



Fort Knox Mine and Gil Project Field Inspection Report

Inspection Date:	May 20-21, 2025
Time:	Tuesday 10:45 AM to 3:00 PM, Wednesday 10:00 AM to 2:45PM
Weather:	Both days of inspection were overcast with low clouds in the morning, becoming partly cloudy by afternoon and clearing later in the day. Slight breeze around 10mph with an average temperature of 50°F.
State Agency Personnel:	Aaron Kruse, William Groom, Jesse White, and Steven Penshorn
FGMI Personnel:	Muradur Rashedin and Brent Culleton
Inspection Objectives:	Site Inspection

Operations:

This report incorporates two separate projects, both of which Fairbanks Gold Mining Inc. (FGMI), a wholly owned subsidiary of Kinross Gold Corporation, operates in the same area of Alaska (Map 1). The first is Fort Knox Mine located approximately 26-miles northeast of Fairbanks via the Steese Highway. The mine's footprint resides primarily on state lands managed by Mental Health Trust (MHT) and the Department of Natural Resources (DNR). Private lands owned or leased by FGMI are within the active mining area. Fort Knox Mine is a conventional open-pit truck-and-loader operation with milling operations that have a capacity of up to 45,000 tonnes per day. Higher grade ore is processed onsite through milling, while lower grade ore is used in cold weather heap leach facilities which produced a total mineral recovery of 377,519 oz. of gold in 2024.¹

Eight miles east of Fort Knox Mine is the Gil Project (Gil), a satellite mine accessed by an industrial road limited to mine traffic originating from Fort Knox. The Gil completely resides on state land comprised of mining claims, MHT and DNR leases. Currently, Gil is in care and maintenance status due to suspended mining activities; however, ongoing exploration continues within and outside its operational footprint. The Gil consists of four small open-pit operations (Northeast and Southeast Sourdough pits, and Main and North Gil pits) with two main Waste Rock Dumps (WRD) and supporting facilities. During active operations, ore is hauled to Fort Knox Mine and stockpiled to be milled and processed. The Gil entered temporary closure during the summer of 2024 and is monitored weekly by FGMI Environmental. Weekly inspections of all buildings, storm water management, and fuel storage are part of the required conditions during a temporary closure to ensure the project area or facilities do not fall into a state of disrepair.

¹ Kinross Operations, *Fort Knox, USA*, Kinross Gold Corporation, website available at: <https://www.kinross.com/English/operations/default.aspx#americas-fortknox> (accessed 7/16/2025)

Field Inspection Plan, Execution and Summary Schedule:

The primary objectives for the Alaska Department of Natural Resources (DNR) personnel are to inspect active disturbance, such as ongoing construction, tailings storage, reclamation, and water management. Inspection plans are designed to allow for selecting additional sites in an opportunistic fashion, and as time allows. DNR conducts annual inspections to ensure compliance of both the Fort Knox Mine and Gil Project Plan of Operations Approval (F20209852POOA.2) and Reclamation Plan Approval (F20209852RPA.2), as required under AS 27.19, AS 38.05, 11 AAC 86 and 11 AAC 97. DNR is the lead agency regarding mining activities on state and private land for surface disturbance, water use, and reclamation.

DNR staff arrived at Fort Knox at approximately 10:00AM on May 20th and met with Kinross Sr. Environmental Engineer Muradur Rashedin and Environmental Specialist Brent Culleton. A brief meeting was held to discuss the day's inspection plan for the mine site and its facilities and to discuss any relevant information before starting the inspection. The inspection began around 10:45AM at the eastern overlook point to view active operations in the Fort Knox pit. From there, DNR staff drove to Gil to fly the drone due to the low cloud coverage at Fort Knox preventing safe flight conditions at higher elevations. A drone was deployed over Main Gil, North Gil, Sourdough NE and SE pits, both WRD's, and associated organic stockpiles. DNR staff photographed the administrative buildings, maintenance shop, and fuel depot located at the entrance to Gil. En route back to Fort Knox, DNR stopped to inspect the Fresh Water Reservoir's dam and spillway and the Tailings Storage Facility (TSF) Dam and Reverse Osmosis (RO)2 water treatment building (Map 2).

The following day, DNR continued its site inspection focusing on completing aerial drone surveys of active mining disturbance and reclamation efforts. Just after 10:00AM, DNR staff and Mr. Culleton began the inspection at Victoria Creek WRD where a drone was deployed to obtain aerial imagery, which included Fish Creek WRD and surrounding growth media stockpiles. Next, DNR staff drove to the top of Barnes Creek WRD to capture aerial imagery of the WRD and Barnes Creek Heap Leach facility. Afterwards, DNR staff traveled to the northern end of the Central TSF, just west of the Phase 1 causeway, where aerial imagery was taken of Walter Creek Heap Leach Facility, ore stockpiles, and an equipment yard. The final drone flight was launched from the Pearl Creek Causeway, which covered the southern extent of Fish Creek East WRD, TSF North and South ponds, Barge Pond, and TSF Dam (Map 3).

