



## **Greens Creek Mine Inspection Report**

**Inspection Date:** April 29 2025  
**Time:** 7:00AM to 4:00PM  
**Weather:** Light rain, scattered low thick broken clouds and high overcast  
**Agency Personnel:** Jesse Garnett White, Carolyn Curley, Jenny March, Jonathan Kummer, and Steve Buckley  
**Operator Contacts:** Paula Lillesve, Jennifer Stoutamore, and Todd Atwood  
**Inspection Objectives:** Site Inspection

### **Operations:**

Operated by Hecla Mining Company, the Greens Creek Mine (HGCMC) (Map 1) is a silver, lead, and zinc mine located 19 miles southwest of Juneau, Alaska on the northwest side of Admiralty Island. Greens Creek Mine primarily produces zinc and lead; however, it is the largest silver mine in the US.<sup>1</sup>

The U.S. Forest Service, Tongass National Forest, is responsible for the administration and management of federal lands on Admiralty Island, including Young Bay Experimental Forest and Admiralty Island National Monument where roads and mine facilities are located.

### **Field Inspection Plan, Execution and Summary Schedule:**

The DNR inspection is based on the Hecla Greens Creek Mine Reclamation Plan Approval (No. J20202682RPA Extension) and focused on documentation of and compliance with State of Alaska reclamation requirements. Inspection routes were tracked with GPS. A drone was deployed to capture aerial imagery of the tailings disposal facility (TDF), and photos were taken at other inspection sites. Primary objectives for the field inspection were to review sites of active disturbance, water management, and reclaimed areas. Major facilities at the mine include the 920 Area, 1350 Area, 860 Area, Site 23 waste rock storage facility (WRS), tailings disposal facility (TDF), water treatment plant (WTP), water diversion system and ponds, material and growth media sites, roads and bridges, Young Bay Facility, and Hawk Inlet Facility.

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<sup>1</sup> Greens Creek website citation

Two primary thoroughfares (A and B roads) link Young Bay and Hawk Inlet Facility with the 920 Area. The A-road is 5 miles in length from the Young Bay dock to the Hawk Inlet Facility. The B-road is 8.5 miles in length used for transport of personnel, supplies, and ore concentrates between Hawk Inlet and the 920 area, as well as transport of tailings from the mill to the TDF.

DNR personnel arrived at 13401 Glacier Hwy in Juneau (Auke Bay) at 4:45am and boarded the crew boat to Greens Creek Mine. The crew boat arrived at Young Bay Dock at 5:50am. Crew buses transported personnel via the A-Road to the Hawk Inlet Facility. DNR staff attended a company safety meeting, watched the Greens Creek Mine safety video, and reviewed the day's inspection plan with Hecla personnel. It was decided that inspections should begin at higher elevation sites. Drone deployment during this inspection was hampered by a low cloud deck and very light rain for much of the day hence only the TDF was documented by drone video to stay within FAA flight rules.

Mine inspection sites were visited in the following order (Maps 1-5): 920 Area Greens Creek weir, pump house and active carbon filtration system, Degrit basin, Pond-A, 1350 Portal, ore pad, 920 Area mill and mine portal (including a mill tour), Site 23 WRS, geology core lab, Material Site E/Pond E, Cannery Creek Water Intake, TDF and WTP including ponds 7 and 10 and North Expansion Project (NEP) Wetlands Area, Sand Pit, and Pit 7.

### **Findings:**

A summary of findings can be found below with descriptions of inspection sites. A general location map, detailed route maps, tracks, and photos of all inspected sites with observation notes are in Appendix A.

#### **1. Inspection of Active Areas of Disturbance**

1.1 920 Area - Greens Creek Weir, 920 Area Portal, Portal Bridge, Pump House and Active Carbon Filtration System, Degrit Basin, and Pond-A.

B-Road was in adequate condition from Hawk Inlet to the 920 Area. The 920 Area was also in good condition at the time of inspection (Map 2, Photos 1-6). We viewed the weir in Greens Creek above the 920 Portal bridge and below the pumphouse followed by a brief tour of both the pumphouse and filtration system building. Everything was in good working order. Mine traffic to and from the 920 Portal was regular and steady. The entire 920 Area including the bridge was very muddy due to recent precipitation and snowmelt. The splash guards on the bridge were working, looked well maintained, and didn't exhibit any damage. There was minor damage to the guardrail. The Degrit Basin 001, Pond-A access road, and Pond-A were also in good working condition. Pond-A was receiving mine site contact water and the liner above the water line did not exhibit any damage.

