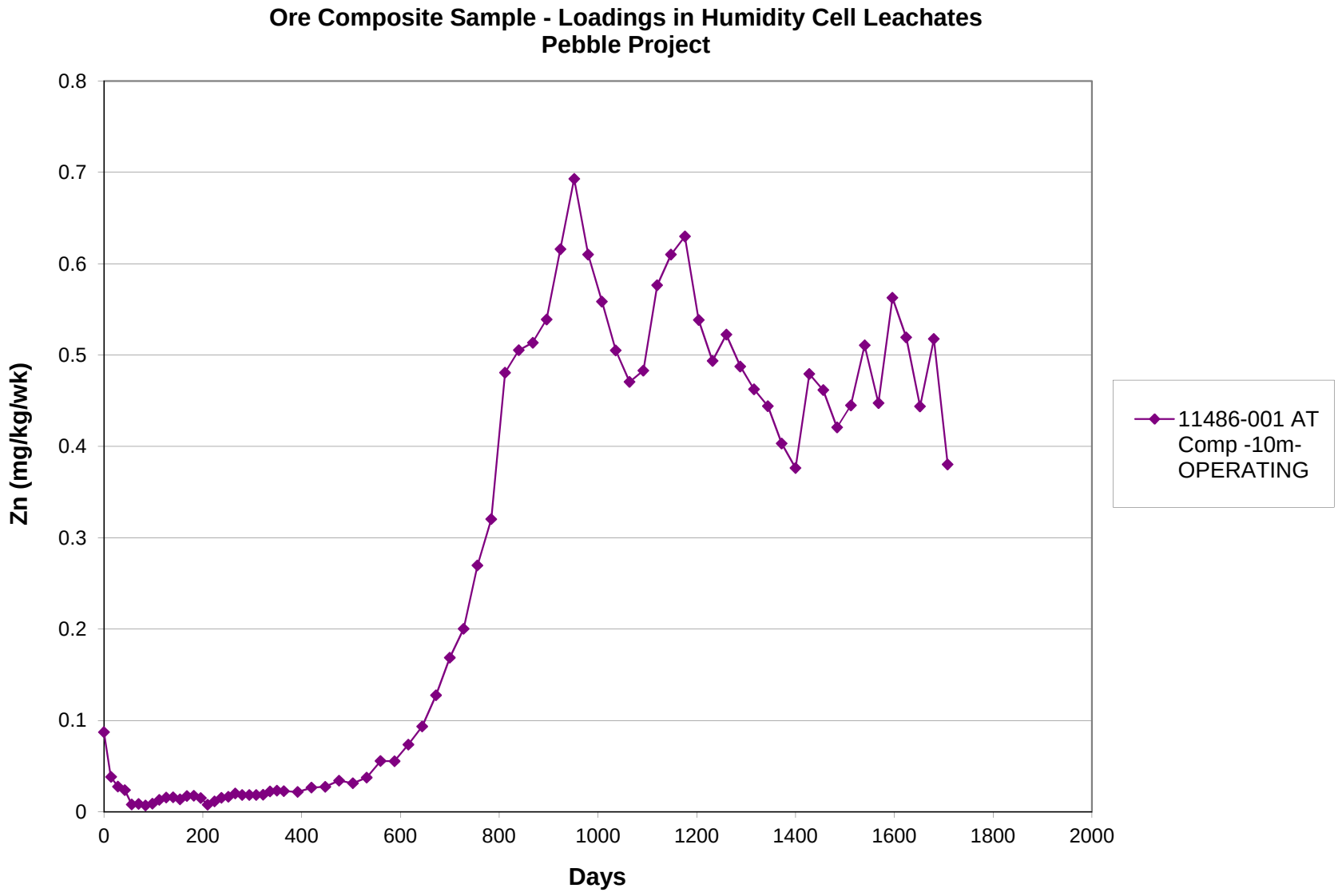

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Ag (mg/kg/wk)
0.000025
0.00002
0.000015
0.00001
0.000005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING

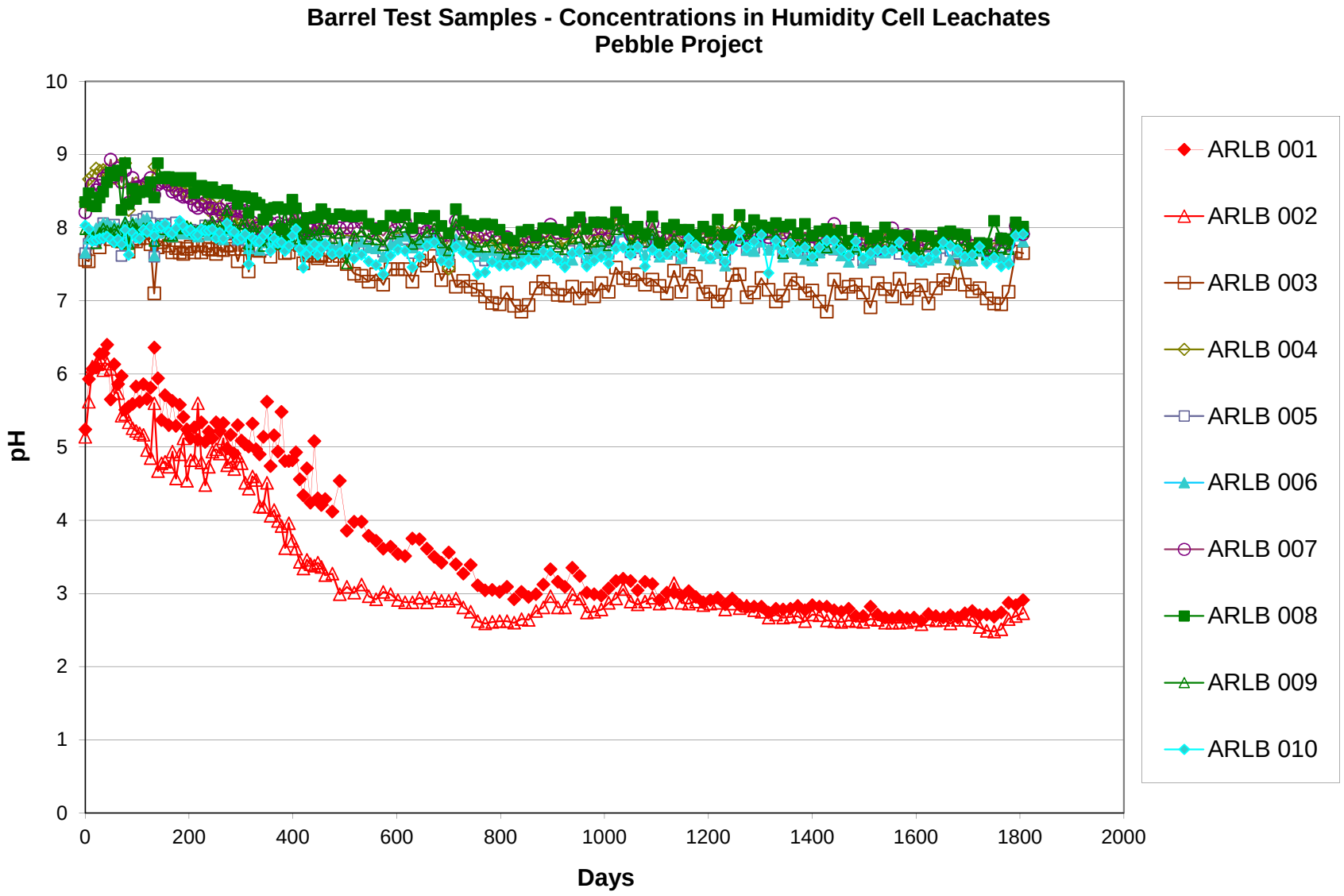

Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Na (mg/kg/wk)
70
60
50
40
30
20
10
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING


Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Tl (mg/kg/wk)
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING


Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Sn (mg/kg/wk)
0.0005
0.00045
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING


Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
V (mg/kg/wk)
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m-OPERATING


Ore Composite Sample - Loadings in Humidity Cell Leachates
Pebble Project
Zn (mg/kg/wk)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
11486-001 AT Comp -10m- OPERATING


Barrel Test Samples - Concentrations in Humidity Cell Leachates
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
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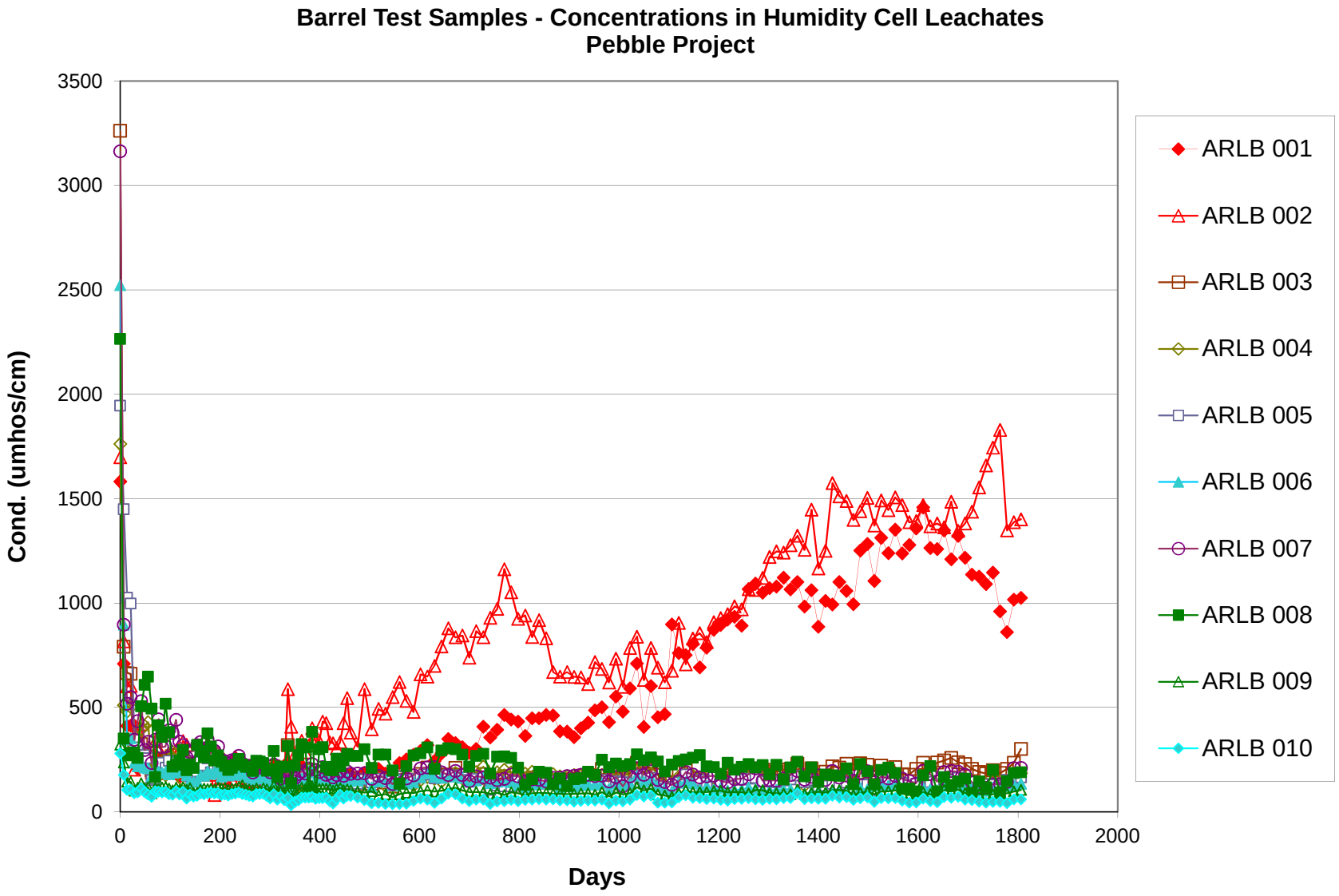
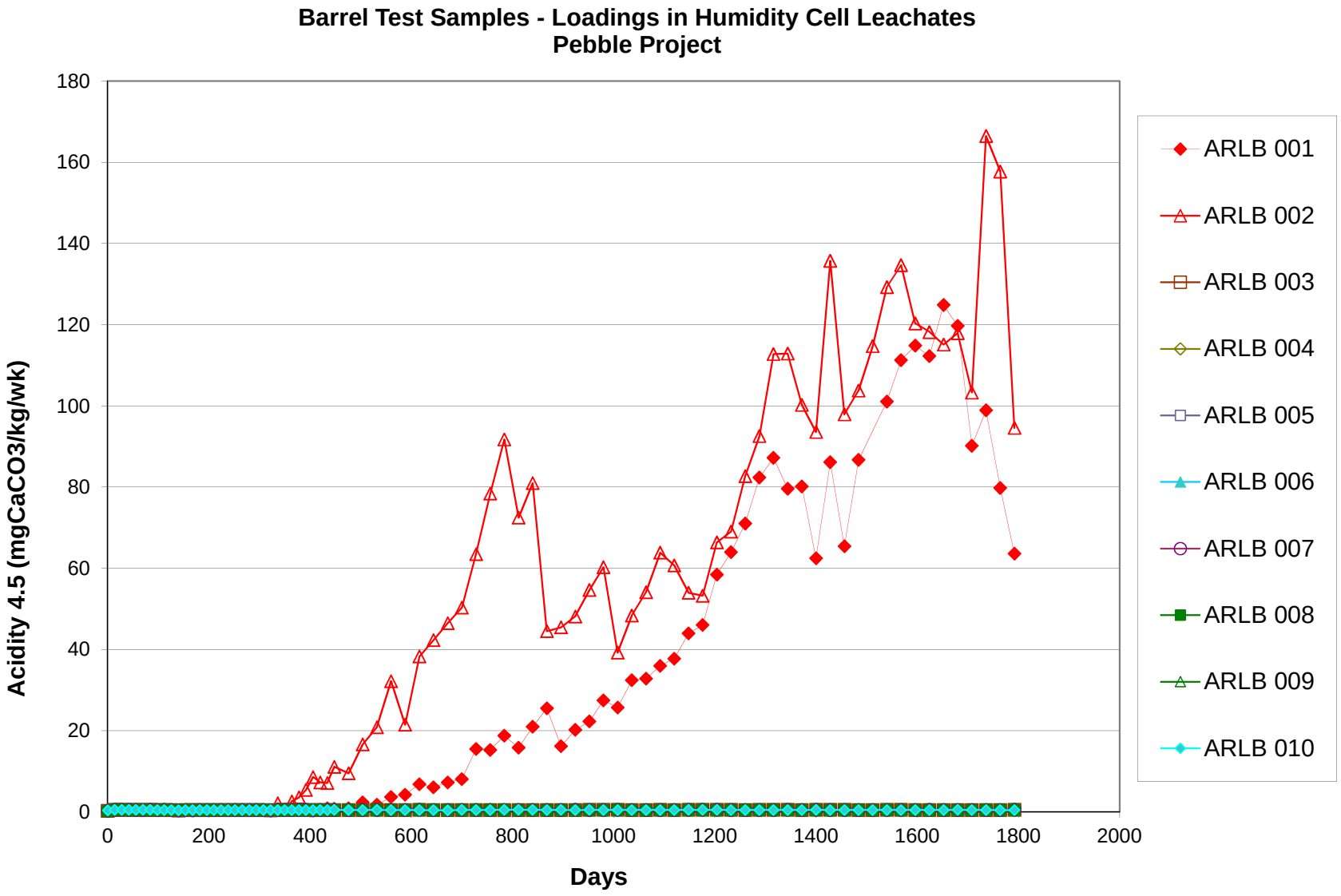
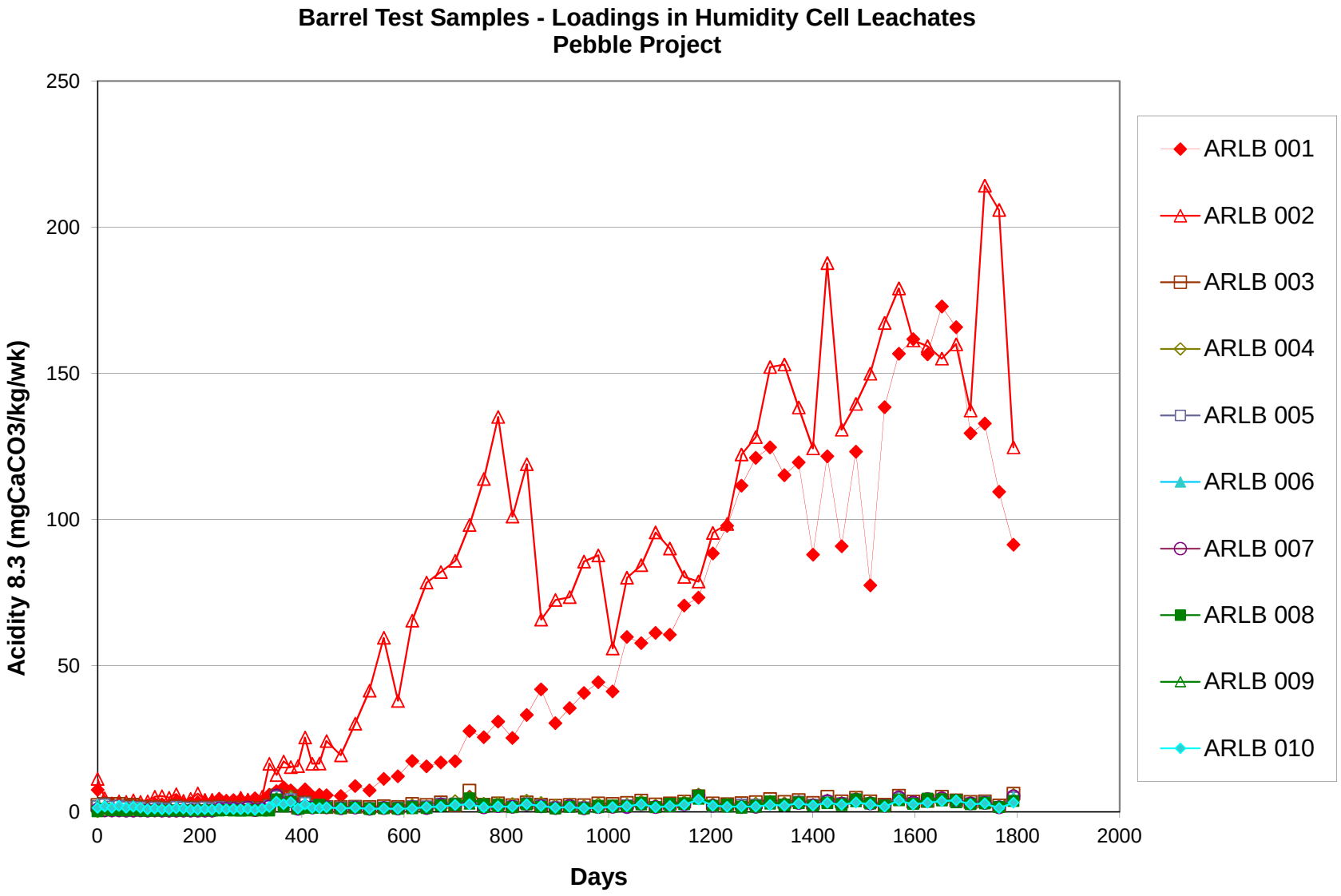
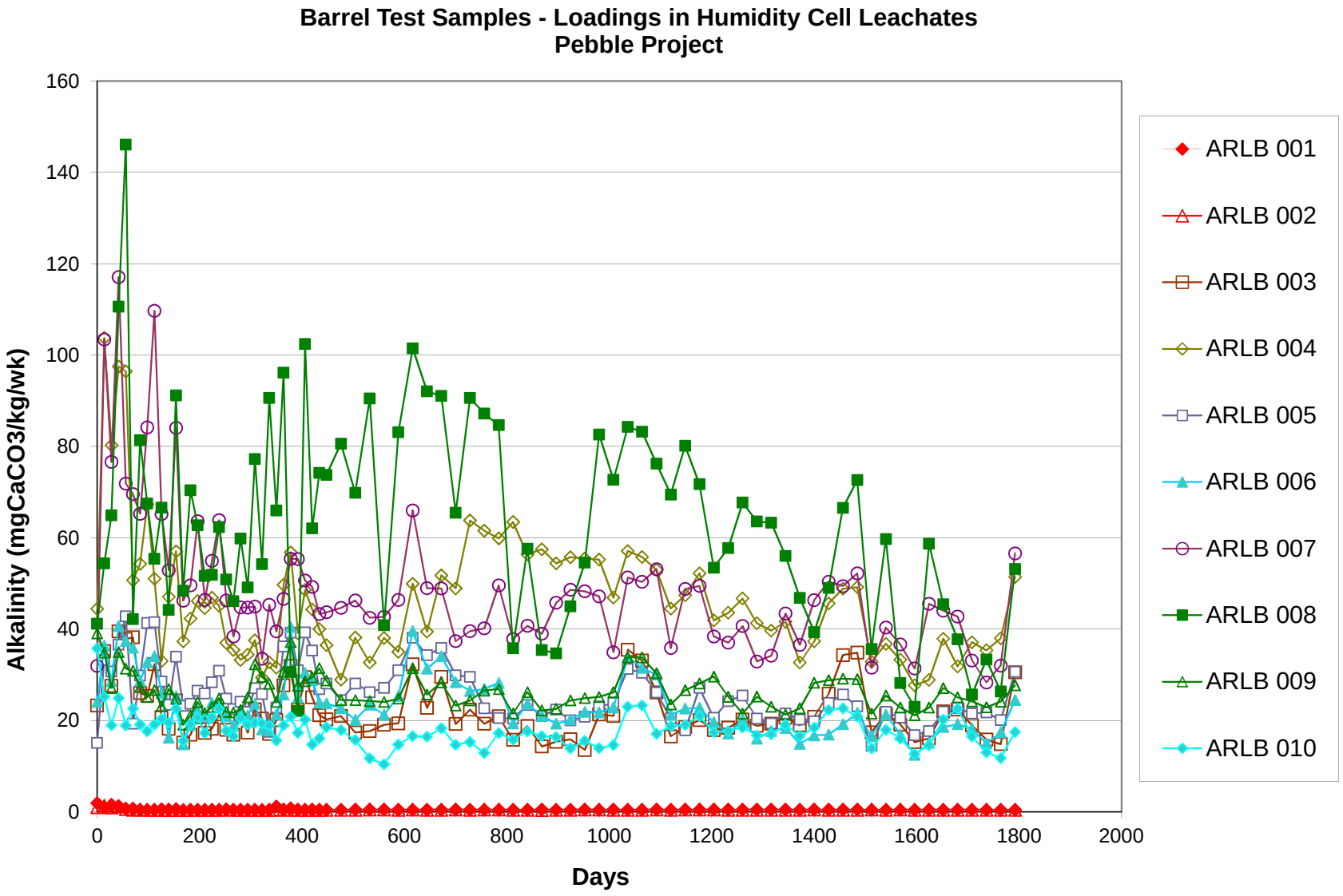
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Concentrations in Humidity Cell Leachates
Pebble Project
Cond. (umhos/cm)
3500
3000
2500
2000
1500
1000
500
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 4.5 (mgCaCO3/kg/wk)
Days
0
20
40
60
80
100
120
140
160
180
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Acidity 8.3 (mgCaCO3/kg/wk)
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Alkalinity (mgCaCO3/kg/wk)
Days
0
20
40
60
80
100
120
140
160
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
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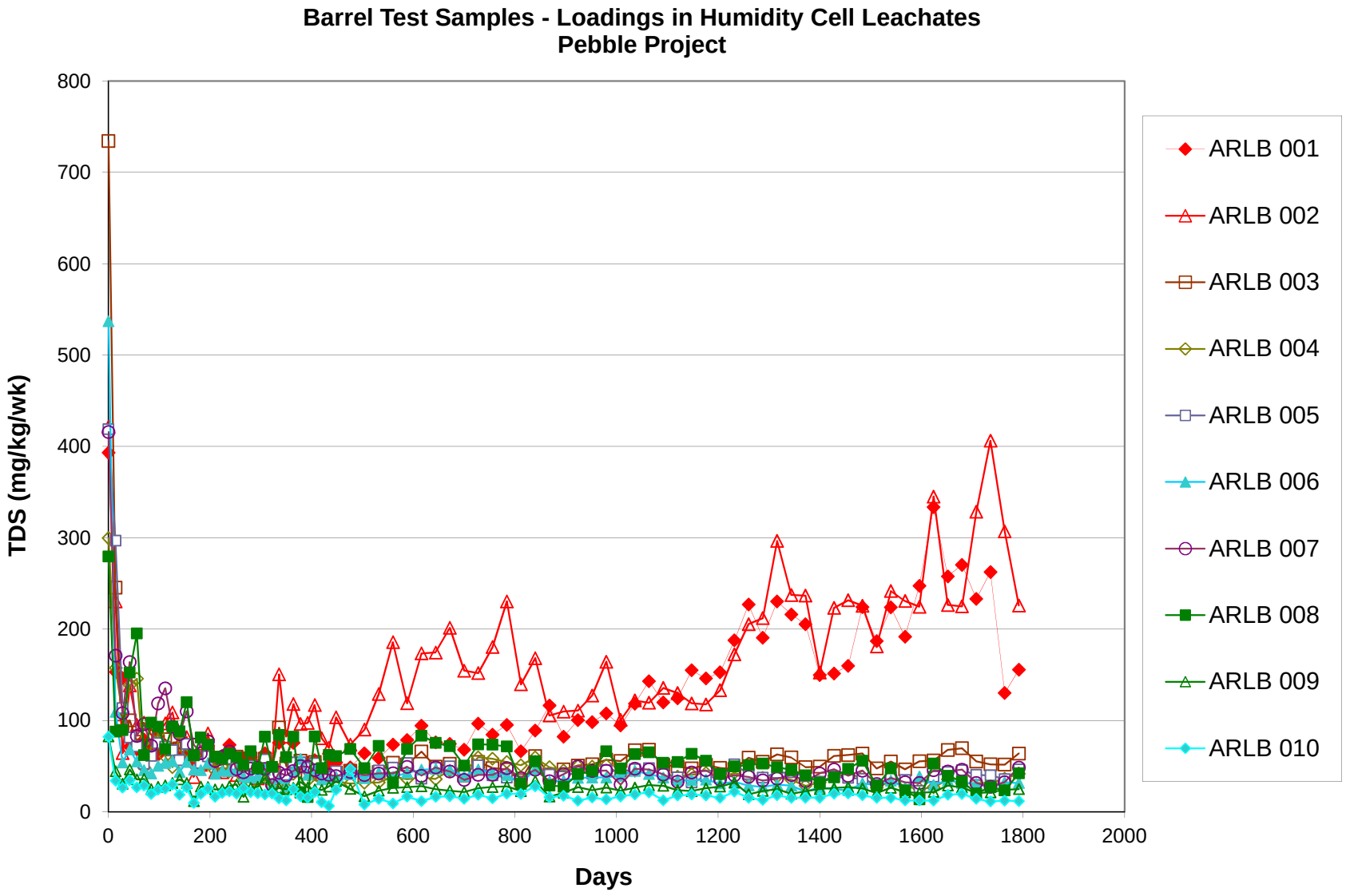
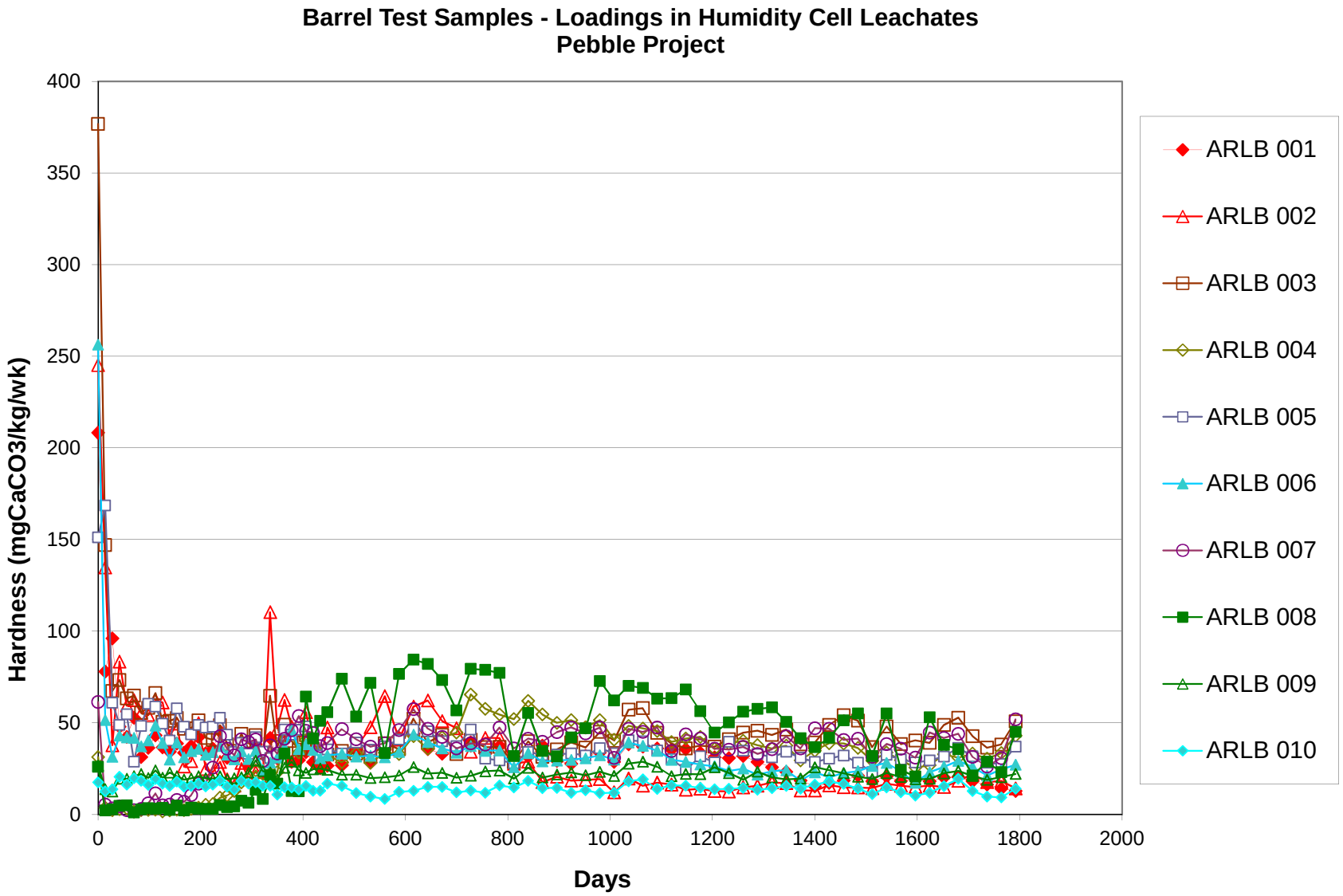
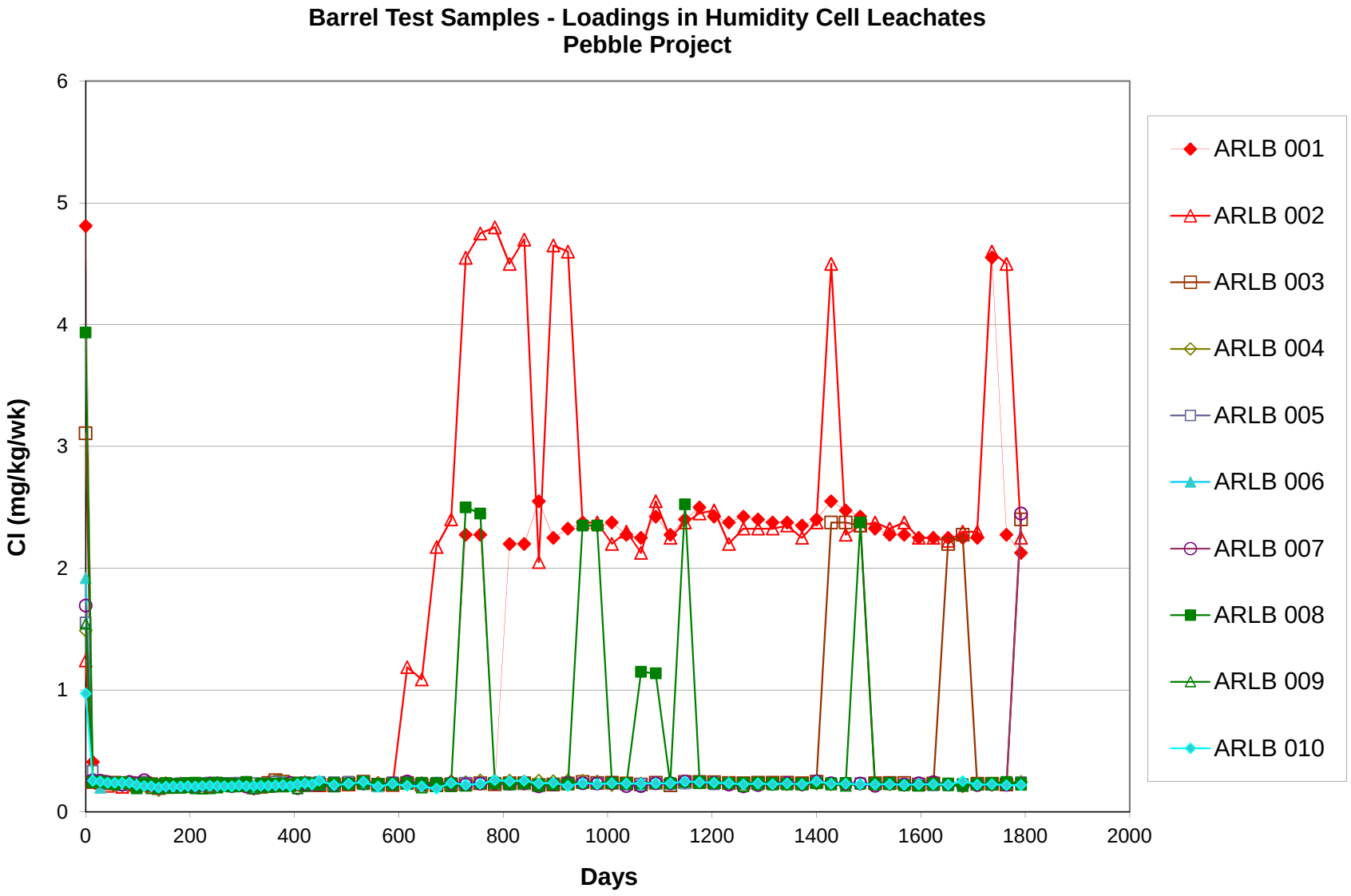
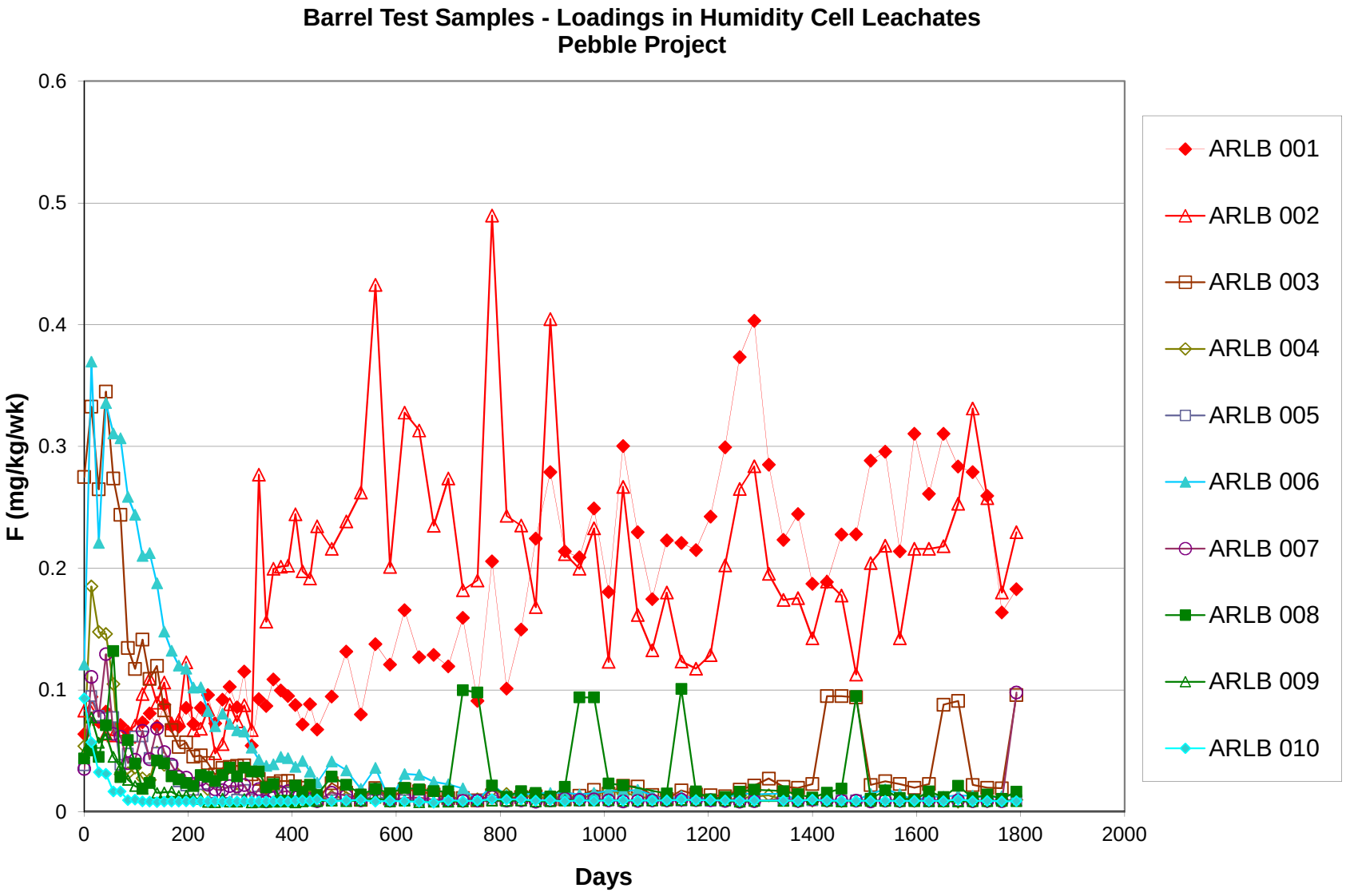
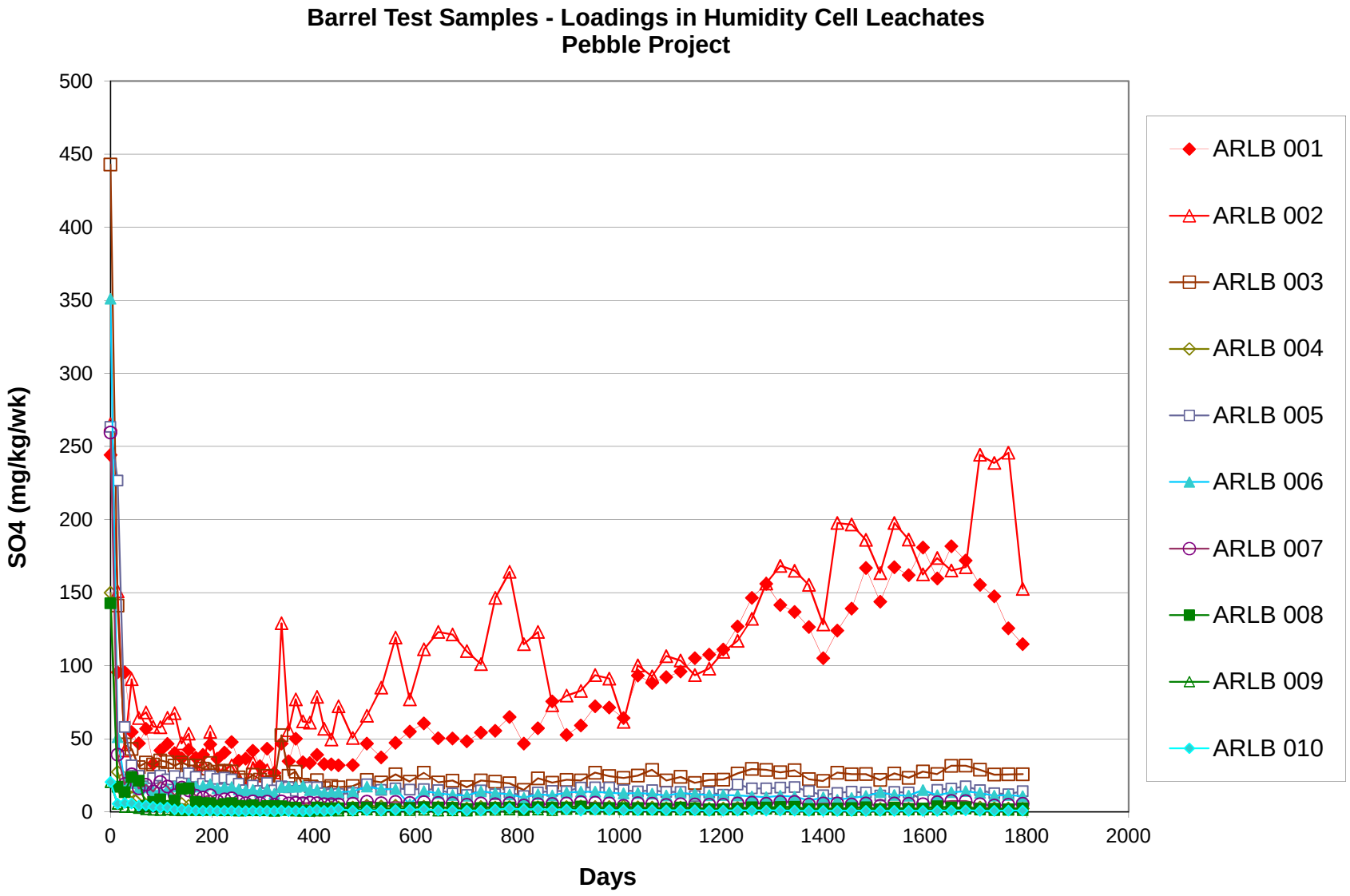
ARLB 009
ARLB 010

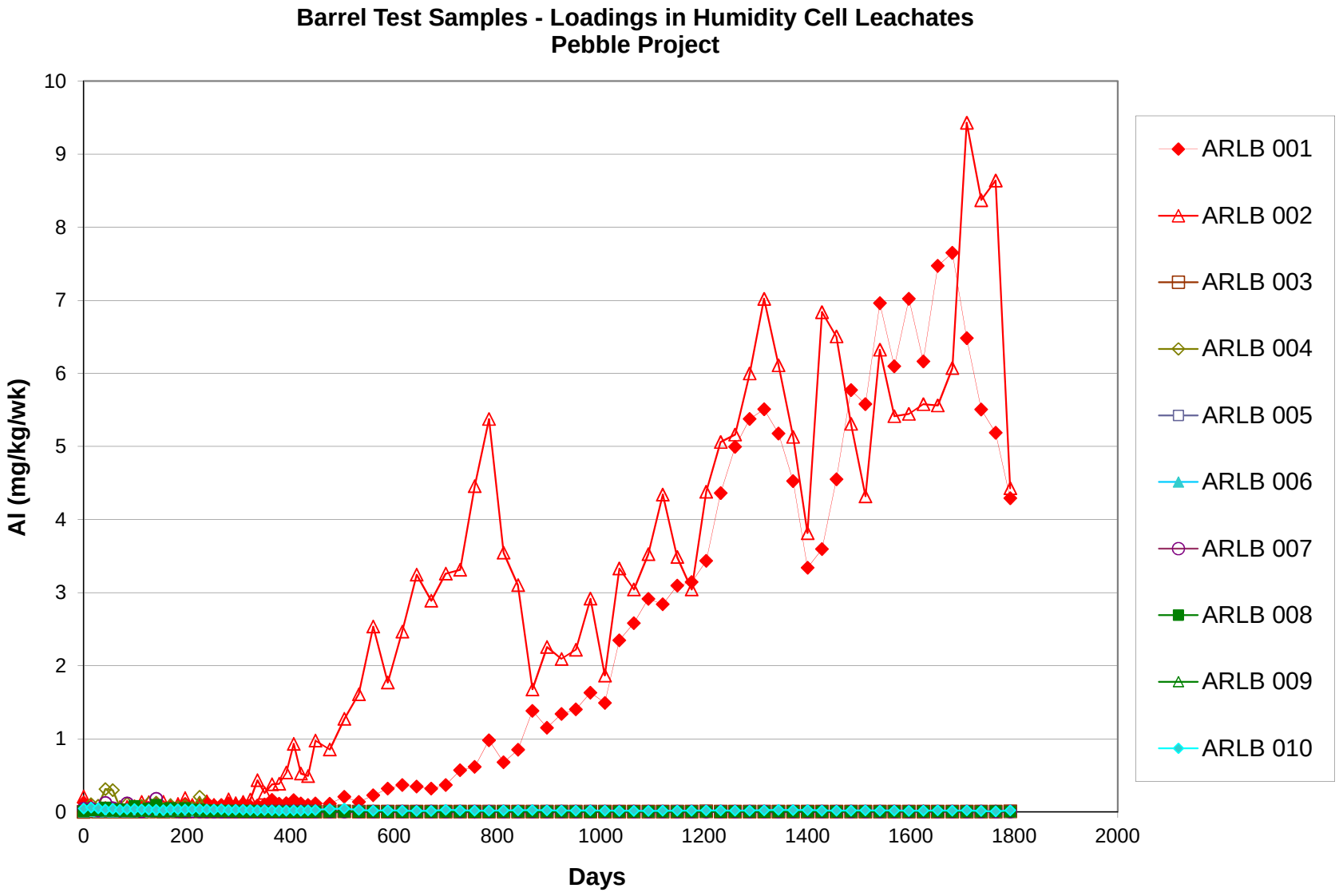

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
TDS (mg/kg/wk)
Days
0
100
200
300
400
500
600
700
800
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

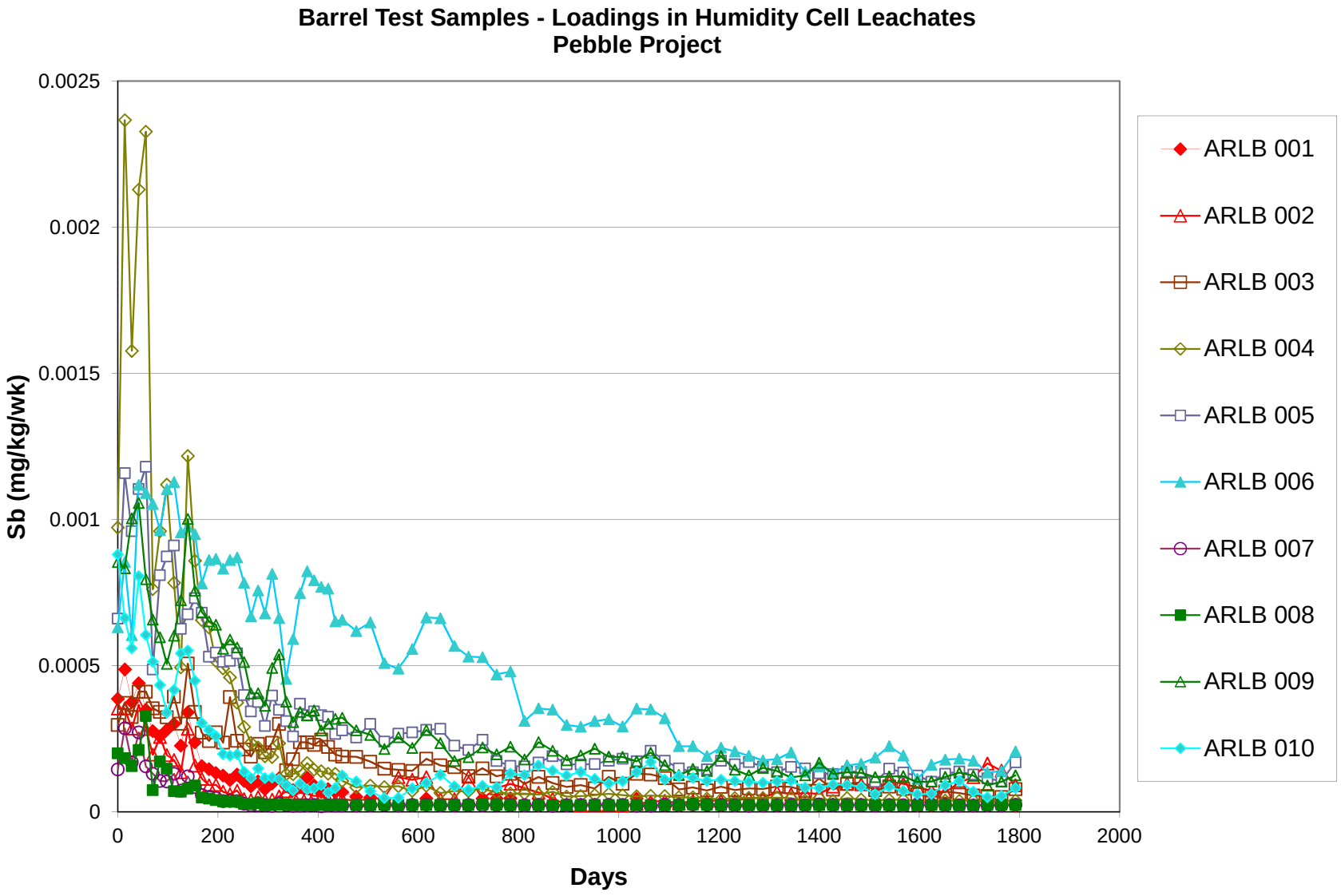

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Hardness (mgCaCO3/kg/wk)
400
350
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

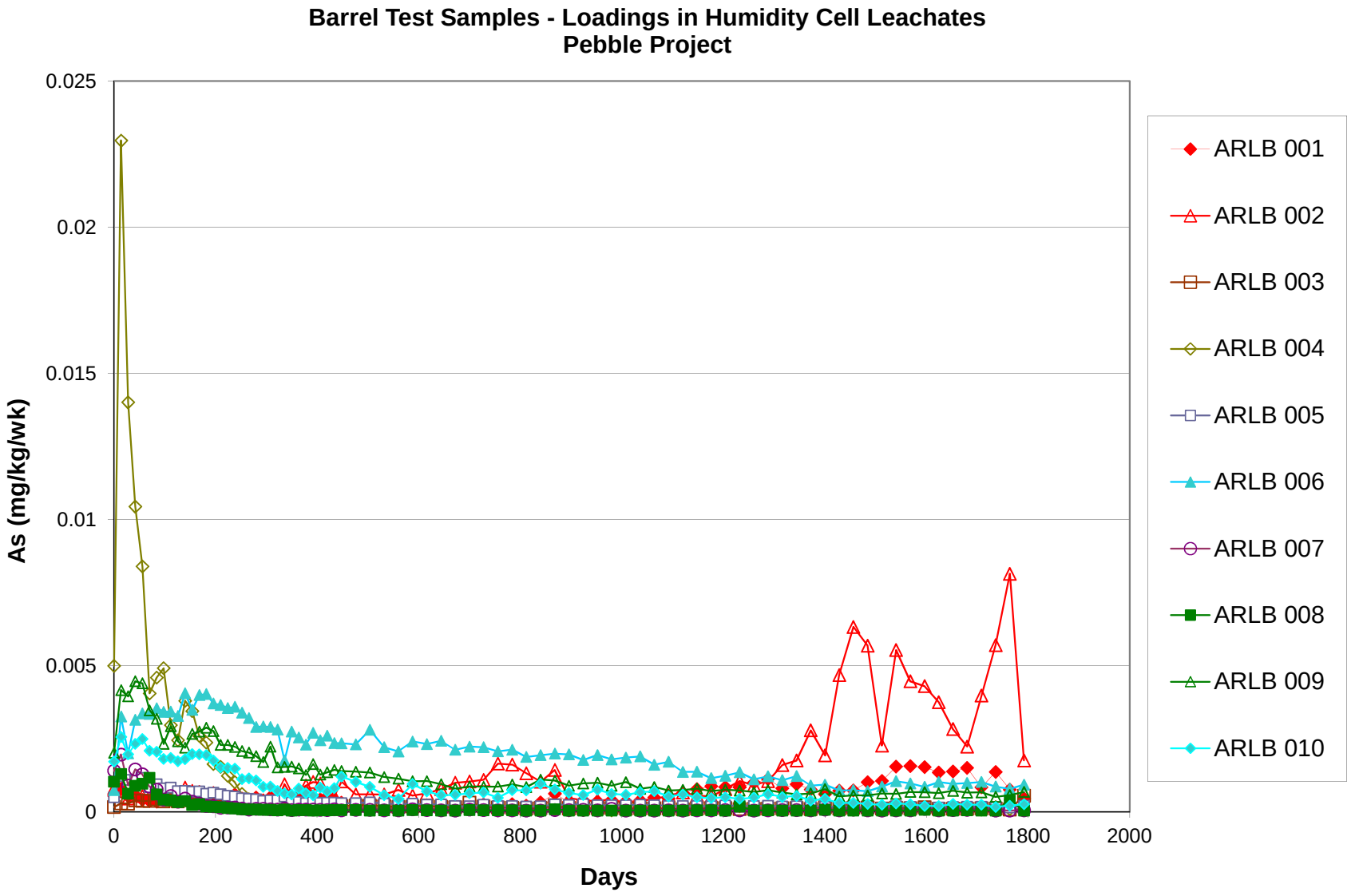

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cl (mg/kg/wk)
Days
0
1
2
3
4
5
6
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

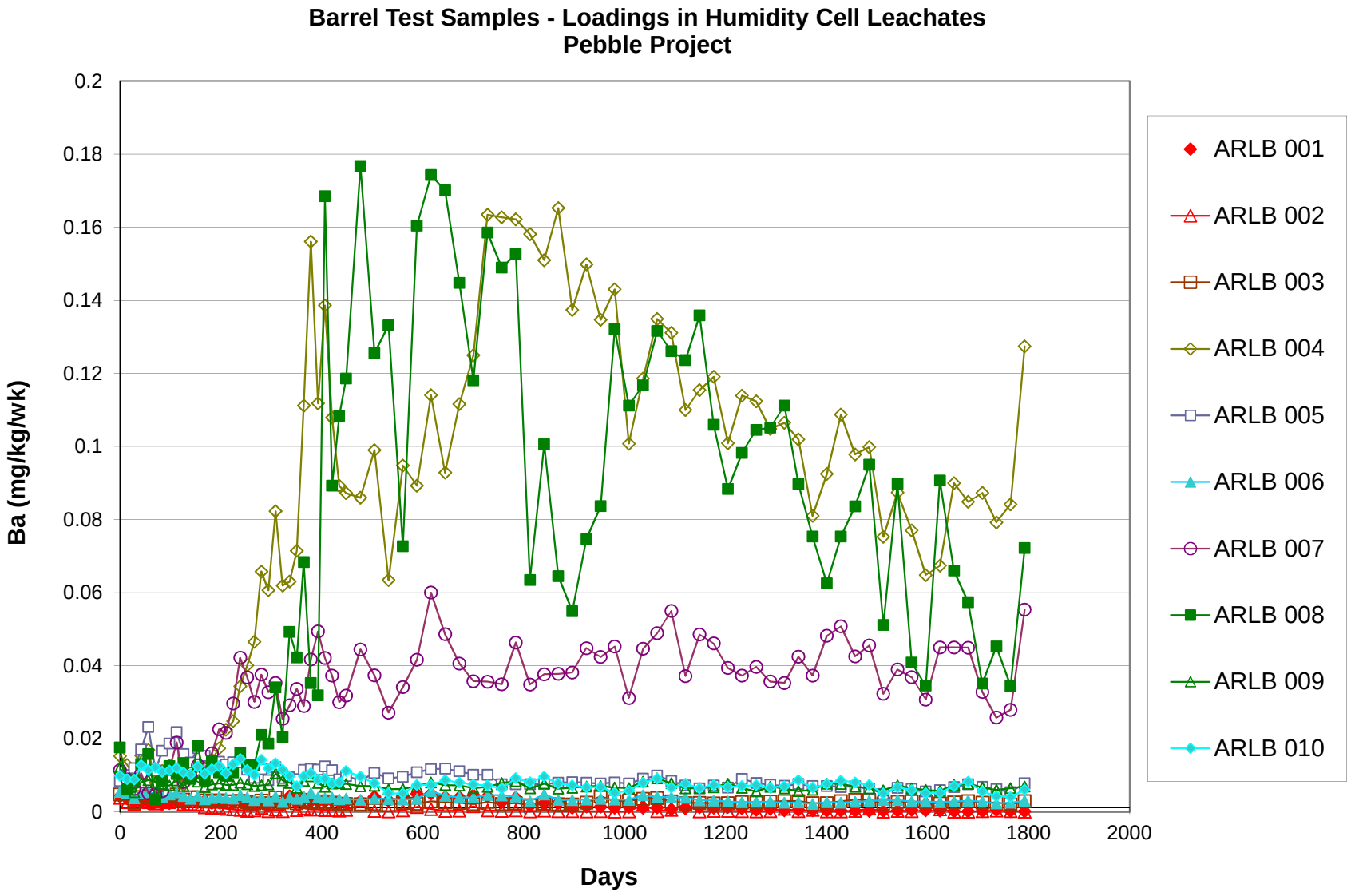

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
F (mg/kg/wk)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

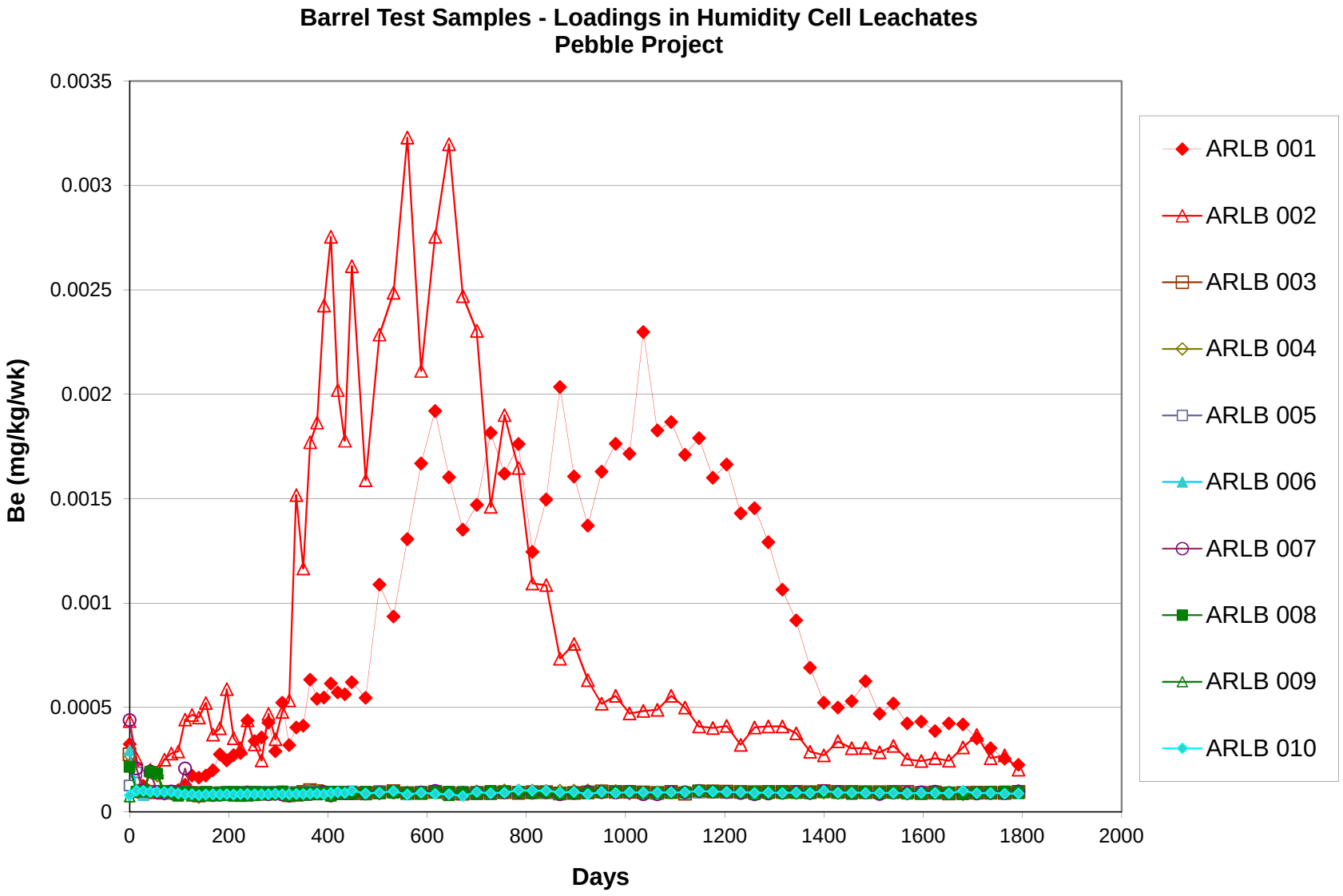

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
SO4 (mg/kg/wk)
500
450
400
350
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

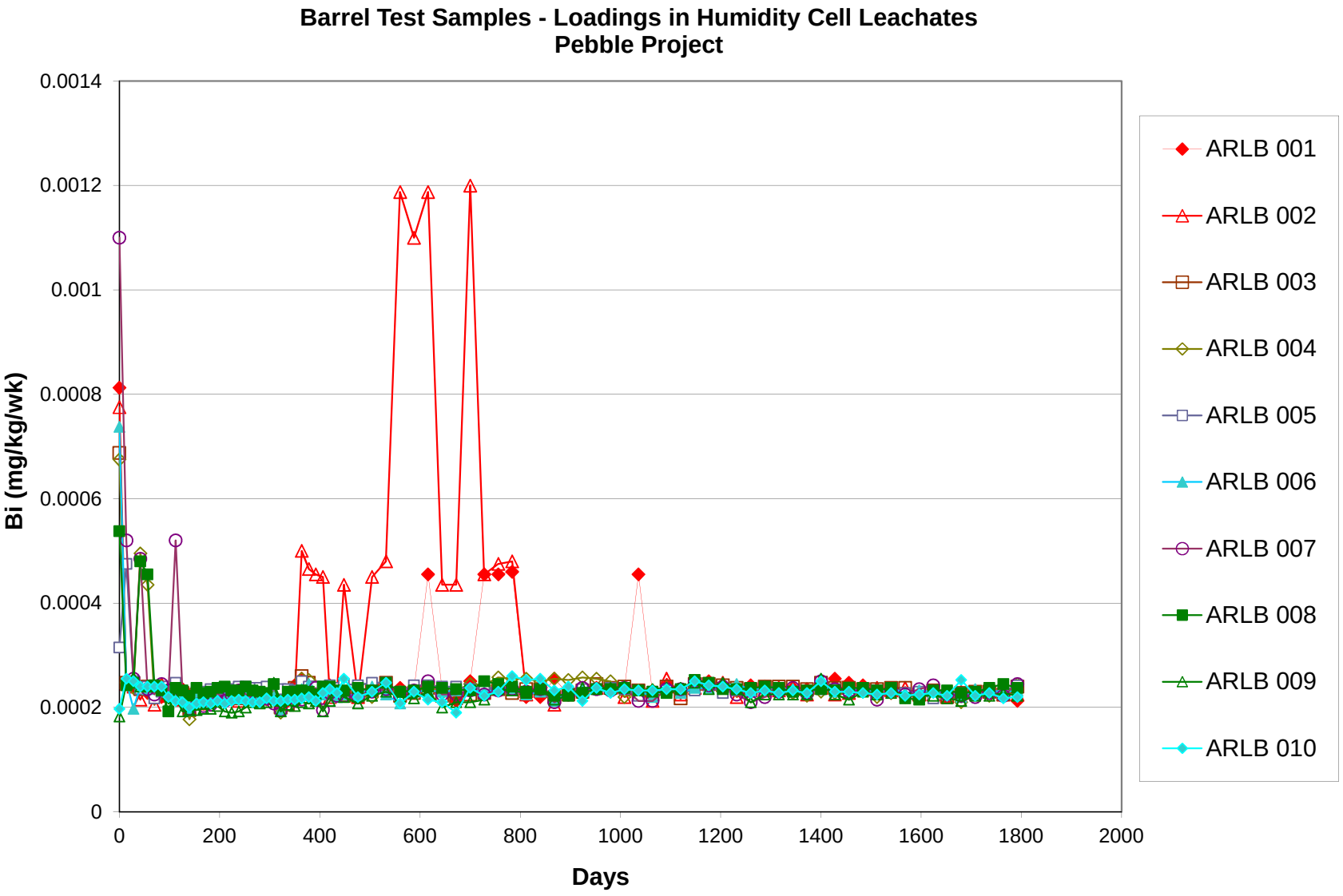

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Al (mg/kg/wk)
Days
0
1
2
3
4
5
6
7
8
9
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

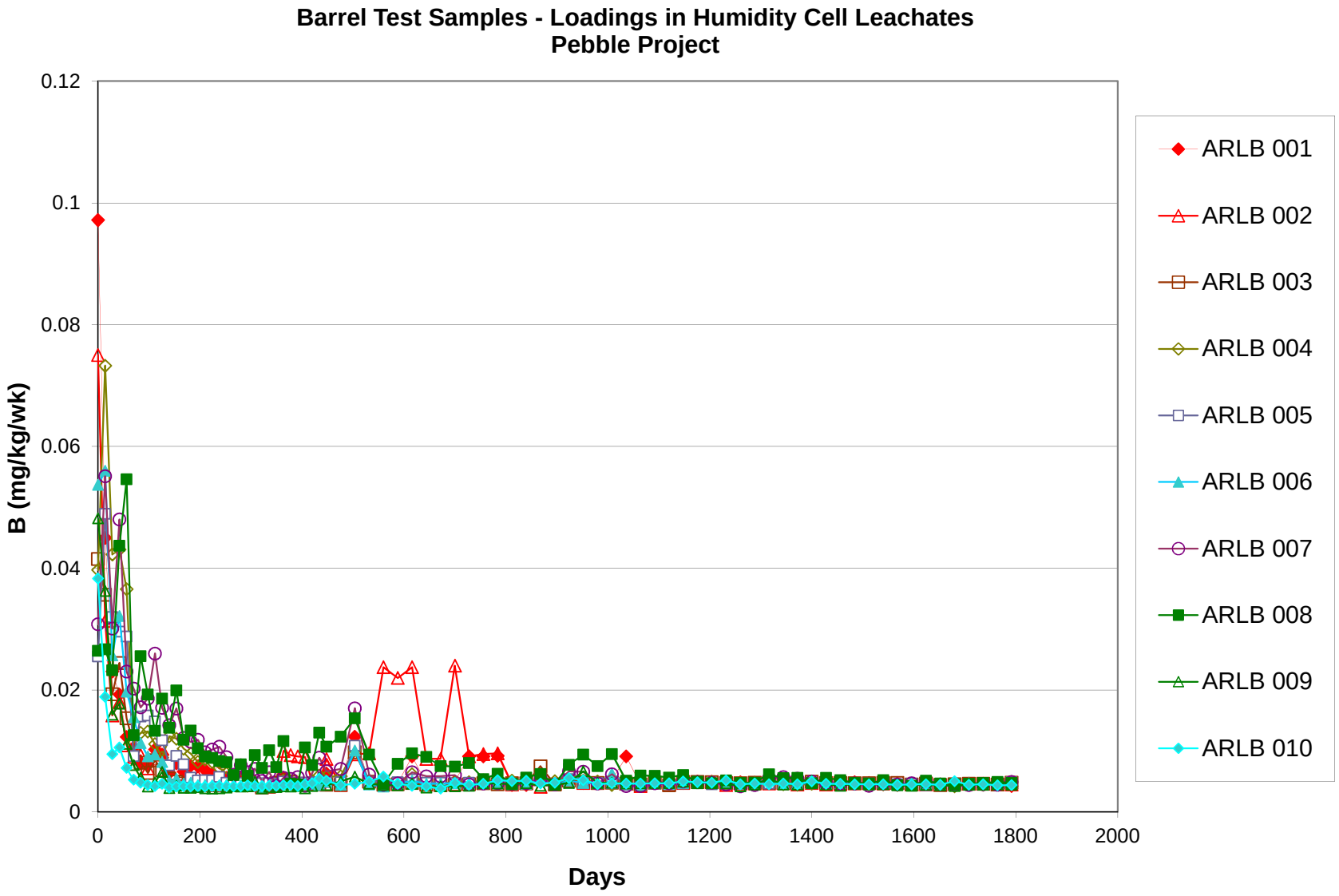

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Sb (mg/kg/wk)
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

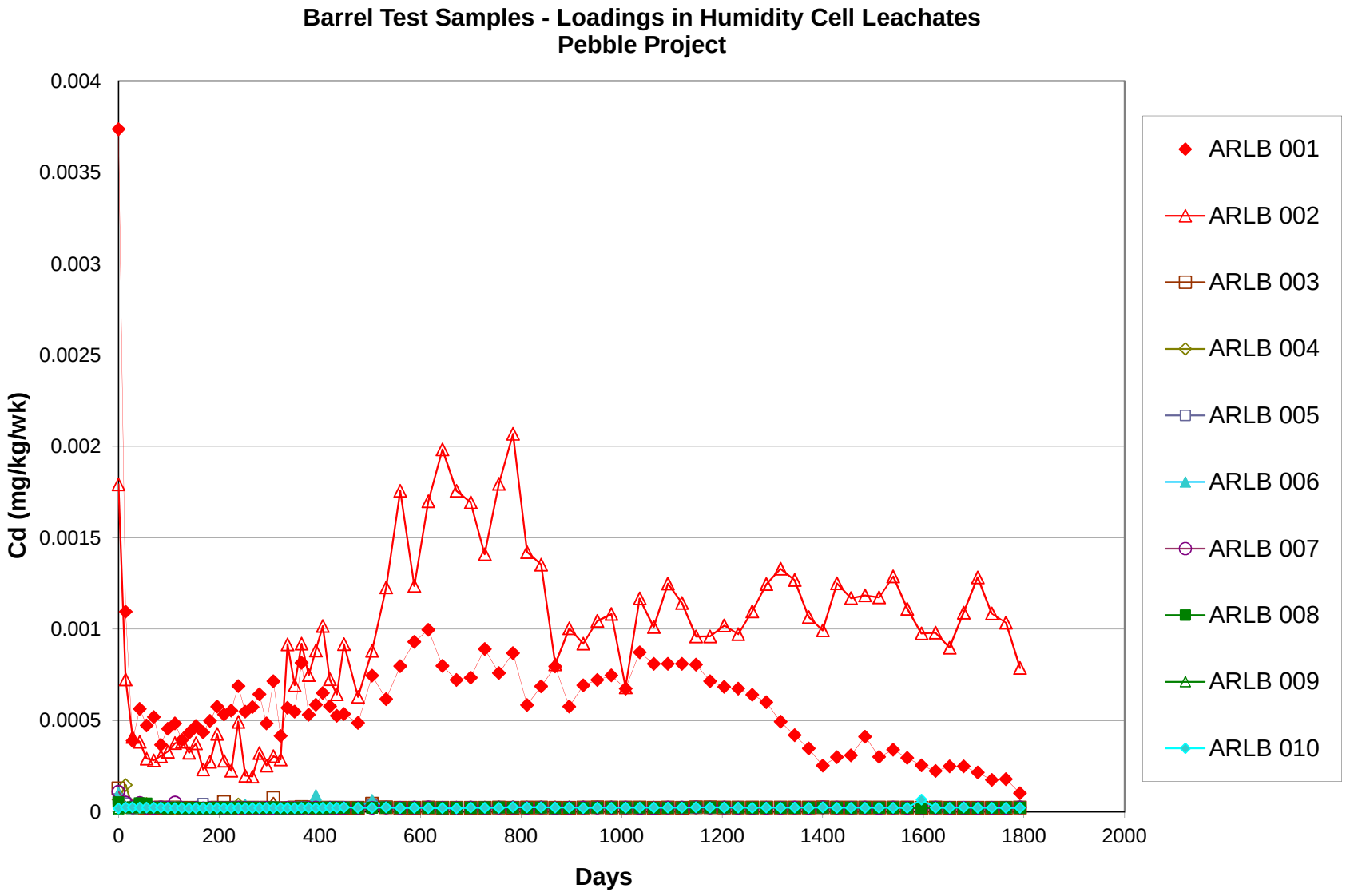

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
As (mg/kg/wk)
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

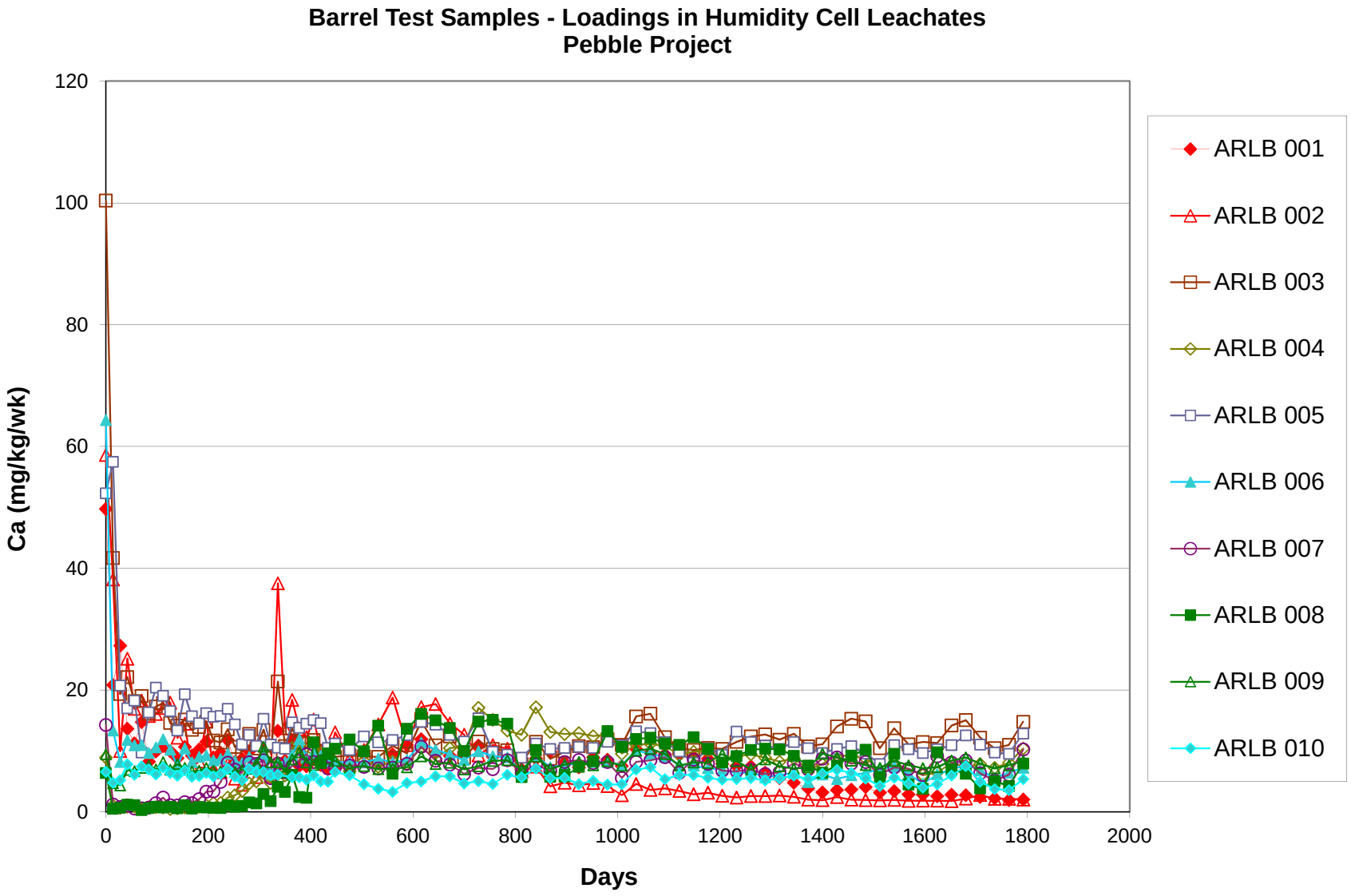

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ba (mg/kg/wk)
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

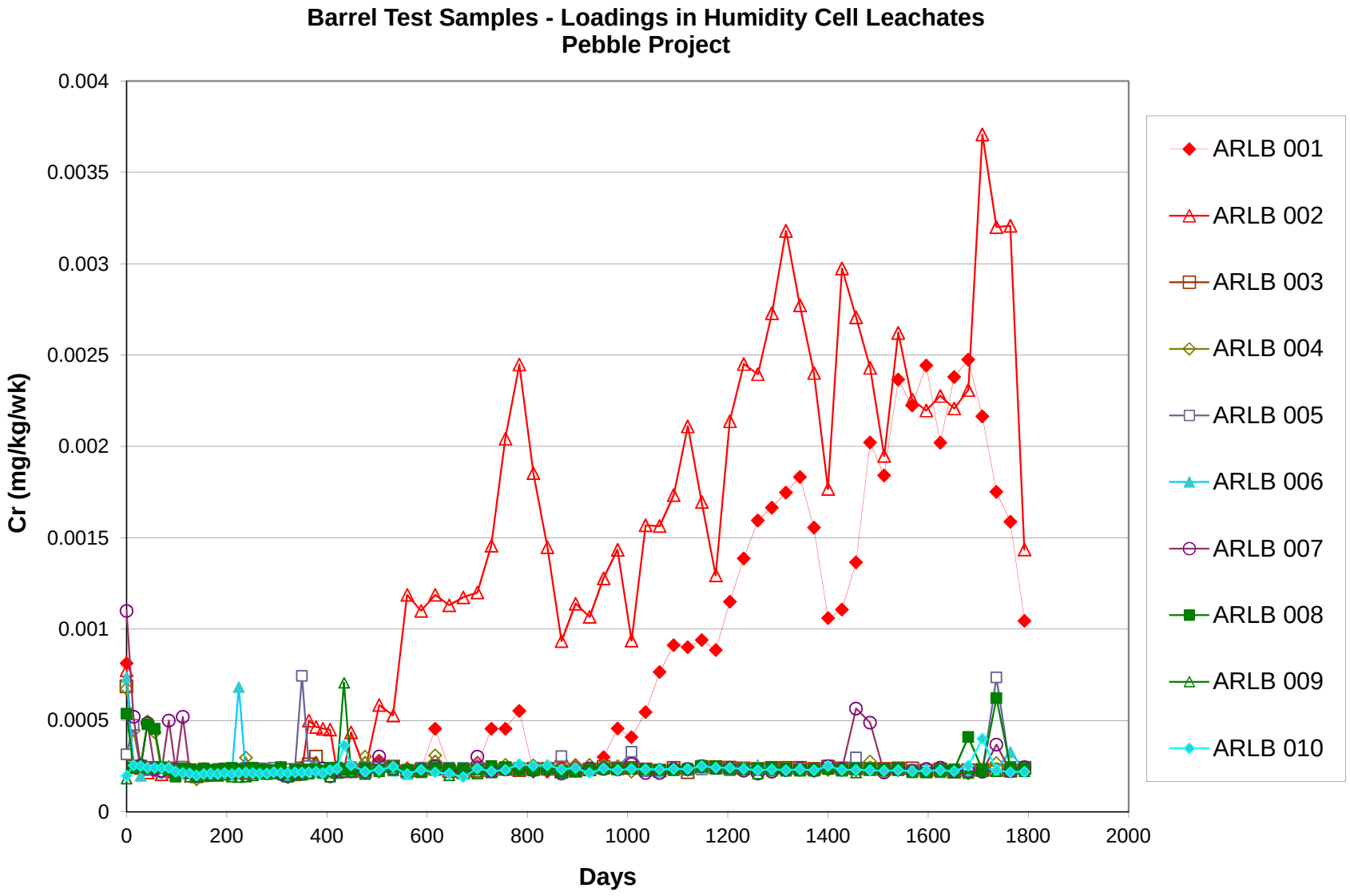

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Be (mg/kg/wk)
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

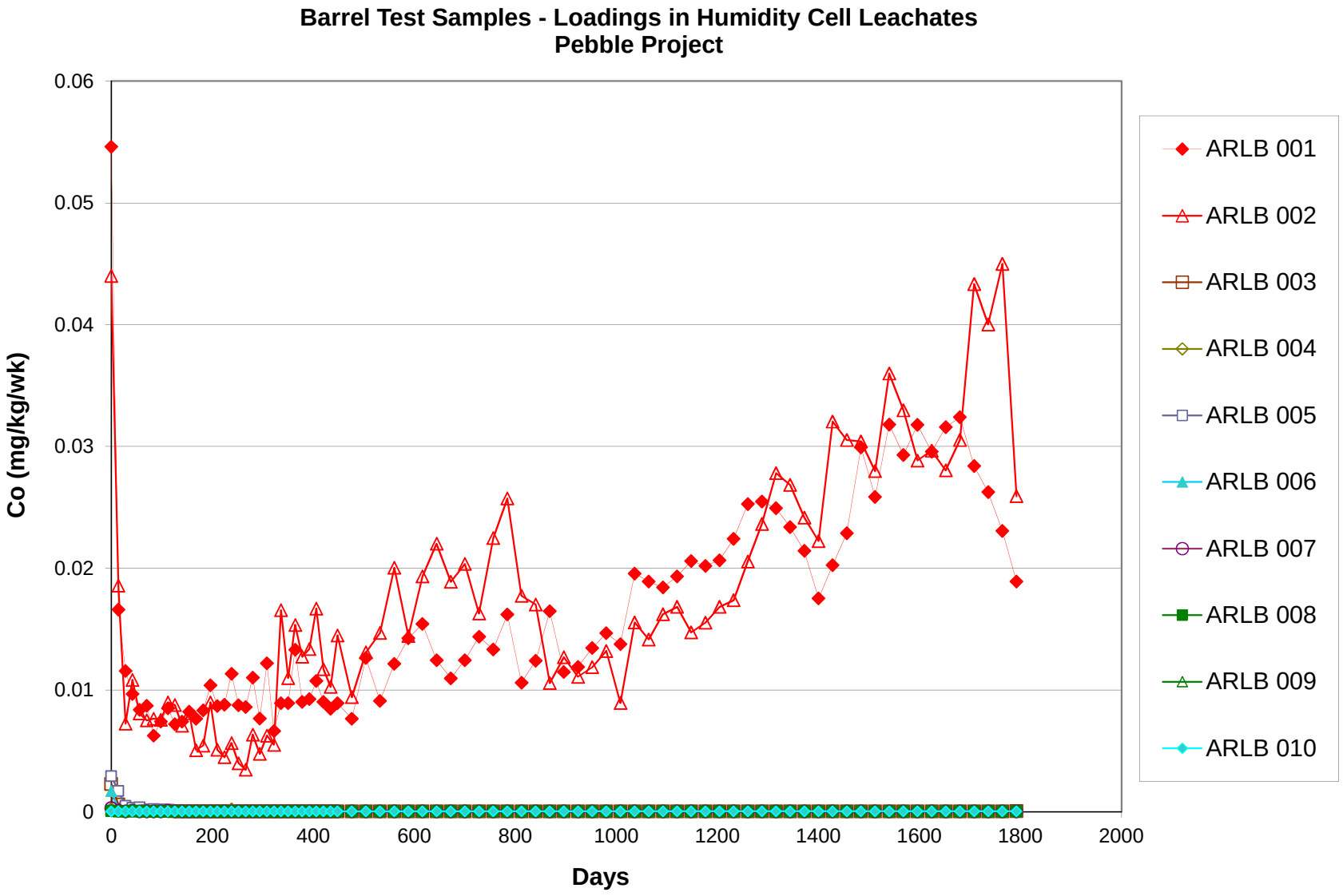

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Bi (mg/kg/wk)
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

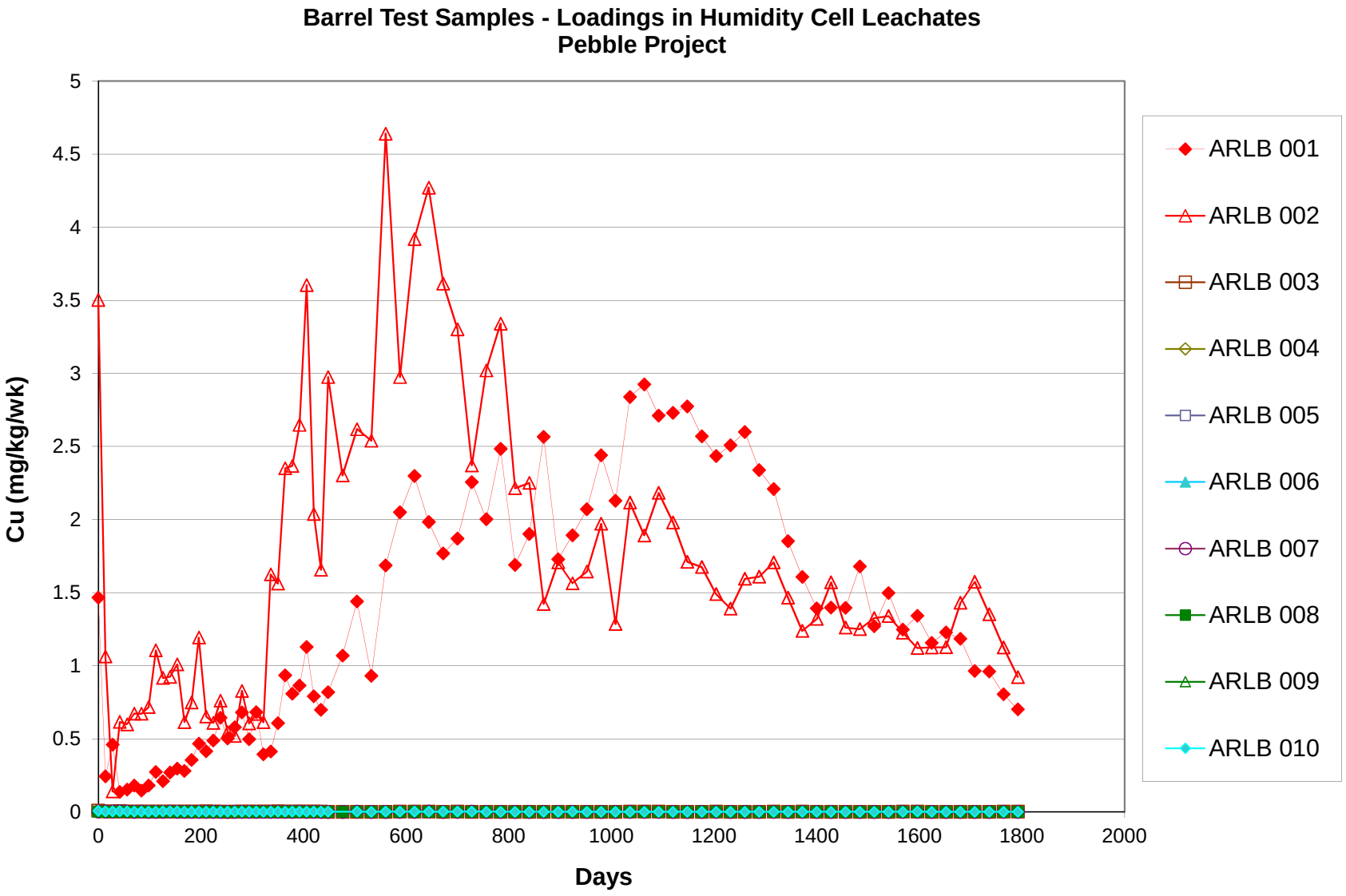

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
B (mg/kg/wk)
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

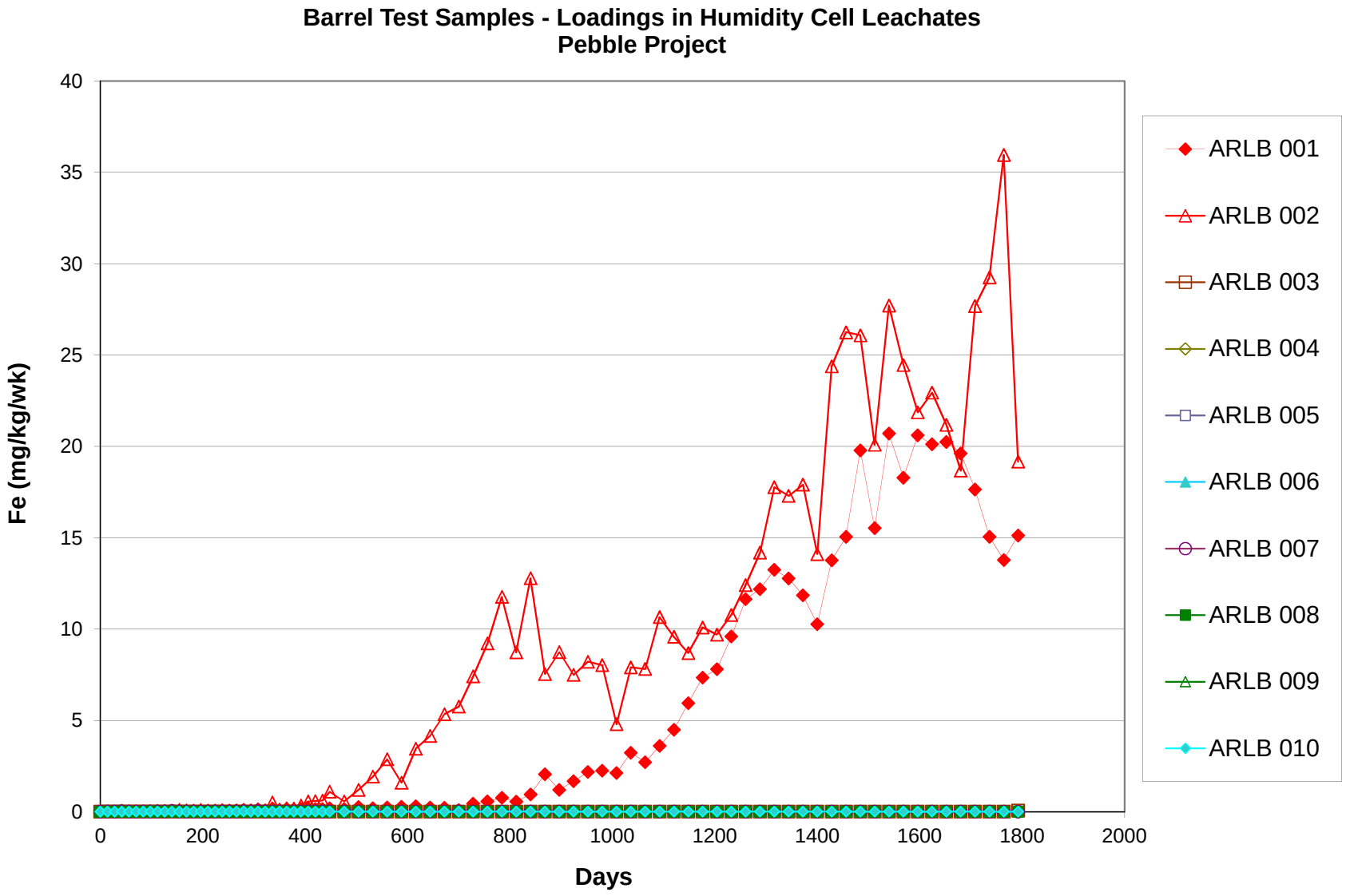

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cd (mg/kg/wk)
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

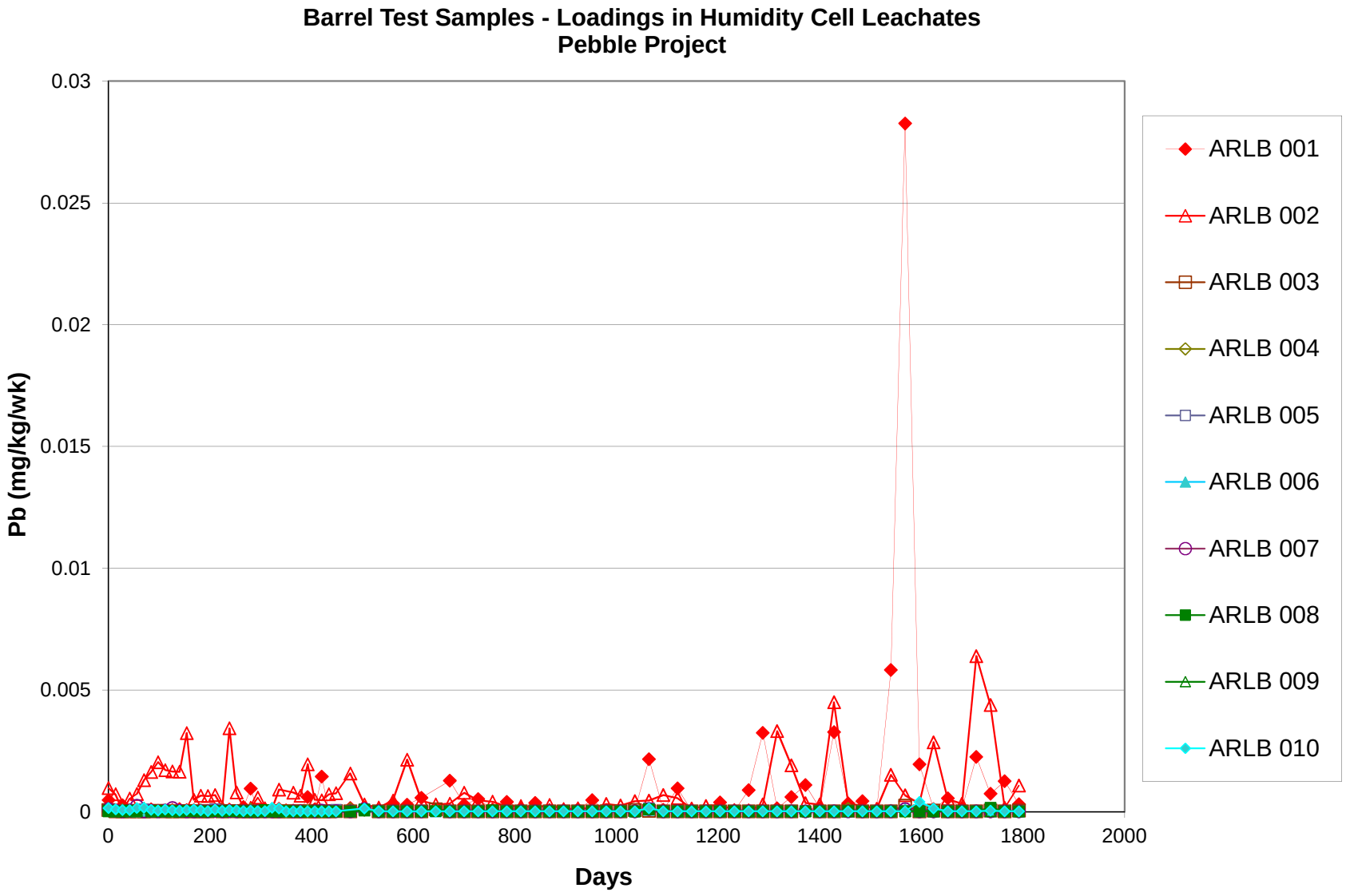

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ca (mg/kg/wk)
Days
0
20
40
60
80
100
120
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

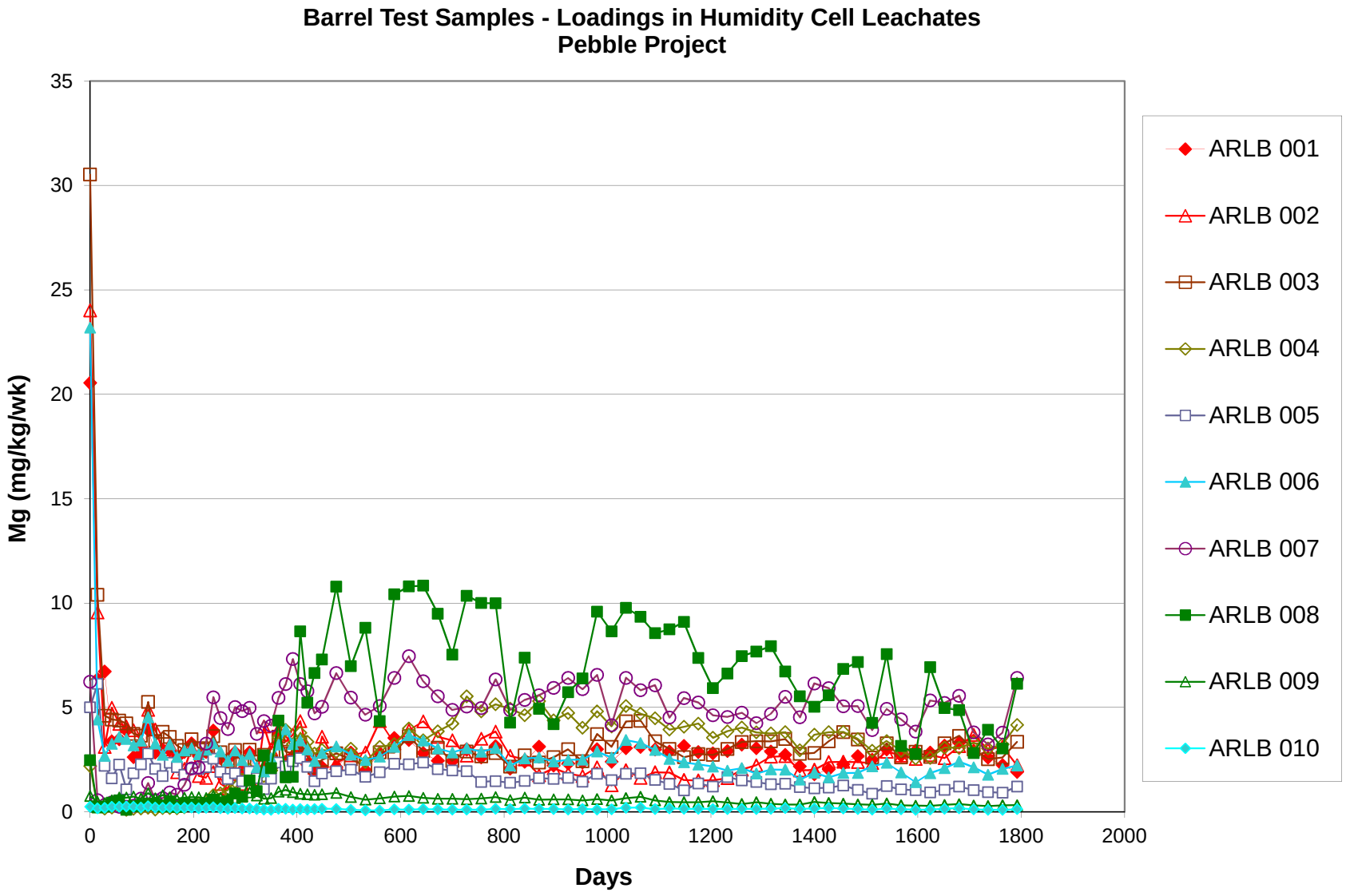

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cr (mg/kg/wk)
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

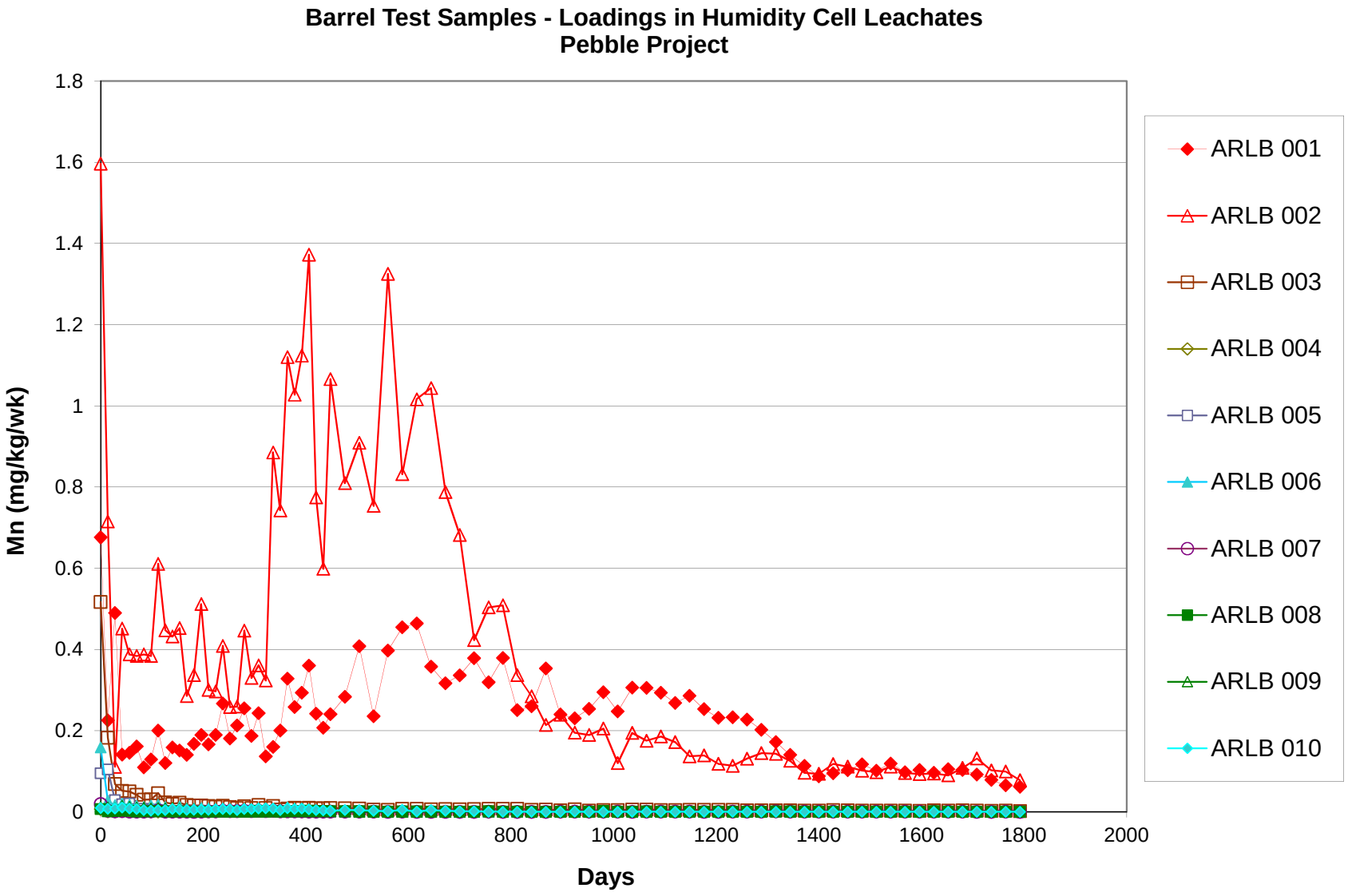

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Co (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

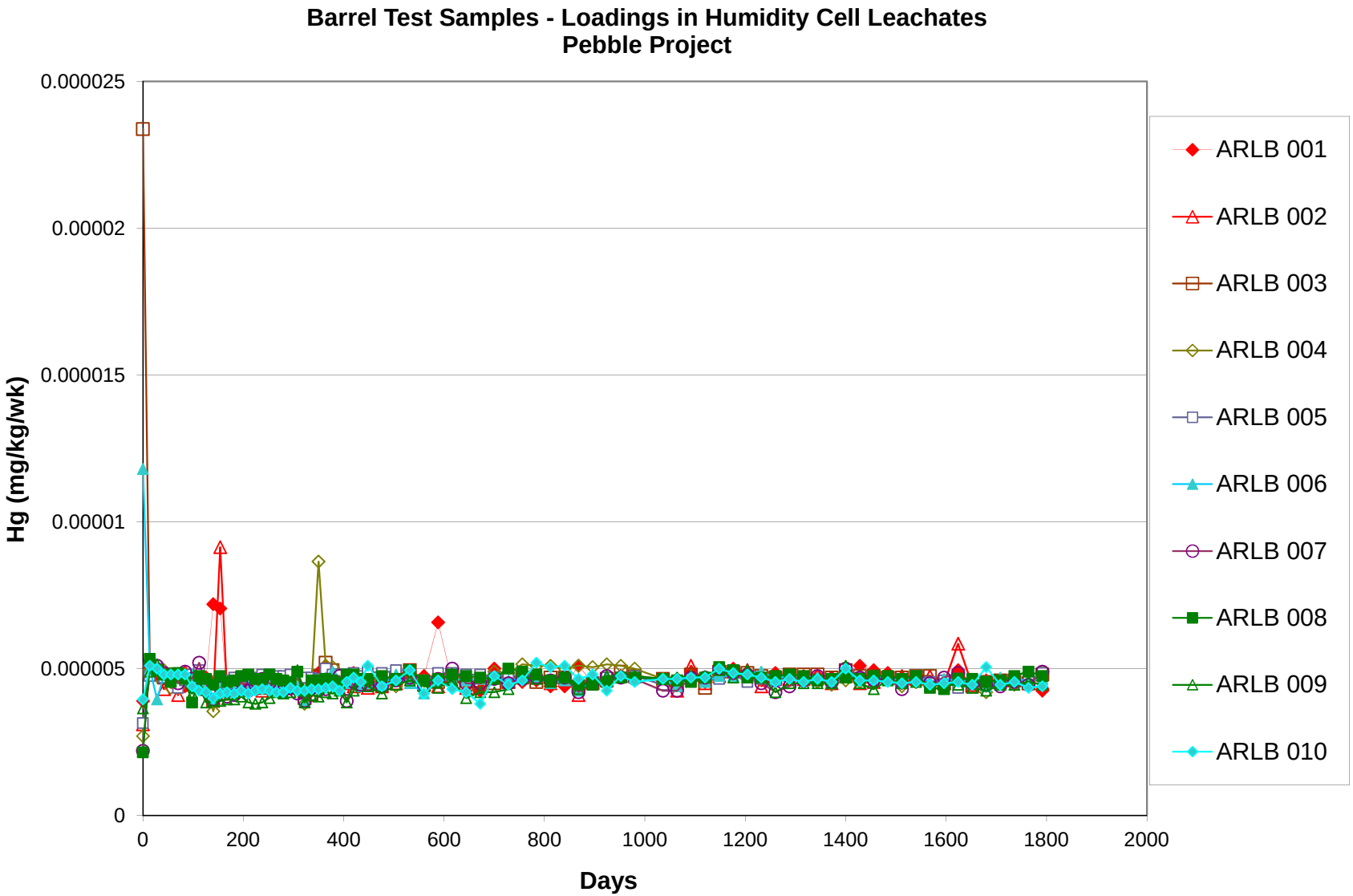

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Cu (mg/kg/wk)
Days
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

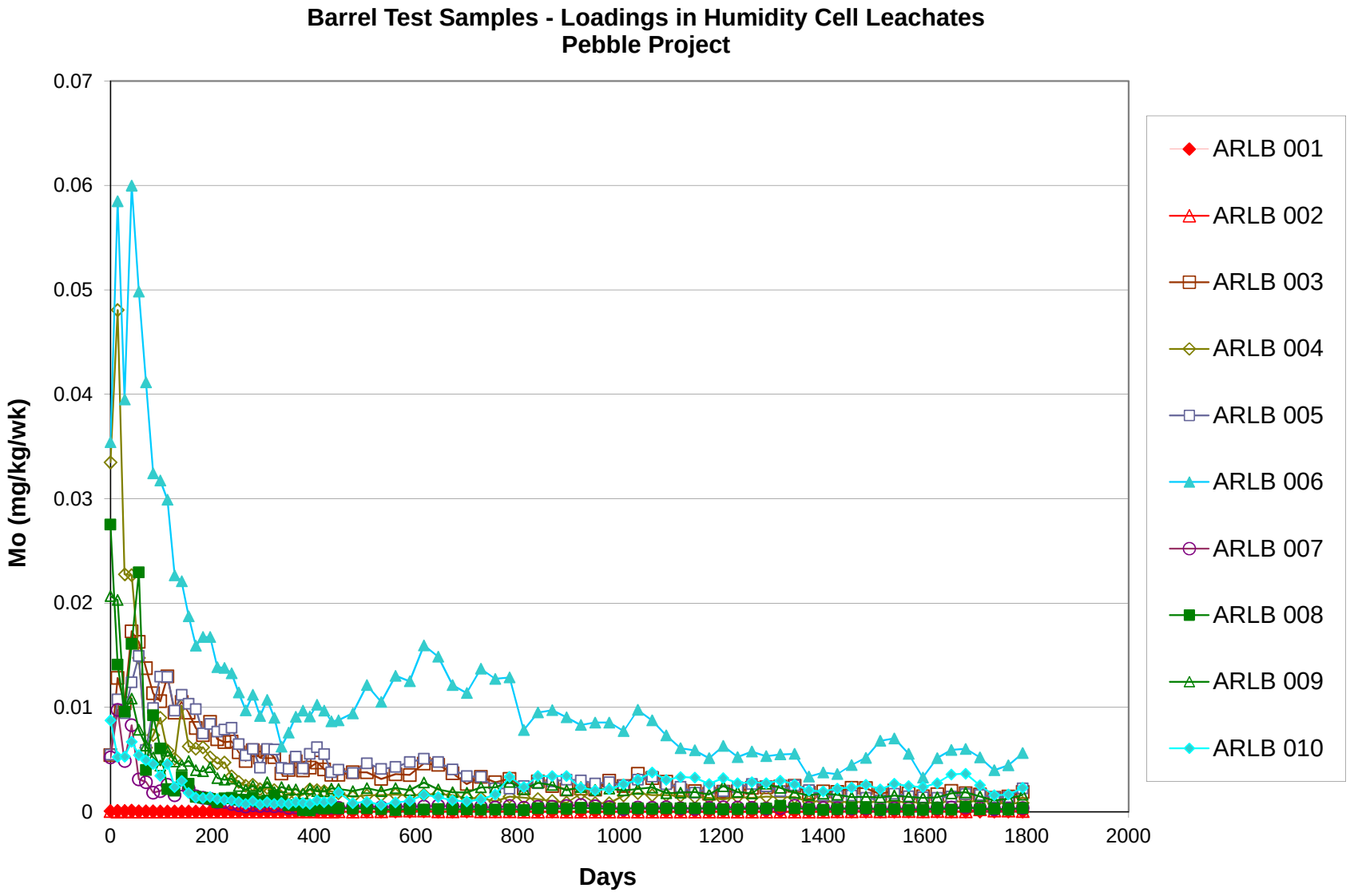

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Fe (mg/kg/wk)
Days
0
5
10
15
20
25
30
35
40
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

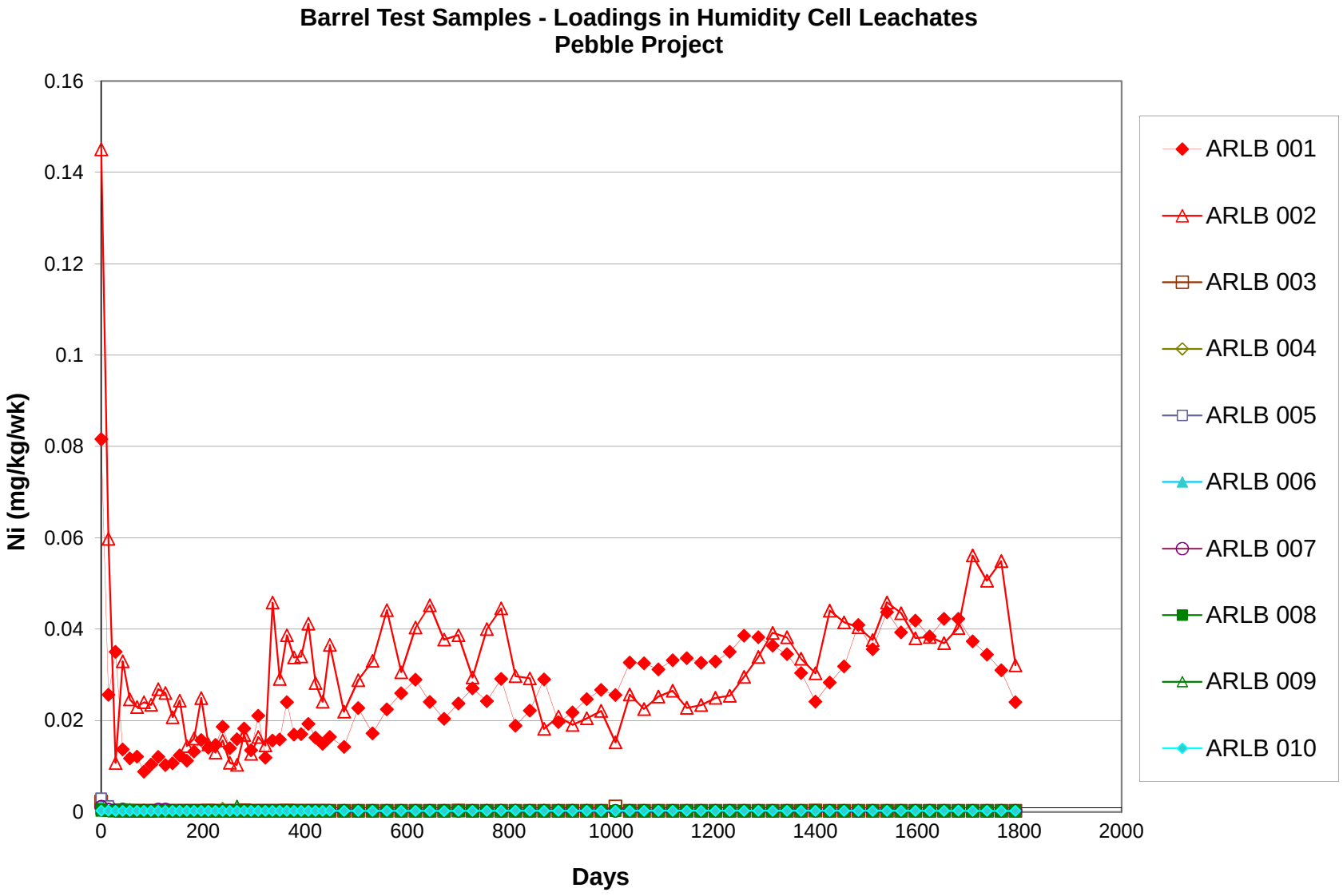

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Pb (mg/kg/wk)
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

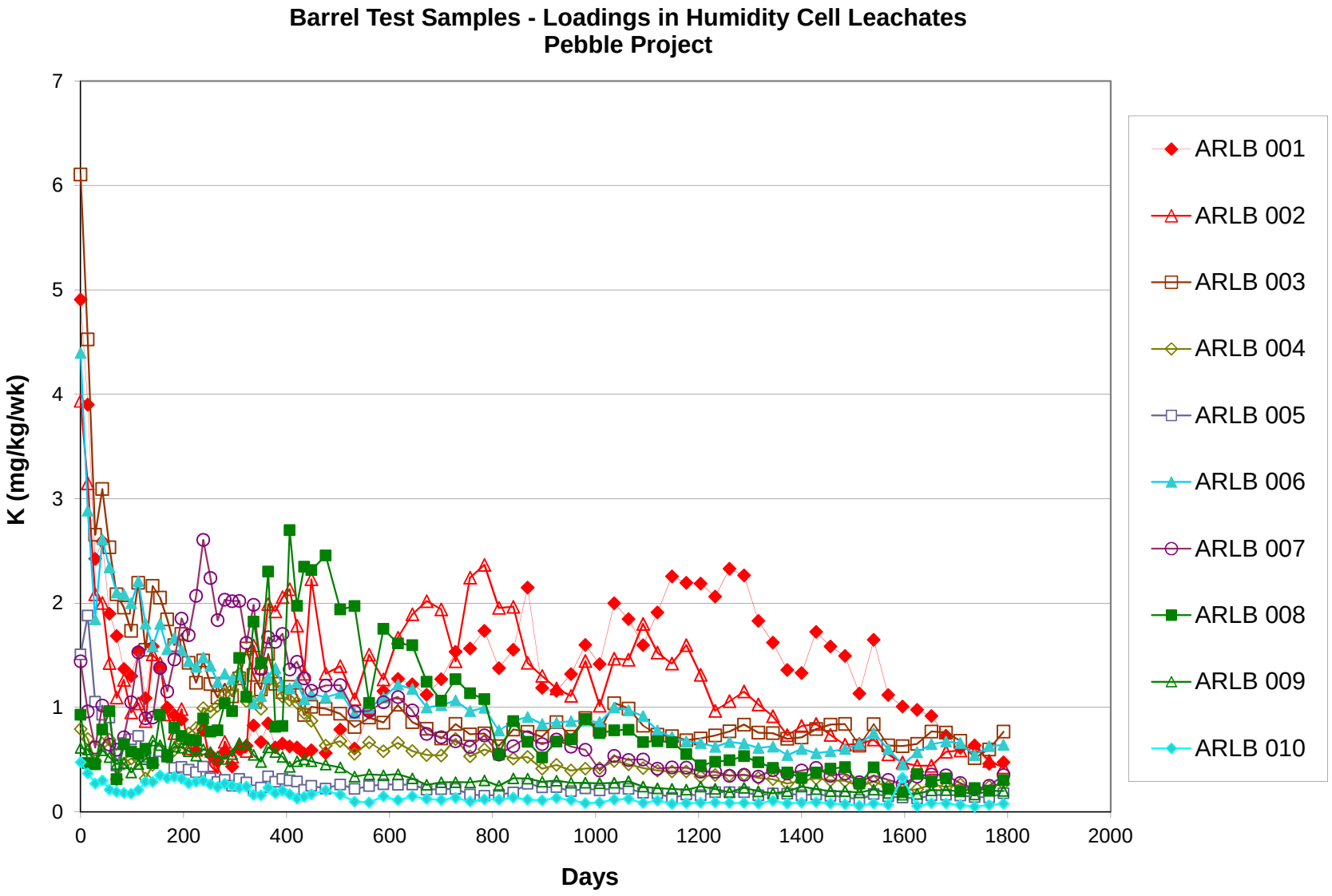

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mg (mg/kg/wk)
Days
0
5
10
15
20
25
30
35
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

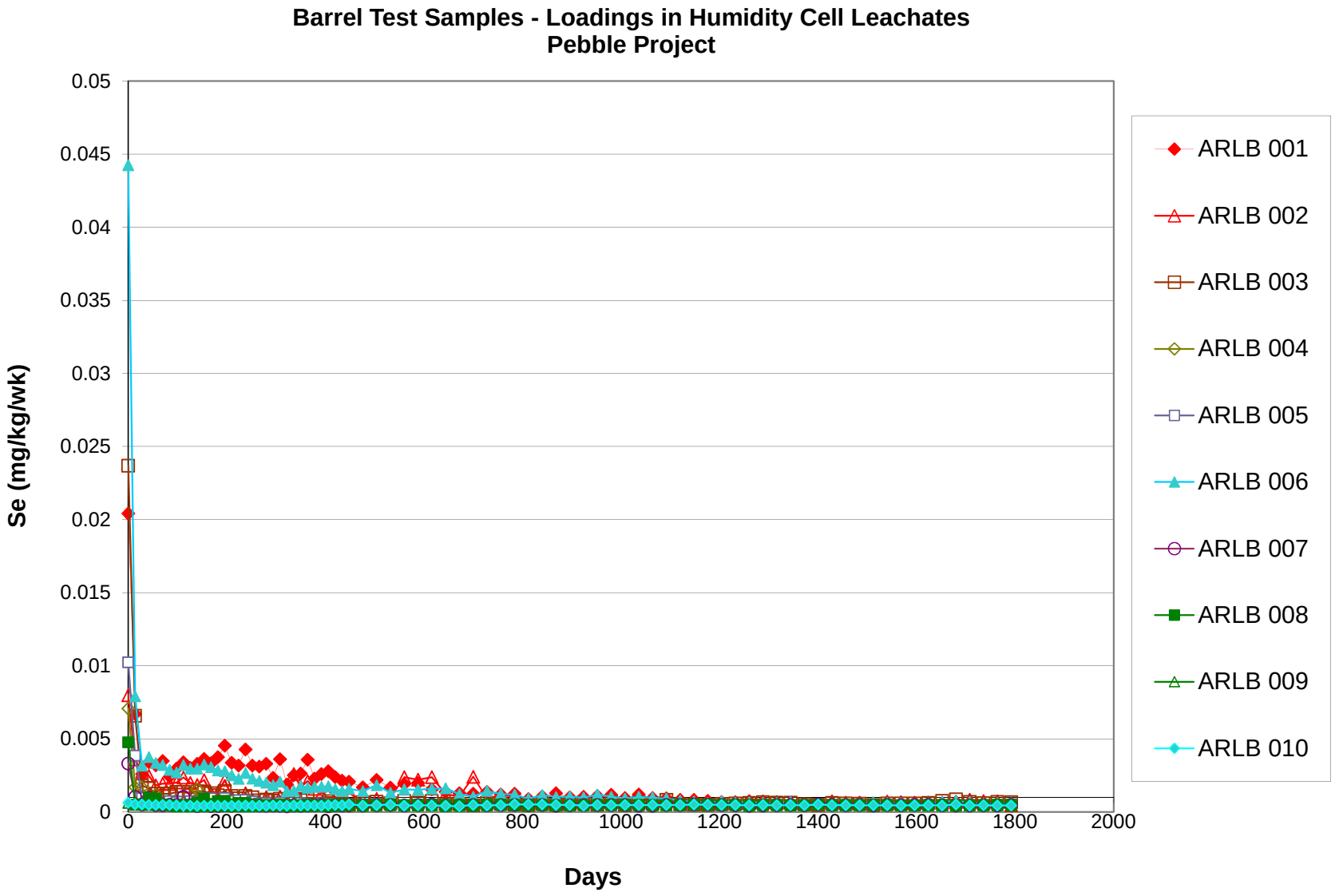

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mn (mg/kg/wk)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

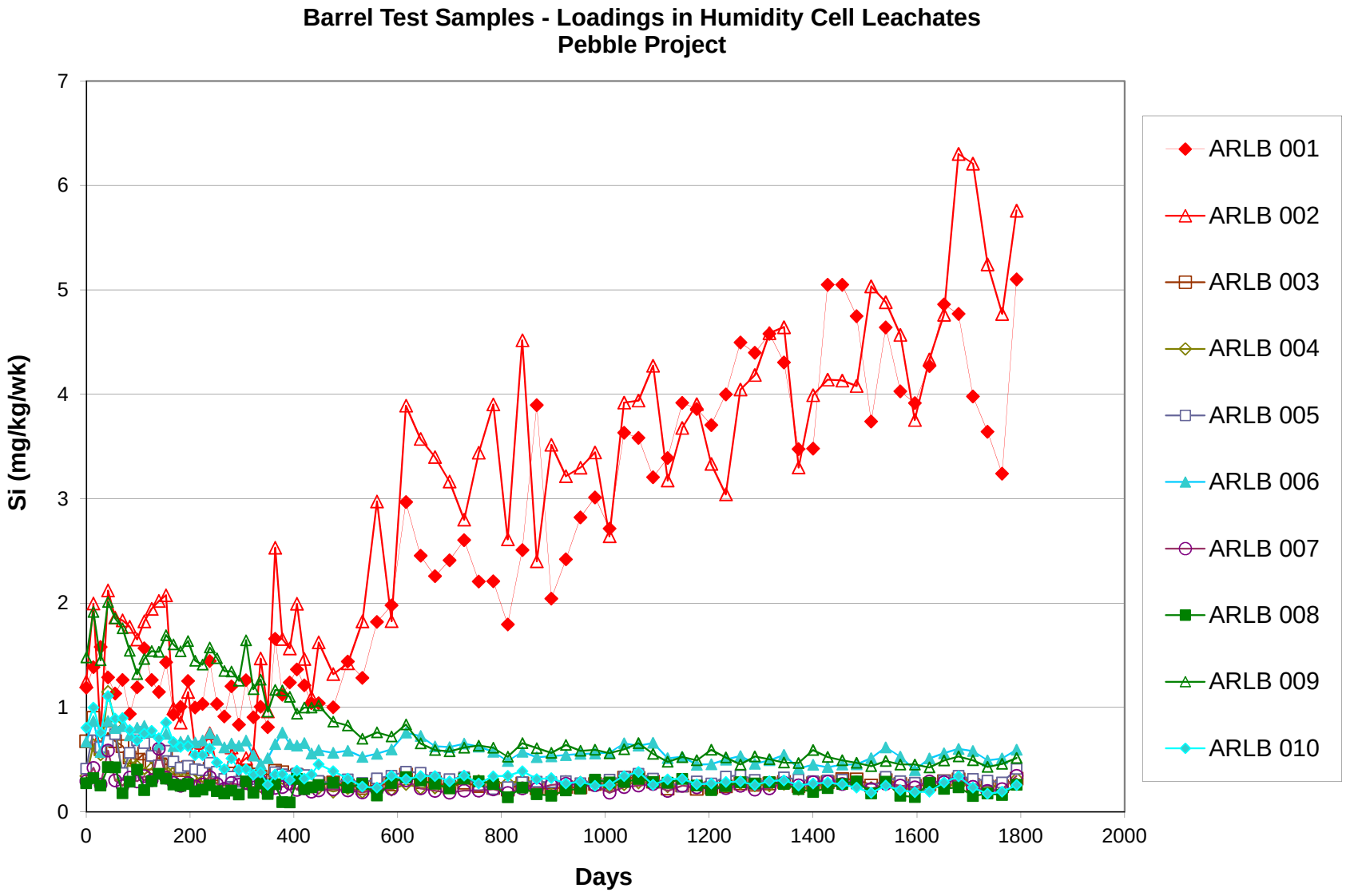

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Hg (mg/kg/wk)
0.000025
0.00002
0.000015
0.00001
0.000005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

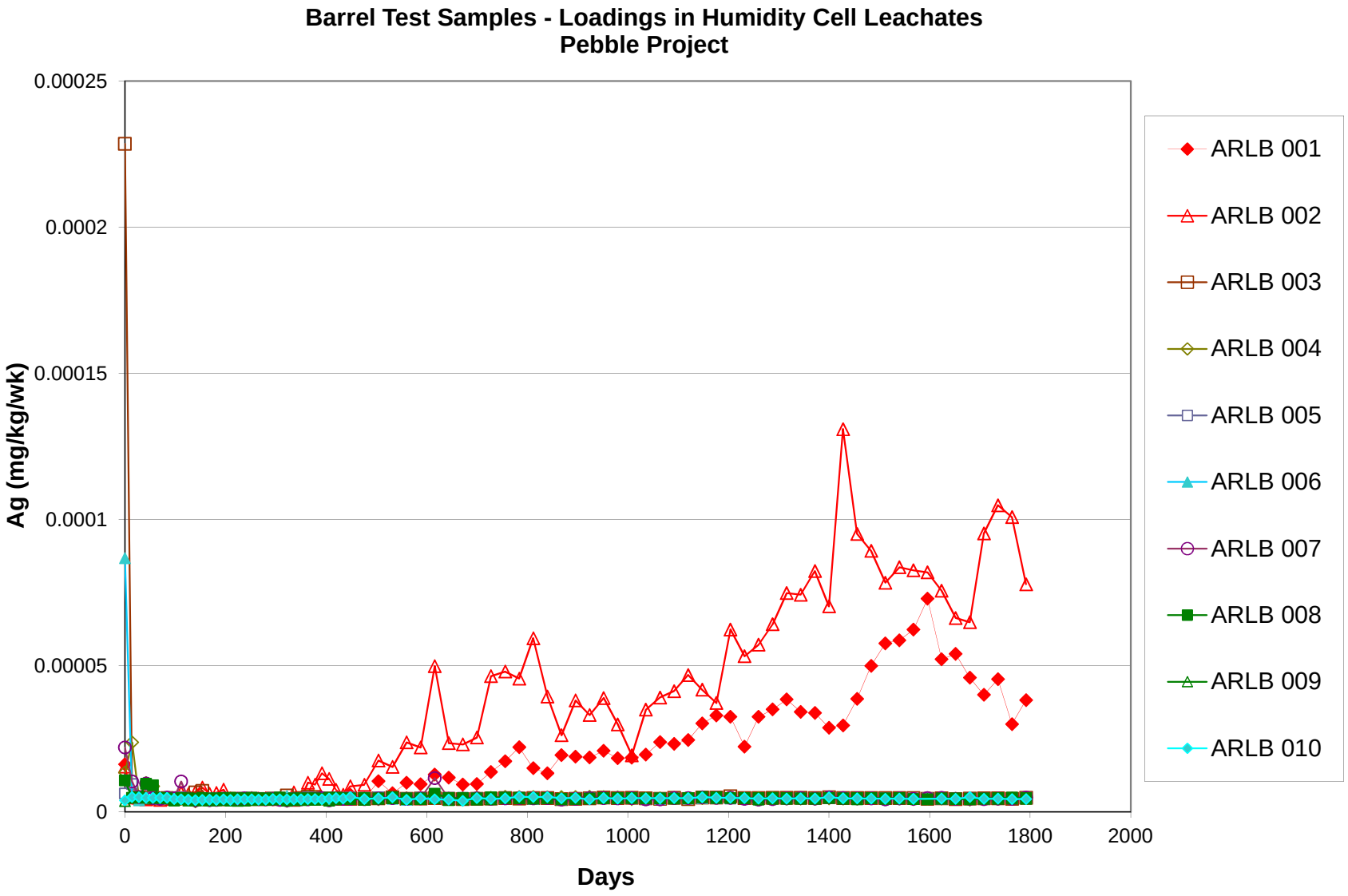

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Mo (mg/kg/wk)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

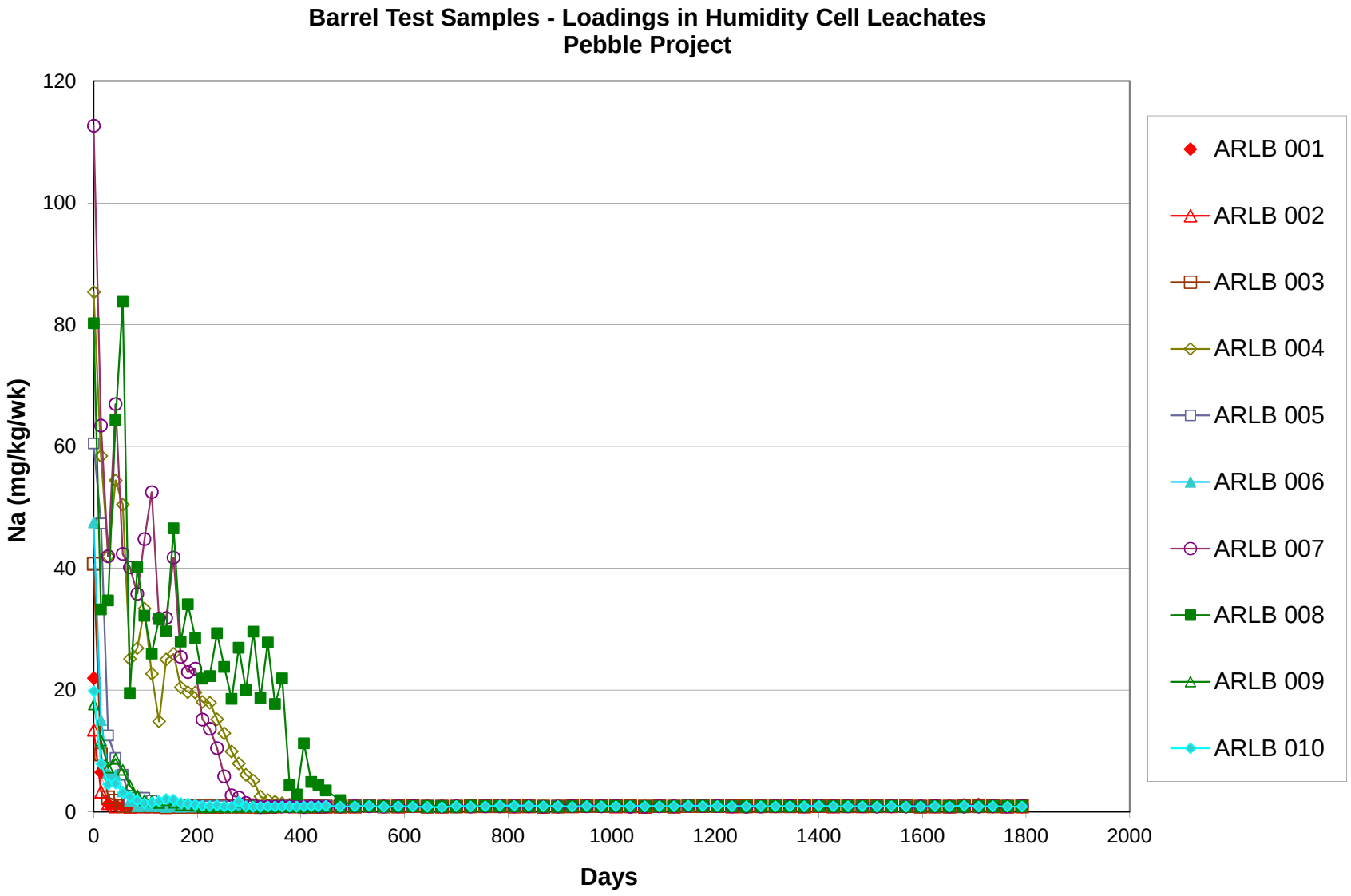

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ni (mg/kg/wk)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

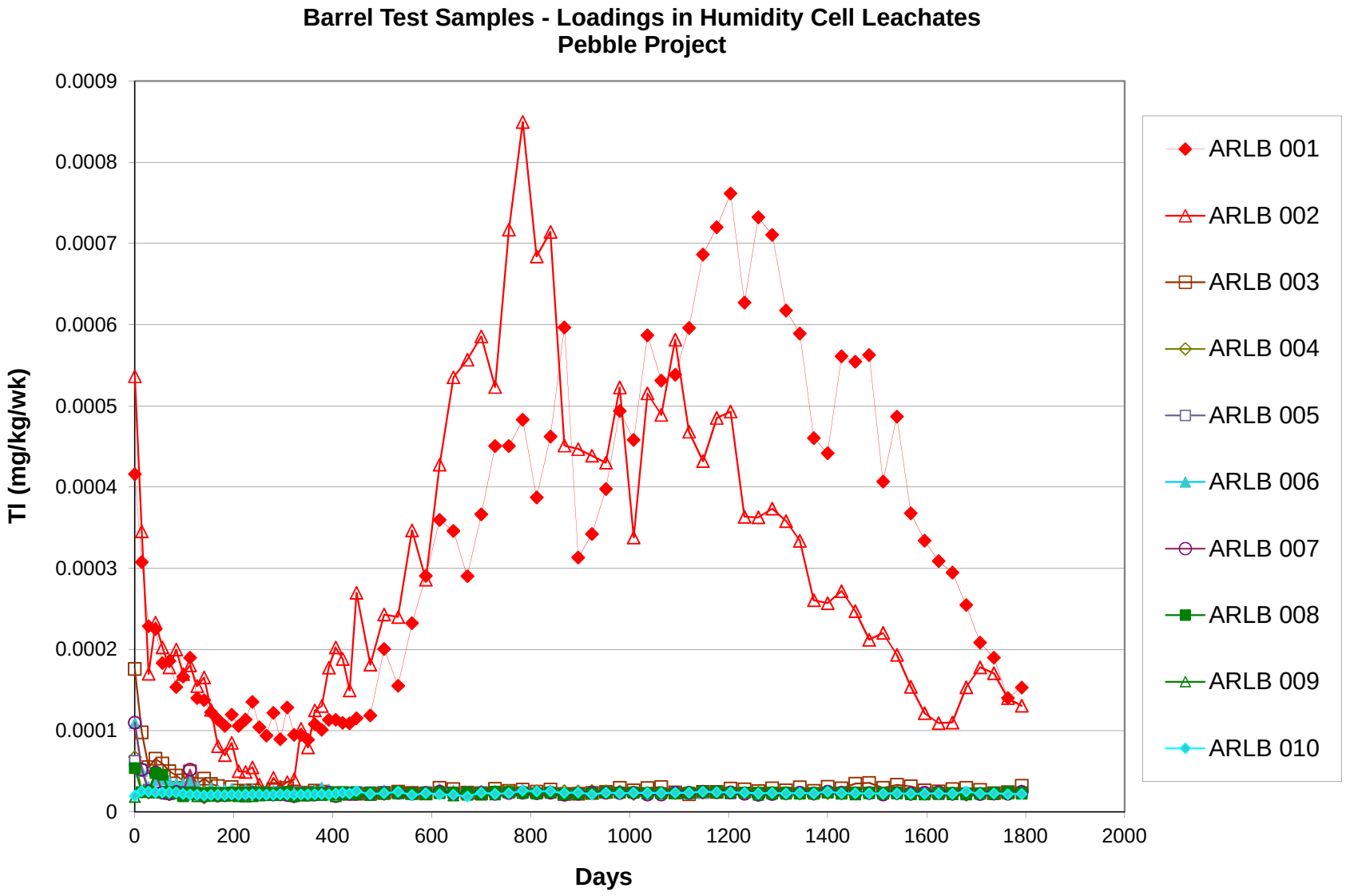

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
K (mg/kg/wk)
Days
0
1
2
3
4
5
6
7
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

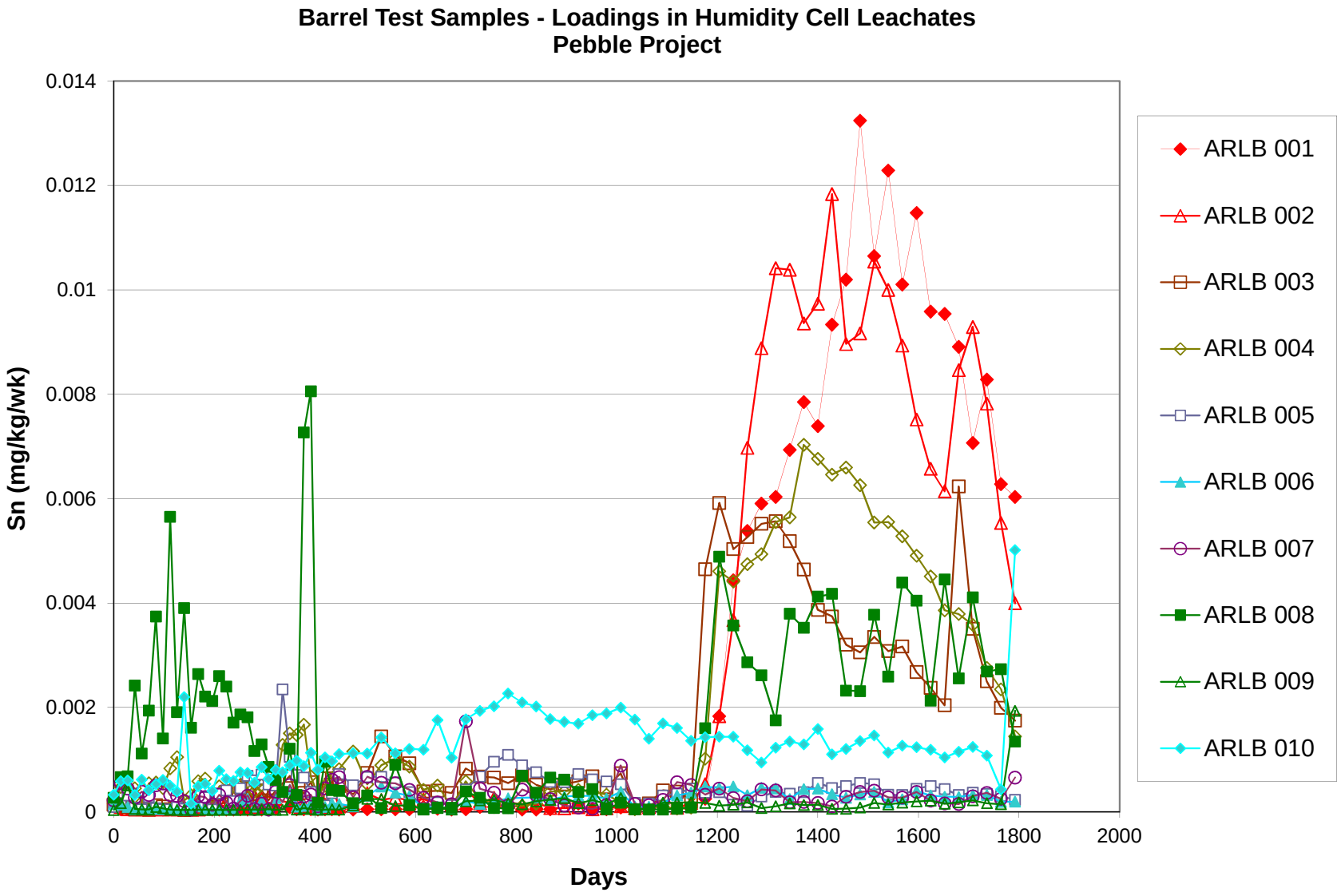

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Se (mg/kg/wk)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

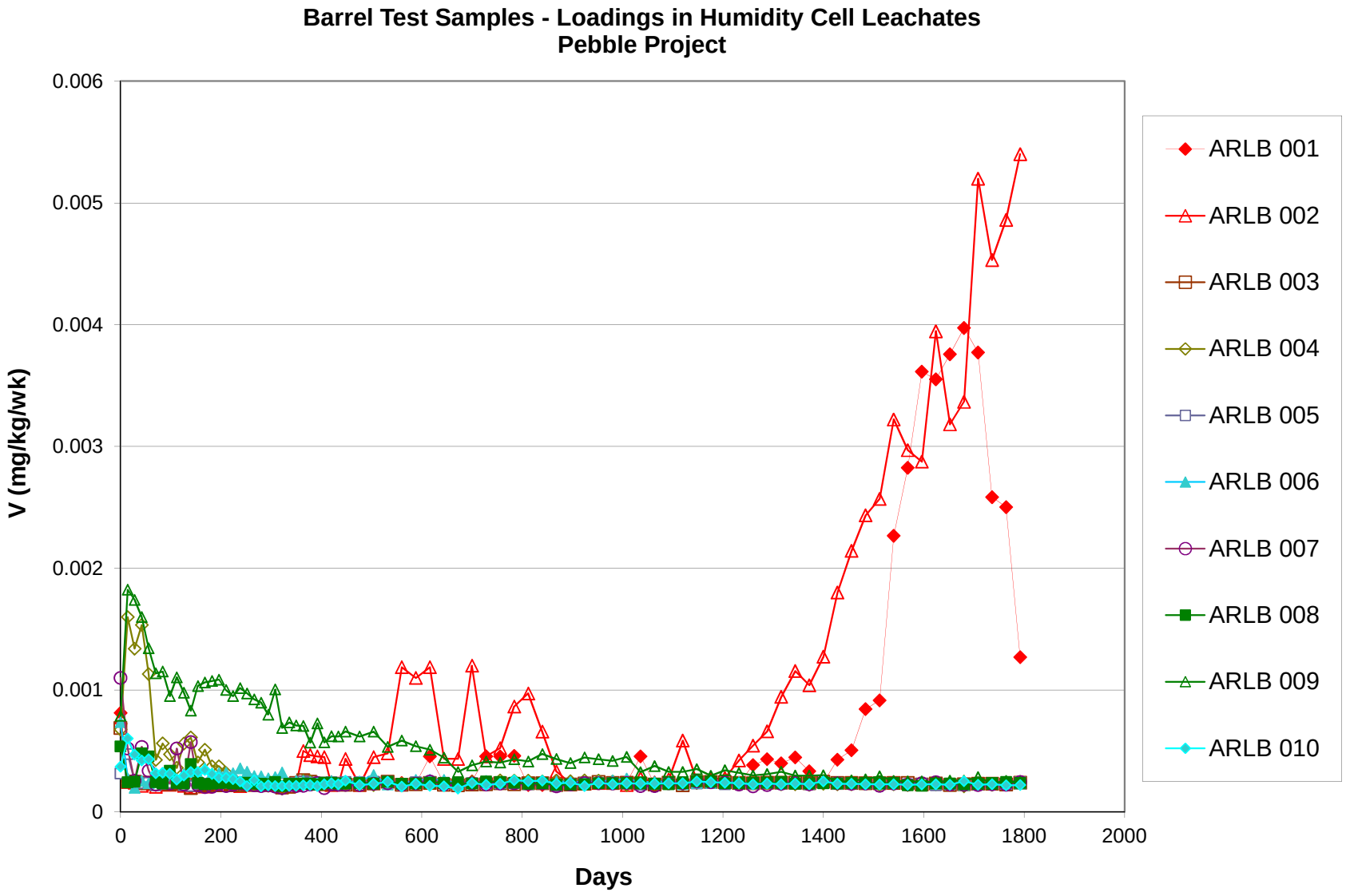

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Si (mg/kg/wk)
Days
0
1
2
3
4
5
6
7
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

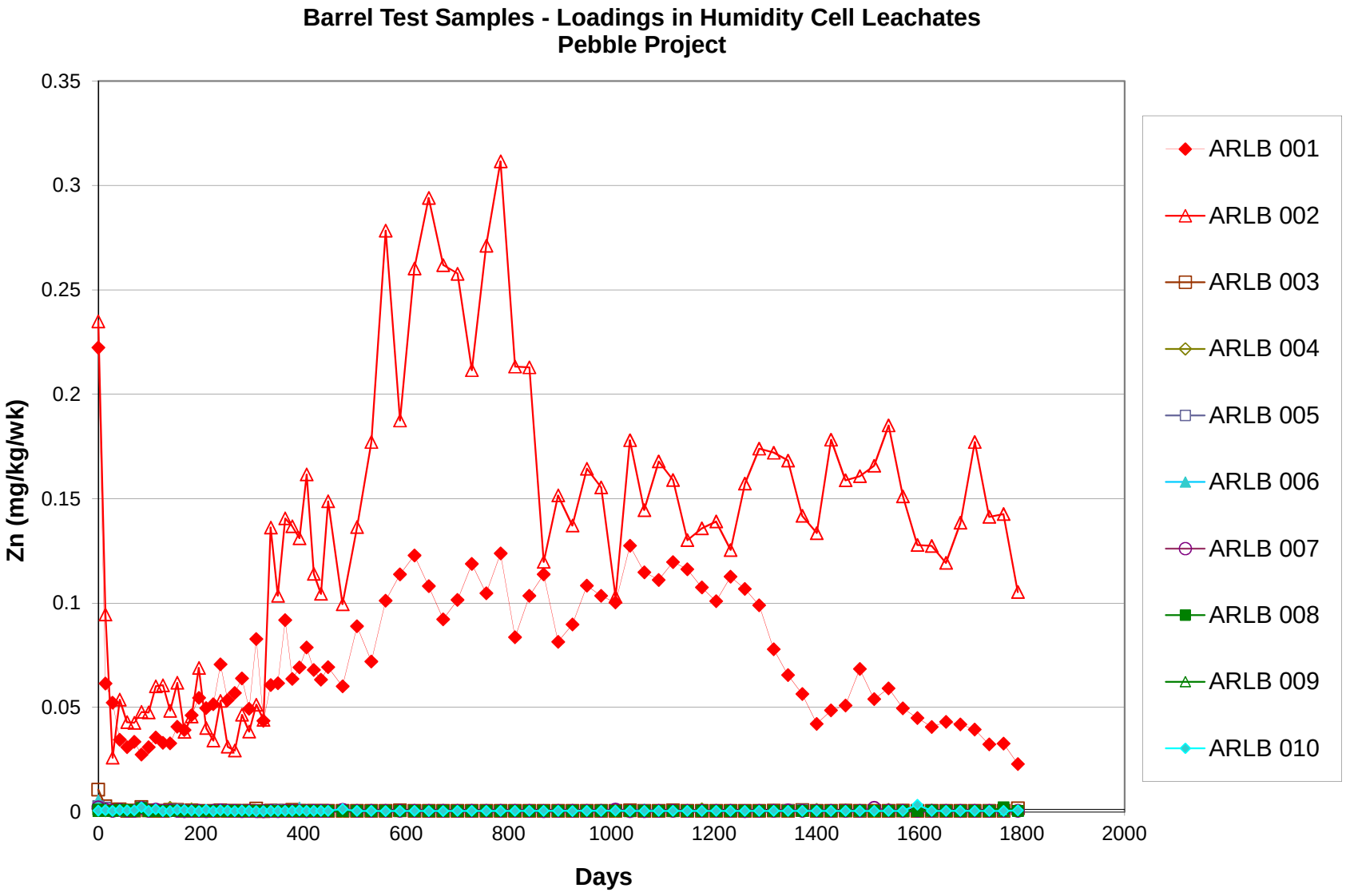

Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Ag (mg/kg/wk)
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Na (mg/kg/wk)
Days
0
20
40
60
80
100
120
0
200
400
600
800
1000
1200
1400
1600
1800
2000
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Tl (mg/kg/wk)
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Sn (mg/kg/wk)
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
V (mg/kg/wk)
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010


Barrel Test Samples - Loadings in Humidity Cell Leachates
Pebble Project
Zn (mg/kg/wk)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
ARLB 001
ARLB 002
ARLB 003
ARLB 004
ARLB 005
ARLB 006
ARLB 007
ARLB 008
ARLB 009
ARLB 010

Appendix 11F, Subaqueous Column Data: Waste Rock

Key to abbreviations and acronyms used in this appendix

Abbreviation/acronym	**Explanation**
EC	Electrical conductivity
µS/cm	Micro-siemens per cm
mg/L	Milligrams per liter
$mgCaCO_3/L$	Milligrams calcium carbonate (equivalent) per liter
mL	Milliliters(s)
mV	Millivolt(s)
ORP	Oxidation-reduction potential

For chemical abbreviations see Appendix D of this environmental baseline document.

For rock type codes, and explanations, see Table 11-1.

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
Composite 13 (407741)		Blank rows indicate that no solution was input or output during that week																				
8-Oct-08	0	400	400	8.92	338	262	<1	<1	97.13	859	6.5	1.49	0.412	26.6	3.81	0.00312	0.0522	0.0662	<0.0002	<0.0005	0.08	0.000129
15-Oct-08	7	200	200	8.32	375	343																
22-Oct-08	14	400	400	8.48	377	317	<1	<1	132.71	311	7.06	0.92	0.369	29.8	0.354	0.00366	0.0654	0.00601	<0.0002	<0.0005	0.103	<0.00005
29-Oct-08	21	50	50	8.24	402	326																
5-Nov-08	28	400	400	8.26	398	284	<1	2.9	127.96	200	8.07	0.56	0.332	19.3	0.411	0.00314	0.0732	0.00852	<0.0002	<0.0005	0.073	<0.00005
12-Nov-08	35	50	50	8.37	387	277																
19-Nov-08	42	400	400	8.43	394	201	<1	<1	119.63	126	7.6	<0.5	0.192	9.72	0.389	0.00262	0.0766	0.00837	<0.0002	<0.0005	0.059	<0.00005
26-Nov-08	49	50	50	8.21	340	410																
3-Dec-08	56	400	400	8.47	271	227	<1	<1	128.41	156	7.74	<0.5	0.159	6.45	0.267	0.00214	0.0696	0.00482	<0.0002	<0.0005	0.045	<0.0002
10-Dec-08	63	50	50	8.42	317	226																
17-Dec-08	70	400	400	8.47	283	200				145	9.48	<0.5	0.089	3.79	0.16	0.00135	0.043	0.00516	<0.0002	<0.0005	0.024	<0.00005
24-Dec-08	77	50	50	8.21	329	198																
31-Dec-08	84	400	400	8.11	245	202	<1	7.39	130.94	162	16.3	<0.5	0.058	4.19	0.171	0.00115	0.023	0.00971	<0.0002	<0.0005	0.021	<0.00015
7-Jan-09	91	50	50	8.08	293	208																
14-Jan-09	98	400	400	8.05	303	217	<1	4.43	131.25	146	19.8	<0.5	0.038	4.03	0.189	0.00121	0.0213	0.0126	<0.0002	<0.0005	0.022	<0.00005
21-Jan-09	105	50	50	8.1	377	213																
28-Jan-09	112	400	400	8.02	297	219	<1	4.85	138.93	153	24.2	<0.5	0.052	4.22	0.0858	0.00109	0.016	0.0124	<0.0002	<0.0005	0.02	<0.00005
4-Feb-09	119	50	50	8.11	398	263																
11-Feb-09	126	400	400	8.15	317	217	<1	5.66	137.19	141	24.9	<0.5	0.047	4.43	0.233	0.00106	0.0158	0.0202	<0.0002	<0.0005	0.02	<0.00015
18-Feb-09	133	50	50	8.26	301	207																
25-Feb-09	140	400	400	8.06	350	192	<1	5.72	122.45	124	23.7	<0.5	0.044	4.02	0.179	0.000977	0.0151	0.0133	<0.0002	<0.0005	0.016	<0.00005
4-Mar-09	147	50	50	7.98	269	193																
11-Mar-09	154	400	400	7.82	267	197	<1	5.26	122.03	117	26.5	<0.5	0.028	4.01	0.144	0.00108	0.0154	0.0155	<0.0002	<0.0005	0.028	<0.00015
18-Mar-09	161	50	50	8.04	339	200																
25-Mar-09	168	400	400	7.89	303	198	<1	4.49	118.27	119	28.1	<0.5	0.032	4.1	0.108	0.00104	0.0144	0.0148	<0.0002	<0.0005	0.016	<0.0002
1-Apr-09	175	50	50	7.99	353	199																
8-Apr-09	182	400	400	7.98	326	191	<1	3.78	116.84	135	29.3	<0.5	0.026	4.21	0.0852	0.00108	0.0143	0.0151	<0.0002	<0.0005	0.021	<0.0002
15-Apr-09	189	50	50	8.09	293	190																
22-Apr-09	196	50	50	8.09	365	197																
29-Apr-09	203																					
6-May-09	210	400	400	7.93	327	194	<1	4.35	116.92	122	29.5	<0.5	0.036	4.93	0.0593	0.00102	0.0137	0.0139	<0.0004	<0.001	0.028	<0.0001
13-May-09	217																					
20-May-09	224	50	50	7.91	336	189																
27-May-09	231																					
3-Jun-09	238	400	400	8.03	342	178	<1	3.51	119.07	125	31.3	<0.5	0.032	5.44	0.0453	0.00119	0.0147	0.0144	<0.0002	<0.0005	0.029	<0.00005
10-Jun-09	245																					
17-Jun-09	252	50	50	8.03	351	172																
24-Jun-09	259																					
1-Jul-09	266	400	400	7.99	309	165	<1	4.2	117.49	130	30.9	<0.5	<0.02	6.36	0.0397	0.00114	0.013	0.0146	<0.0002	<0.0005	0.043	0.000052
8-Jul-09	273																					
15-Jul-09	280	50	50	8.02	330	179																
22-Jul-09	287																					
29-Jul-09	294	400	400	7.93	281	182	<1	6.27	114.05	112	35.6	<0.5	0.025	6.17	0.0458	0.00115	0.0122	0.0149	<0.0002	<0.0005	0.016	<0.00005
5-Aug-09	301																					
12-Aug-09	308	50	50	7.94	221	195																
19-Aug-09	315																					
26-Aug-09	322	400	400	8.02	210	184	<1	3.82	112.39	114	38.6	<0.5	0.038	6.44	0.0494	0.00111	0.0112	0.017	<0.0002	<0.0005	0.017	<0.00005
2-Sep-09	329																					
9-Sep-09	336	50	50	8.1	255	193																
16-Sep-09	343																					
23-Sep-09	350	400	400	8.03	287	186	<1	4.67	116.95	102	39.1	<0.5	0.023	6.3	0.0344	0.00106	0.0106	0.017	<0.0002	<0.0005	0.021	<0.00005
30-Sep-09	357																					
7-Oct-09	364	50	50	7.89	243	189																
14-Oct-09	371																					
21-Oct-09	378	400	400	7.95	229	180	<1	3.75	110.32	113	41.4	<0.5	0.024	6.38	0.0336	0.00107	0.00995	0.0176	<0.0002	<0.0005	0.024	<0.00005
28-Oct-09	385																					
4-Nov-09	392	50	50	7.81	185	196																
11-Nov-09	399																					

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
Composite 13 (407741)																					
8-Oct-08	0	2.17	0.00272	0.00014	0.00665	0.396	0.000326	0.264	0.00791	<0.00001	0.163	0.00057	2.68	<0.001	4.55	0.000019	61.9	<0.00005	0.00191	0.0545	0.002
15-Oct-08	7																				
22-Oct-08	14	2.67	<0.0005	<0.0001	0.00114	0.052	<0.00005	0.0927	0.00306	<0.00001	0.214	<0.0005	1.15	<0.001	2.68	<0.00001	73.2	<0.00005	0.00294	0.0512	<0.001
29-Oct-08	21																				
5-Nov-08	28	3.09	0.00095	<0.0001	0.00071	0.06	<0.00005	0.0892	0.00518	<0.00001	0.135	<0.0005	1.01	<0.001	2.8	<0.00001	64.3	<0.00005	0.00655	0.0548	<0.001
12-Nov-08	35																				
19-Nov-08	42	2.9	<0.0005	<0.0001	0.00135	0.108	<0.00005	0.0754	0.00428	<0.00001	0.0757	<0.0005	0.893	<0.001	3.17	<0.00001	61.5	<0.00005	0.0145	0.0585	<0.001
26-Nov-08	49																				
3-Dec-08	56	2.96	<0.0005	<0.0001	0.00166	0.039	0.000099	0.0858	0.00428	<0.00001	0.0495	<0.0005	0.851	<0.001	2.31	<0.00001	50.4	<0.00005	0.016	0.0593	0.0029
10-Dec-08	63																				
17-Dec-08	70	3.68	<0.0005	<0.0001	0.00035	<0.03	0.000136	0.0698	0.00359	<0.00001	0.0275	<0.0005	0.914	<0.001	2.24	<0.00001	46	<0.00005	0.0194	0.031	<0.001
24-Dec-08	77																				
31-Dec-08	84	6.21	<0.0005	0.00015	0.00097	0.037	<0.00005	0.19	0.0111	<0.00001	0.0298		1.16	<0.001	2.26	<0.00001	45.9	<0.00005	0.0199	0.0131	<0.001
7-Jan-09	91																				
14-Jan-09	98	7.6	<0.0005	<0.0001	0.00187	0.037	<0.00005	0.191	0.0165	<0.00001	0.0335	<0.0005	1.48	<0.001	2.29	<0.00001	44.9	<0.00005	0.0175	0.0111	<0.001
21-Jan-09	105																				
28-Jan-09	112	9.38	<0.0005	<0.0001	0.00119	<0.03	<0.00005	0.192	0.0173	<0.00001	0.034	<0.0005	1.23	<0.001	2.18	<0.00001	46.5	<0.00005	0.0135	0.00768	0.001
4-Feb-09	119																				
11-Feb-09	126	9.63	<0.0005	<0.0001	0.00107	0.058	<0.00005	0.218	0.0172	<0.00001	0.0349	<0.0005	1.46	<0.001	2.55	<0.00001	43.7	<0.00005	0.013	0.00813	<0.001
18-Feb-09	133																				
25-Feb-09	140	9.14	<0.0005	<0.0001	0.00453	<0.03	<0.00005	0.204	0.0174	<0.00001	0.0326	<0.0005	1.3	<0.001	2.17	<0.00001	37.9	<0.00005	0.01	0.00749	<0.001
4-Mar-09	147																				
11-Mar-09	154	10.2	<0.0005	<0.0001	0.00155	<0.03	<0.00005	0.246	0.0218	<0.00001	0.0376	<0.0005	1.4	<0.001	2.19	<0.00001	36.1	<0.00005	0.0114	0.00725	0.0023
18-Mar-09	161																				
25-Mar-09	168	10.9	<0.0005	<0.0001	0.00074	<0.03	<0.00005	0.251	0.0224	<0.00001	0.038	<0.0005	1.39	<0.001	2.16	<0.00001	35.3	<0.00005	0.0105	0.00675	<0.001
1-Apr-09	175																				
8-Apr-09	182	11.3	<0.0005	<0.0001	0.00117	<0.03	<0.00005	0.248	0.0222	<0.00001	0.039	<0.0005	1.35	<0.001	2.22	<0.00001	37	<0.00005	0.0102	0.00655	<0.001
15-Apr-09	189																				
22-Apr-09	196																				
29-Apr-09	203																				
6-May-09	210	11.4	<0.001	<0.0002	0.00153	<0.03	<0.0001	0.275	0.0237	<0.00001	0.0447	<0.001	1.43	<0.002	2.16	<0.00002	33	<0.0001	0.0113	0.0065	0.0022
13-May-09	217																				
20-May-09	224																				
27-May-09	231																				
3-Jun-09	238	12.1	<0.0005	<0.0001	0.00189	<0.03	0.000152	0.281	0.025	<0.00001	0.0507	<0.0005	1.47	<0.001	2.35	<0.00001	33.1	<0.00005	0.0106	0.00687	0.0013
10-Jun-09	245																				
17-Jun-09	252																				
24-Jun-09	259																				
1-Jul-09	266	11.9	0.00081	<0.0001	0.00066	<0.03	<0.00005	0.273	0.0253	<0.00001	0.0537	<0.0005	1.32	<0.001	2.1	<0.00001	29.6	<0.00005	0.0106	0.00593	0.0012
8-Jul-09	273																				
15-Jul-09	280																				
22-Jul-09	287																				
29-Jul-09	294	13.8	<0.0005	<0.0001	0.00313	<0.03	<0.00005	0.306	0.0328	<0.00001	0.0567	<0.0005	1.47	<0.001	2.4	<0.00001	30	<0.00005	0.0292	0.00635	<0.001
5-Aug-09	301																				
12-Aug-09	308																				
19-Aug-09	315																				
26-Aug-09	322	14.9	<0.0005	<0.0001	0.00191	<0.03		0.366	0.038	<0.00001	0.058	<0.0005	1.47	<0.001	2.56	<0.00001	32	<0.00005	0.0196	0.00567	<0.001
2-Sep-09	329																				
9-Sep-09	336																				
16-Sep-09	343																				
23-Sep-09	350	15	<0.0005	<0.0001	0.00186	<0.03	<0.00005	0.372	0.038	<0.00001	0.0575	<0.0005	1.4	<0.001	2.49	<0.00001	27.2	<0.00005	0.0134	0.00521	<0.001
30-Sep-09	357																				
7-Oct-09	364																				
14-Oct-09	371																				
21-Oct-09	378	15.9	<0.0005	<0.0001	0.00188	<0.03	<0.00005	0.396	0.041	<0.00001	0.0596	<0.0005	1.47	<0.001	2.5	<0.00001	28.8	<0.00005	0.0113	0.00513	0.0015
28-Oct-09	385																				
4-Nov-09	392																				
11-Nov-09	399																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
18-Nov-09	406	400	400	7.96	224	196	<1	10.65	114.28	110	43.3	<0.5	0.026	6.81	0.0251	0.00104	0.00919	0.0193	<0.0002	<0.0005	0.022	<0.00005
25-Nov-09	413																					
2-Dec-09	420	50	50	7.78	224	187																
9-Dec-09	427																					
16-Dec-09	434	400	400	7.93	229	184	<1	4.24	111.33	107	44.1	<0.5	0.033	7.28	0.036	0.001	0.0092	0.0172	<0.0002	<0.0005	0.023	<0.00005
23-Dec-09	441																					
30-Dec-09	448	50	50	7.73	348	181																
6-Jan-10	455																					
13-Jan-10	462	400	400	7.83	257	190	<1	7.48	109.13	118	43.1	<0.5	<0.02	7.12	0.0254	0.00105	0.00902	0.0173	<0.0002	<0.0005	0.023	<0.00005
20-Jan-10	469																					
27-Jan-10	476	50	50	7.78	316	166																
3-Feb-10	483																					
10-Feb-10	490	400	400	7.71	143	179	<1	5.55	105.1	114	42.5	<0.5	0.026	7.14	0.0277	0.00101	0.00813	0.0176	<0.0002	<0.0005	0.015	<0.00005
17-Feb-10	497																					
24-Feb-10	504	50	50	7.7	139	174																
3-Mar-10	511																					
10-Mar-10	518	400	400	7.68	273	171	<1	5.81	99.66	96	45.6	<0.5	0.035	7.16	0.0243	0.001	0.00834	0.0182	<0.0002	<0.0005	0.019	<0.00005
17-Mar-10	525																					
24-Mar-10	532	50	50	7.7	149	174																
31-Mar-10	539																					
7-Apr-10	546	400	400	7.69	160	182	<1	5.36	101.11	108	44.6	<0.5	0.022	7.36	0.0265	0.000955	0.00784	0.0181	<0.0002	<0.0005	0.021	<0.00005
14-Apr-10	553																					
21-Apr-10	560	50	50	7.76	162	182																
28-Apr-10	567																					
5-May-10	574	500	400	7.67	227	174	<1	5.43	98.28	106	49.9	<0.5	0.022	7.49	0.0254	0.000969	0.00837	0.019	<0.0002	<0.0005	0.021	<0.00005
12-May-10	581																					
19-May-10	588	50	50	7.68	250	181																
26-May-10	595																					
2-Jun-10	602	400	400	7.78	250	174	<1	4.7	101.14	104	50	<0.5	0.021	7.57	0.027	0.00107	0.00946	0.0228	<0.0002	<0.0005	0.025	<0.00005
9-Jun-10	609																					
16-Jun-10	616	50	50	7.81	258	177																
23-Jun-10	623																					
30-Jun-10	630	400	400	7.8	367	173	<1	4.2	102.86	102	52.6	<0.5	0.021	8.04	0.0202	0.000982	0.00941	0.0196	<0.0002	<0.0005	0.014	<0.00005
7-Jul-10	637																					
14-Jul-10	644	50	50	7.69	295	185																
21-Jul-10	651																					
28-Jul-10	658	400	400	7.75	247	171	<1	5.83	103.88	107	52.1	<0.5	0.023	8.24	0.0213	0.000986	0.00952	0.0191	<0.0002	<0.0005	0.027	<0.00005
4-Aug-10	665																					
11-Aug-10	672	50	50	7.7	351	175																
18-Aug-10	679																					
25-Aug-10	686	400	400	7.52	290	179	<1	8.11	100.56	96	53.5	0.61	<0.02	8.23	0.0178	0.000905	0.00756	0.018	<0.0002	<0.0005	0.024	<0.00005
1-Sep-10	693																					
8-Sep-10	700	50	50	7.6	236	153																
15-Sep-10	707																					
22-Sep-10	714	400	400	7.7	239	169	<1	6.55	98.59	108	56.1	0.74	<0.02	8.71	0.0185	0.000928	0.00687	0.0195	<0.0002	<0.0005	0.021	<0.00005
29-Sep-10	721																					
6-Oct-10	728	50	50	7.62	179	185																
13-Oct-10	735																					
20-Oct-10	742	400	400	7.7	167	181	<1	5.63	106.93	114	54.3	0.77	0.02	8.76	0.0167	0.00091	0.00638	0.0189	<0.0002	<0.0005	0.019	<0.00005
27-Oct-10	749																					
3-Nov-10	756	50	50	7.78	304	221																
10-Nov-10	763																					
17-Nov-10	770	400	400	7.86	267	190	<1	6.41	102.64	100	55.2	0.78	<0.02	9.04	0.0153	0.000849	0.00586	0.0199	<0.0002	<0.0005	0.014	<0.00005
24-Nov-10	777																					
1-Dec-10	784	50	50	7.59	250	169																
8-Dec-10	791																					
15-Dec-10	798	400	400	7.56	213	171	<1	7.29	96.19	98	57.3	0.98	<0.02	9.17	0.0138	0.000828	0.00533	0.0205	<0.0002	<0.0005	0.018	<0.00005
22-Dec-10	805																					
29-Dec-10	812	50	50	7.57	236	170																
5-Jan-11	819																					

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Nov-09	406	16.7	<0.0005	<0.0001	0.00042	<0.03	<0.00005	0.39	0.0408	<0.00001	0.0585	0.00055	1.28	<0.001	2.54	<0.00001	26.1	<0.00005	0.0105	0.00435	<0.001
25-Nov-09	413																				
2-Dec-09	420																				
9-Dec-09	427																				
16-Dec-09	434	16.9	<0.0005	<0.0001	0.00062	<0.03	<0.00005	0.432	0.0411	<0.00001	0.0609	<0.0005	1.4	<0.001	2.64	<0.00001	25.7	<0.00005	0.00959	0.00444	<0.001
23-Dec-09	441																				
30-Dec-09	448																				
6-Jan-10	455																				
13-Jan-10	462	16.6	<0.0005	<0.0001	0.00197	<0.03	<0.00005	0.411	0.0372	<0.00001	0.0591	<0.0005	1.38	<0.001	2.71	<0.00001	25.7	<0.00005	0.011	0.00449	0.001
20-Jan-10	469																				
27-Jan-10	476																				
3-Feb-10	483																				
10-Feb-10	490	16.3	0.00071	<0.0001	0.00057	<0.03	<0.00005	0.436	0.0374	<0.0001	0.0589	<0.0005	1.33	<0.001	2.64	<0.00001	25.3	<0.00005	0.0101	0.00423	<0.001
17-Feb-10	497																				
24-Feb-10	504																				
3-Mar-10	511																				
10-Mar-10	518	17.5	<0.0005	<0.0001	0.0005	<0.03	<0.00005	0.439	0.0404	<0.00001	0.0597	<0.0005	1.36	<0.001	2.58	<0.00001	21.5	<0.00005	0.00969	0.00407	<0.001
17-Mar-10	525																				
24-Mar-10	532																				
31-Mar-10	539																				
7-Apr-10	546	17.1	<0.0005	<0.0001	0.00187	<0.03	<0.00005	0.455	0.0375	<0.00001	0.0559	<0.0005	1.32	<0.001	2.62	<0.00001	21.5	<0.00005	0.00595	0.00384	<0.001
14-Apr-10	553																				
21-Apr-10	560																				
28-Apr-10	567																				
5-May-10	574	19.2	<0.0005	<0.0001	0.00059	<0.03	<0.00005	0.49	0.0412	<0.00001	0.0595	<0.0005	1.45	<0.001	2.7	0.000015	20.3	<0.00005	0.00684	0.0039	<0.001
12-May-10	581																				
19-May-10	588																				
26-May-10	595																				
2-Jun-10	602	19.1	<0.0005	<0.0001	0.00323	<0.03	<0.00005	0.553	0.0501	<0.00001	0.0614	<0.0005	1.63	<0.001	2.69	<0.00001	20.6	<0.00005	0.00673	0.00393	0.0018
9-Jun-10	609																				
16-Jun-10	616																				
23-Jun-10	623																				
30-Jun-10	630	20.2	<0.0005	<0.0001	0.00102	<0.03	<0.00005	0.513	0.0554	<0.00001	0.0581	<0.0005	1.46	<0.001	2.71	<0.00001	19.5	<0.00005	0.00615	0.00378	<0.001
7-Jul-10	637																				
14-Jul-10	644																				
21-Jul-10	651																				
28-Jul-10	658	20	<0.0005	<0.0001	0.00084	<0.03	<0.00005	0.515	0.0577	<0.00001	0.057	<0.0005	1.5	<0.001	2.79	<0.00001	17.7	<0.00005	0.00659	0.00315	<0.001
4-Aug-10	665																				
11-Aug-10	672																				
18-Aug-10	679																				
25-Aug-10	686	20.6	<0.0005	<0.0001	0.00052	<0.03	<0.00005	0.51	0.053	<0.00001	0.0516	<0.0005	1.39	<0.001	2.72	0.000041	17.1	<0.00005	0.00565	0.00291	<0.001
1-Sep-10	693																				
8-Sep-10	700																				
15-Sep-10	707																				
22-Sep-10	714	21.5	<0.0005	<0.0001	0.00108	<0.03	0.000057	0.549	0.048	<0.00001	0.054	<0.0005	1.45	<0.001	2.64	<0.00001	16.8	<0.00005	0.00587	0.0035	<0.001
29-Sep-10	721																				
6-Oct-10	728																				
13-Oct-10	735																				
20-Oct-10	742	20.8	<0.0005	<0.0001	0.00078	<0.03	<0.00005	0.553	0.0489	<0.00001	0.0561	0.00074	1.42	<0.001	2.64	<0.00001	15.6	<0.00005	0.00659	0.00359	0.004
27-Oct-10	749																				
3-Nov-10	756																				
10-Nov-10	763																				
17-Nov-10	770	21.2	<0.0005	<0.0001	0.00088	<0.03		0.573	0.0433	<0.00001	0.0572	<0.0005	1.39	<0.001	2.49	0.000011	14.9	<0.00005	0.00597	0.00294	0.0026
24-Nov-10	777																				
1-Dec-10	784																				
8-Dec-10	791																				
15-Dec-10	798	22	<0.0005	<0.0001	0.00141	<0.03	<0.00005	0.556	0.0332	<0.00001	0.0561	0.00051	1.37	<0.001	2.5	<0.00001	14.7	<0.00005	0.00583	0.00315	0.0011
22-Dec-10	805																				
29-Dec-10	812																				
5-Jan-11	819																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
12-Jan-11	826	400	400	7.59	206	154	<1	7.3	96.44	95	57.1	0.8	<0.02	8.87	0.0136	0.000858	0.00519	0.0196	<0.0002	<0.0005	0.02	<0.00005
19-Jan-11	833																					
26-Jan-11	840	50	50	7.58	190	155																
2-Feb-11	847																					
9-Feb-11	854	400	400	7.58	279	147	<1	5.86	91.26	100	57.2	0.8	<0.02	8.98	0.0201	0.000815	0.00529	0.0209	<0.0002	<0.0005	0.015	<0.00005
16-Feb-11	861																					
23-Feb-11	868	50	50	7.56	207	174																
2-Mar-11	875																					
9-Mar-11	882	400	400	7.56	170	174	<1	5.63	90.63	98	56.3	0.78	<0.02	9.11	0.0144	0.000677	0.00493	0.0198	<0.0002	<0.0005	0.015	<0.00005
16-Mar-11	889																					
23-Mar-11	896	50	50	7.66	161	171																
30-Mar-11	903																					
6-Apr-11	910	400	400	7.61	115	170	<1	8.26	94.12	94	54.7	0.74	<0.02	8.96	0.0122	0.000647	0.0045	0.0188	<0.0002	<0.0005	0.016	<0.00005
13-Apr-11	917																					
20-Apr-11	924	50	50	7.75	158	172																
27-Apr-11	931																					
4-May-11	938	400	400	7.66	204	168	<1	7.71	92.86	100	58.5	0.81	<0.02	9.14	0.0124	0.000642	0.0047	0.018	<0.0002	<0.0005	0.019	<0.00005
11-May-11	945																					
18-May-11	952	50	50	7.61	201	171																
25-May-11	959																					
1-Jun-11	966	400	400	7.56	166	171	<1	8.36	83.34	104	60.4	0.93	<0.02	9.89	0.0134	0.000707	0.00487	0.0204	<0.0002	<0.0005	0.016	<0.00005
8-Jun-11	973																					
15-Jun-11	980	50	50	7.77	246	167																
22-Jun-11	987																					
29-Jun-11	994	400	400	7.84	257	171	<1	5.48	94.04	84	60.1	1.01	<0.02	10.4	0.0149	0.000705	0.00512	0.0208	<0.0002	<0.0005	0.016	<0.00005
6-Jul-11	1001																					
13-Jul-11	1008	50	50	7.71	199	171																
20-Jul-11	1015																					
27-Jul-11	1022	400	400	7.66	149	167	<1	5.13	84.32	103	60.1	1.08	0.02	10.6	0.0148	0.000719	0.00478	0.0208	<0.0002	<0.0005	0.014	<0.00005
3-Aug-11	1029																					
10-Aug-11	1036	50	50	7.65	130	167																
17-Aug-11	1043																					
24-Aug-11	1050	400	400	7.7	118	167	<1	7.19	86.76	99	61	1.09	<0.02	10.8	0.0154	0.000746	0.00471	0.0205	<0.0002	<0.0005	0.014	0.000063
31-Aug-11	1057																					
7-Sep-11	1064	50	50	7.78	129	167																
14-Sep-11	1071																					
21-Sep-11	1078	400	400	7.73	201	164	<1	6.75	84.37	94	62.2	1.02	<0.02	11.6	0.0157	0.000715	0.0046	0.0204	<0.0002	<0.0005	0.016	<0.00005
28-Sep-11	1085																					
5-Oct-11	1092	50	50	7.7	81	165																
12-Oct-11	1099																					
19-Oct-11	1106	400	400	7.73	90	165	<1	4.81	83.4	95	65.5	0.98	<0.02	12	0.0078	0.000686	0.00565	0.0211	<0.0002	<0.0005	0.011	<0.00005
26-Oct-11	1113																					
2-Nov-11	1120	50	50	7.68	90	166																
9-Nov-11	1127																					
16-Nov-11	1134	400	400	7.66	103	170	<1	4.99	83.91	95	65.5	1.02	<0.02	12.4	0.0124	0.000668	0.00453	0.0203	<0.0002	<0.0005	0.017	<0.00005
23-Nov-11	1141																					
30-Nov-11	1148	50	50	7.62	190	167																
7-Dec-11	1155																					
14-Dec-11	1162	400	400	7.57	132	170	<1	5.84	84.59	95	66.7	0.95	<0.02	12.8	0.0143	0.00059	0.00408	0.021	<0.0002	<0.0005	0.017	<0.00005
21-Dec-11	1169																					
28-Dec-11	1176	50	50	7.56	285	166																
4-Jan-12	1183																					
11-Jan-12	1190	400	400	7.68	87	167	<1	4.26	93.23	95	64.6	0.91	<0.02	12.6	0.0134	0.000628	0.0039	0.0202	<0.0002	<0.0005	0.016	<0.00005
18-Jan-12	1197																					
25-Jan-12	1204	50	50	7.65	186	165																
1-Feb-12	1211																					
8-Feb-12	1218	400	400	7.73	156	171	<1	6.17	96.66	90	66.2	0.89	<0.02	13	0.012	0.000618	0.00375	0.0209	<0.0002	<0.0005	0.014	<0.00005
15-Feb-12	1225																					
22-Feb-12	1232	50	50	7.62	209	170																
29-Feb-12	1239																					

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
12-Jan-11	826	21.9	<0.0005	<0.0001	0.00051	<0.03	<0.00005	0.56	0.0319	<0.00001	0.0615	<0.0005	1.32	<0.001	2.38	<0.00001	13.8	<0.00005	0.00478	0.00306	0.001
19-Jan-11	833																				
26-Jan-11	840																				
2-Feb-11	847																				
9-Feb-11	854	21.9	<0.0005	<0.0001	0.00141	<0.03	0.000055	0.608	0.0289	<0.00001	0.0556	<0.0005	1.46	<0.001	2.39	<0.00001	13.3	<0.00005	0.00287	0.00303	<0.001
16-Feb-11	861																				
23-Feb-11	868																				
2-Mar-11	875																				
9-Mar-11	882	21.6	<0.0005	<0.0001	0.00246	<0.03	<0.00005	0.545	0.0255	<0.00001	0.0537	<0.0005	1.3	<0.001	2.32	<0.00001	12.6	<0.00005	0.00645	0.00292	0.0012
16-Mar-11	889																				
23-Mar-11	896																				
30-Mar-11	903																				
6-Apr-11	910	21	<0.0005	<0.0001	0.00056	<0.03	<0.00005	0.551	0.0213	<0.00001	0.0525	<0.0005	1.22	<0.001	2.16	<0.00001	11.8	<0.00005	0.00507	0.00251	<0.001
13-Apr-11	917																				
20-Apr-11	924																				
27-Apr-11	931																				
4-May-11	938	22.6	<0.0005	<0.0001	0.00102	<0.03	<0.00005	0.515	0.0196	<0.00001	0.0516	<0.0005	1.15	<0.001	2.25	<0.00001	12.1	<0.00005	0.00436	0.0027	<0.001
11-May-11	945																				
18-May-11	952																				
25-May-11	959																				
1-Jun-11	966	23.2	<0.0005	<0.0001	0.00031	<0.03	<0.00005	0.604	0.0214	<0.00001	0.055	<0.0005	1.39	<0.001	2.34	<0.00001	11.8	<0.00005	0.00461	0.00283	<0.001
8-Jun-11	973																				
15-Jun-11	980																				
22-Jun-11	987																				
29-Jun-11	994	23.1	<0.0005	<0.0001	0.00086	<0.03	0.000489	0.609	0.0207	<0.00001	0.0544	<0.0005	1.37	<0.001	2.27	<0.00001	10.9	<0.00005	0.00467	0.00297	
6-Jul-11	1001																				
13-Jul-11	1008																				
20-Jul-11	1015																				
27-Jul-11	1022	23.1	<0.0005	<0.0001	0.00569	<0.03		0.603	0.0184	<0.00001	0.0569	<0.0005	1.42	<0.001	2.23	<0.00001	10.9	<0.00005	0.00451	0.00284	0.0029
3-Aug-11	1029																				
10-Aug-11	1036																				
17-Aug-11	1043																				
24-Aug-11	1050	23.4	<0.0005	<0.0001	0.00196	<0.03	<0.00005	0.618	0.018	<0.00001	0.0568	<0.0005	1.37	<0.001	2.38	<0.00001	10.4	<0.00005	0.00458	0.00291	<0.001
31-Aug-11	1057																				
7-Sep-11	1064																				
14-Sep-11	1071																				
21-Sep-11	1078	23.9	<0.0005	<0.0001	0.00133	<0.03	<0.00005	0.62	0.0155	<0.00001	0.0616	<0.0005	1.29	<0.001	2.3	<0.00001	9.9	<0.00005	0.00439	0.00286	<0.001
28-Sep-11	1085																				
5-Oct-11	1092																				
12-Oct-11	1099																				
19-Oct-11	1106	25.2	<0.0005	<0.0001	0.00037	<0.03	<0.00005	0.636	0.0143	<0.00001	0.0593	<0.0005	1.35	<0.001	2.28	<0.00001	10.1	<0.00005	0.00239	0.00258	<0.001
26-Oct-11	1113																				
2-Nov-11	1120																				
9-Nov-11	1127																				
16-Nov-11	1134	25.2	<0.0005	<0.0001	0.00049	<0.03	<0.00005	0.647	0.0138	<0.00001	0.0583	<0.0005	1.33	<0.001	2.16	<0.00001	9.3	<0.00005	0.00372	0.00236	<0.001
23-Nov-11	1141																				
30-Nov-11	1148																				
7-Dec-11	1155																				
14-Dec-11	1162	25.6	<0.0005	<0.0001	0.00049	<0.03	<0.00005	0.653	0.0127	<0.00001	0.057	<0.0005	1.35	<0.001	2.15	<0.00001	9	<0.00005	0.003	0.00233	0.0018
21-Dec-11	1169																				
28-Dec-11	1176																				
4-Jan-12	1183																				
11-Jan-12	1190	24.8	<0.0005	<0.0001	0.00398	<0.03	<0.00005	0.637	0.0109	<0.00001	0.0559	<0.0005	1.25	<0.001	2.03	<0.00001	8.3	<0.00005	0.00388	0.00221	0.0015
18-Jan-12	1197																				
25-Jan-12	1204																				
1-Feb-12	1211																				
8-Feb-12	1218	25.5	<0.0005	<0.0001	0.00041	<0.03	<0.00005	0.63	0.00985	<0.00001	0.0572	<0.0005	1.32	<0.001	2.02	<0.00001	8.3	<0.00005	0.00316	0.00217	0.0011
15-Feb-12	1225																				
22-Feb-12	1232																				
29-Feb-12	1239																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
7-Mar-12	1246	400	400	7.68	325	172	<1	9.73	86.71	94	69.4	0.9	<0.02	13.4	0.0129	0.000591	0.00406	0.0207	<0.0002	<0.0005	0.014	<0.00005
14-Mar-12	1253																					
21-Mar-12	1260	50	50	7.58	127	172																
28-Mar-12	1267																					
4-Apr-12	1274	400	400	7.65	195	170	<1	5.33	82.08	98	65.8	0.91	<0.02	14.5	0.0119	0.00052	0.00389	0.02	<0.0002	<0.0005	0.016	0.000061
11-Apr-12	1281																					
18-Apr-12	1288	50	50	7.68	206	173																
25-Apr-12	1295																					
2-May-12	1302	400	400	7.71	235	178	<1	9.36	83.85	96	70	0.9	<0.02	15	0.0127	0.000549	0.00386	0.0215	<0.0002	<0.0005	0.014	<0.00005
9-May-12	1309																					
16-May-12	1316	50	50	7.67	107	179																
23-May-12	1323																					
30-May-12	1330	400	400	7.72	112	181	<1	6.77	82.22	102	67.5	0.92	<0.02	16	0.0125	0.000524	0.0037	0.0208	<0.0002	<0.0005	0.014	<0.00005
6-Jun-12	1337																					
13-Jun-12	1344	50	50	7.63	319	177																
20-Jun-12	1351																					
27-Jun-12	1358	400	400	7.74	275	180	<1	7.96	83.6	103	72.6	0.93	<0.02	16.6	0.0137	0.000487	0.00353	0.0207	<0.0002	<0.0005	0.016	<0.00005
4-Jul-12	1365																					
11-Jul-12	1372	50	50	7.52	382	175																
18-Jul-12	1379																					
25-Jul-12	1386	400	400	7.64	231	176	<1	5.41	80.3	108	75.2	0.86	<0.02	17	0.015	0.000477	0.0037	0.0197	<0.0002	<0.0005	0.016	<0.00005
1-Aug-12	1393																					
8-Aug-12	1400	50	50	7.73	198	179																
15-Aug-12	1407																					
22-Aug-12	1414	400	400	7.63	124	175	<1	6.82	76.98	103	69.6	0.83	<0.02	16.8	0.0151	0.000563	0.0037	0.0197	<0.0002	<0.0005	0.014	<0.00005
29-Aug-12	1421																					
5-Sep-12	1428	50	50	7.64	302	176																
12-Sep-12	1435																					
19-Sep-12	1442	400	400	7.63	203	177	<1	6.11	83.59	99	75.8	0.85	<0.02	18.1	0.0141	0.000532	0.00366	0.0202	<0.0002	<0.0005	0.013	<0.00005
26-Sep-12	1449																					
3-Oct-12	1456	50	50	7.61	231	169																
10-Oct-12	1463																					
17-Oct-12	1470	400	400	7.68	272	150	<1	5.81	71.18	87	60.6	0.64	<0.02	15.4	0.0143	0.000418	0.00346	0.0163	<0.0002	<0.0005	<0.01	<0.00005
24-Oct-12	1477																					
31-Oct-12	1484	50	50	7.31	377	134																
7-Nov-12	1491																					
14-Nov-12	1498	400	400	7.9	241	147	<1	10.37	74.3	82	58.8	<0.5	<0.02	11.2	0.0151	0.000413	0.00358	0.0143	<0.0002	<0.0005	<0.01	<0.00005
21-Nov-12	1505																					
28-Nov-12	1512	50	50	7.68	282	161																
5-Dec-12	1519																					
12-Dec-12	1526	400	400	7.69	134	177	<1	6.17	80.27	112	77.6	0.71	<0.02	16.9	0.0144	0.000422	0.00313	0.0189	<0.0002	<0.0005	<0.01	<0.00005
19-Dec-12	1533																					
26-Dec-12	1540	50	50	7.75	314	189																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
7-Mar-12	1246	26.7	<0.0005	<0.0001	0.00108	<0.03	<0.00005	0.668	0.00949	<0.00001	0.0586	<0.0005	1.31	<0.001	2.08	<0.00001	7.9	<0.00005	0.00318	0.00238	0.0011
14-Mar-12	1253																				
21-Mar-12	1260																				
28-Mar-12	1267																				
4-Apr-12	1274	25.2	<0.0005	<0.0001	0.00083	<0.03	<0.00005	0.687	0.00817	<0.00001	0.0572	<0.0005	1.34	<0.001	1.98	<0.00001	7.5	<0.00005	0.00313	0.00224	0.0015
11-Apr-12	1281																				
18-Apr-12	1288																				
25-Apr-12	1295																				
2-May-12	1302	26.9	<0.0005	<0.0001	0.00088	<0.03	<0.00005	0.673	0.00601	<0.00001	0.0602	<0.0005	1.31	<0.001	2.07	<0.00001	7.5	<0.00005	0.0026	0.00227	0.001
9-May-12	1309																				
16-May-12	1316																				
23-May-12	1323																				
30-May-12	1330	26	<0.0005	<0.0001	0.00243	<0.03	<0.00005	0.652	0.00429	<0.00001	0.0556	<0.0005	1.29	<0.001	2.06	<0.00001	7.3	<0.00005	0.00228	0.00218	0.0025
6-Jun-12	1337																				
13-Jun-12	1344																				
20-Jun-12	1351																				
27-Jun-12	1358	28	<0.0005	<0.0001	0.00064	<0.03	0.000215	0.68	0.00366	<0.00001	0.0551	<0.0005	1.34	<0.001	2.02	<0.00001	6.8	<0.00005	0.0022	0.00192	0.0012
4-Jul-12	1365																				
11-Jul-12	1372																				
18-Jul-12	1379																				
25-Jul-12	1386	29	<0.0005	<0.0001	0.00086	<0.03	<0.00005	0.651	0.00313	<0.00001	0.0557	<0.0005	1.4	<0.001	2.05	<0.00001	6.8	<0.00005	0.00043	0.00234	0.0015
1-Aug-12	1393																				
8-Aug-12	1400																				
15-Aug-12	1407																				
22-Aug-12	1414	26.8	<0.0005	<0.0001	0.00076	<0.03	<0.00005	0.647	0.0021	<0.00001	0.0537	<0.0005	1.28	<0.001	2.07	<0.00001	6.1	<0.00005	0.00034	0.00224	<0.001
29-Aug-12	1421																				
5-Sep-12	1428																				
12-Sep-12	1435																				
19-Sep-12	1442	29.3	<0.0005	<0.0001	0.00079	<0.03	<0.00005	0.664	0.00182	<0.00001	0.0546	<0.0005	1.31	<0.001	2.03	<0.00001	6.5	<0.00005	0.00051	0.00227	<0.001
26-Sep-12	1449																				
3-Oct-12	1456																				
10-Oct-12	1463																				
17-Oct-12	1470	23.4	<0.0005	<0.0001	0.00052	<0.03	<0.00005	0.548	0.00177	<0.00001	0.0417	<0.0005	1.05	<0.001	1.64	<0.00001	4.6	<0.00005	0.00022	0.00202	<0.001
24-Oct-12	1477																				
31-Oct-12	1484																				
7-Nov-12	1491																				
14-Nov-12	1498	22.7	<0.0005	<0.0001	0.00038	<0.03	<0.00005	0.543	0.00148	<0.00001	0.0319	<0.0005	1.07	<0.001	1.49	<0.00001	3.7	<0.00005	0.0002	0.00193	<0.001
21-Nov-12	1505																				
28-Nov-12	1512																				
5-Dec-12	1519																				
12-Dec-12	1526	30.1	<0.0005	<0.0001	0.00063	0.165	<0.00005	0.629	0.00196	<0.00001	0.0353	<0.0005	1.12	<0.001	2.39	<0.00001	4	<0.00005	0.00016	0.00191	0.0019
19-Dec-12	1533																				
26-Dec-12	1540																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
Composite 19 (226338)	SAC 10	Blank rows indicate that no solution was input or output during that week																				
8-Oct-08	0	400	400	7.56	102	655	<1	5.3	43.64	482	260	1.9	0.102	271	0.0242	0.000617	0.00044	0.00486	<0.0002	<0.0005	0.129	<0.00005
15-Oct-08	7	200	200	7.85	303	760																
22-Oct-08	14	400	400	7.61	331	706	<1	7.43	71.7	508	290	<5	<0.2	287	0.0133	0.000851	0.00047	0.00317	<0.0002	<0.0005	0.173	<0.00005
29-Oct-08	21	50	50	7.79	329	661																
5-Nov-08	28	400	400	7.84	317	554	<1	7.55	76.64	386	216	1	0.117	196	0.0161	0.000935	0.00058	0.00247	<0.0002	<0.0005	0.139	<0.00005
12-Nov-08	35	50	50	7.92	318	476																
19-Nov-08	42	400	400	7.82	417	354	<1	4.53	79.17	274	151	<0.5	0.114	129	0.0194	0.000959	0.00088	0.00251	<0.0002	<0.0005	0.137	<0.00005
26-Nov-08	49	50	50	7.8	356	326																
3-Dec-08	56	400	400	7.87	324	309	<1	3.54	85.11	200	112	<0.5	0.155	84.5	0.0476	0.0007	0.00092	0.0022	<0.0002	<0.0005	0.101	<0.00005
10-Dec-08	63	50	50	7.78	345	275																
17-Dec-08	70	400	400	7.67	349	237				153	86.3	<0.5	0.157	51.4	0.0209	0.000633	0.00094	0.0016	<0.0002	<0.0005	0.074	<0.00005
24-Dec-08	77	50	50	7.77	347	216																
31-Dec-08	84	400	400	7.67	268	220	<1	11.24	78.9	125	71.3	<0.5	0.143	35.4	0.0206	0.000482	0.00107	0.00175	<0.0002	<0.0005	0.06	<0.00005
7-Jan-09	91	50	50	7.76	300	186																
14-Jan-09	98	400	400	7.8	313	183	<1	6.3	73.75	123	69.1	<0.5	0.105	30.6	0.0223	0.000504	0.00108	0.00162	<0.0002	<0.0005	0.048	<0.00005
21-Jan-09	105	50	50	7.75	390	175																
28-Jan-09	112	400	400	7.7	324	170	<1	5.97	72.37	109	65	<0.5	0.127	27.2	0.0193	0.000436	0.00088	0.00151	<0.0002	<0.0005	0.04	<0.00005
4-Feb-09	119	50	50	7.8	391	196																
11-Feb-09	126	400	400	7.82	336	162	<1	7.77	71.42	102	64.2	<0.5	0.119	25	0.0223	0.000472	0.00098	0.00113	<0.0002	<0.0005	0.035	<0.00005
18-Feb-09	133	50	50	7.91	320	160																
25-Feb-09	140	400	400	7.79	402	160	<1	7.41	71.73	110	64.7	<0.5	0.106	24.2	0.0207	0.000426	0.00096	0.000746	<0.0002	<0.0005	0.027	<0.00005
4-Mar-09	147	50	50	7.68	283	161																
11-Mar-09	154	400	400	7.56	304	159	<1	5.94	68.12	98	63.6	<0.5	0.071	23.6	0.0206	0.000456	0.00095	0.000594	<0.0002	<0.0005	0.03	<0.00005
18-Mar-09	161	50	50	7.78	351	157																
25-Mar-09	168	400	400	7.59	343	157	<1	4.95	65.53	95.8	61.1	<0.5	0.072	23.1	0.0229	0.000462	0.00108	0.000573	<0.0002	<0.0005	0.026	<0.00005
1-Apr-09	175	50	50	7.68	363	156																
8-Apr-09	182	400	400	7.72	345	153	<1	4.38	64.82	98	62.3	<0.5	0.066	22.4	0.0268	0.000478	0.001	0.00071	<0.0002	<0.0005	0.025	<0.00005
15-Apr-09	189	50	50	7.8	378	156																
22-Apr-09	196	50	50	7.84	336	156																
29-Apr-09	203																					
6-May-09	210	400	400	7.67	344	139	<1	4.6	56.92	89.8	56	<0.5	0.061	21.9	0.0291	0.000458	0.00091	0.00065	<0.0002	<0.0005	0.019	<0.00005
13-May-09	217																					
20-May-09	224	50	50	7.61	352	147																
27-May-09	231																					
3-Jun-09	238	400	400	7.81	344	148	<1	4.09	68.18	108	70.8	<0.5	0.047	27.2	0.0308	0.000508	0.00078	0.000844	<0.0002	<0.0005	0.028	<0.00005
10-Jun-09	245																					
17-Jun-09	252	50	50	7.74	358	162																
24-Jun-09	259																					
1-Jul-09	266	400	400	7.76	317	156	<1	4.69	74.88	123	77.5	<0.5	0.035	31.6	0.0219	0.000553	0.00062	0.000614	<0.0002	<0.0005	0.018	<0.00005
8-Jul-09	273																					
15-Jul-09	280	50	50	7.77	344	181																
22-Jul-09	287																					
29-Jul-09	294	400	400	7.75	301	200	<1	7.36	85.29	130	95.2	<0.5	0.039	35.9	0.0229	0.000477	0.00084	0.000876	<0.0002	<0.0005	0.019	<0.00005
5-Aug-09	301																					
12-Aug-09	308	50	50	7.72	242	207																
19-Aug-09	315																					
26-Aug-09	322	400	400	7.83	227	208	<1	4.25	87.87	149	104	<0.5	0.053	37.7	0.0181	0.000387	0.00088	0.00096	<0.0002	<0.0005	0.025	<0.00005
2-Sep-09	329																					
9-Sep-09	336	50	50	7.78	273	211																
16-Sep-09	343																					
23-Sep-09	350	400	400	7.87	302	213	<1	5.24	92.89	134	103	<0.5	0.034	35.7	0.0187	0.00044	0.00092	0.000752	<0.0002	<0.0005	0.024	<0.00005
30-Sep-09	357																					
7-Oct-09	364	50	50	7.71	250	215																
14-Oct-09	371																					
21-Oct-09	378	400	400	7.82	237	208	<1	4.24	89.56	141	103	<0.5	0.037	34.4	0.0192	0.00043	0.00081	0.00114	<0.0002	<0.0005	0.027	<0.00005
28-Oct-09	385																					
4-Nov-09	392	50	50	7.65	222	217																
11-Nov-09	399																					
18-Nov-09	406	400	400	7.75	239	221	<1	10.53	89.81	129	96.3	<0.5	0.041	34.5	0.0149	0.00039	0.00079	0.000947	<0.0002	<0.0005	0.026	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
Composite 19 (226338)	SAC 10																				
8-Oct-08	0	83.8	<0.0005	0.00011	0.00338	<0.03	<0.00005	12.3	0.0264	<0.00001	0.00115	<0.0005	1.91	0.0107	3.89	0.000058	32.4	<0.00005	0.00035	0.00412	0.0012
15-Oct-08	7																				
22-Oct-08	14	92.7	0.00109	<0.0001	<0.0012	<0.03		14.2	0.0418	<0.00001	0.0015	<0.0005	1.93	0.0102	5.12	0.000056	37.2	<0.00005	0.00048	0.00484	<0.001
29-Oct-08	21																				
5-Nov-08	28	68	<0.0005	<0.0001	0.00104	<0.03	<0.00005	11.2	0.0438	<0.00001	0.00142	<0.0005	1.76	0.0014	5.14	0.000011	30.6	<0.00005	0.00101	0.00578	<0.001
12-Nov-08	35																				
19-Nov-08	42	52.6	<0.0005	<0.0001	0.00112	<0.03	<0.00005	7.98	0.0588	<0.00001	0.00144	<0.0005	1.49	<0.001	5.63	<0.00001	26.2	<0.00005	0.00169	0.00599	<0.001
26-Nov-08	49																				
3-Dec-08	56	35.2	<0.0005	<0.0001	0.00093	<0.03	<0.00005	5.89	0.0416	<0.00001	0.00135	<0.0005	1.2	<0.001	5.26	<0.00001	19.5	<0.00005	0.00283	0.00628	0.0022
10-Dec-08	63																				
17-Dec-08	70	28.6	<0.0005	<0.0001	0.00105	<0.03	<0.00005	3.62	0.0295	<0.00001	0.00106	<0.0005	0.995	<0.001	5.32	<0.00001	16.2	<0.00005	0.00313	0.00616	0.0025
24-Dec-08	77																				
31-Dec-08	84	22.6	<0.0005	<0.0001	0.00187	0.065	<0.00005	3.59	0.0246	<0.00001	0.000827	0.00062	0.832	<0.001	4.99	<0.00001	12.5	<0.00005	0.00502	0.00591	<0.001
7-Jan-09	91																				
14-Jan-09	98	20.9	<0.0005	0.00018	0.00076	0.075	<0.00005	4.12	0.0205	<0.00001	0.000726		0.877	<0.001	4.96	<0.00001	11.9	<0.00005	0.0062	0.00672	0.0015
21-Jan-09	105																				
28-Jan-09	112	20.1	<0.0005	<0.0001	0.00078	<0.03	<0.00005	3.61	0.0155	<0.00001	0.000625	0.00117	0.665	<0.001	4.63	<0.00001	9.7	<0.00005	0.007	0.00616	<0.001
4-Feb-09	119																				
11-Feb-09	126	19.5	<0.0005	<0.0001	0.00051	<0.03	<0.00005	3.75	0.0131	<0.00001	0.000525	<0.0005	0.691	<0.001	4.92	<0.00001	8.9	<0.00005	0.00556	0.0071	<0.001
18-Feb-09	133																				
25-Feb-09	140	19.7	<0.0005	<0.0001	0.00157	<0.03	<0.00005	3.79	0.0126	<0.00001	0.000492	<0.0005	0.663	<0.001	4.8	<0.00001	8.4	<0.00005	0.00484	0.00644	0.001
4-Mar-09	147																				
11-Mar-09	154	19.6	<0.0005	<0.0001	0.00057	<0.03	<0.00005	3.53	0.0129	<0.00001	0.000479	0.00106	0.636	<0.001	4.71	<0.00001	7.7	<0.00005	0.00535	0.00673	<0.001
18-Mar-09	161																				
25-Mar-09	168	19.4	<0.0005	<0.0001	0.00083	<0.03	<0.00005	3.08	0.0117	<0.00001	0.000424	<0.0005	0.611	<0.001	4.65	<0.00001	7.3	<0.00005	0.00493	0.00724	<0.001
1-Apr-09	175																				
8-Apr-09	182	19.8	<0.0005	<0.0001	0.00348	<0.03		3.14	0.0106	<0.00001	0.000421	0.00106	0.548	<0.001	4.88	<0.00001	7.4	<0.00005	0.0047	0.0071	0.0012
15-Apr-09	189																				
22-Apr-09	196																				
29-Apr-09	203																				
6-May-09	210	17.6	<0.0005	<0.0001	0.00057	<0.03	<0.00005	2.9	0.0105	<0.00001	0.000275	<0.0005	0.553	<0.001	4.31	<0.00001	5.3	<0.00005	0.00983	0.00696	<0.001
13-May-09	217																				
20-May-09	224																				
27-May-09	231																				
3-Jun-09	238	22.7	<0.0005	<0.0001	0.00212	<0.03	0.000165	3.46	0.00748	<0.00001	0.000309	<0.0005	0.533	<0.001	4.65	<0.00001	5.4	<0.00005	0.00893	0.00664	0.001
10-Jun-09	245																				
17-Jun-09	252																				
24-Jun-09	259																				
1-Jul-09	266	25.3	<0.0005	<0.0001	0.00033	<0.03	<0.00005	3.49	0.0047	<0.00001	0.000321	<0.0005	0.465	<0.001	4.25	<0.00001	5.1	<0.00005	0.00568	0.0061	<0.001
8-Jul-09	273																				
15-Jul-09	280																				
22-Jul-09	287																				
29-Jul-09	294	30.9	<0.0005	<0.0001	0.00194	<0.03	<0.00005	4.37	0.0113	<0.00001	0.000431	<0.0005	0.557	<0.001	5.16	<0.00001	6.1	<0.00005		0.00641	<0.001
5-Aug-09	301																				
12-Aug-09	308																				
19-Aug-09	315																				
26-Aug-09	322	33.3	<0.0005	<0.0001	0.00238	<0.03	<0.00005	4.96	0.0115	<0.00001	0.000503	<0.0005	0.557	<0.001	5.21	<0.00001	6.9	<0.00005	0.00613	0.00526	<0.001
2-Sep-09	329																				
9-Sep-09	336																				
16-Sep-09	343																				
23-Sep-09	350	33.5	<0.0005	<0.0001	0.00062	<0.03	<0.00005	4.75	0.0119	<0.00001	0.000556	<0.0005	0.547	<0.001	5.48	<0.00001	6.5	<0.00005	0.00502	0.00529	<0.001
30-Sep-09	357																				
7-Oct-09	364																				
14-Oct-09	371																				
21-Oct-09	378	33.7	<0.0005	<0.0001	0.00162	<0.03	<0.00005	4.59	0.0124	<0.00001	0.000516	<0.0005	0.514	<0.001	5.41	<0.00001	6.9	<0.00005	0.00542	0.00528	0.001
28-Oct-09	385																				
4-Nov-09	392																				
11-Nov-09	399																				
18-Nov-09	406	31.4	<0.0005	<0.0001	0.00125	<0.03	<0.00005	4.38	0.0112	<0.00001	0.000429	<0.0005	0.448	<0.001	5.19	<0.00001	5.7	<0.00005	0.00488	0.00475	0.0018

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
25-Nov-09	413																					
2-Dec-09	420	50	50	7.67	277	203																
9-Dec-09	427																					
16-Dec-09	434	400	400	7.9	260	202	<1	3.91	83.69	137	95.7	<0.5	0.047	33	0.0186	0.000419	0.00077	0.000964	<0.0002	<0.0005	0.023	<0.00005
23-Dec-09	441																					
30-Dec-09	448	50	50	7.68	363	207																
6-Jan-10	455																					
13-Jan-10	462	400	400	7.73	277	216	<1	7.98	83.26	147	105	<0.5	0.032	33.5	0.0163	0.000503	0.00055	0.00132	<0.0002	<0.0005	0.029	<0.00005
20-Jan-10	469																					
27-Jan-10	476	50	50	7.66	321	191																
3-Feb-10	483																					
10-Feb-10	490	400	400	7.64	188	208	<1	5.71	82.63	137	94.1	<5	<0.2	33.3	0.0157	0.000445	0.00077	0.000694	<0.0002	<0.0005	0.016	<0.00005
17-Feb-10	497																					
24-Feb-10	504	50	50	7.66	198	204																
3-Mar-10	511																					
10-Mar-10	518	400	400	7.65	349	211	<1	5.7	81.79	128	103	<0.5	0.057	38.2	0.0154	0.00046	0.00073	0.000751	<0.0002	<0.0005	0.021	<0.00005
17-Mar-10	525																					
24-Mar-10	532	50	50	7.7	223	214																
31-Mar-10	539																					
7-Apr-10	546	400	400	7.65	226	229	<1	5.62	86.15	143	104	<0.5	0.041	40.4	0.0161	0.00049	0.00061	0.00121	<0.0002	<0.0005	0.027	<0.00005
14-Apr-10	553																					
21-Apr-10	560	50	50	7.68	214	226																
28-Apr-10	567																					
5-May-10	574	435	400	7.66	276	223	<1	5.93	86.03	149	133	<0.5	0.037	40.6	0.0154	0.000401	0.00058	0.0016	<0.0002	<0.0005	0.024	<0.00005
12-May-10	581																					
19-May-10	588	50	50	7.69	296	220																
26-May-10	595																					
2-Jun-10	602	400	400	7.73	293	226	<1	5.18	89.64	144	101	<0.5	0.036	40.2	0.0174	0.00044	0.00064	0.00125	<0.0002	<0.0005	0.023	<0.00005
9-Jun-10	609																					
16-Jun-10	616	50	50	7.74	303	220																
23-Jun-10	623																					
30-Jun-10	630	400	400	7.85	369	220	<1	4.28	91.57	136	107	<0.5	0.034	39.9	0.0169	0.000393	0.0007	0.00631	<0.0002	<0.0005	0.014	<0.00005
7-Jul-10	637																					
14-Jul-10	644	50	50	7.7	309	220																
21-Jul-10	651																					
28-Jul-10	658	400	400	7.68	290	206	<1	5.32	81.38	140	104	<0.5	0.042	37.4	0.0192	0.000417	0.00069	0.00081	<0.0002	<0.0005	0.025	<0.00005
4-Aug-10	665																					
11-Aug-10	672	50	50	7.76	354	207																
18-Aug-10	679																					
25-Aug-10	686	400	400	7.54	323	212	<1	7.93	79.87	134	100	<0.5	0.036	38.1	0.0165	0.000371	0.00065	0.000615	<0.0002	<0.0005	0.027	<0.00005
1-Sep-10	693																					
8-Sep-10	700	50	50	7.64	275	185																
15-Sep-10	707																					
22-Sep-10	714	400	400	7.7	289	205	<1	5.81	80.9	146	106	<0.5	0.036	39.7	0.0206	0.000535	0.00055	0.00156	<0.0002	<0.0005	0.017	<0.00005
29-Sep-10	721																					
6-Oct-10	728	50	50	7.63	233	222																
13-Oct-10	735																					
20-Oct-10	742	400	400	7.71	218	219	<1	5.13	86.09	142	101	<0.5	0.042	39.9	0.0195	0.000579	0.00052	0.000896	<0.0002	<0.0005	0.023	<0.00005
27-Oct-10	749																					
3-Nov-10	756	50	50	7.76	326	187																
10-Nov-10	763																					
17-Nov-10	770	400	400	7.8	281	230	<1	6.01	85.35	138	103	<0.5	0.027	42.1	0.0175	0.000397	0.00062	0.00156	<0.0002	<0.0005	0.016	<0.00005
24-Nov-10	777																					
1-Dec-10	784	50	50	7.52	328	215																
8-Dec-10	791																					
15-Dec-10	798	400	400	7.53	276	211	<1	7.37	80.3	138	103	0.52	0.039	42.7	0.0218	0.00058	0.00054	0.000821	<0.0002	<0.0005	0.02	<0.00005
22-Dec-10	805																					
29-Dec-10	812	50	50	7.61	282	214																
5-Jan-11	819																					
12-Jan-11	826	400	400	7.57	276	193	<1	7.02	80.23	132	106	<0.5	0.024	43.3	0.0179	0.000532	0.0005	0.000633	<0.0002	<0.0005	0.024	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
25-Nov-09	413																				
2-Dec-09	420																				
9-Dec-09	427																				
16-Dec-09	434	31.1	<0.0005	<0.0001	0.00144	<0.03	<0.00005	4.41	0.00883	<0.00001	0.000421	<0.0005	0.449	<0.001	5.27	<0.00001	5.8	<0.00005	0.00572	0.00518	<0.001
23-Dec-09	441																				
30-Dec-09	448																				
6-Jan-10	455																				
13-Jan-10	462	35.3	<0.0005	<0.0001	0.00514	<0.03	<0.00005	3.98	0.0074	<0.00001	0.000433	<0.0005	0.443	<0.001	5.22	<0.00001	6	<0.00005	0.00721	0.00714	0.0019
20-Jan-10	469																				
27-Jan-10	476																				
3-Feb-10	483																				
10-Feb-10	490	30.7	0.00055	<0.0001	0.00212	<0.03	<0.0005	4.24	0.00739	<0.0001	<0.0005	<0.0005	0.422	<0.001	5.16	<0.00001	6.1	<0.00005	0.00584	0.00548	<0.001
17-Feb-10	497																				
24-Feb-10	504																				
3-Mar-10	511																				
10-Mar-10	518	34.1	<0.0005	<0.0001	0.00046	<0.03	<0.00005	4.46	0.00624	<0.00001	0.000479	<0.0005	0.438	<0.001	4.89	<0.00001	5	<0.00005	0.00759	0.00585	<0.001
17-Mar-10	525																				
24-Mar-10	532																				
31-Mar-10	539																				
7-Apr-10	546	33.7	<0.0005	<0.0001	0.0016	<0.03	<0.00005	4.74	0.00553	<0.00001	0.000511	<0.0005	0.435	<0.001	5.01	<0.00001	5.5	<0.00005	0.00496	0.00572	<0.001
14-Apr-10	553																				
21-Apr-10	560																				
28-Apr-10	567																				
5-May-10	574	45.5	<0.0005	<0.0001	0.00199	<0.03	<0.00005	4.6	0.00582	<0.00001	0.000619	<0.0005	0.457	<0.001	5.42	<0.00001	5.9	<0.00005	0.005	0.00478	0.0026
12-May-10	581																				
19-May-10	588																				
26-May-10	595																				
2-Jun-10	602	31.8	<0.0005	<0.0001	0.0009	<0.03	<0.00005	5.26	0.00628	<0.00001	0.000589	<0.0005	0.519	<0.001	5.53	<0.00001	5.8	<0.00005	0.00581	0.00534	<0.001
9-Jun-10	609																				
16-Jun-10	616																				
23-Jun-10	623																				
30-Jun-10	630	35	<0.0005	<0.0001	0.00182	<0.03	<0.00005	4.68	0.00752	<0.00001	0.000555	<0.0005	0.474	<0.001	5.61	<0.00001	5.9	<0.00005	0.00536	0.00509	<0.001
7-Jul-10	637																				
14-Jul-10	644																				
21-Jul-10	651																				
28-Jul-10	658	34.8	<0.0005	<0.0001	0.00026	<0.03	<0.00005	4.19	0.00584	<0.00001	0.000517	<0.0005	0.437	<0.001	5.82	<0.00001	5.3	<0.00005	0.00627	0.00509	<0.001
4-Aug-10	665																				
11-Aug-10	672																				
18-Aug-10	679																				
25-Aug-10	686	34.4	<0.0005	<0.0001	0.00042	<0.03	<0.00005	3.52	0.00401	<0.00001	0.000455	<0.0005	0.405	<0.001	5.34	<0.00001	4.9	<0.00005	0.00598	0.00454	<0.001
1-Sep-10	693																				
8-Sep-10	700																				
15-Sep-10	707																				
22-Sep-10	714	34.8	<0.0005	<0.0001	0.00237	<0.03	<0.00005	4.65	0.00415	<0.00001	0.000534	<0.0005	0.431	<0.001	5.28	<0.00001	5	<0.00005	0.00573	0.00849	<0.001
29-Sep-10	721																				
6-Oct-10	728																				
13-Oct-10	735																				
20-Oct-10	742	33.5	<0.0005	<0.0001	0.00086	<0.03	<0.00005	4.15	0.00385	<0.00001	0.000651	<0.0005	0.41	<0.001	5.26	<0.00001	4.8	<0.00005	0.00746	0.00951	<0.001
27-Oct-10	749																				
3-Nov-10	756																				
10-Nov-10	763																				
17-Nov-10	770	34.3	<0.0005	<0.0001	0.00146	<0.03	<0.00005	4.2	0.00404	<0.00001	0.00081	<0.0005	0.393	<0.001	5.04	<0.00001	4.6	<0.00005	0.0058	0.00562	0.0024
24-Nov-10	777																				
1-Dec-10	784																				
8-Dec-10	791																				
15-Dec-10	798	34.1	<0.0005	<0.0001	0.00177	<0.03	<0.00005	4.39	0.00334	<0.00001	0.000823	<0.0005	0.419	<0.001	5.14	<0.00001	4.5	<0.00005	0.00544	0.00861	<0.001
22-Dec-10	805																				
29-Dec-10	812																				
5-Jan-11	819																				
12-Jan-11	826	35.5	<0.0005	<0.0001	0.00047	<0.03	<0.00005	4.29	0.00295	<0.00001	0.00101	<0.0005	0.38	<0.001	4.97	<0.00001	4.5	<0.00005	0.0058	0.0074	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
19-Jan-11	833																					
26-Jan-11	840	50	50	7.53	239	199																
2-Feb-11	847																					
9-Feb-11	854	400	400	7.59	318	190	<1	5.48	77.49	143	111	<0.5	0.024	44.2	0.0187	0.000528	0.00059	0.000921	<0.0002	<0.0005	0.015	<0.00005
16-Feb-11	861																					
23-Feb-11	868	50	50	7.59	256	226																
2-Mar-11	875																					
9-Mar-11	882	400	400	7.62	217	227	<1	5.29	77.37	145	102	<0.5	0.026	45.4	0.0219	0.000481	0.00053	0.00101	<0.0002	<0.0005	0.018	<0.00005
16-Mar-11	889																					
23-Mar-11	896	50	50	7.65	204	227																
30-Mar-11	903																					
6-Apr-11	910	400	400	7.59	169	224	<1	7.97	79.33	144	99.9	<0.5	0.024	44.9	0.0153	0.000474	0.00046	0.000622	<0.0002	<0.0005	0.017	<0.00005
13-Apr-11	917																					
20-Apr-11	924	50	50	7.64	215	224																
27-Apr-11	931																					
4-May-11	938	400	400	7.62	266	226	<1	7.11	76.8	141	105	<0.5	0.026	45.7	0.0158	0.000443	0.00047	0.000568	<0.0002	<0.0005	0.017	<0.00005
11-May-11	945																					
18-May-11	952	50	50	7.73	261	239																
25-May-11	959																					
1-Jun-11	966	400	400	7.7	220	232	<1	7.78	72.35	155	113	<0.5	0.027	49.8	0.0189	0.000473	0.00049	0.000881	<0.0002	<0.0005	0.017	<0.00005
8-Jun-11	973																					
15-Jun-11	980	50	50	7.75	263	228																
22-Jun-11	987																					
29-Jun-11	994	400	400	7.79	272	231	<1	5.82	78.85	144	108	0.52	0.036	51.3	0.0195	0.000451	0.00049	0.000782	<0.0002	<0.0005	0.018	<0.00005
6-Jul-11	1001																					
13-Jul-11	1008	50	50	7.68	246	235																
20-Jul-11	1015																					
27-Jul-11	1022	400	400	7.68	187	234	<1	4.92	72.85	147	112	0.63	0.036	51.9	0.0192	0.000506	0.00057	0.000876	<0.0002	<0.0005	0.015	<0.00005
3-Aug-11	1029																					
10-Aug-11	1036	50	50	7.59	160	237																
17-Aug-11	1043																					
24-Aug-11	1050	400	400	7.6	161	237	<1	8.73	72.62	161	115	<5	<0.2	52.6	0.0182	0.000495	0.00051	0.00139	<0.0002	<0.0005	0.016	<0.00005
31-Aug-11	1057																					
7-Sep-11	1064	50	50	7.7	201	244																
14-Sep-11	1071																					
21-Sep-11	1078	400	400	7.65	239	235	<1	6.43	71.45	146	115	<5	<0.2	56.5	0.0175	0.000466	0.00047	0.000725	<0.0002	<0.0005	0.017	<0.00005
28-Sep-11	1085																					
5-Oct-11	1092	50	50	7.59	117	235																
12-Oct-11	1099																					
19-Oct-11	1106	400	400	7.67	145	241	<1	4.88	70.19	150	118	<5	<0.2	58.1	0.0079	0.000494	0.00129	0.00129	<0.0002	<0.0005	0.013	<0.00005
26-Oct-11	1113																					
2-Nov-11	1120	50	50	7.55	122	245																
9-Nov-11	1127																					
16-Nov-11	1134	400	400	7.65	167	245	<1	5.1	68.76	151	116	<5	<0.2	57.8	0.0155	0.00048	0.0014	0.000833	<0.0002	<0.0005	0.015	<0.00005
23-Nov-11	1141																					
30-Nov-11	1148	50	50	7.59	243	241																
7-Dec-11	1155																					
14-Dec-11	1162	400	400	7.64	191	247	<1	6.3	71.6	159	117	<5	<0.2	59	0.0151	0.00047	0.00069	0.00119	<0.0002	<0.0005	0.018	<0.00005
21-Dec-11	1169																					
28-Dec-11	1176	50	50	7.61	307	246																
4-Jan-12	1183																					
11-Jan-12	1190	400	400	7.62	130	248	<1	4.59	79.17	152	119	<5	<0.2	59	0.0144	0.0005	0.0005	0.000587	<0.0002	<0.0005	0.014	<0.00005
18-Jan-12	1197																					
25-Jan-12	1204	50	50	7.6	266	246																
1-Feb-12	1211																					
8-Feb-12	1218	400	400	7.6	224	260	<1	6.47	83.62	168	123	<5	<0.2	63.4	0.0153	0.000483	0.00049	0.000725	<0.0002	<0.0005	0.016	<0.00005
15-Feb-12	1225																					
22-Feb-12	1232	50	50	7.56	288	265																
29-Feb-12	1239																					
7-Mar-12	1246	400	400	7.58	366	281	<1	10.42	80.15	183	134	<5	<0.2	68.4	0.0146	0.000393	0.00062	0.00071	<0.0002	<0.0005	0.018	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
19-Jan-11	833																				
26-Jan-11	840																				
2-Feb-11	847																				
9-Feb-11	854	37.1	<0.0005	<0.0001	0.00192	<0.03	0.000111	4.39	0.00194	<0.00001	0.00112	<0.0005	0.409	<0.001	5.24	<0.00001	4.6	<0.00005	0.00561	0.00743	<0.001
16-Feb-11	861																				
23-Feb-11	868																				
2-Mar-11	875																				
9-Mar-11	882	34.5	<0.0005	<0.0001	0.00186	<0.03	<0.00005	3.96	0.00181	<0.00001	0.00115	<0.0005	0.356	<0.001	4.97	<0.00001	4.3	<0.00005	0.00529	0.00719	0.0016
16-Mar-11	889																				
23-Mar-11	896																				
30-Mar-11	903																				
6-Apr-11	910	33.8	<0.0005	<0.0001	0.00208	<0.03	<0.00005	3.76	0.00223	<0.00001	0.00121	<0.0005	0.313	<0.001	4.54	<0.00001	4	<0.00005	0.0044	0.00603	<0.001
13-Apr-11	917																				
20-Apr-11	924																				
27-Apr-11	931																				
4-May-11	938	36.1	<0.0005	<0.0001	0.00341	<0.03	<0.00005	3.62	0.00269	<0.00001	0.00134	<0.0005	0.312	<0.001	4.67	<0.00001	4.1	<0.00005	0.00499	0.00604	<0.001
11-May-11	945																				
18-May-11	952																				
25-May-11	959																				
1-Jun-11	966	38	<0.0005	<0.0001	0.00109	<0.03	<0.00005	4.4	0.000908	<0.00001	0.00164	<0.0005	0.372	<0.001	5.01	<0.00001	4.3	<0.00005	0.00426	0.00727	<0.001
8-Jun-11	973																				
15-Jun-11	980																				
22-Jun-11	987																				
29-Jun-11	994	35.9	<0.0005	<0.0001	0.00132	<0.03	<0.00005	4.38	0.000896	<0.00001	0.00186	<0.0005	0.373	<0.001	4.88	<0.00001	4.1	<0.00005	0.00434	0.00756	<0.001
6-Jul-11	1001																				
13-Jul-11	1008																				
20-Jul-11	1015																				
27-Jul-11	1022	37.9	0.00087	<0.0001	0.00278	<0.03		4.25	0.000789	<0.00001	0.00212	<0.0005	0.39	<0.001	4.92	<0.00001	4.3	<0.00005	0.0048	0.00743	0.0019
3-Aug-11	1029																				
10-Aug-11	1036																				
17-Aug-11	1043																				
24-Aug-11	1050	38.6	<0.0005	<0.0001	0.00131	<0.03	<0.00005	4.45	0.00141	<0.00001	0.00229	<0.0005	0.372	<0.001	5.1	<0.00001	4.2	<0.00005	0.00514	0.00716	0.0015
31-Aug-11	1057																				
7-Sep-11	1064																				
14-Sep-11	1071																				
21-Sep-11	1078	39	0.00094	<0.0001	0.00078	<0.03	<0.00005	4.39	0.00173	<0.00001	0.00254	<0.0005	0.348	<0.001	4.93	<0.00001	4	<0.00005	0.00437	0.00645	<0.001
28-Sep-11	1085																				
5-Oct-11	1092																				
12-Oct-11	1099																				
19-Oct-11	1106	40	<0.0005	<0.0001	0.00045	<0.03	<0.00005	4.26	0.000817	<0.00001	0.00261	<0.0005	0.356	<0.001	5	<0.00001	4.3	<0.00005	0.00281	0.00655	<0.001
26-Oct-11	1113																				
2-Nov-11	1120																				
9-Nov-11	1127																				
16-Nov-11	1134	39.2	<0.0005	<0.0001	0.00055	<0.03	<0.00005	4.3	0.000307	<0.00001	0.00272	<0.0005	0.354	<0.001	4.74	<0.00001	4	<0.00005	0.00421	0.00637	<0.001
23-Nov-11	1141																				
30-Nov-11	1148																				
7-Dec-11	1155																				
14-Dec-11	1162	39.8	<0.0005	<0.0001	0.00067	<0.03	<0.00005	4.3	0.000366	<0.00001	0.00284	<0.0005	0.357	<0.001	4.66	<0.00001	3.8	<0.00005	0.00365	0.00632	0.0011
21-Dec-11	1169																				
28-Dec-11	1176																				
4-Jan-12	1183																				
11-Jan-12	1190	40.6	<0.0005	<0.0001	0.00047	<0.03	<0.00005	4.26	0.000263	<0.00001	0.00277	<0.0005	0.329	<0.001	4.41	<0.00001	3.6	<0.00005	0.00347	0.00592	0.0012
18-Jan-12	1197																				
25-Jan-12	1204																				
1-Feb-12	1211																				
8-Feb-12	1218	42.4	0.00056	<0.0001	0.00188	<0.03	<0.00005	4.25	0.000554	<0.00001	0.00298	<0.0005	0.354	<0.001	4.52	<0.00001	3.8	<0.00005	0.00367	0.00585	0.0013
15-Feb-12	1225																				
22-Feb-12	1232																				
29-Feb-12	1239																				
7-Mar-12	1246	45.5	<0.0005	<0.0001	0.00577	<0.03	<0.00005	4.85	0.00402	<0.00001	0.00319	<0.0005	0.364	<0.001	4.76	<0.00001	4	<0.00005	0.00408	0.00525	0.0013

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
14-Mar-12	1253																					
21-Mar-12	1260	50	50	7.58	210	284																
28-Mar-12	1267																					
4-Apr-12	1274	400	400	7.6	272	277	<1	5.5	77.34	180	135	<5	<0.2	72.5	0.0144	0.000322	0.0006	0.000666	<0.0002	<0.0005	0.016	<0.00005
11-Apr-12	1281																					
18-Apr-12	1288	50	50	7.62	292	276																
25-Apr-12	1295																					
2-May-12	1302	400	400	7.59	301	284	<1	10.84	80.04	172	138	<5	<0.2	69	0.0158	0.000315	0.00072	0.00098	<0.0002	<0.0005	0.014	<0.00005
9-May-12	1309																					
16-May-12	1316	50	50	7.67	170	280																
23-May-12	1323																					
30-May-12	1330	400	400	7.64	163	289	<1	6.33	77.91	180	126	<5	<0.2	69.4	0.0136	0.000272	0.00059	0.000901	<0.0002	<0.0005	0.017	<0.00005
6-Jun-12	1337																					
13-Jun-12	1344	50	50	7.58	362	277																
20-Jun-12	1351																					
27-Jun-12	1358	400	400	7.61	338	276	<1	8.58	78.26	186	132	<5	<0.2	67.5	0.0146	0.000272	0.00062	0.000732	<0.0002	<0.0005	0.016	<0.00005
4-Jul-12	1365																					
11-Jul-12	1372	50	50	7.6	382	258																
18-Jul-12	1379																					
25-Jul-12	1386	400	400	7.55	324	248	<1	5.62	66.72	175	116	<5	<0.2	60.7	0.017	0.000439	0.0004	0.000787	<0.0002	<0.0005	0.013	<0.00005
1-Aug-12	1393																					
8-Aug-12	1400	50	50	7.65	277	250																
15-Aug-12	1407																					
22-Aug-12	1414	400	400	7.53	197	245	<1	6.76	63.27	165	117	<5	<0.2	59.2	0.0175	0.000467	0.00049	0.000482	<0.0002	<0.0005	0.014	<0.00005
29-Aug-12	1421																					
5-Sep-12	1428	50	50	7.54	353	250																
12-Sep-12	1435																					
19-Sep-12	1442	400	400	7.52	298	252	<1	6.71	69.62	158	122	<5	<0.2	63.3	0.0175	0.00045	0.00044	0.000565	<0.0002	<0.0005	0.014	<0.00005
26-Sep-12	1449																					
3-Oct-12	1456	50	50	7.54	310	253																
10-Oct-12	1463																					
17-Oct-12	1470	400	400	7.53	356	254	<1	6	68.57	164	125	<5	<0.2	67.2	0.0137	0.00043	0.00044	0.000622	<0.0002	<0.0005	0.011	<0.00005
24-Oct-12	1477																					
31-Oct-12	1484	50	50	7.5	379	258																
7-Nov-12	1491																					
14-Nov-12	1498	400	400	7.74	308	258	<1	11.12	72.42	163	120	<5	<0.2	64	0.0143	0.000403	0.0004	0.00114	<0.0002	<0.0005	<0.01	<0.00005
21-Nov-12	1505																					
28-Nov-12	1512	50	50	7.53	336	273																
5-Dec-12	1519																					
12-Dec-12	1526	400	400	7.67	229	303	<1	10.84	80.96	196	142	<5	<0.2	79	0.0132	0.000307	0.0004	0.0011	<0.0002	<0.0005	<0.01	<0.00005
19-Dec-12	1533																					
26-Dec-12	1540	50	50	7.62	362	301																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
14-Mar-12	1253																				
21-Mar-12	1260																				
28-Mar-12	1267																				
4-Apr-12	1274	45.9	<0.0005	<0.0001	0.00088	<0.03	0.000161	5.04	0.00378	<0.00001	0.00313	<0.0005	0.379	<0.001	4.62	<0.00001	4	<0.00005	0.00414	0.00494	<0.001
11-Apr-12	1281																				
18-Apr-12	1288																				
25-Apr-12	1295																				
2-May-12	1302	46.9	0.00053	<0.0001	0.00115	<0.03	<0.00005	5.02	0.00423	<0.00001	0.00328	<0.0005	0.384	<0.001	4.85	<0.00001	4.1	<0.00005	0.00342	0.00502	<0.001
9-May-12	1309																				
16-May-12	1316																				
23-May-12	1323																				
30-May-12	1330	42.5	<0.0005	<0.0001	0.00055	<0.03	<0.00005	4.76	0.00402	<0.00001	0.00299	<0.0005	0.374	<0.001	4.87	<0.00001	4.2	<0.00005	0.00495	0.00444	0.0018
6-Jun-12	1337																				
13-Jun-12	1344																				
20-Jun-12	1351																				
27-Jun-12	1358	44.9	<0.0005	<0.0001	0.00161	<0.03	<0.00005	4.82	0.00416	<0.00001	0.00282	<0.0005	0.377	<0.001	4.81	<0.00001	3.9	<0.00005	0.00375	0.00029	0.0014
4-Jul-12	1365																				
11-Jul-12	1372																				
18-Jul-12	1379																				
25-Jul-12	1386	39.7	<0.0005	<0.0001	0.00129	<0.03	<0.00005	4.07	0.0011	<0.00001	0.00247	<0.0005	0.353	<0.001	4.42	<0.00001	3.3	<0.00005	0.00028	0.0068	0.0017
1-Aug-12	1393																				
8-Aug-12	1400																				
15-Aug-12	1407																				
22-Aug-12	1414	40.2	<0.0005	<0.0001	0.00043	<0.03	<0.00005	4.16	0.000362	<0.00001	0.0025	<0.0005	0.333	<0.001	4.47	<0.00001	3.3	<0.00005	0.00018	0.00638	<0.001
29-Aug-12	1421																				
5-Sep-12	1428																				
12-Sep-12	1435																				
19-Sep-12	1442	42	<0.0005	<0.0001	0.00117	<0.03	<0.00005	4.1	0.00045	<0.00001	0.00251	<0.0005	0.328	<0.001	4.34	<0.00001	3.6	<0.00005	0.0002	0.00623	0.0013
26-Sep-12	1449																				
3-Oct-12	1456																				
10-Oct-12	1463																				
17-Oct-12	1470	43.2	<0.0005	<0.0001	0.00092	<0.03	<0.00005	4.08	0.000342	<0.00001	0.0025	<0.0005	0.31	<0.001	4.1	<0.00001	3.3	<0.00005	0.00014	0.00557	<0.001
24-Oct-12	1477																				
31-Oct-12	1484																				
7-Nov-12	1491																				
14-Nov-12	1498	41	<0.0005	<0.0001	0.00067	<0.03	<0.00005	4.17	0.000226	<0.00001	0.0024	<0.0005	0.318	<0.001	4.11	<0.00001	3.2	<0.00005	0.0001	0.00548	<0.001
21-Nov-12	1505																				
28-Nov-12	1512																				
5-Dec-12	1519																				
12-Dec-12	1526	48.9	<0.0005	<0.0001	0.00036	<0.03	<0.00005	4.79	0.00112	<0.00001	0.00233	<0.0005	0.342	<0.001	4.18	<0.00001	3.4	<0.00005	0.0001	0.00513	0.0012
19-Dec-12	1533																				
26-Dec-12	1540																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3069-0927-0947	SAC 2	Blank rows indicate that no solution was input or output during that week																				
28-Sep-05	0	400	400	3.69	344	2760	15.5	368.5	<1	2520	1270	6	2.81	1550	7.1	0.0263	0.011	0.0458	0.071	<0.05	<1	0.0287
5-Oct-05	7	400	400	4.06	279	3180																
12-Oct-05	14	400	400	4.24	446	3140	4	461	<1	3030	1460	<5	3.55	1950	6.92	0.0035	0.0071	0.0294	0.049	<0.025	<0.5	0.0281
19-Oct-05	21	200	200	4.2	468	2690																
26-Oct-05	28	400	400	4.36	450	2680	4	441	<1	2490	1220	<5	2.85	1650	3.84	0.0036	0.009	0.0239	0.039	<0.025	<0.5	0.0224
2-Nov-05	35	200	200	4.32	423	2120																
9-Nov-05	42	400	400	4.45	418	1805	1	348.5	<1	1610	781	<2.5	1.37	885	2.01	0.0018	0.0026	0.0183	0.0203	<0.01	<0.2	0.0153
16-Nov-05	49	200	200	4.48	423	1476																
23-Nov-05	56	400	400	5.02	418	1240	<1	197.5	2.5	989	484	<0.5	0.767	632	0.935	0.00117	0.0015	0.0168	0.0106	<0.005	<0.1	0.00857
30-Nov-05	63	200	200	4.89	455	977																
7-Dec-05	70	400	400	5.12	350	867	<1	177.5	5.5	660	304	<0.5	0.433	413	0.382	0.00093	0.00085	0.0156	0.0052	<0.001	0.049	0.00484
14-Dec-05	77	200	200	4.92	362	670																
21-Dec-05	84	400	400	5.88	446	595	<1	110	10	426	217	<0.5	0.201	293	0.182	0.00118	<0.001	0.0194	0.00221	<0.0005	0.033	0.00353
28-Dec-05	91	200	200	5.47	384	523																
4-Jan-06	98	400	400	6.08	380	523	<1	102	12	382	178	<0.5	0.143	238	0.0809	0.0011	<0.0005	0.0203	0.0014	<0.0025	<0.05	0.00237
11-Jan-06	105	200	200	5.48	331	472																
18-Jan-06	112	400	400	5.72	401	458	<1	85	15	303	133	<0.5	0.143	197	0.0404	0.00108	0.0007	0.0203	<0.001	<0.0025	<0.05	0.00167
25-Jan-06	119	200	200	5.45	303	398																
1-Feb-06	126	400	400	5.85	352	376	<1	81	13.5	251	118	<0.5	0.11	161	0.0287	0.00109	0.00038	0.0231	0.00065	<0.001	0.023	0.00144
8-Feb-06	133	200	200	5.5	336	350																
15-Feb-06	140	400	400	5.93	443	339	<1	77.5	8	222	101	<0.5	0.148	144	0.0323	0.00095	0.00031	0.0228	0.00052	<0.001	0.021	0.0012
22-Feb-06	147	200	200	5.58	462	304																
1-Mar-06	154	400	400	5.64	434	298	<1	77.5	11	151	82.4	<0.5	0.148	123	0.0152	0.000811	0.00018	0.0216	0.00047	<0.0005	0.016	0.000925
8-Mar-06	161	200	200	5.35	472	297																
15-Mar-06	168	400	400	5.87	388	281	<1	65.5	10.5	182	73	<0.5	0.158	109	0.015	0.000778	0.00032	0.0228	0.00046	<0.0005	0.016	0.000774
22-Mar-06	175	200	200	5.4	384	266																
29-Mar-06	182	400	400	5.78	371	258	<1	66	10.75	166	64.2	<0.5	0.16	104	0.012	0.000759	0.0003	0.0227	0.00046	<0.0005	0.015	0.000605
5-Apr-06	189	200	200	5.71	388	281																
12-Apr-06	196	400	400	4.44	416	142	<1	13.5	<1	124	35.9	<0.5	0.093	56.4	0.053	0.000178	0.00018	0.019	0.0017	<0.0005	<0.01	0.000628
19-Apr-06	203	200	200	4.28	581	161																
26-Apr-06	210	400	400	4.48	535	152	<1	15.75	<1	109	37.1	<0.5	0.116	62.3	0.0731	0.000338	0.00025	0.0214	0.0017	<0.0005	0.012	0.000687
3-May-06	217	200	200	4.25	332	163																
10-May-06	224	400	400	4.12	331	174	1.09	16.04	<1	95	41.4	<0.5	0.13	67.2	0.0822	0.000371	0.00029	0.0227	0.00172	<0.0005	0.013	0.000838
17-May-06	231	200	200	4.19	345	182																
24-May-06	238	400	400	4.24	291	188	1.18	15.9	<1	122	45.5	<0.5	0.132	72.3	0.0978	0.000667	0.00016	0.0241	0.00166	<0.0005	0.014	0.00107
31-May-06	245	200	200	4.46	310	192																
7-Jun-06	252	400	400	3.93	364	194	3.77	13.56	<1	128	49	<0.5	0.135	72.6	0.109	0.000311	0.00039	0.0213	0.00198	<0.0005	0.014	0.000956
14-Jun-06	259	200	200	4.07	419	206																
21-Jun-06	266	400	400	3.96	366	200	3.35	13.96	<1	130	55.7	<0.5	0.146	78.6	0.606	0.000345	0.00039	0.0216	0.00264	<0.0005	0.108	0.001
28-Jun-06	273	200	200	4.26	390	192																
5-Jul-06	280	400	400	4.16	352	210	1.32	13.63	<1	125	56.3	<0.5	0.198	83.3	0.164	0.00044	0.00035	0.0213	0.00233	<0.0005	0.018	0.00111
12-Jul-06	287	200	200	4.11	392	219																
19-Jul-06	294	400	400	4.04	341	221	1.57	13.25	<1	128	59.9	<0.5	0.213	83.8	0.177	0.000519	0.00041	0.0213	0.00242	<0.0005	0.015	0.00112
26-Jul-06	301	200	200	4.05	425	224																
2-Aug-06	308	400	400	3.85	378	231	1.1	16.62	<1	125	60.2	<0.5	0.215	89.8	0.187	0.00046	0.00057	0.0196	0.0027	<0.0005	0.015	0.00125
9-Aug-06	315	200	200	4.18	416	237																
16-Aug-06	322	400	400	3.93	370	242	3.4	19.02	<1	162	63.8	<0.5	0.249	95.3	0.205	0.0005	0.00048	0.0189	0.00286	<0.0005	0.016	0.0014
23-Aug-06	329	200	200	4.05	423	227																
30-Aug-06	336	400	400	3.9	381	253	1.9	25.62	<1	159	67	<0.5	0.265	98.7	0.244	0.000619	0.00071	0.0191	0.00306	<0.0005	0.018	0.00156
6-Sep-06	343	200	200	4.69	227	262																
13-Sep-06	350	400	400	4.36	274	261	1.08	24.87	<1	172	75.9	<0.5	0.319	113	0.253	0.000952	0.00036	0.0176	0.00303	<0.0005	0.021	0.00159
20-Sep-06	357	200	200	4.43	369	255																
27-Sep-06	364	400	400	4.22	291	253	2.56	19.67	<1	183	71.1	<0.5	0.326	106	0.223	0.000414	0.00017	0.0179	0.00295	<0.0005	0.014	0.0016
4-Oct-06	371	200	200	5.04	187	260																
11-Oct-06	378	400	400	5.01	268	253	<1	17.3	<1	175	79	<0.5	0.34	111	0.284	0.00109	0.00038	0.0192	0.00281	<0.001	<0.02	0.00179
18-Oct-06	385	200	200	4.4	277	283																
25-Oct-06	392	400	400	4.31	409	290	1.74	26.89	<1	205	86.4	<0.5	0.385	126	0.322	0.00129	0.00034	0.0184	0.00304	<0.001	0.02	0.00204
1-Nov-06	399	200	200	5.48	304	285																
8-Nov-06	406	400	400	4.45	284	286	<1	27.74	<1	185	81.6	<0.5	0.412	122	0.291	0.00154	<0.0005	0.0162	0.0026	<0.0025	<0.05	0.00185

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3069-0927-0947	SAC 2																				
28-Sep-05	0	241	<0.05	0.336	154	21.4	<0.005	162	45.8	<0.00001	<0.005	0.888	28	<0.1	4.47	<0.001	19.5	<0.005	<0.01	<0.05	5.34
5-Oct-05	7																				
12-Oct-05	14	314	<0.025	0.337	128	71.4	0.0333	165	47.7	<0.00001	<0.0025	0.874	24.8	0.105	8.9	<0.0005	21.5	<0.0025	<0.005	<0.025	6.14
19-Oct-05	21																				
26-Oct-05	28	270	<0.025	0.27	79.8	74.6	0.0072	132	40.1	<0.00001	<0.0025	0.718	21.6	0.08	8.97	<0.0005	16.8	<0.0025	<0.005	<0.025	4.64
2-Nov-05	35																				
9-Nov-05	42	173	<0.01	0.178	35.4	57.6	0.0012	84.9	30.9	<0.00001	<0.001	0.461	14.7	0.052	7.63	<0.0002	11	<0.001	<0.002	<0.01	3.26
16-Nov-05	49																				
23-Nov-05	56	109	<0.005	0.106	10.8	47.7	<0.0005	51.3	21	<0.00001	<0.0005	0.259	11.6	0.028	6.07	<0.0001	6.1	0.00051	<0.001	0.0059	1.9
30-Nov-05	63																				
7-Dec-05	70	70.7	<0.001	0.0611	2.3	38.3	0.00027	30.9	14.8	<0.00001	0.00017	0.152	8.36	0.0179	5.15	<0.00002	3.9	0.00037	<0.0002	<0.001	1.15
14-Dec-05	77																				
21-Dec-05	84	47.4	<0.001	0.0472	0.349	32.2	0.000204	23.9	11.6	<0.00001	0.000146	0.117	8.11	0.016	4.29	0.00002	3	0.000352	<0.0001	<0.0007	0.762
28-Dec-05	91																				
4-Jan-06	98	39.7	<0.0025	0.038	0.0646	30.4	<0.00025	19.2	10.3	<0.00001	<0.00025	0.0962	8.26	0.013	4.17	<0.00005	2.6	0.00029	<0.0005	<0.0025	0.556
11-Jan-06	105																				
18-Jan-06	112	29.1	<0.0025	0.0292	0.0323	27.9	0.00033	14.6	8.53	<0.00001	<0.00025	0.0702	7.15	0.0115	3.77	<0.00005	<2	0.00026	<0.0005	<0.0025	0.395
25-Jan-06	119																				
1-Feb-06	126	25.2	<0.001	0.0249	0.0427	22.4	0.0001	13.5	7.73	<0.00001	<0.0001	0.0598	7.91	0.0112	3.61	<0.00002	<2	0.00027	<0.0002	<0.001	0.312
8-Feb-06	133																				
15-Feb-06	140	22.7	<0.001	0.0203	0.0385	22.3	<0.0001	10.8	6.23	<0.00001	<0.0001	0.0493	7.52	0.0108	3.89	0.000022	<2	0.00025	<0.0002	<0.001	0.246
22-Feb-06	147																				
1-Mar-06	154	18.2	<0.0005	0.0146	0.0578	17.9	0.000219	8.98	4.77	<0.00001	0.000051	0.0359	6.43	0.0094	3.39	<0.00001	<2	0.000211	<0.0001	<0.0005	0.187
8-Mar-06	161																				
15-Mar-06	168	16.2	0.00065	0.014	0.048	15.2	0.000088	7.9	4.6	<0.00001	<0.00005	0.0344	6.97	0.0096	3.37	0.000011	<2	0.000232	<0.0001	<0.0005	0.162
22-Mar-06	175																				
29-Mar-06	182	15.5	<0.0005	0.0126	0.0345	14.6	0.000147	6.18	4.11	<0.00001	<0.00005	0.0298	6.54	0.008	3.78	<0.00001	<2	0.000207	<0.0001	<0.0005	0.137
5-Apr-06	189																				
12-Apr-06	196	7.66	<0.0005	0.00773	1.22	2.9	0.000539	4.08	2.7	<0.00001	<0.00005	0.0187	4.89	0.0052	2.43	<0.00001	<2	0.000198	0.00016	<0.0005	0.123
19-Apr-06	203																				
26-Apr-06	210	7.96	<0.0005	0.00846	1.01	2.77	0.0115	4.19	3.21	<0.00001	<0.00005	0.0204	5.27	0.0055	3.03	<0.00001	<2	0.000231	<0.0001	<0.0005	0.144
3-May-06	217																				
10-May-06	224	8.68	<0.0005	0.00931	1.09	2.44	0.00723	4.78	3.37		0.000062	0.0207	5.63	0.006	3.55	<0.00001	<2	0.000261	0.00014	<0.0005	0.163
17-May-06	231																				
24-May-06	238	9.89	<0.0005	0.0101	1.01	3.06	0.00848	5.05	4.07	<0.00001	0.000064	0.0238	5.75	0.0068	4.03	<0.00001	<2	0.000259	<0.0001	<0.0005	0.187
31-May-06	245																				
7-Jun-06	252	10.6	<0.0005	0.0121	1.49	1.21	0.00286	5.48	4.2	<0.00001	0.000064	0.024	5.61	0.0062	4.11	<0.00001	<2	0.000282	<0.0001	<0.0005	0.196
14-Jun-06	259																				
21-Jun-06	266	12.7	<0.0005	0.0106	1.52	0.748	0.0154	5.83	4.6	<0.00001	0.00006	0.0249	6.02	0.0061	4.36	<0.00001	<2	0.000284	<0.0001	<0.0005	0.548
28-Jun-06	273																				
5-Jul-06	280	11.5	<0.0005	0.0116	1.6	0.866	0.000379	6.69	5.26	<0.00001	0.000087	0.0275	6.3	0.0066	4.26	<0.00001	<2	0.000328	<0.0001	<0.0005	0.241
12-Jul-06	287																				
19-Jul-06	294	12.5	<0.0005	0.0121	1.63	0.744	0.00562	6.97	5.98	<0.00001	<0.00005	0.028	6.19	0.0067	4.79	<0.00001	<2	0.000329	<0.0001	<0.0005	0.25
26-Jul-06	301																				
2-Aug-06	308	12.9	<0.0005	0.0129	2.01	0.333	0.00551	6.79	6.21	<0.00001	0.000064	0.0307	6.21	0.0072	4.83	<0.00001	<2	0.000362	<0.0001	<0.0005	0.269
9-Aug-06	315																				
16-Aug-06	322	13.7	<0.0005	0.0136	2.28	0.446	0.00407	7.19	6.99	<0.00001	0.000072	0.032	6.35	0.0075	5.13	<0.00001	<2	0.000354	<0.0001	<0.0005	0.307
23-Aug-06	329																				
30-Aug-06	336	13.9	<0.0005	0.0153	2.51	0.301	0.00356	7.84	7.23	<0.00001	0.00009	0.0353	6.95	0.008	5.84	0.000012	<2	0.00039	<0.0001	<0.0005	0.326
6-Sep-06	343																				
13-Sep-06	350	15.9	<0.0005	0.0158	2.26		0.0024	8.78	8.12	<0.00001	0.000055	0.0357	6.71	0.0088	5.9	0.000012	<2	0.000325	<0.0001	<0.0005	0.346
20-Sep-06	357																				
27-Sep-06	364	16.8	<0.0005	0.0145	2.46	0.787	0.00018	7.09	7.6	<0.00001	0.0001	0.0331	5.94	0.0088	5.48	<0.00001	<2	0.000366	<0.0001	<0.0005	0.354
4-Oct-06	371																				
11-Oct-06	378	17.1	<0.001	0.0176	2.49	3.59	0.00666	8.83	8.43	<0.00001	0.00017	0.0416	6.74	0.0089	5.81	<0.00002	<2	0.00035	<0.0002	<0.001	0.399
18-Oct-06	385																				
25-Oct-06	392	17.9	<0.001	0.0184	2.18	5.14	0.0244	10.1	9.82	<0.00001	0.00017	0.043	6.7	0.0088	6.53	<0.00002	<2	0.00037	<0.0002	<0.001	0.404
1-Nov-06	399																				
8-Nov-06	406	18	<0.0025	0.018	1.75	6.03	0.0008	8.89	9.5	<0.00001	<0.00025	0.0417	6.37	0.0076	6.13	<0.00005	<2	0.00034	<0.0005	<0.0025	0.392

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Nov-06	413	200	200	4.96	248	271																
22-Nov-06	420	400	400	4.94	259	266	2.08	31.47	<1	177	78.8	<0.5	0.385	115	0.283	0.00175	<0.0005	0.0162	0.0028	<0.0025	<0.05	0.00184
29-Nov-06	427	200	200	4.4	496	251																
6-Dec-06	434	400	400	3.97	460	260	4.19	25.68	<1	153	68.6	<0.5	0.343	104	0.292	0.00079	0.00069	0.0153	0.0031	<0.0025	<0.05	0.00187
13-Dec-06	441	200	200	4.23	461	262																
20-Dec-06	448	400	400	4.56	395	263	2.33	16.9	<1	168	70.9	<0.5	0.418	111	0.309	0.00104	0.00021	0.015	0.00284	<0.001	<0.02	0.00166
27-Dec-06	455	200	200	4.29	420	268																
3-Jan-07	462	400	400	4.27	450	276	2.93	18.52	<1	163	81.6	<0.5	0.408	112	0.385	0.00145	0.00031	0.0157	0.00347	<0.001	<0.02	0.00186
10-Jan-07	469	200	200	4.15	473	276																
17-Jan-07	476	400	400	4.18	371	277	2.73	22.23	<1	185	79	<0.5	0.441	116	0.355	0.00114	<0.0005	0.0138	0.0035	<0.0025	<0.05	0.00174
24-Jan-07	483	200	200	4.08	438	290																
31-Jan-07	490	400	400	4.04	484	284	2.75	25.98	<1	224	82.8	<0.5	0.478	123	0.357	0.00187	0.00152	0.0138	0.00303	<0.001	<0.02	0.00183
7-Feb-07	497	200	200	3.97	524	284																
14-Feb-07	504	400	400	3.78	510	273	4.28	19.41	<1	174	75.3	<0.5	0.481	112	0.401	0.00143	0.00048	0.0142	0.00374	<0.001	<0.02	0.00198
21-Feb-07	511	200	200	3.98	538	293																
28-Feb-07	518	400	400	3.81	447	282	4.99	21.96	<1	175	74.6	<0.5	0.513	120	0.399	0.00107	<0.0005	0.012	0.0034	<0.0025	<0.05	0.00177
7-Mar-07	525	200	200	3.95	472	266																
14-Mar-07	532	400	400	3.8	483	302	5.01	19.41	<1	183	80.6	<0.5	0.468	118	0.451	0.00151	<0.0005	0.0129	0.0035	<0.0025	<0.05	0.00213
21-Mar-07	539	200	200	3.75	498	295																
28-Mar-07	546	400	400	3.69	509	296	6.11	21.32	<1	176	172	<0.5	0.46	120	0.477	0.00142	<0.0005	0.0119	0.0035	<0.0025	<0.05	0.00212
4-Apr-07	553	200	200	3.96	481	315																
11-Apr-07	560	400	400	3.91	515	299	4.31	24.77	<1	189	77.2	<0.5	0.558	124	0.436	0.00188	<0.0005	0.0113	0.0034	<0.0025	<0.05	0.00199
18-Apr-07	567	200	200	3.74	487	300																
25-Apr-07	574	400	400	3.79	515	278	5.22	22.34	<1	176	80.9	<0.5	0.563	122	0.546	0.00173	<0.0005	0.0117	0.0042	<0.0025	<0.05	0.00215
2-May-07	581	200	200	3.8	481	308																
9-May-07	588	400	400	3.8	462	286	6.01	29.74	<1	202	81.2	<0.5	0.596	126	0.526	0.0023	<0.0005	0.011	0.0039	<0.0025	<0.05	0.00214
16-May-07	595	200	200	3.93	459	300																
23-May-07	602	400	400	3.89	525	319	4.26	27.19	<1	201	80	<0.5	0.631	130	0.531	0.00257	<0.0005	0.0109	0.0042	<0.0025	<0.05	0.00214
30-May-07	609	200	200	4.29	426	266																
6-Jun-07	616	400	400	3.79	536	287	5.66	26.35	<1	206	88	<0.5	0.657	130	0.576	0.00208	<0.0005	0.011	0.00477	<0.0025	<0.05	0.00248
13-Jun-07	623	200	200	3.9	486	278																
20-Jun-07	630	400	400	3.99	422	343	4.73	35.34	<1	245	98.2	<0.5	0.741	146	0.607	0.00442	0.00069	0.0111	0.004	<0.0025	<0.05	0.00265
27-Jun-07	637	200	200	4.25	501	335																
4-Jul-07	644	400	400	4.1	441	339	3.46	41.39	<1	269	95.8	<0.5	0.735	152	0.647	0.00448	0.00052	0.0108	0.0037	<0.0025	<0.05	0.00265
11-Jul-07	651	200	200	4.2	479	307																
18-Jul-07	658	400	400	4.04	516	305	4.88	32.41	<1	214	81	<0.5	0.712	127	0.537	0.00329	0.00025	0.0102	0.00386	<0.001	<0.02	0.00219
25-Jul-07	665	200	200	4.2	483	312																
1-Aug-07	672	400	400	4.11	453	314	3.55	36.07	<1	211	92.6	<0.5	0.706	134	0.645	0.00464	0.0006	0.0111	0.0037	<0.0025	<0.05	0.00246
8-Aug-07	679	200	200	4.13	422	308																
15-Aug-07	686	400	400	4.14	508	276	3.94	31.44	<1	258	84.5	<0.5	0.693	131	0.601	0.00402	0.0004	0.00998	0.0038	<0.001	<0.02	0.0023
22-Aug-07	693	200	200	3.87	568	243																
29-Aug-07	700	400	400	4.07	565	232	5.68	31.83	<1	194	82.8	<0.5	0.692	126	0.61	0.003	0.00031	0.00958	0.00423	<0.001	<0.02	0.00223
5-Sep-07	707	200	200	3.97	481	226																
12-Sep-07	714	400	400	4.03	557	207	6.36	33.19	<1	223	88.8	<0.5	0.722	131	0.691	0.00298	0.00021	0.00883	0.00464	<0.001	<0.02	0.00241
19-Sep-07	721	200	200	4.01	553	274																
26-Sep-07	728	400	400	4.33	533	350	4.1	41.76	<1	256	92.6	<0.5	0.827	147	0.764	0.00456	0.00076	0.0091	0.00387	<0.001	<0.02	0.00269
3-Oct-07	735	200	200																			
10-Oct-07	742	400	400	4.09	563	343																
17-Oct-07	749	200	200																			
24-Oct-07	756	400	400	4.33	542	330				244	91.9	<0.5	0.861	147	0.751	0.00535	0.00091	0.00959	0.0038	<0.0025	<0.05	0.00286
31-Oct-07	763	200	200																			
7-Nov-07	770	400	400	4.11	569	295																
14-Nov-07	777	200	200																			
21-Nov-07	784	400	400	4	637	305	6.05	27.43	<1	210	85.3	<0.5	0.781	127	0.79	0.00263	0.00037	0.00716	0.00436	<0.001	<0.02	0.00244
28-Nov-07	791	200	200																			
5-Dec-07	798	400	400	4.01	622	310																
12-Dec-07	805	200	200																			
19-Dec-07	812	400	400	3.81	643	324	7.85	33.49	<1	226	90.9	<0.5	0.953	151	0.868	0.00334	0.00044	0.00702	0.00499	<0.001	<0.02	0.00281
26-Dec-07	819	200	200																			
2-Jan-08	826	400	400	3.81	632	333																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Nov-06	413																				
22-Nov-06	420	17.4	<0.0025	0.0171	1.61	5.37	0.00094	8.55	9.07	<0.00001	<0.00025	0.0405	6.3	0.0069	5.82	<0.00005	<2	0.00033	<0.0005	<0.0025	0.38
29-Nov-06	427																				
6-Dec-06	434	14.6	<0.0025	0.0158	2.59	0.423	0.00072	7.84	7.97	<0.00001	<0.00025	0.0359	6.05	0.0073	5.41	<0.00005	<2	0.00035	<0.0005	<0.0025	0.354
13-Dec-06	441																				
20-Dec-06	448	15.9	<0.0005	0.0156	2.41	1.27	0.0109	7.57	7.76	<0.00001	0.0001	0.035	5.61	0.0068	5.43	0.000032	<2	0.00032	<0.0002	<0.001	0.349
27-Dec-06	455																				
3-Jan-07	462	16.8	<0.0005	0.0175	2.66	2.02	0.00026	9.65	9.25	<0.00001	0.00013	0.0385	6.48	0.0081	5.78	0.000032	<2	0.00036	<0.0002	<0.001	0.404
10-Jan-07	469																				
17-Jan-07	476	18.2	<0.0025	0.0164	2.58	2.89	0.00525	8.18	8.57	<0.00001	<0.00025	0.0369	5.5	0.0071	5.71	<0.00005	<2	0.00029	<0.0005	<0.0025	0.378
24-Jan-07	483																				
31-Jan-07	490	18.3	<0.0005	0.0173	2.72	4.51	0.00107	9.01	9.39	<0.00001	0.00013	0.0386	5.47	0.0075	6.12	0.000064	<2	0.00032	<0.0002	<0.001	0.398
7-Feb-07	497																				
14-Feb-07	504	15.9	<0.0005	0.0174	3.07	1.04	0.00046	8.62	9.31	<0.00001	<0.0001	0.0391	6.17	0.0075	5.51	0.000022	<2	0.00033	0.00023	<0.001	0.425
21-Feb-07	511																				
28-Feb-07	518	17	<0.0025	0.0159	2.98	0.546	0.015	7.82	8.4	<0.00001	<0.00025	0.0343	5.47	0.0069	5.49	<0.00005	<2	0.0003	<0.0005	<0.0025	0.388
7-Mar-07	525																				
14-Mar-07	532	17.5	<0.0025	0.019	3.84	0.735	<0.00025	8.92	10.4	<0.00001	<0.00025	0.0431	6.08	0.0075	5.97	<0.00005	<2	0.00038	<0.0005	<0.0025	0.448
21-Mar-07	539																				
28-Mar-07	546	18.7	<0.0025	0.019	3.91	0.306	0.0004	9.09	10.4	<0.00001	<0.00025	0.0426	6.04	0.0077	6.12	<0.00005	<2	0.00039	<0.0005	<0.0025	0.468
4-Apr-07	553																				
11-Apr-07	560	17.5	<0.0025	0.017	3.54	1.94	<0.00025	8.16	8.98	<0.00001	<0.00025	0.0386	5.34	0.0064	5.59	<0.00005	<2	0.00031	<0.0005	<0.0025	0.425
18-Apr-07	567																				
25-Apr-07	574	17.3	<0.0025	0.0189	4.27	0.396	<0.00025	9.16	10.6	<0.00001	<0.00025	0.0426	6.14	0.0073	6.05	<0.00005	<2	0.00037	<0.0005	<0.0025	0.478
2-May-07	581																				
9-May-07	588	18.1	<0.0025	0.0191	4.33	2.4	<0.00025	8.75	10.3	<0.00001	<0.00025	0.0429	5.84	0.007	6.03	<0.00005	<2	0.00038	<0.0005	<0.0025	0.478
16-May-07	595																				
23-May-07	602	17.9	<0.0025	0.0186	4.13	2.67	<0.00025	8.57	9.84	<0.00001	<0.00025	0.0462	5.81	0.0061	6.64	<0.00005	<2	0.00036	<0.0005	<0.0025	0.47
30-May-07	609																				
6-Jun-07	616	19.8	<0.0025	0.0182	4.66	0.53	0.00019	9.38	10.5	<0.00001	<0.0001	0.0418	5.67	0.006	6.21	0.000038	<2	0.00043	<0.0005	<0.001	0.516
13-Jun-07	623																				
20-Jun-07	630	20.7	<0.0025	0.0206	4.34	6.13	0.00022	11.3	11.1	<0.00005	0.00011	0.0467	6.1	0.0041	7.75	0.000029	<2	0.00041	<0.0005	<0.002	0.544
27-Jun-07	637																				
4-Jul-07	644	22	<0.0025	0.0212	3.87	7.48	<0.00025	9.93	11.2	<0.00001	<0.00025	0.0481	5.97	<0.005	8.15	<0.00005	<2	0.00039	<0.0005	<0.0025	0.56
11-Jul-07	651																				
18-Jul-07	658	18.5	<0.001	0.0166	3.67	2.92	0.00086	8.47	9.56	<0.00001	<0.0001	0.0384	9.11	0.0022	6.43	0.00002	<2	0.00033	<0.0002	<0.001	0.471
25-Jul-07	665																				
1-Aug-07	672	21.5	<0.0025	0.0196	3.92	5.83	0.00092	9.47	10.4	<0.00001	<0.00025	0.0444	5.52	<0.005	7.46	<0.00005	<2	0.00038	<0.0005	<0.0025	0.556
8-Aug-07	679																				
15-Aug-07	686	19.4	<0.001	0.0184	4.01	3.87	0.00021	8.78	10	<0.00001	0.00015	0.0415	5.69	<0.002	6.59	<0.00002	<2	0.00037	<0.0002	<0.001	0.508
22-Aug-07	693																				
29-Aug-07	700	19.3	<0.001	0.0167	4.61	0.839	0.00015	8.39	9.46	<0.00001	0.00016	0.0379	5.07	0.0022	7.29	<0.00002	<2	0.00039	<0.0002	<0.001	0.472
5-Sep-07	707																				
12-Sep-07	714	19.7	<0.001	0.0183	5.2	0.772	0.00023	9.6	11.5	<0.00001	0.00014	0.0394	5.21	<0.002	7.36	0.000024	<2	0.00042	<0.0002	<0.001	0.508
19-Sep-07	721																				
26-Sep-07	728	22	<0.001	0.0188	5.04	5.07	0.00618	9.16	11.2	<0.00001	<0.0001	0.0422	4.99	<0.002	7.8	<0.00002	<2	0.00038	<0.0002	<0.001	0.558
3-Oct-07	735																				
10-Oct-07	742																				
17-Oct-07	749																				
24-Oct-07	756	20.8	<0.0025	0.0201	4.58	6.18	<0.00025	9.68	11.9	<0.00001	<0.00025	0.0456	5.25	<0.005	8.81	<0.00005	<2	0.0004	<0.0005	<0.0025	0.59
31-Oct-07	763																				
7-Nov-07	770																				
14-Nov-07	777																				
21-Nov-07	784	19.6	<0.001	0.0196	5.82	0.342	0.00134	8.87	11.5	<0.00001	<0.0001	0.041	5.06	<0.002	7.25	<0.00002	<2	0.00034	<0.0002	<0.001	0.554
28-Nov-07	791																				
5-Dec-07	798																				
12-Dec-07	805																				
19-Dec-07	812	22	<0.001	0.0199	6.7	0.447	0.00029	8.72	11.2	<0.00001	0.00013	0.0442	4.95	<0.002	7.42	0.000036	<2	0.00037	<0.0002	<0.001	0.588
26-Dec-07	819																				
2-Jan-08	826																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Jan-08	833	200	200																			
16-Jan-08	840	400	400	3.74	659	357	9.63	41.92	<1	227	90.5	<0.5	1.09	161	0.76	0.00343	0.00074	0.00724	0.0043	<0.001	<0.02	0.0029
23-Jan-08	847	200	200																			
30-Jan-08	854	400	400	3.78	640	390																
6-Feb-08	861	200	200																			
13-Feb-08	868	400	400	3.78	593	420	10.99	49.75	<1	268	109	<0.5	1.25	169	1.11	0.00421	0.00059	0.00742	0.0057	<0.0025	<0.05	0.00325
20-Feb-08	875	200	200																			
27-Feb-08	882	400	400	3.72	622	418																
5-Mar-08	889	200	200																			
12-Mar-08	896	400	400	3.99	586	430	6.99	51.82	<1	301	121	<0.5	1.33	187	1.36	0.00608	0.00215	0.00883	0.006	<0.0025	<0.05	0.00406
19-Mar-08	903	200	200																			
26-Mar-08	910	400	400	3.59	620	436																
2-Apr-08	917	200	200																			
9-Apr-08	924	400	400	3.71	601	494	13.09	51.28	<1	292	124	<0.5	1.45	190	1.3	0.00487	0.00064	0.00802	0.0056	<0.0025	<0.05	0.00383
16-Apr-08	931	200	200																			
23-Apr-08	938	400	400	3.8	601	495																
30-Apr-08	945	200	200																			
7-May-08	952	400	400	3.82	359	496	9.89	66.05	<1	326	139	<0.5	1.71	211	1.79	0.00686	0.00405	0.0085	0.0062	<0.0025	<0.05	0.00452
14-May-08	959	200	200																			
21-May-08	966	400	400	3.93	328	466																
28-May-08	973	200	200																			
4-Jun-08	980	400	400	4.04	446	376	7.59	65.16	<1	335	126	<0.5	1.73	204	1.56	0.00709	0.00393	0.00863	0.0051	<0.0025	<0.05	0.00418
11-Jun-08	987	200	200																			
18-Jun-08	994	400	400	4.01	410	345																
25-Jun-08	1001	200	200																			
2-Jul-08	1008	400	400	4.04	380	417	7.09	63.77	<1	331	130	<0.5	1.61	201	1.54	0.00885	0.00441	0.00936	0.0056	<0.0025	<0.05	0.00432
9-Jul-08	1015	200	200																			
16-Jul-08	1022	400	400	4.1	420	441																
23-Jul-08	1029	200	200																			
30-Jul-08	1036	400	400	4.01	384	463	6.41	64.27	<1	368	125	<0.5	1.65	201	1.55	0.00733	0.0032	0.00865	0.0049	<0.0025	<0.05	0.00376
6-Aug-08	1043	200	200																			
13-Aug-08	1050	400	400	4.12	292	441																
20-Aug-08	1057	200	200																			
27-Aug-08	1064	400	400	3.99	323	412	7	59.91	<1	294	107	<0.5	1.57	179	1.38	0.00708	0.00309	0.00869	0.0047	<0.0025	<0.05	0.00371
3-Sep-08	1071	200	200																			
10-Sep-08	1078	400	400	3.73	464	419																
17-Sep-08	1085	200	200																			
24-Sep-08	1092	400	400	3.67	454	460	12.8	49.69	<1	295	103	<0.5	1.49	173	1.46	0.00582	0.00137	0.00717	0.0059	<0.0025	<0.05	0.00378
1-Oct-08	1099	200	200																			
8-Oct-08	1106	400	400	3.75	554	446																
15-Oct-08	1113	200	200																			
22-Oct-08	1120	400	400	3.58	595	478	15.42	56.16	<1	327	118	<0.5	1.7	190	1.79	0.00583	0.00202	0.0072	0.0062	<0.0025	<0.05	0.00411
29-Oct-08	1127																					
5-Nov-08	1134	50	50	3.53	614	477																
12-Nov-08	1141																					
19-Nov-08	1148	400	400	3.57	615	453	16.84	63.09	<1	329	118	<0.5	1.9	208	1.46	0.00451	0.00178	0.00662	0.00637	<0.001	<0.02	0.00421
26-Nov-08	1155																					
3-Dec-08	1162	50	50	3.56	491	528																
10-Dec-08	1169																					
17-Dec-08	1176	400	400	3.52	464	556				366	136	<0.5	2.23	232	1.84	0.00528	0.003	0.00748	0.0075	<0.0025	<0.05	0.00482
24-Dec-08	1183																					
31-Dec-08	1190	50	50	3.59	431	563																
7-Jan-09	1197																					
14-Jan-09	1204	400	400	3.61	378	617	17.64	100.66	<1	431	143	<0.5	2.5	259	1.67	0.00499	0.00825	0.00688	0.0053	<0.0025	<0.05	0.00422
21-Jan-09	1211																					
28-Jan-09	1218	50	50	3.65	431	565																
4-Feb-09	1225																					
11-Feb-09	1232	400	400	3.73	475	573	16.05	111.81	<1	441	159	<0.5	2.86	273	2.38	0.0066	0.0145	0.00784	0.0068	<0.0025	<0.05	0.00495
18-Feb-09	1239																					
25-Feb-09	1246	50	50	3.73		581																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Jan-08	833																				
16-Jan-08	840	23.3	0.0031	0.0185	5.94	0.588	0.0009	7.87	8.71	<0.00001	0.00018	0.0394	4.31	<0.002	7.82	0.000027	<2	0.00041	<0.0002	<0.001	0.537
23-Jan-08	847																				
30-Jan-08	854																				
6-Feb-08	861																				
13-Feb-08	868	26.8	<0.0025	0.023	9.42	1.57	<0.00025	10.2	12.7	<0.00001	0.00026	0.0501	5.35	<0.005	8.62	<0.00005	<2	0.00044	<0.0005	<0.0025	0.733
20-Feb-08	875																				
27-Feb-08	882																				
5-Mar-08	889																				
12-Mar-08	896	29.2	<0.0025	0.0267	10.8	4.16	0.00321	11.7	14.5	<0.00001	0.0005	0.0567	5.86	<0.005	9.88	0.00005	<2	0.00053	<0.0005	<0.0025	0.84
19-Mar-08	903																				
26-Mar-08	910																				
2-Apr-08	917																				
9-Apr-08	924	32	<0.0025	0.0258	11	0.854	0.00049	10.7	12.7	<0.00001	<0.00025	0.0529	5.66	<0.005	9.86	<0.00005	<2	0.00053	<0.0005	<0.0025	0.826
16-Apr-08	931																				
23-Apr-08	938																				
30-Apr-08	945																				
7-May-08	952	32.5	<0.0025	0.0291	13.2	7.46	0.00026	14.1	19	<0.00001	<0.00025	0.0619	6.51	<0.005	11.8	0.000059	<2	0.00058	<0.0005	<0.0025	0.955
14-May-08	959																				
21-May-08	966																				
28-May-08	973																				
4-Jun-08	980	30.8	<0.0025	0.0286	10.6	8.81	<0.00025	12	15.6	<0.00001	0.0005	0.0599	5.56	<0.005	11.3	<0.00005	<2	0.00051	<0.0005	<0.0025	0.873
11-Jun-08	987																				
18-Jun-08	994																				
25-Jun-08	1001																				
2-Jul-08	1008	32.4	<0.0025	0.0295	9.18	11.7	<0.00025	12	14.3	<0.00001	0.001	0.0589	6.67	<0.005	13.1	<0.00005	<2	0.00059	<0.0005	<0.0025	0.978
9-Jul-08	1015																				
16-Jul-08	1022																				
23-Jul-08	1029																				
30-Jul-08	1036	31.1	<0.0025	0.0251	7.85	10.4	0.00029	11.5	13.3	<0.00001	<0.00025	0.0509	5.48	<0.005	12.3	<0.00005	<2	0.00048	<0.0005	<0.0025	0.762
6-Aug-08	1043																				
13-Aug-08	1050																				
20-Aug-08	1057																				
27-Aug-08	1064	26.6	<0.0025	0.0233	7.34	8.7	<0.00025	9.75	12.2	<0.00001	<0.00025	0.0478	5.41	<0.005	11.2	<0.00005	<2	0.00045	<0.0005	<0.0025	0.769
3-Sep-08	1071																				
10-Sep-08	1078																				
17-Sep-08	1085																				
24-Sep-08	1092	26.2	<0.0025	0.0241	9.7	0.67	<0.00025	9.11	10.8	<0.00001	<0.00025	0.0467	5.41	<0.005	10.4	<0.00005	<2	0.00051	<0.0005	<0.0025	0.769
1-Oct-08	1099																				
8-Oct-08	1106																				
15-Oct-08	1113																				
22-Oct-08	1120	30.9	<0.0025	0.0265	11.2	0.784	<0.00025	9.94	12.6	<0.00001	<0.00025	0.0529	5.79	<0.005	10.7	0.000063	<2	0.00063	<0.0005	<0.0025	0.856
29-Oct-08	1127																				
5-Nov-08	1134																				
12-Nov-08	1141																				
19-Nov-08	1148	36.4	0.0032	0.0264	8.48	0.518	0.00014	8.57	9.36	<0.00001	0.00018	0.0504	5.62	<0.002	11.8	0.000064	<2	0.00057	<0.0002	<0.001	0.828
26-Nov-08	1155																				
3-Dec-08	1162																				
10-Dec-08	1169																				
17-Dec-08	1176	38.5	<0.0025	0.0309	10.9	1.5	<0.00025	9.68	11	<0.00001	<0.00025	0.0596	6.06	<0.005	12.1	<0.00005	<2	0.00062	<0.0005	<0.0025	0.983
24-Dec-08	1183																				
31-Dec-08	1190																				
7-Jan-09	1197																				
14-Jan-09	1204	42.8	<0.0025	0.0262	11.8	8.73	0.00041	8.74	11.8	<0.00001	0.00025	0.0501	5.22	<0.005	15.6	<0.00005	<2	0.00053	<0.0005	<0.0025	0.865
21-Jan-09	1211																				
28-Jan-09	1218																				
4-Feb-09	1225																				
11-Feb-09	1232	42	<0.0025	0.0306	15.3	11.9	<0.00025	13.2	16.7	<0.00001	<0.00025	0.0596	6.22	<0.005	15.9	0.000051	<2	0.00063	<0.0005	<0.0025	1.07
18-Feb-09	1239																				
25-Feb-09	1246																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
4-Mar-09	1253																					
11-Mar-09	1260	400	400	3.55	336	566	15.99	105.23	<1	414	157	<0.5	2.61	260	2.32	0.00772	0.0153	0.00967	0.0076	<0.0025	<0.05	0.00541
18-Mar-09	1267																					
25-Mar-09	1274	50	50	3.51	361	568																
1-Apr-09	1281																					
8-Apr-09	1288	400	400	3.54	455	570	17.09	102.52	<1	440	152	<0.5	2.67	263	2.45	0.00848	0.0152	0.0105	0.0073	<0.0025	0.054	0.00543
15-Apr-09	1295																					
22-Apr-09	1302	50	50	3.47	417	581																
29-Apr-09	1309																					
6-May-09	1316	400	400	3.55	440	578	16.03	106.73	<1	463	174	<5	2.39	270	3.27	0.00804	0.0144	0.0115	0.0066	<0.0025	<0.05	0.00564
13-May-09	1323																					
20-May-09	1330	50	50	3.52	467	574																
27-May-09	1337																					
3-Jun-09	1344	400	400	3.59	442	580	16.97	112.87	<1	467	159	<0.5	2.64	265	2.68	0.00935	0.0158	0.0126	0.008	<0.0025	<0.05	0.00536
10-Jun-09	1351																					
17-Jun-09	1358	50	50	3.61	498	575																
24-Jun-09	1365																					
1-Jul-09	1372	400	400	3.57	486	583	16.62	128.39	<1	495	162	<0.5	2.7	274	2.43	0.00869	0.0121	0.0135	0.0062	<0.0025	0.063	0.00563
8-Jul-09	1379																					
15-Jul-09	1386	50	50	3.67	473	574																
22-Jul-09	1393																					
29-Jul-09	1400	400	400	3.65	376	597	17.49	133.85	<1	481	167	<0.5	2.75	284	2.81	0.00823	0.0111	0.0135	0.007	<0.0025	0.052	0.00566
5-Aug-09	1407																					
12-Aug-09	1414	50	50	3.67	343	585																
19-Aug-09	1421																					
26-Aug-09	1428	400	400	3.71	355	602	16.13	136.13	<1	528	177	<0.5	3.01	288	3.14	0.00852	0.0114	0.0151	0.0073	<0.0025	0.052	0.00574
2-Sep-09	1435																					
9-Sep-09	1442	50	50	3.75	359	609																
16-Sep-09	1449																					
23-Sep-09	1456	400	400	3.79	425	606	16.01	137.71	<1	489	166	<10	2.37	280	3	0.00931	0.0112	0.0152	0.0069	<0.0025	0.065	0.00589
30-Sep-09	1463																					
7-Oct-09	1470	50	50	3.79	424	597																
14-Oct-09	1477																					
21-Oct-09	1484	400	400	3.83	377	570	12.51	123.92	<1	484	163	<10	2.33	264	2.86	0.00888	0.0111	0.0151	0.0082	<0.0025	0.071	0.00539
28-Oct-09	1491																					
4-Nov-09	1498	50	50	3.69	384	604																
11-Nov-09	1505																					
18-Nov-09	1512	400	400	3.79	417	594	13.93	140.12	<1	456	157	<5	2.47	272	2.85	0.00854	0.0086	0.014	0.0055	<0.0025	0.071	0.00535
25-Nov-09	1519																					
2-Dec-09	1526	50	50	3.82	374	526																
9-Dec-09	1533																					
16-Dec-09	1540	400	400	3.67	414	511	14.28	97.86	<1	367	132	<10	2.04	209	2.5	0.0081	0.00529	0.0115	0.0065	<0.0025	<0.05	0.00467
23-Dec-09	1547																					
30-Dec-09	1554	50	50	3.52	516	532																
6-Jan-10	1561																					
13-Jan-10	1568	400	400	3.38	435	614	27.47	105.08	<1	415	158	<10	2.43	256	2.61	0.00654	0.00675	0.0114	0.0069	<0.0025	<0.05	0.00508
20-Jan-10	1575																					
27-Jan-10	1582	50	50	3.38	498	524																
3-Feb-10	1589																					
10-Feb-10	1596	400	400	3.29	424	643	26.07	102.63	<1	433	155	<10	2.59	267	3	0.00576	0.0125	0.011	0.007	<0.0025	<0.05	0.00508
17-Feb-10	1603																					
24-Feb-10	1610	50	50	3.26	426	663																
3-Mar-10	1617																					
10-Mar-10	1624	400	400	3.21	444	704	33.25	120.21	<1	510	178	<10	3.49	314	4.02	0.00595	0.00834	0.0116	0.0085	<0.0025	<0.05	0.0064
17-Mar-10	1631																					
24-Mar-10	1638	50	50	3.3	406	702																
31-Mar-10	1645																					
7-Apr-10	1652	400	400	3.26	396	715	30.27	136.89	<1	519	183	<10	3.47	312	3.98	0.0063	0.0143	0.0151	0.0077	<0.0025	<0.05	0.00628
14-Apr-10	1659																					
21-Apr-10	1666	50	50	3.21	423	738																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Mar-09	1253																				
11-Mar-09	1260	42.5	<0.0025	0.0337	14.6	12.2	0.00029	12.4	15.5	<0.00001	<0.00025	0.0659	7.07	<0.005	16.2	0.000076	<2	0.00068	<0.0005	<0.0025	1.12
18-Mar-09	1267																				
25-Mar-09	1274																				
1-Apr-09	1281																				
8-Apr-09	1288	41.5	<0.0025	0.035	14.4	12.9	0.00051	11.8	15.6	<0.00001	<0.00025	0.0671	7.27	<0.005	16.5	0.000055	<2	0.00076	<0.0005	<0.0025	1.14
15-Apr-09	1295																				
22-Apr-09	1302																				
29-Apr-09	1309																				
6-May-09	1316	44.2	<0.0025	0.0346	20.3	14.4		15.5	21.7	<0.00001	0.0005	0.069	7.3	<0.005	17.4	<0.00005	<2	0.00075	0.00054	<0.0025	1.18
13-May-09	1323																				
20-May-09	1330																				
27-May-09	1337																				
3-Jun-09	1344	43.3	<0.0025	0.034	15.7	15.4	0.00068	12.4	17.9	<0.00001	0.00055	0.0644	7.56	<0.005	17.9	<0.00005	<2	0.00076	0.00066	<0.0025	1.14
10-Jun-09	1351																				
17-Jun-09	1358																				
24-Jun-09	1365																				
1-Jul-09	1372	45.9	<0.0025	0.0367	13.4	15.5	0.00146	11.6	14.5	<0.00001	<0.00025	0.0667	7	<0.005	20.1	<0.00005	<2	0.00077	0.00092	<0.0025	1.09
8-Jul-09	1379																				
15-Jul-09	1386																				
22-Jul-09	1393																				
29-Jul-09	1400	45.4	<0.0025	0.035	16.5	16.9	0.00211	12.9	18.3	<0.00001	<0.00025	0.0662	7.44	<0.005	19.9	<0.00005	<2	0.00075	<0.0005	<0.0025	1.21
5-Aug-09	1407																				
12-Aug-09	1414																				
19-Aug-09	1421																				
26-Aug-09	1428	47.8	<0.0025	0.0363	16	18.7		14	18.4	<0.00001	<0.00025	0.0692	7.94	<0.005	21.5	<0.00005	<2	0.00075	0.00063	<0.0025	1.2
2-Sep-09	1435																				
9-Sep-09	1442																				
16-Sep-09	1449																				
23-Sep-09	1456	45	<0.0025	0.0366	14.5	20.1	0.00192	13.2	17.5	<0.00001	<0.00025	0.0664	7.8	<0.005	21.3	<0.00005	<2	0.0008	0.00088	<0.0025	1.19
30-Sep-09	1463																				
7-Oct-09	1470																				
14-Oct-09	1477																				
21-Oct-09	1484	44.8	<0.0025	0.0332	13.2	21.2	0.0011	12.4	15.7	<0.00001	<0.00025	0.0636	7.1	<0.005	20.6	<0.00005	<2	0.00068	0.00067	<0.0025	1.22
28-Oct-09	1491																				
4-Nov-09	1498																				
11-Nov-09	1505																				
18-Nov-09	1512	42.8	<0.0025	0.0324	12.6	21.6	0.0008	12	16.3	<0.00001	<0.00025	0.0635	7.04	<0.005	20.1	<0.00005	<2	0.00066	0.00058	<0.0025	1.11
25-Nov-09	1519																				
2-Dec-09	1526																				
9-Dec-09	1533																				
16-Dec-09	1540	36.4	<0.0025	0.0298	11.6	14.1	0.00132	10	14.1	<0.00001	0.00027	0.0563	7.04	<0.005	16.6	<0.00005	<2	0.00068	0.0007	<0.0025	0.973
23-Dec-09	1547																				
30-Dec-09	1554																				
6-Jan-10	1561																				
13-Jan-10	1568	46.8	<0.0025	0.0316	16.7	4.57	0.00111	9.96	14.1	<0.00001	<0.00025	0.0571	6.97	<0.005	15.1	<0.00005	<2	0.00076	0.00087	<0.0025	1.04
20-Jan-10	1575																				
27-Jan-10	1582																				
3-Feb-10	1589																				
10-Feb-10	1596	44.7	<0.0025	0.0337	18	4.92	0.00231	10.5	13.5	<0.00001	<0.00025	0.0592	6.79	<0.005	17.2	<0.00005	<2	0.00079	0.00051	0.0025	1.05
17-Feb-10	1603																				
24-Feb-10	1610																				
3-Mar-10	1617																				
10-Mar-10	1624	50.6	<0.0025	0.0412	24.4	3.59	0.00075	12.5	17.1	<0.00001	<0.00025	0.0718	8.22	<0.005	16.5	<0.00005	<2	0.00095	0.00115	<0.0025	1.31
17-Mar-10	1631																				
24-Mar-10	1638																				
31-Mar-10	1645																				
7-Apr-10	1652	52.6	<0.0025	0.0407	24.4	9.08	0.0014	12.6	17.3	<0.00001	<0.00025	0.0688	7.86	<0.005	19	<0.00005	<2	0.00087	<0.0005	0.004	1.29
14-Apr-10	1659																				
21-Apr-10	1666																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
28-Apr-10	1673																					
5-May-10	1680	400	400	3.17	432	765	35.93	132.54	<1	520	208	<10	3.65	335	4.29	0.00577	0.0106	0.0116	0.0088	<0.0025	<0.05	0.00658
12-May-10	1687																					
19-May-10	1694	50	50	3.08	463	784																
26-May-10	1701																					
2-Jun-10	1708	400	400	3.06	454	839	39.96	137.49	<1	627	205	<10	4.27	389	5.28	0.00631	0.0127	0.0123	0.0103	<0.0025	<0.05	0.00726
9-Jun-10	1715																					
16-Jun-10	1722	50	50	3.09	536	852																
23-Jun-10	1729																					
30-Jun-10	1736	400	400	3.25	395	896	42.92	150.7	<1	674	228	<10	4.89	384	5.8	0.00618	0.0055	0.0134	0.0102	<0.005	<0.1	0.00788
7-Jul-10	1743																					
14-Jul-10	1750	50	50	3	481	936																
21-Jul-10	1757																					
28-Jul-10	1764	400	400	2.97	471	968	55.2	199.71	<1	758	256	<5	5.69	443	5.77	0.00587	0.0059	0.00922	0.0094	<0.005	<0.1	0.0075
4-Aug-10	1771																					
11-Aug-10	1778	50	50	3.21	361	988																
18-Aug-10	1785																					
25-Aug-10	1792	400	400	3.06	467	1036	57.38	201.58	<1	807	283	<5	6.01	463	7.2	0.00687	0.0049	0.0102	0.0087	<0.005	<0.1	0.00888
1-Sep-10	1799																					
8-Sep-10	1806	50	50	2.96	451	1089																
15-Sep-10	1813																					
22-Sep-10	1820	400	400	2.91	450	954	67	222.03	<1	875	287	<5	6.45	499	7.61	0.00667	0.0079	0.0113	0.0106	<0.005	<0.1	0.00869
29-Sep-10	1827																					
6-Oct-10	1834	50	50	2.94	410	1203																
13-Oct-10	1841																					
20-Oct-10	1848	400	400	3.05	396	1151	56.12	274.41	<1	945	302	<10	6.98	542	8.74	0.00717	0.0143	0.0118	0.0099	<0.005	<0.1	0.0101
27-Oct-10	1855																					
3-Nov-10	1862	50	50	3.2	320	1210																
10-Nov-10	1869																					
17-Nov-10	1876	400	400	3.27	275	934	47.02	256.32	<1	831	295	<5	7.06	544	6.6	0.00556	0.0111	0.00794	0.0127	<0.005	<0.1	0.00796
24-Nov-10	1883																					
1-Dec-10	1890	50	50	3.17	409	1093																
8-Dec-10	1897																					
15-Dec-10	1904	400	400	3.09	438	1112	47.91	267.67	<1	873	299	<5	7	541	8.5		0.0315	0.0103	0.0112	<0.001	0.063	0.01
22-Dec-10	1911																					
29-Dec-10	1918	50	50	3.15	441	1151																
5-Jan-11	1925																					
12-Jan-11	1932	400	400	3.18	375	980	46.84	266.36	<1	854	304	<5	6.11	530	8.15	0.00651	0.0131	0.0101	0.0103	<0.0025	0.064	0.00969
19-Jan-11	1939																					
26-Jan-11	1946	50	50	3.18	369	1012																
2-Feb-11	1953																					
9-Feb-11	1960	400	400	3.2	377	951	44.54	249.23	<1	846	299	<5	6.2	513	8.38	0.00659	0.0152	0.012	0.011	<0.001	0.081	0.00974
16-Feb-11	1967																					
23-Feb-11	1974	50	50	3.23	372	1131																
2-Mar-11	1981																					
9-Mar-11	1988	400	400	3.22	374	1113	39.13	222.42	<1	844	274	<5	5.98	511	7.95	0.00683	0.0145	0.0139	0.0103	<0.0025	0.086	0.00944
16-Mar-11	1995																					
23-Mar-11	2002	50	50	3.28	354	1108																
30-Mar-11	2009																					
6-Apr-11	2016	400	400	3.23	385	1079	37.52	210.01	<1	831	260	<5	5.68	492	6.83	0.00653	0.015	0.0106	0.0094	<0.0025	0.077	0.00813
13-Apr-11	2023																					
20-Apr-11	2030	50	50	3.27	408	1065																
27-Apr-11	2037																					
4-May-11	2044	400	400	3.24	390	1068	41.44	220.65	<1	805	268	<5	6.07	476	7.13	0.0062	0.0162	0.0109	0.0091	<0.0025	0.072	0.00806
11-May-11	2051																					
18-May-11	2058	50	50	3.21	381	998																
25-May-11	2065																					
1-Jun-11	2072	400	400	3.3	412	1039	44.7	241.02	<1	807	257	<5	6.16	479	7.32	0.00586	0.0129	0.0112	0.0086	<0.0025	0.072	0.00818
8-Jun-11	2079																					
15-Jun-11	2086	50	50	3.33	271	1006																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
28-Apr-10	1673																				
5-May-10	1680	63	<0.0025	0.0428	25	3.94	0.00136	12.3	15.9	<0.00001	0.00029	0.0717	8.57	<0.005	19.6	<0.00005	<2	0.00104	<0.0005	<0.0025	1.37
12-May-10	1687																				
19-May-10	1694																				
26-May-10	1701																				
2-Jun-10	1708	58.6	<0.0025	0.0506	29.8	4.63	0.00173	14.2	18.7	<0.00001	<0.00025	0.0806	9.28	<0.005	20.9	<0.00005	<2	0.00118	0.00084	0.003	1.45
9-Jun-10	1715																				
16-Jun-10	1722																				
23-Jun-10	1729																				
30-Jun-10	1736	67.3	<0.005	0.0516	33.9	2.76	0.00151	14.7	18.8	<0.00001	<0.0005	0.081	10	<0.01	23	<0.0001	<2	0.00118	0.0014	<0.005	1.52
7-Jul-10	1743																				
14-Jul-10	1750																				
21-Jul-10	1757																				
28-Jul-10	1764	81.3	<0.005	0.0507	33.1	4.73	0.0008	12.8	16.8	<0.00001	<0.0005	0.0793	9.14	<0.01	23.8	<0.0001	<2	0.00116	<0.001	<0.005	1.54
4-Aug-10	1771																				
11-Aug-10	1778																				
18-Aug-10	1785																				
25-Aug-10	1792	89	<0.005	0.0628	39.8	4.95	0.00067	14.8	20.4	<0.00001	0.00119	0.0934	10.8	<0.01	24.3	<0.0001	<2	0.00138	<0.001	<0.005	1.78
1-Sep-10	1799																				
8-Sep-10	1806																				
15-Sep-10	1813																				
22-Sep-10	1820	90.1	<0.005	0.0612	44.1	6.72	0.00157	15	19.2	<0.00001	0.00205	0.097	11	<0.01	24.9	0.0001	<2	0.00137	0.0011	<0.005	1.78
29-Sep-10	1827																				
6-Oct-10	1834																				
13-Oct-10	1841																				
20-Oct-10	1848	94.8	<0.005	0.0697	47.2	25	0.00191	15.8	22	<0.00001	<0.0005	0.104	12	<0.01	31	<0.0001	<2	0.00168	<0.001	0.0076	2.07
27-Oct-10	1855																				
3-Nov-10	1862																				
10-Nov-10	1869																				
17-Nov-10	1876	98.5	<0.005	0.0536	34.8	25.9	0.00061	11.9	16.1	<0.00001	<0.0005	0.0782	9.82	<0.01	32.5	<0.0001	<2	0.00127	<0.001	0.0065	1.59
24-Nov-10	1883																				
1-Dec-10	1890																				
8-Dec-10	1897																				
15-Dec-10	1904	92.3	<0.001	0.0681	44.8	28.3	0.00142	16.7	22.5	<0.00001	0.00026	0.102	12.2	<0.002	32.5	0.000108	<2	0.00158	0.00087	0.0222	1.97
22-Dec-10	1911																				
29-Dec-10	1918																				
5-Jan-11	1925																				
12-Jan-11	1932	96.4	<0.0025	0.067	42.7	30.3	0.0009967	15.5	21.1	<0.00001	<0.00025	0.0979	11.5	<0.005	31.6	0.000064	<2	0.00151	0.00084	0.0086	1.8
19-Jan-11	1939																				
26-Jan-11	1946																				
2-Feb-11	1953																				
9-Feb-11	1960	94.2	<0.001	0.0652	39.8	31	0.00339	15.4	21.1	<0.00001	0.00011	0.0951	12.1	<0.002	32.6	0.000066	<2	0.00147	0.0006	0.0099	1.85
16-Feb-11	1967																				
23-Feb-11	1974																				
2-Mar-11	1981																				
9-Mar-11	1988	84.5	<0.0025	0.0633	38.5	29.9	0.00172	15.2	19.9	<0.00001	<0.00025	0.0928	11.6	<0.005	30.4	<0.00005	<2	0.00144	0.00068	0.0099	1.79
16-Mar-11	1995																				
23-Mar-11	2002																				
30-Mar-11	2009																				
6-Apr-11	2016	82.9	<0.0025	0.0556	33.7	29.1	0.00145	12.9	17.5	<0.00001	<0.00025	0.0814	10.8	<0.005	29.9	<0.00005	<2	0.0014	0.00059	0.0098	1.53
13-Apr-11	2023																				
20-Apr-11	2030																				
27-Apr-11	2037																				
4-May-11	2044	85.8	<0.0025	0.0571	35	30.6	0.00311	13.2	18.5	<0.00001	<0.00025	0.093	10.7	<0.005	31.9	0.000056	<2	0.00138	0.00074	0.0104	1.47
11-May-11	2051																				
18-May-11	2058																				
25-May-11	2065																				
1-Jun-11	2072	81.5	<0.0025	0.0574	34.6	30.3	0.00099	13.1	18.2	<0.00001	<0.00025	0.0826	11.7	<0.005	31.6	<0.00005	<2	0.00138	0.00071	0.0113	1.54
8-Jun-11	2079																				
15-Jun-11	2086																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
22-Jun-11	2093																					
29-Jun-11	2100	400	400	3.38	270	1019	37.84	214.21	<1	767	246	<5	6.03	454	7.09	0.00697	0.019	0.0118	0.0094	<0.0025	0.089	0.00794
6-Jul-11	2107																					
13-Jul-11	2114	50	50	3.41	389	986																
20-Jul-11	2121																					
27-Jul-11	2128	400	400	3.22	333	1007	43.97	215.63	<1	761	245	<5	6.22	462	7.27	0.00717	0.0199	0.0122	0.0092	<0.0025	0.086	0.00811
3-Aug-11	2135																					
10-Aug-11	2142	50	50	3.26	372	1005																
17-Aug-11	2149																					
24-Aug-11	2156	400	400	3.29	354	992	40.59	218.9	<1	899	245	<5	5.93	439	7.18	0.00692	0.0223	0.0131	0.0083	<0.0025	0.093	0.00769
31-Aug-11	2163																					
7-Sep-11	2170	50	50	3.35	351	1013																
14-Sep-11	2177																					
21-Sep-11	2184	400	400	3.33	331	974	41.21	211.63	<1	716	244	<5	6.01	445	8.05	0.00714	0.0249	0.0135	0.0088	<0.0025	0.11	0.00855
28-Sep-11	2191																					
5-Oct-11	2198	50	50	3.38	359	951																
12-Oct-11	2205																					
19-Oct-11	2212	400	400	3.38	323	964	35.29	189.23	<1	746	242	<5	5.9	435	6.72	0.00703	0.0223	0.0134	0.008	<0.0025	0.102	0.008
26-Oct-11	2219																					
2-Nov-11	2226	50	50	3.33	327	968																
9-Nov-11	2233																					
16-Nov-11	2240	400	400	3.26	356	966	41.66	187.92	<1	668	217	<5	5.44	397	6.08	0.00618	0.0184	0.013	0.0079	<0.0025	0.074	0.00682
23-Nov-11	2247																					
30-Nov-11	2254	50	50	3.29	471	929																
7-Dec-11	2261																					
14-Dec-11	2268	400	400	3.24	373	935	41.65	173.65	<1	599	203	<5	4.8	384	6.06	0.00563	0.0153	0.0136	0.0075	<0.0025	0.071	0.00672
21-Dec-11	2275																					
28-Dec-11	2282	50	50	3.24	362	894																
4-Jan-12	2289																					
11-Jan-12	2296	400	400	3.24	361	909	33.46	133.52	<1	586	200	<5	5.08	365	5.77	0.0062	0.0159	0.012	0.007	<0.0025	0.076	0.00645
18-Jan-12	2303																					
25-Jan-12	2310	50	50	3.25	373	894																
1-Feb-12	2317																					
8-Feb-12	2324	400	400	3.26	401	897	33.66	142.51	<1	636	204	<5	4.7	367	5.81	0.00678	0.0193	0.0125	0.0068	<0.0025	0.095	0.00619
15-Feb-12	2331																					
22-Feb-12	2338	50	50	3.31	396	889																
29-Feb-12	2345																					
7-Mar-12	2352	400	400	3.34	424	894	42.97	191.51	<1	655	202	<5	5.24	370	6.2	0.00671	0.0212	0.0132	0.0072	<0.0025	0.099	0.00642
14-Mar-12	2359																					
21-Mar-12	2366	50	50	3.31	375	892																
28-Mar-12	2373																					
4-Apr-12	2380	400	400	3.3	449	864	35.64	166.82	<1	610	208	<5	5.32	387	6.3	0.0064	0.024	0.013	0.0069	<0.0025	0.118	0.00624
11-Apr-12	2387																					
18-Apr-12	2394	50	50	3.3	364	857																
25-Apr-12	2401																					
2-May-12	2408	400	400	3.33	452	875	38	170.97	<1	607	204	<5	4.99	364	6.43	0.00775	0.0258	0.0143	0.0071	<0.0025	0.13	0.00642
9-May-12	2415																					
16-May-12	2422	50	50	3.29	346	865																
23-May-12	2429																					
30-May-12	2436	400	400	3.32	364	882	39.23	176.7	<1	646	178	<5	5.02	350	6.18	0.0074	0.0251	0.0132	0.0073	<0.0025	0.138	0.00568
6-Jun-12	2443																					
13-Jun-12	2450	50	50	3.35	466	825																
20-Jun-12	2457																					
27-Jun-12	2464	400	400	3.31	419	827	41.01	176.29	<1	694	183	<5	4.89	338	5.42	0.0073	0.0252	0.0129	0.006	<0.0025	0.128	0.00559
4-Jul-12	2471																					
11-Jul-12	2478	50	50	3.28	376	792																
18-Jul-12	2485																					
25-Jul-12	2492	400	400	3.32	342	780	34.66	148.02	<1	639	175	<5	4.65	319	5.46	0.00733	0.023	0.0144	0.0059	<0.0025	0.112	0.00513
1-Aug-12	2499																					
8-Aug-12	2506	50	50	3.32	394	785																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Jun-11	2093																				
29-Jun-11	2100	77.7	<0.0025	0.0567	36.9	29.9	0.0218	12.6	18.8	<0.00001	<0.00025	0.0807	11.8	<0.005	30.7	<0.00005	<2	0.00146	0.00081	0.0116	1.54
6-Jul-11	2107																				
13-Jul-11	2114																				
20-Jul-11	2121																				
27-Jul-11	2128	76.6	<0.0025	0.0572	33	29.8	0.00287	13	17.6	<0.00001	<0.00025	0.0792	11.8	<0.005	31.1	<0.00005	<2	0.00141	0.00058	0.0126	1.58
3-Aug-11	2135																				
10-Aug-11	2142																				
17-Aug-11	2149																				
24-Aug-11	2156	76.9	<0.0025	0.055	32.2	31.3	0.00224	12.8	17.3	<0.00001	<0.00025	0.0779	11.6	<0.005	33.4	<0.00005	<2	0.00136	0.00054	0.0132	1.55
31-Aug-11	2163																				
7-Sep-11	2170																				
14-Sep-11	2177																				
21-Sep-11	2184	75.2	<0.0025	0.0609	34.4	31.1	0.00238	13.6	18.7	<0.00001	<0.00025	0.0883	12.4	<0.005	33.1	<0.00005	<2	0.00149	0.00133	0.0159	1.56
28-Sep-11	2191																				
5-Oct-11	2198																				
12-Oct-11	2205																				
19-Oct-11	2212	76.2	<0.0025	0.0565	32.2	33.1	0.00058	12.5	16.5	<0.00001	<0.00025	0.0798	11.8	<0.005	35	<0.00005	<2	0.0014	<0.0005	0.0146	1.52
26-Oct-11	2219																				
2-Nov-11	2226																				
9-Nov-11	2233																				
16-Nov-11	2240	67.7	<0.0025	0.0482	28.8	26.3	0.00161	11.6	15.5	<0.00001	<0.00025	0.0651	12	<0.005	30.2	<0.00005	<2	0.00136	0.00067	0.0118	1.26
23-Nov-11	2247																				
30-Nov-11	2254																				
7-Dec-11	2261																				
14-Dec-11	2268	64.8	<0.0025	0.0482	26.1	22	0.00243	10.1	13.4	<0.00001	0.00323	0.0668	11.2	<0.005	28.4	<0.00005	<2	0.0013	0.00066	0.01	1.35
21-Dec-11	2275																				
28-Dec-11	2282																				
4-Jan-12	2289																				
11-Jan-12	2296	64.3	<0.0025	0.0473	24.9	19.9	0.00232	9.69	12.4	<0.00001	<0.00025	0.0651	10.3	<0.005	26.5	<0.00005	<2	0.00137	0.00102	0.0095	1.25
18-Jan-12	2303																				
25-Jan-12	2310																				
1-Feb-12	2317																				
8-Feb-12	2324	66	<0.0025	0.0453	23.3	23.5	0.00114	9.56	11.7	<0.00001	0.00065	0.0612	10.9	<0.005	29.4	<0.00005	<2	0.00137	0.00054	0.0111	1.21
15-Feb-12	2331																				
22-Feb-12	2338																				
29-Feb-12	2345																				
7-Mar-12	2352	64.1	<0.0025	0.048	24.5	24.4	0.00127	10.2	12.7	<0.00001	0.00033	0.0645	10.9	<0.005	30.7	<0.00005	<2	0.00141	0.00124	0.0127	1.25
14-Mar-12	2359																				
21-Mar-12	2366																				
28-Mar-12	2373																				
4-Apr-12	2380	65.6	<0.0025	0.0471	24.4	24.7	0.00137	10.8	12.8	<0.00001	<0.00025	0.0629	12.1	<0.005	32.1	<0.00005	<2	0.00125	0.00095	0.0133	1.3
11-Apr-12	2387																				
18-Apr-12	2394																				
25-Apr-12	2401																				
2-May-12	2408	64.5	<0.0025	0.048	23.6	25.6	0.00756	10.4	13	<0.00001	<0.00025	0.0634	11.8	<0.005	32.4	<0.00005	<2	0.00136	0.00119	0.0137	1.27
9-May-12	2415																				
16-May-12	2422																				
23-May-12	2429																				
30-May-12	2436	55.4	<0.0025	0.0447	21.9	25	0.00111	9.52	12.1	<0.00001	<0.00025	0.0593	11.3	<0.005	31.9	<0.00005	<2	0.00135	0.00074	0.0136	1.12
6-Jun-12	2443																				
13-Jun-12	2450																				
20-Jun-12	2457																				
27-Jun-12	2464	58.6	<0.0025	0.042	20.9	23.4	0.0725	8.9	11	<0.00001	<0.00025	0.0544	11.1	<0.005	31.5	<0.00005	<2	0.00131	0.0008	0.0124	1.05
4-Jul-12	2471																				
11-Jul-12	2478																				
18-Jul-12	2485																				
25-Jul-12	2492	56.4	<0.0025	0.0415	20.6	21.8	0.00365	8.24	10.7	<0.00001	<0.00025	0.0545	10.8	<0.005	29.1	<0.00005	<2	0.00126	0.00089	0.0123	1.05
1-Aug-12	2499																				
8-Aug-12	2506																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Aug-12	2513																					
22-Aug-12	2520	400	400	3.31	353	791	37.67	150.19	<1	621	176	<5	4.72	310	5.54	0.00728	0.0232	0.0134	0.0065	<0.001	0.104	0.0054
29-Aug-12	2527																					
5-Sep-12	2534	50	50	3.35	464	780																
12-Sep-12	2541																					
19-Sep-12	2548	400	400	3.34	393	790	35.47	150.68	<1	590	184	<5	4.54	318	6.03	0.00823	0.025	0.0142	0.0066	<0.0025	0.125	0.00538
26-Sep-12	2555																					
3-Oct-12	2562	50	50	3.32	404	791																
10-Oct-12	2569																					
17-Oct-12	2576	400	400	3.3	374	790	34.37	141.27	<1	596	181	<10	4.7	341	5.54	0.00826	0.0278	0.0167	0.00597	<0.001	0.122	0.00538
24-Oct-12	2583																					
31-Oct-12	2590	50	50	3.27	350	777																
7-Nov-12	2597																					
14-Nov-12	2604	400	400	3.41	428	776	34.29	147.94	<1	556	177	<5	4.75	324	5.84	0.00833	0.0291	0.0145	0.00586	<0.001	0.129	0.00537
21-Nov-12	2611																					
28-Nov-12	2618	50	50	3.41	484	778																
5-Dec-12	2625																					
12-Dec-12	2632	400	400	3.43	356	791	31.15	140.77	<1	554	167	<5	3.96	301	5.31	0.00589	0.0223	0.013	0.00567	<0.001	0.105	0.00494
19-Dec-12	2639																					
26-Dec-12	2646	50	50	3.43	505	776																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Aug-12	2513																				
22-Aug-12	2520	56.6	<0.001	0.0418	20.4	20.3	0.00105	8.49	10.9	<0.00001	<0.0001	0.0569	11.7	<0.002	30.4	<0.00002	<2	0.00129	0.00067	0.0121	0.986
29-Aug-12	2527																				
5-Sep-12	2534																				
12-Sep-12	2541																				
19-Sep-12	2548	58.9	<0.0025	0.045	20.3	20.7	0.00315	9.03	11	<0.00001	<0.00025	0.0564	12.1	<0.005	30.1	<0.00005	<2	0.00134	<0.0005	0.0137	1.05
26-Sep-12	2555																				
3-Oct-12	2562																				
10-Oct-12	2569																				
17-Oct-12	2576	58.6	<0.001	0.043	20.1	21.4	0.00124	8.33	10.8	<0.00001	0.00011	0.0534	11.1	<0.002	31.2	<0.00002	<2	0.00125	0.00095	0.0136	1.02
24-Oct-12	2583																				
31-Oct-12	2590																				
7-Nov-12	2597																				
14-Nov-12	2604	57.1	<0.001	0.0432	18.9	22.8	0.00304	8.39	10.1	<0.00001	0.00014	0.0545	12.3	<0.002	32.1	0.000024	<2	0.00139	0.0005	0.0141	1.06
21-Nov-12	2611																				
28-Nov-12	2618																				
5-Dec-12	2625																				
12-Dec-12	2632	54.4	<0.001	0.0391	18.3	20.6	0.00061	7.69	9.64	<0.00001	0.00019	0.0464	10.5	<0.002	29.5	0.000027	<2	0.00124	<0.0002	0.012	0.984
19-Dec-12	2639																				
26-Dec-12	2646																				

Subaqueous Column Data: Waste Rock

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3102-0568-0588	SAC 6	Blank rows indicate that no solution was input or output during that week																				
28-Sep-05	0	400	400	7.71	264	3130	<1	9	44.5	3020	1880	<2.5	0.17	1910	0.016	0.0179	0.00671	0.0385	<0.001	<0.0025	0.096	0.00474
5-Oct-05	7	400	400	6.6	204	3410																
12-Oct-05	14	400	400	7.49	370	4660	<1	11	121.5	3210	2020	<5	0.52	2080	0.042	0.0214	0.0129	0.0339	<0.002	<0.005	0.17	0.00316
19-Oct-05	21	200	200	6.69	402	3110																
26-Oct-05	28	400	400	7.39	363	3340	<1	14.5	128	2900	1920	<5	0.88	2050	<0.01	0.0208	0.0155	0.0369	<0.002	<0.005	0.13	0.00167
2-Nov-05	35	200	200	6.7	359	2970																
9-Nov-05	42	400	400	7.4	318	2910	<1	18	127	2880	1920	<5	0.93	1950	<0.01	0.0244	0.0424	0.0388	<0.002	<0.005	<0.1	0.00058
16-Nov-05	49	200	200	6.86	305	2810																
23-Nov-05	56	400	400	7.48	325	2770	<1	17.5	122	2740	1700	<5	1.09	1750	0.0122	0.023	0.154	0.0357	<0.001	<0.0025	0.068	<0.00025
30-Nov-05	63	200	200	7.21	421	2600																
7-Dec-05	70	400	400	7.17	322	2460	<1	18	116	2500	1580	<2.5	0.99	1590	<0.005	0.0204	0.245	0.0301	<0.001	<0.0025	0.053	<0.00025
14-Dec-05	77	200	200	7.8	243	2410																
21-Dec-05	84	400	400	7.42	354	2250	<1	16	122	2090	1350	<2.5	1.27	1330	<0.005	0.0209	0.265	0.0314	<0.001	<0.0025	<0.05	<0.00025
28-Dec-05	91	200	200	7.34	356	2030																
4-Jan-06	98	400	400	7.68	380	1859	<1	9.5	117	1690	1180	<2.5	1.74	1010	<0.005	0.017	0.235	0.028	<0.001	<0.0025	<0.05	<0.00025
11-Jan-06	105	200	200	7.23	330	1675																
18-Jan-06	112	400	400	7.37	362	1574	<1	11.5	109	1200	850	<0.5	1.12	715	<0.005	0.0167	0.24	0.0277	<0.001	<0.0025	<0.05	<0.00025
25-Jan-06	119	200	200	7.23	292	1274																
1-Feb-06	126	400	400	7.54	356	1190	<1	18.5	113.5	802	644	<0.5	1.34	513	0.0057	0.0176	0.232	0.0287	<0.001	<0.0025	<0.05	<0.00025
8-Feb-06	133	200	200	7.13	336	1011																
15-Feb-06	140	400	400	7.69	406	910	<1	10.5	108	632	497	<0.5	1.04	341	0.0076	0.0177	0.236	0.031	<0.0004	<0.001	0.022	<0.0001
22-Feb-06	147	200	200	7.23	422	724																
1-Mar-06	154	400	400	7.39	406	655	<1	7	107.5	475	313	<0.5	1.04	224	0.0042	0.0165	0.208	0.0319	<0.0004	<0.001	<0.02	<0.0001
8-Mar-06	161	200	200	7.13	413	624																
15-Mar-06	168	400	400	7.52	372	578	<1	10.75	103	368	263	<0.5	1.02	164	0.0039	0.0172	0.216	0.0359	<0.0004	<0.001	<0.02	<0.0001
22-Mar-06	175	200	200	7.03	329	520																
29-Mar-06	182	400	400	7.45	345	483	<1	9	106	319	227	<0.5	1.01	135	0.0041	0.0158	0.186	0.0313	<0.0002	<0.0005	0.015	<0.00005
5-Apr-06	189	200	200	7.17	316	529																
12-Apr-06	196	400	400	7.28	380	379	<1	12.25	102.25	274	219	<0.5	0.929	117	0.0042	0.0159	0.181	0.0279	<0.0002	<0.0005	0.013	<0.00005
19-Apr-06	203	200	200	7.17	448	461																
26-Apr-06	210	400	400	7.3	377	398	<1	6	103.5	271	196	<0.5	0.883	107	0.005	0.0168	0.202	0.031	<0.0002	<0.0005	0.015	<0.00005
3-May-06	217	200	200	7.88	168	412																
10-May-06	224	400	400	7.86	144	412	<1	6.1	105.89	265	192	<0.5	0.78	99.7	0.0028	0.0154	0.191	0.0248	<0.0002	<0.0005	0.013	<0.00005
17-May-06	231	200	200	7.87	156	390																
24-May-06	238	400	400	7.75	162	372	<1	6.66	99.96	226	171	<0.5	0.633	87.6	0.0036	0.0124	0.0937	0.0233	<0.0002	<0.0005	0.011	<0.00005
31-May-06	245	200	200	7.83	166	372																
7-Jun-06	252	400	400	7.74	162	357	<1	7.01	96.63	220	175	<0.5	0.613	83.2	0.0034	0.0122	0.0905	0.0266	<0.0002	<0.0005	0.011	<0.00005
14-Jun-06	259	200	200	7.88	167	345																
21-Jun-06	266	400	400	7.81	158	329	<1	4.11	95.31	218	162	<0.5	0.589	77.5	0.0115	0.0105	0.0566	0.0233	<0.0002	<0.0005	0.012	<0.00005
28-Jun-06	273	200	200	7.85	168	301																
5-Jul-06	280	400	400	8.05	170	317	<1	2.7	92.38	195	156	<0.5	0.6	73.5	0.0035	0.0114	0.0675	0.0239	<0.0002	<0.0005	0.012	<0.00005
12-Jul-06	287	200	200	7.85	171	314																
19-Jul-06	294	400	400	7.79	169	298	<1	5.07	87.24	170	153	<0.5	0.522	65.6	0.0038	0.0102	0.0539	0.0254	<0.0002	<0.0005	<0.01	<0.00005
26-Jul-06	301	200	200	7.78	184	240																
2-Aug-06	308	400	400	7.43	139	260	<1	5.61	68.7	169	121	<0.5	0.45	62.4	0.0064	0.00982	0.00976	0.0158	<0.0002	<0.0005	<0.01	0.000089
9-Aug-06	315	200	200	7.41	188	279																
16-Aug-06	322	400	400	7.38	133	290	<1	7.12	80.18	184	138	<0.5	0.448	66.9	0.0184	0.01	0.0268	0.0209	<0.0002	<0.0005	<0.01	<0.00005
23-Aug-06	329	200	200	7.44	202	256																
30-Aug-06	336	400	400	7	145	291	<1	11.78	76.2	186	141	<0.5	0.451	73.4	0.0036	0.01	0.00922	0.0142	<0.0002	<0.0005	<0.01	0.000108
6-Sep-06	343	200	200	7.71	167	310																
13-Sep-06	350	400	400	7.57	139	311	<1	6.13	84.14	192	159	<0.5	0.471	78.1	0.0047	0.00874	0.0298	0.0191	<0.0002	<0.0005	<0.01	<0.00005
20-Sep-06	357	200	200	7.34	231	315																
27-Sep-06	364	400	400	7.59	137	320	<1	6.55	87.9		163	<0.5	0.464	78.2	<0.001	0.00888	0.0404	0.018	<0.0002	<0.0005	<0.01	<0.00005
4-Oct-06	371	200	200	7.39	142	319																
11-Oct-06	378	400	400	7.91	286	327	<1	3.6	92.1	201	163	<0.5	0.446	77.8	0.0023	0.00959	0.0533	0.0217	<0.0002	<0.0005	<0.01	<0.00005
18-Oct-06	385	200	200	7.81	213	335																
25-Oct-06	392	400	400	7.8	314	329	<1	6.11	94.63	217	171	<0.5	0.433	76.3	0.0108	0.0102	0.0769	0.0262	<0.0002	<0.0005	0.011	<0.00005
1-Nov-06	399	200	200		302	323																
8-Nov-06	406	400	400	7.79	237	334	<1	6.12	94.86	200	161	<0.5	0.449	73.4	0.0019	0.00953	0.0659	0.0212	<0.0002	<0.0005	<0.01	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3102-0568-0588	SAC 6																				
28-Sep-05	0	481	<0.0025	0.213	0.387	0.039	<0.00025	165	18.4	0.000016	0.00164	0.67	19	0.0188	3.38	<0.00005	24.8	0.00993	<0.0005	<0.0025	0.964
5-Oct-05	7																				
12-Oct-05	14	514	<0.005	0.158	0.108	0.038	<0.0005	179	19.2	0.00142	0.00207	0.637	17.9	0.017	6.51	0.00028	28.1	0.00782	<0.001	<0.005	0.478
19-Oct-05	21																				
26-Oct-05	28	512	<0.005	0.101	0.0236	0.103	<0.0005	156	15.8	0.000023	0.00186	0.47	15.6	0.013	7.09	<0.0001	22	0.00661	<0.001	<0.005	0.292
2-Nov-05	35																				
9-Nov-05	42	532	<0.005	0.0849	0.0078	0.136	<0.0005	145	14.8	<0.00001	0.00208	0.4	14	<0.01	7.33	<0.0001	15.9	0.00597	<0.001	<0.005	0.262
16-Nov-05	49																				
23-Nov-05	56	493	<0.0025	0.0585	0.00078	0.262	<0.00025	113	11.9	<0.00001	0.00193	0.265	12.6	<0.005	6.43	<0.00005	10.4	0.00368	<0.0005	<0.0025	0.176
30-Nov-05	63																				
7-Dec-05	70	495	<0.0025	0.0352	0.00141	0.516	<0.00025	83.7	8.88	<0.00001	0.00187	0.165	10.1	<0.005	6.57	<0.00005	7.7	0.00271	<0.0005	<0.0025	0.075
14-Dec-05	77																				
21-Dec-05	84	435	<0.0025	0.024	0.00995	0.487	<0.00025	64.3	6.49	<0.00001	0.00205	0.11	8.97	<0.005	6	<0.00005	6.1	0.0021	<0.0005	<0.0025	0.0433
28-Dec-05	91																				
4-Jan-06	98	401	<0.0025	0.0148	0.0013	0.493	<0.00025	43.5	4.46	<0.00001	0.00187	0.0685	7.35	<0.005	5.75	<0.00005	5	0.00129	<0.0005	<0.0025	0.0144
11-Jan-06	105																				
18-Jan-06	112	286	<0.0025	0.00981	0.00098	0.605	<0.00025	33.3	3.43	<0.00001	0.00204	0.0419	5.71	<0.005	5.48	<0.00005	3.8	0.00088	<0.0005	<0.0025	0.0116
25-Jan-06	119																				
1-Feb-06	126	214	<0.0025	0.00655	0.00311	0.576	<0.00025	26.5	2.56	<0.00001	0.00231	0.0257	5.16	<0.005	5.15	<0.00005	<4	0.00058	<0.0005	<0.0025	0.0092
8-Feb-06	133																				
15-Feb-06	140	168	<0.001	0.00477		0.534	<0.0001	18.9	1.81	<0.00001	0.00226	0.0175	4.47	<0.002	5.23	<0.00002	3	0.00053	<0.0002	<0.001	0.0048
22-Feb-06	147																				
1-Mar-06	154	100	<0.001	0.00276	0.0031	0.409	<0.0001	15.3	1.28	<0.00001	0.00233	0.0103	3.62	<0.002	4.69	<0.00002	2.3	0.00045	<0.0002	<0.001	0.0031
8-Mar-06	161																				
15-Mar-06	168	83.8	0.0017	0.0021	0.00064	0.297	<0.0001	13.1	1.11	<0.00001	0.00245	0.0075	3.61	<0.002	4.47	<0.00002	<2	0.00039	<0.0002	<0.001	0.0025
22-Mar-06	175																				
29-Mar-06	182	73.8	0.00076	0.00164	0.00074	0.199	<0.00005	10.5	0.951	<0.00001	0.00253	0.00562	3.24	<0.001	4.59	<0.00001	<2	0.000368	<0.0001	0.0006	0.0069
5-Apr-06	189																				
12-Apr-06	196	68.5	<0.0005	0.00148	0.00118	0.212	0.000063	11.6	0.984	<0.00001	0.00251	0.00566	3.46	<0.001	4.05	<0.00001	<2	0.000359	<0.0001	<0.0005	0.0031
19-Apr-06	203																				
26-Apr-06	210	59.9	<0.0005	0.0014	0.00743	0.129		11.3	1.03	<0.00001	0.00263	0.00527	3.56	<0.001	4.28	<0.00001	<2	0.000416	<0.0001	<0.0005	0.0056
3-May-06	217																				
10-May-06	224	57.4	<0.0005	0.00128	0.00073	0.135	0.000158	11.8	0.928	<0.00001	0.00253	0.00427	3.39	<0.001	4.28	<0.00001	<2	0.000448	0.00011	<0.0005	0.0021
17-May-06	231																				
24-May-06	238	50.7	<0.0005	0.00133	0.00174	0.13	0.00117	10.9	0.967	<0.00001	0.00217	0.00457	2.9	<0.001	3.7	<0.00001	<2	0.000488	<0.0001	<0.0005	0.003
31-May-06	245																				
7-Jun-06	252	51.2	<0.0005	0.00126	0.00278	0.066	0.000085	11.4	0.937	<0.00001	0.00212	0.00403	2.73	<0.001	3.4	<0.00001	<2	0.000466	<0.0001	<0.0005	0.0036
14-Jun-06	259																				
21-Jun-06	266	47.1	<0.0005	0.00125	0.00111	0.1	0.000195	10.9	0.929	<0.00001	0.00191	0.0039	2.66	<0.001	3.15	<0.00001	<2	0.000504	<0.0001	<0.0005	0.006
28-Jun-06	273																				
5-Jul-06	280	43.5	<0.0005	0.0011	0.00292	0.1	<0.00005	11.4	0.923	<0.00001	0.00216	0.00345	2.75	<0.001	2.85	<0.00001	<2	0.000569	<0.0001	<0.0005	0.0017
12-Jul-06	287																				
19-Jul-06	294	43.4	<0.0005	0.00096	0.00101	0.115	0.00208	10.8	0.922	<0.00001	0.00209	0.00285	2.47	<0.001	2.9	<0.00001	<2	0.000446	0.00012	<0.0005	0.0023
26-Jul-06	301																				
2-Aug-06	308	33.4	<0.0005	0.0018	0.00245	<0.03	0.00282	9.27	0.847	<0.00001	0.00204	0.00488	2.22	0.0011	1.8	<0.00001	<2	0.00171	<0.0001	<0.0005	0.013
9-Aug-06	315																				
16-Aug-06	322	38	<0.0005	0.00149	0.00251	<0.03	0.000357	10.4	1.03	<0.00001	0.00215	0.00439	2.38	<0.001	2.05	<0.00001	<2	0.000574	<0.0001	<0.0005	0.0081
23-Aug-06	329																				
30-Aug-06	336	38.2	<0.0005	0.00223	0.00348	<0.03	0.00186	11.1	1.03	<0.00001	0.00225	0.00536	2.51	<0.001	2.1	<0.00001	<2	0.00164	<0.0001	<0.0005	0.0146
6-Sep-06	343																				
13-Sep-06	350	43.4	<0.0005	0.00153	0.00143	0.113	<0.00005	12.2	1.16	<0.00001	0.00203	0.00389	2.52	<0.001	2.26	<0.00001	<2	0.000354	<0.0001	<0.0005	0.0024
20-Sep-06	357																				
27-Sep-06	364	46.4	<0.001	0.00117	0.00083	0.087	0.00216	11.4	1.22	<0.00001	0.00208	0.00313	2.41	<0.001	2.34	<0.00001	<2	0.000242	<0.0001	<0.0005	0.0015
4-Oct-06	371																				
11-Oct-06	378	44.6	<0.0005	0.0011	0.0028	0.459	0.00122	12.6	1.22	<0.00001	0.00204	0.0032	2.61	<0.001	2.6	<0.00001	<2	0.00011	<0.0001	<0.0005	0.0034
18-Oct-06	385																				
25-Oct-06	392	46.7	<0.0005	0.00076	0.00132	0.791	0.000153	13.1	1.26	<0.00001	0.00203	0.00213	2.66	<0.001	2.84	<0.00001	<2	0.000069	<0.0001	<0.0005	0.0019
1-Nov-06	399																				
8-Nov-06	406	45.2	<0.0005	0.00061	0.00232	0.272	0.000693	11.7	1.26	<0.00001	0.00196	0.00165	2.56	<0.001	2.69	<0.00001	<2	0.000088	<0.0001	<0.0005	0.0015

