

STATE OF ALASKA

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF WATER

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FIELD INSPECTION REPORT COEUR ALASKA/KENSINGTON MINE

Inspection Date: October 19, 2011, 09:00 - 14:30

Report Date: October 20, 2011

Weather: Fine. Temperature mid-40's

HGCMC Personnel: Kevin Eppers, Environmental Superintendent

Agency Personnel: Kenwyn George, ADEC; Jill Weitz, ADEC, Joe Manning, USFS

Purpose of visit: Routine inspection

Road system: MSHA is at the site and is requiring Coeur to install berm alongside the roads; the height of the berms is to be 1/2 the height of the largest tire size used on the road. (Photo 1) Recent rains have filled stormwater ponds; these contained turbid water. In the vicinity of the maintenance area/Pit 3 a 55-gallon barrel on a pallet was noted to contain approximately 25 gallons of used oil. Kevin contacted the responsible person and was informed the barrel was in transit for disposal.

Comet area: Dewatered Pond 1 sediment was being brought to the top of the waste rock pile at the portal. Cement and mud are present at the concrete mix plant. There is no particular containment for this (Photo 2). However the majority of the liquid would be expected to percolate into the waste rock. Due to recent and heavy rain some of the material had gone down the road. This would have been captured in the ditch collection system or adjacent to the rock pile further down the road.

The waste rock pile toe is adjacent to Ophir Creek; the slope of the pile is 38 degrees (0.78H:1V) (Photo 3).

Ore at the lower end of the pile has been taken to the mill. Runoff from the pile has contained iron that has stained rocks a reddish/brown. This can be seen in the drainage between the rock pile and the water treatment plant.

Plastic pipe is being fabricated adjacent to the treatment plant. This leaves plastic swarf on the ground (Photo 4). This swarf is to be picked up and properly disposed of at the termination of pipe fabrication in 3-4 months.

The transformer plastic cover was off the transformer, there was debris in the containment and the containment was partially full of rain water. Kevin said he will get the cover replaced over the transformer.

Curt Jones, the treatment plant operator, accompanied us around the primary settling ponds, Outfall 001 walkway and the exterior to parts of the treatment plant. Adjacent to the ponds sloppy pond 1 sediment from the sediment bags was being prepared for removal by truck to the top of the rock pile (Photo 5). A 60 mil liner has been placed in Pond 2 (Photo 6). A bridge is to be constructed across the corner of the pond to hold the pump. Pond 1 was in operation and seen to be partially full of sediment. The liner is to be replaced in this pond once Pond 2 is operational. Pond 1 still leaks at a rate of 3-4 gpm.

Coeur discussed with Joe Manning the desire to have steps down the steep slope at the Outfall 001 site where samples are taken in the river. The steps are an MSHA requirement.

Tailings Treatment Facility (TTF): The green color from algal growth was clearly visible (Photo 7). The elevation of the water is 672.9'. The water level needs to be 668' in order to have sufficient capacity for a 200-year storm, with 2' of freeboard at the spillway. Coeur has installed the 12" pipe for the treatment plant to the plunge pool for the treatment plant discharge (Photo 8). Once put into operation the capacity of the 26" pipe will increase from 5000 gpm to almost 10,000 gpm, enabling a greater volume of water from Upper Slate Lake during a large storm event to be diverted around the tailings facility, rather than have this water enter the facility, so reducing its ability to hold the designed 200-year storm event. During an earlier storm event the water level rose 4' in 24 hours in the TTF, partly due to water from Upper Slate Lake overtopping the weir at the mid-lake bypass. The average pump back rate from the sump below the dam was 29 gpm for 6 months prior to the rainy period over the last 6 weeks, when the average pump back rate was 44 gpm.

The rate of flow through the ARD plant during the last 6 weeks of rain has averaged 15 gpm.

Core drilling was in progress at the dam site in preparation for the dam raise (Photo 9). The holes will go down to a depth of 100'. Water for drilling was being taken from the flume. It was pointed out to Kevin that fish from Upper Slate Lake that come down the diversion pipe may be sucked up into the drill water pump. Kevin said a screen will be placed over the intake end of the pipe to prevent this. Phase 2 of the construction will raise the dam 25'. Prior to dam construction seeps from the acid generating material that occur in shotcrete on the embankment above the flume are to have additional shotcrete placed over them per recommendations in Golder's report dated October 11, 2011.



Photo 1 – rock berms beside road



Photo 2 – cement slop at concrete plant



Photo 3 – Comet rock pile



Photo 4 – plastic swarf



Photo 5 – dewatered Pond 1 sediment



Photo 6 – Pond 2 polyethylene liner



Photo 7 – Green water in the TTF.



Photo 8 – 12” pipe from WTP at the plunge pool



Photo 9 – Core drill rig at the dam site