1.2 1350 Portal

At the 1350 Portal (Map 2, Photos 7-8) we observed the water collection pond, slopes around the pond, and the portal. The collection pond had a small amount of water present, and the slopes are well vegetated with grass and small trees. The portal is currently being used as an escapeway and mine exhaust. The area immediately above and on either side of the portal is heavily vegetated with grass and trees.

1.3 920 Area Mill/Mine Portal Facilities

DNR personnel toured the 920 Area Mill with Mr. Todd Atwood (Map 2, Photos 9-18).

#### 1.4 Site 23 WRS

At the time of inspection, Site 23 WRS Placement Areas (Map 2, Photo 19) were active with an operating bulldozer and single drum roller. Class 1, 2, and 3 waste rock are deposited at this location. We did not leave the vehicle due to conditions on the ground and activity. Reclaimed and stabilized areas on the flanks and lower slopes of the WRS are well established. Material that is not currently stabilized with vegetation is graded and maintained.

#### 1.5 Geology Core Lab

We viewed core, ore bearing core samples, and rock samples at the Geology Core Lab. This led to discussions between company geologists and DNR personnel concerning the complex geology of the Greens Creek Mine and surrounding area. (Map 2, Photos 20-21).

#### 1.6 Material Site E and Pond E

At the time of inspection, the area was active with an operating excavator and articulated dump truck. We were able to leave the vehicle briefly during work stoppage. The area was graded with berms with parts of the site being used as a laydown yard, storage area, and material site (gravel pile). (Map 3, Photos 22-23).

#### 1.7 TDF, WTP, Pond 7, Pond 10 and Cannery Creek

DNR personnel deployed a drone over the TDF due to favorable weather conditions (Map 4, Photos 24-32). There was activity atop the West Tailings Area including a Max Haul, articulated dump truck, and bulldozer. Areas of reclamation and stabilization on the West Buttress Area, Northwest Expansion Area, and stockpile storage area were observed including peat slopes scattered with small trees and shrubs. Material that is not currently stabilized with vegetation is graded and maintained. Strategically placed dust fences were also present.

Ponds 7 and 10 are located at the southwestern end of the TDF near the WTF. Pond 10 was nearly devoid of water except for accumulated rainwater. Mine site water was actively discharging into Pond 7 (Photo 25) creating a sediment delta. There was an active dredge operating in the pond.

The Wetlands Area north of Pond 9, North Expansion Project (NEP) was in the beginning phases of Stage 1. Trees had been felled in the Wetlands Area but not removed at the time of inspection (Photo 29-30).

We also visited Cannery Creek Water Intake where everything was in good working order (Photos 31-32).

#### 1.8 Sand Pit

A-Road was in adequate condition during the inspection. Reclamation surrounding Sand Pit was stable with various grasses, ferns, and small tree growth. This area was reclaimed about 5 years ago, which gives an indicator at the rate re-vegetation is occurring. The graded eastern slopes were also stable and in good condition. The pit contained water and growth media including peat, various grasses, and woody debris. The spillway was well above the current pit water level and in good condition. Some flat areas along the access road surrounding the pit are now temporary laydown and storage sites (Map 5, Photos 33-35).

## 1.9 Pit 7

Pit 7 was previously a rock quarry but is now a stockpile for material brought in for the road. The slopes of the older portion of the material site have been graded, stabilized, and re-seeded, except for a minor slump exposing gravels. There is some erosion that has occurred in the reclaimed area. It has not changed significantly since our previous visit. At the time of inspection there were some rusting pipes, piles of gravel, and boulders (Map 5, Photos 36-37). Supersacks on site contain clean material for the paste plant.

### **Violations**

All observed activities followed the Hecla Greens Creek Mine Reclamation Plan Approval (No. J20202682RPA) stipulations, AS 27.19 and 11 AAC 97.

