# **STATE OF ALASKA**

## DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF WATER

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## FIELD INSPECTION REPORT COEUR ALASKA/KENSINGTON MINE

| Inspection Date:<br>Report Date: | June 10, 2010, 11:15 AM to 5:30 PM.<br>June 15, 2010                                      |
|----------------------------------|---|
| Weather:                         | Mild, temperatures in the 60's  |
| HGCMC Personnel:                 | Clyde Gillespie, Surface Operations Manager<br>Kevin Eppers, Environmental Superintendent |

Agency Personnel: Brian Doyle, ADEC / APDES permitting process; Kenwyn George, ADEC; Sharon Morgan, ADEC / Wastewater Discharge Authorization Prog. Manager; Allan Nakanishi, ADEC, Mining Program Technical manager; Honor Carpenter, ADEC Enforcement; Dan Bussard, ADNR Water Rights; Ted Deats, ADNR Water Rights; Rick Fredericksen, ADNR Mining; Steve McGroarty, ADNR Mining; Terry Schwarz, ADNR Hydrology; Kate Kanouse, ADF&G Habitat; Sarah Samuelson, USFS; Chad Hood, USFS; Heidi Firstencel, Rich Jackson, USCOE.

**Purpose of visit**: Annual site visit for the state's Large Mine Permitting Team. After safety training the visit comprised tours of the underground and surface facilities.

**Underground tour:** The group was taken through the underground access tunnel to the Comet side of the project, stopping on the way to look at a location where quartz veins were located within the ore body.

**Comet Water Treatment Plant:** This treatment plant removes fine particles and turbidity from mine drainage water. A quick walk-through of the plant was provided with an explanation of the various components, with a walk to the discharge manifold and effluent distribution lines going down to Sherman Creek. Work on the expansion of the facility was halted while efforts were put into completion of the Tailings Treatment Facility treatment plant on the Jualin side of the project. The intent of the expansion is to increase the flow rate from 1500 gpm to 3000 gpm, and to remove ammonia by a nitrification/denitrification process.



Comet treatment plant, ponds and expansion area.

**Mill:** The mill was being test-run with water to check the equipment and hydraulics. Full production of 2000 tons per day should occur within 1 to  $1\frac{1}{2}$  months.



Control room and operator training

### **Tailings Treatment Facility**

**Treatment Plant:** The treatment plant was under construction. Multi-media filters, a clarifier and backwash tanks were in place.



Multi-media filters in the treatment plant

**Tailings storage and disposal facility:** Work continues on the dam; the grout curtain, placing classes D & F material on the face of the dam and on the spillway for the Stage 1 dam. The impoundment was being dewatered at a rate of 3500 gpm; the turbidity of the water dropped to about 4 NTU over the last few days so treatment is not required. The lake level will be dropped to an elevation of 642 ft or lower. Tailings will be placed behind the stage 1 dam to an elevation of 668 feet. The ultimate level of the tailings behind the Stage 3 dam will be 715 feet, resulting in a total tailings impoundment of 4.5 million tons.



Dam and west buttress.



Dam and spillway on west buttress

D&F material and grout trench



Sediment bag for dewatering water into E. Fork Slate Creek **Tailings transport line**: Work continues on filling Snowslide Gulch. The current plan is to have this pipeline completed by June 15. In addition to the double-walled 6" tailings line there is a water return line back to the mill, a power line and a fiber optics line for communications. The pipeline route was driven from the Tailings Treatment Facility to Snowslide Gulch.