

	INSPECTION REPORT Alaska Department of Environmental Conservation Division of Water 410 Willoughby Ave, Juneau, AK 99811	ADEC Inspection Form Last updated (4/08)
		Inspectors: Chris Foley 907-465-5257

Section A: General Data

Inspection Date	Permit #	Borough	Receiving Waters	Weather	Facility Type
October 15, 2009	AK-005057	N/A	E. Fork Slate Creek	Current Conditions: Fine, temperature in the 40's. 0 rainfall in 7 prior days:	Tailings Disposal Facility
Discharges to: Surface Water <input checked="" type="checkbox"/> Ground Water <input type="checkbox"/>				ANNOUNCED Inspection	

Section B: Facility Data

Name and Location of Site/ Facility Inspected		Entry Time	Permit Effective Date												
Kensington Lower Slate Lake (LSL) Dam construction and Acid Rock Drainage area adjacent to LSL.	Loc: Lat: 58d 49' 58"N Long: 134d 57' 58"W	09:00	September 1, 2005												
	Source: NPDES permit	Exit Time 12:30	Permit Expiration Date August 31, 2010												
On-Site Representative		Additional Participants:													
Clyde Gillespie (Surface Ops Mgr), Kevin Eppers (Coeur)		Sarah Samuelson, USFS Tom Crafford, ADNR													
Responsible Official(s):		<table border="1"> <tr> <td></td> <td>Yes</td> <td>No</td> </tr> <tr> <td>Samples Taken?</td> <td></td> <td>X</td> </tr> <tr> <td>Photos Taken?</td> <td>X</td> <td></td> </tr> <tr> <td>Analytical Results?</td> <td></td> <td>X</td> </tr> </table>			Yes	No	Samples Taken?		X	Photos Taken?	X		Analytical Results?		X
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Samples Taken?		X													
Photos Taken?	X														
Analytical Results?		X													
Clyde Gillespie x Contacted	LSL: Nick Lewallen, Construction Project Manager														
Clyde: 523-3309 Kevin: 523-3328															

Section C: Findings/Comments

BACKGROUND

Coeur, Alaska is constructing a Tailings Disposal Facility (TDF) where processed mill tailings will be placed. The TDF will occupy what was previously known as Lower Slate Lake (LSL). LSL has been classified by ADEC as a Treatment Works by the May 6, 2005 401 Certification of Lynn Canal 31 M, Kensington Mine, Reference No. POA-1990-592-M. The lake is being dewatered to enable dam construction.

During excavation conducted prior to the August 26, 2006 Ninth Circuit Court Order halting construction of the TDF, graphitic phyllite material was exposed which generated acid rock drainage (ARD). Coeur covered some of this material in the LSL ARD storage area to minimize potential metals leaching. During recent site preparation of the dam's foundation area additional graphitic phyllite material was excavated. This material is being trucked to Pit 3/4 for storage.

The purpose of regular DEC inspections is primarily to observe activities associated with the dam construction and graphitic phyllite material handling practices.

Regulatory Status/ Compliance History

Coeur received an NOV on August 26, 2008 to resolve issues with seeps and discharges from the ARD material to LSL. DEC approved the use of Pit 3/4 on October 1, 2009 for the temporary storage of graphitic phyllite material excavated from the Lower Slate Lake / Tailings Disposal Facility in the vicinity of the dam.

FIELD INSPECTION**Construction status:**

Excavation for Phase 1 dam construction continues (Photos 1 - 4). All graphitic phyllite material being excavated from the area near "Big Hole" during current site preparation activities (Photos 3) is being trucked to the temporary storage pad at Pit 3 / 4 (Photo 9). A geologist is on-site during all excavation activities and determines if the material is suitable for use

in dam construction. Suitable material is being placed at the junction of the dam site access road (Photo 5). Excavation material (soils) that is classified as unsuitable is transported to the west side of the lake at the head of the lake and stockpiled. The geologist is also responsible for identifying excavation material containing graphitic phyllite material that will be trucked to Pit 3 / 4 for storage.

The Phase 1 pipe bypass route on the east side of the dam site has been completed. Rip rap had been placed on a HDPE liner to dissipate flow and reduce possible scour of erodible materials (Photo 6).

The diorite that will be used for dam construction has been trucked from the Julian development rock storage area near the portal and staged at the LSL lay down area and Pit 7. Coeur's contractor AIC is crushing and sorting rock for dam construction (Photo 7).

Construction activities in progress:

Two tracked excavators were removing overburden and loading dump trucks. Graphitic phyllite material that was excavated was stockpiled near Big Hole for transport to Pit 3 / 4 for storage. None of this material was hauled to the storage area during the inspection.