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Nov-06	413	200	200	7.67	232	322																
22-Nov-06	420	400	400	7.69	181	316	<1	12.12	99.63	198	156	<0.5	0.431	70	0.0031	0.00913	0.0757	0.0201	<0.0002	<0.0005	<0.01	<0.00005
29-Nov-06	427	200	200	7.45	331	311																
6-Dec-06	434	400	400	7.73	224	306	<1	17.29	104.55	185	150	<0.5	0.428	67	0.0029	0.00817	0.073	0.0186	<0.0002	<0.0005	<0.01	<0.00005
13-Dec-06	441	200	200	7.62	325	306																
20-Dec-06	448	400	400	7.83	232	306	<1	4.17	95.6	191	154	<0.5	0.47	65.3	0.0024	0.00888	0.0832	0.0198	<0.0002	<0.0005	<0.01	<0.00005
27-Dec-06	455	200	200	7.72	316	300																
3-Jan-07	462	400	400	7.78	317	306	<1	3.75	94.76	181	152	<0.5	0.423	61.1	0.0036	0.00924	0.0999	0.0194	<0.0002	<0.0005	<0.01	<0.00005
10-Jan-07	469	200	200	7.78	338	294																
17-Jan-07	476	400	400	7.74	238	289	<1	4.47	95.75	184	152	<0.5	0.415	57.3	0.0044	0.00792	0.0779	0.0191	<0.0002	<0.0005	<0.01	<0.00005
24-Jan-07	483	200	200	7.52	352	291																
31-Jan-07	490	400	400	7.49	346	284	<1	6.56	93.9	182	142	<0.5	0.404	54.9	0.0029	0.00836	0.0725	0.0193	<0.0002	<0.0005	<0.01	<0.00005
7-Feb-07	497	200	200	7.38	385	281																
14-Feb-07	504	400	400	7.53	355	271	<1	5.9	91.1	163	139	<0.5	0.396	50.6	0.0029	0.00782	0.0734	0.0176	<0.0002	<0.0005	<0.01	<0.00005
21-Feb-07	511	200	200	7.38	401	278																
28-Feb-07	518	400	400	7.45	282	266	<1	7.01	92.38	154	130	<0.5	0.432	49.6	0.0025	0.00724	0.0605	0.0158	<0.0002	<0.0005	<0.01	<0.00005
7-Mar-07	525	200	200	7.47	359	239																
14-Mar-07	532	400	400	7.93	250	265	<1	2.76	85.03	137	123	<0.5	0.367	45.8	0.0034	0.00679	0.0687	0.0143	<0.0002	<0.0005	<0.01	<0.00005
21-Mar-07	539	200	200	7.67	319	247																
28-Mar-07	546	400	400	7.64	309	233	<1	4.1	76.27	143	120	<0.5	0.341	44.6	0.004	0.00624	0.0348	0.0125	<0.0002	<0.0005	<0.01	<0.00005
4-Apr-07	553	200	200	7.53	400	244																
11-Apr-07	560	400	400	7.64	336	236	<1	4.18	73.97	141	110	<0.5	0.333	46.2	0.0035	0.0055	0.0225	0.0113	<0.0002	<0.0005	<0.01	<0.00005
18-Apr-07	567	200	200	7.38	353	237																
25-Apr-07	574	400	400	7.66	272	225	<1	3.85	71.79	142	118	<0.5	0.349	50.9	0.003	0.00551	0.0135	0.0125	<0.0002	<0.0005	<0.01	<0.00005
2-May-07	581	200	200	7.54	313	253																
9-May-07	588	400	400	7.57	238	235	<1	6.54	78.33	156	128	<0.5	0.333	54.5	0.0021	0.00495	0.0129	0.0119	<0.0002	<0.0005	<0.01	<0.00005
16-May-07	595	200	200	7.38	338	257																
23-May-07	602	400	400	7.67	316	280	<1	5.49	80.53	164	132	<0.5	0.333	59.4	0.0031	0.00447	0.0117	0.0114	<0.0002	<0.0005	<0.01	<0.00005
30-May-07	609	200	200	7.59	339	251																
6-Jun-07	616	400	400	7.51	332	255	<1	6.36	73.92	168	138	<0.5	0.334	66.4	0.002	0.00581	0.00879	0.0137	<0.0002	<0.0005	<0.01	<0.00005
13-Jun-07	623	200	200	7.45	275	247																
20-Jun-07	630	400	400	7.93	299	297	<1	4.05	92.54	180	156	<0.5	0.297	66	0.0074	0.00455	0.0115	0.012	<0.0005	<0.0005	<0.01	<0.00005
27-Jun-07	637	200	200	7.28	385	290																
4-Jul-07	644	400	400	7.64	358	292	<1	6.72	92.42	183	148	<0.5	0.276	64.4	0.0028	0.00397	0.00836	0.0109	<0.0002	<0.0005	<0.01	<0.00005
11-Jul-07	651	200	200	7.43	374	257																
18-Jul-07	658	400	400	7.52	405	274	<1	8.2	79.52	164	140	<0.5	0.342	64.7	0.0024	0.00482	0.00443	0.00967	<0.0002	<0.0005	<0.01	0.000097
25-Jul-07	665	200	200	7.1	421	291																
1-Aug-07	672	400	400	7.53	360	297	<1	7.96	88.53	115	161	<0.5	0.321	64.9	0.0043	0.00374	0.00908	0.0105	<0.0002	<0.0005	<0.01	<0.00005
8-Aug-07	679	200	200	7.41	369	290																
15-Aug-07	686	400	400	7.67	407	259	<1	6.33	83.67	180	141	<0.5	0.321	66.9	0.0022	0.00348	0.00777	0.0099	<0.0002	<0.0005	<0.01	<0.00005
22-Aug-07	693	200	200	7.31	447	225																
29-Aug-07	700	400	400	7.5	416	210	<1	8.47	78.35	169	138	<0.5	0.328	65	0.0036	0.00377	0.00539	0.00991	<0.0002	<0.0005	<0.01	<0.00005
5-Sep-07	707	200	200	7.2	420	206																
12-Sep-07	714	400	400	7.53	418	188	<1	10.65	78.92	180	140	<0.5	0.326	69.8	0.0015	0.00365	0.0044	0.00937	<0.0002	<0.0005	<0.01	0.000078
19-Sep-07	721	200	200	6.94	425	246																
26-Sep-07	728	400	400	7.45	387	312	<1	10.99	90.11	202	156	<0.5	0.32	71.7	0.0018	0.00334	0.00958	0.0106	<0.0002	<0.0005	<0.01	<0.00005
3-Oct-07	735	200	200																			
10-Oct-07	742	400	400	7.06	437	297																
17-Oct-07	749	200	200																			
24-Oct-07	756	400	400	7.16	428	273				171	123	<0.5	0.311	69.1	0.0038	0.00358	0.0041	0.0092	<0.0002	<0.0005	<0.01	0.000132
31-Oct-07	763	200	200																			
7-Nov-07	770	400	400	7.1	437	272																
14-Nov-07	777	200	200																			
21-Nov-07	784	400	400	7.43	461	276	<1	6.38	65.52	185	141	<0.5	0.307	75.3	0.003	0.0033	0.00353	0.00921	<0.0002	<0.0005	<0.01	0.000061
28-Nov-07	791	200	200																			
5-Dec-07	798	400	400	7.44	444	279																
12-Dec-07	805	200	200																			
19-Dec-07	812	400	400	7.49	447	301	<1	5.61	70.78	203	152	<0.5	0.31	95.8	0.0036	0.00355	0.00238	0.00986	<0.0002	<0.0005	<0.01	0.000244
26-Dec-07	819	200	200																			
2-Jan-08	826	400	400	7.51	447	309																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Nov-06	413																				
22-Nov-06	420	43.5	<0.0005	0.00054	0.00141	0.577	<0.00005	11.6	1.23	<0.00001	0.00191	0.00138	2.53	<0.001	2.63	<0.00001	<2	0.000062	<0.0001	<0.0005	0.007
29-Nov-06	427																				
6-Dec-06	434	42.7	<0.0005	0.00034	0.00329	0.593	<0.00005	10.5	1.09	<0.00001	0.00185	0.00093	2.33	<0.001	2.76	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0014
13-Dec-06	441																				
20-Dec-06	448	43.1	<0.0005	0.00038	0.00356	0.522	0.000509	11.3	1.23	<0.00001	0.00214	0.00083	2.63	<0.001	2.66	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
27-Dec-06	455																				
3-Jan-07	462	40.6	0.00055	0.00028	0.00063	0.61	<0.00005	12.2	1.18	<0.00001	0.00216	0.0006	2.58	<0.001	2.75	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0071
10-Jan-07	469																				
17-Jan-07	476	43	<0.0005	0.00016	0.00202	0.239	0.000052	10.8	1.1	<0.00001	0.00201	0.00051	2.31	<0.001	2.62	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
24-Jan-07	483																				
31-Jan-07	490	39.5	<0.0005	0.00017	0.00542	0.269	<0.00005	10.5	1.07	<0.00001	0.002	<0.0005	2.14	<0.001	2.55	0.000011	<2	<0.00005	<0.0001	<0.0005	0.0025
7-Feb-07	497																				
14-Feb-07	504	38.2	<0.0005	0.00022	0.00332	0.351	<0.00005	10.5	1.1	<0.00001	0.00226	0.00067	2.39	<0.001	2.58	<0.00001	<2	<0.00005	<0.0001	<0.0005	
21-Feb-07	511																				
28-Feb-07	518	35.3	<0.0005	0.00016	0.00187	0.094	<0.00005	10.1	1.05	<0.00001	0.00217	0.00054	2.33	<0.001	2.25	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
7-Mar-07	525																				
14-Mar-07	532	34.1	<0.0005	0.00014	0.00284	0.444	<0.00005	9.1	1.05	<0.00001	0.00223	<0.0005	2.19	<0.001	2.26	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Mar-07	539																				
28-Mar-07	546	33.6	<0.0005	0.00037	0.00356	0.211	0.000106	8.78	0.956	<0.00001	0.00241	0.00088	2.06	<0.001	2.23	<0.00001	<2	0.000066	<0.0001	<0.0005	<0.001
4-Apr-07	553																				
11-Apr-07	560	30.7	<0.0005	0.00057	0.00317	0.133	<0.00005	8.22	0.891	0.000024	0.00246	0.00138	1.91	<0.001	1.58	<0.00001	<2	0.00012	<0.0001	<0.0005	0.0013
18-Apr-07	567																				
25-Apr-07	574	32.7	<0.0005	0.001	0.00133	0.1	<0.00005	8.88	0.996	<0.00001	0.00252	0.00335	1.99	<0.001	1.64	<0.00001	<2	0.00039	<0.0001	<0.0005	0.0014
2-May-07	581																				
9-May-07	588	35	<0.0005	0.00093	0.00066	0.048	<0.00005	9.76	1.16	<0.00001	0.00262	0.00243	2.11	<0.001	1.56	<0.00001	<2	0.00034	<0.0001	<0.0005	<0.001
16-May-07	595																				
23-May-07	602	36.9	<0.0005	0.00071	0.00186	<0.03	<0.00005	9.59	1.14	<0.00001	0.00253	0.00198	2.02	<0.001	1.67	<0.00001	<2	0.000166	<0.0001	<0.0005	<0.001
30-May-07	609																				
6-Jun-07	616	38.1	<0.0005	0.00317	0.00237	0.037	<0.00005	10.4	1.19	<0.00001	0.00271	0.00698	2	<0.001	1.4	<0.00001	<2	0.000892	<0.0001	<0.0005	0.0027
13-Jun-07	623																				
20-Jun-07	630	41.5	<0.0005	0.00076	0.00275	0.079	<0.00005	12.7	1.25	<0.00005	0.003	0.0019	2.2	<0.001	1.81	<0.00001	<2	0.00015	<0.0001	<0.001	<0.001
27-Jun-07	637																				
4-Jul-07	644	42.1	<0.0005	0.00088	0.00616	0.034	<0.00005	10.5	1.22	<0.00001	0.00332	0.00197	2.13	<0.001	1.8	<0.00001	<2	0.000285	<0.0001	<0.0005	0.0019
11-Jul-07	651																				
18-Jul-07	658	39.2	<0.0005	0.00298	0.0079	<0.03	0.000189	10.3	1.19	<0.00001	0.00325	0.00598	2.8	<0.001	1.4	<0.00001	<2	0.00293	<0.0001	<0.0005	0.0122
25-Jul-07	665																				
1-Aug-07	672	46	<0.0005	0.0009	0.00783	0.08	0.0002	11.2	1.3	<0.00001	0.00349	0.00228	2.06	<0.001	1.64	<0.00001	<2	0.000179	<0.0001	<0.0005	0.0028
8-Aug-07	679																				
15-Aug-07	686	38.9	<0.0005	0.00071	0.00122	0.041	<0.00005	10.7	1.25	<0.00001	0.00371	0.00146	2.04	<0.001	1.52	<0.00001	<2	0.000197	<0.0001	<0.0005	0.0014
22-Aug-07	693																				
29-Aug-07	700	38.5	<0.0005	0.00161	0.0119	<0.03	<0.00005	10.2	1.23	<0.00001	0.00382	0.00304	1.95	<0.001	1.57	<0.00001	<2	0.00128	<0.0001	<0.0005	0.0045
5-Sep-07	707																				
12-Sep-07	714	36.9	<0.0005	0.00177	0.00507	<0.03	0.000122	11.6	1.4	<0.00001	0.00423	0.00312	1.87	<0.001	1.49	<0.00001	<2	0.00158	<0.0001	<0.0005	0.0059
19-Sep-07	721																				
26-Sep-07	728	43	<0.0005	0.00062	0.00218	0.144	<0.00005	11.9	1.52	<0.00001	0.0044	0.0013	1.96	<0.001	1.59	<0.00001	<2	0.000107	<0.0001	<0.0005	0.0017
3-Oct-07	735																				
10-Oct-07	742																				
17-Oct-07	749																				
24-Oct-07	756	33.3	<0.0005	0.00282	0.00332	<0.03	0.000185	9.8	1.29	<0.00001	0.00412	0.00519	1.69	<0.001	1.42	<0.00001	<2	0.00197	<0.0001	<0.0005	0.0086
31-Oct-07	763																				
7-Nov-07	770																				
14-Nov-07	777																				
21-Nov-07	784	37.8	<0.0005	0.00256	0.00376	<0.03	0.000297	11.3	1.49	<0.00001	0.00357	0.00551	1.84	<0.001	1.23	<0.00001	<2	0.00266	<0.0001	<0.0005	0.0058
28-Nov-07	791																				
5-Dec-07	798																				
12-Dec-07	805																				
19-Dec-07	812	42.2	0.00056	0.00335	0.0133	<0.03	<0.00005	11.3	1.56	0.000011	0.00301	0.00673	1.81	0.0012	1.09	<0.00001	<2	0.00226	<0.0001	<0.0005	0.0136
26-Dec-07	819																				
2-Jan-08	826																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Jan-08	833	200	200																			
16-Jan-08	840	400	400	7.28	468	331	<1	9.75	72.73	225	157	<0.5	0.31	112	0.0036	0.0028	0.00171	0.0104	<0.0002	<0.0005	<0.01	0.000147
23-Jan-08	847	200	200																			
30-Jan-08	854	400	400	7.34	448	352																
6-Feb-08	861	200	200																			
13-Feb-08	868	400	400	7.38	432	365	<1	9.47	74.64	245	185	<0.5	0.334	116	0.0021	0.00261	0.00175	0.0107	<0.0002	<0.0005	<0.01	0.000128
20-Feb-08	875	200	200																			
27-Feb-08	882	400	400	7.34	434	367																
5-Mar-08	889	200	200																			
12-Mar-08	896	400	400	7.44	419	389	<1	7.67	73.67	244	189	<0.5	0.308	130	0.0048	0.00267	0.00222	0.0125	<0.0002	<0.0005	<0.01	0.000158
19-Mar-08	903	200	200																			
26-Mar-08	910	400	400	7.28	428	370																
2-Apr-08	917	200	200																			
9-Apr-08	924	400	400	7.39	412	420	<1	6.88	71.49	258	204	<0.5	0.306	134	0.0028	0.00233	0.0019	0.0121	<0.0002	<0.0005	<0.01	0.000148
16-Apr-08	931	200	200																			
23-Apr-08	938	400	400	7.5	405	389																
30-Apr-08	945	200	200																			
7-May-08	952	400	400	7.51	342	398	<1	7.51	71.74	263	208	<0.5	0.324	140	0.0014	0.00235	0.00167	0.0121	<0.0002	<0.0005	<0.01	0.000155
14-May-08	959	200	200																			
21-May-08	966	400	400	7.38	287	405																
28-May-08	973	200	200																			
4-Jun-08	980	400	400	7.53	400	348	<1	6.82	74.07	276	200	<0.5	0.339	141	0.0012	0.00193	0.00129	0.0119	<0.0002	<0.0005	<0.01	0.000155
11-Jun-08	987	200	200																			
18-Jun-08	994	400	400	7.35	259	307																
25-Jun-08	1001	200	200																			
2-Jul-08	1008	400	400	7.44	342	367	<1	6.37	61.59	270	204	<0.5	0.343	140	0.0017	0.00213	0.00163	0.0117	<0.0002	<0.0005	<0.01	0.000137
9-Jul-08	1015	200	200																			
16-Jul-08	1022	400	400	7.4	337	407																
23-Jul-08	1029	200	200																			
30-Jul-08	1036	400	400	7.42	377	423	<1	7.46	78.53	277	202	<0.5	0.314	141	0.0014	0.00159	0.00135	0.0108	<0.0002	<0.0005	<0.01	0.000128
6-Aug-08	1043	200	200																			
13-Aug-08	1050	400	400	7.49	241	419																
20-Aug-08	1057	200	200																			
27-Aug-08	1064	400	400	7.42	327	374	<1	7.76	71.24	242	182	<0.5	0.313	128	0.0064	0.00183	0.00134	0.00965	<0.0002	<0.0005	<0.01	0.000165
3-Sep-08	1071	200	200																			
10-Sep-08	1078	400	400	7.67	319	398																
17-Sep-08	1085	200	200																			
24-Sep-08	1092	400	400	7.37	299	428	<1	7.15	62.52	271	202	<0.5	0.297	148	0.0018	0.00233	0.00157	0.0114	<0.0002	<0.0005	<0.01	0.000215
1-Oct-08	1099	200	200																			
8-Oct-08	1106	400	400	7.44	393	400																
15-Oct-08	1113	200	200																			
22-Oct-08	1120	400	400	7.4	408	409	<1	6.23	63.24	299	206	<0.5	0.333	154	0.0099	0.00199	0.0016	0.0111	<0.0002	<0.0005	<0.01	0.000172
29-Oct-08	1127																					
5-Nov-08	1134	50	50	7.41	436	422																
12-Nov-08	1141																					
19-Nov-08	1148	400	400	7.52	420	385	<1	5.87	67.39	302	220	<0.5	0.311	164	0.0022	0.0021	0.00138	0.0122	<0.0002	<0.0005	<0.01	0.000191
26-Nov-08	1155																					
3-Dec-08	1162	50	50	7.55	303	440																
10-Dec-08	1169																					
17-Dec-08	1176	400	400	7.32	282	451				307	204	<0.5	0.353	167	0.0027	0.00172	0.0012	0.0102	<0.0002	<0.0005	<0.01	0.000167
24-Dec-08	1183																					
31-Dec-08	1190	50	50	7.41	245	461																
7-Jan-09	1197																					
14-Jan-09	1204	400	400	7.5	292	444	<1	9.81	82.82	332	236	<0.5	0.292	166	0.0056	0.00204	0.00156	0.0116	<0.0002	<0.0005	<0.01	0.000189
21-Jan-09	1211																					
28-Jan-09	1218	50	50	7.35	267	421																
4-Feb-09	1225																					
11-Feb-09	1232	400	400	7.51	303	445	<1	13.04	83.13	315	238	<0.5	0.346	168	0.0021	0.00176	0.0015	0.0105	<0.0002	<0.0005	<0.01	0.000176
18-Feb-09	1239																					
25-Feb-09	1246	50	50	7.52		421																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Jan-08	833																				
16-Jan-08	840	44.8	<0.0005	0.00261	0.0751	<0.03	0.00412	11	1.35	<0.00001	0.00221	0.00514	1.67	0.0015	1.06	<0.00001	<2	0.00166	<0.0001	<0.0005	0.0115
23-Jan-08	847																				
30-Jan-08	854																				
6-Feb-08	861																				
13-Feb-08	868	51.3	<0.0005	0.0025	0.0138	<0.03	<0.00005	13.8	1.86	<0.00001	0.00225	0.00477	1.92	0.0016	0.982	<0.00001	<2	0.00159	0.00013	<0.0005	0.0082
20-Feb-08	875																				
27-Feb-08	882																				
5-Mar-08	889																				
12-Mar-08	896	52.2	<0.0005	0.00263	0.0145	<0.03	<0.00005	14.2	2.12	0.000018	0.00233	0.00433	1.96	0.002	1.04	<0.00001	<2	0.00183	<0.0001	<0.0005	0.0077
19-Mar-08	903																				
26-Mar-08	910																				
2-Apr-08	917																				
9-Apr-08	924	56.8	<0.0005	0.00249	0.0208	<0.03	0.000072	15.2	1.92	<0.00001	0.00222	0.00428	2.06	0.0018	0.998	<0.00001	<2	0.00172	<0.0001	<0.0005	0.0141
16-Apr-08	931																				
23-Apr-08	938																				
30-Apr-08	945																				
7-May-08	952	54.4	<0.0005	0.00243	0.0165	<0.03	<0.00005	17.5	2.44	<0.00001	0.00223	0.00396	2.08	0.0019	0.974	<0.00001	<2	0.00191	<0.0001	<0.0005	0.0093
14-May-08	959																				
21-May-08	966																				
28-May-08	973																				
4-Jun-08	980	54.4	<0.0005	0.00244	0.0178	<0.03	<0.00005	15.6	2.25	<0.00001	0.00187	0.00388	1.85	0.0018	0.959	<0.00001	<2	0.00147	<0.0001	<0.0005	0.0124
11-Jun-08	987																				
18-Jun-08	994																				
25-Jun-08	1001																				
2-Jul-08	1008	56.1	<0.0005	0.00208	0.0116	<0.03	<0.00005	15.7	1.74	<0.00001	0.00224	0.00275	2.04	0.0021	0.998	<0.00001	<2	0.00172	<0.0001	<0.0005	0.0082
9-Jul-08	1015																				
16-Jul-08	1022																				
23-Jul-08	1029																				
30-Jul-08	1036	57.2	<0.0005	0.00199	0.0153	<0.03	<0.00005	14.4	1.78	<0.00001	0.00201	0.00321	1.78	0.0015	0.998	<0.00001	<2	0.00109	<0.0001	<0.0005	0.0114
6-Aug-08	1043																				
13-Aug-08	1050																				
20-Aug-08	1057																				
27-Aug-08	1064	50.9	<0.0005	0.00159	0.0125	<0.03	0.000099	13.4	1.54	<0.00001	0.00276	0.00265	1.52	0.0012	0.921	<0.00001	<2	0.00158	<0.0001	<0.0005	0.0092
3-Sep-08	1071																				
10-Sep-08	1078																				
17-Sep-08	1085																				
24-Sep-08	1092	55.3	<0.0005	0.00263	0.0188	<0.03	<0.00005	15.5	1.7	<0.00001	0.00275	0.00389	1.88	0.0025	0.866	<0.00001	<2	0.0022	<0.0001	<0.0005	0.011
1-Oct-08	1099																				
8-Oct-08	1106																				
15-Oct-08	1113																				
22-Oct-08	1120	56.7	<0.0005	0.00228	0.0193	<0.03	0.000647	15.7	1.89	<0.00001	0.0037	0.0041	1.88	0.0024	0.84	<0.00001	<2	0.00187	<0.0001	<0.0005	0.0099
29-Oct-08	1127																				
5-Nov-08	1134																				
12-Nov-08	1141																				
19-Nov-08	1148	61.7	<0.0005	0.0025	0.0248	<0.03	<0.00005	15.6	1.69	<0.00001	0.00414	0.00407	1.88	0.0025	0.816	<0.00001	<2	0.00195	<0.0001	<0.0005	0.0128
26-Nov-08	1155																				
3-Dec-08	1162																				
10-Dec-08	1169																				
17-Dec-08	1176	62.2	<0.0005	0.00186	0.0209	<0.03	<0.00005	11.8	1.24	<0.00001	0.00367	0.00292	1.64	0.0022	0.815	<0.00001	<2	0.00186	<0.0001	<0.0005	0.0107
24-Dec-08	1183																				
31-Dec-08	1190																				
7-Jan-09	1197																				
14-Jan-09	1204	61.9	0.00068	0.00214	0.0196	<0.03	<0.00005	19.6	1.93	<0.00001	0.00625	0.00348	2.25	0.0026	0.853	<0.00001	<2	0.00201	<0.0001	<0.0005	0.0107
21-Jan-09	1211																				
28-Jan-09	1218																				
4-Feb-09	1225																				
11-Feb-09	1232	63	<0.0005	0.00173	0.0188	<0.03	<0.00005	19.6	2.04	<0.00001	0.00709	0.00272	1.83	0.0024	0.849	<0.00001	<2	0.00177	<0.0001	<0.0005	0.0093
18-Feb-09	1239																				
25-Feb-09	1246																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
4-Mar-09	1253																					
11-Mar-09	1260	400	400	7.45	256	476	<1	8.1	80.47	329	251	<0.5	0.378	186	0.0037	0.00201	0.0017	0.0124	<0.0002	<0.0005	0.016	0.0002
18-Mar-09	1267																					
25-Mar-09	1274	50	50	7.37	331	482																
1-Apr-09	1281																					
8-Apr-09	1288	400	400	7.49	343	479	<1	7.2	80.43	349	251	<0.5	0.347	188	0.0011	0.00211	0.00161	0.0124	<0.0002	<0.0005	<0.01	0.000215
15-Apr-09	1295																					
22-Apr-09	1302	50	50	7.65	288	495																
29-Apr-09	1309																					
6-May-09	1316	400	400	7.39	331	483	<1	8.21	77.76	332	271	<0.5	0.339	190	0.0022	0.00204	0.00172	0.0117	<0.0002	<0.0005	<0.01	0.000184
13-May-09	1323																					
20-May-09	1330	50	50	7.41	333	469																
27-May-09	1337																					
3-Jun-09	1344	400	400	7.4	339	490	<1	7.81	80.42	356		<0.5	0.395	194								
10-Jun-09	1351																					
17-Jun-09	1358	50	50	7.36	336	479																
24-Jun-09	1365																					
1-Jul-09	1372	400	400	7.4	283	501	<1	9.67	96.33	377		<0.5	0.309	197								
8-Jul-09	1379																					
15-Jul-09	1386	50	50	7.41	308	495																
22-Jul-09	1393																					
29-Jul-09	1400	400	400	7.33	262	498	<1	13.32	94.74	361		<0.5	0.347	195								
5-Aug-09	1407																					
12-Aug-09	1414	50	50	7.32	200	501																
19-Aug-09	1421																					
26-Aug-09	1428	400	400	7.36	188	499	<1	10.86	94.06	367		<0.5	0.332	194								
2-Sep-09	1435																					
9-Sep-09	1442	50	50	7.49	224	503																
16-Sep-09	1449																					
23-Sep-09	1456	400	400	7.39	262	491	<1	10.15	95.71	332		<0.5	0.31	185								
30-Sep-09	1463																					
7-Oct-09	1470	50	50	7.12	206	477																
14-Oct-09	1477																					
21-Oct-09	1484	400	400	7.32	210	456	<1	9.04	85.31	329		<0.5	0.319	175								

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Mar-09	1253																				
11-Mar-09	1260	67.5	<0.0005	0.00187	0.0233	<0.03	<0.00005	20.1	1.91	<0.00001	0.0087	0.00299	2.12	0.0025	0.839	<0.00001	<2	0.00202	<0.0001	<0.0005	0.0109
18-Mar-09	1267																				
25-Mar-09	1274																				
1-Apr-09	1281																				
8-Apr-09	1288	68.6	<0.0005	0.00189	0.025	<0.03	<0.00005	19.3	1.86	<0.00001	0.00979	0.00303	2.09	0.0027	0.907	<0.00001	<2	0.00217	<0.0001	<0.0005	0.0117
15-Apr-09	1295																				
22-Apr-09	1302																				
29-Apr-09	1309																				
6-May-09	1316	69.1	<0.0005	0.00163	0.0215	<0.03	<0.00005	23.9	2.36	<0.00001	0.0133	0.00304	2.01	0.0025	0.875	<0.00001	<2	0.00188	0.00016	<0.0005	0.0099
13-May-09	1323																				
20-May-09	1330																				
27-May-09	1337																				
3-Jun-09	1344																				
10-Jun-09	1351																				
17-Jun-09	1358																				
24-Jun-09	1365																				
1-Jul-09	1372																				
8-Jul-09	1379																				
15-Jul-09	1386																				
22-Jul-09	1393																				
29-Jul-09	1400																				
5-Aug-09	1407																				
12-Aug-09	1414																				
19-Aug-09	1421																				
26-Aug-09	1428																				
2-Sep-09	1435																				
9-Sep-09	1442																				
16-Sep-09	1449																				
23-Sep-09	1456																				
30-Sep-09	1463																				
7-Oct-09	1470																				
14-Oct-09	1477																				
21-Oct-09	1484																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3115-0988-1008	SAC 4	Blank rows indicate that no solution was input or output during that week																				
28-Sep-05	0	400	400	7.73	245	958	<1	11	36	647	335	6.11	0.696	393	0.0252	0.0216	0.00411	0.0768	<0.0002	<0.0005	0.074	<0.00005
5-Oct-05	7	400	400	7.53	233	1129																
12-Oct-05	14	400	400	7.99	372	1065	<1	3.5	90.5	682	377	5.41	0.685	389	0.0118	0.0303	0.00495	0.0703	<0.0002	<0.0005	0.158	0.000056
19-Oct-05	21	200	200	7.63	391	905																
26-Oct-05	28	400	400	7.77	378	822	<1	6.5	99	522	288	3.34	0.668	280	0.0111	0.0248	0.0043	0.0551	<0.0002	<0.0005	0.121	<0.00005
2-Nov-05	35	200	200	7.71	335	672																
9-Nov-05	42	400	400	7.85	298	547	<1	7	106	362	206	2.09	0.632	182	0.0108	0.0248	0.00513	0.0486	<0.0002	<0.0005	0.086	<0.00005
16-Nov-05	49	200	200	7.74	304	499																
23-Nov-05	56	400	400	7.98	305	434	<1	5.5	108.5	265	167	1.22	0.579	113	0.0122	0.0228	0.00529	0.0469	<0.0002	<0.0005	0.071	<0.00005
30-Nov-05	63	200	200	7.91	399	390																
7-Dec-05	70	400	400	7.9	290	361	<1	3.5	106	225	138	0.78	0.509	76.3	0.0129	0.02	0.0052	0.0456	<0.0002	<0.0005	0.05	<0.00005
14-Dec-05	77	200	200	7.83	343	324																
21-Dec-05	84	400	400	7.92	334	275	<1	6.5	102	179	121	0.53	0.436	52.8	0.0124	0.0203	0.00534	0.0542	<0.0002	<0.0005	0.033	<0.00005
28-Dec-05	91	200	200	7.94	288	262																
4-Jan-06	98	400	400	7.92	397	261	<1	4.5	104.5	156	111	<0.5	0.316	40	0.0108	0.0189	0.0051	0.0578	<0.0002	<0.0005	0.027	<0.00005
11-Jan-06	105	200	200	7.88	237	257																
18-Jan-06	112	400	400	7.76	383	258	<1	4	93	117	102	<0.5	0.307	31.3	0.0145	0.0208	0.00578	0.0653	<0.0002	<0.0005	0.023	<0.00005
25-Jan-06	119	200	200	7.87	252	236																
1-Feb-06	126	400	400	7.9	307	227	<1	2.5	93	100	99.2	<0.5	0.283	25.4	0.0109	0.0195	0.00568	0.0664	<0.0002	<0.0005	0.02	<0.00005
8-Feb-06	133	200	200	7.88	252	222																
15-Feb-06	140	400	400	8	430	206	<1	4	89.5	112	94.9	<0.5	0.215	23	0.0122	0.0169	0.00875	0.0672	<0.0002	<0.0005	0.017	<0.00005
22-Feb-06	147	200	200	7.83	440	218																
1-Mar-06	154	400	400	7.87	397	209	<1	2	85.5	111	91.9	<0.5	0.171	20.8	0.0119	0.0141	0.0105	0.0681	<0.0002	<0.0005	0.014	<0.00005
8-Mar-06	161	200	200	7.66	394	202																
15-Mar-06	168	400	400	7.96	332	214	<1	2.25	80.5	122	92.9	<0.5	0.144	19.4	0.0137	0.0135	0.011	0.0641	<0.0002	<0.0005	0.013	<0.00005
22-Mar-06	175	200	200	7.66	315	213																
29-Mar-06	182	400	400	7.89	312	210	<1	3	88	115	91.1	0.53	0.142	19.3	0.159	0.013	0.00973	0.0588	<0.0002	<0.0005	0.024	<0.00005
5-Apr-06	189	200	200	7.87	282	238																
12-Apr-06	196	400	400	7.9	397	205	<1	2.5	86	54	94.4	1.57	0.12	19.3	0.0128	0.0121	0.00833	0.0582	<0.0002	<0.0005	0.011	<0.00005
19-Apr-06	203	200	200	7.78	443	219																
26-Apr-06	210	400	400	8.13	393	204	<1	1	91	119	97.7	0.61	0.126	19.4	0.0271	0.0139	0.00882	0.0611	<0.0002	<0.0005	0.012	<0.00005
3-May-06	217	200	200	8.07	154	215																
10-May-06	224	400	400	8	223	219	<1	3.28	90.98	132	96.1	0.64	0.122	19.9	0.0132	0.0135	0.00822	0.0651	<0.0002	<0.0005	0.011	<0.00005
17-May-06	231	200	200	8.08	146	219																
24-May-06	238	400	400	7.96	245	210	<1	4.11	84.96	120	89.8	<0.5	<0.02	19.4	0.0116	0.0125	0.005	0.0577	<0.0002	<0.0005	<0.01	<0.00005
31-May-06	245	200	200	8.06	146	213																
7-Jun-06	252	400	400	7.93	264	212	<1	4.21	84.37	130	96.7	<0.5	0.081	21.2	0.0142	0.0126	0.00408	0.0598	<0.0002	<0.0005	<0.01	<0.00005
14-Jun-06	259	200	200	8.05	208	213																
21-Jun-06	266	400	400	7.96	284	214	<1	2.96	86.98	130	97.9	<0.5	0.086	24.8	0.0144	0.0131	0.003	0.0552	<0.0002	<0.0005	<0.01	<0.00005
28-Jun-06	273	200	200	7.99	203	200																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3115-0988-1008	SAC 4																				
28-Sep-05	0	83.8	0.00136	0.00158	0.0302	<0.03	<0.00005	30.5	0.136	0.000014	0.0461	0.00398	17.2	0.0248	2.21	0.00001	43.2	0.000051	0.00018	0.00115	0.0109
5-Oct-05	7																				
12-Oct-05	14	93.2	<0.003	0.00143	0.0226	<0.03	0.000096	35	0.224	<0.00001	0.0428	0.00478	17.5	0.0344	3.87	<0.00001	47	<0.00005	0.00013	<0.002	0.0082
19-Oct-05	21																				
26-Oct-05	28	73.5	0.00072	0.00088	0.0168	<0.03	<0.00005	25.4	0.161	<0.00001	0.0318	0.00358	14.3	0.0209	4.37	<0.00001	36.6	<0.00005	<0.0001	<0.003	0.007
2-Nov-05	35																				
9-Nov-05	42	50	<0.001	0.00061	0.00375	<0.03	<0.00005	19.7	0.136	<0.00001	0.0268	0.00277	11.5	0.014	4.31	<0.00001	24.5	<0.00005	<0.0001	<0.003	0.0031
16-Nov-05	49																				
23-Nov-05	56	41.1	0.00065	0.00046	0.00242	0.034	<0.00005	15.6	0.117	<0.00001	0.021	0.00187	10.7	0.0088	4.24	<0.00001	18.1	<0.00005	<0.0001	0.0018	0.0022
30-Nov-05	63																				
7-Dec-05	70	34.4	<0.0005	0.00028	0.00158	<0.03	<0.00005	12.6	0.0974	<0.00001	0.0138	0.00135	8.89	0.0051	4.24	<0.00001	14.1	<0.00005	<0.0001	0.00123	0.0015
14-Dec-05	77																				
21-Dec-05	84	30	<0.001	0.00022	0.00202	<0.03	<0.00005	11.1	0.0896	<0.00001	0.0115	0.00117	8.37	0.0035	4.03	<0.00001	11.5	<0.00005	<0.0001	<0.002	0.0011
28-Dec-05	91																				
4-Jan-06	98	28.3	<0.0005	0.00018	0.00142	<0.03	<0.00005	9.89	0.0797	<0.00001	0.00802	0.00077	7.59	0.0028	4.1	<0.00001	9.4	<0.00005	<0.0001	0.00099	<0.001
11-Jan-06	105																				
18-Jan-06	112	24.1	<0.0005	0.00018	0.00149	<0.03	0.000068	10.1	0.0779	<0.00001	0.00723	0.00064	7.32	0.0024	3.92	<0.00001	7.1	<0.00005	<0.0001	0.00086	0.0022
25-Jan-06	119																				
1-Feb-06	126	24.8	<0.0005	0.00013	0.00118	<0.03	<0.00005	9.05	0.0721	<0.00001	0.0059	<0.0005	6.52	0.0019	3.79	<0.00001	5.7	<0.00005	<0.0001	0.00074	0.001
8-Feb-06	133																				
15-Feb-06	140	24.1	<0.0005	0.0003	0.00427	<0.03	<0.00005	8.46	0.0705	<0.00001	0.0049		6.3	0.0017	4	<0.00001	5.2	<0.00005	<0.0001	0.00071	0.0038
22-Feb-06	147																				
1-Mar-06	154	22.5	<0.0005	0.0001	0.00327	<0.03	<0.00005	8.65	0.0636	<0.00001	0.00398	<0.0005	5.49	0.0015	3.39	<0.00001	3.7	<0.00005	<0.0001	0.00069	0.0014
8-Mar-06	161																				
15-Mar-06	168	22.8	0.00125	0.0001	0.00134	<0.03	<0.00005	8.75	0.0718	<0.00001	0.00384	<0.0005	5.5	0.0014	3.25	<0.00001	3	<0.00005	<0.0001	0.00072	<0.001
22-Mar-06	175																				
29-Mar-06	182	23.6	0.00073	0.0001	0.018	<0.03	0.000517	7.84	0.0758	<0.00001	0.00357	<0.0005	5.11	0.0014	3.4	<0.00001	2.7	<0.00005	<0.0001	0.00093	
5-Apr-06	189																				
12-Apr-06	196	24	0.00092	0.00011	0.00134	<0.03	0.000073	8.35	0.0784	<0.00001	0.00339	0.00092	5.11	<0.001	3.02	<0.00001	2.2	<0.00005	<0.0001	0.00057	0.0026
19-Apr-06	203																				
26-Apr-06	210	25.2	<0.0005	0.00012	0.00206	<0.03	0.00019	8.47	0.0915	<0.00001	0.00372	0.0005	5.39	<0.001	3.33	<0.00001	2.2	<0.00005	<0.0001	<0.0005	0.0032
3-May-06	217																				
10-May-06	224	23.7	<0.0005	0.00012	0.00175	<0.03	0.000497	8.96	0.0884	<0.00001	0.00362	<0.0005	5.26	<0.001	3.36	<0.00001	2	<0.00005	0.00015	0.00057	0.0012
17-May-06	231																				
24-May-06	238	23.4	<0.0005	0.00011	0.00192	<0.03		7.61	0.0876	<0.00001	0.00328	<0.0005	4.49	<0.001	3.08	<0.00001	<2	<0.00005	<0.0001	0.00057	0.0017
31-May-06	245																				
7-Jun-06	252	24.6	<0.0005	0.00015	0.00485	<0.03	0.000169	8.56	0.0951	<0.00001	0.0032	0.00099	4.37	<0.001	2.8	<0.00001	<2	<0.00005	<0.0001	0.00057	0.0028
14-Jun-06	259																				
21-Jun-06	266	24.7	<0.0005	0.00016	0.00152	<0.03	0.000055	8.82	0.106	<0.00001	0.00322	<0.0005	4.61	0.0015	2.63	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
28-Jun-06	273																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3123-0438-0458	SAC 3	Blank rows indicate that no solution was input or output during that week																				
28-Sep-05	0	400	400	7.78	252	1320	<1	4	47	987	612	2.08	0.962	599	0.0169	0.0205	0.00319	0.116	<0.0004	<0.001	0.105	<0.0001
5-Oct-05	7	400	400	7.48	237	1456																
12-Oct-05	14	400	400	8.04	358	1388	<1	4	96	986	626	2.45	1.37	556	0.0107	0.0218	<0.004	0.0799	<0.001	<0.0025	0.191	<0.00025
19-Oct-05	21	200	200	7.53	379	1143																
26-Oct-05	28	400	400	7.67	409	1096	<1	10	115	729	469	1.78	0.626	403	0.0092	0.0196	0.00308	0.0719	<0.0004	<0.001	0.168	<0.0001
2-Nov-05	35	200	200	7.63	335	844																
9-Nov-05	42	400	400	7.69	304	704	<1	13.5	125	515	626	1.18	1.16	259	0.0056	0.021	0.0035	0.0664	<0.0002	<0.0005	0.125	<0.00005
16-Nov-05	49	200	200	7.69	317	607																
23-Nov-05	56	400	400	7.82	315	529	<1	6.5	128	350	244	0.65	1	140	0.0092	0.0166	0.00205	0.0553	<0.0002	<0.0005	0.094	<0.00005
30-Nov-05	63	200	200	7.87	394	454																
7-Dec-05	70	400	400	7.94	272	412	<1	4.5	123.5	262	180	<0.5	0.722	83.5	0.0083	0.0157	<0.003	0.0593	<0.0002	<0.0005	0.065	<0.00005
14-Dec-05	77	200	200	7.92	249	343																
21-Dec-05	84	400	400	7.94	334	289	<1	4.5	115.5	190	138	0.61	0.715	48.2	0.0098	0.0027	0.00281	0.063	<0.0002	<0.0005	0.035	<0.00005
28-Dec-05	91	200	200	7.94	297	271																
4-Jan-06	98	400	400	7.97	405	285	<1	4	118	156	132	<0.5	0.41	29.9	0.0087	0.00155	0.00419	0.0634	<0.0002	<0.0005	0.03	<0.00005
11-Jan-06	105	200	200	7.85	246	284																
18-Jan-06	112	400	400	7.89	301	293	<1	5	133	152	131	<0.5	0.412	12.7	0.01	0.00101	0.00596	0.0885	<0.0002	<0.0005	0.027	<0.00005
25-Jan-06	119	200	200	7.75	248	277																
1-Feb-06	126	400	400	7.89	319	276	<1	3.5	136.5	122	135	<0.5	0.25	7.5	0.007	0.000818	0.00631	0.104	<0.0002	<0.0005	0.025	<0.00005
8-Feb-06	133	200	200	7.67	258	262																
15-Feb-06	140	400	400	7.97	406	259	<1	4	121	150	123	<0.5	0.295	13.3	0.0089	0.000904	0.00594	0.113	<0.0002	<0.0005	0.022	<0.00005
22-Feb-06	147	200	200	8.01	416	250																
1-Mar-06	154	400	400	7.85	368	264	<1	2.75	122.5	141	126	<0.5	0.264	19.8	0.008	0.00238	0.00386	0.0933	<0.0002	<0.0005	0.02	<0.00005
8-Mar-06	161	200	200	7.79	364	284																
15-Mar-06	168	400	400	7.92	320	291	<1	4.5	126	142	132	<0.5	0.26	22.8	0.0109	0.0016	0.00336	0.0812	<0.0002	<0.0005	0.018	<0.00005
22-Mar-06	175	200	200	7.6	316	302																
29-Mar-06	182	400	400	7.85	254	293	<1	4	120	164	136	<0.5	0.29	25.8	0.0068	0.00156	0.00266	0.0687	<0.0002	<0.0005	0.018	<0.00005
5-Apr-06	189	200	200	7.81	275	341																
12-Apr-06	196	400	400	7.9	404	293	<1	4	123	184	140	<0.5	0.277	26.6	0.0074	0.00138	0.00228	0.0605	<0.0002	<0.0005	0.016	<0.00005
19-Apr-06	203	200	200	7.69	449	320																
26-Apr-06	210	400	400	7.97	410	287	<1	2.25	129.5	179	140	<0.5	0.295	30.7	0.0082	0.00223	0.00187	0.0539	<0.0002	<0.0005	0.018	<0.00005
3-May-06	217	200	200	8.08	147	306																
10-May-06	224	400	400	8.07	171	312	<1	3.95	125.39	185	140	<0.5	0.286	35.5	0.0072	0.00228	0.00167	0.0525	<0.0002	<0.0005	0.017	<0.00005
17-May-06	231	200	200	8.1	146	312																
24-May-06	238	400	400	8.03	161	323	<1	4.37	123.86	180	146	<0.5	0.26	40.2	0.0066	0.00285	0.00128	0.048	<0.0002	<0.0005	0.016	<0.00005
31-May-06	245	200	200	8.11	135	328																
7-Jun-06	252	400	400	8	208	323	<1	5.02	121.52	202	152	<0.5	0.257	44	0.0327	0.00246	0.00127	0.045	<0.0002	<0.0005	0.016	<0.00005
14-Jun-06	259	200	200	8.09	213	338																
21-Jun-06	266	400	400	8.07	203	327	<1	3.26	125.89	210	159	<0.5	0.237	50.3	0.0073	0.00237	0.0012	0.0424	<0.0002	<0.0005	0.017	<0.00005
28-Jun-06	273	200	200	8.09	130	316																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3123-0438-0458	SAC 3																				
28-Sep-05	0	172	0.003	0.00123	0.0318	<0.03	<0.0001	44.1	0.118	0.000012	0.0117	0.0041	27.4	0.0468	1.82	0.000033	18.7	<0.0001	0.00021	<0.001	0.0154
5-Oct-05	7																				
12-Oct-05	14	182	<0.004	0.00109	0.0325	<0.03	<0.00025	41.9	0.165	0.000047	0.011	0.0047	26.2	0.0538	3.51	0.000131	23.1	<0.00025	<0.0005	<0.0025	0.012
19-Oct-05	21																				
26-Oct-05	28	135	0.0021	0.00076	0.0184	<0.03	0.00012	32.1	0.124	0.000046	0.00995	0.0034	23.2	0.0467	3.75	0.000085	18	<0.0001	<0.0002	<0.002	0.0121
2-Nov-05	35																				
9-Nov-05	42	104	<0.003	0.00056	0.0077	<0.03	<0.00005	25	0.105	0.000011	0.00978	0.00228	19.7	0.0456	3.88	0.000036	14.6	0.000056	<0.0001	<0.002	0.0058
16-Nov-05	49																				
23-Nov-05	56	70.5	0.00115	0.00036	0.00447	<0.03	<0.00005	16.5	0.077	<0.00001	0.00729	0.00145	15.7	0.0199	3.57	0.000013	8.9	<0.00005	0.00011	0.00167	0.0044
30-Nov-05	63																				
7-Dec-05	70	50.8	<0.0005	0.00025	0.00383	<0.03	<0.00005	12.9	0.0634	<0.00001	0.00492	0.00089	13	0.0095	3.46	0.000051	6.4	<0.00005	<0.0001	0.00076	0.0042
14-Dec-05	77																				
21-Dec-05	84	38.4	<0.001	<0.0001	0.00302	<0.03	<0.00005	10.2	0.0477	<0.00001	0.00374	0.00057	11.5	0.0057	3.04	<0.00001	4.7	<0.00005	<0.0001	<0.002	0.0012
28-Dec-05	91																				
4-Jan-06	98	37.2	<0.0005	<0.0001	0.00287	0.116	<0.00005	9.42	0.0438	<0.00001	0.00269	<0.0005	10.3	0.0031	3.04	<0.00001	3.5	<0.00005	<0.0001	0.00051	<0.001
11-Jan-06	105																				
18-Jan-06	112	35.4	<0.0005	<0.0001	0.0041	0.19	0.000066	10.2	0.0559	<0.00001	0.00292	<0.0005	9.99	0.0014	3.25	<0.00001	2.9	<0.00005	<0.0001	<0.0005	0.0023
25-Jan-06	119																				
1-Feb-06	126	37.6	<0.0005	<0.0001	0.00248	0.095	<0.00005	10.1	0.0544	<0.00001	0.00277	<0.0005	9.07	<0.001	3.15	<0.00001	2.4	<0.00005	<0.0001	<0.0005	0.0014
8-Feb-06	133																				
15-Feb-06	140	34.9	<0.0005		0.0141	0.068	<0.00005	8.68	0.0477	<0.00001	0.00241		8.4	0.0012	2.98	<0.00001	2.2	<0.00005	<0.0001	<0.0005	0.0013
22-Feb-06	147																				
1-Mar-06	154	34.8	<0.0005	<0.0001	0.00113	0.044	<0.00005	9.55	0.0449	<0.00001	0.00196	<0.0005	7.68	0.0021	2.36	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Mar-06	161																				
15-Mar-06	168	36.2	<0.0005	<0.0001	0.00146	0.067	<0.00005	10.1	0.054	<0.00001	0.00199	<0.0005	8.1	0.0021	2.33	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
22-Mar-06	175																				
29-Mar-06	182	39	0.0013	<0.0001	0.00187	<0.03	<0.00005	9.33	0.0569	<0.00001	0.002	<0.0005	7.77	0.0023	2.46	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
5-Apr-06	189																				
12-Apr-06	196	39.5	<0.0005	<0.0001	0.00841	<0.03	0.000051	10.1	0.0589	<0.00001	0.00186	<0.0005	7.77	0.0019	2.22	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
19-Apr-06	203																				
26-Apr-06	210	40.1	<0.0005	<0.0001		<0.03		9.71	0.0624	<0.00001	0.00191	0.00054	7.97	0.0022	2.39	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
3-May-06	217																				
10-May-06	224	38.8	0.00057	0.00016	0.00327	<0.03	0.00036	10.6	0.06	0.000011	0.00202	<0.0005	7.91	0.0028	2.24	<0.00001	<2	<0.00005	0.00016	<0.0005	0.0016
17-May-06	231																				
24-May-06	238	41.1	<0.0005	0.00026	0.00385	<0.03	0.00436	10.5	0.0656	<0.00001	0.00194	0.00069	7.75	0.0035	2.19	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
31-May-06	245																				
7-Jun-06	252	42.5	<0.0005		0.0154	<0.03	0.000416	11.1	0.0637	<0.00001	0.00194	<0.0005	7.26	0.0038	2.11	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0039
14-Jun-06	259																				
21-Jun-06	266	44.3	<0.0005	0.00022	0.00384	<0.03	0.000197	11.7	0.0694	<0.00001	0.00198	0.0006	7.83	0.004	1.98	<0.00001	<2	<0.00005	0.00011	<0.0005	0.0027
28-Jun-06	273																				

Subaqueous Column Data: Waste Rock

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3124-0188-0209	SAC 5	Blank rows indicate that no solution was input or output during that week																				
28-Sep-05	0	400	400	4.05	347	2350	11.5	776	<1	2430	733	<2.5	5.64	1440	34.2	0.0706	<0.01	0.0359	<0.02	<0.05	<1	0.0263
5-Oct-05	7	400	400	4.09	324	2620																
12-Oct-05	14	400	400	4.12	466	2690	11.5	734.5	<1	2750	807	<5	6.84	1650	25.7	0.0302	<0.01	0.02	<0.02	<0.05	<1	0.0259
19-Oct-05	21	200	200	4.11	498	2320																
26-Oct-05	28	400	400	4.1	478	2320	11.5	701	<1	2360	699	<5	6.13	1440	21.3	0.0289	<0.01	0.0205	<0.02	<0.05	<1	0.0198
2-Nov-05	35	200	200	4.18	466	1914																
9-Nov-05	42	400	400	4.12	427	1756	8	484	<1	1670	524	<2.5	3.85	834	14.9	0.0269	<0.01	0.0172	<0.02	<0.05	<1	0.0169
16-Nov-05	49	200	200	4.22	421	1466																
23-Nov-05	56	400	400	4.32	444	1272	3	386	<1	1210	355	0.74	2.78	682	7.99	0.0238	<0.005	0.0161	<0.01	<0.025	<0.5	0.0116
30-Nov-05	63	200	200	4.32	529	1087																
7-Dec-05	70	400	400	4.3	445	954	4	238	<1	798	256	0.65	1.93	465	5.15	0.0227	0.003	0.016	<0.004	<0.01	<0.2	0.0094
14-Dec-05	77	200	200	4.41	370	755																
21-Dec-05	84	400	400	4.43	483	638	<1	184.5	<1	536	176	0.59	1.4	327	3.45	0.0232	<0.002	0.0186	<0.004	<0.01	<0.2	0.0074
28-Dec-05	91	200	200	4.46	462	544																
4-Jan-06	98	400	400	4.5	526	488	<1	140.5	<1	409	130	0.55	1.05	235	2.25	0.0201	0.0027	0.0171	<0.004	<0.01	<0.2	0.0054
11-Jan-06	105	200	200	4.49	428	432																
18-Jan-06	112	400	400	4.53	398	410	<1	109	<1	276	88.9	0.63	0.676	176	1.41	0.0181	0.00194	0.0172	0.00058	<0.0005	0.029	0.00393
25-Jan-06	119	200	200	4.53	416	336																
1-Feb-06	126	400	400	4.6	346	291	<1	74	<1	206	70.6	<0.5	0.539	126	1.09	0.0182	0.0019	0.017	<0.002	<0.005	<0.1	0.00267
8-Feb-06	133	200	200	4.56	463	224																
15-Feb-06	140	400	400	4.88	498	214	<1	81	2	150	48.7	<0.5	0.372	90.9	0.707	0.00854	0.00118	0.0158	<0.001	<0.0025	<0.05	0.00181
22-Feb-06	147	200	200	4.74	533	218																
1-Mar-06	154	400	400	4.49	538	235	<1	52	<1	174	49.7	<0.5	0.435	99.7	0.774	0.00771	0.00104	0.0116	<0.001	<0.0025	<0.05	0.00175
8-Mar-06	161	200	200	4.59	513	240																
15-Mar-06	168	400	400	4.63	472	245	<1	58.5	<1	202	54.5	<0.5	0.439	106	0.942	0.00807	0.00101	0.0106	<0.001	<0.0025	<0.05	0.00195
22-Mar-06	175	200	200	4.3	355	270																
29-Mar-06	182	400	400	4.5	430	267	<1	56.5	<1	186	54.5	<0.5	0.495	115	0.912	0.00755	<0.001	0.00909	<0.002	<0.005	<0.1	0.00198
5-Apr-06	189	200	200	4.43	433	317																
12-Apr-06	196	400	400	4.39	467	274	1	61.5	<1	192	58.4	<0.5	0.541	122	1.09	0.00774	0.0012	0.00793	<0.002	<0.005	<0.1	0.002
19-Apr-06	203	200	200	4.31	545	310																
26-Apr-06	210	400	400	4.46	554	287	<1	67.5	<1	219	62.5	<0.5	0.611	132	1.59	0.00984	<0.001	0.0101	<0.002	<0.005	<0.1	0.00244
3-May-06	217	200	200	4.22	343	311																
10-May-06	224	400	400	4.15	343	321	1.65	70.98	<1	243	66.2	<0.5	0.649	141	1.48	0.0093	0.0013	0.0106	<0.002	<0.005	<0.1	0.00252
17-May-06	231	200	200	4.18	332	331																
24-May-06	238	400	400	4.14	347	332	2.32	79.95	<1	250	65.4	<0.5	0.713	149	1.41	0.00779	0.00076	0.00725	<0.001	<0.0025	<0.05	0.00234
31-May-06	245	200	200	4.27	332	336																
7-Jun-06	252	400	400	4.1	342	340	2.45	78.6	<1	264	71.3	<0.5	0.702	154	1.66	0.00801	0.00119	0.00793	<0.001	<0.0025	<0.05	0.00264
14-Jun-06	259	200	200	4.2	339	350																
21-Jun-06	266	400	400	4.09	338	344	2.12	84.48	<1	278	74	<0.5	0.696	163	2.01	0.00891	<0.001	0.00802	<0.002	<0.005	<0.1	0.00263
28-Jun-06	273	200	200	4.14	340	334																
5-Jul-06	280	400	400	4.2	342	360	1.49	88.48	<1	268	62.1	<0.5	0.772	170	2.05	0.00924	0.00082	0.0075	<0.001	<0.0025	<0.05	0.00255
12-Jul-06	287	200	200	4.19	329	369																
19-Jul-06	294	400	400	4	335	364	3.08	90.75	<1	276	80	<0.5	0.846	166	2.31	0.00879	<0.001	0.00752	<0.002	<0.005	<0.1	0.00259
26-Jul-06	301	200	200	4.07	348	363																
2-Aug-06	308	400	400	3.93	333	377	1.6	93.48	<1	351	77.1	<0.5	0.862	173	2.39	0.00805	<0.001	0.00688	<0.002	<0.005	<0.1	0.00301
9-Aug-06	315	200	200	4.08	329	377																
16-Aug-06	322	400	400	4.01	333	376	4.09	98.39	<1	304	78.2	<0.5	0.91	175	2.51	0.00989	<0.001	0.00772	<0.002	<0.005	<0.1	0.00312
23-Aug-06	329	200	200	4.07	337	350																
30-Aug-06	336	400	400	3.96	342	382	6.12	106.51	<1	295	78.3	<0.5	0.898	179	2.8	0.00929	<0.001	0.00698	<0.002	<0.005	<0.1	0.00347
6-Sep-06	343	200	200	4.25	292	390																
13-Sep-06	350	400	400	4.02	301	382	4.1	104.82	<1	314	78.7	<0.5	0.929	182	2.81	0.0084	<0.001	0.00711	<0.002	<0.005	<0.1	0.00303
20-Sep-06	357	200	200	4.2	333	385																
27-Sep-06	364	400	400	4.04	311	381	3.52	101.16	<1	286	79.9	<0.5	0.962	184	2.6	0.0097	<0.001	0.00797	<0.002	<0.005	<0.1	0.00313
4-Oct-06	371	200	200	4.14	275	384																
11-Oct-06	378	400	400	4.17	350	392	2.6	103.5	<1	315	81.3	<0.5	0.98	188	2.68	0.0104	<0.001	0.00797	<0.002	<0.005	<0.1	0.00316
18-Oct-06	385	200	200	4.1	328	409																
25-Oct-06	392	400	400	4.07	463	396	3.42	105.79	<1	334	81.8	<0.5	0.954	192	3.03	0.0105	0.0014	0.0102	<0.002	<0.005	<0.1	0.00373
1-Nov-06	399	200	200		393	381																
8-Nov-06	406	400	400	4.05	344	388	3.67	97.64	<1	299	76.3	<0.5	0.906	179	2.65	0.00996	0.0014	0.00745	<0.002	<0.005	<0.1	0.00301

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3124-0188-0209	SAC 5																				
28-Sep-05	0	183	<0.05	0.929	394	6.02	<0.005	66.8	2.08	<0.00001	<0.005	1.38	17.3	<0.1	7.58	<0.001	17.2	<0.005	<0.01	<0.05	1.75
5-Oct-05	7																				
12-Oct-05	14	204	<0.05	0.867	381	9.35	<0.005	72.3	2.27	<0.00001	<0.005	1.29	14.8	0.12	14.7	<0.001	21.5	<0.005	<0.01	<0.05	1.67
19-Oct-05	21																				
26-Oct-05	28	178	<0.05	0.738	334	10.6	<0.005	61.8	1.93	<0.00001	<0.005	1.13	13.7	<0.1	14.6	<0.001	<20	<0.005	<0.01	<0.05	1.47
2-Nov-05	35																				
9-Nov-05	42	132	<0.05	0.53	261	7.62	<0.005	47	1.49	<0.00001	<0.005	0.804	10.6	<0.1	14.4	<0.001	11.5	<0.005	<0.01	<0.05	1.16
16-Nov-05	49																				
23-Nov-05	56	94	<0.025	0.327	149	5.71	<0.0025	29.3	0.945	<0.00001	0.0028	0.482	8.1	<0.05	12.1	<0.0005	7.6	<0.0025	<0.005	<0.025	0.759
30-Nov-05	63																				
7-Dec-05	70	65.7	<0.01	0.238	118	4.6	<0.001	22.4	0.679	<0.00001	0.0022	0.359	7	0.029	11.6	<0.0002	5.1	0.001	<0.002	<0.01	0.61
14-Dec-05	77																				
21-Dec-05	84	43.7	<0.01	0.169	85.7	3.21	<0.001	16.1	0.481	<0.00001	0.0031	0.256	5.9	<0.02	10.9	<0.0002	3.9	<0.001	<0.002	<0.01	0.431
28-Dec-05	91																				
4-Jan-06	98	33.3	<0.01	0.118	59.7	2.62	<0.001	11.3	0.343	<0.00001	0.0019	0.18	5.2	<0.02	10.4	<0.0002	3	<0.001	<0.002	<0.01	0.316
11-Jan-06	105																				
18-Jan-06	112	22.1	0.00117	0.0804	48	2.16	0.00052	8.17	0.238	<0.00001	0.00161	0.121	3.58	0.0122	8.88	<0.00001	2	0.00056	<0.0001	0.00287	0.226
25-Jan-06	119																				
1-Feb-06	126	18	<0.005	0.0602	31.1	1.37	<0.0005	6.21	0.175	<0.00001	0.00157	0.0867	2.93	0.012	7.43	<0.0001	<2	<0.0005	<0.001	<0.005	0.165
8-Feb-06	133																				
15-Feb-06	140	12.5	<0.0025	0.0415	23.2	0.415	<0.00025	4.25	0.15	<0.00001	0.00119	0.0639	2.05	0.0125	4.35	<0.00005	<2	0.00039	<0.0005	<0.0025	0.111
22-Feb-06	147																				
1-Mar-06	154	12.9	<0.0025	0.0386	24.9	0.384	0.00042	4.26	0.109	<0.00001	0.00102	0.0585	1.78	0.013	4.34	<0.00005	<2	0.00034	<0.0005	<0.0025	0.0938
8-Mar-06	161																				
15-Mar-06	168	14.1	<0.0025	0.0442	28	0.47	<0.00025	4.69	0.129	<0.00001	0.0009	0.0689	1.89	0.0146	4.51	<0.00005	<2	0.00041	<0.0005	<0.0025	0.113
22-Mar-06	175																				
29-Mar-06	182	15.1	<0.005	0.0456	27.8	0.544	<0.0005	4.06	0.132	<0.00001	0.00103	0.0694	1.71	0.015	5.13	<0.0001	<2	<0.0005	<0.001	<0.005	0.115
5-Apr-06	189																				
12-Apr-06	196	15.6	<0.005	0.0481	29.8	0.776	<0.0005	4.74	0.138	<0.00001	0.00093	0.0767	1.91	0.018	4.79	<0.0001	<2	<0.0005	<0.001	<0.005	0.124
19-Apr-06	203																				
26-Apr-06	210	16.5	<0.005	0.0575	35.5	1.16	0.0035	5.18	0.163	0.000014	0.00107	0.0887	2.3	0.019	5.46	<0.0001	<2	<0.0005	<0.001	<0.005	0.158
3-May-06	217																				
10-May-06	224	17.2	<0.005	0.0593	36.7	1.19	0.0042	5.65	0.157	<0.00001	0.00113	0.0857	2.1	0.021	5.72	<0.0001	<2	0.0005	<0.001	<0.005	0.158
17-May-06	231																				
24-May-06	238	17.7	<0.0025	0.0559	35.8	1.28	0.00167	5.16	0.158	<0.00001	0.00096	0.0883	1.88	0.0208	6.16	<0.00005	<2	0.00048	<0.0005	<0.0025	0.155
31-May-06	245																				
7-Jun-06	252	18.8	<0.0025	0.0618	39.5	1.45	0.0003	5.94	0.188	0.000019	0.00085	0.098	1.99	0.0236	6	<0.00005	<2	0.00047	<0.0005	<0.0025	0.176
14-Jun-06	259																				
21-Jun-06	266	19.2	<0.005	0.0659	43.6	1.69	0.00071	6.34	0.18	<0.00001	0.0009	0.107	2.28	0.025	6.33	<0.0001	<2	0.00051	<0.001	<0.005	0.205
28-Jun-06	273																				
5-Jul-06	280	19.3	<0.0025	0.0631	42.2	2.06	0.00038	6.19	0.172	<0.00001	0.00084	0.101	2.06	0.0235	5.96	<0.00005	<2	0.00043	<0.0005	0.0046	0.2
12-Jul-06	287																				
19-Jul-06	294	20.2	<0.005	0.0701	48.3	2.17	0.00562	7.17	0.198	<0.00001	0.00091	0.11	2.35	0.025	6.52	<0.0001	<2	<0.0005	<0.001	<0.005	0.216
26-Jul-06	301																				
2-Aug-06	308	19.9	<0.005	0.0711	49.4	2.35	0.00189	6.66	0.21	<0.00001	0.00088	0.117	2.11	0.026	6.52	<0.0001	<2	<0.0005	<0.001	<0.005	0.223
9-Aug-06	315																				
16-Aug-06	322	20	<0.005	0.0736	51.5	2.55	0.0044	6.83	0.235	<0.00001	0.00097	0.117	2.11	0.027	6.65	<0.0001	<2	<0.0005	<0.001	<0.005	0.244
23-Aug-06	329																				
30-Aug-06	336	19.4	<0.005	0.0804	52.1	2.31	0.00478	7.21	0.227	<0.00001	0.00099	0.131	2.18	0.028	7.3	<0.0001	<2	0.00054	<0.001	<0.005	0.257
6-Sep-06	343																				
13-Sep-06	350	19.9	<0.005	0.076	52.7	2.73	<0.0005	7.03	0.205	0.00001	0.00096	0.119	2.08	0.03	7.02	<0.0001	<2	<0.0005	<0.001	<0.005	0.237
20-Sep-06	357																				
27-Sep-06	364	21	<0.005	0.0733	56.1	3.35	0.0118	6.64	0.259	<0.00001	0.00095	0.119	1.88	0.028	6.69	<0.0001	<2	0.00053	<0.001	<0.005	0.277
4-Oct-06	371																				
11-Oct-06	378	21.6	<0.005	0.0777	50.8	4.69	0.00942	6.67	0.193	0.000018	0.00084	0.126	1.84	0.025	7.36	<0.0001	<2	<0.0005	<0.001	<0.005	0.264
18-Oct-06	385																				
25-Oct-06	392	20.6	<0.005	0.0799	53.6	4.76	0.022	7.39	0.207	<0.00001	0.00083	0.125	2	0.028	7.96	<0.0001	<2	<0.0005	<0.001	<0.005	0.268
1-Nov-06	399																				
8-Nov-06	406	19.9	<0.005	0.073	51.8	3.61	0.00635	6.47	0.197	<0.00001	0.00103	0.118	1.88	0.024	6.81	<0.0001	<2	<0.0005	<0.001	<0.005	0.245

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
15-Nov-06	413	200	200	4.2	342	374																
22-Nov-06	420	400	400	4.36	329	370	4.47	106.77	<1	293	75.7	<0.5	0.901	178	2.78	0.00992	0.0014	0.00712	<0.002	<0.005	<0.1	0.00309
29-Nov-06	427	200	200	4.15	444	370																
6-Dec-06	434	400	400	4.13	424	371	5.41	70	<1	282	71.1	<0.5	0.905	177	2.59	0.00908	<0.001	0.00695	<0.002	<0.005	<0.1	0.00278
13-Dec-06	441	200	200	4.09	456	383																
20-Dec-06	448	400	400	4.21	422	377	2.61	99.06	<1	296	72.4	<0.5	0.924	181	2.64	0.0102	0.0016	0.00681	<0.002	<0.005	<0.1	0.00315
27-Dec-06	455	200	200	4.12	435	372																
3-Jan-07	462	400	400	4.1	461	381	3.41	98.87	<1	265	74.2	<0.5	0.907	175	3.12	0.00999	<0.001	0.00676	<0.002	<0.005	<0.1	0.00284
10-Jan-07	469	200	200	3.98	466	377																
17-Jan-07	476	400	400	4.16	389	376	3.03	103.83	<1	268	76.1	<0.5	0.898	177	2.78	0.0103	0.0012	0.00666	<0.002	<0.005	<0.1	0.00303
24-Jan-07	483	200	200	4	458	389																
31-Jan-07	490	400	400	3.99	497	378	4.47	103.77	<1	288	72.5	<0.5	0.924	176	2.89	0.0109	0.0017	0.00702	<0.002	<0.005	<0.1	0.00262
7-Feb-07	497	200	200	3.98	521	375																
14-Feb-07	504	400	400	3.91	499	365	5.6	100.09	<1	293	65.4	<0.5	0.856	170	3.02	0.00996	<0.001	0.00713	<0.002	<0.005	<0.1	0.0029
21-Feb-07	511	200	200	3.88	530	382																
28-Feb-07	518	400	400	4.02	441	368	5.1	103.8	<1	275	65.4	<0.5	1.02	177	2.86	0.00884	<0.001	0.00577	<0.002	<0.005	<0.1	0.00251
7-Mar-07	525	200	200	3.98	471	343																
14-Mar-07	532	400	400	3.99	449	383	4.52	100.55	<1	279	67.5	<0.5	0.893	173	3.2	0.00961	<0.001	0.00707	<0.002	<0.005	<0.1	0.00291
21-Mar-07	539	200	200	3.94	409	374																
28-Mar-07	546	400	400	4.21	391	358	2.47	95.73	<1	295	71	<0.5	0.927	174	3.26	0.0077	<0.001	0.00632	<0.002	<0.005	<0.1	0.00273
4-Apr-07	553	200	200	3.98	481	382																
11-Apr-07	560	400	400	4.05	490	374	4.61	101.98	<1	295	63.5	<0.5	0.965	174	3.01	0.00749	<0.001	0.00552	<0.002	<0.005	<0.1	0.00273
18-Apr-07	567	200	200	3.84	458	377																
25-Apr-07	574	400	400	3.96	457	346	5.15	103.09	<1	281	63.9	<0.5	0.96	173	3.41	0.00786	<0.001	0.00585	<0.002	<0.005	<0.1	0.00267
2-May-07	581	200	200	3.94	412	383																
9-May-07	588	400	400	3.98	430	345	6.88	109.51	<1	293	63	<0.5	0.946	172	3.36	0.00769	<0.001	0.00568	<0.002	<0.005	<0.1	0.00232
16-May-07	595	200	200	3.85	478	372																
23-May-07	602	400	400	3.94	487	391	6.58	107.47	<1	314	60.7	<0.5	0.979	177	3.23	0.00818	<0.001	0.00553	<0.002	<0.005	<0.1	0.00249
30-May-07	609	200	200	3.9	446	347																
6-Jun-07	616	400	400	3.88	521	362	8.36	115.84	<1	320	66.6	<0.5	1.01	182	3.81	0.00768	<0.001	0.00631	<0.002	<0.005	<0.1	0.00285
13-Jun-07	623	200	200	3.82	497	334																
20-Jun-07	630	400	400	3.86	500	415	9.69	119.67	<1	344	72	<0.5	0.917	193	4.4	0.0072	<0.001	0.0073	<0.005	<0.005	<0.1	0.00308
27-Jun-07	637	200	200	3.84	535	411																
4-Jul-07	644	400	400	3.75	509	407	13.66	118.41	<1	352	66.3	<0.5	0.836	193	4.43	0.0053	<0.002	0.0061	<0.004	<0.01	<0.2	0.0025
11-Jul-07	651	200	200	3.7	526	386																
18-Jul-07	658	400	400	3.78	547	415	12.5	128.81	<1	352	67.7	<0.5	1.04	190	4.64	0.00432	<0.001	0.00622	<0.002	<0.005	<0.1	0.00345
25-Jul-07	665	200	200	3.84	535	424																
1-Aug-07	672	400	400	3.79	488	426	12.64	131.79	<1	371	69.5	<0.5	1.08	198	4.66	0.00647	0.0024	0.00556	<0.002	<0.005	<0.1	0.0034
8-Aug-07	679	200	200	3.76	489	417																
15-Aug-07	686	400	400	3.83	561	386	12.27	124.57	<1	314	68.7	<0.5	1.02	199	5.4	0.00534	<0.001	0.00625	<0.002	<0.005	<0.1	0.00347
22-Aug-07	693	200	200	3.65	588	355																
29-Aug-07	700	400	400	3.83	582	329	14.49	133.41	<1	354	68.1	<0.5	1.05	202	5.35	0.0047	<0.002	0.0058	<0.004	<0.01	<0.2	0.0034
5-Sep-07	707	200	200	3.65	538	312																
12-Sep-07	714	400	400	3.79	577	289	16.39	137.7	<1	388	67.2	<0.5	1.06	210	5.71	0.0044	<0.002	0.0054	<0.004	<0.01	<0.2	0.0036
19-Sep-07	721	200	200	3.63	579	400																
26-Sep-07	728	400	400	3.84	541	477	15.24	141.46	<1	353	67.8	<0.5	1.08	216	5.87	0.00522	0.0015	0.00524	0.0021	<0.005	<0.1	0.00349
3-Oct-07	735	200	200																			
10-Oct-07	742	400	400	3.61	595	459																
17-Oct-07	749	200	200																			
24-Oct-07	756	400	400	3.71	584	447				379	61.6	<0.5	1.02	206	6	0.0051	<0.002	0.0051	<0.004	<0.01	<0.2	0.0029
31-Oct-07	763	200	200																			
7-Nov-07	770	400	400	3.67	596	449																
14-Nov-07	777	200	200																			
21-Nov-07	784	400	400	3.67	641	459	17.09	140.41	<1	373	66.3	<0.5	1.23	234	7.55	0.00368	<0.001	0.00441	<0.002	<0.005	<0.1	0.00345
28-Nov-07	791	200	200																			
5-Dec-07	798	400	400	3.71	637	453																
12-Dec-07	805	200	200																			
19-Dec-07	812	400	400	3.66	647	460	18.32	164.41	<1	412	66.5	<0.5	1.3	251	7.7	0.0036	<0.002	0.0043	<0.004	<0.01	<0.2	0.0035
26-Dec-07	819	200	200																			
2-Jan-08	826	400	400	3.67	634	465																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
15-Nov-06	413																				
22-Nov-06	420	19.7	<0.005	0.0734	51.8	3.41	0.0306	6.43	0.194	0.000013	0.00085	0.119	1.87	0.026	6.58	<0.0001	<2	<0.0005	<0.001	<0.005	0.252
29-Nov-06	427																				
6-Dec-06	434	18.4	<0.005	0.0732	50.4	3.26	0.00055	6.1	0.189	0.000021	0.00087	0.115	1.73	0.025	6.89	<0.0001	<2	<0.0005	<0.001	<0.005	0.248
13-Dec-06	441																				
20-Dec-06	448	19	<0.005	0.0741	48.9	4.03	0.00131	6.05	0.197	<0.00001	0.001	0.119	1.83	0.027	6.8	<0.0001	<2	<0.0005	<0.001	<0.005	0.26
27-Dec-06	455																				
3-Jan-07	462	18.8	<0.005	0.0716	48.9	3.6	0.00052	6.64	0.184	<0.00001	0.00072	0.113	1.71	0.023	6.82	<0.0001	<2	<0.0005	<0.001	<0.005	0.256
10-Jan-07	469																				
17-Jan-07	476	20.4	<0.005	0.0707	48.4	4.31	0.00796	6.09	0.176	<0.00001	0.0007	0.113	1.66	0.023	6.96	<0.0001	<2	<0.0005	<0.001	<0.005	0.255
24-Jan-07	483																				
31-Jan-07	490	18.9	<0.005	0.0674	49.4	4.53		6.15	0.164	0.000018	0.00129	0.108	1.56	0.021	6.8	0.00015	<2	<0.0005	<0.001	<0.005	0.252
7-Feb-07	497																				
14-Feb-07	504	16.3	<0.005	0.0719	50.8	3.52	0.00165	5.98	0.176	<0.00001	0.00078	0.116	1.75	0.022	6.03	<0.0001	<2	<0.0005	<0.001	<0.005	0.286
21-Feb-07	511																				
28-Feb-07	518	17.5	<0.005	0.0627	45	3.64	0.00216	5.29	0.155	<0.00001	0.00057	0.098	1.57	0.023	6.31	<0.0001	<2	<0.0005	<0.001	<0.005	0.239
7-Mar-07	525																				
14-Mar-07	532	17.5	<0.005	0.0721	54.1	4.1	<0.0005	5.79	0.172	<0.00001	0.00071	0.116	1.75	0.025	6.54	<0.0001	<2	<0.0005	<0.001	<0.005	0.271
21-Mar-07	539																				
28-Mar-07	546	18.9	<0.005	0.0727	50.6	3.99	<0.0005	5.8	0.175	<0.00001	0.00073	0.115	1.73	0.024	6.88	<0.0001	<2	<0.0005	<0.001	<0.005	0.275
4-Apr-07	553																				
11-Apr-07	560	16.7	<0.005	0.0644	47.1	3.75	<0.0005	5.28	0.155	<0.00001	0.00072	0.104	1.54	0.022	5.91	<0.0001	<2	<0.0005	<0.001	<0.005	0.251
18-Apr-07	567																				
25-Apr-07	574	16.3	<0.005	0.0687	49.8	3.91	<0.0005	5.61	0.163	<0.00001	0.00082	0.109	1.71	0.025	6.46	<0.0001	<2	<0.0005	<0.001	<0.005	0.269
2-May-07	581																				
9-May-07	588	16.4	<0.005	0.0697	51.7	4.34	<0.0005	5.37	0.158	<0.00001	0.00076	0.112	1.69	0.023	6.21	<0.0001	<2	<0.0005	<0.001	<0.005	0.271
16-May-07	595																				
23-May-07	602	16.1	<0.005	0.0638	47.8	4.74	<0.0005	4.98	0.149	<0.00001	0.0007	0.1	1.62	0.023	6.68	<0.0001	<2	<0.0005	<0.001	<0.005	0.255
30-May-07	609																				
6-Jun-07	616	17.8	<0.005	0.0657	50.5	3.61	<0.0005	5.41	0.151	<0.00001	0.00052	0.108	1.68	0.021	6.34	0.00021	<2	0.00052	<0.001	<0.005	0.288
13-Jun-07	623																				
20-Jun-07	630	18.5	<0.005	0.0718	52.6	1.61	0.00078	6.27	0.187	<0.00005	<0.0005	0.127	2.1	0.021	7.43	<0.0001	<2	<0.001	<0.001	<0.01	0.32
27-Jun-07	637																				
4-Jul-07	644	17.8	<0.01	0.0693	49.8	0.88	<0.001	5.32	0.158	<0.00001	<0.001	0.114	2.3	<0.02	7.28	<0.0002	<2	<0.001	<0.002	<0.01	0.291
11-Jul-07	651																				
18-Jul-07	658	17.6	<0.005	0.0713	57.3	0.589	<0.0005	5.73	0.161	<0.00001	<0.0005	0.118	2.68	0.02	6.89	0.0001	<2	0.00069	<0.001	<0.005	0.314
25-Jul-07	665																				
1-Aug-07	672	19	<0.005	0.0704	54.8	3.38	<0.0005	5.36	0.153	<0.00001	<0.0005	0.111	2.47	0.018	7.96	<0.0001	<2	0.00063	<0.001	<0.005	0.319
8-Aug-07	679																				
15-Aug-07	686	18	<0.005	0.0783	62.2	0.547	<0.0005	5.78	0.174	<0.00001	<0.0005	0.126	3.04	0.019	7.17	0.00015	<2	0.00075	<0.001	<0.005	0.346
22-Aug-07	693																				
29-Aug-07	700	18.3	<0.01	0.0744	61.6	0.529	<0.001	5.43	0.164	<0.00001	<0.001	0.122	2.9	<0.02	8.44	<0.0002	<2	<0.001	<0.002	<0.01	0.339
5-Sep-07	707																				
12-Sep-07	714	17.7	<0.01	0.0771	66.9	0.496	<0.001	5.58	0.167	<0.00001	<0.001	0.119	3.1	<0.02	8.29	<0.0002	<2	<0.001	<0.002	<0.01	0.333
19-Sep-07	721																				
26-Sep-07	728	18.1	<0.005	0.0712	64.2	1.57	0.00205	5.49	0.202	<0.00001	<0.0005	0.114	3.06	0.013	8.25	<0.0001	<2	0.00076	<0.001	<0.005	0.381
3-Oct-07	735																				
10-Oct-07	742																				
17-Oct-07	749																				
24-Oct-07	756	16.5	<0.01	0.0718	63.4	0.446	<0.001	4.96	0.158	<0.00001	<0.001	0.114	3.3	<0.02	8.83	<0.0002	<2	<0.001	<0.002	<0.01	0.329
31-Oct-07	763																				
7-Nov-07	770																				
14-Nov-07	777																				
21-Nov-07	784	17.4	<0.005	0.0841	74.3	0.489	<0.0005	5.54	0.181	<0.00001	<0.0005	0.127	3.61	0.014	8.89	0.00012	<2	0.00083	<0.001	<0.005	0.37
28-Nov-07	791																				
5-Dec-07	798																				
12-Dec-07	805																				
19-Dec-07	812	17.7	<0.01	0.0804	72.5	0.446	<0.001	5.43	0.159	0.00001	<0.001	0.126	3.7	<0.02	9.04	0.00024	<2	<0.001	<0.002	<0.01	0.368
26-Dec-07	819																				
2-Jan-08	826																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
9-Jan-08	833	200	200																			
16-Jan-08	840	400	400	3.6	660	472	25.67	177.13	<1	409	66.8	<0.5	1.24	248	9.1	0.0047	<0.002	0.0049	<0.004	<0.01	<0.2	0.0038
23-Jan-08	847	200	200																			
30-Jan-08	854	400	400	3.64	642	525																
6-Feb-08	861	200	200																			
13-Feb-08	868	400	400	3.62	590	547	28.81	187.53	<1	455	65.6	<0.5	1.33	251	9.11	0.0042	<0.002	0.0043	<0.004	<0.01	<0.2	0.0035
20-Feb-08	875	200	200																			
27-Feb-08	882	400	400	3.55	629	541																
5-Mar-08	889	200	200																			
12-Mar-08	896	400	400	3.59	598	572	33.04	198.41	<1	456	67.9	<0.5	1.32	269	10.7	0.0044	<0.002	0.0058	<0.004	<0.01	<0.2	0.0036
19-Mar-08	903	200	200																			
26-Mar-08	910	400	400	3.44	628	563																
2-Apr-08	917	200	200																			
9-Apr-08	924	400	400	3.52	602	619	29.72	205.46	<1	453	64.7	<0.5	1.38	275	9.65	0.0043	<0.002	0.0055	<0.004	<0.01	<0.2	0.0033
16-Apr-08	931	200	200																			
23-Apr-08	938	400	400	3.62	593	592																
30-Apr-08	945	200	200																			
7-May-08	952	400	400	3.55	442	594	36.09	200.08	<1	431	65.2	<0.5	1.42	272	11.8	0.0045	<0.002	0.0046	<0.004	<0.01	<0.2	0.0033
14-May-08	959	200	200																			
21-May-08	966	400	400	3.59	384	596																
28-May-08	973	200	200																			
4-Jun-08	980	400	400	3.62	501	520	26.76	214.68	<1	454	61.3	<0.5	1.39	274	12.2	0.0044	<0.002	0.0046	<0.004	<0.01	<0.2	0.0033
11-Jun-08	987	200	200																			
18-Jun-08	994	400	400	3.58	380	433																
25-Jun-08	1001	200	200																			
2-Jul-08	1008	400	400	3.43	455	548	46.85	198.39	<1	480	66.6	<0.5	1.27	281	12.6	0.0045	<0.002	0.0046	<0.004	<0.01	<0.2	0.0033
9-Jul-08	1015	200	200																			
16-Jul-08	1022	400	400	3.52	448	611																
23-Jul-08	1029	200	200																			
30-Jul-08	1036	400	400	3.49	445	642	38.99	226.71	<1	541	59.4	<0.5	1.47	294	14	0.0039	<0.002	0.0039	<0.004	<0.01	<0.2	0.0027
6-Aug-08	1043	200	200																			
13-Aug-08	1050	400	400	3.53	394	646																
20-Aug-08	1057	200	200																			
27-Aug-08	1064	400	400	3.47	452	639	49.84	245.49	<1	511	58	<0.5	1.43	289	13.6	0.0048	<0.002	0.0044	<0.004	<0.01	<0.2	0.004
3-Sep-08	1071	200	200																			
10-Sep-08	1078	400	400	3.34	513	653																
17-Sep-08	1085	200	200																			
24-Sep-08	1092	400	400	3.39	476	691	51.73	244.79	<1	482	56.6	<0.5	1.35	307	15.2	0.004	<0.002	0.0046	<0.004	<0.01	<0.2	0.004
1-Oct-08	1099	200	200																			
8-Oct-08	1106	400	400	3.42	566	659																
15-Oct-08	1113	200	200																			
22-Oct-08	1120	400	400	3.38	611	668	59.96	252.08	<1	544	56.7	<0.5	1.51	311	17	0.0041	<0.002	0.0044	<0.004	<0.01	<0.2	0.0036
29-Oct-08	1127																					
5-Nov-08	1134	50	50	3.27	634	679																
12-Nov-08	1141																					
19-Nov-08	1148	400	400	3.31	632	611	70.79	276.6	<1	581	58.7	<0.5	1.42	331	16	0.0033	<0.002	0.004	<0.004	<0.01	<0.2	0.0036
26-Nov-08	1155																					
3-Dec-08	1162	50	50	3.38	525	717																
10-Dec-08	1169																					
17-Dec-08	1176	400	400	3.29	470	743				576	63.8	<0.5	1.55	355	18.5	0.0041	<0.002	0.0039	0.005	<0.01	<0.2	0.0038
24-Dec-08	1183																					
31-Dec-08	1190	50	50	3.42	413	746																
7-Jan-09	1197																					
14-Jan-09	1204	400	400	3.33	465	755	88.35	327.62	<1	581	56.3	<0.5	1.63	354	17	0.004	<0.002	0.0037	0.0049	<0.01	<0.2	0.0038
21-Jan-09	1211																					
28-Jan-09	1218	50	50	3.39	417	695																
4-Feb-09	1225																					
11-Feb-09	1232	400	400	3.32	437	690	80.42	314.75	<1	551	56.1	<0.5	1.55	333	19	0.0037	<0.002	0.0034	<0.004	<0.01	<0.2	0.0034
18-Feb-09	1239																					
25-Feb-09	1246	50	50	3.39		686																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Jan-08	833																				
16-Jan-08	840	17.1	<0.01	0.0876	83	0.711	0.0121	5.87	0.175	<0.00001	<0.001	0.133	4.4	<0.02	9.49	<0.0002	<2	0.001	0.0054	<0.01	0.39
23-Jan-08	847																				
30-Jan-08	854																				
6-Feb-08	861																				
13-Feb-08	868	17.5	<0.01	0.0812	82.5	0.653	<0.001	5.31	0.186	<0.00001	<0.001	0.127	4.2	<0.02	9.69	0.00022	<2	<0.001	<0.002	<0.01	0.383
20-Feb-08	875																				
27-Feb-08	882																				
5-Mar-08	889																				
12-Mar-08	896	17.4	<0.01	0.0898	87	0.618	<0.001	5.95	0.44	0.000015	<0.001	0.135	4.9	<0.02	10.9	<0.0002	<2	0.0011	0.0027	<0.01	0.421
19-Mar-08	903																				
26-Mar-08	910																				
2-Apr-08	917																				
9-Apr-08	924	17.8	<0.01	0.0813	79	0.624	0.0111	4.91	0.175	<0.00001	<0.001	0.125	4.4	<0.02	11.3	<0.0002	<2	0.0012	0.0042	<0.01	0.375
16-Apr-08	931																				
23-Apr-08	938																				
30-Apr-08	945																				
7-May-08	952	16.7	<0.01	0.0845	91.8	0.547	<0.001	5.7	0.16	<0.00001	<0.001	0.128	5.3	<0.02	11.5	0.00021	<2	0.0012	0.006	<0.01	0.385
14-May-08	959																				
21-May-08	966																				
28-May-08	973																				
4-Jun-08	980	16	<0.01	0.0903	85.3	0.624	<0.001	5.19	0.169	<0.00001	0.0019	0.133	5.1	<0.02	11.8	<0.0002	<2	0.0012	0.0051	<0.01	0.388
11-Jun-08	987																				
18-Jun-08	994																				
25-Jun-08	1001																				
2-Jul-08	1008	16.9	<0.01	0.0904	76.1	0.774	<0.001	5.95	0.169	<0.00001	0.0044	0.129	5.8	<0.02	13.2	0.00025	<2	0.0014	0.0054	<0.01	0.408
9-Jul-08	1015																				
16-Jul-08	1022																				
23-Jul-08	1029																				
30-Jul-08	1036	15.8	<0.01	0.0813	75.1	0.73	<0.001	4.82	0.151	<0.00001	<0.001	0.119	5.3	<0.02	12.9	<0.0002	<2	0.0012	0.0051	<0.01	0.335
6-Aug-08	1043																				
13-Aug-08	1050																				
20-Aug-08	1057																				
27-Aug-08	1064	15.6	<0.01	0.0843	75.8	0.752	<0.001	4.61	0.166	<0.00001	<0.001	0.124	5.2	<0.02	13.3	<0.0002	<2	0.0014	0.0051	<0.01	0.373
3-Sep-08	1071																				
10-Sep-08	1078																				
17-Sep-08	1085																				
24-Sep-08	1092	15.2	<0.01	0.0911	75.2	1.24	<0.001	4.52	0.154	<0.00001	<0.001	0.122	5.8	<0.02	14.4	<0.0002	<2	0.0014	0.005	<0.01	0.368
1-Oct-08	1099																				
8-Oct-08	1106																				
15-Oct-08	1113																				
22-Oct-08	1120	15.4	<0.01	0.0891	75	0.996	<0.001	4.43	0.166	<0.00001	<0.001	0.128	6.2	<0.02	14.4	<0.0002	<2	0.0014	0.0043	<0.01	0.378
29-Oct-08	1127																				
5-Nov-08	1134																				
12-Nov-08	1141																				
19-Nov-08	1148	15.8	<0.01	0.1	63.3	1.18	<0.001	4.39	0.171	<0.00001	<0.001	0.135	6.1	<0.02	15.1	<0.0002	<2	0.0015	0.0043	<0.01	0.373
26-Nov-08	1155																				
3-Dec-08	1162																				
10-Dec-08	1169																				
17-Dec-08	1176	17.7	<0.01	0.104	80.3	1.5	<0.001	4.73	0.183	<0.00001	<0.001	0.138	6.5	<0.02	16.7	0.0003	<2	0.0017	0.0035	<0.01	0.385
24-Dec-08	1183																				
31-Dec-08	1190																				
7-Jan-09	1197																				
14-Jan-09	1204	15.8	<0.01	0.0929	75.1		<0.001	4.08	0.168	<0.00001	<0.001	0.125	6.3	<0.02	18.5	<0.0002	2.2	0.0017	0.004	<0.01	0.372
21-Jan-09	1211																				
28-Jan-09	1218																				
4-Feb-09	1225																				
11-Feb-09	1232	15.7	<0.01	0.0867	81.5	1.23	<0.001	4.11	0.166	<0.00001	<0.001	0.119	6.5	<0.02	18.1	0.00037	2.1	0.0015	0.0036	<0.01	0.353
18-Feb-09	1239																				
25-Feb-09	1246																				

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
4-Mar-09	1253																					
11-Mar-09	1260	400	400	3.19	522	743	105.68	327.14	<1	600	59	<0.5	1.28	363	19.9	0.004	<0.002	0.0041	0.0052	<0.01	<0.2	0.0035
18-Mar-09	1267																					
25-Mar-09	1274	50	50	3.12	524	764																
1-Apr-09	1281																					
8-Apr-09	1288	400	400	3.11	414	804	121.86	348.34	<1	652	62.6	<0.5	1.55	403	22.5	0.0044	<0.002	0.0041	0.0045	<0.01	<0.2	0.0037
15-Apr-09	1295																					
22-Apr-09	1302	50	50	3.19	485	774																
29-Apr-09	1309																					
6-May-09	1316	400	400	3.16	454	794	132.53	374.21	<1	695	65.4	<0.5	1.87	407	31.3	0.0041	<0.002	0.0064	<0.004	<0.01	<0.2	0.0038
13-May-09	1323																					
20-May-09	1330	50	50	3.12	478	795																
27-May-09	1337																					
3-Jun-09	1344	400	400	3.01	478	875	166.51	394.08	<1	694		<0.5	1.59	425								
10-Jun-09	1351																					
17-Jun-09	1358	50	50	3.14	534	857																
24-Jun-09	1365																					
1-Jul-09	1372	400	400	3.15	477	870	162.48	458.65	<1	768		<0.5	2.03	451								
8-Jul-09	1379																					
15-Jul-09	1386	50	50	3.24	489	847																
22-Jul-09	1393																					
29-Jul-09	1400	400	400	3.22	415	862	173.38	530.28	<1	739		<0.5	1.65	459								
5-Aug-09	1407																					
12-Aug-09	1414	50	50	3.1	354	872																
19-Aug-09	1421																					
26-Aug-09	1428	400	400	3.28	351	867	137.51	473.98	<1	781		<10	1.74	490								
2-Sep-09	1435																					
9-Sep-09	1442	50	50	3.31	380	875																
16-Sep-09	1449																					
23-Sep-09	1456	400	400	3.33	412	850	147.78	462.05	<1	779		<10	2.02	461								
30-Sep-09	1463																					
7-Oct-09	1470	50	50	3.31	410	850																
14-Oct-09	1477																					
21-Oct-09	1484	400	400	3.33	360	807	102.3	441.28	<1	704		<50	<2	378								

Subaqueous Column Data: Waste Rock

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Mar-09	1253																				
11-Mar-09	1260	16.5	<0.01	0.0972	80.8	1.42	<0.001	4.3	0.179	<0.00001	<0.001	0.137	7.3	<0.02	19	0.0002	2.1	0.0018	0.0035	<0.01	0.371
18-Mar-09	1267																				
25-Mar-09	1274																				
1-Apr-09	1281																				
8-Apr-09	1288	18.2	<0.01	0.103	77.4	2.3	<0.001	4.19	0.181	<0.00001	<0.001	0.133	7.4	<0.02	20.4	0.00038	2.4	0.0018	0.0029	<0.01	0.354
15-Apr-09	1295																				
22-Apr-09	1302																				
29-Apr-09	1309																				
6-May-09	1316	18.8	<0.01	0.109	115	4.78	<0.001	4.48	0.196	<0.00001	<0.001	0.143	7.7	<0.02	22.5	0.00035	2.6	0.0017	0.0046	<0.01	0.391
13-May-09	1323																				
20-May-09	1330																				
27-May-09	1337																				
3-Jun-09	1344																				
10-Jun-09	1351																				
17-Jun-09	1358																				
24-Jun-09	1365																				
1-Jul-09	1372																				
8-Jul-09	1379																				
15-Jul-09	1386																				
22-Jul-09	1393																				
29-Jul-09	1400																				
5-Aug-09	1407																				
12-Aug-09	1414																				
19-Aug-09	1421																				
26-Aug-09	1428																				
2-Sep-09	1435																				
9-Sep-09	1442																				
16-Sep-09	1449																				
23-Sep-09	1456																				
30-Sep-09	1463																				
7-Oct-09	1470																				
14-Oct-09	1477																				
21-Oct-09	1484																				

Subaqueous Column Data: Waste Rock

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
3124-0872-0887	SAC 1	Blank rows indicate that no solution was input or output during that week																				
26-Oct-05	0	400	400	7.64	390	2400	<1	13	140	1850	998	<5	<0.2	1200	0.0099	0.0192	0.00325	0.0383	<0.001	<0.0025	0.188	0.00025
2-Nov-05	7	200	200	7.55	340	2100																
9-Nov-05	14	400	400	7.6	314	2000	<1	12.5	154.5	1590	924	<5	0.4	1080	<0.005	0.0204	<0.004	0.0414	<0.001	<0.0025	0.161	<0.00025
16-Nov-05	21	200	200	7.56	326	1835																
23-Nov-05	28	400	400	7.8	305	1593	<1	12	158.5	1210	653	<5	0.33	736	0.0046	0.0155	<0.005	0.0361	<0.0004	<0.001	0.113	<0.0001
30-Nov-05	35	200	200	7.86	363	1342																
7-Dec-05	42	400	400	7.78	343	1150	<1	7.5	155	811	471	<0.5	0.298	446	0.0038	0.0136	<0.008	0.0341	<0.0004	<0.001	0.083	<0.0001
14-Dec-05	49	200	200	7.62	369	952																
21-Dec-05	56	400	400	7.9	404	834	<1	5.5	154	555	309	0.57	0.284	278	0.0053	0.0142	0.00445	0.0416	<0.0002	<0.0005	0.055	<0.00005
28-Dec-05	63	200	200	7.89	392	712																
4-Jan-06	70	400	400	7.92	424	666	<1	5.5	154.5	425	259	<0.5	0.225	189	0.0061	0.0107	0.00367	0.0347	<0.0002	<0.0005	0.042	<0.00005
11-Jan-06	77	200	200	7.88	374	590																
18-Jan-06	84	400	400	8.05	436	595	<1	3.5	154	336	197	<0.5	0.344	136	0.0086	0.00912	0.00348	0.0286	<0.0002	<0.0005	0.035	<0.00005
25-Jan-06	91	200	200	7.74	400	505																
1-Feb-06	98	400	400	7.9	340	473	<1	3.5	133.5	184	176	<0.5	0.211	105	0.0053	0.00743	0.00302	0.0217	<0.0002	<0.0005	0.028	<0.00005
8-Feb-06	105	200	200	7.74	271	476																
15-Feb-06	112	400	400	8.03	445	420	<1	2.5	128.5	264	161	<0.5	0.188	87.4	0.0058	0.0067	0.00314	0.022	<0.0002	<0.0005	0.024	<0.00005
22-Feb-06	119	200	200	7.79	416	384																
1-Mar-06	126	400	400	7.79	420	379	<1	2.75	119	211	146	<0.5	0.167	70.7	0.0815	0.00591	0.00307	0.0185	<0.0002	<0.0005	0.018	<0.00005
8-Mar-06	133	200	200	7.66	425	363																
15-Mar-06	140	400	400	7.96	399	347	<1	4.5	102.5	162	129	<0.5	0.135	64.6	0.0073	0.00795	0.00163	0.0157	<0.0002	<0.0005	0.012	<0.00005
22-Mar-06	147	200	200	7.56	387	361																
29-Mar-06	154	400	400	7.81	379	368	<1	4.5	108.5	214	145	<0.5	0.143	73	0.0057	0.00783	0.00108	0.0138	<0.0002	<0.0005	0.014	<0.00005
5-Apr-06	161	200	200	7.76	391	433																
12-Apr-06	168	400	400	7.99	394	363	<1	3	110.5	82	154	<0.5	0.14	77.4	0.01	0.00753	0.00088	0.0124	<0.0002	<0.0005	0.013	0.000078
19-Apr-06	175	200	200	7.76	422	415																
26-Apr-06	182	400	400	8.03	341	370	<1	2.5	116.5	251	156	<0.5	0.138	83.5	0.0107	0.00818	0.00086	0.0129	<0.0002	<0.0005	0.014	0.000066
3-May-06	189	200	200	8.07	114	390																
10-May-06	196	400	400	8.12	272	396	<1	3.31	114.85	248	159	<0.5	0.141	87.3	0.0077	0.00782	0.00085	0.0124	<0.0002	<0.0005	0.014	<0.00005
17-May-06	203	200	200	8.15	96	394																
24-May-06	210	400	400	8.08	302	406	<1	3.77	114.67	251	166	<0.5	0.122	88.4	0.0071	0.00734	0.00088	0.0109	<0.0002	<0.0005	0.015	0.000149
31-May-06	217	200	200	8.09	119	398																
7-Jun-06	224	400	400	8	286	396	<1	4.78	114.17	252	179	<0.5	0.127	90.7	0.013	0.0071	0.00186	0.0112	<0.0002	<0.0005	0.014	<0.00005
14-Jun-06	231	200	200	8.08	162	401																
21-Jun-06	238	400	400	8.07	327	387	<1	3.04	116.46	260	177	<0.5	0.12	94.3	0.0064	0.00632	0.00075	0.0104	<0.0002	<0.0005	0.015	<0.00005
28-Jun-06	245	200	200	8.09	125	374																
5-Jul-06	252	400	400	8.26	306	396	<1	1.57	115.98	245	174	<0.5	0.115	95.1	0.0058	0.00616	0.00079	0.0102	<0.0002	<0.0005	0.016	<0.00005
12-Jul-06	259	200	200	8.07	312	397																
19-Jul-06	266	400	400	8.04	330	388	<1	3.57	111.46	241	184	<0.5	0.12	90.5	0.0059	0.00568	0.00073	0.00973	<0.0002	<0.0005	0.014	<0.00005
26-Jul-06	273	200	200	8.08	197	382																
2-Aug-06	280	400	400	7.77	357	390	<1	4.05	110.38	277	169	<0.5	0.122	93	0.0066	0.0056	0.00074	0.0091	<0.0002	<0.0005	0.013	<0.00005
9-Aug-06	287	200	200	7.94	232	387																
16-Aug-06	294	400	400	7.79	306	384	<1	5.88	108.45	244	165	<0.5	0.112	91.1	0.0053	0.00525	0.00066	0.00913	<0.0002	<0.0005	0.013	<0.00005
23-Aug-06	301	200	200	7.8	334	351																
30-Aug-06	308	400	400	7.34	300	386	<1	10.7	104.99	240	175	<0.5	0.114	93.7	0.007	0.00537	0.00066	0.00867	<0.0002	<0.0005	0.014	<0.00005
6-Sep-06	315	200	200	8.11	334	391																
13-Sep-06	322	400	400	7.99	316	383	<1	4.11	108.31	243	180	<0.5	0.114	94.2	0.0073	0.00466	0.00068	0.00925	<0.0002	<0.0005	0.016	<0.00005
20-Sep-06	329	200	200	7.98	312	381																
27-Sep-06	336	400	400	7.95	322	378	<1	4.69	107.93	248	172	<0.5	0.117	93	0.0053	0.00434	0.00069	0.00917	<0.0002	<0.0005	0.012	<0.00005
4-Oct-06	343	200	200	7.03	336	380																
11-Oct-06	350	400	400	8.15	307	376	<1	1.9	107.3	230	171	<0.5	0.109	91.3	0.0045	0.00423	0.00064	0.00866	<0.0002	<0.0005	0.013	<0.00005
18-Oct-06	357	200	200	8.07	317	388																
25-Oct-06	364	400	400	7.93	379	379	<1	3.31	108.44	246	182	<0.5	0.097	92.2		0.0041	0.00066	0.012	<0.0002	<0.0005	0.017	<0.00005
1-Nov-06	371	200	200	7.5	377	372																
8-Nov-06	378	400	400	8.03	302	391	<1	3.79	110.23	242	173	<0.5	0.107	92	0.0067	0.00371	0.00133	0.00845	<0.0002	<0.0005	0.012	0.000086
15-Nov-06	385	200	200	8	290	374																
22-Nov-06	392	400	400	7.81	324	372	<1		108.87	231	173	<0.5	0.102	90.6	0.0058	0.00349	0.00052	0.00828	<0.0002	<0.0005	0.012	<0.00005
29-Nov-06	399	200	200	7.68	369	370																
6-Dec-06	406	400	400	8.03	356	368	<1	4	114.54	237	175	<0.5	0.101	89.2	0.0052	0.00304	0.00049	0.00741	<0.0002	<0.0005	0.012	<0.00005

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3124-0872-0887	SAC 1																				
26-Oct-05	0	275	0.0051	0.0183	0.0293	<0.03	<0.00025	75.6	0.494	0.00006	0.016	0.0218	9.8	0.034	2.84	0.000134	125	<0.00025	<0.0005	<0.0025	0.0199
2-Nov-05	7																				
9-Nov-05	14	251	<0.004	0.0124	0.00383	<0.03	<0.00025	72.5	0.433	0.00001	0.0184	0.0126	8.75	<0.005	2.96	<0.00005	106	<0.00025	<0.0005	<0.0025	0.0073
16-Nov-05	21																				
23-Nov-05	28	183	<0.005	0.00609	0.00389	0.054	<0.0001	47.8	0.275	<0.00001	0.0165	0.0059	6.79	<0.004	2.74	<0.00002	91.2	<0.0001	<0.0002	<0.002	0.0031
30-Nov-05	35																				
7-Dec-05	42	130	0.0013	0.00294	0.00166	0.075	<0.0001	35.3	0.186	<0.00001	0.015	0.0026	5.76	<0.004	2.66	<0.00002	72	<0.0001	<0.0002	<0.001	<0.002
14-Dec-05	49																				
21-Dec-05	56	82.2	<0.003	0.00173	0.00294	0.058	<0.00005	25.3	0.127	<0.00001	0.016	0.00181	5.05	<0.005	2.42	0.00001	56.7	<0.00005	<0.0001	<0.002	0.0013
28-Dec-05	63																				
4-Jan-06	70	73.2	<0.0005	0.00102	0.00416	0.035	<0.00005	18.6	0.0877	<0.00001	0.0126	0.0011	4.31	<0.001	2.4	<0.00001	44.2	<0.00005	<0.0001	<0.0005	0.0015
11-Jan-06	77																				
18-Jan-06	84	51.5	0.00155	0.00082	0.00271	<0.03	0.000249	16.6	0.0658	<0.00001	0.0122	0.00063	4.01	<0.001	2.27	0.000011	36.1	<0.00005	<0.0001	<0.0005	0.0016
25-Jan-06	91																				
1-Feb-06	98	47.7	<0.0005	0.00059	0.00299	<0.03	<0.00005	13.7	0.0515	<0.00001	0.00961	<0.0005	3.36	<0.001	2.1	0.000011	28.6	<0.00005	<0.0001	<0.0005	0.0012
8-Feb-06	105																				
15-Feb-06	112	44.2	<0.0005	0.00056	0.00425	<0.03	<0.00005	12.4	0.0472	<0.00001	0.00833	<0.0005	3.17	<0.001	2.12	<0.00001	26.2	<0.00005	0.0002	<0.0005	<0.001
22-Feb-06	119																				
1-Mar-06	126	39.1	<0.0005	0.00051	0.00601	<0.03	<0.00005	11.8	0.0398	<0.00001	0.0061		2.67	0.001	1.85	<0.00003	20.4	<0.00005	<0.0001	<0.0005	0.0013
8-Mar-06	133																				
15-Mar-06	140	34.6	<0.0005	0.00081	0.002	<0.03	0.00005	10.3	0.0452	<0.00001	0.00449	0.00062	2.5	0.0022	1.4	<0.00001	14.7	0.000079	<0.0001	<0.0005	0.0016
22-Mar-06	147																				
29-Mar-06	154	40.6	0.00062	0.0008	0.00361	<0.03	<0.00005	10.5	0.0519	<0.00001	0.00499	<0.0005	2.52	0.0024	1.56	<0.00001	16.1	0.00005	<0.0001	<0.0005	0.0025
5-Apr-06	161																				
12-Apr-06	168	42.8	<0.0005	0.00078	0.00862	<0.03	0.000073	11.5	0.0523	<0.00001	0.00526	0.00071	2.55	0.0022	1.49	<0.00001	14.3	<0.00005	<0.0001	<0.0005	0.0045
19-Apr-06	175																				
26-Apr-06	182	43.3	0.00052	0.00086		<0.03		11.7	0.0572	<0.00001	0.00579	0.00061	2.74	0.0024	1.57	<0.00001	14.4	<0.00005	<0.0001	<0.0005	0.0105
3-May-06	189																				
10-May-06	196	42.9	<0.0005	0.00081	0.00549	<0.03	0.00023	12.5	0.0537	<0.00001	0.00642	<0.0005	2.82	0.0029	1.56	<0.00001	13.6	<0.00005	<0.0001	<0.0005	0.0021
17-May-06	203																				
24-May-06	210	45.6	<0.0005	0.00078	0.00663	<0.03	0.0242	12.7	0.0564	<0.00001	0.00693	0.00054	2.87	0.003	1.62	<0.00001	12.7	<0.00005	<0.0001	<0.0005	0.0085
31-May-06	217																				
7-Jun-06	224	49.2	<0.0005	0.00077	0.00853	0.091	0.000324	13.6	0.0573	<0.00001	0.00689	<0.0005	2.74	0.0031	1.6	0.000011	13.1	<0.00005	<0.0001	<0.0005	0.0038
14-Jun-06	231																				
21-Jun-06	238	48	<0.0005	0.00075	0.00656	<0.03	0.000251	13.8	0.0565	<0.00001	0.00686	<0.0005	2.85	0.0031	1.48	<0.00001	13.5	<0.00005	<0.0001	<0.0005	0.0038
28-Jun-06	245																				
5-Jul-06	252	45.6	<0.0005	0.00064	0.00675	0.081	<0.00005	14.6	0.0575	<0.00001	0.00744	<0.0005	2.88	0.0033	1.34	<0.00001	11.5	<0.00005	<0.0001	<0.0005	0.0015
12-Jul-06	259																				
19-Jul-06	266	49.4	<0.0005	0.00066	0.00686	<0.03	0.00213	14.6	0.0572	<0.00001	0.00743	<0.0005	2.76	0.0031	1.48	<0.00001	11.2	<0.00005	<0.0001	<0.0005	0.0028
26-Jul-06	273																				
2-Aug-06	280	44.4	<0.0005	0.00063	0.00762	<0.03	0.00292	14.2	0.0563	<0.00001	0.0078	<0.0005	2.79	0.0033	1.4	<0.00001	10.6	<0.00005	<0.0001	<0.0005	0.0039
9-Aug-06	287																				
16-Aug-06	294	43.7	<0.0005	0.00061	0.00768	<0.03	0.00207	13.7	0.0573	<0.00001	0.00775	<0.0005	2.66	0.0034	1.33	<0.00001	9.9	<0.00005	<0.0001	<0.0005	0.0017
23-Aug-06	301																				
30-Aug-06	308	46.4	<0.0005	0.00064	0.00838	<0.03	0.00569	14.4	0.0568	<0.00001	0.00796	<0.0005	2.81	0.0032	1.5	0.000011	10.1	<0.00005	<0.0001	<0.0005	0.0038
6-Sep-06	315																				
13-Sep-06	322	47.1	<0.0005	0.00058	0.0083	<0.03	0.000068	15.3	0.0578	<0.00001	0.00782	<0.0005	2.84	0.003	1.4	<0.00001	9.5	<0.00005	<0.0001	<0.0005	0.0024
20-Sep-06	329																				
27-Sep-06	336	47	<0.0005	0.00052	0.01	<0.03	0.00125	13.4	0.055	<0.00001	0.00774	<0.0005	2.58	0.0032	1.32	<0.00001	9.5	<0.00005	<0.0001	<0.0005	0.0031
4-Oct-06	343																				
11-Oct-06	350	44.6	<0.0005	0.00057	0.00817	<0.03	0.0017	14.5	0.0557	<0.00001	0.00825	<0.0005	2.65	0.0033	1.29	<0.00001	9	<0.00005	<0.0001	<0.0005	0.0019
18-Oct-06	357																				
25-Oct-06	364	47.1		0.00056		<0.03	0.00022	15.6	0.0591	<0.00001	0.00816	0.00053	2.78	0.0034	1.39	<0.00001	9	<0.00005	<0.0001	<0.0005	0.0025
1-Nov-06	371																				
8-Nov-06	378	46.9	<0.0005	0.00049	0.00928	<0.03	0.000655	13.6	0.0548	<0.00001	0.00753	<0.0005	2.54	0.003	1.3	<0.00001	7.7	<0.00005	<0.0001	<0.0005	0.0027
15-Nov-06	385																				
22-Nov-06	392	47.1	<0.0005	0.00047	0.00756	<0.03	<0.00005	13.5	0.0516	<0.00001	0.00757	<0.0005	2.5	0.0028	1.26	<0.00001	7.5	<0.00005	<0.0001	<0.0005	0.0017
29-Nov-06	399																				
6-Dec-06	406	49.1	<0.0005	0.00039	0.0128	0.039	<0.00005	12.8	0.0483	<0.00001	0.00703	<0.0005	2.33	0.0027	1.32	<0.00001	8.1	<0.00005	<0.0001	<0.0005	0.0028

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
13-Dec-06	413	200	200	7.89	336	375																
20-Dec-06	420	400	400	8.04	333	379	<1	3.19	108.57	236	174	<0.5	0.106	89.6	0.0043	0.00316	0.0005	0.00812	<0.0002	<0.0005	0.011	0.000056
27-Dec-06	427	200	200	8.03	375	370																
3-Jan-07	434	400	400	7.98	372	386	<1	2.68	107.59	227	172	<0.5	0.095	87.4	0.0051	0.00326	0.00059	0.00813	<0.0002	<0.0005	0.012	<0.00005
10-Jan-07	441	200	200	8.03	333	376																
17-Jan-07	448	400	400	7.97	321	375	<1	2.88	110.03	242	182	<0.5	0.087	86.7	0.0043	0.00284	0.00047	0.00758	<0.0002	<0.0005	0.012	<0.00005
24-Jan-07	455	200	200	7.83	366	378																
31-Jan-07	462	400	400	7.77	375	373	<1	5.9	110.26	248	178	<0.5	0.088	86.3	0.0063	0.00292	0.00049	0.00837	<0.0002	<0.0005	0.011	0.00005
7-Feb-07	469	200	200	7.92	367	378																
14-Feb-07	476	400	400	7.85	374	368	<1	4.56	109.91	230	169	<0.5	0.071	88	0.0053	0.00279	0.0005	0.00848	<0.0002	<0.0005	0.011	<0.00005
21-Feb-07	483	200	200	7.88	386	380																
28-Feb-07	490	400	400	7.7	326	370	<1	5.56	111.25	225	174	<0.5	0.095	85.1	0.0055	0.0026	0.00044	0.00811	<0.0002	<0.0005	0.011	0.000223
7-Mar-07	497	200	200	7.91	359	340																
14-Mar-07	504	400	400	7.69	467	351	<1	2.14	108.6	223	174	<0.5	0.074	81.6	0.0048	0.00243	0.00049	0.00737	<0.0002	<0.0005	0.011	<0.00005
21-Mar-07	511	200	200	8.03	345	364																
28-Mar-07	518	400	400	7.93	383	360	<1	3.14	109.22	225	84.2	<0.5	0.073	81.2	0.0064	0.00242	0.00042	0.00752	<0.0002	<0.0005	0.011	<0.00005
4-Apr-07	525	200	200	7.95	426	373																
11-Apr-07	532	400	400	7.95	385	363	<1	4.81	110.72	218	168	<0.5	0.084	78.3	0.0037	0.00224	0.00049	0.00703	<0.0002	<0.0005	0.01	<0.00005
18-Apr-07	539	200	200	7.78	365	360																
25-Apr-07	546	400	400	7.96	362	332	<1	3.2	108.95	221	177	<0.5	0.098	77.3	0.005	0.00223	0.00039	0.0072	<0.0002	<0.0005	0.011	<0.00005
2-May-07	553	200	200	7.99	369	359																
9-May-07	560	400	400	7.8	360	323	<1	4.94	109.68	220	176	<0.5	0.092	75.1	0.0057	0.0022	0.00043	0.00749	<0.0002	<0.0005	<0.01	<0.00005
16-May-07	567	200	200	7.97	339	344																
23-May-07	574	400	400	8.01	372	363	<1	3.36	108.54	219	170	<0.5	0.091	74.5	0.0052	0.00205	0.00039	0.007	<0.0002	<0.0005	0.011	<0.00005
30-May-07	581	200	200	8.07	316	313																
6-Jun-07	588	400	400	7.94	346	322	<1	4.92	108.88	210	177	<0.5	0.103	74.9	0.0047	0.00209	0.00039	0.00731	<0.0002	<0.0005	0.012	<0.00005
13-Jun-07	595	200	200	7.96	382	290																
20-Jun-07	602	400	400	8.13	369	356	<1	3.01	117.01	226	188	<0.5	0.069	76.1	0.0071	0.00211	0.00042	0.00776	<0.0005	<0.0005	0.011	<0.00005
27-Jun-07	609	200	200	7.78	402	337																
4-Jul-07	616	400	400	8.03	373	346	<1	3.39	114.71	224	177	<0.5	0.08	74.4	0.011	0.00185	0.00039	0.00738	<0.0002	<0.0005	0.01	<0.00005
11-Jul-07	623	200	200	7.89	347	318																
18-Jul-07	630	400	400	7.88	404	344	<1	6.19	114.59	217	177	<0.5	0.1	71.4	0.0052	0.00172	0.00034	0.00801	<0.0002	<0.0005	0.01	<0.00005
25-Jul-07	637	200	200	7.98	376	337																
1-Aug-07	644	400	400	7.83	386	338	<1	6.25	108.99	197	183	<0.5	0.067	70.4	0.0064	0.00162	0.00034	0.00674	<0.0002	<0.0005	0.01	<0.00005
8-Aug-07	651	200	200	7.9	394	339																
15-Aug-07	658	400	400	7.99	408	313	<1	4.59	109.45	226	170	<0.5	0.088	72.6	0.0069	0.00161	0.00034	0.00693	<0.0002	<0.0005	0.011	<0.00005
22-Aug-07	665	200	200	7.83	424	280																
29-Aug-07	672	400	400	7.76	400	261	<1	5.61	111.47	218	181	<0.5	0.07	72.1	0.005	0.00174	0.00045	0.00749	<0.0002	<0.0005	0.011	<0.00005
5-Sep-07	679	200	200	7.72	410	243																
12-Sep-07	686	400	400	7.93	398	221	<1	8.25	113.05	236	177	<0.5	0.064	71.5	0.0045	0.00158	0.00038	0.00683	<0.0002	<0.0005	0.011	0.000058
19-Sep-07	693	200	200	7.46	413	285																
26-Sep-07	700	400	400	7.63	401	362	<1	6.92	109.34	229	178	<0.5	0.062	71.1	0.0053	0.00152	0.00042	0.00735	<0.0002	<0.0005	0.012	<0.00005
3-Oct-07	707	200	200																			
10-Oct-07	714	400	400	7.72	418	332																
17-Oct-07	721	200	200																			
24-Oct-07	728	400	400	7.91	409	335				207	153	<0.5	0.063	69.7	0.0058	0.00139	0.00049	0.0065	<0.0002	<0.0005	<0.01	<0.00005
31-Oct-07	735	200	200																			
7-Nov-07	742	400	400	7.8	397	302																
14-Nov-07	749	200	200																			
21-Nov-07	756	400	400	7.84	450	302	<1	4.69	89.44	204	162	<0.5	0.065	71.1	0.0069	0.00123	0.00031	0.00619	<0.0002	<0.0005	<0.01	<0.00005
28-Nov-07	763	200	200																			
5-Dec-07	770	400	400	7.9	423	298																
12-Dec-07	777	200	200																			
19-Dec-07	784	400	400	7.84	444	298	<1	3.41	100.48	198	159	<0.5	0.09	72.1	0.0054	0.00125	0.00038	0.0065	<0.0002	<0.0005	<0.01	<0.00005
26-Dec-07	791	200	200																			
2-Jan-08	798	400	400	7.93	436	293																
9-Jan-08	805	200	200																			
16-Jan-08	812	400	400	7.69	453	303	<1	8.83	99.92	204	144	<0.5	0.083	69.8	0.0061	0.00107	0.00024	0.00528	<0.0002	<0.0005	<0.01	<0.00005
23-Jan-08	819	200	200																			
30-Jan-08	826	400	400	7.75	434	313																

Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Dec-06	413																				
20-Dec-06	420	47.5	<0.0005	0.00054	0.00972	<0.03	0.000813	13.5	0.0558	<0.00001	0.0076	<0.0005	2.55	0.003	1.23	<0.00001	7.2	<0.00005	<0.0001	<0.0005	0.0036
27-Dec-06	427																				
3-Jan-07	434	44.4	<0.0005	0.00047	0.0072	<0.03	0.000052	14.8	0.0539	<0.00001	0.00758	<0.0005	2.52	0.0032	1.24	0.000017	6.7	<0.00005	<0.0001	<0.0005	0.0099
10-Jan-07	441																				
17-Jan-07	448	49.3	<0.0005	0.0005	0.00805	<0.03	<0.00005	14.3	0.0528	<0.00001	0.0072	<0.0005	2.35	0.0029	1.2	<0.00001	7.1	<0.00005	<0.0001	<0.0005	0.0019
24-Jan-07	455																				
31-Jan-07	462	47.6	<0.0005	0.00048	0.0124	<0.03		14.4	0.0534	<0.00001	0.00708	<0.0005	2.25	0.0029	1.2	<0.00001	6.8	<0.00005	<0.0001	<0.0005	0.0042
7-Feb-07	469																				
14-Feb-07	476	43.7	<0.0005	0.00053	0.0183	<0.03	<0.00005	14.4	0.0544	<0.00001	0.0072	0.0007	2.49	0.0028	1.16	<0.00001	6.1	<0.00005	<0.0001	<0.0005	
21-Feb-07	483																				
28-Feb-07	490	46	<0.0005	0.00047	0.00968	<0.03		14.4	0.0537	<0.00001	0.00692	<0.0005	2.44	0.0028	1.12	<0.00001	6	<0.00005	<0.0001	<0.0005	0.006
7-Mar-07	497																				
14-Mar-07	504	47.2	<0.0005	0.00047	0.00788	<0.03	<0.00005	13.6	0.0524	<0.00001	0.00674	<0.0005	2.33	0.0027	1.2	<0.00001	6	<0.00005	<0.0001	<0.0005	0.0014
21-Mar-07	511																				
28-Mar-07	518	45.4	<0.0005	0.00042	0.0433	<0.03		14.2	0.0503	<0.00001	0.00661	<0.0005	2.54	0.0025	1.22	<0.00001	5.3	<0.00005	<0.0001	<0.0005	0.0027
4-Apr-07	525																				
11-Apr-07	532	45.6	<0.0005	0.00042	0.00625	<0.03	<0.00005	13.1	0.048	<0.00001	0.00645	<0.0005	2.22	0.0025	1.05	<0.00001	5.2	<0.00005	<0.0001	<0.0005	0.0011
18-Apr-07	539																				
25-Apr-07	546	47.7	<0.0005	0.00043	0.00859	<0.03	<0.00005	14.2	0.0528	<0.00001	0.00662	<0.0005	2.36	0.0027	1.14	<0.00001	5.1	<0.00005	<0.0001	<0.0005	0.0013
2-May-07	553																				
9-May-07	560	47.2	<0.0005	0.00047	0.0102	<0.03	<0.00005	14.1	0.0524	<0.00001	0.00656		2.42	0.0027	1.13	<0.00001	5	<0.00005	<0.0001	<0.0005	0.0017
16-May-07	567																				
23-May-07	574	46.9	<0.0005	0.00038	0.0196	<0.03	<0.00005	12.8	0.0449	<0.00001	0.00596	0.00057	2.26	0.0025	1.2	<0.00001	5.4	<0.00005	<0.0001	<0.0005	0.0011
30-May-07	581																				
6-Jun-07	588	48.2	<0.0005	0.00035	0.00704	<0.03	<0.00005	13.8	0.0436	<0.00001	0.00639	<0.0005	2.17	0.0025	1.09	<0.00001	4.7	<0.00005	<0.0001	<0.0005	<0.001
13-Jun-07	595																				
20-Jun-07	602	48.9	<0.0005	0.00036	0.0143	<0.03	<0.00005	16	0.0435	<0.00005	0.00636	<0.0005	2.5	0.0025	1.25	<0.00001	5	<0.0001	<0.0001	<0.001	0.0019
27-Jun-07	609																				
4-Jul-07	616	49.2	<0.0005	0.00035	0.00583	<0.03	<0.00005	13.3	0.0431	<0.00001	0.00618	0.00053	2.31	0.0022	1.18	<0.00001	4.5	<0.00005	<0.0001	<0.0005	0.0026
11-Jul-07	623																				
18-Jul-07	630	48.3	<0.0005	0.00034	0.0118	<0.03	<0.00005	13.7	0.0423	<0.00001	0.00598	<0.0005	2.2	0.0024	1.07	<0.00001	4.4	<0.00005	<0.0001	<0.0005	0.0022
25-Jul-07	637																				
1-Aug-07	644	52	<0.0005	0.00033	0.00897	<0.03	<0.00005	12.8	0.0386	<0.00001	0.00544	<0.0005	2.02	0.0023	1.11	<0.00001	4	<0.00005	0.0001	<0.0005	0.0016
8-Aug-07	651																				
15-Aug-07	658	45.8	<0.0005	0.00036	0.00978	<0.03	<0.00005	13.4	0.0409	<0.00001	0.00557		2.15	0.0025	1.07	<0.00001	3.4	<0.00005	<0.0001	<0.0005	0.0021
22-Aug-07	665																				
29-Aug-07	672	48.9	<0.0005	0.00034	0.00827	<0.03	<0.00005	14.3	0.0418	<0.00001	0.0058	<0.0005	2.15	0.0025	1.22	0.000016	3.9	<0.00005	<0.0001	<0.0005	0.0012
5-Sep-07	679																				
12-Sep-07	686	46.1	<0.0005	0.00033	0.0101	<0.03	0.00035	15	0.0417	<0.00001	0.00557	0.0006	2.07	0.0023	1.23	<0.00001	3.5	<0.00005	<0.0001	<0.0005	0.0027
19-Sep-07	693																				
26-Sep-07	700	47.2	<0.0005	0.00034	0.00817	<0.03	<0.00005	14.5	0.0421	<0.00001	0.00563	<0.0005	2.11	0.0026	1.11	0.00001	3.3	<0.00005	<0.0001	<0.0005	0.0013
3-Oct-07	707																				
10-Oct-07	714																				
17-Oct-07	721																				
24-Oct-07	728	40.5	<0.0005	0.00026	0.00721	<0.03	0.000052	12.7	0.0326	<0.00001	0.00531	<0.0005	1.91	0.0021	1.12	0.000013	3.2	<0.00005	<0.0001	<0.0005	0.0013
31-Oct-07	735																				
7-Nov-07	742																				
14-Nov-07	749																				
21-Nov-07	756	42.7	<0.0005	0.00028	0.00795	<0.03	0.000248	13.4	0.0346	<0.00001	0.00517	<0.0005	1.9	0.0023	1.01	<0.00001	3	<0.00005	<0.0001	<0.0005	0.0019
28-Nov-07	763																				
5-Dec-07	770																				
12-Dec-07	777																				
19-Dec-07	784	42.2	0.00226	0.0003	0.00888	0.097	0.000051	13.2	0.0329	<0.00001	0.00573	0.00171	1.88	0.0021	0.955	0.00002	2.9	<0.00005	<0.0001	<0.0005	0.0017
26-Dec-07	791																				
2-Jan-08	798																				
9-Jan-08	805																				
16-Jan-08	812	40.5	0.00448	0.00021	0.00905	<0.03		10.4	0.0253	<0.00001	0.00464	<0.0005	1.55	0.0017	1.02	0.000017	3.2	<0.00005	<0.0001	<0.0005	0.0019
23-Jan-08	819																				
30-Jan-08	826																				

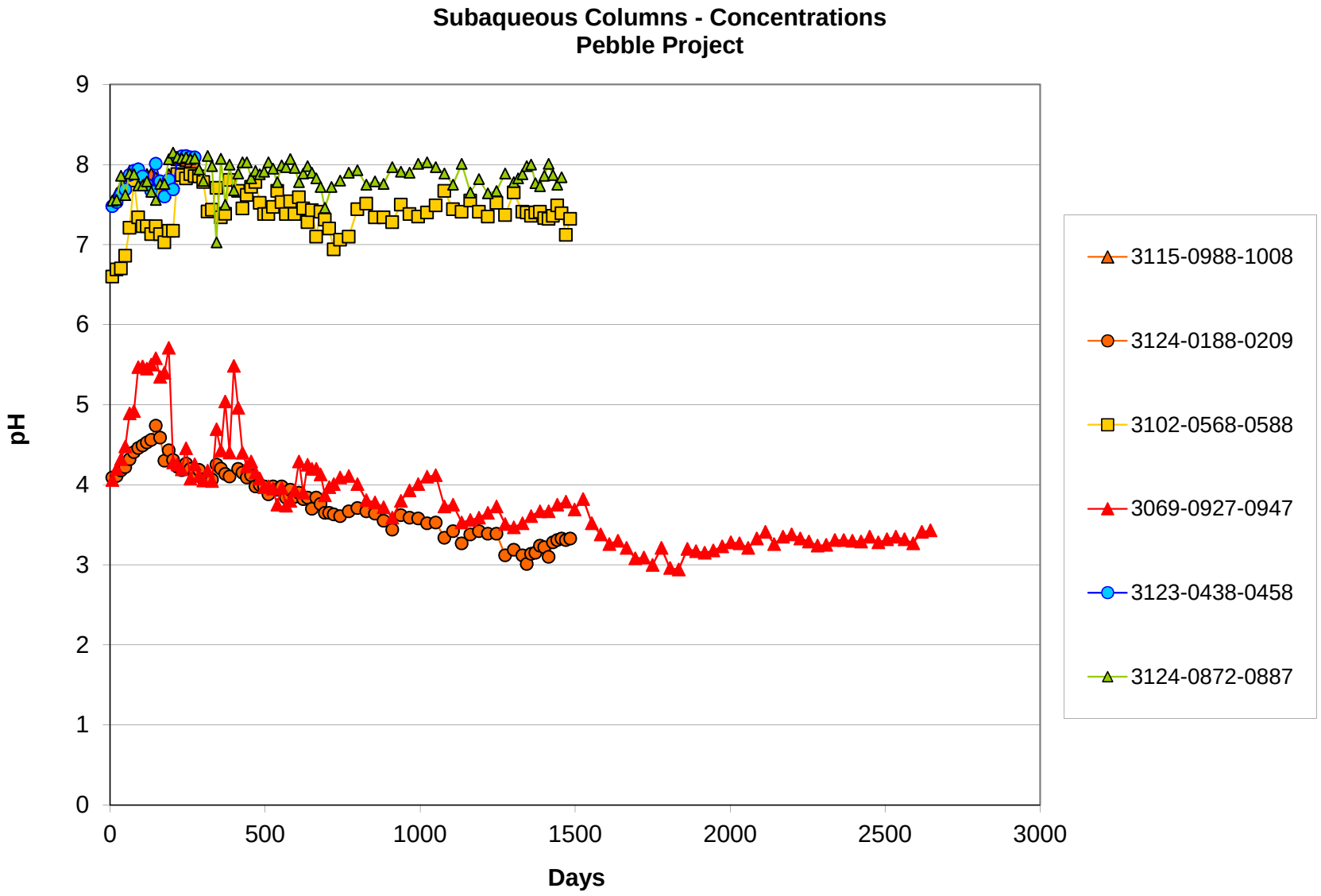
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
6-Feb-08	833	200	200																			
13-Feb-08	840	400	400	7.76	430	326	<1	7.19	102.16	204	165	<0.5	0.086	70.1	0.0062	0.00116	0.0003	0.00587	<0.0002	<0.0005	<0.01	<0.00005
20-Feb-08	847	200	200																			
27-Feb-08	854	400	400	7.79	414	316																
5-Mar-08	861	200	200																			
12-Mar-08	868	400	400	7.89	408	330	<1	4.85	102.39	201	174	<0.5	0.07	72.8	0.008	0.00138	0.00078	0.00754	<0.0002	<0.0005	0.011	<0.00005
19-Mar-08	875	200	200																			
26-Mar-08	882	400	400	7.76	408	319																
2-Apr-08	889	200	200																			
9-Apr-08	896	400	400	7.89	410	352	<1	4.76	101.63	196	167	<0.5	0.079	74.3	0.0044	0.00115	0.00033	0.00607	<0.0002	<0.0005	<0.01	<0.00005
16-Apr-08	903	200	200																			
23-Apr-08	910	400	400	7.97	400	315																
30-Apr-08	917	200	200																			
7-May-08	924	400	400	7.99	353	323	<1	3.65	102.24	198	175	<0.5	0.088	74.3	0.0045	0.00162	0.00032	0.00652	<0.0002	<0.0005	0.011	<0.00005
14-May-08	931	200	200																			
21-May-08	938	400	400	7.91	325	331																
28-May-08	945	200	200																			
4-Jun-08	952	400	400	8.11	397	267	<1	3.17	98.33	213	166	<0.5	0.092	73.4	0.0053	0.00163	0.00035	0.00601	<0.0002	<0.0005	<0.01	<0.00005
11-Jun-08	959	200	200																			
18-Jun-08	966	400	400	7.9	330	246																
25-Jun-08	973	200	200																			
2-Jul-08	980	400	400	8	360	305	<1	3.49	88.96	173	168	<0.5	0.09	76.7	0.0067	0.00199	0.00035	0.00623	<0.0002	<0.0005	0.012	<0.00005
9-Jul-08	987	200	200																			
16-Jul-08	994	400	400	8.01	371	332																
23-Jul-08	1001	200	200																			
30-Jul-08	1008	400	400	7.98	387	341	<1	4.21	101.47	205	167	<0.5	0.081	77.3	0.0041	0.00193	0.00031	0.00579	<0.0002	<0.0005	0.01	<0.00005
6-Aug-08	1015	200	200																			
13-Aug-08	1022	400	400	8.03	344	340																
20-Aug-08	1029	200	200																			
27-Aug-08	1036	400	400	7.86	353	338	<1	5.25	109.84	217	175	<0.5	0.08	78.5	0.0034	0.00259	0.00026	0.00677	<0.0002	<0.0005	0.01	0.000058
3-Sep-08	1043	200	200																			
10-Sep-08	1050	400	400	7.97	275	342																
17-Sep-08	1057	200	200																			
24-Sep-08	1064	400	400	7.94	264	342	<1	4.19	94.61	204	166	<0.5	0.071	75.9	0.0052	0.00197	0.00026	0.00606	<0.0002	<0.0005	0.011	<0.00005
1-Oct-08	1071	200	200																			
8-Oct-08	1078	400	400	7.89	379	321																
15-Oct-08	1085	200	200																			
22-Oct-08	1092	400	400	7.94	396	322	<1	4.69	95.09	216	162	<0.5	0.079	76.8	0.0044	0.00163	0.00022	0.00564	<0.0002	<0.0005	0.011	<0.00005
29-Oct-08	1099																					
5-Nov-08	1106	50	50	7.75	414	323																
12-Nov-08	1113																					
19-Nov-08	1120	400	400	7.96	407	287	<1	3.97	103.49	197	164	<0.5	0.064	78.6	0.0058	0.00162	0.00023	0.0063	<0.0002	<0.0005	0.011	<0.00005
26-Nov-08	1127																					
3-Dec-08	1134	50	50	8.01	326	327																
10-Dec-08	1141																					
17-Dec-08	1148	400	400	7.62	300	329				218	156	<0.5	0.084	80	0.0043	0.00142	0.0002	0.00574	<0.0002	<0.0005	<0.01	<0.00005
24-Dec-08	1155																					
31-Dec-08	1162	50	50	7.65	329	335																
7-Jan-09	1169																					
14-Jan-09	1176	400	400	7.81	307	343	<1	4.94	115.39	223	176	<0.5	0.063	81.8	0.0041	0.00152	0.00026	0.00627	<0.0002	<0.0005	0.011	<0.00005
21-Jan-09	1183																					
28-Jan-09	1190	50	50	7.82	361	326																
4-Feb-09	1197																					
11-Feb-09	1204	400	400	7.48	373	333	<1	6.73	111.55	219	183	<0.5	0.081	81.9	0.0046	0.00136	0.00024	0.00587	<0.0002	<0.0005	0.011	<0.00005
18-Feb-09	1211																					
25-Feb-09	1218	50	50	7.64		329																
4-Mar-09	1225																					
11-Mar-09	1232	400	400	7.66	331	343	<1	6.26	111.05	218	185	<0.5	0.082	88.8	0.0042	0.00143	0.00029	0.00682	<0.0002	<0.0005	0.012	<0.00005
18-Mar-09	1239																					
25-Mar-09	1246	50	50	7.67	351	335																

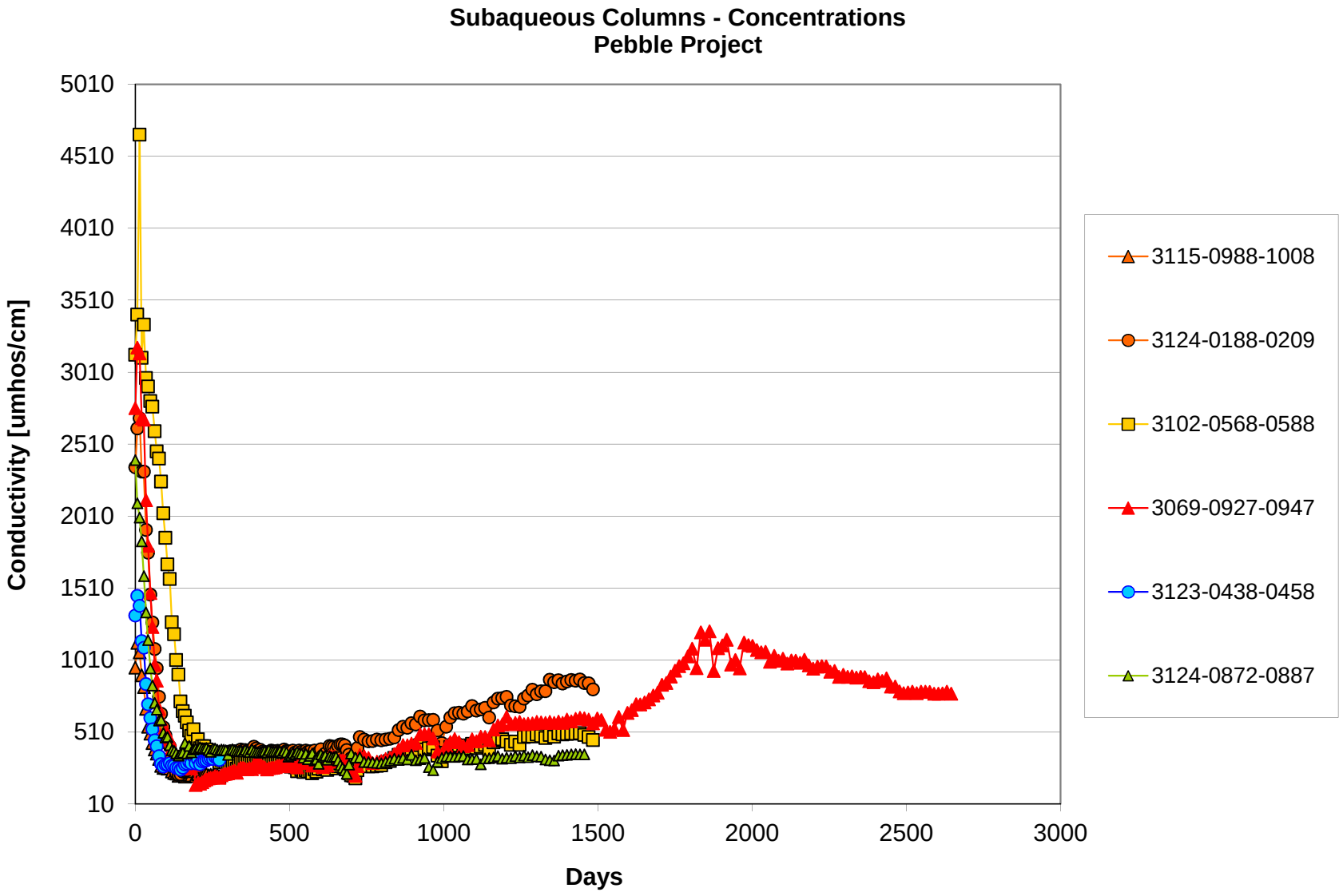
Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
6-Feb-08	833																				
13-Feb-08	840	45.2	<0.0005	0.00023	0.00658	<0.03	0.00011	12.7	0.0291	<0.00001	0.00506	0.00078	1.78	0.0019	1.04	0.000032	2.7	<0.00005	<0.0001	<0.0005	0.0012
20-Feb-08	847																				
27-Feb-08	854																				
5-Mar-08	861																				
12-Mar-08	868	44.8	<0.0005	0.00025	0.00545	<0.03	0.000284	15.1	0.0327	<0.00001	0.00599	<0.0005	2.07	0.0026	1.14	0.000024	2.6	<0.00005	0.00039	<0.0005	0.0022
19-Mar-08	875																				
26-Mar-08	882																				
2-Apr-08	889																				
9-Apr-08	896	46.4	<0.0005	0.00023	0.00611	<0.03	0.000342	12.5	0.0261	<0.00001	0.00554	<0.0005	1.86	0.0021	1.09	0.000029	2.4	<0.00005	<0.0001	<0.0005	0.006
16-Apr-08	903																				
23-Apr-08	910																				
30-Apr-08	917																				
7-May-08	924	44.4	<0.0005	0.0002	0.00467	<0.03	<0.00005	15.6	0.0286	<0.00001	0.00569	<0.0005	1.98	0.0023	1.1	0.000028	2.2	<0.00005	<0.0001	<0.0005	<0.001
14-May-08	931																				
21-May-08	938																				
28-May-08	945																				
4-Jun-08	952	43	<0.0005	0.00021	0.00699	<0.03	<0.00005	14.3	0.0263	<0.00001	0.00541	<0.0005	1.8	0.002	1.02	0.000041	2.1	<0.00005	<0.0001	<0.0005	0.0015
11-Jun-08	959																				
18-Jun-08	966																				
25-Jun-08	973																				
2-Jul-08	980	45	<0.0005	0.0002	0.00543	<0.03	<0.00005	13.6	0.0262	<0.00001	0.00582	<0.0005	1.96	0.0027	1.15	0.000026	2	<0.00005	<0.0001	<0.0005	<0.001
9-Jul-08	987																				
16-Jul-08	994																				
23-Jul-08	1001																				
30-Jul-08	1008	45.3	<0.0005	0.00021	0.00519	<0.03	<0.00005	13.1	0.0246	<0.00001	0.00592	0.0019	1.77	0.0023	1.04	0.000034	<2	<0.00005	<0.0001	<0.0005	<0.001
6-Aug-08	1015																				
13-Aug-08	1022																				
20-Aug-08	1029																				
27-Aug-08	1036	46.9	<0.0005	0.00022	0.00609	<0.03	0.000145	14	0.0297	<0.00001	0.00625	<0.0005	1.72	0.0023	1.06	0.000036	<2	<0.00005	<0.0001	<0.0005	<0.001
3-Sep-08	1043																				
10-Sep-08	1050																				
17-Sep-08	1057																				
24-Sep-08	1064	44.7	<0.0005	0.00017	0.00588	<0.03	<0.00005	13.2	0.0216	<0.00001	0.00656	<0.0005	1.75	0.0022	1.07	0.000057	<2	<0.00005	<0.0001	<0.0005	0.0011
1-Oct-08	1071																				
8-Oct-08	1078																				
15-Oct-08	1085																				
22-Oct-08	1092	43.7	<0.0005	0.00017	0.0061	<0.03	<0.00025	12.7	0.0232	<0.00001	0.00639	0.00196	1.68	0.0019	1.05	0.000087	<2	<0.00005	<0.0001	<0.0005	0.0012
29-Oct-08	1099																				
5-Nov-08	1106																				
12-Nov-08	1113																				
19-Nov-08	1120	48	<0.0005	0.0002	0.00815	<0.03	<0.00005	12.5	0.0256	<0.00001	0.0061	<0.0005	1.74	0.002	1.08	0.000037	<2	<0.00005	<0.0001	<0.0005	0.002
26-Nov-08	1127																				
3-Dec-08	1134																				
10-Dec-08	1141																				
17-Dec-08	1148	45.1	<0.0005	0.00017	0.00657	<0.03	<0.00005	10.6	0.0227	<0.00001	0.00614	<0.0005	1.69	0.0019	1.03	0.000031	<2	<0.00005	<0.0001	<0.0005	0.0012
24-Dec-08	1155																				
31-Dec-08	1162																				
7-Jan-09	1169																				
14-Jan-09	1176	46.4	<0.0005	0.0002	0.00654	<0.03	0.000062	14.7	0.0246	<0.00001	0.00665	<0.0005	1.88	0.0019	1.11	0.000031	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Jan-09	1183																				
28-Jan-09	1190																				
4-Feb-09	1197																				
11-Feb-09	1204	46.9	<0.0005	0.00018	0.00647	<0.03	<0.00005	16	0.0223	<0.00001	0.00676	<0.0005	1.75	0.0019	1.08	0.000021	<2	<0.00005	<0.0001	<0.0005	0.0011
18-Feb-09	1211																				
25-Feb-09	1218																				
4-Mar-09	1225																				
11-Mar-09	1232	49.4	<0.0005	0.00017	0.00722	<0.03	<0.00005	14.9	0.0231	<0.00001	0.00757	<0.0005	1.91	0.0026	1.09	0.000016	<2	<0.00005	<0.0001	<0.0005	0.003
18-Mar-09	1239																				
25-Mar-09	1246																				

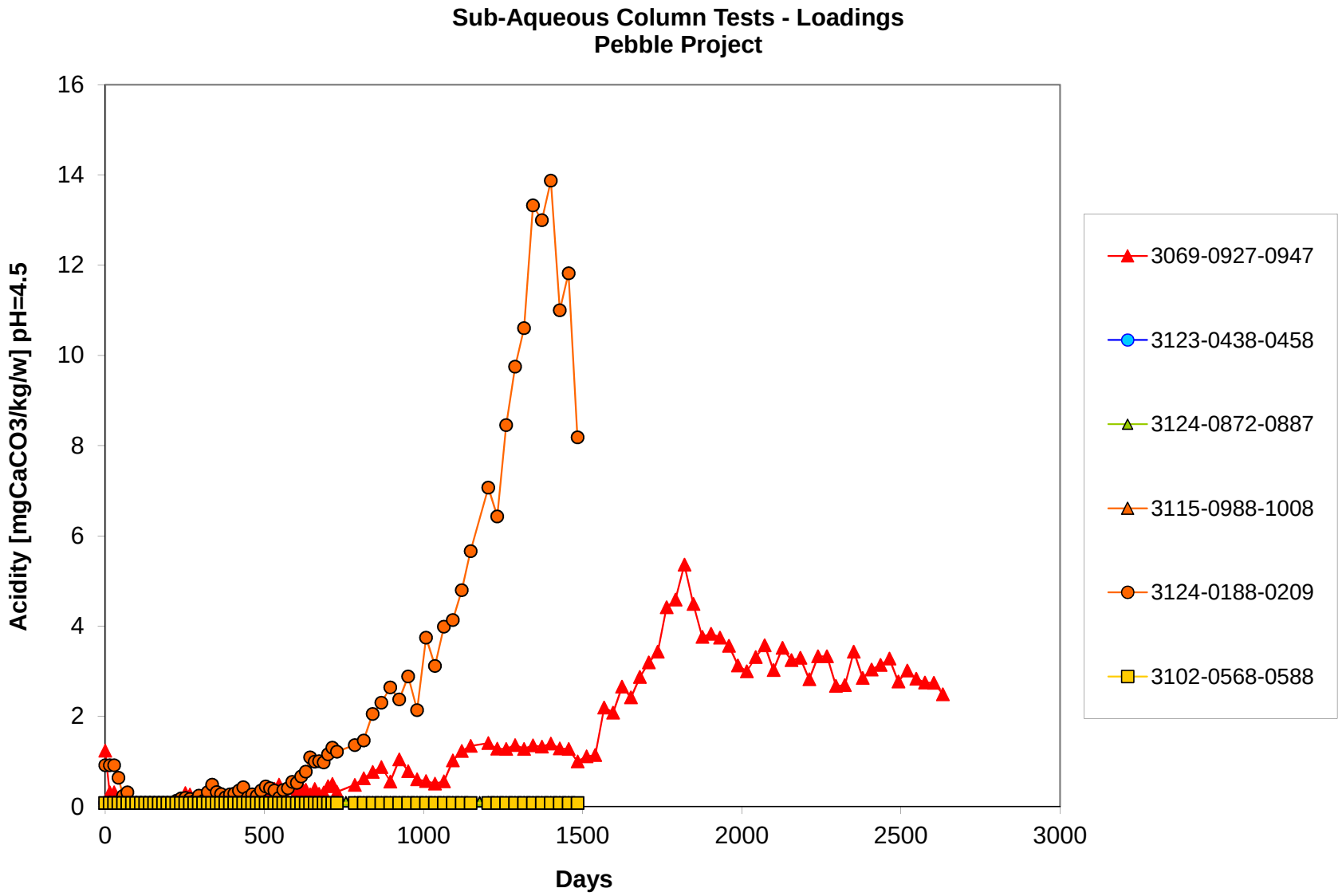
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L
1-Apr-09	1253																					
8-Apr-09	1260	400	400	7.83	357	347	<1	4.13	107.04	226	179	<0.5	0.086	89.7	0.0036	0.00147	0.00027	0.00657	<0.0002	<0.0005	0.017	<0.00005
15-Apr-09	1267																					
22-Apr-09	1274	50	50	7.89	372	336																
29-Apr-09	1281																					
6-May-09	1288	400	400	7.8	359	351	<1	4.47	106.03	232	198	<0.5	0.073	92.8	0.004	0.00138	0.00032	0.00897	<0.0002	<0.0005	0.021	<0.00005
13-May-09	1295																					
20-May-09	1302	50	50	7.78	358	341																
27-May-09	1309																					
3-Jun-09	1316	400	400	7.83	354	340	<1	4.6	108.22	236		<0.5	0.093	94.3								
10-Jun-09	1323																					
17-Jun-09	1330	50	50	7.88	381	320																
24-Jun-09	1337																					
1-Jul-09	1344	400	400	7.98	343	315	<1	3.6	106.85	227		<0.5	0.069	95.1								
8-Jul-09	1351																					
15-Jul-09	1358	50	50	8	348	314																
22-Jul-09	1365																					
29-Jul-09	1372	400	400	7.77	303	346	<1	7.13	103.49	227		<0.5	0.083	99.2								
5-Aug-09	1379																					
12-Aug-09	1386	50	50	7.73	298	351																
19-Aug-09	1393																					
26-Aug-09	1400	400	400	7.86	223	352	<1	5.03	102.73	240		<0.5	0.063	103								
2-Sep-09	1407																					
9-Sep-09	1414	50	50	8.01	294	356																
16-Sep-09	1421																					
23-Sep-09	1428	400	400	7.87	308	358	<1	5.04	104.72	239		<0.5	0.068	103								
30-Sep-09	1435																					
7-Oct-09	1442	50	50	7.75	250	355																
14-Oct-09	1449																					
21-Oct-09	1456	400	400	7.84	265	355	<1	4.48	103.39	235		<0.5	0.066	103								

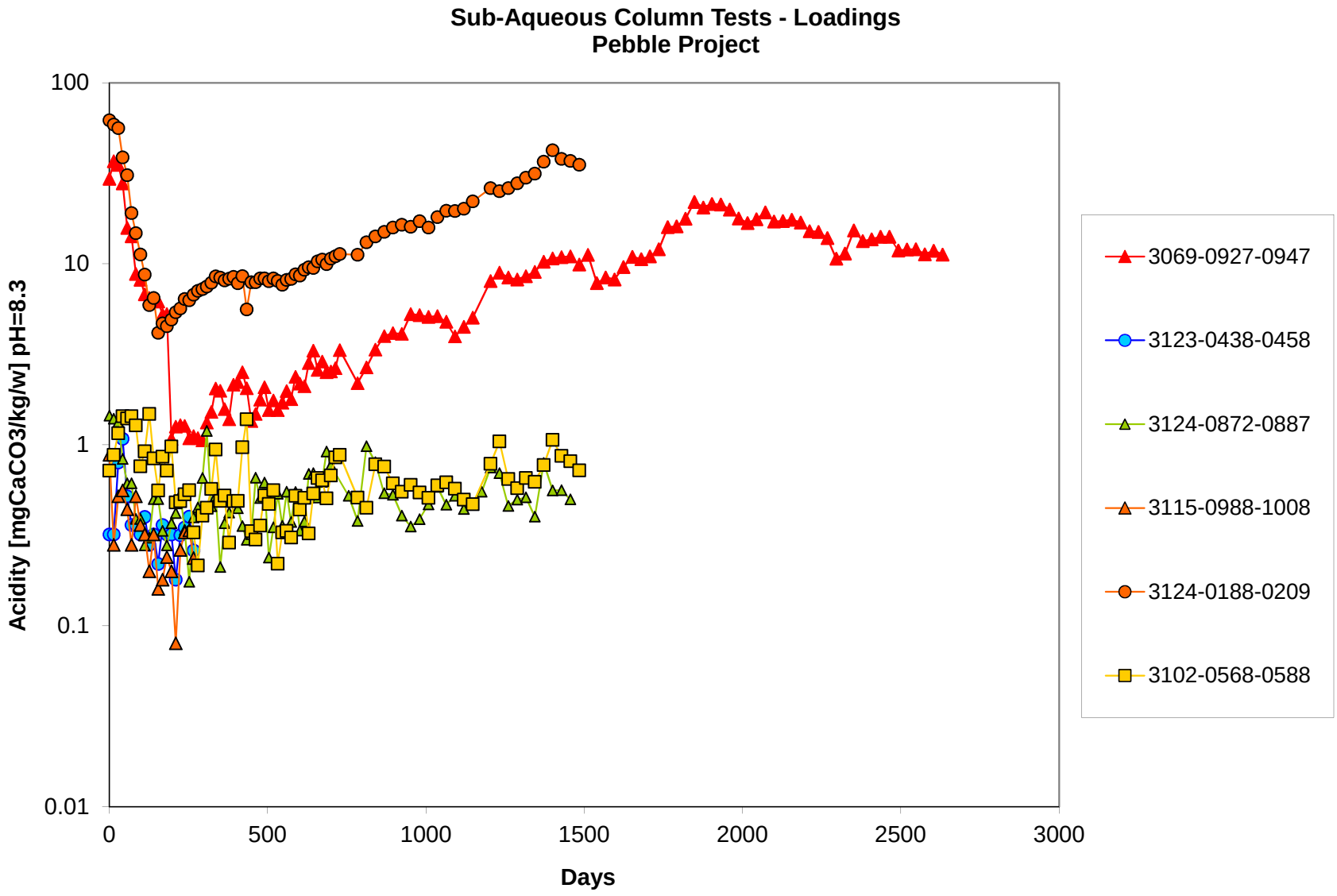
Date	Accum Days	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
1-Apr-09	1253																				
8-Apr-09	1260	47.5	<0.0005	0.00017	0.00695	<0.03	<0.00005	14.8	0.0215	<0.00001	0.00783	<0.0005	1.94	0.0022	1.14	0.000014	<2	<0.00005	<0.0001	<0.0005	<0.001
15-Apr-09	1267																				
22-Apr-09	1274																				
29-Apr-09	1281																				
6-May-09	1288	48.2	<0.0005	0.00015	0.00536	<0.03	<0.00005	18.9	0.02	<0.00001	0.00832	<0.0005	1.83	0.0024	1.06	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-May-09	1295																				
20-May-09	1302																				
27-May-09	1309																				
3-Jun-09	1316																				
10-Jun-09	1323																				
17-Jun-09	1330																				
24-Jun-09	1337																				
1-Jul-09	1344																				
8-Jul-09	1351																				
15-Jul-09	1358																				
22-Jul-09	1365																				
29-Jul-09	1372																				
5-Aug-09	1379																				
12-Aug-09	1386																				
19-Aug-09	1393																				
26-Aug-09	1400																				
2-Sep-09	1407																				
9-Sep-09	1414																				
16-Sep-09	1421																				
23-Sep-09	1428																				
30-Sep-09	1435																				
7-Oct-09	1442																				
14-Oct-09	1449																				
21-Oct-09	1456																				

Appendix 11G, Loading Trend Charts for Subaqueous Column Tests on Waste Rock

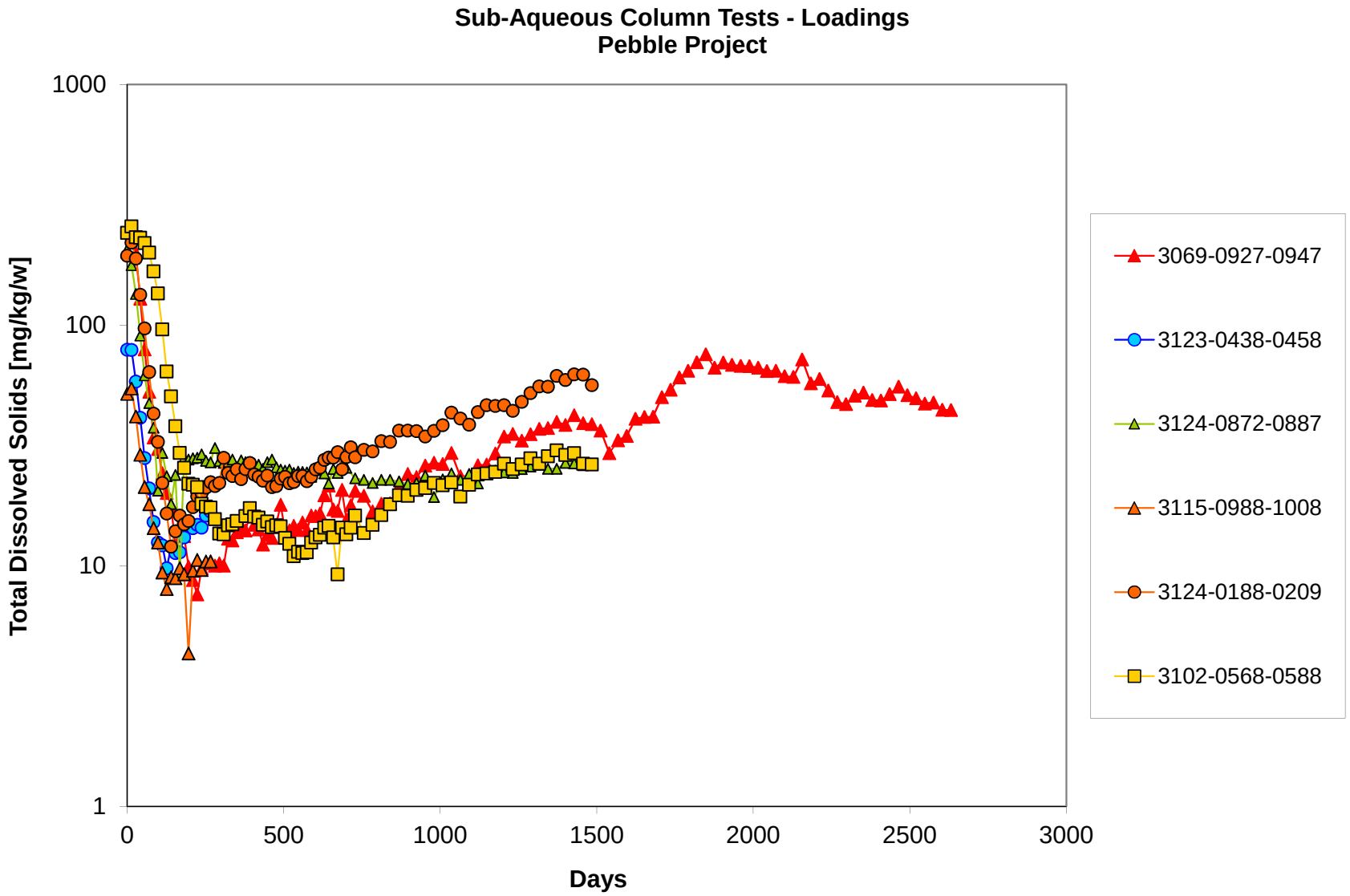

Subaqueous Columns - Concentrations
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
0
500
1000
1500
2000
2500
3000
3115-0988-1008
3124-0188-0209
3102-0568-0588
3069-0927-0947
3123-0438-0458
3124-0872-0887

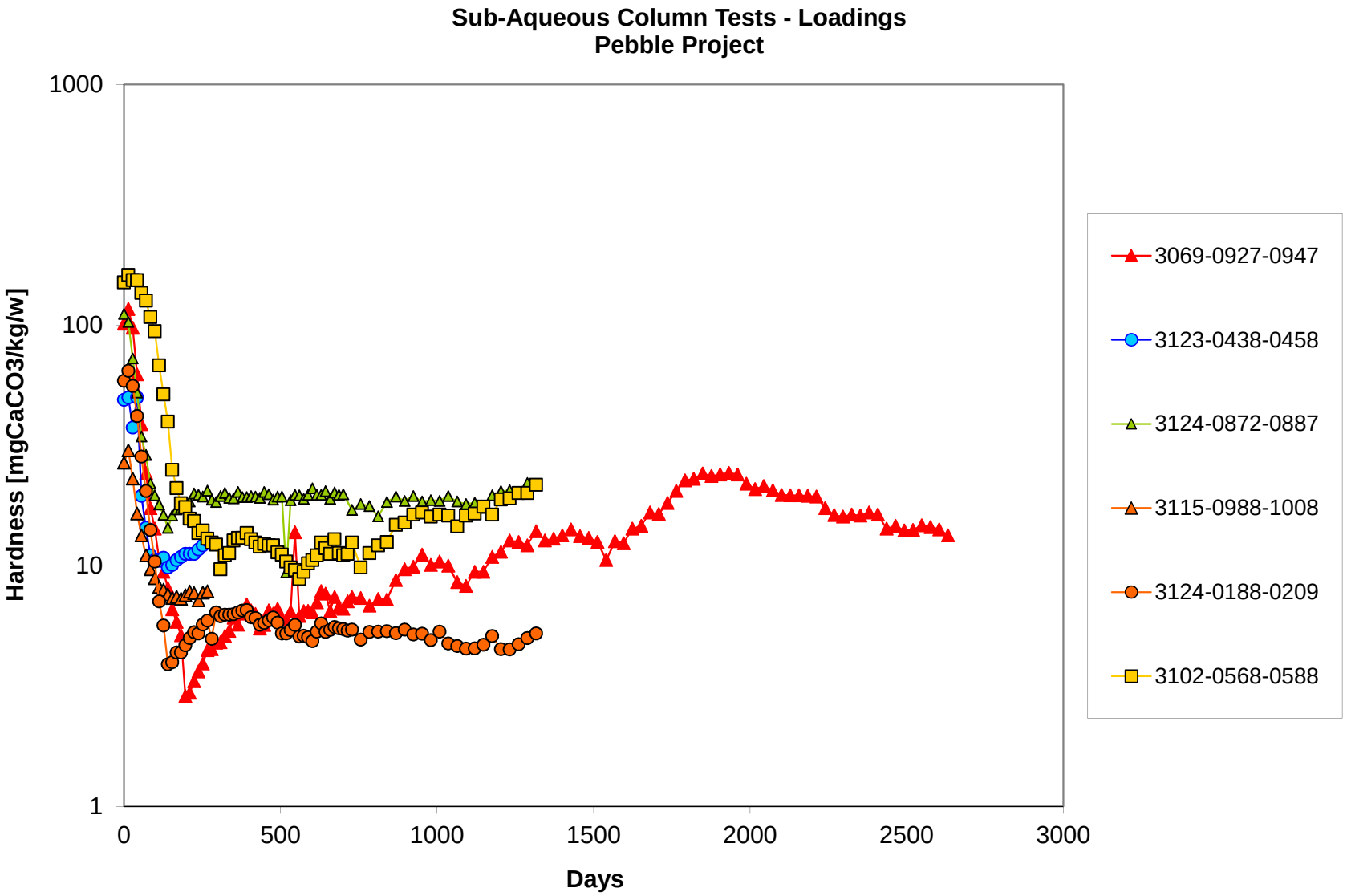

Subaqueous Columns - Concentrations
Pebble Project
Conductivity [umhos/cm]
5010
4510
4010
3510
3010
2510
2010
1510
1010
510
10
0
500
1000
1500
2000
2500
3000
Days
3115-0988-1008
3124-0188-0209
3102-0568-0588
3069-0927-0947
3123-0438-0458
3124-0872-0887

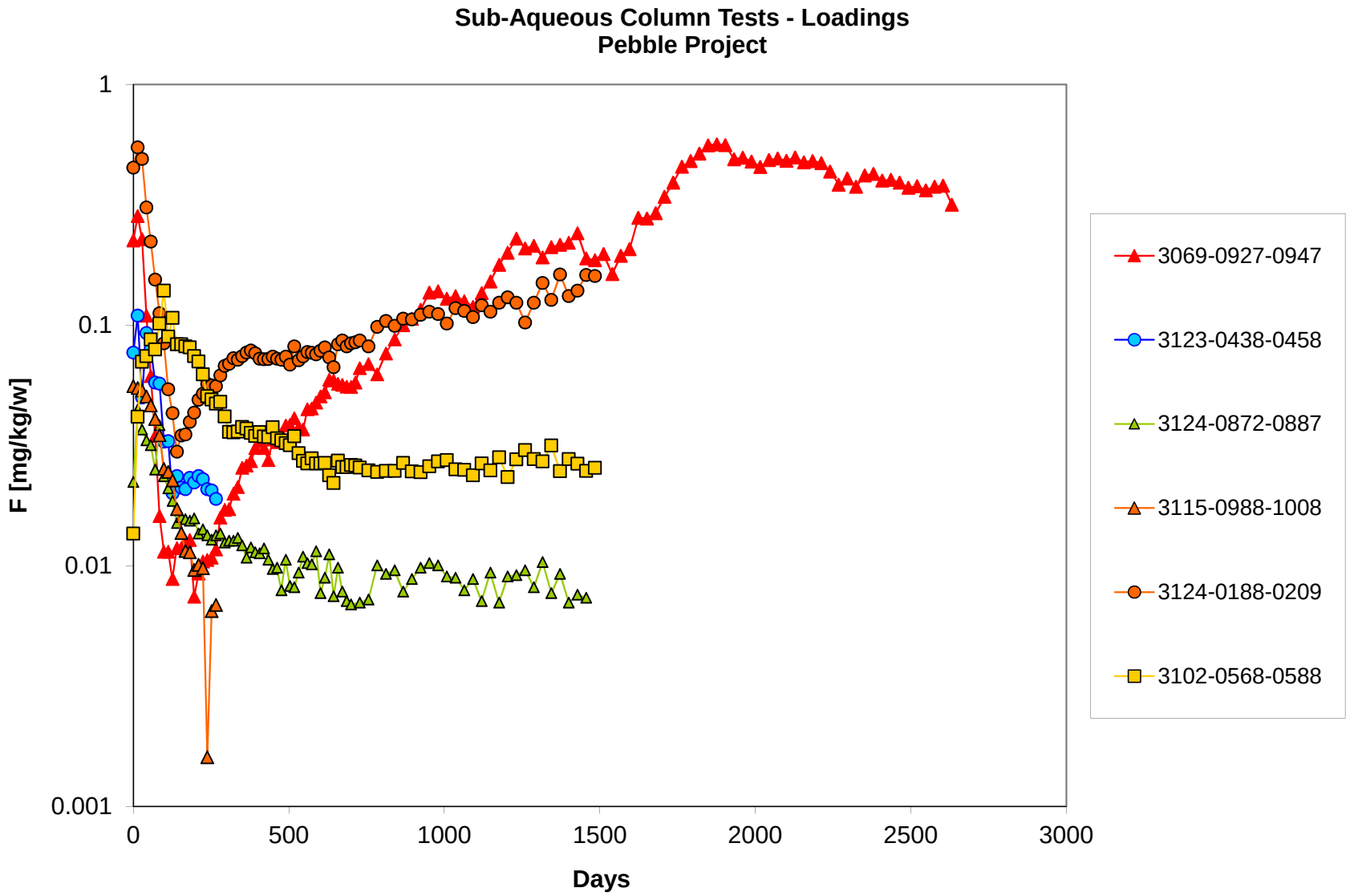

Sub-Aqueous Column Tests - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=4.5
Days
0
2
4
6
8
10
12
14
16
0
500
1000
1500
2000
2500
3000
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

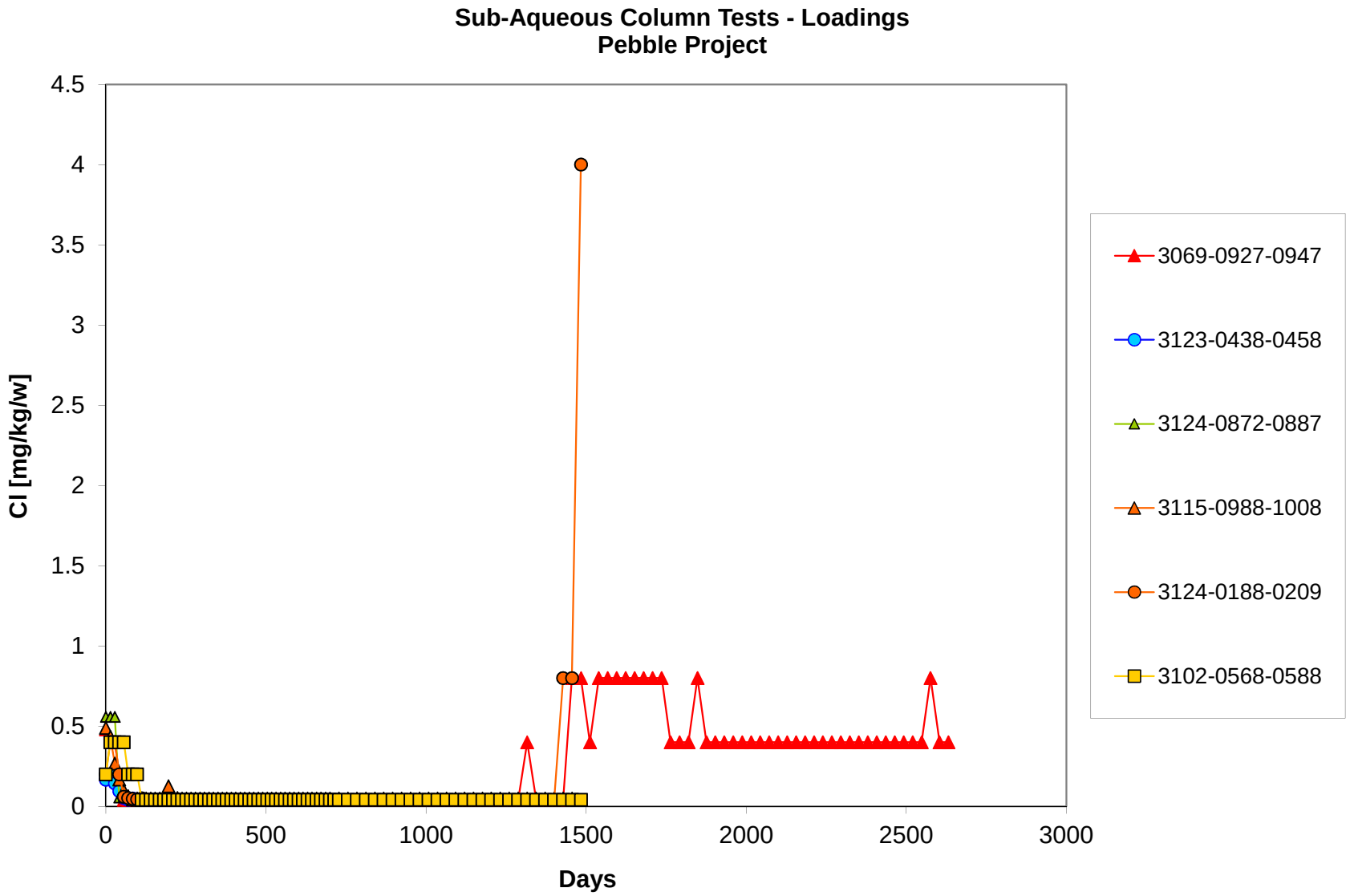

Sub-Aqueous Column Tests - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=8.3
100
10
1
0.1
0.01
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

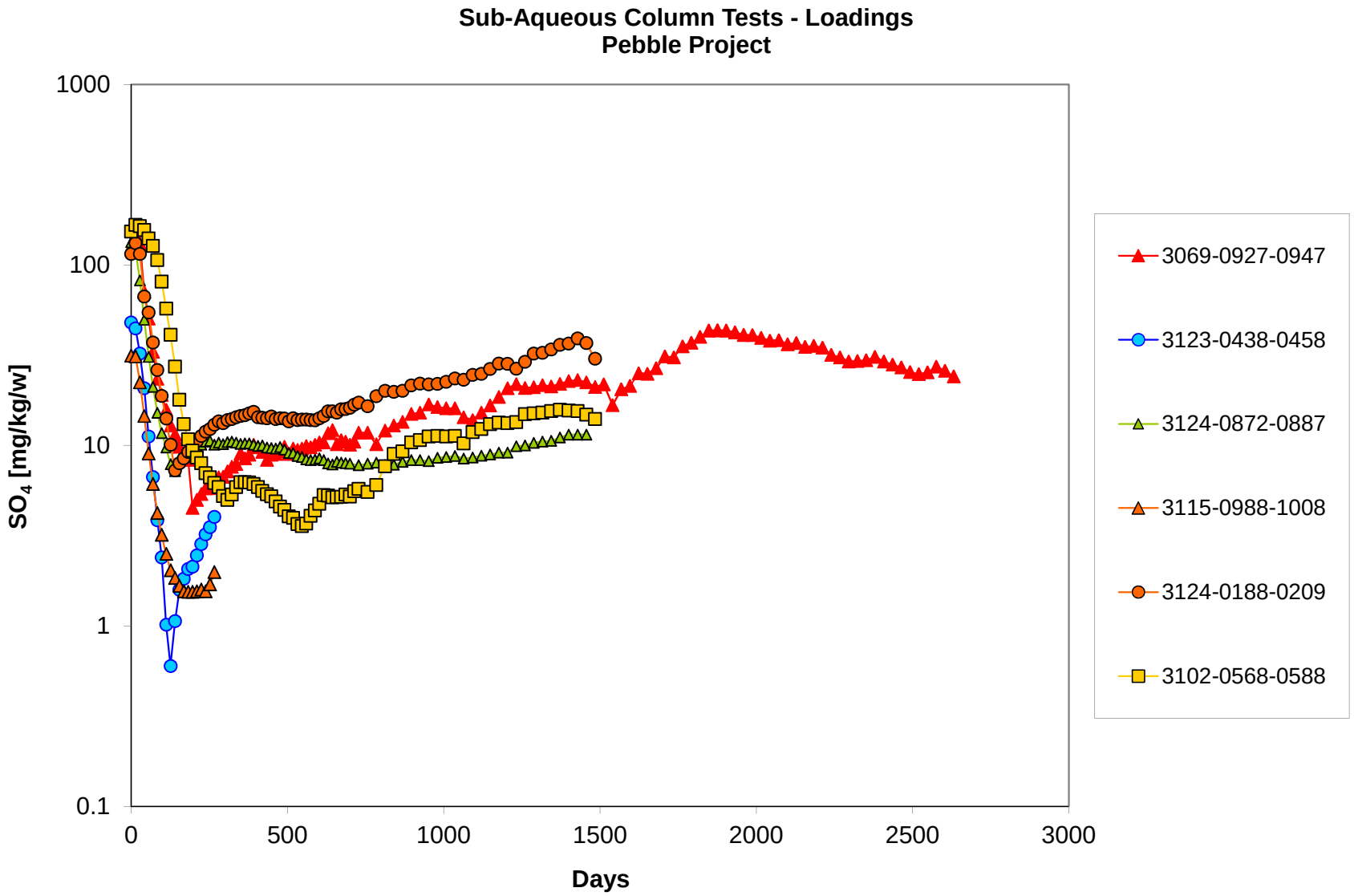

Sub-Aqueous Column Tests - Loadings
Pebble Project
Alkalinity [mgCaCO3/kg/w]
100
10
1
0.1
0.01
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

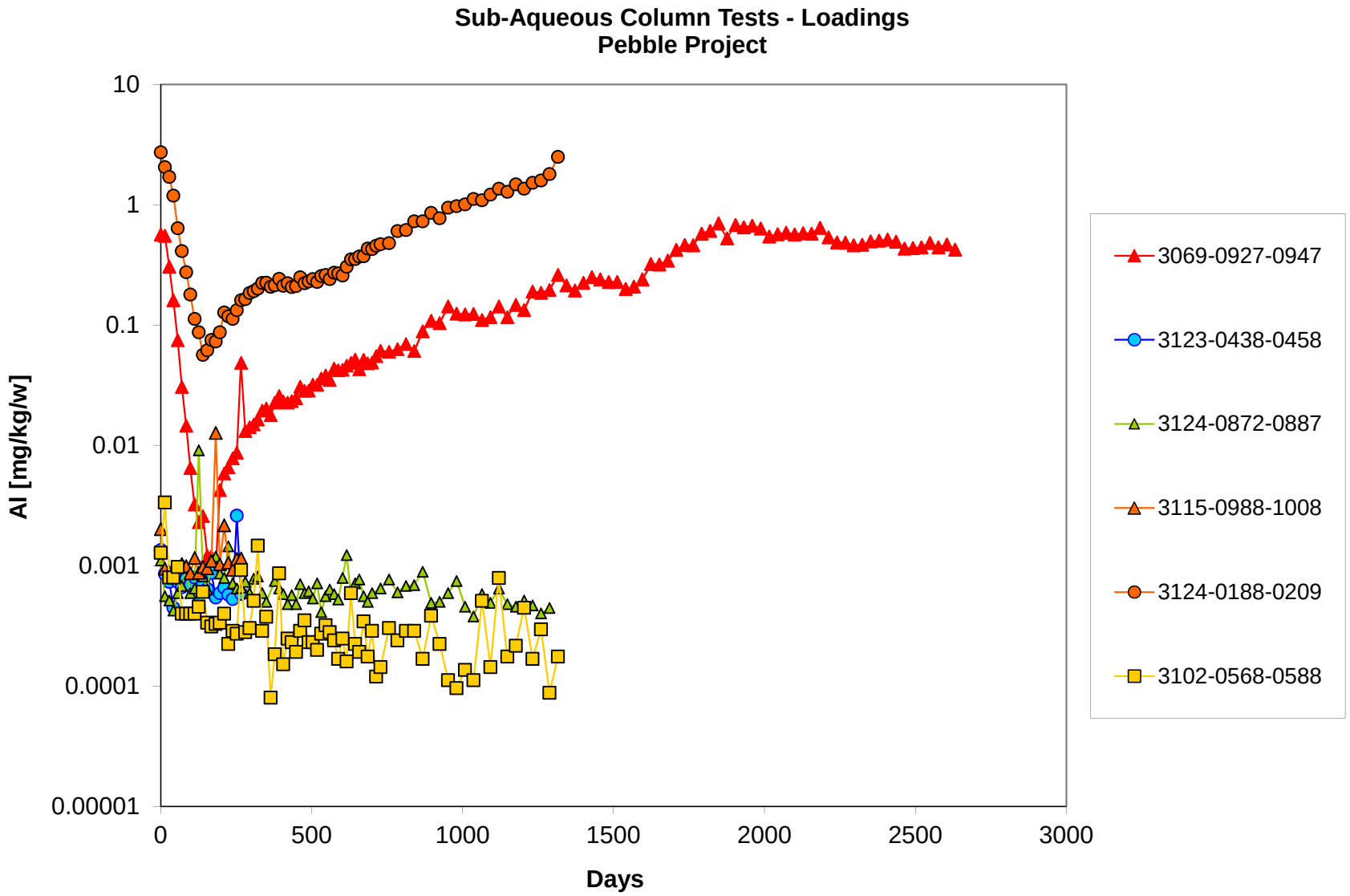

Sub-Aqueous Column Tests - Loadings
Pebble Project
Total Dissolved Solids [mg/kg/w]
1000
100
10
1
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

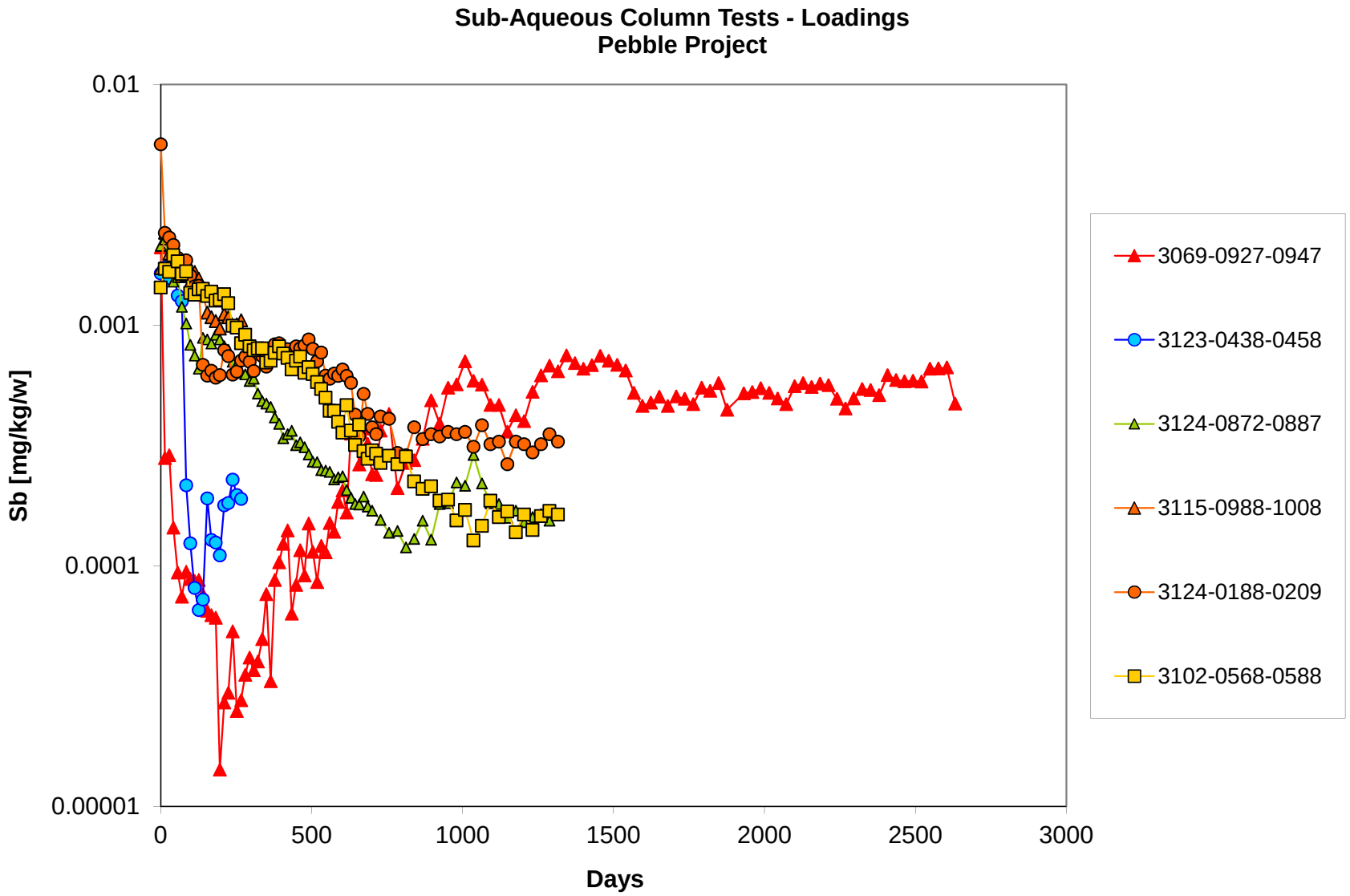

Sub-Aqueous Column Tests - Loadings
Pebble Project
Hardness [mgCaCO3/kg/w]
1000
100
10
1
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

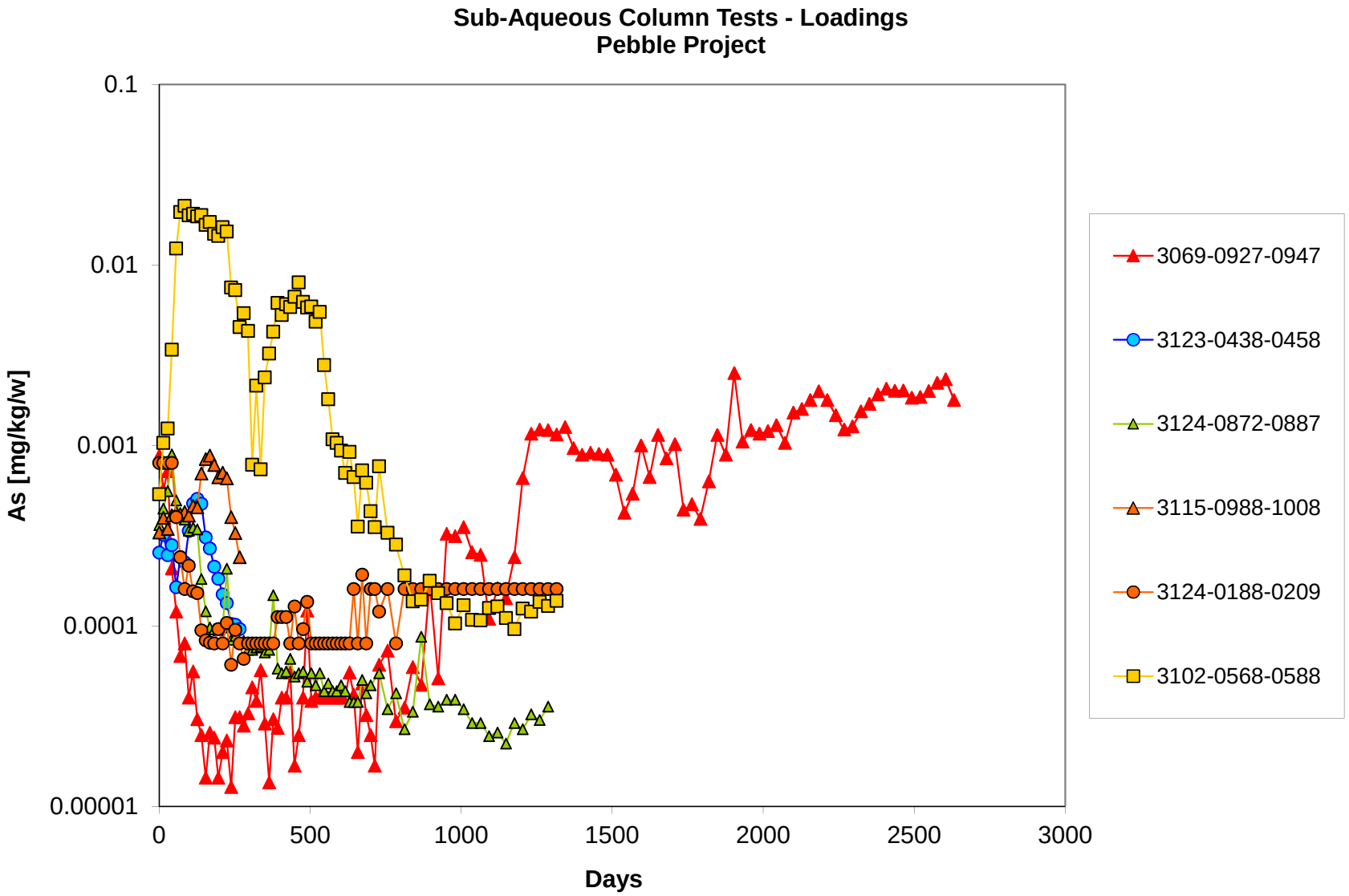

Sub-Aqueous Column Tests - Loadings
Pebble Project
F [mg/kg/w]
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

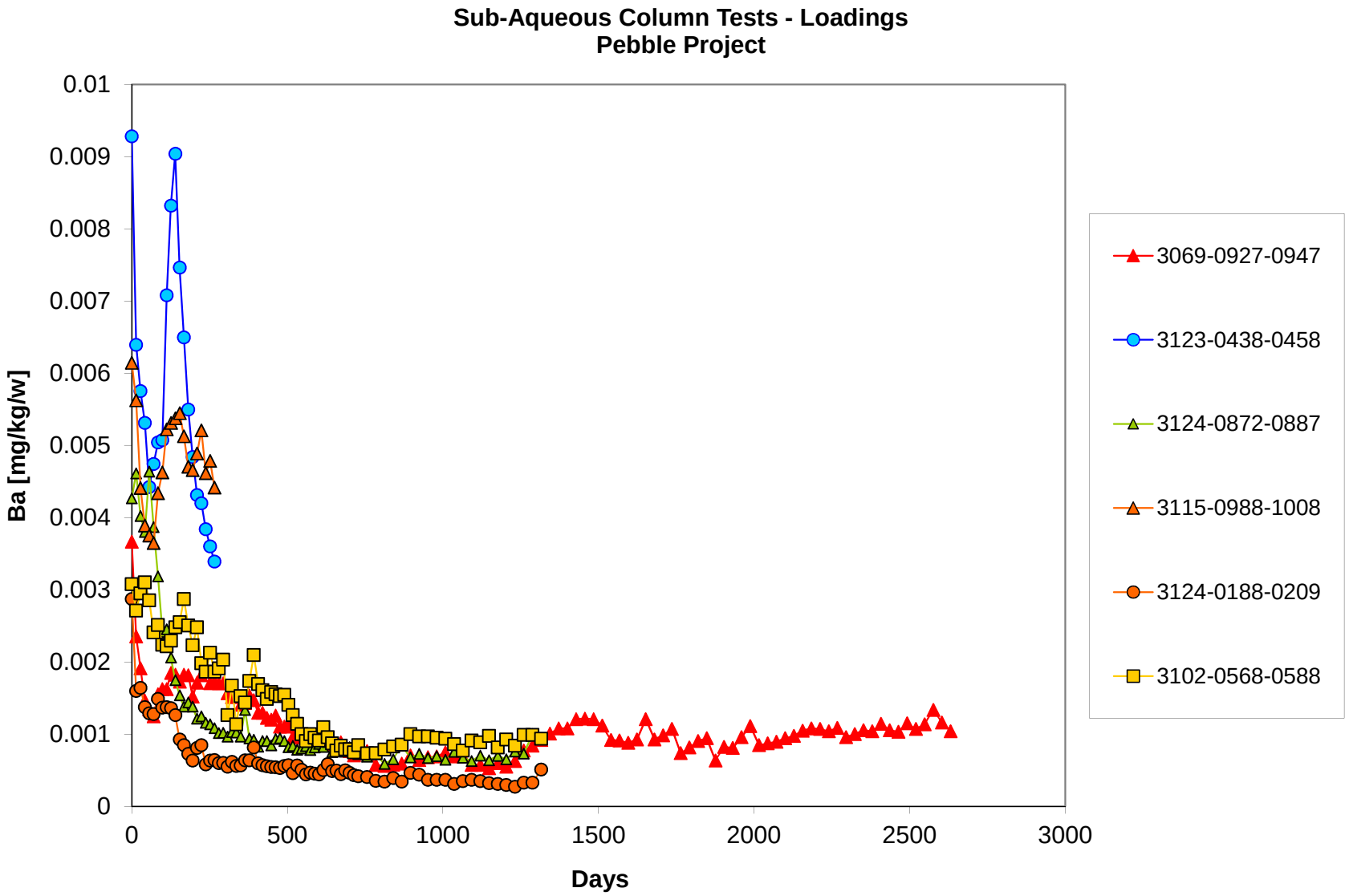

Sub-Aqueous Column Tests - Loadings
Pebble Project
Cl [mg/kg/w]
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

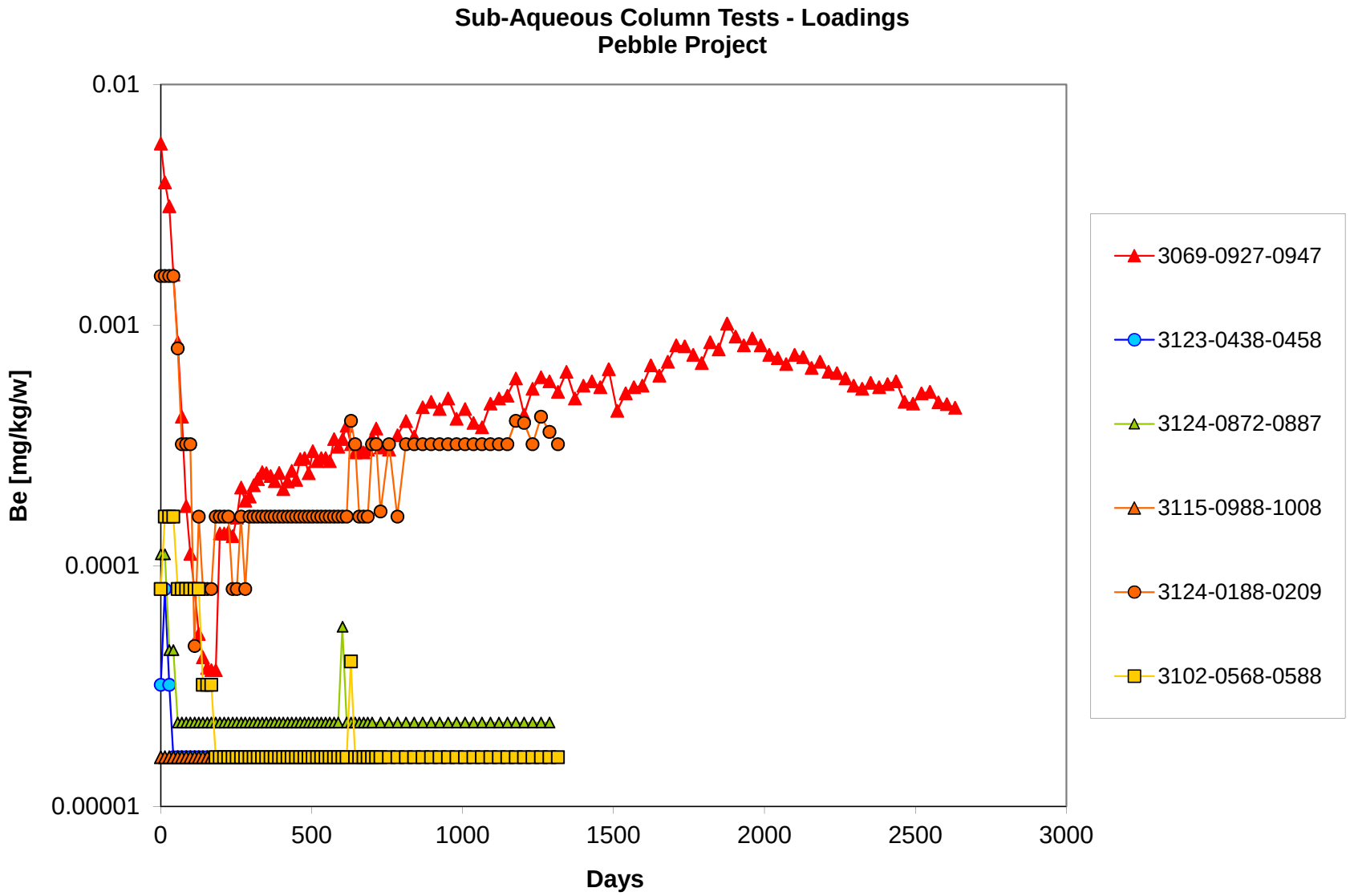

Sub-Aqueous Column Tests - Loadings
Pebble Project
1000
100
10
1
0.1
SO4 [mg/kg/w]
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

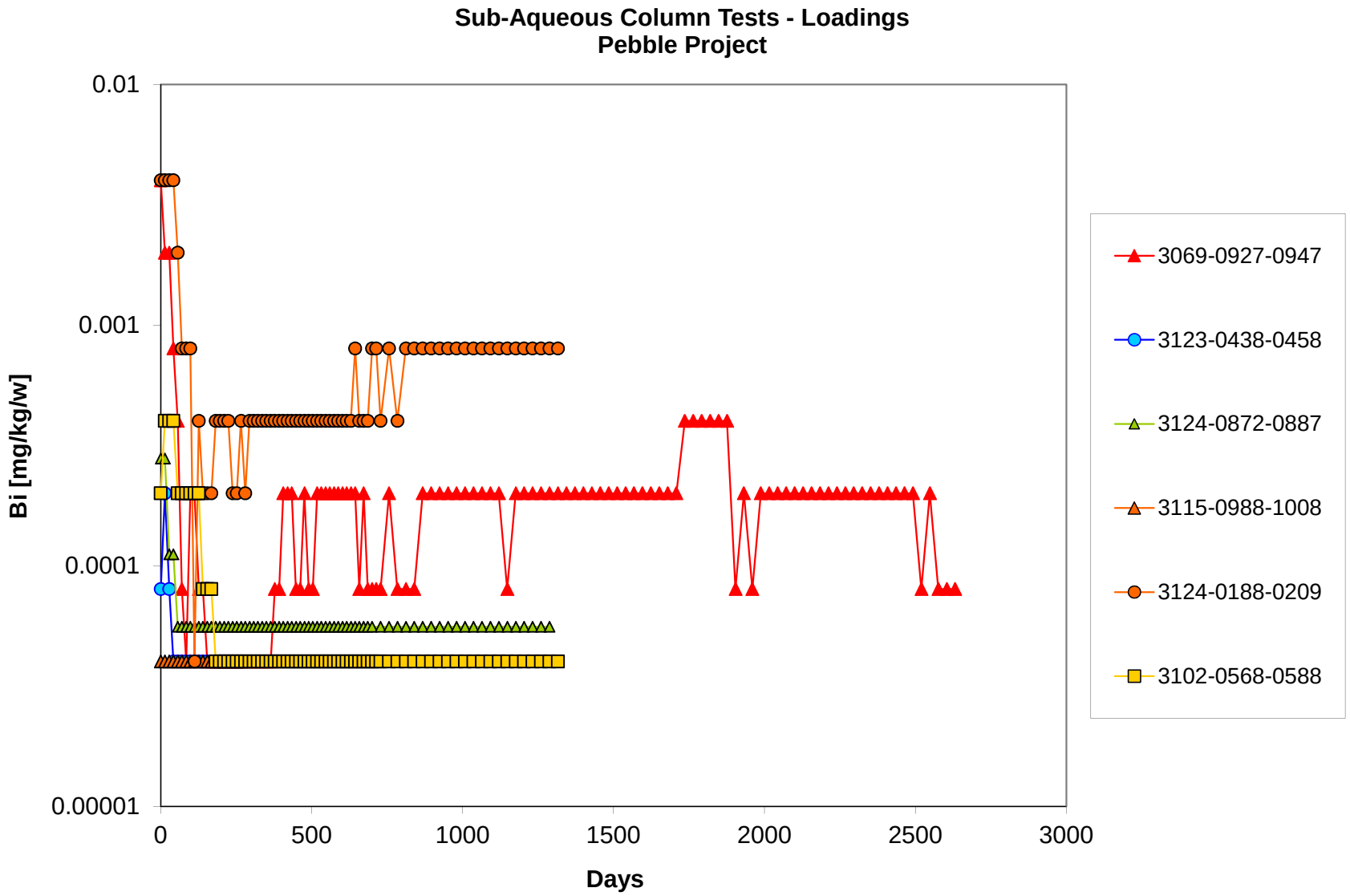

Sub-Aqueous Column Tests - Loadings
Pebble Project
Al [mg/kg/w]
10
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588


Sub-Aqueous Column Tests - Loadings
Pebble Project
0.01
0.001
0.0001
0.00001
Sb [mg/kg/w]
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

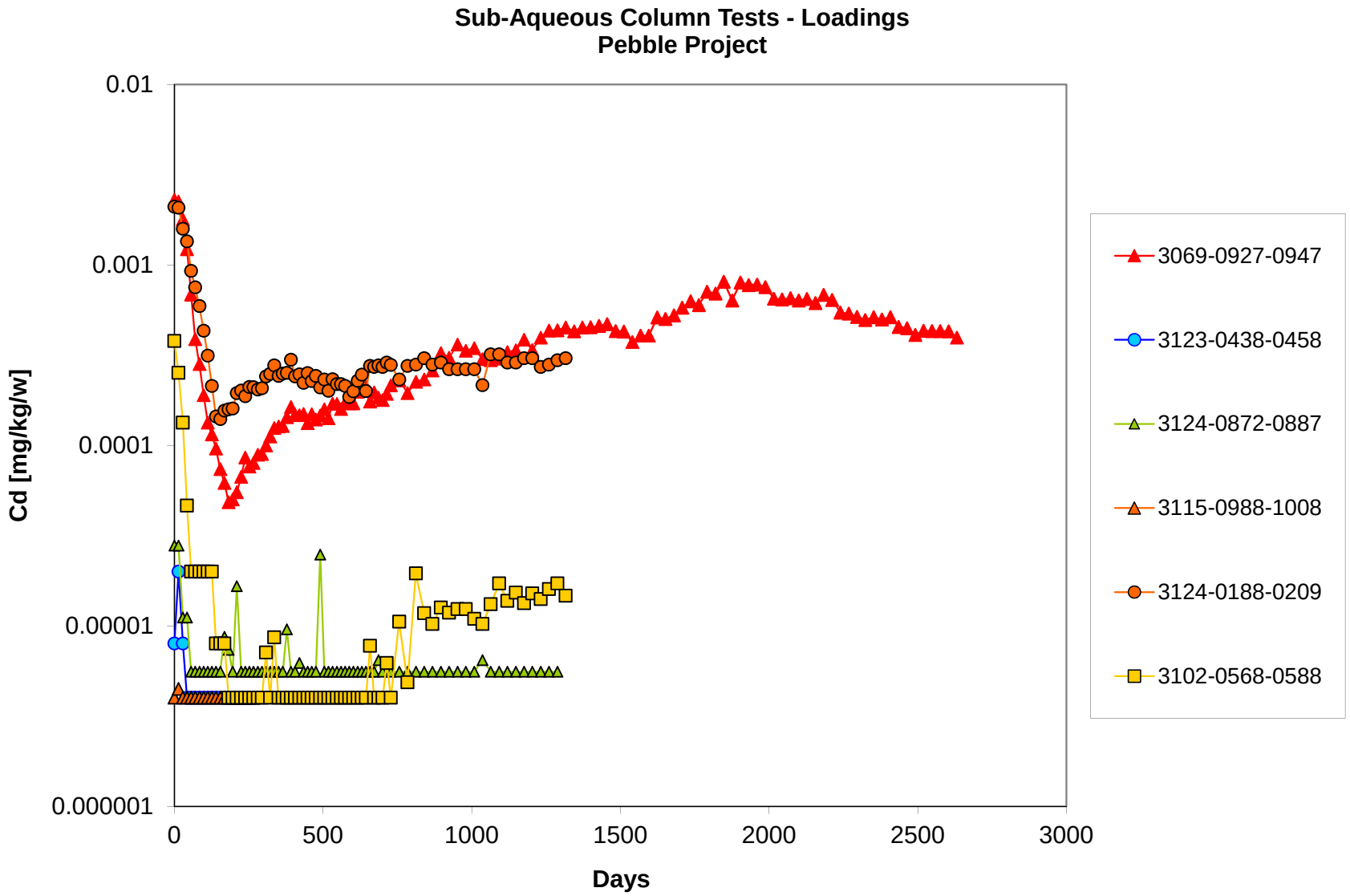

Sub-Aqueous Column Tests - Loadings
Pebble Project
As [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

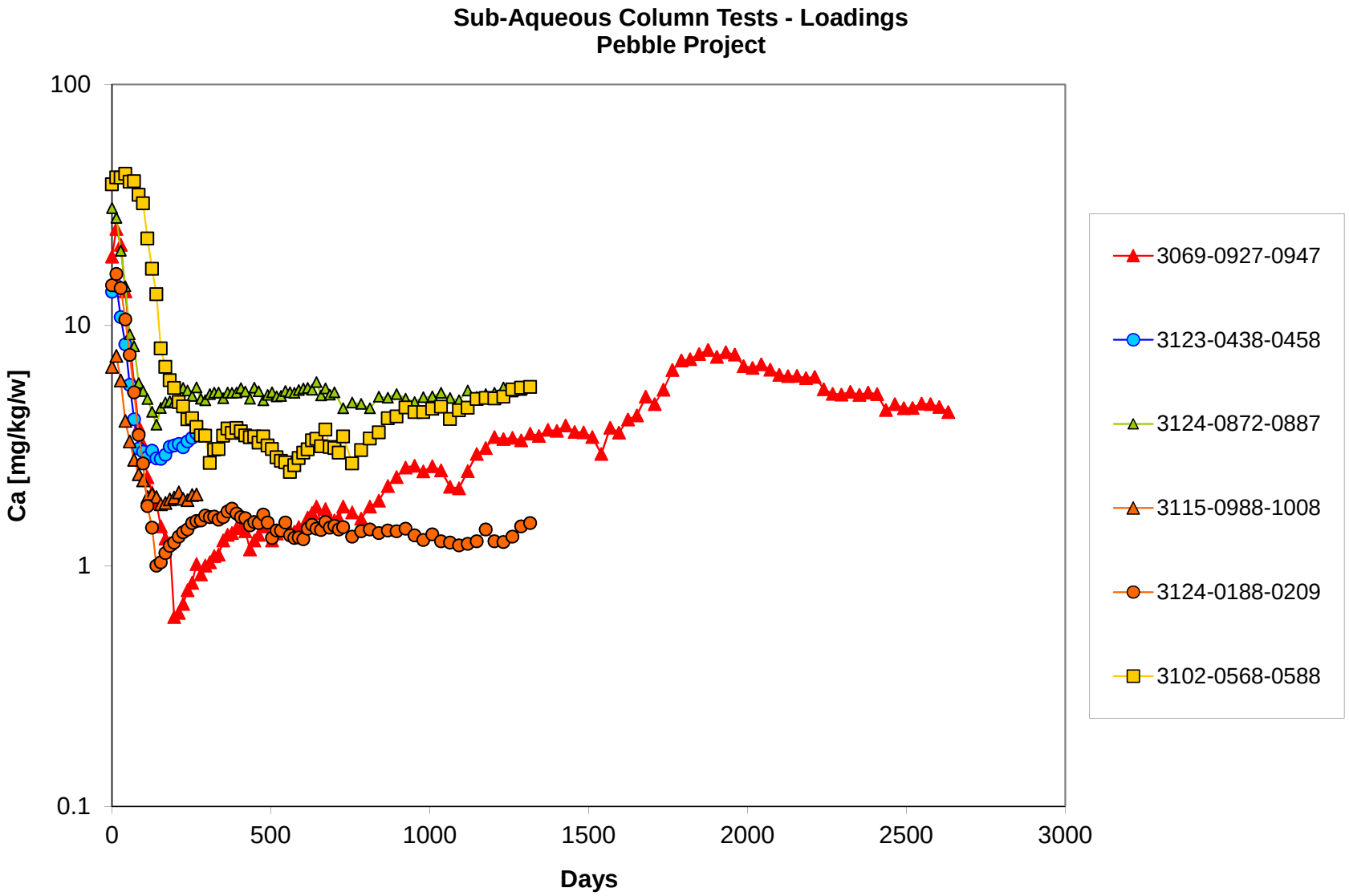

Sub-Aqueous Column Tests - Loadings
Pebble Project
Ba [mg/kg/w]
0.01
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

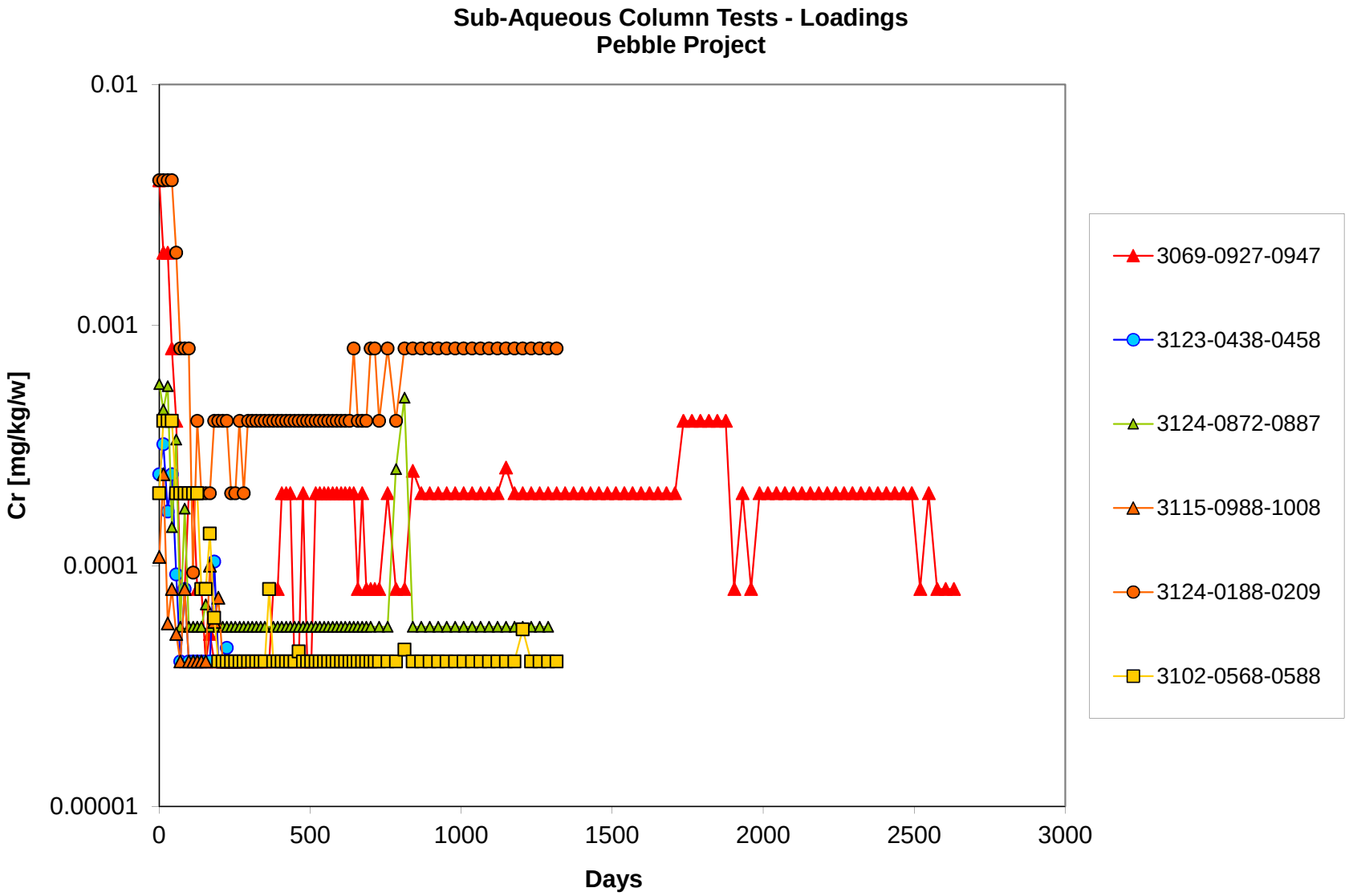

Sub-Aqueous Column Tests - Loadings
Pebble Project
Be [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

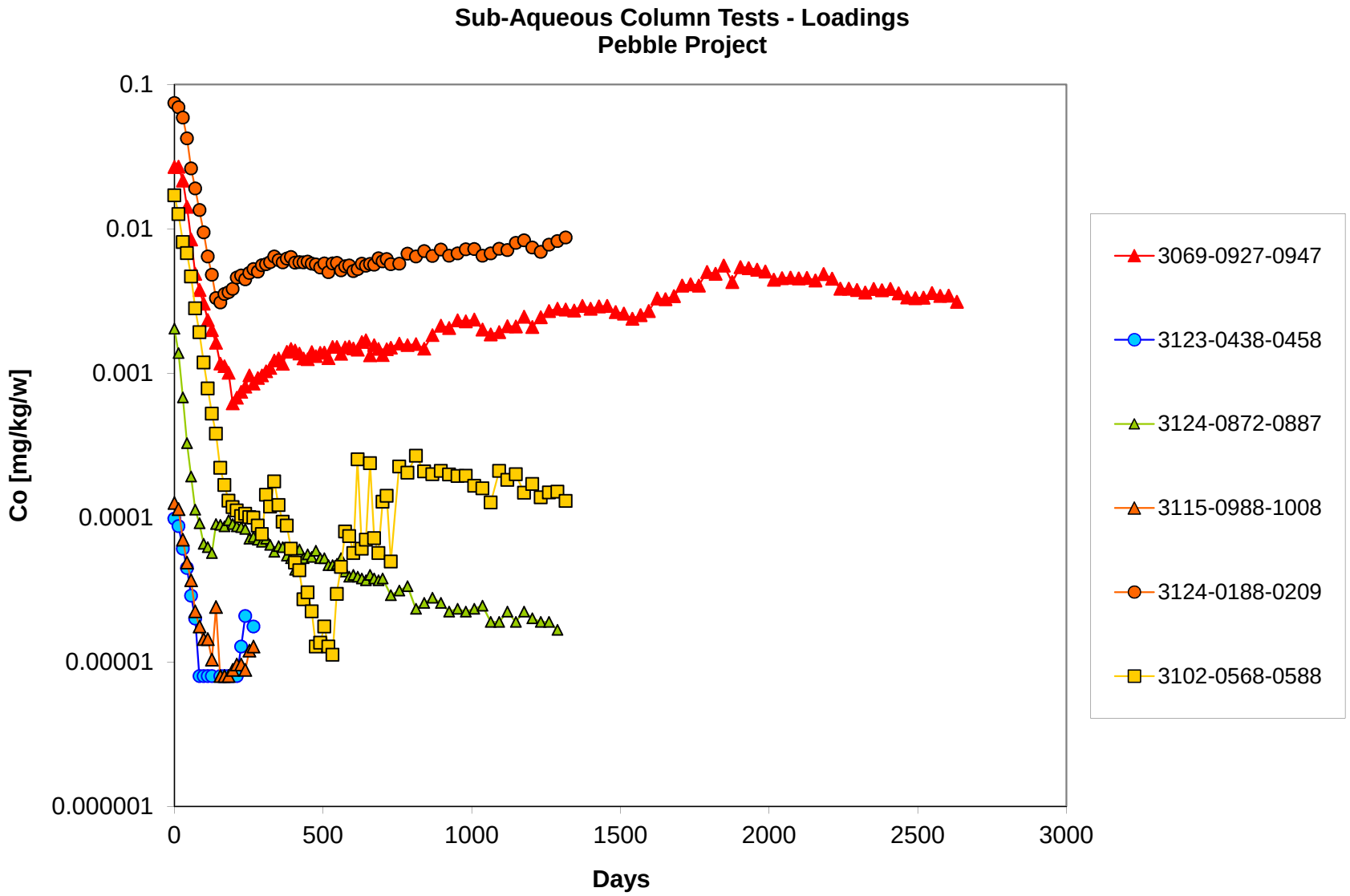

Sub-Aqueous Column Tests - Loadings
Pebble Project
Bi [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

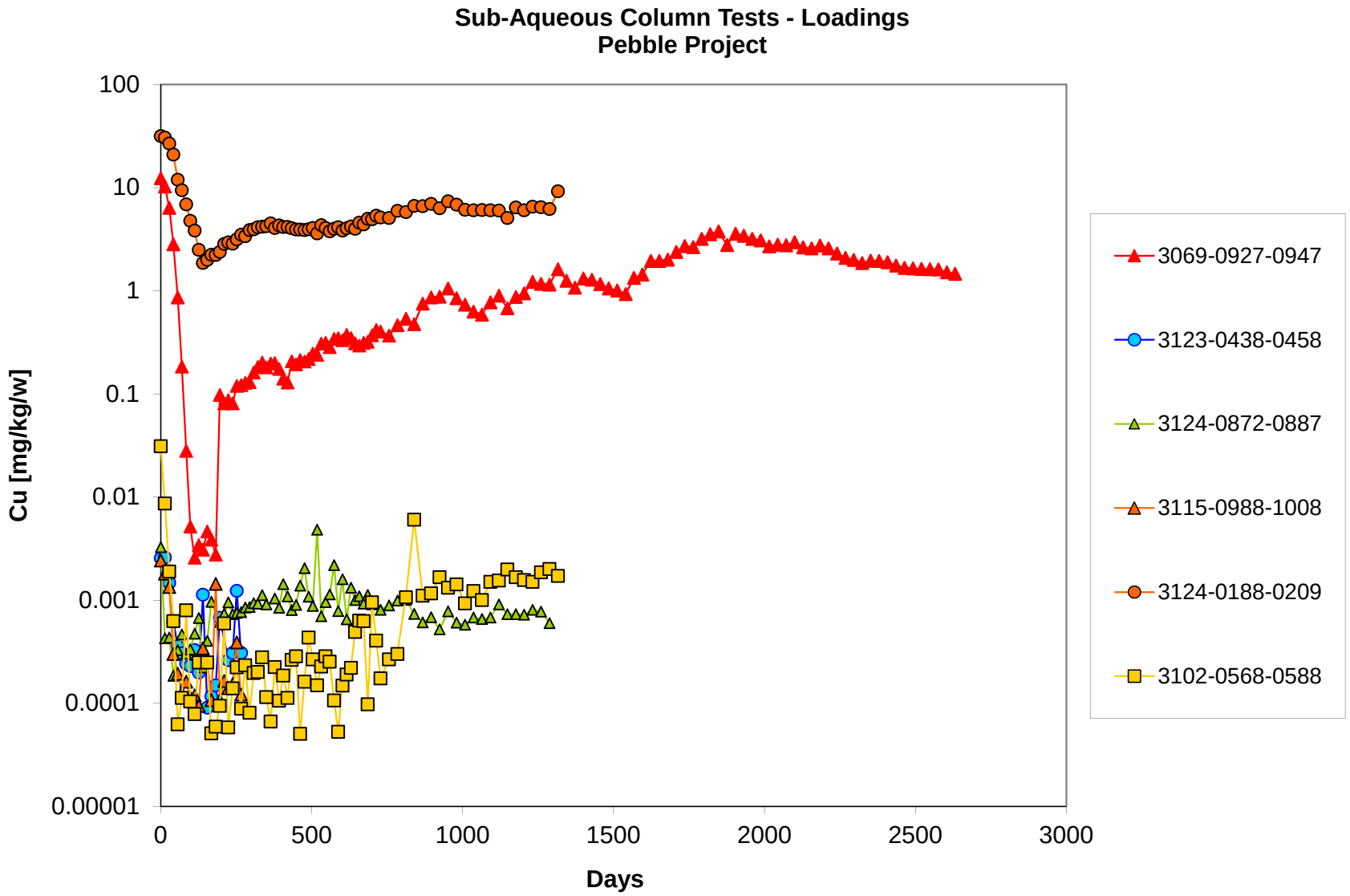

Sub-Aqueous Column Tests - Loadings
Pebble Project
B [mg/kg/w]
0.1
0.01
0.001
0.0001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

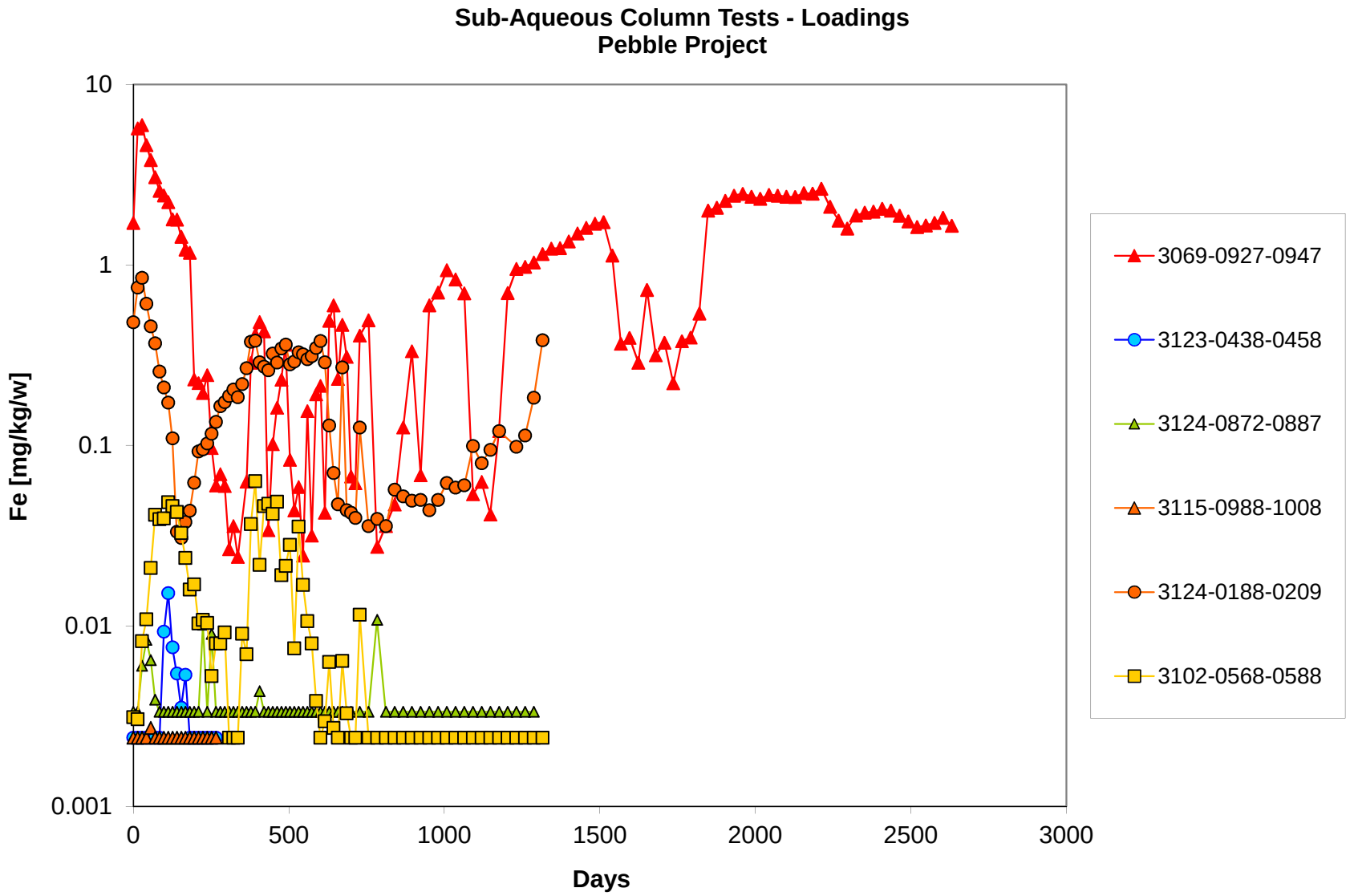

Sub-Aqueous Column Tests - Loadings
Pebble Project
0.01
0.001
0.0001
0.00001
0.000001
Cd [mg/kg/w]
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

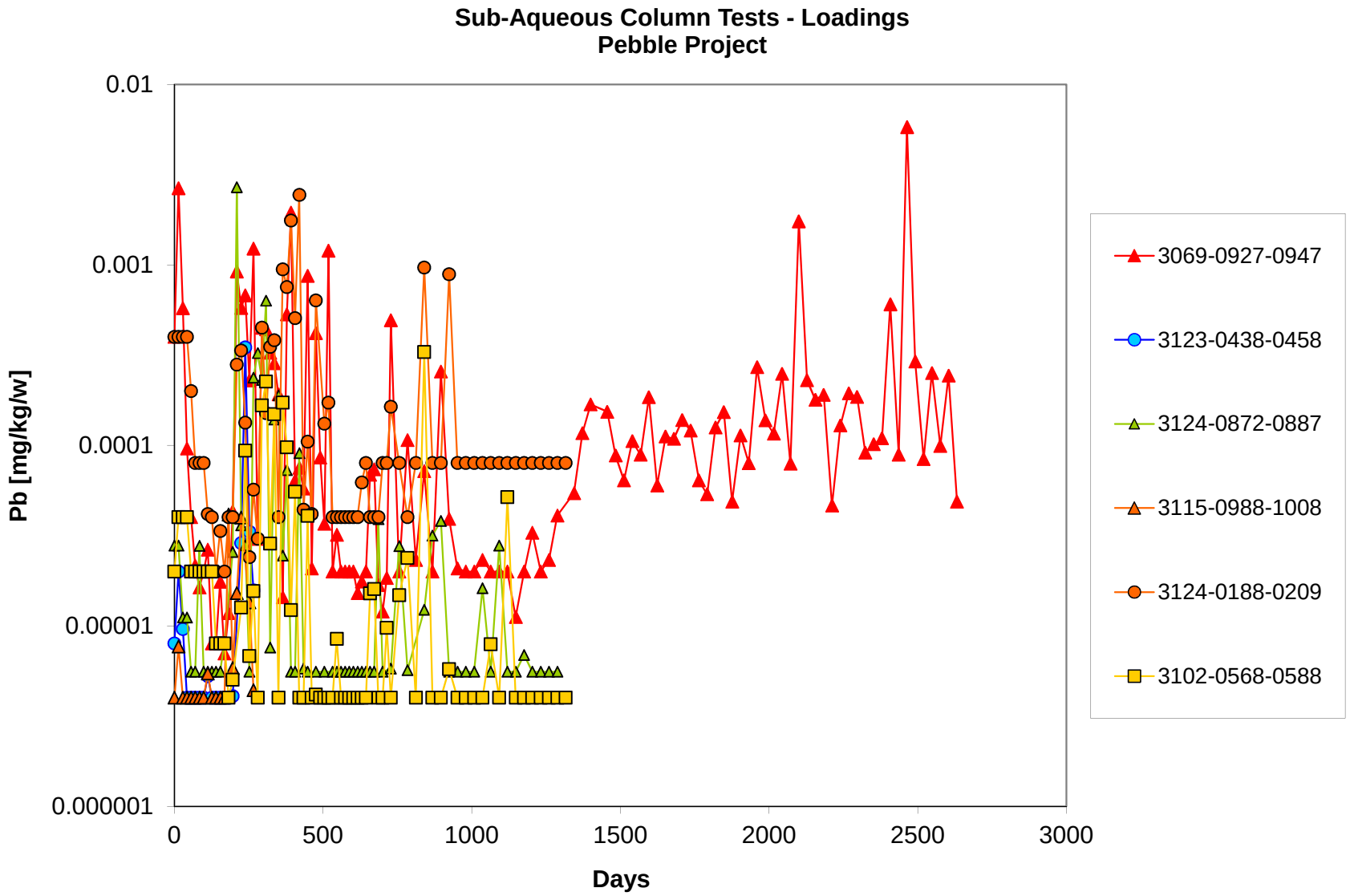

Sub-Aqueous Column Tests - Loadings
Pebble Project
Ca [mg/kg/w]
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

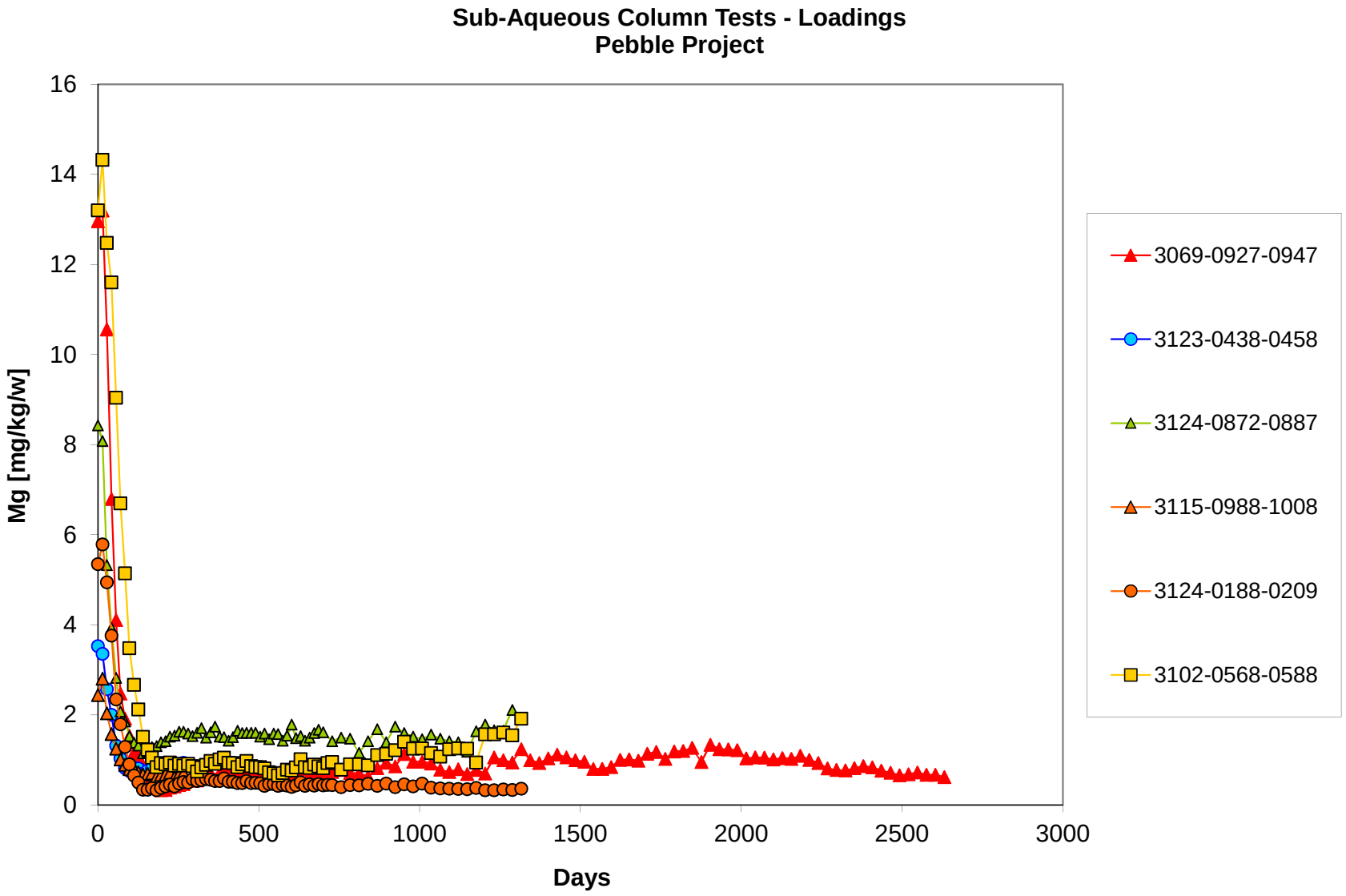

Sub-Aqueous Column Tests - Loadings
Pebble Project
Cr [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

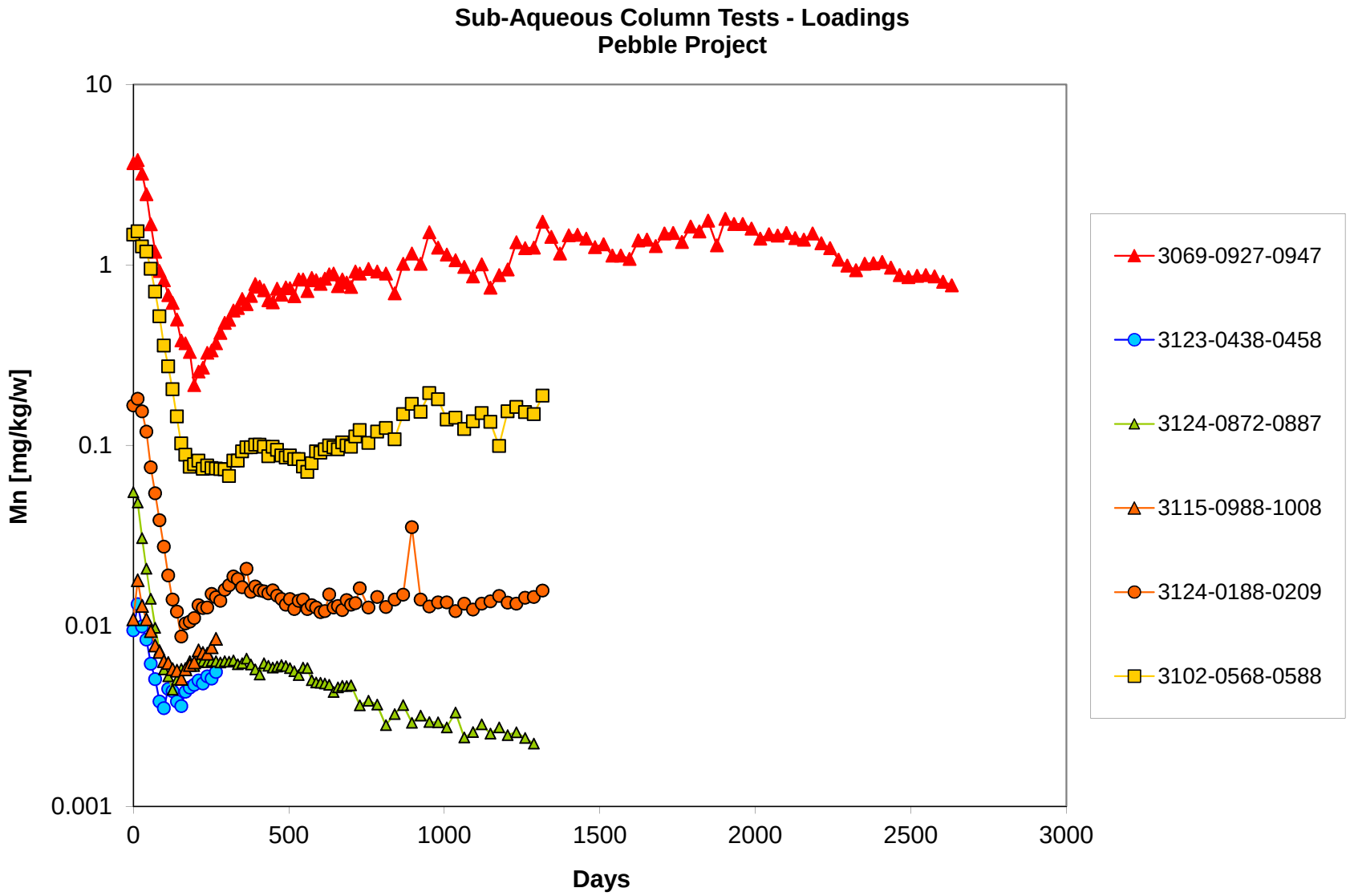

Sub-Aqueous Column Tests - Loadings
Pebble Project
Co [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0.000001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

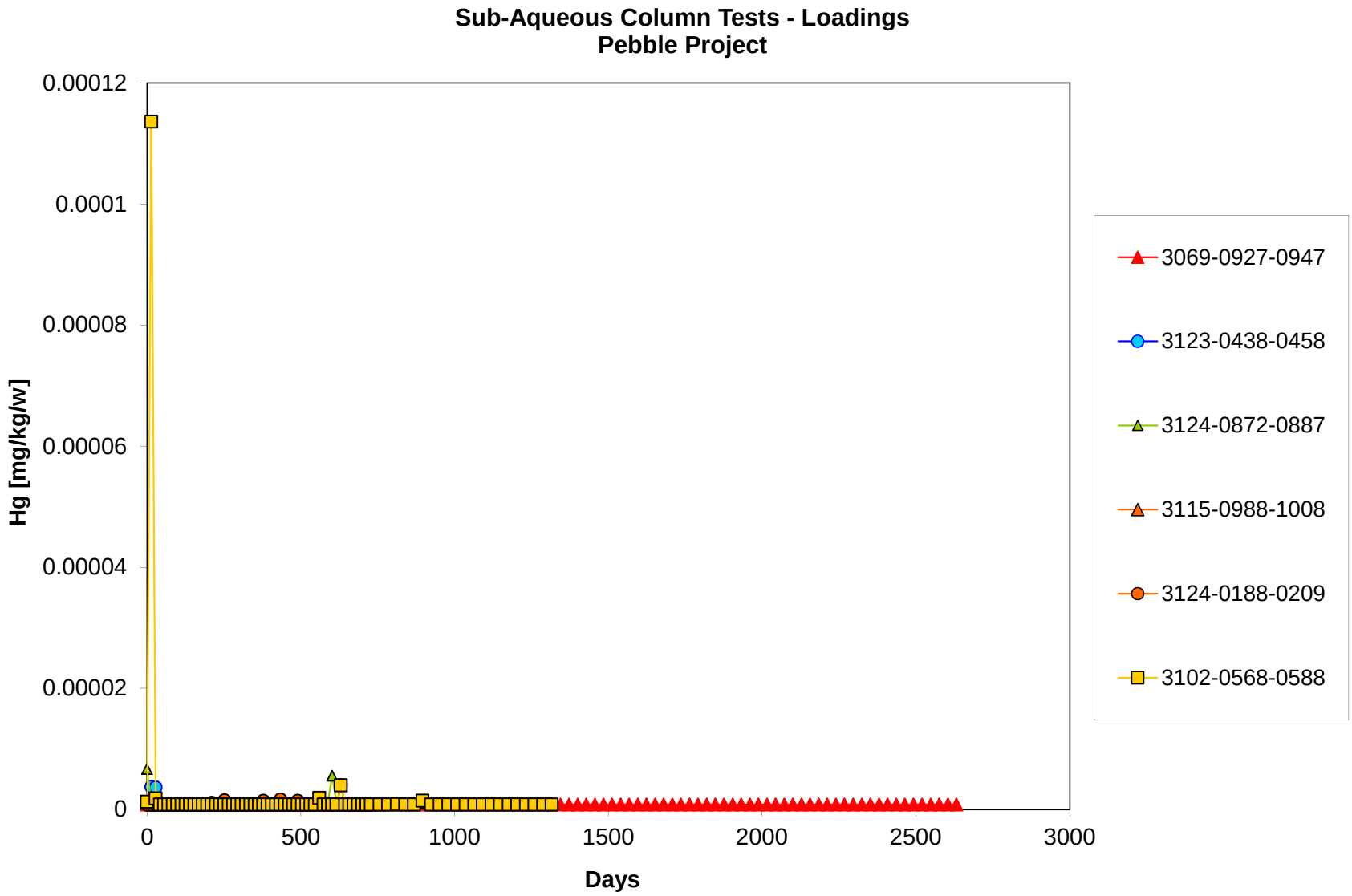

Sub-Aqueous Column Tests - Loadings
Pebble Project
Cu [mg/kg/w]
100
10
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

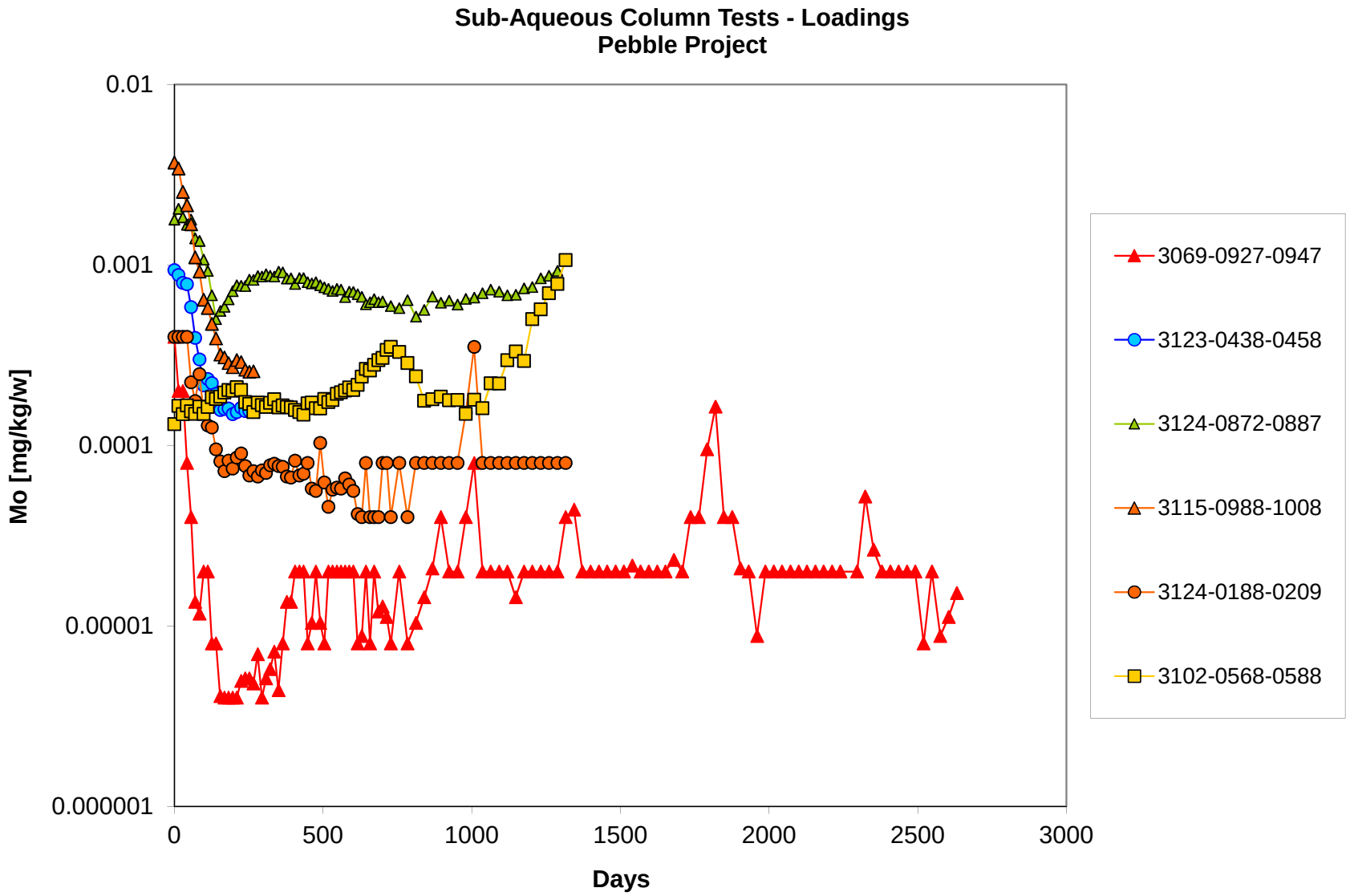

Sub-Aqueous Column Tests - Loadings
Pebble Project
Fe [mg/kg/w]
10
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

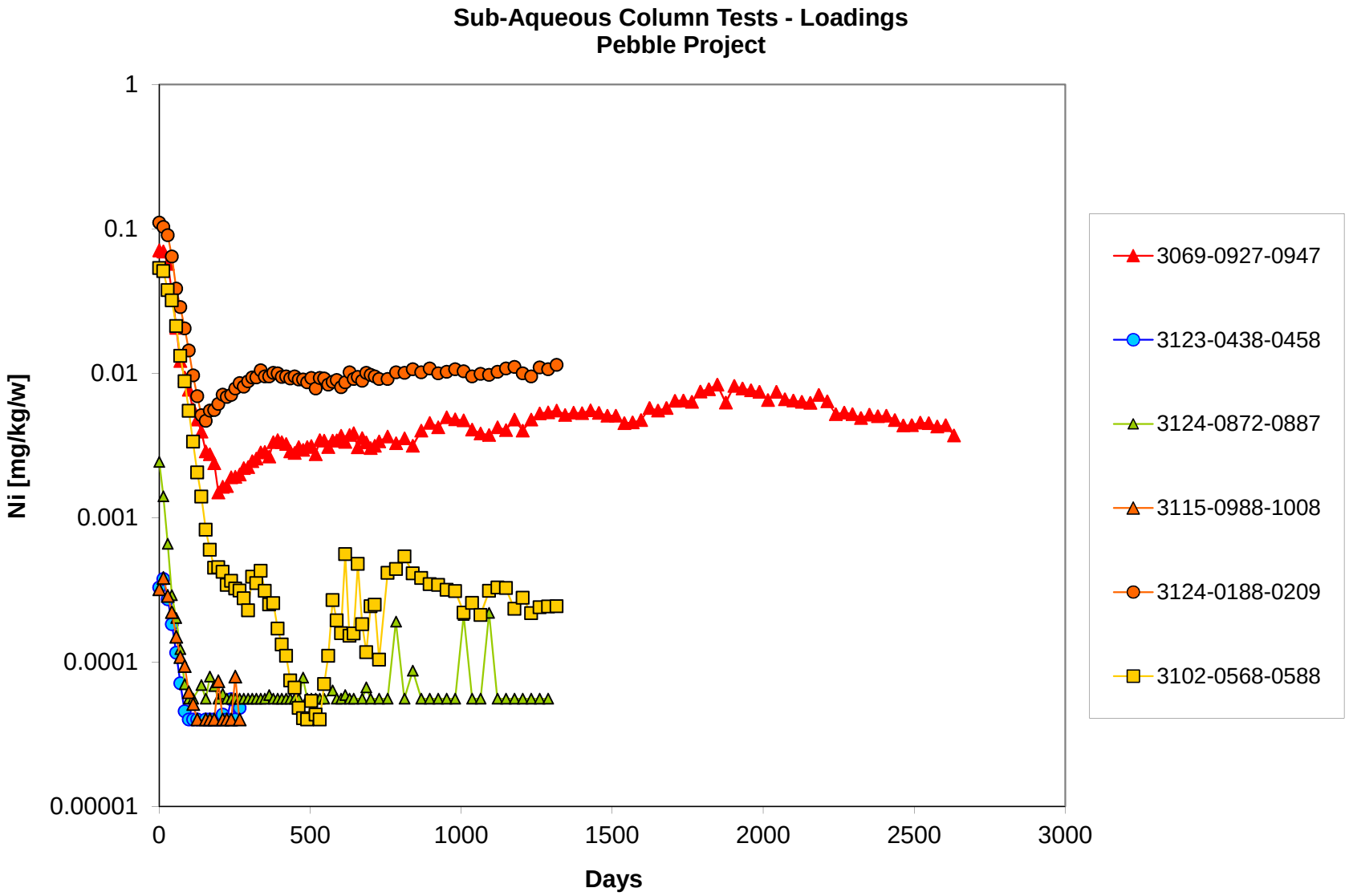

Sub-Aqueous Column Tests - Loadings
Pebble Project
Pb [mg/kg/w]
0.01
0.001
0.0001
0.00001
0.000001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

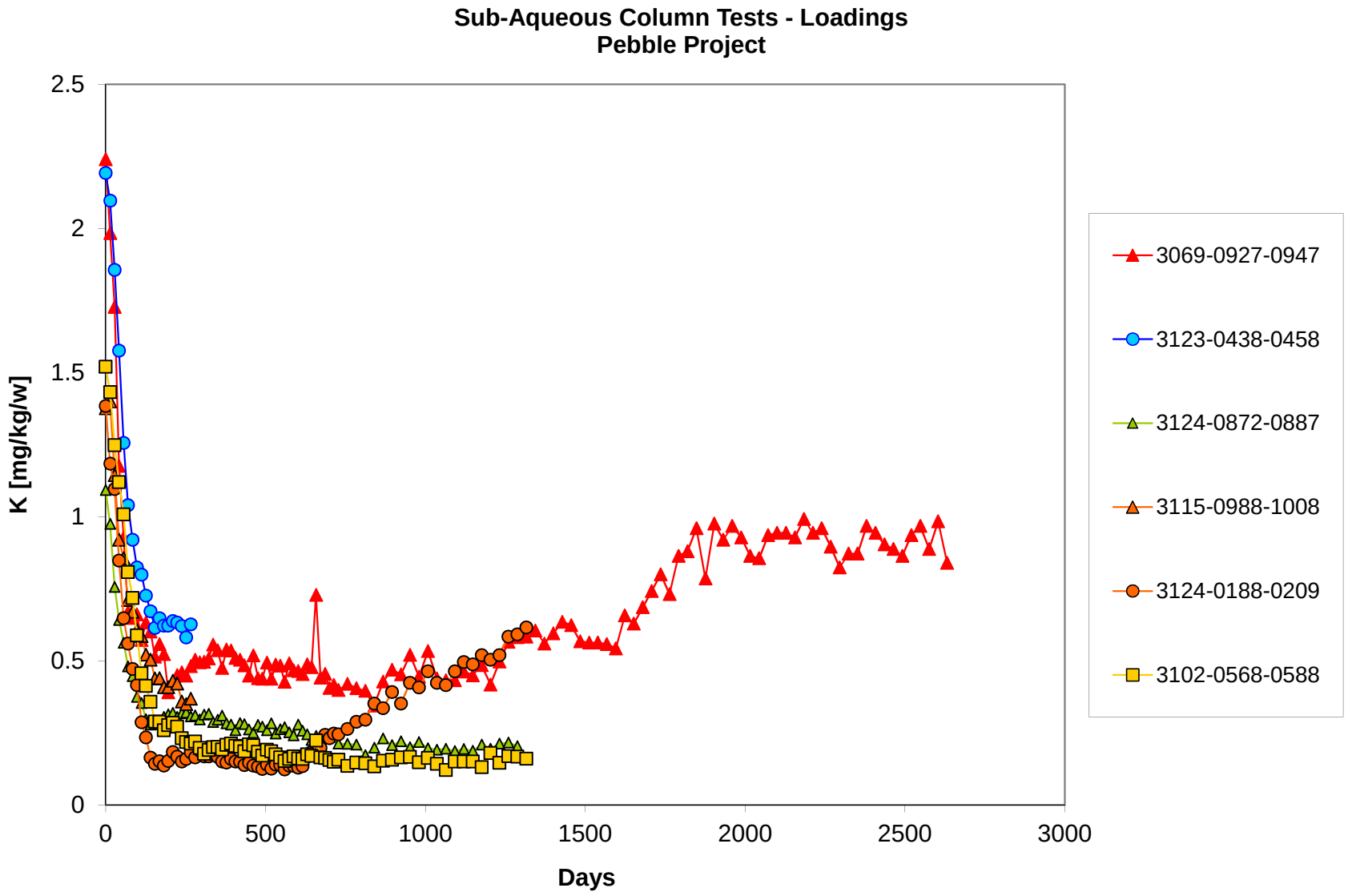

Sub-Aqueous Column Tests - Loadings
Pebble Project
Mg [mg/kg/w]
Days
0
2
4
6
8
10
12
14
16
0
500
1000
1500
2000
2500
3000
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

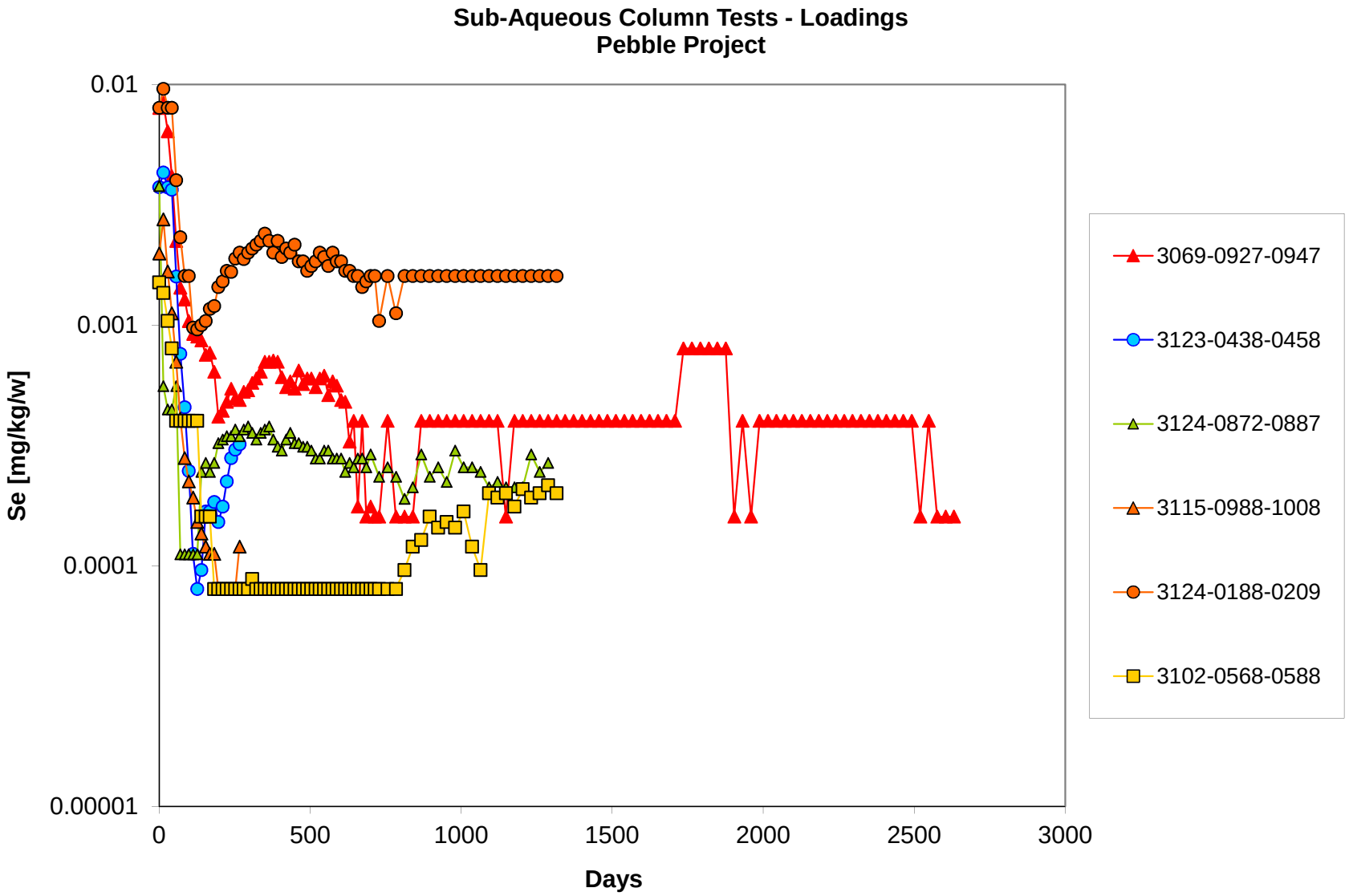

Sub-Aqueous Column Tests - Loadings
Pebble Project
Mn [mg/kg/w]
10
1
0.1
0.01
0.001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

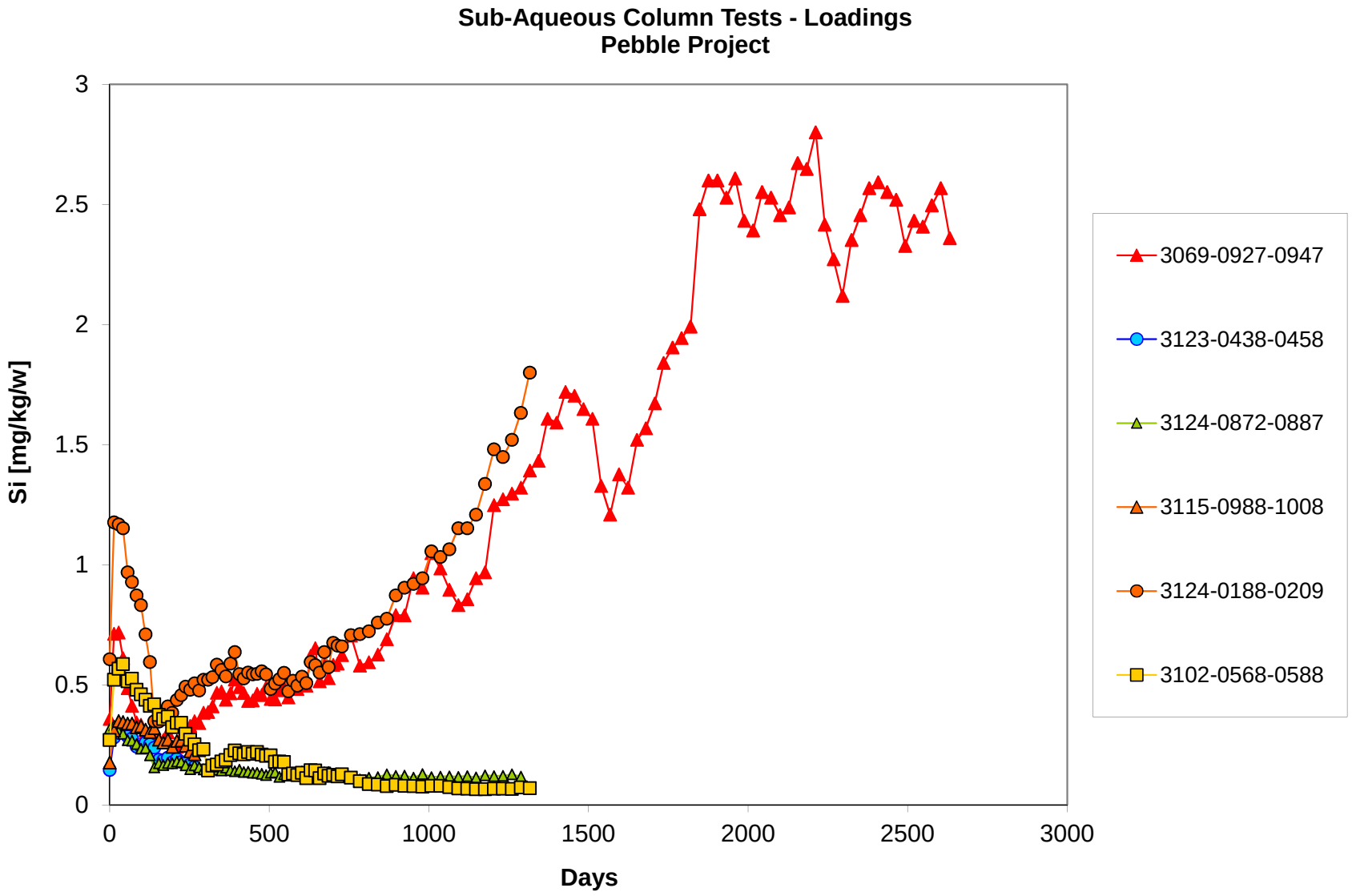

Sub-Aqueous Column Tests - Loadings
Pebble Project
Hg [mg/kg/w]
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

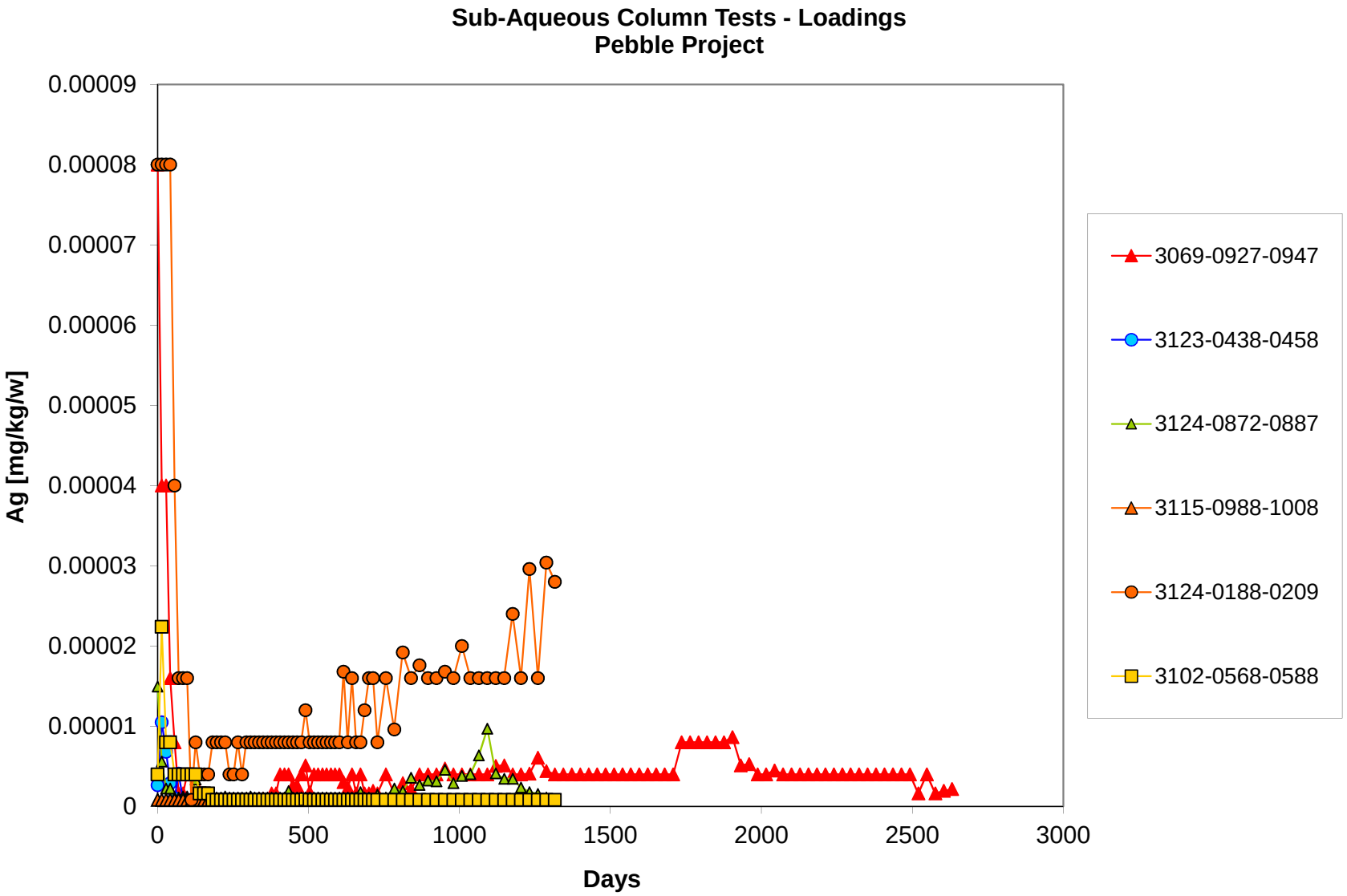

Sub-Aqueous Column Tests - Loadings
Pebble Project
Mo [mg/kg/w]
0.01
0.001
0.0001
0.00001
0.000001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

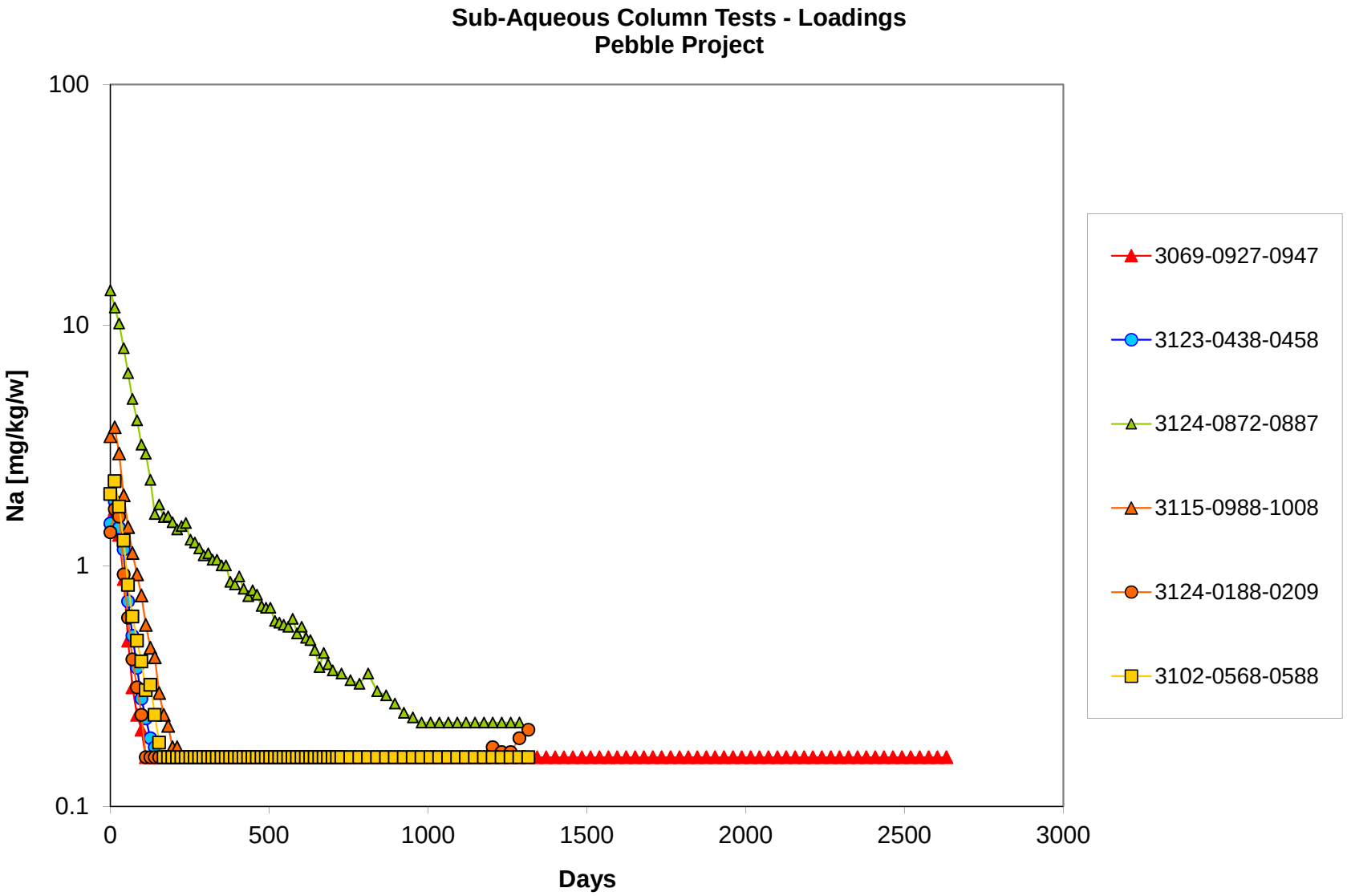

Sub-Aqueous Column Tests - Loadings
Pebble Project
Ni [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

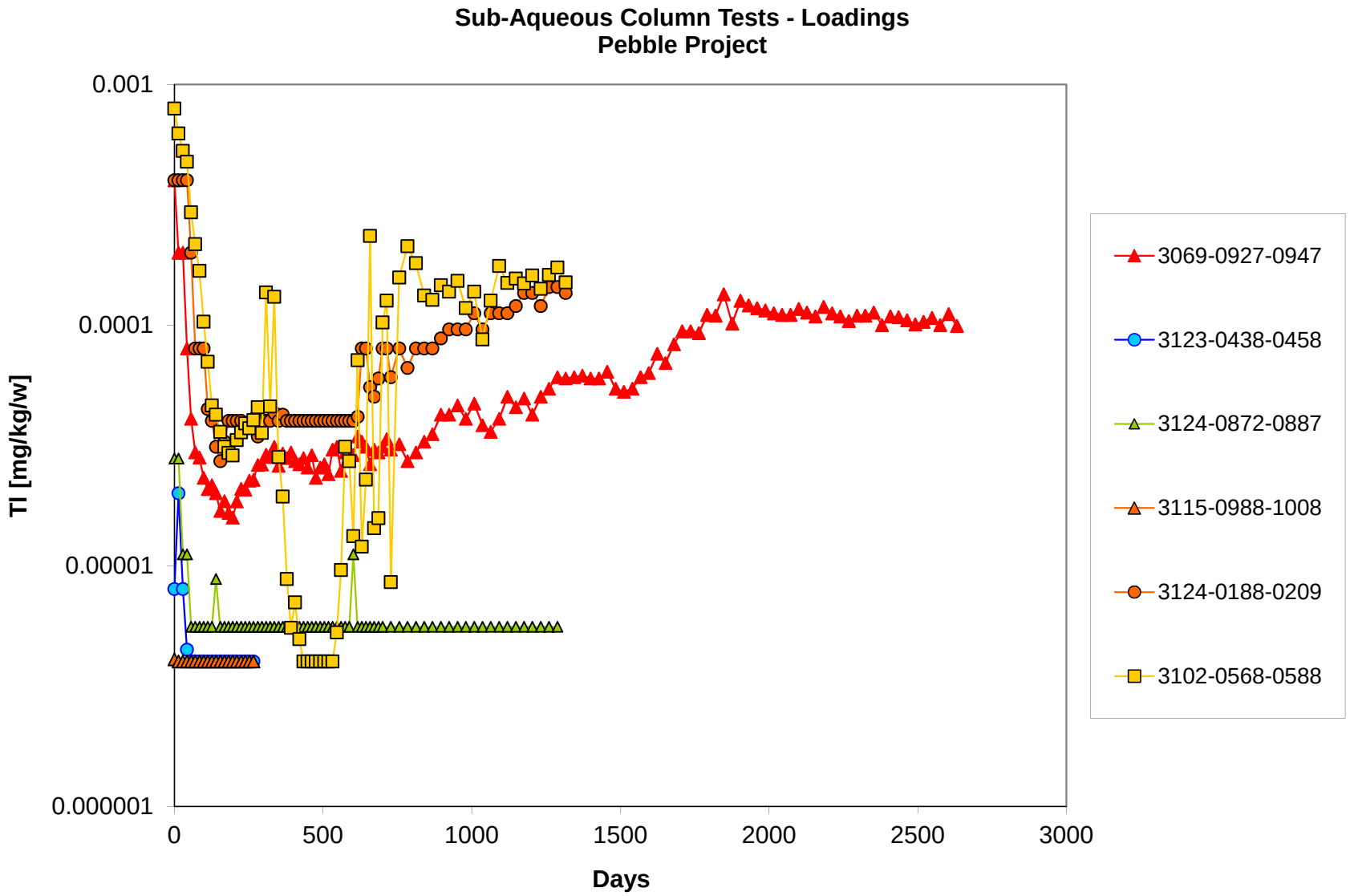

Sub-Aqueous Column Tests - Loadings
Pebble Project
K [mg/kg/w]
2.5
2
1.5
1
0.5
0
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

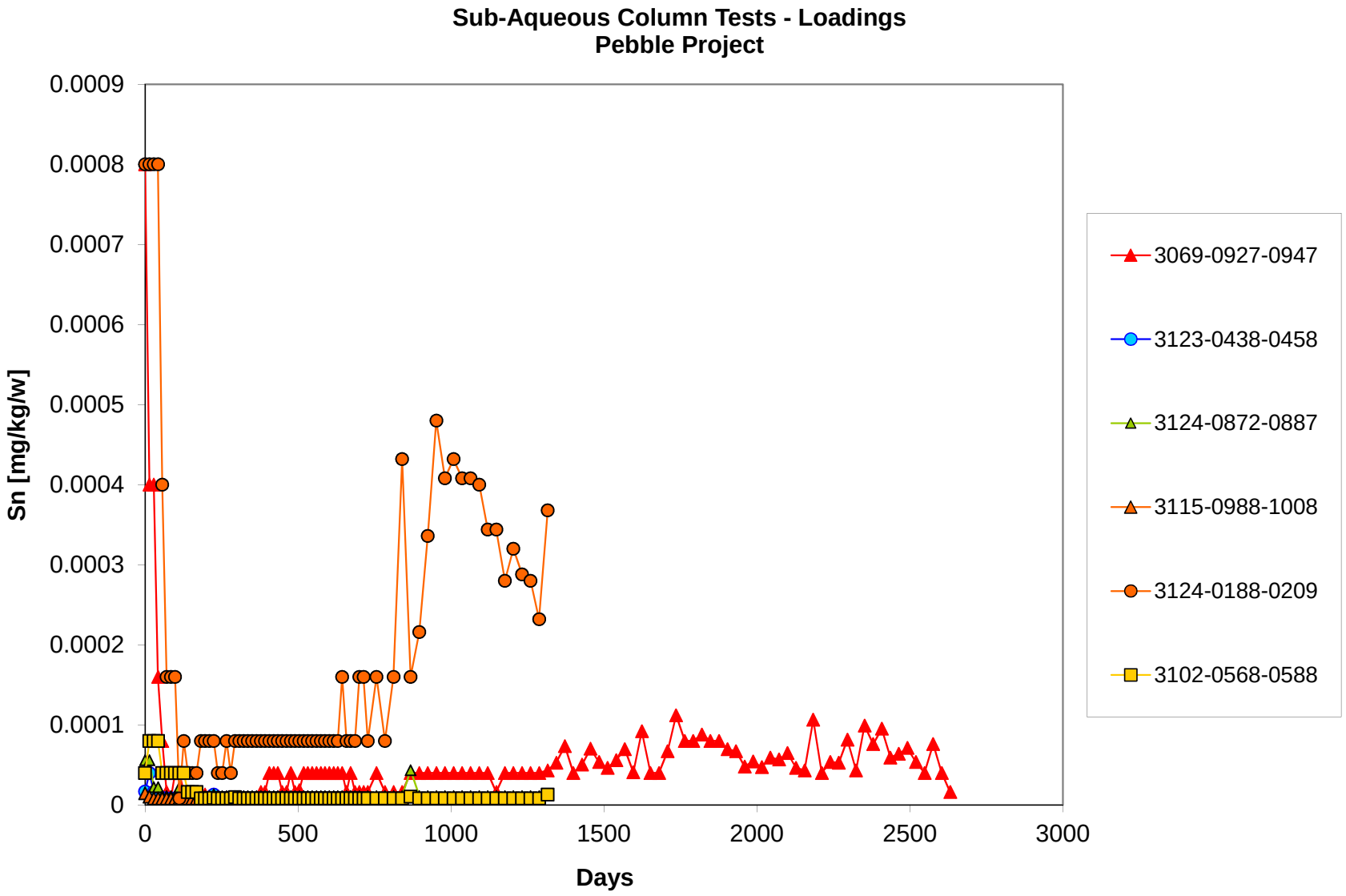

Sub-Aqueous Column Tests - Loadings
Pebble Project
Se [mg/kg/w]
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

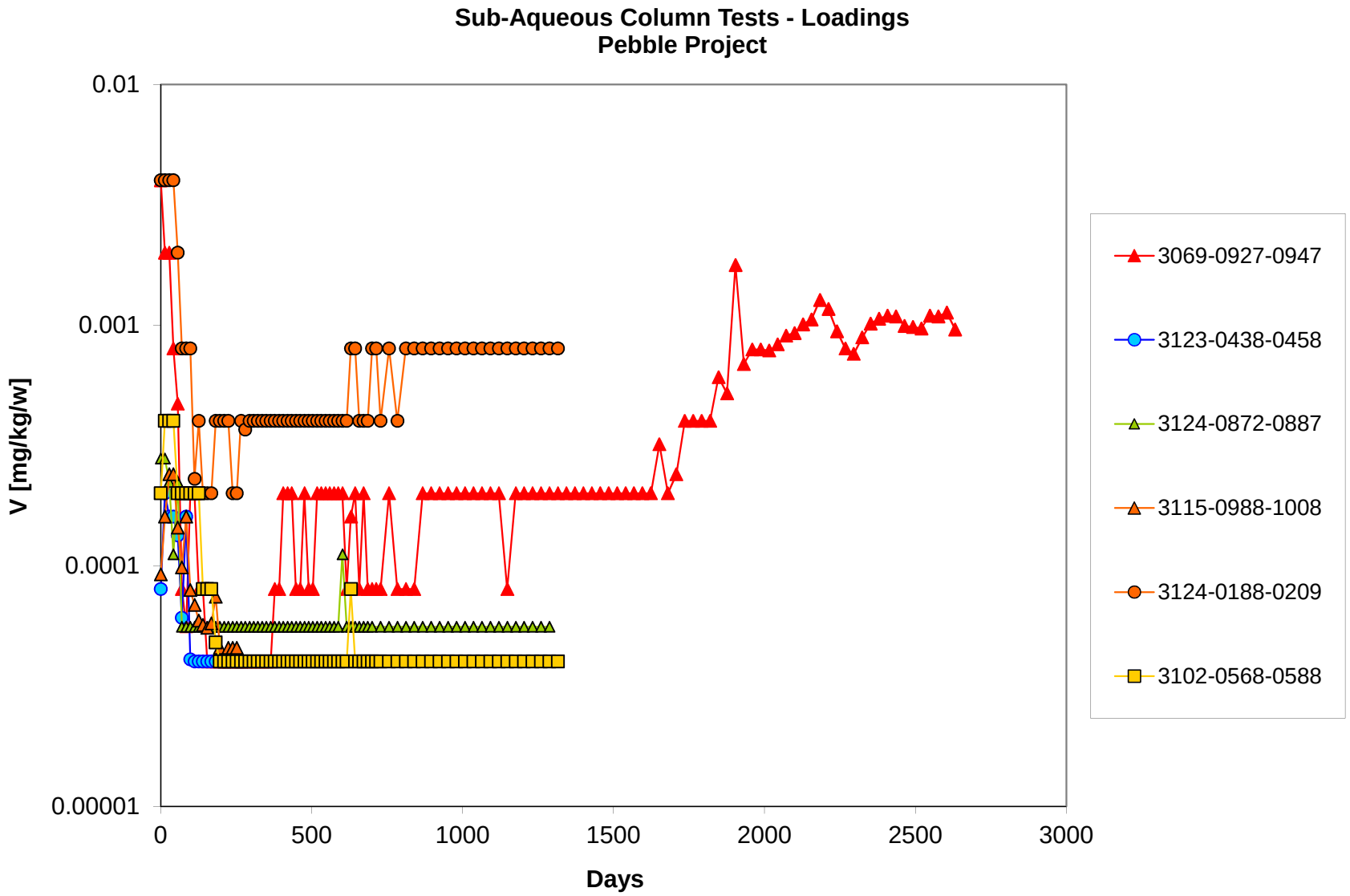

Sub-Aqueous Column Tests - Loadings
Pebble Project
Si [mg/kg/w]
Days
0
0.5
1
1.5
2
2.5
3
0
500
1000
1500
2000
2500
3000
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

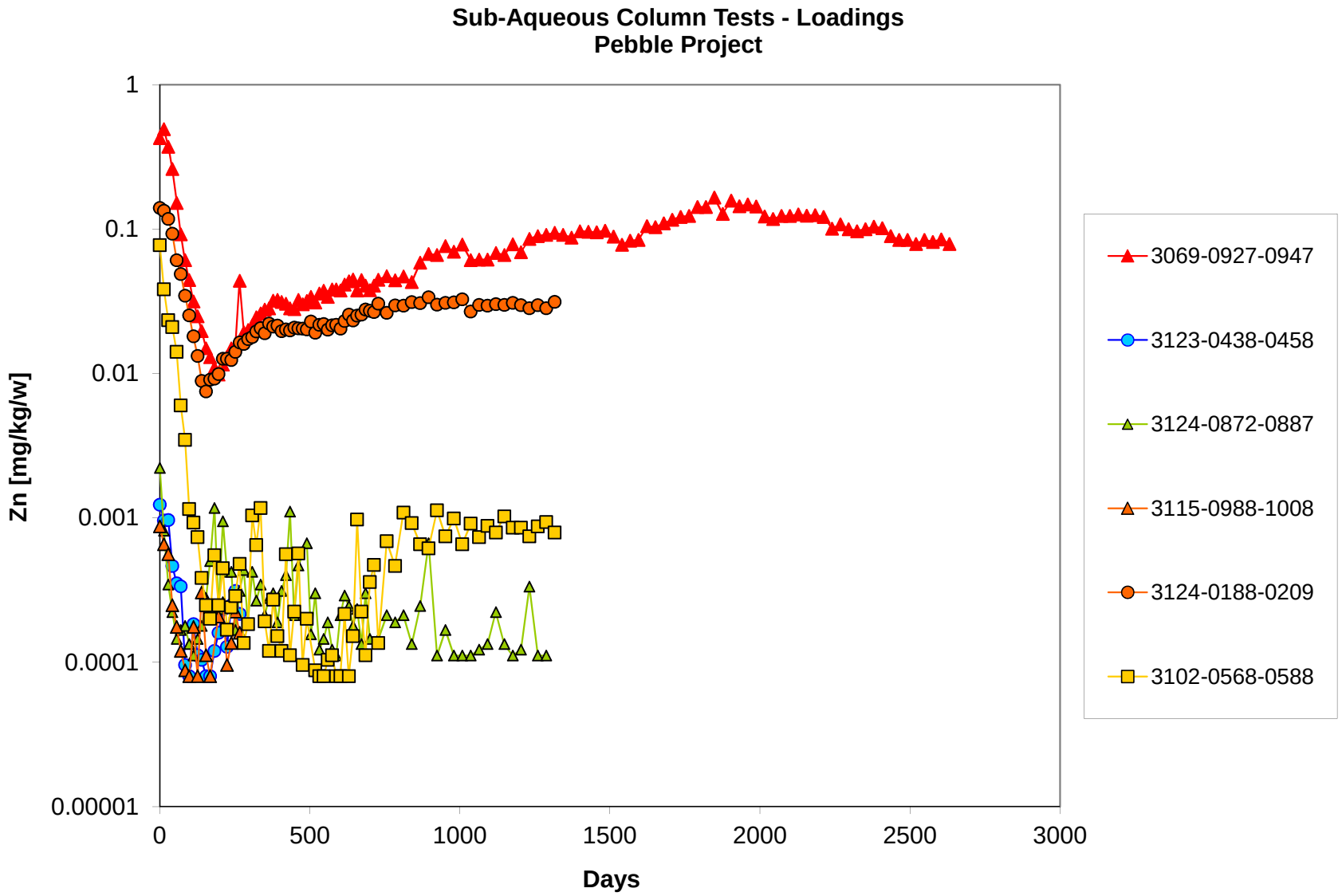

Sub-Aqueous Column Tests - Loadings
Pebble Project
Ag [mg/kg/w]
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

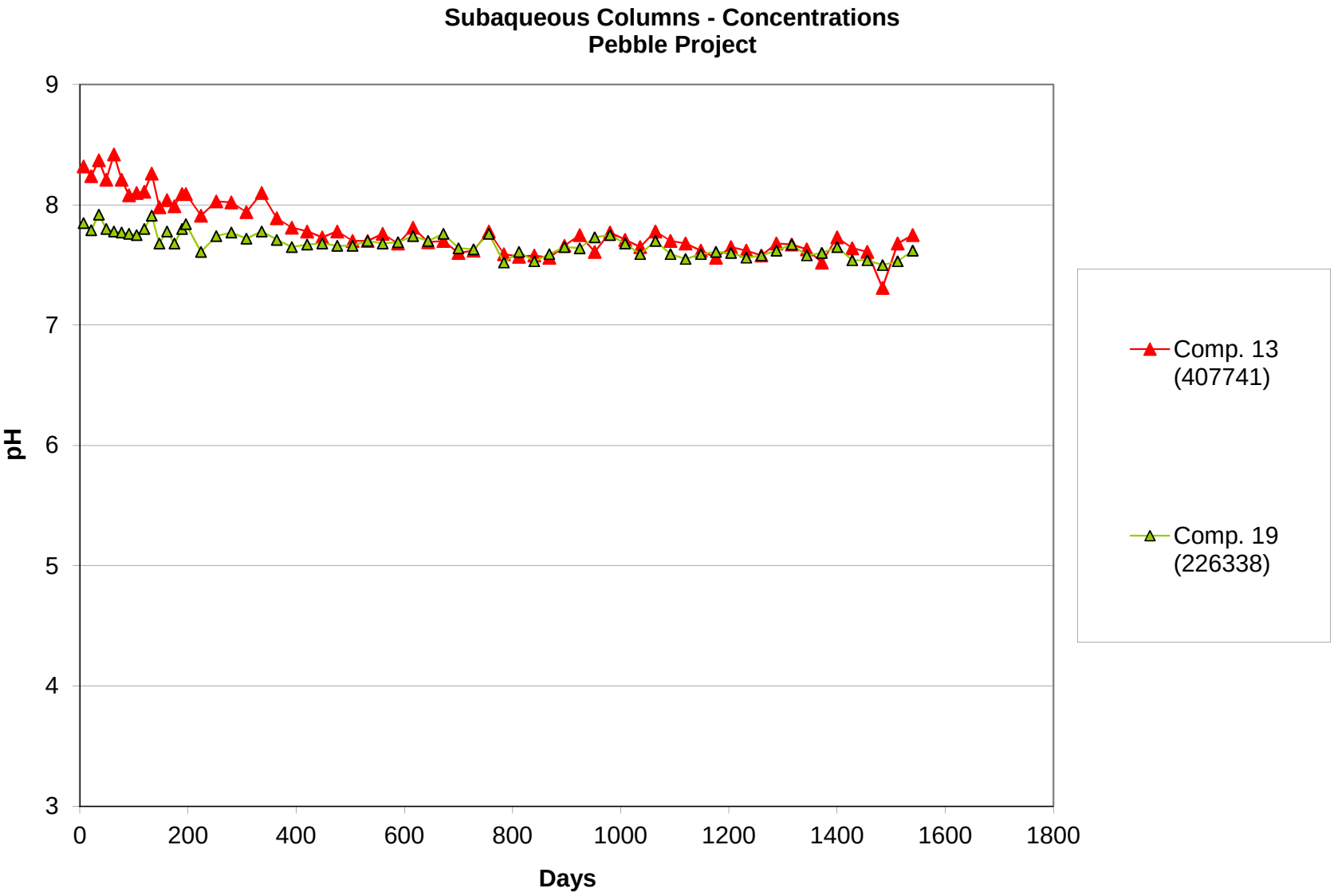

Sub-Aqueous Column Tests - Loadings
Pebble Project
Na [mg/kg/w]
100
10
1
0.1
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

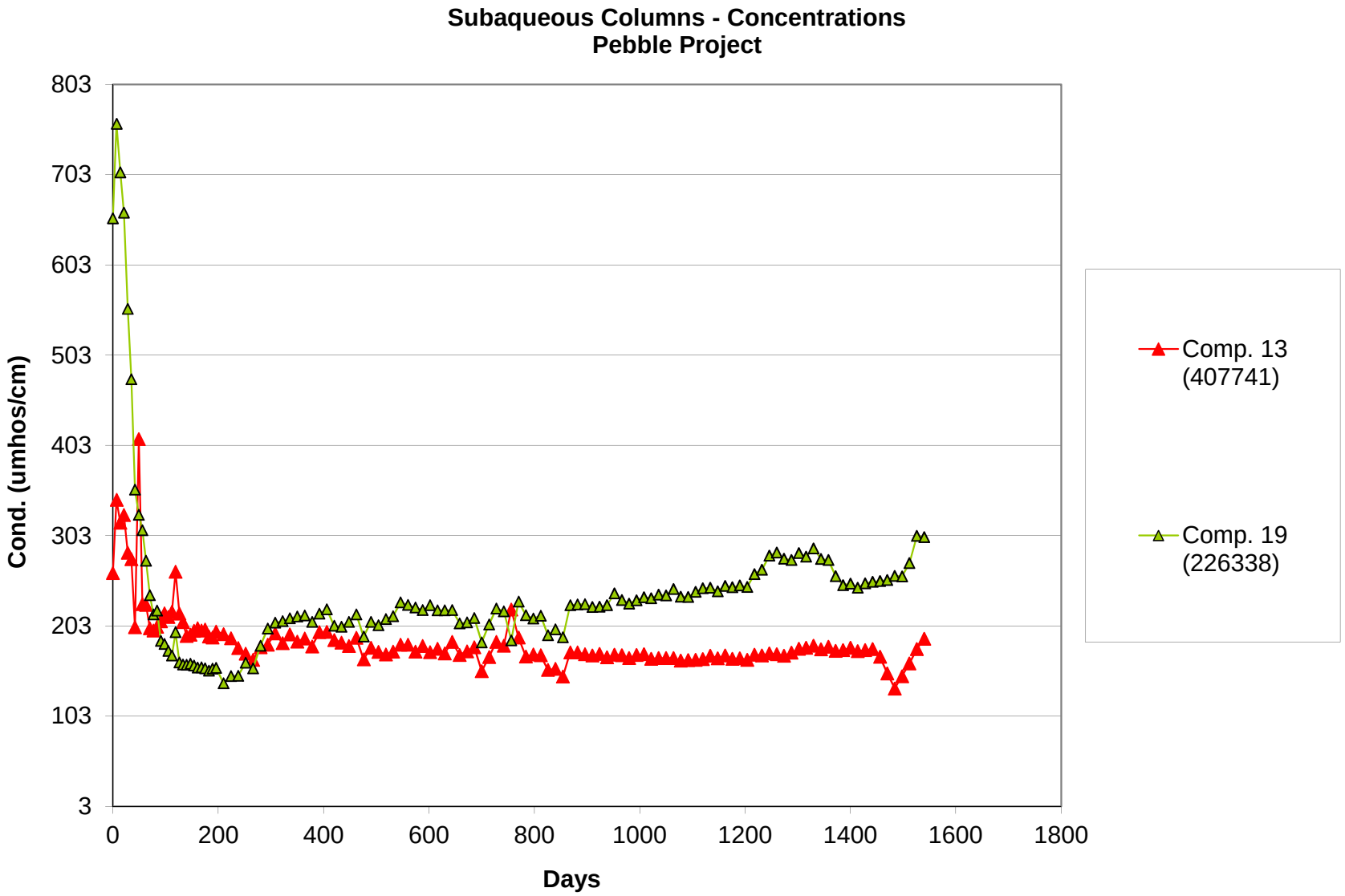

Sub-Aqueous Column Tests - Loadings
Pebble Project
0.001
0.0001
0.00001
0.000001
Tl [mg/kg/w]
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

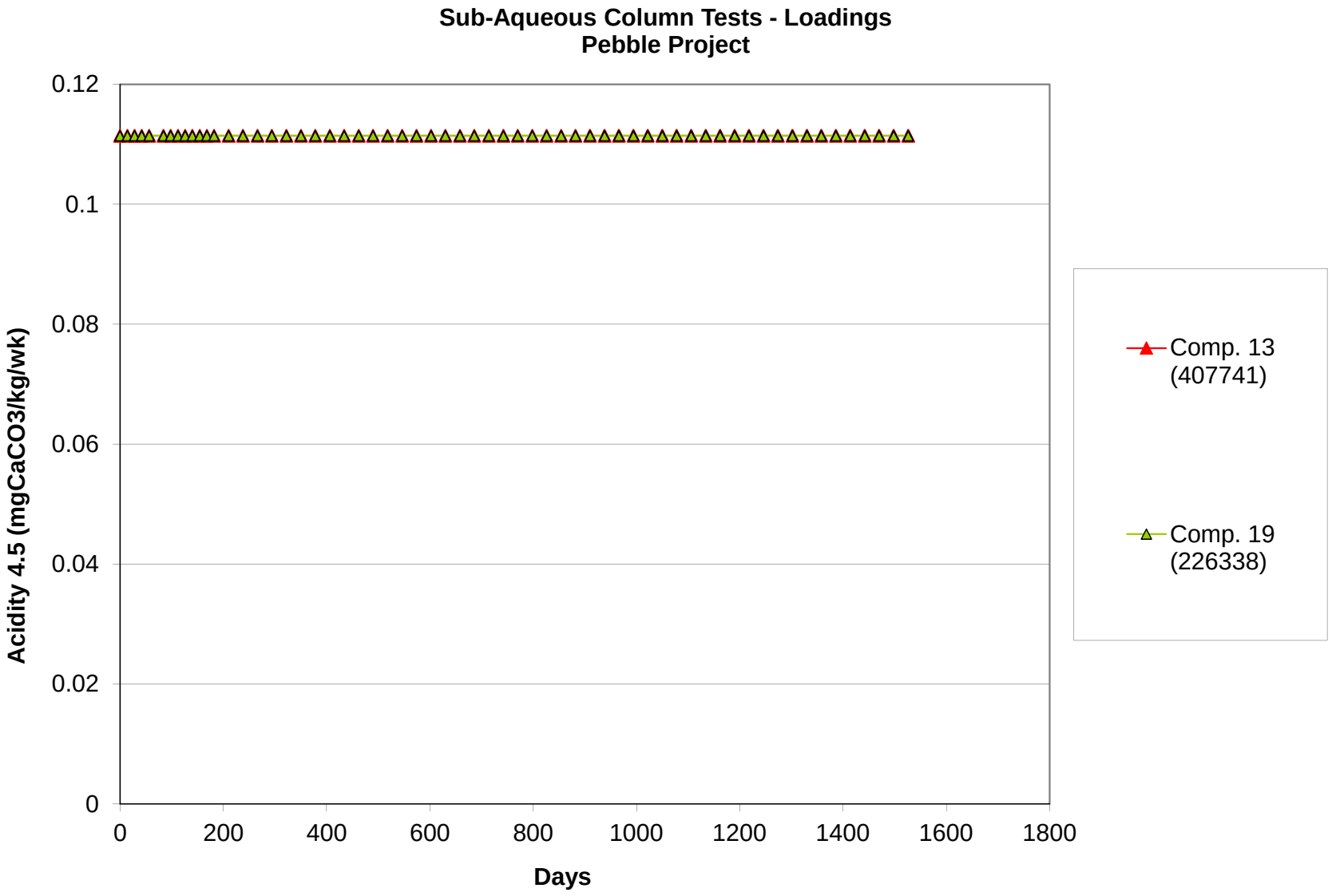

Sub-Aqueous Column Tests - Loadings
Pebble Project
Sn [mg/kg/w]
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

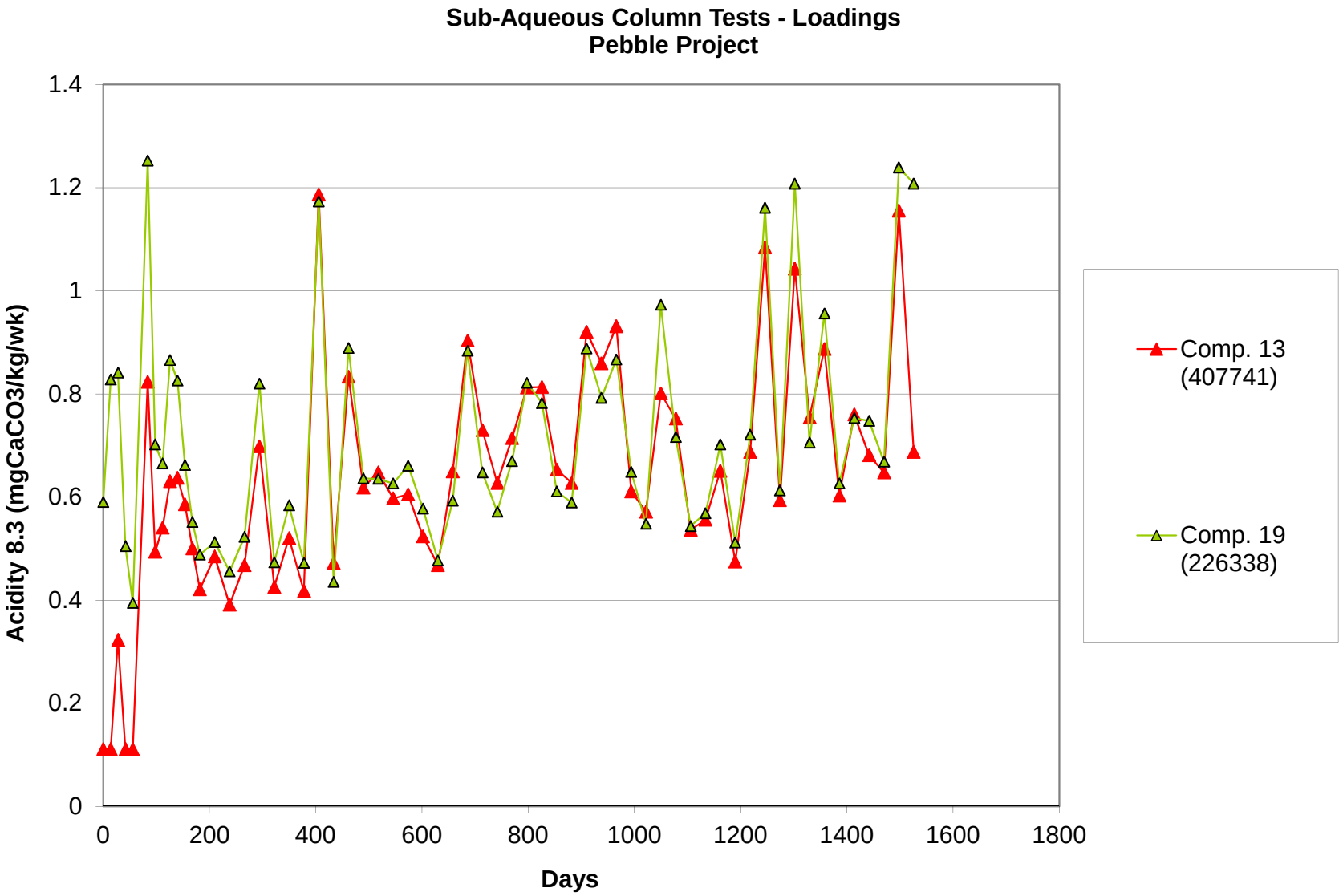

Sub-Aqueous Column Tests - Loadings
Pebble Project
0.01
0.001
0.0001
0.00001
V [mg/kg/w]
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

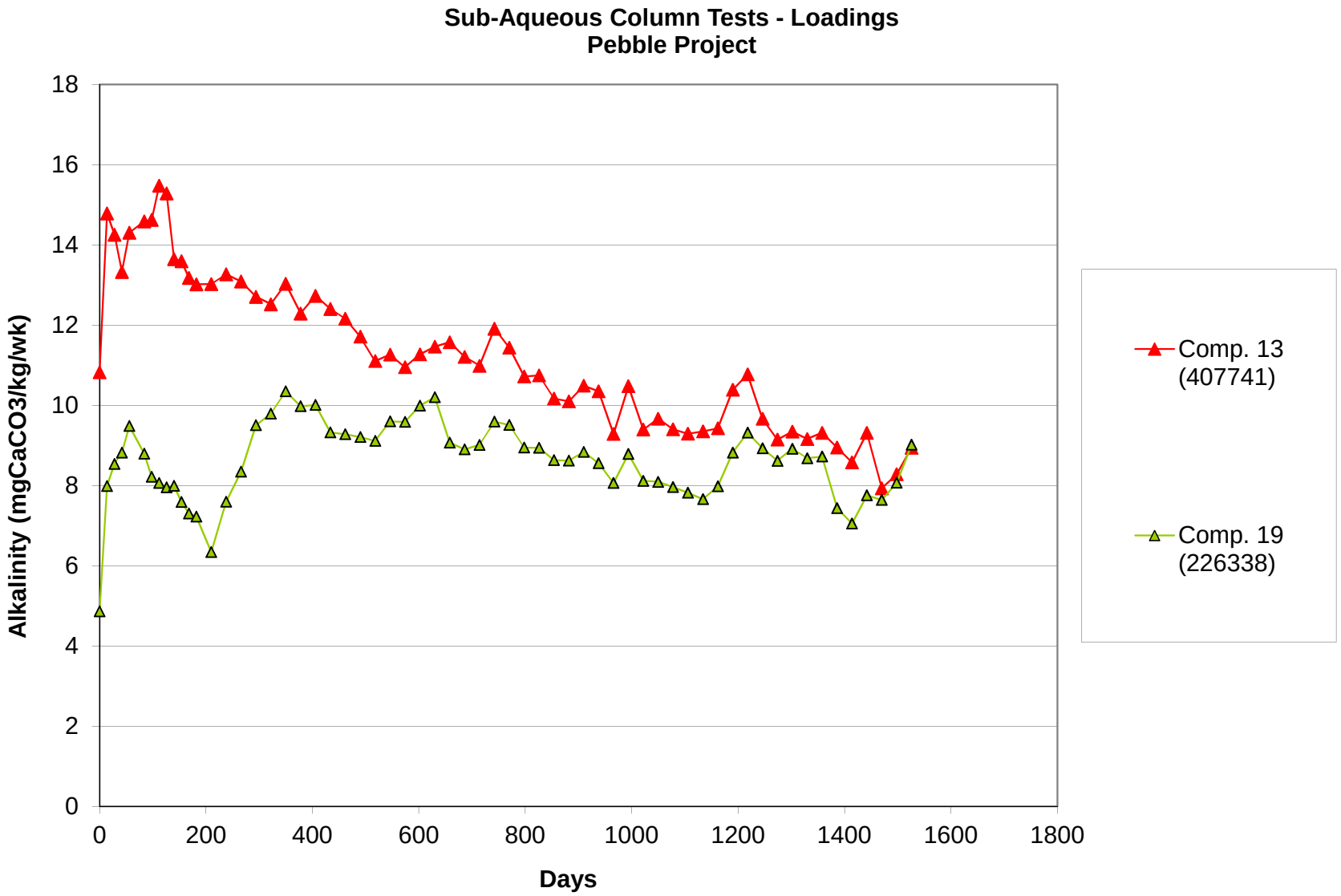

Sub-Aqueous Column Tests - Loadings
Pebble Project
Zn [mg/kg/w]
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
2500
3000
Days
3069-0927-0947
3123-0438-0458
3124-0872-0887
3115-0988-1008
3124-0188-0209
3102-0568-0588

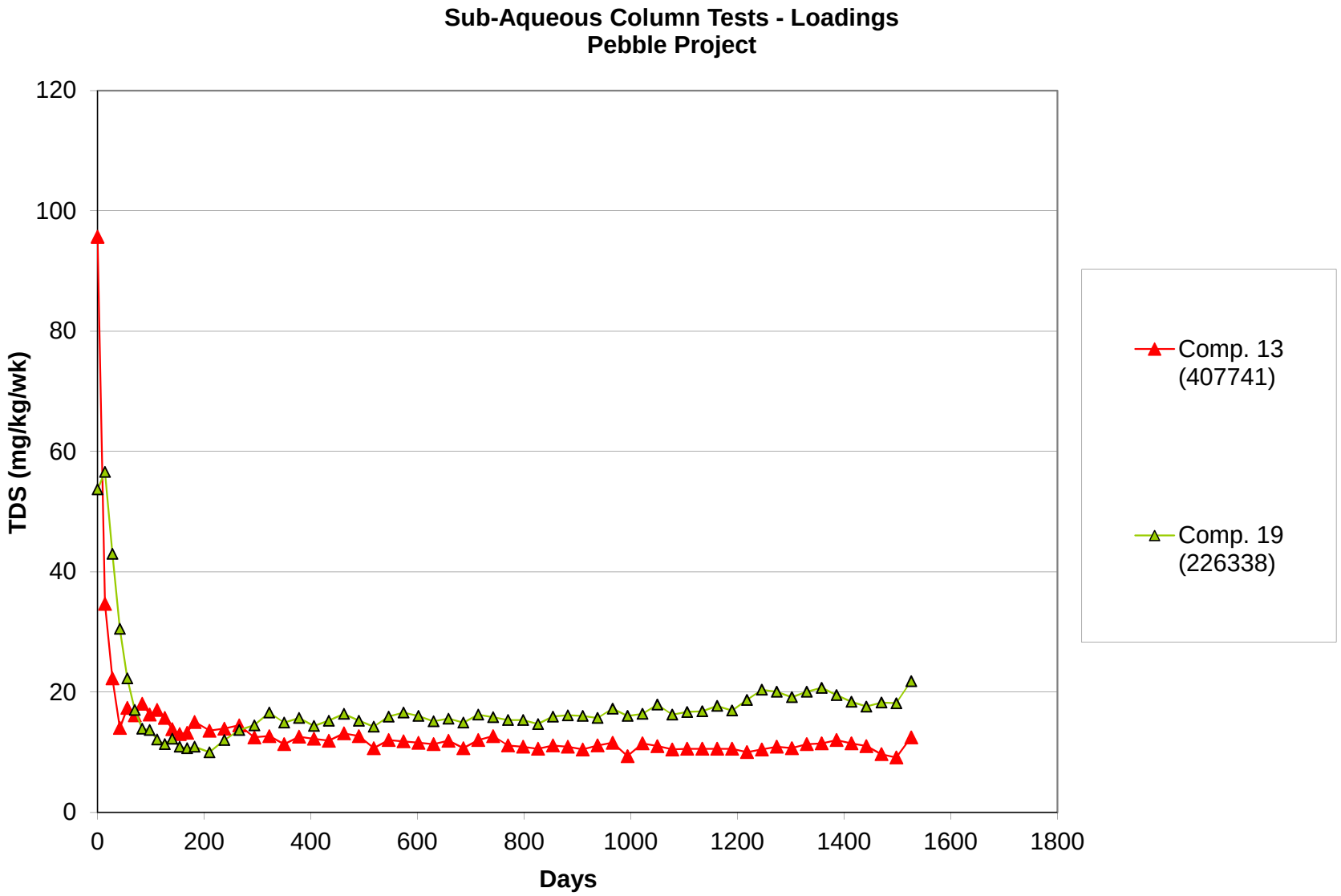

Subaqueous Columns - Concentrations
Pebble Project
pH
9
8
7
6
5
4
3
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

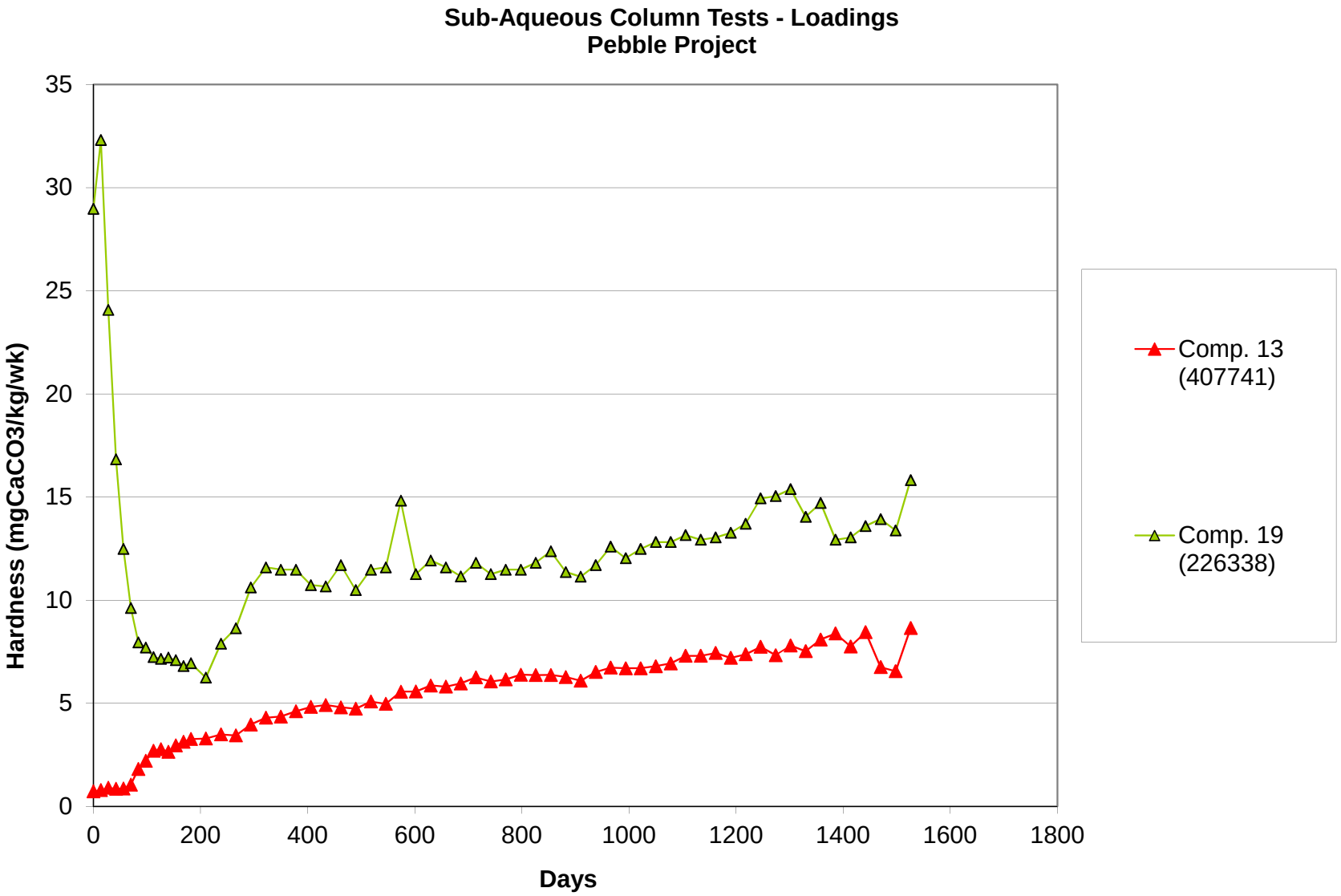

Subaqueous Columns - Concentrations
Pebble Project
Cond. (umhos/cm)
803
703
603
503
403
303
203
103
3
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

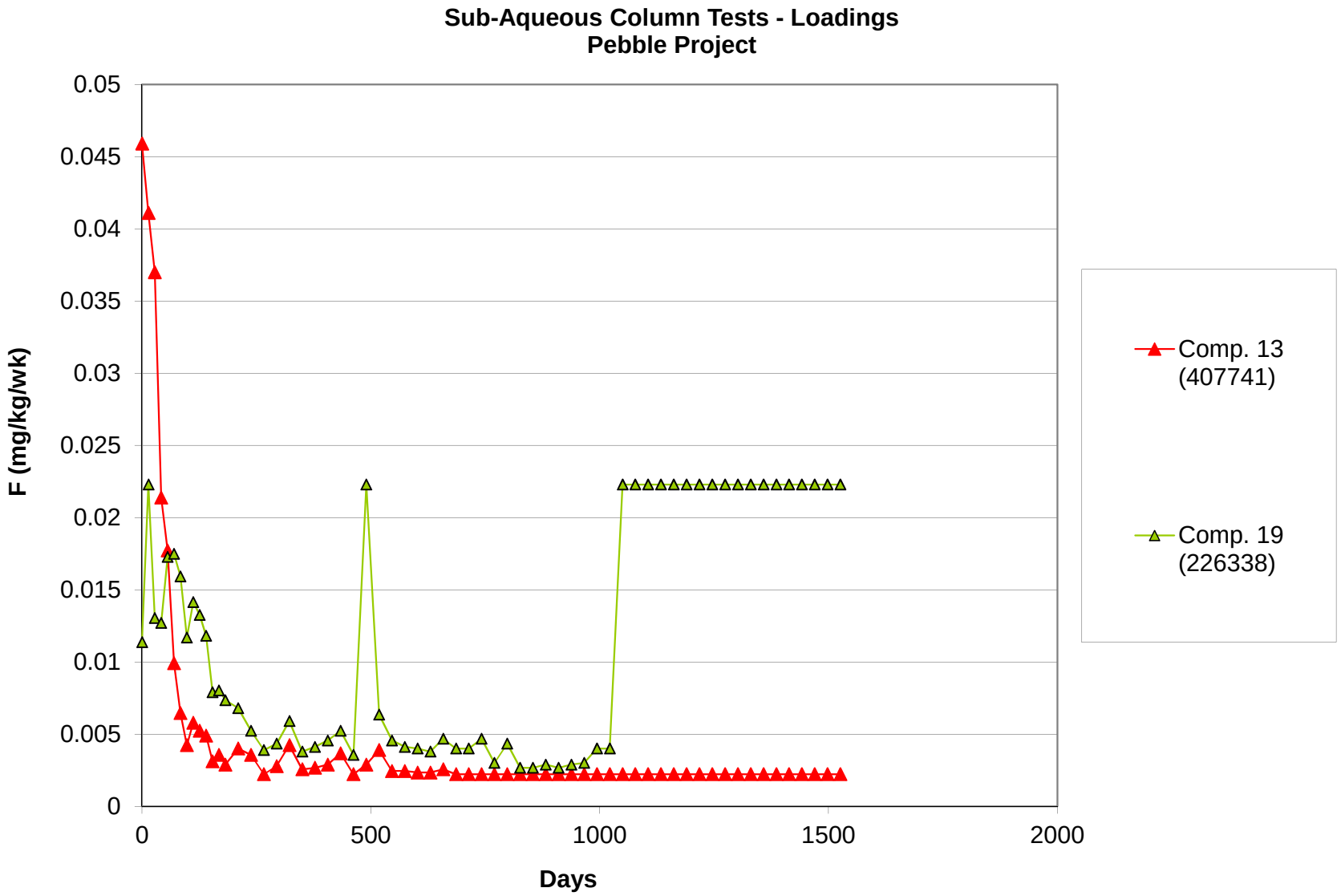

Sub-Aqueous Column Tests - Loadings
Pebble Project
Acidity 4.5 (mgCaCO3/kg/wk)
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

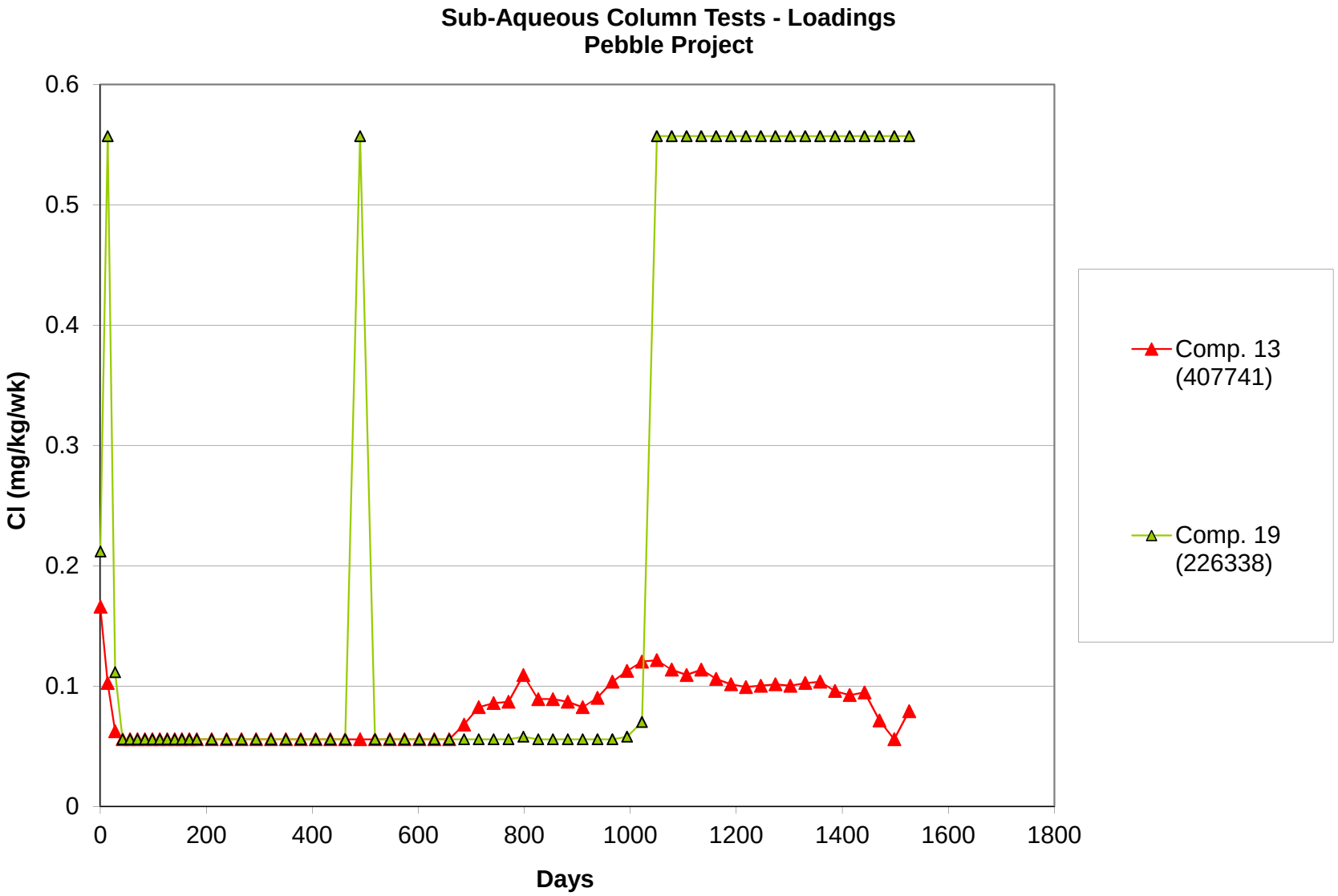

Sub-Aqueous Column Tests - Loadings
Pebble Project
Acidity 8.3 (mgCaCO3/kg/wk)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

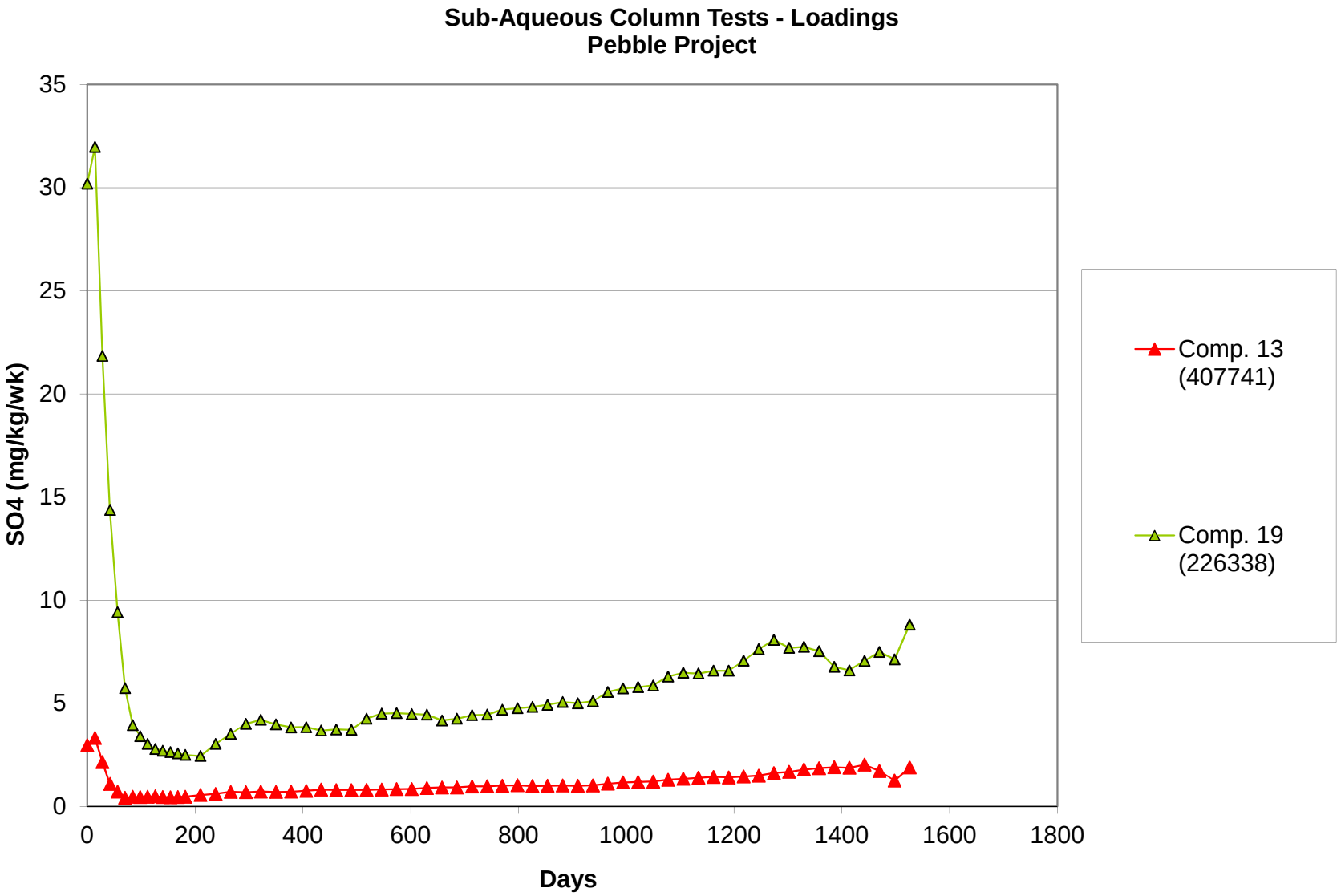

Sub-Aqueous Column Tests - Loadings
Pebble Project
Alkalinity (mgCaCO3/kg/wk)
18
16
14
12
10
8
6
4
2
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

