



PEBBLE PROJECT

2021 Reclamation Report

MLUP No. 6118

**PREPARED BY:
PEBBLE LIMITED PARTNERSHIP**

DECEMBER 2021

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1.0 INTRODUCTION

This report summarizes exploration drilling, reclamation and care and maintenance activities conducted during the 2021 field season at the Pebble Project, a mineral exploration and development project operated by the Pebble Limited Partnership (PLP). PLP is a U.S. company wholly owned by Northern Dynasty Minerals Ltd. of Vancouver, Canada, conducting exploration-related activities on state mineral claims leased to the Pebble East Claims Corporation and Pebble West Claims Corporation. These activities are authorized by Miscellaneous Land Use Permit (MLUP) No. 6118 issued by the Alaska Department of Natural Resources, Division of Mining, Land and Water (ADNR-MLW).

The active 2021 field season began on July 7 and concluded on August 18. During the season PLP successfully closed 77 monitoring wells within the claim block. Closure activities included plugging or grouting open boreholes and removing all above-ground structures to a sufficient depth below the surface. Closure methods were compliant with all regulatory and permit requires (Sec. 1.2). No artesian sites were closed during the 2021 field season.

No remaining surface disturbances were carried forward from 2020 and no new ground-disturbing activities were conducted in 2021.

PLP continued to consolidate its field activities by demobilizing equipment and materials from the Main Supply Depot, reducing the overall footprint. Minor repairs and maintenance activities were conducted at the Kuktuli Mtn. Repeater, ARD test site and Pebble 1 Met station. All facilities, including active monitoring wells, are in good operating condition.

PLP staff conducted routine inspections at 155 sites; no issues were identified.

1.1 LOCATION

The Pebble Project is located in the Lake and Peninsula Borough in southwest Alaska. The main deposit is centered approximately 200 miles SW of Anchorage, 60 miles W of Cook Inlet and 17 miles NW of Iliamna (Figure 1). The Pebble Project comprises 2,402 Alaska state mineral claims and contains one of the world's most significant undeveloped deposits of copper, gold, and molybdenum (Figure 2).

1.2 RECLAMATION OBJECTIVES AND REQUIREMENTS

Alaska statute (AS 27.19) and regulation (11 AAC 97) require mining operators to reclaim any disturbed land to a "stable condition", which means rehabilitation to a state that allows for the reestablishment of a vegetative cover within a reasonable period of time. MLUP No. 6118, Section 1 identifies reclamation requirements, including:

- Surface disturbance shall be held to a minimum, and will be reclaimed by backfilling, contouring, and spreading of organic rich overburden to promote stabilization and natural revegetation.

- The area reclaimed shall be reshaped and recontoured to blend with surrounding physiography using strippings and overburden, and then stabilized to a condition that shall retain sufficient moisture to allow for natural revegetation.
- Upon completion of drilling activities, drill pads shall be reclaimed as necessary, including reseeded, to encourage natural revegetation of the sites and protect them from erosion.
- All drill hole casings shall be removed or cut off at, or below, ground level unless otherwise specifically approved by the Division of Mining, Land & Water.
- All drill holes shall be plugged with bentonite hole plug, a benseal mud, or equivalent slurry, for a minimum of 10 feet within the top 20 feet of the drill hole in competent material. The remainder of the hole will be backfilled to the surface with drill cuttings. If water is encountered in any drill hole, a minimum of 7 feet of bentonite holeplug, a benseal mud, or equivalent slurry shall be placed immediately above the static water level in the drill hole.

MLUP No. 6118 also requires the filing of this reclamation report and Annual Reclamation Statement by December 31 of each year the permit is in effect.

MLUP No. 6118 also includes multiple special stipulations addressing:

- Action Requirements on Inspection Reports (Special Stipulation B)
- Annual Work Plan (D)
- Mineral Closing Order 393 (E)
- Bristol Bay Area Plan requirements (F)
- Wildlife Management (G-J)
- Drilling Waste and Cuttings Management (K)
- Annual Exploration/Reclamation Report (M)
- Water Use (N)

Activities for special stipulations B, D–K, and M–N are described in Section 3.8. Water use (N) is summarized in Section 3.5. The entirety of this report satisfies Special Stipulation M (Annual Report).

1.3 WORK SUMMARY

Work conducted during the 2021 field season included:

- Identification, inspection, and closure of 77 monitoring wells.
- Inspection of recently completed reclamation sites from 2019 and 2020.
- Repairs to main workshop tent at the Main Supply Depot.
- Demobilization of excess material and equipment from the field to storage locations in Iliamna, AK.
- Routine maintenance (e.g., safety marker replacements, plug/cap maintenance, security controls).

- Continued monitoring of select sites to evaluate revegetation success and previous repairs.
- Routine inspection of 155 selected drill sites and field installations.

Details on sites closed in 2021 are presented in Appendix E. Inspections and site status are presented in Appendix C. Representative photographs are included in Appendix A.

1.4 OTHER PERMITS AND REGULATORY REQUIREMENTS

In addition to MLUP No. 6118, PLP maintains Temporary Water Use Authorizations (TWUA) and Fish Habitat Permits to support exploration and repair work, as shown in Table 1. PLP did not conduct any activities governed by these permits in 2021.

Table 1. 2021 Permits and Authorizations

Permit/Authorization ID	Issuing Agency	Expiration	Purpose/Use
TWUA F2019-021	ADNR-Water	12/31/2023	Water withdrawal
TWUA F2019-022	ADNR-Water	12/31/2023	Water withdrawal
TWUA F2019-023	ADNR-Water	12/31/2023	Water withdrawal
TWUA F2019-082	ADNR-Water	12/31/2023	Water withdrawal (aquifer)
FH19-II-0056	ADFG	12/31/2023	Fish habitat/water withdrawal
FH19-II-0057	ADFG	12/31/2023	Fish habitat/water withdrawal
FH19-II-0058	ADFG	12/31/2023	Fish habitat/water withdrawal
FH19-II-0060	ADFG	12/31/2023	Fish habitat/water withdrawal
FH19-II-0062	ADFG	12/31/2023	Fish habitat/water withdrawal
FH19-II-0063	ADFG	12/31/2023	Fish habitat/water withdrawal

2.0 PROJECT DESCRIPTION

2.1 SITE ACCESS

Field operations are based out of PLP's office at the Iliamna Airport in Iliamna, AK. Access to all worksites within the Pebble deposit is by helicopter only. PLP does not use ground vehicles to access the deposit area or travel between worksites. As a result, the deposit area remains free of temporary roads and tracks.

2.2 ENVIRONMENTAL CONTROLS

2.2.1 Vegetation and Tundra Preservation

PLP's standard field work procedures require the use of wooden tundra pads and platforms for all heavy equipment and materials to minimize vegetation impacts. Individual worksites are also organized to have as small a footprint as possible, with mobilization and demobilization occurring within the shortest time frame to limit duration impacts. When a surface disturbance is necessary, groundcover, including vegetation, is removed and stockpiled for later use in reclaiming the site. Once the activity is complete, excavated areas are backfilled and re-covered with reserved tundra. Disturbed areas are also revegetated with native seed or an approved seed mixture as appropriate.

2.2.2 Fuel Management and Spill Prevention

PLP uses double-walled, welded aluminum fly tanks to transport and store all fuel for field operations. Tanks are filled at PLP's Iliamna location to no more than 80 percent of the total capacity. (Most tanks used have a total capacity of 110 gallons, meaning each will contain no more than 88 gallons.) Each tank is visually inspected for leaks or spills prior to transport by helicopter. A separate, double walled 500-gallon storage tank at the MSD is available to support field operations, but was not used during 2021. It remains drained and winterized.

All active fuel tanks are placed in welded aluminum containments sized to hold 110 percent of the tank's maximum capacity. Containments are placed on level ground at least 100 feet from any surface water.

Each tank location is stocked with a spill containment and cleanup kit. All field staff have been trained in the proper response and reporting protocols as part of PLP's SPCC Plan. PLP also maintains a contract with Alaska Chadux Corporation to provide 24-hour spill response, if necessary. After each worksite is demobilized, the area is inspected to ensure no leaks or spills occurred.

2.2.3 Erosion and Sediment Control

Certified weed-free straw was used in conjunction with re-seeding efforts at multiple locations to minimize wind and water erosion and promote more thorough vegetation growth.

2.3 MATERIAL & EQUIPMENT STAGING

2.3.1 Main Supply Depot

The Main Supply Depot (MSD) was initially constructed in 2004 and serves as the primary storage and staging area for field operations. The site occupies approximately 2.5 acres of a gravel bluff in the West Deposit area (SE1/4 SE1/4 of Sec 21, T3S R35W and the NE1/4 NE1/4 of Sec 28, T3S, R35W) (ADL Nos. 516811 and 516874).

Multiple temporary wood frame buildings and platform tents provide sheltered storage for machinery, drilling equipment, environmental supplies, and variety of small parts and tools. Small quantities of drilling fluids, motor oils, and antifreeze are stored in sealed, original packaging inside weather-proof shelters. All temporary structures are constructed on elevated platforms or placed on tundra pads. Other items such as drill rods, lumber, tundra pads, outhouses, fuel containments, rig supports, are stored within the MSD yard on racks or elevated platforms.

The MSD was used as the primary staging area for 2021 field activities. At the end of the season, all fuel was removed from the site. The facility previously identified as West Bay 4 was removed in 2021.

2.3.2 Fuel Storage

Jet A fuel is used for all large mechanized field equipment (pumps, generators, drill rigs). Multiple aluminum fly tanks were transported to and stored at the MSD by helicopter to support 2021 field operations in accordance with PLP's fuel management policies (Section 2.2.2). The maximum volume of fuel stored at the MSD during 2021 was approximately 600 gallons. Smaller volumes of fuel were transported to individual work sites as necessary and stored appropriately (aluminum containments, spill kits). All aluminum fly tanks were removed to Iliamna at the end of the 2021 field season. No fuel or other petroleum product spills were identified or reported during the 2021 field season.

