



Pogo Mine Field Inspection Report

Inspection Date:	June 4, 2025
Time:	12:30PM to 3:30 PM
Weather:	Overcast with broken clouds in the afternoon, becoming partly sunny, cloud cover later in the day. Slight breeze around 15mph with an average temperature of 60°F.
DNR Personnel:	Aaron Kruse, William Groom, Aleria Knudson
Pogo Personnel:	James Meyers, Russell Gossett
Inspection Objectives:	Site Inspection

Operations:

Pogo Mine (Pogo) is located approximately 38-miles northeast of Delta Junction and 88-miles southeast of Fairbanks via Richardson Highway and is operated by Northern Star Resources Limited (NSRL). The mine's operational footprint resides on state lands managed by the Department of Natural Resources (DNR) and consists of two upland mining leases and a millsite lease (Map 1). Pogo Mine started production in 2006; however, in 2018 NSRL acquired 100% ownership of the mine, its facilities, and mineral properties. Gold is the primary resource within this load deposit, mined wholly as an underground operation.

Pogo's mining operations vary in planning and design based on geological structure, vein thickness, and grade. Four portals provide access to varying block areas with a new 1380 Portal currently under excavation. Milling operations have an annual processing capacity of up to 1.3Mt which produced 283Koz of gold in F25. The ore processing circuit uses gravity concentration, gold and sulphide flotation with a leach/carbon-in-pulp for recovery.¹

Field Inspection Plan, Execution and Summary Schedule:

DNR is the lead agency regarding mining activities on state land for surface disturbance, water use, and reclamation. DNR conducts site inspections to ensure compliance with Pogo's Plan of Operations Approval (F20249500POOA.1) and Reclamation Plan Approval (F20249500RPA.1), as required under AS 27.19, AS 38.05, 11 AAC 86 and 11 AAC 97. The primary objectives for DNR personnel were to inspect active disturbance, such as ongoing construction, tailings storage, reclamation, and water management. The inspection plan was designed to allow for selecting additional sites for inspection in an opportunistic fashion, and as time allowed.

DNR staff arrived at Pogo at approximately 11:30AM on June 4th and met with NSRL staff, Russel Grossett and James Meyers to review the inspection plan for the mine site and its facilities and to discuss

¹ Pogo Operations, *Pogo Mine, USA*, Northern Star Resources Limited, website available at: <https://www.nsrltd.com/our-assets/pogo-operations/> (accessed 12/2/2025)

any relevant information before starting the inspection. The inspection consisted of surface operations, disturbance, and areas of active construction.

The inspection began around 12:30PM by driving to the Off River Treatment Works (ORTW). A drone was deployed near the Inlet Pond to document the surrounding water treatment facilities and storage yards. Next, DNR staff drove a short distance south to view construction of the 1380 Portal and pad. There, the drone was flown over all recent construction, surrounding growth media stockpiles, storage yards, and the western extent of the Goodpasture Prospect area (Map 2). DNR staff then continued to the southern end of the Lower Camp to photograph building conditions and the fuel island. Finally, DNR headed to the Dry stack Tailings Facility (DSTF) and Recycle Tailings Pond (RTP). At each location the drone was deployed to document water levels, facility conditions, and current disturbance (Map 3).

Findings:

A summary of findings can be found below with a description of active sites that were visited. Detailed route maps with areas of interest, including photos of all inspected sites with observations notes, are in Appendix A.