Findings:

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

1. Inspection of Active Areas of Disturbance and Reclamation

- 1.1. At the Fort Knox Main Pit overlook, DNR observed active drilling on the upper bench (southwest of overlook) and at the base of the pit for the Phase 10 expansion (Photo1). Along the upper reaches of the southwestern extent of the pit was an active RC drill conducting exploration for the Phase 11 pit expansion. Ore stockpiling was observed along the southern base of the pit (Photo 2). At the time of inspection, Manh Choh tailings were being deposited into the in-pit tailings disposal pond (Photo 3). The dewatering barge within the in-pit disposal pond was not operating (Photo 4).
- 1.2. The Gil inspection of both WRD's and all pits was completed using a drone to capture images of surface disturbance and facilities. The first drone launch point was atop a growth media stockpile that is situated between the Main and North Gil pits, just below the Gil WRD. From this vantage point, DNR observed water ponding in each pit (Photo 5) with active instabilities along the Main

Gil Pit's southern high wall on its west end (Photo 6), and on its northern high wall east end (Photo 7). Both areas of pit wall instabilities extended throughout all benches with the western side having the largest area and volume of material sloughing into the pit. Just south of the Main Gil Pit is the Main Gil WRD and growth media stockpile, both appeared stable without apparent degradation of slopes (Photo 8).

The second drone flight was over NE and SE Sourdough Pits and Sourdough WRD. Ponding water was observed in NE Sourdough Pit with minor in-pit instability along the southern high wall along a lower bench (Photo 9). The SE Sourdough Pit was dry; however, material instability movement of the southern pit wall was observed which extended through several benches (Photo 10). It appears that in the Sourdough pits, only the benches collapsed onto themselves, whereas the Gil Pit lateral tension cracks can be seen forming within the crown above each wall instability suggesting ongoing movement.

- 1.3. In the fall of 2024, grass seeds were sown atop both the Gil and Sourdough WRDs using aerial seeding methods. DNR observed minimal growth coverage along slopes and surfaces for each WRD (Photo 11). Surrounding native foliage was just beginning to grow leaves with snow still visible at higher elevations. Seed germination progress will be documented with subsequent inspections to monitor best management practices (BMP) for maintaining slope stability. It should be noted that reclamation of the WRDs requires the benches to be graded, contoured, and revegetated as indicated in the Fort Knox Mine Reclamation and Closure Plan.²
- 1.4. FGMI has begun initial grading of benches for the Victoria Creek WRD; however, active deposition of waste rock is still ongoing (Photo 12). Stockpiles of growth media have been placed on the upper tier of the WRD in preparation of initial reclamation (Photo 13). DNR staff also observed an active inert burial site with refuse to later be encapsulated into the WRD (Photo 14). It was noted that the RS 2477 right-of-way's, which were temporarily restricted due to haul road construction, will reopen back to the public within the timeframe permitted by DNR-Lands.
- 1.5. Fish Creek WRD, viewed from several vantage points, had active deposition of waste rock (Photo 15). DNR staff did not visit this site due to active operations of haul trucks.
- 1.6. FGMI is completing final grading of Barnes Creek WRD benches (Photo 16) which are scheduled to be completed later in the year. Growth media has been staged at several locations around the WRD in preparation for spreading. A large stockpile of growth media has been staged at the toe of the WRD near the southern access route (Photo 17).
- 1.7. Active haul truck operations at Barnes Creek Heap Leach were observed with continued deposition of ore in tiered sections. The outlying regions of the heap leach facility were undergoing expansion with placement of a liner on a prepared subbase overlain with drain aggregate (Photo 18).
- 1.8. Walter Creek Heap Leach has reached its maximum buildout, and its slopes have been graded and contoured in preparation for final reclamation requirements. Fort Knox is no longer placing ore on WCHL; however, leaching will continue until the leach solution is no longer economical. DNR observed drip emitter piping along the face of the facility spaced incrementally along its slope (Photo 19). The Leachate Collection and Recovery System structures, embankment, RO1 water treatment facility, and spillway all appeared in good condition located at the base of the facility (Photo 20).

² FGMI, (2021), *Fort Knox Mine Reclamation and Closure Plan Amendment 2 Gil Project Addition Revision 1*, Kinross Gold Corporation.

- 1.9. Within the northern end of Central TSF, DNR observed active mobilization of Manh Choh ore using a front-end loader. The stockpile was diminished in volume from previous inspections and the footprint for the area has remained consistent since it first opened in 2024 (Photo 21). The Central TSF is comprised of varying areas of tailings deposition from Fort Knox Main Pit, material stockpiles, an inactive area for the Gil ore stockpile, and an equipment yard. All areas are well managed and organized (Photo 22).