2.3.3 Watershed

The Watershed site is located approximately 0.75 miles east of the MSD in the SW1/4 SE1/4 of Sec 22, T3S, R35W (ADL No. 524712). The site consists of three temporary buildings constructed on elevated platforms: one Quonset-style building with a corrugated metal roof (14' x 16') that serves as a light machine shop, and two wood frame buildings (9' x 38'; 10' x 16') used to store hoses, miscellaneous hand tools and field supplies. A small generator shed is attached to the Quonset hut. One 110-gallon fuel tank (empty) is kept in an aluminum containment next to the shed.

PLP continues to use the Watershed site as a storage location for field equipment and light machine shop during all months of the year.

2.3.4 West Bay 1 and 3

Each West Bay location consists of two temporary wooden structures (an 8' x 12' emergency shelter and a smaller generator shack). These structures are used to provide shelter for monitoring

crews during data collection. West Bay 1 is located in the SW1/4 SW1/4 of Sec 23, T3S, R35W (ADL No. 524714). West Bay 3 is located in the NE1/4 SW1/4 of Sec 33, T3S, R36W (ADL No. 642412). PLP continues to use both West Bay locations to store field equipment.

Note: The facility previously identified as West Bay 4 was removed in 2021.

2.3.5 Meteorological and Communications

The Pebble 1 meteorological station is located in the SW1/4 NE1/4 of Sec 20, T3S, R35W (ADL No. 524829). The small site consists of a temporary fiberglass structure (approximately 8 x 8 ft) and associated equipment.

The Kuktuli Mountain radio repeater is located in the NE1/4 SW1/4 of Sec 36, T3S, R35W (ADL No. 646608). The small site consists of a temporary metal structure (approximately 8 x 8 ft) and associated equipment.

PLP continues to use the Pebble 1 met station to collect basic meteorological data, while the Kuktuli Mountain repeater remains the primary means of communication with helicopters and field crews.

A small, secondary data repeater was placed on South Kuktuli Mountain to provide a more consistent link to the Iliamna base station. This small repeater consists of a transmitter and battery pack and is located in the SW 1/4 NW 1/4 of Section 12, T4S, R35W (ADL No. 567941).

2.3.6 Acid Rock Drainage Test Location

The ARD site is located in the SE 1/4 SE 1/4 of Section 22, T3S, R35W (ADL No. 524713). It was set up to evaluate real time weathering and acid generation potential in area rock. The site consists of 12 large plastic barrels filled halfway with rock fragments. Barrels are racked on wood tundra pads.

When testing is not active, each barrel is covered with a 40-mil HDPE tarp to prevent water intrusion. Aluminum plates (3/8-inch or 1/4-inch thick) are also placed on top of each barrel and secured with straps to guard against wind and wildlife damage. Drainage tubes are also sealed to prevent leakage.

During the 2021 field season, the ARD test site was inactive. The site has been secured as described above for the 2021/2022 winter. Testing is scheduled to resume in spring 2022.

2.4 FIELD STAFF AND LOGISTICS

All work crews are based out of Iliamna and ferried to the work site by helicopter each day work is being performed. All waste is removed from the field and properly disposed in Iliamna.

3.0 FIELD ACTIVITIES

3.1 EXPLORATION ACTIVITY

PLP did not conduct any new exploration activity during the 2021 field season.

3.2 SURFACE DISTURBANCE AND RECLAMATION

PLP did not create any new surface disturbances during the 2021 field season, nor were there any holdover disturbances from 2020 requiring reclamation.

3.3 CLOSURE SITES

PLP permanently plugged and closed 78 boreholes during the 2021 field season. These sites were identified during a preliminary review and field inspection by a drilling contractor (T&J Drilling) with extensive experience closing drill holes in Alaska. Closure methods described below are fully compliance with MLUP No. 6118 Stipulation 1.h.

Each identified site was inspected to determine the integrity of the downhole casing, material competency of the surrounding ground, and suitability for closure without the need to redrill the borehole. Where present, the static water level was measured using an acoustic meter (Solinst Model 104) with an accuracy to 3 centimeters or 0.1 feet.

A bridge plug was created in each borehole at the static water level to establish the termination depth of the eventual grout or bentonite plug. Bridge plugs in small diameter boreholes (1-2 inches) are created by feeding very small quantities of bentonite chips down the borehole and allowing them to set. In larger boreholes, bridge plugs are created using wooden dowels sized to a slightly smaller diameter. Water causes the dowel to swell and creates a stable bridge plug at the water level.

Boreholes were then filled with 3/8-inch bentonite chips (Baroid) or pressure grouted from the bridge plug to 1.5 feet below the existing ground surface. Once a competent seal was confirmed, a small excavation was made around the borehole to cut off the casing 1.5 feet below ground. Existing vegetation was preserved where possible. The plugged borehole was then capped with cement (Portland Type III) and backfilled with excavated material and contoured to the surrounding ground. Any preserved vegetation was replaced in the excavated area. All surface materials (casing, broken cement, etc.) were removed to either the MSD or Iliamna for storage or disposal.

Post-closure inspections by PLP staff did not identify any remediation issues (e.g., subsidence, water leaks). These sites are now classified as 3-E (see Appendix B).

Post-closure photos are provided in Appendix A. Appendix E details the quantity and type of plug material used for each borehole as well as the measured depth to water and total plug length. In addition, two boreholes were identified as previously plugged and capped, but surface structures remained in place. Casings were cut off 1.5 feet below ground at both sites.

3.4 2021 REPAIR SITES

No borehole activities were conducted during the 2021 field season, nor were any sites identified as needing repair during inspections.

3.5 CONSUMPTIVE WATER USE

PLP used small quantities of water from surface waters to prepare cement mixtures. Water pumps were fitted with fish protection screens when in operation. Less than 200 gallons per day were withdrawn from multiple sources based on their proximity to each work site. The quantity and frequency of water used do not meet authorization requirements under 11 AAC 93.035(b).

3.6 STATE INSPECTION

Alaska DNR-Mining staff conducted a site inspection on July 29, 2021. As of the date of this annual report, PLP has not received a copy of the final inspection report. Inspection findings, if any, will be addressed in a timely manner.

3.7 INTERNAL INSPECTIONS

PLP conducts routine inspections of project drill sites during each field season to ensure compliance with all permit and regulatory requirements. Information is summarized and provided to DNR, including current status, repair or maintenance needs, presence of above ground structures, reclamation status, safety markings, and abandonment method, if applicable.

PLP assigns an alpha-numeric code to each drill site following inspection to more easily characterize each location and plan future maintenance and inspection needs. Numerals (1-3) describe the borehole operating status (e.g., active or potential use for monitoring or future drilling) while letters (A-E) describe the surface condition, including reclamation status and maintenance needs, if any. A detailed explanation of each code is provided in Appendix B.

During the 2021 field season, PLP inspected 155 individual borehole locations, including the 77 required minor maintenance. The status of all project boreholes is provided in Appendix C.

As shown in Table 2, all sites are in stable condition and require no further action (D and E) beyond follow-up monitoring. None of the project drill sites require major repairs (A) or otherwise pose a notable risk of causing adverse impact.

Table 2. 2021 Borehole Status Summary

		Surface Condition					Total ^[a]
		A	B	C	D	E	
		Major Repairs	Stable/ Minor Repairs	Maintenance or Follow-up	Stable/ Monitored	Stable/ No Action	
Borehole Status	1 Active	0	0	0	28	549	577
	2 Inactive	0	0	0	0	0	0
	3 Closed	0	0	0	9	794	803
Total		0	0	0	37	1343	1380

^[a] Includes drill sites within the active claim boundary only.

3.8 MLUP NO. 6118 SPECIAL STIPULATIONS

3.8.1 B—Action Items on Inspection Reports

See Section 3.6.

3.8.2 D—Annual Work Plan

PLP submitted the 2021 work plan by email to DNR-Mining on March 26, 2021.

3.8.3 E—Mineral Closing Order 393

PLP did not conduct any activity in 2021 within the boundaries of MCO 393.

3.8.4 F—Talarik Creek Vegetative Buffer

PLP did not conduct any activity in 2021 within 150 feet of the ordinary high water mark of Upper Talarik Creek.

3.8.5 G—Caribou Calving Areas

PLP routinely avoids wildlife when present near work sites. No caribou were observed near any work site. All 2021 work was conducted after the typical calving period for caribou in the vicinity. PLP coordinated with ADFG staff prior to commencing seasonal work as required.

3.8.6 H—Moose Calving, Rutting, and Overwintering Areas

PLP routinely avoids wildlife when present near work sites. No moose were observed near any 2021 work site. PLP coordinated with ADFG staff prior to commencing seasonal work as required.

3.8.7 I—Bear Denning

PLP does not conduct field activities within one-half mile of any known bear dens. PLP requested known bear den locations from ADFG as required, but none were provided. No bear dens were identified during the 2021 field season.

3.8.8 J—Waterfowl Molting Area

PLP did not conduct any 2021 field activities near waterfowl molting areas. Prior to the start of seasonal work, PLP coordinated with ADFG staff to minimize the potential for any impacts. No activity was conducted in BBAP Subunit 10-03.

3.8.9 K—Drilling Waste and Cuttings Management

PLP did not conduct any activity that generated cuttings or used drilling muds during 2021.

3.8.10 N—Water Use

See Section 3.5.