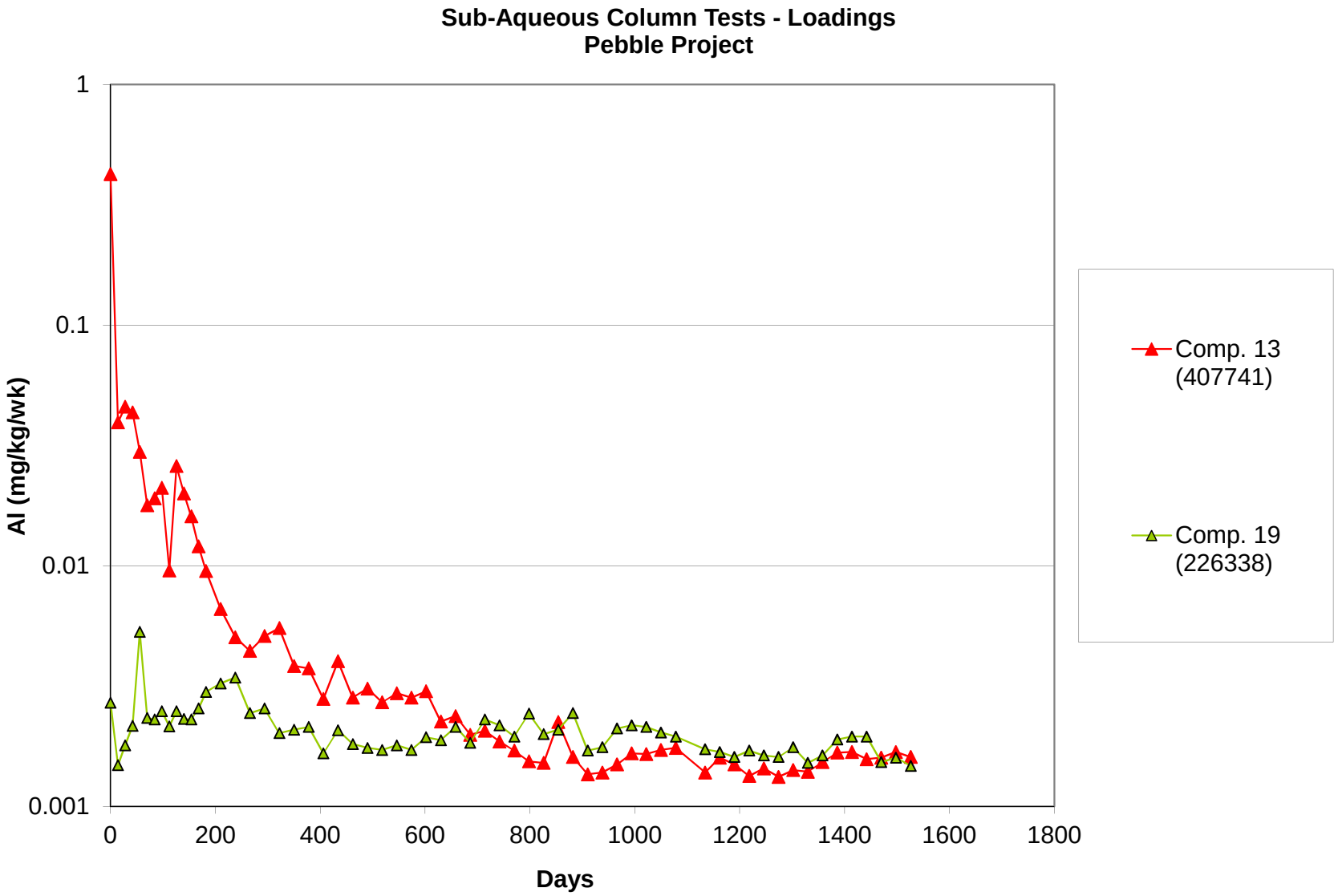

Sub-Aqueous Column Tests - Loadings
Pebble Project
TDS (mg/kg/wk)
120
100
80
60
40
20
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

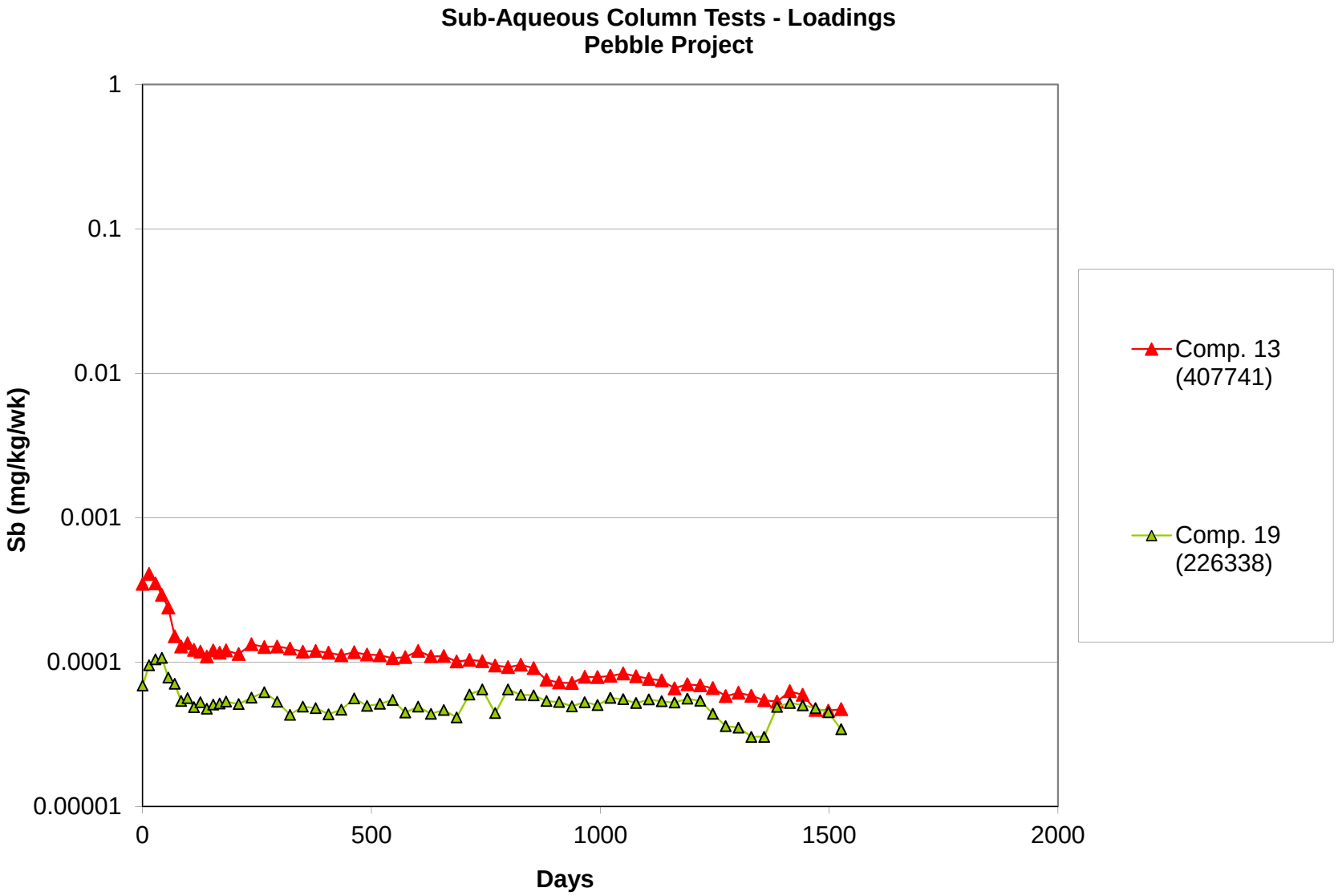

Sub-Aqueous Column Tests - Loadings
Pebble Project
Hardness (mgCaCO3/kg/wk)
35
30
25
20
15
10
5
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

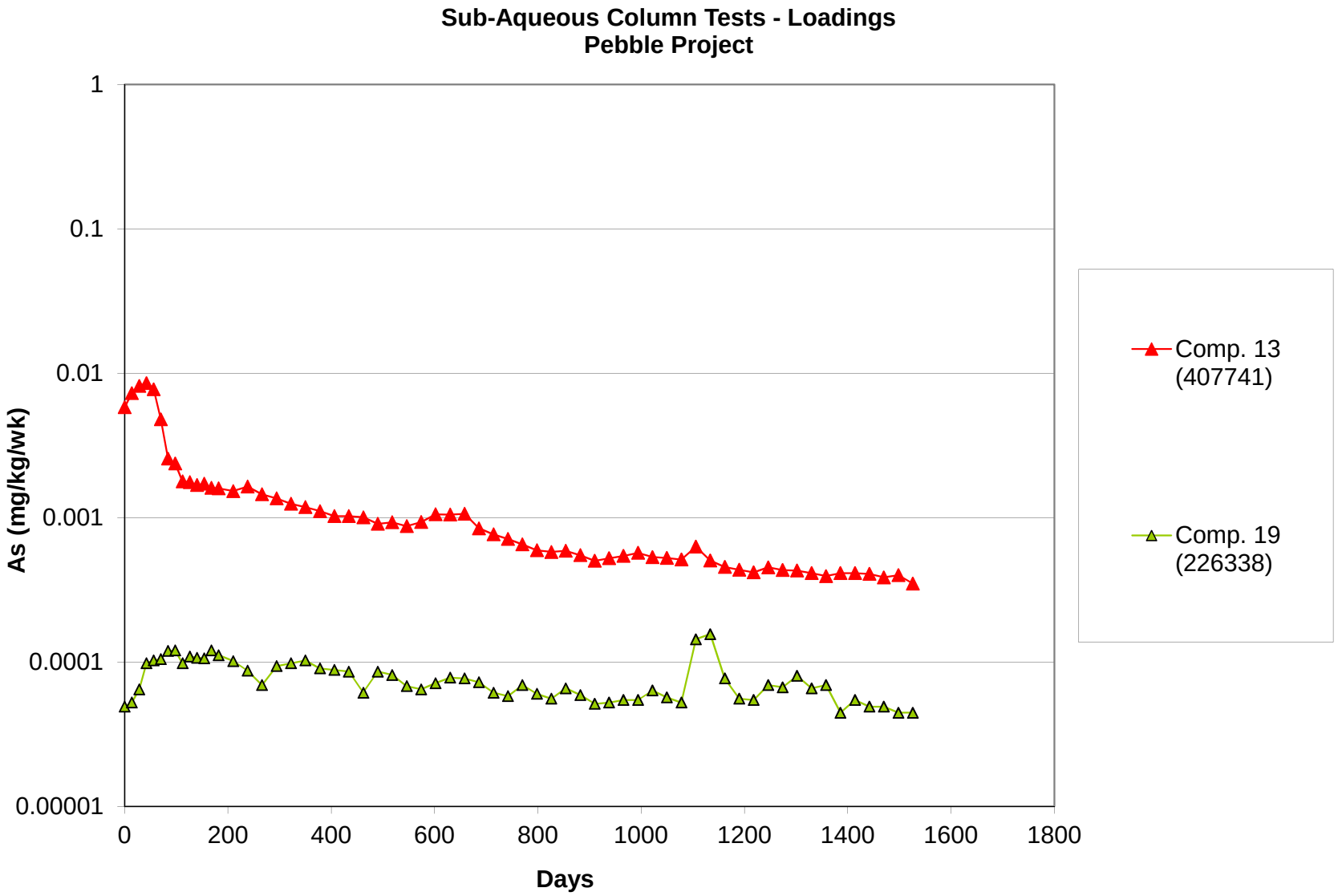

Sub-Aqueous Column Tests - Loadings
Pebble Project
F (mg/kg/wk)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

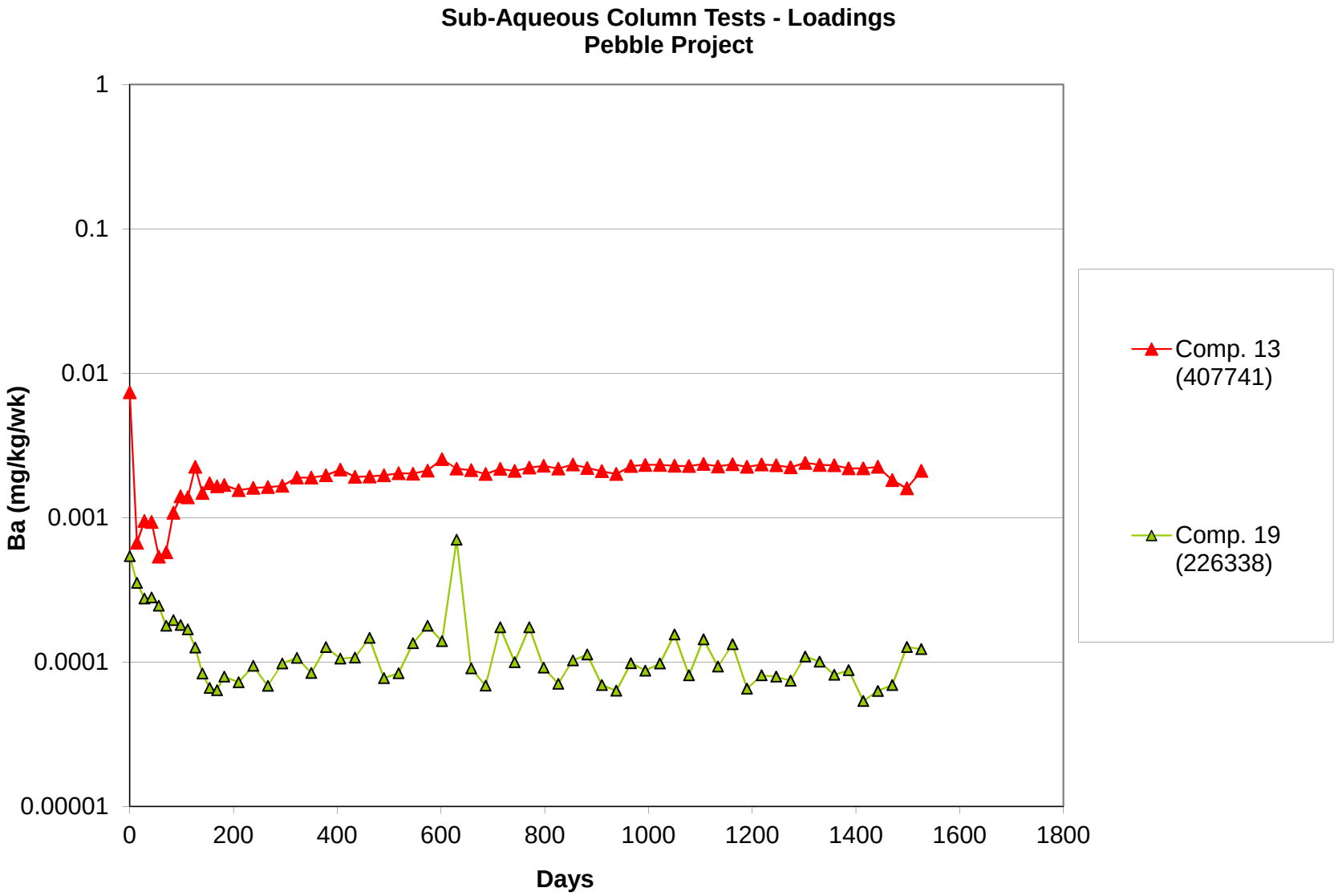

Sub-Aqueous Column Tests - Loadings
Pebble Project
Cl (mg/kg/wk)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

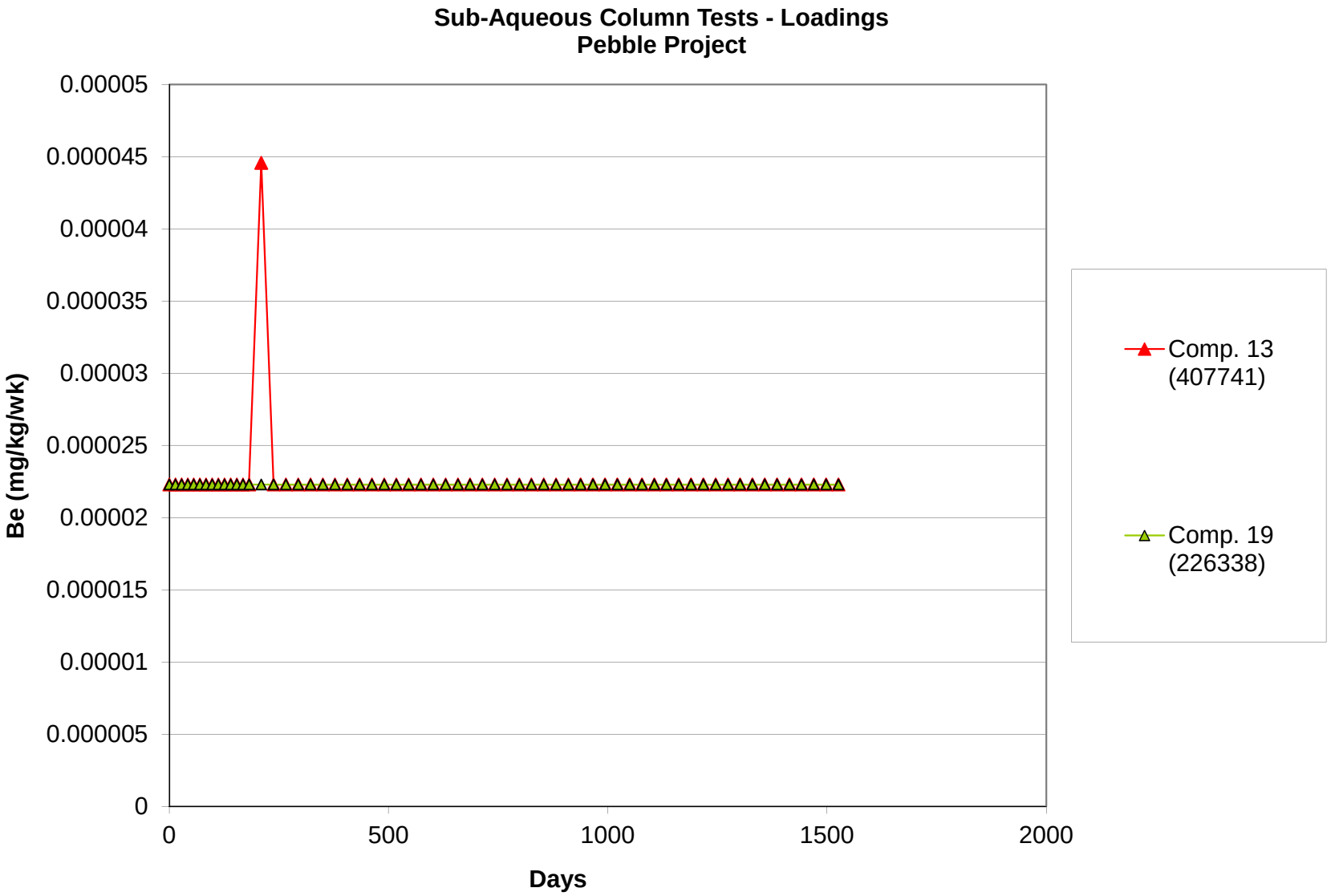

Sub-Aqueous Column Tests - Loadings
Pebble Project
SO4 (mg/kg/wk)
35
30
25
20
15
10
5
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

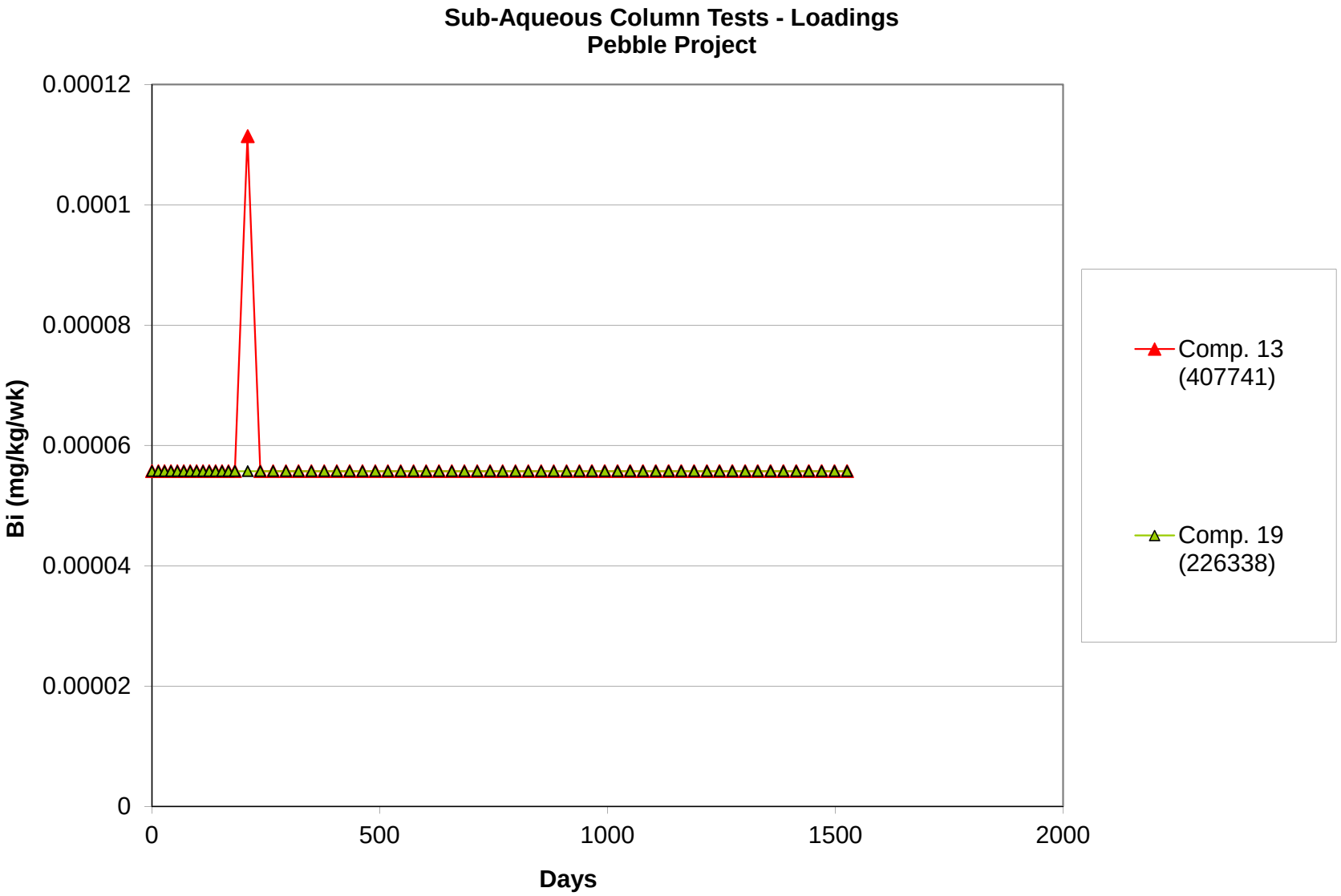

Sub-Aqueous Column Tests - Loadings
Pebble Project
Al (mg/kg/wk)
1
0.1
0.01
0.001
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

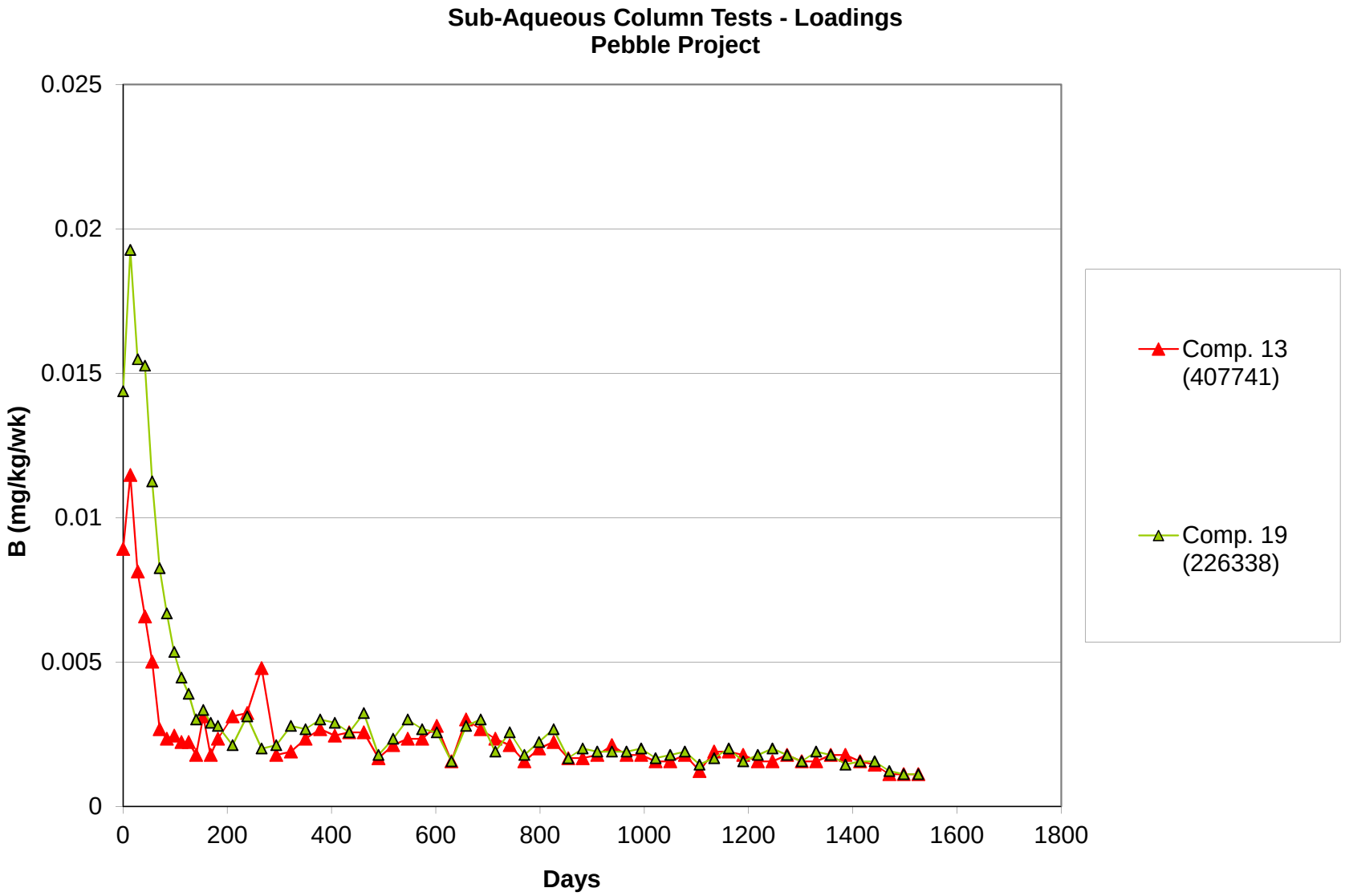

Sub-Aqueous Column Tests - Loadings
Pebble Project
Sb (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

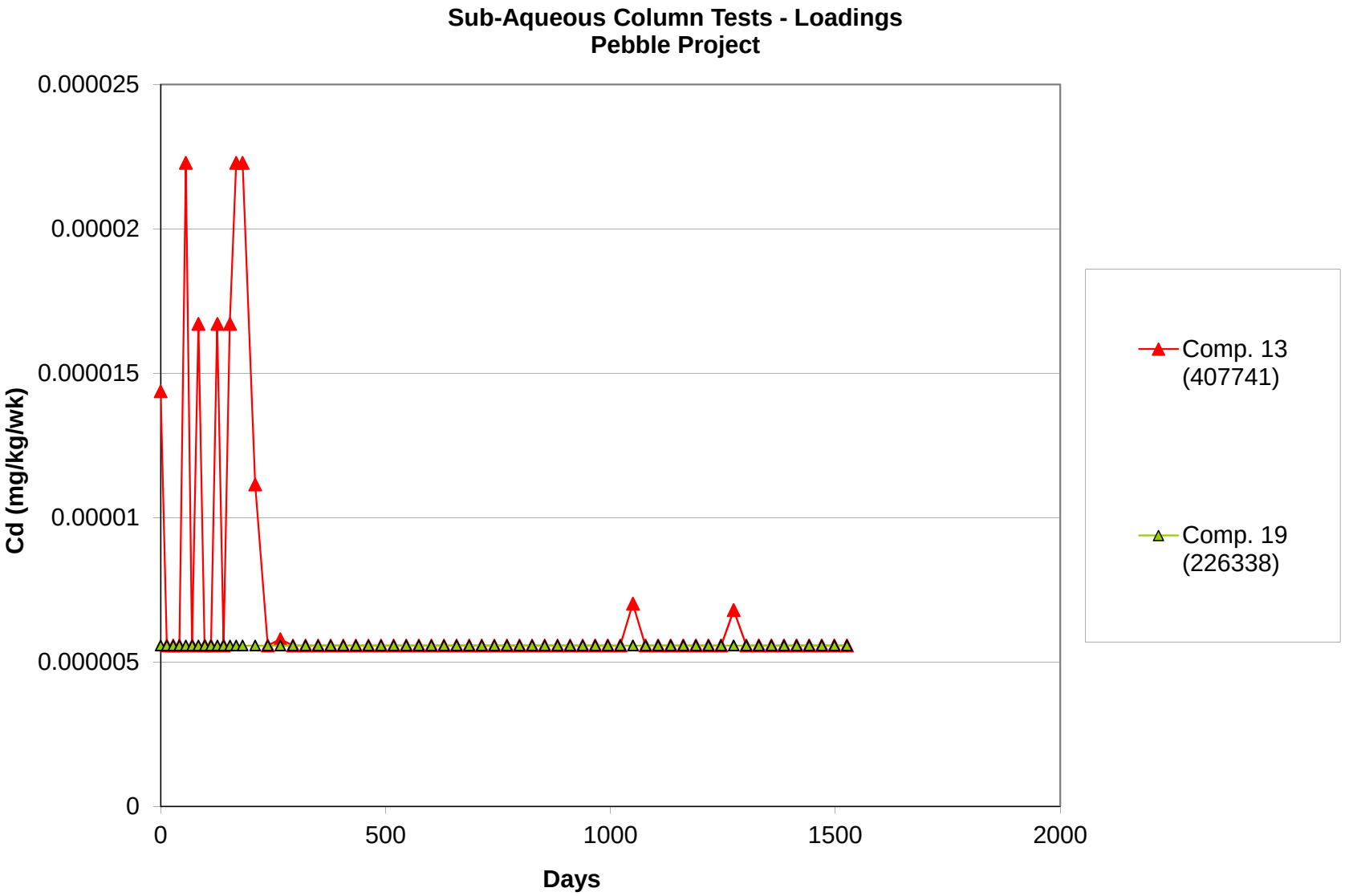

Sub-Aqueous Column Tests - Loadings
Pebble Project
As (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

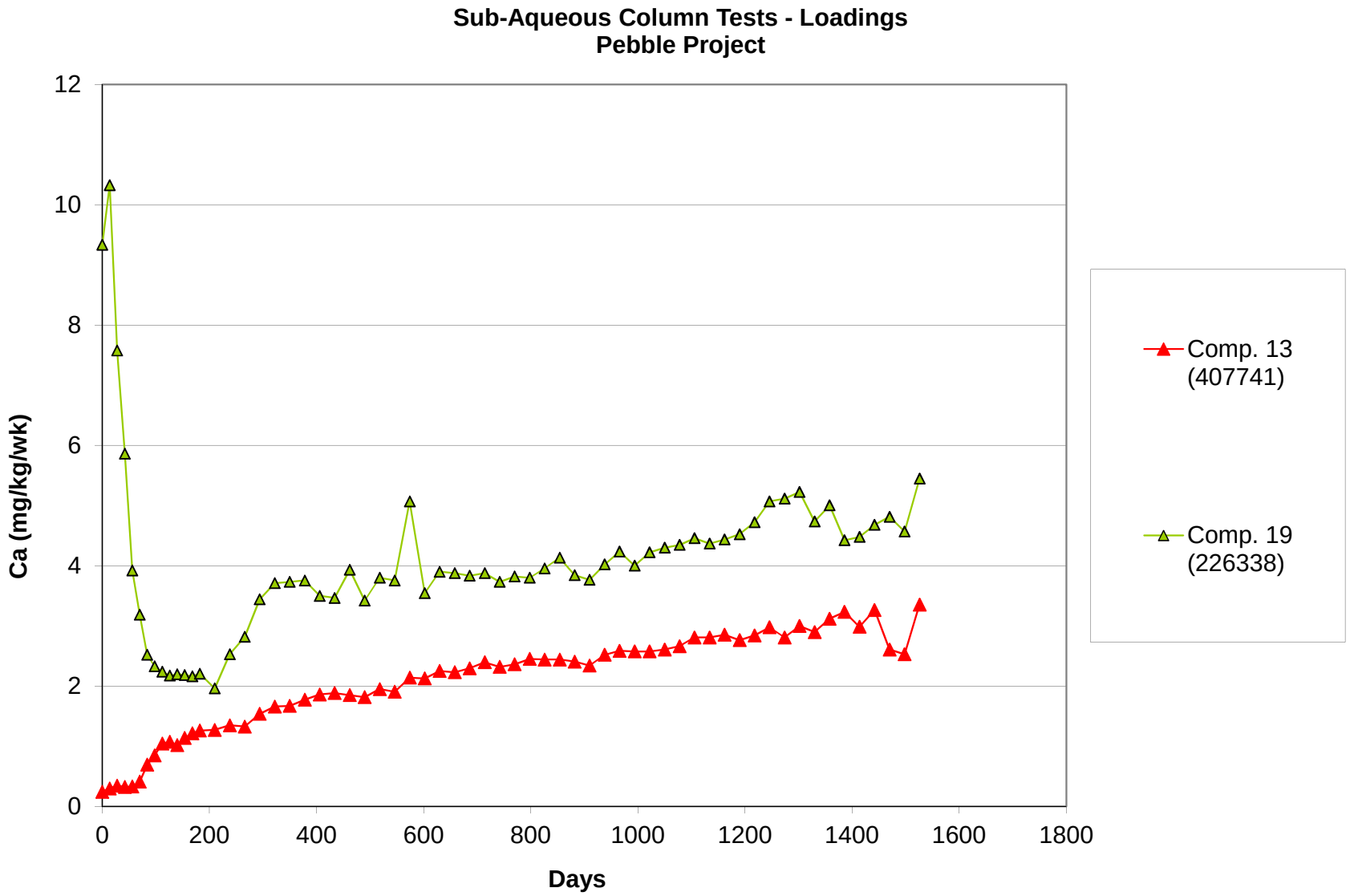

Sub-Aqueous Column Tests - Loadings
Pebble Project
Ba (mg/kg/wk)
1
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

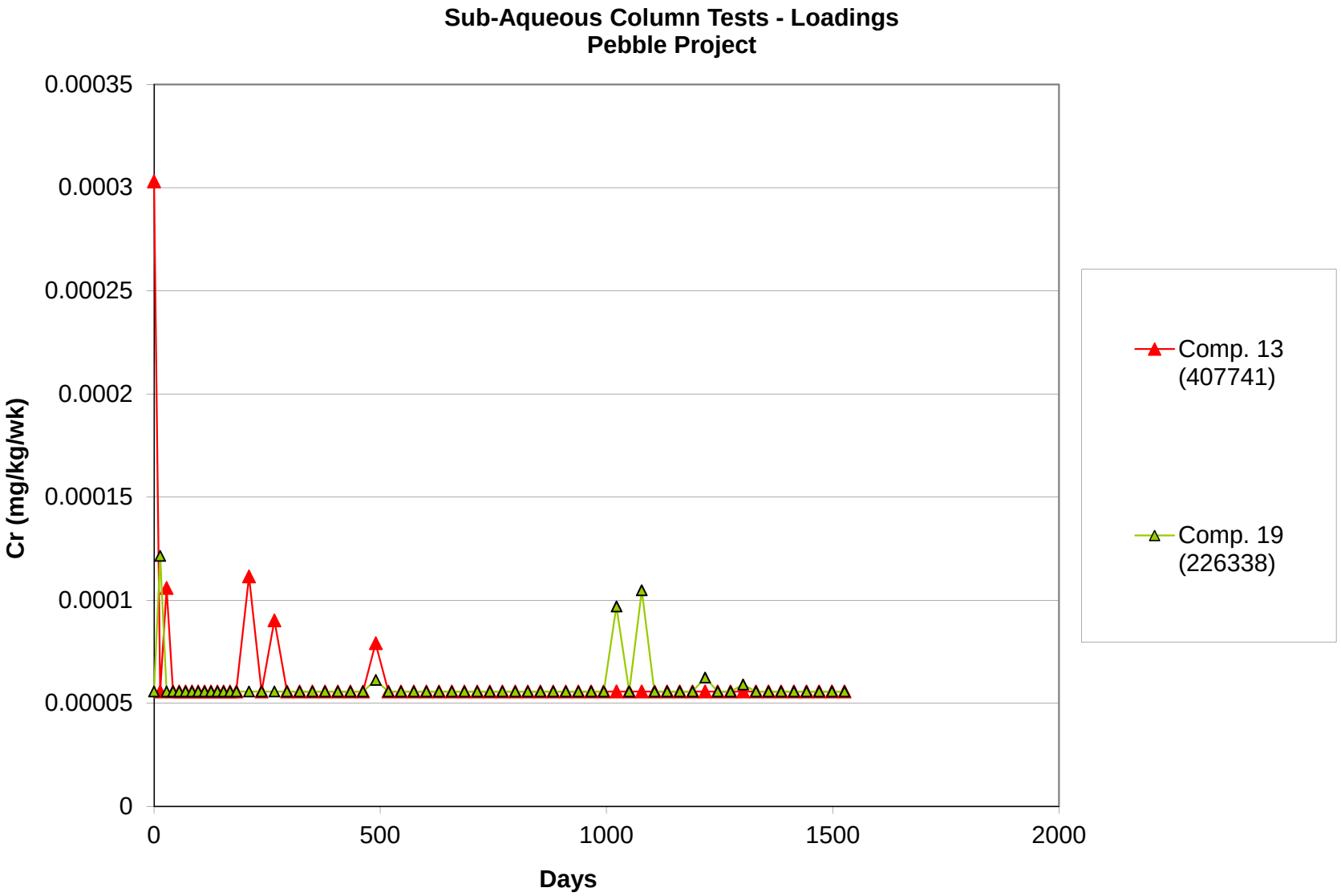

Sub-Aqueous Column Tests - Loadings
Pebble Project
Be (mg/kg/wk)
0.00005
0.000045
0.00004
0.000035
0.00003
0.000025
0.00002
0.000015
0.00001
0.000005
0
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

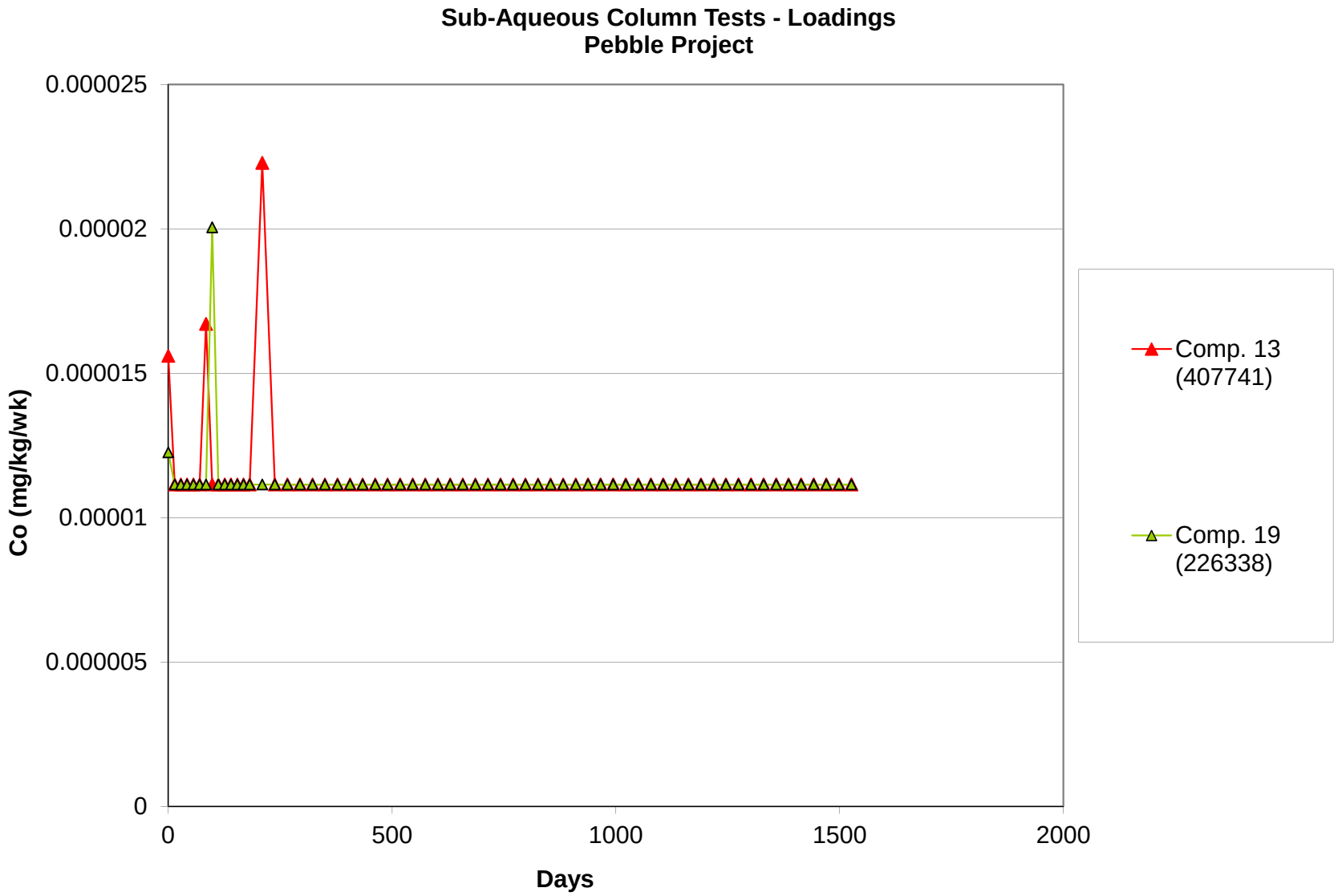

Sub-Aqueous Column Tests - Loadings
Pebble Project
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
Bi (mg/kg/wk)
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

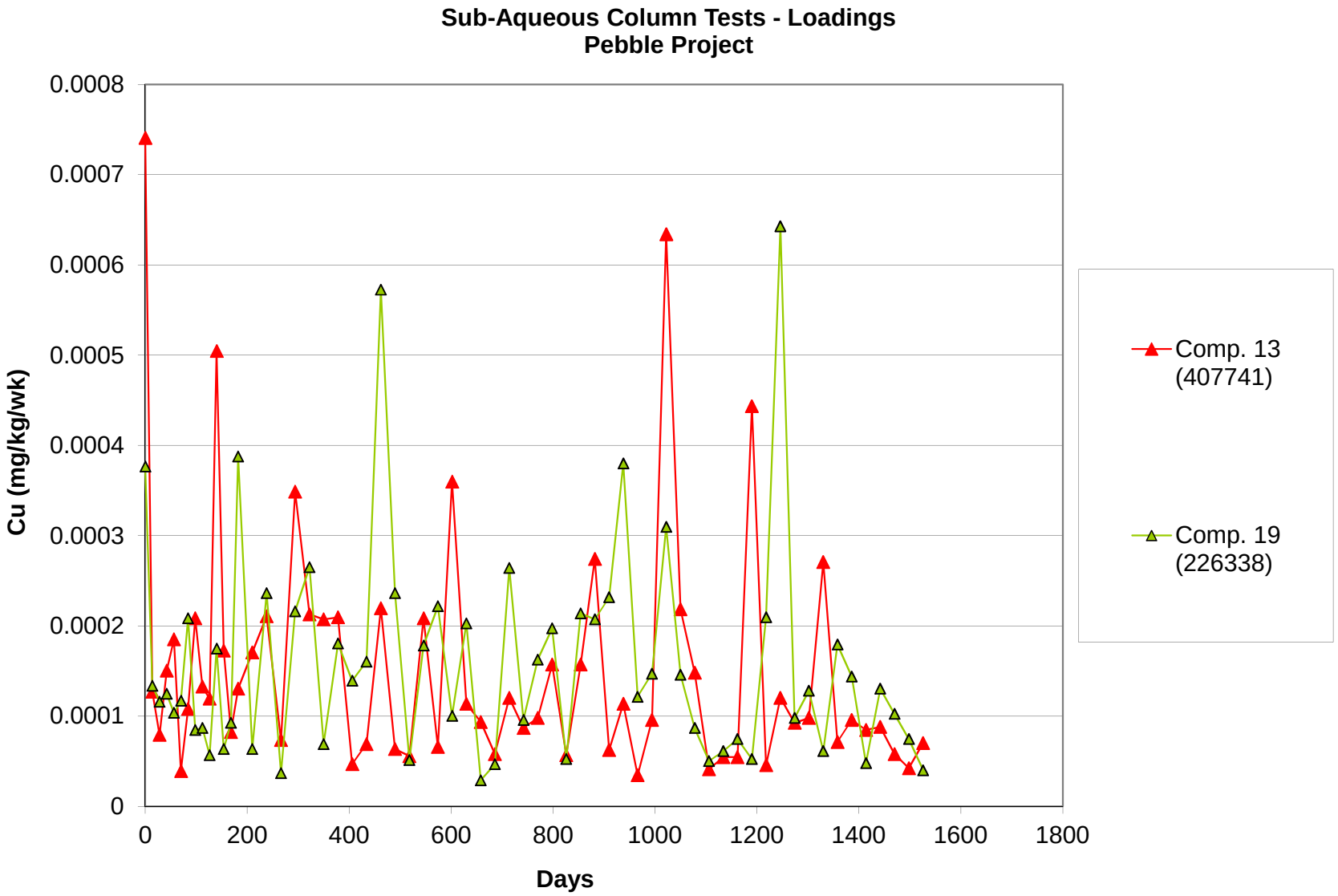

Sub-Aqueous Column Tests - Loadings
Pebble Project
B (mg/kg/wk)
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

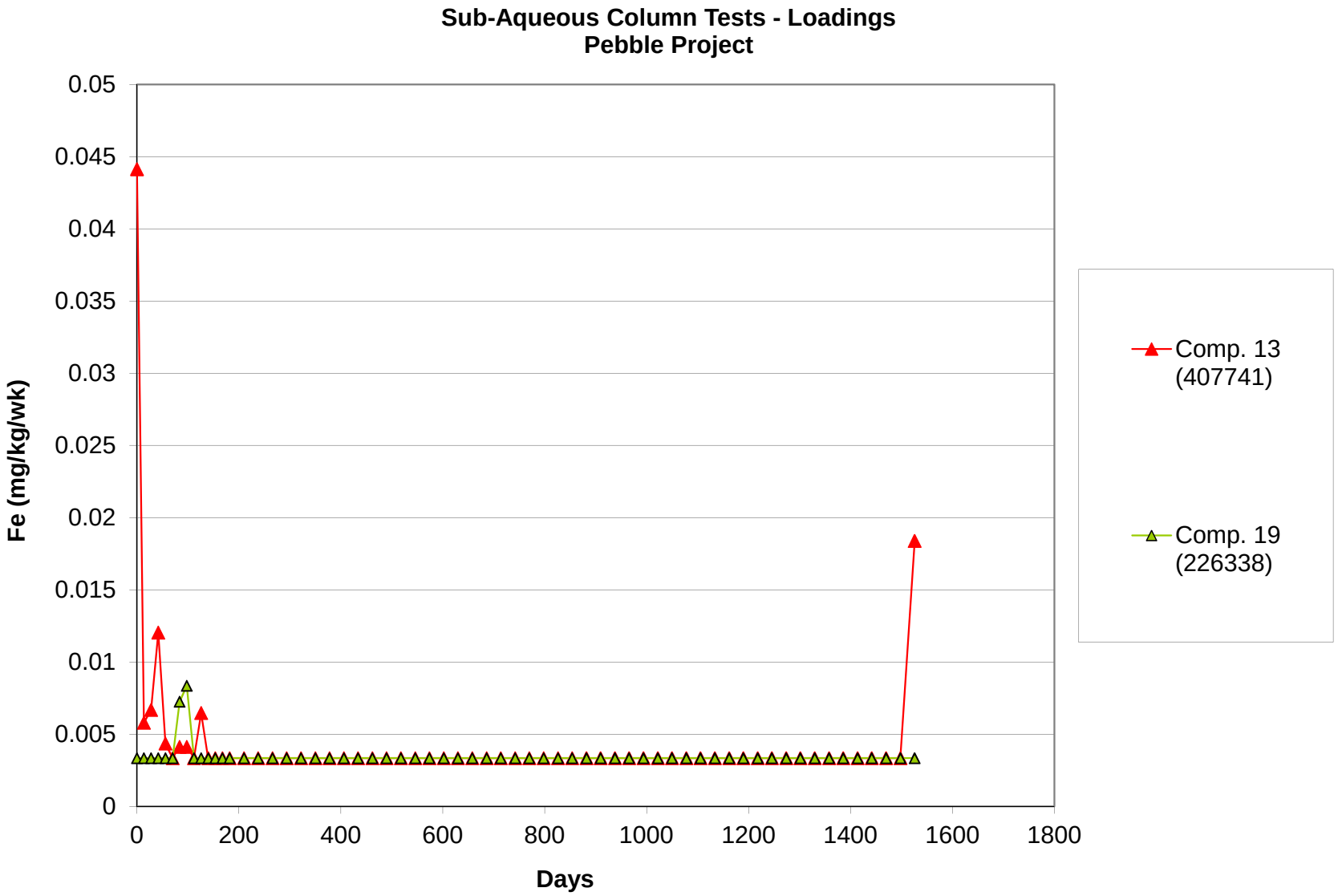

Sub-Aqueous Column Tests - Loadings
Pebble Project
0.000025
0.00002
0.000015
0.00001
0.000005
0
Cd (mg/kg/wk)
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

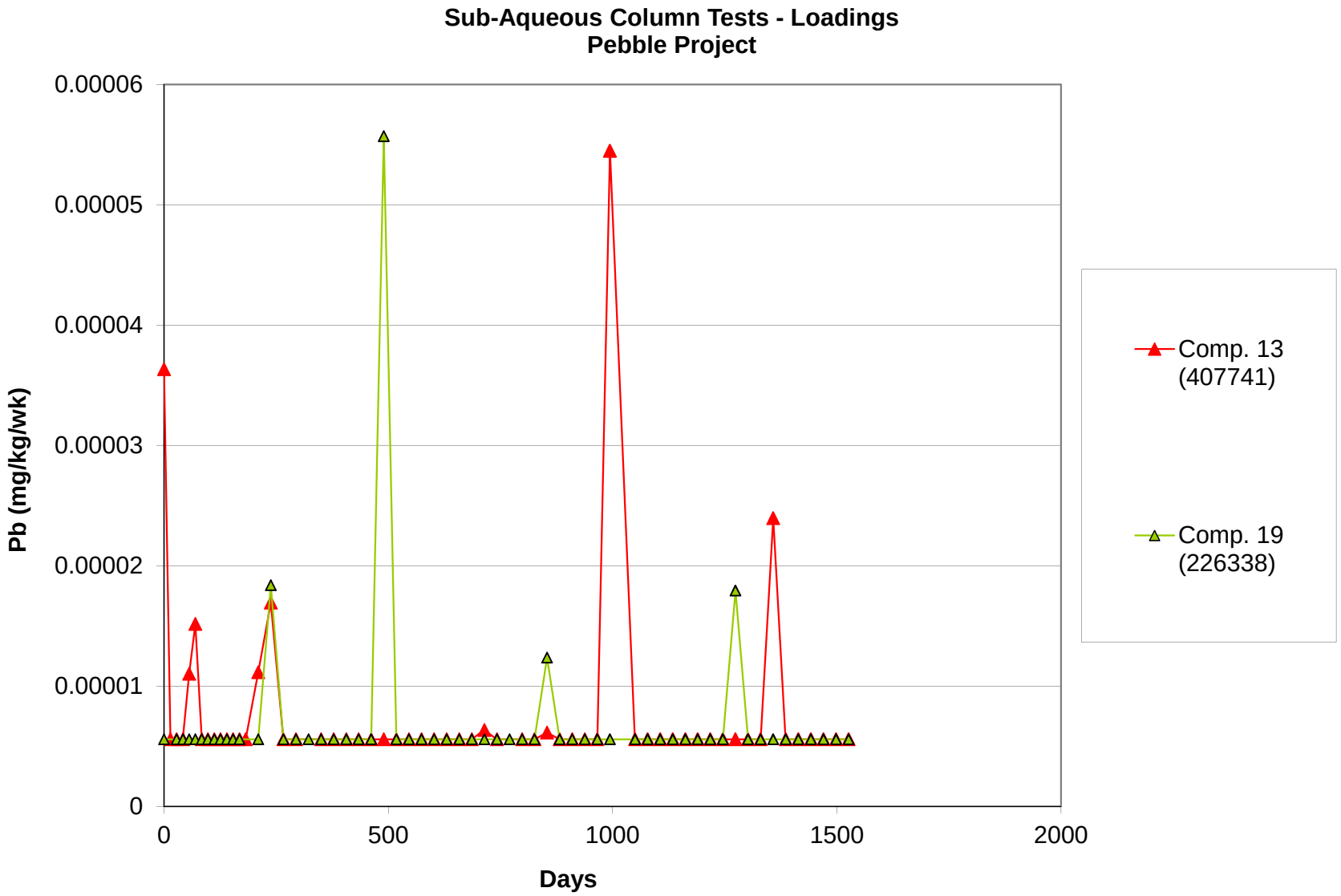

Sub-Aqueous Column Tests - Loadings
Pebble Project
Ca (mg/kg/wk)
0
2
4
6
8
10
12
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

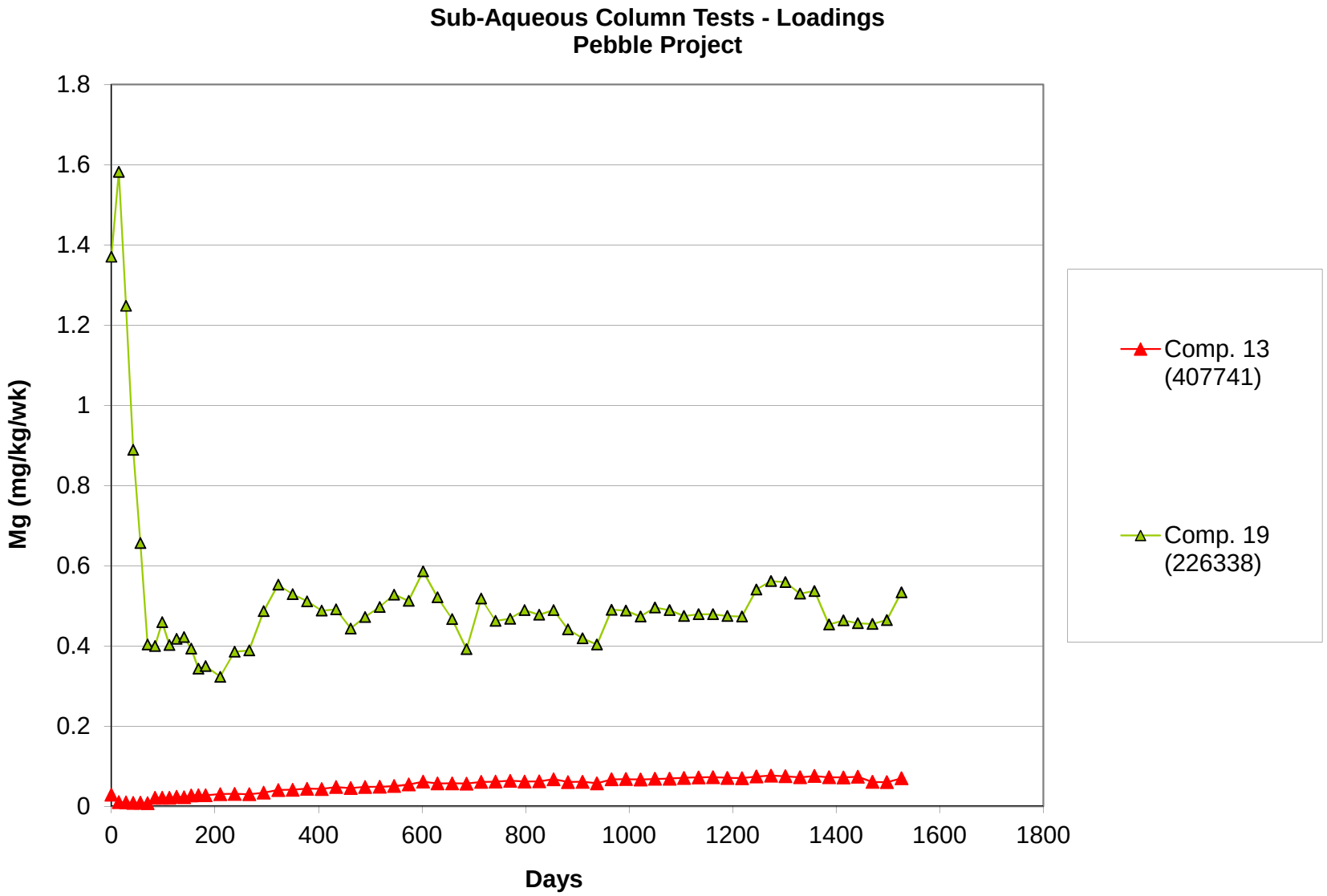

Sub-Aqueous Column Tests - Loadings
Pebble Project
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
Cr (mg/kg/wk)
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

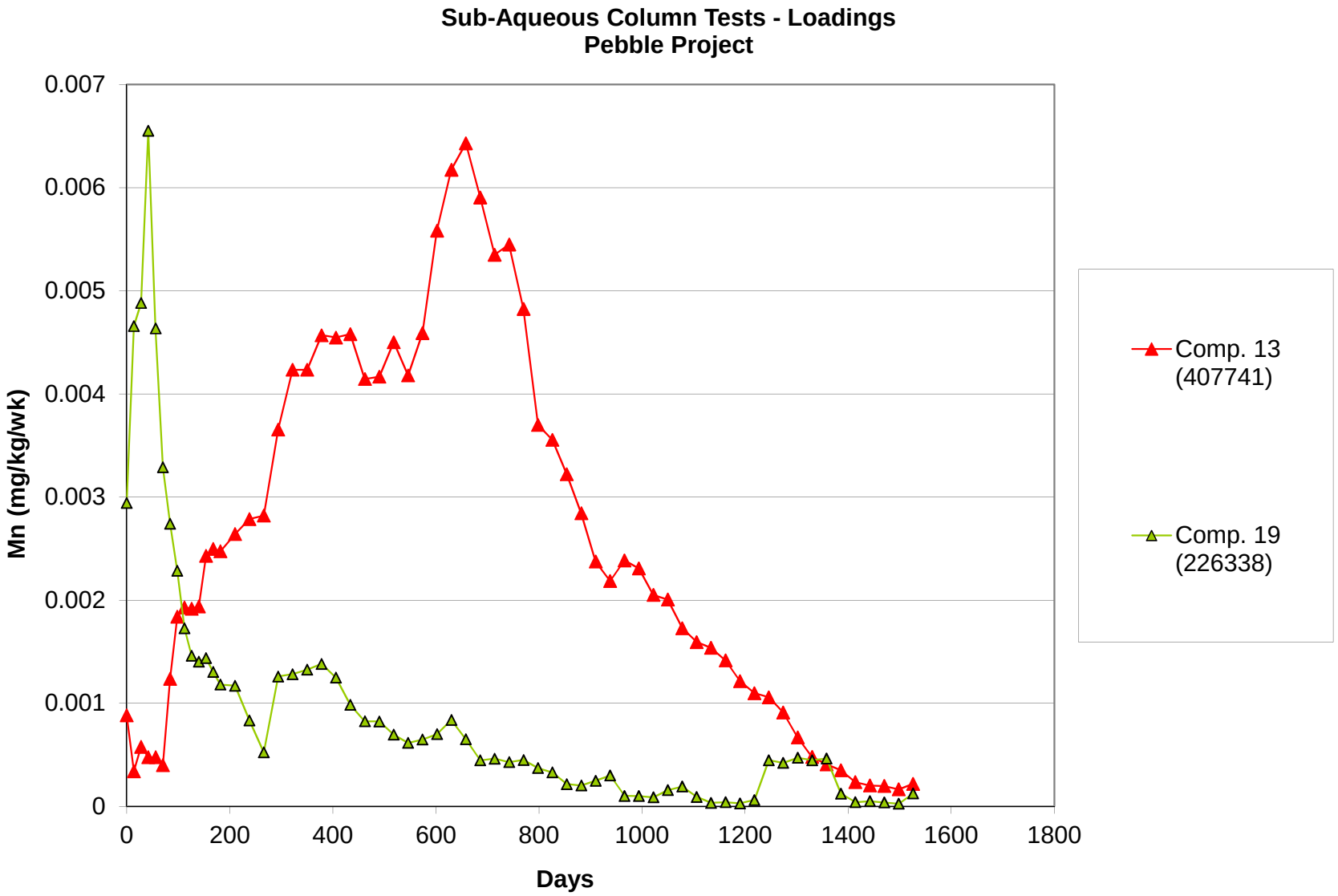

Sub-Aqueous Column Tests - Loadings
Pebble Project
0.000025
0.00002
0.000015
0.00001
0.000005
0
Co (mg/kg/wk)
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

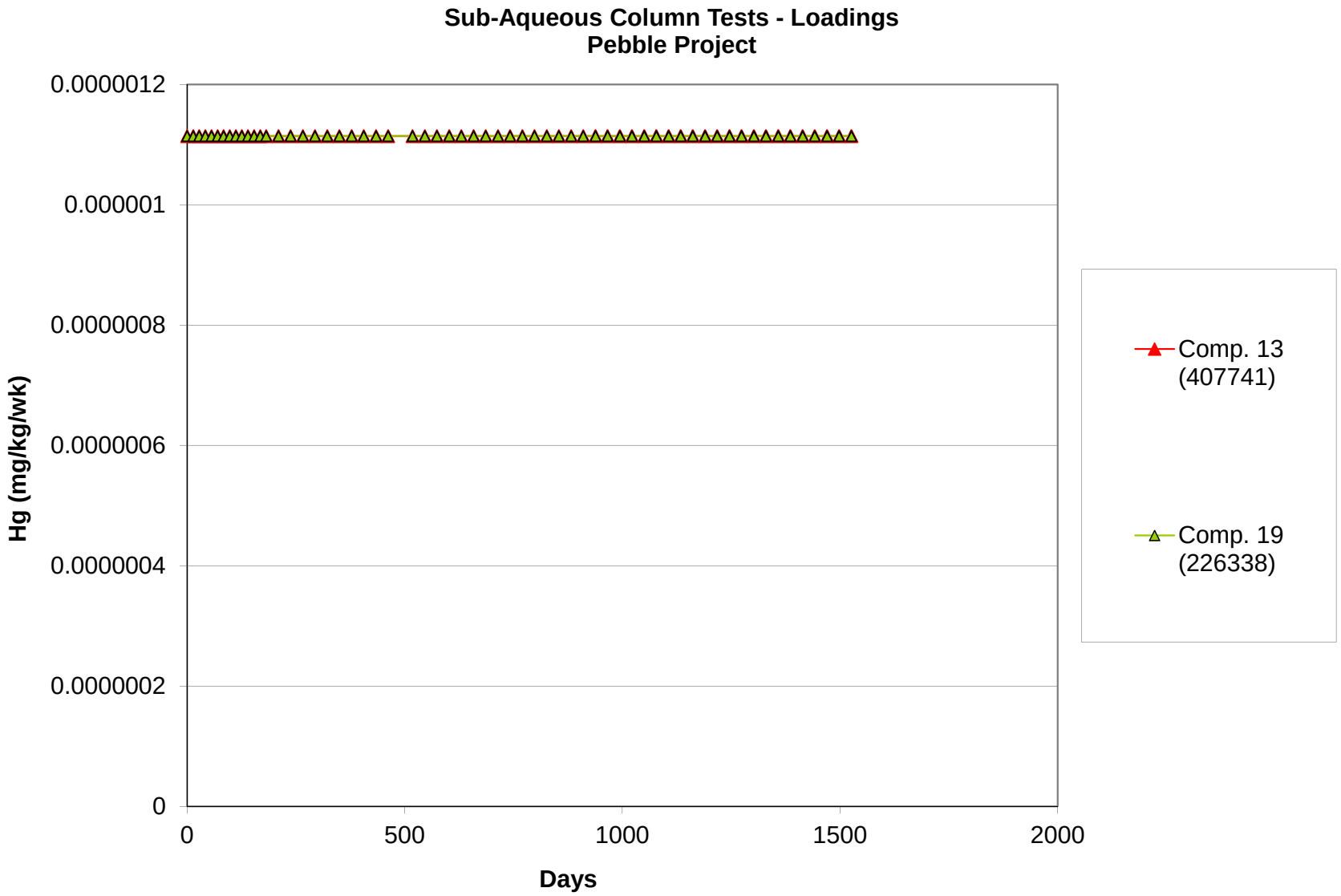

Sub-Aqueous Column Tests - Loadings
Pebble Project
Cu (mg/kg/wk)
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

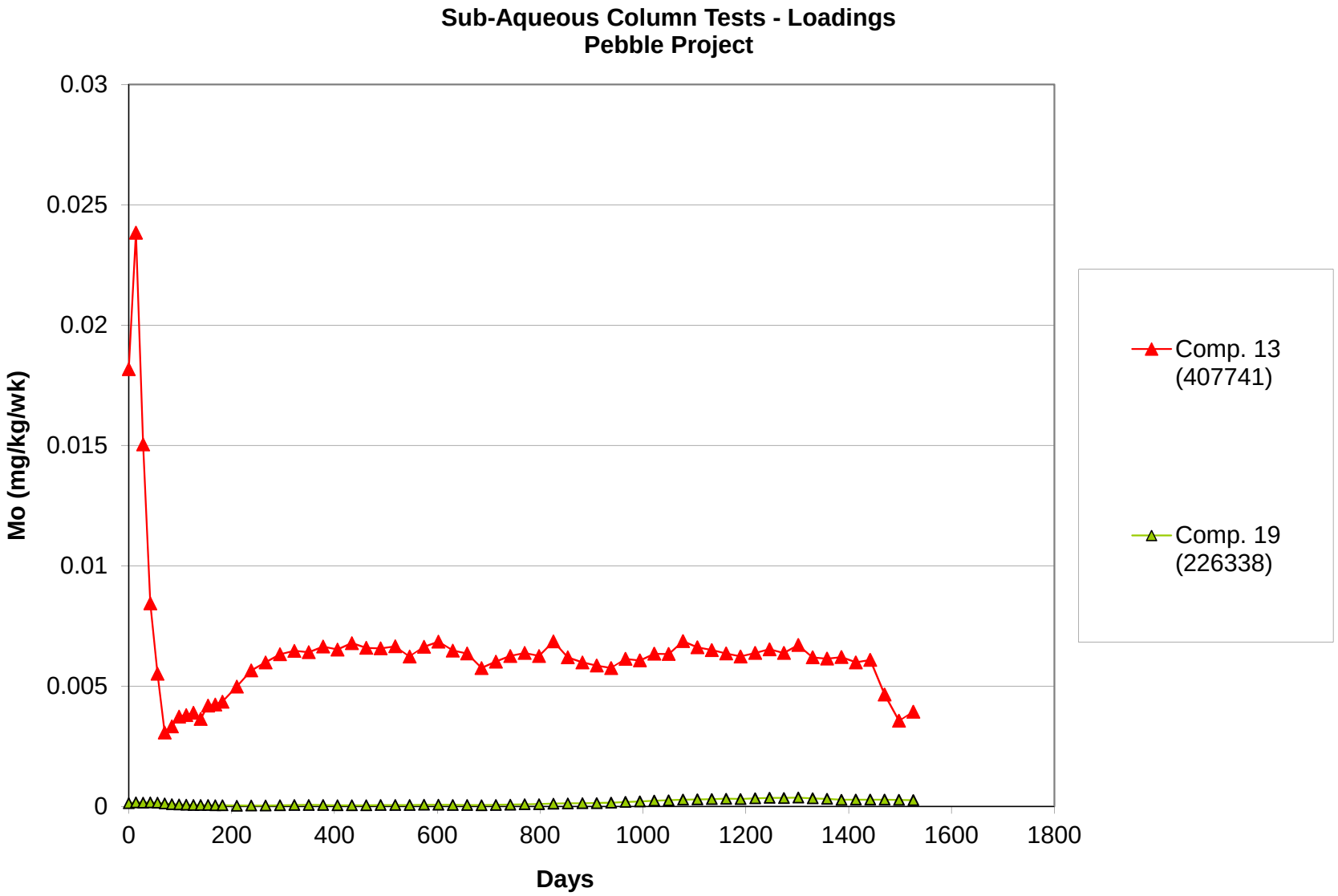

Sub-Aqueous Column Tests - Loadings
Pebble Project
Fe (mg/kg/wk)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

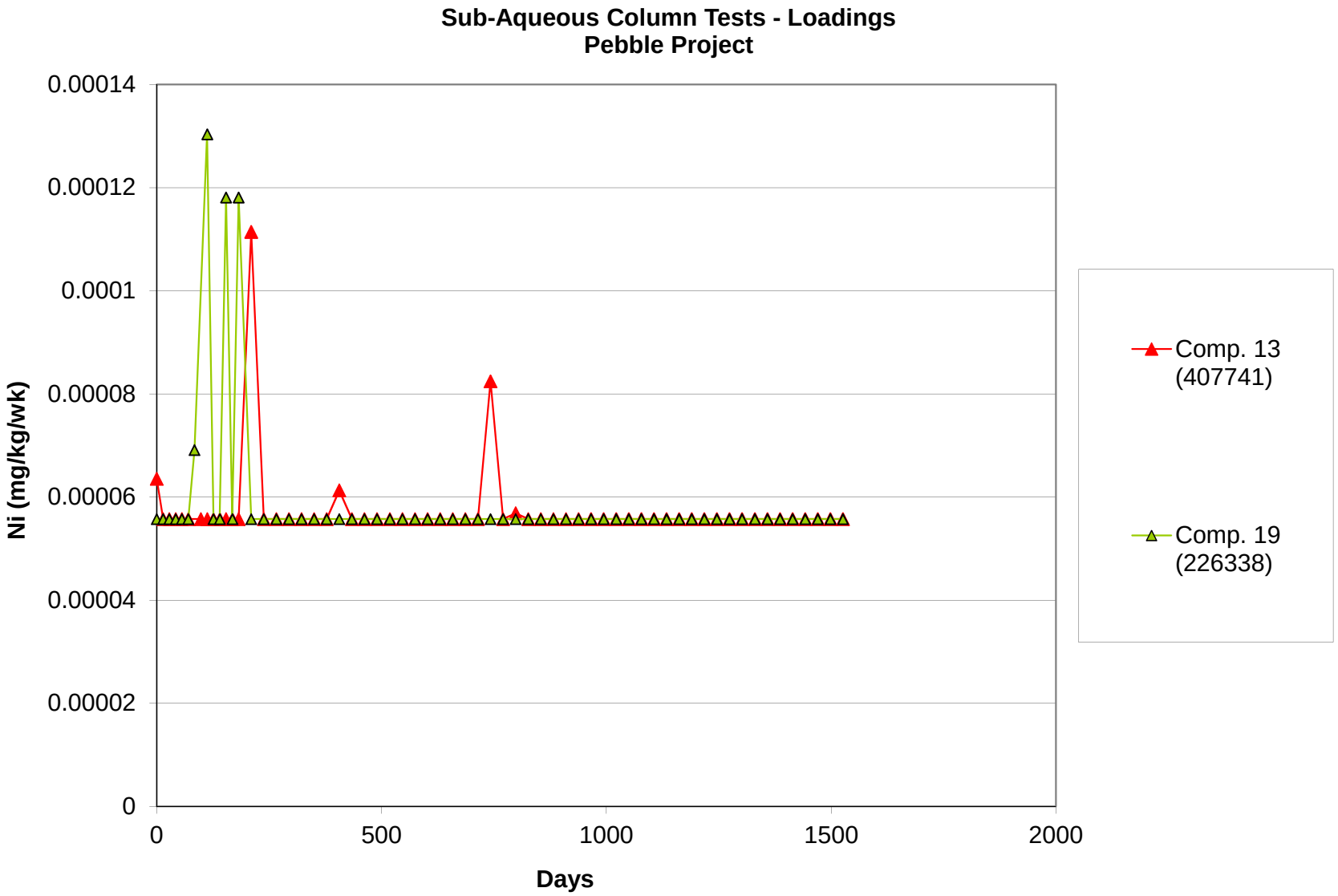

Sub-Aqueous Column Tests - Loadings
Pebble Project
Pb (mg/kg/wk)
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

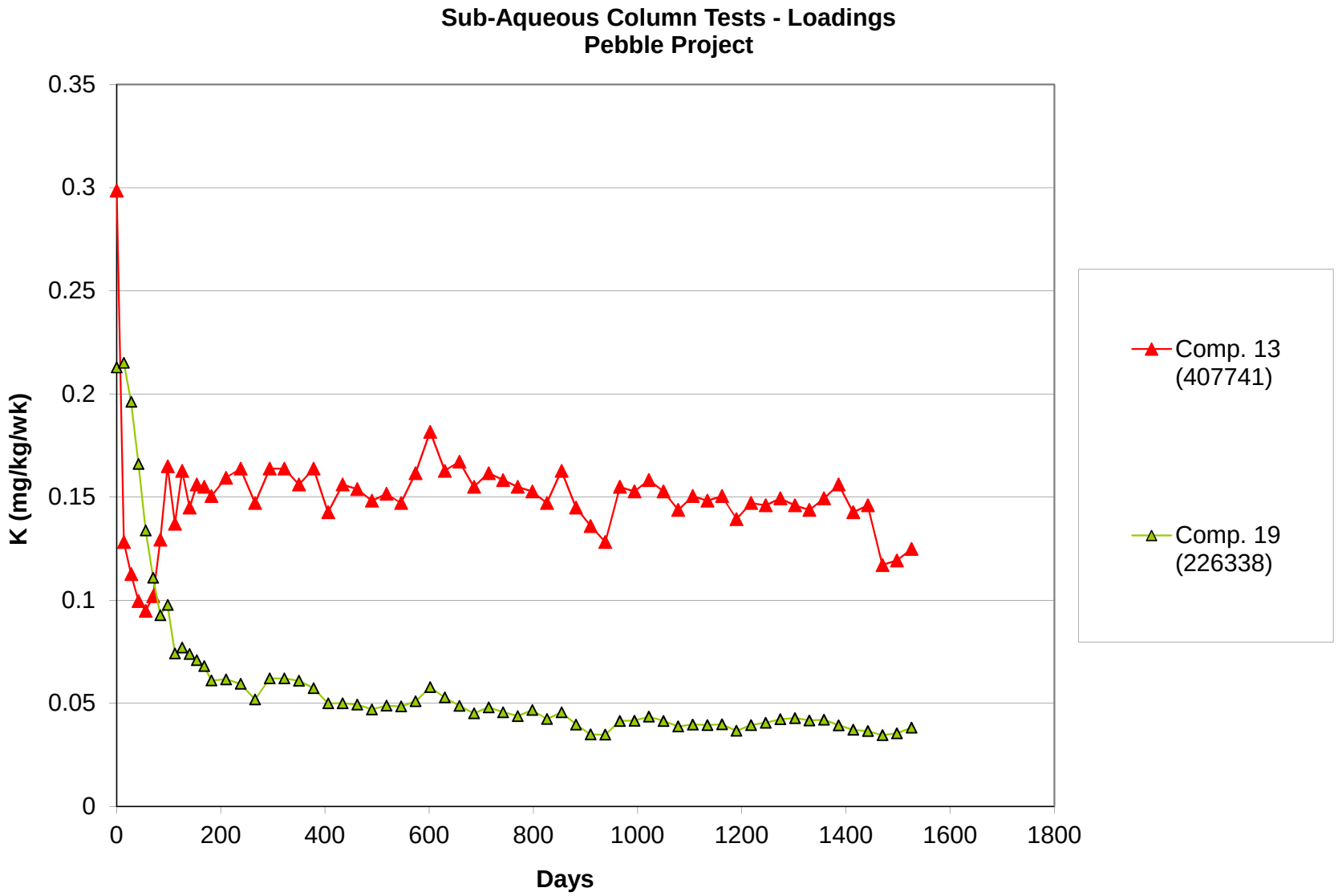

Sub-Aqueous Column Tests - Loadings
Pebble Project
Mg (mg/kg/wk)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

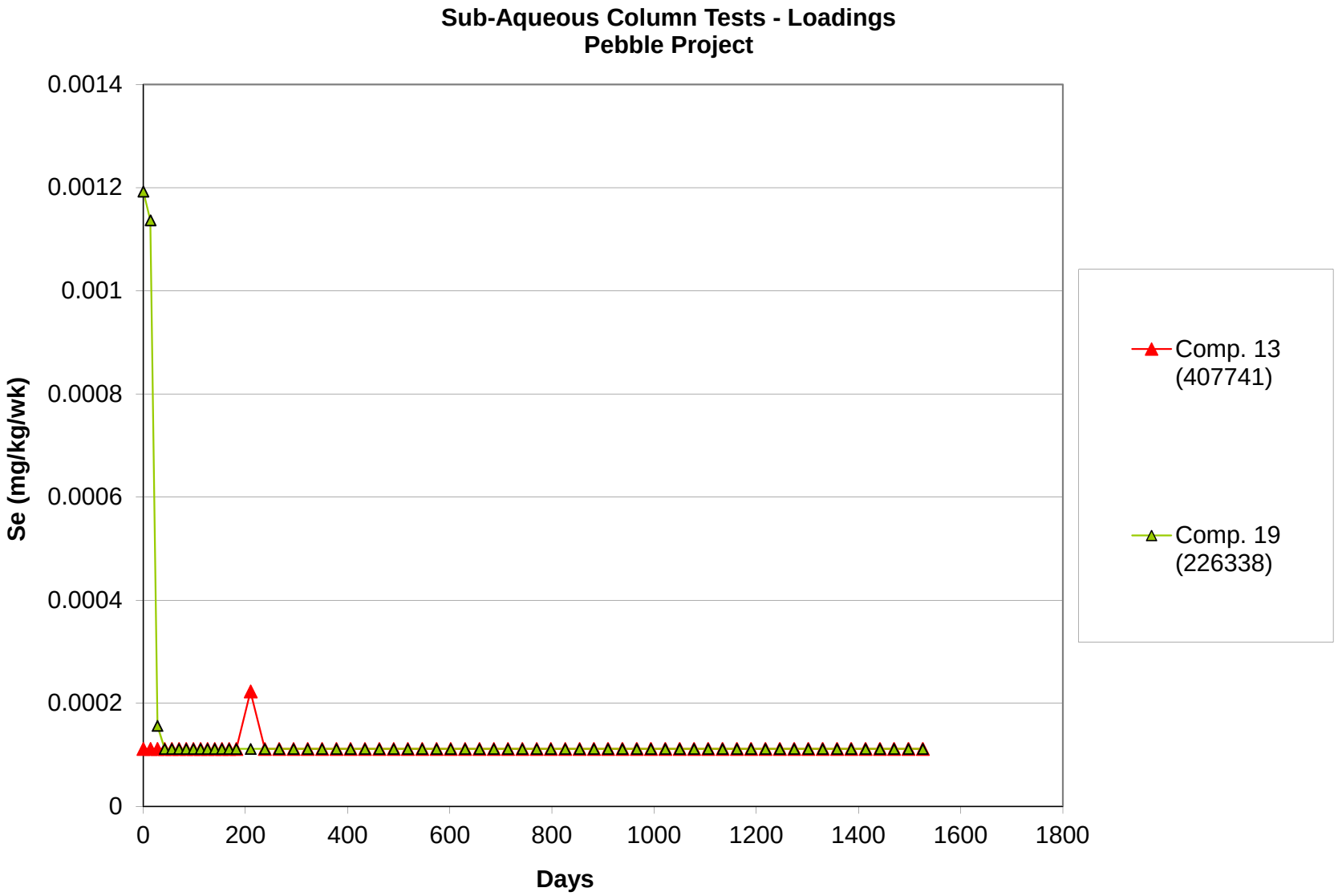

Sub-Aqueous Column Tests - Loadings
Pebble Project
Mn (mg/kg/wk)
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

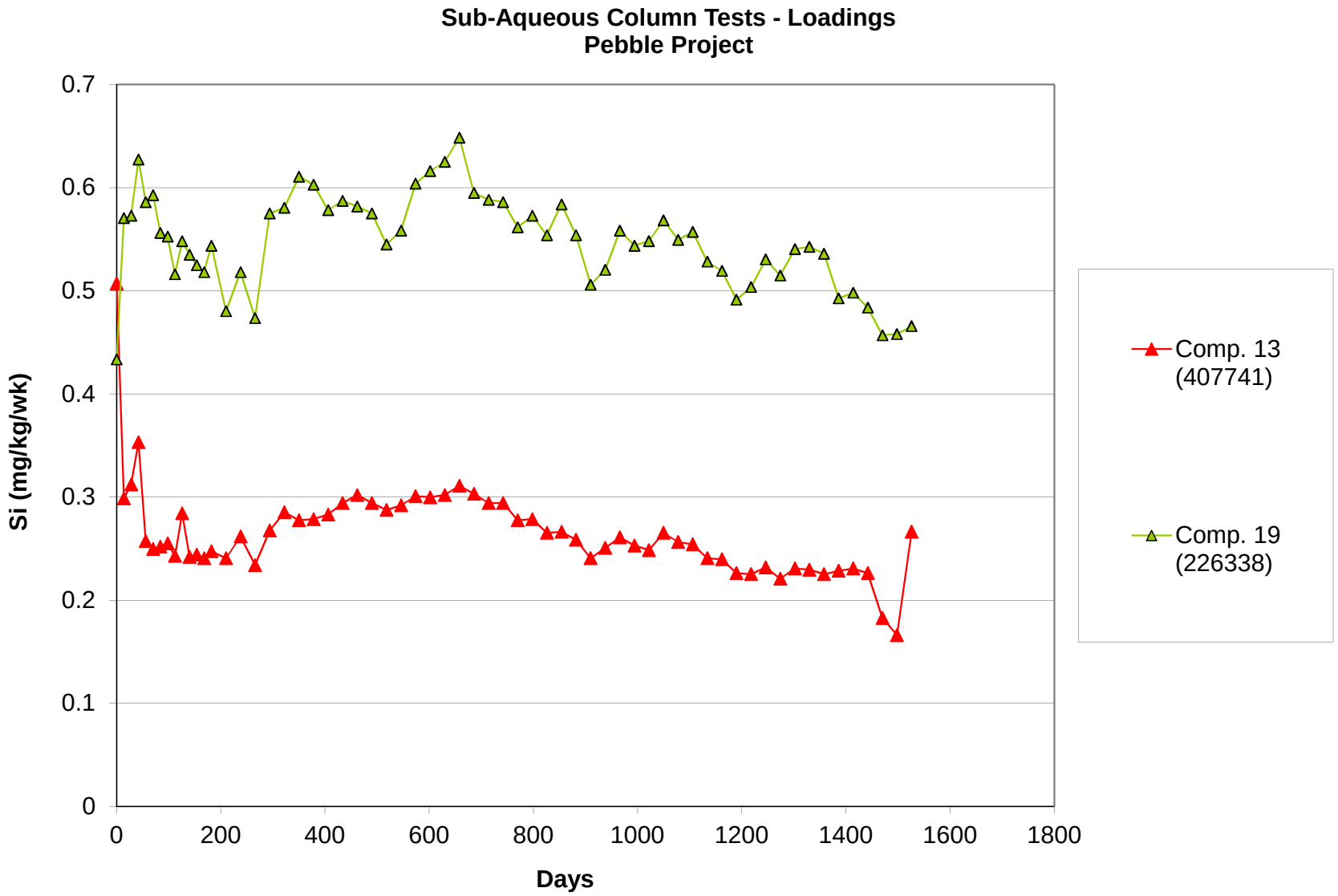

Sub-Aqueous Column Tests - Loadings
Pebble Project
0.0000012
0.000001
0.0000008
0.0000006
0.0000004
0.0000002
0
Hg (mg/kg/wk)
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

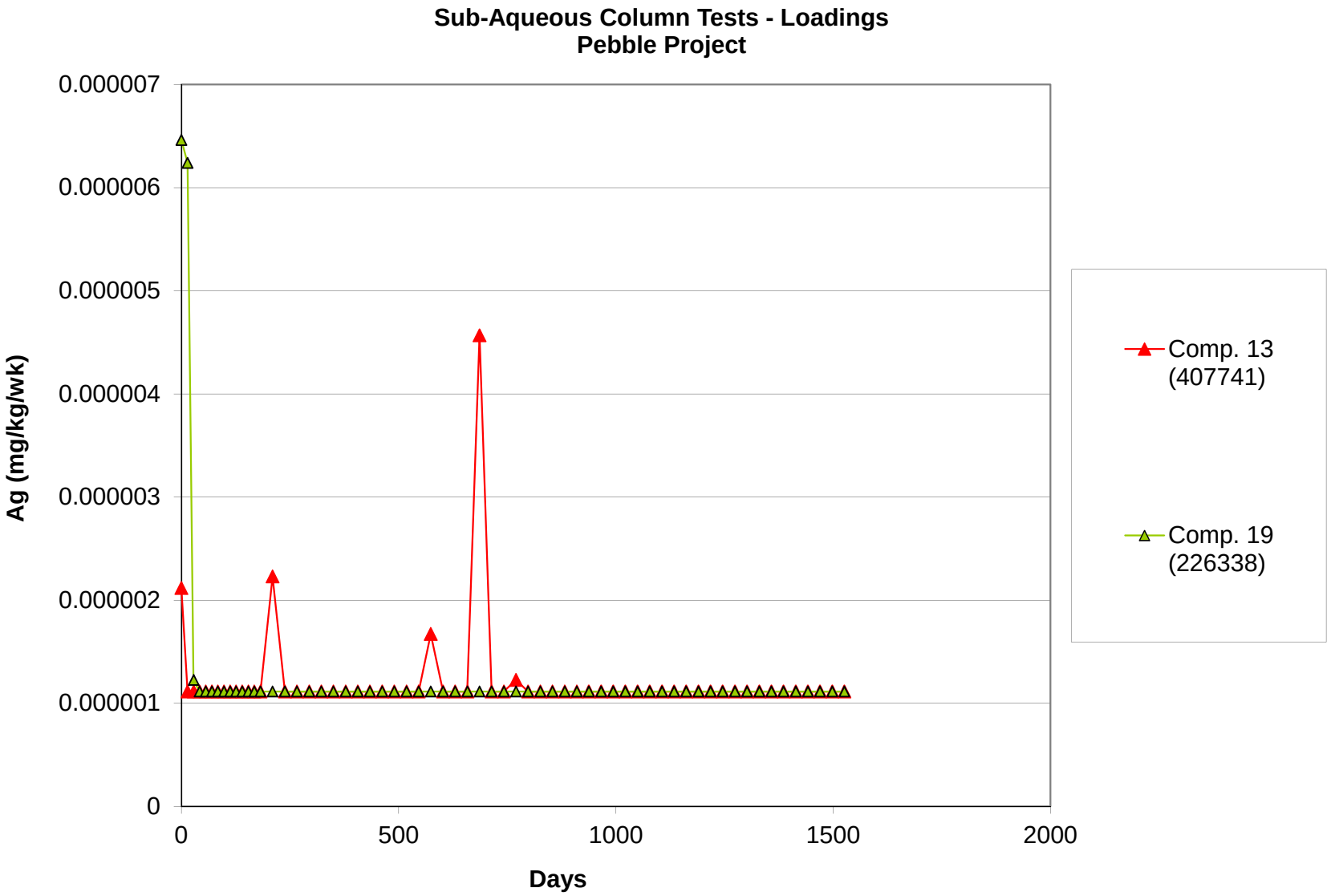

Sub-Aqueous Column Tests - Loadings
Pebble Project
Mo (mg/kg/wk)
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

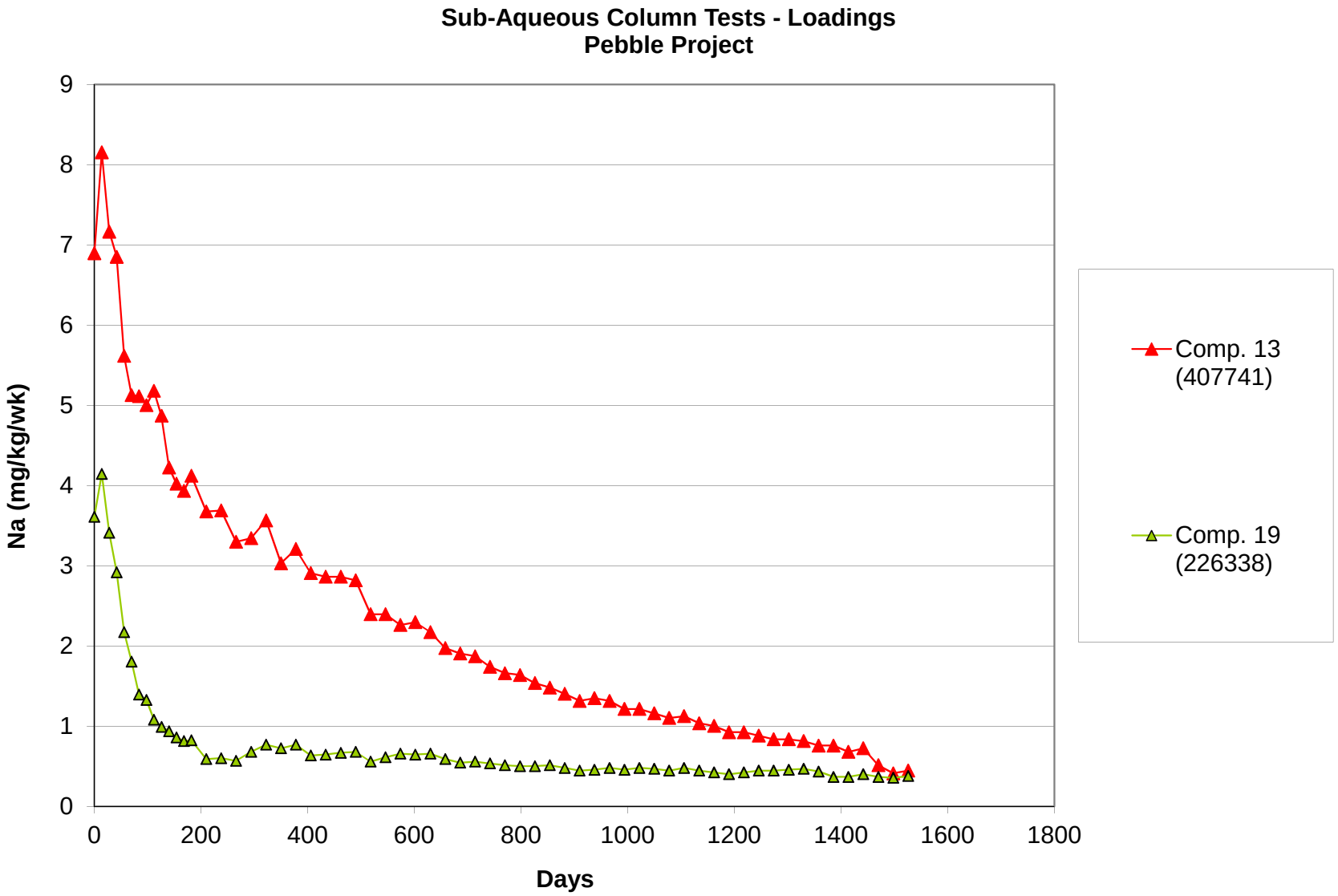

Sub-Aqueous Column Tests - Loadings
Pebble Project
Ni (mg/kg/wk)
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

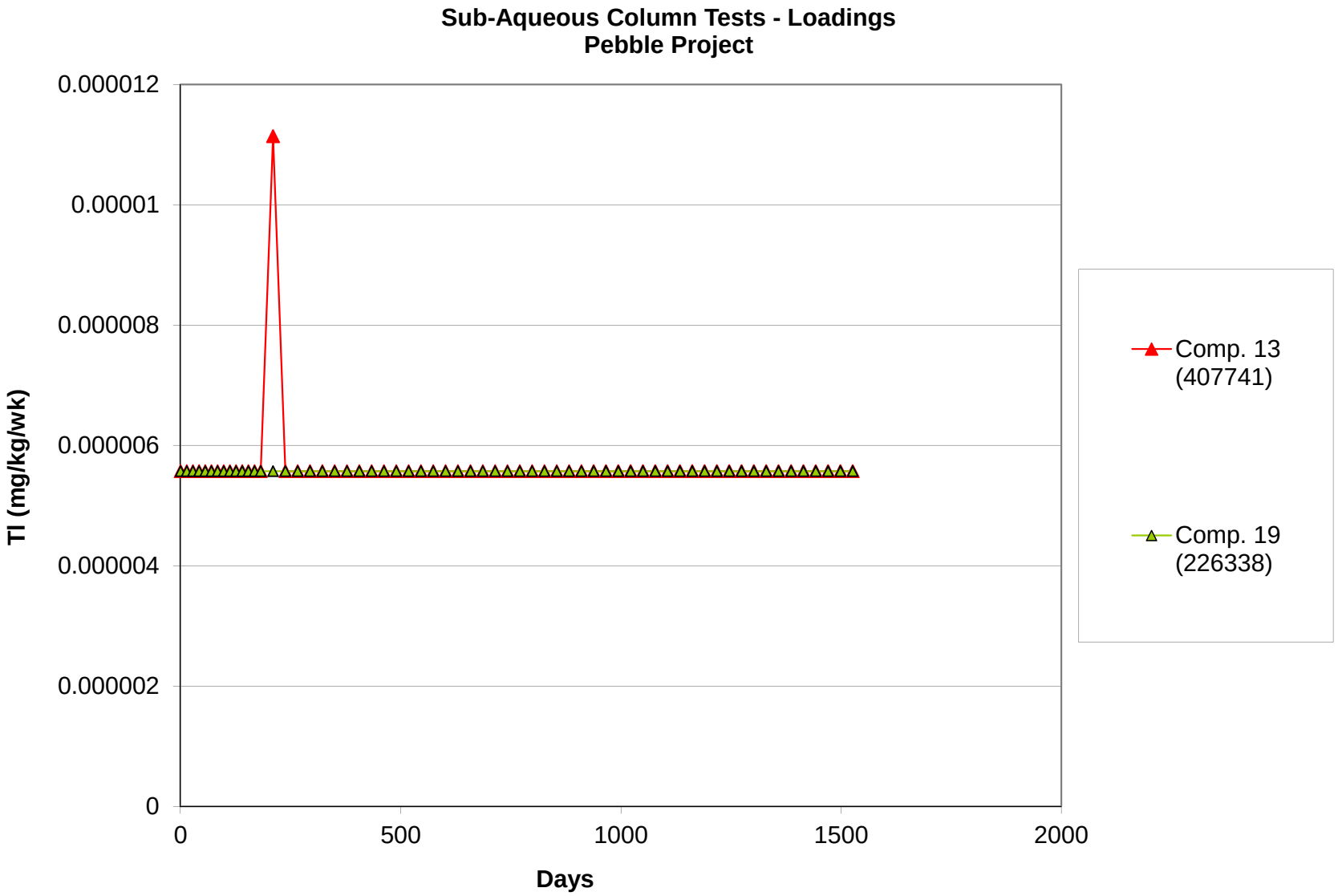

Sub-Aqueous Column Tests - Loadings
Pebble Project
K (mg/kg/wk)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

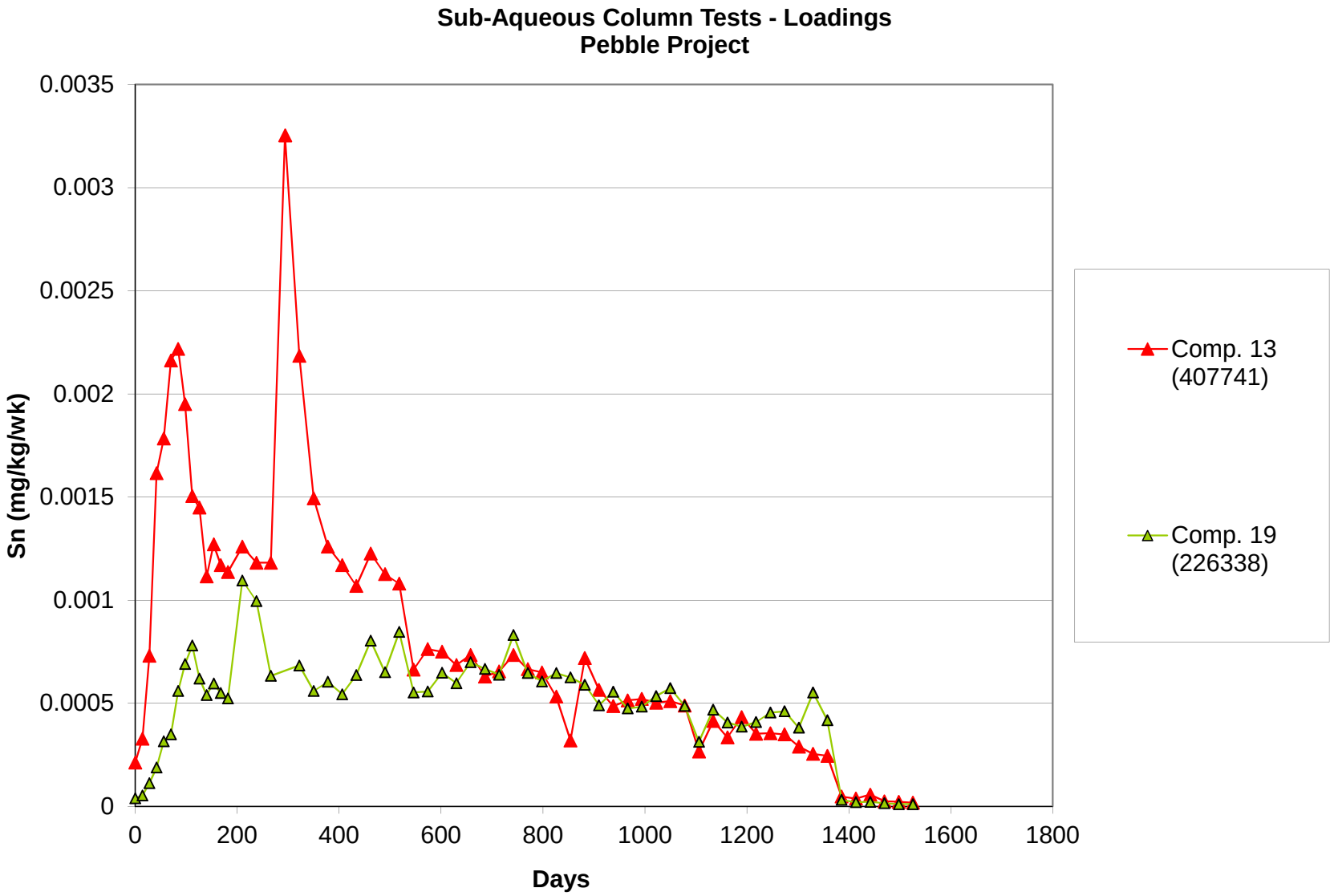

Sub-Aqueous Column Tests - Loadings
Pebble Project
Se (mg/kg/wk)
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

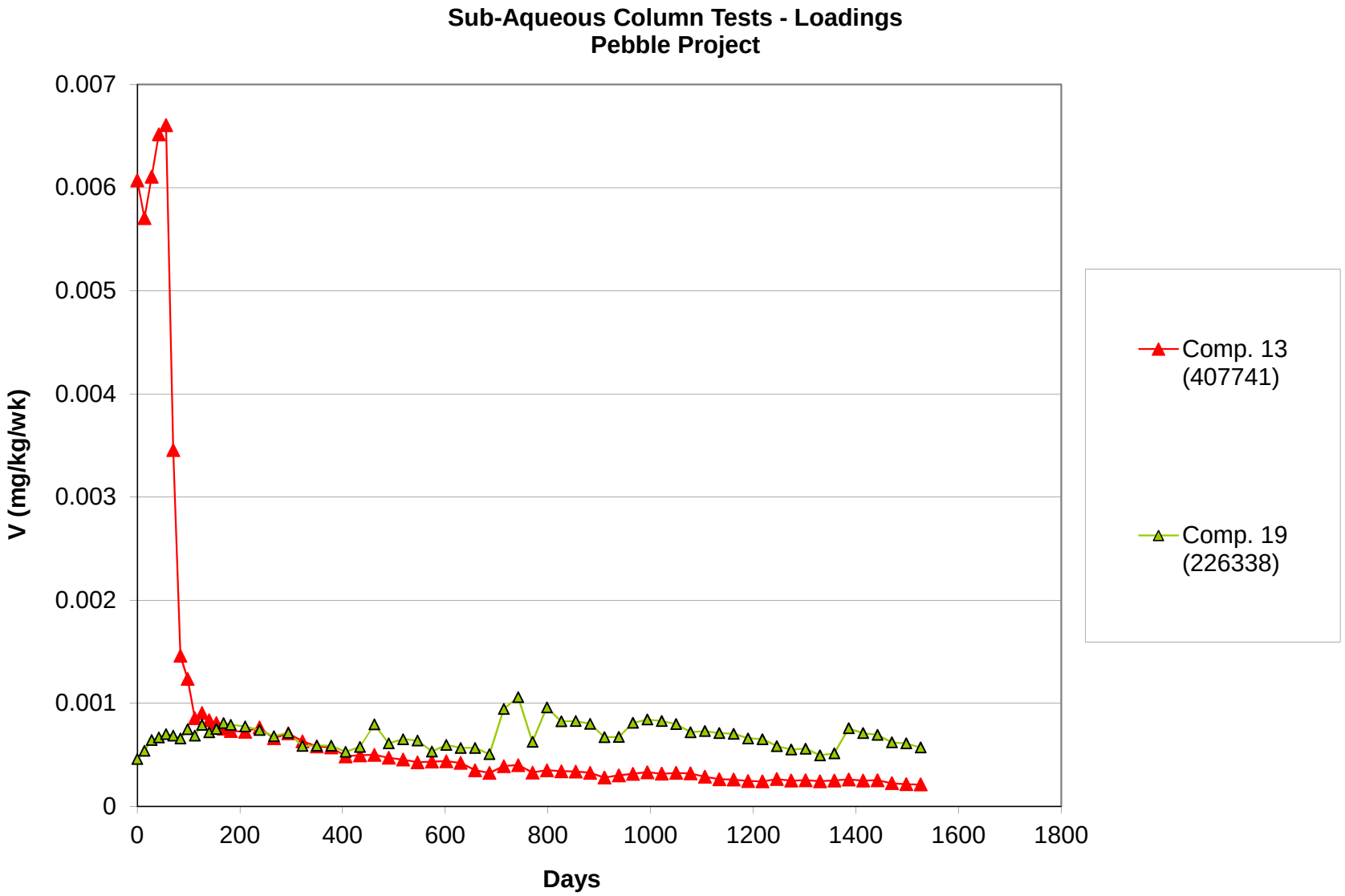

Sub-Aqueous Column Tests - Loadings
Pebble Project
Si (mg/kg/wk)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)

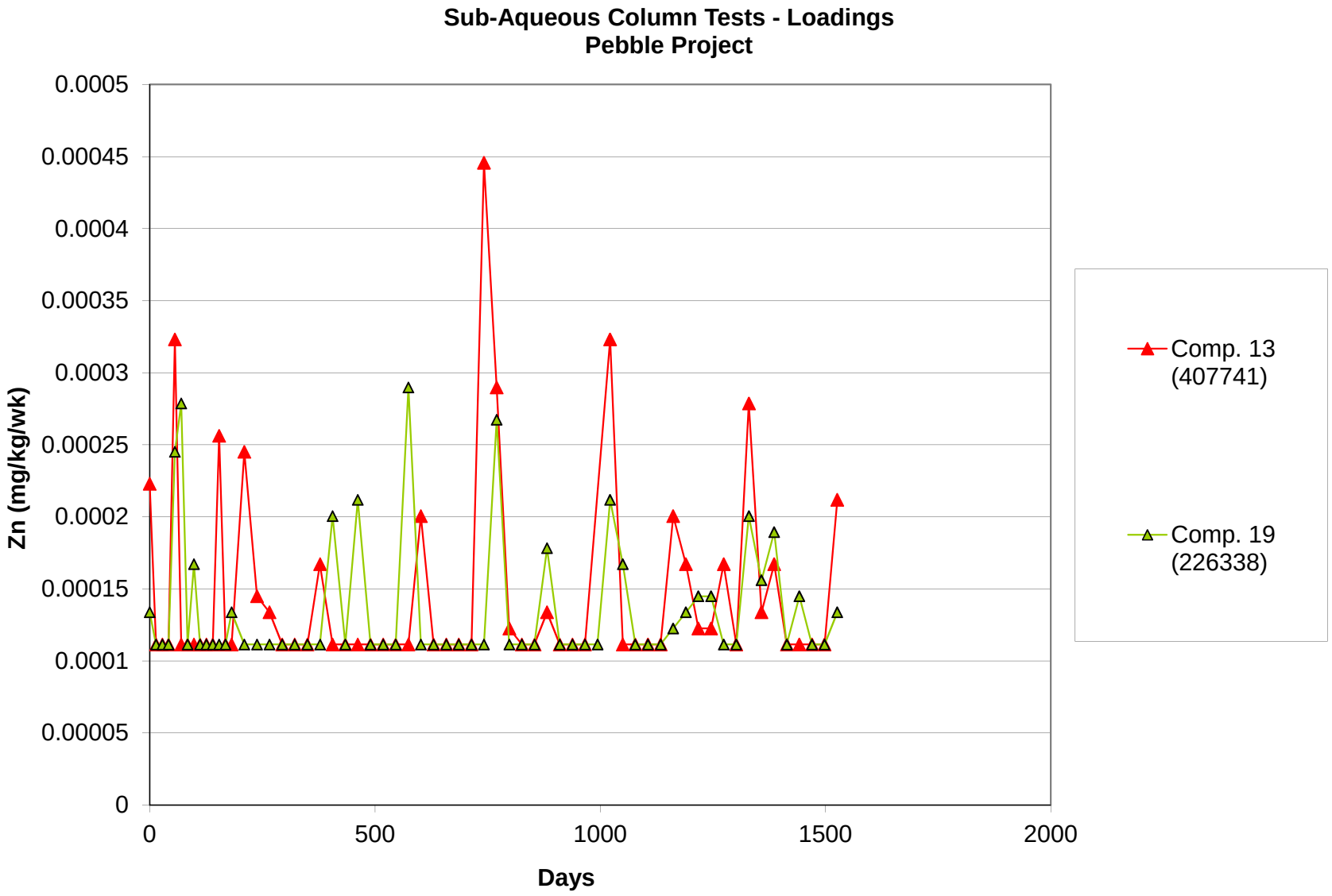

Sub-Aqueous Column Tests - Loadings
Pebble Project
Ag (mg/kg/wk)
0.000007
0.000006
0.000005
0.000004
0.000003
0.000002
0.000001
0
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)


Sub-Aqueous Column Tests - Loadings
Pebble Project
Na (mg/kg/wk)
0
1
2
3
4
5
6
7
8
9
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)


Sub-Aqueous Column Tests - Loadings
Pebble Project
0.000012
0.00001
0.000008
0.000006
0.000004
0.000002
0
Tl (mg/kg/wk)
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)


Sub-Aqueous Column Tests - Loadings
Pebble Project
Sn (mg/kg/wk)
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)


Sub-Aqueous Column Tests - Loadings
Pebble Project
V (mg/kg/wk)
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Comp. 13 (407741)
Comp. 19 (226338)


Sub-Aqueous Column Tests - Loadings
Pebble Project
Zn (mg/kg/wk)
0.0005
0.00045
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
500
1000
1500
2000
Days
Comp. 13 (407741)
Comp. 19 (226338)

Appendix 11H, Stored Bag Test Data: Waste Rock

Key to abbreviations and acronyms used in this appendix

Abbreviation/acronym	**Explanation**
EC	Electrical conductivity
µS/cm	Micro-siemens per cm
mg/L	Milligrams per liter
$mgCaCO_3/L$	Milligrams calcium carbonate (equivalent) per liter
mL	Milliliters(s)
mV	Millivolt(s)
ORP	Oxidation-reduction potential

For chemical abbreviations see Appendix D of this environmental baseline document.

For rock type codes, and explanations, see Table 11-1.

Sample ID	Date	Litho Type	Sample Weight, g	Vol Input, ml	pH	EC (final), uS/cm	ORP, mV	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Ag, mg/L	Al, mg/L	As, mg/L	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L
Composite 1	14/10/2008	G	250	750	7.78	255	272	<1	3.11	58.2	34.1	1.27	0.475	59.8	0.000014	0.0719	0.0057	0.069	0.00289	<0.0002	<0.0005	12.5	0.000066
Composite 1	23/10/2008	G	250	750	7.8	234	278	<1	3.11	61.8	33.8	1.32	0.41	53.3	<0.00001	0.167	0.00433	0.048	0.00277	<0.0002	<0.0005	12.4	<0.00005
Composite 1	5/11/2008	G	250	750	7.59	231	425	<1	4.01	64.2	32.8	1.16	0.347	44.6	<0.00001	0.446	0.00398	0.047	0.00405	<0.0002	<0.0005	12.1	<0.00005
Composite 1	12/04/2010	G	250	750	7.84	249	343	<1	2.46	67.91	27.6	1.03	0.33	48.9	0.000012	0.112	0.00371	0.042	0.00255	<0.0002	<0.0005	10.1	<0.00005
Composite 1	9/05/2011	G	250	750	7.81	243	241	<1	2.56	48.7	18.9	1.25	0.49	67.4	0.000018	0.257	0.00812	0.063	0.00473	<0.0002	<0.0005	6.78	<0.00005
Composite 1	16/05/2012	G	250	750	7.64	275	318	<1	2.98	45.98	28.8	<5	0.43	78.3	0.000021	0.372	0.00603	0.051	0.00308	<0.0002	<0.0005	10.4	<0.00005
Composite 2	14/10/2008	G	250	750	7.72	174	295	<1	3.33	33.7	37.2	0.88	0.19	44.7	0.000011	0.0592	0.00138	0.026	0.00296	<0.0002	<0.0005	12.6	0.000065
Composite 2	23/10/2008	G	250	750	7.69	215	308	<1	2.97	33.4	45.6	1.06	0.23	65	<0.00001	0.212	0.00057	0.016	0.00371	<0.0002	<0.0005	15.5	0.000061
Composite 2	5/11/2008	G	250	750	7.74	179	413	<1	3.01	33	34.5	0.95	0.178	48	<0.00001	0.174	0.00043	0.017	0.00294	<0.0002	<0.0005	12	<0.00005
Composite 2	12/04/2010	G	250	750	7.45	232	341	<1	2.85	31.4	42.1	0.98	0.182	66.9	<0.00001	0.105	0.00047	0.016	0.00372	<0.0002	<0.0005	14.5	0.000069
Composite 2	9/05/2011	G	250	750	7.45	219	283	<1	2.7	29.79	41.4	0.99	0.138	69.3	<0.00001	0.0496	0.00045	0.014	0.00373	<0.0002	<0.0005	13.9	0.000058
Composite 2	16/05/2012	G	250	750	7.38	217	321	<1	3.34	24.17	45.8	0.91	0.151	72.6	<0.00001	0.0776	0.00059	0.013	0.00362	<0.0002	<0.0005	15.3	0.000098
Composite 3	14/10/2008	G	250	750	4.05	230	426	7.28	51.83	<1	26.7	<0.5	0.106	84.6	<0.00005	1.24	0.00339	<0.05	0.0272	0.0022	<0.0025	8.44	0.0443
Composite 3	23/10/2008	G	250	750	4.1	258	451	5.7	56.12	<1	35.9	<0.5	0.129	106	<0.00005	1.35	0.00423	<0.05	0.0291	0.0026	<0.0025	11.4	0.0565
Composite 3	5/11/2008	G	250	750	4.53	238	478	2.39	42.24	<1	48.8	<0.5	0.094	99.7	<0.00005	0.759	0.00092	<0.05	0.0281	0.0017	<0.0025	15.7	0.0349
Composite 3	12/04/2010	G	250	750	3.81	293	360	11.9	70.02	<1	31.6	<5	<0.2	109	<0.00005	1.52	0.0054	<0.05	0.0197	0.0024	<0.0025	9.55	0.0676
Composite 3	9/05/2011	G	250	750	4.4	324	304	3.24	60.95	<1	61.2	<5	<0.2	133	0.000017	2.11	0.00355	0.019	0.0241	0.00343	<0.0005	20.1	0.0463
Composite 3	16/05/2012	G	250	750	4.02	346	325	8.52	74.65	<1	60.2	<5	<0.2	147	<0.00005	3.02	0.00492	<0.05	0.0239	0.0036	<0.0025	18.6	0.0741
Composite 4	14/10/2008	G	250	750	4.75	343	360	0.05	29.63	<1	141	<0.5	<0.5	148	0.000022	1.11	<0.0002	<0.02	0.00884	0.00624	<0.001	52.3	0.0096
Composite 4	23/10/2008	G	250	750	3.55	358	483	19.67	71.36	<1	57.2	0.71	0.441	130	0.000027	2.03	0.00928	<0.02	0.0123	0.00921	<0.001	19.6	0.00802
Composite 4	5/11/2008	G	250	750	4.02	374	471	8.86	66.15	<1	107	1.04	0.624	164	0.000027	2.63	0.00118	<0.02	0.0125	0.00951	<0.001	39.2	0.00706
Composite 4	12/04/2010	G	250	750	3.67	456	318	22.04	104.09	<1	106	<5	0.55	196	<0.00005	4.62	0.00419	<0.05	0.0123	0.0114	<0.0025	37.1	0.00737
Composite 4	9/05/2011	G	250	750	3.74	493	310	18.62	96.09	<1	116	<5	0.5	209	0.000054	5.61	0.00385	<0.01	0.014	0.0102	<0.0005	40.2	0.00848
Composite 4	16/05/2012	G	250	750	3.74	490	340	20.98	100.61	<1	122	<5	0.44	222	0.000046	6.37	0.00367	<0.01	0.0144	0.0109	<0.0005	41.6	0.00748
Composite 5	14/10/2008	Y	250	750	7.77	123	273	<1	3.64	49.2	29.8	1.77	0.148	11	<0.00001	0.127	0.00563	0.012	0.00281	<0.0002	<0.0005	11.5	<0.00005
Composite 5	23/10/2008	Y	250	750	7.55	118	308	<1	3.27	47.2	33.8	1.7	0.121	11.1	<0.00001	0.0799	0.00331	0.013	0.00267	<0.0002	<0.0005	13.1	<0.00005
Composite 5	5/11/2008	Y	250	750	7.57	121	264	<1	4.03	46	30.7	1.77	0.11	11.3	<0.00001	0.111	0.0026	0.014	0.00337	<0.0002	<0.0005	11.9	<0.00005
Composite 5	12/04/2010	Y	250	750	7.44	127	135	<1	4.4	42.56	20.9	1.96	0.083	11.6	<0.00001	0.0272	0.00221	0.013	0.00164	<0.0002	<0.0005	8.06	<0.00005
Composite 5	9/05/2011	Y	250	750	7.43	111	190	<1	3.64	39.49	19.9	2.43	0.132	18.5	0.000013	0.106	0.00525	0.012	0.00229	<0.0002	<0.0005	7.62	<0.00005
Composite 5	16/05/2012	Y	250	750	7.4	98	151	<1	3.53	33.25	16.9	1.72	0.09	15.7	<0.00001	0.405	0.135	<0.01	0.00236	<0.0002	<0.0005	6.43	<0.00005
Composite 6	14/10/2008	Y	250	750	7.77	218	393	<1	4.82	39.1	64.6	0.96	0.077	66	<0.00001	0.0361	0.00049	0.019	0.00272	<0.0002	<0.0005	22.4	0.000068
Composite 6	23/10/2008	Y	250	750	7.84	291	324	<1	3.18	48.5	99	1.2	0.127	91.4	<0.00001	0.0219	0.00048	0.019	0.00391	<0.0002	<0.0005	35.1	0.000075
Composite 6	5/11/2008	Y	250	750	7.77	271	332	<1	4.2	44.2	93.7	1.19	0.12	83.6	<0.00001	0.0282	0.00046	0.014	0.00335	<0.0002	<0.0005	33.3	0.000056
Composite 6	12/04/2010	Y	250	750	7.53	321	219	<1	3.58	43.05	106	0.83	0.096	106	<0.00001	0.0118	0.00035	0.014	0.00376	<0.0002	<0.0005	37.3	0.000286
Composite 6	9/05/2011	Y	250	750	7.58	359	283	<1	4.21	48.13	126	<5	<0.2	123	0.000018	0.0142	0.00043	0.016	0.00517	<0.0002	<0.0005	43.2	0.000259
Composite 6	16/05/2012	Y	250	750	7.49	281	213	<1	3.76	36.52	90.3	<5	<0.2	95.1	<0.00001	0.0711	0.00048	0.013	0.00382	<0.0002	<0.0005	30.9	0.000103
Composite 7	14/10/2008	Y	250	750	7.7	185	392	<1	4.56	25.4	44.4	<0.5	0.191	58.6	0.000029	0.0472	0.0008	0.011	0.00309	<0.0002	<0.0005	14.8	<0.00005
Composite 7	23/10/2008	Y	250	750	7.59	211	452	<1	2.6	23.6	52.9	<0.5	0.203	73.6	0.000019	0.0176	0.0003	<0.01	0.00346	<0.0002	<0.0005	18	<0.00005
Composite 7	5/11/2008	Y	250	750	7.34	206	375	<1	3.81	23.3	52.9	<0.5	0.17	71.4	0.000022	0.137	0.00039	<0.01	0.00404	<0.0002	<0.0005	18.1	<0.00005
Composite 7	12/04/2010	Y	250	750	6.96	204	236	<1	3.52	5.64	43.1	<0.5	0.085	78.5	<0.00001	0.002	0.00015	<0.01	0.00363	<0.0002	<0.0005	14.1	0.000071
Composite 7	9/05/2011	Y	250	750	6.88	267	328	<1	3.72	14.65	69.5	<5	<0.2	102	0.00001	0.0087	0.00015	<0.01	0.00521	<0.0002	<0.0005	22.4	0.000061
Composite 7	16/05/2012	Y	250	750	6.93	254	295	<1	3.76	6.81	66.7	<5	<0.2	101	<0.00001	0.0042	0.00017	<0.01	0.0064	<0.0002	<0.0005	21.3	0.000092
Composite 8	14/10/2008	Y	250	750	7.17	118	402	<1	4.79	3.1	43.2	<0.5	0.033	48.9	<0.00001	0.0076	0.00011	<0.01	0.00495	<0.0002	<0.0005	6.97	0.00194
Composite 8	23/10/2008	Y	250	750	6.64	179	458	<1	3.19	2.2	66.1	<0.5	0.044	78.2	<0.00001	0.005	<0.0001	<0.01	0.00817	<0.0002	<0.0005	13.5	0.00296
Composite 8	5/11/2008	Y	250	750	6.94	254	396	<1	4.4	5.6	95.6	<0.5	0.061	109	<0.00001	0.0035	<0.0001	<0.01	0.00886	<0.0002	<0.0005	20.9	0.00369
Composite 8	12/04/2010	Y	250	750	6.13	219	297	<1	5.23	2.01	83.1	<0.5	0.024	96.6	<0.00001	0.0569	<0.0001	<0.01	0.0105	0.0009	<0.0005	15.3	0.00478
Composite 8	9/05/2011	Y	250	750	6.75	377	334	<1	5.28	4.95	170	<5	<0.2	177	<0.00001	0.0075	<0.0001	<0.01	0.0116	<0.0002	<0.0005	35.4	0.00866
Composite 8	16/05/2012	Y	250	750	6.01	458	225	<1	8.37	1.74	207	<5	<0.2	218	<0.00001	0.107	0.00017	<0.01	0.0146	0.00076	<0.0005	43.3	0.0137
Composite 9	14/10/2008	TC	250	750	8.13	137	384	<1	3.44	76.9	19	<0.5	0.035	3.04	<0.00001	0.231	0.00159	0.018	0.0392	<0.0002	<0.0005	7.33	<0.00005
Composite 9	23/10/2008	TC	250	750	8.17	164	429	<1	1.47	86.9	30.2	<0.5	0.039	3.8	<0.00001	0.129	0.00079	0.016	0.0545	<0.0002	<0.0005	11.6	<0.00005
Composite 9	5/11/2008	TC	250	750	8.05	168	365	<1	3.44	88.9	33.1	0.55	0.036	4.58	<0.00001	0.0697	0.00077	0.015	0.0556	<0.0002	<0.0005	12.7	<0.00005
Composite 9	12/04/2010	TC	250	750	8.04	186	246	<1	2.66	100.16	29.6	<0.5	0.038	5.77	<0.00001	0.326	0.00066	0.019	0.0501	<0.0002	<0.0005	11.2	<0.00005
Composite 9	9/05/2011	TC	250	750	8.43	124	309	<1	1.01	62.62	5.83	<0.5	0.064	12	<0.00001	0.597	0.00385	0.026	0.0141	<0.0002	<0.0005	2.18	<0.00005
Composite 9	16/05/2012	TC	250	750	8.14	117	215	<1	1.98	58.74	5.82	<0.5	0.042	8.18	<0.00001	1.21	0.00334	0.018	0.0196	<0.0002	<0.0005	2.1	<0.00005
Composite 10	14/10/2008	TC/TF	250	750	8.19	140	381	<1	3.44	77.4	17.7	<0.5	0.045	3.21	<0.00001	0.202	0.00202	0.012	0.00921	<0.0002	<0.0005	6.04	<0.00005
Composite 10	23/10/2008	TC/TF	250	750	8.23	147	417	<1	1.52	79.4	24.2	<0.5	0.03	3.38	<0.00001	0.78	0.00101	0.01	0.019	<0.0002	<0.0005	8.29	<0.00005
Composite 10	5/11/2008	TC/TF	250	750	8.14	182	367	<1	3.1	92.6	31.1	0.7	0.046	3.21	<0.00001	0.109	0.00092	<0.01	0.0135	<0.0002	<0.0005	10.7	<0.00005
Composite 10	12/04/2010	TC/TF	250	750	8.04	174	251	<1	2.52	93.83	24.9	<0.5	0.032	3.55	<0.00001	0.0827	0.00117	0.014	0.0101	<0.0002	<0.0005	8.39	<0.00005
Composite 10	9/05/2011	TC/TF	250	750	8.27	110	305	<1	1.55	60.58	7.08	<0.5	0.046	4.96	<0.00001	0.428	0.00365	0.018	0.00496	<0.0002	<0.0005	2.34	<0.00005
Composite 10	16/05/2012	TC/TF	250	750	7.94	96	260	<1	2.38	52.85	6.38	<0.5	0.034	3.45	0.000019	1.11	0.00311	0.012	0.0121	<0.0002	<0.0005	1.99	<0.00005

Sample ID	Date	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, ug/L	K, mg/L	Mg, mg/L	Mn, mg/L	Mo, mg/L	Na, mg/L	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L	Sr, mg/L	Tl, mg/L	U, mg/L	V, mg/L	Zn, mg/L
Composite 1	14/10/2008	0.00155	<0.0005	0.0165	0.033	<0.00001	4.63	0.689	0.0349	0.0124	42.1	0.00094	<0.00005	0.00303	0.0163	1.63	<0.0001		<0.00005		0.00099	0.0018
Composite 1	23/10/2008	0.00046	<0.0005	0.00664	<0.03	<0.00001	3.9	0.683	0.0379	0.00774	37.5	0.0006	0.000059	0.00155	0.0125	1.22	<0.0001		<0.00005		0.0009	<0.001
Composite 1	5/11/2008	0.00038	<0.0005	0.00539	0.052	<0.00001	3.91	0.626	0.0374	0.00907	36.8	<0.0005	0.000132	0.00152	0.0128	1.81	<0.0001		<0.00005		0.00153	<0.001
Composite 1	12/04/2010	0.00033	<0.0005	0.00616	<0.03	<0.00001	4.16	0.55	0.0312	0.0083	37.1	<0.0005	0.000101	0.00134	0.0129	1.09	<0.0001	0.786	<0.00005	0.000314	0.00073	<0.001
Composite 1	9/05/2011	<0.0001	<0.0005	0.00354	<0.03	<0.00001	4.87	0.464	0.00725	0.0151	39.5	0.0006	0.000066	0.0018	0.0154	1.45	<0.0001	0.602	<0.00005	0.000204	0.00441	<0.001
Composite 1	16/05/2012	0.00029	<0.0005	0.00719	<0.03	0.000011	6.03	0.686	0.017	0.0252	41.9	<0.0005	0.000101	0.00186	0.0189	1.6	<0.0001	0.849	<0.00005	0.000212	0.00147	<0.001
Composite 2	14/10/2008	0.00111	<0.0005	0.0193	<0.03	<0.00001	5.31	1.38	0.0608	0.00605	24.5	0.00112	0.000141	0.00221	0.0099	1.84	<0.0001		<0.00005		0.00143	0.0088
Composite 2	23/10/2008	0.00169	<0.0005	0.0154	0.051	<0.00001	5.4	1.65	0.0788	0.00529	24.2	0.00189	0.000167	0.00111	0.0086	1.72	<0.0001		<0.00005		0.00172	0.0061
Composite 2	5/11/2008	0.00121	<0.0005	0.0139	<0.03	<0.00001	4.27	1.12	0.0587	0.0045	19.5	0.00144	0.000155	0.00094	0.0065	1.25	<0.0001		<0.00005		0.00128	0.0049
Composite 2	12/04/2010	0.00166	<0.0005	0.0379	<0.03	<0.00001	5.66	1.46	0.0816	0.00453	22.2	0.0018	0.000219	0.000925	0.0084	1.22	<0.0001	0.801	<0.00005	0.000151	0.00096	0.0103
Composite 2	9/05/2011	0.00152	<0.0005	0.0416	<0.03	<0.00001	6.36	1.62	0.0765	0.00499	21.3	0.00186	0.000136	0.000986	0.0075	0.837	<0.0001	0.864	<0.00005	0.000106	0.00099918	0.0094
Composite 2	16/05/2012	0.0031	<0.0005	0.066	<0.03	<0.00001	6.31	1.81	0.0942	0.00433	20.2	0.00305	0.000169	0.000884	0.0082	0.973	<0.0001	0.87	<0.00005	0.000074	0.00075	0.0188
Composite 3	14/10/2008	0.21	<0.0025	12.4	6.74	<0.00001	4.85	1.36	0.0584	<0.00025	3.9	0.0461	0.00474	<0.00025	<0.005	1.12	<0.0005		0.00066		<0.0025	0.316
Composite 3	23/10/2008	0.231	<0.0025	13.9	6.39	<0.00001	5.81	1.8	0.0779	<0.00025	4.5	0.0536	0.00501	<0.00025	<0.005	0.935	<0.0005		0.00083		<0.0025	0.495
Composite 3	5/11/2008	0.243	<0.0025	13.2	3.65	<0.00001	4.25	2.31	0.136	<0.00025	3.9	0.0526	0.00305	<0.00025	<0.005	0.57	<0.0005		0.00062		<0.0025	0.333
Composite 3	12/04/2010	0.256	<0.0025	18.5	8.16	<0.00001	1.9	1.87	0.0907	<0.00025	3.6	0.0571	0.00506	<0.00025	<0.005	0.238	<0.0005	0.257	0.0009	0.00291	<0.0025	0.411
Composite 3	9/05/2011	0.232	0.00081	18.9	7.69	<0.00001	3.76	2.67	0.206	0.000119	3.6	0.056	0.00298	0.000129	0.0041	0.387	<0.0001	0.642	0.000912	0.00264	<0.0005	0.393
Composite 3	16/05/2012	0.302	<0.0025	27.5	9.95	<0.00001	3.67	3.34	0.216	0.00035	3.6	0.0704	0.00305	<0.00025	<0.005	0.399	<0.0005	0.582	0.00079	0.00337	<0.0025	0.622
Composite 4	14/10/2008	0.0854	<0.001	6.69	1.8	<0.00001	2.93	2.55	0.213	<0.0001	4	0.0406	0.00016	0.00165	0.0036	0.593	<0.0002		0.00014		<0.001	2.23
Composite 4	23/10/2008	0.062	0.0028	6.58	11.9	<0.00001	2.18	2.04	0.145	0.00015	4.1	0.0329	0.0014	0.00368	0.0028	0.365	<0.0002		0.00011		0.0013	1.94
Composite 4	5/11/2008	0.0824	0.0013	7.17	9.42	<0.00001	2.41	2.31	0.306	<0.0001	4.2	0.0445	0.00072	0.00271	0.003	0.514	<0.0002		0.00012		<0.001	1.89
Composite 4	12/04/2010	0.105	0.0031	12.7	15	<0.00001	1.79	3.24	0.407	<0.00025	3.5	0.0463	0.00088	0.00219	<0.005	0.353	<0.0005	0.649	<0.00025	0.00498	<0.0025	2.22
Composite 4	9/05/2011	0.102	0.00236	8.72	19.7	<0.00001	1.4	3.74	0.432	0.000069	2.7	0.0431	0.000546	0.00191	0.0037	0.373	<0.0001	0.636	0.000127	0.00519	<0.0005	2.23
Composite 4	16/05/2012	0.102	0.00295	8.49	22.1	<0.00001	1.19	4.3	0.485	0.000064	2.5	0.0512	0.000858	0.00149	0.0039	0.351	<0.0001	0.617	0.000105	0.00583	<0.0005	2.31
Composite 5	14/10/2008	<0.0001	<0.0005	0.00279	<0.03	<0.00001	3.46	0.244	0.0315	0.011	13.8	<0.0005	<0.00005	0.00204	0.0031	1.3	<0.0001		<0.00005		0.00443	<0.001
Composite 5	23/10/2008	0.00013	<0.0005	0.00145	<0.03	<0.00001	2.94	0.251	0.04	0.0249	12.2	<0.0005	<0.00005	0.00188	0.0023	0.844	<0.0001		0.000052		0.00258	<0.001
Composite 5	5/11/2008	0.00026	<0.0005	0.00479	<0.03	<0.00001	3.06	0.247	0.0425	0.014	13.1	0.00114	0.00005	0.00162	0.0027	0.905	<0.0001		<0.00005		0.00226	0.0017
Composite 5	12/04/2010	0.00021	<0.0005	0.00312	<0.03	<0.00001	3.03	0.198	0.0347	0.00529	13.1	<0.0005	<0.00005	0.000997	0.0024	0.552	<0.0001	0.275	<0.00005	0.000095	0.00204	<0.001
Composite 5	9/05/2011	<0.0001	<0.0005	0.00369	<0.03	<0.00001	3.75	0.21	0.015	0.0168	13	<0.0005	<0.00005	0.00148	0.0032	0.671	<0.0001	0.321	<0.00005	0.000079	0.00316	<0.001
Composite 5	16/05/2012	0.00041	<0.0005	0.00464	0.065	0.000123	3.45	0.196	0.0197	0.011	12.1	0.00065	0.000124	0.00158	0.0029	1.23	<0.0001	0.239	0.000057	0.000078	0.00523	<0.001
Composite 6	14/10/2008	0.00169	<0.0005	0.00565	<0.03	<0.00001	4.71	2.08	0.165	0.00598	16.5	0.00316	<0.00005	0.001	0.0017	1.24	<0.0001		0.000067		<0.0005	0.0023
Composite 6	23/10/2008	0.0022	<0.0005	0.0076	<0.03	<0.00001	6.23	2.77	0.235	0.0103	18.8	0.00438	<0.00005	0.000937	0.0017	1.17	<0.0001		0.000083		<0.0005	0.0043
Composite 6	5/11/2008	0.00207	<0.0005	0.00402	<0.03	<0.00001	5.71	2.56	0.205	0.0167	16.5	0.00375	<0.00005	0.001	0.0016	1.01	<0.0001		0.00007		<0.0005	0.0022
Composite 6	12/04/2010	0.00501	<0.0005	0.0101	<0.03	<0.00001	7.08	3.13	0.298	0.00942	16.8	0.00809	<0.00005	0.000677	0.0019	0.928	<0.0001	1.14	0.000081	0.000025	<0.0005	0.0612
Composite 6	9/05/2011	0.00583	<0.0005	0.0201	<0.03	<0.00001	8.79	4.4	0.387	0.0108	15.1	0.00897	<0.00005	0.000872	0.0018	0.932	<0.0001	1.5	0.000122	0.000079	<0.0005	0.0057
Composite 6	16/05/2012	0.00309	<0.0005	0.0173	<0.03	<0.00001	6.77	3.17	0.25	0.00777	16.8	0.00562	<0.00005	0.000712	0.0017	0.88	<0.0001	1.12	0.00009	0.000053	0.00059	0.0031
Composite 7	14/10/2008	0.0014	<0.0005	0.0128	<0.03	<0.00001	4.82	1.79	0.0618	0.000916	17.1	0.00427	<0.00005	0.00103	0.0087	1.19	<0.0001		0.000071		<0.0005	0.0042
Composite 7	23/10/2008	0.00169	<0.0005	0.0167	<0.03	<0.00001	5.1	1.92	0.0655	0.000781	19	0.00496	<0.00005	0.000715	0.0083	0.984	<0.0001		0.000075		<0.0005	0.0062
Composite 7	5/11/2008	0.0024	<0.0005	0.0245	0.031	<0.00001	5.13	1.9	0.0777	0.000751	16.7	0.00754	0.000088	0.000686	0.0074	1.16	<0.0001		0.000076		<0.0005	0.0088
Composite 7	12/04/2010	0.00792	<0.0005	0.199	<0.03	<0.00001	4.95	1.91	0.112	0.000222	15.5	0.027	0.000097	0.00027	0.0063	0.46	<0.0001	0.899	0.000105	0.000019	<0.0005	0.0652
Composite 7	9/05/2011	0.00646	<0.0005	0.163	<0.03	<0.00001	6.83	3.31	0.15	0.000734	18.8	0.0221	0.000051	0.000413	0.0094	0.659	<0.0001	1.59	0.000133	0.000014	<0.0005	0.0433
Composite 7	16/05/2012	0.0118	<0.0005	0.321	<0.03	<0.00001	6.27	3.3	0.194	0.0003	17.1	0.0348	0.000084	0.000279	0.0096	0.571	<0.0001	1.44	0.00011	0.00003	<0.0005	0.102
Composite 8	14/10/2008	0.00122	<0.0005	0.0596	<0.03	<0.00001	2.54	6.26	0.444	<0.00005	2.1	0.0102	0.0067	0.000091	0.0013	0.389	<0.0001		0.000075		<0.0005	0.281
Composite 8	23/10/2008	0.00239	<0.0005	0.0703	<0.03	<0.00001	3.7	7.88	0.62	<0.00005	2.5	0.0139	0.00548	0.000109	0.0019	0.488	<0.0001		0.000076		<0.0005	0.408
Composite 8	5/11/2008	0.00269	<0.0005	0.0357	<0.03	<0.00001	5.76	10.6	0.906	<0.00005	3.1	0.0157	0.00382	0.000151	0.003	0.645	<0.0001		0.000098		<0.0005	0.34
Composite 8	12/04/2010	0.00308	<0.0005	0.258	0.031	<0.00001	2.27	10.9	0.878	<0.00005	2.1	0.0226	0.0329	<0.00005	0.0019	0.256	<0.0001	0.357	0.000115	0.000415	<0.0005	0.772
Composite 8	9/05/2011	0.00746	<0.0005	0.168	<0.03	<0.00001	2.78	19.9	2.23	<0.00005	<2	0.0349	0.0046	0.000091	0.0043	0.429	<0.0001	0.569	0.000113	0.000146	<0.0005	1.13
Composite 8	16/05/2012	0.0103	<0.0005	0.386	0.577	<0.00001	2.53	24.1	2.74	<0.00005	<2	0.047	0.0132	0.000056	0.0055	0.415	<0.0001	0.628	0.000091	0.000692	<0.0005	1.94
Composite 9	14/10/2008	<0.0001	<0.0005	0.00658	<0.03	<0.00001	1.52	0.169	0.0156	0.00135	26.7	<0.0005	<0.00005	0.000311	<0.001	1.46	<0.0001		<0.00005		0.00314	0.002
Composite 9	23/10/2008	<0.0001	<0.0005	0.00022	<0.03	<0.00001	2.03	0.292	0.0236	0.00223	29.2	<0.0005	<0.00005	0.000236	<0.001	1.27	<0.0001		<0.00005		0.00197	<0.001
Composite 9	5/11/2008	<0.0001	<0.0005	0.00044	<0.03	<0.00001	2.24	0.319	0.0296	0.00289	30.6	<0.0005	0.000055	0.000302	<0.001	1.21	<0.0001		<0.00005		0.00152	<0.001
Composite 9	12/04/2010	<0.0001	<0.0005	0.00159	0.239	<0.00001	2.41	0.411	0.0291	0.00486	29.9	<0.0005	0.000074	0.000285	<0.001	2.04	<0.0001	0.603	<0.00005	0.000122	0.00214	<0.001
Composite 9	9/05/2011	<0.0001	<0.0005	0.00102	0.089	<0.00001	1.5	0.0965	0.00263	0.00943	26.9	<0.0005	<0.00005	0.000387	0.0012	1.96	<0.0001	0.126	<0.00005	0.000087	0.01	<0.001
Composite 9	16/05/2012	<0.0001	0.00089	0.00127	0.255	<0.00001	1.68	0.137	0.00413	0.00576	25.3	<0.0005	0.000425	0.000326	0.0013	2.83	<0.0001	0.107	<0.00005	0.000092	0.00934	<0.001
Composite 10	14/10/2008	<0.0001	<0.0005	0.00187	0.033	<0.00001	1.48	0.638	0.0187	0.00145	28.9	<0.0005	<0.00005	0.000351	0.0012	1.56	<0.0001		<0.00005		0.00268	<0.001
Composite 10	23/10/2008	<0.0001	<0.0005	0.00056	0.325	<0.00001	1.86	0.857	0.0338	0.000974	29.2	<0.0005	0.000052	0.000183	0.0012	2.15	<0.0001		<0.00005		0.00262	<0.001
Composite 10	5/11/2008	<0.0001	<0.0005	0.00054	<0.03	<0.00001	1.86	1.04	0.037	0.0016	28.7	<0.0005	<0.00005	0.000237	<0.001	1.13	<0.0001		<0.00005		0.00124	<0.001
Composite 10	12/04/2010	<0.0001	<0.0005	0.00495	<0.03	<0.00001	1.86	0.949	0.0281	0.000777	28.6	<0.0005	<0.00005	0.000248	<0.001	1	<0.0001	0.426	<0.00005	0.000149	0.00117	<0.001
Composite 10	9/05/2011	<0.0001	<0.0005	0.00169	0.097	<0.00001	1.25	0.299	0.00579	0.0019	22.4	<0.0005	<0.00005	0.000388	0.0016	1.65	<0.0001	0.124	<0.00005	0.000124	0.00623	<0.001
Composite 10	16/05/2012	<0.0001	<0.0005	0.00187	0.384	<0.00001	1.43	0.341	0.0101	0.00131	19.7	<0.0005	0.000083	0.000262	<0.001	2.64	<0.0001	0.0917	<0.00005	0.000115	0.00549	<0.001

Sample ID	Date	Litho Type	Sample Weight, g	Vol Input, ml	pH	EC (final), uS/cm	ORP, mV	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Ag, mg/L	Al, mg/L	As, mg/L	B, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	Ca, mg/L	Cd, mg/L
Composite 11	14/10/2008	TC/TY	250	750	8.17	210	385	<1	3.8	82.2	21.8	<0.5	0.026	30.1	<0.00001	0.163	0.0397	<0.01	0.00402	<0.0002	<0.0005	8.52	<0.0002
Composite 11	23/10/2008	TC/TY	250	750	8.24	233	421	<1	1.6	92.6	32.6	<0.5	0.033	33.4	<0.00001	0.133	0.027	<0.01	0.00665	<0.0002	<0.0005	12.7	<0.00005
Composite 11	5/11/2008	TC/TY	250	750	8.06	306	376	<1	3.02	89.6	43.7	<0.5	0.029	45.6	<0.00001	0.0565	0.0214	<0.01	0.00736	<0.0002	<0.0005	17.1	<0.00005
Composite 11	12/04/2010	TC/TY	250	750	8.06	256	302	<1	2.71	102.98	33.3	<0.5	0.023	38	<0.00001	0.0917	0.0153	0.011	0.00579	<0.0002	<0.0005	12.9	<0.00005
Composite 11	9/05/2011	TC/TY	250	750	8.04	222	320	<1	2.23	54.51	13.9	<0.5	0.037	59.5	<0.00001	0.283	0.0523	0.017	0.00377	<0.0002	<0.0005	5.39	<0.00005
Composite 11	16/05/2012	TC/TY	250	750	8.2	187	299	<1	1.6	54.85	7.77	<0.5	0.037	39.2	<0.00001	0.368	0.0609	0.011	0.0027	<0.0002	<0.0005	3.01	<0.00005
Composite 12	14/10/2008	TW(TF)	250	750	7.99	229	0	<1	4.6	70.1	41.9	0.97	0.086	52.1	<0.00001	0.0813	0.0318	0.052	0.0434	<0.0002	<0.0005	10.6	<0.00015
Composite 12	23/10/2008	TW(TF)	250	750	8.16	266	424	<1	1.51	82.5	56.4	0.95	0.081	55.1	<0.00001	0.206	0.0217	0.054	0.0513	<0.0002	<0.0005	14.2	<0.00005
Composite 12	5/11/2008	TW(TF)	250	750	8.18	198	372	<1	2.54	102.7	63.3	1.22	0.093	63.9	<0.00001	0.0219	0.0197	0.052	0.0533	<0.0002	<0.0005	16.7	<0.00005
Composite 12	12/04/2010	TW(TF)	250	750	7.99	313	307	<1	2.83	86.33	68.1	0.88	0.07	78.5	<0.00001	0.0198	0.016	0.042	0.0526	<0.0002	<0.0005	18.1	<0.00005
Composite 12	9/05/2011	TW(TF)	250	750	7.83	268	331	<1	3.1	55.86	39.3	<5	<0.2	76.2	<0.00001	0.131	0.0241	0.053	0.04	<0.0002	<0.0005	9.8	<0.00005
Composite 12	16/05/2012	TW(TF)	250	750	7.87	249	315	<1	2.62	47.96	39.5	<5	<0.2	73.4	<0.00001	0.16	0.0232	0.052	0.0422	<0.0002	<0.0005	9.18	<0.00005
Composite 13	14/10/2008	TC	250	750	8.19	176	380	<1	4.55	99.3	24.8	<0.5	0.042	2.49	<0.00001	0.207	0.00392	0.015	0.0139	<0.0002	<0.0005	9.58	<0.00005
Composite 13	23/10/2008	TC	250	750	8.36	175	414	<1	<1	97.4	23.9	<0.5	0.034	2.47	<0.00001	0.381	0.00366	0.013	0.0179	<0.0002	<0.0005	9.27	<0.00005
Composite 13	5/11/2008	TC	250	750	8.05	182	369	<1	3.3	94.5	33.6	<0.5	0.039	5.62	0.000012	1	0.00391	0.016	0.033	<0.0002	<0.0005	12.8	<0.00005
Composite 13	12/04/2010	TC	250	750	8.15	191	298	<1	2.27	108.27	25.4	<0.5	0.031	4.96	<0.00001	0.126	0.00392	0.013	0.0111	<0.0002	<0.0005	9.75	<0.00005
Composite 13	9/05/2011	TC	250	750	8.58	132	299	<1	0	71.7	4.59	<0.5	0.047	7.99	<0.00001	1.22	0.014	0.017	0.0168	<0.0002	<0.0005	1.67	<0.00005
Composite 13	16/05/2012	TC	250	750	8.7	123	268	<1	<1	63.1	3.24	<0.5	0.047	6.39	<0.00001	0.787	0.0169	0.015	0.0183	<0.0002	<0.0005	1.21	<0.00005
Composite 14	14/10/2008	TC/TW	250	750	6.95	1020	425	<1	6.58	3.5	511	9.41	0.021	517	<0.00002	<0.002	0.00032	0.078	0.0529	<0.0004	<0.001	192	0.00062
Composite 14	23/10/2008	TC/TW	250	750	6.46	1118	463	<1	3.57	2.3	567	6.3	<0.02	597	<0.00005	0.0508	<0.0005	0.06	0.0562	<0.001	<0.0025	211	0.00105
Composite 14	5/11/2008	TC/TW	250	750	6.72	1153	438	<1	4.22	5.3	568	8	<0.2	633	<0.00002	0.0729	<0.0002	0.063	0.0523	<0.0004	<0.001	214	0.00139
Composite 14	12/04/2010	TC/TW	250	750	4.38	2359	287	7.44	135.68	<1	1570	<10	<0.4	1830	<0.00005	5.97	0.00076	0.051	0.0289	0.0069	<0.0025	557	0.0103
Composite 14	9/05/2011	TC/TW	250	750	4.74	2478	293	<1	50.58	<1	1500	12	<0.4	1680	0.000037	3.54	0.00106	0.053	0.0356	0.00449	<0.001	522	0.00894
Composite 14	16/05/2012	TC/TW	250	750	4.04	2739	306	21.71	173.35	<1	1710	<10	0.41	2030	<0.00005	12.5	0.0026	0.057	0.0318	0.0088	<0.0025	563	0.0167
Composite 15	14/10/2008	TB	250	750	8.11	149	389	<1	4.84	78.4	39.2	0.67	0.03	4.78	<0.00001	0.132	0.0004	0.013	0.122	<0.0002	<0.0005	15.1	<0.00005
Composite 15	23/10/2008	TB	250	750	8.16	149	414	<1	1.71	79.4	41.7	<0.5	0.033	3.17	<0.00001	0.115	0.00033	<0.01	0.0751	<0.0002	<0.0005	15.9	<0.00005
Composite 15	5/11/2008	TB	250	750	8.02	144	384	<1	3.15	75.2	44	<0.5	0.027	3.1	<0.00001	0.114	0.00031	<0.01	0.0715	<0.0002	<0.0005	17	<0.00005
Composite 16	14/10/2008	TB	250	750	7.71	121	322	<1	6.38	65.5	54.7	1.13	<0.02	2.3	<0.00001	0.0416	0.00039	0.021	0.00333	<0.0002	<0.0005	19.4	<0.00005
Composite 16	23/10/2008	TB	250	750	8.16	132	407	<1	1.71	69.7	60.2	0.79	<0.02	2.71	<0.00001	0.0425	0.00043	0.018	0.0016	<0.0002	<0.0005	21.7	<0.00005
Composite 16	5/11/2008	TB	250	750	7.98	146	390	<1	3.17	73.8	64.2	1.23	<0.02	3.46	<0.00001	0.0291	0.00046	0.017	0.00188	<0.0002	<0.0005	23.1	<0.00005
Composite 16	12/04/2010	TB	250	750	7.83	135	104	<1	4.23	74.34	52.7	0.67	<0.02	2.62	<0.00001	0.02	0.0004	0.016	0.000993	<0.0002	<0.0005	18.8	<0.00005
Composite 16	9/05/2011	TB	250	750	7.72	101	274	<1	3.91	47.03	32.3	1.01	0.033	10.6	<0.00001	0.0688	0.00105	0.026	0.00157	<0.0002	<0.0005	11.5	<0.00005
Composite 16	16/05/2012	TB	250	750	7.76	91	159	<1	3.34	40.63	25.3	0.95	0.035	8.77	<0.00001	0.198	0.00142	0.021	0.00313	<0.0002	<0.0005	8.92	<0.00005
Composite 17	14/10/2008	TB	250	750	8.01	168	321	<1	5.02	79.6	26.9	1.96	0.055	13.4	<0.00001	0.13	0.00108	0.027	0.0102	<0.0002	<0.0005	10.3	<0.00005
Composite 17	23/10/2008	TB	250	750	7.99	186	373	<1	2.81	81.9	35.8	2.12	0.066	20.3	0.000015	0.858	0.00106	0.031	0.0191	<0.0002	<0.0005	13.3	0.000072
Composite 17	5/11/2008	TB	250	750	7.98	150	382	<1	3.13	81.2	37	2.21	0.06	16.9	<0.00001	0.0904	0.00093	0.023	0.0142	<0.0002	<0.0005	14.1	<0.00005
Composite 17	12/04/2010	TB	250	750	8.05	209	224	<1	2.71	90.3	31.8	1.78	0.048	22.2	<0.00001	0.0718	0.00101	0.02	0.00692	<0.0002	<0.0005	11.9	<0.00005
Composite 17	9/05/2011	TB	250	750	7.94	168	332	<1	2.7	57.43	11.6	1.92	0.081	28.1	<0.00001	0.445	0.00288	0.03	0.00602	<0.0002	<0.0005	4.25	<0.00005
Composite 17	16/05/2012	TB	250	750	7.9	140	295	<1	2.89	54.02	10.4	1.62	0.063	18.6	<0.00001	0.689	0.00262	0.023	0.0074	<0.0002	<0.0005	3.79	<0.00005
Composite 18	14/10/2008	TB	250	750	7.92	142	329	<1	5.42	56.6	42.4	1.76	0.09	18.3	<0.00001	0.13	0.00011	0.026	0.00552	<0.0002	<0.0005	16.3	<0.00005
Composite 18	23/10/2008	TB	250	750	7.91	136	369	<1	2.86	55.1	46.7	1.34	0.066	19	<0.00001	0.0931	<0.0001	0.023	0.00289	<0.0002	<0.0005	18	<0.00005
Composite 18	5/11/2008	TB	250	750	7.76	171	405	<1	2.64	45.5	49.3	1.65	0.078	19.1	<0.00001	0.0982	<0.0001	0.023	0.00352	<0.0002	<0.0005	19	<0.00005
Composite 18	12/04/2010	TB	250	750	7.78	188	340	<1	6.29	47.65	47.3	1.25	0.063	23.9	<0.00001	0.0793	<0.0001	0.024	0.00299	<0.0002	<0.0005	18	<0.00005
Composite 18	9/05/2011	TB	250	750	7.67	130	338	<1	3.09	37.14	28.7	1.37	0.098	28.5	<0.00001	0.239	0.00019	0.029	0.00265	<0.0002	<0.0005	10.8	<0.00005
Composite 18	16/05/2012	TB	250	750	7.7	119	306	<1	3.14	35.41	24.5	1.37	0.075	23.5	<0.00001	0.316	0.00033	0.028	0.00315	<0.0002	<0.0005	9.21	<0.00005
Composite 19	14/10/2008	TA	250	750	7.75	144	337	<1	6.03	40.5	60.3	<0.5	0.039	32.9	<0.00001	0.0592	0.0002	0.025	0.00121	<0.0002	<0.0005	19.8	<0.00005
Composite 19	23/10/2008	TA	250	750	7.8	154	375	<1	2.5	38.2	69.9	<0.5	0.044	41.8	<0.00001	0.0418	0.00024	0.029	0.000747	<0.0002	<0.0005	23.3	<0.00005
Composite 19	5/11/2008	TA	250	750	7.78	138	407	<1	2.69	41.6	72	0.67	0.042	40.4	<0.00001	0.044	0.0003	0.025	0.0019	<0.0002	<0.0005	23.8	<0.00005
Composite 19	12/04/2010	TA	250	750	7.79	160	337	<1	5.93	46.29	74.2	<0.5	0.038	47.6	<0.00001	0.0306	0.00021	0.026	0.000957	<0.0002	<0.0005	24	<0.00005
Composite 19	9/05/2011	TA	250	750	7.56	192	345	<1	3.6	38.59	73.6	<0.5	0.031	56.9	<0.00001	0.0504	0.00025	0.026	0.000954	<0.0002	<0.0005	23.3	<0.00005
Composite 19	16/05/2012	TA	250	750	7.58	160	316	<1	3.66	34.46	60.7	<0.5	0.041	44.7	<0.00001	0.0909	0.0004	0.022	0.00316	<0.0002	<0.0005	19.1	<0.00005
Composite 20	14/10/2008	TA	250	750	7.8	94	342	<1	5.44	31.6	36.2	<0.5	0.038	17.5	<0.00001	0.121	0.0003	0.026	0.00122	<0.0002	<0.0005	12.8	<0.00005
Composite 20	23/10/2008	TA	250	750	7.77	121	378	<1	2.65	38.4	55.4	<0.5	0.042	25.9	<0.00001	0.0431	0.00014	0.024	0.00153	<0.0002	<0.0005	19.9	<0.00005
Composite 20	5/11/2008	TA	250	750	7.95	150	397	<1	2.85	57.2	56.6	0.61	0.045	26.1	<0.00001	0.0495	0.00015	0.027	0.00235	<0.0002	<0.0005	20.2	<0.00005
Composite 20	12/04/2010	TA	250	750	7.88	30	318	<1	4.65	17.37	59.5	<0.5	0.036	35.8	<0.00001	0.0295	0.00012	0.025	0.0017	<0.0002	<0.0005	21.1	<0.00005
Composite 20	9/05/2011	TA	250	750	7.63	158	340	<1	3.36	36.71	60.6	<0.5	0.027	42.6	<0.00001	0.0593	0.00019	0.024	0.00199	<0.0002	<0.0005	21.2	<0.00005
Composite 20	16/05/2012	TA	250	750	7.59	145	314	<1	3.74	31.18	52.4	<0.5	0.039	38.9	<0.00001	0.111	0.00042	0.024	0.00225	<0.0002	<0.0005	18.2	<0.00005

Sample ID	Date	Co, mg/L	Cr, mg/L	Cu, mg/L	Fe, mg/L	Hg, ug/L	K, mg/L	Mg, mg/L	Mn, mg/L	Mo, mg/L	Na, mg/L	Ni, mg/L	Pb, mg/L	Sb, mg/L	Se, mg/L	Si, mg/L	Sn, mg/L	Sr, mg/L	Tl, mg/L	U, mg/L	V, mg/L	Zn, mg/L
Composite 11	14/10/2008	0.00011	<0.0005	0.00075	<0.03	<0.00001	0.89	0.13	0.0124	0.0458	42.4	<0.0005	<0.00005	0.00277	0.0122	1.46	<0.0001		<0.00005		0.00249	<0.001
Composite 11	23/10/2008	0.0002	<0.0005	0.00039	<0.03	<0.00001	1.14	0.223	0.0183	0.0454	43.8	<0.0005	<0.00005	0.00274	0.0116	1.39	<0.0001		<0.00005		0.00204	<0.001
Composite 11	5/11/2008	0.00025	<0.0005	0.0007	<0.03	<0.00001	1.27	0.274	0.0221	0.047	46.8	<0.0005	<0.00005	0.00282	0.0118	1.21	<0.0001		<0.00005		0.0014	<0.001
Composite 11	12/04/2010	0.0002	<0.0005	0.00083	<0.03	<0.00001	1.2	0.244	0.02	0.0533	44.8	<0.0005	0.000068	0.00226	0.0143	0.98	<0.0001	0.415	<0.00005	0.00022	0.00144	<0.001
Composite 11	9/05/2011	<0.0001	<0.0005	0.00115	<0.03	<0.00001	0.984	0.116	0.0042	0.0815	41.8	<0.0005	<0.00005	0.00312	0.0185	1.35	<0.0001	0.185	<0.00005	0.000124	0.00566	<0.001
Composite 11	16/05/2012	<0.0001	<0.0005	0.00085	<0.03	<0.00001	0.796	0.0628	0.00211	0.0701	37.2	<0.0005	<0.00005	0.00287	0.0152	1.39	<0.0001	0.0999	<0.00005	0.000113	0.00709	<0.001
Composite 12	14/10/2008	0.00017	<0.0005	0.00096	<0.03	<0.00001	2.51	3.76	0.0257	0.036	35.1	<0.0005	<0.00005	0.00252	0.0067	1.41	<0.0001		<0.00005		0.0017	<0.001
Composite 12	23/10/2008	0.00039	<0.0005	0.00159	0.058	<0.00001	2.74	5.11	0.0436	0.0343	39.4	0.00076	0.000189	0.00185	0.0069	1.49	<0.0001		<0.00005		0.00177	<0.001
Composite 12	5/11/2008	0.0004	<0.0005	0.00153	<0.03	<0.00001	2.97	5.27	0.0473	0.0411	40.8	<0.0005	0.000377	0.0024	0.0071	1.35	<0.0001		<0.00005		0.00107	<0.001
Composite 12	12/04/2010	0.00082	<0.0005	0.00101	<0.03	<0.00001	3.04	5.58	0.0712	0.035	39.4	0.00078	0.000064	0.0017	0.0067	0.957	<0.0001	1.23	<0.00005	0.000423	0.00083	<0.001
Composite 12	9/05/2011	0.00011	<0.0005	0.00133	<0.03	<0.00001	2.76	3.61	0.0175	0.0519	38.9	<0.0005	<0.00005	0.00203	0.0079	1.12	<0.0001	0.851	<0.00005	0.000193	0.00212	<0.001
Composite 12	16/05/2012	0.00014	<0.0005	0.00105	<0.03	<0.00001	2.91	4.01	0.0165	0.0475	34.3	<0.0005	<0.00005	0.00184	0.0091	1.17	<0.0001	0.784	<0.00005	0.00017	0.00213	<0.001
Composite 13	14/10/2008	<0.0001	<0.0005	0.0037	<0.03	<0.00001	1.38	0.204	0.0225	0.0119	34.7	<0.0005	<0.00005	0.000364	<0.001	1.52	<0.0001		<0.00005		0.00346	<0.001
Composite 13	23/10/2008	<0.0001	<0.0005	0.00053	0.099	<0.00001	1.38	0.19	0.0228	0.0126	37.9	<0.0005	<0.00005	0.000217	<0.001	1.7	<0.0001		<0.00005		0.00365	<0.001
Composite 13	5/11/2008	0.00016	0.00079	0.0028	0.432	<0.00001	1.92	0.363	0.0336	0.0113	36	0.00066	0.000069	0.000299	<0.001	3.16	<0.0001		<0.00005		0.00525	0.0015
Composite 13	12/04/2010	<0.0001	<0.0005	0.00131	<0.03	<0.00001	1.44	0.265	0.0301	0.0164	34.5	<0.0005	0.000065	0.000274	<0.001	1.14	<0.0001	0.601	<0.00005	0.000071	0.00254	<0.001
Composite 13	9/05/2011	<0.0001	<0.0005	0.00056	0.216	<0.00001	1.08	0.103	0.00462	0.018	29.7	<0.0005	<0.00005	0.000378	<0.001	2.71	<0.0001	0.102	<0.00005	0.000088	0.0172	<0.001
Composite 13	16/05/2012	<0.0001	<0.0005	0.00071	0.085	<0.00001	0.872	0.0501	0.00201	0.0228	27.8	<0.0005	0.000052	0.000432	<0.001	2.15	<0.0001	0.0715	<0.00005	0.000094	0.0154	<0.001
Composite 14	14/10/2008	0.0426	<0.001	0.00117	<0.03	<0.00001	2.12	7.65	2.08	0.00108	48.1	0.0179	<0.0001	0.00017	0.0077	2.98	<0.0002		0.00017		<0.001	<0.002
Composite 14	23/10/2008	0.0718	<0.0025	0.00144	0.167	<0.00001	2.22	9.57	2.56	<0.00025	42.3	0.0289	<0.00025	<0.00025	0.0057	2.61	<0.0005		<0.00025		<0.0025	<0.005
Composite 14	5/11/2008	0.0897	<0.001	0.00193	0.213	<0.00001	2.31	8.25	2.42	0.00011	46.4	0.0389	0.00074	0.00012	0.0067	3.61	<0.0002		0.00016		<0.001	0.006
Composite 14	12/04/2010	0.74	<0.0025	0.137	29	<0.00001	3.56	44.1	13	<0.00025	46.1	0.29	0.00474	<0.00025	0.0063	8.21	<0.0005	11.5	0.0004	0.00195	<0.0025	0.256
Composite 14	9/05/2011	0.634	<0.001	0.0698	8.32	<0.00001	5.16	48	13.4	<0.0001	56.4	0.259	0.00657	<0.0001	0.0083	6.76	<0.0002	12.5	0.00046	0.00138	<0.001	0.187
Composite 14	16/05/2012	1.24	<0.0025	0.205	24.5	<0.00001	3.07	73.5	20.2	<0.00025	42	0.47	0.00483	<0.00025	0.0078	9.61	<0.0005	11.8	0.00043	0.00418	<0.0025	0.443
Composite 15	14/10/2008	<0.0001	<0.0005	0.00127	<0.03	<0.00001	1.86	0.366	0.0413	0.00338	19.2	<0.0005	<0.00005	0.00019	<0.001	0.899	<0.0001		<0.00005		<0.0005	<0.001
Composite 15	23/10/2008	<0.0001	<0.0005	0.00036	<0.03	<0.00001	1.71	0.523	0.0448	0.00258	20.6	<0.0005	<0.00005	0.000113	<0.001	0.733	<0.0001		<0.00005		<0.0005	<0.001
Composite 15	5/11/2008	<0.0001	<0.0005	0.00029	<0.03	<0.00001	1.78	0.363	0.0549	0.0026	17.6	<0.0005	<0.00005	0.00013	<0.001	0.712	<0.0001		<0.00005		<0.0005	<0.001
Composite 16	14/10/2008	<0.0001	<0.0005	0.00064	<0.03	<0.00001	0.257	1.49	0.00554	0.000776	6.5	<0.0005	<0.00005	0.000078	<0.001	1.97	<0.0001		<0.00005		0.00177	0.0012
Composite 16	23/10/2008	<0.0001	<0.0005	0.00058	<0.03	<0.00001	0.229	1.47	0.00426	0.000646	7.7	<0.0005	<0.00005	0.000076	<0.001	1.75	<0.0001		<0.00005		0.00258	<0.001
Composite 16	5/11/2008	<0.0001	<0.0005	0.00054	<0.03	<0.00001	0.269	1.58	0.00546	0.000748	7.3	<0.0005	<0.00005	0.000098	<0.001	1.94	<0.0001		<0.00005		0.00258	<0.001
Composite 16	12/04/2010	<0.0001	<0.0005	0.00057	<0.03	<0.00001	0.435	1.4	0.00377	0.000844	7.5	<0.0005	<0.00005	0.000064	<0.001	1.67	<0.0001	0.0856	<0.00005	0.00006	0.00216	<0.001
Composite 16	9/05/2011	<0.0001	0.00083	0.00159	<0.03	<0.00001	0.448	0.893	0.00244	0.00139	8.6	<0.0005	<0.00005	0.000131	<0.001	2.49	<0.0001	0.0645	<0.00005	0.000074	0.00498	0.0021
Composite 16	16/05/2012	<0.0001	<0.0005	0.00124	0.083	<0.00001	0.448	0.728	0.00265	0.00151	8.3	<0.0005	<0.00005	0.000142	<0.001	2.51	<0.0001	0.0494	<0.00005	0.000063	0.00636	<0.001
Composite 17	14/10/2008	<0.0001	<0.0005	0.00173	0.051	<0.00001	0.562	0.313	0.0287	0.0298	30.7	<0.0005	<0.00005	0.000524	0.0026	1.56	<0.0001		<0.00005		0.00438	<0.001
Composite 17	23/10/2008	0.00036	<0.0005	0.00168	1.11	<0.00001	0.712	0.655	0.0428	0.0446	37.4	<0.0005	0.00022	0.00053	0.0037	3.06	<0.0001		<0.00005		0.00789	0.0027
Composite 17	5/11/2008	<0.0001	<0.0005	0.00328	0.038	<0.00001	0.556	0.452	0.0386	0.0336	32.6	<0.0005	<0.00005	0.000572	0.0026	1.52	<0.0001		<0.00005		0.00384	<0.001
Composite 17	12/04/2010	<0.0001	<0.0005	0.0003	<0.03	<0.00001	0.7	0.48	0.0354	0.0477	33.7	<0.0005	<0.00005	0.000416	0.0034	1.17	<0.0001	0.175	<0.00005	0.000142	0.0035	<0.001
Composite 17	9/05/2011	<0.0001	<0.0005	0.00096	0.153	<0.00001	0.591	0.228	0.00777	0.0661	29.4	<0.0005	0.000052	0.000606	0.0041	1.72	<0.0001	0.0729	<0.00005	0.000093	0.0154	<0.001
Composite 17	16/05/2012	0.00012	<0.0005	0.00092	0.346	<0.00001	0.623	0.234	0.00931	0.0498	26.9	<0.0005	0.0001	0.000421	0.0033	2.07	<0.0001	0.0624	<0.00005	0.000087	0.0134	0.0015
Composite 18	14/10/2008	<0.0001	<0.0005	0.00247	<0.03	<0.00001	0.796	0.421	0.0146	0.00256	15.3	<0.0005	<0.00005	0.00029	0.0013	1.39	<0.0001		<0.00005		0.00064	<0.001
Composite 18	23/10/2008	<0.0001	<0.0005	0.00032	<0.03	<0.00001	0.645	0.393	0.0201	0.00211	15.4	<0.0005	<0.00005	0.000152	0.0011	0.906	<0.0001		<0.00005		<0.0005	<0.001
Composite 18	5/11/2008	<0.0001	<0.0005	0.00024	<0.03	<0.00001	0.787	0.467	0.0215	0.00208	14.5	<0.0005	0.000061	0.000233	0.0018	0.924	<0.0001		<0.00005		<0.0005	<0.001
Composite 18	12/04/2010	<0.0001	<0.0005	0.00043	<0.03	<0.00001	0.862	0.602	0.0251	0.00241	14.4	<0.0005	<0.00005	0.000179	0.0021	0.892	<0.0001	0.205	<0.00005	0.000064	<0.0005	<0.001
Composite 18	9/05/2011	<0.0001	<0.0005	0.00142	<0.03	<0.00001	0.869	0.412	0.00577	0.00343	14.1	<0.0005	<0.00005	0.000226	0.0025	1.05	<0.0001	0.155	<0.00005	0.000022	0.00124	<0.001
Composite 18	16/05/2012	<0.0001	<0.0005	0.00052	0.063	<0.00001	0.818	0.356	0.00641	0.00338	13.6	<0.0005	0.000078	0.000177	0.0021	1.29	<0.0001	0.125	<0.00005	0.000036	0.00156	0.0029
Composite 19	14/10/2008	<0.0001	<0.0005	0.00286	<0.03	<0.00001	0.597	2.61	0.00916	0.000367	5.2	<0.0005	<0.00005	0.000248	0.001	1.67	<0.0001		<0.00005		0.00332	<0.001
Composite 19	23/10/2008	<0.0001	<0.0005	0.00049	<0.03	<0.00001	0.584	2.88	0.0125	0.000355	6.5	<0.0005	<0.00005	0.000195	0.0013	1.59	<0.0001		<0.00005		0.0029	<0.001
Composite 19	5/11/2008	<0.0001	0.00102	0.00037	<0.03	<0.00001	0.697	3.09	0.0127	0.000478	6.6	<0.0005	<0.00005	0.000239	0.0015	1.74	<0.0001		<0.00005		0.00216	<0.001
Composite 19	12/04/2010	<0.0001	<0.0005	0.00049	<0.03	<0.00001	0.826	3.46	0.018	0.000408	6.6	<0.0005	<0.00005	0.000207	0.0013	1.62	<0.0001	0.0664	<0.00005	0.000029	0.00179	<0.001
Composite 19	9/05/2011	<0.0001	<0.0005	0.00066	<0.03	<0.00001	0.893	3.74	0.0143	0.000481	6.2	<0.0005	<0.00005	0.000246	0.0015	1.73	<0.0001	0.0751	<0.00005	0.000038	0.00251	<0.001
Composite 19	16/05/2012	<0.0001	<0.0005	0.00062	0.047	<0.00001	0.862	3.14	0.0118	0.000488	5.8	<0.0005	<0.00005	0.000204	0.0011	1.77	<0.0001	0.0604	<0.00005	0.000025	0.00262	<0.001
Composite 20	14/10/2008	<0.0001	<0.0005	0.00065	<0.03	<0.00001	0.348	1.05	0.00836	0.00248	5.7	<0.0005	<0.00005	0.000416	0.0019	1.38	<0.0001		<0.00005		0.00176	<0.001
Composite 20	23/10/2008	<0.0001	<0.0005	0.00075	<0.03	<0.00001	0.334	1.36	0.0193	0.0016	5.9	<0.0005	0.000114	0.000252	0.0019	1.22	<0.0001		<0.00005		0.00052	<0.001
Composite 20	5/11/2008	<0.0001	<0.0005	0.00028	<0.03	<0.00001	0.416	1.51	0.0234	0.00215	6.9	<0.0005	<0.00005	0.000314	0.0024	1.36	<0.0001		<0.00005		0.00063	<0.001
Composite 20	12/04/2010	<0.0001	<0.0005	0.00037	<0.03	<0.00001	0.477	1.66	0.0294	0.00211	6.3	<0.0005	<0.00005	0.000293	0.002	1.13	<0.0001	0.0531	<0.00005	0.000087	0.00052	<0.001
Composite 20	9/05/2011	<0.0001	<0.0005	0.00095	<0.03	<0.00001	0.475	1.85	0.0232	0.00231	5.9	<0.0005	<0.00005	0.000275	0.0029	1.25	<0.0001	0.0572	<0.00005	0.000098	0.00066	<0.001
Composite 20	16/05/2012	<0.0001	<0.0005	0.00035	0.051	<0.00001	0.559	1.69	0.0208	0.00244	6.3	<0.0005	<0.00005	0.000327	0.0032	1.46	<0.0001	0.0501	<0.00005	0.000117	0.00124	<0.001

Appendix 11I, Field (Barrel) Test Data: Waste Rock

Key to abbreviations and acronyms used in this appendix

Abbreviation/acronym	**Explanation**
CN	Cyanide
WAD CN	Weak acid dissociable cyanide
CNS	Thiocyanate
DOC	Dissolved organic carbon
EC	Electrical conductivity
µS/cm	Micro-siemens per cm
µg/Lm	Micrograms per liter
mg/L	Milligrams per liter
$mgCaCO_3/L$	Milligrams calcium carbonate (equivalent) per liter
mL	Milliliters(s)
mV	Millivolt(s)
ORP	Oxidation-reduction potential
(T) [as suffix]	Total - Denotes that the measurement was made on an unfiltered sample

For chemical abbreviations see Appendix D of this environmental baseline document.

For rock type codes, and explanations, see Table 11-1.

ARLB001

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
21/09/07	4.6	1240	34		675	8	558	1000	20			1710	1720	3.2	3.1	170	140	16.2	15.4		5.4			146000	143000	5.2
19/11/07	4.35	1790	110		941	6.4	1530	1420	5	0.097	0.043	6200	6070	47.6	46.7	299	281	24.9	26	11	11.1			437000	396000	36.1
26/05/08	6.07	992	12	3	527	5.3	408	716		0.034	0.012	187	196	1.4	1.46	169	177	13.7	13.4	0.405	0.404	0.05		100000	101000	6.09
27/07/08	4.85	1340	32		582	5.6	595	987		0.035	0.095	675	685	3.08	2.81	222	220	15.1	15	1	1.13			151000	149000	7.74
9/09/08	4.87	1870	15		1050	4.5	1030	1640		0.022	0.063	1710	1720	3.7	4.3	263	256	15	15	2.25	2.14			255000	261000	13.5
10/06/09	4.36	1060	16		509	2.6	482	789		0.014	0.034	553	558	3.1	3.2	133	132	12.8	12.8	0.881	0.902			119000	119000	5.98
30/07/09	4.64	1120	23		600	2.1	565	921		0.017	0.05	1320	1310	3.5	4	135	134	12.5	12.5	2.29	2.33			136000	142000	8.38
6/08/09	4.51	997	24		611	1.9	540	897		0.011	0.034	1070	1140	3.2	3.4	113	117	10.2	10.6	2.45	2.56			129000	135000	7.08
4/09/09	4.68	878	18		445	1.69	456	723		0.011	0.022	986	997	2.3	2.9	93.8	92.9	10.1	10.1	1.86	1.89	0.016	0.008	114000	114000	6.23
23/10/09	4.73	730	16		343	1.26	372	553		0.007	0.022	796	877	2.2	1.6	57.3	61.3	7.08	7.83	1.49	1.59			87200	92700	4.86
17/05/10			8.5		184	0.77	155					394	392	0.79	0.75	20.9	22.7	4.02	3.88	0.679	0.742			40000	39500	2.21
13/07/10	4.41	1690	60		952	1.34	866	1470		0.016	0.035	3180	3050	4	3.72	95.7	89.6	16.2	15.9	5.25	5.3			209000	217000	12.8
14/08/10	4.45	792	28		446	1.04	398	641		0.047	0.057	1530	1560	1.69	2.36	80.5	81.3	8.04	8.26	3.38	3.42			99100	97800	6.11
14/09/10	4.55	1150	32		538	3.41	488	727		0.008	0.022	1620	1640	2.44	2.16	88.5	84.3	9.54	9.74	3.57	3.4			117000	118000	7.17
21/05/11	4.5	510	12		243	0.5	427	342				460	1510			17	53.4	3.46	5.91	0.931	2.89			58800	96500	2.09
28/06/11	4.47	841	39.6		407	1.06	390	611		0.022	0.036	1660	1660	1.8	1.85	55.2	56	6.39	6.92	3.04	3			97700	96600	5.48
24/07/11	4.5	1030	38.2		537	1.53	495	836		0.022	0.03	1990	2100	1.76	1.44	69.1	65.6	8.73	8.93	4.01	4.5			127000	125000	6.94
6/08/11	4.19	1060	44		566	0.58	536	855		0.012	0.029	2290	2360	1.75	2.25	61.1	62.2	8.26	8.56	4.99	5.01	0.04		127000	134000	7.78
11/09/11	4.47	938	35.6		410	0.85	421	662		0.02	0.017	1650	1490	1.15	1.04	52.1	49.1	8.11	7.81	3.53	3.35			103000	106000	5.63
18/05/12	4.72	349	12		163	0.21	145	257		0.006	0.008	320	268	0.29	0.29	10.8	8.97	3.14	2.88	0.927	0.781			50600	45200	1.46
23/07/12	4.05	1560	83		962	1.68	864	1430		0.023	0.03	5030	5110	1.4	1.28	50.5	51	10.6	10.4	10.3	10			225000	220000	13.2
8/08/12	4.34	911	46		487	0.65	433	758		0.1	0.1	2190	2090	3.5	1.3	34.2	33.6	5.17	5.23	5.56	5.64	0.05	0.05	107000	108000	7.19
9/09/12	4.44	566	25.6		308	0.54	262	391		0.015	0.014	1230	1040	0.45	0.44	19.1	17.5	4.17	3.74	3.73	3.42	0.0019	0.0089	71100	64400	4.1
6/10/12	4.4	434	17		203	0.5	177	323		0.009	0.018	749	704	0.6	0.58	11.9	11.2	3.41	3.27	2.44	2.33	0.05	0.05	43300	44000	2.82

ARLB002

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
21/09/07	4.3	2570	88		1810	10	1410	2460	20			6200	5530	3	3.2	330	250	18.1	17.6	20	19.4			327000	317000	4.6
21/11/07	4.16	3090	134		2010	7.6	2020	2730			0.06	7670	7630	16.5	16.9	320	305	19.3	20.5	24.7	28			447000	418000	6.79
27/07/08	4.68	1980	64	20	1090	3.8	1170	1580		0.082	0.134	2060	2110	2.52	2.36	148	144	13.3	13.4	3.35	3.62			279000	320000	5.7
9/09/08	4.58	2080	68		666	3.3	1270	1880	13	0.038	0.078	3000	3080	3	3.2	168	172	8.01	7.94	4.6	4.66			307000	331000	7.74
21/05/09	4.98	574	18		351	1.6	235	372		0.012	0.016	396	426	1.2	1.2	39	38.4	2.87	4.1	1.3	1.35			57200	59400	1.52
10/06/09	4.92	1020	185		466	1.7	474	771		0.022	0.025	904	890	2.3	2	65.8	64	5.98	6.05	1.96	1.93			119000	119000	3.01
30/07/09	4.59	999	30		539	2	498	817		0.023	0.084	1580	1380	2.5	2.5	71.5	69.2	4.71	4.71	3.4	3.48			126000	125000	4.08
6/08/09	4.42	893	32		566	1.1	518	831		0.03	0.056	1540	1630	2.1	2.2	60.2	61.5	3.54	3.79	3.19	3.49			122000	131000	3.81
4/09/09	4.62	1080	32		548	1.43	526	856		0.02	0.034	1370	1410	1.9	1.8	65	65.5	4.95	4.87	3.15	3.28	0.007		135000	132000	4.29
23/10/09	4.64	894	28		437	0.89	435	690		0.022	0.036	1220	1240	1.2	1.3	39.5	38.6	3.41	3.36	2.57	2.51			108000	109000	3.75
17/05/10	4.43	383	13.4		201	0.55	174	260				468	396	0.5	0.54	13	12.5	2.12	1.86	0.984	0.96			45300	45600	1.37
13/07/10	4.29	2200	96		1250	2.13	1260	1800		0.047	0.028	5140	5100	3.34	3.25	66.1	67.9	8.26	8.76	8.42	9.06			308000	324000	11.8
14/08/10	4.44	1050	40		512	2.08	477	641		0.053	0.075	1940	2090	1.92	1.87	54.7	53.8	3.22	4.51	4.64	4.51			117000	115000	4.87
14/09/10	4.46	1130	42.4		587	3.06	512	1580		0.025	0.044	2260	2100	1.74	1.84	49	47.9	4.62	4.8	4.68	4.75			127000	125000	5.42
22/05/11	4.4	952	36.2		521	0.655	392	749			0.0373	1590	1570		1.55	20.5	19.7	2.41	2.21	3.12	3.11			101000	102000	3.96
11/06/11	4.41	805	39.8		522	1.19	446	718		0.028	0.048	1530	2330	1.36	1.57	26.4	28.4	2.77	2.73	3.64	4.05			106000	115000	3.79
28/07/11	4.38	1210	58.2		666	2.46	636	1020		0.054	0.067	2960	3110	1.56	1.73	41.4	41	4.11	3.98	7.18	6.96			159000	161000	6.52
6/08/11	4.22	1460	91		889	2.54	805	1270		0.049	0.064	4790	5130	2.22	2.43	40.4	43.3	4.45	4.37	9.14	10.2	0.025		188000	199000	8.41
11/09/11	4.37	1280	58.2		664	1.04	593	944		0.062	0.067	3120	3170	1.68	1.5	37.1	38.1	3.59	3.56	6.3	6.57	0.047		152000	150000	6.56
18/05/12	4.85	549	3.4		314	0.24	316	447		0.008	0.016	660	760	0.33	0.4	7.05	8.23	1.48	1.59	1.66	1.91			92900	103000	1.71
1/08/12	4.02	1860	146		1260	1.82	1040	1890		0.061	0.11	8260	8350	2.5	3	33.2	33.5	4	3.99	17	16			261000	264000	14.5
8/08/12	4.13	1360	96		779	0.83	676	1250			0.1	5180	5190	3	1.9	23.6	22.1	2.17	2.06	12	12			171000	170000	10.8
9/09/12	4.2	989	58.2		569	0.5	505	828		0.024	0.03	3020	2940	1.55	1.59	15.2	15.2	1.91	1.83	7.41	7.43		0.0012	128000	130000	6.62
6/10/12	4.29	577	38		309	0.5	246	533		0.023	0.041	1560	1510	1.37	1.43	9.3	8.8	1.61	1.63	5.04	4.94	0.05		60400	61500	3.67

ARLB001

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
21/09/07	5.1	145	140			6240	6220	3380	3270		0.0107	12400	12300	47000	46300	2990	3110			55300	54200	352	341	1.4
19/11/07	35.7	480	436	2.08	2.07	63800	60200	14000	13600		0.0367	21800	21500	137000	132000	6470	6610	1	1	151000	142000	1300	1210	2.5
26/05/08	6.02	88.5	86.2	0.2	0.2	3060	3050	94	97.2	0.00752	0.0143	10200	10500	37000	37800	1120	1110	0.11	0.13	43300	44500	159	154	0.158
27/07/08	7.74	132	131	0.26	0.26	4240	4090	126	156	0.00552	0.0107	12800	12700	55000	54300	1620	1670	0.2	0.2	35400	35000	203	203	0.326
9/09/08	13.4	197	197	0.26	0.24	8770	8670	337	339	0.0149	0.026	16700	16800	94800	92800	3620	3600	0.17	0.19	48300	49400	326	331	0.567
10/06/09	5.96	104	103	0.2	0.2	3390	3410	77.4	88.9	0.00233	0.00385	10000	10000	44900	44900	1810	1850	0.07	0.12	15300	15300	166	163	0.347
30/07/09	8.27	135	132	0.2	0.2	6220	6090	542	562	0.00193	0.00399	11700	11900	50200	51200	2600	2550	0.128	0.052	9150	9310	217	212	0.839
6/08/09	7.35	121	126	0.07	0.06	5790	6060	499	530	0.00236	0.00281	11400	11500	48200	49200	2410	2490	0.028	0.044	10600	10900	204	213	0.82
4/09/09	6.32	100	101	0.2	0.09	5190	5170	285	288	0.001	0.001	9710	9630	41700	41800	2200	2220	0.084	0.045	6070	5790	165	166	0.498
23/10/09	5.07	78.9	83.7	0.0478	0.13	4460	4630	200	218	0.00114	0.00176	7280	7520	32000	34000	1860	1970			5270	5560	133	141	0.356
17/05/10	2.26	36.9	38.5	0.27	0.27	2300	2330	116	93.2	0.00148	0.001	4230	4040	14400	13800	1020	1040	0.05	0.05	2830	2650	65.8	68.4	0.202
13/07/10	12.7	229	226	0.3	0.24	15100	14800	1310	1360	0.00127	0.00279	11700	11700	77500	78400	5320	5240	0.068	0.066	7510	7720	361	357	0.848
14/08/10	6.04	114	114	0.2	0.22	8050	8220	480	487	0.00196	0.0012	7770	7760	37600	37300	3040	3060	0.021	0.079	4330	4370	180	185	0.413
14/09/10	7.28	121	122	0.51	0.27	9460	9620	786	807	0.0015	0.001	10100	10400	45800	46700	3560	3670	0.125	0.071	5420	5580	214	214	0.639
21/05/11	6.85	39.1	130			2960	9130	143	425			4410	10200	13500	45100	1060	3560		0.0801	2080	6160	70	229	0.338
28/06/11	5.58	114	113	0.2	0.2	9040	8940	756	750	0.00115	0.001	8660	8830	35700	36000	3150	3180	0.059	0.05	2890	2860	169	171	0.749
24/07/11	7.15	114	122		0.2	10500	10600	780	782	0.001	0.00108	9890	9720	45800	44400	4130	4050	0.05	0.136	3240	3240	207	210	0.788
6/08/11	7.99	137	139	0.2	0.49	12400	12700	253	868	0.0012	0.0013	9920	10200	46700	48800	4460	4540	0.05	0.05	3110	3300	233	238	1.42
11/09/11	5.62	107	99.7	0.16	0.1	9750	9230	79.4	129	0.001	0.001	8280	8380	37200	38000	3640	3480	0.026	0.009	2310	2350	180	179	1.13
18/05/12	1.25	26.1	21.7	0.21	0.4	2370	2000	67.7	57.8	0.001	0.001	3470	2880	9210	7740	855	715	0.127	0.056	832	717	47.5	40.9	0.335
23/07/12	13.1	264	281	0.29	1.21	23500	23300	1030	1130	0.001	0.001	11700	11900	75900	76400	7740	7800	0.095	0.37	3980	3990	320	367	0.989
8/08/12	7.04	116	115			13100	12800	332	439	0.00129	0.00107	8040	8060	39100	39900	4100	3930		0.25	2330	2390	209	205	0.888
9/09/12	3.69	79.5	70.7	0.62	0.63	7930	7220	240	271	0.001	0.001	6210	6390	25900	24700	2650	2360	0.05	0.05	1530	1540	137	123	0.749
6/10/12	2.6	50.5	47.8	0.25	0.3	5040	4870	62.7	78.2	0.00085	0.001	4350	4450	16200	16300	1810	1690	0.06	0.07	1230	1210	89.7	84.7	0.626

ARLB002

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
21/09/07	4.7	127	127			12800	13000	14600	13700		0.031	10900	10600	144000	143000	6370	5960			102000	101000	970	980	0.8
21/11/07	6.97	196	203	1.25	1.6	26300	24200	18000	17700		0.0168	16300	16300	239000	236000	11300	10800			171000	165000	1230	1270	0.907
27/07/08	5.73	140	140	0.34	0.3	14700	14800	647	668	0.00245	0.00481	9320	9380	88100	89400	5130	5250	0.2	0.2	29800	29900	424	427	11.2
9/09/08	7.44	157	153	0.38	0.42	18400	37900	760	847	0.00191	0.00594	10300	10500	109000	108000	7060	7710	0.05	0.05	36600	39200	493	481	8.97
21/05/09	1.51	31.9	31.9	0.2	0.2	3440	3480	137	155	0.00293	0.00504	4050	4320	20300	21000	1350	1390	0.05	0.05	4160	4430	101	101	1.82
10/06/09	3.01	64.6	63.1	0.2	0.2	6860	6700	237	243	0.00225	0.0019	5810	5820	43400	43200	3030	2950	0.05	0.05	6900	6920	202	197	4.43
30/07/09	4.11	77.2	75.4	0.2	0.2	9060	9170	1240	1240	0.001	0.00343	6820	6820	45000	45000	3840	3910	0.05	0.16	5170	5200	232	228	4.22
6/08/09	4.02	67.2	71.4	0.1	0.03	9500	9650	1190	1280	0.00155	0.00227	6950	7270	44400	46700	3890	4070	0.03	0.01	6450	6810	210	222	3.83
4/09/09	4.34	78.5	78.8	0.07	0.07	10100	9910	667	647	0.001	0.00103	6560	6550	48600	47800	4790	4660	0.032	0.025	4910	4790	239	240	3.59
23/10/09	3.43	66.9	63.8	0.042	0.254	8770	8890	448	459	0.00075	0.00149	5270	5380	39400	39700	4110	3900	0.083	0.015	4650	4740	211	199	3.88
17/05/10	1.4	25.6	25.3	0.34	0.27	3450	3440	125	130	0.001	0.001	2550	2620	14600	14600	1640	1630	0.05	0.05	1520	1530	84.5	82.4	1.76
13/07/10	11.8	209	211	0.35	0.36	29700	30400	2390	2500	0.00145	0.00206	8940	9280	106000	111000	12600	12800	0.088	0.063	8440	8730	589	600	8.8
14/08/10	4.98	82.5	84.7	0.2	0.24	13100	14000	797	782	0.00184	0.00141	6010	5920	46400	46200	5830	6220	0.044	0.04	4010	4010	261	268	4.42
14/09/10	5.51	87.3	89.6	0.32	0.2	13200	13300	843	814	0.00137	0.001	6590	6590	49600	48700	6040	6100	0.48	0.14	3460	3420	263	272	6.67
22/05/11	3.85	67.2	65.9			9740	9810	498	522			4100	4170	34300	33500	4160	4130			3140	3280	214	212	3.38
11/06/11	4.2	62.6	68.7	0.23	0.2	11100	12700	678	722	0.001	0.001	5170	5600	35400	38200	4580	5190	0.05	0.05	2260	2530	190	208	6.52
28/07/11	6.55	101	97.5	0.53		19000	18500	902	930	0.001	0.00122	6990	6930	56700	57000	7390	7280	0.058	0.05	3070	3050	285	279	9.33
6/08/11	8.8	135	140	0.39	0.27	26200	27600	1810	2160	0.0013	0.0015	7260	7490	69400	74700	9440	9810	0.05	0.05	3890	4180	407	436	7.7
11/09/11	6.6	106	107	0.19	0.11	19800	20000	434	431	0.001	0.001	6400	6360	53500	52900	7330	7360	0.04	0.02	2860	2860	315	319	5.85
18/05/12	1.91	24.2	27.6	0.2	0.34	4820	5540	87.8	103	0.001	0.001	2320	2670	12400	14400	1730	1990	0.05	0.05	971	1090	79.3	89.8	3.06
1/08/12	14.4	192	195	0.36	0.29	42200	43200	1220	1220	0.00397	0.00205	8480	8820	87300	91400	13700	13900	0.102	0.081	3780	4040	575	584	8.55
8/08/12	10.3	136	135			30800	30200	848	856	0.00131	0.00115	6540	6600	61700	60900	9510	9310			3180	3140	425	427	5.11
9/09/12	6.56	99.8	101	0.27	0.2	20200	20400	312	314	0.001	0.001	5890	5690	45000	44100	6040	6030	0.06	0.05	2550	2430	298	302	4.52
6/10/12	3.63	52.6	52	0.35	0.37	11700	11300	89.7	103	0.00164	0.001	3890	3920	22600	22300	3390	3260	0.09	0.09	1850	1930	165	163	4.33

ARLB001

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
21/09/07	1.4			50.1	47.6	2100			1.7	1.5	1		596	597	4.5	1			0.02			
19/11/07	2.35	0.74	1.03	216	211	5290			2.12	2.03	0.12	0.14	2160	2110	5.5	1.4	0.03	0.035		0.005		
26/05/08	0.122	0.686	0.681	34.1	33.2	2820			0.747	0.719			371	366	4.7	0.3	0.02	0.05	0.02	0.005	0.005	
27/07/08	0.325	0.61	0.59	62.5	61.1	4720			0.962	0.95	0.14	0.19	428	425	1.8	0.3	0.12		0.26			
9/09/08	0.585	0.557	0.563	131	135	6310			1.3	1.29	0.16	0.18	958	943	3.6	0.8	0.01		0.05			
10/06/09	0.344	0.43	0.431	51.9	51.9	5330			0.727	0.72	0.07	0.05	435	429	1.5	0.3	0.02		0.028			
30/07/09	0.816	0.44	0.453	66.6	66.2	6470		0.02	1.21	1.2	0.09	0.11	604	594	0.8	0.6	0.02	0.05	0.014			
6/08/09	0.804	0.439	0.335	60.5	61.7	5640			1.11	1.04	0.07	0.05	561	583	1.2	0.57	0.01	0.015	0.013	0.0019	0.005	
4/09/09	0.471	0.297	0.303	48.1	50.7	6490	0.05	0.02	0.794	0.81	0.13	0.08	494	478	0.5	0.48	0.013	0.027	0.06	0.0011		
23/10/09	0.382	0.333	0.302	40.7	41.7	5090			0.64	0.658	0.03	0.06	464	485	0.66	0.4	0.024	0.021				
17/05/10	0.156	0.05	0.06	18	17.9	1080	0.03		0.363	0.365	0.2	0.2	194	200	0.57	0.17	0.009	0.05	0.05			
13/07/10	0.79	0.35	0.31	94.5	93	10500			1.26	1.25	0.05	0.08	1220	1190	1.04	0.17	0.031		0.05	0.0032		
14/08/10	0.398	0.21	0.23	47	48.1	7830	0.05		0.901	0.942		0.04	579	582	0.87	0.86	0.032	0.139	0.05			0.11
14/09/10	0.636	0.65	0.69	55.3	54.9	9490		0.2	0.993	0.98	0.2	0.2	848	856	0.75	0.8	0.057		0.03			
21/05/11	0.635			14.4	50.3	743			0.412	0.875	1.42	1.25	238	782	0.483	0.245	0.0348	0.0322	0.052	0.0041	0.0019	
28/06/11	0.778	0.17	0.31	35.4	35.7	7680		0.2	0.934	0.949	0.2	0.2	626	631	0.96	0.69			0.058			
24/07/11	0.882	0.95	0.94	43.2	43.9	9760			1.03	1.12	0.2	0.2	1310	873	0.88	0.88	0.014	0.05	0.05		0.0032	
6/08/11	1.45	0.1	0.16	46.2	46.9	8730	0.02	0.04	1.26	1.27	0.2	0.2	926	937	1.09	1.06	0.01		0.05	0.0011		
11/09/11	1.13	0.11	0.11	34.9	34.3	9310			0.896	0.918	0.04		830	786	0.63		0.008	0.08				
18/05/12	0.317			8.8	7	423			0.374	0.311	0.2	0.2	170	144	0.25	0.17						0.05
23/07/12	1.01	0.11	0.11	61.3	59.7	13500	0.03	0.03	1.52	1.49	0.2	0.2	1880	1830	1.11	1.94	0.015		0.05	0.001		
8/08/12	0.948	0.25	0.25	36.8	33.4	9000			1.11	1.13			943	893	1.07	1.21	0.093		0.05	0.0016		
9/09/12	0.734	0.146	0.08	18	17	6990			0.818	0.773	0.2	0.2	477	431	0.8	0.64	0.088					0.05
6/10/12	0.585	0.057	0.057	10.4	9.9	4710			0.567	0.555	0.2	0.2	322	302	0.85	0.56	0.086			0.0009		

ARLB002

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
21/09/07	1			45.6	46.2	2700			1.7	1.7	1		523	560	6	2.4						
21/11/07	0.803	1.04	1.7	65.4	67.3	6570			1.78	1.87			755	755	5.1	3.1	0.02	0.023				
27/07/08	11.4	0.65	0.65	34.3	35.7	6740			0.988	1	0.23	0.17	610	609	2.1	1	0.01		0.022			
9/09/08	9.4	0.602	0.586	48.8	48.6	7590			1.26	1.23	0.17	0.3	910	978	2.2	0.8	0.01	0.02		0.004	0.004	
21/05/09	1.95	0.44	0.45	7.8	8	2930	0.1	0.1	0.527	0.53			183	181	1.2	0.2	0.008		0.021			
10/06/09	4.36	0.406	0.406	16.2	15.8	5710	0.03		0.686	0.681	0.06	0.05	384	387	1.3	0.4	0.02	0.027	0.029			
30/07/09	4.17	0.482	0.491	20.1	20.4	6140	0.02	0.04	1.16	1.15	0.08	0.1	508	492	0.7	0.6	0.02		0.014			
6/08/09	4.02	0.375	0.386	18.6	19.7	5660			1.08	1.12	0.03	0.05	461	504	1.3	0.68	0.02	0.026	0.023	0.0012	0.005	
4/09/09	3.63	0.315	0.305	21.1	21.3	6640	0.04	0.03	0.971	0.994	0.09	0.09	527	535	0.64	0.75	0.033	0.022	0.016	0.0017		
23/10/09	3.84	0.247	0.232	17.6	16.8	5100		0.02	0.808	0.777			536	524	0.67	0.53	0.02	0.064		0.0022		
17/05/10	1.76	0.05	0.06	6.6	6.5	1070			0.358	0.366	0.2		186	185	1.39	0.22	0.009	0.05	0.05			
13/07/10	8.98	0.45	0.44	52.9	53.7	11400	0.02	0.02	1.69	1.74		0.04	1630	1640	1.68	0.12	0.032		0.05	0.0036		
14/08/10	4.48	0.35	0.39	22.1	22.4	8010			1.19	1.22		0.04	626	649	0.85	1.03		0.1	0.05	0.0074		0.09
14/09/10	6.71	0.32	0.32	22.2	22.8	8720			1.18	1.19			815	830	0.57	0.97	0.03					
22/05/11	3.34	0.203		14.8	14.8	773			0.709	0.725	1.58	1.52	541	535	0.831	0.839	0.0614	0.0422	0.035	0.0037		
11/06/11	7.16	0.54	0.53	13.3	15	6780	0.2	0.2	1.03	1.13	0.05	0.06	494	535	0.91	0.82	0.015	0.025	0.05	0.0069	0.0103	1.92
28/07/11	9.27	0.54	0.51	21.5	21.8	10400	0.05	0.03	1.43	1.44		0.2	1050	1030	0.73	1.02	0.007	0.025	0.05	0.0012		
6/08/11	8.22	0.29	0.33	28.4	30.9	10700	0.04	0.05	1.79	1.88	0.2	0.2	1260	1310	1.23	1.63	0.012	0.043	0.154	0.002		
11/09/11	5.76	0.23	0.13	21.7	21.8	11000	0.07		1.41	1.41	0.05	0.04	1080	1080	0.59		0.009	0.114	0.01	0.0034		
18/05/12	3.36	0.06		5.1	5.8	433			0.534	0.61		0.2	222	250	0.25	0.29						0.06
1/08/12	8.66	0.536	0.6	18.6	20.6	15600			2.19	2.22			1840	1850	1.53	1.11	0.381			0.0018		
8/08/12	5.15	0.25	0.25	22.9	23.4	12100			1.82	1.8			1510	1490	1.39	1.51	0.028		0.05	0.0012		
9/09/12	4.5	0.097	0.081	14.7	14.5	10500			1.41	1.43	0.2	0.2	829	837	0.97	1.26	0.041			0.002		
6/10/12	4.15	0.078	0.073	6.8	6.8	6420			1	0.952	0.2	0.2	482	476	0.63	0.84	0.116			0.0013		

ARLB003

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
21/09/07	7.9	3770		105	2530	13	1720	3660	22		0.06	18	40	24	21	510	450	29.6	28.4		0.1			420000	422000	2.7
21/11/07	6.95	5020	20	148	2790	12	2720	4730			0.078	6.6	136	99	104	510	513	12.7	15.2	0.069	0.128			425000	489000	6.67
26/05/08	7.71	1870	4	88	1060	4	896	1470		0.02	0.02		2.1	1.5	1.79	72	77	11.6	12.1			0.05		231000	241000	0.406
14/09/08	7.81	3510	4	46	2150	4.1	2016	3260		0.018	0.024	2.1	4.1	5.14	4.2	111	106	15.9	15.5	0.004	0.006			534000	533000	0.417
6/08/09	7.42	2170	2	45	1410	3.3	1590	2270		0.014	0.017	2.4	4	3.1	3.8	101	115	15.8	17.1					454000	447000	0.295
21/09/09	7.38	2220		62.8	1130	3.7	1340	2010		0.022	0.02	56.2	4.5	2.04	2.42	107	110	16.3	16.6	0.003	0.004			382000	370000	0.23
14/08/10	7.74	2	4	48.2	855	1.4	833	1050		0.02	0.02	2.6	7	1.62	1.72	81.1	83	10.1	19.3					220000	223000	0.184
22/05/11	7.9	1270	4.36	43.2	673	0.873	797	1020	1.35	0.0115	0.0126	2.59	2	0.765	0.877	49.4	68.7	5.93	6.28			0.0181		165000	185000	0.117
28/06/11	7.77	1230	4.8	59.6	625	9.52	679	944		0.026	0.046	4.3	4.2	1.09	1.42	60.6	59.8	10.8	10.6	0.02	0.02			176000	182000	0.089
28/07/11	7.84	1300	2.2	57	672	2.31	714	1070		0.031	0.017	3.8	6.5	1.15	1.21	63.1	64	10	10.1	0.005	0.005			187000	190000	0.07
6/08/11	7.99	1220	3	46.2	640	2.11	650	961		0.008	0.021	4.2	5.5	1.59	1.67	56.7	58.4	9.48	9.6	0.005				174000	174000	0.093
11/09/11	8.16	1210	15	56.4	520	1.17	608	887		0.007	0.012	2.1	2.3	1.28	1.09	54.8	54.3	9.03	8.78		0.003			161000	164000	0.076
18/05/12	7.48	742	2.8	37	352	0.59	293	538		0.004	0.006	2	2.2	0.83	0.85	28.8	26	3.41	3.19					79400	76000	0.05
1/08/12	7.94	1180	4.6	47.3	655	1.43	675	1020			0.044	3.4	8.6	2.2	2	40.7	41.2	9.58	9.94			0.016		180000	180000	0.116
8/08/12	7.96	952	2	47.2	490	0.68	525	815			0.02	3.4	6.1	1.4	1	35.6	36.4	8.18	7.91				0.05	141000	141000	0.092
18/09/12	7.77	694	2.4	52.4	302	0.68	355	502			0.016	3.3	18.1	0.73	0.79	26.8	27	5.69	5.87		0.005	0.05	0.05	94800	95600	0.067
6/10/12	7.85	561	2	57.5	241	1.14	276	512			0.02	2.8	7	0.85	0.89	23.7	22.7	4.18	4.25			0.05	0.05	74600	73200	0.073

ARLB004

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
21/09/07	8.1	2230		184	870	9	65	1490	40			77	951	44.3	50.8	400	390	23.3	33.2					17400	17600	
21/11/07	8.14	2670		299	912	4.9	129	1670				17.7	1050	138	161	570	630	21.1	38.9		0.093			20900	26600	0.291
26/05/08	8.25	902		240	195	3.2	164	584	12	0.02	0.013	789	1000	14.6	13.8	143	137	39.8	41.6	0.056	0.071	0.05	0.05	4250	4110	0.023
21/05/09	8.65	1300		306	308	1.3	34.3	815	57		0.022	11.3	1420	8.7	9.8	154	158	15.1	42.2		0.06			7610	8360	0.259
10/06/09	8.84	1370		440	287	2.4	33.3	813	7		0.01	9	321	8.2	8.7	152	153	22.6	30.3		0.014		0.005	8700	8710	0.013
6/08/09	8.58	1100		274	320	1.3	34.1	769	15			37	577	8.7	9.2	147	153	31.5	38.5		0.016			8470	8640	
30/09/09	8.53	1120		377	174	1.87	28.2	695		0.025	0.113	10.1	158	5.2	5.08	139	130	31.4	33.7		0.006		0.05	6570	6850	
17/05/10	8.39	352		165	49.8	0.84	7.8	224				4.5	41.6	1.54	1.22	43	39.9	10.3	9.8					2110	2070	0.02
8/08/10	8.6	1030		359	184	1.3	112	755	212	0.022	0.067	361	3550	4.68	9.41	134	124	28.5	97	0.016	0.157		0.046	6960	32100	
8/09/10	8.67	1010		360	117	1.42	24	645	9	0.008	0.005	7.1	245	4.31	4.79	111	106	38	43.7	0.003	0.016			5900	6130	0.02
22/05/11	8.7	762		297	97.2	0.926	12.2	465	0.588		0.012	13	1020	3.15	4.93	50.7	48.3	16	30.6				0.05	1630	2020	0.119
28/06/11	8.57	718		276	83	0.8	16.2	414		0.02	0.042	11.7	591	4.14	4.46	74.7	73.8	31.9	38.7	0.02	0.036			4020	3980	
24/07/11	8.65	951		380	112	0.6	27.8	541			0.012	17.9	383	3.03	3.51	81.3	92.5	46.7	52.3		0.02			6450	6920	
6/08/11	8.83	756		288	87.4	0.5	18.4	411		0.004		8.8	247	3.11	3.22	70.5	70.1	34.3	38.1		0.006	0.034	0.047	4460	4510	
11/09/11	8.86	895		328	92.7	0.62	25.1	497		0.006	0.005	5.5	67.6	2.25	2.21	68.9	68	47.3	46		0.006			6060	6100	0.012
4/10/11	8.59	869		314	98.8	1.05	28.4	499	9.9	0.02		13.5	298	1.68	1.92	41	43.1	46.6	49.8		0.02			6810	6840	0.02
18/05/12	8.56	366		161	38.3	0.22	11.6	188			0.004	7.5	75.1	1.03	1.12	26.7	26.3	19.3	20.2					2820	2820	
23/07/12	8.7	933		283	188	0.86	36.9	576				6.8	42.4	1.91	1.8	56.6	57.7	43.5	44.5					9550	9020	0.02
8/08/12	8.66	685		274	87.1	0.5	23.5	387				9.8	102	1.4	1.4	54	52.4	37	37.2					5590	5670	0.017
9/09/12	8.69	583		267	63.2	0.5	20.2	374				24.2	61.6	1.37	1.41	36.6	36.6	29.6	30					5020	4890	
6/10/12	8.47	515		219	48.7	0.5	21.9	307			0.009	6.6	177	0.99	1.24	31.4	31	47.4	49.5		0.011	0.05	0.05	5060	5300	0.02

ARLB003

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
21/09/07	2.8	69.9	70.4			970	1130		70		0.043	13400	13900	164000	167000	8200	8060	9.7	9.5	352000	357000	63.7	70.6	1.3
21/11/07	6.61	117	124	0.4	0.58	3170	3230	24.2	382		0.333	19700	20500	333000	364000	14500	13500	14.5	14.7	572000	592000	120	131	0.084
26/05/08	0.358	9.51	10	0.2	0.2	41.3	45.5	20	20.7	0.00148	0.00368	9210	9470	68600	71300	1790	1810	12	12.5	103000	107000	14.3	14.8	0.02
14/09/08	0.419	8.71	8.74	0.24	0.25	23.8	24.3	20	26.5	0.00109	0.00129	15200	15200	176000	166000	2490	2510	24.2	24.3	184000	184000	10.6	10.4	0.02
6/08/09	0.316	4.45	4.47	0.07	0.12	16.5	17.8	14.7	16.5	0.00277	0.00175	14000	13500	118000	114000	1520	1640	29.3	30.7	67200	63700	7.54	7.23	0.025
21/09/09	0.214	1.47	1.48	0.35	0.41	17.6	19.8	21.7	5.1	0.001	0.001	13100	12700	103000	102000	1080	1030	38.1	39.6	60200	56100	9	8.99	0.037
14/08/10	0.168	1.68	1.81	0.34	0.38	5.33	6.44	14.4	23.9	0.001	0.001	9180	9350	65700	66800	776	804	46.5	46.7	22600	23400	3.99	4.1	0.069
22/05/11	0.168	1.35	1.63			4.67	5.31	20	20			9340	9920	54300	81400	421	504	54.4	69.6	15600	19100	5	6.19	
28/06/11	0.088	1.7	1.65	0.34	0.48	9.47	9.8	25.5	36.7	0.0016	0.00172	8160	8580	53100	54900	835	804	46.3	45.9	10500	11300	5.56	5.57	0.02
28/07/11	0.075	1.18	1.19	0.2	0.12	7.66	8.83	20	20	0.001	0.001	9110	9210	57100	58000	512	510	47.1	47.9	9600	9710	3.22	3.22	0.027
6/08/11	0.1	1.59	1.62	0.21	0.2	9.79	9.97	20	16.9	0.0015	0.0016	8360	8200	52600	52000	575	579	43.4	44.4	11600	11300	3.17	3.19	0.045
11/09/11	0.068	1.12	1.11	0.23	0.33	8.56	8.92	10.1	12.9	0.001	0.0011	7850	7870	48200	48500	488	480	47.1	46	8130	8200	2.41	2.46	0.02
18/05/12	0.045	0.608	0.537	0.49	0.21	4.27	4.11	20	20	0.001	0.001	5120	4820	26700	25000	190	175	23.7	22.1	4570	4300	2.53	1.86	0.02
1/08/12	0.13	0.903	0.886	0.2	0.2	7.66	8.73	20	20	0.001	0.00121	8020	8150	53700	54800	374	383	41.3	43.5	5020	5060	1.93	2.08	0.011
8/08/12	0.098	0.866	0.862	1.64	0.23	5.21	5.64	20	20	0.00168	0.001	6510	6510	42900	42000	368	372	36.2	35.8	3970	3840	2.65	2.09	
18/09/12	0.065	0.577	0.573	0.2	0.24	5.5	6.98		27.8	0.001	0.001	4880	4910	27800	28200	255	270	33.5	34	3180	2790	1.16	0.83	0.02
6/10/12	0.075	0.429	0.47	0.23	4.37	6.85	7.53	3.1	35	0.00137	0.00178	4870	4750	22900	22600	219	224	28.5	29.6	2640	2600	1.46	2.09	0.02

ARLB004

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
21/09/07	0.2	1.6	1.92			8.4	13.5	30	880		0.0206	4100	5000	5100	5500	21.1	18.8	660	640	484000	493000	4.7	3.7	
21/11/07		1.25	2.51	1	1.73	13.4	20.2	15.3	825		0.0203	7630	8690	12900	15200	5.54	16.2	709	769	1130000	1230000	3.89	4.91	0.1
26/05/08	0.022	1.46	1.76	1.1	1.32	4.15	4.65	654	868	0.00235	0.0059	1960	1990	1530	1500	15.2	19.4	117	110	205000	194000	1.42	1.57	0.498
21/05/09	0.264	0.496	2.34	0.2	1.7	1.23	5.48	20	1830	0.00217	0.00731	2250	3230	2410	3260	18.1	44.4	235	217	281000	282000	0.69	2.02	0.017
10/06/09	0.013	0.366	0.902	0.2	0.53	2.97	3.64	2.9	429	0.00175	0.00716	2510	2980	2600	2810	6.9	18	195	198	289000	289000	0.91	1.32	0.088
6/08/09		0.322	0.898	0.19	0.7	1.28	2.11	37.7	516	0.00279	0.00451	2690	3150	2630	3030	7.86	17.4	225	227	263000	272000	0.61	0.87	0.059
30/09/09		0.192	0.394	0.23	0.3	1.8	1.56	20	159	0.00118	0.00189	2360	2410	2610	2690	2.9	7.09	158	153	264000	269000	0.72	0.67	0.055
17/05/10	0.02	0.049	0.104	0.43	0.43	0.49	0.5		22.8	0.001	0.00117	992	899	728	649	1.41	2.84	35.8	29.4	96100	84200	0.41	0.4	0.03
8/08/10	0.039	0.697	4.98	0.66	4.27	1.97	9.04	246	16200	0.0015	0.0383	2480	3340	2470	7700	14.3	108	88.3	106	239000	245000	0.66	4.25	0.211
8/09/10	0.02	0.158	0.518	0.28	0.53	0.77	1.33	3.7	283	0.001	0.001	2280	2410	1980	2110	3.66	8.73	98.7	102	215000	211000	0.4	0.56	0.036
22/05/11	0.2	0.144	0.65		1.05	0.571	1.64	20	283		0.005	1740	2660	1350	1740	0.464	4.33	74.7	113	147000	241000	0.287	0.772	
28/06/11	0.02	0.136	0.512	0.41	1.92	1.34	1.02	20	331	0.001	0.00227	1780	2000	1400	1520	1.54	6.81	86.7	87.1	155000	151000	0.43	0.76	0.04
24/07/11		0.121	0.564	0.35	0.7	0.67	1.24	21.4	385	0.001	0.00196	2400	2470	2380	2550	0.82	8.25	78.2	79	208000	203000	0.28	0.42	0.025
6/08/11		0.081	0.365	0.34	0.92	0.62	1.13	20	240	0.001	0.0024	1860	2030	1620	1730	0.39	4.62	69.2	68.9	160000	162000	0.4	0.57	0.025
11/09/11		0.086	0.209	0.29	0.39	0.71	1.24	3.3	77.3	0.001	0.0013	2220	2220	2380	2390	0.38	2.45	57	57.8	176000	175000	0.4	0.33	0.02
4/10/11	0.027	0.123	0.461	0.33	0.53	0.55	0.91	7	240	0.001	0.00158	2120	2160	2710	2740	0.67	6.69	46.5	47.8	179000	176000	0.54	0.78	0.023
18/05/12		0.066	0.166	0.36	0.23	0.61	0.45	20	74.7	0.001	0.00126	1170	1140	1080	1100	0.51	2.18	19	19.9	90600	89600	0.74	0.4	0.02
23/07/12	0.02	0.106	0.168	0.44	0.48	0.98	0.92	20	36.7	0.001	0.001	2480	2520	3330	3480	1.26	2.34	56.8	59.2	190000	200000	0.4	0.4	
8/08/12	0.006	0.061	0.196	0.25	0.35	0.46	0.65	20	93.9	0.00179	0.00119	2050	2130	2170	2280	0.153	2.18	41.7	42.5	144000	150000	0.4	0.4	0.02
9/09/12		0.084	0.141	0.2	0.36	1.09	0.5	25	96	0.00126	0.00103	1840	1850	1980	1940	1.49	1.89	33	33.2	133000	128000	1.33	0.4	0.033
6/10/12	0.02	0.059	0.393	1.19	0.55	0.64	0.83	12.5	234	0.00078	0.00194	1790	1930	1930	2100	0.27	5.86	21.7	22.2	109000	113000	0.58	0.42	0.02

ARLB003

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
21/09/07	0.3			687	639	3700	0.1		1	0.5	1		486	541	16	0.5			0.03			
21/11/07	0.406	2.16	2.12	470	490	11300			0.479	0.512	0.18	0.86	1120	1140	19.7	0.27	0.03					0.08
26/05/08	0.03	0.788	0.823	42.9	44.9	1590	0.1		0.186	0.178			77.4	76	7.5	0.2	0.02	0.05				
14/09/08	0.025	1.29	1.31	242	238	1560			0.322	0.319	0.26	0.27	44.6	44.9	8.1		0.03	0.17	0.05		0.003	
6/08/09	0.031	0.759	0.804	86.9	91.1	1560	0.1	0.1	0.266	0.273	0.13	0.11	36.7	43.7	3.7	0.29	0.01			0.0011	0.005	
21/09/09	0.016	0.83	0.86	70.8	74.1	1590			0.255	0.262	0.15	0.14	67.7	34.9	2.35	0.35	0.011		0.391			
14/08/10	0.28	0.7	0.69	48.8	50.5	1160	0.02		0.193	0.177	0.06	0.1	61.7	18	1.61	0.44	0.026	0.084	0.05			0.05
22/05/11		1.14	1.04	59.6	74	1340			0.133	0.143			11.7	14.6	1.51	0.389		0.0432		0.01	0.0027	
28/06/11	0.02	0.77	0.82	37.3	38	1170	0.2	0.2	0.138	0.137	0.26	0.28	7.44	7.49	5.05	0.42	0.006		0.053	0.0088	0.0058	
28/07/11	0.02	0.82	0.81	30	30.6	1260	0.06	0.03	0.152	0.152	0.2	0.2	6.02	6.76	4.6	0.38			0.4			
6/08/11	0.035	0.78	0.81	35.1	36.2	1260	0.04	0.03	0.17	0.179	0.2	0.2	8.82	8.82	4.99	0.33	0.026		2.79			
11/09/11	0.02	0.79	0.75	23.5	23.2	1210			0.139	0.135	0.11	0.11	7.9	7.88	2.01		0.006	0.099	4.93			
18/05/12	0.02	0.55	0.49	11.1	10.2	863			0.077	0.072	0.2	0.2	11.1	10.5	1.05	0.26			1.05			0.06
1/08/12	0.034	0.78	1.02	24.1	23	1130			0.13	0.143	0.2	0.2	8.9	9.3	2.04	0.53	0.172		0.259	0.0012		
8/08/12	0.028	0.702	0.691	18.5	18	1080	0.2	0.2	0.123	0.123		0.2	8.6	8.4	1.44	0.29	0.072		0.762			
18/09/12	0.048	0.697	0.851	11.5	11.1	1050		0.12	0.0897	0.0936	0.2	0.2	7.24	8.22	1.9	0.26	0.032		0.335			0.08
6/10/12	0.02	0.696	0.67	7.6	8	1030			0.077	0.0734	0.053	0.081	12	11.7	0.84	0.3	0.11		0.03			0.08

ARLB004

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
21/09/07	1.5	9		189	183	1300	0.1	0.2	0.7	0.5	2.6		6	9	17.3	0.4	0.05		0.05			
21/11/07	0.688	14.3	11.9	299	342	2510			0.079	0.139	3.43	5.79	12.7	19.5	13.1	0.344	0.03	0.007	0.01			0.07
26/05/08	0.7	7.16	6.27	16.1	15.3	2190			0.037	0.046	2.51	2.89	5.9	7.6	4.8	0.3	0.03	0.05				0.5
21/05/09	0.928	4.61	3.69	10.8	10.8	1080	0.1	0.1	0.049	0.071	0.38	3.36	1.83	12.9	2.7	0.3	0.08		0.033			
10/06/09	0.41	5	4.61	13.9	14.3	1100			0.053	0.059	0.32	1.06	4.4	7	2.6	0.5	0.02	0.026	0.012			0.07
6/08/09	0.348	4.19	3.96	28.8	29.2	967			0.053	0.06	0.45	1.72	1.6	6.7	2.2	0.57	0.02				0.005	
30/09/09	0.21	4.06	3.71	15.2	14.3	908	0.1	0.1	0.051	0.075	0.32	0.63	4.56	22	0.87	0.37	0.013					
17/05/10	0.045	1.38	1.12	4.3	3.4	381			0.03	0.02	0.2	0.21	2.07	2.34	0.62	0.15		0.05	0.05			
8/08/10	2.52	1.92	1.8	14.5	16.4	1220	0.2		0.037	0.089	1.24	9.2	3.46	19.5	1.53	0.45	0.603		0.059			
8/09/10	0.184	2.54	2.49	9.4	9.7	806	0.2	0.2	0.05	0.053	0.36	0.92	3.58	5.94	0.58	0.44	0.013	0.141				
22/05/11	0.23	1.64	2.27	7.42	10.8	507			0.0219	0.0441		2.52	6.78	9.93	0.786	0.37	0.004		0.033	0.0018		
28/06/11	0.222	2.05	2.03	6.9	7.1	684	0.2	0.2	0.034	0.054	0.43	1.87	2	4.17	0.57	0.38	0.123		0.05			
24/07/11	0.235	1.91	1.74	10.1	10.4	864	0.02	0.03	0.042	0.054	0.36	1.08	0.66	3.21	0.5	0.37	0.01	0.05	0.05		0.0114	
6/08/11	0.174	1.9	1.8	6.6	6.5	685	0.03		0.044	0.047	0.29	0.91	2	2.58	0.66	0.33	0.011		0.204			
11/09/11	0.065	1.49	1.36	6.1	5.8	704			0.038	0.039	0.25	0.37	2	1.11	0.46		0.008	0.059	0.045			
4/10/11	0.148	1.07	0.95	6.3	6.5	656	0.2	0.03	0.037	0.04	0.27	0.7	2	2.37	0.39	0.21	0.015	0.04	0.05			
18/05/12	0.062	0.56	0.56	3.3	3.3	342			0.014	0.016	0.2	0.25	2	2	0.45	0.17	0.011					0.08
23/07/12	0.024	1.05	1.09	17.1	16.7	636	0.03	0.04	0.042	0.043	0.22	0.35	2.7	3.09	0.92	0.26			0.05			
8/08/12	0.074	1.02	0.987	4.2	4.2	600		0.2	0.026	0.038	0.2	0.35	2	2	0.47	0.26	0.127		0.083			
9/09/12	0.069	0.856	0.865	3.4	3.6	629			0.0178	0.0288	0.237	0.315	2.92	2	0.9	0.2	0.037		0.109			0.06
6/10/12	0.157	0.779	0.72	2.8	2.9	520			0.0206	0.0278	0.092	0.589	2	2.99	0.97	0.15	0.11		0.088			0.08

ARLB005

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
21/09/07	8	2730		59	1440	2	573	2170	20			16	47	17.3	18.8	154	144	33.2	32.5					221000	227000	0.4
21/11/07	7.77	3300	6	100	1430	1.5	857	2130				2.4	6.5	82.2	90.8	327	326	24.4	25.5					334000	317000	
26/05/08	8.1	1320	9	92	538	1.4	723	889		0.02	0.013	2.3	4.6	3.1	3	57.2	57.5	29	28.9					95300	93800	0.054
9/09/08	7.62	2930	5	52	1560	2	1100	2420		0.009	0.014	7.9	5.2	4.8	5.8	97.2	99.6	14.6	14.9					373000	386000	0.188
20/08/09							362			0.02	0.02	3.8	5.3	4.2	4	99	98.5	33.3	34.2					127000	124000	
17/05/10	7.78	497		75.6	225	0.74	167	331				2	5.8	1.76	1.54	32.3	31.4	12.2	12.2					52000	57800	0.022
8/08/10	7.84	1020	3.6	64.1	375	1.74	312	569	5	0.02	0.02	4.4	9.8	3.3	3.62	71.7	69.2	21.4	21.6					106000	107000	0.02
14/09/10	8.01	704	2.2	71.2	244	2.01	216	400				7.9	3.8	2.79	2.99	67	64.9	36.3	36.1					76200	74300	0.038
22/05/11	7.7	652	4.1	49.2	283	0.846	198	428				2.02	2.97	2.26	1.91	42.9	38.9	12.3	12					78100	66600	0.162
7/06/11	7.83	560	4.2	64.5	206	1.12	225	356		0.021	0.037	5	172	2.63	3.35	43.7	49	39.3	39.4	0.02	0.02			77000	77600	0.02
24/07/11	8.05	765		63	304	1.69	353	535				7.2	5.2	2.58	2.71	53.1	62.7	29.9	30.5					117000	121000	0.02
6/08/11	8.15	647		57.6	260	0.93	285	432				4.1	5.1	2.99	2.79	46.7	45.3	24.7	23.5					100000	97600	
11/09/11	8.24	650		62.4	222	1	271	471				3.7	3.1	2.3	2.36	43.2	43.2	29.7	29					92900	92300	
18/05/12	7.22	296	3	26.7	113	0.33	137	207				2	3.6	1.02	0.97	19.6	20.2	8.69	8.58					46500	47000	
23/07/12	8.03	829	2	57.3	374	1.82	443	637				2.7	8.2	2.79	2.61	45.2	44.3	37.8	38					151000	152000	0.114
8/08/12	8.06	620	3	60.8	265	0.52	286	462				3.3	5.1	2.7	2.4	39.7	38.5	25.5	24.4					97800	96800	0.039
9/09/12	8.08	357		60	110	0.5	163	248				3.4	9.3	1.89	1.8	22.3	21.9	15.5	15.7				0.0009	54000	54900	0.02
6/10/12	8.09	279		57.5	75.4	0.5	120	190			0.011	4.2	26.6	1.42	1.45	17.1	16.9	16.1	16.9				0.05	39000	40500	0.028

ARLB006

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
21/09/07	5.2	2040	40		1150	12	852	1680	20		0.06	1600	2020	17.7	17.1	300	170	27.9	28.1		3.7			219000	220000	7.6
21/11/07	6.04	3280	52	13	1820	9.9	1540	2830	6		0.035	371	770	100	104	243	233	24.1	24.7	0.856	1			374000	358000	3.77
26/05/08	7.92	1200		78	557	4.1	703	881			0.031	7.2	9.5	2.56	3.5	106	126	23.9	30				0.05	136000	176000	0.052
10/09/08	7.81	3150	4	39	1910	4.4	1870	2970		0.026	0.047	8.2	12.3	9.4	8.9	126	124	36.2	35.6	0.003	0.005			450000	500000	0.155
6/08/09	7.75	1390	2	48	854	2.5	762	1270	6	0.009	0.03	10	56.5	6.7	6.6	105	104	33.8	34.9					190000	196000	0.051
21/09/09	7.85	1250	4.8	74.2	580	5.86	573	1030		0.014	0.022	9.4	13.4	4.9	4.58	99.8	103	29.4	28.6	0.006	0.004			142000	144000	0.124
31/07/10	7.84	1470	2	53	740	3.87	748	1170		0.011	0.015	3.8	14.9	5.83	5.26	98.8	97.9	31.7	31.8					187000	191000	0.098
14/08/10	7.84	995	2.4	48.9	422	1.28	362	709		0.02	0.022	4.9	7.5	4.25	4.13	88.4	84.6	17.6	17.2					111000	91800	0.034
14/09/10	7.9	757	4	53.1	297	1.88	277	451			0.008	6.6	6.6	3.96	3.78	70.8	73.2	17.1	16.7					68000	70000	0.031
22/05/11	8.7	698		42.3	312	1.47	495	462		0.0105	0.0619	2.26	135	3.22	5.26	43.6	58.5	9.31	19.5				0.05	71400	129000	0.151
7/06/11	7.79	478	3.6	43.3	179	1.14	198	288		0.02	0.052	4.5	18	3.23	3.31	37.1	38.1	17.4	11.8	0.02	0.02			51300	50900	
24/07/11	7.96	810		40.2	346	1.27	400	582			0.016	4	7.2	3.21	3.42	53.2	48.8	19.3	19.6					101000	104000	0.02
6/08/11	8.08	715	3.8	52	309	0.86	315	474		0.008	0.008	4.4	5.7	4	3.99	50.1	49.4	14.7	14.7					82200	80600	
11/09/11	8.09	724	2.2	48.7	269	1.17	290	497		0.014	0.017	3.9	4.5	3.48	3.49	49.5	49.9	15.9	16.2					75700	74300	0.007
18/05/12	7.56	343		29.5	134	0.6	157	203		0.004	0.011	2	2.6	2.07	1.95	21.5	21.8	6.71	6.72					40800	40500	0.027
23/07/12	8.02	930	2.2	45.4	449	2.6	510	754			0.018	3	6.4	3.11	2.96	41.8	42.1	24.7	24.5					133000	132000	0.032
31/08/12	7.93	477	2.4	47.3	178		210	318		0.02	0.023	5	14.9	2.93	3.27	29.1	30.5	10.2	10.2			0.05	0.05	53600	52800	0.012
9/09/12	8.14	358		49	124	0.7	167	214		0.005	0.006	4.8	8.2	3.16	3.12	24.8	24	7.14	6.98					43200	42900	0.02
6/10/12	8.09	321		55.2	105	0.99	144	231		0.014	0.031	5	9.6	3.06	2.98	21.7	21.9	7.76	7.3			0.05	0.05	38300	36700	0.027

ARLB005

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
21/09/07	0.4	19	18.6			4.1	3				0.0006	5000	5500	5000	5200	519	548	181	177	418000	430000	20.7	23.6	
21/11/07	0.218	26.6	30.9	1	1	14.2	16.4	6.1	11.5		0.0012	9980	10300	15600	16200	559	596	354	380	1040000	1020000	35.5	42.8	0.1
26/05/08	0.055	5.84	5.8	0.2	0.24	1.78	1.69	20	20	0.001	0.001	2630	2650	9400	9290	360	361	28.9	30.5	172000	174000	4.68	4.44	0.02
9/09/08	0.167	9.4	9.64	0.37	0.38	1.78	1.73	18.4	12.5	0.001	0.001	5350	5380	33900	32900	438	454	80.5	82.1	312000	635000	10	9.87	0.1
20/08/09	0.006	0.264	0.326	0.11	0.13	1.32	1.01	20	20	0.001	0.001	3480	3490	12500	12400	3.6	8.37	141	143	124000	122000	2.47	2.59	0.036
17/05/10	0.031	0.162	0.212	0.3	0.63	0.29	0.35		1.4	0.001	0.001	1430	1500	5040	5400	5.17	5.63	54.9	52.6	48300	54000	1.75	1.6	0.022
8/08/10	0.02	0.257	0.422	0.31	0.33	0.41	0.56	4.8	12.5	0.001	0.001	2620	2610	10900	10900	2.13	6.63	124	123	58400	58900	2.51	2.64	0.02
14/09/10	0.028	0.283	0.269	0.24	0.39	0.49	0.41	20	20	0.001	0.004	2290	2230	7700	7470	2.85	2.88	118	115	40100	38000	1.53	1.54	0.027
22/05/11	0.12	0.247	0.22			1.23	0.5	20	20			2120	1790	10000	7800	1.92	1.9	86.3	67.9	35900	29000	2.74	2.27	
7/06/11	0.02	0.71	1.36	0.31	1.27	0.59	1.09	20	165	0.001	0.001	1800	1740	7860	7620	8.04	21.1	94	91.6	19700	17800	2.99	3.73	0.095
24/07/11		0.322	0.347	0.29	0.3	0.67	0.79	20	20	0.001	0.001	2210	2280	12200	12500	1.75	2.29	93.4	91.2	22500	23800	2.54	2.48	0.02
6/08/11		0.502	0.488	0.83	0.53	0.66	0.71	20	6.8	0.001	0.001	1960	1900	10100	10000	3.67	3.7	100	95.7	18200	17000	2.74	2.55	0.02
11/09/11	0.006	0.309	0.3	0.21	0.16	0.73	0.82	7.9	4.2	0.001	0.001	1620	1820	9920	9800	1.72	1.52	89.7	90	13500	13800	1.93	1.87	0.02
18/05/12		0.141	0.136	0.22	0.48	0.56	0.22	20	20	0.001	0.001	1090	1050	4650	4750	1.29	1	33.1	32.7	7730	7800	1.85	1.49	0.02
23/07/12	0.103	0.58	0.609	0.29	0.36	1.16	4.61		20	0.001	0.001	2160	2240	15100	15300	4.06	4.45	92.4	91.2	14700	14900	3.27	3.29	
8/08/12	0.03	0.228	0.215	0.33	0.22	0.52	0.49	20	20	0.00139	0.001	1820	1790	10700	10700	0.854	1.02	78.1	77.7	10500	10700	2.04	1.88	
9/09/12	0.02	0.114	0.141	0.65	0.28	0.6	0.33	20	20	0.001	0.001	1280	1210	6220	6300	1.03	1.47	59.4	59.3	6010	6070	0.94	0.68	0.02
6/10/12	0.03	0.125	0.208	0.52	0.26	1.05	0.46	62.6	57	0.001	0.001	981	947	4680	4710	2.32	3.84	43.8	44.4	4370	4340	1.33	0.69	0.02

ARLB006

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
21/09/07	8.2	89.3	91.6			14300	15200	1530	1850		0.049	15900	16100	74200	75100	2540	2770	17.4	18.9	188000	188000	95.8	106	4.2
21/11/07	3.78	95.8	97.6	0.27	0.44	19200	19800	31.1	239		0.0512	25400	26000	163000	157000	3910	3900	77.6	78.5	292000	281000	87.1	89.8	1.59
26/05/08	0.069	8.38	10.5	0.24	0.38	45.9	56.9	20	20	0.001	0.00229	8930	10600	48600	64300	534	647	80.2	105	98100	123000	6.96	8.82	0.026
10/09/08	0.151	7.22	7.24	0.36	0.31	23.6	24.2	20.4	29.3	0.00185	0.00213	15300	16100	149000	152000	1010	1150	130	129	160000	181000	7.32	7.23	0.1
6/08/09	0.041	1.97	2.35	0.11	0.57	9.93	18.7	12.5	109	0.00119	0.00151	11300	11100	65400	66500	376	405	129	128	75300	73400	3.3	3.56	0.05
21/09/09	0.132	2.1	2.08	0.27	0.29	11.7	13.3	3.3	5.7	0.001	0.0011	9540	9580	52000	51900	315	357	113	114	61200	60900	4.62	4.53	0.033
31/07/10	0.09	1.5	1.52	0.31	0.36	12.9	13.6	9.3	24.2	0.001	0.001	11100	10800	66800	66000	344	345	124	124	53000	50800	3.14	3.27	0.02
14/08/10	0.033	1.02	0.934	0.2	0.5	8.6	9.69	12.2	13.5	0.001	0.00121	7390	6990	37300	32200	206	185	118	122	32500	30900	1.77	1.76	0.024
14/09/10	0.035	0.593	0.582	0.43	0.31	8.13	8.33	20	20	0.00102	0.00149	6800	6820	24500	24900	123	120	122	117	24500	23000	1.02	0.98	0.02
22/05/11	0.281	0.576	1.13		0.212	7.83	26.7	20	265			6360	7140	23900	41800	109	189	81.5	114	22600	27000	2.12	3.96	
7/06/11	0.034	0.393	0.397	9.17	0.38	9.04	10.5	20	39.6	0.001	0.00109	4830	4700	17300	17200	70.3	64.6	68.2	67.5	10700	9770	1.84	1.77	0.02
24/07/11	0.023	0.506	0.511	0.2	0.29	10.2	11.5	20	20	0.0011	0.00139	6970	7270	32400	33600	94.4	93.4	87.4	85.1	16200	16400	1.71	1.75	0.02
6/08/11		0.451	0.45	0.24	0.3	9.66	9.81	20	9.1	0.0011	0.0014	6250	6260	27300	27600	86.9	85.6	81.8	80.2	15300	15600	1.33	1.27	0.018
11/09/11	0.017	0.306	0.31	0.2	0.22	10.4	10.1	20	20	0.001	0.001	5980	5860	25700	25500	64.4	64.5	80.4	80.5	12200	11800	1	1.08	0.063
18/05/12	0.029	0.152	0.148	0.34	0.21	4.52	5.61	20	20	0.00426	0.001	3950	3940	13700	13600	21.8	21.8	33.6	33.2	6530	6460	1.33	0.91	0.02
23/07/12	0.056	0.309	0.326	0.27	0.33	13.2	14.2		20	0.001	0.001	7280	7780	41500	43700	36.7	38.3	79.3	80.2	10500	10900	2.48	2.52	
31/08/12	0.029	0.104	0.097	0.96	0.22	8.6	9.45	20	20	0.001	0.001	5120	5110	19200	19000	20.5	21.5	56.4	56.3	5020	4970	0.51	0.4	
9/09/12	0.02	0.078	0.066	0.29	0.2	6.52	6.88	20	20	0.001	0.001	4180	4020	15000	14700	15.4	15	44.6	43.3	4260	4080	0.62	0.4	0.02
6/10/12	0.031	0.032	0.046	0.26	0.3	7.38	8.32	17.7	15.9	0.0012	0.00255	3860	3690	13000	12700	10.2	9.8	41.7	39.9	3880	3730	0.52	0.63	0.02

ARLB005

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
21/09/07		19	18	189	186	2100			1	0.5	1		17	16	6				0.06			
21/11/07	0.1	41.6	45.1	222	244	5910			0.161	0.168	2.01	2.43	23	24	6.4	0.081	0.02					
26/05/08	0.02	4.23	4.28	23.6	23.8	1150			0.057	0.061	0.15	0.16	5.5	6	2.8	0.104	0.02	0.05				
9/09/08	0.1	2.31	2.42	156	160	1370			0.135	0.136	0.27	0.27	15.9	11	4	0.087	0.01	0.012	0.05			
20/08/09	0.033	2.82	2.92	41.8	41.3	1650			0.096	0.099	0.1	0.14	6.4	4.1			0.01		0.023			
17/05/10	0.03	0.91	0.87	20	17.8	675			0.026	0.033	0.2	0.2	4.44	6.4	0.92	0.07		0.05	0.05			
8/08/10	0.038	1.99	1.99	30.6	31.1	1320	0.2		0.061	0.058	0.12	0.16	3.14	5.48	1.11	0.13	0.491	0.038	0.059			
14/09/10	0.02	2.03	2.01	15.4	15.3	1300	0.2		0.049	0.05	0.2	0.2	5.75	3.88	0.62	0.13			0.206			
22/05/11		1.33	1.02	20.7	16.8	1300			0.0373	0.0343			4.48	4.03	1.01	0.127	0.0044	0.0418	0.035	0.0066		
7/06/11	0.183	1.68	1.61	16.1	16.3	1260	0.1	0.1	0.041	0.041	0.2	0.62	3.76	5.18	0.95	0.15	0.014		0.065	0.0012		
24/07/11	0.024	1.88	1.92	22.6	23.2	1320	0.04		0.047	0.049	0.2	0.2	2.63	3.18	0.83	0.17		0.085	0.05		0.0043	
6/08/11	0.025	1.86	1.78	17.5	16.9	1240			0.053	0.05	0.2	0.2	2.31	2.46	1.1	0.13		0.063	0.187			
11/09/11	0.02	1.62	1.57	13.9	13.8	1210			0.039	0.04	0.14	0.14	2.23	2.27	0.66		0.006	0.057	0.031			
18/05/12		0.62	0.6	6.5	6.2	625			0.017	0.017	0.2	0.2	2.88	2.28	0.55	0.06	0.005		0.009			0.04
23/07/12	0.009	1.88	1.85	28.8	27.9	1220		0.03	0.045	0.046	0.2	0.2	3.41	3.62	1.8	0.13	0.029		0.05	0.0017		
8/08/12		1.58	1.56	16.7	16	1140			0.039	0.036	0.2	0.2	2.1	2.2	1.59	0.12	0.14		0.05			
9/09/12	0.02	1.46	1.44	5.7	6	1010			0.0215	0.0191	0.2	0.2	2	2	1.22	0.1	0.037					
6/10/12	0.04	1.19	1.18	3.5	3.4	1020			0.0113	0.013	0.2	0.2	4.44	3.99	0.63	0.09	0.064					

ARLB006

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
21/09/07	4.9			580	549	4000			0.8	0.6			1600	1800	7.7	0.5	0.02		0.14			
21/11/07	2.13	1.31	1.4	477	492	3650			0.616	0.642	0.09	0.2	1470	1620	5.7	0.663	0.02		0.031			
26/05/08	0.046	1.3	1.61	68.1	85.6	1610			0.132	0.149	0.16	0.19	25.6	29.8	3.6	0.2	0.03	0.05				
10/09/08	0.1	1.58	1.53	414	414	1410			0.281	0.271	0.36	0.36	25.3	24.8	14.1		0.03	0.035		0.007	0.006	
6/08/09	0.225	1.63	1.63	106	105	1510			0.193	0.196	0.27	0.35	24	15.1	3.1	0.41	0.05	0.02		0.006	0.005	
21/09/09	0.025	1.94	1.99	80.9	79.5	1580			0.191	0.186	0.26	0.26	37.6	42.6	2	0.36	0.042	0.05	0.092		0.003	
31/07/10	0.057	1.99	1.97	93	90.9	1590	0.02	0.03	0.185	0.184	0.22	0.24	14.8	16.9	3.52	0.62	0.032		0.013			
14/08/10	0.02	1.84	1.93	48.5	42.7	1320			0.123	0.118	0.21	0.25	6.16	4.84	1.71	0.51	0.005	0.062	0.05			0.13
14/09/10	0.02	2.29	2.23	23.7	22.9	1300			0.102	0.104	0.28	0.27	9.47	4.42	0.62	0.53	0.028					
22/05/11	0.251	1.91	2.58	31.8	46.3	1340			0.0735	0.0954		0.912	7.45	14.3	2.3	0.427	0.0444	0.0319		0.011	0.0021	
7/06/11	0.045	1.63	1.59	11.9	12.1	1220	0.1	0.1	0.068	0.065	0.2	0.36	2.49	2.94	1.05	0.49	0.059		0.05	0.0021		
24/07/11	0.036	1.79	1.76	24.2	24.4	1350	0.02	0.03	0.102	0.107	0.27	0.3	3.22	3.39	1.13	0.49	0.035		0.05		0.0167	
6/08/11	0.019	1.98	1.99	26.9	26.5	1330	0.03		0.114	0.108	0.29	0.28	2.88	2.87	1.57	0.44	0.05	0.05	0.06			
11/09/11	0.02	1.84	1.83	21.4	21.7	1290	0.04		0.096	0.093	0.27	0.27	3.28	3.25	0.87		0.06	0.061	0.036			
18/05/12		1.1	1.07	9.6	9.6	785	0.02		0.046	0.046	0.2	0.2	2.25	2	0.59	0.27	0.049				0.0034	
23/07/12		1.89	1.87	25.7	24.3	1310	0.05	0.06	0.096	0.102	0.26	0.25	7.48	7.22	1.36	0.44	0.023		0.05			
31/08/12	0.034	1.73	1.84	9	11.2	1330			0.0621	0.0644	0.235	0.283	2.74	3.32	0.69	0.41	0.379		0.011			
9/09/12	0.02	1.6	1.56	8.3	8.1	1220			0.0502	0.0484	0.281	0.253	2.41	2	1.23	0.35	0.071		0.05			
6/10/12	0.025	1.58	1.51	7.1	7.1	1190			0.0489	0.0439	0.208	0.206	4.35	5.83	0.87	0.4	0.21					

ARLB007

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
22/09/07	8.1	4140		157	2310	4	354	3130	22			13	98		3.6	176	396	33.7	32.8					88600	86800	
21/11/07	7.87	9870	3	483	5160	1.2	136	7800	23			24.6	17.5	40.3	8.49	419	86.8	11.4	13.4					208000	26200	0.403
26/05/08	8.54	1480		252	433	3.2	40.1	900			0.01	24.3	839	2.45	3.36	124	127	26	34.1		0.048		0.05	7800	8360	
27/07/08	8.46	2510		264	756	2.2	98.2	1560	28	0.02	0.02	14.7	649	3.28	3.78	166	167	27.8	34.8		0.047			20800	21400	
10/09/08	8.43	3410		253	1350	2.8	211	2330		0.005	0.005	3.9	24.5	3.3	3.1	151	155	27.7	27.7					43000	45200	
20/08/09	8.73	1400		575	198	4.3	39.2	928		0.02	0.02	5	12.5	2.3	2.3	174	172	32.8	32.5					7040	7040	0.006
21/09/09	8.78	1480		572	197	5.48	37.3	1560		0.056	0.044	4.3	35.5	2.49	2.26	152	151	32.8	32.3		0.004			7000	6520	0.023
17/05/10	8.05	401		177	52.1	1.18	8.8	237				5.8	24.5	0.56	0.5	36.7	31.5	7.25	6.46					1820	1670	0.02
23/07/10	8.28	1650		498	266	2.58	238	1000	326	0.011	0.084	1510	10200	3.79	24.9	129	119	41.4	188	0.075	0.808		0.048	10700	70200	0.032
8/08/10	8.47	1410		522	218	1.22	42.4	844	660	0.02	0.038	3.4	928	2.01	2.65	108	119	24.8	29.5		0.024			8330	8700	0.032
8/09/10	8.59	1350		492	187	0.98	41.4	655			0.007	4.6	36.1	1.24	1.28	112	108	33.3	33.9					8430	8460	
22/05/11	8.8	928		346	140	1.2	22.1	558	0.777		0.0071	3.33	684	0.88	1.12	41.7	38.9	9.84	11.8					2900	3130	0.0153
7/06/11	8.56	946		315	160	0.84	28.8	545		0.02		7	366	0.74	0.7	56.8	56.8	18.6	17.9	0.02				5880	5770	
24/07/11	8.87	1120		464	146	0.63	41.1	628			0.014	3.6	80.5	0.34	0.79	41.9	86.8	12.5	27.5		0.04			7270	7740	0.02
6/08/11	8.8	954		282	106	1.01	33.1	544				7	58.2	0.7	0.73	64.3	64.8	23.9	24.7			0.024		6250	6250	
11/09/11	9	1100		430	97	0.84	39.9	621		0.006	0.005	3.3	10.7	0.41	0.47	66	65	34	33.5					7370	7610	0.015
4/10/11	8.64	900		362	78.5	0.83	31.4	511			0.006	9.1	165	0.5	0.6	35.9	37.1	26.8	28.2		0.02			5600	5880	0.026
18/05/12	8.64	348		164	33.1	0.58	12.3	211			0.004	18.7	3.4	0.3	0.23	21.2	20.7	7.55	7.34					1970	2010	0.018
23/07/12	8.85	1020		395	140	1.54	50.9	600				4.3	19.9	0.44	0.41	52.7	54.4	30.7	30.1					9330	9260	0.02
8/08/12	8.92	846		375	78.2	0.74	39.6	520			0.02	3.7	18.2	0.3	0.2	57.2	53.6	28.9	27.9					7190	7150	0.008
9/09/12	8.76	670		331	48.5	0.81	29.1	373				4.2	21.2	0.21	0.24	37.2	37.1	22	22.9					5150	5330	0.02
6/10/12	8.62	541		254	38	0.5	28.9	341				3.2	16.8	0.2	0.2	29.5	30.5	29.5	31.8			0.05	0.05	5340	5360	0.02

ARLB008

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
22/09/07	8.3	3050		249	1320	5	231	2190	20			16	284		4.2	220	200	30.4	30.3					58500	57300	
21/11/07	8.06	4080	2	593	1330	4.2	166	2790				6.4	137	42.4	35.5	464	465	20.5	22.5					26000	25700	
27/07/08	8.69	1550		420	327	4.1	32.9	899	8	0.02	0.025	17.3	593	3.02	3.06	151	153	23.9	28		0.03			6640	7000	
10/09/08	8.66	1780		437	401	4.2	55.6	1130	23	0.016	0.021	73.5	677	2.1	3.4	136	150	31.3	41		0.032			10700	12000	
30/07/09	8.16	345		143	38.5	20.4	11.6	235	9		0.007	37.9	245	0.8	0.9	37.6	36.7	22.2	24.3		0.011			2770	2830	0.052
17/05/10	8.62	832		410	64.6	2.74	25.9	516				2	5.2	0.56	0.44	63.8	64.3	22	22.6					4840	4860	0.02
31/07/10	8.47	1650		720	123	1.88	58.8	941				9.9	38.6	0.57	0.71	114	105	37.6	36.2					11100	11800	0.01
14/08/10	8.66	2		650	87.5	1.43	44.3	1120		0.02	0.02	4.9	73	0.71	0.69	120	110	45.6	48.1					8510	8520	0.02
8/09/10	8.6	1550		509	69	1.49	51.6	855				18.6	26.8	0.5	0.53	116	114	72.5	71.5					9590	9710	0.02
22/05/11	8.8	721		333	45.6	0.911	9.73	426	1.15			4.32	87.9	0.389		37.1	17.1	9.5	9.76					1520	1370	0.0241
6/06/11	8.14	904		411	65.3	0.92	23.9	519		0.02	0.02	4.2	125	0.5	0.54	51.6	57.3	40.4	43.7	0.02	0.02			4870	4860	
24/07/11	8.79	1480		740	65.8	0.95	60	873		0.029		3.5	9.4	0.58	0.38	92.9	91.4	83	83.8	0.04				10100	10400	0.027
5/08/11	8.38	1130		526	60.9	0.81	44.6	640				5.2	109	0.55	0.51	68.2	69.1	67.6	64.5					9080	8570	
11/09/11	8.92	1430		657	72.5	1.06	56	780		0.008	0.005	87.7	46.8	0.37	0.3	98.9	83.3	84.5	84.8	0.004	0.004			9300	9170	0.011
4/10/11	8.48	1420		690	74.2	1.14	72.6	795			0.012	4.2	29.2	0.5	0.5	54.5	49.7	81.1	81.1	0.02	0.02			13100	14000	0.033
18/05/12	9.22	717		392	38.3	0.71	26.8	480				2	7.6	0.26	0.33	35.6	36.5	19.5	19.6					3510	3570	0.019
23/07/12	8.81	1190		593	82.3	1.03	63.3	734				2.5	11.1	0.38	0.33	53.3	57.4	69.9	69.3					10000	9970	
8/08/12	8.72	877		462	41.9	0.52	44.1	537				2.1	7.6	0.3	0.2	49.3	51.2	64.2	65.6					8380	8330	0.008
9/09/12	8.63	826		472	35.8	0.68	48.1	486				2	6.5	0.13	0.13	38.4	38.3	63.5	64.1					9290	9050	0.075
6/10/12	8.55	618		304	26	0.5	40.7	355				2.5	59.9	0.11	0.2	28.5	28.2	59.6	60.9				0.05	6840	8420	0.02

ARLB007

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
22/09/07		2.39	2.9		13.8	10	8.8		70		0.0034	8700	9200	32300	32300	125	141	46.3	48.8	887000	878000	4.5	8.4	
21/11/07	0.092	3.27	1.04	1.48	0.53	20.9	6.33	65.2	20.9		0.0037	15600	3780	97800	17200	53.5	35.4	125	29.4	2390000	491000	9.6	1.78	0.04
26/05/08		0.19	1.26	0.38	0.61	2.18	4.4	20	851	0.00131	0.00232	2700	2980	4430	4660	4.16	21.6	39.9	38.9	305000	296000	0.4	0.84	0.023
27/07/08		0.348	1.24	0.21	0.61	1.25	3.5	9.4	725	0.002	0.00437	5190	5280	11100	10900	13.5	34.5	60.1	58.1	497000	484000	0.75	1.32	0.03
10/09/08	0.011	0.705	0.752	0.29	0.28	1.41	1.53	9.3	46.4	0.00137	0.00155	6890	6970	24400	23900	54.7	56.5	34.5	34.7	691000	1380000	0.83	1.09	0.1
20/08/09	0.009	0.148	0.158	0.09	0.12	0.54	0.59	20	20	0.001	0.0016	3830	3870	5160	5260	12.9	13.8	17.3	17	354000	349000	0.51	0.45	0.048
21/09/09	0.012	0.125	0.126	0.46	0.39	1.26	1.15	20		0.001	0.00134	3780	3690	5200	5100	6.41	7.5	16.7	16.5	336000	354000	0.73	0.6	0.041
17/05/10	0.02	0.041	0.074	0.59	0.38	0.53	0.71	3.8	14.1	0.001	0.00124	1240	1170	1340	1110	5.42	6.11	4.09	3.58	107000	99300	0.4	0.4	0.037
23/07/10	0.216	2.04	18.8	1.06	5.38	6.48	36.6	2080	25200	0.0026	0.0671	4300	6270	6980	15200	63.4	1370	10.1	5.32	341000	349000	1.47	11	0.766
8/08/10	0.02	0.123	0.72	0.34	0.52	0.62	2.23	7.5	556	0.00157	0.00463	3290	3410	4790	5030	2.74	17.3	16.5	16.1	293000	301000	0.4	0.6	0.02
8/09/10	0.021	0.067	0.111	0.33	0.43	0.59	0.76	5.7	27.4	0.001	0.002	3420	3330	5050	4920	0.86	1.72	13.6	13.5	287000	286000	0.4	0.4	0.02
22/05/11	0.0182	0.0496	0.169		0.355	0.73	1.25	20	147		0.005	2290	2530	3460	3480	0.126	1.51	7.51	8.22	170000	217000	0.273	0.299	
7/06/11	0.02	0.067	0.064	0.34	0.35	0.54	0.62	20	178	0.001	0.00203	2530	2530	3610	3490	0.15	0.14	11.9	11.6	196000	194000	0.4	0.4	0.02
24/07/11	0.032	0.033	0.218	0.2	0.61	0.29	1.16	20	142	0.0011	0.00155	3480	3600	5150	5280	0.28	4.69	4.45	9.28	255000	270000	0.04	0.36	0.02
6/08/11		0.046	0.099	0.2	0.22	0.5	0.85	20.1	50.6	0.0012	0.0021	2880	2970	4150	4250	0.42	1.45	8.67	8.62	192000	191000	0.4	0.4	0.015
11/09/11	0.016	0.048	0.053	0.33	0.26	0.48	0.46	20	20	0.001	0.001	3250	3260	4990	5080	0.29	0.53	7.03	6.98	228000	228000	0.4	0.18	0.02
4/10/11	0.032	0.076	0.27	0.35	0.39	0.55	0.59	6.8	137	0.001	0.00129	2550	2560	3950	4070	0.82	6.51	5.73	5.97	170000	178000	0.4	0.4	0.02
18/05/12	0.012	0.044	0.038	0.33	0.2	0.44	0.44	37.3	20	0.001	0.001	1230	1360	1730	1780	0.58	0.42	2.31	2.2	87100	90100	0.4	0.58	0.02
23/07/12	0.02	0.077	0.092	0.92	0.46	0.79	0.79		20	0.001	0.001	3240	3640	6250	6740	1.89	2.32	5.5	5.34	203000	217000	0.41	0.4	
8/08/12	0.012	0.049	0.062	0.34	0.29	0.47	0.4		20	0.00102	0.00106	3130	3140	5220	5280	0.217	0.678	4.78	4.65	183000	186000	0.4	0.4	0.02
9/09/12		0.022	0.058	0.2	1.3	0.54	0.47		44.9	0.001	0.001	2660	2670	3760	3830	0.19	1.2	4.42	4.54	150000	152000	0.4	0.61	0.02
6/10/12	0.02	0.027	0.053	0.2	0.48	0.66	0.32	12.5	21.3	0.00062	0.00103	2520	2510	3640	3620	1.05	1.89	3.2	3.17	117000	117000	0.4	0.4	0.02

ARLB008

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
22/09/07		3.5	3.72			5	4.7		90		0.0057	7000	7200	20600	20400	230	250	390	390	563000	562000	5.1	5.7	
21/11/07		1.3	1.55	1	1	21.4	16.7	10.4	108		0.0075	11400	11800	24200	24700	15.2	18.2	736	777	1140000	1140000	3.38	3.43	0.1
27/07/08		0.176	0.596	0.25	0.67	1.81	2.71	12.9	296	0.002	0.00239	3160	3250	3630	3740	3	13.8	161	159	331000	323000	0.35	0.57	0.038
10/09/08		0.262	0.968	0.31	0.62	2.66	4.98	122	1170	0.00136	0.00469	3990	4240	6290	6240	10.3	29.2	95.9	97.6	405000	789000	0.48	0.94	0.1
30/07/09	0.056	0.157	0.32	0.23	0.31	1.4	1.86	33.9	237	0.00277	0.003	1970	2140	974	1090	20.9	24	18.3	17.4	78500	78300	0.45	0.52	0.331
17/05/10	0.02	0.18	0.191	0.41	0.37	0.99	1.13	6.7		0.0013	0.001	2510	2210	3550	3350	21.5	23.8	6.46	5.99	237000	217000	0.4	0.4	0.02
31/07/10	0.004	0.285	0.3	0.2	0.25	0.97	1.02		43.5	0.001	0.001	4000	4000	6980	7100	44.5	44.5	14.1	13.4	370000	360000	0.43	0.55	0.022
14/08/10	0.02	0.158	0.225	0.23	0.21	0.51	0.67	4.2	62	0.00142	0.001	3540	3560	5650	5590	20.7	23.9	13.6	13.7	302000	314000	0.4	0.4	0.02
8/09/10		0.216	0.22	0.32	0.36	0.69	0.61	7.6	16.1	0.00114		3990	4030	6570	6640	20.8	21	11.5	11.5	344000	339000	0.4	0.42	0.053
22/05/11	0.0207	0.0488	0.0647		0.2	0.5	0.5	20	38.3			2380	1790	3050	1530	0.607	2	13.8	8.59	180000	142000	0.347	0.292	
6/06/11	0.035	0.068	0.133	0.28	0.44	0.34	0.65	20	78.5	0.001	0.0022	2430	2390	3050	2840	0.41	4.83	22	22.4	195000	193000	0.4	0.46	0.02
24/07/11	0.04	0.129	0.113	0.65	0.4	0.85	0.53	20	20	0.001	0.001	4580	4590	8230	8240	4.01	4.79	6.61	6.54	345000	351000	0.41	0.3	0.035
5/08/11	0.02	0.1	0.162	0.2	0.21	0.52	1.08	20	61.8	0.001	0.0012	3580	3480	5950	5620	8.76	11.2	7.66	8.19	248000	238000	0.4	0.4	0.02
11/09/11	0.014	0.072	0.088	0.32	0.36	0.49	0.48	20	31.8	0.001	0.001	4270	4170	8100	8040	2.23	2.99	4.66	4.61	308000	307000	0.4	0.26	0.093
4/10/11	0.03	0.142	0.165	0.27	0.49	0.62	0.54	4.4	22.3	0.001	0.001	3830	3900	8630	9120	7.86	9.34	3.93	3.96	325000	331000	0.73	0.78	0.031
18/05/12	0.021	0.053	0.05	0.33	0.6	0.51	0.28	20	20	0.001	0.001	2640	2590	4370	4350	0.71	1.13	3.74	3.92	186000	185000	0.64	0.41	0.024
23/07/12	0.02	0.052	0.056	0.44	0.34	0.48	0.45		20	0.001	0.001	4270	4340	9350	9330	0.56	0.88	5.15	5.09	275000	274000	0.4	0.4	
8/08/12	0.013	0.034	0.043	0.2	0.61	1.57	0.76	20	20	0.00118	0.001	3560	3500	5790	5650	0.555	0.935	4.83	5.23	195000	192000	0.4	0.4	0.046
9/09/12	0.076	0.02	0.021	0.2	0.2	0.53	0.27		20	0.00195	0.001	3480	3450	6270	6200	1.13	1.71	4.13	4.26	193000	190000	0.4	0.4	0.02
6/10/12	0.02	0.02	0.116	0.41	0.85	0.79	0.52	6.6	105	0.001	0.001	2760	2700	4490	4790	0.72	4.32	3.69	3.76	132000	125000	0.77	0.4	

ARLB007

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
22/09/07	0.1		2.3	54	59.4	800					10	2	15	19	8		0.01		0.06			
21/11/07	0.04	1.37	0.32	152	31.1	2230			0.025		0.48	0.21	22.7	6.73	13.6	0.3	0.07	0.07	0.028			0.21
26/05/08	0.423	0.797	0.622	12.5	12.4	637			0.01	0.016	0.29	1.96	9.3	13.1	3	0.2	0.13	0.05				
27/07/08	0.365	0.62	0.51	23.1	23.3	824			0.023	0.032	0.32	1.61	3.47	9.85	2.7	0.3	0.09		0.08			
10/09/08	0.1	0.362	0.371	52.6	51.8	727			0.035	0.037	0.27	0.3	4	5	9.1		0.01	0.022	0.23		0.004	
20/08/09	0.021	2.07	2.03	2.3	2.4	1130			0.012	0.012	0.09	0.1	11.6	2.1	1.6	0.3	0.02		0.08			
21/09/09	0.059	0.48	0.54	1.1	0.7	1110	0.02		0.006	0.006	0.15	0.18	3.72	4.16	1.54	0.27	0.009					
17/05/10	0.02	0.15	0.12	0.4	0.3	331	0.03	0.03			0.2	0.2	6.91	3.6	0.64	0.11		0.05	0.05			
23/07/10	7.11	0.31	0.12	4.3	4	3700			0.031	0.116	3.33	21.8	6.51	58.5	2.28	0.19	0.455		0.127			0.26
8/08/10	0.208	0.39	0.34	4.6	4.3	928	0.2	0.2	0.02	0.021	0.15	1.02	2	2.17	1.24	0.33	0.71		0.114			0.23
8/09/10	0.033	0.36	0.39	3.5	3	849	0.2	0.2	0.026	0.047	0.17	0.25	2	2	0.45	0.3	0.01		0.013			
22/05/11	0.0694	0.257	0.268	2.94	3.29	564				0.0107		1.56	3.1	7.28	1.73	0.24	0.0104		0.0355	0.004		
7/06/11	0.02	0.19	0.19	4.7	4.7	572	0.1		0.02	0.009	0.2	0.19	2	2	1.05	0.35	0.022		0.074			
24/07/11	0.154	0.1	0.24	1.9	3.8	715			0.01	0.066	0.2	0.4	0.28	22.6	0.59	0.33			0.07		0.0035	
6/08/11	0.054	0.18	0.19	2.7	2.8	596	0.02		0.019	0.022	0.2	0.21	2	2	0.75	0.27	0.008	0.064	0.153			
11/09/11	0.02	0.14	0.14	2.1	2.2	598			0.015	0.015	0.2	0.2	2	0.83	0.53		0.007	0.048	0.075			
4/10/11	0.057	0.14	0.19	1.7	1.9	454	0.2	0.03	0.02	0.02	0.2	0.34	2	4.31	0.41	0.19	0.012	0.041	0.05			
18/05/12	0.02	0.05	0.07	1.2	1	352		0.02	0.003	0.005	0.2	0.2	2	2	0.4	0.14	0.016					0.07
23/07/12	0.007	0.12	0.13	4.8	4.8	561	0.03	0.03	0.02	0.02	0.2	0.21	2.51	2.79	1.31	0.22			0.106			
8/08/12	0.022	0.113	0.123	1.7	1.4	556			0.02	0.023	0.2	0.2	2	2	0.6	0.19	0.157		0.05			
9/09/12	0.023	0.108	0.077	1.1	1	436			0.0083	0.0047	0.2	0.2	2.13	2.45	1.12	0.19	0.005		0.05			
6/10/12	0.02	0.066	0.069	0.8	0.8	395			0.004	0.0044	0.2	0.2	2.92	3.48	1.03	0.16	0.107		0.028			

ARLB008

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
22/09/07				112	116	800			1.5				4	4	13	0.3			0.19			
21/11/07	0.1	2.17	2.35	149	134	1800					0.53	0.86	27.5	15.6	6	0.303	0.01	0.023	0.039			0.17
27/07/08	0.211	1.06	0.92	16.8	16.7	715			0.018	0.021	0.33	1.62	6.68	12.3	2.2	0.3	0.04		0.027			
10/09/08	0.453	1.07	0.9	33.9	35.6	851			0.023	0.03	0.38	1.59	5.4	15.3	6.1	0.2	0.08	0.024	0.05		0.004	
30/07/09	0.871	0.239	0.205	3	3.3	299	0.02		0.007	0.011	0.3	0.62	129	151	1	0.167	0.04	0.026	0.022			
17/05/10	0.02	0.31	0.29	2.4	2.1	723			0.02	0.02	0.2	0.2	5.39	5.6	0.99	0.08		0.05	0.05			
31/07/10	0.044	0.35	0.34	6.3	6.4	1000			0.033	0.034	0.11	0.15	2.64	3.06	1.86	0.15	0.011		0.041			
14/08/10	0.045	0.29	0.29	4.2	3.8	975	0.03		0.03	0.032	0.11	0.28	2	2	0.88	0.2		0.062	0.05			
8/09/10	0.034	0.3	0.28	4.1	3.9	978	0.2	0.2	0.032	0.031	0.17	0.19	2.24	2	0.54	0.18	0.012					
22/05/11		0.195	0.119	3.23	2.18	518			0.0121				5.82	7.71	0.608	0.194	0.009			0.0045	0.0023	
6/06/11	0.046	0.21	0.19	4.1	4.5	597		0.1	0.02	0.019	0.2	0.33	2	2	1.01	0.37	0.029		0.05			
24/07/11	0.022	0.23	0.19	6.1	5.6	1040			0.04	0.035	0.68	0.4	0.72	0.65	0.51	0.17			0.423			
5/08/11	0.083	0.17	0.16	4	3.9	841			0.032	0.033	0.2	0.28	2	2	0.75	0.2	0.007		0.792			
11/09/11	0.052	0.16	0.17	3.4	3.3	922	0.04		0.032	0.034	0.2	0.2	2	0.58	0.59		0.01	0.035	0.194			
4/10/11	0.032	0.18	0.22	3.5	3.7	795	0.2	0.04	0.029	0.038	0.2	0.2	2	2	0.63	0.14	0.012	0.049	0.141			
18/05/12	0.02	0.09	0.09	2.5	2.6	521			0.012	0.011	0.2	0.2	2	2	0.48	0.13	0.021					0.11
23/07/12		0.15	0.15	7.4	7.2	780	0.03	0.03	0.026	0.027	0.2	0.2	2	2	0.7	0.17			0.078	0.0035		
8/08/12	0.051	0.117	0.117	2.1	1.8	620	0.2	0.2	0.02	0.021	0.2	0.2	2	2.1	0.35	0.2	0.166		0.05	0.0014		
9/09/12	0.02	0.084	0.079	1.6	1.7	590			0.0164	0.0149	0.2	0.2	2	2	0.67	0.17	0.037		0.05			0.04
6/10/12	0.04	0.071	0.07	1.6	1.4	443			0.0064	0.0101	0.2	0.2	2.19	2.27	0.9	0.17	0.081					0.07

ARLB009

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
22/09/07	8.2	279		108	29.9	6	26	180	40			60	1040		3	69	58	53.8	81.8					9800	10400	
22/11/07	8.01	184	5	69	14.4	2.7	38.8	128				16.4	277	2.51	2.62	51.5	64.3	45.9	59.4		0.011			13900	14700	
26/05/08	8.21	175	3	78	8	2.5	13.6	123				65.8	356	1.62	1.68	30	30	12.5	17.3				0.05	4900	5000	
27/07/08	8.02	255	3	138	9.5	10.7	42.7	136	220	0.033	1.15	31	633	2.71	2.72	34.8	35	34.7	44.6		0.025			15600	16100	0.01
25/08/08	8.32				21.1	5.1	41.9	165		0.042	0.058	36.2	69.2	4.57	4.57	54	56.8	34	35.5					15900	16200	0.02
25/09/08	7.86	258	2	102	19.2	2.1	32.9	147	19	0.021	0.09	20.1	143	3.9	3.8	45.1	41.7	26.3	57.2					12000	12700	0.021
17/05/10	7.93	132		66.5	11.6	2.01	24.9	83				4.6	13.5	1.69	1.67	14.2	14.2	18.2	17.6					9250	9550	0.02
23/07/10	8.19	198		76	15.1	1.04	38.2	147	13		0.01	46.7	306	2.7	2.91	21.2	19.2	25.9	29.9		0.011		0.021	15400	14700	0.049
14/08/10	8.03	133		57.1	4.35	1.31	43.8	60		0.02	0.02	23.2	42	1.12	1.12	6.92	7.26	22.2	24.3					16800	17100	0.042
8/09/10	7.8	126	2	49.8	4.86	0.63	40.8	64		0.018	0.005	40.5	26.2	1	1	6.03	5.53	22.2	21.5	0.017				15900	15900	0.02
22/05/11	8	88.9		39.4	7.5	1.1	26	16				5.68	14.1	0.853	0.99	6.65	6.18	11.3	14					7980	9820	0.0568
6/06/11	3.8	80.6		35.3	1.77	2.52	31.5	37.5		0.02	0.02	16.7	89.2	0.96	1.09	3.83	3.92	15.4	17.3	0.02	0.02			11900	12300	0.02
13/07/11	7.94	120		55.6	3.89	1.77	47.6	41		0.014		20.8	47	0.92	0.93	4	4.02	23.9	24.5	0.02				19000	18600	0.02
5/08/11	8.24	112	2	50	6.01	1.22	37.8	61				19.9	41.7	1.34	1.39	5.89	5.55	20.2	21				0.034	14700	14700	
11/09/11	8.59	153		61.8	7.32	0.98	49.7	95				15.5	29.2	1.19	1.18	7.65	7.47	25.3	25.7					19500	19500	
4/10/11	7.93	109		46.2	5.03	1.25	40.4	47			0.01	12.7	62.3	0.7	0.78	3.37	3.49	18.9	19.9	0.02	0.02			15200	15800	0.02
18/05/12	8.04	83.3		34.4	4.52	0.98	24.9	55				5.4	24.8	0.68	0.67	4.3	4.1	12.1	12.6					9470	9440	0.008
23/07/12	8.22	111	2	50.4	3.83	0.74	47.2	37				15	26.3	0.73	0.72	3.8	3.85	21.6	21.7					18500	18500	0.02
8/08/12	8.36	190		70	20	1.13	69	131				16.6	21	1	1	8.1	7.2	37.6	36.3			0.05		26400	26900	0.014
9/09/12	8.06	74		32	2.69	0.5	28.9	46				11.7	32	0.47	0.43	2.4	2.7	13.2	13.7					11400	11200	
6/10/12	7.88	39	2	33.1	1.33	0.5	27.6	13				10.4	35.7	0.47	0.48	2.6	2.3	12.9	13.6		0.017	0.05	0.05	10600	10800	0.034

ARLB010

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
22/09/07	8.2	645		96	125	8	90	390	20			63	285		3.1	188	165	9.2	10.6					33300	35400	
22/11/07	7.79	358	3	97	43.6	4.6	66.7	162				7.2	44.4	2.72	3.42	105	125	9.01	11.6					18000	23000	0.074
26/05/08	4.82	173		80	9.8	1.6	26.2	108				16.4	130	3.23	3.14	54.5	54	12.9	14.7					9000	8740	
25/08/08	8.28	303		118	34.7	4.3	65.6	172		0.02	0.097	9.3	230	5.26	5.53	104	105	24.4	32.5		0.004			21500	22700	0.02
14/09/08	7.65	394		106	67.2	4	73.6	243		0.007	0.008	7.9	30.3	5.16	5.03	106	99.8	29.3	29.6					24900	25400	0.04
21/05/09	8.4	265		109	23.6	1.5	41.8	142				10.4	45.1	5.2	5.3	86.5	83	17	19.2					13400	14300	0.1
24/06/09	8.17	296		102	25.8	2	43.3	154			0.006	9.2	17.3	5.1	5.1	77.1	75.3	16.3	16.3					15000	14900	0.05
20/08/09						2	25.7			0.02	0.02	17.1	23	9.5	9.8	67.2	67.7	9.03	9.4					8500	8870	0.02
21/09/09	7.62	179		43.2	29.6	1.86	18.6	111				25.5	34.3	16.4	16.3	61.9	66	6.48	6.74		0.005			6170	6520	0.028
13/07/10	7.89	252	2	82.9	44.4	1.87	37.2	129				16.4	59.9	6.08	6.32	47.8	47.9	13.3	16					11700	12900	0.053
14/08/10	8.17	233		91.2	13	1.07	59.7	92		0.02	0.046	21.3	952	2.62	3.02	27.5	28.8	18.8	898		0.113			17500	20900	0.026
14/09/10	8.17	301		99.4	12.1	1.17	61.8	108		0.004		8.6	44.3	2.36	2.38	23.2	23.4	18.5	22		0.026	0.044		20600	21600	0.032
22/05/11	8.4	161		61.9	18.6	1.24	23.3	60	4.62			4.47	31.7	1.85	1.85	17.5	18.5	7.06	8.54				0.05	5920	6370	0.0371
6/06/11	7.7	160	2.4	72.1	5.2	4.68	42.7	96		0.039	0.051	8.9	101	2.2	2.16	13.4	11.7	13.8	15.2	0.022	0.02			14200	14900	0.021
24/07/11	8.55	198		88	10.3	1.27	56.9	90				5.7	42.9	2.62	2.86	18.6	16.9	16.9	17.8					20300	20000	
5/08/11	8.42	200	2.2	84	15.9	1.5	52.8	105				8.8	26.5	2.76	2.82	18.5	18.3	17.1	18.2					18700	18600	0.02
11/09/11	8.49	234	2	89	16.9	1.3	63.3	140				6.5	15.7	2.43	2.54	18.8	18.8	19.6	20.3					22200	22300	
4/10/11	8.14	210		81.3	13.9	1.31	60.3	113		0.02	0.015	9.1	65.7	1.88	1.99	11.1	11.6	17.3	18	0.02	0.02			21000	21200	0.033
18/05/12	8.21	147		61.7	8.75	1.39	33.5	68			0.006	3.1	16.1	1.62	1.58	13.2	12.6	8.68	8.92		0.003			10300	10300	0.004
23/07/12	8.4	189		84.1	10.3	1.5	61.9	67				5.3	19.2	2.19	2.32	12.3	12.7	18.7	19.1					22200	21700	0.02
8/08/12	8.28	236		88.1	26.6	1.11	73.6	144		0.02	0.02	5	9.5	1.9	1.9	17.1	16.2	24.8	24.3			0.05		25700	25900	0.007
9/09/12	7.98	139		64	5.53	0.73	49.2	55				8.9	22.1	1.38	1.43	6	6.2	12.8	13.2					17700	17300	
6/10/12	8.14	113		56.3	2.47	0.5	41.8	92			0.027	13.9	27.8	1.18	1.13	5.5	5.3	11.5	12.1			0.05	0.05	15500	14800	0.02

ARLB009

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
22/09/07		0.1	0.55			6	10		1750		0.0011	1800	2900	300	700	1	29.3	44.2	42.8	52100	54600	3		
22/11/07		0.046	0.154	0.2	0.44	4.21	3.72	5.2	253		0.0014	1450	1710	357	490	1.94	7.79	60.3	67.4	60600	63500	0.49	0.73	0.048
26/05/08		0.075	0.202	0.24	0.67	1.49	2.01	20	378	0.001	0.001	453	705	192	283	12.2	20.2	33.4	32.5	33400	33900	0.2	0.23	0.053
27/07/08	0.015	0.072	0.418	0.66	1.04	2.76	4.25	20.3	967	0.002	0.002	915	1130	363	589	1.96	32.2	46.4	46.3	35100	34300	0.59	0.77	0.045
25/08/08	0.031	0.03	0.149	0.54	0.6	2.38	2.85	12.5	64.3	0.001	0.001	1230	1270	354	368	1.49	5.06	115	116	56000	56600	0.52	0.6	0.038
25/09/08	0.026	0.038	0.098	0.41	0.65	1.58	2.1	3.2	211	0.001	0.001	706	887	224	288	1.82	6.83	91	89.6	42900	43600	0.32	0.53	0.028
17/05/10	0.027	0.018	0.028	0.42	0.42	1.45	0.99		2.3	0.001	0.001	454	455	261	260	7.91	8.11	38	37	22700	22800	0.4	0.4	0.022
23/07/10	0.086	0.031	0.232	0.6	0.85	1.53	2.31	42.9	380			601	670	307	382	2.53	20.9	97.7	97.2	22500	22900	0.4	0.4	0.102
14/08/10	0.038	0.022	0.026	0.49	0.34	0.78	0.79	3.1	22.9	0.001	0.001	313	319	249	259	0.46	1.86	30.3	31.3	7670	7800	0.65	0.52	0.03
8/09/10	0.02	0.04	0.023	0.23	0.23	0.81	0.72	16.6	5.9	0.001	0.0011	380	370	243	241	1.92	1.14	29.3	28.8	6310	6090	0.81	0.85	0.104
22/05/11	0.0729	0.0275	0.0285		0.2	0.644	0.841	20	20			344	354	344	355	0.492	1.05	34.6	35	9590	9610	0.266	0.42	
6/06/11	0.02	0.078	0.123	0.44	0.46	2.89	3.56	20	95.1	0.00126	0.00143	261	293	167	188	15.9	19.7	12.5	12.4	2740	2690	0.41	0.49	0.048
13/07/11	0.016	0.034	0.047	0.37	0.44	1.94	2.09	20	39.4	0.00106	0.00101	316	302	275	275	0.57	2.99	20.1	20.6	4640	4470	0.16	0.2	0.057
5/08/11		0.035	0.055	0.2	0.2	1.9	2.04	20	39.1	0.0011	0.0015	334	330	216	226	2.4	4.91	30.5	30.4	5870	5950	0.4	0.4	0.033
11/09/11		0.026	0.034	0.21	0.26	1.51	1.57	20	20	0.0011	0.001	428	426	301	295	0.2	1.24	41.5	41	8140	7940	0.4	0.24	0.028
4/10/11	0.018	0.058	0.084	0.28	0.38	1.3	1.38		36.8	0.001	0.001	257	284	238	238	0.91	3.78	23.8	23.8	4260	4720	0.78	0.89	0.021
18/05/12	0.005	0.032	0.038	0.27	0.21	1.27	0.95	20	23.7	0.001	0.001	306	315	307	310	0.68	1.34	17.5	17.8	6940	6820	0.56	0.4	0.048
23/07/12	0.02	0.02	0.025	0.3	0.34	1.25	1.25		20	0.001	0.001	272	254	293	282	0.22	0.9	14.1	14.2	4420	4270	0.4	0.4	0.012
8/08/12	0.018	0.053	0.058	0.29	0.6	2.19	2.01		20	0.00182	0.001	581	589	464	468	0.4	0.651	65.6	63.7	10100	10400	0.4	0.47	0.022
9/09/12	0.02		0.02	0.2	0.37	0.88	0.86	20	20	0.001	0.001	278	253	211	194	0.37	2.16	9.46	9.68	2930	2920	0.4	0.4	0.02
6/10/12	0.036	0.026	0.02	0.2	0.2	1.62	0.75		30.3	0.00114	0.001	292	259	211	182	1.38	2.34	5.81	5.86	2630	2300	1.5	0.4	0.02

ARLB010

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
22/09/07		0.21	0.43			3.5	30		430		0.0013	4200	4400	1700	2000	4.9	18.2	39.2	40	96700	102000	3		
22/11/07	0.017	0.059	0.108	0.25	0.32	1.11	1.51	3.6	60.5		0.002	1390	1660	1680	2220	4.24	8.38	28	36	47100	56600	0.54	0.69	0.024
26/05/08		0.078	0.124	0.24	0.26	0.8	0.92	20	156	0.001	0.001	568	655	1010	1060	12.3	18.6	22.7	22	25600	26300	0.2	0.2	0.022
25/08/08	0.02	0.039	0.331	0.43	0.68	1.91	3.77	3	313	0.00137	0.00107	1350	1370	2070	2180	1.08	22.5	65.1	63.8	47400	48000	0.55	0.82	0.012
14/09/08	0.039	0.059	0.062	0.21	0.21	1.79	1.75	20	32.5	0.00199	0.00091	1110	1150	2460	2500	2.99	4.41	92	91.8	50300	52700	0.62	0.4	0.028
21/05/09	0.099	0.057	0.112	0.2	0.2	1.33	1.45	20	47.1	0.00114	0.002	913	943	1420	1480	5.1	10	62.3	61.2	40900	40500	0.18	0.41	
24/06/09	0.05	0.061	0.05	0.37	0.37	1.94	1.88	20	20	0.00064	0.00068	1050	1010	1500	1490	0.941	1.99	62.7	62.1	42500	42300	1.34	0.45	0.1
20/08/09	0.017	0.028	0.034	0.19	0.11	1.99	2.07	20	20	0.001	0.001	715	799	807	854	0.421	0.954	78	80.2	30600	32500	0.29	0.27	0.023
21/09/09	0.048	0.035	0.043	0.29	0.36	2.84	2.94			0.001	0.00105	600	627	536	561	0.56	0.98	97.1	97.6	27200	28300	0.38	0.39	0.028
13/07/10	0.064	0.064	0.081	0.43	0.38	5.5	4.3	6.4	62	0.001	0.00374	865	903	1170	1230	5.25	9.72	58	59.3	33100	33800	0.63	0.43	0.034
14/08/10	0.049	0.032	0.659	0.25	0.43	1.71	5.01	11.6	497	0.001	0.001	857	945	1580	1830	1.06	151	27.4	24.9	26300	25800	0.72	0.98	0.064
14/09/10	0.02	0.032	0.088	0.2	0.34	1.87	2.71	20	41.2	0.001	0.004	927	966	1810	1880	1.04	19.4	21.3	21.5	21900	23700	0.91	0.96	0.037
22/05/11	0.0426	0.033	0.0562		0.204	1.24	1.48	28.5	38.8			802	813	1690	1800	0.495	4.6	21.3	21.9	24300	25700	0.393	0.27	
6/06/11	0.02	0.101	0.128	1.18	0.71	5.6	6.72	27.5	105	0.00151	0.00173	691	753	1260	1330	7.66	11	13.7	13.2	17700	17700	0.9	0.73	0.04
24/07/11		0.061	0.085	0.24	0.42	4.57	4.92	20	49.3	0.001	0.00136	867	895	1700	1700	0.91	3.16	20.6	20.9	20400	21700	0.36	0.43	0.023
5/08/11	0.024	0.046	0.062	0.21	0.26	3.73	3.86	20	26.8	0.0018	0.0015	823	827	1550	1540	1.02	2.86	27.8	27.9	18700	19200	0.4	0.54	0.041
11/09/11		0.04	0.042	0.2	0.2	3.07	3.14	20	20	0.0011	0.001	883	917	1820	1830	0.55	1.12	25.1	25.3	19200	19100	0.4	0.26	0.02
4/10/11	0.026	0.086	0.102	0.53	0.24	2.38	2.38	13.2	47.2	0.001	0.00114	742	738	1810	1820	0.9	3.35	14.2	14.1	16400	16800	0.96	0.92	0.024
18/05/12	0.008	0.047	0.048	0.31	0.63	1.89	1.74	20	20	0.001	0.001	773	743	1860	1860	0.78	1.92	12.2	12	17000	17100	1.01	0.56	0.02
23/07/12	0.02	0.031	0.037	0.26	0.23	3.24	3.38		20	0.001	0.001	900	917	1840	1840	0.25	0.88	15.7	16.1	17100	17100	0.43	0.46	
8/08/12	0.017	0.046	0.049	0.25	0.49	2.96	2.54	20	20	0.00226	0.001	956	976	2130	2180	0.237	0.459	21.1	21	18700	19300	0.56	0.53	0.021
9/09/12	0.02		0.02	0.2	0.2	1.65	1.47	20	26.6	0.00117	0.001	609	619	1440	1440	0.46	1.41	7.52	7.59	9010	9000	0.4	0.4	0.02
6/10/12	0.02		0.02	0.2	0.51	1.45	1.21	11.1	32.3		0.00108	593	501	1580	1210	0.94	2.27	5.38	5.16	6640	6800	0.4	0.4	0.023

ARLB009

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
22/09/07	0.9		3	1	1.3	1300		0.2	0.5		10	5	2	6	4.1	0.2	0.02					
22/11/07	0.223	2.23	2.46	3	2.3	1470					0.97	1.62	3.83	2.67	2.7	0.106	0.02		0.016			
26/05/08	0.425	1.05	0.988	1.2	0.7	920					0.81	1.44	1.4	3.6	1.8	0.091	0.02	0.05	0.029			
27/07/08	0.798	1.25	1.18	1	1	2000	0.04	0.03	0.003	0.007	0.56	1.8	6.35	10.7	1.1	0.123	0.05		0.25			
25/08/08	0.244	3.2	3.38	1.5	1.4	2650	0.1	0.1			0.9	1.1	8.84	14.7	1.8	0.18	0.03	0.34		0.02		
25/09/08	0.236	1.3	1.3	1.6	1.4	2050		0.13			0.86	1.05	5	14	1	0.168	0.01		0.1			
17/05/10	0.065	0.48	0.5	0.9	0.7	1140			0.02	0.022	0.47	0.46	11.7	11	1.04	0.05		0.05	0.05			
23/07/10	0.878	1.18	1.15	0.9	1.1	2280		0.02	0.002	0.006	1.01	1.54	2.12	6.68	0.74		0.023		0.05			
14/08/10	0.075	0.55	0.56	0.4		1090	0.03		0.02	0.02	0.41	0.49	2.53	2.93	0.43		0.009	0.034	0.05			
8/09/10	0.03	0.43	0.42			1030	0.2	0.2	0.023	0.006	0.43	0.37	2.95	2.18	0.45		0.015		0.061			
22/05/11	0.0492	0.36	0.375	0.629	0.47	1210							9.51	8.94	0.842	0.062		0.0401	0.079	0.0029		
6/06/11	0.433	0.24	0.25			629	0.1	0.1	0.02	0.003	0.37	0.48	2	2.37	0.9		0.037		0.051			
13/07/11	0.203	0.41	0.4	0.4	0.3	1050	0.04		0.02	0.02	0.36	0.38	2	2	0.43		0.011					
5/08/11	0.232	0.44	0.45	0.5	0.5	983					0.39	0.45	2	2	0.62	0.02	0.007	0.048	0.237			
11/09/11	0.083	0.49	0.48	0.3	0.3	1200					0.4	0.42	2	0.84	0.48			0.089	0.046			
4/10/11	0.207	0.34	0.4			711	0.2	0.06	0.02	0.02	0.27	0.31	2	2.42	0.43	0.02	0.008	0.048	0.061			
18/05/12	0.072	0.37	0.3			797	0.04	0.02	0.004	0.003	0.23	0.29	2	2	1.19				0.015			
23/07/12	0.06	0.33	0.32			866				0.02	0.22	0.23	2	2	0.56				0.05			
8/08/12	0.038	0.514	0.492	0.9	1.1	1310		0.2		0.02	0.28	0.27	2	2	1.73	0.03	0.117		0.491			
9/09/12	0.121	0.157	0.159			478					0.2	0.2	2	2	1.76		0.037		0.05			
6/10/12	0.155	0.151	0.165			469				0.0137	0.2	0.213	5.86	5.08	0.41		0.13					

ARLB010

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
22/09/07	0.4			6	6	2900			0.5		10	10	3	4	64		0.06					
22/11/07	0.066	2.44	3.2	2.2	2.8	3110					2.12	2.65	2.19	3.03	10.7	0.077	0.008					
26/05/08	0.117	1.02	0.971	1	0.9	2040					2.02	2.12	1.2	1.1	2.3	0.099	0.02	0.05				
25/08/08	0.362	1.83	2.22	1.3	1.3	4290	0.1	0.1			3.44	3.99	3.63	8.71	3.1	0.144	0.03		0.01	0.003		
14/09/08	0.05	1.16	1.15	2.4	2.7	3590			0.004		2.44	2.45	3.07	8.37	5.1	0.124	0.02	0.05	0.05			
21/05/09	0.091	1.57	1.54	0.8	1.1	3740	0.1	0.1			3.66	3.64	3.63	6.19	1.6	0.144	0.007		0.023			
24/06/09	0.159	1.25	1.27	0.9	0.9	3780					3.47	3.44	3.8	5.3	1.6	0.143	0.007	0.05	0.01	0.005	0.005	
20/08/09	0.07	1.49	1.52	1.6	1.3	3270					7.91	8.18	6.2	6.2			0.04					
21/09/09	0.079	1.55	1.55	1.2	1.2	3100					16.6	17.1	16.6	19.2	1.12	0.28	0.009	0.014				
13/07/10	0.086	1.32	1.33	1.4	1.4	3430					5.92	6.13	2.31	3.8	1.89	0.23	0.015		0.05			
14/08/10	0.821	0.9	0.83	0.5	0.7	3000	0.03	0.03	0.02	0.02	2.63	3.18	2.67	5.6	0.52	0.1	0.056	0.032	0.05			0.07
14/09/10	0.056	0.84	0.85	0.5	0.3	2970	0.2				2.34	2.4	2.61	2.8	0.53	0.07	0.004		0.035			
22/05/11	0.0694	0.462	0.484	0.809	0.712	2650					1.63	1.69	8.47	6.98	0.955	0.076				0.0057	0.0024	
6/06/11	0.157	0.64	0.57		0.4	2240	0.1	0.1	0.024	0.003	1.96	2.09	2.76	3.32	0.98	0.22	0.017		0.053			
24/07/11	0.084	0.95	0.93	0.4	0.7	2930					2.36	2.42	0.46	1	0.69	0.07	0.011		0.052	0.0047		
5/08/11	0.091	0.83	0.85	0.6	0.7	2680				0.015	2.33	2.38	2	2.45	1.02	0.08	0.01	0.087	0.648			
11/09/11	0.036	0.73	0.73	0.4	0.7	2700					1.99	2.03	2	1.19	0.68	0.11		0.06	0.272			
4/10/11	0.058	0.68	0.83	0.4	0.4	2280	0.2	0.08	0.02	0.02	1.47	1.47	2	2	0.59	0.06	0.01	0.06	0.303			
18/05/12	0.025	0.84	0.83		0.4	2330					1.4	1.38	2	2	0.89	0.05	0.006		0.121			
23/07/12	0.013	0.9	0.91	0.5	0.6	2710		0.03	0.02	0.02	1.64	1.72	2	2	1.06	0.07	0.008		0.05			
8/08/12	0.026	0.796	0.796	0.8	0.6	2630					1.52	1.51	2	2	1.44	0.08	0.015		0.59	0.0238	0.009	
9/09/12	0.034	0.479	0.479		0.2	1750					1.36	1.41	2	2	1.31	0.05	0.01		0.05	0.0306	0.0119	
6/10/12	0.048	0.396	0.371			1420					0.988	0.978	2	2.01	0.42		0.012			0.0021		

ARLB011

Date	pH	EC, uS/cm	Acidity (T), mg/L	Alka (T), mg/L	SO_4(T), mg/L	DOC, mg/L	Hardness(T), $CaCO_3$mg/L	TDS, mg/L	TSS, mg/L	Ag, ug/L	Ag(T), ug/L	Al, ug/L	Al(T), ug/L	As, ug/L	As(T), ug/L	B, ug/L	B(T), ug/L	Ba, ug/L	Ba(T), ug/L	Be, ug/L	Be(T), ug/L	Bi, ug/L	Bi(T), ug/L	Ca, ug/L	Ca(T), ug/L	Cd, ug/L
22/09/07	7	15		4	1.1	3	2		20			6	50			3		1	5					300	300	
22/11/07	6.06	5	7	1	0.4	0.5	0.5					1.6	2			4.2	0.8	0.73	0.53					305	140	
26/05/08	7.98	12	94		0.6	3.7	0.8	7				7.3	8			1.02	1.03	2.4	2.5					172	178	0.043
27/07/08	5.4	15	7		1.4	10.3	1.4			0.02	0.02	18.5	20	0.5	0.5	4.3	3	9.56	9.81		0.007			363	358	0.046
9/09/08	4.84	9	4		0.5	3.3		6			0.007	3.8	11.2	0.08	0.08	1.1	1	1.05	1.13					58.3	53.3	0.009
21/05/09	4.39				2.7	3.6	1	8				21.5	36.5		0.2	1.42	1.42	1.61	4.89					196	218	0.041
10/06/09	4.41	32	16		3.8	4.7	1.3	11			0.008	48	57.2	0.3	0.3	3	3.3	3.56	5.64				0.008	364	341	0.043
30/07/09	4.9	9	4		2.9	2.8	0.4					12	21.9	0.1		0.8	0.7	1.05	1.3					117	105	0.018
6/08/09	4.98	4	2		0.3	1.5	0.2					3.5	3.4			1.9	1	0.282	0.444					170	70.5	0.005
4/09/09	5.27	7.3	3		0.72	4.54	0.7	6			0.008	4.6	6.6			2.8	1.6	0.535	0.588			0.006	0.016	140	177	0.016
23/10/09	5.12	5.5	2		0.49	1.45		17.5			0.004	1.6	3			0.4	0.4	0.177	0.154			0.018	0.018	94.3	109	0.009
13/07/10	4.44	22	4		3.74	5.99	1.3	10		0.008		15.2	23.1	0.19	0.17	1.9	1.67	1.24	1.2					188	329	0.045
14/08/10	5.2	6.2	2	9	2.01	5.22			23	0.02	0.023	7.6	35.4	0.12	0.08	1.34	0.92	0.28	0.45					50	50	0.02
21/05/11	5.8	4.1			0.314	0.925		8	1.37			2	3.64					0.505	0.5			0.05	0.05	91.1	114	0.0211
6/06/11	5.45	11.1	3.6	1.6	1.11	2.9	0.8			0.02	0.036	8	9.9	0.16	0.14	1.77	1.78	0.8	0.91	0.02	0.02			185	185	0.02
24/07/11	6.29	17	3.6	2	1.27	6.3	1	20	16	0.016	0.011	17.8	17.9	0.16	0.12	2.06	2.2	0.8	0.74	0.02				381	347	0.02
6/08/11	5.95	3.5	3			1.98						2	5.3	0.5	0.5	0.5	0.53	0.2	0.32				0.023	81.1	83.7	
11/09/11	5.29	6.4	9.8		0.65	3.3	0.4	6	5			3.6	6.6			0.99	1.59	0.25	0.37					148	146	0.006
18/05/12	6.23	5			0.34	1.14	0.5					2	2.5			1.03	0.82	0.23	0.2					133	126	0.021
23/07/12	5.06	21	3.5		1.57	9.2	1.5	5.5				5.5	7.1	0.15	0.17	2.52	2.27	1.23	1.18					411	408	0.02
24/08/12	5.43	6.3		2	0.46	2.93		23			0.02	3.6	7.6	0.5	0.5	0.9	1.1	0.2	0.38			0.05	0.05	85.3	81.4	0.015
9/09/12	5.91	8.5		1	0.89	1.11	0.4	10			0.006	2	6			1.5	1	0.25	0.28				0.004	137	53.4	

ARLB011

Date	Cd(T), ug/L	Co, ug/L	Co(T), ug/L	Cr, ug/L	Cr(T), ug/L	Cu, ug/L	Cu(T), ug/L	Fe, ug/L	Fe(T), ug/L	Hg, ug/L	Hg(T), ug/L	K, ug/L	K(T), ug/L	Mg, ug/L	Mg(T), ug/L	Mn, ug/L	Mn(T), ug/L	Mo, ug/L	Mo(T), ug/L	Na, ug/L	Na(T), ug/L	Ni, ug/L	Ni(T), ug/L	Pb, ug/L
22/09/07				0.5		1.1					0.0006	2300	2600	300	300	2.1				400	400			
22/11/07	0.011	0.056	0.062	0.55	0.2	0.96	3.5	7			0.001			49.9	47.3	2.68	3.54	1	1	269	264	0.34	0.2	0.17
26/05/08	0.043	0.074	0.051	0.2	0.2	1.23	1.19	20	20	0.001	0.00122	38		77.9	80.9	4.9	4.98	0.1	0.14	452	472	0.2	0.2	0.203
27/07/08	0.062	0.112	0.121	0.31	0.27	1.61	1.64	26.2	24.3	0.00297	0.00313	280	278	131	132	13.2	13.4	0.2	0.2	743	698	0.41	0.34	0.554
9/09/08	0.017	0.006	0.01	0.24	0.22	0.49	0.6	8.7	14.9	0.00109	0.00172	60	60	20	24.1	1.71	1.85		0.05	100	100		0.08	0.166
21/05/09	0.045	0.026	0.034	0.2	0.2	0.87	0.89	27.4	45.3	0.00502	0.00701	143	142	76.5	102	5.3	5.7	0.05	0.05	432	434	0.14	0.18	0.693
10/06/09	0.052	0.09	0.084	0.2	0.2	1.89	1.49	44.9	50.2	0.00253	0.00438	59	78	81.9	101	8.69	8.68	0.1	0.11	422	425	0.55	0.46	1.16
30/07/09	0.012	0.031	0.031	0.2	0.21	0.92	0.68	20	24.4	0.0021	0.00367		51	41.5	41	3.75	3.6	0.174	0.177	245	241	0.25	0.32	0.244
6/08/09		0.02		0.07	0.14	1.32	0.23	4.2	6.2	0.00148	0.00324	44	51	9.5	17.6	0.671	0.578	0.01	0.048	130	122	0.13	0.09	0.065
4/09/09	0.017	0.037	0.017	0.18	0.19	0.43	0.5	5.2	12.1	0.00242	0.00197	313	313	57	60	10.5	9.62	0.017	0.061	178	207	0.35	0.49	0.368
23/10/09	0.012			0.14	0.0678	0.27	0.18	20	20	0.00057	0.00098			20	20	1.23	1.38			148	130	0.06	0.07	0.105
13/07/10	0.047	0.051	0.061	0.38	0.34	1.21	0.71	9.9	12.5	0.00325	0.00281	721	695	75.2	109	7.4	8.85	0.022	0.027	561	590	0.64	0.71	0.344
14/08/10	0.02	0.02	0.028	0.23	0.27	2.37	0.68	10.8	56.8	0.00332	0.00517	69	147	20	31.8	0.91	1.68			87	76	0.4	0.4	0.133
21/05/11	0.0315	0.0272	0.029	0.2		0.5	0.5	20	20		0.005	59.8	66.9	38.3	48.7	3.56	3.81	0.161	0.0941	323	314	0.156	0.129	0.0334
6/06/11	0.02	0.031	0.042	0.25	0.29	0.51	0.42	23.5	31.1	0.00363	0.00293	390	375	92.6	91.9	10.3	10.1	0.05	0.05	406	390	0.4	0.4	0.198
24/07/11	0.02	0.02	0.014	0.26	0.33	1.13	0.93	27.1	27.3	0.0113	0.00998	1330	1370	32.9	20.8	2.16	1.6	0.05	0.05	533	628	0.3	0.12	0.299
6/08/11	0.039	0.02	0.02	0.2	0.2	0.32	0.4	20	3.2	0.002	0.0032	136	158	20	20	0.41	0.74	0.05	0.05		44	0.4	0.4	0.054
11/09/11	0.006	0.015	0.018	0.2	0.2	0.93	1.14	20	20	0.0022	0.0029	102	91	20	20	1.9	2.15	0.05	0.05	106	103	0.4	0.09	0.063
18/05/12	0.03	0.048	0.02	0.77	0.51	0.83	0.22	20	20	0.00138	0.00142	76.1		41.6	48	2.73	2.28	0.11	0.05	341	302	1.56	0.4	0.064
23/07/12	0.02	0.044	0.067	0.3	0.29	2.78	4.27	20	20	0.00217	0.00208	496	512	112	117	9.2	10.1	0.05	0.05	901	798	0.4	0.4	0.121
24/08/12	0.015	0.02	0.026	0.22	0.21	2.03	1.12	20	20	0.00612	0.00535	402	396	31.9	36.8	2.79	3.18		0.05	274	264	0.4	0.4	0.069
9/09/12			0.02	0.27	0.4	0.96	0.92	20	20	0.00289	0.00216	65	99.7	57.9	65.5	0.87	1.67	0.05		664	658	0.4	0.4	0.02

Appendix 11I
Field (Barrel) Test Data: Waste Rock

ARLB011

Date	Pb(T), ug/L	Sb, ug/L	Sb(T), ug/L	Se, ug/L	Se(T), ug/L	Si, ug/L	Sn, ug/L	Sn(T), ug/L	Tl, ug/L	Tl(T), ug/L	V, ug/L	V(T), ug/L	Zn, ug/L	Zn(T), ug/L	Cl(T), mg/L	F(T), mg/L	P(T), mg/L	Nitrogen, Ammonia (as N), mg/L	Nitrogen, Nitrate-Nitrite, mg/L	Total CN, mg/L	WAD CN, mg/L	CNS (T), mg/L
22/09/07	0.1	8									1		12		1		0.09		0.02			
22/11/07	0.22	0.04	0.05										7.09	8.14	1.4		0.02					
26/05/08	0.247	0.24	0.241										13.6	14.1	0.7		0.01	0.05				
27/07/08	0.572	0.05	0.05			10.3			0.003				44.9	41.9	1.1		0.03					
9/09/08	0.206	1.84	1.82			8.3					0.04	0.05	9.9	10.4	0.115		0.01	0.06	0.05			
21/05/09	0.72	1.06	1.06			10.3	0.1	0.1	0.012	0.013	0.08	0.08	13.3	13.8	1.2		0.6	0.046	0.05			
10/06/09	1.2	0.343	0.371			36.6		0.02	0.017	0.018	0.12	0.15	25.1	23.3	1.2	0.01	0.08	0.05	0.07			
30/07/09	0.281	0.27	0.283			13.6		0.04			0.05	0.08	14.7	14.2	0.4	0.037	0.04	0.012	0.033			
6/08/09	0.087	0.035	0.036			4.4							4.5	2.4	0.2		0.007				0.005	
4/09/09	0.363	0.187	0.193			24.8				0.006	0.03	0.04	8.9	7.7	0.26		0.036				0.003	
23/10/09	0.1	0.024	0.021			5.8		0.03	0.01	0.011			3.2	8.1	0.29	0.07	0.033	0.021	0.024			
13/07/10	0.353	0.02				26	0.02		0.007	0.008	0.09	0.08	10.8	12.1	1.37		0.167		0.05			
14/08/10	0.227	0.02	0.03			5.5	0.02	0.04	0.02	0.02		0.12	3.65	4.59	0.24		0.03		0.05			0.23
21/05/11	0.0517												23.5	21.6	0.505	0.067	0.0051	0.0382	0.07	0.0054	0.0019	
6/06/11	0.205	0.05	0.05			200		0.1	0.02	0.018	0.2	0.11	5.29	4.89	0.72		0.216	0.167	0.07			
24/07/11	0.268	0.04	0.03			200	0.06	0.03	0.008	0.007	0.2	0.2	14	3.98	0.85		0.091	0.073	0.05	0.0047		
6/08/11	0.072					200		0.02		0.002	0.2	0.2	2.17	3.58	0.12		0.022	0.028	0.05			
11/09/11	0.086					200	0.03	0.03			0.2	0.2	2	2.12	0.15		0.043	0.068	0.011			
18/05/12	0.047	0.04				200	0.02				0.2	0.2	13	15.4	0.34		0.014	0.029		0.0031	0.0037	
23/07/12	0.115					200			0.02	0.02	0.2	0.2	12.1	10.7	0.97	0.25	0.028		0.05			0.05
24/08/12	0.093	0.055	0.139			200		4.59	0.02	0.02	0.2	0.2	5.68	5.01	0.23		0.35					
9/09/12	0.033	0.05	0.059			200					0.2	0.2	2.11	3.15	1.04		0.053		0.05			0.04

Appendix 11J, Humidity Cell Test Data: Tailings

Key to abbreviations and acronyms used in this appendix

Abbreviation/acronym	**Explanation**
CN	Cyanide
WAD CN	Weak acid dissociable cyanide
CNO	Cyanate
CNS	Thiocyanate
EC	Electrical conductivity
µS/cm	Micro-siemens per cm
µg/Lm	Micrograms per liter
mg/L	Milligrams per liter
$mgCaCO_3/L$	Milligrams calcium carbonate (equivalent) per liter
mL	Milliliters(s)
mV	Millivolt(s)
ORP	Oxidation-reduction potential

For chemical abbreviations see Appendix D of this environmental baseline document.