1. Inspection of Active Areas of Disturbance and Reclamation

- 1.1. Along the access road to the ORTW is a storage yard mostly comprised of varying pieces of steel, pipe, and a few drums. The yard is well organized and kept in good condition with no notable issues (Photo 1). A drill core storage yard at the end of the runway near ORTW access is also well organized, consisting mostly of pallets of core with some steel, pipe, tanks, and Conex containers (Photo 2). Growth Media Stockpiles 08 and 16 reside just to the east and south of this yard, both of which are in good shape and covered with vegetation (Photo 3 and 4).
- 1.2. On the west end of the airstrip is the main road material stockpile next to a scrap yard comprised mostly of discarded metal debris and non-operative vehicles (Photo 5). Several distinct material piles are observed of varying size and grade produced from green waste rock from the mine. Adjacent is the Airstrip Organic Stockpile on the western end covered with vegetation (Photo 6). Most of the area around the airstrip is comprised of laydown and storage yards for mine operations.
- 1.3. Just south of the eastern extent of the airstrip is the location for the 1380 Portal. At the time of inspection, active pad construction was observed just below a newly excavated benched high wall. Pad construction uses green rock from the mine to bring the elevation up to grade, which will extend to the road when completed (Photo 7). Two ramps to the highwall were in place to begin construction of an intake and exhaust portals (Photo 8). At the eastern corner of pad construction is the location where the main powerline will be re-routed (Photo 9). The main powerline currently runs along the access road and will be removed once installation of the new powerline is complete.
- 1.4. A drone was deployed from a laydown yard next to 1380 Portal pad construction and flown across the river to the Goodpasture Prospect. Active exploration drilling was observed (Photo 10) along with several previous pad locations, each containing two lined drilling fluid sumps (Photo 11). This area will be part of the mine extension supported by the 1380 portals.
- 1.5. DNR personnel drove to the Lower Camp to document field offices, shops, core processing facilities, and the fuel depot. The area was organized, and buildings were well maintained and in good condition (Photos 12 and 13). Pallets of core and supersacks were also well organized and accessible. The fuel island was clear of any hazardous items and is well documented with signage (Photo 14).

- 1.6. A drone was deployed from the top of the DSTF to document the entire area and ongoing expansion activities of Shells 1 & 2, and continued deposition of rock and tails within the General Placement Area (GPA). Piles of non-mineralized rock were staged along the crowns of both Shells 1 & 2 to raise their elevation as part of the DSTF expansion (Photos 15 and 16). The Shell Zones and embankment placement zone provide structural stability for the DSTF and GPA.² Piles of tails were staged within the GPA, while a vibratory roller compacted tails that were previously spread (Photo 17). Rock has also been staged around the GPA to continue to build up the berm for containment.

2. Water Management

- 2.1. Riprap barriers on each side of the mouth for the ORTW Inlet Pond appeared in good shape with no noticeable erosion from spring breakup along the Goodpaster River (Photo 18). Water was observed actively flowing from facility NPDES001B into the Mixing Pond (Photo 19). Constant water discharged was also noted flowing from the Mixing Pond into the Goodpaster River from Outfall 001 (Photo 20).
- 2.2. The RTP is located just downstream from the DSTF to collect any seepage that occurs. From the dam, DNR staff deployed the drone to take aerial imagery and document the site and surrounding area. The current water storage was well below what has normally been observed (Photo 21). Water was noted seeping from the DSTF into a small pond upstream of the main impoundment and water body. No surface water connectivity to the RTP was noted from this small pond and is assumed to have groundwater connectivity (Photo 22). The surrounding facilities and spillway were in good condition, and the area appeared to be well maintained.
- 2.3. The Diversion Ditch System (DDS) around the DSTF was observed with water within its entire length. Seepage was noted entering the flow through drains located within the DSTF at two of its southern points. Snow was still present within shadowed areas along the surrounding hillside (Photo 23). Most of the water flowed into the diversion ditch from natural drainage points (Photo 24).

Conclusion and Recommendations:

Northern Star Resources Limited facilitates their mining activities in a manner which prevents unnecessary and undue degradation of State land and State water resources. All observed activities conform with the Plan of Operations and Reclamation Plan Approvals, and current activities meet the state's requirements under AS 27.19.020 and 11 AAC 97. DNR finds Pogo Mine operations are in good condition and consistent with industry standards.

