

**Proposed Pebble Project
Preliminary Draft Environmental Impact Statement
Review Comments**

Reviewer: NARF Technical Team
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Chapter: Chapter 3: Affected Environment
Section: Section 3.14 Soils
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Comments

3.14.2.1. Mine Site. Erosion. According to the preliminary draft environmental impact statement (EIS),, *"Possible consequences of erosion include sediment loading in surface water runoff, and alteration of soil profile characteristics and ecological communities."* Additional consequences of erosion that should be identified include damage to or compromise of reclamation cover systems with respect to intended performance characteristics and stormwater conveyances. These consequences should be recognized during operations but potentially pose greater consequences post-reclamation if monitoring and maintenance are not performed effectively.

Soil Chemistry. According to the Preliminary Draft EIS, *"All trace elements (mostly metals) evaluated were detected in some of the surface samples."* While the Preliminary Draft EIS goes on to describe some of the elements evaluated, all the trace elements evaluated should be identified. This information helps reviewers determine whether elements of interest or concern were included in the analysis.

According to the Preliminary Draft EIS, *"Notable deviations include those associated with bismuth and mercury. The mean concentration of bismuth and mercury in surface soil is 13 and two times greater, respectively, than shallow subsurface soil (SLR et al. 2011a)."* This finding is significant and indicates a specific property associated with the Pebble deposit that could lead to adverse impacts associated with surface soil disturbance resulting in these toxic elements entering surface water. It is also indicative of bioconcentration that is associated with these two elements. The EIS should identify and evaluate the potential impacts that could occur in this instance.

The Preliminary Draft EIS states *"Because arsenic, copper, and lead are considered key trace elements associated with the deposit, additional . . ."* The section should address whether other

elements are considered “key trace elements” and if so, why weren’t they also subjected to statistical tests? Also address why mercury and bismuth aren’t considered key trace elements given their presence and potential toxicity?