

## **APPENDIX 6      2024 ANNUAL GEOTECHNICAL INSPECTION REPORT**

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## 2024 Annual Geotechnical Inspection Meliadine Gold Mine, Nunavut, Canada



PRESENTED TO  
**Agnico Eagle Mines Limited**

MARCH 11, 2025  
ISSUED FOR USE-REVISION 1  
FILE: 704-ENG.EARC03140-39  
AGNICO EAGLE DOCUMENT NUMBER: 65-600-230-TCR-002

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## EXECUTIVE SUMMARY

Agnico Eagle Mines Limited (Agnico Eagle) retained Tetra Tech Canada Inc. (Tetra Tech) to conduct the 2024 annual geotechnical inspection for the Meliadine Gold Mine (the Mine), located approximately 25 km north of Rankin Inlet, in the Kivalliq Region of Nunavut. The Mine consists of underground development and open pits to extract gold ore.

The geotechnical inspection is pursuant to the requirements of the amended Type A Water Licence Permit No.2AM-MEL1631 (Nunavut Water Board 2024). Under Part I, Item 13 (Page 23) and Schedule I, Item 1 (Page 41) of the Water Licence, Agnico Eagle is required to undertake an annual geotechnical inspection of its facilities between the months of July and September each year. The inspection occurred from August 29, 2024 to September 2, 2024 and was conducted by Hongwei Xia of Tetra Tech, a Geotechnical Engineer, holding professional registration in Nunavut, and Devon Sosniuk of Tetra Tech, a Geotechnical Engineer-in-Training. A summary of the findings was presented to Agnico Eagle in a close out meeting on September 27, 2024.

The inspection included water collection ponds (CP), dikes (D-CP), saline water collection ponds, roads, landfills, landfarms, and other geotechnical structures. The following is a summary of the general observations made during the site inspection.

### CP1 and Dike D-CP1

CP1, Dike D-CP1, downstream seepage collection ditches, sump, and Jetty1 are performing adequately. Some erosion was observed on the upstream shell of Dike D-CP1 and occurred during a high-water event between 2019 and 2020. No noticeable change on the upstream shell erosion has been observed since 2021. Ongoing surveying of the erosion should be performed to determine if remedial measures are required.

In 2023, Ponding water was observed at various locations along the downstream collection ditches. In 2024 the channel was regraded to maintain a positive gradient and promote water flow. Additional rockfill was placed to cover the east shoulder of the collection ditches to reduce the potential of permafrost degradation.

It is recommended that effective snow removal or snow fencing be applied to help mitigate the warming trend of the dike's foundation. Consideration should be given to refill and regrade the slope of the CP1 jetty where the erosion was observed.

### CP2 and its Associated Infrastructure

CP2 and its associated infrastructure (Channel 9, Channel 10, and CP2 Thermal Berm) are performing adequately. Thaw subsidence and cracking were observed at various areas between Channel 9, Channel 10, and WRSF3. It is recommended that a thermal cover be placed in the areas between WRSF3, Channel 9, and Channel 10 to prevent disturbance and permafrost degradation of the native ground.

### CP3 and its Associated Infrastructure

CP3 and its associated infrastructure (CP3 Thermal Berm, Berm 2, and the reconstructed Channel 3) are performing adequately. The geotechnical performance should continue to be monitored.

### CP4 and its Associated Infrastructure

CP4 and its associated infrastructure (CP4 Thermal Berm and Channel 4) are performing adequately. The original ground along the east and north sides of CP4 and the area between CP4 and WRSF1 was covered with additional rockfill for thermal protection in 2023. The pond slopes appear to be stable.

Some surface erosion was observed at the end of Channel 4 Berm during the 2023 annual geotechnical inspection. It is likely that there was deep drifted snow, and the erosion was caused by the runoff from the snow melting. A rockfill berm was constructed on the downstream shoulder of Channel 4 to remediate erosion and improve channel capacity.

Thaw subsidence, exposed geotextile, cracking, and settlement of overburden material were observed at several areas along the upstream shoulder of Channel 4. The cracks and thaw subsidence are an indication of thermal degradation at localized areas and were likely caused by surface runoff flow over the area between WRSF1 and Channel 4. It is recommended to place rockfill as the thermal cover between Channel 4 and WRSF1 to mitigate the thaw subsidence and cracking.

Minor ponding was observed at various localized areas along Channel 4. Based on the size of the ponded water area, the overall performance of Channel 4 is not expected to be undermined.

Overall, Channel 4 is performing adequately as designed. No geotechnical concern was noted on the CP4 Thermal Berm and the original ground below the CP4 Thermal Berm is in a frozen condition.

### **CP5 and Dike D-CP5**

CP5 and Dike D-CP5 are performing adequately. A water diversion ditch was previously excavated around the jetty to divert water from localized areas towards the jetty. Minor slope erosion was observed at various locations along the ditch due to the excavation. The performance of the jetty is not expected to be impacted by the ditch.

### **CP6 and its Associated Infrastructure**

CP6 and its associated infrastructure (CP6 Thermal Berm) are performing adequately. The rockfill cover placed in previous years between WRSF3 and Pond CP6 to provide thermal and erosion protection appeared to be performing adequately. The small ponding area between the CP6 access ramp and CP6 Thermal Berm was filled with coarse rockfill to avoid ponding in the area. The CP6 access ramp was also extended to the base of CP6 to provide operations with safe access for dewatering.

### **Saline Ponds**

Saline Ponds (SP) 1 and 3 are performing adequately. The cracks on the thermal cover slope observed since 2020 did not show changes. No other permafrost degradation was observed other than the cracks noted here. Safety berms located at the bottom of the access ramp into SP1 and the arrangement of the pipelines along the ramp were improved for safety and easy access.

### **Diversion Channels and Berms**

The diversion channels and berms are performing well with some maintenance work required. The recommendations are outlined below:

- Repairs and maintenance should be completed on Channels 1 and 7 to promote drainage.
- It is recommended that the eastern portion of Channel 5 be repaired and maintained. The western portion of the channel was reconstructed and is functioning well.
- Minor erosion was observed during the inspection of Berm 3 as its cover materials are susceptible to erosion. Erosion of the slopes should be monitored, and consideration should be given to placing coarser material on Berm 3 to reduce the potential for erosion if it becomes substantial.

## **Tailings Storage Facility**

The Tailings Storage Facility (TSF) appeared to be functioning well at the time of the inspection. Tailings placement appears to be following the construction protocol established in the Operation, Maintenance, and Surveillance (OMS) manual and design report. Ground temperatures are being collected as per the frequency specified in the OMS manual.

The TSF perimeter rockfill berm appears to be functioning well from a geotechnical perspective with no signs of distress. Cracking and erosion of the tailings along the toe of the exposed north slope of Cell 1 was observed in 2022. A rockfill berm was constructed in 2023 between the interface of Cell 1 and Cell 2 to reduce the erosion caused by surface runoff. The rockfill berm was buried due to the tailings placement in Cell 2. Monitoring of the erosion condition of the exposed north slope of Cell 1 should continue and similar erosion protection measures (placing a layer of rockfill along the interface) should be conducted, if needed necessary. Minor cracking was observed on the rockfill berm of Cell 1, it is recommended to monitor the cracking for future degradation.

### **WRSF1**

Material placement on the pile is generally executed according to the WRSF1 design. The till and rock mixed free dumps observed in 2023 on the 97 m bench were spread and compacted to avoid settlement and cracking. New waste material appeared to be placed as per the construction protocol established in the OMS manual. In general, WRSF1 is performing well.

### **WRSF3**

In general, WRSF3 is performing well. Areas of depression and cracking previously observed on the 72 m bench in 2023 were mitigated by placing additional material and traffic compaction. Ponded water was observed at the southwest corner of WRSF3 at the time of the inspection. It is understood that Agnico Eagle conducts regular pumping activities to manage the ponded water. Tetra Tech recommends that consideration be given to construct a channel and sump, if practical, within the lease boundary to divert/collect runoff water and prevent any potential for permafrost degradation at the WRSF3 toe and reduce the efforts required for regular pumping.

## **Site Roads**

The site mine roads and culverts were generally well-maintained and in good geotechnical condition at the time of the inspection. No specific recommendations for geotechnical improvements are provided.

## **Landfill**

In general, the landfill is performing well with no geotechnical issues during the time of the inspection. It is recommended that the landfill be covered in stages with intermediate cover to avoid blowing debris.

## **Industrial Fuel Tank Farm**

Cracking observed at the crest of the berms at Industrial Fuel Tank Farm have increased by 110 mm from 2023 to 2024. The crests of these berms should be repaired to remediate the cracking.

## **Other Facilities**

The footing foundations that support the corrugated steel entry of Portal No. 2 have experienced erosion over recent years. It is recommended that the voids underneath the foots of Portal No. 2 be backfilled, and erosion protection measures put in place to prevent additional erosion.

## **All-weather Access Road**

In general, the All-weather Access Road (AWAR) appeared to be in good geotechnical condition at the time of the inspection. It was reported by site personnel that the road performed well during the 2024 freshet, although ponded water was observed in several locations on the side slope of the road. Additional culverts and raising some sections of the road surface would reduce the risk of the road overtopping during significant freshet events. Construction of the new water pipeline along the AWAR has blocked several pipe sleeves which were used to pass a hose through for freshet pumping activities. The new water pipeline has also increased potential erosion and movement of sediments due to the use of bedding material along the AWAR toe and drainage issues. It was noticed that some culverts do not have signs for their easy identification, some culverts were mis-labeled, and some KM stations along the AWAR appeared to be out of alignment. It is recommended that the signage for culverts and KM stations be reviewed for accuracy and updated where required.

## **Itivia Bypass Road**

The Itivia Bypass Road was in good condition at the time of the site inspection. A low area of the road northwest of Culvert C10 flooded during the 2019 freshet. The area was raised in late 2019, but the road was overtopped again in the 2020 freshet. This section of road performed better during the 2022 through 2024 freshets, but it is recommended that additional culverts or other measures be implemented to prevent this from occurring in the future. Similar to the AWAR, it was noticed that some culverts do not have a sign for their easy identification and some culverts were mis-labeled. It is recommended that the signage for culverts be reviewed for accuracy and updated where required.

The fuel tank farm liner and berm were raised in 2024 to accommodate two additional fuel tanks. Ponded water was noticed in the Itivia fuel farm. Ponded water should be emptied out of the facility as soon as practical to reduce the risk of erosion.



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## ACRONYMS & ABBREVIATIONS

Acronyms/Abbreviations	Definition
Agnico Eagle	Agnico Eagle Mines Limited
ATV	All-terrain Vehicle
AWAR	All-weather Access Road
CDA	Canadian Dam Association
CP	Collection Pond
EWTP	Effluent Water Treatment Plant
GTC	Ground Temperature Cable
HDPE	High-Density Polyethylene
IDF	Inflow Design Flood
km	Kilometers
masl	Metres Above Sea Level
mbgs	Metres below ground surface
OMS	Operation, Maintenance, and Surveillance
PGA	Peak Ground Acceleration
ppt	Parts Per Thousand
SP	Saline Pond
SEPT	Saline Effluent Treatment Plant
SWTP	Saline Water Treatment Plant
Tetra Tech	Tetra Tech Canada Inc.
TSF	Tailings Storage Facility
TSS	Total Suspended Solids
WRSF	Waste Rock Storage Facility

## CONFIDENTIALITY STATEMENT

This report and its contents are intended for the sole use of Agnico Eagle Mines Limited and their agents. Tetra Tech Canada Inc. (Tetra Tech) does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Agnico Eagle Mines Limited, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this document is subject to the Limitations on Use of this Document attached in Appendix A or Contractual Terms and Conditions executed by both parties.

## 1.0 INTRODUCTION

### 1.1 General

Tetra Tech Canada Inc. (Tetra Tech) was retained by Agnico Eagle Mines Limited (Agnico Eagle) to conduct the 2024 annual geotechnical inspection for the Meliadine Gold Mine (the Mine), located approximately 25 km north of Rankin Inlet, in the Kivalliq Region of Nunavut. A general location plan for the Mine is shown in Figure 1. The Mine involves one underground development (Tiriganiaq underground (TIRI)) and two open pits (TIRI#1 and TIRI#2) to extract gold ore, with potential mine development at the Wesmeg, Wesmeg North, Pump, FZone, and Discovery deposits for further gold ore extraction.

The geotechnical inspection is pursuant to the requirements of the Amended Type A Water Licence Permit No. 2AM-MEL1631 (Nunavut Water Board 2024). Under Part I, Item 13 (Page 23) and Schedule I, Item 1 (Page 41) of the Water Licence, Agnico Eagle is required to undertake an annual geotechnical inspection of its facilities by a Geotechnical Engineer between the months of July and September. The 2024 annual geotechnical inspection occurred from August 29, 2024 to September 2, 2024 and was conducted by Hongwei Xia of Tetra Tech, a Geotechnical Engineer, holding professional registration in Nunavut, and Devon Sosniuk of Tetra Tech, a Geotechnical Engineer-in-Training. Justin Bieber and Prempeh Owusu of Agnico Eagle, on-site geotechnical engineers at the Mine, accompanied and guided the Tetra Tech staff throughout the inspection and provided invaluable information which aided in determining the performance of the structures.

The following structures were inspected:

Main Site Including:

- Water collection ponds CP1, CP2, CP3, CP4, CP5, and CP6 and their associated dikes (D-CP1 and D-CP5), berms, channels, and jetties.
- Waste Rock Storage Facilities WRSF1 and WRSF3.
- Tailings Storage Facility (TSF).
- Saline Pond 1 (SP1) and Saline Pond 3 (SP3).

Site Roads:

- Main site pad area roads, including culverts.
- Tiriganiaq Esker access road.
- Wesmeg access road, Wesmeg Borrow, and vent raise.
- Magazine storage access road.
- Main site water intake access road.
- Emulsion plant pad access road.
- Access roads to water collection ponds.

Pads:

- Main camp pad.
- Industrial pad.
- East ventilation raise pad.
- Cyanide storage pad.
- Effluent water treatment plant (EWTP) pad.
- Explosives (ANFO plant) pad and magazine storage.
- Emulsion plant pad.
- Crusher ramp and MSE walls.
- Paste plant ramp.
- Ore and waste rock storage areas.
- Landfarm.
- Operations landfills.
- Underground Portals No. 1 and No. 2.
- Industrial fuel storage and mine site fuel storage.

Exploration Camp Site Including:

- Site pad and diffuser access road.
- Genset storage area.
- Freshwater intake.
- Access road.
- Fuel storage.

All-weather Access Road (AWAR) and Culverts.

Itivia Site:

- Fuel storage.
- Bypass road and culverts.

The facilities at the main mine site and exploration camp areas in 2024 are shown in Figure 2.

The AWAR connecting Rankin Inlet to the Mine provides one-way traffic access (with pull-outs to allow vehicles to pass). The Itivia bypass road provides a bypass around Rankin Inlet from the shipping and fuel storage area in Rankin Inlet.

This report describes the geotechnical aspects of the areas inspected and presents general observations and recommendations. In addition, a description of the geophysical and permafrost conditions for the site are provided.

## 1.2 Scope Limitations

The scope of the inspection is limited to the observation of geotechnical aspects of each of the facilities listed above and a review of the associated instrumentation data. The inspection did not include other assessments such as structural, mechanical, or environmental.

## 2.0 INSPECTION METHODOLOGY

Each structure and the surrounding area were visually inspected for signs of settlement, seepage, cracking, or other signs of distress or permafrost degradation. Noteworthy observations were photographed and recorded. Available ground temperature cable (GTC) data, water levels, settlement monitoring data, routine monthly reports, and other relevant files and reports (listed in the reference section of this report) were reviewed. Where applicable, the inspection was performed consistent with the principles set out in the Canadian Dam Safety Review Guidelines by the Canadian Dam Association (CDA 2013). A description of each structure follows in the subsequent sections. Drawings of the structures and photographs are in the attached appendices.

The inspection occurred when there was no snow or ice on the lakes or land, and when surface water flows were generally low. Peak surface water flows typically occur during the freshet (May and June). During the inspection, the weather was generally cloudy. Daily temperatures varied between 3°C and 13°C. Water levels were normal for this period of the year.

For the critical infrastructure at the Mine (i.e., Water management infrastructure, TSF, and WRSFs), the deficiencies observed during the inspection were assessed and classified following a priority scale system developed by Agnico Eagle. A priority level was assigned to the recommendations for each critical infrastructure (see Section 17.0.) for action and planning purposes.

The priority scale system provided by Agnico Eagle includes:

- **P1:**
  - A condition that compromises the safety of the structure. An action plan needs to be developed immediately and implemented as soon as possible.
- **P2:**
  - A condition that could eventually compromise the safety of the structure. An action plan needs to be developed within three months and implemented as agreed with Agnico Eagle; or
  - A serious or continued deficiency in OMS procedures which should be resolved immediately.
- **P3:**
  - A condition that is not expected to compromise the safety of the structure, but represents an anomaly, or that is not in agreement with OMS procedures, or does not represent the best available/applicable practice. An action plan needs to be developed within six months and be implemented within the period agreed with Agnico Eagle.

■ **P4:**

- A condition that is acceptable in terms of stability, serviceability as well as best available/applicable practice and regulatory requirements, but could be modified or improved to facilitate operation, monitoring, surveillance, or aesthetics; or
- Facilitate recommendations provided for consideration.

## 3.0 GENERAL SITE CONDITIONS

The Mine is in the Kivalliq Region of Nunavut, near the northern border of the southern Arctic terrestrial eco-zone, and within the Arctic tundra climate region. It is located within the Churchill geological province, which forms part of the northern Canadian Shield.

The landscape is dominated by features characteristic of glaciated terrain and exposed bedrock. Primarily underlain by Precambrian granitic bedrock, the terrain consists of broadly rolling uplands and lowlands. The Mine is located at an approximate elevation of 60 metres above sea level (masl) with a maximum topographic relief of 20 m. There are numerous small lakes, wetlands, and creeks, indicating poorly drained conditions. The upland areas are generally well drained. A series of low relief ridges composed of glacial deposits, oriented northwest—southeast control the regional surface drainage pattern. Periodic ice blockages at outlets of small lakes and wetlands occur during the freshet, these can temporarily increase the downstream flood peak discharges and affect the flood characteristics. High flows are observed during the freshet, while low flows and dry stream channels are typical in late summer.

Glacial moraine deposits are predominant, ranging in thickness from veneers (less than 2 m) to blankets (2 m to 5 m) to hummocky deposits (5 m to 15 m). Glaciofluvial deposits are also present, with the most prominent being a network of sinuous eskers. Lacustrine deposits occur in association with the numerous lakes. Near the coast of Hudson Bay, finer textured marine sediments cover the ground surface.

The Mine is in a zone of continuous permafrost and has an annual average air temperature of  $-9.8^{\circ}\text{C}$ , based on climate data from Rankin Inlet for the period of record from 1994 to 2023. Within the permafrost there are intervening taliks (areas of unfrozen ground) and thaw bulbs induced by lakes. The permafrost in the region is "cold" (i.e., has an average annual surface temperature and zero amplitude temperature of less than  $-4^{\circ}\text{C}$ ). The depth of permafrost and of the active layer varies based on the proximity to lakes, soil thickness, vegetation, climate conditions, and slope direction. Based on thermal studies and measurements of ground temperatures, the depth of permafrost is generally between 285 to 430 metres below ground surface (mbgs) (WSP 2024a). The depth of the active layer ranges from about 1 mbgs in areas with shallow surficial soils, up to about 3 mbgs adjacent to the lakes (Agnico Eagle 2014b). Typical permafrost ground temperatures at the depths of zero annual amplitude are in the range of  $-5.9^{\circ}\text{C}$  to  $-7.0^{\circ}\text{C}$  in areas away from lakes and streams and are generally reached at a depth of 18 mbgs to 40 mbgs. The geothermal gradient ranges from  $0.015^{\circ}\text{C/m}$  to  $0.02^{\circ}\text{C/m}$  (WSP 2024a). The ground ice content in the region is expected to be between 0% and 10% (dry permafrost) based on the regional scale compilation data and the Canada Permafrost Map published by Natural Resources Canada (NRC 1993). However, areas of local higher ground ice content occur and are generally associated with low lying areas of poor drainage.

The formation of an open-talik, which penetrates through the permafrost, would be expected for lakes that exceed a critical depth and size. The presence and extent of each talik is influenced by the geometry (size and shape) of the lake. As the depth and size of lakes increase, the extent of the talik increase. Open taliks (defined by the 0-degree isotherm) are predicted to be present beneath portions of each of the following lakes near the proposed



open pits: Lake B4, B5, B7, A6, A8, and CH6. Closed talik is interpreted below Lake D4 based on the 0-degree isotherm interpreted from the thermal model (WSP 2024b).

The salinity of groundwater also influences the temperature at which the groundwater freezes. Testing has indicated that the salinity of the groundwater in the Mine area generally increases with depth. Mean salinity of groundwater below the permafrost has been estimated at approximately 61,000 mg/L. Salinity can induce a freezing point depression, creating a cryopeg in permafrost where water can be unfrozen even though the temperature is below 0°C. The freezing point depression was calculated to be equivalent to -3.3°C (with salinity approximately 61,000 mg/L), suggesting the depth to the basal cryopeg is between about 350 m and 375 mbgs in the Mine area (Golder 2012a).

The Mine site is in an area of low seismic risk and is classified as “Class C” based on the ground conditions. The Peak Ground Acceleration (PGA) for a reference “Class C” site under various Annual Exceedance Probability was estimated using the 2020 National Building Code of Canada Seismic Hazard Tool. The estimated PGA is 0.0285 g for a 5% in 50-year probability of exceedance (0.001 per annum or 1 in 1,000 year return) and 0.0498 g for a 2% in 50-year probability of exceedance (0.000404 per annum or 1 in 2,475 year return) for the Mine site.

## 4.0 OVERALL WATER AND MINE WASTE MANAGEMENT STRATEGY

The water management objectives are to minimize potential impacts to the quantity and quality of surface water at the Mine and surrounding waterbodies. Water management structures (culverts, sumps, pipelines, water diversion channels, and water retention dikes/berms) are utilized to contain and manage contact water from areas affected by mining activities.

Contact water originating from the mine development areas on the surface is intercepted and diverted to various containment ponds for temporary storage. All contact water is eventually conveyed to CP1, from where the water is treated for total suspended solids (TSS) at the EWTP and discharged through the diffuser located in Meliadine Lake.

Contact water from the Underground Mine is collected in underground sumps, transported to a clarification system, and subsequently recirculated for use in various underground operations. Excess underground contact water is stored in temporarily inactive underground developments, and on surface in SP1 and TIR Open Pit 2. Underground contact water that is not used for operations is treated with a reverse osmosis plant for discharge.

Waste rock and overburden is trucked to the Waste Rock Storage Facilities (WRSFs) with distribution according to the operation schedule. Two WRSFs (i.e., WRSF1 and WRSF3) are constructed to accommodate the waste rock and overburden from the mine development. Closure of the WRSFs will begin when practical as part of the progressive reclamation program. The WRSFs will not be covered and vegetated, and no additional re-grading activity will be required under the closure plan.

The tailings produced from the ore process are filtered and mechanically placed and compacted in the TSF and a portion of it used underground as cemented paste backfill. The TSF consists of two cells, which will be operated one after the other to facilitate progressive closure during mine operation. A layer of overburden and waste rock will be used for the TSF closure as dust and erosion control under the current closure plan.

The water, waste rock, overburden, and filtered tailings were managed in the operation year 2024 (September 2023 to September 2024) as per Agnico Eagle’s established operation protocols and management plans.

## 5.0 WATER COLLECTION PONDS, DIKES, AND ASSOCIATED INFRASTRUCTURE

### 5.1 Introduction

This section presents a summary of the water collection ponds and associated dikes, berms, and channels constructed prior to the 2024 annual geotechnical inspection, including:

- Collection Pond CP1 and its associated Dike (D-CP1) and Jetty 1;
- Collection Pond CP2 and its associated Berm CP2, Channel 9, and Channel 10;
- Collection Pond CP3 and its associated Berm CP3, Berm 2, and Channel 3;
- Collection Pond CP4 and its associated Berm CP4 and Channel 4;
- Collection Pond CP5 and its associated Dike D-CP5, Berm 3, Jetty 5, and Channel 5;
- Collection Pond CP6 and its associated Berm CP6; and
- SP1 and SP3.

The following subsections provide a description of the structures, visual observations, a summary of geotechnical instrumentation (if any exists), followed by recommendations.

### 5.2 Pond CP1 and Dike D-CP1

#### 5.2.1 Background

Dike D-CP1 was constructed across the outlets of former Lakes H6 and H17, which combine to form CP1. Dike D-CP1 was constructed between October 2016 and July 2017. The location is shown in Figure 2. Site water around the industrial facility and various collection ponds is directed to CP1. Water is retained in CP1 prior to treatment of TSS and discharge to Meliadine Lake.

Dike D-CP1 is approximately 600 m long with a maximum height of 6.6 m (Tetra Tech 2017h). The CDA (2013) dam consequence classification for Dike D-CP1 is Significant (Tetra Tech 2016a). A downstream collection sump and two channels were constructed approximately 5 m downstream of the D-CP1 toe to collect surface runoff and any possible dike seepage for pump back to CP1. A thermal toe berm was constructed on the downstream side of D-CP1 in the Fall of 2021 to facilitate cooling the dike foundation and prevent surrounding permafrost from degradation. In 2024, additional rockfill was placed on the east shoulder of the collection channels to reduce the potential of the permafrost degradation.

Selected as-built drawings are included in Appendix B. The as-built typical section of the thermal toe berm is presented in Appendix B.

A jetty was constructed into CP1 to pump water to the EWTP in 2017.

## 5.2.2 Visual Observations

The inspection of CP1, D-CP1, and associated structures was conducted on August 30 and 31, 2024 and involved walking along the crests and toes of the dike and examining the condition of the slopes of the dike for visual signs of thaw deformation and instability, cracking, and permafrost degradation. A photographic record of the inspection, with annotations added where appropriate, is included in Appendix B. The photo locations are presented in Figure 3.

At the time of the inspection of D-CP1, the following general observations were made:

- Overall, the dike appeared stable, with no significant geotechnical concerns identified, similar conditions have been observed since 2019.
- Erosion that primarily occurred during a high-water event between 2019 and 2020 on the upstream slope of the dike is still present, and no noticeable change since then as shown in Photos 1 and 2, Appendix B. The erosion has removed the finer fraction of the rockfill, leaving the larger particles. The erosion scarp is approximately 1.2 m high.
- Minor cracking and small settlement were observed along portions of the upstream and downstream crest (e.g., Photos 6, Appendix B). The largest cracks were up to 3 cm wide. The cracking was first observed during the 2018 geotechnical inspection and has not shown significant change since then.
- A rockfill toe berm was constructed along the downstream side of D-CP1 in the Fall of 2021/2022 to facilitate cooling the dike foundation and prevent surrounding permafrost from degradation (Photo 7, Appendix B). The rockfill toe berm was placed between Stations 1+220 and 1+540 at an elevation of approximately 64.5 m. The rockfill toe berm is approximately 7 m wide. No deformation and cracking were observed on the rockfill toe berm during the 2024 annual geotechnical inspection.
- Additional rockfill was placed along the east and north perimeter of the seepage collection pond downstream of the dike in the Fall of 2021. The rockfill berm appears to be performing well (Photo 9, Appendix B) with no deformation and cracking observed during the 2024 annual geotechnical inspection.
- The water level in the downstream collection pond was low (Photos 11 and 12, Appendix B) at the time of the site visit. It is understood that water from the collection pond was being pumped into CP1 during the freshet period and will be pumped out as required.
- Additional rockfill was placed along the east shoulder of the collection channels in 2024 (Photo 13, Appendix B). The placement of this material was to prevent permafrost degradation as observed from thaw subsidence and cracking of the native ground in the 2023 annual geotechnical inspection.
- Ponding water was observed at some depression locations along the downstream collection channels during the 2023 annual geotechnical inspection. Regrading of the downstream collection channels was completed in 2024 to remove localized depressions created by thaw settlement and promote flow into D-CP1 (Photos 8, 9, and 10, Appendix B). No ponding water was observed during the 2024 annual geotechnical inspection.
- No seepage was observed from the downstream toe.
- White High-Density Polyethylene (HDPE) liner was installed to cover the pipelines crossing Dike D-CP1 at Station 1+250 in 2024 (Photo 14, Appendix B). The intents of the white HDPE line are to reduce the thermal impact of the pipeline crossing on the dike performance by increasing the surface albedo and to prevent the dike material from erosion in case of breakage of the pipelines.
- Jetty 1 was in good condition except for some erosions observed on the jetty slopes. The erosion coincides with historic high-water levels in 2019/2020, as shown in Photos 15 to 18, in Appendix B. The erosion is like that observed in previous years. The fines are being washed out leaving the coarse material. The erosion is under cutting the fill up to 0.3 m in the southeast corner and may result in a slump of the surface fill in the area.

The pump house is well back from the area; however, the cables in the area should be pulled back from the slope crest. Except for slope erosion, no geotechnical performance concerns were identified, and no other permafrost degradation was observed during the 2024 annual geotechnical inspection.

Agnico Eagle's engineering and environment team conduct weekly visual geotechnical inspections of the dike, pond, and channel. Monthly inspection reports include an assessment of ground temperatures, observations of cracking and settlement, pond elevation, pumping activities, and photographs. No seepage was observed by Agnico Eagle's engineering and environmental team at Dike D-CP1 throughout the year. The observations made by Agnico Eagle's staff were consistent with the observations during the 2024 annual geotechnical inspection.

### 5.2.3 Instrumentation and Monitoring

Horizontal and vertical GTCs were installed in D-CP1 between March and July 2017, as shown in Appendix B. Five horizontal GTCs (HGTC-1 to 5) were installed in D-CP1 above the liner parallel to the key trench and five vertical GTCs (VGTC-1 to 5) installed upstream and downstream of the key trench.

The key trench temperatures are warmest in late fall (October and November) and coldest in late spring (May and June). Average key trench temperatures are summarized in Table 5-1. The measured air temperatures at Rankin Inlet and the Mine site from 2015 to 2024 are presented in Appendix B (Figure 4).

The following observations were made regarding the instrumentation readings collected for D-CP1:

- Overall, there has been a warming trend of approximately 0.5°C/year observed from 2019 to 2024, except the cooling trend (average -0.3°C) observed between 2021 and 2022. The average temperature increased by 1.05°C between June 25, 2023 and June 25, 2024. The decrease in temperature between 2021 and 2022 could be attributed to colder than average air temperatures with a below average snowpack observed at the site during the 2021/2022 winter season. The measured air temperature at the Meliadine Mine (Appendix B, Figure 4) indicates that the mean annual air temperature has been warming up since 2018. This is likely one of the causes of the observed warming trend at Dike D-CP1 foundation. The temperatures within the key trench have remained below the thermal design target for the Dike D-CP1 foundation (i.e., -2°C) throughout the year.
- GTC data was plotted against the Thermal Performance Evaluation Model of D-CP1. The model was created in the summer of 2020 and takes a section of the dike where VGTC-03, VGTC-04, and HGTC-04 are located. The actual temperature readings from these GTCs show a slight decrease in temperatures at the key trench of Dike D-CP1 between 2021 to 2023 compared to the predicted warming trend in the foundation. In 2024 an increase in temperature was observed compared to both previous years and the predicted trends. The plots illustrating actual versus modelled temperatures of D-CP1 are in Appendix B.
- Bead 11 of HGTC-1 warmed to 1.7°C in October 2020. The temperature dropped to -1.6°C in November 2020, but still warmer than expected. It recovered to the expected temperature range in December 2020. The temperature rise was investigated by Agnico Eagle at the time of occurrence. There was no ponded water near the location and no sign of infiltration. A manual reading was taken on August 30, 2024, it was concluded that there might be an issue with the extension cable. Agnico Eagle replaced the extension cable in September 2024 and no issues have been encountered.

- Six settlement survey monuments were installed over the liner crest in the central area of the dike as shown in Appendix B. Survey monitoring points M-1 to M-6 indicate a range of total vertical downward displacement between 39 mm and 98 mm since they were installed on September 19, 2017. Most of the movement was in the first year after construction. Settlement recorded at point M-6 (Station 1+510) indicated a settlement of 49 mm between September 2021 and January 2022, with the other monitoring points showing less settlement between 9 mm to 15 mm. There were no visible signs of deformation during the inspection around point M-6. Average settlement between October 2021 and October 2022 is 14 mm. The unusual readings at M-6 were likely caused by system errors. Agnico Eagle installed a new survey control point and updated survey procedures late 2022. The settlement data collected after 2022 still show some fluctuations but with stable trend. Fluctuations of the measurements was mostly due to the impact of freezing and thawing of the dike's material and limitations of the survey equipment. The dike operating water levels were based on a settlement of 120 mm; the measured settlement has been less than this to date.

Table 5-1: D-CP1 Ground Temperature Summary

Cable	Average June 5, 2019 (°C)	Average June 13, 2020 (°C)	Average June 1, 2021 (°C)	Average June 25, 2022 (°C)	Average June 25, 2023 (°C)	Average June 25, 2024 (°C)	Difference June 2023 to June 2024 (°C)	Average Oct 31, 2019 (°C)	Average Oct 29, 2020 (°C)	Average Oct 27, 2021 (°C)	Average Oct 29, 2022 (°C)	Average Oct. 27, 2023 (°C)	Average Oct. 25, 2024 (°C)	Difference Oct. 2023 to Oct. 2024 (°C)
HGTC-1	-8.4	-7.9	-8.2	-7.6	-7.4	-6.1	1.3	-4.5	-3.6	-4.2	-3.7	-3.3	-3.0	0.3
HGTC-2	-9.2	-8.0	-7.8	-7.2	-7.1	-6.0	1.1	-5.1	-4.8	-4.4	-4.2	-4.1	-3.6	0.5
HGTC-3	-8.6	-7.5	-7.6	-7.5	-7.2	-6.0	1.2	-5.6	-5.2	-5.1	-4.9	-4.9	-4.3	0.6
HGTC-4	-8.9	-8.1	-7.9	-7.8	-7.5	-6.5	1.0	-6.0	-5.6	-5.3	-5.0	-5.0	-4.6	0.4
HGTC-5	-8.7	-8.2	-6.6	-7.4	-7.2	-6.0	1.2	-3.4	-3.7	-3.9	-3.7	-3.5	-3.2	0.3
VGTC-1	-7.2	-6.3	-5.8	-7.1	-6.9	-5.8	1.1	-6.4	-5.4	-5.1	-5.0	-4.8	-4.3	0.5
VGTC-2	-6.2	-5.6	-5.1	-5.5	-5.4	-4.6	0.8	-6.1	-5.5	-4.8	-4.7	-4.7	-4.0	0.7
VGTC-3	-7.3	-6.3	-6.2	-7.3	-7.0	-5.9	1.1	-7.0	-6.0	-5.5	-5.5	-5.7	-4.7	1.0
VGTC-4	-6.6	-8.1	-6.8	-6.0	-6.0	-5.3	0.7	-6.7	-6.3	-5.4	-5.4	-5.5	-4.7	0.8
VGTC-5	-10.3	-9.7	-9.7	-7.0	-6.9	-5.9	1.0	-2.1	-2.1	-2.3	-2.1	-2.1	-1.7	0.4

## 5.2.4 Water Management

CP1 receives inputs from the surrounding area as well as water pumped from other areas of the site (e.g., CP3, CP4, CP5, CP6, and other sources). The design operating levels are specified in the updated Operation, Maintenance, and Surveillance (OMS) manual (Agnico Eagle 2024) as listed in Table 5-2.

**Table 5-2: Design Water Elevations for D-CP1 Operation**

Situation	Maximum Operating Water Level (m)	Requirement
End of October each year	63.7	This level is required to provide sufficient storage for: <ul style="list-style-type: none"> <li>661,500 m<sup>3</sup> for the runoff water from an Inflow Design Flood (IDF) event for the entire site (a total maximum catchment area of 3.675 km<sup>2</sup> during the design life of D-CP1);</li> <li>38,800 m<sup>3</sup> for the treated sewage from late October to early June (8 months); and</li> <li>31,000 m<sup>3</sup> for the treated water pumped from the SWTP to CP1 from late October to early June (8 months).</li> </ul>
Before each spring freshet	64.1	This level is required to provide sufficient storage for: <ul style="list-style-type: none"> <li>661,500 m<sup>3</sup> for the runoff water from an IDF event for the entire site.</li> </ul>
During non-IDF spring freshet or short-term after each spring freshet	66.2	This water elevation is to allow CP1 to have a storage capacity of 119,000 m <sup>3</sup> to store the runoff water from a 1/1,000 24-hour extreme rainfall event (77 mm precipitation) for the CP1 maximum catchment area of 1.545 km <sup>2</sup> , without exceeding the design D-CP1 maximum water elevation of 66.6 m (under the IDF).
Short-term water elevation under the IDF	66.6	This is the design maximum water elevation for D-CP1 for a short period. The water elevation should be drawn down by pumping from CP1 to the EWTP and then discharging the treated water to Meliadine Lake.

The water level in CP1 was high over the 2019/2020 winter and drawn down during and following the 2020 freshet. The water level was within the normal operating range since the summer of 2020. The maximum water level in 2024 was 64.6 m on June 15, 2024, and the water level at the time of inspection was 64.2 m. Water was drawn down in October reaching an elevation of 63.7 m on October 31, 2024, which is at the freeze up water level target of 63.7 m. The measured water levels in CP1 are presented in Appendix B.

## 5.2.5 Summary and Recommendations

CP1, Dike D-CP1, downstream seepage collection ditches and sump, and Jetty 1 were generally performing well at the time of the inspection. The following recommendations are provided:

- The upstream slope of Dike D-CP1 experienced erosion in 2020 during a period of high-water levels. Surveys indicate there is 2 m of rockfill protecting the Esker Sand and Gravel in the upstream shell of the dike. The upstream slope erosion is not expected to impact the performance of the dike structure and foundation. As recommended in the previous years, the performance of the upstream slope should continue to be monitored.
- The downstream channel base was regraded to maintain a positive gradient to promote the water flow and mitigate observed ponding areas during the 2023 inspection. Maintenance was also performed to reduce ground subsidence along the crest of the seepage collection channel to maintain functionality of the channel.
- Effective snow removal or snow fencing is recommended to mitigate the warming trend of the dike foundation.



- Consideration could be given to refill and grade the slope of CP1 jetty where the erosion was observed.

## 5.3 Pond CP2, Associated Channels, and Berms

### 5.3.1 Background

Collection Pond CP2 and its associated infrastructure (i.e., CP2 Thermal Berm, Channel 9, Channel 10, Channel 9 Berm, and Channel 10 Berm), collects and temporarily stores runoff water from the WRSF3 catchment area. CP2 was created by excavating a large depression approximately 13 m deep into overburden and bedrock. CP2 Thermal Berm, located downstream of CP2, provides thermal protection to maintain the underlying permafrost downstream of CP2. Channel 9, Channel 10, and their associated berms collect and divert the runoff water from the WRSF3 catchment area. Channel 9 Berm is intended to provide sufficient freeboard to Channel 9 in a localized depression along the channel alignment. Channel 10 Berm provides diversion of runoff into Channel 10 that could otherwise potentially bypass the invert location of Channel 10.

The design of the collection pond, channels, and berms is based on the following criteria and key considerations:

- CP2 was designed to store 3/7 days of 1 in 100 wet precipitation year freshet (171 mm and assume that freshet occurs in seven days and pumping from the facility begins three days after freshet begins).
- The maximum operating water elevation in CP2 under IDF is set at Elevation 52.0 m which is 2.0 m lower than the original outlet elevation of the collection pond area.
- CP2 Thermal Berm, is designed to preserve permafrost in the original ground below the centre of the berms, which will minimize the potential seepage through its foundation into the downstream receiving environment (i.e., Meliadine Lake).
- The water collected in CP2 will be actively pumped into CP1 during the open water season. The intent is that CP2 will be nearly empty most of the time, except for several early days during the annual spring freshet for preparing the pump system or during an extreme rainfall event.
- Channel 9 was designed to pass the design inflow during an extreme intensity flow under a 5-minute 1 in 100 return rainfall of 5 mm. Channel 9 Berm designed along Channel 9 to provide sufficient freeboard and to prevent the water overflowing the channel under the design IDF or other unexpected extreme conditions.
- Channel 10 was designed to pass the design inflow during an extreme intensity flow under a 5-minute 1 in 100 return rainfall of 5 mm. Channel 10 Berm positioned near the beginning of Channel 10 to divert runoff from bypassing the end of Channel 10 under the design IDF or other unexpected extreme conditions. The channel was constructed approximately 25 m shorter than design to prevent relocating a partially buried water pipeline and electrical cable in the area. A diversion berm was constructed to ensure runoff does not flow around the end of the modified channel.

CP2 and its associated infrastructure was constructed from February 2022 to May 2022. The as-built drawings for CP2 and its associated infrastructure are included in Appendix C.

### 5.3.2 Visual Observations

The inspection involved walking along the crests of CP2, CP2 Thermal Berm, Channel 9, Channel 10, and associated berms to examine the structures for visual signs of deformation and instability, cracking, and permafrost degradation. Photos can be found in Appendix C. The photo locations are presented in Figure 4.



### **5.3.2.1 CP2 and CP2 Thermal Berm**

At the time of the inspection small amount of water was stored in CP2. The slopes of the pond are a combination of overburden and bedrock. The overburden is covered with a layer of rockfill for erosion and thermal protection. The bedrock slopes are blocky with some fractured rock (Photo 1, Appendix C). No obvious signs of instability were observed in the bedrock or overburden slopes. Minor water flow was observed entering CP2 from the channel outlets as per its normal operational condition (Photos 2 and 3, Appendix C).

CP2 Thermal Berm was constructed of overburden till and rockfill obtained from the excavation of CP2 and the open pit from mine operations. The till was partially frozen when it was placed in the berm. The till was covered with a layer of rockfill also obtained from the excavation. The crest of CP2 Thermal Berm appeared to be in good conditions with signs of minor settlement and cracking observed at a few locations at the time of the inspection (Photo 4, Appendix C). These minor settlements and cracking were observed during the 2023 annual geotechnical inspection and did not show the sign of deterioration with time.

The slopes of CP2 Thermal Berm were in good condition with some deformations observed at the east end of the berm's downstream side (Photos 5, Appendix C). The deformation appeared to have been caused by the disturbance of the original ground during construction. The deformed area appeared not to be impacting the slope performance and overall design intent of the thermal berm.

The area where surface ponding observed in 2023 against the upstream toe of CP2 Thermal Berm was cover with rockfill in 2024, as shown in Photo 6 in Appendix C, to prevent further water ponding and potential permafrost degradation. Tetra Tech did not observe noticeable sign of permafrost degradation around CP2 Thermal Berm.

There are several areas of minor settlement at the top of the pond slopes where the rockfill cover has been placed. The settlement resulted from the initial ground disturbance during the construction of CP2. The settlement areas appear not to be impacting the slope's performance.

### **5.3.2.2 Channel 9, Channel 10, and Associated Berms**

#### **Channel 9 and Associated Berm**

Channel 9 and its associated berm were inspected by walking along portions of its length. Overall, Channel 9 and its associated berm are performing well with no noticeable geotechnical concerns identified along the channel at the time of the inspection (Photos 7 and 8, Appendix C). Several cracks and thaw subsidence areas were observed along the southern shoulder of Channel 9 (Photo 11, Appendix C) and the northern end of the Channel 9 berm (Photo 9, Appendix C). The cracks and thaw subsidence are an indication of thermal degradation at localized areas and were likely caused by construction disturbance and surface runoff flow over the area between WRSF3 and Channel 9.

#### **Channel 10 and Associated Berm**

Channel 10 was inspected by walking along portions of its length. Overall, Channel 10 and its associated berm are performing well with no noticeable geotechnical concerns identified along the channel at the time of the inspection (Photos 12 and 13, Appendix C). Several areas of thaw subsidence were observed along the upstream slope of the new channel and the native ground above the upstream crest. Rutting from traffic and an area of depression caused by construction disturbance on the native ground were observed between the channel and WRSF3. Water was trapped in these areas (Photos 14 and 15, Appendix C).

### 5.3.3 Instrumentation and Monitoring

Three GTCs (GTC-01, GTC-02, and GTC-03) were installed in CP2 Thermal Berm to measure the active layer depth in the berm and subgrade ground temperatures. The ground temperatures are shown in Appendix C. The measured thaw depths in August 2024 of 1.0 m, 2.5 m, and 1.8 m for CP2-GTC01, CP2-GTC02, and CP2-GTC03, respectively, compared to the measured thaw depth in August 2023 of about 1.7 m at all three GTC locations. The measured ground temperatures at the original ground surface ranges from -5.0°C to -6.4°C on August 24, 2024.

### 5.3.4 Water Management

Water in CP2 was pumped out sporadically throughout the open water season through a dedicated pumping system. The water levels in CP2 between late-May 2024 and late-October 2024 varied between Elevations 44.7 m and 50.1 m, which are well below the designed maximum operating water elevation in CP2 under IDF (Elevation 52.0 m). The measured water levels in CP2 are presented in Appendix C.

CP2 was near “dry” condition (Photos 1, 2, and 3, Appendix C) with the level at approximately 45.1 m at the time of inspection. At this level the depth of water in CP2 is approximately 0.7 m with a volume of approximately 2,400 m<sup>3</sup>. The remaining capacity in the pond to the maximum operating level of 52.0 m is 45,760 m<sup>3</sup>.

The inflow for the pond was based on 3/7 of the 1:100 wet precipitation year freshet over the catchment area of 0.43 km<sup>2</sup> which equates to 42,000 m<sup>3</sup> of water. It is understood that the pond will be empty prior to freeze up as per Agnico Eagle's water management protocols and plans.

### 5.3.5 Summary and Recommendations

CP2 and its associated infrastructure are performing adequately and meet the design intents based on the 2024 annual inspection and measured data. Tetra Tech recommends that the area between CP2, Channel 9, Channel 10, and WRSF3 should be covered with rockfill as thermal cover to prevent permafrost degradation of the native ground.

## 5.4 Pond CP3, Associated Channels, and Berms

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### 5.4.1 Background

Collection Pond CP3 and its associated infrastructure (i.e., CP3 Thermal Berm, Channel 3, and Berm 2), collects and temporarily stores runoff water from the dry stack TSF. CP3 was created by excavating a large depression approximately 11 m deep in overburden and bedrock. CP3 Thermal Berm provides thermal protection to maintain the underlying permafrost downstream of CP3. Channel 3 collects and diverts the runoff water from the TSF catchment areas. Berm 2 prevents non-contact water from flowing through the TSF into CP3.

