



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: Wednesday June 26, 2019
Date of Report: Friday July 12, 2019
USDA Forest Service Inspector: Richard Dudek

Ranger District: Admiralty National Monument, Juneau Ranger District
Weather Conditions: Sunny. Temperature: Low 80'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 floatplane to and from site.

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

The site inspection included: A and B-roads, 1350 area, 920 area, 860 area, 7.4 mile B-road Bridge (Killer Creek Bridge), Site E (4.7 B-road), 3.4 mile B-road Bridge (Falls Creek Bridge), 3.0 mile B-road Bridge (Zinc Creek Bridge), the Tailings Disposal Facility (TDF).

ACTION ITEMS

- A leaning jersey barrier needs to be restaged along the 1350 access road. This barrier will eventually fall down a steep slope (Photo 1).

NOTE WORTHY ITEMS

- HGCMC recently lowered the speed limit for the B-road from 30 to 25 mph. The speed limit remains at 10-15 mph between 5.0-mile to 5.7-mile markers.





A/B ACCESS ROADS

At the time of the inspection, both A and B-roads were in good condition. During spring maintenance for the B-road ditches, improvements were made to rock check dams (Photos 2-3).

1350 AREA

The pump is in place for the 1350 area surface runoff collection trench (Photo 4). HGCMC Environmental Operations is currently monitoring groundwater seeps in the 1350 area (Photo 5).

920 AREA

The recorded flow rate for Greens Creek (Photo 6) on the day of the inspection was 30.56 cubic feet per second (cfs). The 920-area water withdrawal rate from Greens Creek was approximately 1.5 cfs.

The sediment sumps associated with the 920 area have been mucked and are functioning as intended (Photos 7-8).

Water appeared to be flowing from underneath the culvert's outlet (Photo 9). Dave Landes from HGCMC Environmental Operations checked with Surface Operations and was told this condition has existed since the improvements were made to the culvert. The pipe bedding material serves as a French drain to help collect seeps and shallow groundwater in that area.

A potential oil leak may have occurred inside storage van #7 (Photo 10). The containers secondary containment is designed to prevent fluids from escaping and entering the environment. Dave Landes documented the potential leak and will contact the 920-Warehouse Manager to confirm if a leak did take place. Dave Landes stated that it was determined that the liquid in the containment is water, and was caused by the slow accumulation of precipitation. The water will be removed to restore the containment volume.

LOWER C POND (860 AREA)

The improvements being made to the lower C pond are nearly completed (Photo 11). On 6/28/2019, contractors will be on site installing the liner for the pond.

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

The bridge decking and bridge ends are being maintained by HGCMC Surface Operations (Photo 12). The splashguards are preventing sediment splash over from vehicular traffic.

SITE E (4.7 MILE B-ROAD)

Approximately 15,700 cubic yards of waste rock has been removed from this location and disposed of in the TDF (Photo 13).

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

The bridge decking and the bridge ends are being maintained by HGCMC Surface Operations (Photo 14).

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

An electrical distribution systems contractor recently removed hazard trees near the bridge (Photo 15). This was done as a mitigation to prevent tree branches from coming in contact with electrical powerlines. Surface Operations will remove the cut trees during routine scheduled maintenance.





HGCMC Surface Operations are maintaining the bridge (Photo 16) and the damaged splashguard was repaired. The structural BMPs located on the uphill side abutment are working as intended (Photo 17-18). HGCMC Surface Operations is currently examining potential improvements to the settling pond with the standup drainpipe. One design would be to modify the standpipe to allow the pond to slowly drain instead of remaining full to the pipe inlet.

TAILINGS DISPOSAL FACILITY (TDF) AREA

Surface Operations continue to deposit tailings in the S3P1 expansion area (Photo 19).

Pond 7 (Photo 20) was collecting site water and recirculated water from the treatment plant, and Pond 10 (Photo 21) is collecting direct precipitation.

On 6/26/2019 the water treatment plant was treating 1300-gpm and discharging 540-gallons per minute (gpm). Approximately 760-gpm of treated water was being recirculated back into Pond-7. Good housekeeping practices were observed inside the water treatment plant (Photo 22).

FOLLOW UP ITEMS

Inspect the 920 area.

Inspect the B-road Bridges and their associated BMPS.

Conduct a site inspection of the TDF and facilities.

Lower C Pond finished improvements.

PHOTOS (Images available upon request)





Photo 1. A jersey barrier is starting to lean which will eventually fall down the steep slope.



Photo 2. The B-road rock check dams.



Photo 3. A close up of the rock check dam covered by a mesh screen.



Photo 4. The 1350 area.



Photo 5. Pooling water down gradient from the 1350 trench.



Photo 6. Greens Creek.



Photo 7. The ore pad's sediment sump was cleaned and is working as intended.



Photo 8. Ore pad hill's sediment sump is working as intended.



Photo 9. Water was observed flowing underneath the corrugated drain pipe.



Photo 10. Storage van 7, where liquid was observed in containment.



Photo 11. Lower C pond (860 area)



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



Photo 13. Waste rock removal at Site E.



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



Photo 15. Cut hazard trees at the abutment of Zinc Creek Bridge.



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



Photo 17. Zinc Creek Bridge BMPs.



Photo 18. The standpipe's discharge site.



Photo 19. The S3P1 area.



Photo 20. Pond 7.



Photo 21. Pond 10.



Photo 22. The TDF water treatment plant.

Thanks to HGCMC for a safe visit.

U.S. Forest Service Officer: /s/ Richard Dudek