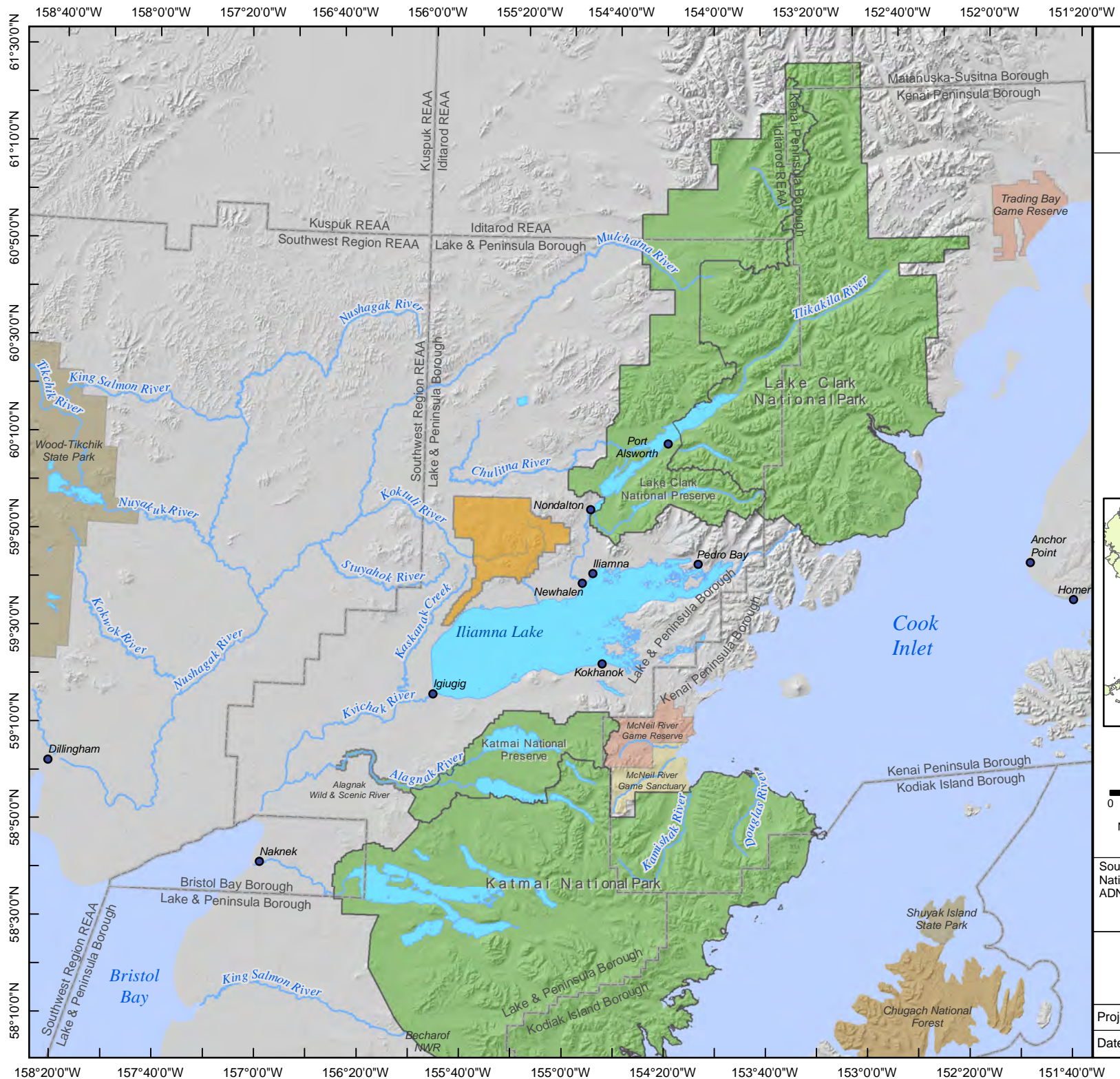
4.0 SIGNATURE

This report, prepared by Tim Havey, PLP Director, Environment and Permitting, is dated December 15, 2021 and satisfies the annual reporting requirements of MLUP No. 6118.

Signed,

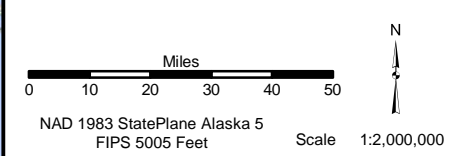
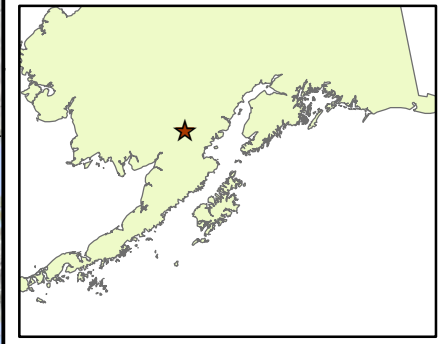
The image shows a handwritten signature in black ink over a logo. The logo consists of a stylized 'P' with a red and black square above it, followed by the word 'pebble' in a lowercase, sans-serif font, and the word 'PARTNERSHIP' in a smaller, uppercase, sans-serif font below it.

Tim Havey
Director, Environment and Permitting, PLP



Legend

-  Pebble Project Mineral Claims
-  National Forest Service
-  National Park Service
-  State Game Refuge
-  State Game Sanctuary
-  State Park



Source(s):
National Map, USGS
ADNR Mineral Claims, 2016

Figure
1

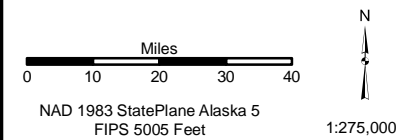
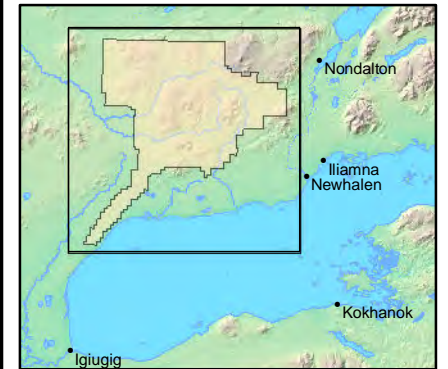
**Pebble Project
Vicinity Map**