The design of the collection pond, channels, and berms is based on the following criteria and key considerations:

- CP3 was designed to store 3/7 days of 1 in 100 wet precipitation year freshet (171 mm and assume that freshet occurs in seven days and pumping from the facility begins three days after freshet begins).
- The maximum operating water elevation in CP3 under IDF is set at Elevation 63.0 m which is 2.0 m lower than the original outlet elevation of the collection pond area.
- CP3 Thermal Berm is designed to preserve permafrost in the original ground below the centre of the berms, which will minimize the potential seepage through its foundation into the downstream receiving environment (i.e., Lake B7).

- The water collected in CP3 will be actively pumped to former Lake H13, which flows into CP1 during the open water season via various culverts and Channel 1. The intent is that CP3 will be nearly empty most of the time, except for several early days during the annual spring freshet for preparing the pump system or during an extreme rainfall event.
- Channel 3 was designed to pass the design inflow during an extreme intensity flow under a 5-minute 1 in 100 return rainfall of 5 mm. A berm incorporated into the CP3 access road was designed along Channel 3 to provide sufficient freeboard and to prevent the water overflowing the channels under the design IDF or other unexpected extreme conditions.
- Channel 3 directs seepage and runoff water from the TSF into CP3. Channel 3 is located along the southwestern boundary of the TSF. Channel 3 is approximately 620 m long with a designed base width of 1 m to 2 m.

CP3 and its associated infrastructure was constructed from August 2018 to January 2019. The as-built drawings for CP3 and its associated infrastructure are included in Appendix D.

## 5.4.2 Visual Observations

The inspection involved walking along the crests of CP3, Berm 2, Channel 3, and CP3 Thermal Berm to examine the structures for visual signs of deformation and instability, cracking, and permafrost degradation. Photos can be found in Appendix D. The photo locations are presented in Figure 5.

### 5.4.2.1 CP3 and CP3 Thermal Berm

Some water was observed in CP3 at the time of the inspection. The slopes of the pond are a combination of overburden and bedrock. The bedrock slopes are blocky with some fractured rock. The overburden slope is covered with a layer of rockfill placed. No obvious signs of instability were observed in the bedrock or overburden slopes. Like the conditions observed in 2023, portions of the slope were covered with sediment eroded from an area of disturbed ground east of CP3 (Photo 1, Appendix D). A layer of rockfill was placed between the toe of the TSF and CP3 in the summer of 2023 to serve as thermal protection (Photo 2, Appendix D). A snow stockpile was observed between the toe of the TSF and CP3 Thermal Berm with the water from the snow melt observed to be flowing into CP3 at the north side of the pond crest (Photo 3, Appendix D).

CP3 Thermal Berm was constructed of overburden till and rockfill obtained from the excavation of CP3 in 2019. The till was partially frozen when it was placed in the berm. The till was covered with a layer of rockfill also obtained from the excavation. The slopes of the thermal berm were in good condition at the time of the inspection. The crest of CP3 Thermal Berm is undulating due to settlement that occurred as shown in Photo 4, Appendix D. The settlement appears not to impact the berm's function which is to preserve the permafrost below the original ground. Signs of permafrost degradation were not observed around CP3 Thermal Berm at the time of the inspection.

### 5.4.2.2 Channel 3 and Berm 2

Channel 3 was designed to divert runoff from the catchment area from the TSF towards CP3, and initially constructed in 2019. Agnico Eagle reconstructed Channel 3 to its design grade in 2023 following performance concerns raised and recommendations provided in previous annual geotechnical inspections. The channel was inspected by walking along its entire length. Overall, the reconstructed Channel 3 is performing well, no water flow was observed, and no geotechnical concerns were identified along the channel at the time of the inspection. It was noticed that the original ground between the TSF and Channel 3 was covered by rockfill material during the reconstruction of Channel 3. This additional rockfill placed will provide additional thermal protection and reduce the potential of permafrost degradation. Channel 3 is shown in Photos 5 to 8, Appendix D.

Berm 2 was constructed to reduce the amount of non-contact water entering the TSF and CP3 catchment areas as shown in Photos 9 to 11, Appendix D. Berm 2 was predominately constructed of 50 mm minus screened esker material with a till zone approximately 2 m wide. At the time of the inspection, Berm 2 was retaining water in a low area along the berm. The water was up to approximately 0.5 m deep. There was minimal water on the downslope side of the berm indicating that the berm is functioning as intended. Cracking and minor erosion observed along the crest and slope of the berm during the 2023 annual geotechnical inspection has been repaired by re-grading and compaction using an excavator. The overall performance of Berm 2 is adequate as designed.

### 5.4.3 Instrumentation and Monitoring

Three GTCs (GTC-01, GTC-02, and GTC-03) were installed in CP3 Thermal Berm to measure the active layer depth in the berm and subgrade ground temperatures. The ground temperatures are shown in Appendix D. Based on the collected ground temperatures in the past year, the active layer depth varied from 2.6 m to 3.1 m. The ground temperature at the original ground surface is approximately at  $-4.0^{\circ}\text{C}$  at the end of each fall season.

### 5.4.4 Water Management

Water was pumped out sporadically throughout the open water season through a dedicated pumping system. The water levels in CP3 between mid-May 2024 and late-October 2024 varied between Elevations 55.1 m and 60.7 m. The measured water levels in CP3 are presented in Appendix D.

The water level at the time of the inspection was 56.4 m. At this level the depth of water in CP3 is approximately 2.4 m with a volume of approximately  $5,530\text{ m}^3$ . The remaining capacity in the pond to the maximum operating level of 63.0 m is  $39,320\text{ m}^3$  based on the as-built CP3 geometry.

The inflow for the pond was based on 3/7 of the 1:100 wet year precipitation freshet (171 mm) over the catchment area of  $0.383\text{ km}^2$  which equates to  $28,000\text{ m}^3$  of water. It is understood that the pond will be pumped prior to freeze up as per Agnico Eagle's water management protocols and plans.

### 5.4.5 Summary and Recommendations

CP3 and its associated infrastructure is performing adequately.

The operation of the pond requires that it be completely drained prior to freeze up. The base of the pond is irregular making it difficult to completely drain. The minimum elevation of the pond is 54.0 m. Agnico Eagle specified that operations targeted a minimum drawdown level of 57.47 m prior to freeze up. This would leave approximately  $10,300\text{ m}^3$  in the pond at this elevation. The as-built volume of CP3 provides  $14,675\text{ m}^3$  of contingency storage at the maximum operating level of 63.0 m, therefore the drawdown target is not expected to impact the design intent of the pond. CP3 Thermal Berm, Berm 2, and the reconstructed Channel 3 are functioning as designed.

## 5.5 Collection Pond CP4, Associated Channels, and Berms

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### 5.5.1 Background

Collection Pond CP4, and its associated infrastructure; CP4 Thermal Berm, and Channel 4, collects and temporarily stores runoff water from the catchment of WRSF1. CP4 was created by excavating a large depression approximately 15 m deep in overburden and bedrock. CP4 Thermal Berm, downstream of CP4, provides thermal protection to maintain the underlying permafrost downstream of CP4. Channel 4 collects and diverts the runoff water from the WRSF1 catchment area.

The design of the collection pond, channels, and berm is based on the following criteria and key considerations:

- CP4 was designed to store 3/7 days of 1 in 100 wet precipitation year freshet (171 mm and assumes that freshet occurs in seven days and pumping from the pond occurs after day three). The excess freshet water will be pumped out to partially drained Lake H13 during freshet period, from where the water will flow to CP1 through culverts and Channel 1.
- The maximum operating water elevation in CP4 under IDF is set at Elevation 63.0 m which is 2.0 m lower than the original outlet elevation of the collection pond area.
- The downstream berm, CP4 Thermal Berm, is designed to preserve permafrost in the original ground below the centre of the berm, which will minimize the potential seepage through its foundation into the downstream receiving environment (i.e., Lake B7).
- The water collected in CP4 will be actively pumped to former Lake H13, which flows into CP1 during the open water season. The intent is that CP4 will be nearly empty most of the time, except for several early days during the annual spring freshet for preparing the pump system or during an extreme rainfall event.

CP4 and its associated infrastructure was constructed from October 2018 to May 2019. A rockfill berm was constructed along the downstream shoulder of the Channel 4 (south side) in the summer of 2024 to provide the traffic access and improve the flow capacity at the end of the channel. The as-built drawings for CP4 are included in Appendix E.

## 5.5.2 Visual Observations

The inspection involved walking along the crests of CP4, Channel 4, Channel 4 Berm, and CP4 Thermal Berm to examine the structures for visual signs of deformation and instability, cracking, and uneven surfaces. Photographs of CP4 and the associated infrastructure are in Appendix E. The photo locations are presented in Figure 6.

### 5.5.2.1 CP4

At the time of inspection CP4 was filled with water to approximately Elevation 53.9 m (measured August 31, 2024). The slopes of the pond are a combination of overburden and bedrock. The overburden is covered with a layer of rockfill obtained from the pond excavation. During the 2021 inspection, thaw settlement up to 0.75 m deep was observed in the native ground above the overburden slope protection rockfill along the west and south sides of CP4. The native ground above the overburden slope had been covered with a protective layer of rockfill along the west and south sides of CP4 prior to the 2022 inspection to prevent additional thaw settlement. Additional rockfill was placed along the east and north sides of CP4 and the area between CP4 and WRSF1 prior to the 2023 inspection to serve as additional thermal protection (Photo 2, Appendix E). No obvious signs of instability were observed in the bedrock or overburden slopes (Photos 1 to 3, Appendix E).

### 5.5.2.2 CP4 Thermal Berm

CP4 Thermal Berm was constructed of overburden till obtained from the excavation of CP4. The till was a combination of frozen and unfrozen material when it was placed in the berm. The till was covered with a layer of rockfill also obtained from the excavation. The slopes of the berm were in good condition (Photos 6 to 8, Appendix E) at the time of the inspection. The crest of the berm was regraded in 2024, to remediate settlement observed in previous years, Photos 4 and 5, Appendix E. No noticeable cracking or signs of instability, and permafrost degradation were observed during the inspection.

### 5.5.2.3 Channel 4

Channel 4 was constructed to divert runoff from the catchment area from WRSF1 into CP4. The as-built side slopes range from 3.5H:1.0V to 1.8H:1.0V with the base of the channel varying from 0.8 m to 3.3 m wide. Channel 4 is shown in Photos 8 to 15, Appendix E. No water was flowing in the channel at the time of the inspection; however, there were localized areas of shallow ponded water due to an uneven base of the channel. It appears there has been some thaw subsidence in the base of the channel. The subsidence areas observed in 2022 where the channel ties into the native subgrade east of the channel has been covered with a protective layer of rockfill to reduce further thaw subsidence and erosion between the channel and WRSF1. Further subsidence was observed between Channel 4 and WRSF1 compared to previous years (Photo 16, Appendix E).

Surface erosion at the end of Channel 4 Berm at Station 0+620 was observed in 2023. In the summer of 2024, a rockfill and till berm was constructed on the downstream shoulder of Channel 4 to remediate erosion and improve channel capacity (Photos 11 and 12, Appendix E). Overall, Channel 4 is performing adequately as designed.

### 5.5.3 Instrumentation and Monitoring

Two GTCs (GTC-01 and GTC-02 Berm CP4) were installed in CP4 Thermal Berm to measure the active layer depth in the berm and subgrade ground temperatures (Photo 4, Appendix E). The ground temperature profiles from these GTCs are shown in Appendix E. The thawed zone varied from 2.4 m to 2.9 m on August 25, 2024. The ground temperature at the original ground surface was approximately -4.8°C on August 25, 2024.

### 5.5.4 Water Management

Water levels in CP4 from mid-May 2024 to late-October 2024 varied between Elevation 53.3 m and 57.1 m. The water level in CP4 was 53.9 m at the time of inspection, resulting in an approximately 1.3 m depth of water in the pond. The measured water levels in CP4 are presented in Appendix E.

As of August 31, 2024, the remaining capacity (to the maximum operating level of 63.0 m) was 45,070 m<sup>3</sup>. The inflow for the pond was based on 3/7 of the 1:100 freshet (171 mm) over the catchment area of 0.441 km<sup>2</sup> which equates to 32,300 m<sup>3</sup> of water. It is understood that the pond will be pumped to near “dry” condition prior to freeze up as per Agnico Eagle’s water management protocols and plans.

### 5.5.5 Summary and Recommendations

CP4 and its associated infrastructure is performing adequately. Thaw settlement of the native ground above the rockfill protected overburden slope of CP4 observed during the 2021 inspection has been covered with a protective layer of rockfill along the west and south sides of CP4 to reduce future thaw subsidence in the area. The till berm between CP4 and the upstream slope of CP4 Berm has also been covered with a minimum of 1.5 m rockfill to reduce future settlement and ponding on the surface of the till berm. Additional rockfill was placed along the east and north sides of CP4 and the area between CP4 and WRSF1 prior to the 2023 inspection to serve as additional thermal protection.

The operation of the pond specifies that it be completely drained prior to freeze up. The base of the pond is irregular making it difficult to completely drain. The minimum elevation of the pond is 52 m. Agnico Eagle specified that operations targeted a minimum drawdown level of 55.28 m prior to freeze up. This would leave approximately 8,300 m<sup>3</sup> in the pond at this elevation which is not expected to impact the design intent of the pond. The as-built volume of the CP4 provides 15,375 m<sup>3</sup> of contingency storage at the maximum operating level of 63.0 m, therefore the drawdown target is not expected to impact the design intent of the pond.



CP4 Thermal Berm is performing adequately and as designed. The measured ground temperature data indicates that the original ground below CP4 Thermal Berm is in a frozen condition. No cracking or signs of instability were observed during the inspection. No signs of significant permafrost degradation were observed around the CP4 area at the time of the inspection.

Channel 4 is performing adequately as designed. Surface erosion observed in 2023 was remediated by placing rockfill cover of the downstream shoulder of Channel 4. Thaw subsidence, exposed geotextile, cracking, and settlement of overburden material were observed at several areas along the upstream shoulder of Channel 4. The cracks and thaw subsidence are an indication of thermal degradation at localized areas and were likely caused by surface runoff flow over the area between WRSF1 and Channel 4. It is recommended to place rockfill as the thermal cover between Channel 4 and WRSF1 to mitigate the thaw subsidence and cracking.

Ponding water was also observed at the bottom of Channel 4 at several localized areas. Based on the size of the ponded water area, the overall performance of Channel 4 is not expected to be undermined.

## **5.6 Pond CP5 and Dike D-CP5**

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### **5.6.1 Background**

Dike D-CP5 was constructed across the south portion of former Lake A54, to form CP5 from October 2016 to July 2017. The intent of D-CP5 is to create a contact water collection pond in the north portion of former Lake A54.

D-CP5 is approximately 300 m long with a maximum height of 3.3 m (Tetra Tech 2017g) and is located north of the TIRI#2 Open Pit as shown in Figure 2. The CDA (2013) dam consequence classification for D-CP5 is Significant (Tetra Tech 2016b). CP5 is used seasonally for temporary water storage with active pumping to CP1 to transfer the water out of CP5.

The access road to the TIRI#2 Open Pit has been constructed downstream of the dike. The area between the dike and road has been graded with crushed rock covering the seepage collection pond that was located downstream of the dike. The road constructed downstream of the dike could provide some benefits to help maintain the frozen condition of the foundation below the dike key trench.

### **5.6.2 Visual Observations**

The inspection involved walking along the crests and toes of the dike and examining the condition of the slopes of the dike for visual signs of deformation and instability, cracking, and uneven surfaces on August 30, 2024. A photographic record of the inspection is included in Appendix F. The photo locations are presented in Figure 7.

At the time of the inspection of D-CP5, the following general observations were made:

- Overall, the dike appeared stable, with no geotechnical concerns identified.
- Minor cracking was observed in a few locations on the upstream and downstream sides of the dike crest. The cracking appeared consistent with that observed in 2021 and did not appear to be progressing. The dike crest is shown in Photos 1 to 4, Appendix F.
- There were no signs of seepage from the downstream toe.

Jetty 5 is the causeway for the pump back station for CP5. A water diversion ditch was excavated around the jetty to divert water from localized areas to the jetty. Minor slope erosion was observed at various locations along the ditch due to the excavation. Given the distance between the ditch and jetty, it is not expected that the performance of the jetty will be impacted by the ditch. A trash pump was used to pump the water out of CP5 at the time of the inspection.

Agnico Eagle's environment team conduct weekly visual geotechnical inspections of the dike. Monthly inspection reports included an assessment of ground temperatures, observations of cracking and settlement, pond elevation, pumping activities, and photographs. The observations made by Agnico Eagle staff were consistent with the observations during the 2024 annual geotechnical inspection. Cracks and locations of settlement were marked with spray paint in the field to monitor changes. No permafrost degradation was observed at D-CP5 and CP5 areas.

### 5.6.3 Instrumentation and Monitoring

Horizontal and vertical GTCs were installed in D-CP5 between March and July 2017. Plots of the thermistor data are provided in Appendix F. Two horizontal GTCs (HGTC-1 and HGTC-2) installed in D-CP5 above the liner parallel to the key trench and three vertical GTCs (VGTC-1 to 3) installed upstream and downstream of the key trench.

Key trench temperatures are warmest in late fall (October and November) and coldest in late spring (May and June). The average temperatures over the length of the portion of the cable in the key trench parallel to the dike axis are summarized in Table 5-3 at specific dates.

The horizontal GTCs indicate a slight warming trend with an average change of 1.4°C and 0.35°C in the base of the key trench from May 25, 2023 to May 27, 2024, and from September 25, 2023 to September 25, 2024, respectively. The vertical GTCs indicate a slight warming trend average change of 0.9 C° and 0.6 C° in the foundation of the dike from May 25, 2023 to May 27, 2024, and from September 25, 2023 to September 25, 2024, respectively.

Three settlement survey monuments were installed over the liner crest in the dike. CP5 survey monitoring points indicate a settlement between 1 mm and 34 mm since installation. Agnico Eagle installed new survey control point and updated survey procedure in late 2022. There is “noise” in the readings but improvements have been made to stabilize the settlement readings. The settlement data is provided in Appendix F. The settlement data show some fluctuations but with stable trend. Fluctuations of the measurements was mostly due to the impact of freezing and thawing of the dike's material and limitations of the survey equipment. The dike operating water levels were based on a settlement of 100 mm; the measured settlement has been less than this to date.



Table 5-3: D-CP5 Ground Temperature Summary

Cable	Average June 4, 2019 (°C)	Average May 31, 2020 (°C)	Average May 31, 2021 (°C)	Average May 25, 2022 (°C)	Average May 25, 2023 (°C)	Average May 27, 2024 (°C)	Difference May 2023 to May 2024 (C°)	Average Oct 31, 2019 (°C)	Average Oct 29, 2020 (°C)	Average Oct 27, 2021 (°C)	Average Sept 28, 2022 (°C)	Average Sept 25, 2023 (°C)	Average Sept 25, 2024 (°C)	Difference Sept 2023 to Sept 2024 (C°)
HGTC-1	-7.8	-7.7	-7.0	-7.9	-8.0	-6.5	1.5	-2.2	-2.3	-2.3	-2.8	-3.1	-2.5	0.6
HGTC-2	-8.0	-8.0	-7.3	-8.4	-8.2	-6.9	1.3	-2.9	-2.8	-2.9	-3.3	-3.1	-3.0	0.1
VGTC-01	-4.3	-4.7	-4.6	-5.8	-6.0	-5.1	0.9	-3.6	-3.8	-3.3	-4.0	-4.1	-3.6	0.5
VGTC-02	-4.6	-5.2	-5.0	-5.6	-6.8	-5.5	1.3	-3.8	-3.9	-3.5	-4.0	-4.2	-3.7	0.5
VGTC-03	-3.3	-3.5	-3.3	-6.0	-5.9	-5.3	0.6	-3.3	-3.6	-3.4	-4.1	-4.8	-3.9	0.9

### 5.6.4 Water Management

CP5 receives inputs from the surrounding area. Water from CP5 is pumped to CP1 throughout the open water season. The design operating levels are specified in the updated OMS manual (Agnico Eagle 2024) as listed in Table 5-4.

**Table 5-4: Design Water Elevations for D-CP5 Operation**

Situation	Maximum Operating Level (m)	Requirement
Before and after each spring freshet	65.5	This water elevation was determined to allow CP5 to have a sufficient storage capacity to store the estimated maximum volume of 49,500 m <sup>3</sup> of the runoff water from an IDF event for a total maximum CP5 catchment area of 0.643 km <sup>2</sup> during the design life of D-CP5, which includes the catchment areas of the P1/P2/P3 and Portal No. 1 areas.
During mean spring freshet (assumed to store 3 of 7 days of spring freshet)	66.03	This water elevation was determined to store 3/7 of the runoff water from a mean spring freshet for the total maximum CP5 catchment area of 0.643 km <sup>2</sup> .
Under the IDF	66.32	<ul style="list-style-type: none"><li>■ This is the design maximum water elevation for D-CP5 for a short period. The water elevation should be drawn down to 64.8 m by pumping water to CP1 after each spring freshet or rainfall event; and</li><li>■ This water elevation is also constrained by the risk of flooding Portal No. 1, the nearby ventilation shaft, and the saline water storage pond.</li></ul>

The water level in CP5 varied from 64.1 m to 65.8 m from mid-May 2024 to late-October 2024 which is within the operating levels of the pond. On August 31, 2024 the water level was at Elevation 64.9 m which is below the target water elevation prior to freeze up. The measured water levels in CP5 are presented in Appendix F.

### 5.6.5 Summary and Recommendations

Dike D-CP5 and the associated infrastructure is in good condition, no concern is identified as this stage..

## 5.7 Collection Pond CP6 and Associated Berm

### 5.7.1 Background

CP6, and its associated berm, CP6 Thermal Berm, collects and temporarily stores runoff water from the waste rock storage area (WRSF3). CP6 was created by excavating a large depression approximately 7 m to 11 m deep in overburden and bedrock. CP6 Thermal Berm, downstream of CP6, provides thermal protection to maintain the underlying permafrost downstream of CP6.

The design of CP6 and CP6 Thermal Berm is based on the following criteria and key considerations:

- CP6 was designed to store 3/7 days of 1 in 100 wet precipitation year freshet (171 mm and assumes that freshet occurs in seven days and pumping from the pond occurs after day three). The excess freshet water will be pumped to CP1.
- The maximum operating water elevation in CP6 under IDF is set at Elevation 60.0 m which is 2.0 m lower than the original outlet elevation of the collection pond area.
- CP6 Thermal Berm, is designed to preserve permafrost in the original ground below the centre of the berm, which will minimize the potential seepage through its foundation into the downstream receiving environment.
- The water collected in CP6 will be actively pumped to CP1. The intent is that CP6 will be nearly empty most of the time, except for several early days during the annual spring freshet for preparing the pump system or during an extreme rainfall event.

CP6 and CP6 Thermal Berm were constructed from March 2020 to April 2020. The as-built drawings for CP6 are included in Appendix G.

### 5.7.2 Visual Observations

The inspection involved walking along the perimeter of CP6 and the crest and slopes of CP6 Thermal Berm to examine the structures for visual signs of deformation and instability, cracking, permafrost degradation, and uneven surfaces. Photographs of CP6 and CP6 Thermal Berm are in Appendix G. The photo locations are presented in Figure 8. Observations are summarized below:

- At the time of inspection, the volume of water stored in CP6 was far below the top of the bedrock. The slopes of the pond are a combination of overburden and bedrock. The overburden is covered with a layer of rockfill obtained from the pond excavation. No obvious signs of instability were observed in the bedrock or overburden slopes (Photos 1 to 4, Appendix G). Thaw settlement and minor cracking was observed in a few locations along the east side of the CP6 perimeter (Photos 5 and 6, Appendix G). It is speculated that the settlement is due to the erosion to the original lakebed or potential thawing of the original tundra covered by the rockfill. The east slope of CP6 appears stable with the observed thaw settlement not expected to have significant impact on the stability of the side slope.
- CP6 Thermal Berm was constructed of overburden till obtained from the excavation of CP6. The till was a combination of frozen and unfrozen material when it was placed in the berm. The till was covered with a layer of rockfill also obtained from the excavation. The slopes of the berm were in relatively good condition (Photos 7 and 9, Appendix G). The crest of the berm had minor cracks throughout the surface and settlement areas in some locations (Photo 8, Appendix G). The cracks and settlement do not appear to be impacting the berm's function which is to preserve the permafrost below the original ground surface.
- In 2023, the access ramp into CP6 was extended to the base of the pond to provide operations with safe access for dewatering (Photo 2, Appendix G).
- An area of depression was observed between CP6 (south perimeter) and WRSF3. Surface erosion was observed due to snow drift and water flow from melting snow during freshet.
- The area between the CP6 access ramp and CP6 Thermal Berm was filled with rockfill to eliminate ponding water which was observed during the 2023 annual inspection (Photo 11, Appendix G).

### 5.7.3 Instrumentation and Monitoring

Three GTCs were installed in CP6 Thermal Berm to measure the active layer depth in the berm and subgrade ground temperatures. GTC-02 has stopped reading since the last measurement was taken on May 25, 2022. The remaining two GTCs are adequate to monitor the thermal performance of the berm. The GTCs are shown in Appendix G. The estimated thawed depth on August 25, 2024 was approximately 2.4 m to 2.6 m. The ground temperature at original ground surface ranged from -3.8°C to -5.8°C on August 25, 2024.

### 5.7.4 Water Management

Water levels in CP6 from late-May 2024 to late-October 2024 varied between Elevation 52.0 m and 56.4 m. The water level was at approximately 53.1 m during the inspection resulting in approximately 1.6 m depth of water in the pond. This equates to approximately 3,400 m<sup>3</sup> of water within CP6 based on the storage curve. Water was pumped out sporadically throughout the open water season. The measured water levels in CP6 are presented in Appendix G.

As of August 31, 2024, the remaining capacity (to the maximum operating level of 60.0 m) was 42,480 m<sup>3</sup>. The inflow for the pond was based on 3/7 of the 1:100 freshet (171 mm) over the catchment area of 0.448 km<sup>2</sup> which equates to 32,696 m<sup>3</sup> of water.

### 5.7.5 Summary and Recommendations

Generally, CP6 and CP6 Thermal Berm are performing well.

The rockfill cover placed in 2021 and 2022 between WRSF3 and CP6 is controlling erosion in the area. The small area of water ponding between the CP6 access ramp and CP6 Thermal Berm has been filled and graded with coarse rockfill to prevent further ponding in the area. It is confirmed that the extension of CP6 access ramp to the base of CP6 recommended by Tetra Tech during the 2023 annual geotechnical inspection was completed as per design to provide operations with safe access for dewatering.

A small amount of subsurface erosion is persistent at the east side of the rockfill cover. It is not currently impacting the operation and performance of CP6. It is understood that Agnico Eagle plans to place additional rockfill material at the east side of CP6 to reduce the potential of the surface erosion and thaw settlement.

## 6.0 SALINE PONDS

### 6.1 Saline Pond 1

Saline Pond 1, SP1, which is located north of CP5 was constructed during the third quarter of 2016 to manage underground saline water.

The saline pond was constructed by excavation within permafrost overburden and bedrock. A small berm approximately 1 m to 2 m high was constructed around the excavation with a till core and rockfill cover to promote permafrost development in the original ground below the berm and keep surface water from the surrounding area from draining into the pond. The pond is designed to maintain the maximum pond elevation under the IDF (1-in-100-year wet precipitation event) below original ground and below the level of CP5 to minimize the potential for seepage out of the saline pond.

The inspection involved walking along the crest of the saline pond perimeter berm, examining the condition of the berm for visual signs of deformation and instability, cracking, uneven surfaces, and seepage. A selection of photographs from the inspection are included in Appendix H. The photo locations are presented in Figure 9.

At the time of the inspection of the saline pond, the following general observations were made:

- Overall, the conditions of the pond and perimeter berm appeared stable similar to observed during the 2023 inspection.
- There was no observed seepage from the adjacent Ponds CP5 or DP3-A.
- There was water in the pond at the time of the site visit that was below the top of the bedrock excavation (Photo 1, Appendix H).
- The thermal berm appeared to be in good condition with minimal cracking (Photos 2 and 3, Appendix H).
- No seepage into the saline pond was observed during the inspection.
- The southwest corner of the pond crest had significant cracks up to 100 mm wide at the crest (Photos 5 and 6, Appendix H). The slopes below the cracking may be deformed. The cracks could be due to thaw subsidence or movement of the overburden slope. The cracks have been observed since 2020 and no significant changes were noticed. No other permafrost degradation was observed other than the cracks noted here.
- It was observed that safety berms and pipelines located at the bottom of the access ramp into SP1 were improved for safety and ease of access (Photos 3 and 4, Appendix H).

In general, the pond is performing adequately with no remediation required. The cracking areas around the pond should continue to be monitored.

## 6.2 Saline Pond 3

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SP3 was constructed during the 2018/2019 winter in the south portion of the P3 area. It is a HPDE lined pond with a storage capacity of 5,000 m<sup>3</sup>. It was constructed for the temporary storage of saline water from the underground.

The pond is surrounded by perimeter berms constructed with mine rockfill. A layer of bedding material was placed over the native ground and rockfill berms. A HDPE geomembrane liner was placed over the base of the perimeter berms.

The inspection involved walking along the crest of the saline pond perimeter berm, examining the condition of the berm for visual signs of deformation and instability, cracking, uneven surfaces, and seepage. A selection of photographs from the inspection are included in Appendix H. The photo locations are presented in Figure 9.

At the time of the inspection of the saline pond, the following general observations were made:

- The pond was near empty at the time of the inspection (Photos 7 and 9, Appendix H).
- The perimeter berms were in good condition with no significant signs of cracking or settlement (Photos 8 and 10, Appendix H).
- A small amount of erosion has occurred along the crest of the berms; but does not impact the performance of the pond.

- The HPDE liner above the water level appeared to be in good condition. It is understood a liner inspection was done yearly by mine personnel with the pond drained.
- No seepage out of the pond was observed; however, the ground in the former P3 pond was backfilled with rockfill making it difficult to assess seepage.

Overall, the pond appears to be performing adequately.

## 7.0 DIVERSION CHANNELS AND BERMS

### 7.1 Background

This section covers the inspection of diversion channels 1, 2, 5, 7, 8, Berm 1, Berm 3, and Channel 2 Berm. The inspection of diversion channels 3, 4, 9, 10, and Berm 2 was covered in Section 6.0. The selected photos from the inspection are included in Appendix I. The photo locations are presented in Figure 10.

The channels were constructed by excavating a trench, placing non-woven geotextile to line the excavation, and then placement of riprap (coarser rocks) over the fabric to line the channels. The berms were constructed by using a combination of esker material and till.

Channel 1 is designed to move water from former Pond H13 to CP1 and extends from Culvert 2 to Pond H9 along the north and east sides of Portal No. 2. Channel 1 is approximately 493 m long with a base width of approximately 3 m.

Channel 2 is located along the northern end of the main mine site industrial pad and is approximately 270 m long with a base width of 1 m. During construction and operation, contact water from the area is expected to flow into Channel 2, which in turn eventually flows into CP1.

Channel 5 and Berm 3 are located west of CP5 and are designed to divert water from the Pond A12 catchment area into CP5 so that this water does not flow into the future Tiriganiaq 01 Open Pit. Channel 5 is the main water diversion structure; Berm 3 is only required to temporarily retain water under an extreme rainfall event when the water level in CP5 is temporarily high (Tetra Tech 2016d). Channel 5 is approximately 429 m long with a base width of approximately 3 m. Berm 3 is approximately 315 m long with a maximum height of about 2.8 m. Berm 3 consists of a till core, a foundation key trench backfilled with till, and a cover layer constructed out of 600 mm minus esker material.

Channel 7 is a water collection channel that collects flow from Culvert 11 and part of the runoff from the laydown area and directs the water to Channel 1.

Channel 8 is a water collection channel located on the west side of Portal No. 2 to collect part of the surface flow of WRSF1 and facilitates flow of site drainage through Culvert 2 and Channel 1.

Berm 1 is required to protect Portal No. 2 from flooding under extreme rainfall events when potential ponding in the area occurs.

Berm 3 was constructed to divert runoff from flowing into Saline Pond 4 and Tiriganiaq Open Pit 01 and direct it to CP5. Berm 3 was predominately constructed of screened esker material with a till zone approximately 2 m wide.

Channel 2 Berm was constructed in 2023 to prevent Channel 2 potential outflow from flowing into the Lake G2. Channel 2 Berm was predominately constructed of esker material with rockfill material covered.

## 7.2 Visual Observations

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### Channel 1

The inspection of Channel 1 involved walking along the channel from Culvert 2, around the crusher ramp. The water level in the eastern portion of the channel is controlled by the water level in Pond H9. Channel 1 is shown in Photos 1 through 5, Appendix I. Thaw subsidence at various areas along lower reach portion of the channel and ponded water were observed (Photos 4 and 5, Appendix I) during the 2024 annual geotechnical inspection.

Cracking and settlement were observed along the edges of the channel. This was likely caused by the thaw subsidence and thermal disturbance from the runoff water flowing to Channel 1.

### Channel 2

Channel 2 was inspected by walking from the channel outlet culvert, towards the top of the channel behind the accommodations complex. As noted in previous years the slope of the channel base is not consistent and some pooling of water and deposition of sediment in lower areas. No geotechnical concerns associated with Channel 2 were identified. Channel 2 is shown Photos 6 through 8, Appendix I.

Channel 2 is intended to drain into a low wet area that drains through Culvert 13, which eventually drains south towards Channel 1 and CP1. The conditions of Channel 2 are like that observed in 2023, and ponding water at various lower areas does not affect the channel performance.

### Channel 5

Channel 5 was inspected by walking along its length. Channel 5 is shown in Photos 9 to 13, Appendix I. Overall the western portion of Channel 5 appeared stable, with no geotechnical concerns, while the eastern portion appeared stable with some thaw subsidence observed, (Photos 9 to 12, Appendix I). A slumping area previously observed in 2023, was remediated during the reconstruction of the western portion of Channel 5. The riprap placed along the channel slopes in the region of the former pond has subsided below the elevation of the ponded water within the channel. Water was ponded within the portions of the channel. The upper reach of the channel was filled with minor sediments from the erosion, cleanup action is not required at this stage.

### Channel 7

Channel 7 was inspected by walking along its length. The channel is shown in Photos 14 and 15, Appendix I. There is ponded water in portions of the channel, due to some subsidence in the channel base. The conditions of Channel 7 are like those observed in 2023.

### Channel 8

Channel 8 was inspected by walking along portions of its length. No geotechnical concerns were identified along the channel. The conditions of Channel 8 are like those observed in 2023.

### Berm 1

Berm 1 was inspected by walking along its length. A 350 mm diameter culvert has been placed in the channel for an access to the laydown area adjacent to Portal No. 1. No geotechnical concerns were identified along the Berm.



### Berm 3

Berm 3 adjacent to Channel 5 was inspected by walking along the crest and slopes and examining the condition of the berm for visual signs of deformation and instability, cracking, or uneven surfaces. A selection of photographs from the inspection are included in Appendix I (Photos 16, 17, and 18, Appendix I). Minor cracking was observed along the berm. Localized settlement was observed at the west abutment of Berm 3 that was approximately 0.25 m deep on the berm top surface. The settlement does not impact the functionality of the Berm. A layer of rockfill was placed between Berm 3 and Channel 5 in 2024 to provide a positive drainage toward Channel 5. Overall, Berm 3 appeared stable with no geotechnical concerns identified.

### Channel 2 Berm

The recently constructed Channel 2 Berm was inspected by walking along the crest and slopes and examining the conditions of the berm for visual signs of deformation and instability, cracking, or uneven surfaces. No geotechnical concerns were identified along the berm (Photo 19, Appendix I).

## 7.3 Summary and Recommendations

The following recommendations are provided regarding the diversion channels and berms:

- Continue to monitor subsidence at the base of Channel 2 to determine if it impacts the channels performance.
- Repairs and maintenance should be performed on Channels 1 and 7 to promote drainage.
- The western portion of Channel 5 was reconstructed in 2024 and is performing adequately. It is recommended that the eastern portion of Channel 5 be repaired and maintained.
- Berm 3 cover materials are susceptible to erosion and some minor erosion was observed during the inspection. Erosion of the slopes should be monitored, and consideration should be given to placing coarser material on Berm 3 to reduce the potential for erosion if it becomes substantial.

## 8.0 TAILINGS STORAGE FACILITY

### 8.1 Background

Filtered TSF is being constructed at the mine. Water is pressed out of the tailings in the process plant. The tailings are temporarily stored in the Tailings Dewatering Building next to the process plant known as the "Church"; where they are loaded in trucks and hauled to the TSF.

The tailings are dumped in the TSF, spread with a dozer in 0.3 m lifts with survey control, and compacted. The tailings are progressively reclaimed by placement of rockfill cover on the exterior slopes as the tailings stack rises. During the time of inspection, Both Cell 1 and Cell 2 of the facility were in use for active tailings deposition as per the tailings deposition plan.

### 8.2 Visual Observations

In general, the TSF is operated following the TSF OMS manual, the tailings are dumped in the TSF, spread in 0.3 m lifts and compacted (Photo 4, Appendix J). At the time of the inspection, Cell 1 of the TSF was constructed to

approximately 102 m masl (approved final crest elevation) and Cell 2 to approximately 77 masl. Selected photos from the inspection are included in Appendix J. The photo locations are presented in Figure 11.

During the 2023 annual inspection, surface erosion was noticed in various locations on the north slope of Cell 1 and Cell 2 due some rainfall events a few days prior to the inspection, these conditions were not observed during the 2024 inspection. A rockfill berm was previously constructed along the Cell 1 and Cell 2 tie-in location to reduce the surface erosion.

The crest of rockfill slope against Cell 1 has experienced minor cracking and settlement, which was observed during the 2024 annual inspection. The rockfill slope cover around the tailings appeared stable and was performing adequately (Photos 3 and 6, Appendix J).

### 8.3 Instrumentation and Monitoring

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Agnico Eagle's geotechnical engineers prepare weekly inspection and monthly analytical reports describing the tailings placement and design verification updates. The tailings have an optimum moisture content of 15.4% and are typically placed at a moisture content ranging from 12.3% to 20.8% with an average of 17.0%. The measured porewater salinity of the tailings between October 2023 and September 2024 ranges from 12.0 parts per thousand (ppt) to 16.4 ppt with an average of 14.7 ppt, which is lower than the assumed 15 ppt for the design. Additional testing includes: ARD/ML sampling and testing, process water analysis including salinity testing, and quarterly off-site geotechnical verification (moisture-density testing and particle size analyses).

GTCs are installed at eight locations in the placed tailings. The measured ground temperatures are presented in Appendix J. GTC-01A and GTC-02 are now located within the rockfill covered embankment of the TSF and will no longer have active tailings placement above the cable profiles.

Measurements taken between August 2023 and August 2024 indicate that the foundation in Cell 1 had an average ground temperature of  $-3.8^{\circ}\text{C}$  and was relatively stable compared to the measurements taken prior to September 2022. The upper tailings (the top 3 m thick of tailings) had an average ground temperature of  $-1.7^{\circ}\text{C}$  between August 25, 2023 and August 25, 2024, freeze back is starting to develop with time as more tailings are placed over top. Measurements taken between August 2023 and August 2024 indicate that the temperature of the lower tailings (deeper than 3.0 m from the top of the tailings surface) ranges from  $-1.9^{\circ}\text{C}$  to  $-2.9^{\circ}\text{C}$ .

Measurements taken in August 2023 indicate that the ground temperature of the foundation in Cell 2 ranges from  $-3.6^{\circ}\text{C}$  to  $-6.2^{\circ}\text{C}$ . The first 2 m thick layer of tailings placed above the original ground is in a frozen condition while the remaining tailings above this layer are in an unfrozen condition. Freezing back is expected with time as more tailings are placed in Cell 2.

Nuclear density tests on the in situ placed and compacted tailings performed from September 2023 to September 2024 indicate that the density of the filtered tailings meets or exceeds the design target of 92% of the maximum dry density obtained from Standard Proctor tests (i.e.,  $1,785 \text{ kg/m}^3$ ), for the most part, that the density of the filtered tailings is generally higher than 95% of the maximum dry density. The typical nuclear density test ranges from  $1,696 \text{ kg/m}^3$  to  $1,805 \text{ kg/m}^3$  with an average of  $1,758 \text{ kg/m}^3$ . The placed tailings material shows very little signs of bleed water and are easily trafficable after placement and compaction.

## 8.4 Water Management

Water from the TSF is directed to CP3. Some runoff naturally drains to the pond, and other runoff is directed to CP3 via Channel 3. Berm 2, north of the facility was constructed to divert water away from the TSF and CP3.

## 8.5 Summary and Recommendations

The TSF appeared to be functioning well at the time of the inspection. No geotechnical concerns were identified, and no signs of permafrost degradation were observed in the TSF area.

The TSF perimeter rockfill cover appears to be functioning well from a geotechnical perspective, minor cracking was observed on the crest of the rockfill cover at Cell 1. The rockfill crest should be monitored for additional cracking or degradation.

## 9.0 WASTE ROCK STORAGE FACILITIES

Waste Rock Storage Facilities WRSF1 and WRSF3 are used to dispose of waste rock and overburden from the Tiriganiaq open pits and the underground operations. The waste rock and till are stored in separate areas of the facilities. The design drawings for WRSF1 and WRSF3 and photos are included in Appendix K and Appendix L, respectively. The photo locations are presented in Figure 12 and Figure 13, respectively. Observations of each facility are noted below.

### 9.1 WRSF1

Disposal in WRSF1 began in 2019; with most of the material being placed since December 2020. Benches 77, 82, 87, 92, 94.5, 97, and a portion of the 102 and 107 m bench had been placed at the time of the 2024 inspection. As per the design, till is placed in the centre of the facility with a 40 m perimeter of waste rock around the till. Most of the till was placed in the winter.

The till placed in WRSF1 is a combination of material placed prior to the summer of 2019, and that placed during the winter of 2019/2020 and 2020/2021. The winter placed till was wet; it is speculated that it contained some ice rich material and is thawing and consolidating over the summer. As of August 2024, approximately 2.2 Mm<sup>3</sup> of till and 3.2 Mm<sup>3</sup> of waste rock have been placed to WRSF1, which is about 96% of total design storage capacity. No overburden material was placed to WRSF1 in 2024 (January to December 2024) and about 0.3 Mm<sup>3</sup> of waste rock was placed to WRSF1 in 2024.

Ground temperatures at the base of the WRSF1 facility are being monitored with vertical and horizontal GTCs. The cable locations are shown on the design drawings. The measured ground temperatures are presented in Appendix K. Based on the measured ground temperatures the foundation of the waste rock pile is frozen. Horizontal beads roughly 70 m inside from the toe of the pile have warmed by about approximately 0.0°C to 0.6°C between August 25, 2023 and August 25, 2024. The temperatures within the foundation appear to have stabilized over the past year and remain well below zero (-6.0°C). The thickness of active layer within the waste rock layer is approximately 4.0 m in the summer of 2024.

At the time of the inspection the following was noted:

- Till placed on the 97 m bench appears to be within the till design perimeter and contained with rockfill around the perimeter.

- Till and rock mixed free dumps observed on the 97 m bench during the 2023 annual inspection had been spread and compacted as previously recommended (Photo 4, Appendix K).

The material is generally being placed in the pile according to the WRSF1 design. No geotechnical issues were observed during the 2024 annual inspection.

## 9.2 WRSF3

Disposal in WRSF3 began in 2020. The overburden was placed to the 77 m bench and waste rock was constructed to Bench 82 m with ongoing construction for Bench 87 m at the time of the annual inspection. The till placed in WRSF3 appeared to be well compacted due to dozer compaction. Settlement and cracking were previously observed during the 2023 annual geotechnical inspection on the east side of the 72 m bench of the waste rock (adjacent to CP2 area) was mitigated by placing additional waste rock and traffic compaction. No settlement and cracking in this area were observed during the 2024 annual geotechnical inspection.

Similar to conditions observed in 2023, water was ponding at the southwest corner of WRSF3. The ponded water could cause permafrost degradation in that area if no mitigation measures are taken. The current mitigation control to manage the ponded water adopted by Agnico Eagle is to pump the water out of this area as required.

Ground temperatures at the base of the WRSF3 facility are being monitored with vertical and horizontal GTCs. The cable locations are shown on the design drawings. The measured ground temperatures are presented in Appendix L. HGTC-02 within the WRSF3 foundation stopped taking measurements since July 26, 2022. It was determined that the GTC was damaged and cannot be repaired. The remaining GTCs are sufficient to monitor the performance of the WRSF3 at this time. Based on the measured ground temperatures at other GTC locations, the foundation of the waste rock pile is frozen. The average temperatures within the foundation at GTC01 cooled from -3.22°C in August 2023 to -4.17°C in August 2024. The average temperatures within the foundations at GTC03 have cooled by 0.2°C between August 2023 and August 2024. No permafrost degradation was observed around WRSF3 at the time of the inspection.

In general, WRSF3 is performing well with no significant geotechnical issues noted during the inspection. The following recommendation for improvement was made based on the inspection:

- Consideration should be given to construct a channel and sump at the southwest corner of WRSF6 if sufficient space is available. The channel and sump will help to divert/collect runoff water from WRSF3 and prevent the potential permafrost degradation at the WRSF3 toe and reduce the efforts required the regular pumping during operation.

## 10.0 SITE ROADS

### 10.1 Background

The site has numerous roads, including haul roads, service roads, as well as roads to borrow areas and other facilities. The following is a list of roads inspected. Photographs of the site roads are included in Appendix M. The photo locations are presented in Figure 14.

- TSF and landfill access road;
- Main site pad area roads;

- Main site water intake access road;
- Emulsion plant pad access road;
- Tiriganiaq Esker access road;
- Magazine storage area and access road;
- Wesmeg access road, Wesmeg esker area, and vent raise;
- CP3 access road; and
- CP4 access road.

## 10.2 Visual Observations

At the time of the site visit, the site roads were generally in good condition. Select photos of the roads are included in Appendix M. The roads appeared to generally be of adequate width with pull outs where required to allow vehicles to safely pass. The heights of the road fills were such that berms were not required. Many of the roads appeared to have been constructed using a combination of sand and gravel obtained from esker borrow areas, rockfill, and crushed aggregate.

The roads surface gets muddy when wet. The roads are graded on a regular basis.