### **Conclusion and Recommendations**

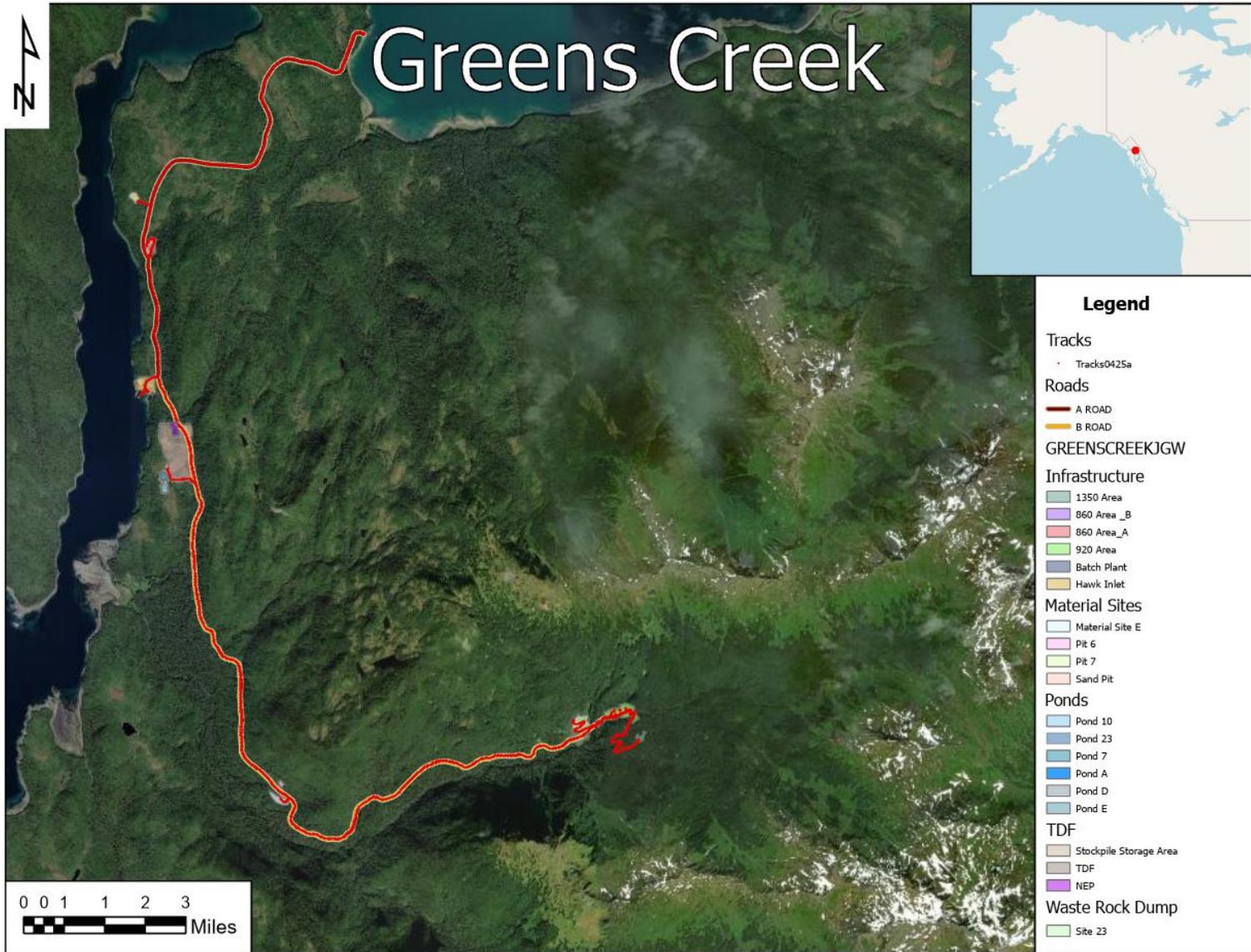
Greens Creek Mine continues the expansion of the Tailings Disposal Facility and has begun work on the North Expansion Project. DNR finds HGCMC in good condition and consistent with industry standards. The operator facilitates activities in a manner which prevents unnecessary and undue degradation of land and water resources and is responsive to requests made by DNR.