Project: 2016 Annual Reclamation Report
Date: 12/20/2016 Author: TH/PLP



Legend

- Pebble East Claims Corp.
- Pebble West Claims Corp.
- Township



Source(s):
ADNR, Alaska Mining Claims,
12/2018

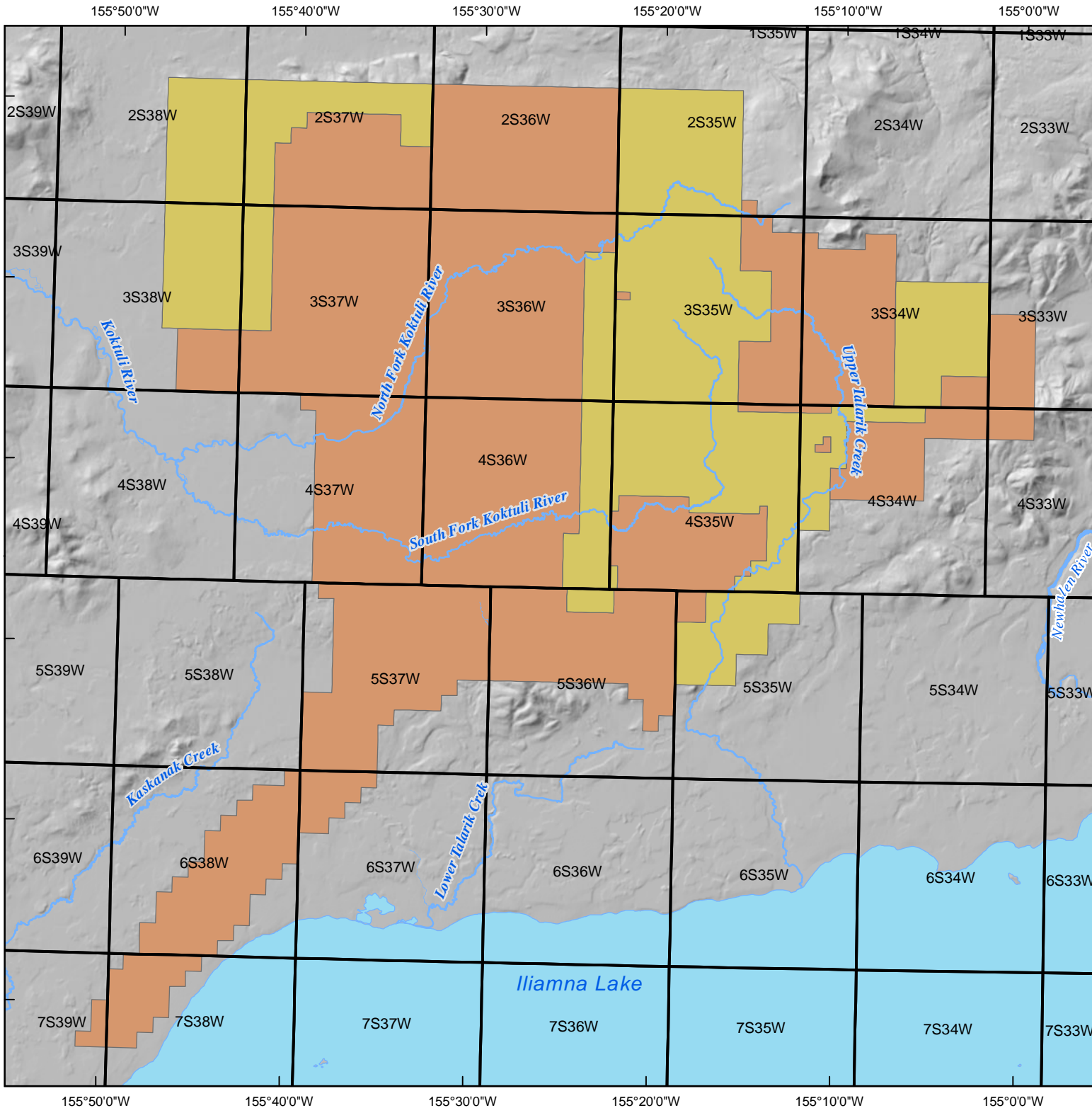
Figure 2

Mineral Claims: Overview

Project: 2018 Annual Reclamation Report

Date: 12/31/2019

Author: TH/PLP



155°50'0"W 155°40'0"W 155°30'0"W 155°20'0"W 155°10'0"W 155°0'0"W

60°0'0"N
59°55'0"N
59°50'0"N
59°45'0"N
59°40'0"N
59°35'0"N

155°25'0"W

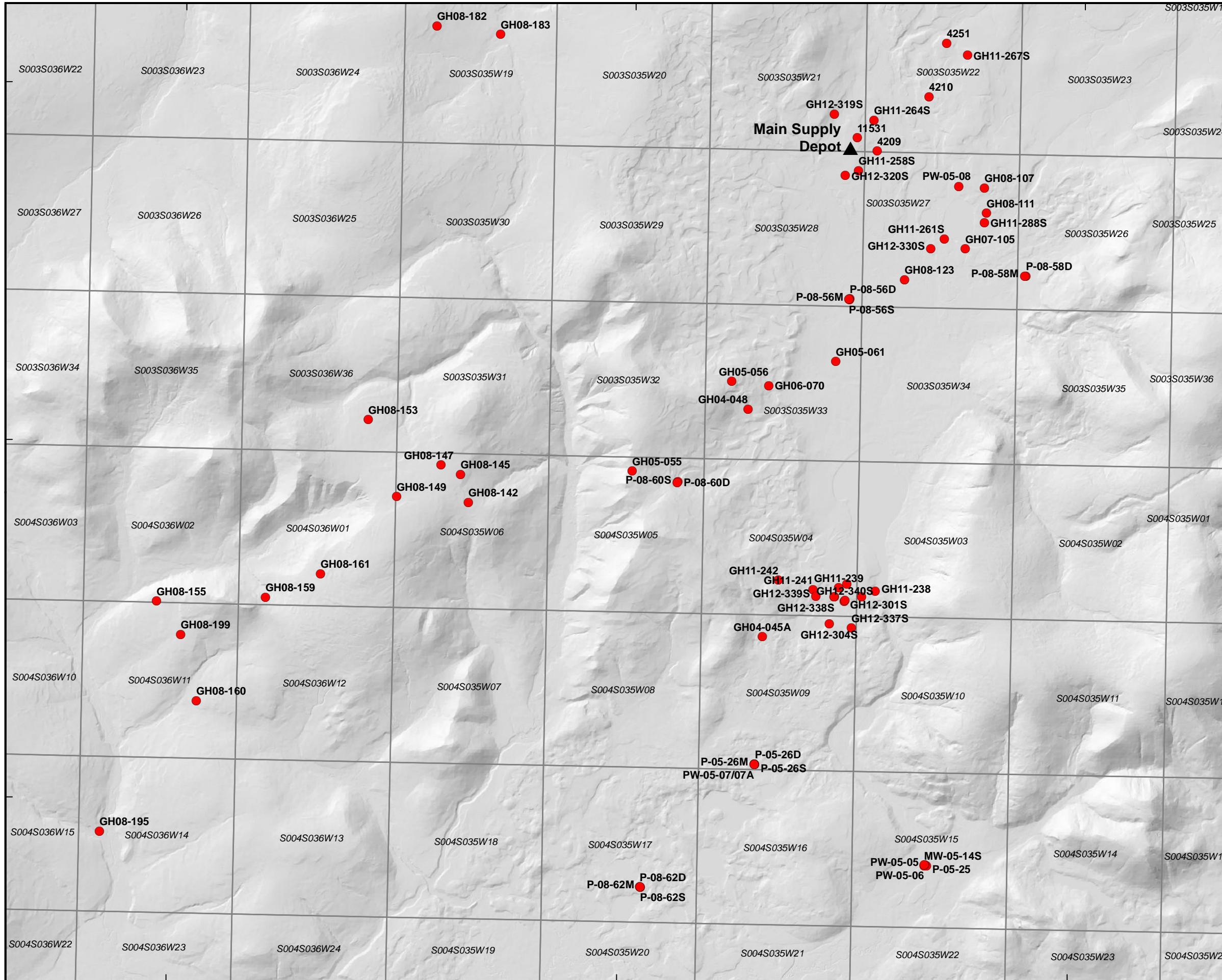
155°20'0"W

155°15'0"W

59°54'0"N

59°52'0"N

59°50'0"N



● 2021 Closure Sites

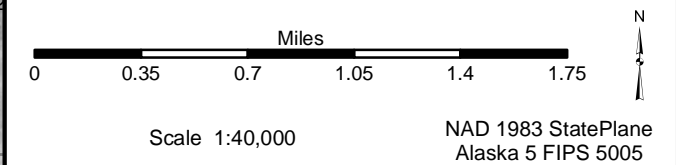


Figure:
3

2021 Closure Sites

File: 2021ReclamationSites	Date: 12/15/2021
Revision:	Author: TH/PLP

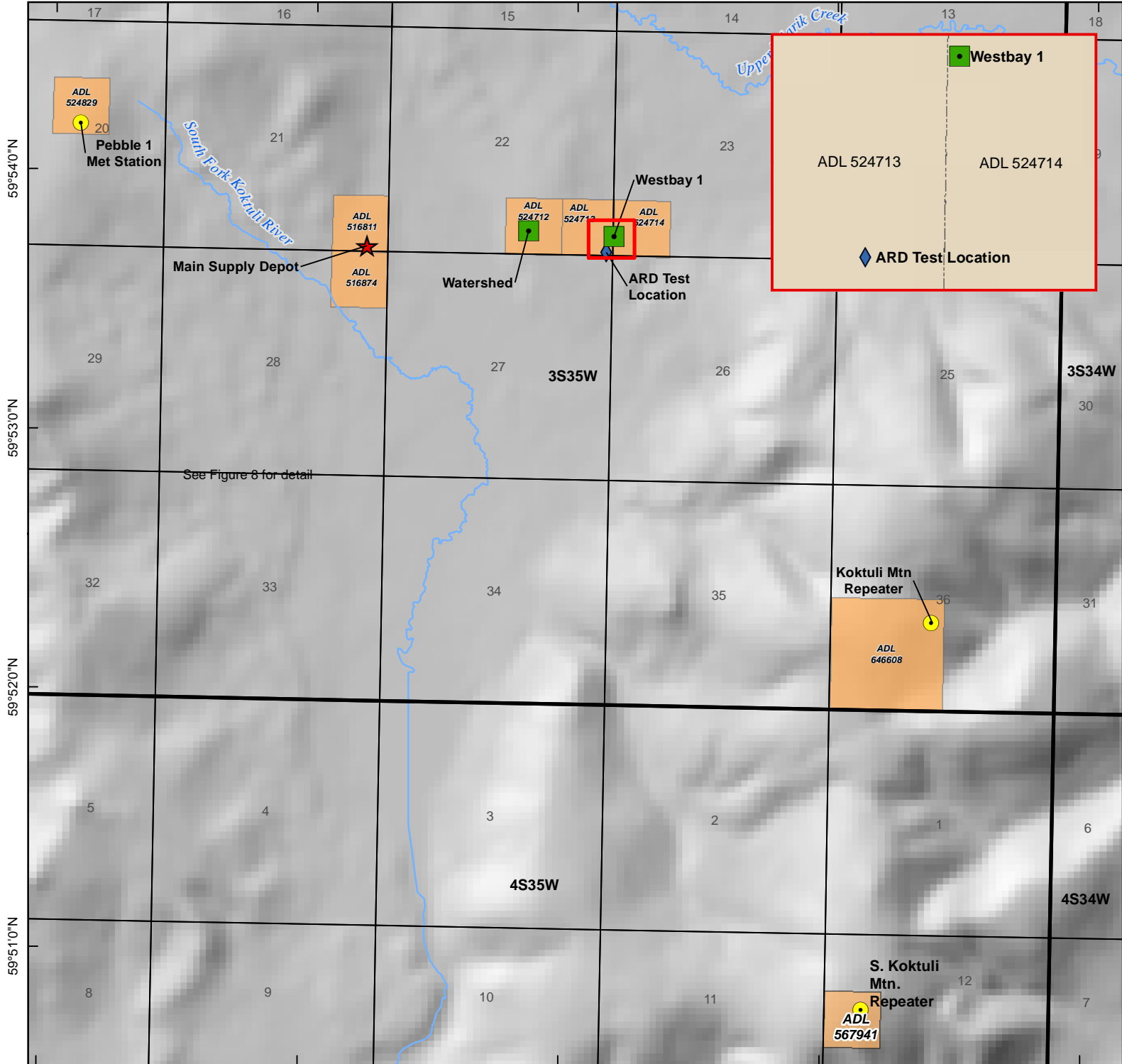
155°25'0"W








155°20'0"W

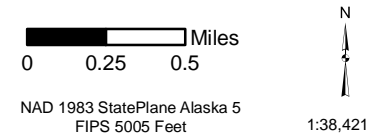
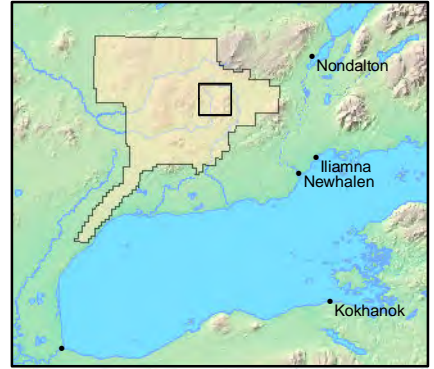
155°15'0"W

Document Path: G:\GIS\PLP_GIS\99_Compliance4_MXD\04_Reclamation\2021ReclamationSites.mxd

155°20'0"W 155°18'0"W 155°16'0"W 155°14'0"W 155°12'0"W



-  Claims with Surface Facilities
-  Main Supply Depot
-  Met/Communications
-  Secondary Storage
-  ARD Test Location
-  Township
-  Section



Source(s):
ADNR, Alaska Mining Claims,
10/2016

Figure
4

**Field Installations:
Deposit Area**

Project: 2016 APMA

Date: 12/31/2019

Author: TH/PLP

155°20'0"W 155°18'0"W 155°16'0"W 155°14'0"W 155°12'0"W

APPENDIX A

Representative Photographs

Appendix A—Operations Photos

1. Borehole 4209

Borehole previously plugged to surface. Above-ground casing removed in 2021.



2. Borehole 4210

Post-closure.