Normal maintenance of the roads should be anticipated. No geotechnical concerns were identified during the inspection. No permafrost degradation was observed along the road at the time of the inspection.

Permanent water management culverts are in place through road fills. Culverts observed were: Culverts 1, 2, 3, 4, 7, 8, 10, 11, 13, 15, 16, 18, and 20. The culverts were generally in good condition with the exception of Culvert 18, through the TSF road, which has been crushed to half its original height.

## 10.3 Summary and Recommendations

The site mine roads and culverts were generally well maintained and in good geotechnical condition at the time of the inspection. No specific recommendations for geotechnical improvements are provided.

# 11.0 BORROW SOURCES

## 11.1 Background

Numerous borrow sources have been developed during the construction of the mine. Many of the borrow sources were reclaimed in 2019. The following borrow areas were observed:

- Meliadine North Esker;
- Meliadine Esker; and
- Wesmeg Esker.

Photographs of the borrow areas are in Appendix N. The photo locations are presented in Figure 15.

## 11.2 Visual Observations

In general, the borrow areas were in good condition and had been reclaimed by grading to knock down various piles and ruts.

A drainage channel is present through the reclaimed portion of the Meliadine Borrow Area. The channel is within the native sand. It is anticipated that the channel will naturally erode. Some remediation may be required to stabilize portions of the channel in future years but was performing adequately at the time of the inspection. No permafrost degradation was observed around the borrow sources at the time of the inspection.

## 11.3 Summary and Recommendations

The borrow areas should be monitored for future erosion and thaw settlement; however, they appear to be performing well since they were reclaimed three years ago.

## 12.0 ORE STOCKPILES

### 12.1 Background

The ore and waste rock storage areas are located east of the crusher area. Photos of the ore stockpiles are included in Appendix O. The photo locations are presented in Figure 15.

The pile heights should be constructed such that they are less than 2 m above the reach height of the loader removing material from the pile. The dig face should be carried out in a manner such that the slope angles are flatter than the angle of repose of the material (1.3H:1V to 1.4H:1V).

It is Meliadine policy that a maximum 7 m high bench face is to be used. A second bench can be constructed to a maximum total height of 12 m, with a 5 m offset from the first bench. In general, most of the piles in the ore and waste rock storage area are less than 7 m. The main ore pile was placed in two benches which appeared to meet the site specifications.

The piles appeared to be stable and well managed with no signs of instability.

No geotechnical concerns related to the stability of the stockpiles were identified.

## 13.0 OTHER MELIADINE FACILITIES

### 13.1 Crusher Ramp

The crusher ramp is an earth fill structure consisting of a ramp, turn around area, and loading area adjacent to the crusher. It was constructed in 2018. It was mainly constructed of rockfill with gabion retaining walls surrounding the crusher. The crusher pad is shown in Photos 1 through 6, Appendix P. The photo locations are presented in Figure 17.

The area was visually inspected. The gabion wall appears to be performing well with no visual signs of distress. It is leaning in towards the fill materials as intended.

The fill slopes were relatively smooth with no obvious cracking, erosion, or signs of instability. There was also no cracking on the surface of the ramp, turn around area, or the loading area adjacent to the crusher.

It appears to be performing well from a geotechnical perspective.

## 13.2 Saline Water Treatment Plant

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The SWTP was constructed to treat water from underground operations. It was constructed in an existing storage warehouse/shop that was extended on one end. The structure is a fabric building founded on a concrete slab.

The SWTP generates considerable heat, making the interior of the building warm. The concrete slab of both the original building and the extension has undergone a considerable amount of settlement. It is speculated the settlement is due to thawing of ice rich permafrost underneath the building. The settlement was reported to be up to 0.4 m in 2019.

The facility has not been used since March 2020, and there are no plans to operate in the future. Inside of the facility has not inspected since 2020. If the facility is operated again, it is recommended that an assessment of the geotechnical and structural condition be carried out.

## 13.3 Landfill

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The main landfill for the mine is located at the northeast corner of WRSF1. The landfill has perimeter berms constructed of esker material. The landfill is used for dry waste only. Kitchen and other burnable wastes are burned in the onsite incinerator. The landfill is shown in Photos 7 through 10, Appendix P. The photo locations are presented in Figure 12.

The perimeter berms are performing well from a geotechnical perspective with no signs of instability. It is understood that the berms were raised approximately 2.0 m in 2023 to provide additional capacity in the landfill. Minor cracking and settlement is observed at the crest of the berms, it is not expected to impact the performance of the berm.

At the time of the site inspection the landfill debris was predominately uncovered. The landfill appeared to contain construction waste and wood not suitable for burning (painted, treated etc.) among other things.

It is recommended that the landfill be covered in stages with intermediate cover to avoid blowing debris. The berm should be monitored for future settlement and cracking; however, the berm is performing adequately.

## 13.4 Emulsion Plant Pad

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The emulsion plant is located at the north end of the mine. The plant was constructed on a pad constructed of esker material. The emulsion plant pad is shown in Photos 11 through 14, Appendix P. The photo locations are presented in Figure 17.

It is understood that the pad had some settlement after it was constructed but there were no reports of recent settlement issues. The north edge of the pad is experiencing erosion, the erosion channels are similar to those observed from 2019 to 2023 and are not currently impacting the use of the pad. No permafrost degradation was observed around the emulsion plant pad at the time of the inspection.



It is recommended that the pad settlement and erosion continue to be monitored. Remedial action was not required at the time of the inspection.

The storage pad next to the emulsion pad is filled with shipping containers. Several shipping containers located on the south corner of the pad are at the edge of the pad. It is recommended to position the shipping containers back from the crest of the pad.

Some localized areas of depression with ponded water were observed at the emulsion plant pad and its associated structures. These localized areas are not currently impacting the use of the emulsion plant pad or its associated structures and does not currently pose any geotechnical risk.

## 13.5 Landfarm

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A lined landfarm was constructed southeast of the process plant. Windrows of soil 1.0 m to 1.2 m have been placed in the landfarm as shown in Photos 15 to 19, Appendix P. The photo locations are presented in Figure 17.

The landfarm berms appear to be in a stable condition with minor cracks on the berm crest. A small amount of geomembrane liner and geotextile was exposed on the perimeter of the berm. The exposed liner will not impact the landfarm performance.

The landfarm sump contained a small volume of water at the time of the inspection. It is understood that this water is tested prior to pumping it out.

No geotechnical issues were noted at the time of the inspection.

## 13.6 Industrial Fuel Storage Tanks

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The Industrial Fuel Storage Tanks are located east of the process plant as shown in Photos 20 to 24, Appendix P. The photo locations are presented in Figure 17.

Two tanks are in the facility. The facility is lined with a geomembrane liner for secondary containment.

The crest of the berm has several cracks up to 150 mm wide, this has increased from the 40 mm wide cracks observed during the 2023 annual inspection. The crest of the berms should be repaired to remediate the cracking. A small amount of erosion has occurred on the tank pedestals; however, the erosion does not appear to generally extend under the tank bases. There was a small amount of water in the tank base. The cover fill over the geotextile is missing in a small area (<0.5 diameter).

Crush material underneath the pipeline cribbing going over the containment berm has been eroded away. Crush material should be placed back around the pipeline supports to remove stress on the pipeline.

Overall tank farm is performing well from a geotechnical perspective. No permafrost degradation was observed around the facility at the time of the inspection. It is recommended to repair the crests of the berms due to the significant increase in cracking from the 2023 annual inspection.

## 13.7 Other Facilities

The following other facilities were inspected during the site visit:

- New Cyanide Storage Pad, constructed in 2019;
- Emulsion Plant Storage;
- Freshwater Intake;
- Incinerator Pad;
- Mine Site Fuel Farm;
- Paste Plant Ramp;
- Industrial Pad; and
- Portal No. 1 and Portal No. 2.

When compared to the 2023 annual inspection, increased erosion and degradation was observed underneath the Portal No. 2 strip footings which support the corrugated steel. It is recommended that the voids underneath the footing foundations are backfilled, and erosion protection measures are put in place to prevent additional erosion along the base of the footing.

No other geotechnical issues were noted in these facilities. No permafrost degradation was observed around these facilities at the time of the inspection.

## 14.0 EXPLORATION CAMP AND ACCESS ROAD

Portions of the exploration camp were being dismantled at the time of the annual geotechnical inspection. Some of the dorms had been removed out of the area, although other portions of the camp were still in use. Appendix Q contains photographs taken during the inspection. The photo locations are presented in Figure 16.

The freshwater inlet for the exploration camp appears not to be in use. The station support beams appear to be eroded away at one corner. The beam should be repositioned for stability.

The landfarm at the exploration camp access road is in the process of decommissioning.

The access road to the exploration camp was in good condition. There are several depressions in the road down to the diffuser at the east end of exploration camp area.

## 15.0 ALL-WEATHER ACCESS ROAD AND ASSOCIATED WATER MANAGEMENT STRUCTURES

The AWAR construction activities began during the winter of 2012, and construction was completed by the end of October 2013 to connect the hamlet of Rankin Inlet to the Project. Appendix R contains photographs taken during the inspection. The road is approximately 23.8 km long, with three bridge crossings and culverts installed at a total of 24 locations. The road was designed at 6.5 m wide for most of its length with pull outs approximately 400 m+/-50 m to allow two-way traffic. This keeps the AWAR and By-pass road traffic consistent.

The AWAR is used by Agnico Eagle and provides unrestricted all-terrain vehicle (ATV) access for the public, if it is safe to do so. The AWAR is used to transport building materials, construction/mining equipment, fuel, reagents, supplies, workers, and contractors to the mine.

The road design is based on a general sub-base composed of rockfill or sand and gravel from esker sources and crushed granular surfacing with a combined minimum thickness of 500 mm. The road design varied based on the relative susceptibility to freeze and thaw induced settlement of the foundation soils. The thickness of the road fill material was generally increased, to a minimum of 1.3 m, in areas where potentially thaw-sensitive soils were identified. Along portions of the road where thaw-sensitive soils were identified, a geotextile material was incorporated into the road design to limit damage to the road should the foundation material thaw.

## 15.1 Observations and Recommendations

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The road and culverts were generally observed to be in good condition, at the time of the inspection with the exceptions noted below. Most culverts were unobstructed with no signs of substantial damage to the culverts. All bridges and their embankments were in good geotechnical condition at the time of the inspection. A structural and/or mechanical assessment of the bridges was not conducted and is beyond the scope of this geotechnical inspection.

The locations and a photographic record of the inspected culverts and bridges is provided in Appendix R. The photo locations are presented in Figures 22 to 30.

Table 15-1 lists the locations of water management structures: culverts and bridges that have been installed along the AWAR. The location of the culverts and bridges are listed, based on distance from the Healing Centre in Rankin Inlet, with the gate house at Meliadine being 29 km (the distances can be several metres off the distance marker distances on the road). Size and number of culverts is provided in Table 15-1, along with specific observations and photos at the time of the inspection, and any recommendations.

It is understood that Agnico Eagle has implemented a watercourse crossing inspection and maintenance program, which includes:

- A regular inspection program to identify issues relating to watercourse crossings, such as structural integrity and hydraulic function;
- An event-based inspection program to track the impacts of larger storm events on watercourse crossings; and
- Observations to confirm water is flowing through the culverts and no sediment is being transported in the water to determine if any mitigation is required.

Road maintenance and snow management are carried out, as deemed necessary. Steaming of culverts is included as a maintenance activity. Agnico Eagle places additional crush on the AWAR annually and applies calcium chloride for dust control through the summer.

The construction of a waterline along the AWAR between the Mine and the ocean near Rankin Inlet was ongoing at the time of the inspection. The construction of the waterline resulted in the damage or burial of some culverts or pipe sleeves along the AWAR.

In general, the road appeared to be in good geotechnical condition at the time of the inspection. No obvious permafrost degradation was observed along the road during the inspection. Recommendations for improvements to the water management structures are presented in Table 15-1. There are numerous locations where there are no culverts or where the culverts are under sized. Water ponding against the AWAR or poor drainage was observed at these locations. Tetra Tech recommends that the drainage conditions be monitored during the freshet period and after heavy rainfall events. If monitoring indicates that a culvert is required to improve the drainage, a mitigation plan should be developed and implemented. Several additional culverts received damage to their inlets and outlets likely during snow clearing activities or the waterline construction and are summarized in Table 15-1 with associated photos.

It was noticed that some culverts do not have signages to facilitate easy identification, some culverts were mis-labeled, and some KM stations along the AWAR appeared to be out of alignment. It is recommended that the signage for culverts and KM stations be reviewed for accuracy and updated where required.

**Table 15-1: AWAR Road – Water Management Structures Summary**

Station (distance from Friendship Centre)	Water Management Structure Description	Conditions, Observations, and Recommendations (at time of inspection)	Photo Page
KM 4.9	1 x 160 mm steel pipe, used as culvert	Good condition – recently installed, no flow at the time of inspection, stable embankments.	AWAR Road Culvert – Photos 1 and 2
KM 5.5	1 x 600 mm CSP	Good condition – located in the community portion of the road. Minor ponding water at the inlet and outlet at time of inspection. Damage to culvert at the inlet and outlet and an erosion pit at the outlet, no armouring is present at the outlet.	AWAR Road Culvert – Photos 3 and 4
KM 6.0	Char River Bridge	Good condition – stable embankments, and abutments are armoured. Similar conditions as observed during the 2023 annual geotechnical inspection.	AWAR Road Culvert – Photos 5 to 7
KM 6.2	3 CSP culverts: 2 x 1,300 mm 1 x 700 mm	The culverts are vertically offset with the 700 mm culvert elevated above the 1,300 mm culverts. Some minor erosion observed between the culverts on the downstream side. All clear and in good condition. Minor ponding water in the lower 1,300 mm culvert. Armouring appears to be adequate. Small Crack in 700 mm outlet. East side 1,300 mm culvert has deflection under the road. There is little change to the cross-sectional area.	AWAR Road Culvert – Photos 8 and 9
KM 7.0	3 CSP culverts: 2 x 1,000 mm 1 x 700 mm	The culverts are vertically offset with the 700 mm culvert elevated above the 1,000 mm culverts. The 700 mm culvert had a dent inside. West 1,000 mm culvert contains dent at the bottom inlet. East 1,000 mm culvert has minor erosion at outlet with no armouring. Ponded water observed in the lower culvert. Small amount of water ponded upstream. Sandy soil around culverts, potential for erosion, but none noted during inspection.	AWAR Road Culvert – Photos 10 and 11
KM 7.1	3 CSP culverts: 2 x 1,000 mm 1 x 700 mm	Vertically offset. 700 mm culvert is elevated. Water ponded in the southern 1,000 mm culvert, minor deformation of culverts under the road, no substantial reduction of cross-sectional area. The culverts and riprap appear in good condition. Low flow at time of inspection.	AWAR Road Culvert – Photos 12 and 13
KM 7.4	3 CSP culverts: 1 x 900 mm 1 x 700 mm 1 x 1,000 mm	Vertically offset. 700 mm culvert is elevated. Significant damage to the inlet and out of the 900 mm culvert. Minor damage to the inlets and outlets of the 700 mm and 1,000 mm culverts. Erosion potential due to finer grained soils around 700 mm culvert at the inlet and outlet, but no significant erosion noted. 1,000 mm culvert clear. Minor ponding water at inlet of 900 mm culvert. Agnico Eagle indicates culverts performed well during 2021/2022 freshet. All culvert outlets are damaged, likely due to the snow removal process prior to the freshet season. <b>Recommendation: Repair culvert damage.</b>	AWAR Road Culvert – Photos 14 and 15
KM 8.0	Meliadine River Bridge	West abutment, slopes upstream and downstream of bridge have exposed sand and gravel; no erosion noted. No geotechnical concern at the time of the inspection.	AWAR Road Culvert – Photos 16 to 19

**Table 15-1: AWAR Road – Water Management Structures Summary**

Station (distance from Friendship Centre)	Water Management Structure Description	Conditions, Observations, and Recommendations (at time of inspection)	Photo Page
KM 8.8	2 x 150 mm HDPE pipes, used as pipe sleeve	Agnico Eagle reported that there was water overflow in the 2023 freshet. Two HDPE pipes were installed to act as a pipe sleeve to pass a hose through for freshet pumping activities. Minimal armouring at pipe outlets, which may lead to the erosion of sand and gravel material. It is observed that the road in this location has a low profile. <b>Recommendation: The HDPE pipes at outlet should be extended to avoid being buried during the waterline construction.</b>	AWAR Road Culvert – Photos 20 and 21
KM 9.1	2 x 1,000 mm CSP culverts	Minor deformation of both culverts under the road. No ponded water. Armoured, no obvious signs of erosion. The road has been raised since 2020 inspection.	AWAR Road Culvert – Photos 22 and 23
KM 9.5	1 x 1,300 mm CSP culvert	Water ponded on upstream side of culvert/road with no low flow due to elevated inlet of CSP. CSP in good condition. Erosion pits at the outlet with no armouring present.	AWAR Road Culvert – Photos 24 and 25
KM 10.5	M-5 Bridge	Good condition, stable embankment, and abutments of the bridge. Exposed geotextile at base of downstream end of left abutment has been covered. Gabion damaged on downstream of left (north) abutment was repaired in 2023 prior to the inspection. No obvious signs of erosion. Additional armouring has been added to the southeast side abutment, where minor sloughing and cracking, erosion pathways, and settlement was previously observed.	AWAR Road Culvert – Photos 26 to 28
KM 12.1	4 CSP culverts: 2 x 1,300 mm 1 x 900 mm 1 x 700 mm	Vertically offset. 700 mm and 900 mm culverts are elevated. Minor small dents and bending of haunches in 700 mm, 900 mm, and one of the 1,300 mm culverts. Minor flow through the lowest of the 1,300 mm culverts. Minimal armour; however, no obvious erosion. Some crushing (oval shape) of culvert. Embankment slope is generally in good condition.	AWAR Road Culvert – Photos 29 and 30
KM 12.6	No culverts	Area of poor drainage. In good condition, ponding water present but no signs of water flow at time of inspection. <b>Recommendation: Monitor the performance during freshet or after intense rainfall event to determine the requirement of a culvert.</b>	AWAR Road Culvert – Photos 31 and 32
KM 13.5	5 CSP culverts: 3 x 1,300 mm 2 x 900 mm	Vertically offset, 900 mm culverts are elevated above 1,300 mm culverts. Good condition, no flow, minor dents, and deflection in haunch, otherwise in good condition.	AWAR Road Culvert – Photos 33 and 34
KM 14.7	Access road to B12 quarry, 500 mm HDPE corrugated culvert	No ponding water, minor dents observed in culvert, Erosion at outlet. Culvert and embankments are generally in good condition. Damage to the culvert inlet.	AWAR Road Culvert – Photo 35

**Table 15-1: AWAR Road – Water Management Structures Summary**

Station (distance from Friendship Centre)	Water Management Structure Description	Conditions, Observations, and Recommendations (at time of inspection)	Photo Page
KM 16.3	3 CSP culverts: 1 x 1,300 mm 1 x 700 mm 1 x 1,000 mm	Vertically offset, 1,300 mm culvert is the lowest, then the 1,000 mm culvert, and the 700 mm culvert is the highest. No flow or ponding water. Culverts in good condition. Small erosion and geotextile visible at outlet of 1,300 mm culvert. Inlets are covered with netting. Outlets are all elevated increasing erosion potential. No signs of overflow, area armoured. Agnico Eagle indicates culverts performed well during 2021 freshet.	AWAR Road Culvert – Photos 36 and 37
KM 18.1	2 CSP culverts: 1 x 900 mm, 1 x 1,000 mm	Vertically offset culverts. The 900 mm culvert is elevated above 1,000 mm culvert. Lower culvert has ponding water but no flow, minor dent on upstream end. Upper culvert is in good condition. Upper culvert is high on the embankment and has thin cover on the upstream side. Trench exists along upstream toe of road connecting the culverts at KM 18.1 to KM 18.15. Culvert appears to replace KM 18.15 culvert. No erosion noted, appears to be performing adequately.	AWAR Road Culvert – Photos 38 and 39
KM 18.15	1 x 600 mm CSP culvert	The culvert no longer appears to be useful as ponding is controlled by the KM 18.1 culvert. Inlet is damaged but still functional, outlet is placed high on the embankment.	AWAR Road Culvert – Photos 40 and 41
KM 19	No culverts	Ponding on north side of road, reportedly the water ponds here year-round and can reach as high as halfway up the embankment. Water 1 m below road at time of the 2019 and 2020 Inspections. 2018 Inspection reports by Agnico Eagle note straw logs were placed at KM 19, so there may have been some flow over the road in this area in 2018. No overflow reported in 2019. Agnico Eagle reported that there was overflow in 2020 freshet but no pumping was required during 2021 freshet. An esker sand berm was constructed in 2024 to bury the waterline at this location could likely reduce the potential of the overflow. <b>Recommendation: Monitor the water ponding area during freshet or after intense rainfall event to determine the requirement of a culvert to reduce the risk of overflow.</b>	AWAR Road Culvert – Photo 42
KM 21.0 to 21.5	No culverts	Low ponded water on west side of road near KM 20.0 and KM 21.2. Water reportedly flowed over the road near KM 21.5 during the 2017 freshet. Straw logs were placed on east side of road embankment to control suspended solids in the flow in 2018. No reports of overflow in 2019. Inspection in 2019 had a “wash zone” of road embankment indicating likely high water in 2019. Pumping required in 2020. An esker sand berm was constructed in 2024 to bury the waterline at this location could likely reduce the potential of the overflow. <b>Recommendation: Monitor the water ponding area during freshet or after intense rainfall event to determine the requirement of a culvert to reduce the risk of overflow.</b>	AWAR Road Culvert – Photo 43



**Table 15-1: AWAR Road – Water Management Structures Summary**

Station (distance from Friendship Centre)	Water Management Structure Description	Conditions, Observations, and Recommendations (at time of inspection)	Photo Page
KM 21.7	2 x 160 mm steel pipes, used as pipe sleeves	Vertically offset steel pipes, no flow. Water ponded upstream, erosion mark from higher water level evident in road embankment. Agnico Eagle personnel reported that the road was excavated in 2018 to allow the water to drain. Capacity of pipes may be inadequate, or pipes could have been frozen (blocked) causing water to backup. Outlets are blocked by the construction of the AWAR waterline, making the steel pipes no longer function. No reports of overflow in 2019 or 2020 or 2021. Pumping was required in 2021. High water marks in 2023 does not indicate overflow occurred. <b>Recommendation: The drainage conditions at this location be monitored especially during the freshet period and after the heavy rainfall event. If the monitoring indicates that the placement of the culverts is required to improve the drainage, a mitigation plan should be developed and implemented.</b>	AWAR Road Culvert – Photo 44
KM 21.8	1 x 150 mm HDPE pipe, used as pipe sleeves	Pipe and embankments in good condition, erosion pits at outlet with no armouring present. High water marks on embankment show pipeline is functioning properly. No flow or ponding water present. Pipe capacity may not be adequate under heavy precipitation events or an extreme freshet.	AWAR Road Culvert – Photos 45 and 46
KM 22.3	2 x 160 mm steel pipes, used as pipe sleeves	Ponded water observed in 2019, no armour around inlets. Inlets cannot be seen from the roadway and are covered by grass. The steel pipes are vertically offset with no flow. No indication of overflow. Agnico Eagle reported there was overflow at the location in 2020 and no overflow in 2021 and 2022 freshet. The outlet of the pipes was blocked and buried during the waterline project construction. <b>Recommendation: The drainage conditions at this location be monitored especially during the freshet period and after the heavy rainfall event. If the monitoring indicates that the placement of the culverts is required to improve the drainage, a mitigation plan should be developed and implemented.</b>	AWAR Road Culvert – Photo 47
KM 22.7 to 23.0	No culverts	Water ponded on the east side of the road. Distressed vegetation indication of some ponding. Required pumping to prevent the road from breaching in 2021. Observed high water level marks on upstream esker sand berm show no overflow. <b>Recommendation: The drainage conditions at this location be monitored especially during the freshet period and after the heavy rainfall event. If the monitoring indicates that the installation of the culverts is required to improve the drainage, a mitigation plan should be developed and implemented.</b>	AWAR Road Culvert – Photos 48 and 49

**Table 15-1: AWAR Road – Water Management Structures Summary**

Station (distance from Friendship Centre)	Water Management Structure Description	Conditions, Observations, and Recommendations (at time of inspection)	Photo Page
KM 25.8	1 x 600 mm HDPE corrugated culvert	No flow, gravel in base of culvert, inlet appears to be crushed with limited capacity. Inlet is surrounded by sandy soil from construction of the AWAR water pipeline, does not extend past the toe of the road. Sandy soil around, no armor. Minor erosion on slope of road. 2018 inspection reports noted ponding of water at or over the road in this area during the freshet. Deformation was observed inside the HDPE pipe, indicates that the HDPE culvert is not strong enough to carry the current traffic load. <b>Recommendation: The performance of the HDPE culvert at this location be monitored. If the monitoring indicates that the placement of the HDPE culvert is required, a mitigation plan should be developed and implemented.</b>	AWAR Road Culvert – Photos 50 to 53
KM 26.2	2 x 160 mm steel pipes, used as pipe sleeves	Vertically offset, lower pipe bent upward. The inlets are elevated close to the road surface. Some sediment deposition downstream is evident. Outlets do extent past the road toe. 2018 Agnico Eagle inspection reports noted ponding of water at or over the road in this area during the freshet. No reports of overflow in 2019. Ponding and overflow were reported during 2021/2022 freshet. No flow or ponding water.	AWAR Road Culvert – Photos 54 and 55
KM 26.5	3 x 700 mm CSP culverts	Equal elevation, minor sediment buildup, low flow, small dents, well armoured and covered with gravel. No signs of erosion. Outlet has exposed geotextile.	AWAR Road Culvert – Photos 56 and 57
KM 26.8	2 x 160 mm steel pipes, used as pipe sleeves	Vertically offset, no flow. Evidence of ponding about 0.5 m below road crest. Agnico Eagle reports no overflow during 2021 freshet. The inlet of the steel pipes were buried during the waterline project construction and is blocked. <b>Recommendation: The drainage conditions at this location be monitored especially during the freshet period and after the heavy rainfall event. If the monitoring indicates that the placement of the culverts is required to improve the drainage, a mitigation plan should be developed and implemented.</b>	AWAR Road Culvert – Photos 58 and 59
KM 27.1	3 CSP culverts: 1 x 900 mm 1 x 700 mm 1 x 1,000 mm (southernmost)	Vertically offset, middle culvert (700 mm) elevated above adjacent culverts. Clear, minor flow in lowest culvert, some small dents in 900 mm and 1,000 mm culverts. All clear and in good condition.	AWAR Road Culvert – Photos 60 and 61

**Table 15-1: AWAR Road – Water Management Structures Summary**

Station (distance from Friendship Centre)	Water Management Structure Description	Conditions, Observations, and Recommendations (at time of inspection)	Photo Page
KM 28.7	No culverts	<p>Ponded water on east side of road. 2018 water flowed over the road at this location during freshet. No reports of water flowing over the road in 2019 or 2020. Agnico Eagle reports pumping was required during 2021/2022. The construction of esker sand berm for the waterline project may reduce the risk of the overflow. The high-water mark on the berm indicates that about 1.0 m deep ponding water against the berm during the freshet season or extreme rainfall event.</p> <p><b>Recommendation: The drainage conditions at this location be monitored especially during the freshet period and after the heavy rainfall event. If the monitoring indicates that the installation of the culverts is required to improve the drainage, a mitigation plan should be developed and implemented.</b></p>	AWAR Road Culvert – Photo 62
KM 29.6		Culvert Removed, water managed by pumping from a small sump. Water in the sump is pumped to CP5 for storage.	AWAR Road Culvert – Photo 63

## 16.0 ITIVIA FUEL STORAGE SITE AND BYPASS ROAD

The Itivia bypass road is a 6.3 km gravel road that was constructed to divert traffic from the Itivia fuel storage and laydown area to the Mine site around Rankin Inlet as shown in Appendix S. The Itivia fuel farm is used to store fuel for Meliadine Mine. The photo locations are presented in Figures 18 to 21.

The road is designed to be 6.5 m wide for most of its length with pull outs to allow two-way traffic. Two sections are designed to be 8 m to allow two-way traffic without pullouts. The road was constructed in 2017 and 2018. The eastern portion of the road was constructed using blast rock from the Itivia Quarry, but most of the road was constructed using esker materials.

The road and culvert locations were observed. The culvert locations are referenced from the southeast corner of the Itivia fuel storage facility. The observations are summarized in Table 16-1. The culvert names are referenced from the construction drawings and the 2018 inspection. Some of the culverts now have the names attached to the culverts, and do not correlate to the previous names as noted in Table 16-1.

In general, the road was in good condition. Minimal signs of cracking or settlement were noted. Some sections of the road were high enough that they required safety berms, which were constructed using large boulders along the eastern section and with esker materials along the remainder of the road. Riprap was generally placed at the inlet and outlets of culverts, per the design. Table 16-1 presents a summary of the culvert inspections completed.

Based on discussions with Agnico Eagle personnel, it is understood that two areas had issues during the 2019 and 2020 freshets; the area northwest of Culvert C10 flooded, and the road at km 2 had significant flows in the upstream ditch running along the road, and across the road. The bypass road did not have any significant issues during from the 2021 to 2024 freshets because of a combination of snow removal and culvert steaming by Agnico Eagle personnel and mild freshet.

Culvert C10 handles the flow of the water from a small lake (Signet Lake) north of the road. In 2019 it appeared that most of the runoff ran along the road as opposed to flowing through the culverts. This is evidenced by the high-water mark on the shoulder of the road. The water ran to a low area of the road east of the culverts, and then across the road. This may have been partially because of icings around the culvert area in the spring. The road 200 m east of Culvert C10 was raised in 2019 to address this problem; however, the problem persisted in the spring of 2020. The Agnico Eagle Surface Water Superintendent reported in 2020 that the water partially came from a discharge out of Signet Lake and the southeast side. The problem could also have been partially caused by an ice/snow blockage in the C10 culverts. The culverts should be cleared prior to freshet. The issue could be rectified by placing culverts in the low area of the road east of Culvert C10. It is understood that the culverts were steamed in 2021 and 2022, and the flow came through the C10 culverts as intended. Although the area functioned well with the mitigation activities applied prior to the freshet, culverts in the low area of C10 would reduce future problems with this area.

The road along km 2.2 has been constructed as a cross-slope fill. Water runs from the up-gradient slope into a ditch upslope of the road. The ditch is relatively shallow (0.5 m). The water spills out of the ditch and runs across the road and down the road slope. It is recommended that the area be rectified to control the freshet water. This could be a combination of a culvert and improving the performance of the ditch. The solution must consider the steep up-gradient slope, steep downstream erodible road fill, and shallow road fill at this location making installation of a culvert difficult. The ditch should be cleared of snow and ice prior to the freshet. This section of road did not experience any issues during the 2024 freshet according to Agnico Eagle personnel, but further development of the area should be done if future problems persist. No noticeable sign of permafrost degradation was observed along the road during the inspection.

Similar to the AWAR, it was noticed that some culverts do not have a sign for their easy identification and some culverts were mis-labeled, it is recommended that the signage for culverts be reviewed for accuracy and updated where required. Tetra Tech's recommendations for the identification of culverts are listed in Table 16-1.

Table 16-1: Summary on Culverts on Itivla Bypass Road

Approximate Distance from SE Corner of Fuel Farm	Culvert Identification (Culvert Design Identification)	Water Management Structure Description	Observations	Photographs (Appendix S)
0.35 km	C01 (Design identification C01)	2 x 1,000 mm CSP culverts	Good condition, culverts vertically offset, no water flow. Inlet of lower culvert has been damaged, slightly reduced capacity, Road constructed out of blast rock. Large boulders placed on south crest of road as safety berm.	Itivla Bypass Road Culvert – Photos 1 to 3
0.6 km	C02 (Design identification C02)	2 x 700 mm CSP culverts	Good condition, culverts vertically offset, no water flow. Inlet of lower culvert has been damaged, culvert capacity is unchanged, sandy soil used for culvert bedding material has entered the culvert where it is damaged. Additional erosion of the bedding material may occur. No water flowing through culverts. Road constructed out of blast rock. Large boulders placed on south crest of road as safety berm.	Itivla Bypass Road Culvert – Photos 4 to 6
0.8 km	C03 (Design identification C03)	2 x 1,000 mm 1 x 700 mm	Good condition, 700 mm culvert vertically offset, No water flowing through culverts. Minor erosion in tundra observed upstream of culverts. Road constructed out of blast rock. Large boulders placed on south crest of road as safety berm.	Itivla Bypass Road Culvert – Photos 7 to 9
1.0 km	C04 (Design identification C04)	2 x 1,000 mm	Good condition, eastern inlet damaged, inlet capacity is not affected. No flow in culverts. Minor amount of riprap upstream of culvert. Road constructed out of blast rock. Large boulders placed on south crest of road as safety berm.	Itivla Bypass Road Culvert – Photos 10 to 12
1.2 km	C05 (Design identification C05)	2 x 1,000 mm	Good condition, no water flowing through culverts. Road and safety berm on south crest of road constructed out of esker materials.	Itivla Bypass Road Culvert – Photos 13 and 14
1.5 km	C06 (Design identification C06)	2 x 800 mm	Good condition, culvert inlets installed above surrounding natural ground. A small berm has been constructed between the ponded water and the culvert inlet location. No water flowing through the culverts. Some rockfill in front of inlets could erode into the culverts, Road constructed out of esker materials.	Itivla Bypass Road Culvert – Photos 15 to 17
1.6 km	C07 (Design identification C06-1)	1 x 800 mm	Good condition, no water flow in culverts, road constructed out of esker materials, inlet and outlet covered with riprap.	Itivla Bypass Road Culvert – Photos 18 to 20
1.8 km	C08 (Design identification C07a)	2 x 800 mm	Good condition, ponded water observed at the inlets around the culverts and against the toe of the road embankment. No flow. Culvert inlets installed over rockfill base raised above surrounding natural ground. Road constructed out of esker materials.	Itivla Bypass Road Culvert – Photos 21 and 22
1.9 km	C09 (Design identification C07B)	2 x 1,000 mm	Good condition, no water flowing through the culverts, inlets and outlets are clear. Inlets are dented but appear to be functioning well. Road constructed out of esker materials. Safety berm constructed on south crest of road. Outlet discharges on coarse (cobbly) esker. Road crush has washed onto outlet culverts. Minor damage to inlet.	Itivla Bypass Road Culvert – Photo 23
2.4 km	C10 (Design identification C09)	2 x 1,000 mm	Good condition, no water flowing through culverts, Road constructed out of esker material. Small amount of erosion in armouring at inlet.	Itivla Bypass Road Culvert – Photos 24 and 25
3.1 km	C11 (Design identification C10)	5 x 1,200 mm 1 x 1,000 mm	Some damage to culvert inlets and deformation under road observed. Some water flow observed flowing into lowest culvert. Ponded water observed along the toe of the road embankment to the north of the culvert inlets. Culverts were steamed during freshet which prevented issues this year. Road constructed out of esker material. Road raised in fall 2019 north of culverts. Water raised to crest elevation of low area in the road to the northwest. Minor cracking in the road fill slopes on the south side of the road. Erosion booms placed on downstream slope of the road low point to the northwest. Armour aprons settled and silted over. Water flowing in lowest culvert.	Itivla Bypass Road Culvert – Photos 26 to 28
4.0 km	C12 (Design identification C11a)	2 x 1,200 mm	Good condition, culverts are constructed over riprap and inverts are raised above surrounding tundra. No flow observed through both culverts. Shallow ponding of water over tundra upstream of the inlets and against the toe of the road embankment. Water mark visible along toe of road embankment, approximately 0.2 m above toe of road at culverts, higher along road to northeast. Road constructed out of esker material, minor erosion at toe of road.	Itivla Bypass Road Culvert – Photos 29 to 31
4.3 km	C13 (Design identification C11b)	2 x 1,000 mm	Good condition, culverts are constructed over riprap and inverts are raised above surrounding tundra. No flow or ponding water through the culverts. Road constructed out of esker material, performing adequately, no signs of erosion.	Itivla Bypass Road Culvert – Photos 32 and 34
4.8 km	C14 (Design identification C11b-1)	1 x 1,000 mm	Good condition, invert of culvert is dented. Culvert is constructed over riprap and invert is raised above surrounding tundra. Small natural drainage path observed upstream and downstream of culvert. No flow or ponding water observed. Road constructed out of esker material performing adequately.	Itivla Bypass Road Culvert – Photos 35 to 37
4.9 km	C15 (Design identification C11c)	2 x 1,200 mm	Good condition, culverts are constructed over riprap and inverts are raised above surrounding tundra. No ponded water or flow through culverts. Road constructed out of esker materials. Road fill performing adequately.	Itivla Bypass Road Culvert – Photos 38 and 39
5.0 km	C16 (Design identification C12a)	2 x 1,200 mm	Good condition, culverts are constructed over riprap and upstream inverts raised above surrounding tundra. No ponded water or flow through culverts. Small section of exposed geotextile was observed at the inlet of the northern culvert. Road constructed out of esker materials. Road slopes performing adequately.	Itivla Bypass Road Culvert – Photos 40 and 41
5.1 km	C17 (Design identification C12b)	2 x 1,000 mm	Good condition, culverts are constructed over riprap and inverts are raised above surrounding tundra. No ponded water or flow observed. Road constructed out of esker materials. Riprap placed in local area of culvert. No signs of erosion on roadside slopes indicating previous higher water levels.	Itivla Bypass Road Culvert – Photos 42 and 43

Table 16-1: Summary on Culverts on Itivia Bypass Road

Approximate Distance from SE Corner of Fuel Farm	Culvert Identification (Culvert Design Identification)	Water Management Structure Description	Observations	Photographs (Appendix S)
6.2 km	C18 (Design identification C13)	2 x 800 mm	Good condition, culverts are constructed over riprap and inverters are raised above surrounding tundra. Relatively large pond of water upstream and downstream of the culverts; road constructed through natural pond. Culvert inlets and outlets are dented, no flow observed. The west inlet is damaged with the culvert being bent with ¼ of the area. Road constructed out of esker materials.	Itivia Bypass Road Culvert – Photos 44 to 46
6.3 km	C19 (Design identification C14)	3 x 800 mm	Good condition, culverts are constructed over riprap and inverters are raised above surrounding tundra. Water ponded upstream and downstream of the culverts. No signs of subsidence due to ponded water. No water flow. Road constructed out of esker materials. Left inlet culvert has a dent in the middle, underneath the road fill.	Itivia Bypass Road Culvert – Photos 47 and 48



The Itivia fuel farm consists of four fuel storage tanks with two existing tanks constructed in 2017 and two new tanks under construction at the time of the inspection (as shown in Photos 56 through 60, Appendix S). The two existing tanks has storage capacity of 20,000,000 L and 13,500,000 L, respectively. The two new tanks will provide extra fuel storage of 9,000,000 L and 4,5000,000 L, respectively. The fuel is hauled to the mine site on an as needed basis. The tanks are contained within a geomembrane lined containment facility. The geomembrane liner is covered with a layer of geotextile and 20 mm crushed rock. The following observations were made during the inspection.

- Two new fuel storage tanks were under construction.
- Liner and berms were raised to accommodate constriction of additional fuel tanks.
- Ponding water was observed at the southeast corner of the tank farm and in small localized areas.
- Localized depressions were observed within the tank farm floor.
- The edge of one tank pedestal has minor surface erosion of the granular crush.

In general, the facility appears to be in good condition from a geotechnical perspective. Minor erosion of the granular fill pedestals should be built up to prevent further development of erosion channels and monitored. Water in the facility should be emptied as soon as practical to reduce the risk of erosion. Coarser rockfill could be placed adjacent to the narrow point of the pedestals to reduce the risk of erosion.

## 17.0 SUMMARY OF RECOMMENDATIONS

A total of 22 recommendations were made during the 2023 annual inspection including 13 from the 2023 annual inspection and 9 carried over from the 2022 annual inspection. Of the 22 recommendations made during the 2023 annual inspection, 14 recommendations were executed in 2024 and 8 noted as in progress and carried over to 2025. Tetra Tech understands that Agnico Eagle established a systematic monitoring procedure and operational management plans to monitor the performance of each infrastructure at the Mine, the generic recommendations, for example, “continuing to monitor the performance of the structure to determine the requirement of mitigation”, were excluded, only the recommendations that are beyond the daily operations/ maintenance/ surveillance scope and need additional actions were listed in this report.

A total of 15 recommendations were made based on the 2024 annual inspection, which include 8 new recommendations and 7 carry-overs from 2023. For the 2024 annual inspection priority level has been added to each recommendation based on the priority scale system as described in Section 2.

Table 17-1 presents a summary of recommendations based on the observations made during the 2024 annual geotechnical inspection.

Table 17-1: Summary of Recommendations

Section	Structure/Facility	Priority	Recommendations	Status
5.2.5	Dike D-CP1 and associated infrastructure	P2	Effective snow removal or snow fencing is recommended to help mitigate the warming trend of the dike foundation.	New from the 2024 inspection.
5.3.5	CP2	P2	The area between CP2, Channel 9, Channel 10, and WRSF3 should be covered with rockfill as thermal cover to prevent any potential permafrost degradation of the native ground.	Carried over from the 2023 inspection.
		P3	Place thermal capping between the WRSF1 toe and Channel 4.	New from the 2024 inspection.
7.3	Channel 1 and 7	P3	Repairs and maintenance should be completed on Channels 1 and 7 to promote drainage.	New from the 2024 inspection.
7.3	Channel 5	P3	It is recommended that the eastern half of Channel 5 be repaired and maintained.	New from the 2024 inspection.
7.3	Berm 3	P4	Berm 3 cover materials are susceptible to erosion and some minor erosion was observed during the inspection. Erosion of the slopes should be monitored, and consideration should be given to placing coarser material on Berm 3 to reduce the potential for erosion if it becomes substantial.	Carried over from the 2023 inspection.
8.5	TSF	P3	Minor cracking was observed on the crest of the rockfill cover at Cell 1. The rockfill crest should be monitored for additional cracking or degradation.	New from the 2024 inspection.
9.2	WRSF3	P3	A channel and sump at southwest corner of WRSF3 is recommended. If possible, within the lease boundary to divert/collect runoff water to prevent permafrost degradation at WRSF3 toe and to eliminate the regular pumping requirement during the operation.	Carried over from the 2023 inspection.
13.3	Landfill	N/A	It is recommended that the landfill be covered in stages with intermediate cover to avoid blowing debris.	Carried over from the 2023 inspection.
13.6	Industrial Fuel Tank Farm	N/A	The crest of the berms should be repaired to remediate cracking.	New from the 2024 inspection.
13.7	Other Facilities	N/A	It is recommended that the voids underneath the footing foundations that support the corrugated steel entry of Portal No. 2 are backfilled, and erosion protection measures are put in place to prevent additional erosion along the base of the footing.	Carried over from the 2023 inspection
15.1	AWAR	N/A	Monitor the drainage condition where the steel pipes (serves as pipe sleeves) are blocked due to the new water pipeline. If there is ponding water, risk of overflow, or washouts then new culverts should be installed.	New from the 2024 inspection.
16.0	Itivia Bypass Road	N/A	Several low areas require monitoring for potential overflow, if required additional culverts should be installed.	New from the 2024 inspection.
		N/A	Water in the Itivia tankfarm facility should be emptied as soon as practical to reduce the risk of erosion.	Carried over from the 2023 inspection.
Multiple	Site Culverts	N/A	It is recommended that the signage for culverts and KM stations be reviewed for accuracy and updated where required.	Partially completed. Carried over from the 2023 inspection.