Proposed construction activities for the following 1-2 weeks:

Continue with excavation of overburden from the foundation area of the dam.

Other:

De-watering of Lower Slate Lake:

Pumping was occurring at the time of the inspection. Lake water was flowing through two lines that were connected to separate dirt bags prior to discharge into lower East Slate Creek (Photo 10).

Acid generating rock on the east bank of East Fork Slate Creek:

Seep water treatment

Water from the interim ARD rock storage area is collected in the sump below the WTP (Photo 8). The HDPE liner in the sump has been keyed into bedrock by bentonite. Water from the sump is first pumped into a 20,000 equalization tank which allows the WTP operator to regulate flow into the plant.

Seep water from the plunge pool area is pumped to the sump where it is pumped into the equalization tank for treatment.

Seep water disposal

Water was not being discharged from the storage tank over the bank towards the formerly visible Plunge Pool as noted in the October 8, 2009 inspection report at the time of this inspection. A hose remains behind the HDPE liner on the pipe bypass route at the location of the former visible plunge pool (Photo 12). According to Coeur this allows pumping of seep water that accumulates in the original plunge pool. Seep water is pumped to the sump below the interim ARD rock storage area where it is then pumped up into the WTP for treatment. Treated effluent is then pumped into the 20,000 gallon holding tank where it is transferred to the water truck and applied to road surfaces.

At the time of the inspection some treated effluent was being discharged below the WTP access road towards Big Hole (Photo 11). Water in Big Hole is re-circulated back into the WTP.

Graphitic Phyllite storage cell (Photo 9):

Approximately 500 - 1,000 cy of material had been trucked and placed on the pad. The material is dumped on a 100 ml HDPE liner which drains water into a covered sump. When additional material is not being placed in the cell the material is covered with a 60 ml HDPE cover.

A very small amount of the material is being tracked off the pad by trucks as it appears that the trucks back up onto the edge of the previously placed material to minimize spreading the pile beyond the confines of the liner.

Comet water treatment plant:

This facility was not inspected during the visit.

Storm water drainage:

One of the sediment retention ponds below the road below the portal appeared to nearly full. According to Clyde Gillespie this pond is relatively shallow and annual maintenance is likely to occur in the near future. Maintenance will consist of dewatering the pond and measuring the depth of the accumulated sediment. If the measurement indicates that inadequate retention capacity remains, a vac truck will remove the sediment.

SAMPLING ACTIVITIES – None conducted.

RECORDS REVIEW– None conducted.

SUMMARY

Any issues requiring action by Coeur or the state agencies?

1. Prevention and ensuring no additional treated seep water flows directly to East Fork Slate Creek.
2. Submittal by Coeur of plan for the disposal of treated ARD seep water to the land around and adjacent to the TDF.

Section D: Compliance/Recommendations

ADMINISTRATIVE VIOLATIONS

None

POTENTIAL WATER QUALITY VIOLATIONS

The last data received showed treated seep water with elevated aluminum, cadmium (when using receiving water hardness), sulfate, and TDS.

Section E: Appendices

1: Photographic record.

Signature /S/ CHRIS FOLEY Inspector Division of Water	Signature only acknowledges receipt of this report. Inspection report given to: Company (if applicable): Date
Date 11/4/09	Date

PHOTO ADDENDUM – KENSINGTON LOWER SLATE LAKE – OCTOBER 15, 2009



PHOTO 1. EXPOSED BEDROCK FOLLOWING OVERBURDEN EXCAVATION



PHOTO 2. ARROW POINTS TO WATER TREATMENT PLANT



PHOTO 3. ONGOING CONSTRUCTION ACTIVITIES. ARROW POINTS TOWARDS GRAPHITIC PHYLLITE MATERIAL.



PHOTO 4. BYPASS LINE FROM UPPER SLATE CREEK ADJACENT TO EXCAVATION AREA



PHOTO 5. ARROW SHOWS LOCATION OF SUITABLE MATERIAL STORAGE.



PHOTO 6. LOWER END OF UPPER SLATE CREEK BYPASS LINE



PHOTO 7. CRUSHED DIORITE AT PIT 7.



PHOTO 8. WTP SUMP.



PHOTO 9. GRAPHITIC PHYLLITE STORAGE SITE AT PIT 3 / 4.



PHOTO 10. DIRT BAGS AT LOWER EAST SLATE CREEK



PHOTO 11. TREATED WATER BEING DISCHARGED TOWARDS BIG HOLE



PHOTO 12. YELLOW HOSE CAN BE USED TO PUMP SEEP WATER TO THE WTP.