Gold PlantTails T25

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11/07/2012	0	1000	530	3.61	610	7410	125	1225	<1	6040	2560	11	5.17	4880	72.5	0.00062	0.0549	0.0658	0.0928	<0.005	<0.1	0.57	456
18/07/2012	7	500	475	3.36	625	2310																	
25/07/2012	14	1000	725	3.07	370	3099	188	1275	<1	3400	733	<10	2.87	2050	6.2	<0.00005	0.00333	0.00183	0.00571	<0.0005	<0.01	0.0492	265
1/08/2012	21	500	440	2.95	369	4730																	
8/08/2012	28	600	630	3.49	401	4020	75	2850	<1	6410	1660	<10	4.24	3250	28.4	<0.0005	0.022	0.0118	0.0341	<0.005	<0.1	0.417	464
15/08/2012	35	500	460	3.31	432	3220																	
22/08/2012	42	600	640	3.29	449	3310	100	1825	<1	4620	1390	<10	3.39	2700	27	<0.00025	0.0142	0.00999	0.0287	<0.0025	<0.05	0.255	479
29/08/2012	49	500	460	3.41	451	2430																	
5/09/2012	56	1000	985	3.33	493	3290	100	1775	<1	3440	1200	<10	1.77	2120	19.9	<0.00025	0.0121	0.011	0.0166	<0.0025	<0.05	0.144	453
12/09/2012	63	500	505	3.25	489	2010																	
19/09/2012	70	600	585	3.11	490	1060	75	275	<1	830	241	<5	0.55	501	6.76	<0.00005	0.00353	0.00376	0.0042	<0.0005	<0.01	0.0363	92.6
26/09/2012	77	500	530	3.25	495	1750																	
3/10/2012	84	600	600	3.03	369	1765	99	558	<1	1630	353	<10	1.45	1000	18.1	<0.0001	0.00662	0.00395	0.0071	<0.001	<0.02	0.0808	133
10/10/2012	91	500	480	2.93	402	1942																	
17/10/2012	98	600	580	3.11	363	1722	109	741	<1	1700	340	<10	1.58	1080	18.2	<0.0001	0.0061	0.00355	0.00649	<0.001	<0.02	0.0828	129
24/10/2012	105	500	500																				
31/10/2012	112	600	625	2.97	438	1520	221	560	<1	1330	224	<10	1.44	735	13	<0.0001	0.00459	0.0034	0.00386	<0.001	<0.02	0.0566	85.1
7/11/2012	119	500	505	2.41	475	3195																	
14/11/2012	126	600	595	2.44	449	3930	1146	3600	<1	3640	336	<10	2.26	2790	68.3	0.00077	0.0523	0.00321	0.008	<0.0025	<0.05	0.118	113
21/11/2012	133	500	505	2.49	523	3381																	
28/11/2012	140	600	595	2.20	449	7849	3050	5300	<1	9290	622	<10	4.56	6660	165	0.0036	0.393	0.002	0.0149	<0.01	<0.2	0.231	173
5/12/2012	147	500	445	2.31	520	6760																	
12/12/2012	154	600	550	2.27	530	6520	2950	4650	<1	8310	358	<10	3.92	5460	102	0.00285	1.57	0.00246	0.0088	<0.005	<0.1	0.12	76.7
19/12/2012	161	500	445	2.31	525	7720																	
26/12/2012	168	500	570	2.03	528	7550	4725	7875	<1	10800	429	<10	5.96	7120	115	0.0027	2.87	0.0012	0.009	<0.01	<0.2	0.107	80.3

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11/07/2012	0	1000	485	7.23	196	3340	<1	15	94	3840	2170	19	<0.4	1960	0.0099	0.00161	0.1	0.191	<0.001	<0.0025	<0.05	0.0005	617
18/07/2012	7	500	505	7.02	386	2206																	
25/07/2012	14	1000	760	7.18	136	2842	<1	19	78	2920	1820	<10	0.65	1870	0.008	0.00114	0.289	0.0703	<0.001	<0.0025	<0.05	0.00072	588
1/08/2012	21	500	500	7.64	331	2553																	
8/08/2012	28	600	605	7.57	75	1169	<1	7	13	973	668	<5	0.35	616	0.0026	0.000302	0.021	0.0264	<0.0002	<0.0005	0.011	0.000485	232
15/08/2012	35	500	440	6.18	141	1441																	
22/08/2012	42	600	630	6.70	181	1393	<1	9	8	1250	820	<5	0.59	823	0.0452	0.00016	0.0113	0.0282	<0.0004	<0.001	<0.02	0.00082	270
29/08/2012	49	500	430	6.31	195	1890																	
5/09/2012	56	1000	960	6.19	333	2101	<1	11	6	1800	1310	<5	0.6	1220	0.031	<0.00025	0.0121	0.0397	<0.001	<0.0025	<0.05	0.00039	428
12/09/2012	63	500	485	6.42	431	1863																	
19/09/2012	70	600	610	6.31	142	1594	<1	10	6	1530	1010	<10	0.63	1010	0.393	<0.0001	0.00464	0.0461	0.00092	<0.001	<0.02	0.0031	339
26/09/2012	77	500	440	6.20	340	1990																	
3/10/2012	84	600	585	5.97	142	2022	<1	19	5	2020	1310	<5	0.56	1350	0.153	<0.00025	0.00712	0.0444	<0.001	<0.0025	<0.05	0.00198	431
10/10/2012	91	500	485	5.88	147	1965																	
17/10/2012	98	600	595	5.97	137	1792	<1	22	4	1640	1220	<5	0.52	1270	0.093	<0.0001	0.00539	0.038	<0.0004	<0.001	<0.02	0.00182	409
24/10/2012	105	500	510	6.40	330	2010																	
31/10/2012	112	600	575	6.00	120	1671	<1	13	5	1430	955	<10	0.75	954	0.1	<0.0001	0.00517	0.0386	0.00043	<0.001	<0.02	0.00129	330
7/11/2012	119	500	495	5.87	284	967																	
14/11/2012	126	600	570	4.57	289	1117	<1	53	<1	942	578	<5	0.81	609	0.756	<0.00005	0.0023	0.0369	0.00186	<0.0005	0.014	0.0109	191
21/11/2012	133	500	510	5.01	499	987																	
28/11/2012	140	600	585	4.25	405	1245	<1	49	<1	937	601	<10	0.61	665	0.645	<0.00005	0.00334	0.0331	0.00172	<0.0005	0.012	0.0105	191
5/12/2012	147	500	425	5.21	391	690																	
12/12/2012	154	600	560	4.26	271	852	6	59	<1	603	334	<5	0.89	402	1.5	<0.0001	0.00133	0.0237	0.00629	<0.001	<0.02	0.0183	103
19/12/2012	161	500	440	3.70	490	1146																	
26/12/2012	168	500	545	3.68	358	1348	16	127	<1	1110	431	<10	2.11	739	1.35	<0.0001	0.00056	0.00634	0.00486	<0.001	<0.02	0.0129	155

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11/07/2012	0	0.217	4.36	101	240	0.41	345	44.4	<0.00001	<0.0005	4.12	28.8	0.096	58.1	0.00024	481	0.00981	0.391	-0.005	40.2
18/07/2012	7																			
25/07/2012	14	0.0457	0.189	7.27	291	0.00316	17.5	4.86	<0.00001	<0.00005	0.211	-0.05	0.0098	35	-0.00001	36.4	0.000303	0.0645	0.00129	7.05
1/08/2012	21																			
8/08/2012	28	0.148	1.27	17.1	699	0.00813	121	45.7	<0.00001	<0.0005	1.45	-0.5	0.011	66.1	-0.0001	22.8	0.00126	0.33	0.0058	62.9
15/08/2012	35																			
22/08/2012	42	0.172	0.621	22	491	0.00665	46.8	18.1	<0.00001	<0.00025	0.709	-0.25	0.0089	58.4	-0.00005	4.7	0.00059	0.212	0.0047	37.2
29/08/2012	49																			
5/09/2012	56	0.129	0.326	17.3	390	0.00668	16.6	6.75	<0.00001	<0.00025	0.354	0.38	0.0095	50	-0.00005	-2	0.00041	0.156	-0.0025	21.8
12/09/2012	63																			
19/09/2012	70	0.0889	0.0922	8.48	90.9	0.00487	2.43	0.807	<0.00001	<0.00005	0.0886	0.864	0.006	13.2	0.000068	-2	0.000159	0.0352	0.00095	5.41
26/09/2012	77																			
3/10/2012	84	0.266	0.199	17.2	244	0.00234	4.71	1.37	<0.00001	<0.0001	0.19	0.28	0.0053	22.3	-0.00002	-2	0.0002	0.0767	0.0054	12.1
10/10/2012	91																			
17/10/2012	98	0.26	0.207	16.5	270	0.00155	4.38	1.25	<0.00001	<0.0001	0.199	0.2	0.0028	20.5	-0.00002	-2	0.00016	0.0664	0.0059	13.2
24/10/2012	105																			
31/10/2012	112	0.232	0.158	11.4	154	0.00211	2.8	0.741	<0.00001	<0.0001	0.144	0.38	-0.002	15.4	-0.00002	-2	0.00016	0.0327	0.001	8.76
7/11/2012	119																			
14/11/2012	126	3.55	0.632	44.8	821	0.00558	13.2	1.78	<0.00001	<0.00025	0.47	1.74	-0.005	39.9	-0.00005	-2	0.00028	0.13	0.323	18.3
21/11/2012	133																			
28/11/2012	140	7.46	1.77	76.4	2040	0.0051	45.9	4.24	0.000017	<0.001	1.16	1.4	-0.02	63.9	-0.0002	-10	-0.001	0.228	1.33	38
5/12/2012	147																			
12/12/2012	154	4.55	1.38	38	1720	0.0155	40.6	3	<0.00001	0.00095	0.906	0.55	0.022	28.2	0.00019	-4	-0.0005	0.0953	1.17	19
19/12/2012	161																			
26/12/2012	168	4.68	1.75	35.3	2390	0.0018	55.6	3.66	0.000018	0.0017	1.14	1.1	0.036	27.3	-0.0002	-10	-0.001	0.0917	1.6	17.2

1st Cleaner Scav Tails T26

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11/07/2012	0	<0.0025	0.0151	0.0342	<0.06	0.00054	154	1.26	0.000237	0.0285	0.0155	85.4	0.0721	18.6	0.00191	57.4	0.00047	0.0293	-0.0025	0.0385
18/07/2012	7																			
25/07/2012	14	<0.0025	0.0188	0.0504	<0.03	0.00031	86.1	1.37	0.000062	0.0208	0.0209	45.2	0.0421	19.4	-0.00005	10.7	0.00031	0.0321	-0.0025	0.069
1/08/2012	21																			
8/08/2012	28	<0.0005	0.0135	0.0303	<0.03	<0.00005	21.8	0.647	<0.00001	0.00235	0.0101	14.1	0.0213	6.71	-0.00001	-2	0.00013	0.0159	-0.0005	0.0703
15/08/2012	35																			
22/08/2012	42	<0.001	0.0139	0.279	0.257	<0.0001	35.6	1.5	<0.00001	0.00033	0.0141	14.6	0.0166	10.5	-0.00002	-2	-0.0001	0.0157	-0.001	0.154
29/08/2012	49																			
5/09/2012	56	<0.0025	0.011	0.0837	0.438	0.00057	59.5	3.51	<0.00001	<0.00025	0.0109	19.8	0.0067	15.9	-0.00005	2.6	-0.00025	0.0268	-0.0025	0.113
12/09/2012	63																			
19/09/2012	70	<0.001	0.0626	1.56	0.671	0.00105	38.8	3.8	<0.00001	0.00012	0.0838	19.2	0.0124	14	-0.00002	-2	0.00014	0.0433	-0.001	0.57
26/09/2012	77																			
3/10/2012	84	<0.0025	0.0863	0.264	2.97	0.00043	56.5	7.87	<0.00001	<0.00025	0.113	20.1	0.0059	17	-0.00005	2.1	-0.00025	0.0333	-0.0025	0.632
10/10/2012	91																			
17/10/2012	98	<0.001	0.108	0.0917	5.68	<0.0001	49.2	9.21	<0.00001	<0.0001	0.148	18.7	0.0027	18	-0.00002	-2	0.00013	0.0329	-0.001	0.634
24/10/2012	105																			
31/10/2012	112	<0.001	0.0798	0.308	0.117	<0.0001	31.9	7.36	<0.00001	<0.0001	0.11	16	0.0033	17	-0.00002	-2	0.00012	0.0539	-0.001	0.498
7/11/2012	119																			
14/11/2012	126	<0.0005	0.172	3.12	4.62	0.00424	24.9	7.23	<0.00001	<0.00005	0.245	14.8	0.0086	17	-0.00001	-2	0.000216	0.0429	-0.0005	1.82
21/11/2012	133																			
28/11/2012	140	<0.0005	0.197	2.31	5.65	0.00536	30.1	9.06	<0.00001	<0.00005	0.279	14.6	0.0076	17.9	-0.00001	-2	0.000211	0.106	-0.0005	2.09
5/12/2012	147																			
12/12/2012	154	0.0015	0.188	15.1	4.55	0.0439	18.7	6.94	<0.00001	0.00018	0.262	10.7	0.0159	8.93	0.000031	-2	0.0003	0.0459	-0.001	2.52
19/12/2012	161																			
26/12/2012	168	0.0042	0.121	11.5	15.6	0.0412	10.5	4.3	<0.00001	<0.0001	0.17	4.31	0.0064	16.2	0.000027	-2	0.00016	0.02	-0.001	1.85

Gold PlantTails T25

Date	Accum Days	Total CN, mg/L	WAD CN, mg/L	CNO, mg/L	CNS, mg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	NH_3+NH_4 as N, mg/L	S_2O_3, mg/L	S_3O_6, mg/L	S_4O_6, mg/L
11/07/2012	0	<0.01	<0.01	<1	<2	<0.5	<0.6	93.5	4.6	<20	<2
18/07/2012	7										
25/07/2012	14	0.02	0.02	<1	2	<0.5	<0.6	12	<2	<20	<2
1/08/2012	21										
8/08/2012	28	0.07	0.04	<1	<2	<0.5	<0.6	8.2	<2	<20	<2
15/08/2012	35										
22/08/2012	42	<0.01	<0.01	<1	<2	<0.5	<0.6	9.3	<2	<20	<2
29/08/2012	49										
5/09/2012	56	<0.01	<0.01	<1	<2	<0.5	<0.6	5.3	<2	<20	<2
12/09/2012	63										
19/09/2012	70	<0.01	<0.01	<1	<2	<0.5	<0.6	1.3	<2	<20	<2
26/09/2012	77										
3/10/2012	84	0.03	<0.01	<1	<2	<0.5	<0.6	1.3	<2	<20	<2
10/10/2012	91										
17/10/2012	98	0.01	0.01	<1	<2	<0.5	<0.6	1	<2	<20	<2
24/10/2012	105										
31/10/2012	112	0.02	<0.01	<1	<2	<0.5	<0.6	0.6	<2	<20	<2
7/11/2012	119										
14/11/2012	126	0.01	<0.01	<1	<2	<0.5	<0.6	0.7	<2	<20	<2
21/11/2012	133										
28/11/2012	140	0.01	0.02	<1	<2	<0.5	<0.6	0.7	<2	<20	<2
5/12/2012	147										
12/12/2012	154	<0.01	<0.01	<1	<2	<0.5	<0.6	0.3	<2	<20	<2
19/12/2012	161										
26/12/2012	168	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.3	<2	<20	<2

1st Cleaner Scav Tails T26

Date	Accum Days	Total CN, mg/L	WAD CN, mg/L	CNO, mg/L	CNS, mg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	NH_3+NH_4 as N, mg/L	S_2O_3, mg/L	S_3O_6, mg/L	S_4O_6, mg/L
11/07/2012	0	<0.01	<0.01	<1	<2	<0.5	<0.6	1	630	230	<2
18/07/2012	7										
25/07/2012	14	<0.01	<0.01	<1	<2	<0.5	<0.6	0.1	25.9	<20	<2
1/08/2012	21										
8/08/2012	28	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
15/08/2012	35										
22/08/2012	42	<0.01	<0.01	<1	<2	<0.5	<0.6	0.1	<2	<20	<2
29/08/2012	49										
5/09/2012	56	0.04	0.02	<1	<2	<0.5	<0.6	0.1	<2	<20	<2
12/09/2012	63										
19/09/2012	70	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
26/09/2012	77										
3/10/2012	84	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
10/10/2012	91										
17/10/2012	98	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
24/10/2012	105										
31/10/2012	112	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
7/11/2012	119										
14/11/2012	126	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
21/11/2012	133										
28/11/2012	140	<0.01	<0.01	<1	<2	<0.05	<0.06	0.1	<2	<20	<2
5/12/2012	147										
12/12/2012	154	<0.01	<0.01	<1	<2	<0.5	<0.6	0.1	<2	<20	<2
19/12/2012	161										
26/12/2012	168	<0.01	<0.01	<1	<2	<0.05	<0.06	0.1	<2	<20	<2

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
PP08-3365	T8																						
Date	**Accum Days**	**Vol Input, mL**	**Vol Output, mL**	**pH**	**ORP, mV**	**EC, uS/cm**	**Acidity (pH4.5), $mgCaCO_3/L$**	**Acidity (pH8.3), $mgCaCO_3/L$**	**Alkalinity, $mgCaCO_3/L$**	**TDS, mg/L**	**Hardness, $mgCaCO_3/L$**	**Cl, mg/L**	**F, mg/L**	**SO_4, mg/L**	**Al, mg/L**	**Sb, mg/L**	**As, mg/L**	**Ba, mg/L**	**Be, mg/L**	**Bi, mg/L**	**B, mg/L**	**Cd, mg/L**	**Ca, mg/L**
23-Apr-08	0	750	510	7.38	448	392	<1	4	33	279	157	6.45	0.887	157	0.0193	0.00121	0.00521	0.00994	<0.0002	<0.0005	0.02	<0.00005	55.8
30-Apr-08	7	500	440	7.77	390	372																	
7-May-08	14	500	450	7.78	362	252	<1	5	66	166	90.1	<0.5	1.03	52.5	0.0151	0.00177	0.00718	0.006	<0.0002	<0.0005	0.02	<0.00005	30.5
14-May-08	21	500	460	7.91	299	235																	
21-May-08	28	500	440	7.73	313	219	<1	5	59	144	80.8	<0.5	0.997	42.5	0.0177	0.00165	0.00391	0.0051	<0.0002	<0.0005	0.014	<0.00005	28.4
28-May-08	35	500	420	7.83	289	229																	
4-Jun-08	42	500	435	7.80	416	179	<1	4	55	142	76.9	<0.5	0.691	44.7	0.0188	0.00164	0.00288	0.00515	<0.0002	<0.0005	<0.01	<0.00005	26.9
11-Jun-08	49	500	430	7.92	356	171																	
18-Jun-08	56	500	490	7.73	297	158	<1	6	67	135	91.4	<0.5	0.549	37.6	0.0107	0.00157	0.00248	0.00529	<0.0002	<0.0005	<0.01	<0.00005	32.9
25-Jun-08	63	500	440	7.88	291	229																	
2-Jul-08	70	500	420	7.68	376	216	<1	4	44	153	104	<0.5	0.571	65.3	0.0144	0.00154	0.00217	0.0057	<0.0002	<0.0005	<0.01	0.000221	37.8
9-Jul-08	77	500	425	7.83	307	227																	
16-Jul-08	84	500	475	7.68	375	189	<1	5	52	127	88.4	<0.5	0.333	39.9	0.0147	0.00102	0.00159	0.00414	<0.0002	<0.0005	<0.01	<0.00005	32.4
23-Jul-08	91	500	435	7.80	367	202																	
30-Jul-08	98	500	435	7.72	405	196	<1	4	53	133	89.8	<0.5	0.331	44	0.0142	0.00101	0.00147	0.00378	<0.0002	<0.0005	<0.01	<0.00005	33.3
6-Aug-08	105	500	425	7.83	355	189																	
13-Aug-08	112	500	505	7.78	325	188	<1	4	52	108	88.3	<0.5	0.265	34.7	0.0107	0.000937	0.00124	0.00384	<0.0002	<0.0005	<0.01	<0.00005	32.9
20-Aug-08	119	500	440	7.82	250	182																	
27-Aug-08	126	500	465	7.69	355	180	<1	4	54	112	81.1	<0.5	0.273	35.9	0.0125	0.000961	0.00101	0.00371	<0.0002	<0.0005	<0.01	<0.00005	30.2
3-Sep-08	133	500	455	7.70	253	161																	
10-Sep-08	140	500	460	7.86	264	177	<1	3	60	108	78.6	<0.5	0.254	31.5	0.0136	0.000951	0.00101	0.00329	<0.0002	<0.0005	<0.01	<0.00005	29.2
17-Sep-08	147	500	450	7.86	269	176																	
24-Sep-08	154	500	480	7.78	246	175	<1	4	54	106	80.5	<0.5	0.176	28.7	0.0111	0.000831	0.00084	0.00325	<0.0002	<0.0005	<0.01	<0.00005	30.3
1-Oct-08	161	500	460	7.83	405	156																	
8-Oct-08	168	500	460	7.71	350	150	<1	4	48	97	67.2	<0.5	0.147	23	0.0166	0.000781	0.00083	0.00291	<0.0002	<0.0005	<0.01	<0.00005	25.3
15-Oct-08	175	500	470	7.61	360	134																	
22-Oct-08	182	500	450	7.71	396	136	<1	4	48	86.5	63	<0.5	0.134	21.9	0.0188	0.000752	0.00078	0.00243	<0.0002	<0.0005	<0.01	<0.00005	23.8
29-Oct-08	189	500	460	7.72	437	142																	
5-Nov-08	196	500	465	7.70	407	130	<1	5	51	84.1	59.1	<0.5	0.116	16.9	0.0163	0.000733	0.00073	0.00245	<0.0002	<0.0005	<0.01	<0.00005	22.3
12-Nov-08	203	500	465	7.68	410	124																	
19-Nov-08	210	500	395	7.73	409	103	<1	3	47	78.3	55.8	<0.5	0.119	16.8	0.0195	0.000756	0.00074	0.00215	<0.0002	<0.0005	<0.01	<0.00005	21.2
26-Nov-08	217	500	480	7.65	382	111																	
3-Dec-08	224	500	465	7.77	354	117	<1	3	53	81.6	53.9	<0.5	0.106	13.6	0.0175	0.00071	0.00076	0.002	<0.0002	<0.0005	<0.01	<0.00005	20.6
10-Dec-08	231	500	460	7.62	318	118																	
17-Dec-08	238	500	490	7.46	354	107				62	52.8	<0.5	0.085	10.2	0.0155	0.000618	0.00082	0.00173	<0.0002	<0.0005	<0.01	<0.00005	20.1
24-Dec-08	245	500	440	7.54	317	126																	
31-Dec-08	252	500	400	7.52	294	127	<1		52	70.2	51.7	<0.5	0.088	14	0.0277	0.000621	0.00061	0.0019	<0.0002	<0.0005	<0.01	<0.00005	19.8
7-Jan-09	259	500	445	7.47	218	130																	
14-Jan-09	266	500	465	7.25	353	115	<1	6	53	74	55.5	<0.5	0.06	10.8	0.0132	0.000626	0.00056	0.00187	<0.0002	<0.0005	<0.01	<0.00005	21.2
21-Jan-09	273	500	490	7.54	401	109																	
28-Jan-09	280	500	465	7.48	358	111	<1	6	56	66	58.6	<0.5	0.066	10.9	0.0202	0.000668	0.00065	0.00188	<0.0002	<0.0005	<0.01	<0.00005	22.5
4-Feb-09	287	500	430	7.55	364	150																	
11-Feb-09	294	500	475	7.21	378	117	<1	7	57	67.1	56.4	<0.5	0.074	11	0.0161	0.000677	0.00065	0.00189	<0.0002	<0.0005	<0.01	<0.00005	21.6
18-Feb-09	301	500	470	7.66	374	119																	
25-Feb-09	308	500	465	7.21	350	115	<1	7	57	74.3	55.1	<0.5	0.042	11.2	0.0159	0.000591	0.00053	0.00191	<0.0002	<0.0005	<0.01	<0.00005	21.1
4-Mar-09	315	500	450	7.65	240	113																	
11-Mar-09	322	500	455	7.70	342	111	<1	6	53	61.5	54.6	<0.5	0.048	10.6	0.0152	0.000596	0.00054	0.00178	<0.0002	<0.0005	<0.01	<0.00005	21
18-Mar-09	329	500	475	7.48	360	113																	
25-Mar-09	336	500	475	7.22	381	112	<1	6	52	64.8	52	<0.5	0.046	10.3	0.0156	0.000578	0.0005	0.00162	<0.0002	<0.0005	<0.01	<0.00005	20.1
1-Apr-09	343	500	445	7.37	372	112																	
8-Apr-09	350	500	500	7.39	384	112	<1	4	51	67.5	55.3	<0.5	0.046	11.6	0.0157	0.000648	0.00061	0.00176	<0.0002	<0.0005	<0.01	<0.00005	21.4
15-Apr-09	357	500	460	7.53	385	113																	
22-Apr-09	364	500	490	7.47	390	105																	
29-Apr-09	371	500	465																				
6-May-09	378	500	470	7.32	387	110	<1	5	50	67	52.1	<0.5	0.037	11.8	0.0161	0.000566	0.00053	0.00239	<0.0002	<0.0005	0.013	<0.00005	20.2
13-May-09	385	500	500																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
PP08-3365	T8																			
Date	**Accum Days**	**Cr, mg/L**	**Co, mg/L**	**Cu, mg/L**	**Fe, mg/L**	**Pb, mg/L**	**Mg, mg/L**	**Mn, mg/L**	**Hg, mg/L**	**Mo, mg/L**	**Ni, mg/L**	**K, mg/L**	**Se, mg/L**	**Si, mg/L**	**Ag, mg/L**	**Na, mg/L**	**Tl, mg/L**	**Sn, mg/L**	**V, mg/L**	**Zn, mg/L**
23-Apr-08	0	<0.0005	0.00025	0.00453	<0.03	0.000093	4.33	0.0787	<0.00001	0.0668	0.00164	22.2	0.0136	2.18	<0.00001	13.2	0.000066	0.00025	<0.0005	0.0084
30-Apr-08	7																			
7-May-08	14	0.0006	0.00025	0.00283	<0.03	<0.00005	3.39	0.094	<0.00001	0.0652	0.00109	19	0.0052	3.05	<0.00001	4.9	0.000064	<0.0001	<0.0005	0.0033
14-May-08	21																			
21-May-08	28	<0.0005	0.00017	0.00243	<0.03	<0.00005	2.38	0.0535	<0.00001	0.0462	0.00055	13.7	0.0039	3.32	<0.00001	<2	<0.00005	<0.0001	0.00052	0.003
28-May-08	35																			
4-Jun-08	42	<0.0005	0.00021	0.00329	<0.03	<0.00005	2.39	0.0602	<0.00001	0.0407	0.00068	12.3	0.0032	3.17	<0.00001	<2	<0.00005	<0.0001	0.00053	0.0031
11-Jun-08	49																			
18-Jun-08	56	<0.0005	0.00036	0.00479	<0.03	0.000056	2.26	0.0736	0.000014	0.0317	0.00103	11.1	0.003	3.63	0.000015	<2	<0.00005	<0.0001	<0.0005	0.0063
25-Jun-08	63																			
2-Jul-08	70	<0.0005	0.00027	0.00506	<0.03	0.000466	2.34	0.064	<0.00001	0.049	<0.0005	10.1	0.0038	3.66	<0.00001	<2	<0.00005	<0.0001	0.00051	0.0044
9-Jul-08	77																			
16-Jul-08	84	<0.0005	0.00033	0.00588	<0.03	<0.00005	1.78	0.0724	<0.00001	0.0336	0.00052	7.07	0.0028	2.94	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.006
23-Jul-08	91																			
30-Jul-08	98	<0.0005	0.00027	0.00676	<0.03	<0.00005	1.58	0.0613	0.00002	0.0371	<0.0005	6.22	0.003	2.92	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0038
6-Aug-08	105																			
13-Aug-08	112	<0.0005	0.00034	0.0089	<0.03	0.000053	1.46	0.0726	<0.00001	0.0319	<0.0005	5.35	0.0025	2.79	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0068
20-Aug-08	119																			
27-Aug-08	126	<0.0005	0.00029	0.00954	<0.03	0.000158	1.41	0.0626	<0.00001	0.0359	<0.0005	4.81	0.0023	2.72	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0054
3-Sep-08	133																			
10-Sep-08	140	<0.0005	0.00026	0.00818	<0.03	<0.00005	1.4	0.0631	<0.00001	0.0348	<0.0005	4.97	0.0023	2.87	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0043
17-Sep-08	147																			
24-Sep-08	154	<0.0005	0.00027	0.0115	<0.03	0.000072	1.16	0.0619	<0.00001	0.0312	<0.0005	4.12	0.0022	2.82	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0058
1-Oct-08	161																			
8-Oct-08	168	<0.0005	0.00021	0.00948	<0.03	0.000067	0.965	0.0542	<0.00001	0.0281	<0.0005	3.59	0.0022	2.48	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0046
15-Oct-08	175																			
22-Oct-08	182	<0.0005	0.00018	0.00874	<0.03	<0.00005	0.877	0.0492	<0.00001	0.0279	<0.0005	3.26	0.0021	2.31	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0042
29-Oct-08	189																			
5-Nov-08	196	<0.0005	0.00018	0.0104	<0.03	<0.00005	0.842	0.0465	<0.00001	0.0249	<0.0005	3.23	0.0018	2.26	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0038
12-Nov-08	203																			
19-Nov-08	210	<0.0005	0.00014	0.00708	<0.03	<0.00005	0.732	0.0361	<0.00001	0.0265	<0.0005	2.79	0.002	2.14	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.004
26-Nov-08	217																			
3-Dec-08	224	<0.0005	0.00012	0.00817	<0.03	<0.00005	0.621	0.0347	<0.00001	0.0228	<0.0005	2.68	0.0018	2.16	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
10-Dec-08	231																			
17-Dec-08	238	<0.0005	0.00022	0.00729	<0.03	<0.00005	0.599	0.0325	<0.00001	0.0179	<0.0005	2.3	0.0016	1.91	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
24-Dec-08	245																			
31-Dec-08	252	<0.0005	0.00012	0.00752	<0.03	<0.00005	0.537	0.0329	<0.00001	0.0264	<0.0005	2.4	0.0017	1.92	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.003
7-Jan-09	259																			
14-Jan-09	266	<0.0005	0.00014	0.00878	<0.03	<0.00005	0.609	0.0363	<0.00001	0.0221	<0.0005	2.32	0.0016	2	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
21-Jan-09	273																			
28-Jan-09	280	<0.0005	0.00013	0.00878	<0.03	<0.00005	0.568	0.0377	<0.00001	0.0236	<0.0005	2.36	0.0017	1.98	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
4-Feb-09	287																			
11-Feb-09	294	<0.0005	0.00016	0.00765	<0.03	<0.00005	0.625	0.0376	<0.00001	0.0259		2.3	0.0018	2.04	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0033
18-Feb-09	301																			
25-Feb-09	308	<0.0005	0.00013	0.00725	<0.03	<0.00005	0.575	0.0355	<0.00001	0.0255	<0.0005	1.99	0.0014	1.83	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0036
4-Mar-09	315																			
11-Mar-09	322	<0.0005	0.00012	0.00766	<0.03	0.000051	0.508	0.0343	<0.00001	0.0262	0.00069	1.96	0.0015	1.76	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
18-Mar-09	329																			
25-Mar-09	336	<0.0005	0.00014	0.00743	<0.03	<0.00005	0.429	0.0341	<0.00001	0.026		1.86	0.0013	1.68	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
1-Apr-09	343																			
8-Apr-09	350	<0.0005	0.00011	0.00807	<0.03	<0.00005	0.451	0.0313	<0.00001	0.0287	<0.0005	1.9	0.0016	1.83	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
15-Apr-09	357																			
22-Apr-09	364																			
29-Apr-09	371																			
6-May-09	378	<0.0005	0.0001	0.00748	<0.03	<0.00005	0.432	0.0318	<0.00001	0.0302	<0.0005	1.81	0.0013	1.64	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
13-May-09	385																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
20-May-09	392	500	455	7.30	382	102																	
27-May-09	399	500	470																				
3-Jun-09	406	500	445	7.56	355	119	<1	4	54	73.1		<0.5	0.071	23									
10-Jun-09	413	500	480																				
17-Jun-09	420	500	450	7.42	391	109																	
24-Jun-09	427	500	475																				
1-Jul-09	434	500	500	7.64	314	86	<1	3	48	70		<0.5	0.039	15.2									
8-Jul-09	441	500	440																				
15-Jul-09	448	500	370	7.63	342	97																	
22-Jul-09	455	500	380																				
29-Jul-09	462	500	445	7.72	311	118	<1	5	55	72.9		<0.5	0.055	16.9									
5-Aug-09	469	500	400																				
12-Aug-09	476	500	455	7.73	250	113																	
19-Aug-09	483	500	485																				
26-Aug-09	490	500	455	7.79	239	99	<1	3	47	64.3		<0.5	0.033	13.9									
2-Sep-09	497	500	440																				
9-Sep-09	504	500	435	7.87	286	98																	
16-Sep-09	511	500	440																				
23-Sep-09	518	500	440	7.73	289	99	<1	4	51	61		<0.5	0.028	12.6									
30-Sep-09	525	500	445																				
7-Oct-09	532	500	435	7.68	262	101																	
14-Oct-09	539	500	485																				
21-Oct-09	546	500	415	7.69	271	100	<1	3	49	63		<0.5	0.023	11.5									

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
23-Apr-08	0	750	395	7.72	429	373	<1	4	57	280	131	7.25	0.84	88.9	0.0117	0.00224	0.00399	0.00932	<0.0002	<0.0005	0.031	0.000121	45.7
30-Apr-08	7	500	500	8.04	345	315																	
7-May-08	14	500	490	7.97	356	270	<1	5	84	174	109	0.56	0.803	49.4	0.01	0.00211	0.00245	0.00707	<0.0002	<0.0005	0.018	0.00005	37
14-May-08	21	500	415	8.06	370	292																	
21-May-08	28	500	560	8.17	384	273	<1	2	83	185	118	<0.5	0.79	54.7	0.0082	0.00198	0.00203	0.00634	<0.0002	<0.0005	0.015	<0.00005	41.5
28-May-08	35	500	505		374	276																	
4-Jun-08	42	500	475	7.96	412	198	<1	3	59	143	94.5	<0.5	0.433	49.3	0.0422	0.00136	0.00165	0.00483	<0.0002	<0.0005	<0.01	<0.00005	33.6
11-Jun-08	49	500	470	8.12	398	211																	
18-Jun-08	56	500	500	7.86	362	175	<1	4	63	164	101	<0.5	0.433	47.4	0.0473	0.00137	0.0031	0.00474	<0.0002	<0.0005	<0.01	<0.00005	36.4
25-Jun-08	63	500	490	7.90	372	241																	
2-Jul-08	70	500	460	7.69	397	182	<1	3	40	125	84.4	<0.5	0.363	50.5	0.0239	0.000971	0.00122	0.00411	<0.0002	<0.0005	<0.01	<0.00005	30.7
9-Jul-08	77	500	480	7.79	318	233																	
16-Jul-08	84	500	505	7.96	398	305	<1	3	56	202	140	<0.5	0.476	81.3	0.0091	0.00131	0.00118	0.0066	<0.0002	<0.0005	<0.01	<0.00005	51.5
23-Jul-08	91	500	485	7.92	395	262																	
30-Jul-08	98	500	470	7.91	416	259	<1	3	60	171	120	0.64	0.423	63.9	0.0081	0.00121	0.00103	0.0049	<0.0002	<0.0005	<0.01	<0.00005	44.4
6-Aug-08	105	500	470	7.88	359	223																	
13-Aug-08	112	500	485	7.92	387	255	<1	3	60	151	112	0.52	0.365	58.2	0.0086	0.00114	0.00082	0.00492	<0.0002	<0.0005	<0.01	0.000067	41.6
20-Aug-08	119	500	480	7.90	333	232																	
27-Aug-08	126	500	495	7.91	380	226	<1	3	62	162	106	0.53	0.33	52.3	0.012	0.00113	0.00086	0.00494	<0.0002	<0.0005	<0.01	<0.00005	39.6
3-Sep-08	133	500	480	7.83	343	197																	
10-Sep-08	140	500	480	7.91	266	214	<1	3	63	126	93.9	0.54	0.304	46.7	0.0175	0.00105	0.0009	0.00373	<0.0002	<0.0005	<0.01	<0.00005	34.7
17-Sep-08	147	500	445	7.83	276	175																	
24-Sep-08	154	500	460	7.74	255	215	<1	4	44	140	95	0.54	0.224	53.9	0.0126	0.000912	0.00091	0.00357	<0.0002	<0.0005	<0.01	<0.00005	35.7
1-Oct-08	161	500	440	7.83	409	181																	
8-Oct-08	168	500	465	7.81	357	182	<1	3	45	113	82.2	<0.5	0.219	40.7	0.0168	0.000932	0.00096	0.00316	<0.0002	<0.0005	<0.01	<0.00005	30.9
15-Oct-08	175	500	470	7.76	365	162																	
22-Oct-08	182	500	440	7.77	397	181	<1	3	46	119	85.1	<0.5	0.196	42	0.0122	0.000868	0.00088	0.00305	<0.0002	<0.0005	<0.01	<0.00005	32.2
29-Oct-08	189	500	420	7.75	435	166																	
5-Nov-08	196	500	450	7.62	408	163	<1	5	50	107	75	<0.5	0.183	31.2	0.0131	0.000936	0.00089	0.00277	<0.0002	<0.0005	<0.01	<0.00005	28.3
12-Nov-08	203	500	500	7.77	406	152																	
19-Nov-08	210	500	325	7.81	411	136	<1	3	49	106	69.6	<0.5	0.193	31.8	0.0199	0.000904	0.00084	0.0027	<0.0002	<0.0005	<0.01	0.000067	26.5
26-Nov-08	217	500	460	7.79	371	143																	

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-May-09	392																			
27-May-09	399																			
3-Jun-09	406																			
10-Jun-09	413																			
17-Jun-09	420																			
24-Jun-09	427																			
1-Jul-09	434																			
8-Jul-09	441																			
15-Jul-09	448																			
22-Jul-09	455																			
29-Jul-09	462																			
5-Aug-09	469																			
12-Aug-09	476																			
19-Aug-09	483																			
26-Aug-09	490																			
2-Sep-09	497																			
9-Sep-09	504																			
16-Sep-09	511																			
23-Sep-09	518																			
30-Sep-09	525																			
7-Oct-09	532																			
14-Oct-09	539																			
21-Oct-09	546																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Apr-08	0	0.00082	0.0002	0.00664	<0.03	0.000084	4.16	0.0734	<0.00001	0.351	0.00105	20.1	0.0129	3.31	0.000018	14.9	0.000076	0.00015	<0.0005	0.0071
30-Apr-08	7																			
7-May-08	14	<0.0005	0.00036	0.00451	<0.03	<0.00005	4.04	0.123	<0.00001	0.157	0.00153	15.6	0.0033	4.07	<0.00001	5.1	0.000066	<0.0001	<0.0005	0.0056
14-May-08	21																			
21-May-08	28	<0.0005	0.00035	0.00575	<0.03	<0.00005	3.49	0.0916	<0.00001	0.093	0.00121	12.4	0.003	4.58	<0.00001	2.8	0.000053	<0.0001	0.00053	0.0062
28-May-08	35																			
4-Jun-08	42	<0.0005	0.00022	0.00473	<0.03	<0.00005	2.58	0.0801	<0.00001	0.0425	0.00064	8.41	0.0023	3.25	<0.00001	<2	<0.00005	<0.0001	0.00064	0.0023
11-Jun-08	49																			
18-Jun-08	56	<0.0005	0.0002	0.0106	<0.03	0.000085	2.4	0.0722	0.000011	0.0382	0.00072	8.61	0.0026	3.56	<0.00001	<2	<0.00005	<0.0001	0.00075	0.0042
25-Jun-08	63																			
2-Jul-08	70	<0.0005	0.00026	0.00556	<0.03	<0.00005	1.85	0.0673	<0.00001	0.0309	0.00064	7.08	0.0022	2.84	<0.00001	<2	<0.00005	<0.0001	0.00054	0.0059
9-Jul-08	77																			
16-Jul-08	84	<0.0005	0.00045	0.00941	<0.03	0.000051	2.89	0.121	<0.00001	0.0581	0.00076	8.74	0.0025	4.05	<0.00001	<2	0.00005	<0.0001	<0.0005	0.0088
23-Jul-08	91																			
30-Jul-08	98	<0.0005	0.00042	0.0137	<0.03	<0.00005	2.26	0.103	<0.00001	0.0459	0.00051	7.24	0.0032	3.73	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0088
6-Aug-08	105																			
13-Aug-08	112	<0.0005	0.0004	0.0126	<0.03	0.000139	2.06	0.0983	<0.00001	0.0433	0.00095	6.61	0.0024	3.62	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.007
20-Aug-08	119																			
27-Aug-08	126	<0.0005	0.00036	0.0132	<0.03	<0.00005	1.81	0.0958	<0.00001	0.0397	<0.0005	5.49	0.0027	3.53	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0075
3-Sep-08	133																			
10-Sep-08	140	<0.0005	0.00029	0.0111	<0.03	<0.00005	1.75	0.0898	<0.00001	0.0362	<0.0005	5.56	0.0026	3.39	<0.00001	<2	<0.00005	<0.0001	0.00055	0.0055
17-Sep-08	147																			
24-Sep-08	154	<0.0005	0.00018	0.0093	<0.03	<0.00005	1.44	0.0642	<0.00001	0.042	<0.0005	4.64	0.0028	3.16	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0039
1-Oct-08	161																			
8-Oct-08	168	<0.0005	0.00017	0.0106	<0.03	0.000088	1.19	0.0604	<0.00001	0.038	<0.0005	4.39	0.0029	3.12	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0043
15-Oct-08	175																			
22-Oct-08	182	<0.0005	0.00017	0.00973	<0.03	<0.00005	1.18	0.0621	<0.00001	0.0425	<0.0005	4.07	0.0027	3.02	<0.00001	<2	<0.00005	<0.0001	0.0005	0.0033
29-Oct-08	189																			
5-Nov-08	196	<0.0005	0.00016	0.011	<0.03	<0.00005	1.03	0.055	<0.00001	0.0419	<0.0005	3.92	0.0026	3	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0038
12-Nov-08	203																			
19-Nov-08	210	<0.0005	0.00013	0.00858	0.044	0.000082	0.805	0.0446	<0.00001	0.0458	0.00067	3.4	0.0023	2.88	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
26-Nov-08	217																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
3-Dec-08	224	500	410	7.89	346	163	<1	3	65	102	75.7	<0.5	0.173	26	0.0111	0.000978	0.0009	0.00289	<0.0002	<0.0005	<0.01	<0.00005	28.7
10-Dec-08	231	500	535	7.71	325	154																	
17-Dec-08	238	500	425	7.68	348	148				91	70.2	<0.5	0.148	19.4	0.0107	0.000934	0.00075	0.00238	<0.0002	<0.0005	<0.01	<0.00005	26.6
24-Dec-08	245	500	505	7.80	313	153																	
31-Dec-08	252	500	400	7.78	293	156	<1		59	96.7	69.5	<0.5	0.14	27.2	0.0134	0.000918	0.00082	0.00253	<0.0002	<0.0005	<0.01	<0.00005	26.5
7-Jan-09	259	500	465	7.69	221	156																	
14-Jan-09	266	500	450	7.73	359	133	<1	6	63	85.8	61.3	<0.5	0.087	13.4	0.0112	0.000948	0.00089	0.00218	<0.0002	<0.0005	<0.01	<0.00005	23.2
21-Jan-09	273	500	495	7.64	392	130																	
28-Jan-09	280	500	470	7.66	361	122	<1	6	58	76	59.5	<0.5	0.085	13.3	0.0127	0.000956	0.00095	0.00203	<0.0002	<0.0005	<0.01	<0.00005	22.6
4-Feb-09	287	500	465	7.64	361	160																	
11-Feb-09	294	500	470	7.89	361	137	<1	6	66	77.6	65	<0.5	0.093	15.1	0.0135	0.00106	0.00098	0.00222	<0.0002	<0.0005	<0.01	<0.00005	24.7
18-Feb-09	301	500	460	7.82	368	131																	
25-Feb-09	308	500	465	7.76	374	133	<1	6	63	84.8	62.8	<0.5	0.065	15.7	0.0114	0.000913	0.0008	0.00214	<0.0002	<0.0005	<0.01	<0.00005	23.9
4-Mar-09	315	500	435	7.65	234	132																	
11-Mar-09	322	500	475	7.50	327	128	<1	6	59	77	62.5	<0.5	0.069	14.9	0.012	0.000992	0.00085	0.00217	<0.0002	<0.0005	<0.01	<0.00005	23.9
18-Mar-09	329	500	455	7.68	345	137																	
25-Mar-09	336	500	490	7.53	357	123	<1	6	59	71.8	57.6	<0.5	0.055	12.5	0.0114	0.000941	0.00078	0.00181	<0.0002	<0.0005	<0.01	<0.00005	22.1
1-Apr-09	343	500	430	7.61	355	129																	
8-Apr-09	350	500	440	7.69	364	131	<1	5	61	83	62	<0.5	0.052	14.5	0.0126	0.00107	0.00091	0.00231	<0.0002	<0.0005	<0.01	<0.00005	23.9
15-Apr-09	357	500	480	7.74	316	131																	
22-Apr-09	364	500	480	7.71	374	118																	
29-Apr-09	371	500	465																				
6-May-09	378	500	485	7.70	277	126	<1	3	56	82.5	61.2	<0.5	0.053	15	0.0158	0.0011	0.00091	0.00203	<0.0002	<0.0005	<0.01	0.000134	23.5
13-May-09	385	500	485																				
20-May-09	392	500	475	7.64	364	125																	
27-May-09	399	500	485																				
3-Jun-09	406	500	455	7.76	352	128	<1	4	57	80.6		<0.5	0.069	25.7									
10-Jun-09	413	500	475																				
17-Jun-09	420	500	455	7.73	382	128																	
24-Jun-09	427	500	500																				
1-Jul-09	434	500	475	7.73	324	108	<1	4	53	84.5		<0.5	0.024	21.8									
8-Jul-09	441	500	395																				
15-Jul-09	448	500	430	7.76	347	117																	
22-Jul-09	455	500	365																				
29-Jul-09	462	500	435	7.70	321	125	<1	5	56	77.4		<0.5	0.046	18.5									
5-Aug-09	469	500	420																				
12-Aug-09	476	500	450	7.74	262	122																	
19-Aug-09	483	500	490																				
26-Aug-09	490	500	440	7.84	252	116	<1	3	56	76.3		<0.5	0.045	14.4									
2-Sep-09	497	500	475																				
9-Sep-09	504	500	450	7.94	298	115																	
16-Sep-09	511	500	485																				
23-Sep-09	518	500	430	7.85	316	117	<1	4	62	70		<0.5	<0.02	13.9									
30-Sep-09	525	500	475																				
7-Oct-09	532	500	445	7.68	279	121																	
14-Oct-09	539	500	505																				
21-Oct-09	546	500	440	7.78	278	114	<1	3	53	72		<0.5	<0.02	13.7									

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
23-Apr-08	0	750	455	7.68	423	512	<1	4	51	357	203	9.41	1.97	174	0.0109	0.0014	0.00211	0.0347	<0.0002	<0.0005	0.038	0.000081	67.6
30-Apr-08	7	500	480	7.68	386	272																	
7-May-08	14	500	475	7.81	362	318	<1	4	48	208	132	0.99	1.11	103	0.0121	0.0011	0.00127	0.0217	<0.0002	<0.0005	0.022	<0.00005	45.8
14-May-08	21	500	475	7.80	313	308																	
21-May-08	28	500	470	7.78	315	273	<1	4	49	184	113	<0.5	1.16	79	0.0126	0.00103	0.00109	0.0164	<0.0002	<0.0005	0.02	<0.00005	40.1
28-May-08	35	500	395		369	358																	
4-Jun-08	42	500	490	8.08	412	247	<1	3	72	221	128	<0.5	1.6	70.4	0.0074	0.00155	0.00115	0.0204	<0.0002	<0.0005	0.018	<0.00005	45.3
11-Jun-08	49	500	455	8.16	395	216																	

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Dec-08	224	<0.0005	0.00017	0.0131	<0.03	0.00006	0.949	0.0574	<0.00001	0.0483	<0.0005	3.77	0.0022	3.23	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0036
10-Dec-08	231																			
17-Dec-08	238	<0.0005	0.00015	0.0118	<0.03	<0.00005	0.896	0.0517	<0.00001	0.0368	<0.0005	3.29	0.0021	2.98	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0033
24-Dec-08	245																			
31-Dec-08	252	<0.0005	0.00012	0.00942	<0.03	<0.00005	0.787	0.0486	<0.00001	0.0469	<0.0005	3.32	0.0031	2.82	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
7-Jan-09	259																			
14-Jan-09	266	<0.0005	0.00014	0.0123	<0.03	<0.00005	0.798	0.0475	<0.00001	0.0324	<0.0005	3.21	0.0021	2.9	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.003
21-Jan-09	273																			
28-Jan-09	280	<0.0005	0.00012	0.0108	<0.03	<0.00005	0.707	0.043	<0.00001	0.0326	<0.0005	3.01	0.0024	2.73	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
4-Feb-09	287																			
11-Feb-09	294	<0.0005	0.00017	0.0101	<0.03	<0.00005	0.822	0.0435	<0.00001	0.0395	0.00167	3.1	0.0024	3.05	<0.00001	<2	<0.00005	<0.0001	0.00053	0.0028
18-Feb-09	301																			
25-Feb-09	308	<0.0005	0.00011	0.011	<0.03	<0.00005	0.735	0.0426	<0.00001	0.0374	<0.0005	2.64	0.0021	2.63	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0058
4-Mar-09	315																			
11-Mar-09	322	<0.0005	0.00011	0.0101	<0.03	<0.00005	0.651	0.0417	<0.00001	0.0394	<0.0005	2.62	0.0021	2.59	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
18-Mar-09	329																			
25-Mar-09	336	<0.0005	0.00024	0.00926	<0.03	<0.00005	0.578	0.042	<0.00001	0.0378		2.52	0.0019	2.47	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0025
1-Apr-09	343																			
8-Apr-09	350	<0.0005	0.00011	0.0108	<0.03	<0.00005	0.588	0.0386	<0.00001	0.043	<0.0005	2.68	0.0021	2.62	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
15-Apr-09	357																			
22-Apr-09	364																			
29-Apr-09	371																			
6-May-09	378	<0.0005	<0.0001	0.00947	<0.03		0.594	0.0358	<0.00001	0.0484	<0.0005	2.58	0.0025	2.55	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0041
13-May-09	385																			
20-May-09	392																			
27-May-09	399																			
3-Jun-09	406																			
10-Jun-09	413																			
17-Jun-09	420																			
24-Jun-09	427																			
1-Jul-09	434																			
8-Jul-09	441																			
15-Jul-09	448																			
22-Jul-09	455																			
29-Jul-09	462																			
5-Aug-09	469																			
12-Aug-09	476																			
19-Aug-09	483																			
26-Aug-09	490																			
2-Sep-09	497																			
9-Sep-09	504																			
16-Sep-09	511																			
23-Sep-09	518																			
30-Sep-09	525																			
7-Oct-09	532																			
14-Oct-09	539																			
21-Oct-09	546																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Apr-08	0	0.00058	0.00047	0.00503	<0.03	0.00011	8.18	0.201	<0.00001	0.076	0.00187	19.6	0.0104	2.37	<0.00001	16.1	0.000159	0.00012	<0.0005	0.0113
30-Apr-08	7																			
7-May-08	14	<0.0005	0.00048	0.00302	<0.03	<0.00005	4.29	0.226	<0.00001	0.042	0.00093	13	0.0046	2.21	<0.00001	5	0.00011	<0.0001	<0.0005	0.0055
14-May-08	21																			
21-May-08	28	<0.0005	0.00047	0.00361	<0.03	<0.00005	3.02	0.138	<0.00001	0.0447	0.00073	9.61	0.0032	2.37	<0.00001	2.5	0.000095	<0.0001	<0.0005	0.0066
28-May-08	35																			
4-Jun-08	42	<0.0005	0.00095	0.00599	<0.03	<0.00005	3.61	0.246	<0.00001	0.0638	0.00126	11	0.0026	3.24	<0.00001	<2	0.000116	<0.0001	<0.0005	0.0114
11-Jun-08	49																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
18-Jun-08	56	500	465	7.99	360	192	<1	4	71	172	113	<0.5	1.43	49.6	0.02	0.00139	0.00097	0.017	<0.0002	<0.0005	0.013	<0.00005	40.8
25-Jun-08	63	500	505	7.90	302	212																	
2-Jul-08	70	500	485	7.80	373	152	<1	4	38	93	72.4	<0.5	1.03	37.7	0.0141	0.000875	0.00066	0.0109	<0.0002	<0.0005	<0.01	<0.00005	26.4
9-Jul-08	77	500	470	7.75	329	188																	
16-Jul-08	84	500	480	7.76	373	196	<1	4	41	135	92.2	<0.5	1.03	49.4	0.0139	0.00088	0.00091	0.0127	<0.0004	<0.001	<0.02	<0.0001	33.7
23-Jul-08	91	500	455	7.82	371	225																	
30-Jul-08	98	500	440	7.81	401	207	<1	3	48	133	97.2	<0.5	1.3	50.7	0.0542	0.0011	0.00084	0.0124	<0.0002	<0.0005	<0.01	<0.00005	36
6-Aug-08	105	500	505	7.90	363	207																	
13-Aug-08	112	500	500	7.82	331	175	<1	4	46	98.3	80.8	<0.5	1.16	31.9	0.0106	0.000969	0.00074	0.0109	<0.0002	<0.0005	<0.01	<0.00005	30
20-Aug-08	119	500	485	7.80	265	175																	
27-Aug-08	126	500	480	7.75	357	168	<1	4	51	113	71.7	<0.5	1.26	32.1	0.0111	0.000979	0.0006	0.0111	<0.0002	<0.0005	<0.01	<0.00005	26.3
3-Sep-08	133	500	470	7.87	342	158																	
10-Sep-08	140	500	480	7.85	331	165	<1	4	56	92.8	71.4	<0.5	1.43	27.2	0.0139	0.00106	0.00072	0.0112	<0.0002	<0.0005	<0.01	0.000054	26.1
17-Sep-08	147	500	485	7.85	282	140																	
24-Sep-08	154	500	480	7.81	259	145	<1	3	43	78.1	60.8	<0.5	1.13	22.4	0.0118	0.000887	0.0006	0.00963	<0.0002	<0.0005	<0.01	<0.00005	22.5
1-Oct-08	161	500	465	7.88	409	135																	
8-Oct-08	168	500	480	7.81	363	129	<1	3	44	77	57.7	<0.5	1.12	15.8	0.0157	0.000853	0.00076	0.00996	<0.0002	<0.0005	<0.01	<0.00005	21.5
15-Oct-08	175	500	485	7.80	370	117																	
22-Oct-08	182	500	450	7.79	396	126	<1	4	48	92.5	59	<0.5	1.19	16.4	0.0112	0.000855	0.00061	0.00971	<0.0002	<0.0005	<0.01	<0.00005	22
29-Oct-08	189	500	465	7.82	443	131																	
5-Nov-08	196	500	490	7.73	433	128	<1	5	54	78.6	61.3	<0.5	1.32	11.9	0.0122	0.000948	0.00062	0.0107	<0.0002	<0.0005	<0.01	<0.00005	22.8
12-Nov-08	203	500	490	7.89	431	120																	
19-Nov-08	210	500	430	7.82	411	91	<1	2	47	69.3	49.6	<0.5	1.2	8.49	0.0142	0.000866	0.00065	0.00871	<0.0002	<0.0005	<0.01	<0.00005	18.8
26-Nov-08	217	500	450	7.77	368	104																	
3-Dec-08	224	500	470	7.90	346	116	<1	2	55	63.1	54.2	<0.5	1.28	8.36	0.0213	0.000902	0.00065	0.00999	<0.0002	<0.0005	<0.01	<0.00005	20.3
10-Dec-08	231	500	440	7.83	322	117																	
17-Dec-08	238	500	500	7.73	354	117				66	57.3	<0.5	1.26	7.15	0.0101	0.000838	0.00057	0.00992	<0.0002	<0.0005	<0.01	<0.00005	21.5
24-Dec-08	245	500	480	7.85	314	131																	
31-Dec-08	252	500	410	7.87	296	137	<1		63	80	59.1	<0.5	1.37	8.16	0.0113	0.000951	0.00064	0.0107	<0.0002	<0.0005	<0.01	<0.00005	22.3
7-Jan-09	259	500	500	7.60	328	121																	
14-Jan-09	266	500	480	7.73	363	105	<1	5	54	63.3	52.2	<0.5	1.04	4.9	0.0119	0.000877	0.00064	0.00935	<0.0002	<0.0005	<0.01	<0.00005	19.6
21-Jan-09	273	500	495	7.64	390	113																	
28-Jan-09	280	500	445	7.69	363	113	<1	5	59	60.7	56.6	<0.5	1.17	6.22	0.011	0.000907	0.00062	0.00999	<0.0002	<0.0005	<0.01	<0.00005	21.3
4-Feb-09	287	500	520	7.70	365	136																	
11-Feb-09	294	500	500	7.73	330	117	<1	3	60	61.1	59.4	<0.5	1.34	6.79	0.0112	0.001	0.00071	0.011	<0.0002	<0.0005	<0.01	<0.00005	22.3
18-Feb-09	301	500	480	7.89	364	118																	
25-Feb-09	308	500	520	7.80	382	113	<1	6	60	73.3	55.6	<0.5	1.18	5.86	0.0111	0.000962	0.00065	0.00929	<0.0002	<0.0005	<0.01	<0.00005	20.9
4-Mar-09	315	500	500	7.66	242	106																	
11-Mar-09	322	500	490	7.50	330	102	<1	6	54	58	51.8	<0.5	1.11	5.37	0.013	0.000938	0.0007	0.00914	<0.0002	<0.0005	<0.01	<0.00005	19.6
18-Mar-09	329	500	475	7.69	347	110																	
25-Mar-09	336	500	500	7.55	354	112	<1	6	56	62.3	53.9	<0.5	1.12	6.08	0.0119	0.000936	0.00082	0.00876	<0.0002	<0.0005	<0.01	<0.00005	20.5
1-Apr-09	343	500	490	7.63	355	110																	
8-Apr-09	350	500	480	7.67	361	107	<1	4	54	60.8	53.4	<0.5	1.17	6.1	0.0201	0.00104	0.00074	0.00859	<0.0002	<0.0005	<0.01	<0.00005	20.3
15-Apr-09	357	500	500	7.68	374	107																	
22-Apr-09	364	500	485	7.76	374	107																	
29-Apr-09	371	500	475																				
6-May-09	378	500	470	7.58	365	104	<1	5	52	61	50.7	<0.5	1.02	6.48	0.0147	0.000974	0.00078	0.00802	<0.0002	<0.0005	<0.01	<0.00005	19.3
13-May-09	385	500	500																				
20-May-09	392	500	445	7.63	338	105																	
27-May-09	399	500	455																				
3-Jun-09	406	500	475	7.69	304	106	<1	4	61	64.6		<0.5	1.41	11.2									
10-Jun-09	413	500	495																				
17-Jun-09	420	500	455	7.75	337	100																	
24-Jun-09	427	500	510																				
1-Jul-09	434	500	470	7.76	330	89	<1	3	56	69		<0.5	1.15	8.52									
8-Jul-09	441	500	470																				
15-Jul-09	448	500	420	7.85	312	97																	
22-Jul-09	455	500	490																				
29-Jul-09	462	500	410	7.65	351	116	<1	5	63	65.4		<0.5	1.24	8.82									
5-Aug-09	469	500	465																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Jun-08	56	<0.0005	0.0007	0.00837	0.037	0.00008	2.63	0.171	<0.00001	0.0446	0.001	8.88	0.0027	3.12	<0.00001	<2	0.000088	<0.0001	<0.0005	0.0069
25-Jun-08	63																			
2-Jul-08	70	<0.0005	0.00041	0.00524	0.031	<0.00005	1.6	0.0962	<0.00001	0.0271	<0.0005	6.11	0.0022	2.12	<0.00001	<2	0.000072	<0.0001	<0.0005	0.0066
9-Jul-08	77																			
16-Jul-08	84	<0.001	0.0004	0.00549	<0.03	<0.0001	1.95	0.118	<0.00001	0.0432	<0.001	6	0.0023	2.2	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0058
23-Jul-08	91																			
30-Jul-08	98	<0.0005	0.00032	0.00636	<0.03	<0.00005	1.78	0.0867	<0.00001	0.0556	<0.0005	5.69	0.0031	2.6	<0.00001	<2	0.000067	<0.0001	<0.0005	0.0039
6-Aug-08	105																			
13-Aug-08	112	<0.0005	0.00033	0.00792	<0.03	0.000052	1.46	0.0813	<0.00001	0.0417	<0.0005	4.86	0.0026	2.35	<0.00001	<2	0.000061	<0.0001	<0.0005	0.0055
20-Aug-08	119																			
27-Aug-08	126	<0.0005	0.00027	0.00606	<0.03	0.00016	1.45	0.0775	<0.00001	0.0472	<0.0005	4.25	0.0021	2.31	<0.00001	<2	0.000057	<0.0001	<0.0005	0.0044
3-Sep-08	133																			
10-Sep-08	140	<0.0005	0.00024	0.00644	<0.03	<0.00005	1.5	0.0738	<0.00001	0.0482	<0.0005	4.5	0.0024	2.61	<0.00001	<2	0.000053	<0.0001	<0.0005	0.0036
17-Sep-08	147																			
24-Sep-08	154	<0.0005	0.00018	0.00675	<0.03	<0.00005	1.09	0.0525	<0.00001	0.0415	<0.0005	3.5	0.0026	2.28	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0039
1-Oct-08	161																			
8-Oct-08	168	<0.0005	0.00085	0.006	<0.03	0.000055	0.966	0.0509	<0.00001	0.0375	0.00121	3.19	0.0026	2.14	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.003
15-Oct-08	175																			
22-Oct-08	182	<0.0005	0.00017	0.00605	<0.03	<0.00005	0.978	0.0493	<0.00001	0.0418	<0.0005	3.01	0.0024	2.1	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
29-Oct-08	189																			
5-Nov-08	196	<0.0005	0.00022	0.00847	<0.03	<0.00005	1.02	0.0546	<0.00001	0.0376	<0.0005	3.24	0.0021	2.23	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0041
12-Nov-08	203																			
19-Nov-08	210	<0.0005	0.00011	0.00561	<0.03		0.653	0.0336	<0.00001	0.0287	<0.0005	2.42	0.0022	1.99	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
26-Nov-08	217																			
3-Dec-08	224	<0.0005	0.00014	0.00593	<0.03		0.848	0.042	<0.00001	0.0319	<0.0005	2.79	0.002	2.13	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
10-Dec-08	231																			
17-Dec-08	238	<0.0005	0.00016	0.00615	<0.03	<0.00005	0.881	0.0446	<0.00001	0.0289	<0.0005	2.52	0.0019	2.01	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
24-Dec-08	245																			
31-Dec-08	252	<0.0005	0.00016	0.00644	<0.03	0.000243	0.808	0.0447	<0.00001	0.0329	<0.0005	2.67	0.0021	2.17	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0023
7-Jan-09	259																			
14-Jan-09	266	<0.0005	0.00014	0.00596	<0.03	<0.00005	0.769	0.0384	<0.00001	0.0228	<0.0005	2.41	0.002	1.99	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0025
21-Jan-09	273																			
28-Jan-09	280	<0.0005	0.00015	0.0069	<0.03	<0.00005	0.811	0.0445	<0.00001	0.0276	<0.0005	2.43	0.0021	1.99	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
4-Feb-09	287																			
11-Feb-09	294	<0.0005	0.00015	0.00754	<0.03	<0.00005	0.904	0.0426	<0.00001	0.0305	<0.0005	2.43	0.0023	2.21	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0033
18-Feb-09	301																			
25-Feb-09	308	<0.0005	0.00014	0.006	<0.03	<0.00005	0.828	0.0414	<0.00001	0.0272	<0.0005	2.18	0.0021	2	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
4-Mar-09	315																			
11-Mar-09	322	<0.0005	0.00012	0.00578	<0.03	<0.00005	0.671	0.0333	<0.00001	0.0235	<0.0005	1.95	0.0023	1.81	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0036
18-Mar-09	329																			
25-Mar-09	336	<0.0005	0.00013	0.00523	<0.03	<0.00005	0.628	0.0375	<0.00001	0.0282	<0.0005	2.01	0.0019	1.83	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0025
1-Apr-09	343																			
8-Apr-09	350	<0.0005	0.00012	0.00577	<0.03	<0.00005	0.636	0.0314	<0.00001	0.0257	<0.0005	1.97	0.0022	1.9	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
15-Apr-09	357																			
22-Apr-09	364																			
29-Apr-09	371																			
6-May-09	378	<0.0005	<0.0001	0.0047	<0.03	<0.00005	0.631	0.0306	<0.00001	0.029	<0.0005	1.87	0.0021	1.76	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
13-May-09	385																			
20-May-09	392																			
27-May-09	399																			
3-Jun-09	406																			
10-Jun-09	413																			
17-Jun-09	420																			
24-Jun-09	427																			
1-Jul-09	434																			
8-Jul-09	441																			
15-Jul-09	448																			
22-Jul-09	455																			
29-Jul-09	462																			
5-Aug-09	469																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
12-Aug-09	476	500	455	7.74	255	111																	
19-Aug-09	483	500	495																				
26-Aug-09	490	500	470	7.88	257	104	<1	3	57	67.3		<0.5	1.19	7.56									
2-Sep-09	497	500	520																				
9-Sep-09	504	500	425	7.83	327	105																	
16-Sep-09	511	500	560																				
23-Sep-09	518	500	410	7.91	345	108	<1	2	61	62		<0.5	1.03	8.39									
30-Sep-09	525	500	445																				
7-Oct-09	532	500	420	7.86	340	121																	
14-Oct-09	539	500	480																				
21-Oct-09	546	500	430	7.79	281	92	<1	3	51	59		<0.5	0.779	6.16									

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
23-Apr-08	0	750	520	7.67	418	350	<1	4	44	252	108	6.55	1.71	97.6	0.0155	0.0011	0.00217	0.0189	<0.0002	<0.0005	0.036	<0.00005	38.6
30-Apr-08	7	500	455	7.81	389	335																	
7-May-08	14	500	475	7.93	365	247	<1	4	67	160	91	<0.5	1.65	48.7	0.0102	0.00141	0.00129	0.0164	<0.0002	<0.0005	0.028	<0.00005	31.4
14-May-08	21	500	475	7.93	321	226																	
21-May-08	28	500	450	7.94	319	225	<1	4	70	142	90.5	<0.5	1.8	35.4	0.0079	0.00146	0.00118	0.0167	<0.0002	<0.0005	0.021	<0.00005	32.2
28-May-08	35	500	460		360	199																	
4-Jun-08	42	500	465	8.05	407	168	<1	3	65	150	84.6	<0.5	1.59	29.8	0.0092	0.00166	0.00104	0.017	<0.0002	<0.0005	0.012	<0.00005	30.2
11-Jun-08	49	500	450	8.00	357	153																	
18-Jun-08	56	500	460	7.89	295	137	<1	5	60	110	80.7	<0.5	1.47	27.4	0.0117	0.00153	0.00096	0.0163	<0.0002	<0.0005	<0.01	<0.00005	29.2
25-Jun-08	63	500	440	7.96	312	209																	
2-Jul-08	70	500	470	7.86	376	157	<1	4	45	101	78.2	<0.5	1.25	33.5	0.0149	0.00111	0.00076	0.0153	<0.0002	<0.0005	<0.01	<0.00005	28.7
9-Jul-08	77	500	420	7.87	336	188																	
16-Jul-08	84	500	440	7.90	375	169	<1	4	54	115	81.6	<0.5	1.33	28.3	0.0153	0.00121	0.00091	0.0156	<0.0004	<0.001	<0.02	<0.0001	30
23-Jul-08	91	500	460	7.86	377	160																	
30-Jul-08	98	500	485	7.85	397	152	<1	3	55	96.8	66	<0.5	1.21	22.7	0.013	0.00101	0.0006	0.0127	<0.0002	<0.0005	<0.01	<0.00005	24.4
6-Aug-08	105	500	440	7.88	372	152																	
13-Aug-08	112	500	475	7.90	338	167	<1	4	56	88	81.5	<0.5	1.37	21.1	0.0098	0.00122	0.00062	0.0147	<0.0002	<0.0005	<0.01	<0.00005	30.4
20-Aug-08	119	500	450	7.90	277	156																	
27-Aug-08	126	500	495	7.85	361	153	<1	4	60	97.8	68.1	<0.5	1.42	18	0.0105	0.00119	0.00059	0.0146	<0.0002	<0.0005	<0.01	<0.00005	25.2
3-Sep-08	133	500	480	7.71	266	120																	
10-Sep-08	140	500	450	7.97	270	156	<1	2	61	87.3	67.8	<0.5	1.49	18.2	0.0166	0.00118	0.00064	0.0138	<0.0002	<0.0005	<0.01	0.000236	25.1
17-Sep-08	147	500	500	7.94	287	146																	
24-Sep-08	154	500	475	7.86	265	128	<1	3	48	75.1	55.1	<0.5	1.07	12	0.0141	0.000963	0.00048	0.0114	<0.0002	<0.0005	<0.01	0.000105	20.7
1-Oct-08	161	500	490	7.91	413	125																	
8-Oct-08	168	500	500	7.84	371	119	<1	4	47	66	54.9	<0.5	1.09	10.7	0.0178	0.000868	0.00049	0.0108	<0.0002	<0.0005	<0.01	<0.00005	20.7
15-Oct-08	175	500	480	7.85	375	114																	
22-Oct-08	182	500	480	7.81	402	122	<1	3	51	80.5	59.5	<0.5	1.15	10.2	0.0117	0.000891	0.00047	0.0119	<0.0002	<0.0005	<0.01	<0.00005	22.4
29-Oct-08	189	500	495	7.83	447	121																	
5-Nov-08	196	500	495	7.71	435	116	<1	4	53	68.6	56.8	<0.5	1.17	8.11	0.0139	0.000914	0.00046	0.0119	<0.0002	<0.0005	<0.01	<0.00005	21.4
12-Nov-08	203	500	505	7.90	431	111																	
19-Nov-08	210	500	410	7.87	415	94	<1	2	51	75.8	55.8	<0.5	1.1	7.37	0.0175	0.000769	0.00185	0.0106	<0.0002	<0.0005	<0.01	<0.00005	21.3
26-Nov-08	217	500	520	7.76	373	96																	
3-Dec-08	224	500	480	7.88	349	103	<1	2	53	63.6	49.7	<0.5	1.03	6.35	0.0167	0.000809	0.00048	0.0109	<0.0002	<0.0005	<0.01	<0.00005	18.8
10-Dec-08	231	500	495	7.77	319	103																	
17-Dec-08	238	500	500	7.69	355	98				57	49.4	<0.5	0.984	5.18	0.0136	0.000716	0.00051	0.00979	<0.0002	<0.0005	<0.01	<0.00005	18.8
24-Dec-08	245	500	460	7.81	321	110																	
31-Dec-08	252	500	400	7.82	307	111	<1		57	68	51.2	<0.5	1.03	6.55	0.0166	0.000723	0.0004	0.0105	<0.0002	<0.0005	<0.01	<0.00005	19.6
7-Jan-09	259	500	445	7.55	232	107																	
14-Jan-09	266	500	510	7.74	368	101	<1	5	55	62.3	49.3	<0.5	0.845	4.7	0.0162	0.000705	0.00045	0.0106	<0.0002	<0.0005	<0.01	<0.00005	18.7
21-Jan-09	273	500	485	7.65	392	103																	
28-Jan-09	280	500	470	7.65	366	105	<1	6	59	58	54.8	<0.5	0.93	5.19	0.0121	0.000711	0.00044	0.0116	<0.0002	<0.0005	<0.01	<0.00005	21
4-Feb-09	287	500	430	7.72	366	122																	
11-Feb-09	294	500	475	7.87	366	102	<1	6	55	58.6	51.5	<0.5	0.952	5.06	0.0171	0.000733	0.00044	0.0108	<0.0002	<0.0005	<0.01	<0.00005	19.6
18-Feb-09	301	500	470	7.84	345	107																	

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
12-Aug-09	476																			
19-Aug-09	483																			
26-Aug-09	490																			
2-Sep-09	497																			
9-Sep-09	504																			
16-Sep-09	511																			
23-Sep-09	518																			
30-Sep-09	525																			
7-Oct-09	532																			
14-Oct-09	539																			
21-Oct-09	546																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Apr-08	0	0.00051	0.00022	0.00477	<0.03	0.000061	2.82	0.0877	<0.00001	0.0567	0.00119	21.1	0.0067	1.61	<0.00001	19.7	0.000151	<0.0001	<0.0005	0.0076
30-Apr-08	7																			
7-May-08	14	<0.0005	0.00042	0.00241	<0.03	<0.00005	3.05	0.15	<0.00001	0.0419	0.00099634	17.4	0.0031	2.39	<0.00001	4.7	0.000123	<0.0001	<0.0005	0.0057
14-May-08	21																			
21-May-08	28	<0.0005	0.00035	0.00217	<0.03	<0.00005	2.45	0.087	<0.00001	0.0334	0.00063	12.2	0.0026	2.71	<0.00001	<2	0.000099	<0.0001	<0.0005	0.0053
28-May-08	35																			
4-Jun-08	42	<0.0005	0.00033	0.00483	<0.03	<0.00005	2.24	0.086	<0.00001	0.027	0.00055	9.81	0.0022	2.58	<0.00001	<2	0.000085	<0.0001	<0.0005	0.0054
11-Jun-08	49																			
18-Jun-08	56	<0.0005	0.00029	0.00396	<0.03	0.000056	1.91	0.0728	<0.00001	0.023	0.00079	8.67	0.0024	2.53	0.000019	<2	0.000075	<0.0001	<0.0005	0.0069
25-Jun-08	63																			
2-Jul-08	70	<0.0005	0.00027	0.0046	<0.03	0.000067	1.59	0.0682	<0.00001	0.0243	<0.0005	6.11	0.0026	2.36	<0.00001	<2	0.000061	<0.0001	<0.0005	0.0054
9-Jul-08	77																			
16-Jul-08	84	<0.001	0.00028	0.00583	<0.03	<0.0001	1.64	0.0779	<0.00001	0.0316	<0.001	5.67	0.0022	2.31	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0063
23-Jul-08	91																			
30-Jul-08	98	<0.0005	0.00023	0.00716	<0.03	<0.00005	1.22	0.0638	<0.00001	0.025	<0.0005	4.11	0.0026	2.1	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0048
6-Aug-08	105																			
13-Aug-08	112	<0.0005	0.00028	0.00686	<0.03	<0.00005	1.36	0.0754	<0.00001	0.0282	<0.0005	4.27	0.0025	2.26	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0057
20-Aug-08	119																			
27-Aug-08	126	<0.0005	0.00021	0.00707	<0.03	0.000143	1.26	0.0616	<0.00001	0.0276	<0.0005	3.49	0.0022	2.13	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0049
3-Sep-08	133																			
10-Sep-08	140	<0.0005	0.00019	0.00619	<0.03	<0.00005	1.26	0.0582	<0.00001	0.0278	<0.0005	3.51	0.0021	2.22	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0037
17-Sep-08	147																			
24-Sep-08	154	<0.0005	0.00015	0.00685	<0.03	<0.00005	0.854	0.0428	<0.00001	0.0198	<0.0005	2.59	0.0022	1.86	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0036
1-Oct-08	161																			
8-Oct-08	168	<0.0005	0.00015	0.00866	<0.03	<0.00005	0.781	0.0407	<0.00001	0.0193	<0.0005	2.37	0.0022	1.76	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.004
15-Oct-08	175																			
22-Oct-08	182	0.0007	0.00016	0.00621	<0.03	0.000132	0.862	0.0483	<0.00001	0.0209	<0.0005	2.37	0.0021	1.75	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
29-Oct-08	189																			
5-Nov-08	196	<0.0005	0.00016	0.00777	<0.03	<0.00005	0.792	0.0447	<0.00001	0.0182	<0.0005	2.29	0.0019	1.72	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0038
12-Nov-08	203																			
19-Nov-08	210	<0.0005	0.00014	0.0049	<0.03	0.000118	0.664	0.0372	<0.00001	0.0177	<0.0005	2.15	0.0016	1.68	<0.00001	<2	<0.00005	0.00036	<0.0005	0.003
26-Nov-08	217																			
3-Dec-08	224	<0.0005	0.00012	0.00561	<0.03	<0.00005	0.661	0.0338	<0.00001	0.0157	<0.0005	1.99	0.002	1.51	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
10-Dec-08	231																			
17-Dec-08	238	<0.0005	0.00011	0.00518	<0.03	<0.00005	0.612	0.0304	<0.00001	0.0133	<0.0005	1.63	0.0018	1.39	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.003
24-Dec-08	245																			
31-Dec-08	252	0.00056	0.00012	0.00668	<0.03	0.000072	0.557	0.0328	<0.00001	0.0174	<0.0005	1.67	0.0018	1.38	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.003
7-Jan-09	259																			
14-Jan-09	266	<0.0005	0.00013	0.00607	<0.03	<0.00005	0.603	0.0341	<0.00001	0.0139	<0.0005	1.69	0.0017	1.39	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0033
21-Jan-09	273																			
28-Jan-09	280	<0.0005	0.00013	0.00648	<0.03	<0.00005	0.601	0.0381	<0.00001	0.0144	<0.0005	1.67	0.0017	1.4	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
4-Feb-09	287																			
11-Feb-09	294	<0.0005	0.00015	0.00545	<0.03	<0.00005	0.615	0.0348	<0.00001	0.0148	0.00229	1.61	0.0018	1.42	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0027
18-Feb-09	301																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
25-Feb-09	308	500	450	7.80	391	110	<1	6	61	78.3	54.4	<0.5	0.916	5.56	0.0149	0.000705	0.00036	0.0112	<0.0002	<0.0005	<0.01	<0.00005	20.7
4-Mar-09	315	500	450	7.68	249	107																	
11-Mar-09	322	500	470	7.50	333	103	<1	5	54	56	52	<0.5	0.912	5.16	0.0181	0.000743	0.00037	0.0114	<0.0002	<0.0005	<0.01	<0.00005	19.9
18-Mar-09	329	500	465	7.70	348	113																	
25-Mar-09	336	500	490	7.56	358	99	<1	5	54	53.3	47.2	<0.5	0.776	4.25	0.0139	0.000689	0.00043	0.01	<0.0002	<0.0005	<0.01	<0.00005	18.2
1-Apr-09	343	500	450	7.58	361	106																	
8-Apr-09	350	500	450	7.68	363	110	<1	4	58	65.5	55.8	<0.5	0.951	5.79	0.0133	0.000768	0.00043	0.0117	<0.0002	<0.0005	0.011	<0.00005	21.5
15-Apr-09	357	500	480	7.75	372	110																	
22-Apr-09	364	500	465	7.76	373	106																	
29-Apr-09	371	500	485																				
6-May-09	378	500	470	7.64	362	108	<1	4	56	65.5	54.3	<0.5	0.911	6.02	0.0132	0.000795	0.00045	0.0112	<0.0002	<0.0005	0.01	0.000111	20.9
13-May-09	385	500	515																				
20-May-09	392	500	465	7.66	363	97																	
27-May-09	399	500	410																				
3-Jun-09	406	500	485	7.81	352	88	<1	4	55	48.6		<0.5	1.06	7.36									
10-Jun-09	413	500	430																				
17-Jun-09	420	500	400	7.77	381	93																	
24-Jun-09	427	500	475																				
1-Jul-09	434	500	505	7.71	336	77	<1	3	48	60.5		<0.5	0.8	6.94									
8-Jul-09	441	500	425																				
15-Jul-09	448	500	435	7.78	346	89																	
22-Jul-09	455	500	420																				
29-Jul-09	462	500	460	7.74	320	102	<1	5	57	61.4		<0.5	0.895	6.97									
5-Aug-09	469	500	415																				
12-Aug-09	476	500	475	7.72	266	97																	
19-Aug-09	483	500	480																				
26-Aug-09	490	500	460	7.85	264	98	<1	3	53	63.8		<0.5	0.779	6.85									
2-Sep-09	497	500	455																				
9-Sep-09	504	500	490	7.92	302	94																	
16-Sep-09	511	500	460																				
23-Sep-09	518	500	410	7.85	323	97	<1	4	57	57		<0.5	0.674	5.87									
30-Sep-09	525	500	455																				
7-Oct-09	532	500	445	7.74	282	104																	
14-Oct-09	539	500	450																				
21-Oct-09	546	500	415	7.78	288	96	<1	3	51	60		<0.5	0.585	5.9									

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
23-Apr-08	0	750	440	7.55	413	177	<1	3	34	121	47.5	7.71	0.943	28.9	0.082	0.00197	0.00158	0.00945	<0.0002	<0.0005	0.033	<0.00005	16.3
30-Apr-08	7	500	455	7.81	383	161																	
7-May-08	14	500	465	7.89	362	141	<1	4	55	82.4	54.4	<0.5	1.16	11.9	0.0211	0.00218	0.00219	0.00986	<0.0002	<0.0005	0.02	<0.00005	18.6
14-May-08	21	500	420	7.87	325	126																	
21-May-08	28	500	445	7.86	320	119	<1	4	45	78.4	47.2	<0.5	1.26	11.1	0.0261	0.00164	0.00164	0.00838	<0.0002	<0.0005	0.012	<0.00005	16.7
28-May-08	35	500	465	7.91	321	132																	
4-Jun-08	42	500	470	8.00	406	99	<1	3	50	83	51	<0.5	1.12	9.87	0.0248	0.00144	0.0012	0.0103	<0.0002	<0.0005	<0.01	0.000052	18.1
11-Jun-08	49	500	480	7.87	364	93																	
18-Jun-08	56	500	490	7.84	303	88	<1	4	49	65.5	51	<0.5	1.09	9.76	0.0299	0.00145	0.00088	0.01	<0.0002	<0.0005	<0.01	<0.00005	18.3
25-Jun-08	63	500	490	7.94	315	123																	
2-Jul-08	70	500	445	7.90	372	108	<1	4	41	71	56.8	<0.5	1.23	13.1	0.0253	0.00148	0.0014	0.0114	<0.0002	<0.0005	<0.01	<0.00005	20.7
9-Jul-08	77	500	495	7.87	338	121																	
16-Jul-08	84	500	495	7.90	373	114	<1	4	48	79.3	55.8	<0.5	1.11	11.6	0.0216	0.00133	0.00091	0.0116	<0.0004	<0.001	<0.02	<0.0001	20.4
23-Jul-08	91	500	490	7.81	381	118																	
30-Jul-08	98	500	475	7.87	399	122	<1	3	50	72.8	64.7	<0.5	1.11	11.7	0.0152	0.00107	0.00066	0.00261	<0.0002	<0.0005	<0.01	<0.00005	23.9
6-Aug-08	105	500	515	7.85	373	111																	
13-Aug-08	112	500	480	7.80	347	111	<1	3	41	56.3	50	<0.5	0.973	10.3	0.0201	0.00108	0.00065	0.011	<0.0002	<0.0005	<0.01	<0.00005	18.6
20-Aug-08	119	500	475	7.84	288	112																	
27-Aug-08	126	500	470	7.79	365	115	<1	4	49	67.3	52.1	<0.5	1.05	10.9	0.0196	0.00116	0.00064	0.0126	<0.0002	<0.0005	<0.01	<0.00005	19.4
3-Sep-08	133	500	460	7.72	279	107																	

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
25-Feb-09	308	<0.0005	0.00013	0.00576	<0.03	<0.00005	0.653	0.0392	<0.00001	0.0165	<0.0005	1.55	0.0015	1.33	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
4-Mar-09	315																			
11-Mar-09	322	<0.0005	0.00013	0.00684	<0.03	<0.00005	0.541	0.0353	<0.00001	0.0156	<0.0005	1.39	0.0016	1.3	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0033
18-Mar-09	329																			
25-Mar-09	336	<0.0005	0.00011	0.00481	<0.03	<0.00005	0.442	0.0328	<0.00001	0.0141	<0.0005	1.35	0.0012	1.17	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
1-Apr-09	343																			
8-Apr-09	350	<0.0005	0.00012	0.00551	<0.03	<0.00005	0.515	0.0355	<0.00001	0.0178	<0.0005	1.47	0.0015	1.36	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
15-Apr-09	357																			
22-Apr-09	364																			
29-Apr-09	371																			
6-May-09	378	<0.0005	0.00011	0.00621	<0.03		0.502	0.0325	<0.00001	0.0205	<0.0005	1.38	0.0016	1.33	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
13-May-09	385																			
20-May-09	392																			
27-May-09	399																			
3-Jun-09	406																			
10-Jun-09	413																			
17-Jun-09	420																			
24-Jun-09	427																			
1-Jul-09	434																			
8-Jul-09	441																			
15-Jul-09	448																			
22-Jul-09	455																			
29-Jul-09	462																			
5-Aug-09	469																			
12-Aug-09	476																			
19-Aug-09	483																			
26-Aug-09	490																			
2-Sep-09	497																			
9-Sep-09	504																			
16-Sep-09	511																			
23-Sep-09	518																			
30-Sep-09	525																			
7-Oct-09	532																			
14-Oct-09	539																			
21-Oct-09	546																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Apr-08	0	0.00062	0.00028	0.0155	<0.03	0.000132	1.62	0.0511	<0.00001	0.0204	0.00265	10.7	0.0036	1.9	<0.00001	9.2	<0.00005	<0.0001	0.00076	0.0082
30-Apr-08	7																			
7-May-08	14	<0.0005	0.00018	0.00405	<0.03	<0.00005	1.94	0.0549	<0.00001	0.0147	0.00054	8.11	0.0016	2.52	<0.00001	<2	<0.00005	<0.0001	0.00058	0.0028
14-May-08	21																			
21-May-08	28	<0.0005	0.00012	0.00325	<0.03	0.000371	1.36	0.0402	<0.00001	0.0101	<0.0005	5.07	0.0014	2.07	<0.00001	<2	<0.00005	<0.0001	0.00076	0.0024
28-May-08	35																			
4-Jun-08	42	<0.0005	0.00022	0.0049	<0.03	0.000071	1.44	0.0699	<0.00001	0.00875	<0.0005	3.96	0.0012	1.83	<0.00001	<2	<0.00005	<0.0001	0.00062	0.0039
11-Jun-08	49																			
18-Jun-08	56	<0.0005	0.00021	0.0042	<0.03	0.000078	1.27	0.0655	<0.00001	0.00747	0.00056	3.5	0.0012	1.74	<0.00001	<2	<0.00005	<0.0001	0.00061	0.0044
25-Jun-08	63																			
2-Jul-08	70	<0.0005	0.00024	0.00403	<0.03		1.25	0.0655	<0.00001	0.00991	<0.0005	3.12	0.0013	1.83	<0.00001	<2	<0.00005	<0.0001	0.00054	0.0033
9-Jul-08	77																			
16-Jul-08	84	<0.001	0.00023	0.00375	<0.03	<0.0001	1.18	0.0823	<0.00001	0.00992	<0.001	2.58	<0.002	1.56	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0037
23-Jul-08	91																			
30-Jul-08	98	<0.0005	0.00032	0.00555	<0.03	<0.00005	1.21	0.0544	<0.00001	0.0329	<0.0005	3.12	0.0016	1.82	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0045
6-Aug-08	105																			
13-Aug-08	112	<0.0005	0.00022	0.00364	<0.03	<0.00005	0.88	0.071	<0.00001	0.0105	<0.0005	1.81	0.0014	1.26	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0042
20-Aug-08	119																			
27-Aug-08	126	<0.0005	0.00019	0.0043	<0.03	0.000156	0.891	0.065	<0.00001	0.012	<0.0005	1.59	0.0013	1.25	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
3-Sep-08	133																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
10-Sep-08	140	500	465	7.86	275	112	<1	2	48	62.8	49.1	<0.5	1.05	10.5	0.0255	0.00109	0.00068	0.0123	<0.0002	<0.0005	<0.01	<0.00005	18.2
17-Sep-08	147	500	470	7.90	294	115																	
24-Sep-08	154	500	485	7.80	271	103	<1	3	39	62.6	44.9	<0.5	0.836	9.07	0.0211	0.000873	0.00059	0.0114	<0.0002	<0.0005	<0.01	<0.00005	16.9
1-Oct-08	161	500	460	7.82	414	106																	
8-Oct-08	168	500	460	7.84	378	104	<1	3	41	58	49.7	<0.5	0.865	8.76	0.0227	0.000913	0.00064	0.0119	<0.0002	<0.0005	<0.01	<0.00005	18.8
15-Oct-08	175	500	525	7.81	380	90																	
22-Oct-08	182	500	455	7.75	406	101	<1	3	45	60.5	51	<0.5	0.887	8.36	0.0164	0.000852	0.00069	0.0129	<0.0002	<0.0005	<0.01	<0.00005	19.3
29-Oct-08	189	500	495	7.74	437	98																	
5-Nov-08	196	500	515	7.68	410	86	<1	4	39	47.6	43.3	<0.5	0.72	6.39	0.0234	0.000729	0.0006	0.0112	<0.0002	<0.0005	<0.01		16.5
12-Nov-08	203	500	515	7.69	410	78																	
19-Nov-08	210	500	420	7.78	419	77	<1	2	42	59.3	43.8	<0.5	0.805	7.48	0.0226	0.000721	0.00057	0.0118	<0.0002	<0.0005	<0.01	<0.00005	16.8
26-Nov-08	217	500	495	7.70	377	81																	
3-Dec-08	224	500	465	7.85	353	91	<1	2	47	54.1	44.7	<0.5	0.77	6.31	0.023	0.000759	0.00063	0.0127	<0.0002	<0.0005	<0.01	0.000093	17.1
10-Dec-08	231	500	445	7.76	326	95																	
17-Dec-08	238	500	505	7.68	354	89				49.5	46.6	<0.5	0.675	5.35	0.0219	0.000681	0.00061	0.0123	<0.0002	<0.0005	<0.01	<0.00005	17.9
24-Dec-08	245	500	445	7.81	328	100																	
31-Dec-08	252	500	420	7.82	311	125	<1		51	51	45.6	<0.5	0.755	6.65	0.0223	0.000701	0.00054	0.0127	<0.0002	<0.0005	<0.01	<0.00005	17.6
7-Jan-09	259	500	485	7.61	249	102																	
14-Jan-09	266	500	500	7.69	367	90	<1	5	48	51.8	46.5	<0.5	0.574	4.36	0.0174	0.000684	0.00059	0.013	<0.0002	<0.0005	<0.01	<0.00005	17.9
21-Jan-09	273	500	465	7.62	396	93																	
28-Jan-09	280	500	480	7.60	373	87	<1	5	48	48	46.2	<0.5	0.641	4.8	0.0197	0.000684	0.00062	0.0131	<0.0002	<0.0005	<0.01	0.000051	17.8
4-Feb-09	287	500	435	7.72	374	106																	
11-Feb-09	294	500	485	7.84	373	85	<1	6	48	44.1	44.3	<0.5	0.662	4.8	0.0242	0.000767	0.00066	0.0127	<0.0002	<0.0005	<0.01	<0.00005	17.1
18-Feb-09	301	500	470	7.78	361	89																	
25-Feb-09	308	500	465	7.76	380	86	<1	6	47	52.8	43.5	<0.5	0.532	4.96	0.0333	0.000635	0.00053	0.0124	<0.0002	<0.0005	<0.01	<0.00005	16.8
4-Mar-09	315	500	480	7.58	258	87																	
11-Mar-09	322	500	465	7.46	335	89	<1	5	49	45	45.6	<0.5	0.578	4.94	0.0225	0.000637	0.00056	0.0137	<0.0002	<0.0005	<0.01	<0.00005	17.7
18-Mar-09	329	500	460	7.60	353	90																	
25-Mar-09	336	500	480	7.48	362	87	<1	5	45	47.3	42.1	<0.5	0.528	4.48	0.0194	0.000635	0.00051	0.0124	<0.0002	<0.0005	<0.01	<0.00005	16.3
1-Apr-09	343	500	475	7.56	363	86																	
8-Apr-09	350	500	470	7.61	366	90	<1	4	48	49	46.7	<0.5	0.62	4.91	0.021	0.000709	0.00072	0.0131	<0.0002	<0.0005	<0.01	<0.00005	18.2
15-Apr-09	357	500	480	7.66	373	82																	
22-Apr-09	364	500	520	7.61	320	80																	
29-Apr-09	371	500	450																				
6-May-09	378	500	430	7.59	362	89	<1	4	47	52.5	44.1	<0.5	0.494	4.83	0.0195	0.000613	0.00063	0.0135	<0.0002	<0.0005	0.013	<0.00005	17.1
13-May-09	385	500	440																				
20-May-09	392	500	490	7.62	367	84																	
27-May-09	399	500	455																				
3-Jun-09	406	500	445	7.77	358	83	<1	3	48	42.1	49.9	<0.5	0.838	9.36	0.0243	0.000782	0.00074	0.0162	<0.0002	<0.0005	<0.01	<0.00005	19.4
10-Jun-09	413	500	475																				
17-Jun-09	420	500	445	7.69	387	77																	
24-Jun-09	427	500	480																				
1-Jul-09	434	500	490	7.67	341	67	<1	3	44	54.5	39.9	<0.5	0.536	6.28	0.024	0.000609	0.00059	0.0125	<0.0002	<0.0005	0.02	<0.00005	15.6
8-Jul-09	441	500	465																				
15-Jul-09	448	500	450	7.74	350	74																	
22-Jul-09	455	500	430																				
29-Jul-09	462	500	440	7.70	324	92	<1	5	50	49.4	47.5	<0.5	0.607	6.86	0.0209	0.000615	0.00064	0.0155	<0.0002	<0.0005	<0.01	<0.00005	18.6
5-Aug-09	469	500	445																				
12-Aug-09	476	500	480	7.68	272	83																	
19-Aug-09	483	500	480																				
26-Aug-09	490	500	465	7.78	270	85	<1	3	46	54.3	44.2	<0.5	0.539	6.61	0.0237	0.000605	0.00073	0.0141	<0.0002	<0.0005	<0.01	0.000053	17.3
2-Sep-09	497	500	480																				
9-Sep-09	504	500	510	7.87	310	79																	
16-Sep-09	511	500	455																				
23-Sep-09	518	500	460	7.81	332	84	<1	3	49	52	44	<0.5	0.432	5.65	0.0227	0.000636	0.00069	0.0143	<0.0002	<0.0005	<0.01	<0.00005	17.2
30-Sep-09	525	500	450																				
7-Oct-09	532	500	460	7.68	290	87																	
14-Oct-09	539	500	465																				
21-Oct-09	546	500	440	7.75	291	83	<1	3	47	58	43.5	<0.5	0.384	5.38	0.0228	0.000703	0.00065	0.0142	<0.0002	<0.0005	<0.01	<0.00005	17
28-Oct-09	553	500	475																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Sep-08	140	<0.0005	0.00018	0.00351	<0.03	<0.00005	0.89	0.0659	<0.00001	0.0119	<0.0005	1.66	0.0014	1.22	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
17-Sep-08	147																			
24-Sep-08	154	<0.0005	0.00018	0.00481	<0.03	<0.00005	0.678	0.0563	<0.00001	0.0102	<0.0005	1.32	0.0013	1.09	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.004
1-Oct-08	161																			
8-Oct-08	168	<0.0005	0.00017	0.00575	<0.03	0.000065	0.646	0.0593	<0.00001	0.0107	<0.0005	1.26	0.0013	1.04	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0043
15-Oct-08	175																			
22-Oct-08	182	<0.0005	0.00022	0.00418	<0.03	<0.00005	0.669	0.0725	<0.00001	0.0104	<0.0005	1.21	0.0011	0.998	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0036
29-Oct-08	189																			
5-Nov-08	196	<0.0005	0.00013	0.00402	<0.03	<0.00005	0.512	0.0533	<0.00001	0.00793	<0.0005	1.04	0.0012	0.875	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.003
12-Nov-08	203																			
19-Nov-08	210	<0.0005	0.00013	0.00498	<0.03	0.000059	0.423	0.0505	<0.00001	0.00924	<0.0005	0.953	0.001	0.859	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
26-Nov-08	217																			
3-Dec-08	224	<0.0005	0.00014	0.00447	<0.03		0.499	0.0567	<0.00001	0.00952	<0.0005	1.07	0.0011	0.813	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
10-Dec-08	231																			
17-Dec-08	238	<0.0005	0.00015	0.00447	<0.03	<0.00005	0.492	0.055	<0.00001	0.00844	<0.0005	0.965	0.0011	0.8	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
24-Dec-08	245																			
31-Dec-08	252	<0.0005	0.00015	0.00371	<0.03	<0.00005	0.413	0.0582	<0.00001	0.011	<0.0005	0.925	<0.001	0.775	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0027
7-Jan-09	259																			
14-Jan-09	266	<0.0005	0.00016	0.00543	<0.03	<0.00005	0.453	0.0603	<0.00001	0.00882	<0.0005	0.906	<0.001	0.773	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0034
21-Jan-09	273																			
28-Jan-09	280	<0.0005	0.00013	0.00425	<0.03	<0.00005	0.414	0.0573	<0.00001	0.00948	<0.0005	0.91	<0.001	0.729	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
4-Feb-09	287																			
11-Feb-09	294	<0.0005	0.00011	0.004	<0.03		0.372	0.0505	<0.00001	0.011	<0.0005	0.857	0.001	0.762	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
18-Feb-09	301																			
25-Feb-09	308	<0.0005	0.00012	0.00383	<0.03	<0.00005	0.393	0.0522	<0.00001	0.0111	<0.0005	0.782	<0.001	0.665	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
4-Mar-09	315																			
11-Mar-09	322	<0.0005	0.00013	0.00525	<0.03	<0.00005	0.372	0.0547	<0.00001	0.0112	<0.0005	0.76	<0.001	0.673	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0033
18-Mar-09	329																			
25-Mar-09	336	<0.0005	0.00014	0.00464	<0.03	<0.00005	0.334	0.0571	<0.00001	0.0113	<0.0005	0.715	<0.001	0.618	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
1-Apr-09	343																			
8-Apr-09	350	<0.0005	0.00016	0.00452	<0.03	0.000077	0.342	0.0504	<0.00001	0.0111	0.0012	0.766	<0.001	0.665	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
15-Apr-09	357																			
22-Apr-09	364																			
29-Apr-09	371																			
6-May-09	378	<0.0005	0.00011	0.00429	<0.03	<0.00005	0.329	0.0542	<0.00001	0.0111	<0.0005	0.694	<0.001	0.653	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
13-May-09	385																			
20-May-09	392																			
27-May-09	399																			
3-Jun-09	406	<0.0005	0.00011	0.00413	<0.03	0.000107	0.331	0.0584	<0.00001	0.0174	<0.0005	0.856	0.001	0.839	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0027
10-Jun-09	413																			
17-Jun-09	420																			
24-Jun-09	427																			
1-Jul-09	434	<0.0005	<0.0001	0.00393	<0.03	<0.00005	0.233	0.0393	<0.00001	0.01	<0.0005	0.619	<0.001	0.681	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0023
8-Jul-09	441																			
15-Jul-09	448																			
22-Jul-09	455																			
29-Jul-09	462	<0.0005	0.00013	0.00448	<0.03	<0.00005	0.287	0.0638	<0.00001	0.0111	<0.0005	0.73	0.001	0.795	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
5-Aug-09	469																			
12-Aug-09	476																			
19-Aug-09	483																			
26-Aug-09	490	<0.0005	<0.0001	0.00495	0.033	0.00025	0.259	0.0435	<0.00001	0.00985	<0.0005	0.646	0.001	1.07	<0.00001	<2	<0.00005	0.00018	<0.0005	0.0049
2-Sep-09	497																			
9-Sep-09	504																			
16-Sep-09	511																			
23-Sep-09	518	<0.0005	<0.0001	0.00488	<0.03	<0.00005	0.251	0.0381	<0.00001	0.0101	<0.0005	0.617	0.0011	0.73	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
30-Sep-09	525																			
7-Oct-09	532																			
14-Oct-09	539																			
21-Oct-09	546	<0.0005	<0.0001	0.00576	<0.03		0.247	0.0367	<0.00001	0.0105	<0.0005	0.573	<0.001	0.696	<0.00001	<2	<0.00005	0.00016	<0.0005	0.0049
28-Oct-09	553																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
4-Nov-09	560	500	460	7.68	247	87																	
11-Nov-09	567	500	465																				
18-Nov-09	574	500	445	7.93	254	90	<1	9	49	47	39.7	<0.5	0.291	4.13	0.0259	0.000699	0.00063	0.0129	<0.0002	<0.0005	0.016	0.000055	15.5
25-Nov-09	581	500	475																				
2-Dec-09	588	500	455	7.66	301	85																	
9-Dec-09	595	500	465																				
16-Dec-09	602	500	500	7.73	277	80	<1	4	44	44	37.9	<0.5	0.264	3.96	0.0288	0.00067	0.00064	0.0125	<0.0002	<0.0005	<0.01	<0.00005	14.8
23-Dec-09	609	500	465																				
30-Dec-09	616	500	470	7.62	371	84																	
6-Jan-10	623	500	465																				
13-Jan-10	630	500	470	7.63	291	80	<1	6	43	54	38.5	<0.5	0.223	3.35	0.023	0.00066	0.00077	0.0132	<0.0002	<0.0005	<0.01	<0.00005	15.1
20-Jan-10	637	500	455																				
27-Jan-10	644	500	465	7.60	323	70																	
3-Feb-10	651	500	460																				
10-Feb-10	658	500	515	7.50	231	75	<1	4	42	51	39.1	<0.5	0.236	4.07	0.0303	0.000668	0.00183	0.0131	<0.0002	<0.0005	<0.01	0.000111	15.3
17-Feb-10	665	500	460																				
24-Feb-10	672	500	480	7.58	251	69																	
3-Mar-10	679	500	480																				
10-Mar-10	686	500	465	7.56	364	80	<1	4	46	49	40.1	<0.5	0.217	3.81	0.0261	0.000634	0.00072	0.014	<0.0002	<0.0005	<0.01	<0.00005	15.7
17-Mar-10	693	500	495																				
24-Mar-10	700	500	480	7.67	272	74																	
31-Mar-10	707	500	490																				
7-Apr-10	714	500	480	7.58	271	75	<1	4	39	44	36.4	<0.5	0.198	3.48	0.0289	0.000592	0.00075	0.0124	<0.0002	<0.0005	<0.01	<0.00005	14.3
14-Apr-10	721	500	385																				
21-Apr-10	728	500	480	7.64	239	81																	
28-Apr-10	735	500	485																				
5-May-10	742	500	475	7.59	296	81	<1	4	44	53	42.4	<0.5	0.16	3.76	0.0306	0.000661	0.00071	0.0137	<0.0002	<0.0005	<0.01	<0.00005	16.6
12-May-10	749	500	455																				
19-May-10	756	500	490	7.68	311	74																	
26-May-10	763	500	495																				
2-Jun-10	770	500	485	7.64	306	74	<1	3	40	40	38	<0.5	0.156	3.94	0.0338	0.000684	0.00079	0.0125	<0.0002	<0.0005	<0.01	<0.00005	14.9
9-Jun-10	777	500	520																				
16-Jun-10	784	500	485	7.71	314	73																	
23-Jun-10	791	500	510																				
30-Jun-10	798	500	485	7.79	386	75	<1	3	44	43	40.9	<0.5	0.136	4.09	0.0301	0.000587	0.0007	0.012	<0.0002	<0.0005	<0.01	<0.00005	16.1
7-Jul-10	805	500	490																				
14-Jul-10	812	500	470	7.63	311	75																	
21-Jul-10	819	500	500																				
28-Jul-10	826	500	470	7.59	302	75	<1	4	43	40	39.5	<0.5	0.105	3.63	0.027	0.000507	0.00082	0.0123	<0.0002	<0.0005	0.015	<0.00005	15.5
4-Aug-10	833	500	480																				
11-Aug-10	840	500	515	7.77	362	70																	
18-Aug-10	847	500	475																				
25-Aug-10	854	500	495	7.62	305	73	<1	4	44	44	37.5	<0.5	0.087	3.48	0.0308	0.000569	0.00098	0.0127	<0.0002	<0.0005	<0.01	<0.00005	14.7
1-Sep-10	861	500	475																				
8-Sep-10	868	500	465	7.52	328	76																	
15-Sep-10	875	500	520																				
22-Sep-10	882	500	480	7.63	287	66	<1	4	46	52	41.7	<0.5	0.096	3.39	0.0316	0.000499	0.00074		<0.0002	<0.0005	<0.01	<0.00005	16.4
29-Sep-10	889	500	455																				
6-Oct-10	896	500	505	7.62	250	77																	
13-Oct-10	903	500	445																				
20-Oct-10	910	500	510	7.68	238	77	<1	4	46	52	39.1	<0.5	0.08	3.6	0.033	0.000524	0.00075	0.0121	<0.0002	<0.0005	<0.01	<0.00005	15.3
27-Oct-10	917	500	475																				
3-Nov-10	924	500	480	7.79	338	79																	
10-Nov-10	931	500	485																				
17-Nov-10	938	500	480	7.82	283	80	<1	4	46	34	39.6	<0.5	0.063	3.6	0.036	0.000481	0.00073	0.0127	<0.0002	<0.0005	<0.01	<0.00005	15.5
24-Nov-10	945	500	470																				
1-Dec-10	952	500	445	7.62	330	76																	
8-Dec-10	959	500	475																				
15-Dec-10	966	500	425	7.55	295	76	<1	5	45	44	39.7	<0.5	0.05	3.51	0.0329	0.000462	0.00064	0.0136	<0.0002	<0.0005	<0.01	<0.00005	15.5
22-Dec-10	973	500	400																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Nov-09	560																			
11-Nov-09	567																			
18-Nov-09	574	<0.0005	<0.0001	0.00433	<0.03	<0.00005	0.215	0.0316	<0.00001	0.00847	<0.0005	0.533	<0.001	0.614	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
25-Nov-09	581																			
2-Dec-09	588																			
9-Dec-09	595																			
16-Dec-09	602	<0.0005	<0.0001	0.00469	<0.03	<0.00005	0.208	0.0301	<0.00001	0.00792	<0.0005	0.506	<0.001	0.594	<0.00001	<2	<0.00005	0.00016	<0.0005	0.0023
23-Dec-09	609																			
30-Dec-09	616																			
6-Jan-10	623																			
13-Jan-10	630	<0.0005	<0.0001	0.00542	<0.03	<0.00005	0.194	0.0297	<0.00001	0.00834	<0.0005	0.467	<0.001	0.593	<0.00001	<2	<0.00005	0.00012	<0.0005	0.0029
20-Jan-10	637																			
27-Jan-10	644																			
3-Feb-10	651																			
10-Feb-10	658	<0.0005	<0.0001	0.0076	<0.03	<0.00005	0.196	0.0277	<0.0001	0.00864	0.00051	0.462	<0.001	0.611	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0063
17-Feb-10	665																			
24-Feb-10	672																			
3-Mar-10	679																			
10-Mar-10	686	<0.0005	<0.0001	0.00493	<0.03	<0.00005	0.207	0.0256	<0.00001	0.0101	<0.0005	0.475	<0.001	0.555	<0.00001	<2	<0.00005	0.00023	<0.0005	0.0027
17-Mar-10	693																			
24-Mar-10	700																			
31-Mar-10	707																			
7-Apr-10	714	<0.0005	<0.0001	0.00518	<0.03	<0.00005	0.183	0.0101	<0.00001	0.0133	<0.0005	0.445	<0.001	0.576	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0026
14-Apr-10	721																			
21-Apr-10	728																			
28-Apr-10	735																			
5-May-10	742	<0.0005	<0.0001	0.00427	<0.03	<0.00005	0.21	0.00508	<0.00001	0.0221	<0.0005	0.495	0.001	0.648	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0022
12-May-10	749																			
19-May-10	756																			
26-May-10	763																			
2-Jun-10	770	<0.0005	<0.0001	0.00448	<0.03	<0.00005	0.193	0.00284	<0.00001	0.0312	<0.0005	0.451	0.0011	0.589	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
9-Jun-10	777																			
16-Jun-10	784																			
23-Jun-10	791																			
30-Jun-10	798	<0.0005	<0.0001	0.00449	<0.03	<0.00005	0.197	0.00179	<0.00001	0.034	<0.0005	0.416	<0.001	0.606	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0019
7-Jul-10	805																			
14-Jul-10	812																			
21-Jul-10	819																			
28-Jul-10	826	<0.0005	<0.0001	0.00361	<0.03	<0.00005	0.2	0.00266	<0.00001	0.0259	<0.0005	0.355	<0.001	0.597	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
4-Aug-10	833																			
11-Aug-10	840																			
18-Aug-10	847																			
25-Aug-10	854	<0.0005	<0.0001	0.0037	<0.03	<0.00005	0.209	0.00136	<0.00001	0.0217	<0.0005	0.41	0.0012	0.561	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0049
1-Sep-10	861																			
8-Sep-10	868																			
15-Sep-10	875																			
22-Sep-10	882	<0.0005	<0.0001	0.00372	<0.03	<0.00005	0.19	0.00252	<0.00001	0.0177	<0.0005	0.44	<0.001	0.637	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0047
29-Sep-10	889																			
6-Oct-10	896																			
13-Oct-10	903																			
20-Oct-10	910	<0.0005	<0.0001	0.00372	<0.03	<0.00005	0.206	0.000933	<0.00001	0.0221	<0.0005	0.423	<0.001	0.639	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
27-Oct-10	917																			
3-Nov-10	924																			
10-Nov-10	931																			
17-Nov-10	938	<0.0005	<0.0001	0.00382	<0.03	<0.00005	0.214	0.00102	<0.00001	0.0202	<0.0005	0.429	<0.001	0.636	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0022
24-Nov-10	945																			
1-Dec-10	952																			
8-Dec-10	959																			
15-Dec-10	966	<0.0005	<0.0001	0.00403	<0.03	<0.00005	0.22	0.00167	<0.00001	0.0203	<0.0005	0.422	<0.001	0.636	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0023
22-Dec-10	973																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
29-Dec-10	980	500	490	7.64	295	63																	
5-Jan-11	987	500	485																				
12-Jan-11	994	500	470	7.64	295	70	<1	5	47	45	40.3	<0.5	0.025	2.91	0.0284	0.000396	0.00062	0.012	<0.0002	<0.0005	<0.01	<0.00005	15.8
19-Jan-11	1001	500	465																				
26-Jan-11	1008	500	480	7.59	251	65																	
2-Feb-11	1015	500	465																				
9-Feb-11	1022	500	460	7.62	327	68	<1	3	46	50	41.4	<0.5	0.028	2.62	0.0292	0.0004	0.00064	0.0131	<0.0002	<0.0005	<0.01	<0.00005	16.2
16-Feb-11	1029	500	470																				
23-Feb-11	1036	500	470	7.64	272	77																	
2-Mar-11	1043	500	435																				
9-Mar-11	1050	500	470	7.58	234	75	<1	4	43	41	35.5	<0.5	0.032	2.31	0.0292	0.000306	0.00055	0.0127	<0.0002	<0.0005	<0.01	<0.00005	13.9
16-Mar-11	1057	500	470																				
23-Mar-11	1064	500	460	7.66	223	72																	
30-Mar-11	1071	500	500																				
6-Apr-11	1078	500	480	7.57	191	71	<1	6	44	42	34.3	<0.5	0.031	2.53	0.0288	0.000308	0.00064	0.0106	<0.0002	<0.0005	<0.01	<0.00005	13.5
13-Apr-11	1085	500	495																				
20-Apr-11	1092	500	480	7.87	229	71																	
27-Apr-11	1099	500	480																				
4-May-11	1106	500	490	7.65	281	66	<1	5	40	36	33.4	<0.5	0.027	2.61	0.0352	0.000288	0.00069	0.01	<0.0002	<0.0005	<0.01	<0.00005	13.1
11-May-11	1113	500	485																				
18-May-11	1120	500	500	7.61	280	67																	
25-May-11	1127	500	485																				
1-Jun-11	1134	500	445	7.84	243	73	<1	6	39	46	36.5	<0.5	0.024	3.32	0.0332	0.000315	0.00068	0.0112	<0.0002	<0.0005	<0.01	<0.00005	14.3
8-Jun-11	1141	500	510																				
15-Jun-11	1148	500	465	7.90	266	69																	
22-Jun-11	1155	500	460																				
29-Jun-11	1162	500	495	7.82	276	62	<1	4	39	32	31.1	<0.5	0.023	2.88	0.0345	0.000272	0.00069	0.00927	<0.0002	<0.0005	<0.01	<0.00005	12.2
6-Jul-11	1169	500	490																				
13-Jul-11	1176	500	500	7.78	259	64																	
20-Jul-11	1183	500	510																				
27-Jul-11	1190	500	465	7.63	203	64	<1	3	35	35	32.5	<0.5	0.023	2.86	0.0396	0.00031	0.00074	0.00982	<0.0002	<0.0005	<0.01	<0.00005	12.8
3-Aug-11	1197	500	460																				
10-Aug-11	1204	500	430	7.75	163	69																	
17-Aug-11	1211	500	475																				
24-Aug-11	1218	500	450	7.73	168	68	<1	5	41	47	34.6	<0.5	0.02	3.13	0.0274	0.000281	0.00057	0.0105	<0.0002	<0.0005	<0.01	<0.00005	13.6
31-Aug-11	1225	500	440																				
7-Sep-11	1232	500	440	7.79	212	68																	
14-Sep-11	1239	500	455																				
21-Sep-11	1246	500	460	7.66	243	67	<1	4	39	31	35.5	<0.5	<0.02	3.08	0.036	0.000275	0.00072	0.0106	<0.0002	<0.0005	<0.01	<0.00005	13.9
28-Sep-11	1253	500	460																				
5-Oct-11	1260	500	460	7.63	125	69																	
12-Oct-11	1267	500	430																				
19-Oct-11	1274	500	450	7.64	183	71	<1	3	38	36	36.1	<0.5	<0.02	2.82	0.0231	0.000317	0.00089	0.012	<0.0002	<0.0005	<0.01	<0.00005	14.2
26-Oct-11	1281	500	475																				
2-Nov-11	1288	500	460	7.66	141	68																	
9-Nov-11	1295	500	445																				
16-Nov-11	1302	500	455	7.63	206	68	<1	3	39	33	35	<0.5	<0.02	2.77	0.0229	0.000246	0.00048	0.0101	<0.0002	<0.0005	<0.01	<0.00005	13.7
23-Nov-11	1309	500	445																				
30-Nov-11	1316	500	455	7.72	261	69																	
7-Dec-11	1323	500	470																				
14-Dec-11	1330	500	465	7.62	220	73	<1	4	43	39	36.6	<0.5	<0.02	2.88	0.0223	0.000241	0.00044	0.0116	<0.0002	<0.0005	<0.01	<0.00005	14.3
21-Dec-11	1337	500	470																				
28-Dec-11	1344	500	455	7.60	136	65																	
4-Jan-12	1351	500	460																				
11-Jan-12	1358	500	470	7.59	162	65	<1	3	43	32	33.2	<0.5	<0.02	2.48	0.024	0.000263	0.00043	0.00981	<0.0002	<0.0005	<0.01	<0.00005	13
18-Jan-12	1365	500	440																				
25-Jan-12	1372	500	455	7.63	296	64																	
1-Feb-12	1379	500	475																				
8-Feb-12	1386	500	430	7.65	362	67	<1	6	44	40	32.6	<0.5	<0.02	2.76	0.0199	0.00025	0.00039	0.0103	<0.0002	<0.0005	<0.01	<0.00005	12.8
15-Feb-12	1393	500	475																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
29-Dec-10	980																			
5-Jan-11	987																			
12-Jan-11	994	<0.0005	<0.0001	0.00389	<0.03	0.00007	0.21	0.00148	<0.00001	0.0185	<0.0005	0.37	<0.001	0.548	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
19-Jan-11	1001																			
26-Jan-11	1008																			
2-Feb-11	1015																			
9-Feb-11	1022	<0.0005	<0.0001	0.00491	<0.03	0.000089	0.225	0.00155	<0.00001	0.0145	<0.0005	0.423	<0.001	0.58	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0023
16-Feb-11	1029																			
23-Feb-11	1036																			
2-Mar-11	1043																			
9-Mar-11	1050	<0.0005	<0.0001	0.00389	<0.03	<0.00005	0.177	0.00156	<0.00001	0.00944	<0.0005	0.325	<0.001	0.543	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0038
16-Mar-11	1057																			
23-Mar-11	1064																			
30-Mar-11	1071																			
6-Apr-11	1078	<0.0005	<0.0001	0.00308	<0.03	0.000113	0.164	0.00129	<0.00001	0.01	<0.0005	0.326	<0.001	0.521	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0019
13-Apr-11	1085																			
20-Apr-11	1092																			
27-Apr-11	1099																			
4-May-11	1106	<0.0005	<0.0001	0.00242	<0.03	<0.00005	0.162	0.00105	<0.00001	0.011	<0.0005	0.334	<0.001	0.504	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
11-May-11	1113																			
18-May-11	1120																			
25-May-11	1127																			
1-Jun-11	1134	<0.0005	<0.0001	0.00357	<0.03	<0.00005	0.182	0.00135	<0.00001	0.0133	<0.0005	0.352	<0.001	0.548	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
8-Jun-11	1141																			
15-Jun-11	1148																			
22-Jun-11	1155																			
29-Jun-11	1162	<0.0005	<0.0001	0.00281	<0.03	<0.00005	0.148	0.000934	<0.00001	0.0118	<0.0005	0.309	<0.001	0.513	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0017
6-Jul-11	1169																			
13-Jul-11	1176																			
20-Jul-11	1183																			
27-Jul-11	1190	0.00064	<0.0001	0.00359	<0.03	0.000201	0.16	0.00134	<0.00001	0.0118	0.00082	0.341	<0.001	0.53	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.002
3-Aug-11	1197																			
10-Aug-11	1204																			
17-Aug-11	1211																			
24-Aug-11	1218	<0.0005	<0.0001	0.00305	<0.03	<0.00005	0.172	0.00175	<0.00001	0.0131	<0.0005	0.321	<0.001	0.565	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
31-Aug-11	1225																			
7-Sep-11	1232																			
14-Sep-11	1239																			
21-Sep-11	1246	<0.0005	<0.0001	0.00328	<0.03	<0.00005	0.17	0.00212	<0.00001	0.0136	<0.0005	0.325	<0.001	0.557	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0046
28-Sep-11	1253																			
5-Oct-11	1260																			
12-Oct-11	1267																			
19-Oct-11	1274	<0.0005	<0.0001	0.00301	<0.03	<0.00005	0.181	0.00195	<0.00001	0.0132	<0.0005	0.349	<0.001	0.565	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
26-Oct-11	1281																			
2-Nov-11	1288																			
9-Nov-11	1295																			
16-Nov-11	1302	<0.0005	<0.0001	0.00366	<0.03	<0.00005	0.169	0.00109	<0.00001	0.0131	<0.0005	0.306	<0.001	0.519	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0041
23-Nov-11	1309																			
30-Nov-11	1316																			
7-Dec-11	1323																			
14-Dec-11	1330	<0.0005	<0.0001	0.00385	<0.03	<0.00005	0.192	0.00143	<0.00001	0.0127	<0.0005	0.345	<0.001	0.582	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
21-Dec-11	1337																			
28-Dec-11	1344																			
4-Jan-12	1351																			
11-Jan-12	1358	<0.0005	<0.0001	0.00303	<0.03	<0.00005	0.164	0.00111	<0.00001	0.0116	<0.0005	0.304	<0.001	0.512	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0021
18-Jan-12	1365																			
25-Jan-12	1372																			
1-Feb-12	1379																			
8-Feb-12	1386	0.0006	<0.0001	0.00291	<0.03	<0.00005	0.16	0.0011	<0.00001	0.0129	<0.0005	0.333	<0.001	0.542	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0019
15-Feb-12	1393																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
22-Feb-12	1400	500	455	7.58	306	62																	
29-Feb-12	1407	500	450																				
7-Mar-12	1414	500	440	7.76	360	58	<1	7	36	34	29.6	<0.5	<0.02	2.56	0.0212	0.000227	0.0004	0.00855	<0.0002	<0.0005	<0.01	<0.00005	11.6
14-Mar-12	1421	500	450																				
21-Mar-12	1428	500	465	7.54	262	62																	
28-Mar-12	1435	500	480																				
4-Apr-12	1442	500	490	7.45	301	58	<1	4	33	33	29.3	<0.5	<0.02	3.02	0.0244	0.000254	0.00039	0.00837	<0.0002	<0.0005	<0.01	<0.00005	11.5
11-Apr-12	1449	500	445																				
18-Apr-12	1456	500	470	7.50	319	57																	
25-Apr-12	1463	500	445																				
2-May-12	1470	500	465	7.71	313	55	<1	7	31	37	27.2	<0.5	<0.02	2.88	0.0219	0.000242	0.00043	0.00851	<0.0002	<0.0005	<0.01	<0.00005	10.6
9-May-12	1477	500	460																				
16-May-12	1484	500	450	7.62	228	51																	
23-May-12	1491	500	465																				
30-May-12	1498	500	470	7.64	210	48	<1	5	27	29	24	<0.5	<0.02	3.05	0.0146	0.000238	0.00029	0.0073	<0.0002	<0.0005	<0.01	<0.00005	9.41
6-Jun-12	1505	500	455																				
13-Jun-12	1512	500	460	7.62	362	46																	
20-Jun-12	1519	500	450																				
27-Jun-12	1526	500	415	7.61	346	47	<1	6	26	31	23.3	<0.5	<0.02	3.51	0.0147	0.000216	0.00026	0.00735	<0.0002	<0.0005	<0.01	<0.00005	9.07
4-Jul-12	1533	500	455																				
11-Jul-12	1540	500	465	7.34	376	39																	
18-Jul-12	1547	500	470																				
25-Jul-12	1554	500	490	7.31	340	32	<1	3	14	19	15.2	<0.5	<0.02	3.24	0.0103	0.000186	0.00023	0.00527	<0.0002	<0.0005	<0.01	<0.00005	5.9
1-Aug-12	1561	500	480																				
8-Aug-12	1568	500	425	7.44	299	32																	
15-Aug-12	1575	500	450																				
22-Aug-12	1582	500	520	7.45	250	28	<1	5	13	15	13.4	<0.5	0.021	3.48	0.0063	0.000188	0.00014	0.00475	<0.0002	<0.0005	<0.01	<0.00005	5.22
29-Aug-12	1589	500	480																				
5-Sep-12	1596	500	470	7.48	349	22																	
12-Sep-12	1603	500	430																				
19-Sep-12	1610	500	455	7.36	322	25	<1	5	12	16	11.8	<0.5	0.024	3.27	0.007	0.000166	0.00022	0.0046	<0.0002	<0.0005	<0.01	<0.00005	4.57
26-Sep-12	1617	500	475																				
3-Oct-12	1624	500	455	7.49	321	20																	
10-Oct-12	1631	500	475																				
17-Oct-12	1638	500	440	7.33	373	18	<1	4	8	10	7.99	<0.5	0.03	2.96	0.004	0.00016	0.00011	0.00368	<0.0002	<0.0005	<0.01	<0.00005	3.08
24-Oct-12	1645	500	480																				
31-Oct-12	1652	500	445	7.23	137	18																	
7-Nov-12	1659	500	480																				
14-Nov-12	1666	500	455	7.91	311	17	<1	7	9	19	7.84	<0.5	0.035	3.18	0.0035	0.000144	0.00013	0.00366	<0.0002	<0.0005	<0.01	0.00005	3.01
21-Nov-12	1673	500	495																				
28-Nov-12	1680	500	470	7.73	327	14																	
5-Dec-12	1687	500	465																				
12-Dec-12	1694	500	425	8.03	263	13	<1	4	7	18	6.72	<0.5	0.033	3.06	0.0037	0.000121	<0.0001	0.00349	<0.0002	<0.0005	<0.01	0.000061	2.58
19-Dec-12	1701	500	425																				
26-Dec-12	1708	500	425	7.94	355	14																	

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
23-Apr-08	0	750	410	7.47	419	256	<1	3	34	175	71.5	7.48	0.785	61.4	0.0204	0.00258	0.0024	0.00667	<0.0002	<0.0005	0.028	0.000091	24.5
30-Apr-08	7	500	420	7.73	393	206																	
7-May-08	14	500	465	7.85	373	171	<1	4	52	97.4	62.3	<0.5	0.507	28.4	0.0208	0.00252	0.00247	0.00424	<0.0002	<0.0005	0.018	<0.00005	21.1
14-May-08	21	500	485	7.87	337	149																	
21-May-08	28	500	450	7.80	333	146	<1	4	43	93.4	54.4	<0.5	0.561	24.5	0.0216	0.00183	0.00198	0.00454	<0.0002	<0.0005	0.011	<0.00005	19
28-May-08	35	500	415	7.83	332	149																	
4-Jun-08	42	500	460	7.99	413	128	<1	3	54	106	63.1	<0.5	0.431	20.5	0.0224	0.00171	0.00251	0.00356	<0.0002	<0.0005	<0.01	<0.00005	22
11-Jun-08	49	500	500	7.88	379	119																	
18-Jun-08	56	500	475	7.81	314	111	<1	5	52	87.5	63.7	<0.5	0.341	20.9	0.0203	0.00148	0.00113	0.00322	<0.0002	<0.0005	<0.01	<0.00005	22.9
25-Jun-08	63	500	485	7.89	326	160																	

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Feb-12	1400																			
29-Feb-12	1407																			
7-Mar-12	1414	<0.0005	<0.0001	0.00387	<0.03	<0.00005	0.156	0.00117	<0.00001	0.0126	<0.0005	0.278	<0.001	0.526	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
14-Mar-12	1421																			
21-Mar-12	1428																			
28-Mar-12	1435																			
4-Apr-12	1442	<0.0005	<0.0001	0.00302	<0.03	<0.00005	0.163	0.000629	<0.00001	0.0128	<0.0005	0.311	<0.001	0.495	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0054
11-Apr-12	1449																			
18-Apr-12	1456																			
25-Apr-12	1463																			
2-May-12	1470	0.00065	<0.0001	0.00255	<0.03	<0.00005	0.152	0.000681	<0.00001	0.0121	0.00056	0.296	<0.001	0.52	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
9-May-12	1477																			
16-May-12	1484																			
23-May-12	1491																			
30-May-12	1498	<0.0005	<0.0001	0.00228	<0.03	<0.00005	0.133	0.000517	<0.00001	0.00968	<0.0005	0.251	<0.001	0.553	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0024
6-Jun-12	1505																			
13-Jun-12	1512																			
20-Jun-12	1519																			
27-Jun-12	1526	0.00094	<0.0001	0.00226	<0.03	<0.00005	0.145	0.000814	<0.00001	0.009	<0.0005	0.301	<0.001	0.665	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
4-Jul-12	1533																			
11-Jul-12	1540																			
18-Jul-12	1547																			
25-Jul-12	1554	0.00056	<0.0001	0.00228	<0.03	<0.00005	0.105	0.00111	<0.00001	0.00786	<0.0005	0.253	<0.001	0.625	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0045
1-Aug-12	1561																			
8-Aug-12	1568																			
15-Aug-12	1575																			
22-Aug-12	1582	<0.0005	<0.0001	0.00282	<0.03	<0.00005	0.0985	0.00188	<0.00001	0.00668	<0.0005	0.233	<0.001	0.737	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0066
29-Aug-12	1589																			
5-Sep-12	1596																			
12-Sep-12	1603																			
19-Sep-12	1610	<0.0005	<0.0001	0.00261	<0.03	<0.00005	0.0986	0.00288	<0.00001	0.00563	<0.0005	0.242	<0.001	0.777	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0091
26-Sep-12	1617																			
3-Oct-12	1624																			
10-Oct-12	1631																			
17-Oct-12	1638	<0.0005	<0.0001	0.00304	<0.03	<0.00005	0.074	0.00478	<0.00001	0.0049	<0.0005	0.218	<0.001	0.77	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0139
24-Oct-12	1645																			
31-Oct-12	1652																			
7-Nov-12	1659																			
14-Nov-12	1666	<0.0005	<0.0001	0.00354	<0.03	<0.00005	0.0766	0.0098	<0.00001	0.00473	<0.0005	0.238	<0.001	0.846	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0202
21-Nov-12	1673																			
28-Nov-12	1680																			
5-Dec-12	1687																			
12-Dec-12	1694	<0.0005	<0.0001	0.00365	<0.03	<0.00005	0.0677	0.0132	<0.00001	0.0034	<0.0005	0.21	<0.001	0.844	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0259
19-Dec-12	1701																			
26-Dec-12	1708																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
23-Apr-08	0	0.00058	0.00033	0.0119	<0.03	0.000077	2.52	0.0511	<0.00001	0.223	0.00264	17.5	0.0071	1.96	<0.00001	10.8	<0.00005	<0.0001	0.00054	0.0131
30-Apr-08	7																			
7-May-08	14	<0.0005	0.00023	0.00343	<0.03	0.000189	2.36	0.0395	<0.00001	0.077	0.00076	12	0.0021	2.61	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
14-May-08	21																			
21-May-08	28	<0.0005	0.00014	0.00293	<0.03	<0.00005	1.67	0.0275	<0.00001	0.0413	<0.0005	7.58	0.0019	2.39	<0.00001	<2	<0.00005	<0.0001	0.00062	0.0022
28-May-08	35																			
4-Jun-08	42	<0.0005	0.00033	0.00496	<0.03	0.000716	1.95	0.0518	<0.00001	0.029	0.00057	6.56	0.0018	2.43	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0041
11-Jun-08	49																			
18-Jun-08	56	<0.0005	0.00037	0.00427	<0.03	0.000074	1.59	0.0545	<0.00001	0.0253	0.00064	5.37	0.0016	2.26	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0055
25-Jun-08	63																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
2-Jul-08	70	500	485	7.83	379	139	<1	4	43	90	69.6	<0.5	0.331	28.4	0.0185	0.00141	0.001	0.00332	<0.0002	<0.0005	<0.01	<0.00005	25.3
9-Jul-08	77	500	445	7.86	348	159																	
16-Jul-08	84	500	455	7.87	380	149	<1	4	47	101	69.3	<0.5	0.29	27.3	0.0167	0.0012	0.00094	0.00342	<0.0004	<0.001	<0.02	<0.0001	25.2
23-Jul-08	91	500	485	7.80	388	151																	
30-Jul-08	98	500	470	7.84	401	149	<1	3	47	88.8	55.3	<0.5	0.242	26.2	0.0195	0.00123	0.00109	0.0114	<0.0002	<0.0005	<0.01	<0.00005	20.5
6-Aug-08	105	500	480	7.83	380	139																	
13-Aug-08	112	500	515	7.81	357	137	<1	3	42	71.8	60.4	<0.5	0.203	21.3	0.0185	0.000922	0.00055	0.00243	<0.0002	<0.0005	<0.01	<0.00005	22.4
20-Aug-08	119	500	460	7.82	304	145																	
27-Aug-08	126	500	495	7.74	376	134	<1	3	45	84.8	58.3	<0.5	0.206	22.6	0.0173	0.000893	0.00052	0.00256	<0.0002	<0.0005	<0.01	<0.00005	21.6
3-Sep-08	133	500	455	7.69	294	126																	
10-Sep-08	140	500	525	7.84	292	131	<1	2	51	74.3	58.1	<0.5	0.198	20.1	0.027	0.000894	0.00054	0.00279	<0.0002	<0.0005	<0.01		21.6
17-Sep-08	147	500	415	7.89	302	139																	
24-Sep-08	154	500	440	7.75	278	128	<1	3	41	74.6	54	<0.5	0.126	19.1	0.0192	0.000697	0.00056	0.0022	<0.0002	<0.0005	<0.01	<0.00005	20.3
1-Oct-08	161	500	435	7.86	417	125																	
8-Oct-08	168	500	500	7.82	383	117	<1	3	40	70	52.9	<0.5	0.128	15.7	0.0204	0.000659	0.00052	0.0022	<0.0002	<0.0005	<0.01	<0.00005	20
15-Oct-08	175	500	465	7.73	389	114																	
22-Oct-08	182	500	460	7.74	413	113	<1	3	43	68.5	54.2	<0.5	0.137	15	0.014	0.000643	0.00035	0.00195	<0.0002	<0.0005	<0.01	<0.00005	20.6
29-Oct-08	189	500	450	7.75	439	121																	
5-Nov-08	196	500	520	7.69	417	111	<1	4	45	63.6	54.7	<0.5	0.11	13.5	0.015	0.00067	0.00035	0.00199	<0.0002	<0.0005	<0.01	<0.00005	20.8
12-Nov-08	203	500	490	7.71	417	99																	
19-Nov-08	210	500	415	7.84	427	93	<1	2	45	73.3	50.7	<0.5	0.109	13.6	0.0183	0.000567	0.00034	0.00186	<0.0002	<0.0005	<0.01	<0.00005	19.5
26-Nov-08	217	500	480	7.71	378	96																	
3-Dec-08	224	500	460	7.78	360	98	<1	2	46	56.1	47.7	<0.5	0.102	11.6	0.0188	0.000605	0.00042	0.00184	<0.0002	<0.0005	<0.01	<0.00005	18.2
10-Dec-08	231	500	470	7.74	331	100																	
17-Dec-08	238	500	445	7.63	357	97				53.6	49.7	<0.5	0.086	10.2	0.0161	0.000545	0.00044	0.00182	<0.0002	<0.0005	<0.01	<0.00005	19.1
24-Dec-08	245	500	515	7.74	335	99																	
31-Dec-08	252	500	455	7.83	317	97	<1		53	58	50.1	<0.5	0.086	11.8	0.0169	0.000563	0.00032	0.00167	<0.0002	<0.0005	<0.01	<0.00005	19.3
7-Jan-09	259	500	485	7.49	258	101																	
14-Jan-09	266	500	435	7.65	374	102	<1	5	51	63	51.1	<0.5	0.062	9.49	0.0145	0.000585	0.00032	0.00172	<0.0002	<0.0005	<0.01	<0.00005	19.6
21-Jan-09	273	500	495	7.56	397	96																	
28-Jan-09	280	500	450	7.61	379	94	<1	6	49	53.8	48.9	<0.5	0.071	8.97	0.0147	0.00056	0.00035	0.00151	<0.0002	<0.0005	<0.01	<0.00005	18.9
4-Feb-09	287	500	505	7.70	380	114																	
11-Feb-09	294	500	475	7.82	383	97	<1	6	49	57.6	48.9	<0.5	0.073	9.05	0.0189	0.000574	0.00045	0.00162	<0.0002	<0.0005	<0.01	<0.00005	18.9
18-Feb-09	301	500	415	7.81	361	106																	
25-Feb-09	308	500	465	7.77	402	95	<1	6	50	59.3	46.6	<0.5	0.057	9.13	0.0164	0.000514	0.00032	0.00173	<0.0002	<0.0005	<0.01	<0.00005	17.9
4-Mar-09	315	500	460	7.59	263	98																	
11-Mar-09	322	500	475	7.45	339	95	<1	5	46	49.5	48.3	<0.5	0.06	9.45	0.0162	0.000526	0.00035	0.00177	<0.0002	<0.0005	<0.01	<0.00005	18.7
18-Mar-09	329	500	475	7.60	353	100																	
25-Mar-09	336	500	475	7.49	362	96	<1	5	49	53.8	46.8	<0.5	0.051	8.21	0.0156	0.0005	0.00031	0.00137	<0.0002	<0.0005	<0.01	<0.00005	18.2
1-Apr-09	343	500	480	7.56	364	96																	
8-Apr-09	350	500	440	7.63	369	103	<1	4	51	60.5	51.1	<0.5	0.042	9.19	0.0143	0.000501	0.00034	0.00163	<0.0002	<0.0005	<0.01	<0.00005	19.9
15-Apr-09	357	500	480	7.65	375	98																	
22-Apr-09	364	500	470	7.73	376	97																	
29-Apr-09	371	500	465																				
6-May-09	378	500	470	7.56	366	93	<1	4	45	55	45.3	<0.5	0.053	9.3	0.0167	0.000492	0.00034	0.0027	<0.0002	<0.0005	0.01	<0.00005	17.6
13-May-09	385	500	445																				
20-May-09	392	500	505	7.62	368	91																	
27-May-09	399	500	455																				
3-Jun-09	406	500	490	7.74	364	97	<1	3	49	53.6	56.2	<0.5	0.098	17.3	0.0192	0.000618	0.0004	0.00192	<0.0002	<0.0005	<0.01	<0.00005	21.9
10-Jun-09	413	500	505																				
17-Jun-09	420	500	500	7.69	391	90																	
24-Jun-09	427	500	500																				
1-Jul-09	434	500	470	7.66	347	79	<1	3	42	54.5	47.3	<0.5	0.053	14.2	0.0194	0.000534	0.00034	0.00162	<0.0002	<0.0005	0.016	<0.00005	18.5
8-Jul-09	441	500	485																				
15-Jul-09	448	500	480	7.72	358	87																	
22-Jul-09	455	500	500																				
29-Jul-09	462	500	505	7.65	331	97	<1	5	47	60.9	50.1	<0.5	0.061	13	0.0288	0.000503	0.0004	0.00169	<0.0002	<0.0005	<0.01	<0.00005	19.6
5-Aug-09	469	500	490																				
12-Aug-09	476	500	505	7.63	281	99																	
19-Aug-09	483	500	505																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
2-Jul-08	70	<0.0005	0.00037	0.00491	<0.03	<0.00005	1.58	0.0567	<0.00001	0.0357	<0.0005	4.54	0.0018	2.24	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0051
9-Jul-08	77																			
16-Jul-08	84	<0.001	0.0004	0.0078	<0.03	<0.0001	1.55	0.0658	<0.00001	0.0383	<0.001	3.98	<0.002	1.98	<0.00002	<2	<0.0001	<0.0002	<0.001	0.0062
23-Jul-08	91																			
30-Jul-08	98	<0.0005	0.00026	0.00406	<0.03	<0.00005	1.02	0.075	<0.00001	0.01	<0.0005	2.11	0.0017	1.45	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
6-Aug-08	105																			
13-Aug-08	112	<0.0005	0.00029	0.00614	<0.03	<0.00005	1.07	0.0533	<0.00001	0.0291	<0.0005	2.68	0.0014	1.65	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0059
20-Aug-08	119																			
27-Aug-08	126	<0.0005	0.00026	0.0057	<0.03	0.000133	1.03	0.0508	<0.00001	0.0312	<0.0005	2.35	0.0011	1.58	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0046
3-Sep-08	133																			
10-Sep-08	140	<0.0005	0.00024	0.00594	<0.03	0.000081	1.03	0.0517	<0.00001	0.0289	<0.0005	2.38	0.0012	1.6	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0057
17-Sep-08	147																			
24-Sep-08	154	<0.0005	0.00021	0.00608	<0.03	<0.00005	0.821	0.0439	<0.00001	0.0275	<0.0005	1.88	0.001	1.44	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0044
1-Oct-08	161																			
8-Oct-08	168	<0.0005	0.00048	0.00649	<0.03	0.000057	0.704	0.0414	<0.00001	0.0237	0.00061	1.7	<0.001	1.36	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0045
15-Oct-08	175																			
22-Oct-08	182	<0.0005	0.00022	0.00623	<0.03	<0.00005	0.694	0.0483	<0.00001	0.0235	<0.0005	1.65	<0.001	1.28	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0045
29-Oct-08	189																			
5-Nov-08	196	<0.0005	0.00021	0.00733	<0.03	<0.00005	0.652	0.0448	<0.00001	0.0229	<0.0005	1.6	0.0011	1.26	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0045
12-Nov-08	203																			
19-Nov-08	210	<0.0005	0.00017	0.00705	<0.03		0.496	0.0371	<0.00001	0.0241	<0.0005	1.34	<0.001	1.16	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0041
26-Nov-08	217																			
3-Dec-08	224	<0.0005	0.00015	0.00683	<0.03	0.000227	0.541	0.0371	<0.00001	0.0252	<0.0005	1.46	<0.001	1.1	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0048
10-Dec-08	231																			
17-Dec-08	238	<0.0005	0.00015	0.00621	<0.03	<0.00005	0.482	0.0332	<0.00001	0.0234	<0.0005	1.23	<0.001	1.02	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.004
24-Dec-08	245																			
31-Dec-08	252	<0.0005	0.00015	0.00556	<0.03	<0.00005	0.467	0.0365	<0.00001	0.0307	0.0012	1.29	<0.001	1	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0038
7-Jan-09	259																			
14-Jan-09	266	<0.0005	0.00018	0.00912	<0.03	<0.00005	0.52	0.0374	<0.00001	0.0301	<0.0005	1.27	<0.001	1.02	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0044
21-Jan-09	273																			
28-Jan-09	280	<0.0005	0.00014	0.00645	<0.03	<0.00005	0.433	0.0318	<0.00001	0.029	<0.0005	1.23	<0.001	0.934	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0049
4-Feb-09	287																			
11-Feb-09	294	<0.0005	0.00013	0.00544	<0.03	<0.00005	0.428	0.033	<0.00001	0.0329	<0.0005	1.2	<0.001	1.02	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0035
18-Feb-09	301																			
25-Feb-09	308	<0.0005	0.00014	0.00568	<0.03	<0.00005	0.452	0.0321	<0.00001	0.0311	<0.0005	1.09	<0.001	0.898	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0051
4-Mar-09	315																			
11-Mar-09	322	<0.0005	0.00013	0.00632	<0.03	<0.00005	0.394	0.0307	<0.00001	0.0329	<0.0005	1.04	<0.001	0.899	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.004
18-Mar-09	329																			
25-Mar-09	336	<0.0005	0.00013	0.00554	<0.03	<0.00005	0.322	0.0294	<0.00001	0.0294	<0.0005	1.01	<0.001	0.825	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0041
1-Apr-09	343																			
8-Apr-09	350	<0.0005	0.00014	0.00683	<0.03	<0.00005	0.358	0.032	<0.00001	0.0292	<0.0005	1.05	<0.001	0.901	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.004
15-Apr-09	357																			
22-Apr-09	364																			
29-Apr-09	371																			
6-May-09	378	<0.0005	0.00011	0.00569	<0.03	<0.00005	0.332	0.0293	<0.00001	0.0296	<0.0005	0.948	<0.001	0.832	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0041
13-May-09	385																			
20-May-09	392																			
27-May-09	399																			
3-Jun-09	406	<0.0005	0.00014	0.00687	<0.03	0.000071	0.353	0.0386	<0.00001	0.0418	<0.0005	1.17	<0.001	1.11	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0042
10-Jun-09	413																			
17-Jun-09	420																			
24-Jun-09	427																			
1-Jul-09	434	<0.0005	0.00011	0.00589	<0.03	<0.00005	0.249	0.0265	<0.00001	0.0274	<0.0005	0.948	<0.001	0.942	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0043
8-Jul-09	441																			
15-Jul-09	448																			
22-Jul-09	455																			
29-Jul-09	462	<0.0005	0.00014	0.00681	<0.03	<0.00005	0.267	0.036	<0.00001	0.026	<0.0005	1.01	<0.001	0.99	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0046
5-Aug-09	469																			
12-Aug-09	476																			
19-Aug-09	483																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
26-Aug-09	490	500	480	7.74	278	95	<1	3	42	58.8	47.7	<0.5	0.05	14.8	0.0196	0.000457	0.00032	0.00163	<0.0002	<0.0005	0.011	<0.00005	18.7
2-Sep-09	497	500	490																				
9-Sep-09	504	500	510	7.84	317	93																	
16-Sep-09	511	500	500																				
23-Sep-09	518	500	495	7.77	339	95	<1	3	48	59	48.2	<0.5	0.04	13.3	0.0178	0.000431	0.00027	0.00144	<0.0002	<0.0005	<0.01	0.000062	18.9
30-Sep-09	525	500	485																				
7-Oct-09	532	500	465	7.64	298	99																	
14-Oct-09	539	500	400																				
21-Oct-09	546	500	410	7.71	298	96	<1	3	42	68	48	<0.5	0.031	13.4	0.0195	0.000412	0.0003	0.00185	<0.0002	<0.0005	<0.01	<0.00005	18.9
28-Oct-09	553	500	445																				
4-Nov-09	560	500	460	7.59	272	93																	
11-Nov-09	567	500	470																				
18-Nov-09	574	500	350	7.79	277	97	<1	9	45	46	41.5	<0.5	0.028	9.75	0.0178	0.000403	0.00026	0.00131	<0.0002	<0.0005	0.014	<0.00005	16.3
25-Nov-09	581	500	445																				
2-Dec-09	588	500	420	7.63	326	97																	
9-Dec-09	595	500	445																				
16-Dec-09	602	500	495	7.63	303	88	<1	3	44	51	42	<0.5	0.034	7.29	0.0302	0.000389	0.00041	0.00142	<0.0002	<0.0005	<0.01	<0.00005	16.5
23-Dec-09	609	500	435																				
30-Dec-09	616	500	445	7.64	387	99																	
6-Jan-10	623	500	485																				
13-Jan-10	630	500	505	7.56	313	85	<1	6	39	57	40.6	<0.5	0.029	6.96	0.0186	0.000423	0.00037	0.00202	<0.0002	<0.0005	<0.01	<0.00005	16
20-Jan-10	637	500	445																				
27-Jan-10	644	500	440	7.56	340	72																	
3-Feb-10	651	500	475																				
10-Feb-10	658	500	505	7.49	269	86	<1	4	40	50	42.5	<0.5	0.021	8.39	0.0228	0.000432	0.00027	0.00133	<0.0002	<0.0005	<0.01	<0.00005	16.7
17-Feb-10	665	500	495																				
24-Feb-10	672	500	415	7.55	290	74																	
3-Mar-10	679	500	505																				
10-Mar-10	686	500	460	7.53	379	82	<1	4	40	57	39.9	<0.5	0.029	7.71	0.027	0.000384	0.00028	0.00136	<0.0002	<0.0005	<0.01	<0.00005	15.7
17-Mar-10	693	500	495																				
24-Mar-10	700	500	495	7.61	310	75																	
31-Mar-10	707	500	490																				
7-Apr-10	714	500	475	7.50	311	79	<1	3	37	48	37	<0.5	<0.02	7.44	0.0235	0.000328	0.00028	0.00126	<0.0002	<0.0005	<0.01	<0.00005	14.6
14-Apr-10	721	500	415																				
21-Apr-10	728	500	490	7.57	266	84																	
28-Apr-10	735	500	505																				
5-May-10	742	500	510	7.48	321	78	<1	4	37	48	37.8	<0.5	<0.02	7.3	0.0256	0.000366	0.00032	0.00121	<0.0002	<0.0005	<0.01	<0.00005	14.9
12-May-10	749	500	490																				
19-May-10	756	500	475	7.64	330	82																	
26-May-10	763	500	495																				
2-Jun-10	770	500	480	7.56	330	80	<1	3	38	53	39.8	<0.5	<0.02	8.19	0.0244	0.000374	0.00041	0.00126	<0.0002	<0.0005	<0.01	<0.00005	15.7
9-Jun-10	777	500	505																				
16-Jun-10	784	500	490	7.60	336	78																	
23-Jun-10	791	500	475																				
30-Jun-10	798	500	475	7.72	386	82	<1	3	41	44	43.8	<0.5	<0.02	8.4	0.0217	0.000311	0.00031	0.00131	<0.0002	<0.0005	<0.01	<0.00005	17.3
7-Jul-10	805	500	495																				
14-Jul-10	812	500	485	7.55	328	77																	
21-Jul-10	819	500	465																				
28-Jul-10	826	500	505	7.48	320	73	<1	4	35	42	37.5	<0.5	<0.02	7.36	0.0219	0.000296	0.00054	0.00124	<0.0002	<0.0005	<0.01	<0.00005	14.8
4-Aug-10	833	500	485																				
11-Aug-10	840	500	465	7.57	373	80																	
18-Aug-10	847	500	490																				
25-Aug-10	854	500	490	7.53	324	77	<1	4	38	46	38.8	<0.5	<0.02	7.91	0.0218	0.000328	0.00031	0.00175	<0.0002	<0.0005	<0.01	<0.00005	15.3
1-Sep-10	861	500	475																				
8-Sep-10	868	500	455	7.40	345	78																	
15-Sep-10	875	500	415																				
22-Sep-10	882	500	475	7.57	305	70	<1	4	41	56	43	<0.5	<0.02	7.59	0.0209	0.000324	0.00024	0.00151	<0.0002	<0.0005	0.014	<0.00005	17
29-Sep-10	889	500	490																				
6-Oct-10	896	500	480	7.53	278	84																	
13-Oct-10	903	500	485																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
26-Aug-09	490	<0.0005	0.0001	0.0061	<0.03	0.000058	0.246	0.0252	<0.00001	0.0265	<0.0005	0.931	<0.001	0.93	<0.00001	<2	<0.00005	0.00021	<0.0005	0.0035
2-Sep-09	497																			
9-Sep-09	504																			
16-Sep-09	511																			
23-Sep-09	518	<0.0005	<0.0001	0.00563	<0.03		0.226	0.0225	<0.00001	0.0265	<0.0005	0.864	<0.001	0.919	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0034
30-Sep-09	525																			
7-Oct-09	532																			
14-Oct-09	539																			
21-Oct-09	546	<0.0005	0.0001	0.00724	<0.03	<0.00005	0.224	0.0234	<0.00001	0.0306	<0.0005	0.826	<0.001	0.886	<0.00001	<2	<0.00005	0.0002	<0.0005	0.0045
28-Oct-09	553																			
4-Nov-09	560																			
11-Nov-09	567																			
18-Nov-09	574	<0.0005	<0.0001	0.00565	<0.03	<0.00005	0.187	0.0218	<0.00001	0.0277	<0.0005	0.767	<0.001	0.809	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0036
25-Nov-09	581																			
2-Dec-09	588																			
9-Dec-09	595																			
16-Dec-09	602	<0.0005	<0.0001	0.0062	<0.03	<0.00005	0.181	0.0203	<0.00001	0.0253	<0.0005	0.737	<0.001	0.798	<0.00001	<2	<0.00005	0.00012	<0.0005	0.0038
23-Dec-09	609																			
30-Dec-09	616																			
6-Jan-10	623																			
13-Jan-10	630	<0.0005	<0.0001	0.00538	<0.03	<0.00005	0.158	0.0155	<0.00001	0.0291	<0.0005	0.68	<0.001	0.791	<0.00001	<2	<0.00005	0.00026	<0.0005	0.0031
20-Jan-10	637																			
27-Jan-10	644																			
3-Feb-10	651																			
10-Feb-10	658	<0.0005	<0.0001	0.00613	<0.03	<0.00005	0.171	0.0176	<0.00001	0.031	<0.0005	0.692	<0.001	0.779	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0033
17-Feb-10	665																			
24-Feb-10	672																			
3-Mar-10	679																			
10-Mar-10	686	0.00087	<0.0001	0.00594	<0.03	<0.00005	0.16	0.0173	<0.00001	0.0254	<0.0005	0.681	<0.001	0.703	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0034
17-Mar-10	693																			
24-Mar-10	700																			
31-Mar-10	707																			
7-Apr-10	714	<0.0005	<0.0001	0.00641	<0.03	<0.00005	0.14	0.0135	<0.00001	0.0231	<0.0005	0.617	<0.001	0.693	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0038
14-Apr-10	721																			
21-Apr-10	728																			
28-Apr-10	735																			
5-May-10	742	<0.0005	<0.0001	0.00483	<0.03	<0.00005	0.138	0.0126	<0.00001	0.0245	<0.0005	0.652	<0.001	0.733	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
12-May-10	749																			
19-May-10	756																			
26-May-10	763																			
2-Jun-10	770	<0.0005	<0.0001	0.00552	<0.03	<0.00005	0.157	0.0118	<0.00001	0.0289	<0.0005	0.721	<0.001	0.757	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0028
9-Jun-10	777																			
16-Jun-10	784																			
23-Jun-10	791																			
30-Jun-10	798	<0.0005	<0.0001	0.00549	<0.03	<0.00005	0.144	0.0106	<0.00001	0.0267	<0.0005	0.609	<0.001	0.771	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.003
7-Jul-10	805																			
14-Jul-10	812																			
21-Jul-10	819																			
28-Jul-10	826	<0.0005	<0.0001	0.00451	<0.03	<0.00005	0.128	0.00965	<0.00001	0.0244	<0.0005	0.534	<0.001	0.708	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
4-Aug-10	833																			
11-Aug-10	840																			
18-Aug-10	847																			
25-Aug-10	854	<0.0005	<0.0001	0.00564	<0.03	<0.00005	0.137	0.00921	<0.00001	0.0283	<0.0005	0.603	<0.001	0.706	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0031
1-Sep-10	861																			
8-Sep-10	868																			
15-Sep-10	875																			
22-Sep-10	882	<0.0005	<0.0001	0.00513	<0.03	<0.00005	0.136	0.01	<0.00001	0.0271	<0.0005	0.702	<0.001	0.808	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0021
29-Sep-10	889																			
6-Oct-10	896																			
13-Oct-10	903																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
20-Oct-10	910	500	485	7.56	267	78	<1	4	39	59	37.8	<0.5	<0.02	8.14	0.023	0.000339	0.00045	0.00276	<0.0002	<0.0005	<0.01	<0.00005	14.9
27-Oct-10	917	500	455																				
3-Nov-10	924	500	465	7.67	345	83																	
10-Nov-10	931	500	480																				
17-Nov-10	938	500	465	7.70	301	87	<1	4	41	45	38.1	<0.5	<0.02	7.94	0.0242	0.000298	0.00027	0.0015	<0.0002	<0.0005	<0.01	<0.00005	15
24-Nov-10	945	500	450																				
1-Dec-10	952	500	365	7.53	340	82																	
8-Dec-10	959	500	360																				
15-Dec-10	966	500	440	7.43	318	80	<1	5	40	45	40.6	<0.5	<0.02	7.67	0.0182	0.000308	0.00025	0.00175	<0.0002	<0.0005	<0.01	<0.00005	16
22-Dec-10	973	500	455																				
29-Dec-10	980	500	440	7.56	313	70																	
5-Jan-11	987	500	470																				
12-Jan-11	994	500	470	7.50	318	71	<1	4	40	43	39.1	<0.5	<0.02	6.47	0.0167	0.000245	0.00024	0.00117	<0.0002	<0.0005	0.011	<0.00005	15.4
19-Jan-11	1001	500	450																				
26-Jan-11	1008	500	425	7.48	272	67																	
2-Feb-11	1015	500	425																				
9-Feb-11	1022	500	470	7.50	340	60	<1	3	35	47	35.7	<0.5	<0.02	5.93	0.0208	0.000238	0.00027	0.00132	<0.0002	<0.0005	<0.01	<0.00005	14.1
16-Feb-11	1029	500	455																				
23-Feb-11	1036	500	430	7.52	291	71																	
2-Mar-11	1043	500	415																				
9-Mar-11	1050	500	400	7.48	256	72	<1	4	36	42	33	<0.5	<0.02	5.75	0.0272	0.00019	0.00024	0.0044	<0.0002	<0.0005	<0.01	<0.00005	13
16-Mar-11	1057	500	430																				
23-Mar-11	1064	500	430	7.59	250	73																	
30-Mar-11	1071	500	425																				
6-Apr-11	1078	500	410	7.55	206	68	<1	5	35	39	30.5	<0.5	<0.02	5.93	0.0169	0.00021	0.00022	0.00103	<0.0002	<0.0005	<0.01	<0.00005	12
13-Apr-11	1085	500	440																				
20-Apr-11	1092	500	415	7.78	229	66																	
27-Apr-11	1099	500	460																				
4-May-11	1106	500	430	7.48	300	60	<1	5	30	40	28.6	<0.5	<0.02	5.91	0.0195	0.000219	0.00024	0.00124	<0.0002	<0.0005	<0.01	<0.00005	11.3
11-May-11	1113	500	425																				
18-May-11	1120	500	465	7.41	291	61																	
25-May-11	1127	500	480																				
1-Jun-11	1134	500	465	7.66	266	50	<1	6	26	29	23.9	<0.5	<0.02	6.66	0.0175	0.000204	0.00017	0.00118	<0.0002	<0.0005	<0.01	<0.00005	9.41
8-Jun-11	1141	500	450																				
15-Jun-11	1148	500	455	7.44	251	48																	
22-Jun-11	1155	500	475																				
29-Jun-11	1162	500	455	7.59	282	44	<1	4	22	27	20.7	<0.5	<0.02	5.83	0.0147	0.000166	0.00026	0.000887	<0.0002	<0.0005	<0.01	<0.00005	8.16
6-Jul-11	1169	500	470																				
13-Jul-11	1176	500	455	7.56	272	41																	
20-Jul-11	1183	500	475																				
27-Jul-11	1190	500	440	7.32	234	38	<1	3	15	17	17.6	<0.5	<0.02	5.73	0.0151	0.000521	0.0004	0.00084	<0.0002	<0.0005	<0.01	0.000087	6.94
3-Aug-11	1197	500	415																				
10-Aug-11	1204	500	400	7.53	181	36																	
17-Aug-11	1211	500	465																				
24-Aug-11	1218	500	435	7.52	184	35	<1	4	13	31	15.9	<0.5	0.026	6.45	0.0105	0.000154	0.00013	0.00099	<0.0002	<0.0005	<0.01	<0.00005	6.26
31-Aug-11	1225	500	400																				
7-Sep-11	1232	500	440	7.41	193	31																	
14-Sep-11	1239	500	425																				
21-Sep-11	1246	500	420	7.43	245	32	<1	4	11	<15	14.8	<0.5	0.036	6.7	0.0143	0.000138	<0.0001	0.000751	<0.0002	<0.0005	<0.01	<0.00005	5.84
28-Sep-11	1253	500	430																				
5-Oct-11	1260	500	450	7.21	167	27																	
12-Oct-11	1267	500	405																				
19-Oct-11	1274	500	430	7.01	221	27	<1	3	8	20	12	<0.5	0.045	5.95	0.0183	0.000133	0.00021	0.00118	<0.0002	<0.0005	<0.01	0.000055	4.84
26-Oct-11	1281	500	475																				
2-Nov-11	1288	500	460	7.19	183	24																	
9-Nov-11	1295	500	455																				
16-Nov-11	1302	500	460	7.01	246	23	<1	3	6	23	9.7	<0.5	0.057	5.6	0.0187	0.000102	0.00022	0.000757	<0.0002	<0.0005	<0.01	0.000058	3.81
23-Nov-11	1309	500	480																				
30-Nov-11	1316	500	440	7.52	286	21																	
7-Dec-11	1323	500	480																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Oct-10	910	<0.0005	<0.0001	0.00445	<0.03	<0.00005	0.126	0.00677	<0.00001	0.032	<0.0005	0.607	<0.001	0.761	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0032
27-Oct-10	917																			
3-Nov-10	924																			
10-Nov-10	931																			
17-Nov-10	938	<0.0005	<0.0001	0.00715	<0.03		0.129	0.00658	<0.00001	0.0304	<0.0005	0.614	<0.001	0.75	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0054
24-Nov-10	945																			
1-Dec-10	952																			
8-Dec-10	959																			
15-Dec-10	966	<0.0005	<0.0001	0.00539	<0.03	<0.00005	0.134	0.00834	<0.00001	0.0324	<0.0005	0.596	<0.001	0.809	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
22-Dec-10	973																			
29-Dec-10	980																			
5-Jan-11	987																			
12-Jan-11	994	<0.0005	<0.0001	0.00671	<0.03	<0.00005	0.126	0.00978	<0.00001	0.0288	<0.0005	0.514	<0.001	0.72	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0046
19-Jan-11	1001																			
26-Jan-11	1008																			
2-Feb-11	1015																			
9-Feb-11	1022	<0.0005	<0.0001	0.00647	<0.03	<0.00005	0.116	0.00947	<0.00001	0.0235	<0.0005	0.558	<0.001	0.715	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0036
16-Feb-11	1029																			
23-Feb-11	1036																			
2-Mar-11	1043																			
9-Mar-11	1050	<0.0005	<0.0001	0.00604	<0.03	<0.00005	0.11	0.0113	<0.00001	0.0205	<0.0005	0.487	<0.001	0.726	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0048
16-Mar-11	1057																			
23-Mar-11	1064																			
30-Mar-11	1071																			
6-Apr-11	1078	<0.0005	<0.0001	0.00797	<0.03	<0.00005	0.0973	0.0106	<0.00001	0.02	<0.0005	0.475	<0.001	0.681	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0046
13-Apr-11	1085																			
20-Apr-11	1092																			
27-Apr-11	1099																			
4-May-11	1106	<0.0005	<0.0001	0.00488	<0.03	0.000109	0.0937	0.0127	<0.00001	0.0202	<0.0005	0.445	<0.001	0.719	<0.00001	<2	<0.00005	0.00025	<0.0005	0.0068
11-May-11	1113																			
18-May-11	1120																			
25-May-11	1127																			
1-Jun-11	1134	<0.0005	<0.0001	0.00441	<0.03	<0.00005	0.0888	0.0126	<0.00001	0.0191	<0.0005	0.445	<0.001	0.714	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0043
8-Jun-11	1141																			
15-Jun-11	1148																			
22-Jun-11	1155																			
29-Jun-11	1162	<0.0005	<0.0001	0.00439	<0.03	0.000176	0.0729	0.0145	<0.00001	0.0161	<0.0005	0.406	<0.001	0.732	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0146
6-Jul-11	1169																			
13-Jul-11	1176																			
20-Jul-11	1183																			
27-Jul-11	1190	<0.0005	<0.0001	0.00523	<0.03		0.0663	0.0163	<0.00001	0.0135	<0.0005	0.42	<0.001	0.773	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0134
3-Aug-11	1197																			
10-Aug-11	1204																			
17-Aug-11	1211																			
24-Aug-11	1218	<0.0005	0.00012	0.0049	<0.03	<0.00005	0.0638	0.0217	<0.00001	0.0119	<0.0005	0.394	<0.001	0.922	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0119
31-Aug-11	1225																			
7-Sep-11	1232																			
14-Sep-11	1239																			
21-Sep-11	1246	<0.0005	0.00017	0.00617	<0.03	<0.00005	0.0625	0.0306	<0.00001	0.0102	<0.0005	0.392	<0.001	1	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0189
28-Sep-11	1253																			
5-Oct-11	1260																			
12-Oct-11	1267																			
19-Oct-11	1274	<0.0005	0.00023	0.00625	<0.03	<0.00005	0.058	0.0347	<0.00001	0.00711	0.00052	0.429	<0.001	1.06	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0303
26-Oct-11	1281																			
2-Nov-11	1288																			
9-Nov-11	1295																			
16-Nov-11	1302	<0.0005	0.00025	0.00775	<0.03	<0.00005	0.048	0.0352	<0.00001	0.00585	<0.0005	0.368	<0.001	0.979	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0346
23-Nov-11	1309																			
30-Nov-11	1316																			
7-Dec-11	1323																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
14-Dec-11	1330	500	335	7.07	246	22	<1	4	6	13	8.82	<0.5	0.033	5.65	0.0183	0.000093	0.00012	0.000932	<0.0002	<0.0005	<0.01	0.000076	3.45
21-Dec-11	1337	500	490																				
28-Dec-11	1344	500	465	7.04	201	20																	
4-Jan-12	1351	500	480																				
11-Jan-12	1358	500	465	7.21	211	21	<1	3	5	23	8.31	<0.5	0.074	5.86	0.0138	0.000094	<0.0001	0.000729	<0.0002	<0.0005	<0.01	0.000085	3.25
18-Jan-12	1365	500	445																				
25-Jan-12	1372	500	475	6.77	337	20																	
1-Feb-12	1379	500	455																				
8-Feb-12	1386	500	460	7.41	353	23	<1	5	8	20	8.68	<0.5	0.081	6.44	0.0043	0.000091	0.00017	0.00082	<0.0002	<0.0005	<0.01	0.000119	3.4
15-Feb-12	1393	500	470																				
22-Feb-12	1400	500	465	7.01	331	20																	
29-Feb-12	1407	500	470																				
7-Mar-12	1414	500	455	7.46	380	19	<1	6	4	18	7.31	<0.5	0.087	5.92	0.0096	0.000078	0.0001	0.000728	<0.0002	<0.0005	<0.01	0.000109	2.85
14-Mar-12	1421	500	465																				
21-Mar-12	1428	500	470	6.83	316	21																	
28-Mar-12	1435	500	495																				
4-Apr-12	1442	500	470	6.68	347	20	<1	4	3	10	7.46	<0.5	0.107	6.61	0.0112	0.000072	<0.0001	0.000716	<0.0002	<0.0005	<0.01	0.000144	2.91
11-Apr-12	1449	500	430																				
18-Apr-12	1456	500	470	6.72	354	19																	
25-Apr-12	1463	500	455																				
2-May-12	1470	500	450	7.36	336	19	<1	6	4	22	7.11	<0.5	0.096	6.27	0.0105	0.000105	0.00011	0.00101	<0.0002	<0.0005	<0.01	0.000156	2.77
9-May-12	1477	500	450																				
16-May-12	1484	500	445	6.88	290	21																	
23-May-12	1491	500	465																				
30-May-12	1498	500	460	7.03	281	16	<1	5	3	16	6.92	<0.5	0.108	6.56	0.0132	0.000066	<0.0001	0.000806	<0.0002	<0.0005	<0.01	0.000159	2.69
6-Jun-12	1505	500	445																				
13-Jun-12	1512	500	465	6.98	398	20																	
20-Jun-12	1519	500	465																				
27-Jun-12	1526	500	455	7.02	381	20	<1	6	3	19	7.2	<0.5	0.109	7.09	0.0032	0.000087	<0.0001	0.000864	<0.0002	<0.0005	<0.01	0.000195	2.81
4-Jul-12	1533	500	455																				
11-Jul-12	1540	500	460	6.51	383	20																	
18-Jul-12	1547	500	455																				
25-Jul-12	1554	500	455	6.33	391	19	<1	3	2	19	6.79	<0.5	0.103	6.74	0.0059	0.000054	<0.0001	0.000953	<0.0002	<0.0005	<0.01	0.000192	2.64
1-Aug-12	1561	500	475																				
8-Aug-12	1568	500	415	6.57	343	19																	
15-Aug-12	1575	500	455																				
22-Aug-12	1582	500	385	6.49	320	21	<1	5	3	15	7.27	<0.5	0.107	7.18	0.0201	0.000065	<0.0001	0.00123	<0.0002	<0.0005	<0.01	0.000222	2.82
29-Aug-12	1589	500	475																				
5-Sep-12	1596	500	475	6.64	381	15																	
12-Sep-12	1603	500	490																				
19-Sep-12	1610	500	515	6.55	369	17	<1	5	3	<10	5.89	<0.5	0.097	5.69	0.0046	0.000054	<0.0001	0.00103	<0.0002	<0.0005	<0.01	0.000189	2.29
26-Sep-12	1617	500	485																				
3-Oct-12	1624	500	470	6.66	365	14																	
10-Oct-12	1631	500	470																				
17-Oct-12	1638	500	445	6.37	431	14	<1	5	2	12	4.95	<0.5	0.091	4.88	0.023	0.000056	<0.0001	0.000921	<0.0002	<0.0005	<0.01	0.000165	1.92
24-Oct-12	1645	500	475																				
31-Oct-12	1652	500	440	6.21	247	14																	
7-Nov-12	1659	500	510																				
14-Nov-12	1666	500	455	6.90	353	12	<1	7	3	19	7.84	<0.5	0.035	3.18	0.0035	0.000144	0.00013	0.00366	<0.0002	<0.0005	<0.01	0.00005	3.01
21-Nov-12	1673	500	475																				
28-Nov-12	1680	500	485	6.81	363	12																	
5-Dec-12	1687	500	440																				
12-Dec-12	1694	500	460	6.63	325	10	<1	4	3	12	4.41	<0.5	0.069	4.3	0.0045	0.000057	<0.0001	0.00127	<0.0002	<0.0005	<0.01	0.000146	1.71
19-Dec-12	1701	500	450																				
26-Dec-12	1708	500	440	7.01	391	12																	

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
14-Dec-11	1330	0.00086	0.00034	0.0116	<0.03	<0.00005	0.0489	0.041	<0.00001	0.00434	0.00082	0.385	<0.001	1.01	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0548
21-Dec-11	1337																			
28-Dec-11	1344																			
4-Jan-12	1351																			
11-Jan-12	1358	<0.0005	0.0004	0.0145	<0.03	<0.00005	0.0465	0.0471	<0.00001	0.00391	0.00071	0.375	<0.001	1.02	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.063
18-Jan-12	1365																			
25-Jan-12	1372																			
1-Feb-12	1379																			
8-Feb-12	1386	<0.0005	0.00051	0.0185	<0.03	<0.00005	0.0488	0.0563	<0.00001	0.00378	0.00094	0.447	<0.001	1.13	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.086
15-Feb-12	1393																			
22-Feb-12	1400																			
29-Feb-12	1407																			
7-Mar-12	1414	<0.0005	0.00051	0.0236	<0.03	<0.00005	0.0457	0.0551	<0.00001	0.00302	0.00104	0.388	<0.001	0.977	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0897
14-Mar-12	1421																			
21-Mar-12	1428																			
28-Mar-12	1435																			
4-Apr-12	1442	<0.0005	0.00063	0.0306	<0.03	<0.00005	0.0474	0.0632	<0.00001	0.00288	0.0012	0.427	<0.001	1.11	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.111
11-Apr-12	1449																			
18-Apr-12	1456																			
25-Apr-12	1463																			
2-May-12	1470	<0.0005	0.00073	0.044	<0.03	0.000106	0.0497	0.0629	<0.00001	0.00227	0.00148	0.462	<0.001	1.05	0.000072	<2	<0.00005	<0.0001	<0.0005	0.118
9-May-12	1477																			
16-May-12	1484																			
23-May-12	1491																			
30-May-12	1498	<0.0005	0.00077	0.0547	<0.03	<0.00005	0.0463	0.0651	<0.00001	0.00186	0.00157	0.39	<0.001	1.09	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.12
6-Jun-12	1505																			
13-Jun-12	1512																			
20-Jun-12	1519																			
27-Jun-12	1526	<0.0005	0.00089	0.068	<0.03	<0.00005	0.0483	0.0709	<0.00001	0.00184	0.00171	0.461	<0.001	1.23	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.14
4-Jul-12	1533																			
11-Jul-12	1540																			
18-Jul-12	1547																			
25-Jul-12	1554	<0.0005	0.00094	0.0849	<0.03	<0.00005	0.0481	0.07	<0.00001	0.00151	0.00186	0.442	<0.001	1.15	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.142
1-Aug-12	1561																			
8-Aug-12	1568																			
15-Aug-12	1575																			
22-Aug-12	1582	<0.0005	0.00109	0.0986	<0.03	<0.00005	0.055	0.0765	<0.00001	0.00151	0.00227	0.431	<0.001	1.28	<0.00001	<2	<0.00005	0.00011	<0.0005	0.163
29-Aug-12	1589																			
5-Sep-12	1596																			
12-Sep-12	1603																			
19-Sep-12	1610	<0.0005	0.00096	0.0988	<0.03	<0.00005	0.0439	0.0631	<0.00001	0.00149	0.00192	0.409	<0.001	1.13	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.144
26-Sep-12	1617																			
3-Oct-12	1624																			
10-Oct-12	1631																			
17-Oct-12	1638	<0.0005	0.00089	0.107	<0.03	<0.00005	0.0394	0.0552	<0.00001	0.00143	0.00184	0.38	<0.001	1.08	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.131
24-Oct-12	1645																			
31-Oct-12	1652																			
7-Nov-12	1659																			
14-Nov-12	1666	<0.0005	<0.0001	0.00354	<0.03	<0.00005	0.0766	0.0098	<0.00001	0.00473	<0.0005	0.238	<0.001	0.846	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0202
21-Nov-12	1673																			
28-Nov-12	1680																			
5-Dec-12	1687																			
12-Dec-12	1694	<0.0005	0.0008	0.118	<0.03	<0.00005	0.0362	0.0476	<0.00001	0.00122	0.0016	0.347	<0.001	0.979	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.12
19-Dec-12	1701																			
26-Dec-12	1708																			

11486-003 T14

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
21-May-08	0	750	505	7.51	356	628	<1	5	38	465	248	6.42	1.25	229	0.0145	0.000845	0.00218	0.0294	<0.0002	<0.0005	0.023	<0.00005	87.6
28-May-08	7	500	490	7.61	355	601																	
4-Jun-08	14	500	420	7.99	417	244	<1	3	56	199	115	<0.5	1.64	78.5	0.0127	0.00149	0.00192	0.0133	<0.0002	<0.0005	0.021	<0.00005	40.3
11-Jun-08	21	500	450	8.00	379	192																	
18-Jun-08	28	500	490	7.89	322	154	<1	5	67	118	85.7	<0.5	1.43	30.4	0.0119	0.00164	0.00124	0.00961	<0.0002	<0.0005	0.014	<0.00005	30.7
25-Jun-08	35	500	490	7.92	334	218																	
2-Jul-08	42	500	450	7.91	381	188	<1	3	49	113	92.6	<0.5	1.19	43.5	0.017	0.00136	0.00106	0.0106	<0.0002	<0.0005	0.012	<0.00005	33.4
9-Jul-08	49	500	500	7.88	353	221																	
16-Jul-08	56	500	445	7.83	388	197	<1	4	47	128	91.2	<0.5	1.18	45.4	0.0148	0.00114	0.00078	0.00922	<0.0002	<0.0005	<0.01	<0.00005	33.2
23-Jul-08	63	500	455	7.80	394	204																	
30-Jul-08	70	500	475	7.81	404	199	<1	3	52	118	92.1	<0.5	1.1	44.1	0.0145	0.0011	0.00096	0.0088	<0.0002	<0.0005	<0.01	<0.00005	33.9
6-Aug-08	77	500	460	7.87	384	184																	
13-Aug-08	84	500	495	7.84	364	198	<1	4	50	126	92	<0.5	1.07	38.7	0.0117	0.00108	0.00057	0.00884	<0.0002	<0.0005	<0.01	<0.00005	34.1
20-Aug-08	91	500	455	7.83	313	195																	
27-Aug-08	98	500	480	7.77	378	174	<1	3	52	110	72.8	<0.5	1.09	33.5	0.0143	0.00104	0.00048	0.00788	<0.0002	<0.0005	<0.01	<0.00005	26.8
3-Sep-08	105	500	500	7.70	305	162																	
10-Sep-08	112	500	470	7.90	295	191	<1	3	63	111	86.5	<0.5	1.28	32.7	0.0198	0.00117	0.00056	0.00856	<0.0002	<0.0005	<0.01	0.000064	31.9
17-Sep-08	119	500	460	7.93	308	170																	
24-Sep-08	126	500	450	7.79	281	147	<1	3	43	77	61.2	<0.5	0.929	22.8	0.0149	0.000987	0.00046	0.00836	<0.0002	<0.0005	<0.01	0.000361	22.8
1-Oct-08	133	500	450	7.80	421	146																	

11486-005 T15

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
21-May-08	0	750	375	7.52	349	1012	<1	6	45	773	468	13.6	1.38	409	0.0128	0.00111	0.00213	0.0573	<0.0004	<0.001	0.086	<0.0001	164
28-May-08	7	500	505	7.10	347	637																	
4-Jun-08	14	500	485	8.12	403	358	<1	4	93	297	192	0.89	1.32	118	0.0071	0.00133	0.00133	0.0233	<0.0002	<0.0005	0.071	0.00005	67.3
11-Jun-08	21	500	475	8.02	377	336																	
18-Jun-08	28	500	525	8.07	357	276	<1	5	101	237	171	<0.5	1.58	84.5	0.0063	0.00153	0.00143	0.0185	<0.0002	<0.0005	0.052	0.000066	61.3
25-Jun-08	35	500	455	8.11	370	381																	
2-Jul-08	42	500	490	7.81	382	150	<1	4	37	99	70.4	<0.5	0.878	36.3	0.0199	0.000853	0.00083	0.00658	<0.0002	<0.0005	0.018	<0.00005	25.7
9-Jul-08	49	500	495	7.78	362	232																	
16-Jul-08	56	500	485	7.70	393	211	<1	4	35	141	96.5	<0.5	0.845	61.6	0.0142	0.000746	0.00066	0.00822	<0.0002	<0.0005	0.016	<0.00005	35.3
23-Jul-08	63	500	485	7.65	400	251																	
30-Jul-08	70	500	475	7.66	408	254	<1	3	35	161	116	<0.5	0.919	81.9	0.0119	0.00082	0.00076	0.0088	<0.0002	<0.0005	0.014	<0.00005	42.9
6-Aug-08	77	500	485	7.67	395	250																	
13-Aug-08	84	500	490	7.80	370	342	<1	4	45	229	160	<0.5	1.12	109	0.0124	0.00104	0.00071	0.0128	<0.0002	<0.0005	0.019	<0.00005	59.4
20-Aug-08	91	500	495	7.77	327	299																	
27-Aug-08	98	500	490	7.72	384	267	<1	4	49	180	121	<0.5	1.15	80.8	0.0086	0.001	0.00067	0.00997	<0.0002	<0.0005	0.014	<0.00005	44.7
3-Sep-08	105	500	460	7.64	314	202																	
10-Sep-08	112	500	470	7.81	306	240	<1	3	45	145	105	<0.5	1.06	69.9	0.0173	0.00093	0.00082	0.0081	<0.0002	<0.0005	0.013	0.000061	38.7
17-Sep-08	119	500	465	7.90	315	262																	
24-Sep-08	126	500	475	7.73	294	223	<1	3	39	140	97.2	<0.5	0.943	62	0.0117	0.000822	0.00075	0.0072	<0.0002	<0.0005	<0.01	<0.00005	36.3
1-Oct-08	133	500	470	7.79	420	226																	

11486-006 T16

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
21-May-08	0	750	480	7.11	334	245	<1	5	29	205	74.9	5.8	0.671	55.1	0.0112	0.000918	0.00073	0.0113	<0.0002	<0.0005	0.345	0.000067	26
28-May-08	7	500	475	7.05	321	241																	
4-Jun-08	14	500	420	7.99	396	114	<1	3	52	95	53.3	<0.5	1.18	13.3	0.0219	0.00203	0.00166	0.00744	<0.0002	<0.0005	0.114	<0.00005	18.4
11-Jun-08	21	500	460	7.99	373	103																	
18-Jun-08	28	500	415	7.87	322	95	<1	4	50	72.5	53.3	<0.5	1.15	11.8	0.0237	0.00148	0.00119	0.00741	<0.0002	<0.0005	0.041	<0.00005	18.8
25-Jun-08	35	500	425	7.94	333	135																	
2-Jul-08	42	500	465	7.90	381	118	<1	3	43	35	61	<0.5	1.25	15.9	0.0235	0.00182	0.00113	0.00919	<0.0002	<0.0005	0.027	<0.00005	21.6
9-Jul-08	49	500	450	7.88	358	132																	
16-Jul-08	56	500	410	7.86	388	119	<1	3	43	77	56.4	<0.5	1.17	16.3	0.0231	0.00173	0.00096	0.00933	<0.0002	<0.0005	0.017	<0.00005	20
23-Jul-08	63	500	425	7.85	393	134																	
30-Jul-08	70	500	470	7.84	401	135	<1	3	54	74.8	61	<0.5	1.12	14.5	0.0166	0.00163	0.00079	0.0103	<0.0002	<0.0005	<0.01	<0.00005	22.2

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-May-08	0	<0.0005	0.00042	0.00336	<0.03	0.000057	7.15	0.172	<0.00001	0.0603	0.00078	22.2	0.0089	1.82	<0.00001	14.6	0.00007	0.0025	<0.0005	0.0142
28-May-08	7																			
4-Jun-08	14	<0.0005	0.00025	0.00488	<0.03	<0.00005	3.54	0.107	<0.00001	0.0742	<0.0005	13.8	0.0047	2.4	<0.00001	4.2	0.000054	<0.0001	<0.0005	0.0048
11-Jun-08	21																			
18-Jun-08	28	<0.0005	0.00031	0.00391	<0.03	0.000079	2.21	0.0851	<0.00001	0.0431	0.00068	10	0.0027	2.7	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0081
25-Jun-08	35																			
2-Jul-08	42	<0.0005	0.00035	0.00492	<0.03	<0.00005	2.2	0.097	<0.00001	0.0379	0.00051	8.41	0.0032	2.72	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0077
9-Jul-08	49																			
16-Jul-08	56	<0.0005	0.00027	0.00739	<0.03	<0.00005	2.01	0.089	<0.00001	0.0423	<0.0005	6.65	0.0025	2.29	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0055
23-Jul-08	63																			
30-Jul-08	70	<0.0005	0.00036	0.00502	<0.03	<0.00005	1.78	0.0878	<0.00001	0.0409	<0.0005	5.52	0.0029	2.37	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0069
6-Aug-08	77																			
13-Aug-08	84	<0.0005	0.00038	0.0072	<0.03	0.000053	1.67	0.091	<0.00001	0.0402	<0.0005	5.07	0.0026	2.34	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0099
20-Aug-08	91																			
27-Aug-08	98	<0.0005	0.00027	0.00661	<0.03	0.000147	1.42	0.0769	<0.00001	0.0386	<0.0005	3.86	0.0019	2.15	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0062
3-Sep-08	105																			
10-Sep-08	112	<0.0005	0.00031	0.00687	<0.03	<0.00005	1.67	0.0923	<0.00001	0.043	<0.0005	4.4	0.0023	2.52	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0066
17-Sep-08	119																			
24-Sep-08	126	<0.0005	0.00018	0.00639	<0.03	<0.00005	1.05	0.0535	<0.00001	0.0331	<0.0005	3.12	0.0021	2.07	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0051
1-Oct-08	133																			

11486-005 T15

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-May-08	0	<0.001	0.0009	0.0072	<0.03	<0.0001	14.4	0.403	<0.00001	0.104	0.0019	26.6	0.0113	2.92	<0.00002	19.4	0.00012	0.00347	<0.001	0.0199
28-May-08	7																			
4-Jun-08	14	<0.0005	0.00136	0.00812	<0.03	<0.00005	5.94	0.372	<0.00001	0.074	0.0024	15.4	0.0046	3.56	<0.00001	5.8	0.000072	0.00011	<0.0005	0.0278
11-Jun-08	21																			
18-Jun-08	28	<0.0005	0.00121	0.00767	<0.03	0.000062	4.35	0.29	<0.00001	0.0741	0.00229	13.6	0.0028	4.04	<0.00001	3	0.000068	0.00012	<0.0005	0.0258
25-Jun-08	35																			
2-Jul-08	42	<0.0005	0.00025	0.00438	<0.03	<0.00005	1.54	0.0746	<0.00001	0.0329	<0.0005	6.2	0.0019	1.95	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0065
9-Jul-08	49																			
16-Jul-08	56	<0.0005	0.0003	0.00523	<0.03	<0.00005	2.01	0.104	<0.00001	0.0422	0.0005	6.53	0.0019	1.87	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0075
23-Jul-08	63																			
30-Jul-08	70	<0.0005	0.00032	0.00517	<0.03	<0.00005	2.12	0.0993	<0.00001	0.0566	<0.0005	6.44	0.0025	2.14	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0056
6-Aug-08	77																			
13-Aug-08	84	<0.0005	0.0006	0.00871	<0.03	0.00103	2.92	0.165	<0.00001	0.0889	0.00061	7.55	0.0025	2.81	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0136
20-Aug-08	91																			
27-Aug-08	98	<0.0005	0.00042	0.00675	<0.03	0.000158	2.2	0.13	<0.00001	0.0756	<0.0005	5.57	0.002	2.6	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0081
3-Sep-08	105																			
10-Sep-08	112	<0.0005	0.00025	0.00569	<0.03	<0.00005	2.08	0.101	<0.00001	0.0685	<0.0005	5.72	0.0024	2.43	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0047
17-Sep-08	119																			
24-Sep-08	126	<0.0005	0.00025	0.00697	<0.03	<0.00005	1.6	0.0809	<0.00001	0.0636	<0.0005	4.53	0.0021	2.36	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0052
1-Oct-08	133																			

11486-006 T16

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-May-08	0	<0.0005	0.0006	0.0147	<0.03	<0.00005	2.43	0.0744	<0.00001	0.017	0.00152	8.74	0.0025	1.45	<0.00001	7.4	<0.00005	0.00079	<0.0005	0.0358
28-May-08	7																			
4-Jun-08	14	<0.0005	0.00015	0.0043	<0.03	<0.00005	1.79	0.0505	<0.00001	0.016	<0.0005	6.51	0.0015	2.32	<0.00001	<2	<0.00005	<0.0001	0.00057	0.0032
11-Jun-08	21																			
18-Jun-08	28	<0.0005	0.00017	0.00349	<0.03	0.000085	1.56	0.05	<0.00001	0.0121	0.00053	5.02	0.0014	2.11	<0.00001	<2	<0.00005	<0.0001	0.00061	0.0046
25-Jun-08	35																			
2-Jul-08	42	<0.0005	0.00021	0.00306	<0.03	<0.00005	1.73	0.0576	<0.00001	0.0153	<0.0005	4.5	0.0019	2.26	<0.00001	<2	<0.00005	<0.0001	0.0006	0.0041
9-Jul-08	49																			
16-Jul-08	56	<0.0005	0.00019	0.00531	<0.03	0.000109	1.56	0.055	<0.00001	0.0151	<0.0005	3.56	0.0018	1.85	<0.00001	<2	<0.00005	<0.0001	0.00057	0.0065
23-Jul-08	63																			
30-Jul-08	70	<0.0005	0.0003	0.00413	<0.03	<0.00005	1.37	0.0676	<0.00001	0.0126	<0.0005	2.82	0.0017	1.8	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0047

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
6-Aug-08	77	500	450	7.87	385	125																	
13-Aug-08	84	500	505	7.87	363	132	<1	3	48	72.8	60.6	<0.5	1.04	13.5	0.0158	0.00153	0.00073	0.0107	<0.0002	<0.0005	<0.01	<0.00005	22.2
20-Aug-08	91	500	450	7.89	321	133																	
27-Aug-08	98	500	470	7.80	376	121	<1	3	49	74.3	53.8	<0.5	0.991	13.4	0.0224	0.00146	0.00054	0.0112	<0.0002	<0.0005	<0.01	<0.00005	19.7
3-Sep-08	105	500	465	7.73	317	126																	
10-Sep-08	112	500	440	7.87	303	126	<1	2	53	69.8	56	<0.5	1.04	13.7	0.0336	0.00145	0.00067	0.0116	<0.0002	<0.0005	<0.01	0.000098	20.5
17-Sep-08	119	500	460	7.93	313	131																	
24-Sep-08	126	500	455	7.83	289	126	<1	3	46	68.6	54.7	<0.5	0.925	12.7	0.0175	0.00136	0.00058	0.0116	<0.0002	<0.0005	<0.01	<0.00005	20.3
1-Oct-08	133	500	450	7.87	410	119																	

11840-003 bulk cleaner T17

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
13-Aug-08	0	750	590	7.74	375	1898	<1	6	65	1450	555	23.2	2.86	808	<0.009	0.00352	0.0244	0.0314	<0.001	<0.0025	<0.05	<0.00025	179
20-Aug-08	7	500	465	8.01	329	399																	
27-Aug-08	14	500	490	7.91	383	337	<1	4	77	215	80.3	0.52	1.12	88	0.013	0.00391	0.0302	0.0099	<0.0002	<0.0005	0.018	<0.00005	25.3
3-Sep-08	21	500	465	7.90	325	381																	
10-Sep-08	28	500	455	8.04	313	406	<1	2	89	251	123	<0.5	1.06	112	0.009958	0.00527	0.0231	0.0137	<0.0002	<0.0005	0.021	<0.00005	37.7
17-Sep-08	35	500	475	8.07	322	426																	
24-Sep-08	42	500	435	7.96	300	340	<1	4	68	205	110	<0.5	0.781	88.5	0.0082	0.00491	0.00883	0.0125	<0.0002	<0.0005	0.014	<0.00005	34.8
1-Oct-08	49	500	505	7.99	403	345																	
8-Oct-08	56	500	490	7.90	393	344	<1	4	62	214	130	<0.5	0.622	102	0.0118	0.00472	0.00602	0.0142	<0.0002	<0.0005	0.012	<0.00005	40.7
15-Oct-08	63	500	475	7.82	400	305																	
22-Oct-08	70	500	465	7.83	423	318	<1	4	58	210	124	<0.5	0.589	99.8	0.0076	0.00448	0.0039	0.0127	<0.0002	<0.0005	<0.01	<0.00005	39.6
29-Oct-08	77	500	475	7.87	434	337																	
5-Nov-08	84	500	450	7.80	420	309	<1	4	65	200	124	<0.5	0.544	90.7	0.0091	0.0049	0.00338	0.0133	<0.0002	<0.0005	<0.01	<0.00005	38.2
12-Nov-08	91	500	520	7.83	414	255																	
19-Nov-08	98	500	500	7.85	430	198	<1	3	58	161	89.8	<0.5	0.409	59.1	0.0112	0.00369	0.00267	0.00962	<0.0002	<0.0005	<0.01	<0.00005	28.7
26-Nov-08	105	500	515	7.79	381	217																	
3-Dec-08	112	500	510	7.90	358	233	<1	3	64	143	96.6	<0.5	0.387	59.5	0.0093	0.00388	0.00261	0.0101	<0.0002	<0.0005	<0.01	<0.00005	30
10-Dec-08	119	500	440	7.71	342	197																	
17-Dec-08	126	500	455	7.63	378	198				119	81.3	<0.5	0.317	49.3	0.0096	0.00313	0.00256	0.0079	<0.0002	<0.0005	<0.01	<0.00005	25.4
24-Dec-08	133	500	445	7.71	345	212																	
31-Dec-08	140	500	480	7.79	326	220	<1		61	139	91.1	<0.5	0.294	56.2	0.0102	0.00325	0.00225	0.00884	<0.0002	<0.0005	<0.01	<0.00005	28.7
7-Jan-09	147	500	475	7.71	274	231																	
14-Jan-09	154	500	475	7.78	378	208	<1	5	69	131	99.6	<0.5	0.248	45.9	0.0081	0.00363	0.00229	0.0093	<0.0002	<0.0005	<0.01	<0.00005	30.5
21-Jan-09	161	500	500	7.71	395	206																	
28-Jan-09	168	500	485	7.71	381	188	<1	7	74	110	86	<0.5	0.251	32	0.0072	0.00374	0.00216	0.00847	<0.0002	<0.0005	<0.01	<0.00005	26.3
4-Feb-09	175	500	485	7.66	384	234																	
11-Feb-09	182	500	500	7.93	385	212	<1	5	87	130	104	<0.5	0.262	35.2	0.0081	0.0043	0.00212	0.01	<0.0002	<0.0005	<0.01	<0.00005	31
18-Feb-09	189	500	480	7.99	357	214																	
25-Feb-09	196	500	480	7.90	410	204	<1	6	86	127	98.7	<0.5	0.175	34	0.0166	0.00407	0.00189	0.00986	<0.0002	<0.0005	<0.01	<0.00005	28.6
4-Mar-09	203	500	490	7.77	263	218																	
11-Mar-09	210	500	435	7.66	333	209	<1	6	86	120	103	<0.5	0.24	10.1	0.0064	0.00476	0.00198	0.0102	<0.0002	<0.0005	0.014	<0.00005	31.4
18-Mar-09	217	500	475	7.77	309	219																	
25-Mar-09	224	500	410	7.67	353	202	<1	6	87	115	92.6	<0.5	0.152	29.2	0.006	0.00495	0.00189	0.00978	<0.0002	<0.0005	<0.01	<0.00005	29
1-Apr-09	231	500	465	7.79	357	209																	
8-Apr-09	238	500	470	7.86	361	218	<1	4	93	127	106	<0.5	0.12	31.9	0.0059	0.00534	0.002	0.0104	<0.0002	<0.0005	0.012	<0.00005	32.5
15-Apr-09	245	500	495	7.88	365	204																	
22-Apr-09	252	500	465	7.92	340	207																	
29-Apr-09	259	500	470																				
6-May-09	266	500	410	7.79	361	202	<1	5	84	123	100	<0.5	0.113	30.4	0.0072	0.00549	0.00196	0.00941	<0.0002	<0.0005	<0.01	0.000061	28.4
13-May-09	273	500	485																				
20-May-09	280	500	475	7.73	368	163																	
27-May-09	287	500	485																				
3-Jun-09	294	500	440	7.78	368	150	<1	3	52	92.1	73.8	<0.5	0.116	38.1	0.0165	0.00449	0.003	0.00755	<0.0002	<0.0005	<0.01	0.000052	21.9
10-Jun-09	301	500	445																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
6-Aug-08	77																			
13-Aug-08	84	<0.0005	0.0003	0.00523	<0.03	0.000176	1.25	0.0718	<0.00001	0.0119	<0.0005	2.33	0.0018	1.59	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.007
20-Aug-08	91																			
27-Aug-08	98	<0.0005	0.00025	0.00496	<0.03	0.000166	1.1	0.0639	<0.00001	0.0124	<0.0005	1.91	0.0012	1.39	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.005
3-Sep-08	105																			
10-Sep-08	112	<0.0005	0.00023	0.00617	<0.03	0.000092	1.17	0.0684	<0.00001	0.0127	<0.0005	2.06	0.0013	1.41	0.000305	<2	<0.00005	<0.0001	<0.0005	0.0052
17-Sep-08	119																			
24-Sep-08	126	<0.0005	0.00024	0.00561	<0.03	<0.00005	0.961	0.0667	<0.00001	0.0125	<0.0005	1.72	0.0014	1.31	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0051
1-Oct-08	133																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Aug-08	0	<0.0025	0.00064	0.0036	<0.03	0.00029	26.1	0.285	<0.00001	0.0904	<0.0025	26.8	0.0127	13.7	<0.00005	210	<0.00025	0.0112	<0.0025	0.0087
20-Aug-08	7																			
27-Aug-08	14	<0.0005	0.00013	0.00167	<0.03	0.000171	4.14	0.0618	<0.00001	0.0269	<0.0005	9.59	0.0034	3.64	<0.00001	28.4	<0.00005	0.0101	0.00051	0.0021
3-Sep-08	21																			
10-Sep-08	28	<0.0005	0.00023	0.00175	<0.03	<0.00005	6.99	0.117	<0.00001	0.0338	0.00051	13.1	0.0051	4.88	<0.00001	27	0.000059	0.00953	0.00054	0.0028
17-Sep-08	35																			
24-Sep-08	42	<0.0005	0.00026	0.00266	<0.03	0.00012	5.69	0.107	<0.00001	0.033	<0.0005	10.5	0.0036	3.73	<0.00001	18.3	0.000053	0.00896	<0.0005	0.004
1-Oct-08	49																			
8-Oct-08	56	<0.0005	0.00029	0.00578	<0.03	0.000054	6.8	0.149	<0.00001	0.0396	0.00063	10.1	0.004	3.72	<0.00001	12.6	<0.00005	0.0121	<0.0005	0.0045
15-Oct-08	63																			
22-Oct-08	70	<0.0005	0.00023	0.00424	<0.03	<0.00005	6.18	0.123	<0.00001	0.041	0.00054	9.18	0.0035	3.24	<0.00001	9.9	0.000055	0.00862	<0.0005	0.0027
29-Oct-08	77																			
5-Nov-08	84	<0.0005	0.00027	0.00548	<0.03	<0.00005	6.87	0.141	<0.00001	0.0399	0.00074	9.68	0.003	3.09	<0.00001	6.8	<0.00005	0.0118	<0.0005	0.0036
12-Nov-08	91																			
19-Nov-08	98	<0.0005	0.0002	0.00664	<0.03	0.000113	4.39	0.0776	<0.00001	0.0255	<0.0005	7.25	0.0024	2.78	<0.00001	4.2	<0.00005	0.00924	<0.0005	0.0033
26-Nov-08	105																			
3-Dec-08	112	<0.0005	0.00021	0.00665	<0.03	0.000052	5.29	0.0964	<0.00001	0.0278	<0.0005	7.57	0.0026	3.09	<0.00001	3.4	<0.00005	0.00958	<0.0005	0.0027
10-Dec-08	119																			
17-Dec-08	126	<0.0005	0.00014	0.00433	<0.03	<0.00005	4.35	0.0863	<0.00001	0.0223	<0.0005	6.16	0.0021	2.37	<0.00001	2.5	<0.00005	0.00682	<0.0005	0.0017
24-Dec-08	133																			
31-Dec-08	140	<0.0005	0.00015	0.00441	<0.03	<0.00005	4.75	0.0781	<0.00001	0.0257	<0.0005	6.51	0.0023	2.63	<0.00001	2.3	<0.00005	0.00754	<0.0005	0.0023
7-Jan-09	147																			
14-Jan-09	154	<0.0005	0.0002	0.00919	<0.03	<0.00005	5.67	0.109	<0.00001	0.0272	0.00064	6.6	0.0022	2.9	<0.00001	2.1	<0.00005	0.0101	<0.0005	0.0024
21-Jan-09	161																			
28-Jan-09	168	<0.0005	0.00019	0.00651	<0.03	<0.00005	4.96	0.122	<0.00001	0.0236	<0.0005	6.22	0.002	2.72	<0.00001	<2	<0.00005	0.00945	<0.0005	0.0026
4-Feb-09	175																			
11-Feb-09	182	<0.0005	0.00024	0.00716	<0.03	<0.00005	6.49	0.148	<0.00001	0.0282	<0.0005	6.14	0.002	3.38	<0.00001	<2	<0.00005	0.0125	0.00055	0.0028
18-Feb-09	189																			
25-Feb-09	196	<0.0005	0.00022	0.00738	<0.03	<0.00005	6.61	0.155	<0.00001	0.027	<0.0005	5.58	0.0021	2.96	<0.00001	<2	<0.00005	0.00991	<0.0005	0.0033
4-Mar-09	203																			
11-Mar-09	210	<0.0005	0.00022	0.00835	<0.03	<0.00005	6.02	0.134	<0.00001	0.0352	<0.0005	5.56	0.0019	2.78	<0.00001	<2	<0.00005	0.0135	<0.0005	0.0031
18-Mar-09	217																			
25-Mar-09	224	<0.0005	0.00022	0.00743	<0.03	<0.00005	4.91	0.121	<0.00001	0.0446	<0.0005	5.29	0.0014	2.78	<0.00001	<2	<0.00005	0.00884	<0.0005	0.0027
1-Apr-09	231																			
8-Apr-09	238	<0.0005	0.00023	0.00928	<0.03	<0.00005	6.12	0.141	<0.00001	0.0625	<0.0005	5.59	0.0017	3.04	<0.00001	<2	<0.00005	0.0114	<0.0005	0.0029
15-Apr-09	245																			
22-Apr-09	252																			
29-Apr-09	259																			
6-May-09	266	<0.0005	0.00016	0.0071	<0.03	<0.00005	7.2	0.158	<0.00001	0.0952	<0.0005	4.95	0.0017	2.83	<0.00001	<2	<0.00005	0.0128	<0.0005	0.0028
13-May-09	273																			
20-May-09	280																			
27-May-09	287																			
3-Jun-09	294	<0.0005	<0.0001	0.00423	<0.03	0.000136	4.65	0.0684	<0.00001	0.118	<0.0005	4.55	0.002	2.36	<0.00001	<2	<0.00005	0.00749	0.00064	0.0016
10-Jun-09	301																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
17-Jun-09	308	500	360	7.83	391	200																	
24-Jun-09	315	500	485																				
1-Jul-09	322	500	525	7.85	347	162	<1	3	74	115	84.6	<0.5	0.071	33.5	0.0097	0.00497	0.00241	0.00839	<0.0002	<0.0005	<0.01	<0.00005	25.8
8-Jul-09	329	500	495																				
15-Jul-09	336	500	475	7.96	350	206																	
22-Jul-09	343	500	515																				
29-Jul-09	350	500	450	7.90	322	209	<1	6	97	127	106	<0.5	0.098	29.4	0.0081	0.00536	0.002	0.00914	<0.0002	<0.0005	<0.01	<0.00005	31.1
5-Aug-09	357	500	510																				
12-Aug-09	364	500	495	7.91	280	192																	
19-Aug-09	371	500	525																				
26-Aug-09	378	500	490	7.99	276	184	<1	3	89	112	92.7	<0.5	0.069	23.4	0.0084	0.00515	0.00196	0.00771	<0.0002	<0.0005	0.011	<0.00005	26.9
2-Sep-09	385	500	440																				
9-Sep-09	392	500	515	8.13	308	213																	
16-Sep-09	399	500	480																				
23-Sep-09	406	500	405	8.07	332	214	<1	3	107	129	112	<0.5	0.062	24.6	0.0073	0.0051	0.00165	0.00898	<0.0002	<0.0005	<0.01	<0.00005	32.8
30-Sep-09	413	500	565																				
7-Oct-09	420	500	485	7.85	299	172																	
14-Oct-09	427	500	485																				
21-Oct-09	434	500	460	7.79	301	131	<1	3	60	82	62.5	<0.5	0.042	17.8	0.0134	0.00336	0.00223	0.00497	<0.0002	<0.0005	<0.01	<0.00005	18.2
28-Oct-09	441	500	475																				
4-Nov-09	448	500	455	7.57	286	150																	
11-Nov-09	455	500	460																				
18-Nov-09	462	500	410	7.82	289	145	<1	9	63	55	60.9	<0.5	0.043	17.7	0.0132	0.00326	0.00229	0.00448	<0.0002	<0.0005	0.019	0.000051	17.6
25-Nov-09	469	500	505																				
2-Dec-09	476	500	470	7.68	337	134																	
9-Dec-09	483	500	475																				
16-Dec-09	490	500	425	7.89	312	167	<1	3	75	100	80.6	<0.5	0.048	21.4	0.0112	0.00353	0.00202	0.0057	<0.0002	<0.0005	<0.01	<0.00005	23.3
23-Dec-09	497	500	500																				
30-Dec-09	504	500	500	7.76	395	143																	
6-Jan-10	511	500	480																				
13-Jan-10	518	500	455	7.76	322	149	<1	6	64	89	66	<0.5	0.04	17.7	0.0116	0.00329	0.00208	0.00493	<0.0002	<0.0005	<0.01	<0.00005	19.2
20-Jan-10	525	500	470																				
27-Jan-10	532	500	480	7.77	347	131																	
3-Feb-10	539	500	435																				
10-Feb-10	546	500	485	7.64	284	143	<1	4	64	90	69.7	<0.5	0.032	19.3	0.0122	0.00315	0.00186	0.00492	<0.0002	<0.0005	<0.01	<0.00005	19.9
17-Feb-10	553	500	455																				
24-Feb-10	560	500	455	7.73	303	146																	
3-Mar-10	567	500	450																				
10-Mar-10	574	500	345	7.77	375	168	<1	4	75	101	80.7	0.64	0.053	22.6	0.0109	0.00322	0.00183	0.0057	<0.0002	<0.0005	0.012	<0.00005	22.5
17-Mar-10	581	500	465																				
24-Mar-10	588	500	495	7.86	322	161																	
31-Mar-10	595	500	410																				
7-Apr-10	602	500	405	7.72	326	150	<1	4	62	83	67.7	0.52	0.042	19.8	0.0131	0.00265	0.00188	0.00496	<0.0002	<0.0005	0.015	<0.00005	18.7
14-Apr-10	609	500	415																				
21-Apr-10	616	500	455	7.81	279	156																	
28-Apr-10	623	500	440																				
5-May-10	630	500	405	7.71	330	158	<1	4	66	96	73.6	<0.5	0.041	21.4	0.0135	0.00272	0.00177	0.00496	<0.0002	<0.0005	<0.01	<0.00005	20.7
12-May-10	637	500	460																				
19-May-10	644	500	305	7.86	335	182																	
26-May-10	651	500	435																				
2-Jun-10	658	500	445	7.85	331	156	<1	3	71	98	79.1	<0.5	0.05	18.2	0.0145	0.00291	0.00186	0.0055	<0.0002	<0.0005	0.012	<0.00005	21.3
9-Jun-10	665	500	430																				
16-Jun-10	672	500	380	7.84	339	152																	
23-Jun-10	679	500	445																				
30-Jun-10	686	500	380	7.91	388	154	<1	3	68	91	77.2	<0.5	0.042	22.9	0.0127	0.00223	0.00184	0.00489	<0.0002	<0.0005	<0.01	<0.00005	21.8
7-Jul-10	693	500	430																				
14-Jul-10	700	500	430	7.87	332	176																	
21-Jul-10	707	500	500																				
28-Jul-10	714	500	435	7.71	326	142	<1	4	62	83	69.2	<0.5	0.041	19.9	0.0123	0.00197	0.00155	0.00452	<0.0002	<0.0005	0.011	<0.00005	19.6
4-Aug-10	721	500	390																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Jun-09	308																			
24-Jun-09	315																			
1-Jul-09	322	<0.0005	<0.0001	0.00522	<0.03	<0.00005	4.92	0.0573	<0.00001	0.14	<0.0005	4.3	0.0016	2.86	<0.00001	<2	<0.00005	0.0116	0.00054	0.0018
8-Jul-09	329																			
15-Jul-09	336																			
22-Jul-09	343																			
29-Jul-09	350	<0.0005	<0.0001	0.00644	<0.03	<0.00005	6.75	0.0468	<0.00001	0.163	<0.0005	4.7	0.0016	3.12	<0.00001	<2	<0.00005	0.0121	0.00051	0.0023
5-Aug-09	357																			
12-Aug-09	364																			
19-Aug-09	371																			
26-Aug-09	378	<0.0005	<0.0001	0.00574	<0.03	0.000392	6.21	0.0146	<0.00001	0.122	<0.0005	4.08	0.0014	2.77	<0.00001	<2	<0.00005	0.0101	<0.0005	0.0017
2-Sep-09	385																			
9-Sep-09	392																			
16-Sep-09	399																			
23-Sep-09	406	<0.0005	<0.0001	0.00558	<0.03	0.000055	7.22	0.00556	<0.00001	0.169	<0.0005	4.08	0.0016	2.85	<0.00001	<2	<0.00005	0.00903	<0.0005	0.0016
30-Sep-09	413																			
7-Oct-09	420																			
14-Oct-09	427																			
21-Oct-09	434	<0.0005	<0.0001	0.0034	<0.03	<0.00005	4.12	0.00148	<0.00001	0.123	<0.0005	2.77	0.0013	1.73	<0.00001	<2	<0.00005	0.00428	<0.0005	0.002
28-Oct-09	441																			
4-Nov-09	448																			
11-Nov-09	455																			
18-Nov-09	462	<0.0005	<0.0001	0.00183	<0.03	<0.00005	4.13	0.000801	<0.00001	0.136	<0.0005	2.58	0.0012	1.72	<0.00001	<2	<0.00005	0.00387	0.0005	<0.001
25-Nov-09	469																			
2-Dec-09	476																			
9-Dec-09	483																			
16-Dec-09	490	<0.0005	<0.0001	0.00224	<0.03	<0.00005	5.44	0.00081	<0.00001	0.179	<0.0005	3	0.0013	2.32	<0.00001	<2	<0.00005	0.00527	<0.0005	<0.001
23-Dec-09	497																			
30-Dec-09	504																			
6-Jan-10	511																			
13-Jan-10	518	<0.0005	<0.0001	0.00417	<0.03	<0.00005	4.36	0.00192	<0.00001	0.157	<0.0005	2.59	0.001	1.91	<0.00001	<2	<0.00005	0.00504	<0.0005	<0.001
20-Jan-10	525																			
27-Jan-10	532																			
3-Feb-10	539																			
10-Feb-10	546	<0.0005	<0.0001	0.00195	<0.03	<0.00005	4.87	0.000361	<0.00001	0.173	<0.0005	2.67	<0.001	1.89	<0.00001	<2	<0.00005	0.00446	<0.0005	<0.001
17-Feb-10	553																			
24-Feb-10	560																			
3-Mar-10	567																			
10-Mar-10	574	<0.0005	<0.0001	0.00224	<0.03	<0.00005	5.95	0.000766	<0.00001	0.197	<0.0005	2.91	<0.001	2.04	<0.00001	<2	<0.00005	0.00636	<0.0005	<0.001
17-Mar-10	581																			
24-Mar-10	588																			
31-Mar-10	595																			
7-Apr-10	602	<0.0005	<0.0001	0.00292	<0.03	0.000105	5.08	0.000712	<0.00001	0.144	<0.0005	2.66	<0.001	1.78	<0.00001	<2	<0.00005	0.0045	<0.0005	0.0024
14-Apr-10	609																			
21-Apr-10	616																			
28-Apr-10	623																			
5-May-10	630	<0.0005	<0.0001	0.00213	<0.03	<0.00005	5.35	0.000578	<0.00001	0.154	<0.0005	2.78	<0.001	1.83	<0.00001	<2	<0.00005	0.00497	<0.0005	<0.001
12-May-10	637																			
19-May-10	644																			
26-May-10	651																			
2-Jun-10	658	<0.0005	<0.0001	0.00228	<0.03	<0.00005	6.27	0.000297	<0.00001	0.141	<0.0005	3.34	0.0012	1.92	<0.00001	<2	<0.00005	0.00516	<0.0005	<0.001
9-Jun-10	665																			
16-Jun-10	672																			
23-Jun-10	679																			
30-Jun-10	686	<0.0005	<0.0001	0.00175	<0.03	<0.00005	5.54	0.000426	<0.00001	0.122	<0.0005	2.71	<0.001	1.97	<0.00001	<2	<0.00005	0.00499	<0.0005	<0.001
7-Jul-10	693																			
14-Jul-10	700																			
21-Jul-10	707																			
28-Jul-10	714	<0.0005	<0.0001	0.00148	<0.03	<0.00005	4.94	0.00242	<0.00001	0.0981	<0.0005	2.39	<0.001	1.65	<0.00001	<2	<0.00005	0.00379	<0.0005	<0.001
4-Aug-10	721																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11-Aug-10	728	500	475	7.88	369	158																	
18-Aug-10	735	500	475																				
25-Aug-10	742	500	445	7.77	326	158	<1	4	74	93	77.7	<0.5	0.04	21	0.0121	0.00228	0.00157	0.00527	<0.0002	<0.0005	<0.01	<0.00005	21.6
1-Sep-10	749	500	450																				
8-Sep-10	756	500	425	7.61	351	155																	
15-Sep-10	763	500	470																				
22-Sep-10	770	500	500	7.78	313	131	<1	4	72	93	80.6	<0.5	0.046	19.7	0.013	0.00198	0.00142	0.00523	<0.0002	<0.0005	<0.01	<0.00005	22.2
29-Sep-10	777	500	415																				
6-Oct-10	784	500	485	7.77	292	168																	
13-Oct-10	791	500	480																				
20-Oct-10	798	500	480	7.86	276	171	<1	3	80	113	82.8	<0.5	0.044	23.3	0.0114	0.00186	0.0013	0.0052	<0.0002	<0.0005	0.011	<0.00005	22.6
27-Oct-10	805	500	490																				
3-Nov-10	812	500	495	7.94	350	161																	
10-Nov-10	819	500	495																				
17-Nov-10	826	500	490	7.96	307	171	<1	4	85	108	90.6	<0.5	0.042	24.8	0.0116	0.00181	0.00118	0.00524	<0.0002	<0.0005	<0.01	<0.00005	24.6
24-Nov-10	833	500	450																				
1-Dec-10	840	500	390	7.75	335	179																	
8-Dec-10	847	500	480																				
15-Dec-10	854	500	415	7.63	323	148	<1	6	70	82	74.5	<0.5	0.036	19.3	0.0135	0.00161	0.0013	0.00505	<0.0002	<0.0005	<0.01	<0.00005	19.9
22-Dec-10	861	500	465																				
29-Dec-10	868	500	460	7.69	322	149																	
5-Jan-11	875	500	485																				
12-Jan-11	882	500	420	7.75	328	142	<1	5	80	86	79.5	<0.5	0.026	16	0.0114	0.00149	0.00108	0.00418	<0.0002	<0.0005	<0.01	<0.00005	21.5
19-Jan-11	889	500	475																				
26-Jan-11	896	500	480	7.69	285	136																	
2-Feb-11	903	500	410																				
9-Feb-11	910	500	490	7.80	348	136	<1	3	73	91	79.5	<0.5	0.031	17.4	0.0104	0.00139	0.00098	0.0044	<0.0002	<0.0005	<0.01	<0.00005	21.2
16-Feb-11	917	500	495																				
23-Feb-11	924	500	410	7.80	330	180																	
2-Mar-11	931	500	520																				
9-Mar-11	938	500	510	7.75	269	168	<1	4	76	89	78	<0.5	0.033	19	0.0099	0.00137	0.00086	0.00508	<0.0002	<0.0005	<0.01	<0.00005	21.3
16-Mar-11	945	500	490																				
23-Mar-11	952	500	500	7.82	266	156																	
30-Mar-11	959	500	455																				
6-Apr-11	966	500	470	7.68	223	156	<1	7	76	85	74.8	<0.5	0.036	16	0.0114	0.00131	0.00099	0.00425	<0.0002	<0.0005	<0.01	<0.00005	20
13-Apr-11	973	500	435																				
20-Apr-11	980	500	450	7.79	243	163																	
27-Apr-11	987	500	460																				
4-May-11	994	500	455	7.71	313	154	<1	5	73	84	73.4	<0.5	0.036	16.8	0.0112	0.00144	0.00112	0.00414	<0.0002	<0.0005	<0.01	<0.00015	19.7
11-May-11	1001	500	450																				
18-May-11	1008	500	460	7.63	303	153																	
25-May-11	1015	500	410																				
1-Jun-11	1022	500	465	7.87	277	186	<1	6	79	108	91.7	<0.5	0.033	20.4	0.0087	0.00128	0.00091	0.00508	<0.0002	<0.0005	<0.01	<0.00005	24.2
8-Jun-11	1029	500	495																				
15-Jun-11	1036	500	445	8.02	261	166																	
22-Jun-11	1043	500	485																				
29-Jun-11	1050	500	425	7.90	291	156	<1	4	77	80	76.3	<0.5	0.036	16.8	0.011	0.00118	0.00099	0.00373	<0.0002	<0.0005	<0.01	<0.00005	20.2
6-Jul-11	1057	500	350																				
13-Jul-11	1064	500	495	7.83	292	196																	
20-Jul-11	1071	500	410																				
27-Jul-11	1078	500	470	7.89	246	190	<1	3	89	102	93.8	<0.5	0.039	17.3	0.0075	0.00117	0.00075	0.00487	<0.0002	<0.0005	<0.01	<0.00005	25
3-Aug-11	1085	500	520																				
10-Aug-11	1092	500	430	7.79	197	172																	
17-Aug-11	1099	500	440																				
24-Aug-11	1106	500	415	7.77	206	190	<1	6	78	117	92.3	<0.5	0.041	27.5	0.0092	0.00115	0.00084	0.00545	<0.0002	<0.0005	<0.01	<0.00005	24.3
31-Aug-11	1113	500	475																				
7-Sep-11	1120	500	400	7.85	223	170																	
14-Sep-11	1127	500	475																				
21-Sep-11	1134	500	460	7.71	239	143	<1	5	61	68	70.8	<0.5	0.039	18.8	0.0127	0.00104	0.00087	0.00431	<0.0002	<0.0005	<0.01	<0.00005	18.6
28-Sep-11	1141	500	420																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Aug-10	728																			
18-Aug-10	735																			
25-Aug-10	742	<0.0005	<0.0001	0.00182	<0.03	<0.00005	5.76	0.000353	<0.00001	0.111	<0.0005	2.76	<0.001	1.88	<0.00001	<2	<0.00005	0.00483	<0.0005	<0.001
1-Sep-10	749																			
8-Sep-10	756																			
15-Sep-10	763																			
22-Sep-10	770	<0.0005	<0.0001	0.00185	<0.03	0.00013	6.12	0.000275	<0.00001	0.105	<0.0005	2.64	<0.001	1.87	<0.00001	<2	<0.00005	0.00394	<0.0005	<0.001
29-Sep-10	777																			
6-Oct-10	784																			
13-Oct-10	791																			
20-Oct-10	798	<0.0005	<0.0001	0.00189	<0.03	<0.00005	6.4	0.000205	<0.00001	0.123	<0.0005	2.62	<0.001	1.91	<0.00001	<2	<0.00005	0.00377	<0.0005	<0.001
27-Oct-10	805																			
3-Nov-10	812																			
10-Nov-10	819																			
17-Nov-10	826	<0.0005	<0.0001	0.00193	<0.03	<0.00005	7.1	0.000112	<0.00001	0.14	<0.0005	2.81	<0.001	1.97	<0.00001	<2	<0.00005	0.00336	<0.0005	<0.001
24-Nov-10	833																			
1-Dec-10	840																			
8-Dec-10	847																			
15-Dec-10	854	<0.0005	<0.0001		<0.03	<0.00005	6.02	0.00177	<0.00001	0.12	<0.0005	2.49	<0.001	1.67	<0.00001	<2	<0.00005	0.0028	<0.0005	0.0011
22-Dec-10	861																			
29-Dec-10	868																			
5-Jan-11	875																			
12-Jan-11	882	<0.0005	<0.0001	0.00187	<0.03	<0.00005	6.3	0.000498	<0.00001	0.128	<0.0005	2.32	<0.001	1.59	<0.00001	<2	<0.00005	0.00378	<0.0005	<0.001
19-Jan-11	889																			
26-Jan-11	896																			
2-Feb-11	903																			
9-Feb-11	910	<0.0005	<0.0001	0.00195	<0.03	<0.00005	6.46	0.000123	<0.00001	0.113	<0.0005	2.44	<0.001	1.58	<0.00001	<2	<0.00005	0.00266	<0.0005	<0.001
16-Feb-11	917																			
23-Feb-11	924																			
2-Mar-11	931																			
9-Mar-11	938	<0.0005	<0.0001	0.0016	<0.03	<0.00005	6	0.000153	<0.00001	0.11	<0.0005	2.22	<0.001	1.47	<0.00001	<2	<0.00005	0.00289	<0.0005	<0.001
16-Mar-11	945																			
23-Mar-11	952																			
30-Mar-11	959																			
6-Apr-11	966	<0.0005	<0.0001	0.00194	<0.03	<0.00005	6.03	0.000209	<0.00001	0.108	<0.0005	2.23	<0.001	1.53	0.000012	<2	<0.00005	0.00272	<0.0005	<0.001
13-Apr-11	973																			
20-Apr-11	980																			
27-Apr-11	987																			
4-May-11	994	<0.0005	<0.0001	0.00217	<0.03	<0.00005	5.9	0.000187	<0.00001	0.114	<0.0005	2.18	<0.001	1.48	<0.00001	<2	<0.00005	0.00296	<0.0005	<0.001
11-May-11	1001																			
18-May-11	1008																			
25-May-11	1015																			
1-Jun-11	1022	<0.0005	<0.0001	0.00191	<0.03	<0.00005	7.63	0.000116	<0.00001	0.101	<0.0005	2.54	<0.001	1.78	<0.00001	<2	<0.00005	0.0024	<0.0005	<0.001
8-Jun-11	1029																			
15-Jun-11	1036																			
22-Jun-11	1043																			
29-Jun-11	1050	<0.0005	<0.0001	0.00185	<0.03	<0.00005	6.26	0.000099	<0.00001	0.0939	<0.0005	2.17	<0.001	1.49	<0.00001	<2	<0.00005	0.00315	<0.0005	<0.001
6-Jul-11	1057																			
13-Jul-11	1064																			
20-Jul-11	1071																			
27-Jul-11	1078	<0.0005	<0.0001	0.00237	<0.03	<0.00005	7.61	0.000632	<0.00001	0.0875	<0.0005	2.59	<0.001	1.64	<0.00001	<2	<0.00005	0.00304	<0.0005	0.001
3-Aug-11	1085																			
10-Aug-11	1092																			
17-Aug-11	1099																			
24-Aug-11	1106	<0.0005	<0.0001	0.00217	<0.03	<0.00005	7.66	0.000361	<0.00001	0.108	<0.0005	2.43	<0.001	1.74	<0.00001	<2	<0.00005	0.00156	<0.0005	<0.001
31-Aug-11	1113																			
7-Sep-11	1120																			
14-Sep-11	1127																			
21-Sep-11	1134	<0.0005	<0.0001	0.00168	<0.03	<0.00005	5.92	0.000162	<0.00001	0.101	<0.0005	2	<0.001	1.38	<0.00001	<2	<0.00005	0.00193	<0.0005	<0.001
28-Sep-11	1141																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
5-Oct-11	1148	500	460	7.69	173	139																	
12-Oct-11	1155	500	425																				
19-Oct-11	1162	500	405	7.80	239	153	<1	3	67	88	77.1	<0.5	0.037	17.3	0.0076	0.00108	0.00122	0.00426	<0.0002	<0.0005	<0.01	<0.00005	20.7
26-Oct-11	1169	500	495																				
2-Nov-11	1176	500	465	7.66	207	150																	
9-Nov-11	1183	500	470																				
16-Nov-11	1190	500	415	7.76	262	145	<1	4	65	73	71.1	<0.5	0.036	15	0.0136	0.00095	0.0008	0.00326	<0.0002	<0.0005	<0.01	<0.00005	19.1
23-Nov-11	1197	500	440																				
30-Nov-11	1204	500	435	7.72	302	172																	
7-Dec-11	1211	500	390																				
14-Dec-11	1218	500	490	7.82	262	185	<1	5	90	101	93.8	<0.5	0.064	16.4	0.0084	0.000965	0.0006	0.00449	<0.0002	<0.0005	<0.01	<0.00005	25.3
21-Dec-11	1225	500	515																				
28-Dec-11	1232	500	485	7.83	248	180																	
4-Jan-12	1239	500	440																				
11-Jan-12	1246	500	455	7.85	218	207	<1	4	110	108	96.2	<0.5	0.034	17.5	0.0067	0.001	0.00056	0.00513	<0.0002	<0.0005	<0.01	<0.00005	25.7
18-Jan-12	1253	500	400																				
25-Jan-12	1260	500	440	7.84	337	211																	
1-Feb-12	1267	500	465																				
8-Feb-12	1274	500	505	7.84	260	195	<1	6	104	108	94.1	<0.5	0.031	19.7	0.0068	0.000991	0.00049	0.00463	<0.0002	<0.0005	<0.01	<0.00005	25.4
15-Feb-12	1281	500	505																				
22-Feb-12	1288	500	450	7.76	350	238																	
29-Feb-12	1295	500	505																				
7-Mar-12	1302	500	450	7.64	396	215	<1	9	91	121	108	<5	<0.2	28.3	0.0073	0.000947	0.00056	0.0048	<0.0002	<0.0005	<0.01	<0.00005	29.3
14-Mar-12	1309	500	440																				
21-Mar-12	1316	500	460	7.69	328	232																	
28-Mar-12	1323	500	455																				
4-Apr-12	1330	500	395	7.75	340	233	<1	5	98	130	118	<5	<0.2	32.4	0.0063	0.000898	0.00048	0.00508	<0.0002	<0.0005	<0.01	<0.0002	31.9
11-Apr-12	1337	500	525																				
18-Apr-12	1344	500	485	7.68	348	201																	
25-Apr-12	1351	500	445																				
2-May-12	1358	500	435	7.61	356	227	<1	9	91	126	115	<5	<0.2	32.1	0.0075	0.000935	0.00048	0.00523	<0.0002	<0.0005	<0.01	<0.00005	31.1
9-May-12	1365	500	485																				
16-May-12	1372	500	440	7.81	289	217																	
23-May-12	1379	500	505																				
30-May-12	1386	500	460	7.72	302	202	<1	6	86	109	97.8	<0.5	0.039	23.4	0.0061	0.000848	0.00059	0.00533	<0.0002	<0.0005	<0.01	<0.00008	26.6
6-Jun-12	1393	500	450																				
13-Jun-12	1400	500	430	7.71	380	217																	
20-Jun-12	1407	500	485																				
27-Jun-12	1414	500	405	7.67	366	210	<1	7	89	127	106	<0.5	0.041	28.3	0.008	0.000814	0.00046	0.00453	<0.0002	<0.0005	<0.01	<0.00015	29.4
4-Jul-12	1421	500	390																				
11-Jul-12	1428	500	450	7.79	374	211																	
18-Jul-12	1435	500	455																				
25-Jul-12	1442	500	445	7.74	371	226	<1	4	95	130	110	<5	<0.2	29.1	0.0061	0.000731	0.00041	0.00487	<0.0002	<0.0005	<0.01	<0.00015	30.1
1-Aug-12	1449	500	435																				
8-Aug-12	1456	500	450	7.85	336	223																	
15-Aug-12	1463	500	510																				
22-Aug-12	1470	500	520	7.63	329	190	<1	6	82	114	98.8	<0.5	0.034	22.5	0.0051	0.000737	0.00037	0.00424	<0.0002	<0.0005	<0.01	<0.0001	26.6
29-Aug-12	1477	500	415																				
5-Sep-12	1484	500	480	7.70	387	215																	
12-Sep-12	1491	500	500																				
19-Sep-12	1498	500	410	7.72	359	221	<1	6	101	122	114	<0.5	0.04	26.2	0.006	0.000768	0.00036	0.00502	<0.0002	<0.0005	<0.01	<0.00015	31
26-Sep-12	1505	500	520																				
3-Oct-12	1512	500	480	7.76	366	208																	
10-Oct-12	1519	500	435																				
17-Oct-12	1526	500	465	7.77	391	229	<1	5	106	125	113	<0.5	0.04	25.2	0.006	0.000744	0.00038	0.00462	<0.0002	<0.0005	<0.01	<0.0003	30.7
24-Oct-12	1533	500	520																				
31-Oct-12	1540	500	470	7.67	287	203																	
7-Nov-12	1547	500	475																				
14-Nov-12	1554	500	520	7.61	372	193	<1	11	89	107	93.2	<0.5	0.037	22.8	0.0062	0.000733	0.00034	0.00391	<0.0002	<0.0005	<0.01	<0.00005	25.5
21-Nov-12	1561	500	485																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
5-Oct-11	1148																			
12-Oct-11	1155																			
19-Oct-11	1162	0.00095	<0.0001	0.00069	<0.03	<0.00005	6.14	0.000188	<0.00001	0.0992	<0.0005	2.2	<0.001	1.55	<0.00001	<2	<0.00005	0.00148	<0.0005	<0.001
26-Oct-11	1169																			
2-Nov-11	1176																			
9-Nov-11	1183																			
16-Nov-11	1190	<0.0005	<0.0001	0.00126	<0.03	<0.00005	5.67	0.000129	<0.00001	0.0812	<0.0005	2.01	<0.001	1.39	<0.00001	<2	<0.00005	0.00229	<0.0005	<0.001
23-Nov-11	1197																			
30-Nov-11	1204																			
7-Dec-11	1211																			
14-Dec-11	1218	<0.0005	<0.0001	0.00199	<0.03	<0.00005	7.46	0.00025	<0.00001	0.0816	<0.0005	2.35	<0.001	1.67	<0.00001	<2	<0.00005	0.0021	<0.0005	<0.001
21-Dec-11	1225																			
28-Dec-11	1232																			
4-Jan-12	1239																			
11-Jan-12	1246	<0.0005	<0.0001	0.00216	<0.03	<0.00005	7.78	0.000279	<0.00001	0.0808	<0.0005	2.3	<0.001	1.61	<0.00001	<2	<0.00005	0.00176	<0.0005	<0.001
18-Jan-12	1253																			
25-Jan-12	1260																			
1-Feb-12	1267																			
8-Feb-12	1274	<0.0005	<0.0001	0.00254	<0.03	0.00121	7.43	0.000193	<0.00001	0.0805	<0.0005	2.32	<0.001	1.45	<0.00001	<2	<0.00005	0.00168	<0.0005	0.0015
15-Feb-12	1281																			
22-Feb-12	1288																			
29-Feb-12	1295																			
7-Mar-12	1302	<0.0005	<0.0001	0.00206	<0.03	<0.00005	8.42	0.000349	<0.00001	0.121	<0.0005	2.28	<0.001	1.58	<0.00001	<2	<0.00005	0.00239	<0.0005	<0.001
14-Mar-12	1309																			
21-Mar-12	1316																			
28-Mar-12	1323																			
4-Apr-12	1330	<0.0005	<0.0001	0.00207	<0.03	<0.00005	9.38	0.000212	<0.00001	0.151	<0.0005	2.52	<0.001	1.62	<0.00001	<2	<0.00005	0.00197	<0.0005	0.0012
11-Apr-12	1337																			
18-Apr-12	1344																			
25-Apr-12	1351																			
2-May-12	1358	<0.0005	<0.0001	0.00259	<0.03	<0.00005	8.98	0.000564	<0.00001	0.184	<0.0005	2.41	<0.001	1.66	<0.00001	<2	<0.00005	0.00159	<0.0005	0.0011
9-May-12	1365																			
16-May-12	1372																			
23-May-12	1379																			
30-May-12	1386	<0.0005	<0.0001	0.0025	<0.03	<0.00005	7.62	0.000171	<0.00001	0.168	<0.0005	2.13	<0.001	1.51	<0.00001	<2	<0.00005	0.00119	<0.0005	0.001
6-Jun-12	1393																			
13-Jun-12	1400																			
20-Jun-12	1407																			
27-Jun-12	1414	<0.0005	<0.0001	0.00197	<0.03	<0.00005	7.96	0.000333	<0.00001	0.185	<0.0005	2.3	<0.001	1.62	<0.00001	<2	<0.00005	0.00143	<0.0005	0.0014
4-Jul-12	1421																			
11-Jul-12	1428																			
18-Jul-12	1435																			
25-Jul-12	1442	<0.0005	<0.0001	0.00226	<0.03	<0.00005	8.5	0.000152	<0.00001	0.226	<0.0005	2.32	<0.001	1.6	<0.00001	<2	<0.00005	0.00165	<0.0005	<0.001
1-Aug-12	1449																			
8-Aug-12	1456																			
15-Aug-12	1463																			
22-Aug-12	1470	<0.0005	<0.0001	0.00183	<0.03	<0.00005	7.86	0.000265	<0.00001	0.204	<0.0005	2.01	<0.001	1.45	<0.00001	<2	<0.00005	0.0014	<0.0005	<0.001
29-Aug-12	1477																			
5-Sep-12	1484																			
12-Sep-12	1491																			
19-Sep-12	1498	<0.0005	<0.0001	0.00226	<0.03	<0.00005	8.78	0.000133	<0.00001	0.272	<0.0005	2.32	<0.001	1.64	<0.00001	<2	<0.00005	0.00149	<0.0005	<0.001
26-Sep-12	1505																			
3-Oct-12	1512																			
10-Oct-12	1519																			
17-Oct-12	1526	<0.0005	<0.0001	0.00194	<0.03	<0.00005	8.78	0.000119	<0.00001	0.275	<0.0005	2.21	<0.001	1.56	<0.00001	<2	<0.00005	0.00151	<0.0005	<0.001
24-Oct-12	1533																			
31-Oct-12	1540																			
7-Nov-12	1547																			
14-Nov-12	1554	<0.0005	<0.0001	0.00205	<0.03	<0.00005	7.17	0.000126	<0.00001	0.25	<0.0005	2.05	<0.001	1.37	<0.00001	<2	<0.00005	0.00095	<0.0005	<0.001
21-Nov-12	1561																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
28-Nov-12	1568	500	485	7.52	382	173																	
5-Dec-12	1575	500	470																				
12-Dec-12	1582	500	465	7.70	322	189	<1	5	83	108	94.3	<0.5	0.034	24.2	0.0057	0.000677	0.00036	0.00437	<0.0002	<0.0005	<0.01	<0.0004	25.7
19-Dec-12	1589	500	440																				
26-Dec-12	1596	500	475	7.64	393	192																	

11840-003 bulk float T19

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
10-Sep-08	0	750	420	8.15	226	1511	<1	4	88	1090	371	21.1	2.92	668	0.0257	0.00239	0.0243	0.0188	<0.0004	<0.001	0.051	0.00055	108
17-Sep-08	7	500	445	8.16	299	416																	
24-Sep-08	14	500	380	8.09	286	401	<1	3	82	246	92.2	2.89	1.15	96.8	0.0133	0.00263	0.0483	0.0146	<0.0002	<0.0005	0.029	<0.00005	26.6
1-Oct-08	21	500	415	8.11	357	344																	
8-Oct-08	28	500	385	8.10	384	260	<1	3	83	178	75.3	3.32	0.956	39.1	0.0173	0.00296	0.0403	0.0137	<0.0002	<0.0005	0.022	<0.00005	22.4
15-Oct-08	35	500	345	8.17	382	214																	
22-Oct-08	42	500	435	8.11	398	206	<1	3	82	123	69.1	1.68	0.56	21.5	0.0116	0.00287	0.0203	0.0151	<0.0002	<0.0005	0.017	<0.00005	20.6
29-Oct-08	49	500	460	8.03	400	203																	
5-Nov-08	56	500	435	8.06	416	197	<1	4	79	114	71.4	1.61	0.417	18.6	0.0118	0.00286	0.0157	0.0181	<0.0002	<0.0005	0.014	<0.00005	20.4
12-Nov-08	63	500	430	8.04	383	179																	
19-Nov-08	70	500	450	8.06	418	139	<1	2	71	91.8	59.1	1.1	0.31	15	0.0133	0.00225	0.00856	0.0144	<0.0002	<0.0005	<0.01	<0.00005	18.1
26-Nov-08	77	500	460	8.00	360	149																	
3-Dec-08	84	500	445	8.05	340	152	<1	2	74	85	61.9	0.72	0.197	12.5	0.0136	0.00223	0.00763	0.0156	<0.0002	<0.0005	<0.01	<0.00005	18.3
10-Dec-08	91	500	430	8.01	328	164																	
17-Dec-08	98	500	465	7.91	332	155				84.5	68.2	0.67	0.163	9.3	0.013	0.00215	0.00536	0.0163	<0.0002	<0.0005	<0.01	<0.00005	20.1
24-Dec-08	105	500	440	7.94	333	171																	
31-Dec-08	112	500	460	7.98	320	173	<1		83	92.2	68.4	0.8	0.146	12.3	0.0156	0.0022	0.00488	0.0166	<0.0002	<0.0005	<0.01	<0.00005	20.1
7-Jan-09	119	500	450	7.71	277	164																	
14-Jan-09	126	500	450	7.96	370	160	<1	4	78	72.3	68	0.85	0.141	11.7	0.0166	0.00231	0.00406	0.0158	<0.0002	<0.0005	<0.01	<0.00005	19.1
21-Jan-09	133	500	435	7.88	386	163																	
28-Jan-09	140	500	430	7.91	369	158	<1	5	81	89.8	70.8	0.96	0.124	11.6	0.017	0.00225	0.00345	0.017	<0.0002	<0.0005	<0.01	0.000077	20.3
4-Feb-09	147	500	475	7.80	370	156																	
11-Feb-09	154	500	420	8.09	377	158	<1	5	84	81.6	71.1	0.86	0.092	10.1	0.0115	0.00188	0.00348	0.0139	<0.0002	<0.0005	<0.01	<0.00005	20.1
18-Feb-09	161	500	465	8.14	344	171																	
25-Feb-09	168	500	440	8.11	394	182	<1	5	105	122	88.1	0.88	0.074	8.9	0.0106	0.00182	0.00242	0.0175	<0.0002	<0.0005	<0.01	<0.00005	24.8
4-Mar-09	175	500	480	7.89	256	174																	
11-Mar-09	182	500	440	7.75	313	158	<1	5	86	79	73.5	0.89	0.073	8.69	0.0109	0.00189	0.00211	0.0148	<0.0002	<0.0005	<0.01	0.000116	21.3
18-Mar-09	189	500	455	7.89	329	166																	
25-Mar-09	196	500	455	7.72	332	149	<1	5	79	77.3	66	0.74	0.061	8.21	0.0128	0.00187	0.00191	0.0138	<0.0002	<0.0005	<0.01	<0.00005	19.6
1-Apr-09	203	500	450	7.89	346	158																	
8-Apr-09	210	500	460	7.96	348	171	<1	4	92	103	82	1.01	0.06	8.57	0.0152	0.00178	0.00165	0.0159	<0.0002	<0.0005	0.016	<0.00005	22.9
15-Apr-09	217	500	455	8.03	359	177																	
22-Apr-09	224	500	420	8.02	333	165																	
29-Apr-09	231	500	500																				
6-May-09	238	500	440	7.90	340	164	<1	4	90	86.5	82.8	0.81	0.062	6.91	0.0097	0.00178	0.00145	0.014	<0.0002	<0.0005	0.014	<0.00005	21.7
13-May-09	245	500	375																				
20-May-09	252	500	420	7.90	359	152																	
27-May-09	259	500	480																				
3-Jun-09	266	500	480	8.05	357	165	<1	4	103	91.1	89.6	0.9	0.045	8.34	0.0113	0.00219	0.00154	0.0171	<0.0002	<0.0005	<0.01	<0.00005	25.2
10-Jun-09	273	500	410																				
17-Jun-09	280	500	445	8.05	379	171																	
24-Jun-09	287	500	475																				
1-Jul-09	294	500	500	7.97	342	152	<1	3	94	109	85.1	0.54	0.031	15.1	0.0097	0.00167	0.00101	0.0151	<0.0002	<0.0005	<0.01	<0.00005	24.3
8-Jul-09	301	500	415																				
15-Jul-09	308	500	455	8.06	341	188																	
22-Jul-09	315	500	455																				
29-Jul-09	322	500	415	8.03	315	190	<1	5	109	110	96.3	0.65	0.058	12	0.0089	0.00147	0.00096	0.0153	<0.0002	<0.0005	<0.01	<0.00005	26.6
5-Aug-09	329	500	465																				
12-Aug-09	336	500	515	8.02	270	171																	
19-Aug-09	343	500	445																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
28-Nov-12	1568																			
5-Dec-12	1575																			
12-Dec-12	1582	<0.0005	<0.0001	0.00171	<0.03	<0.00005	7.33	0.000286	<0.00001	0.237	<0.0005	1.91	<0.001	1.37	<0.00001	<2	<0.00005	0.00115	<0.0005	0.0022
19-Dec-12	1589																			
26-Dec-12	1596																			

11840-003 bulk float T19

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Sep-08	0	<0.001	<0.0002	0.00525	<0.03	<0.0001	24.5	0.124	<0.00001	0.0699	<0.001	31.8	0.0064	97.7	<0.00002	195	<0.0001	0.0081	<0.001	0.0039
17-Sep-08	7																			
24-Sep-08	14	<0.0005	0.0001	0.00216	<0.03	<0.00005	6.24	0.0537	<0.00001	0.0285	<0.0005	15.6	0.0031	5.14	<0.00001	35.1	<0.00005	0.00793	<0.0005	0.0031
1-Oct-08	21																			
8-Oct-08	28	<0.0005	<0.0001	0.00609	<0.03	0.000081	4.71	0.0478	<0.00001	0.0183	0.00059	12.6	0.0015	4.55	<0.00001	16.1	<0.00005	0.00868	0.00052	0.0022
15-Oct-08	35																			
22-Oct-08	42	<0.0005	<0.0001	0.00329	<0.03	<0.00005	4.28	0.0405	<0.00001	0.0128	0.00053	10.9	<0.001	4.38	<0.00001	8.7	<0.00005	0.0111	<0.0005	0.0016
29-Oct-08	49																			
5-Nov-08	56	<0.0005	<0.0001	0.00146	<0.03	<0.00005	4.98	0.0334	<0.00001	0.0104	<0.0005	11.2	0.001	3.69	<0.00001	4.9	<0.00005	0.0112	<0.0005	0.0022
12-Nov-08	63																			
19-Nov-08	70	<0.0005	<0.0001	0.00162	<0.03	<0.00005	3.37	0.0148	<0.00001	0.00799	<0.0005	7.9	<0.001	3.03	<0.00001	2.8	<0.00005	0.0072	<0.0005	0.0012
26-Nov-08	77																			
3-Dec-08	84	<0.0005	<0.0001	0.0007	<0.03	<0.00005	3.95	0.00825	<0.00001	0.00771	<0.0005	8.1	<0.001	3.31	<0.00001	<2	<0.00005	0.00853	<0.0005	<0.001
10-Dec-08	91																			
17-Dec-08	98	<0.0005	<0.0001	0.00139	<0.03	<0.00005	4.35	0.00796	<0.00001	0.00617	<0.0005	8.19	<0.001	3.49	<0.00001	<2	<0.00005	0.0073	0.00052	0.0013
24-Dec-08	105																			
31-Dec-08	112	0.00117	<0.0001	0.00138	<0.03	<0.00005	4.45	0.00489	<0.00001	0.0087	<0.0005	7.32	<0.001	3.23	<0.00001	<2	<0.00005	0.00768	0.00053	0.0013
7-Jan-09	119																			
14-Jan-09	126	<0.0005	<0.0001	0.0025	<0.03	<0.00005	4.93	0.00263	<0.00001	0.00983	<0.0005	7.99	<0.001	3.29	<0.00001	<2	<0.00005	0.00564	0.00065	<0.001
21-Jan-09	133																			
28-Jan-09	140	<0.0005	<0.0001	0.00349	<0.03		4.89	0.00283	<0.00001	0.00999	<0.0005	7.6	<0.001	3.35		<2	<0.00005	0.00727	0.00057	0.0054
4-Feb-09	147																			
11-Feb-09	154	<0.0005	<0.0001	0.00119	<0.03	<0.00005	5.07	0.00156	<0.00001	0.00854	0.00059	5.53	0.0011	3.77	<0.00001	<2	<0.00005	0.0127	0.00055	0.0014
18-Feb-09	161																			
25-Feb-09	168	<0.0005	<0.0001	0.00163	<0.03	<0.00005	6.35	0.00127	<0.00001	0.0081	<0.0005	5.64	0.0011	3.65	<0.00001	<2	<0.00005	0.0135	<0.0005	0.0012
4-Mar-09	175																			
11-Mar-09	182	<0.0005	<0.0001	0.00378	<0.03	<0.00005	4.91	0.000737	<0.00001	0.0169	<0.0005	5.21	0.0012	3.07	<0.00001	<2	<0.00005	0.0117	<0.0005	0.0056
18-Mar-09	189																			
25-Mar-09	196	<0.0005	<0.0001	0.00251	<0.03	<0.00005	4.15	0.000693	<0.00001	0.0369	<0.0005	4.95	<0.001	2.93	<0.00001	<2	<0.00005	0.0102	0.00063	0.0014
1-Apr-09	203																			
8-Apr-09	210	<0.0005	<0.0001	0.00145	<0.03		6.04	0.000496	<0.00001	0.0531	<0.0005	4.76	<0.001	3.01	<0.00001	<2	<0.00005	0.0121	<0.0005	0.0013
15-Apr-09	217																			
22-Apr-09	224																			
29-Apr-09	231																			
6-May-09	238	<0.0005	<0.0001	0.00116	<0.03	<0.00005	6.95	0.000622	<0.00001	0.0817	<0.0005	4.15	<0.001	2.83	<0.00001	<2	<0.00005	0.0167	<0.0005	0.0014
13-May-09	245																			
20-May-09	252																			
27-May-09	259																			
3-Jun-09	266	<0.0005	<0.0001	0.00164	<0.03	0.000086	6.46	0.000591	<0.00001	0.102	<0.0005	4.67	<0.001	3.24	<0.00001	<2	<0.00005	0.0129	0.00051	<0.001
10-Jun-09	273																			
17-Jun-09	280																			
24-Jun-09	287																			
1-Jul-09	294	<0.0005	<0.0001	0.00136	<0.03	<0.00005	5.94	0.000344	<0.00001	0.106	<0.0005	3.76	<0.001	2.63	<0.00001	<2	<0.00005	0.0119	<0.0005	0.0012
8-Jul-09	301																			
15-Jul-09	308																			
22-Jul-09	315																			
29-Jul-09	322	<0.0005	<0.0001	0.00187	<0.03	<0.00005	7.25	0.000515	<0.00001	0.118	<0.0005	3.81	<0.001	2.86	<0.00001	<2	<0.00005	0.0105	<0.0005	0.0017
5-Aug-09	329																			
12-Aug-09	336																			
19-Aug-09	343																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
26-Aug-09	350	500	480	8.09	273	185	<1	3	105	121	98.3	<0.5	0.051	11.8	0.009	0.00138	0.00086	0.0155	<0.0002	<0.0005	<0.01	<0.00005	26.2
2-Sep-09	357	500	480																				
9-Sep-09	364	500	480	7.95	298	201																	
16-Sep-09	371	500	460																				
23-Sep-09	378	500	520	7.99	325	204	<1	3	122	113	109	<0.5	0.041	11.4	0.0071	0.00129	0.00075	0.0157	<0.0002	<0.0005	<0.01	<0.00005	30.2
30-Sep-09	385	500	460																				
7-Oct-09	392	500	470	8.14	326	217																	
14-Oct-09	399	500	505																				
21-Oct-09	406	500	495	7.97	298	149	<1	3	90	85	79.9	<0.5	0.034	5.15	0.0104	0.000932	0.00055	0.0112	<0.0002	<0.0005	<0.01		21.7
28-Oct-09	413	500	480																				
4-Nov-09	420	500	450	7.88	293	178																	
11-Nov-09	427	500	460																				
18-Nov-09	434	500	450	7.97	287	182	<1	8	103	95	81.5	<0.5	0.036	5.28	0.009	0.000877	0.00059	0.0111	<0.0002	<0.0005	0.021	<0.00005	21.9
25-Nov-09	441	500	475																				
2-Dec-09	448	500	465	7.92	335	185																	
9-Dec-09	455	500	495																				
16-Dec-09	462	500	500	8.10	308	185	<1	3	110	97	86.3	<0.5	0.037	5.91	0.0095	0.000804	0.00056	0.0121	<0.0002	<0.0005	<0.01	<0.00005	25.4
23-Dec-09	469	500	495																				
30-Dec-09	476	500	420	8.01	380	200																	
6-Jan-10	483	500	495																				
13-Jan-10	490	500	475	8.03	316	189	<1	6	107	106	94	<0.5	0.034	4.99	0.0064	0.000728	0.0005	0.0117	<0.0002	<0.0005	<0.01	<0.00005	25.8
20-Jan-10	497	500	455																				
27-Jan-10	504	500	420	8.00	336	172																	
3-Feb-10	511	500	425																				
10-Feb-10	518	500	520	7.88	297	163	<1	4	100	93	84.1	<0.5	0.037	4.33	0.0072	0.000573	0.00085	0.0102	<0.0002	<0.0005	<0.01	<0.00005	22.7
17-Feb-10	525	500	460																				
24-Feb-10	532	500	470	7.93	316	164																	
3-Mar-10	539	500	485																				
10-Mar-10	546	500	430	7.73	320	196	<1	5	113	113	111	<0.5	0.047	8.4	0.0074	0.00057	0.00057	0.0132	<0.0002	<0.0005	<0.01	<0.00005	29.9
17-Mar-10	553	500	495																				
24-Mar-10	560	500	510	8.02	333	189																	
31-Mar-10	567	500	475																				
7-Apr-10	574	500	500	7.94	335	174	<1	3	100	90	89.9	<0.5	0.04	5.45	0.0063	0.000466	0.00037	0.0105	<0.0002	<0.0005	<0.01	<0.00005	23.4
14-Apr-10	581	500	470																				
21-Apr-10	588	500	455	8.00	286	207																	
28-Apr-10	595	500	440																				
5-May-10	602	500	535	7.93	292	192	<1	6	116	108	121	<0.5	0.038	5.11	0.0059	0.000413	0.00037	0.0137	<0.0002	<0.0005	<0.01	<0.00005	34.7
12-May-10	609	500	465																				
19-May-10	616	500	440	7.96	353	198																	
26-May-10	623	500	525																				
2-Jun-10	630	500	500	7.98	333	171	<1	3	103	82	91.8	<0.5	0.045	4.35	0.0062	0.000387	0.00036	0.0102	<0.0002	<0.0005	<0.01	<0.00005	23.5
9-Jun-10	637	500	485																				
16-Jun-10	644	500	420	8.07	335	190																	
23-Jun-10	651	500	520																				
30-Jun-10	658	500	485	8.03	388	184	<1	3	113	106	103	<0.5	0.038	6.35	0.0055	0.000321	0.00042	0.012	<0.0002	<0.0005	<0.01	<0.00005	26.8
7-Jul-10	665	500	465																				
14-Jul-10	672	500	515	7.96	329	172																	
21-Jul-10	679	500	475																				
28-Jul-10	686	500	490	8.08	373	176	<1	4	105	88	84.7	<0.5	0.041	5.73	0.0063	0.000273	0.00037	0.00875	<0.0002	<0.0005	0.012	<0.00005	21.5
4-Aug-10	693	500	490																				
11-Aug-10	700	500	320	7.88	325	157																	
18-Aug-10	707	500	520																				
25-Aug-10	714	500	485	7.98	330	173	<1	4	108	92	88.4	<0.5	0.04	5.09	0.004	0.000248	0.00028	0.0089	<0.0002	<0.0005	0.01	<0.00005	23.5
1-Sep-10	721	500	460																				
8-Sep-10	728	500	435	7.77	345	159																	
15-Sep-10	735	500	480																				
22-Sep-10	742	500	480	7.96	310	144	<1	4	103	87	90.4	<0.5	0.053	6.04	0.0064	0.00027	0.0004	0.0124	<0.0002	<0.0005	<0.01	<0.00005	23.2
29-Sep-10	749	500	435																				
6-Oct-10	756	500	495	7.97	292	190																	
13-Oct-10	763	500	460																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
26-Aug-09	350	<0.0005	<0.0001	0.00233	<0.03	<0.00005	7.96	0.000775	<0.00001	0.117	<0.0005	3.7	<0.001	2.64	<0.00001	<2	<0.00005	0.0111	<0.0005	0.0014
2-Sep-09	357																			
9-Sep-09	364																			
16-Sep-09	371																			
23-Sep-09	378	<0.0005	<0.0001	0.00229	<0.03	<0.00005	8.18	0.000257	<0.00001	0.18	<0.0005	3.52	<0.001	2.65	<0.00001	<2	<0.00005	0.011	<0.0005	0.0017
30-Sep-09	385																			
7-Oct-09	392																			
14-Oct-09	399																			
21-Oct-09	406	<0.0005	<0.0001	0.00247	<0.03		6.23	0.0012	<0.00001	0.132	<0.0005	2.75	<0.001	1.8	<0.00001	<2	<0.00005	0.00762	<0.0005	0.0018
28-Oct-09	413																			
4-Nov-09	420																			
11-Nov-09	427																			
18-Nov-09	434	<0.0005	<0.0001	0.00099	<0.03	<0.00005	6.54	0.000167	<0.00001	0.154	<0.0005	2.64	<0.001	2.07	<0.00001	<2	<0.00005	0.00978	<0.0005	<0.001
25-Nov-09	441																			
2-Dec-09	448																			
9-Dec-09	455																			
16-Dec-09	462	<0.0005	<0.0001	0.00109	<0.03	<0.00005	7.57	0.000255	<0.00001	0.136	<0.0005	3.01	<0.001	2.09	<0.00001	<2	<0.00005	0.00991	<0.0005	<0.001
23-Dec-09	469																			
30-Dec-09	476																			
6-Jan-10	483																			
13-Jan-10	490	<0.0005	<0.0001	0.00103	<0.03	<0.00005	7.22	0.000078	<0.00001	0.139	<0.0005	2.74	<0.001	2.13	<0.00001	<2	<0.00005	0.0093	<0.0005	<0.001
20-Jan-10	497																			
27-Jan-10	504																			
3-Feb-10	511																			
10-Feb-10	518	<0.0005	<0.0001	0.00086	<0.03	<0.00005	6.68	0.000139	<0.00001	0.107	<0.0005	2.48	<0.001	1.87	<0.00001	<2	<0.00005	0.00692	<0.0005	<0.001
17-Feb-10	525																			
24-Feb-10	532																			
3-Mar-10	539																			
10-Mar-10	546	<0.0005	<0.0001	0.00152	<0.03	<0.00005	8.89	0.000205	<0.00001	0.14	<0.0005	2.99	<0.001	2.31	<0.00001	<2	<0.00005	0.0108	<0.0005	0.0029
17-Mar-10	553																			
24-Mar-10	560																			
31-Mar-10	567																			
7-Apr-10	574	<0.0005	<0.0001	0.00123	<0.03	<0.00005	7.63	0.000274	<0.00001	0.11	<0.0005	2.63	<0.001	1.78	<0.00001	<2	<0.00005	0.00627	<0.0005	<0.001
14-Apr-10	581																			
21-Apr-10	588																			
28-Apr-10	595																			
5-May-10	602	<0.0005	<0.0001	0.00143	<0.03	<0.00005	8.31	0.000272	<0.00001	0.12	<0.0005	2.66	<0.001	1.98	<0.00001	<2	<0.00005	0.00963	<0.0005	<0.001
12-May-10	609																			
19-May-10	616																			
26-May-10	623																			
2-Jun-10	630	<0.0005	<0.0001	0.00104	<0.03	<0.00005	8.06	0.000392	<0.00001	0.101	<0.0005	2.65	<0.001	1.66	<0.00001	<2	<0.00005	0.00499	<0.0005	<0.001
9-Jun-10	637																			
16-Jun-10	644																			
23-Jun-10	651																			
30-Jun-10	658	<0.0005	<0.0001	0.00091	<0.03	<0.00005	8.85	0.000202	<0.00001	0.11	<0.0005	2.7	<0.001	2	<0.00001	<2	<0.00005	0.00604	<0.0005	<0.001
7-Jul-10	665																			
14-Jul-10	672																			
21-Jul-10	679																			
28-Jul-10	686	<0.0005	<0.0001	0.00068	<0.03	<0.00005	7.54	0.000305	<0.00001	0.0919	<0.0005	2.45	<0.001	1.62	<0.00001	<2	<0.00005	0.00515	<0.0005	<0.001
4-Aug-10	693																			
11-Aug-10	700																			
18-Aug-10	707																			
25-Aug-10	714	0.0007	<0.0001	0.00068	<0.03	<0.00005	7.22	0.00151	<0.00001	0.0836	<0.0005	2.32	<0.001	1.65	<0.00001	<2	<0.00005	0.00582	<0.0005	<0.001
1-Sep-10	721																			
8-Sep-10	728																			
15-Sep-10	735																			
22-Sep-10	742	<0.0005	<0.0001	0.00144	<0.03	<0.00005	7.92	0.000216	<0.00001	0.0922	<0.0005	2.57	<0.001	1.79	<0.00001	<2	<0.00005	0.00556	<0.0005	<0.001
29-Sep-10	749																			
6-Oct-10	756																			
13-Oct-10	763																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
20-Oct-10	770	500	490	8.03	284	184	<1	3	116	107	98.8	<0.5	0.052	6.84	0.0055	0.00027	0.00036	0.0101	0.00028	<0.0005	<0.01	<0.00005	24.1
27-Oct-10	777	500	450																				
3-Nov-10	784	500	465	8.08	352	162																	
10-Nov-10	791	500	405																				
17-Nov-10	798	500	430	8.12	316	197	<1	4	103	75	86.7	<0.5	0.052	7.09	0.0083	0.000244	0.00032	0.00774	<0.0002	<0.0005	<0.01	<0.00005	21.3
24-Nov-10	805	500	460																				
1-Dec-10	812	500	430	7.87	332	154																	
8-Dec-10	819	500	450																				
15-Dec-10	826	500	430	7.81	326	148	<1	6	89	78	77.6	<0.5	0.049	5.73	0.0093	0.000255	0.00051	0.007	<0.0002	<0.0005	0.01	<0.00005	18.9
22-Dec-10	833	500	435																				
29-Dec-10	840	500	460	7.85	322	136																	
5-Jan-11	847	500	435																				
12-Jan-11	854	500	420	7.84	325	139	<1	5	93	77	80	<0.5	0.026	4.65	0.0075	0.000223	0.00022	0.00615	<0.0002	<0.0005	<0.01	<0.00005	19.8
19-Jan-11	861	500	445																				
26-Jan-11	868	500	425	7.84	289	136																	
2-Feb-11	875	500	405																				
9-Feb-11	882	500	420	7.93	346	140	<1	3	95	70	84.4	<0.5	0.031	4.84	0.0065	0.000196	0.00032	0.00738	<0.0002	<0.0005	<0.01	<0.00005	20.4
16-Feb-11	889	500	485																				
23-Feb-11	896	500	445	7.89	301	160																	
2-Mar-11	903	500	410																				
9-Mar-11	910	500	410	7.90	273	181	<1	4	104	84	85.5	<0.5	0.034	5.77	0.0046	0.000176	0.0002	0.00715	<0.0002	<0.0005	<0.01	<0.00005	21.8
16-Mar-11	917	500	515																				
23-Mar-11	924	500	465	7.98	274	170																	
30-Mar-11	931	500	460																				
6-Apr-11	938	500	420	7.83	231	164	<1	6	97	84	75.8	<0.5	0.036	5.52	0.0081	0.000172	0.00022	0.00607	<0.0002	<0.0005	<0.01	<0.00005	18.7
13-Apr-11	945	500	465																				
20-Apr-11	952	500	440	7.92	252	152																	
27-Apr-11	959	500	450																				
4-May-11	966	500	405	7.85	313	155	<1	5	90	75	76.7	<0.5	0.038	5.22	0.0061	0.000199	0.00033	0.00586	<0.0002	<0.0005	<0.01	<0.00007	19.1
11-May-11	973	500	455																				
18-May-11	980	500	460	7.81	303	172																	
25-May-11	987	500	460																				
1-Jun-11	994	500	480	7.99	286	162	<1	5	87	90	81.4	<0.5	0.034	5.21	0.0047	0.000165	0.00025	0.00618	<0.0002	<0.0005	<0.01	<0.00005	20.1
8-Jun-11	1001	500	450																				
15-Jun-11	1008	500	455	7.99	284	150																	
22-Jun-11	1015	500	455																				
29-Jun-11	1022	500	455	8.08	301	147	<1	4	88	69	74.9	<0.5	0.038	4.72	0.0058	0.000159	0.0002	0.00526	<0.0002	<0.0005	<0.01	<0.00005	18.3
6-Jul-11	1029	500	415																				
13-Jul-11	1036	500	475	7.94	279	157																	
20-Jul-11	1043	500	480																				
27-Jul-11	1050	500	450	7.95	255	150	<1	3	84	76	75.4	<0.5	0.041	4.72	0.0056	0.000149	0.00021	0.00528	<0.0002	<0.0005	<0.01	<0.00005	18.6
3-Aug-11	1057	500	450																				
10-Aug-11	1064	500	465	7.96	199	150																	
17-Aug-11	1071	500	450																				
24-Aug-11	1078	500	455	7.89	213	134	<1	5	76	74	68.4	<0.5	0.04	5.24	0.0063	0.000169	0.00025	0.00504	<0.0002	<0.0005	<0.01	<0.00005	16.6
31-Aug-11	1085	500	430																				
7-Sep-11	1092	500	450	8.01	229	139																	
14-Sep-11	1099	500	445																				
21-Sep-11	1106	500	460	7.82	261	137	<1	5	77	62	70.1	<0.5	0.038	4.85	0.0066	0.000141	0.00015	0.00495	<0.0002	<0.0005	<0.01	<0.00005	17.2
28-Sep-11	1113	500	425																				
5-Oct-11	1120	500	400	7.91	181	156																	
12-Oct-11	1127	500	470																				
19-Oct-11	1134	500	405	7.89	235	148	<1	3	83	76	76	<0.5	0.038	4.55	0.0057	0.000161		0.00519	<0.0002	<0.0005	<0.01	<0.00005	18.7
26-Oct-11	1141	500	495																				
2-Nov-11	1148	500	460	7.90	226	150																	
9-Nov-11	1155	500	465																				
16-Nov-11	1162	500	410	7.90	271	144	<1	3	81	68	72.9	<0.5	0.037	4.81	0.0061	0.000135	0.0004	0.00517	<0.0002	<0.0005	<0.01	<0.00005	18.1
23-Nov-11	1169	500	470																				
30-Nov-11	1176	500	450	7.88	302	152																	
7-Dec-11	1183	500	475																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Oct-10	770	0.00063	<0.0001	0.00109	<0.03	<0.00005	9.37	0.000363	<0.00001	0.099	<0.0005	2.65	<0.001	1.88	<0.00001	<2	<0.00005	0.00495	<0.0005	<0.001
27-Oct-10	777																			
3-Nov-10	784																			
10-Nov-10	791																			
17-Nov-10	798	<0.0005	<0.0001	0.00082	<0.03	0.000262	8.12	0.000266	<0.00001	0.107	<0.0005	2.62	<0.001	1.77	<0.00001	<2	<0.00005	0.00452	<0.0005	<0.001
24-Nov-10	805																			
1-Dec-10	812																			
8-Dec-10	819																			
15-Dec-10	826	<0.0005	<0.0001	0.0024	<0.03	<0.00005	7.39	0.000344	<0.00001	0.0906	<0.0005	2.23	<0.001	1.7	<0.00001	<2	<0.00005	0.00252	<0.0005	<0.001
22-Dec-10	833																			
29-Dec-10	840																			
5-Jan-11	847																			
12-Jan-11	854	<0.0005	<0.0001	0.00094	<0.03	<0.00005	7.41	0.000243	<0.00001	0.0715	<0.0005	2.09	<0.001	1.49	<0.00001	<2	<0.00005	0.00375	<0.0005	0.0019
19-Jan-11	861																			
26-Jan-11	868																			
2-Feb-11	875																			
9-Feb-11	882	<0.0005	<0.0001	0.00216	<0.03		8.14	0.000308	<0.00001	0.0594	<0.0005	2.32	<0.001	1.63	<0.00001	<2	<0.00005	0.0047	<0.0005	<0.001
16-Feb-11	889																			
23-Feb-11	896																			
2-Mar-11	903																			
9-Mar-11	910	<0.0005	<0.0001	0.00306	<0.03	<0.00005	7.56	0.000268	<0.00001	0.0566	<0.0005	2.03	<0.001	1.66	<0.00001	<2	<0.00005	0.0053	<0.0005	<0.001
16-Mar-11	917																			
23-Mar-11	924																			
30-Mar-11	931																			
6-Apr-11	938	<0.0005	<0.0001	0.00084	<0.03	<0.00005	7.1	0.00027	<0.00001	0.0664	<0.0005	1.98	<0.001	1.5	<0.00001	<2	<0.00005	0.00364	<0.0005	<0.001
13-Apr-11	945																			
20-Apr-11	952																			
27-Apr-11	959																			
4-May-11	966	<0.0005	<0.0001	0.00175	<0.03	<0.00005	7.05	0.000235	<0.00001	0.0704	<0.0005	1.93	<0.001	1.54	<0.00001	<2	<0.00005	0.00313	<0.0005	<0.001
11-May-11	973																			
18-May-11	980																			
25-May-11	987																			
1-Jun-11	994	<0.0005	<0.0001	0.00051	<0.03	<0.00005	7.56	0.000109	<0.00001	0.0522	<0.0005	2.01	<0.001	1.54	<0.00001	<2	<0.00005	0.00383	<0.0005	<0.001
8-Jun-11	1001																			
15-Jun-11	1008																			
22-Jun-11	1015																			
29-Jun-11	1022	<0.0005	<0.0001	0.00053	<0.03	<0.00005	7.11	0.000099	<0.00001	0.0501	<0.0005	1.89	<0.001	1.39	<0.00001	<2	<0.00005	0.00283	<0.0005	<0.001
6-Jul-11	1029																			
13-Jul-11	1036																			
20-Jul-11	1043																			
27-Jul-11	1050	0.00092	<0.0001	0.00045	<0.03	<0.00005	7	0.000201	<0.00001	0.0438	<0.0005	2	<0.001	1.35	<0.00001	<2	<0.00005	0.0035	<0.0005	<0.001
3-Aug-11	1057																			
10-Aug-11	1064																			
17-Aug-11	1071																			
24-Aug-11	1078	<0.0005	<0.0001	0.00119	<0.03	<0.00005	6.58	0.000154	<0.00001	0.0482	<0.0005	1.73	<0.001	1.35	<0.00001	<2	<0.00005	0.00271	<0.0005	<0.001
31-Aug-11	1085																			
7-Sep-11	1092																			
14-Sep-11	1099																			
21-Sep-11	1106	<0.0005	<0.0001	0.00076	<0.03	<0.00005	6.59	0.000054	<0.00001	0.0426	<0.0005	1.66	<0.001	1.36	<0.00001	<2	<0.00005	0.00234	<0.0005	<0.001
28-Sep-11	1113																			
5-Oct-11	1120																			
12-Oct-11	1127																			
19-Oct-11	1134	<0.0005	<0.0001	0.00056	<0.03	<0.00005	7.15	0.000239	<0.00001	0.0432	<0.0005	1.9	<0.001	1.54	<0.00001	<2	<0.00005	0.00312	<0.0005	<0.001
26-Oct-11	1141																			
2-Nov-11	1148																			
9-Nov-11	1155																			
16-Nov-11	1162	<0.0005	<0.0001	0.00057	<0.03	<0.00005	6.72	0.00009	<0.00001	0.0403	<0.0005	1.76	<0.001	1.4	<0.00001	<2	<0.00005	0.00355	<0.0005	0.0027
23-Nov-11	1169																			
30-Nov-11	1176																			
7-Dec-11	1183																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
14-Dec-11	1190	500	440	7.90	270	156	<1	4	88	80	81.2	<0.5	0.033	5.17	0.0061	0.000134	0.00016	0.00535	<0.0002	<0.0005	<0.01	<0.00005	20.1
21-Dec-11	1197	500	480																				
28-Dec-11	1204	500	445	7.94	286	158																	
4-Jan-12	1211	500	475																				
11-Jan-12	1218	500	475	7.89	241	154	<1	3	98	75	77.6	<0.5	0.036	5.22	0.0046	0.000141	0.00016	0.00505	<0.0002	<0.0005	<0.01	<0.00005	19.3
18-Jan-12	1225	500	415																				
25-Jan-12	1232	500	440	7.93	333	158																	
1-Feb-12	1239	500	485																				
8-Feb-12	1246	500	415	7.84	308	161	<1	5	101	81	79.8	<0.5	0.034	5.97	0.0053	0.00016	0.00026	0.00561	<0.0002	<0.0005	<0.01	<0.00005	20.1
15-Feb-12	1253	500	480																				
22-Feb-12	1260	500	480	7.85	342	151																	
29-Feb-12	1267	500	440																				
7-Mar-12	1274	500	420	7.83	381	158	<1	7	88	78	79.8	<0.5	0.036	6.26	0.005	0.000145	0.00019	0.00486	<0.0002	<0.0005	<0.01	<0.00005	20.1
14-Mar-12	1281	500	480																				
21-Mar-12	1288	500	460	7.79	333	157																	
28-Mar-12	1295	500	465																				
4-Apr-12	1302	500	490	7.83	339	163	<1	4	91	81	83.4	<0.5	0.037	5.9	0.0049	0.000137	0.00015	0.00502	<0.0002	<0.0005	<0.01	0.000065	20.7
11-Apr-12	1309	500	425																				
18-Apr-12	1316	500	455	7.83	347	162																	
25-Apr-12	1323	500	440																				
2-May-12	1330	500	440	7.79	328	156	<1	5	82	74	76.6	<0.5	0.037	6.21	0.0055	0.000139	0.00017	0.00661	<0.0002	<0.0005	<0.01	<0.00005	19.5
9-May-12	1337	500	440																				
16-May-12	1344	500	435	7.82	347	153																	
23-May-12	1351	500	435																				
30-May-12	1358	500	465	7.88	298	155	<1	4	85	76	76	<0.5	0.04	5.98	0.0063	0.000143	0.00053	0.00547	<0.0002	<0.0005	<0.01	<0.00005	19.3
6-Jun-12	1365	500	455																				
13-Jun-12	1372	500	450	7.80	372	155																	
20-Jun-12	1379	500	385																				
27-Jun-12	1386	500	450	7.82	366	156	<1	7	87	80	79.3	<0.5	0.041	6.21	0.006	0.000131	0.00018	0.00456	<0.0002	<0.0005	<0.01	<0.0001	20.1
4-Jul-12	1393	500	480																				
11-Jul-12	1400	500	490	7.87	362	166																	
18-Jul-12	1407	500	460																				
25-Jul-12	1414	500	445	7.77	369	153	<1	4	83	81	75.9	<0.5	0.04	6.36	0.0043	0.000117	0.0002	0.00442	<0.0002	<0.0005	<0.01	<0.00005	19
1-Aug-12	1421	500	465																				
8-Aug-12	1428	500	430	7.90	339	148																	
15-Aug-12	1435	500	465																				
22-Aug-12	1442	500	465	7.80	324	167	<1	6	91	84	86.3	<0.5	0.038	6.29	0.0044	0.000126	0.00021	0.00493	<0.0002	<0.0005	<0.01	<0.00005	21.5
29-Aug-12	1449	500	445																				
5-Sep-12	1456	500	460	7.84	378	150																	
12-Sep-12	1463	500	455																				
19-Sep-12	1470	500	460	7.82	357	158	<1	5	93	79	80.6	<0.5	0.036	5.27	0.0056	0.000137	0.00016	0.00527	<0.0002	<0.0005	<0.01	<0.00005	20.5
26-Sep-12	1477	500	455																				
3-Oct-12	1484	500	460	7.86	361	149																	
10-Oct-12	1491	500	460																				
17-Oct-12	1498	500	425	7.81	392	146	<1	5	85	73	73.4	<0.5	0.037	5.05	0.0044	0.000117	0.00015	0.00417	<0.0002	<0.0005	<0.01	<0.00005	18.9
24-Oct-12	1505	500	465																				
31-Oct-12	1512	500	435	7.76	318	135																	
7-Nov-12	1519	500	480																				
14-Nov-12	1526	500	445	7.93	354	145	<1	9	85	75	71	<0.5	0.035	4.98	0.0045	0.000114	0.00015	0.00383	<0.0002	<0.0005	<0.01	<0.00005	17.9
21-Nov-12	1533	500	490																				
28-Nov-12	1540	500	430	7.80	367	161																	
5-Dec-12	1547	500	460																				
12-Dec-12	1554	500	440	7.92	323	163	<1	5	92	100	79.9	<0.5	0.027	5.46	0.0038	0.000114	<0.0001	0.00449	<0.0002	<0.0005	<0.01	<0.00005	20.1
19-Dec-12	1561	500	475																				
26-Dec-12	1568	500	450	7.96	377	141																	

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
14-Dec-11	1190	<0.0005	<0.0001	0.00046	<0.03	<0.00005	7.52	<0.00005	<0.00001	0.0404	<0.0005	1.91	<0.001	1.4	<0.00001	<2	<0.00005	0.00365	<0.0005	<0.001
21-Dec-11	1197																			
28-Dec-11	1204																			
4-Jan-12	1211																			
11-Jan-12	1218	<0.0005	<0.0001	0.00034	<0.03	<0.00005	7.16	0.000056	<0.00001	0.0498	<0.0005	1.8	<0.001	1.32	<0.00001	<2	<0.00005	0.00332	<0.0005	<0.001
18-Jan-12	1225																			
25-Jan-12	1232																			
1-Feb-12	1239																			
8-Feb-12	1246	<0.0005	<0.0001	0.00103	<0.03	0.000052	7.18	0.000274	<0.00001	0.0556	<0.0005	1.97	<0.001	1.41	<0.00001	<2	<0.00005	0.00357	<0.0005	0.0012
15-Feb-12	1253																			
22-Feb-12	1260																			
29-Feb-12	1267																			
7-Mar-12	1274	<0.0005	<0.0001	0.00083	<0.03	<0.00005	7.22	0.000334	<0.00001	0.0619	<0.0005	1.76	<0.001	1.39	<0.00001	<2	<0.00005	0.00369	<0.0005	0.0013
14-Mar-12	1281																			
21-Mar-12	1288																			
28-Mar-12	1295																			
4-Apr-12	1302	<0.0005	<0.0001	0.00072	<0.03	0.000923	7.7	0.000105	<0.00001	0.067	<0.0005	1.98	<0.001	1.4	<0.00001	<2	<0.00005	0.00332	<0.0005	<0.001
11-Apr-12	1309																			
18-Apr-12	1316																			
25-Apr-12	1323																			
2-May-12	1330	<0.0005	<0.0001	0.00088	<0.03	<0.00005	6.75	0.000216	<0.00001	0.0714	<0.0005	1.74	<0.001	1.36	<0.00001	<2	<0.00005	0.00338	<0.0005	<0.001
9-May-12	1337																			
16-May-12	1344																			
23-May-12	1351																			
30-May-12	1358	<0.0005	<0.0001	0.00264	<0.03	<0.00005	6.72	0.00019	<0.00001	0.0698	<0.0005	1.69	<0.001	1.38	<0.00001	<2	<0.00005	0.00379	<0.0005	0.0011
6-Jun-12	1365																			
13-Jun-12	1372																			
20-Jun-12	1379																			
27-Jun-12	1386	<0.0005	<0.0001	0.00052	<0.03	<0.00005	7.09	0.000146	<0.00001	0.0614	<0.0005	1.88	<0.001	1.5	<0.00001	<2	<0.00005	0.00217	<0.0005	<0.001
4-Jul-12	1393																			
11-Jul-12	1400																			
18-Jul-12	1407																			
25-Jul-12	1414	<0.0005	<0.0001	0.0008	<0.03	<0.00005	6.9	0.000169	<0.00001	0.059	<0.0005	1.82	<0.001	1.37	<0.00001	<2	<0.00005	0.0031	<0.0005	0.0015
1-Aug-12	1421																			
8-Aug-12	1428																			
15-Aug-12	1435																			
22-Aug-12	1442	<0.0005	<0.0001	0.00053	<0.03	<0.00005	7.89	0.00023	<0.00001	0.0556	<0.0005	1.77	<0.001	1.57	<0.00001	<2	<0.00005	0.00374	<0.0005	0.0032
29-Aug-12	1449																			
5-Sep-12	1456																			
12-Sep-12	1463																			
19-Sep-12	1470	<0.0005	<0.0001	0.00064	<0.03	0.000063	7.17	0.000244	<0.00001	0.053	<0.0005	1.73	<0.001	1.47	<0.00001	<2	<0.00005	0.00343	<0.0005	0.001
26-Sep-12	1477																			
3-Oct-12	1484																			
10-Oct-12	1491																			
17-Oct-12	1498	<0.0005	<0.0001	0.0019	<0.03	<0.00005	6.34	0.000075	<0.00001	0.0491	<0.0005	1.62	<0.001	1.35	<0.00001	<2	<0.00005	0.0031	<0.0005	<0.001
24-Oct-12	1505																			
31-Oct-12	1512																			
7-Nov-12	1519																			
14-Nov-12	1526	<0.0005	<0.0001	0.00054	<0.03	<0.00005	6.39	0.000195	<0.00001	0.0469	<0.0005	1.69	<0.001	1.29	<0.00001	<2	<0.00005	0.0024	<0.0005	<0.001
21-Nov-12	1533																			
28-Nov-12	1540																			
5-Dec-12	1547																			
12-Dec-12	1554	<0.0005	<0.0001	0.0005	<0.03	<0.00005	7.22	0.000158	<0.00001	0.0472	<0.0005	1.67	<0.001	1.32	<0.00001	<2	<0.00005	0.0022	<0.0005	0.0019
19-Dec-12	1561																			
26-Dec-12	1568																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
10-Sep-08	0	1000	505	7.79	260	3347	<1	15	187	3520	1890	17.2	0.3	2010	<0.005	0.00087	0.0103	0.0879	<0.001	<0.0025	<0.05	0.00035	473
17-Sep-08	7	500	470	7.65	337	1866																	
24-Sep-08	14	500	460	7.08	324	1522	<1	6	23	1330	780	2.12	0.336	759	<0.005	0.00054	0.011	0.0201	<0.001	<0.0025	<0.05	<0.00025	252
1-Oct-08	21	500	475	7.44	422	1493																	
8-Oct-08	28	500	470	7.51	415	1363	<1	5	31	1150	715	1.37	0.45	711	0.0069	0.00045	0.0048	0.0161	<0.001	<0.0025	<0.05	<0.00025	230
15-Oct-08	35	1000	660	7.33	423	2973																	
22-Oct-08	42	500	540	7.55	432	2573	<1	10	70	2530	1620	<0.5	0.521	1660	<0.01	0.00061	0.0064	0.0349	<0.002	<0.005	<0.1	<0.0005	518
29-Oct-08	49	500	450	7.37	457	1402																	
5-Nov-08	56	500	460	7.26	441	1069	<1	6	26	885	585	<5	<0.2	576	0.0037	0.00032	0.00103	0.0102	<0.0004	<0.001	<0.02	<0.0001	200
12-Nov-08	63	500	340	7.41	432	994																	
19-Nov-08	70	500	345	7.51	451	1398	<1	4	32	1430	886	<5	0.39	954	0.0068	0.00047	0.00172	0.0167	<0.001	<0.0025	<0.05	<0.00025	284
26-Nov-08	77	500	485	7.43	396	1022																	
3-Dec-08	84	500	470	7.54	366	1025	<1	4	34	859	534	<0.5	0.346	531	0.0026	0.0004	0.00076	0.0108	<0.0004	<0.001	<0.02	<0.0001	174
10-Dec-08	91	500	470	7.44	356	1004																	
17-Dec-08	98	500	450	7.39	375	1079				923	613	<0.5	0.44	568	0.0054	0.00047	0.00082	0.0106	<0.0004	<0.001	<0.02	<0.0001	201
24-Dec-08	105	500	465	7.54	353	825																	
31-Dec-08	112	500	450	7.61	340	840	<1		41	915	598	<2.5	0.44	570	0.0049	0.00053	0.0009	0.0111	<0.0004	<0.001	<0.02	<0.0001	192
7-Jan-09	119	500	450	7.32	290	910																	
14-Jan-09	126	500	460	7.42	391	911	<1	8	29	736	510	<0.5	0.414	466	0.0051	0.0005	0.00088	0.00869	<0.0004	<0.001	<0.02	<0.0001	164
21-Jan-09	133	500	430	7.42	407	1221																	
28-Jan-09	140	500	435	7.33	399	978	<1	7	33	816	519	<0.5	0.451	498	0.0257	0.00057	0.00097	0.00825	<0.0004	<0.001	<0.02	<0.0001	167
4-Feb-09	147	500	460	7.45	400	961																	
11-Feb-09	154	500	385	7.62	399	1162	<1	9	41	978	682	0.54	0.516	637	0.0055	0.00064	0.00111	0.01	<0.0004	<0.001	<0.02	<0.0001	223
18-Feb-09	161	500	485	7.66	368	1355																	
25-Feb-09	168	500	455	7.64	425	1279	<1	9	54	1180	752	<5	0.41	726	<0.005	0.00072	0.00114	0.0132	<0.001	<0.0025	<0.05	<0.00025	249
4-Mar-09	175	500	450	7.43	279	957																	
11-Mar-09	182	500	445	7.24	350	750	<1	6	28	588	417	<0.5	0.276	378	0.0028	0.00055	0.00059	0.00663	<0.0004	<0.001	<0.02	<0.0001	141
18-Mar-09	189	500	455	7.37	382	756																	
25-Mar-09	196	500	520	7.27	360	829	<1	6	30	649	432	<0.5	0.334	421	0.0052	0.00067	0.00068	0.00694	<0.0004	<0.001	<0.02	<0.0001	148
1-Apr-09	203	500	415	7.51	370	1424																	
8-Apr-09	210	500	450	7.54	372	1013	<1	6	40	747	575	<0.5	0.465	539	0.0117	0.00077	0.00079	0.00933	<0.0004	<0.001	<0.02	<0.0001	191
15-Apr-09	217	500	450	7.65	381	986																	
22-Apr-09	224	500	380	7.65	361	1049																	
29-Apr-09	231	500	415																				
6-May-09	238	500	470	7.68	368	702	<1	6	61	550	390	<0.5	0.525	325	0.0032	0.0008	0.00079	0.00768	<0.0004	<0.001	<0.02	<0.0001	125
13-May-09	245	500	425																				
20-May-09	252	500	435	7.64	374	385																	
27-May-09	259	500	465																				
3-Jun-09	266	500	375	7.70	375	364	<1	4	46	253	179	<0.5	0.517	144	0.0094	0.000927	0.00129	0.00535	<0.0002	<0.0005	0.026	0.000072	59.2
10-Jun-09	273	500	405																				
17-Jun-09	280	500	425	7.72	396	264																	
24-Jun-09	287	500	390																				
1-Jul-09	294	500	455	7.70	355	256	<1	3	45	205	130	<0.5	0.416	103	0.0087	0.000859	0.00096	0.00381	<0.0002	<0.0005	<0.01	<0.00005	42.4
8-Jul-09	301	500	410																				
15-Jul-09	308	500	385	7.88	353	388																	
22-Jul-09	315	500	235																				
29-Jul-09	322	500	285	7.88	321	330	<1	6	75	209	168	<0.5	0.612	109	0.0097	0.001	0.00194	0.00472	<0.0002	<0.0005	<0.01	<0.00005	52.7
5-Aug-09	329	500	425																				
12-Aug-09	336	500	410	7.95	280	296																	
19-Aug-09	343	500	410																				
26-Aug-09	350	500	520	7.86	279	166	<1	3	60	113	82.6	<0.5	0.176	36.4	0.0077	0.000626	0.00085	0.00282	<0.0002	<0.0005	<0.01	<0.00005	24.9
2-Sep-09	357	500	430																				
9-Sep-09	364	500	435	7.78	305	324																	
16-Sep-09	371	500	445																				
23-Sep-09	378	500	470	7.98	330	309	<1	4	118	214	162	<0.5	0.333	69.1	0.0057	0.000806	0.00088	0.00483	<0.0002	<0.0005	0.012	<0.00005	49.5
30-Sep-09	385	500	490																				
7-Oct-09	392	500	475	7.89	300	257																	
14-Oct-09	399	500	450																				
21-Oct-09	406	500	485	7.77	304	163	<1	3	55	103	78.1	<0.5	0.17	35.8	0.0076	0.000544	0.00062	0.0023	<0.0002	<0.0005	<0.01	<0.00005	23.3
28-Oct-09	413	500	470																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Sep-08	0	<0.0025	0.0233	0.0156	<0.03	<0.00025	173	3.83	<0.00001	0.00336	0.077	90.7	0.042	4.04	<0.00005	166	0.0004	0.00563	<0.0025	0.0672
17-Sep-08	7																			
24-Sep-08	14	<0.0025	0.00442	0.00717	<0.03	<0.00025	36.3	0.667	0.000021	0.00377	0.0095	29	0.0084	2.45	0.000123	23.4	<0.00025	0.00176	<0.0025	0.0108
1-Oct-08	21																			
8-Oct-08	28	<0.0025	0.0046	0.0057	<0.03	<0.00025	34.3	0.687	<0.00001	0.0033	0.0106	26	<0.005	1.77	<0.00005	16	<0.00025	0.00167	<0.0025	0.0103
15-Oct-08	35																			
22-Oct-08	42	<0.005	0.0133	0.0042	<0.03	<0.0005	79.2	2.46	<0.00001	0.00483	0.0317	37.8	<0.01	3.8	<0.0001	12.3	<0.0005	0.0057	<0.005	0.019
29-Oct-08	49																			
5-Nov-08	56	<0.001	0.00221	0.00158	<0.03	<0.0001	20.4	0.451	<0.00001	0.00257	0.0052	14	0.002	1.28	<0.00002	3.4	<0.0001	0.00157	<0.001	0.003
12-Nov-08	63																			
19-Nov-08	70	<0.0025	0.00319	0.00131	<0.03	<0.00025	42.9	0.615	<0.00001	0.00435	0.0072	17.5	0.0178	2.04	<0.00005	4.6	<0.00025	0.00145	<0.0025	<0.0055
26-Nov-08	77																			
3-Dec-08	84	<0.001	0.00243	0.0023	<0.03	<0.0001	24.5	0.408	<0.00001	0.00354	0.0058	13.7	0.0022	1.69	<0.00002	2.6	<0.0001	0.00125	<0.001	0.0042
10-Dec-08	91																			
17-Dec-08	98	<0.001	0.00235	0.00269	<0.03	<0.0001	27.2	0.494	<0.00001	0.00413	0.0048	13.8	0.0028	2.01	<0.00002	2.5	<0.0001	0.00162	<0.001	0.0023
24-Dec-08	105																			
31-Dec-08	112	<0.001	0.00212	0.00206	<0.03	<0.0001	28.7	0.488	<0.00001	0.00522	0.0035	13.1	0.0031	2.08	<0.00002	2.4	0.0001	0.00154	<0.001	0.0024
7-Jan-09	119																			
14-Jan-09	126	<0.001	0.00125	0.00412	<0.03	<0.0001	24.6	0.337	<0.00001	0.00521	0.0019	11.7	0.0031	1.78	<0.00002	<2	<0.0001	0.00215	<0.001	<0.002
21-Jan-09	133																			
28-Jan-09	140	<0.001	0.00133	0.00234	<0.03	<0.0001	24.9	0.406	<0.00001	0.00685	0.0021	11	0.0032	1.8	<0.00002	<2	<0.0001	0.00275	<0.001	0.0032
4-Feb-09	147																			
11-Feb-09	154	<0.001	0.00131	0.00358	<0.03	<0.0001	30.3	0.448	<0.00001	0.00882	0.0046	10.4	0.0037	2.68	<0.00002	2.3	<0.0001	0.00327	<0.001	0.0067
18-Feb-09	161																			
25-Feb-09	168	<0.0025	0.00266	0.00193	<0.03	<0.00025	31.4	0.732	<0.00001	0.0109	0.0056	11.9	<0.005	3.05	<0.00005	2.2	<0.00025	0.00517	<0.0025	<0.005
4-Mar-09	175																			
11-Mar-09	182	<0.001	0.0012	0.00232	<0.03	<0.0001	15.5	0.33	<0.00001	0.0114	0.002	7.73	0.0023	1.57	<0.00002	<2	<0.0001	0.00197	<0.001	<0.002
18-Mar-09	189																			
25-Mar-09	196	<0.001	0.00115	0.00212	<0.03	0.00021	15.4	0.31	<0.00001	0.0199	0.0027	8.31	0.0029	1.78	<0.00002	<2	<0.0001	0.00343	<0.001	<0.002
1-Apr-09	203																			
8-Apr-09	210	<0.001	0.00171	0.00363	<0.03	<0.0001	24	0.517	<0.00001	0.0308	0.0052	9.32	0.0043	2.24	<0.00002	<2	<0.0001	0.00285	<0.001	0.0032
15-Apr-09	217																			
22-Apr-09	224																			
29-Apr-09	231																			
6-May-09	238	<0.001	0.00137	0.00238	<0.03	<0.0001	18.7	0.513	<0.00001	0.0522	0.0022	7.43	0.0029	2.36	<0.00002	<2	<0.0001	0.0039	<0.001	<0.002
13-May-09	245																			
20-May-09	252																			
27-May-09	259																			
3-Jun-09	266	0.00098	0.00036	0.00533	<0.03	0.000246	7.64	0.124	<0.00001	0.0803	0.00115	5.73	0.0047	2.05	<0.00001	<2	0.000056	0.003	<0.0005	<0.001
10-Jun-09	273																			
17-Jun-09	280																			
24-Jun-09	287																			
1-Jul-09	294	<0.0005	0.00024	0.00276	<0.03	<0.00005	5.74	0.0705	<0.00001	0.0817	0.00076	4.4	0.0023	1.92	<0.00001	<2	<0.00005	0.00297	<0.0005	0.0016
8-Jul-09	301																			
15-Jul-09	308																			
22-Jul-09	315																			
29-Jul-09	322	<0.0005	0.00024	0.0034	<0.03	<0.00005	8.8	0.0919	<0.00001	0.153	0.00054	5.64	0.0027	3.14	<0.00001	<2	<0.00005	0.00398	<0.0005	<0.001
5-Aug-09	329																			
12-Aug-09	336																			
19-Aug-09	343																			
26-Aug-09	350	<0.0005	0.00018	0.00208	<0.03	<0.00005	4.97	0.05	<0.00001	0.063	0.00052	3.36	0.0018	1.63	<0.00001	<2	<0.00005	0.00308	<0.0005	<0.001
2-Sep-09	357																			
9-Sep-09	364																			
16-Sep-09	371																			
23-Sep-09	378	<0.0005	0.00024	0.0028	<0.03	0.000071	9.32	0.0552	<0.00001	0.101	0.00071	4.61	0.0033	2.79	<0.00001	<2	<0.00005	0.00661	<0.0005	<0.001
30-Sep-09	385																			
7-Oct-09	392																			
14-Oct-09	399																			
21-Oct-09	406	<0.0005	<0.0001	0.0029	<0.03		4.87	0.0209	<0.00001	0.0613	<0.0005	2.64	0.0013	1.49	<0.00001	<2	<0.00005	0.00217	<0.0005	0.0024
28-Oct-09	413																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
4-Nov-09	420	500	450	7.53	297	137																	
11-Nov-09	427	500	455																				
18-Nov-09	434	500	350	7.76	301	185	<1	8	52	100	72.3	<0.5	0.158	39.7	0.0314	0.000659	0.00084	0.00245	<0.0002	<0.0005	0.011	<0.00005	21.4
25-Nov-09	441	500	425																				
2-Dec-09	448	500	465	7.59	345	197																	
9-Dec-09	455	500	490																				
16-Dec-09	462	500	475	7.72	321	190	<1	4	49	114	94.5	2.4	0.155	46.5	0.0087	0.000511		0.00253	<0.0002	<0.0005	0.01	<0.00005	25
23-Dec-09	469	500	455																				
30-Dec-09	476	500	450	7.66	398	195																	
6-Jan-10	483	500	450																				
13-Jan-10	490	500	440	7.70	327	202	<1	6	52	129	88.9	0.93	0.171	48.5	0.0083	0.000601		0.00266	<0.0002	<0.0005	0.01	<0.00005	26
20-Jan-10	497	500	440																				
27-Jan-10	504	500	485	7.83	346	231																	
3-Feb-10	511	500	430																				
10-Feb-10	518	500	490	7.64	298	186	<1	4	56	116	87.7	<5	<0.2	39.3	0.0075	0.000528	0.00827	0.00234	<0.0002	<0.0005	<0.01	<0.00005	25
17-Feb-10	525	500	465																				
24-Feb-10	532	500	445	7.67	316	193																	
3-Mar-10	539	500	440																				
10-Mar-10	546	500	460	7.67	380	197	<1	4	54	124	95.9	<5	<0.2	52.8	0.0088	0.000546	0.00505	0.00336	<0.0002	<0.0005	0.011	<0.00005	26.4
17-Mar-10	553	500	475																				
24-Mar-10	560	500	430	7.75	333	205																	
31-Mar-10	567	500	430																				
7-Apr-10	574	500	465	7.74	335	222	<1	4	64	142	111	<0.5	0.136	56.8	0.0078	0.000558	0.00286	0.00286	<0.0002	<0.0005	<0.01	<0.00005	30.7
14-Apr-10	581	500	475																				
21-Apr-10	588	500	495	7.84	289	243																	
28-Apr-10	595	500	475																				
5-May-10	602	500	450	7.80	330	273	<1	5	85	176	162	<0.5	0.124	66.7	0.0063	0.000559	0.00199	0.00656	<0.0002	<0.0005	<0.01	<0.00005	47.9
12-May-10	609	500	510																				
19-May-10	616	500	510	7.87	337	272																	
26-May-10	623	500	455																				
2-Jun-10	630	500	475	7.70	339	176	<1	3	52	98	83.4	<0.5	0.1	42.3	0.0097	0.000499	0.00081	0.00217	<0.0002	<0.0005	0.011	<0.00005	22.3
9-Jun-10	637	500	440																				
16-Jun-10	644	500	410	7.74	344	205																	
23-Jun-10	651	500	490																				
30-Jun-10	658	500	505	7.94	392	273	<1	3	74	179	140	<5	<0.2	74.6	0.0065	0.000493	0.00115	0.0039	<0.0002	<0.0005	<0.01	<0.00005	38.1
7-Jul-10	665	500	475																				
14-Jul-10	672	500	495	7.75	334	218																	
21-Jul-10	679	500	430																				
28-Jul-10	686	500	460	7.83	373	238	<1	5	60	142	110	<5	<0.2	60.9	0.0067	0.000399	0.00072	0.00255	<0.0002	<0.0005	0.013	<0.00005	30.1
4-Aug-10	693	500	470																				
11-Aug-10	700	500	435	7.65	331	212																	
18-Aug-10	707	500	500																				
25-Aug-10	714	500	470	7.71	334	214	<1	5	56	139	107	<0.5	0.088	62.9	0.0063	0.000384	0.00072	0.00256	<0.0002	<0.0005	0.01	<0.00005	30.7
1-Sep-10	721	500	415																				
8-Sep-10	728	500	470	7.55	350	227																	
15-Sep-10	735	500	480																				
22-Sep-10	742	500	470	7.74	315	207	<1	4	64	166	126	<5	<0.2	70.7	0.0089	0.000463	0.00065	0.00579	<0.0002	<0.0005	0.012	<0.00005	34.4
29-Sep-10	749	500	400																				
6-Oct-10	756	500	490	7.77	298	280																	
13-Oct-10	763	500	490																				
20-Oct-10	770	500	465	7.83	287	264	<1	4	76	189	132	<5	<0.2	73	0.0068	0.000415	0.00067	0.00393	<0.0002	<0.0005	0.015	<0.00005	35.1
27-Oct-10	777	500	495																				
3-Nov-10	784	500	490	7.85	358	280																	
10-Nov-10	791	500	420																				
17-Nov-10	798	500	415	7.86	316	281	<1	4	65	163	128	<5	<0.2	74.8	0.0087	0.000391	0.00063	0.00276	<0.0002	<0.0005	<0.01	<0.00005	34.4
24-Nov-10	805	500	440																				
1-Dec-10	812	500	450	7.68	336	248																	
8-Dec-10	819	500	415																				
15-Dec-10	826	500	445	7.60	331	247	<1	5	63	158	125	<5	<0.2	73.1	0.012	0.00044	0.00068	0.00293	<0.0002	<0.0005	0.012	<0.00005	32.7
22-Dec-10	833	500	470																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Nov-09	420																			
11-Nov-09	427																			
18-Nov-09	434	<0.0005	<0.0001	0.00232	0.05	<0.00005	4.57	0.00777	<0.00001	0.0591	0.00056	2.21	0.0012	1.5	<0.00001	<2	<0.00005	0.00191	<0.0005	<0.001
25-Nov-09	441																			
2-Dec-09	448																			
9-Dec-09	455																			
16-Dec-09	462	<0.0005	<0.0001	0.00189	<0.03	<0.00005	5.8	0.00577	<0.00001	0.0649	<0.0005	2.99	<0.001	4.05	<0.00001	<2	<0.00005	0.00328	<0.0005	<0.001
23-Dec-09	469																			
30-Dec-09	476																			
6-Jan-10	483																			
13-Jan-10	490	<0.0005	<0.0001	0.00307	<0.03	<0.00005	5.83	0.00349	<0.00001	0.0762	<0.0005	2.85	0.0011	2.84	<0.00001	<2	<0.00005	0.00497	<0.0005	<0.001
20-Jan-10	497																			
27-Jan-10	504																			
3-Feb-10	511																			
10-Feb-10	518	<0.0005	<0.0001	0.00112	<0.03	<0.00005	6.13	0.00187	<0.00001	0.066	<0.0005	2.71	0.0011	2.35	<0.00001	<2	<0.00005	0.00399	<0.0005	<0.001
17-Feb-10	525																			
24-Feb-10	532																			
3-Mar-10	539																			
10-Mar-10	546	<0.0005	<0.0001	0.00149	<0.03	<0.00005	7.28	0.00133	<0.00001	0.0705	<0.0005	3.04	<0.001	1.97	<0.00001	<2	<0.00005	0.00347	<0.0005	<0.001
17-Mar-10	553																			
24-Mar-10	560																			
31-Mar-10	567																			
7-Apr-10	574	<0.0005	<0.0001	0.00172	<0.03	<0.00005	8.43	0.00142	<0.00001	0.0708	<0.0005	3.31	0.0012	2.47	<0.00001	<2	<0.00005	0.00481	<0.0005	<0.001
14-Apr-10	581																			
21-Apr-10	588																			
28-Apr-10	595																			
5-May-10	602	<0.0005	<0.0001	0.00124	<0.03	<0.00005	10.3	0.00197	<0.00001	0.0798	<0.0005	3.63	0.0021	2.78	<0.00001	<2	<0.00005	0.00828	<0.0005	<0.001
12-May-10	609																			
19-May-10	616																			
26-May-10	623																			
2-Jun-10	630	<0.0005	<0.0001	0.00086	<0.03	<0.00005	6.74	0.000792	<0.00001	0.0563	<0.0005	2.79	0.0011	1.63	<0.00001	<2	<0.00005	0.00436	<0.0005	<0.001
9-Jun-10	637																			
16-Jun-10	644																			
23-Jun-10	651																			
30-Jun-10	658	<0.0005	<0.0001	0.00128	<0.03	<0.00005	11	0.00242	<0.00001	0.0682	<0.0005	3.5	0.0022	2.66	<0.00001	<2	<0.00005	0.00745	<0.0005	<0.001
7-Jul-10	665																			
14-Jul-10	672																			
21-Jul-10	679																			
28-Jul-10	686	<0.0005	<0.0001	0.00127	<0.03	<0.00005	8.43	0.00212	<0.00001	0.0578	<0.0005	2.87	<0.001	1.84	<0.00001	<2	<0.00005	0.00379	<0.0005	<0.001
4-Aug-10	693																			
11-Aug-10	700																			
18-Aug-10	707																			
25-Aug-10	714	<0.0005	<0.0001	0.00187	<0.03	<0.00005	7.25	0.0011	<0.00001	0.0521	<0.0005	2.6	0.0012	1.86	<0.00001	<2	<0.00005	0.00367	<0.0005	0.0031
1-Sep-10	721																			
8-Sep-10	728																			
15-Sep-10	735																			
22-Sep-10	742	<0.0005	<0.0001	0.00121	<0.03	<0.00005	9.78	0.00206	<0.00001	0.0554	<0.0005	3.2	0.0016	2.22	<0.00001	<2	<0.00005	0.00565	<0.0005	<0.001
29-Sep-10	749																			
6-Oct-10	756																			
13-Oct-10	763																			
20-Oct-10	770	<0.0005	<0.0001	0.0011	<0.03	<0.00005	10.8	0.00108	<0.00001	0.053	<0.0005	3.23	0.0013	2.21	<0.00001	<2	<0.00005	0.00421	<0.0005	<0.001
27-Oct-10	777																			
3-Nov-10	784																			
10-Nov-10	791																			
17-Nov-10	798	<0.0005	<0.0001	0.001	<0.03	<0.00005	10.3	0.000466	<0.00001	0.0507	<0.0005	3.15	<0.001	1.93	<0.00001	<2	<0.00005	0.00401	<0.0005	<0.001
24-Nov-10	805																			
1-Dec-10	812																			
8-Dec-10	819																			
15-Dec-10	826	<0.0005	<0.0001	0.00226	<0.03	0.000145	10.6	0.000663	<0.00001	0.0517	0.00054	3.14	<0.001	2.03	<0.00001	<2	<0.00005	0.0033	<0.0005	0.0013
22-Dec-10	833																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
29-Dec-10	840	500	415	7.64	330	244																	
5-Jan-11	847	500	440																				
12-Jan-11	854	500	375	7.71	332	228	<1	6	74	156	125	<0.5	0.056	67.1	0.0076	0.000369	0.00053	0.00252	<0.0002	<0.0005	0.011	<0.00005	33
19-Jan-11	861	500	490																				
26-Jan-11	868	500	450	7.61	293	195																	
2-Feb-11	875	500	405																				
9-Feb-11	882	500	445	7.76	351	200	<1	3	62	142	116	<0.5	0.057	60.4	0.0081	0.000353	0.00049	0.00249	<0.0002	<0.0005	<0.01	<0.00005	30.6
16-Feb-11	889	500	440																				
23-Feb-11	896	500	470	7.66	307	226																	
2-Mar-11	903	500	395																				
9-Mar-11	910	500	450	7.74	276	259	<1	4	71	157	118	<5	<0.2	60.9	0.0073	0.000292	0.00048	0.00415	<0.0002	<0.0005	<0.01	<0.00005	31.5
16-Mar-11	917	500	480																				
23-Mar-11	924	500	490	7.80	275	227																	
30-Mar-11	931	500	390																				
6-Apr-11	938	500	495	7.70	232	242	<1	7	70	147	113	<0.5	0.057	61.1	0.0061	0.000358	0.00038	0.00237	<0.0002	<0.0005	0.01	<0.00005	30.2
13-Apr-11	945	500	460																				
20-Apr-11	952	500	430	7.78	255	224																	
27-Apr-11	959	500	450																				
4-May-11	966	500	400	7.67	319	238	<1	6	60	142	113	<0.5	0.064	64.3	0.0061	0.00034	0.00041	0.00234	<0.0002	<0.0005	0.011	<0.00005	30.3
11-May-11	973	500	480																				
18-May-11	980	500	450	7.61	298	238																	
25-May-11	987	500	475																				
1-Jun-11	994	500	435	7.81	289	249	<1	6	56	155	118	<0.5	0.063	72.5	0.0065	0.000319	0.00043	0.00229	<0.0002	<0.0005	<0.01	<0.00005	31.7
8-Jun-11	1001	500	450																				
15-Jun-11	1008	500	430	7.93	277	252																	
22-Jun-11	1015	500	485																				
29-Jun-11	1022	500	455	7.92	300	254	<1	5	68	153	119	<0.5	0.069	69.4	0.0076	0.0003	0.00041	0.00214	<0.0002	<0.0005	0.01	<0.00005	30.7
6-Jul-11	1029	500	400																				
13-Jul-11	1036	500	490	7.70	288	228																	
20-Jul-11	1043	500	475																				
27-Jul-11	1050	500	435	7.82	256	246	<1	3	64	154	118	<0.5	0.059	65	0.0098	0.000295	0.00046	0.0024	<0.0002	<0.0005	<0.01	<0.00005	31.5
3-Aug-11	1057	500	475																				
10-Aug-11	1064	500	465	7.79	204	249																	
17-Aug-11	1071	500	480																				
24-Aug-11	1078	500	460	7.71	212	223	<1	6	55	143	105	<0.5	0.055	60.3	0.0061	0.000277	0.00039	0.00289	<0.0002	<0.0005	<0.01	<0.00005	26.9
31-Aug-11	1085	500	460																				
7-Sep-11	1092	500	430	7.82	231	247																	
14-Sep-11	1099	500	435																				
21-Sep-11	1106	500	445	7.71	228	246	<1	5	58	142	121	<5	<0.2	72.5	0.006	0.000274	0.00041	0.00203	<0.0002	<0.0005	<0.01	0.000054	32.1
28-Sep-11	1113	500	410																				
5-Oct-11	1120	500	440	7.73	180	243																	
12-Oct-11	1127	500	435																				
19-Oct-11	1134	500	395	7.75	247	250	<1	4	62	154	122	<5	<0.2	68.9	0.0067	0.000264	0.00048	0.0045	<0.0002	<0.0005	<0.01	<0.00005	32.1
26-Oct-11	1141	500	505																				
2-Nov-11	1148	500	475	7.71	220	225																	
9-Nov-11	1155	500	470																				
16-Nov-11	1162	500	440	7.76	269	232	<1	4	60	135	113	<5	<0.2	60.5	0.0056	0.000242	0.00046	0.00207	<0.0002	<0.0005	<0.01	<0.00005	28.8
23-Nov-11	1169	500	450																				
30-Nov-11	1176	500	440	7.77	302	238																	
7-Dec-11	1183	500	470																				
14-Dec-11	1190	500	380	7.78	270	257	<1	4	76	155	128	<5	<0.2	61.3	0.005	0.000245	0.00037	0.00239	<0.0002	<0.0005	<0.01	<0.00005	33.1
21-Dec-11	1197	500	485																				
28-Dec-11	1204	500	485	7.87	270	270																	
4-Jan-12	1211	500	470																				
11-Jan-12	1218	500	445	7.84	231	256	<1	4	99	144	125	<5	<0.2	49.4	0.006	0.000264	0.00031	0.00222	<0.0002	<0.0005	<0.01	<0.00005	33.1
18-Jan-12	1225	500	505																				
25-Jan-12	1232	500	465	7.85	336	269																	
1-Feb-12	1239	500	500																				
8-Feb-12	1246	500	445	7.72	293	185	<1	6	69	110	83.2	<0.5	0.045	38.1	0.005	0.000265	0.00023	0.00184	<0.0002	<0.0005	<0.01	<0.00005	22
15-Feb-12	1253	500	465																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
29-Dec-10	840																			
5-Jan-11	847																			
12-Jan-11	854	<0.0005	<0.0001	0.00106	<0.03	<0.00005	10.4	0.00142	<0.00001	0.0513	0.00058	2.82	<0.001	2.04	<0.00001	<2	<0.00005	0.00674	<0.0005	0.0011
19-Jan-11	861																			
26-Jan-11	868																			
2-Feb-11	875																			
9-Feb-11	882	<0.0005	<0.0001	0.00164	<0.03	0.000098	9.68	0.000521	<0.00001	0.0428	<0.0005	2.82	<0.001	1.79	<0.00001	<2	<0.00005	0.00489	<0.0005	0.0026
16-Feb-11	889																			
23-Feb-11	896																			
2-Mar-11	903																			
9-Mar-11	910	<0.0005	<0.0001	0.00126	<0.03	<0.00005	9.53	0.00044	<0.00001	0.0351	<0.0005	2.62	0.0016	1.88	<0.00001	<2	<0.00005	0.00571	<0.0005	<0.001
16-Mar-11	917																			
23-Mar-11	924																			
30-Mar-11	931																			
6-Apr-11	938	<0.0005	<0.0001	0.00067	<0.03	<0.00005	9.06	0.000841	<0.00001	0.0393	<0.0005	2.57	0.0011	1.69	<0.00001	<2	<0.00005	0.00366	<0.0005	<0.001
13-Apr-11	945																			
20-Apr-11	952																			
27-Apr-11	959																			
4-May-11	966	<0.0005	<0.0001	0.00108	<0.03	0.000102	9.2	0.000276	<0.00001	0.0386	<0.0005	2.53	<0.001	1.64	<0.00001	<2	<0.00005	0.003	<0.0005	0.0022
11-May-11	973																			
18-May-11	980																			
25-May-11	987																			
1-Jun-11	994	<0.0005	<0.0001	0.00099953	<0.03	<0.00005	9.55	0.000147	<0.00001	0.0367	<0.0005	2.57	<0.001	1.73	<0.00001	<2	<0.00005	0.00454	<0.0005	<0.001
8-Jun-11	1001																			
15-Jun-11	1008																			
22-Jun-11	1015																			
29-Jun-11	1022	<0.0005	<0.0001	0.00119	<0.03	<0.00005	10.3	0.000275	<0.00001	0.0356	<0.0005	2.57	<0.001	1.72	<0.00001	<2	<0.00005	0.00508	<0.0005	<0.001
6-Jul-11	1029																			
13-Jul-11	1036																			
20-Jul-11	1043																			
27-Jul-11	1050	<0.0005	<0.0001	0.00133	<0.03	0.000162	9.53	0.000937	<0.00001	0.0296	<0.0005	2.59	<0.001	1.65	<0.00001	<2	<0.00005	0.00418	<0.0005	0.0019
3-Aug-11	1057																			
10-Aug-11	1064																			
17-Aug-11	1071																			
24-Aug-11	1078	<0.0005	<0.0001	0.0012	<0.03	<0.00005	9.23	0.000152	<0.00001	0.0258	<0.0005	2.44	<0.001	1.52	<0.00001	<2	<0.00005	0.00241	<0.0005	<0.001
31-Aug-11	1085																			
7-Sep-11	1092																			
14-Sep-11	1099																			
21-Sep-11	1106	<0.0005	<0.0001	0.00075	<0.03	<0.00005	10	0.00025	<0.00001	0.0269	<0.0005	2.39	<0.001	1.62	<0.00001	<2	<0.00005	0.00388	<0.0005	0.0026
28-Sep-11	1113																			
5-Oct-11	1120																			
12-Oct-11	1127																			
19-Oct-11	1134	<0.0005	<0.0001	0.00122	<0.03	<0.00005	10.2	0.000471	<0.00001	0.0267	<0.0005	2.54	<0.001	1.8	<0.00001	<2	<0.00005	0.00567	<0.0005	0.0016
26-Oct-11	1141																			
2-Nov-11	1148																			
9-Nov-11	1155																			
16-Nov-11	1162	<0.0005	<0.0001	0.00064	<0.03	<0.00005	9.93	0.000177	<0.00001	0.0225	<0.0005	2.35	<0.001	1.56	<0.00001	<2	<0.00005	0.00418	<0.0005	0.0013
23-Nov-11	1169																			
30-Nov-11	1176																			
7-Dec-11	1183																			
14-Dec-11	1190	<0.0005	<0.0001	0.00107	<0.03	<0.00005	10.9	0.000207	<0.00001	0.0188	<0.0005	2.61	0.0015	1.86	<0.00001	<2	<0.00005	0.00542	<0.0005	<0.001
21-Dec-11	1197																			
28-Dec-11	1204																			
4-Jan-12	1211																			
11-Jan-12	1218	<0.0005	<0.0001	0.00098	<0.03	<0.00005	10.3	0.00025	<0.00001	0.0173	<0.0005	2.49	0.0027	1.72	<0.00001	<2	<0.00005	0.00552	<0.0005	0.0019
18-Jan-12	1225																			
25-Jan-12	1232																			
1-Feb-12	1239																			
8-Feb-12	1246	<0.0005	<0.0001	0.00091	<0.03	0.00275	6.88	0.000202	<0.00001	0.0147	<0.0005	2.06	<0.001	1.26	<0.00001	<2	<0.00005	0.00324	<0.0005	0.0049
15-Feb-12	1253																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
22-Feb-12	1260	500	460	7.70	342	217																	
29-Feb-12	1267	500	450																				
7-Mar-12	1274	500	450	7.71	384	224	<1	8	58	137	105	<5	<0.2	57.9	0.0053	0.000239	0.00026	0.00196	<0.0002	<0.0005	<0.01	<0.00005	27.5
14-Mar-12	1281	500	450																				
21-Mar-12	1288	500	445	7.65	332	251																	
28-Mar-12	1295	500	480																				
4-Apr-12	1302	500	450	7.71	342	260	<1	5	73	157	130	<5	<0.2	65.2	0.0053	0.000248	0.00027	0.00222	<0.0002	<0.0005	<0.01	<0.00005	34
11-Apr-12	1309	500	450																				
18-Apr-12	1316	500	465	7.67	350	229																	
25-Apr-12	1323	500	410																				
2-May-12	1330	500	430	7.69	352	254	<1	7	65	153	120	<5	<0.2	66.6	0.0055	0.000234	0.00025	0.0024	<0.0002	<0.0005	0.011	<0.00005	31.5
9-May-12	1337	500	455																				
16-May-12	1344	500	490	7.74	296	254																	
23-May-12	1351	500	475																				
30-May-12	1358	500	435	7.68	310	250	<1	6	55	150	110	<0.5	0.057	68.7	0.0065	0.000217	0.00025	0.00192	<0.0002	<0.0005	<0.01	<0.00005	28.5
6-Jun-12	1365	500	415																				
13-Jun-12	1372	500	520	7.68	374	258																	
20-Jun-12	1379	500	445																				
27-Jun-12	1386	500	470	7.65	371	255	<1	8	61	169	123	<5	<0.2	70.3	0.0057	0.000217	0.00024	0.0021	<0.0002	<0.0005	<0.01	<0.00005	31.7
4-Jul-12	1393	500	445																				
11-Jul-12	1400	500	455	7.66	375	253																	
18-Jul-12	1407	500	450																				
25-Jul-12	1414	500	460	7.59	373	252	<1	4	51	171	117	<5	<0.2	77.1	0.0048	0.000197	0.00037	0.00201	<0.0002	<0.0005	<0.01	<0.00005	30.1
1-Aug-12	1421	500	465																				
8-Aug-12	1428	500	425	7.70	342	266																	
15-Aug-12	1435	500	465																				
22-Aug-12	1442	500	455	7.55	323	259	<1	6	49	171	129	<5	<0.2	80.7	0.0068	0.00022	0.00031	0.00225	<0.0002	<0.0005	<0.01	<0.00005	32.3
29-Aug-12	1449	500	380																				
5-Sep-12	1456	500	500	7.68	383	282																	
12-Sep-12	1463	500	475																				
19-Sep-12	1470	500	430	7.67	359	279	<1	5	69	178	140	<5	<0.2	76.7	0.0079	0.000227	0.00025	0.00254	<0.0002	<0.0005	<0.01	<0.00005	34.5
26-Sep-12	1477	500	495																				
3-Oct-12	1484	500	495	7.68	366	239																	
10-Oct-12	1491	500	460																				
17-Oct-12	1498	500	455	7.58	394	237	<1	5	64	146	115	<5	<0.2	63.3	0.0048	0.000196	0.00023	0.00214	<0.0002	<0.0005	<0.01	<0.00005	29.6
24-Oct-12	1505	500	495																				
31-Oct-12	1512	500	460	7.58	308	233																	
7-Nov-12	1519	500	485																				
14-Nov-12	1526	500	465	7.80	360	246	<1	10	64	149	104	<0.5	<0.02	67.9	0.004	0.000186	0.00019	0.00186	<0.0002	<0.0005	<0.01	<0.00005	23.7
21-Nov-12	1533	500	465																				
28-Nov-12	1540	500	490	7.66	369	227																	
5-Dec-12	1547	500	470																				
12-Dec-12	1554	500	415	7.72	325	251	<1	5	63	184	119	<5	<0.2	65.1	0.0041	0.000192	0.0002	0.00219	<0.0002	<0.0005	<0.01	<0.00005	29.5
19-Dec-12	1561	500	475																				
26-Dec-12	1568	500	465	7.85	383	255																	

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
22-Oct-08	0	750	480	7.47	437	726	<1	4	35	556	306	16	0.69	319	0.0082	0.00819	0.0164	0.0385	<0.0002	<0.0005	0.023	<0.00005	97.6
29-Oct-08	7	500	430	7.85	429	224																	
5-Nov-08	14	500	480	7.90	417	156	<1	4	63	97.1	59.6	0.66	0.375	14.9	0.153	0.00732	0.0301	0.0108	<0.0002	<0.0005	0.016	<0.00005	17.8
12-Nov-08	21	500	445	7.91	409	135																	
19-Nov-08	28	500	450	7.94	426	116	<1	2	64	77.8	53	0.71	0.213	8.97	0.0186	0.00593	0.0173	0.0114	<0.0002	<0.0005	<0.01	<0.00005	16.9
26-Nov-08	35	500	455	7.90	374	123																	
3-Dec-08	42	500	455	8.00	354	139	<1	2	73	74.5	61.4	<0.5	0.105	7.39	0.0215	0.00634	0.0144	0.0145	<0.0002	<0.0005	<0.01	<0.00005	18.5
10-Dec-08	49	500	410	7.94	341	143																	
17-Dec-08	56	500	530	7.74	378	128				74.5	60.2	0.58	0.076	6.63	0.0132	0.00441	0.0145	0.014	<0.0002	<0.0005	<0.01	<0.00005	18.6
24-Dec-08	63	500	470	7.84	343	150																	

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Feb-12	1260																			
29-Feb-12	1267																			
7-Mar-12	1274	<0.0005	<0.0001	0.00088	<0.03	<0.00005	8.79	0.000209	<0.00001	0.0162	<0.0005	2.2	<0.001	1.42	<0.00001	<2	<0.00005	0.00295	<0.0005	0.0014
14-Mar-12	1281																			
21-Mar-12	1288																			
28-Mar-12	1295																			
4-Apr-12	1302	0.00159	<0.0001	0.00108	<0.03	<0.00005	11	0.000408	<0.00001	0.0166	<0.0005	2.65	0.0011	1.75	<0.00001	<2	<0.00005	0.00662	<0.0005	<0.001
11-Apr-12	1309																			
18-Apr-12	1316																			
25-Apr-12	1323																			
2-May-12	1330	<0.0005	<0.0001	0.00127	<0.03	<0.00005	10.1	0.000571	<0.00001	0.017	<0.0005	2.37	<0.001	1.66	<0.00001	<2	<0.00005	0.00419	<0.0005	0.0021
9-May-12	1337																			
16-May-12	1344																			
23-May-12	1351																			
30-May-12	1358	0.00143	<0.0001	0.00055	<0.03	<0.00005	9.32	0.000198	<0.00001	0.0176	<0.0005	2.19	<0.001	1.45	<0.00001	<2	<0.00005	0.00327	<0.0005	<0.001
6-Jun-12	1365																			
13-Jun-12	1372																			
20-Jun-12	1379																			
27-Jun-12	1386	<0.0005	<0.0001	0.00057	<0.03	<0.00005	10.5	0.000593	<0.00001	0.0165	<0.0005	2.45	<0.001	1.58	<0.00001	<2	<0.00005	0.00332	<0.0005	0.001
4-Jul-12	1393																			
11-Jul-12	1400																			
18-Jul-12	1407																			
25-Jul-12	1414	<0.0005	<0.0001	0.0016	<0.03	<0.00005	10	0.000292	<0.00001	0.0163	<0.0005	2.34	<0.001	1.45	<0.00001	<2	<0.00005	0.00353	<0.0005	0.0011
1-Aug-12	1421																			
8-Aug-12	1428																			
15-Aug-12	1435																			
22-Aug-12	1442	<0.0005	<0.0001	0.00063	<0.03	<0.00005	11.7	0.000922	<0.00001	0.0174	<0.0005	2.34	<0.001	1.56	<0.00001	<2	<0.00005	0.00457	<0.0005	<0.001
29-Aug-12	1449																			
5-Sep-12	1456																			
12-Sep-12	1463																			
19-Sep-12	1470	<0.0005	<0.0001	0.00133	<0.03	0.000054	13.1	0.000415	<0.00001	0.0153	<0.0005	2.78	0.0013	1.72	<0.00001	<2	<0.00005	0.00508	<0.0005	0.0013
26-Sep-12	1477																			
3-Oct-12	1484																			
10-Oct-12	1491																			
17-Oct-12	1498	<0.0005	<0.0001	0.00174	<0.03	<0.00005	9.95	0.000265	<0.00001	0.0132	<0.0005	2.15	0.0041	1.52	<0.00001	<2	<0.00005	0.00354	<0.0005	<0.001
24-Oct-12	1505																			
31-Oct-12	1512																			
7-Nov-12	1519																			
14-Nov-12	1526	<0.0005	<0.0001	0.00254	<0.03	<0.00005	10.8	0.000159	<0.00001	0.0134	<0.0005	2.31	<0.001	1.29	<0.00001	<2	<0.00005	0.00284	<0.0005	<0.001
21-Nov-12	1533																			
28-Nov-12	1540																			
5-Dec-12	1547																			
12-Dec-12	1554	<0.0005	<0.0001	0.00065	<0.03	<0.00005	11.1	0.00036	<0.00001	0.0108	<0.0005	2.19	<0.001	1.63	<0.00001	<2	<0.00005	0.00322	<0.0005	0.0028
19-Dec-12	1561																			
26-Dec-12	1568																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Oct-08	0	<0.0005	0.00014	0.0103	<0.03	0.000155	15.2	0.0222	<0.00001	0.196	0.00172	16.8	0.0056	4.99	<0.00001	25.8	<0.00005	0.00279	<0.0005	0.0068
29-Oct-08	7																			
5-Nov-08	14	<0.0005	<0.0001	0.0049	<0.03	<0.00005	3.68	0.0199	<0.00001	0.0449	0.00062	8.47	0.0011	6.37	<0.00001	3.3	<0.00005	0.00432	0.00082	0.002
12-Nov-08	21																			
19-Nov-08	28	<0.0005	<0.0001	0.00392	<0.03	<0.00005	2.65	0.0133	<0.00001	0.0163	<0.0005	5.98	<0.001	5.04	<0.00001	<2	<0.00005	0.00496	0.00077	0.0013
26-Nov-08	35																			
3-Dec-08	42	<0.0005	<0.0001	0.00411	<0.03	<0.00005	3.7	0.0143	<0.00001	0.0127	<0.0005	6.59	<0.001	4.54	<0.00001	<2	<0.00005	0.00585	0.00079	0.0012
10-Dec-08	49																			
17-Dec-08	56	<0.0005	<0.0001	0.00372	<0.03	<0.00005	3.37	0.0107	<0.00001	0.00976	<0.0005	4.65	<0.001	3.55	<0.00001	<2	<0.00005	0.00583	0.00055	0.0016
24-Dec-08	63																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
31-Dec-08	70	500	450	7.87	336	160	<1		79	105	75.1	0.6	0.053	17.3	0.0137	0.00481	0.0154	0.0195	<0.0002	<0.0005	<0.01	<0.00005	23
7-Jan-09	77	500	495	7.59	297	151																	
14-Jan-09	84	500	490	7.82	378	160	<1	4	74	87.8	77.6	<0.5	0.046	18.1	0.0109	0.00447	0.0108	0.0184	<0.0002	<0.0005	<0.01	<0.00005	23.3
21-Jan-09	91	500	490	7.81	397	176																	
28-Jan-09	98	500	465	7.75	385	164	<1	5	79	90.2	79	<0.5	0.042	17.1	0.0102	0.00453	0.01	0.0184	<0.0002	<0.0005	<0.01	<0.00005	24.2
4-Feb-09	105	500	500	7.78	390	203																	
11-Feb-09	112	500	475	7.95	394	155	<1	5	77	87	77.8	<0.5	0.042	15.6	0.0098	0.00415	0.00686	0.0167	<0.0002	<0.0005	<0.01	<0.00005	23.5
18-Feb-09	119	500	440	7.99	349	168																	
25-Feb-09	126	500	460	7.93	415	156	<1	5	83	103	78.7	<0.5	0.039	13.7	0.0107	0.00398	0.00553	0.0171	<0.0002	<0.0005	<0.01	<0.00005	23.5
4-Mar-09	133	500	450	7.79	276	157																	
11-Mar-09	140	500	475	7.67	339	158	<1	6	82	87.5	75.4	<0.5	0.031	12.4	0.0104	0.00376	0.00505	0.0162	<0.0002	<0.0005	<0.01	<0.00005	23.3
18-Mar-09	147	500	440	7.82	343	168																	
25-Mar-09	154	500	455	7.66	363	162	<1	6	80	87.3	76	<0.5	0.028	14.2	0.0091	0.0036	0.00451	0.0175	<0.0002	<0.0005	<0.01	<0.00005	23.9
1-Apr-09	161	500	450	7.80	364	171																	
8-Apr-09	168	500	470	7.82	369	163	<1	4	81	92.9	80.9	<0.5	0.032	14.8	0.0095	0.0035	0.00387	0.0186	<0.0002	<0.0005	<0.01	<0.00005	24.5
15-Apr-09	175	500	460	7.89	375	158																	
22-Apr-09	182	500	445	7.90	358	157																	
29-Apr-09	189	500	470																				
6-May-09	196	500	480	7.82	361	153	<1	5	81	89.5	80.2	<0.5	0.034	10.5	0.012	0.00326	0.00323	0.0182	<0.0002	<0.0005	<0.01	<0.00005	22.9
13-May-09	203	500	510																				
20-May-09	210	500	465	7.81	368	147																	
27-May-09	217	500	400																				
3-Jun-09	224	500	515	7.95	365	174	<1	5	97	81.1	101	<0.5	0.032	17.5	0.0096	0.00326	0.00427	0.0256	<0.0002	<0.0005	<0.01	0.000051	30.6
10-Jun-09	231	500	455																				
17-Jun-09	238	500	480	7.92	390	137																	
24-Jun-09	245	500	430																				
1-Jul-09	252	500	485	7.93	338	128	<1	3	84	93.5	74.3	<0.5	0.025	11	0.0129	0.00252	0.00238	0.0181	<0.0002	<0.0005	0.014	0.000055	22.3
8-Jul-09	259	500	520																				
15-Jul-09	266	500	485	7.96	354	136																	
22-Jul-09	273	500	480																				
29-Jul-09	280	500	445	7.88	330	147	<1	5	83	86.3	74.8	<0.5	0.046	10	0.0122	0.00194	0.00188	0.0173	<0.0002	<0.0005	<0.01	<0.00005	22
5-Aug-09	287	500	460																				
12-Aug-09	294	500	480	7.93	289	147																	
19-Aug-09	301	500	420																				
26-Aug-09	308	500	450	8.02	286	151	<1	3	87	81.8	80.7	<0.5	0.04	9.52	0.0112	0.00149	0.00142	0.0188	<0.0002	<0.0005	0.01	<0.00005	22.4
2-Sep-09	315	500	425																				
9-Sep-09	322	500	515	8.11	303	158																	
16-Sep-09	329	500	445																				
23-Sep-09	336	500	475	8.06	344	161	<1	3	89	91	81.5	<0.5	0.028	12.8	0.0104	0.0014	0.00122	0.0183	<0.0002	<0.0005	<0.01	<0.00005	23
30-Sep-09	343	500	480																				
7-Oct-09	350	500	420	7.87	308	172																	
14-Oct-09	357	500	405																				
21-Oct-09	364	500	425	7.97	306	171	<1	3	89	101	89.8	<0.5	0.026	16.4	0.0084	0.00127	0.00097	0.0182	<0.0002	<0.0005	<0.01	<0.00005	25
28-Oct-09	371	500	440																				
4-Nov-09	378	500	420	7.86	316	171																	
11-Nov-09	385	500	340																				
18-Nov-09	392	500	390	7.96	308	187	<1	7	91	98	85.4	<0.5	0.03	17.3	0.0108	0.00127	0.00087	0.017	<0.0002	<0.0005	0.013	0.000053	23.5
25-Nov-09	399	500	380																				
2-Dec-09	406	500	385	7.82	356	171																	
9-Dec-09	413	500	295																				
16-Dec-09	420	500	410	7.98	331	166	<1	3	86	86	83.3	<0.5	0.027	13.2	0.009	0.00116	0.00078	0.0155	<0.0002	<0.0005	<0.01	<0.00005	22.7
23-Dec-09	427	500	495																				
30-Dec-09	434	500	480	7.94	394	174																	
6-Jan-10	441	500	485																				
13-Jan-10	448	500	430	7.96	331	173	<1	6	90	99	83.9	0.76	0.029	9.45	0.0084	0.000839	0.00101	0.0158	<0.0002	<0.0005	<0.01	<0.00005	22.8
20-Jan-10	455	500	400																				
27-Jan-10	462	500	435	7.88	329	152																	
3-Feb-10	469	500	435																				
10-Feb-10	476	500	480	7.79	322	177	<1	4	86	105	89.8	<0.5	0.027	20.6	0.0078	0.000827	0.00058	0.0156	<0.0002	<0.0005	<0.01	<0.00005	24.2
17-Feb-10	483	500	480																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
31-Dec-08	70	<0.0005	<0.0001	0.00408	<0.03	<0.00005	4.29	0.0161	<0.00001	0.0298	<0.0005	4.64	<0.001	3.29	<0.00001	<2	<0.00005	0.00684	<0.0005	0.0019
7-Jan-09	77																			
14-Jan-09	84	<0.0005	<0.0001	0.0049	<0.03	<0.00005	4.69	0.0185	<0.00001	0.052	<0.0005	4.47	<0.001	3.1	<0.00001	<2	<0.00005	0.00696	<0.0005	0.0019
21-Jan-09	91																			
28-Jan-09	98	<0.0005	<0.0001	0.00417	<0.03	<0.00005	4.52	0.0184	<0.00001	0.0787	<0.0005	4.05	<0.001	3.39	<0.00001	<2	<0.00005	0.0089	<0.0005	0.0037
4-Feb-09	105																			
11-Feb-09	112	<0.0005	<0.0001	0.00369	<0.03	<0.00005	4.65	0.0152	<0.00001	0.0915	<0.0005	3.43	<0.001	3.26	<0.00001	<2	<0.00005	0.00849	<0.0005	0.0017
18-Feb-09	119																			
25-Feb-09	126	<0.0005	<0.0001	0.00301	<0.03	<0.00005	4.83	0.0128	<0.00001	0.11	<0.0005	3.1	<0.001	2.89	<0.00001	<2	<0.00005	0.00828	<0.0005	0.0013
4-Mar-09	133																			
11-Mar-09	140	<0.0005	<0.0001	0.00311	<0.03	<0.00005	4.15	0.00966	<0.00001	0.0994	<0.0005	3.03	<0.001	2.41	<0.00001	<2	<0.00005	0.00929	<0.0005	0.001
18-Mar-09	147																			
25-Mar-09	154	<0.0005	<0.0001	0.00317	<0.03	<0.00005	3.93	0.00932	<0.00001	0.119	<0.0005	3.16	<0.001	2.63	<0.00001	<2	<0.00005	0.0102	<0.0005	0.012
1-Apr-09	161																			
8-Apr-09	168	<0.0005	<0.0001	0.00409	<0.03	<0.00005	4.8	0.00844	<0.00001	0.124	<0.0005	3.02	<0.001	2.2	<0.00001	<2	<0.00005	0.00886	<0.0005	0.0015
15-Apr-09	175																			
22-Apr-09	182																			
29-Apr-09	189																			
6-May-09	196	<0.0005	<0.0001	0.0037	<0.03	<0.00005	5.58	0.00719	<0.00001	0.128	<0.0005	3	<0.001	2.48	<0.00001	<2	<0.00005	0.00809	<0.0005	0.0019
13-May-09	203																			
20-May-09	210																			
27-May-09	217																			
3-Jun-09	224	<0.0005	<0.0001	0.0051	<0.03	0.00007	6.01	0.0101	<0.00001	0.183	<0.0005	3.67	<0.001	3.29	<0.00001	<2	<0.00005	0.0138	<0.0005	0.0017
10-Jun-09	231																			
17-Jun-09	238																			
24-Jun-09	245																			
1-Jul-09	252	0.00075	<0.0001	0.0041	<0.03	<0.00005	4.55	0.00319	<0.00001	0.128	<0.0005	2.73	<0.001	2.26	<0.00001	<2	<0.00005	0.0104	<0.0005	0.0012
8-Jul-09	259																			
15-Jul-09	266																			
22-Jul-09	273																			
29-Jul-09	280	<0.0005	<0.0001	0.00273	<0.03	<0.00005	4.83	0.00148	<0.00001	0.104	<0.0005	2.63	<0.001	2.05	<0.00001	<2	<0.00005	0.00964	<0.0005	<0.001
5-Aug-09	287																			
12-Aug-09	294																			
19-Aug-09	301																			
26-Aug-09	308	<0.0005	<0.0001	0.00319	<0.03	0.000236	6.04	0.000933	<0.00001	0.0857	<0.0005	2.82	<0.001	1.93	<0.00001	<2	<0.00005	0.0102	<0.0005	<0.001
2-Sep-09	315																			
9-Sep-09	322																			
16-Sep-09	329																			
23-Sep-09	336	<0.0005	<0.0001	0.00244	<0.03	<0.00005	5.83	0.000576	<0.00001	0.124	<0.0005	2.54	<0.001	1.82	<0.00001	<2	<0.00005	0.0057	<0.0005	<0.001
30-Sep-09	343																			
7-Oct-09	350																			
14-Oct-09	357																			
21-Oct-09	364	<0.0005	<0.0001	0.00236	<0.03	<0.00005	6.67	0.000757	<0.00001	0.17	<0.0005	2.45	<0.001	1.5	<0.00001	<2	<0.00005	0.00684	<0.0005	<0.001
28-Oct-09	371																			
4-Nov-09	378																			
11-Nov-09	385																			
18-Nov-09	392	<0.0005	<0.0001	0.00196	<0.03	<0.00005	6.47	0.000296	<0.00001	0.214	<0.0005	2.34	<0.001	1.62	<0.00001	<2	<0.00005	0.00549	<0.0005	<0.001
25-Nov-09	399																			
2-Dec-09	406																			
9-Dec-09	413																			
16-Dec-09	420	<0.0005	<0.0001	0.00184	<0.03	<0.00005	6.45	0.000188	<0.00001	0.195	<0.0005	2.33	<0.001	1.45	<0.00001	<2	<0.00005	0.00481	<0.0005	<0.001
23-Dec-09	427																			
30-Dec-09	434																			
6-Jan-10	441																			
13-Jan-10	448	<0.0005	<0.0001	0.00475	<0.03	<0.00005	6.53	0.000491	<0.00001	0.136	0.00056	2.27	<0.001	1.53	<0.00001	<2	<0.00005	0.00512	<0.0005	<0.001
20-Jan-10	455																			
27-Jan-10	462																			
3-Feb-10	469																			
10-Feb-10	476	<0.0005	<0.0001	0.00172	<0.03	<0.00005	7.1	0.000245	<0.00001	0.161	<0.0005	2.09	<0.001	1.45	<0.00001	<2	<0.00005	0.00363	<0.0005	<0.001
17-Feb-10	483																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
24-Feb-10	490	500	445	7.89	333	175																	
3-Mar-10	497	500	440																				
10-Mar-10	504	500	435	7.81	379	170	<1	4	82	100	86.3	<0.5	0.045	19.7	0.0079	0.000785	0.00057	0.0156	<0.0002	<0.0005	0.011	<0.00005	22.7
17-Mar-10	511	500	505																				
24-Mar-10	518	500	465	7.92	347	170																	
31-Mar-10	525	500	440																				
7-Apr-10	532	500	450	7.90	351	183	<1	3	89	106	90.9	<0.5	0.038	17.8	0.0074	0.000674	0.00052	0.0154	<0.0002	<0.0005	0.013	<0.00005	23.4
14-Apr-10	539	500	505																				
21-Apr-10	546	500	455	7.96	305	193																	
28-Apr-10	553	500	520																				
5-May-10	560	500	435	7.86	343	188	<1	4	95	109	99.9	<0.5	0.034	16.7	0.0058	0.000564	0.00048	0.0163	<0.0002	<0.0005	<0.01	<0.00005	26.6
12-May-10	567	500	405																				
19-May-10	574	500	485	7.99	341	190																	
26-May-10	581	500	420																				
2-Jun-10	588	500	475	7.94	348	171	<1	3	90	89	91.9	<0.5	0.039	13.6	0.0067	0.000516	0.00047	0.0146	<0.0002	<0.0005	<0.01	<0.00005	22.7
9-Jun-10	595	500	405																				
16-Jun-10	602	500	480	8.01	328	173																	
23-Jun-10	609	500	480																				
30-Jun-10	616	500	475	8.06	397	174	<1	3	98	95	94.3	<0.5	0.034	13.5	0.0063	0.000369	0.00047	0.0141	<0.0002	<0.0005	<0.01	<0.00005	24.3
7-Jul-10	623	500	460																				
14-Jul-10	630	500	490	7.98	338	188																	
21-Jul-10	637	500	445																				
28-Jul-10	644	500	510	7.93	333	190	<1	4	107	116	106	<0.5	0.039	11.2	0.0047	0.000341	0.00056	0.016	<0.0002	<0.0005	0.014	<0.00005	26.1
4-Aug-10	651	500	525																				
11-Aug-10	658	500	425	8.05	382	181																	
18-Aug-10	665	500	455																				
25-Aug-10	672	500	520	7.96	336	182	<1	4	108	99	95.7	<0.5	0.035	9.83	0.0034	0.000281	0.00039	0.0144	<0.0002	<0.0005	<0.01	<0.00005	24.7
1-Sep-10	679	500	390																				
8-Sep-10	686	500	455	7.81	358	186																	
15-Sep-10	693	500	425																				
22-Sep-10	700	500	465	7.95	323	150	<1	4	104	108	95.5	<0.5	0.042	10.2	0.005	0.000305	0.00036	0.0152	<0.0002	<0.0005	0.011	<0.00005	24.2
29-Sep-10	707	500	435																				
6-Oct-10	714	500	455	7.94	315	188																	
13-Oct-10	721	500	460																				
20-Oct-10	728	500	440	7.91	305	187	<1	3	109	115	101	<0.5	0.042	13.5	0.0059	0.000273	0.00049	0.0143	<0.0002	<0.0005	0.012	<0.00005	24.1
27-Oct-10	735	500	470																				
3-Nov-10	742	500	465	8.13	359	171																	
10-Nov-10	749	500	480																				
17-Nov-10	756	500	460	8.10	331	190	<1	4	113	107	105	<0.5	0.04	14.2	0.0045	0.000271	0.00038	0.0143	<0.0002	<0.0005	<0.01	<0.00005	25.6
24-Nov-10	763	500	475																				
1-Dec-10	770	500	460	7.88	338	197																	
8-Dec-10	777	500	435																				
15-Dec-10	784	500	520	7.80	336	197	<1	6	113	101	109	<0.5	0.042	12.7	0.0044	0.000256	0.00032	0.0151	<0.0002	<0.0005	<0.01	<0.00005	26.5
22-Dec-10	791	500	495																				
29-Dec-10	798	500	420	7.82	340	173																	
5-Jan-11	805	500	445																				
12-Jan-11	812	500	470	7.83	340	161	<1	4	102	90	92.6	<0.5	0.029	10.8	0.0046	0.000223	0.00023	0.0117	<0.0002	<0.0005	<0.01	<0.00005	23.1
19-Jan-11	819	500	505																				
26-Jan-11	826	500	450	7.86	302	168																	
2-Feb-11	833	500	445																				
9-Feb-11	840	500	435	7.93	352	151	<1	3	96	91	92	<0.5	0.028	9.79	0.004	0.000221	0.00034	0.0113	<0.0002	<0.0005	<0.01	<0.00005	22.5
16-Feb-11	847	500	460																				
23-Feb-11	854	500	450	7.87	315	169																	
2-Mar-11	861	500	435																				
9-Mar-11	868	500	460	7.89	290	179	<1	4	99	94	87.6	<0.5	0.035	8.25	0.0041	0.000204	0.0002	0.0106	<0.0002	<0.0005	<0.01	<0.00005	21.8
16-Mar-11	875	500	445																				
23-Mar-11	882	500	465	7.98	293	174																	
30-Mar-11	889	500	460																				
6-Apr-11	896	500	500	7.82	256	172	<1	6	102	85	83.5	<0.5	0.032	5.78	0.0043	0.000191	0.00031	0.00979	<0.0002	<0.0005	<0.01	<0.00005	20.7
13-Apr-11	903	500	455																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
24-Feb-10	490																			
3-Mar-10	497																			
10-Mar-10	504	<0.0005	<0.0001	0.00162	<0.03	<0.00005	7.19	0.000281	<0.00001	0.225	<0.0005	2.2	<0.001	1.29	<0.00001	<2	<0.00005	0.00355	<0.0005	<0.001
17-Mar-10	511																			
24-Mar-10	518																			
31-Mar-10	525																			
7-Apr-10	532	<0.0005	<0.0001	0.00216	<0.03	<0.00005	7.91	0.000437	<0.00001	0.208	<0.0005	2.24	<0.001	1.44	<0.00001	<2	<0.00005	0.0041	<0.0005	<0.001
14-Apr-10	539																			
21-Apr-10	546																			
28-Apr-10	553																			
5-May-10	560	<0.0005	<0.0001	0.00209	<0.03	<0.00005	8.14	0.000281	<0.00001	0.203	<0.0005	2.28	<0.001	1.36	<0.00001	<2	<0.00005	0.00363	<0.0005	<0.001
12-May-10	567																			
19-May-10	574																			
26-May-10	581																			
2-Jun-10	588	<0.0005	<0.0001	0.00153	<0.03	<0.00005	8.55	0.000196	<0.00001	0.2	<0.0005	2.38	<0.001	1.39	<0.00001	<2	<0.00005	0.00411	<0.0005	<0.001
9-Jun-10	595																			
16-Jun-10	602																			
23-Jun-10	609																			
30-Jun-10	616	<0.0005	<0.0001	0.00206	<0.03	<0.00005	8.16	0.000259	<0.00001	0.149	<0.0005	2.04	<0.001	1.41	<0.00001	<2	<0.00005	0.0033	<0.0005	<0.001
7-Jul-10	623																			
14-Jul-10	630																			
21-Jul-10	637																			
28-Jul-10	644	<0.0005	<0.0001	0.00145	<0.03	<0.00005	10	0.000191	<0.00001	0.142	<0.0005	2.39	<0.001	1.34	<0.00001	<2	<0.00005	0.00477	<0.0005	<0.001
4-Aug-10	651																			
11-Aug-10	658																			
18-Aug-10	665																			
25-Aug-10	672	<0.0005	<0.0001	0.00151	<0.03	<0.00005	8.29	0.000146	<0.00001	0.117	<0.0005	2.1	<0.001	1.34	<0.00001	<2	<0.00005	0.00447	<0.0005	<0.001
1-Sep-10	679																			
8-Sep-10	686																			
15-Sep-10	693																			
22-Sep-10	700	0.00065	<0.0001	0.00209	<0.03		8.53	0.000136	<0.00001	0.134	<0.0005	2.22	<0.001	1.36	<0.00001	<2	<0.00005	0.00429	<0.0005	<0.001
29-Sep-10	707																			
6-Oct-10	714																			
13-Oct-10	721																			
20-Oct-10	728	<0.0005	<0.0001	0.002	<0.03	<0.00005	9.83	0.000373	<0.0001	0.137	<0.0005	2.21	<0.001	1.4	<0.00001	<2	<0.00005	0.00469	<0.0005	<0.001
27-Oct-10	735																			
3-Nov-10	742																			
10-Nov-10	749																			
17-Nov-10	756	<0.0005	<0.0001	0.00139	<0.03	<0.00005	9.94	0.000111	<0.00001	0.132	<0.0005	2.35	<0.001	1.34	<0.00001	<2	<0.00005	0.00449	<0.0005	0.0011
24-Nov-10	763																			
1-Dec-10	770																			
8-Dec-10	777																			
15-Dec-10	784	<0.0005	<0.0001	0.00285	<0.03	<0.00005	10.4	0.000088	<0.00001	0.139	<0.0005	2.35	<0.001	1.39	<0.00001	<2	<0.00005	0.00428	<0.0005	<0.001
22-Dec-10	791																			
29-Dec-10	798																			
5-Jan-11	805																			
12-Jan-11	812	<0.0005	<0.0001	0.00109	<0.03	<0.00005	8.5	0.000088	<0.00001	0.168	<0.0005	1.79	<0.001	1.13	<0.00001	<2	<0.00005	0.0041	<0.0005	<0.001
19-Jan-11	819																			
26-Jan-11	826																			
2-Feb-11	833																			
9-Feb-11	840	<0.0005	<0.0001	0.00109	<0.03		8.72	0.000152	<0.00001	0.161	<0.0005	1.94	<0.001	1.07	<0.00001	<2	<0.00005	0.00325	<0.0005	<0.001
16-Feb-11	847																			
23-Feb-11	854																			
2-Mar-11	861																			
9-Mar-11	868	<0.0005	<0.0001	0.00222	<0.03	<0.00005	8.08	0.00016	<0.00001	0.141	<0.0005	1.72	<0.001	1.09	<0.00001	<2	<0.00005	0.00374	<0.0005	<0.001
16-Mar-11	875																			
23-Mar-11	882																			
30-Mar-11	889																			
6-Apr-11	896	<0.0005	<0.0001	0.00222	<0.03	<0.00005	7.74	0.000125	<0.00001	0.105	<0.0005	1.74	<0.001	1.03	<0.00001	<2	<0.00005	0.00256	<0.0005	<0.001
13-Apr-11	903																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
20-Apr-11	910	500	470	7.88	263	180																	
27-Apr-11	917	500	485																				
4-May-11	924	500	465	7.86	323	175	<1	5	100	88	88	<0.5	0.034	8.47	0.0035	0.000196	0.00022	0.0105	<0.0002	<0.0005	<0.01	<0.00015	22
11-May-11	931	500	465																				
18-May-11	938	500	440	7.91	333	185																	
25-May-11	945	500	425																				
1-Jun-11	952	500	425	7.94	303	172	<1	5	87	93	87.6	<0.5	0.034	9.01	0.0036	0.00018	0.00023	0.0103	<0.0002	<0.0005	<0.01	<0.00005	21.7
8-Jun-11	959	500	460																				
15-Jun-11	966	500	475	8.11	297	179																	
22-Jun-11	973	500	475																				
29-Jun-11	980	500	460	8.09	313	168	<1	3	98	80	86.3	<0.5	0.039	6.69	0.0039	0.00017	0.00033	0.00954	<0.0002	<0.0005	<0.01	<0.00005	21.4
6-Jul-11	987	500	455																				
13-Jul-11	994	500	460	7.95	295	169																	
20-Jul-11	1001	500	465																				
27-Jul-11	1008	500	435	7.97	276	168	<1	3	91	81	85.7	<0.5	0.044	4.1	0.0043	0.000297	0.00047	0.00931	<0.0002	<0.0005	<0.01	<0.00005	21.2
3-Aug-11	1015	500	455																				
10-Aug-11	1022	500	460	7.92	220	168																	
17-Aug-11	1029	500	485																				
24-Aug-11	1036	500	455	7.89	238	175	<1	5	96	99	92.2	<0.5	0.036	7.8	0.0038	0.000238	0.00025	0.00994	<0.0002	<0.0005	<0.01	<0.00007	22.4
31-Aug-11	1043	500	445																				
7-Sep-11	1050	500	475	8.02	231	181																	
14-Sep-11	1057	500	485																				
21-Sep-11	1064	500	470	7.88	243	176	<1	5	96	90	91.7	<0.5	0.041	8.54	0.0027	0.000164	0.00025	0.00938	<0.0002	<0.0005	<0.01	<0.00005	22.9
28-Sep-11	1071	500	460																				
5-Oct-11	1078	500	490	7.87	214	176																	
12-Oct-11	1085	500	495																				
19-Oct-11	1092	500	455	7.91	264	170	<1	3	91	82	88.3	<0.5	0.038	7.39	0.0032	0.000165		0.00929	<0.0002	<0.0005	<0.01	<0.00015	22
26-Oct-11	1099	500	460																				
2-Nov-11	1106	500	420	7.93	250	173																	
9-Nov-11	1113	500	510																				
16-Nov-11	1120	500	455	7.91	286	166	<1	3	91	78	85.7	<0.5	0.039	6.39	0.0034	0.000159	0.00037	0.00836	<0.0002	<0.0005	<0.01	<0.00005	21.2
23-Nov-11	1127	500	425																				
30-Nov-11	1134	500	505	7.84	318	166																	
7-Dec-11	1141	500	455																				
14-Dec-11	1148	500	475	7.87	288	164	<1	4	93	81	85.6	<0.5	0.037	5.49	0.0035	0.000146	0.00027	0.00846	<0.0002	<0.0005	<0.01	<0.00005	21.4
21-Dec-11	1155	500	445																				
28-Dec-11	1162	500	470	7.87	298	165																	
4-Jan-12	1169	500	465																				
11-Jan-12	1176	500	485	7.87	266	156	<1	3	100	76	79.1	<0.5	0.035	4.42	0.0031	0.000155	0.00015	0.00814	<0.0002	<0.0005	<0.01	<0.00005	19.9
18-Jan-12	1183	500	480																				
25-Jan-12	1190	500	455	7.84	348	160																	
1-Feb-12	1197	500	430																				
8-Feb-12	1204	500	490	7.78	341	167	<1	5	107	86	82.6	<0.5	0.032	5.36	0.0034	0.000168	0.00013	0.00864	<0.0002	<0.0005	<0.01	<0.00005	21.6
15-Feb-12	1211	500	440																				
22-Feb-12	1218	500	435	7.81	358	170																	
29-Feb-12	1225	500	460																				
7-Mar-12	1232	500	470	7.77	391	168	<1	7	92	81	85.7	<0.5	0.034	7.08	0.0028	0.000141	0.00014	0.008	<0.0002	<0.0005	<0.01	<0.00005	21.8
14-Mar-12	1239	500	455																				
21-Mar-12	1246	500	450	7.75	352	174																	
28-Mar-12	1253	500	460																				
4-Apr-12	1260	500	470	7.79	356	172	<1	4	94	91	87.3	<0.5	0.036	7.63	0.0034	0.000153	0.00014	0.00796	<0.0002	<0.0005	<0.01	<0.00015	21.6
11-Apr-12	1267	500	440																				
18-Apr-12	1274	500	450	7.81	357	168																	
25-Apr-12	1281	500	465																				
2-May-12	1288	500	465	7.74	362	166	<1	8	90	84	83.1	<0.5	0.035	6.4	0.0031	0.000153	0.00015	0.00793	<0.0002	<0.0005	<0.01	<0.00005	21.4
9-May-12	1295	500	460																				
16-May-12	1302	500	440	7.87	313	169																	
23-May-12	1309	500	465																				
30-May-12	1316	500	455	7.78	337	168	<1	5	88	72	83.7	<0.5	0.036	6.52	0.0032	0.000156	0.00014	0.00731	<0.0002	<0.0005	<0.01	<0.00005	21.2
6-Jun-12	1323	500	455																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Apr-11	910																			
27-Apr-11	917																			
4-May-11	924	0.00056	<0.0001	0.00137	<0.03	0.000095	8.06	0.00009	<0.00001	0.121	<0.0005	1.77	<0.001	1.06	<0.00001	<2	<0.00005	0.00273	<0.0005	0.001
11-May-11	931																			
18-May-11	938																			
25-May-11	945																			
1-Jun-11	952	<0.0005	<0.0001	0.00264	<0.03	<0.00005	8.15	0.000081	<0.00001	0.115	<0.0005	1.8	<0.001	1.12	<0.00001	<2	<0.00005	0.00228	<0.0005	<0.001
8-Jun-11	959																			
15-Jun-11	966																			
22-Jun-11	973																			
29-Jun-11	980	<0.0005	<0.0001	0.00124	<0.03	0.000421	7.97	0.000071	<0.00001	0.12	<0.0005	1.73	<0.001	1.07	<0.00001	<2	<0.00005	0.0023	<0.0005	0.0035
6-Jul-11	987																			
13-Jul-11	994																			
20-Jul-11	1001																			
27-Jul-11	1008	<0.0005	<0.0001	0.00085	<0.03	0.000238	7.97	0.000153	<0.00001	0.109	<0.0005	1.81	<0.001	0.983	<0.00001	<2	<0.00005	0.00201	<0.0005	0.001
3-Aug-11	1015																			
10-Aug-11	1022																			
17-Aug-11	1029																			
24-Aug-11	1036	<0.0005	<0.0001	0.00129	0.031	0.000056	8.78	0.000078	<0.00001	0.105	<0.0005	1.74	<0.001	1.14	<0.00001	<2	<0.00005	0.00209	<0.0005	0.0027
31-Aug-11	1043																			
7-Sep-11	1050																			
14-Sep-11	1057																			
21-Sep-11	1064	<0.0005	<0.0001	0.00075	<0.03	<0.00005	8.39	<0.00005	<0.00001	0.12	<0.0005	1.63	<0.001	1.1	<0.00001	<2	<0.00005	0.00247	<0.0005	<0.001
28-Sep-11	1071																			
5-Oct-11	1078																			
12-Oct-11	1085																			
19-Oct-11	1092	<0.0005	<0.0001	0.00091	<0.03	<0.00005	8.12	0.000103	<0.00001	0.12	<0.0005	1.78	<0.001	1.05	<0.00001	<2	<0.00005	0.00219	<0.0005	<0.001
26-Oct-11	1099																			
2-Nov-11	1106																			
9-Nov-11	1113																			
16-Nov-11	1120	0.00121	<0.0001	0.00079	<0.03	<0.00005	7.96	<0.00005	<0.00001	0.111	<0.0005	1.62	<0.001	0.942	<0.00001	<2	<0.00005	0.00186	<0.0005	<0.001
23-Nov-11	1127																			
30-Nov-11	1134																			
7-Dec-11	1141																			
14-Dec-11	1148	<0.0005	<0.0001	0.00057	<0.03	<0.00005	7.82	<0.00005	<0.00001	0.106	<0.0005	1.72	<0.001	0.958	<0.00001	<2	<0.00005	0.00189	<0.0005	<0.001
21-Dec-11	1155																			
28-Dec-11	1162																			
4-Jan-12	1169																			
11-Jan-12	1176	<0.0005	<0.0001	0.00146	<0.03	<0.00005	7.16	0.000127	<0.00001	0.0935	<0.0005	1.61	<0.001	0.908	<0.00001	<2	<0.00005	0.00191	<0.0005	<0.001
18-Jan-12	1183																			
25-Jan-12	1190																			
1-Feb-12	1197																			
8-Feb-12	1204	<0.0005	<0.0001	0.00083	<0.03	0.000592	6.97	0.000096	<0.00001	0.0878	<0.0005	1.67	<0.001	0.972	<0.00001	<2	<0.00005	0.0021	<0.0005	<0.001
15-Feb-12	1211																			
22-Feb-12	1218																			
29-Feb-12	1225																			
7-Mar-12	1232	<0.0005	<0.0001	0.00129	<0.03	<0.00005	7.61	<0.00005	<0.00001	0.0938	<0.0005	1.61	<0.001	0.91	<0.00001	<2	<0.00005	0.00196	<0.0005	<0.001
14-Mar-12	1239																			
21-Mar-12	1246																			
28-Mar-12	1253																			
4-Apr-12	1260	<0.0005	<0.0001	0.00061	<0.03	<0.00005	8.06	<0.00005	<0.00001	0.11	<0.0005	1.81	<0.001	0.936	<0.00001	<2	<0.00005	0.00209	<0.0005	<0.001
11-Apr-12	1267																			
18-Apr-12	1274																			
25-Apr-12	1281																			
2-May-12	1288	<0.0005	<0.0001	0.00081	<0.03	<0.00005	7.19	0.000136	<0.00001	0.11	<0.0005	1.55	<0.001	0.968	<0.00001	<2	<0.00005	0.00209	<0.0005	<0.001
9-May-12	1295																			
16-May-12	1302																			
23-May-12	1309																			
30-May-12	1316	<0.0005	<0.0001	0.00098	<0.03	<0.00005	7.48	<0.00005	<0.00001	0.106	<0.0005	1.58	<0.001	0.96	<0.00001	<2	<0.00005	0.0019	<0.0005	<0.001
6-Jun-12	1323																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
13-Jun-12	1330	500	465	7.75	382	165																	
20-Jun-12	1337	500	440																				
27-Jun-12	1344	500	460	7.78	372	164	<1	7	91	93	83.5	<0.5	0.036	6.48	0.0042	0.000151	0.00016	0.00729	<0.0002	<0.0005	<0.01	<0.0001	21.4
4-Jul-12	1351	500	465																				
11-Jul-12	1358	500	455	7.81	376	166																	
18-Jul-12	1365	500	460																				
25-Jul-12	1372	500	465	7.73	381	163	<1	4	90	89	82.1	<0.5	0.038	6.31	0.0037	0.000146	0.00026	0.00742	<0.0002	<0.0005	<0.01	<0.0001	21.1
1-Aug-12	1379	500	460																				
8-Aug-12	1386	500	430	7.86	354	161																	
15-Aug-12	1393	500	435																				
22-Aug-12	1400	500	440	7.73	346	170	<1	5	90	87	85.1	<0.5	0.036	7.13	0.0029	0.000141	0.00022	0.00718	<0.0002	<0.0005	<0.01	<0.0001	21.4
29-Aug-12	1407	500	470																				
5-Sep-12	1414	500	465	7.76	396	160																	
12-Sep-12	1421	500	470																				
19-Sep-12	1428	500	440	7.76	373	163	<1	5	95	86	83	<0.5	0.034	5.97	0.0037	0.000138	0.00014	0.00676	<0.0002	<0.0005	<0.01	<0.00005	21.3
26-Sep-12	1435	500	460																				
3-Oct-12	1442	500	460	7.75	381	155																	
10-Oct-12	1449	500	460																				
17-Oct-12	1456	500	460	7.72	406	157	<1	5	90	74	78.2	<0.5	0.033	5.68	0.0061	0.000147	0.00012	0.00625	<0.0002	<0.0005	<0.01	<0.00005	20.6
24-Oct-12	1463	500	435																				
31-Oct-12	1470	500	460	7.68	361	156																	
7-Nov-12	1477	500	490																				
14-Nov-12	1484	500	455	7.77	375	163	<1	9	94	81	79.9	<0.5	0.034	5.59	0.0034	0.000142	0.00012	0.00617	<0.0002	<0.0005	<0.01	<0.00005	20.2
21-Nov-12	1491	500	470																				
28-Nov-12	1498	500	485	7.69	381	148																	
5-Dec-12	1505	500	435																				
12-Dec-12	1512	500	480	7.81	341	150	<1	4	87	83	75.9	<0.5	0.029	4.38	0.0034	0.00015	0.00011	0.00605	<0.0002	<0.0005	<0.01	<0.00005	19.4
19-Dec-12	1519	500	445																				
26-Dec-12	1526	500	435	7.77	389	142																	