Report prepared by: Aaron Kruse

Cc via email:

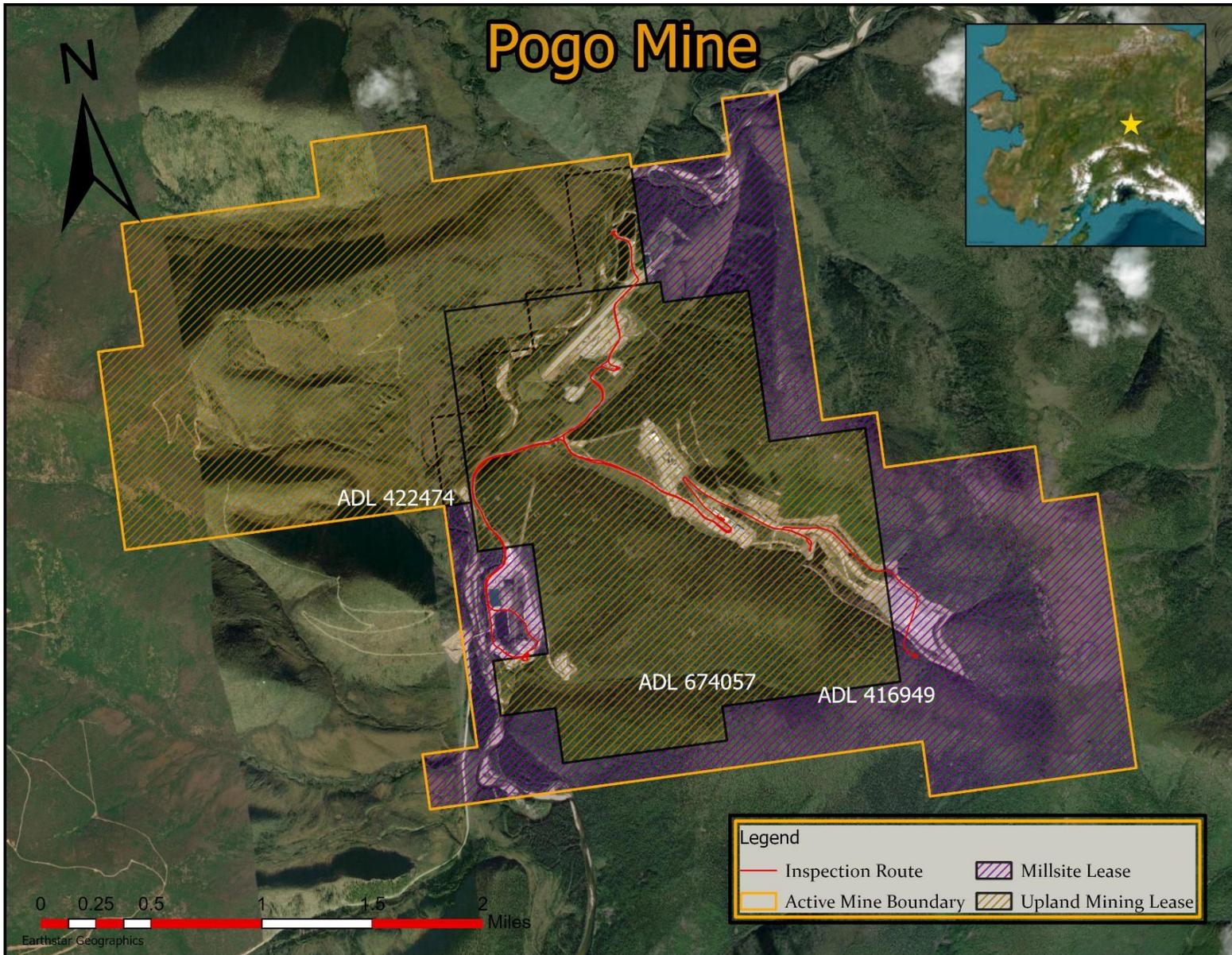
Steve Buckley (DNR)
William Groom (DNR)
Carolyn Curley (DNR)
Jesse White (DNR)
James Hyun (DNR)
Tim Pilon (DEC)

Allan Nakanishi (DEC)
Ben Wagner (DNR)
Kim Bustillos (DNR)
Jenny March (DNR)
Audra Brase (AKF&G)
Russell Gossett (NSRL)