2. Water Management

- 2.1. The Fresh Water Reservoir, reported by FGMI staff, was at normal levels for spring melt and precipitation. The average flow rate of the spillway for this time of year had water across its width draining back into Fish Creek (Photo 23 and 24). The Fresh Water Dam and valve house appeared to be in good condition.
- 2.2. DNR arrived at the RO2 water treatment facility located below the main TSF Dam. The facility and surrounding structures appeared in good shape including a well-organized storage yard consisting of Conex containers, pipe, and construction material (Photo 25). At the time of inspection, discharge from RO2 was reported to be 2000 gallons per minute into the wetlands complex (Photos 26 and 27).
- 2.3. DNR staff deployed a drone from the Pearl Creek Causeway at a central point between the TSF South and North Ponds, TSF Dam, and Barge Pond. Aerial imagery shows a good segregation between waters within the South Pond, laden with tails, compared with the North Pond and Barge Pond (Photos 28 and 29). The TSF Dam appeared well maintained with some surface activity, possibly in preparation for the proposed dam raise that is planned to begin later this season (Photo 30).

Conclusion and Recommendations:

It is recommended that FGMI evaluates the slope conditions within the Gil Main Pit and Sourdough pits to determine if BMP's may be used to provide stability during a temporary closure.

Overall, FGMI facilitates their mining activities in a manner which prevents unnecessary and undue degradation of State land and State water resources. All other 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 97.200. DNR finds Fort Knox Mine operations are in good condition and consistent with industry standards.