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
22-Oct-08	0	750	350	7.90	418	916	<1	5	80	657	293	12.4	1.66	346	0.0119	0.00341	0.0115	0.0409	<0.0002	<0.0005	0.02	<0.00005	93
29-Oct-08	7	500	485	7.80	436	289																	
5-Nov-08	14	500	495	7.61	430	203	<1	3	38	126	61	0.7	0.274	58.5	0.0178	0.000684	0.0226	0.00822	<0.0002	<0.0005	<0.01	<0.00005	18.2
12-Nov-08	21	500	480	7.67	425	195																	
19-Nov-08	28	500	475	7.71	439	171	<1	2	35	130	58.3	<0.5	0.269	59	0.0187	0.000591	0.017	0.00731	<0.0002	<0.0005	<0.01	<0.00005	18.2
26-Nov-08	35	500	485	7.65	374	177																	
3-Dec-08	42	500	460	7.76	358	193	<1	2	41	119	97.1	<0.5	0.256	54.1	0.0141	0.000658	0.0221	0.00907	<0.0002	<0.0005	0.019	<0.00005	35.3
10-Dec-08	49	500	465	7.72	344	187																	
17-Dec-08	56	500	485	7.66	385	213				128	73.2	<0.5	0.338	55.5	0.0118	0.000983	0.013	0.00825	<0.0002	<0.0005	<0.01	<0.00005	22.1
24-Dec-08	63	500	500	7.84	348	294																	
31-Dec-08	70	500	465	7.91	339	302	<1		100	167	102	<0.5	0.507	46.1	0.0083	0.00165	0.0131	0.0135	<0.0002	<0.0005	0.012	<0.00005	30.4
7-Jan-09	77	500	505	7.72	299	177																	
14-Jan-09	84	500	500	7.82	377	145	<1	5	63	71.3	55.8	<0.5	0.338	18.3	0.0132	0.00116	0.00486	0.00817	<0.0002	<0.0005	<0.01	<0.00005	16.1
21-Jan-09	91	500	480	7.75	390	146																	
28-Jan-09	98	500	475	7.74	386	140	<1	6	66	75.8	55.4	<0.5	0.332	14.1	0.0103	0.00127	0.0042	0.00881	<0.0002	<0.0005	<0.01	<0.00005	16.2
4-Feb-09	105	500	430	7.83	396	204																	
11-Feb-09	112	500	495	8.04	392	180	<1	5	91	108	75.2	<0.5	0.385	15.2	0.0092	0.00157	0.00416	0.0127	<0.0002	<0.0005	<0.01	<0.00005	21.3
18-Feb-09	119	500	475	8.06	345	176																	
25-Feb-09	126	500	480	8.02	420	170	<1	6	93	93.3	76	<0.5	0.284	11.3	0.008	0.00133	0.00231	0.0138	<0.0002	<0.0005	<0.01	<0.00005	21.6
4-Mar-09	133	500	490	7.86	276	170																	
11-Mar-09	140	500	460	7.82	235	175	<1	4	96	92	82	<0.5	0.243	10.2	0.0113	0.00132	0.00202	0.0157	<0.0002	<0.0005	<0.01	<0.00005	24.2
18-Mar-09	147	500	465	7.93	345	185																	
25-Mar-09	154	500	465	7.82	353	183	<1	4	103	98.3	81.8	<0.5	0.184	8.01	0.0068	0.00123	0.00153	0.0174	<0.0002	<0.0005	0.013	<0.00005	24.4
1-Apr-09	161	500	470	7.86	360	162																	
8-Apr-09	168	500	475	7.88	367	169	<1	4	94	100	79.1	<0.5	0.171	7.21	0.0076	0.00106	0.00131	0.0161	<0.0002	<0.0005	0.011	<0.00005	22.6
15-Apr-09	175	500	480	8.01	370	191																	

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Jun-12	1330																			
20-Jun-12	1337																			
27-Jun-12	1344	<0.0005	<0.0001	0.00078	<0.03	0.000073	7.33	0.000096	<0.00001	0.106	<0.0005	1.69	<0.001	1.04	<0.00001	<2	<0.00005	0.00197	<0.0005	<0.001
4-Jul-12	1351																			
11-Jul-12	1358																			
18-Jul-12	1365																			
25-Jul-12	1372	<0.0005	<0.0001	0.00073	<0.03	<0.00005	7.16	<0.00005	<0.00001	0.104	<0.0005	1.66	<0.001	0.987	<0.00001	<2	<0.00005	0.00157	<0.0005	<0.001
1-Aug-12	1379																			
8-Aug-12	1386																			
15-Aug-12	1393																			
22-Aug-12	1400	<0.0005	<0.0001	0.00068	<0.03	<0.00005	7.66	0.000126	<0.00001	0.116	<0.0005	1.48	<0.001	1.12	<0.00001	<2	<0.00005	0.00369	<0.0005	<0.001
29-Aug-12	1407																			
5-Sep-12	1414																			
12-Sep-12	1421																			
19-Sep-12	1428	<0.0005	<0.0001	0.00077	<0.03	<0.00005	7.26	0.000069	<0.00001	0.109	<0.0005	1.48	<0.001	0.954	<0.00001	<2	<0.00005	0.00223	<0.0005	<0.001
26-Sep-12	1435																			
3-Oct-12	1442																			
10-Oct-12	1449																			
17-Oct-12	1456	<0.0005	<0.0001	0.00155	<0.03	<0.00005	6.5	<0.00005	<0.00001	0.104	<0.0005	1.35	<0.001	0.927	<0.00001	<2	<0.00005	0.00212	<0.0005	<0.001
24-Oct-12	1463																			
31-Oct-12	1470																			
7-Nov-12	1477																			
14-Nov-12	1484	<0.0005	<0.0001	0.0008	<0.03	<0.00005	7.16	0.000059	<0.00001	0.109	<0.0005	1.55	<0.001	0.913	<0.00001	<2	<0.00005	0.00189	<0.0005	0.0012
21-Nov-12	1491																			
28-Nov-12	1498																			
5-Dec-12	1505																			
12-Dec-12	1512	<0.0005	<0.0001	0.00085	<0.03	<0.00005	6.66	0.000191	<0.00001	0.0919	<0.0005	1.4	<0.001	0.869	<0.00001	<2	<0.00005	0.00227	<0.0005	<0.001
19-Dec-12	1519																			
26-Dec-12	1526																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Oct-08	0	0.00128	0.00029	0.00926	<0.03	<0.00005	14.7	0.0899	<0.00001	0.0528	0.00158	26.5	0.0068	3.35	0.000065	66.1	0.000054	0.0087	<0.0005	0.0067
29-Oct-08	7																			
5-Nov-08	14	<0.0005	<0.0001	0.00154	<0.03	<0.00005	3.78	0.0389	<0.00001	0.00913	<0.0005	11	0.0013	4.12	<0.00001	9.4	<0.00005	0.00811	<0.0005	0.0019
12-Nov-08	21																			
19-Nov-08	28	<0.0005	<0.0001	0.00172	<0.03	<0.00005	3.12	0.0401	<0.00001	0.00783	<0.0005	9.38	0.0016	3.12	<0.00001	7.8	<0.00005	0.00585	<0.0005	0.0016
26-Nov-08	35																			
3-Dec-08	42	<0.0005	0.00035	0.00703	<0.03	<0.00005	2.2	0.0854	<0.00001	0.0541	0.00061	7.69	0.0025	3.01	<0.00001	<2	<0.00005	0.00614	<0.0005	0.0066
10-Dec-08	49																			
17-Dec-08	56	<0.0005	<0.0001	0.0019	<0.03	<0.00005	4.38	0.0553	<0.00001	0.0101	<0.0005	10.1	0.002	3.55	<0.00001	6.6	<0.00005	0.00857	<0.0005	0.0012
24-Dec-08	63																			
31-Dec-08	70	<0.0005	0.0002	0.00199	<0.03	<0.00005	6.26	0.11	<0.00001	0.0163	0.00095	12.2	0.0017	3.47	<0.00001	6.9	<0.00005	0.0153	<0.0005	0.0026
7-Jan-09	77																			
14-Jan-09	84	<0.0005	<0.0001	0.00414	<0.03	0.00007	3.77	0.0541	<0.00001	0.0092	<0.0005	8.99	<0.001	2.6	<0.00001	3.2	<0.00005	0.00661	<0.0005	0.0016
21-Jan-09	91																			
28-Jan-09	98	<0.0005	<0.0001	0.00183	<0.03	<0.00005	3.61	0.0474	<0.00001	0.00811	<0.0005	8.44	<0.001	2.88	<0.00001	2.3	<0.00005	0.00775	<0.0005	0.0014
4-Feb-09	105																			
11-Feb-09	112	<0.0005	<0.0001	0.0022	<0.03	<0.00005	5.35	0.0562	<0.00001	0.00991	<0.0005	8.91	<0.001	3.79	<0.00001	2.4	<0.00005	0.00991	<0.0005	0.0019
18-Feb-09	119																			
25-Feb-09	126	<0.0005	<0.0001	0.00149	<0.03	0.000095	5.37	0.0539	<0.00001	0.00807	<0.0005	7.64	<0.001	3.36	<0.00001	<2	<0.00005	0.0107	<0.0005	0.0015
4-Mar-09	133																			
11-Mar-09	140	<0.0005	<0.0001	0.0023	<0.03	0.000056	5.25	0.0471	<0.00001	0.0078	<0.0005	7.86	<0.001	3.29	<0.00001	<2	<0.00005	0.014	<0.0005	0.0028
18-Mar-09	147																			
25-Mar-09	154	<0.0005	<0.0001	0.00144	<0.03	<0.00005	5.06	0.0486	<0.00001	0.00738	<0.0005	8.06	<0.001	3.63	<0.00001	<2	<0.00005	0.0135	<0.0005	0.0015
1-Apr-09	161																			
8-Apr-09	168	<0.0005	<0.0001	0.00117	<0.03	<0.00005	5.5	0.0303	<0.00001	0.00717	<0.0005	6.8	<0.001	2.91	<0.00001	<2	<0.00005	0.00896	<0.0005	0.0014
15-Apr-09	175																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
22-Apr-09	182	500	485	8.01	364	195																	
29-Apr-09	189	500	490																				
6-May-09	196	500	490	7.92	358	176	<1	5	97	102	86.6	<0.5	0.139	8.25	0.0073	0.000998	0.00111	0.0161	<0.0002	<0.0005	0.012	<0.00005	23.4
13-May-09	203	500	490																				
20-May-09	210	500	485	7.89	366	168																	
27-May-09	217	500	485																				
3-Jun-09	224	500	460	8.05	360	188	<1	4	106	103	100	<0.5	0.086	18.1	0.0097	0.00118	0.00149	0.0195	<0.0002	<0.0005	0.016	<0.00005	29.1
10-Jun-09	231	500	500																				
17-Jun-09	238	500	340	7.98	359	178																	
24-Jun-09	245	500	520																				
1-Jul-09	252	500	505	8.03	339	164	<1	3	108	111	89.6	<0.5	0.074	10.6	0.0091	0.00117	0.00109	0.017	<0.0002	<0.0005	<0.01	<0.00005	25.9
8-Jul-09	259	500	490																				
15-Jul-09	266	500	415	8.11	345	180																	
22-Jul-09	273	500	415																				
29-Jul-09	280	500	415	8.06	319	204	<1	5	123	118	105	0.6	0.092	9.38	0.008	0.00107	0.00093	0.0168	<0.0002	<0.0005	<0.01	<0.00005	29.9
5-Aug-09	287	500	510																				
12-Aug-09	294	500	465	8.09	267	211																	
19-Aug-09	301	500	515																				
26-Aug-09	308	500	415	8.17	252	204	<1	3	123	121	115	<0.5	0.075	9.85	0.0079	0.00103	0.00073	0.0178	<0.0002	<0.0005	<0.01	<0.00005	31.6
2-Sep-09	315	500	510																				
9-Sep-09	322	500	495	8.25	300	210																	
16-Sep-09	329	500	490																				
23-Sep-09	336	500	440	8.23	333	219	<1	2	132	98	115	0.62	0.054	9.62	0.0063	0.000892	0.00074	0.0173	<0.0002	<0.0005	<0.01	<0.00005	32.4
30-Sep-09	343	500	535																				
7-Oct-09	350	500	500	8.17	326	221																	
14-Oct-09	357	500	505																				
21-Oct-09	364	500	500	8.02	297	174	<1	3	106	97	92.3	<0.5	0.05	5.11	0.0065	0.000709	0.00058	0.0127	<0.0002	<0.0005	<0.01	<0.00005	25.6
28-Oct-09	371	500	480																				
4-Nov-09	378	500	430	8.02	311	198																	
11-Nov-09	385	500	505																				
18-Nov-09	392	500	440	8.10	306	221	<1	6	129	108	103	<0.5	0.047	5.09	0.0058	0.000681	0.00038	0.0146	<0.0002	<0.0005	<0.01	<0.00005	28.8
25-Nov-09	399	500	390																				
2-Dec-09	406	500	465	8.03	345	197																	
9-Dec-09	413	500	500																				
16-Dec-09	420	500	500	8.14	324	193	<1	3	118	98	106	<0.5	0.043	4.33	0.0062	0.000629	0.0004	0.0133	<0.0002	<0.0005	<0.01	<0.00005	29.4
23-Dec-09	427	500	485																				
30-Dec-09	434	500	445	8.13	378	221																	
6-Jan-10	441	500	465																				
13-Jan-10	448	500	495	8.02	335	219	<1	6	128	119	109	<0.5	0.044	4.48	0.0061	0.000557	0.00075	0.0136	<0.0002	<0.0005	<0.01	<0.00005	29.6
20-Jan-10	455	500	405																				
27-Jan-10	462	500	460	7.84	325	170																	
3-Feb-10	469	500	495																				
10-Feb-10	476	500	475	8.05	302	201	<1	3	125	116	112	<0.5	0.053	6.21	0.0052	0.000469	0.00035	0.014	<0.0002	<0.0005	<0.01	<0.00005	30.5
17-Feb-10	483	500	465																				
24-Feb-10	490	500	460	7.89	324	191																	
3-Mar-10	497	500	445																				
10-Mar-10	504	500	430	7.97	371	184	<1	3	112	104	97.1	<0.5	0.052	4.54	0.0064	0.000426	0.00029	0.012	<0.0002	<0.0005	<0.01	<0.00005	25.9
17-Mar-10	511	500	520																				
24-Mar-10	518	500	455	7.89	315	209																	
31-Mar-10	525	500	515																				
7-Apr-10	532	500	500	8.12	343	197	<1	2	121	110	110	<0.5	0.049	4.87	0.0059	0.000396	0.00029	0.0129	<0.0002	<0.0005	<0.01	<0.00005	29.5
14-Apr-10	539	500	475																				
21-Apr-10	546	500	455	8.09	287	202																	
28-Apr-10	553	500	520																				
5-May-10	560	500	505	7.87	341	144	<1	4	84	74	78.4	<0.5	0.037	2.93	0.0077	0.00032	0.00019	0.00885	<0.0002	<0.0005	<0.01	<0.00005	21.4
12-May-10	567	500	440																				
19-May-10	574	500	435	7.98	338	130																	
26-May-10	581	500	430																				
2-Jun-10	588	500	475	7.99	345	149	<1	3	88	69	79.7	0.54	0.052	4.46	0.0095	0.000359	0.00041	0.00877	<0.0002	<0.0005	0.011	<0.00005	20.3
9-Jun-10	595	500	445																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Apr-09	182																			
29-Apr-09	189																			
6-May-09	196	<0.0005	<0.0001	0.002	<0.03	<0.00005	6.82	0.00621	<0.00001	0.0153	<0.0005	6.22	<0.001	3.09	<0.00001	<2	<0.00005	0.0103	<0.0005	0.0016
13-May-09	203																			
20-May-09	210																			
27-May-09	217																			
3-Jun-09	224	<0.0005	<0.0001	0.00209	<0.03	0.000123	6.63	0.0048	<0.00001	0.0363	<0.0005	6.69	<0.001	4.09	<0.00001	<2	<0.00005	0.0125	<0.0005	0.0015
10-Jun-09	231																			
17-Jun-09	238																			
24-Jun-09	245																			
1-Jul-09	252	<0.0005	<0.0001	0.00195	<0.03	<0.00005	6.04	0.00056	<0.00001	0.0441	<0.0005	5.63	<0.001	3.27	<0.00001	<2	<0.00005	0.0126	<0.0005	0.0016
8-Jul-09	259																			
15-Jul-09	266																			
22-Jul-09	273																			
29-Jul-09	280	<0.0005	<0.0001	0.00231	<0.03	<0.00005	7.36	0.000641	<0.00001	0.0455	<0.0005	5.39	<0.001	3.4	<0.00001	<2	<0.00005	0.0105	<0.0005	0.0016
5-Aug-09	287																			
12-Aug-09	294																			
19-Aug-09	301																			
26-Aug-09	308	<0.0005	<0.0001	0.00229	<0.03	0.000061	8.86	0.000441	<0.00001	0.036	<0.0005	5.29	<0.001	3.02	<0.00001	<2	<0.00005	0.0101	<0.0005	0.0012
2-Sep-09	315																			
9-Sep-09	322																			
16-Sep-09	329																			
23-Sep-09	336	<0.0005	<0.0001	0.00154	<0.03	<0.00005	8.4	0.000138	<0.00001	0.0411	<0.0005	4.68	<0.001	3.06	<0.00001	<2	<0.00005	0.0115	<0.0005	<0.001
30-Sep-09	343																			
7-Oct-09	350																			
14-Oct-09	357																			
21-Oct-09	364	<0.0005	<0.0001	0.0012	<0.03	<0.00005	6.92	0.000506	<0.00001	0.033	<0.0005	3.7	<0.001	2.1	<0.00001	<2	<0.00005	0.00703	<0.0005	0.0014
28-Oct-09	371																			
4-Nov-09	378																			
11-Nov-09	385																			
18-Nov-09	392	<0.0005	<0.0001	0.00122	<0.03	<0.00005	7.64	0.000261	<0.00001	0.0381	<0.0005	3.67	<0.001	2.4	<0.00001	<2	<0.00005	0.00781	<0.0005	<0.001
25-Nov-09	399																			
2-Dec-09	406																			
9-Dec-09	413																			
16-Dec-09	420	<0.0005	<0.0001	0.00086	<0.03	<0.00005	7.87	0.00014	<0.00001	0.0346	<0.0005	3.92	<0.001	2.33	<0.00001	<2	<0.00005	0.00878	<0.0005	<0.001
23-Dec-09	427																			
30-Dec-09	434																			
6-Jan-10	441																			
13-Jan-10	448	<0.0005	<0.0001	0.00164	<0.03	<0.00005	8.56	0.000997	<0.00001	0.033	<0.0005	3.78	<0.001	2.37	<0.00001	<2	<0.00005	0.00916	<0.0005	<0.001
20-Jan-10	455																			
27-Jan-10	462																			
3-Feb-10	469																			
10-Feb-10	476	<0.0005	<0.0001	0.00066	<0.03	<0.00005	8.72	0.000153	<0.00001	0.0298	<0.0005	3.61	0.0015	2.38	<0.00001	<2	<0.00005	0.0061	<0.0005	<0.001
17-Feb-10	483																			
24-Feb-10	490																			
3-Mar-10	497																			
10-Mar-10	504	<0.0005	<0.0001	0.00078	<0.03	<0.00005	7.9	0.000169	<0.00001	0.028	<0.0005	3.4	0.0015	1.77	<0.00001	<2	<0.00005	0.00877	<0.0005	<0.001
17-Mar-10	511																			
24-Mar-10	518																			
31-Mar-10	525																			
7-Apr-10	532	<0.0005	<0.0001	0.00193	<0.03	<0.00005	8.93	0.000224	<0.00001	0.0263	<0.0005	3.43	<0.001	2.06	<0.00001	<2	<0.00005	0.00558	<0.0005	<0.001
14-Apr-10	539																			
21-Apr-10	546																			
28-Apr-10	553																			
5-May-10	560	<0.0005	<0.0001	0.00079	<0.03	<0.00005	6.08	0.000152	<0.00001	0.0185	<0.0005	2.76	<0.001	1.37	<0.00001	<2	<0.00005	0.00495	<0.0005	0.001
12-May-10	567																			
19-May-10	574																			
26-May-10	581																			
2-Jun-10	588	<0.0005	<0.0001	0.00066	<0.03	<0.00005	7.05	0.000261	<0.00001	0.0264	<0.0005	3.24	<0.001	1.69	<0.00001	<2	<0.00005	0.00485	<0.0005	<0.001
9-Jun-10	595																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
16-Jun-10	602	500	465	8.04	329	146																	
23-Jun-10	609	500	480																				
30-Jun-10	616	500	465	8.08	392	141	<1	2	87	73	74.4	0.52	0.043	4.15	0.0099	0.000287	0.00035	0.00743	<0.0002	<0.0005	0.011	<0.00005	19.7
7-Jul-10	623	500	470																				
14-Jul-10	630	500	470	7.99	335	149																	
21-Jul-10	637	500	495																				
28-Jul-10	644	500	435	7.96	331	189	<1	4	107	99	95	0.64	0.045	4.12	0.0086	0.000284	0.00046	0.00952	<0.0002	<0.0005	0.019	<0.00005	23.6
4-Aug-10	651	500	510																				
11-Aug-10	658	500	425	8.13	381	189																	
18-Aug-10	665	500	470																				
25-Aug-10	672	500	500	8.04	336	189	<1	3	123	104	99.5	0.53	0.04	3.63	0.0059	0.000225	0.00026	0.0102	<0.0002	<0.0005	0.01	<0.00005	26.3
1-Sep-10	679	500	425																				
8-Sep-10	686	500	500	7.88	349	191																	
15-Sep-10	693	500	500																				
22-Sep-10	700	500	470	8.04	318	159	<1	3	119	110	103	0.55	0.046	4.31	0.0062	0.000241	0.00018	0.0105	<0.0002	<0.0005	<0.01	<0.00005	26.6
29-Sep-10	707	500	460																				
6-Oct-10	714	500	470	8.07	308	225																	
13-Oct-10	721	500	450																				
20-Oct-10	728	500	440	8.09	302	200	<1	3	132	110	112	0.52	0.052	4.25	0.0061	0.000239	0.00021	0.0108	<0.0002	<0.0005	<0.01	<0.00005	27.7
27-Oct-10	735	500	500																				
3-Nov-10	742	500	490	8.12	361	219																	
10-Nov-10	749	500	520																				
17-Nov-10	756	500	440	8.21	331	210	<1	4	127	106	105	0.6	0.049	5.14	0.0059	0.000196	0.00022	0.00973	<0.0002	<0.0005	0.01	<0.00005	26.3
24-Nov-10	763	500	520																				
1-Dec-10	770	500	475	7.96	330	198																	
8-Dec-10	777	500	520																				
15-Dec-10	784	500	480	7.89	328	197	<1	5	124	105	107	<0.5	0.05	3.72	0.0067	0.00021	0.00023	0.0102	<0.0002	<0.0005	<0.01	<0.00005	26.7
22-Dec-10	791	500	470																				
29-Dec-10	798	500	460	7.86	336	123																	
5-Jan-11	805	500	460																				
12-Jan-11	812	500	450	7.85	333	123	<1	5	86	42	69.2	<0.5	0.031	3.08	0.007	0.000148	0.00018	0.00549	<0.0002	<0.0005	0.01	<0.00005	17.7
19-Jan-11	819	500	495																				
26-Jan-11	826	500	450	7.84	299	127																	
2-Feb-11	833	500	445																				
9-Feb-11	840	500	435	7.92	347	120	<1	3	81	66	70.8	<0.5	0.032	2.88	0.0079	0.000158	0.00018	0.00569	<0.0002	<0.0005	<0.01	<0.00005	17.5
16-Feb-11	847	500	445																				
23-Feb-11	854	500	445	7.87	313	146																	
2-Mar-11	861	500	455																				
9-Mar-11	868	500	465	7.88	290	145	<1	3	85	67	70.4	<0.5	0.042	2.91	0.0074	0.000132	0.00017	0.00615	<0.0002	<0.0005	<0.01	<0.00005	17.7
16-Mar-11	875	500	455																				
23-Mar-11	882	500	400	8.03	292	163																	
30-Mar-11	889	500	455																				
6-Apr-11	896	500	460	7.92	256	203	<1	6	125	100	99.9	<0.5	0.038	3.34	0.0048	0.000136	0.00027	0.00807	<0.0002	<0.0005	<0.01	<0.00005	24.7
13-Apr-11	903	500	450																				
20-Apr-11	910	500	455	7.99	269	208																	
27-Apr-11	917	500	500																				
4-May-11	924	500	500	7.95	320	185	<1	5	113	96	93.9	<0.5	0.041	3.2	0.0049	0.000132	0.00013	0.00729	<0.0002	<0.0005	<0.01	<0.00005	23.4
11-May-11	931	500	480																				
18-May-11	938	500	470	7.97	321	197																	
25-May-11	945	500	460																				
1-Jun-11	952	500	475	7.98	303	139	<1	5	75	74	69.8	<0.5	0.039	4.19	0.008	0.000129	0.00017	0.00548	<0.0002	<0.0005	<0.01	<0.00005	17.3
8-Jun-11	959	500	450																				
15-Jun-11	966	500	485	7.92	298	159																	
22-Jun-11	973	500	435																				
29-Jun-11	980	500	470	8.11	313	140	<1	3	85	69	71.2	<0.5	0.041	3.53	0.0067	0.000109	0.00012	0.00498	<0.0002	<0.0005	<0.01	<0.00005	17.5
6-Jul-11	987	500	415																				
13-Jul-11	994	500	465	8.03	292	185																	
20-Jul-11	1001	500	475																				
27-Jul-11	1008	500	510	8.03	272	177	<1	3	100	84	91.8	<0.5	0.049	3.72	0.0047	0.000115	0.00013	0.00681	<0.0002	<0.0005	<0.01	<0.00005	22.4
3-Aug-11	1015	500	490																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Jun-10	602																			
23-Jun-10	609																			
30-Jun-10	616	<0.0005	<0.0001	0.0009	<0.03	<0.00005	6.11	0.000548	<0.00001	0.0223	<0.0005	2.68	<0.001	1.65	<0.00001	<2	<0.00005	0.00545	<0.0005	<0.001
7-Jul-10	623																			
14-Jul-10	630																			
21-Jul-10	637																			
28-Jul-10	644	<0.0005	<0.0001	0.00045	<0.03	<0.00005	8.74	0.000201	<0.00001	0.0216	<0.0005	3.39	<0.001	1.72	<0.00001	<2	<0.00005	0.00582	<0.0005	<0.001
4-Aug-10	651																			
11-Aug-10	658																			
18-Aug-10	665																			
25-Aug-10	672	<0.0005	<0.0001	0.00081	<0.03	<0.00005	8.21	0.000152	<0.00001	0.0172	<0.0005	3.04	<0.001	1.79	<0.00001	<2	<0.00005	0.00591	<0.0005	<0.001
1-Sep-10	679																			
8-Sep-10	686																			
15-Sep-10	693																			
22-Sep-10	700	<0.0005	<0.0001	0.00131	<0.03	<0.00005	8.76	0.000136	<0.00001	0.0164	<0.0005	3.13	<0.001	1.77	<0.00001	<2	<0.00005	0.00409	<0.0005	<0.001
29-Sep-10	707																			
6-Oct-10	714																			
13-Oct-10	721																			
20-Oct-10	728	<0.0005	<0.0001	0.00079	<0.03	0.000217	10.5	0.000324	<0.00001	0.0195	<0.0005	3.37	<0.001	1.79	<0.00001	<2	<0.00005	0.00505	<0.0005	<0.001
27-Oct-10	735																			
3-Nov-10	742																			
10-Nov-10	749																			
17-Nov-10	756	<0.0005	<0.0001	0.00068	<0.03	<0.00005	9.56	0.000125	<0.00001	0.0205	<0.0005	3.35	<0.001	1.81	<0.00001	<2	<0.00005	0.00541	<0.0005	<0.001
24-Nov-10	763																			
1-Dec-10	770																			
8-Dec-10	777																			
15-Dec-10	784	<0.0005	<0.0001	0.00176	<0.03	<0.00005	9.84	0.000445	<0.00001	0.0182	<0.0005	3.28	<0.001	1.76	<0.00001	<2	<0.00005	0.00339	<0.0005	<0.001
22-Dec-10	791																			
29-Dec-10	798																			
5-Jan-11	805																			
12-Jan-11	812	<0.0005	<0.0001	0.00071	<0.03	<0.00005	6.06	0.000127	<0.00001	0.0179	<0.0005	2.2	<0.001	1.26	<0.00001	<2	<0.00005	0.00346	<0.0005	0.0017
19-Jan-11	819																			
26-Jan-11	826																			
2-Feb-11	833																			
9-Feb-11	840	<0.0005	<0.0001	0.00165	<0.03		6.57	0.000087	<0.00001	0.0167		2.4	<0.001	1.29	<0.00001	<2	<0.00005	0.00324	<0.0005	<0.001
16-Feb-11	847																			
23-Feb-11	854																			
2-Mar-11	861																			
9-Mar-11	868	<0.0005	<0.0001	0.0009	<0.03	<0.00005	6.34	0.000177	<0.00001	0.0141	<0.0005	2.19	<0.001	1.28	<0.00001	<2	<0.00005	0.00331	<0.0005	<0.001
16-Mar-11	875																			
23-Mar-11	882																			
30-Mar-11	889																			
6-Apr-11	896	<0.0005	<0.0001	0.001	<0.03	<0.00005	9.25	0.000931	<0.00001	0.0128	<0.0005	2.67	<0.001	1.6	<0.00001	<2	<0.00005	0.00356	<0.0005	<0.001
13-Apr-11	903																			
20-Apr-11	910																			
27-Apr-11	917																			
4-May-11	924	<0.0005	<0.0001	0.00099759	<0.03	<0.00005	8.6	0.000144	<0.00001	0.0126	<0.0005	2.44	<0.001	1.47	<0.00001	<2	<0.00005	0.00347	<0.0005	<0.001
11-May-11	931																			
18-May-11	938																			
25-May-11	945																			
1-Jun-11	952	<0.0005	<0.0001	0.00133	<0.03	<0.00005	6.44	0.000125	<0.00001	0.0122	<0.0005	2.13	<0.001	1.23	<0.00001	<2	<0.00005	0.00265	<0.0005	<0.001
8-Jun-11	959																			
15-Jun-11	966																			
22-Jun-11	973																			
29-Jun-11	980	<0.0005	<0.0001	0.00119	<0.03	<0.00005	6.7	0.00008	<0.00001	0.013	<0.0005	2.09	<0.001	1.21	<0.00001	<2	<0.00005	0.00272	<0.0005	0.0014
6-Jul-11	987																			
13-Jul-11	994																			
20-Jul-11	1001																			
27-Jul-11	1008	<0.0005	<0.0001	0.0005	<0.03	<0.00005	8.74	0.000171	<0.00001	0.0149	<0.0005	2.61	<0.001	1.36	<0.00001	<2	<0.00005	0.00302	<0.0005	<0.001
3-Aug-11	1015																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
10-Aug-11	1022	500	450	8.01	217	170																	
17-Aug-11	1029	500	430																				
24-Aug-11	1036	500	420	7.96	236	164	<1	5	93	115	84.6	<0.5	0.044	4.28	0.0095	0.000137	0.00021	0.00803	<0.0002	<0.0005	<0.01	<0.00005	20.4
31-Aug-11	1043	500	495																				
7-Sep-11	1050	500	485	8.05	243	138																	
14-Sep-11	1057	500	465																				
21-Sep-11	1064	500	470	7.88	239	141	<1	5	79	70	71.8	<0.5	0.047	4.4	0.0058	0.000112	0.00012	0.00476	<0.0002	<0.0005	<0.01	<0.00005	17.9
28-Sep-11	1071	500	505																				
5-Oct-11	1078	500	475	7.89	218	136																	
12-Oct-11	1085	500	460																				
19-Oct-11	1092	500	505	7.95	264	166	<1	3	93	85	85.3	<0.5	0.042	4.13	0.0047	0.000109	0.00019	0.0063	<0.0002	<0.0005	<0.01	<0.00005	20.8
26-Oct-11	1099	500	465																				
2-Nov-11	1106	500	455	7.87	255	126																	
9-Nov-11	1113	500	460																				
16-Nov-11	1120	500	405	7.94	286	150	<1	3	83	71	74.2	<0.5	0.05	4.33	0.0053	0.000108	0.00044	0.00489	<0.0002	<0.0005	<0.01	<0.00005	18.4
23-Nov-11	1127	500	485																				
30-Nov-11	1134	500	475	7.88	315	134																	
7-Dec-11	1141	500	415																				
14-Dec-11	1148	500	485	7.86	289	135	<1	4	79	61	70.1	<0.5	0.035	10.5	0.0058	0.000092	0.00013	0.00448	<0.0002	<0.0005	<0.01	<0.00005	17.3
21-Dec-11	1155	500	415																				
28-Dec-11	1162	500	490	7.91	288	143																	
4-Jan-12	1169	500	445																				
11-Jan-12	1176	500	495	7.90	268	155	<1	3	101	74	78.5	<0.5	0.04	3.46	0.0048	0.000105	<0.0001	0.00527	<0.0002	<0.0005	<0.01	<0.00005	19.3
18-Jan-12	1183	500	465																				
25-Jan-12	1190	500	460	7.87	345	144																	
1-Feb-12	1197	500	475																				
8-Feb-12	1204	500	445	7.83	337	142	<1	5	91	75	69.4	<0.5	0.037	4.09	0.0065	0.00011	0.00018	0.00455	<0.0002	<0.0005	<0.01	<0.00005	17.6
15-Feb-12	1211	500	460																				
22-Feb-12	1218	500	465	7.84	351	139																	
29-Feb-12	1225	500	405																				
7-Mar-12	1232	500	470	7.89	382	178	<1	7	101	83	90.5	<0.5	0.039	4.54	0.0051	0.000102	0.00011	0.0055	<0.0002	<0.0005	<0.01	<0.00005	22.5
14-Mar-12	1239	500	455																				
21-Mar-12	1246	500	480	7.87	347	188																	
28-Mar-12	1253	500	445																				
4-Apr-12	1260	500	460	7.86	351	176	<1	4	100	86	91	<0.5	0.041	4.75	0.0045	0.000097	<0.0001	0.00546	<0.0002	<0.0005	<0.01	<0.00005	22.2
11-Apr-12	1267	500	460																				
18-Apr-12	1274	500	475	7.95	350	199																	
25-Apr-12	1281	500	465																				
2-May-12	1288	500	495	7.73	362	189	<1	10	106	84	96.3	<0.5	0.041	5.99	0.0041	0.000102	0.00011	0.00641	<0.0002	<0.0005	<0.01	<0.00005	24.4
9-May-12	1295	500	450																				
16-May-12	1302	500	415	7.97	310	187																	
23-May-12	1309	500	485																				
30-May-12	1316	500	475	7.82	335	155	<1	5	84	78	75.7	<0.5	0.043	4.42	0.0051	0.00009	0.00016	0.00465	<0.0002	<0.0005	<0.01	<0.00005	19
6-Jun-12	1323	500	435																				
13-Jun-12	1330	500	410	7.84	372	169																	
20-Jun-12	1337	500	460																				
27-Jun-12	1344	500	490	7.84	367	154	<1	6	85	87	77.1	<0.5	0.044	5.88	0.0045	0.000097	0.00017	0.00454	<0.0002	<0.0005	<0.01	<0.00005	19.3
4-Jul-12	1351	500	445																				
11-Jul-12	1358	500	485	7.93	362	191																	
18-Jul-12	1365	500	475																				
25-Jul-12	1372	500	430	7.76	374	157	<1	4	86	83	78.3	<0.5	0.049	5.63	0.0044	0.000093	0.00016	0.00473	<0.0002	<0.0005	<0.01	<0.00005	19.6
1-Aug-12	1379	500	485																				
8-Aug-12	1386	500	430	7.95	349	185																	
15-Aug-12	1393	500	490																				
22-Aug-12	1400	500	470	7.73	340	136	<1	5	75	68	69.8	<0.5	0.039	4.57	0.0044	0.00009	0.00011	0.00401	<0.0002	<0.0005	<0.01	<0.00005	17
29-Aug-12	1407	500	485																				
5-Sep-12	1414	500	480	7.84	384	146																	
12-Sep-12	1421	500	475																				
19-Sep-12	1428	500	440	7.77	369	140	<1	5	80	70	70.8	<0.5	0.042	5.36	0.0052	0.000085	<0.0001	0.00414	<0.0002	<0.0005	<0.01	<0.00005	17.6
26-Sep-12	1435	500	445																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Aug-11	1022																			
17-Aug-11	1029																			
24-Aug-11	1036	<0.0005	<0.0001	0.00146	<0.03	<0.00005	8.19	0.000277	<0.00001	0.0171	<0.0005	2.37	<0.001	1.45	<0.00001	<2	<0.00005	0.00301	<0.0005	<0.001
31-Aug-11	1043																			
7-Sep-11	1050																			
14-Sep-11	1057																			
21-Sep-11	1064	<0.0005	<0.0001	0.0006	<0.03	<0.00005	6.61	<0.00005	<0.00001	0.0187	<0.0005	1.91	<0.001	1.3	<0.00001	<2	<0.00005	0.00266	<0.0005	<0.001
28-Sep-11	1071																			
5-Oct-11	1078																			
12-Oct-11	1085																			
19-Oct-11	1092	<0.0005	<0.0001	0.00061	<0.03	<0.00005	8.1	0.000068	<0.00001	0.02	<0.0005	2.33	<0.001	1.38	<0.00001	<2	<0.00005	0.0031	<0.0005	0.0017
26-Oct-11	1099																			
2-Nov-11	1106																			
9-Nov-11	1113																			
16-Nov-11	1120	<0.0005	<0.0001	0.001	<0.03	<0.00005	6.86	0.000224	<0.00001	0.0271	<0.0005	2.01	<0.001	1.31	<0.00001	<2	<0.00005	0.00314	<0.0005	0.002
23-Nov-11	1127																			
30-Nov-11	1134																			
7-Dec-11	1141																			
14-Dec-11	1148	<0.0005	<0.0001	0.0007	<0.03	<0.00005	6.52	<0.00005	<0.00001	0.0234	<0.0005	1.96	<0.001	1.14	<0.00001	<2	<0.00005	0.00237	<0.0005	0.001
21-Dec-11	1155																			
28-Dec-11	1162																			
4-Jan-12	1169																			
11-Jan-12	1176	0.00055	<0.0001	0.00044	<0.03	0.000056	7.35	<0.00005	<0.00001	0.026	<0.0005	2.09	<0.001	1.22	<0.00001	<2	<0.00005	0.00262	<0.0005	<0.001
18-Jan-12	1183																			
25-Jan-12	1190																			
1-Feb-12	1197																			
8-Feb-12	1204	<0.0005	<0.0001	0.00059	<0.03	<0.00005	6.2	0.000051	<0.00001	0.0298	<0.0005	1.92	<0.001	1.14	<0.00001	<2	<0.00005	0.0023	<0.0005	<0.001
15-Feb-12	1211																			
22-Feb-12	1218																			
29-Feb-12	1225																			
7-Mar-12	1232	<0.0005	<0.0001	0.00038	<0.03	<0.00005	8.36	<0.00005	<0.00001	0.031	<0.0005	2.12	<0.001	1.39	<0.00001	<2	<0.00005	0.00271	<0.0005	<0.001
14-Mar-12	1239																			
21-Mar-12	1246																			
28-Mar-12	1253																			
4-Apr-12	1260	<0.0005	<0.0001	0.00045	<0.03	<0.00005	8.64	0.000058	<0.00001	0.0318	<0.0005	2.26	<0.001	1.31	<0.00001	<2	<0.00005	0.00292	<0.0005	<0.001
11-Apr-12	1267																			
18-Apr-12	1274																			
25-Apr-12	1281																			
2-May-12	1288	<0.0005	<0.0001	0.00039	<0.03	<0.00005	8.61	0.000109	<0.00001	0.0327	<0.0005	2.18	<0.001	1.43	<0.00001	<2	<0.00005	0.00225	<0.0005	<0.001
9-May-12	1295																			
16-May-12	1302																			
23-May-12	1309																			
30-May-12	1316	<0.0005	<0.0001	0.0043	<0.03	<0.00005	6.86	<0.00005	<0.00001	0.0332	<0.0005	1.87	<0.001	1.12	<0.00001	<2	<0.00005	0.00228	<0.0005	0.0014
6-Jun-12	1323																			
13-Jun-12	1330																			
20-Jun-12	1337																			
27-Jun-12	1344	<0.0005	<0.0001	0.00027	<0.03	<0.00005	6.99	0.000053	<0.00001	0.0341	<0.0005	2.09	<0.001	1.31	<0.00001	<2	<0.00005	0.00238	<0.0005	<0.001
4-Jul-12	1351																			
11-Jul-12	1358																			
18-Jul-12	1365																			
25-Jul-12	1372	<0.0005	<0.0001	0.00083	<0.03	<0.00005	7.12	0.000078	<0.00001	0.0354	<0.0005	2.06	<0.001	1.2	<0.00001	<2	<0.00005	0.00264	<0.0005	<0.001
1-Aug-12	1379																			
8-Aug-12	1386																			
15-Aug-12	1393																			
22-Aug-12	1400	<0.0005	<0.0001	0.00026	<0.03	<0.00005	6.63	<0.00005	<0.00001	0.0287	0.00069	1.78	<0.001	1.09	<0.00001	<2	<0.00005	0.00217	<0.0005	<0.001
29-Aug-12	1407																			
5-Sep-12	1414																			
12-Sep-12	1421																			
19-Sep-12	1428	0.00067	<0.0001	0.00172	<0.03	0.000181	6.52	0.000203	<0.00001	0.0322	<0.0005	1.83	<0.001	1.17	<0.00001	<2	<0.00005	0.00226	<0.0005	0.0016
26-Sep-12	1435																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
3-Oct-12	1442	500	460	7.79	372	144																	
10-Oct-12	1449	500	460																				
17-Oct-12	1456	500	455	7.79	396	139	<1	5	81	69	68.4	<0.5	0.046	4.76	0.0058	0.000103	<0.0001	0.00394	<0.0002	<0.0005	<0.01	<0.00005	17.6
24-Oct-12	1463	500	450																				
31-Oct-12	1470	500	455	7.78	350	155																	
7-Nov-12	1477	500	475																				
14-Nov-12	1484	500	495	7.94	361	187	<1	8	111	92	91	<0.5	0.043	4.98	0.0039	0.000096	0.00013	0.00477	<0.0002	<0.0005	<0.01	<0.00005	22.1
21-Nov-12	1491	500	445																				
28-Nov-12	1498	500	470	7.81	371	161																	
5-Dec-12	1505	500	415																				
12-Dec-12	1512	500	530	7.92	333	159	<1	4	93	98	79.3	<0.5	0.032	3.97	0.0046	0.000085	<0.0001	0.005	<0.0002	<0.0005	<0.01	<0.00005	19.6
19-Dec-12	1519	500	455																				
26-Dec-12	1526	500	465	7.99	379	171																	

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
22-Oct-08	0	750	475	7.67	427	494	<1	4	43	334	170	7.22	1.99	171	0.0109	0.00125	0.015	0.028	<0.0002	<0.0005	0.026	<0.00005	59.4
29-Oct-08	7	500	440	7.85	428	233																	
5-Nov-08	14	500	510	7.86	417	192	<1	4	59	122	70	<0.5	1.49	32	0.0136	0.00126	0.037	0.0113	<0.0002	<0.0005	0.018	<0.00005	24.2
12-Nov-08	21	500	450	7.84	408	138																	
19-Nov-08	28	500	460	7.96	426	155	<1	2	57	116	69.9	<0.5	1.27	31.4	0.0189	0.00113	0.0269	0.0109	<0.0002	<0.0005	0.01	<0.00005	25.1
26-Nov-08	35	500	455	7.86	374	161																	
3-Dec-08	42	500	455	7.92	355	164	<1	2	57	103	67.2	<0.5	1.08	27.5	0.0128	0.00107	0.0167	0.0103	<0.0002	<0.0005	<0.01	<0.00005	23.8
10-Dec-08	49	500	425	7.83	338	164																	
17-Dec-08	56	500	470	7.75	371	164				98	73.1	<0.5	1.14	25.8	0.0101	0.00106	0.0158	0.0102	<0.0002	<0.0005	<0.01	<0.00005	26.3
24-Dec-08	63	500	520	7.78	342	157																	
31-Dec-08	70	500	435	7.86	328	158	<1		67	101	81.1	<0.5	1.22	30.2	0.0085	0.000938	0.00878	0.0108	<0.0002	<0.0005	<0.01	<0.00005	29.4
7-Jan-09	77	500	475	7.57	281	158																	
14-Jan-09	84	500	445	7.78	369	145	<1	5	60	66.8	64.4	<0.5	1.09	18.2	0.0099543	0.000887	0.0064	0.00873	<0.0002	<0.0005	<0.01	<0.00005	23.1
21-Jan-09	91	500	455	7.71	388	141																	
28-Jan-09	98	500	460	7.67	382	133	<1	6	58	77.3	61	<0.5	1.02	16.5	0.0109	0.00086	0.00523	0.00797	<0.0002	<0.0005	<0.01	<0.00005	22.2
4-Feb-09	105	500	470	7.79	374	156																	
11-Feb-09	112	500	455	7.91	386	134	<1	6	59	79.6	60.3	<0.5	1.08	16.4	0.012	0.000826	0.00345	0.00772	<0.0002	<0.0005	<0.01	<0.00005	22
18-Feb-09	119	500	460	7.89	348	138																	
25-Feb-09	126	500	470	7.88	382	135	<1	5	62	79.8	64	<0.5	1.1	16.8	0.01	0.000796	0.00301	0.00827	<0.0002	<0.0005	<0.01	<0.00005	23.4
4-Mar-09	133	500	460	7.70	276	132																	
11-Mar-09	140	500	460	7.58	339	126	<1	5	58	66	60.7	<0.5	1.05	14	0.0111	0.000842	0.00239	0.008	<0.0002	<0.0005	<0.01	<0.00005	22.5
18-Mar-09	147	500	460	7.75	352	134																	
25-Mar-09	154	500	455	7.58	363	122	<1	5	54	68.3	55.8	<0.5	0.967	11.9	0.0102	0.000774	0.00219	0.00749	<0.0002	<0.0005	<0.01	<0.00005	20.8
1-Apr-09	161	500	460	7.67	361	122																	
8-Apr-09	168	500	470	7.73	368	125	<1	4	57	75	59.8	<0.5	1.08	12.7	0.0126	0.000818	0.00179	0.00803	<0.0002	<0.0005	<0.01	<0.00005	22.2
15-Apr-09	175	500	470	7.80	373	127																	
22-Apr-09	182	500	465	7.82	347	119																	
29-Apr-09	189	500	445																				
6-May-09	196	500	440	7.74	355	124	<1	4	56	74	57.8	<0.5	1.07	13.5	0.0154	0.000753	0.00147	0.00822	<0.0002	<0.0005	0.015	<0.00005	21.3
13-May-09	203	500	480																				
20-May-09	210	500	465	7.73	365	112																	
27-May-09	217	500	455																				
3-Jun-09	224	500	460	7.86	364	132	<1	3	55	76.1	70.6	<0.5	1.18	25	0.0142	0.00101	0.0019	0.0108	<0.0002	<0.0005	<0.01	<0.00005	26.7
10-Jun-09	231	500	480																				
17-Jun-09	238	500	420	7.78	354	114																	
24-Jun-09	245	500	515																				
1-Jul-09	252	500	505	7.80	349	87	<1	3	50	69.5	51.7	<0.5	0.97	12.2	0.0169	0.000953	0.0012	0.00742	<0.0002	<0.0005	0.013	<0.00005	19.7
8-Jul-09	259	500	445																				
15-Jul-09	266	500	470	7.91	346	100																	
22-Jul-09	273	500	475																				
29-Jul-09	280	500	455	7.82	321	110	<1	5	55	72.3	54.7	<0.5	1.04	10.1	0.0161	0.00092	0.00124	0.00746	<0.0002	<0.0005	<0.01	<0.00005	20.8
5-Aug-09	287	500	495																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Oct-12	1442																			
10-Oct-12	1449																			
17-Oct-12	1456	<0.0005	<0.0001	0.00048	<0.03	<0.00005	5.92	0.000207	<0.00001	0.0342	<0.0005	1.68	<0.001	1.18	<0.00001	<2	<0.00005	0.00218	<0.0005	<0.001
24-Oct-12	1463																			
31-Oct-12	1470																			
7-Nov-12	1477																			
14-Nov-12	1484	<0.0005	<0.0001	0.0019	<0.03	<0.00005	8.69	0.000417	<0.00001	0.033	<0.0005	2.17	<0.001	1.34	<0.00001	<2	<0.00005	0.00287	<0.0005	<0.001
21-Nov-12	1491																			
28-Nov-12	1498																			
5-Dec-12	1505																			
12-Dec-12	1512	<0.0005	<0.0001	0.00018	<0.03	<0.00005	7.36	0.000064	<0.00001	0.0277	<0.0005	1.82	<0.001	1.15	<0.00001	<2	<0.00005	0.00224	<0.0005	<0.001
19-Dec-12	1519																			
26-Dec-12	1526																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Oct-08	0	0.00092	0.00031	0.00573	<0.03	0.000057	5.22	0.141	<0.00001	0.0988	0.00132	23.2	0.0101	2.81	<0.00001	18	0.000068	0.00864	<0.0005	0.0114
29-Oct-08	7																			
5-Nov-08	14	<0.0005	0.00017	0.00484	<0.03	<0.00005	2.29	0.074	<0.00001	0.0525	0.00063	13.5	0.0024	4.24	<0.00001	2.6	<0.00005	0.0129	<0.0005	0.0052
12-Nov-08	21																			
19-Nov-08	28	<0.0005	0.0002	0.00337	<0.03	0.000066	1.75	0.0734	<0.00001	0.0319	<0.0005	9.23	0.0016	4.15	<0.00001	<2	<0.00005	0.00546	<0.0005	0.0056
26-Nov-08	35																			
3-Dec-08	42	<0.0005	0.00021	0.00497	<0.03	<0.00005	1.87	0.06	<0.00001	0.0262	<0.0005	8.44	0.0017	4.55	<0.00001	<2	<0.00005	0.00488	<0.0005	0.0061
10-Dec-08	49																			
17-Dec-08	56	<0.0005	0.00024	0.00466	<0.03	<0.00005	1.78	0.0793	<0.00001	0.0258	0.00057	6.97	0.0016	4.46	<0.00001	<2	<0.00005	0.00459	<0.0005	0.0064
24-Dec-08	63																			
31-Dec-08	70	0.00069	0.00025	0.00583	<0.03	<0.00005	1.84	0.0868	<0.00001	0.0285	<0.0005	5.71	0.0016	3.02	<0.00001	<2	<0.00005	0.0042	<0.0005	0.0066
7-Jan-09	77																			
14-Jan-09	84	<0.0005	0.00023	0.00548	<0.03	0.000064	1.61	0.0729	<0.00001	0.0231	<0.0005	5.34	0.0015	3.28	<0.00001	<2	<0.00005	0.00317	<0.0005	0.0057
21-Jan-09	91																			
28-Jan-09	98	<0.0005	0.00018	0.00578	<0.03	<0.00005	1.32	0.0645	<0.00001	0.0214	<0.0005	4.42	0.0015	3.1	<0.00001	<2	<0.00005	0.00531	<0.0005	0.0079
4-Feb-09	105																			
11-Feb-09	112	<0.0005	0.00016	0.00532	<0.03	<0.00005	1.31	0.0555	<0.00001	0.021	<0.0005	3.75	0.0014	3.02	<0.00001	<2	<0.00005	0.00385	<0.0005	0.0047
18-Feb-09	119																			
25-Feb-09	126	<0.0005	0.00017	0.00765	<0.03	<0.00005	1.39	0.07	<0.00001	0.0245	<0.0005	3.46	0.0013	3.31	<0.00001	<2	<0.00005	0.00532	<0.0005	0.0048
4-Mar-09	133																			
11-Mar-09	140	<0.0005	0.00017	0.00849	<0.03	<0.00005	1.11	0.053	<0.00001	0.0226	<0.0005	3.26	0.0015	2.76	<0.00001	<2	<0.00005	0.00498	<0.0005	0.0051
18-Mar-09	147																			
25-Mar-09	154	<0.0005	0.00014	0.00541	<0.03	<0.00005	0.9	0.052	<0.00001	0.0219	<0.0005	3.04	0.0014	3.26	<0.00001	<2	<0.00005	0.00713	<0.0005	0.0039
1-Apr-09	161																			
8-Apr-09	168	<0.0005	0.00015	0.00594	<0.03	<0.00005	1.07	0.0541	<0.00001	0.0234	<0.0005	2.89	0.0016	2.85	<0.00001	<2	<0.00005	0.00614	<0.0005	0.0042
15-Apr-09	175																			
22-Apr-09	182																			
29-Apr-09	189																			
6-May-09	196	<0.0005	0.00013	0.00695	<0.03	<0.00005	1.11	0.0486	<0.00001	0.0276	<0.0005	2.62	0.0018	3.01	<0.00001	<2	<0.00005	0.00493	<0.0005	0.0043
13-May-09	203																			
20-May-09	210																			
27-May-09	217																			
3-Jun-09	224	<0.0005	0.00015	0.0068	<0.03	0.000118	0.979	0.0615	<0.00001	0.0519	<0.0005	2.91	0.0019	3.94	<0.00001	<2	<0.00005	0.00604	<0.0005	0.0043
10-Jun-09	231																			
17-Jun-09	238																			
24-Jun-09	245																			
1-Jul-09	252	<0.0005	<0.0001	0.00531	<0.03	<0.00005	0.585	0.0364	<0.00001	0.0331	<0.0005	2	0.0016	2.79	<0.00001	<2	<0.00005	0.00617	<0.0005	0.0032
8-Jul-09	259																			
15-Jul-09	266																			
22-Jul-09	273																			
29-Jul-09	280	<0.0005	<0.0001	0.00575	<0.03	<0.00005	0.657	0.0428	<0.00001	0.0341	<0.0005	2.09	0.0016	3.1	<0.00001	<2	<0.00005	0.00841	<0.0005	0.0034
5-Aug-09	287																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
12-Aug-09	294	500	470	7.80	279	105																	
19-Aug-09	301	500	505																				
26-Aug-09	308	500	465	7.90	277	94	<1	3	48	56.3	48.1	<0.5	0.948	8.36	0.0208	0.000829	0.00096	0.00673	<0.0002	<0.0005	<0.01	<0.00005	18.3
2-Sep-09	315	500	515																				
9-Sep-09	322	500	475	8.02	307	102																	
16-Sep-09	329	500	450																				
23-Sep-09	336	500	490	7.98	333	106	<1	3	60	60	53.2	<0.5	0.931	9.43	0.0155	0.000779	0.00104	0.00678	<0.0002	<0.0005	<0.01	<0.00005	20.4
30-Sep-09	343	500	485																				
7-Oct-09	350	500	495	7.77	302	104																	
14-Oct-09	357	500	430																				
21-Oct-09	364	500	485	7.78	302	90	<1	3	48	54	46.3	<0.5	0.658	6.75	0.0233	0.000701	0.00086	0.00624	<0.0002	<0.0005	<0.01	<0.00005	17.8
28-Oct-09	371	500	465																				
4-Nov-09	378	500	475	7.74	301	104																	
11-Nov-09	385	500	455																				
18-Nov-09	392	500	430	7.94	293	102	<1	8	52	82	43.5	<0.5	0.59	5.59	0.0186	0.000656	0.00068	0.00571	<0.0002	<0.0005	0.013	<0.00005	16.8
25-Nov-09	399	500	500																				
2-Dec-09	406	500	465	7.77	337	107																	
9-Dec-09	413	500	480																				
16-Dec-09	420	500	495	7.81	317	108	<1	3	53	60	50.9	<0.5	0.547	7.33	0.0167	0.000704	0.00071	0.00653	<0.0002	<0.0005	<0.01	<0.00005	19.6
23-Dec-09	427	500	490																				
30-Dec-09	434	500	480	7.80	386	111																	
6-Jan-10	441	500	490																				
13-Jan-10	448	500	470	7.80	322	110	<1	5	51	67	51.6	<0.5	0.521	8.52	0.0147	0.000725	0.0011	0.00596	<0.0002	<0.0005	<0.01	<0.00005	19.9
20-Jan-10	455	500	505																				
27-Jan-10	462	500	465	7.74	342	92																	
3-Feb-10	469	500	450																				
10-Feb-10	476	500	500	7.65	313	104	<1	4	51	68	51.9	<0.5	0.528	8.76	0.0173	0.000657	0.00076	0.00631	<0.0002	<0.0005	<0.01	<0.00005	20.1
17-Feb-10	483	500	500																				
24-Feb-10	490	500	460	7.71	327	92																	
3-Mar-10	497	500	460																				
10-Mar-10	504	500	450	7.65	383	99	<1	4	49	62	49.6	<0.5	0.428	8.55	0.0185	0.000668	0.00072	0.00623	<0.0002	<0.0005	<0.01	<0.00005	19.3
17-Mar-10	511	500	505																				
24-Mar-10	518	500	500	7.81	344	102																	
31-Mar-10	525	500	495																				
7-Apr-10	532	500	485	7.73	344	104	<1	3	49	54	49.6	<0.5	0.409	7.89	0.0167	0.000674	0.00065	0.00594	<0.0002	<0.0005	<0.01	<0.00005	19.3
14-Apr-10	539	500	515																				
21-Apr-10	546	500	485	7.71	297	95																	
28-Apr-10	553	500	495																				
5-May-10	560	500	490	7.67	333	99	<1	4	49	66	50.2	<0.5	0.35	6.93	0.0195	0.000708	0.00072	0.00645	<0.0002	<0.0005	<0.01	<0.00005	19.5
12-May-10	567	500	515																				
19-May-10	574	500	470	7.82	337	97																	
26-May-10	581	500	490																				
2-Jun-10	588	500	490	7.75	339	94	<1	3	48	54	46.3	<0.5	0.317	6.33	0.0221	0.000684	0.00081	0.00544	<0.0002	<0.0005	<0.01	<0.00005	18
9-Jun-10	595	500	445																				
16-Jun-10	602	500	410	7.80	248	95																	
23-Jun-10	609	500	520																				
30-Jun-10	616	500	485	7.86	393	91	<1	3	50	50	48.2	<0.5	0.263	6.17	0.0221	0.000603	0.00073	0.00532	<0.0002	<0.0005	<0.01	<0.00005	18.8
7-Jul-10	623	500	510																				
14-Jul-10	630	500	485	7.75	333	91																	
21-Jul-10	637	500	490																				
28-Jul-10	644	500	490	7.67	331	89	<1	4	47	51	45.6	<0.5	0.235	5.77	0.0233	0.000571	0.0008	0.00521	<0.0002	<0.0005	<0.01	<0.00005	17.7
4-Aug-10	651	500	515																				
11-Aug-10	658	500	420	7.89	378	100																	
18-Aug-10	665	500	505																				
25-Aug-10	672	500	470	7.70	332	89	<1	4	49	54	45.3	<0.5	0.205	5.45	0.0192	0.000506	0.00083	0.00491	<0.0002	<0.0005	0.013	<0.00005	17.7
1-Sep-10	679	500	500																				
8-Sep-10	686	500	445	7.55	348	87																	
15-Sep-10	693	500	415																				
22-Sep-10	700	500	480	7.76	313	82	<1	3	54	58	49.9	<0.5	0.189	5.28	0.0219	0.00052	0.00067	0.00687	0.0002	<0.0005	0.01	<0.00005	19.4
29-Sep-10	707	500	460																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
12-Aug-09	294																			
19-Aug-09	301																			
26-Aug-09	308	<0.0005	<0.0001	0.00623	<0.03	0.000147	0.59	0.0283	<0.00001	0.0283	<0.0005	1.86	0.0019	3.04	<0.00001	<2	<0.00005	0.00687	<0.0005	0.0026
2-Sep-09	315																			
9-Sep-09	322																			
16-Sep-09	329																			
23-Sep-09	336	<0.0005	<0.0001	0.00446	<0.03	<0.00005	0.535	0.0298	<0.00001	0.0342	<0.0005	1.63	0.0016	3	<0.00001	<2	<0.00005	0.00698	<0.0005	0.0022
30-Sep-09	343																			
7-Oct-09	350																			
14-Oct-09	357																			
21-Oct-09	364	<0.0005	<0.0001	0.00484	<0.03	<0.00005	0.453	0.0241	<0.00001	0.0294	<0.0005	1.41	0.0017	2.41	<0.00001	<2	<0.00005	0.00656	<0.0005	0.0047
28-Oct-09	371																			
4-Nov-09	378																			
11-Nov-09	385																			
18-Nov-09	392	<0.0005	<0.0001	0.00364	<0.03	<0.00005	0.394	0.021	<0.00001	0.0302	<0.0005	1.29	0.0015	2.31	<0.00001	<2	<0.00005	0.00584	<0.0005	0.0018
25-Nov-09	399																			
2-Dec-09	406																			
9-Dec-09	413																			
16-Dec-09	420	<0.0005	<0.0001	0.00414	<0.03	<0.00005	0.461	0.0268	0.000016	0.0564	<0.0005	1.39	0.0017	2.41	<0.00001	<2	<0.00005	0.0072	<0.0005	0.002
23-Dec-09	427																			
30-Dec-09	434																			
6-Jan-10	441																			
13-Jan-10	448	<0.0005	<0.0001	0.00806	<0.03	0.000067	0.431	0.024	<0.00001	0.0641	0.00159	1.27	0.0015	2.59	<0.00001	<2	<0.00005	0.00756	<0.0005	0.0024
20-Jan-10	455																			
27-Jan-10	462																			
3-Feb-10	469																			
10-Feb-10	476	<0.0005	<0.0001	0.00434	<0.03	<0.00005	0.408	0.0148	<0.00001	0.101	<0.0005	1.2	0.0014	2.34	<0.00001	<2	<0.00005	0.00593	<0.0005	0.002
17-Feb-10	483																			
24-Feb-10	490																			
3-Mar-10	497																			
10-Mar-10	504	<0.0005	<0.0001	0.00434	<0.03	<0.00005	0.377	0.00505	<0.00001	0.139	<0.0005	1.19	0.0015	2.06	<0.00001	<2	<0.00005	0.0061	<0.0005	0.0022
17-Mar-10	511																			
24-Mar-10	518																			
31-Mar-10	525																			
7-Apr-10	532	<0.0005	<0.0001	0.00435	<0.03	<0.00005	0.374	0.00327	<0.00001	0.124	<0.0005	1.15	0.0014	2.33	<0.00001	<2	<0.00005	0.00739	<0.0005	0.002
14-Apr-10	539																			
21-Apr-10	546																			
28-Apr-10	553																			
5-May-10	560	<0.0005	<0.0001	0.0037	<0.03	<0.00005	0.354	0.00251	<0.00001	0.13	<0.0005	1.09	0.0019	2.36	<0.00001	<2	<0.00005	0.00843	<0.0005	0.0022
12-May-10	567																			
19-May-10	574																			
26-May-10	581																			
2-Jun-10	588	<0.0005	<0.0001	0.00353	<0.03	<0.00005	0.334	0.00267	<0.00001	0.112	<0.0005	1.05	0.0019	2.18	<0.00001	<2	<0.00005	0.0094	<0.0005	0.0018
9-Jun-10	595																			
16-Jun-10	602																			
23-Jun-10	609																			
30-Jun-10	616	<0.0005	<0.0001	0.00384	<0.03	<0.00005	0.312	0.00234	<0.00001	0.089	<0.0005	1.02	0.0018	2.21	<0.00001	<2	<0.00005	0.00777	<0.0005	0.0017
7-Jul-10	623																			
14-Jul-10	630																			
21-Jul-10	637																			
28-Jul-10	644	<0.0005	<0.0001	0.00331	<0.03	<0.00005	0.329	0.0022	<0.00001	0.0886	<0.0005	1	0.0018	2.08	<0.00001	<2	<0.00005	0.00761	<0.0005	<0.001
4-Aug-10	651																			
11-Aug-10	658																			
18-Aug-10	665																			
25-Aug-10	672	<0.0005	<0.0001	0.00355	<0.03	<0.00005	0.278	0.00152	<0.00001	0.0757	<0.0005	0.88	0.0014	2.06	<0.00001	<2	<0.00005	0.00682	<0.0005	0.0015
1-Sep-10	679																			
8-Sep-10	686																			
15-Sep-10	693																			
22-Sep-10	700	<0.0005	<0.0001	0.00371	<0.03	<0.00005	0.328	0.00134	<0.00001	0.0745	<0.0005	1.02	0.0016	2.23	<0.00001	<2	<0.00005	0.00685	<0.0005	0.0012
29-Sep-10	707																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
6-Oct-10	714	500	510	7.72	300	96																	
13-Oct-10	721	500	490																				
20-Oct-10	728	500	470	7.81	291	95	<1	3	54	70	47.1	<0.5	0.146	5.73	0.0233	0.000497	0.00074	0.00565	<0.0002	<0.0005	0.011	<0.00005	18.3
27-Oct-10	735	500	435																				
3-Nov-10	742	500	440	7.81	352	93																	
10-Nov-10	749	500	435																				
17-Nov-10	756	500	435	7.88	323	122	<1	3	58	55	49.6	<0.5	0.118	5.51	0.0189	0.000466	0.00065	0.00544	<0.0002	<0.0005	<0.01	<0.00005	19.3
24-Nov-10	763	500	445																				
1-Dec-10	770	500	450	7.71	335	99																	
8-Dec-10	777	500	430																				
15-Dec-10	784	500	465	7.61	333	97	<1	5	56	98	50.1	<0.5	0.104	4.36	0.0168	0.000484	0.00053	0.00538	<0.0002	<0.0005	<0.01	<0.00005	19.5
22-Dec-10	791	500	435																				
29-Dec-10	798	500	430	7.70	333	87																	
5-Jan-11	805	500	435																				
12-Jan-11	812	500	400	7.68	329	85	<1	4	55	50	47.8	<0.5	0.047	3.43	0.0161	0.000403	0.00045	0.00646	<0.0002	<0.0005	<0.01	<0.00005	18.7
19-Jan-11	819	500	415																				
26-Jan-11	826	500	435	7.67	292	87																	
2-Feb-11	833	500	400																				
9-Feb-11	840	500	415	7.76	347	79	<1	3	52	38	46.6	<0.5	0.055	3.63	0.0174	0.000365	0.00053	0.00496	<0.0002	<0.0005	<0.01	<0.00005	18.2
16-Feb-11	847	500	445																				
23-Feb-11	854	500	420	7.73	302	102																	
2-Mar-11	861	500	415																				
9-Mar-11	868	500	420	7.69	277	95	<1	3	53	51	45.2	<0.5	0.053	3.29	0.0298	0.000364	0.00047	0.00558	<0.0002	<0.0005	<0.01	<0.00005	17.7
16-Mar-11	875	500	430																				
23-Mar-11	882	500	435	7.81	279	97																	
30-Mar-11	889	500	440																				
6-Apr-11	896	500	420	7.72	242	98	<1	6	57	54	44.2	<0.5	0.046	3.41	0.0168	0.000322	0.00041	0.00448	<0.0002	<0.0005	<0.01	<0.00005	17.3
13-Apr-11	903	500	430																				
20-Apr-11	910	500	430	7.88	248	92																	
27-Apr-11	917	500	435																				
4-May-11	924	500	430	7.71	318	92	<1	5	54	53	44.6	<0.5	0.044	3.45	0.0185	0.000384	0.00047	0.00436	<0.0002	<0.0005	0.015	<0.00007	17.5
11-May-11	931	500	455																				
18-May-11	938	500	440	7.83	324	98																	
25-May-11	945	500	420																				
1-Jun-11	952	500	480	7.85	293	85	<1	5	44	71	41.6	<0.5	0.041	3.79	0.0195	0.00035	0.00047	0.00441	<0.0002	<0.0005	<0.01	<0.00005	16.3
8-Jun-11	959	500	440																				
15-Jun-11	966	500	445	7.93	291	83																	
22-Jun-11	973	500	450																				
29-Jun-11	980	500	460	7.93	305	90	<1	3	54	52	44.8	<0.5	0.036	3.71	0.0192	0.000322	0.00058	0.00437	<0.0002	<0.0005	<0.01	<0.00005	17.5
6-Jul-11	987	500	415																				
13-Jul-11	994	500	455	7.82	284	81																	
20-Jul-11	1001	500	460																				
27-Jul-11	1008	500	445	7.80	264	86	<1	3	45	50	42.3	<0.5	0.036	3.79	0.0216	0.000318	0.00046	0.00408	<0.0002	<0.0005	<0.01	<0.00005	16.6
3-Aug-11	1015	500	440																				
10-Aug-11	1022	500	490	7.80	207	79																	
17-Aug-11	1029	500	450																				
24-Aug-11	1036	500	435	7.77	224	89	<1	5	49	53	44.5	<0.5	0.029	4.07	0.019	0.000297	0.00054	0.00506	<0.0002	<0.0005	<0.01	<0.00005	17.4
31-Aug-11	1043	500	430																				
7-Sep-11	1050	500	405	7.87	225	87																	
14-Sep-11	1057	500	425																				
21-Sep-11	1064	500	425	7.72	293	88	<1	5	48	47	44.9	<0.5	0.031	3.95	0.0197	0.000309	0.00053	0.00447	<0.0002	<0.0005	<0.01	<0.00005	17.6
28-Sep-11	1071	500	410																				
5-Oct-11	1078	500	450	7.71	194	84																	
12-Oct-11	1085	500	430																				
19-Oct-11	1092	500	400	7.70	252	83	<1	3	45	44	42	<0.5	0.024	3.38	0.0186	0.000288	0.0006	0.00429	<0.0002	<0.0005	<0.01	<0.00005	16.4
26-Oct-11	1099	500	485																				
2-Nov-11	1106	500	480	7.69	238	76																	
9-Nov-11	1113	500	495																				
16-Nov-11	1120	500	455	7.66	279	71	<1	3	38	39	35.8	<0.5	0.025	3.37	0.024	0.000266	0.00044	0.00323	<0.0002	<0.0005	<0.01	<0.00005	14
23-Nov-11	1127	500	490																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
6-Oct-10	714																			
13-Oct-10	721																			
20-Oct-10	728	<0.0005	<0.0001	0.00341	<0.03	<0.00005	0.318	0.00115	<0.00001	0.0971	<0.0005	0.934	0.0017	2.16	<0.00001	<2	<0.00005	0.00762	<0.0005	0.0017
27-Oct-10	735																			
3-Nov-10	742																			
10-Nov-10	749																			
17-Nov-10	756	<0.0005	<0.0001	0.00405	<0.03	<0.00005	0.325	0.00105	<0.00001	0.107	<0.0005	0.958	0.0016	2.1	<0.00001	<2	<0.00005	0.00664	<0.0005	0.0028
24-Nov-10	763																			
1-Dec-10	770																			
8-Dec-10	777																			
15-Dec-10	784	<0.0005	<0.0001	0.00696	<0.03	<0.00005	0.317	0.00114	<0.00001	0.0869	<0.0005	0.942	0.0012	2.09	<0.00001	<2	<0.00005	0.0051	<0.0005	0.0029
22-Dec-10	791																			
29-Dec-10	798																			
5-Jan-11	805																			
12-Jan-11	812	<0.0005	<0.0001	0.0035	<0.03	<0.00005	0.288	0.000985	<0.00001	0.0685	<0.0005	0.791	0.0011	1.87	<0.00001	<2	<0.00005	0.00534	<0.0005	0.0025
19-Jan-11	819																			
26-Jan-11	826																			
2-Feb-11	833																			
9-Feb-11	840	<0.0005	<0.0001	0.00342	<0.03	<0.00005	0.285	0.000886	<0.00001	0.0579	<0.0005	0.838	0.0011	1.86	<0.00001	<2	<0.00005	0.00592	<0.0005	0.0017
16-Feb-11	847																			
23-Feb-11	854																			
2-Mar-11	861																			
9-Mar-11	868	<0.0005	<0.0001	0.00504	<0.03	<0.00005	0.264	0.00133	<0.00001	0.0488	<0.0005	0.738	<0.001	1.81	<0.00001	<2	<0.00005	0.00672	<0.0005	0.0029
16-Mar-11	875																			
23-Mar-11	882																			
30-Mar-11	889																			
6-Apr-11	896	<0.0005	<0.0001	0.00313	<0.03	<0.00005	0.246	0.000688	<0.00001	0.0373	<0.0005	0.662	<0.001	1.75	<0.00001	<2	<0.00005	0.00491	<0.0005	0.0016
13-Apr-11	903																			
20-Apr-11	910																			
27-Apr-11	917																			
4-May-11	924	<0.0005	<0.0001	0.00614	<0.03	<0.00005	0.25	0.000537	<0.00001	0.0395	<0.0005	0.746	0.0011	1.74	<0.00001	<2	<0.00005	0.00547	<0.0005	0.0024
11-May-11	931																			
18-May-11	938																			
25-May-11	945																			
1-Jun-11	952	<0.0005	<0.0001	0.00311	<0.03	<0.00005	0.224	0.000668	<0.00001	0.0388	<0.0005	0.683	0.001	1.85	<0.00001	<2	<0.00005	0.00583	<0.0005	0.0018
8-Jun-11	959																			
15-Jun-11	966																			
22-Jun-11	973																			
29-Jun-11	980	<0.0005	<0.0001	0.00296	<0.03	0.000247	0.242	0.000749	<0.00001	0.0399	<0.0005	0.718	0.001	1.72	<0.00001	<2	<0.00005	0.00525	<0.0005	0.0082
6-Jul-11	987																			
13-Jul-11	994																			
20-Jul-11	1001																			
27-Jul-11	1008	<0.0005	<0.0001	0.00287	<0.03	0.000156	0.226	0.00064	<0.00001	0.041	<0.0005	0.719	0.001	1.59	<0.00001	<2	<0.00005	0.00556	<0.0005	0.0023
3-Aug-11	1015																			
10-Aug-11	1022																			
17-Aug-11	1029																			
24-Aug-11	1036	<0.0005	<0.0001	0.00291	<0.03	<0.00005	0.242	0.00067	<0.00001	0.0548	<0.0005	0.689	<0.001	1.79	<0.00001	<2	<0.00005	0.00455	<0.0005	0.0015
31-Aug-11	1043																			
7-Sep-11	1050																			
14-Sep-11	1057																			
21-Sep-11	1064	<0.0005	<0.0001	0.00331	<0.03	<0.00005	0.234	0.000718	<0.00001	0.052	<0.0005	0.666	<0.001	1.83	<0.00001	<2	<0.00005	0.00502	<0.0005	0.0044
28-Sep-11	1071																			
5-Oct-11	1078																			
12-Oct-11	1085																			
19-Oct-11	1092	<0.0005	<0.0001	0.00324	<0.03	<0.00005	0.226	0.000837	<0.00001	0.0387	<0.0005	0.679	<0.001	1.75	<0.00001	<2	<0.00005	0.00573	<0.0005	0.0024
26-Oct-11	1099																			
2-Nov-11	1106																			
9-Nov-11	1113																			
16-Nov-11	1120	<0.0005	<0.0001	0.00197	<0.03	<0.00005	0.185	0.000505	<0.00001	0.0454	<0.0005	0.599	<0.001	1.5	<0.00001	<2	<0.00005	0.00501	<0.0005	0.0015
23-Nov-11	1127																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
30-Nov-11	1134	500	490	7.73	308	70																	
7-Dec-11	1141	500	500																				
14-Dec-11	1148	500	470	7.60	280	65	<1	4	37	40	32.8	<0.5	0.021	3.34	0.0282	0.000265	0.00049	0.00304	<0.0002	<0.0005	<0.01	<0.00005	12.8
21-Dec-11	1155	500	520																				
28-Dec-11	1162	500	490	7.69	291	63																	
4-Jan-12	1169	500	495																				
11-Jan-12	1176	500	495	7.60	256	67	<1	3	39	34	32.4	<0.5	0.021	4.15	0.0294	0.0003	0.00049	0.003	<0.0002	<0.0005	<0.01	<0.00005	12.7
18-Jan-12	1183	500	485																				
25-Jan-12	1190	500	485	7.62	345	66																	
1-Feb-12	1197	500	480																				
8-Feb-12	1204	500	465	7.70	319	67	<1	5	40	35	32.2	<0.5	<0.02	4.39	0.0283	0.000306	0.00048	0.00294	<0.0002	<0.0005	<0.01	<0.00005	12.6
15-Feb-12	1211	500	495																				
22-Feb-12	1218	500	475	7.67	384	62																	
29-Feb-12	1225	500	435																				
7-Mar-12	1232	500	475	7.50	341	65	<1	5	33	29	30.6	<0.5	<0.02	4.42	0.0308	0.000265	0.0005	0.00268	<0.0002	<0.0005	<0.01	<0.00005	12
14-Mar-12	1239	500	475																				
21-Mar-12	1246	500	470	7.58	348	66																	
28-Mar-12	1253	500	475																				
4-Apr-12	1260	500	480	7.47	347	63	<1	4	33	36	30.1	<0.5	0.021	4.58	0.0293	0.000281	0.00052	0.00265	<0.0002	<0.0005	<0.01	<0.00015	11.8
11-Apr-12	1267	500	450																				
18-Apr-12	1274	500	465	7.55	353	63																	
25-Apr-12	1281	500	445																				
2-May-12	1288	500	460	7.69	347	67	<1	7	34	40	32.5	<0.5	<0.02	4.8	0.0228	0.000256	0.00047	0.00304	<0.0002	<0.0005	<0.01	<0.00005	12.7
9-May-12	1295	500	440																				
16-May-12	1302	500	465	7.61	306	62																	
23-May-12	1309	500	465																				
30-May-12	1316	500	440	7.61	316	59	<1	5	30	36	28.7	<0.5	<0.02	4.48	0.0167	0.000284	0.00033	0.00235	<0.0002	<0.0005	<0.01	<0.00005	11.1
6-Jun-12	1323	500	420																				
13-Jun-12	1330	500	440	7.57	379	60																	
20-Jun-12	1337	500	440																				
27-Jun-12	1344	500	450	7.59	370	63	<1	5	32	40	30.5	<0.5	0.022	5.48	0.0206	0.000255	0.00039	0.00273	<0.0002	<0.0005	<0.01	<0.0001	11.9
4-Jul-12	1351	500	445																				
11-Jul-12	1358	500	490	7.47	358	56																	
18-Jul-12	1365	500	485																				
25-Jul-12	1372	500	430	7.34	374	56	<1	4	26	37	26.3	<0.5	0.02	5.61	0.0147	0.000215	0.00039	0.00251	<0.0002	<0.0005	<0.01	<0.0001	10.2
1-Aug-12	1379	500	470																				
8-Aug-12	1386	500	445	7.55	342	52																	
15-Aug-12	1393	500	475																				
22-Aug-12	1400	500	495	7.38	328	50	<1	5	22	31	23	<0.5	0.026	5.98	0.0135	0.000231	0.00039	0.00231	<0.0002	<0.0005	<0.01	<0.0001	8.95
29-Aug-12	1407	500	450																				
5-Sep-12	1414	500	495	7.49	379	43																	
12-Sep-12	1421	500	465																				
19-Sep-12	1428	500	435	7.42	359	45	<1	5	24	33	20.9	<0.5	0.027	5.09	0.0127	0.000216	0.00026	0.00221	<0.0002	<0.0005	<0.01	<0.0001	8.14
26-Sep-12	1435	500	470																				
3-Oct-12	1442	500	470	7.50	363	42																	
10-Oct-12	1449	500	470																				
17-Oct-12	1456	500	435	7.38	399	39	<1	5	17	23	17.6	<0.5	0.035	4.56	0.0121	0.00019	0.00026	0.00206	<0.0002	<0.0005	<0.01	<0.00005	6.85
24-Oct-12	1463	500	470																				
31-Oct-12	1470	500	430	7.28	329	39																	
7-Nov-12	1477	500	495																				
14-Nov-12	1484	500	445	7.88	354	37	<1	7	21	25	17	<0.5	0.041	4.78	0.0072	0.000203	0.00033	0.00189	<0.0002	<0.0005	<0.01	<0.00005	6.56
21-Nov-12	1491	500	480																				
28-Nov-12	1498	500	500	7.65	358	27																	
5-Dec-12	1505	500	430																				
12-Dec-12	1512	500	455	7.48	329	27	<1	4	12	37	12.6	<0.5	0.034	3.98	0.0062	0.000159	0.00017	0.00174	<0.0002	<0.0005	<0.01	<0.00005	4.87
19-Dec-12	1519	500	440																				
26-Dec-12	1526	500	445	7.87	375	31																	

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
30-Nov-11	1134																			
7-Dec-11	1141																			
14-Dec-11	1148	<0.0005	<0.0001	0.00254	<0.03	<0.00005	0.174	0.000313	<0.00001	0.0534	<0.0005	0.603	0.001	1.46	<0.00001	<2	<0.00005	0.00413	<0.0005	0.0015
21-Dec-11	1155																			
28-Dec-11	1162																			
4-Jan-12	1169																			
11-Jan-12	1176	<0.0005	<0.0001	0.00206	<0.03	<0.00005	0.173	0.000613	<0.00001	0.0718	<0.0005	0.569	<0.001	1.46	<0.00001	<2	<0.00005	0.00509	<0.0005	0.0013
18-Jan-12	1183																			
25-Jan-12	1190																			
1-Feb-12	1197																			
8-Feb-12	1204	<0.0005	<0.0001	0.00231	<0.03	0.000621	0.164	0.000349	<0.00001	0.0848	<0.0005	0.579	<0.001	1.46	<0.00001	<2	<0.00005	0.0052	<0.0005	0.0017
15-Feb-12	1211																			
22-Feb-12	1218																			
29-Feb-12	1225																			
7-Mar-12	1232	<0.0005	<0.0001	0.00183	<0.03	<0.00005	0.164	0.000274	<0.00001	0.0929	<0.0005	0.521	0.001	1.47	<0.00001	<2	<0.00005	0.00436	<0.0005	0.0012
14-Mar-12	1239																			
21-Mar-12	1246																			
28-Mar-12	1253																			
4-Apr-12	1260	0.00095	<0.0001	0.00172	<0.03	<0.00005	0.177	0.000379	<0.00001	0.106	<0.0005	0.576	<0.001	1.46	<0.00001	<2	<0.00005	0.00459	<0.0005	0.0013
11-Apr-12	1267																			
18-Apr-12	1274																			
25-Apr-12	1281																			
2-May-12	1288	<0.0005	<0.0001	0.00216	<0.03	<0.00005	0.188	0.000823	<0.00001	0.107	<0.0005	0.545	<0.001	1.59	<0.00001	<2	<0.00005	0.00376	<0.0005	0.0014
9-May-12	1295																			
16-May-12	1302																			
23-May-12	1309																			
30-May-12	1316	<0.0005	<0.0001	0.00055	<0.03	<0.00005	0.238	0.000178	<0.00001	0.0825	<0.0005	0.517	<0.001	1.48	<0.00001	<2	<0.00005	0.00328	<0.0005	0.0012
6-Jun-12	1323																			
13-Jun-12	1330																			
20-Jun-12	1337																			
27-Jun-12	1344	<0.0005	<0.0001	0.00184	<0.03	0.000296	0.195	0.00041	<0.00001	0.102	<0.0005	0.607	<0.001	1.77	<0.00001	<2	<0.00005	0.00369	<0.0005	0.0024
4-Jul-12	1351																			
11-Jul-12	1358																			
18-Jul-12	1365																			
25-Jul-12	1372	<0.0005	<0.0001	0.00187	<0.03	<0.00005	0.178	0.000346	<0.00001	0.13	<0.0005	0.537	<0.001	1.6	<0.00001	<2	<0.00005	0.00388	<0.0005	0.0022
1-Aug-12	1379																			
8-Aug-12	1386																			
15-Aug-12	1393																			
22-Aug-12	1400	<0.0005	<0.0001	0.00176	<0.03	0.000074	0.168	0.000452	<0.00001	0.161	<0.0005	0.5	<0.001	1.67	<0.00001	<2	<0.00005	0.00394	<0.0005	0.0043
29-Aug-12	1407																			
5-Sep-12	1414																			
12-Sep-12	1421																			
19-Sep-12	1428	<0.0005	<0.0001	0.00271	<0.03	0.000157	0.148	0.000598	<0.00001	0.129	<0.0005	0.5	<0.001	1.76	<0.00001	<2	<0.00005	0.00384	<0.0005	0.0048
26-Sep-12	1435																			
3-Oct-12	1442																			
10-Oct-12	1449																			
17-Oct-12	1456	<0.0005	<0.0001	0.00245	<0.03	<0.00005	0.132	0.000449	<0.00001	0.116	<0.0005	0.451	<0.001	1.72	<0.00001	<2	<0.00005	0.00348	<0.0005	0.0043
24-Oct-12	1463																			
31-Oct-12	1470																			
7-Nov-12	1477																			
14-Nov-12	1484	<0.0005	<0.0001	0.00227	<0.03	<0.00005	0.147	0.00112	<0.00001	0.126	<0.0005	0.502	<0.001	1.82	<0.00001	<2	<0.00005	0.00288	<0.0005	0.0072
21-Nov-12	1491																			
28-Nov-12	1498																			
5-Dec-12	1505																			
12-Dec-12	1512	<0.0005	<0.0001	0.00153	<0.03	<0.00005	0.106	0.0013	<0.00001	0.0965	<0.0005	0.402	<0.001	1.62	<0.00001	<2	<0.00005	0.00256	<0.0005	0.008
19-Dec-12	1519																			
26-Dec-12	1526																			

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
22-Oct-08	0	750	395	7.62	433	967	<1	5	45	743	435	9.93	2.18	425	0.0079	0.00165	0.0177	0.0503	<0.0004	<0.001	0.063	<0.0001	157
29-Oct-08	7	500	445	7.44	439	206																	
5-Nov-08	14	500	500	7.39	429	162	<1	3	17	107	60.8	<0.5	0.482	54.8	0.014	0.000436	0.0164	0.00586	<0.0002	<0.0005	0.015	<0.00005	21.9
12-Nov-08	21	500	500	7.42	424	196																	
19-Nov-08	28	500	460	7.56	441	221	<1	3	28	180	102	<0.5	0.688	93.7	0.0137	0.000592	0.0231	0.00897	<0.0002	<0.0005	0.017	<0.00005	37.7
26-Nov-08	35	500	465	7.47	383	204																	
3-Dec-08	42	500	465	7.56	363	227	<1	3	31	149	62.6	<0.5	0.584	78.7	0.019	0.000752	0.0153	0.00755	<0.0002	<0.0005	<0.01	<0.00005	18.8
10-Dec-08	49	500	460	7.62	350	279																	
17-Dec-08	56	500	490	7.65	357	343	<1	4	58	236	168	<0.5	1.02	121	0.0075	0.00108	0.0335	0.0149	<0.0002	<0.0005	0.03	<0.00005	61.8
24-Dec-08	63	500	480	7.72	351	301																	
31-Dec-08	70	500	520	7.73	170	258	<1	4	73	185	144	<0.5	1.23	78.3	0.0283	0.00115	0.0185	0.0121	<0.0002	<0.0005	0.033	<0.00005	52.9
7-Jan-09	77	500	445	7.67	360	206																	
14-Jan-09	84	500	510	7.76	377	176	<1	5	63	106	83.2	<0.5	1.08	31.8	0.0082	0.00109	0.00672	0.00685	<0.0002	<0.0005	0.014	<0.00005	30.4
21-Jan-09	91	500	480	7.69	399	188																	
28-Jan-09	98	500	460	7.57	389	147	<1	6	51	88	67	<0.5	0.839	29.1	0.0205	0.000832	0.00292	0.00539	<0.0002	<0.0005	<0.01	<0.00005	24.7
4-Feb-09	105	500	445	7.69	381	217																	
11-Feb-09	112	500	495	7.81	397	201	<1	7	60	131	97.9	<0.5	1.09	48.1	0.0088	0.00101	0.00395	0.0071	<0.0002	<0.0005	0.012	<0.00005	36.2
18-Feb-09	119	500	475	7.81	350	194																	
25-Feb-09	126	500	450	7.81	405	194	<1	6	58	141	90.6	<0.5	1.05	47.1	0.0095	0.000872	0.00274	0.00683	<0.0002	<0.0005	<0.01	<0.00005	33.3
4-Mar-09	133	500	490	7.65	278	175																	
11-Mar-09	140	500	445	7.52	344	183	<1	6	55	102	87.2	<0.5	1.06	40.7	0.0078	0.000824	0.00245	0.00633	<0.0002	<0.0005	0.015	<0.00005	32.6
18-Mar-09	147	500	455	7.80	315	206																	
25-Mar-09	154	500	460	7.57	337	171	<1	4	62	100	83.4	<0.5	1.12	31.4	0.0066	0.00103	0.00187	0.00739	<0.0002	<0.0005	<0.01	<0.00005	31.3
1-Apr-09	161	500	470	7.63	350	197																	
8-Apr-09	168	500	475	7.82	377	179	<1	3	68	116	89.5	<0.5	1.3	31.5	0.0069	0.00106	0.00157	0.00711	<0.0002	<0.0005	<0.01	<0.00005	33.2
15-Apr-09	175	500	520	7.76	356	166																	
22-Apr-09	182	500	505	7.79	355	155																	
29-Apr-09	189	500	480																				
6-May-09	196	500	485	7.72	359	162	<1	4	57	97	79	<0.5	1.2	28.2	0.0093	0.001	0.00134	0.00644	<0.0002	<0.0005	0.016	<0.00005	29.4
13-May-09	203	500	485																				
20-May-09	210	500	480	7.69	357	169																	
27-May-09	217	500	440																				
3-Jun-09	224	500	485	7.84	371	172	<1	3	58	104	92.1	<0.5	1.33	39.8	0.0114	0.00125	0.00185	0.00786	<0.0002	<0.0005	0.014	0.000052	34.9
10-Jun-09	231	500	475																				
17-Jun-09	238	500	470	7.85	387	148																	
24-Jun-09	245	500	445																				
1-Jul-09	252	500	425	7.79	354	130	<1	3	54	102	73.5	<0.5	1.23	29.3	0.0125	0.00114	0.00159	0.00592	<0.0002	<0.0005	0.016	<0.00005	28
8-Jul-09	259	500	515																				
15-Jul-09	266	500	500	7.90	319	126																	
22-Jul-09	273	500	445																				
29-Jul-09	280	500	470	7.75	341	138	<1	5	61	96.3	67.9	<0.5	1.39	18.3	0.0132	0.00116	0.00148	0.00535	<0.0002	<0.0005	<0.01	<0.00005	25.7
5-Aug-09	287	500	525																				
12-Aug-09	294	500	400	7.82	269	153																	
19-Aug-09	301	500	520																				
26-Aug-09	308	500	500	7.88	287	120	<1	3	57	86.3	59.9	<0.5	1.4	13.9	0.0143	0.00113	0.00137	0.00477	<0.0002	<0.0005	<0.01	<0.00005	22.7
2-Sep-09	315	500	520																				
9-Sep-09	322	500	515	7.96	253	120																	
16-Sep-09	329	500	485																				
23-Sep-09	336	500	480	7.91	345	116	<1	3	60	76	57	<0.5	1.12	12.3	0.0148	0.00111	0.00138	0.00444	<0.0002	<0.0005	<0.01	<0.00005	21.8
30-Sep-09	343	500	505																				
7-Oct-09	350	500	495	7.96	333	125																	
14-Oct-09	357	500	520																				
21-Oct-09	364	500	505	7.77	310	99	<1	3	49	60	50.6	<0.5	0.967	7.9	0.0181	0.001	0.00118	0.00367	<0.0002	<0.0005	<0.01	<0.00005	19.4
28-Oct-09	371	500	495																				
4-Nov-09	378	500	490	7.71	311	112																	
11-Nov-09	385	500	515																				
18-Nov-09	392	500	450	7.87	305	117	<1	8	57	64	49.6	<0.5	0.911	8.04	0.0168	0.00103	0.00123	0.00341	<0.0002	<0.0005	0.018	<0.00005	19

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Oct-08	0	0.0016	0.00136	0.014	<0.03	<0.0001	10.5	0.356	<0.00001	0.176	0.0028	23.9	0.0094	5.35	<0.00002	18.7	0.0001	0.0094	<0.001	0.0237
29-Oct-08	7																			
5-Nov-08	14	<0.0005	0.00022	0.00463	<0.03	<0.00005	1.46	0.0608	<0.00001	0.0294	0.00055	5.68	0.0015	3.08	<0.00001	<2	<0.00005	0.00339	<0.0005	0.0046
12-Nov-08	21																			
19-Nov-08	28	<0.0005	0.00029	0.00398	<0.03	<0.00005	1.86	0.082	<0.00001	0.0452	<0.0005	7.06	0.0021	3.1	<0.00001	<2	<0.00005	0.00494	<0.0005	0.0045
26-Nov-08	35																			
3-Dec-08	42	<0.0005	<0.0001	0.00235	<0.03	<0.00005	3.82	0.0475	<0.00001	0.00864	<0.0005	10.6	0.0019	2.93	<0.00001	6.6	<0.00005	0.00766	<0.0005	0.0014
10-Dec-08	49																			
17-Dec-08	56	<0.0005	0.00108	0.0088	<0.03	<0.00005	3.38	0.22	<0.00001	0.103	0.00111	9.87	0.0035	6.3	<0.00001	<2	0.000056	0.00494	<0.0005	0.0145
24-Dec-08	63																			
31-Dec-08	70	<0.0005	0.0011	0.0115	0.036	0.000209	2.86	0.197	<0.00001	0.108	0.0009	7.75	0.0026	6.51	<0.00001	<2	<0.00005	0.00334	<0.0005	0.0175
7-Jan-09	77																			
14-Jan-09	84	<0.0005	0.00054	0.00953	<0.03	<0.00005	1.79	0.107	<0.00001	0.0575	<0.0005	5.99	0.0023	3.59	<0.00001	<2	<0.00005	0.00642	<0.0005	0.008
21-Jan-09	91																			
28-Jan-09	98	<0.0005	0.00033	0.00869	<0.03	<0.00005	1.29	0.08	<0.00001	0.0386	<0.0005	4.62	0.0024	2.87	<0.00001	<2	<0.00005	0.00307	<0.0005	0.0068
4-Feb-09	105																			
11-Feb-09	112	<0.0005	0.00045	0.00771	<0.03	<0.00005	1.81	0.114	<0.00001	0.055	0.00056	4.94	0.0023	3.68	<0.00001	<2	<0.00005	0.00335	<0.0005	0.0055
18-Feb-09	119																			
25-Feb-09	126	<0.0005	0.00046	0.00944	<0.03	<0.00005	1.8	0.126	<0.00001	0.0592	<0.0005	4.36	0.002	3.19	<0.00001	<2	<0.00005	0.00289	<0.0005	0.0063
4-Mar-09	133																			
11-Mar-09	140	<0.0005	0.00043	0.00973	<0.03	<0.00005	1.42	0.0916	<0.00001	0.0564	<0.0005	4.09	0.0021	3.2	<0.00001	<2	<0.00005	0.00282	<0.0005	0.0063
18-Mar-09	147																			
25-Mar-09	154	<0.0005	0.00046	0.0107	<0.03	<0.00005	1.27	0.0874	<0.00001	0.0602	<0.0005	4.37	0.0024	3.91	<0.00001	<2	<0.00005	0.00288	<0.0005	0.0062
1-Apr-09	161																			
8-Apr-09	168	<0.0005	0.00051	0.0122	<0.03	<0.00005	1.58	0.114	<0.00001	0.0615	<0.0005	4.32	0.0023	3.78	<0.00001	<2	<0.00005	0.00339	<0.0005	0.0071
15-Apr-09	175																			
22-Apr-09	182																			
29-Apr-09	189																			
6-May-09	196	<0.0005	0.00034	0.00953	<0.03	<0.00005	1.38	0.077	<0.00001	0.0556	<0.0005	3.55	0.0025	3.24	<0.00001	<2	<0.00005	0.0022	<0.0005	0.0052
13-May-09	203																			
20-May-09	210																			
27-May-09	217																			
3-Jun-09	224	<0.0005	0.00029	0.00955	<0.03	0.000079	1.23	0.0816	<0.00001	0.0885	<0.0005	4.18	0.0032	4.24	<0.00001	<2	<0.00005	0.0034	<0.0005	0.0042
10-Jun-09	231																			
17-Jun-09	238																			
24-Jun-09	245																			
1-Jul-09	252	<0.0005	0.00021	0.00794	<0.03	<0.00005	0.877	0.05	<0.00001	0.0885	<0.0005	3.2	0.0029	4.01	<0.00001	<2	<0.00005	0.00196	<0.0005	0.0032
8-Jul-09	259																			
15-Jul-09	266																			
22-Jul-09	273																			
29-Jul-09	280	<0.0005	0.0002	0.00868	<0.03	<0.00005	0.878	0.0524	<0.00001	0.078	<0.0005	3.07	0.0028	4.06	<0.00001	<2	<0.00005	0.00869	<0.0005	0.0041
5-Aug-09	287																			
12-Aug-09	294																			
19-Aug-09	301																			
26-Aug-09	308	<0.0005	0.00015	0.00828	<0.03	<0.00005	0.78	0.0383	<0.00001	0.0654	<0.0005	2.67	0.0029	3.68	<0.00001	<2	<0.00005	0.00766	<0.0005	0.0029
2-Sep-09	315																			
9-Sep-09	322																			
16-Sep-09	329																			
23-Sep-09	336	<0.0005	0.00013	0.0103	<0.03	<0.00005	0.636	0.0331	<0.00001	0.065	<0.0005	2.26	0.0029	3.5	<0.00001	<2	<0.00005	0.00601	<0.0005	0.0033
30-Sep-09	343																			
7-Oct-09	350																			
14-Oct-09	357																			
21-Oct-09	364	<0.0005	0.0001	0.00577	<0.03	<0.00005	0.53	0.0245	<0.00001	0.0508	<0.0005	1.89	0.0028	2.88	<0.00001	<2	<0.00005	0.00719	<0.0005	0.0025
28-Oct-09	371																			
4-Nov-09	378																			
11-Nov-09	385																			
18-Nov-09	392	<0.0005	<0.0001	0.00525	<0.03	<0.00005	0.519	0.0167	<0.00001	0.0594	<0.0005	1.78	0.0026	2.89	<0.00001	<2	<0.00005	0.00524	<0.0005	0.0024

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
25-Nov-09	399	500	475																				
2-Dec-09	406	500	485	7.74	349	117																	
9-Dec-09	413	500	445																				
16-Dec-09	420	500	475	7.84	330	124	<1	3	62	74	61.7	<0.5	1.01	7.63	0.0135	0.00114	0.00128	0.00495	<0.0002	<0.0005	<0.01	<0.00005	23.7
23-Dec-09	427	500	470																				
30-Dec-09	434	500	450	7.77	397	116																	
6-Jan-10	441	500	450																				
13-Jan-10	448	500	505	7.62	354	118	<1	6	57	78	59.1	<0.5	0.874	7.98	0.0136	0.00108	0.00119	0.00529	<0.0002	<0.0005	<0.01	<0.00005	22.8
20-Jan-10	455	500	450																				
27-Jan-10	462	500	440	7.74	353	100																	
3-Feb-10	469	500	460																				
10-Feb-10	476	500	455	7.62	322	108	<1	3	53	69	52.9	<0.5	0.846	7.78	0.0154	0.000952	0.00112	0.00334	<0.0002	<0.0005	<0.01	<0.00005	20.4
17-Feb-10	483	500	445																				
24-Feb-10	490	500	420	7.76	330	108																	
3-Mar-10	497	500	415																				
10-Mar-10	504	500	425	7.63	355	109	<1	4	56	62	56	<0.5	0.872	7.67	0.0166	0.00107	0.00117	0.00363	<0.0002	<0.0005	<0.01	<0.00005	21.6
17-Mar-10	511	500	460																				
24-Mar-10	518	500	480	7.49	312	116																	
31-Mar-10	525	500	505																				
7-Apr-10	532	500	430	7.82	354	111	<1	3	56	70	53.8	<0.5	0.814	7.66	0.0164	0.000955	0.001	0.00367	<0.0002	<0.0005	0.012	<0.00005	20.8
14-Apr-10	539	500	495																				
21-Apr-10	546	500	415	7.47	371	120																	
28-Apr-10	553	500	505																				
5-May-10	560	500	465	7.74	347	111	<1	3	57	78	61.3	<0.5	0.763	9.09	0.0211	0.00102	0.00116	0.00388	<0.0002	<0.0005	<0.01	<0.00005	23.8
12-May-10	567	500	410																				
19-May-10	574	500	480	7.61	366	115																	
26-May-10	581	500	460																				
2-Jun-10	588	500	470	7.72	398	115	<1	3	60	63	55.1	<0.5	0.678	7.97	0.0179	0.00108	0.00127	0.00334	<0.0002	<0.0005	<0.01	<0.00005	21.3
9-Jun-10	595	500	440																				
16-Jun-10	602	500	485	7.81	304	111																	
23-Jun-10	609	500	435																				
30-Jun-10	616	500	435	7.87	396	112	<1	3	56	71	58.3	<0.5	0.592	10.4	0.0143	0.00089	0.00118	0.0036	<0.0002	<0.0005	<0.01	<0.00005	22.6
7-Jul-10	623	500	435																				
14-Jul-10	630	500	440	7.79	341	116																	
21-Jul-10	637	500	455																				
28-Jul-10	644	500	420	7.70	338	111	<1	3	55	68	57.4	<0.5	0.582	9.26	0.0149	0.000933	0.00122	0.00322	<0.0002	<0.0005	0.018	<0.00005	22.2
4-Aug-10	651	500	455																				
11-Aug-10	658	500	445	7.83	382	107																	
18-Aug-10	665	500	440																				
25-Aug-10	672	500	435	7.68	340	108	<1	4	56	68	54.5	<0.5	0.495	9.75	0.0135	0.000816	0.00118	0.00293	<0.0002	<0.0005	0.012	<0.00005	21.2
1-Sep-10	679	500	420																				
8-Sep-10	686	500	510	7.59	360	120																	
15-Sep-10	693	500	505																				
22-Sep-10	700	500	450	7.75	322	93	<1	3	57	67	55.9	<0.5	0.388	8.71	0.0189	0.000887	0.00111	0.00472	<0.0002	<0.0005	<0.01	<0.00005	21.7
29-Sep-10	707	500	490																				
6-Oct-10	714	500	455	7.73	315	123																	
13-Oct-10	721	500	505																				
20-Oct-10	728	500	440	7.81	304	117	<1	3	60	83	57.3	<0.5	0.326	9.97	0.0172	0.000885	0.00112	0.00313	<0.0002	<0.0005	<0.01	<0.00005	22.3
27-Oct-10	735	500	505																				
3-Nov-10	742	500	495	7.87	369	119																	
10-Nov-10	749	500	515																				
17-Nov-10	756	500	445	7.85	328	161	<1	4	56	68	53.4	<0.5	0.24	9.67	0.0166	0.000833	0.00111	0.00285	<0.0002	<0.0005	<0.01	<0.00005	20.8
24-Nov-10	763	500	485																				
1-Dec-10	770	500	490	7.67	347	105																	
8-Dec-10	777	500	480																				
15-Dec-10	784	500	495	7.56	342	105	<1	5	51	56	52.8	<0.5	0.193	10	0.0167	0.000789	0.00106	0.00293	<0.0002	<0.0005	<0.01	<0.00005	20.6
22-Dec-10	791	500	465																				
29-Dec-10	798	500	440	7.66	338	91																	
5-Jan-11	805	500	445																				
12-Jan-11	812	500	475	7.61	340	91	<1	4	53	58	49.9	<0.5	0.098	8.02	0.0132	0.000608	0.00087	0.00232	<0.0002	<0.0005	<0.01	<0.00005	19.4

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
25-Nov-09	399																			
2-Dec-09	406																			
9-Dec-09	413																			
16-Dec-09	420	<0.0005	<0.0001	0.0062	<0.03	<0.00005	0.606	0.00974	<0.00001	0.0858	<0.0005	2.09	0.0029	3.5	<0.00001	<2	<0.00005	0.00688	<0.0005	0.0019
23-Dec-09	427																			
30-Dec-09	434																			
6-Jan-10	441																			
13-Jan-10	448	<0.0005	<0.0001	0.0117	<0.03	<0.00005	0.516	0.0046	<0.00001	0.07	<0.0005	1.79	0.0028	3.27	<0.00001	<2	<0.00005	0.00728	<0.0005	0.0034
20-Jan-10	455																			
27-Jan-10	462																			
3-Feb-10	469																			
10-Feb-10	476	<0.0005	<0.0001	0.00542	<0.03	<0.00005	0.486	0.00351	<0.00001	0.0594	<0.0005	1.61	0.0026	2.79	<0.00001	<2	<0.00005	0.00593	<0.0005	0.0018
17-Feb-10	483																			
24-Feb-10	490																			
3-Mar-10	497																			
10-Mar-10	504	<0.0005	<0.0001	0.0062	<0.03	<0.00005	0.505	0.00474	<0.00001	0.061	<0.0005	1.67	0.0026	2.92	<0.00001	<2	<0.00005	0.0102	<0.0005	0.0021
17-Mar-10	511																			
24-Mar-10	518																			
31-Mar-10	525																			
7-Apr-10	532	0.00068	<0.0001	0.00585	<0.03	0.000092	0.469	0.00263	<0.00001	0.0539	<0.0005	1.6	0.0025	2.87	<0.00001	<2	<0.00005	0.0128	<0.0005	0.0023
14-Apr-10	539																			
21-Apr-10	546																			
28-Apr-10	553																			
5-May-10	560	<0.0005	<0.0001	0.00567	<0.03	0.000062	0.481	0.00175	<0.00001	0.0663	<0.0005	1.64	0.003	3.13	<0.00001	<2	<0.00005	0.0174	<0.0005	0.0035
12-May-10	567																			
19-May-10	574																			
26-May-10	581																			
2-Jun-10	588	<0.0005	<0.0001	0.00582	<0.03	<0.00005	0.461	0.00178	<0.00001	0.0658	<0.0005	1.64	0.0026	2.74	<0.00001	<2	<0.00005	0.00806	<0.0005	0.0017
9-Jun-10	595																			
16-Jun-10	602																			
23-Jun-10	609																			
30-Jun-10	616	<0.0005	<0.0001	0.00478	<0.03	<0.00005	0.448	0.00143	<0.00001	0.0721	<0.0005	1.48	0.0024	2.84	<0.00001	<2	<0.00005	0.00793	<0.0005	0.0019
7-Jul-10	623																			
14-Jul-10	630																			
21-Jul-10	637																			
28-Jul-10	644	<0.0005	<0.0001	0.0048	<0.03	0.000181	0.466	0.00112	<0.00001	0.0576	<0.0005	1.58	0.0023	2.77	<0.00001	<2	<0.00005	0.00686	<0.0005	<0.001
4-Aug-10	651																			
11-Aug-10	658																			
18-Aug-10	665																			
25-Aug-10	672	<0.0005	<0.0001	0.0041	<0.03	<0.00005	0.381	0.00113	<0.00001	0.0486	<0.0005	1.33	0.0022	2.67	<0.00001	<2	<0.00005	0.0065	<0.0005	0.0022
1-Sep-10	679																			
8-Sep-10	686																			
15-Sep-10	693																			
22-Sep-10	700	0.00058	<0.0001	0.00582	<0.03	<0.00005	0.407	0.00119	<0.00001	0.0519	<0.0005	1.47	0.0027	2.81	<0.00001	<2	<0.00005	0.00796	<0.0005	0.0015
29-Sep-10	707																			
6-Oct-10	714																			
13-Oct-10	721																			
20-Oct-10	728	0.00061	<0.0001	0.00457	<0.03	0.000066	0.424	0.00128	<0.00001	0.0984	0.0005	1.44	0.0024	2.85	<0.00001	<2	<0.00005	0.00634	<0.0005	0.0064
27-Oct-10	735																			
3-Nov-10	742																			
10-Nov-10	749																			
17-Nov-10	756	0.00063	<0.0001	0.00428	<0.03	<0.00005	0.374	0.000664	<0.00001	0.121	0.00065	1.37	0.0023	2.49	<0.00001	<2	<0.00005	0.00536	<0.0005	0.0017
24-Nov-10	763																			
1-Dec-10	770																			
8-Dec-10	777																			
15-Dec-10	784	0.00053	<0.0001	0.00381	<0.03	0.000069	0.363	0.000658	<0.00001	0.139	<0.0005	1.31	0.0021	2.54	<0.00001	<2	<0.00005	0.00391	<0.0005	0.0017
22-Dec-10	791																			
29-Dec-10	798																			
5-Jan-11	805																			
12-Jan-11	812	0.00054	<0.0001	0.00356	<0.03	<0.00005	0.333	0.000412	<0.00001	0.138	<0.0005	1.06	0.0017	2.23	<0.00001	<2	<0.00005	0.0038	<0.0005	0.0019

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
19-Jan-11	819	500	475																				
26-Jan-11	826	500	440	7.62	300	94																	
2-Feb-11	833	500	450																				
9-Feb-11	840	500	425	7.70	353	87	<1	3	49	58	50.3	<0.5	0.093	8.06	0.014	0.000624	0.00095	0.00255	<0.0002	<0.0005	<0.01	<0.00005	19.6
16-Feb-11	847	500	470																				
23-Feb-11	854	500	445	7.68	312	115																	
2-Mar-11	861	500	480																				
9-Mar-11	868	500	470	7.67	287	108	<1	3	53	62	50.6	<0.5	0.081	7.46	0.0143	0.000548	0.00085	0.00299	<0.0002	<0.0005	<0.01	<0.00005	19.7
16-Mar-11	875	500	435																				
23-Mar-11	882	500	405	7.74	289	110																	
30-Mar-11	889	500	410																				
6-Apr-11	896	500	435	7.65	253	125	<1	6	63	69	57	<0.5	0.066	9.66	0.0131	0.000648	0.00082	0.00272	<0.0002	<0.0005	<0.01	<0.00005	22.3
13-Apr-11	903	500	520																				
20-Apr-11	910	500	425	7.73	279	113																	
27-Apr-11	917	500	500																				
4-May-11	924	500	520	7.66	323	101	<1	5	52	60	49.2	<0.5	0.058	7.71	0.0148	0.000684	0.00098	0.00264	<0.0002	<0.0005	<0.01	<0.0001	19.2
11-May-11	931	500	495																				
18-May-11	938	500	485	7.73	321	106																	
25-May-11	945	500	430																				
1-Jun-11	952	500	425	7.77	303	121	<1	6	52	86	57.5	<0.5	0.048	14.2	0.0135	0.000642	0.00106	0.00283	<0.0002	<0.0005	<0.01	<0.00005	22.4
8-Jun-11	959	500	485																				
15-Jun-11	966	500	390	7.85	301	105																	
22-Jun-11	973	500	480																				
29-Jun-11	980	500	465	7.86	307	94	<1	3	46	55	45	<0.5	0.04	9.9	0.0165	0.000581	0.00087	0.00229	<0.0002	<0.0005	<0.01	<0.00005	17.6
6-Jul-11	987	500	430																				
13-Jul-11	994	500	480	7.72	293	95																	
20-Jul-11	1001	500	475																				
27-Jul-11	1008	500	465	7.70	275	86	<1	3	40	49	41.3	<0.5	0.032	9.06	0.0167	0.000578	0.00083	0.00197	<0.0002	<0.0005	<0.01	<0.00005	16.1
3-Aug-11	1015	500	445																				
10-Aug-11	1022	500	455	7.48	139	102																	
17-Aug-11	1029	500	510																				
24-Aug-11	1036	500	455	7.81	142	91	<1	4	42	55	39.3	<0.5	0.03	10.6	0.016	0.00061	0.00091	0.00219	<0.0002	<0.0005	<0.01	<0.00007	15.3
31-Aug-11	1043	500	510																				
7-Sep-11	1050	500	480	7.71		89																	
14-Sep-11	1057	500	480																				
21-Sep-11	1064	500	485	7.47	318	75	<1	4	31	42	35	<0.5	0.03	11.2	0.0127	0.000591	0.00065	0.00195	<0.0002	<0.0005	<0.01	<0.00005	13.7
28-Sep-11	1071	500	460																				
5-Oct-11	1078	500	465	7.49	239	76																	
12-Oct-11	1085	500	430																				
19-Oct-11	1092	500	460	7.36	234	62	<1	4	25	38	29.4	<0.5	0.027	9.91	0.0148	0.000529	0.00065	0.00191	<0.0002	<0.0005	<0.01	<0.00005	11.4
26-Oct-11	1099	500	465																				
2-Nov-11	1106	500	455	7.48	334	71																	
9-Nov-11	1113	500	470																				
16-Nov-11	1120	500	450	7.41	247	57	<1	3	22	35	26.9	<0.5	0.035	10.2	0.013	0.000491	0.00048	0.00193	<0.0002	<0.0005	<0.01	<0.00005	10.4
23-Nov-11	1127	500	460																				
30-Nov-11	1134	500	480	7.37	335	58																	
7-Dec-11	1141	500	470																				
14-Dec-11	1148	500	470	7.35	362	55	<1	6	21	37	25.2	<0.5	0.037	2.97	0.0222	0.000481	0.00052	0.00176	<0.0002	<0.0005	<0.01	<0.00005	9.73
21-Dec-11	1155	500	510																				
28-Dec-11	1162	500	410	7.21	273	58																	
4-Jan-12	1169	500	515																				
11-Jan-12	1176	500	470	7.46	329	50	<1	4	20	32	21.9	<0.5	0.043	10.5	0.0369	0.000458	0.00048	0.00157	<0.0002	<0.0005	<0.01	<0.00005	8.42
18-Jan-12	1183	500	480																				
25-Jan-12	1190	500	440	7.26	364	45																	
1-Feb-12	1197	500	505																				
8-Feb-12	1204	500	460	7.23	386	37	<1	3	11	36	17.8	<0.5	0.051	8.44	0.0176	0.000452	0.0004	0.00146	<0.0002	<0.0005	<0.01	<0.00005	6.86
15-Feb-12	1211	500	350																				
22-Feb-12	1218	500	460	7.40	346	51																	
29-Feb-12	1225	500	470																				
7-Mar-12	1232	500	480	7.44	364	45	<1	6	13	30	19.4	<0.5	0.059	11.6	0.016	0.000358	0.00039	0.00168	<0.0002	<0.0005	<0.01	<0.00005	7.45

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
19-Jan-11	819																			
26-Jan-11	826																			
2-Feb-11	833																			
9-Feb-11	840	<0.0005	<0.0001	0.00363	<0.03	0.000062	0.343	0.000556	<0.00001	0.134	<0.0005	1.14	0.0018	2.32	<0.00001	<2	<0.00005	0.00445	<0.0005	0.0022
16-Feb-11	847																			
23-Feb-11	854																			
2-Mar-11	861																			
9-Mar-11	868	<0.0005	<0.0001	0.00553	<0.03	<0.00005	0.342	0.00174	<0.00001	0.111	<0.0005	1.07	0.0028	2.24	<0.00001	<2	<0.00005	0.00602	<0.0005	0.0019
16-Mar-11	875																			
23-Mar-11	882																			
30-Mar-11	889																			
6-Apr-11	896	<0.0005	<0.0001	0.00394	<0.03	<0.00005	0.346	0.00135	<0.00001	0.132	<0.0005	1.1	0.0017	2.77	<0.00001	<2	<0.00005	0.00771	<0.0005	0.0016
13-Apr-11	903																			
20-Apr-11	910																			
27-Apr-11	917																			
4-May-11	924	<0.0005	<0.0001	0.00335	<0.03	<0.00005	0.299	0.000467	<0.00001	0.113	<0.0005	0.998	0.002	2.02	<0.00001	<2	<0.00005	0.00622	<0.0005	0.0017
11-May-11	931																			
18-May-11	938																			
25-May-11	945																			
1-Jun-11	952	0.00072	<0.0001	0.00457	<0.03	<0.00005	0.354	0.000792	<0.00001	0.141	<0.0005	1.1	0.0019	3.06	<0.00001	<2	<0.00005		<0.0005	0.0021
8-Jun-11	959																			
15-Jun-11	966																			
22-Jun-11	973																			
29-Jun-11	980	<0.0005	<0.0001	0.00425	<0.03	<0.00005	0.274	0.00097	<0.00001	0.123	<0.0005	0.954	0.0017	2.17	<0.00001	<2	<0.00005	0.00612	<0.0005	0.002
6-Jul-11	987																			
13-Jul-11	994																			
20-Jul-11	1001																			
27-Jul-11	1008	<0.0005	<0.0001	0.0031	<0.03	0.000084	0.26	0.000338	<0.00001	0.108	<0.0005	0.96	0.0016	1.93	<0.00001	<2	<0.00005	0.00384	<0.0005	0.002
3-Aug-11	1015																			
10-Aug-11	1022																			
17-Aug-11	1029																			
24-Aug-11	1036	<0.0005	<0.0001	0.00313	<0.03	0.000073	0.248	0.000377	<0.00001	0.107	<0.0005	0.86	0.0015	2.24	0.000011	<2	<0.00005	0.00562	<0.0005	0.0022
31-Aug-11	1043																			
7-Sep-11	1050																			
14-Sep-11	1057																			
21-Sep-11	1064	<0.0005	<0.0001	0.00299	<0.03	<0.00005	0.221	0.000241	<0.00001	0.12	<0.0005	0.791	0.0014	2.31	<0.00001	<2	<0.00005	0.00646	<0.0005	0.0021
28-Sep-11	1071																			
5-Oct-11	1078																			
12-Oct-11	1085																			
19-Oct-11	1092	<0.0005	<0.0001	0.00299	<0.03	<0.00005	0.213	0.000277	<0.00001	0.0981	<0.0005	0.79	0.0013	2.24	<0.00001	<2	<0.00005	0.0045	<0.0005	
26-Oct-11	1099																			
2-Nov-11	1106																			
9-Nov-11	1113																			
16-Nov-11	1120	<0.0005	<0.0001	0.00326	<0.03	<0.00005	0.218	0.000256	<0.00001	0.0936	<0.0005	0.761	<0.001	2.26	<0.00001	<2	<0.00005	0.00598	<0.0005	0.0042
23-Nov-11	1127																			
30-Nov-11	1134																			
7-Dec-11	1141																			
14-Dec-11	1148	<0.0005	<0.0001	0.00377	<0.03	<0.00005	0.224	0.000585	<0.00001	0.0815	<0.0005	0.793	<0.001	2.83	0.000011	<2	<0.00005	0.00741	<0.0005	0.0053
21-Dec-11	1155																			
28-Dec-11	1162																			
4-Jan-12	1169																			
11-Jan-12	1176	<0.0005	<0.0001	0.00407	<0.03	<0.00005	0.215	0.0004	<0.00001	0.0773	<0.0005	0.744	<0.001	2.8	0.00001	<2	<0.00005	0.00897	<0.0005	0.0071
18-Jan-12	1183																			
25-Jan-12	1190																			
1-Feb-12	1197																			
8-Feb-12	1204	<0.0005	<0.0001	0.00433	<0.03	<0.00005	0.173	0.000606	<0.00001	0.0687	<0.0005	0.726	<0.001	2.8	0.000014	<2	<0.00005	0.00663	<0.0005	0.0091
15-Feb-12	1211																			
22-Feb-12	1218																			
29-Feb-12	1225																			
7-Mar-12	1232	<0.0005	<0.0001	0.00451	<0.03	<0.00005	0.201	0.00129	<0.00001	0.0534	<0.0005	0.7	<0.001	3.01	0.000016	<2	<0.00005	0.00386	<0.0005	0.0165

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
14-Mar-12	1239	500	430																				
21-Mar-12	1246	500	485	7.56	359	42																	
28-Mar-12	1253	500	440																				
4-Apr-12	1260	500	490	7.21	395	40	<1	4	10	28	17	<0.5	0.068	9.31	0.0086	0.000345	0.00034	0.0013	<0.0002	<0.0005	<0.01	0.000099	6.48
11-Apr-12	1267	500	450																				
18-Apr-12	1274	500	465	7.24	386	43																	
25-Apr-12	1281	500	440																				
2-May-12	1288	500	495	7.61	396	42	<1	9	12	29	16.7	<0.5	0.08	10.5	0.0043	0.0003	0.00033	0.00149	<0.0002	<0.0005	<0.01	<0.00005	6.39
9-May-12	1295	500	440																				
16-May-12	1302	500	495	7.14	336	38																	
23-May-12	1309	500	400																				
30-May-12	1316	500	460	7.22	351	39	<1	6	9	31	16	<0.5	0.086	10.3	0.0191	0.000286	0.00032	0.00142	<0.0002	<0.0005	<0.01	<0.00005	6.11
6-Jun-12	1323	500	470																				
13-Jun-12	1330	500	440	7.13	385	39																	
20-Jun-12	1337	500	485																				
27-Jun-12	1344	500	410	7.29	372	41	<1	6	9	33	16.2	<0.5	0.09965	11.8	0.0079	0.000279	0.00033	0.00139	<0.0002	<0.0005	<0.01	0.000056	6.19
4-Jul-12	1351	500	495																				
11-Jul-12	1358	500	460	7.22	396	34																	
18-Jul-12	1365	500	510																				
25-Jul-12	1372	500	455	7.49	348	34	<1	7	8	91	12.5	<0.5	0.107	9.3	0.164	0.000246	0.00034	0.00261	<0.0002	<0.0005	<0.01	0.000056	4.76
1-Aug-12	1379	500	475																				
8-Aug-12	1386	500	440	7.18	370	41																	
15-Aug-12	1393	500	470																				
22-Aug-12	1400	500	345	7.34	355	42	<1	6	7	31	16.7	<0.5	0.119	13.1	0.0022	0.000241	0.00038	0.00182	<0.0002	<0.0005	<0.01	0.000051	6.38
29-Aug-12	1407	500	440																				
5-Sep-12	1414	500	450	7.21	429	37																	
12-Sep-12	1421	500	485																				
19-Sep-12	1428	500	485	7.11	412	34	<1	6	6	323	10.1	<0.5	0.108	8.03	0.0356	0.000246	0.00045	0.00105	<0.0002	<0.0005	0.019	<0.00005	3.84
26-Sep-12	1435	500	480																				
3-Oct-12	1442	500	490	7.49	392	31																	
10-Oct-12	1449	500	440																				
17-Oct-12	1456	500	460	7.21	398	33	<1	5	6	24	12.9	<0.5	0.122	9.37	0.0676	0.000951	0.00313	0.00158	<0.0002	<0.0005	<0.01	0.000061	4.92
24-Oct-12	1463	500	460																				
31-Oct-12	1470	500	460	7.09	417	32																	
7-Nov-12	1477	500	460																				
14-Nov-12	1484	500	495	7.19	395	32	<1	3	5	32	6.56	1.73	0.108	7.74	0.205	0.000168	0.00045	0.00147	<0.0002	<0.0005	<0.01	<0.00005	2.46
21-Nov-12	1491	500	500																				
28-Nov-12	1498	500	505	7.01	399	24																	
5-Dec-12	1505	500	435																				
12-Dec-12	1512	500	520	6.94	329	24	<1	3	4	32	9.47	<0.5	0.113	7.02	0.0021	0.000224	0.00025	0.00151	<0.0002	<0.0005	<0.01	<0.00005	3.61
19-Dec-12	1519	500	400																				
26-Dec-12	1526	500	515	7.56	333	41																	

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Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
22-Oct-08	0	750	440	7.53	417	208	<1	3	28	135	69.2	5.18	1.05	56.6	0.0205	0.00245	0.0111	0.0109	<0.0002	<0.0005	0.018	<0.00005	24
29-Oct-08	7	500	460	7.75	427	139																	
5-Nov-08	14	500	480	7.77	425	127	<1	4	50	78.6	52	<0.5	1.04	11.8	0.119	0.00324	0.027	0.00982	<0.0002	<0.0005	0.011	0.000051	18.1
12-Nov-08	21	500	445	7.78	411	111																	
19-Nov-08	28	500	465	7.85	430	97	<1	2	46	69.3	48	<0.5	0.961	11.6	0.0208	0.00204	0.0167	0.00863	<0.0002	<0.0005	<0.01	<0.00005	17.4
26-Nov-08	35	500	450	7.77	375	106																	
3-Dec-08	42	500	435	7.84	355	119	<1	2	53	76	54.7	<0.5	0.957	11.6	0.0211	0.00223	0.0186	0.0108	<0.0002	<0.0005	<0.01	<0.00005	19.5
10-Dec-08	49	500	460	7.82	338	112																	
17-Dec-08	56	500	510	7.74	370	109				65.5	52.3	<0.5	0.904	9.83	0.0264	0.00183	0.0137	0.00974	<0.0002	<0.0005	<0.01	<0.00005	18.8
24-Dec-08	63	500	460	7.86	338	112																	
31-Dec-08	70	500	460	7.84	331	116	<1		54	69.7	52.7	<0.5	0.94	11.2	0.0213	0.00185	0.0132	0.0107	<0.0002	<0.0005	<0.01	0.000057	19.2
7-Jan-09	77	500	485	7.49	284	113																	
14-Jan-09	84	500	460	7.73	374	105	<1	4	51	42.3	50.9	<0.5	0.824	8.23	0.0149	0.00166	0.00949	0.0108	<0.0002	<0.0005	<0.01	<0.00005	18.6

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
14-Mar-12	1239																			
21-Mar-12	1246																			
28-Mar-12	1253																			
4-Apr-12	1260	<0.0005	<0.0001	0.00396	<0.03	<0.00005	0.187	0.00117	<0.00001	0.0563	<0.0005	0.764	<0.001	3.26	0.000031	<2	<0.00005	0.00529	<0.0005	0.0175
11-Apr-12	1267																			
18-Apr-12	1274																			
25-Apr-12	1281																			
2-May-12	1288	<0.0005	<0.0001	0.00424	<0.03	0.000115	0.18	0.002	<0.00001	0.0511	0.00052	0.745	<0.001	3.42	0.000024	<2	<0.00005	0.00323	<0.0005	0.0266
9-May-12	1295																			
16-May-12	1302																			
23-May-12	1309																			
30-May-12	1316	<0.0005	<0.0001	0.00821	<0.03	<0.00005	0.178	0.00318	<0.00001	0.0422	0.00103	0.717	<0.001	3.54	0.00003	<2	<0.00005	0.00457	<0.0005	0.0346
6-Jun-12	1323																			
13-Jun-12	1330																			
20-Jun-12	1337																			
27-Jun-12	1344	<0.0005	<0.0001	0.00604	<0.03	<0.00005	0.182	0.00455	<0.00001	0.0388	0.0008	0.815	<0.001	3.96	0.000041	<2	<0.00005	0.00459	<0.0005	0.039
4-Jul-12	1351																			
11-Jul-12	1358																			
18-Jul-12	1365																			
25-Jul-12	1372	<0.0005	<0.0001	0.0106	0.047	0.00109	0.154	0.007	<0.00001	0.0326	0.00095	0.719	<0.001	3.59	0.000018	<2	<0.00005	0.00375	0.00068	0.045
1-Aug-12	1379																			
8-Aug-12	1386																			
15-Aug-12	1393																			
22-Aug-12	1400	<0.0005	<0.0001	0.0085	<0.03	<0.00005	0.195	0.00899	<0.00001	0.0336	0.00134	0.826	<0.001	4.51	0.000014	<2	<0.00005	0.00404	<0.0005	0.0544
29-Aug-12	1407																			
5-Sep-12	1414																			
12-Sep-12	1421																			
19-Sep-12	1428	<0.0005	<0.0001	0.00637	<0.03	<0.00005	0.129	0.0109	<0.00001	0.0252	0.00105	0.545	<0.001	3.24	0.000014	<2	<0.00005	0.00255	<0.0005	0.0428
26-Sep-12	1435																			
3-Oct-12	1442																			
10-Oct-12	1449																			
17-Oct-12	1456	<0.0005	<0.0001	0.042	<0.03	<0.00005	0.145	0.0142	<0.00001	0.0224	0.00134	0.648	<0.001	3.84	0.000013	<2	<0.00005	0.00427	<0.0005	0.0639
24-Oct-12	1463																			
31-Oct-12	1470																			
7-Nov-12	1477																			
14-Nov-12	1484	<0.0005	<0.0001	0.0128	0.066	0.000177	0.0982	0.0149	<0.00001	0.0135	0.00104	0.602	<0.001	2.36	<0.00001	<2	<0.00005	<0.0001	0.00082	0.0593
21-Nov-12	1491																			
28-Nov-12	1498																			
5-Dec-12	1505																			
12-Dec-12	1512	<0.0005	<0.0001	0.00625	<0.03	<0.00005	0.112	0.0137	<0.00001	0.0207	0.00124	0.637	<0.001	3.52	0.000015	<2	<0.00005	0.00218	<0.0005	0.0602
19-Dec-12	1519																			
26-Dec-12	1526																			

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Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
22-Oct-08	0	<0.0005	0.00161	0.0185	<0.03	0.000064	2.24	0.0508	<0.00001	0.0665	0.00106	8.26	0.0031	3.42	<0.00001	6.7	<0.00005	0.00509	<0.0005	0.0196
29-Oct-08	7																			
5-Nov-08	14	<0.0005	0.0016	0.01	<0.03	0.000086	1.69	0.0554	<0.00001	0.0428	0.00066	6.14	0.003	5.35	<0.00001	<2	<0.00005	0.00662	0.00059	0.0138
12-Nov-08	21																			
19-Nov-08	28	<0.0005	0.00114	0.00694	<0.03	0.000071	1.11	0.0469	<0.00001	0.028	<0.0005	3.62	0.0018	4.14	<0.00001	<2	<0.00005	0.00416	<0.0005	0.0076
26-Nov-08	35																			
3-Dec-08	42	<0.0005	0.00142	0.00956	<0.03	0.000119	1.44	0.0602	<0.00001	0.0295	<0.0005	3.83	0.002	4.92	<0.00001	<2	<0.00005	0.00671	<0.0005	0.0102
10-Dec-08	49																			
17-Dec-08	56	<0.0005	0.00112	0.00726	<0.03	<0.00005	1.27	0.0539	<0.00001	0.0236	<0.0005	2.81	0.0016	3.98	<0.00001	<2	<0.00005	0.00773	<0.0005	0.0069
24-Dec-08	63																			
31-Dec-08	70	<0.0005	0.00109	0.00762	<0.03	0.000062	1.13	0.0584	<0.00001	0.0272	<0.0005	2.34	0.0015	2.89	<0.00001	<2	<0.00005	0.00623	<0.0005	0.0083
7-Jan-09	77																			
14-Jan-09	84	<0.0005	0.00108	0.00672	<0.03	<0.00005	1.1	0.0593	<0.00001	0.0235	<0.0005	2.24	0.0013	3.07	<0.00001	<2	<0.00005	0.00532	<0.0005	0.0079

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
21-Jan-09	91	500	455	7.69	397	106																	
28-Jan-09	98	500	460	7.64	386	101	<1	6	50	53.8	49.8	<0.5	0.804	8.01	0.0134	0.00159	0.00759	0.0104	<0.0002	<0.0005	<0.01	<0.00005	18.4
4-Feb-09	105	500	460	7.75	394	130																	
11-Feb-09	112	500	460	7.93	390	105	<1	6	53	72.6	49.9	<0.5	0.887	7.92	0.0158	0.00155	0.00567	0.0108	<0.0002	<0.0005	<0.01	<0.00005	18.4
18-Feb-09	119	500	450	7.87	347	107																	
25-Feb-09	126	500	480	7.86	376	107	<1	5	55	74.3	53	<0.5	0.869	8.48	0.0143	0.0015	0.00509	0.0115	<0.0002	<0.0005	<0.01	<0.00005	19.6
4-Mar-09	133	500	450	7.66	276	107																	
11-Mar-09	140	500	460	7.51	338	104	<1	5	53	52.5	52.3	<0.5	0.809	7.94	0.0141	0.00142	0.00452	0.0118	<0.0002	<0.0005	<0.01	<0.00005	19.7
18-Mar-09	147	500	470	7.66	362	108																	
25-Mar-09	154	500	455	7.56	362	99	<1	5	51	54.8	47.5	<0.5	0.699	6.85	0.0128	0.00128	0.00379	0.0122	<0.0002	<0.0005	<0.01	<0.00005	18
1-Apr-09	161	500	395	7.74	369	108																	
8-Apr-09	168	500	470	7.61	372	94	<1	4	47	55	46.7	<0.5	0.765	6.06	0.0146	0.00122	0.00351	0.0111	<0.0002	<0.0005	<0.01	<0.00005	17.6
15-Apr-09	175	500	435	7.76	375	115																	
22-Apr-09	182	500	455	7.78	348	101																	
29-Apr-09	189	500	445																				
6-May-09	196	500	480	7.68	363	103	<1	4	50	67.5	50.6	<0.5	0.881	8.42	0.0144	0.00131	0.003	0.013	<0.0002	<0.0005	0.012	0.000057	19.3
13-May-09	203	500	495																				
20-May-09	210	500	495	7.67	369	97																	
27-May-09	217	500	460																				
3-Jun-09	224	500	470	7.78	371	97	<1	3	50	57.6	57.4	<0.5	0.984	15.3	0.0163	0.00157	0.0034	0.0175	<0.0002	<0.0005	<0.01	0.000069	22
10-Jun-09	231	500	445																				
17-Jun-09	238	500	465	7.80	392	94																	
24-Jun-09	245	500	445																				
1-Jul-09	252	500	460	7.73	336	82	<1	3	49	71	49.6	<0.5	0.814	10.4	0.0199	0.00131	0.00226	0.014	<0.0002	<0.0005	0.033	0.000063	19.2
8-Jul-09	259	500	475																				
15-Jul-09	266	500	410	7.83	355	87																	
22-Jul-09	273	500	415																				
29-Jul-09	280	500	500	7.75	333	105	<1	5	54	65.3	55	<0.5	0.883	10.2	0.0153	0.00122	0.00222	0.0156	<0.0002	<0.0005	<0.01	<0.00005	21.2
5-Aug-09	287	500	485																				
12-Aug-09	294	500	515	7.68	288	87																	
19-Aug-09	301	500	520																				
26-Aug-09	308	500	475	7.81	289	88	<1	3	43	63.3	44.9	<0.5	0.819	9.23	0.0256	0.00105	0.00197	0.0137	<0.0002	<0.0005	<0.01	<0.00005	17.4
2-Sep-09	315	500	520																				
9-Sep-09	322	500	525	7.88	292	91																	
16-Sep-09	329	500	500																				
23-Sep-09	336	500	480	7.87	347	100	<1	3	56	73	52	<0.5	0.729	9.37	0.0176	0.00117	0.0018	0.0151	<0.0002	<0.0005	<0.01	<0.00005	20.2
30-Sep-09	343	500	475																				
7-Oct-09	350	500	480	7.68	311	95																	
14-Oct-09	357	500	510																				
21-Oct-09	364	500	495	7.76	310	94	<1	3	49	59	49.7	<0.5	0.62	7.68	0.0227	0.00104	0.00159	0.0143	<0.0002	<0.0005	<0.01	<0.00005	19.3
28-Oct-09	371	500	455																				
4-Nov-09	378	500	500	7.70	313	98																	
11-Nov-09	385	500	485																				
18-Nov-09	392	500	435	7.88	309	105	<1	8	53	56	46.8	<0.5	0.526	6.97	0.0177	0.000988	0.00149	0.0138	<0.0002	<0.0005	<0.01	<0.00005	18.2
25-Nov-09	399	500	525																				
2-Dec-09	406	500	440	7.73	352	100																	
9-Dec-09	413	500	465																				
16-Dec-09	420	500	490	7.75	332	96	<1	3	49	57	46.8	<0.5	0.443	5.47	0.0187	0.000986	0.00151	0.0137	<0.0002	<0.0005	<0.01	<0.00005	18.2
23-Dec-09	427	500	485																				
30-Dec-09	434	500	520	7.71	397	93																	
6-Jan-10	441	500	525																				
13-Jan-10	448	500	430	7.73	334	100	<1	5	49	66	47.5	<0.5	0.429	6.46	0.0168	0.00105	0.00156	0.0145	<0.0002	<0.0005	<0.01	0.000054	18.6
20-Jan-10	455	500	415																				
27-Jan-10	462	500	480	7.69	355	85																	
3-Feb-10	469	500	440																				
10-Feb-10	476	500	435	7.58	324	96	<1	4	50	61	47.1	<0.5	0.457	6.56	0.016	0.00107	0.00185	0.0142	<0.0002	<0.0005	0.01	<0.00005	18.4
17-Feb-10	483	500	465																				
24-Feb-10	490	500	460	7.69	335	87																	
3-Mar-10	497	500	455																				
10-Mar-10	504	500	425	7.58	392	91	<1	3	46	53	46.1	<0.5	0.414	6.41	0.0198	0.00112	0.00177	0.0162	<0.0002	<0.0005	<0.01	<0.00005	18

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
21-Jan-09	91																			
28-Jan-09	98	<0.0005	0.00089	0.00668	<0.03	<0.00005	0.948	0.0506	<0.00001	0.0228	<0.0005	1.95	0.0015	3.6	<0.00001	<2	<0.00005	0.00618	<0.0005	0.0081
4-Feb-09	105																			
11-Feb-09	112	<0.0005	0.00085	0.00603	<0.03	<0.00005	0.966	0.0524	<0.00001	0.022	<0.0005	1.68	0.0014	2.67	<0.00001	<2	<0.00005	0.00573	<0.0005	0.0065
18-Feb-09	119																			
25-Feb-09	126	<0.0005	0.00083	0.00643	<0.03	<0.00005	0.954	0.056	<0.00001	0.0242	<0.0005	1.51	0.0012	3.06	<0.00001	<2	<0.00005	0.006	<0.0005	0.0075
4-Mar-09	133																			
11-Mar-09	140	<0.0005	0.00083	0.00697	<0.03	<0.00005	0.777	0.051	<0.00001	0.0228	<0.0005	1.44	0.0013	2.65	<0.00001	<2	<0.00005	0.00668	<0.0005	0.0078
18-Mar-09	147																			
25-Mar-09	154	<0.0005	0.00074	0.00681	<0.03	<0.00005	0.613	0.052	<0.00001	0.0218	<0.0005	1.33	0.0011	2.8	<0.00001	<2	<0.00005	0.00584	<0.0005	0.0072
1-Apr-09	161																			
8-Apr-09	168	<0.0005	0.00063	0.00534	<0.03	<0.00005	0.637	0.0462	<0.00001	0.0181	<0.0005	1.18	0.0011	2.14	<0.00001	<2	<0.00005	0.00693	<0.0005	0.0063
15-Apr-09	175																			
22-Apr-09	182																			
29-Apr-09	189																			
6-May-09	196	<0.0005	0.00064	0.00625	<0.03	<0.00005	0.611	0.0495	<0.00001	0.0257	<0.0005	1.21	0.0013	2.64	<0.00001	<2	<0.00005	0.00563	<0.0005	0.007
13-May-09	203																			
20-May-09	210																			
27-May-09	217																			
3-Jun-09	224	<0.0005	0.00064	0.00631	<0.03	0.000105	0.578	0.0502	<0.00001	0.0425	<0.0005	1.33	0.0015	3.78	0.000015	<2	<0.00005	0.00553	<0.0005	0.0096
10-Jun-09	231																			
17-Jun-09	238																			
24-Jun-09	245																			
1-Jul-09	252	0.00097	0.00045	0.00586	<0.03	<0.00005	0.436	0.0319	<0.00001	0.0355	<0.0005	1.06	0.0012	2.95	<0.00001	<2	<0.00005	0.00645	<0.0005	0.0071
8-Jul-09	259																			
15-Jul-09	266																			
22-Jul-09	273																			
29-Jul-09	280	<0.0005	0.00045	0.00629	<0.03	<0.00005	0.473	0.0363	<0.00001	0.0349	<0.0005	1.09	0.0011	2.62	<0.00001	<2	<0.00005	0.00735	<0.0005	0.0062
5-Aug-09	287																			
12-Aug-09	294																			
19-Aug-09	301																			
26-Aug-09	308	<0.0005	0.00026	0.00523	<0.03	<0.00005	0.383	0.021	<0.00001	0.0326	<0.0005	0.943	0.0013	2.28	<0.00001	<2	<0.00005	0.00996	<0.0005	0.004
2-Sep-09	315																			
9-Sep-09	322																			
16-Sep-09	329																			
23-Sep-09	336	<0.0005	0.00026	0.00567	<0.03	<0.00005	0.382	0.0174	<0.00001	0.057	<0.0005	0.875	0.0011	2.52	<0.00001	<2	<0.00005	0.00972	<0.0005	0.0046
30-Sep-09	343																			
7-Oct-09	350																			
14-Oct-09	357																			
21-Oct-09	364	<0.0005	0.0002	0.00542	<0.03		0.348	0.0121	<0.00001	0.0643	<0.0005	0.75	0.001	2.22	<0.00001	<2	<0.00005	0.00944	<0.0005	0.0057
28-Oct-09	371																			
4-Nov-09	378																			
11-Nov-09	385																			
18-Nov-09	392	<0.0005	0.00014	0.00433	<0.03	<0.00005	0.311	0.00835	<0.00001	0.0814	<0.0005	0.711	0.001	2.06	<0.00001	<2	<0.00005	0.00857	<0.0005	0.0036
25-Nov-09	399																			
2-Dec-09	406																			
9-Dec-09	413																			
16-Dec-09	420	<0.0005	0.00013	0.00457	<0.03	<0.00005	0.305	0.00748	<0.00001	0.0809	<0.0005	0.717	0.001	1.93	<0.00001	<2	<0.00005	0.00917	<0.0005	0.0036
23-Dec-09	427																			
30-Dec-09	434																			
6-Jan-10	441																			
13-Jan-10	448	<0.0005	<0.0001	0.00512	<0.03	<0.00005	0.284	0.00603	<0.00001	0.135	<0.0005	0.67	0.001	2.02	<0.00001	<2	<0.00005	0.0104	<0.0005	0.0033
20-Jan-10	455																			
27-Jan-10	462																			
3-Feb-10	469																			
10-Feb-10	476	<0.0005	0.00014	0.00465	<0.03	<0.00005	0.286	0.00537	<0.00001	0.148	<0.0005	0.623	<0.001	1.84	<0.00001	<2	<0.00005	0.00925	<0.0005	0.0038
17-Feb-10	483																			
24-Feb-10	490																			
3-Mar-10	497																			
10-Mar-10	504	<0.0005	0.00011	0.00492	<0.03	<0.00005	0.272	0.00526	<0.00001	0.172	<0.0005	0.643	<0.001	1.59	<0.00001	<2	<0.00005	0.00865	<0.0005	0.004

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
17-Mar-10	511	500	520																				
24-Mar-10	518	500	465	7.74	350	93																	
31-Mar-10	525	500	375																				
7-Apr-10	532	500	500	7.66	352	92	<1	3	46	54	44.8	<0.5	0.391	6.36	0.0196	0.00112	0.00193	0.0141	<0.0002	<0.0005	<0.01	0.000057	17.5
14-Apr-10	539	500	485																				
21-Apr-10	546	500	470	7.74	306	107																	
28-Apr-10	553	500	520																				
5-May-10	560	500	500	7.60	344	90	<1	4	45	51	48	<0.5	0.315	5.94	0.0195	0.00109	0.00196	0.0143	<0.0002	<0.0005	<0.01	<0.00005	18.8
12-May-10	567	500	390																				
19-May-10	574	500	405	7.79	346	97																	
26-May-10	581	500	435																				
2-Jun-10	588	500	445	7.73	348	94	<1	3	48	51	47.1	<0.5	0.318	5.93	0.0215	0.00122	0.0021	0.0156	<0.0002	<0.0005	0.011	<0.00005	18.4
9-Jun-10	595	500	430																				
16-Jun-10	602	500	485	7.77	320	85																	
23-Jun-10	609	500	440																				
30-Jun-10	616	500	445	7.85	403	92	<1	3	49	59	49.4	<0.5	0.286	6.06	0.0193	0.00101	0.00213	0.0154	<0.0002	<0.0005	<0.01	<0.00005	19.3
7-Jul-10	623	500	475																				
14-Jul-10	630	500	445	7.74	342	92																	
21-Jul-10	637	500	485																				
28-Jul-10	644	500	460	7.64	340	92	<1	3	49	64	49.4	<0.5	0.274	5.64	0.0198	0.00107	0.00218	0.0156	<0.0002	<0.0005	0.012	0.000053	19.3
4-Aug-10	651	500	505																				
11-Aug-10	658	500	490	7.78	384	84																	
18-Aug-10	665	500	485																				
25-Aug-10	672	500	495	7.62	344	84	<1	4	46	49	43.8	<0.5	0.223	4.89	0.0187	0.000911	0.00206	0.0136	<0.0002	<0.0005	<0.01	<0.00005	17.2
1-Sep-10	679	500	465																				
8-Sep-10	686	500	520	7.57	356	91																	
15-Sep-10	693	500	445																				
22-Sep-10	700	500	465	7.70	326	75	<1	3	48	51	46.5	<0.5	0.197	5.05	0.0233	0.000905	0.00212	0.0175	<0.0002	<0.0005	<0.01	<0.00005	18.2
29-Sep-10	707	500	470																				
6-Oct-10	714	500	480	7.67	315	91																	
13-Oct-10	721	500	455																				
20-Oct-10	728	500	470	7.77	306	89	<1	3	51	55	45.3	<0.5	0.16	5.4	0.0233	0.000926	0.0021	0.0147	<0.0002	<0.0005	0.01	<0.00005	17.7
27-Oct-10	735	500	485																				
3-Nov-10	742	500	490	7.78	374	89																	
10-Nov-10	749	500	460																				
17-Nov-10	756	500	450	7.82	333	97	<1	3	52	52	44.1	<0.5	0.135	5.66	0.021	0.000897	0.00208	0.0143	<0.0002	<0.0005	<0.01	<0.00005	17.3
24-Nov-10	763	500	475																				
1-Dec-10	770	500	515	7.64	342	86																	
8-Dec-10	777	500	475																				
15-Dec-10	784	500	520	7.55	344	82	<1	5	47	62	43.1	<0.5	0.122	4.93	0.0211	0.000924	0.00192	0.0145	<0.0002	<0.0005	<0.01	<0.00005	16.9
22-Dec-10	791	500	510																				
29-Dec-10	798	500	450	7.64	341	77																	
5-Jan-11	805	500	465																				
12-Jan-11	812	500	475	7.61	341	76	<1	4	46	46	43.2	<0.5	0.057	4.41	0.0201	0.000681	0.00175	0.0129	<0.0002	<0.0005	<0.01	<0.00005	17
19-Jan-11	819	500	500																				
26-Jan-11	826	500	470	7.63	297	77																	
2-Feb-11	833	500	455																				
9-Feb-11	840	500	470	7.68	354	73	<1	3	47	48	43.4	<0.5	0.066	4.15	0.0208	0.000689	0.00178	0.0131	<0.0002	<0.0005	<0.01	<0.00005	17
16-Feb-11	847	500	475																				
23-Feb-11	854	500	475	7.65	310	85																	
2-Mar-11	861	500	455																				
9-Mar-11	868	500	445	7.65	290	86	<1	3	47	48	41.6	<0.5	0.062	3.79	0.0191	0.000587	0.00164	0.0134	<0.0002	<0.0005	<0.01	<0.00005	16.3
16-Mar-11	875	500	485																				
23-Mar-11	882	500	455	7.76	290	87																	
30-Mar-11	889	500	475																				
6-Apr-11	896	500	470	7.65	255	83	<1	5	47	47	39.8	<0.5	0.054	3.47	0.0219	0.000571	0.00159	0.0121	<0.0002	<0.0005	<0.01	<0.00005	15.6
13-Apr-11	903	500	445																				
20-Apr-11	910	500	475	7.78	264	83																	
27-Apr-11	917	500	460																				
4-May-11	924	500	440	7.64	324	84	<1	5	49	49	41.7	<0.5	0.051	3.86	0.022	0.000539	0.00172	0.0129	<0.0002	<0.0005	0.012	<0.00009	16.4

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Mar-10	511																			
24-Mar-10	518																			
31-Mar-10	525																			
7-Apr-10	532	<0.0005	<0.0001	0.00527	<0.03	<0.00005	0.259	0.00434	<0.00001	0.176	<0.0005	0.619	0.0011	1.9	<0.00001	<2	<0.00005	0.00902	<0.0005	0.0037
14-Apr-10	539																			
21-Apr-10	546																			
28-Apr-10	553																			
5-May-10	560	<0.0005	<0.0001	0.00427	<0.03	<0.00005	0.251	0.00369	<0.00001	0.177	<0.0005	0.595	0.001	1.75	<0.00001	<2	<0.00005	0.00916	<0.0005	0.0038
12-May-10	567																			
19-May-10	574																			
26-May-10	581																			
2-Jun-10	588	<0.0005	<0.0001	0.00567	<0.03	<0.00005	0.273	0.00421	<0.00001	0.166	<0.0005	0.637	<0.001	1.74	<0.00001	<2	<0.00005	0.0108	<0.0005	0.004
9-Jun-10	595																			
16-Jun-10	602																			
23-Jun-10	609																			
30-Jun-10	616	<0.0005	<0.0001	0.00446	<0.03	<0.00005	0.259	0.00362	<0.00001	0.136	<0.0005	0.571	<0.001	1.88	<0.00001	<2	<0.00005	0.00976	<0.0005	0.0036
7-Jul-10	623																			
14-Jul-10	630																			
21-Jul-10	637																			
28-Jul-10	644	<0.0005	<0.0001	0.00501	<0.03	<0.00005	0.281	0.00486	<0.00001	0.123	<0.0005	0.616	<0.001	1.82	<0.00001	<2	<0.00005	0.011	<0.0005	0.0035
4-Aug-10	651																			
11-Aug-10	658																			
18-Aug-10	665																			
25-Aug-10	672	<0.0005	<0.0001	0.00455	<0.03	<0.00005	0.215	0.00367	<0.00001	0.0962	<0.0005	0.509	<0.001	1.66	<0.00001	<2	<0.00005	0.00995	<0.0005	0.0034
1-Sep-10	679																			
8-Sep-10	686																			
15-Sep-10	693																			
22-Sep-10	700	<0.0005	<0.0001	0.00457	<0.03	<0.00005	0.249	0.00361	<0.00001	0.102	<0.0005	0.563	0.0011	1.74	<0.00001	<2	<0.00005	0.00992	<0.0005	0.0028
29-Sep-10	707																			
6-Oct-10	714																			
13-Oct-10	721																			
20-Oct-10	728	<0.0005	<0.0001	0.00475	<0.03	<0.00005	0.244	0.00386	<0.0001	0.136	<0.0005	0.574	<0.001	1.72	<0.00001	<2	<0.00005	0.0112	<0.0005	0.0056
27-Oct-10	735																			
3-Nov-10	742																			
10-Nov-10	749																			
17-Nov-10	756	<0.0005	<0.0001	0.00436	<0.03	<0.00005	0.238	0.00339	<0.00001	0.148	0.00074	0.576	<0.001	1.64	<0.00001	<2	<0.00005	0.00943	<0.0005	0.0041
24-Nov-10	763																			
1-Dec-10	770																			
8-Dec-10	777																			
15-Dec-10	784	<0.0005	<0.0001	0.00478	<0.03	<0.00005	0.212	0.00328	<0.00001	0.136	<0.0005	0.529	<0.001	1.62	<0.00001	<2	<0.00005	0.00818	<0.0005	0.0039
22-Dec-10	791																			
29-Dec-10	798																			
5-Jan-11	805																			
12-Jan-11	812	<0.0005	<0.0001	0.00392	<0.03	<0.00005	0.2	0.00303	<0.00001	0.131	<0.0005	0.432	<0.001	1.37	<0.00001	<2	<0.00005	0.00833	<0.0005	0.0038
19-Jan-11	819																			
26-Jan-11	826																			
2-Feb-11	833																			
9-Feb-11	840	<0.0005	<0.0001	0.00407	<0.03	<0.00005	0.207	0.00247	<0.00001	0.119	<0.0005	0.474	<0.001	1.36	<0.00001	<2	<0.00005	0.0078	<0.0005	0.0034
16-Feb-11	847																			
23-Feb-11	854																			
2-Mar-11	861																			
9-Mar-11	868	<0.0005	<0.0001	0.00447	<0.03	<0.00005	0.185	0.00268	<0.00001	0.0849	<0.0005	0.393	<0.001	1.33	<0.00001	<2	<0.00005	0.00827	<0.0005	0.0038
16-Mar-11	875																			
23-Mar-11	882																			
30-Mar-11	889																			
6-Apr-11	896	<0.0005	<0.0001	0.00358	<0.03	<0.00005	0.183	0.00292	<0.00001	0.0615	<0.0005	0.444	<0.001	1.32	<0.00001	<2	<0.00005	0.00755	<0.0005	0.0042
13-Apr-11	903																			
20-Apr-11	910																			
27-Apr-11	917																			
4-May-11	924	<0.0005	<0.0001	0.00446	<0.03	<0.00005	0.187	0.00245	<0.00001	0.0665	<0.0005	0.432	<0.001	1.36	<0.00001	<2	<0.00005	0.00783	<0.0005	0.0038

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11-May-11	931	500	455																				
18-May-11	938	500	455	7.61	331	85																	
25-May-11	945	500	430																				
1-Jun-11	952	500	445	7.75	305	87	<1	6	43	49	43.2	<0.5	0.053	4.62	0.0181	0.000547	0.00181	0.0135	<0.0002	<0.0005	0.01	<0.00005	17
8-Jun-11	959	500	445																				
15-Jun-11	966	500	460	7.81	293	82																	
22-Jun-11	973	500	445																				
29-Jun-11	980	500	445	7.87	309	84	<1	3	50	42	42.2	<0.5	0.046	4.14	0.0203	0.000521	0.00175	0.0127	<0.0002	<0.0005	<0.01	<0.00005	16.6
6-Jul-11	987	500	430																				
13-Jul-11	994	500	480	7.72	297	78																	
20-Jul-11	1001	500	460																				
27-Jul-11	1008	500	430	7.73	278	77	<1	2	40	42	38.4	<0.5	0.049	3.7	0.0221	0.000502	0.00179	0.0118	<0.0002	<0.0005	<0.01	<0.00005	15.1
3-Aug-11	1015	500	485																				
10-Aug-11	1022	500	465	7.59	234	79																	
17-Aug-11	1029	500	465																				
24-Aug-11	1036	500	495	7.44	245	75	<1	4	41	47	37.5	<0.5	0.039	4.4	0.0216	0.000549	0.00177	0.0119	<0.0002	<0.0005	<0.01	<0.00006	14.7
31-Aug-11	1043	500	470																				
7-Sep-11	1050	500	465	7.77	241	76																	
14-Sep-11	1057	500	465																				
21-Sep-11	1064	500	440	7.68	248	79	<1	5	43	40	40	<0.5	0.035	4.38	0.0217	0.000521	0.00173	0.0125	<0.0002	<0.0005	<0.01	<0.00005	15.8
28-Sep-11	1071	500	505																				
5-Oct-11	1078	500	460	7.63	208	77																	
12-Oct-11	1085	500	450																				
19-Oct-11	1092	500	455	7.62	267	77	<1	3	40	42	39.4	<0.5	0.029	4.19	0.015	0.00053	0.0019	0.0121	<0.0002	<0.0005	<0.01	<0.00005	15.5
26-Oct-11	1099	500	460																				
2-Nov-11	1106	500	465	7.60	251	74																	
9-Nov-11	1113	500	470																				
16-Nov-11	1120	500	460	7.61	289	72	<1	3	39	38	36.3	<0.5	0.032	4.34	0.0207	0.000507	0.00154	0.0112	<0.0002	<0.0005	<0.01	<0.00005	14.3
23-Nov-11	1127	500	485																				
30-Nov-11	1134	500	470	7.66	317	69																	
7-Dec-11	1141	500	460																				
14-Dec-11	1148	500	485	7.56	288	66	<1	4	36	37	33.3	<0.5	0.023	3.52	0.0237	0.000426	0.00166	0.0103	<0.0002	<0.0005	<0.01	<0.00005	13.1
21-Dec-11	1155	500	465																				
28-Dec-11	1162	500	475	7.55	301	65																	
4-Jan-12	1169	500	480																				
11-Jan-12	1176	500	445	7.57	266	71	<1	3	44	41	35.4	<0.5	0.02	3.76	0.0199	0.000433	0.00141	0.0113	<0.0002	<0.0005	<0.01	<0.00005	13.9
18-Jan-12	1183	500	470																				
25-Jan-12	1190	500	465	7.41	341	63																	
1-Feb-12	1197	500	475																				
8-Feb-12	1204	500	470	7.56	336	67	<1	5	41	40	32.4	<0.5	<0.02	3.94	0.0202	0.000437	0.00143	0.01	<0.0002	<0.0005	<0.01	<0.00005	12.8
15-Feb-12	1211	500	465																				
22-Feb-12	1218	500	495	7.48	362	62																	
29-Feb-12	1225	500	460																				
7-Mar-12	1232	500	490	7.57	395	62	<1	6	35	32	30.6	<0.5	<0.02	3.93	0.0205	0.000406	0.00142	0.0092	<0.0002	<0.0005	<0.01	<0.00005	12
14-Mar-12	1239	500	460																				
21-Mar-12	1246	500	470	7.38	353	61																	
28-Mar-12	1253	500	475																				
4-Apr-12	1260	500	480	7.38	361	60	<1	4	31	36	29.2	<0.5	<0.02	4.23	0.018	0.00044	0.00131	0.00904	<0.0002	<0.0005	<0.01	0.000087	11.4
11-Apr-12	1267	500	445																				
18-Apr-12	1274	500	450	7.44	363	61																	
25-Apr-12	1281	500	450																				
2-May-12	1288	500	470	7.53	359	58	<1	7	30	26	28	<0.5	<0.02	4.4	0.0191	0.000412	0.00129	0.00915	<0.0002	<0.0005	<0.01	<0.00005	11
9-May-12	1295	500	440																				
16-May-12	1302	500	445	7.47	317	55																	
23-May-12	1309	500	435																				
30-May-12	1316	500	430	7.53	330	53	<1	5	27	32	26	<0.5	<0.02	4.5	0.0153	0.000377	0.00119	0.00839	<0.0002	<0.0005	<0.01	<0.00005	10.2
6-Jun-12	1323	500	410																				
13-Jun-12	1330	500	445	7.43	388	51																	
20-Jun-12	1337	500	445																				
27-Jun-12	1344	500	455	7.43	379	51	<1	5	25	31	24.3	<0.5	0.022	5.13	0.0128	0.000365	0.00096	0.00813	<0.0002	<0.0005	<0.01	0.000066	9.5

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-May-11	931																			
18-May-11	938																			
25-May-11	945																			
1-Jun-11	952	<0.0005	<0.0001	0.00404	<0.03	<0.00005	0.198	0.00268	<0.00001	0.0814	<0.0005	0.441	<0.001	1.47	<0.00001	<2	<0.00005	0.00765	<0.0005	0.0032
8-Jun-11	959																			
15-Jun-11	966																			
22-Jun-11	973																			
29-Jun-11	980	<0.0005	<0.0001	0.00379	<0.03	0.000122	0.181	0.00273	<0.00001	0.0686	<0.0005	0.428	<0.001	1.36	<0.00001	<2	<0.00005	0.00697	<0.0005	0.0032
6-Jul-11	987																			
13-Jul-11	994																			
20-Jul-11	1001																			
27-Jul-11	1008	<0.0005	<0.0001	0.0034	<0.03	<0.00005	0.169	0.00197	<0.00001	0.0668	<0.0005	0.449	<0.001	1.21	<0.00001	<2	<0.00005	0.00663	<0.0005	0.0032
3-Aug-11	1015																			
10-Aug-11	1022																			
17-Aug-11	1029																			
24-Aug-11	1036	<0.0005	<0.0001	0.00387	<0.03	<0.00005	0.168	0.00276	<0.00001	0.0816	<0.0005	0.409	<0.001	1.35	<0.00001	<2	<0.00005	0.00855	<0.0005	0.003
31-Aug-11	1043																			
7-Sep-11	1050																			
14-Sep-11	1057																			
21-Sep-11	1064	<0.0005	<0.0001	0.00331	<0.03	<0.00005	0.163	0.00255	<0.00001	0.091	<0.0005	0.382	<0.001	1.38	<0.00001	<2	<0.00005	0.00869	<0.0005	0.0029
28-Sep-11	1071																			
5-Oct-11	1078																			
12-Oct-11	1085																			
19-Oct-11	1092	0.00053	<0.0001	0.00391	<0.03	<0.00005	0.172	0.00227	<0.00001	0.084	<0.0005	0.428	<0.001	1.31	<0.00001	<2	<0.00005	0.0102	<0.0005	0.0034
26-Oct-11	1099																			
2-Nov-11	1106																			
9-Nov-11	1113																			
16-Nov-11	1120	<0.0005	<0.0001	0.00327	<0.03	<0.00005	0.155	0.00243	<0.00001	0.0853	<0.0005	0.39	<0.001	1.28	<0.00001	<2	<0.00005	0.00883	<0.0005	0.0024
23-Nov-11	1127																			
30-Nov-11	1134																			
7-Dec-11	1141																			
14-Dec-11	1148	<0.0005	<0.0001	0.00308	<0.03	<0.00005	0.149	0.00201	<0.00001	0.061	<0.0005	0.387	<0.001	1.07	<0.00001	<2	<0.00005	0.00632	<0.0005	0.0034
21-Dec-11	1155																			
28-Dec-11	1162																			
4-Jan-12	1169																			
11-Jan-12	1176	<0.0005	<0.0001	0.00323	<0.03	<0.00005	0.162	0.00253	<0.00001	0.052	<0.0005	0.381	<0.001	1.16	<0.00001	<2	<0.00005	0.00761	<0.0005	0.0035
18-Jan-12	1183																			
25-Jan-12	1190																			
1-Feb-12	1197																			
8-Feb-12	1204	<0.0005	<0.0001	0.00308	<0.03	<0.00005	0.139	0.00193	<0.00001	0.0601	<0.0005	0.373	<0.001	1.09	<0.00001	<2	<0.00005	0.00658	<0.0005	0.0028
15-Feb-12	1211																			
22-Feb-12	1218																			
29-Feb-12	1225																			
7-Mar-12	1232	<0.0005	<0.0001	0.00286	<0.03	<0.00005	0.145	0.0023	<0.00001	0.0642	<0.0005	0.354	<0.001	1.06	<0.00001	<2	<0.00005	0.0067	<0.0005	0.0033
14-Mar-12	1239																			
21-Mar-12	1246																			
28-Mar-12	1253																			
4-Apr-12	1260	0.00059	<0.0001	0.00265	<0.03	<0.00005	0.149	0.00204	<0.00001	0.066	<0.0005	0.377	<0.001	1.11	<0.00001	<2	<0.00005	0.00657	<0.0005	0.0037
11-Apr-12	1267																			
18-Apr-12	1274																			
25-Apr-12	1281																			
2-May-12	1288	<0.0005	<0.0001	0.00298	<0.03	<0.00005	0.142	0.00201	<0.00001	0.0658	<0.0005	0.345	<0.001	1.17	<0.00001	<2	<0.00005	0.00669	<0.0005	0.0037
9-May-12	1295																			
16-May-12	1302																			
23-May-12	1309																			
30-May-12	1316	0.00056	<0.0001	0.00289	<0.03	<0.00005	0.144	0.00209	<0.00001	0.0473	<0.0005	0.338	<0.001	1.17	<0.00001	<2	<0.00005	0.00671	<0.0005	0.0045
6-Jun-12	1323																			
13-Jun-12	1330																			
20-Jun-12	1337																			
27-Jun-12	1344	<0.0005	<0.0001	0.00329	<0.03	<0.00005	0.144	0.00296	<0.00001	0.0467	<0.0005	0.355	<0.001	1.31	<0.00001	<2	<0.00005	0.00655	<0.0005	0.0052

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
4-Jul-12	1351	500	455																				
11-Jul-12	1358	500	455	7.32	376	49																	
18-Jul-12	1365	500	450																				
25-Jul-12	1372	500	495	7.21	389	49	<1	3	22	29	21.3	<0.5	0.021	4.92	0.0127	0.000314	0.00079	0.00781	<0.0002	<0.0005	<0.01	0.00006	8.3
1-Aug-12	1379	500	465																				
8-Aug-12	1386	500	500	7.37	359	45																	
15-Aug-12	1393	500	440																				
22-Aug-12	1400	500	405	7.19	340	41	<1	4	16	22	17.8	<0.5	0.024	5.37	0.0074	0.000274	0.00058	0.00631	<0.0002	<0.0005	<0.01	0.000054	6.92
29-Aug-12	1407	500	445																				
5-Sep-12	1414	500	480	7.30	392	36																	
12-Sep-12	1421	500	450																				
19-Sep-12	1428	500	455	7.17	377	37	<1	4	15	18	16.3	<0.5	0.027	5.42	0.0052	0.000267	0.00046	0.00644	<0.0002	<0.0005	<0.01	0.000065	6.33
26-Sep-12	1435	500	475																				
3-Oct-12	1442	500	420	7.29	375	28																	
10-Oct-12	1449	500	465																				
17-Oct-12	1456	500	460	7.09	417	28	<1	5	11	17	12.8	<0.5	0.032	4.84	0.0037	0.000229	0.00037	0.00543	<0.0002	<0.0005	<0.01	0.000067	4.99
24-Oct-12	1463	500	455																				
31-Oct-12	1470	500	480	6.95	355	29																	
7-Nov-12	1477	500	480																				
14-Nov-12	1484	500	480	7.52	362	27	<1	6	10	21	11.9	<0.5	0.038	5.56	0.002	0.000211	0.00032	0.00566	<0.0002	<0.0005	<0.01	0.000102	4.58
21-Nov-12	1491	500	470																				
28-Nov-12	1498	500	485	7.44	374	27																	
5-Dec-12	1505	500	455																				
12-Dec-12	1512	500	455	7.17	343	21	<1	4	7	22	9.54	<0.5	0.034	5.12	0.0024	0.000173	0.00024	0.00549	<0.0002	<0.0005	<0.01	0.000124	3.68
19-Dec-12	1519	500	465																				
26-Dec-12	1526	500	435	7.63	384	20																	

Sample 1 Scavenger Tails T_3

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11-Feb-05	0	0	1970	7.76	354	694	<1	3	58	500	285	4.13	0.148	275	0.0532	0.00929	0.0362	0.00901	<0.0004	<0.001	<0.02	<0.0001	104
18-Feb-05	7	1500	1535	8.05	344	474																	
25-Feb-05	14	1500	1480	8.20	360	266	<1	<1	71	168	101	<0.5	0.994	62.1	0.23	0.0107	0.0629	0.00547	<0.0004	<0.001	<0.02	<0.0001	36.1
4-Mar-05	21	1500	1495	8.21	326	177																	
11-Mar-05	28	1500	1475	8.07	354	151	<1	2	62	92	60.5	<0.5	0.706	18.2	0.149	0.0116	0.0458	0.00328	<0.0002	<0.0005	<0.01	<0.00005	21.7
18-Mar-05	35	1500	1485	8.14	410	152																	
25-Mar-05	42	1500	1490	8.08	415	157	<1	2	59	92	62.2	<0.5	0.406	18.7	0.0789	0.0117	0.0373	0.00394	<0.0002	<0.0005	<0.01	<0.00005	22
1-Apr-05	49	1500	1500	8.08	410	123																	
8-Apr-05	56	1500	1500	8.10	310	125	<1	1	46	74	46.1	<0.2	0.33	13.5	0.451	0.0105	0.0483	0.00318	<0.0002	<0.0005	<0.01	0.000087	16.1
15-Apr-05	63	1500	1470	8.12	395	127																	
22-Apr-05	70	1500	1490	7.92	396	122	<1	3	45	74	50.3	<0.5	0.241	14.6	0.116	0.00866	0.0435	0.00296	<0.0002	<0.0005	<0.01	<0.00005	17.8
29-Apr-05	77	1500	1495	8.01	408	127																	
6-May-05	84	1500	1460	8.07	369	130	<1	2	48	74	52.8	<0.5	0.178	17	0.0937	0.00932	0.0405	0.00331	<0.0002	<0.0005	<0.01	<0.00005	18.4
13-May-05	91	1500	1480	8.01	369	117																	
20-May-05	98	1500	1495	7.98	358	123	<1	3	46	72	49.9	<0.5	0.152	15.5	0.101	0.00871	0.0461	0.00341	<0.0002	<0.0005	<0.01	<0.00005	17
27-May-05	105	1500	1495	7.96	368	108																	
3-Jun-05	112	1500	1505	8.08	357	109	<1	3	40	60	45.4	<0.5	0.114	15.8	0.141	0.00605	0.0378	0.00278	<0.0002	<0.0005	<0.01	<0.00005	15.8
10-Jun-05	119	1500	1465	7.87	368	87																	
17-Jun-05	126	1500	1475	8.02	334	124	<1	4	45	70	54.5	<0.5	0.085	19.3	0.141	0.00609	0.0339	0.00387	<0.0002	<0.0005	<0.01	<0.00005	18.9
24-Jun-05	133	1500	1460	7.96	285	108																	
1-Jul-05	140	1500	1485	8.02	291	110	<1	2	40	63	48.3	<0.5	0.067	16.2	0.129	0.00561	0.0307	0.00347	<0.0002	<0.0005	<0.01	<0.00005	16.6
8-Jul-05	147	1500	1490	8.00	310	106																	
15-Jul-05	154	1500	1480	8.02	290	113	<1	2	42	70	52.8	<0.5	0.067	18.1	0.126	0.00556	0.0298	0.00375	<0.0002	<0.0005	<0.01	<0.00005	18
22-Jul-05	161	1500	1475	8.22	313	139																	
29-Jul-05	168	1500	1460	8.01	291	102	<1	2	43	59	50	<0.5	0.073	13	0.102	0.00657	0.0294	0.0038	<0.0002	<0.0005	<0.01	<0.00005	17.3
5-Aug-05	175	1500	1485	8.07	328	99																	
12-Aug-05	182	1500	1485	7.95	330	118	<1	1	44	60	57.1	<0.5	0.064	15	0.122	0.00652	0.0295	0.00457	<0.0002	<0.0005	<0.01	<0.00005	19.6
19-Aug-05	189	1500	1460	8.07	266	110																	
26-Aug-05	196	1500	1520	7.86	333	92	<1	2	38	80	48.6	<0.2	<0.1	11.3	0.125	0.00555	0.0259	0.00395	<0.0002	<0.0005	<0.01	<0.00005	16.7

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
4-Jul-12	1351																			
11-Jul-12	1358																			
18-Jul-12	1365																			
25-Jul-12	1372	<0.0005	<0.0001	0.00312	<0.03	0.000108	0.137	0.00445	<0.00001	0.0354	0.00124	0.345	<0.001	1.35	0.000013	<2	<0.00005	0.00558	<0.0005	0.0096
1-Aug-12	1379																			
8-Aug-12	1386																			
15-Aug-12	1393																			
22-Aug-12	1400	<0.0005	<0.0001	0.00331	<0.03	<0.00005	0.13	0.00504	<0.00001	0.0315	<0.0005	0.298	<0.001	1.37	<0.00001	<2	<0.00005	0.00602	<0.0005	0.0101
29-Aug-12	1407																			
5-Sep-12	1414																			
12-Sep-12	1421																			
19-Sep-12	1428	<0.0005	<0.0001	0.00284	<0.03	<0.00005	0.122	0.00697	<0.00001	0.024	<0.0005	0.317	<0.001	1.34	0.000025	<2	<0.00005	0.0063	<0.0005	0.0152
26-Sep-12	1435																			
3-Oct-12	1442																			
10-Oct-12	1449																			
17-Oct-12	1456	0.0109	0.00022	0.00322	<0.03	<0.00005	0.0945	0.0103	<0.00001	0.0193	0.00651	0.271	<0.001	1.36	0.000016	<2	<0.00005	0.00518	<0.0005	0.0214
24-Oct-12	1463																			
31-Oct-12	1470																			
7-Nov-12	1477																			
14-Nov-12	1484	<0.0005	0.00011	0.00415	<0.03	0.000057	0.105	0.0131	<0.00001	0.0155	<0.0005	0.325	<0.001	1.46	0.000022	<2	<0.00005	0.00526	<0.0005	0.0364
21-Nov-12	1491																			
28-Nov-12	1498																			
5-Dec-12	1505																			
12-Dec-12	1512	<0.0005	0.00014	0.00449	<0.03	<0.00005	0.0864	0.0179	<0.00001	0.011	<0.0005	0.289	<0.001	1.37	0.000011	<2	<0.00005	0.00447	<0.0005	0.0494
19-Dec-12	1519																			
26-Dec-12	1526																			

Sample 1 Scavenger Tails T_3

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Feb-05	0	<0.001	<0.0002	0.0152	<0.06	<0.0001	6	0.0343	<0.0001	0.0703	<0.001	31.1	<0.002	1.58	<0.00002	16.4	<0.0001	0.00034	<0.0025	0.0102
18-Feb-05	7																			
25-Feb-05	14	<0.001	<0.0002	0.0035	<0.06	<0.0001	2.6	0.0176	<0.0001	0.0229	<0.001	18.5	<0.002	1.37	<0.00002	4.8	<0.0001	<0.0002	<0.005	<0.002
4-Mar-05	21																			
11-Mar-05	28	<0.0005	<0.0001	0.0022	<0.06	<0.00005	1.56	0.0121	<0.0001	0.0117	<0.0005	11.3	<0.001	1.42	<0.00001	<4	0.000069	0.0001	0.00303	<0.001
18-Mar-05	35																			
25-Mar-05	42	<0.0005	<0.0001	0.00298	<0.03	<0.00005	1.78	0.0221	<0.0001	0.011	<0.0005	10.4	<0.001	1.54	<0.00001	<2	0.000062	<0.0001	0.00271	<0.001
1-Apr-05	49																			
8-Apr-05	56	<0.0005	<0.0001	0.00211	<0.03	<0.00005	1.46	0.0154	<0.0001	0.00835	<0.0005	8.83	<0.001	1.48	<0.00001	<2	0.000058	<0.0001	0.00344	<0.001
15-Apr-05	63																			
22-Apr-05	70	<0.0005	<0.0001	0.00197	<0.03	<0.00005	1.45	0.0154	<0.0001	0.0081	<0.0005	7.89	<0.001	1.32	<0.00001	<2	0.000057	<0.0001	0.00352	<0.001
29-Apr-05	77																			
6-May-05	84	<0.0005	<0.0001	0.00261	<0.03	0.000153	1.66	0.0166	<0.00001	0.00953	<0.0005	6.86	<0.001	1.63	<0.00001	<2	0.000056	0.00017	0.0033	0.0043
13-May-05	91																			
20-May-05	98	<0.0005	<0.0001	0.00259	<0.03	<0.00005	1.79	0.0185	<0.00001	0.00995	<0.0005	7.1	<0.001	1.53	<0.00001	<2	0.000061	<0.0001	0.00406	<0.001
27-May-05	105																			
3-Jun-05	112	<0.0005	<0.0001	0.00217	<0.03	<0.00005	1.45	0.0149	<0.0001	0.00817	<0.0005	4.99	<0.001	1.47	<0.00001	<2	<0.00005	<0.0001	0.00379	<0.001
10-Jun-05	119																			
17-Jun-05	126	<0.0005	<0.0001	0.00232	<0.03	<0.00005	1.74	0.0172	<0.00001	0.00995	<0.0005	4.91	<0.001	1.35	<0.00001	<2	0.000054	<0.0001	0.00373	0.0013
24-Jun-05	133																			
1-Jul-05	140	<0.0005	<0.0001	0.00223	<0.03	<0.00005	1.69	0.0157	<0.00001	0.00929	<0.0005	4.17	<0.001	1.37	<0.00001	<2	0.00005	0.00011	0.00357	<0.001
8-Jul-05	147																			
15-Jul-05	154	<0.0005	<0.0001	0.00237	<0.03	<0.00005	1.89	0.0172	<0.00001	0.0108	<0.0005	4.01	<0.001	1.43	<0.00001	<2	<0.00005	<0.0001	0.00339	<0.001
22-Jul-05	161																			
29-Jul-05	168	<0.0005	<0.0001	0.00226	<0.03	<0.00005	1.65	0.0157	<0.00001	0.00843	<0.0005	3.77	<0.001	1.5	<0.00001	<2	<0.00005	<0.0001	0.00347	<0.001
5-Aug-05	175																			
12-Aug-05	182	<0.0005	<0.0001	0.0026	<0.03	<0.00005	1.98	0.0173	<0.00001	0.00932	<0.0005	3.82	<0.001	1.47	<0.00001	<2	<0.00005	<0.0001	0.00368	<0.001
19-Aug-05	189																			
26-Aug-05	196	<0.0005	<0.0001	0.00487	<0.03	<0.00005	1.7	0.0136	<0.0001	0.00757	<0.0005	2.97	<0.001	1.4	<0.00001	<2	<0.00005	<0.0001	0.00354	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
2-Sep-05	203	1500	1500	8.01	311	102																	
9-Sep-05	210	1500	1415	7.88	267	71	<1	1	32	56	38.2	<0.5	0.052	9.06	0.127	0.00427	0.0226	0.00342	<0.0002	<0.0005	<0.01	<0.00005	13
16-Sep-05	217	1500	1485	7.93	267	92																	
23-Sep-05	224	1500	1460	8.01	233	116	<1	1	45	69	54.9	<0.5	0.032	15.4	0.0911	0.00571	0.0251	0.00562	<0.0002	<0.0005	<0.01	<0.00005	18.6
30-Sep-05	231	1500	1475	7.89	221	95																	
7-Oct-05	238	1500	1465	7.83	196	82	<1	3	35	49	41.4	<0.5	0.07	8.92	0.0935	0.00516	0.0264	0.00403	<0.0002	<0.0005	<0.01	<0.00005	14.2

Sample 1 Bulk Cleaner Tails T6

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11-Feb-05	0	0	2250	7.30	379	620	<1	7	41	452	246	3.25	0.035	242	0.0315	0.00806	0.0316	0.0122	<0.0002	<0.0005	0.014	<0.00005	91.2
18-Feb-05	7	1500	1680	8.12	338	475																	
25-Feb-05	14	1500	1500	8.17	341	377	<1	1	71	252	146	0.86	0.262	119	0.124	0.00984	0.0609	0.0123	<0.0002	<0.0005	0.012	<0.00005	52.8
4-Mar-05	21	1500	1450	8.24	402	243																	
11-Mar-05	28	1500	1455	8.15	386	196	<1	1	72	126	74.9	<0.5	0.222	33.7	0.148	0.0118	0.027	0.0103	<0.0002	<0.0005	0.011	<0.00005	26.7
18-Mar-05	35	1500	1460	8.20	404	191																	
25-Mar-05	42	1500	1460	8.13	413	178	<1	2	57	110	68.3	<0.5	0.152	28.8	0.149	0.0102	0.0213	0.00999	<0.0002	<0.0005	<0.01	<0.00005	24.3
1-Apr-05	49	1500	1485	8.18	416	155																	
8-Apr-05	56	1500	1500	8.10	312	139	<1	1	46	84	49.8	<0.2	0.11	21.6	0.249	0.00679	0.0211	0.00748	<0.0002	<0.0005	<0.01	<0.00005	17.4
15-Apr-05	63	1500	1480	7.98	389	129																	
22-Apr-05	70	1500	1470	7.85	401	118	<1	2	34	73	48.6	<0.5	0.067	23	0.13	0.0041	0.0109	0.00646	<0.0002	<0.0005	<0.01	<0.00005	17
29-Apr-05	77	1500	1475	7.96	421	144																	
6-May-05	84	1500	1470	7.94	356	143	<1	4	36	86	58.3	<0.5	0.133	13	0.0753	0.00478	0.00875	0.0082	<0.0002	<0.0005	<0.01	<0.00005	19.8
13-May-05	91	1500	1480	7.48	389	52																	
20-May-05	98	1500	1490	7.25	382	42	<1	3	10	29	17.8	<0.5	<0.02	13	0.0226	0.00122	0.00271	0.00292	<0.0002	<0.0005	<0.01	<0.00005	5.85
27-May-05	105	1500	1480	7.31	393	48																	
3-Jun-05	112	1500	1495	7.33	387	51	<1	3	9	26	20.4	<0.5	<0.02	18.2	0.0213	0.00105	0.00189	0.00298	<0.0002	<0.0005	<0.01	<0.00005	6.82
10-Jun-05	119	1500	1465	7.42	393	87																	
17-Jun-05	126	1500	1500	7.28	369	63	<1	5	10	38	25.8	<0.5	0.02	20.6	0.0238	0.00126	0.00372	0.0043	<0.0002	<0.0005	<0.01	<0.00005	8.52
24-Jun-05	133	1500	1465	7.16	296	45																	
1-Jul-05	140	1500	1505	7.49	317	103	<1	4	13	60	42.7	<0.5	0.023	35.3	0.0266	0.0017	0.00396	0.00633	<0.0002	<0.0005	<0.01	<0.00005	14
8-Jul-05	147	1500	1490	7.95	309	281																	
15-Jul-05	154	1500	1465	7.81	303	157	<1	3	29	99	70.8	<0.5	0.045	51.1	0.0519	0.00332	0.00647	0.00892	<0.0002	<0.0005	<0.01	<0.00005	23.2
22-Jul-05	161	1500	1430	7.99	329	158																	
29-Jul-05	168	1500	1425	8.20	282	221	<1	1	54	154	112	<0.5	0.065	70.7	0.0463	0.00565	0.00778	0.0146	<0.0002	<0.0005	<0.01	<0.00005	36.7
5-Aug-05	175	1500	1430	8.23	308	263																	
12-Aug-05	182	1500	1430	7.81	336	72	<1	2	26	48	36.8	<0.5	0.04	14.7	0.0672	0.00319	0.00727	0.0042	<0.0002	<0.0005	<0.01	<0.00005	12
19-Aug-05	189	1500	1400	7.51	377	36																	
26-Aug-05	196	1500	1445	7.34	338	29	<1	2	12	26	15.5	<0.2	<0.1	8.75	0.0281	0.00102	0.00262	0.00198	<0.0002	<0.0005	<0.01	<0.00005	5.05
2-Sep-05	203	1500	1470	7.27	305	26																	
9-Sep-05	210	1500	1355	7.22	286	28	<1	2	8	30	16	<0.5	<0.02	11.1	0.0233	0.000893	0.00224	0.00288	<0.0002	<0.0005	<0.01	<0.00005	5.18
16-Sep-05	217	1500	1410	7.30	282	34																	
23-Sep-05	224	1500	1490	7.01	199	34	<1	2	8	<20	15.1	<0.5	<0.02	11.6	0.0169	0.000659	0.00343	0.00217	<0.0002	<0.0005	<0.01	<0.00005	4.81
30-Sep-05	231	1500	1495	7.15	218	114																	
7-Oct-05	238	1500	1435	7.15	215	52	<1	4	10	42	25.4	<0.5	<0.02	19	0.0145	0.00113	0.00366	0.00346	<0.0002	<0.0005	<0.01	<0.00005	8.25
14-Oct-05	245	1500	1505	6.94	414	30																	
21-Oct-05	252	1500	1442	6.69	329	28	<1	3	7	18	15.9	<0.5	<0.02	12.4	0.0073	0.000633	0.00171	0.00212	<0.0002	<0.0005	<0.01	<0.00005	5.04
28-Oct-05	259	1500	1520	6.82	396	30																	
4-Nov-05	266	1500	1455	6.76	343	28	<1	3	7	22	15.8	<0.5	<0.02	12.8	0.0123	0.000657	0.00222	0.00219	<0.0002	<0.0005	<0.01	<0.00005	4.98
11-Nov-05	273	1500	1485	6.90	353	40																	
18-Nov-05	280	1500	1480	7.16	333	65	<1	3	12	48	32.9	<0.5	0.028	24.4	0.0188	0.00125	0.00558	0.00408	<0.0002	<0.0005	<0.01	<0.00005	10.5
25-Nov-05	287	1500	1490	6.80	346	27																	
2-Dec-05	294	1500	1530	6.84	461	32	<1	5	7	33	20.9	<0.5	<0.02	16.1	0.0079	0.00066	0.0019	0.00272	<0.0002	<0.0005	<0.01	<0.00005	6.68
9-Dec-05	301	1500	1495	7.20	368	39																	
16-Dec-05	308	1500	1535	7.06	413	52	<1	3	11	36	30.1	<0.5	0.024	21.3	0.0171	0.00116	0.00501	0.00366	<0.0002	<0.0005	<0.01	<0.00005	9.66
23-Dec-05	315	1500	1435	7.40	441	56																	
30-Dec-05	322	1500	1435	7.65	365	435	<1	5	63	310	227	1.51	0.111	164	0.0183	0.00534	0.00595	0.0256	<0.0002	<0.0005	<0.01	<0.00005	73.7
6-Jan-06	329	1500	1165	8.00	437	311																	
13-Jan-06	336	1500	1570	7.96	444	228	<1	3	71	142	106	<0.5	0.134	46.2	0.0235	0.00638	0.00788	0.0129	<0.0002	<0.0005	<0.01	<0.00005	33.2

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
2-Sep-05	203																			
9-Sep-05	210	<0.0005	<0.0001	0.00387	<0.03	0.000134	1.41	0.0113	<0.00001	0.00615	<0.0005	2.43	<0.001	1.18	<0.00001	<2	<0.00005		0.00316	0.0016
16-Sep-05	217																			
23-Sep-05	224	<0.0005	<0.0001	0.00501	<0.03	0.000118	2.06	0.0171	<0.00001	0.0107	<0.0005	3.13	<0.001	1.51	<0.00001	<2	<0.00005	<0.0001	0.00317	0.0021
30-Sep-05	231																			
7-Oct-05	238	<0.0005	<0.0001	0.00208	<0.03	<0.00005	1.46	0.0125	<0.00001	0.00566	<0.0005	2.51	<0.001	1.35	<0.00001	<2	<0.00005	<0.0001	0.00325	<0.001

Sample 1 Bulk Cleaner Tails T6

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Feb-05	0	<0.0005	<0.0001	0.0112	<0.06	0.000459	4.43	0.0224	<0.0001	0.0514	<0.0005	28.7	<0.001	1.57	<0.00001	15.9	0.000103	0.00063	<0.0015	0.0056
18-Feb-05	7																			
25-Feb-05	14	<0.0005	<0.0001	0.003	<0.06	<0.00005	3.38	0.014	<0.0001	0.0454	<0.0005	21.5	<0.001	1.44	<0.00001	8	0.000094	0.00019	<0.002	<0.001
4-Mar-05	21																			
11-Mar-05	28	<0.0005	<0.0001	0.00182	<0.06	<0.00005	2	0.00765	<0.0001	0.022	<0.0005	14.4	<0.001	1.36	<0.00001	<4	0.000061	<0.0001	0.00158	<0.001
18-Mar-05	35																			
25-Mar-05	42	<0.0005	<0.0001	0.0019	<0.03	<0.00005	1.84	0.00691	<0.0001	0.0138	<0.0005	12.5	<0.001	1.34	<0.00001	<2	0.000055	<0.0001	0.00167	<0.001
1-Apr-05	49																			
8-Apr-05	56	<0.0005	<0.0001	0.00137	<0.03	<0.00005	1.55	0.00534	<0.0001	0.00877	<0.0005	8.81	<0.001	1.21	<0.00001	<2	<0.00005	<0.0001	0.00224	<0.001
15-Apr-05	63																			
22-Apr-05	70	<0.0005	<0.0001	0.00124	<0.03	<0.00005	1.51	0.00656	<0.0001	0.00705	<0.0005	5.9	<0.001	0.82	<0.00001	<2	<0.00005	<0.0001	0.0014	<0.001
29-Apr-05	77																			
6-May-05	84	<0.0005	<0.0001	0.00169	<0.03	<0.00005	2.15	0.0115	<0.00001	0.00959	<0.0005	5.53	<0.001	0.988	<0.00001	<2	<0.00005	<0.0001	0.00102	<0.001
13-May-05	91																			
20-May-05	98	<0.0005	<0.0001	0.00294	<0.03	<0.00005	0.783	0.00742	<0.00001	0.00347	<0.0005	1.89	<0.001	0.293	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-May-05	105																			
3-Jun-05	112	<0.0005	<0.0001	0.0026	<0.03	<0.00005	0.818	0.00686	<0.0001	0.00398	<0.0005	1.72	<0.001	0.273	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
10-Jun-05	119																			
17-Jun-05	126	<0.0005	<0.0001	0.00363	<0.03	<0.00005	1.1	0.0167	<0.00001	0.00506	<0.0005	1.95	<0.001	0.312	<0.00001	<2	<0.00005	<0.0001	0.00066	<0.001
24-Jun-05	133																			
1-Jul-05	140	<0.0005	<0.0001	0.00378	<0.03	<0.00005	1.92	0.0188	<0.00001	0.0082	<0.0005	3.01	<0.001	0.437	<0.00001	<2	<0.00005	<0.0001	0.00065	<0.001
8-Jul-05	147																			
15-Jul-05	154	<0.0005	<0.0001	0.00497	<0.03	0.000062	3.15	0.0264	<0.00001	0.0145	<0.0005	4.65	<0.001	0.881	<0.00001	<2	0.000065	<0.0001	0.0008	<0.001
22-Jul-05	161																			
29-Jul-05	168	<0.0005	<0.0001	0.00778	<0.03	<0.00005	4.93	0.045	<0.00001	0.0227	<0.0005	7.16	<0.001	1.46	<0.00001	<2	0.000095	<0.0001	0.001	0.0013
5-Aug-05	175																			
12-Aug-05	182	<0.0005	<0.0001	0.00385	<0.03	<0.00005	1.66	0.0152	<0.00001	0.00676	<0.0005	3.08	<0.001	0.694	<0.00001	<2	<0.00005	<0.0001	0.00105	<0.001
19-Aug-05	189																			
26-Aug-05	196	<0.0005	<0.0001	0.00493	<0.03	<0.00005	0.702	0.00643	<0.0001	0.00338	<0.0005	1.25	<0.001	0.262	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
2-Sep-05	203																			
9-Sep-05	210	<0.0005	<0.0001	0.00523	0.032	0.000055	0.751	0.00702	<0.00001	0.00394	<0.0005	1.24	<0.001	0.229	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
16-Sep-05	217																			
23-Sep-05	224	<0.0005	<0.0001	0.00747	<0.03	0.000148	0.748	0.00951	<0.00001	0.00417	<0.0005	1.04	<0.001	0.197	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0043
30-Sep-05	231																			
7-Oct-05	238	<0.0005	<0.0001	0.00655	<0.03	<0.00005	1.17	0.0196	<0.00001	0.00644	<0.0005	1.63	<0.001	0.31	<0.00001	<2	<0.00005	<0.0001	0.00061	0.0016
14-Oct-05	245																			
21-Oct-05	252	<0.0005	<0.0001	0.00592	<0.03	<0.00005	0.793	0.0103	<0.00001	0.00442	<0.0005	1.25	<0.001	0.188	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
28-Oct-05	259																			
4-Nov-05	266	<0.0005	<0.0001	0.00648	<0.03	<0.00005	0.813	0.0145	<0.00001	0.00409	<0.0005	0.952	<0.001	0.178	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-Nov-05	273																			
18-Nov-05	280	<0.0005	<0.0001	0.0038	<0.03	<0.00005	1.64	0.0275	<0.00001	0.00676	<0.0005	1.74	<0.001	0.357	<0.00001	<2	<0.00005	<0.0001	0.00086	0.0013
25-Nov-05	287																			
2-Dec-05	294	<0.0005	<0.0001	0.00734	<0.03	<0.00005	1.03	0.0179	<0.00001	0.00409	<0.0005	1.11	<0.001	0.204	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
9-Dec-05	301																			
16-Dec-05	308	<0.0005	<0.0001	0.00412	<0.03		1.44	0.0253	<0.00001	0.00578	<0.0005	1.56	<0.001	0.329	<0.00001	<2	<0.00005	<0.0001	0.00069	0.0015
23-Dec-05	315																			
30-Dec-05	322	<0.0005	0.00017	0.0114	<0.03	<0.00005	10.5	0.12	<0.00001	0.0447	<0.0005	8.79	<0.001	1.8	<0.00001	<2	0.000108	<0.0001	0.00074	0.0014
6-Jan-06	329																			
13-Jan-06	336	<0.0005	0.00011	0.0114	<0.03	<0.00005	5.59	0.0639	<0.00001	0.0291	<0.0005	6.43	<0.001	1.72	<0.00001	<2	0.000086	<0.0001	0.00097	0.0011

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
20-Jan-06	343	1500	1480	7.94	392	194																	
27-Jan-06	350	1500	1300	7.98	372	194	<1	2	69	106	88.9	<0.5	0.123	24.9	0.0278	0.00642	0.00893	0.00988	<0.0002	<0.0005	<0.01	<0.00005	28.2
3-Feb-06	357	1500	1440	8.01	415	162																	
10-Feb-06	364	1500	1525	7.87	421	170	<1	2	66	92	79.4	<0.5	0.131	21.1	0.0265	0.00675	0.00891	0.00954	<0.0002	<0.0005	<0.01	<0.00005	25.4
17-Feb-06	371	1500	1520	7.71	430	168																	
24-Feb-06	378	1500	1425	7.95	412	172	<1	2	64	85	78.6	<0.5	0.124	19.1	0.0278	0.00666	0.00931	0.00896	<0.0002	<0.0005	<0.01	<0.00005	24.8
3-Mar-06	385	1500	1405	7.96	449	186																	
10-Mar-06	392	1500	1430	7.78	326	159	<1	3	62	98	76.3	<0.5	0.11	17.7	0.0326	0.0071	0.0102	0.00917	<0.0002	<0.0005	<0.01	<0.00005	24
17-Mar-06	399	1500	1515	7.79	376	152																	
24-Mar-06	406	1500	1365	7.71	390	133	<1	2	51	78	63.1	<0.5	0.087	14.7	0.0412	0.00507	0.00837	0.00775	<0.0002	<0.0005	<0.01	<0.00005	20.1
31-Mar-06	413	1500	1425	7.88	391	190																	
7-Apr-06	420	1500	1600	7.81	403	153	<1	2	57	79	70.9	<0.5	0.092	16.7	0.0392	0.00711	0.0109	0.00865	<0.0002	<0.0005	<0.01	<0.00005	21.7
14-Apr-06	427	1500	1395	7.93	537	178																	
21-Apr-06	434	1500	1440	8.10	403	165	<1	2	55	99	79.4	<0.5	0.097	22	0.035	0.00736	0.01	0.00962	<0.0002	<0.0005	<0.01	<0.00005	25
28-Apr-06	441	1500	1405	8.00	235	165																	
5-May-06	448	1500	1535	7.84	294	154	<1	2	56	62	71.4	<0.5	0.08	17.2	0.0442	0.00661	0.0104	0.00892	<0.0002	<0.0005	<0.01	<0.00005	21.6
12-May-06	455	1500	1425	8.06	265	162																	
19-May-06	462	1500	1470	7.88	322	153	<1	2	63	86	68.4	<0.5	<0.02	18.3	0.0334	0.00559	0.0093	0.00821	<0.0002	<0.0005	<0.01	<0.00005	21.5
26-May-06	469	1500	1500	7.96	300	181																	
2-Jun-06	476	1500	1430	7.99	324	160	<1	2	61	84	76.9	<0.5	0.082	18	0.0286	0.00632	0.00922	0.00911	<0.0002	<0.0005	<0.01	<0.00005	23.9
9-Jun-06	483	1500	1470	8.05	296	177																	
16-Jun-06	490	1500	1480	8.08	325	163	<1	2	63	94	76.8	<0.5	0.085	16.8	0.0441	0.00665	0.00933	0.0092	<0.0002	<0.0005	<0.01	<0.00005	23.7
23-Jun-06	497	1500	1385	8.12	142	160																	
30-Jun-06	504	1500	1345	7.89	352	173	<1	3	64	96	80.8	0.57	0.08	19.5	0.0297	0.00613	0.00914	0.00977	<0.0002	<0.0005	<0.01	<0.00005	24.6
7-Jul-06	511	1500	1405	7.98	288	165																	
14-Jul-06	518	1500	1600	8.13	219	155																	
21-Jul-06	525	1500	1350																				
28-Jul-06	532	1500	1615	7.57	373	153	<1	3	60	85	78.7	<0.5	0.077	14.3	0.0298	0.00613	0.00921	0.00876	<0.0002	<0.0005	<0.01	<0.00005	24.6
4-Aug-06	539	1500	1585																				
11-Aug-06	546	1500	1350	7.91	198	136																	
18-Aug-06	553	1500	1390																				
25-Aug-06	560	1500	1470	7.11	273	143	<1	8	60	79	70.8	0.57	0.07	14.3	0.0291	0.00583	0.00876	0.00859	<0.0002	<0.0005	<0.01	<0.00005	21.5
1-Sep-06	567	1500	1680																				
8-Sep-06	574	1500	1520	7.97	230	140																	
15-Sep-06	581	1500	1260																				
22-Sep-06	588	1500	1450	7.56	302	133	<1	2	52	63	65.5	0.67	0.067	12.4	0.0302	0.00454	0.00924	0.00705	<0.0002	<0.0005	<0.01	<0.00005	20.3
29-Sep-06	595	1500	1420																				
6-Oct-06	602	1500	1250	7.91	255	140																	
13-Oct-06	609	1500	1260																				
20-Oct-06	616	1500	1455	7.64	388	123	<1	3	49	73	59.7	<0.5	0.064	12.5	0.0315	0.00394	0.00865	0.00652	<0.0002	<0.0005	<0.01	<0.00005	18.1
27-Oct-06	623	1500	1750																				
3-Nov-06	630	1500	1550	7.29	379	157																	
10-Nov-06	637	1500	1560																				
17-Nov-06	644	1500	1485	7.73	317	151	<1	8	59	80.3	74.1	<0.5	0.067	16.1	0.0258	0.00476	0.00918	0.00757	<0.0002	<0.0005	<0.01	<0.00005	23.1
24-Nov-06	651	1500	1430																				
1-Dec-06	658	1500	1445	8.03	363	154																	
8-Dec-06	665	1500	1350																				
15-Dec-06	672	1500	1480	7.79	279	147	<1	3	57	75	67.8	<0.5	0.066	16.3	0.0246	0.00449	0.0093	0.00704	<0.0002	<0.0005	<0.01	<0.00005	20.6
22-Dec-06	679	1500	1580																				
29-Dec-06	686	1500	1410	7.99	369	145																	
5-Jan-07	693	1500	1540																				
12-Jan-07	700	1500	1285	7.76	339	140	<1	2	54	145	70.8	0.52	0.051	15.3	0.0193	0.0036	0.00735	0.00701	<0.0002	<0.0005	<0.01	<0.00005	21.8
19-Jan-07	707	1500	1515																				
26-Jan-07	714	1500	1370	7.58	392	152																	
2-Feb-07	721	1500	1505																				
9-Feb-07	728	1500	1435	7.54	349	126	<1	4	50	69.5	55.5	<0.5	0.04	11.7	0.0258	0.0035	0.0077	0.00624	<0.0002	<0.0005	<0.01	<0.00005	16
16-Feb-07	735	1500	1560																				
23-Feb-07	742	1500	1440	7.65	267	150																	
2-Mar-07	749	1500	1415																				
9-Mar-07	756	1500	1385	7.66	387	131	<1	2	54	78.8	65	<0.5	0.059	12.2	0.0226	0.00394	0.00796	0.00753	<0.0002	<0.0005	<0.01	<0.00005	19.4

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Jan-06	343																			
27-Jan-06	350	<0.0005	<0.0001	0.0104	<0.03		4.47	0.0489	<0.00001	0.0185	<0.0005	5.24	<0.001	1.59	<0.00001	<2	0.000072	<0.0001	0.00109	0.0022
3-Feb-06	357																			
10-Feb-06	364	<0.0005	0.00014	0.0133	<0.03	0.000059	3.89	0.0418	<0.00001	0.0143	0.00165	5.68	<0.001	1.65	<0.00001	<2	0.00007	<0.0001	0.00106	0.0026
17-Feb-06	371																			
24-Feb-06	378	<0.0005	<0.0001	0.00972	<0.03	<0.00005	4.03	0.0348	<0.00001	0.011	<0.0005	4.31	<0.001	1.62	<0.00001	<2	0.00006	<0.0001	0.00104	0.0011
3-Mar-06	385																			
10-Mar-06	392	<0.0005	<0.0001	0.0083	<0.03	0.000123	4	0.038	<0.00001	0.0108	<0.0005	4.43	<0.001	1.53	<0.00001	<2	0.000066	0.00024	0.00123	<0.001
17-Mar-06	399																			
24-Mar-06	406	<0.0005	<0.0001	0.00773	0.031	<0.00005	3.13	0.0325	<0.00001	0.00785	<0.0005	3.35	<0.001	1.44	<0.00001	<2	0.000052	<0.0001	0.0013	<0.001
31-Mar-06	413																			
7-Apr-06	420	<0.0005	<0.0001	0.00807	<0.03	<0.00005	4.06	0.038	<0.00001	0.01	<0.0005	4.3	<0.001	1.51	<0.00001	<2	0.00006	0.00016	0.00157	0.0012
14-Apr-06	427																			
21-Apr-06	434	<0.0005	<0.0001	0.00846	<0.03	<0.00005	4.13	0.0426	<0.00001	0.0116	<0.0005	4.34	<0.001	1.59	<0.00001	<2	0.000065	<0.0001	0.00107	0.0011
28-Apr-06	441																			
5-May-06	448	<0.0005	<0.0001	0.00767	<0.03	<0.00005	4.25	0.0391	<0.00001	0.0102	<0.0005	4.01	<0.001	1.49	<0.00001	<2	0.000064	0.00013	0.00157	0.0011
12-May-06	455																			
19-May-06	462	<0.0005	<0.0001	0.0065	<0.03	<0.00005	3.57	0.0335	<0.00001	0.0105	<0.0005	3.24	<0.001	1.4	<0.00001	<2	0.000052	<0.0001	0.00116	0.0015
26-May-06	469																			
2-Jun-06	476	<0.0005	0.00012	0.0103	<0.03	<0.00005	4.21	0.0393	<0.00001	0.0106	<0.0005	3.54	<0.001	1.48	<0.00001	<2	0.000129	<0.0001	0.00139	<0.001
9-Jun-06	483																			
16-Jun-06	490	<0.0005	<0.0001	0.00814	<0.03	<0.00005	4.29	0.04	<0.00001	0.00992	<0.0005	3.93	<0.001	1.61	<0.00001	<2	0.000069	<0.0001	0.00136	<0.001
23-Jun-06	497																			
30-Jun-06	504	<0.0005	<0.0001	0.00781	<0.03	<0.00005	4.73	0.0439	<0.00001	0.0113	<0.0005	3.77	<0.001	1.48	<0.00001	<2	0.00007	<0.0001	0.0015	<0.001
7-Jul-06	511																			
14-Jul-06	518																			
21-Jul-06	525																			
28-Jul-06	532	<0.0005	<0.0001	0.00727	<0.03	<0.00005	4.21	0.0412	<0.00001	0.00894	<0.0005	3.35	<0.001	1.58	<0.00001	<2	0.000065	<0.0001	0.00152	<0.001
4-Aug-06	539																			
11-Aug-06	546																			
18-Aug-06	553																			
25-Aug-06	560	<0.0005	<0.0001	0.00818	<0.03	<0.00005	4.16	0.0426	<0.00001	0.00868	<0.0005	3.21	<0.001	1.59	<0.00001	<2	0.000061	<0.0001	0.00154	<0.001
1-Sep-06	567																			
8-Sep-06	574																			
15-Sep-06	581																			
22-Sep-06	588	<0.0005	<0.0001	0.00585	<0.03	0.00007	3.6	0.0349	<0.00001	0.00675	<0.0005	2.59	<0.001	1.28	<0.00001	<2	0.000051	<0.0001	0.00153	0.001
29-Sep-06	595																			
6-Oct-06	602																			
13-Oct-06	609																			
20-Oct-06	616	<0.0005	<0.0001	0.00512	<0.03	<0.00005	3.51	0.0323	<0.00001	0.00601	0.00095	2.32	<0.001	1.13	<0.00001	<2	<0.00005	<0.0001	0.00152	0.0011
27-Oct-06	623																			
3-Nov-06	630																			
10-Nov-06	637																			
17-Nov-06	644	<0.0005	<0.0001	0.00592	<0.03	<0.00005	4	0.0377	<0.00001	0.00752	<0.0005	2.7	<0.001	1.42	<0.00001	<2	<0.00005	<0.0001	0.00149	<0.001
24-Nov-06	651																			
1-Dec-06	658																			
8-Dec-06	665																			
15-Dec-06	672	<0.0005	<0.0001	0.00513	<0.03	<0.00005	3.95	0.0353	<0.00001	0.00787	<0.0005	2.68	<0.001	1.36	<0.00001	<2	<0.00005	<0.0001	0.00136	<0.001
22-Dec-06	679																			
29-Dec-06	686																			
5-Jan-07	693																			
12-Jan-07	700	<0.0005	<0.0001	0.0063	<0.03	<0.00005	4	0.0352	<0.00001	0.00713	<0.0005	2.27	<0.001	1.18	<0.00001	<2	<0.00005	<0.0001	0.00126	0.0087
19-Jan-07	707																			
26-Jan-07	714																			
2-Feb-07	721																			
9-Feb-07	728	<0.0005	<0.0001	0.00539	<0.03	<0.00005	3.77	0.033	<0.00001	0.00663	<0.0005	2.29	<0.001	0.977	<0.00001	<2	<0.00005	<0.0001	0.00146	
16-Feb-07	735																			
23-Feb-07	742																			
2-Mar-07	749																			
9-Mar-07	756	<0.0005	<0.0001	0.00708	<0.03	<0.00005	4.03	0.0283	<0.00001	0.00703	<0.0005	2.37	<0.001	1.24	<0.00001	<2	<0.00005	<0.0001	0.00143	0.0015

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
16-Mar-07	763	1500	1450																				
23-Mar-07	770	1500	1540	7.75	391	136																	
30-Mar-07	777	1500	1345																				
6-Apr-07	784	1500	1365	7.93	387	155	<1	2	61	75	65.6	<0.5	0.072	13.3	0.025	0.00444	0.00822	0.00689	<0.0002	<0.0005	<0.01	<0.00005	19.5
13-Apr-07	791	1500	1335																				
20-Apr-07	798	1500	1330	8.06	339	160																	
27-Apr-07	805	1500	1325																				
4-May-07	812	1500	1575	7.75	360	141	<1	3	60	75	69.1	<0.5	0.068	13.6	0.0238	0.00447	0.00858	0.00699	<0.0002	<0.0005	<0.01	<0.00005	20.4
11-May-07	819	1500	1330																				
18-May-07	826	1500	1520	8.06	385	141																	
25-May-07	833	1500	1360																				
1-Jun-07	840	1500	1335	8.00	334	156	<1	3	65	88.5	80.4	0.61	0.079	14.6	0.0236	0.00522	0.0091	0.00789	<0.0002	<0.0005	<0.01	<0.00005	23.5
8-Jun-07	847	1500	1525																				
15-Jun-07	854	1500	1440	7.96	470	139																	
22-Jun-07	861	1500	1550																				
29-Jun-07	868	1500	1395	8.01	385	203	<1	3	63	80.3	69.2	<0.5	0.054	12.3	0.0221	0.00453	0.00854	0.00621	<0.0002	<0.0005	<0.01	<0.00005	20.8
6-Jul-07	875	1500	1520																				
13-Jul-07	882	1500	1400	7.50	419	151																	
20-Jul-07	889	1500	1320																				
27-Jul-07	896	1500	1395	7.92	378	134	<1	3	50	64.3	58.8	0.59	0.06	11.1	0.0237	0.00345	0.00748	0.00584	<0.0002	<0.0005	<0.01	<0.00005	17.3
3-Aug-07	903	1500	1345																				
10-Aug-07	910	1500	1300	7.98	235	142																	
17-Aug-07	917	1500	1345																				
24-Aug-07	924	1500	1450	8.03	420	118	<1	2	62	71.8	72.3	<0.5	0.068	13.5	0.0215	0.00462	0.0091	0.00636	<0.0002	<0.0005	<0.01	<0.00005	21.4
31-Aug-07	931	1500	1380																				
7-Sep-07	938	1500	1400	7.99	268	116																	
14-Sep-07	945	1500	1445																				
21-Sep-07	952	1500	1260	7.89	397	153	<1	4	59	66	61.7	0.55	0.061	10.5	0.0199	0.00354	0.00738	0.00547	<0.0002	<0.0005	<0.01	<0.00005	18
28-Sep-07	959	1500	1320																				
5-Oct-07	966	1500	1550	7.91	283	144																	
12-Oct-07	973	1500	1215																				
19-Oct-07	980	1500	1465	7.85	371	136	<1	3	58	68.7	63.6	<0.5	0.065	9.75	0.0149	0.00377	0.00748	0.00539	<0.0002	<0.0005	<0.01	<0.00005	19
26-Oct-07	987	1500	1440																				
2-Nov-07	994	1500	1445	7.75	354	131																	
9-Nov-07	1001	1500	1330																				
16-Nov-07	1008	1500	1415	8.01	394	145	<1	3	57	80.3	68	<0.5	0.066	13.6	0.0177	0.00381	0.00796	0.00596	<0.0002	<0.0005	<0.01	<0.00005	20.1
23-Nov-07	1015	1500	1395																				
30-Nov-07	1022	1500	1320	7.67	424	117																	
7-Dec-07	1029	1500	1375																				
14-Dec-07	1036	1500	1440	7.45	435	37	<1	2	14	16	11.3	<0.5	0.023	1.74	0.0248	0.00106	0.00624	0.00145	<0.0002	<0.0005	<0.01	<0.00005	3.19
21-Dec-07	1043	1500	1410																				
28-Dec-07	1050	1500	1380	7.47	430	36																	
4-Jan-08	1057	1500	1405																				
11-Jan-08	1064	1500	1440	7.17	470	38	<1	3	10	<10	10.6	<0.5	<0.02	3.56	0.0144	0.000604	0.00417	0.000923	<0.0002	<0.0005	<0.01	<0.00005	3.09
18-Jan-08	1071	1500	1465																				
25-Jan-08	1078	1500	1395	7.65	396	31																	
1-Feb-08	1085	1500	1410																				
8-Feb-08	1092	1500	1595	7.55	408	48	<1	3	15	36.5	20.6	<0.5	<0.02	9.63	0.0128	0.000843	0.00423	0.00211	<0.0002	<0.0005	<0.01	<0.00005	5.89
15-Feb-08	1099	1500	1680																				
22-Feb-08	1106	1500	1480	7.31	375	36																	
29-Feb-08	1113	1500	1615																				
7-Mar-08	1120	1500	1370	7.54	390	79	<1	3	24	64.2	51.1	0.96	0.042	25.6	0.02	0.0017	0.00505	0.00473	<0.0002	<0.0005	<0.01	0.000058	14.7
14-Mar-08	1127	1500	1295																				
21-Mar-08	1134	1500	1505	7.68	377	93																	
28-Mar-08	1141	1500	1425																				
4-Apr-08	1148	1500	1295	7.72	365	117	<1	4	47	56.5	51.3	<0.5	0.055	11.4	0.0375	0.00264	0.00823	0.00572	<0.0002	<0.0005	<0.01	<0.00005	15
11-Apr-08	1155	1500	1370																				
18-Apr-08	1162	1500	1495	7.83	417	80																	
25-Apr-08	1169	1500	1465																				
2-May-08	1176	1500	1420	8.08	390	183	<1	2	79	102	88.7	0.87	0.102	19.9	0.0113	0.00377	0.00513	0.0089	<0.0002	<0.0005	<0.01	<0.00005	25.6

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-Mar-07	763																			
23-Mar-07	770																			
30-Mar-07	777																			
6-Apr-07	784	<0.0005	<0.0001	0.00367	<0.03	<0.00005	4.12	0.0257	<0.00001	0.00783	<0.0005	2.48	<0.001	1.26	<0.00001	<2	<0.00005	<0.0001	0.00146	<0.001
13-Apr-07	791																			
20-Apr-07	798																			
27-Apr-07	805																			
4-May-07	812	<0.0005	<0.0001	0.00523	<0.03	<0.00005	4.43	0.0268	<0.00001	0.009	<0.0005	2.58	<0.001	1.3	<0.00001	<2	<0.00005	<0.0001	0.00154	<0.001
11-May-07	819																			
18-May-07	826																			
25-May-07	833																			
1-Jun-07	840	<0.0005	<0.0001	0.00287	<0.03	<0.00005	5.27	0.00812	<0.00001	0.0123	<0.0005	2.95	<0.001	1.43	<0.00001	<2	0.000052	<0.0001	0.00187	<0.001
8-Jun-07	847																			
15-Jun-07	854																			
22-Jun-07	861																			
29-Jun-07	868	<0.0005	<0.0001	0.00385	<0.03	<0.00005	4.17	0.0135	<0.00001	0.0111	0.00052	2.41	<0.001	1.42	<0.00001	<2	<0.00005	<0.0001	0.00153	<0.001
6-Jul-07	875																			
13-Jul-07	882																			
20-Jul-07	889																			
27-Jul-07	896	<0.0005	<0.0001	0.00472	<0.03	0.000157	3.76	0.0108	<0.00001	0.0121	<0.0005	2.04	<0.001	1.2	<0.00001	<2	<0.00005	<0.0001	0.00159	<0.001
3-Aug-07	903																			
10-Aug-07	910																			
17-Aug-07	917																			
24-Aug-07	924	<0.0005	<0.0001	0.00457	<0.03	<0.00005	4.59	0.00718	<0.00001	0.0181	<0.0005	2.38	<0.001	1.48	<0.00001	<2	<0.00005	<0.0001	0.00162	<0.001
31-Aug-07	931																			
7-Sep-07	938																			
14-Sep-07	945																			
21-Sep-07	952	<0.0005	<0.0001	0.00298	<0.03		4.04	0.0111	<0.00001	0.0174	<0.0005	1.96	<0.001	1.14	<0.00001	<2	<0.00005	<0.0001	0.00149	0.0055
28-Sep-07	959																			
5-Oct-07	966																			
12-Oct-07	973																			
19-Oct-07	980	<0.0005	<0.0001	0.00222	<0.03	0.000109	3.93	0.00671	<0.00001	0.0171	<0.0005	1.94	<0.001	1.31	<0.00001	<2	<0.00005	<0.0001	0.00129	<0.001
26-Oct-07	987																			
2-Nov-07	994																			
9-Nov-07	1001																			
16-Nov-07	1008	<0.0005	<0.0001	0.00274	<0.03	<0.00005	4.3	0.00775	<0.00001	0.0138	<0.0005	2.09	<0.001	1.27	<0.00001	<2	<0.00005	<0.0001	0.00138	0.0012
23-Nov-07	1015																			
30-Nov-07	1022																			
7-Dec-07	1029																			
14-Dec-07	1036	<0.0005	<0.0001	0.00864	<0.03	0.000053	0.808	0.0162	<0.00001	0.00232	<0.0005	0.52	<0.001	0.387	<0.00001	<2	<0.00005	<0.0001	0.00164	0.0012
21-Dec-07	1043																			
28-Dec-07	1050																			
4-Jan-08	1057																			
11-Jan-08	1064	<0.0005	<0.0001	0.00142	<0.03	<0.00005	0.69	0.0132	<0.00001	0.00385	<0.0005	0.357	<0.001	0.22	<0.00001	<2	<0.00005	<0.0001	0.00125	<0.001
18-Jan-08	1071																			
25-Jan-08	1078																			
1-Feb-08	1085																			
8-Feb-08	1092	<0.0005	<0.0001	0.00239	<0.03	<0.00005	1.43	0.0233	<0.00001	0.00869	<0.0005	0.702	<0.001	0.303	<0.00001	<2	<0.00005	<0.0001	0.00108	<0.001
15-Feb-08	1099																			
22-Feb-08	1106																			
29-Feb-08	1113																			
7-Mar-08	1120	<0.0005	<0.0001	0.00337	<0.03	<0.00005	3.5	0.032	<0.00001	0.0288	<0.0005	1.52	<0.001	0.735	<0.00001	<2	<0.00005	<0.0001	0.00118	<0.001
14-Mar-08	1127																			
21-Mar-08	1134																			
28-Mar-08	1141																			
4-Apr-08	1148	0.00088	<0.0001	0.00872			3.37	0.0492	<0.00001	0.0307	0.00103	1.69	<0.001	1.01	<0.00001	<2	<0.00005	0.00015	0.00155	0.0041
11-Apr-08	1155																			
18-Apr-08	1162																			
25-Apr-08	1169																			
2-May-08	1176	<0.0005	<0.0001	0.00656	<0.03	<0.00005	6	0.0813	<0.00001	0.0487	<0.0005	2.74	<0.001	1.63	<0.00001	<2	0.000062	<0.0001	0.00136	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
9-May-08	1183	1500	1585																				
16-May-08	1190	1500	1520	8.17	367	187																	
23-May-08	1197	1500	1585																				
30-May-08	1204	1500	1470	8.12	379	137	<1	3	68	77.3	14.8	<0.5	0.032										
6-Jun-08	1211	1500	1540																				
13-Jun-08	1218	1500	1485	7.88	373	73																	
20-Jun-08	1225	1500	1585																				
27-Jun-08	1232	1500	1525	7.88	352	101	<1	4	48	63.5	47.8	<0.5	0.063	9.02	0.0228	0.0022	0.00631	0.0041	<0.0002	<0.0005	<0.01	<0.00005	13.8
4-Jul-08	1239	1500	1545																				
11-Jul-08	1246	1500	1600	8.01	405	128																	
18-Jul-08	1253	1500	1555																				
25-Jul-08	1260	1500	1560	7.83	387	88	<1	3	36	41	41.4	<0.5	0.05	8.4	0.0224	0.00223	0.00592	0.00372	<0.0002	<0.0005	<0.01	<0.00005	11.9
1-Aug-08	1267	1500	1770																				
8-Aug-08	1274	1500	1610	7.80	384	92																	
15-Aug-08	1281	1500	1580																				
22-Aug-08	1288	1500	1555	7.69	326	83	<1	3	34	42	36.9	<0.5	0.044	7.24	0.0195	0.00164	0.00514	0.00363	<0.0002	<0.0005	<0.01	<0.00005	10.5
29-Aug-08	1295	1500	1500																				
5-Sep-08	1302	1500	1425	8.11	349	182																	
12-Sep-08	1309	1500	1520																				
19-Sep-08	1316	1500	1530	8.13	306	185	<1	3		103	20.2	1.01	0.095	17.7	0.0336	0.00123	0.00647	0.00169	<0.0002	<0.0005	<0.01	<0.00005	5.79
26-Sep-08	1323	1500	1475																				
3-Oct-08	1330	1500	1540	7.99	399	124																	
10-Oct-08	1337	1500	1115																				
17-Oct-08	1344	1500	1490	7.88	404	105	<1	2	42	57	47.1	<0.5	0.047	10.3	0.0317	0.00222	0.00634	0.00408	<0.0002	<0.0005	<0.01	<0.00005	13.7
24-Oct-08	1351	1500	1525																				
31-Oct-08	1358	1500	1420	7.81	441	112																	
7-Nov-08	1365	1500	1275																				
14-Nov-08	1372	1500	1420	7.83	429	106	<1	2	47	42	52.6	<0.5	0.065	11.3	0.0228	0.00241	0.00606	0.00472	<0.0002	<0.0005	<0.01	<0.00005	15.5
21-Nov-08	1379	1500	1515																				
28-Nov-08	1386	1500	1940	7.58	323	61																	
5-Dec-08	1393	1500	1475																				
12-Dec-08	1400	1500	1485	7.88	358	113	<1	3	54	67.5	55.3	<0.5	0.059	11	0.0147	0.0024	0.00577	0.00451	<0.0002	<0.0005	<0.01	<0.00005	15.9
19-Dec-08	1407	1500	1340																				
26-Dec-08	1414	1500	1515	7.90	356	91																	
2-Jan-09	1421	1500	1670																				
9-Jan-09	1428	1500	1410	7.66	365	93	<1	3	46	43.5	44.1	<0.5	0.051	7.31	0.014	0.00232	0.00591	0.00406	<0.0002	<0.0005	<0.01	<0.00005	12.8
16-Jan-09	1435	1500	1400																				
23-Jan-09	1442	1500	1400	7.72	387	111																	
30-Jan-09	1449	1500	1410																				
6-Feb-09	1456	1500	1365	7.56	357	45	<1	4		63.3	62.6	<0.5	0.064	9.8	0.0226	0.00275	0.00668	0.00501	<0.0002	<0.0005	<0.01	<0.00005	17.1
13-Feb-09	1463	1500	1580																				
20-Feb-09	1470	1500	1545	8.12	306	149																	
27-Feb-09	1477	1500	1480																				
6-Mar-09	1484	1500	1130	7.65	320	182	<1	7	67	94.3	86.1	0.67	0.094	31.6	0.0147	0.00333	0.00617	0.00755	<0.0002	<0.0005	<0.01	<0.00005	25.2
13-Mar-09	1491	1500	1540																				
20-Mar-09	1498	1500	1260	7.93	277	170																	
27-Mar-09	1505	1500	1210																				
3-Apr-09	1512	1500	1430	7.86	338	178	<1	4	75	110	86.1	<0.5	0.08	23.3	0.0155	0.00319	0.00583	0.00732	<0.0002	<0.0005	<0.01	<0.00005	24.6
10-Apr-09	1519	1500	1335																				
17-Apr-09	1526	1500	1520	7.92	355	172																	
24-Apr-09	1533	1500	1330																				
1-May-09	1540	1500	1435	8.04	294	185	<1	2	83	102	87.4	<0.5	0.09	19.7	0.0125	0.00315	0.00537	0.00742	<0.0002	<0.0005	<0.01	<0.00005	25.7
8-May-09	1547	1500	1450																				
15-May-09	1554	1500	1355	7.89	365	172																	
22-May-09	1561	1500	1370																				
29-May-09	1568	1500	1240	7.97	358	155	<1	3	84	93.3		<0.5	0.081	15									
5-Jun-09	1575	1500	1435																				
12-Jun-09	1582	1500	1400	8.03	375	145																	
19-Jun-09	1589	1500	1425																				
26-Jun-09	1596	1500	1395	8.25	307	125	<1	2	78	85.5		<0.5	0.077	10.7									

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-May-08	1183																			
16-May-08	1190																			
23-May-08	1197																			
30-May-08	1204																			
6-Jun-08	1211																			
13-Jun-08	1218																			
20-Jun-08	1225																			
27-Jun-08	1232	<0.0005	<0.0001	0.00384	<0.03	<0.00005	3.26	0.0406	<0.00001	0.0258	<0.0005	1.55	<0.001	0.838	<0.00001	<2	<0.00005	<0.0001	0.00131	<0.001
4-Jul-08	1239																			
11-Jul-08	1246																			
18-Jul-08	1253																			
25-Jul-08	1260	<0.0005	<0.0001	0.004	<0.03	<0.00005	2.87	0.0429	<0.00001	0.0204	<0.0005	1.4	<0.001	0.76	<0.00001	<2	<0.00005	<0.0001	0.00134	<0.001
1-Aug-08	1267																			
8-Aug-08	1274																			
15-Aug-08	1281																			
22-Aug-08	1288	<0.0005	<0.0001	0.00384	<0.03	0.000179	2.6	0.0352	<0.00001	0.0198	<0.0005	1.25	<0.001	0.662	<0.00001	<2	<0.00005	<0.0001	0.00132	0.001
29-Aug-08	1295																			
5-Sep-08	1302																			
12-Sep-08	1309																			
19-Sep-08	1316	<0.0005	<0.0001	0.00228	<0.03	<0.00005	1.4	0.0162	<0.00001	0.00772	<0.0005	0.739	<0.001	0.461	<0.00001	<2	<0.00005	<0.0001	0.0014	<0.001
26-Sep-08	1323																			
3-Oct-08	1330																			
10-Oct-08	1337																			
17-Oct-08	1344	<0.0005	<0.0001	0.00411	<0.03	<0.00005	3.14	0.0276	<0.00001	0.0282	<0.0005	1.53	<0.001	0.818	<0.00001	<2	<0.00005	<0.0001	0.00148	<0.001
24-Oct-08	1351																			
31-Oct-08	1358																			
7-Nov-08	1365																			
14-Nov-08	1372	<0.0005	<0.0001	0.00376	<0.03	<0.00005	3.39	0.0311	<0.00001	0.0318	<0.0005	1.58	<0.001	0.932	<0.00001	<2	<0.00005	<0.0001	0.00137	0.0012
21-Nov-08	1379																			
28-Nov-08	1386																			
5-Dec-08	1393																			
12-Dec-08	1400	<0.0005	<0.0001	0.00455	<0.03	<0.00005	3.79	0.022	<0.00001	0.031	<0.0005	1.58	<0.001	0.899	<0.00001	<2	<0.00005	<0.0001	0.00112	<0.001
19-Dec-08	1407																			
26-Dec-08	1414																			
2-Jan-09	1421																			
9-Jan-09	1428	<0.0005	<0.0001	0.00435	<0.03	<0.00005	2.94	0.0192	<0.00001	0.0232	<0.0005	1.51	<0.001	0.836	<0.00001	<2	<0.00005	<0.0001	0.00135	<0.001
16-Jan-09	1435																			
23-Jan-09	1442																			
30-Jan-09	1449																			
6-Feb-09	1456	<0.0005	<0.0001	0.00406	<0.03	<0.00005	4.81	0.0146	<0.00001	0.0345	<0.0005	1.78	<0.001	1.07	<0.00001	<2	<0.00005	<0.0001	0.00136	<0.001
13-Feb-09	1463																			
20-Feb-09	1470																			
27-Feb-09	1477																			
6-Mar-09	1484	<0.0005	<0.0001	0.00671	<0.03	<0.00005	5.61	0.0276	<0.00001	0.0705	<0.0005	2.54	0.0013	1.17	<0.00001	<2	0.000052	<0.0001	0.00132	<0.001
13-Mar-09	1491																			
20-Mar-09	1498																			
27-Mar-09	1505																			
3-Apr-09	1512	<0.0005	<0.0001	0.00631	<0.03	<0.00005	5.97	0.0238	<0.00001	0.0448	<0.0005	2.65	0.0011	1.2	<0.00001	<2	0.000056	<0.0001	0.00135	<0.001
10-Apr-09	1519																			
17-Apr-09	1526																			
24-Apr-09	1533																			
1-May-09	1540	<0.0005	<0.0001	0.00625	<0.03	<0.00005	5.63	0.0228	<0.00001	0.0502	<0.0005	2.45	<0.001	1.3	<0.00001	<2	0.000061	<0.0001	0.00125	<0.001
8-May-09	1547																			
15-May-09	1554																			
22-May-09	1561																			
29-May-09	1568																			
5-Jun-09	1575																			
12-Jun-09	1582																			
19-Jun-09	1589																			
26-Jun-09	1596																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
3-Jul-09	1603	1500	1330																				
10-Jul-09	1610	1500	1480	8.08	289	132																	
17-Jul-09	1617	1500	1295																				
24-Jul-09	1624	1500	1475	7.95	357	147	<1	3	77	79		<5	<0.2	7.5									
31-Jul-09	1631	1500	1370																				
7-Aug-09	1638	1500	1470	7.95	230	132																	
14-Aug-09	1645	1500	1415																				
21-Aug-09	1652	1500	1395	8.17	309	148	<1	2	76	66.7		<0.5	0.046	8.27									
28-Aug-09	1659	1500	1210																				
4-Sep-09	1666	1500	1340	8.09	293	147																	
11-Sep-09	1673	1500	1400																				
18-Sep-09	1680	1500	1470	8.05	328	153	<1	3	83	78		<0.5	0.086	9.6									
25-Sep-09	1687	1500	1260																				
2-Oct-09	1694	1500	1340	7.95	310	144																	
9-Oct-09	1701	1500	1420																				
16-Oct-09	1708	1500	1425	7.89	326	115	<1	4	62	49		<0.5	0.057	6.71									
23-Oct-09	1715	1500	1240																				

Sample 2 Scavenger Tails T_1

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11-Feb-05	0	0	1200	6.55	369	552	<1	8	55	404	212	3.37	0.213	184	0.0203	0.003	0.0275	0.012	<0.0002	<0.0005	0.016	0.000095	66.2
18-Feb-05	7	1500	1530	8.11	342	361																	
25-Feb-05	14	1500	1465	8.32	368	206	<1	<1	94	127	75.9	<0.5	1.72	14.5	0.0229	0.00153	0.0846	0.0138	<0.0002	<0.0005	0.015	<0.00005	22.6
4-Mar-05	21	1500	1490	8.25	358	159																	
11-Mar-05	28	1500	1465	8.24	396	180	<1	<1	87	110	72.1	<0.5	0.934	12.8	0.0148	0.0013	0.0213	0.0195	<0.0002	<0.0005	<0.01	<0.00005	21.2
18-Mar-05	35	1500	1455	8.28	396	191																	
25-Mar-05	42	1500	1480	8.23	419	180	<1	<1	77	100	73.4	<0.5	0.496	14.4	0.0139	0.00163	0.0104	0.0187	<0.0002	<0.0005	<0.01	<0.00005	22.4
1-Apr-05	49	1500	1500	8.25	396	163																	
8-Apr-05	56	1500	1485	8.28	320	161	<1	<1	69	87	62.8	<0.2	0.27	13.4	0.0164	0.00165	0.00921	0.0157	<0.0002	<0.0005	<0.01	<0.00005	18.8
15-Apr-05	63	1500	1480	8.32	374	168																	
22-Apr-05	70	1500	1480	8.33	368	169	<1	<1	70	102	70.8	<0.5	0.178	16.7	0.0145	0.00202	0.00858	0.0165	<0.0002	<0.0005	<0.01	<0.00005	21.7
29-Apr-05	77	1500	1490	8.17	380	167																	
6-May-05	84	1500	1485	8.25	363	179	<1	<1	65	107	80.4	<0.5	0.119	29.6	0.0212	0.00269	0.00851	0.0176	<0.0002	<0.0005	<0.01	<0.00005	24
13-May-05	91	1500	1480	8.16	360	179																	
20-May-05	98	1500	1490	8.14	376	175	<1	2	68	110	76.1	<0.5	0.109	24	0.0269	0.00274	0.00796	0.0175	<0.0002	<0.0005	<0.01	<0.00005	22.2
27-May-05	105	1500	1485	8.13	374	142																	
3-Jun-05	112	1500	1500	8.30	343	171	<1	<1	69	100	75	<0.5	0.11	22.8	0.0166	0.00261	0.00716	0.0158	<0.0002	<0.0005	<0.01	<0.00005	22.6
10-Jun-05	119	1500	1500	8.19	372	152																	
17-Jun-05	126	1500	1500	8.33	337	169	<1	<1	64	102	75.4	<0.5	0.096	25	0.0241	0.00265	0.00832	0.0152	<0.0002	<0.0005	<0.01	<0.00005	22.9
24-Jun-05	133	1500	1490	8.34	261	176																	
1-Jul-05	140	1500	1500	8.17	280	127	<1	1	56	72	56.9	<0.5	0.07	12.3	0.0373	0.00208	0.00782	0.0115	<0.0002	<0.0005	<0.01	<0.00005	16.7
8-Jul-05	147	1500	1485	8.17	279	141																	
15-Jul-05	154	1500	1470	8.10	299	146	<1	1	55	88	69.8	<0.5	0.064	24.2	0.0353	0.00203	0.00731	0.0119	<0.0002	<0.0005	<0.01	<0.00005	20.9
22-Jul-05	161	1500	1435	8.28	312	159																	
29-Jul-05	168	1500	1460	8.38	307	149	<1	<1	70	96	78.8	<0.5	0.085	21	0.0207	0.00259	0.0067	0.014	<0.0002	<0.0005	<0.01	<0.00005	23.6
5-Aug-05	175	1500	1515	8.24	310	156																	
12-Aug-05	182	1500	1500	8.14	245	159	<1	1	66	87	76.5	<0.5	0.07	16.3	0.0225	0.00257	0.0066	0.013	<0.0002	<0.0005	<0.01	<0.00005	22.7
19-Aug-05	189	1500	1470	8.00	345	141																	
26-Aug-05	196	1500	1475	7.89	241	138	<1	1	63	86	72.2	0.4	<0.1	14.7	0.0241	0.00212	0.00582	0.0119	<0.0002	<0.0005	<0.01	<0.00005	21.7
2-Sep-05	203	1500	1435	8.14	297	165																	
9-Sep-05	210	1500	1455	8.17	296	137	<1	<1	59	82	71.8	0.54	0.057	15	0.03	0.00208	0.00576	0.012	<0.0002	<0.0005	<0.01	<0.00005	20.9
16-Sep-05	217	1500	1450	8.19	303	135																	
23-Sep-05	224	1500	1440	8.17	233	221	<1	1	66	87	73.2	0.65	<0.02	14.8	0.0255	0.00218	0.00548	0.013	<0.0002	<0.0005	<0.01	<0.00005	21.5
30-Sep-05	231	1500	1355	8.00	222	135																	
7-Oct-05	238	1500	1445	7.92	220	126	<1	2	53	73	62.2	0.66	0.06	11.3	0.0368	0.00197	0.00534	0.0105	<0.0002	<0.0005	<0.01	<0.00005	18.3

Sample 2 Bulk Cleaner Tails T3

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Jul-09	1603																			
10-Jul-09	1610																			
17-Jul-09	1617																			
24-Jul-09	1624																			
31-Jul-09	1631																			
7-Aug-09	1638																			
14-Aug-09	1645																			
21-Aug-09	1652																			
28-Aug-09	1659																			
4-Sep-09	1666																			
11-Sep-09	1673																			
18-Sep-09	1680																			
25-Sep-09	1687																			
2-Oct-09	1694																			
9-Oct-09	1701																			
16-Oct-09	1708																			
23-Oct-09	1715																			

Sample 2 Scavenger Tails T_1

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Feb-05	0	<0.0005	0.00039	0.00856	0.207	0.000587	11.4	0.158	<0.0001	0.0775	0.00541	23.1	<0.001	2.54	<0.00001	19.1	<0.00005	0.00048	<0.0005	0.0385
18-Feb-05	7																			
25-Feb-05	14	<0.0005	0.0001	0.0083	<0.06	<0.00005	4.71	0.0689	<0.0001	0.0487	0.00078	14.4	<0.001	2.45	<0.00001	7.1	<0.00005	0.0002	0.00078	0.0021
4-Mar-05	21																			
11-Mar-05	28	<0.0005	0.00012	0.00535	<0.06	<0.00005	4.66	0.0765	<0.0001	0.0258	0.00057	12.4	<0.001	2.49	<0.00001	<4	<0.00005	0.00011	0.00088	0.001
18-Mar-05	35																			
25-Mar-05	42	<0.0005	0.00011	0.00504	<0.03	<0.00005	4.21	0.0776	<0.0001	0.0144	<0.0005	11.1	<0.001	2.34	<0.00001	<2	<0.00005	0.00011	0.00089	0.0015
1-Apr-05	49																			
8-Apr-05	56	<0.0005	<0.0001	0.0043	<0.03	<0.00005	3.85	0.0626	<0.0001	0.00957	<0.0005	9.75	<0.001	2.47	<0.00001	<2	<0.00005	<0.0001	0.00117	0.001
15-Apr-05	63																			
22-Apr-05	70	<0.0005	0.00011	0.00537	<0.03	<0.00005	4.07	0.0733	<0.0001	0.00976	0.00071	9.27	<0.001	2.23	<0.00001	<2	<0.00005	<0.0001	0.00119	<0.001
29-Apr-05	77																			
6-May-05	84	<0.0005	<0.0001	0.005	<0.03	<0.00005	4.99	0.0742	<0.00001	0.0109	<0.0005	8.81	0.0011	2.14	<0.00001	<2	<0.00005	<0.0001	0.0012	<0.001
13-May-05	91																			
20-May-05	98	<0.0005	0.00012	0.00684	<0.03	0.000121	5.03	0.0828	<0.00001	0.0107	<0.0005	8.71	0.0011	2.18	<0.00001	<2	<0.00005	0.00014	0.00122	0.002
27-May-05	105																			
3-Jun-05	112	<0.0005	0.00012	0.00596	<0.03	0.000056	4.48	0.0785	<0.0001	0.00919	<0.0005	7.09	<0.001	2.4	<0.00001	<2	<0.00005	<0.0001	0.00124	<0.001
10-Jun-05	119																			
17-Jun-05	126	<0.0005	<0.0001	0.00505	<0.03	0.000066	4.43	0.068	<0.00001	0.00984	<0.0005	6.54	0.0011	2	<0.00001	<2	<0.00005	0.00011	0.00141	0.0016
24-Jun-05	133																			
1-Jul-05	140	<0.0005	<0.0001	0.00404	<0.03	<0.00005	3.68	0.0525	<0.00001	0.00672	<0.0005	5.13	<0.001	1.79	<0.00001	<2	<0.00005	<0.0001	0.00149	<0.001
8-Jul-05	147																			
15-Jul-05	154	<0.0005	<0.0001	0.00394	<0.03	<0.00005	4.29	0.0559	<0.00001	0.00961	<0.0005	4.96	0.001	1.73	<0.00001	<2	<0.00005	0.00011	0.0013	<0.001
22-Jul-05	161																			
29-Jul-05	168	<0.0005	<0.0001	0.00627	<0.03	<0.00005	4.81	0.0712	<0.00001	0.0101	0.00205	5.18	<0.001	1.94	0.000011	<2	<0.00005	<0.0001	0.00129	0.001
5-Aug-05	175																			
12-Aug-05	182	<0.0005	<0.0001	0.00532	<0.03	<0.00005	4.79	0.0704	<0.00001	0.0085	<0.0005	4.88	<0.001	1.78	<0.00001	<2	<0.00005	<0.0001	0.00129	0.0017
19-Aug-05	189																			
26-Aug-05	196	<0.0005	<0.0001	0.00436	<0.03	<0.00005	4.38	0.0579	<0.0001	0.00757	<0.0005	3.94	<0.001	1.69	<0.00001	<2	<0.00005	<0.0001	0.00116	<0.001
2-Sep-05	203																			
9-Sep-05	210	<0.0005	<0.0001	0.00676	<0.03	0.000062	4.75	0.0609	<0.00001	0.00816	<0.0005	3.92	<0.001	1.59	<0.00001	<2	<0.00005	0.00015	0.00127	0.0011
16-Sep-05	217																			
23-Sep-05	224	<0.0005	<0.0001	0.00933	<0.03	0.000058	4.73	0.0669	<0.00001	0.00808	<0.0005	3.86	<0.001	1.69	<0.00001	<2	<0.00005	<0.0001	0.0012	0.0032
30-Sep-05	231																			
7-Oct-05	238	<0.0005	<0.0001	0.00476	<0.03	0.000146	3.98	0.0551	<0.00001	0.00687	<0.0005	3.4	<0.001	1.33	<0.00001	<2	<0.00005	<0.0001	0.00124	0.0031

Sample 2 Bulk Cleaner Tails T3

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11-Feb-05	0	0	2855	8.10	348	234	<1	3	85	150	63.8	3.45	0.445	17.1	0.0329	0.00518	0.0186	0.0112	<0.0002	<0.0005	0.018	<0.00005	20.7
18-Feb-05	7	1500	1490	8.35	360	202																	
25-Feb-05	14	1500	1480	8.29	362	206	<1	<1	91	130	51.3	<0.5	1.54	15	0.0382	0.00291	0.0429	0.00908	<0.0002	<0.0005	0.016	<0.00005	16
4-Mar-05	21	1500	1490	8.28	425	192																	
11-Mar-05	28	1500	1465	8.25	355	186	<1	<1	81	113	53.2	<0.5	0.726	18.5	0.0253	0.00195	0.0142	0.00834	<0.0002	<0.0005	0.012	<0.00005	16.5
18-Mar-05	35	1500	1480	8.20	415	184																	
25-Mar-05	42	1500	1480	8.19	379	196	<1	1	79	120	64.1	<0.5	0.385	18	0.0211	0.0018	0.00925	0.00969	<0.0002	<0.0005	<0.01	<0.00005	20.1
1-Apr-05	49	1500	1425	8.18	399	178																	
8-Apr-05	56	1500	1490	8.27	338	193	<1	<1	75	109	63.4	<0.2	0.26	19.6	0.0221	0.0018	0.00611	0.00967	<0.0002	<0.0005	<0.01	<0.00005	19.3
15-Apr-05	63	1500	1495	8.25	387	192																	
22-Apr-05	70	1500	1475	8.34	374	189	<1	<1	74	107	68.2	<0.5	0.216	20.9	0.0201	0.00168	0.00415	0.00928	<0.0002	<0.0005	<0.01	<0.00005	21.4
29-Apr-05	77	1500	1480	8.20	394	191																	
6-May-05	84	1500	1490	8.23	356	229	<1	<1	66	142	89.2	<0.5	0.146	49.2	0.0215	0.00162	0.00318	0.0111	<0.0002	<0.0005	<0.01	<0.00005	27.7
13-May-05	91	1500	1485	8.16	384	252																	
20-May-05	98	1500	1495	8.17	364	288	<1	1	69	182	119	<0.5	0.14	77.9	0.018	0.00153	0.00266	0.0158	<0.0002	<0.0005	<0.01	<0.00005	35.8
27-May-05	105	1500	1480	8.38	346	304																	
3-Jun-05	112	1500	1500	8.23	334	260	<1	<1	71	156	113	<0.5	0.15	65.7	0.0196	0.00143	0.00196	0.0134	<0.0002	<0.0005	<0.01	<0.00005	34.8
10-Jun-05	119	1500	1495	8.16	356	243																	
17-Jun-05	126	1500	1485	8.14	344	241	<1	2	58	155	106	<0.5	0.125	65.6	0.0225	0.0014	0.00179	0.0124	<0.0002	<0.0005	<0.01	<0.00005	32.5
24-Jun-05	133	1500	1480	8.07	295	216																	
1-Jul-05	140	1500	1480	8.10	265	197	<1	2	48	122	87.1	<0.5	0.082	53.4	0.0354	0.00105	0.00136	0.00939	<0.0002	<0.0005	<0.01	<0.00005	26
8-Jul-05	147	1500	1475	8.06	314	213																	
15-Jul-05	154	1500	1485	8.06	283	238	<1	1	46	152	110	<0.5	0.106	75.9	0.0215	0.0011	0.00161	0.0102	<0.0004	<0.001	<0.02	<0.0001	32.9
22-Jul-05	161	1500	1490	7.92	243	210																	
29-Jul-05	168	1500	1475	8.08	262	219	<1	1	46	138	101	<0.5	0.107	67.2	0.0174	0.00102	0.0014	0.00949	<0.0002	<0.0005	<0.01	<0.00005	30.5
5-Aug-05	175	1500	1445	8.04	313	230																	
12-Aug-05	182	1500	1465	8.12	264	267	<1	1	56	172	132	<0.5	0.117	83.7	0.0157	0.00131	0.00127	0.0121	<0.0002	<0.0005	<0.01	<0.00005	39.8
19-Aug-05	189	1500	1440	8.16	368	268																	
26-Aug-05	196	1500	1435	7.98	332	245	<1	2	56	164	123	<0.2	0.13	70	0.0155	0.00126	0.00127	0.0116	<0.0002	<0.0005	<0.01	<0.00005	36.5
2-Sep-05	203	1500	1560	8.18	309	246																	
9-Sep-05	210	1500	1415	8.14	247	210	<1	1	54	128	98.9	<0.5	0.121	52.6	0.0166	0.00109	0.00114	0.00803	<0.0002	<0.0005	<0.01	<0.00005	29.2
16-Sep-05	217	1500	1505	8.00	221	217																	
23-Sep-05	224	1500	1385	7.90	182	255	<1	1	47	109	82.5	<0.5	0.111	44.2	0.019	0.00103	0.00221	0.00698	<0.0002	<0.0005	<0.01	<0.00005	24.2
30-Sep-05	231	1500	1535	8.04	225	204																	
7-Oct-05	238	1500	1455	7.80	209	167	<1	6	42	103	76.7	<0.5	0.105	39.6	0.0184	0.000878	0.00109	0.00607	<0.0002	<0.0005	<0.01	<0.00005	22.9
14-Oct-05	245	1500	1510	7.91	395	210																	
21-Oct-05	252	1500	1510	7.79	306	222	<1	3	61	138	107	<0.5	0.13	54.9	0.0124	0.0011	0.00145	0.00862	<0.0002	<0.0005	<0.01	<0.00005	31.9
28-Oct-05	259	1500	1650	7.73	364	209																	
4-Nov-05	266	1500	1450	7.74	295	183	<1	3	58	110	84.1	<0.5	0.123	37	0.0123	0.00113	0.00113	0.00676	<0.0002	<0.0005	<0.01	<0.00005	24
11-Nov-05	273	1500	1475	7.99	363	177																	
18-Nov-05	280	1500	1475	7.95	362	198	<1	3	66	116	94.1	<0.5	0.121	37	0.013	0.00121	0.00108	0.00706	<0.0002	<0.0005	<0.01	<0.00005	26.8
25-Nov-05	287	1500	1490	8.00	434	196																	
2-Dec-05	294	1500	1515	7.88	350	188	<1	4	69	115	91.5	<0.5	0.125	32.1	0.0099	0.0011	0.00097	0.00626	<0.0002	<0.0005	<0.01	<0.00005	26.7
9-Dec-05	301	1500	1425	8.08	369	187																	
16-Dec-05	308	1500	1505	7.86	470	182	<1	3	72	110	101	<0.5	0.116	31.9	0.0092	0.00125	0.00094	0.00717	<0.0002	<0.0005	<0.01	<0.00005	29.4
23-Dec-05	315	1500	1340	8.19	374	246																	
30-Dec-05	322	1500	1270	7.66	455	226	<1	10	85	126	118	<0.5	0.103	32	0.0137	0.00112	0.00095	0.00759	<0.0002	<0.0005	<0.01	<0.00005	34
6-Jan-06	329	1500	1420	8.19	392	243																	
13-Jan-06	336	1500	1450	8.00	407	231	<1	3	95	125	105		0.153	20.8	0.008	0.0013	0.00104	0.00803	<0.0002	<0.0005	<0.01	<0.00005	29.8
20-Jan-06	343	1500	1435	8.01	383	202																	
27-Jan-06	350	1500	1480	7.92	397	205	<1	4	80	98	108	<0.5	0.167	17.1	0.0056	0.00149	0.00105	0.00737	<0.0002	<0.0005	<0.01	<0.00005	30.8
3-Feb-06	357	1500	1500	8.11	410	190																	
10-Feb-06	364	1500	1505	7.90	412	198	<1	3	84	102	93.8	<0.5	0.146	15.9	0.038	0.00141	0.00082	0.00697	<0.0002	<0.0005	<0.01	<0.00005	26.7
17-Feb-06	371	1500	1295	7.87	421	222																	
24-Feb-06	378	1500	1415	8.11	421	209	<1	2	85	107	102	<0.5	0.126	18.8	0.0079	0.0013	0.00082	0.00712	<0.0002	<0.0005	<0.01	<0.00005	29.2
3-Mar-06	385	1500	1525	8.14	420	192																	
10-Mar-06	392	1500	1475	8.02	404	197	<1	2	82	103	96.5	<0.5	0.116	15.4	0.0081	0.00141	0.00085	0.00695	<0.0002	<0.0005	<0.01	<0.00005	27

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Feb-05	0	<0.0005	0.00015	0.00036	<0.06	<0.00005	2.94	0.0321	<0.0001	0.126	0.00116	17	<0.001	1.46	<0.00001	18.4	<0.00005	0.00013	<0.0005	0.0149
18-Feb-05	7																			
25-Feb-05	14	<0.0005	<0.0001	0.00094	<0.06	0.000057	2.77	0.0238	<0.0001	0.132	<0.0005	17.1	<0.001	1.02	<0.00001	16.2	<0.00005	0.00013	<0.0005	<0.001
4-Mar-05	21																			
11-Mar-05	28	<0.0005	<0.0001	0.00263	<0.06	<0.00005	2.91	0.027	<0.0001	0.035	<0.0005	15.8	<0.001	1.07	<0.00001	9.1	<0.00005	0.00012	<0.0005	<0.001
18-Mar-05	35																			
25-Mar-05	42	<0.0005	<0.0001	0.00147	<0.03	<0.00005	3.37	0.0348	<0.0001	0.0333	<0.0005	18	<0.001	1.11	<0.00001	4.4	<0.00005	<0.0001	<0.0005	<0.001
1-Apr-05	49																			
8-Apr-05	56	<0.0005	<0.0001	0.00171	<0.03	<0.00005	3.68	0.035	<0.0001	0.0273	<0.0005	18	<0.001	1.14	<0.00001	3	<0.00005	<0.0001	<0.0005	0.001
15-Apr-05	63																			
22-Apr-05	70	<0.0005	<0.0001	0.00196	<0.03	<0.00005	3.61	0.0373	<0.0001	0.023	0.00079	17.2	<0.001	1	<0.00001	<2	<0.00005	0.00011	<0.0005	0.0013
29-Apr-05	77																			
6-May-05	84	<0.0005	<0.0001	0.00201	<0.03	<0.00005	4.9	0.0498	<0.00001	0.0185	<0.0005	14.4	<0.001	0.979	<0.00001	<2	<0.00005	0.0001	<0.0005	0.0015
13-May-05	91																			
20-May-05	98	<0.0005	0.00015	0.00315	<0.03	<0.00005	7.09	0.0903	<0.00001	0.021	<0.0005	15.5	<0.001	0.907	<0.00001	<2	0.000059	<0.0001	<0.0005	<0.001
27-May-05	105																			
3-Jun-05	112	<0.0005	0.00014	0.00338	<0.03	<0.00005	6.28	0.0873	<0.0001	0.0182	<0.0005	12.1	<0.001	0.994	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Jun-05	119																			
17-Jun-05	126	<0.0005	0.00011	0.00317	<0.03	<0.00005	5.99	0.0782	<0.00001	0.0158	<0.0005	9.94	<0.001	0.768	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Jun-05	133																			
1-Jul-05	140	<0.0005	0.00011	0.00278	<0.03	<0.00005	5.37	0.0658	<0.00001	0.0123	<0.0005	7.15	0.0011	0.611	<0.00001	<2	<0.00005	0.00014	<0.0005	<0.001
8-Jul-05	147																			
15-Jul-05	154	<0.001	<0.0002	0.00293	<0.03	<0.0001	6.75	0.0803	<0.00001	0.0154	<0.001	7.73	<0.002	0.702	<0.00002	<2	<0.0001	<0.0002	<0.001	<0.002
22-Jul-05	161																			
29-Jul-05	168	<0.0005	0.00013	0.00505	<0.03	<0.00005	5.96	0.0764	<0.00001	0.0126	<0.0005	6.52	<0.001	0.644	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
5-Aug-05	175																			
12-Aug-05	182	<0.0005	0.00015	0.00555	<0.03	<0.00005	7.95	0.104	<0.00001	0.0153	<0.0005	7.48	<0.001	0.785	<0.00001	<2	0.000054	<0.0001	<0.0005	0.0012
19-Aug-05	189																			
26-Aug-05	196	<0.0005	0.00014	0.0086	<0.03	<0.00005	7.73	0.102	<0.0001	0.016	<0.0005	6.52	<0.001	0.803	<0.00001	<2	0.000053	0.00011	<0.0005	0.0016
2-Sep-05	203																			
9-Sep-05	210	<0.0005	0.00012	0.00394	<0.03	<0.00005	6.28	0.0824	<0.00001	0.0138	<0.0005	5.19	<0.001	0.736	<0.00001	<2	<0.00005	0.00011	<0.0005	<0.001
16-Sep-05	217																			
23-Sep-05	224	<0.0005	<0.0001	0.0042	<0.03	0.00007	5.34	0.0627	<0.00001	0.0128	<0.0005	4.66	<0.001	0.646	<0.00001	<2	<0.00005	0.00013	<0.0005	0.0031
30-Sep-05	231																			
7-Oct-05	238	<0.0005	<0.0001	0.00361	<0.03	<0.00005	4.75	0.0595	<0.00001	0.0106	<0.0005	4.14	0.0026	0.58	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0022
14-Oct-05	245																			
21-Oct-05	252	<0.0005	0.00012	0.00459	<0.03	<0.00005	6.75	0.0857	<0.00001	0.0146	<0.0005	4.95	<0.001	0.779	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
28-Oct-05	259																			
4-Nov-05	266	<0.0005	<0.0001	0.00393	<0.03	<0.00005	5.88	0.0746	<0.00001	0.0142	<0.0005	3.98	<0.001	0.697	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-Nov-05	273																			
18-Nov-05	280	<0.0005	<0.0001	0.00494	<0.03	<0.00005	6.6	0.0865	<0.00001	0.0131	<0.0005	4.12	0.0014	0.759	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
25-Nov-05	287																			
2-Dec-05	294	<0.0005	<0.0001	0.00434	<0.03	<0.00005	6.04	0.0792	<0.00001	0.0112	<0.0005	3.56	<0.001	0.736	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
9-Dec-05	301																			
16-Dec-05	308	<0.0005	<0.0001	0.0056	<0.03	<0.00005	6.79	0.0891	0.00003	0.0123	<0.0005	3.96	<0.001	0.787	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0012
23-Dec-05	315																			
30-Dec-05	322	<0.0005	<0.0001	0.00653	<0.03	<0.00005	7.98	0.1	<0.00001	0.0134	<0.0005	4.09	<0.001	0.839	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
6-Jan-06	329																			
13-Jan-06	336	<0.0005	0.00011	0.00694	<0.03	<0.00005	7.41	0.114	<0.00001	0.0162	<0.0005	3.96	<0.001	0.948	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
20-Jan-06	343																			
27-Jan-06	350	<0.0005	<0.0001	0.00613	<0.03	<0.00005	7.49	0.116	<0.00001	0.0121	<0.0005	4.03	0.0015	1.05	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
3-Feb-06	357																			
10-Feb-06	364	<0.0005	0.00014	0.00734	<0.03	<0.00005	6.58	0.1	<0.00001	0.0125	0.00145	3.65	<0.001	0.923	<0.00001	<2	<0.00005	0.00013	<0.0005	0.0013
17-Feb-06	371																			
24-Feb-06	378	<0.0005	<0.0001	0.00519	<0.03		7.09	0.0894	<0.00001	0.0126	<0.0005	3.4	<0.001	0.962	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
3-Mar-06	385																			
10-Mar-06	392	<0.001	<0.0001	0.00797	<0.03	0.000056	7.04	0.102	<0.00001	0.0137	<0.0005	3.56	<0.001	0.904	<0.00001	<2	<0.00005	0.0004	<0.0005	0.002

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
17-Mar-06	399	1500	1435	8.01	404	214																	
24-Mar-06	406	1500	1445	7.96	355	190	<1	2	80	102	96	<0.5	0.102	18.2	0.0059	0.00146	0.00078	0.00653	<0.0002	<0.0005	<0.01	<0.00005	27.5
31-Mar-06	413	1500	1385	7.93	362	211																	
7-Apr-06	420	1500	1500	7.95	379	159	<1	2	67	71	77.2	<0.5	0.065	11.5	0.0119	0.00117	0.00084	0.00502	<0.0002	<0.0005	<0.01	<0.00005	21.1
14-Apr-06	427	1500	1380	7.84	442	176																	
21-Apr-06	434	1500	1395	8.18	370	199	<1	2	92	114	101	<0.5	0.098	17.1	0.008	0.0016	0.00086	0.00744	<0.0002	<0.0005	<0.01	<0.00005	28.7
28-Apr-06	441	1500	1450	8.15	225	190																	
5-May-06	448	1500	1620	8.10	275	207	<1	2	92	112	73.8	<0.5	0.083	14.1	0.0076	0.00166	0.00082	0.00708	<0.0002	<0.0005	<0.01	<0.00005	16.7
12-May-06	455	1500	1500	8.22	250	201																	
19-May-06	462	1500	1505	8.09	293	197	<1	3	87	104	94.1	<0.5	0.076	14	0.0062	0.00152	0.00087	0.00651	<0.0002	<0.0005	<0.01	<0.00005	26.8
26-May-06	469	1500	1425	8.15	246	201																	
2-Jun-06	476	1500	1530	8.03	319	194	<1	3	84	100	97.4	<0.5	0.082	15.8	0.0067	0.00144	0.00087	0.00659	<0.0002	<0.0005	<0.01	<0.00005	27.3
9-Jun-06	483	1500	1485	8.14	257	185																	
16-Jun-06	490	1500	1485	8.16	310	198	<1	1	78	113	99.3	<0.5	0.081	23.9	0.0088	0.00148	0.00089	0.00633	<0.0002	<0.0005	<0.01	<0.00005	28
23-Jun-06	497	1500	1505	8.17	250	173																	
30-Jun-06	504	1500	1455	7.88	287	177	<1	2	59	100	82.2	<0.5	0.06	27.8	0.0116	0.00123	0.00084	0.005	<0.0002	<0.0005	<0.01	<0.00005	22.8
7-Jul-06	511	1500	1360	8.04	261	204																	
14-Jul-06	518	1500	1415	8.22	219	260																	
21-Jul-06	525	1500	1425																				
28-Jul-06	532	1500	1530	7.83	299	216	<1	3	94	116	118	<0.5	0.081	18.6	0.0057	0.00147	0.0009	0.00747	<0.0002	<0.0005	<0.01	<0.00005	33.3
4-Aug-06	539	1500	1430																				
11-Aug-06	546	1500	1325	8.03	200	152																	
18-Aug-06	553	1500	1390																				
25-Aug-06	560	1500	1465	7.28	258	184	<1	10	84	103	94.5	<0.5	0.076	13.6	0.0122	0.0016	0.00091	0.00628	<0.0002	<0.0005	<0.01	<0.00005	25.6
1-Sep-06	567	1500	1385																				
8-Sep-06	574	1500	1520	8.02	241	179																	
15-Sep-06	581	1500	1535																				
22-Sep-06	588	1500	1420	7.79	283	195	<1	3	83	101	97.3	<0.5	0.095	15.3	0.0053	0.00148	0.001	0.00608	<0.0002	<0.0005	<0.01	<0.00005	27.6
29-Sep-06	595	1500	1495																				
6-Oct-06	602	1500	1630	7.94	264	192																	
13-Oct-06	609	1500	1410																				
20-Oct-06	616	1500	1510	7.89	358	189	<1	3	79	102	94.1	<0.5	0.091	17.6	0.0069	0.00158	0.00097	0.00588	<0.0002	<0.0005	<0.01	<0.00005	25.6
27-Oct-06	623	1500	1410																				
3-Nov-06	630	1500	1410	7.52	363	176																	
10-Nov-06	637	1500	1750																				
17-Nov-06	644	1500	1245	7.73	355	208	<1	7	85	84.8	78.5	<0.5	0.057	15.6	0.0124	0.00123	0.00081	0.00446	<0.0002	<0.0005	<0.01	<0.00005	22.3
24-Nov-06	651	1500	1500																				
1-Dec-06	658	1500	1655	8.13	369	189																	
8-Dec-06	665	1500	1280																				
15-Dec-06	672	1500	1610	7.94	332	190	<1	3	79	104	91.7	<0.5	0.085	21	0.0052	0.00131	0.00098	0.00553	<0.0002	<0.0005	<0.01	<0.00005	25.3
22-Dec-06	679	1500	1535																				
29-Dec-06	686	1500	1440	8.08	365	191																	
5-Jan-07	693	1500	1430																				
12-Jan-07	700	1500	1550	7.80	313	174	<1	2	72	180	88.8	<0.5	0.068	14	0.0066	0.00126	0.0011	0.00604	<0.0002	<0.0005	<0.01	<0.00005	25.1
19-Jan-07	707	1500	1430																				
26-Jan-07	714	1500	1470	7.76	357	192																	
2-Feb-07	721	1500	1440																				
9-Feb-07	728	1500	1480	7.74	335	186	<1	4	79	101	84.3	<0.5	0.044	15.8	0.0059	0.00141	0.00094	0.0057	<0.0002	<0.0005	<0.01	<0.00005	21.8
16-Feb-07	735	1500	1480																				
23-Feb-07	742	1500	1480	7.55	226	174																	
2-Mar-07	749	1500	1390																				
9-Mar-07	756	1500	1325	7.78	330	156	<1	3	70	92.3	80.4	<0.5	0.039	11.5	0.0063	0.00116	0.00072	0.00487	<0.0002	<0.0005	<0.01	<0.00005	21.5
16-Mar-07	763	1500	1440																				
23-Mar-07	770	1500	1415	8.01	338	155																	
30-Mar-07	777	1500	940																				
6-Apr-07	784	1500	875	8.06	367	175	<1	2	75	84.5	75.7	<0.5	0.048	11	0.005	0.00109	0.00069	0.00451	<0.0002	<0.0005	<0.01	<0.00005	20.2
13-Apr-07	791	1500	1360																				
20-Apr-07	798	1500	1335	8.18	333	184																	
27-Apr-07	805	1500	1395																				
4-May-07	812	1500	1340	7.92	317	181	<1	3	78	86.5	81.2	<0.5	0.042	16.1	0.0069	0.001	0.00066	0.0043	<0.0002	<0.0005	<0.01	<0.00005	21.7

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
17-Mar-06	399																			
24-Mar-06	406	<0.0005	<0.0001	0.00522	0.042	<0.00005	6.66	0.0964	<0.00001	0.0137	<0.0005	3.35	<0.001	1.01	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
31-Mar-06	413																			
7-Apr-06	420	<0.0005	<0.0001	0.0059	<0.03	<0.00005	5.95	0.0731	<0.00001	0.0107	<0.0005	3.03	<0.001	0.732	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
14-Apr-06	427																			
21-Apr-06	434	<0.0005	<0.0001	0.00951	<0.03		7.18	0.102	<0.00001	0.0161	<0.0005	3.79	<0.001	1.03	<0.00001	<2	0.000055	<0.0001	<0.0005	0.0019
28-Apr-06	441																			
5-May-06	448	0.00066	<0.0001	0.0056	<0.03		7.81	0.111	<0.00001	0.0151	0.00072	3.87	<0.001	1.2	<0.00001	<2	0.000052	0.00014	<0.0005	0.0011
12-May-06	455																			
19-May-06	462	<0.0005	<0.0001	0.0053	<0.03	<0.00005	6.62	0.102	<0.00001	0.0153	<0.0005	3.31	<0.001	1	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-May-06	469																			
2-Jun-06	476	<0.0005	<0.0001	0.00514	<0.03	0.000052	7.11	0.0935	<0.00001	0.0158	<0.0005	3.27	<0.001	0.987	<0.00001	<2	0.000051	<0.0001	<0.0005	0.0017
9-Jun-06	483																			
16-Jun-06	490	<0.0005	<0.0001	0.00416	<0.03	<0.00005	7.15	0.0783	<0.00001	0.0153	<0.0005	3.46	0.0012	0.992	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
23-Jun-06	497																			
30-Jun-06	504	<0.0005	<0.0001	0.00338	<0.03	<0.00005	6.16	0.0556	<0.00001	0.0135	<0.0005	2.9	<0.001	0.7	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
7-Jul-06	511																			
14-Jul-06	518																			
21-Jul-06	525																			
28-Jul-06	532	<0.0005	<0.0001	0.00517	<0.03	<0.00005	8.35	0.0964	<0.00001	0.0261	<0.0005	3.67	0.0013	1.16	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
4-Aug-06	539																			
11-Aug-06	546																			
18-Aug-06	553																			
25-Aug-06	560	<0.0005	<0.0001	0.00488	<0.03	<0.00005	7.4	0.0846	<0.00001	0.0247	<0.0005	3.35	0.0014	1.1	<0.00001	<2	0.00005	<0.0001	<0.0005	<0.001
1-Sep-06	567																			
8-Sep-06	574																			
15-Sep-06	581																			
22-Sep-06	588	<0.0005	0.00019	0.00517	<0.03		6.89	0.0894	<0.00001	0.0239	0.00064	3.08	<0.001	1.06	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0048
29-Sep-06	595																			
6-Oct-06	602																			
13-Oct-06	609																			
20-Oct-06	616	<0.0005	<0.0001	0.00369	<0.03	<0.00005	7.3	0.0833	<0.00001	0.0176	<0.0005	3.03	<0.001	1.05	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Oct-06	623																			
3-Nov-06	630																			
10-Nov-06	637																			
17-Nov-06	644	<0.0005	<0.0001	0.00334	<0.03	0.000067	5.56	0.0634	<0.00001	0.0101	0.00051	2.42	<0.001	0.809	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Nov-06	651																			
1-Dec-06	658																			
8-Dec-06	665																			
15-Dec-06	672	<0.0005	<0.0001	0.00661	<0.03	0.000193	6.91	0.0811	<0.00001	0.0144	0.00097	2.93	<0.001	1.11	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
22-Dec-06	679																			
29-Dec-06	686																			
5-Jan-07	693																			
12-Jan-07	700	<0.0005	<0.0001	0.00321	<0.03	<0.00005	6.34	0.0693	<0.00001	0.0135	<0.0005	2.54	<0.001	1.02	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0055
19-Jan-07	707																			
26-Jan-07	714																			
2-Feb-07	721																			
9-Feb-07	728	<0.0005	<0.0001	0.00514	<0.03	<0.00005	7.26	0.0789	<0.00001	0.0161	0.00181	2.95	<0.001	0.995	<0.00001	<2	<0.00005	<0.0001	<0.0005	
16-Feb-07	735																			
23-Feb-07	742																			
2-Mar-07	749																			
9-Mar-07	756	<0.0005	<0.0001	0.00377	<0.03	<0.00005	6.47	0.057	<0.00001	0.0149	<0.0005	2.55	<0.001	0.943	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0019
16-Mar-07	763																			
23-Mar-07	770																			
30-Mar-07	777																			
6-Apr-07	784	<0.0005	<0.0001	0.00294	<0.03	<0.00005	6.12	0.0522	<0.00001	0.0143	<0.0005	2.57	<0.001	0.917	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Apr-07	791																			
20-Apr-07	798																			
27-Apr-07	805																			
4-May-07	812	<0.0005	<0.0001	0.00348	<0.03	<0.00005	6.58	0.0611	<0.00001	0.0149	<0.0005	2.46	<0.001	0.881	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
11-May-07	819	1500	1300																				
18-May-07	826	1500	1300	8.19	380	200																	
25-May-07	833	1500	1420																				
1-Jun-07	840	1500	1395	8.02	325	200	<1	4	87	92	84.6	<0.5	0.053	15.5	0.0096	0.00103	0.00073	0.0056	<0.0002	<0.0005	<0.01	<0.00005	23.1
8-Jun-07	847	1500	1440																				
15-Jun-07	854	1500	1300	7.75	432	223																	
22-Jun-07	861	1500	1445																				
29-Jun-07	868	1500	1280	8.13	383	323	<1	3	89	99.8	87.2	<0.5	0.028	15.7	0.0094	0.000954	0.00069	0.0047	<0.0002	<0.0005	<0.01	<0.00005	24
6-Jul-07	875	1500	1385																				
13-Jul-07	882	1500	1395	7.72	399	232																	
20-Jul-07	889	1500	1075																				
27-Jul-07	896	1500	1455	8.01	380	192	<1	3	77	81.8	72	<0.5	0.047	14.5	0.0093	0.000877	0.00054	0.0041	<0.0002	<0.0005	<0.01	<0.00005	19.5
3-Aug-07	903	1500	1445																				
10-Aug-07	910	1500	1430	8.08	175	196																	
17-Aug-07	917	1500	1340																				
24-Aug-07	924	1500	1330	8.08	414	150	<1	3	80	105	94.4	<0.5	0.056	19.5	0.0056	0.00105	0.00081	0.00528	<0.0002	<0.0005	<0.01	<0.00005	25.5
31-Aug-07	931	1500	1405																				
7-Sep-07	938	1500	1410	8.07	258	156																	
14-Sep-07	945	1500	1315																				
21-Sep-07	952	1500	1400	7.82	397	198	<1	4	78	99.5	90.7	<0.5	0.044	17.5	0.0151	0.000948	0.00071	0.00451	<0.0002	<0.0005	<0.01	<0.00005	24.7
28-Sep-07	959	1500	1365																				
5-Oct-07	966	1500	1560	7.69	419	200																	
12-Oct-07	973	1500	1480																				
19-Oct-07	980	1500	1395	7.85	373	187	<1	4	78	108	90.7	<0.5	0.06	18.8	0.005	0.00093	0.00077	0.00455	<0.0002	<0.0005	<0.01	<0.00005	24.6
26-Oct-07	987	1500	1465																				
2-Nov-07	994	1500	1380	7.69	422	167																	
9-Nov-07	1001	1500	1360																				
16-Nov-07	1008	1500	1400	7.89	382	161	<1	3	62	84.8	74.6	<0.5	0.034	16.2	0.0076	0.000832	0.00083	0.00375	<0.0002	<0.0005	<0.01	<0.00005	20.3
23-Nov-07	1015	1500	1355																				
30-Nov-07	1022	1500	1320	7.82	428	154																	
7-Dec-07	1029	1500	1425																				
14-Dec-07	1036	1500	1450	7.67	446	134	<1	3	53	77	66.5	<0.5	0.037	12.6	0.0074	0.00087	0.00106	0.00334	<0.0002	<0.0005	<0.01	<0.00005	18.3
21-Dec-07	1043	1500	1350																				
28-Dec-07	1050	1500	1440	7.85	434	155																	
4-Jan-08	1057	1500	1385																				
11-Jan-08	1064	1500	1405	7.69	459	234	<1	5	76	133	118	<0.5	0.061	48.2	0.0048	0.000914	0.00073	0.0051	<0.0002	<0.0005	<0.01	<0.00005	33.7
18-Jan-08	1071	1500	1415																				
25-Jan-08	1078	1500	1130	7.82	393	272																	
1-Feb-08	1085	1500	1325																				
8-Feb-08	1092	1500	1480	7.88	392	175	<1	4	72	99.5	85.1	<0.5	0.065	19.3	0.0221	0.000862	0.00053	0.00471	<0.0002	<0.0005	<0.01	0.00006	23.4
15-Feb-08	1099	1500	1465																				
22-Feb-08	1106	1500	1385	8.01	386	186																	
29-Feb-08	1113	1500	1430																				
7-Mar-08	1120	1500	1405	7.52	384	46	<1	2	24	34.2	33	<0.5	0.03	4.65	0.0125	0.000531	0.00046	0.00185	<0.0002	<0.0005	<0.01	<0.00005	8.87
14-Mar-08	1127	1500	1375																				
21-Mar-08	1134	1500	1355	7.70	376	111																	
28-Mar-08	1141	1500	1270																				
4-Apr-08	1148	1500	1490	7.65	362	149	<1	5	55	79	66.1	<0.5	0.038	19.2	0.0084	0.00069	0.0004	0.00355	<0.0002	<0.0005	<0.01	<0.00005	18.3
11-Apr-08	1155	1500	1510																				
18-Apr-08	1162	1500	1330	7.70	429	117																	
25-Apr-08	1169	1500	1465																				
2-May-08	1176	1500	1325	8.10	386	277	<1	3	83	180	134	<0.5	0.07	68.2	0.0047	0.000841	0.00055	0.00644	<0.0002	<0.0005	<0.01	<0.00005	35.9
8-Aug-08	1274	1500	1500	7.98	363	104																	
15-Aug-08	1281	1500	1700																				
22-Aug-08	1288	1500	1430	7.54	318	63	<1	3		43	83.4	<0.5	0.042	14.9	0.0088	0.000468	0.00048	0.00346	<0.0002	<0.0005	<0.01	<0.00005	22
29-Aug-08	1295	1500	1515																				
5-Sep-08	1302	1500	1620	7.74	336	56																	
12-Sep-08	1309	1500	1420																				
19-Sep-08	1316	1500	1440	8.23	283	273	<1	3		165	47.6	<0.5	0.087	29.7	0.0135	0.000434	0.00058	0.00232	<0.0002	<0.0005	<0.01	<0.00005	12.8
26-Sep-08	1323	1500	1520																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-May-07	819																			
18-May-07	826																			
25-May-07	833																			
1-Jun-07	840	<0.0005	<0.0001	0.00726	<0.03	<0.00005	6.56	0.0603	<0.00001	0.0169	<0.0005	2.59	<0.001	0.95	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Jun-07	847																			
15-Jun-07	854																			
22-Jun-07	861																			
29-Jun-07	868	<0.0005	<0.0001	0.00512	<0.03	<0.00005	6.62	0.0685	<0.00001	0.0209	<0.0005	2.52	<0.001	1.02	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
6-Jul-07	875																			
13-Jul-07	882																			
20-Jul-07	889																			
27-Jul-07	896	<0.0005	<0.0001	0.00594	<0.03	0.000191	5.64	0.0529	<0.00001	0.017	0.00052	2.21	<0.001	0.84	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
3-Aug-07	903																			
10-Aug-07	910																			
17-Aug-07	917																			
24-Aug-07	924	<0.0005	<0.0001	0.0031	<0.03	<0.00005	7.46	0.0509	<0.00001	0.0232	<0.0005	2.62	<0.001	1.1	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
31-Aug-07	931																			
7-Sep-07	938																			
14-Sep-07	945																			
21-Sep-07	952	<0.0005	<0.0001	0.00406	<0.03	<0.00005	7.02	0.0432	<0.00001	0.0249	<0.0005	2.5	<0.001	1.03	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.001
28-Sep-07	959																			
5-Oct-07	966																			
12-Oct-07	973																			
19-Oct-07	980	<0.0005	<0.0001	0.00345	<0.03	0.000125	7.09	0.0432	<0.00001	0.0256	0.00067	2.53	<0.001	1.11	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Oct-07	987																			
2-Nov-07	994																			
9-Nov-07	1001																			
16-Nov-07	1008	<0.0005	<0.0001	0.00337	<0.03	<0.00005	5.8	0.042	<0.00001	0.0187	0.00091	2.11	<0.001	0.809	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
23-Nov-07	1015																			
30-Nov-07	1022																			
7-Dec-07	1029																			
14-Dec-07	1036	0.0005	<0.0001	0.00417	<0.03	<0.00005	5.07	0.0392	<0.00001	0.0193	0.0005	2.07	<0.001	0.678	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Dec-07	1043																			
28-Dec-07	1050																			
4-Jan-08	1057																			
11-Jan-08	1064	<0.0005	<0.0001	0.00435	<0.03	<0.00005	8.17	0.0575	<0.00001	0.0308	<0.0005	2.68	0.0022	1.02	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Jan-08	1071																			
25-Jan-08	1078																			
1-Feb-08	1085																			
8-Feb-08	1092	<0.0005	<0.0001	0.0101	<0.03	<0.00005	6.45	0.0467	<0.00001	0.0292	0.00131	2.43	<0.001	0.882	0.000013	<2	<0.00005	<0.0001	<0.0005	<0.001
15-Feb-08	1099																			
22-Feb-08	1106																			
29-Feb-08	1113																			
7-Mar-08	1120	<0.0005	<0.0001	0.00196	<0.03	<0.00005	2.64	0.0243	<0.00001	0.0176	<0.0005	1.25	<0.001	0.45	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
14-Mar-08	1127																			
21-Mar-08	1134																			
28-Mar-08	1141																			
4-Apr-08	1148	<0.0005	<0.0001	0.00388	<0.03	<0.00005	4.95	0.0402	<0.00001	0.0273	0.00054	2.08	<0.001	0.724	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
11-Apr-08	1155																			
18-Apr-08	1162																			
25-Apr-08	1169																			
2-May-08	1176	<0.0005	<0.0001	0.00376	<0.03	<0.00005	10.7	0.057	<0.00001	0.0506	0.00072	3.49	0.0018	1.12	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Aug-08	1274																			
15-Aug-08	1281																			
22-Aug-08	1288	<0.0005	<0.0001	0.00288	<0.03	<0.00005	6.89	0.0583	<0.00001	0.0336	<0.0005	1.97	<0.001	0.765	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
29-Aug-08	1295																			
5-Sep-08	1302																			
12-Sep-08	1309																			
19-Sep-08	1316	<0.0005	<0.0001	0.00249	<0.03	<0.00005	3.83	0.0394	<0.00001	0.0218	<0.0005	1.4	<0.001	0.59	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Sep-08	1323																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
3-Oct-08	1330	1500	1645	7.99	386	117																	
10-Oct-08	1337	1500	800																				
17-Oct-08	1344	1500	1405	8.08	404	190	<1	3	67	101	89.8	<0.5	0.047	29.7	0.0146	0.000522	0.00051	0.00397	<0.0002	<0.0005	<0.01	<0.00005	24.1
24-Oct-08	1351	1500	1545																				
9-May-08	1183	1500	1355																				
16-May-08	1190	1500	1370	8.18	360	300																	
23-May-08	1197	1500	1505																				
30-May-08	1204	1500	1420	8.26	366	216	<1	2	101	136	26.4	<0.5	0.056	20.5									
6-Jun-08	1211	1500	1440																				
13-Jun-08	1218	1500	1445	7.98	359	96																	
20-Jun-08	1225	1500	1380																				
27-Jun-08	1232	1500	1415	7.86	346	120	<1	5	60	77.5	58	<0.5	0.034	9.95	0.0151	0.000464	0.00047	0.00251	<0.0002	<0.0005	<0.01	<0.00005	15.7
4-Jul-08	1239	1500	1455																				
11-Jul-08	1246	1500	1645	8.06	389	106																	
18-Jul-08	1253	1500	1505																				
25-Jul-08	1260	1500	1420	8.03	363	122	<1	3	54	57.5	58.2	<0.5	0.035	8.77	0.0089	0.000478	0.00033	0.00262	<0.0002	<0.0005	<0.01	<0.00005	15.7
1-Aug-08	1267	1500	1530																				
31-Oct-08	1358	1500	1470	7.66	431	52																	
7-Nov-08	1365	1500	1310																				
14-Nov-08	1372	1500	1520	7.57	422	41	<1	2	21	17.5	21.2	<0.5	<0.02	5.24	0.0101	0.000234	0.00031	0.000943	<0.0002	<0.0005	<0.01	<0.00005	5.77
21-Nov-08	1379	1500	1480																				
28-Nov-08	1386	1500	1555	7.16	313	47																	
5-Dec-08	1393	1500	1505																				
12-Dec-08	1400	1500	1455	7.76	343	36	<1	3	17	32	18.3	<0.5	<0.02	5.73	0.0074	0.000136	<0.0001	0.000889	<0.0002	<0.0005	<0.01	<0.00005	4.91
19-Dec-08	1407	1500	1620																				
26-Dec-08	1414	1500	1450	7.91	356	111																	
2-Jan-09	1421	1500	1485																				
9-Jan-09	1428	1500	1430	7.35	351	41	<1	3	15	18	16.2	<0.5	<0.02	5.06	0.0022	0.000115	0.00012	0.000909	<0.0002	<0.0005	<0.01	<0.00005	4.33
16-Jan-09	1435	1500	1315																				
23-Jan-09	1442	1500	1445	7.78	383	124																	
30-Jan-09	1449	1500	1380																				
6-Feb-09	1456	1500	1340	7.67	336	64	<1	5		87.3	80.7	<0.5	0.039	20.1	0.0054	0.0004	0.00093	0.00336	<0.0002	<0.0005	<0.01	<0.00005	20
13-Feb-09	1463	1500	1480																				
20-Feb-09	1470	1500	1500	8.04	309	237																	
27-Feb-09	1477	1500	1450																				
6-Mar-09	1484	1500	1380	7.69	316	114	<1	7	63	63.8	62.8	<0.5	0.043	9.64	0.0103	0.000397	0.00023	0.00297	<0.0002	<0.0005	<0.01	<0.00005	17
13-Mar-09	1491	1500	1395																				
20-Mar-09	1498	1500	1150	7.79	286	228																	
27-Mar-09	1505	1500	1095																				
3-Apr-09	1512	1500	1455	8.01	322	244	<1	4	118	135	125	<0.5	0.084	21.2	0.0057	0.000635	0.0005	0.00513	<0.0002	<0.0005	<0.01	<0.00005	33.4
10-Apr-09	1519	1500	1320																				
17-Apr-09	1526	1500	1595	7.99	348	217																	
24-Apr-09	1533	1500	1245																				
1-May-09	1540	1500	1445	8.04	300	215	<1	3	108	106	103	<0.5	0.073	10.7	0.0047	0.000541	0.00034	0.00455	<0.0002	<0.0005	<0.01	<0.00005	28.7
8-May-09	1547	1500	1430																				
15-May-09	1554	1500	1445	7.69	373	115																	
22-May-09	1561	1500	1410																				
29-May-09	1568	1500	1410	7.35	380	31	<1	3	22	23.3		<0.5	<0.02	1.72									
5-Jun-09	1575	1500	1385																				
12-Jun-09	1582	1500	1325	7.78	382	191																	
19-Jun-09	1589	1500	1170																				
26-Jun-09	1596	1500	1440	7.37	378	52	<1	4	33	41.5		<0.5	<0.02	3.2									
3-Jul-09	1603	1500	1285																				
10-Jul-09	1610	1500	1200	8.17	313	250																	
17-Jul-09	1617	1500	1345																				

Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Oct-08	1330																			
10-Oct-08	1337																			
17-Oct-08	1344	<0.0005	<0.0001	0.00287	<0.03	<0.00005	7.22	0.0577	<0.00001	0.0447	<0.0005	2.42	0.0027	0.804	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Oct-08	1351																			
9-May-08	1183																			
16-May-08	1190																			
23-May-08	1197																			
30-May-08	1204																			
6-Jun-08	1211																			
13-Jun-08	1218																			
20-Jun-08	1225																			
27-Jun-08	1232	<0.0005	<0.0001	0.00226	<0.03	<0.00005	4.59	0.0336	<0.00001	0.0255	<0.0005	1.62	<0.001	0.62	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
4-Jul-08	1239																			
11-Jul-08	1246																			
18-Jul-08	1253																			
25-Jul-08	1260	<0.0005	<0.0001	0.00234	<0.03	<0.00005	4.6	0.0456	<0.00001	0.0274	<0.0005	1.7	<0.001	0.659	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
1-Aug-08	1267																			
31-Oct-08	1358																			
7-Nov-08	1365																			
14-Nov-08	1372	<0.0005	<0.0001	0.00103	0.054	<0.00005	1.65	0.0256	<0.00001	0.0107	<0.0005	0.786	<0.001	0.317	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Nov-08	1379																			
28-Nov-08	1386																			
5-Dec-08	1393																			
12-Dec-08	1400	<0.0005	<0.0001	0.00308	<0.03	<0.00005	1.48	0.0285		0.0069	<0.0005	0.66	<0.001	0.22	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
19-Dec-08	1407																			
26-Dec-08	1414																			
2-Jan-09	1421																			
9-Jan-09	1428	<0.0005	<0.0001	0.00057	<0.03	<0.00005	1.3	0.0368	<0.00001	0.00535	<0.0005	0.561	<0.001	0.227	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
16-Jan-09	1435																			
23-Jan-09	1442																			
30-Jan-09	1449																			
6-Feb-09	1456	<0.0005	<0.0001	0.00235	<0.03	<0.00005	7.47	0.055	<0.00001	0.0325	<0.0005	2.09	<0.001	0.776	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Feb-09	1463																			
20-Feb-09	1470																			
27-Feb-09	1477																			
6-Mar-09	1484	<0.0005	<0.0001	0.00243	<0.03	<0.00005	4.93	0.0485	<0.00001	0.0334	<0.0005	1.9	<0.001	0.717	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Mar-09	1491																			
20-Mar-09	1498																			
27-Mar-09	1505																			
3-Apr-09	1512	<0.0005	<0.0001	0.00384	<0.03	<0.00005	10.1	0.0621	<0.00001	0.0824	<0.0005	3.4	0.0014	1.19	<0.00001	<2	0.000061	<0.0001	<0.0005	<0.001
10-Apr-09	1519																			
17-Apr-09	1526																			
24-Apr-09	1533																			
1-May-09	1540	<0.0005	<0.0001	0.00356	<0.03	<0.00005	7.75	0.0369	<0.00001	0.055	<0.0005	2.66	<0.001	1.13	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-May-09	1547																			
15-May-09	1554																			
22-May-09	1561																			
29-May-09	1568																			
5-Jun-09	1575																			
12-Jun-09	1582																			
19-Jun-09	1589																			
26-Jun-09	1596																			
3-Jul-09	1603																			
10-Jul-09	1610																			
17-Jul-09	1617																			

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
24-Jul-09	1624	1500	1435	7.95	355	187	<1	4	106	96.5		<0.5	0.054	6.34									
31-Jul-09	1631	1500	1265																				
7-Aug-09	1638	1500	1410	8.05	217	138																	
14-Aug-09	1645	1500	1370																				
21-Aug-09	1652	1500	1360	8.31	301	179	<1	1	101	80.7		<0.5	0.035	5.42									
28-Aug-09	1659	1500	1290																				
4-Sep-09	1666	1500	1300	8.25	276	162																	
11-Sep-09	1673	1500	1485																				
18-Sep-09	1680	1500	1335	8.05	331	192	<1	3	106	99		<0.5	0.05	13.5									
25-Sep-09	1687	1500	1295																				
2-Oct-09	1694	1500	1285	7.90	308	156																	
9-Oct-09	1701	1500	1325																				
16-Oct-09	1708	1500	1340	7.91	333	97	<1	4	59	135		<0.5	0.044	9.95									
23-Oct-09	1715	1500	1300																				

MPP Rougher Tails T27

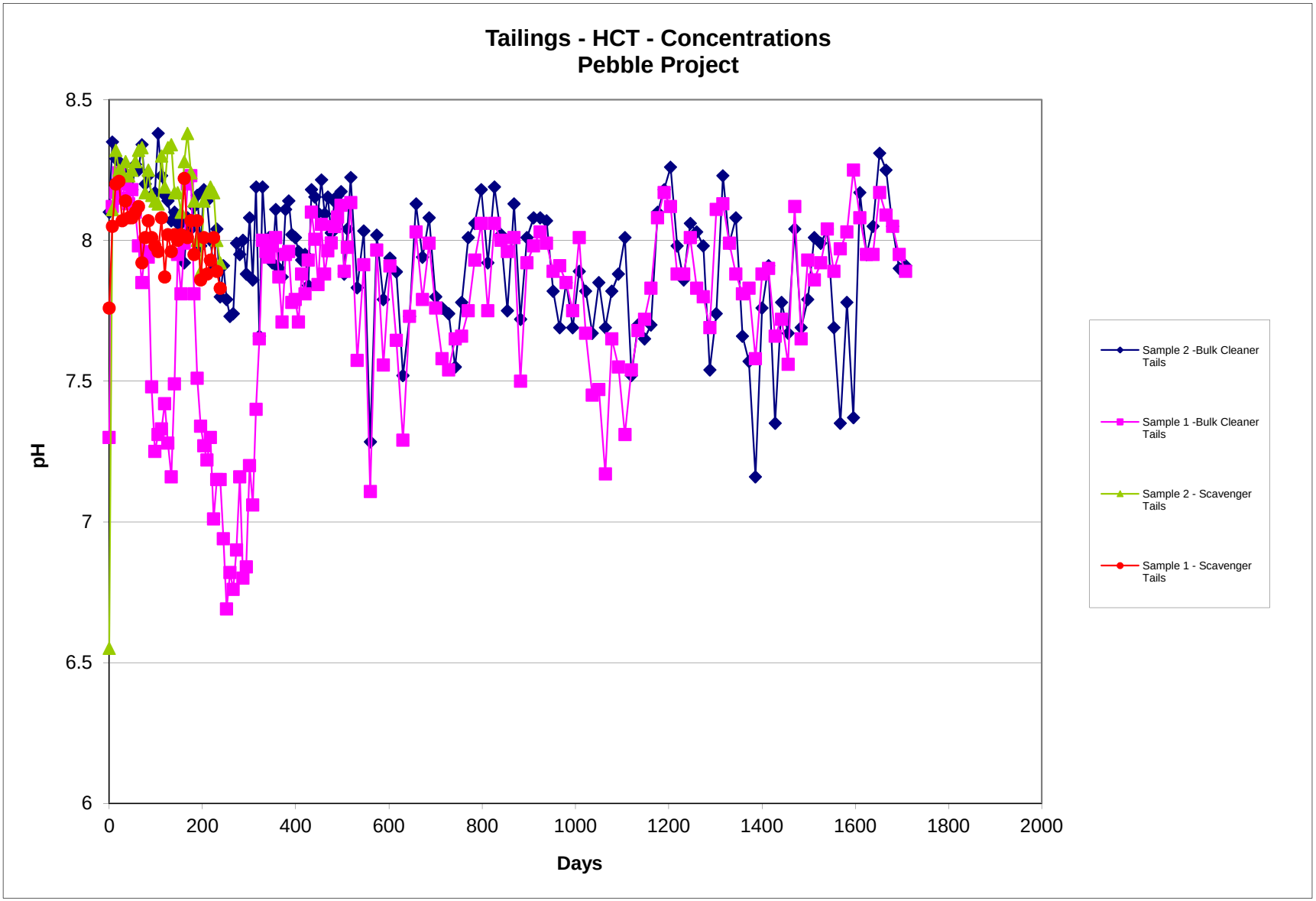
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L
30-Oct-12	0	750	465	7.45	<2	1106	<1	10	53	846	439	13.7	3.38	469	0.014	0.00867	0.0508	0.0259	<0.0002	<0.0005	0.075	<0.0004	118
7-Nov-12	7	500	470	7.59	376	589																	
14-Nov-12	14	500	520	7.76	226	478	<1	22	118	324	211	<5	1.07	138	0.0062	0.00847	0.342	0.0185	<0.0002	<0.0005	0.042	0.000133	52
21-Nov-12	21	500	485	7.87	369	250																	
28-Nov-12	28	500	475	7.76	358	303	<1	8	95	186	122	<5	0.69	70.5	0.0061	0.00836	0.178	0.0117	<0.0002	<0.0005	0.02	0.00011	32.5
5-Dec-12	35	500	395	7.87	324	295																	
12-Dec-12	42	500	410	7.72	133	320	<1	5	50	204	130	<5	0.52	103	0.0202	0.0114	0.0976	0.0118	<0.0002	<0.0005	0.014	<0.00005	35.4
19-Dec-12	49	500	445	7.82	322	282																	
26-Dec-12	56	500	455	7.84	148	238	<1	9	60	146	99.2	<5	0.37	63.7	0.0201	0.0115	0.0792	0.00955	<0.0002	<0.0005	<0.01	<0.00005	26.2

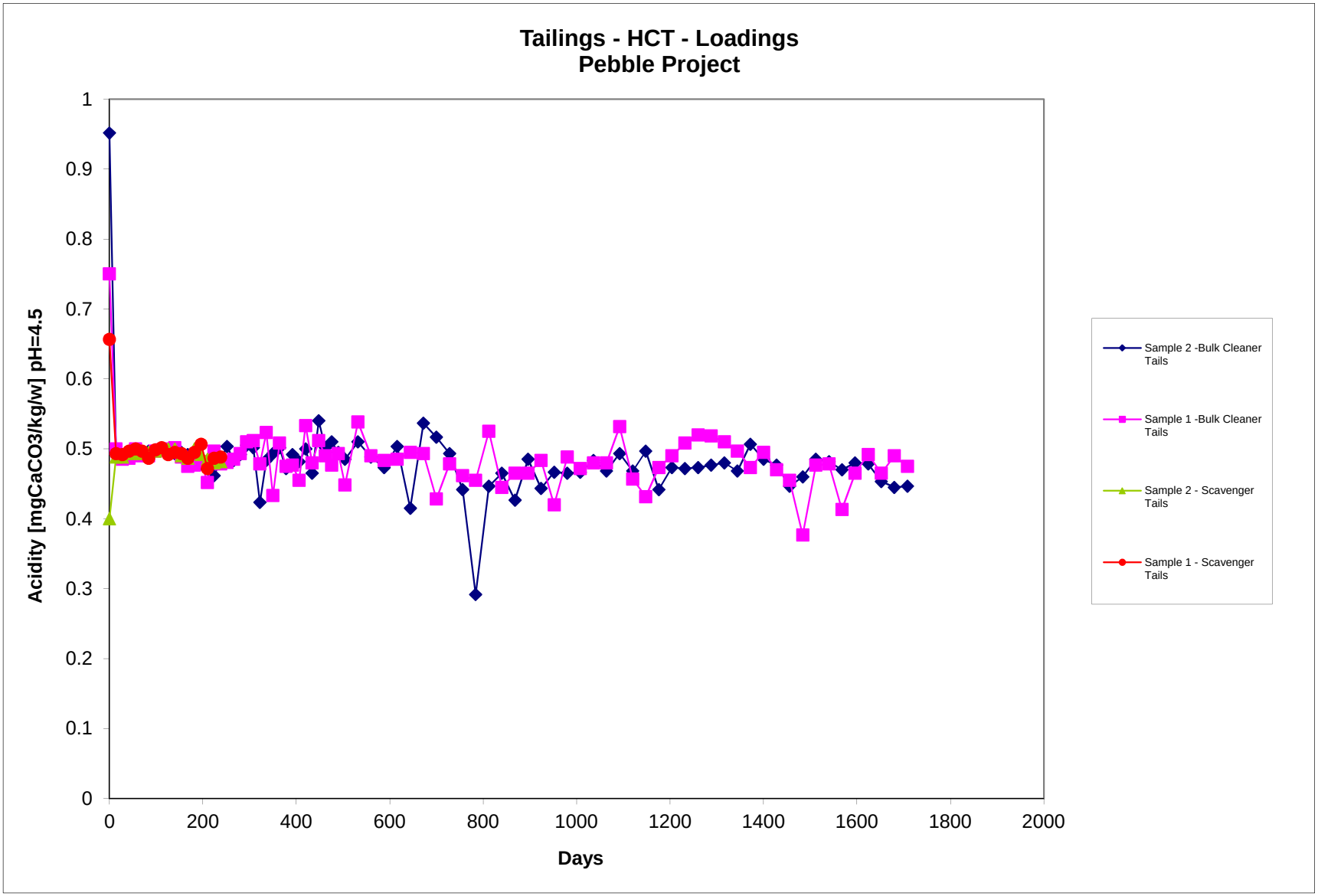
Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
24-Jul-09	1624																			
31-Jul-09	1631																			
7-Aug-09	1638																			
14-Aug-09	1645																			
21-Aug-09	1652																			
28-Aug-09	1659																			
4-Sep-09	1666																			
11-Sep-09	1673																			
18-Sep-09	1680																			
25-Sep-09	1687																			
2-Oct-09	1694																			
9-Oct-09	1701																			
16-Oct-09	1708																			
23-Oct-09	1715																			

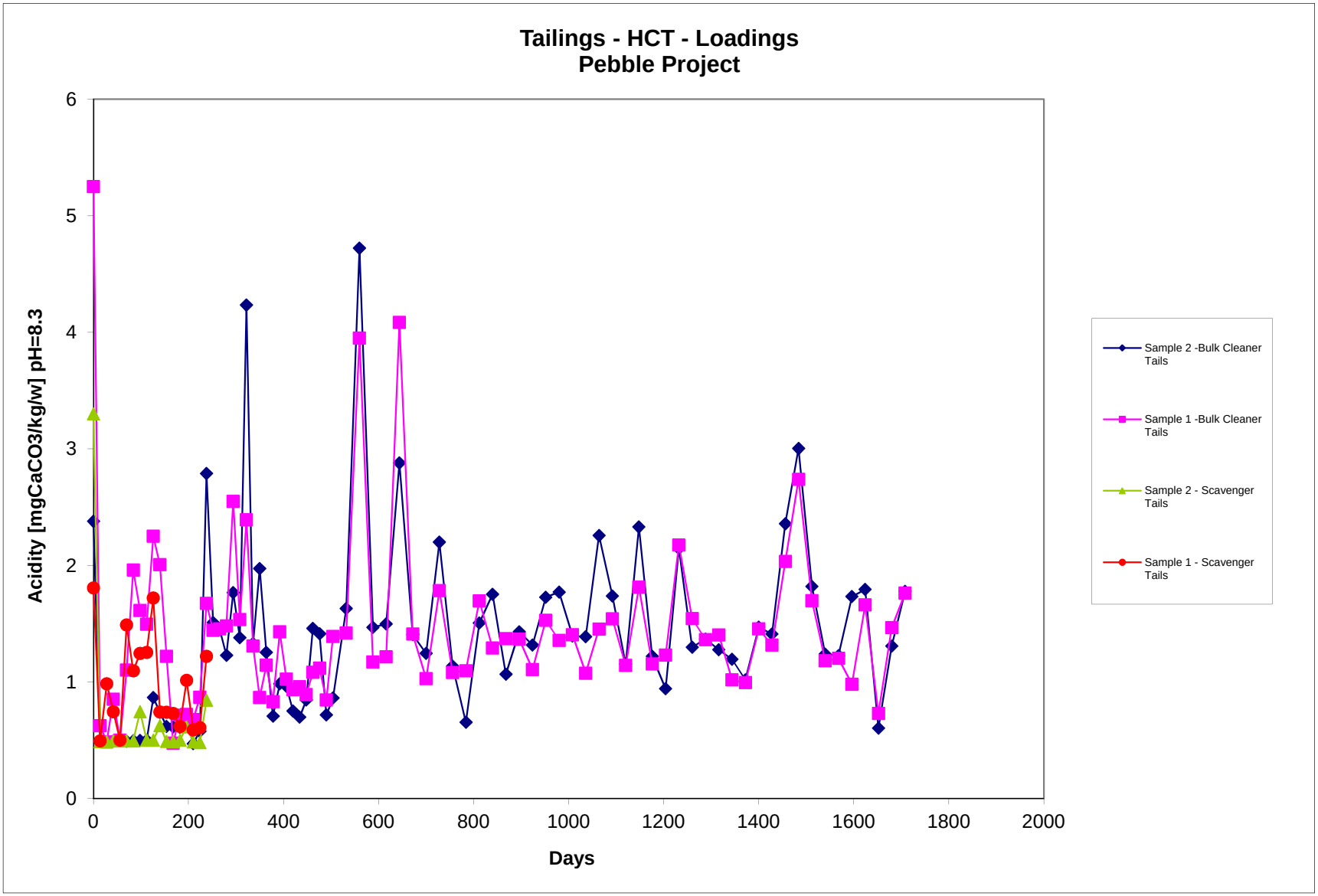
MPP Rougher Tails T27

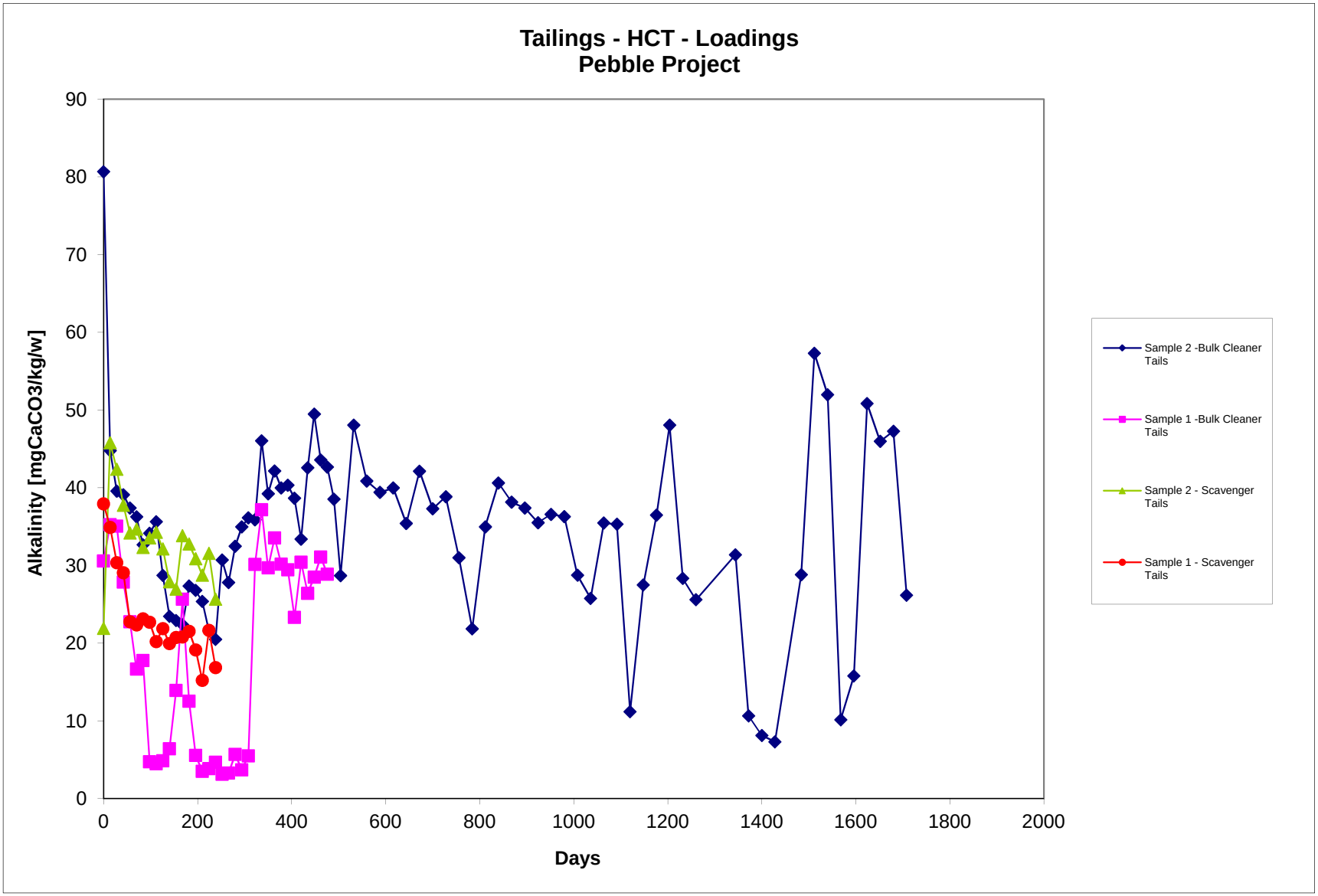
Date	Accum Days	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
30-Oct-12	0	0.00082	0.00037	0.0136	<0.03	<0.00005	35	0.337	<0.00001	0.112	0.00638	53.7	0.0146	22.2	0.000023	27.7	0.000283	0.0177	0.00174	0.0047
7-Nov-12	7																			
14-Nov-12	14	<0.0005	0.00102	0.00729	<0.03	<0.00005	19.7	0.648	<0.00001	0.0422	0.0127	31.4	0.003	28	<0.00001	6.4	0.000212	0.0224	0.00136	0.0037
21-Nov-12	21																			
28-Nov-12	28	<0.0005	0.00037	0.00276	<0.03	<0.00005	9.99	0.301	<0.00001	0.0235	0.00471	14.1	0.0014	19.4	<0.00001	2.4	0.000112	0.0428	0.00102	0.0018
5-Dec-12	35																			
12-Dec-12	42	<0.0005	0.00023	0.00263	<0.03	0.00262	10.2	0.209	<0.00001	0.0264	0.00193	12	0.0049	10.8	<0.00001	<2	0.000113	0.0108	0.00111	0.0016
19-Dec-12	49																			
26-Dec-12	56	<0.0005	0.00026	0.00349	<0.03	<0.00005	8.18	0.204	<0.00001	0.025	0.0019	9.24	0.0039	10.4	<0.00001	<2	0.000099	0.0079	0.00115	0.0012

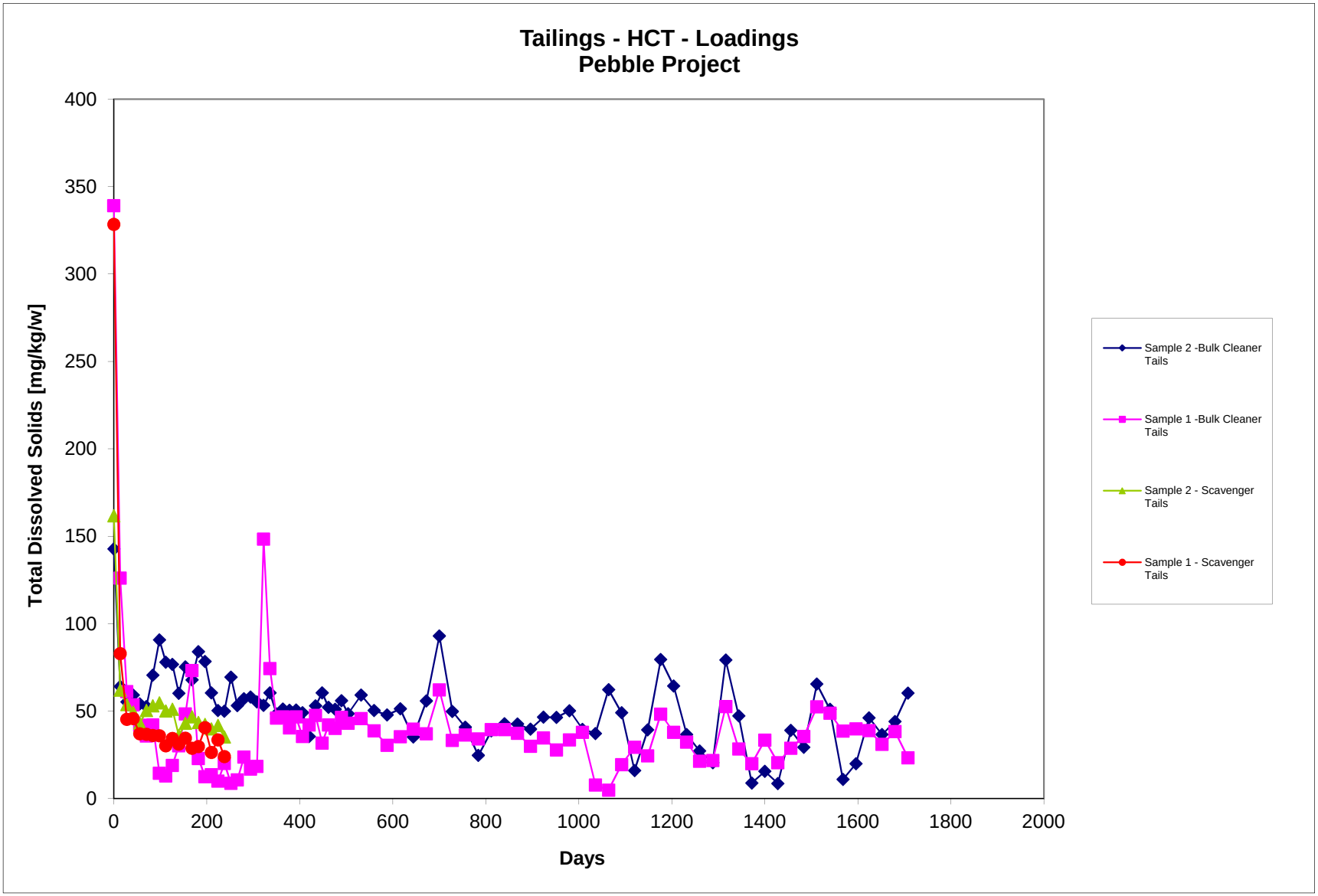
Appendix 11K, Loading Trend Charts for Humidity Cell Tests on Tailings