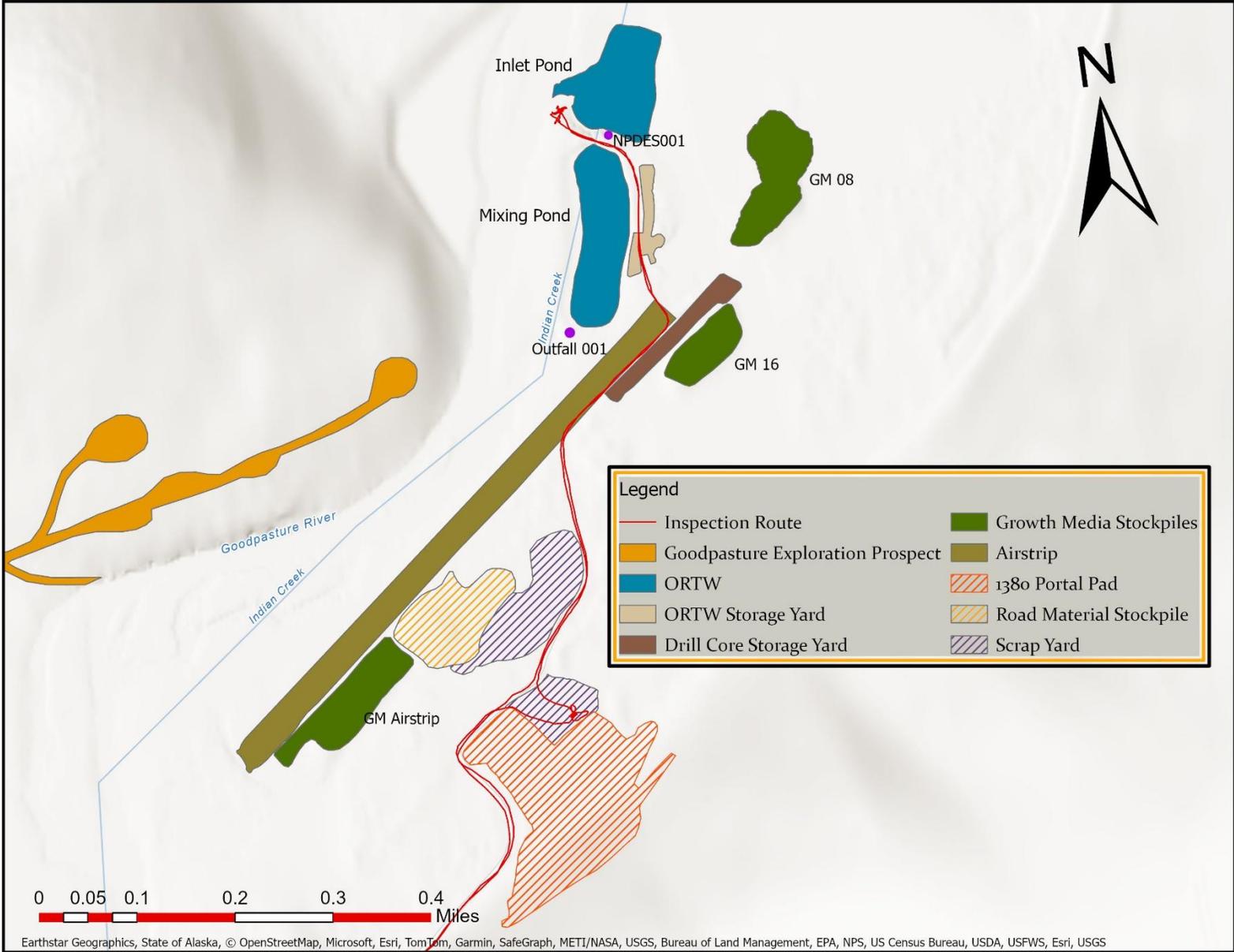
² NSRL. (2023). *Plan of Operations*. Revisions to Documents in Support of Renewal of Northern Star Resources (Pogo) LLC's Plan of Operations. Section 8.2.1.

