



INSPECTION REPORT: KENSINGTON GOLD MINE

Tongass National Forest Minerals Group
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Date of Inspection: Tuesday March 6, 2018
Date of Report: Tuesday March 20, 2018
USDA Forest Service Inspector: Richard Dudek

Ranger District: Juneau Ranger District
Weather Conditions: Sunny. Temperature: low 30's °F.

Exploration in accordance with operating plan	Not Applicable
Timber removal following timber sale contract	Not Applicable
BMPs for erosion control	Satisfactory
Water Quality BMPs	Satisfactory
Public safety & fire prevention	Satisfactory
Reclamation work adequate and timely	Satisfactory
Roads maintenance adequate and current	Satisfactory
Tails placement in accordance with plan	Satisfactory
Waste Rock placement in compliance	Satisfactory
Company supervision of operation	Satisfactory
Operating in a clean and orderly manner	Satisfactory

Any conditions noted as UNSATISFACTORY will require follow up action by the Mine Inspector and a written memorandum to the operator, outlining the necessary work.

NEW REMARKS

Ward Air provided transportation (Cessna 206) to and from site.

Kevin Eppers (Environmental Manager, Coeur Alaska) accompanied Matthew Reece (Minerals program manager, United States Forest Service (USFS)), and Richard Dudek (Geologist, USFS).

This inspection included the Access roads, Comet Development Pile, Comet Water Treatment Plant, Sherman Creek Outfall, Kensington development pile, Kensington mill area, Pit 4, the TTF area, and the Fuel Depot.

ACTION ITEMS:

- During nighttime development of the new TTF east access road, a haul truck hit a tree. Removal will require approval from the Forest Service (Photo 1).

NOTEWORTHY ITEMS:

- Coeur Alaska is currently in the early phase of the stage 3 dam construction.

ACCESS ROADS

The access roads were in good condition. Coeur Alaska personnel are plowing snow from the access roads and placing gravel down for traction (2016 BMP Plan; page C-53).

COMET DEVELOPMENT PILE

Waste rock from the Raven drift was recently deposited at this location (Photo 2).





COMET WATER TREATMENT PLANT (CWTP)

On 03/06/2018, the CWTP was treating 1,000 gallons per minute (gpm; 600 gpm from the Jualin adit and 400 gpm from the Kensington adit). Pond-1 (Photo 3) was receiving mine site water, and Pond-2 (Photo 4) was receiving backwash from the CWTP. Once warmer temperature persist, CWTP personnel will readjust the silt curtains in Pond-1, and dredge both ponds. Pond-1 appeared to be near the maximum capacity. To prevent spillovers in Pond-1, a spillway diverts water from Pond-1 into Pond-2. Pond-2 is frequently monitored to ensure the crest has at least 12 inches of freeboard. Good housekeeping practices (2016 BMP plan Table 4-1) were observed inside the CWTP.

White material was not observed on the test rocks used for monitoring white material in treated mine site water (Photo 5). The permitted one-month trial test using calcium chloride (CaCl_2) appeared to be effective for precipitating white material out of solution. Coeur Alaska and the Alaska Department of Environmental Conservation (ADEC) are currently discussing the continued use of CaCl_2 .

SHERMAN CREEK OUTFALL

White material was not observed in Sherman Creek (Photos 6-7).

KENSINGTON AREA

The waste rock (Photo 8) from this location is being temporarily staged at Pit 7, and then utilized as fill material for the new TTF east access road. Currently all pebble reject rock is being staged separately at this location (Photo 9).

Contractors continue with the construction of the new powerhouse station.

The 30,000-gallon day tank (Photos 10-11) was relocated and staged next to the new powerhouse. At the time of the inspection, the day tank was not in use due to the piping and connections were not in place. A 1,000-gallon tank was being used for refueling.

The new refueling pad near the powerhouse is under construction (Photos 12).

Coeur Alaska recently staged a storage container for used hydrocarbon absorbents (Photo 13). The used absorbents will be shipped offsite to an appropriate disposal facility.

PIT 4

The pug plant is currently inactive during the winter months (Photo 14).

TAILINGS TREATMENT FACILITY (TTF) AREA

Coeur Alaska has begun construction of the new TTF east access road. Approximately 8,000 tons of waste rock was utilized as fill material to raise the access road due to the future increase of the water level (Photo 15).

The TTF was mostly frozen over and the recorded water level on 03/06/2018 was 703.1 feet (Photo 16). During the site visit, TTF personnel were in process of breaking ice for a path to the tailings barge (Photo 17). The warm temperature from the tailings being deposited keeps ice from forming around the barge; however, TTF personnel require an ice-free path from shore to the tailings barge.





At the time of the inspection, the water treatment plant was discharging 500-gpm. In order to meet the APDES permit limits for total dissolved solids (TDS) and sulfate (SO₄), Coeur personnel continue diluting influent water at the water treatment plant with water from the Upper Slate Lake diversion. The day of the inspection, approximately 200 gpm was being withdrawn from the Upper Slate lake diversion for the dilution process.

Good housekeeping practices (BMP plan Table 4-1) were observed inside the water treatment plant (Photo 18).

In the northern TTF, the lined ditch, which contains acid rock drainage (ARD) was frozen over and covered in snow.

The Graphitic Phyllite (GP) cells (ARD test barrels) in the northern TTF area were relocated closer to the TTF laydown yard (Photo 19).

Coeur Alaska will be staging a cement plant in the northern TTF area. The cement plant will generate the cement for the Stage 3 dam construction activities.

FUEL DEPOT

The fuel tank's structural gravel pad was covered in snow and ice (Photos 20-21). The structural gravel pad is regularly monitored for water, snow and ice accumulation. Fuel depot operators will remove the accumulation if it is impacting the capacity to store 110% of the volume from a single tank.

FOLLOW UP ITEMS

- Inspect the Comet water treatment plant.
- Inspect for white material in Sherman Creek.
- Observe construction of the powerhouse facility.
- Inspect the TTF area.
- Inspect the Fuel depot's gravel pad.
- Inspect the bridges/abutments for sedimentation.

PHOTOS (Additional photos available upon request)





Photo 1. A tree was damaged during the construction of the new TTF access road.



Photo 2. The Comet development pile.



Photo 3. CWTP Pond-1.



Photo 4. The CWTP's Pond-2.



Photo 5. The test rocks used for monitoring white material.



Photo 6. Sherman Creek Outfall 001. The brownish sediments seen here are fine sandy materials.



Photo 7. Sherman Creek.



Photo 8. Waste rock removed from the Kensington development pile.



Photo 9. Pebble rock staged across from the Kensington development pile.



Photo 10. The 30,000-gallon day tank.



Photo 11. The previous location where the 30,000-gallon day tank was staged.



Photo 12. The location for the new refueling pad.



Photo 13. The storage container for used hydrocarbon absorbents.



Photo 14. The Pug plant at Pit 4.



Photo 15. The new TTF access road.



Photo 16. The TTF.



Photo 17. TTF personnel were in the process of breaking ice.



Photo 17. The TTF water treatment plant.



Photo 18. The GP material leachate test barrels.



Photo 19. The fuel depot.



Photo 20. Snow and ice covering the tanks farms structural gravel pad.



Thanks to Kensington Mine for a safe visit.
U.S. Forest Service Officer: /s/ Richard Dudek