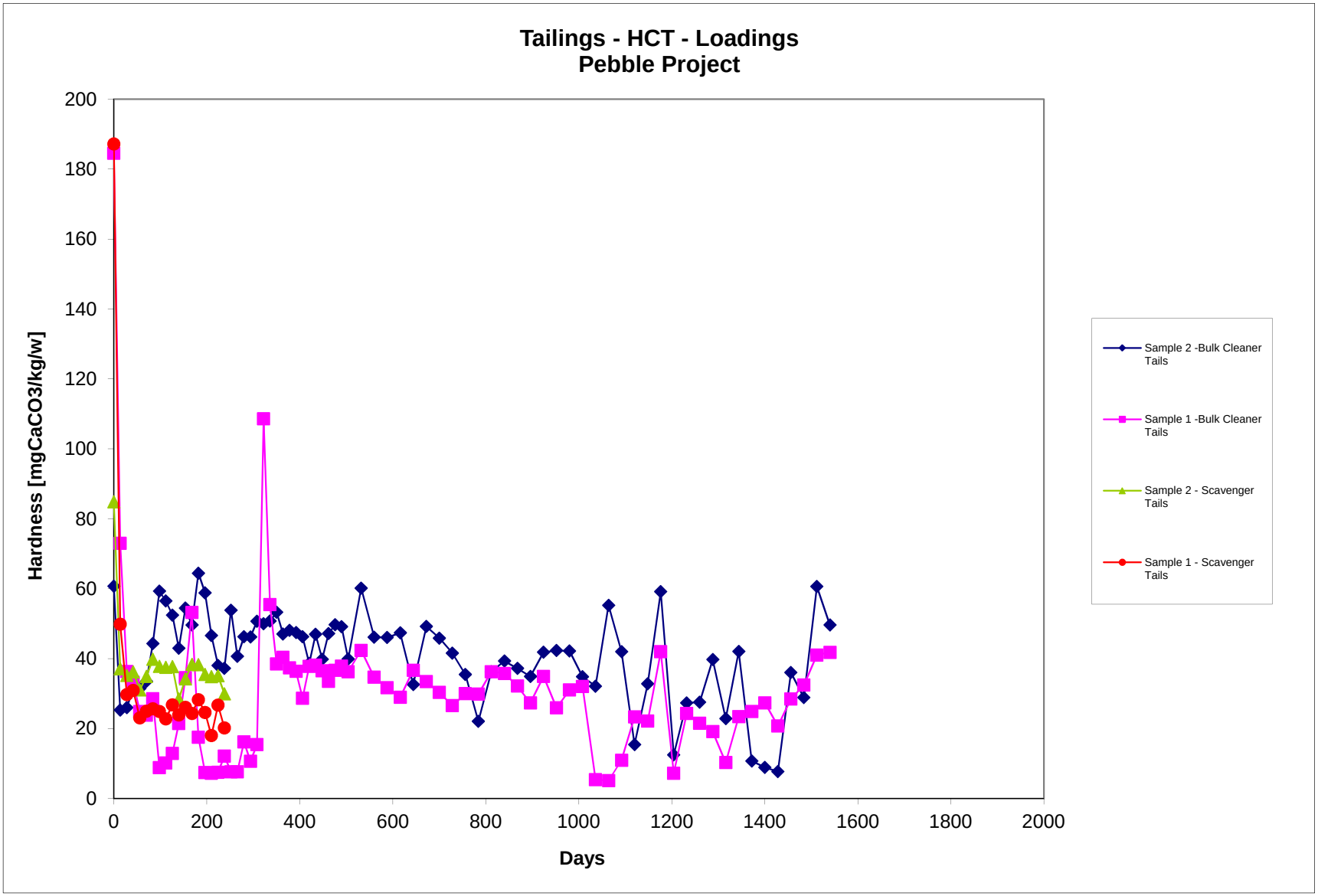

Tailings - HCT - Concentrations
Pebble Project
8.5
8
7.5
7
6.5
6
pH
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

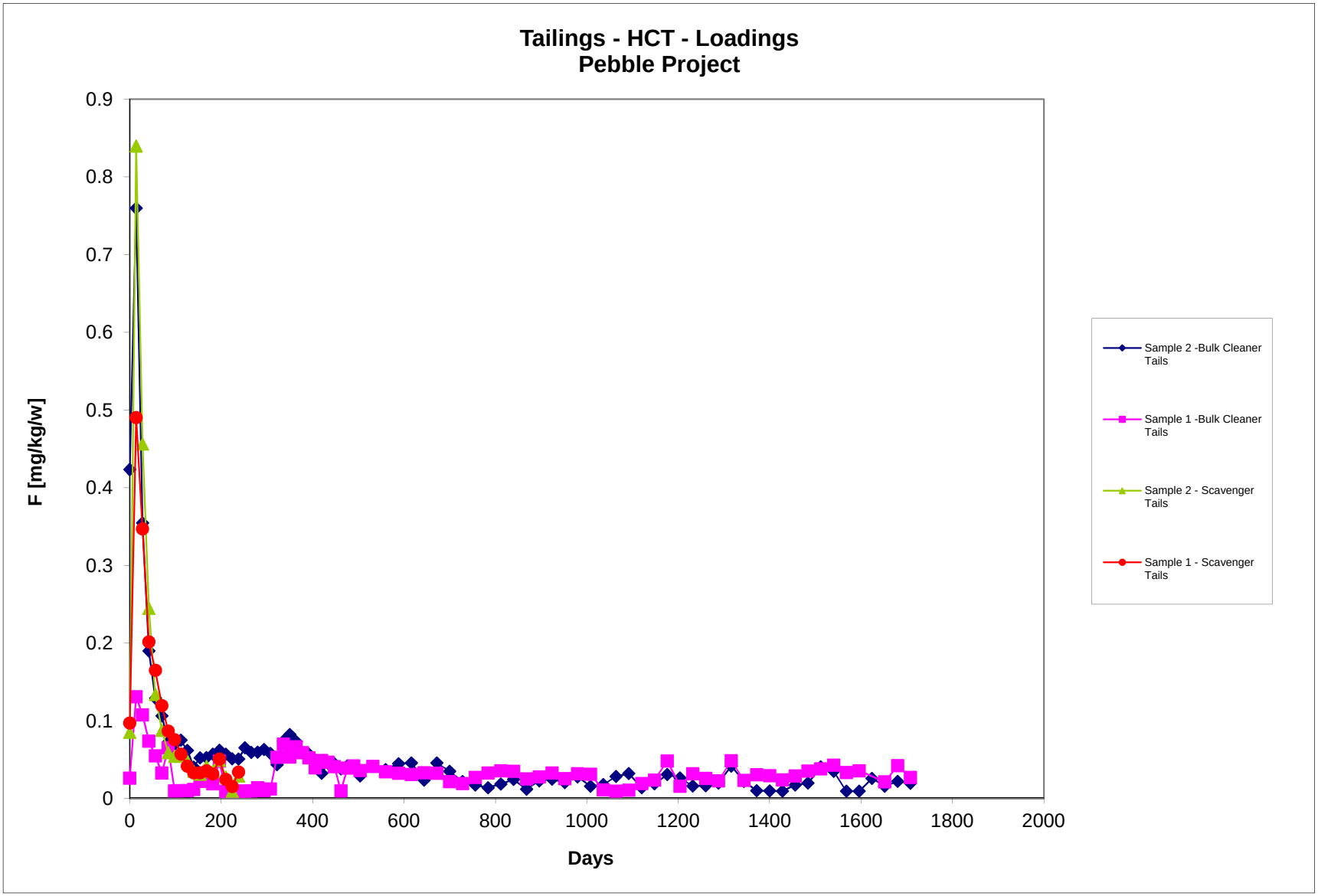

Tailings - HCT - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=4.5
Days
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

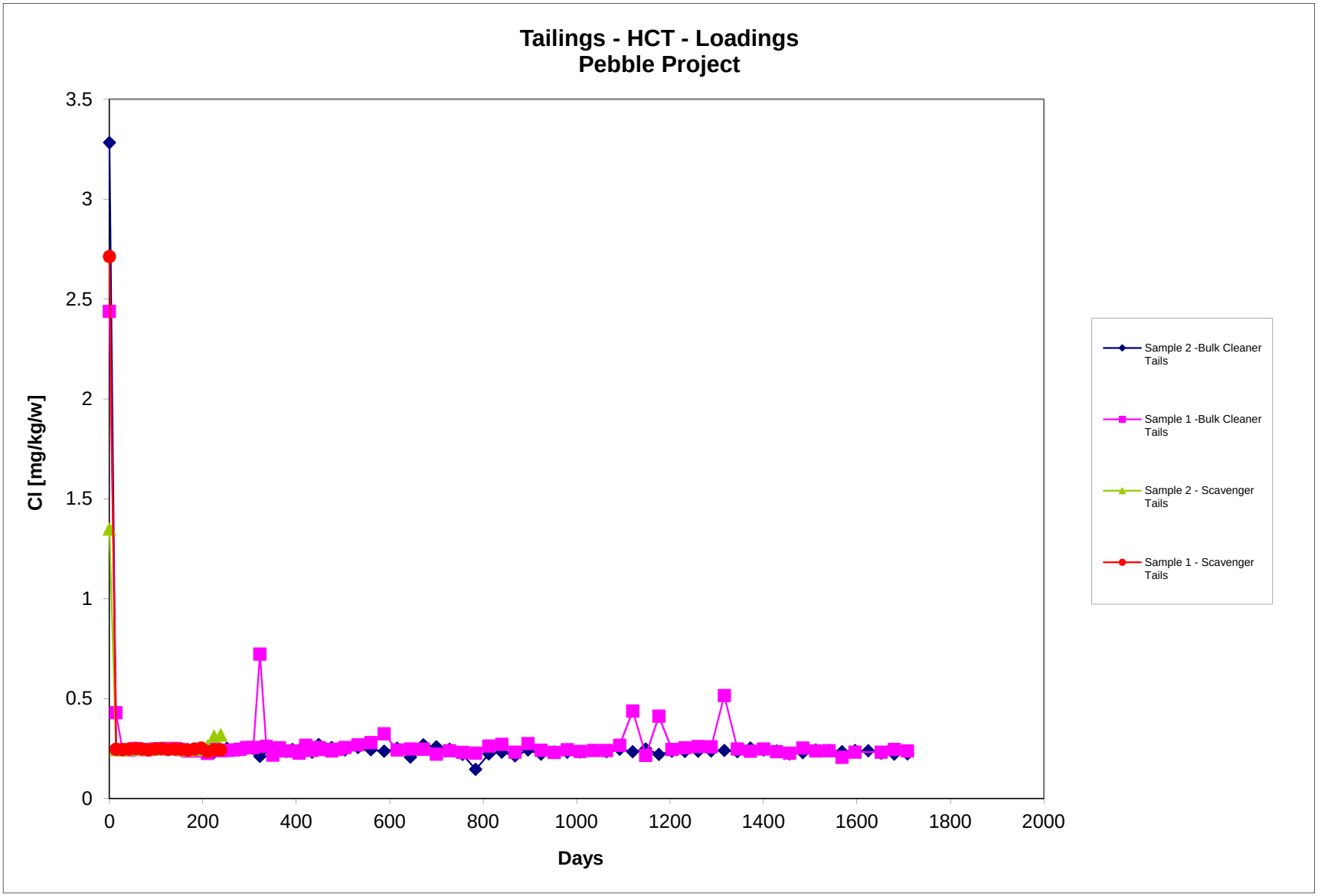

Tailings - HCT - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=8.3
Days
0
1
2
3
4
5
6
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

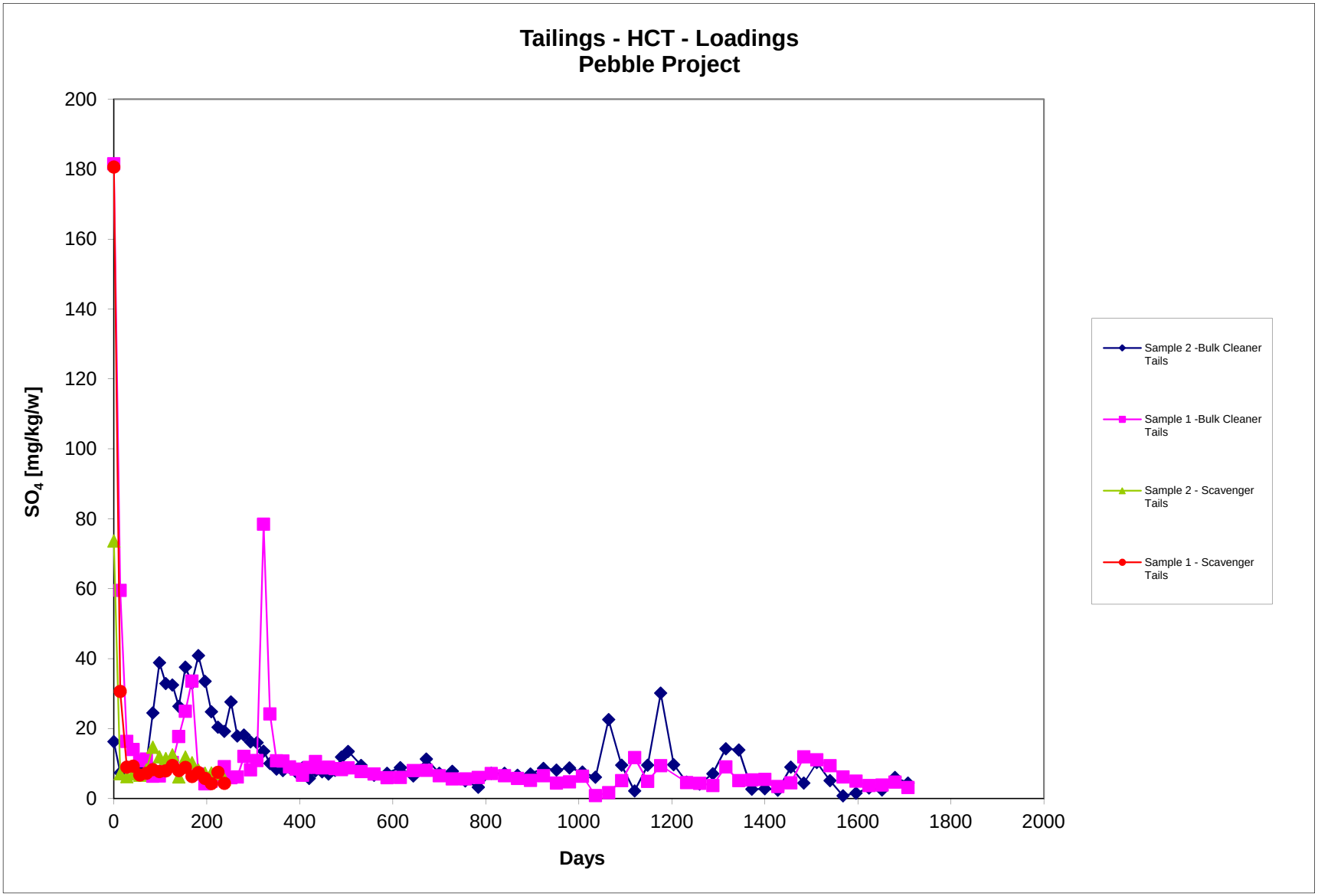

Tailings - HCT - Loadings
Pebble Project
Alkalinity [mgCaCO3/kg/w]
Days
0
10
20
30
40
50
60
70
80
90
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

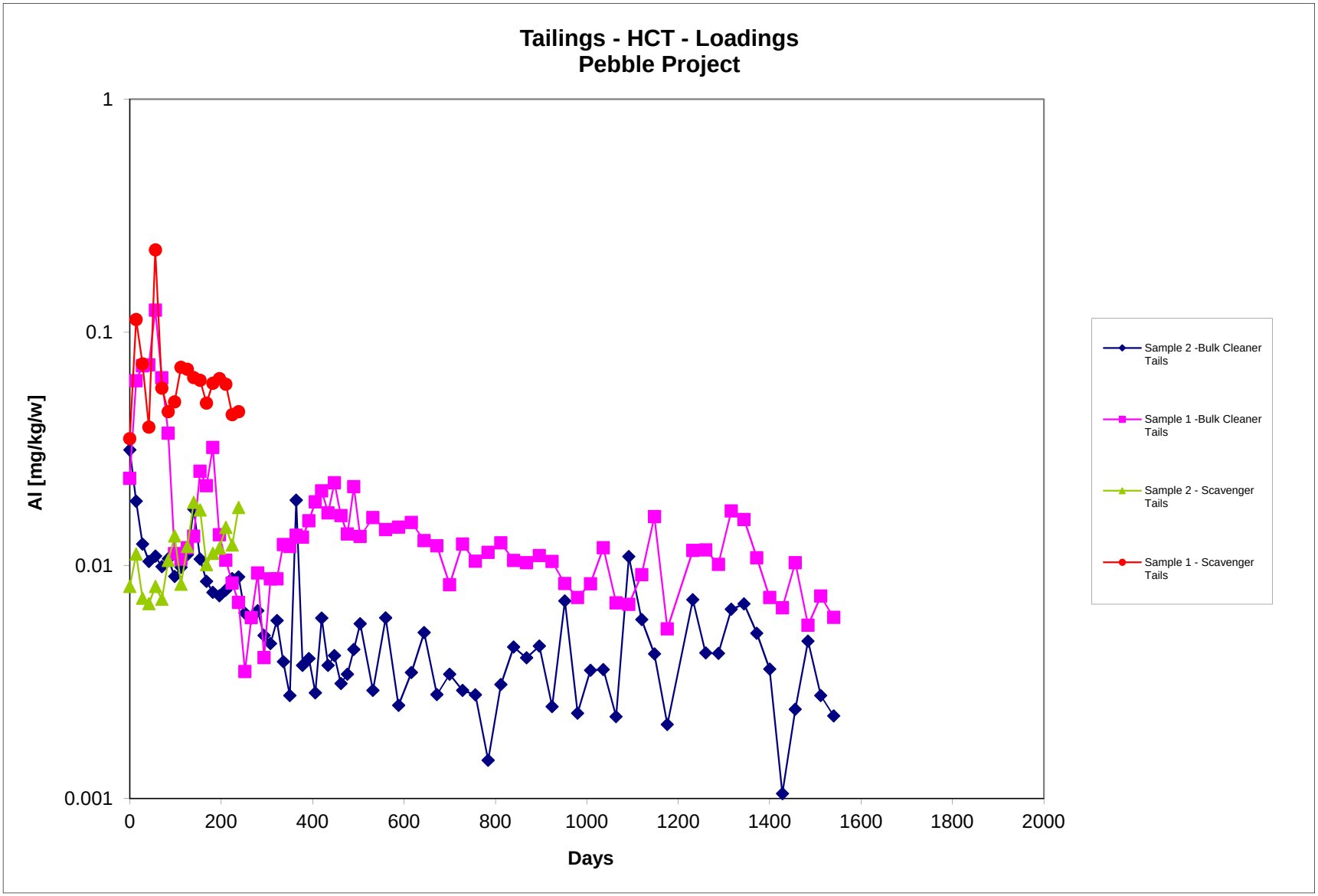

Tailings - HCT - Loadings
Pebble Project
Total Dissolved Solids [mg/kg/w]
400
350
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

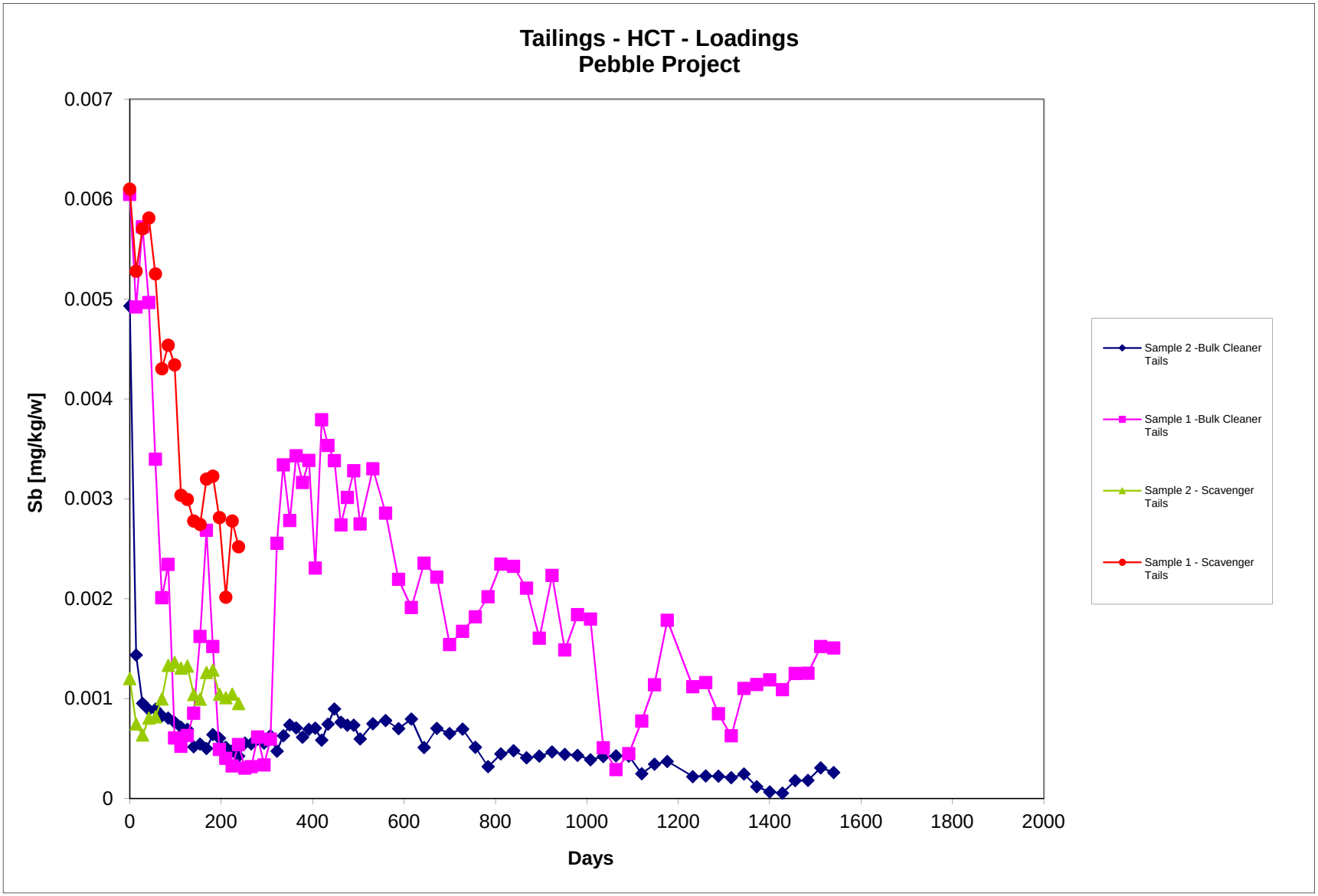

Tailings - HCT - Loadings
Pebble Project
Hardness [mgCaCO3/kg/w]
Days
0
20
40
60
80
100
120
140
160
180
200
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

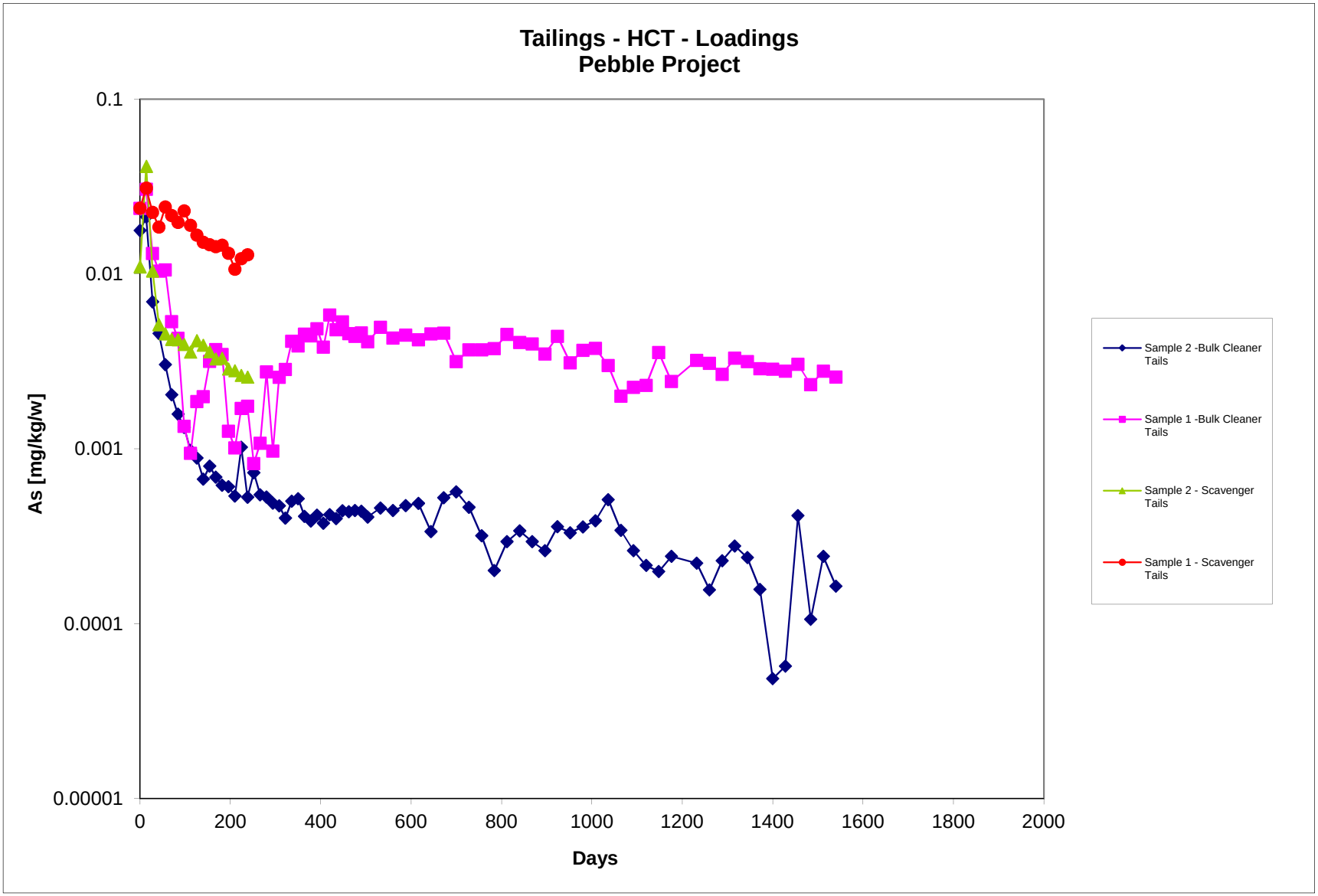

Tailings - HCT - Loadings
Pebble Project
F [mg/kg/w]
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

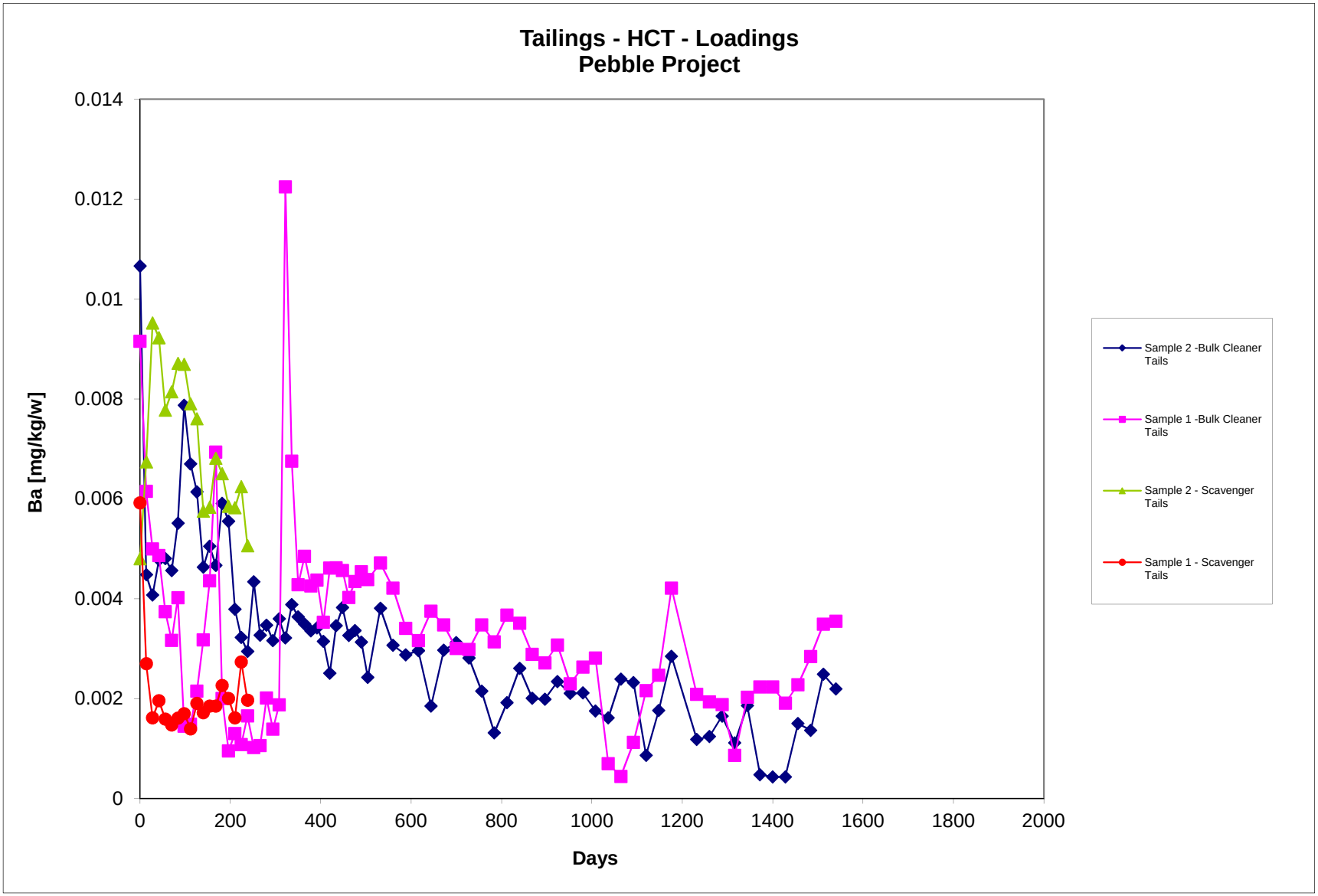

Tailings - HCT - Loadings
Pebble Project
Cl [mg/kg/w]
3.5
3
2.5
2
1.5
1
0.5
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

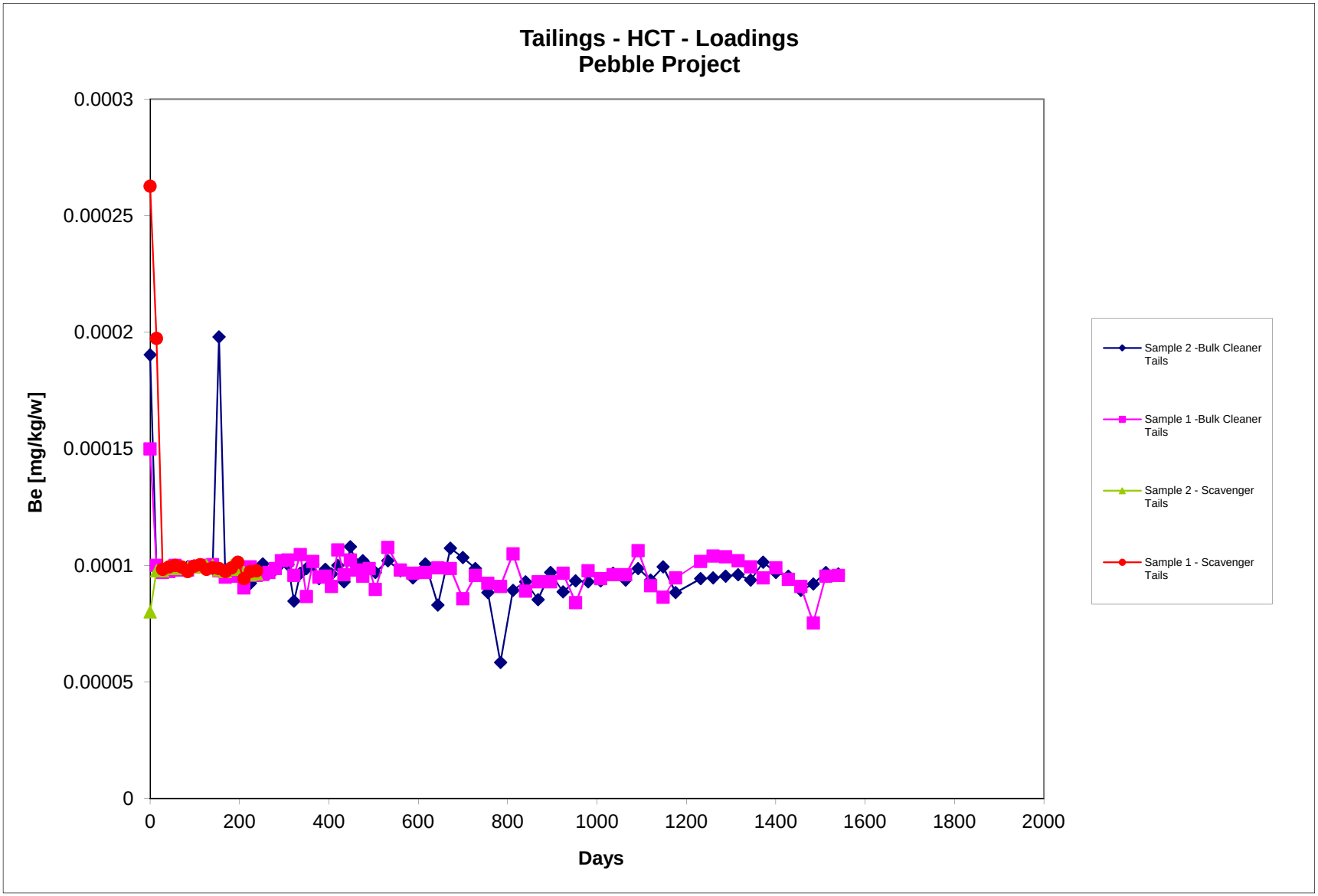

Tailings - HCT - Loadings
Pebble Project
SO4 [mg/kg/w]
Days
0
20
40
60
80
100
120
140
160
180
200
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

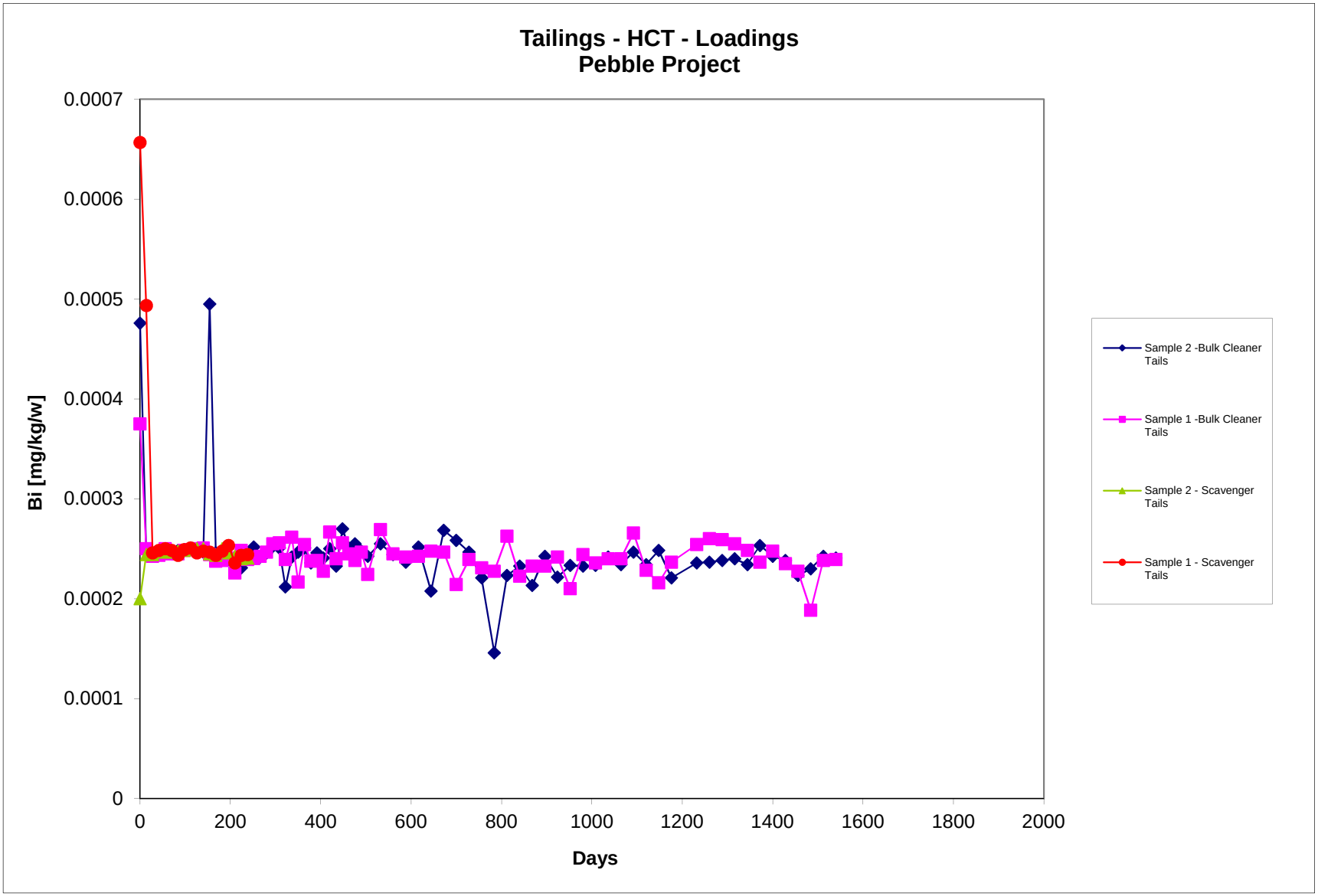

Tailings - HCT - Loadings
Pebble Project
Al [mg/kg/w]
1
0.1
0.01
0.001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

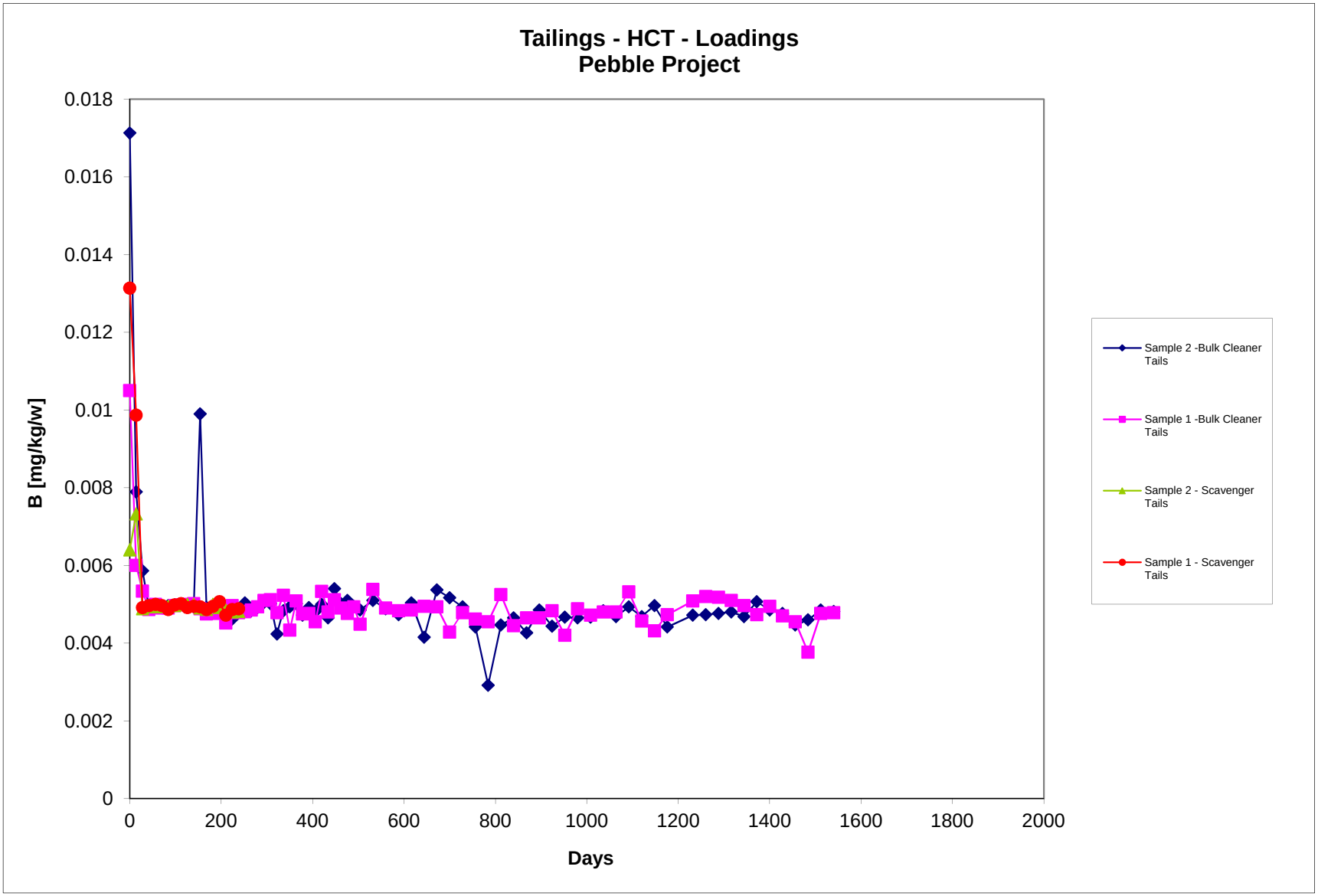

Tailings - HCT - Loadings
Pebble Project
Sb [mg/kg/w]
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

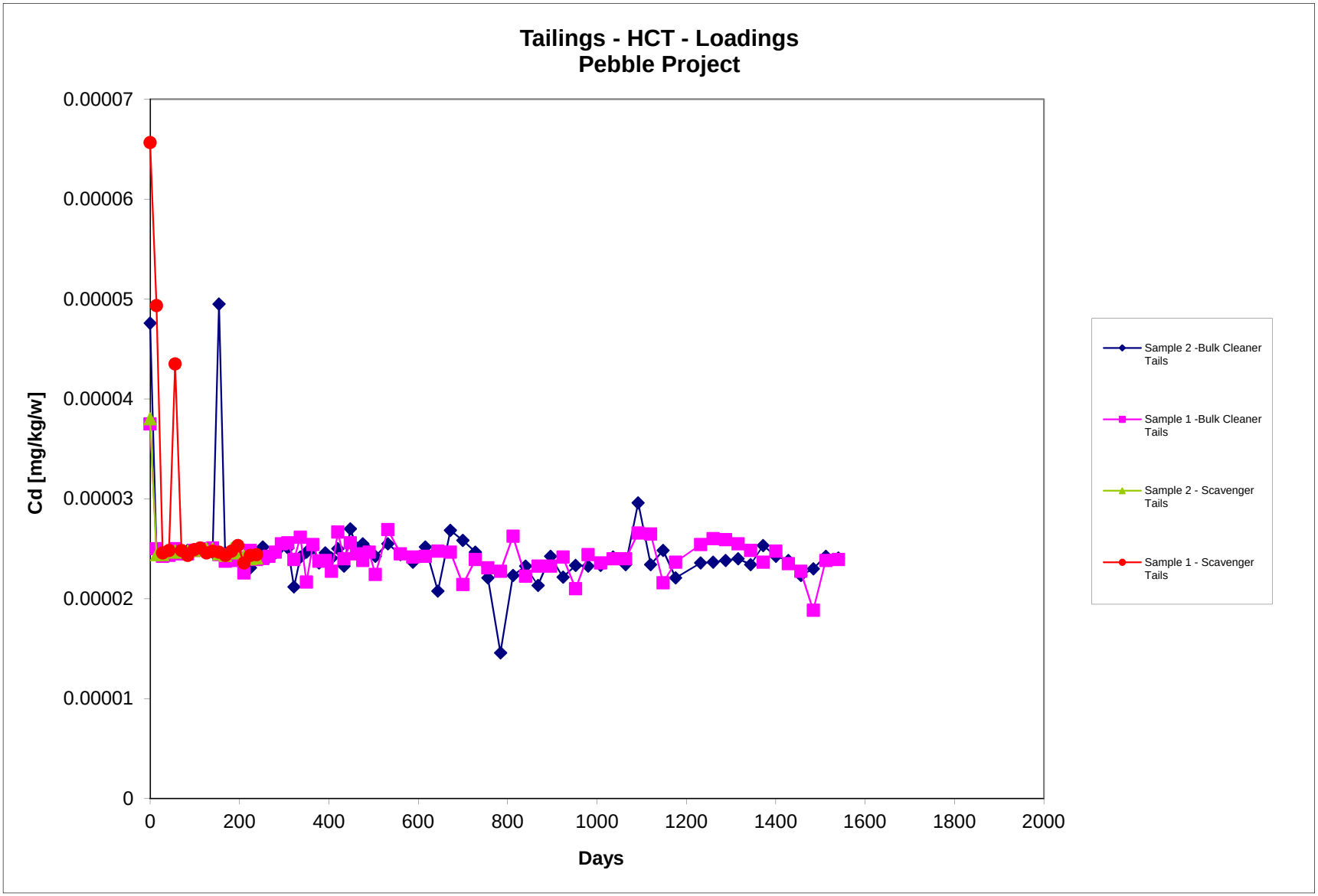

Tailings - HCT - Loadings
Pebble Project
As [mg/kg/w]
0.1
0.01
0.001
0.0001
0.00001
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

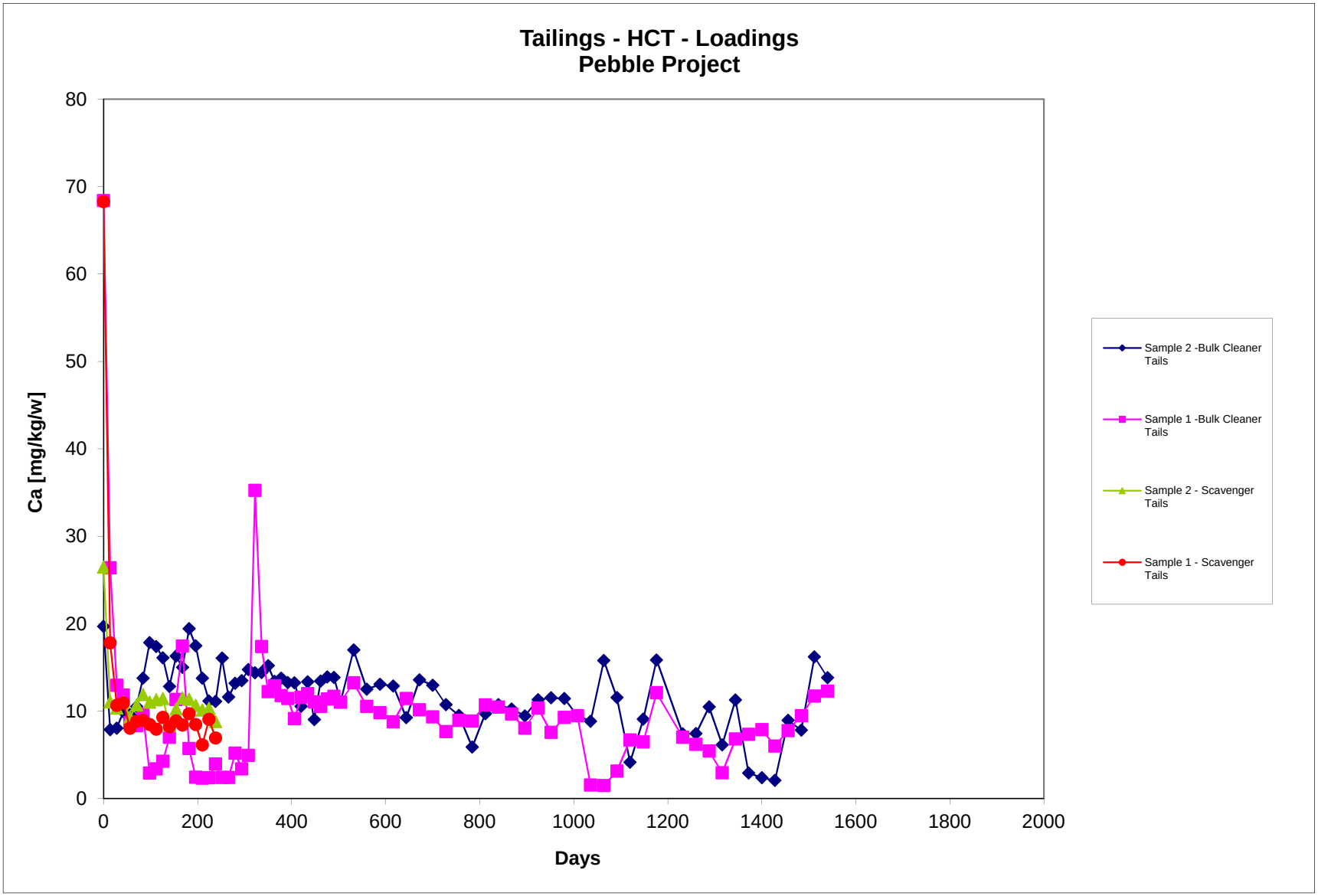

Tailings - HCT - Loadings
Pebble Project
Ba [mg/kg/w]
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

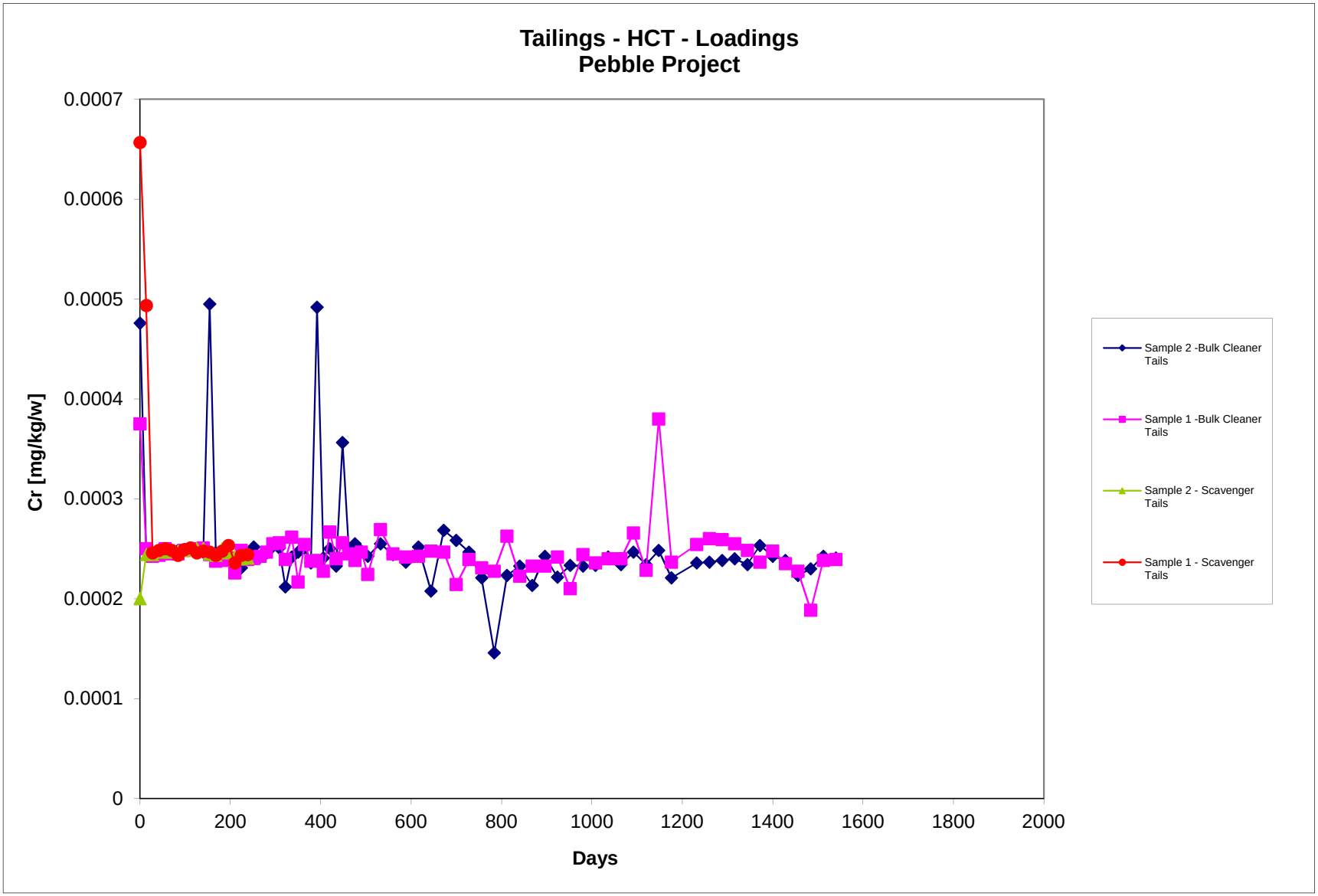

Tailings - HCT - Loadings
Pebble Project
Be [mg/kg/w]
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

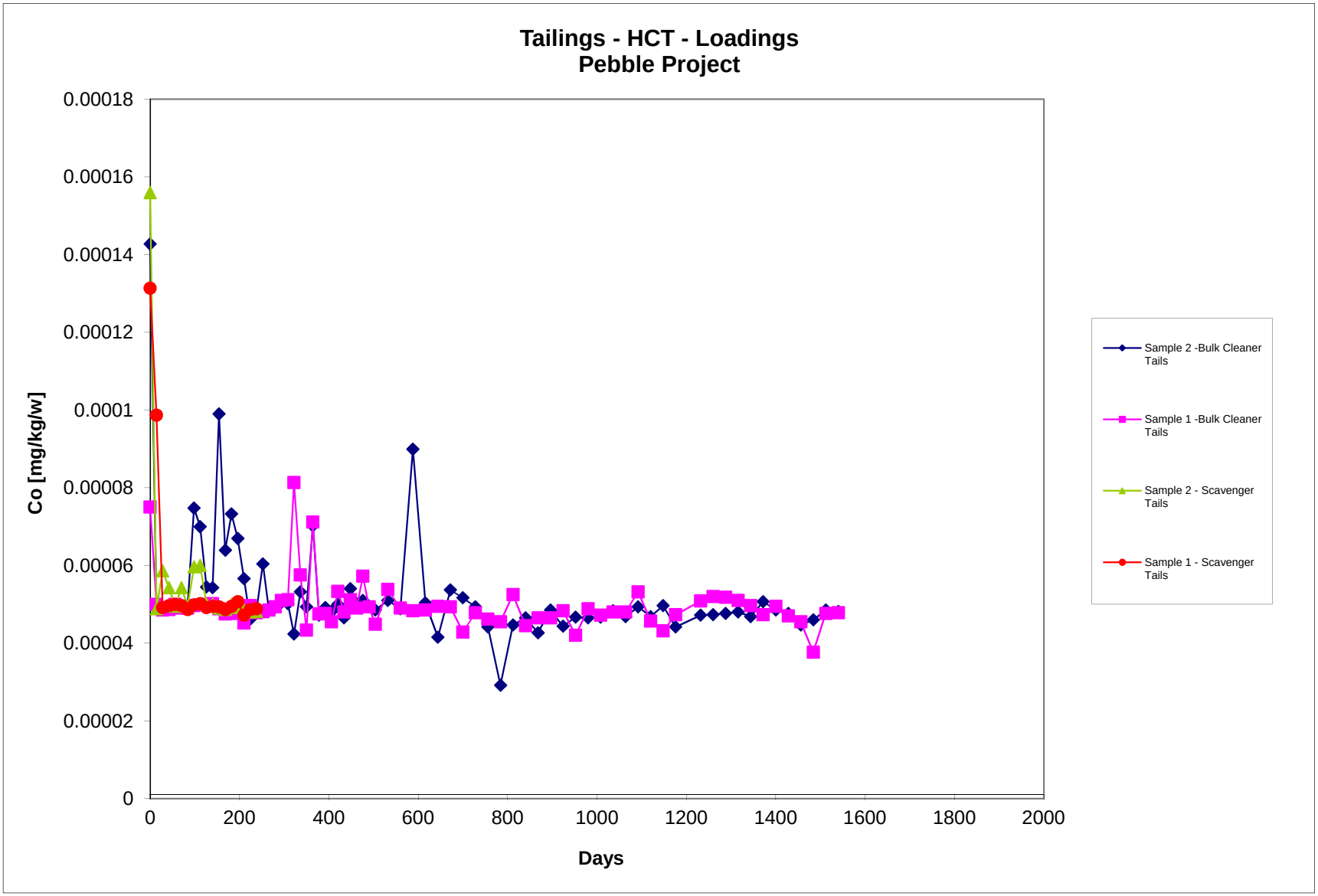

Tailings - HCT - Loadings
Pebble Project
Bi [mg/kg/w]
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

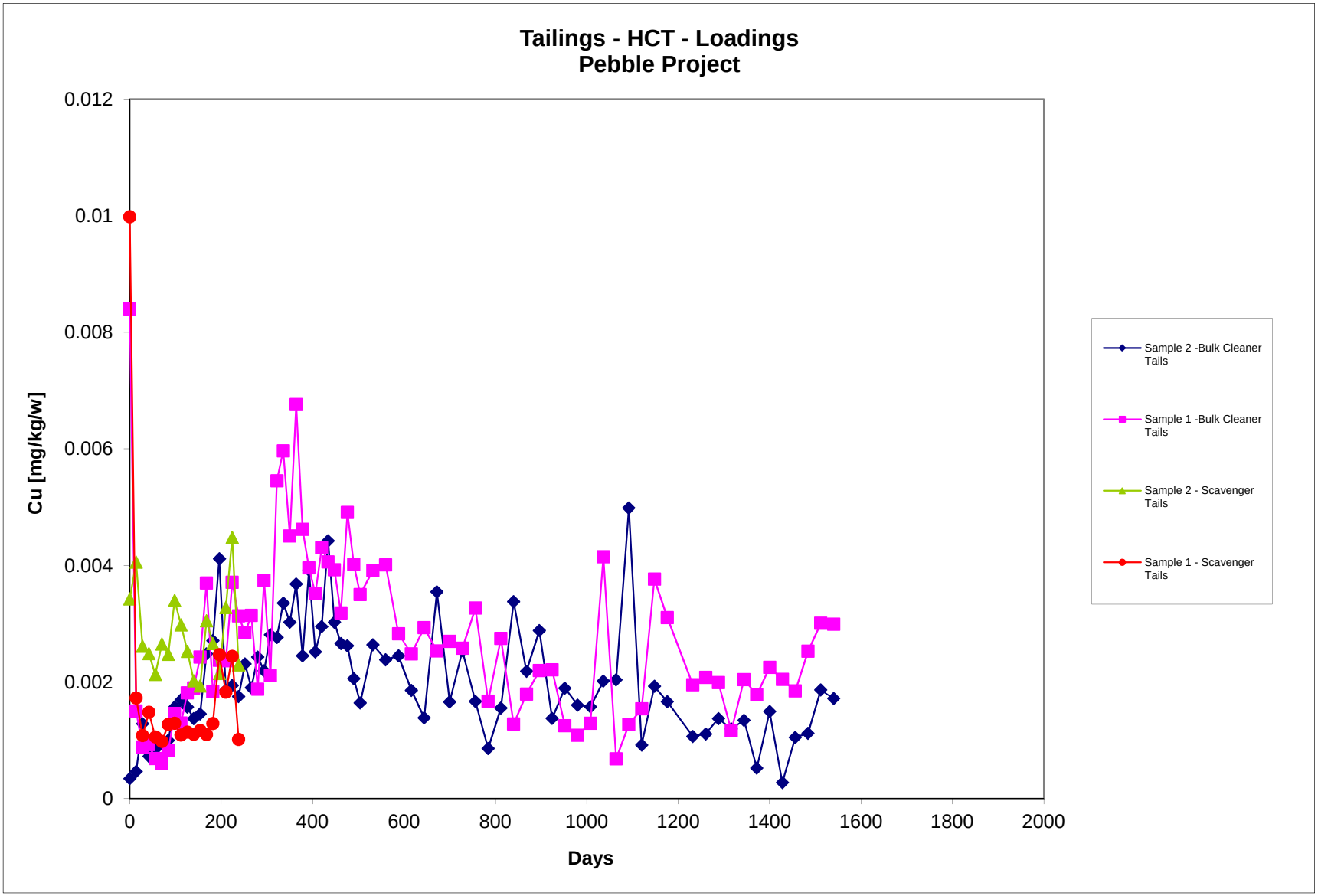

Tailings - HCT - Loadings
Pebble Project
B [mg/kg/w]
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

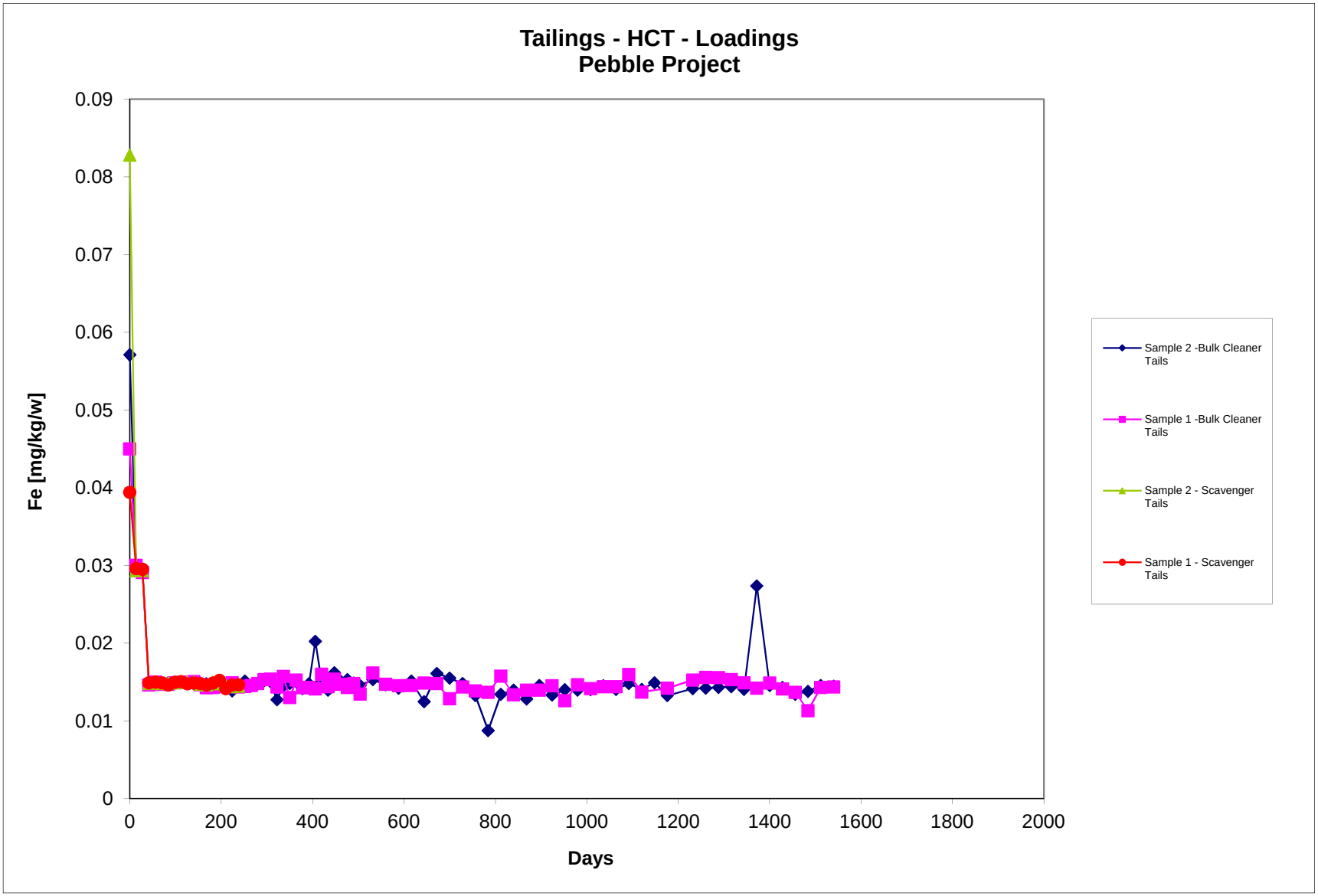

Tailings - HCT - Loadings
Pebble Project
Cd [mg/kg/w]
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

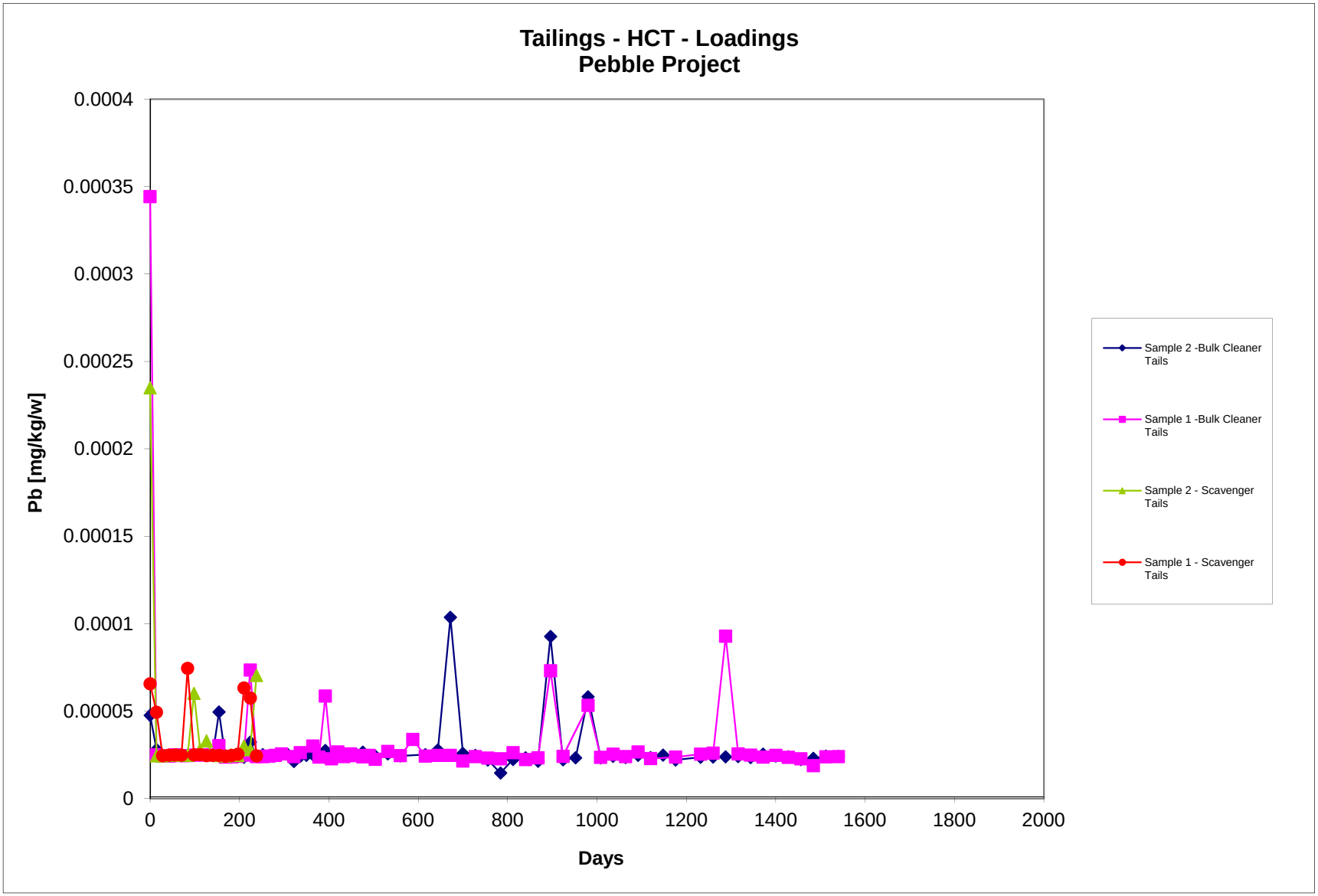

Tailings - HCT - Loadings
Pebble Project
Ca [mg/kg/w]
Days
0
10
20
30
40
50
60
70
80
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

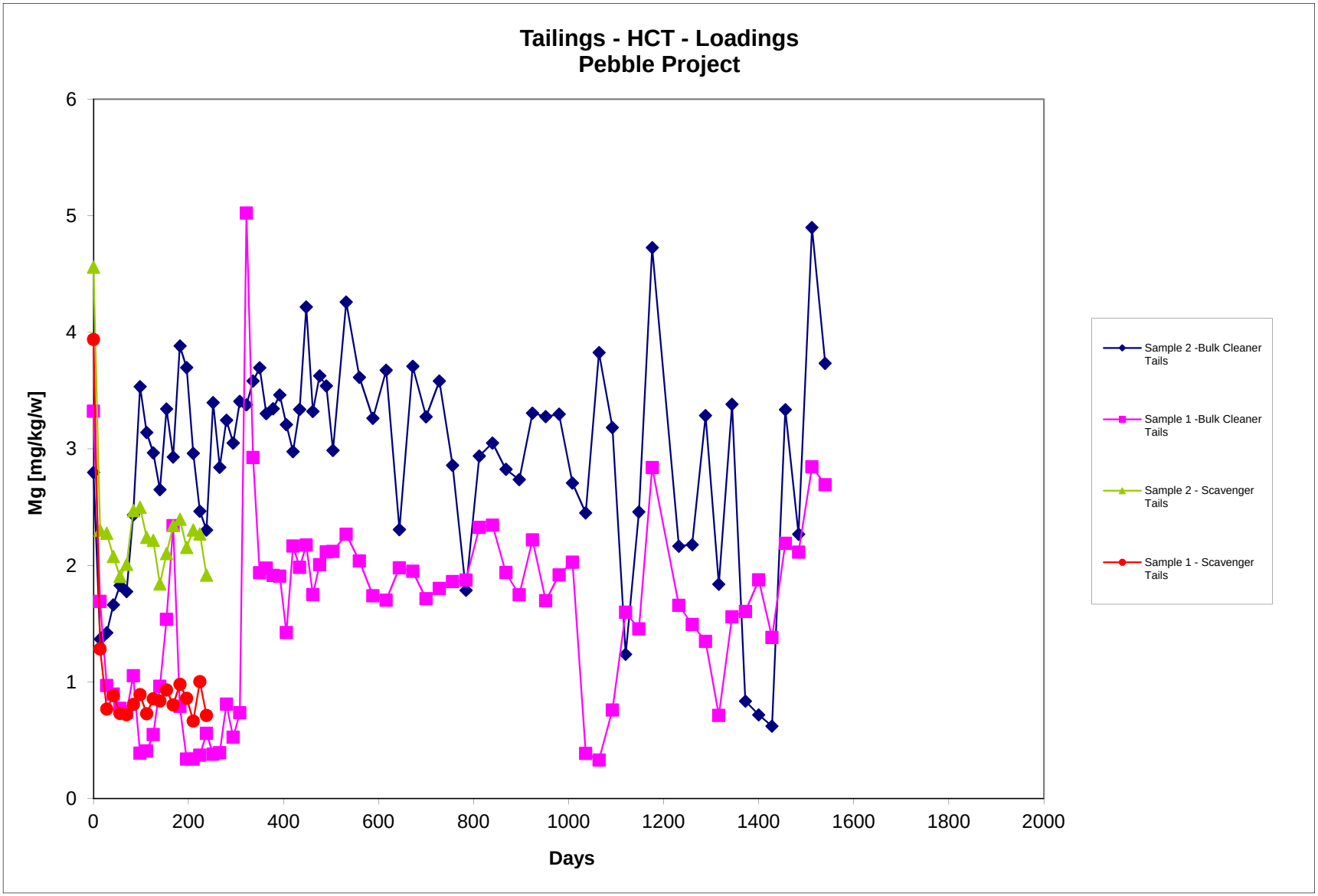

Tailings - HCT - Loadings
Pebble Project
Cr [mg/kg/w]
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

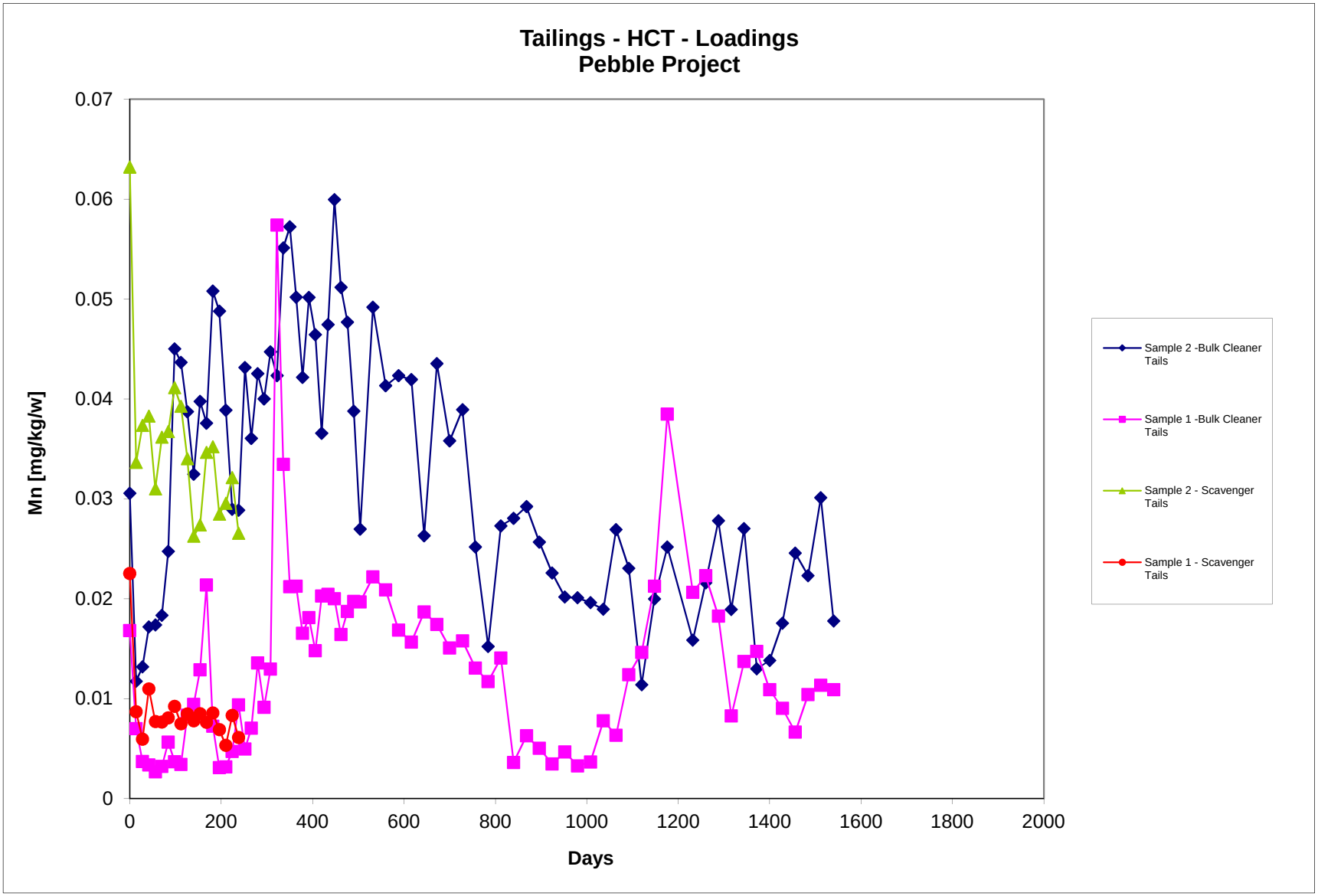

Tailings - HCT - Loadings
Pebble Project
Co [mg/kg/w]
0.00018
0.00016
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

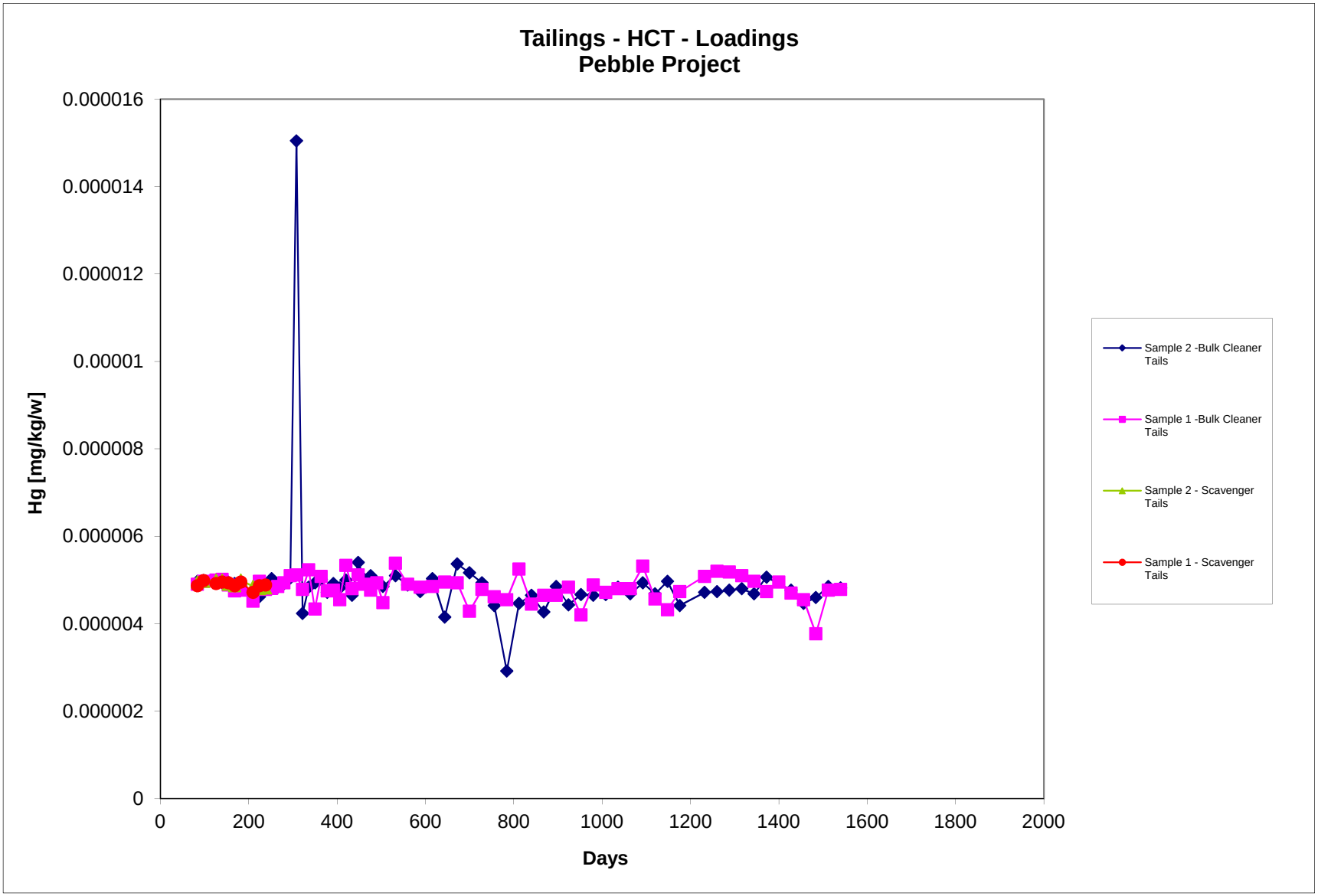

Tailings - HCT - Loadings
Pebble Project
Cu [mg/kg/w]
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

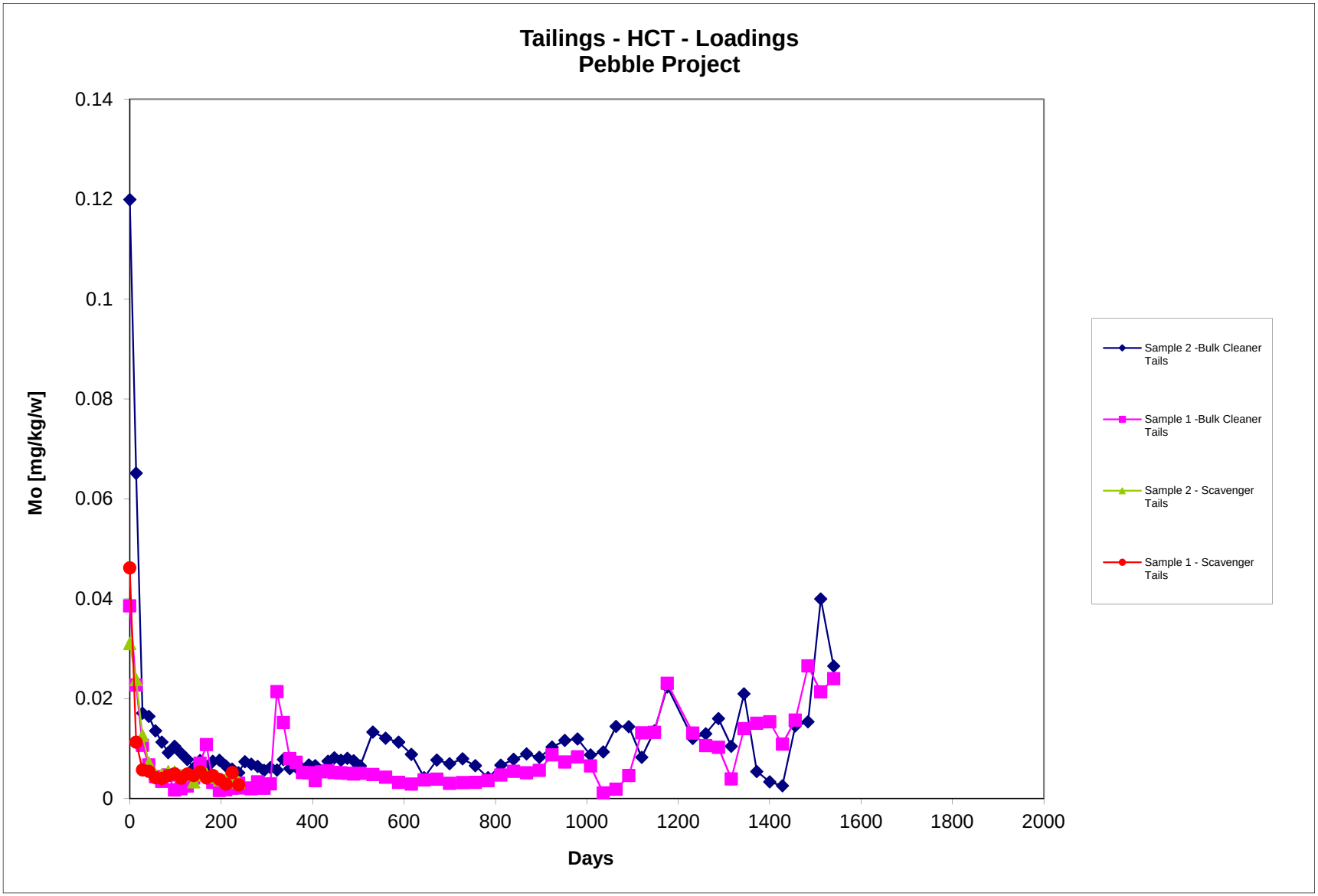

Tailings - HCT - Loadings
Pebble Project
Fe [mg/kg/w]
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

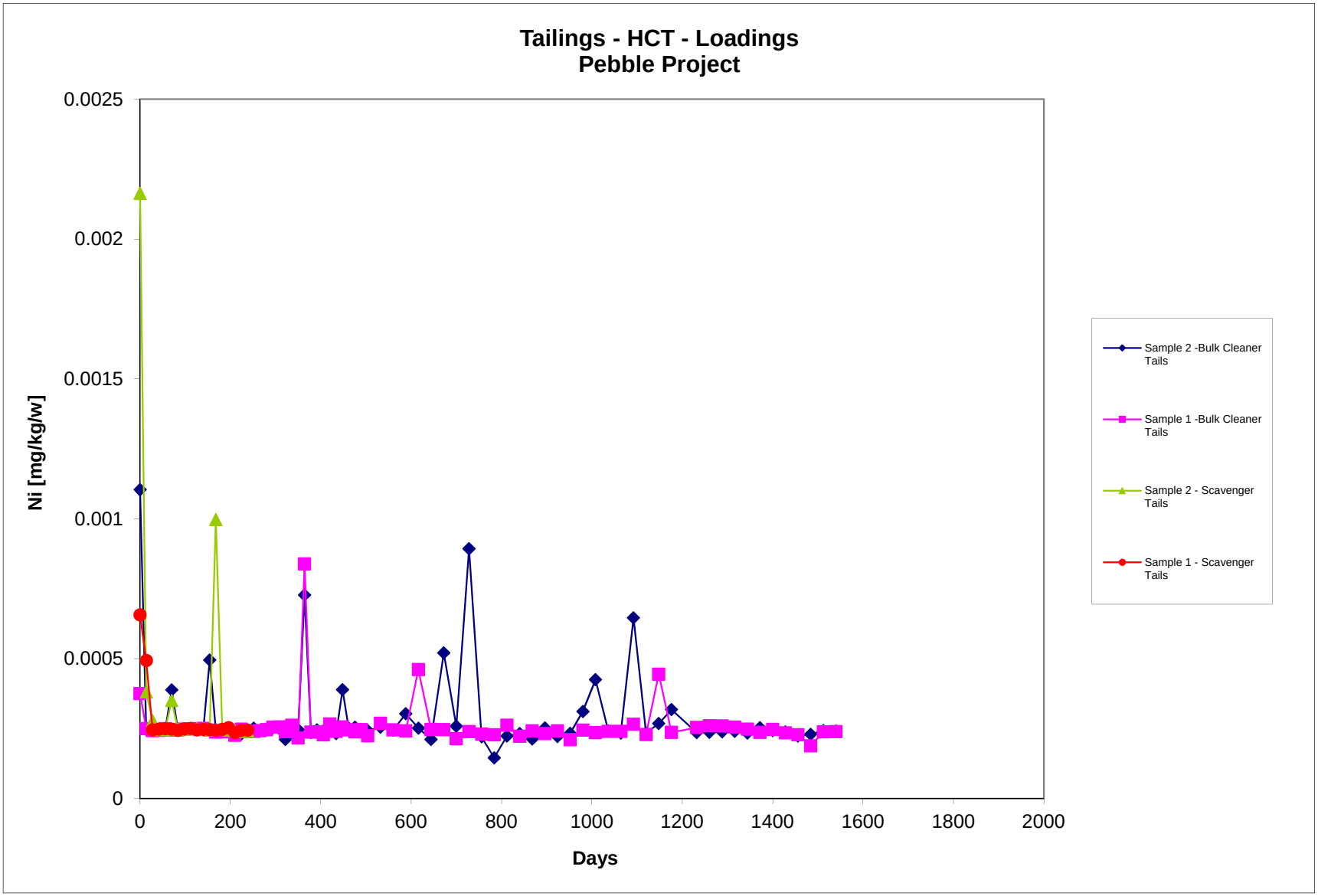

Tailings - HCT - Loadings
Pebble Project
Pb [mg/kg/w]
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

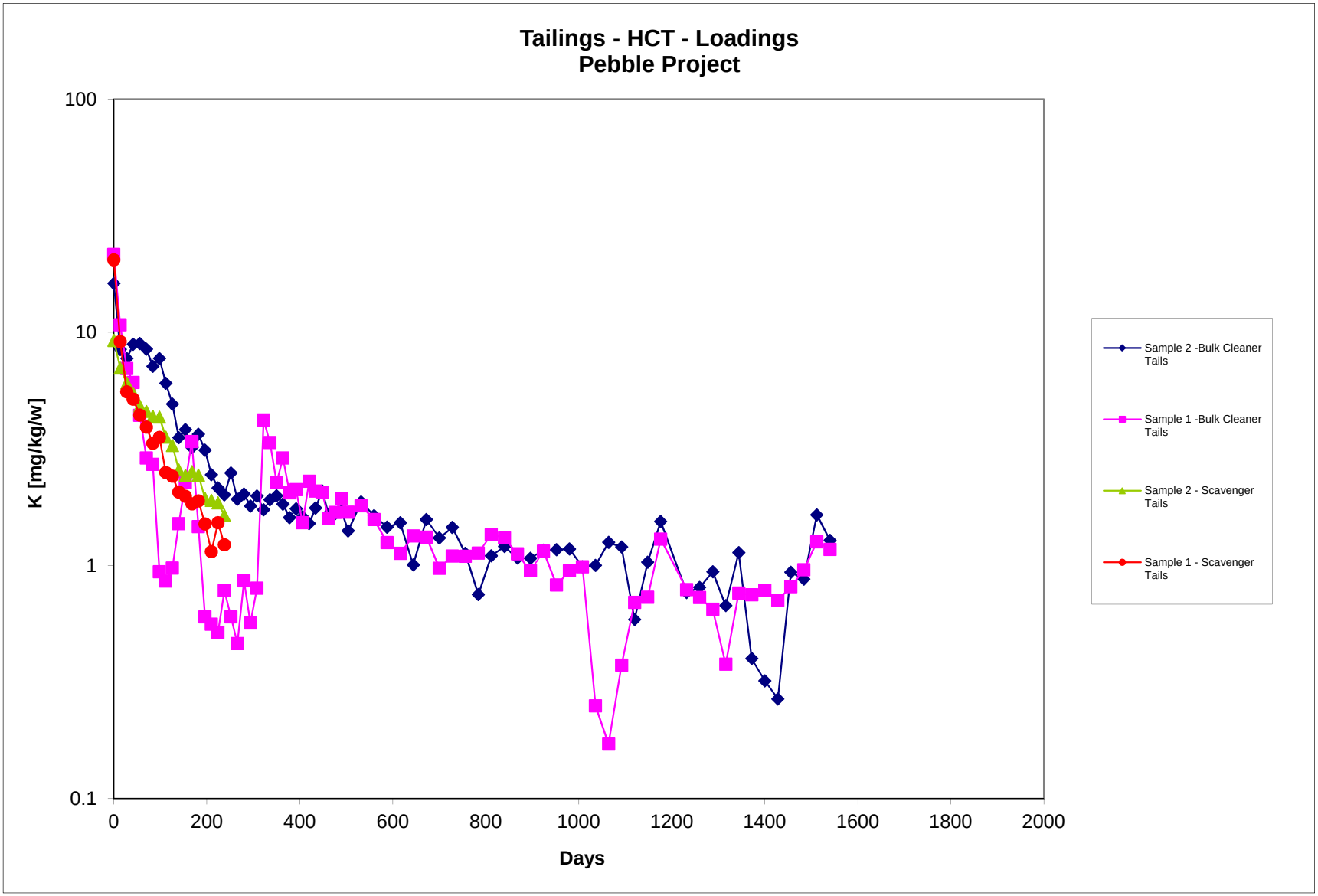

Tailings - HCT - Loadings
Pebble Project
Mg [mg/kg/w]
Days
0
1
2
3
4
5
6
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

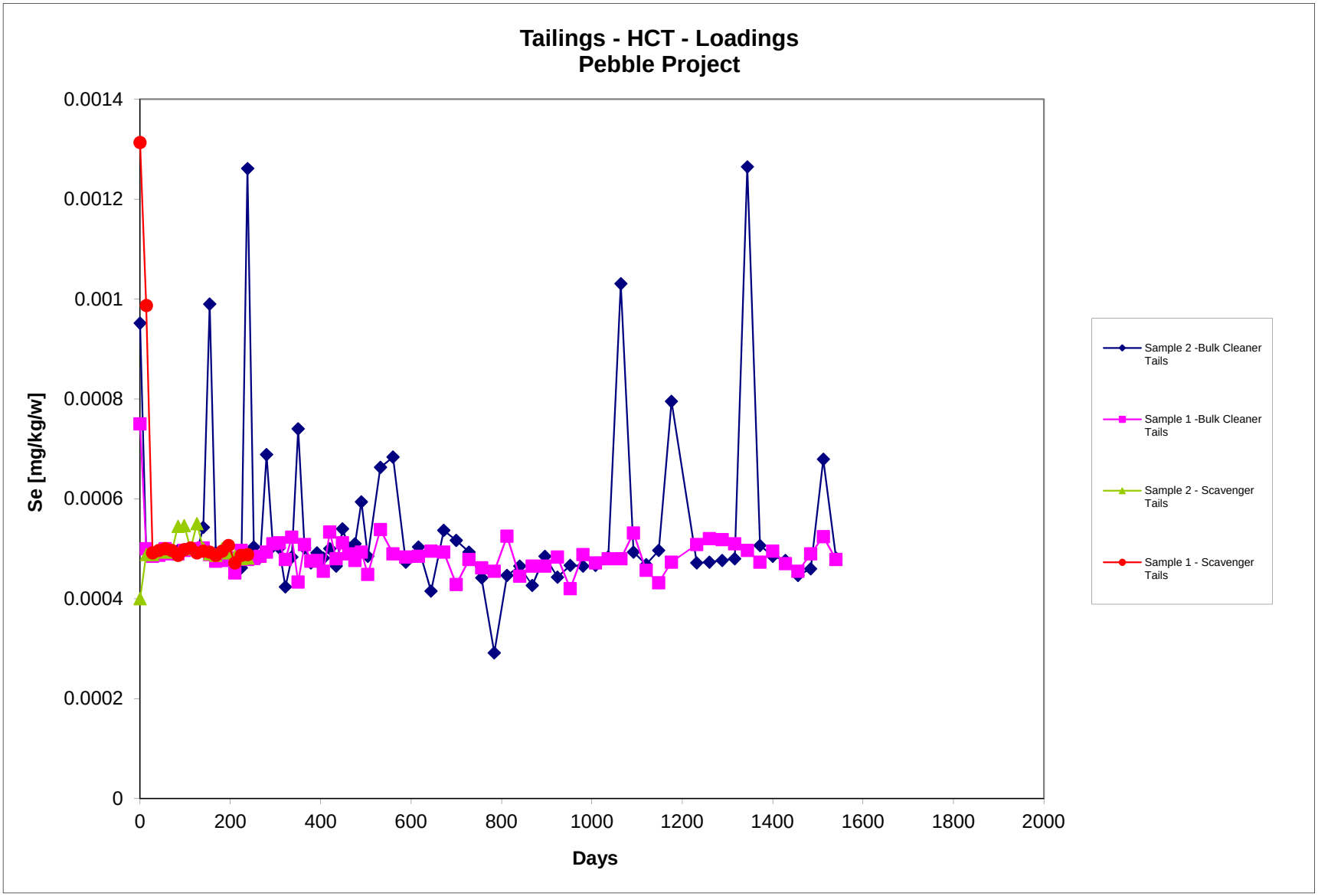

Tailings - HCT - Loadings
Pebble Project
Mn [mg/kg/w]
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

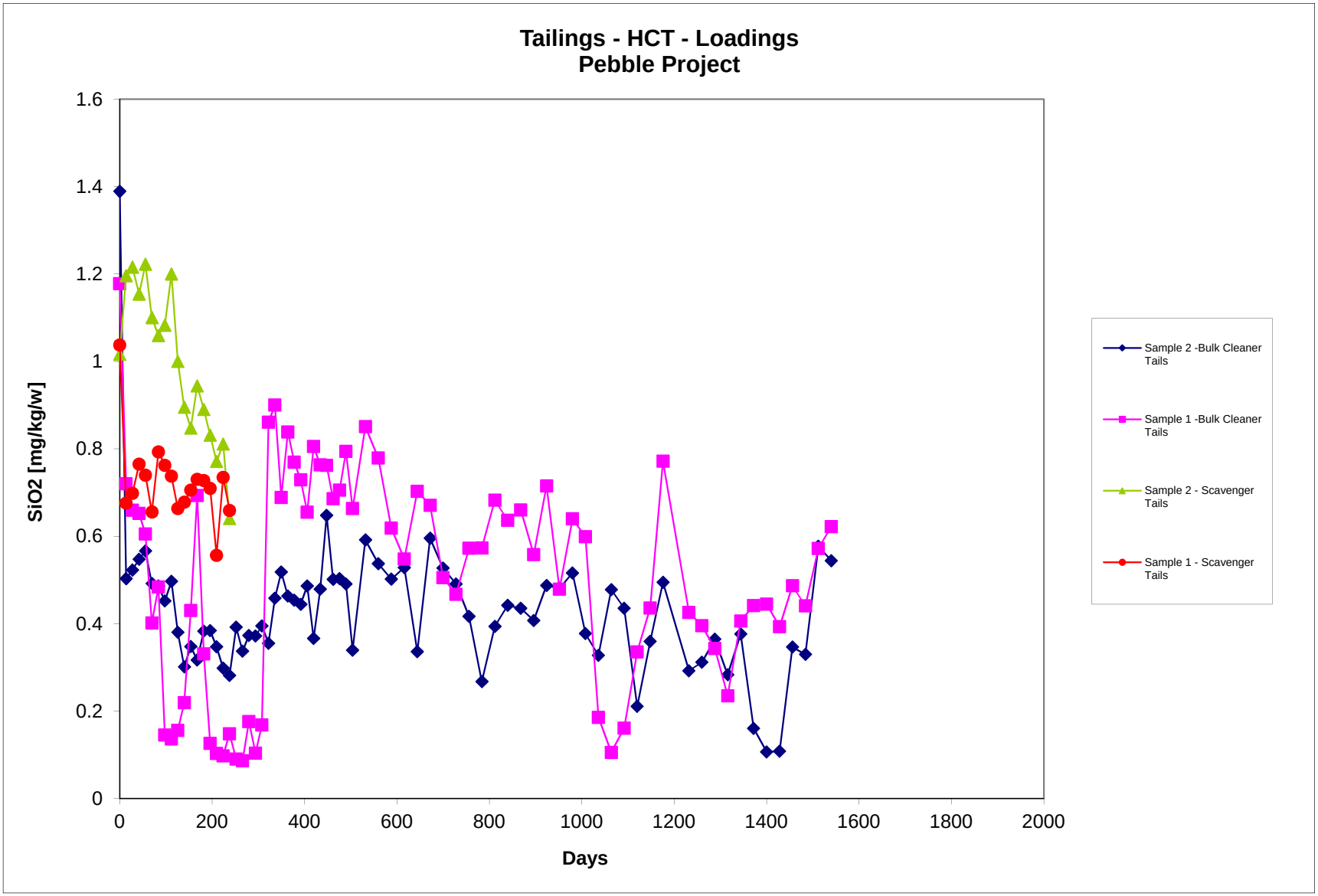

Tailings - HCT - Loadings
Pebble Project
Hg [mg/kg/w]
0.000016
0.000014
0.000012
0.00001
0.000008
0.000006
0.000004
0.000002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

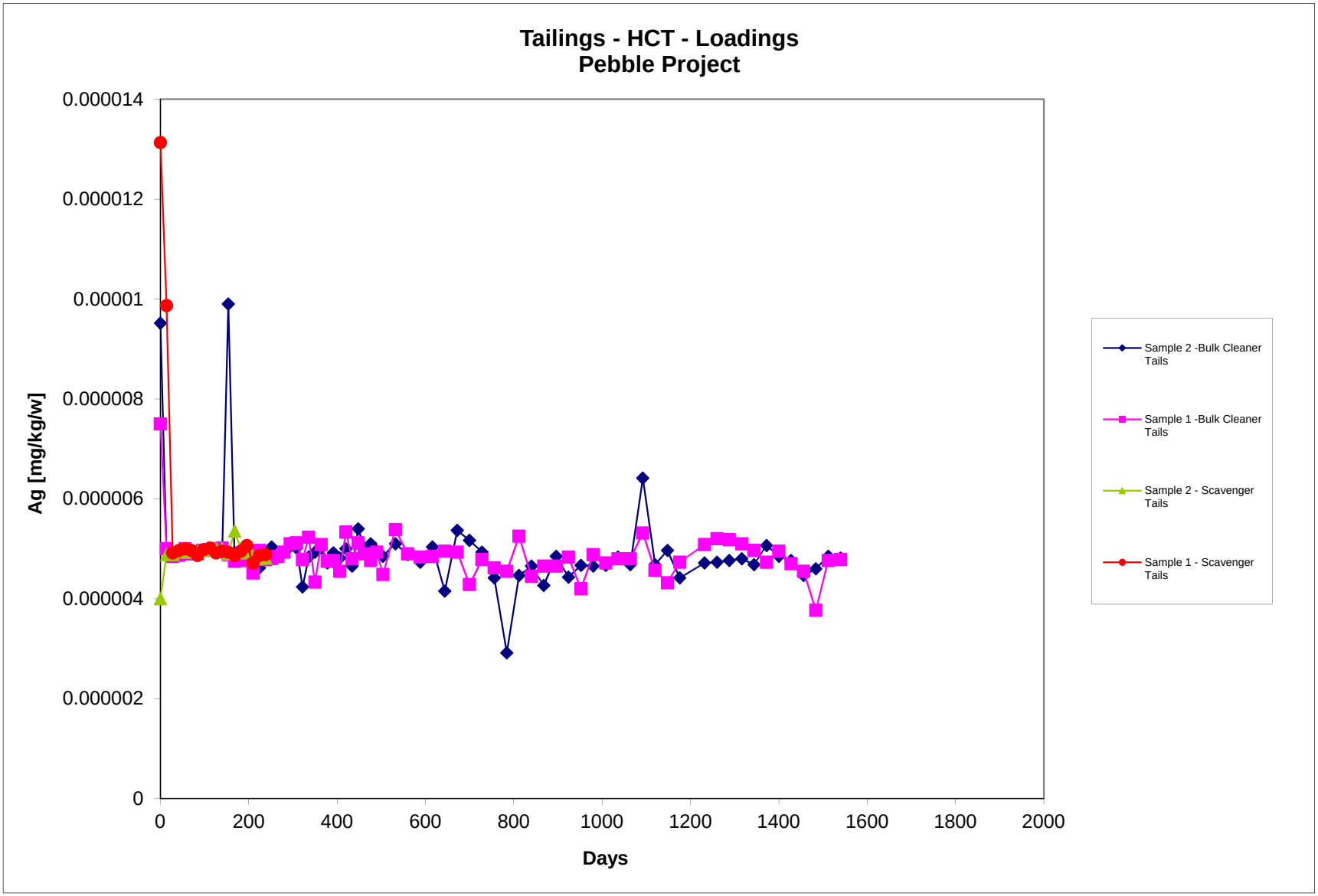

Tailings - HCT - Loadings
Pebble Project
Mo [mg/kg/w]
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

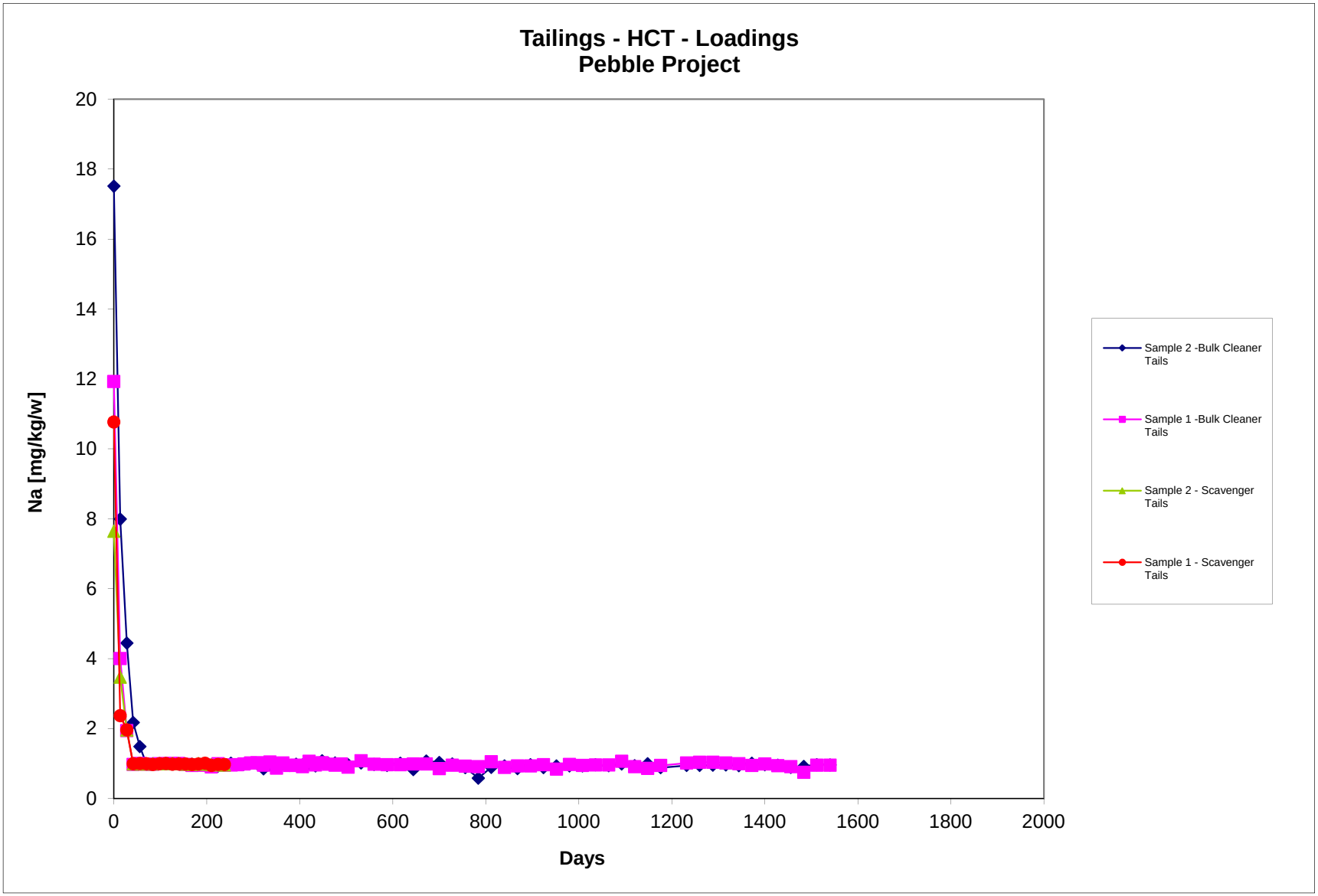

Tailings - HCT - Loadings
Pebble Project
Ni [mg/kg/w]
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

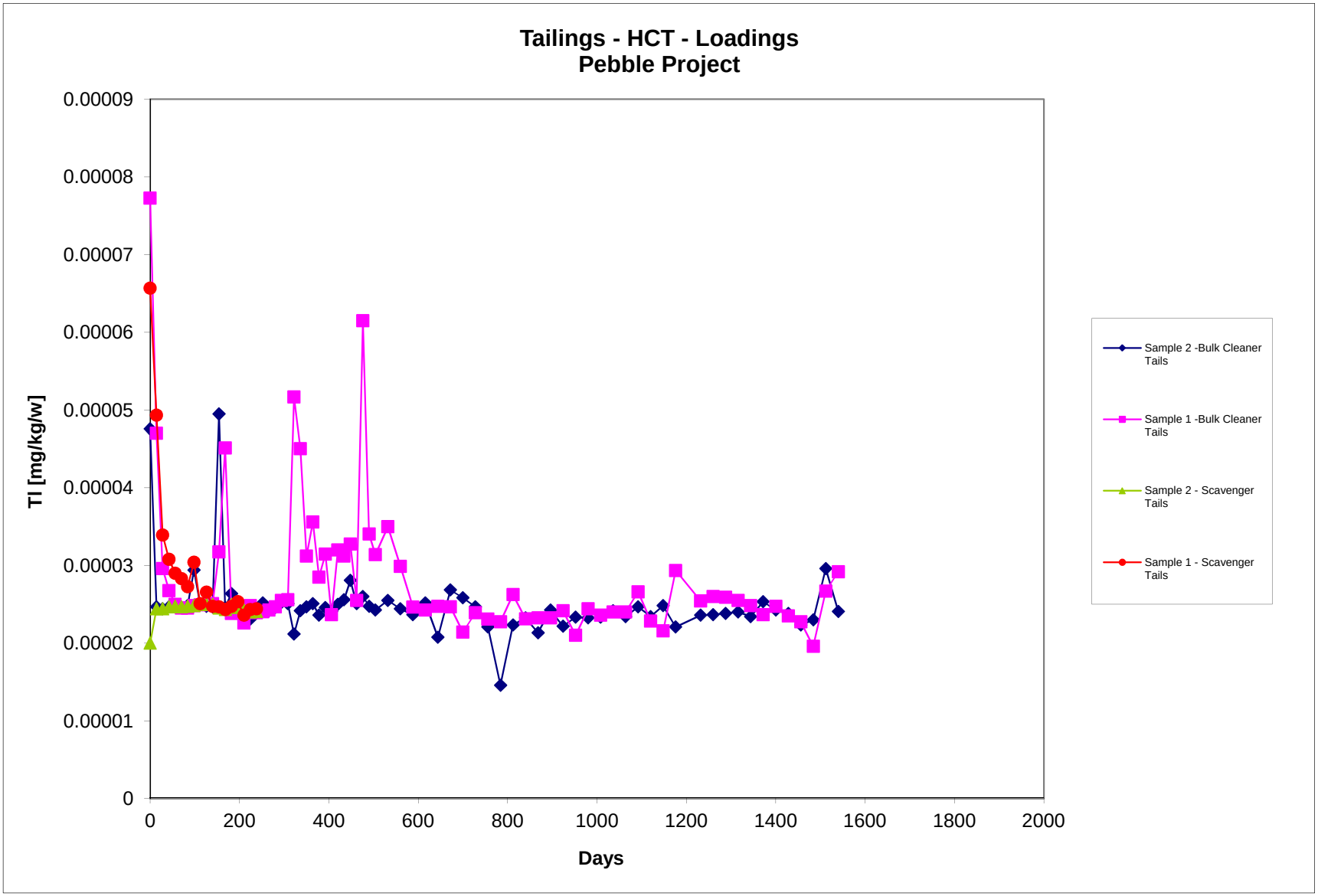

Tailings - HCT - Loadings
Pebble Project
K [mg/kg/w]
100
10
1
0.1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

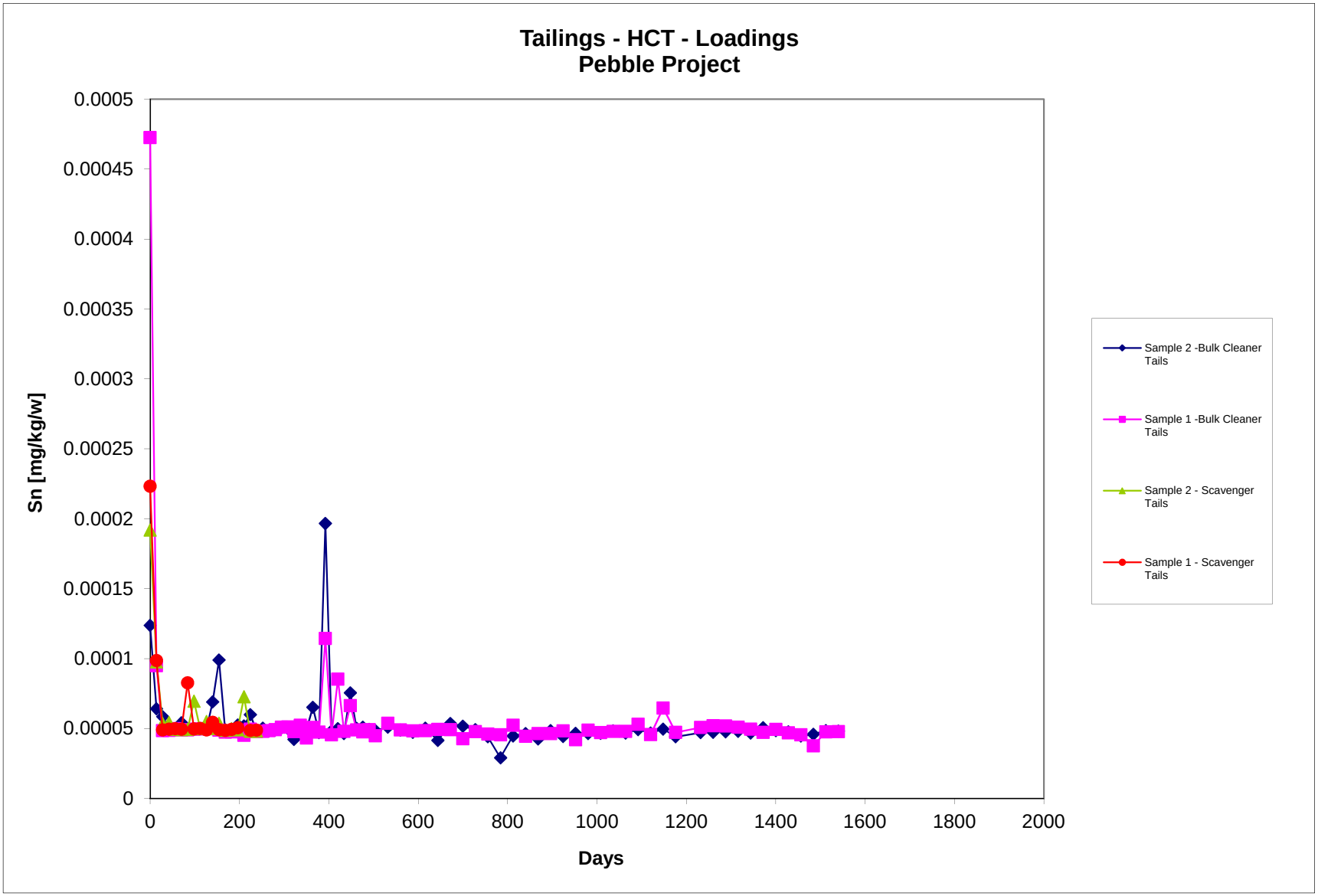

Tailings - HCT - Loadings
Pebble Project
Se [mg/kg/w]
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

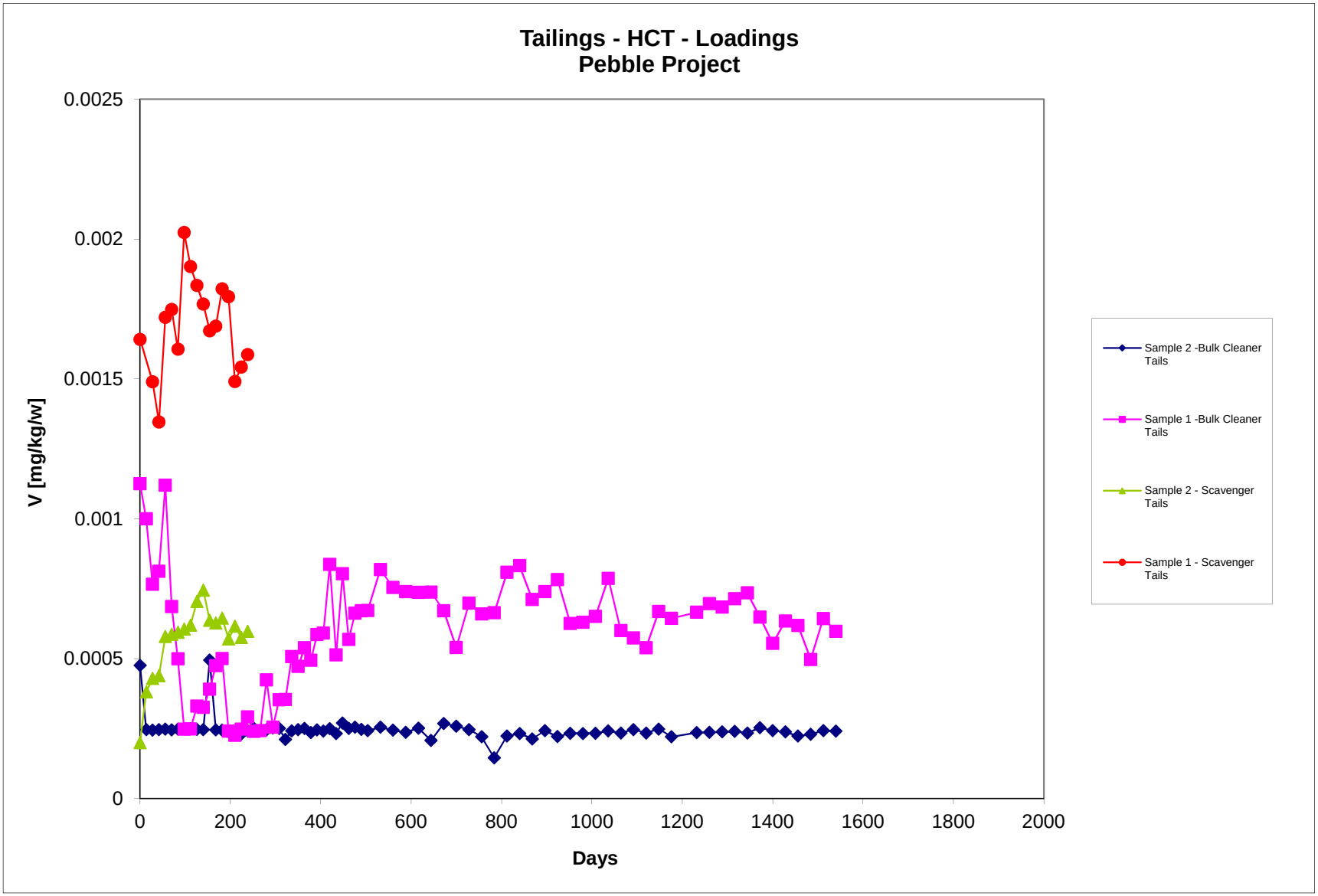

Tailings - HCT - Loadings
Pebble Project
SiO2 [mg/kg/w]
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

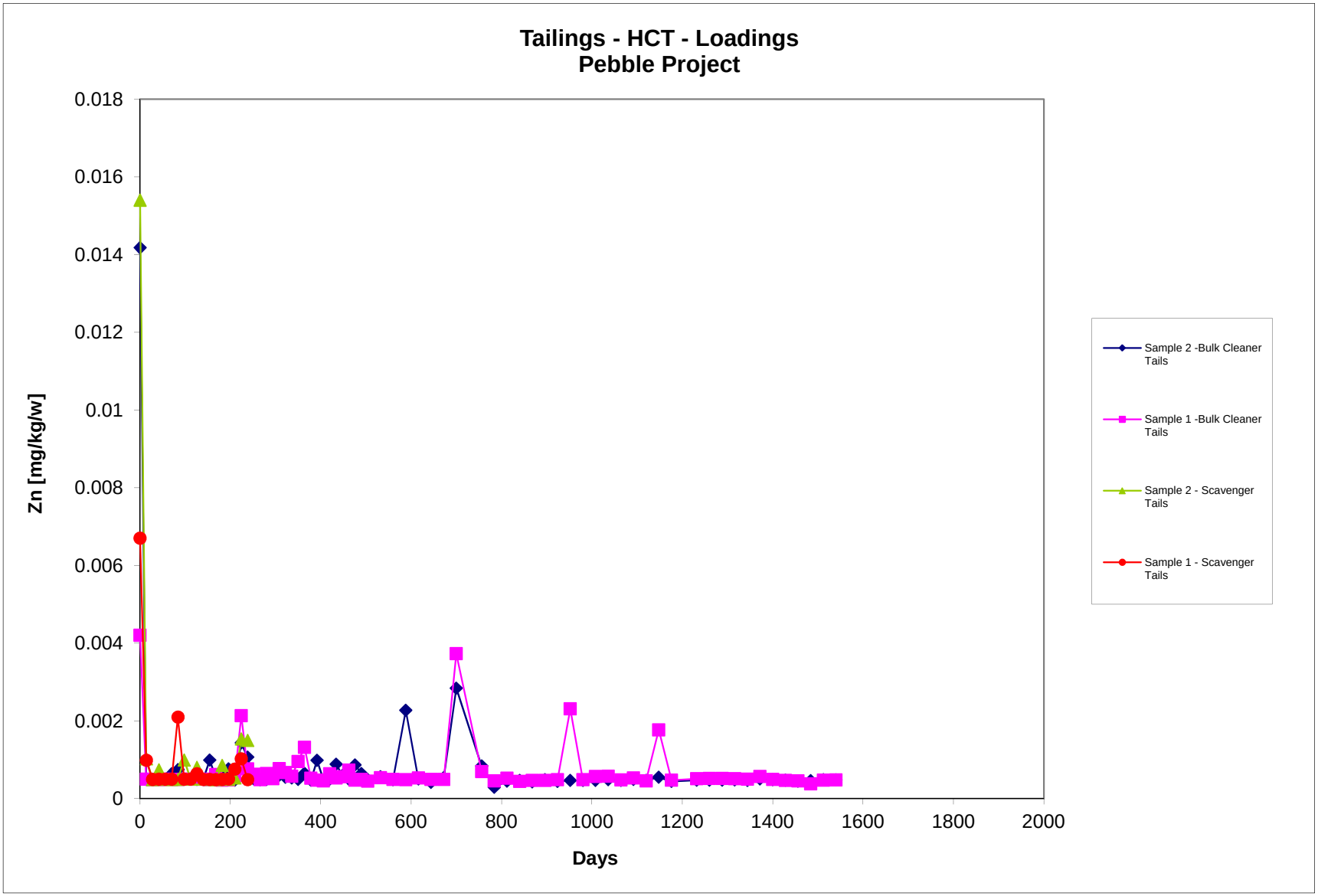

Tailings - HCT - Loadings
Pebble Project
Ag [mg/kg/w]
0.000014
0.000012
0.00001
0.000008
0.000006
0.000004
0.000002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

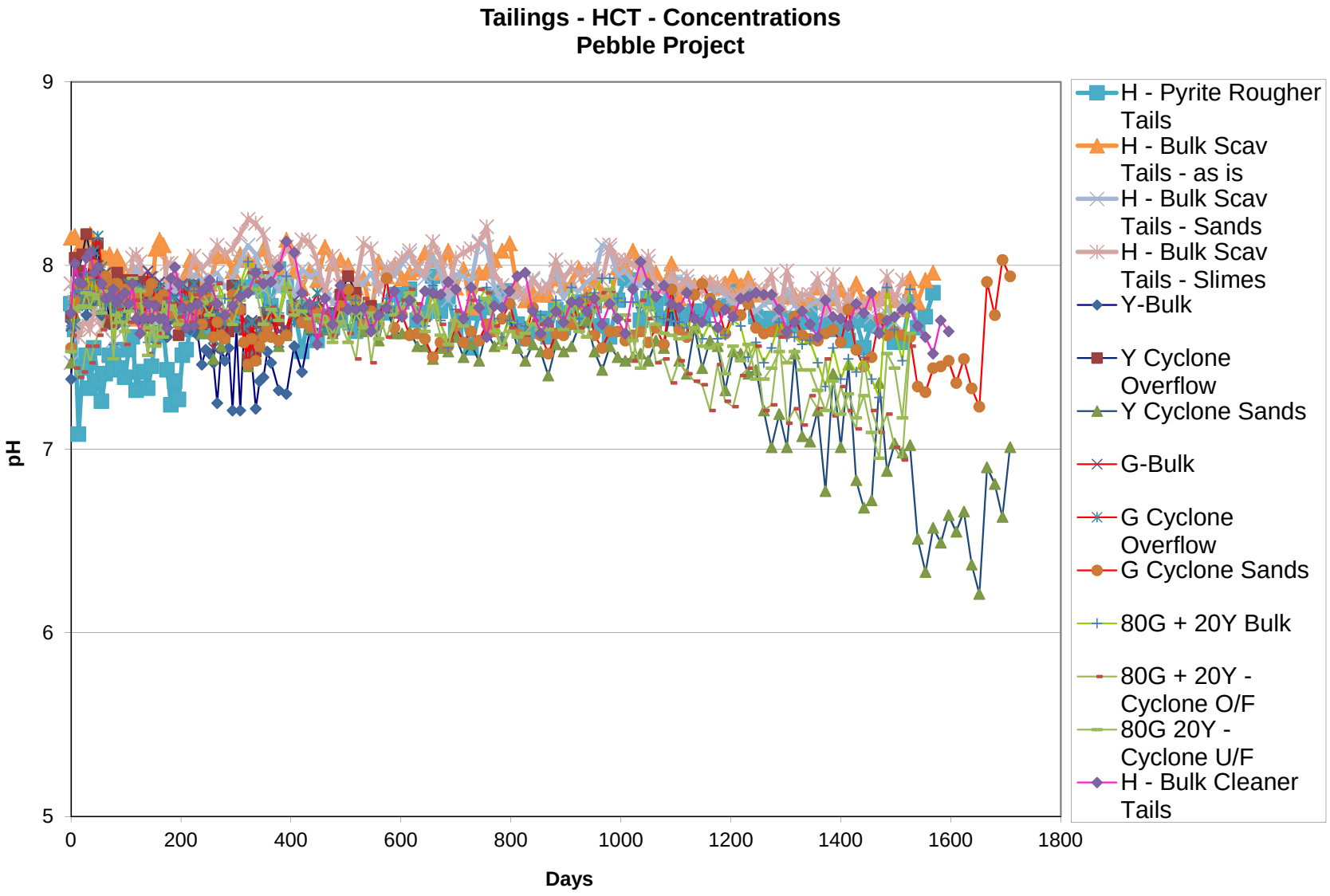

Tailings - HCT - Loadings
Pebble Project
Na [mg/kg/w]
Days
0
2
4
6
8
10
12
14
16
18
20
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

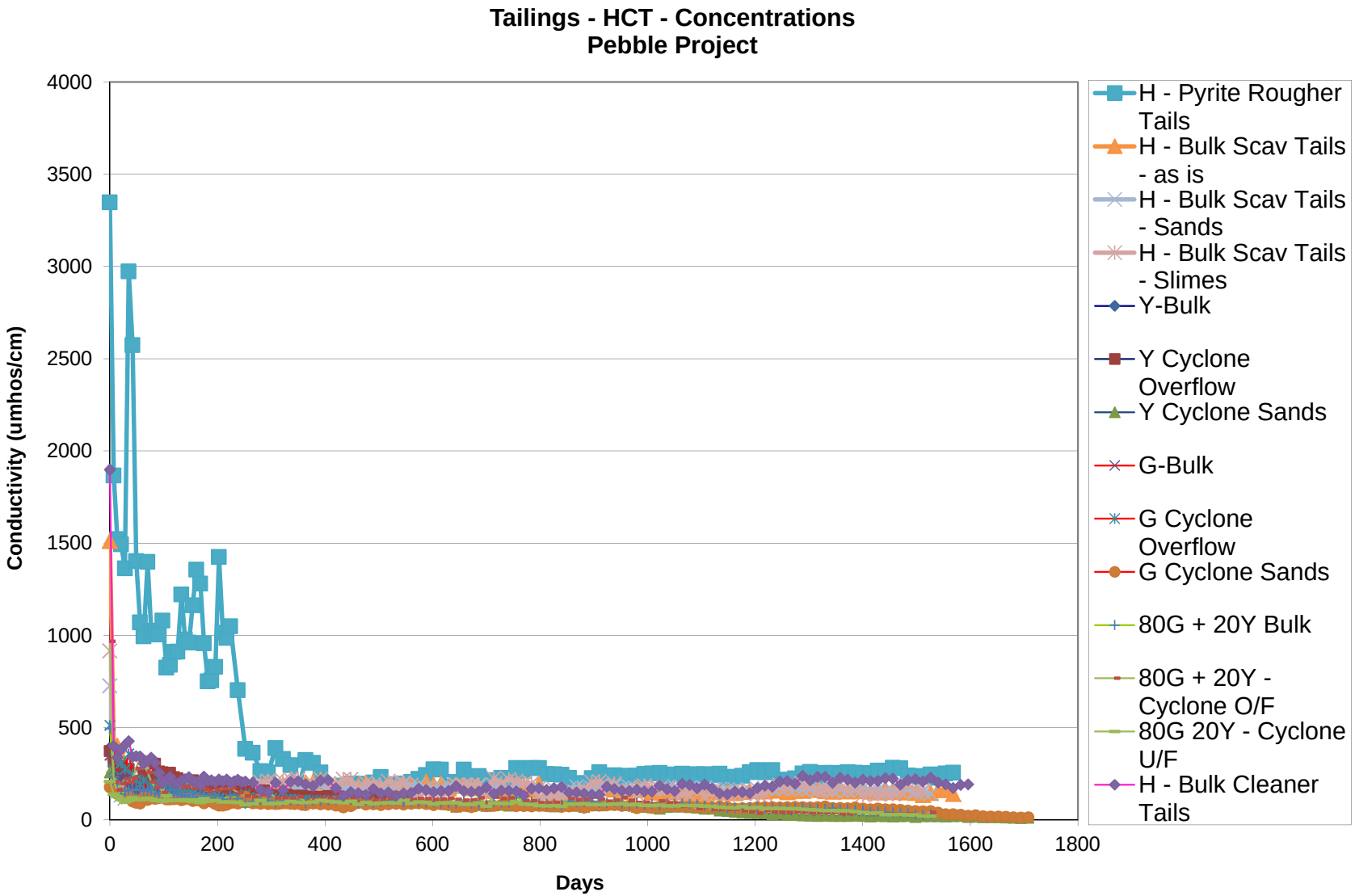

Tailings - HCT - Loadings
Pebble Project
Tl [mg/kg/w]
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

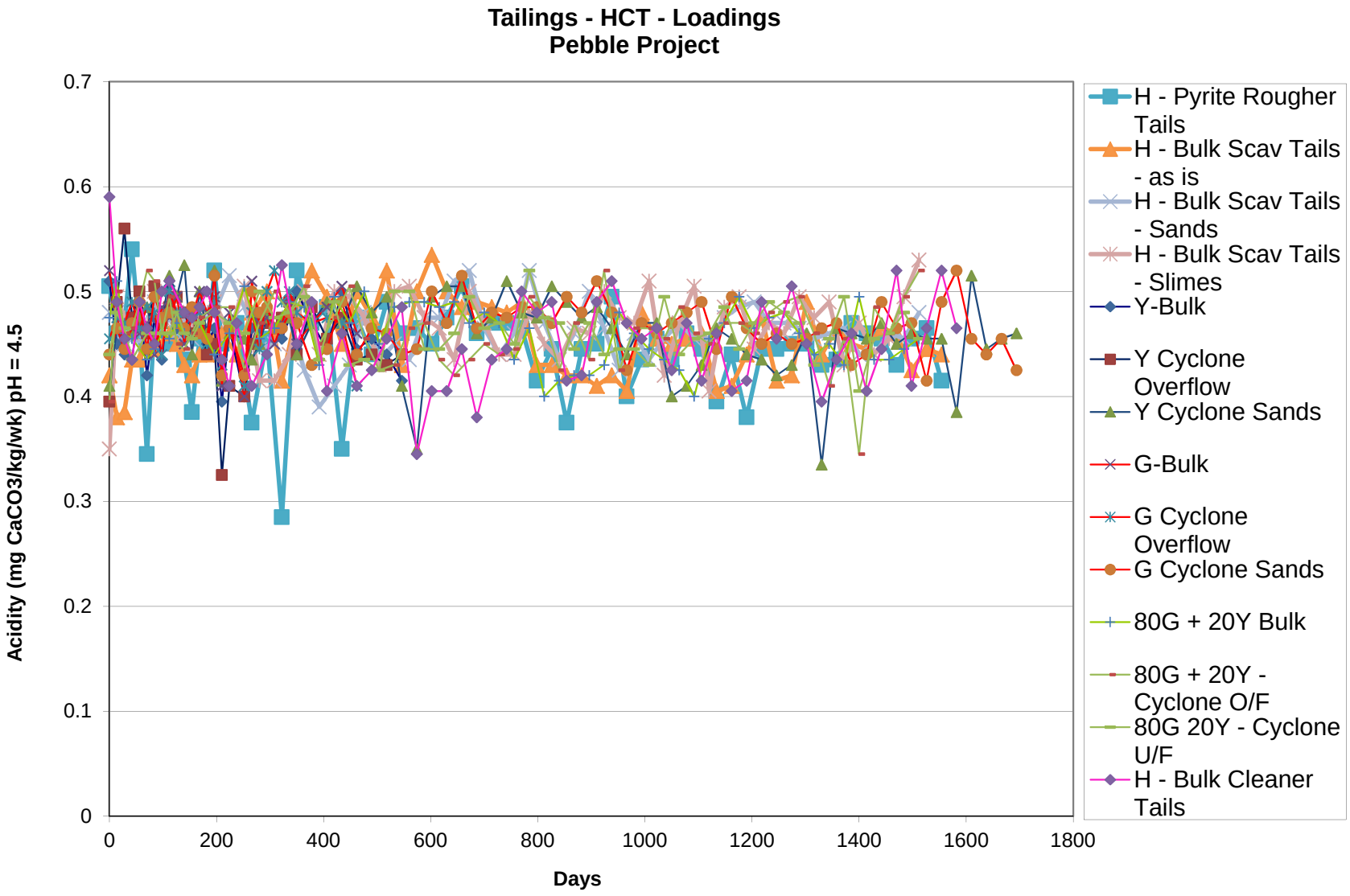

Tailings - HCT - Loadings
Pebble Project
Sn [mg/kg/w]
0.0005
0.00045
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

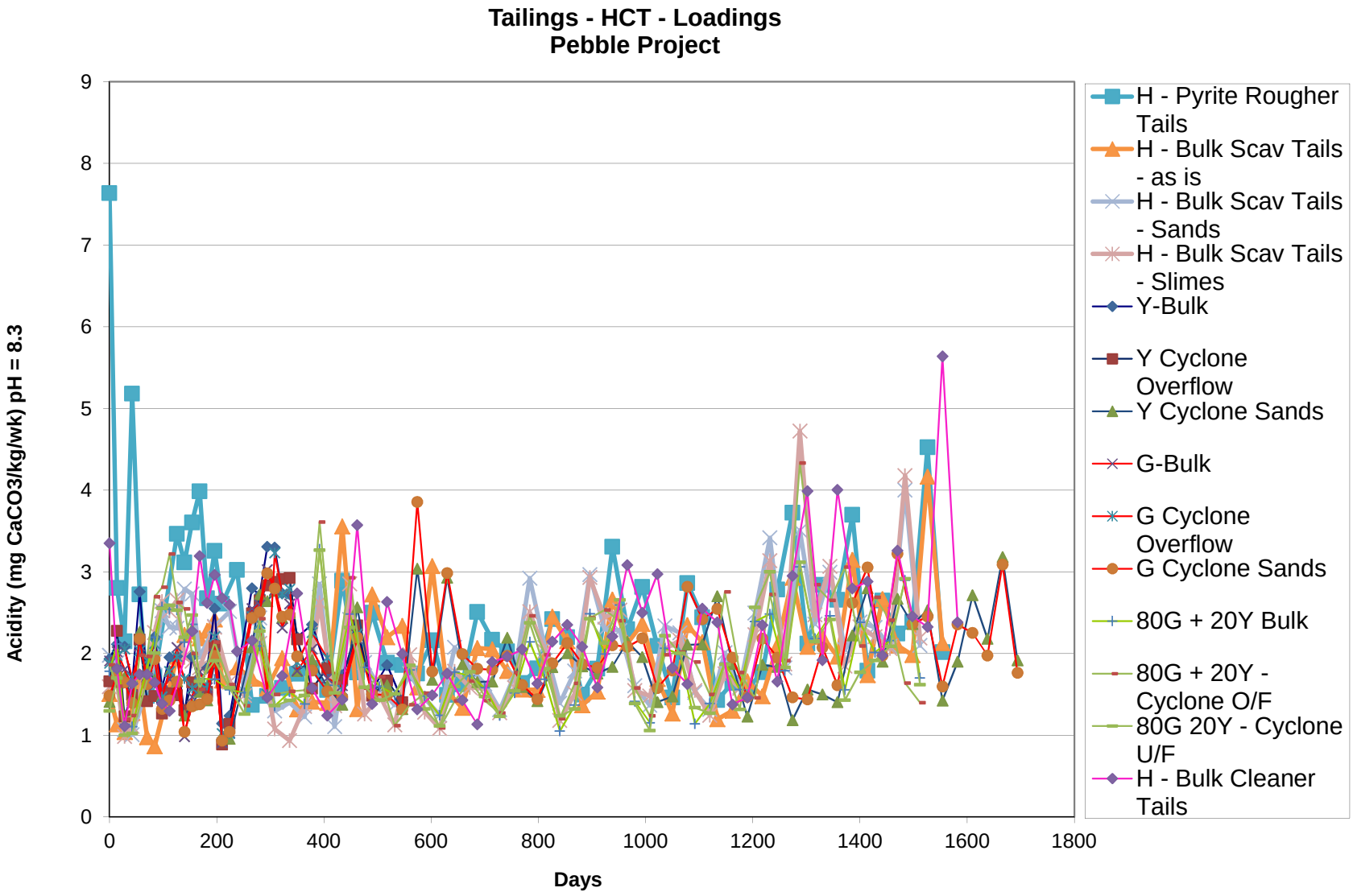

Tailings - HCT - Loadings
Pebble Project
V [mg/kg/w]
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

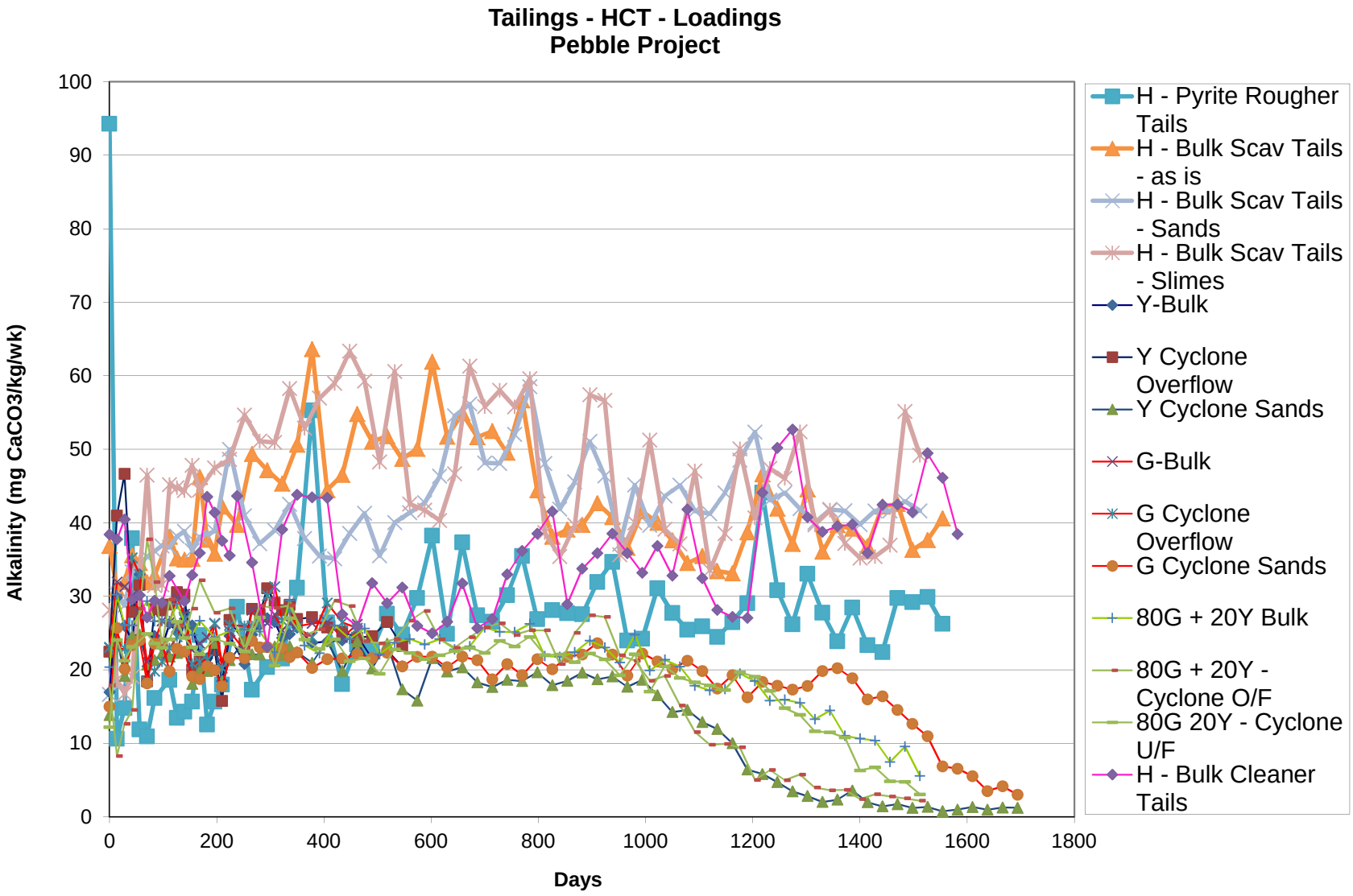

Tailings - HCT - Loadings
Pebble Project
Zn [mg/kg/w]
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Days
Sample 2 -Bulk Cleaner Tails
Sample 1 -Bulk Cleaner Tails
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

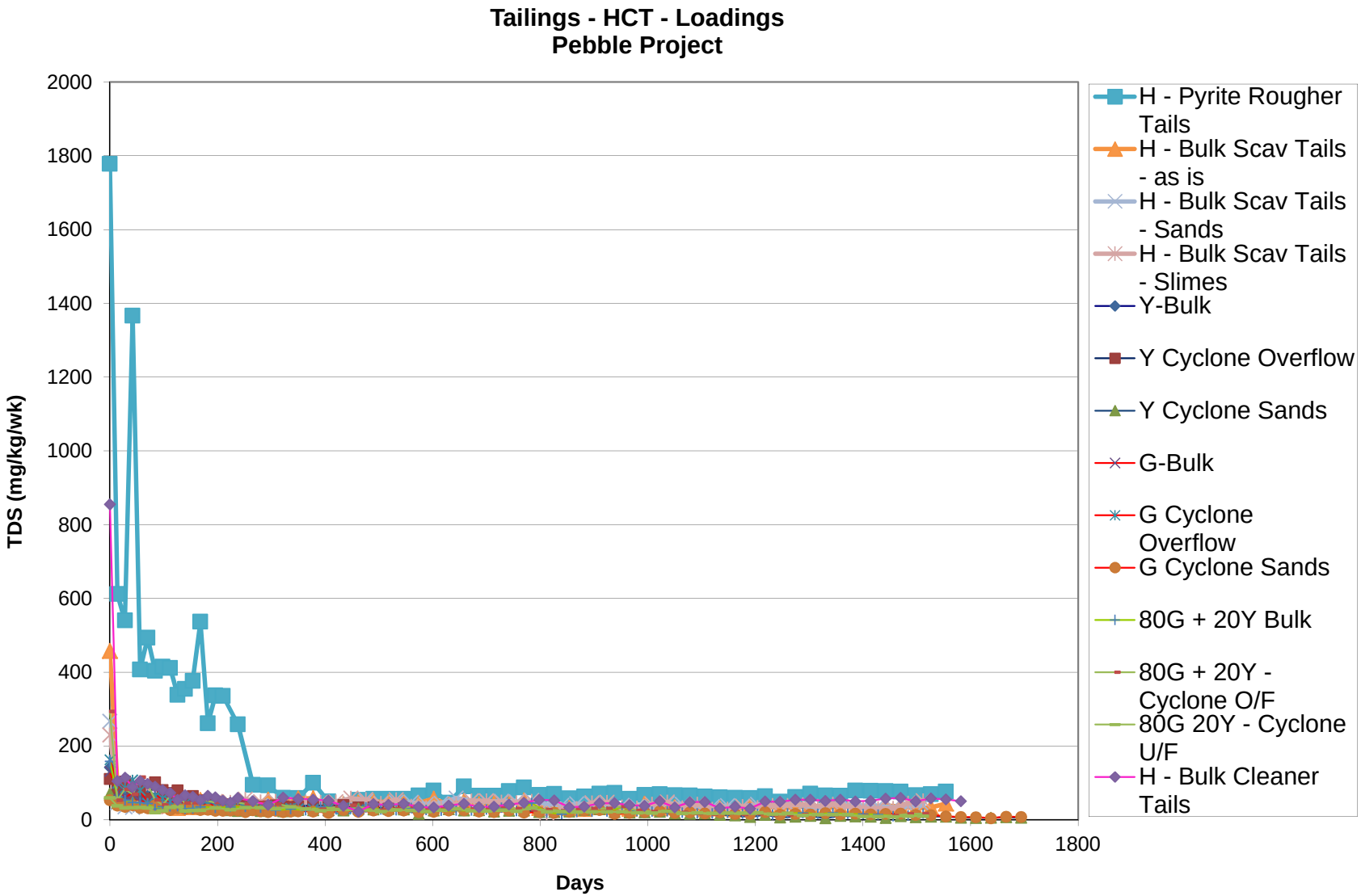

Tailings - HCT - Concentrations
Pebble Project
pH
9
8
7
6
5
0
200
400
600
800
1000
1200
1400
1600
1800
Days
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails

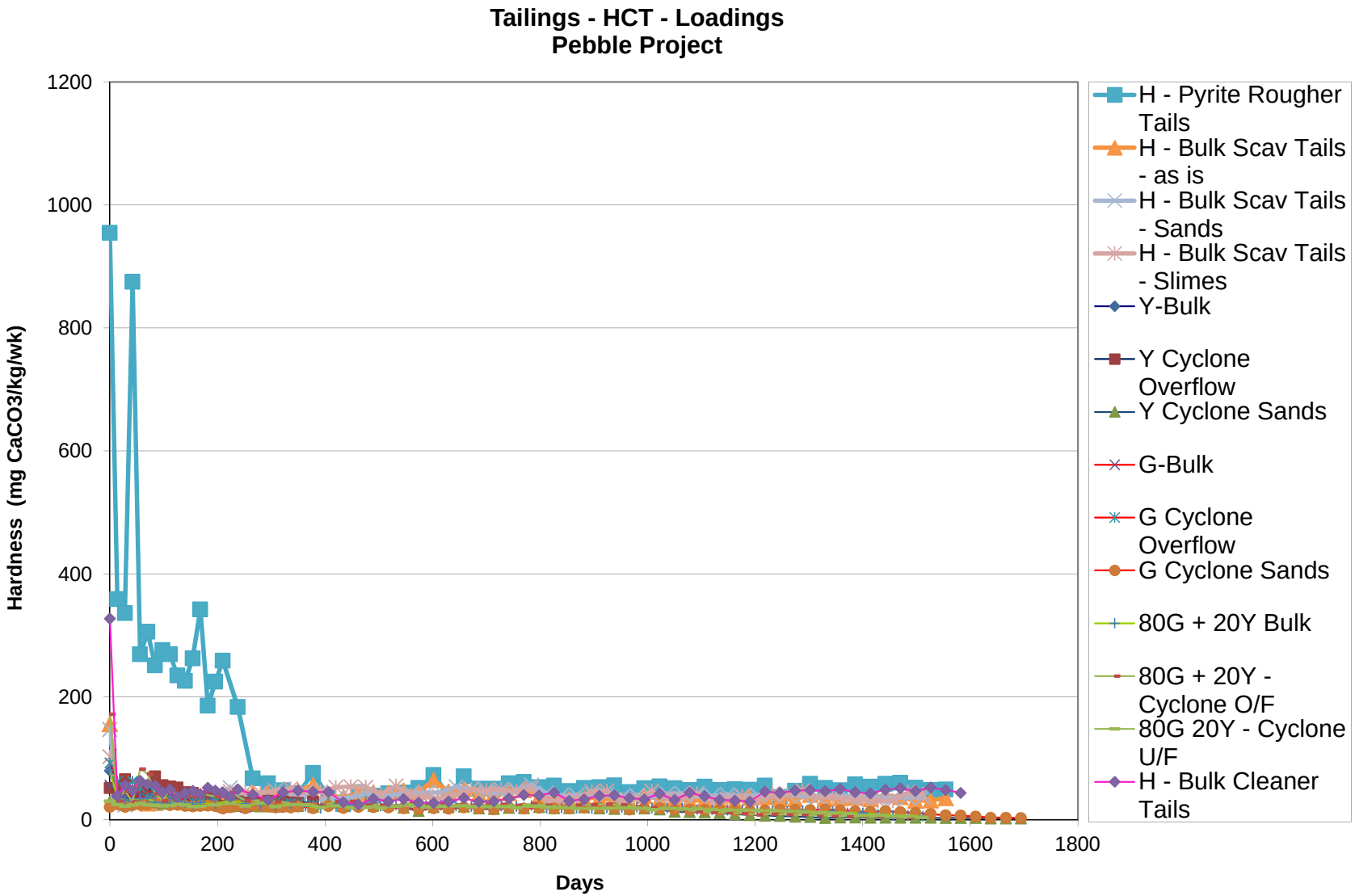

Tailings - HCT - Concentrations
Pebble Project
Conductivity (umhos/cm)
4000
3500
3000
2500
2000
1500
1000
500
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails

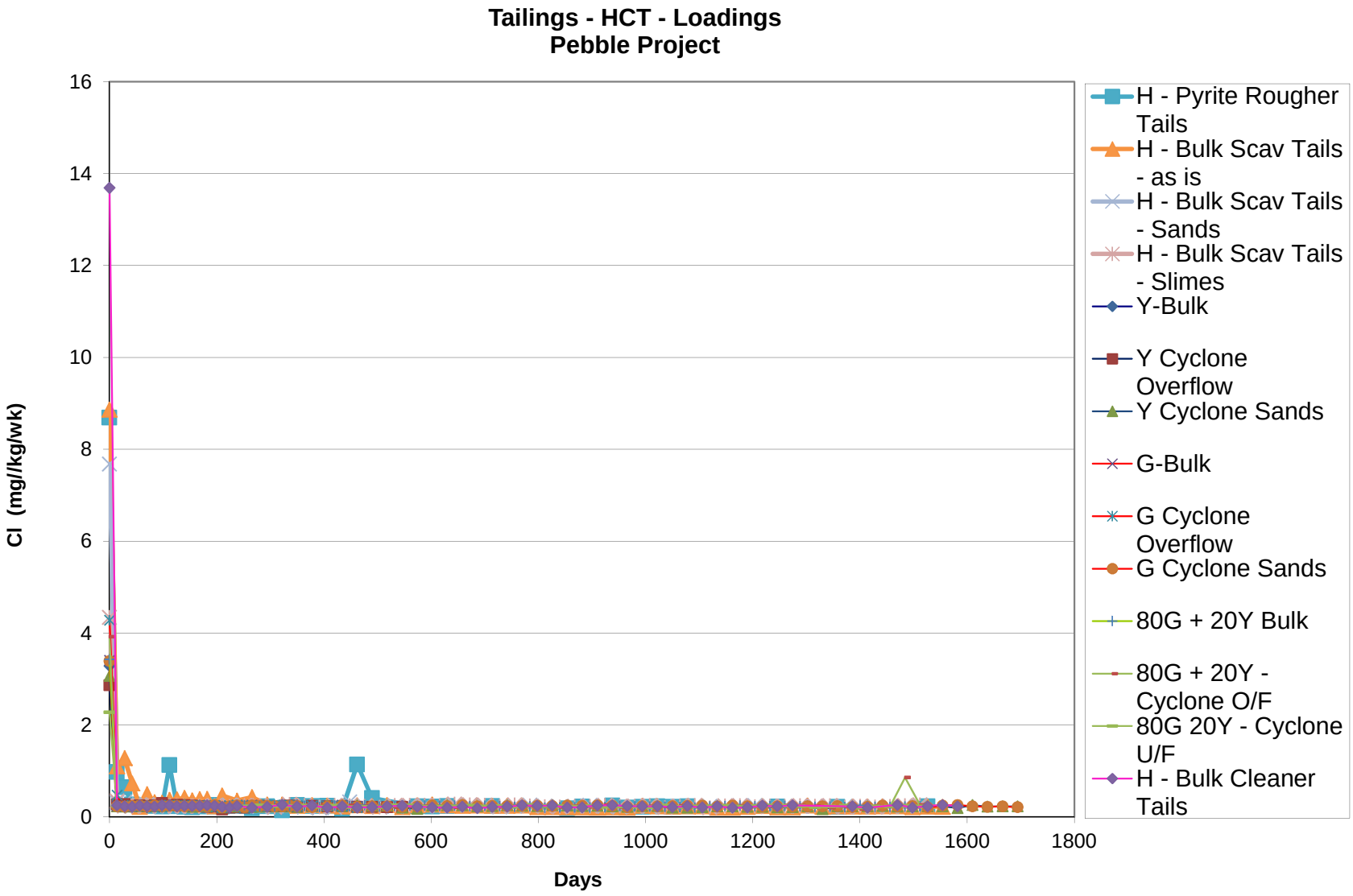

Tailings - HCT - Loadings
Pebble Project
Acidity (mg CaCO3/kg/wk) pH = 4.5
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails

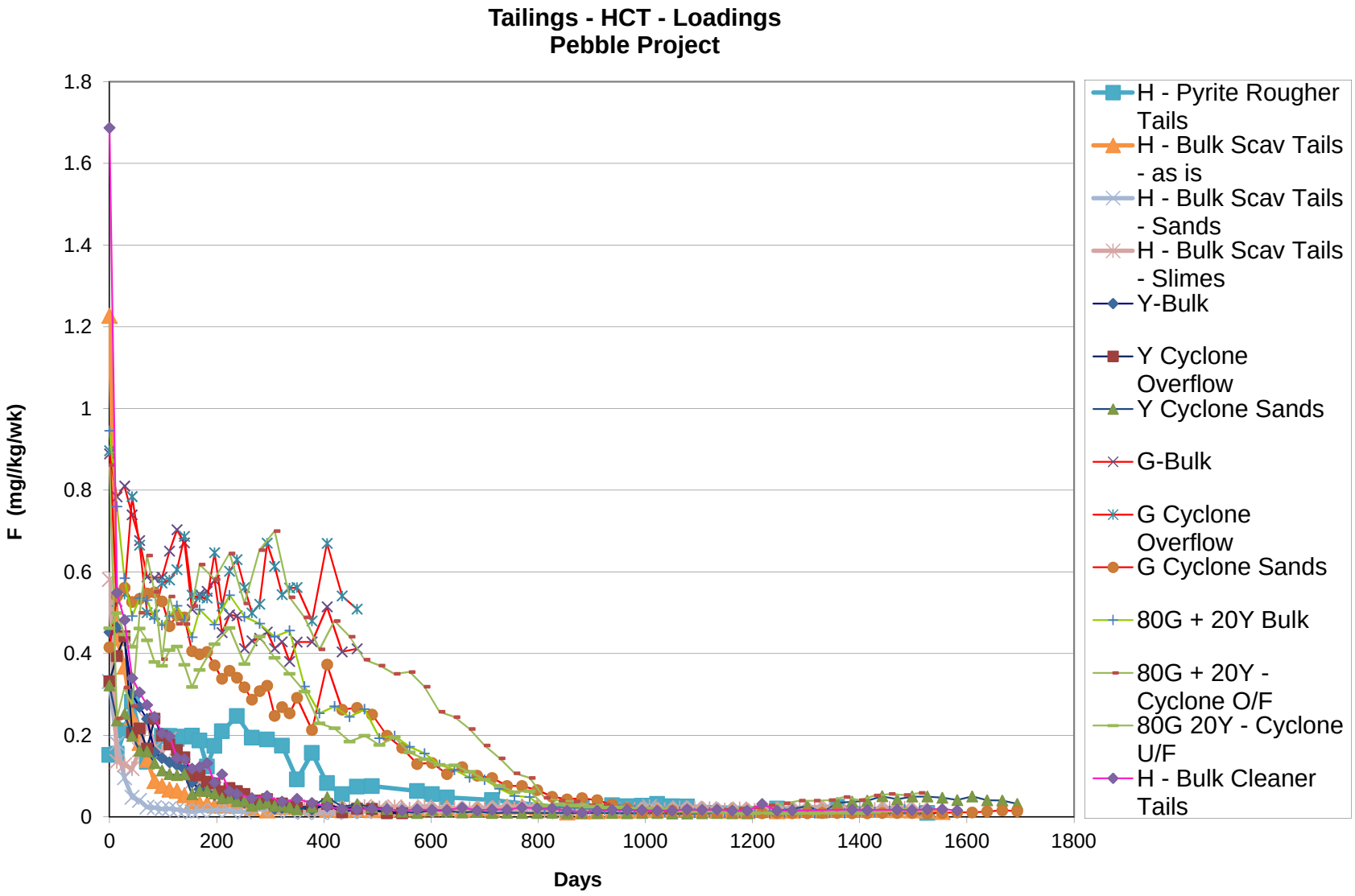

Tailings - HCT - Loadings
Pebble Project
Acidity (mg CaCO3/kg/wk) pH = 8.3
Days
0
1
2
3
4
5
6
7
8
9
0
200
400
600
800
1000
1200
1400
1600
1800
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails

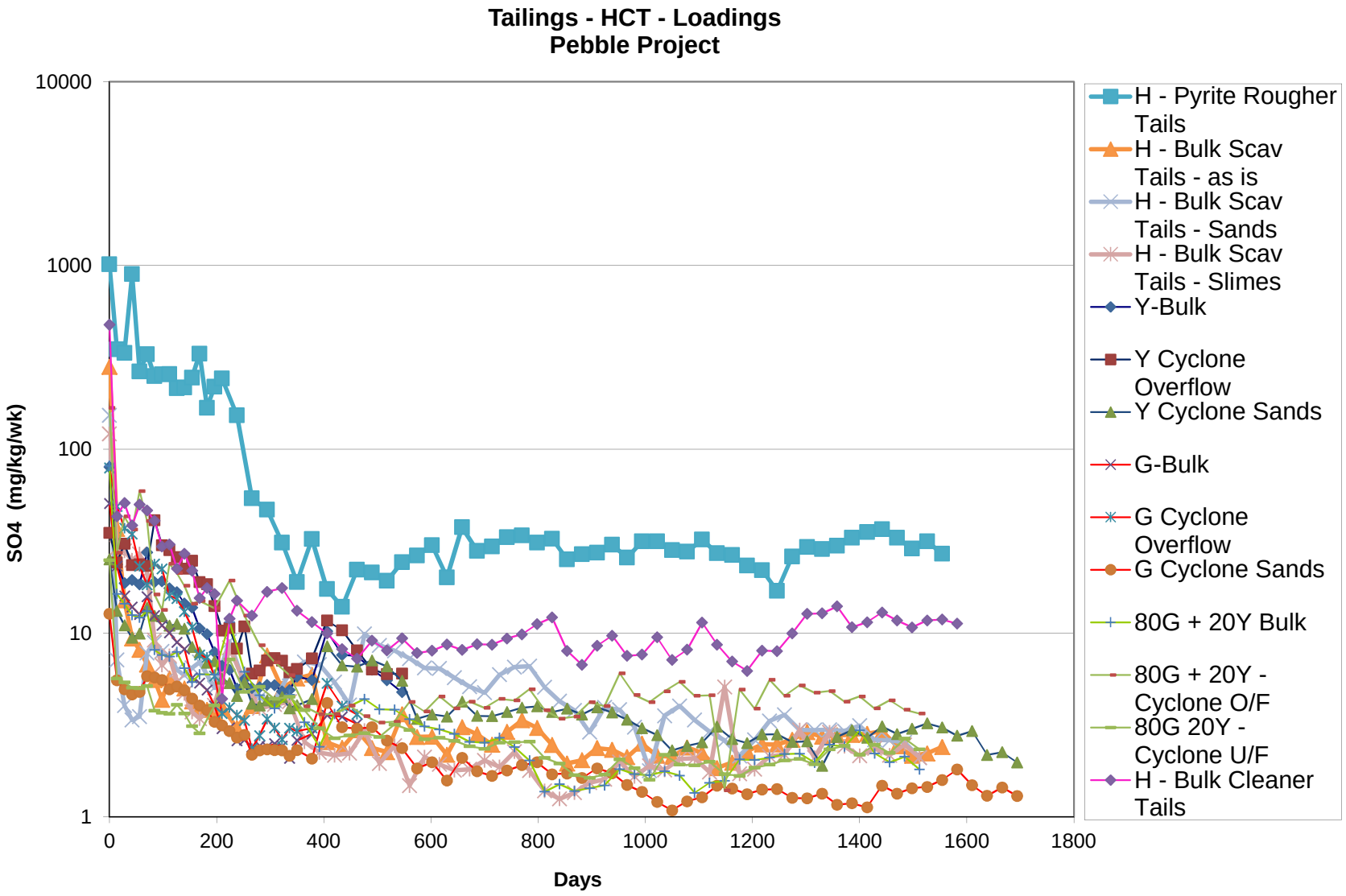

Tailings - HCT - Loadings
Pebble Project
Alkalinity (mg CaCO3/kg/wk)
Days
0
10
20
30
40
50
60
70
80
90
100
0
200
400
600
800
1000
1200
1400
1600
1800
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails

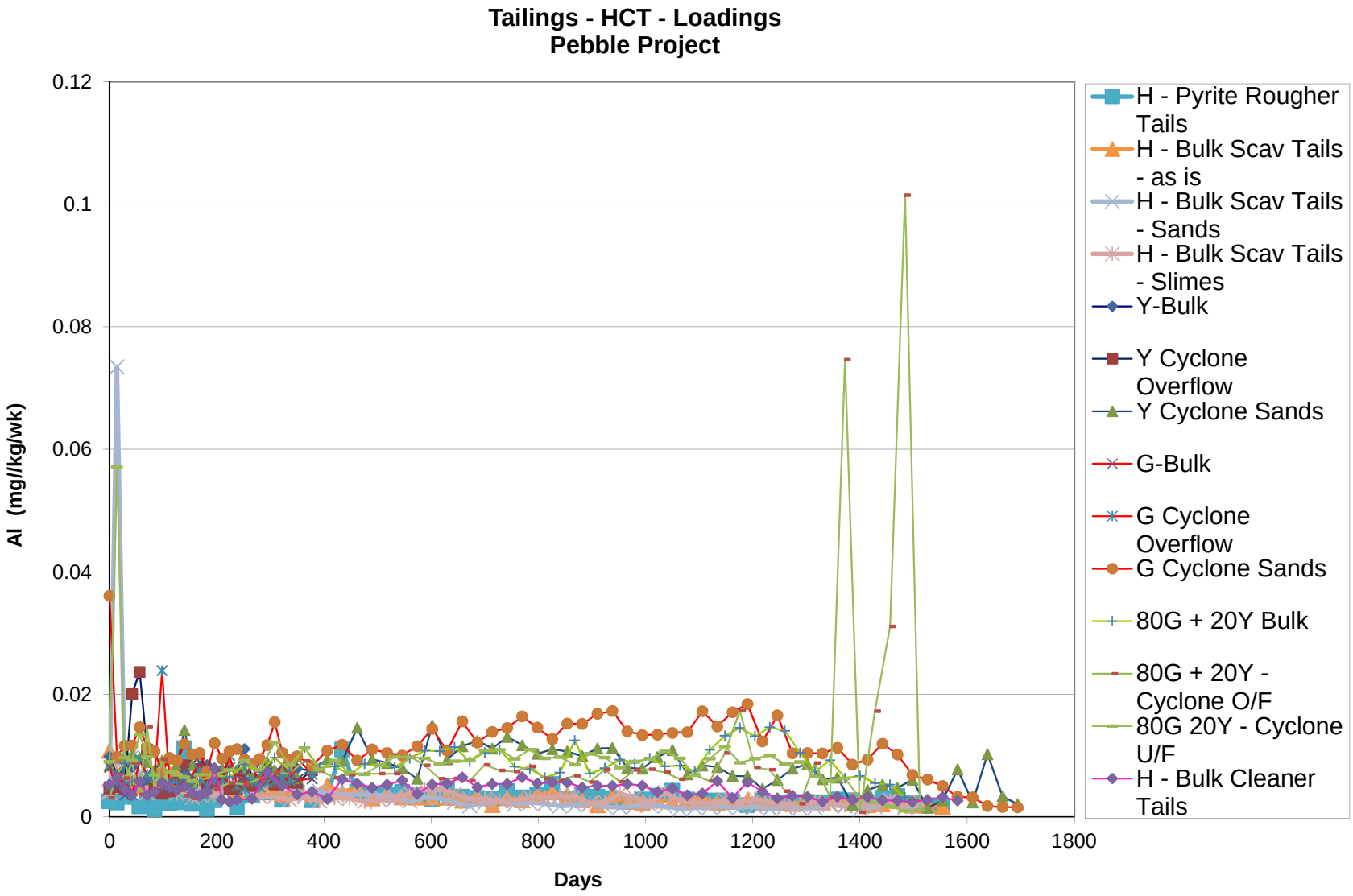

Tailings - HCT - Loadings
Pebble Project
TDS (mg/kg/wk)
Days
0
200
400
600
800
1000
1200
1400
1600
1800
2000
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails

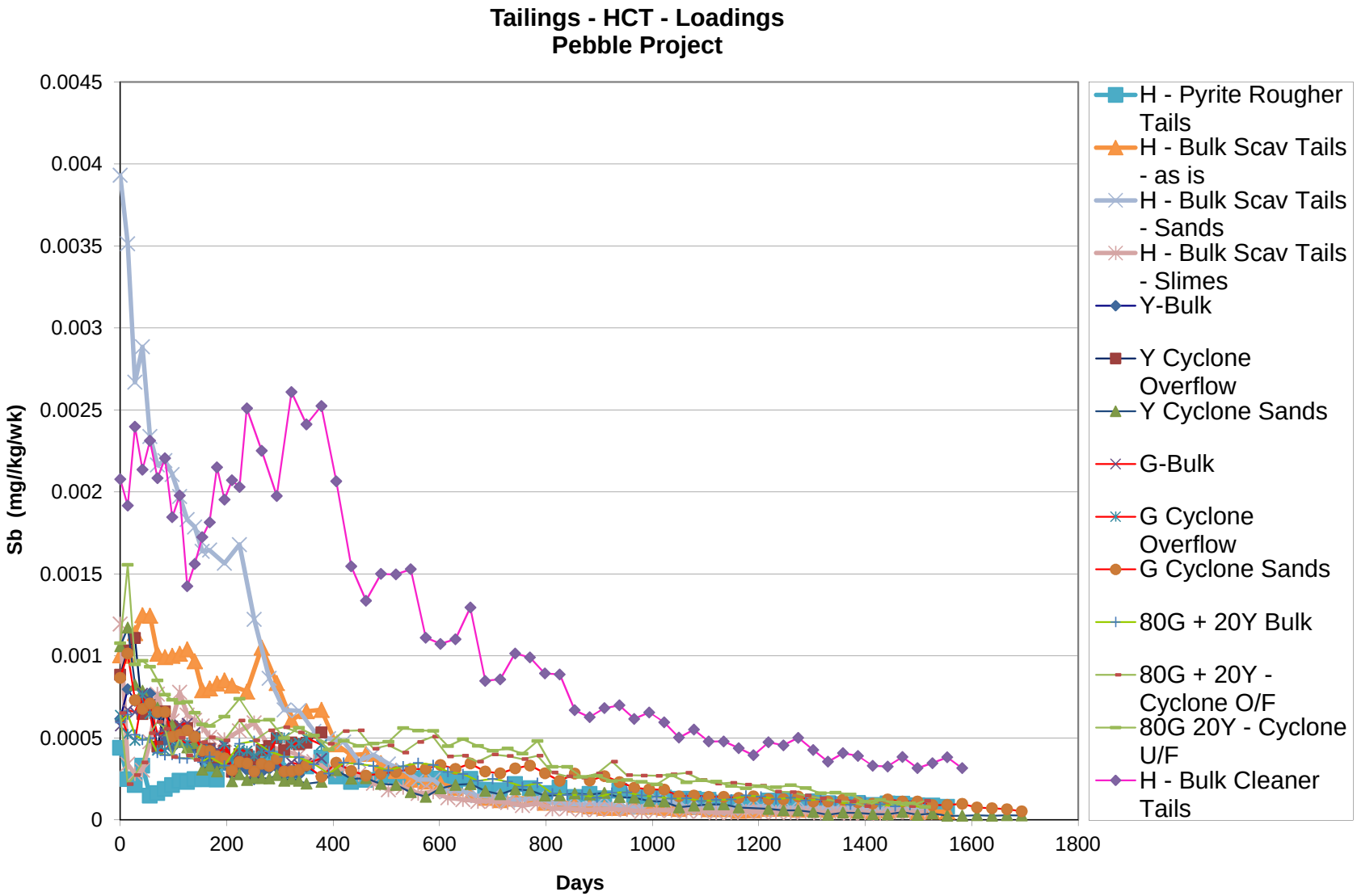

Tailings - HCT - Loadings
Pebble Project
Hardness (mg CaCO3/kg/wk)
Days
0
200
400
600
800
1000
1200
1400
1600
1800
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails

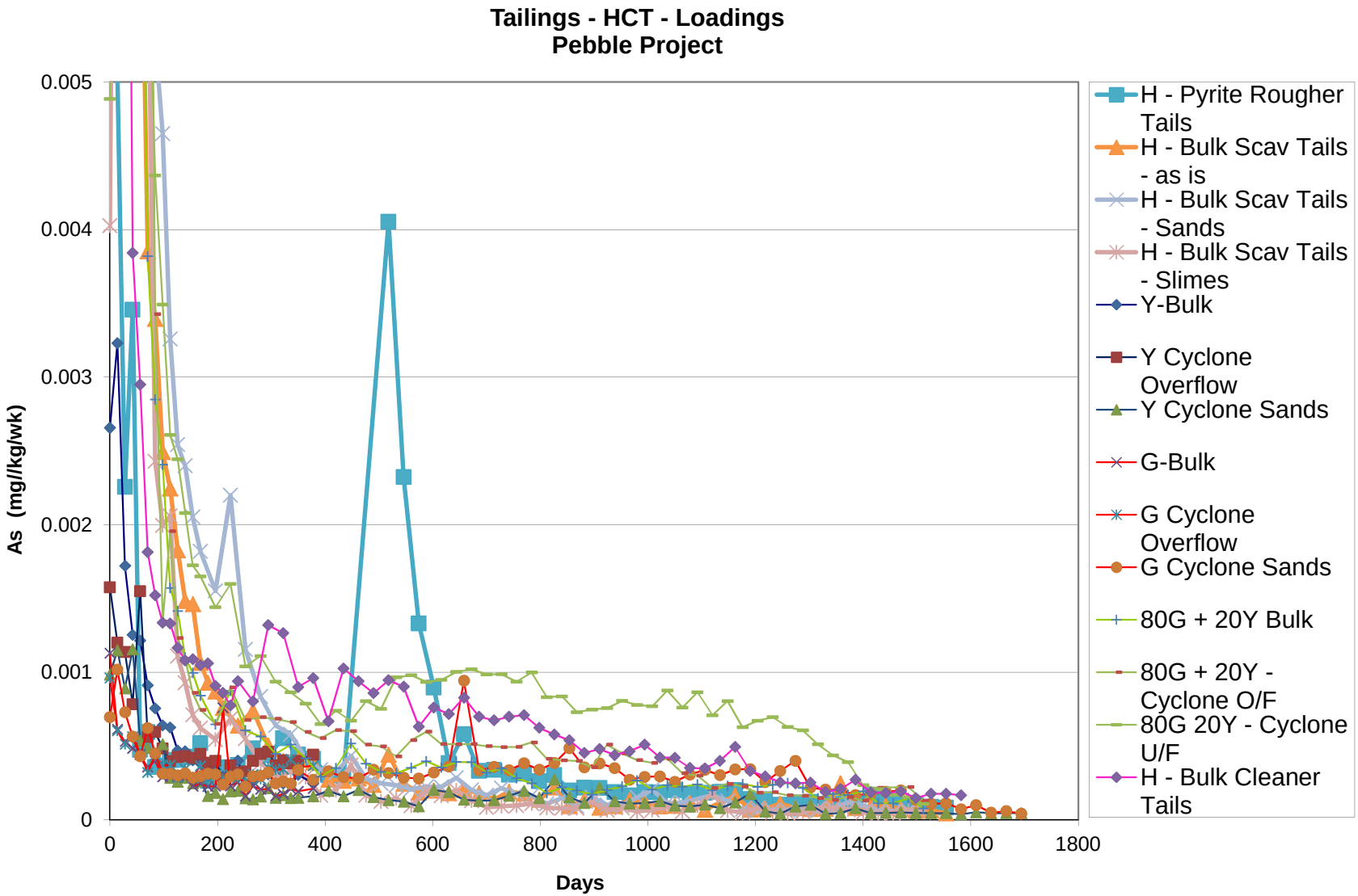

Tailings - HCT - Loadings
Pebble Project
Cl (mg/kg/wk)
Days
0
2
4
6
8
10
12
14
16
0
200
400
600
800
1000
1200
1400
1600
1800
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails

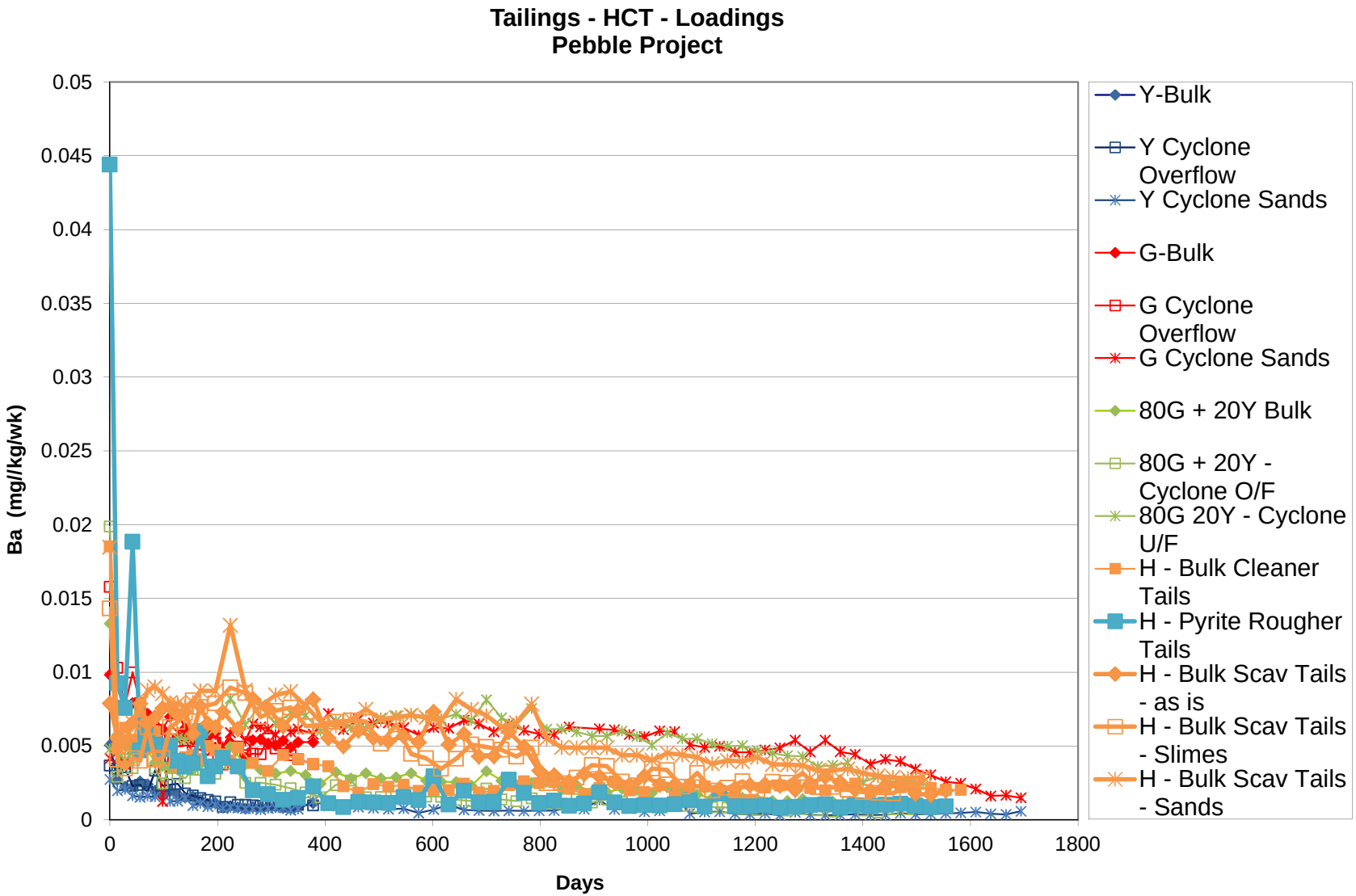

Tailings - HCT - Loadings
Pebble Project
F (mg/kg/wk)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails


Tailings - HCT - Loadings
Pebble Project
SO4 (mg/kg/wk)
10000
1000
100
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
Days
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails


Tailings - HCT - Loadings
Pebble Project
Al (mg/kg/wk)
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails


Tailings - HCT - Loadings
Pebble Project
Sb (mg/kg/wk)
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails


Tailings - HCT - Loadings
Pebble Project
As (mg/kg/wk)
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Sands
H - Bulk Scav Tails - Slimes
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails


Tailings - HCT - Loadings
Pebble Project
Ba (mg/l/kg/wk)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
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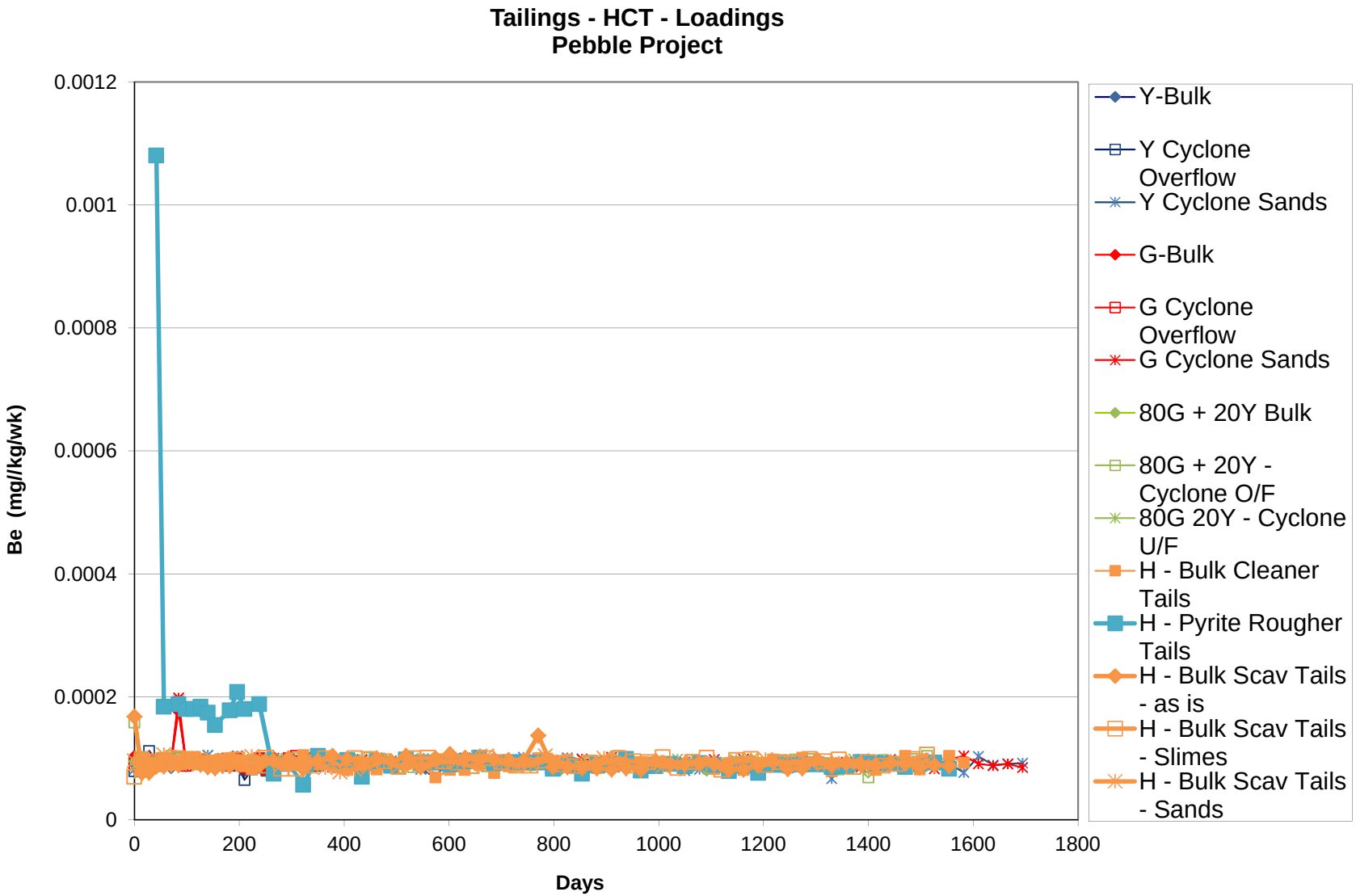
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Be (mg/l/kg/wk)
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
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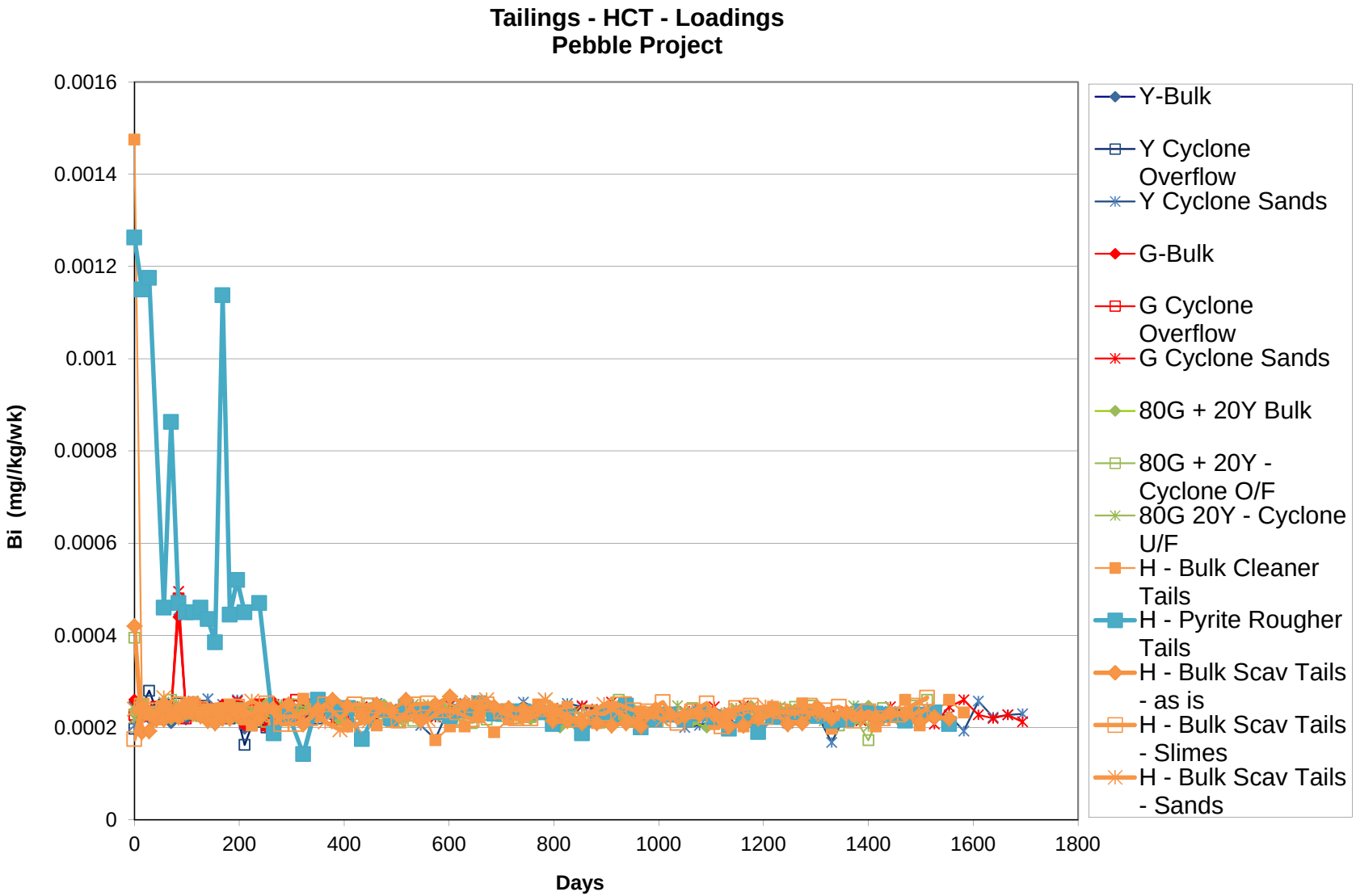
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Bi (mg/kg/wk)
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
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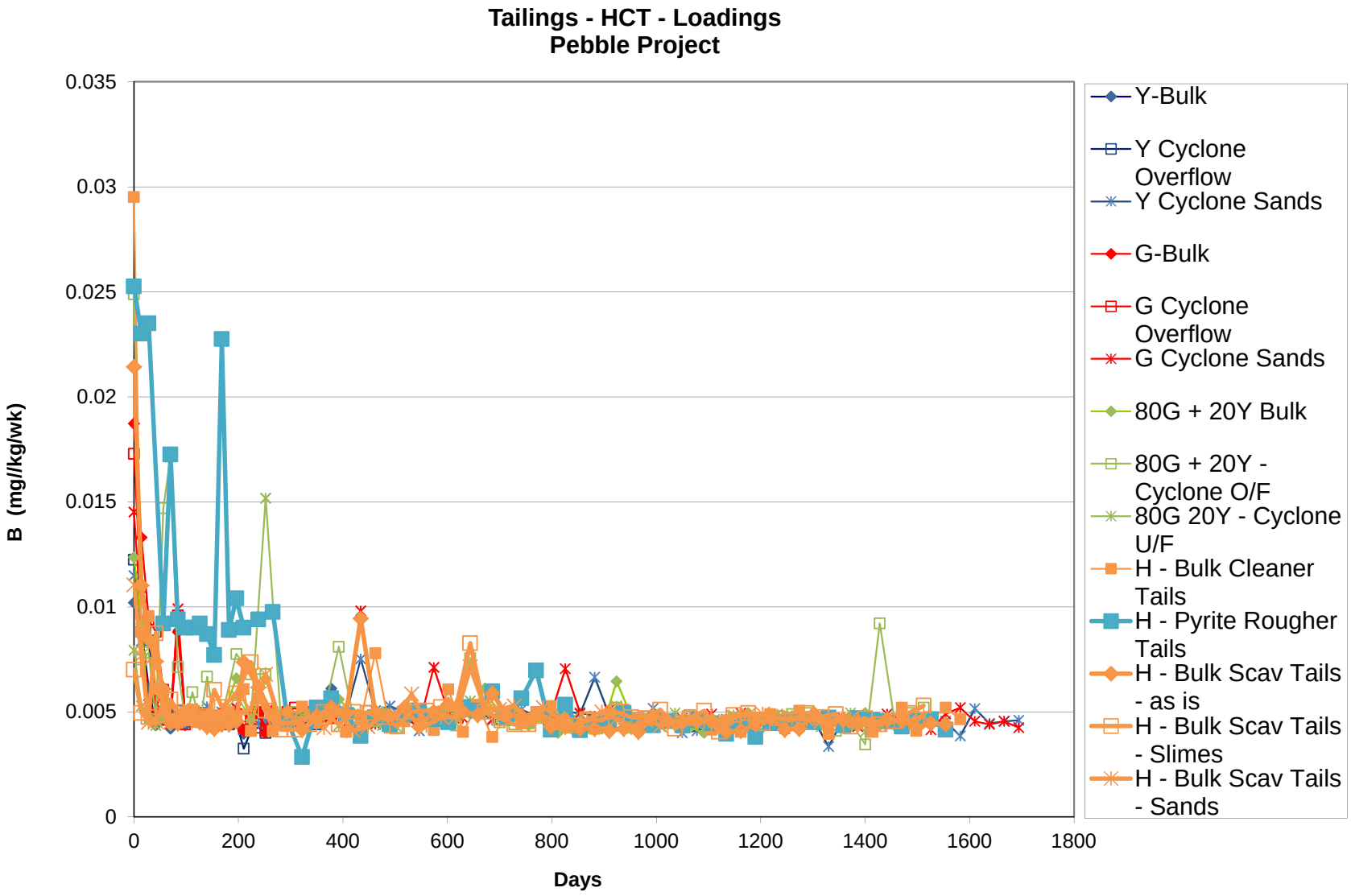
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
B (mg/kg/wk)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
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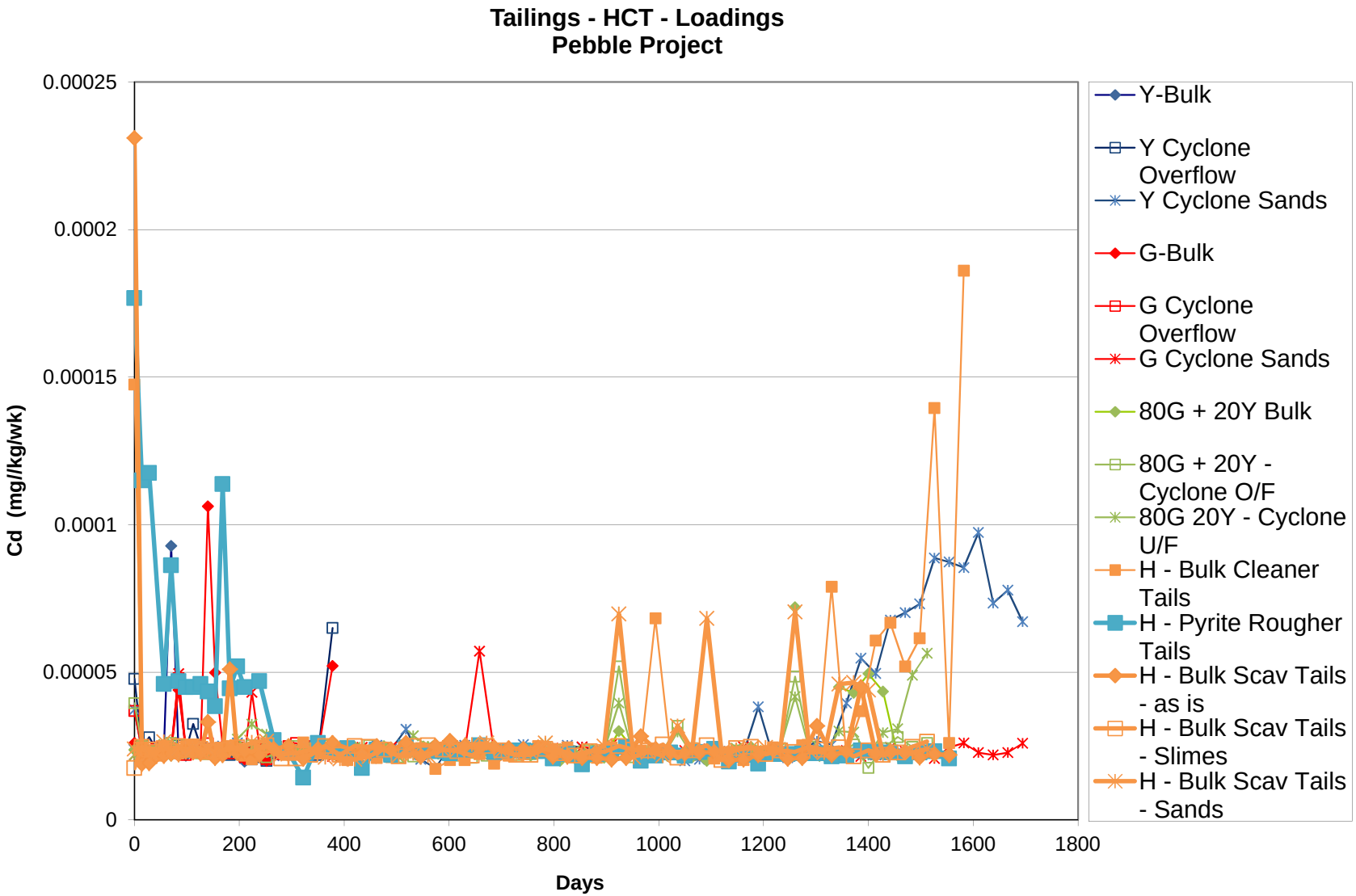
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Cd (mg/kg/wk)
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
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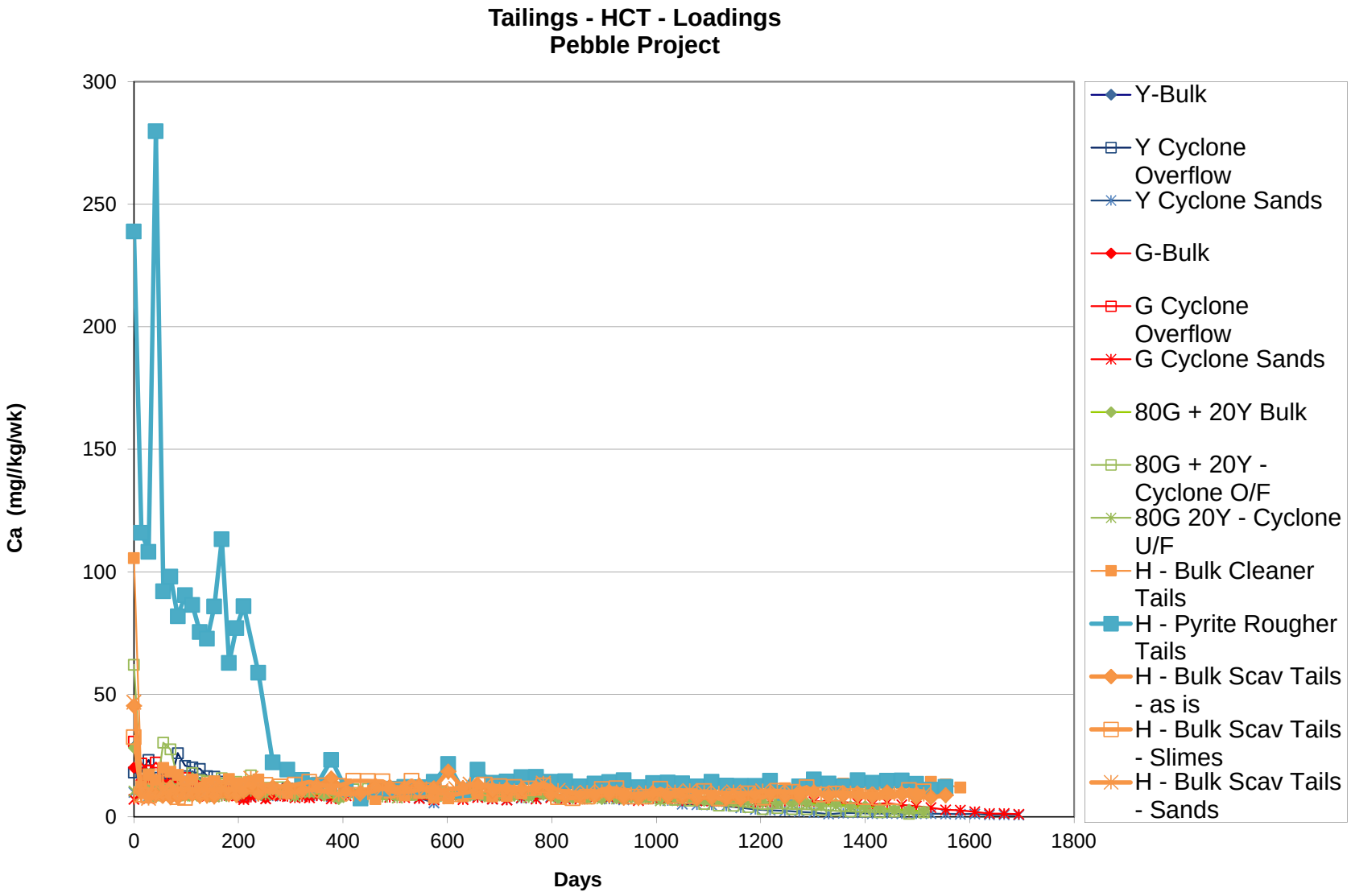
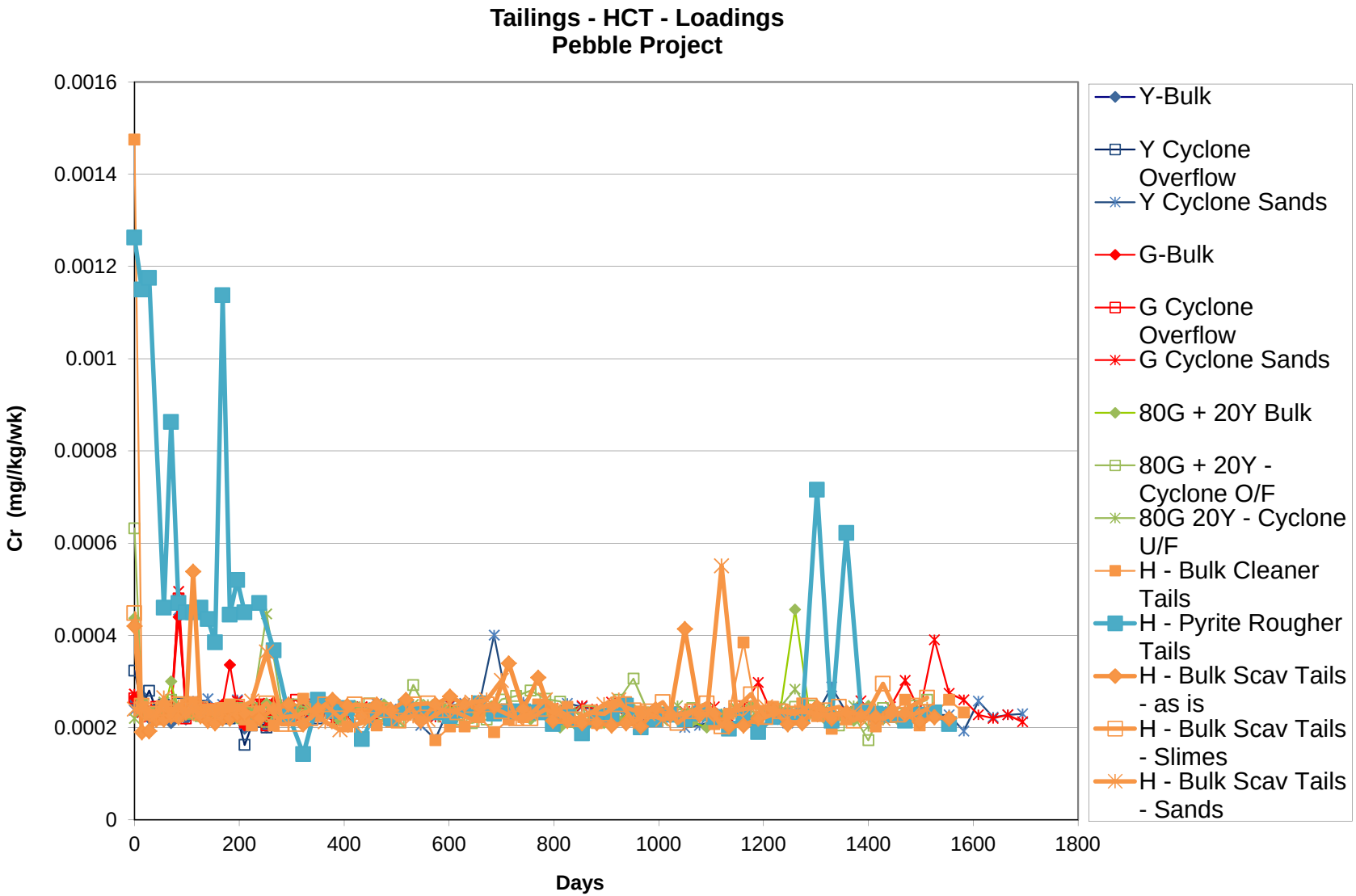
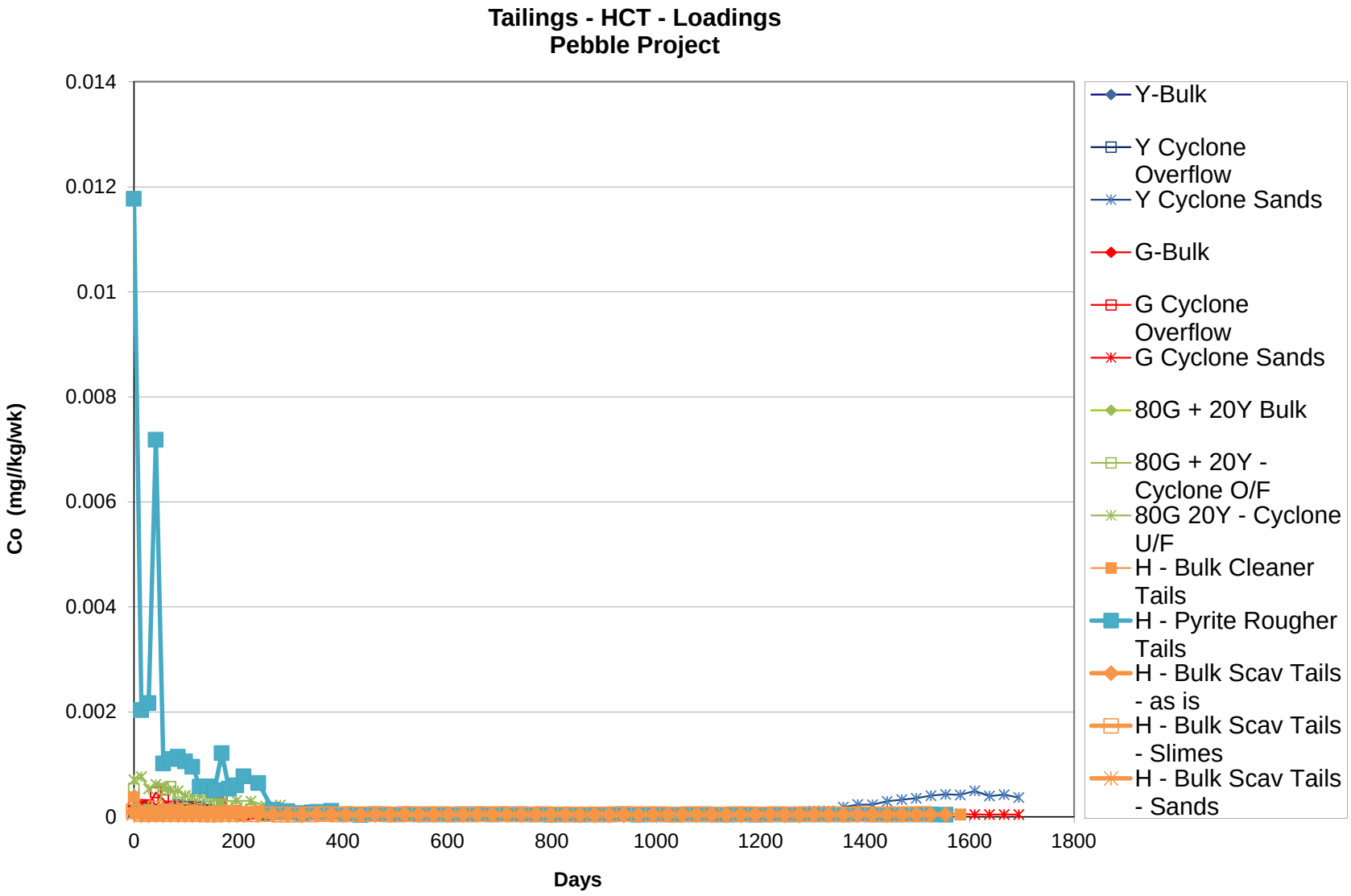
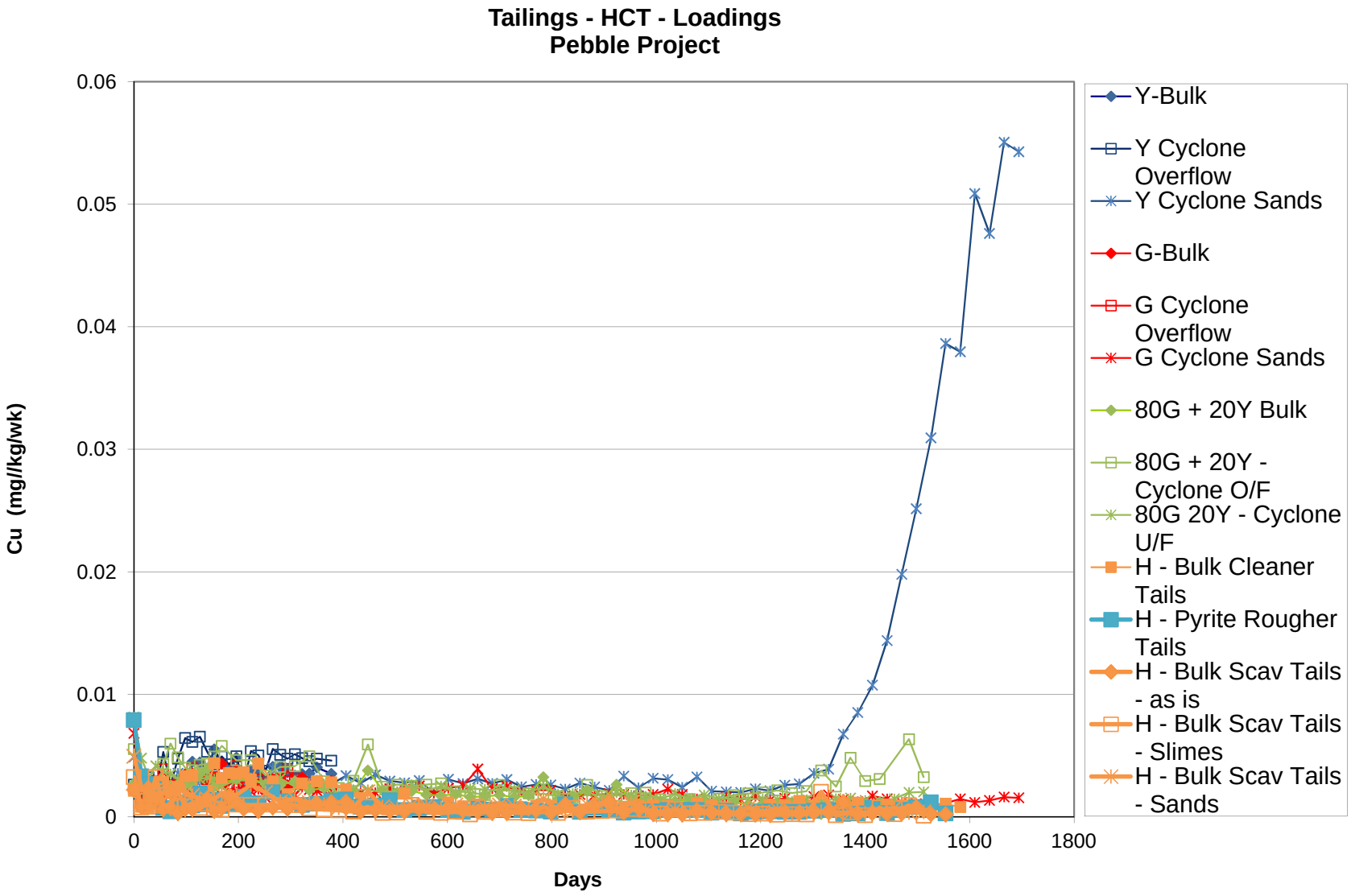
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Ca (mg/l/kg/wk)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Cr (mg/kg/wk)
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Co (mg/kg/wk)
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Cu (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
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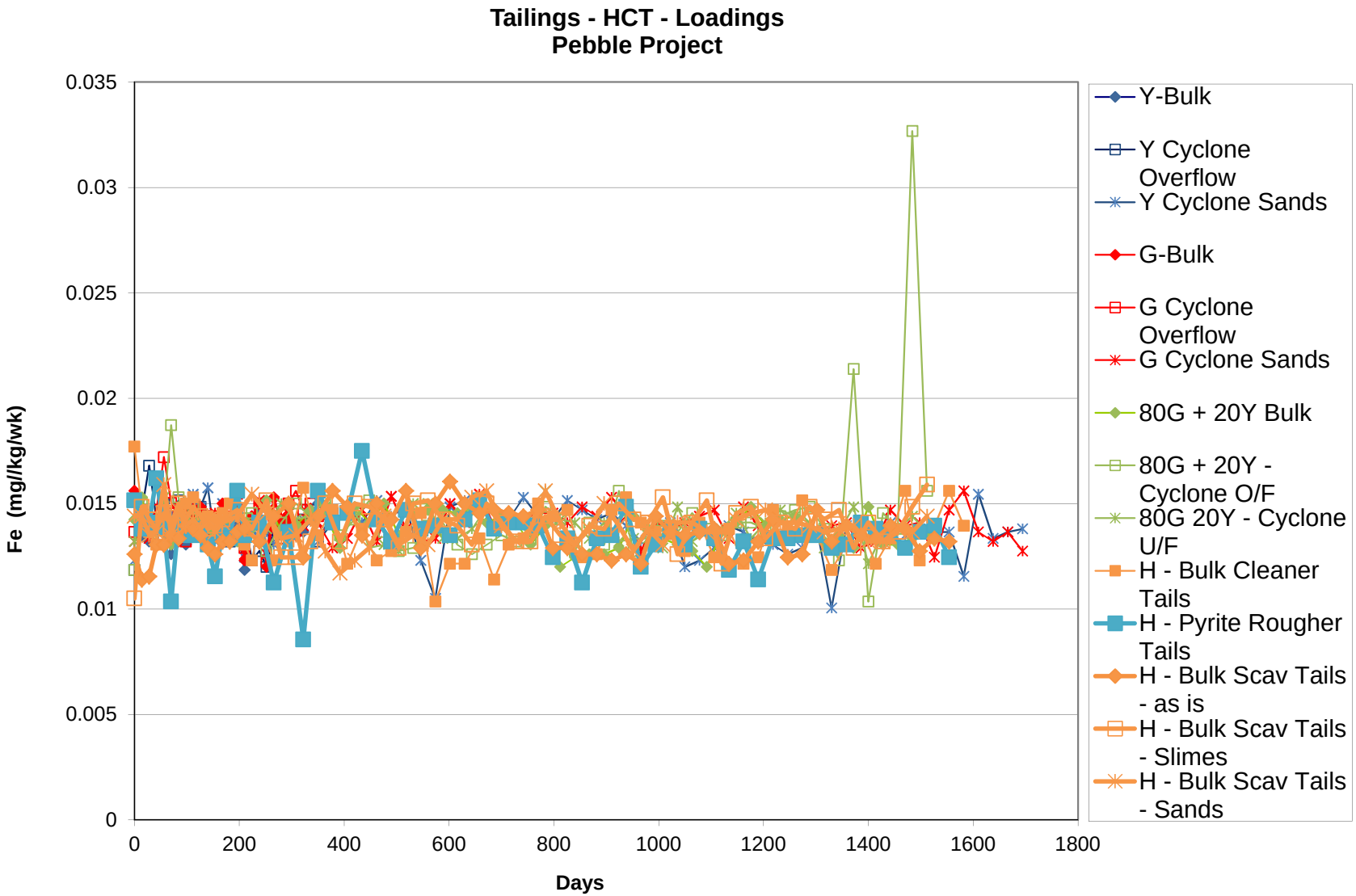
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Fe (mg/kg/wk)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
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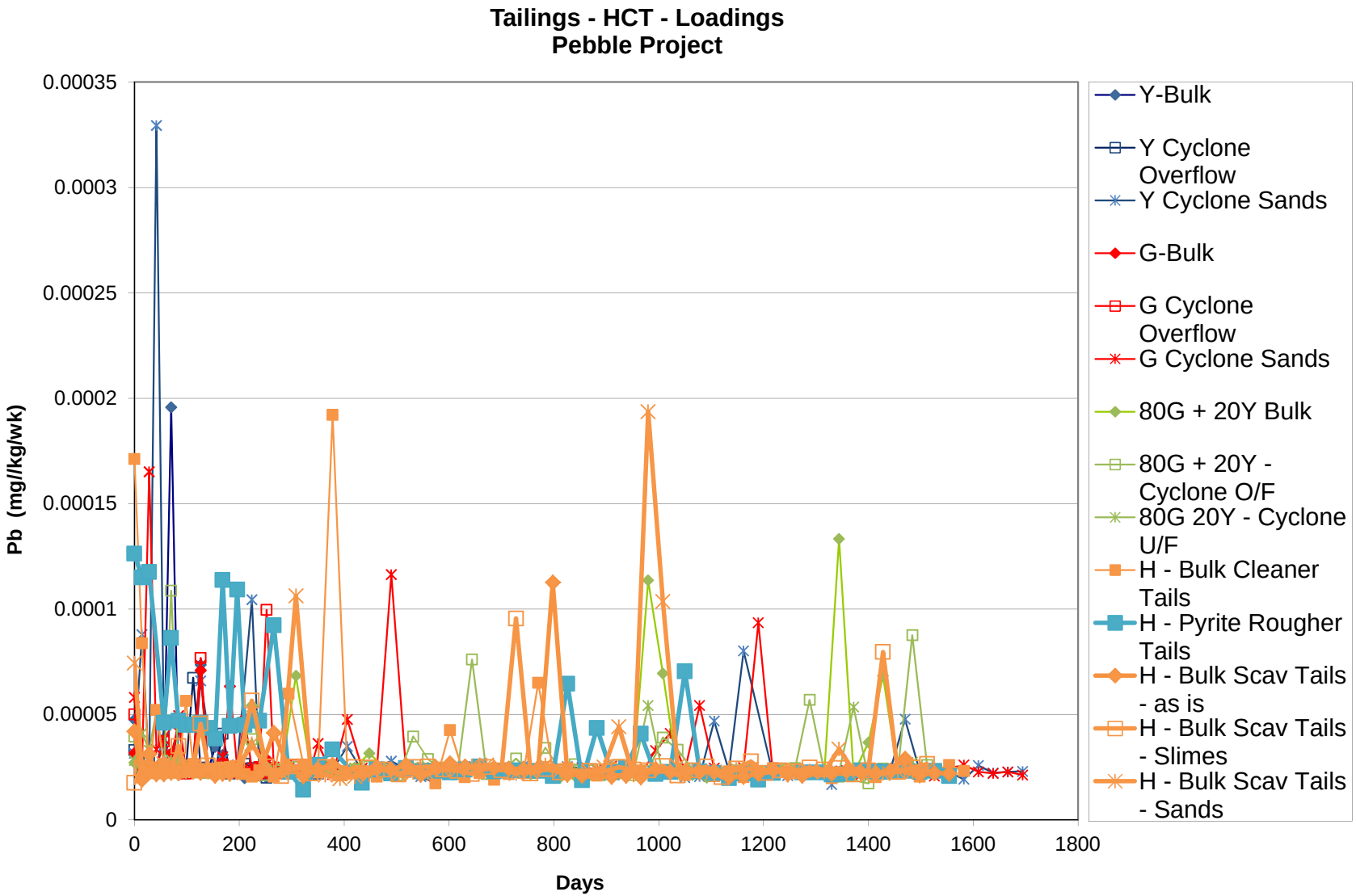
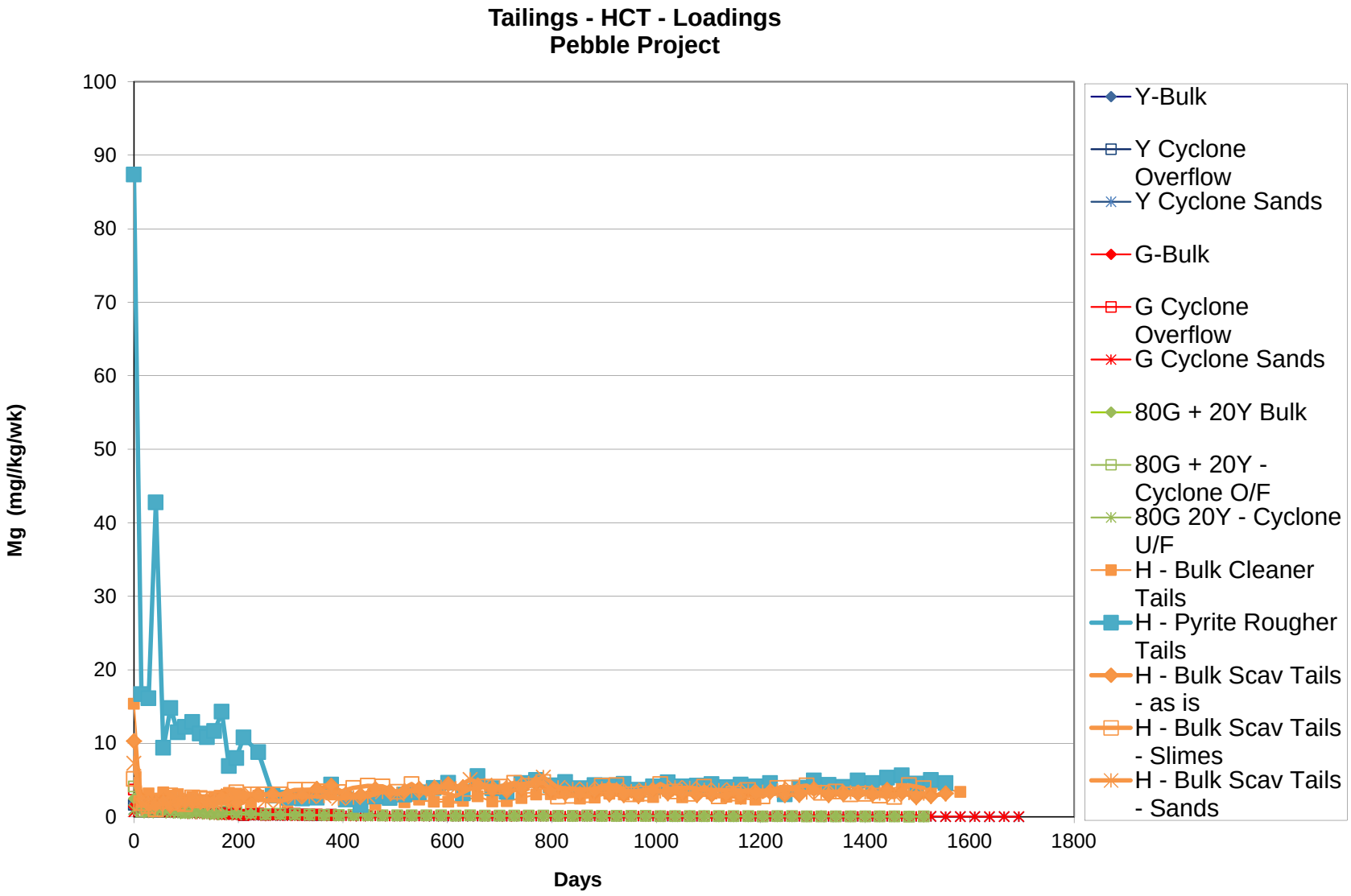
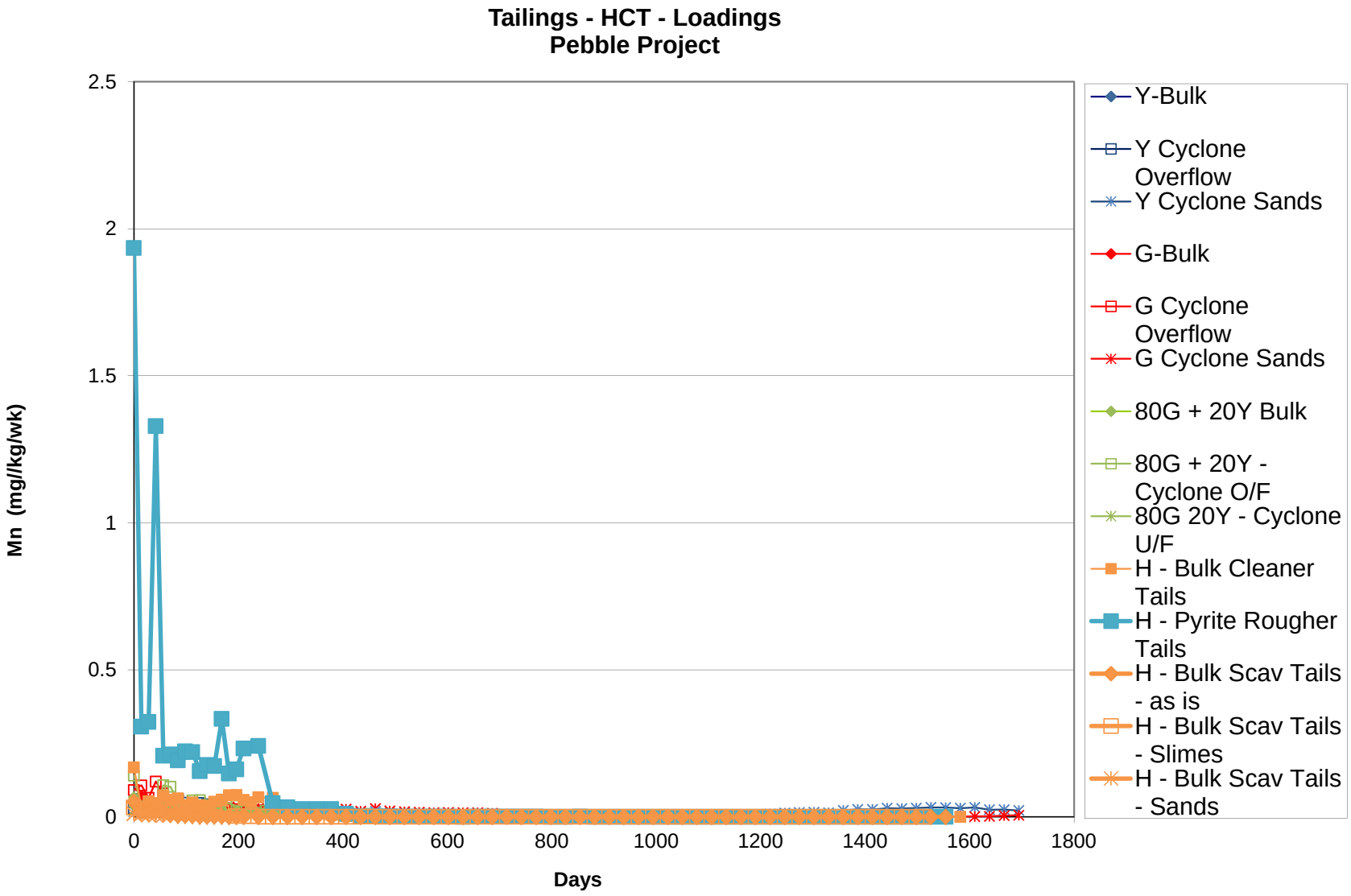
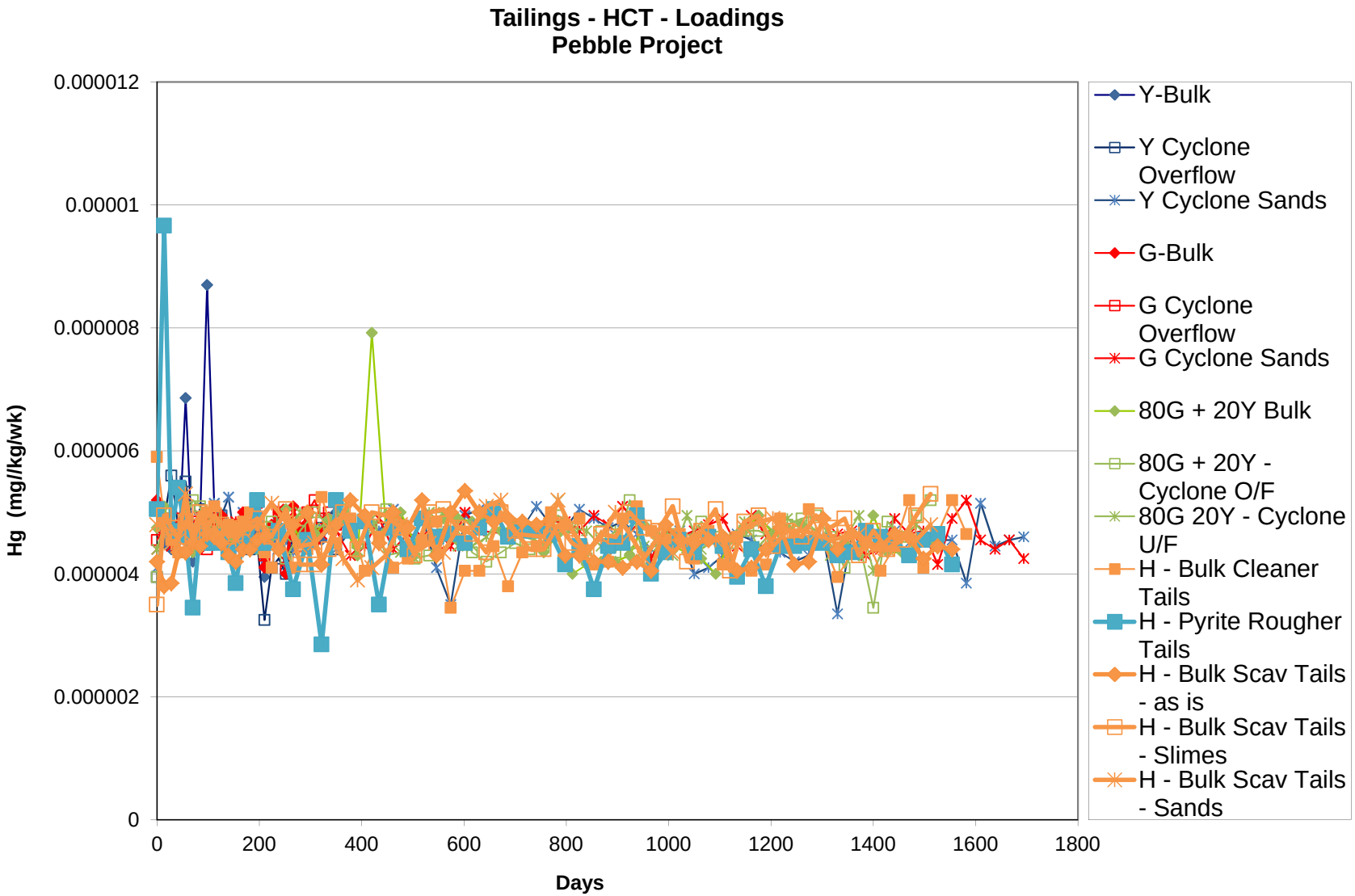
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Pb (mg/kg/wk)
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Mg (mg/kg/wk)
Days
0
10
20
30
40
50
60
70
80
90
100
0
200
400
600
800
1000
1200
1400
1600
1800
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Mn (mg/kg/wk)
2.5
2
1.5
1
0.5
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Hg (mg/kg/wk)
0.000012
0.00001
0.000008
0.000006
0.000004
0.000002
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
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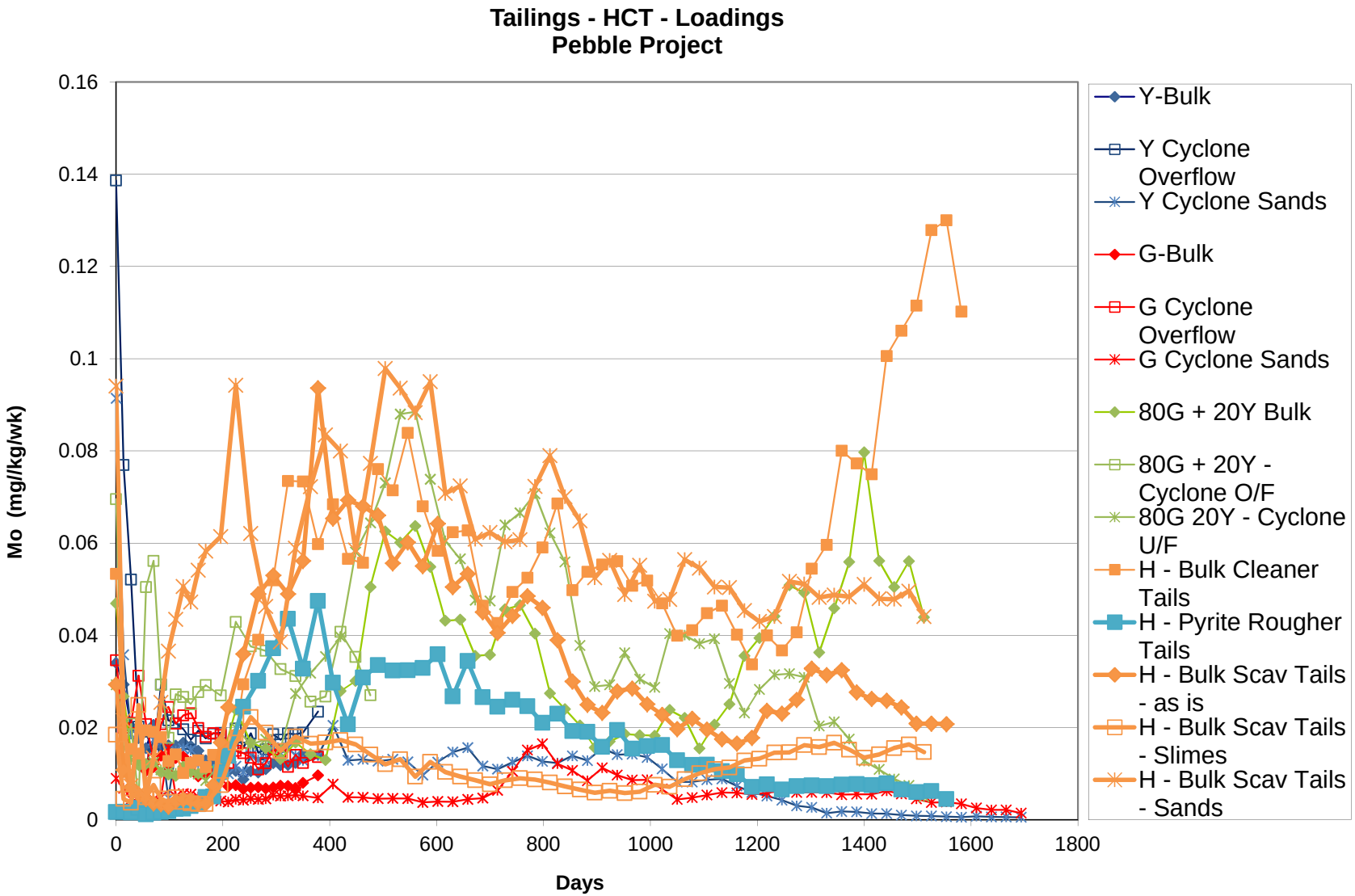
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Mo (mg/kg/wk)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
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80G 20Y - Cyclone U/F
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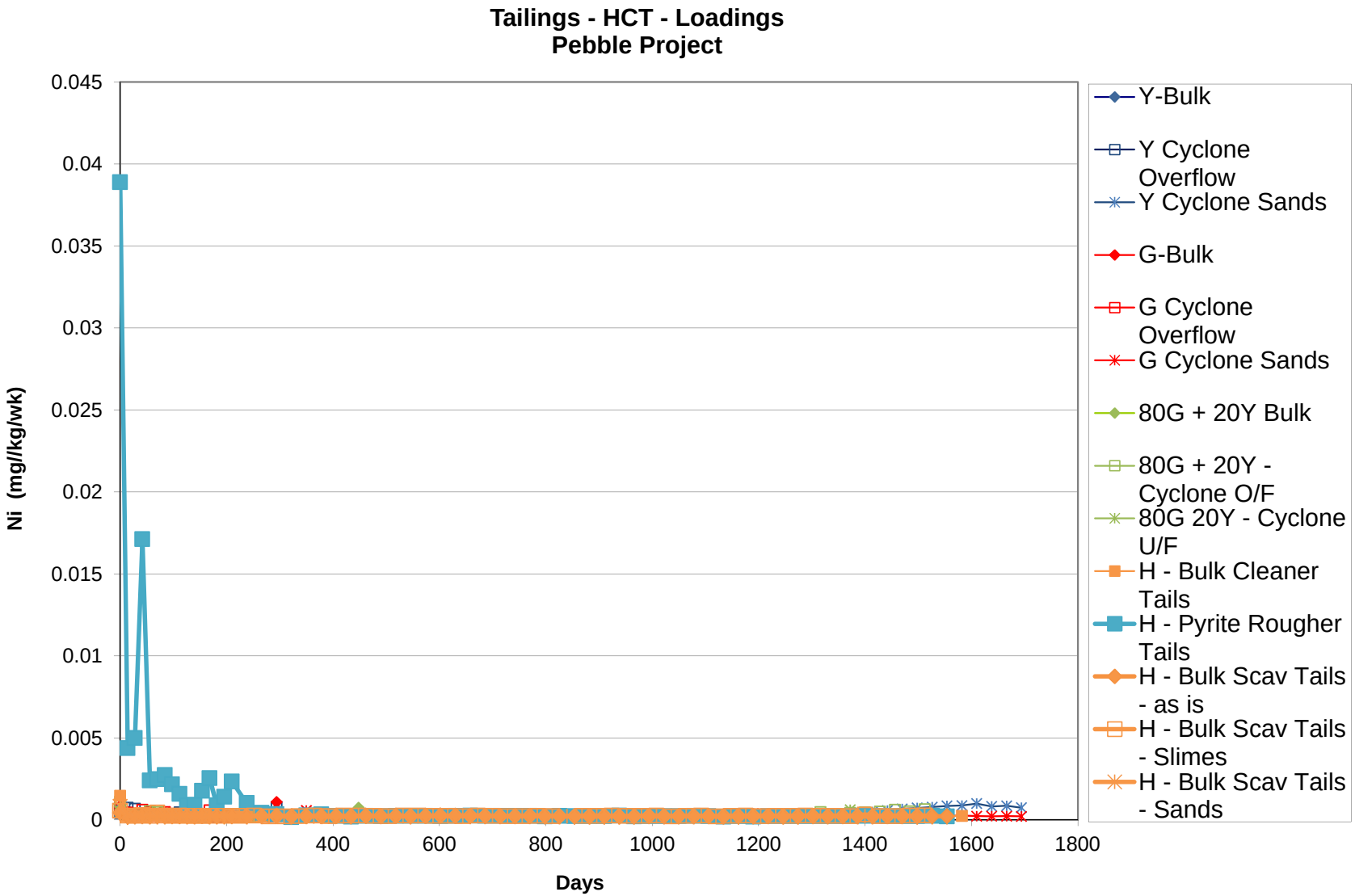
H - Bulk Scav Tails - Sands


Tailings - HCT - Loadings
Pebble Project
Ni (mg/kg/wk)
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
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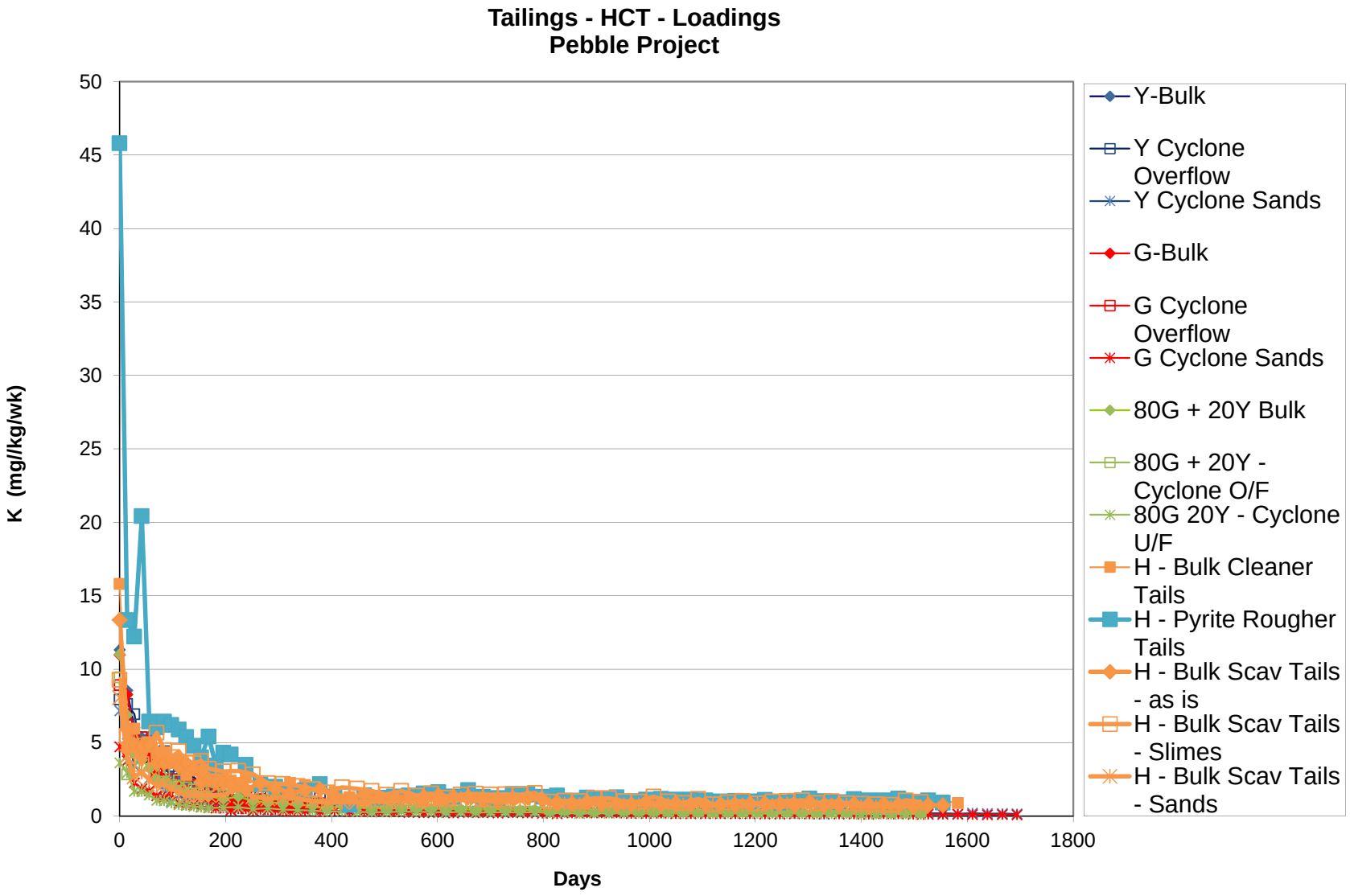
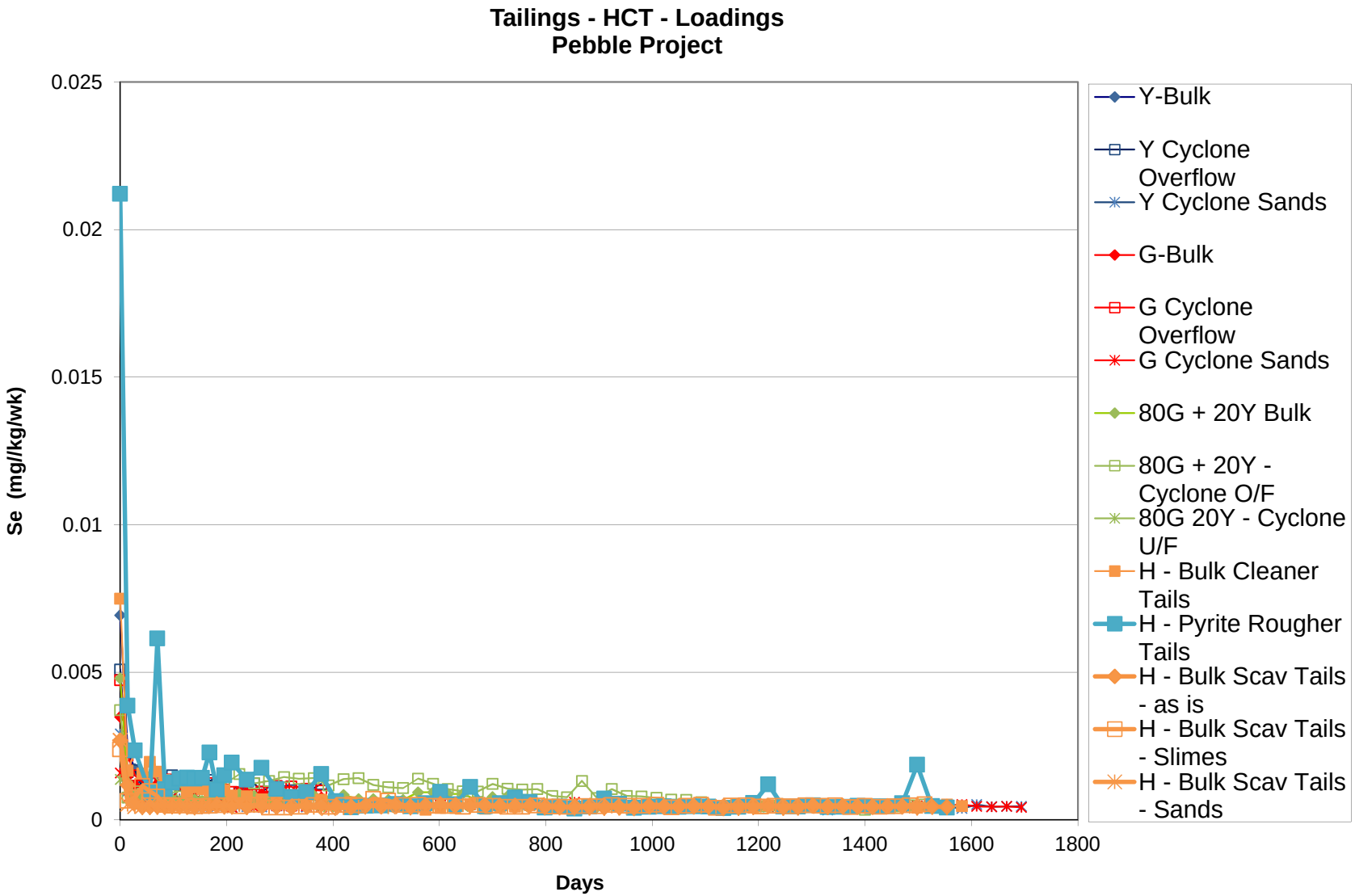
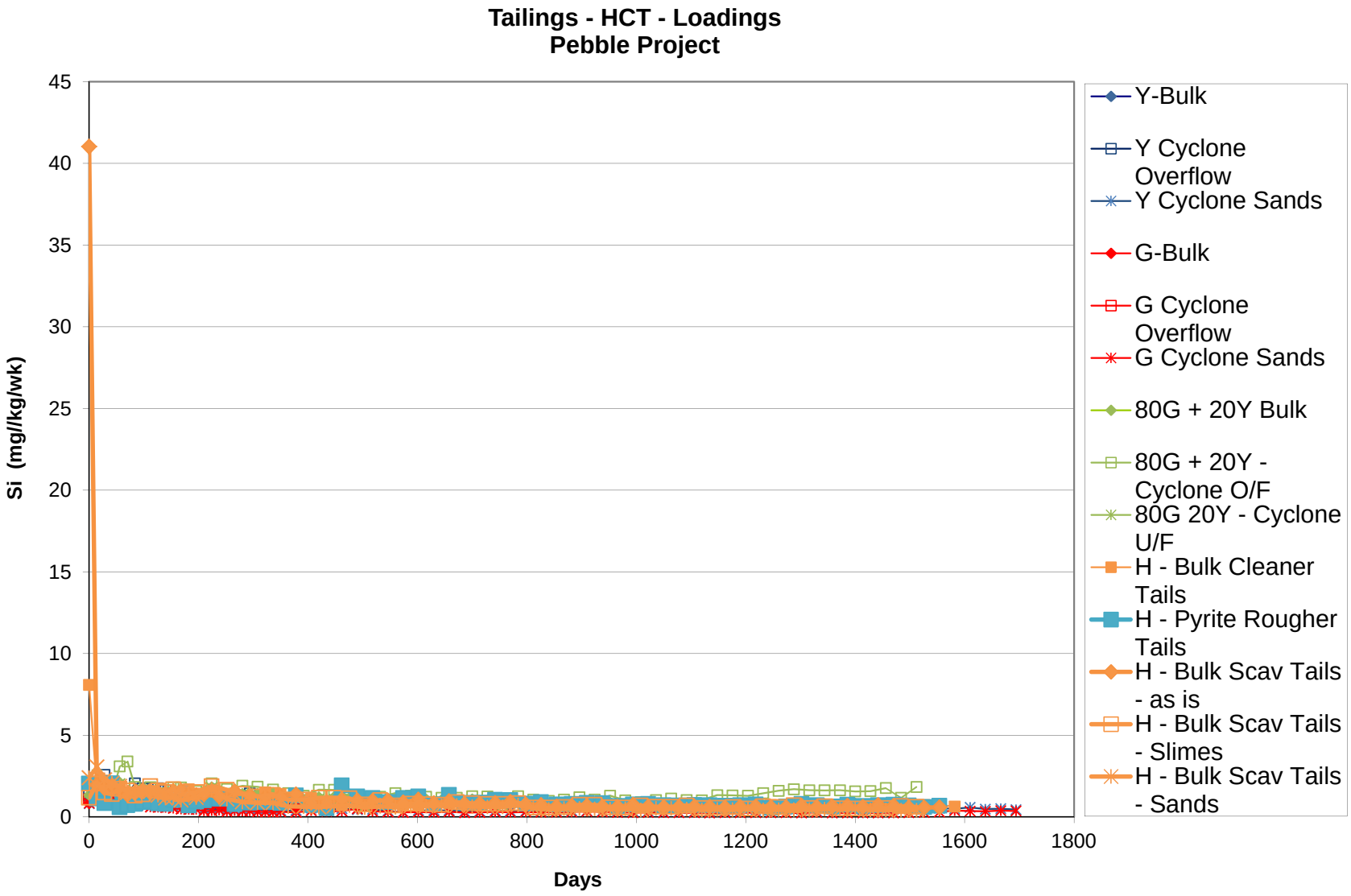
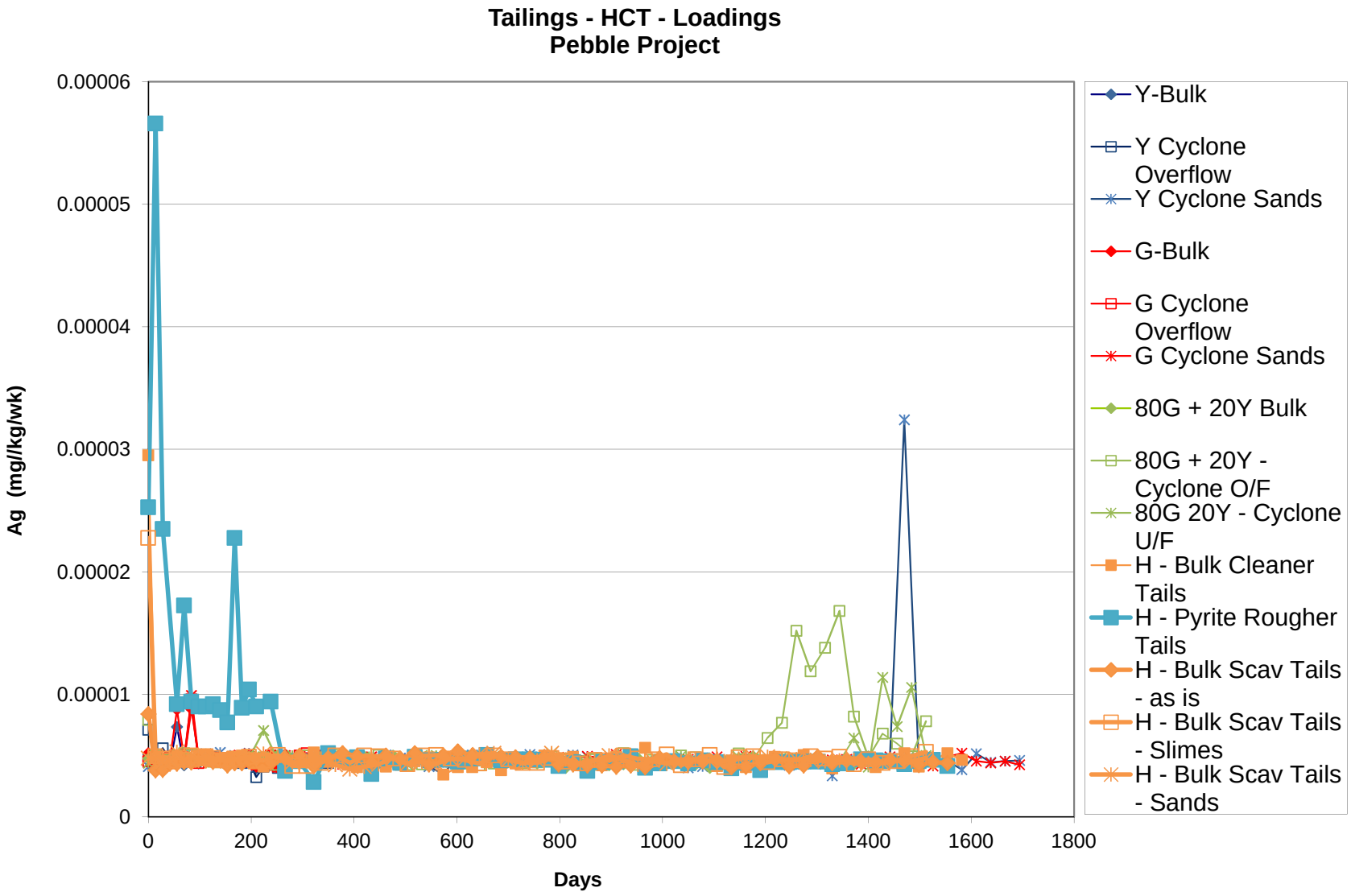
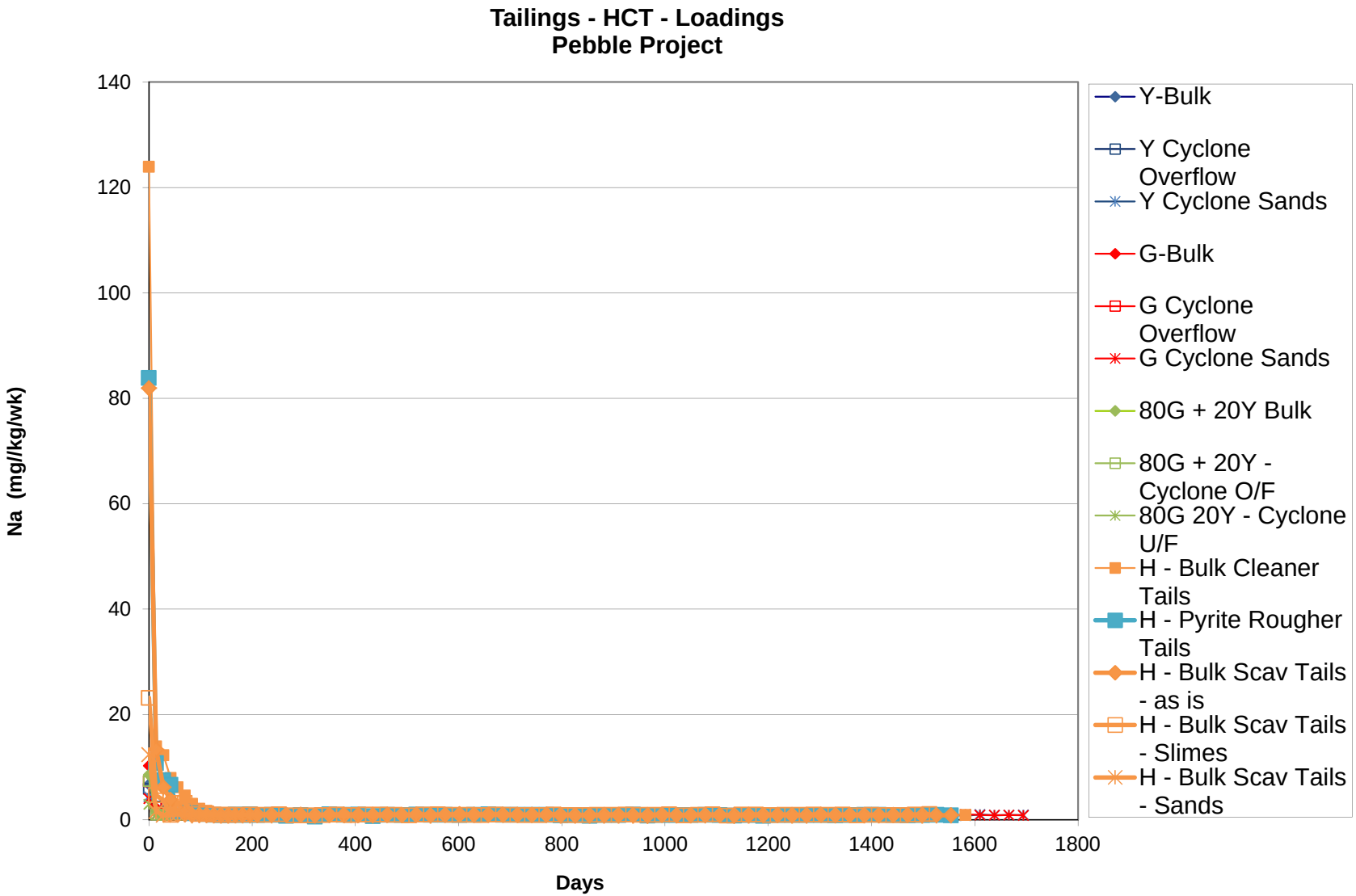
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

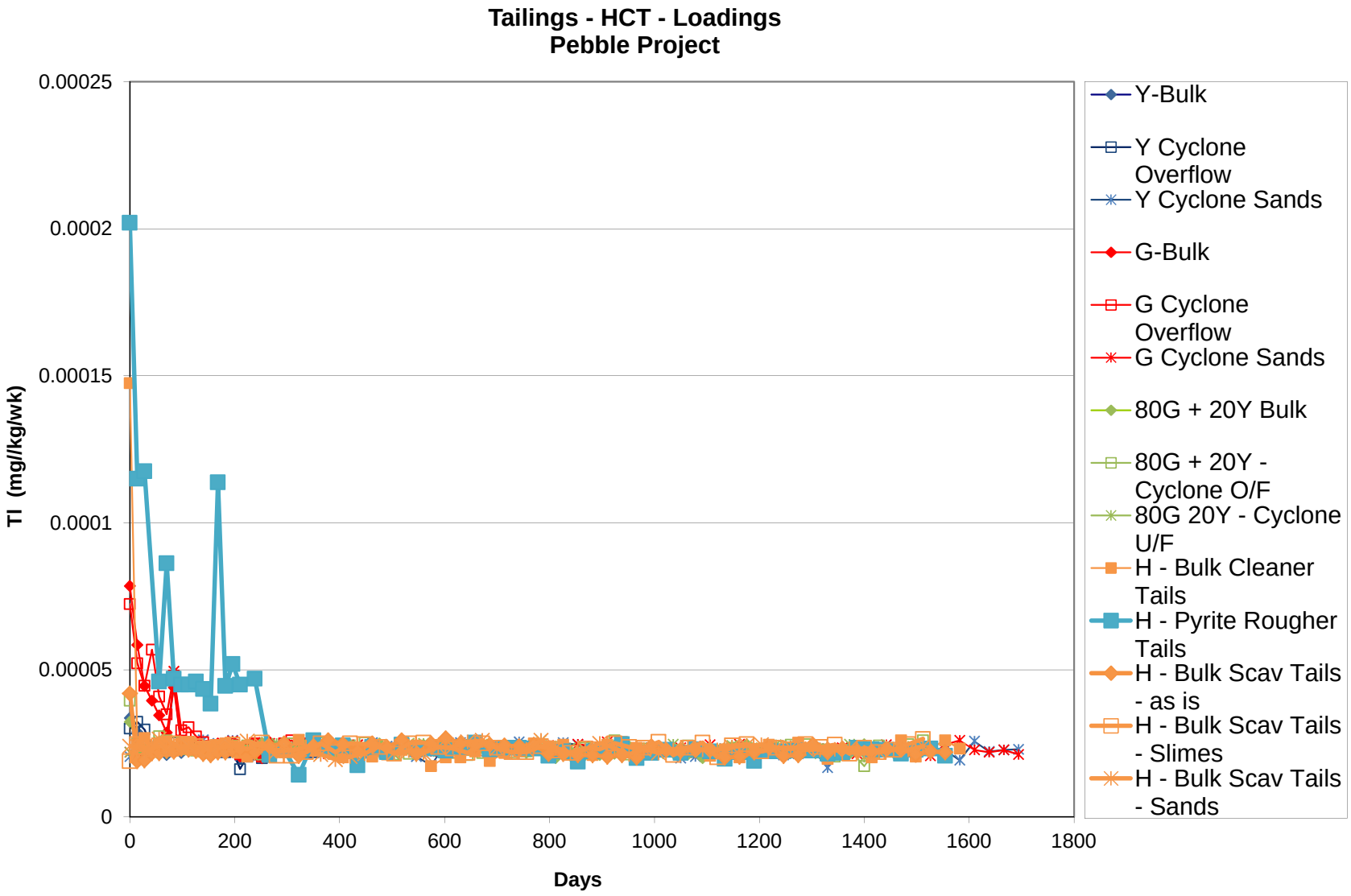

Tailings - HCT - Loadings
Pebble Project
K (mg/kg/wk)
Days
0
5
10
15
20
25
30
35
40
45
50
0
200
400
600
800
1000
1200
1400
1600
1800
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

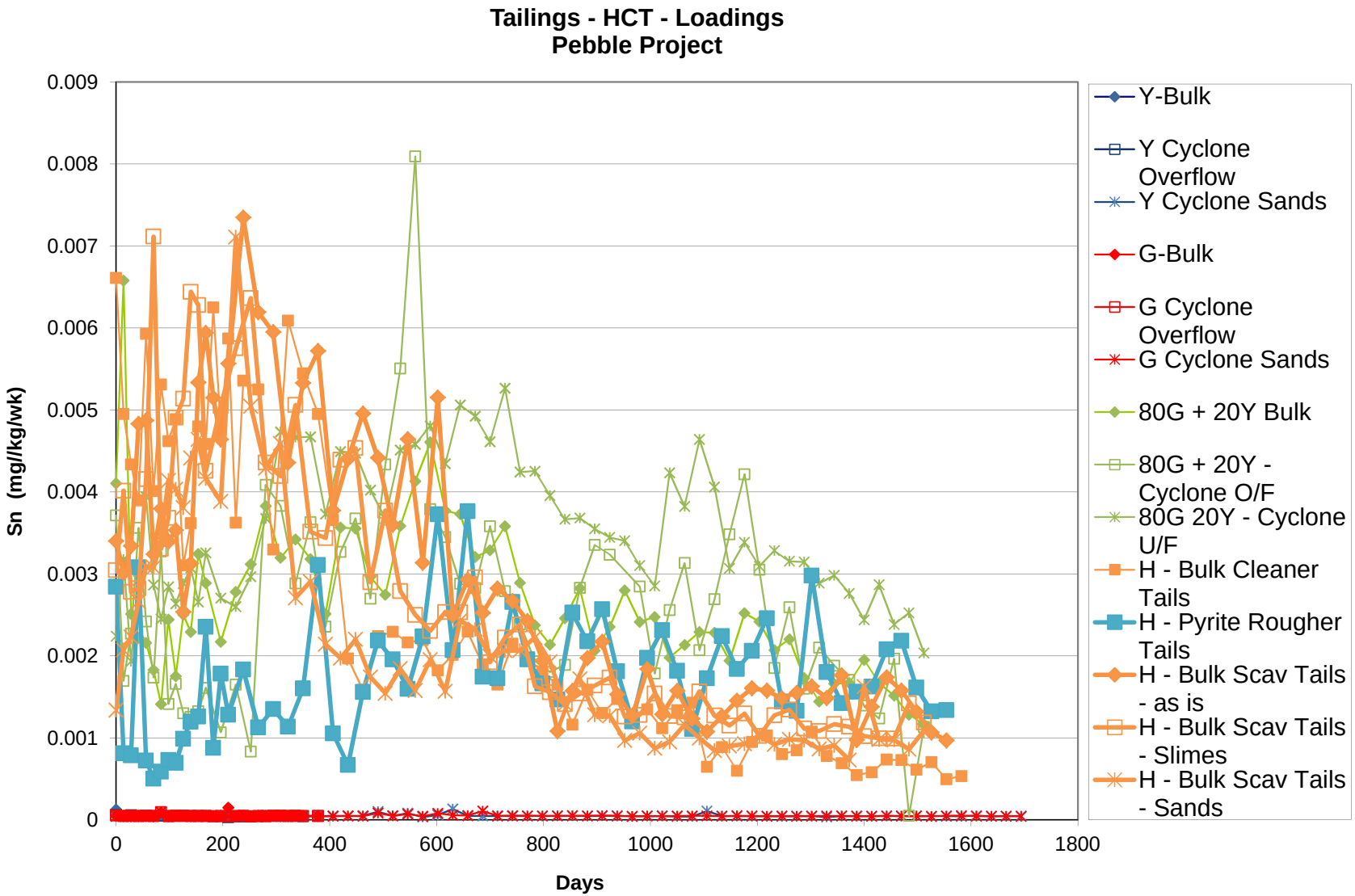

Tailings - HCT - Loadings
Pebble Project
Se (mg/kg/wk)
0.025
0.02
0.015
0.01
0.005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

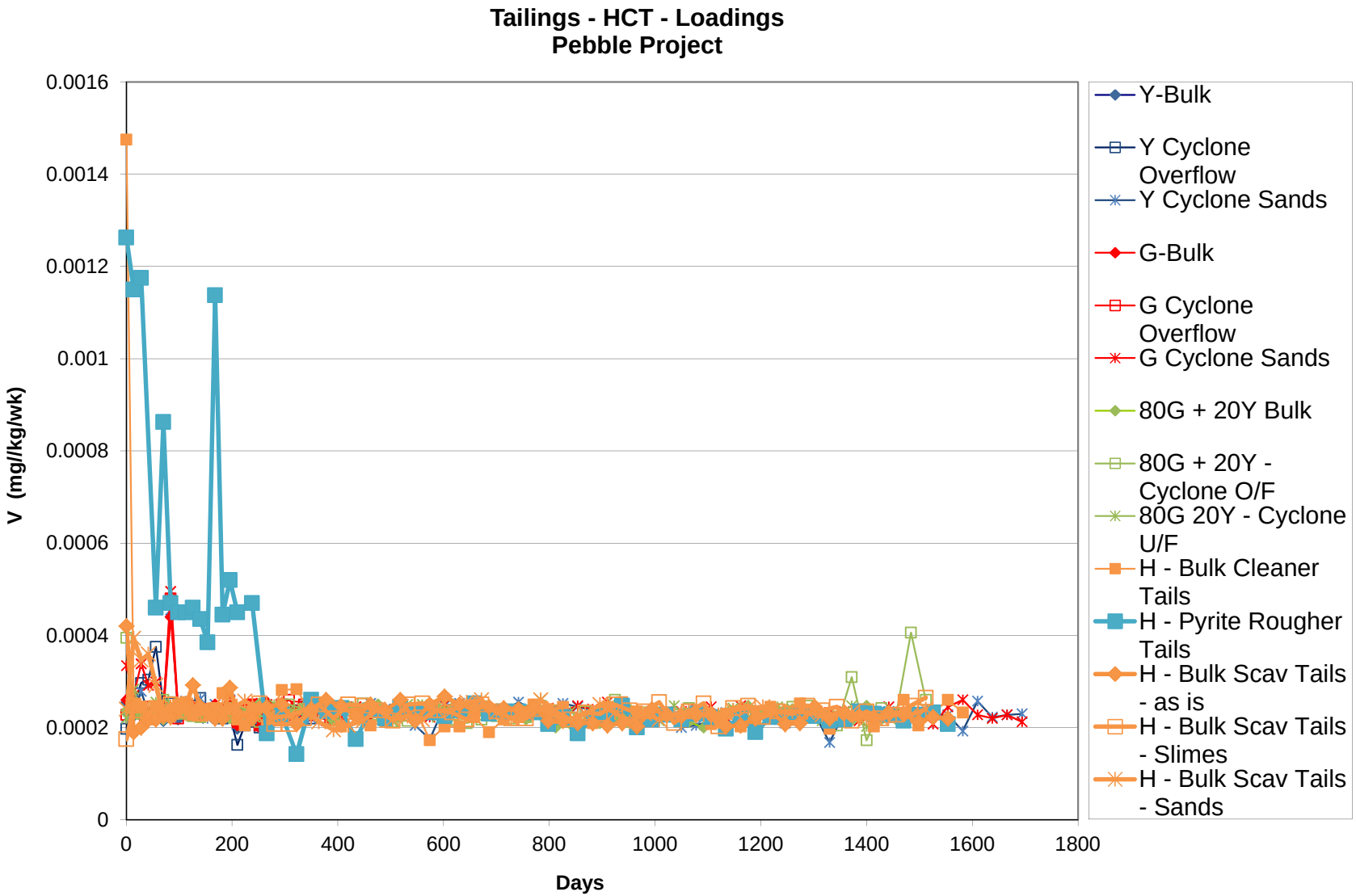

Tailings - HCT - Loadings
Pebble Project
Si (mg/kg/wk)
Days
0
5
10
15
20
25
30
35
40
45
0
200
400
600
800
1000
1200
1400
1600
1800
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

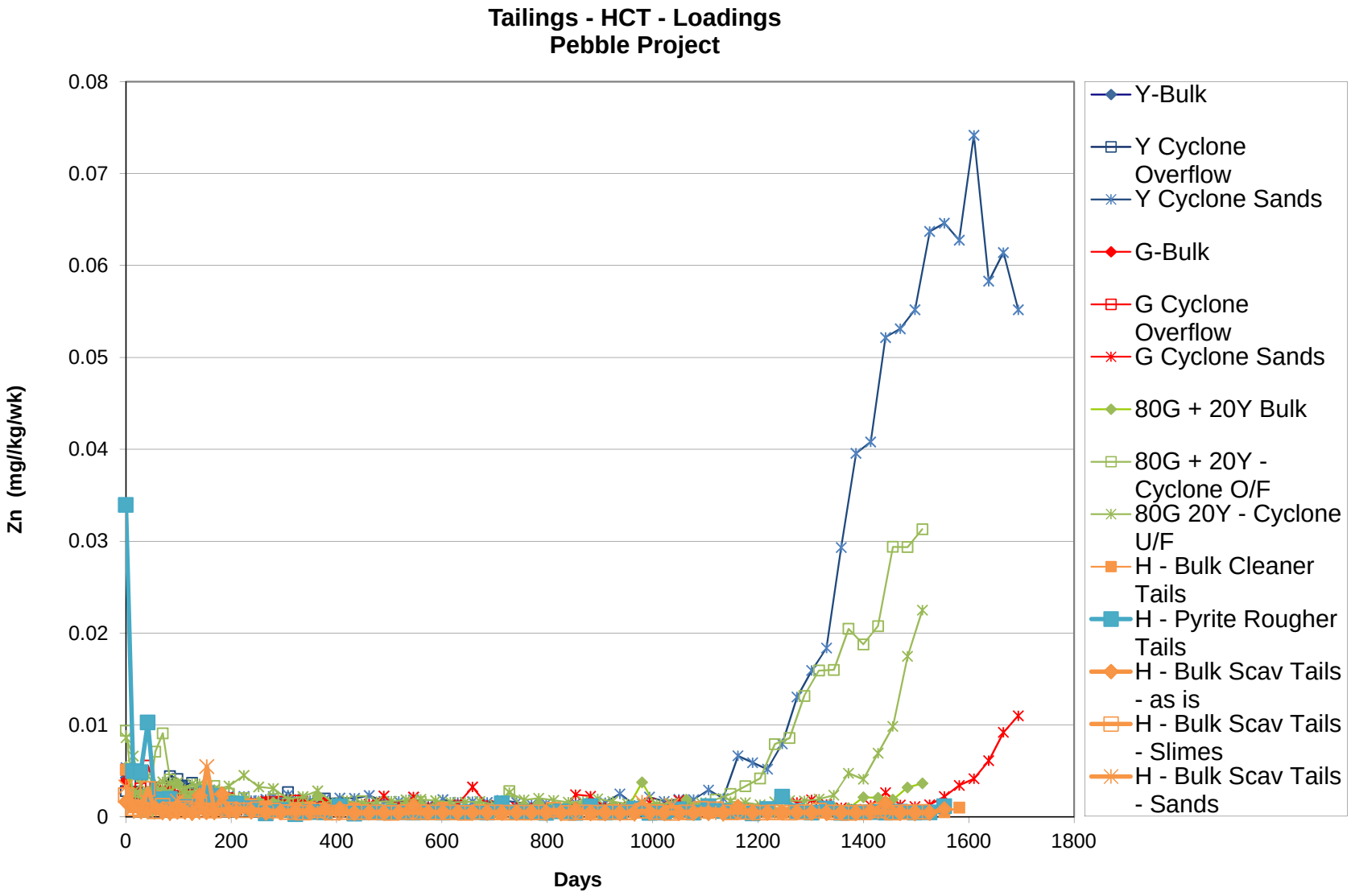

Tailings - HCT - Loadings
Pebble Project
Ag (mg/kg/wk)
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

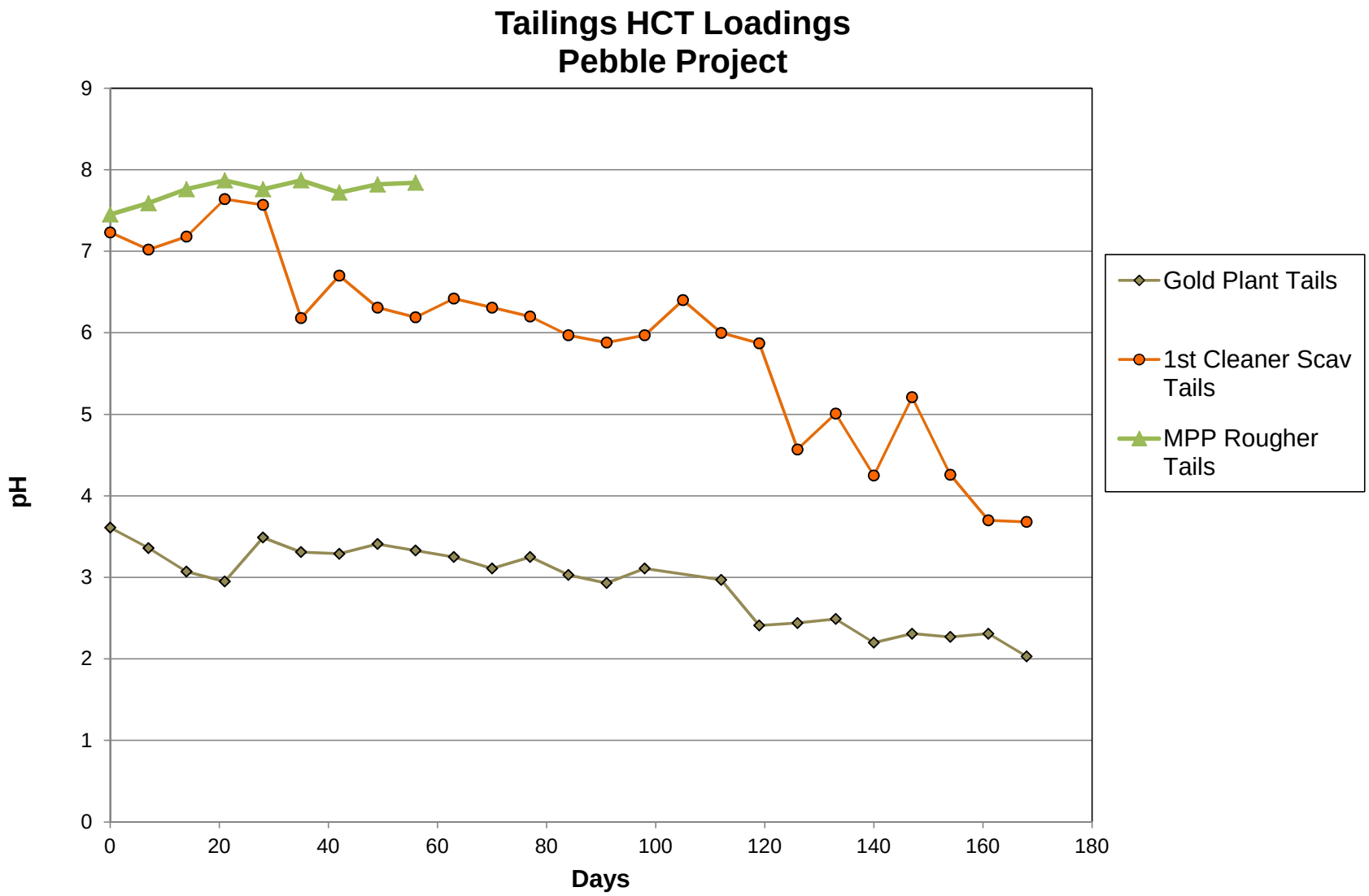

Tailings - HCT - Loadings
Pebble Project
Na (mg/kg/wk)
140
120
100
80
60
40
20
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

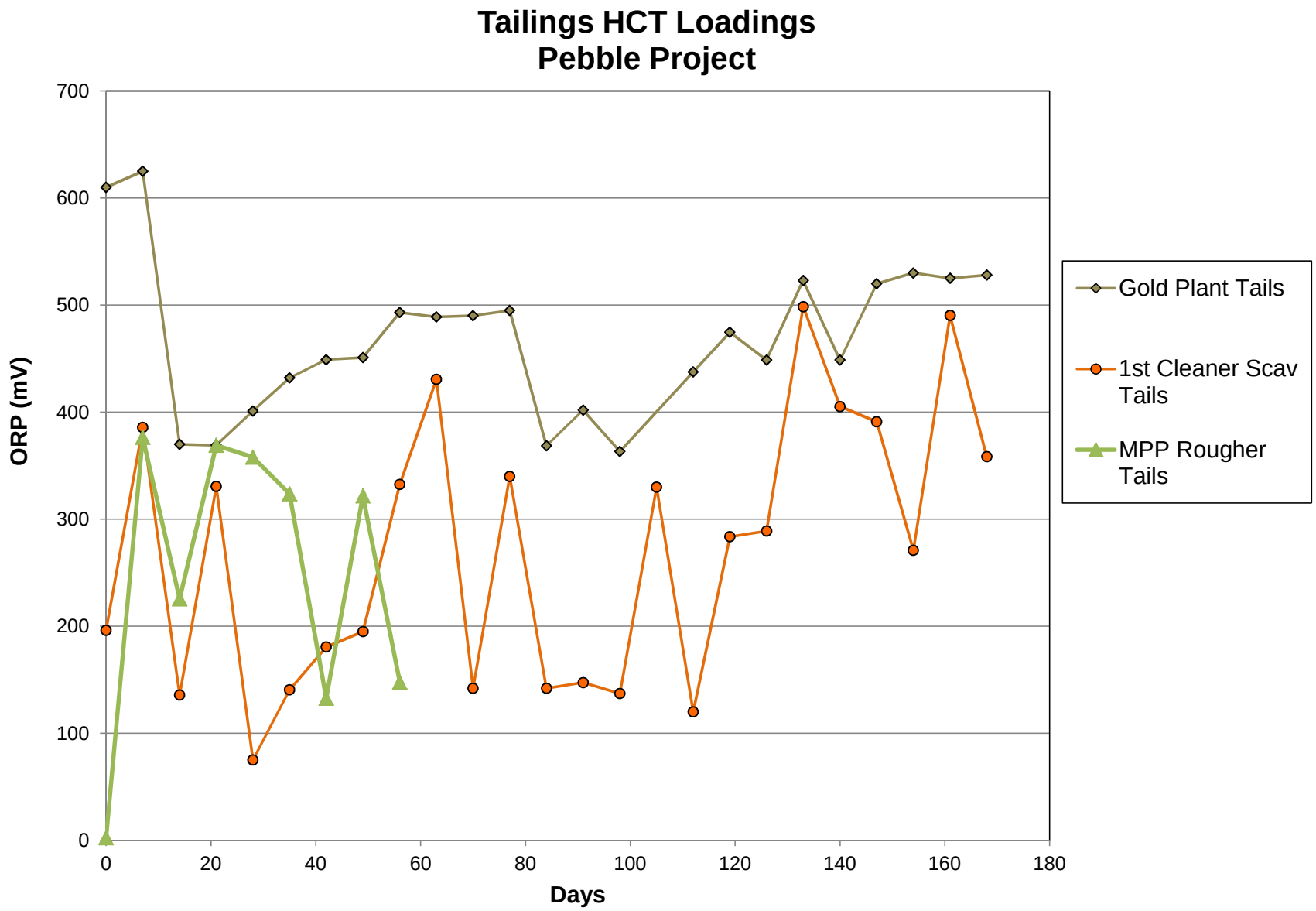

Tailings - HCT - Loadings
Pebble Project
Tl (mg/kg/wk)
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

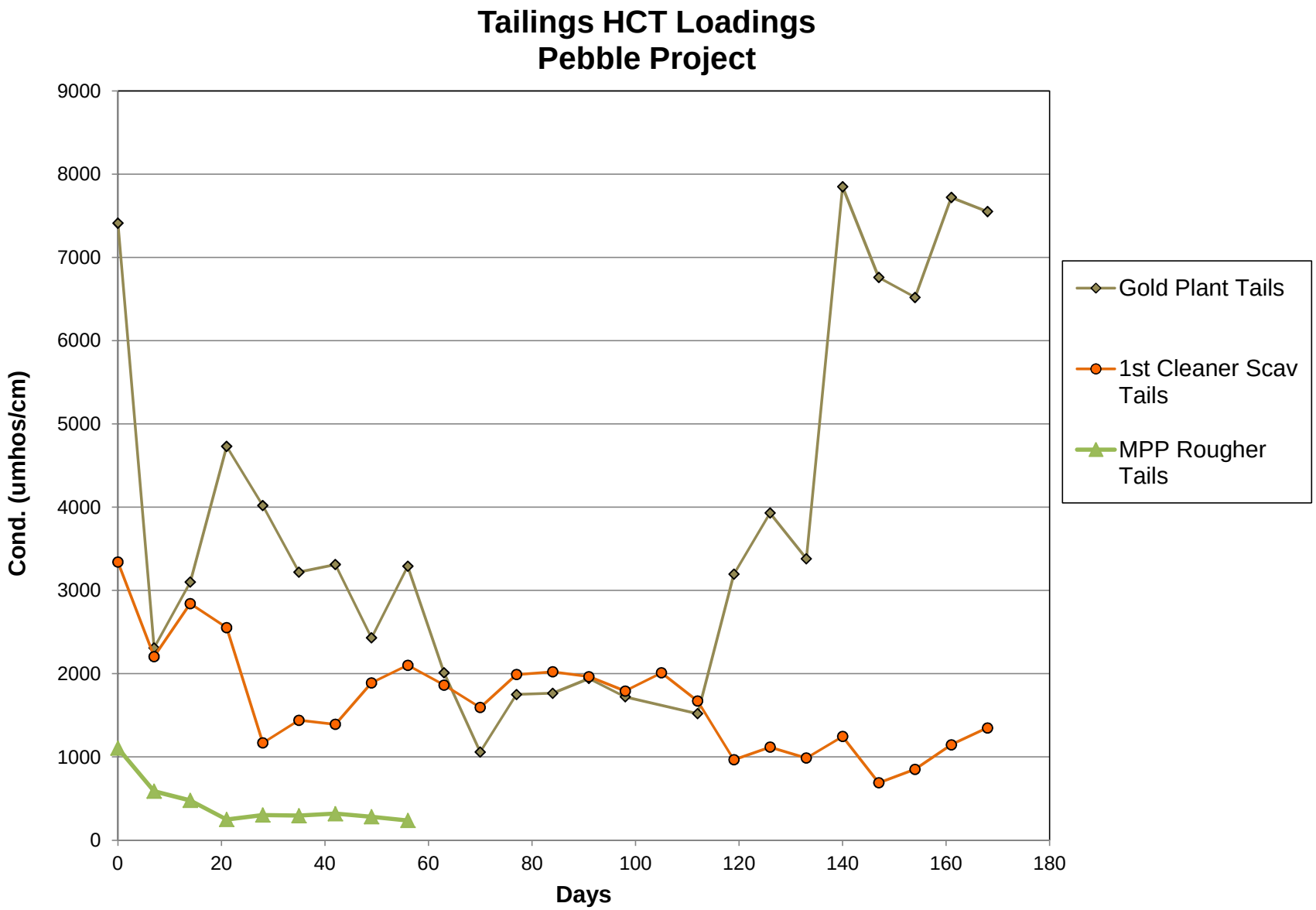

Tailings - HCT - Loadings
Pebble Project
Sn (mg/kg/wk)
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

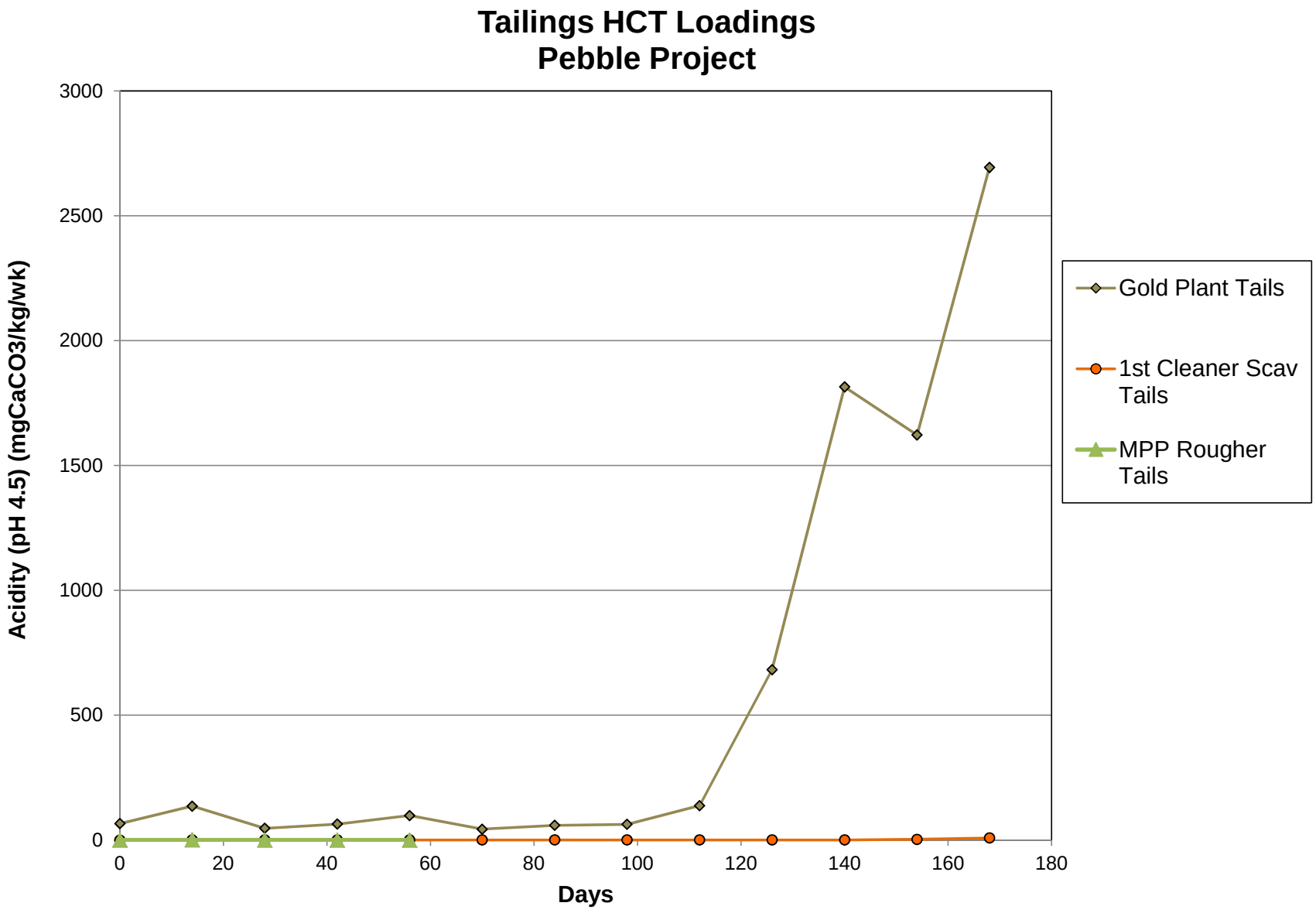

Tailings - HCT - Loadings
Pebble Project
V (mg/kg/wk)
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

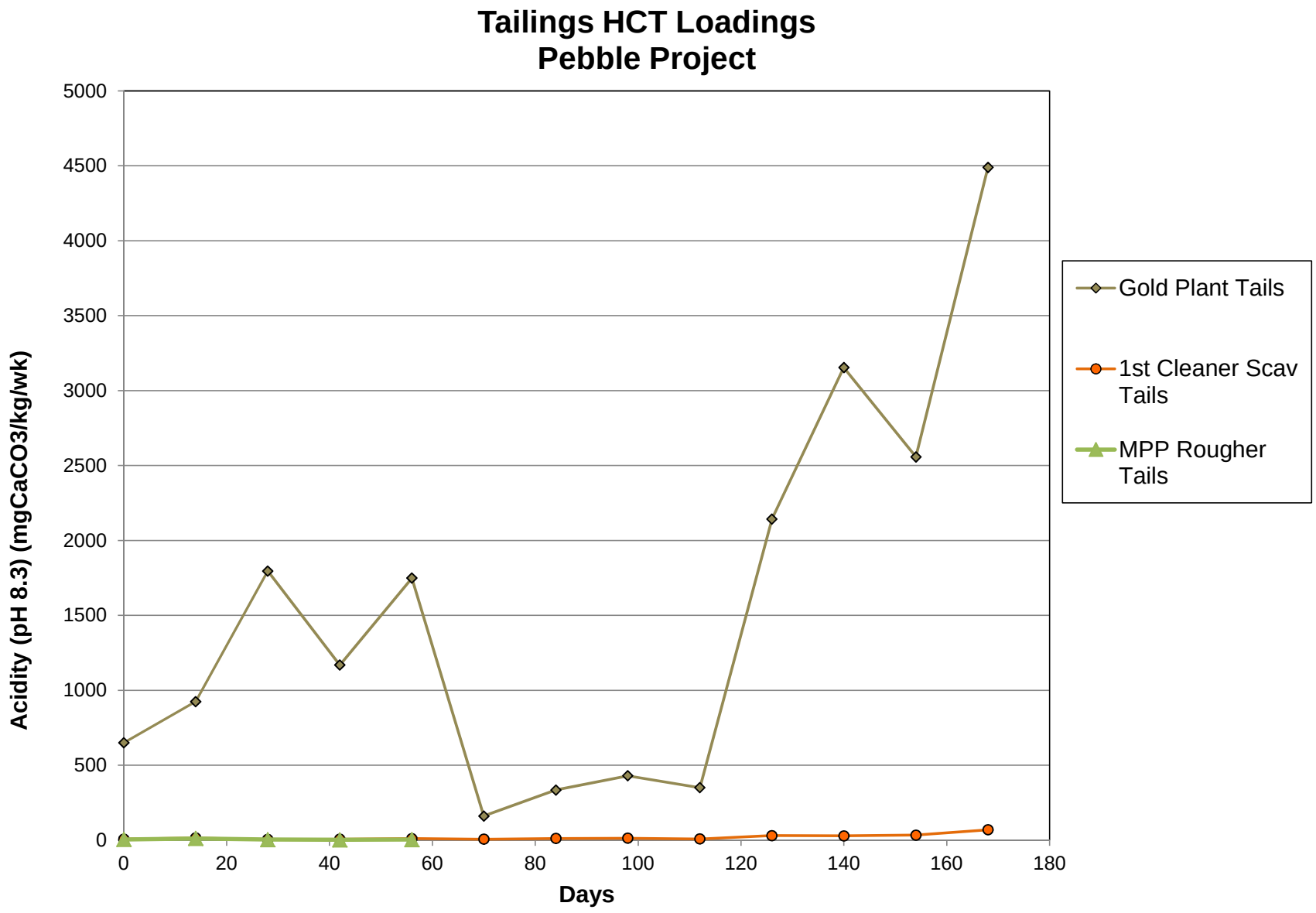

Tailings - HCT - Loadings
Pebble Project
Zn (mg/kg/wk)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
1200
1400
1600
1800
Days
Y-Bulk
Y Cyclone Overflow
Y Cyclone Sands
G-Bulk
G Cyclone Overflow
G Cyclone Sands
80G + 20Y Bulk
80G + 20Y - Cyclone O/F
80G 20Y - Cyclone U/F
H - Bulk Cleaner Tails
H - Pyrite Rougher Tails
H - Bulk Scav Tails - as is
H - Bulk Scav Tails - Slimes
H - Bulk Scav Tails - Sands

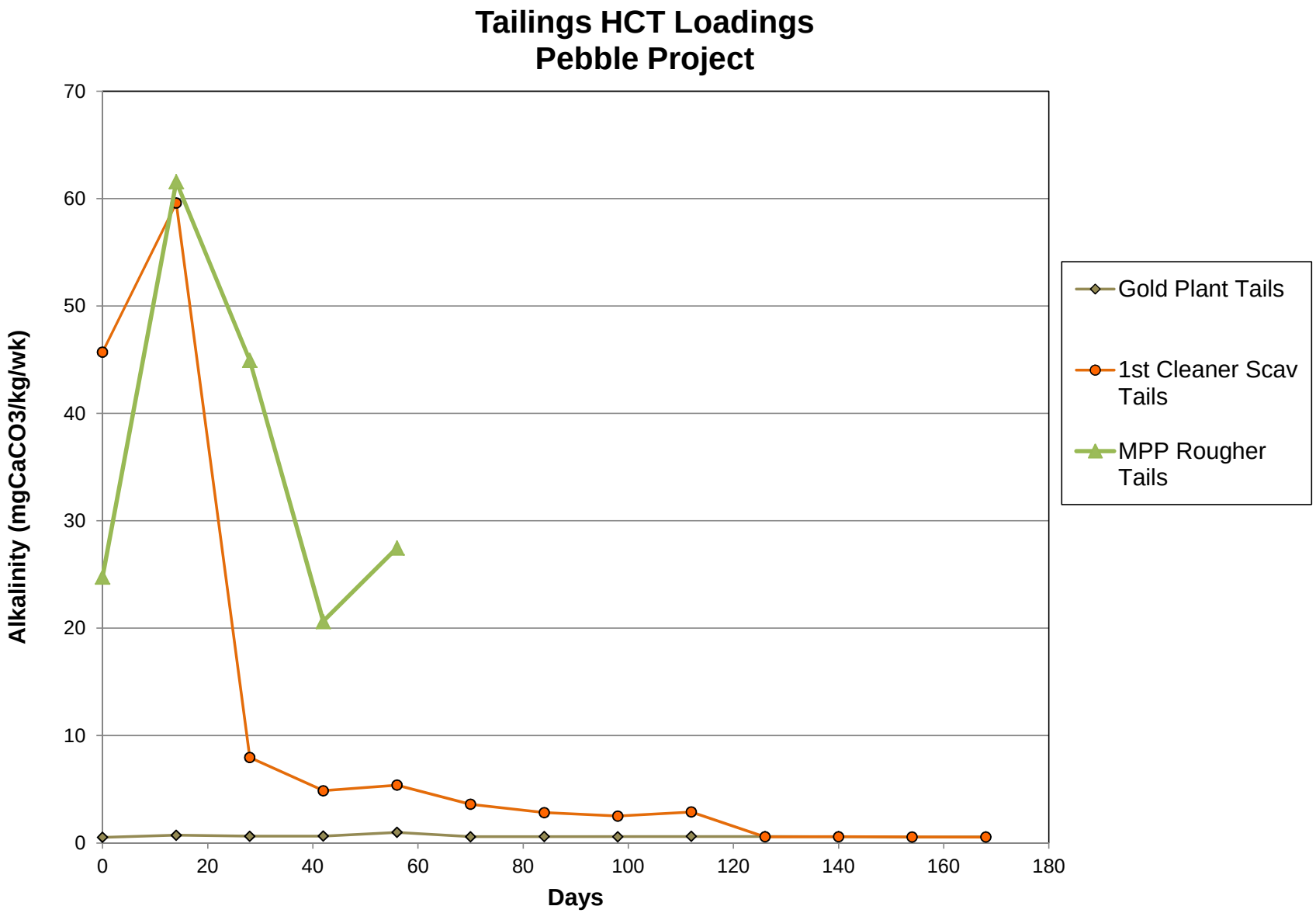

Tailings HCT Loadings
Pebble Project
pH
Days
0
1
2
3
4
5
6
7
8
9
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

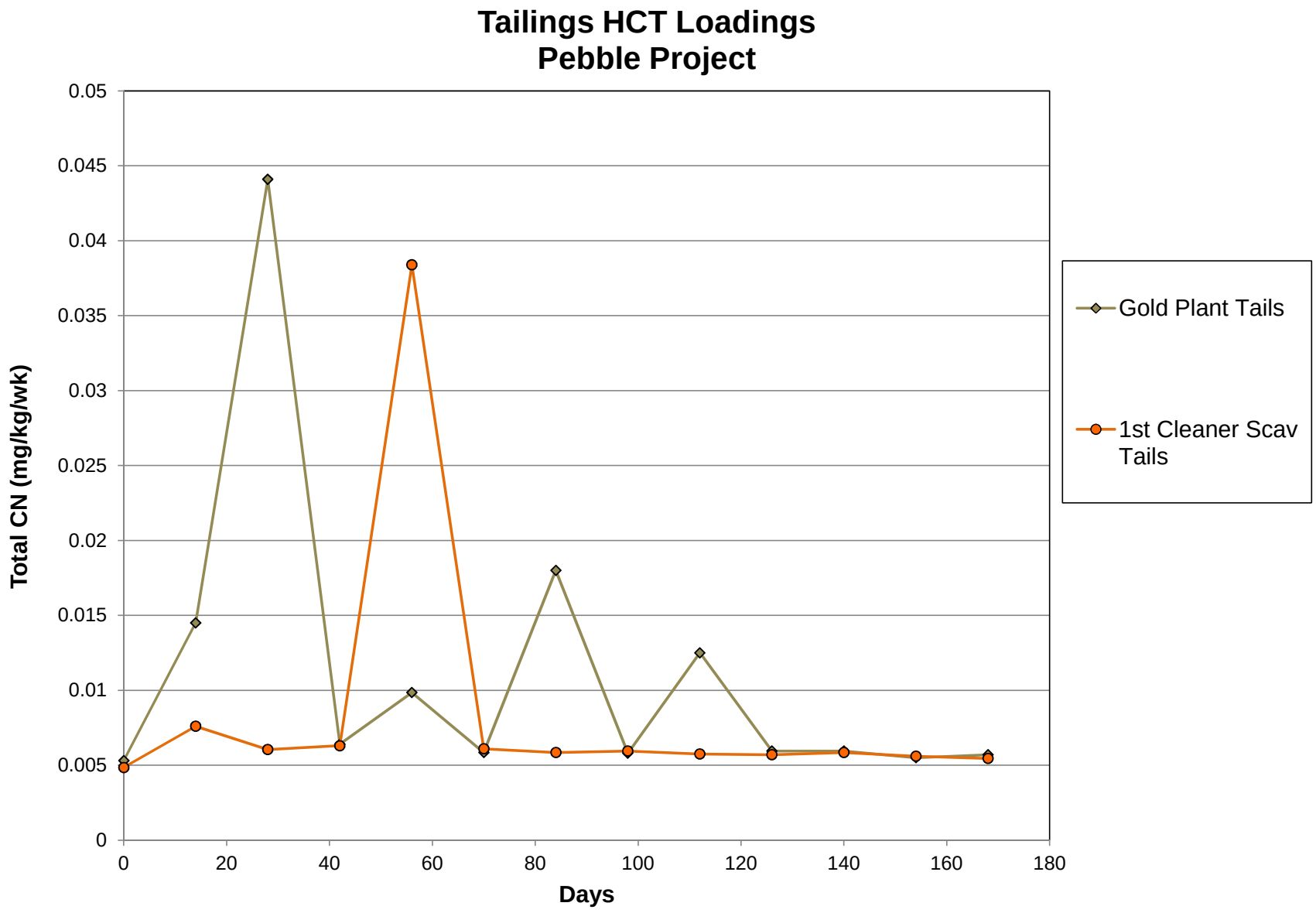

Tailings HCT Loadings
Pebble Project
ORP (mV)
700
600
500
400
300
200
100
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

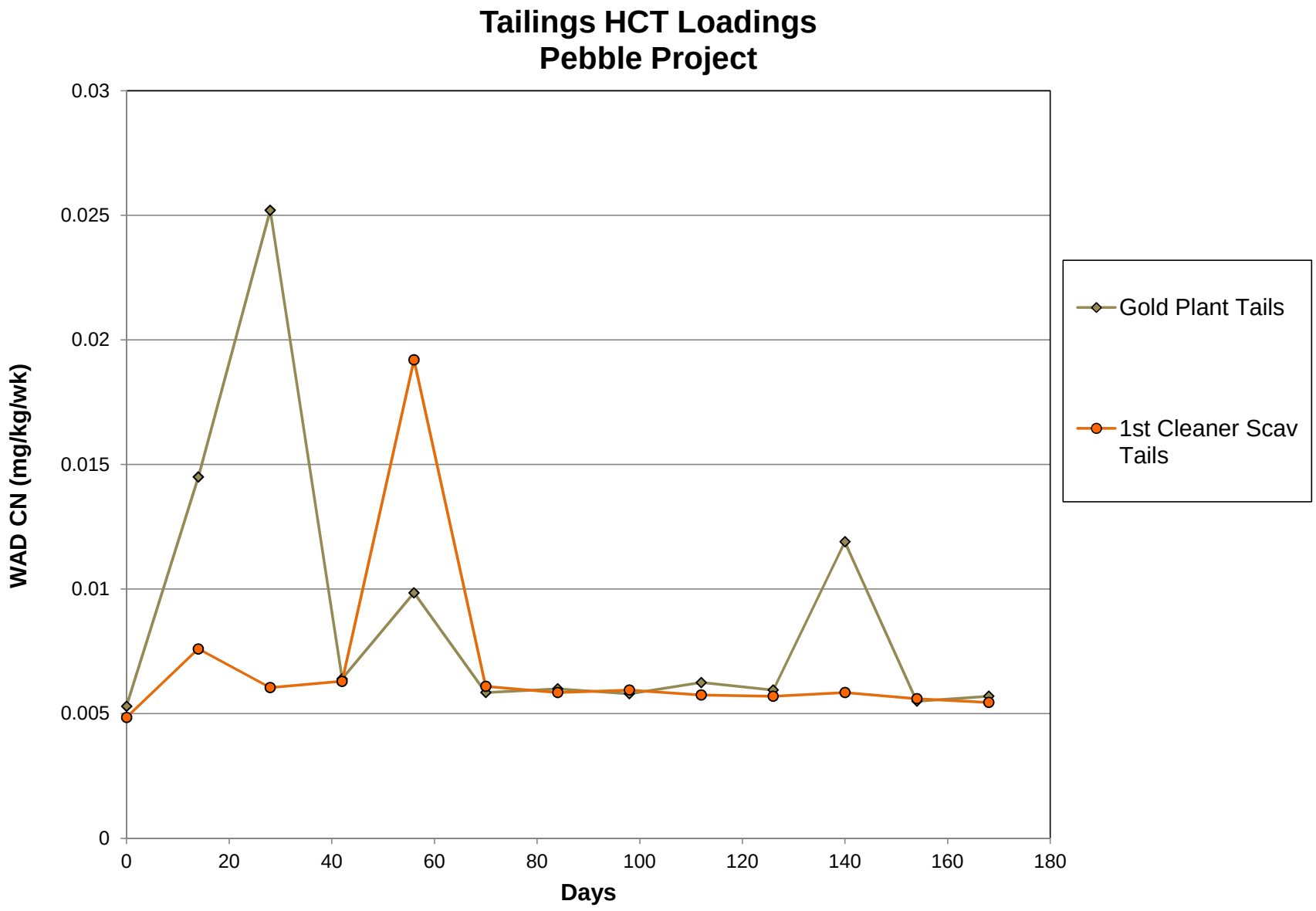

Tailings HCT Loadings
Pebble Project
Cond. (umhos/cm)
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

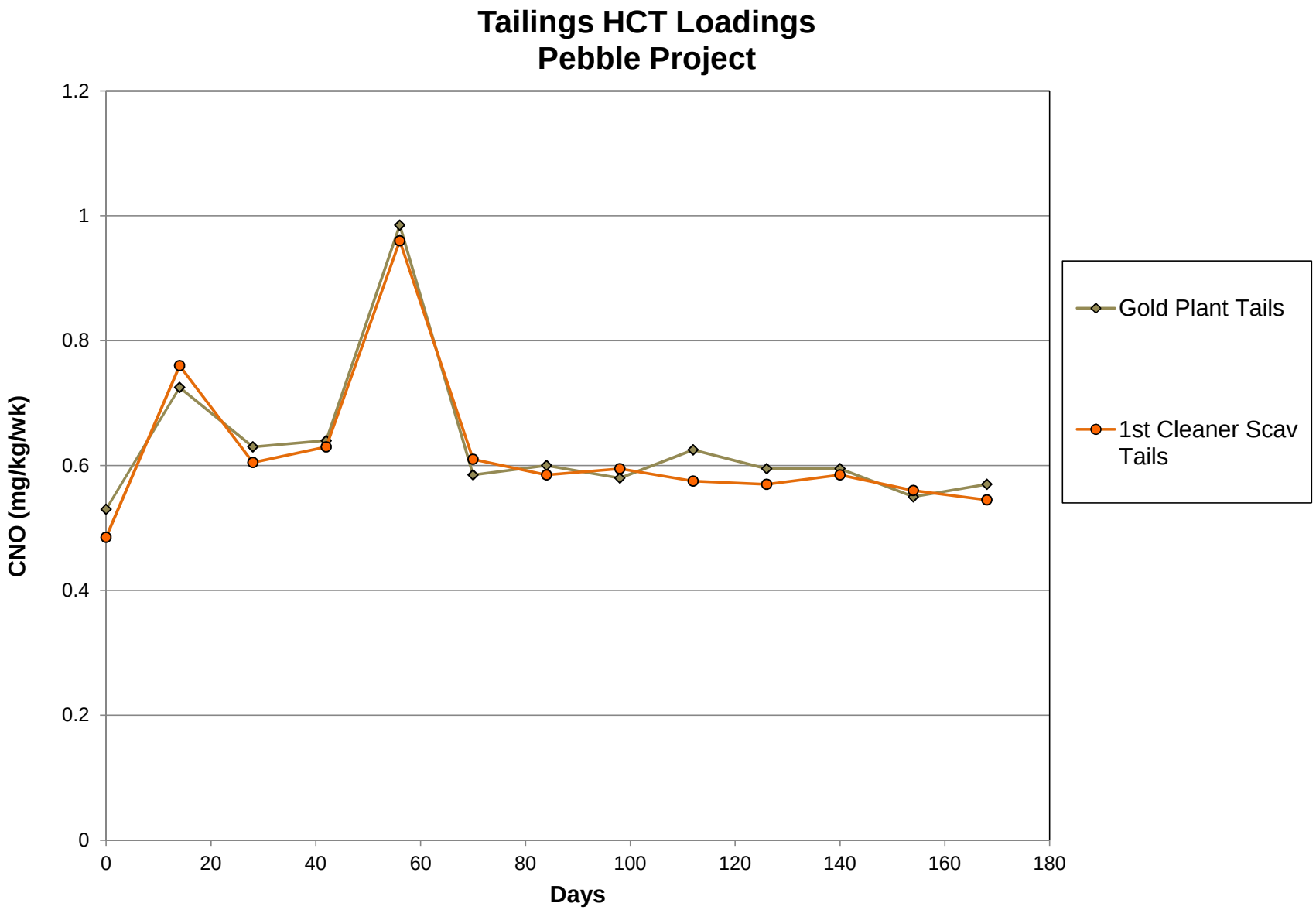

Tailings HCT Loadings
Pebble Project
Acidity (pH 4.5) (mgCaCO3/kg/wk)
3000
2500
2000
1500
1000
500
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

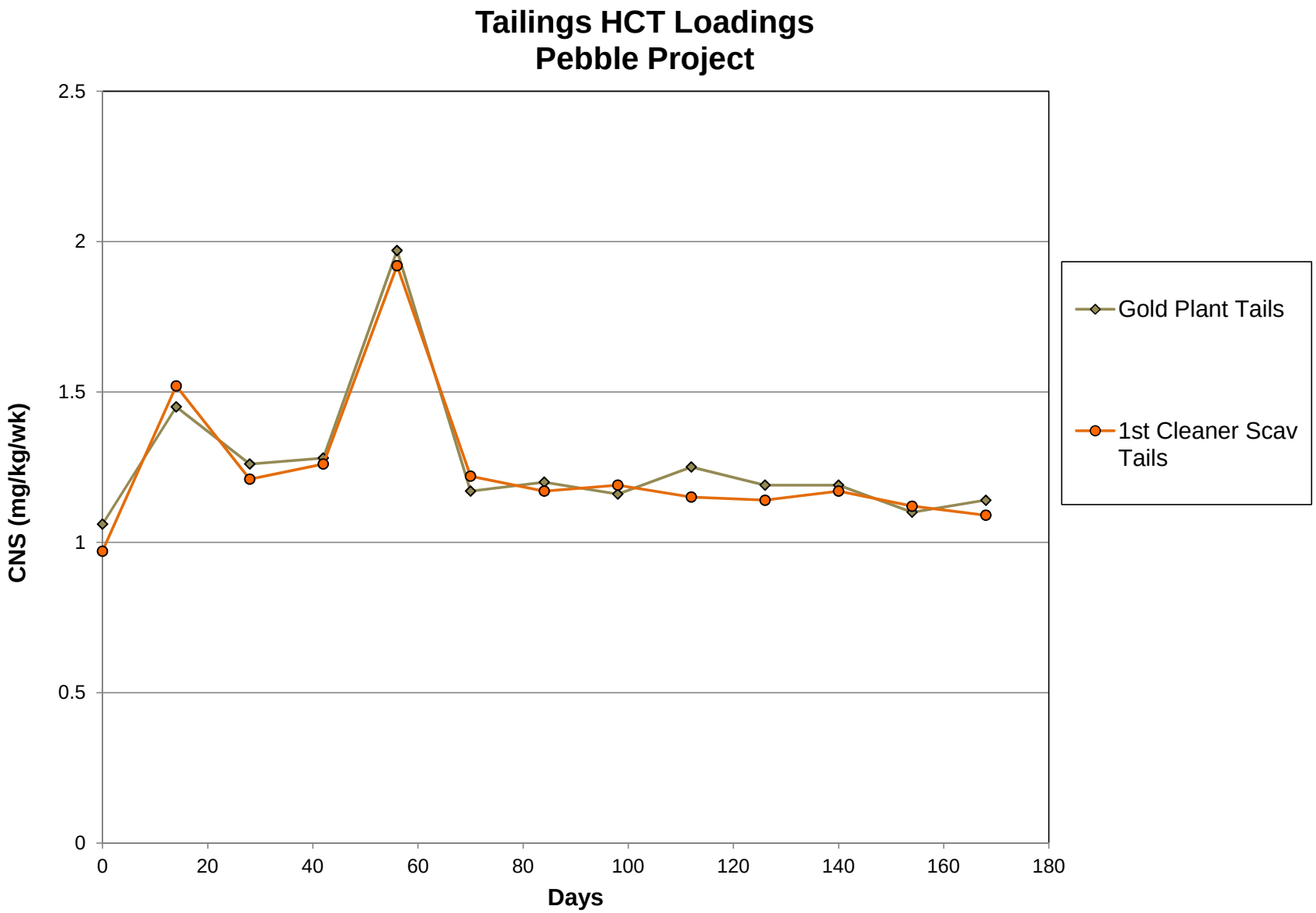

Tailings HCT Loadings
Pebble Project
Acidity (pH 8.3) (mgCaCO3/kg/wk)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

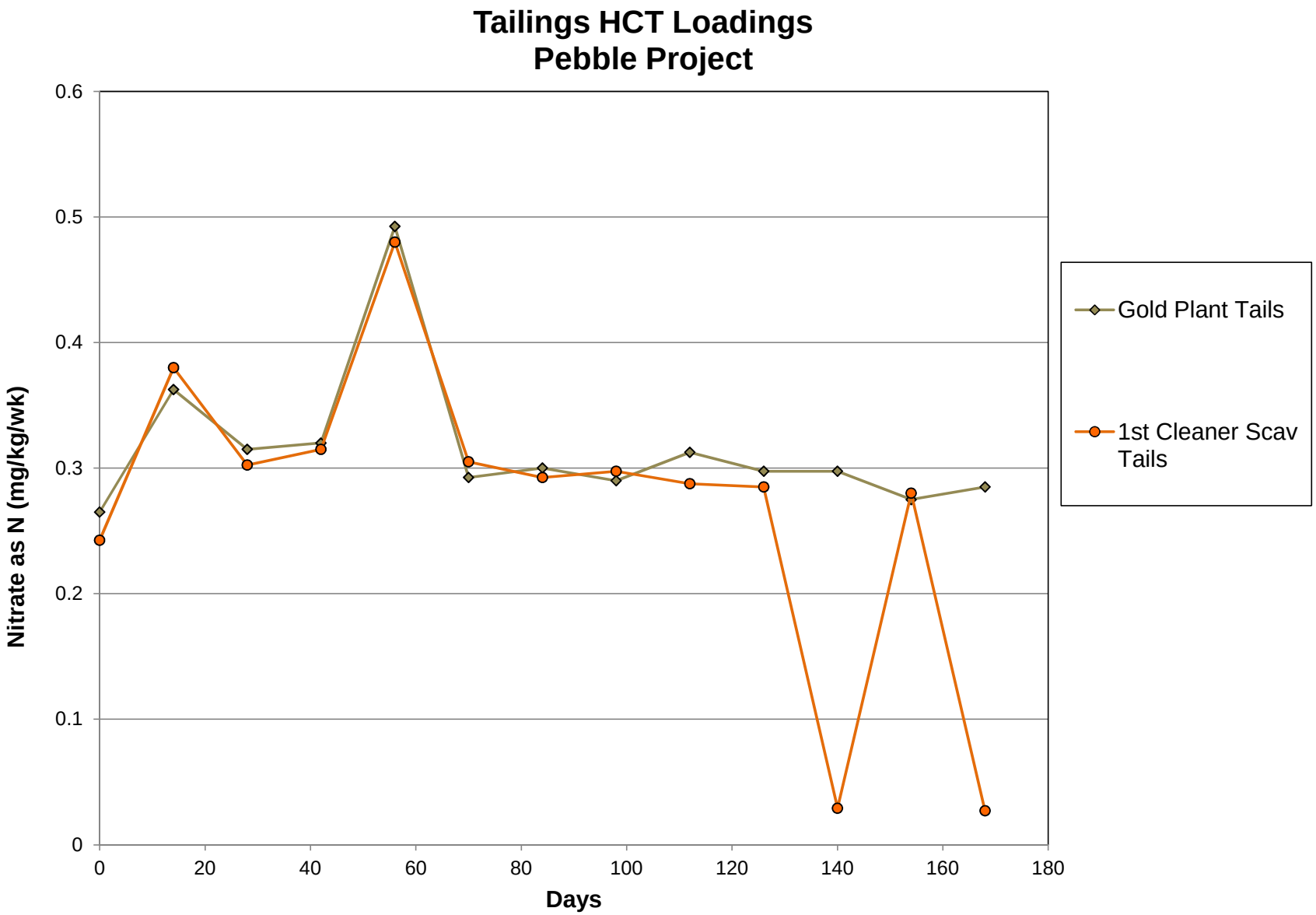

Tailings HCT Loadings
Pebble Project
Alkalinity (mgCaCO3/kg/wk)
70
60
50
40
30
20
10
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

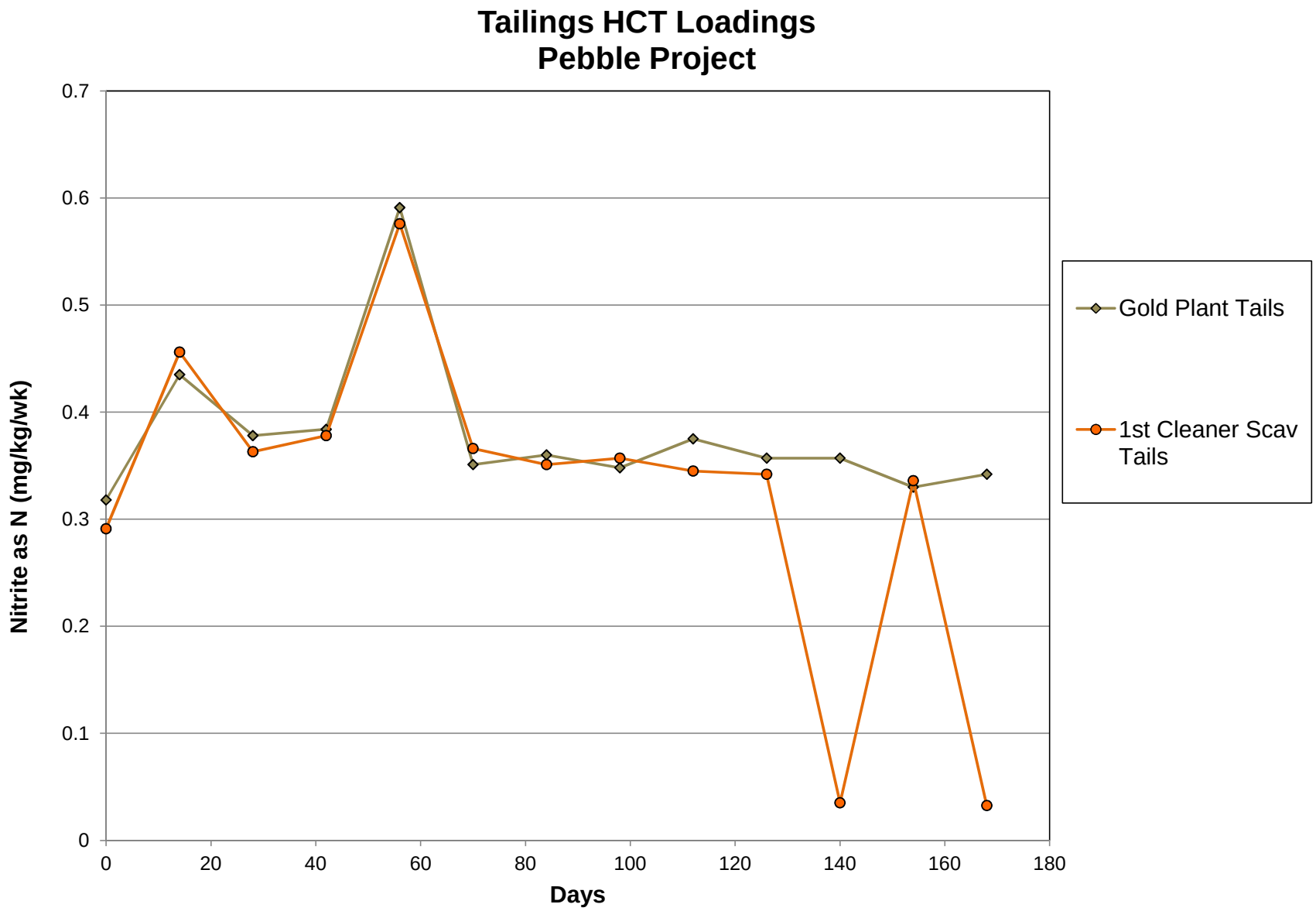

Tailings HCT Loadings
Pebble Project
Total CN (mg/kg/wk)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

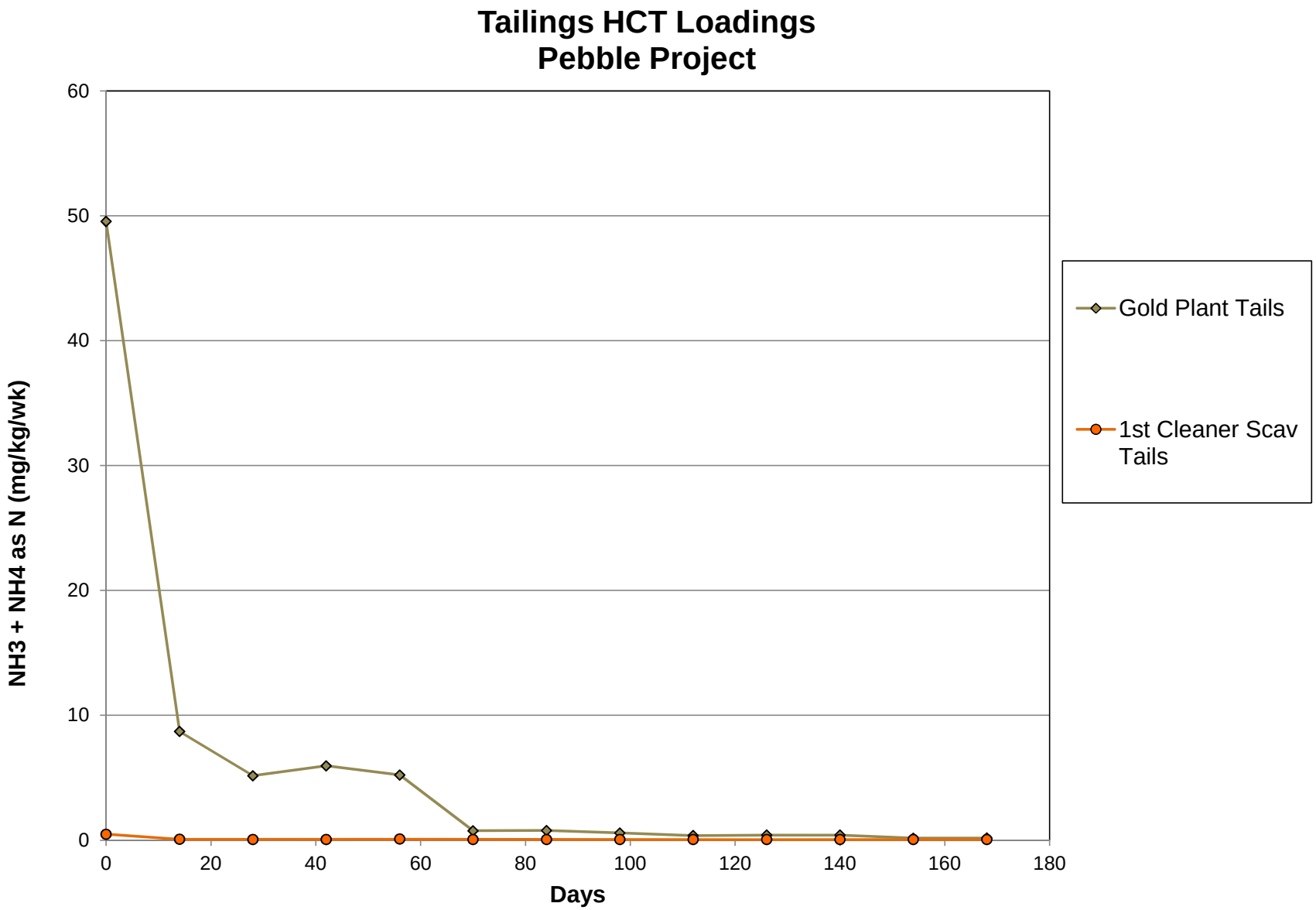

Tailings HCT Loadings
Pebble Project
WAD CN (mg/kg/wk)
0.03
0.025
0.02
0.015
0.01
0.005
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

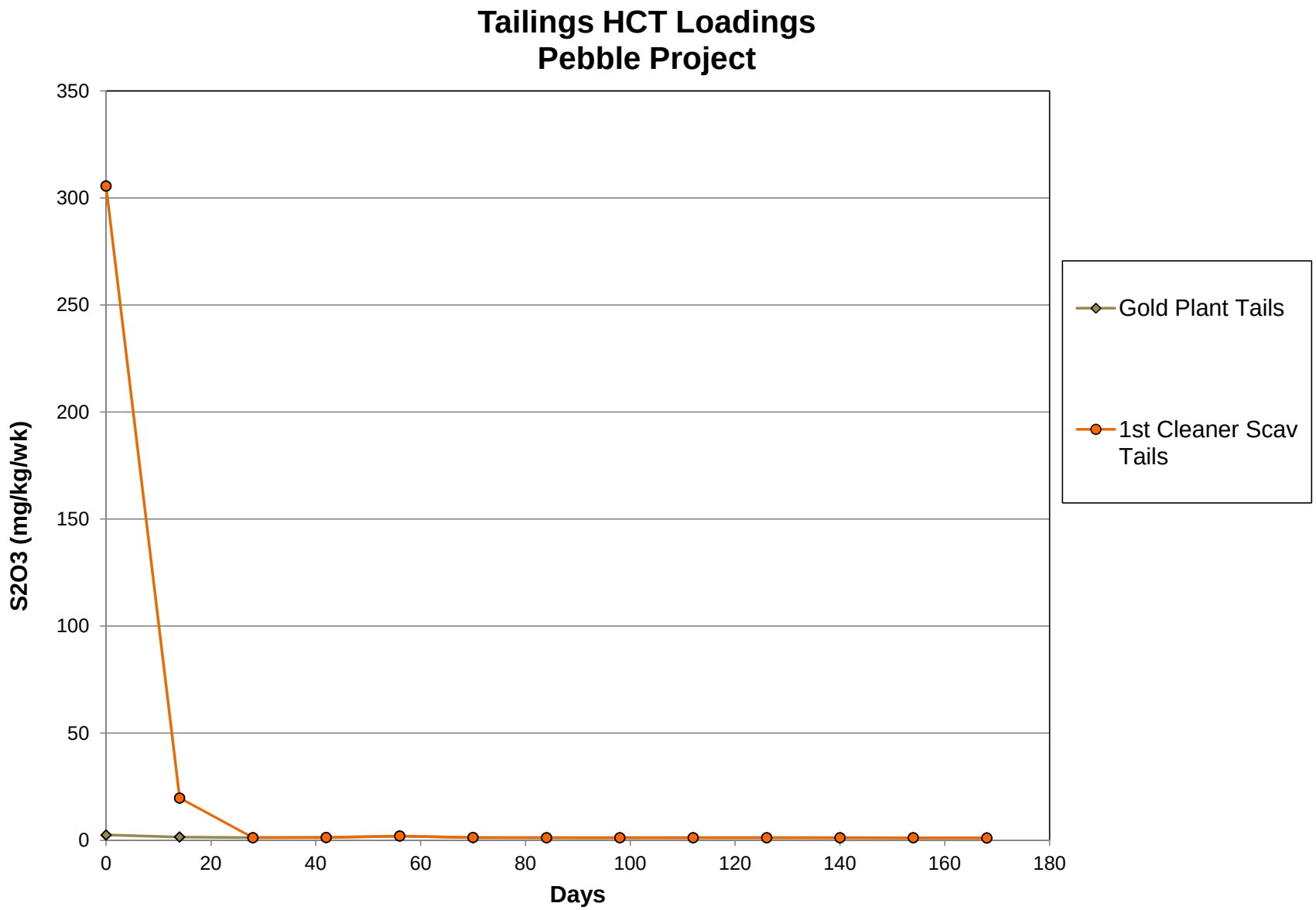

Tailings HCT Loadings
Pebble Project
CNO (mg/kg/wk)
1.2
1
0.8
0.6
0.4
0.2
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