Appendix A

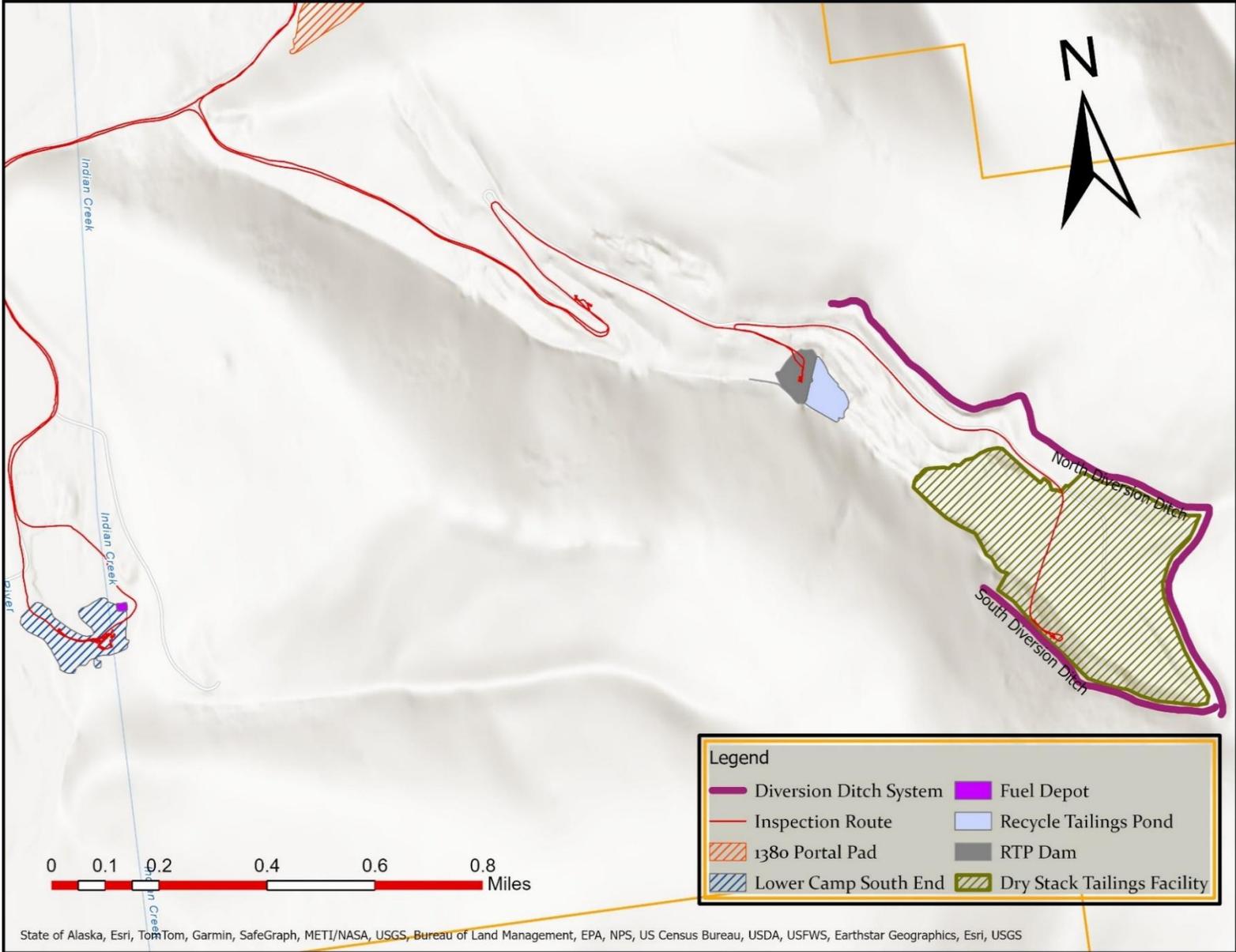
Inspection Maps, Photos, and Observations of Note



Map 1: Lands encompassed by Pogo Mine's operations and route of inspection.



