



INSPECTION REPORT: KENSINGTON GOLD MINE

Tongass National Forest Minerals Group
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Date of Inspection: Thursday October 27, 2016
Date of Report: Thursday November 10, 2016
USDA Forest Service Inspector: Richard Dudek

Ranger District: Juneau Ranger District

Weather Conditions: Sunny partly cloudy. Temperature: Mid 40'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 (De Havilland Beaver) to/from site.

Kevin Eppers (Environmental Manager, Coeur Alaska) accompanied Curtis Caton (Geologist, Forest Service), Richard Dudek (Geologist, Forest Service), Dave Wilfong (Alaska Department of Natural Resources (ADNR)), and William Collingwood (Alaska Department of Environmental Conservation (ADEC)).

This inspection included the Access roads, Comet Development Pile, Comet water treatment plant, Comet access road bridges, Sherman Creek Outfall, Pug plant/Pit 4, TTF area, the Fuel Depot, and the Kensington port.

NOTEWORTHY ITEMS:

Milling/processing operations were halted for two weeks due to a blockage in the tailings pipeline. The blockage is now cleared and tailings are being piped to the TTF. Coeur is investigating what caused the blockage.

ACTION ITEMS:

Upper Sherman Creek Bridge: Sections of silt fencing are torn and/or down.
Sherman Creek Outfall: White material is still present in the creek bed.





FOLLOW UP ITEMS:

Upper Sherman Creek Bridge: The damaged sections of silt fencing repaired and/or replaced.

Sherman Creek Outfall: Visual observations for white material in Sherman Creek.

ACCESS ROADS

The Kensington access road was in fair condition during this inspection. Coeur Alaska Surface operations were staging road base gravel for road grading along the Kensington access road (Coeur Alaska's 2016 BMP plan). Sections of access roads from Spur road to the TTF area have formed potholes and are in need of repairs.

COMET DEVELOPMENT PILE

Coeur Alaska continues to deposit development rock at the south-west toe (Photo 1).

COMET WATER TREATMENT PLANT

The Comet water treatment plant was treating 1300 gallons of water per minute; Pond-1 (Photo 2) was receiving mine-site water; Coeur Alaska personnel were in the process of dredging Pond-2 (Photo 3). The dredge pumps the turbid water to a series of dewatering bags (Photo 4). The sediment is captured as the bag dewaterers. The water is then routed back into Pond-2, and treated.

Coeur Alaska continues using a barrel that is filled with rocks and overflowing with treated mine-site water (Photo 5). The barrel is used for monitoring the accumulation rate of white material adhering to the rocks.

A storage container for the water treatment plant was tidy, and all liquid chemicals were stored within secondary containment (Photo 6).

SHERMAN CREEK OUTFALL

White material was observed in Sherman Creek (Photo 7). In a previous report from 09/15/2016, Coeur Alaska stated that a dewatering bag was installed near the underground 445 level sump as an additional mitigation for removing white material. Coeur Alaska anticipated this would reduce the amount of white material prior to entering the Comet water treatment plant settling ponds. The success for this mitigation will be determined by the reduction of white material in the outfall. Coeur Alaska is currently testing new coagulants and flocculants to help settle out white material out of solution.

Coeur Alaska personnel recently placed a clean rock in Sherman creek (Photo 8) for monitoring accumulation of white material in the creek bed. The USFS will continue to monitor this location for white material in Sherman Creek.

COMET ACCESS ROAD BRIDGES

The Forest Service approved the replacement of two wood stringer bridges with two prefabricated steel bridges. The installation of the two steel fabricated bridges crossing Upper Sherman Creek (Photo 9), and the south fork of Sherman Creek (Photo 10) is complete. There are sections of silt fencing at the Upper Sherman Creek Bridge that need immediate repairs (Photo 11). Rocks and woody debris have pushed over and/or torn through sections of silt fencing (Photo 12).





PUG PLANT/PIT 4

The Pug plant (Photo 13) mixes cement, graphitic phyllite (GP), and pebble reject rock for underground backfill material. Haul trucks transport the mixed material underground for backfilling the mine stopes. The Pug plant is currently producing approximately 150 tons of underground backfill material per day. A temporary GP stockpile at Pit 4 is currently being utilized as the GP feedstock for this process (Photo 14).