Report prepared by: Aaron Kruse

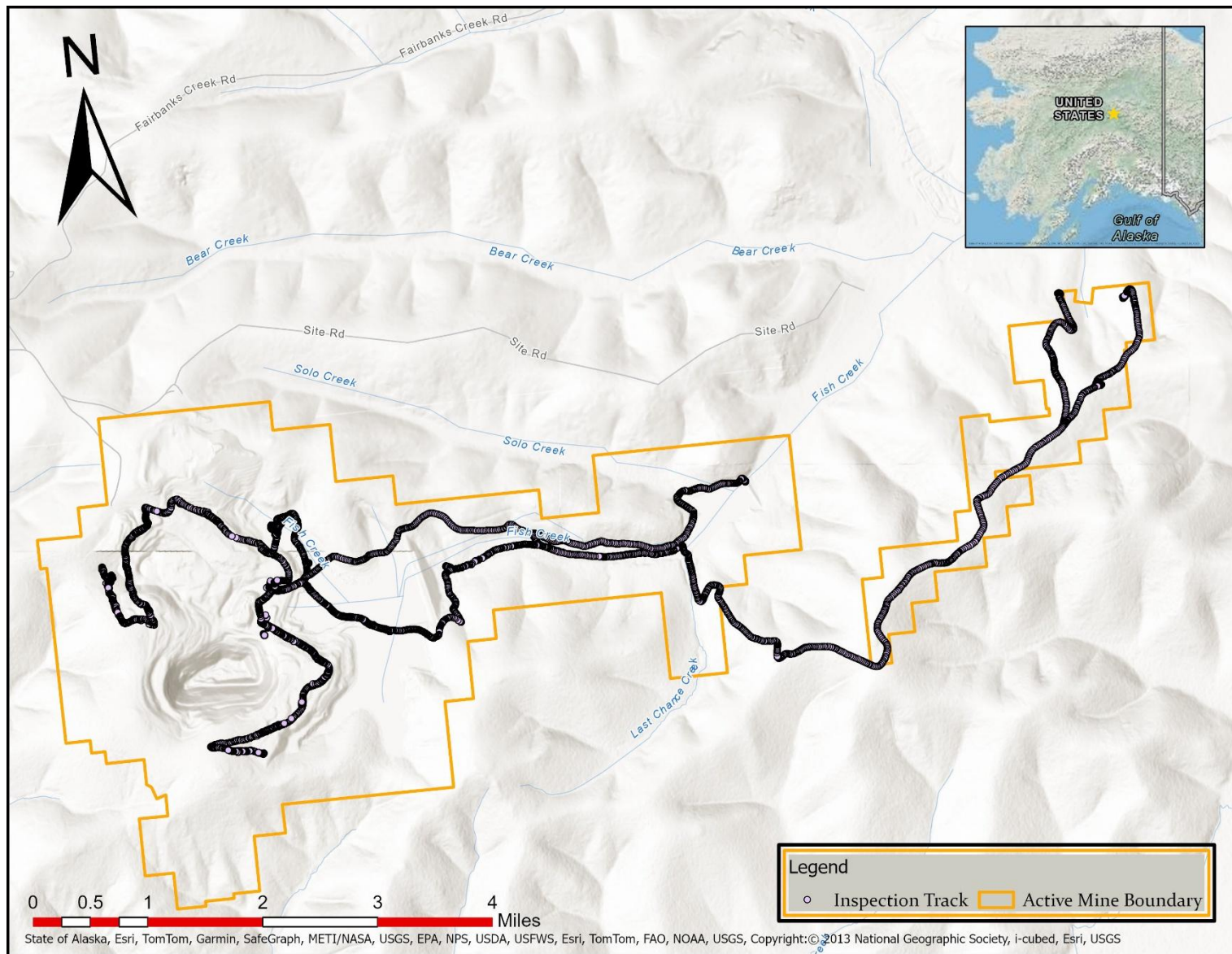
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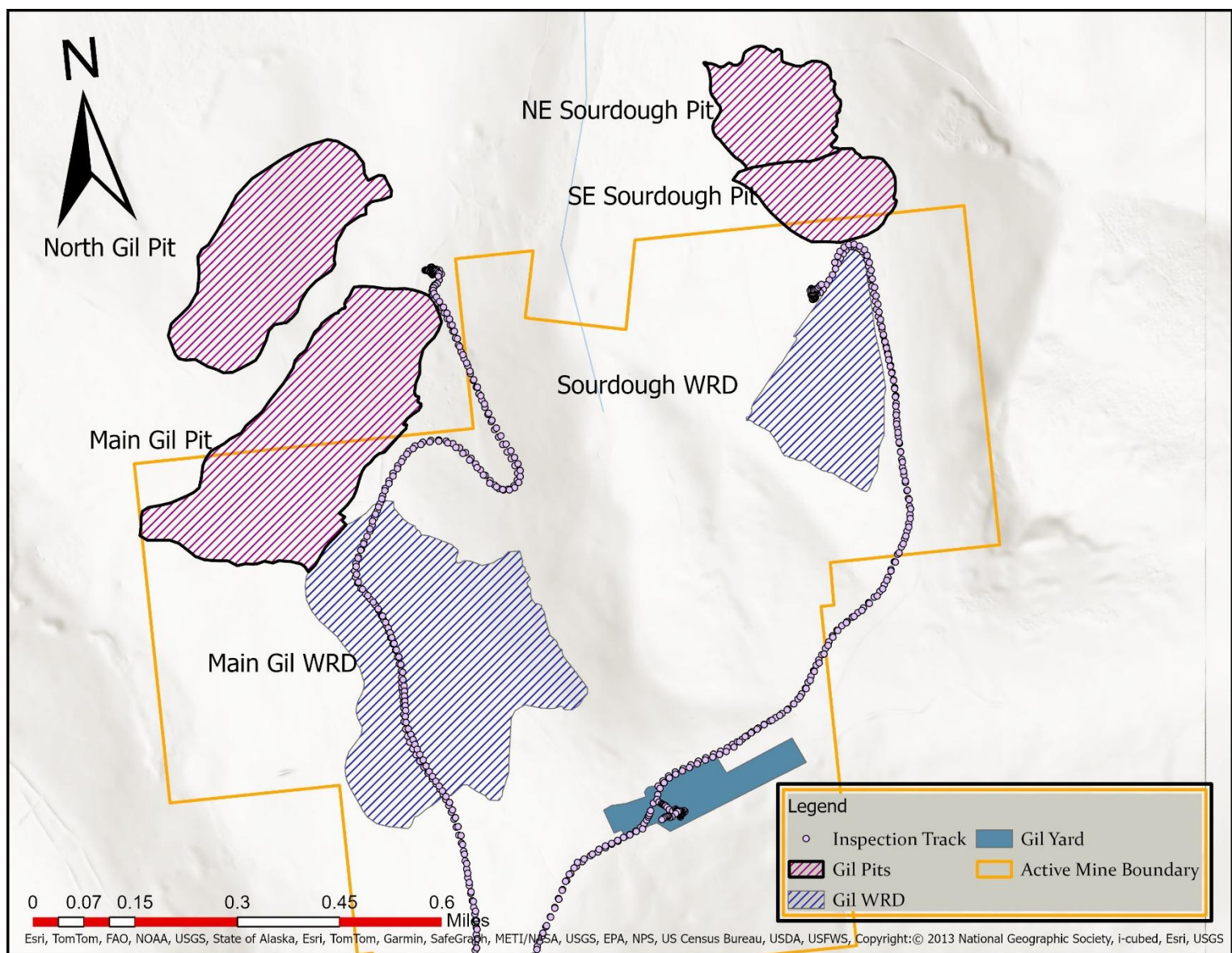
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Appendix A

