



## INSPECTION REPORT: KENSINGTON GOLD MINE

Tongass National Forest Minerals Group  
8510 Mendenhall Loop Rd  
Juneau, AK 99801  
(907) 789-6276 – office  
(907) 586-8808 – fax

Date of Inspection: Thursday, November 18, 2021  
Date of Report: Tuesday, December 12, 2021  
USDA Forest Service Inspector: Casey Loofbourrow

Ranger District: Juneau Ranger District  
Weather Conditions: Snow. Temperature: 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.\*\*

\*\*Any conditions noted as Requires Action will require attention from the operator and suggestions for necessary work are listed below\*\*

The Kensington crew boat was provided for transportation to and from the mine.

Kevin Eppers (Environmental Manager, Coeur Alaska) accompanied Casey Loofbourrow (Geologist), Richard Dudek (geologist), and Pat Dryer (Hydrologist) of the USFS Tongass Minerals Group.

Sites visited during the inspection included: access roads, Comet Development Pile, Comet Water Treatment Plant (CWTP), Sherman Creek Outfall 001, Pit 4, the Tailings Treatment Facility (TTF) area, the Slate Cover marine facility, and the Fuel Depot.

### STATUS OF PENDING ACTION ITEMS FROM PREVIOUS INSPECTIONS:

ID	Action Item	Status
183-2	ARD seepage at the TTF SE abutment.	<b>Pending.</b> Shotcrete was applied to this area, but visible ARD seepage was occurring at the time of inspection (Photo 14). Coeur will reapply shotcrete when conditions allow.

### NEW ACTION ITEMS:



**185-1:** The graphitic phyllite (GP) stockpile at Pit 4 was not adequately covered to prevent rainwater infiltration and potential ARD generation.

#### **ACCESS ROADS**

The access roads were in adequate condition (2016 BMP Plan: Table 4-4).

#### **COMET DEVELOPMENT PILE**

The slopes of the Comet waste rock storage area appear stable (Photos 1-2).

#### **COMET WATER TREATMENT PLANT (CWTP)**

The CWTP was treating approximately 1976 gallons per minute (gpm). Ponds 1 and 2 were receiving mine site water and functioning as intended (Photos 3-4). The mobile water treatment plant (CWTP plant 2.5) has been idled and winterized (Photo 5).

Coeur has installed a sediment dewatering bag at the 960 ft level of their underground workings to pre-treat water from the upper levels and reduce the amount of sediment requiring capture, treatment, and transport back underground for disposal.

White material was not observed on the test rocks used for monitoring in the CWTP (Photo 6).

#### **SHERMAN CREEK OUTFALL**

White material was not observed in Sherman Creek at Outfall 001 (Photo 7).

#### **PIT 4/PUG PLANT**

The pug plant has ceased operation for the winter (Photo 8). Exploration drilling is currently being performed at this location on patented land (Photo 9).

**New action item 185-1:** The graphitic phyllite (GP) stockpile at Pit 4 was not adequately covered to prevent rainwater infiltration and potential ARD generation (Photo 10).

#### **TAILINGS TREATMENT FACILITY (TTF) AREA**

The TTF dam spillway was in good condition and free of debris (Photos 11).

No debris was observed against the face of the TTF dam (Photo 12).

Contractors have completed construction of a two-foot concrete raise above the spillway (Photo 13). The bedrock at this location is ARD-generating graphitic phyllite, and the purpose of the raise is to prevent ARD from entering the spillway. Contact and seep water from the graphitic phyllite will be diverted to the sump at the base of the dam where it is collected and pumped to the Seep Treatment Plant. Coeur plans to install a handrail along the new raise to facilitate safe inspection and maintenance. Additionally, an impermeable liner has been installed over the exposed graphitic phyllite to reduce precipitation infiltration and ARD generation (Photo 13).

**Pending action item 183-2:** The ARD seep observed below the TTF dam in the previous two inspections was covered with shotcrete. However, ARD seepage continues and will require additional application of shotcrete (Photo 14). Coeur tested the water at this seep and found it to be slightly acidic and containing metals. The application of shotcrete is performed out of an abundance of caution; the seep

collection sump at the base of the dam is designed to capture water that includes this seep, where it is transported to the Seep Treatment Plant.

The effluent discharge rate at outfall 002 was approximately 1000 gpm. This water measured 7.9 pH and .523 NTU.

The structures that capture flow from the two small drainages that feed the Northwest Diversion Pipeline were inspected and found to be operating effectively and capturing flow (Photos 15-16).

Good housekeeping practices were observed at the TTF water treatment plant (Appendix 4g BMP plan; Table 4-1).

#### **FUEL DEPOT/Slate Cover Marine Facility**

The fuel depot and re-fueling pad were in good condition and free of spills (Photos 17-18).

The sediment sumps at the marine facility appeared to be functioning as intended and preventing sediment release to Slate Cove (Photo 19). “Floc Blocks” are being used at this location (Photo 20). These are blocks of flocculant that slowly release into the water and facilitate the settling of very fine sediment particles.



**Photo 1. Comet Waste Rock Stockpile from above.**



**Photo 2. Comet Waste Rock Stockpile from below.**



**Photo 3. Comet Water Treatment Plant Pond 1.**



**Photo 4. Comet Water Treatment Plant Pond 2.**



**Photo 5. Comet Water Treatment Plant 2.5.**



**Photo 6. Test rocks in the Comet WTP used for monitoring for white material.**



**Photo 7. Sherman Creek Outfall 001.**



**Photo 8. Idle Pug Plant at Pit 4.**



**Photo 9. Drill Rig adjacent to Pug Plant performing exploration diamond core drilling.**



**Photo 10. Graphitic phyllite stockpile at Pit 4.**



**Photo 11. Spillway and diversion pipeline outfall.**



**Photo 12. Face of TTF Dam free of debris.**



**Photo 13. Two foot raise along spillway (darker colored above white painted concrete) and liner above graphitic phyllite outcrop.**



**Photo 14. ARD seep below east side of TTF Dam.**



**Photo 15. Northwest drainage diversion structure.**





**Photo 17. Fuel Depot**



**Photo 18. Refueling pad.**



**Photo 19. Sediment ponds adjacent to dock facility.**



**Photo 20. Slow-release flocculant blocks used to facilitate fine sediment settling.**



---

Thanks to the Kensington Mine for a safe visit.  
U.S. Forest Service: /s/ Casey Loofbourrow

---