



## 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, December 16, 2016  
Date of Report: Friday, January 6, 2017  
USDA Forest Service Inspector: Richard Dudek

Ranger District: Admiralty National Monument

Weather Conditions: Snow with freezing rain. Temperature: low 20'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 for transportation to and from the site.

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

The site inspection included A/B-access roads, 920 area, Site 23, 7.4-mile B-road Bridge (Killer Creek), 3.4-mile B-road Falls Creek Bridge, 3.0-mile B-road Zinc Creek Bridge, TDF area, 0.9-mile B-road, and the Sand Pit.

### ACTION ITEMS

- No action items were found during this inspection.

### NOTEWORTHY ITEMS

A cargo ship was docked in port to receive concentrates.

All construction projects have stopped for the winter months.

HGCMC has contracted an engineering firm for bridge sedimentation mitigation controls.





### **ACCESS ROADS A/B:**

The A/B access roads are in adequate condition and comply with Hecla Greens Creek Mining Company's BMP plan (Appendix 8 page 8-5) for winter road maintenance.

### **920 AREA**

The flow rate for Greens Creek (Photo 1) on 12/16/2016 was 16.4 cubic feet per second (cfs). HGCMC Surface Operations are properly maintaining the 920 Bridge (Photo 2), DB-01 (Photo 3) and DB-02 (Photo 4). Sediments are captured in DB-01/02 and the melt water drains into Pond-A. The water is then routed to Pond-7 for treatment and discharged under the APDES permit. The material stockpiled at the 920 recycling laydown is being reduced (Photo 5-6). Not all material is able to be recycled. Some material may have lead levels that prevent recycling and is utilized as underground backfill. Material with no lead levels is shipped offsite for recycling. The 920 warehouse storage vans are tidy and all chemical and petroleum products are properly stored with secondary containment (Photo 7).

### **SITE 23**

Class-1 waste rock (Photo 8) stockpile is utilized on the outer slopes of the TDF. Since the previous inspection on (11/18/2016), additional Class-2 and Class-3 waste rock has been stockpiled (Photo 9) at this location (Appendix 1 Integrated Monitoring Plan page 3-1). Surface Operations properly maintaining DB-03 (Photo 10). Sediments are captured in DB-03 and the melt water drains into Pond-23. From there, the water is routed to Pond-7 for treatment and discharged under the APDES permit.

### **7.4-MILE B-ROAD BRIDGE**

HGCMC Surface Operations are properly maintaining and plowing snow from the bridge decking during the winter months (Photo 11). Below the bridge, Killer Creek was mostly covered in snow and ice (Photo 12).

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

HGCMC Surface Operations are plowing snow from the bridge decking (Photo 13). Below the bridge, Falls Creek was mostly frozen over and covered in snow. It was documented in inspection report 377 the sandbags and straw waddles below the bridge were washed out. Some sandbags were washed downstream and the removal of these sandbags will take place in the spring of 2017. HGCMC Environmental and Surface Operations are investigating the safest approach for removing the sandbags.

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

HGCMC Surface Operations are maintaining and plowing snow from the bridge decking (Photo 14). The 3.1-mile B-road removable sediment screen and other structural BMP's for mitigation are covered in snow (Photos 15-16). HGCMC is currently investigating the composition of the white precipitate found inside the abutment drain.

### **TDF AREA**

HGCMC continues placing tailings in the eastern (Photo 17) section of the S3P1 TDF expansion area. HGCMC is currently using a number of dust mitigation control measures such water, minimizing the active placement areas, and windscreens. HGCMC has positioned portable windscreens at the crest and at the south end of the TDF (Photos 19). Additional fixed windscreens have been positioned along the southern TDF perimeter access road concrete barriers (Photo 20). The TDF water treatment plant was tidy and in order (Photo 21).



### **0.9-MILE B-ROAD STOCKPILE**

The 0.9-mile B-road rock storage area is currently inactive during the winter months (Photo 22).

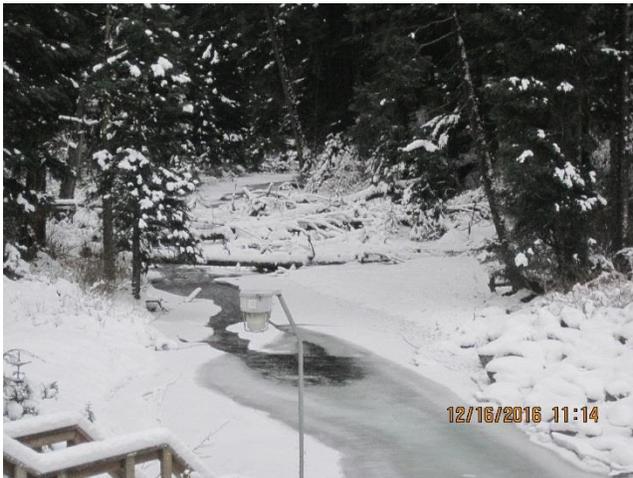
### **SAND PIT**

The Sand Pit is currently inactive during the winter months (Photos 23-24).

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**PHOTOS** (More images available upon request)

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**Photo 1. 920 area Greens Creek.**



**Photo 2. 920 Bridge and 920 portal.**



**Photo 3. DB-01 with snow mixed with sediments from plowing. The sediments are captured and the melt water drains into 920 Pond-A.**



**Photo 4. DB-02 sediments are captured and the water drains into 920 Pond-A.**



**Photo 5. 1 of 2 images for the 920 recycling laydown.**



Photo 6. 2 of 2 images for the 920 recycling laydown.



Photo 7. A 920-area storage container with secondary containment.



Photo 8. Site 23 Class-1 waste rock.



Photo 9. Site 23 Class-2 and 3 waste rock.



Photo 10. DB-03 at Pond-23.



Photo 11. 7.4-mile B-road Bridge (Killer Creek Bridge).



**Photo 12. Killer Creek covered in snow and ice.**



**Photo 13. Falls Creek Bridge.**



**Photo 14. Zinc Creek Bridge.**



**Photo 15. 3.1-mile B-road removable sediment screen covered in snow.**



**Photo 16. Snow covered rock check dams and sumps for mitigations (Zinc Creek Bridge).**



**Photo 17. Tailings placement in the eastern section of the TDF expansion area.**



Photo 18. The western section of the S3P1 TDF expansion area.



Photo 19. Portable windscreens are staged in the southern end of the S3P1 TDF expansion area.



Photo 20. Fixed windscreens are positioned along the southern TDF perimeter access road.



Photo 21. TDF water treatment plant.



Photo 22. 0.9-mile B-road rock stockpiles.



Photo 23. Sand Pit 1 of 2 images.



**Photo 24. Sand Pit 2 of 2 images.**

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

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