## 18.0 CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully Submitted,  
Tetra Tech Canada Inc.

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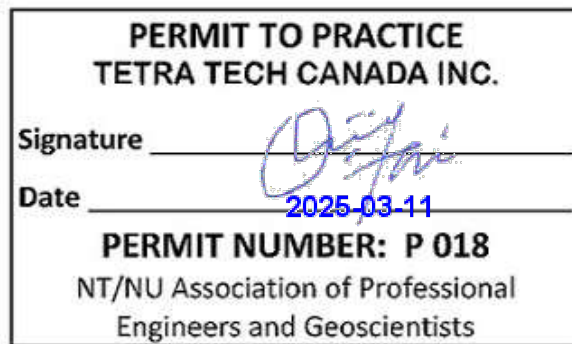
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/jf



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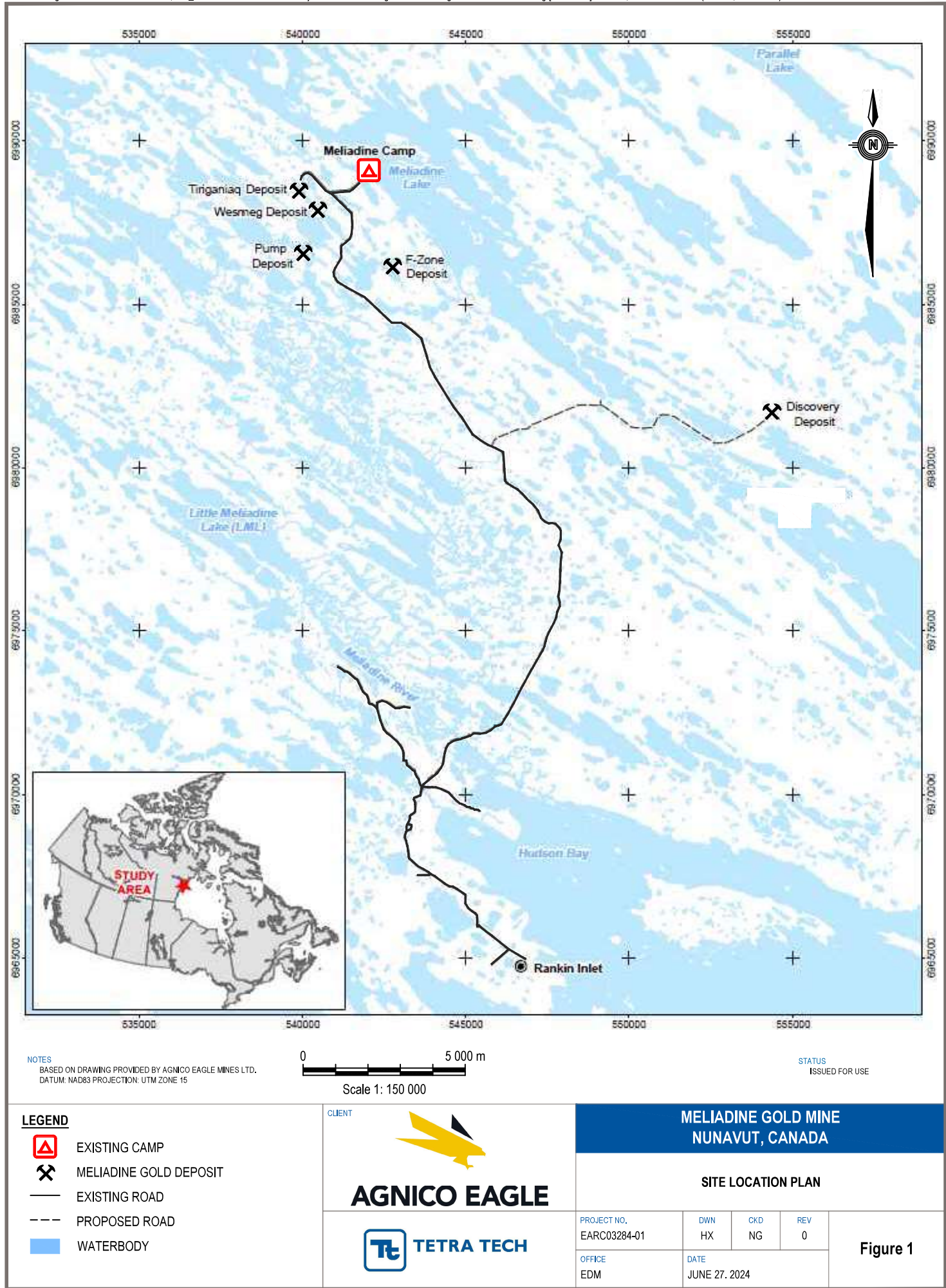
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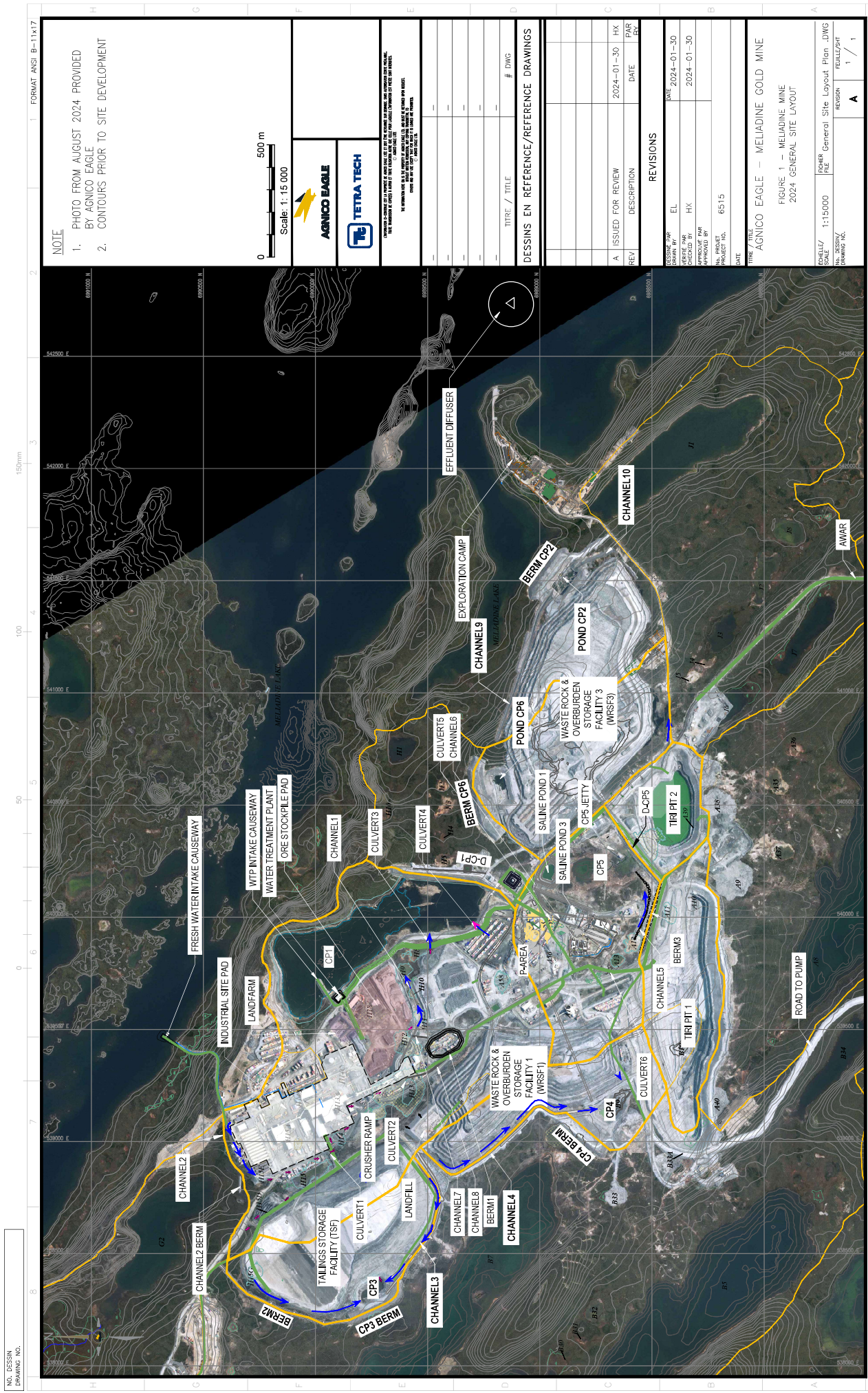
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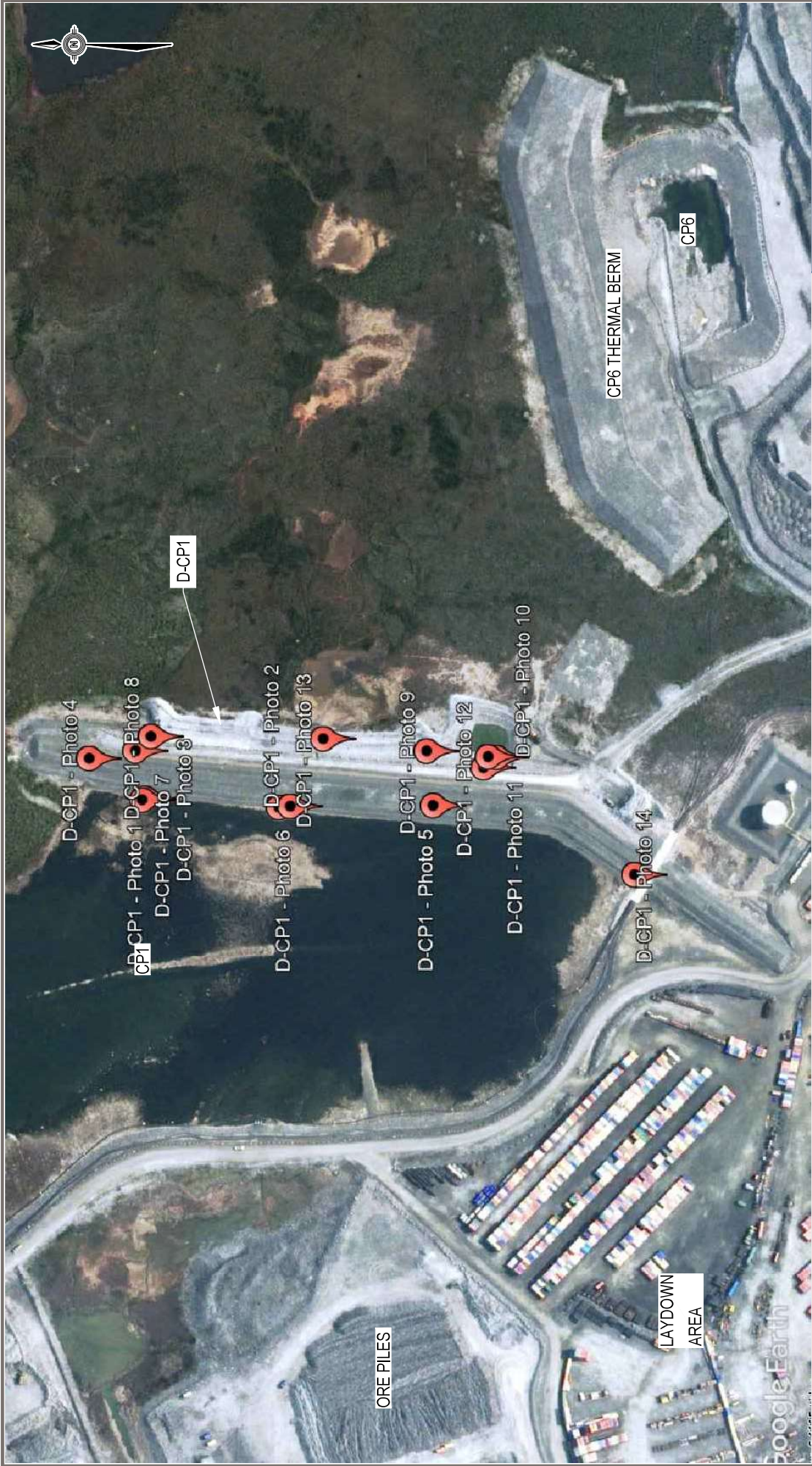












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D - CP1 PHOTO LOCATIONS

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FIGURE 3

LEGEND:  
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- PHOTO LOCATION

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CP2, CHANNELS 9 AND 10 PHOTO LOCATIONS

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OFFICE EDM	DATE December, 2024	FIGURE 4	





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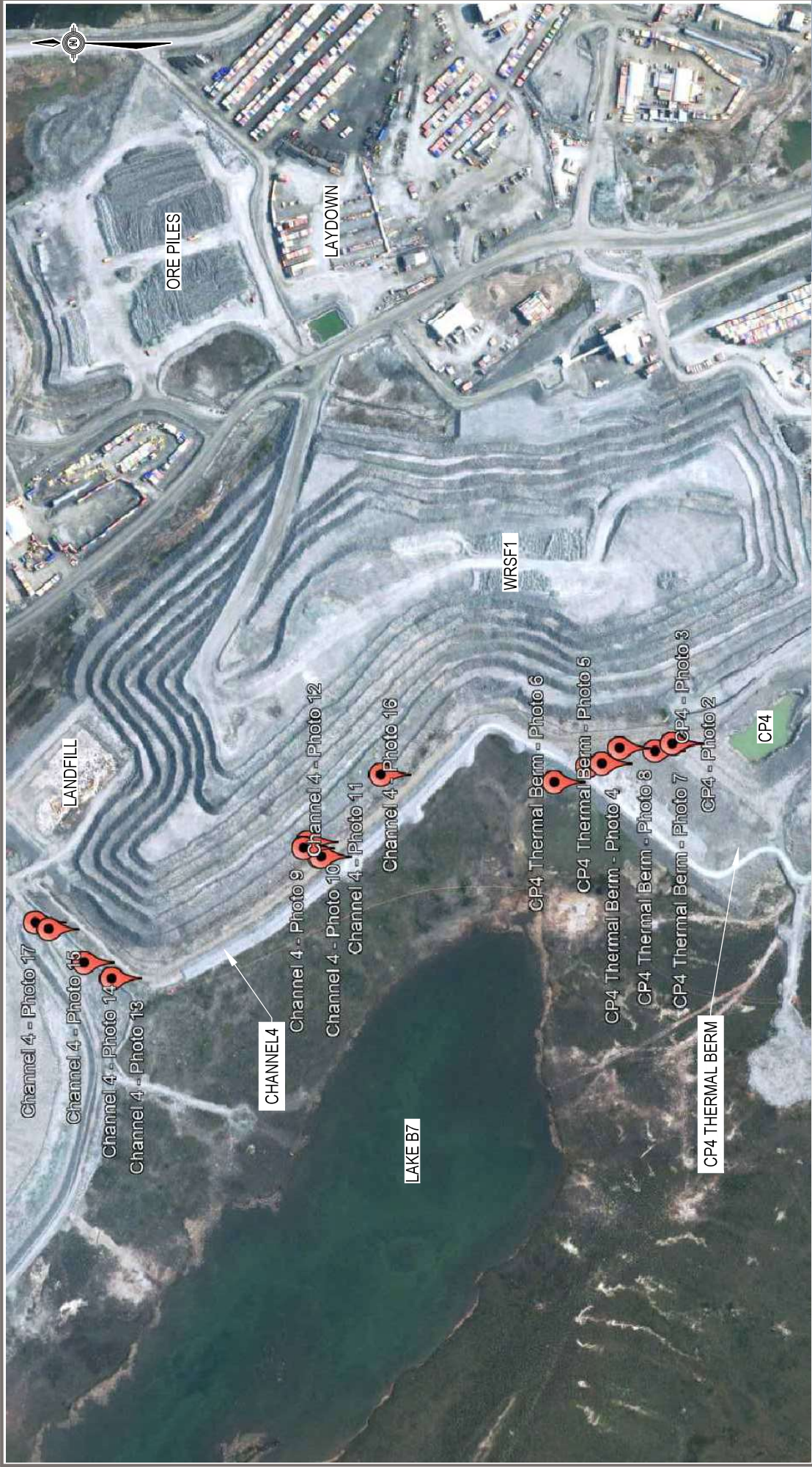
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CP3 AND CHANNEL 3 PHOTO LOCATIONS

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CP4 AND CHANNEL 4 PHOTO LOCATIONS

FIGURE 6

LEGEND:  
 - PHOTO LOCATION

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● PHOTO LOCATION



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D - CP5 AND CP5 PHOTO LOCATIONS					
PROJECT NO. ENG. EARC03140-39	DATE DS	DATE EDM	CD	REV	FIGURE 7
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			December, 2024		

D - CP5 AND CP5 PHOTO LOCATIONS





LEGEND:  
● - PHOTO LOCATION

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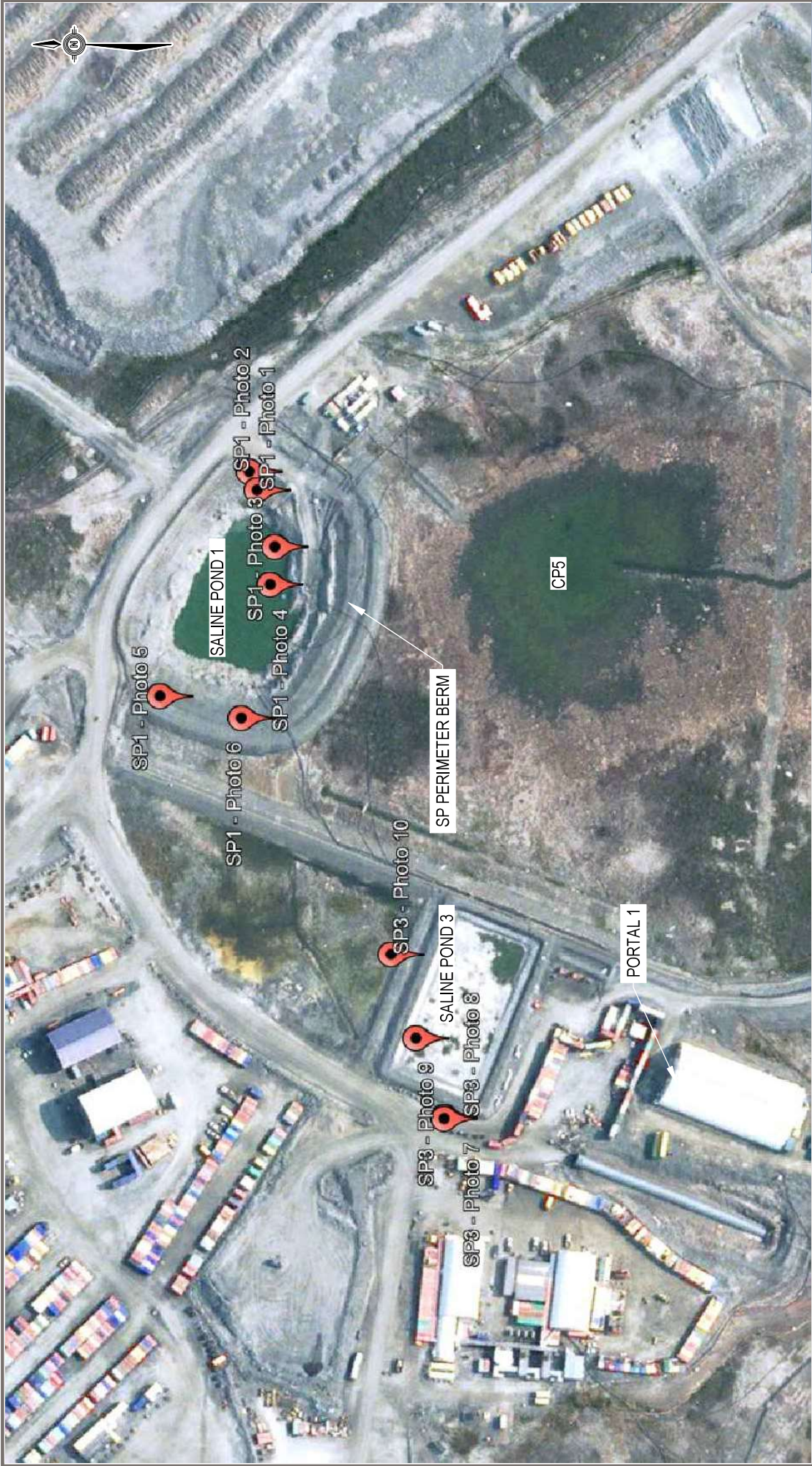
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CP6 AND THERMAL BERM PHOTO LOCATIONS

PROJECT NO.	DRAWN	CHECKED	REV
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OFFICE	DATE		
EDM	December, 2024		

FIGURE 8





LEGEND:  
● - PHOTO LOCATION

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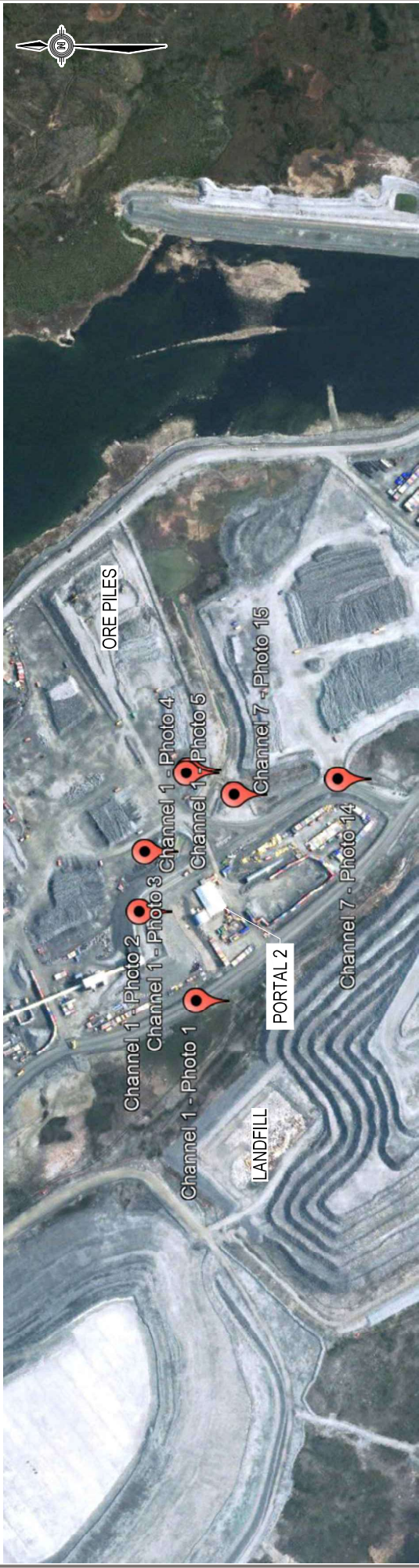
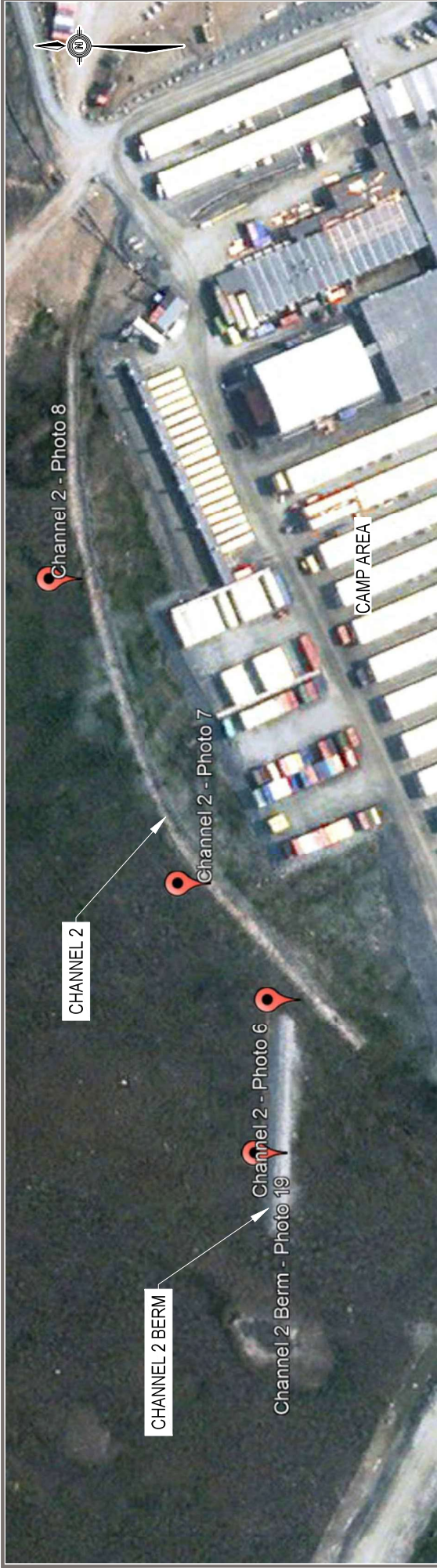
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SALINE PONDS PHOTO LOCATIONS				
PROJECT NO.	DRAWN	CHECKED	REVISED	FIGURE 9
ENG. EAC03106-39	DS	HK	0	
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LEGEND:

• PHOTO LOCATION

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DATE December, 2024

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CHANNELS AND BERMS PHOTO LOCATIONS

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FIGURE 10





LEGEND:  
- PHOTO LOCATION

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TSF PHOTO LOCATIONS				
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ENG. EARC03140-39	DS	HS	REV	0
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LEGEND:  
- PHOTO LOCATION

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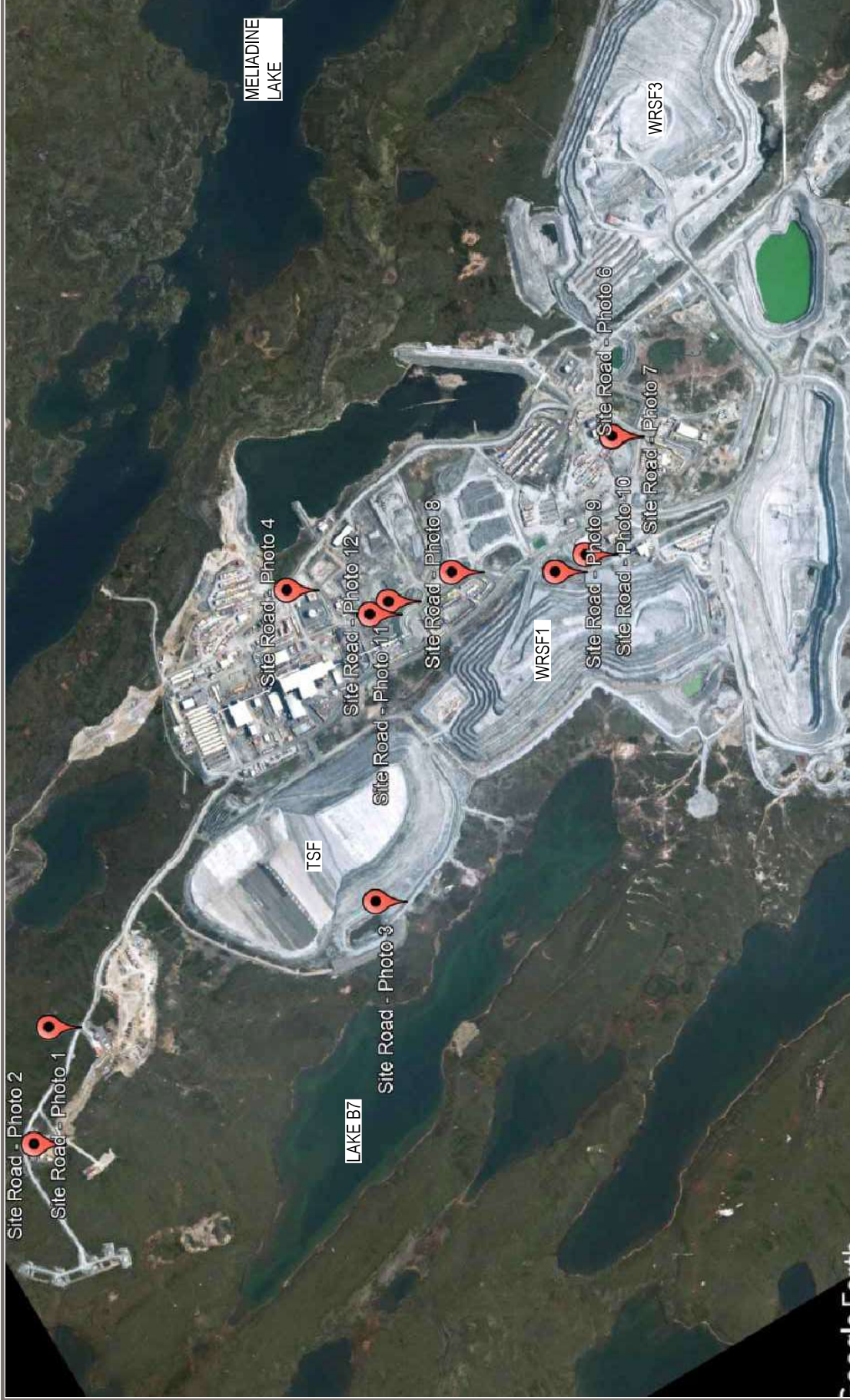
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WRSF3 PHOTO LOCATIONS

PROJECT NO. ENG. EARC03140-39	DRAWN DS	CHECKED HK	REVISED 0
OFFICE EDM	DATE December, 2024	FIGURE 13	






LEGEND:  
- PHOTO LOCATION

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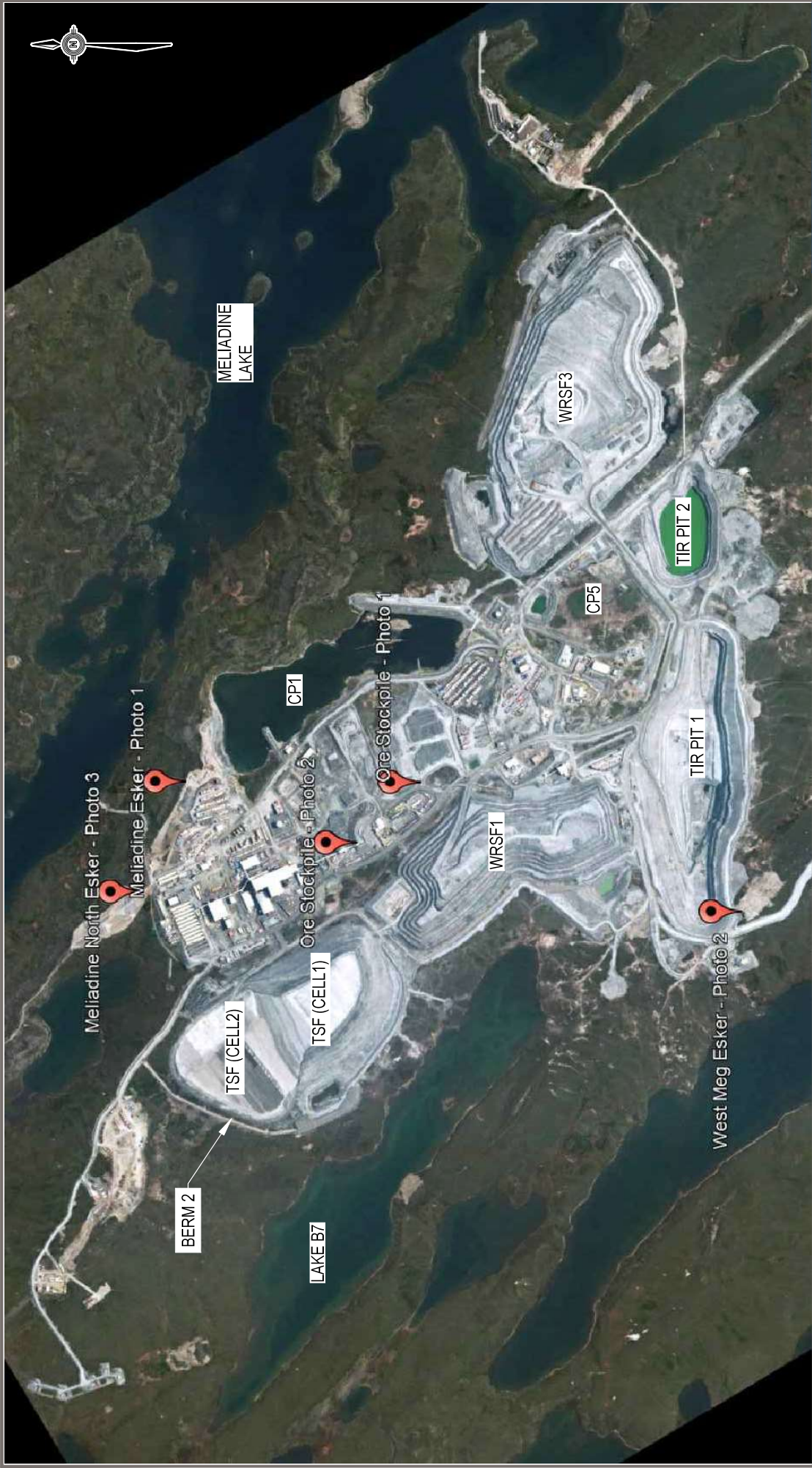
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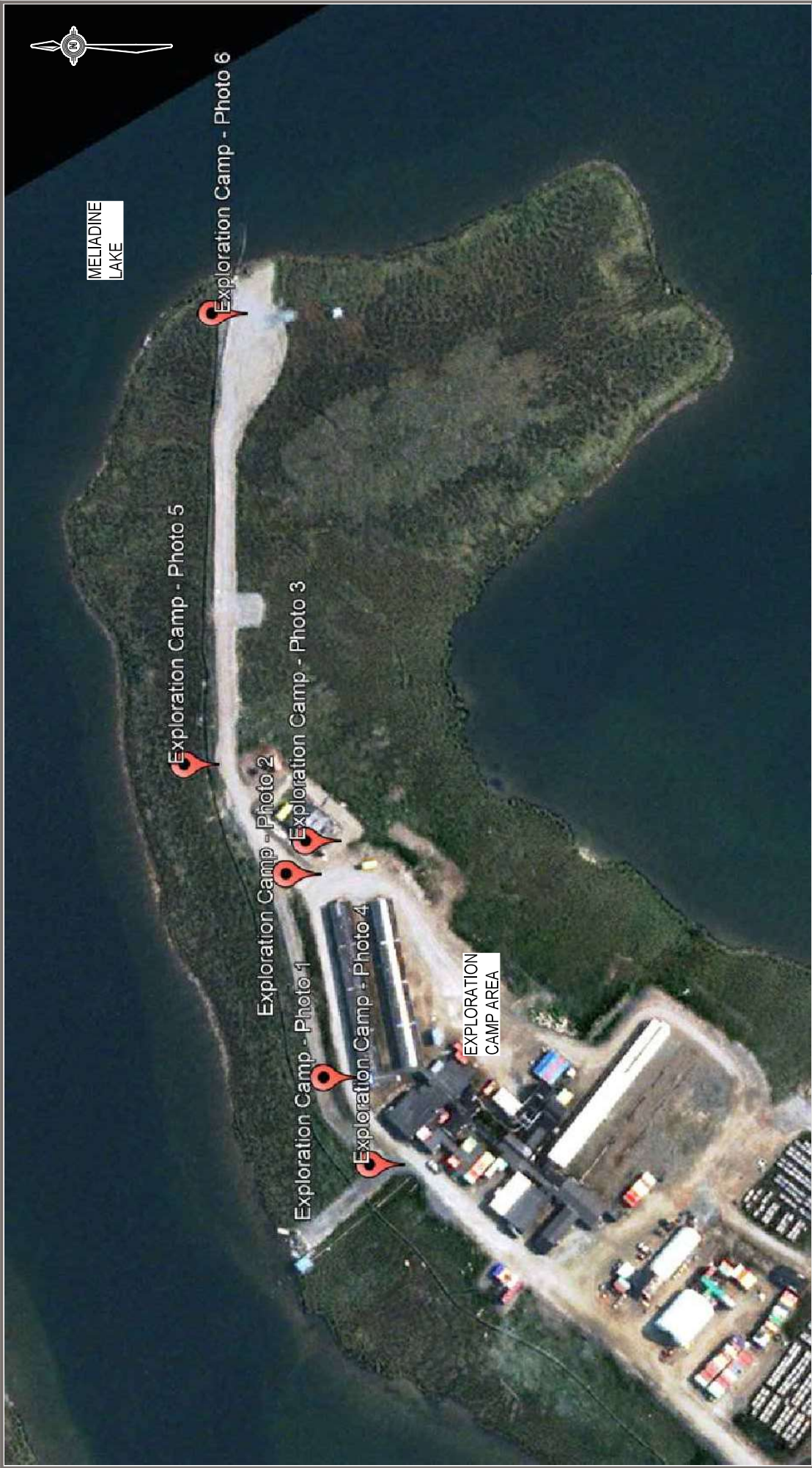
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BORROW SOURCES AND ORE PILES PHOTO LOCATIONS

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ENG. EARC03140-39	DS	HK	0	
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LEGEND:  
- PHOTO LOCATION

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EXPLORATION CAMP PHOTO LOCATIONS

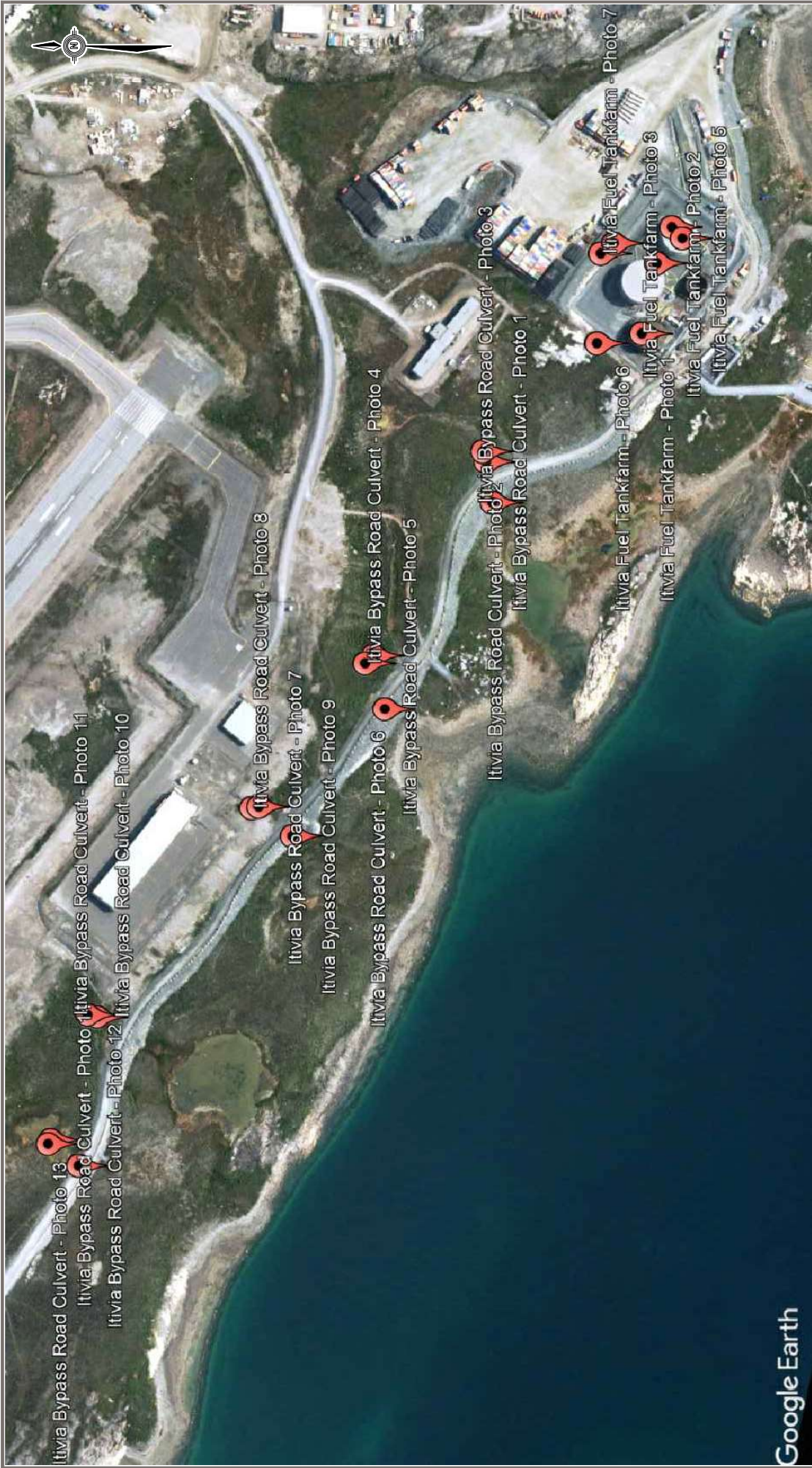
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FIGURE 16









Google Earth

LEGEND:

 - PHOTO LOCATION

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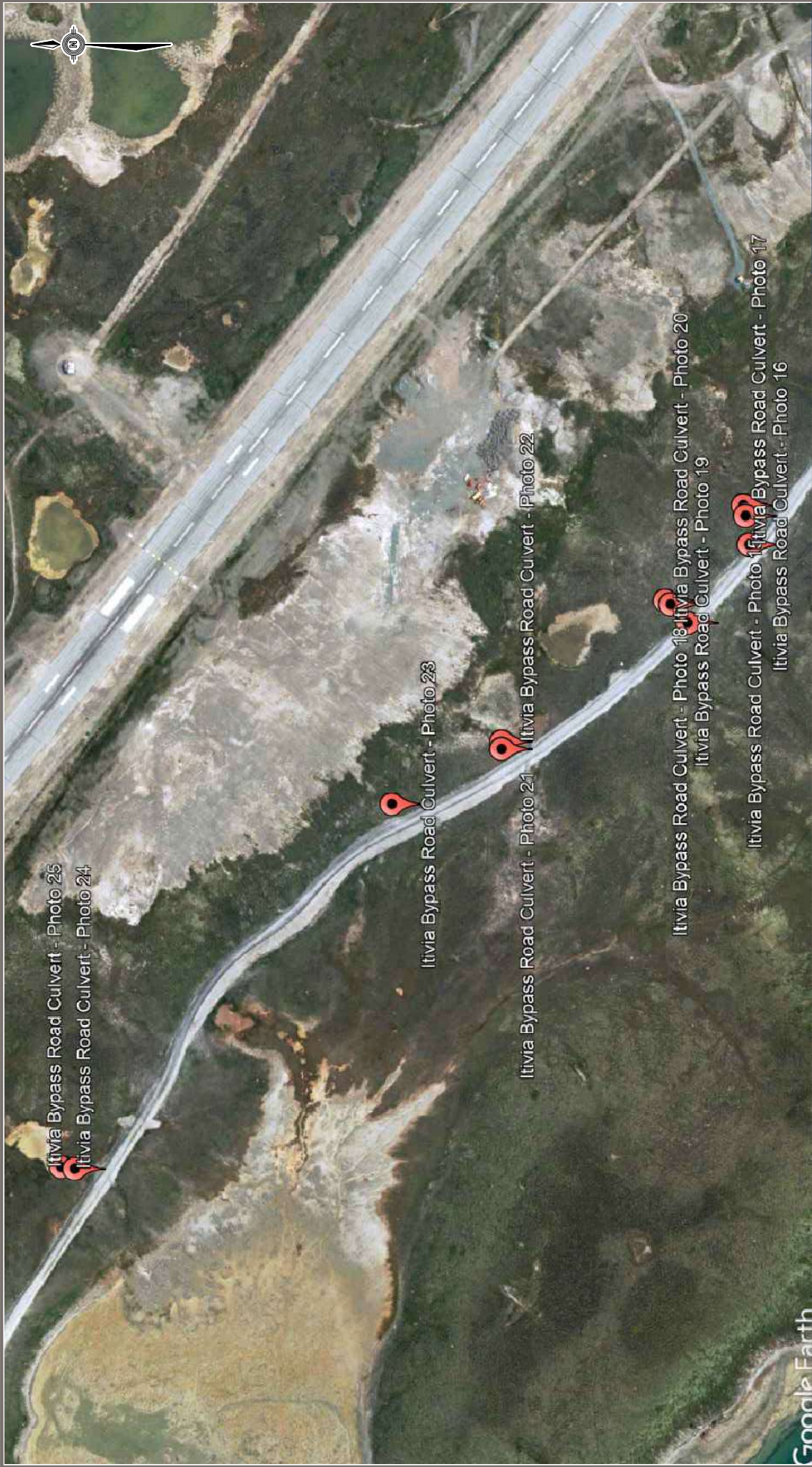
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ITVIA BYPASS ROAD AND CULVERT PHOTO LOCATIONS

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FIGURE 18





LEGEND:  
- PHOTO LOCATION

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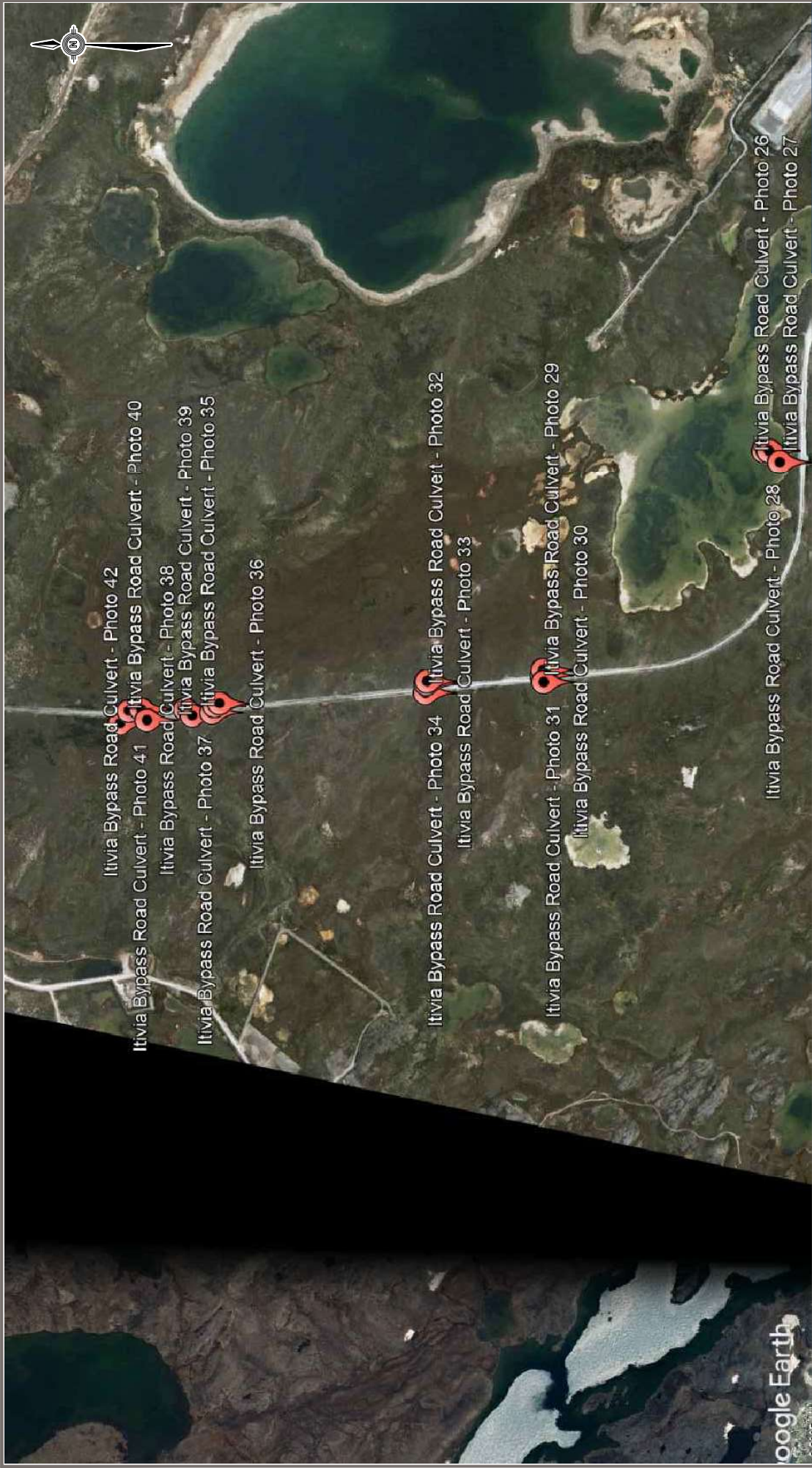
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ITVIA BYPASS ROAD AND CULVERT PHOTO LOCATIONS