Appendix A—Operations Photos

3. Borehole 4251



4. Borehole 11531
Former West Bay 4 site.



Appendix A—Operations Photos

5. Borehole GH04-004



6. Borehole GH04-013



Appendix A—Operations Photos

7. Borehole GH04-014



8. Borehole GH04-016



Appendix A—Operations Photos

9. Borehole GH04-018



10. Borehole GH04-037



Appendix A—Operations Photos

11. Borehole GH04-038



12. Borehole GH04-045A



Appendix A—Operations Photos

13. Borehole GH04-048



14. Borehole GH05-055



Appendix A—Operations Photos

15. Borehole GH05-056



16. Borehole GH05-061



Appendix A—Operations Photos

17. Borehole GH06-070



18. Borehole GH07-105



Appendix A—Operations Photos

19. Borehole GH08-107



20. Borehole GH08-111



Appendix A—Operations Photos

21. Borehole GH08-123



22. Borehole GH08-142



Appendix A—Operations Photos

23. Borehole GH08-145

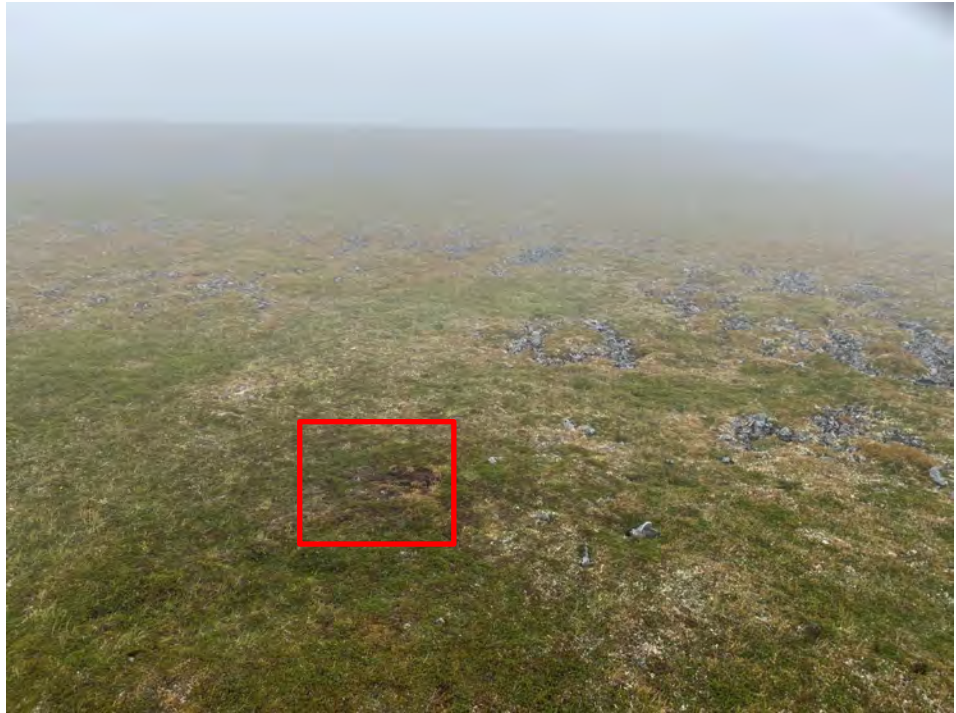


24. Borehole GH08-147



Appendix A—Operations Photos

25. Borehole GH08-149



26. Borehole GH08-153



Appendix A—Operations Photos

27. Borehole GH07-155



28. Borehole GH08-156

Borehole repaired and reclaimed in 2020. Photo shows post-reclamation site on 7/23/2021.