Map 2: Northern extent of inspection includes laydown and storage yards, 1380 Pad area, exploration, and ORTW.



Map 3: Southern extent of inspection includes south end of lower camp & facilities, DSTF, and RTP.

Field Inspection Photos with Observations of Note

Photo 1: Storage yard next to the mixing pond in the ORTW. Varying assortment of well-organized pipe and steel. View looking southeast.



Photo 2: Exploration Core Storage yard. View looking southeast.



Photo 3: Growth Media Stockpile (GM 16) next to the core storage yard. Well vegetated, stable, and accessible for future reclamation. View looking southeast.



Photo 4: Growth Media Stockpile (GM 08). Older areas are heavily vegetated with more recent organic placements showing good vegetative growth. Located at the northeast end of the runway adjacent to core storage yard.

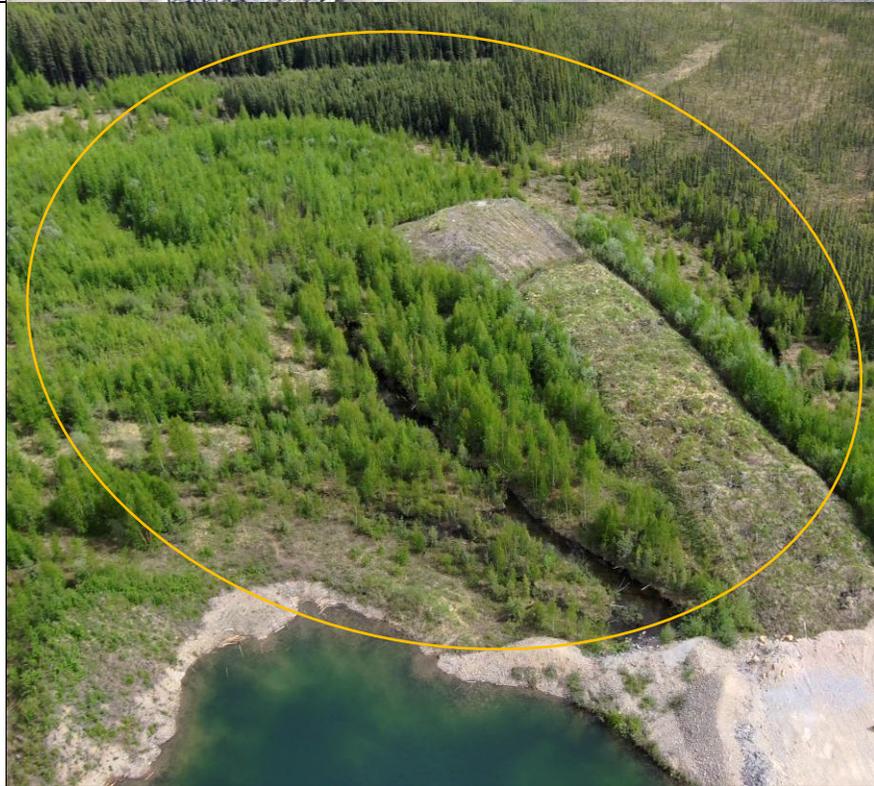


Photo 5: View looking northwest. Several separate piles of varying grades of road material produced from non-mineralized green rock from the mine. Discarded debris and adjacent to stockpiles.

