



INSPECTION REPORT: KENSINGTON GOLD MINE

Tongass National Forest Minerals Group
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Date of Inspection: Thursday September 15, 2016
Date of Report: Tuesday September 27, 2016
USDA Forest Service Inspector: Richard Dudek

Ranger District: Juneau Ranger District
Weather Conditions: Clouds with rain. Temperature: High 50'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 185) to/from site.

Kevin Eppers (Environmental Manager, Coeur Alaska) accompanied Matthew Reece (Minerals Program Manager, Forest Service), Curtis Caton (Geologist, Forest Service), and Richard Dudek (Geologist, Forest Service).

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

ACTION ITEMS:

- Ophir Creek: The creek is migrating towards the Comet development pile.
- Sherman Creek Outfall: White material present on some of the creek rocks.
- Fuel Depot: Stormwater flow paths have formed in the gravel parking area.
- Fuel Depot: Stormwater drain needs to be extended to prevent further erosion under concrete walkway.

NOTEWORTHY ITEMS:

- The Jualin adit face has advanced approximately 3200 feet.
- Coeur Alaska continues with surface exploration drilling on patented land.
- X-ray-reject rock and non-acid generating waste rock is being stockpiled across from Pit 1 and will eventually be shipped off site.





ACCESS ROADS

Recent storm events have caused potholes and other erosional features on sections of the access roads. During the inspection, Coeur Alaska Surface operations personnel were grading sections of the Kensington access road as per the 2016 BMP plan.

COMET DEVELOPMENT PILE

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

COMET WATER TREATMENT PLANT

During the inspection, the Comet water treatment plant was treating approximately 1,600 gallons of water per minute (gpm). Pond-1 and Pond-2 (Photos 2-3) were actively receiving mine-site water. Coeur Surface operations have recently installed a silt fence and trench, behind the Comet water treatment plant to enhance stormwater runoff to Pond-1 (Photo 4). All chemicals and petroleum products were properly stored within secondary containment (Photo 5). Active dredging of Pond-2 was occurring during the inspection. A hose associated with the dredge and sediment dewatering bags was malfunctioning, and quickly repaired by Coeur personnel on request from inspectors.

SHERMAN CREEK OUTFALL

Due to increased flows in Sherman Creek, the white material was not observed throughout the creek bed (Photos 6-7). Kevin Eppers, Environmental Manager for Coeur Alaska, stated that a dewatering bag was installed near the underground 445 level sump is to filter turbid water and trap the sediment. Coeur anticipates this additional mitigation might reduce impacts from the white material. The Forest Service will continue to monitor the white material presence at Sherman Creek Outfall. Coeur Alaska continues to bench test different flocculants and coagulants at the underground triple sumps (Comet adit).

OPHIR CREEK

In the 08/04/2016 inspection report, it was documented that Ophir Creek had migrated and undercut the silt fencing, resulting in a section of silt fencing crossing the creek. Since the inspection the section of silt fencing has been removed (Photo 8). Ophir creek's migration towards the Comet Development pile caused the crossing over of the silt fencing. Coeur plans to place riprap at the cut bank section of the creek to help reduce erosion (Photo 9).

COMET BRIDGE REPLACEMENT

The Forest Service approved bridge replacement (2016 Comet Road Bridge Work Plan) for two prefabricated steel bridges along the Comet access road. The Lower Sherman Creek Bridge is completed (Photos 10 -12). The Upper Sherman Creek Bridge abutments (Photo 13-14) are complete. The Forest Service approved the felling of trees for the construction of the two bridges.

PIT 4

The construction for the Pug plant is completed and is currently in the testing phase (Photo 15). The pug plant will mix graphitic phyllite (GP), cement, and x-ray reject rock. The mix will be disposed of as backfill for the underground stopes. Coeur Alaska recently submitted a proposal to the Forest Service and State agencies for construction of a waste rock stockpile at pit 4 (Photos 16). The Forest Service and State agencies are currently reviewing this proposal.





