

STATE OF ALASKA

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF WATER

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FIELD INSPECTION REPORT COEUR ALASKA/KENSINGTON MINE

Inspection Date: June 5, 2012, 08:30 - 14:30

Report Date: June 11, 2012

Weather: Fine. Temperature 50's

Coeur Personnel: Kevin Eppers, Environmental Superintendent

Agency Personnel: Kenwyn George, Joe Manning, USFS, Dave Wilfong, ADNR

Purpose of visit: Routine inspection

Access to and from the site was by USFS chartered Ward Air plane.

Underground sumps: There are three sumps; two to settle sediment and one clearwell sump to capture decanted water from the two larger sumps. The larger sediment sumps discharge to the clearwell sump prior to this water going to the Comet treatment plant. It is estimated that these sumps will be operational in approximately 2 weeks. Drainage flow was at a rate of approximately 1600 gpm.

Comet area: Pond 1 was in use and showing sediment at the surface. Sediment removal with the barge is ongoing with sediment capture in the filter bags. When the underground sumps come on line the underground water will be discharged to Pond 2 and Pond 1 will be cleaned out and the leaking liner replaced. See photos 1, 2 and 3. There were new secondary containment units at the site (photo 4); these are needed, see photos 5 and 6.

Tailings Treatment Facility (TTF): See photo 7 for the present status of the TTF impoundment. Stage 2 of the dam is to be constructed this summer. If an extreme storm event occurred during construction there is a proposal to reduce the water level behind the dam to prevent any overtopping of the dam. The state would prefer additional diversion of clean water to prevent overtopping. An inspection was made of the northern diversions of two small creeks to see if this was possible (See photo 8). It became apparent that the water from these creeks was adequately diverted and additional work at the intakes would not result in a greater diversion of

clean water. However, because of a build-up of debris and sediment behind the structures Coeur was requested to clean out this debris and create as large a sediment and trash collection pond as feasible.

An access walkway is being installed to allow access to the intake pumps that pump water to the treatment plant and mill facility. Any major work, such as lifting the pump is not possible at the moment without the use of a helicopter, and better access will now be possible during dangerous ice conditions. Coeur proposes installing a larger pump at the intake. The existing pump is an 100 HP, 1450 gpm pump. The new pump will be 125 HP, 1800 gpm.

Crushed rock is stored adjacent to the TTF access road, there is approximately 35,000 cy in the storage pile; approximately 66,000 cy will be required for the dam raise.

TTF treatment plant: This was operating at 1225 gpm.

Proposed PAG storage site: Approximately 6,000 cy of graphitic phyllite material from the dam construction will be stored adjacent to the “Mud dump” adjacent to the road to the mill. The site will be designed to hold 8,000 cy. It will be a lined facility; the site is being prepared for the placement of a sand layer to protect the liner from damage from the rock base layer (Photo 8).

Pit 4 (also known as Pit 3): Coeur is to take samples at various locations within the pit (Photo 9) for acid generation determination. It was decided that, because the strata are near vertical, that small samples can be taken by hand at intervals around the pit wall. A certain number of adjacent samples can be combined into composite samples. Exact details for the frequency of sampling and compositing and the tests to be conducted are to be worked out in the near future.

Action items:

1. Clean out debris from behind the TTF north diversion structures and create sumps that are as large as feasible in order to collect sediment and debris to reduce the likelihood of blockage and bypass during high flows. Seal the side of one of the diversions so that it contains and diverts the maximum flow possible.
2. Remove water from secondary containment structures. Put those items into the new containment structures that are to be re-located and prevent rainwater from entering those that are not to be re-located.



Photo 1 – Comet treatment plant



Photo 2 – Pond 1 showing sediment



Photo 3 – Pond 1 sediment auger



Photo 4 – New secondary containment units



Photo 5 – Secondary containment full of water



Photo 6 – Collapsed secondary containment



Photo 7 – TTF



Photo 8 – Northern collection structure



Photo 8 – Preparing the graphitic phyllite storage area.



Photo 9 – Pit 4