Report Prepared By: Jesse Garnett White

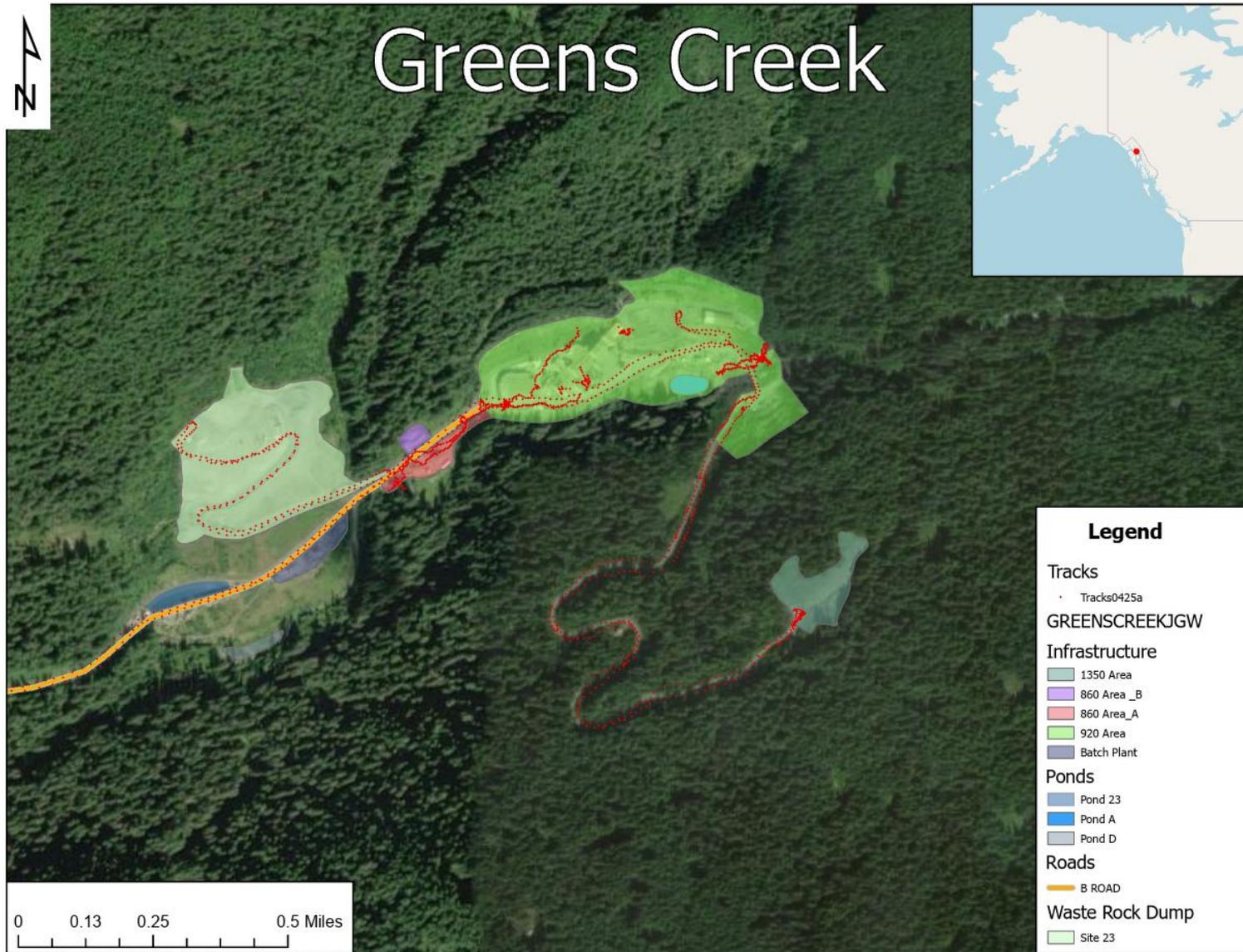
cc: Steve Buckley, DNR  
William Groom, DNR  
Carolyn Curley, DNR  
Aaron Kruse, DNR  
Ben Wagner, DNR  
Kim Bustillos, DNR  
Sylvia Kreel, DNR  
Kate Harper, DNR  
Jenny March, DNR  
Jonathan Kummer, DNR  
Allan Nakanishi DEC  
David Khan, DEC  
Kate Kanouse, ADF&G  
Jesse Lindgren, ADF&G  
Matthew Reece, USFS  
Paula Lillesve, HGCMC  
Jennifer Stoutamore, HGCMC