Appendix A—Operations Photos

29. Borehole GH08-159



30. Borehole GH08-160



Appendix A—Operations Photos

31. Borehole GH08-161



32. Borehole GH08-182



Appendix A—Operations Photos

33. Borehole GH08-183



34. Borehole GH08-195



Appendix A—Operations Photos

35. Borehole GH08-199



36. Borehole GH11-238



Appendix A—Operations Photos

37. Borehole GH11-239



38. Borehole GH11-241



Appendix A—Operations Photos

39. Borehole GH11-242



40. Borehole GH11-258S

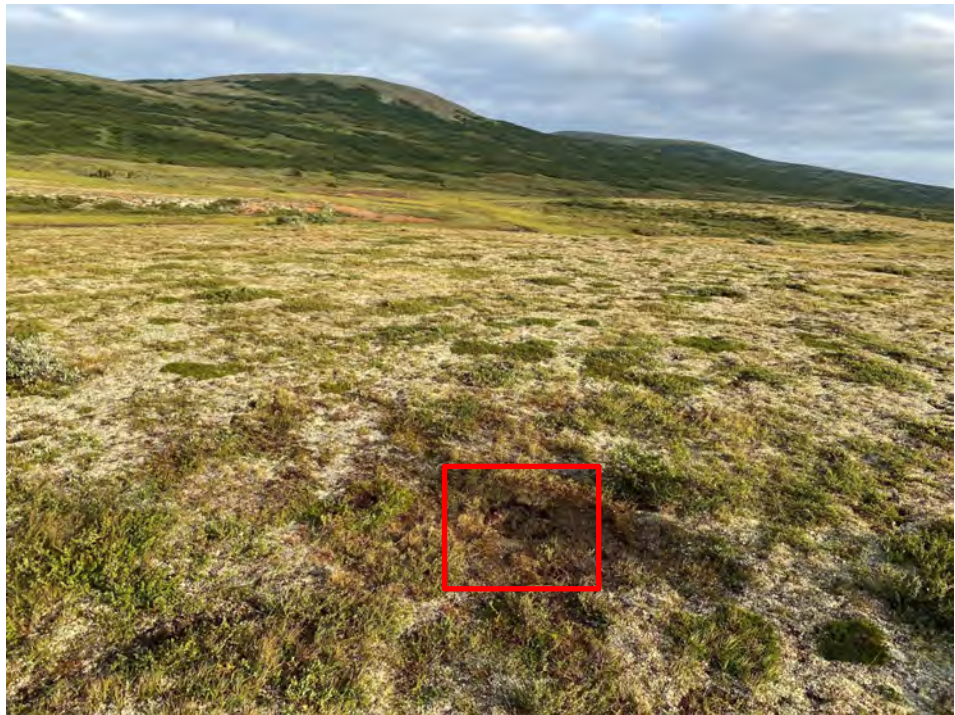


Appendix A—Operations Photos

41. Borehole GH11-261S



42. Borehole GH11-264S



Appendix A—Operations Photos

43. Borehole GH11-267S



44. Borehole GH11-288S



Appendix A—Operations Photos

45. Borehole GH12-301S



46. Borehole GH12-304S



Appendix A—Operations Photos

47. Borehole GH12-311S



48. Borehole GH12-319S



Appendix A—Operations Photos

49. Borehole GH12-320S



50. Borehole GH12-330S



Appendix A—Operations Photos

51. Borehole GH12-336S



52. Borehole GH12-337S



Appendix A—Operations Photos

53. Borehole GH12-338S



54. Borehole GH12-339S



Appendix A—Operations Photos

55. Borehole GH12-340S



56. Borehole GH12-341S



Appendix A—Operations Photos

57. Borehole MW-04-11S



58. Borehole MW-05-11SS

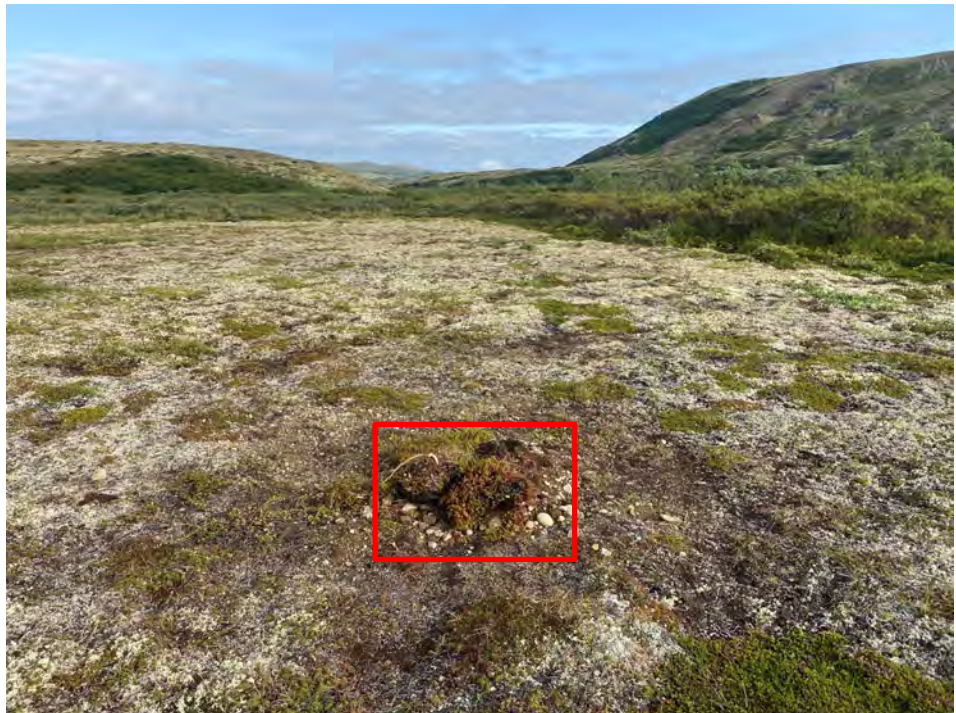


Appendix A—Operations Photos

59. Borehole MW-05-14S

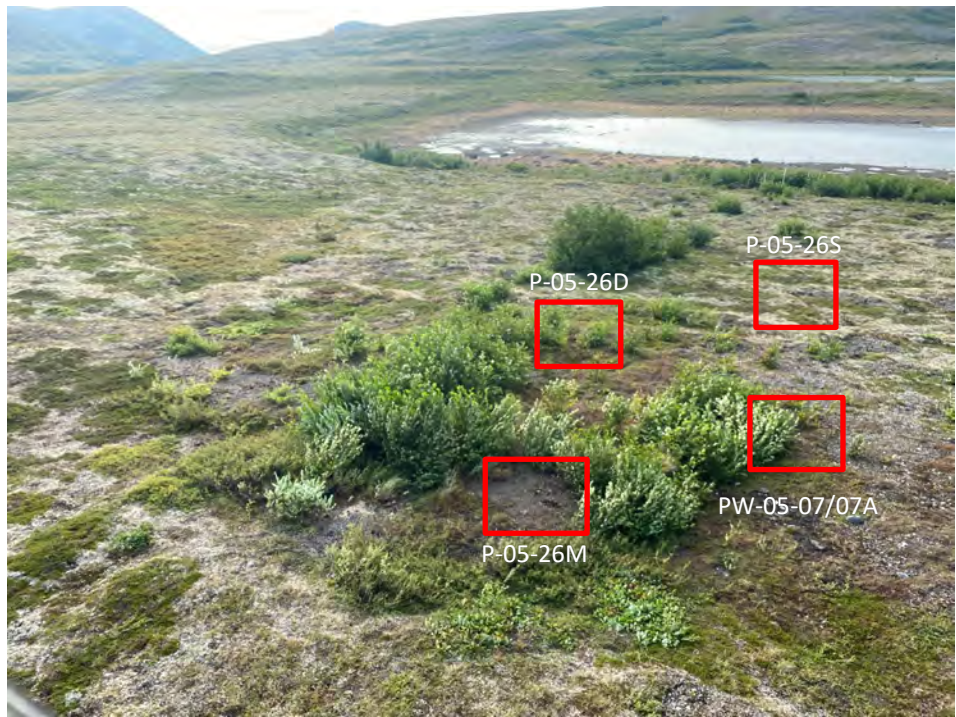


60. Borehole P-05-25



Appendix A—Operations Photos

61. Boreholes
P-05-26D; P-05-
26M; P-05-26S;
PW-05-07/07A



62. Borehole P-05-29M



Appendix A—Operations Photos

63. Borehole P-05-29S

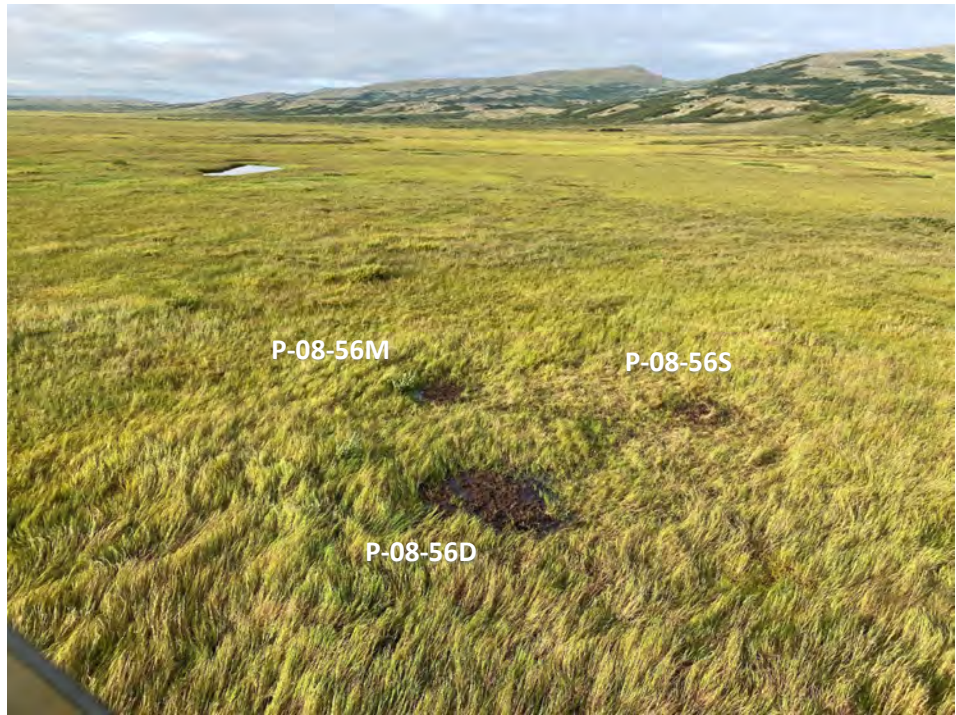


64. Borehole P-08-56M



Appendix A—Operations Photos

65. Boreholes
P-08-56D; P-08-
56M; P-08-56S



66. Borehole P-08-58M



Appendix A—Operations Photos

67. Borehole P-08-60D

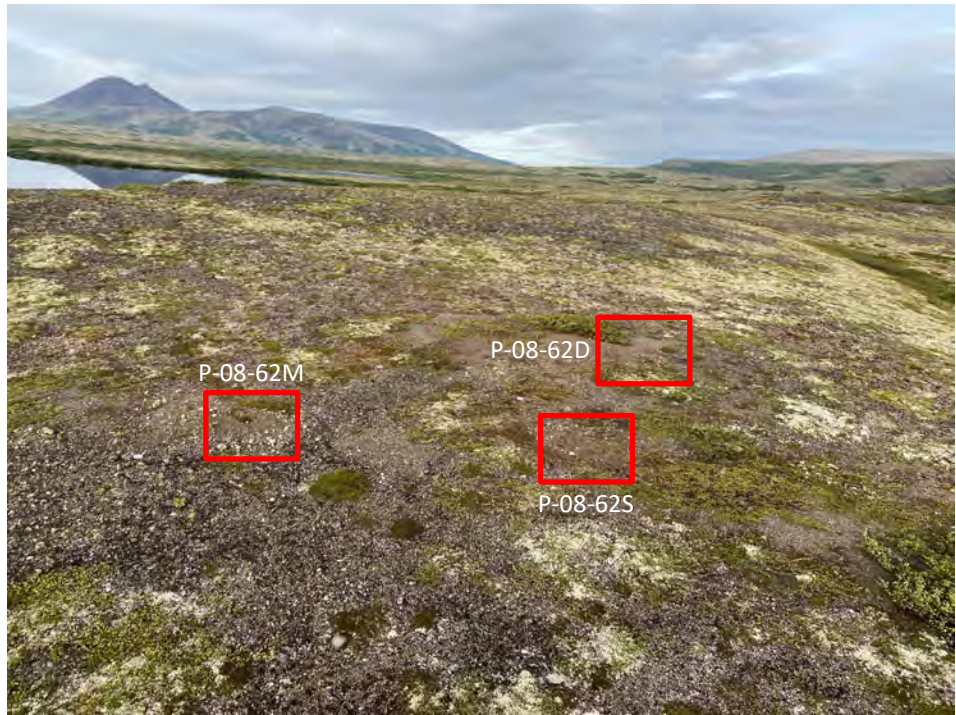


68. Borehole P-08-60D



Appendix A—Operations Photos

69. Boreholes
P-08-62D; P-08-
62M; P-08-62S



70. Borehole PW-04-
03



Appendix A—Operations Photos

71. Borehole PW-05-05



72. Borehole PW-05-06



Appendix A—Operations Photos

73. Borehole PW-05-08



APPENDIX B

Inspection Categories

Table B-1. Borehole Status Codes

Code	Category	Description
1	Active	Primary designation for active monitoring wells (groundwater quality, geotechnical, etc.). Also used for some former exploration boreholes that are maintained as possible water sources. Active sites do not have material plugs (grout, cement, bentonite) but may be fitted with mechanical plugs or caps.
2	Inactive	<i>Category no longer in use.</i>
3	Closed	Site is fully decommissioned. Borehole has been plugged as appropriate. All surface structures removed, with possible exception of wood post indicating location and borehole ID.

Table B-2. Reclamation/Maintenance Condition Codes

Code	Category	Description
A	Major Repairs	Site condition presents an identified environmental compliance or health & safety concern, or is at risk of progressing if not addressed as soon as possible. Significant repairs necessary, typically requiring advanced planning, technical staff and additional equipment. Coordination and approval from DNR or other agency may be required. <i>Examples: upwelling of discolored or voluminous water; discharge to surface water.</i>
B	Minor repairs	Site condition requires repairs or rehabilitation, but is stable and not at risk of deteriorating further. Work does not require technical staff but generally cannot be completed during routine maintenance trips or by one person. Advance approval from DNR or other agency is usually not required unless circumstances dictate. All repair activities summarized in annual report. <i>Examples: Margo plug replacement/installation; large area rehabilitation or revegetation efforts; grout injection.</i>
C	Routine Maintenance or Additional Investigation	Maintenance requirements are small or insignificant and generally the result of normal operation or exposure to elements. Repairs can be completed by staff during routine inspections and do not require specialized equipment or advance planning. Also used to identify sites where condition cannot be confirmed, thus requiring additional inspection or involvement of higher level staff. <i>Examples: application of sealant around cap; water valve replacement; ponded surface water with unconfirmed source.</i>
D	Stable/ Monitored	Site condition is stable and has been fully reclaimed, but with past maintenance issues or known to have higher maintenance needs. All structural equipment, if any, is in good condition. Routine monitoring is generally more frequent than Category E sites. <i>Examples: artesian sites; sites with recent, major repairs.</i>
E	Stable/ No Action	Site condition is stable and has been fully reclaimed. All structural equipment, if any, is in good condition. No known issues. No history of upwellings, leaks, or staining. Located in an area unlikely to cause concern (e.g., wetlands, artesian zone). Inspection frequency is lower than Category D sites.

APPENDIX C
Borehole Status
(electronic file)

Borehole ID	ADL No	Operator	Rating	Last Inspection	Drill Year	PURPOSE	Casing Height (in)	Snow Pole	Plug or Cap
4209	516812	NDM	3-E	16-Aug-21	2004	Exploration		0	0
4210	540399	NDM	3-E	16-Aug-21	2004	Exploration		0	0
4251	516820	NDM	3-E	16-Aug-21	2004	Exploration		0	0
11531	516811	PLP	3-E	16-Aug-21	2011	Hydrogeology		0	0
GH04-004	566638	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH04-013	643902	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH04-014	566569	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH04-016	566737	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH04-018	566607	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH04-037	643905	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH04-038	566532	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH04-045A	516958	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH04-048	516842	NDM	3-E	16-Aug-21	2004	Geotechnical		0	0
GH05-055	524795	NDM	3-E	16-Aug-21	2005	Geotechnical		0	0
GH05-056	524812	NDM	3-E	16-Aug-21	2005	Geotechnical		0	0
GH05-061	516847	NDM	3-E	16-Aug-21	2005	Geotechnical		0	0
GH07-105	524668	PLP	3-E	16-Aug-21	2007	Geotechnical		0	0
GH08-107	524699	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-111	524685	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-123	524821	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-142	566922	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-145	566928	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-147	566928	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-149	566921	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-153	566932	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-155	644266	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-159	566905	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-161	566907	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-182	542601	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-183	531441	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-195	640095	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH08-199	644273	PLP	3-E	16-Aug-21	2008	Geotechnical		0	0
GH11-238	516964	PLP	3-E	16-Aug-21	2011	Geotech		0	0
GH11-239	516963	PLP	3-E	16-Aug-21	2011	Geotech		0	0
GH11-241	516962	PLP	3-E	16-Aug-21	2011	Geotech		0	0
GH11-242	515961	PLP	3-E	16-Aug-21	2011	Geotech		0	0
GH11-258S	516874	PLP	3-E	16-Aug-21	2011	Geotech		0	0
GH11-261S	524668	PLP	3-E	16-Aug-21	2011	Geotech		0	0
GH11-264S	516812	PLP	3-E	16-Aug-21	2011	Geotech		0	0
GH11-267S	540430	PLP	3-E	16-Aug-21	2011	Geotech		0	0