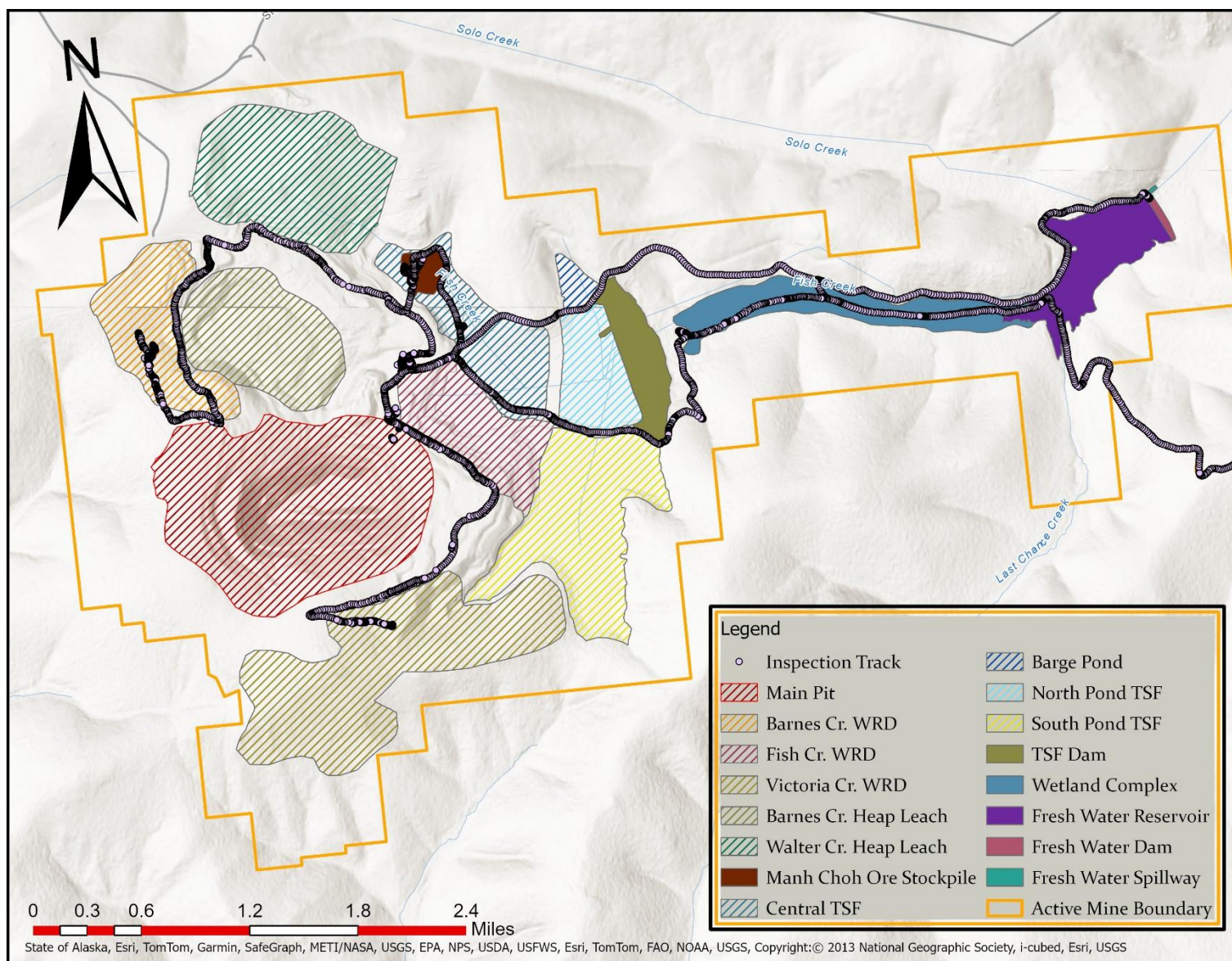
Inspection Maps and Observations of Note



Map 1: Inspection Route between Fort Knox (west) and Gil (east) with active mine boundaries separated by an industrial haul road.



Map 2: Gil Project mine boundary with an inspection focus on pits, waste rock dumps, and facilities under care and maintenance status.



Map 3: Fort Knox Mine footprint includes all areas that were inspected.

Field Inspection Photos with Observations of Note

Photo 1: Phase 10 expansion drilling along upper bench.

RC drilling along southern extent of the pit for Phase 11 expansion.

Photo taken from overlook facing southwest.



Photo 2: Staged ore stockpiles to be hauled to the mill.



Photo 3: In-pit tailings disposal pond. Active piped tailings discharge into Fort Knox Pit from processing Manh Choh ore.



Photo 4: In pit dewatering barge was inactive while tailings were being deposited.



Photo 5: Main and North Gil pits with ponded water. Mining is suspended while the project is in a care and maintenance status.



Photo 6: Main Gil pit wall instability west end on southern high wall. Material movement crosses all bench cuts.

