



INSPECTION REPORT: GREENS CREEK MINE

Tongass National Forest Minerals Group
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Date of Inspection: Tuesday February 13, 2018
Date of Report: Tuesday February 27, 2018
USDA Forest Service Inspector: Richard Dudek

Ranger District: Admiralty National Monument, Juneau Ranger District
Weather Conditions: Cloudy with some drizzle Temperature: low 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 206 and a Cessna 185 floatplane to and from site, respectively.

Dave Landes (Environmental engineer, (HGCMC)) accompanied Richard Dudek (Geologist, United States Forest Service (USFS)), and Curtis Caton (Geologist, USFS).

The site inspection included the Access Road B, 920 area, Site 23, 7.4 mile B-road Bridge (Killer Creek Bridge), 3.4 mile B-road Bridge (Falls Creek Bridge), 3.0 mile B-road Bridge (Zinc Creek Bridge), Tailings Disposal Facility (TDF), and the Access Road A.

ACTION ITEMS

- **No new action items to report.**

NOTE WORTHY ITEMS

HGCMC is currently waiting on parts for the TDF water misting system.

HGCMC Environmental operations will be submitting a letter to the Forest Service requesting the removal of several hazard trees. The hazard trees are located along sections of the B-road and near the HGCMC housing facilities.





ACCESS ROAD B

During the inspection, the B-road was in adequate condition. Surface Operations were plowing the access road, and placing gravel down for traction (Appendix 8 Road Operations and Maintenance; Table 8.1).

920 AREA

The recorded discharge rate for Greens Creek weir (Photo 1) on 2/13/2018 was 10.30 cubic feet per second (cfs). The 920 area water withdrawal rate from Green Creeks was 1.5 cfs.

At the 920 bridge (Photo 2), snow is being plowed away from the bridge, and gravel is placed on the bridge decking for traction.

De-grit Basin 01 (DB-01) was in use during the site inspection (Photo 4). All melt water in DB-01 is routed to Pond-A. Sediments collected in DB-01 are disposed of in the TDF.

Good housekeeping practices were observed at the warehouse (Photos 5-6) and in the storage containers. All chemical and petroleum products were properly stored within secondary containment (Appendix 5 BMP plan; page 39).

Good housekeeping practices were observed at the maintenance shop's petroleum storage area (Photos 7-8). All petroleum products were properly stored within secondary containment. HGCMC is currently evaluating different options to make improvements to the area. These options may include replacing both 5,000-gallon tanks with isotainers, and enclosing the area to avoid excess precipitation and freezing conditions.

Good housekeeping practices were observed at the diesel refueling station (Photo 9).

SITE 23

At the time of the inspection, no new waste rock has been deposited at this location (Photo 10-11). Waste rock remains underground and utilized as backfill when it is not deposited at this site.

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

Snow is being plowed from the decking and gravel is placed for traction. The splashguards are effectively preventing sediment splash-over from vehicular traffic (Photos 12-13).

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

Snow is being removed and gravel is being placed on the bridge's decking for traction (Photo 14-15). The splashguards are effectively preventing sediment splash-over from vehicular traffic.

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

HGCMC personnel are removing snow and placing gravel for traction on the decking (Photo 16-17).

TDF AREA

Construction of the new wheel wash station is almost complete (Photos 18-21). HGCMC anticipates the wheel wash station will be commissioned in the next couple of months. Once the new wheel wash station is in operations, the old truck wash station will be decommissioned.





HGCMC TDF personnel continue to deposit tailings in the S3P1 expansion area (Photo 22). During the winter months, HGCMC uses a number of dust mitigation controls such as minimizing tailings placement areas, portable and/or fixed windscreens, and water.

The recorded discharge rate on 2/13/2018 for the water treatment plant was 1,297 gallons per minute (gpm), with 584 gpm being discharged through Outfall 002. The treated water that is not discharged through Outfall 002 is returned back to Pond 7. All water discharged through Outfall 002 is limited and monitored per APDES permit requirements. Good housekeeping practices were observed inside the water treatment plant (Photo 23).

Pond 7 was receiving mine site water and Pond 10 was frozen over and covered in snow (Photos 24-25).

Geotechnical drilling at one location in the southwest area has concluded (Photos 26-28). The two monitoring wells installed MW-T-18-05A (bedrock) and MW-T-18-05B (glacial-marine sediments) are part of a feasibility study for bedrock competency. During the site inspection, the area was tidy and in order.

ACCESS ROAD A

During the inspection, the A-road was in good condition. Snow has been plowed, and gravel was placed down for traction.

FOLLOW UP ITEMS

Inspect the 920 area.

Inspect the B-road bridges.

Conduct a site inspection of the TDF area and facilities.

Inspect the geotechnical drilling areas

PHOTOS (Images available upon request)





Photo 1. The 920 Greens Creek Weir.



Photo 2. The 920 Bridge.



Photo 3. The 920 ore pad access road.



Photo 4. DB-01.



Photo 5. The 920 warehouse area.



Photo 6. Storage containers in secondary containment.



Photo 7. The petroleum storage area.



Photo 8. The maintenance shop's two 5,000-gallon tanks containing motor oil and hydraulic fluid.



Photo 9. The Diesel refueling station.



Photo 10. Site 23 Class 1 waste rock stockpiles.



Photo 11. Site 23 Class 2/3 waste rock stockpiles.



Photo 12. 7.4 Mile B-road Bridge (Killer Creek Bridge).



Photo 13. Killer Creek Bridge splashguards.



Photo 14. 3.4 Mile B-road Bridge (Falls Creek Bridge).



Photo 15. Falls Creek Bridge splashguards.



Photo 16. 3.0 Mile B-road Bridge (Zinc Creek Bridge).



Photo 17. Zinc Creek Bridge splashguards.



Photo 18. The TDF area's new wheel wash facility.



Photo 19. A de-grit basin inside the wheel wash station.



Photo 20. The wheel wash station.



Photo 21. The water jets for the wheel washing station.



Photo 22. The TDF' S3P1 tailings disposal area.



Photo 23. The TDF area's Pond 7



Photo 24 The TDF's Pond 10 was covered in snow.



Photo 25. The TDF water treatment plant.



Photo 26. Geotechnical drilling in the northwest TDF area.



Photo 27. Two inclinometers installed at this location.



Photo 28. The site location for geotechnical drilling.

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