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FIGURE 19





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ITVIA BYPASS ROAD AND CULVERT PHOTO LOCATIONS

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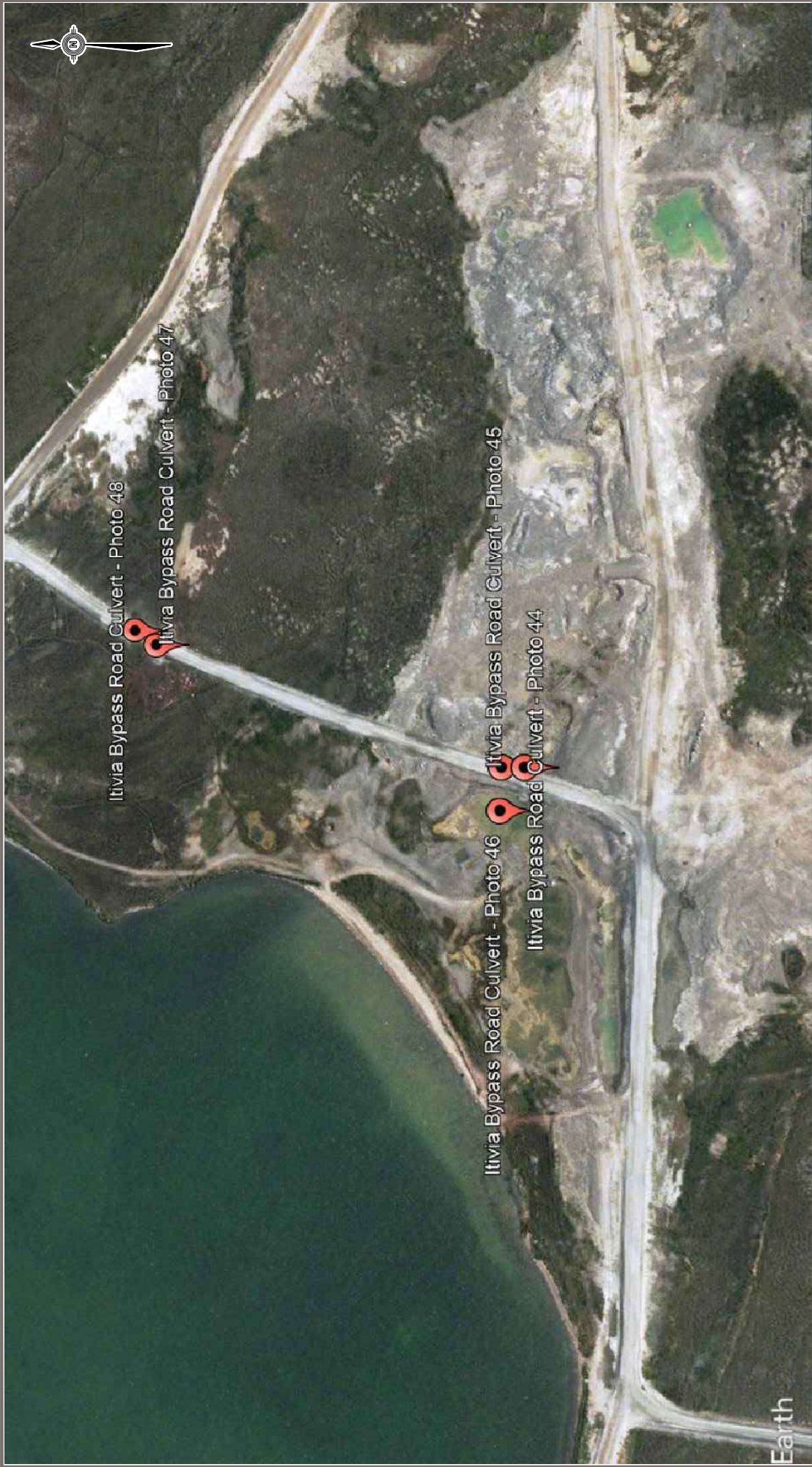
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FIGURE 20





LEGEND:  
● - PHOTO LOCATION

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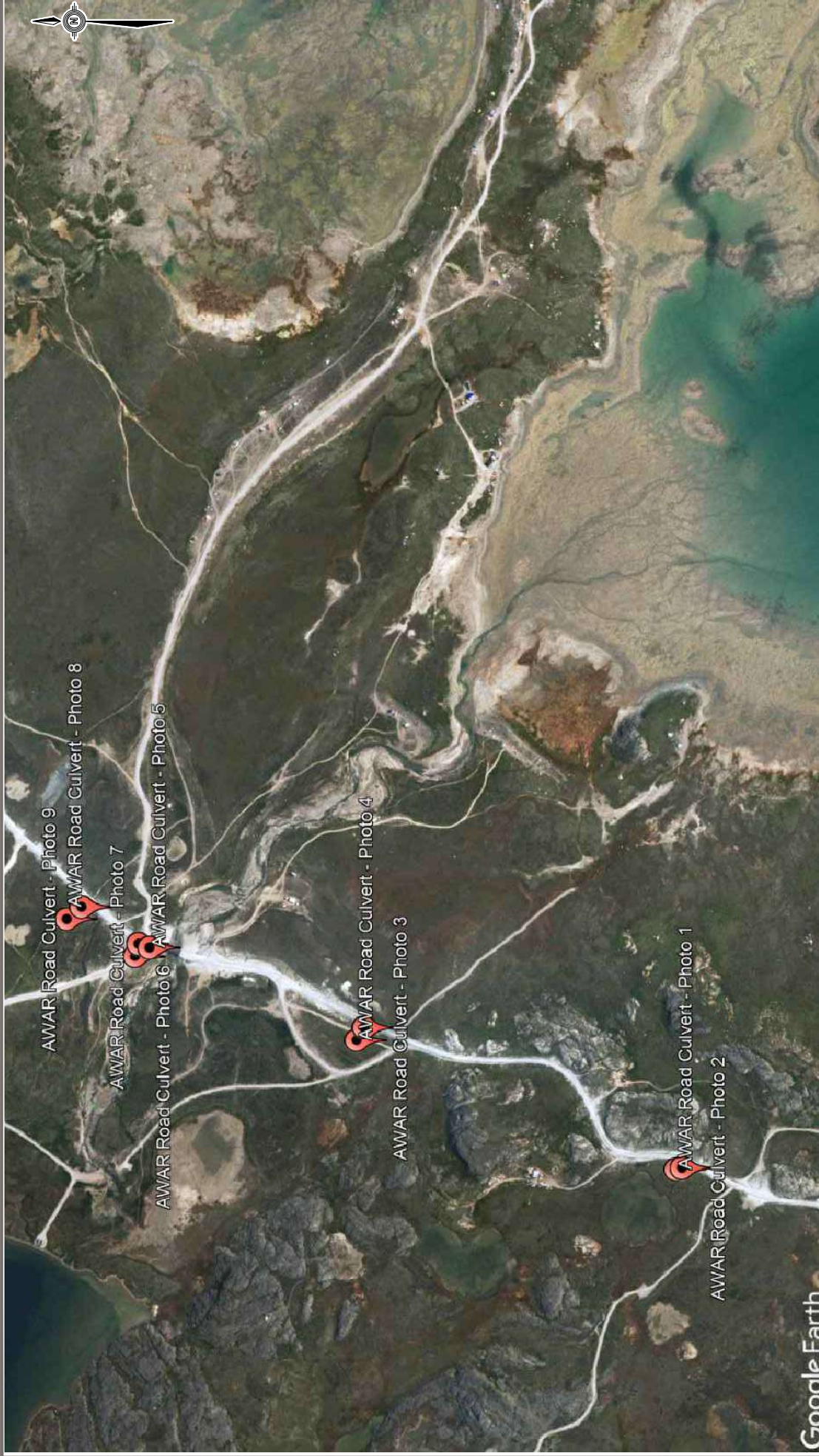
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ITIVIA BYPASS ROAD AND CULVERT PHOTO LOCATIONS					
PROJECT NO.	DOWN	CD	REV	FIGURE 21	
ENG. EARC03146-39	DS	HK	0		
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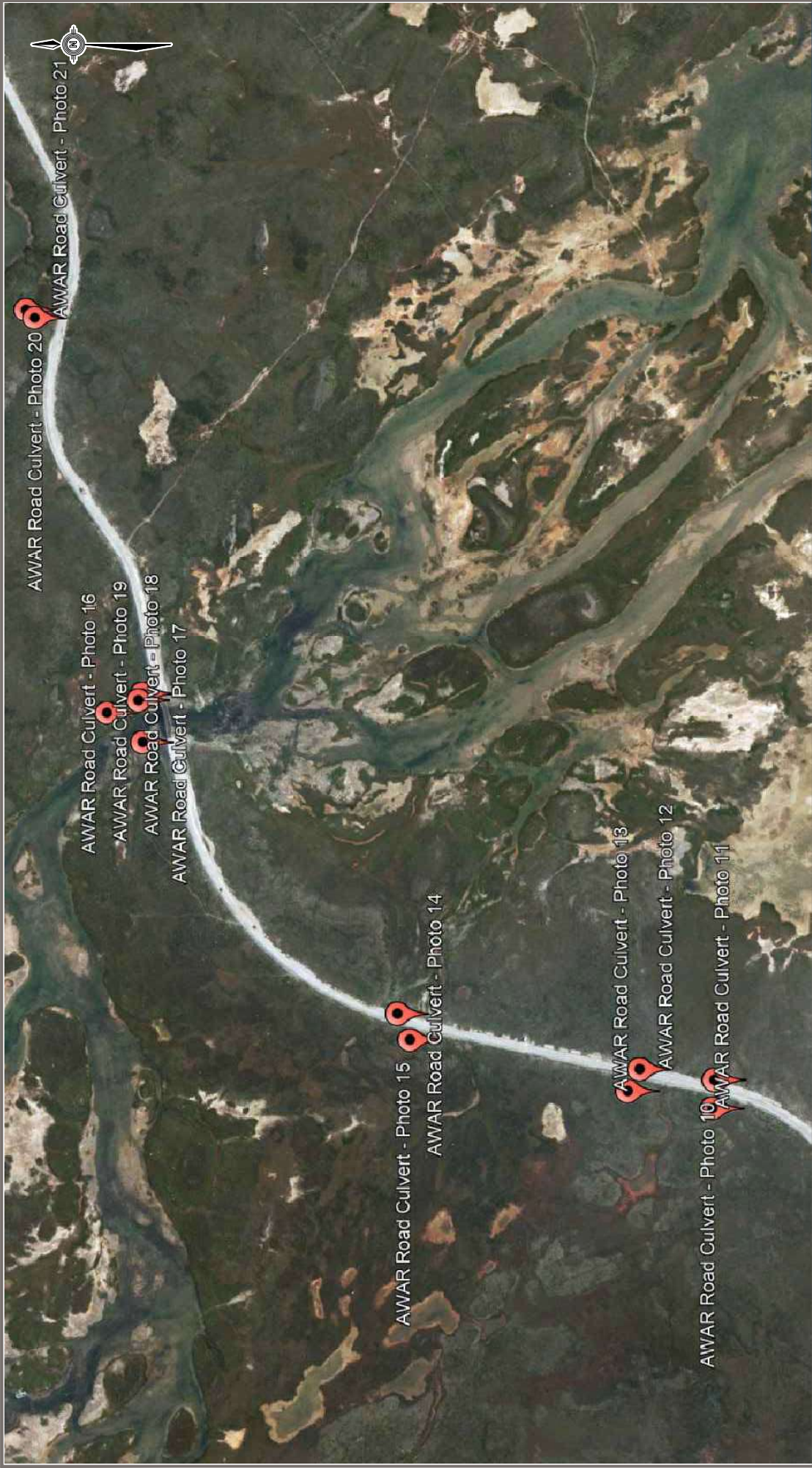
LEGEND:  
- PHOTO LOCATION

MELIADINE GOLD MINE 2024 ANNUAL INSPECTION

AWAR ROAD AND CULVERT PHOTO LOCATIONS

FIGURE 22





LEGEND:

- PHOTO LOCATION

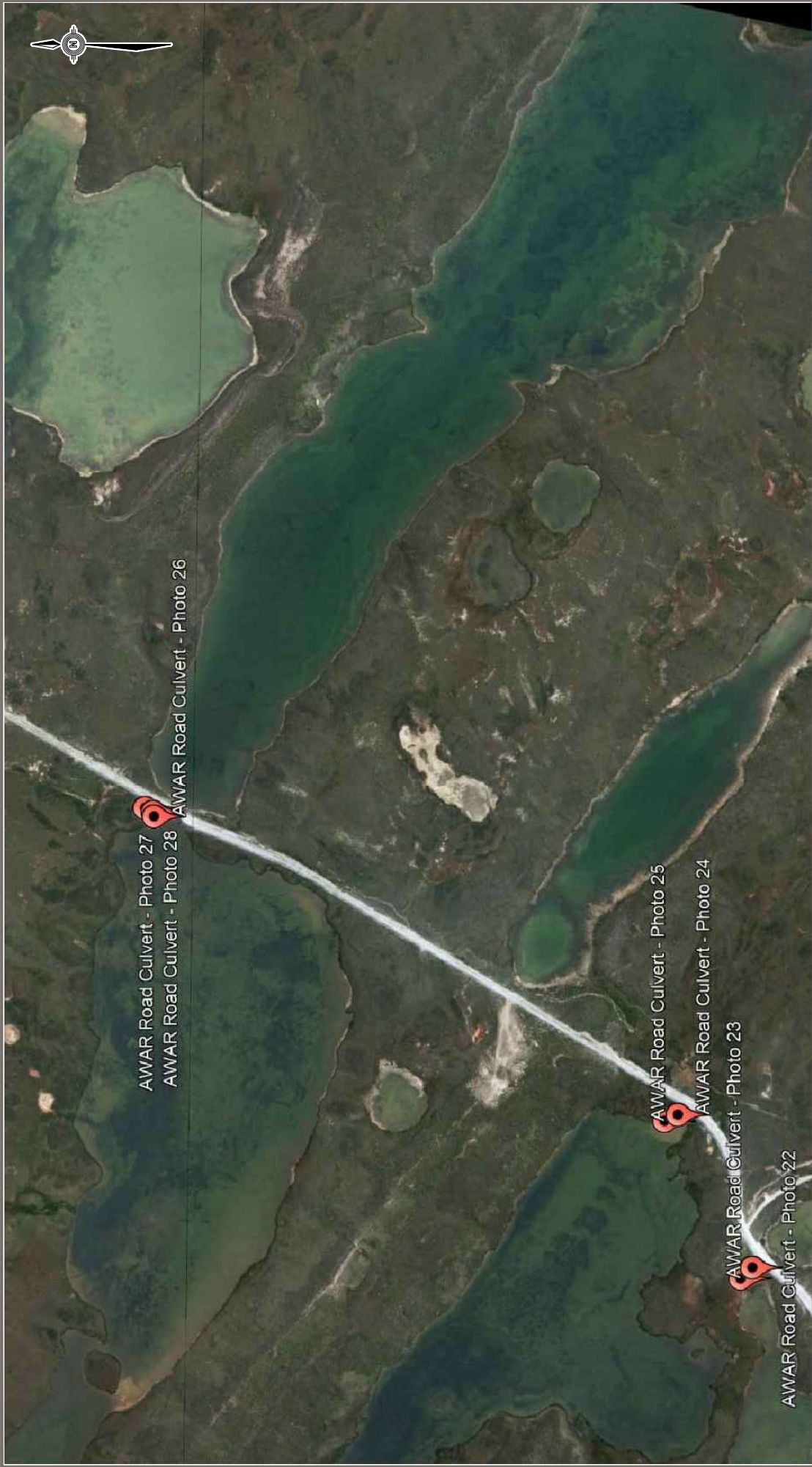
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MELIADINE GOLD MINE 2024 ANNUAL INSPECTION	
AWAR ROAD AND CULVERT PHOTO LOCATIONS	
FIGURE 23	





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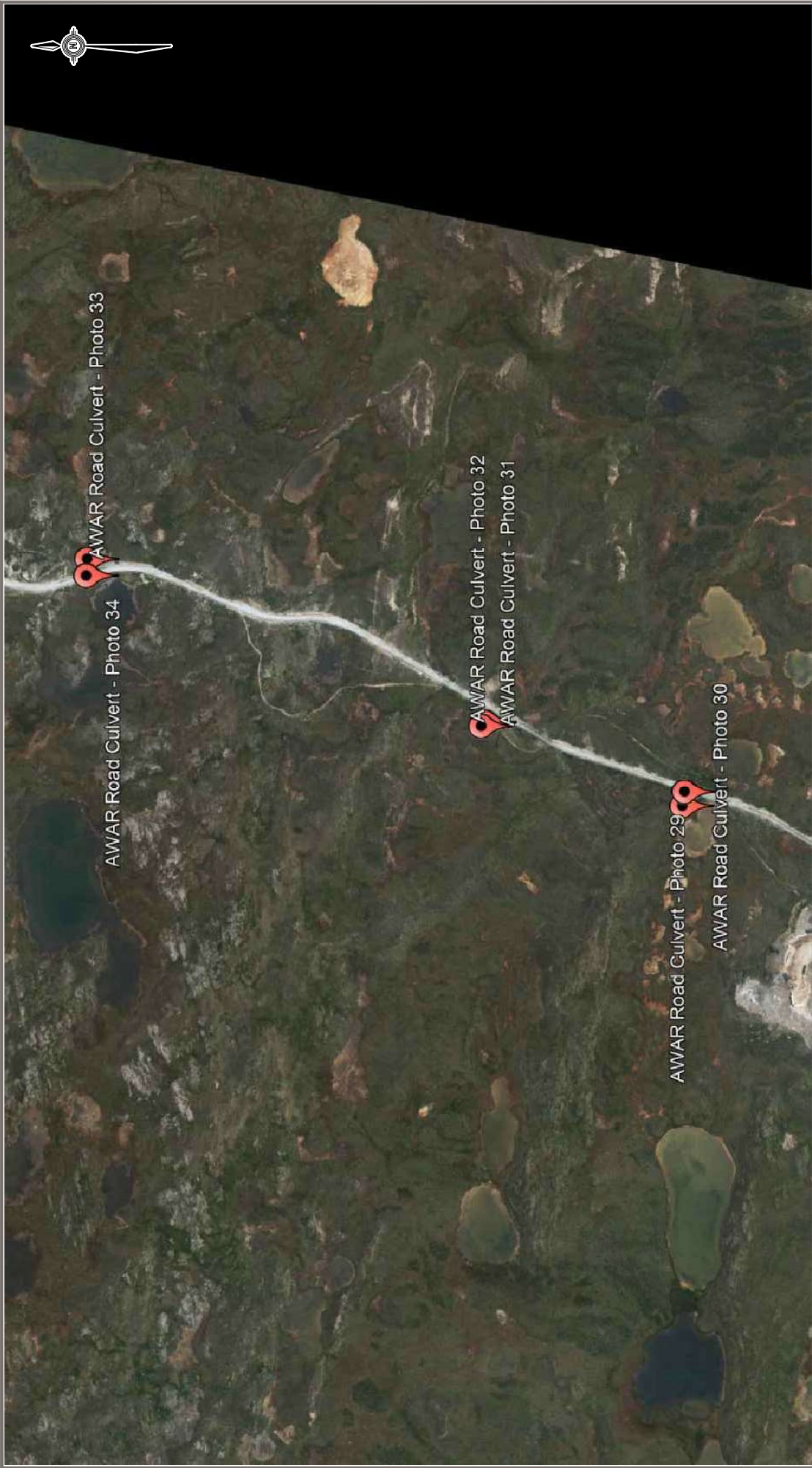
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MELIADINE GOLD MINE 2024 ANNUAL INSPECTION

AWAR ROAD AND CULVERT PHOTO LOCATIONS

FIGURE 24



LEGEND:  
- PHOTO LOCATION

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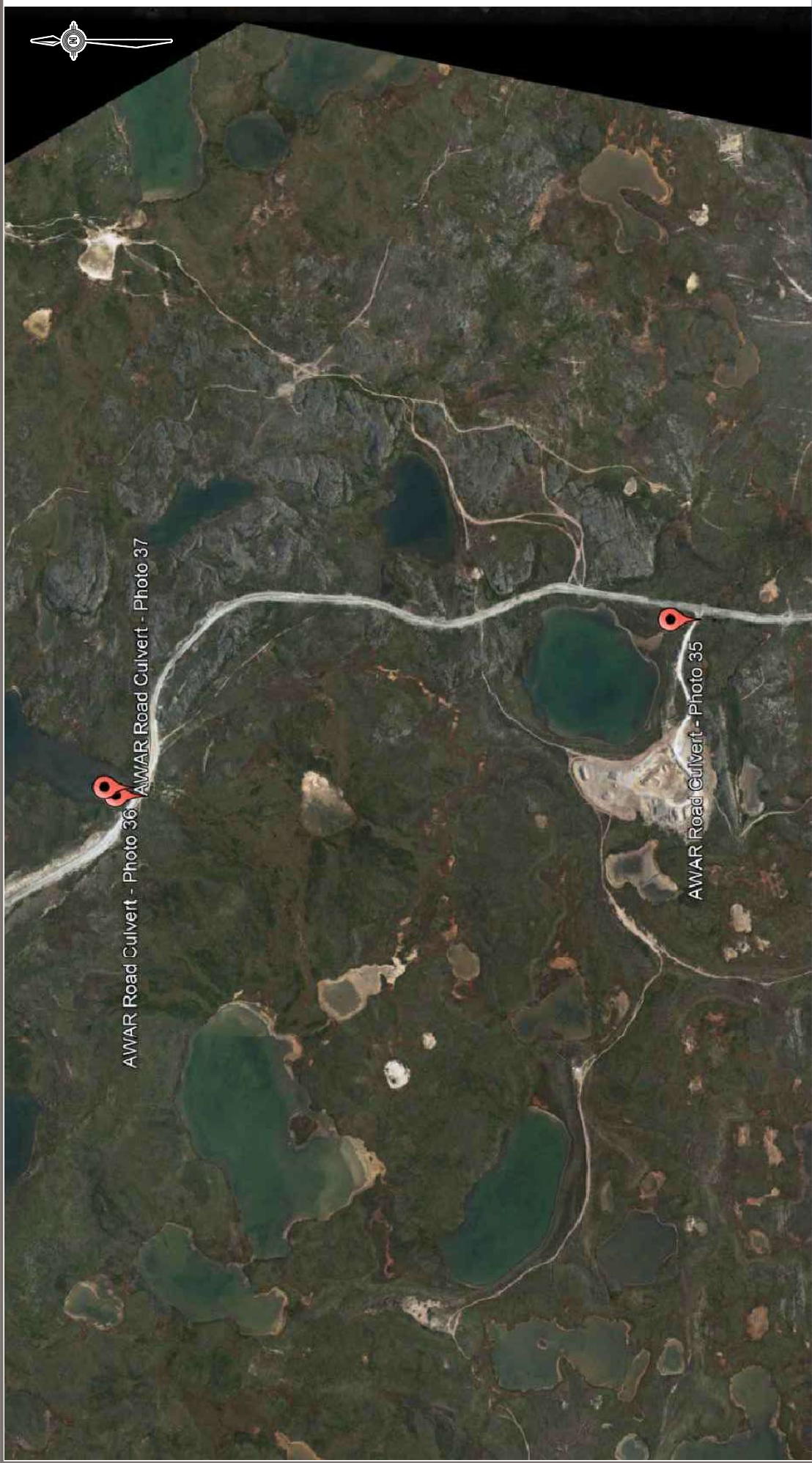
MELIADINE GOLD MINE - 2024 ANNUAL INSPECTION

AWAR ROAD AND CULVERT PHOTO LOCATIONS

PROJECT NO.	DATE	CD	REV
ENG. EARC03140-39	DS	HA	0
OFFICE	DATE		
EDM	December, 2024		

FIGURE 25





LEGEND:  
- PHOTO LOCATION

NOTE:  
SATELLITE IMAGE TAKEN ON AUGUST 10,  
2024. PROVIDED BY AGNICO EAGLE

CLIENT

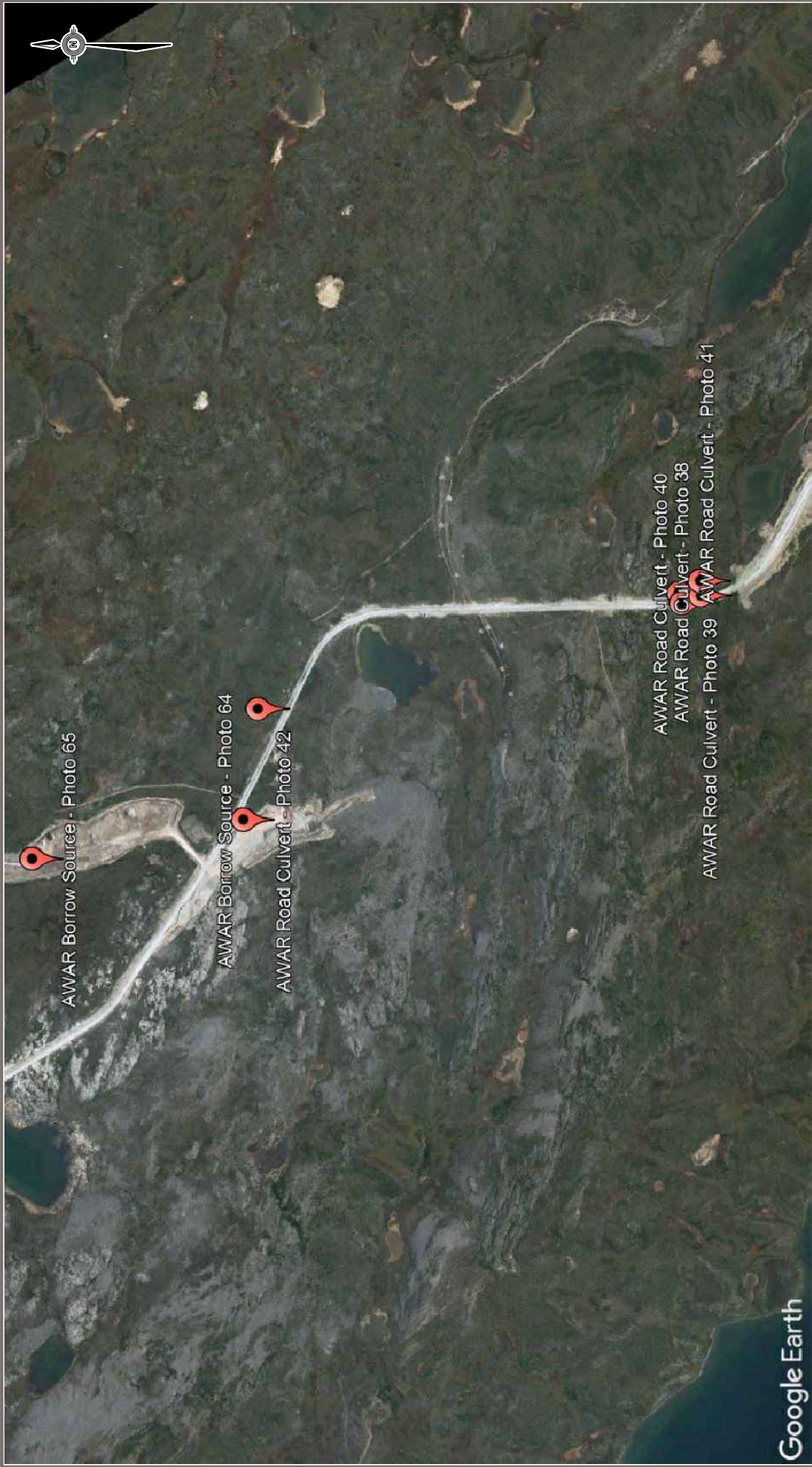


ISSUED FOR USE



MELIADINE GOLD MINE 2024 ANNUAL INSPECTION					
AWAR ROAD AND CULVERT PHOTO LOCATIONS					
PROJECT NO. ENG. EARC03146-39	DATE December, 2024	DWN DS	CDD HK	REV 0	FIGURE 26





NOTE:  
SATELLITE IMAGE TAKEN ON AUGUST 10,  
2024. PROVIDED BY AGNICO EAGLE

CLIENT

AGNICO EAGLE

TETRA TECH

ISSUED FOR USE

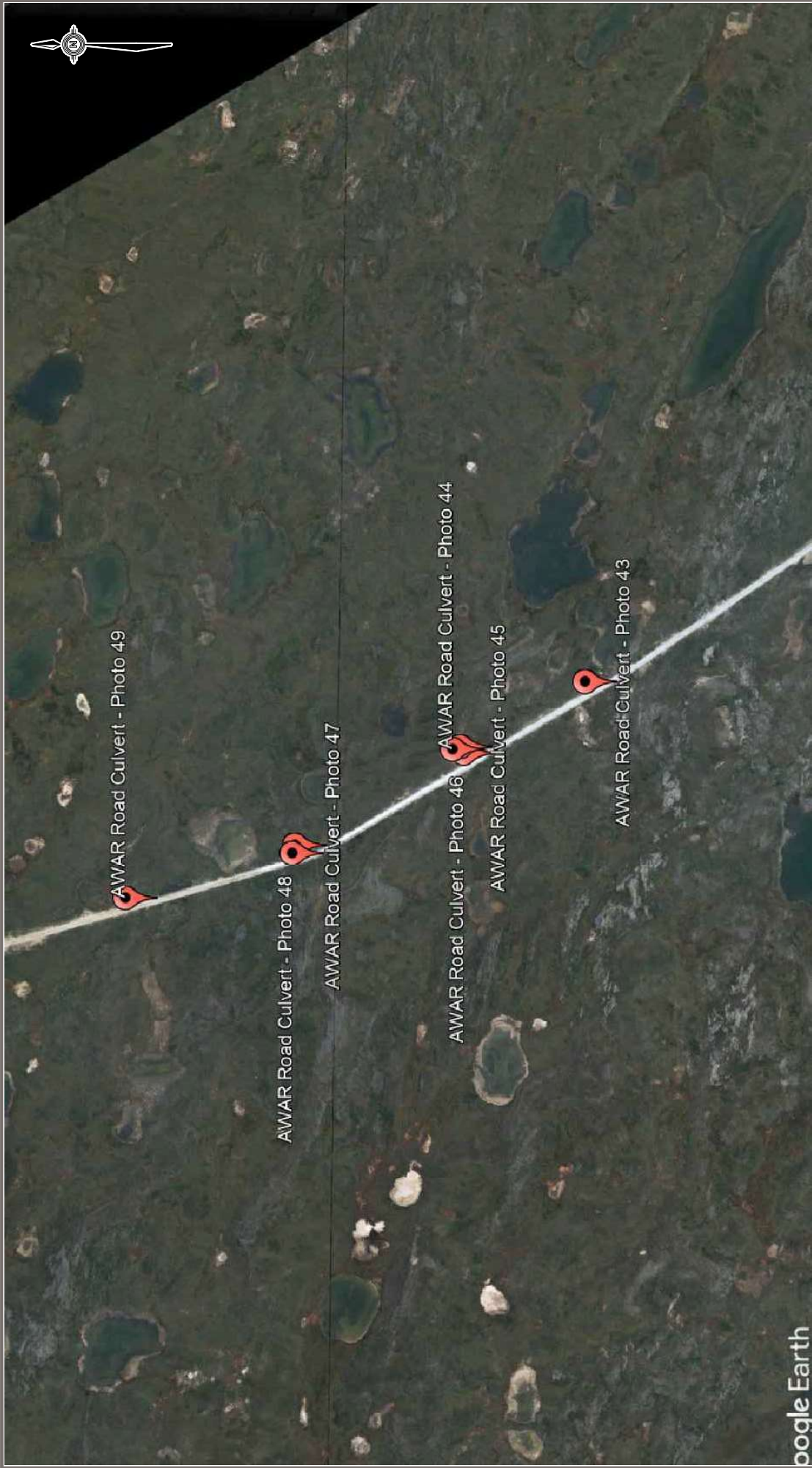
MELIADINE GOLD MINE - 2024 ANNUAL INSPECTION

AWAR ROAD AND CULVERT PHOTO LOCATIONS

PROJECT NO.	DRAWN	CHECKED	REVISED
ENG. EARC03140-39	DS	HK	0
OFFICE	DATE		
EDM	December, 2024		

FIGURE 27





Google Earth

LEGEND:

 - PHOTO LOCATION

NOTE:  
SAT. TELELUITE IMAGE TAKEN ON AUGUST 10,  
2024. PROVIDED BY AGNICO EAGLE

CLIENT



AGNICO EAGLE



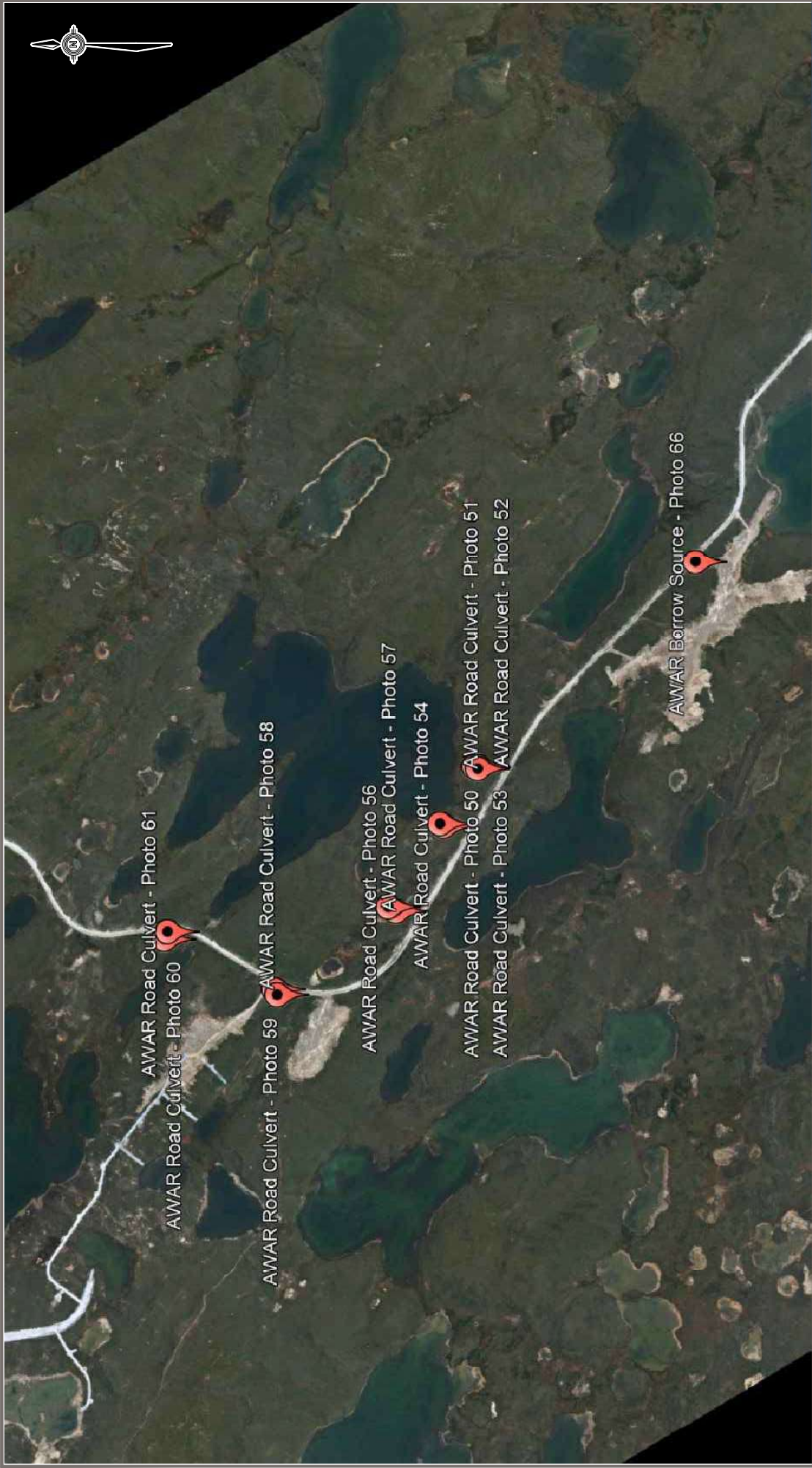
TETRA TECH

ISSUED FOR USE

MELIADINE GOLD MINE 2024 ANNUAL INSPECTION

AWAR ROAD AND CULVERT PHOTO LOCATIONS

PROJECT NO.	DATE	REV	FIGURE 28
ENG. EARC0310639	DS	HA	
OFFICE	EDM	DATE	
		December, 2024	



LEGEND:  
- PHOTO LOCATION

NOTE:  
SATELLITE IMAGE TAKEN ON AUGUST 10,  
2024. PROVIDED BY AGNICO EAGLE

CLIENT



AGNICO EAGLE



TETRA TECH

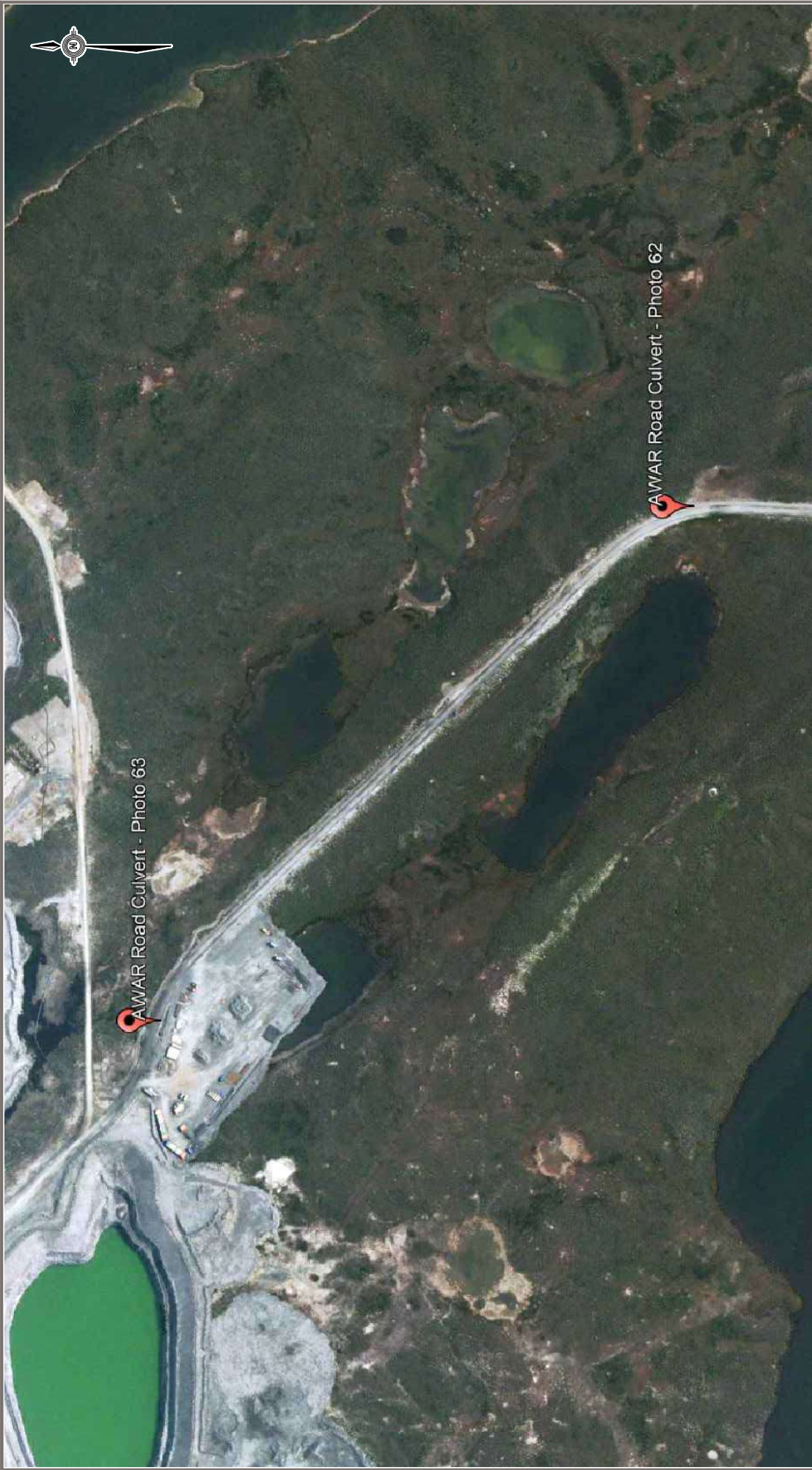
ISSUED FOR USE

MELIADINE GOLD MINE 2024 ANNUAL INSPECTION

AWAR ROAD AND CULVERT PHOTO LOCATIONS

PROJECT NO. ENG. EARC03140-39	DRAWN DS	CHECKED HK	REVISED 0
OFFICE EDM	DATE December, 2024	FIGURE 29	





LEGEND:  
- PHOTO LOCATION

NOTE:  
THIS TELEUTE IMAGE TAKEN ON AUGUST 10,  
2024, PROVIDED BY AGNICO EAGLE

CLIENT



AGNICO EAGLE



TETRA TECH

MELIADINE GOLD MINE - 2024 ANNUAL INSPECTION

AWAR ROAD AND CULVERT PHOTO LOCATIONS

PROJECT NO.	DATE	REV
ENG. EARC03140-39	DS	0
OFFICE	DATE	
EDM	December, 2024	

FIGURE 30

## APPENDIX A

### TETRA TECH'S LIMITATIONS ON USE OF THIS DOCUMENT

# LIMITATIONS ON USE OF THIS DOCUMENT

## GEOTECHNICAL

### 1.1 USE OF DOCUMENT AND OWNERSHIP

This document pertains to a specific site, a specific development, and a specific scope of work. The document may include plans, drawings, profiles and other supporting documents that collectively constitute the document (the "Professional Document").

The Professional Document is intended for the sole use of TETRA TECH's Client (the "Client") as specifically identified in the TETRA TECH Services Agreement or other Contractual Agreement entered into with the Client (either of which is termed the "Contract" herein). TETRA TECH does not accept any responsibility for the accuracy of any of the data, analyses, recommendations or other contents of the Professional Document when it is used or relied upon by any party other than the Client, unless authorized in writing by TETRA TECH.

Any unauthorized use of the Professional Document is at the sole risk of the user. TETRA TECH accepts no responsibility whatsoever for any loss or damage where such loss or damage is alleged to be or, in fact, caused by the unauthorized use of the Professional Document.

Where TETRA TECH has expressly authorized the use of the Professional Document by a third party (an "Authorized Party"), consideration for such authorization is the Authorized Party's acceptance of these Limitations on Use of this Document as well as any limitations on liability contained in the Contract with the Client (all of which is collectively termed the "Limitations on Liability"). The Authorized Party should carefully review both these Limitations on Use of this Document and the Contract prior to making any use of the Professional Document. Any use made of the Professional Document by an Authorized Party constitutes the Authorized Party's express acceptance of, and agreement to, the Limitations on Liability.

The Professional Document and any other form or type of data or documents generated by TETRA TECH during the performance of the work are TETRA TECH's professional work product and shall remain the copyright property of TETRA TECH.

The Professional Document is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of TETRA TECH. Additional copies of the Document, if required, may be obtained upon request.

### 1.2 ALTERNATIVE DOCUMENT FORMAT

Where TETRA TECH submits electronic file and/or hard copy versions of the Professional Document or any drawings or other project-related documents and deliverables (collectively termed TETRA TECH's "Instruments of Professional Service"), only the signed and/or sealed versions shall be considered final. The original signed and/or sealed electronic file and/or hard copy version archived by TETRA TECH shall be deemed to be the original. TETRA TECH will archive a protected digital copy of the original signed and/or sealed version for a period of 10 years.

Both electronic file and/or hard copy versions of TETRA TECH's Instruments of Professional Service shall not, under any circumstances, be altered by any party except TETRA TECH. TETRA TECH's Instruments of Professional Service will be used only and exactly as submitted by TETRA TECH.

Electronic files submitted by TETRA TECH have been prepared and submitted using specific software and hardware systems. TETRA TECH makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

### 1.3 STANDARD OF CARE

Services performed by TETRA TECH for the Professional Document have been conducted in accordance with the Contract, in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this Professional Document. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of the Professional Document.

If any error or omission is detected by the Client or an Authorized Party, the error or omission must be immediately brought to the attention of TETRA TECH.

### 1.4 DISCLOSURE OF INFORMATION BY CLIENT

The Client acknowledges that it has fully cooperated with TETRA TECH with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The Client further acknowledges that in order for TETRA TECH to properly provide the services contracted for in the Contract, TETRA TECH has relied upon the Client with respect to both the full disclosure and accuracy of any such information.

### 1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

During the performance of the work and the preparation of this Professional Document, TETRA TECH may have relied on information provided by persons other than the Client.

While TETRA TECH endeavours to verify the accuracy of such information, TETRA TECH accepts no responsibility for the accuracy or the reliability of such information even where inaccurate or unreliable information impacts any recommendations, design or other deliverables and causes the Client or an Authorized Party loss or damage.

### 1.6 GENERAL LIMITATIONS OF DOCUMENT

This Professional Document is based solely on the conditions presented and the data available to TETRA TECH at the time the data were collected in the field or gathered from available databases.

The Client, and any Authorized Party, acknowledges that the Professional Document is based on limited data and that the conclusions, opinions, and recommendations contained in the Professional Document are the result of the application of professional judgment to such limited data.

The Professional Document is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site conditions present, or variation in assumed conditions which might form the basis of design or recommendations as outlined in this report, at or on the development proposed as of the date of the Professional Document requires a supplementary investigation and assessment.

TETRA TECH is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the Client.



## 1.7 ENVIRONMENTAL AND REGULATORY ISSUES

Unless stipulated in the report, TETRA TECH has not been retained to investigate, address or consider and has not investigated, addressed or considered any environmental or regulatory issues associated with development on the subject site.

## 1.8 NATURE AND EXACTNESS OF SOIL AND ROCK DESCRIPTIONS

Classification and identification of soils and rocks are based upon commonly accepted systems and methods employed in professional geotechnical practice. This report contains descriptions of the systems and methods used. Where deviations from the system or method prevail, they are specifically mentioned.

Classification and identification of geological units are judgmental in nature as to both type and condition. TETRA TECH does not warrant conditions represented herein as exact, but infers accuracy only to the extent that is common in practice.

Where subsurface conditions encountered during development are different from those described in this report, qualified geotechnical personnel should revisit the site and review recommendations in light of the actual conditions encountered.

## 1.9 LOGS OF TESTHOLES

The testhole logs are a compilation of conditions and classification of soils and rocks as obtained from field observations and laboratory testing of selected samples. Soil and rock zones have been interpreted. Change from one geological zone to the other, indicated on the logs as a distinct line, can be, in fact, transitional. The extent of transition is interpretive. Any circumstance which requires precise definition of soil or rock zone transition elevations may require further investigation and review.

## 1.10 STRATIGRAPHIC AND GEOLOGICAL INFORMATION

The stratigraphic and geological information indicated on drawings contained in this report are inferred from logs of test holes and/or soil/rock exposures. Stratigraphy is known only at the locations of the test hole or exposure. Actual geology and stratigraphy between test holes and/or exposures may vary from that shown on these drawings. Natural variations in geological conditions are inherent and are a function of the historic environment. TETRA TECH does not represent the conditions illustrated as exact but recognizes that variations will exist. Where knowledge of more precise locations of geological units is necessary, additional investigation and review may be necessary.