Lateral tension cracks can be seen in the crown above the scarp.

DNR will continue to document the stability of the affected area in future inspections.



Photo 7: Material instability on the east end of the Main Gil pit northern high wall extending through all benches.

Note the lateral tension cracks perpendicular to the slide within its crown.



Photo 8: Main Gil WRD and growth media stockpile.

View facing south.



Photo 9: Ponding water observed in NE Sourdough Pit with minor in-pit instability.



Photo 10: SE Sourdough Pit instability across several benches along the southwestern wall.



Photo 11: Pre Green-Up, early spring growth on the Sourdough WRD. Aerial seeding occurred in the fall of 2024. View of WRD looking east.



Photo 12: Active deposition of waste rock on the Victoria WRD, foreground.

View looking east, TSF visible.



Photo 13: Stockpiled growth media on top of the eastern extent of Victoria Creek WRD.

Note the location of TSF north and south ponds.

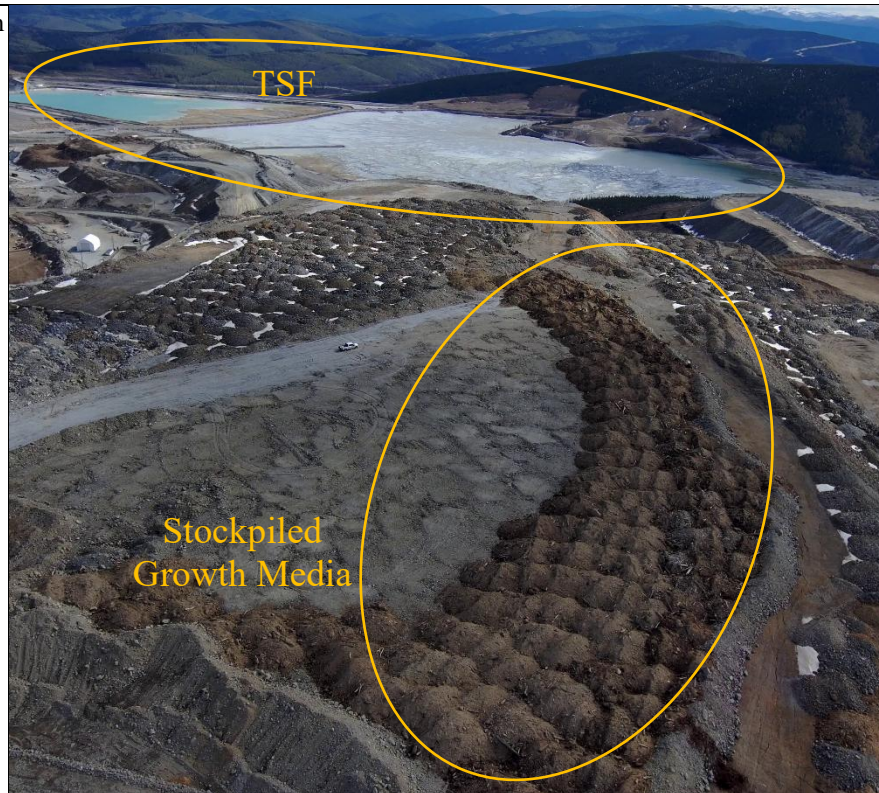


Photo 14: Inert burial site on top of the eastern extent of Victoria Creek WRD.



Photo 15: Active deposition on the Fish Creek WRD.



Photo 16: Final grading of benches along the western extent of Barnes Creek WRD.



Photo 17: Stockpiled growth media (GM2) at the southern toe of Barnes Creek WRD staged for reclamation.



Photo 18: Northeast view of Barnes Creek Heap Leach.

Active deposition of ore on tiered sections. Sectional liner expansion observed placed over subbase material and covered with drain aggregate.

Walter Creek Heap Leach in the background at its final buildout elevation.

