

INSPECTION REPORT: GREENS CREEK MINE

Tongass National Forest Minerals Group 8510 Mendenhall Loop Rd Juneau, AK 99801 (907) 789-6275 – office (907) 586-8808 – fax Date of Inspection: Monday November 5, 2018 Date of Report: Monday November 19, 2018 USDA Forest Service Inspector: Richard Dudek

Ranger District: Admiralty National Monument, Juneau Ranger District Weather Conditions: Partly cloudy with sun Temperature: Mid 30's (°F).

Exploration in accordance with operating plan	Not Applicable
Timber removal following timber sale contract	Not Applicable
BMP for erosion control	Satisfactory
Water Quality BMP	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 a Cessna 185 floatplane to and from site.

David Landes (Environmental Engineer, (HGCMC)) accompanied Richard Dudek (Geologist, United States Forest Service (USFS)).

The site inspection included the Access Road B, 920 area, 7.4 mile B-road Bridge (Killer Creek Bridge), Site E, 3.4 mile B-road Bridge (Falls Creek Bridge), 3.0 mile B-road Bridge (Zinc Creek Bridge), Tailings Disposal Facility (TDF), and 0.9 mile A-road.

ACTION ITEMS

• 0.9 mile A-road requires slope stabilization due to a section of the shoulder failing.

NOTE WORTHY ITEMS

HGCMC Surface Operations will be replacing old steel culverts with new HDPE culverts in the vicinity of the 3.8-3.9 mile A-road.

A/B ACCESS ROADS

At the time of the inspection, the B-road was in adequate condition. A section of the road at mile marker 0.9 A-road has failed (Photo 1). HGCMC civil engineers are currently working on a plan to repair the road.





920 AREA

The recorded discharge rate for the Greens Creek weir (Photo 2) on 11/5/2018 was 27.80 cubic feet per second (cfs). The 920-area water withdrawal rate from Green Creeks was 1.5 cfs.

The contractors have completed the new 920 ore pad de-grit basin (Photo 3). All surface water runoff collected in the de-grit basin will be routed to Pond A.

Good housekeeping practices were observed at the warehouse (Photo 4). All chemical and petroleum products were stored within secondary containment (Appendix 5 BMP plan; page 39).

SITE 23

HGCMC continues placing Class 1, and Class 2/3 waste rock at this location (Appendix 01; page 3-1 Integrated Monitoring Plan (IMP)).

860 AREA

The contractors constructing the de-grit basin at the 920 ore pad were also in the process of constructing a stairway for safe access to upper C-Pond (Photo 5).

7.4-MILE B-ROAD BRIDGE (KILLER CREEK BRIDGE)

Contractors recently installed guard rails (Photos 6-7) that extend to the bridge ends. HGCMC Environmental Operations are currently designing plans to attach temporary sediment control barriers at bridge ends for all the B-road bridges.

The bridge splashguards are effectively preventing sediment splash over from vehicular traffic.

SITE E

Reported in IR #399 from 10/10/2018, the water line from the storm water management pond to the site's influent pipeline was leaking (Photos 8-9). HGCMC has ordered pipe repair clamps, and is waiting for them to arrive. However, due to recent freezing temperatures, water is not being pumped from the pond. This site is currently being used as a staging area for road base material and emulsion tanks for underground blasting.

3.4-MILE B-ROAD BRIDGE (FALLS CREEK BRIDGE)

Contractors recently installed guardrails near the bridge ends (Photo 10). HGCMC will be adding additional temporary barriers at both bridge ends to help prevent sediment from flowing under the bridge.

3.0-MILE B-ROAD BRIDGE (ZINC CREEK BRIDGE)

Contractors recently installed additional guardrails along the access road near the bridge (Photos 11-12).

The structural BMPs (Photos 13) near the bridge's uphill abutment are working as intended.

TAILINGS DISPOSAL FACILITY (TDF) AREA

In the coming weeks, HGCMC will begin using a transportable water misting system (Photo 14) as an additional mitigation for reducing fugitive dust. The misting system will be staged up-gradient of the primary tailings placement area through the winter (Photo 15). The water source will be from Cannery Creek, and will undergo filtration (50 micron to 5 micron) prior to being used for the misting system.





Surface Operations continue to deposit tailings in the S3P1 expansion area (Photo 16).

Pond 7 (Photo 17) was receiving influent water, and Pond 10 (Photo 18) is collecting only direct precipitation.

On 11/5/2018 the water treatment plant was treating 1,327 gallons per minute (gpm). Good housekeeping practices were observed inside the water treatment plant.

FOLLOW UP ITEMS Inspect the 920 area. Inspect the B-road bridges. Conduct a site inspection of the TDF area and facilities. Repairs made to the 0.9 mile A-road.

PHOTOS (Images available upon request)



Photo 1. A section of the edge of the road failure at 0.9 mile A-road.







Photo 2. Greens Creek.



Photo 3. Contractors finishing the construction of the new 920 ore pad de-grit basin.



Photo 4. 920 storage containers with Petroleum products stored within secondary containment.







Photo 5. The stairway under construction for accessing Upper C-Pond.



Photo 6. 7.4 Mile B-road Bridge (Killer Creek Bridge).



Photo 7. Guardrails extending to the bridge.







Photo 8. The storm water management pond at Site E.



Photo 9. The location where the leaking pipe was discovered near the sumps and pipelines.



Photo 10. The 3.4 Mile B-road Bridge (Falls Creek Bridge).







Photo 11. The 3.0 Mile B-road Bridge (Zinc Creek Bridge).



Photo 12. New guardrails were installed across from the parking area near Zinc Creek Bridge.



Photo 13. The structural BMPs were working as intended.







Photo 14. The TDF water misting system will be used for mitigation control for fugitive dust.



Photo 15. The location and direction (facing south) where the misting system will be staged to emit water mist.



Photo 16. The S3P1 TDF expansion area.







Photo 17. Pond 7.



Photo 18. Pond 10.

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