## 1.11 PROTECTION OF EXPOSED GROUND

Excavation and construction operations expose geological materials to climatic elements (freeze/thaw, wet/dry) and/or mechanical disturbance which can cause severe deterioration. Unless otherwise specifically indicated in this report, the walls and floors of excavations must be protected from the elements, particularly moisture, desiccation, frost action and construction traffic.

## 1.12 SUPPORT OF ADJACENT GROUND AND STRUCTURES

Unless otherwise specifically advised, support of ground and structures adjacent to the anticipated construction and preservation of adjacent ground and structures from the adverse impact of construction activity is required.

## 1.13 INFLUENCE OF CONSTRUCTION ACTIVITY

There is a direct correlation between construction activity and structural performance of adjacent buildings and other installations. The influence of all anticipated construction activities should be considered by the contractor, owner, architect and prime engineer in consultation with a geotechnical engineer when the final design and construction techniques are known.

## 1.14 OBSERVATIONS DURING CONSTRUCTION

Because of the nature of geological deposits, the judgmental nature of geotechnical engineering, as well as the potential of adverse circumstances arising from construction activity, observations during site preparation, excavation and construction should be carried out by a geotechnical engineer. These observations may then serve as the basis for confirmation and/or alteration of geotechnical recommendations or design guidelines presented herein.

## 1.15 DRAINAGE SYSTEMS

Where temporary or permanent drainage systems are installed within or around a structure, the systems which will be installed must protect the structure from loss of ground due to internal erosion and must be designed so as to assure continued performance of the drains. Specific design detail of such systems should be developed or reviewed by the geotechnical engineer. Unless otherwise specified, it is a condition of this report that effective temporary and permanent drainage systems are required and that they must be considered in relation to project purpose and function.

## 1.16 BEARING CAPACITY

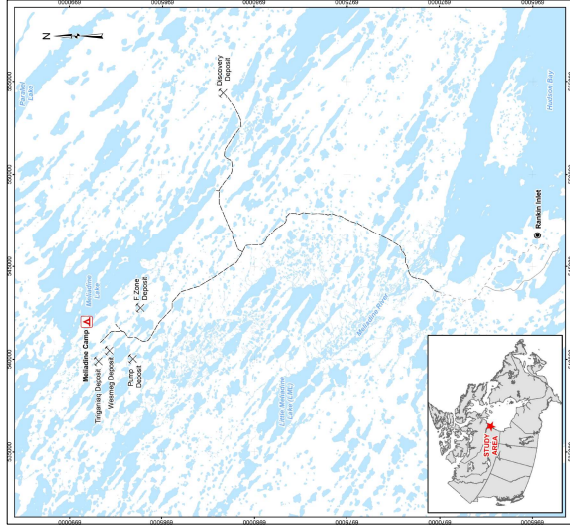
Design bearing capacities, loads and allowable stresses quoted in this report relate to a specific soil or rock type and condition. Construction activity and environmental circumstances can materially change the condition of soil or rock. The elevation at which a soil or rock type occurs is variable. It is a requirement of this report that structural elements be founded in and/or upon geological materials of the type and in the condition assumed. Sufficient observations should be made by qualified geotechnical personnel during construction to assure that the soil and/or rock conditions assumed in this report in fact exist at the site.

## 1.17 SAMPLES

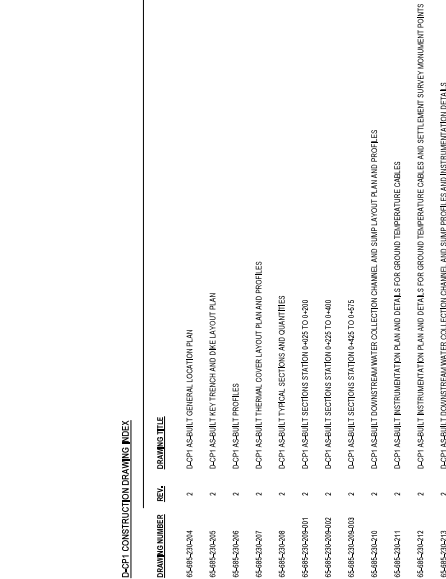
TETRA TECH will retain all soil and rock samples for 30 days after this report is issued. Further storage or transfer of samples can be made at the Client's expense upon written request, otherwise samples will be discarded.


## APPENDIX B

### POND CP1 AND DIKE D-CP1



LOCATION MAP  
SCALE: N.T.S.



				
2	2017-10-18	ISSUED FOR RECORD	WHI	MG
1	2016-09-26	ISSUED FOR CONSTRUCTION	CZ	63
0	2016-09-19	ISSUED FOR CONSTRUCTION	CZ	63
0	2016-08-11	ISSUED FOR REVIEW	CZ	63
0	2016-08-02	ISSUED FOR REVIEW	CZ	63
0	2016-08-02	ISSUED FOR REVIEW	CZ	63
REV.	DATE	DESCRIPTION	PREP'D BY	APP'D BY

REV.	DATE	DESCRIPTION	PAY/BI	APP.	CLIENT
<b>ADDITIONAL</b>					

TIME / WEEK  
 AGNICO EAGLE MELUADINE GOLD PROJECT  
 D-CP1 AS-BUILT  
 GENERAL LOCATION PLAN

ISSUE DATE 2017-10-06	DATE 2017-10-06
EL	WITH
APPROVED BY	APPROVED BY
AS SHOWN	NG
SCALE	DATE
2017-10-06	
65-685-230-204	
NO. 2039A DRAWING NO.	
REVISION	TOTAL / SET
2	1 / 12
6515	
NO. PROJECT PROJECT NO.	





NOTES GÉNÉRALES / GENERAL NOTES

- 1. RASCHINGE ROCKFILL (400 mm MINUS) IN LINE UPSTREAM AND FOR THERMAL COVER
- 2. RASCHINGE ROCKFILL (400 mm MINUS) IN LINE DOWNSTREAM
- 3. TRANSITION ROCKFILL (150 mm MINUS)
- 4. TRANSITION ROCKFILL (150 mm MINUS)
- 5. GRANULAR FILL OF EGGER SAND (20 mm MINUS)
- 6. BOTTOM (CALCULATED) MATERIAL
- 7. MATURE OF BENTONITE AND TYPE C MATERIAL
- 8. EGGER SAND AND GRAVEL (15 mm MINUS)
- 9. NEARLY SATURATED ROCKFILL (20 mm MINUS)
- 10. DASHED LINES REFER TO NO AS-BUILT DATA BUT ESTIMATED BASED ON FIELD VISUAL OBSERVATION
- 11. BEDROCK

TEL QUE CONSTITUT AS BUILT  
DATE: 2017-10-19

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-850

-900

-950

-1000

-1050

-1100

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-1350

-1400

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-1500

-1550

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-1650

-1700

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-750

-800

-850

-900

-950

-1000

-1050

-1100

-1150

-1200

-1250

-1300

-1350

-1400

-1450

-1500

-1550

-1600

-1650

-1700

-1750

-1800

-1850

-1900

-1950

-2000

-2050

-2100

-2150

-2200

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-2500

-2550

-2600

300mm

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-550

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-700

-750

-800

-850

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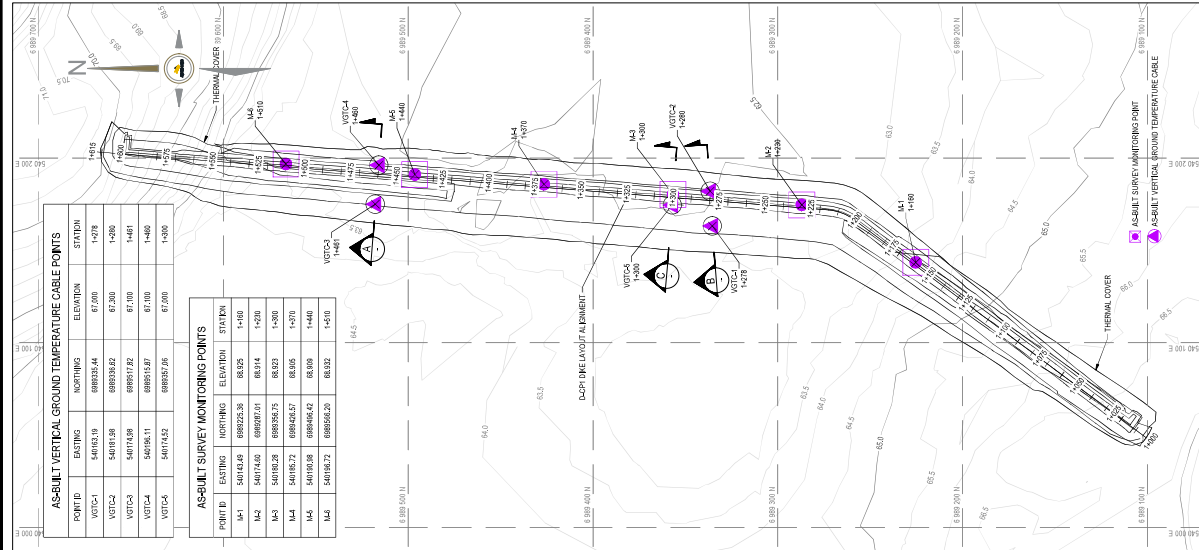
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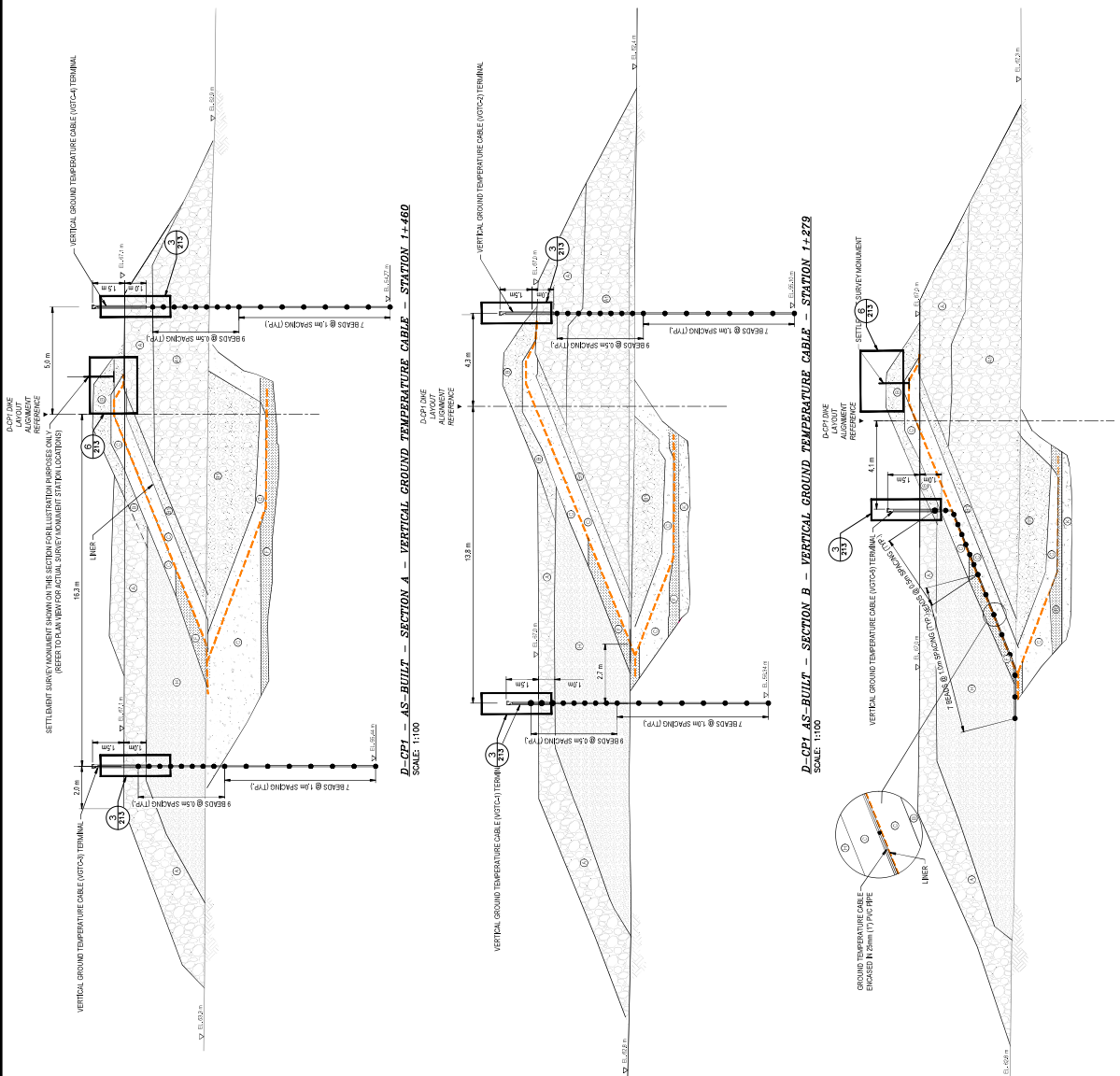
-2000

-2050

-2100



D-CPI AS-BUILT SURVEY MONITORING AND VERTICAL GROUND TEMPERATURE CABLE LAYOUT  
SCALE: 1:250



**NOTES GENERALES / GENERAL NOTES**

1. REMPLIR LE COTÉ D'EAU (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

2. REMPLIR LE COTÉ D'EAU (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

3. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

4. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

5. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

6. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

7. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

8. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

9. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

10. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

11. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

12. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

13. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

14. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

15. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

16. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

17. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

18. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

19. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

20. TRANSITION ROCHER (100 mm MINUS) AVEC DU GRAVELLIER (100 mm MINUS) EN DIRECTION DE LA RIVE D'AMONT.

**REVISIONS**

NO.	DATE	DESCRIPTION	BY	CHK
1	2017-10-04	ISSUE FOR CONSTRUCTION	CZ	CZ
2	2017-10-04	ISSUE FOR CONSTRUCTION	CZ	CZ
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4	2017-10-04	ISSUE FOR CONSTRUCTION	CZ	CZ
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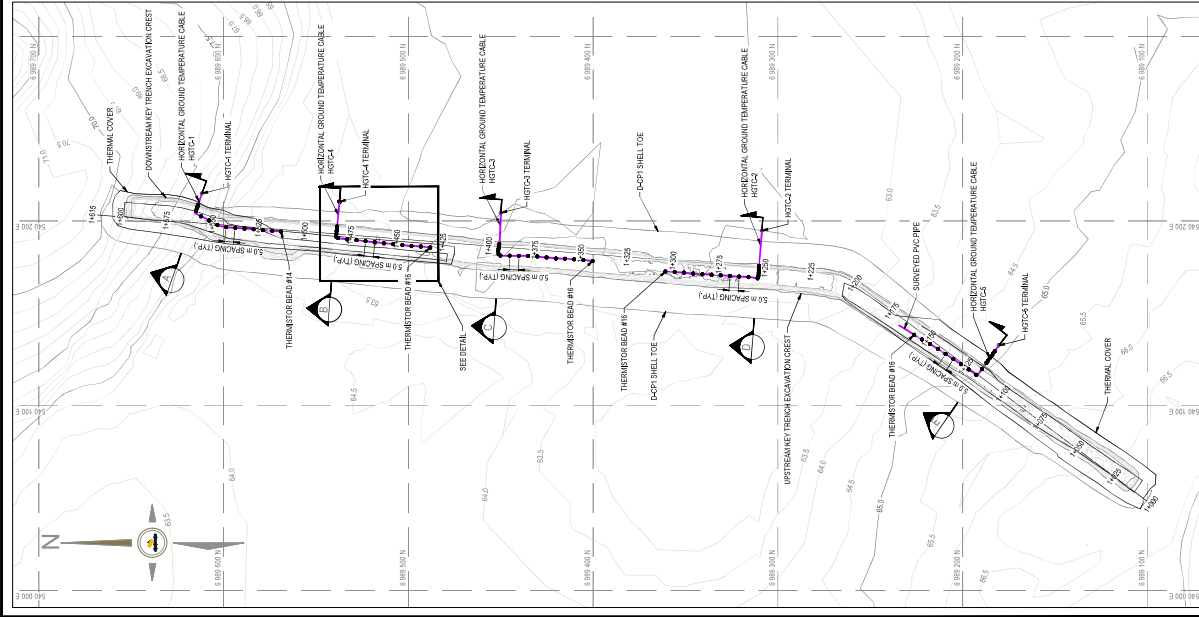
**AGNCO EAGLE**

65-685-230-212

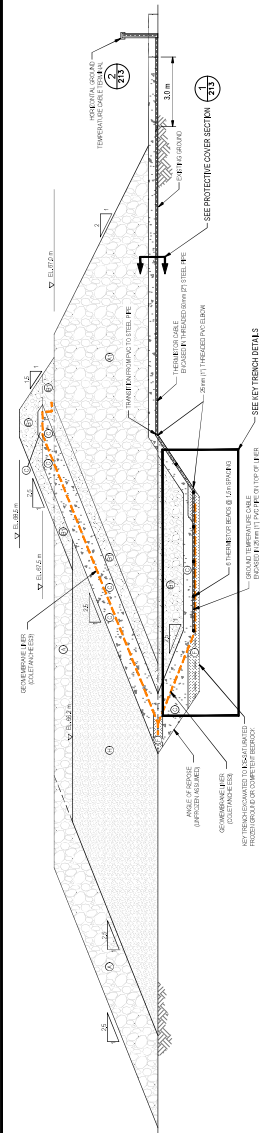
6515

11 / 12

D-CPI AS-BUILT - SECTION C - VERTICAL GROUND TEMPERATURE CABLE - STATION 1+300  
SCALE: 1:100



D-CPI AS-BUILT HORIZONTAL GROUND TEMPERATURE CABLE LAYOUT  
SCALE: 1:1250



D-CPI HORIZONTAL GROUND TEMPERATURE CABLE - DESIGN TYPICAL SECTION  
SCALE: 1:100







**D-CP1 - Photo 1:** Dike D-CP1: Upstream face– some wave erosion evident from 2019/2020 high water level event, no change from previous years. Facing south.



**D-CP1 - Photo 2:** Dike D-CP1: Upstream face– some wave erosion evident from 2019/2020 high water level event, no change from previous years. Facing north.



**D-CP1 - Photo 3:** CP1: Upstream view of CP1—water level well managed. Facing northwest.



**D-CP1 - Photo 4:** Dike D-CP1: Dike crest view—downstream on left, upstream on right. Facing south.





**D-CP1 - Photo 5:** Dike D-CP1: Ground temperature cable housing and data collection system. Facing southeast.



**D-CP1 - Photo 6:** Dike D-CP1: Dike upstream crest - minor cracking, no change from previous years. Facing southwest.





**D-CP1 - Photo 7:** Dike D-CP1: Dike downstream toe berm view. Facing south.

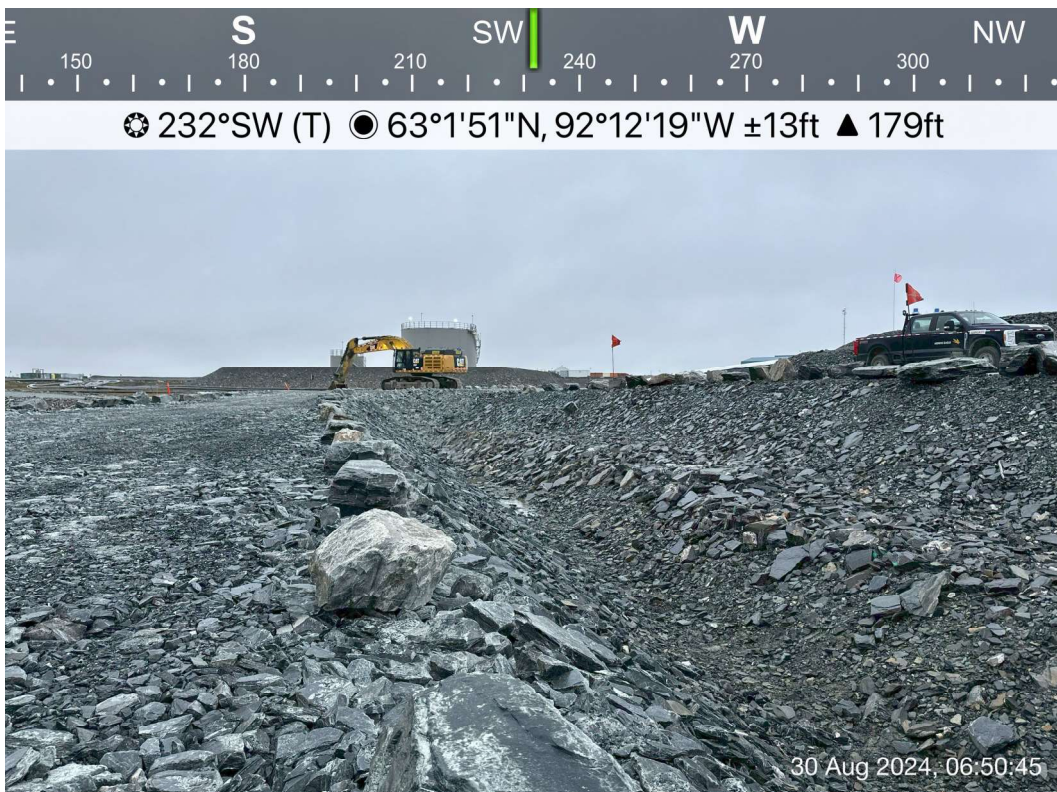


**D-CP1 - Photo 8:** Dike D-CP1: Dike downstream runoff/seepage collection north channel. Facing north.





**D-CP1 - Photo 9:** Dike D-CP1: Dike downstream runoff/seepage collection north channel. Facing north.



**D-CP1 - Photo 10:** Dike D-CP1: Dike downstream runoff/seepage collection south channel. Facing southwest.





**D-CP1 - Photo 11:** Dike D-CP1: Dike downstream collection sump. Facing north.



**D-CP1 - Photo 12:** Dike D-CP1: Dike downstream sump - rockfill berm. Facing northeast.



## North West Elevation

☉ 155°SE (T) ☉ 63.032155°, -92.205159° ±4m ▲ 60m



**D-CP1 - Photo 13:** Dike D-CP1: Downstream ROM cover. Facing southeast.

## South West Elevation

☉ 29°NE (T) ☉ 63.030101°, -92.207133° ±6m ▲ 63m



**D-CP1 - Photo 14:** Dike D-CP1: Pipelines crossing at Station 1+250 of Dike D-CP1. Facing northeast.





**D-CP1 - Photo 15:** Dike D-CP1: Jetty 1. Facing northeast.



**D-CP1 - Photo 16:** Dike D-CP1: Pipelines on Jetty 1. Facing southwest.



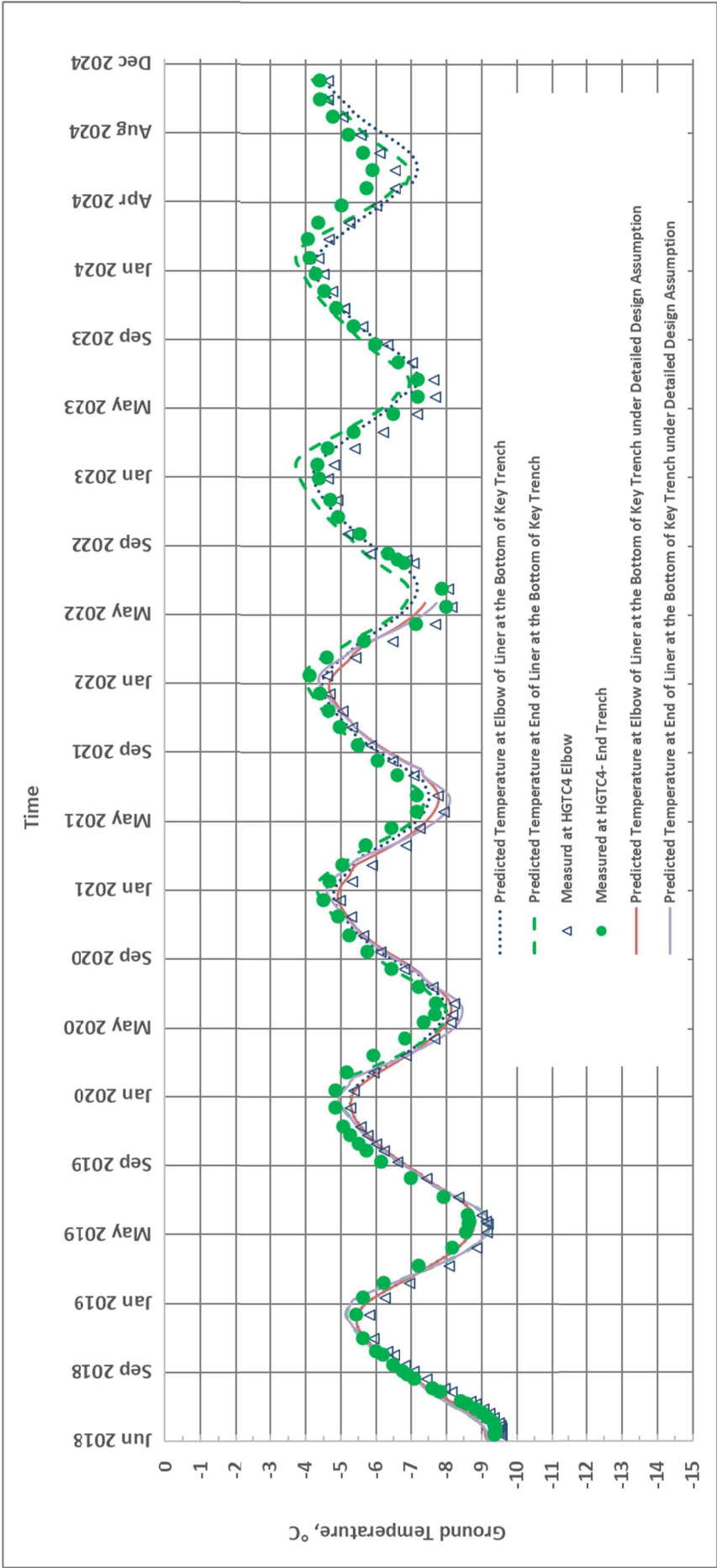


**D-CP1 - Photo 17:** Dike D-CP1: Jetty 1 water intake. Facing southeast.



**D-CP1 - Photo 18:** Dike D-CP1: Jetty 1— side slope, minor erosion with similar conditions to the previous year. Facing northeast.





LEGEND

NOTES  
BASED ON THERMAL  
ANALYSIS RESULTS  
UPDATED IN 2021

CLIENT



AGNICO EAGLE



TETRA TECH

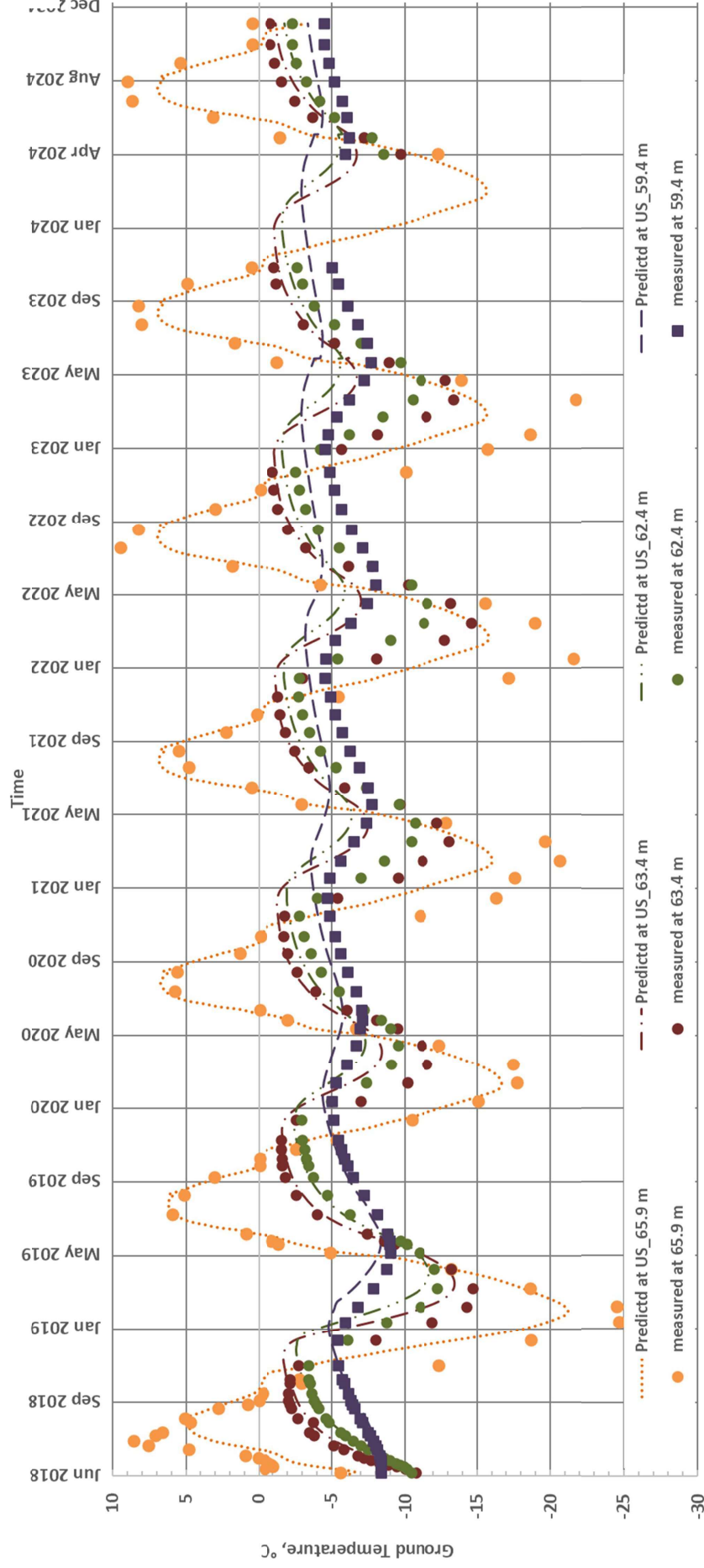
2024 ANNUAL GEOTECHNICAL INSPECTION,  
MELIADINE GOLD MINE, NU

DCCPI Predicted and Actual Temperature with Time at the Elbow and End of the Liner at the Bottom of Key Trench for Thermal Underpinning and Detailed Design Condition

PROJECT NO.	DWN	CKD	APVD	REV
ENGINEERING-00140-39	HX	HX		
OFFICE	DATE			
EBA-EARC	Jan. 2025			

Figure 1

# D-CP1 VGTC-03



LEGEND

NOTES  
BASED ON THERMAL  
ANALYSIS RESULTS  
UPDATED IN 2020

CLIENT



2024 ANNUAL GEOTECHNICAL INSPECTION,  
MELIADINE GOLD MINE, NU

D-CP1 Temperature Comparison at VGTC3 (Upstream  
Side)

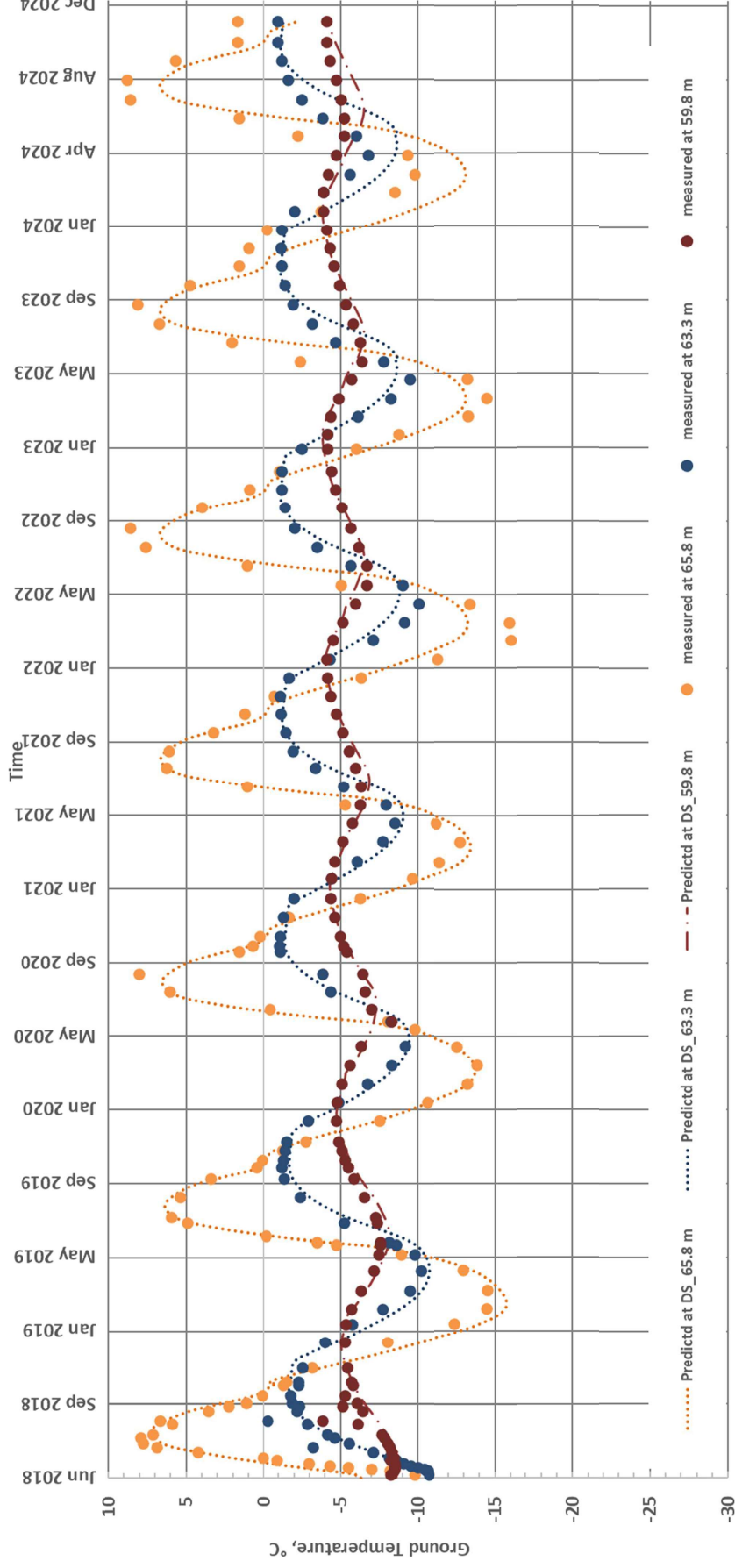
PROJECT NO.	DWN	CHK	APVD	REV
ENGINEERING-00-39	HX	HX		
OFFICE	DATE			
EBA-EARC	Jan. 2025			

STATUS  
RESERVED FOR USE



Figure 2

# D-CP1 VGTC-04



LEGEND

NOTES  
BASED ON THERMAL  
ANALYSIS RESULTS  
UPDATED IN 2021

CLIENT



AGNICO EAGLE



STATUS  
ISSUED FOR USE

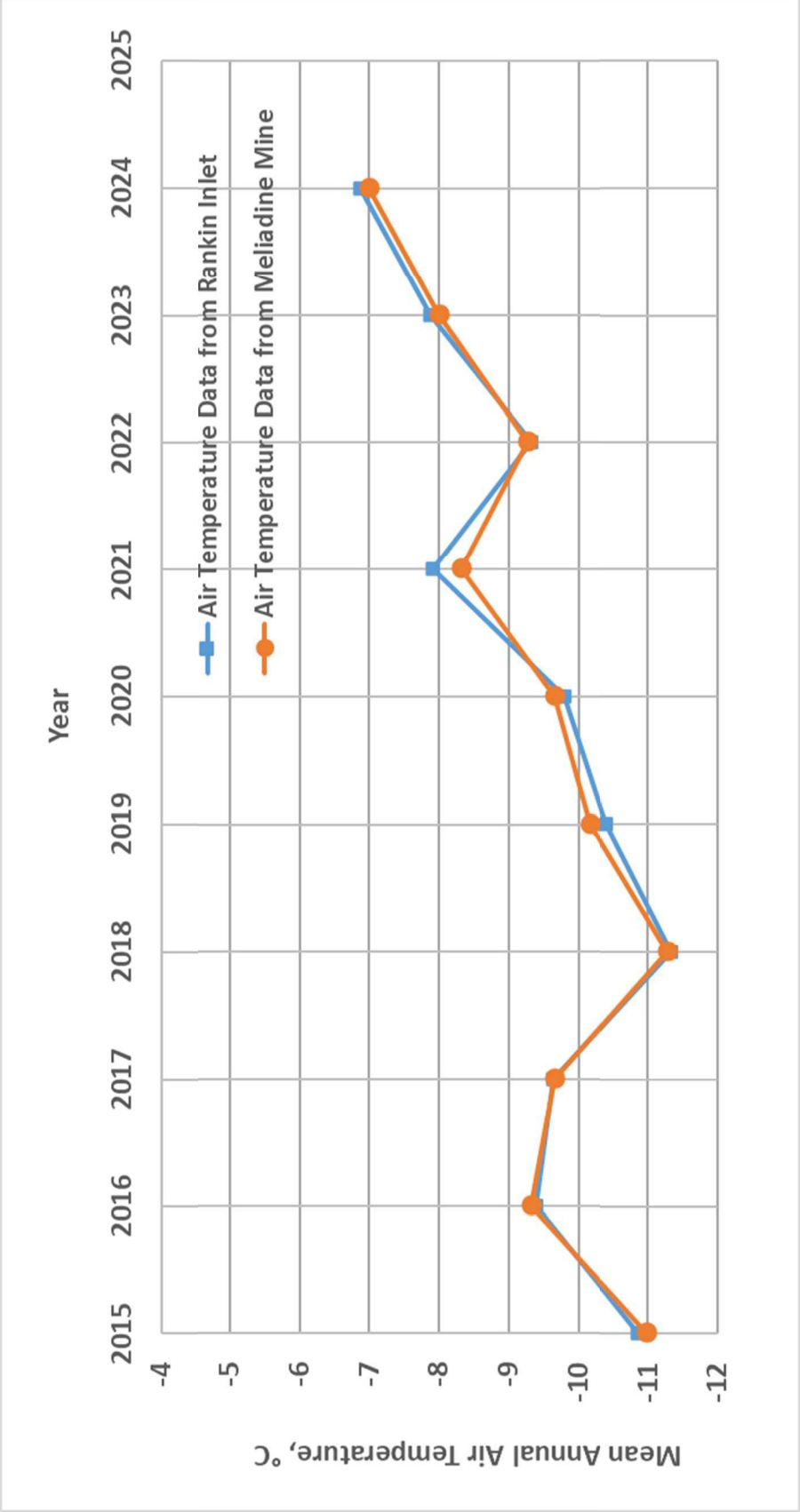
2024 ANNUAL GEOTECHNICAL INSPECTION,  
MELIADINE GOLD MINE, NU

D-CP1 Temperature Comparison at VGTC4  
(Upstream Side)

PROJECT NO.	DWN	CHK	APVD	REV
ENGINEERING-00-39	HK	HK		
OFFICE	DATE			
EBA-EARC	Jan. 2025			

Figure 3





LEGEND

NOTES

CLIENT



AGNICO EAGLE



TETRA TECH

2024 Annual Geotechnical Inspection,  
Meliadine Gold Mine, NU

Mean Annual Air Temperature at  
Meliadine Gold Mine

PROJECT NO.  
ENG.EARG03140-39

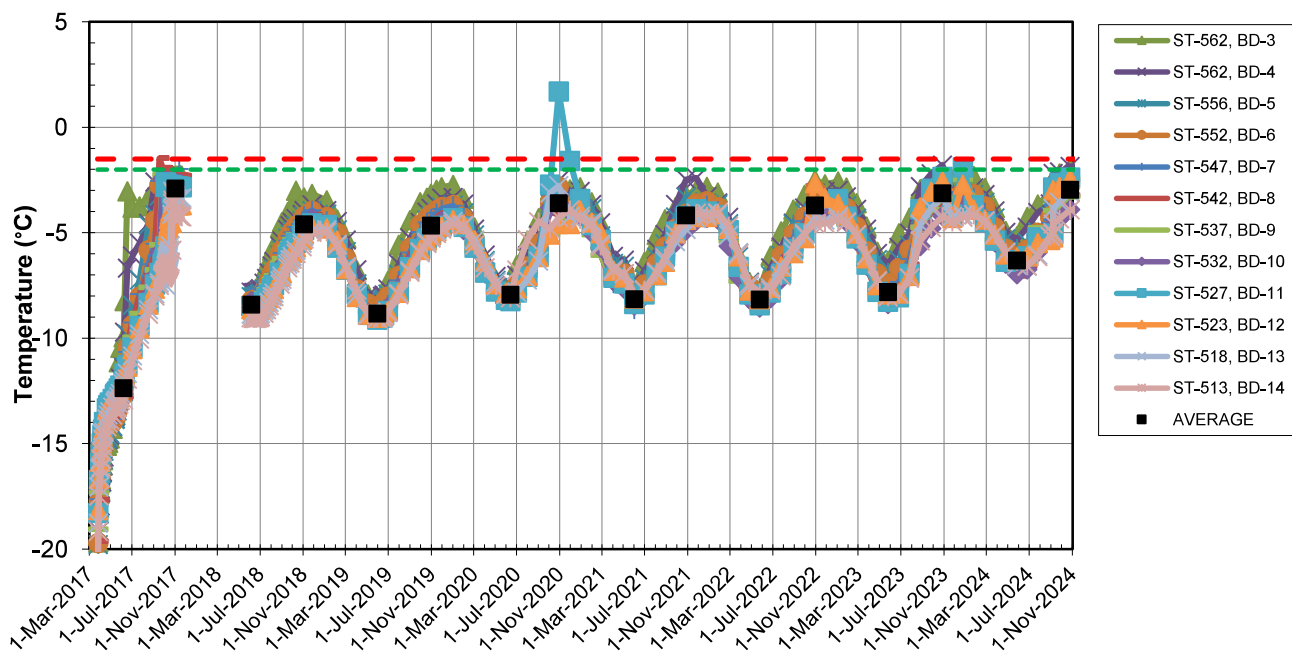
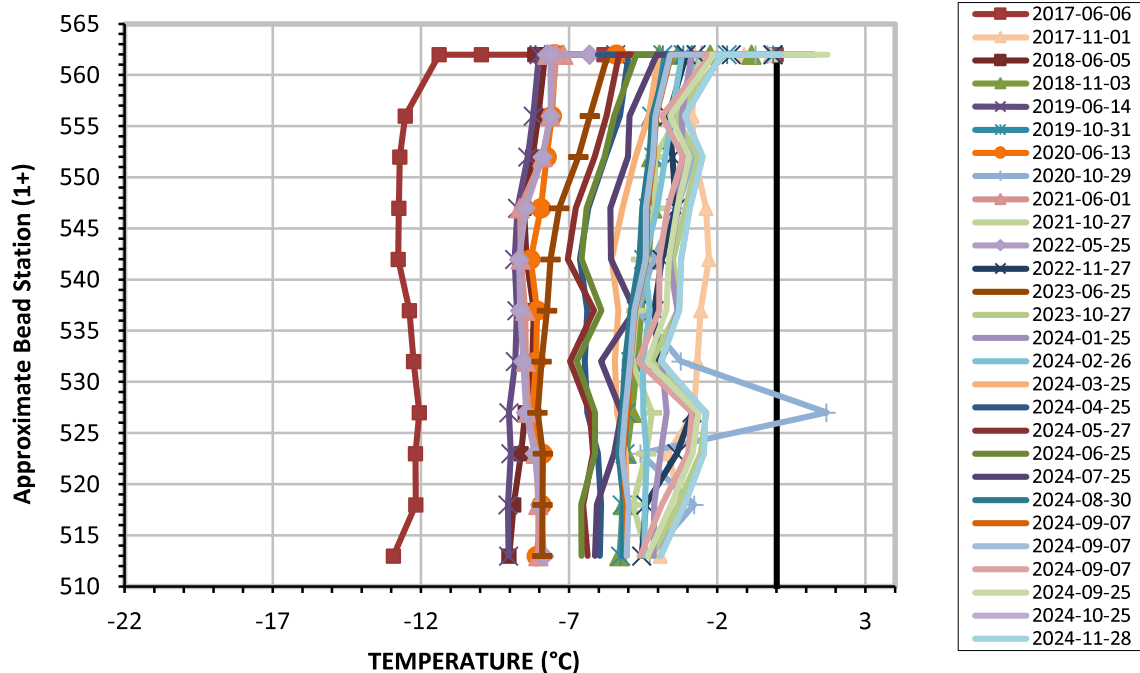
DWN CKD APVD REV  
HX HX