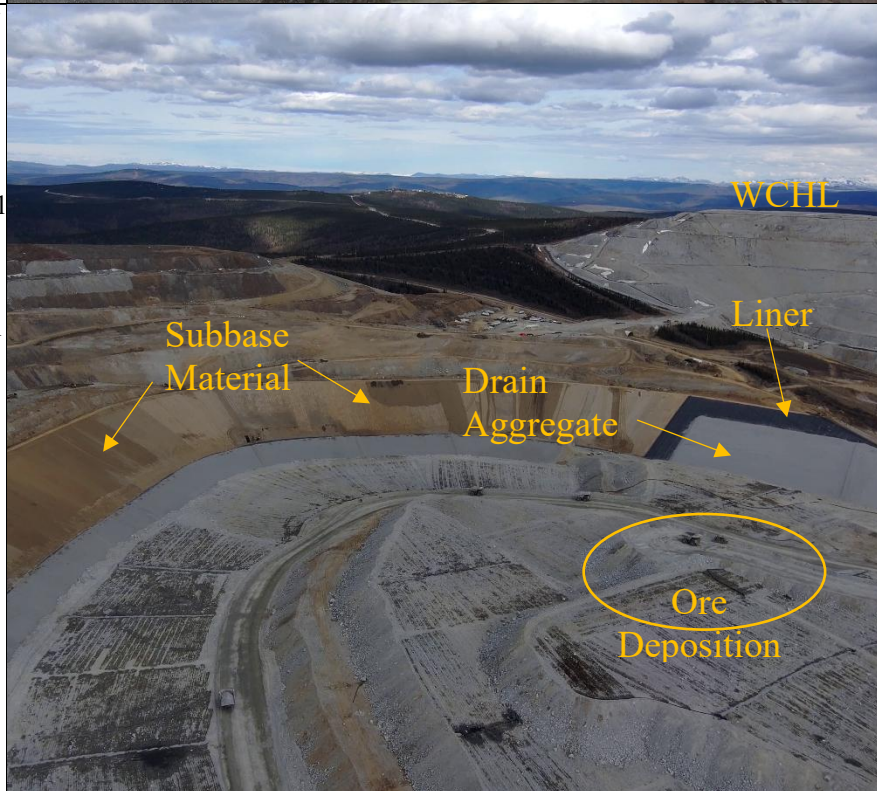


Photo 19: Walter Creek Heap Leach facility with graded slopes. Drip emitter piping runs normal to slope.

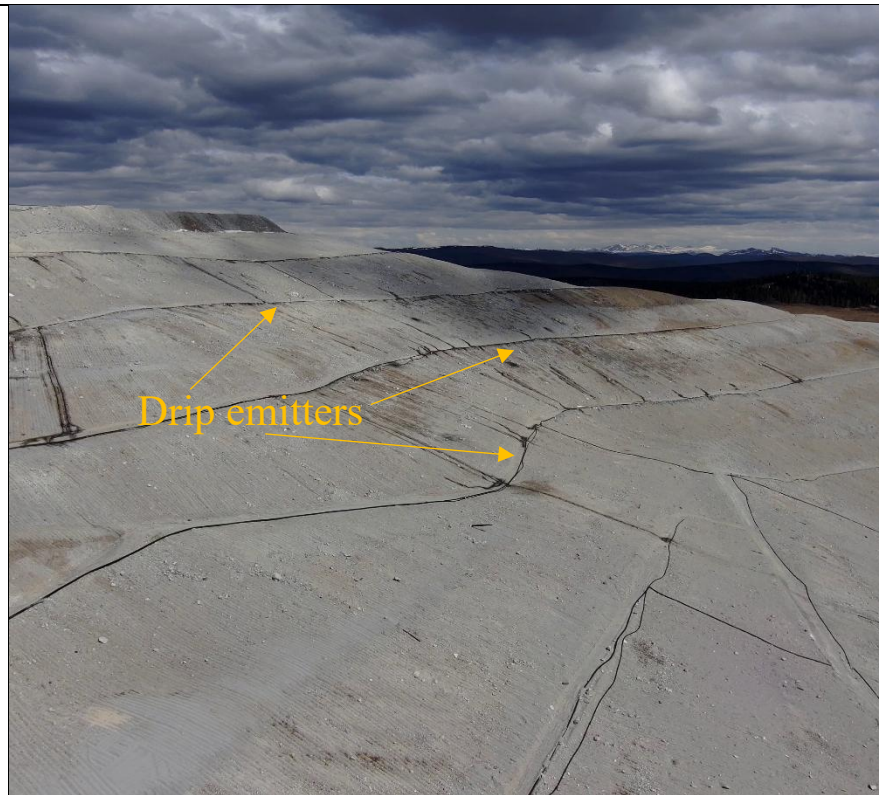


Photo 20: View south from base of Walter Creek Heap Leach Facility.

Note the location of the Leachate Collection and Recovery System structures, RO1 water treatment facility, and storage pond spillway.



Photo 21: Manh Choh ore stockpile.



Photo 22: Overview of Central TSF comprised of areas of coarse tailings deposition, equipment yard, and ore stockpiles.



Photo 23: Fresh Water Reservoir valve house located on the northern end of the dam.



Photo 24: Water flowing across the length of the Fresh Water Reservoir Spillway.



Photo 25: Northeastern view of the RO2 water treatment facility for the TSF.

The TSF Dam is immediately behind water treatment facility and storage yard.