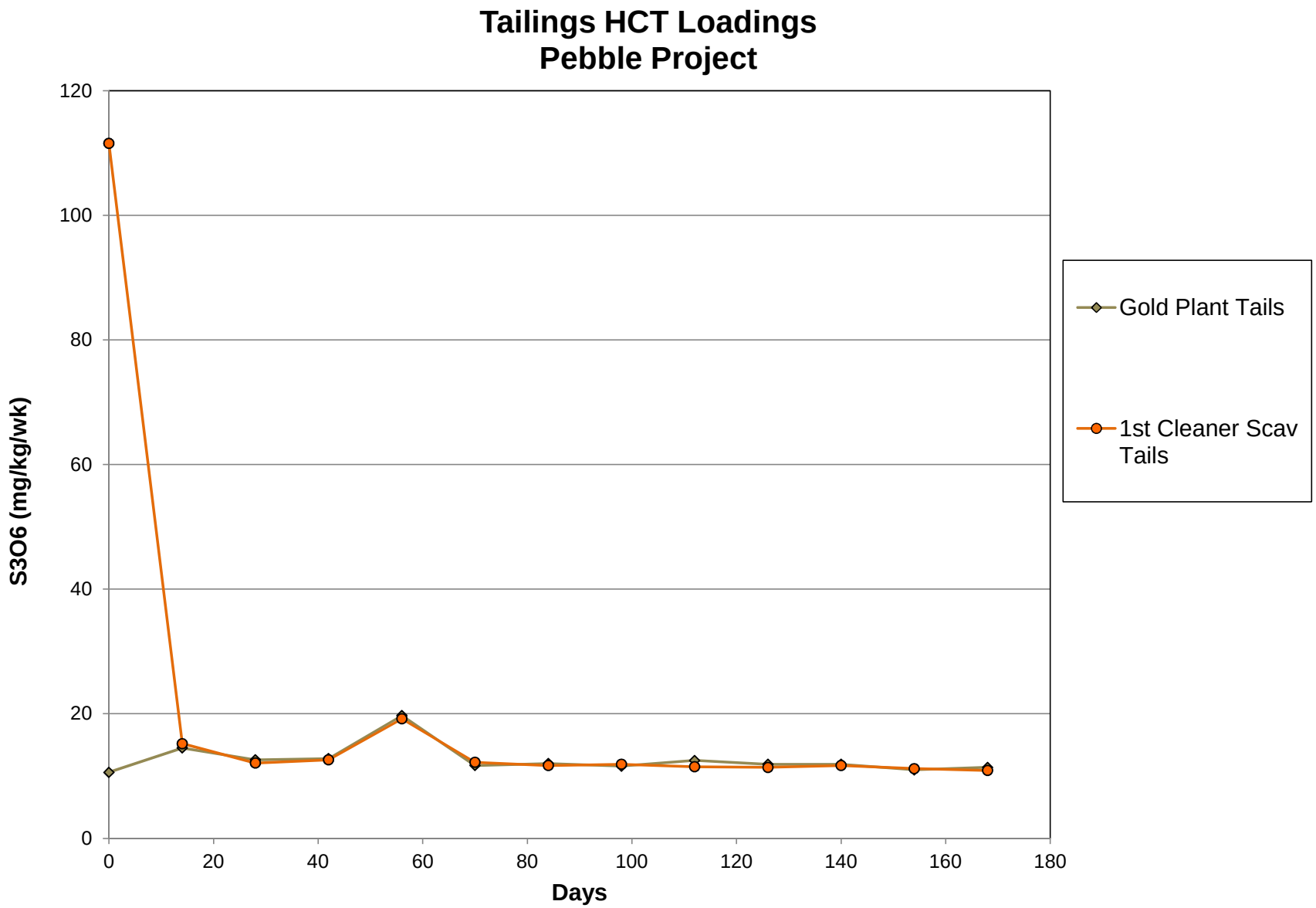

Tailings HCT Loadings
Pebble Project
CNS (mg/kg/wk)
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

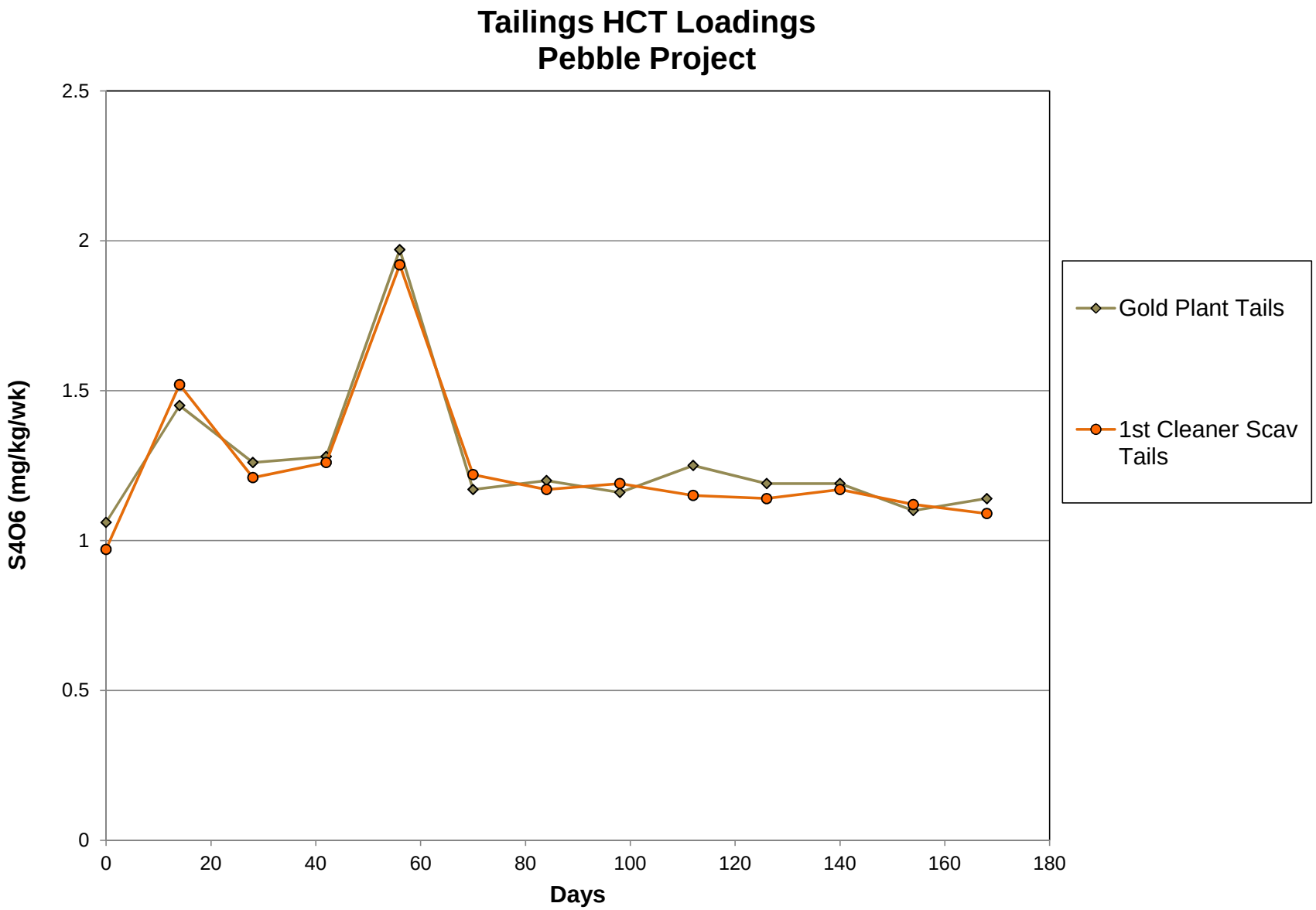

Tailings HCT Loadings
Pebble Project
Nitrate as N (mg/kg/wk)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

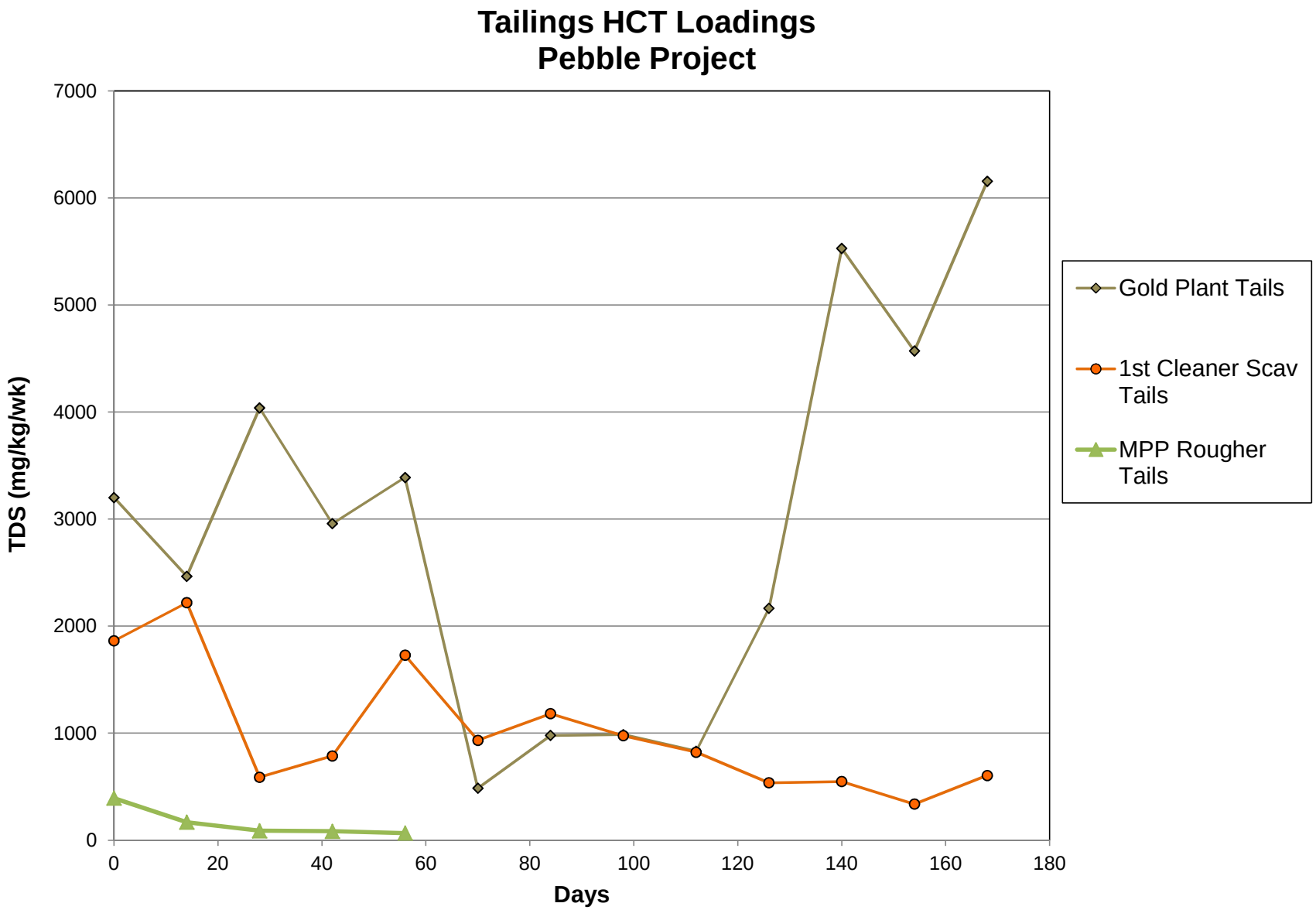

Tailings HCT Loadings
Pebble Project
Nitrite as N (mg/kg/wk)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

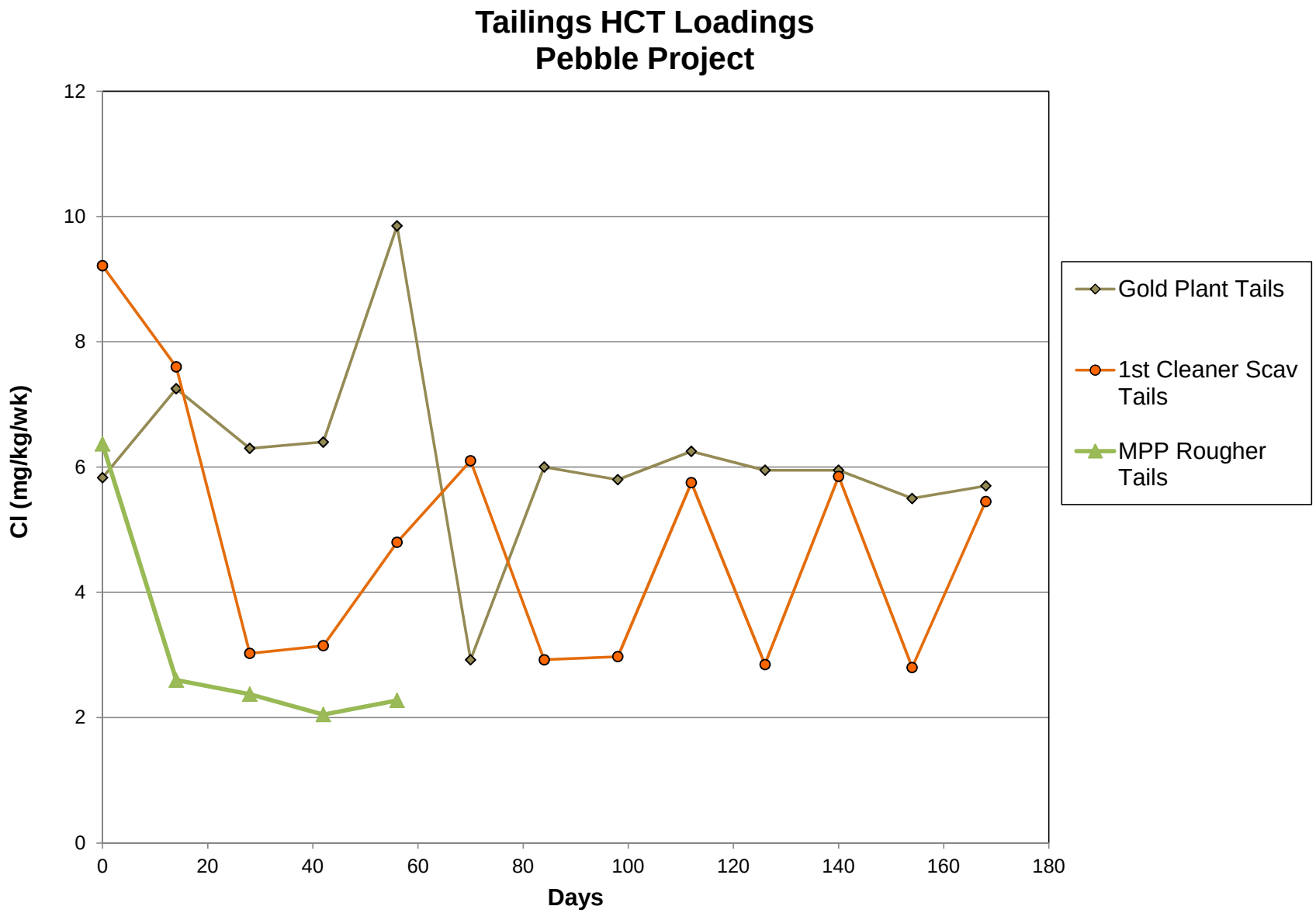

Tailings HCT Loadings
Pebble Project
NH3 + NH4 as N (mg/kg/wk)
60
50
40
30
20
10
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

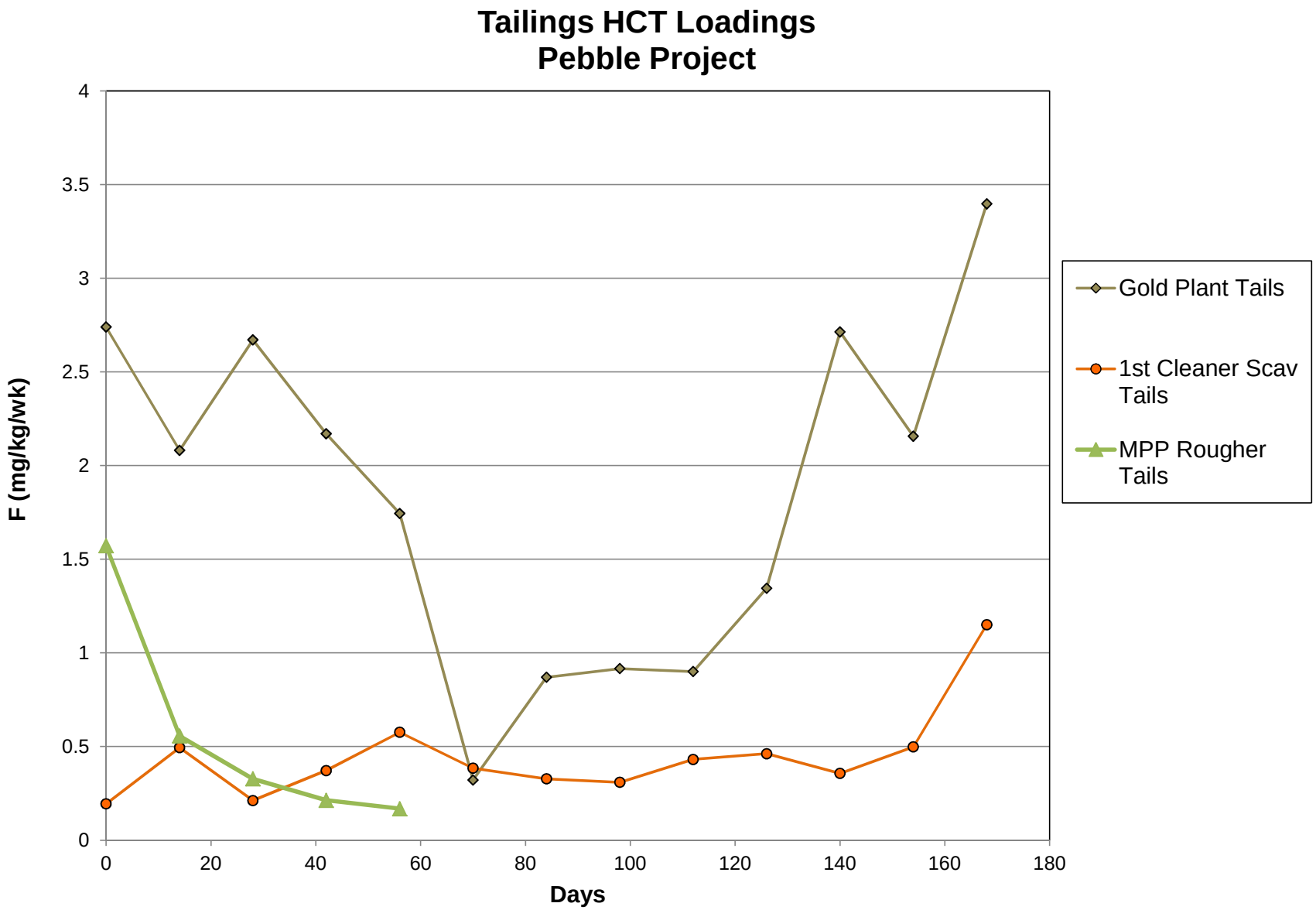

Tailings HCT Loadings
Pebble Project
S2O3 (mg/kg/wk)
350
300
250
200
150
100
50
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

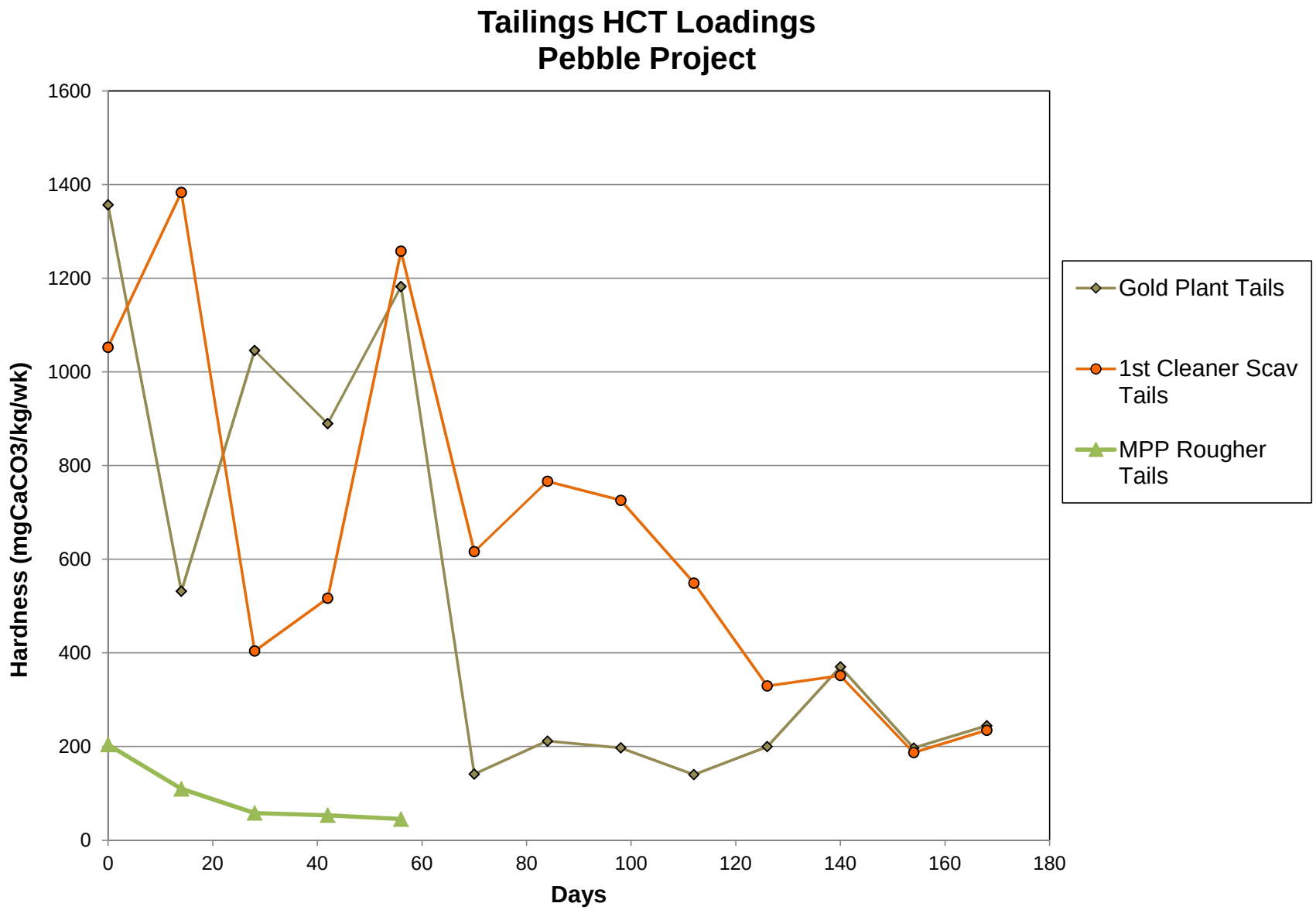

Tailings HCT Loadings
Pebble Project
S3O6 (mg/kg/wk)
120
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

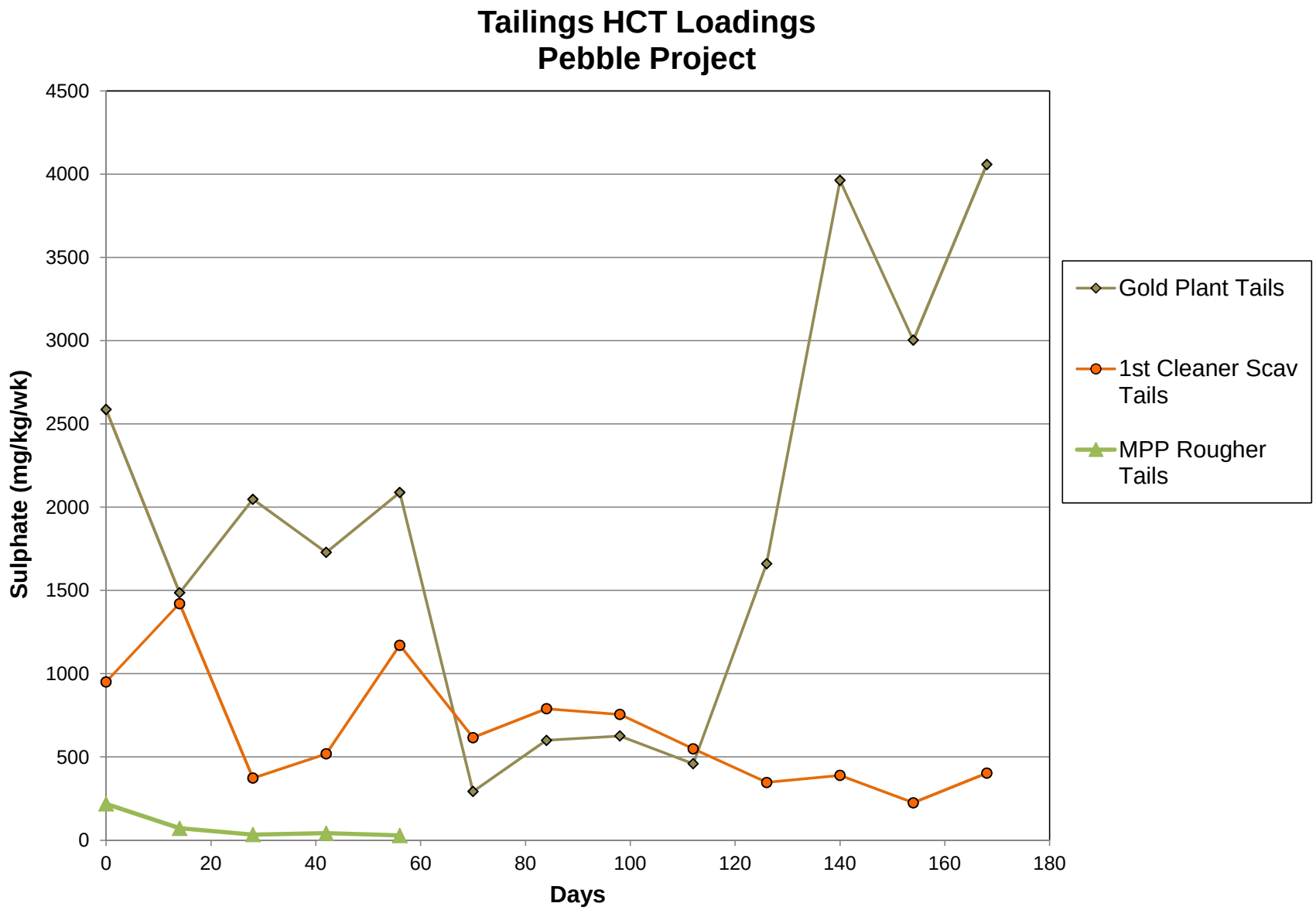

Tailings HCT Loadings
Pebble Project
S4O6 (mg/kg/wk)
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails

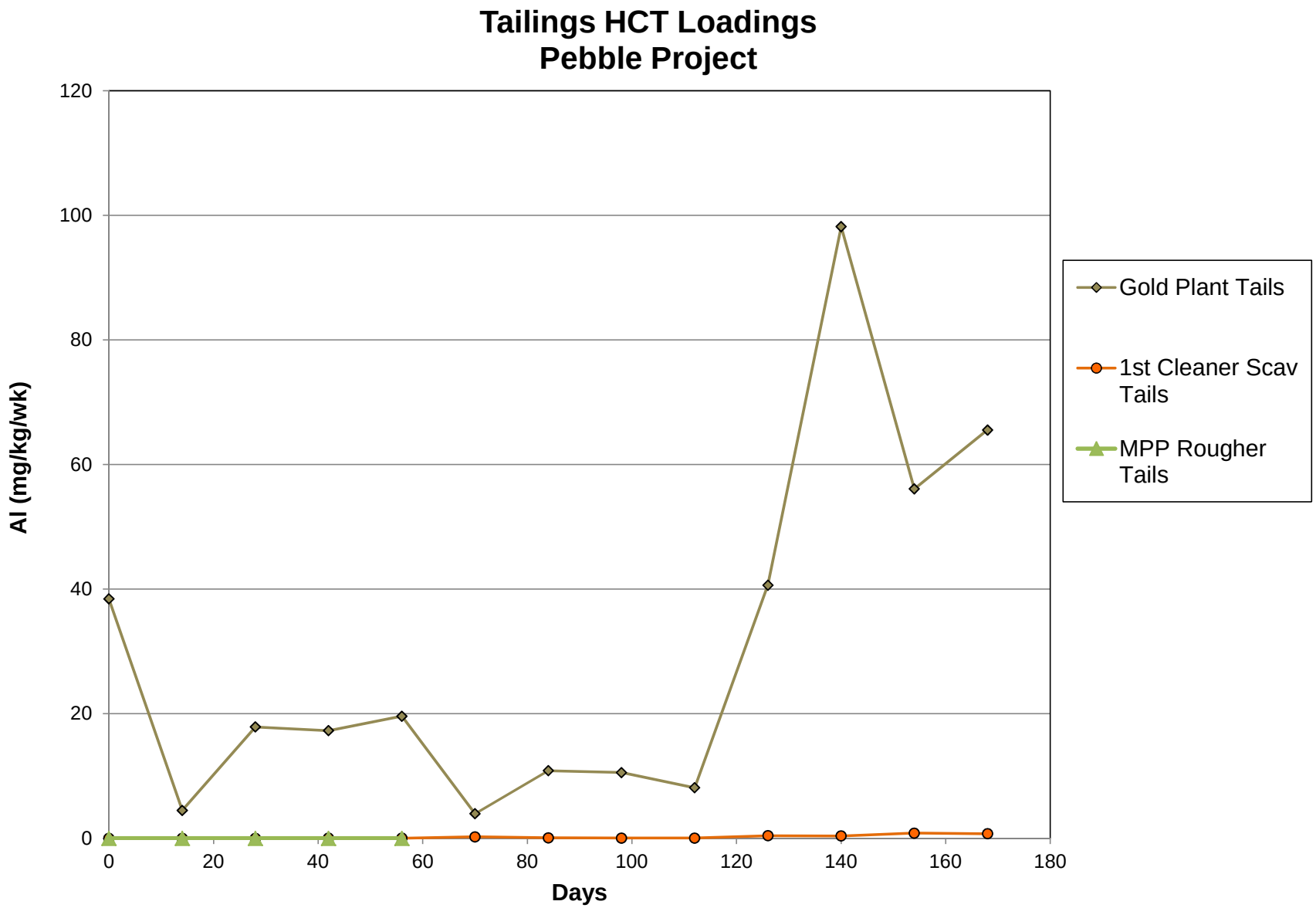

Tailings HCT Loadings
Pebble Project
TDS (mg/kg/wk)
7000
6000
5000
4000
3000
2000
1000
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

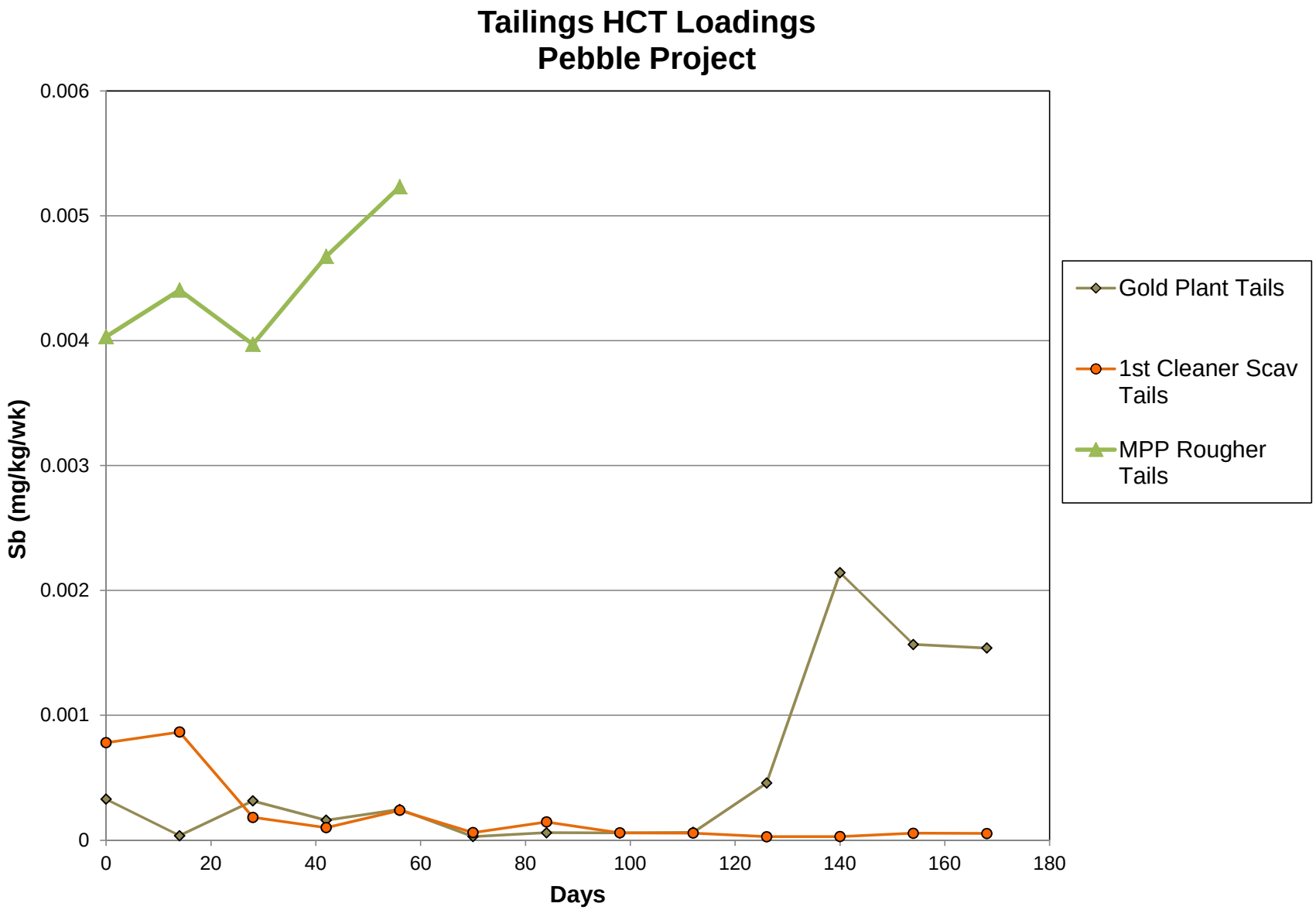

Tailings HCT Loadings
Pebble Project
Cl (mg/kg/wk)
Days
0
2
4
6
8
10
12
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

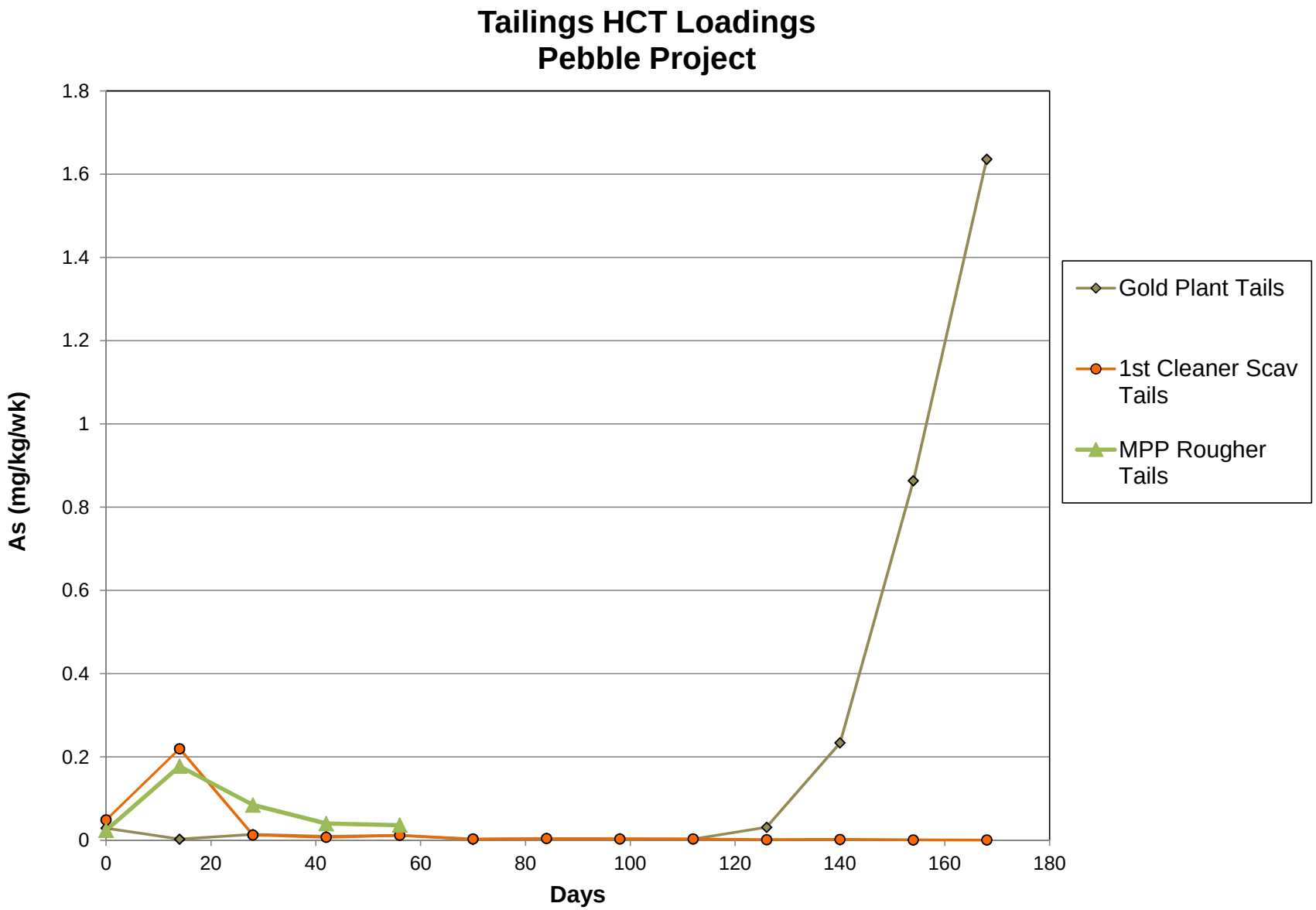

Tailings HCT Loadings
Pebble Project
F (mg/kg/wk)
Days
0
0.5
1
1.5
2
2.5
3
3.5
4
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

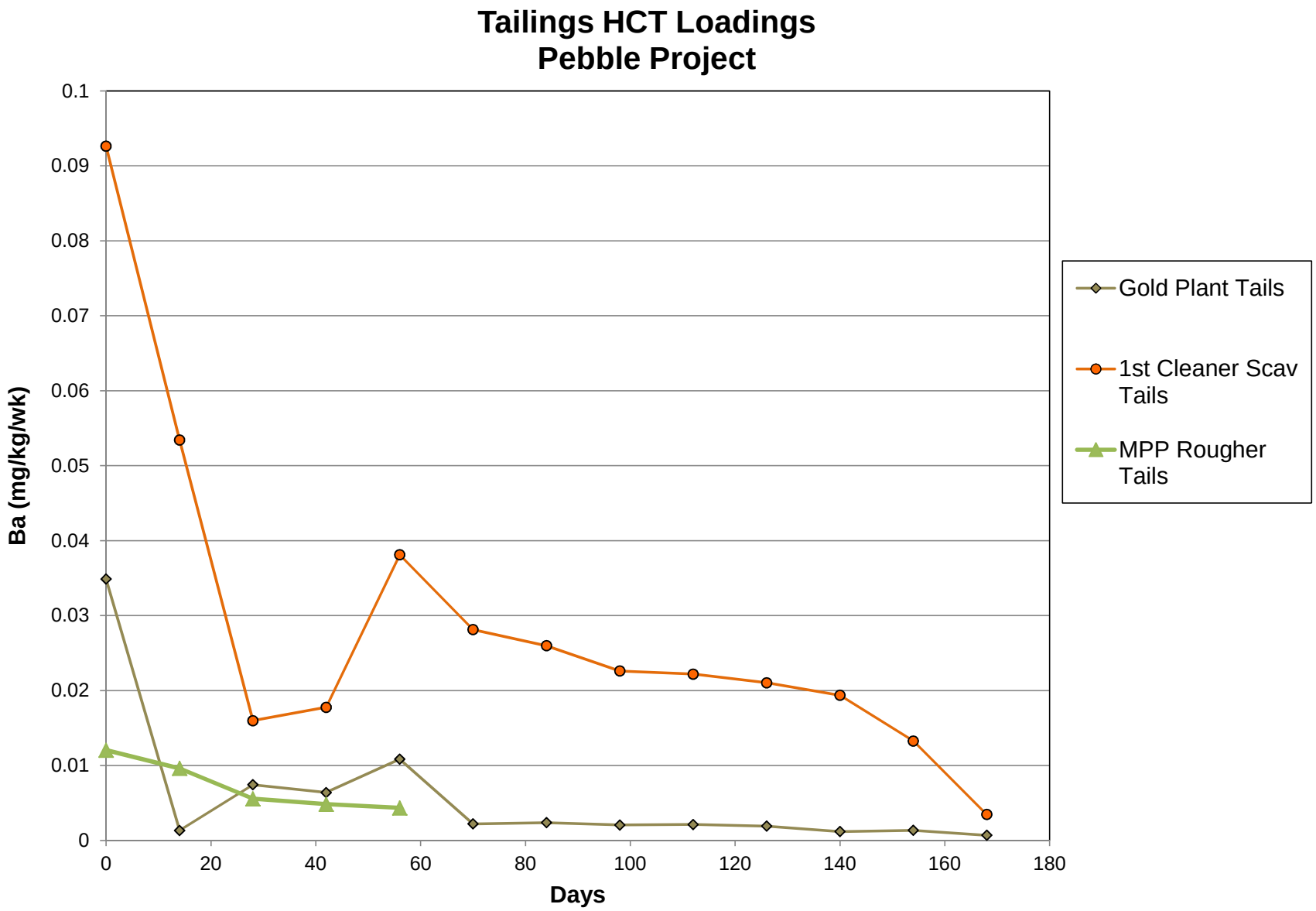

Tailings HCT Loadings
Pebble Project
Hardness (mgCaCO3/kg/wk)
1600
1400
1200
1000
800
600
400
200
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

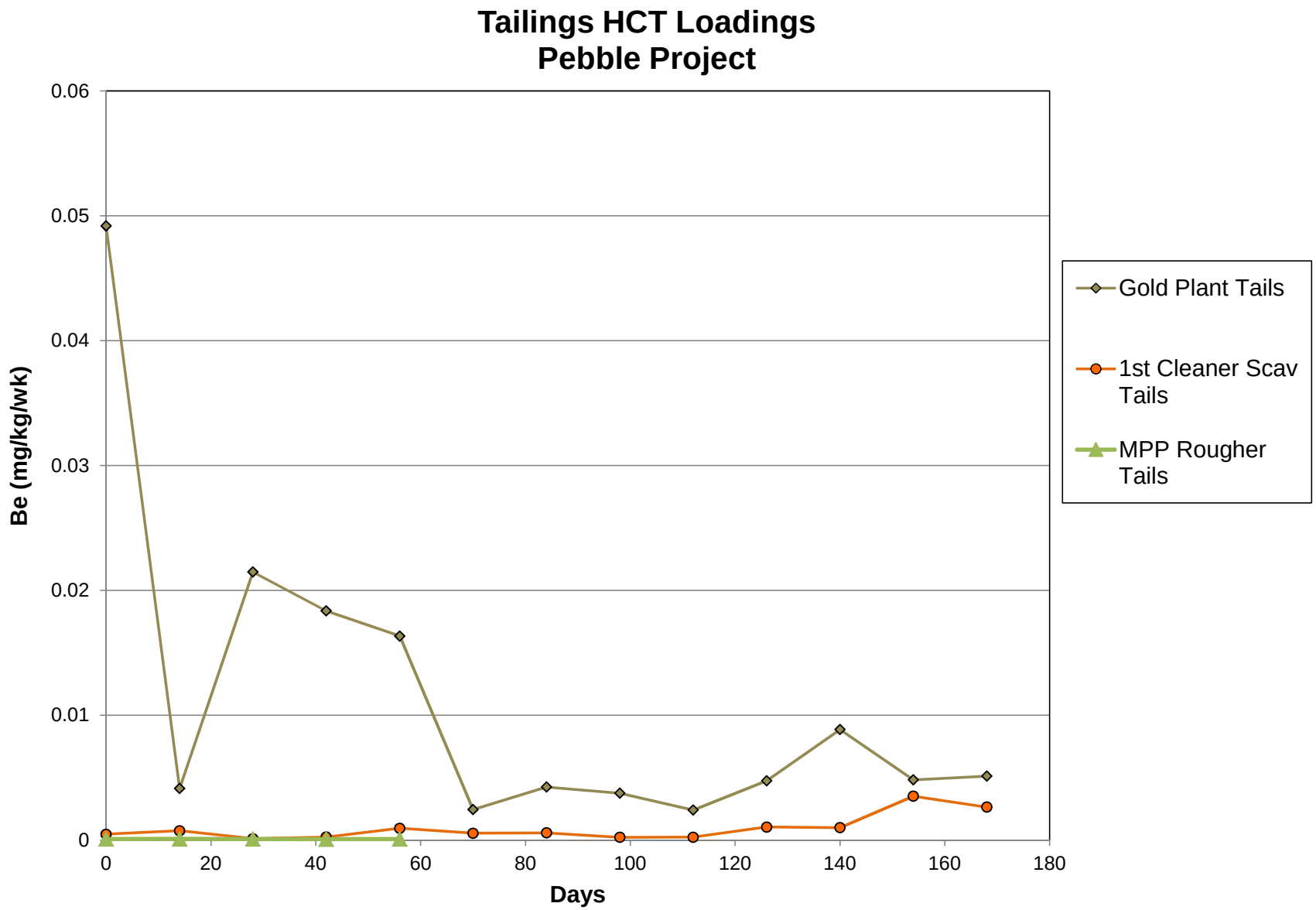

Tailings HCT Loadings
Pebble Project
Sulphate (mg/kg/wk)
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

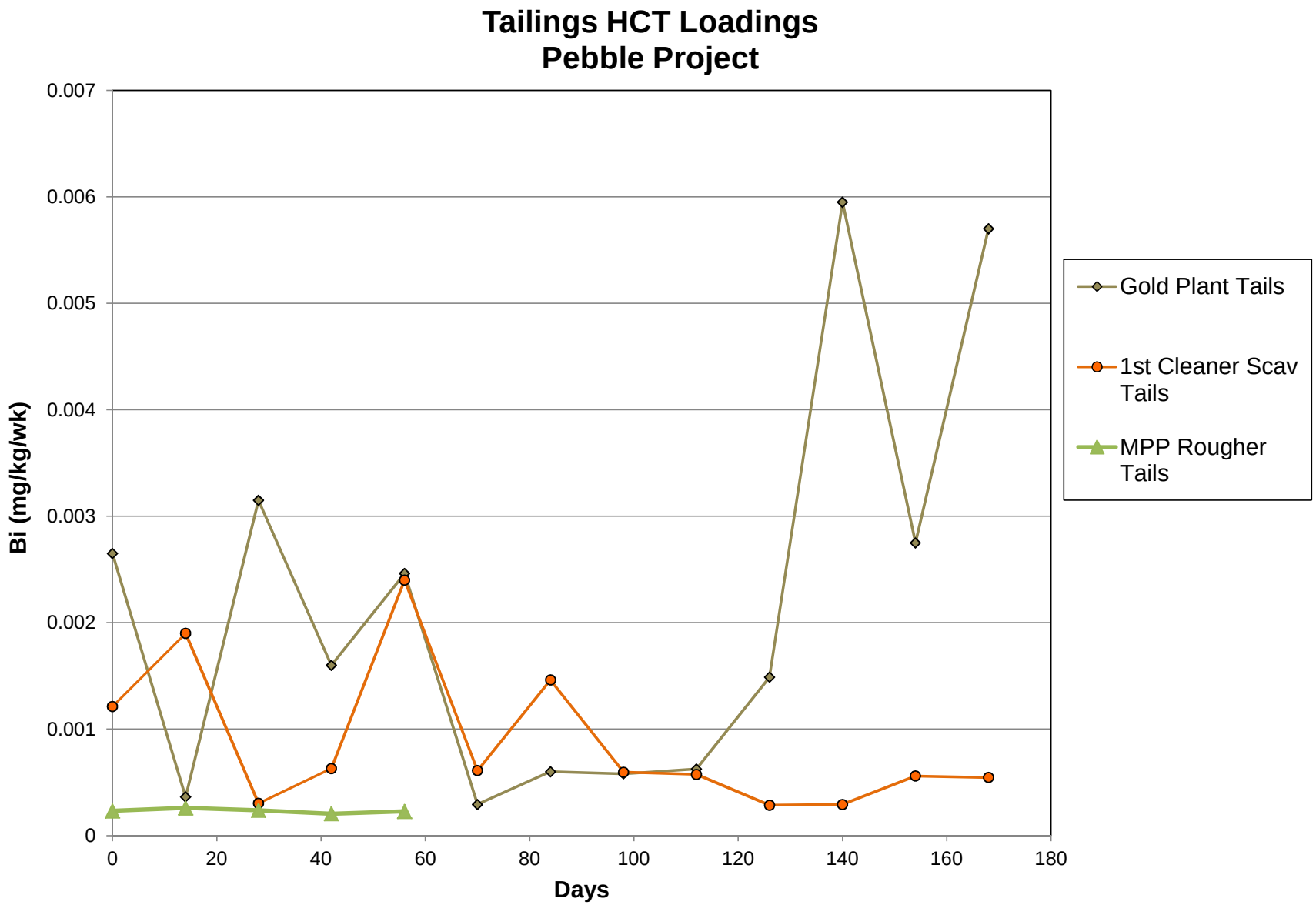

Tailings HCT Loadings
Pebble Project
Al (mg/kg/wk)
Days
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

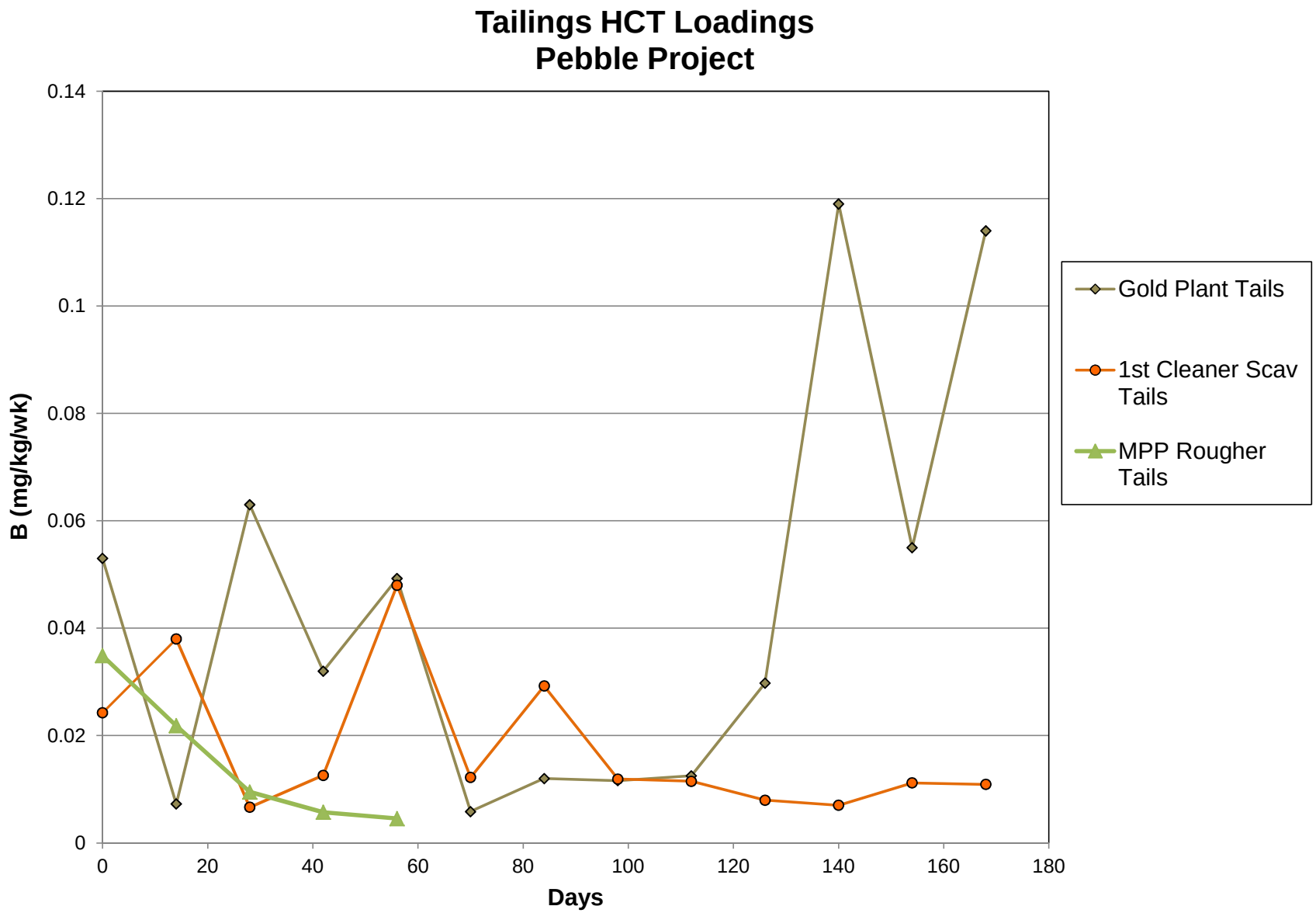

Tailings HCT Loadings
Pebble Project
Sb (mg/kg/wk)
0.006
0.005
0.004
0.003
0.002
0.001
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

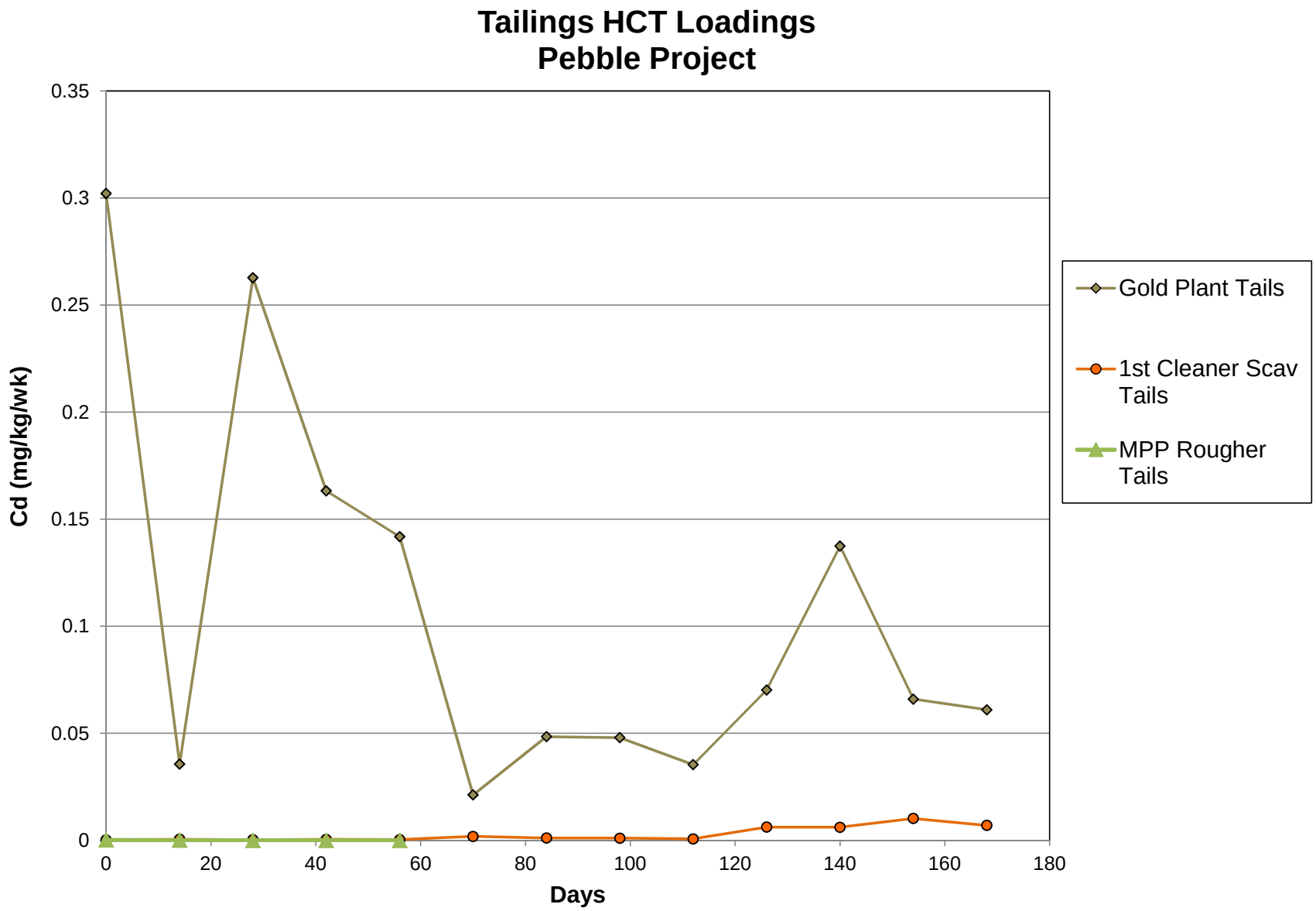

Tailings HCT Loadings
Pebble Project
As (mg/kg/wk)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

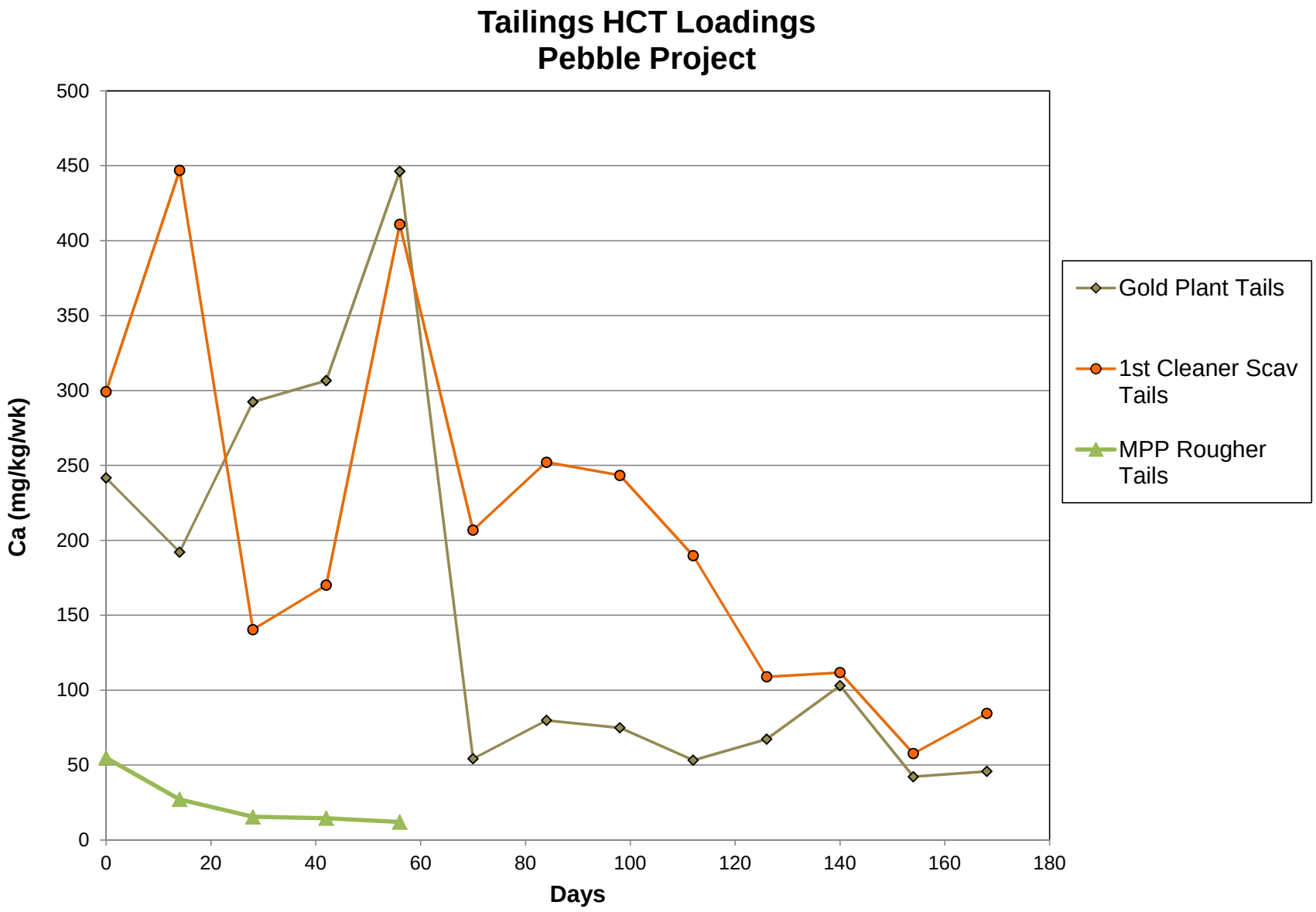

Tailings HCT Loadings
Pebble Project
Ba (mg/kg/wk)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

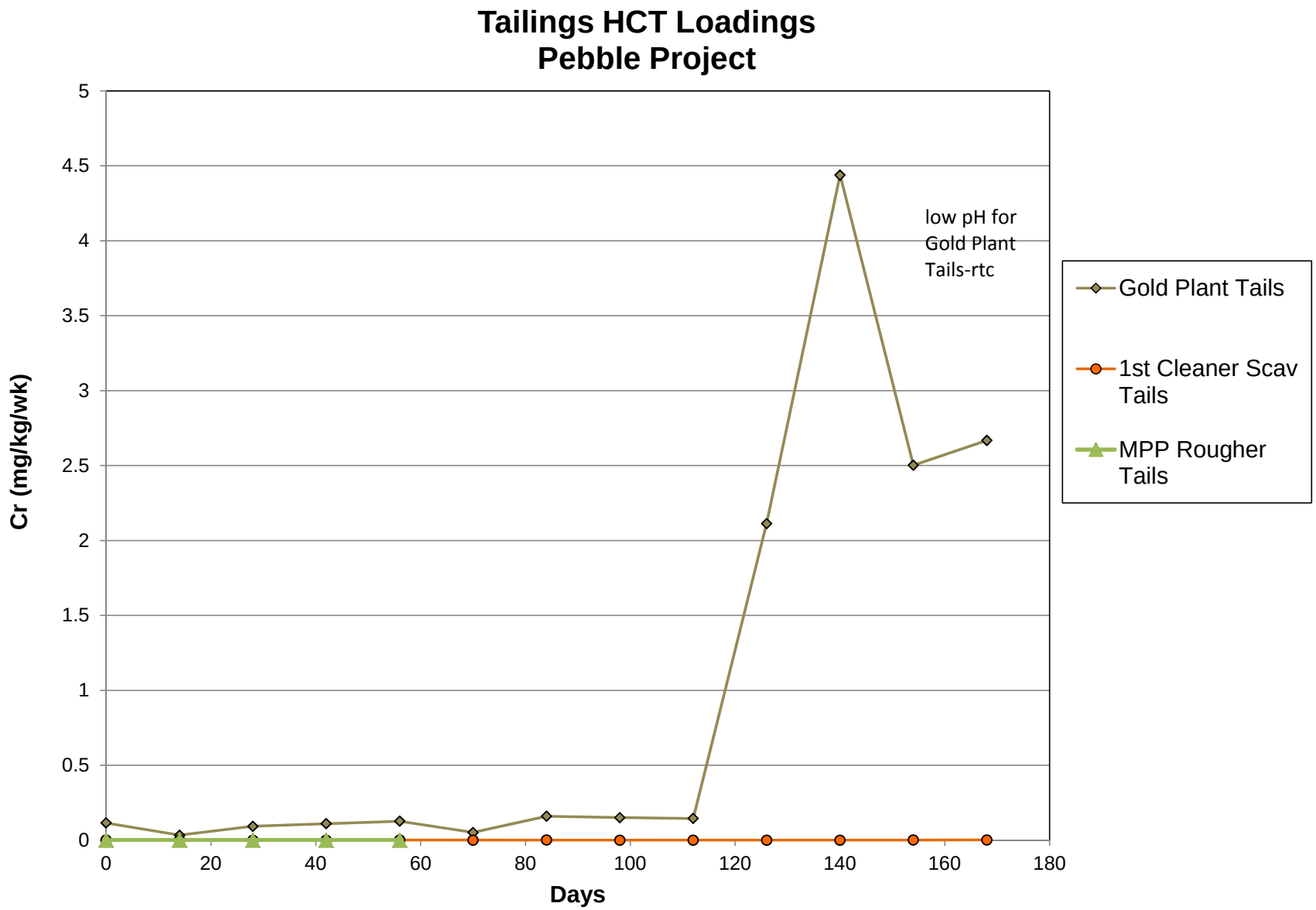

Tailings HCT Loadings
Pebble Project
Be (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

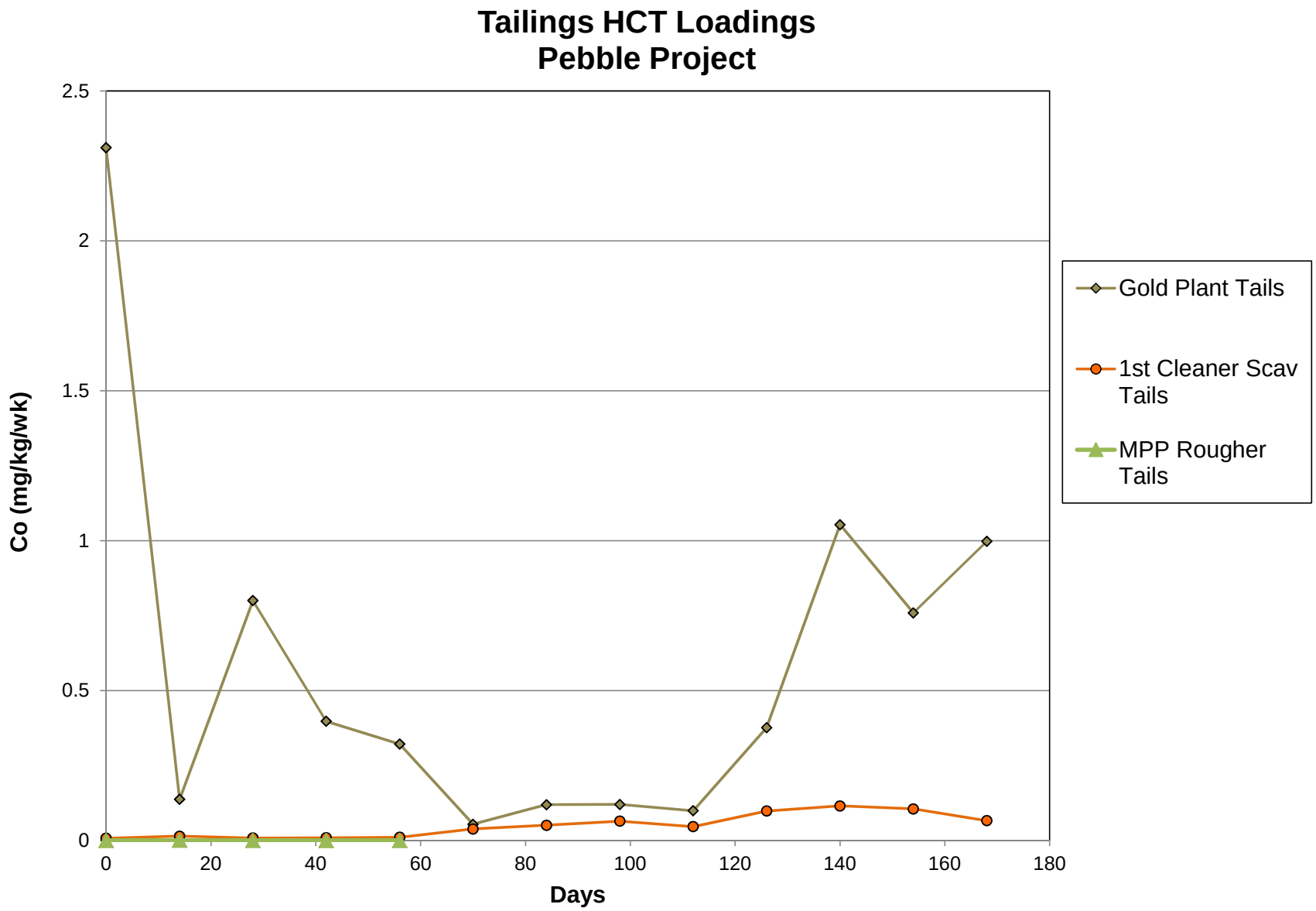

Tailings HCT Loadings
Pebble Project
Bi (mg/kg/wk)
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

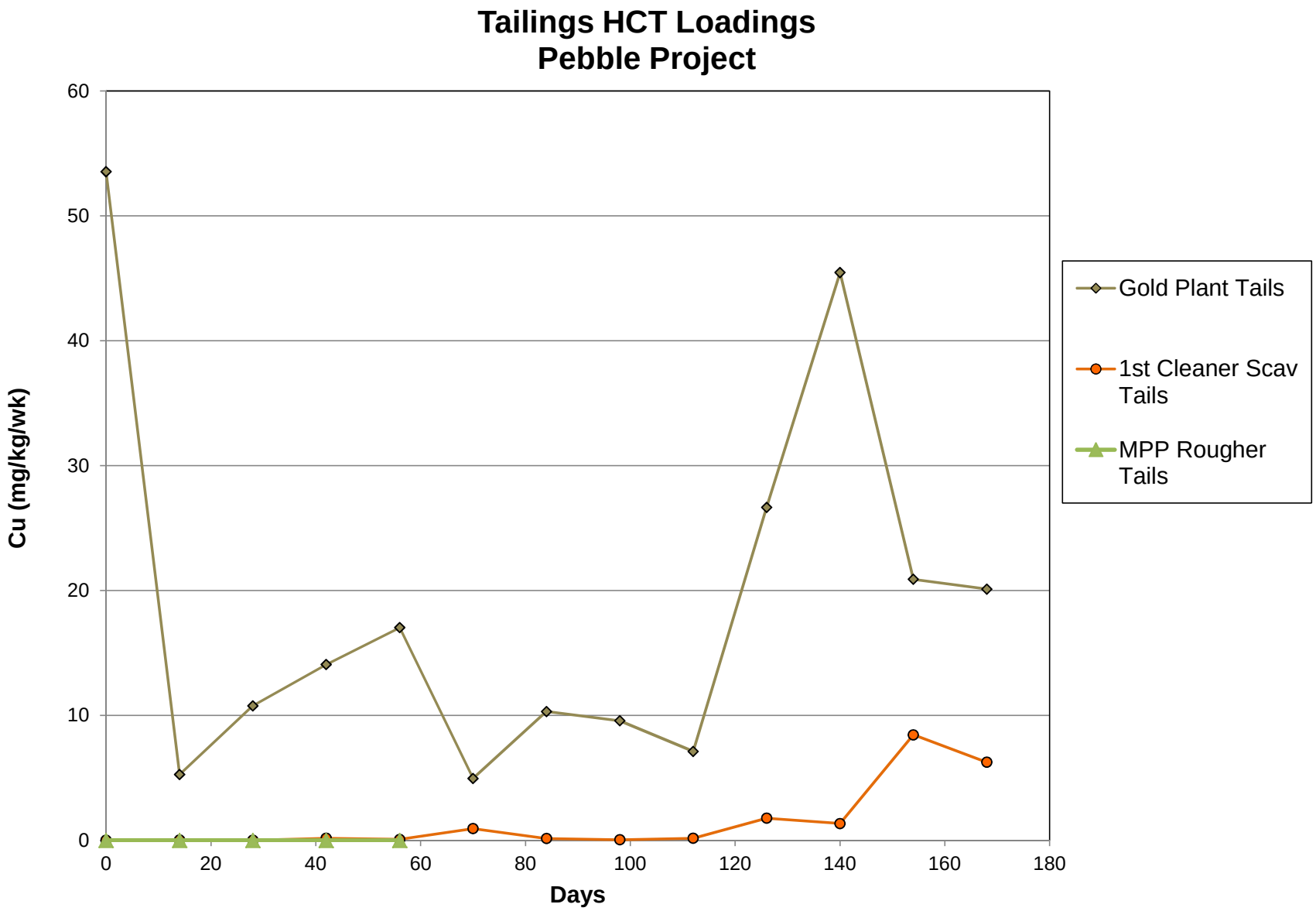

Tailings HCT Loadings
Pebble Project
B (mg/kg/wk)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

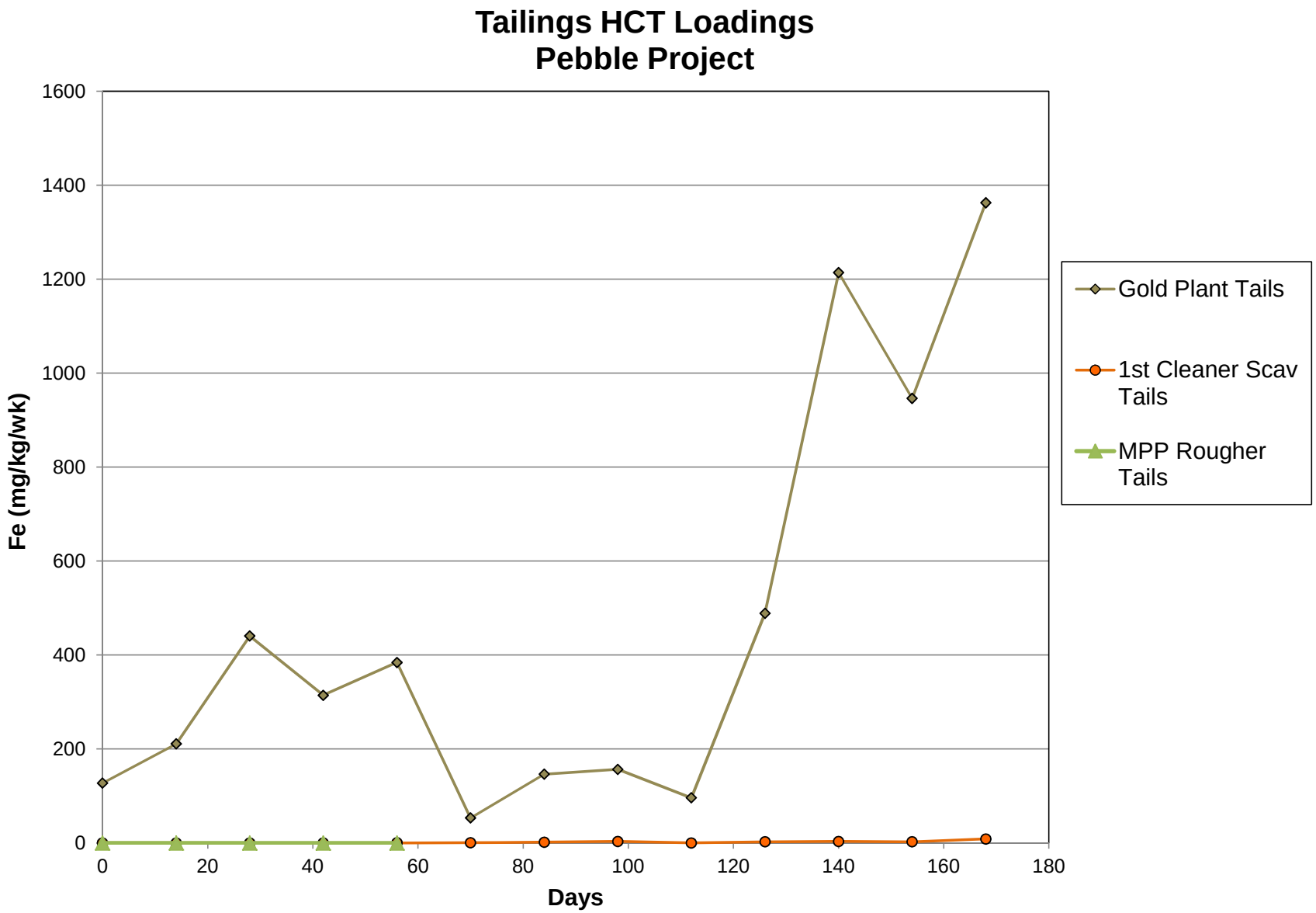

Tailings HCT Loadings
Pebble Project
Cd (mg/kg/wk)
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

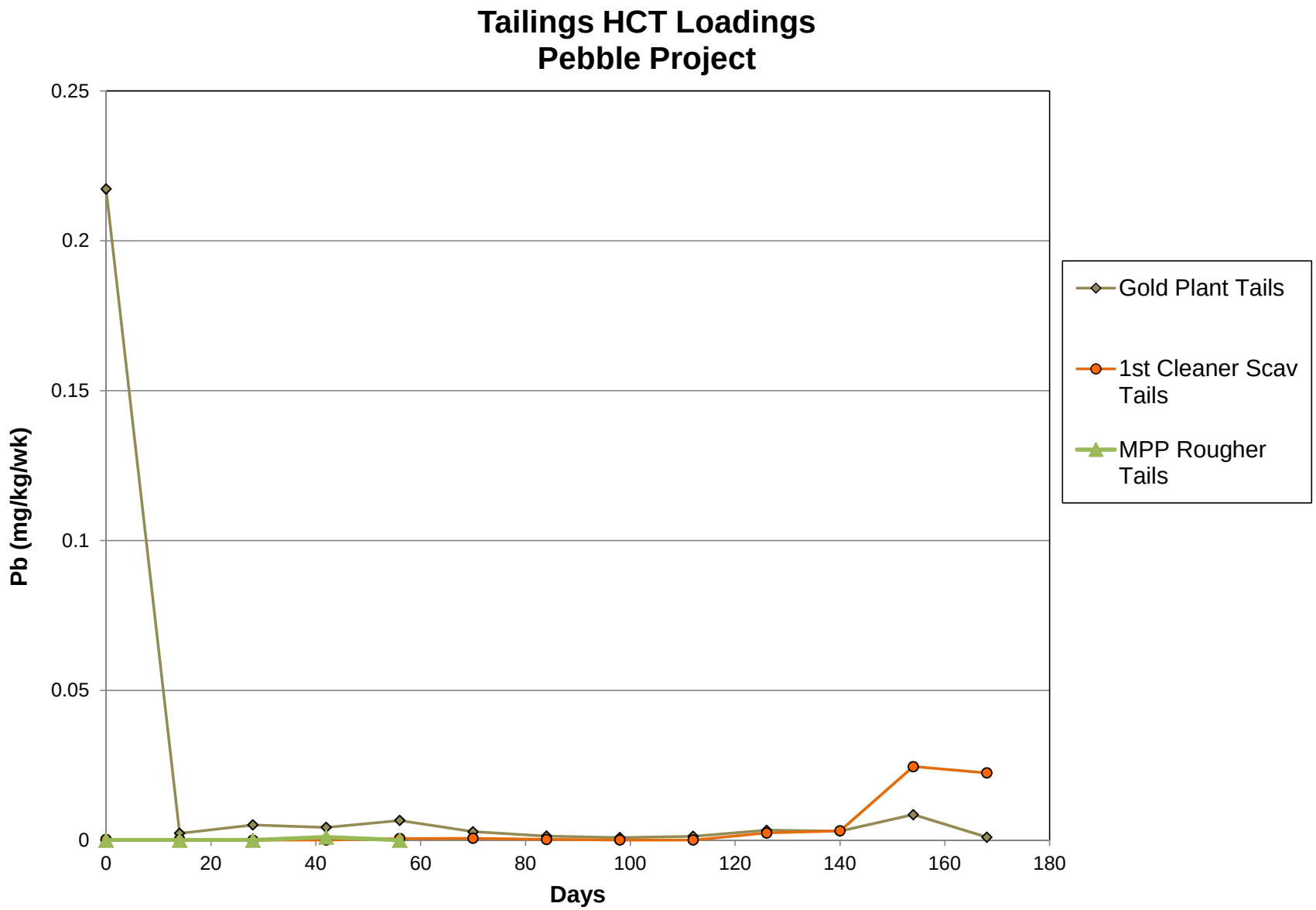

Tailings HCT Loadings
Pebble Project
Ca (mg/kg/wk)
500
450
400
350
300
250
200
150
100
50
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

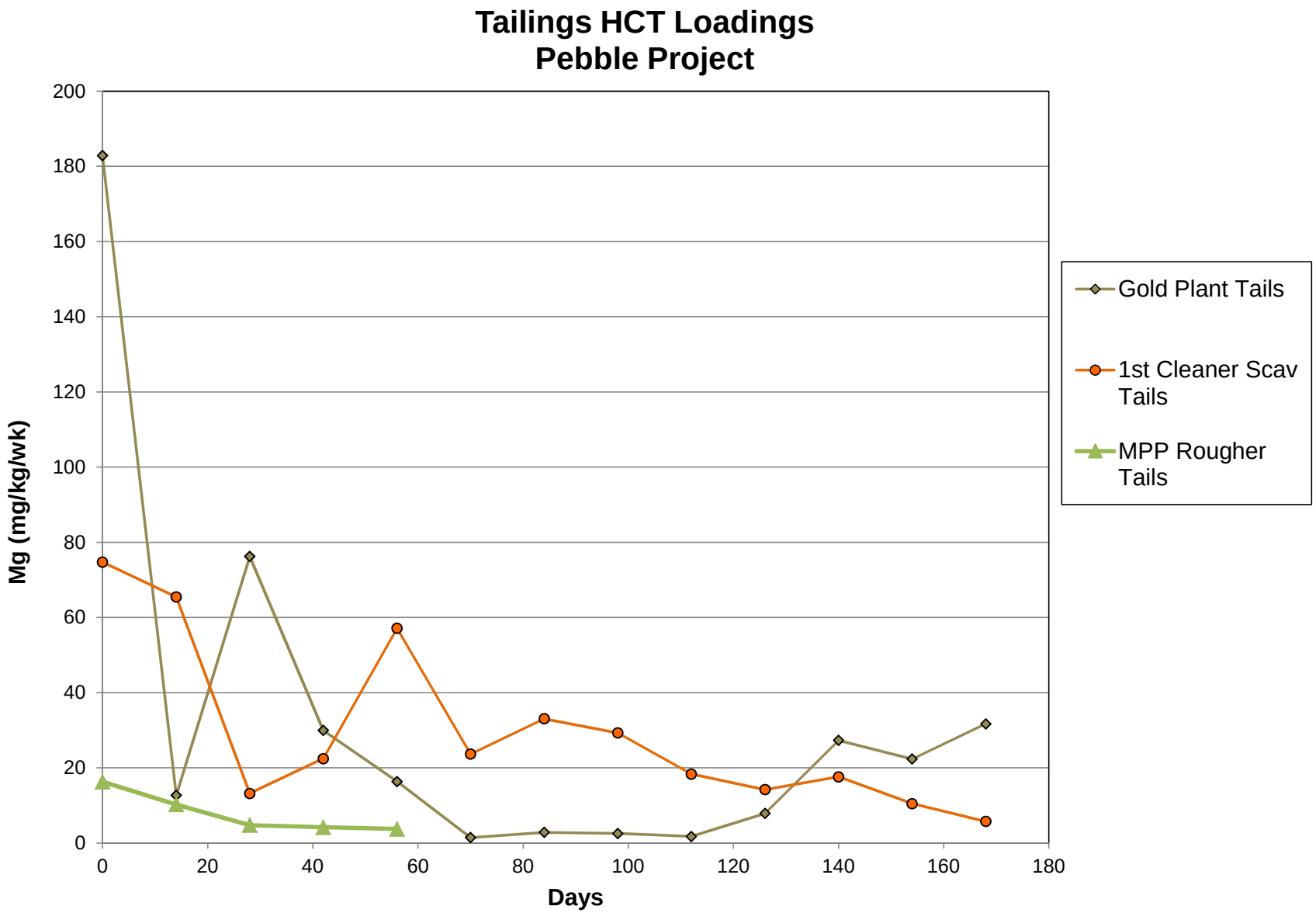

Tailings HCT Loadings
Pebble Project
Cr (mg/kg/wk)
Days
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
20
40
60
80
100
120
140
160
180
low pH for Gold Plant Tails-rtc
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

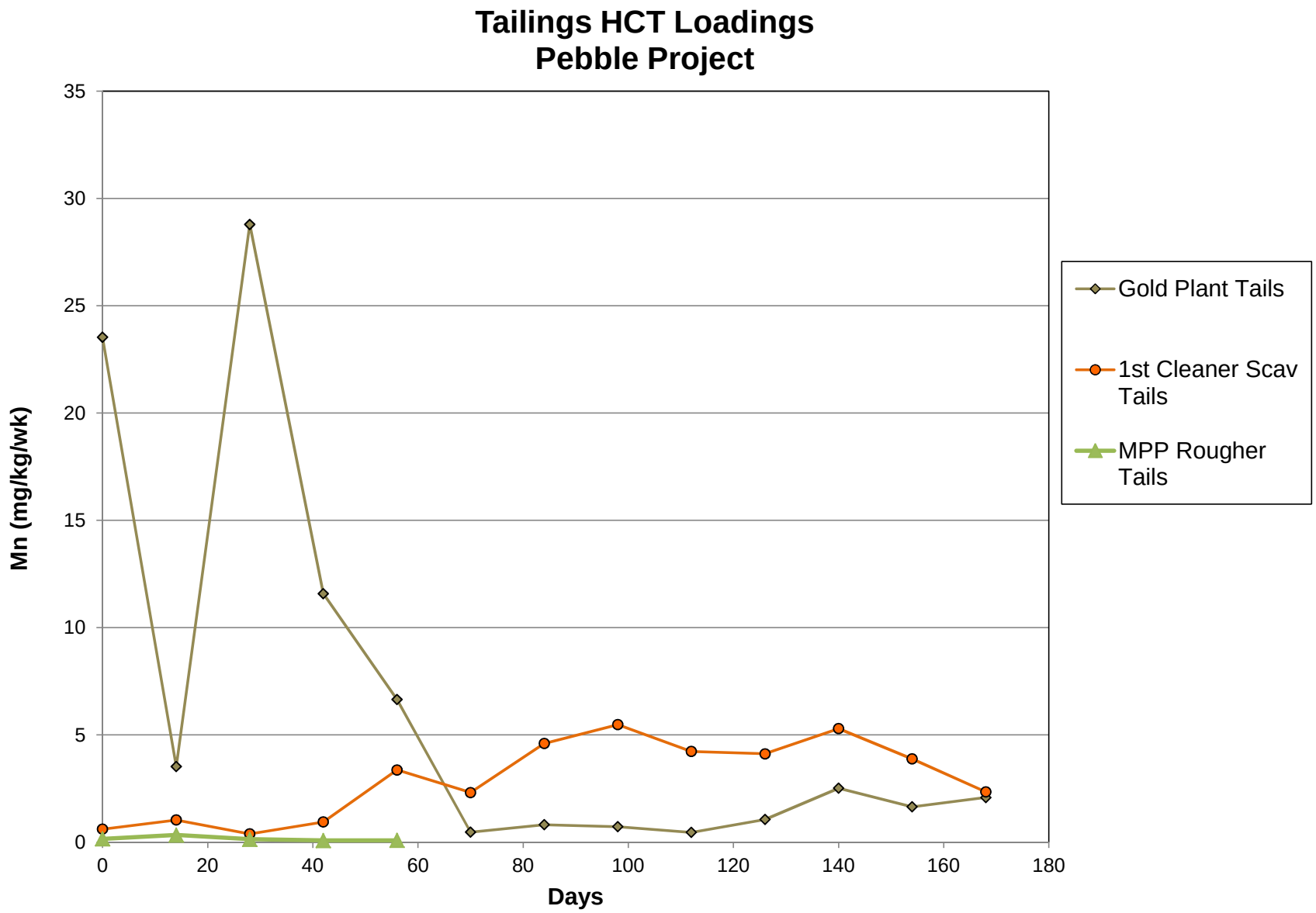

Tailings HCT Loadings
Pebble Project
Co (mg/kg/wk)
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

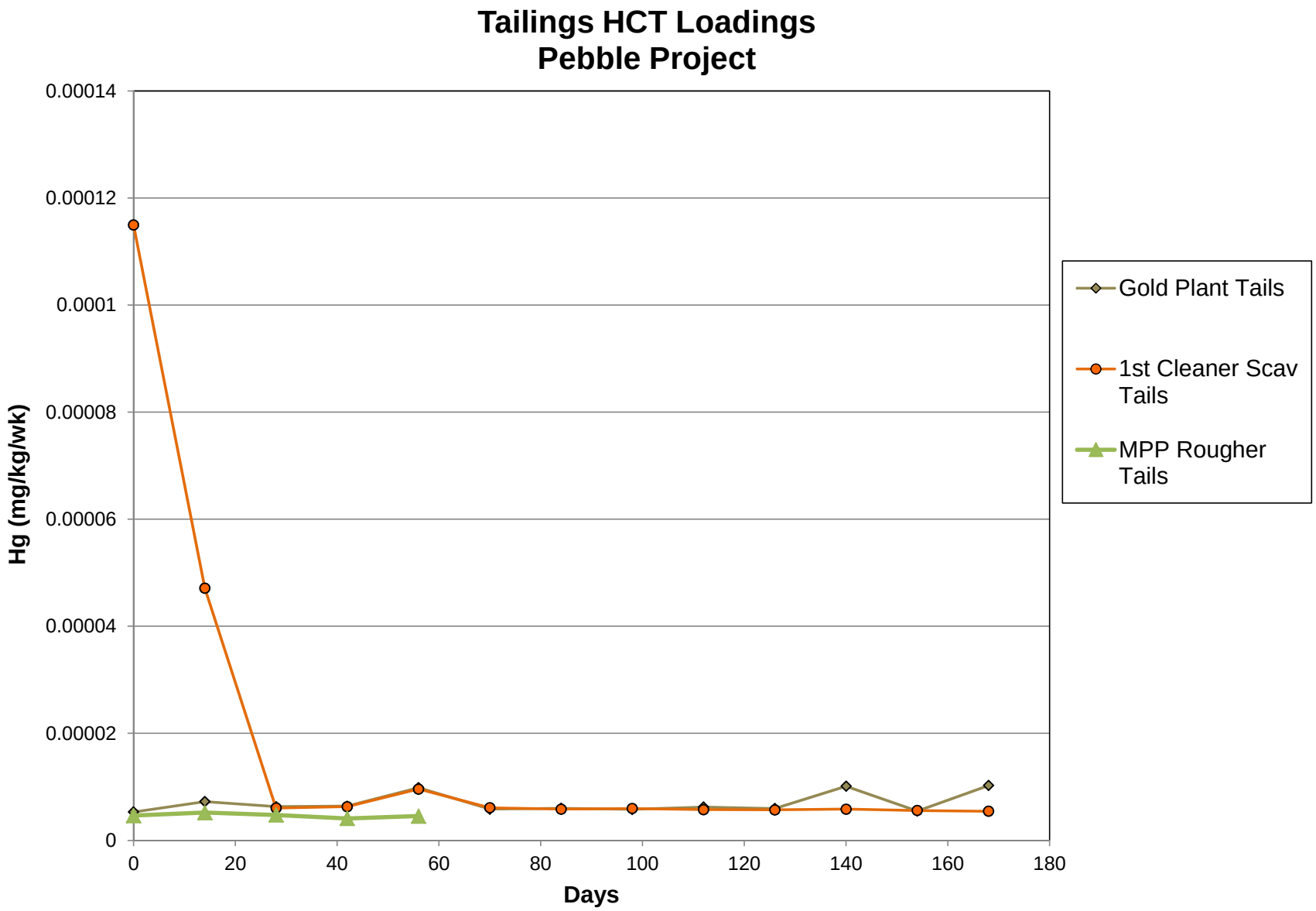

Tailings HCT Loadings
Pebble Project
Cu (mg/kg/wk)
60
50
40
30
20
10
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

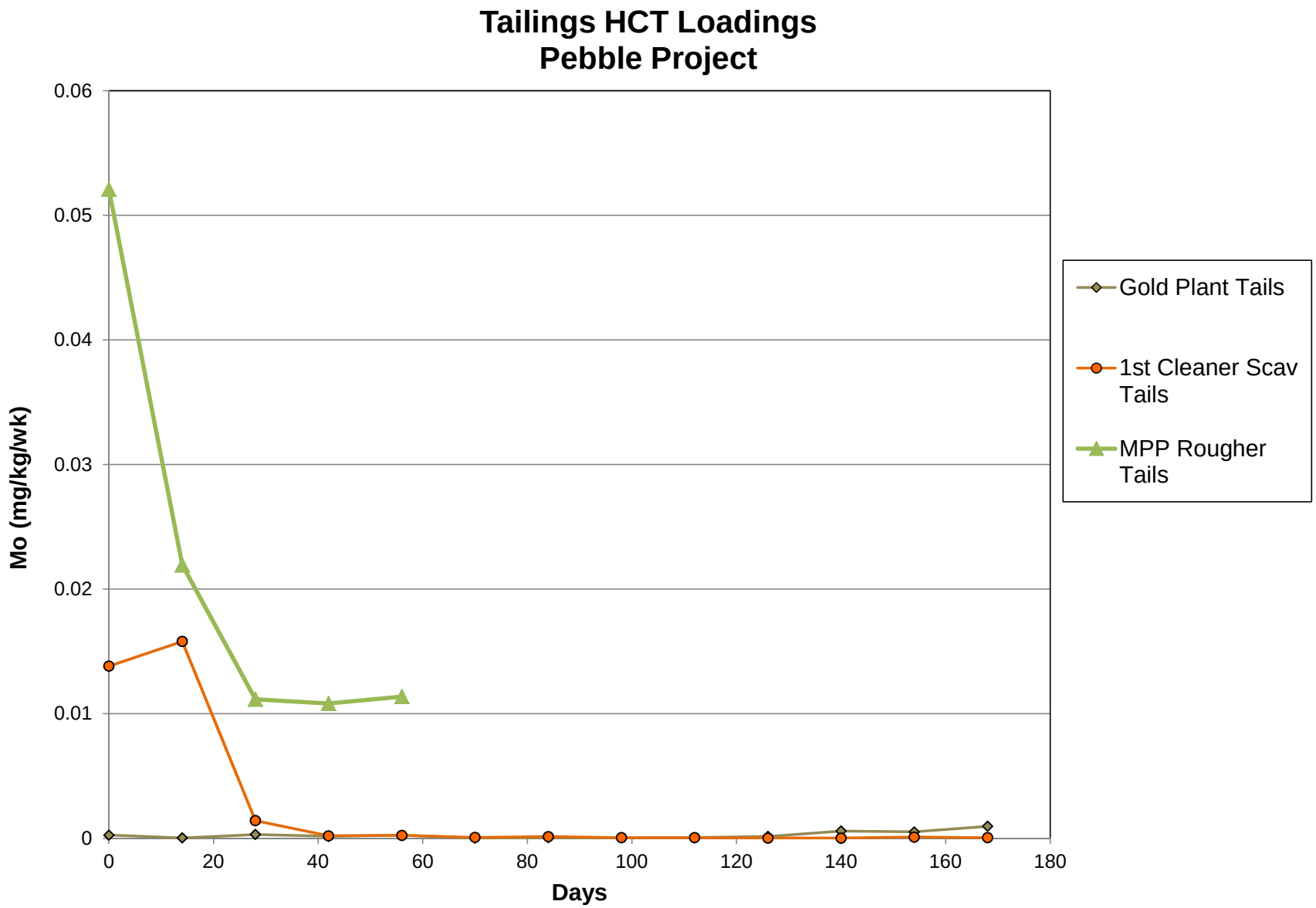

Tailings HCT Loadings
Pebble Project
Fe (mg/kg/wk)
1600
1400
1200
1000
800
600
400
200
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

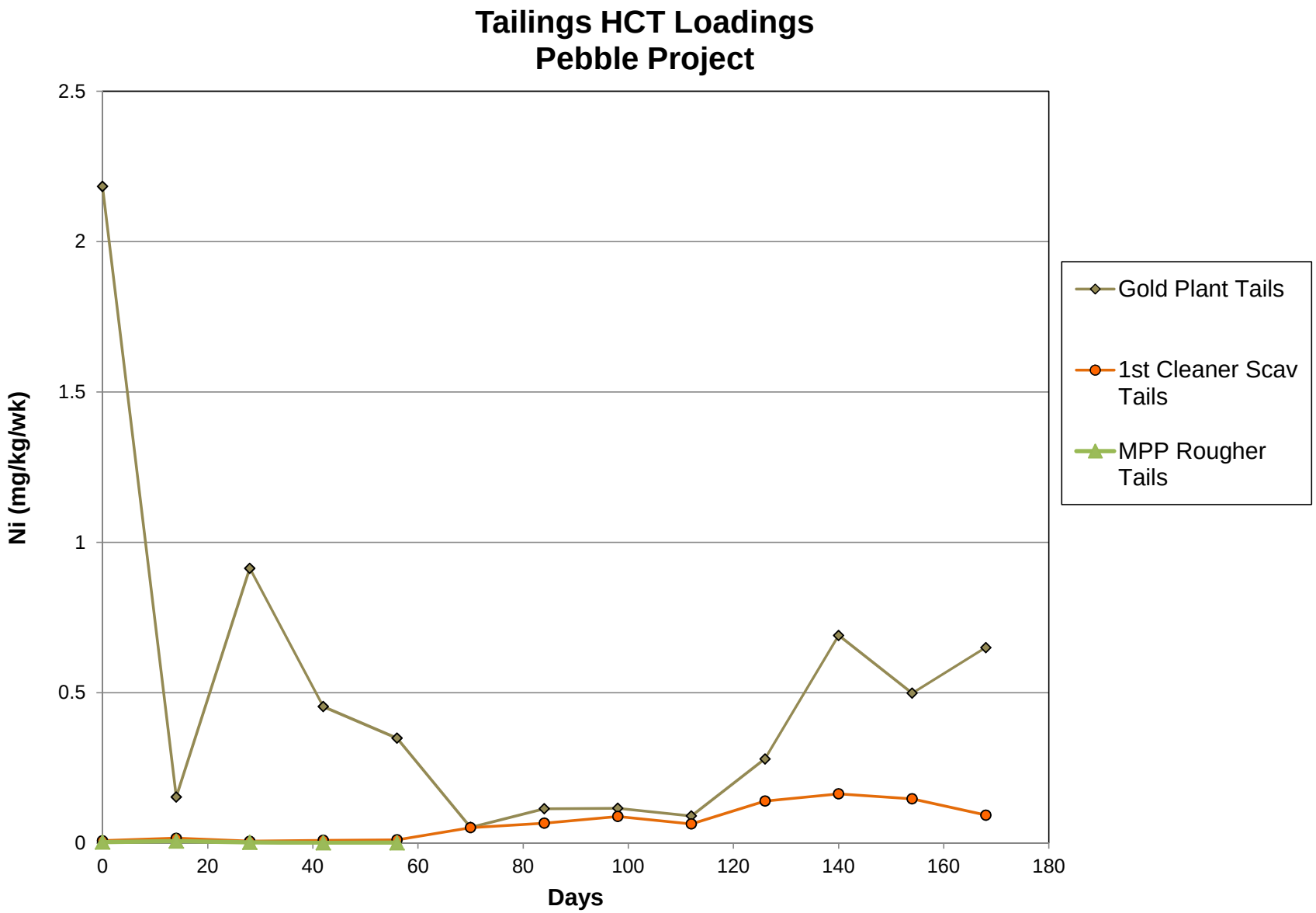

Tailings HCT Loadings
Pebble Project
Pb (mg/kg/wk)
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

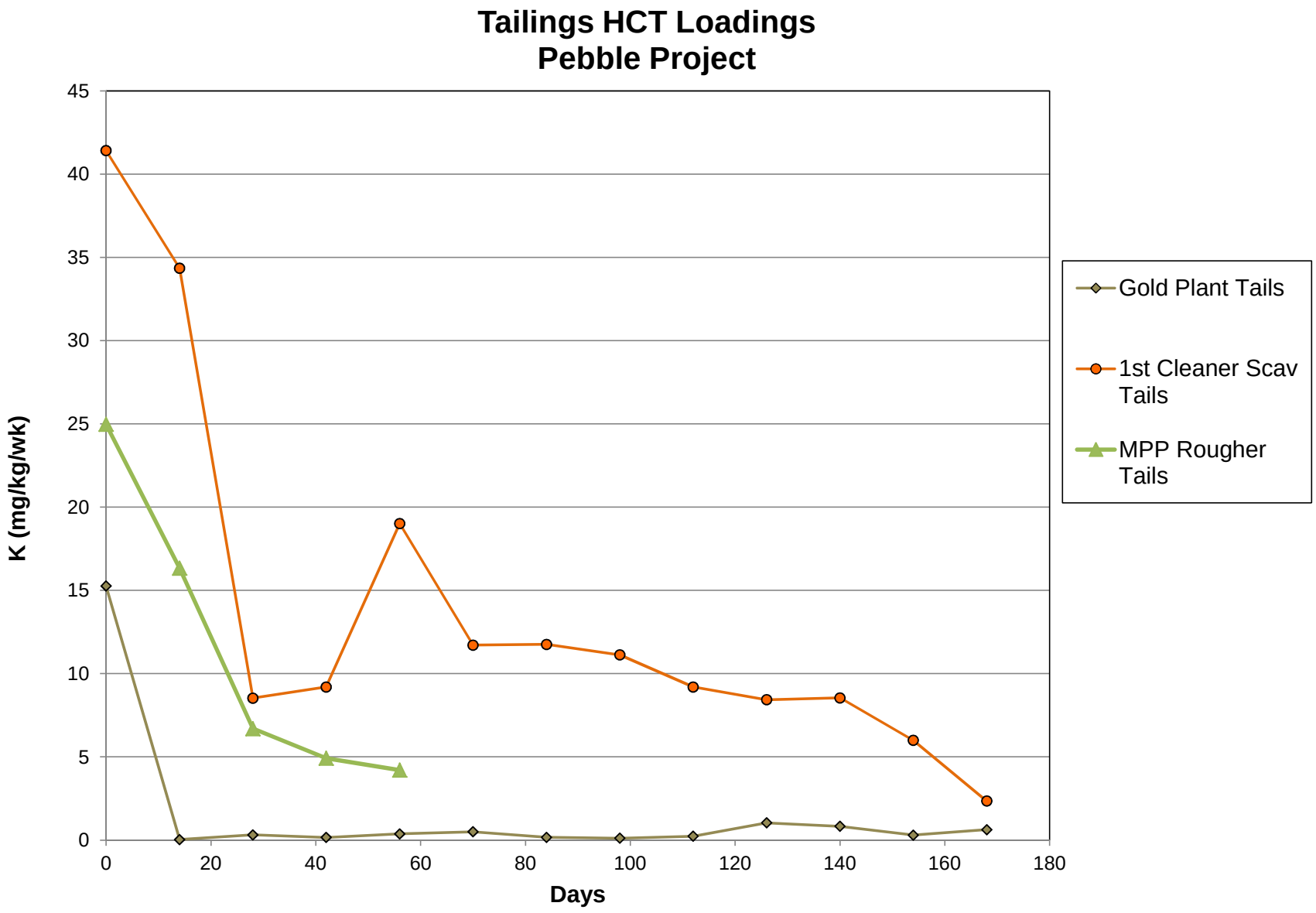

Tailings HCT Loadings
Pebble Project
Mg (mg/kg/wk)
Days
0
20
40
60
80
100
120
140
160
180
200
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

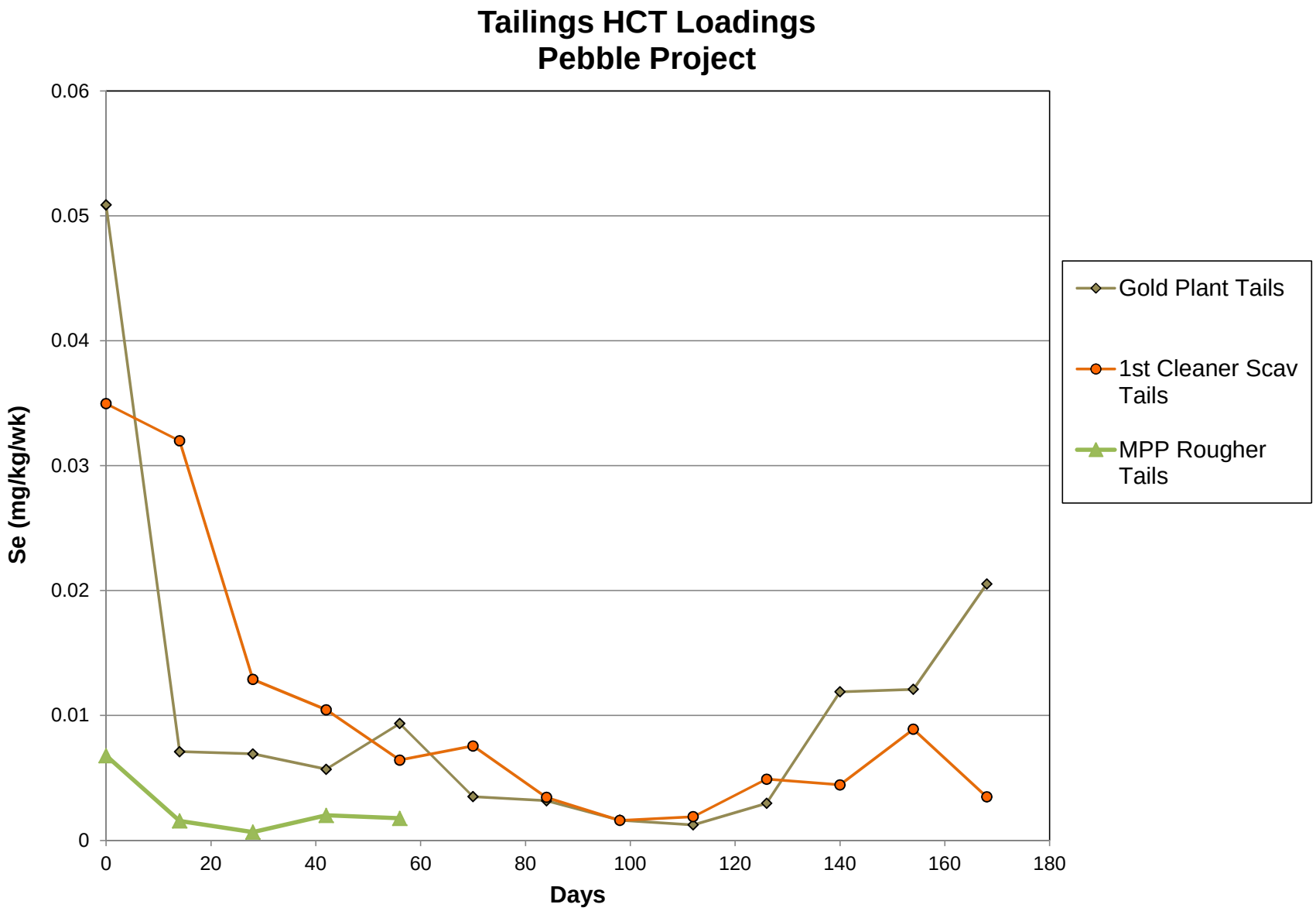

Tailings HCT Loadings
Pebble Project
Mn (mg/kg/wk)
35
30
25
20
15
10
5
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

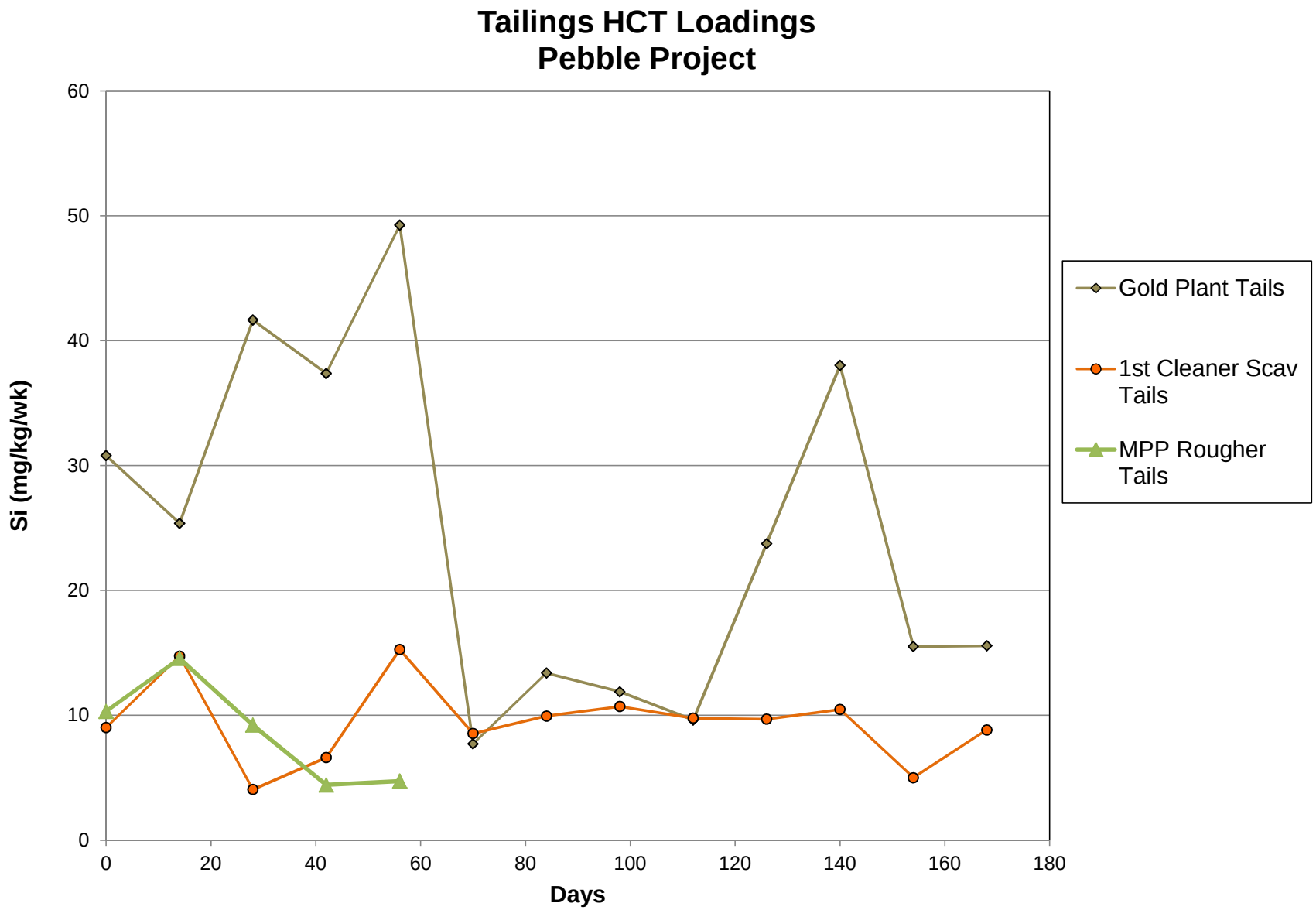

Tailings HCT Loadings
Pebble Project
Hg (mg/kg/wk)
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

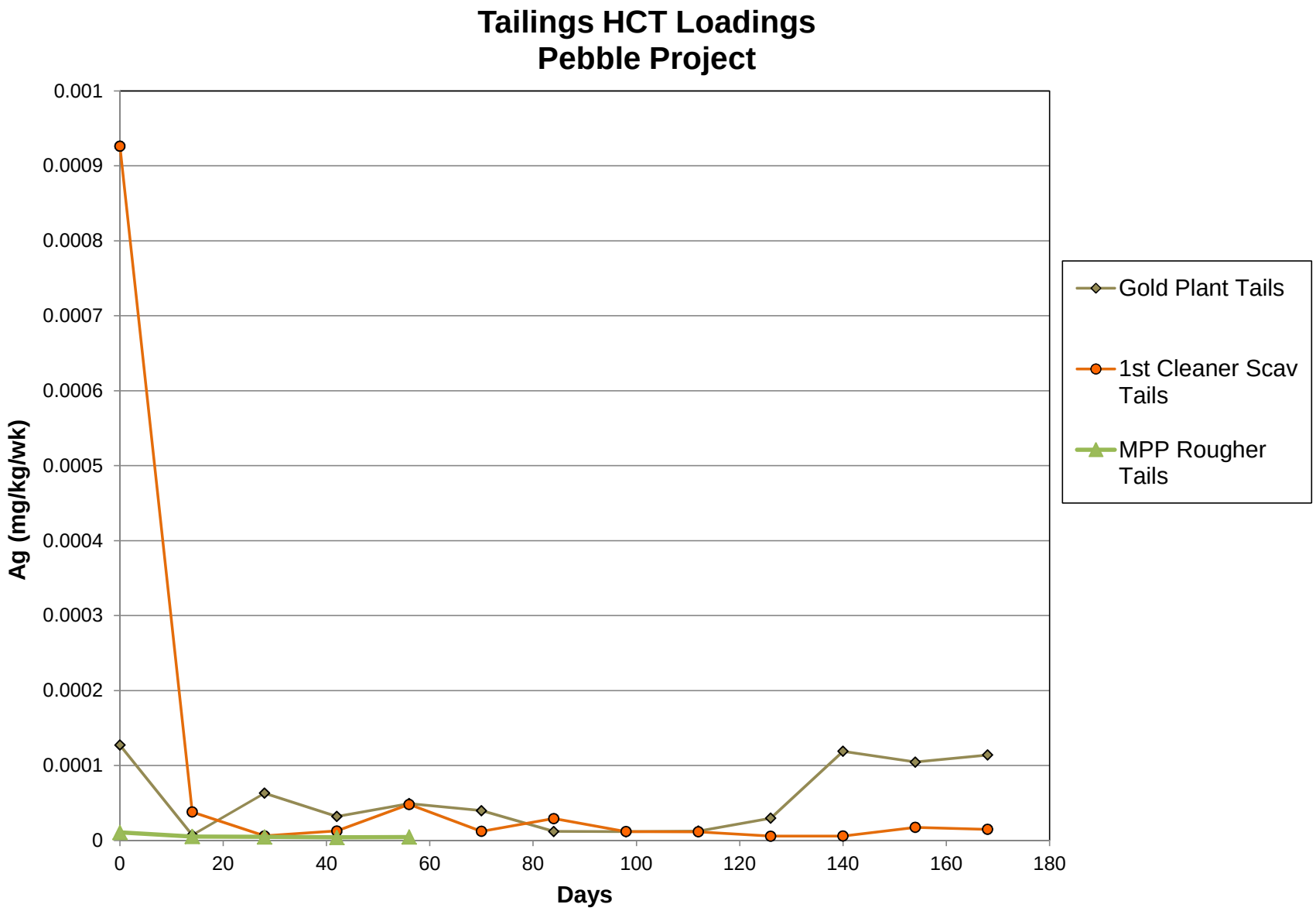

Tailings HCT Loadings
Pebble Project
Mo (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

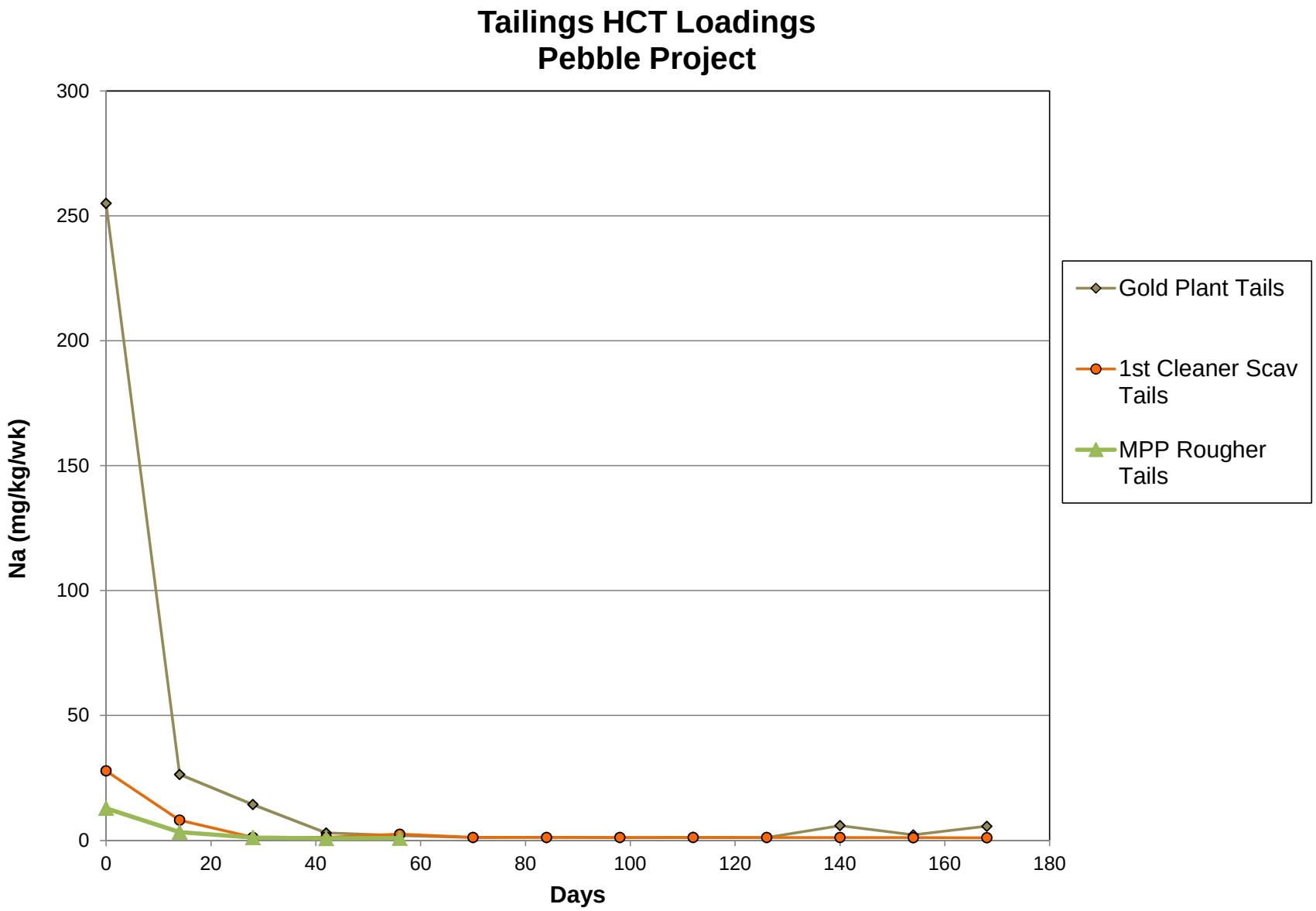

Tailings HCT Loadings
Pebble Project
Ni (mg/kg/wk)
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

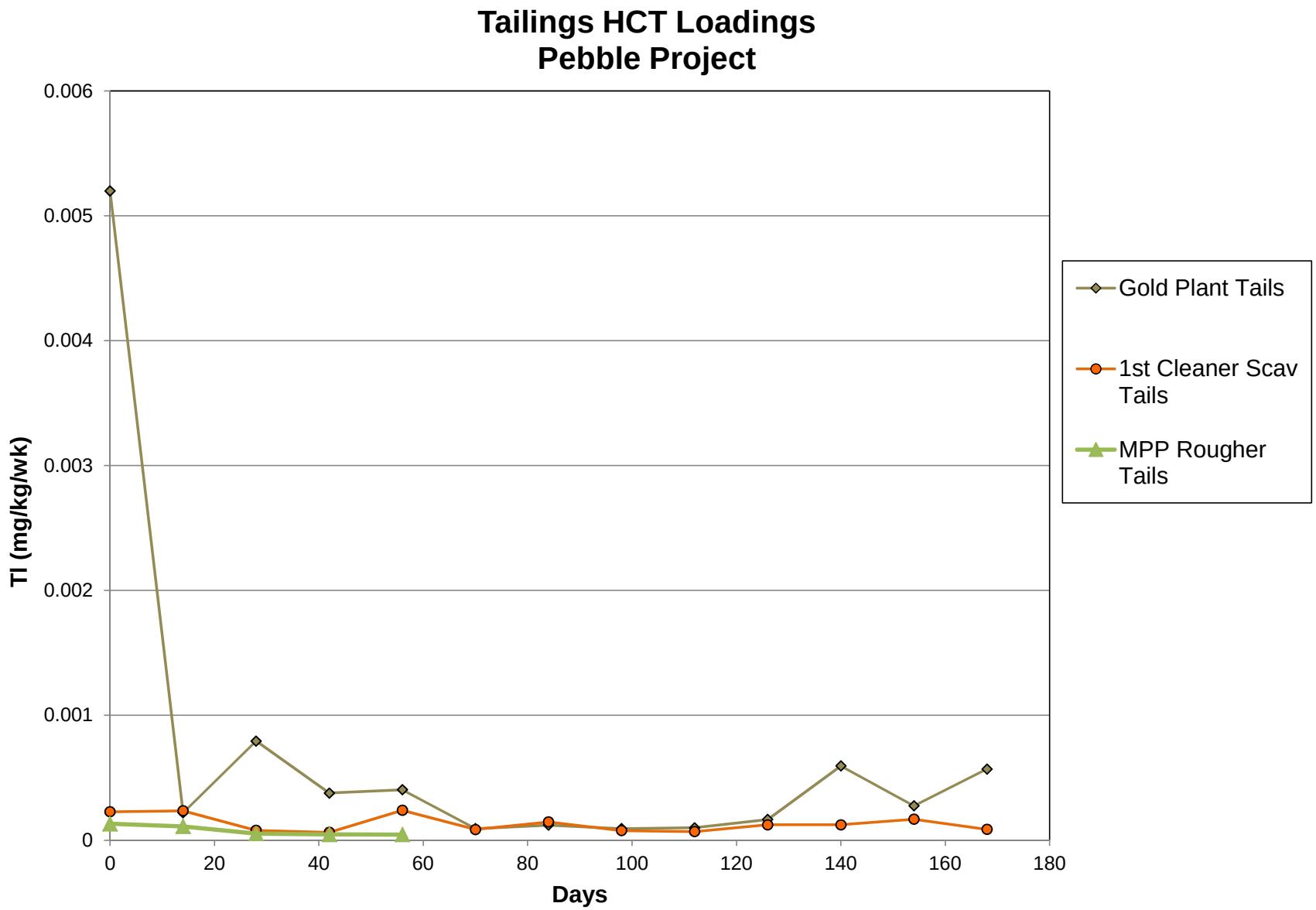

Tailings HCT Loadings
Pebble Project
K (mg/kg/wk)
Days
0
5
10
15
20
25
30
35
40
45
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

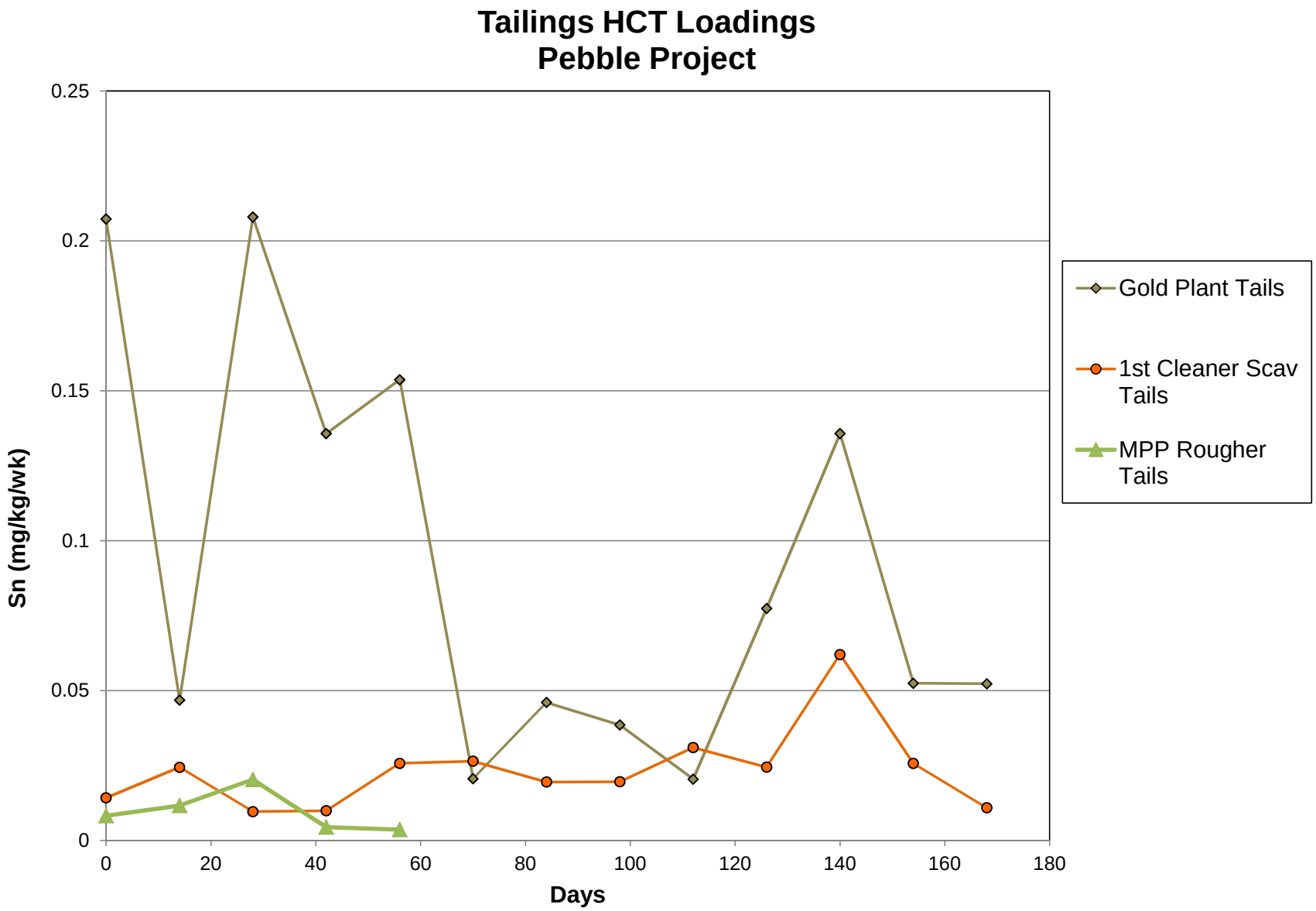

Tailings HCT Loadings
Pebble Project
Se (mg/kg/wk)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

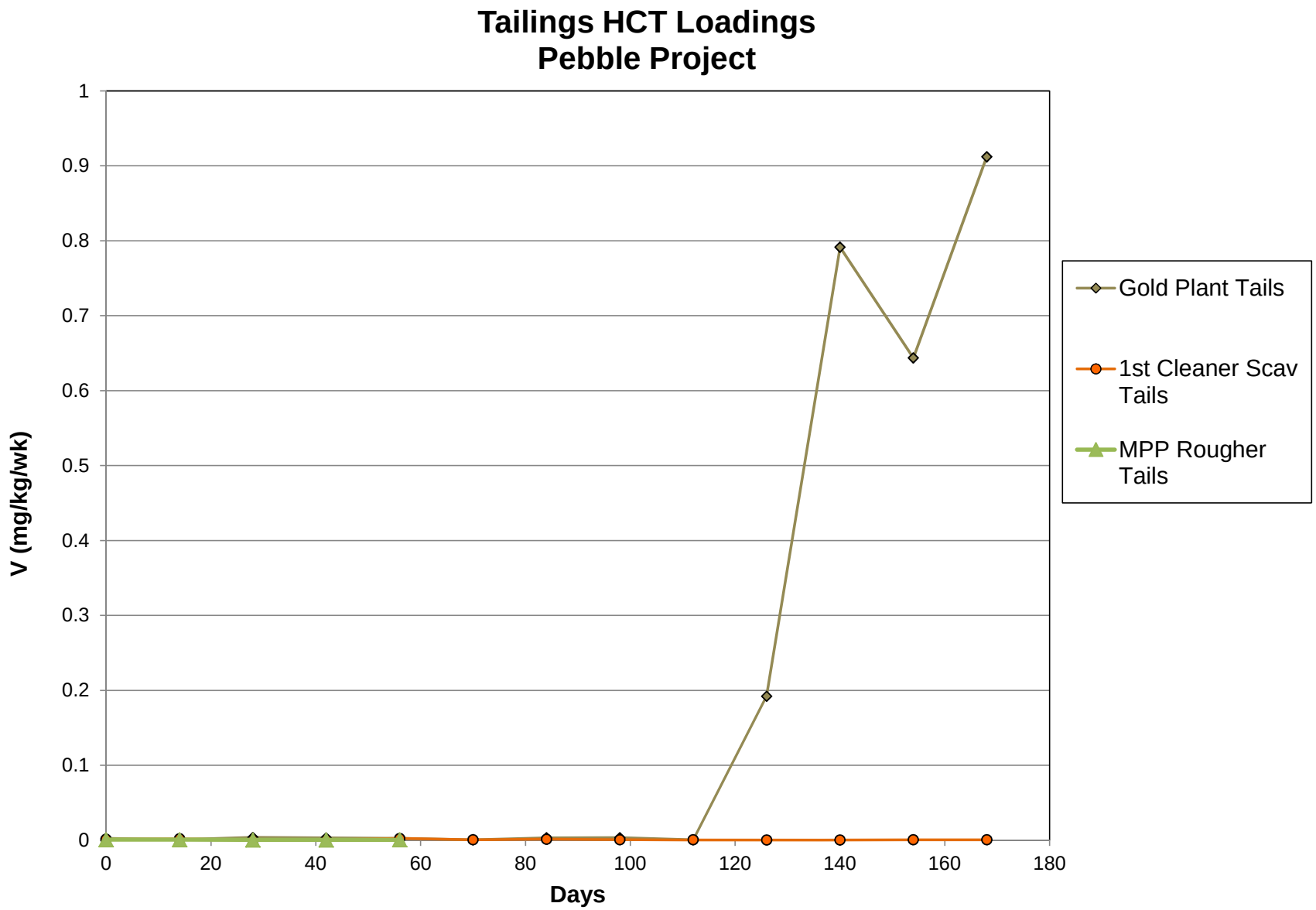

Tailings HCT Loadings
Pebble Project
Si (mg/kg/wk)
Days
0
10
20
30
40
50
60
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

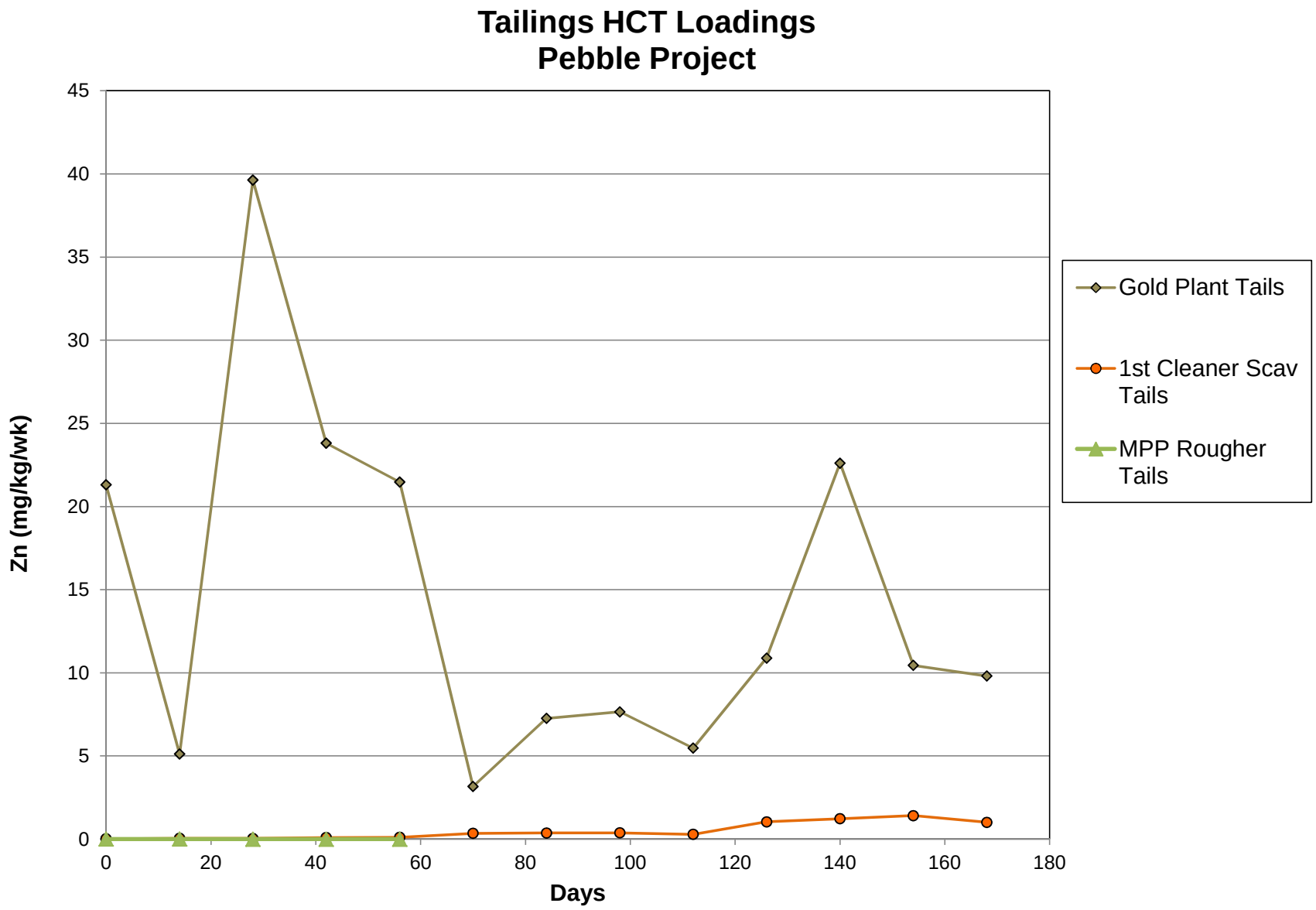

Tailings HCT Loadings
Pebble Project
Ag (mg/kg/wk)
0.001
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails


Tailings HCT Loadings
Pebble Project
Na (mg/kg/wk)
300
250
200
150
100
50
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails


Tailings HCT Loadings
Pebble Project
Tl (mg/kg/wk)
0.006
0.005
0.004
0.003
0.002
0.001
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails


Tailings HCT Loadings
Pebble Project
Sn (mg/kg/wk)
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails


Tailings HCT Loadings
Pebble Project
V (mg/kg/wk)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails


Tailings HCT Loadings
Pebble Project
Zn (mg/kg/wk)
45
40
35
30
25
20
15
10
5
0
0
20
40
60
80
100
120
140
160
180
Days
Gold Plant Tails
1st Cleaner Scav Tails
MPP Rougher Tails

Appendix 11L, Column Test Data: Tailings

Key to abbreviations and acronyms used in this appendix

Abbreviation/acronym	**Explanation**
CN	Cyanide
WAD CN	Weak acid dissociable cyanide
CNO	Cyanate
CNS	Thiocyanate
DOC	Dissolved organic carbon
EC	Electrical conductivity
µS/cm	Micro-siemens per cm
µg/Lm	Micrograms per liter
mg/L	Milligrams per liter
$mgCaCO_3/L$	Milligrams calcium carbonate (equivalent) per liter
mL	Milliliters(s)
mV	Millivolt(s)
ORP	Oxidation-reduction potential

For chemical abbreviations see Appendix D of this environmental baseline document.

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
11-Feb-05	0	0	1710	8.03	331	962	<1	2.50	76.50	729	463	5.7	0.912	410	0.0985	0.0128	0.068	0.0119	<0.0004	<0.001	<0.02
18-Feb-05	7	2500	2310	8.12	331	789															
25-Feb-05	14	2500	2530	8.23	338	227	<1	<1	79.50	140	80.6	<0.5	1.46	35.7	0.201	0.0147	0.0654	0.00481	<0.0004	<0.001	0.024
4-Mar-05	21	2500	2505	8.06	432	143															
11-Mar-05	28	2500	2505	7.99	371	123	<1	2.25	53.50	74	44.8	<0.5	0.864	11.5	0.198	0.0161	0.063	0.00244	<0.0002	<0.0005	0.017
18-Mar-05	35	2500	2495	8.03	410	124															
25-Mar-05	42	2500	2490	8.09	418	115	<1	1.25	47.25	65	41.6	<0.5	0.071	1.67	0.181	0.0147	0.0612	0.00226	<0.0002	<0.0005	<0.01
1-Apr-05	49	2500	2500	8.06	415	112															
8-Apr-05	56	2500	2500	8.06	324	106	<1	1.25	42.50	62	36.5	<0.2	0.27	8.36	0.172	0.0122	0.0722	0.00207	<0.0002	<0.0005	<0.01
15-Apr-05	63	2500	2500	7.94	390	107															
22-Apr-05	70	2500	2505	7.9	404	106	<1	2.50	40.75	65	39.5	<0.5	0.19	10.6	0.144	0.00943	0.0641	0.00201	<0.0002	<0.0005	<0.01
29-Apr-05	77	2500	2490	7.98	416	115															
6-May-05	84	2500	2495	8.03	382	112	<1	3.25	41.75	68	43.5	<0.5	0.056	35.3	0.118	0.00949	0.0585	0.00222	<0.0002	<0.0005	<0.01
13-May-05	91	2500	2500	7.96	384	103															
20-May-05	98	2500	2505	7.86	350	92	<1	3.50	35.75	58	36.6	<0.5	0.075	10.8	0.176	0.00737	0.0434	0.00207	<0.0002	<0.0005	<0.01
27-May-05	105	2500	2510	8.04	378	103															
3-Jun-05	112	2500	2495	8	368	95	<1	2.75	36.75	52	39.5	<0.5	0.082	12.6	0.127	0.00632	0.0353	0.0022	<0.0002	<0.0005	<0.01
10-Jun-05	119	2500	2500	7.91	387	95															
17-Jun-05	126	2500	2455	7.91	349	98	<1	3.00	37.00	52	40.9	<0.5	0.071	12	0.124	0.00697	0.0354	0.00258	<0.0002	<0.0005	<0.01
24-Jun-05	133	2500	2510	8.07	279	104															
1-Jul-05	140	2500	2500	7.99	295	91	<1	1.50	36.75	53	39.1	<0.5	0.058	10.3	0.149	0.00677	0.0401	0.00252	<0.0002	<0.0005	<0.01
8-Jul-05	147	2500	2505	7.97	298	97															
15-Jul-05	154	2500	2490	7.99	298	98	<1	1.25	40.25	59	45.3	<0.5	0.059	12.6	0.139	0.00681	0.0392	0.00275	<0.0002	<0.0005	<0.01
22-Jul-05	161	2500	2505	8.15	321	106															
29-Jul-05	168	2500	2590	8	334	86	<1	1.00	38.00	60	42.8	<0.5	0.055	9.38	0.116	0.00695	0.0398	0.00256	<0.0002	<0.0005	<0.01
5-Aug-05	175	2500	2550	8.03	313	85															
12-Aug-05	182	2500	2515	8.12	324	92	<1	1.25	41.00	49	48.4	<0.5	0.053	10.8	0.126	0.00674	0.036	0.0028	<0.0002	<0.0005	<0.01
19-Aug-05	189	2500	2495	8.03	361	104															
26-Aug-05	196	2500	2525	7.87	331	82	<1	2.00	35.00	64	43.9	<0.2	<0.1	9.32	0.114	0.00531	0.0277	0.00291	<0.0002	<0.0005	<0.01
2-Sep-05	203	2500	2435	7.9	276	62															
9-Sep-05	210	2500	2445	7.79	261	70	<1	2.25	29.25	50	37.6	<0.5	0.023	10.7	0.0675	0.0033	0.0127	0.00443	<0.0002	<0.0005	<0.01
16-Sep-05	217	2500	2460	7.71	254	76															
23-Sep-05	224	2500	2390	7.79	232	160	<1	1.75	34.75	44	40.2	<0.5	<0.02	11.7	0.0499	0.0035	0.0123	0.00553	<0.0002	<0.0005	<0.01
30-Sep-05	231	2500	2595	7.53	210	80															
7-Oct-05	238	2500	2360	7.92	195	113	<1	1.50	43.75	72	55.1	<0.5	0.044	15.1	0.0582	0.00555	0.0186	0.00784	<0.0002	<0.0005	<0.01
14-Oct-05	245	2500	2595	7.42	197	93															
21-Oct-05	252	2500	2595	7.33	279	100	<1	4.00	40.00	60	49.6	<0.5	0.056	12	0.069	0.00528	0.022	0.00548	<0.0002	<0.0005	<0.01
28-Oct-05	259	2500	2430	7.63	368	68															
4-Nov-05	266	2500	2455	7.54	349	91	<1	4.00	31.75	50	40.9	<0.5	0.046	10.5	0.0764	0.00497	0.0228	0.00463	<0.0002	<0.0005	<0.01
11-Nov-05	273	2500	2520	7.8	370	88															
18-Nov-05	280	2500	2465	7.64	326	85	<1	3.50	37.50	52	44.7	<0.5	0.045	9.71	0.081	0.00477	0.0223	0.00464	<0.0002	<0.0005	<0.01
25-Nov-05	287	2500	2570	7.65	297	84															
2-Dec-05	294	2500	2520	7.6	412	70	<1	4.00	35.75	50	41.5	<0.5	0.04	8.05	0.0722	0.00397	0.0183	0.0042	<0.0002	<0.0005	<0.01
9-Dec-05	301	2500	2540	7.68	372	90															
16-Dec-05	308	2500	2495	7.6	443	76	<1	3.25	38.25	47	45.3	<0.5	0.041	7.72	0.0797	0.00421	0.0187	0.00516	<0.0002	<0.0005	<0.01
23-Dec-05	315	2500	2460	7.74	422	78															
30-Dec-05	322	2500	2455	7.73	442	83	<1	2.50	38.25	50	43.5	<0.5	0.038	7.72	0.0794	0.00363	0.0159	0.00507	<0.0002	<0.0005	<0.01
6-Jan-06	329	2500	2450	7.75	452	87															
13-Jan-06	336	2500	2510	7.59	459	81	<1	5.00	37.25	52	41.1	<0.5	0.038	8.4	0.0643	0.00379	0.0155	0.00544	<0.0002	<0.0005	<0.01
20-Jan-06	343	2500	2545	7.81	397	105															
27-Jan-06	350	2500	2545	7.31	434	76	<1	3.25	39.25	47	44.4	<0.5	0.04	7.52	0.0739	0.00406	0.0166	0.00521	<0.0002	<0.0005	<0.01
3-Feb-06	357	2500	2490	7.73	387	84															
10-Feb-06	364	2500	2495	7.6	364	95	<1	3.25	40.00	50	43.9	<0.5	0.039	7.71	0.0742	0.00404	0.0168	0.00591	<0.0002	<0.0005	<0.01
17-Feb-06	371	2500	2395	7.7	440	104															
24-Feb-06	378	2500	2470	7.69	378	104	<1	2.50	41.50	54	48.9	<0.5	0.039	8.15	0.0635	0.00396	0.0164	0.00588	<0.0002	<0.0005	<0.01
3-Mar-06	385	2500	2445	7.72	463	120															

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Feb-05	0	<0.0001	172	<0.001	<0.0002	0.0136	<0.06	<0.0001	8.08	0.0312	<0.0001	0.11	<0.001	40.2	0.0032	1.79	<0.00002	23.7	<0.0001	0.00059	0.0023	0.0034
18-Feb-05	7																					
25-Feb-05	14	<0.0001	29	<0.001	<0.0002	0.00932	<0.06	<0.0001	1.97	0.0133	<0.0001	0.0204	<0.001	18.2	<0.002	1.28	<0.00002	5.4	<0.0001	<0.0002	0.0047	<0.002
4-Mar-05	21																					
11-Mar-05	28	<0.00005	16	<0.0005	<0.0001	0.00236	<0.06	<0.00005	1.16	0.00847	<0.0001	0.0103	<0.0005	11.9	<0.001	1.3	<0.00001	<4	<0.00005	0.0001	0.00322	<0.001
18-Mar-05	35																					
25-Mar-05	42	<0.00005	14.9	<0.0005	<0.0001	0.00219	<0.03	<0.00005	1.08	0.0097	<0.0001	0.00747	<0.0005	10.7	<0.001	1.35	<0.00001	<2	<0.00005	<0.0001	0.00288	<0.001
1-Apr-05	49																					
8-Apr-05	56	<0.00005	12.9	<0.0005	<0.0001	0.00207	<0.03	<0.00005	1.06	0.0101	<0.0001	0.00647	<0.0005	9.74	<0.001	1.43	<0.00001	<2	<0.00005	<0.0001	0.00271	<0.001
15-Apr-05	63																					
22-Apr-05	70	<0.00005	14	<0.0005	<0.0001	0.00203	<0.03	<0.00005	1.11	0.0117	<0.0001	0.00636	<0.0005	8.79	<0.001	1.29	<0.00001	<2	<0.00005	<0.0001	0.0029	<0.001
29-Apr-05	77																					
6-May-05	84	<0.00005	15.3	<0.0005	<0.0001	0.00208	<0.03	<0.00005	1.28	0.0131	<0.00001	0.007	<0.0005	7.63	<0.001	1.54	<0.00001	<2	<0.00005	<0.0001	0.00269	<0.001
13-May-05	91																					
20-May-05	98	<0.00005	12.6	<0.0005	<0.0001	0.00197	<0.03	<0.00005	1.23	0.012	<0.00001	0.00631	<0.0005	6.23	<0.001	1.22	<0.00001	<2	<0.00005	<0.0001	0.00293	<0.001
27-May-05	105																					
3-Jun-05	112	<0.00005	13.9	<0.0005	<0.0001	0.00193	<0.03	<0.00005	1.19	0.0119	<0.0001	0.00658	<0.0005	5.13	<0.001	1.31	<0.00001	<2	<0.00005	<0.0001	0.00276	<0.001
10-Jun-05	119																					
17-Jun-05	126	<0.00005	14.3	<0.0005	<0.0001	0.00177	0.066	<0.00005	1.26	0.0125	<0.00001	0.00748	<0.0005	4.91	<0.001	1.24	<0.00001	<2	<0.00005	<0.0001	0.00308	<0.001
24-Jun-05	133																					
1-Jul-05	140	<0.00005	13.4	<0.0005	<0.0001	0.00181	<0.03	<0.00005	1.36	0.0117	<0.00001	0.00687	<0.0005	4.7	<0.001	1.3	<0.00001	<2	<0.00005	0.00011	0.00362	<0.001
8-Jul-05	147																					
15-Jul-05	154	<0.00005	15.6	<0.0005	<0.0001	0.00224	<0.03	<0.00005	1.55	0.0138	<0.00001	0.00856	<0.0005	4.58	<0.001	1.46	<0.00001	<2	<0.00005	0.00012	0.00345	<0.001
22-Jul-05	161																					
29-Jul-05	168	<0.00005	14.9	<0.0005	<0.0001	0.00105	<0.03	<0.00005	1.35	0.0114	<0.00001	0.00573	<0.0005	4.09	<0.001	1.51	<0.00001	<2	<0.00005	<0.0001	0.00297	<0.001
5-Aug-05	175																					
12-Aug-05	182	<0.00005	16.9	<0.0005	<0.0001	0.00201	<0.03	<0.00005	1.53	0.0123	<0.00001	0.00691	0.00051	3.89	<0.001	1.42	<0.00001	<2	<0.00005	<0.0001	0.00343	<0.001
19-Aug-05	189																					
26-Aug-05	196	<0.00005	15.2	<0.0005	<0.0001	0.00237	<0.03	<0.00005	1.43	0.0104	<0.0001	0.00581	<0.0005	2.94	<0.001	1.28	<0.00001	<2	<0.00005	<0.0001	0.00291	<0.001
2-Sep-05	203																					
9-Sep-05	210	<0.00005	12.7	<0.0005	<0.0001	0.00382	<0.03	<0.00005	1.43	0.0125	<0.00001	0.0054	<0.0005	1.98	<0.001	0.875	<0.00001	<2	<0.00005	<0.0001	0.00204	<0.001
16-Sep-05	217																					
23-Sep-05	224	<0.00005	13.6	<0.0005	<0.0001	0.00405	<0.03	<0.00005	1.49	0.0142	<0.00001	0.00604	<0.0005	2	<0.001	0.92	<0.00001	<2	<0.00005	<0.0001	0.00192	0.0011
30-Sep-05	231																					
7-Oct-05	238	<0.00005	18.7	<0.0005	<0.0001	0.00472	<0.03	0.000072	2.01	0.0204	<0.00001	0.00917	<0.0005	3	<0.001	1.29	<0.00001	<2	<0.00005	0.0001	0.00267	0.0015
14-Oct-05	245																					
21-Oct-05	252	<0.00005	16.9	<0.0005	<0.0001	0.00262	<0.03	<0.00005	1.76	0.0158	<0.00001	0.00752	<0.0005	2.97	<0.001	1.31	<0.00001	<2	<0.00005	<0.0001	0.0026	<0.001
28-Oct-05	259																					
4-Nov-05	266	<0.00005	13.7	<0.0005	<0.0001	0.00308	<0.03	<0.00005	1.61	0.014	<0.00001	0.00633	<0.0005	2.46	<0.001	1.1	<0.00001	<2	<0.00005	<0.0001	0.00226	<0.001
11-Nov-05	273																					
18-Nov-05	280	<0.00005	15.1	<0.0005	<0.0001	0.00211	<0.03	<0.00005	1.73	0.0132	<0.00001	0.00566	<0.0005	2.48	<0.001	1.11	<0.00001	<2	<0.00005	<0.0001	0.00266	<0.001
25-Nov-05	287																					
2-Dec-05	294	<0.00005	14.1	<0.0005	<0.0001	0.00194	<0.03	<0.00005	1.54	0.0124	<0.00001	0.00462	<0.0005	2.06	<0.001	0.995	<0.00001	<2	<0.00005	<0.0001	0.00213	<0.001
9-Dec-05	301																					
16-Dec-05	308	<0.00005	15.3	<0.0005	<0.0001	0.0025	<0.03	<0.00005	1.74	0.0138	<0.00001	0.00478	<0.0005	2.16	<0.001	1.07	<0.00001	<2	<0.00005	<0.0001	0.00248	<0.001
23-Dec-05	315																					
30-Dec-05	322	<0.00005	14.6	<0.0005	<0.0001	0.00216	<0.03	<0.00005	1.73	0.0139	<0.00001	0.00443	<0.0005	2.03	<0.001	0.989	<0.00001	<2	<0.00005	<0.0001	0.00245	<0.001
6-Jan-06	329																					
13-Jan-06	336	<0.00005	13.6	<0.0005	<0.0001	0.00196	<0.03	<0.00005	1.75	0.0143	<0.00001	0.0052	<0.0005	1.97	<0.001	0.985	<0.00001	<2	<0.00005	<0.0001	0.0023	<0.001
20-Jan-06	343																					
27-Jan-06	350	<0.00005	14.8	<0.0005	<0.0001	0.00249	<0.03	0.000057	1.82	0.0142	<0.00001	0.00482	<0.0005	1.98	<0.001	1.02	<0.00001	<2	<0.00005	<0.0001	0.00241	0.0013
3-Feb-06	357																					
10-Feb-06	364	<0.00005	14.6	<0.0005	<0.0001	0.00265	<0.03	<0.00005	1.8	0.0144	<0.00001	0.00508	<0.0005	1.97	<0.001	1.06	<0.00001	<2	<0.00005	0.00011	0.00243	0.0016
17-Feb-06	371																					
24-Feb-06	378	<0.00005	16.3	<0.0005	<0.0001	0.00269	<0.03	<0.00005	2.03	0.0139	<0.00001	0.00495	<0.0005	1.91	<0.001	1.12	<0.00001	<2	<0.00005	<0.0001	0.00229	<0.001
3-Mar-06	385																					

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
10-Mar-06	392	2500	2495	7.62	448	91	<1	2.25	37.25	51	44.2	<0.5	0.037	6.22	0.0815	0.0041	0.0173	0.00595	<0.0002	<0.0005	<0.01
17-Mar-06	399	2500	2510	7.5	384	89															
24-Mar-06	406	2500	2405	7.65	316	102	<1	4.00	29.25	57	46.9	<0.5	0.043	7.93	0.0686	0.0043	0.0162	0.00605	<0.0002	<0.0005	<0.01
31-Mar-06	413	2500	2510	7.43	406	97															
7-Apr-06	420	2500	2520	7.86	390	115	<1	1.50	41.75	53	48.8	<0.5	0.041	8.16	0.0828	0.00445	0.0171	0.00709	<0.0002	<0.0005	<0.01
14-Apr-06	427	2500	2550	7.67	405	101															
21-Apr-06	434	2500	2515	7.84	406	105	<1	1.75	45.50	55	48.3	<0.5	0.044	8.15	0.079	0.00458	0.0171	0.00669	<0.0002	<0.0005	<0.01
28-Apr-06	441	2500	2485	7.98	350	117															
5-May-06	448	2500	2445	7.88	301	108	<1	2.11	45.33	59	52.8	<0.5	0.036	7.91	0.0875	0.00504	0.0165	0.00756	<0.0002	<0.0005	<0.01
12-May-06	455	2500	2540	7.86	251	103															
19-May-06	462	2500	2500	7.6	312	107	<1	3.40	43.62	56	50.2	<0.5	0.036	8.12	0.0796	0.0046	0.0155	0.00744	<0.0002	<0.0005	<0.01
26-May-06	469	2500	2520	7.84	273	101															
2-Jun-06	476	2500	2515	7.74	354	100	<1	2.00	43.11	53	48.8	<0.5	0.033	7.31	0.0734	0.00448	0.0153	0.00694	<0.0002	<0.0005	<0.01
9-Jun-06	483	2500	2435	7.88	260	99															
16-Jun-06	490	2500	2200	7.74	363	100	<1	2.65	42.10	62	49.6	<0.5	0.036	8.21	0.071	0.00418	0.0148	0.0072	<0.0002	<0.0005	<0.01
23-Jun-06	497	2500	2430	7.97	268	101															
30-Jun-06	504	2500	2530	7.68	318	91	<1	1.80	38.18	50	42.3	<0.5	0.038	7.17	0.0784	0.00405	0.0153	0.00617	<0.0002	<0.0005	<0.01
7-Jul-06	511	2500	2530	7.95	260	125															
14-Jul-06	518	2500	2470	7.79	324	83															
21-Jul-06	525	2500	2485																		
28-Jul-06	532	2500	2480	7.79	326	93				54	52.8	<0.5	0.042	6.1	0.0665	0.00432	0.0157	0.00707	<0.0002	<0.0005	<0.01
4-Aug-06	539	2500	2465																		
11-Aug-06	546	2500	2415	7.85	165	87															
18-Aug-06	553	2500	2520																		
25-Aug-06	560	2500	2515	7.27	217	80				49	44.8	<0.5	0.043	5.87	0.0808	0.0047	0.0166	0.00818	<0.0002	<0.0005	<0.01
1-Sep-06	567	2500	2495																		
8-Sep-06	574	2500	2580	7.88	232	92															
15-Sep-06	581	2500	2470																		
22-Sep-06	588	2500	2560	7.46	298	92	<1	2.45	39.47	55	45.6	<0.5	0.041	6.08	0.0698	0.00373	0.0162	0.00632	<0.0002	<0.0005	<0.01
29-Sep-06	595	2500	2590																		
6-Oct-06	602	2500	2650	7.86	187	91															
13-Oct-06	609	2500	2530																		
20-Oct-06	616	2500	2465	7.65	380	99	<1	2.71	43.24	57	50.1	<0.5	0.043	6.33	0.0738	0.00381	0.0167	0.00712	<0.0002	<0.0005	<0.01
27-Oct-06	623	2500	2635																		
3-Nov-06	630	2500	2660	7.32	371	95															
10-Nov-06	637	2500	2450																		
17-Nov-06	644	2500	2405	7.34	338	92	<1	3.21	40.43	46.3	45.9	<0.5	0.033	5.03	0.0704	0.00313	0.0135	0.00601	<0.0002	<0.0005	<0.01
24-Nov-06	651	2500	2395																		
1-Dec-06	658	2500	2615	7.73	348	86															
8-Dec-06	665	2500	2580																		
15-Dec-06	672	2500	2525							44	40.4	<0.5	0.036	4.97	0.0753	0.00327	0.0145	0.00598	<0.0002	<0.0005	<0.01
22-Dec-06	679	2500	2465																		
29-Dec-06	686	2500	2465	7.9	370	99															
5-Jan-07	693	2500	2505																		
12-Jan-07	700	2500	2570	7.6	313	89	<1	2.36	41.14	97	46	<0.5	0.031	4.91	0.0692	0.00317	0.0138	0.00859	<0.0002	<0.0005	<0.01
19-Jan-07	707	2500	2450																		
26-Jan-07	714	2500	2540	7.09	398	103															
2-Feb-07	721	2500	2530																		
9-Feb-07	728	2500	2555	7.27	382	99	<1	4.46	40.60	52	41.5	<0.5	0.025	4.91	0.0709	0.00315	0.0135	0.00678	<0.0002	<0.0005	<0.01
16-Feb-07	735	2500	2500																		
23-Feb-07	742	2500	2495	7.52	343	83															
2-Mar-07	749	2500	2540																		
9-Mar-07	756	2500	2545	7.54	374	91	<1	2.37	40.61	53.8	46.2	<0.5	0.057	5	0.0756	0.00319	0.0139	0.00678	<0.0002	<0.0005	<0.01
16-Mar-07	763	2500	2405																		
23-Mar-07	770	2500	2460	7.55	394	96															
30-Mar-07	777	2500	2465																		
6-Apr-07	784	2500	2435	7.85	377	104	<1	2.44	44.33	47.5	45.3	<0.5	0.04	5.14	0.079	0.00323	0.0134	0.00781	<0.0002	<0.0005	<0.01

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
10-Mar-06	392	<0.00005	14.6	<0.0005	<0.0001	0.00275	<0.03	0.000052	1.87	0.0139	<0.00001	0.00448	<0.0005	1.93	<0.001	1	<0.00001	<2	<0.00005	0.00025	0.00249	<0.001
17-Mar-06	399																					
24-Mar-06	406	<0.00005	15.6	<0.0005	<0.0001	0.00265	<0.03	<0.00005	1.91	0.014	<0.00001	0.0052	<0.0005	1.91	<0.001	1.15	<0.00001	<2	<0.00005	<0.0001	0.00234	<0.001
31-Mar-06	413																					
7-Apr-06	420	<0.00005	15.8	<0.0005	<0.0001	0.00292	<0.03	0.000061	2.27	0.0165	<0.00001	0.00599	<0.0005	2.21	<0.001	1.09	<0.00001	<2	<0.00005	0.0001	0.00289	0.0021
14-Apr-06	427																					
21-Apr-06	434	<0.00005	15.9	<0.0005	<0.0001	0.00284	<0.03	<0.00005	2.09	0.0162	<0.00001	0.00585	<0.0005	2.07	<0.001	1.05	<0.00001	<2	<0.00005	<0.0001	0.0023	<0.001
28-Apr-06	441																					
5-May-06	448	<0.00005	17	<0.0005	<0.0001	0.00531	<0.03	<0.00005	2.53	0.0176	<0.00001	0.00608	<0.0005	2.29	<0.001	1.3	<0.00001	<2	<0.00005	0.00016	0.00292	<0.001
12-May-06	455																					
19-May-06	462	<0.00005	16.4	<0.0005	<0.0001	0.00296	<0.03	<0.00005	2.23	0.0162	<0.00001	0.00689	<0.0005	2.04	<0.001	1.16	<0.00001	<2	<0.00005	<0.0001	0.00275	<0.001
26-May-06	469																					
2-Jun-06	476	<0.00005	15.8	<0.0005	<0.0001	0.00444	<0.03	<0.00005	2.28	0.0157	<0.00001	0.00583	<0.0005	1.9	<0.001	1.01	<0.00001	<2	<0.00005	<0.0001	0.00252	<0.001
9-Jun-06	483																					
16-Jun-06	490	<0.00005	15.9	<0.0005	<0.0001	0.00292	<0.03	<0.00005	2.4	0.0168	<0.00001	0.00642	<0.0005	1.98	<0.001	1.03	<0.00001	<2	<0.00005	<0.0001	0.00253	<0.001
23-Jun-06	497																					
30-Jun-06	504	<0.00005	13.5	<0.0005	<0.0001	0.00286	<0.03	<0.00005	2.1	0.0144	<0.00001	0.00614	<0.0005	1.75	<0.001	0.893	<0.00001	<2	<0.00005	<0.0001	0.00261	<0.001
7-Jul-06	511																					
14-Jul-06	518																					
21-Jul-06	525																					
28-Jul-06	532	<0.00005	17.1	<0.0005	<0.0001	0.00441	<0.03	<0.00005	2.44	0.016	<0.00001	0.00518	<0.0005	1.87	<0.001	1.12	<0.00001	<2	<0.00005	<0.0001	0.00265	<0.001
4-Aug-06	539																					
11-Aug-06	546																					
18-Aug-06	553																					
25-Aug-06	560	<0.00005	14.1	<0.0005	<0.0001	0.00398	<0.03	<0.00005	2.32	0.0147	<0.00001	0.00546	<0.0005	1.85	<0.001	1.13	<0.00001	<2	<0.00005	<0.0001	0.0028	<0.001
1-Sep-06	567																					
8-Sep-06	574																					
15-Sep-06	581																					
22-Sep-06	588	<0.00005	14.7	<0.0005	<0.0001	0.00308	<0.03	0.00014	2.18	0.0142	<0.00001	0.00516	<0.0005	1.6	<0.001	0.944	<0.00001	<2	<0.00005	<0.0001	0.00256	0.0015
29-Sep-06	595																					
6-Oct-06	602																					
13-Oct-06	609																					
20-Oct-06	616	<0.00005	15.7	<0.0005	<0.0001	0.00251	<0.03	<0.00005	2.63	0.0135	<0.00001	0.00554	<0.0005	1.72	<0.001	1.01	<0.00001	<2	<0.00005	<0.0001	0.00265	<0.001
27-Oct-06	623																					
3-Nov-06	630																					
10-Nov-06	637																					
17-Nov-06	644	<0.00005	14.7	<0.0005	<0.0001	0.0023	<0.03	<0.00005	2.21	0.0128	<0.00001	0.00431	<0.0005	1.48	<0.001	0.913	<0.00001	<2	<0.00005	<0.0001	0.00238	<0.001
24-Nov-06	651																					
1-Dec-06	658																					
8-Dec-06	665																					
15-Dec-06	672	<0.00005	12.7	<0.0005	<0.0001	0.00234	<0.03	<0.00005	2.14	0.011	<0.00001	0.0043	<0.0005	1.55	<0.001	0.948	<0.00001	<2	<0.00005	<0.0001	0.0025	<0.001
22-Dec-06	679																					
29-Dec-06	686																					
5-Jan-07	693																					
12-Jan-07	700	<0.00005	14.6	<0.0005	<0.0001	0.00185	<0.03	<0.00005	2.35	0.0084	<0.00001	0.00433	<0.0005	1.44	<0.001	0.921	<0.00001	<2	<0.00005	<0.0001	0.00244	0.0067
19-Jan-07	707																					
26-Jan-07	714																					
2-Feb-07	721																					
9-Feb-07	728	<0.00005	12.2	<0.0005	<0.0001	0.00239	<0.03	<0.00005	2.66	0.00984	<0.00001	0.00481	<0.0005	1.63	<0.001	0.799	<0.00001	<2	<0.00005	<0.0001	0.00244	
16-Feb-07	735																					
23-Feb-07	742																					
2-Mar-07	749																					
9-Mar-07	756	<0.00005	14.1	<0.0005	<0.0001	0.00152	<0.03	<0.00005	2.69	0.00798	<0.00001	0.00481	<0.0005	1.6	<0.001	0.932	<0.00001	<2	<0.00005	<0.0001	0.00256	<0.001
16-Mar-07	763																					
23-Mar-07	770																					
30-Mar-07	777																					
6-Apr-07	784	<0.00005	13.6	<0.0005	<0.0001	0.00149	<0.03	<0.00005	2.73	0.00904	<0.00001	0.00464	<0.0005	1.64	<0.001	0.913	<0.00001	<2	<0.00005	<0.0001	0.00249	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
13-Apr-07	791	2500	2440																		
20-Apr-07	798	2500	2425																		
27-Apr-07	805	2500	2440																		
4-May-07	812	2500	2530	7.74	360	97	<1	2.09	41.90	44.5	43.7	<0.5	0.036	4.88	0.0789	0.00296	0.0132	0.00627	<0.0002	<0.0005	<0.01
11-May-07	819	2500	2350																		
18-May-07	826	2500	2415	7.94	369	100															
25-May-07	833	2500	2380																		
1-Jun-07	840	2500	2440	7.92	370	103	<1	1.64	44.51	50	47.4	<0.5	0.041	5.32	0.0812	0.00288	0.0122	0.00698	<0.0002	<0.0005	<0.01
8-Jun-07	847	2500	2405																		
15-Jun-07	854	2500	2415	7.81	366	104															
22-Jun-07	861	2500	2450																		
29-Jun-07	868	2500	2400	7.92	339	104	<1	2.19	46.80	57.8	47.3	<0.5	0.026	5.4	0.071	0.00275	0.0115	0.00684	<0.0002	<0.0005	<0.01
6-Jul-07	875	2500	2450																		
13-Jul-07	882	2500	2505	7.79	309	93															
20-Jul-07	889	2500	2505																		
27-Jul-07	896	2500	2195	7.61	403	102	<1	3.45	44.34	50.3	47.4	<0.5	0.04	5.12	0.0767	0.00278	0.0123	0.00691	<0.0002	<0.0005	<0.01
3-Aug-07	903	2500	2725																		
10-Aug-07	910	2500	2595	7.7	428	96															
17-Aug-07	917	2500	2500																		
24-Aug-07	924	2500	2400	7.92	377	71	<1	1.84	38.19	41.3	39.8	<0.5	0.03	4.05	0.0592	0.00219	0.00846	0.00588	<0.0002	<0.0005	<0.01
31-Aug-07	931	2500	2390																		
7-Sep-07	938	2500	2425	7.96	406	73															
14-Sep-07	945	2500	2365																		
21-Sep-07	952	2500	2420	7.86	398	59	<1	5.49	42.80	44.5	44.6	<0.5	0.034	5.05	0.0594	0.00222	0.00917	0.00657	<0.0002	<0.0005	<0.01
28-Sep-07	959	2500	2425																		
5-Oct-07	966	2500	2425	7.77	417	105															
12-Oct-07	973	2500	2045																		
19-Oct-07	980	2500	2360	7.87	413	89	<1	2.86	43.66	48.7	43	<0.5	0.035	4.15	0.0514	0.0022	0.00897	0.00619	<0.0002	<0.0005	<0.01
26-Oct-07	987	2500	2420																		
2-Nov-07	994	2500	2420	7.92	407	90															
9-Nov-07	1001	2500	2465																		
16-Nov-07	1008	2500	2460	7.87	453	88	<1	2.89	42.53	48.8	44.4	<0.5	0.029	4.2	0.0631	0.00223	0.00994	0.00641	<0.0002	<0.0005	<0.01
23-Nov-07	1015	2500	2360																		
30-Nov-07	1022	2500	2390	7.94	440	86															
7-Dec-07	1029	2500	2460																		
14-Dec-07	1036	2500	2450	7.7	435	91	<1	2.44	43.39	46	42.6	<0.5	0.033	3.86	0.0528	0.00199	0.00881	0.00562	<0.0002	<0.0005	<0.01
21-Dec-07	1043	2500	2320																		
28-Dec-07	1050	2500	2320	7.7	438	95															
4-Jan-08	1057	2500	2275																		
11-Jan-08	1064	2500	2420	7.84	437	77	<1	2.56	40.70	34.5	39.7	<0.5	0.03	3.08	0.048	0.0016	0.00698	0.00499	<0.0002	<0.0005	<0.01
18-Jan-08	1071	2500	2270																		
25-Jan-08	1078	2500	2705	7.83	434	79															
1-Feb-08	1085	2500	2535																		
8-Feb-08	1092	2500	2330	7.93	452	79	<1	2.72	43.06	49	39.7	<0.5	0.038	3.89	0.0504	0.00216	0.00872	0.0064	<0.0002	<0.0005	<0.01
15-Feb-08	1099	2500	2555																		
22-Feb-08	1106	2500	2525	7.96	401	80															
29-Feb-08	1113	2500	2420																		
7-Mar-08	1120	2500	2350	7.86	407	82	<1	3.42	43.95	46.2	41.5	<0.5	0.055	4.02	0.0629	0.0021	0.00969	0.00593	<0.0002	<0.0005	<0.01
14-Mar-08	1127	2500	2375																		
21-Mar-08	1134	2500	2400	7.91	418	82															
28-Mar-08	1141	2500	2340																		
4-Apr-08	1148	2500	2350	7.9	410	70	<1	2.51	41.92	40	39.9	<0.5	0.03	3.87	0.0469	0.00171	0.00652	0.00576	<0.0002	<0.0005	<0.01
11-Apr-08	1155	2500	2355																		
18-Apr-08	1162	2500	2500	7.9	385	87															
25-Apr-08	1169	2500	2505																		
2-May-08	1176	2500	2435	7.92	386	81	<1	2.37	40.98	41.8	39.4	<0.5	0.034	4.28	0.0452	0.00164	0.00615	0.00579	<0.0002	<0.0005	<0.01
9-May-08	1183	2500	2485																		

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
13-Apr-07	791																					
20-Apr-07	798																					
27-Apr-07	805																					
4-May-07	812	<0.00005	13.2	<0.0005	<0.0001	0.00189	<0.03	<0.00005	2.62	0.00981	<0.00001	0.00465	<0.0005	1.5	<0.001	0.901	<0.00001	<2	<0.00005	<0.0001	0.00257	<0.001
11-May-07	819																					
18-May-07	826																					
25-May-07	833																					
1-Jun-07	840	<0.00005	14.3	<0.0005	<0.0001	0.00239	<0.03	<0.00005	2.82	0.0107	<0.00001	0.00526	<0.0005	1.55	<0.001	0.905	0.000012	<2	<0.00005	<0.0001	0.00268	<0.001
8-Jun-07	847																					
15-Jun-07	854																					
22-Jun-07	861																					
29-Jun-07	868	<0.00005	14.3	<0.0005	<0.0001	0.00185	<0.03	<0.00005	2.83	0.0112	<0.00001	0.00551	<0.0005	1.55	<0.001	0.968	<0.00001	<2	<0.00005	<0.0001	0.00248	<0.001
6-Jul-07	875																					
13-Jul-07	882																					
20-Jul-07	889																					
27-Jul-07	896	<0.00005	14.1	<0.0005	<0.0001	0.00245	<0.03	0.000068	2.99	0.0117	<0.00001	0.00495	<0.0005	1.52	<0.001	0.957	<0.00001	<2	<0.00005	<0.0001	0.00253	<0.001
3-Aug-07	903																					
10-Aug-07	910																					
17-Aug-07	917																					
24-Aug-07	924	<0.00005	11.6	<0.0005	<0.0001	0.00209	<0.03	<0.00005	2.61	0.01	<0.00001	0.00389	<0.0005	1.21	<0.001	0.742	<0.00001	<2	<0.00005	<0.0001	0.002	<0.001
31-Aug-07	931																					
7-Sep-07	938																					
14-Sep-07	945																					
21-Sep-07	952	<0.00005	13.1	<0.0005	<0.0001	0.00249	<0.03	<0.00005	2.9	0.0127	<0.00001	0.00469	<0.0005	1.31	<0.001	0.903	<0.00001	<2	<0.00005	<0.0001	0.0021	<0.001
28-Sep-07	959																					
5-Oct-07	966																					
12-Oct-07	973																					
19-Oct-07	980	<0.00005	12.6	<0.0005	<0.0001	0.00156	<0.03	<0.00005	2.78	0.0135	<0.00001	0.00383	<0.0005	1.23	<0.001	0.867	<0.00001	<2	<0.00005	<0.0001	0.00196	<0.001
26-Oct-07	987																					
2-Nov-07	994																					
9-Nov-07	1001																					
16-Nov-07	1008	<0.00005	13.1	<0.0005	<0.0001	0.00302	<0.03	<0.00005	2.85	0.0141	<0.00001	0.0037	<0.0005	1.29	<0.001	0.863	<0.00001	<2	<0.00005	<0.0001	0.00208	<0.001
23-Nov-07	1015																					
30-Nov-07	1022																					
7-Dec-07	1029																					
14-Dec-07	1036	<0.00005	12.4	0.00085	<0.0001	0.00233	<0.03	<0.00005	2.85	0.0124	<0.00001	0.00336	<0.0005	1.21	<0.001	0.737	<0.00001	<2	<0.00005	<0.0001	0.00196	<0.001
21-Dec-07	1043																					
28-Dec-07	1050																					
4-Jan-08	1057																					
11-Jan-08	1064	<0.00005	11.9	<0.0005	<0.0001	0.00171	<0.03	<0.00005	2.44	0.00996	<0.00001	0.00279	<0.0005	0.999	<0.001	0.69	<0.00001	<2	<0.00005	<0.0001	0.00175	<0.001
18-Jan-08	1071																					
25-Jan-08	1078																					
1-Feb-08	1085																					
8-Feb-08	1092	<0.00005	11.4	<0.0005	<0.0001	0.00314	<0.03	<0.00005	2.69	0.012	<0.00001	0.00431	<0.0005	1.17	<0.001	0.781	<0.00001	<2	<0.00005	<0.0001	0.00189	<0.001
15-Feb-08	1099																					
22-Feb-08	1106																					
29-Feb-08	1113																					
7-Mar-08	1120	<0.00005	11.9	<0.0005	<0.0001	0.00232	<0.03	0.000066	2.88	0.012	<0.00001	0.00388	<0.0005	1.29	<0.001	0.833	<0.00001	<2	<0.00005	<0.0001	0.00209	<0.001
14-Mar-08	1127																					
21-Mar-08	1134																					
28-Mar-08	1141																					
4-Apr-08	1148	<0.00005	11.5	<0.0005	<0.0001	0.00241	<0.03	0.000054	2.72	0.0128	<0.00001	0.00379	<0.0005	1.1	<0.001	0.729	<0.00001	<2	<0.00005	<0.0001	0.00165	<0.001
11-Apr-08	1155																					
18-Apr-08	1162																					
25-Apr-08	1169																					
2-May-08	1176	<0.00005	11.1	<0.0005	<0.0001	0.00213	<0.03	<0.00005	2.86	0.0134	0.000027	0.00399	<0.0005	1.17	<0.001	0.761	<0.00001	<2	<0.00005	<0.0001	0.00169	<0.001
9-May-08	1183																					

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
16-May-08	1190	2500	2430	8.02	364	85															
23-May-08	1197	2500	2430																		
30-May-08	1204	2500	2380	8.03	368	76	<1	2.26	41.17	46.3	40.5	<0.5	0.057	4.15	0.0386	0.00156	0.00554	0.00541	<0.0002	<0.0005	<0.01
6-Jun-08	1211	2500	2480																		
13-Jun-08	1218	2500	2425	7.88	363	56															
20-Jun-08	1225	2500	2330																		
27-Jun-08	1232	2500	2285	7.91	343	86	<1	3.83	46.73	55	42.4	<0.5	0.036	4.6	0.0407	0.00163	0.00614	0.00574	<0.0002	<0.0005	<0.01
4-Jul-08	1239	2500	2490																		
11-Jul-08	1246	2500	2325	8.01	400	98															
18-Jul-08	1253	2500	2470																		
25-Jul-08	1260	2500	2425	7.92	377	86	<1	2.72	41.19	43.5	42	<0.5	0.034	3.61	0.0449	0.00172	0.00678	0.00551	<0.0002	<0.0005	<0.01
1-Aug-08	1267	2500	2445																		
8-Aug-08	1274	2500	2505	8	369	85															
15-Aug-08	1281	2500	2565																		
22-Aug-08	1288	2500	2435	7.96	288	83	<1	1.55	49.94	49.5	45.4	<0.5	0.035	4.35	0.044	0.00176	0.00712	0.00582	<0.0002	<0.0005	<0.01
29-Aug-08	1295	2500	2490																		
5-Sep-08	1302	2500	2410	7.94	347	101															
12-Sep-08	1309	2500	2500																		
19-Sep-08	1316	2500	2480	7.98	288	84	<1	2.55	43.48	41.8	40.7	<0.5	0.043	3.63	0.0537	0.0018	0.00752	0.00545	<0.0002	<0.0005	<0.01
26-Sep-08	1323	2500	2435																		
3-Oct-08	1330	2500	2340	7.94	393	85															
10-Oct-08	1337	2500	2350																		
17-Oct-08	1344	2500	2345	8.08	396	92	<1	1.56	46.44	53	44.5	<0.5	0.035	4.27	0.0541	0.00188	0.00749	0.00615	<0.0002	<0.0005	<0.01
24-Oct-08	1351	2500	2430																		
31-Oct-08	1358	2500	2150	7.8	437	76															
7-Nov-08	1365	2500	2520																		
14-Nov-08	1372	2500	2230	7.81	425	81	<1	1.88	43.40	39	43.2	<0.5	0.035	4.16	0.0539	0.00169	0.00722	0.00584	<0.0002	<0.0005	<0.01
21-Nov-08	1379	2500	2435																		
28-Nov-08	1386	2500	2275	7.7	322	79															
5-Dec-08	1393	2500	2360																		
12-Dec-08	1400	2500	2440	7.81	358	77	<1	2.69	46.78	40.5	42.4	<0.5	0.03	3.35	0.0521	0.00181	0.00811	0.00536	<0.0002	<0.0005	<0.01
19-Dec-08	1407	2500	2515																		
26-Dec-08	1414	2500	2285	7.87	354	93															
2-Jan-09	1421	2500	2375																		
9-Jan-09	1428	2500	2500	7.78	369	88	<1	2.60	51.84	45	47	<0.5	0.03	3.86	0.0535	0.00222	0.00803	0.0067	<0.0002	<0.0005	<0.01
16-Jan-09	1435	2500	2450																		
23-Jan-09	1442	2500	2330	7.82	379	89															
30-Jan-09	1449	2500	2375																		
6-Feb-09	1456	2500	2265	7.72	352	92	<1	4.76	53.22	48.8	50	<0.5	0.034	4.01	0.0459	0.00208	0.00719	0.0062	<0.0002	<0.0005	<0.01
13-Feb-09	1463	2500	2320																		
20-Feb-09	1470	2500	2485	7.9	347	85															
27-Feb-09	1477	2500	2425																		
6-Mar-09	1484	2500	2340	7.73	314	83	<1	5.89	48.95	36.8	44	<0.5	0.036	3.77	0.0444	0.00199	0.00745	0.00588	<0.0002	<0.0005	<0.01
13-Mar-09	1491	2500	2375																		
20-Mar-09	1498	2500	2315	7.8	333	91															
27-Mar-09	1505	2500	2395																		
3-Apr-09	1512	2500	2345	7.73	362	82	<1	3.10	47.13	44.5	43.9	<0.5	0.04	3.85	0.0413	0.00185	0.00703	0.00576	<0.0002	<0.0005	<0.01
10-Apr-09	1519	2500	2265																		
17-Apr-09	1526	2500	2425	7.85	358	89															
24-Apr-09	1533	2500	2300																		
1-May-09	1540	2500	2365	7.91	347	108	<1	2.95	63.12	59.5	56.1	<0.5	0.051	4.91	0.0309	0.00202	0.00726	0.00732	<0.0002	<0.0005	<0.01
8-May-09	1547	2500	2405																		
15-May-09	1554	2500	2400	7.82	364	92															
22-May-09	1561	2500	2165																		
29-May-09	1568	2500	2495	7.88	361	77	<1	2.81	48.54	44.3		<0.5	0.032	3.01							
5-Jun-09	1575	2500	2425																		
12-Jun-09	1582	2500	2260	7.91	350	94															

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
16-May-08	1190																					
23-May-08	1197																					
30-May-08	1204	<0.00005	11.6	<0.0005	<0.0001	0.00185	<0.03	<0.00005	2.79	0.013	<0.00001	0.00321	<0.0005	1.03	<0.001	0.72	<0.00001	<2	<0.00005	<0.0001	0.00139	<0.001
6-Jun-08	1211																					
13-Jun-08	1218																					
20-Jun-08	1225																					
27-Jun-08	1232	<0.00005	11.9	<0.0005	<0.0001	0.00341	<0.03	<0.00005	3.08	0.0146	<0.00001	0.00379	<0.0005	1.11	<0.001	0.706	<0.00001	<2	<0.00005	<0.0001	0.00155	<0.001
4-Jul-08	1239																					
11-Jul-08	1246																					
18-Jul-08	1253																					
25-Jul-08	1260	<0.00005	11.9	<0.0005	<0.0001	0.002	<0.03	<0.00005	2.95	0.0139	<0.00001	0.00384	<0.0005	1.1	<0.001	0.766	<0.00001	<2	<0.00005	<0.0001	0.00169	<0.001
1-Aug-08	1267																					
8-Aug-08	1274																					
15-Aug-08	1281																					
22-Aug-08	1288	<0.00005	12.6	<0.0005	<0.0001	0.00194	<0.03	<0.00005	3.4	0.0146	<0.00001	0.00413	<0.0005	1.19	<0.001	0.773	<0.00001	<2	<0.00005	<0.0001	0.00185	<0.001
29-Aug-08	1295																					
5-Sep-08	1302																					
12-Sep-08	1309																					
19-Sep-08	1316	<0.00005	11.1	<0.0005	<0.0001	0.00194	<0.03	<0.00005	3.13	0.0132	<0.00001	0.00302	<0.0005	1.13	<0.001	0.814	<0.00001	<2	<0.00005	<0.0001	0.00189	<0.001
26-Sep-08	1323																					
3-Oct-08	1330																					
10-Oct-08	1337																					
17-Oct-08	1344	<0.00005	12.4	<0.0005	<0.0001	0.00208	<0.03	<0.00005	3.27	0.0146	<0.00001	0.00389	<0.0005	1.24	<0.001	0.784	<0.00001	<2	<0.00005	<0.0001	0.002	<0.001
24-Oct-08	1351																					
31-Oct-08	1358																					
7-Nov-08	1365																					
14-Nov-08	1372	<0.00005	12.2	<0.0005	<0.0001	0.00187	<0.03	<0.00005	3.1	0.0142	<0.00001	0.0036	<0.0005	1.16	<0.001	0.761	<0.00001	<2	<0.00005	<0.0001	0.00186	<0.001
21-Nov-08	1379																					
28-Nov-08	1386																					
5-Dec-08	1393																					
12-Dec-08	1400	<0.00005	11.8	<0.0005	<0.0001	0.00227	<0.03	<0.00005	3.13	0.0132	<0.00001	0.00312	<0.0005	1.07	<0.001	0.714	<0.00001	<2	<0.00005	<0.0001	0.00173	<0.001
19-Dec-08	1407																					
26-Dec-08	1414																					
2-Jan-09	1421																					
9-Jan-09	1428	<0.00005	13.2	<0.0005	<0.0001	0.00355	<0.03	<0.00005	3.4	0.0172	<0.00001	0.00339	<0.0005	1.24	<0.001	0.873	<0.00001	<2	<0.00005	<0.0001	0.00197	0.0011
16-Jan-09	1435																					
23-Jan-09	1442																					
30-Jan-09	1449																					
6-Feb-09	1456	<0.00005	13	<0.0005	<0.0001	0.00243	<0.03	<0.00005	4.26	0.0178	<0.00001	0.00347	<0.0005	1.25	<0.001	0.831	<0.00001	<2	<0.00005	<0.0001	0.00174	<0.001
13-Feb-09	1463																					
20-Feb-09	1470																					
27-Feb-09	1477																					
6-Mar-09	1484	<0.00005	12.3	<0.0005	<0.0001	0.00217	<0.03	<0.00005	3.22	0.0166	<0.00001	0.00321	<0.0005	1.21	<0.001	0.783	<0.00001	<2	<0.00005	<0.0001	0.00193	<0.001
13-Mar-09	1491																					
20-Mar-09	1498																					
27-Mar-09	1505																					
3-Apr-09	1512	<0.00005	12	<0.0005	<0.0001	0.00229	<0.03	<0.00005	3.37	0.0174	<0.00001	0.00331	<0.0005	1.14	<0.001	0.762	<0.00001	<2	<0.00005	<0.0001	0.00178	<0.001
10-Apr-09	1519																					
17-Apr-09	1526																					
24-Apr-09	1533																					
1-May-09	1540	<0.00005	15.8	<0.0005	<0.0001	0.00326	<0.03	<0.00005	4.02	0.0213	<0.00001	0.00437	<0.0005	1.29	<0.001	0.916	<0.00001	<2	<0.00005	<0.0001	0.00172	<0.001
8-May-09	1547																					
15-May-09	1554																					
22-May-09	1561																					
29-May-09	1568																					
5-Jun-09	1575																					
12-Jun-09	1582																					

Column Test Data: Tailings

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
19-Jun-09	1589	2500	2635																		
26-Jun-09	1596	2500	2235	7.81	361	79	<1	3.69	53.73	52.5		<0.5	0.04	3.6							
3-Jul-09	1603	2500	2475																		
10-Jul-09	1610	2500	2500	7.83	271	85															
17-Jul-09	1617	2500	2495																		
24-Jul-09	1624	2500	2485	7.82	348	92	<1	3.73	57.08	51		<0.5	0.038	4.09							
31-Jul-09	1631	2500	2400																		
7-Aug-09	1638	2500	2570	7.79	347	71															
14-Aug-09	1645	2500	2420																		
21-Aug-09	1652	2500	2455	7.67	343	81	<1	3.40	50.28	36.7		<0.5	0.03	3.51							
28-Aug-09	1659	2500	2470																		
4-Sep-09	1666	2500	2555	7.77	336	83															
11-Sep-09	1673	2500	2385																		
18-Sep-09	1680	2500	2435	7.65	335	80	<1	4.13	49.34	45		<0.5	0.034	4.04							
25-Sep-09	1687	2500	2495																		
2-Oct-09	1694	2500	2440	7.79	349	91															
9-Oct-09	1701	2500	2315																		
16-Oct-09	1708	2500	2345	7.37	351	89	<1	5.56	47.18	42		<0.5	0.028	3.75							
23-Oct-09	1715	2500	2425																		

Sample 2 Scavenger T2

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
11-Feb-05	0	0	1670	8.12	328	889	<1	2.25	100.50	650	386	6.25	1.34	346	0.0094	0.0031	0.051	0.0132	<0.0004	<0.001	0.022
18-Feb-05	7	2500	2520	8.43	329	444															
25-Feb-05	14	2500	2480	8.32	376	181	<1	<1	90.50	102	58.9	<0.5	2.8	3.8	0.0245	0.00163	0.0302	0.0126	<0.0004	<0.001	0.025
4-Mar-05	21	2500	2420	8.23	414	152															
11-Mar-05	28	2500	2445	8.12	405	138	<1	2.00	67.75	79	51.3	<0.5	0.948	6.67	0.0286	0.00158	0.0164	0.0122	<0.0002	<0.0005	0.018
18-Mar-05	35	2500	2455	8.15	415	141															
25-Mar-05	42	2500	2505	8.13	428	136	<1	1.00	60.50	83	49.9	<0.5	0.336	8.61	0.0315	0.00152	0.016	0.0118	<0.0002	<0.0005	0.011
1-Apr-05	49	2500	2495	8.11	421	133															
8-Apr-05	56	2500	2505	8.15	327	129	<1	<1	54.25	74	45.1	<0.2	0.18	8.07	0.0362	0.00128	0.0184	0.0107	<0.0002	<0.0005	<0.01
15-Apr-05	63	2500	2505	8.13	405	130															
22-Apr-05	70	2500	2490	8.14	388	130	<1	1.00	55.50	78	49.3	<0.5	0.139	9.76	0.0317	0.00134	0.0169	0.0106	<0.0002	<0.0005	<0.01
29-Apr-05	77	2500	2500	8.21	406	129															
6-May-05	84	2500	2510	8.12	371	129	<1	1.25	55.50	71	50	<0.5	0.111	10.3	0.0333	0.00154	0.0181	0.0109	<0.0002	<0.0005	<0.01
13-May-05	91	2500	2495	8.06	348	125															
20-May-05	98	2500	2495	8.09	370	126	<1	2.75	55.00	74	48.9	<0.5	0.082	10.2	0.0337	0.00155	0.0193	0.011	<0.0002	<0.0005	<0.01
27-May-05	105	2500	2505	8.2	379	123															
3-Jun-05	112	2500	2490	8.19	348	123	<1	<1	54.75	69	48.8	<0.5	0.095	10.3	0.0342	0.00148	0.0184	0.00994	<0.0002	<0.0005	<0.01
10-Jun-05	119	2500	2500	8.15	364	121															
17-Jun-05	126	2500	2500	8.21	350	121	<1	1.25	54.25	68	50	<0.5	0.082	9.32	0.0308	0.00144	0.0197	0.0101	<0.0002	<0.0005	<0.01
24-Jun-05	133	2500	2505	8.22	272	121															
1-Jul-05	140	2500	2505	8.18	283	118	<1	<1	54.00	68	49.8	<0.5	0.063	8.24	0.0321	0.00117	0.0209	0.00954	<0.0002	<0.0005	<0.01
8-Jul-05	147	2500	2500	8.16	286	121															
15-Jul-05	154	2500	2500	8.04	286	122	<1	1.00	56.50	74	55.5	<0.5	0.066	9.73	0.0284	0.00127	0.0181	0.00907	<0.0002	<0.0005	<0.01
22-Jul-05	161	2500	2400	8.1	321	112															
29-Jul-05	168	2500	2600	8.2	285	114	<1	<1	52.75	67	51.7	<0.5	0.068	8.19	0.0296	0.00113	0.0193	0.0086	<0.0002	<0.0005	<0.01
5-Aug-05	175	2500	2550	8.2	240	116															
12-Aug-05	182	2500	2510	8.17	351	123	<1	<1	53.75	66	56.6	<0.5	0.06	8.4	0.0292	0.00118	0.0189	0.0084	<0.0002	<0.0005	<0.01
19-Aug-05	189	2500	2510	8.01	286	115															
26-Aug-05	196	2500	2545	8.17	307	178	<1	<1	54.00	90	58.2	0.86	<0.1	8.22	0.0285	0.00106	0.0174	0.00858	<0.0002	<0.0005	<0.01
2-Sep-05	203	2500	2505	8.1	348	121															
9-Sep-05	210	2500	2500	8.07	289	108	<1	1.00	51.00	72	55.1	<0.5	0.049	7.86	0.0302	0.00095	0.0181	0.00849	<0.0002	<0.0005	<0.01
16-Sep-05	217	2500																			
23-Sep-05	224	2500	2495	7.96	232	113	<1	1.25	51.50	68	54.8	<0.5	0.028	8.04	0.0276	0.000993	0.0164	0.00854	<0.0002	<0.0005	<0.01

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
19-Jun-09	1589																					
26-Jun-09	1596																					
3-Jul-09	1603																					
10-Jul-09	1610																					
17-Jul-09	1617																					
24-Jul-09	1624																					
31-Jul-09	1631																					
7-Aug-09	1638																					
14-Aug-09	1645																					
21-Aug-09	1652																					
28-Aug-09	1659																					
4-Sep-09	1666																					
11-Sep-09	1673																					
18-Sep-09	1680																					
25-Sep-09	1687																					
2-Oct-09	1694																					
9-Oct-09	1701																					
16-Oct-09	1708																					
23-Oct-09	1715																					

Sample 2 Scavenger T2

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
11-Feb-05	0	<0.0001	121	<0.001	<0.0002	0.0029	<0.06	<0.0001	20.1	0.152	<0.0001	0.139	0.0025	30.8	<0.002	3.11	<0.00002	32.5	<0.0001	0.00214	<0.001	0.0048
18-Feb-05	7																					
25-Feb-05	14	<0.0001	17.4	<0.001	<0.0002	0.00323	<0.06	<0.0001	3.77	0.0428	<0.0001	0.0453	<0.001	14	<0.002	2.32	<0.00002	9.2	<0.0001	<0.0002	0.0013	<0.002
4-Mar-05	21																					
11-Mar-05	28	<0.00005	15.3	<0.0005	<0.0001	0.00199	<0.06	<0.00005	3.14	0.0309	<0.0001	0.0217	<0.0005	11.6	<0.001	2.29	<0.00001	<4	<0.00005	<0.0001	0.00125	<0.001
18-Mar-05	35																					
25-Mar-05	42	<0.00005	15.1	<0.0005	<0.0001	0.00218	<0.03	<0.00005	2.96	0.028	<0.0001	0.0126	<0.0005	11.5	<0.001	2.29	<0.00001	<2	<0.00005	<0.0001	0.00157	<0.001
1-Apr-05	49																					
8-Apr-05	56	<0.00005	13.3	<0.0005	<0.0001	0.00192	<0.03	<0.00005	2.86	0.0246	<0.0001	0.00882	<0.0005	10.9	<0.001	2.5	<0.00001	<2	<0.00005	<0.0001	0.00185	<0.001
15-Apr-05	63																					
22-Apr-05	70	<0.00005	15	<0.0005	<0.0001	0.00226	<0.03	<0.00005	2.88	0.026	<0.0001	0.00897	<0.0005	10.6	<0.001	2.27	<0.00001	<2	<0.00005	<0.0001	0.00178	<0.001
29-Apr-05	77																					
6-May-05	84	<0.00005	14.8	<0.0005	<0.0001	0.00241	<0.03	<0.00005	3.17	0.0262	<0.00001	0.00898	<0.0005	10.3	<0.001	2.58	<0.00001	<2	<0.00005	<0.0001	0.00184	<0.001
13-May-05	91																					
20-May-05	98	<0.00005	14.1	<0.0005	<0.0001	0.00287	<0.03	<0.00005	3.31	0.028	<0.00001	0.00876	<0.0005	10.4	<0.001	2.49	<0.00001	<2	<0.00005	<0.0001	0.00183	<0.001
27-May-05	105																					
3-Jun-05	112	<0.00005	14.6	<0.0005	<0.0001	0.00279	<0.03	0.000065	2.97	0.0265	<0.0001	0.00754	<0.0005	8.79	<0.001	2.76	<0.00001	<2	<0.00005	<0.0001	0.00182	0.0017
10-Jun-05	119																					
17-Jun-05	126	<0.00005	15.1	<0.0005	<0.0001	0.00276	<0.03	<0.00005	3.01	0.0271	<0.00001	0.00736	<0.0005	8	<0.001	2.48	<0.00001	<2	<0.00005	<0.0001	0.00189	<0.001
24-Jun-05	133																					
1-Jul-05	140	<0.00005	14.6	<0.0005	<0.0001	0.00261	<0.03	<0.00005	3.24	0.0268	<0.00001	0.0067	<0.0005	7.11	<0.001	2.57	<0.00001	<2	<0.00005	<0.0001	0.00194	<0.001
8-Jul-05	147																					
15-Jul-05	154	<0.00005	16.5	<0.0005	<0.0001	0.00303	<0.03	0.000071	3.46	0.0305	<0.00001	0.00782	<0.0005	6.38	<0.001	2.6	<0.00001	<2	<0.00005	0.00014	0.00161	<0.001
22-Jul-05	161																					
29-Jul-05	168	<0.00005	15.5	<0.0005	<0.0001	0.00364	<0.03	<0.00005	3.17	0.0275	<0.00001	0.00574	<0.0005	5.65	<0.001	2.52	<0.00001	<2	<0.00005	<0.0001	0.00174	<0.001
5-Aug-05	175																					
12-Aug-05	182	<0.00005	17	<0.0005	<0.0001	0.00402	<0.03	<0.00005	3.41	0.0284	<0.00001	0.00582	<0.0005	5.21	<0.001	2.38	<0.00001	<2	<0.00005	<0.0001	0.00168	<0.001
19-Aug-05	189																					
26-Aug-05	196	<0.00005	17.5	<0.0005	<0.0001	0.00258	<0.03	<0.00005	3.51	0.0273	<0.0001	0.00581	<0.0005	4.6	<0.001	2.42	<0.00001	<2	<0.00005	<0.0001	0.00157	<0.001
2-Sep-05	203																					
9-Sep-05	210	<0.00005	16.2	<0.0005	<0.0001	0.00485	<0.03	0.000159	3.55	0.0286	<0.00001	0.0057	<0.0005	4.27	<0.001	2.29	<0.00001	<2	<0.00005	<0.0001	0.00159	0.0012
16-Sep-05	217																					
23-Sep-05	224	<0.00005	16.3	<0.0005	<0.0001	0.00661	<0.03	<0.00005	3.39	0.029	<0.00001	0.00548	<0.0005	4.02	<0.001	2.31	<0.00001	<2	<0.00005	<0.0001	0.00156	0.0037

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
30-Sep-05	231	2500	2445	8.03	233	104															
7-Oct-05	238	2500	2495	7.9	217	113	<1	2.50	50.75	68	56.3	<0.5	0.058	7.38	0.0274	0.00089	0.0181	0.00845	<0.0002	<0.0005	<0.01
14-Oct-05	245	2500	2570	7.5	194	113															
21-Oct-05	252	2500	2500	7.5	291	114	<1	3.25	49.50	70	53.9	<0.5	0.055	8.23	0.0243	0.000881	0.0144	0.00796	<0.0002	<0.0005	<0.01
28-Oct-05	259	2500	2485	7.69	290	111															
4-Nov-05	266	2500	2770	7.6	301	109	<1	3.75	49.75	60	48.9	<0.5	0.047	7.2	0.0254	0.000631	0.0143	0.0069	<0.0002	<0.0005	<0.01
11-Nov-05	273	2500	2300	7.81	339	109															
18-Nov-05	280	2500	2765	7.85	371	106	<1	1.75	49.25	59	51.3	<0.5	0.05	7.92	0.0478	0.000659	0.0142	0.00744	<0.0002	<0.0005	<0.01
25-Nov-05	287	2500	2565	7.7	362	101															
2-Dec-05	294	2500	2495	7.79	323	106	<1	2.00	50.75	66	53.4	<0.5	0.049	8.17	0.0252	0.000712	0.0136	0.00685	<0.0002	<0.0005	<0.01
9-Dec-05	301	2500	2365	7.75	369	103															
16-Dec-05	308	2500	2625	7.74	388	92	<1	3.75	48.75	61	54	<0.5	0.051	7.89	0.0253	0.000629	0.0133	0.00705	<0.0002	<0.0005	<0.01
23-Dec-05	315	2500	2270	7.85	370	93															
30-Dec-05	322	2500	2525	7.45	374	116	<1	4.50	48.00	59	55.4	<0.5	0.053	9.64	0.0266	0.000704	0.0125	0.00747	<0.0002	<0.0005	<0.01
6-Jan-06	329	2500	2510	7.52	342	113															
13-Jan-06	336	2500	2520	7.77	459	104	<1	3.75	46.25	65	51.1	<0.5	0.046	11.2	0.0288	0.00102	0.0122	0.00738	<0.0002	<0.0005	<0.01
20-Jan-06	343	2500	2455	7.77	376	98															
27-Jan-06	350	2500	2320	7.65	382	115	<1	3.00	46.00	58	55.2	<0.5	0.04	11.8	0.0412	0.00122	0.0105	0.0071	<0.0002	<0.0005	<0.01
3-Feb-06	357	2500	2485	7.88	387	110															
10-Feb-06	364	2500	2555	7.66	396	111	<1	3.75	49.50	62	53.9	<0.5	0.04	10.9	0.0465	0.00119	0.00945	0.00751	<0.0002	<0.0005	<0.01
17-Feb-06	371	2500	2475	7.75	439	117															
24-Feb-06	378	2500	2480	7.77	439	119	<1	2.50	43.75	58	56.7	<0.5	0.04	11.4	0.0383	0.00122	0.00813	0.00732	<0.0002	<0.0005	<0.01
3-Mar-06	385	2500	2450	7.9	459	121															
10-Mar-06	392	2500	2475	7.85	430	121	<1	1.75	46.75	65	59.1	<0.5	0.035	12.1	0.0468	0.00135	0.00774	0.00857	<0.0002	<0.0005	<0.01
17-Mar-06	399	2500	2510	7.83	393	124															
24-Mar-06	406	2500	2490	7.62	350	117	<1	2.50	48.25	70	57.3	<0.5	0.038	11.9	0.0382	0.00143	0.00616	0.0079	<0.0002	<0.0005	<0.01
31-Mar-06	413	2500	2425	7.57	400	121															
7-Apr-06	420	2500	2465	7.75	401	119	<1	2.25	48.00	61	57.1	<0.5	0.037	10.6	0.0471	0.00149	0.00632	0.0084	<0.0002	<0.0005	<0.01
14-Apr-06	427	2500	2490	7.89	520	120															
21-Apr-06	434	2500	2510	8	399	119	<1	2.00	51.50	67	57.2	<0.5	0.043	10.6	0.0419	0.00156	0.00525	0.00839	<0.0002	<0.0005	<0.01
28-Apr-06	441	2500	2530	7.9	440	113															
5-May-06	448	2500	2505	7.82	292	127	<1	1.78	53.02	75	61.4	<0.5	0.04	9.88	0.0414	0.0017	0.00494	0.00942	<0.0002	<0.0005	<0.01
12-May-06	455	2500	2525	8.03	264	123															
19-May-06	462	2500	2545	7.92	315	128	<1	1.85	51.30	70	58.9	<0.5	0.039	9.13	0.0357	0.00164	0.00446	0.00921	<0.0002	<0.0005	<0.01
26-May-06	469	2500	2515	7.88	311	126															
2-Jun-06	476	2500	2540	7.94	322	120	<1	2.09	52.10	61	58.2	<0.5	0.037	8.11	0.037	0.00144	0.00449	0.00865	<0.0002	<0.0005	<0.01
9-Jun-06	483	2500	2505	7.95	280	125															
16-Jun-06	490	2500	2520	7.99	319	120	<1	1.50	53.13	68	60	<0.5	0.039	8.25	0.0348	0.0015	0.00434	0.00857	<0.0002	<0.0005	<0.01
23-Jun-06	497	2500	1760	8.06	266	114															
30-Jun-06	504	2500	2430	7.89	237	125	<1	2.63	55.68	68	58.8	<0.5	0.043	8.19	0.0321	0.00148	0.00416	0.00926	<0.0002	<0.0005	<0.01
7-Jul-06	511	2500	2445	7.97	263	125															
14-Jul-06	518	2500	2450	7.92	330	111															
21-Jul-06	525	2500	2560																		
28-Jul-06	532	2500	2470	7.51	359	123	<1	2.75	52.27	66	64.9	<0.5	0.04	7.95	0.0319	0.00146	0.00406	0.00929	<0.0002	<0.0005	<0.01
4-Aug-06	539	2500	2525																		
11-Aug-06	546	2500	2485	8.13	201	118															
18-Aug-06	553	2500	2620																		
25-Aug-06	560	2500	2540	7.15	324	119	<1	7.41	58.01	65	61.1	<0.5	0.044	7.06	0.0299	0.00168	0.00399	0.00946	<0.0002	<0.0005	<0.01
1-Sep-06	567	2500	2555																		
8-Sep-06	574	2500	2455	7.98	233	121															
15-Sep-06	581	2500	2530																		
22-Sep-06	588	2500	2500	7.55	278	116	<1	2.50	51.32	74	57.7	<0.5	0.043	6.68	0.0234	0.00136	0.00381	0.0088	<0.0002	<0.0005	<0.01
29-Sep-06	595	2500	2470																		
6-Oct-06	602	2500	2670	7.78	274	116															
13-Oct-06	609	2500	2540																		
20-Oct-06	616	2500	2485	7.73	347	116	<1	2.80	52.01	68	59.2	<0.5	0.043	7.07	0.0285	0.00132	0.00403	0.00876	<0.0002	<0.0005	<0.01
27-Oct-06	623	2500	2035																		

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
30-Sep-05	231																					
7-Oct-05	238	<0.00005	16.9	<0.0005	<0.0001	0.00314	<0.03	<0.00005	3.42	0.0281	<0.00001	0.00471	<0.0005	4.03	<0.001	2.27	<0.00001	<2	<0.00005	<0.0001	0.00147	<0.001
14-Oct-05	245																					
21-Oct-05	252	<0.00005	16.4	<0.0005	<0.0001	0.00233	<0.03	<0.00005	3.13	0.0259	<0.00001	0.00496	<0.0005	3.39	<0.001	2.03	<0.00001	<2	<0.00005	<0.0001	0.00131	<0.001
28-Oct-05	259																					
4-Nov-05	266	<0.00005	14.6	<0.0005	<0.0001	0.00297	<0.03	<0.00005	3.02	0.0239	<0.00001	0.00432	<0.0005	2.77	<0.001	1.83	<0.00001	<2	<0.00005	<0.0001	0.00108	0.001
11-Nov-05	273																					
18-Nov-05	280	<0.00005	15.3	<0.0005	<0.0001	0.0066			3.2	0.0256	<0.00001	0.0041	<0.0005	2.82	<0.001	1.72	<0.00001	<2	<0.00005		0.00132	0.0032
25-Nov-05	287																					
2-Dec-05	294	<0.00005	16.2	<0.0005	<0.0001	0.0024	<0.03	<0.00005	3.11	0.0251	<0.00001	0.0048	<0.0005	2.64	<0.001	1.73	<0.00001	<2	<0.00005	<0.0001	0.00105	<0.001
9-Dec-05	301																					
16-Dec-05	308	<0.00005	16.4	<0.0005	<0.0001	0.0021	<0.03	<0.00005	3.19	0.0256	<0.00001	0.00424	<0.0005	2.63	<0.001	1.68	<0.00001	<2	<0.00005	<0.0001	0.00117	<0.001
23-Dec-05	315																					
30-Dec-05	322	<0.00005	16.7	<0.0005	<0.0001	0.00211	<0.03	<0.00005	3.37	0.0278	<0.00001	0.00471	<0.0005	2.71	<0.001	1.56	<0.00001	<2	<0.00005	<0.0001	0.00115	0.001
6-Jan-06	329																					
13-Jan-06	336	<0.00005	15.4	<0.0005	<0.0001	0.00262	<0.03	<0.00005	3.07	0.0258	<0.00001	0.00447	<0.0005	2.45	<0.001	1.47	<0.00001	<2	<0.00005	<0.0001	0.00109	<0.001
20-Jan-06	343																					
27-Jan-06	350	<0.00005	16.9	<0.0005	<0.0001	0.00218	<0.03	<0.00005	3.17	0.0247	<0.00001	0.00423	<0.0005	2.4	<0.001	1.28	<0.00001	<2	<0.00005	<0.0001	0.00108	<0.001
3-Feb-06	357																					
10-Feb-06	364	<0.00005	16.5	<0.0005	<0.0001	0.00222	<0.03	0.000101	3.1	0.0244	<0.00001	0.00439	<0.0005	2.44	<0.001	1.25	<0.00001	<2	<0.00005	<0.0001	0.00105	0.0033
17-Feb-06	371																					
24-Feb-06	378	<0.00005	17.3	<0.0005	<0.0001	0.0022	<0.03	<0.00005	3.28	0.0226	<0.00001	0.00416	<0.0005	2.25	<0.001	1.21	<0.00002	<2	<0.00005	<0.0001	0.00091	<0.001
3-Mar-06	385																					
10-Mar-06	392	<0.00005	18	<0.0005	<0.0001	0.00312	<0.03	0.000106	3.46	0.0262	<0.00001	0.00472	<0.0005	2.4	<0.001	1.1	<0.00001	<2	<0.00005	0.00026	0.00092	<0.001
17-Mar-06	399																					
24-Mar-06	406	<0.00005	17.6	<0.0005	<0.0001	0.00244	0.037	<0.00005	3.23	0.026	<0.00001	0.00468	<0.0005	2.22	<0.001	1.15	<0.00001	<2	<0.00005	<0.0001	0.00082	<0.001
31-Mar-06	413																					
7-Apr-06	420	<0.00005	17	<0.0005	<0.0001	0.00296	<0.03	<0.00005	3.59	0.0291	<0.00001	0.0049	<0.0005	2.44	<0.001	1.03	<0.00001	<2	<0.00005	<0.0001	0.00098	<0.001
14-Apr-06	427																					
21-Apr-06	434	<0.00005	17.5	<0.0005	<0.0001	0.00322	<0.03	<0.00005	3.31	0.0302	<0.00001	0.00507	<0.0005	2.25	<0.001	0.971	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
28-Apr-06	441																					
5-May-06	448	<0.00005	18	<0.0005	<0.0001	0.00408	<0.03	<0.00005	3.97	0.0344	<0.00001	0.00564	<0.0005	2.53	<0.001	1.08	<0.00001	<2	<0.00005	0.0001	0.00084	<0.001
12-May-06	455																					
19-May-06	462	<0.00005	17.8	<0.0005	<0.0001	0.00328	<0.03	<0.00005	3.5	0.0325	<0.00001	0.00561	<0.0005	2.25	<0.001	1.02	<0.00001	<2	<0.00005	<0.0001	0.00057	0.0012
26-May-06	469																					
2-Jun-06	476	<0.00005	17.4	<0.0005	<0.0001	0.00551	<0.03	<0.00005	3.56	0.0298	<0.00001	0.00481	<0.0005	2	<0.001	0.92	<0.00001	<2	<0.00005	<0.0001	0.0008	<0.001
9-Jun-06	483																					
16-Jun-06	490	<0.00005	18	<0.0005	<0.0001		<0.03	<0.00005	3.66	0.0316	<0.00001	0.00494		2.15	<0.001	0.938	<0.00001	<2	<0.00005	<0.0001	0.00075	0.0013
23-Jun-06	497																					
30-Jun-06	504	<0.00005	17.2	<0.0005	<0.0001	0.00421	<0.03	<0.00005	3.85	0.0323	<0.00001	0.00507	<0.0005	2.11	<0.001	0.875	<0.00001	<2	<0.00005	<0.0001	0.00084	<0.001
7-Jul-06	511																					
14-Jul-06	518																					
21-Jul-06	525																					
28-Jul-06	532	<0.00005	19.3	<0.0005	<0.0001	0.00423	<0.03	<0.00005	4.03	0.0343	<0.00001	0.00507	<0.0005	2.07	<0.001	0.91	<0.00001	<2	<0.00005	<0.0001	0.00082	<0.001
4-Aug-06	539																					
11-Aug-06	546																					
18-Aug-06	553																					
25-Aug-06	560	<0.00005	17.7	<0.0005	<0.0001	0.00538	<0.03		4.09	0.0344	<0.00001	0.00492	<0.0005	2.13	<0.001	0.952	<0.00001	<2	<0.00005	<0.0001	0.0008	0.0024
1-Sep-06	567																					
8-Sep-06	574																					
15-Sep-06	581																					
22-Sep-06	588	<0.00005	17.1	<0.0005	<0.0001	0.00379	<0.03	<0.00005	3.64	0.0311	<0.00001	0.00437	<0.0005	1.78	<0.001	0.835	<0.00001	<2	<0.00005	<0.0001	0.00079	<0.001
29-Sep-06	595																					
6-Oct-06	602																					
13-Oct-06	609																					
20-Oct-06	616	<0.00005	16.9	<0.0005	<0.0001	0.00284	<0.03	<0.00005	4.11	0.0326	<0.00001	0.00472	<0.0005	1.87	<0.001	0.824	<0.00001	<2	<0.00005	<0.0001	0.00085	<0.001
27-Oct-06	623																					

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
3-Nov-06	630	2500	2580	7.57	351	121															
10-Nov-06	637	2500	2490																		
17-Nov-06	644	2500	2480	7.06	313	87	<1	5.73	41.43	54.8	58	<0.5	0.035	6.31	0.0284	0.00127	0.00523	0.00805	<0.0002	<0.0005	<0.01
24-Nov-06	651	2500	2505																		
1-Dec-06	658	2500	2550	7.6	348	119															
8-Dec-06	665	2500	2520																		
15-Dec-06	672	2500	2500	7.71	267	114	<1	3.16	51.32	54	53.2	<0.5	0.035	6.05	0.0243	0.00122	0.00343	0.00846	<0.0002	<0.0005	<0.01
22-Dec-06	679	2500	2495																		
29-Dec-06	686	2500	2490	7.9	382	118															
5-Jan-07	693	2500	2535																		
12-Jan-07	700	2500	2545	7.64	335	115	<1	2.56	53.15	118	58	<0.5	0.03	6.05	0.027	0.00113	0.00333	0.00781	<0.0002	<0.0005	<0.01
19-Jan-07	707	2500	2538																		
26-Jan-07	714	2500	2465	7.14	398	119															
2-Feb-07	721	2500	2420																		
9-Feb-07	728	2500	2445	7.39	384	130	<1	5.19	56.66	38.4	61.9	<0.5	0.024	7.92	0.0193	0.00128	0.00328	0.00912	<0.0002	<0.0005	<0.01
16-Feb-07	735	2500	2455																		
23-Feb-07	742	2500	2445	7.62	347	117															
2-Mar-07	749	2500	2430																		
9-Mar-07	756	2500	2400	7.3	348	62	<1	2.31	26.92	34.8	32	<0.5	<0.02	4.66	0.0101	0.000519	0.00067	0.00411	<0.0002	<0.0005	<0.01
16-Mar-07	763	2500	2370																		
23-Mar-07	770	2500	2485	7.34	400	74															
30-Mar-07	777	2500	2490																		
6-Apr-07	784	2500	2380	6.75	473	71	<1	4.24	27.39	32.5	29.6	<0.5	<0.02	5.53	0.0095	0.000535	0.00062	0.00434	<0.0002	<0.0005	<0.01
13-Apr-07	791	2500	2450																		
20-Apr-07	798	2500	2340	6.87	452	64															
27-Apr-07	805	2500	2425																		
4-May-07	812	2500	2425	7.48	330	77	<1	2.18	29.78	34.5	34.4	<0.5	<0.02	6.64	0.0112	0.000584	0.00064	0.00453	<0.0002	<0.0005	<0.01
11-May-07	819	2500	2385																		
18-May-07	826	2500	2455	7.78	361	72															
25-May-07	833	2500	2410																		
1-Jun-07	840	2500	2375	7.7	356	70	<1	2.05	26.84	35	30.3	<0.5	<0.02	6.03	0.0119	0.000556	0.00047	0.00394	<0.0002	<0.0005	<0.01
8-Jun-07	847	2500	2400																		
15-Jun-07	854	2500	2380	7.52	366	70															
22-Jun-07	861	2500	2315																		
29-Jun-07	868	2500	2555	7.25	372	78	<1	3.92	39.65	43.3	37.8	<0.5	<0.02	6.8	0.0092	0.00057	0.00044	0.00496	<0.0002	<0.0005	<0.01
6-Jul-07	875	2500	2375																		
13-Jul-07	882	2500	2540	7.57	386	75															
20-Jul-07	889	2500	2250																		
27-Jul-07	896	2500	2320	7.22	411	78	<1	3.20	23.70	37.8	33.2	<0.5	0.021	11.3	0.0135	0.000444	0.00056	0.00417	<0.0002	<0.0005	<0.01
3-Aug-07	903	2500	2290																		
10-Aug-07	910	2500	2390	7.35	448	134															
17-Aug-07	917	2500	2475																		
24-Aug-07	924	2500	2400	7.85	427	241	<1	4.11	64.09	199	151	<0.5	0.046	86.2	0.0086	0.00136	0.00115	0.0208	<0.0002	<0.0005	<0.01
31-Aug-07	931	2500	2255																		
7-Sep-07	938	2500	2200	8.02	406	143															
14-Sep-07	945	2500	1660																		
21-Sep-07	952	2500	2415	8.2	386	182	<1	5.92	113.71	134	128	<0.5	0.156	18.4		0.00196	0.00257	0.0201	<0.0002	<0.0005	<0.01
28-Sep-07	959	2500	2365																		
5-Oct-07	966	2500	2400	7.86	419	216															
12-Oct-07	973	2500	2390																		
19-Oct-07	980	2500	2290	8.03	411	188	<1	2.86	94.40	103	95.9	<0.5	0.077	8.42	0.0074	0.00153	0.00188	0.0143	<0.0002	<0.0005	<0.01
26-Oct-07	987	2500	2375																		
2-Nov-07	994	2500	2395	8.03	407	168															
9-Nov-07	1001	2500	2425																		
16-Nov-07	1008	2500	2385	7.84	457	106	<1	2.95	51.36	55.8	53.6	<0.5	0.025	6.16	0.0072	0.000888	0.00107	0.00808	<0.0002	<0.0005	<0.01
23-Nov-07	1015	2500	2290																		
30-Nov-07	1022	2500	2040	7.95	442	161															

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
3-Nov-06	630																					
10-Nov-06	637																					
17-Nov-06	644	<0.00005	16.9	<0.0005	<0.0001	0.00305	<0.03	<0.00005	3.82	0.0317	<0.00001	0.00454	<0.0005	1.8	<0.001	0.787	<0.00001	<2	<0.00005	<0.0001	0.00082	<0.001
24-Nov-06	651																					
1-Dec-06	658																					
8-Dec-06	665																					
15-Dec-06	672	<0.00005	15.1	<0.0005	<0.0001	0.00313	<0.03	<0.00005	3.76	0.0304	<0.00001	0.0048	<0.0005	1.76	<0.001	0.792	<0.00001	<2	<0.00005	<0.0001	0.00073	<0.001
22-Dec-06	679																					
29-Dec-06	686																					
5-Jan-07	693																					
12-Jan-07	700	<0.00005	16.7	<0.0005	<0.0001	0.0029	<0.03	<0.00005	3.94	0.0302	<0.00001	0.0055	<0.0005	1.64	<0.001	0.753	<0.00001	<2	<0.00005	<0.0001	0.00071	0.0062
19-Jan-07	707																					
26-Jan-07	714																					
2-Feb-07	721																					
9-Feb-07	728	<0.00005	17.1	<0.0005	<0.0001	0.00352	<0.03	<0.00005	4.67	0.0371	<0.00001	0.00667	0.00119	1.93	<0.001	0.755	<0.00001	<2	<0.00005	<0.0001	0.00071	
16-Feb-07	735																					
23-Feb-07	742																					
2-Mar-07	749																					
9-Mar-07	756	<0.00005	8.63	<0.0005	<0.0001	0.00473	<0.03	<0.00005	2.53	0.0168	<0.00001	0.00299	<0.0005	0.94	<0.001	0.297	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
16-Mar-07	763																					
23-Mar-07	770																					
30-Mar-07	777																					
6-Apr-07	784	<0.00005	7.9	<0.0005	<0.0001	0.00146	<0.03	<0.00005	2.4	0.0191	<0.00001	0.00355	<0.0005	0.953	<0.001	0.268	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Apr-07	791																					
20-Apr-07	798																					
27-Apr-07	805																					
4-May-07	812	<0.00005	9.09	<0.0005	<0.0001	0.00237	<0.03	<0.00005	2.84	0.025	<0.00001	0.00497	<0.0005	1	<0.001	0.324	<0.00001	<2	<0.00005	<0.0001	<0.0005	
11-May-07	819																					
18-May-07	826																					
25-May-07	833																					
1-Jun-07	840	<0.00005	8.11	0.00055	<0.0001	0.00145	<0.03	<0.00005	2.45	0.019	<0.00001	0.00507	<0.0005	0.915	<0.001	0.289	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Jun-07	847																					
15-Jun-07	854																					
22-Jun-07	861																					
29-Jun-07	868	<0.00005	10	<0.0005	<0.0001	0.00146	<0.03	<0.00005	3.09	0.0267	<0.00001	0.00762	<0.0005	1.07	<0.001	0.347	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
6-Jul-07	875																					
13-Jul-07	882																					
20-Jul-07	889																					
27-Jul-07	896	<0.00005	8.67	<0.0005	<0.0001	0.00252	<0.03	<0.00005	2.81	0.0229	<0.00001	0.00844	<0.0005	0.863	<0.001	0.276	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0014
3-Aug-07	903																					
10-Aug-07	910																					
17-Aug-07	917																					
24-Aug-07	924	<0.00005	41.1	<0.0005	<0.0001	0.00267	<0.03	<0.00005	11.7	0.0901	<0.00001	0.0209	<0.0005	2.66	0.0033	0.778	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
31-Aug-07	931																					
7-Sep-07	938																					
14-Sep-07	945																					
21-Sep-07	952	<0.00005	33.9	<0.0005	<0.0001	0.00465	<0.03	<0.00005	10.5	0.101	<0.00001	0.0289	<0.0005	3.84	0.0017	1.17	<0.00001	<2	<0.00005	<0.0001	0.00064	<0.001
28-Sep-07	959																					
5-Oct-07	966																					
12-Oct-07	973																					
19-Oct-07	980	<0.00005	25	<0.0005	<0.0001	0.00357	<0.03	<0.00005	8.12	0.0794	<0.00001	0.013	<0.0005	2.68	<0.001	1.01	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Oct-07	987																					
2-Nov-07	994																					
9-Nov-07	1001																					
16-Nov-07	1008	0.000064	13.9	<0.0005	<0.0001	0.00344	<0.03	0.000122	4.6	0.0441	<0.00001	0.00672	<0.0005	1.42	<0.001	0.504	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0016
23-Nov-07	1015																					
30-Nov-07	1022																					

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
7-Dec-07	1029	2500	2340																		
14-Dec-07	1036	2500	2420	8.03	435	163	<1	2.40	84.81	94.5	85.7	<0.5	0.045	9.46	0.0082	0.00124	0.00137	0.0116	<0.0002	<0.0005	<0.01
21-Dec-07	1043	2500	2300																		
28-Dec-07	1050	2500	2260	8.07	428	154															
4-Jan-08	1057	2500	2255																		
11-Jan-08	1064	2500	1960	7.87	436	142	<1	3.02	76.46	72	75.3	<0.5	0.042	5.96	0.0137	0.00109	0.00243	0.00906	<0.0002	<0.0005	<0.01
18-Jan-08	1071	2500	2410																		
25-Jan-08	1078	2500	2565	7.96	427	183															
1-Feb-08	1085	2500	2335																		
8-Feb-08	1092	2500	2225	7.89	457	96	<1	2.66	52.41	53.5	50.9	<0.5	0.031	4.74	0.0227	0.000826	0.00079	0.00681	<0.0002	<0.0005	<0.01
15-Feb-08	1099	2500	2370																		
22-Feb-08	1106	2500	2450	8.11	394	149															
29-Feb-08	1113	2500	2390																		
7-Mar-08	1120	2500	2375	7.88	408	160	<1	3.91	83.94	84.2	82.5	<0.5	0.045	5.91	0.007	0.00102	0.00114	0.0109	<0.0002	<0.0005	<0.01
14-Mar-08	1127	2500	2350																		
21-Mar-08	1134	2500	2415	7.87	423	136															
28-Mar-08	1141	2500	2335																		
4-Apr-08	1148	2500	2375	7.86	414	98	<1	2.43	56.62	56.5	54.2	<0.5	0.03	4.49	0.0079	0.000788	0.00071	0.00705	<0.0002	<0.0005	<0.01
11-Apr-08	1155	2500	2415																		
18-Apr-08	1162	2500	2385	7.88	379	106															
25-Apr-08	1169	2500	2405																		
2-May-08	1176	2500	2405	8.02	386	158	<1	2.63	82.92	80.3	80.2	<0.5	0.044	5.8	0.0058	0.000814	0.00079	0.0118	<0.0002	<0.0005	<0.01
9-May-08	1183	2500	2440																		
16-May-08	1190	2500	2445	8.1	363	159															
23-May-08	1197	2500	2425																		
30-May-08	1204	2500	2420	8.02	373	117	<1	2.67	65.62	66.8	63.8	<0.5	0.04	4.15	0.0074	0.000652	0.00065	0.00732	<0.0002	<0.0005	<0.01
6-Jun-08	1211	2500	2420																		
13-Jun-08	1218	2500	2370	7.91	353	100															
20-Jun-08	1225	2500	2370																		
27-Jun-08	1232	2500	2370	7.42	352	39	<1	4.63	24.33	25.5	20.1				0.0038	0.000436	0.00021	0.00259	<0.0002	<0.0005	<0.01
4-Jul-08	1239	2500	2340																		
11-Jul-08	1246	2500	2375	8.17	384	233															
18-Jul-08	1253	2500	2495																		
25-Jul-08	1260	2500	2470	8.13	352	200	<1	3.13	102.06	95	99.7	<0.5	0.059	4.2	0.0053	0.000675	0.00076	0.0115	<0.0002	<0.0005	<0.01
1-Aug-08	1267	2500	2455																		
8-Aug-08	1274	2500	2480	8.16	350	184															
15-Aug-08	1281	2500	2470																		
22-Aug-08	1288	2500	2480	8.14	278	143	<1	1.79	89.88	80.5	81.4	<0.5	0.051	4.72	0.0058	0.000559	0.00075	0.00902	<0.0002	<0.0005	<0.01
29-Aug-08	1295	2500	2450																		
5-Sep-08	1302	2500	2325	7.98	326	128															
12-Sep-08	1309	2500	2290																		
19-Sep-08	1316	2500	2335	7.83	297	91	<1	2.88	45.41	43.8	45.2	<0.5	0.029	4.11	0.009	0.000444	0.00042	0.00481	<0.0002	<0.0005	<0.01
26-Sep-08	1323	2500	2430																		
3-Oct-08	1330	2500	2470	7.95	380	125															
10-Oct-08	1337	2500	2375																		
17-Oct-08	1344	2500	2370	7.88	407	88	<1	2.03	45.08	38.5	42.8	<0.5	0.025	3.55	0.0068	0.000478	0.00042	0.00483	<0.0002	<0.0005	<0.01
24-Oct-08	1351	2500	2425																		
31-Oct-08	1358	2500	2355	7.79	427	94															
7-Nov-08	1365	2500	2390																		
14-Nov-08	1372	2500	2480	7.81	415	99	<1	2.40	51.29	51.5	52.8	<0.5	0.026	4.47	0.0061	0.000373	0.00041	0.00598	<0.0002	<0.0005	<0.01
21-Nov-08	1379	2500	2420																		
28-Nov-08	1386	2500	2370	7.57	328	60															
5-Dec-08	1393	2500	2390																		
12-Dec-08	1400	2500	2380	8.01	343	168	<1	3.17	103.86	87	92.5	<0.5	0.045	5.51	0.0078	0.000536	0.00075	0.00979	<0.0002	<0.0005	<0.01
19-Dec-08	1407	2500	2425																		
26-Dec-08	1414	2500	2390	7.73	370	171															
2-Jan-09	1421	2500	2465																		

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
7-Dec-07	1029																					
14-Dec-07	1036	<0.00005	22.2	<0.0005	<0.0001	0.0033	<0.03	<0.00005	7.35	0.0608	<0.00001	0.0159	<0.0005	2.15	<0.001	0.8	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Dec-07	1043																					
28-Dec-07	1050																					
4-Jan-08	1057																					
11-Jan-08	1064	<0.00005	20.3	<0.0005	<0.0001	0.00244	<0.03	<0.00005	5.96	0.0332	<0.00001	0.019	<0.0005	1.67	<0.001	0.705	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Jan-08	1071																					
25-Jan-08	1078																					
1-Feb-08	1085																					
8-Feb-08	1092	<0.00005	13.2	<0.0005	<0.0001	0.00211	<0.03	<0.00005	4.39	0.0176	<0.00001	0.0223	<0.0005	1.28	<0.001	0.487	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
15-Feb-08	1099																					
22-Feb-08	1106																					
29-Feb-08	1113																					
7-Mar-08	1120	<0.0002	21.2	<0.0005	<0.0001	0.0035	<0.03	0.000135	7.15	0.027	<0.00001	0.0489	<0.0005	1.96	0.001	0.769	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
14-Mar-08	1127																					
21-Mar-08	1134																					
28-Mar-08	1141																					
4-Apr-08	1148	<0.00005	14	<0.0005	<0.0001	0.00389	<0.03	<0.00005	4.69	0.00843	<0.00001	0.0578	<0.0005	1.26	<0.001	0.516	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-Apr-08	1155																					
18-Apr-08	1162																					
25-Apr-08	1169																					
2-May-08	1176	<0.00005	20.2	<0.0005	<0.0001	0.00252	<0.03	<0.00005	7.2	0.00871	<0.00001	0.0933	<0.0005	1.77	0.001	0.741	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
9-May-08	1183																					
16-May-08	1190																					
23-May-08	1197																					
30-May-08	1204	<0.00005	16.1	<0.0005	<0.0001	0.00201	<0.03	<0.00005	5.75	0.0073	<0.00001	0.0757	<0.0005	1.33	<0.001	0.527	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
6-Jun-08	1211																					
13-Jun-08	1218																					
20-Jun-08	1225																					
27-Jun-08	1232	<0.00005	5.04	<0.0005	<0.0001	0.00165	<0.03		1.83	0.00387	<0.00001	0.012	<0.0005	0.474	<0.001	0.183	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
4-Jul-08	1239																					
11-Jul-08	1246																					
18-Jul-08	1253																					
25-Jul-08	1260	<0.00005	25.4	<0.0005	<0.0001	0.00295	<0.03	<0.00005	8.8	0.00239	<0.00001	0.082	<0.0005	1.95	<0.001	0.842	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
1-Aug-08	1267																					
8-Aug-08	1274																					
15-Aug-08	1281																					
22-Aug-08	1288	<0.00005	20.5	<0.0005	<0.0001	0.00207	<0.03	<0.00005	7.3	0.00137	<0.00001	0.122	<0.0005	1.58	<0.001	0.631	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
29-Aug-08	1295																					
5-Sep-08	1302																					
12-Sep-08	1309																					
19-Sep-08	1316	<0.00005	11.1	<0.0005	<0.0001	0.00099	<0.03	<0.00005	4.21	0.0011	<0.00001	0.0749	<0.0005	0.956	<0.001	0.413	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
26-Sep-08	1323																					
3-Oct-08	1330																					
10-Oct-08	1337																					
17-Oct-08	1344	<0.00005	10.7	<0.0005	<0.0001	0.00101	<0.03	<0.00005	3.89	0.00142	<0.00001	0.0691	<0.0005	0.982	<0.001	0.378	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Oct-08	1351																					
31-Oct-08	1358																					
7-Nov-08	1365																					
14-Nov-08	1372	<0.00005	13.5	<0.0005	<0.0001	0.00115	<0.03	<0.00005	4.64	0.000733	<0.00001	0.0859	<0.0005	1.08	<0.001	0.421	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Nov-08	1379																					
28-Nov-08	1386																					
5-Dec-08	1393																					
12-Dec-08	1400		22.9	<0.0005	<0.0001	0.00356	<0.03		8.58	0.000772	<0.00001	0.161	<0.0005	1.75	0.0012	0.656	<0.00001	<2	<0.00005	<0.0001	<0.0005	
19-Dec-08	1407																					
26-Dec-08	1414																					
2-Jan-09	1421																					

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
9-Jan-09	1428	2500	2375	7.91	351	144	<1	2.86	87.41	73.5	78.2	<0.5	0.044	4.06	0.0078	0.000481	0.00068	0.00849	<0.0002	<0.0005	<0.01
16-Jan-09	1435	2500	2445																		
23-Jan-09	1442	2500	2320	7.85	385	150															
30-Jan-09	1449	2500	2220																		
6-Feb-09	1456	2500	2350	7.78	335	158	<1	5.44	93.77	81.3	87.5	<0.5	0.044	4.31	0.0075	0.000585	0.00097	0.00876	<0.0002	<0.0005	<0.01
13-Feb-09	1463	2500	2380																		
20-Feb-09	1470	2500	2315	7.42	352	119															
27-Feb-09	1477	2500	2330																		
6-Mar-09	1484	2500	2310	7.63	299	118	<1	6.70	71.61	52.8	62.1	<0.5	0.033	4.39	0.0056	0.000335	0.00042	0.00691	<0.0002	<0.0005	<0.01
13-Mar-09	1491	2500	2380																		
20-Mar-09	1498	2500	2340	7.8	302	139															
27-Mar-09	1505	2500	2330																		
3-Apr-09	1512	2500	2320	7.77	372	149	<1	4.01	88.85	81	80.4	<0.5	0.04	4.72	0.0047	0.000376	0.00055	0.00851	<0.0002	<0.0005	<0.01
10-Apr-09	1519	2500	2330																		
17-Apr-09	1526	2500	2340	7.96	340	192															
24-Apr-09	1533	2500	2345																		
1-May-09	1540	2500	2465	7.98	320	198	<1	3.17	124.91	111	109	<0.5	0.073	5	0.0056	0.000467	0.00065	0.0108	<0.0002	<0.0005	<0.01
8-May-09	1547	2500	2380																		
15-May-09	1554	2500	2360	7.89	368	188															
22-May-09	1561	2500	2355																		
29-May-09	1568	2500	2455	8.01	362	188	<1	3.12	120.41	105	107	<0.5	0.064	5.12	0.0063	0.000472	0.00065	0.0104	<0.0002	<0.0005	<0.01
5-Jun-09	1575	2500	2415																		
12-Jun-09	1582	2500	2465	7.94	350	179															
19-Jun-09	1589	2500	2495																		
26-Jun-09	1596	2500	2440	7.93	354	169	<1	4.24	114.67	100	103	<0.5	0.059	4.79	0.0053	0.000388	0.00047	0.00946	<0.0002	<0.0005	<0.01
3-Jul-09	1603	2500	2510																		
10-Jul-09	1610	2500	2495	7.9	256	159															
17-Jul-09	1617	2500	2465																		
24-Jul-09	1624	2500	2490	7.81	358	158	<1	4.95	97.88	89.5	95	<0.5	0.074	4.51	0.0065	0.000429	0.00044	0.0085	<0.0002	<0.0005	<0.01
31-Jul-09	1631	2500	2450																		
7-Aug-09	1638	2500	2380	7.95	348	150															
14-Aug-09	1645	2500	2310																		
21-Aug-09	1652	2500	2435	7.71	355	153	<1	4.25	96.96	81.7	90.8	<0.5	0.041	4.19	0.008	0.000364	0.00045	0.00787	<0.0002	<0.0005	<0.01
28-Aug-09	1659	2500	2455																		
4-Sep-09	1666	2500	2435	7.84	345	157															
11-Sep-09	1673	2500	2400																		
18-Sep-09	1680	2500	2475	7.71	348	171	<1	5.12	105.30	91	99.4	<0.5	0.055	5.14	0.0078	0.000434	0.00052	0.00931	<0.0002	<0.0005	<0.01
25-Sep-09	1687	2500	2425																		
2-Oct-09	1694	2500	2385	7.98	348	187															
9-Oct-09	1701	2500	2410																		
16-Oct-09	1708	2500	2385	7.51	362	182	<1	7.11	102.17	81	90	<0.5	0.049	4.77	0.007	0.000387	0.00055	0.00834	<0.0002	<0.0005	<0.01
23-Oct-09	1715	2500	2410																		
30-Oct-09	1722	2500	2250	7.95	351	159															
6-Nov-09	1729	2500	2405																		
13-Nov-09	1736	2500	2490	7.38	302	156	<1	7.20	97.20	84	85	<0.5	0.047	4.17	0.0073	0.00036	0.00043	0.00708	<0.0002	<0.0005	<0.01
20-Nov-09	1743	2500	2430																		
27-Nov-09	1750	2500	2410	7.83	369	156															
4-Dec-09	1757	2500	2470																		
11-Dec-09	1764	2500	2410	7.29	352	152	<1	7.92	91.66	79	86.1	<0.5	0.057	4.26	0.0069	0.000395	0.00037	0.00703	<0.0002	<0.0005	<0.01
18-Dec-09	1771	2500	2415																		
25-Dec-09	1778	2500	2495	7.87	395	128															
1-Jan-10	1785	2500	2500																		
8-Jan-10	1792	2500	2440	7.69	341	143	<1	3.77	84.76	82	78.1	<0.5	0.05	4.21	0.0075	0.000341	0.0004	0.00645	<0.0002	<0.0005	<0.01
15-Jan-10	1799	2500	2415																		
22-Jan-10	1806	2500	2430	7.86	351	127															
29-Jan-10	1813	2500	2410																		
5-Feb-10	1820	2500	2495	7.49	359	96	<1	4.71	72.19	63	68.6	<0.5	0.042	3.58	0.0062	0.000292	0.00032	0.0061	<0.0002	<0.0005	<0.01

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
9-Jan-09	1428	<0.00005	19.1	<0.0005	<0.0001	0.00196	<0.03	<0.00005	7.38	0.00113	<0.00001	0.143	<0.0005	1.63	<0.001	0.61	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
16-Jan-09	1435																					
23-Jan-09	1442																					
30-Jan-09	1449																					
6-Feb-09	1456	<0.00005	19.9	<0.0005	<0.0001	0.00262	<0.03	<0.00005	9.15	0.00115	<0.00001	0.163	<0.0005	1.61	<0.001	0.612	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Feb-09	1463																					
20-Feb-09	1470																					
27-Feb-09	1477																					
6-Mar-09	1484	<0.00005	15.5	<0.0005	<0.0001	0.00108	<0.03	<0.00005	5.7	0.00213	<0.00001	0.133	<0.0005	1.21	<0.001	0.455	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Mar-09	1491																					
20-Mar-09	1498																					
27-Mar-09	1505																					
3-Apr-09	1512	0.000052	19.4	<0.0005	<0.0001	0.00146	<0.03	<0.00005	7.73	0.00109	<0.00001	0.171	<0.0005	1.51	<0.001	0.577	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Apr-09	1519																					
17-Apr-09	1526																					
24-Apr-09	1533																					
1-May-09	1540	0.000067	28.5	<0.0005	<0.0001	0.0022	<0.03	<0.00005	9.32	0.000537	<0.00001	0.261	<0.0005	1.87	<0.001	0.84	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-May-09	1547																					
15-May-09	1554																					
22-May-09	1561																					
29-May-09	1568	<0.00005	25.8	<0.0005	<0.0001	0.00236	<0.03	<0.00005	10.4	0.000625	<0.00001	0.303	<0.0005	2.02	<0.001	0.808	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
5-Jun-09	1575																					
12-Jun-09	1582																					
19-Jun-09	1589																					
26-Jun-09	1596	0.00008	24.2	<0.0005	0.0001	0.00233	<0.03	0.000249	10.4	0.000486	<0.00001	0.311	0.00058	1.86	<0.001	0.766	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
3-Jul-09	1603																					
10-Jul-09	1610																					
17-Jul-09	1617																					
24-Jul-09	1624	0.000057	22	<0.0005	<0.0001	0.00285	<0.03	<0.00005	9.73	0.000466	<0.00001	0.282	0.00055	1.71	<0.001	0.674	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
31-Jul-09	1631																					
7-Aug-09	1638																					
14-Aug-09	1645																					
21-Aug-09	1652	<0.00005	21.2	<0.0005	<0.0001	0.00189	<0.03	<0.00005	9.19	0.00138	<0.00001	0.179	<0.0005	1.68	<0.001	0.664	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0029
28-Aug-09	1659																					
4-Sep-09	1666																					
11-Sep-09	1673																					
18-Sep-09	1680	0.000057	23.3	<0.0005	<0.0001	0.00239	<0.03	<0.00005	10	0.000312	<0.00001	0.209	<0.0005	1.99	<0.001	0.819	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
25-Sep-09	1687																					
2-Oct-09	1694																					
9-Oct-09	1701																					
16-Oct-09	1708	0.000069	22.4	<0.0005	<0.0001	0.00314	<0.03	<0.00005	8.29	0.000354	<0.00001	0.201	<0.0005	1.61	<0.001	0.74	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
23-Oct-09	1715																					
30-Oct-09	1722																					
6-Nov-09	1729																					
13-Nov-09	1736	<0.00005	20.5	0.00079	<0.0001	0.0024	<0.03	<0.00005	8.22	0.000209	<0.00001	0.2	<0.0005	1.59	<0.001	0.641	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
20-Nov-09	1743																					
27-Nov-09	1750																					
4-Dec-09	1757																					
11-Dec-09	1764	<0.00005	19.7	<0.0005	<0.0001	0.00114	<0.03	<0.00005	8.97	0.000243	<0.00001	0.199	<0.0005	1.62	<0.001	0.659	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
18-Dec-09	1771																					
25-Dec-09	1778																					
1-Jan-10	1785																					
8-Jan-10	1792	<0.00005	18.5	<0.0005	<0.0001	0.00157	<0.03	<0.00005	7.72	0.000346	<0.00001	0.189	<0.0005	1.5	<0.001	0.595	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
15-Jan-10	1799																					
22-Jan-10	1806																					
29-Jan-10	1813																					
5-Feb-10	1820	<0.00005	15.9	<0.0005	<0.0001	0.00202	<0.03	<0.00005	7.04	0.000865	<0.00001	0.135	<0.0005	1.31	<0.001	0.512	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
12-Feb-10	1827	2500	2420																		
19-Feb-10	1834	2500	2360	7.82	334	114															
26-Feb-10	1841	2500	2415																		
5-Mar-10	1848	2500	2255	7.4	320	119	<1	5.69	69.70	63	67.1	<0.5	0.036	4.67	0.0048	0.000289	0.00035	0.00596	<0.0002	<0.0005	<0.01
12-Mar-10	1855	2500	2395																		
19-Mar-10	1862	2500	2380	7.92	366	122															
26-Mar-10	1869	2500	2265																		
2-Apr-10	1876	2500	2380	7.53	381	127	<1	4.80	74.32	72	69.4	<0.5	0.036	4.99	0.0042	0.000266	0.00029	0.00602	<0.0002	<0.0005	<0.01
9-Apr-10	1883	2500	2235																		
16-Apr-10	1890	2500	2335	7.88	361	149															
23-Apr-10	1897	2500	2400																		
30-Apr-10	1904	2500	2365	7.58	328	144	<1	2.97	84.33	85	83.4	<0.5	0.046	4.62	0.0052	0.0003	0.00037	0.00722	<0.0002	<0.0005	<0.01
7-May-10	1911	2500	2270																		
14-May-10	1918	2500	2455	7.72	375	152															
21-May-10	1925	2500	2210																		
28-May-10	1932	2500	2250	7.4	370	163	<1	9.16	101.75	81	98.8	<0.5	0.053	5.5	0.0055	0.000302	0.00041	0.00943	<0.0002	<0.0005	<0.01
4-Jun-10	1939	2500	2355																		
11-Jun-10	1946	2500	2200	7.66	386	192															
18-Jun-10	1953	2500	2445																		
25-Jun-10	1960	2500	2330	7.8	324	172	<1	2.02	111.14	95	93.7	<1	<0.4	4.91	0.0066	0.000296	0.00034	0.00789	<0.0002	<0.0005	<0.01
2-Jul-10	1967	2500	2360																		
9-Jul-10	1974	2500	2325	7.77	359	136															
16-Jul-10	1981	2500	2335																		
23-Jul-10	1988	2500	2290	7.44	367	134	<1	6.23	80.10	76	75.6	<0.5	0.042	4.88	0.0052	0.000244	0.00028	0.00648	<0.0002	<0.0005	<0.01
30-Jul-10	1995	2500	2455																		
6-Aug-10	2002	2500	2335	7.82	413	146															
13-Aug-10	2009	2500	2370																		
20-Aug-10	2016	2500	2375	7.61	322	148	<1	6.22	95.52	85	87.3	<0.5	0.056	4.6	0.0039	0.000239	0.00036	0.00677	<0.0002	<0.0005	<0.01
27-Aug-10	2023	2500	2350																		
3-Sep-10	2030	2500	2465	7.74	415	131															
10-Sep-10	2037	2500	2290																		
17-Sep-10	2044	2500	2310	7.66	361	131	<1	4.52	84.52	72	79.1	<0.5	0.044	5.22	0.0052	0.000248	0.00027	0.0104	<0.0002	<0.0005	<0.01
24-Sep-10	2051	2500	2420																		
1-Oct-10	2058	2500	2305	7.74	355	121															
8-Oct-10	2065	2500	2270																		
15-Oct-10	2072	2500	2310	7.71	278	154	<1	4.85	96.24	76	81.4	<0.5	0.046	5.36	0.0051	0.000233	0.00034	0.00678	<0.0002	<0.0005	<0.01
22-Oct-10	2079	2500	2205																		
29-Oct-10	2086	2500	2250	7.61	368	97															
5-Nov-10	2093	2500	2200																		
12-Nov-10	2100	2500	2340	7.89	337	129	<1	2.09	77.01	63	66.9	<0.5	0.041	6.15	0.0046	0.000246	0.0002	0.0052	0.00022	<0.0005	<0.01
19-Nov-10	2107	2500	2425																		
26-Nov-10	2114	2500	2440	7.49	352	133															
3-Dec-10	2121	2500	2385																		
10-Dec-10	2128	2500	2285	7.65	351	174	<1	6.31	110.59	91.5	90	<0.5	0.051	5.6	0.0049	0.000238	0.00029	0.00854	<0.0002	<0.0005	<0.01
17-Dec-10	2135	2500	2525																		
24-Dec-10	2142	2500	2520	7.23	372	152															
31-Dec-10	2149	2500	2370																		
7-Jan-11	2156	2500	2420	7.51	376	118	<1	7.85	95.71	72	87.6	<0.5	0.054	3.86	0.0055	0.000192	0.00024	0.0077	<0.0002	<0.0005	<0.01
14-Jan-11	2163	2500	2415																		
21-Jan-11	2170	2500	2400	7.66	349	124															
28-Jan-11	2177	2500	2425																		
4-Feb-11	2184	2500	2480	7.77	332	104	<1	3.69	89.07	75	77.9	<0.5	0.061	3.78	0.0061	0.00022	0.00021	0.00562	<0.0002	<0.0005	<0.01
11-Feb-11	2191	2500	2455																		
18-Feb-11	2198	2500	2470	7.38	359	125															
25-Feb-11	2205	2500	2445																		
4-Mar-11	2212	2500	2465	7.45	333	127	<1	5.55	74.25	78	66.3	<0.5	0.029	5.36	0.0055	0.000189	0.00018	0.00484	<0.0002	<0.0005	<0.01
11-Mar-11	2219	2500	2470																		

Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
12-Feb-10	1827																					
19-Feb-10	1834																					
26-Feb-10	1841																					
5-Mar-10	1848	<0.00005	15.5	<0.0005	<0.0001	0.00115	<0.03	<0.00005	6.9	0.000679	<0.00001	0.143	<0.0005	1.24	<0.001	0.472	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
12-Mar-10	1855																					
19-Mar-10	1862																					
26-Mar-10	1869																					
2-Apr-10	1876	<0.00005	16.9	<0.0005	<0.0001	0.0014	<0.03	<0.00005	6.63	0.000585	<0.00001	0.147	<0.0005	1.2	<0.001	0.507	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
9-Apr-10	1883																					
16-Apr-10	1890																					
23-Apr-10	1897																					
30-Apr-10	1904	0.000057	19.3	<0.0005	<0.0001	0.00148	<0.03	<0.00005	8.55	0.000764	<0.00001	0.172	<0.0005	1.54	<0.001	0.637	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
7-May-10	1911																					
14-May-10	1918																					
21-May-10	1925																					
28-May-10	1932	<0.00005	21.4	<0.0005	<0.0001	0.00308	<0.03	<0.00005	11	0.000753	<0.00001	0.183	<0.0005	1.63	0.0011	0.648	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
4-Jun-10	1939																					
11-Jun-10	1946																					
18-Jun-10	1953																					
25-Jun-10	1960	0.000059	22	<0.0005	<0.0001	0.00149	<0.03	<0.00005	9.45	0.000608	<0.00001	0.188	<0.0005	1.66	<0.001	0.705	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
2-Jul-10	1967																					
9-Jul-10	1974																					
16-Jul-10	1981																					
23-Jul-10	1988	<0.00005	17.6	<0.0005	<0.0001	0.00129	<0.03	<0.00005	7.67	0.000767	<0.00001	0.134	<0.0005	1.35	<0.001	0.535	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
30-Jul-10	1995																					
6-Aug-10	2002																					
13-Aug-10	2009																					
20-Aug-10	2016	<0.00005	20.4	<0.0005	<0.0001	0.0014	<0.03	<0.00005	8.86	0.000513	<0.00001	0.144	<0.0005	1.47	<0.001	0.64	0.000038	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Aug-10	2023																					
3-Sep-10	2030																					
10-Sep-10	2037																					
17-Sep-10	2044	<0.00005	18	<0.0005	<0.0001	0.00442	<0.03	<0.00005	8.29	0.000772	<0.00001	0.141	<0.0005	1.45	<0.001	0.557	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
24-Sep-10	2051																					
1-Oct-10	2058																					
8-Oct-10	2065																					
15-Oct-10	2072	<0.00005	19.4	<0.0005	<0.0001	0.00123	<0.03	<0.00005	7.98	0.000524	<0.00001	0.137	<0.0005	1.5	0.001	0.664	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
22-Oct-10	2079																					
29-Oct-10	2086																					
5-Nov-10	2093																					
12-Nov-10	2100	<0.00005	15.2	<0.0005	<0.0001	0.00089	<0.03	<0.00005	7.04	0.000468	<0.00001	0.102	<0.0005	1.21	<0.001	0.521	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
19-Nov-10	2107																					
26-Nov-10	2114																					
3-Dec-10	2121																					
10-Dec-10	2128	0.000062	22	<0.0005	<0.0001	0.00152	<0.03	<0.00005	8.9	0.000781	<0.00001	0.122	<0.0005	1.69	<0.001	0.772	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
17-Dec-10	2135																					
24-Dec-10	2142																					
31-Dec-10	2149																					
7-Jan-11	2156	<0.00005	18.8	<0.0005	<0.0001	0.00223	<0.03	<0.00005	9.86	0.00109	<0.00001	0.111	<0.0005	1.7	<0.001	0.662	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0013
14-Jan-11	2163																					
21-Jan-11	2170																					
28-Jan-11	2177																					
4-Feb-11	2184	<0.00005	17.8	<0.0005	<0.0001	0.00124	<0.03	<0.00005	8.13	0.000435	<0.00001	0.135	<0.0005	1.4	<0.001	0.646	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-Feb-11	2191																					
18-Feb-11	2198																					
25-Feb-11	2205																					
4-Mar-11	2212	<0.00005	15.3	<0.0005	<0.0001	0.00123	<0.03	<0.00005	6.81	0.000691	<0.00001	0.11	<0.0005	1.14	<0.001	0.517	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
11-Mar-11	2219																					

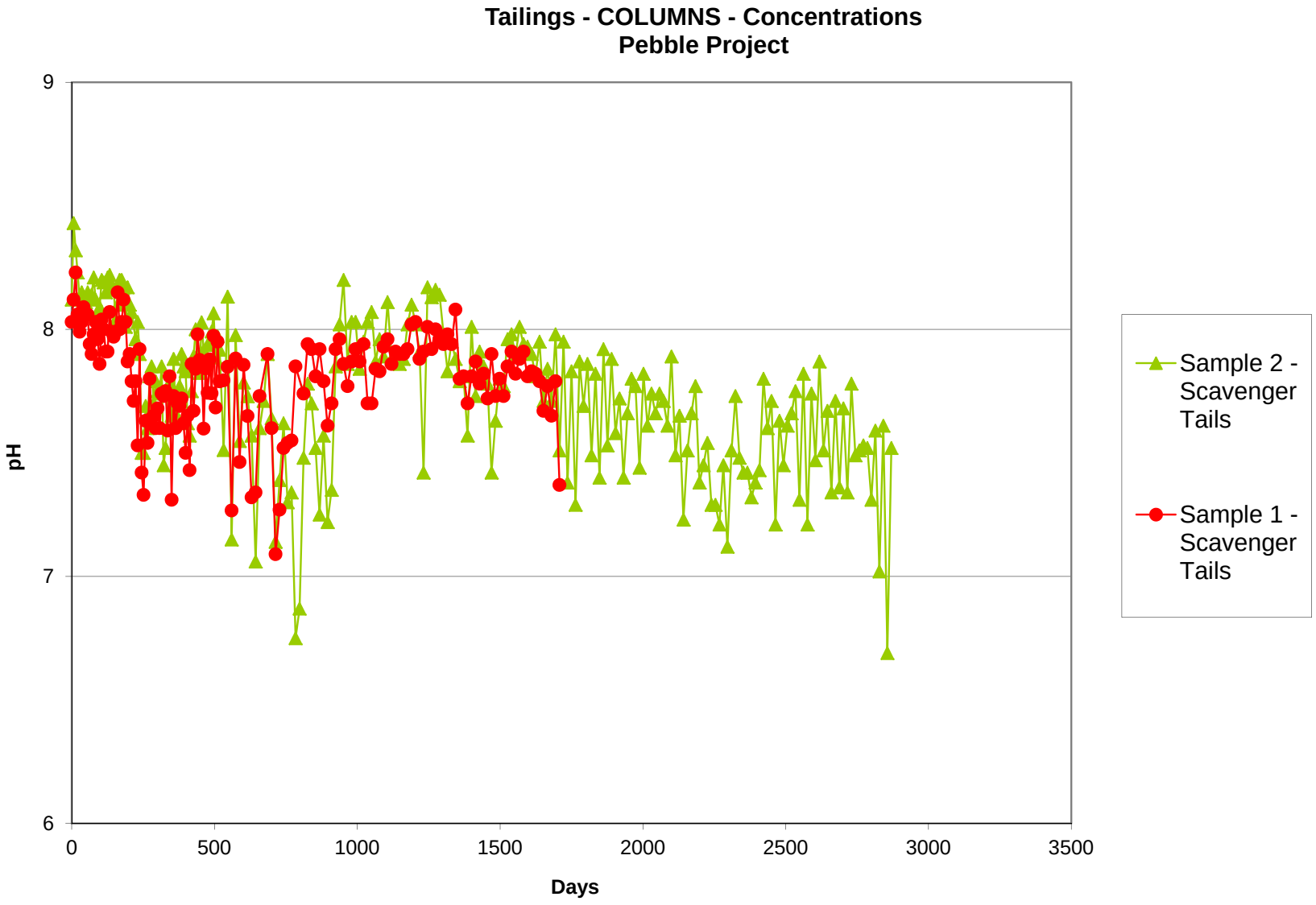
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
18-Mar-11	2226	2500	2455	7.54	339	148															
25-Mar-11	2233	2500	2350																		
1-Apr-11	2240	2500	2475	7.29	303	161	<1	8.94	99.58	81	86	<0.5	0.054	4.19	0.0054	0.000224	0.0002	0.00658	<0.0002	<0.0005	<0.01
8-Apr-11	2247	2500	2310																		
15-Apr-11	2254	2500	2460	7.29	305	139															
22-Apr-11	2261	2500	2500																		
29-Apr-11	2268	2500	2410	7.21	362	79	<1	4.42	50.24	40	45	<0.5	0.022	2.56	0.0049	0.000149	0.00014	0.0033	<0.0002	<0.0005	<0.01
6-May-11	2275	2500	2485																		
13-May-11	2282	2500	2470	7.45	363	106															
20-May-11	2289	2500	2490																		
27-May-11	2296	2500	2300	7.12	279	79	<1	6.30	44.87	52	42.4	<0.5	0.032	3.24	0.0062	0.000298	0.00014	0.00297	<0.0002	<0.0005	<0.01
3-Jun-11	2303	2500	2380																		
10-Jun-11	2310	2500	2460	7.51	342	76															
17-Jun-11	2317	2500	2400																		
24-Jun-11	2324	2500	2435	7.73	259	140	<1	2.33	83.64	73	76.3	<0.5	0.042	5.46	0.0057	0.00031	0.0002	0.0051	<0.0002	<0.0005	<0.01
1-Jul-11	2331	2500	2415																		
8-Jul-11	2338	2500	2495	7.48	331	104															
15-Jul-11	2345	2500	2325																		
22-Jul-11	2352	2500	2490	7.42	276	135	<1	5.75	75.00	76	69.8	<0.5	0.045	5.1	0.0053	0.000262	0.00022	0.00505	<0.0002	<0.0005	<0.01
29-Jul-11	2359	2500	2435																		
5-Aug-11	2366	2500	2355	7.42	351	115															
12-Aug-11	2373	2500	2425																		
19-Aug-11	2380	2500	2275	7.32	262	106	<1	5.24	60.80	56	57.3	<0.5	0.041	4.14	0.0051	0.000206	0.00015	0.00405	<0.0002	<0.0005	<0.01
26-Aug-11	2387	2500	2365																		
2-Sep-11	2394	2500	2380	7.38	363	105															
9-Sep-11	2401	2500	2225																		
16-Sep-11	2408	2500	2275	7.43	373	116	<1	5.98	66.20	70	63.5	<0.5	0.046	4.75	0.0048	0.000229	0.0002	0.00404	<0.0002	<0.0005	<0.01
23-Sep-11	2415	2500	2440																		
30-Sep-11	2422	2500	2315	7.8	211	102															
7-Oct-11	2429	2500	2385																		
14-Oct-11	2436	2500	2285	7.6	270	99	<1	3.92	57.61	45	53.5	<0.5	0.044	4.16	0.0061	0.000246	0.00017	0.00376	<0.0002	<0.0005	<0.01
21-Oct-11	2443	2500	2210																		
28-Oct-11	2450	2500	2305	7.71	333	101															
4-Nov-11	2457	2500	2260																		
11-Nov-11	2464	2500	2210	7.21	323	109	<1	6.25	60.39	56	56	<0.5	0.052	4.39		0.000265	0.00014	0.00407	<0.0002	<0.0005	<0.01
18-Nov-11	2471	2500	2395																		
25-Nov-11	2478	2500	2415	7.63	321	102															
2-Dec-11	2485	2500	2415																		
9-Dec-11	2492	2500	2555	7.45	316	118	<1	4.80	67.70	59	63	<0.5	0.051	3.4	0.004	0.00019	0.00014	0.00441	<0.0002	<0.0005	<0.01
16-Dec-11	2499	2500	2435																		
23-Dec-11	2506	2500	2485	7.61	355	122															
30-Dec-11	2513	2500	2420																		
6-Jan-12	2520	2500	2435	7.66	268	140	<1	3.99	91.37	82	75.2	<0.5	0.076	4.47	0.0041	0.000179	0.00017	0.00526	<0.0002	<0.0005	<0.01
13-Jan-12	2527	2500	2430																		
20-Jan-12	2534	2500	2460	7.75	350	121															
27-Jan-12	2541	2500	2605																		
3-Feb-12	2548	2500	2490	7.31	336	146	<1	7.63	89.99	67	75	<0.5	0.069	5.02	0.0056	0.000177	0.00018	0.00502	<0.0002	<0.0005	<0.01
10-Feb-12	2555	2500	2475																		
17-Feb-12	2562	2500	2440	7.82	396	160															
24-Feb-12	2569	2500	2465																		
2-Mar-12	2576	2500	2445	7.21	432	107	<1	8.53	62.03	49	54.3	<0.5	0.055	2.99	0.0044	0.000143	0.00014	0.00358	<0.0002	<0.0005	<0.01
9-Mar-12	2583	2500	2450																		
16-Mar-12	2590	2500	2460	7.74	369	114															
23-Mar-12	2597	2500	2270																		
30-Mar-12	2604	2500	2430	7.47	337	116	<1	4.41	60.00												
6-Apr-12	2611	2500	2495																		
13-Apr-12	2618	2500	2395	7.87	372	132															

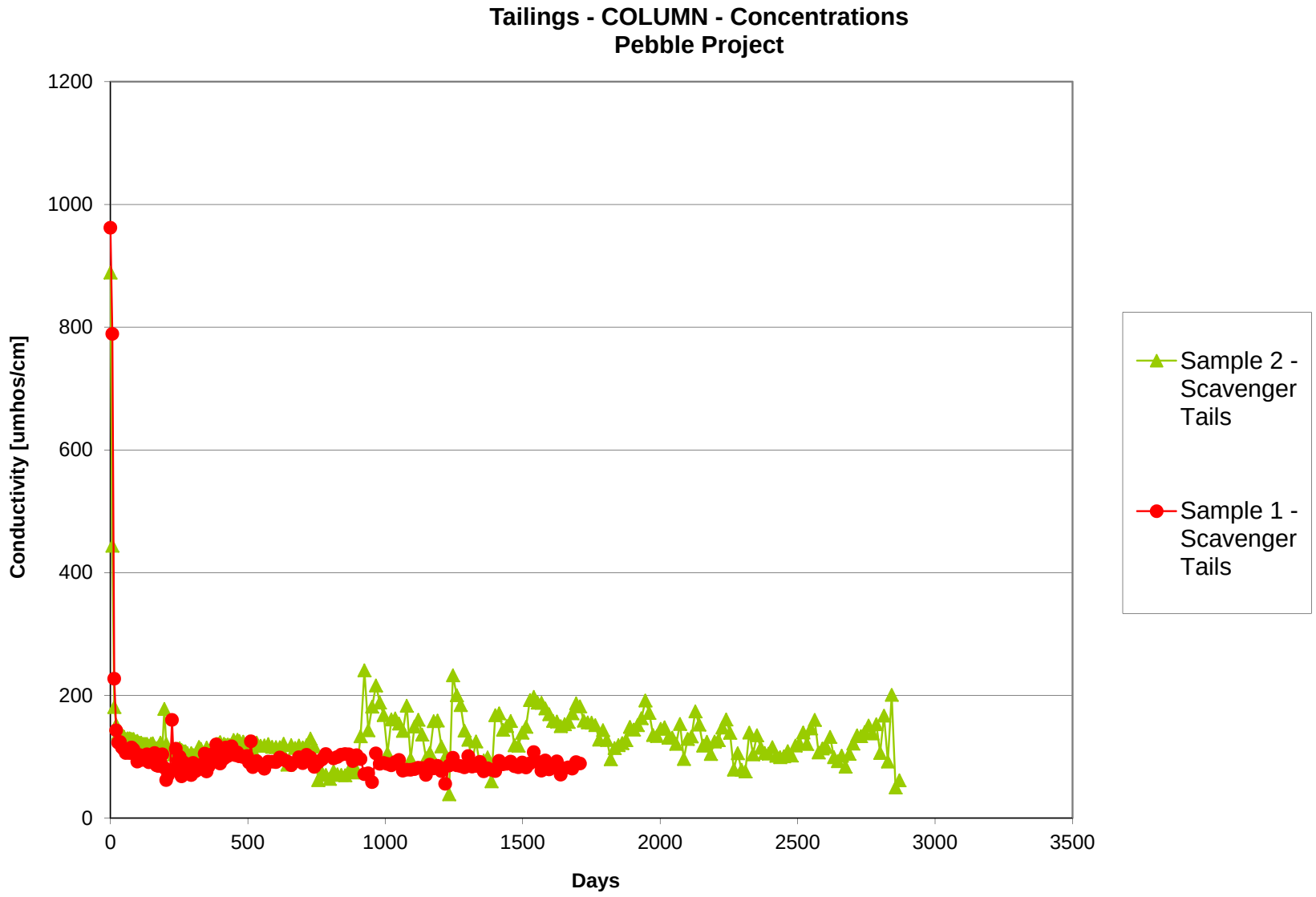
Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
18-Mar-11	2226																					
25-Mar-11	2233																					
1-Apr-11	2240	<0.00005	19.5	<0.0005	<0.0001	0.00118	<0.03	<0.00005	9.06	0.000333	<0.00001	0.148	<0.0005	1.59	<0.001	0.707	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
8-Apr-11	2247																					
15-Apr-11	2254																					
22-Apr-11	2261																					
29-Apr-11	2268	<0.00005	10.3	<0.0005	<0.0001	0.00072	<0.03	<0.00005	4.7	0.000825	<0.00001	0.0759	<0.0005	0.835	<0.001	0.367	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
6-May-11	2275																					
13-May-11	2282																					
20-May-11	2289																					
27-May-11	2296	<0.00005	9.79	<0.0005	<0.0001	0.00058	<0.03	<0.00005	4.36	0.000486	<0.00001	0.0719	<0.0005	0.848	<0.001	0.409	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
3-Jun-11	2303																					
10-Jun-11	2310																					
17-Jun-11	2317																					
24-Jun-11	2324	<0.00005	17.7	<0.0005	<0.0001	0.00088	<0.03	<0.00005	7.76	0.000618	<0.00001	0.114	<0.0005	1.4	<0.001	0.648	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
1-Jul-11	2331																					
8-Jul-11	2338																					
15-Jul-11	2345																					
22-Jul-11	2352	<0.00005	15.9	<0.0005	<0.0001	0.00097	<0.03	<0.00005	7.28	0.000855	<0.00001	0.116	<0.0005	1.28	<0.001	0.561	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
29-Jul-11	2359																					
5-Aug-11	2366																					
12-Aug-11	2373																					
19-Aug-11	2380	<0.00005	12.9	<0.0005	<0.0001	0.00099	<0.03	<0.00005	6.1	0.000921	<0.00001	0.0865	<0.0005	1.03	<0.001	0.495	<0.00001	<2	<0.00005	0.00019	<0.0005	<0.001
26-Aug-11	2387																					
2-Sep-11	2394																					
9-Sep-11	2401																					
16-Sep-11	2408	<0.00005	14.7	<0.0005	<0.0001	0.00073	<0.03	<0.00005	6.5	0.00117	<0.00001	0.0882	<0.0005	1.14	<0.001	0.568	<0.00001	<2	<0.00005	0.00016	<0.0005	<0.001
23-Sep-11	2415																					
30-Sep-11	2422																					
7-Oct-11	2429																					
14-Oct-11	2436	<0.00005	12.3	<0.0005	<0.0001	0.00069	<0.03	<0.00005	5.51	0.000824	<0.00001	0.0832	<0.0005	1.09	<0.001	0.565	<0.00001	<2	<0.00005	0.0001	<0.0005	<0.001
21-Oct-11	2443																					
28-Oct-11	2450																					
4-Nov-11	2457																					
11-Nov-11	2464	<0.00005	12.9	<0.0005	<0.0001	0.0009	<0.03	<0.00005	5.79	0.00125	<0.00001	0.0872	<0.0005	1.05	<0.001	0.55	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0011
18-Nov-11	2471																					
25-Nov-11	2478																					
2-Dec-11	2485																					
9-Dec-11	2492	<0.00005	14.4	<0.0005	<0.0001	0.00088	<0.03	<0.00005	6.58	0.000704	<0.00001	0.0953	<0.0005	1.14	<0.001	0.568	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
16-Dec-11	2499																					
23-Dec-11	2506																					
30-Dec-11	2513																					
6-Jan-12	2520	<0.00005	17	<0.0005	<0.0001	0.00085	<0.03	<0.00005	7.98	0.000413	<0.00001	0.128	<0.0005	1.34	<0.001	0.654	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
13-Jan-12	2527																					
20-Jan-12	2534																					
27-Jan-12	2541																					
3-Feb-12	2548	<0.00005	17.6	<0.0005	<0.0001	0.00075	<0.03	<0.00005	7.55	0.000565	<0.00001	0.12	<0.0005	1.29	<0.001	0.613	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
10-Feb-12	2555																					
17-Feb-12	2562																					
24-Feb-12	2569																					
2-Mar-12	2576	<0.00005	12.8	<0.0005	<0.0001	0.00084	<0.03	<0.00005	5.43	0.000473	<0.00001	0.114	<0.0005	0.969	<0.001	0.482	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
9-Mar-12	2583																					
16-Mar-12	2590																					
23-Mar-12	2597																					
30-Mar-12	2604																					
6-Apr-12	2611																					
13-Apr-12	2618																					

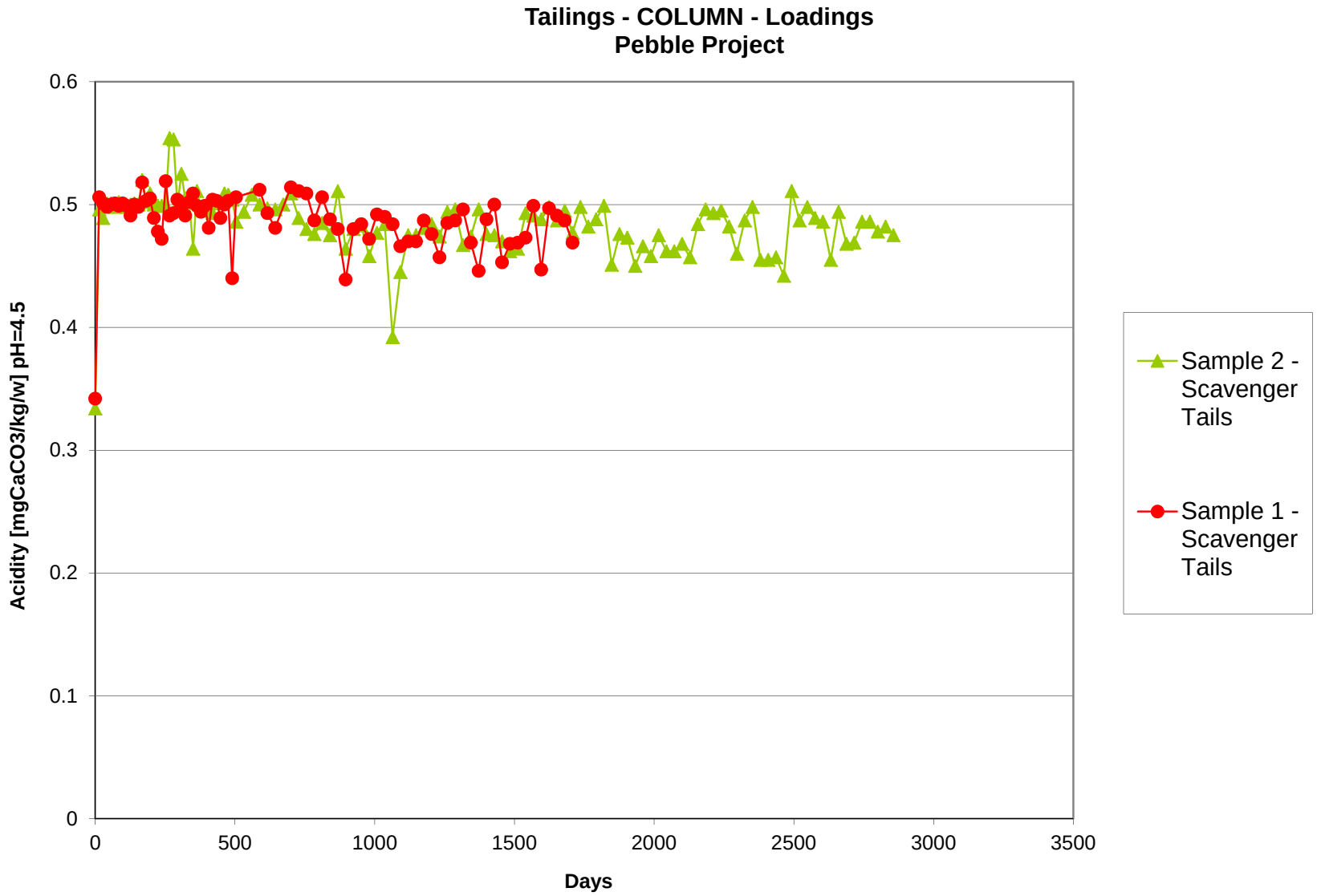
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L	Bi, mg/L	B, mg/L
20-Apr-12	2625	2500	2305																		
27-Apr-12	2632	2500	2275	7.51	426	99	<1	6.71	53.94	49	48.5	<0.5	0.044	3.64	0.0049	0.000162	0.00019	0.00342	<0.0002	<0.0005	<0.01
4-May-12	2639	2500	2495																		
11-May-12	2646	2500	2440	7.67	393	93															
18-May-12	2653	2500	2380																		
25-May-12	2660	2500	2470	7.34	333	102	<1	5.00	53.57	60	50.4	<0.5	0.037	3.92	0.0045	0.000137	0.00013	0.00329	<0.0002	<0.0005	<0.01
1-Jun-12	2667	2500	2340																		
8-Jun-12	2674	2500	2310	7.71	352	84															
15-Jun-12	2681	2500	2250																		
22-Jun-12	2688	2500	2340	7.36	387	105	<1	5.27	57.04	54	52.3	<0.5	0.037	4.36	0.0046	0.000119	0.0002	0.00375	<0.0002	<0.0005	<0.01
29-Jun-12	2695	2500	2345																		
6-Jul-12	2702	2500	2315	7.68	375	122															
13-Jul-12	2709	2500	2365																		
20-Jul-12	2716	2500	2345	7.34	335	135	<1	5.37	69.01	72	65.7	<0.5	0.046	6.38	0.005	0.000166	0.00014	0.00438	<0.0002	<0.0005	<0.01
27-Jul-12	2723	2500	2355																		
3-Aug-12	2730	2500	2275	7.78	372	134															
10-Aug-12	2737	2500	2465																		
17-Aug-12	2744	2500	2430	7.49	347	140	<1	5.44	74.95	71	72	<0.5	0.066	4.89	0.0063	0.000189	0.00017	0.00526	<0.0002	<0.0005	<0.01
24-Aug-12	2751	2500	2280																		
31-Aug-12	2758	2500	2395	7.51	390	151															
7-Sep-12	2765	2500	2405																		
14-Sep-12	2772	2500	2430	7.53	391	138	<1	5.03	72.84	70	69.2	<0.5	0.066	4.31	0.0057	0.000206	0.00017	0.00443	<0.0002	<0.0005	<0.01
21-Sep-12	2779	2500	1485																		
28-Sep-12	2786	2500	2400	7.52	410	153															
5-Oct-12	2793	2500	2415																		
12-Oct-12	2800	2500	2390	7.31	410	106	<1	6.81	59.53	51	53.5	<0.5	0.053	3.84	0.0051	0.000161	0.00015	0.00373	<0.0002	<0.0005	<0.01
19-Oct-12	2807	2500	2385																		
26-Oct-12	2814	2500	2345	7.59	440	167															
2-Nov-12	2821	2500	2455																		
9-Nov-12	2828	2500	2410	7.02	404	92	<1	6.82	56.56	45	47.9	<0.5	0.047	3.41	0.0051	0.000163	0.00012	0.00308	<0.0002	<0.0005	<0.01
16-Nov-12	2835	2500	2435																		
23-Nov-12	2842	2500	2240	7.61	490	201															
30-Nov-12	2849	2500	2530																		
7-Dec-12	2856	2500	2375	6.69	410	50	<1	7.73	29.05	24	24.6	<0.5	<0.02	2.68	0.0023	0.000059	<0.0001	0.00187	<0.0002	<0.0005	<0.01
14-Dec-12	2863	2500	2455																		
21-Dec-12	2870	2500	2450	7.52	421	62															
28-Dec-12	2877	2500	2400																		

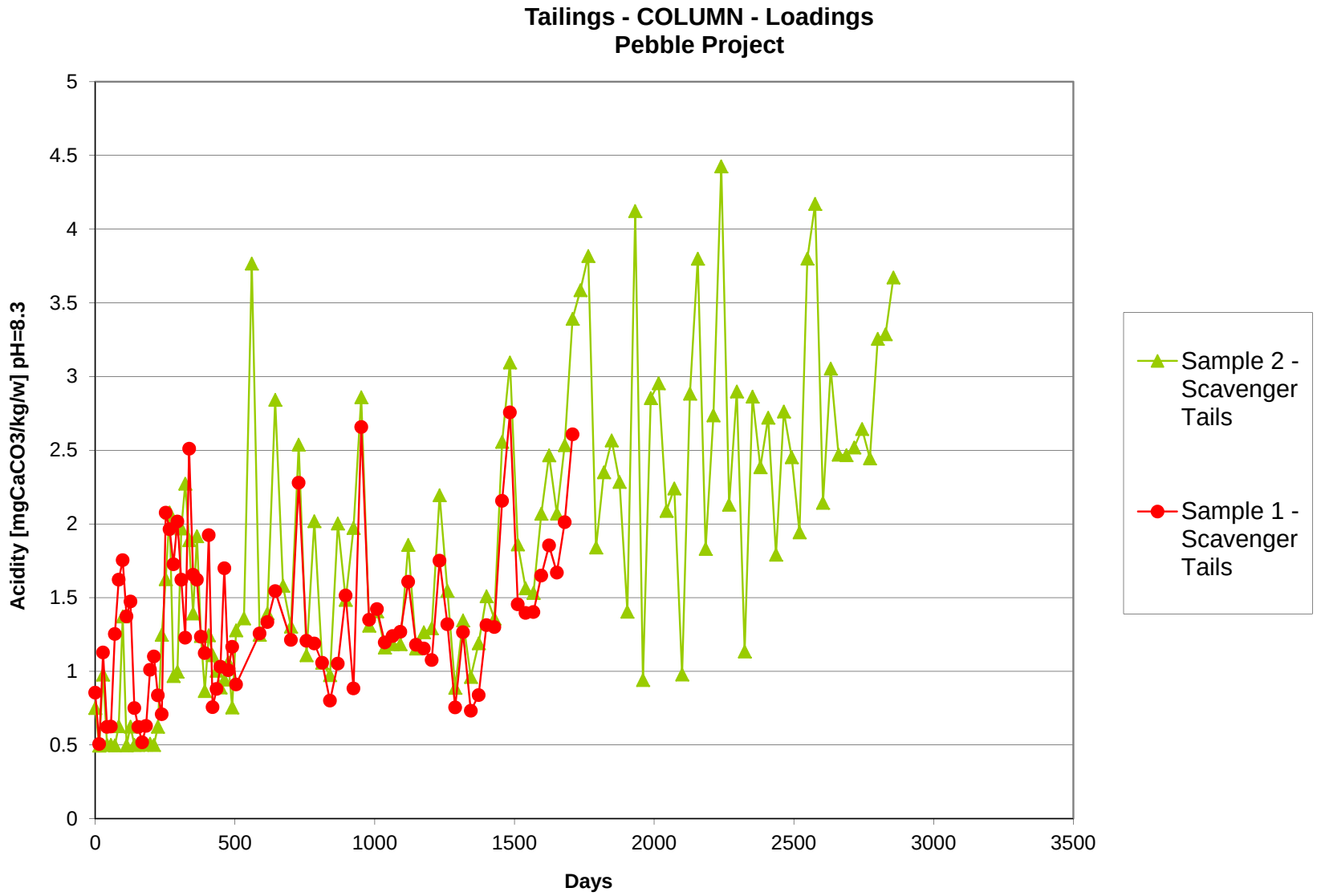
Date	Accum Days	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L
20-Apr-12	2625																					
27-Apr-12	2632	<0.00005	11.3	<0.0005	<0.0001	0.00057	<0.03	<0.00005	4.92	0.00062	<0.00001	0.0913	<0.0005	0.899	<0.001	0.442	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
4-May-12	2639																					
11-May-12	2646																					
18-May-12	2653																					
25-May-12	2660	<0.00005	11.7	<0.0005	<0.0001	0.00063	<0.03	<0.00005	5.11	0.000731	<0.00001	0.0985	<0.0005	0.9	<0.001	0.449	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
1-Jun-12	2667																					
8-Jun-12	2674																					
15-Jun-12	2681																					
22-Jun-12	2688		12	<0.0005	<0.0001	0.00068	<0.03	<0.00005	5.39	0.000777	<0.00001	0.106	<0.0005	0.977	<0.001	0.449	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
29-Jun-12	2695																					
6-Jul-12	2702																					
13-Jul-12	2709																					
20-Jul-12	2716		15.3	<0.0005	<0.0001	0.00064	<0.03	0.000062	6.65	0.000907	<0.00001	0.111	<0.0005	1.16	<0.001	0.594	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
27-Jul-12	2723																					
3-Aug-12	2730																					
10-Aug-12	2737																					
17-Aug-12	2744	0.000087	16.3	<0.0005	<0.0001	0.00087	<0.03	0.000054	7.58	0.000383	<0.00001	0.133	<0.0005	1.31	<0.001	0.646	<0.00001	<2	<0.00005	<0.0001	<0.0005	0.0015
24-Aug-12	2751																					
31-Aug-12	2758																					
7-Sep-12	2765																					
14-Sep-12	2772	<0.00005	15.9	<0.0005	<0.0001	0.00064	<0.03	<0.00005	7.18	0.000376	<0.00001	0.122	<0.0005	1.34	<0.001	0.663	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
21-Sep-12	2779																					
28-Sep-12	2786																					
5-Oct-12	2793																					
12-Oct-12	2800	<0.00005	12.4	0.00065	<0.0001	0.00072	<0.03	<0.00005	5.46	0.000264	<0.00001	0.0925	<0.0005	1.04	<0.001	0.528	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
19-Oct-12	2807																					
26-Oct-12	2814																					
2-Nov-12	2821																					
9-Nov-12	2828	<0.00005	11	<0.0005	<0.0001	0.00074	<0.03	0.000179	4.93	0.000309	<0.00001	0.0754	<0.0005	0.909	<0.001	0.483	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
16-Nov-12	2835																					
23-Nov-12	2842																					
30-Nov-12	2849																					
7-Dec-12	2856	<0.00005	5.69	<0.0005	<0.0001	0.00038	<0.03	<0.00005	2.51	0.00154	<0.00001	0.0297	<0.0005	0.42	<0.001	0.209	<0.00001	<2	<0.00005	<0.0001	<0.0005	<0.001
14-Dec-12	2863																					
21-Dec-12	2870																					
28-Dec-12	2877																					

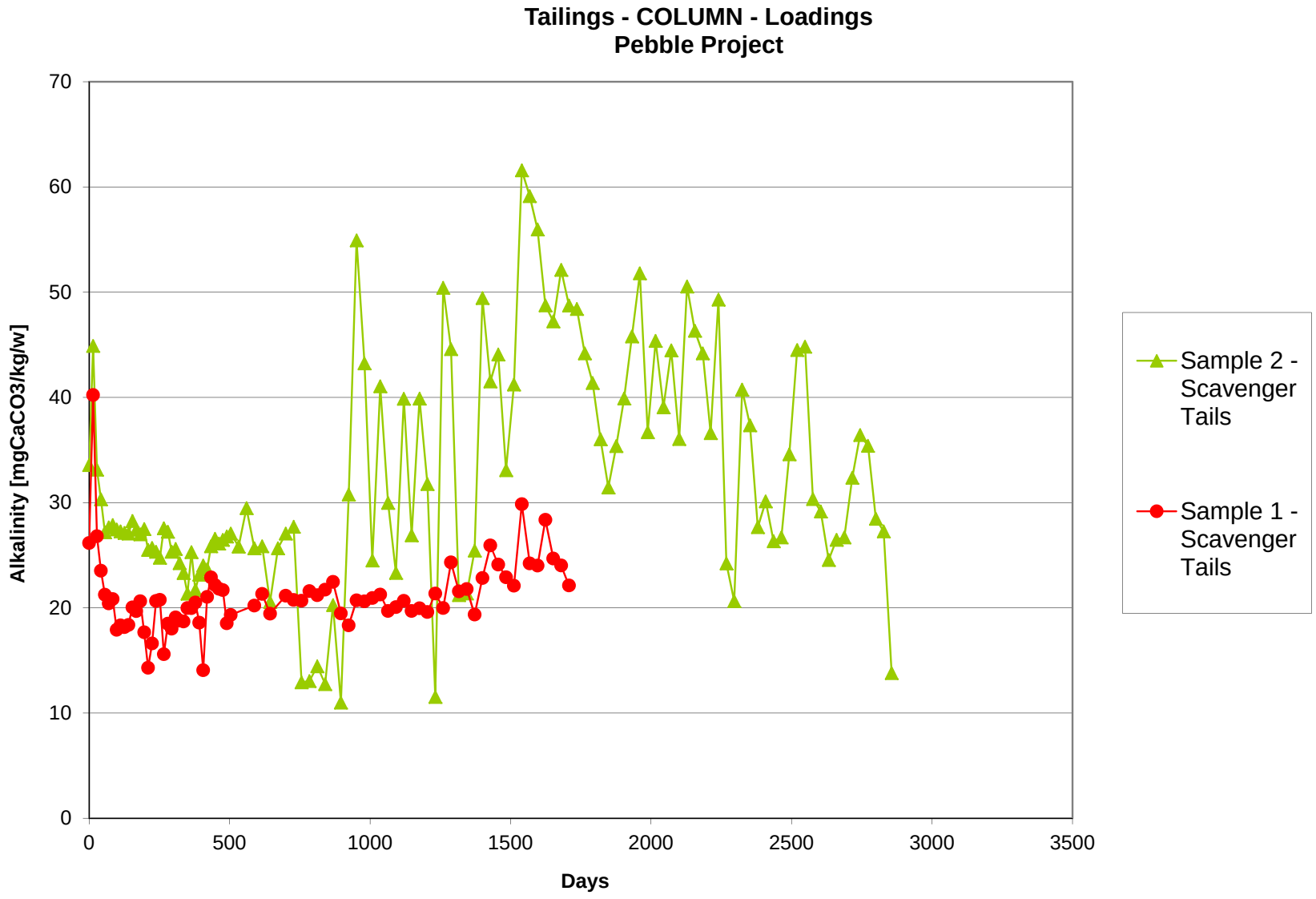
Appendix 11M, Loading Trend Charts for Column Tests on Tailings

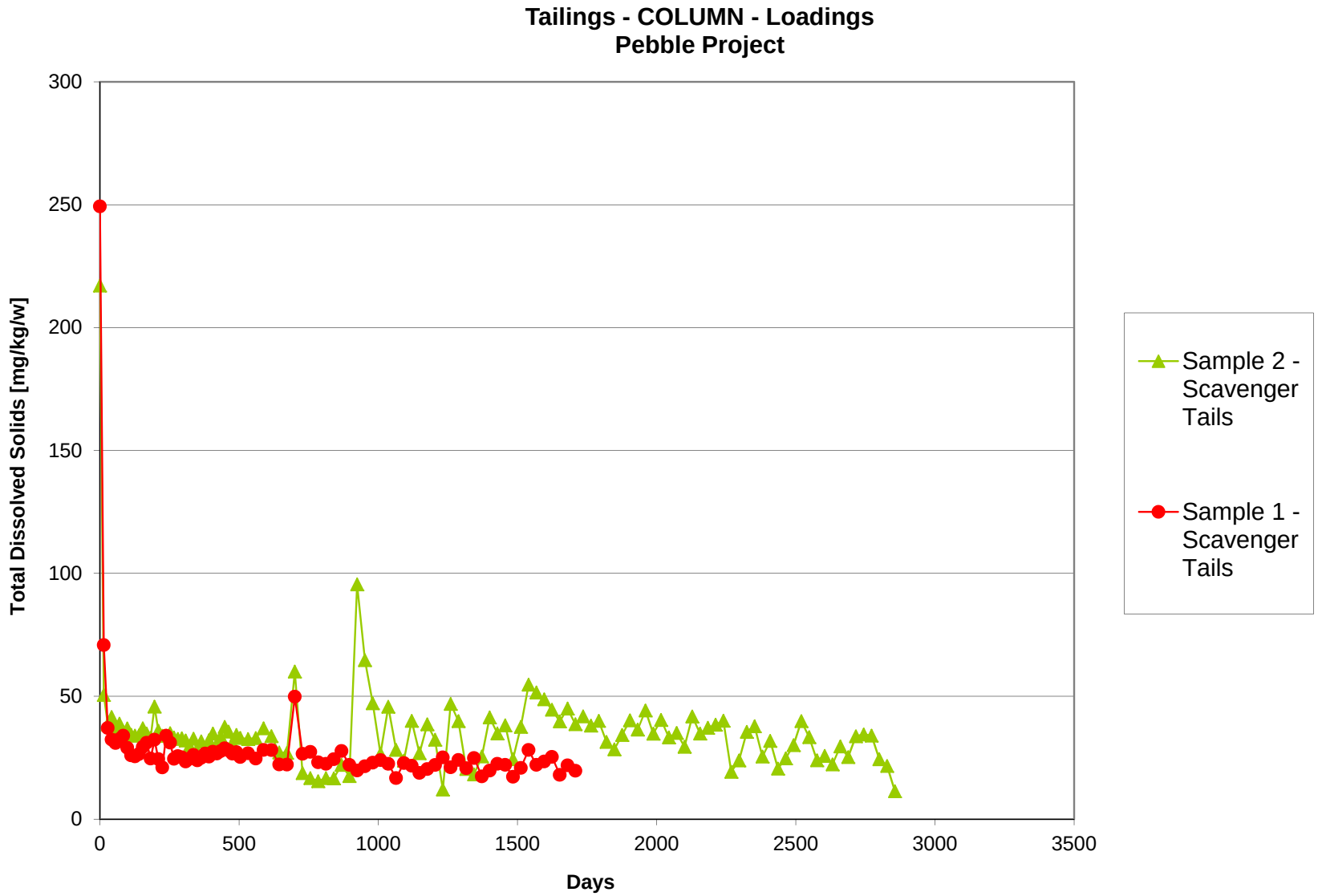

Tailings - COLUMNS - Concentrations
Pebble Project
9
8
7
6
pH
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

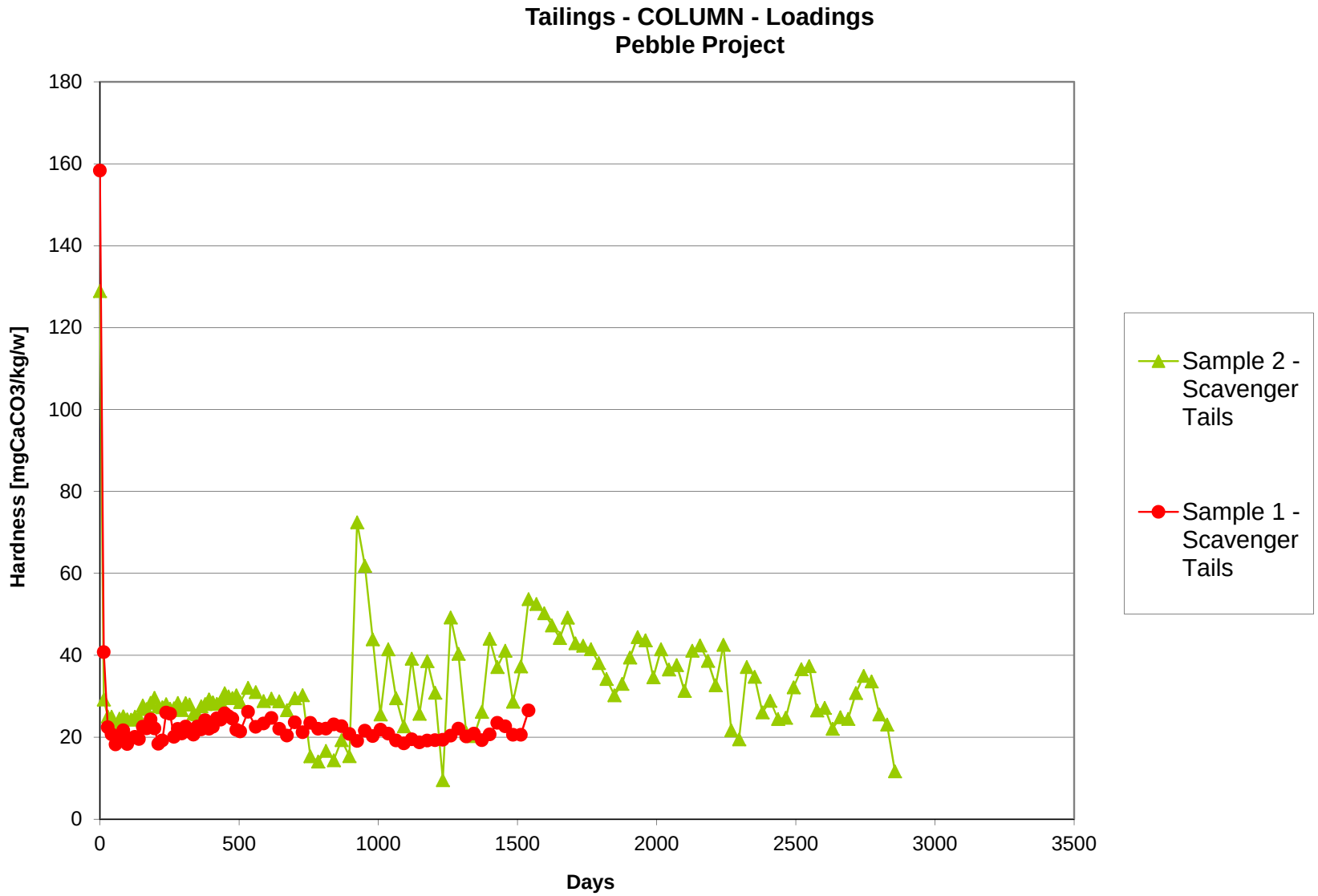

Tailings - COLUMN - Concentrations
Pebble Project
Conductivity [umhos/cm]
1200
1000
800
600
400
200
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

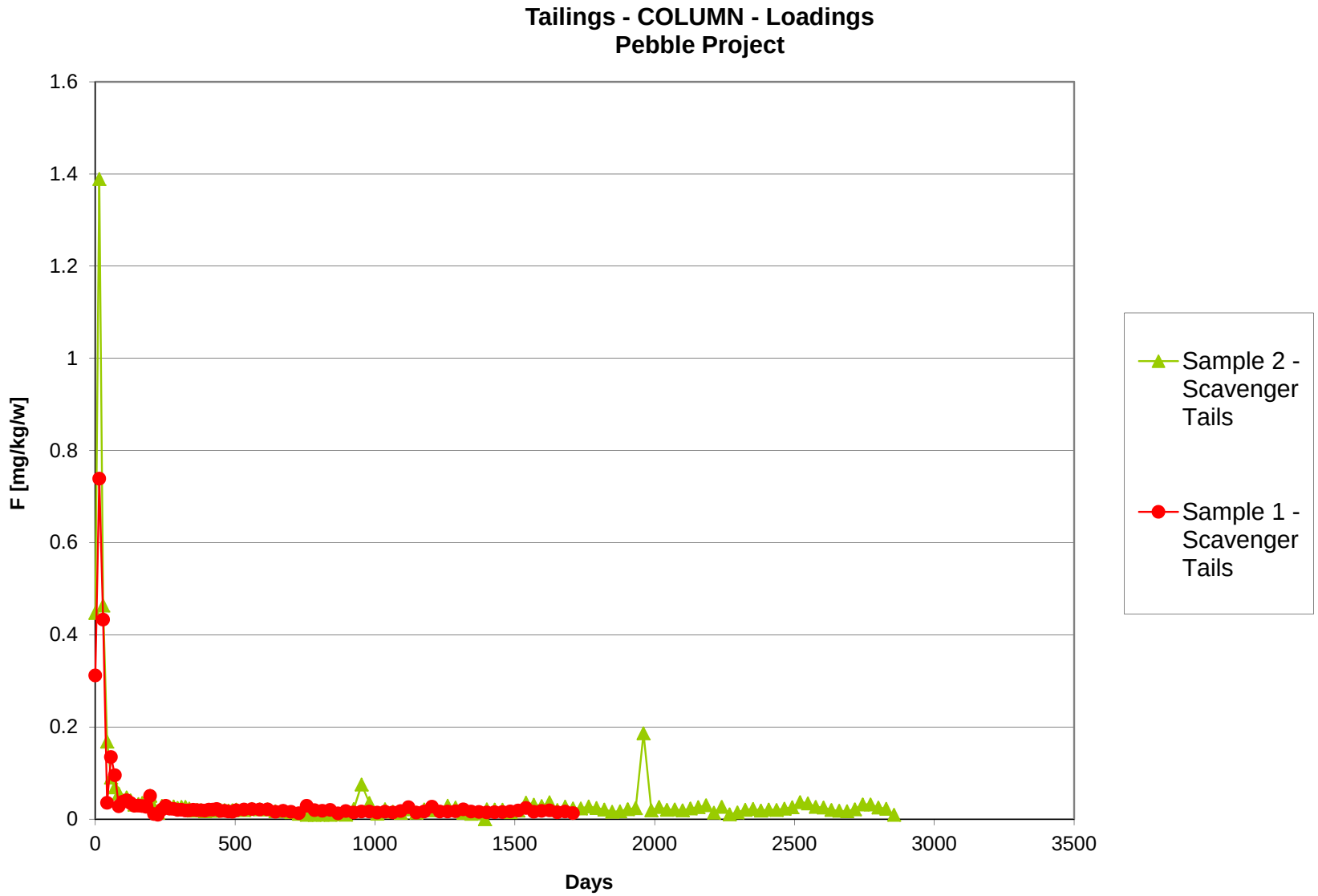

Tailings - COLUMN - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=4.5
0.6
0.5
0.4
0.3
0.2
0.1
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

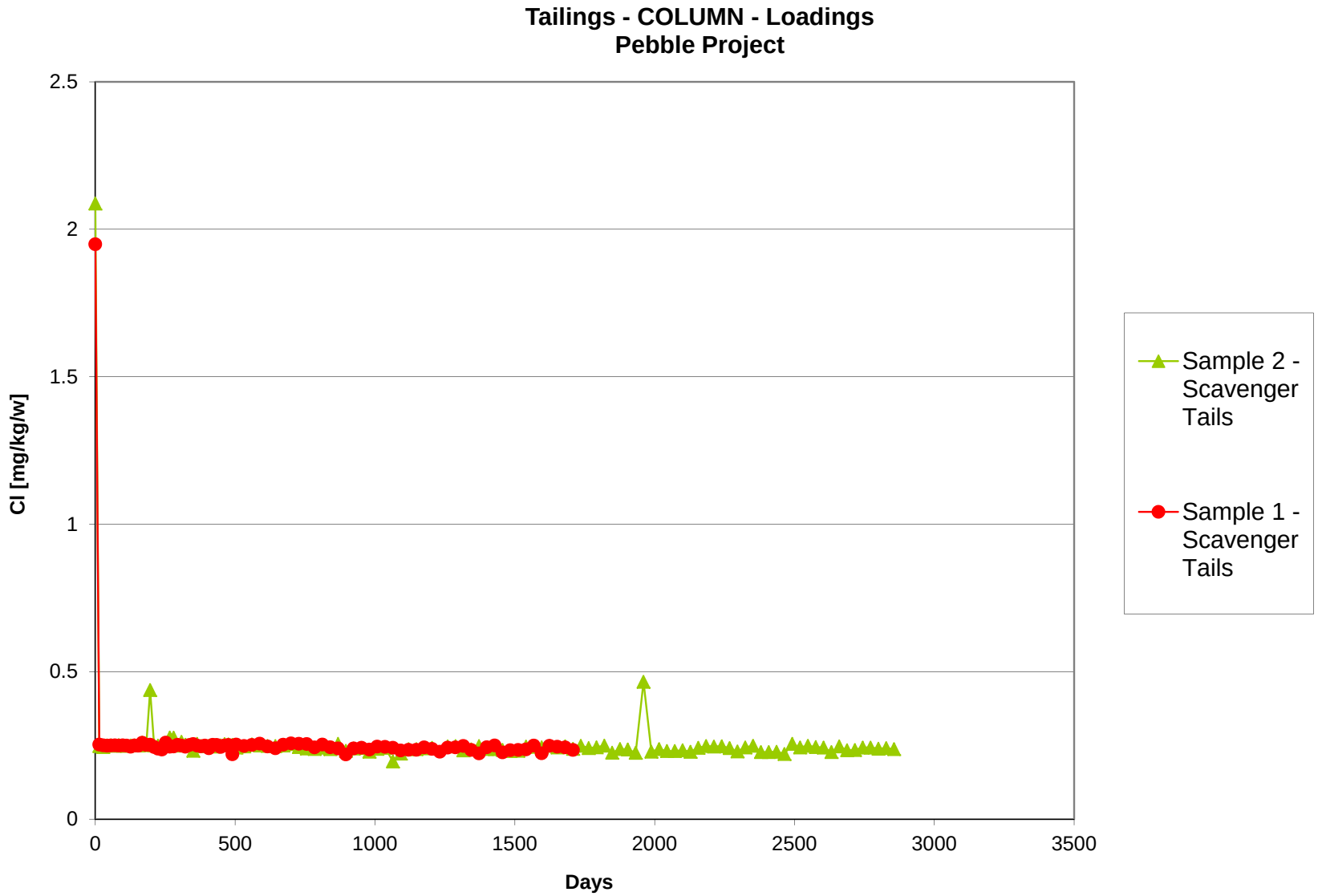

Tailings - COLUMN - Loadings
Pebble Project
Acidity [mgCaCO3/kg/w] pH=8.3
Days
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
500
1000
1500
2000
2500
3000
3500
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

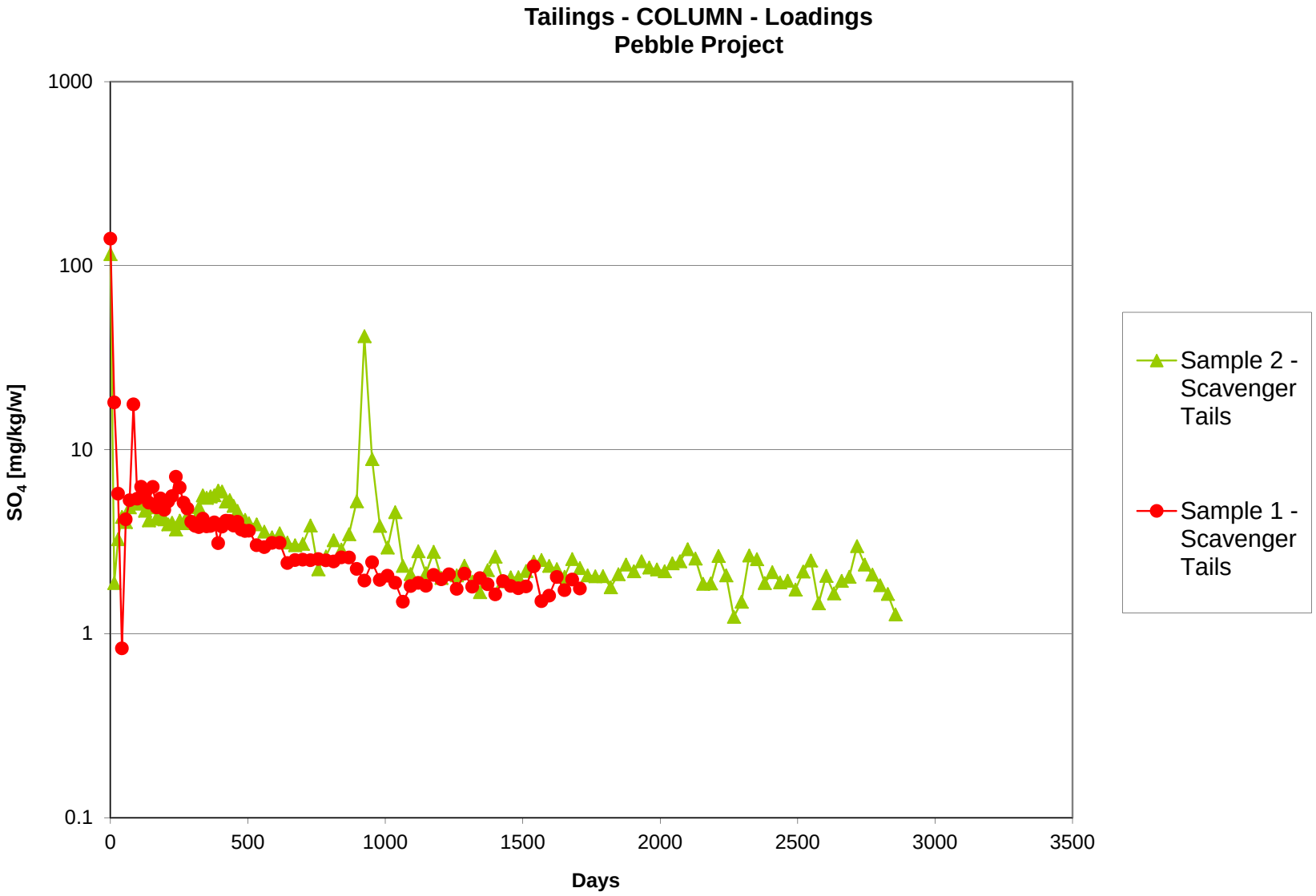

Tailings - COLUMN - Loadings
Pebble Project
Alkalinity [mgCaCO3/kg/w]
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

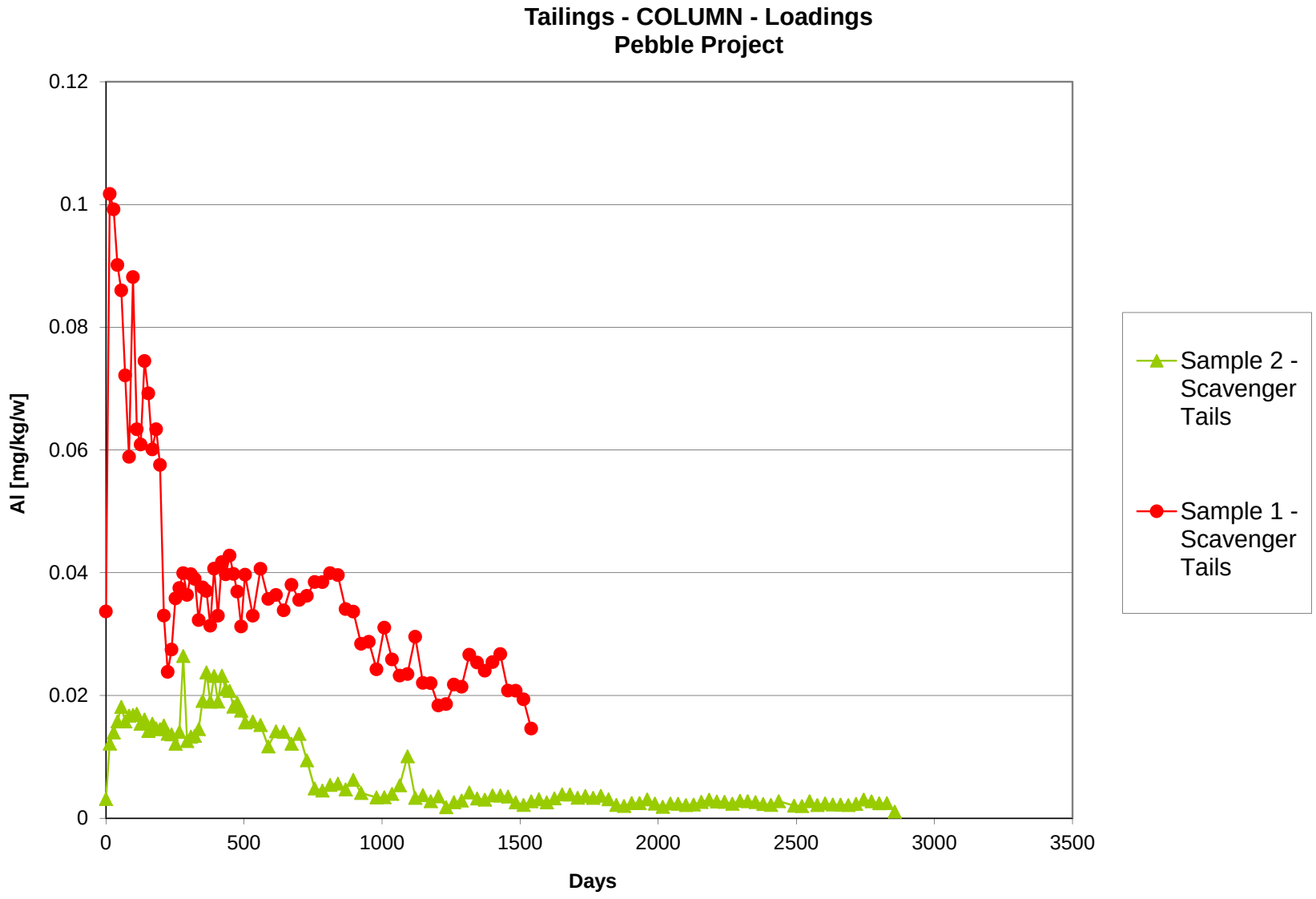

Tailings - COLUMN - Loadings
Pebble Project
Total Dissolved Solids [mg/kg/w]
300
250
200
150
100
50
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

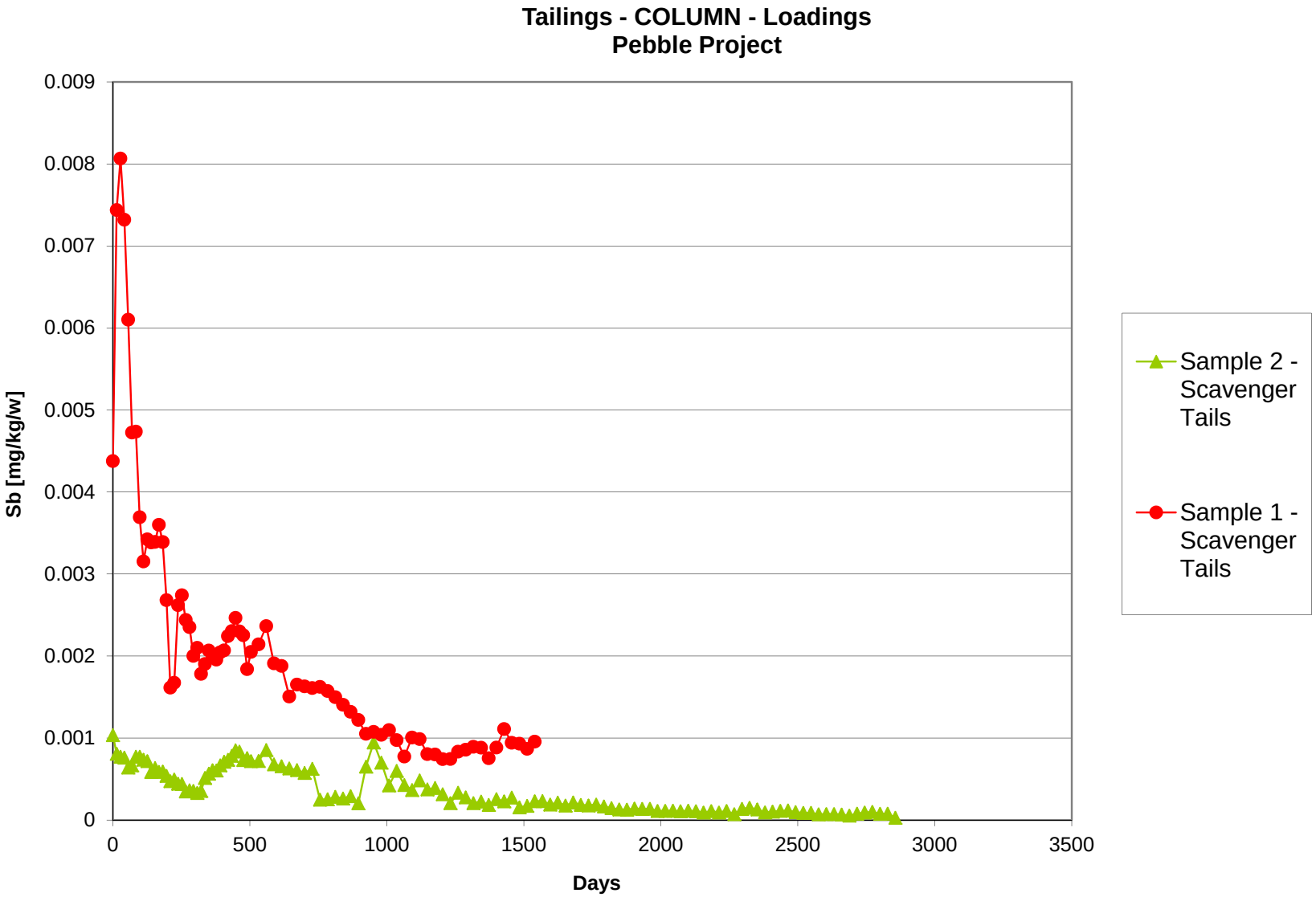

Tailings - COLUMN - Loadings
Pebble Project
Hardness [mgCaCO3/kg/w]
180
160
140
120
100
80
60
40
20
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

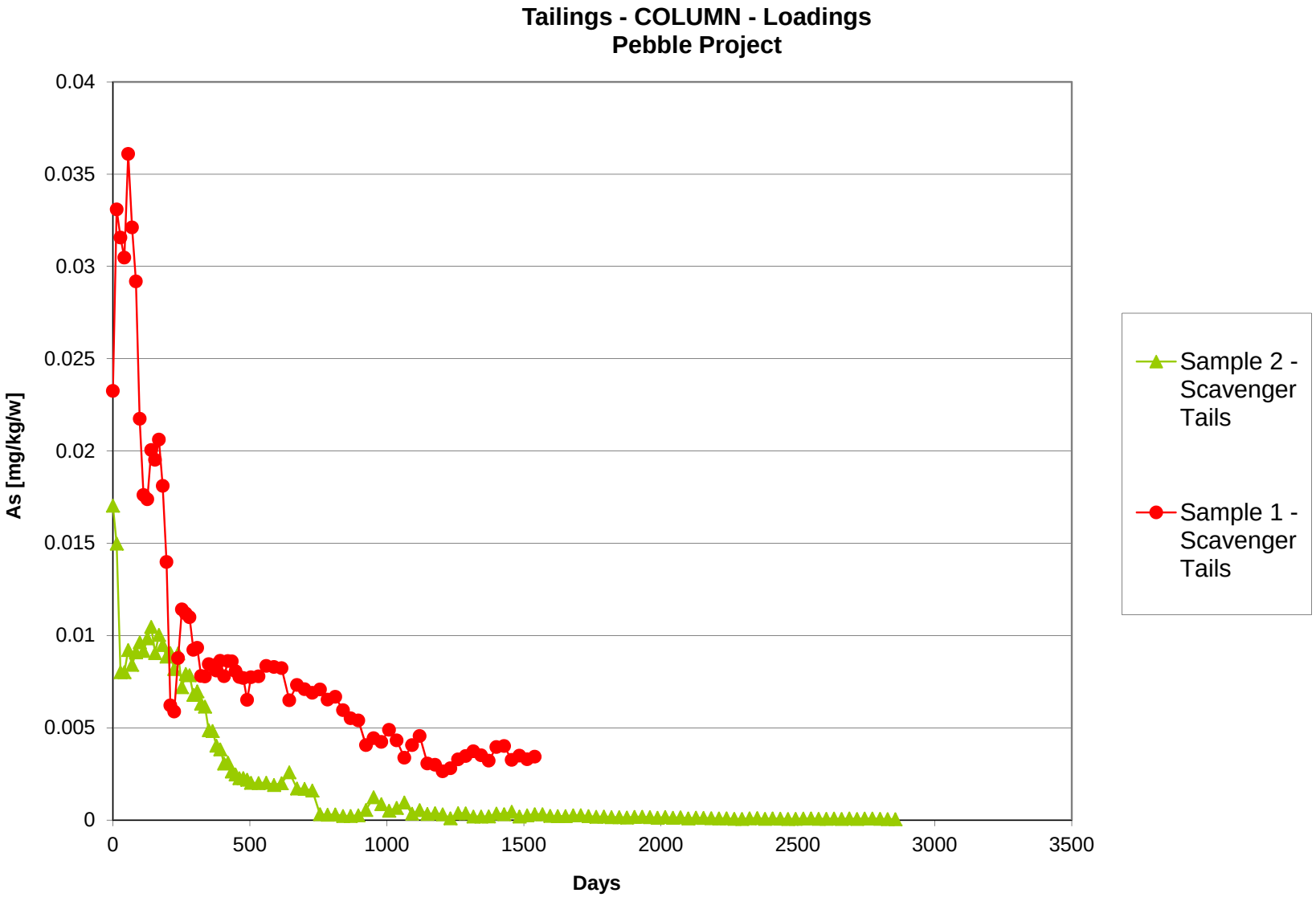

Tailings - COLUMN - Loadings
Pebble Project
F [mg/kg/w]
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

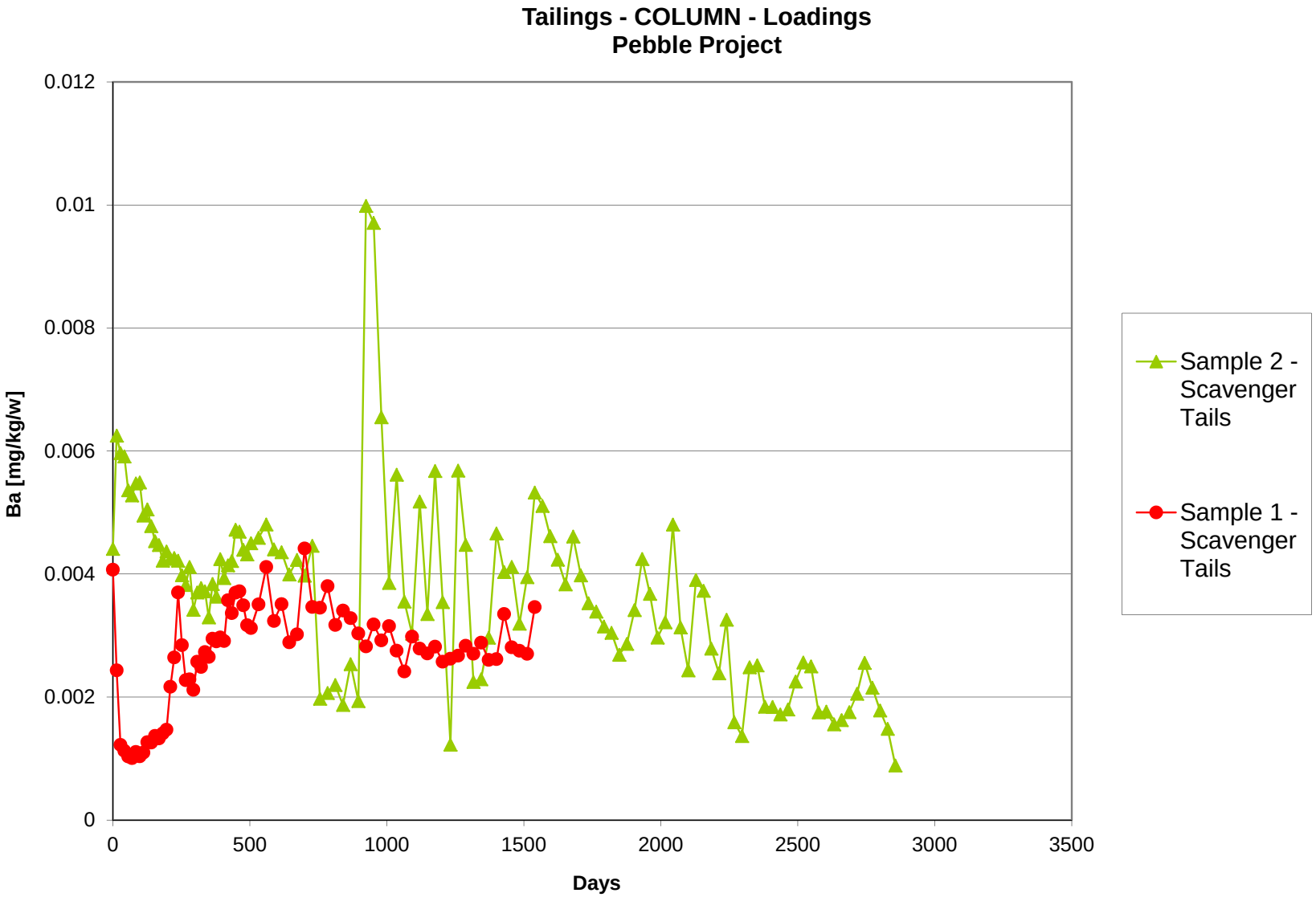

Tailings - COLUMN - Loadings
Pebble Project
Cl [mg/kg/w]
2.5
2
1.5
1
0.5
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

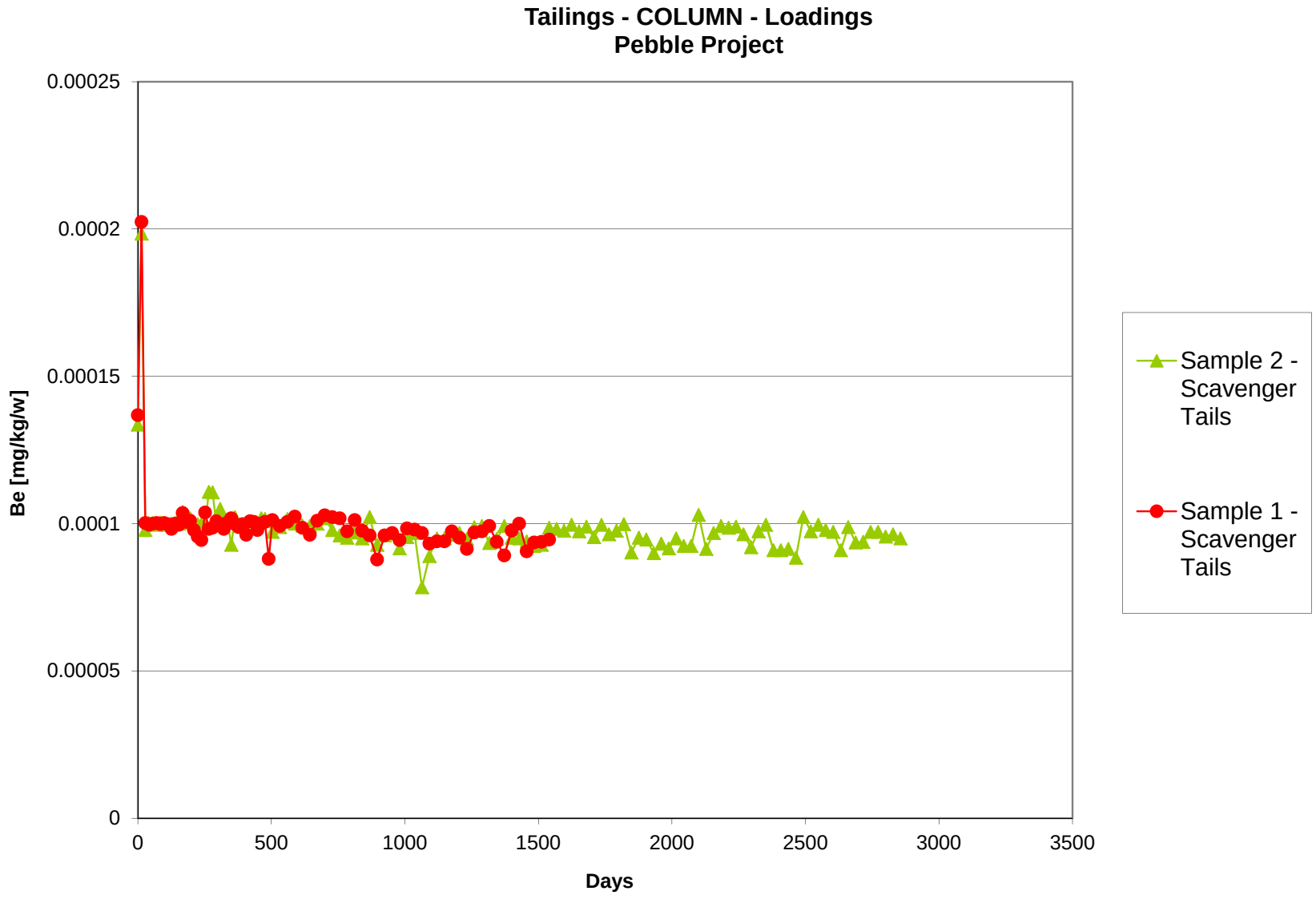

Tailings - COLUMN - Loadings
Pebble Project
1000
100
10
1
0.1
SO4 [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