OFFICE  
EBA-DM

DATE  
Jan. 2025

Figure 4

STATUS  
ISSUED FOR USE

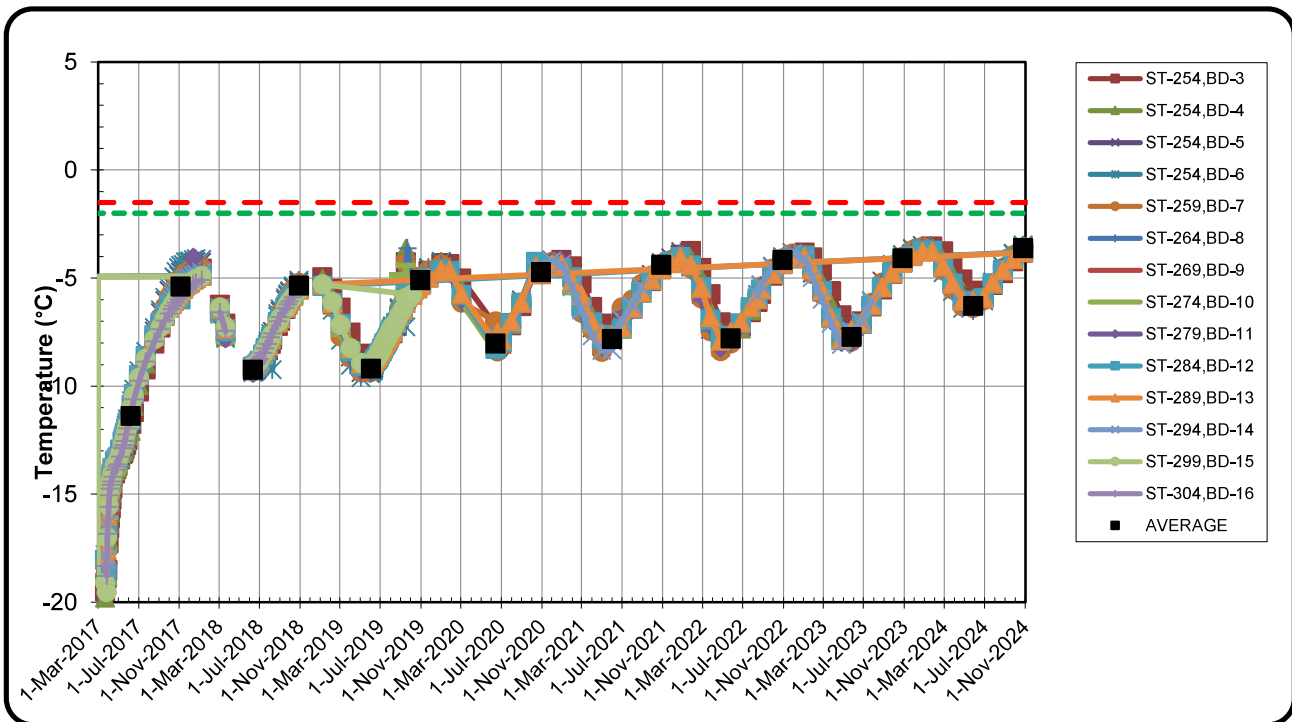
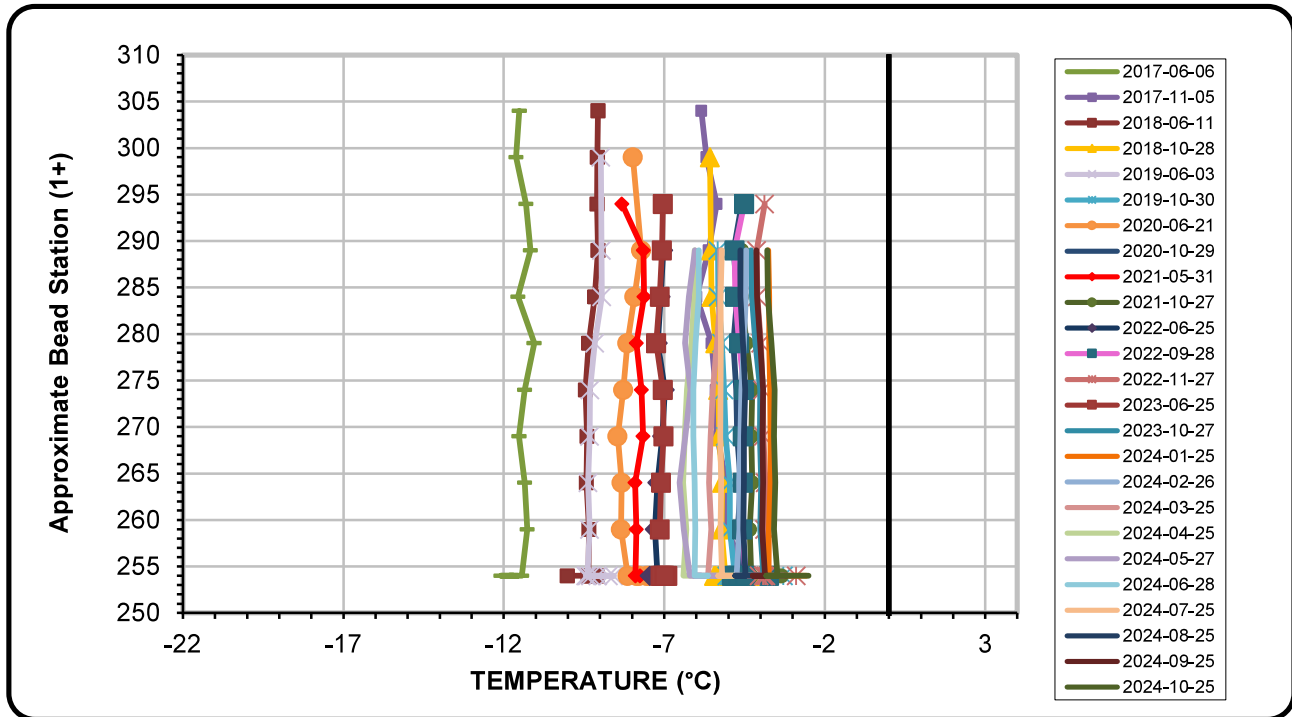


Serial No.: 2595  
 Date Installed: March 24, 2017

EBA File No: E14103230.01-023

**Horizontal Ground Temperature Profile for Cable HGTC-01**  
**Dike D-CP1**





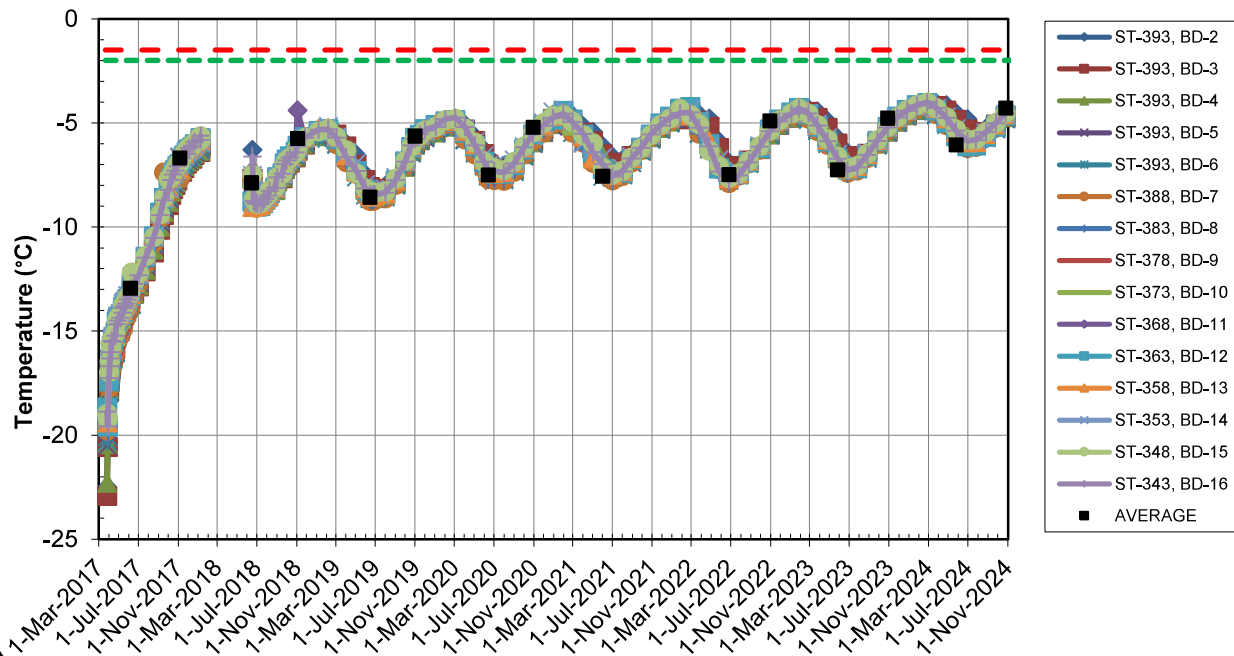
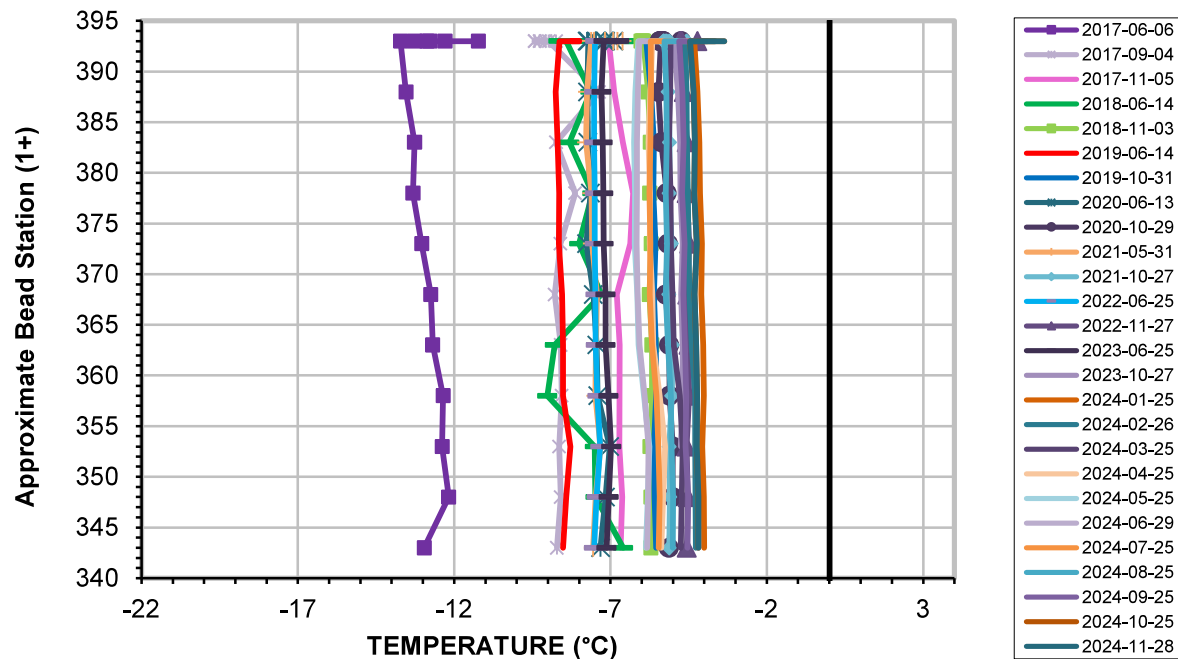
Serial No.: 2596  
Date Installed: March 3, 2017

EBA File No: E14103230.01-023

### Horizontal Ground Temperature Profile for Cable HGTC-02 Dike D-CP1





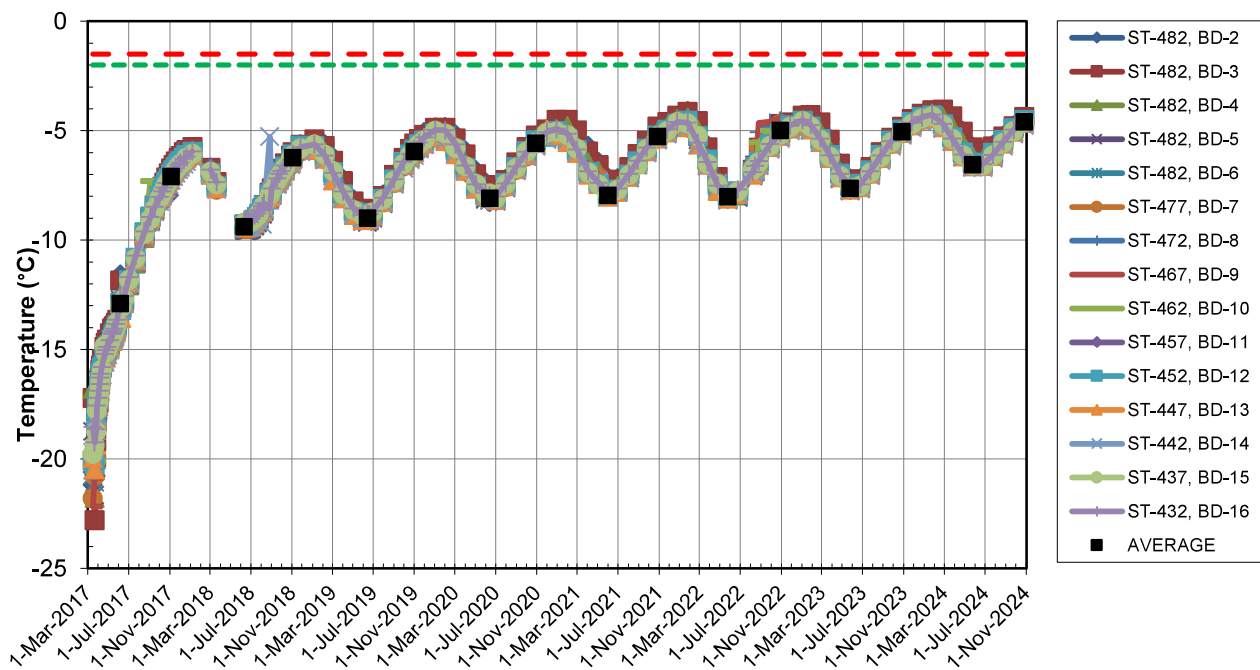
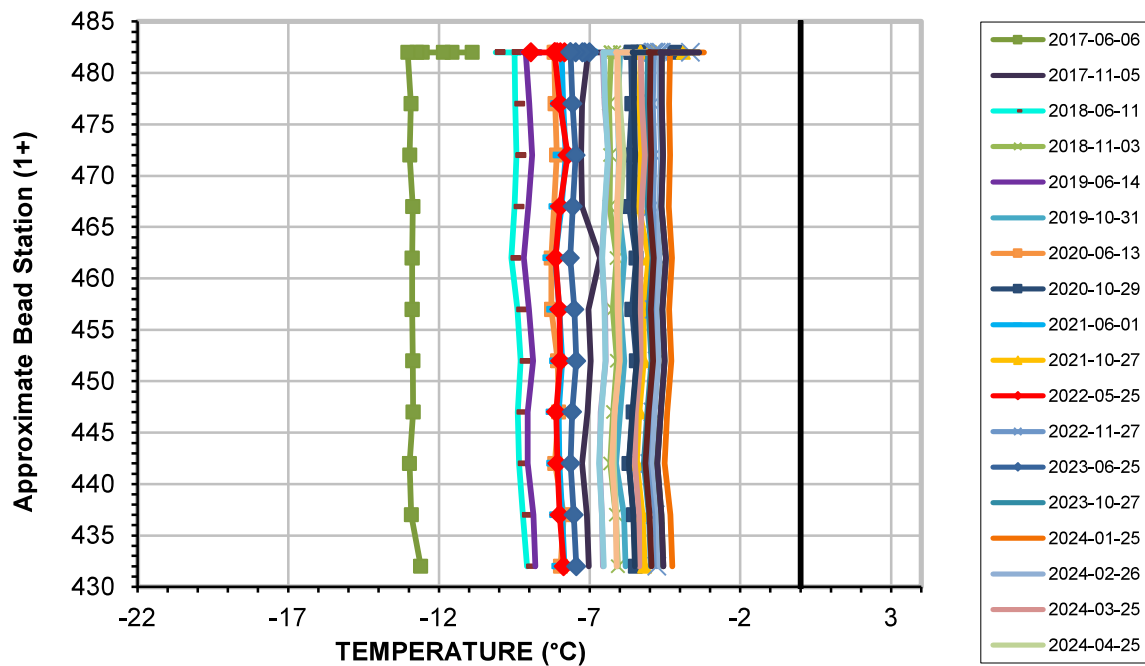


Serial No.: 2597  
 Date Installed: March 14, 2017

EBA File No: E14103230.01-023

**Horizontal Ground Temperature Profile for Cable HGTC-03**  
**Dike D-CP1**



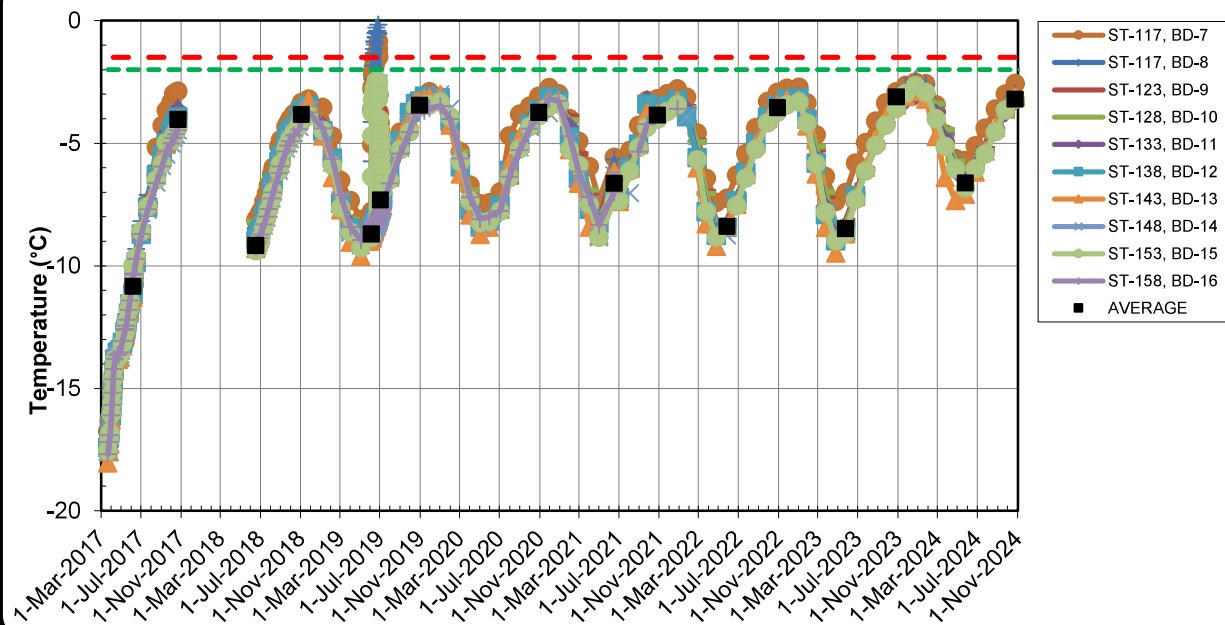
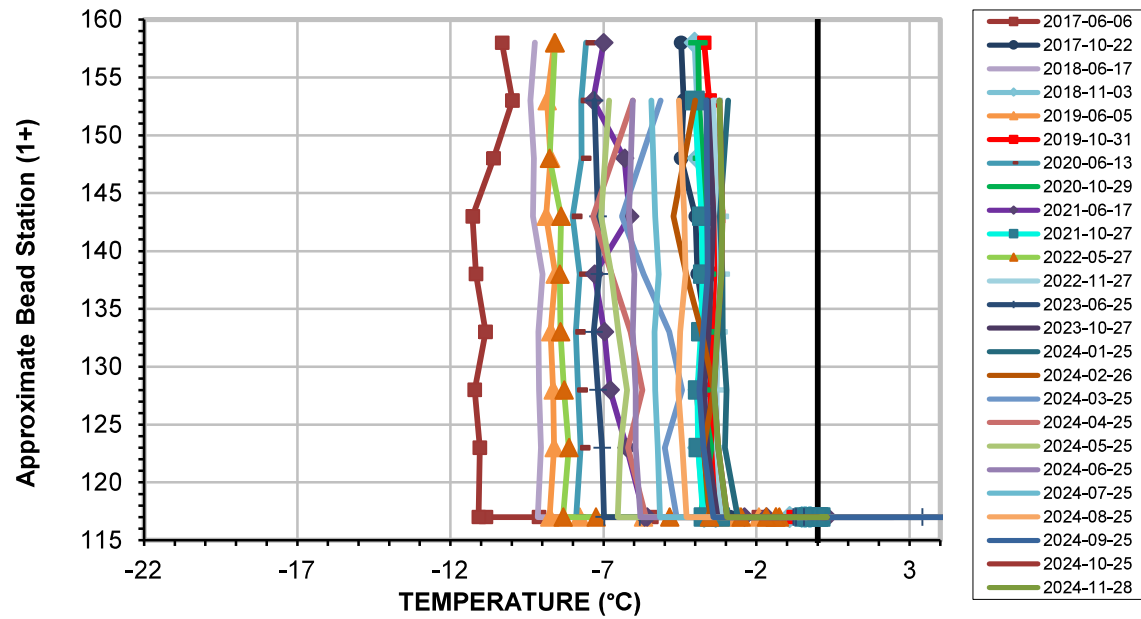


Serial No.: 2598  
Date Installed: March 16, 2017

EBA File No: E14103230.01-023

### Horizontal Ground Temperature Profile for Cable HGTC-04 Dike D-CP1





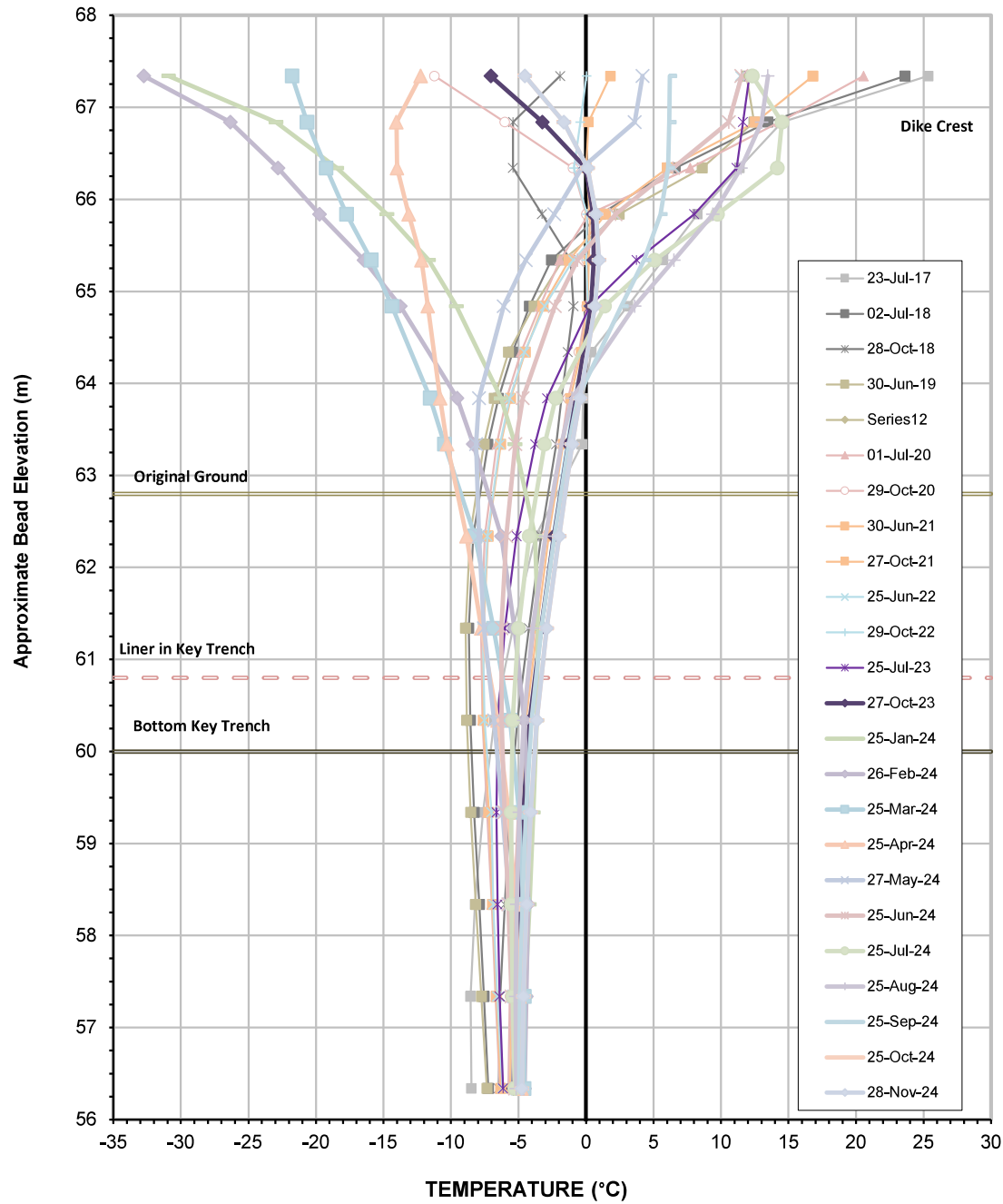
Serial No.: 2599  
Date Installed: March 2, 2017

EBA File No: E14103230.01-023

### Horizontal Ground Temperature Profile for Cable HGTC-05 Dike D-CP1







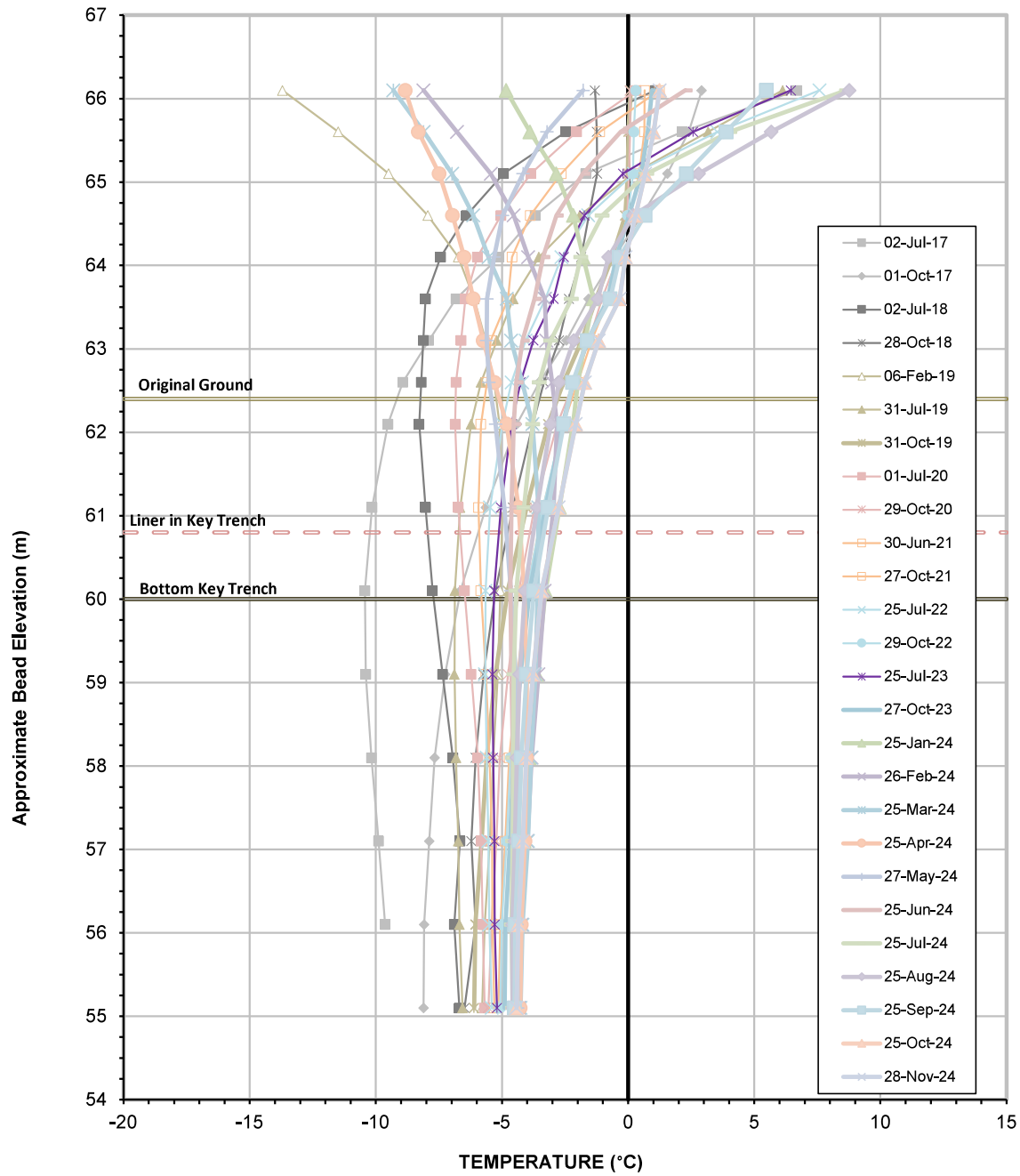
Serial No.: 2626  
Date Installed: July 22, 2017

**Vertical Ground Temperature Profile for Cable VGTC-01 Dike D-CP1**



**Average Annual Temperature at Various Elevations**

Location	November 2019 - November 2020	November 2020 - November 2021	November 2021 - November 2022	November 2022 - November 2023	November 2023 - November 2024
Bottom of Cable	-6.0	-6.0	-5.8	-5.6	-4.9
Liner Base Elevation	-6.4	-6.6	-6.5	-6.5	-4.9



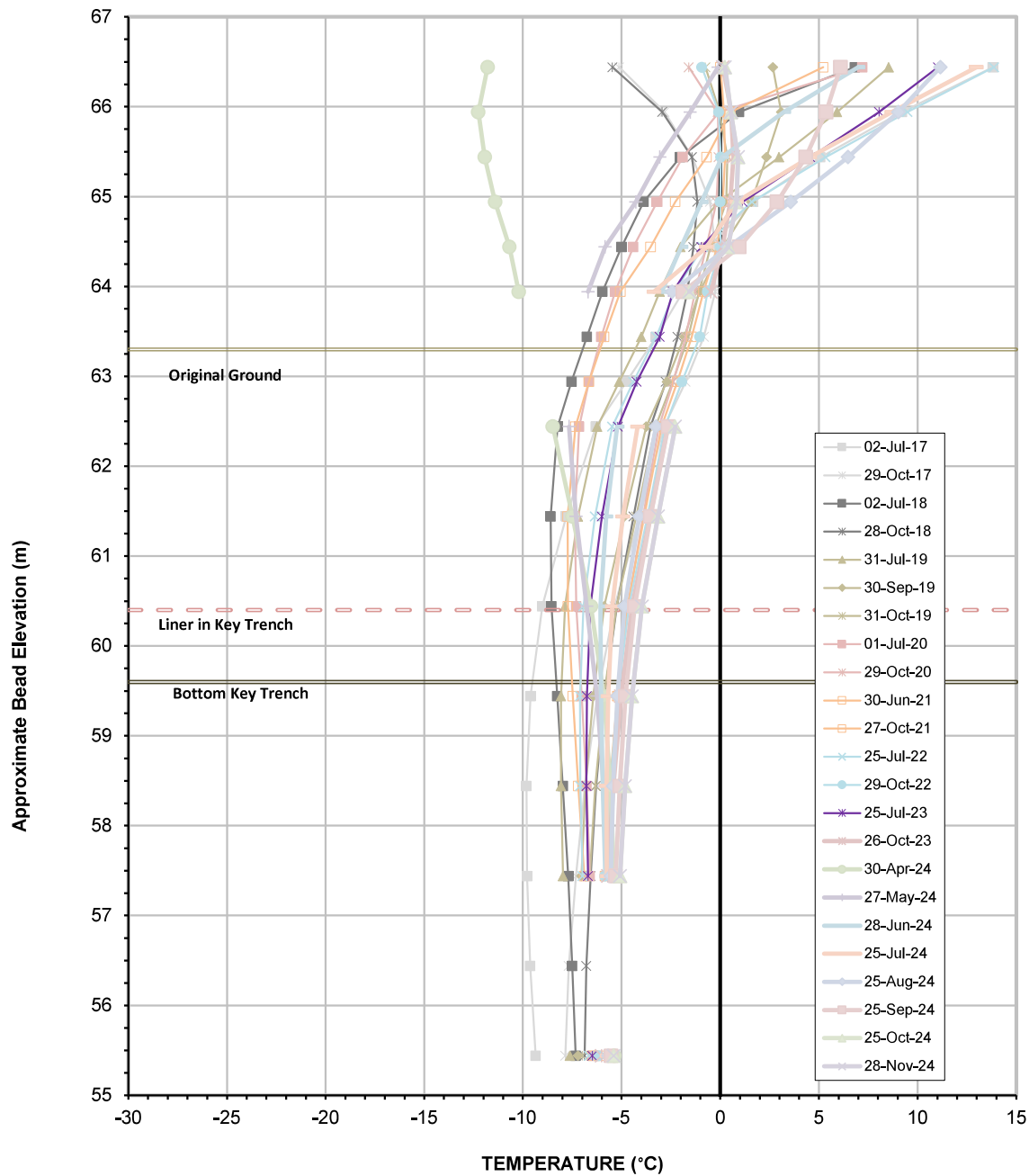
Serial No.: 2627  
Date Installed: June 16, 2017

Vertical Ground Temperature Profile for Cable VGTC-02 Dike  
D-CP1



**Average Annual Temperature at Various Elevations**

Location	November 2019 - November 2020	November 2020 - November 2021	November 2021 - November 2022	November 2022 - November 2023	November 2023 - November 2024
Bottom of Cable	-5.3	-4.8	-4.8	-4.5	-4.0
Liner Base Elevation	-4.8	-4.2	-4.7	-4.1	-3.2



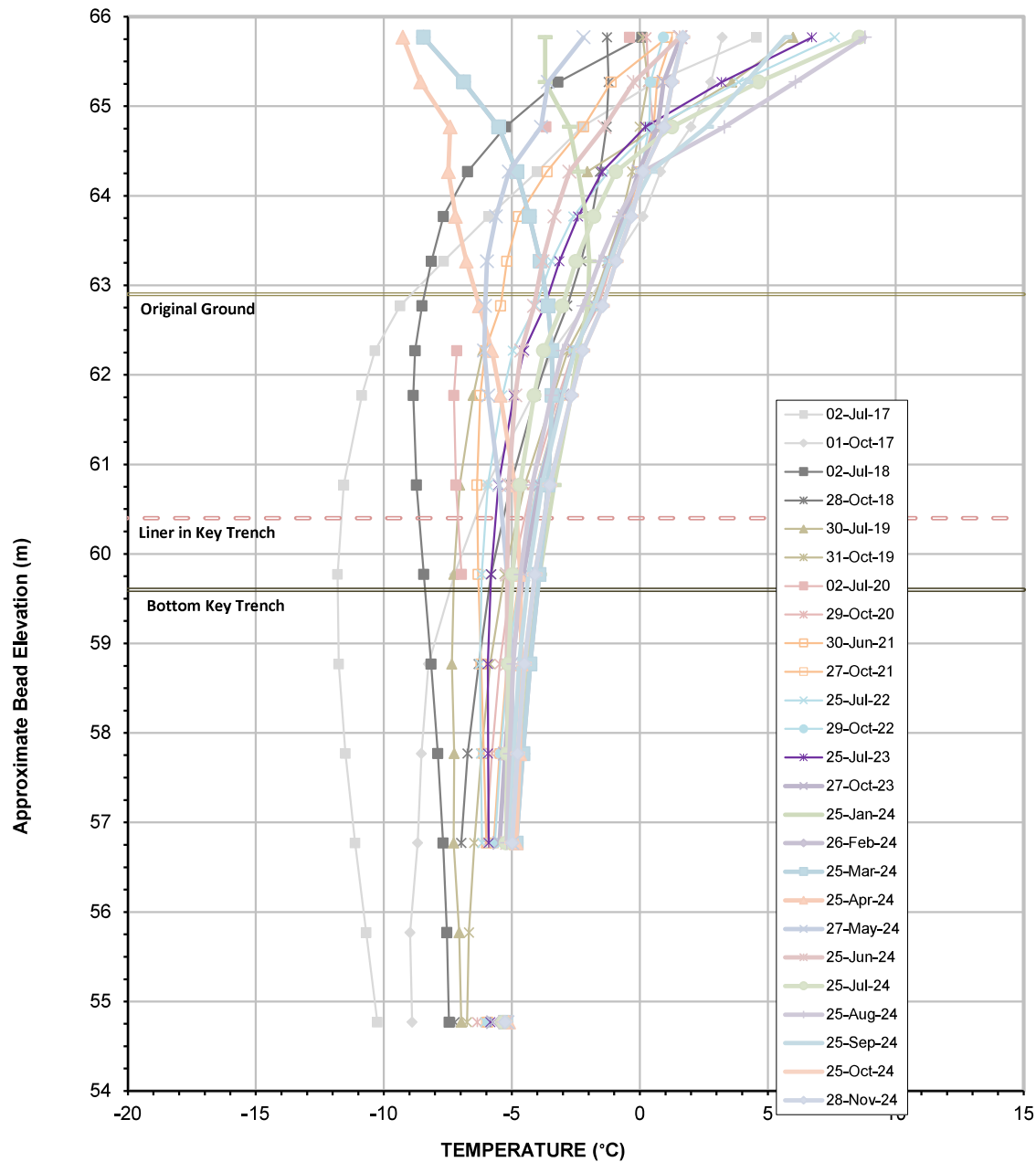
Vertical Ground Temperature Profile for Cable VGTC-03  
Dike D-CP1

Serial No.: 2628  
Date Installed: June 15, 2017

#### Average Annual Temperature at Various Elevations

Location	November 2019 - November 2020	November 2020 - November 2021	November 2021 - November 2022	November 2022 - November 2023	November 2023 - November 2024
Bottom of Cable	-6.3	-6.0	-6.1	-5.8	-5.5
Liner Base Elevation	-5.9	-6.1	-6.4	-7.6	N/A





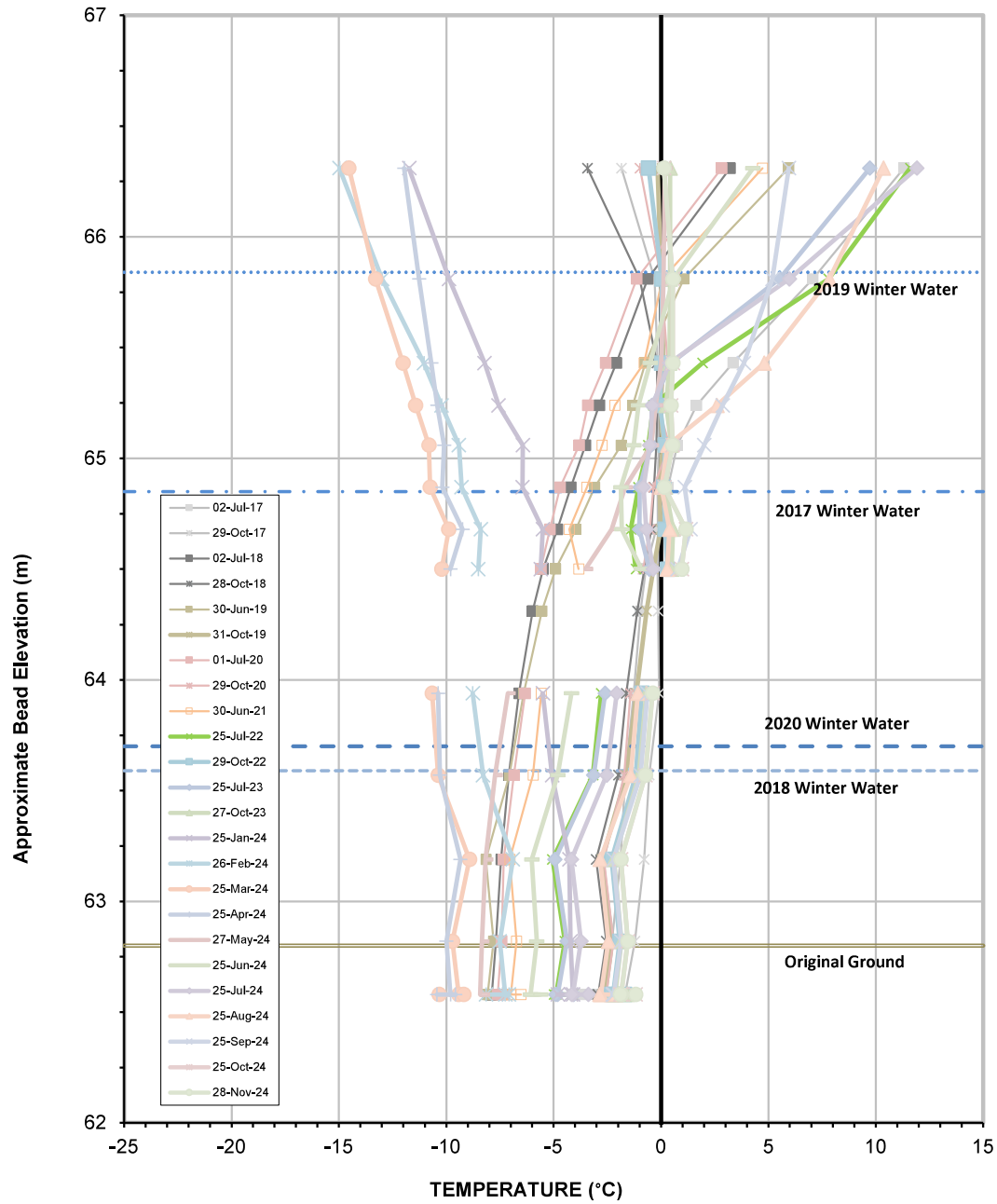
Vertical Ground Temperature Profile for Cable VGTC-04  
Dike D-CP1

Serial No.: 2629



#### Average Annual Temperature at Various Elevations

Location	November 2019 - November 2020	November 2020 - November 2021	November 2021 - November 2022	November 2022 - November 2023	November 2023 - November 2024
Bottom of Cable	-6.4	-5.9	-5.8	-5.6	-5.3
Liner Base Elevation	-5.7	-5.2	-5.3	-4.9	-4.5



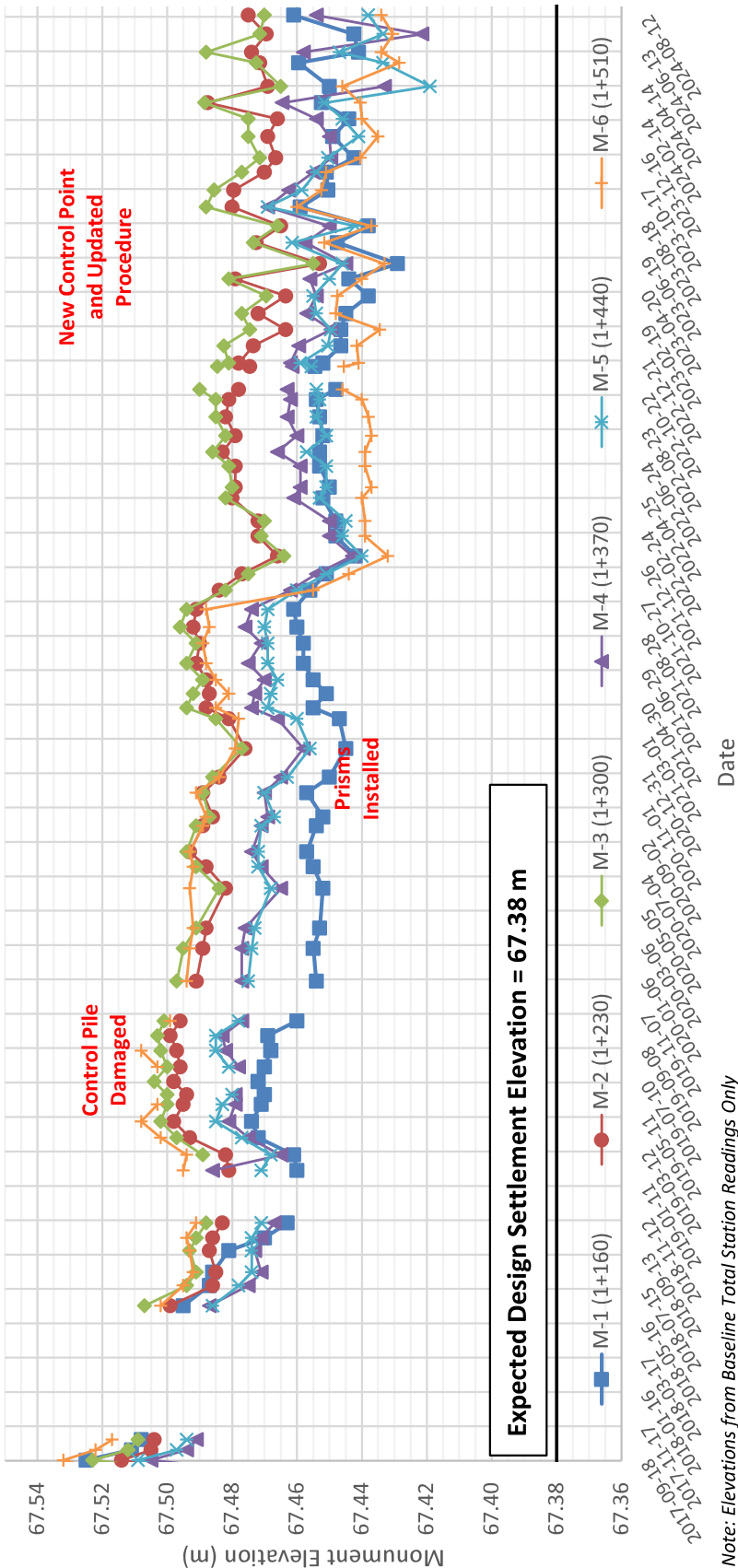
Serial No.: 2630  
Date Installed: May 16, 2017



**Average Annual Temperature at Bottom of Cable**

Location	November 2019 - November 2020	November 2020 - November 2021	November 2021 - November 2022	November 2022 - November 2023	November 2023 - November 2024
Temperature (°C)	-6.3	-6.3	-6.5	-6.4	-4.9