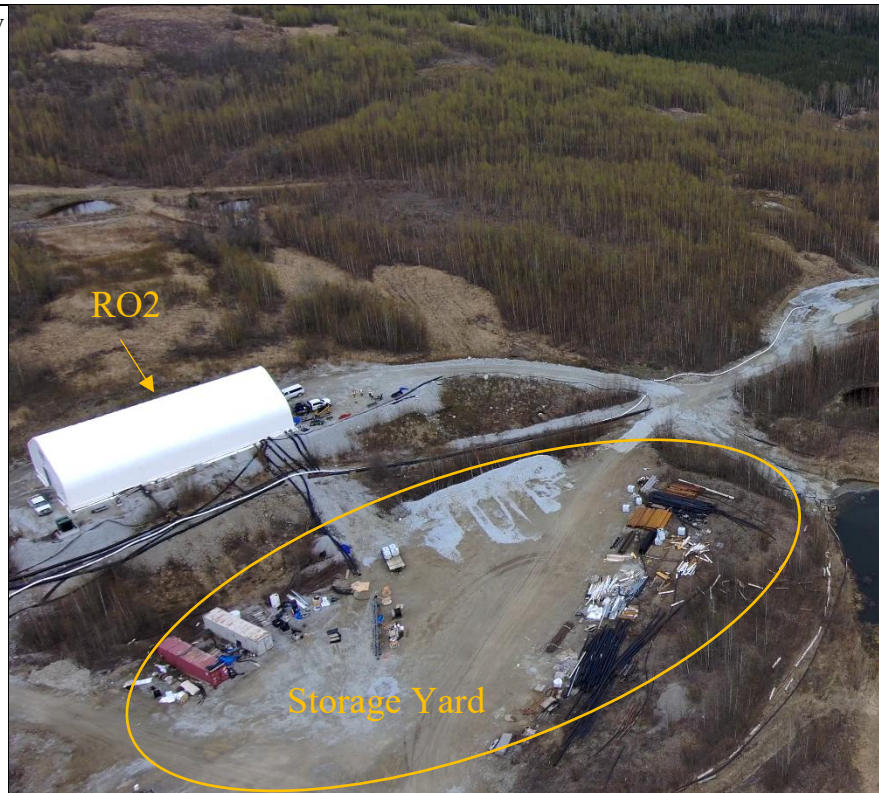


Photo 26: Treated water discharging from RO2 into the wetlands complex and Fish Creek.



Photo 27: Pearl Creek Causeway separating the North and South TSF ponds.

Northwestern view towards Walter Creek Heap Leach facility.



Photo 28: Eastern view from top of TSF Dam overlooking the wetlands complex.



Photo 29: Mill water intake from barge pond.

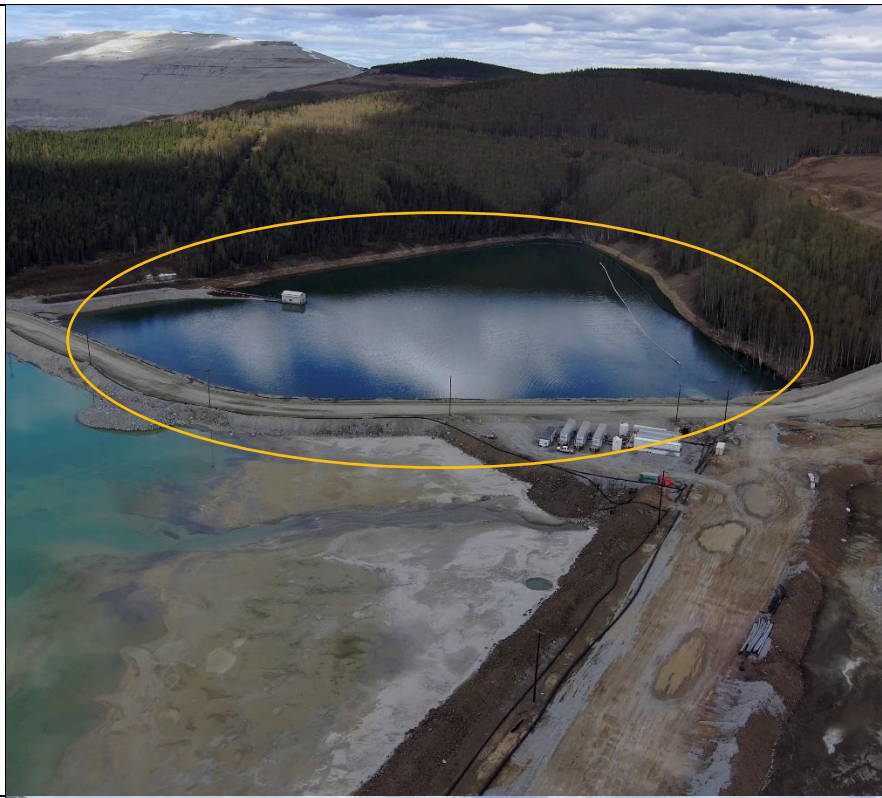


Photo 30: Northern view of the TSF Dam crest and face, north pond, and barge pond.