# **Appendix A**

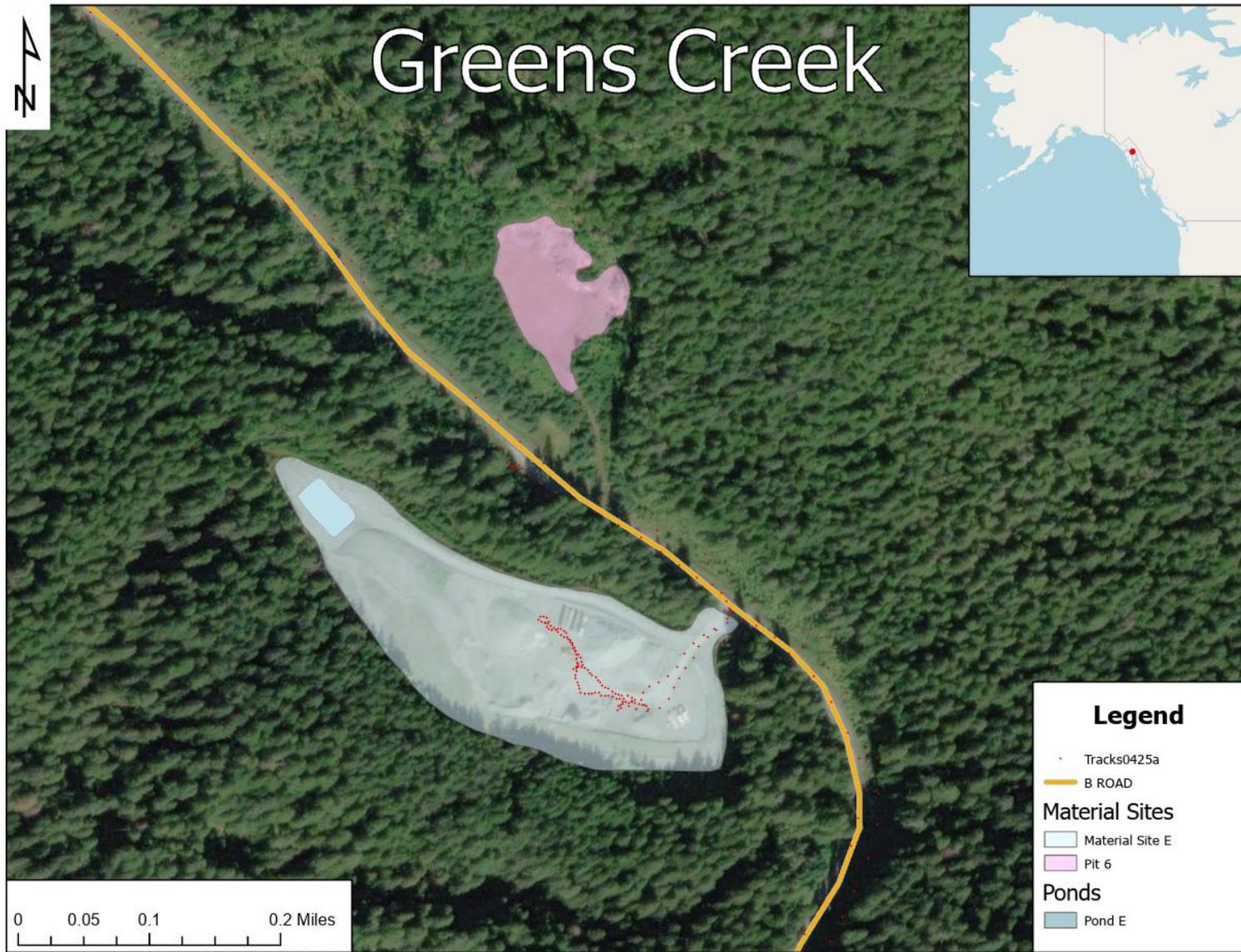
## **Inspection Maps and Observations of Note**