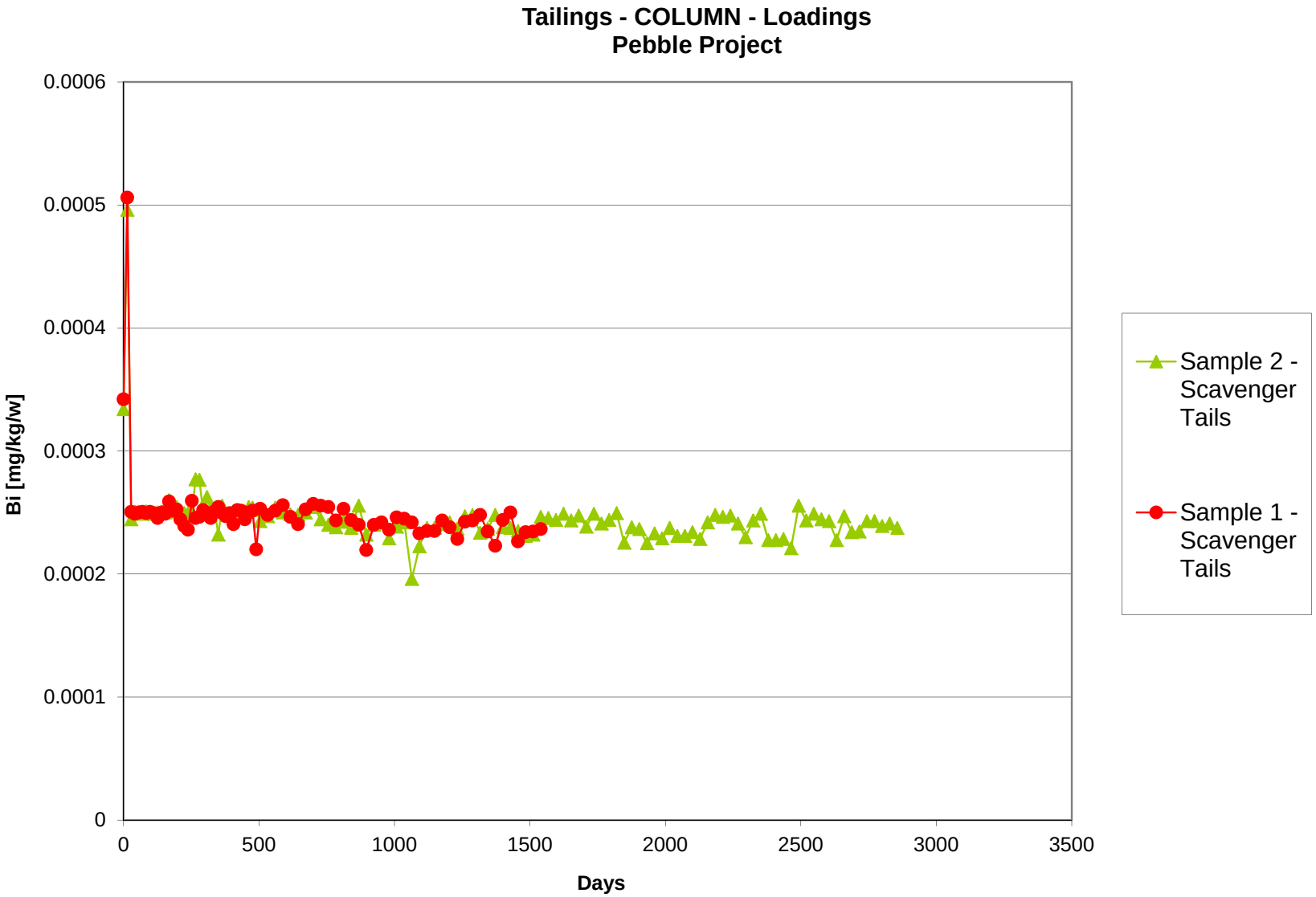

Tailings - COLUMN - Loadings
Pebble Project
Al [mg/kg/w]
0.12
0.1
0.08
0.06
0.04
0.02
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

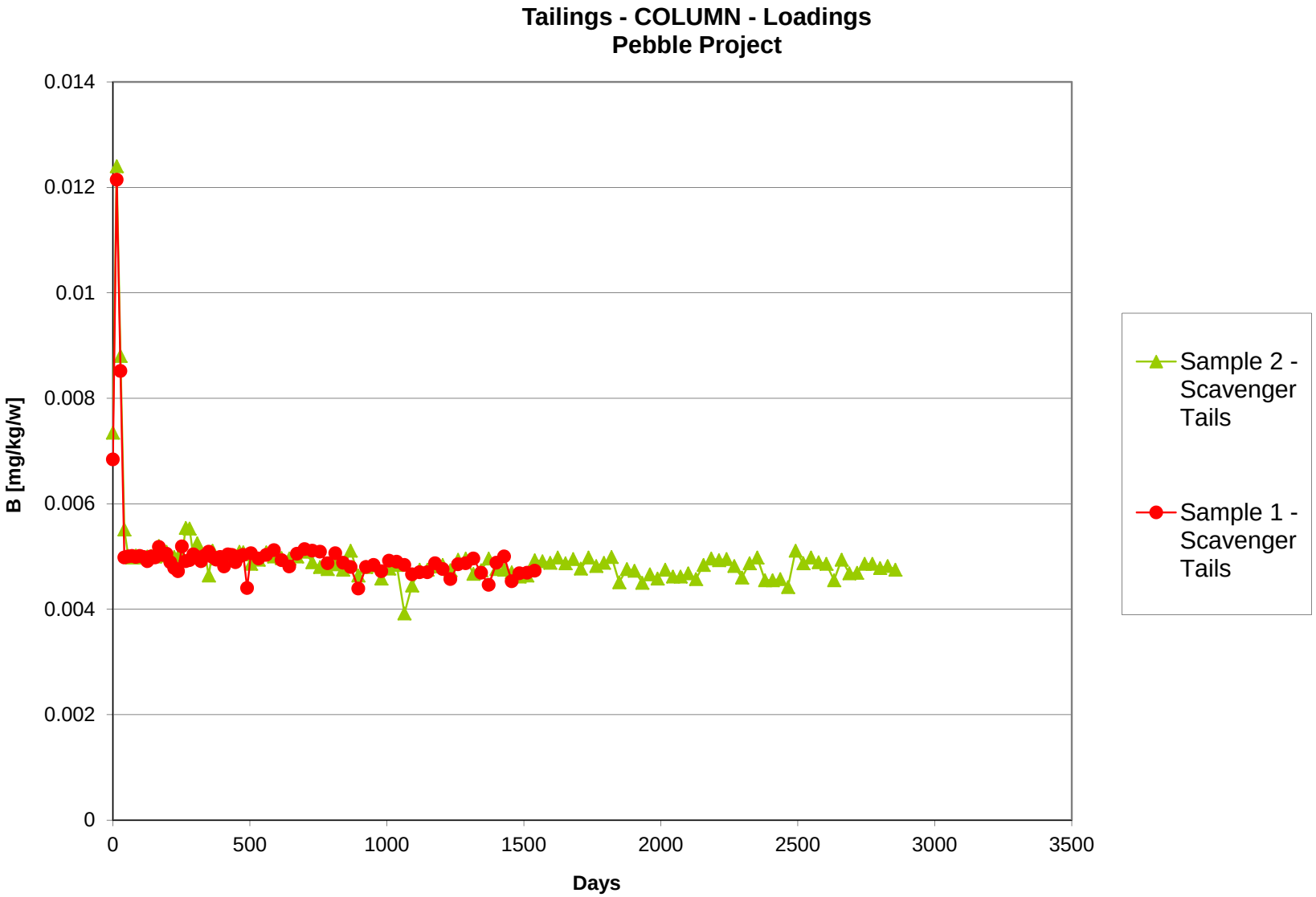

Tailings - COLUMN - Loadings
Pebble Project
Sb [mg/kg/w]
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

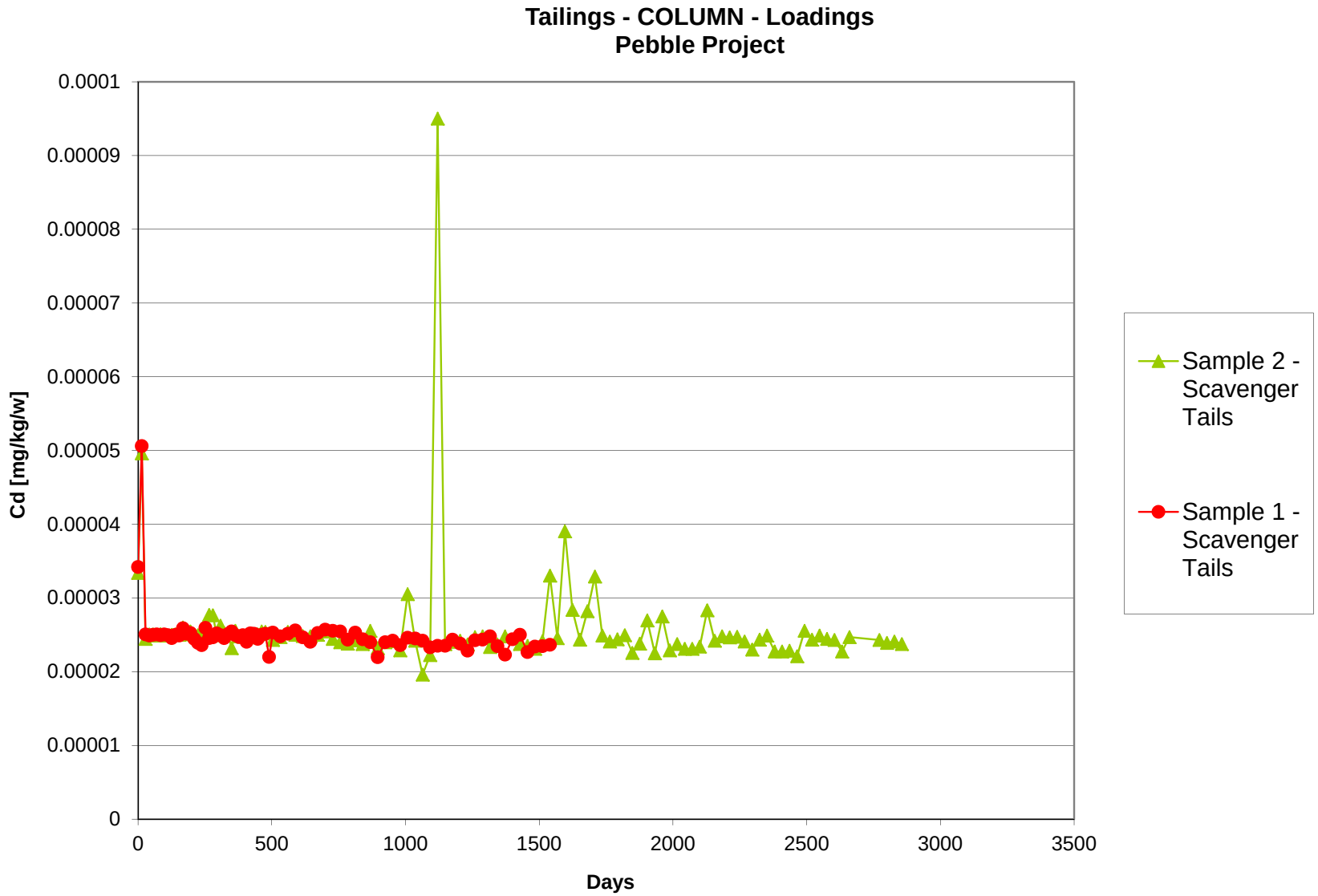

Tailings - COLUMN - Loadings
Pebble Project
As [mg/kg/w]
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

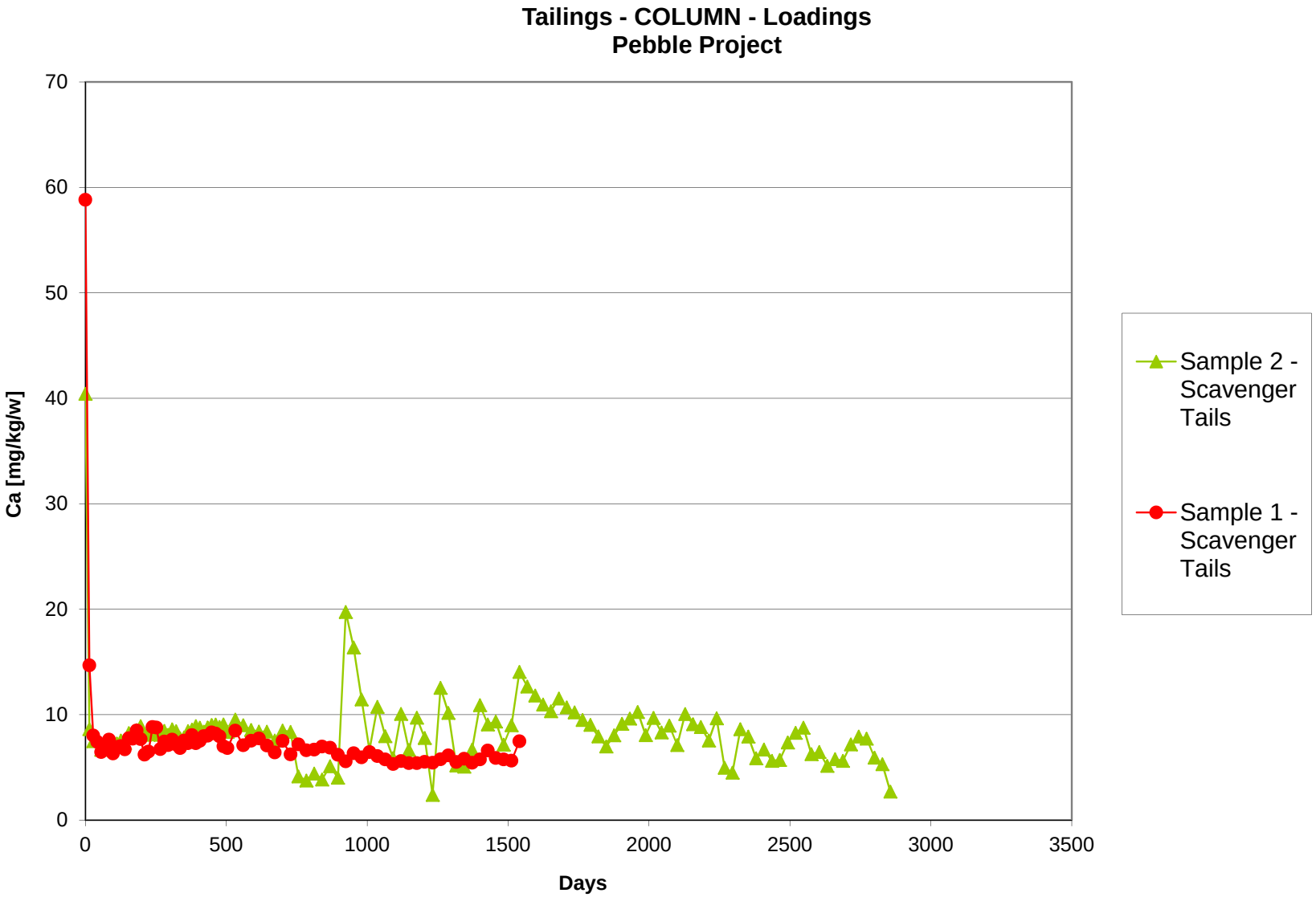

Tailings - COLUMN - Loadings
Pebble Project
Ba [mg/kg/w]
0.012
0.01
0.008
0.006
0.004
0.002
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

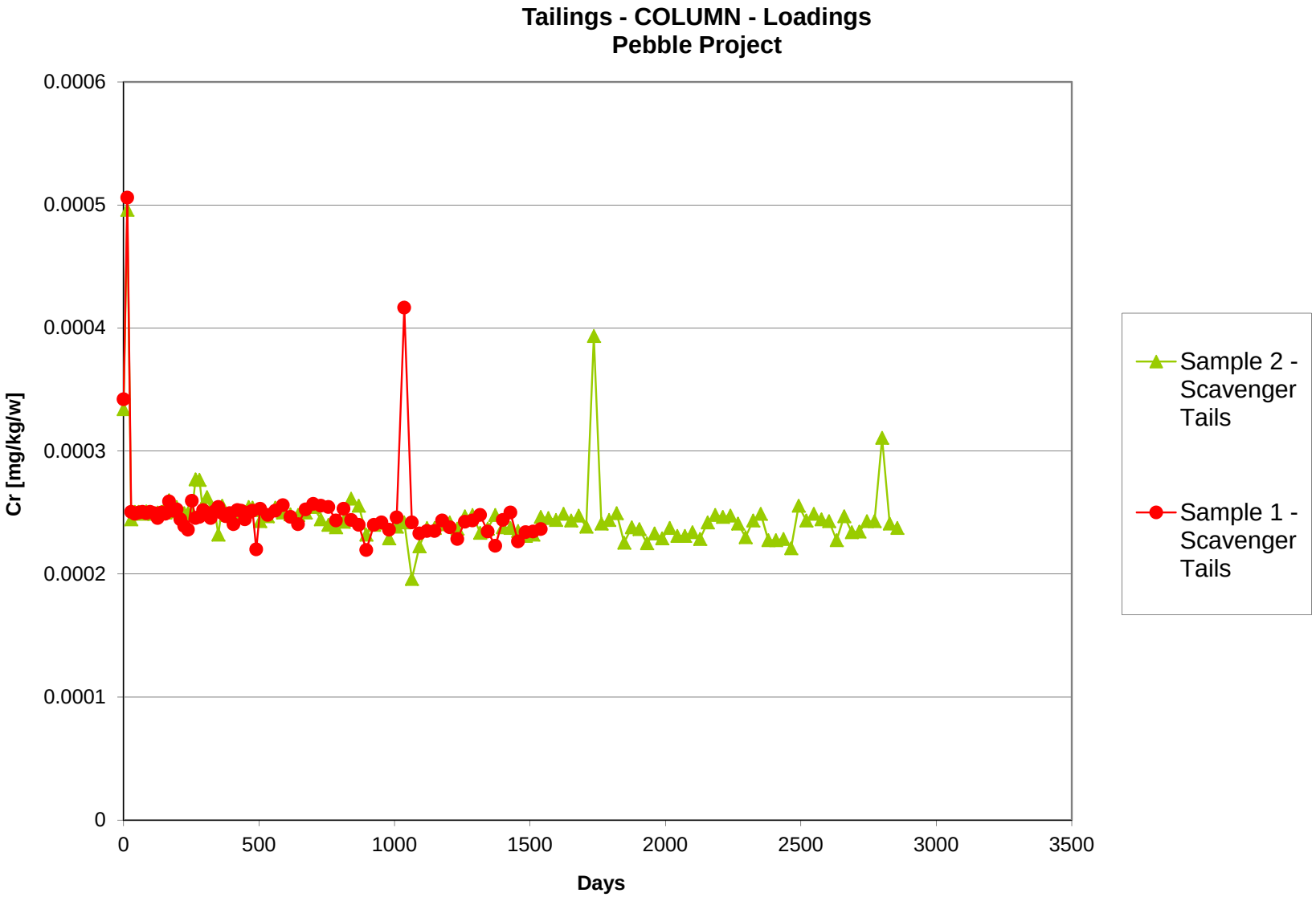

Tailings - COLUMN - Loadings
Pebble Project
0.00025
0.0002
0.00015
0.0001
0.00005
0
Be [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

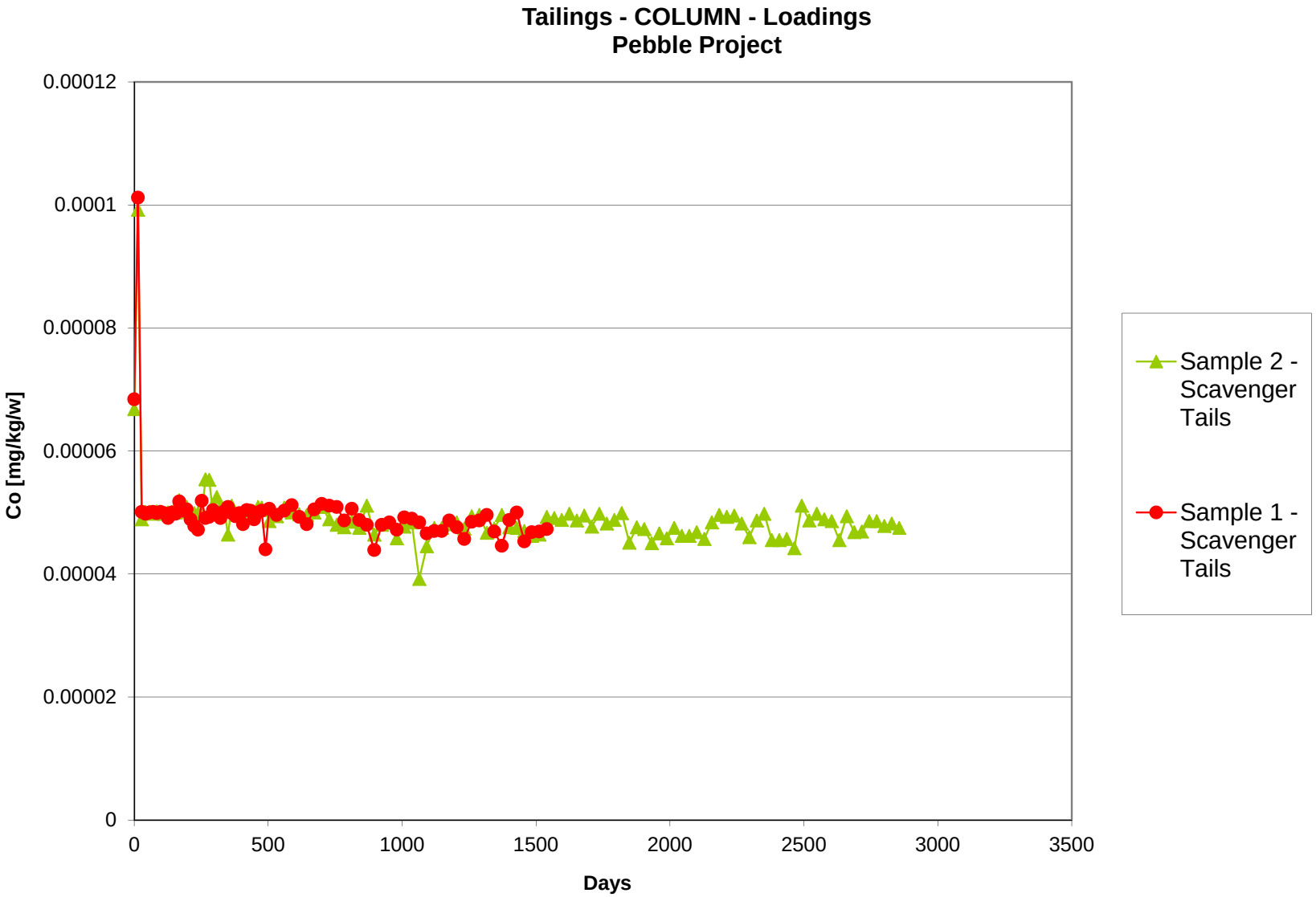

Tailings - COLUMN - Loadings
Pebble Project
Bi [mg/kg/w]
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

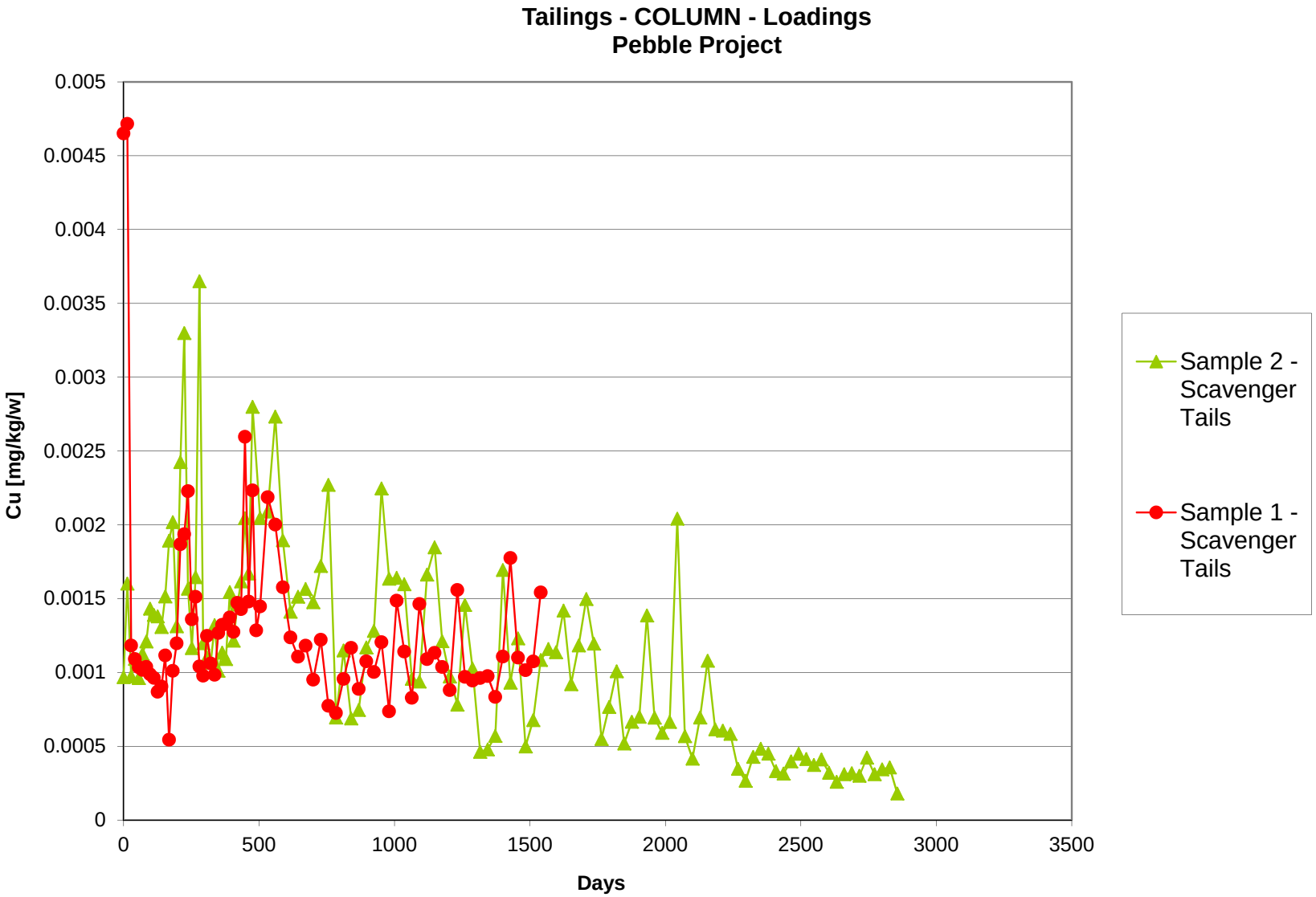

Tailings - COLUMN - Loadings
Pebble Project
B [mg/kg/w]
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

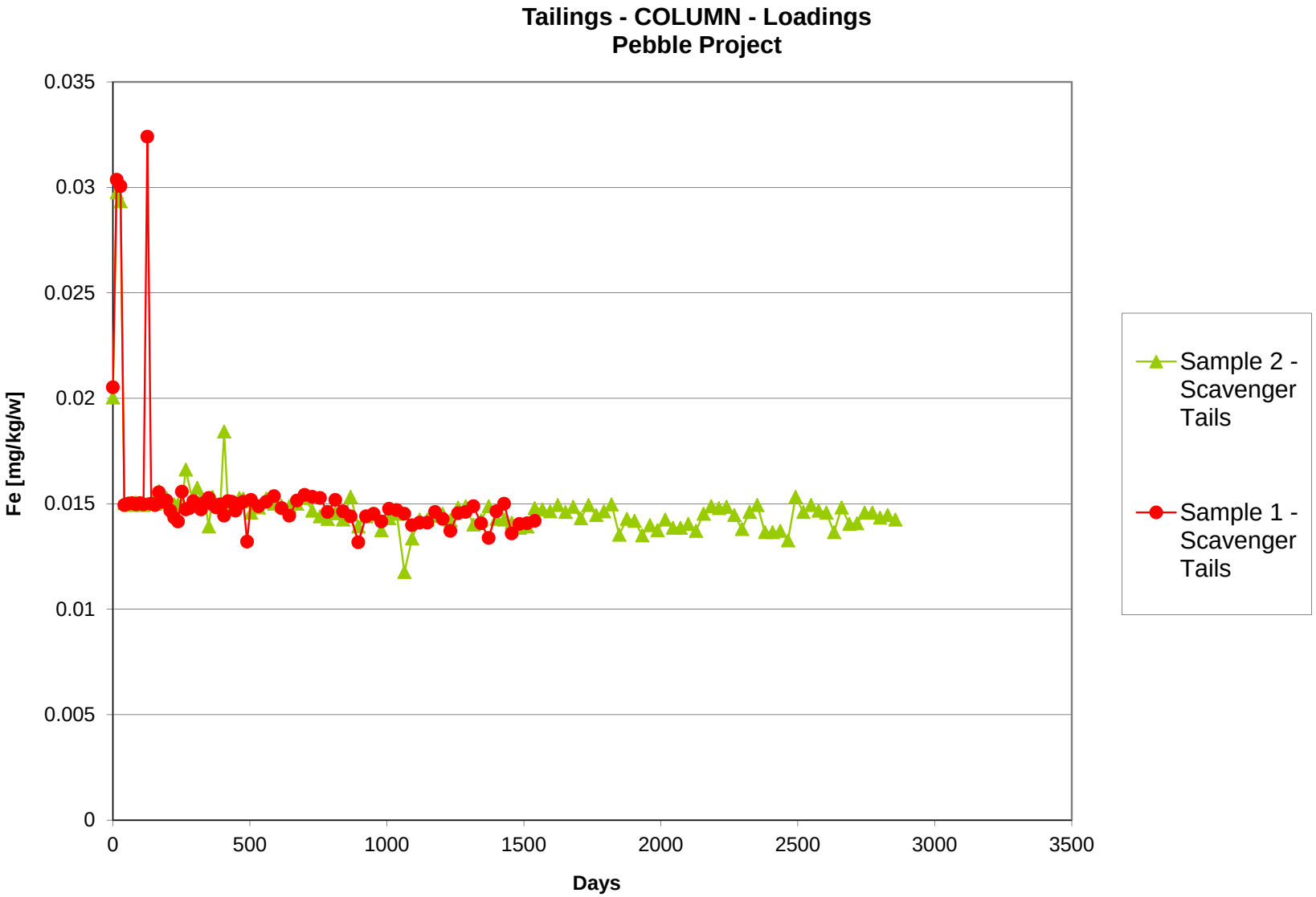

Tailings - COLUMN - Loadings
Pebble Project
Cd [mg/kg/w]
0.0001
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

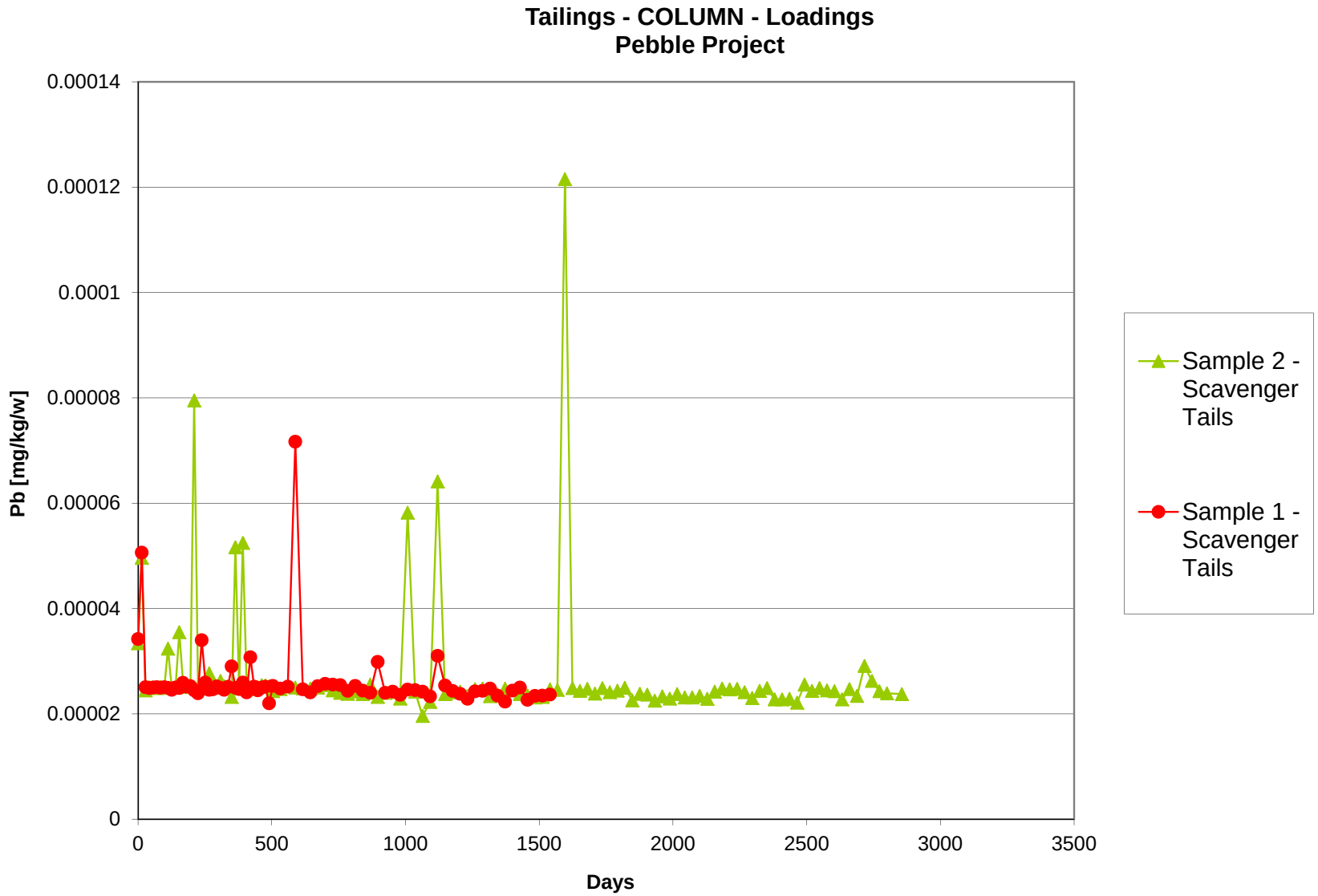

Tailings - COLUMN - Loadings
Pebble Project
Ca [mg/kg/w]
70
60
50
40
30
20
10
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

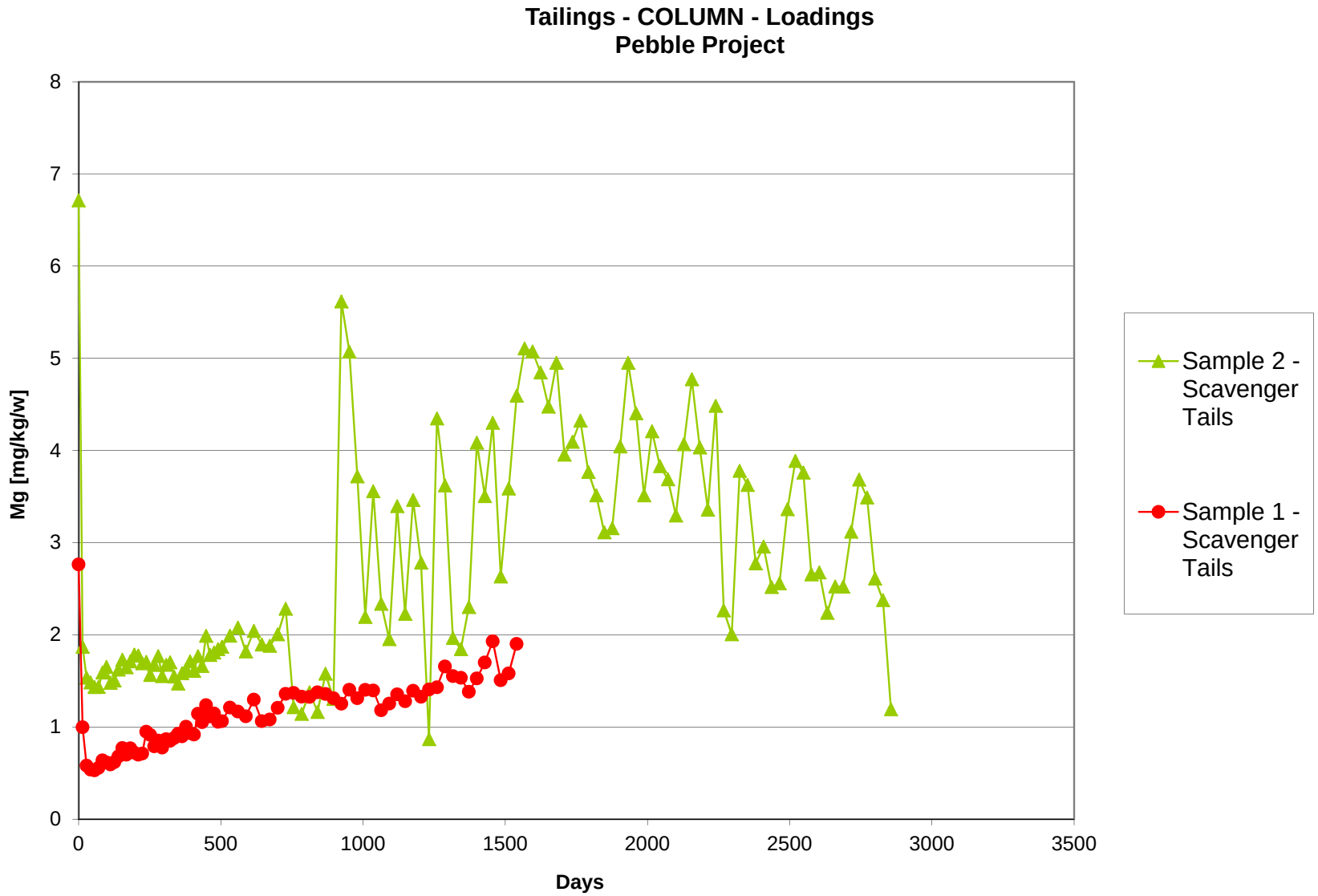

Tailings - COLUMN - Loadings
Pebble Project
Cr [mg/kg/w]
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

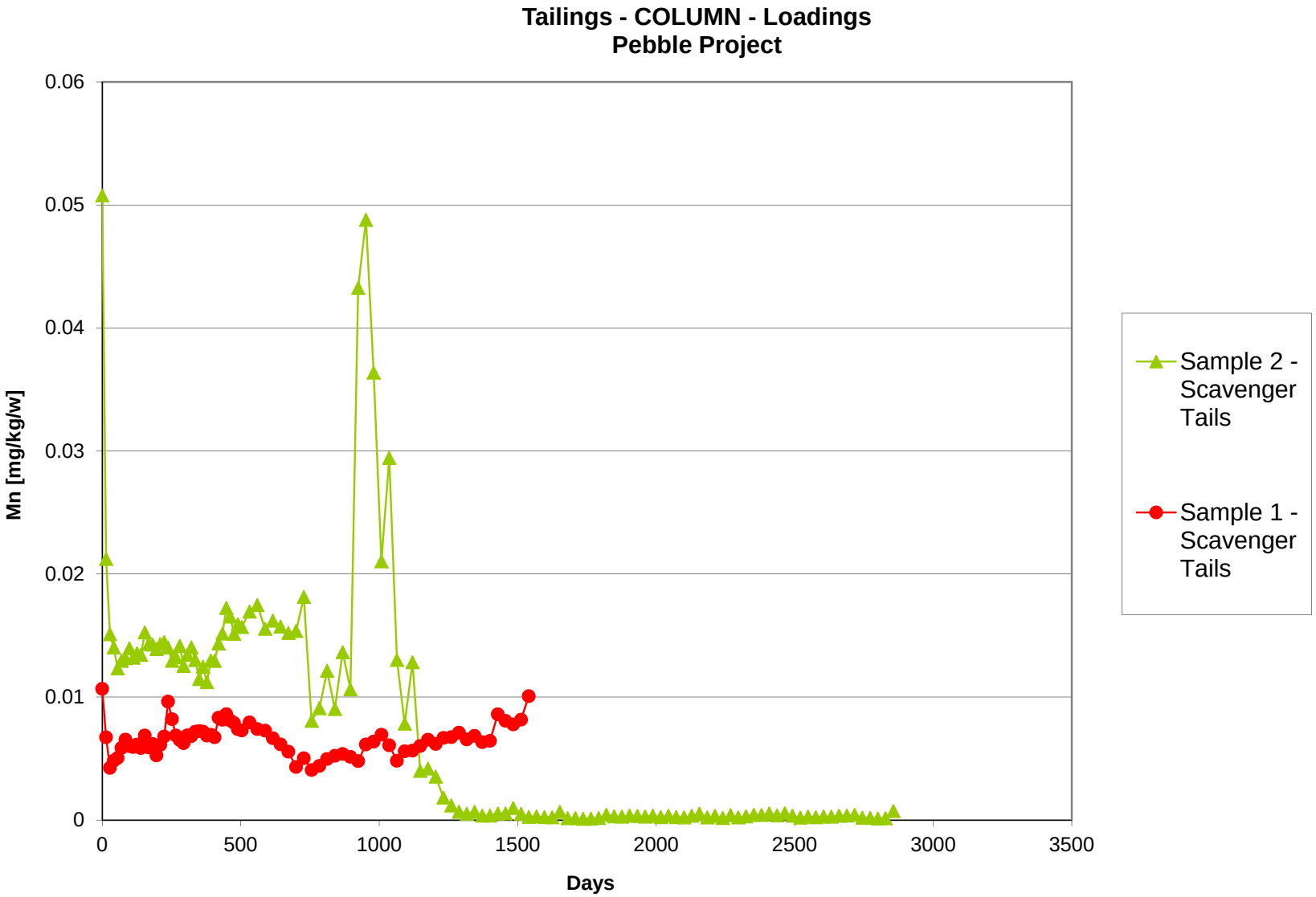

Tailings - COLUMN - Loadings
Pebble Project
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
Co [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

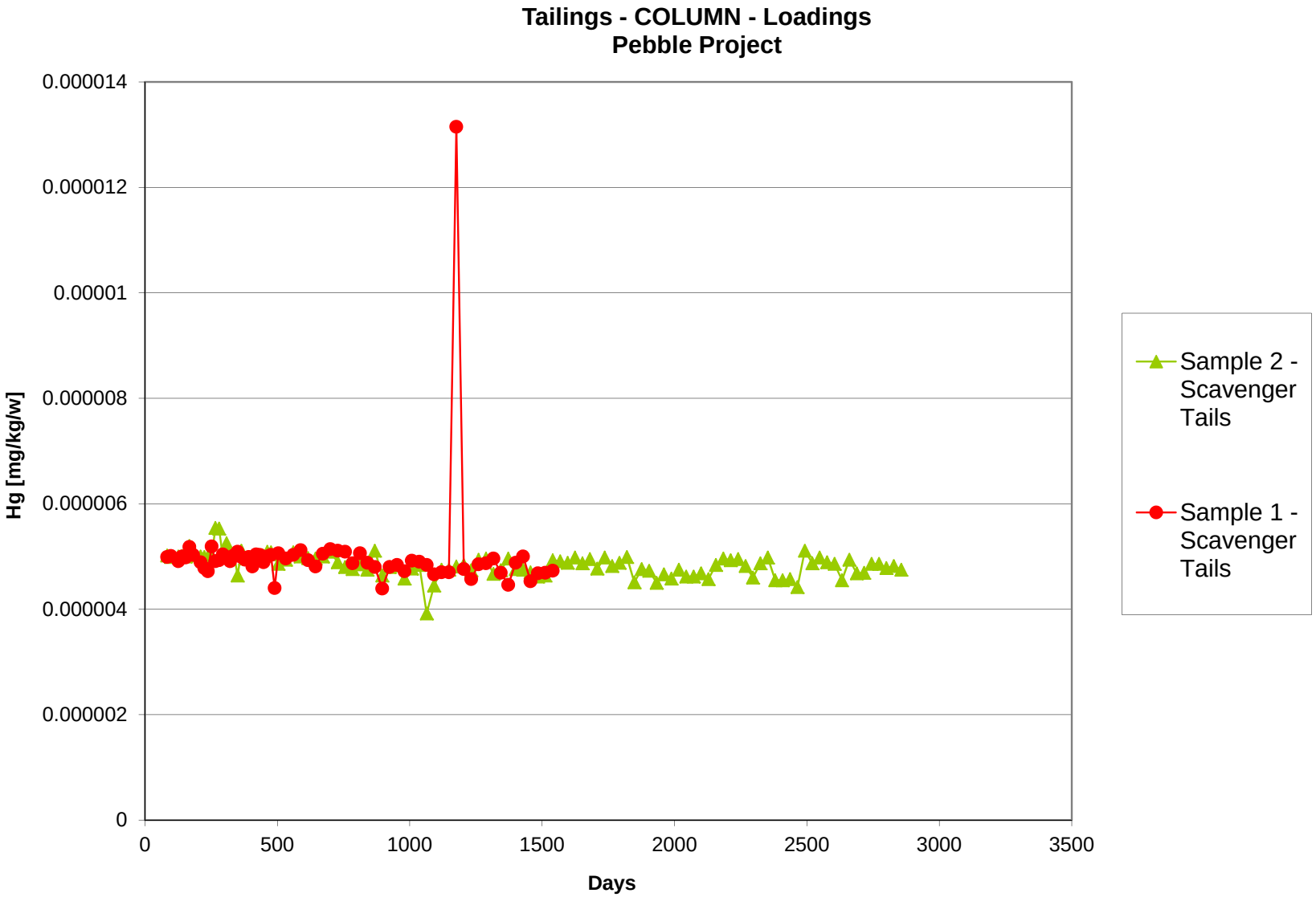

Tailings - COLUMN - Loadings
Pebble Project
Cu [mg/kg/w]
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

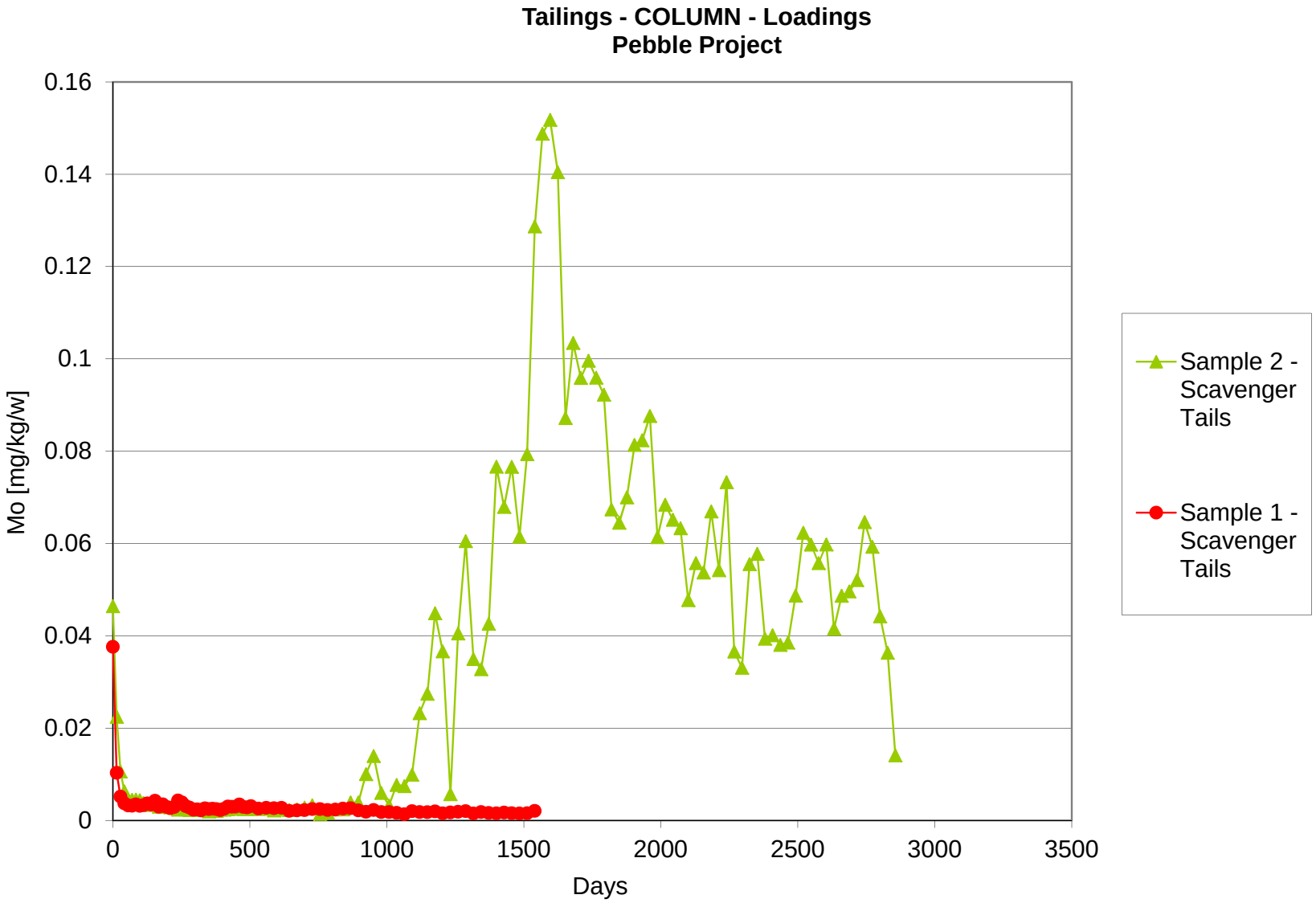

Tailings - COLUMN - Loadings
Pebble Project
Fe [mg/kg/w]
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

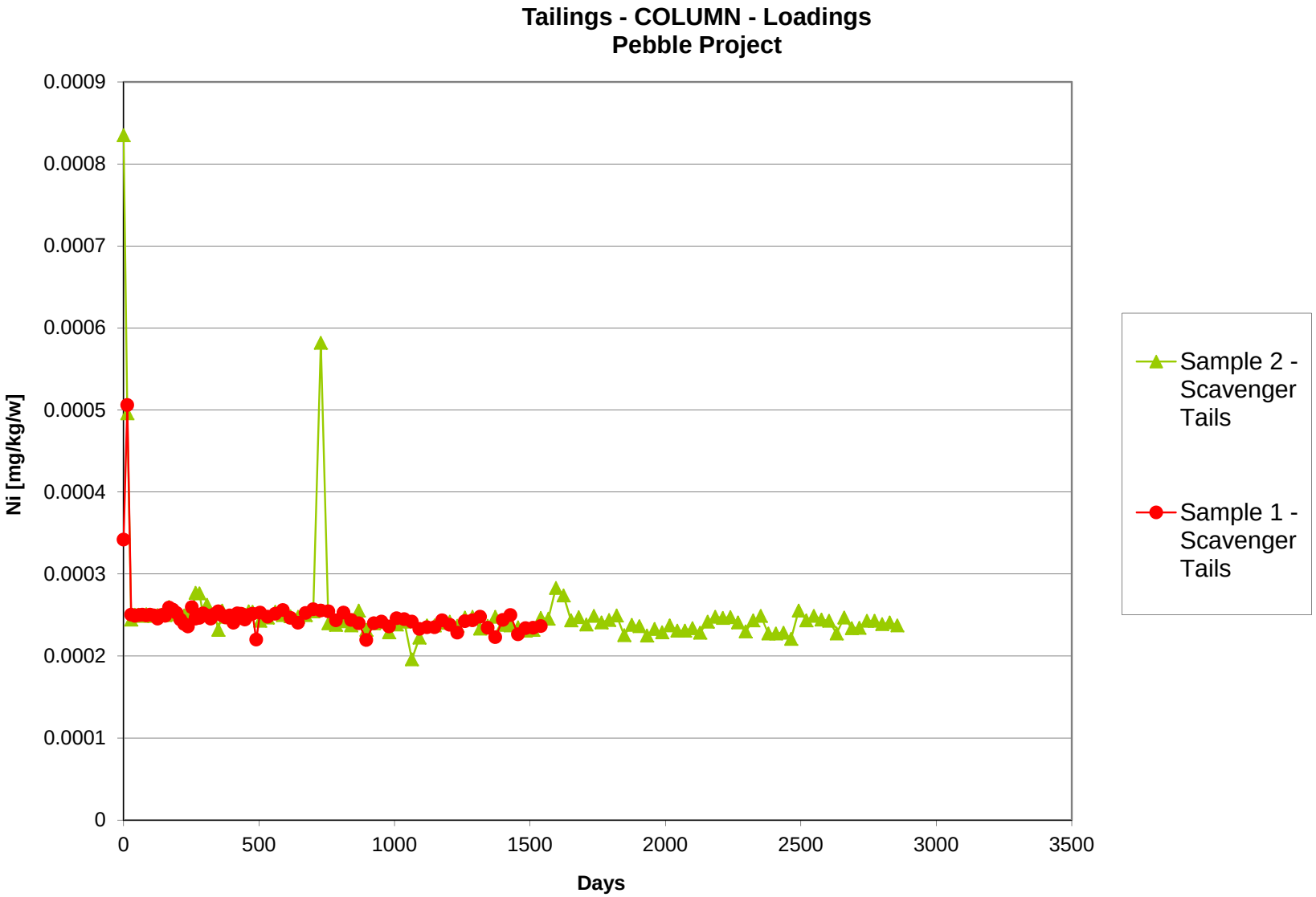

Tailings - COLUMN - Loadings
Pebble Project
0.00014
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
Pb [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

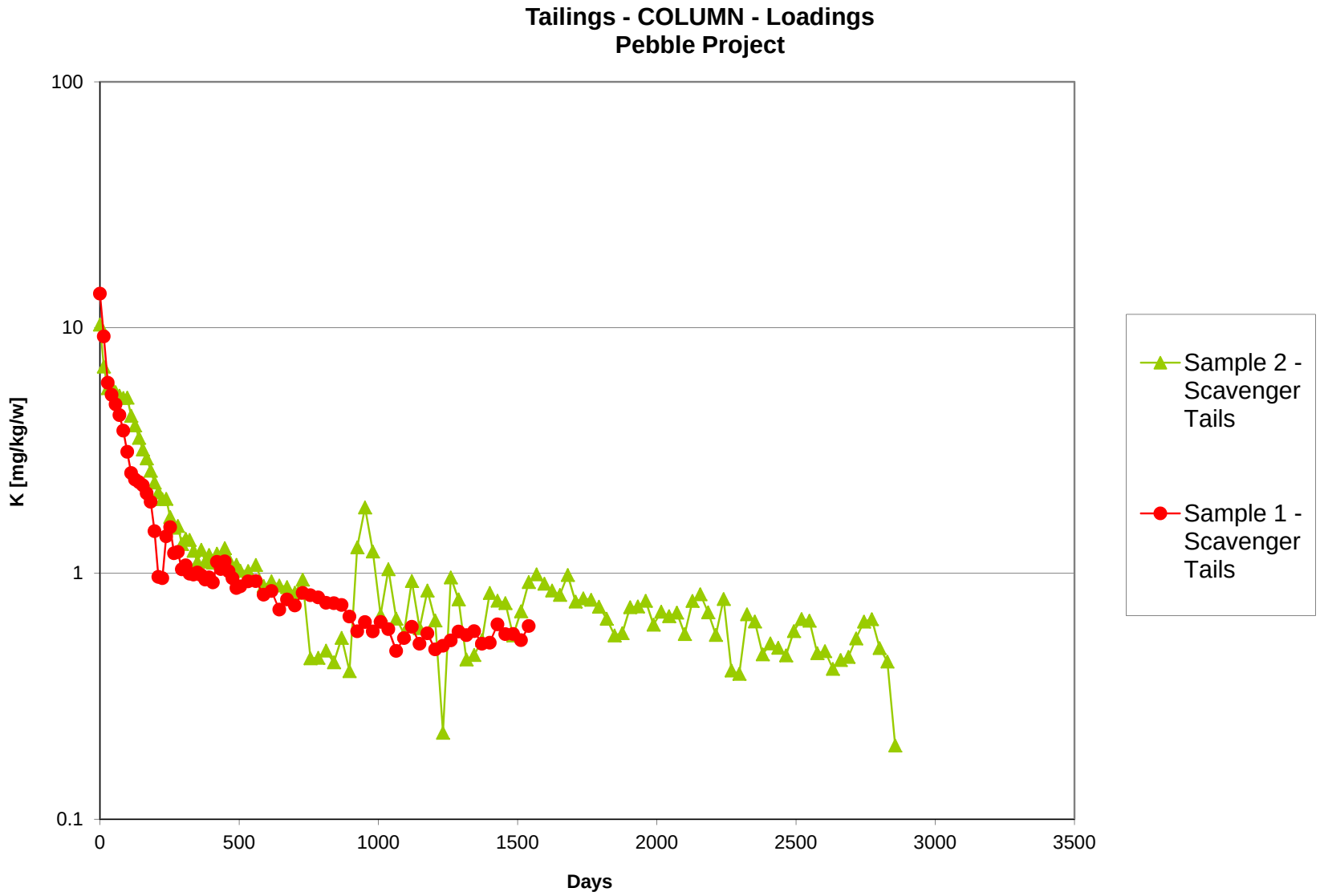

Tailings - COLUMN - Loadings
Pebble Project
Mg [mg/kg/w]
Days
0
1
2
3
4
5
6
7
8
0
500
1000
1500
2000
2500
3000
3500
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

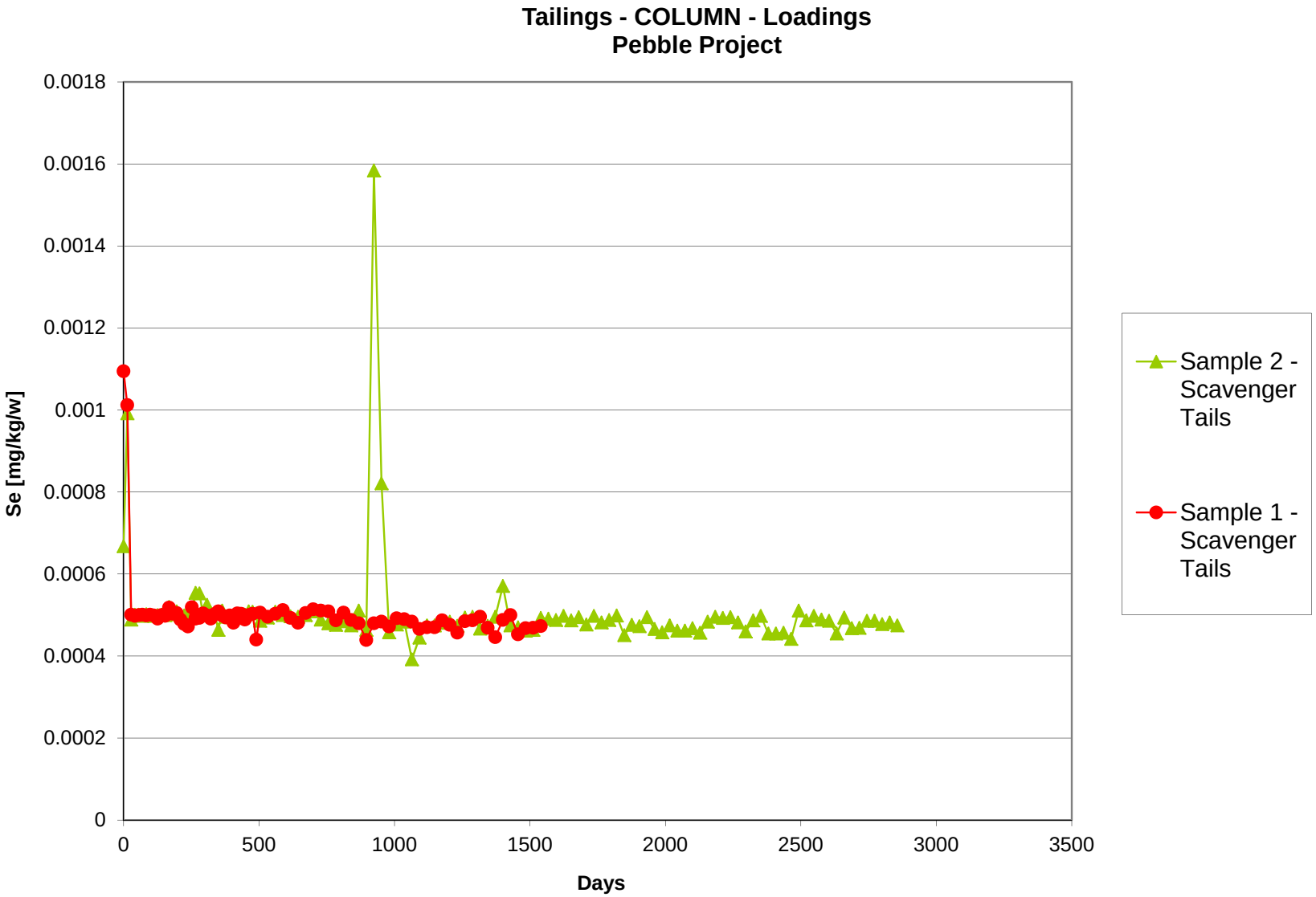

Tailings - COLUMN - Loadings
Pebble Project
Mn [mg/kg/w]
0.06
0.05
0.04
0.03
0.02
0.01
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

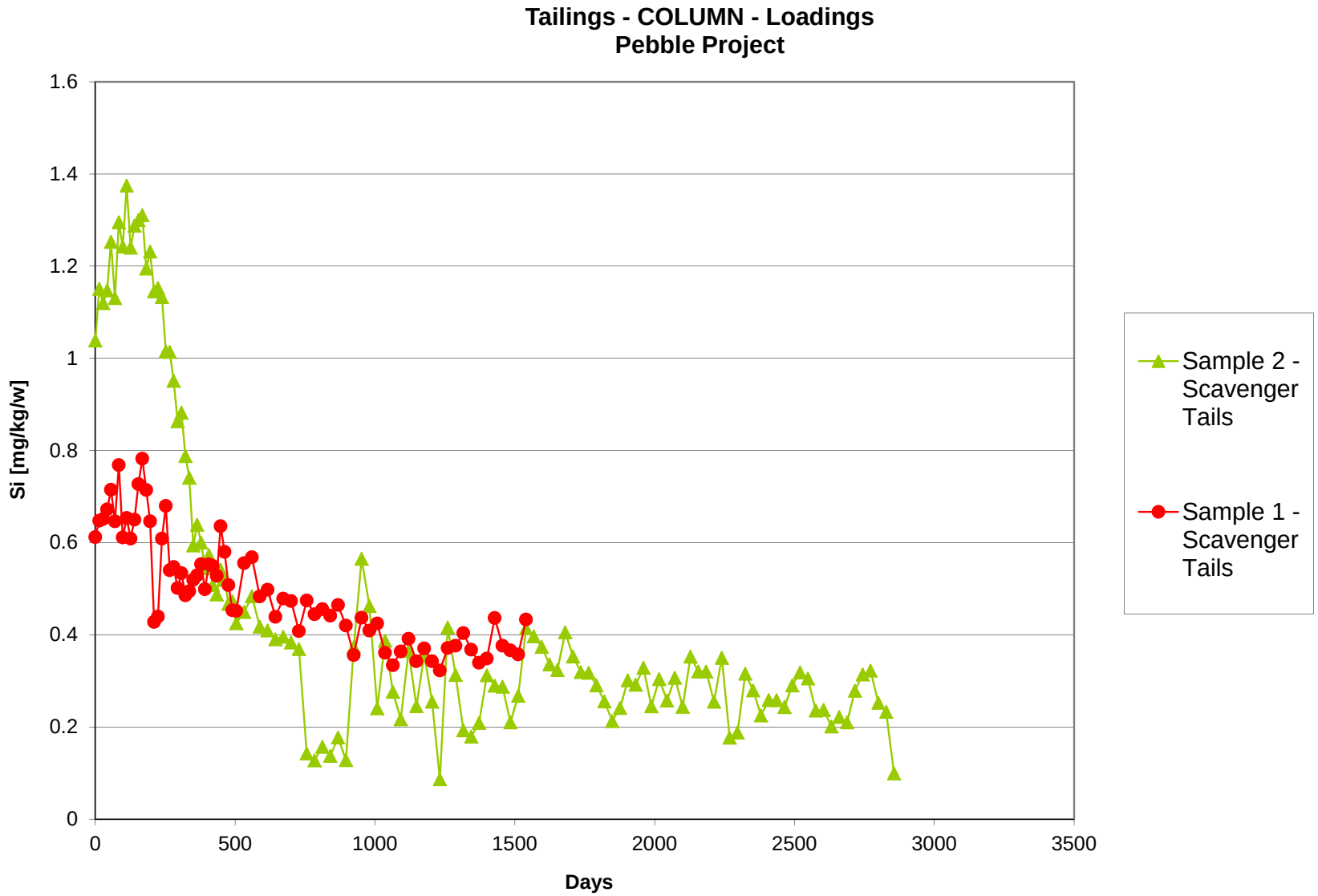

Tailings - COLUMN - Loadings
Pebble Project
0.000014
0.000012
0.00001
0.000008
0.000006
0.000004
0.000002
0
Hg [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

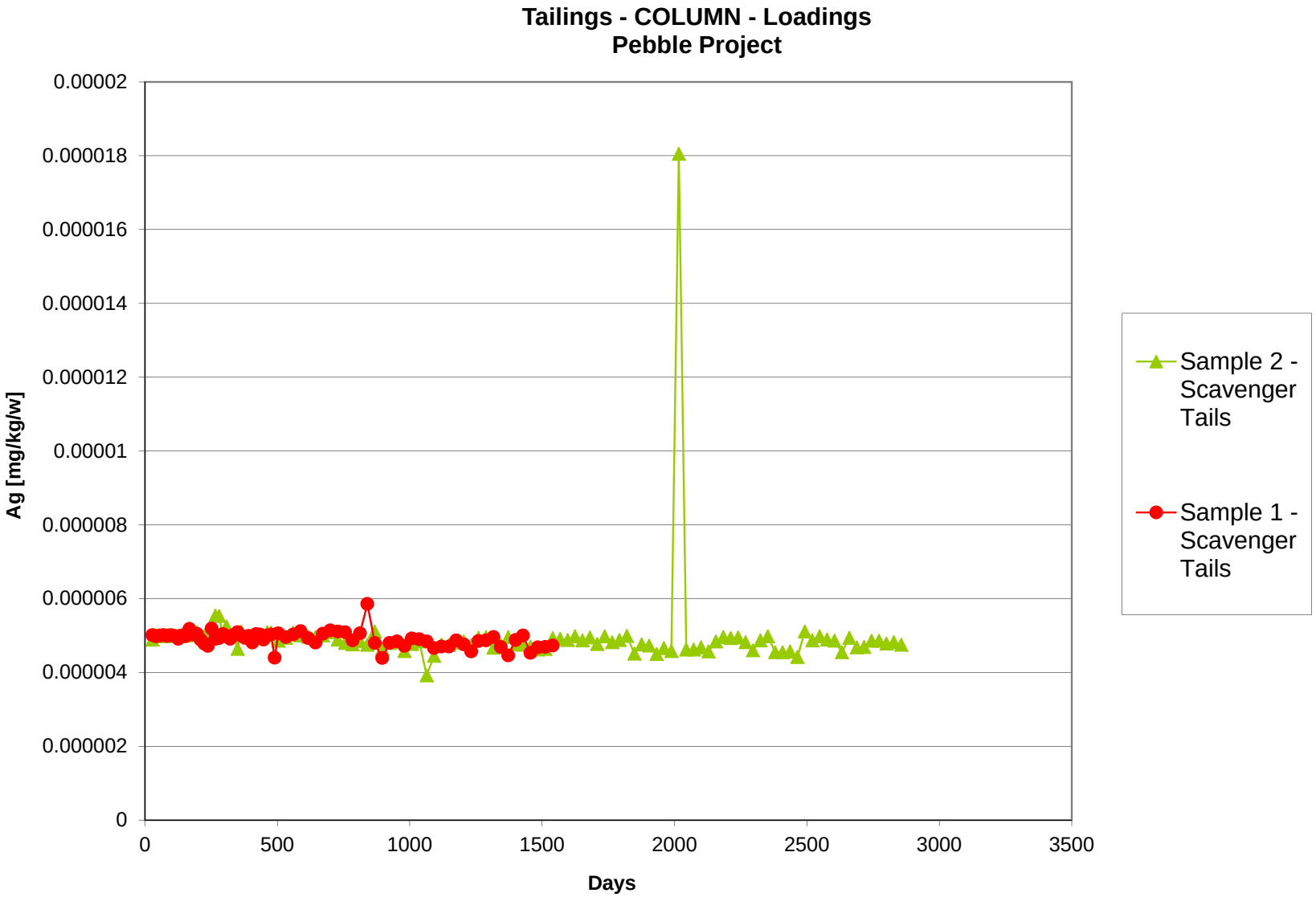

Tailings - COLUMN - Loadings
Pebble Project
Mo [mg/kg/w]
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

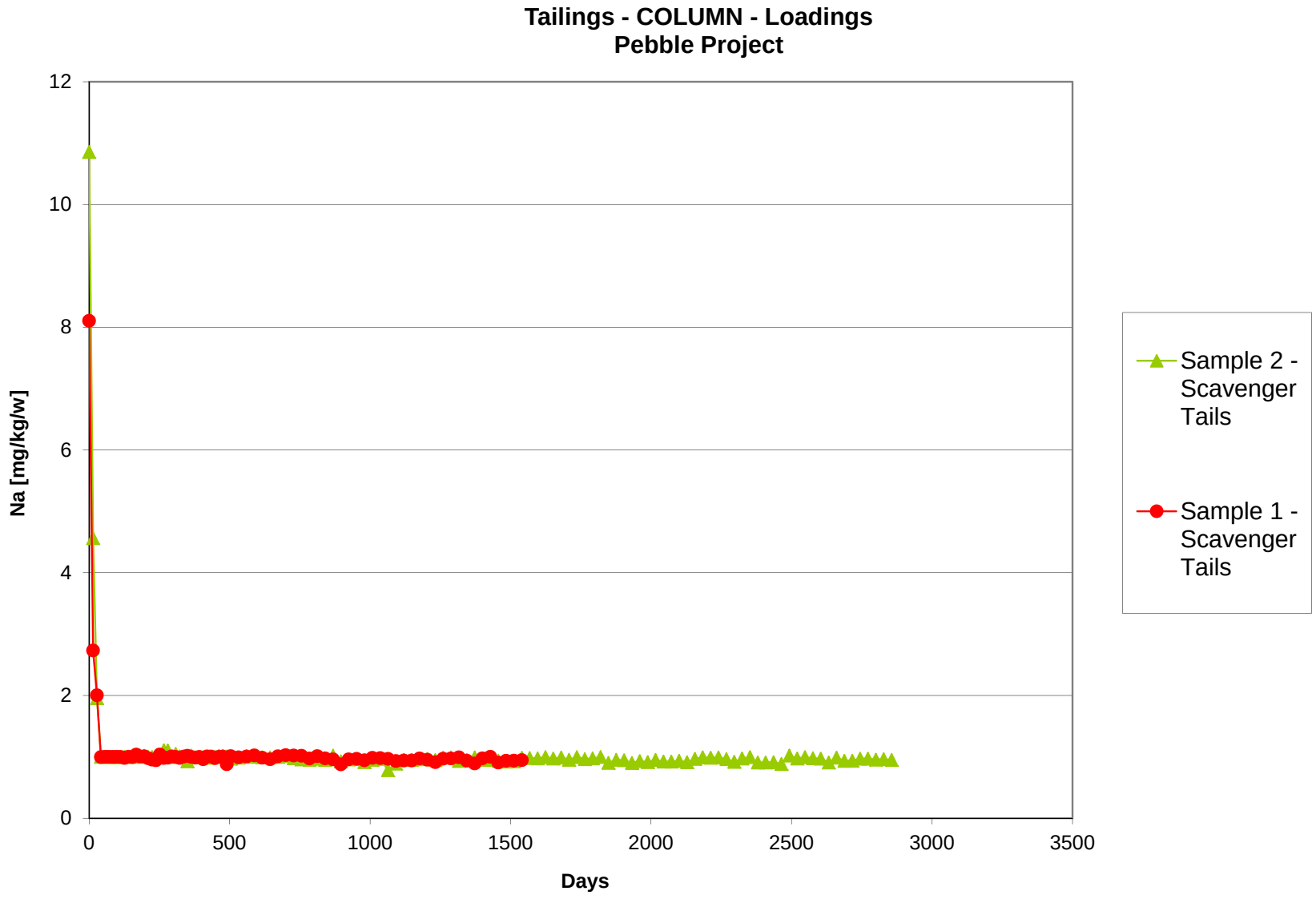

Tailings - COLUMN - Loadings
Pebble Project
Ni [mg/kg/w]
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

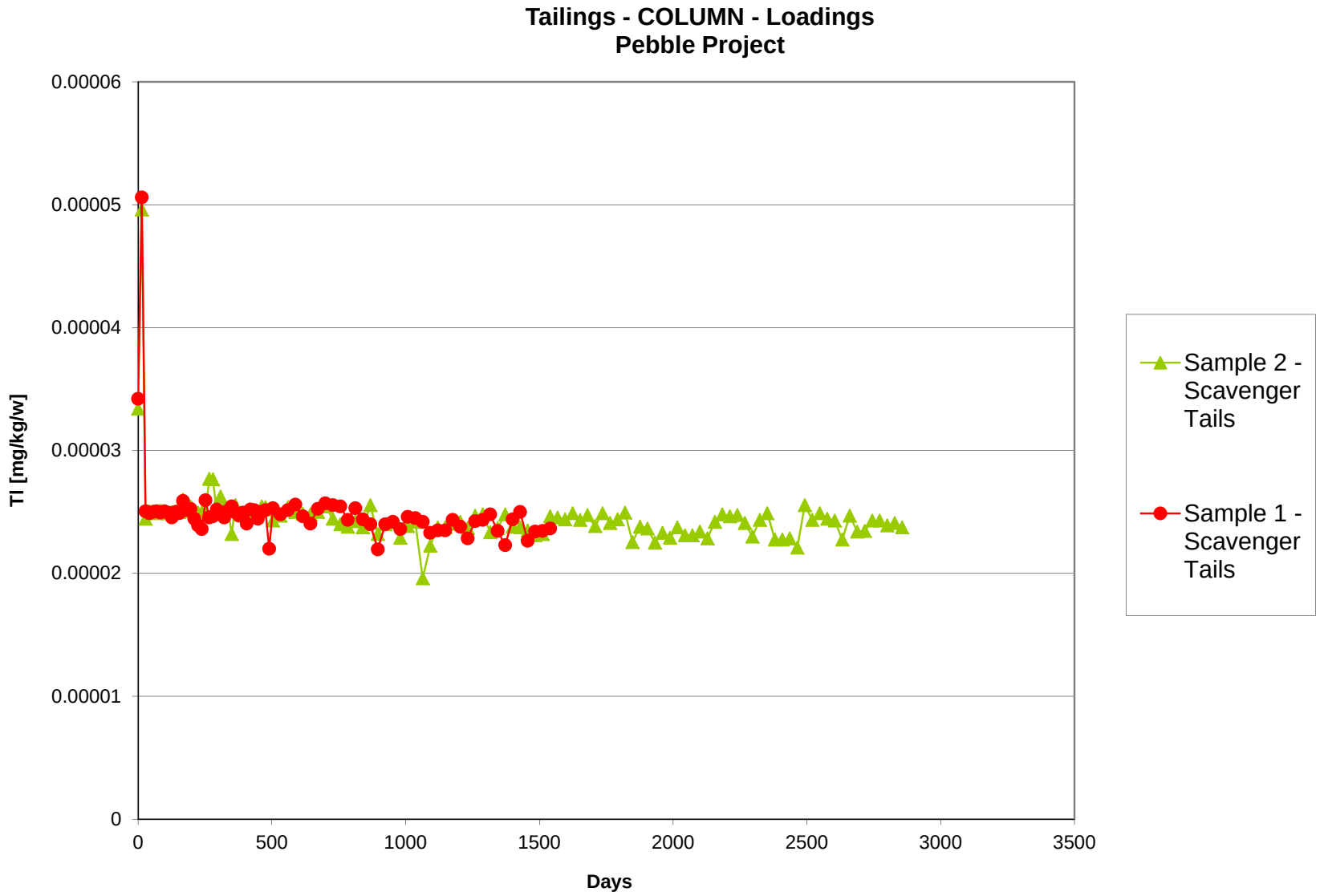

Tailings - COLUMN - Loadings
Pebble Project
100
10
1
0.1
K [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

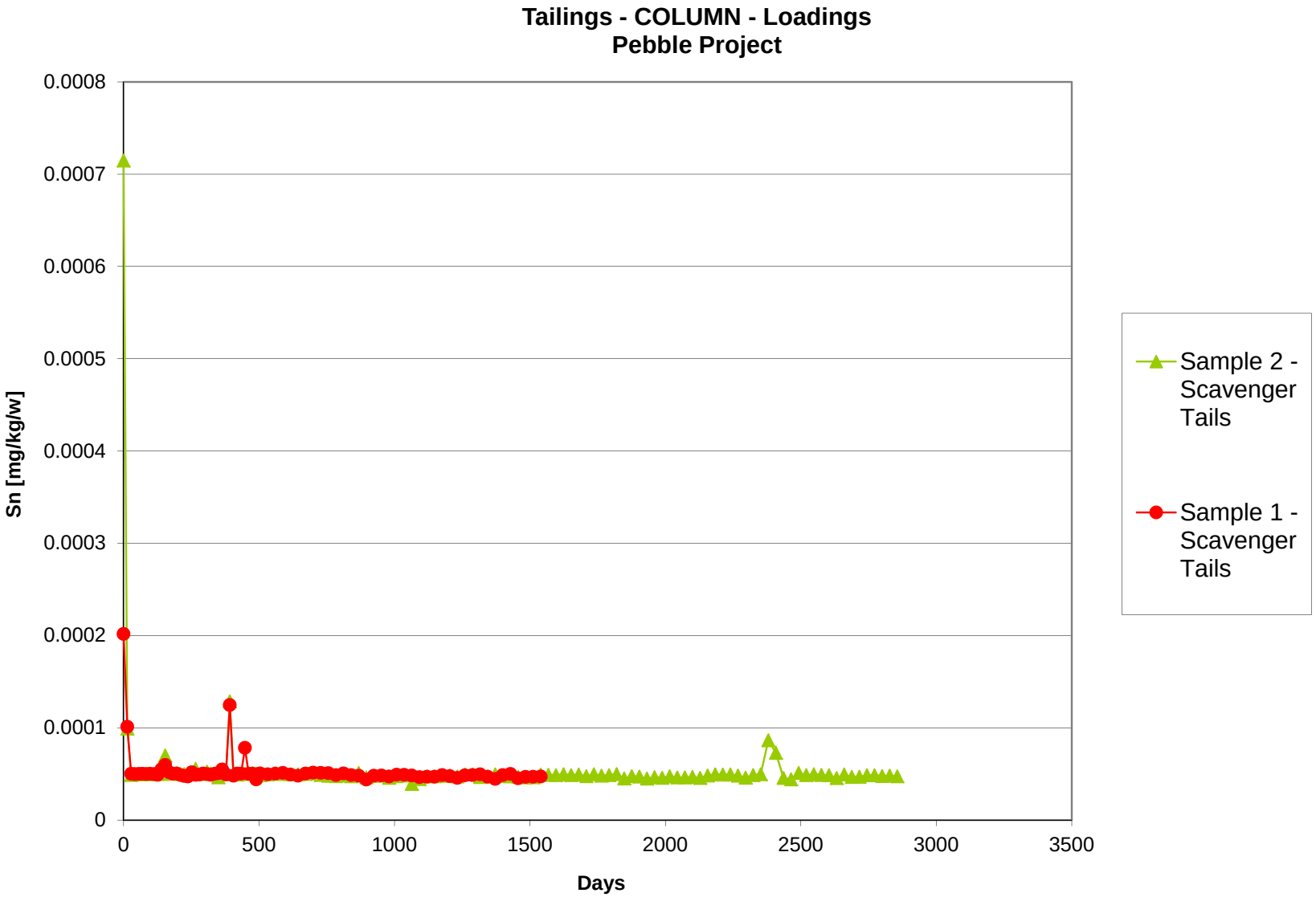

Tailings - COLUMN - Loadings
Pebble Project
Se [mg/kg/w]
0.0018
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

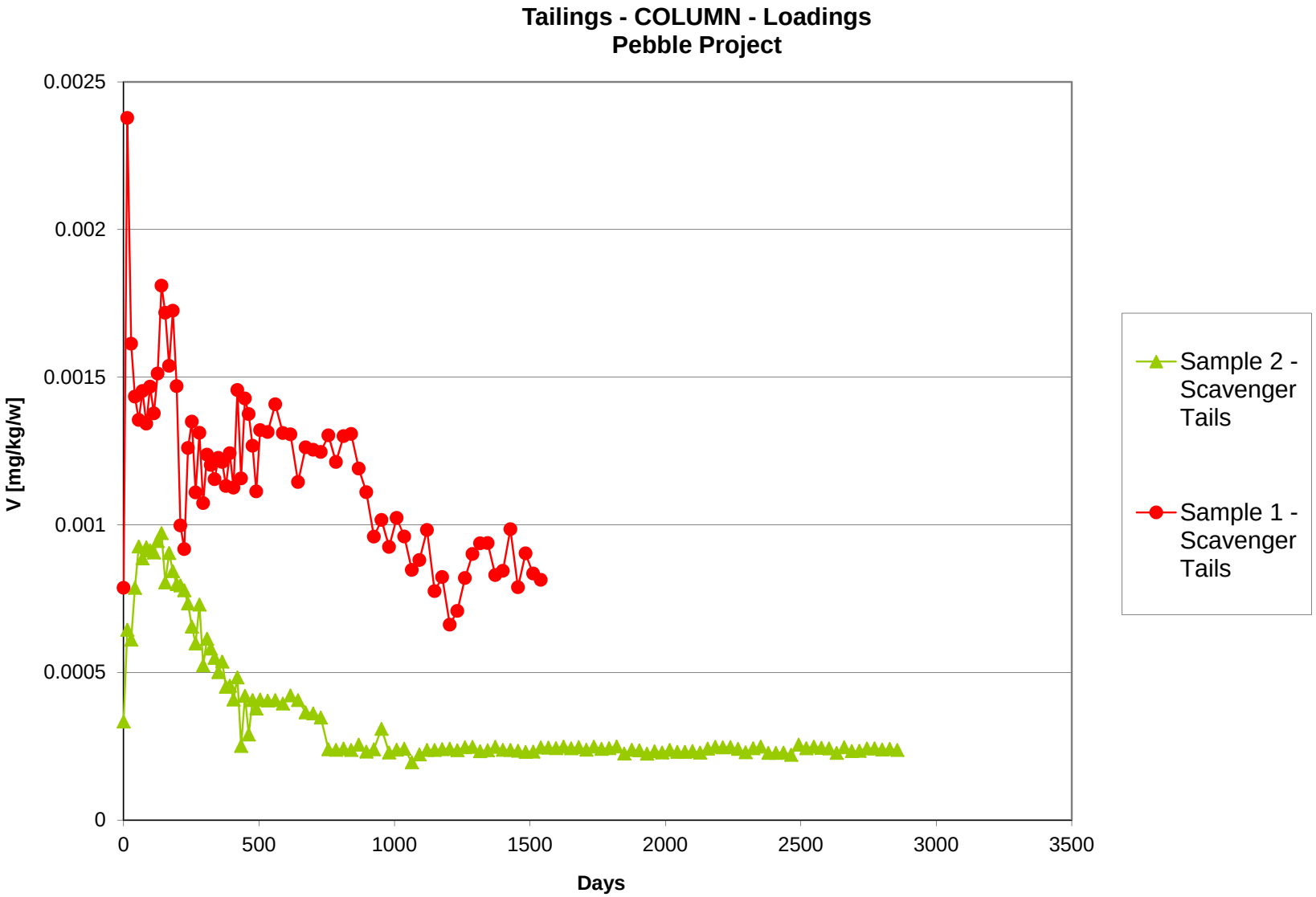

Tailings - COLUMN - Loadings
Pebble Project
Si [mg/kg/w]
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

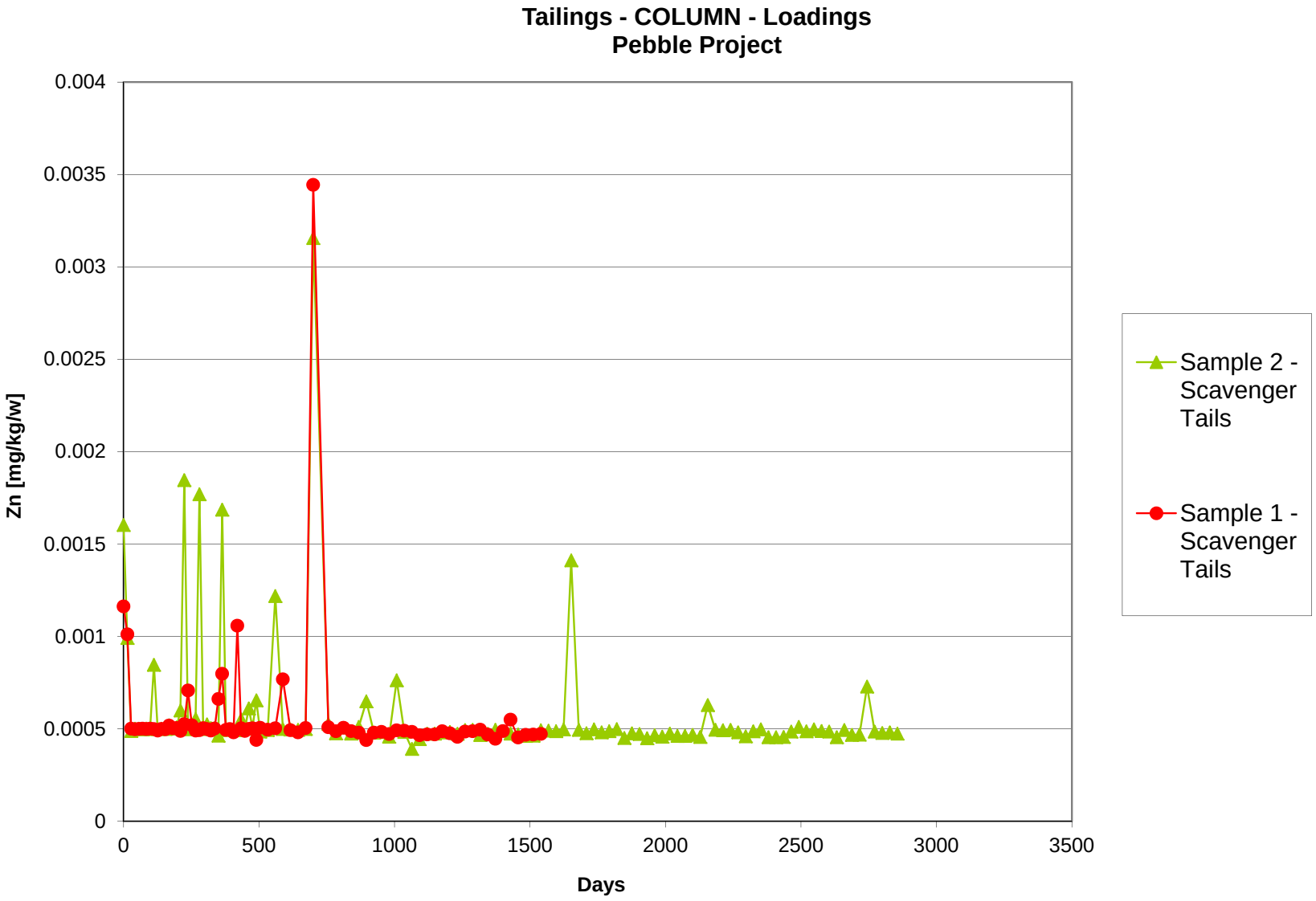

Tailings - COLUMN - Loadings
Pebble Project
Ag [mg/kg/w]
0.00002
0.000018
0.000016
0.000014
0.000012
0.00001
0.000008
0.000006
0.000004
0.000002
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails


Tailings - COLUMN - Loadings
Pebble Project
Na [mg/kg/w]
12
10
8
6
4
2
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails


Tailings - COLUMN - Loadings
Pebble Project
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
Tl [mg/kg/w]
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails


Tailings - COLUMN - Loadings
Pebble Project
Sn [mg/kg/w]
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails


Tailings - COLUMN - Loadings
Pebble Project
V [mg/kg/w]
0.0025
0.002
0.0015
0.001
0.0005
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails


Tailings - COLUMN - Loadings
Pebble Project
Zn [mg/kg/w]
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
500
1000
1500
2000
2500
3000
3500
Days
Sample 2 - Scavenger Tails
Sample 1 - Scavenger Tails

Appendix 11N, Subaqueous Column Data: Tailings

Key to abbreviations and acronyms used in this appendix

Abbreviation/acronym	**Explanation**
CN	Cyanide
WAD CN	Weak acid dissociable cyanide
CNO	Cyanate
CNS	Thiocyanate
DOC	Dissolved organic carbon
EC	Electrical conductivity
µS/cm	Micro-siemens per cm
µg/Lm	Micrograms per liter
mg/L	Milligrams per liter
$mgCaCO_3/L$	Milligrams calcium carbonate (equivalent) per liter
mL	Milliliters(s)
mV	Millivolt(s)
ORP	Oxidation-reduction potential

For chemical abbreviations see Appendix D of this environmental baseline document.

Gold Plant Tails (Surface) SAC 11

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L
11/07/2012	0	1000	575	4.06	331	1305	19.44	191.12	<1	1050	225	<5	0.59	648	11.7	<0.0001	0.00063	0.00228	0.0145
18/07/2012	7	25		3.96	670	744													
25/07/2012	14	1125	525	3.97	331	1061	15.46	133.22	<1		231	<5	0.25	507	3.44	<0.00005	0.00061	0.00322	0.00434
1/08/2012	21	125		3.82	630	1075													
8/08/2012	28	1420	630	4.01	308	1162	12.44	127.93	<1	865	280	8.4	0.23	540	2.53	<0.00005	0.0005	0.00546	0.0034
15/08/2012	35	115			605	910													
22/08/2012	42	1240	615	4.08	280	1070	9.16	91.02	<1	789	286	<5	<0.2	502	1.86	<0.00005	0.00027	0.00708	0.00288
29/08/2012	49	110			633	927													
5/09/2012	56	1250	625	3.89	366	1008	11.41	72.6	<1	685	271	<5	<0.2	461	1.51	<0.00005	0.00038	0.00788	0.00239
12/09/2012	63	150		3.56	621	889													
19/09/2012	70	1320	615	3.38	475	949	29.41	58.72	<1	590	258	<5	<0.2	402	1.33	<0.00005	0.00017	0.00825	0.00215
26/09/2012	77	155		3.02	669	832													
3/10/2012	84	1250	620	3.59	480	822	16.89	39.7	<1	498	243	<5	<0.2	345	1.18	<0.00005	0.00043	0.00874	0.00193
10/10/2012	91	170		2.86	713	701													
17/10/2012	98	1330	695	3.67	461	727	12.03	30.98	<1	475	229	<5	<0.2	322	1.11	<0.00005	0.00029	0.00879	0.00171
24/10/2012	105	210		3.9	627	547													
31/10/2012	112	1280	610	3.91	292	618	8.02	26.07	<1	408	188	<5	0.33	256	0.925	<0.00005	0.00032	0.00877	0.00137
7/11/2012	119	100		4.01	696	461													
14/11/2012	126	1210	610	4.14	484	543	6.02	25.43	<1	331	161	<5	<0.2	229	0.782	<0.00005	0.00028	0.00793	0.00118
21/11/2012	133	380		3.97	698	506													
28/11/2012	140	1270	610	4.32	455	489	3.99	20.19	<1	274	150	<5	<0.2	198	0.673	<0.00005	0.00016	0.0093	0.00101
5/12/2012	147	50		3.85	645	422													
12/12/2012	154	1220	610	4.09	464	459	4.62	18.82	<1	255	136	<5	<0.2	177	0.613	<0.00005	0.00014	0.00942	0.0009
19/12/2012	161	130		4.11	721	395													
26/12/2012	168	1550	630	4.55	475	384	3.39	19.43	<1	221	119	<5	<0.2	153	0.506	<0.00005	0.00019	0.00902	0.00078

Gold Plant Tails (Bottom) SAC 11

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L
11/07/2012	0		510	4.15	237	4701	20.77	816.19	<1	5410	1830	<10	3.63	3140	21.8	<0.00025	0.00203	0.0805	0.0302
18/07/2012	7		25	3.66	618	5340													
25/07/2012	14		525	3.74	490	5430	250	2900	<1		2140	<10	0.78	4310	0.692	<0.00025	0.00137	0.0551	0.0036
1/08/2012	21		85	5.41	303	7420													
8/08/2012	28		710	4.23	510	8470	250	6275	<1	12900	3110	38	<1	7240	0.037	<0.0005	<0.001	0.0508	<0.002
15/08/2012	35		85	3.63	276	5360													
22/08/2012	42		615	4.3	535	8480	250	5550	<1	13000	3440	<25	<1	7600	0.052	<0.0005	<0.001	0.0342	<0.002
29/08/2012	49		75	5.47	289	2380													
5/09/2012	56		605	4.68	398	6990	<1	3700	<1	8630	2630	<25	<1	5630	0.038	<0.0005	<0.001	0.0255	<0.002
12/09/2012	63		140	5.7	391	3790													
19/09/2012	70		620	5.49	401	5510	<1	1550	<1	6920	2090	<10	<0.4	4080	0.0192	<0.00025	<0.0005	0.0211	<0.001
26/09/2012	77		125	4.67	371	3550													
3/10/2012	84		610	5.4	430	4530	<1	3450	<1	4750	1760	<10	<0.4	3280	<0.005	<0.00025	0.00052	0.0207	<0.001
10/10/2012	91		150	4.36	394	4120													
17/10/2012	98		595	5.51	420	4090	<1	1575	<1	4500	1630	<10	<0.4	2900	0.0135	<0.00025	0.0006	0.0189	<0.001
24/10/2012	105		125	5.58	395	3420													
31/10/2012	112		595	5.42	11	3472	<1	787.88	3.26	4030	1520	<10	0.65	2410	0.0106	<0.00025	<0.0005	0.0197	<0.001
7/11/2012	119		85	4.9	380	3030													
14/11/2012	126		580	5.61	12	3197	<1	600.82	3.71	3600	1350	<10	<0.4	2280	<0.005	<0.00025	<0.0005	0.0167	<0.001

Gold Plant Tails (Surface) SAC 11

Date	Accum Days	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L
11/07/2012	0	<0.001	<0.02	0.08	22	0.0222	0.574	15.1	31.8	0.0163	41.3	5.35	<0.00001	<0.0001	0.556	5.09	0.0091	4.63
18/07/2012	7																	
25/07/2012	14	<0.0005	0.011	0.0399	50.8	0.00298	0.286	4.34	33.8	0.00692	25.3	3.91	<0.00001	<0.00005	0.287	3.94	0.0031	5.19
1/08/2012	21																	
8/08/2012	28	<0.0005	<0.01	0.0308	71.9	0.00107	0.267	2.88	37.7	0.00719	24.3	4.07	<0.00001	<0.00005	0.246	5.3	0.0032	5.67
15/08/2012	35																	
22/08/2012	42	<0.0005	0.012	0.0263	80.9	0.00081	0.224	2.14	33	0.00596	20.4	3.74	<0.00001	<0.00005	0.203	6.78	0.0036	5.66
29/08/2012	49																	
5/09/2012	56	<0.0005	<0.01	0.0224	80.1	0.0006	0.187	1.59	25.6	0.0509	17.4	3.36	<0.00001	<0.00005	0.177	6.76	0.0034	5.22
12/09/2012	63																	
19/09/2012	70	<0.0005	<0.01	0.0196	78.7	0.00054	0.162	1.28	3.51	0.00624	15	2.86	<0.00001	<0.00005	0.161	6.83	0.0027	4.86
26/09/2012	77																	
3/10/2012	84	<0.0005	<0.01	0.0182	76.7	0.00101	0.133	1.04	0.523	0.0087	12.5	2.26	<0.00001	<0.00005	0.137	6.19	0.0023	5.28
10/10/2012	91																	
17/10/2012	98	<0.0005	<0.01	0.0161	74.8	0.00107	0.112	0.86	0.42	0.00964	10.2	2.12	<0.00001	<0.00005	0.117	5.49	0.0017	5.09
24/10/2012	105																	
31/10/2012	112	<0.0005	<0.01	0.0134	61.4	0.0011	0.0923	0.7	0.104	0.0111	8.42	1.79	<0.00001	<0.00005	0.0992	4.95	0.0013	4.53
7/11/2012	119																	
14/11/2012	126	<0.0005	<0.01	0.0115	52.9	0.00084	0.081	0.526	0.066	0.0104	7.14	1.5	<0.00001	<0.00005	0.086	4.52	0.0012	4.01
21/11/2012	133																	
28/11/2012	140	<0.0005	<0.01	0.00961	50.8	0.00073	0.064	0.45	0.076	0.00896	5.72	1.2	<0.00001	<0.00005	0.0701	3.94	<0.001	4.09
5/12/2012	147																	
12/12/2012	154	<0.0005	<0.01	0.0086	46.4	0.00067	0.0548	0.378	0.062	0.0101	4.97	1.06	<0.00001	<0.00005	0.061	3.58	<0.001	3.92
19/12/2012	161																	
26/12/2012	168	<0.0005	<0.01	0.00722	40.7	0.00061	0.0454	0.311	0.062	0.00848	4.14	0.901	<0.00001	<0.00005	0.0512	3.14	<0.001	3.57

Gold Plant Tails (Bottom) SAC 11

Date	Accum Days	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L
11/07/2012	0	<0.0025	0.05	0.326	408	0.0184	2.07	12	320	0.224	197	25.3	<0.00001	<0.00025	2.09	38.7	0.0944	42.5
18/07/2012	7																	
25/07/2012	14	<0.0025	<0.05	0.0733	520	<0.0025	0.878	0.0148	868	0.00127	203	34.5	<0.00001	<0.00025	0.641	35.8	0.103	18.6
1/08/2012	21																	
8/08/2012	28	<0.005	<0.1	0.00086	467	<0.005	0.313	0.0058	1720	0.00081	473	72	<0.00001	<0.0005	0.392	57	0.041	11.4
15/08/2012	35																	
22/08/2012	42	<0.005	<0.1	0.0007	438	<0.005	0.195	0.0037	1690	<0.0005	570	87.2	<0.00001	<0.0005	0.363	60.1	<0.01	10.3
29/08/2012	49																	
5/09/2012	56	<0.005	<0.1	0.00054	445	<0.005	0.0782	0.0086	1250	0.0178	368	61	<0.00001	<0.0005	0.209	46.8	<0.01	9.21
12/09/2012	63																	
19/09/2012	70	<0.0025	<0.05	0.00041	484	<0.0025	0.0341	0.00605	891	0.00047	214	38.6	<0.00001	0.00042	0.12	39.3	<0.005	8.54
26/09/2012	77																	
3/10/2012	84	<0.0025	<0.05	0.00031	477	<0.0025	0.0222	0.00316	620	0.00114	138	25	<0.00001	<0.00025	0.0872	32	<0.005	8.06
10/10/2012	91																	
17/10/2012	98	<0.0025	<0.05	0.00032	498	<0.0025	0.0154	0.00422	504	0.0038	93	18.3	<0.00001	<0.00025	0.0668	27.4	<0.005	7.63
24/10/2012	105																	
31/10/2012	112	<0.0025	<0.05	0.00037	500	<0.0025	0.0118	0.00338	391	<0.00025	65.6	14	<0.00001	<0.00025	0.0519	26	<0.005	7.28
7/11/2012	119																	
14/11/2012	126	<0.0025	<0.05	<0.00025	463	<0.0025	0.0102	0.00223	295	<0.00025	48.2	10.4	<0.00001	<0.00025	0.0435	23.2	<0.005	6.08

Gold Plant Tails (Surface) SAC 11

Date	Accum Days	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L	DO, mg/L	Total CN, mg/L	WAD CN, mg/L	CNO, mg/L	CNS, mg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	NH_3+NH_4 as N, mg/L	S_2O_3, mg/L	S_3O_6, mg/L	S_4O_6, mg/L
11/07/2012	0	0.000087	94.9	0.00142	0.0202	<0.001	5.71	8.22	<0.01	<0.01	<1	<2	<0.5	<0.6	11.3	<2	<20	<2
18/07/2012	7																	
25/07/2012	14	<0.00001	60.7	0.000958	0.113	<0.0005	3.41	8.69	<0.01	<0.01	<1	<2	<0.5	<0.6	8.8	<2	<20	<2
1/08/2012	21																	
8/08/2012	28	<0.00001	59.2	0.000762	0.135	<0.0005	3.05	8.3	0.04	0.02	<1	4.7	<0.5	<0.6	8.7	<2	<20	<2
15/08/2012	35																	
22/08/2012	42	<0.00001	49.7	0.000614	0.135	<0.0005	2.43	8.69	0.06	0.02	<1	8	<0.5	<0.6	10	<2	<20	<2
29/08/2012	49																	
5/09/2012	56	<0.00001	42.5	0.000574	0.13	<0.0005	2.23	8.59	0.06	0.05	<1	4.8	<0.5	<0.6	10.5	<2	<20	<2
12/09/2012	63																	
19/09/2012	70	<0.00001	33.5	0.000531	0.13	<0.0005	1.98	8.5	<0.01	<0.01	<1	4.7	<0.5	<0.6	6.6	10	<20	<2
26/09/2012	77																	
3/10/2012	84	<0.00001	27.2	0.000513	0.113	<0.0005	1.77	8.6	<0.01	<0.01	<1	4.6	<0.5	<0.6	7.5	<2	<20	<2
10/10/2012	91																	
17/10/2012	98	<0.00001	22.3	0.000471	0.109	<0.0005	1.64	8.98	<0.01	<0.01	<1	4.7	<0.5	<0.6	6.1	<2	<20	<2
24/10/2012	105																	
31/10/2012	112	<0.00001	18.5	0.000469	0.0976	<0.0005	1.44	8.25	<0.01	<0.01	<1	3.8	<0.5	<0.6	4.2	<2	<20	<2
7/11/2012	119																	
14/11/2012	126	<0.00001	13.5	0.000432	0.0934	<0.0005	1.24	9.27	<0.01	<0.01	<1	4.2	<0.5	<0.6	4.6	<2	<20	<2
21/11/2012	133																	
28/11/2012	140	<0.00001	12.2	0.000381	0.0697	<0.0005	1.07	9.14	<0.01	<0.01	<1	2.6	<0.05	<0.06	3.7	<2	<20	<2
5/12/2012	147																	
12/12/2012	154	<0.00001	9.8	0.000371	0.0569	<0.0005	0.98	8.89	<0.01	<0.01	<1	3	<0.5	<0.6	3.2	<2	<20	<2
19/12/2012	161																	
26/12/2012	168	<0.00001	8.2	0.000332	0.0458	<0.0005	0.792	7.68	<0.01	<0.01	<1	2.3	<0.05	<0.06	3	<2	<20	<2

Gold Plant Tails (Bottom) SAC 11

Date	Accum Days	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L	DO, mg/L	Total CN, mg/L	WAD CN, mg/L	CNO, mg/L	CNS, mg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	NH_3+NH_4 as N, mg/L	S_2O_3, mg/L	S_3O_6, mg/L	S_4O_6, mg/L
11/07/2012	0	<0.00005	190	0.00432	0.0402	<0.0025	30.7	6.27	0.07	<0.01	<1	5.2	<0.5	<0.6	47.8	<2	<20	<2
18/07/2012	7																	
25/07/2012	14	<0.00005	260	0.00087	0.0121	<0.0025	11.6	5.85	0.02	<0.01	<1	110	<0.5	<0.6	23.5	<2	<20	<2
1/08/2012	21																	
8/08/2012	28	0.0001	550	<0.0005	0.0089	<0.005	4.04	3.68	0.09	0.04	<1	120	<0.5	<0.6	84.6	<2	<20	<2
15/08/2012	35																	
22/08/2012	42	<0.0001	458	<0.0005	0.0057	<0.005	3.67	2.57	0.53	0.05	<1	140	<0.5	<0.6	74.7	<2	<20	<2
29/08/2012	49																	
5/09/2012	56	<0.0001	264	<0.0005	0.0051	<0.005	2.87	2.41	0.1	0.1	<1	110	<0.5	<0.6	65.6	<2	<20	<2
12/09/2012	63																	
19/09/2012	70	0.000254	137	<0.00025	0.0042	<0.0025	2.16	4.8	1.64	0.06	<1	110	<0.5	<0.6	44.2	180	<20	<2
26/09/2012	77																	
3/10/2012	84	<0.00005	80.7	<0.00025	0.00302	<0.0025	1.73	3.2	2.95	0.03	<1	80	<0.5	<0.6	47.4	<2	<20	<2
10/10/2012	91																	
17/10/2012	98	<0.00005	51.2	<0.00025	0.00306	<0.0025	1.41	5.69	0.24	0.03	<1	67	<0.5	<0.6	33.3	<2	<20	<2
24/10/2012	105																	
31/10/2012	112	<0.00005	41.1	<0.00025	0.00262	<0.0025	1.23	4.5	0.09	0.01	<1	55	<0.5	<0.6	26.9	<2	<20	<2
7/11/2012	119																	
14/11/2012	126	<0.00005	26.9	<0.00025	0.00233	<0.0025	1.05	6.06	0.04	0.02	<1	46	<0.5	<0.6	16.9	<2	<20	<2

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L
21/11/2012	133		305	5.69	304	3260													
28/11/2012	140		610	4.97	117	3152	<1	468.12	<1	2170	1470	<10	<0.4	2100	<0.005	<0.00025	<0.0005	0.0196	<0.001
5/12/2012	147		120	5.68	435	2610													
12/12/2012	154		615	5.78	-4	2850	<1	470.78	4.4	3030	1490	<10	0.4	2010	<0.005	<0.00025	<0.0005	0.0206	<0.001
19/12/2012	161		120	4.48	433	2750													
26/12/2012	168		895	5.76	15	2859	<1	389.9	3.72	2920	1460	<10	<0.4	1940	<0.005	<0.00025	<0.0005	0.0178	<0.001

1st Cleaner Scav Tails (Surface) SAC 12

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L
11/07/2012	0	1185	505	6.76	135	631	<1	5.03	7.06	515	263	7.2	<0.2	105	0.0037	0.000147	0.00018	0.0265	<0.0002
18/07/2012	7	50		4.96	690	714													
25/07/2012	14	1060	525	5.27	138	917	<1	8.22	2.83		430	5.5	<0.2	337	0.0245	0.000321	0.00115	0.0409	<0.0002
1/08/2012	21	195		5.12	465	948													
8/08/2012	28	1550	340	4.88	134	995	<1	20.25	1.83	789	482	7.3	0.23	441	0.0608	0.000212	0.00097	0.0494	<0.0002
15/08/2012	35	95		4.1	584	754													
22/08/2012	42	1300	610	4.88	163	945	<1	27.2	<1	791	440	<5	0.27	438	0.188	0.000125	0.00122	0.0484	0.00028
29/08/2012	49	80		4.25	613	761													
5/09/2012	56	1330	615	4.38	272	892	3.71	34.61	<1	757	389	4.1	0.26	422	0.26	0.000065	0.0007	0.0476	0.00032
12/09/2012	63	180		4.29	605	761													
19/09/2012	70	1295	600	4.13	333	826	7.56	45.12	<1	631	355	<5	0.32	394	0.355	<0.00005	0.00053	0.0444	0.00044
26/09/2012	77	160		3.35	639	735													
3/10/2012	84	1250	605	3.91	369	769	10.09	38.87	<1	578	311	6.1	0.35	361	0.47	<0.00005	0.00029	0.0464	0.00055
10/10/2012	91	180		3.49	619	650													
17/10/2012	98	1400	680	3.94	388	663	6.98	26.98	<1	470	286	<5	0.33	317	0.519	<0.00005	0.00014	0.0427	0.00066
24/10/2012	105	230		3.91	623	492													
31/10/2012	112	1280	605	4.11	287	562	4.54	20.02	<1	400	232	<5	0.4	250	0.473	<0.00005	<0.0001	0.0363	0.0006
7/11/2012	119	120		4.15	679	410													
14/11/2012	126	1225	600	4.74	172	497	<1	18.72	<1	339	191	<5	0.27	220	0.429	<0.00005	0.00013	0.0301	0.00054
21/11/2012	133	480		4.64	684	344													
28/11/2012	140	1300	605	4.73	397	421	<1	14.87	<1	270	170	18.9	0.23	184	0.372	<0.00005	<0.0001	0.0277	0.00043
5/12/2012	147	110		3.68	643	369													
12/12/2012	154	1280	645	4.72	212	409	<1	12.06	<1	261	154	<5	0.22	162	0.355	<0.00005	<0.0001	0.0257	0.00041
19/12/2012	161	100		3.81	648	346													
26/12/2012	168	1610	615	4.91	220	339	<1	12.3	<1	203	136	<5	0.24	142	0.308	<0.00005	0.00021	0.023	0.0004

1st Cleaner Scav Tails (Bottom) SAC 12

Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L
11/07/2012	0		510	7.56	311	2135	<1	10.93	80.66	2010	1310	<10	<0.4	1230	0.0068	0.00114	0.00068	0.0878	<0.001
18/07/2012	7		50	7.26	470	2210													
25/07/2012	14		515	7.42	85	3006	<1	22.96	143.56		1960	<10	0.42	1800	0.0072	0.00162	0.00109	0.163	<0.001
1/08/2012	21		180	7.31	408	3560													
8/08/2012	28		750	7.38	55	3692	<1	30.03	184.32	4010	2430	19	0.62	1990	<0.005	0.00219	0.00085	0.183	<0.001
15/08/2012	35		70	7.41	198	2180													
22/08/2012	42		610	7.95	108	3545	<1	15.27	241.83	3620	2270	<10	1.69	2090	<0.005	0.00329	0.00151	0.132	<0.001
29/08/2012	49		70	7.69	289	2380													
5/09/2012	56		540	7.82	188	3335	<1	16.81	189.76	3340	2110	<10	1.68	2110	<0.005	0.00205	0.00148	0.146	<0.001
12/09/2012	63		170	7.68	276	2270													

Date	Accum Days	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L
21/11/2012	133																	
28/11/2012	140	<0.0025	<0.05	0.00033	526	<0.0025	0.00774	0.00426	280	0.00161	38.1	8.58	<0.00001	<0.00025	0.0349	21.5	<0.005	6.58
5/12/2012	147																	
12/12/2012	154	<0.0025	<0.05	0.0003	547	<0.0025	0.00643	0.00425	231	0.0013	30.7	7.66	<0.00001	<0.00025	0.0278	20	<0.005	6.67
19/12/2012	161																	
26/12/2012	168	<0.0025	<0.05	<0.00025	546	<0.0025	0.00526	0.00287	195	<0.00025	23.2	5.92	<0.00001	<0.00025	0.022	17.4	<0.005	6.27

1st Cleaner Scav Tails (Surface) SAC 12

Date	Accum Days	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L
11/07/2012	0	<0.0005	<0.01	0.000058	79.3	<0.0005	0.00113	0.0118	<0.03	0.00032	15.8	0.115	<0.00005	0.00185	0.00126	8.21	0.0122	0.415
18/07/2012	7																	
25/07/2012	14	<0.0005	<0.01	0.000291	140	<0.0005	0.00399	0.0676	0.109	0.00105	19.6	0.265	<0.00005	0.0022	0.00437	13.6	0.0127	2.28
1/08/2012	21																	
8/08/2012	28	<0.0005	<0.01	0.000285	158	<0.0005	0.00414	0.0245	5.44	0.00343	21.6	0.603	0.000012	<0.00005	0.00745	14.8	0.0116	4.23
15/08/2012	35																	
22/08/2012	42	<0.0005	0.011	0.000248	146	<0.0005	0.00423	0.0426	8.58	0.0104	18.4	0.752	<0.00001	<0.00005	0.00916	13	0.0099	4.8
29/08/2012	49																	
5/09/2012	56	<0.0005	<0.01	0.000265	128	<0.0005	0.00428	0.0528	12.1	0.0177	17	0.859	<0.00001	<0.00005	0.00992	11.7	0.0076	4.78
12/09/2012	63																	
19/09/2012	70	<0.0005	<0.01	0.000289	118	<0.0005	0.00423	0.0733	15.2	0.0267	14.5	0.931	<0.00001	<0.00005	0.0104	10.8	0.0058	4.85
26/09/2012	77																	
3/10/2012	84	<0.0005	<0.01	0.000445	103	<0.0005	0.00501	0.463	11.2	0.0386	13.1	0.963	<0.00001	<0.00005	0.0115	9.82	0.0045	4.99
10/10/2012	91																	
17/10/2012	98	<0.0005	<0.01	0.000535	94.8	<0.0005	0.00545	0.535	6.12	0.0389	11.9	1.05	<0.00001	<0.00005	0.0118	8.87	0.0031	5.06
24/10/2012	105																	
31/10/2012	112	<0.0005	<0.01	0.000589	77.6	<0.0005	0.00584	0.49	2.11	0.0417	9.25	1.08	<0.00001	<0.00005	0.012	7.74	0.0022	4.6
7/11/2012	119																	
14/11/2012	126	<0.0005	<0.01	0.000514	62.7	<0.0005	0.00614	0.393	0.747	0.0299	8.38	0.984	<0.00001	<0.00005	0.0115	7.27	0.0021	4.08
21/11/2012	133																	
28/11/2012	140	<0.0005	<0.01	0.000478	56.4	<0.0005	0.00589	0.344	0.455	0.0242	7.18	0.903	<0.00001	<0.00005	0.0105	5.96	0.0015	4.03
5/12/2012	147																	
12/12/2012	154	<0.0005	<0.01	0.000449	51	<0.0005	0.00594	0.292	0.319	0.023	6.45	0.862	<0.00001	<0.00005	0.0098	5.62	0.0013	3.86
19/12/2012	161																	
26/12/2012	168	<0.0005	<0.01	0.000376	45	<0.0005	0.00543	0.216	0.217	0.018	5.67	0.797	<0.00001	<0.00005	0.00875	5.07	0.0011	3.51

1st Cleaner Scav Tails (Bottom) SAC 12

Date	Accum Days	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L
11/07/2012	0	<0.0025	<0.05	<0.00025	502	<0.0025	0.00252	0.0208	<0.03	<0.00025	13.1	0.227	0.00088	0.0188	0.0036	12.6	0.0138	3.98
18/07/2012	7																	
25/07/2012	14	<0.0025	<0.05	0.00048	692	<0.0025	0.00485	0.679	<0.03	<0.00025	55.6	0.578	0.000476	0.0367	0.007	39.6	0.0539	5.83
1/08/2012	21																	
8/08/2012	28	<0.0025	<0.05	0.00161	756	<0.0025	0.00528	1.59	0.194	0.00051	132	1.5	0.00014	0.0441	0.0086	56.4	0.0886	8.23
15/08/2012	35																	
22/08/2012	42	<0.0025	<0.05	<0.00025	659	<0.0025	<0.0005	0.00217	<0.06	<0.00025	152	0.867	<0.00001	0.151	<0.0025	56.4	0.0191	5.74
29/08/2012	49																	
5/09/2012	56	<0.0025	<0.05	<0.00025	590	<0.0025	<0.0005	0.00108	<0.03	0.00102	154	0.722	<0.00001	0.131	<0.0025	58.8	0.0057	4.49
12/09/2012	63																	

Date	Accum Days	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L	DO, mg/L	Total CN, mg/L	WAD CN, mg/L	CNO, mg/L	CNS, mg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	NH_3+NH_4 as N, mg/L	S_2O_3, mg/L	S_3O_6, mg/L	S_4O_6, mg/L
21/11/2012	133																	
28/11/2012	140	<0.00005	25.9	<0.00025	0.00239	<0.0025	0.97	3.88	0.18	0.01	<1	38	<0.05	<0.06	18.8	<2	<20	<2
5/12/2012	147																	
12/12/2012	154	<0.00005	21.4	<0.00025	0.00245	<0.0025	0.852	5.32	0.28	0.01	<1	35	<0.5	<0.6	3	<2	<20	<2
19/12/2012	161																	
26/12/2012	168	<0.00005	16.6	<0.00025	0.00212	<0.0025	0.671	3.52	0.28	0.01	<1	31	<0.05	<0.06	16.8	<2	<20	<2

1st Cleaner Scav Tails (Surface) SAC 12

Date	Accum Days	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L	DO, mg/L	Total CN, mg/L	WAD CN, mg/L	CNO, mg/L	CNS, mg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	NH_3+NH_4 as N, mg/L	S_2O_3, mg/L	S_3O_6, mg/L	S_4O_6, mg/L
11/07/2012	0	0.000307	10.1	0.000058	0.0195	<0.0005	0.0071	8.21	<0.01	<0.01	<1	<2	<0.5	<0.6	0.5	290	100	<2
18/07/2012	7																	
25/07/2012	14	0.00105	10.7	0.000107	0.0866	<0.0005	0.0359	7.67	<0.01	<0.01	<1	<2	<0.5	<0.6	0.2	270	29	<2
1/08/2012	21																	
8/08/2012	28	0.000096	9.6	<0.00005	0.102	<0.0005	0.0713	7.92	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	160	<20	<2
15/08/2012	35																	
22/08/2012	42	0.000015	7.4	<0.00005	0.109	<0.0005	0.1	8.29	<0.01	<0.01	<1	<2	<0.5	<0.6	0.1	93	<20	<2
29/08/2012	49																	
5/09/2012	56	0.000018	6.6	<0.00005	0.104	<0.0005	0.125	7.7	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	50	<20	<2
12/09/2012	63																	
19/09/2012	70	0.000017	5.2	<0.00005	0.102	<0.0005	0.132	8.2	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	16	<20	<2
26/09/2012	77																	
3/10/2012	84	0.00001	4.1	0.000058	0.0914	<0.0005	0.164	8.35	<0.01	<0.01	<1	<2	<0.5	<0.6	0.1	<2	<20	<2
10/10/2012	91																	
17/10/2012	98	<0.00001	3.5	0.00007	0.0828	<0.0005	0.169	9.03	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
24/10/2012	105																	
31/10/2012	112	0.000012	2.9	0.00008	0.0702	<0.0005	0.161	8.05	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
7/11/2012	119																	
14/11/2012	126	0.000017	2	0.000089	0.0576	<0.0005	0.152	9.22	<0.01	<0.01	<1	<2	<0.5	<0.6	0.1	<2	<20	<2
21/11/2012	133																	
28/11/2012	140	0.000016	<2	0.000075	0.0383	<0.0005	0.14	9.15	<0.01	<0.01	<1	<2	<0.05	<0.06	<0.1	<2	<20	<2
5/12/2012	147																	
12/12/2012	154	0.000016	<2	0.000075	0.0285	<0.0005	0.128	8.83	<0.01	<0.01	<1	<2	<0.5	<0.6	<0.1	<2	<20	<2
19/12/2012	161																	
26/12/2012	168	0.00002	<2	0.000073	0.0218	<0.0005	0.105	7.6	<0.01	<0.01	<1	<2	<0.05	<0.06	<0.1	<2	<20	<2

1st Cleaner Scav Tails (Bottom) SAC 12

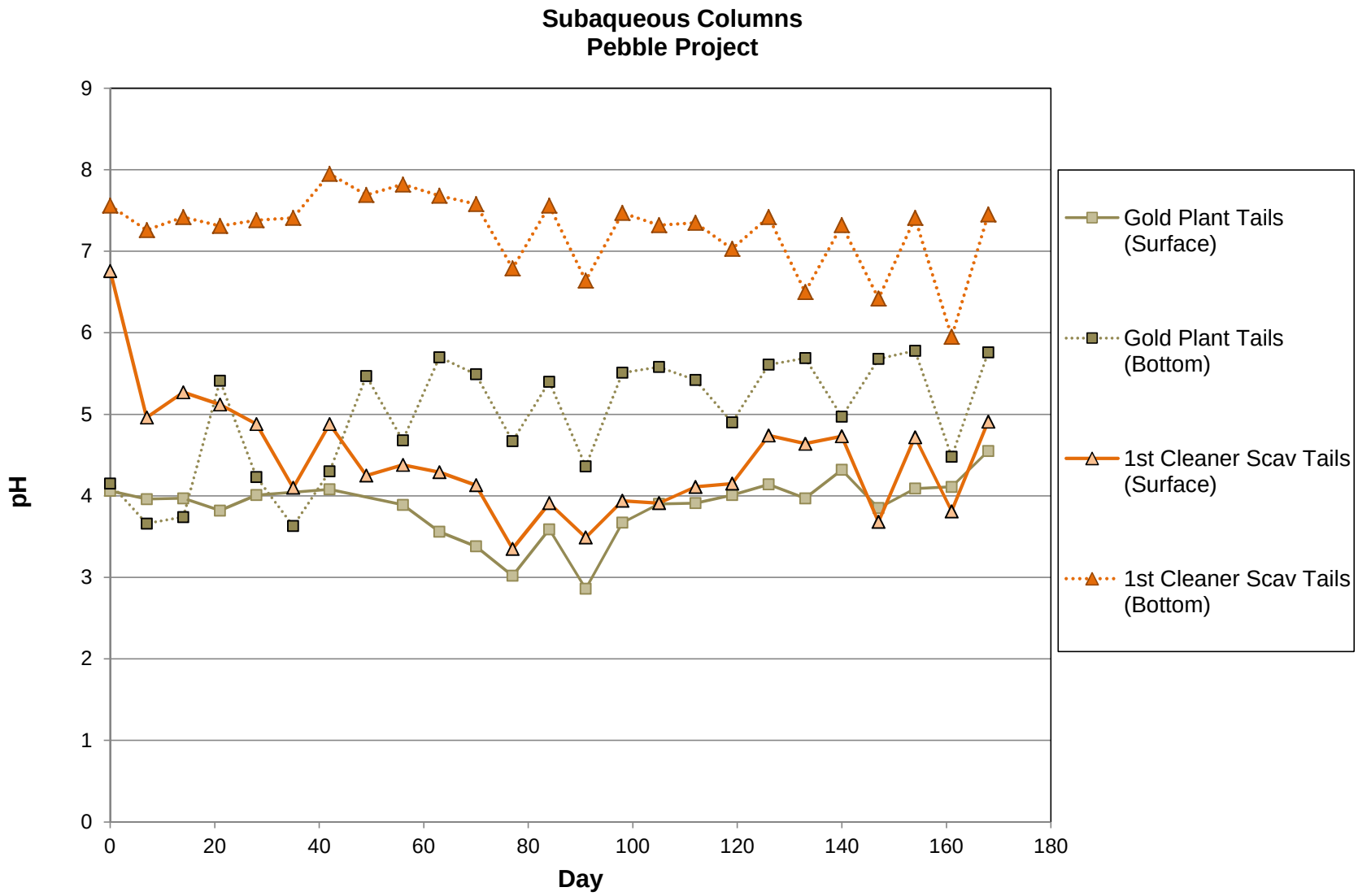
Date	Accum Days	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L	DO, mg/L	Total CN, mg/L	WAD CN, mg/L	CNO, mg/L	CNS, mg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	NH_3+NH_4 as N, mg/L	S_2O_3, mg/L	S_3O_6, mg/L	S_4O_6, mg/L
11/07/2012	0	0.00128	<2	<0.00025	0.0526	<0.0025	0.0104	6.21	<0.01	<0.01	<1	<2	<0.5	<0.6	1	50	<20	<2
18/07/2012	7																	
25/07/2012	14	0.00953	10.7	<0.00025	0.032	<0.0025	0.0218	6.7	<0.01	<0.01	<1	<2	<0.5	<0.6	0.2	210	100	<2
1/08/2012	21																	
8/08/2012	28	0.00826	50.1	<0.00025	0.0146	<0.0025	0.0178	2.99	<0.01	<0.01	<1	<2	<0.5	<0.6	0.4	470	60	<2
15/08/2012	35																	
22/08/2012	42	<0.00005	52.7	<0.00025	0.0021	<0.0025	<0.005	3.15	<0.01	<0.01	<1	<2	<0.5	<0.6	0.4	140	<20	<2
29/08/2012	49																	
5/09/2012	56	<0.00005	39.1	<0.00025	0.00146	<0.0025	<0.005	2.97	<0.01	<0.01	<1	<2	<0.5	<0.6	0.2	66	8	<2
12/09/2012	63																	

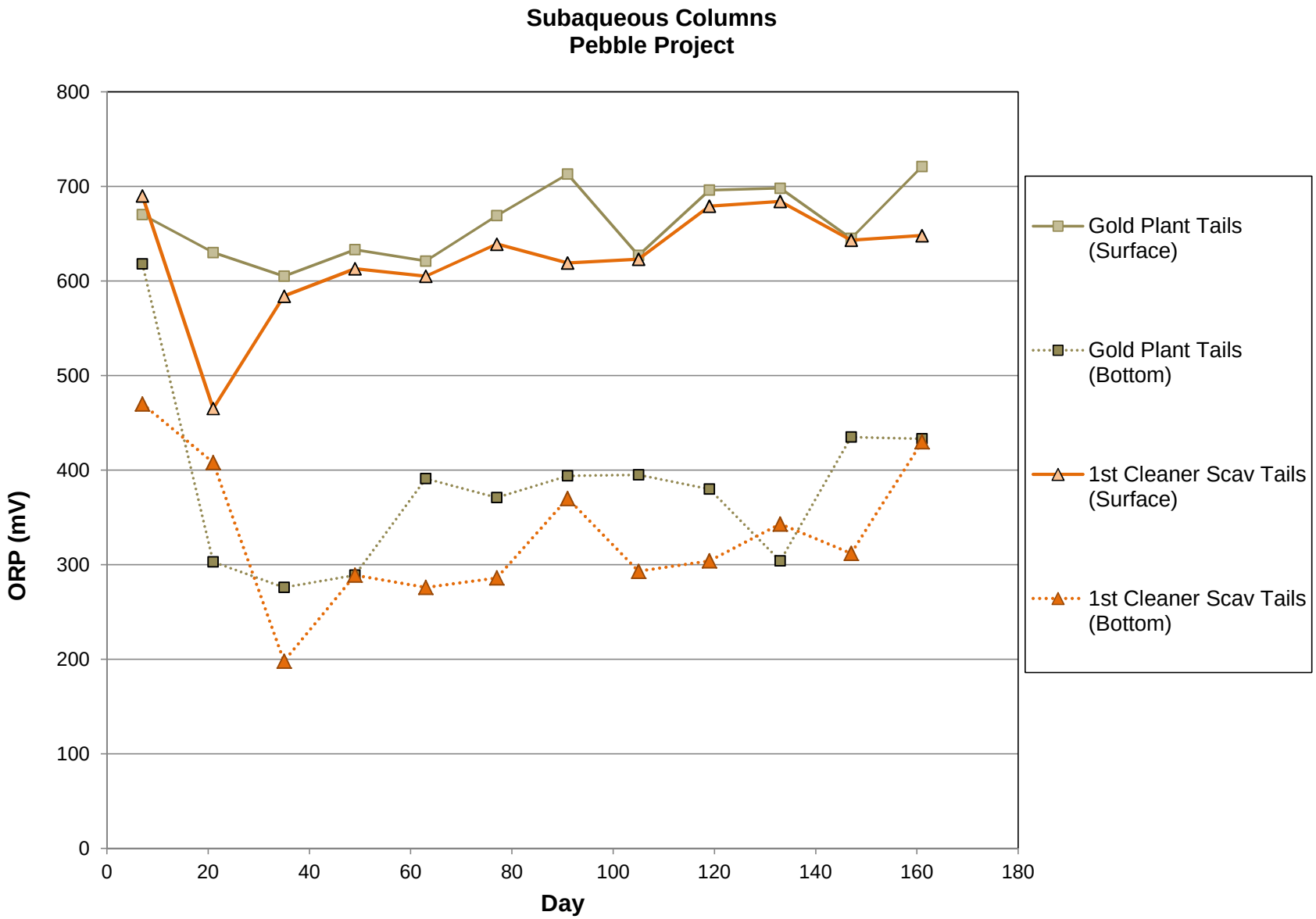
Date	Accum Days	Vol Input, mL	Vol Output, mL	pH	ORP, mV	EC, uS/cm	Acidity (pH4.5), $mgCaCO_3/L$	Acidity (pH8.3), $mgCaCO_3/L$	Alkalinity, $mgCaCO_3/L$	TDS, mg/L	Hardness, $mgCaCO_3/L$	Cl, mg/L	F, mg/L	SO_4, mg/L	Al, mg/L	Sb, mg/L	As, mg/L	Ba, mg/L	Be, mg/L
19/09/2012	70		600	7.58	159	3214	<1	17.92	159.16	3390	2020	<10	1.97	2090	<0.005	0.0012	0.00123	0.148	<0.001
26/09/2012	77		150	6.79	286	2290													
3/10/2012	84		590	7.56	242	3076	<1	15.16	118.5	3060	2030	6.1	1.79	2010	<0.005	0.0008	0.00123	0.146	<0.001
10/10/2012	91		200	6.64	370	2970													
17/10/2012	98		595	7.47	192	2827	<1	12.22	103.41	3100	1910	<5	1.83	2000	<0.005	0.00071	0.00116	0.13	<0.001
24/10/2012	105		160	7.32	293	2730													
31/10/2012	112		600	7.35	188	2836	<1	13.4	85.37	2960	1830	<10	2.02	1870	<0.005	0.0006	0.00114	0.113	<0.001
7/11/2012	119		110	7.03	304	2560													
14/11/2012	126		615	7.42	146	2726	<1	16.12	76.18	2830	1680	<10	1.69	1860	<0.005	0.0006	0.00099	0.0968	<0.001
21/11/2012	133		300	6.5	343	2790													
28/11/2012	140		600	7.32	349	2759	<1	12.69	66.66	2440	1760	<10	1.59	1780	<0.005	0.00049	0.00091	0.0878	<0.001
5/12/2012	147		125	6.42	312	2330													
12/12/2012	154		645	7.41	140	2581	<1	11.07	62.51	1930	1760	<10	1.43	1740	<0.005	0.00046	0.00093	0.0785	<0.001
19/12/2012	161		90	5.95	430	2490													
26/12/2012	168		945	7.45	206	2566	<1	12.34	59.63	2560	1660	<10	1.5	1720	<0.005	0.00054	0.00079	0.0702	<0.001

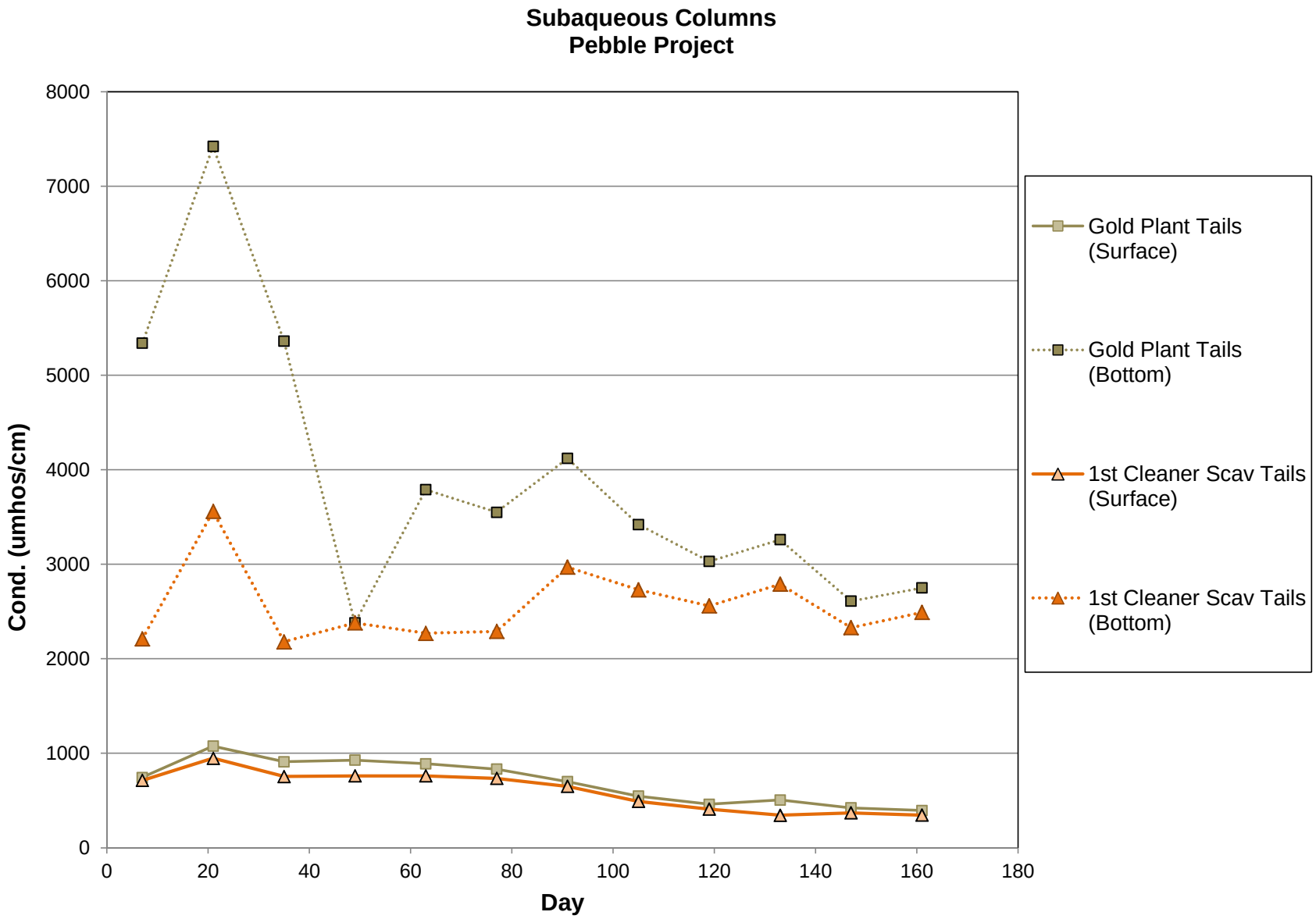
Date	Accum Days	Bi, mg/L	B, mg/L	Cd, mg/L	Ca, mg/L	Cr, mg/L	Co, mg/L	Cu, mg/L	Fe, mg/L	Pb, mg/L	Mg, mg/L	Mn, mg/L	Hg, mg/L	Mo, mg/L	Ni, mg/L	K, mg/L	Se, mg/L	Si, mg/L
19/09/2012	70	<0.0025	<0.05	<0.00025	575	<0.0025	<0.0005	<0.0005	<0.03	<0.00025	142	0.701	<0.00001	0.11	<0.0025	58	<0.005	3.8
26/09/2012	77																	
3/10/2012	84	<0.0025	<0.05	<0.00025	578	<0.0025	<0.0005	0.0007	<0.03	<0.00025	142	0.704	<0.00001	0.092	<0.0025	56.4	<0.005	3.64
10/10/2012	91																	
17/10/2012	98	<0.0025	<0.05	<0.00025	553	<0.0025	<0.0005	0.00098	<0.03	<0.00025	128	0.71	<0.00001	0.0872	<0.0025	52.7	<0.005	3.31
24/10/2012	105																	
31/10/2012	112	<0.0025	<0.05	<0.00025	567	<0.0025	<0.0005	0.00084	<0.03	<0.00025	99.98	0.654	<0.00001	0.0732	<0.0025	49.4	<0.005	3.28
7/11/2012	119																	
14/11/2012	126	<0.0025	<0.05	<0.00025	513	<0.0025	<0.0005	<0.0005	0.052	<0.00025	97.6	0.684	<0.00001	0.0711	<0.0025	49.9	<0.005	2.72
21/11/2012	133																	
28/11/2012	140	<0.0025	<0.05	<0.00025	570	<0.0025	<0.0005	0.00071	0.053	<0.00025	82.8	0.631	<0.00001	0.065	<0.0025	42.8	<0.005	3.02
5/12/2012	147																	
12/12/2012	154	<0.0025	<0.05	<0.00025	585	<0.0025	<0.0005	<0.0005	0.072	<0.00025	72.3	0.607	<0.00001	0.0561	<0.0025	41.8	<0.005	2.94
19/12/2012	161																	
26/12/2012	168	<0.0025	<0.05	<0.00025	565	<0.0025	<0.0005	<0.0005	<0.03	<0.00025	60.3	0.599	<0.00001	0.0563	<0.0025	39.1	<0.005	2.74

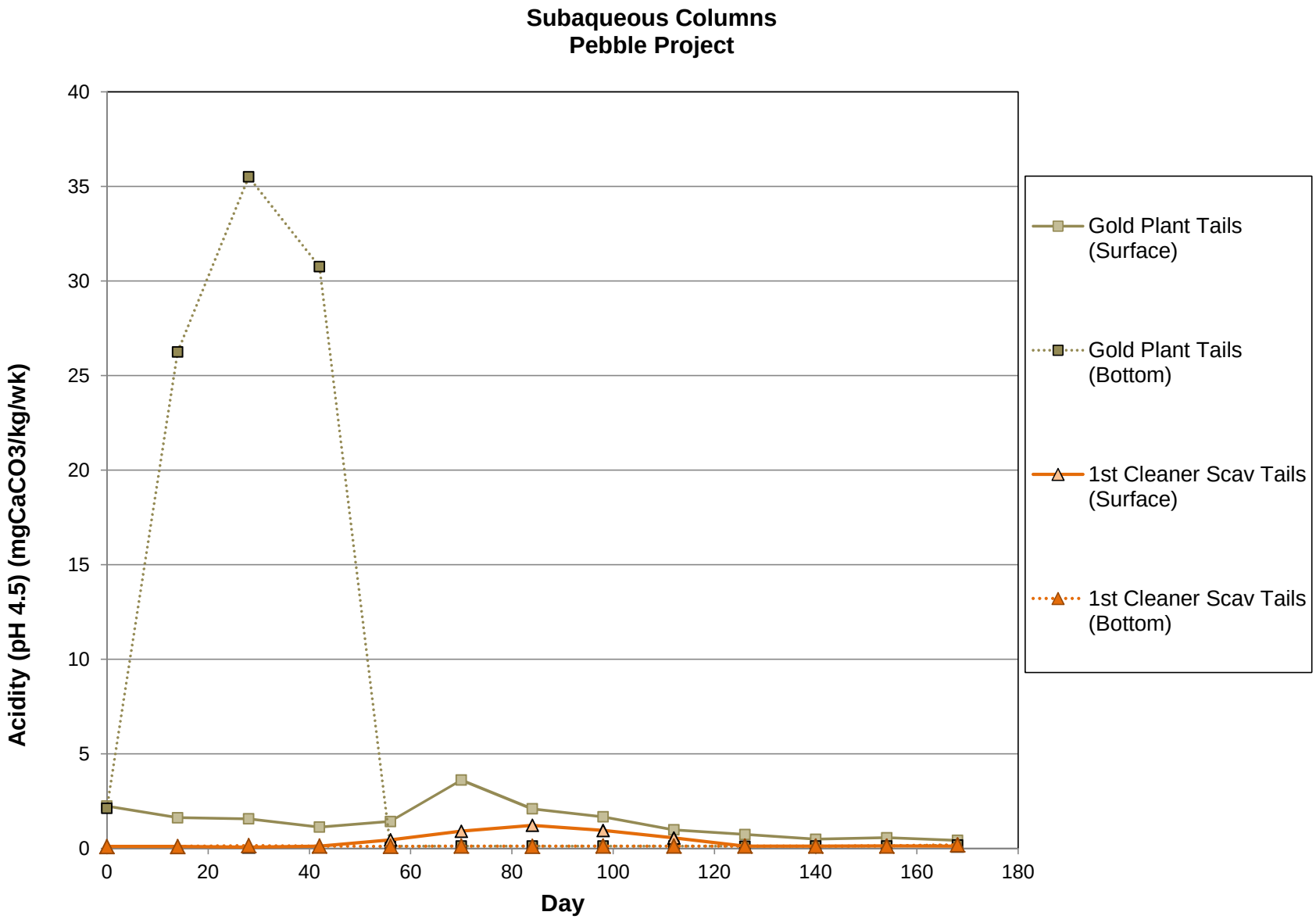
Date	Accum Days	Ag, mg/L	Na, mg/L	Tl, mg/L	Sn, mg/L	V, mg/L	Zn, mg/L	DO, mg/L	Total CN, mg/L	WAD CN, mg/L	CNO, mg/L	CNS, mg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	NH_3+NH_4 as N, mg/L	S_2O_3, mg/L	S_3O_6, mg/L	S_4O_6, mg/L
19/09/2012	70	<0.00005	24.8	<0.00025	0.00124	<0.0025	<0.005	2.98	<0.01	<0.01	<1	<2	<0.5	<0.6	0.5	44	<20	<2
26/09/2012	77																	
3/10/2012	84	0.000099	17.8	<0.00025	0.00152	<0.0025	0.0057	2.68	<0.01	<0.01	<1	<2	<0.5	<0.6	0.4	29	<20	<2
10/10/2012	91																	
17/10/2012	98	<0.00005	12.4	<0.00025	0.00172	<0.0025	<0.005	5.58	<0.01	<0.01	<1	<2	<0.5	<0.6	0.3	15	<20	<2
24/10/2012	105																	
31/10/2012	112	<0.00005	9.9	<0.00025	0.00118	<0.0025	<0.005	3.56	<0.01	<0.01	<1	<2	<0.5	<0.6	0.3	7.5	<20	<2
7/11/2012	119																	
14/11/2012	126	<0.00005	6.7	<0.00025	0.00091	<0.0025	<0.005	4.83	<0.01	<0.01	<1	<2	<0.5	<0.6	0.3	4.4	<20	<2
21/11/2012	133																	
28/11/2012	140	<0.00005	6.8	<0.00025	0.00089	<0.0025	<0.005	3.85	<0.01	<0.01	<1	<2	<0.05	<0.06	0.3	<2	<20	<2
5/12/2012	147																	
12/12/2012	154	<0.00005	5.8	<0.00025	0.00078	<0.0025	<0.005	3.7	<0.01	<0.01	<1	<2	<0.5	<0.6	0.2	<2	<20	<2
19/12/2012	161																	
26/12/2012	168	<0.00005	4.5	<0.00025	0.00074	<0.0025	<0.005	2.85	<0.01	<0.01	<1	<2	<0.5	<0.6	0.2	<2	<20	<2

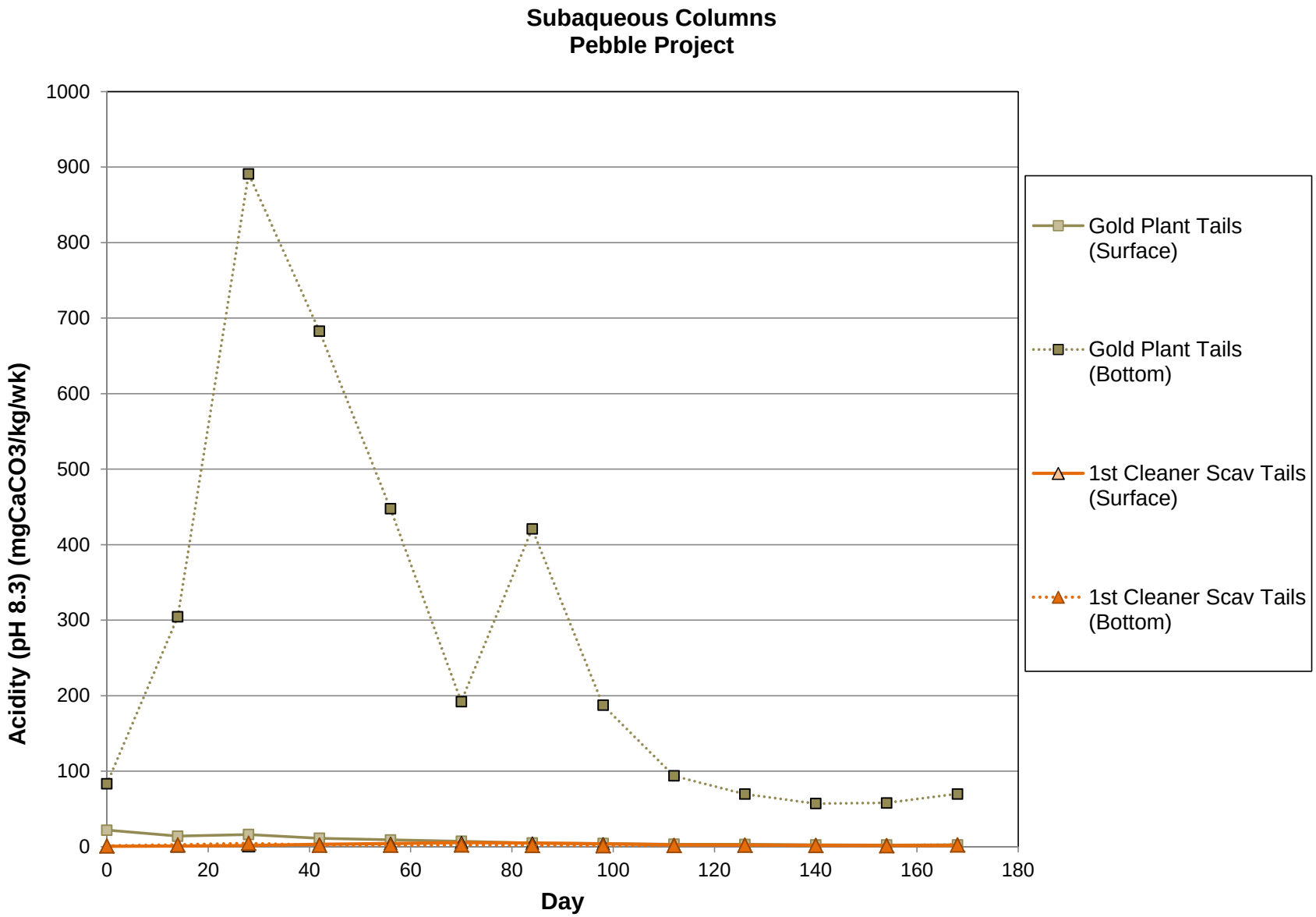
Appendix 11O, Loading Trend Charts for Subaqueous Column Tests on Tailings

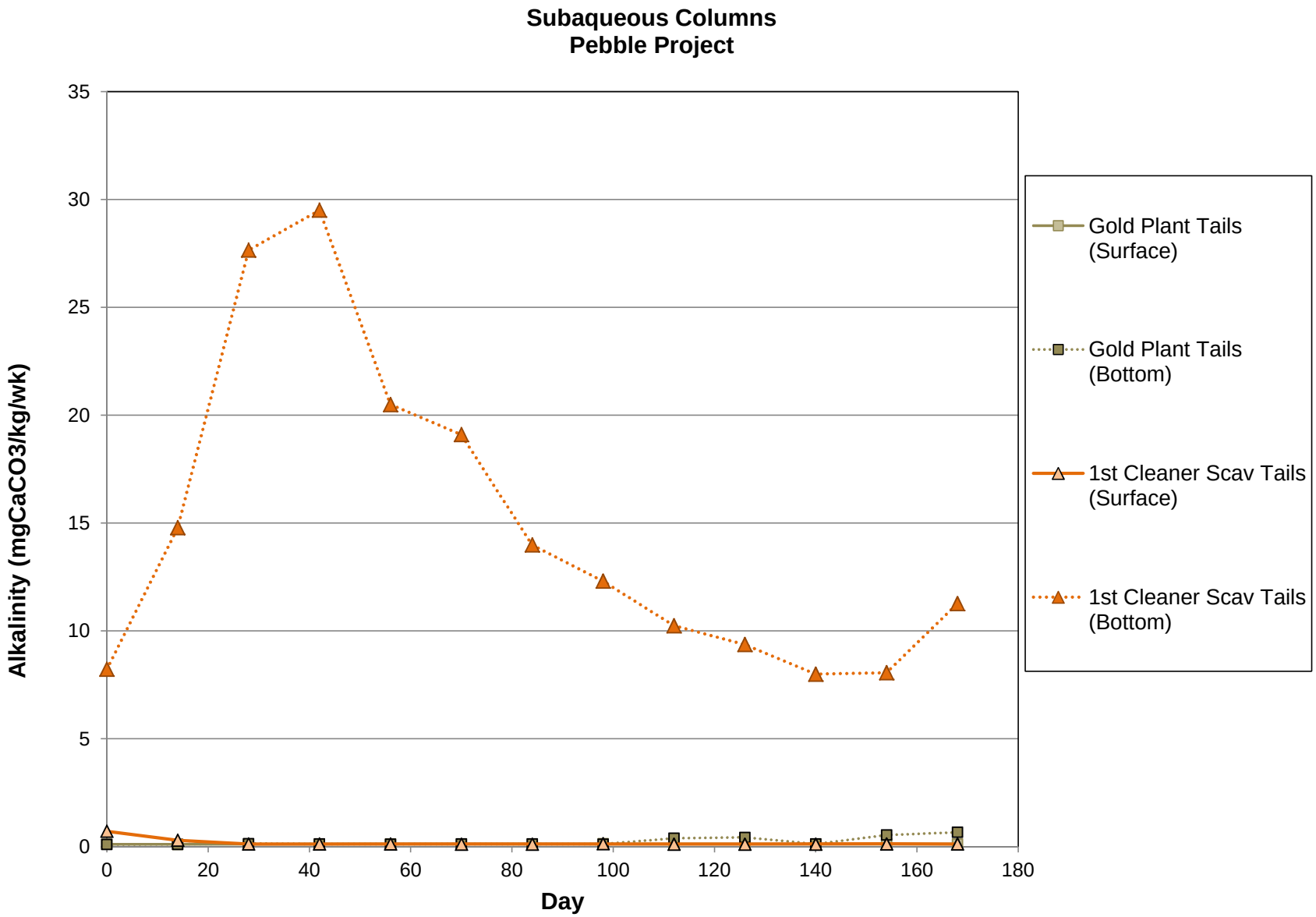

Subaqueous Columns
Pebble Project
pH
Day
0
1
2
3
4
5
6
7
8
9
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

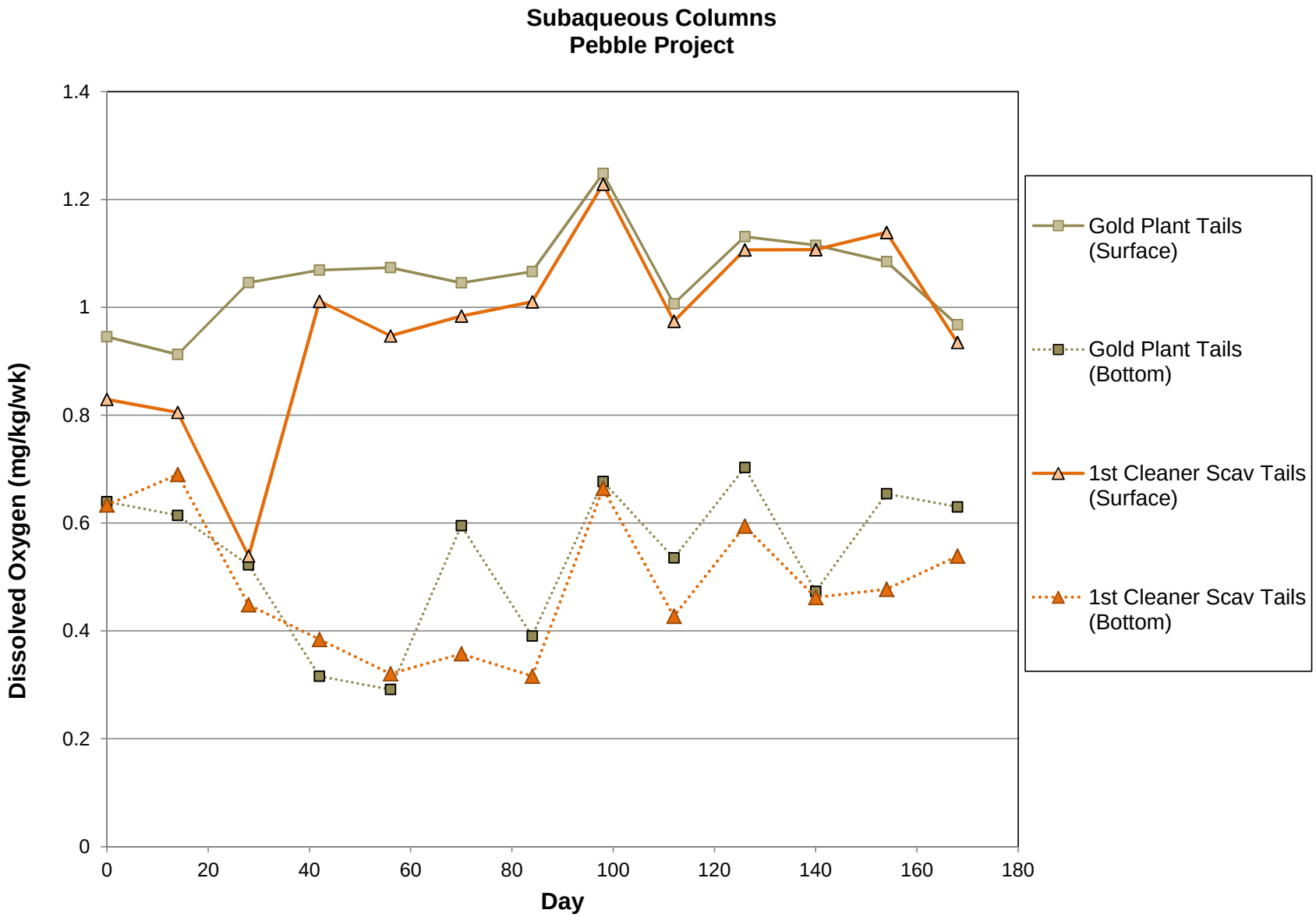

Subaqueous Columns
Pebble Project
ORP (mV)
800
700
600
500
400
300
200
100
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

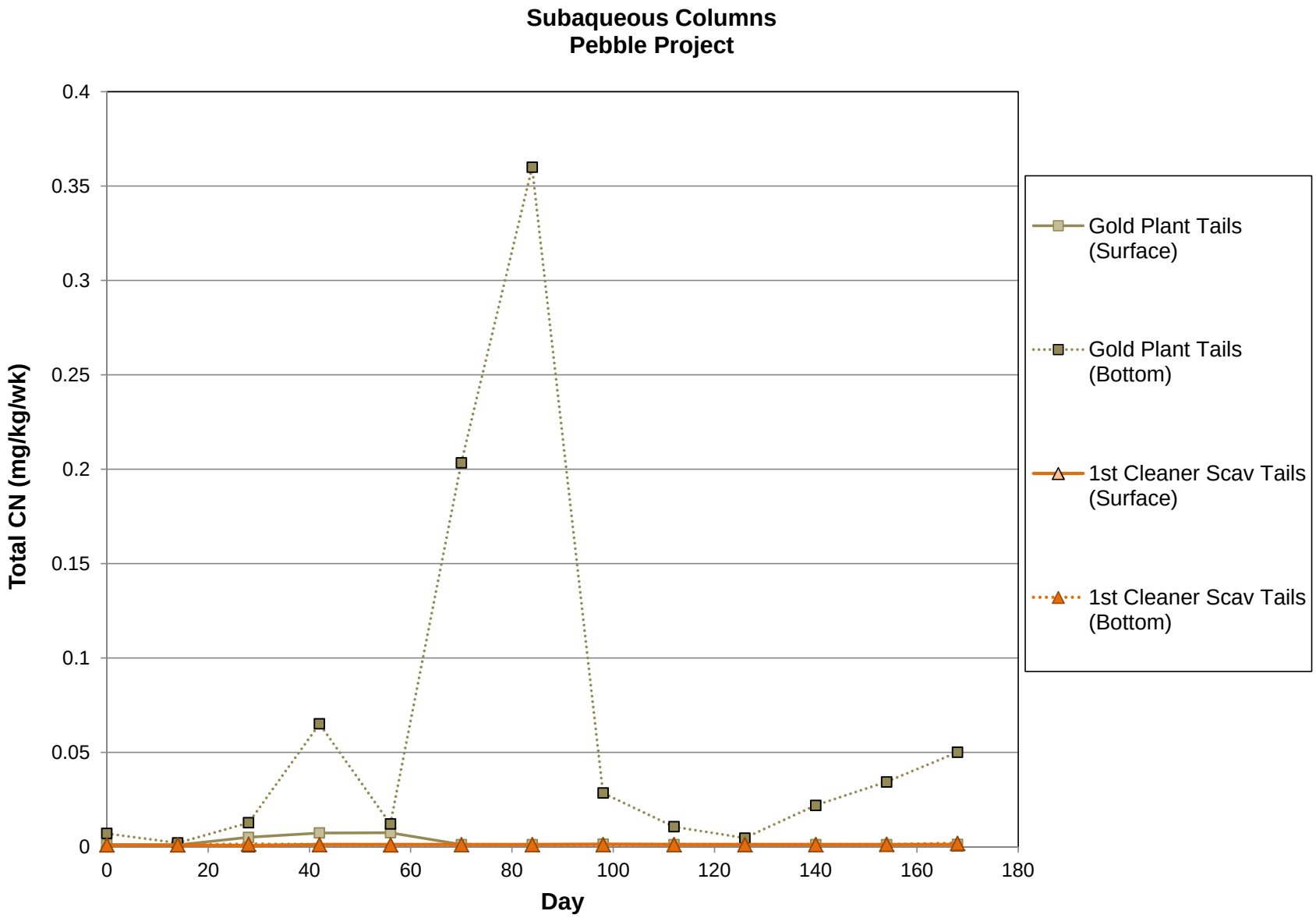

Subaqueous Columns
Pebble Project
Cond. (umhos/cm)
8000
7000
6000
5000
4000
3000
2000
1000
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

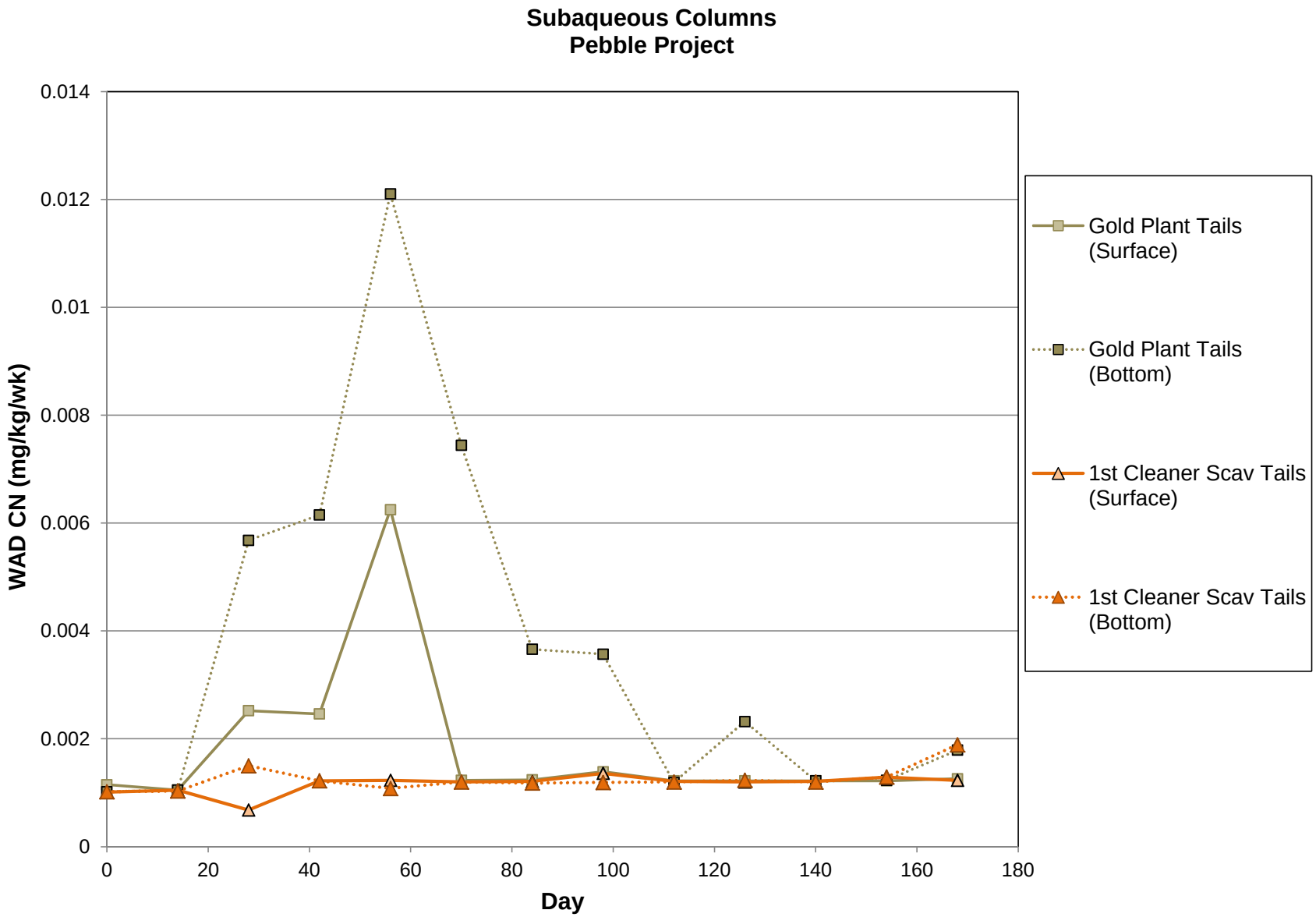

Subaqueous Columns
Pebble Project
Acidity (pH 4.5) (mgCaCO3/kg/wk)
40
35
30
25
20
15
10
5
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

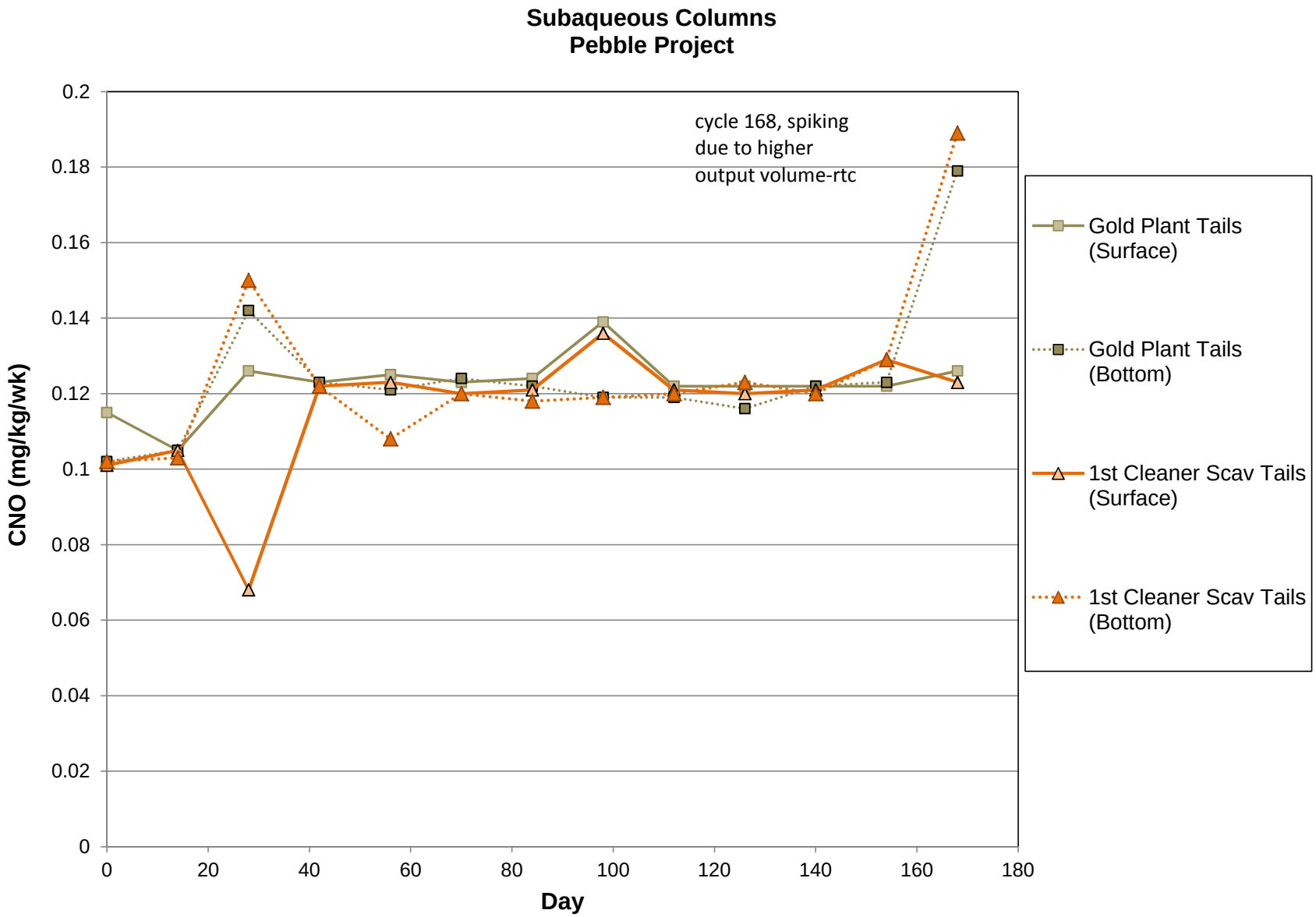

Subaqueous Columns
Pebble Project
Acidity (pH 8.3) (mgCaCO3/kg/wk)
1000
900
800
700
600
500
400
300
200
100
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

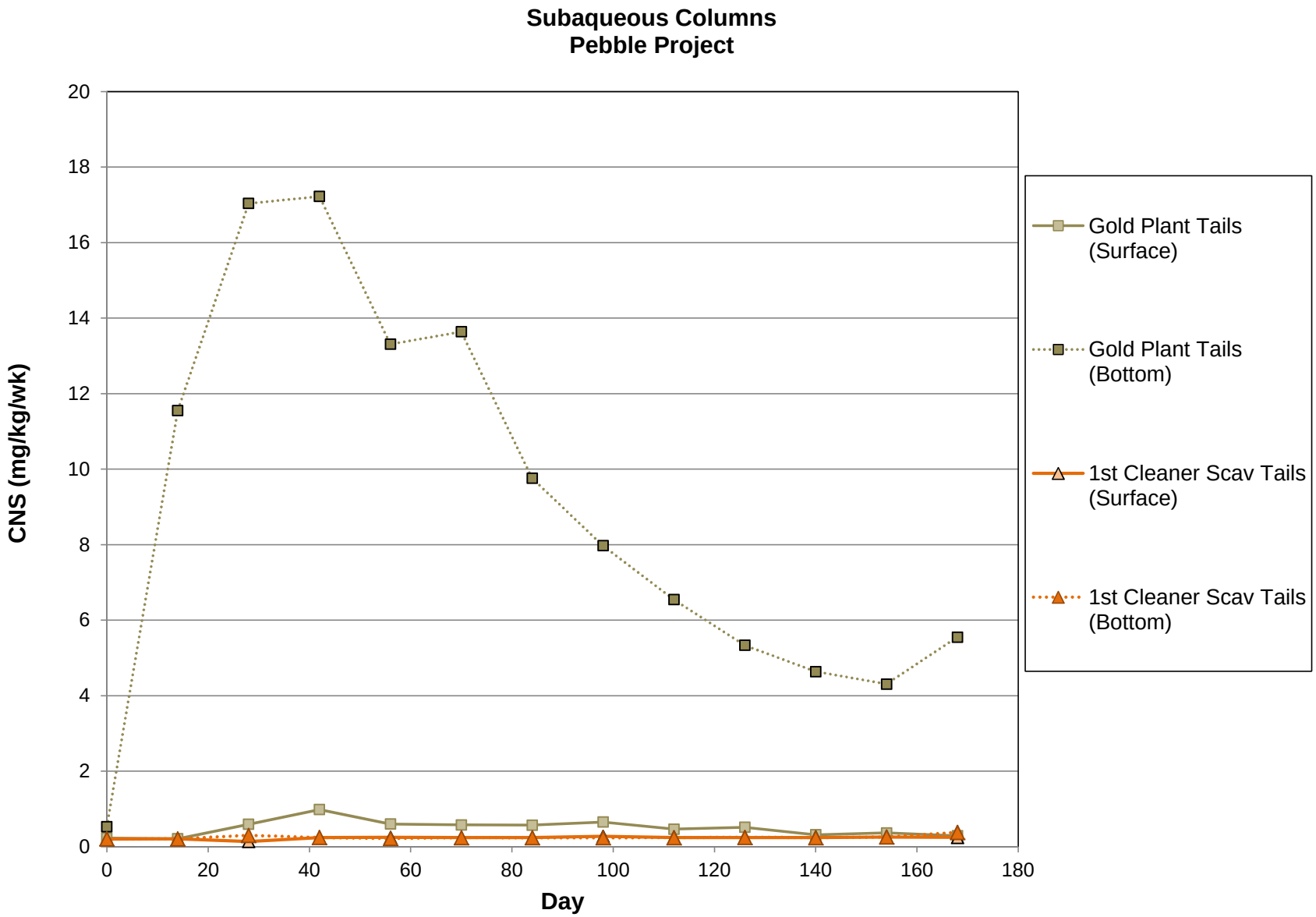

Subaqueous Columns
Pebble Project
Alkalinity (mgCaCO3/kg/wk)
35
30
25
20
15
10
5
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

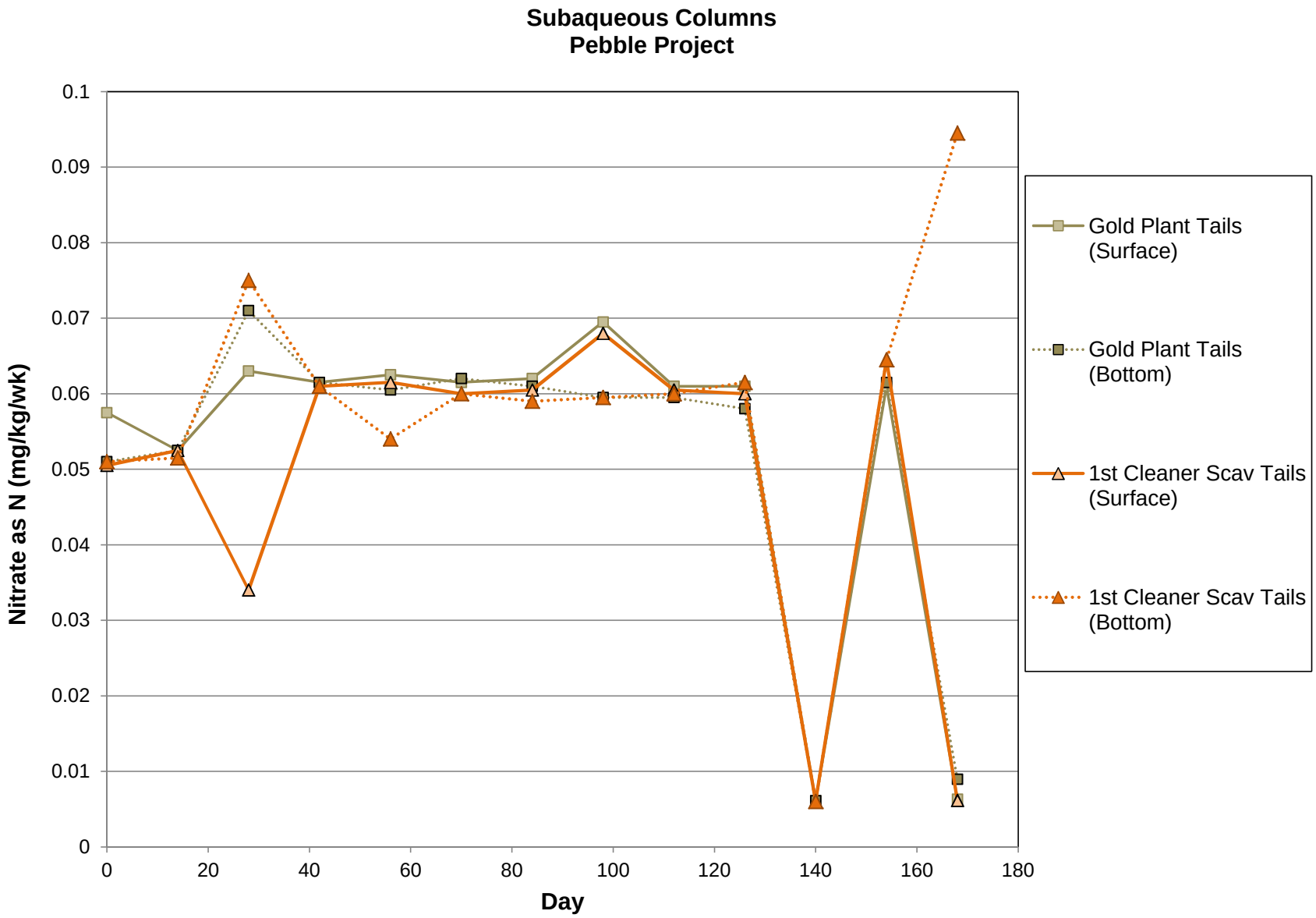

Subaqueous Columns
Pebble Project
Dissolved Oxygen (mg/kg/wk)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

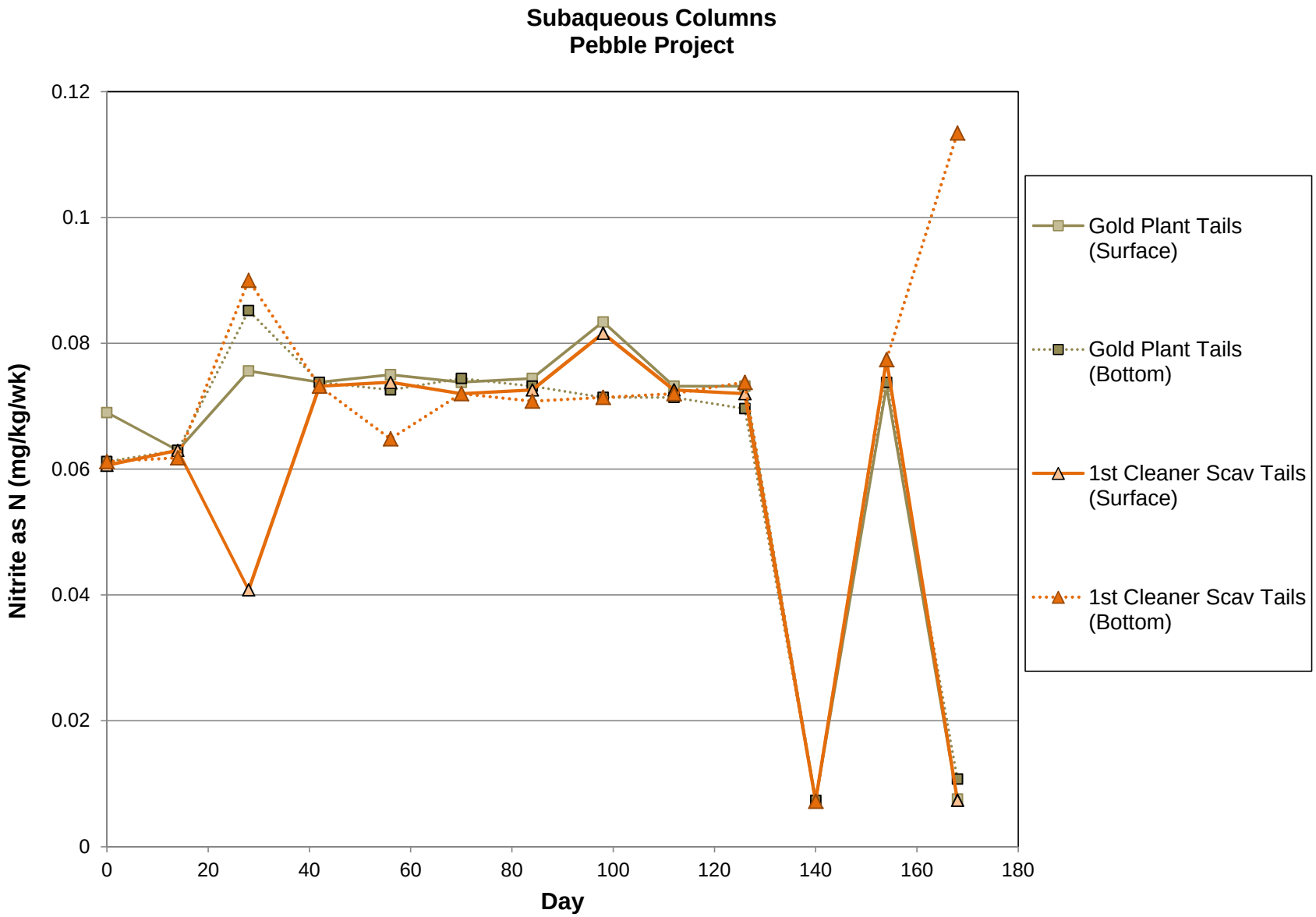

Subaqueous Columns
Pebble Project
Total CN (mg/kg/wk)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

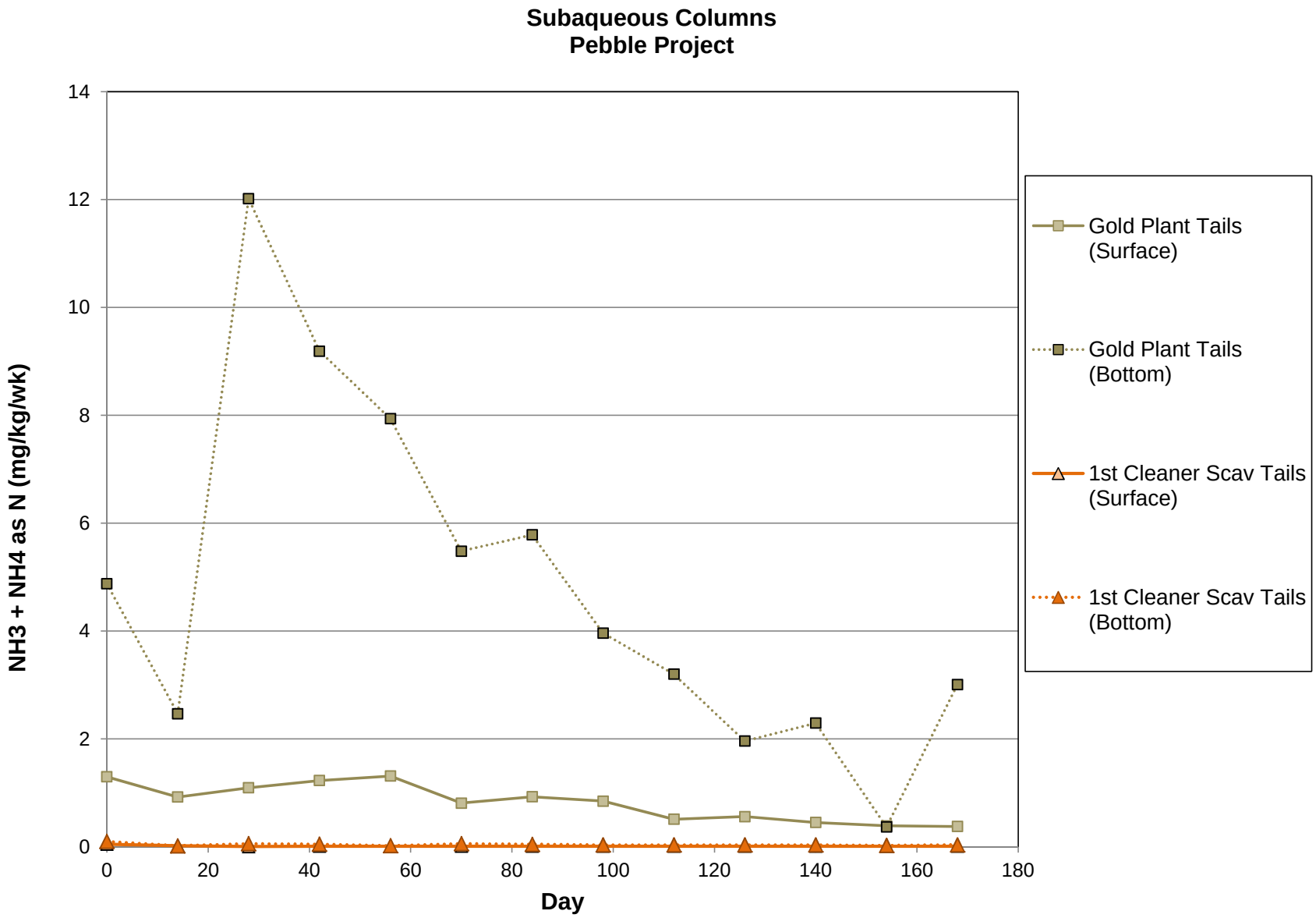

Subaqueous Columns
Pebble Project
WAD CN (mg/kg/wk)
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

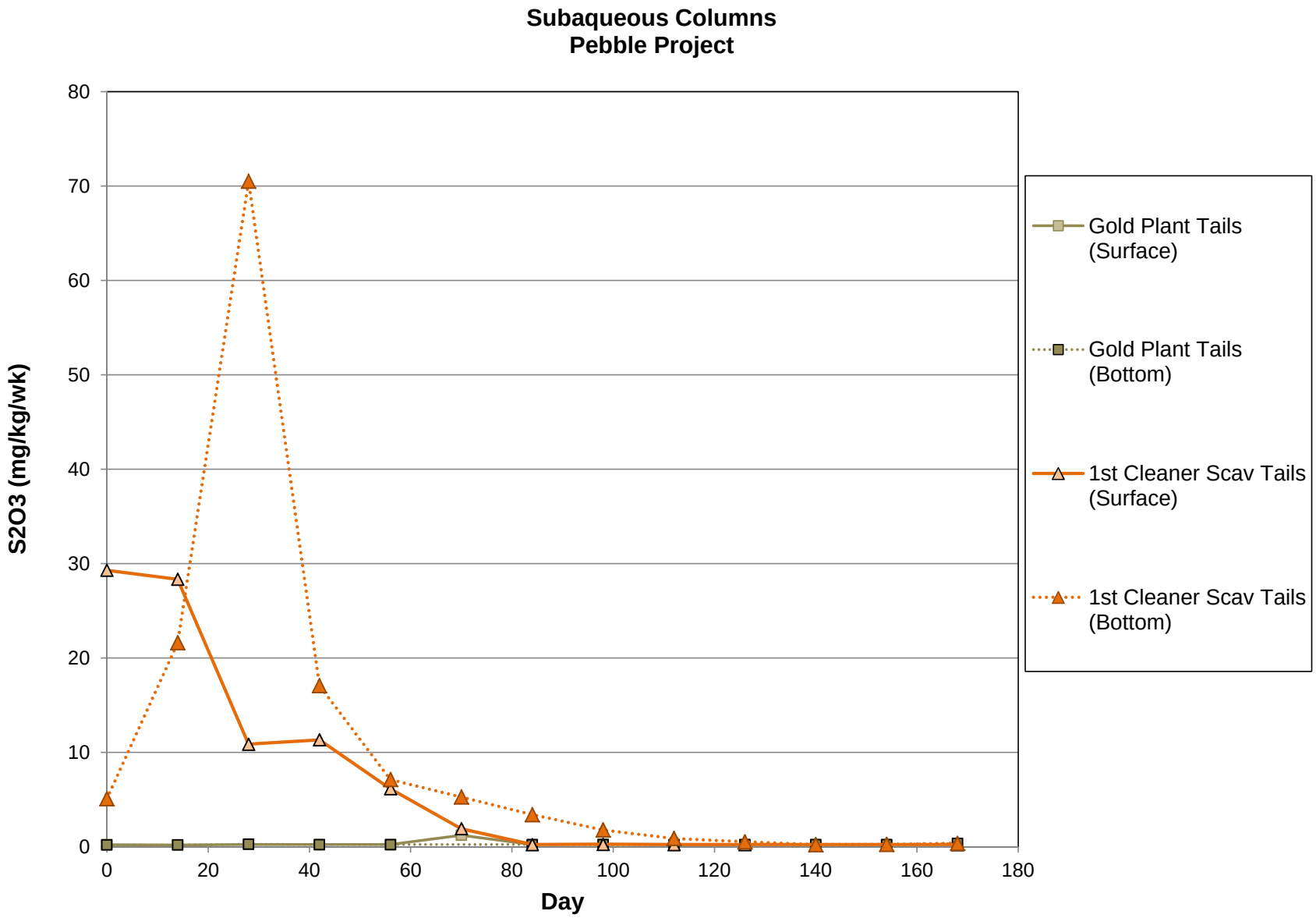

Subaqueous Columns
Pebble Project
cycle 168, spiking due to higher output volume-rtc
CNO (mg/kg/wk)
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

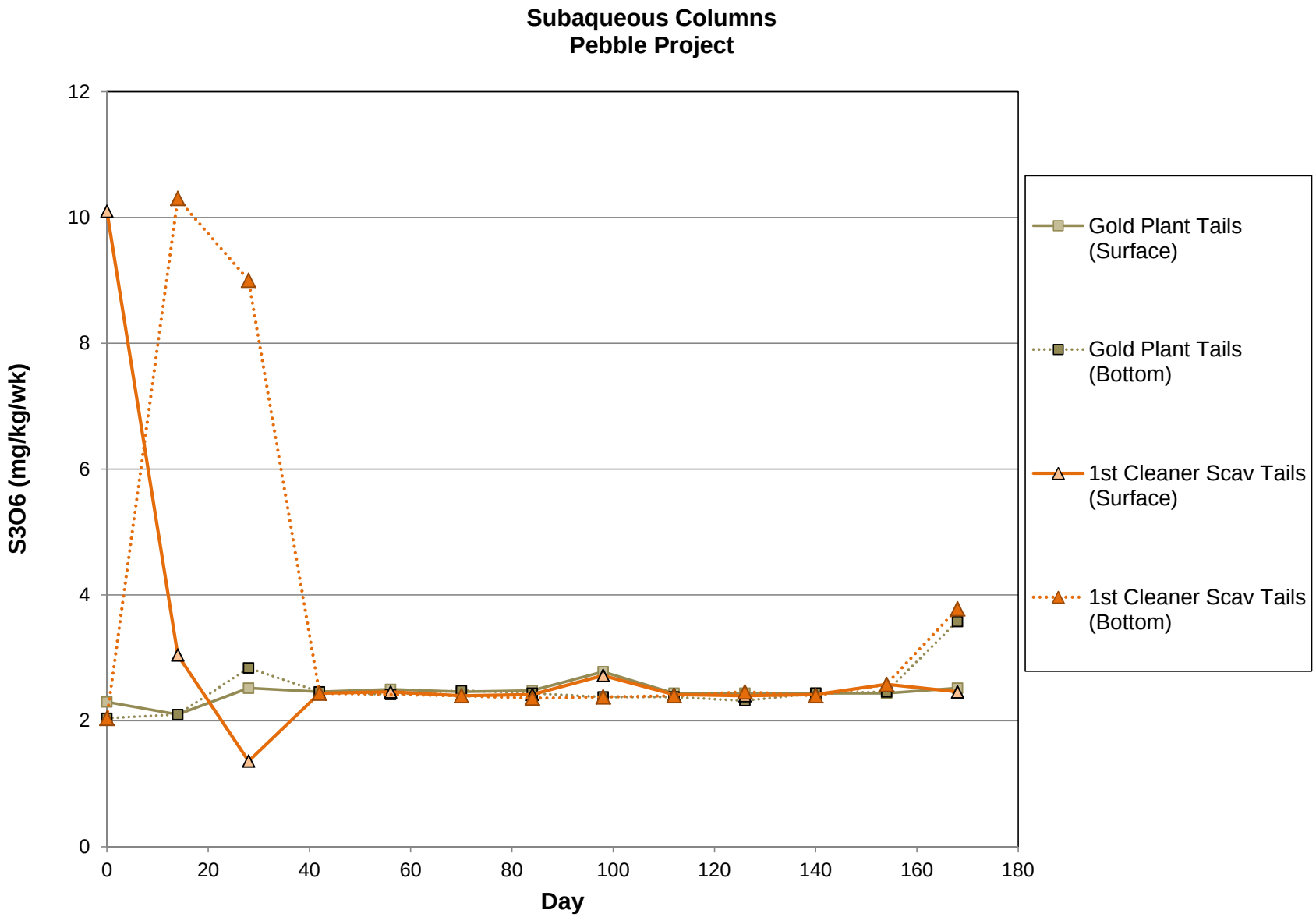

Subaqueous Columns
Pebble Project
CNS (mg/kg/wk)
Day
0
2
4
6
8
10
12
14
16
18
20
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

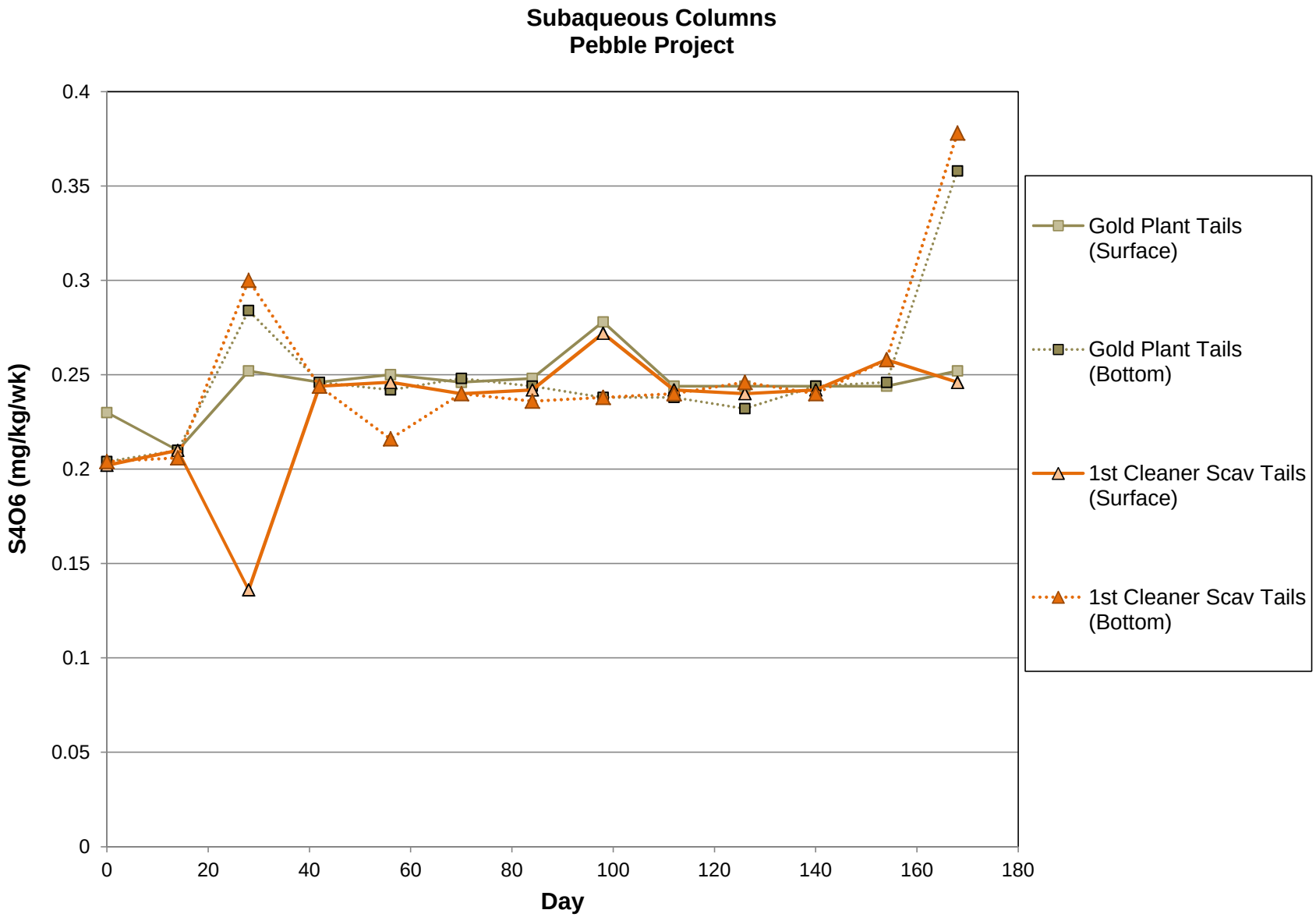

Subaqueous Columns
Pebble Project
Nitrate as N (mg/kg/wk)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

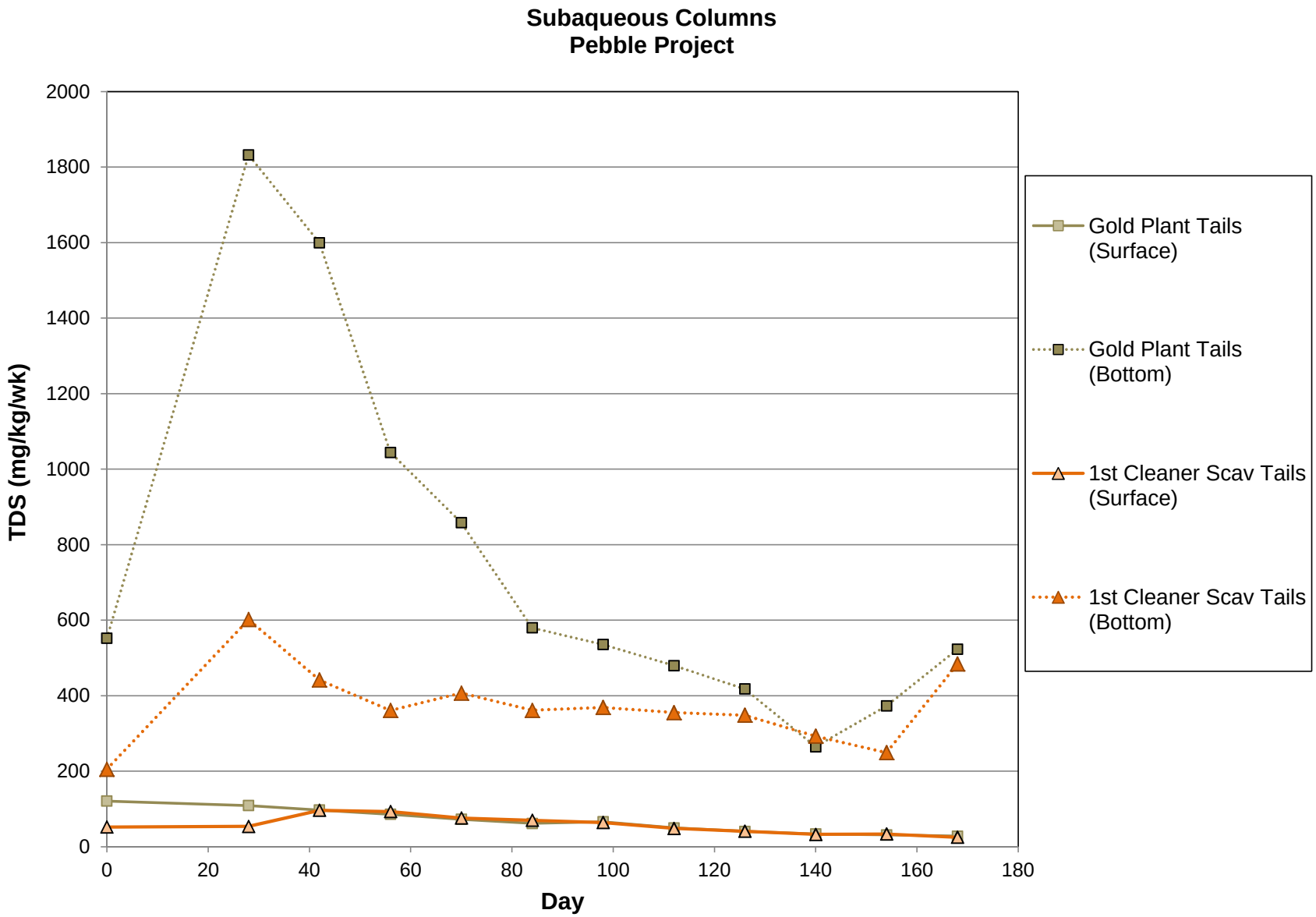

Subaqueous Columns
Pebble Project
Nitrite as N (mg/kg/wk)
0.12
0.1
0.08
0.06
0.04
0.02
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

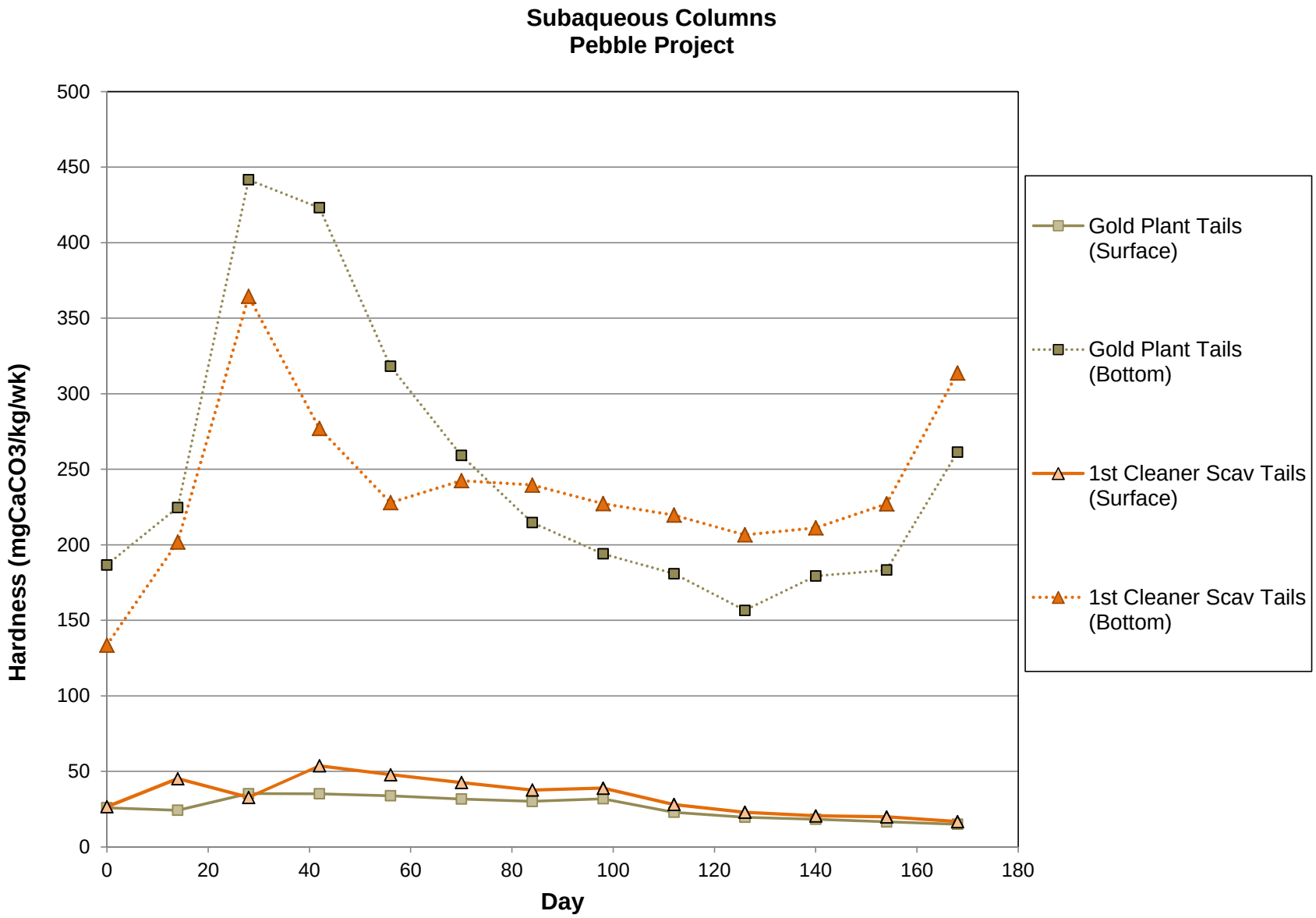

Subaqueous Columns
Pebble Project
NH3 + NH4 as N (mg/kg/wk)
Day
0
2
4
6
8
10
12
14
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

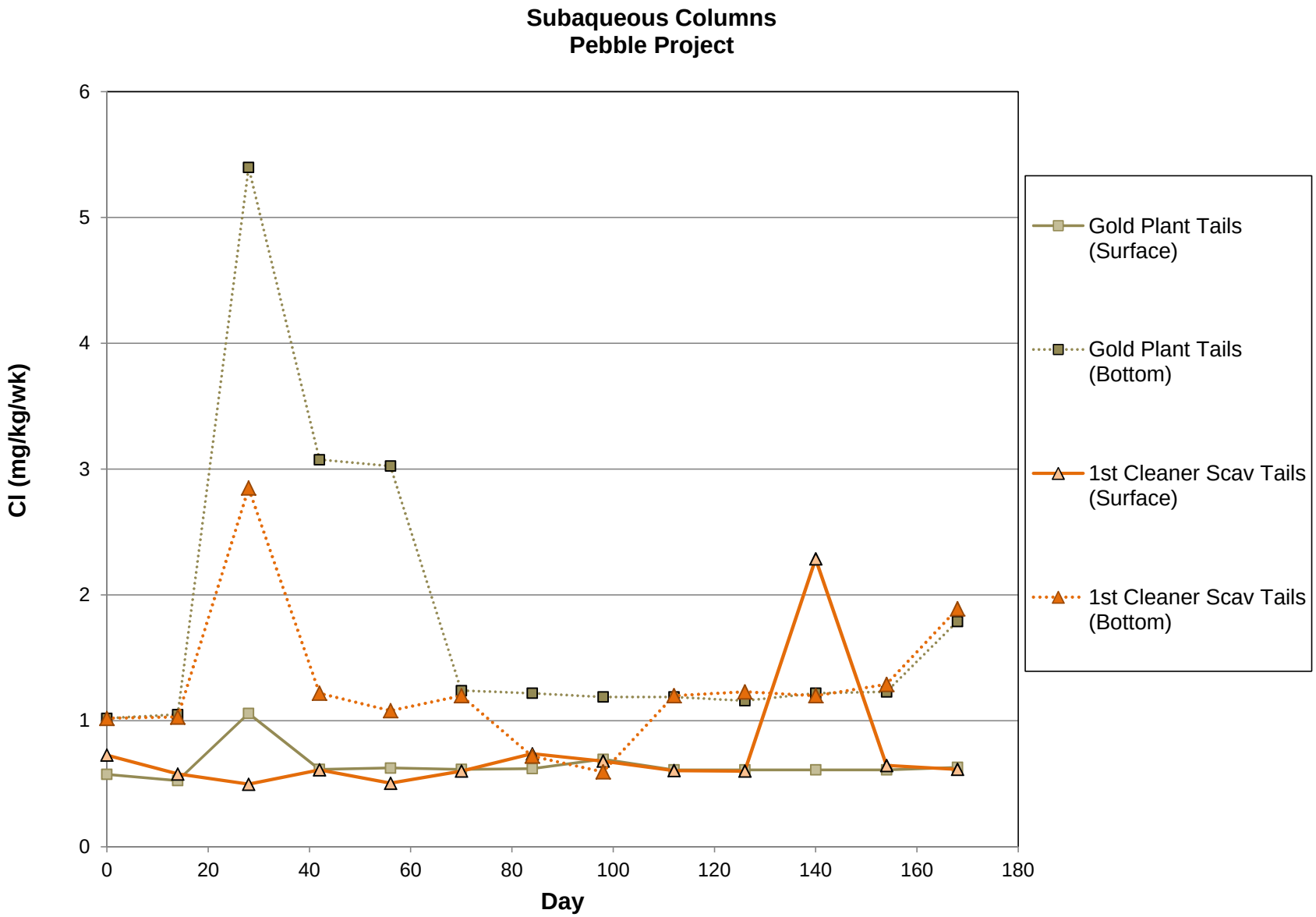

Subaqueous Columns
Pebble Project
S2O3 (mg/kg/wk)
80
70
60
50
40
30
20
10
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

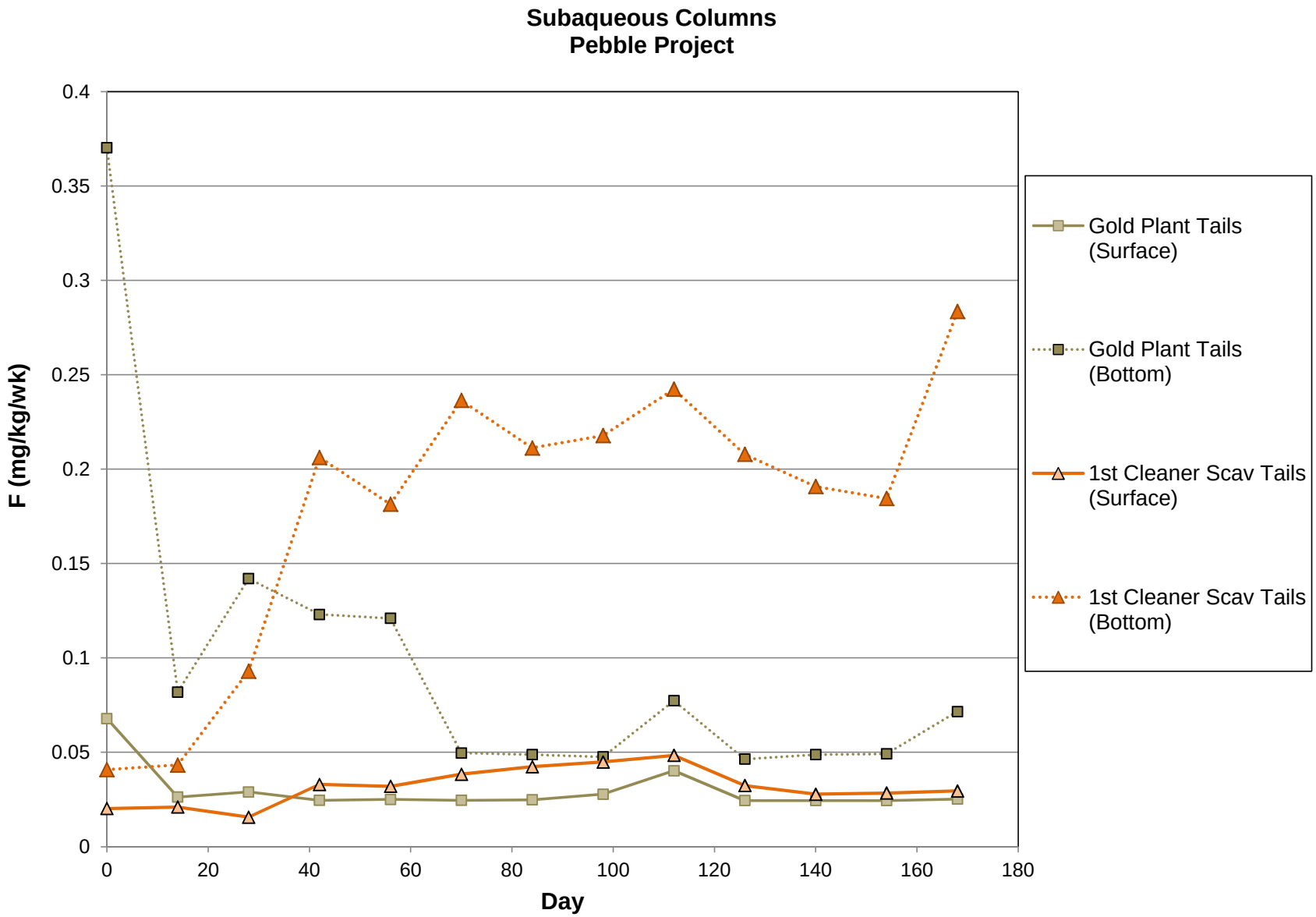

Subaqueous Columns
Pebble Project
S3O6 (mg/kg/wk)
Day
0
2
4
6
8
10
12
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

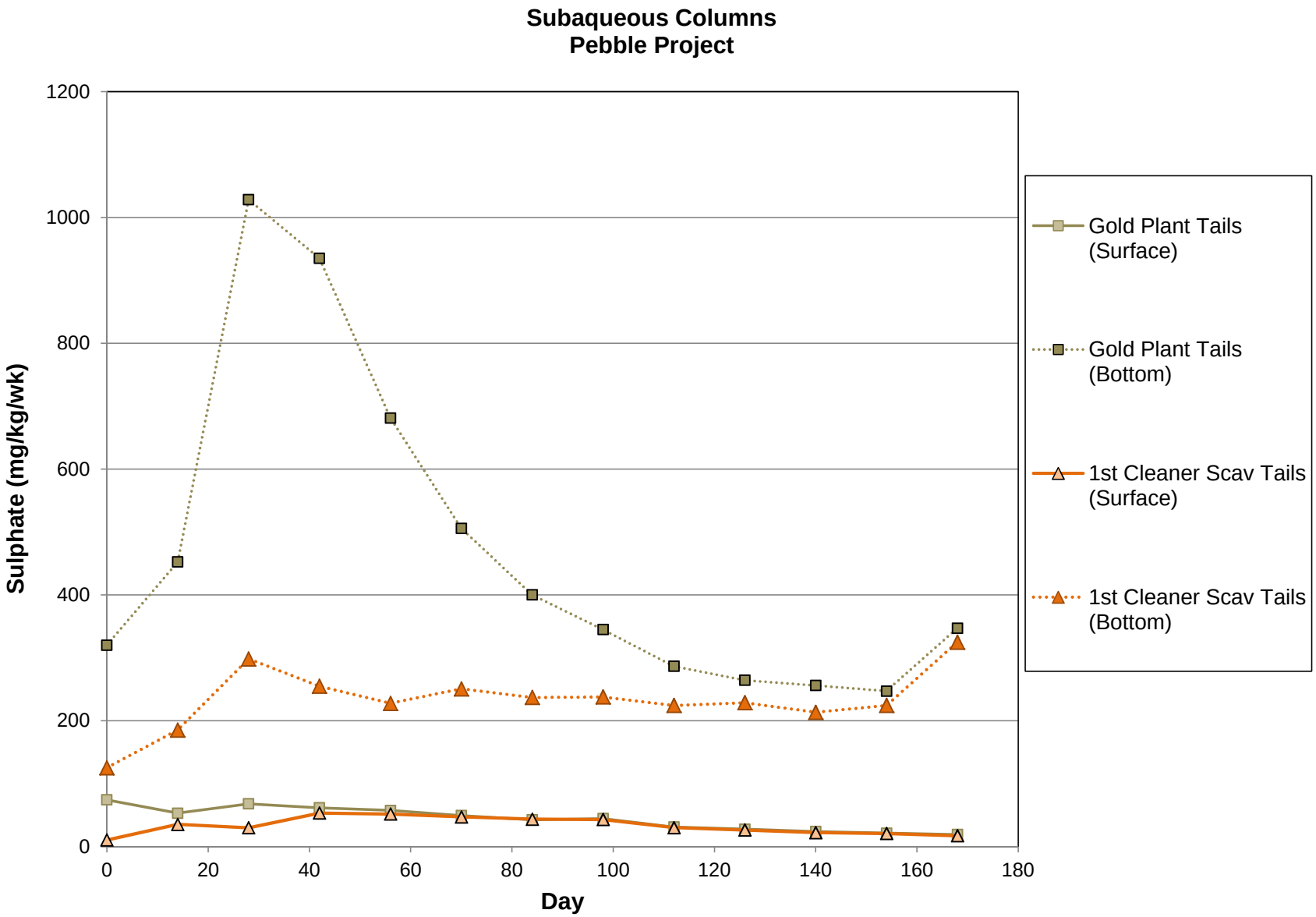

Subaqueous Columns
Pebble Project
S4O6 (mg/kg/wk)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

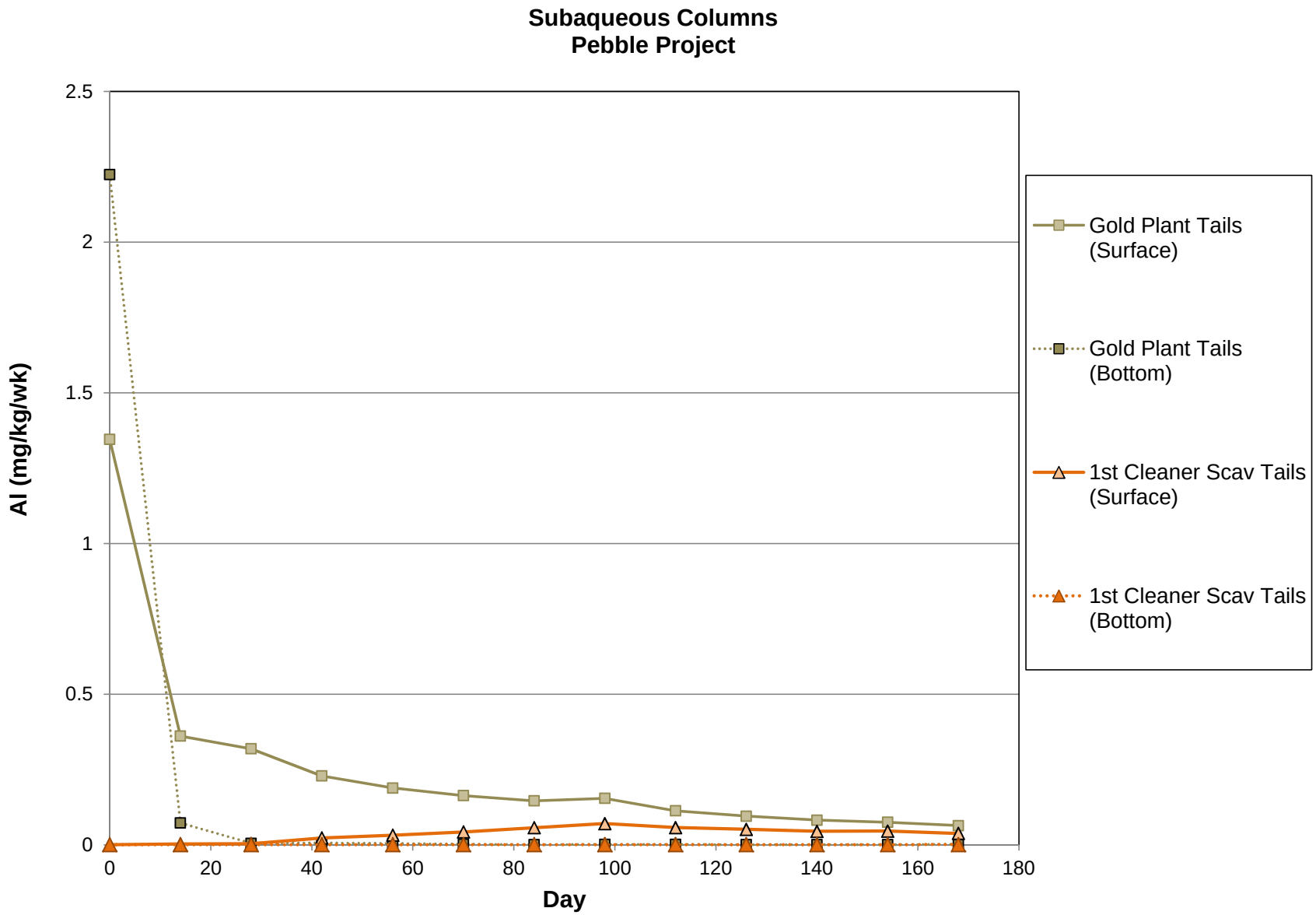

Subaqueous Columns
Pebble Project
TDS (mg/kg/wk)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

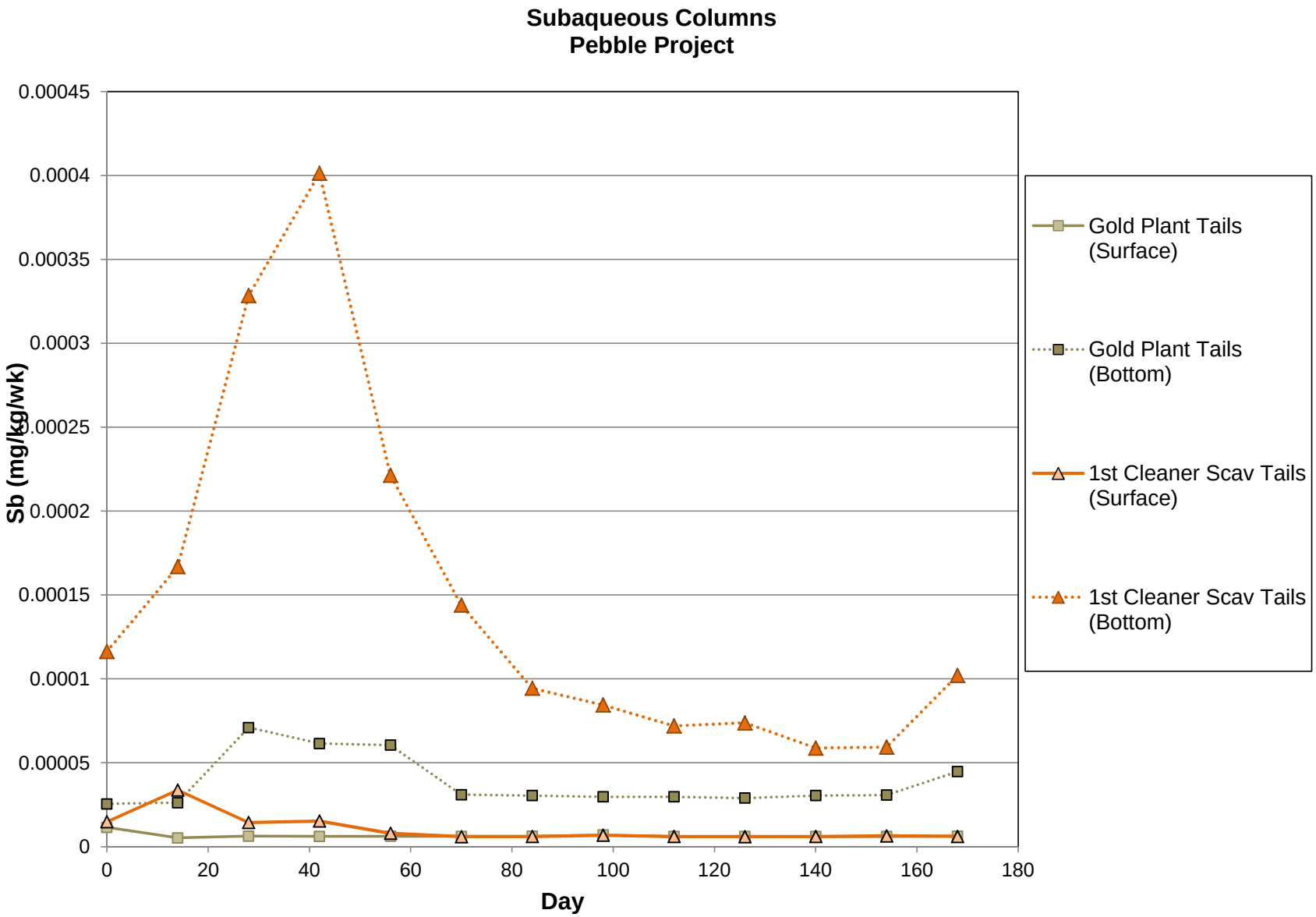

Subaqueous Columns
Pebble Project
Hardness (mgCaCO3/kg/wk)
500
450
400
350
300
250
200
150
100
50
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

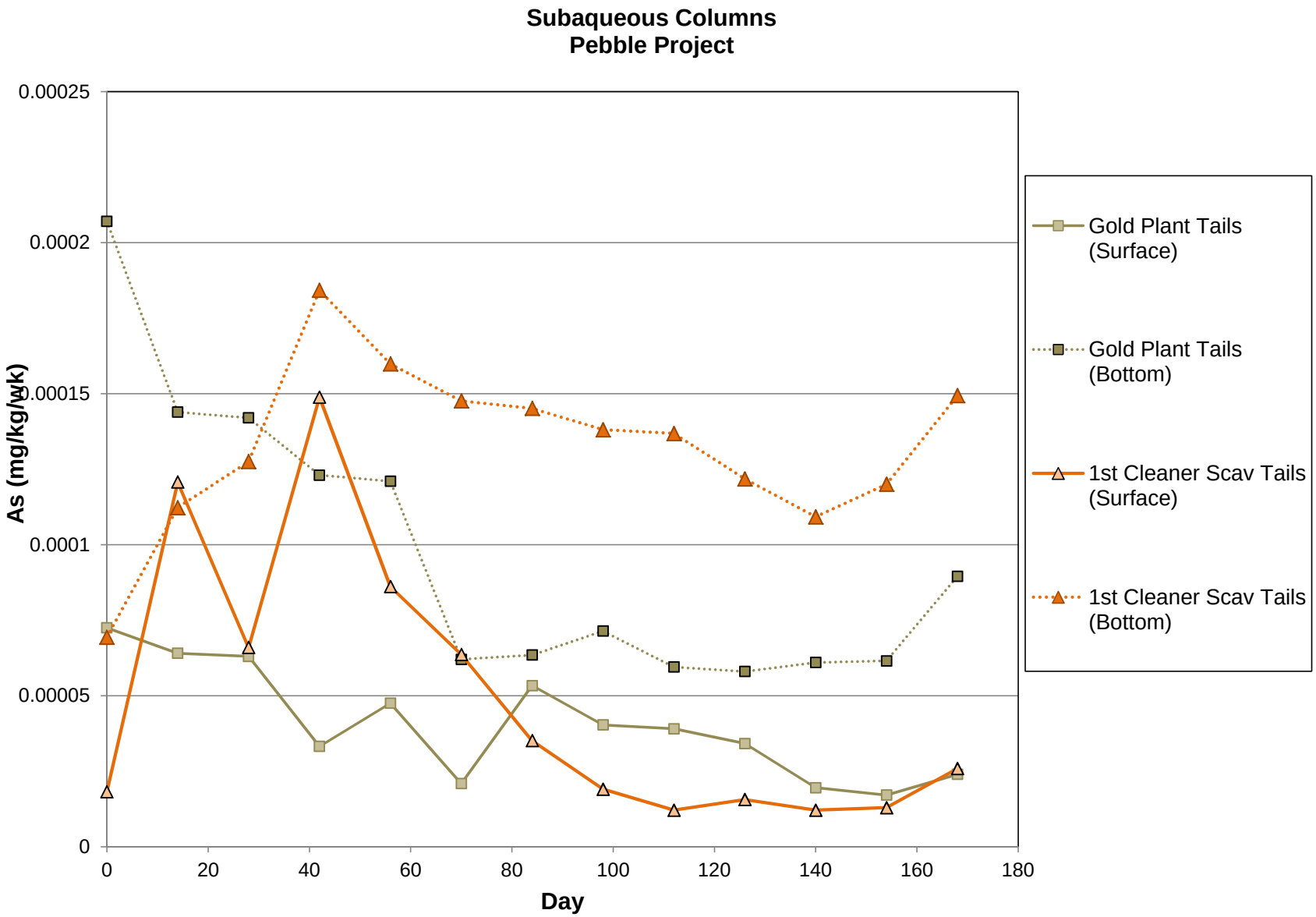

Subaqueous Columns
Pebble Project
Cl (mg/kg/wk)
Day
0
1
2
3
4
5
6
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

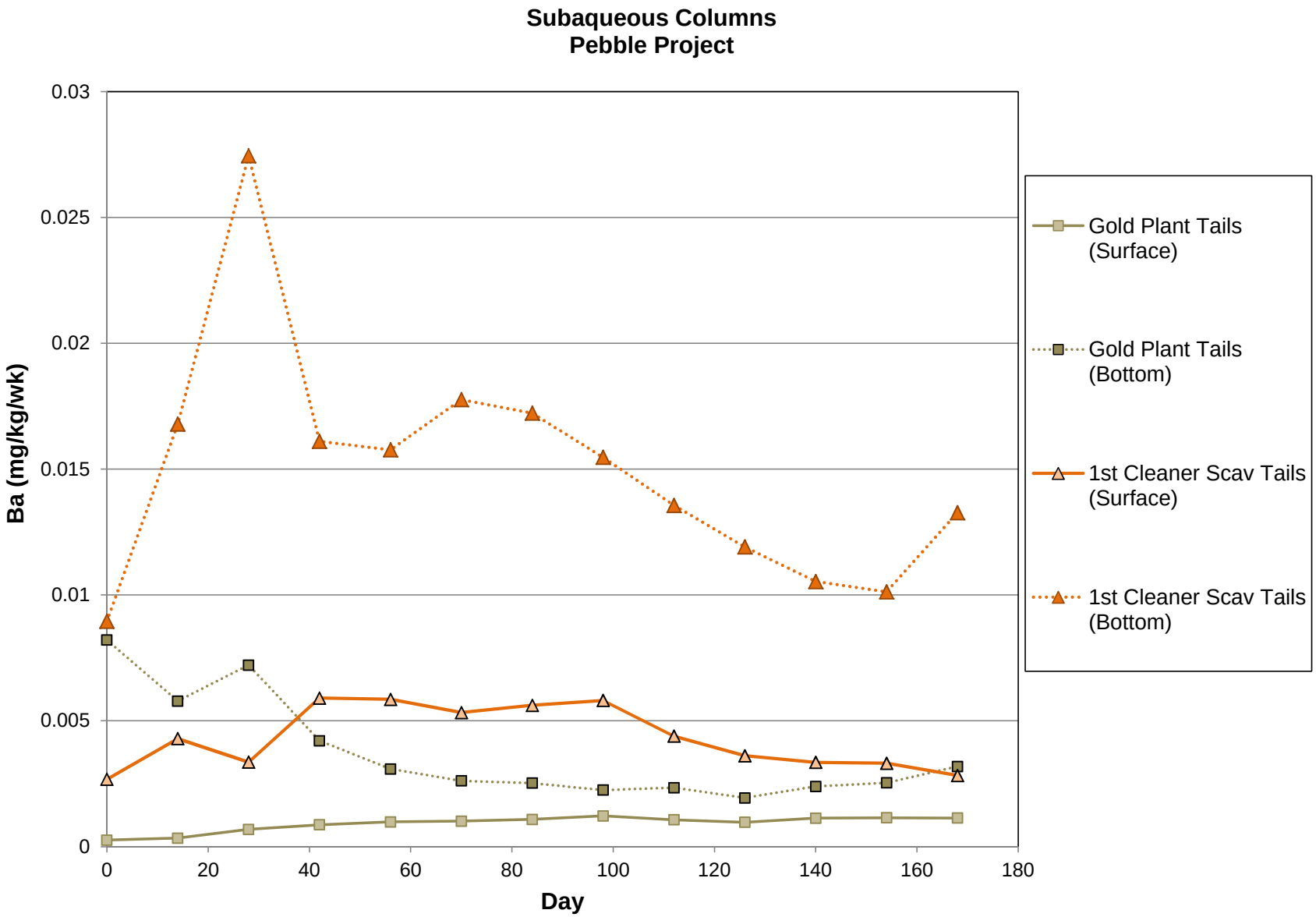

Subaqueous Columns
Pebble Project
F (mg/kg/wk)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

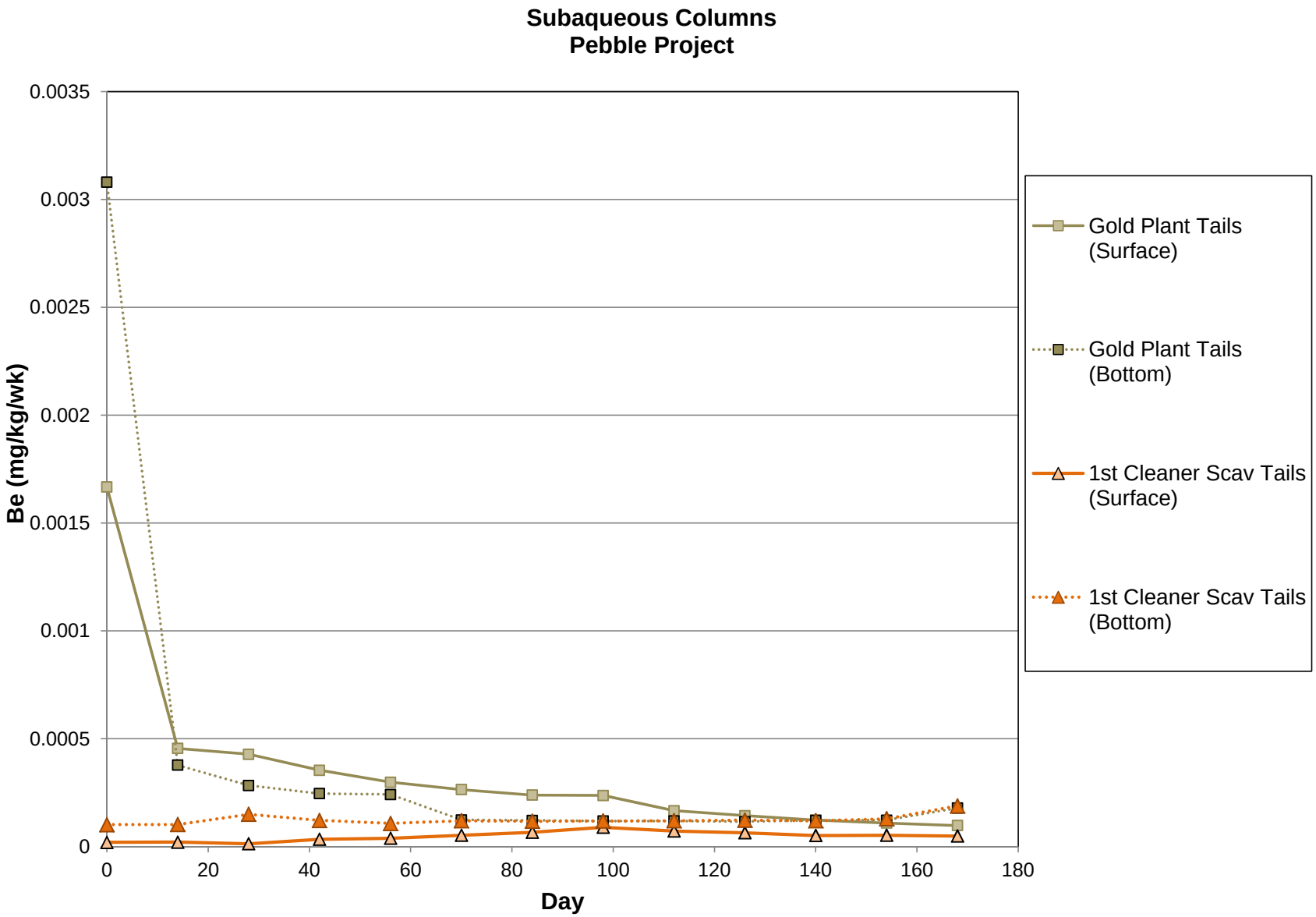

Subaqueous Columns
Pebble Project
Sulphate (mg/kg/wk)
1200
1000
800
600
400
200
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

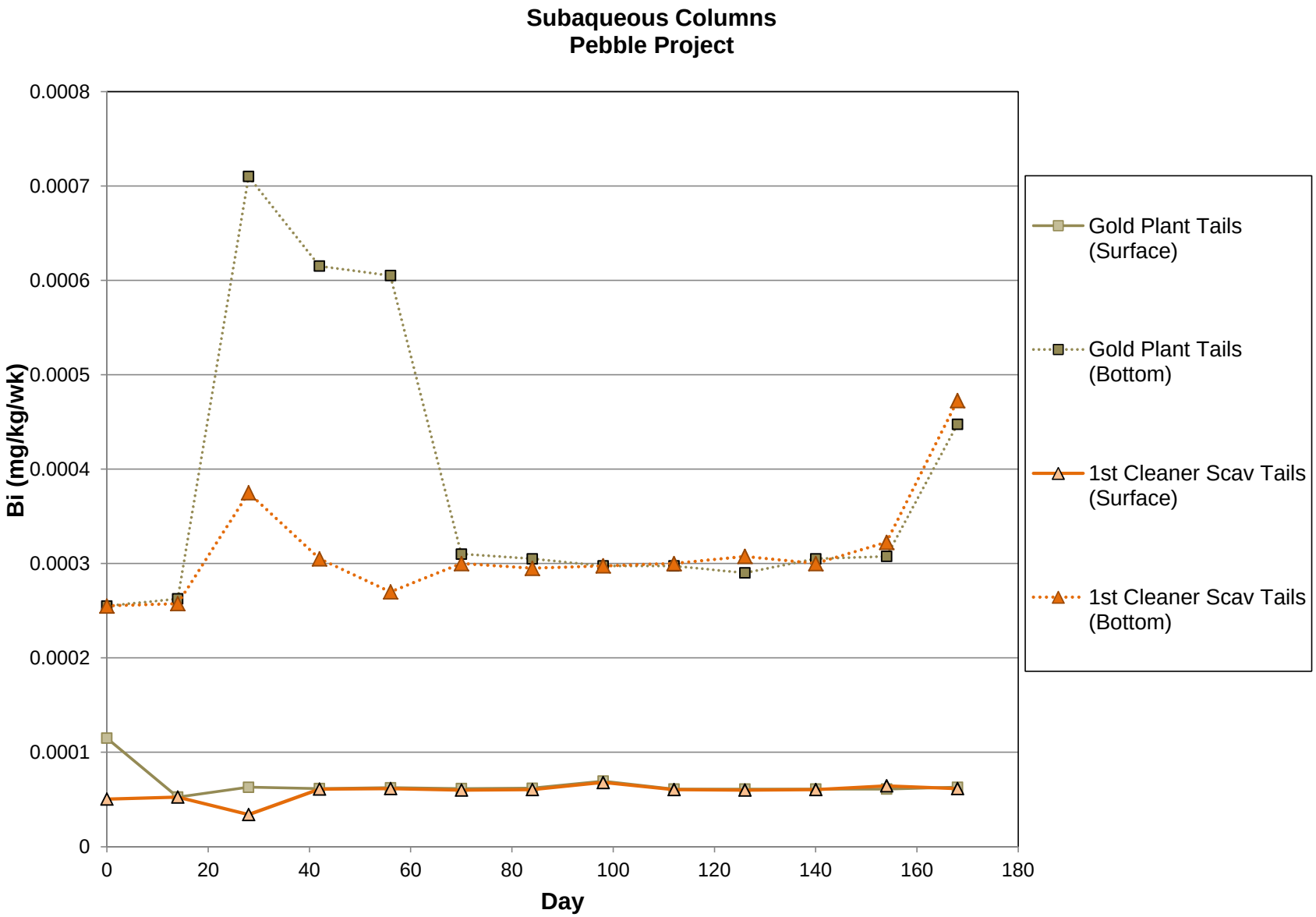

Subaqueous Columns
Pebble Project
Al (mg/kg/wk)
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

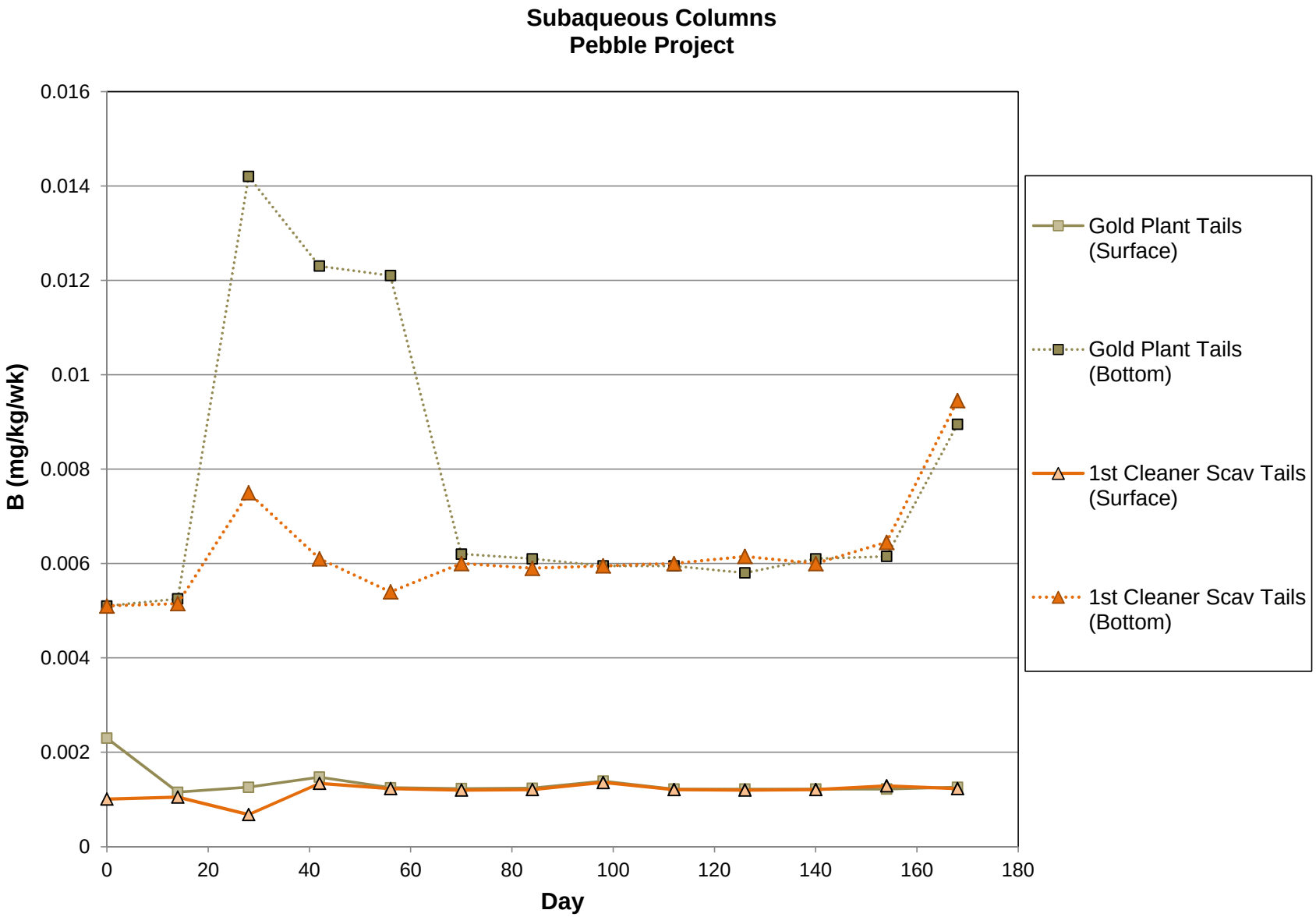

Subaqueous Columns
Pebble Project
Sb (mg/kg/wk)
0.00045
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

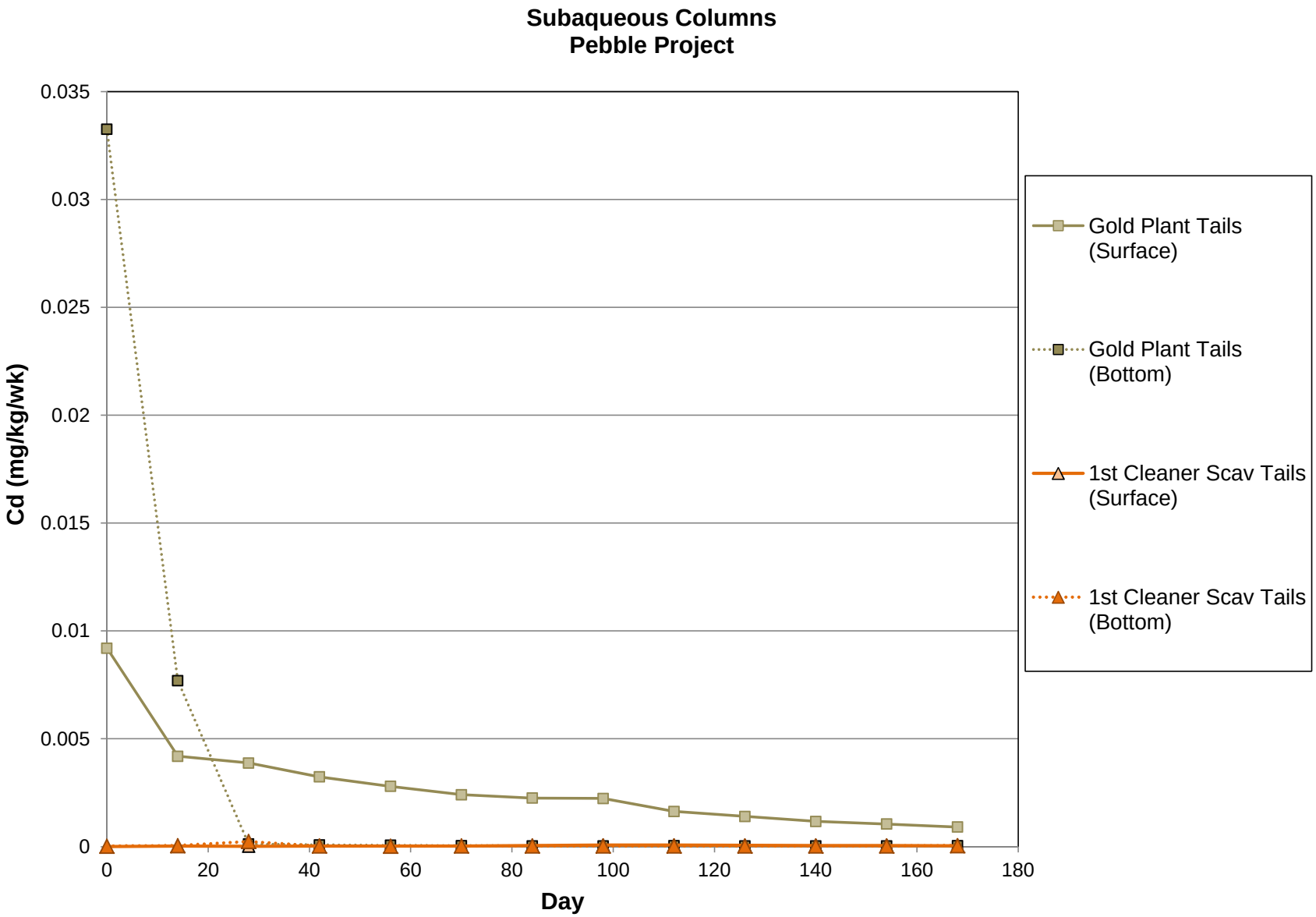

Subaqueous Columns
Pebble Project
0.00025
0.0002
0.00015
0.0001
0.00005
0
As (mg/kg/wk)
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

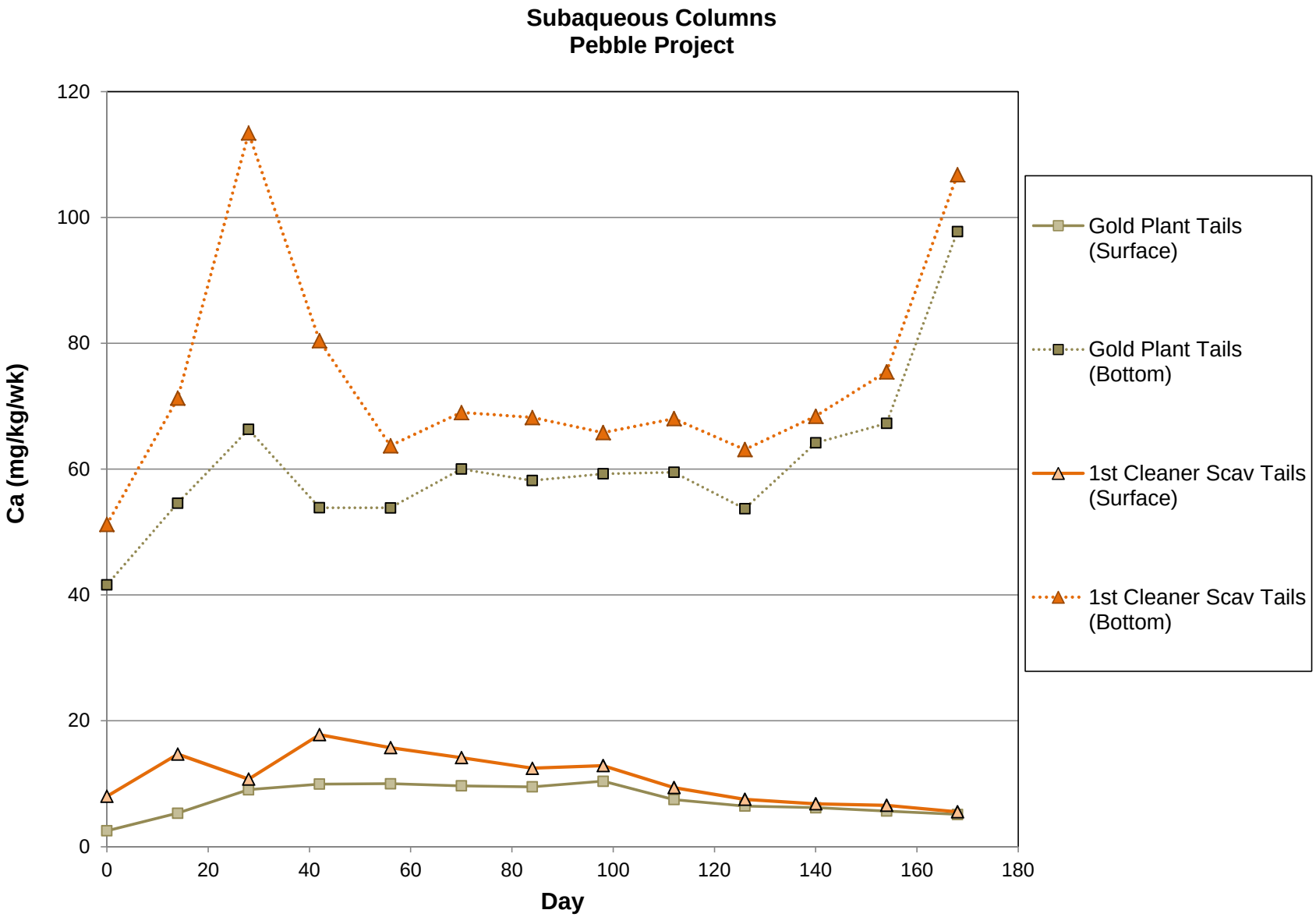

Subaqueous Columns
Pebble Project
Ba (mg/kg/wk)
0.03
0.025
0.02
0.015
0.01
0.005
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

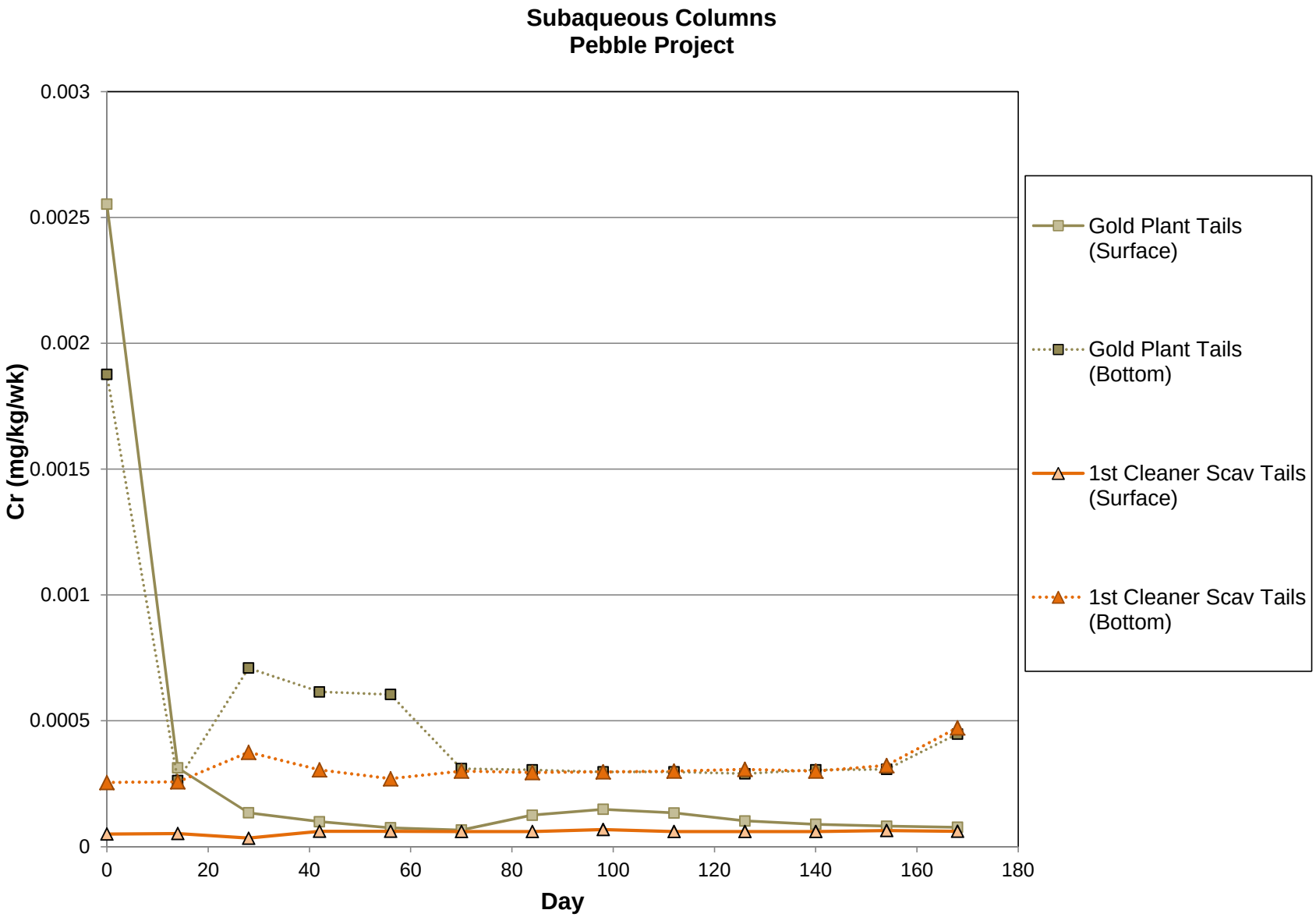

Subaqueous Columns
Pebble Project
Be (mg/kg/wk)
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

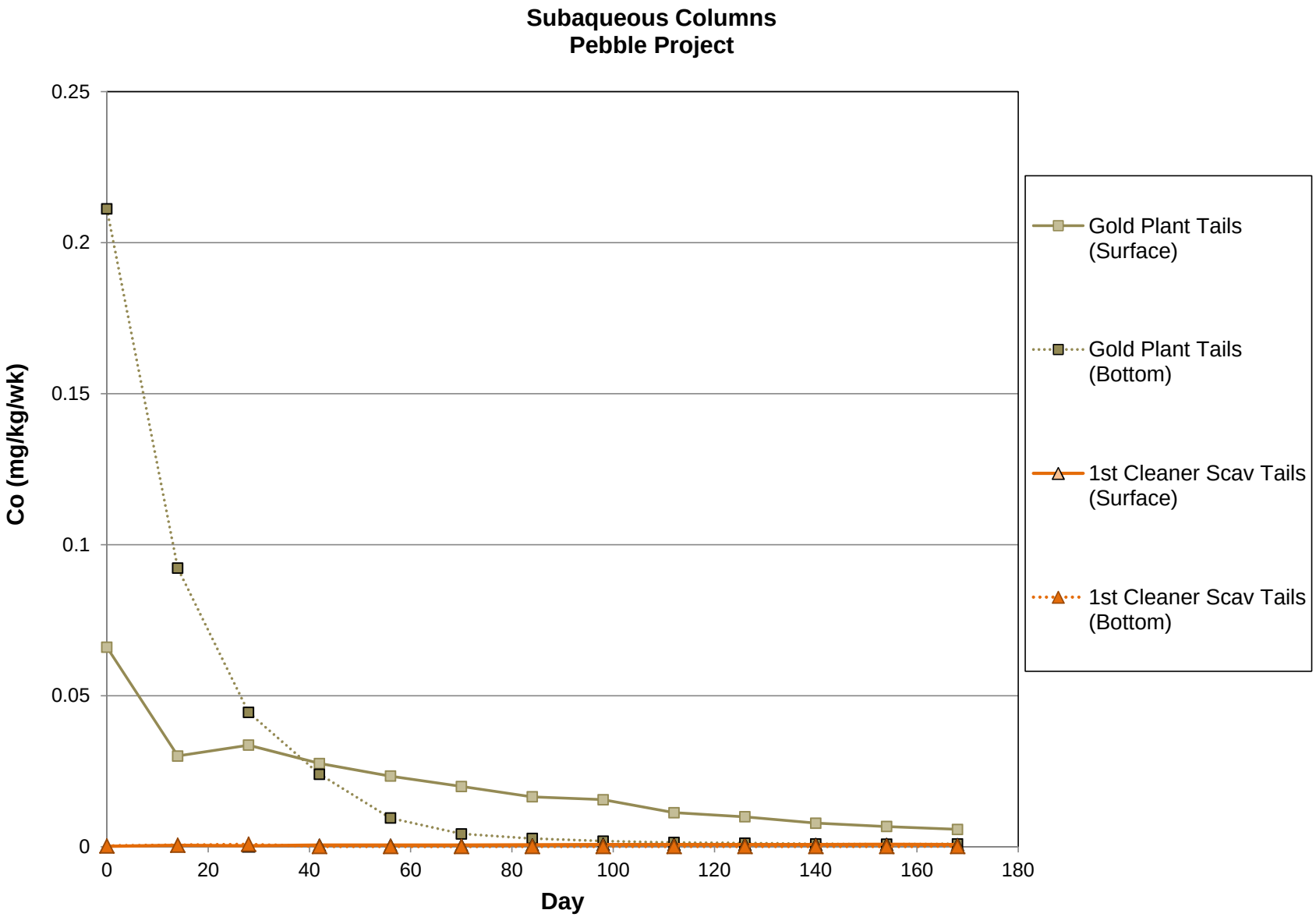

Subaqueous Columns
Pebble Project
Bi (mg/kg/wk)
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

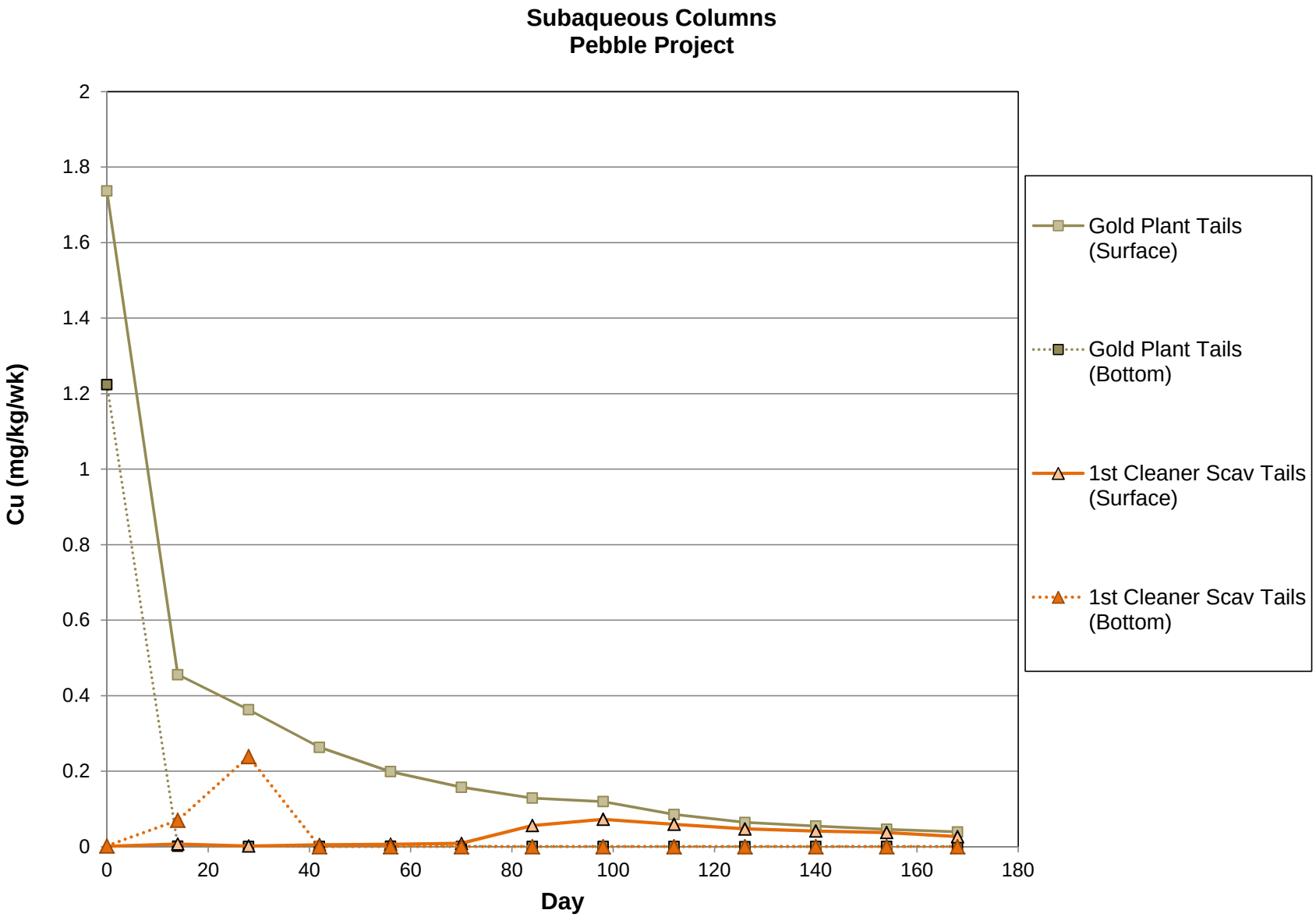

Subaqueous Columns
Pebble Project
B (mg/kg/wk)
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

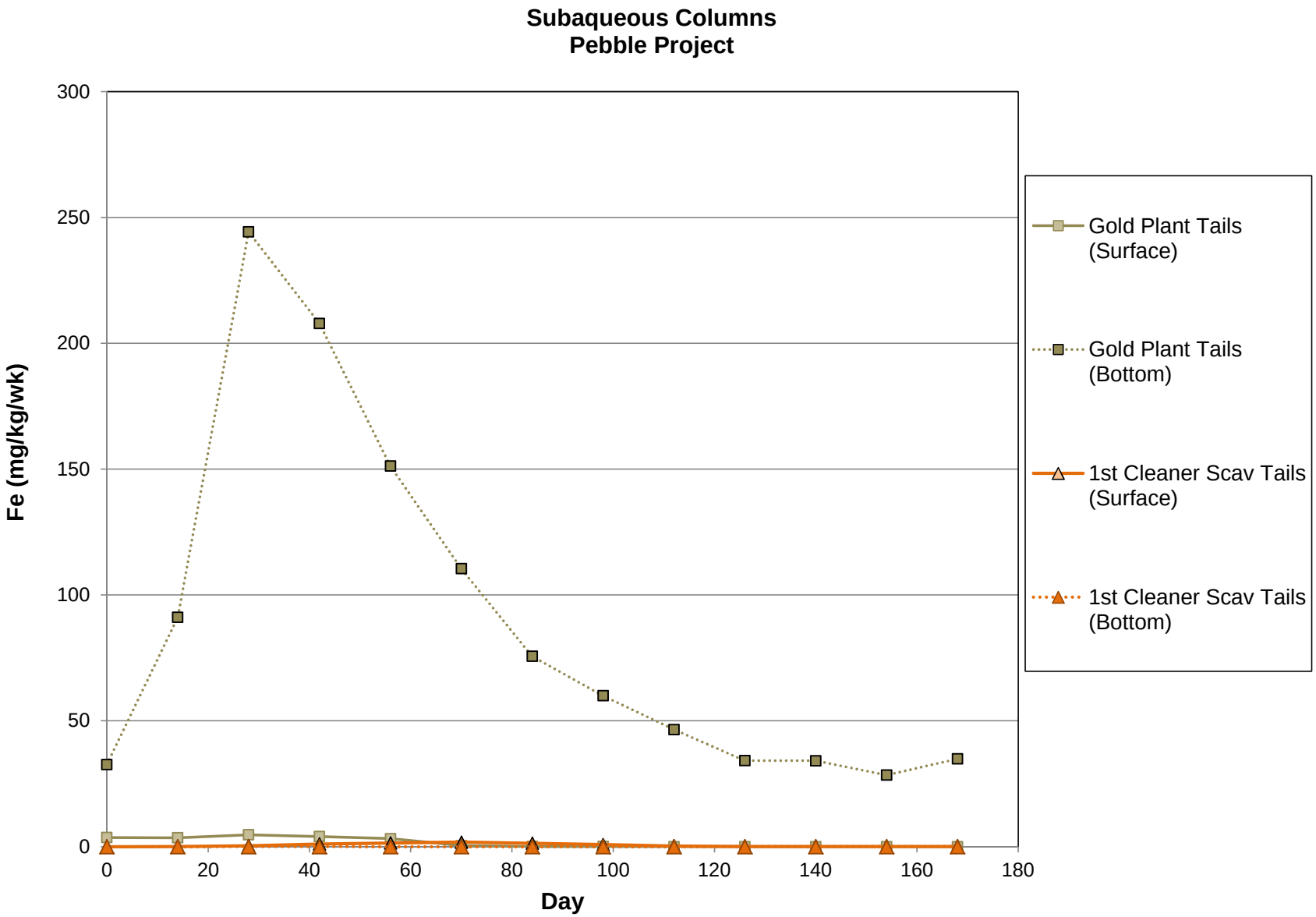

Subaqueous Columns
Pebble Project
Cd (mg/kg/wk)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

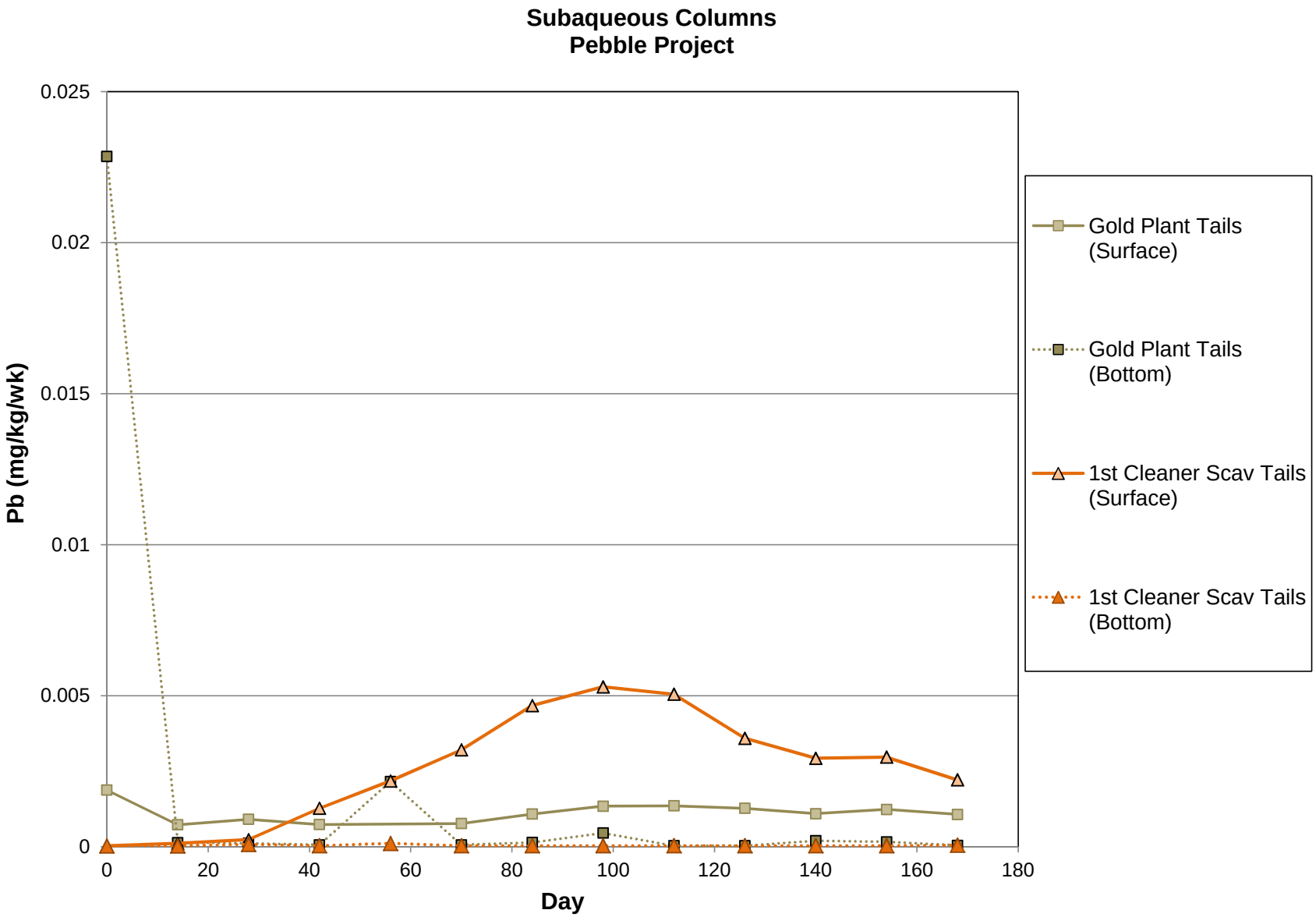

Subaqueous Columns
Pebble Project
Ca (mg/kg/wk)
Day
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

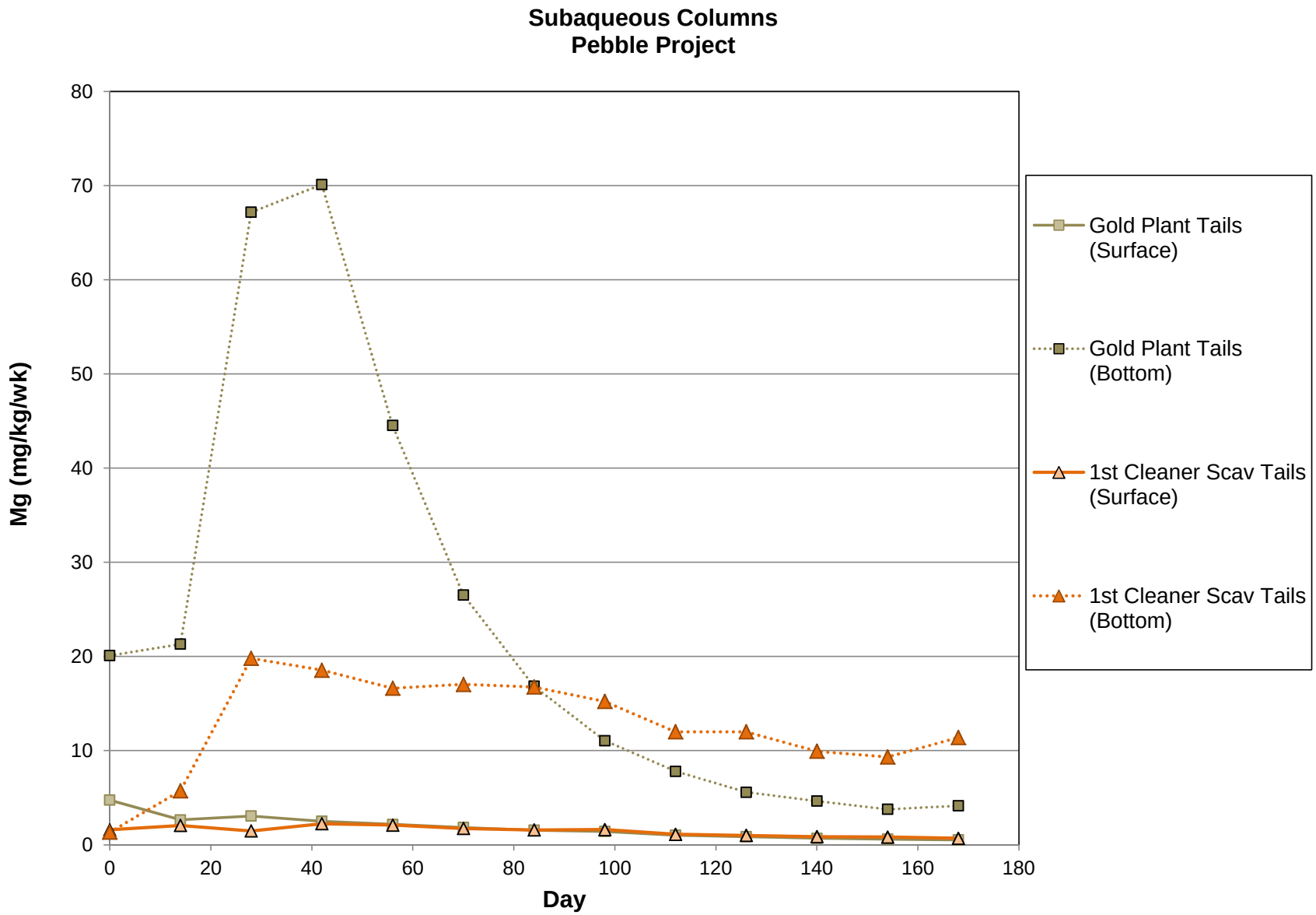

Subaqueous Columns
Pebble Project
Cr (mg/kg/wk)
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

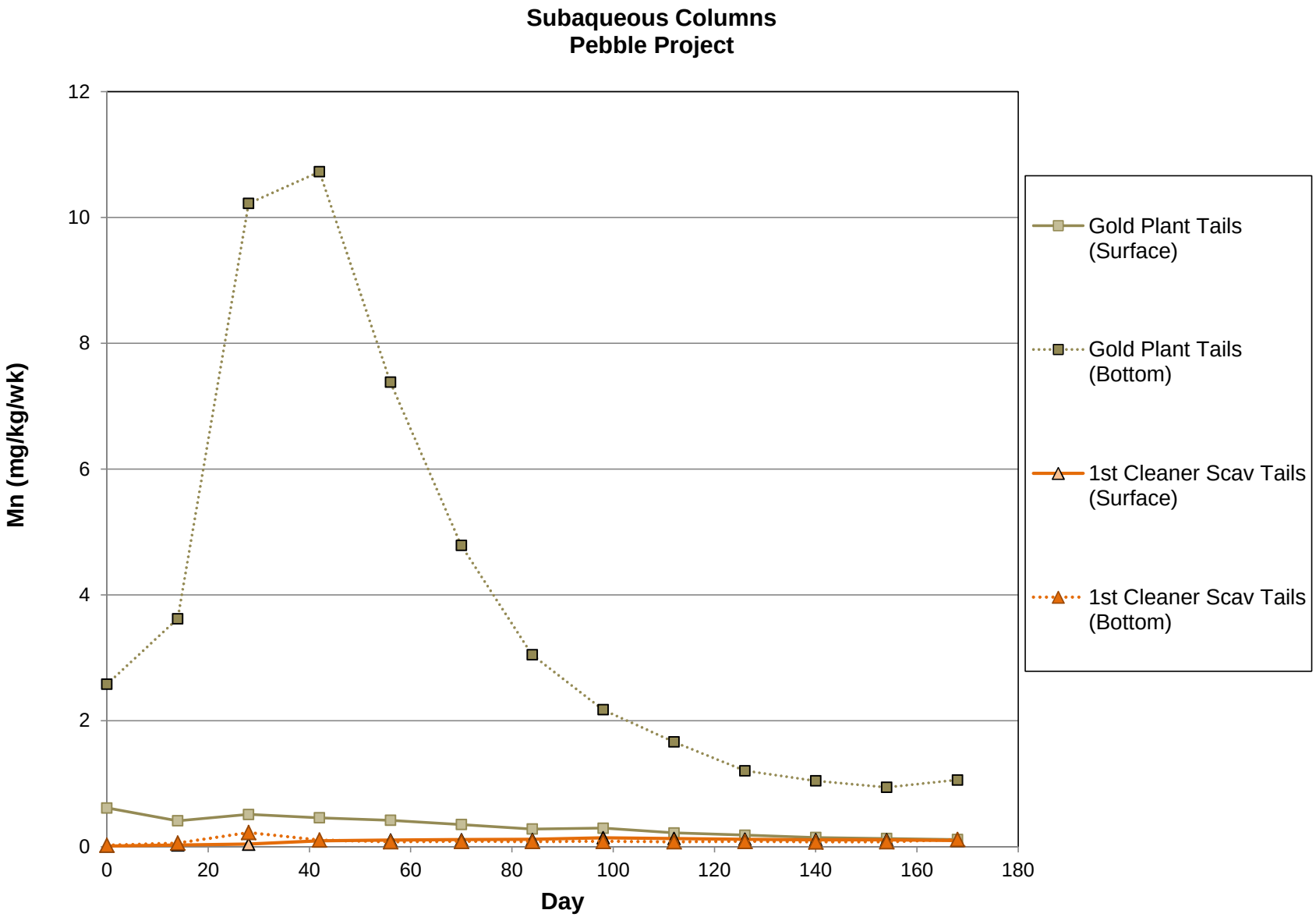

Subaqueous Columns
Pebble Project
Co (mg/kg/wk)
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

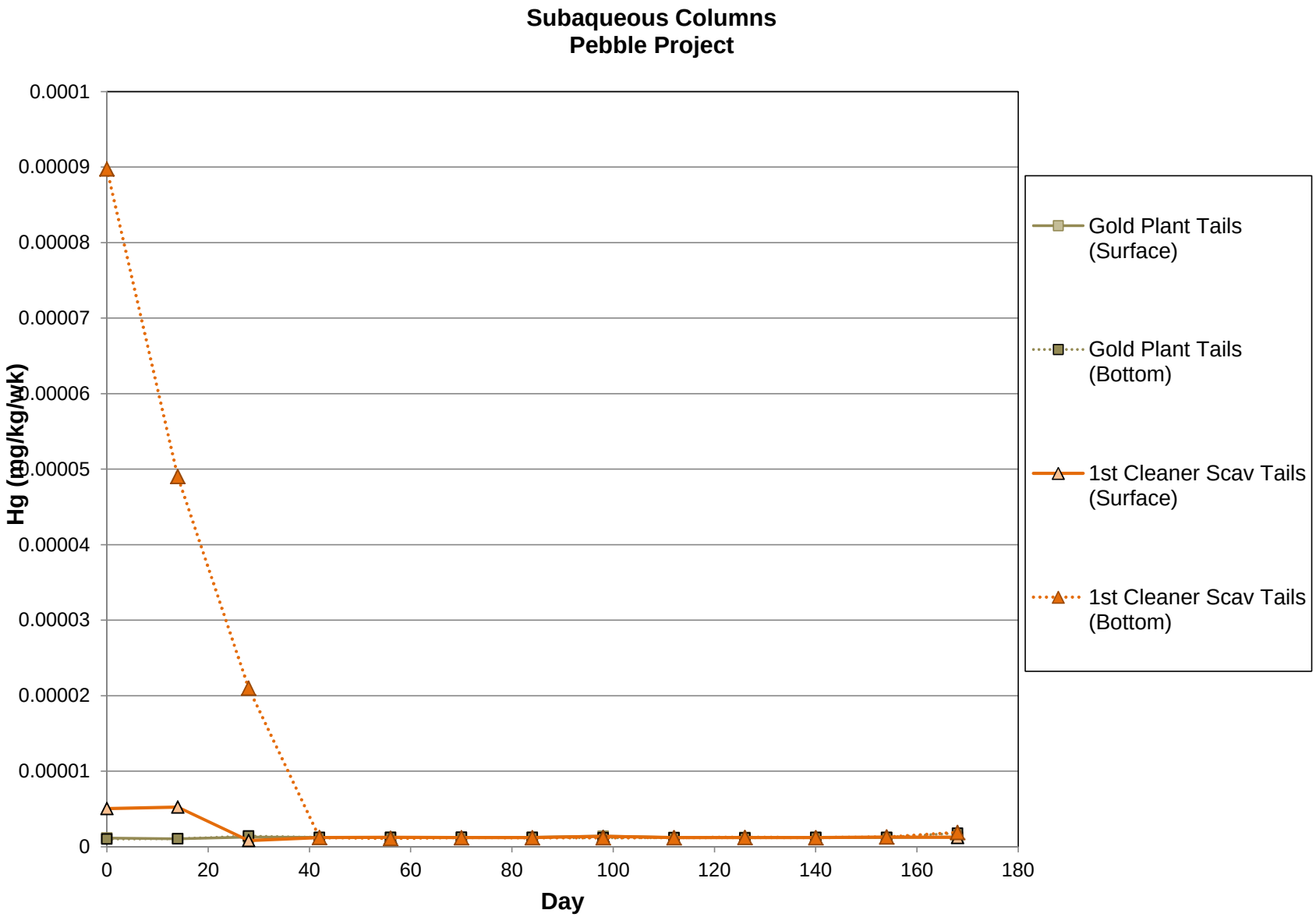

Subaqueous Columns
Pebble Project
Cu (mg/kg/wk)
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

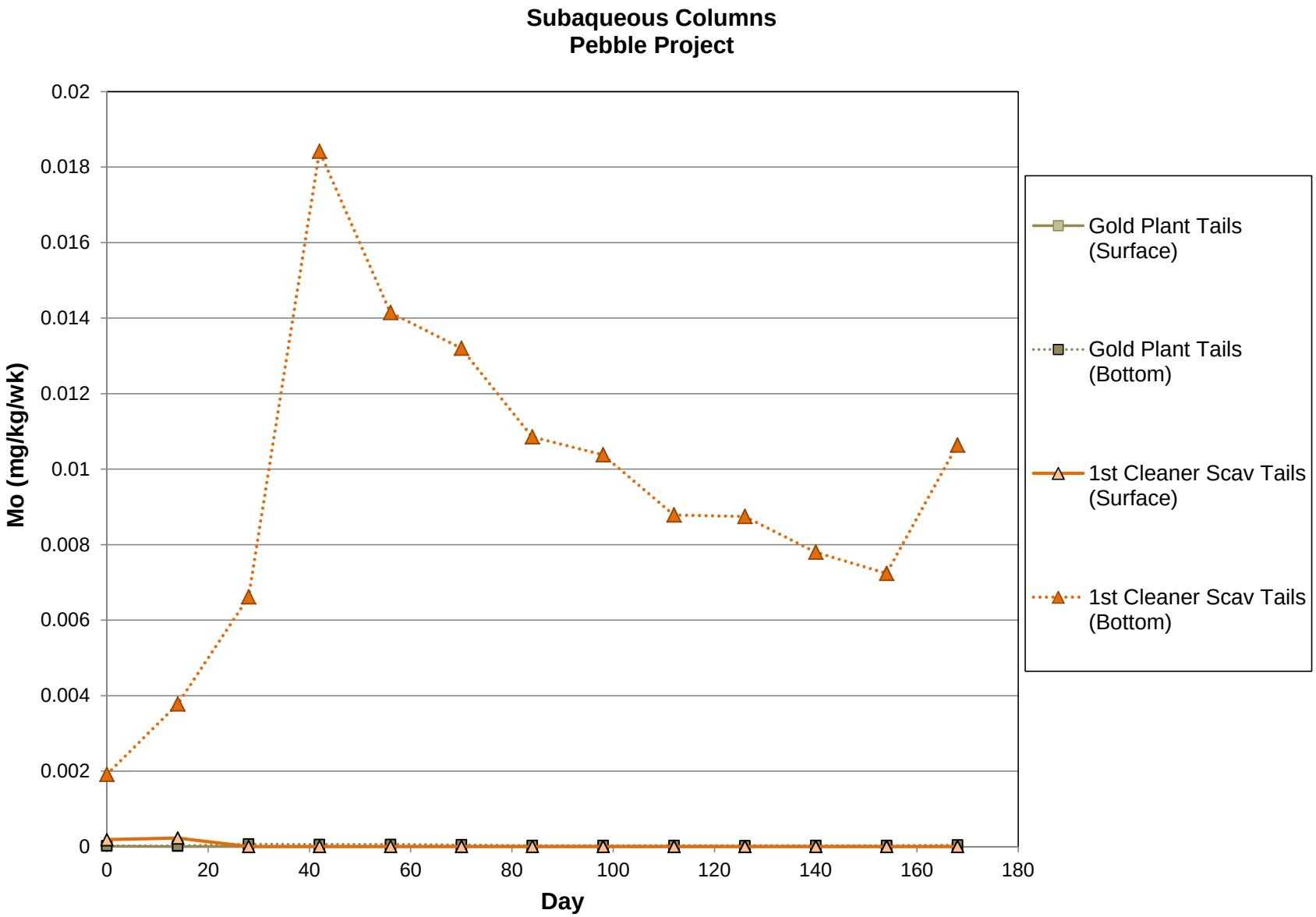

Subaqueous Columns
Pebble Project
Fe (mg/kg/wk)
300
250
200
150
100
50
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

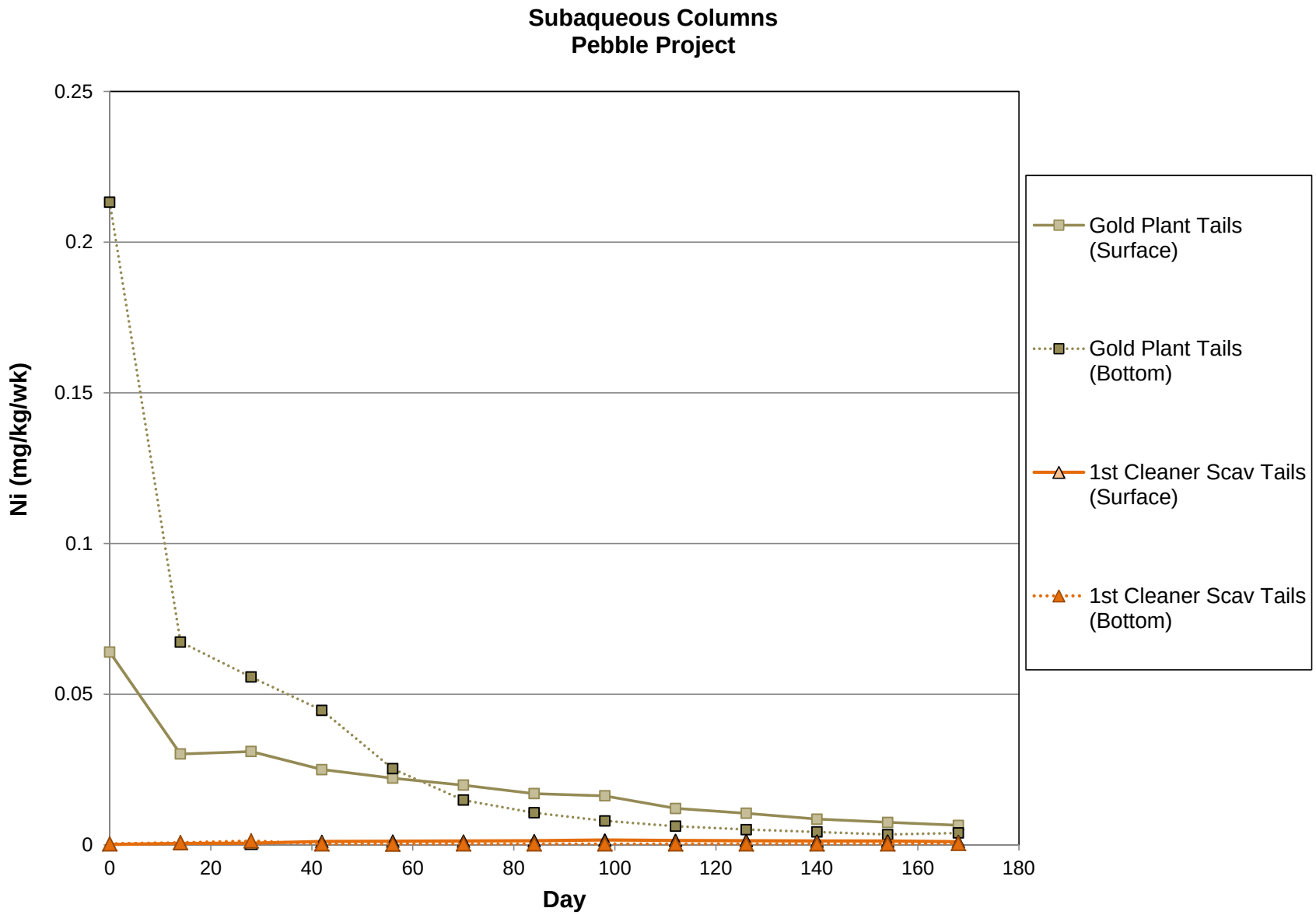

Subaqueous Columns
Pebble Project
Pb (mg/kg/wk)
0.025
0.02
0.015
0.01
0.005
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

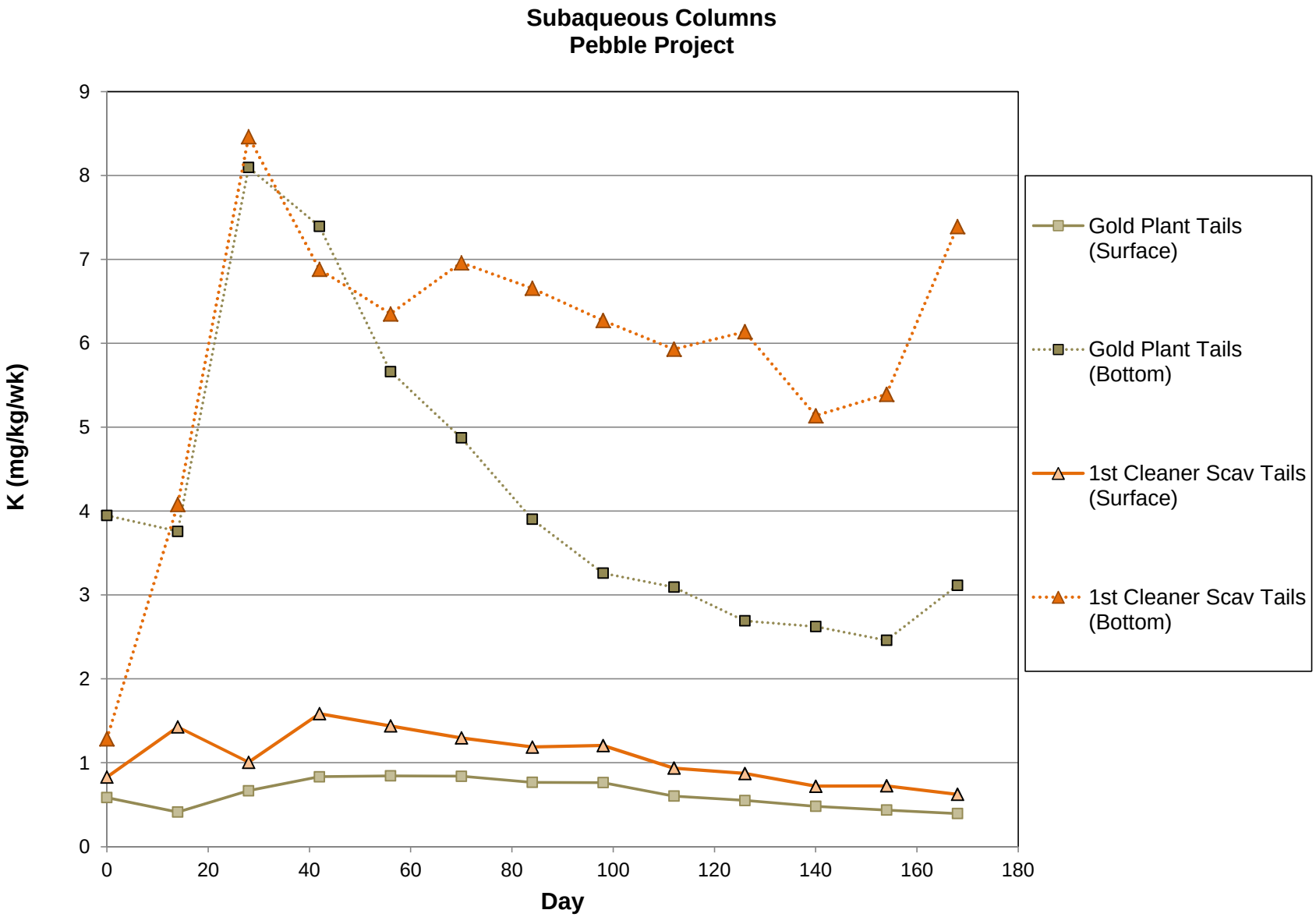

Subaqueous Columns
Pebble Project
Mg (mg/kg/wk)
Day
0
10
20
30
40
50
60
70
80
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

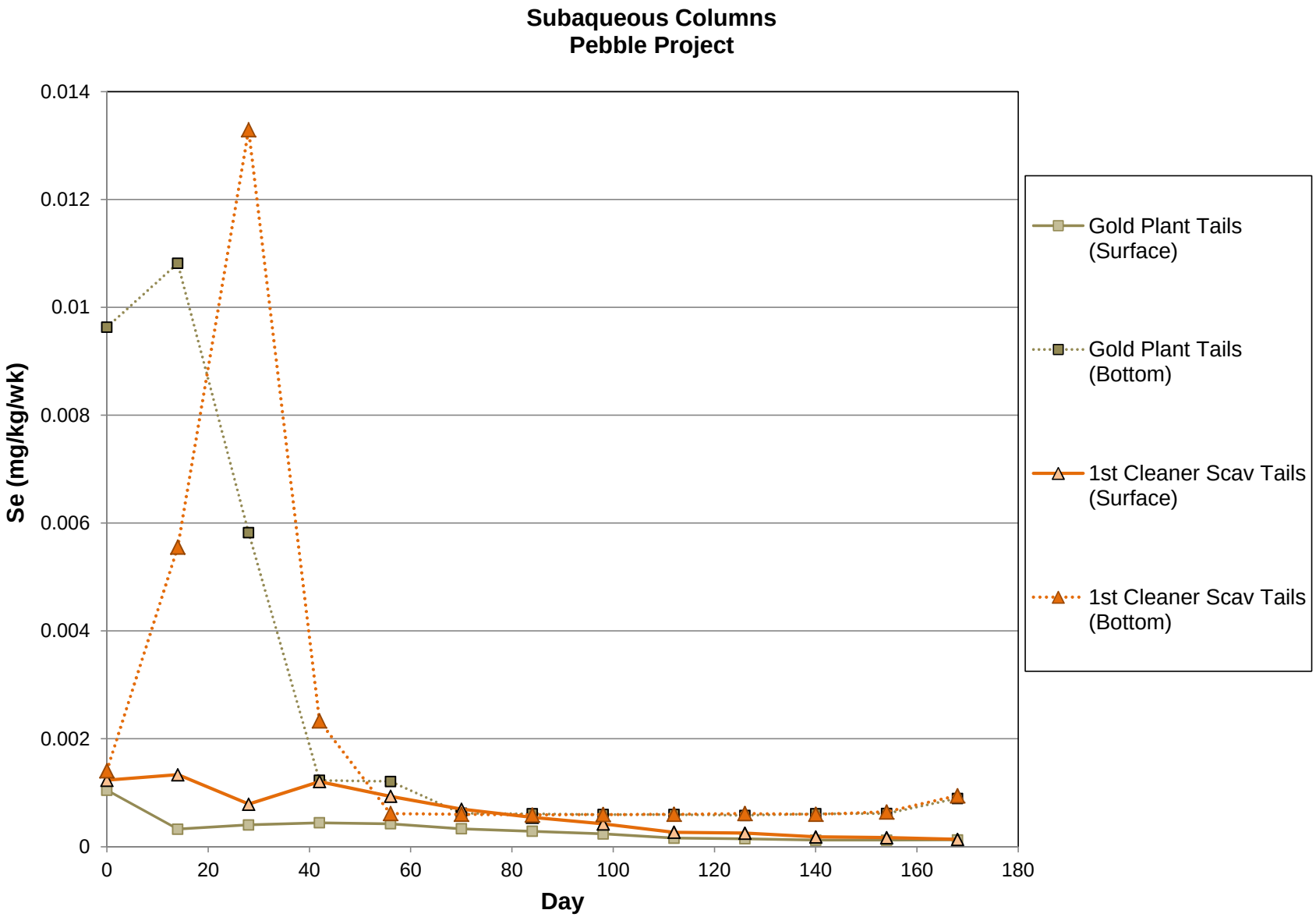

Subaqueous Columns
Pebble Project
Mn (mg/kg/wk)
Day
0
2
4
6
8
10
12
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

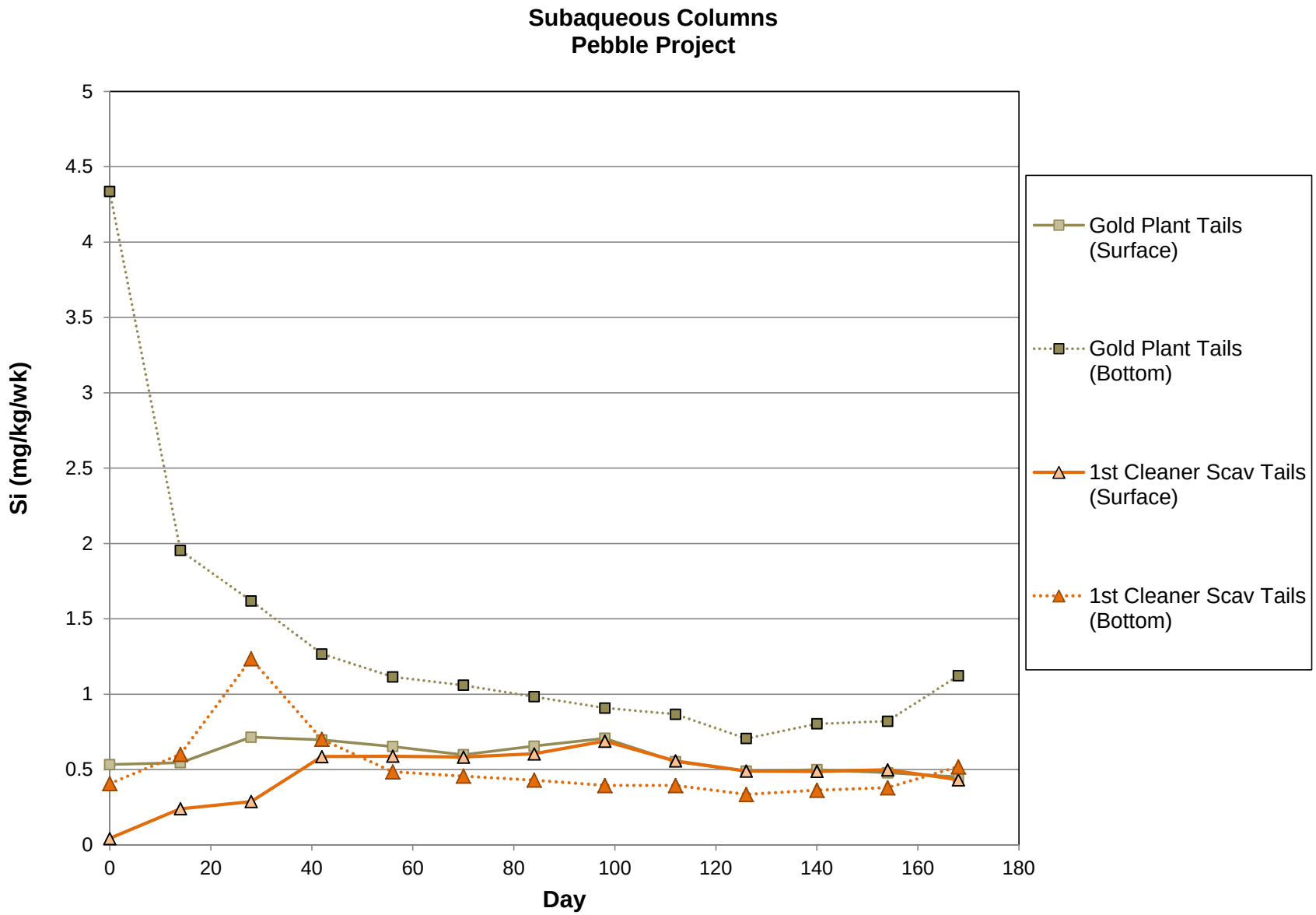

Subaqueous Columns
Pebble Project
Hg (mg/kg/wk)
0.0001
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003
0.00002
0.00001
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

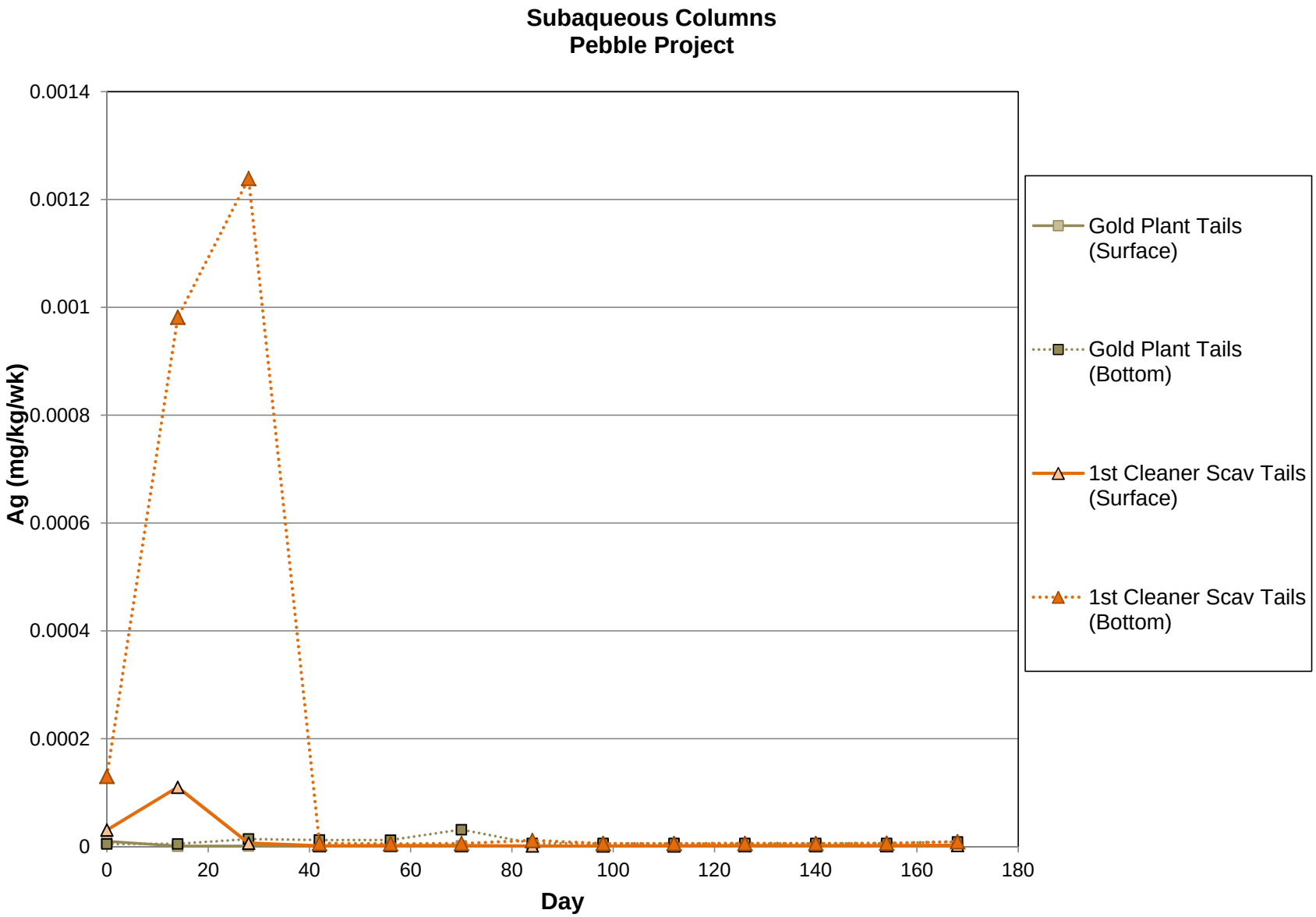

Subaqueous Columns
Pebble Project
Mo (mg/kg/wk)
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

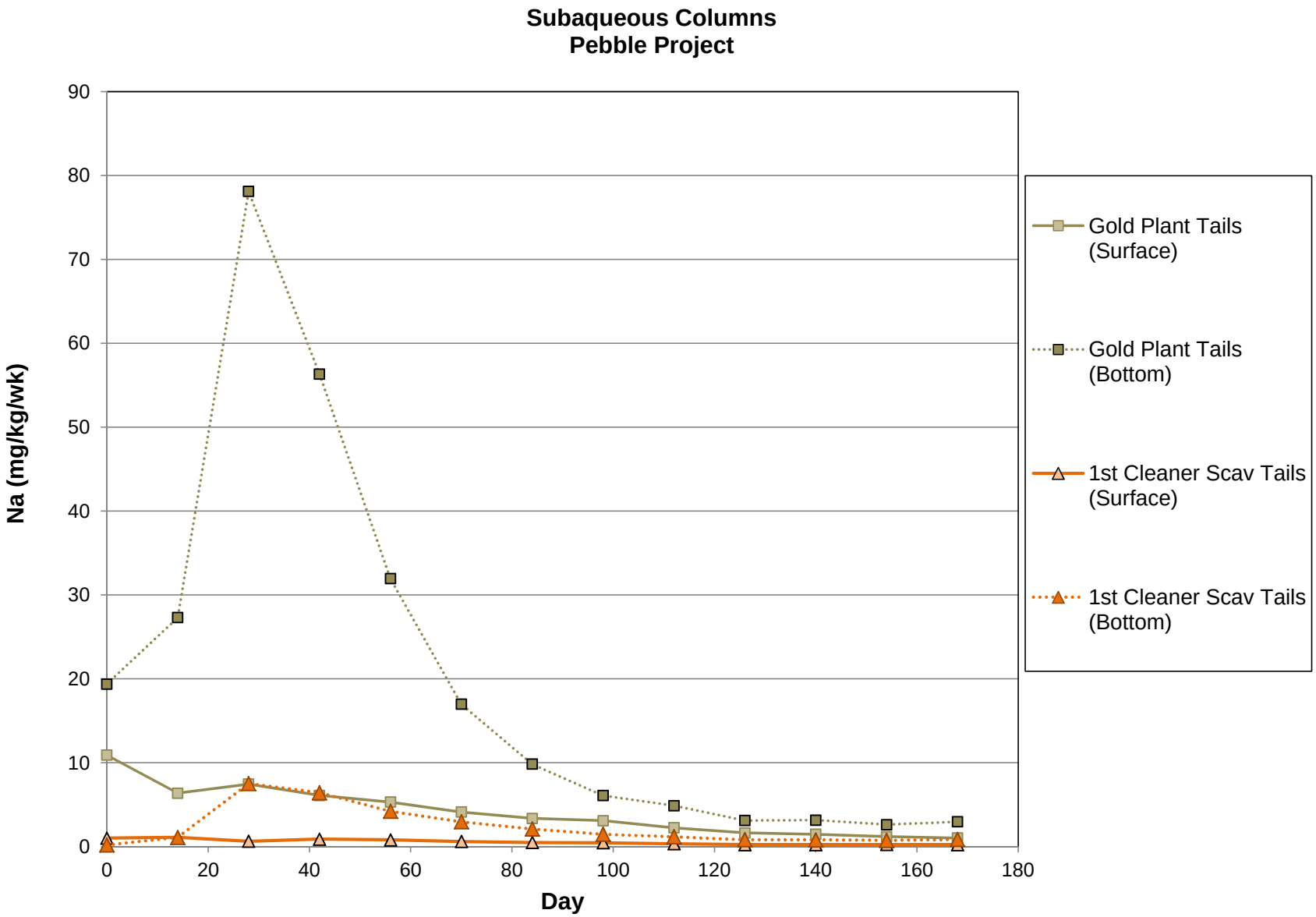

Subaqueous Columns
Pebble Project
Ni (mg/kg/wk)
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

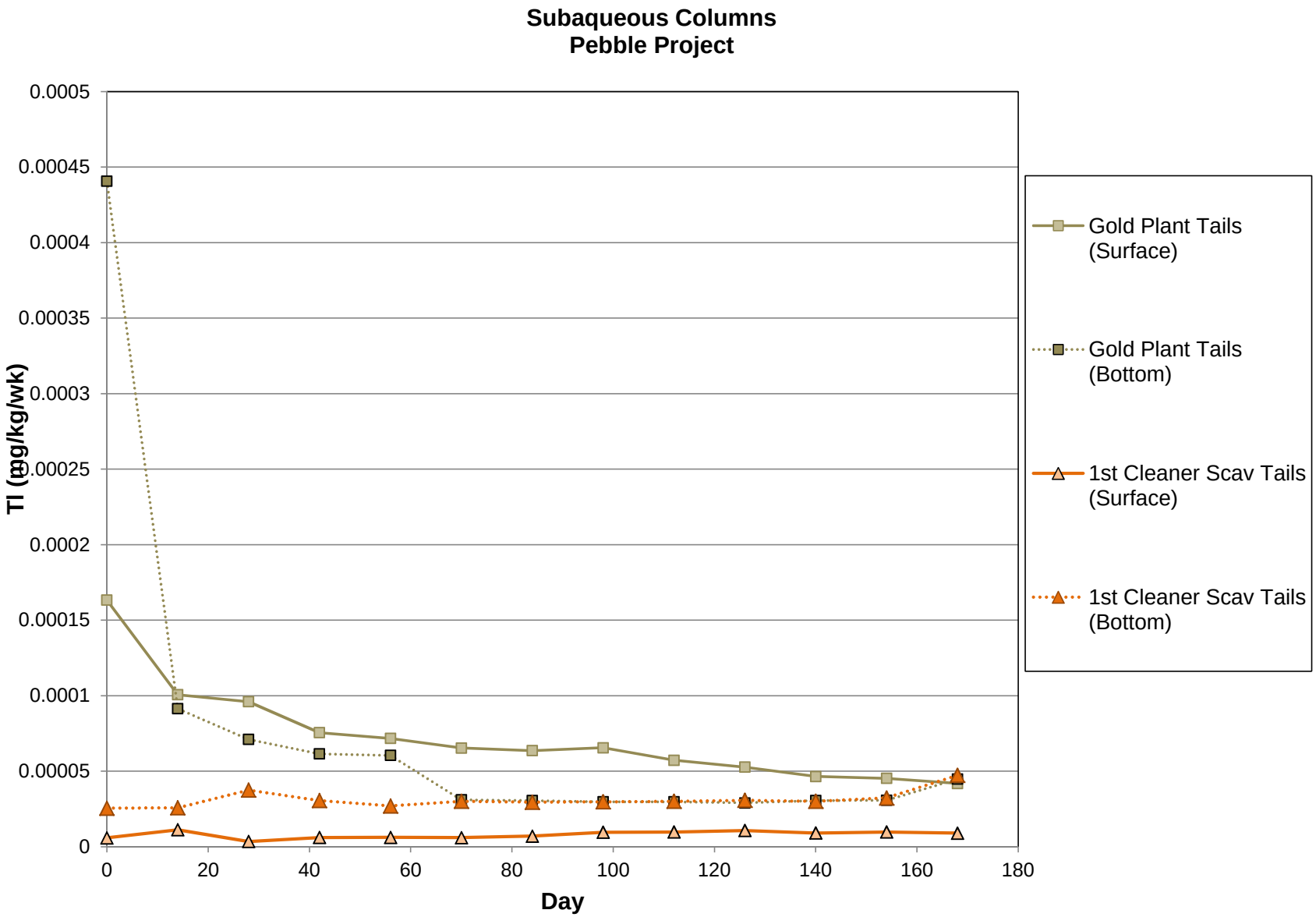

Subaqueous Columns
Pebble Project
K (mg/kg/wk)
Day
0
1
2
3
4
5
6
7
8
9
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

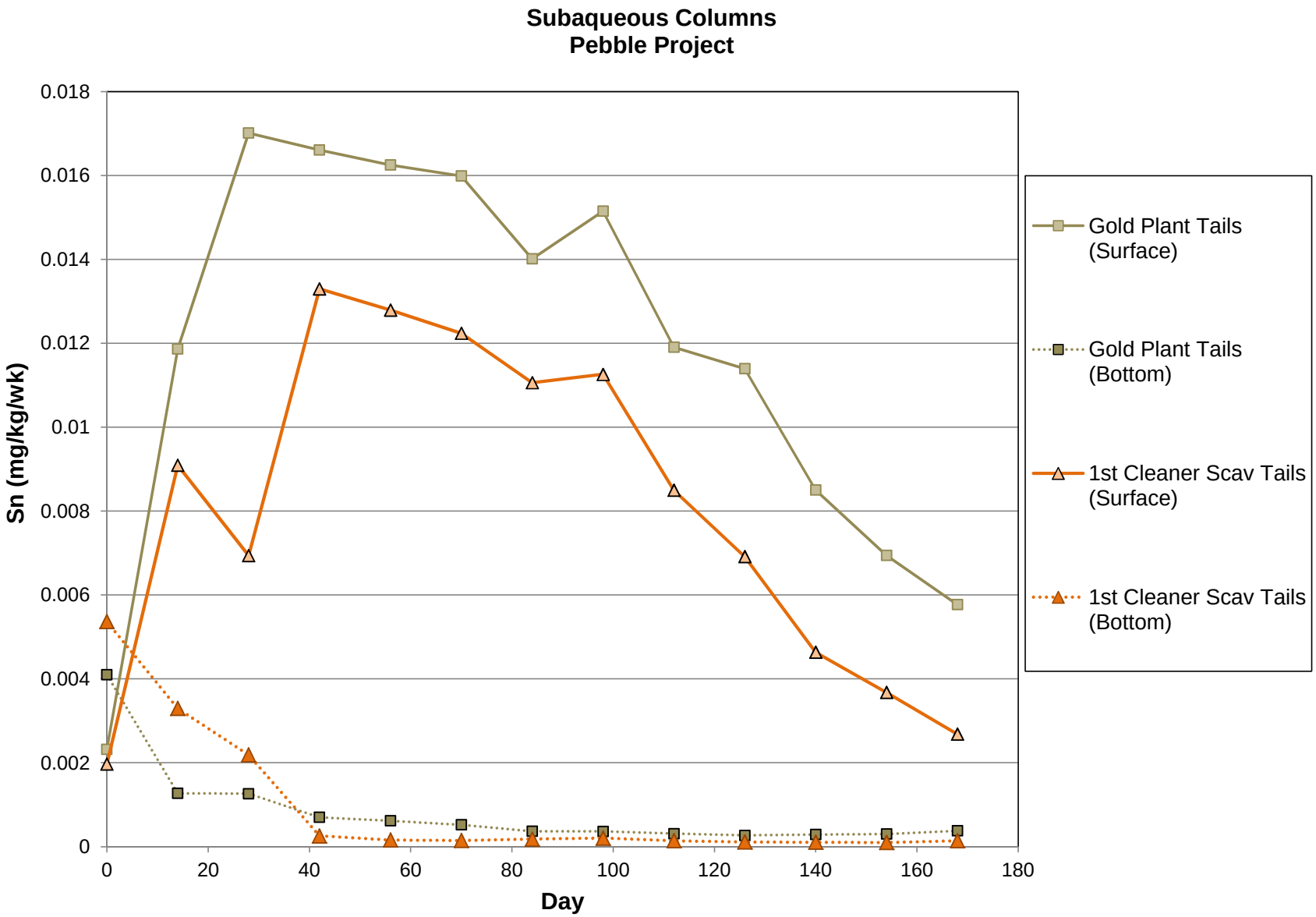

Subaqueous Columns
Pebble Project
Se (mg/kg/wk)
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

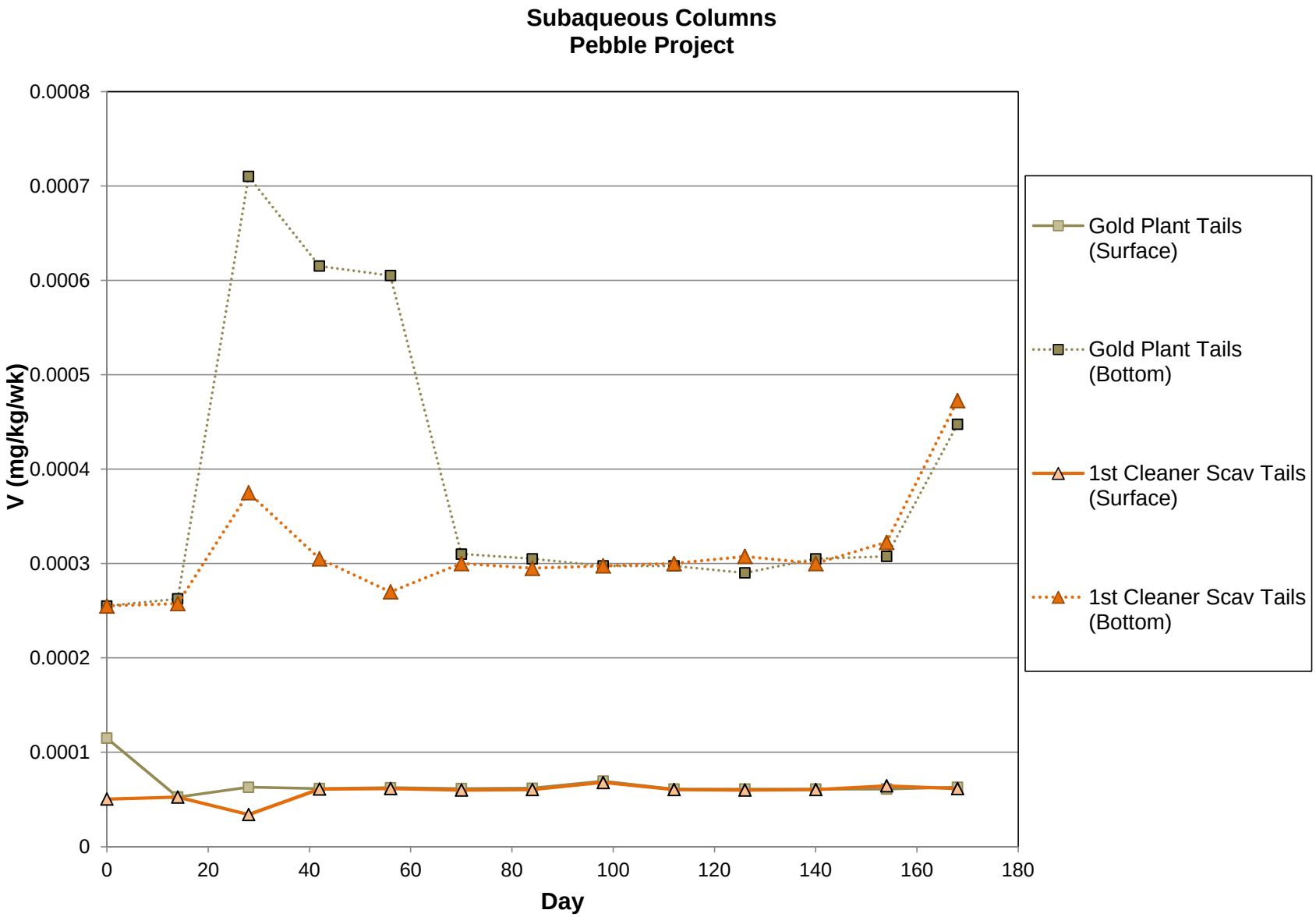

Subaqueous Columns
Pebble Project
Si (mg/kg/wk)
Day
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
20
40
60
80
100
120
140
160
180
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)

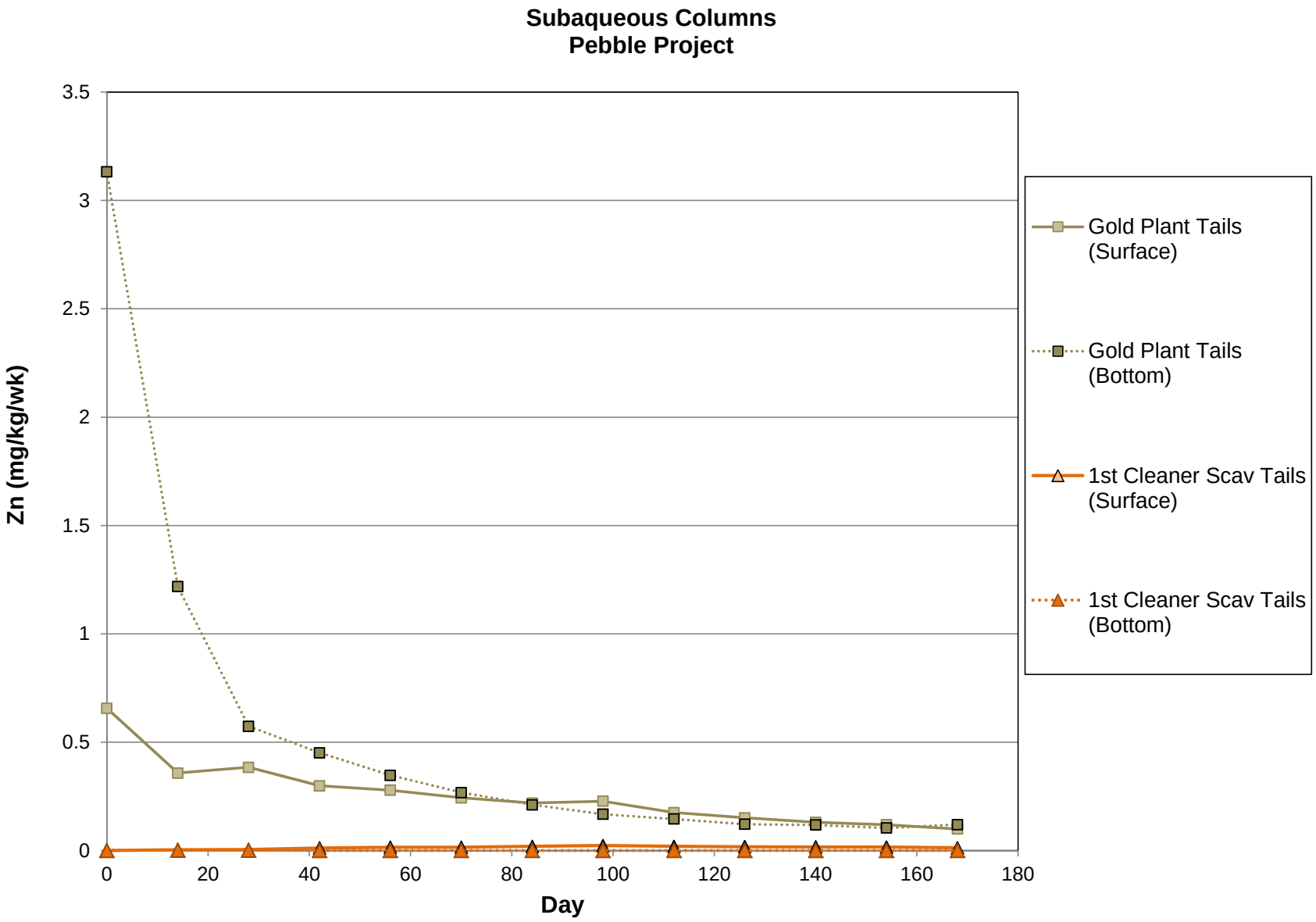

Subaqueous Columns
Pebble Project
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
Ag (mg/kg/wk)
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)


Subaqueous Columns
Pebble Project
Na (mg/kg/wk)
90
80
70
60
50
40
30
20
10
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)


Subaqueous Columns
Pebble Project
Tl (mg/kg/wk)
0.0005
0.00045
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)


Subaqueous Columns
Pebble Project
Sn (mg/kg/wk)
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)


Subaqueous Columns
Pebble Project
V (mg/kg/wk)
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)


Subaqueous Columns
Pebble Project
Zn (mg/kg/wk)
3.5
3
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
140
160
180
Day
Gold Plant Tails (Surface)
Gold Plant Tails (Bottom)
1st Cleaner Scav Tails (Surface)
1st Cleaner Scav Tails (Bottom)