Coeur Alaska recently submitted a proposal to the Forest Service and the state of Alaska agencies for additional waste rock storage at Pit 4 (Photo 15). The proposal is currently under review.

The waste rock proposal also includes the use of an existing settling pond (Photo 16) located at the south end of Pit 4. The settling pond will be utilized for stormwater runoff from the waste rock pile.

TAILINGS TREATMENT FACILITY (TTF) AREA

The water level for the TTF (Photo 17) was 695.9 feet. Coeur Alaska will be installing a water agitator in the TTF dam plunge pool (Photos 18-19) to keep ice from forming and jamming the transfer pipe from the dam plunge pool to the seep plant.

The TTF water treatment plant was treating 700 gallons of water per minute (Photo 20).

The water treatment plant's storage containers were tidy with all liquid chemical and petroleum products properly stored within secondary containment (Photo 21).

At the northern section of the TTF, acid rock drainage (ARD) continues to seep into an ARD catchment (Photo 22). The concern with the ARD is due to Aluminum and Manganese levels exceed the Alaska water quality standards (AWQS); the pH for the ARD is approximately 7.5. The ARD seepage undergoes treatment at the seep plant and is discharged into the infiltration gallery adjacent the TTF. Solids filtered during the treatment process are disposed of as underground backfill.

FUEL DEPOT

The construction for the fuel depot is complete (Photos 23-26) and Coeur Alaska anticipates use of the fuel depot will begin in late 2016. The U.S Coast Guard is currently reviewing Coeur Alaska's 2016 Facilities Response Plan (FRP). Coeur Alaska's 2016 Spill Prevention Countermeasure and Control (SPCC) plan is currently being reviewed by both state of Alaska and federal agencies.

KENSINGTON PORT

The 18-foot skiff has been staged at the Kensington port (Photo 27-28). The skiff will be used to deploy an oil containment boom in the event a fuel spill reaches open water (2016 FRP). The spill response equipment is stored in a sea van located at the Kensington beach.

PHOTOS (Additional photos available upon request).





Photo 1. Comet development pile south-west toe extension.



Photo 2. Comet water treatment plant, Pond-1.



Photo 3. Comet water treatment plant, Pond-2.



Photo 4. Sediment dewatering bags at the Comet water treatment plant.



Photo 5. The barrel is used for monitoring rate of accumulation of white material.



Photo 6. A storage container with secondary containment.



Photo 7. White material observed in Sherman Creek.



Photo 8. The rock encircled is a recently placed clean rock used for white material observations.



Photo 9. Upper Sherman Creek Bridge.



Photo 10. South fork Sherman Creek Bridge.



Photo 11. Upper Sherman Creek Bridge silt fencing pushed over.



Photo 12. Upper Sherman Creek Bridge silt fencing is torn.



Photo 13. Pug plant at Pit 4.



Photo 14. Temporary GP stockpile at Pit 4 is currently being utilized as aggregate for the Pug plant.



Photo 15. Waste rock and pebble reject rock storage at Pit 4.



Photo 16. An existing settling pond at Pit 4 will collect stormwater runoff from the waste rock pile.



Photo 17. Coeur Alaska's TTF.



Photo 18. A water agitator at the TTF dam plunge pool.



Photo 19. The TTF dam plunge pool.



Photo 20. The TTF water treatment plant



Photo 21. TTF storage containers with secondary containment.



Photo 22. Northern TTF, ARD catchment.



Photo 23. Seven 50,000-gallon double walled fuel tanks.



Photo 24. Fuel tanks are placed on a HDPE lined and bermed gravel bed.



Photo 25. The fuel depot pumping station will transfer fuel from the tanks to a fuel truck.



Photo 26. Kensington fuel truck parked on a concrete pad at the fuel depot.



Photo 27. 18-foot skiff for will be used to deploy an oil containment boom in the event of a spill.



Photo 28. The Kensington port fuel transfer pipeline.

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