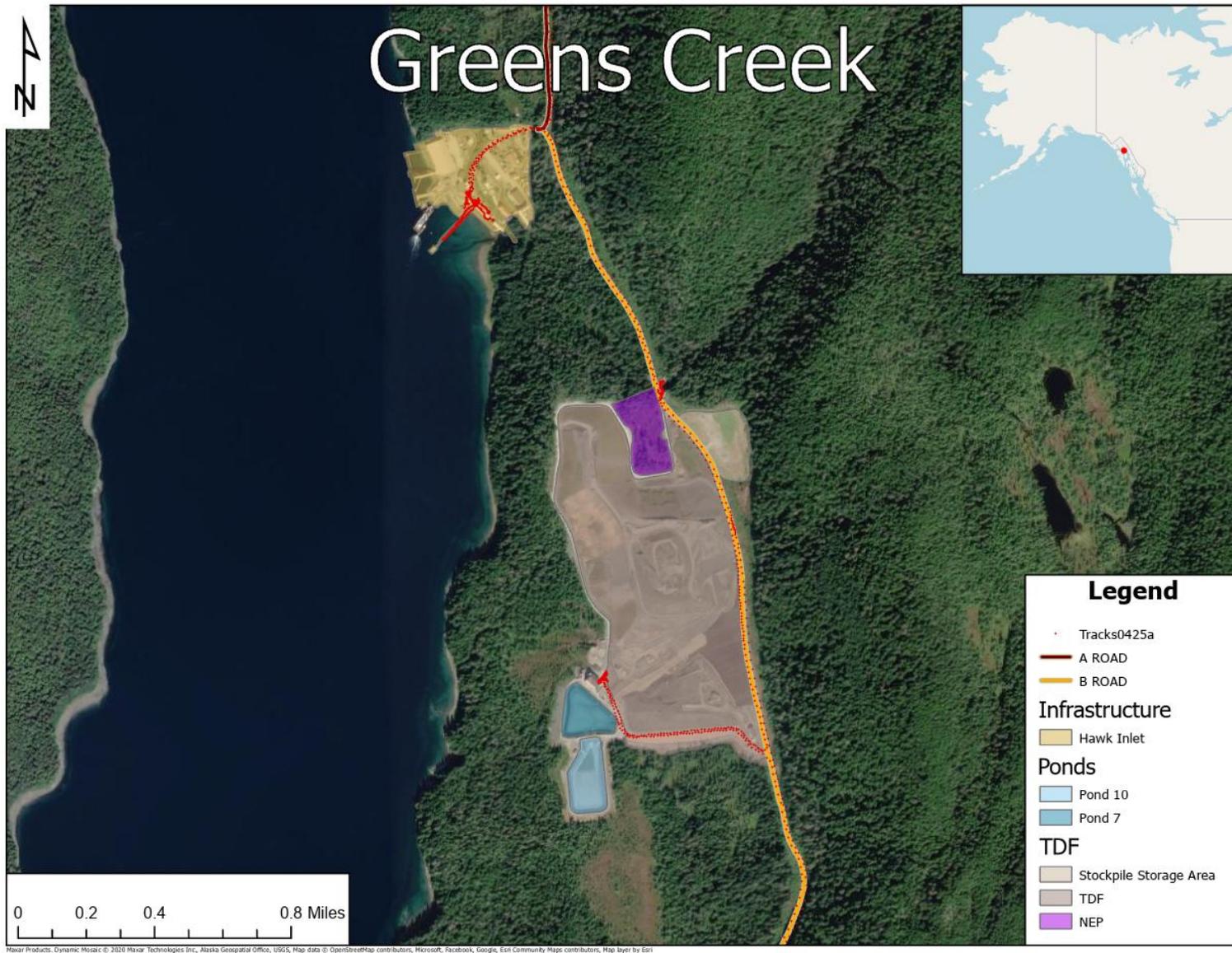
Map 1: Greens Creek Mine Inspection (04/29/2025). Inspection tracks.



