

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: Friday, March 17, 2017 Date of Report: Friday, March 31, 2017 USDA Forest Service Inspector: Richard Dudek

Ranger District: Admiralty National Monument

Weather Conditions: Slight wind and cloudy. Temperature: Low to 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 floatplane for transportation to and from the site.

Mitch Brooks (Environmental Engineer, Hecla Greens Creek Mining Company (HGCMC)) accompanied Richard Dudek (Geologist, US Forest Service).

The site inspection included A/B-access roads, Hawk inlet port facilities, 920 area, Site 23, 7.4-mile B-road Killer Creek Bridge, 3.4-mile B-road Falls Creek Bridge, 3.0-mile B-road Zinc Creek Bridge, TDF area.

ACTION ITEMS

No action items were found during this inspection.

NOTEWORTHY ITEMS

Drainage improvements for the 920 ore pad/920 warehouse area are scheduled for this summer.

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ACCESS ROADS A/B:

Access roads A and B are in adequate condition and comply with Hecla Greens Creek Mining Company's (HGCMC) BMP plan Appendix 8 (Table 8.1).

HAWK INLET PORT FACILITIES

Surface Operations personnel are properly maintaining DB-04 (Photo 1). The melt water is sent from DB-04 to Pond-7 for treatment and discharge under the APDES permit. All of the sediments collected at all the degrit basins are disposed of in the TDF.

920 AREA

The flow rate at the Greens Creek weir (Photo 2) on 03/17/2017 was 4.0 cubic feet per second (cfs). Prior to water withdrawal the creek flow was 5.5 cfs. The 920 bridge (Photo 3) and DB-01 (Photo 4) are being properly maintained. DB-02 (Photo 5) is operational; however, the misting system was not in use during the inspection. All melt water from DB-01 and 02 is sent to Pond-A, then routed to Pond-7 for treatment and discharged under the APDES permit. The 920 warehouse was tidy and in order (Photo 6). At the 920-ore pad, HGCMC continues to have two stockpiles of ore (Photo 7). One stockpile is the current end dumping location and the other stockpile is for the mill hopper. This ensures a consistent reagent concentration, which will maximize metal recovery.

SITE 23

This site was inactive and covered in snow (Photos 8-9).

7.4 MILE B-Road (KILLER CREEK BRIDGE)

Surface Operations personnel are properly maintaining the bridge decking (Photo 10). Below the bridge, Killer Creek was mostly covered in snow and ice. Increased road sediment accumulation at the bridge ends is due to snow plowing of the access roads. HGCMC has contracted an engineering firm for sediment mitigation controls for all the bridges.

3.4 MILE B-ROAD (FALLS CREEK BRIDGE)

Surface Operations personnel are maintaining the bridge decking (Photo 11). Below the bridge, snow and ice covered Falls Creek.

3.0 MILE B-ROAD (ZINC CREEK BRIDGE)

Surface Operations are maintaining the bridge decking (Photo 12). The 3.1-mile B-road removable sediment screen and the uphill/downstream side sediment mitigation controls are covered in snow (Photo 13).

TDF EXPANSION PILE

HGCMC continues to place tailing at the East Ridge expansion of the TDF (Photo 14). HGCMC continues using a number of dust mitigation controls such as water, minimizing active placement areas, and windscreens. Portable and fixed windscreens are staged at the crest and southern end of the S3P1 TDF expansion area (Photos 15-16). The TDF water treatment plant (Photo 17) was discharging 367 gallons of water per minute (gpm).

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POND 10

Two caissons were installed at the end of the 2016 construction phase for Pond 10 (Photo 18). The caissons or wet wells are for collecting water above and below the liner. Wet well 10 collects water above the liner and wet well 11 collects water below the liner. When Pond-10 is completed, the water will be collected for treatment, and then discharged under the APDES permit. The two caissons (wet wells) are not in operation.

PHOTOS (More images available upon request)



Photo 1. DB-04 located at the Hawk Inlet port facilities.



Photo 2. Greens Creek.

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Photo 3. 920 Bridge.



Photo 4. 920 area DB-01.



Photo 5. DB-02

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Photo 6. A 55-gallon barrel of synthetic lubricant stored within secondary containment (920 warehouse).



Photo 7. 920 ore pad.



Photo 8. Site 23 Class-1 waste rock stockpile.

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Photo 9. Site 23 Class 2/3 stockpile.



Photo 10. 7.4-mile B-road Bridge (Killer Creek Bridge).



Photo 11. 3.4-mile B-road Bridge (Falls Creek Bridge).

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Photo 12. 3.0-mile B-road Bridge (Zinc Creek Bridge).



Photo 13. The 3.1-mile B-road removable sediment screen is covered in snow.



Photo 14. A bulldozer is spreading tailings in the East Ridge Expansion portion of the TDF.

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Photo 15.Portable windscreens staged at the crest and southern end of the TDF.



Photo 16. Fixed windscreens are staged along the jersey barriers at the southern end of the S3P1 TDF area.



Photo 17. HGCMC's water treatment plant.

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Photo 18. Pond-10 caissons (wet wells).

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

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