TTF AREA

The TTF water level is 694.8 feet. The TTF spillway/plunge pool was receiving water from both the TTF treatment plant and the Slate Creek bypass (Photo 17). The dam spillway/plunge pool was also receiving stormwater runoff (Photo 18). In the northern section of the TTF, the ARD catchment was properly working (Photo 19) and ARD was being pumped to a series of holding tanks. From there, the ARD is treated at the seep plant. The water is then discharged from the seep plant into the infiltration gallery near the TTF. The TTF water treatment plant was treating approximately 700 gallons of water per minute (gpm). The seep plant was tidy and in order, with all chemicals properly stored within secondary containment (Photo 20). The TTF water treatment plant's storage containers were tidy and in order (Photo 21).

FUEL DEPOT

The construction of the depot is near completion. Seven double walled fuel tanks having been installed (Photo 22). The fuel transfer pipeline from the port to the depot is complete (Photo 23). The material used to construct the berms and the gravel pad is crushed pebble rock from Pit 4 (Photo 24). To prevent stormwater from accumulating inside the fuel depot, contractors have installed a drain inside the fuel depot for stormwater conveyance (Photo 25). A concrete refueling pad has been installed (Photo 26), ensuring safe transferring of fuel from the tanks to the fuel trucks. Coeur Alaska will not be able to operate the fuel depot until the updated 2016-revised edition for the Spill Prevention Control and Countermeasure plan (SPCC) and the Facility Response Plan (FRP) are completed.

At the north section of the fuel depot, stormwater was ponding and forming flow paths in the gravel parking area (Photo 27). On the south section of the depot, the drainpipe for stormwater needs to be lengthened to avoid undercutting under the concrete walkway (Photo 28).

KENSINGTON PORT

The fuel transfer line from the port to the fuel depot is installed (Photo 29). The improved sump and rock check dam, located at the Kensington Port, were properly functioning with the additional improvements required in the Fuel Depot Decision Notice (Photo 30-31). The sump and rock check dam should to be frequently monitored, and maintained by Surface operations. The 2016 BMP plan, Table 4-3, requires site-wide preventative maintenance for sumps and other structural BMP's need to be cleaned when the sediment capacity is greater than fifty percent.

PHOTOS (Additional photos available upon request).





Photo 1. Comet development pile toe expansion.



Photo 2. Comet water treatment plant Pond-1.



Photo 3. Comet water treatment plant Pond-2.



Figure 4. Silt fence and trench for conveying stormwater runoff to Pond-1.



Photo 5. Comet water treatment plant storage container.



Photo 6. Sherman Creek Outfall (Outfall 001).



Photo 7. Increased precipitation have increased the flow rates for Sherman Creek.



Photo 8. A section of silt fencing crossing Ophir Creek has been removed.



Photo 9. A section of Ophir Creek is migrating towards the Comet Development pile.



Photo 10. Lower Sherman Creek Bridge for the Comet access road is installed.



Photo 11. Riprap and silt fencing installed along both bridge abutments (Lower Sherman Creek).



Photo 12. Silt fencing installed to capture stormwater runoff entering upstream of Lower Sherman Creek.



Photo 13. Image shown 1 of 2 upper Sherman Creek bridge abutments have been installed.



Photo 14. Image shown is 2 of 2 upper Sherman Creek Bridge abutment.



Photo 15. Pug plant at Pit 4.



Photo 16. The proposed area at Pit 4 for waste rock storage.



Photo 17. TTF spillway and Slate Creek bypass.



Photo 18. TTF dam spillway/plunge pool.



Photo 19. Northern TTF ARD catchment.



Photo 20. TTF seep plant's secondary containment for chemicals.



Photo 21. TTF water treatment plant storage container with secondary containment.



Photo 22. Seven fuel tanks installed.



Photo 23. The fuel transfer pipeline installed from the Kensington port to the fuel depot.



Photo 24. Crushed X-ray reject rock used to construct the berms and gravel layer.



Photo 25. Stormwater drain in fuel depot.



Photo 26. Fuel depot concrete fueling pad.



Photo 27. Stormwater ponding and flow paths formed in the gravel parking area of the fuel depot.



Photo 28. Stormwater drain needs extend out past the fuel depot's concrete walkway.



Photo 29. Fuel transfer pipeline from the Kensington port to the fuel depot.



Photo 30. Kensington port lined sump collecting stormwater runoff.



Photo 31. The sump and silt fencing should be frequently monitored at the Kensington port.

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