SRK-5S/KP-P3S	516867	NDM	1-E	15-Aug-21	2004	Monitoring	60	1	1
3127	516873	NDM	3-D	08-Aug-21	2003	Exploration		0	0
4190	516811	NDM	3-D	08-Aug-21	2004	Exploration		0	0
4223	516809	NDM	3-D	08-Aug-21	2004	Exploration		0	0
6343	524716	NDM	1-D	08-Aug-21	2006	Exploration	42	1	1
9475	540442	PLP	3-D	08-Aug-21	2009	Exploration		0	0
12561	516807	PLP	3-D	08-Aug-21	2012	Delineation		0	0
GH06-070	516842	NDM	3-E	08-Aug-21	2006	Geotechnical		0	0
GH07-081	642440	PLP	1-D	08-Aug-21	2007	Geotechnical	36.6	1	1
GH08-110	540426	PLP	1-D	08-Aug-21	2008	Geotechnical	25.32	1	1
GH08-122	524716	PLP	1-D	08-Aug-21	2008	Geotechnical	35.28	1	1
GH08-151	642442	PLP	3-D	08-Aug-21	2008	Geotechnical		0	0
GH12-329S	524823	PLP	1-D	08-Aug-21	2012	Hydrogeology	41.4	1	1
P-06-37S	540450	NDM	1-E	08-Aug-21	2006	Monitoring	48.84	1	1
P-06-38D	540466	NDM	1-D	08-Aug-21	2006	Monitoring	41.64	1	1
P-06-38M	540466	NDM	1-E	08-Aug-21	2006	Monitoring	36.24	1	1
P-08-54D	516873	PLP	1-E	08-Aug-21	2008	Hydrogeology	41	1	1
P-08-54S	516873	PLP	1-D	08-Aug-21	2008	Hydrogeology	36	1	1
P-08-85D	642383	PLP	1-D	08-Aug-21	2008	Hydrogeology	13.68	1	1
P-08-85S	642383	PLP	1-E	08-Aug-21	2008	Hydrogeology	47.16	1	1
8413	540426	PLP	1-D	07-Aug-21	2008	Infill	42	1	1
8423	524716	PLP	1-D	07-Aug-21	2008	Infill	18	1	1
8433M	516874	PLP	3-D	07-Aug-21	2008	Metallurgical		0	0
GH07-106	524649	PLP	1-D	07-Aug-21	2007	Geotechnical	26.04	1	1
GH08-108	540427	PLP	1-D	07-Aug-21	2008	Geotechnical	18	1	1
GH08-134	524842	PLP	1-D	07-Aug-21	2008	Geotechnical	36	1	1
GH11-247	531454	PLP	1-D	07-Aug-21	2011	Geotech	18	1	1
GH11-270S	540425	PLP	1-D	07-Aug-21	2011	Geotech	37	1	1
GH11-272S	524714	PLP	1-D	07-Aug-21	2011	Geotech	48	1	1
P-06-40D	540435	NDM	1-E	07-Aug-21	2006	Monitoring	34.92	1	1
P-06-40M	540435	NDM	1-D	07-Aug-21	2006	Monitoring	0	1	1
P-06-40S	540435	NDM	1-E	07-Aug-21	2006	Monitoring	34.2	1	1
P-08-77D	644483	PLP	1-D	07-Aug-21	2008	Hydrogeology	48.48	1	1
P-08-77S	644483	PLP	1-E	07-Aug-21	2008	Hydrogeology	42.84	1	1
5321	542568	NDM	1-E	29-Jul-21	2005	Exploration	12	1	1
11535	524827	PLP	1-E	29-Jul-21	2011	Hydrogeology	18	1	1
GH04-008	642418	NDM	1-E	29-Jul-21	2004	Geotechnical	4.08	1	1
GH06-071A	516843	NDM	1-D	29-Jul-21	2006	Geotechnical	22.8	1	1
GH06-076	516950	NDM	1-E	29-Jul-21	2006	Geotechnical	30.96	1	1
GH06-078	524714	NDM	1-E	29-Jul-21	2006	Geotechnical	36	1	1
GH08-160	644279	PLP	3-E	29-Jul-21	2008	Geotechnical		0	0

GH08-172	642413	PLP	1-E	29-Jul-21	2008	Geotechnical	41.04	1	1
GH08-188	566970	PLP	1-E	29-Jul-21	2008	Geotechnical	42	0	0
GH08-190	566850	PLP	1-E	29-Jul-21	2008	Geotechnical	31.8	1	1
GH12-312	646605	PLP	1-E	29-Jul-21	2012	Geotechnical	43.92	1	1
GH13-370	642440	PLP	1-E	29-Jul-21	2013	Geotechnical	30	1	1
GH18-404	566960	PLP	1-E	29-Jul-21	2018	Geotechnical	36	1	1
MW-04-04	540424	NDM	1-E	29-Jul-21	2004	Monitoring	18	1	0
MW-04-07D	642418	NDM	1-E	29-Jul-21	2004	Monitoring	52.08	1	1
MW-04-07S	642418	NDM	1-E	29-Jul-21	2004	Monitoring	52.2	1	1
MW-04-09D	642418	NDM	1-D	29-Jul-21	2004	Monitoring	32.88	1	1
MW-05-13D	638785	NDM	1-E	29-Jul-21	2005	Monitoring	34.92	1	0
MW-05-13S	638785	NDM	1-E	29-Jul-21	2005	Monitoring	32.64	1	0
P-04-04M	524827	NDM	1-E	29-Jul-21	2004	Monitoring	30	1	1
P-05-20D	524804	NDM	1-D	29-Jul-21	2005	Monitoring	34.08	1	1
P-05-20S	524804	NDM	1-E	29-Jul-21	2005	Monitoring	30.84	1	1
P-05-21D	516841	NDM	1-D	29-Jul-21	2005	Monitoring	31.44	1	1
P-05-21M	516841	NDM	1-D	29-Jul-21	2005	Monitoring	24.84	1	1
P-05-21S	516841	NDM	1-E	29-Jul-21	2005	Monitoring	30.72	1	1
P-07-50D	642449	PLP	1-E	29-Jul-21	2007	Monitoring	43.68	1	1
P-07-50S	642449	PLP	1-E	29-Jul-21	2007	Monitoring	33.24	1	1
P-07-50SS	642449	PLP	1-E	29-Jul-21	2007	Monitoring	34.08	1	1
P-07-53D	642449	PLP	1-E	29-Jul-21	2007	Monitoring	30	1	1
P-07-53S	642449	PLP	1-E	29-Jul-21	2007	Monitoring	36.24	1	1
P-08-68D	642449	PLP	1-E	29-Jul-21	2008	Hydrogeology	37.8	1	1
PW-08-10	642449	PLP	1-E	29-Jul-21	2008	Hydrogeology	34.2	1	1
GH06-072	524808	NDM	1-D	22-Jul-21	2006	Geotechnical	22.68	1	1
GH05-060	516849	NDM	1-D	21-Jul-21	2005	Geotechnical	21.24	1	1
GH08-192	531434	PLP	3-E	01-Jul-21	2008	Geotechnical		0	0
P-07-51S	642441	PLP	3-E	01-Jul-21	2007	Monitoring		0	0
P-08-59D	524810	PLP	3-E	01-Jul-21	2008	Hydrogeology		0	0
P-08-59S	524810	PLP	3-E	01-Jul-21	2008	Hydrogeology		0	0
P-08-74D	531434	PLP	3-E	01-Jul-21	2008	Hydrogeology		0	0
P-08-74S	531434	PLP	3-E	01-Jul-21	2008	Hydrogeology		0	0

APPENDIX D

AHEA Reclamation Spreadsheet
(electronic file)

Sump Pit #	Associated Drill Site	Latitude (ddd.mmmm)	Longitude (-ddd.mmmm)	Datum (NAD83)	Associated APMA	Mining Claim ADL, BLM # or USMS	Discharge Trench	Collection Trench Area	Pit Area (square feet)	Reclaimed	Date Reclaimed
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**No drilling or reclamation activity was conducted in 2021.*

APPENDIX E

2021 Borehole Closure Details
(electronic file)

Borehole Number	Water Depth (ft)	Plug Length (ft)	Material Quantities (lbs)		
			Hole Plug 3/8- inch (Baroid)	Portland Type III	Quick Gel (Baroid)
4210	60.6	59.1	100	100	
4251	41.5	40	100	100	
11531	25.9	24.4	100	400	50
GH04-004	73.8	72.3	100	100	
GH04-013	33.1	31.6	50	50	
GH04-014	64.4	62.9	50	100	
GH04-016	51.5	50	50	100	
GH04-018	40.3	38.8	50	100	
GH04-037	129.5	128	100	100	
GH04-038	43.9	42.4	50	100	
GH04-045A	41.9	40.4	50	100	
GH04-048	37	35.5	50	100	
GH05-055	26.6	25.1	50	100	
GH05-056	42.7	41.2	50	100	
GH05-061	28	26.5	50	100	
GH06-070 TD		140		300	100
GH07-105	26.4	24.9	50	100	
GH08-107	26.5	25	50	100	
GH08-111	26.6	25.1	50	100	
GH08-123	28	26.5	50	100	
GH08-142	27.8	26.3	50	100	
GH08-145	26.7	25.2	50	100	
GH08-147	25.2	23.7	50	100	
GH08-149	24.9	23.4	50	100	
GH08-153	26.4	24.9	50	100	
GH08-155	209	207.5	300	100	
GH08-159	25.1	23.6	50	100	
GH08-160	26.2	24.7	50	100	
GH08-161	24.8	23.3	50	100	
GH08-182	27.5	26	50	100	
GH08-183	25.2	23.7	50	200	50
GH08-195	26.3	24.8	50	200	
GH08-199	27.6	26.1	50	100	
GH11-238	30.5	29	50	100	
GH11-239	88.2	86.7	100	100	
GH11-241	98.6	97.1	150	100	
GH11-242	59.4	57.9	50	100	
GH11-258S	24	22.5	50	100	
GH11-261S	28	26.5	50	100	
GH11-264S	42.9	41.4	50	100	
GH11-267S	29.7	28.2	50	100	
GH11-288S	26.2	24.7	50	100	
GH12-301S	60.6	59.1	150	100	
GH12-304S	172.1	170.6	250	100	
GH12-311S	88.2	86.7	100	100	
GH12-319S	43.1	41.6	100	100	
GH12-320S	28	26.5	50	100	
GH12-330S	27.3	25.8	50	100	
GH12-336S	139.9	138.4	200	100	
GH12-337S	130.3	128.8	100	100	
GH12-338S	124.1	122.6	200	100	
GH12-339S	27.1	25.6	50	100	