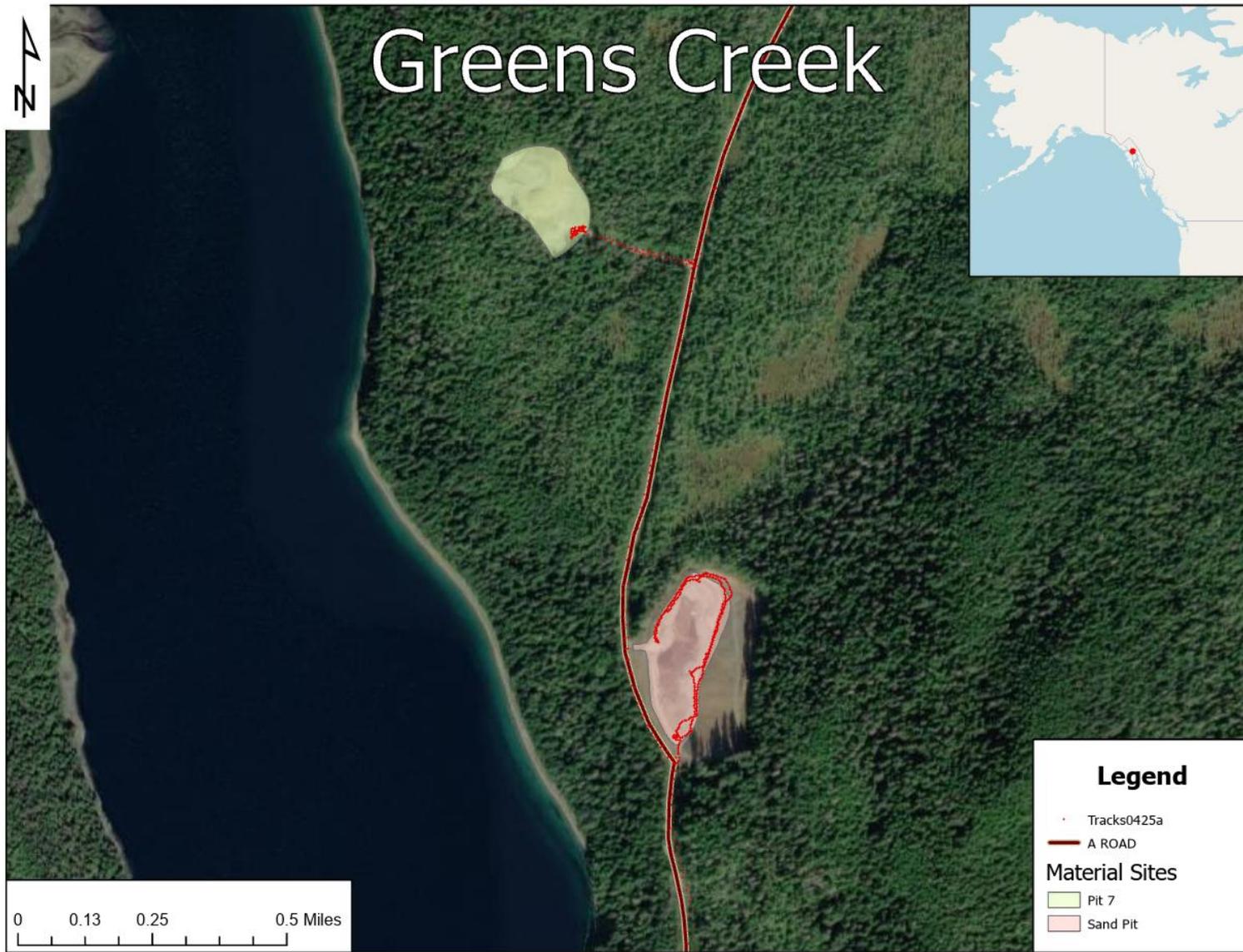
Map 2: Greens Creek Mine Inspection (04/29/2025). 860, 920, and 1350 areas.



Map 3: Greens Creek Mine Inspection (04/29/2025). Material Site E and Pond E.



Map 4: Greens Creek Mine Inspection (04/29/2025). TDF, ponds 7 and 10, Stockpile Storage Area, North Expansion Project (NEP), and Hawk Inlet.



Map 5: Greens Creek Mine Inspection (04/29/2025). Sand Pit and Pit 7.

# Field Inspection Observations of Note with Photos in Sequence of Inspection

Photo 1: Stairway to Greens  
Creek Weir upstream from  
920 Portal Bridge.



Photo 2: Pump House and  
Active Carbon Filter System  
buildings.



Photo 3: Active Carbon Filter System building.



Photo 4: 920 Area Portal and Bridge over Greens Creek. Note the splash guards on the bridge to help prevent mud and sediments from entering Greens Creek.