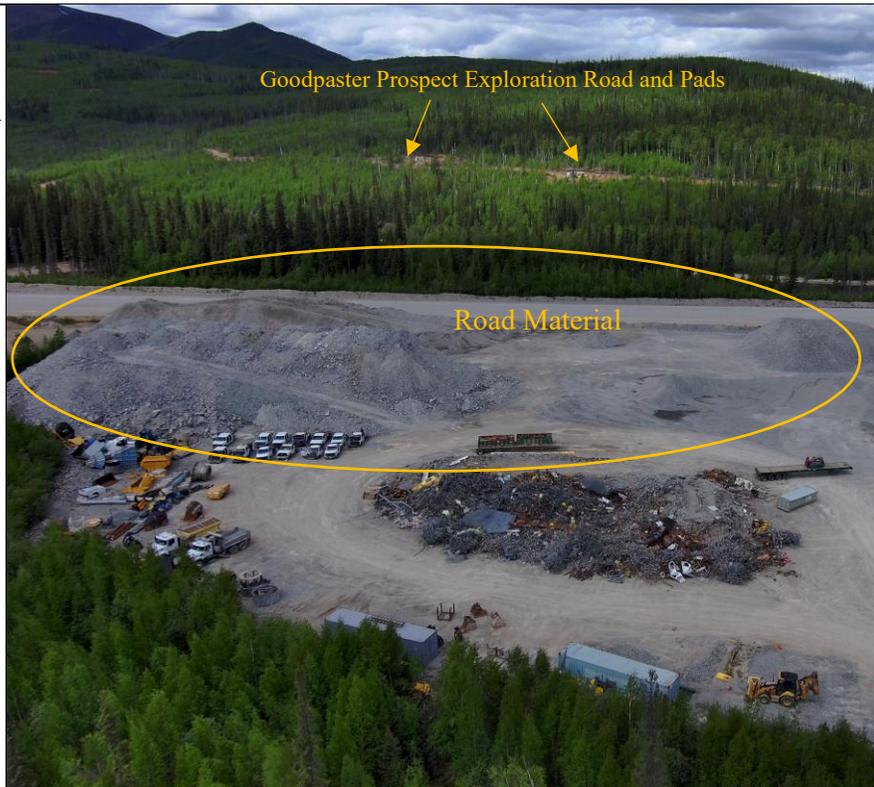


Photo 6: View looking south of the Airstrip Growth Media stockpile. Well vegetated and in stable condition located on the southwestern end of the airstrip.



Photo 7: View looking northeast of the early works for the 1380 pad. Piles staged to be spread (circled). This buildout will extend to the access road where the current powerline runs. Background is area for the powerline re-route.



Photo 8: Dirt ramps indicate approximate location for the intake and exhaust portals. Benched highwall viewed southeast. These portals will be used to develop access to the Goodpaster Prospect across the river.



Photo 9: Initial construction for the powerline re-route located in the eastern corner of the 1380 Portal pad.



Photo 10: Active drilling within the Goodpasture Prospect.



Photo 11: Older drill site locations within the Goodpasture Prospect. Lined drilling fluid sumps have been left in place.



Photo 12: Exploration Core Processing Facility.



Photo 13: Photo taken just outside of the Core Processing Facility looking south. Core boxes on pallets are situated in front of bay door. Shop and buildings are all well maintained and surrounding area organized.



Photo 14: View of the Fuel Island looking southwest.



Photo 15: Piles of non-mineralized rock placed on the crown of Shell 1 to raise the elevation as part of the DSTF expansion. GPA for tailings and red rock co-disposal in background. View looking southeast.



Photo 16: Piles of non-mineralized rock placed on the crown of Shell 2 to raise the elevation as part of the DSTF expansion. Active flow through seepage draining into the RTP.



Photo 17: Piles of tailings staged in the GPA to be spread and compacted. Vibratory roller can be seen compacting tailings that have been spread. Water observed within the entire length of the DDS.



Photo 18: Riprap barriers at the mouth of the Intake Pond for the ORTW. Observed to be in good shape after spring snow and ice melt.



Photo 19: Water observed flowing from the facility NPDES001B into the Mixing Pond.



Photo 20: Active water discharge viewed flowing from Outfall 001 into the Goodpasture River.



Photo 21: Water level within the RTP was well below previously observed inspections.



Photo 22: Water observed flowing from the DSTF into the stilling basin; however, no surface connectivity appears between the stilling basin and RTP.



Photo 23: Snow present along slopes with active water seepage along the hillside was observed entering the DDS. Piles of non-mineralized material placement used to build up berm around DSTF.



Photo 24: Water observed flowing from natural drainage points into the DDS.