GH12-340S	62.3	60.8	100	100	
GH12-341S	64.4	62.9	100	100	
MW-04-11S	24.8	23.3	50	100	
MW-05-11SS	45.9	44.4	50	100	
MW-05-14S	26.2	24.7	50	100	
P-05-25	29.4	27.9	50	100	
P-05-26D	41.6	40.1	50	200	
P-05-26M	94.4	92.9	50	200	
P-05-26S	41	39.5	50	100	
P-05-29M	33.6	32.1	50	100	
P-05-29S	25.3	23.8	50	100	
P-08-56M	35.2	33.7	50	100	
P-08-56S	28.6	27.1	50	100	
P-08-58D	25.7	24.2	50	100	
P-08-58M	33.6	32.1	50	100	
P-08-60D	33.7	32.2	50	100	
P-08-60S	27.3	25.8	50	100	
P-08-62D	31.3	29.8	50	100	
P-08-62M	31	29.5	50	100	
P-08-62S	25.4	23.9	50	100	
PW-04-03	41.1	39.6	50	500	50
PW-05-05	30.4	28.9	50	400	200
PW-05-06	32.2	30.7	50	400	200
PW-05-07/7A	135.8	134.3	100	400	200
PW-05-08	29.2	27.7	50	200	100

2021 ANNUAL RECLAMATION STATEMENT

(33)

- Placer Mining
- Suction Dredging
- Hardrock Exploration

APMA # _____

Complete and return this statement by December 31, 2021. If you did not operate, fill in your name, check bottom box, sign, and return form.

In accordance with AS 27.19 (Reclamation Act):

I, _____ hereby file an annual reclamation statement for the 2021 mining operation described in subject Application for Permits to Mine in Alaska. (Submission of this statement does not constitute reclamation approval.)

Volume of material disturbed in 2021: _____ cubic yards (Includes strippings and processed material.)

Sluice days last season: _____ Cubic yards of material processed daily: _____ Annually: _____

Total acreage disturbed in 2021: State _____, Federal _____, Private _____. (Includes stripped areas, mining cuts, overburden and tailing stockpiles and disposal areas, temporary stream diversions, stream bypasses, and settling ponds.) Federal operators should include area of camp and access roads.

Length _____ feet and Width _____ feet of stream diversion.

Stream diversion: Temporary Permanent No Diversion (check one).

Total Area reclaimed in 2021: _____ acres.

Total un-reclaimed acres: _____ (This should match "total acreage currently disturbed" on the 2022 Reclamation Plan Form.)

For areas reclaimed, the following reclamation measures were used (check only measures that were used).

You must include photographs or videotapes of the completed reclamation work:

- Spread and contoured tailings
- Spread topsoil, vegetation, overburden muck or fines on the surface of contoured tailings
- Reestablished flood plain with stream channel in stable position
- Ponds are reclaimed
- Backfilled and reclaimed temporary stream diversions
- Camp removed, cleaned up and left free of debris
- Hardrock Exploration: Complete and submit an electronic Annual Reclamation Report

Other Reclamation Measures Taken:

Did not operate in 2021 and therefore did not conduct reclamation.

Relationship to Claim(s)

Owner Lessee Operator

Agent For: _____

Signed _____ Date _____



2022 RECLAMATION PLAN FORM (HARDROCK EXPLORATION)

<p>A. RECLAMATION PLAN</p> <p>(REQUIRED if the operation will disturb five or more acres this year, OR 50,000 cubic yards, OR if the operation has a cumulative disturbed area of five or more acres).</p>	<p>B. RECLAMATION PLAN VOLUNTARY</p> <p>(for an operation below limits shown in Box A but wanting to qualify for the statewide bonding pool. (Operations on BLM Lands and others not filing Letter of Intent).</p>	<p>C. LETTER OF INTENT (33)</p> <p>(less than five acres to be disturbed AND less than 50,000 cubic yards AND less than five acres unreclaimed area).</p>
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In accordance with Alaska Statute 27.19, reclamation is required of all mining operations. Reclamation bonding is required of operations with disturbance of 5 acres or greater. Completion of this application will meet the requirements for a "Reclamation Plan" for operations 5 acres and larger in size and for a "Letter of Intent To Do Reclamation" for operations under 5 acres. If you do not intend to use the reclamation methods presented below, you must provide additional information concerning your plans for reclamation under separate attachments.

Total acreage currently disturbed: _____ acres. This should match: "Total Unreclaimed Acres" on your 2021 Annual Reclamation Statement for Small Mines, or line #7 on your 2022 Bond Pool Renewal Form. Disturbed ground includes all unreclaimed mining and exploration activity (excluding camps and roads) since October 1991. Federal operators must include areas of camps and roads.

New acres to be disturbed in 2022 _____ acres. Total acreage (currently disturbed plus new acres): _____ acres.

Acreage disturbed by land status: _____ State (general) _____ State (Mental Health) _____ Private _____ Federal

Total acreage to be reclaimed in 2022 _____ acres; Total volume of material to be disturbed in 2022: _____ cubic yards.

Include strippings and overburden to be removed. Cubic yards = Length (yards) x Width (yards) x Depth (yards).

Reclamation will be conducted concurrently with activity. Reclamation will be conducted at the end of the season.

THE FOLLOWING RECLAMATION MEASURES SHALL BE USED:

(These measures are required by law. Those that do not apply may be crossed out; but, an explanation must be given.)

- Topsoil, vegetation, and overburden muck, not promptly redistributed to an area being reclaimed, will be individually separated and stockpiled for future use. This material will be protected from erosion and from contamination by acidic or toxic materials and will not be buried by tailings.
- The area reclaimed will be reshaped to blend with the surrounding area using tailings, strippings, and overburden and be stabilized.
- Stockpiled topsoil, overburden muck, will be spread over the contoured exploration sites to promote natural plant growth such that
- Exploration trenches will be backfilled. Brush piles, stumps, topsoil, and other organics will be spread on the backfilled surface to inhibit erosion and promote natural revegetation. All exploration trenches will be reclaimed by the end of the exploration season in which they are constructed, unless specifically approved by the DMLW (Mining operations are required by law to be reclaimed as contemporaneously as practicable with the mining operation to leave the site in stable condition).
- Shallow auger holes (limited to depth of overburden) will be backfilled with drill cuttings or other locally available material in such a manner that closes the hole to minimize the risk to humans, livestock and wildlife.
- All drill hole casings will be removed or cut off at, or below, ground level. All drill holes will be plugged by the end of the exploration season with bentonite holeplug or equivalent slurry, for a minimum of 10 feet within the top 20 feet of the drill hole. The remainder of the hole will be backfilled to the surface with drill cuttings. If water is encountered in any drill hole, a minimum of 7 feet of bentonite holeplug or equivalent slurry will be placed immediately above the static water level in the drill hole. (NOTE: The operator understands that complete filling of the drill holes, from bottom to top, with bentonite holeplug or equivalent slurry is also permitted and is considered to be the preferred method of hole closure, unless communicated otherwise by DMLW.)
- If artesian conditions are encountered, the operator will take all measures practicable to prevent the offsite discharge of those waters subject to 11 AAC 97.240 and will contact the DMLW for approval of hole plugging measures.
- At closure, all shafts, adits, tunnels, and air vents to underground workings will be stabilized and properly sealed to ensure protection of the public, wildlife and the environment.
- On state lands, all buildings and structures constructed, used, or improved will be removed, dismantled, or otherwise properly disposed of unless the surface owner or manager authorizes that the buildings and structures may stay.
- On state lands, all scrap iron, equipment, tools, piping, hardware, chemicals, fuels, waste, and general construction debris will be removed or properly disposed of.
- Reclamation measures taken will be consistent with any alternative post mining land use approved by the Commissioner, subject to the provisions of 11 AAC 97.300(h) and the conditions (if any) of an approved reclamation plan.

IMPORTANT: 1. Alternative reclamation measures may be approved if the reclamation measures presented above are not applicable to your site. Please explain in separate correspondence. Submit a sketch and describe additional reclamation measures you propose to conduct at your operation. Reclamation measures must comply with AS 27.19.

BONDING: In accordance with AS 27.19, bonding is required for all operations having a mined area of ≥ five acres on State Land. This area must be bonded for \$750.00 per acre, unless the miner can demonstrate that a third party contractor can do the needed reclamation for less. The Statewide Bonding Pool may be joined by completing a bond pool application form and meeting certain requirements. No reclamation plan approval goes into effect until the bonding pool deposit and annual nonrefundable fees are paid. Use bond form to calculate area of disturbance for bonding.

BLM requires that a reclamation plan be consistent with §43 CFR 3809.420, Performance Standards for the Surface Management regulations for Federal Operations. **Refer to 43 CFR 3809 or the BLM minerals website available at <https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals> for more information on what is needed for a reclamation plan on Federal lands, as they may be different than those identified above.**

<p>Printed name (Applicant) _____</p> <p>Signature (Applicant) _____</p>	<p>Relationship to Mineral Property:</p> <p>Owner Lessee Operator</p> <p>Agent For: _____</p>	<p>Date: _____</p> <p>APMA #: _____</p>
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