



March 11, 2014
Weather: Clear and cool. Temps 15-25F
with light winds.

Inspection team:
David Wilfong – ADNR
Curtis Caton – USFS
Cody MacCabe – USFS
Mitch Brooks - HGCMC

February 27, 2014 Inspection of the Greens Creek Mine

This report covers the joint general inspection of the Hecla Greens Creek Mine by the United States Forest Service (USFS) and the Alaska Department of Natural Resources (ADNR). The inspectors met at Ward Air at 8:00 AM, and left the Juneau airport shortly after. Travel to and from the mine was provided by a USFS chartered Cessna 206 floatplane (the pontoons are equipped with retractable wheels). The plane landed at Hawk Inlet at about 8:30 AM and taxied to the seaplane dock, where the inspectors deplaned and walked to the camp area where they were met by Mitch Brooks from the Hecla Greens Creek Mining Company (HGCMC) Environmental Department. Mr. Brooks (Mitch) accompanied the team for the entire inspection.

After a short safety briefing, the team boarded a USFS Ford Excursion, and left the Beach (camp) area for the Young Bay crew boat dock via the A Road. All of the roads were in good repair and required no maintenance. The Young Bay dock area was clean and no issues were noted. The team traveled back toward the Beach, and stopped at Pit 7. Several thousand cubic yards of reclamation material, mostly overburden, are stored in Pit 7 (Figure 1). It also doubles as an emulsion explosive storage area. The emulsion is stored in tanker



Figure 1 Reclamation material stored in Pit 7.

trailers, but the trailers were not present at the time of inspection. Due to the subfreezing temperatures, there was little water seepage coming from the toe of the pile. No issues were observed anywhere at Pit 7.



Figure 2 Clean snow on the slope of the tailings pile. This may indicate successful fugitive dust mitigation measures.

After leaving Pit 7, the inspectors traveled to the Tailings Disposal Facility (TDF). Tailings placement was occurring in the central section of the pile. During previous inspections while snow was present, discoloration of the snowpack could be seen due to fugitive dust. However, no discoloration was observed during the February 27th inspection. The lack of discolored snow (Figure 2) may be an indication of successful mitigation measures that HGCMC has instated to lessen the effects of windblown snow. The mitigation measures include portable wind fences, pre-determined placement areas during dry, cold, windy days, and more. The weather conditions during the inspection (dry and cold) were typical of the weather that would cause fugitive dust, but no dusting was observed.

The team traveled on a “clean road” around the perimeter of the TDF to the Water Treatment Plant (WTP). Both the inside and the outside of the WTP were clean and well organized, and no problems were noted. After a tour inside the WTP, the inspectors drove around the perimeter of Pond 7 (Figure 3). The pond had been dredged during the previous summer, and the water level was noticeably lower due to the lack of sediment in the lined pond. The truck wheel wash at the tailings facility was operating despite the cold temperatures.



Figure 3 Pond 7.

The team traveled up the B Road toward the mill facility and mine portal (920). Several miles away from the tailings facility, the Forest Service Excursion’s diesel engine stalled while traveling at approximately 25 miles an hour. Although the engine was restarted, it stalled again soon after, and the vehicle rolled to a stop at a pullout on the B Road

away from the flow of traffic. After sitting for several minutes, the engine was re-fired, and the vehicle traveled the rest of the way to the 920 area with little incident. The little used Excursion had been filled with fuel that morning, and water may have entered the system. While the team was inspecting the 920 area, a fuel additive was added by a Hecla mechanic, and the engine had no trouble for the rest of the inspection.

Outside of the mill building, a partially full barrel of used ethylene glycol (antifreeze) was missing a bung, and several 55 gallon containers lacked secondary containment. However, the few containers lacking containment were a marked improvement over earlier inspections, and it was apparent that the warehouse and mill workers were making an extra effort to keep chemicals in secondary containment, and the area clean and tidy. The inspectors opened one of the new 20 foot containers with built in secondary containment. The container in Figure 4 can hold a volume of about 300 gallons in its secondary containment. Hecla obtained several of these “sea vans” to ensure that all chemicals used at the mill and other parts of the mine would be stored in secondary containment. Several more of the special containers were to be moved and placed near the warehouse facility when the area becomes clear of snow. Some of those containers will be modified to hold 600 gallons so they can accommodate large totes.

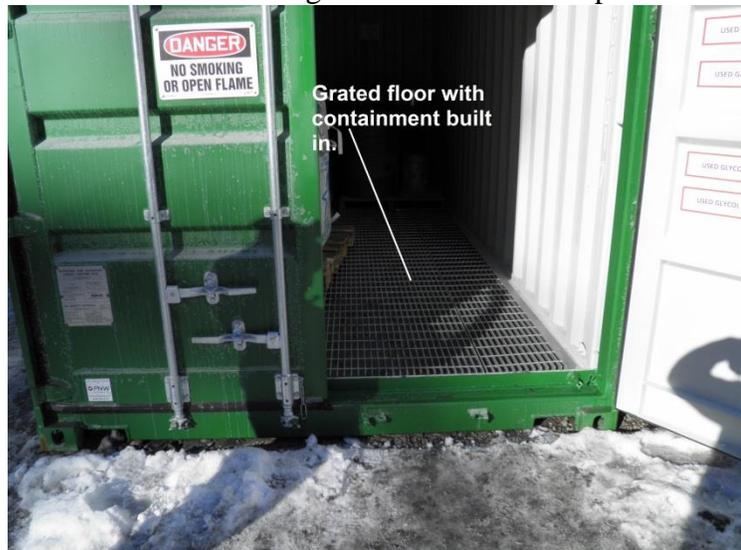


Figure 4 Twenty foot container with built in secondary containment.

Existing degrit basins have been retrofitted with piping and spray nozzles to make snow melting basins. The nozzles were spraying, but no snow had been recently placed in them (Figure 5). The melting basins spray warm, treated water recycled from the mill on plowed snow placed in the basins. During past inspections, plowed snow that may have been contaminated with pyritic fines



Figure 5 Snow melting basin.

from ore and tailings could be found heaped outside of the diversion ditch, and therefore outside of containment. The snow melting basins were installed to alleviate this problem, and appeared to be working well. Also, obstacles were placed in strategically chosen areas to prevent snow from being pushed outside of containment. The team observed a cemented-tailings back fill haul truck being filled and trucked underground. The fill will be placed in mined out stopes to add support to the underground mine. The warehouse area was inspected and no problems were

observed. The team then attended a very informative tour of the mill, and then drove back to the Beach.

After arriving back at the camp area, the inspectors walked through the core shack, and viewed the diversion ditch at the top of the camp area known as the truck pad. Snow obscured the diversion ditch and drainage paths and no problems were observed. After a short wait in the cafeteria, the inspection team boarded the Ward Air floatplane for the short ride back to the Juneau Airport.

The Alaska Department of Natural Resources would like to thank the United States Forest Service for providing air transportation to and from the Greens Creek Mine, and Mitch Brooks for the safe and informative inspection.



Figure 4 The 920 area at the Greens Creek Mine on a rare, sunny day.