Photo 5: Degrit Basin 001.



Photo 6: Pond-A



Photo 7: 1350 Area Portal exhaust and escapeway.



Photo 8: 1350 Area seep collection structure.



Photo 9: Ore Pad



Photo 10: Crusher



Photo 11: Mill Tour –  
Flotation Units

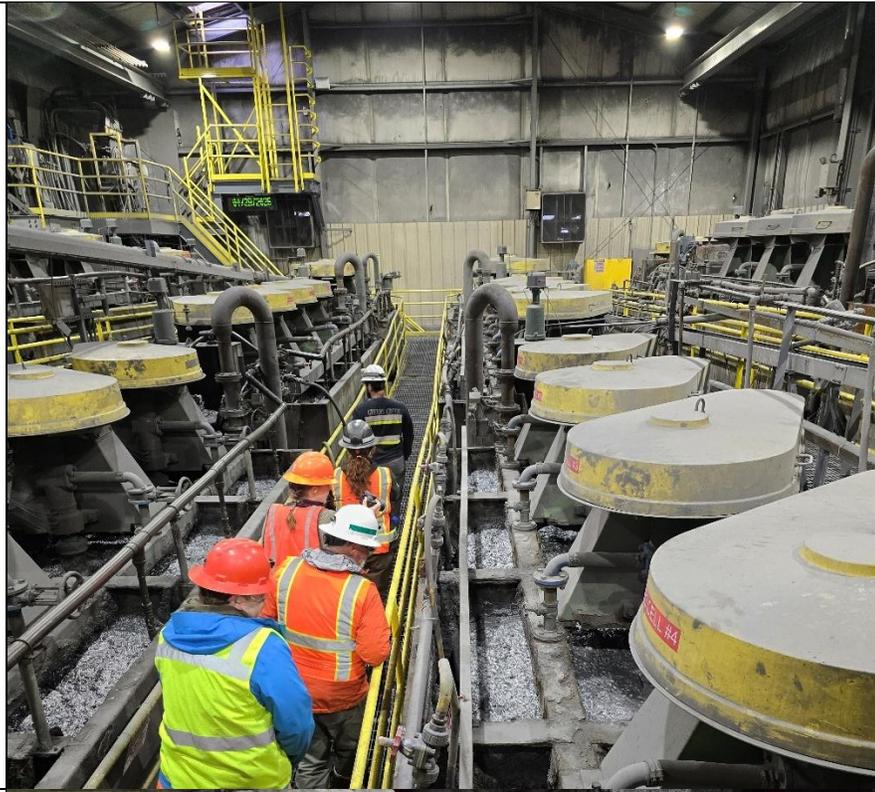


Photo 12: Mill Tour –  
Closeup of Flotation Unit



Photo 13: Mill Tour – Ball Mills



Photo 14: Mill Tour – Control Room



Photo 15: Mill Tour – Tails thickener (large tank) and bulk thickener (small tank).



Photo 16: Mill Tour – Lead thickener.



Photo 17: Mill Tour – Filter Press



Photo 18: Mill Tour – Concentrate Loadout.



Photo 19: Top of Site 23  
WRS.



Photo 20: Geology Core Lab  
examples of ore bearing core  
and drill core.



Photo 21: Geology Core Lab  
examples of core rock types  
and drill core.



Photo 22: Material Site E



Photo 23: Material Site E



Photo 24: TDF – Pond 10 including staged sediment (dewatering) bags.



Photo 25: TDF – Pond 7



Photo 26: TDF – Northern View



Photo 27: TDF – Southerly View



Photo 28: TDF – Eastern View



Photo 29: TDF – Stockpile Storage Area, Cannery Creek Intake, and Northern Expansion Project (NEP).



Photo 30: Northern Expansion Project Area from B-Road.



Photo 31: Cannery Creek  
Water Intake



Photo 32: Cannery Creek  
Water Intake



Photo 33: Sand Pit reclaimed slopes. Peat and organics in water collection pond.



Photo 34: Sand Pit reclaimed slopes. Peat and organics in water collection pond.



Photo 35: Sand Pit Dam and spillway.



Photo 36: Pit 7



Photo 37: Pit 7 laydown including supersacks filled with clean material for the paste plant.