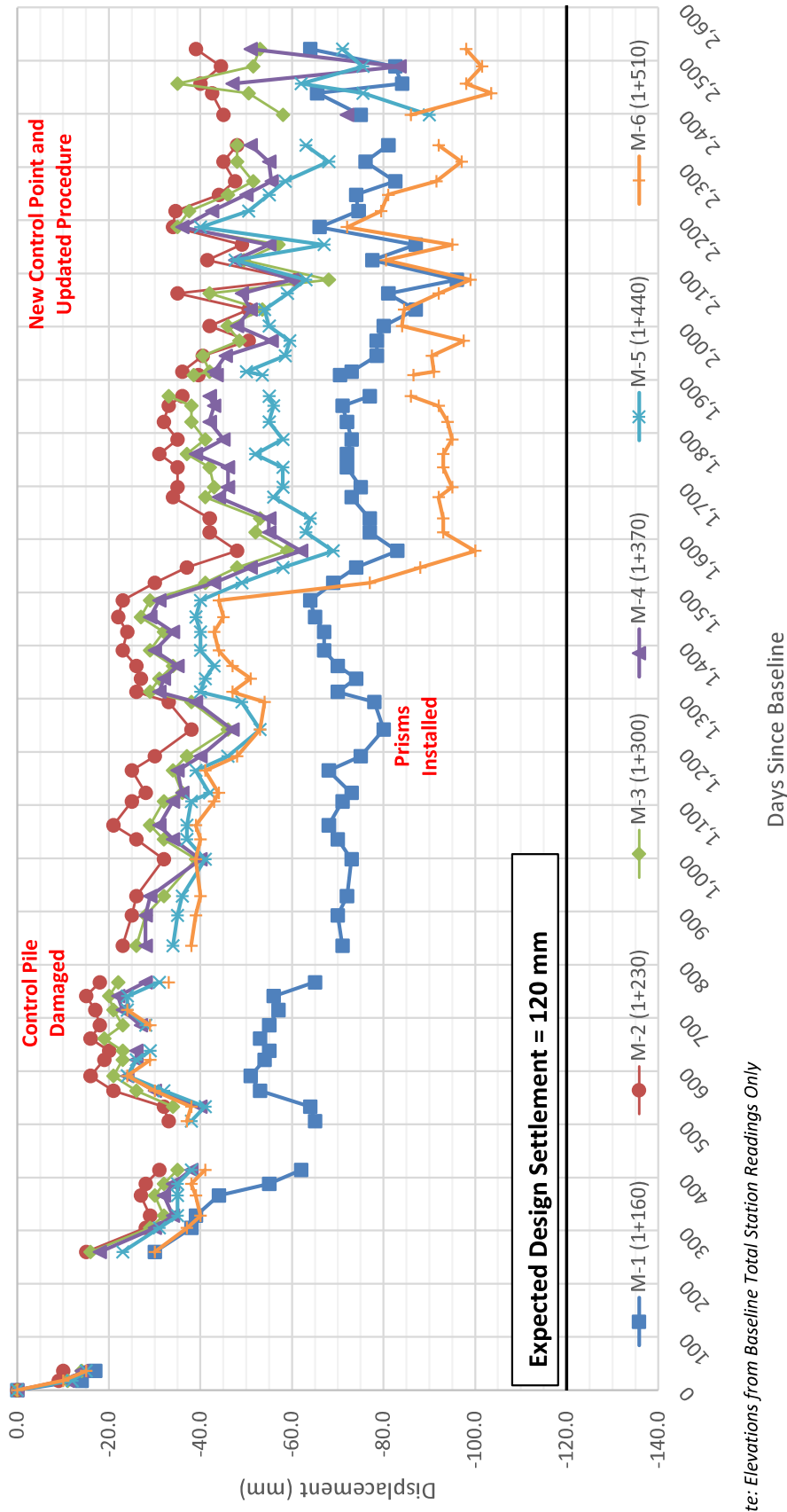
# D-CP1 Liner Elevation



Note: Elevations from Baseline Total Station Readings Only



D-CP1 Total Vertical Displacement over Time

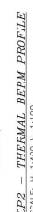


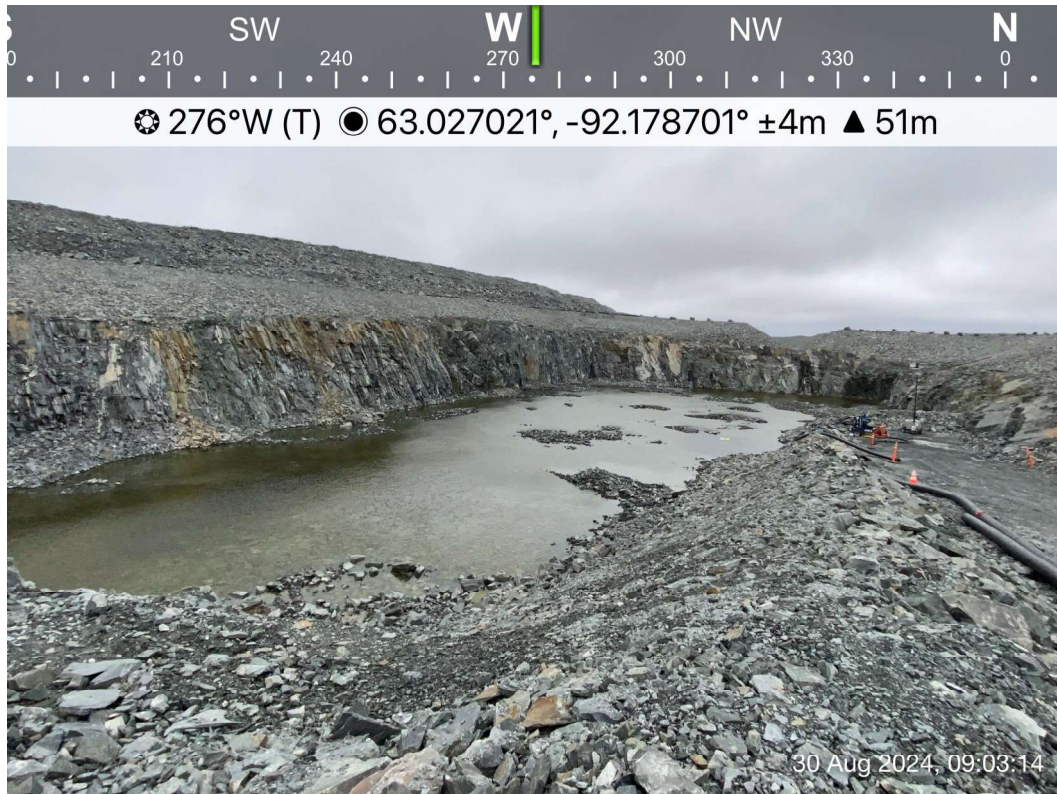
## APPENDIX C

### POND CP2, CHANNELS, AND BERMS





[illegible]

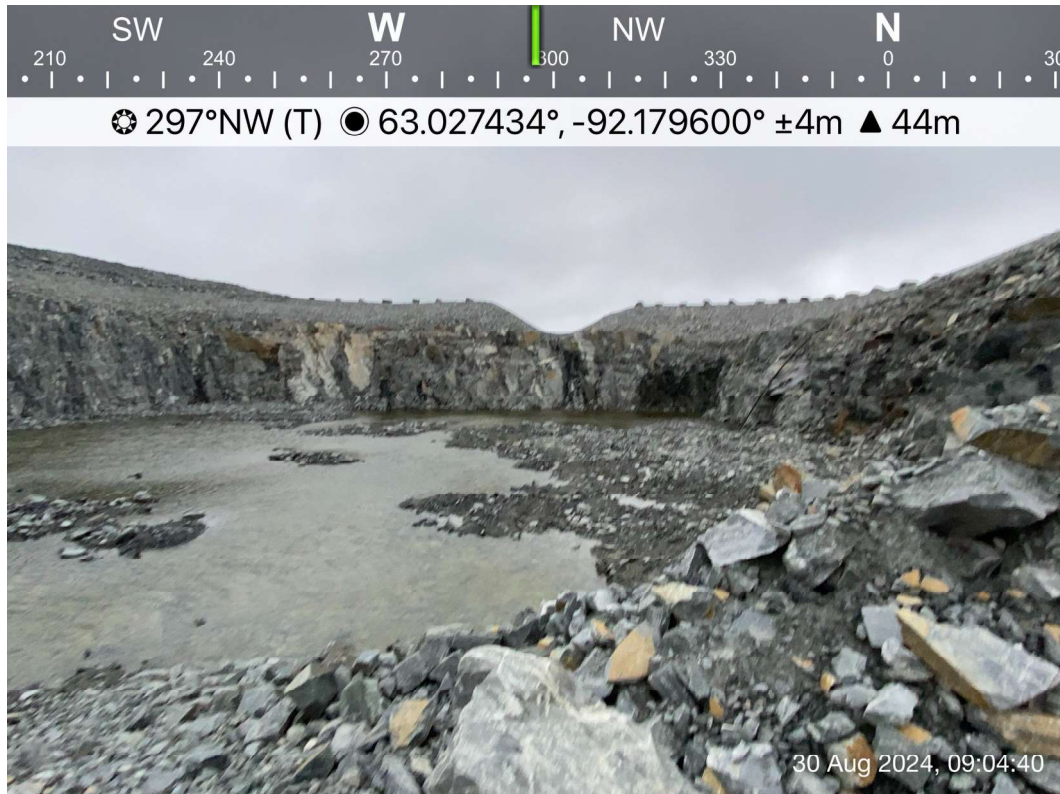


**CP2 - Photo 1:** CP2 - Pumping system, bedrock slopes with fractured rock, no stability concern. Facing west.

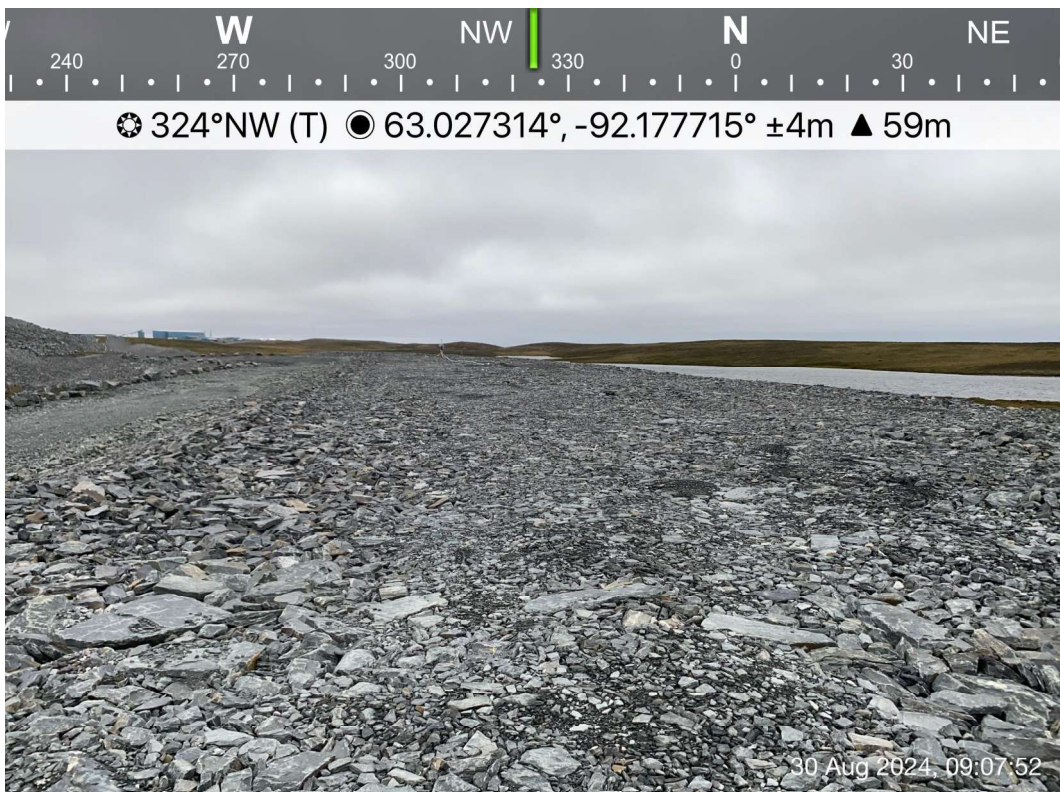


**CP2 - Photo 2:** CP2 - Small amount of water stored in CP2. Facing south.



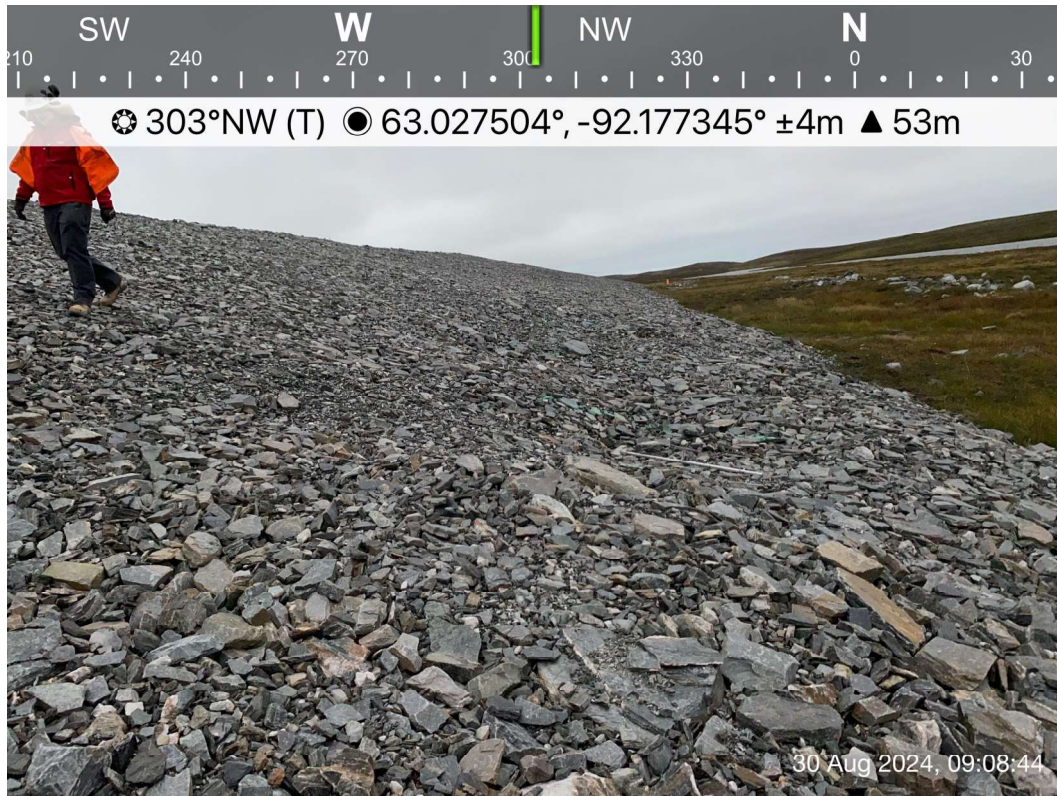


**CP2 - Photo 3:** CP2 - Minor water flow into CP2 from the outlet of Channel 9. Facing northwest.



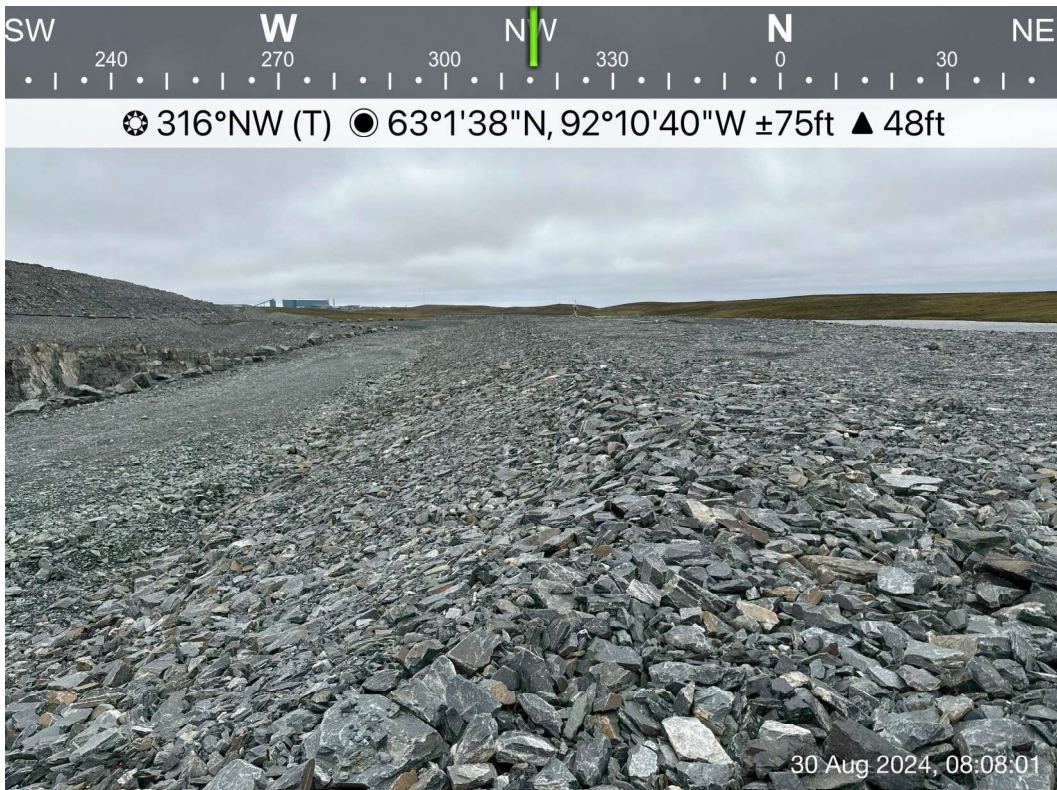
**CP2 Thermal Berm - Photo 4:** CP2 Thermal Berm - Crest, minor settlement observed, no cracking. Facing northwest.





**CP2 Thermal Berm - Photo 5:**

CP2 Thermal Berm - Downstream side slope, minor deformation observed at east end, no stability concern. Facing northwest.



**CP2 Thermal Berm- Photo 6:**

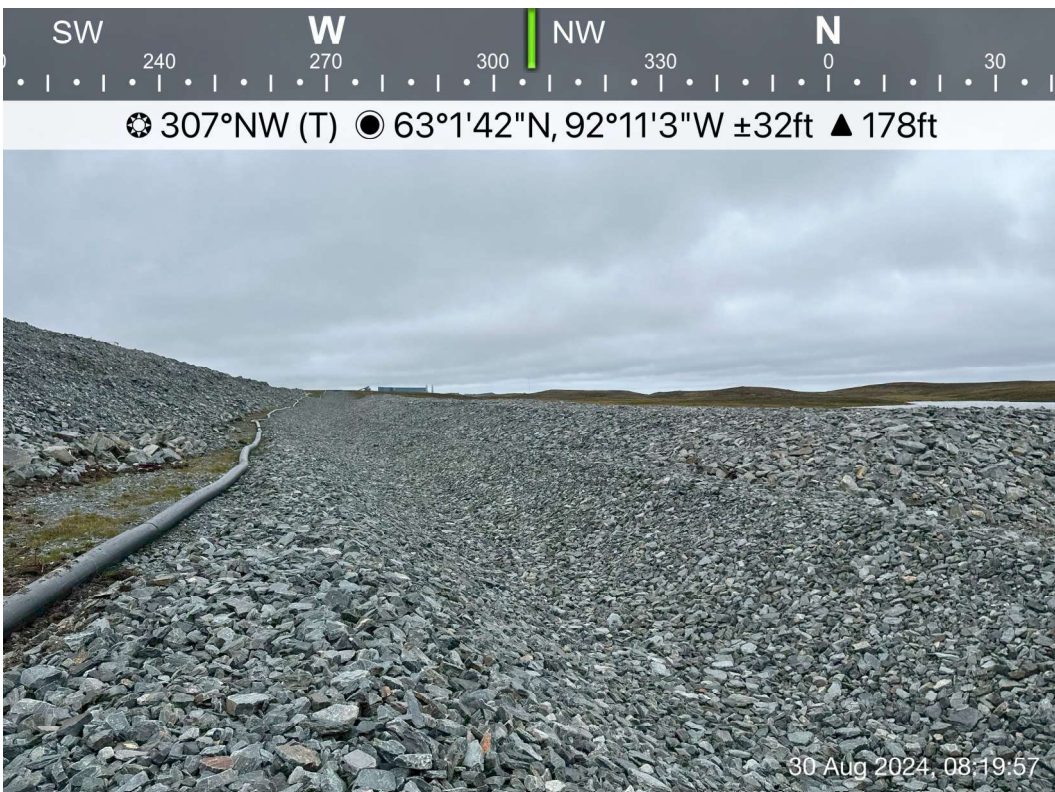
CP2 Thermal Berm - Upstream of thermal berm and area of additional ROM cover placed in 2024. Facing northwest.





**Channel 9 -  
Photo 7:**

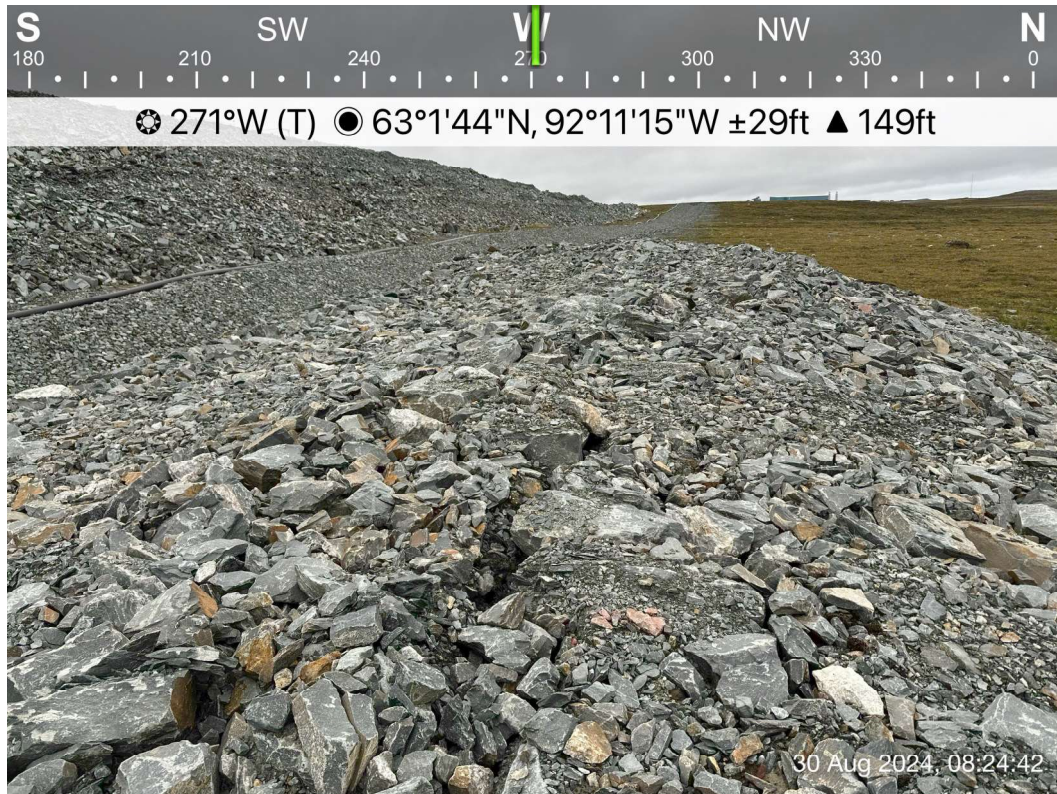
Channel 9 - View of Channel 9, performing well, no stability concerns. Facing east.



**Channel 9 -  
Photo 8:**

Channel 9 - View of Channel 9 and Channel 9 Berm, performing well, no stability concern. Facing northwest.



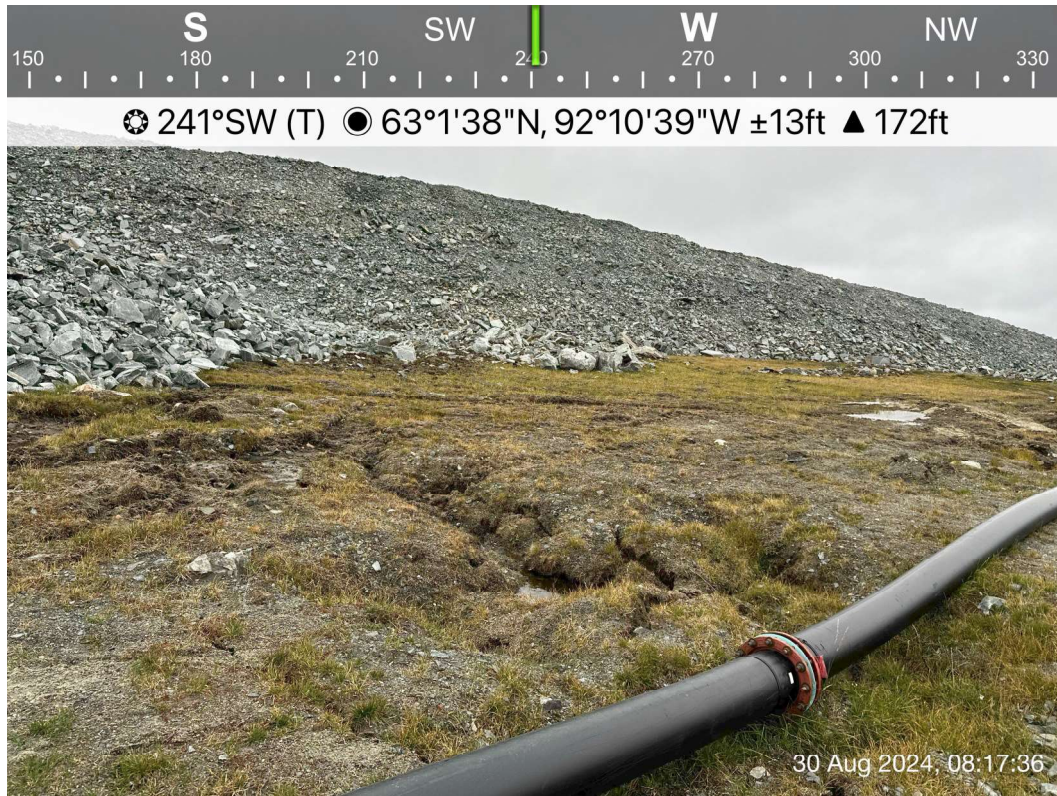


**Channel 9 Berm - Photo 9:** Channel 9 Berm: West end of Channel 9 Berm, minor settlement and cracking. Facing west.



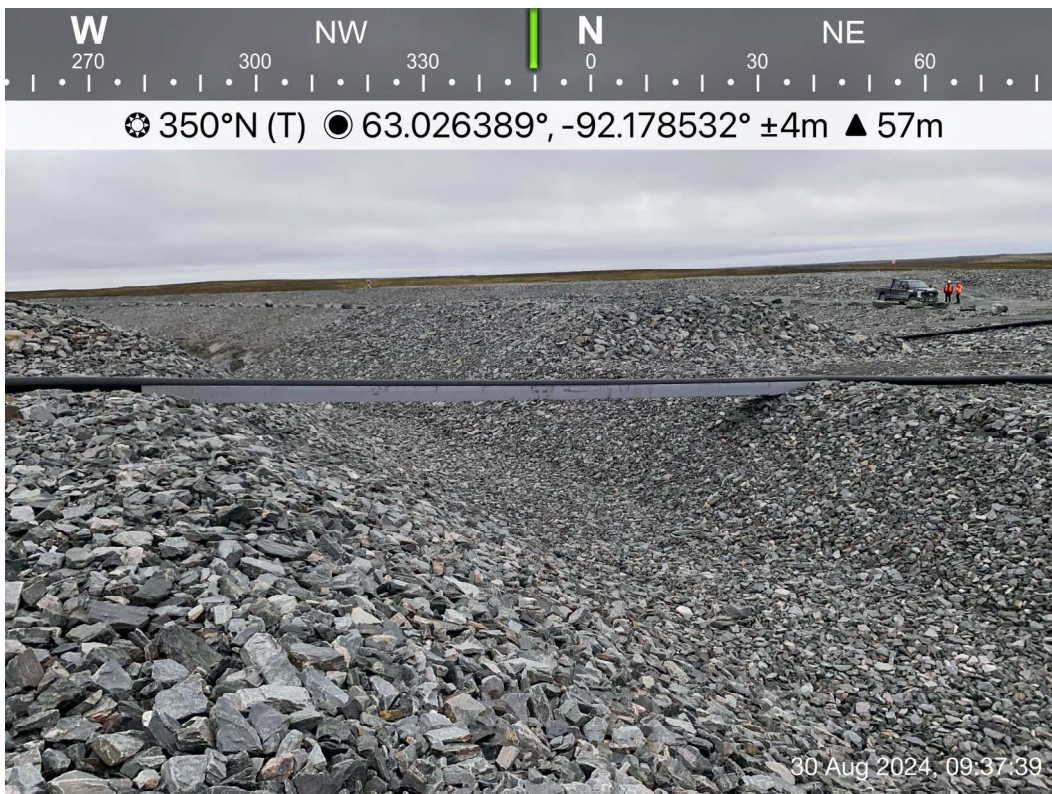
**Channel 9 Berm - Photo 10:** Channel 9 Berm: View of crest and downstream slope, performing well, no stability concern. Facing east.





**Channel 9 -  
Photo 11:**

Channel 9 - Thaw subsidence and cracking observed between the south shoulder of Channel 9 and WRSF3. Facing southwest.



**Channel 10 -  
Photo 12:**

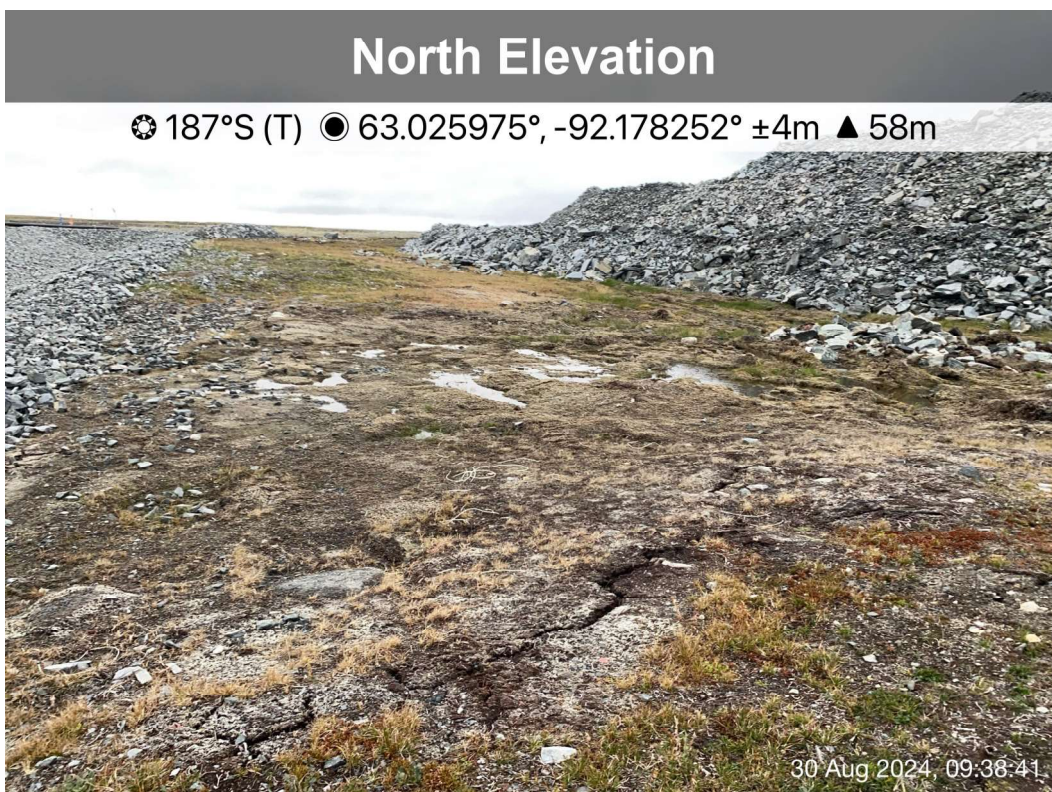
Channel 10 - View of Channel 10, no stability concerns. Facing north.





**Channel 10 -  
Photo 13:**

Channel 10—View of Channel 10, no stability concerns. Facing Southeast.



**Channel 10 -  
Photo 14:**

Channel 10 - Minor ponded water, thaw subsidence and cracking observed between the south shoulder of Channel 10 and WRSF3. Facing South.



## South East Elevation

☼ 326°NW (T) ● 63.025592°, -92.178249° ±4m ▲ 58m

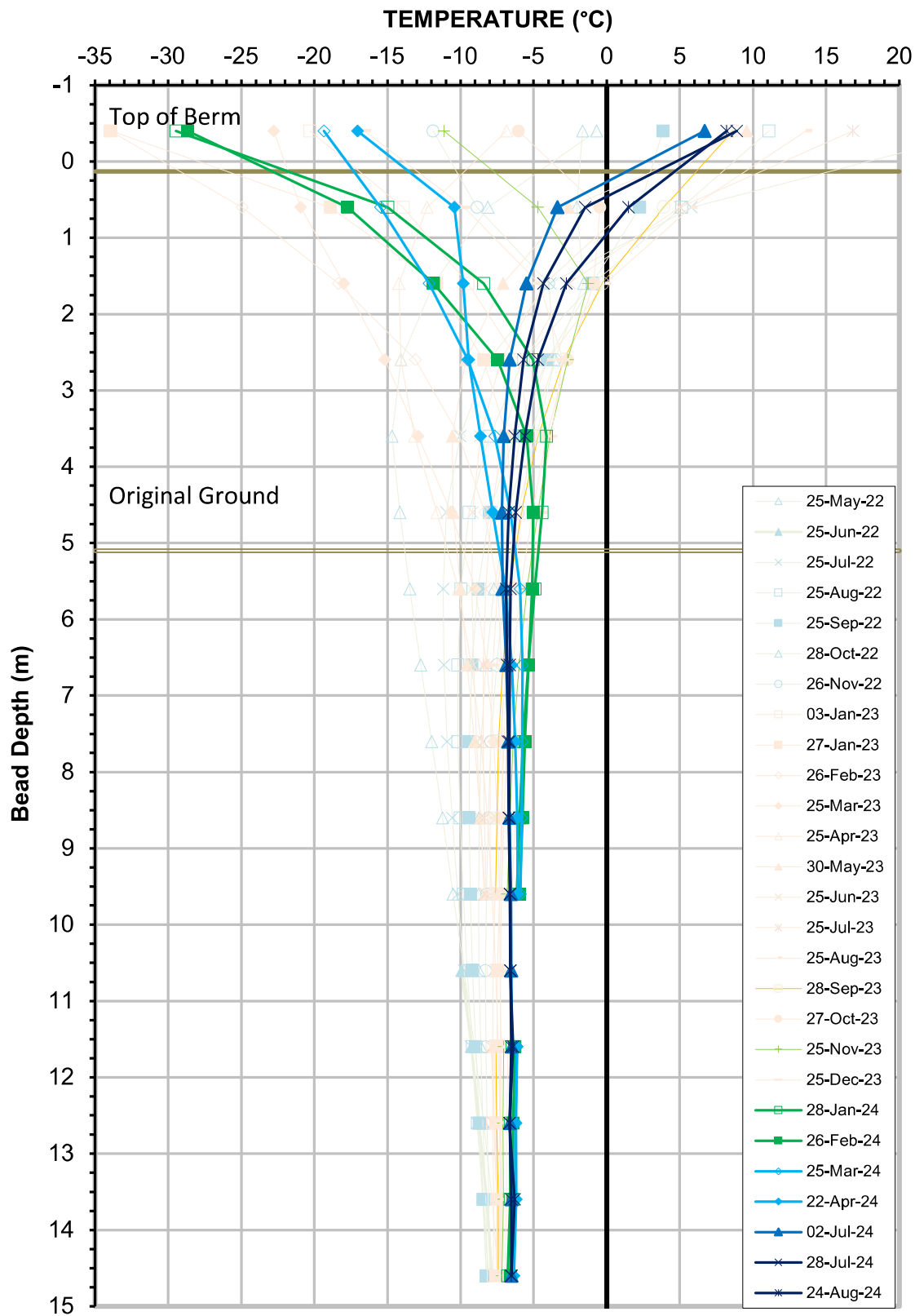


30 Aug 2024, 09:39:22

**Channel 10 -  
Photo 15:**

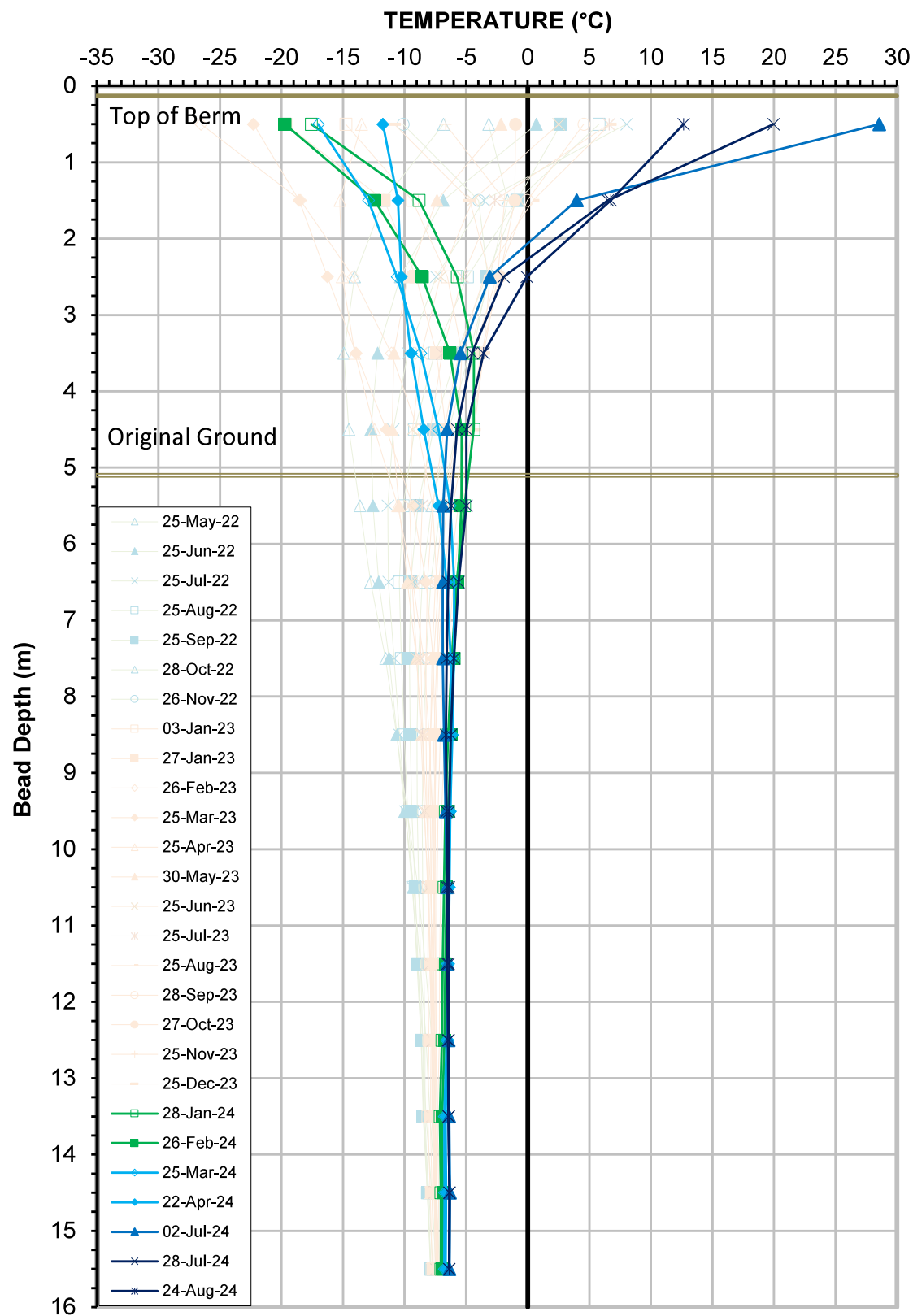
Channel 10 - Rutting from traffic and ponded water observed between Channel 10 and WRSF3. Facing northwest.





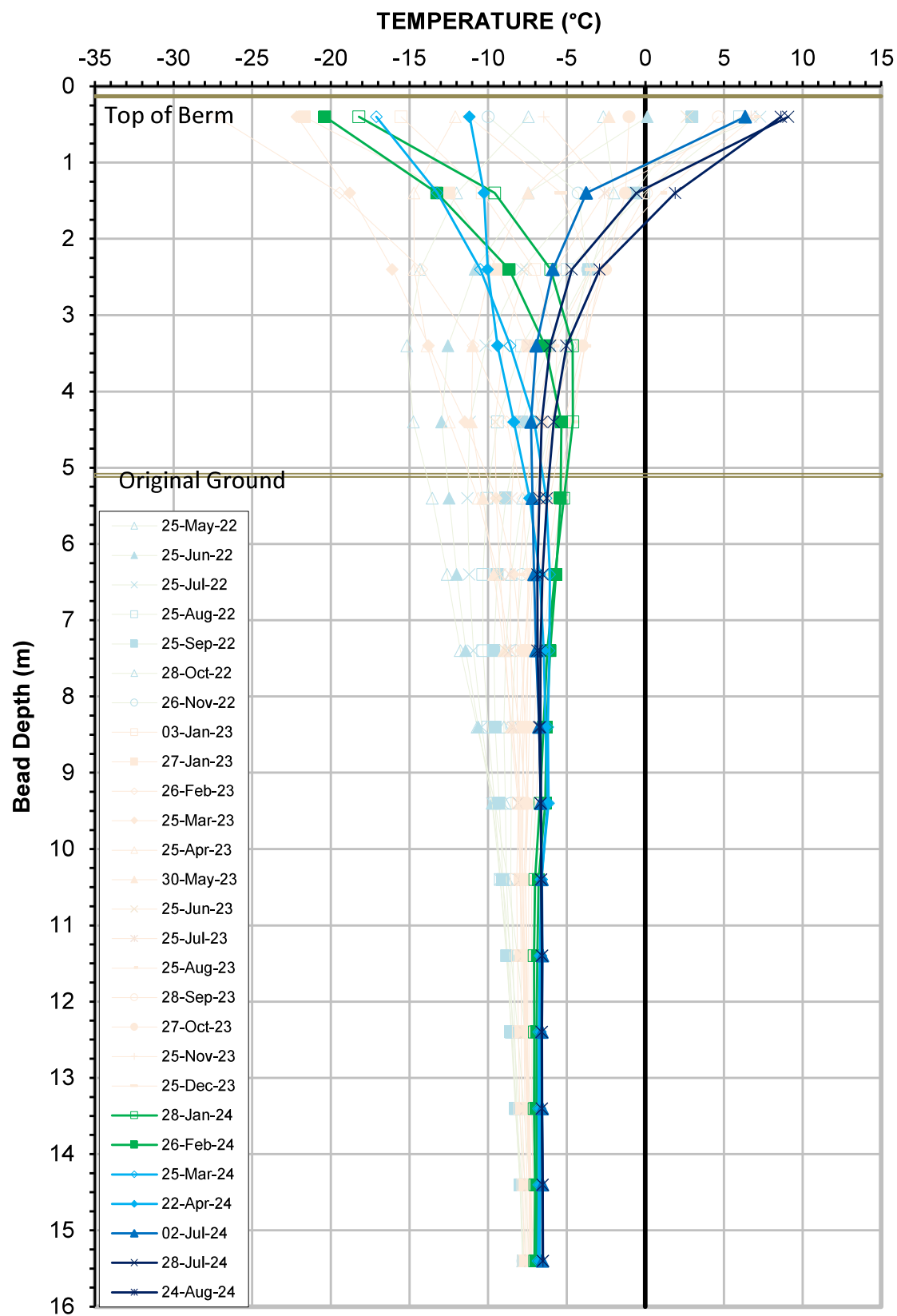
**Ground Temperature Profile for Cable GTC -01**  
**Berm CP2**

CP2-GTC-01  
 Date Installed: May 13, 2022



**Ground Temperature Profile for Cable GTC -02**  
**Berm CP2**

CP2-GTC-02  
Date Installed: May 13, 2022

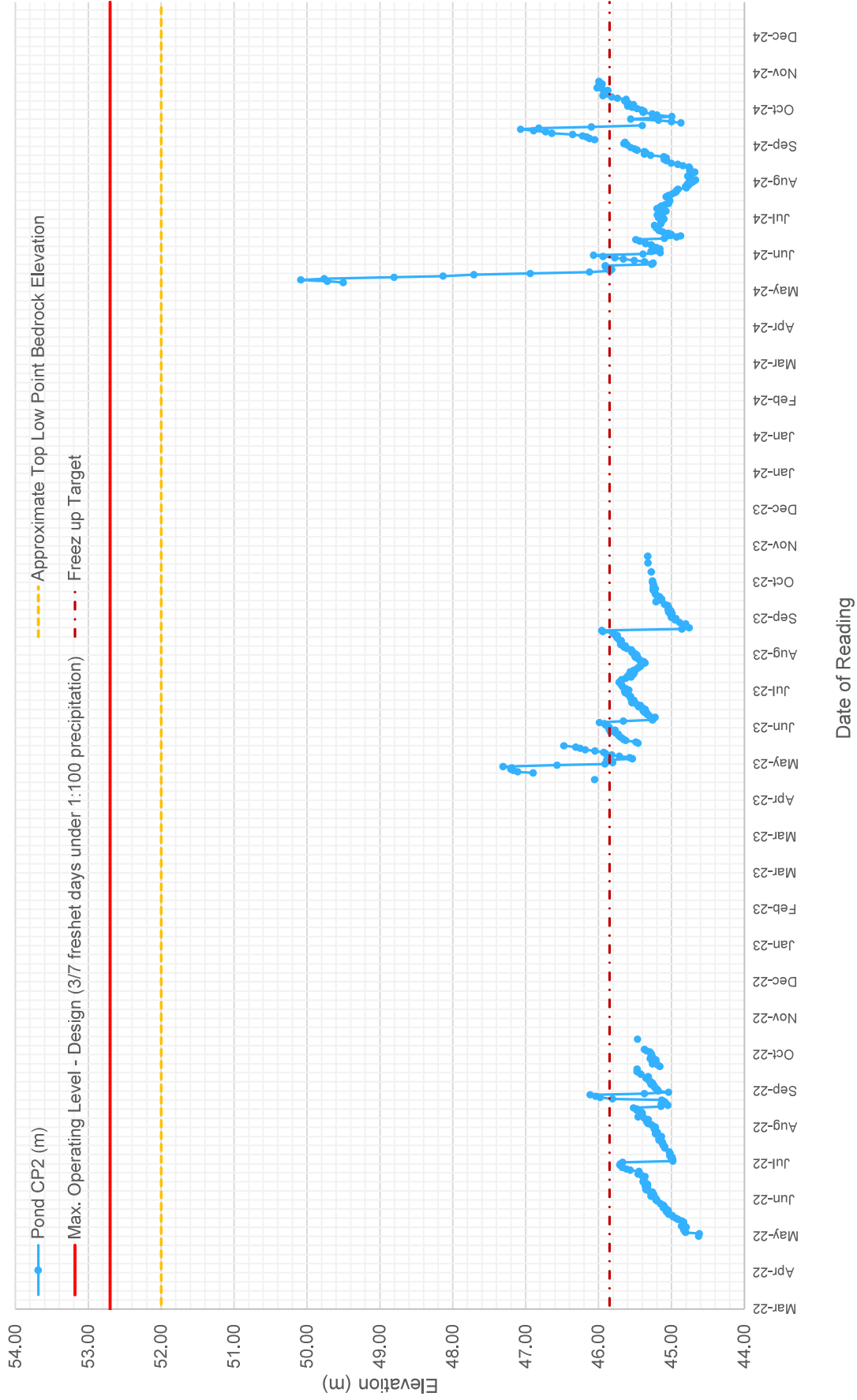


**Ground Temperature Profile for Cable GTC -03  
Berm CP2**

CP2-GTC-03  
Date Installed: May 13, 2022

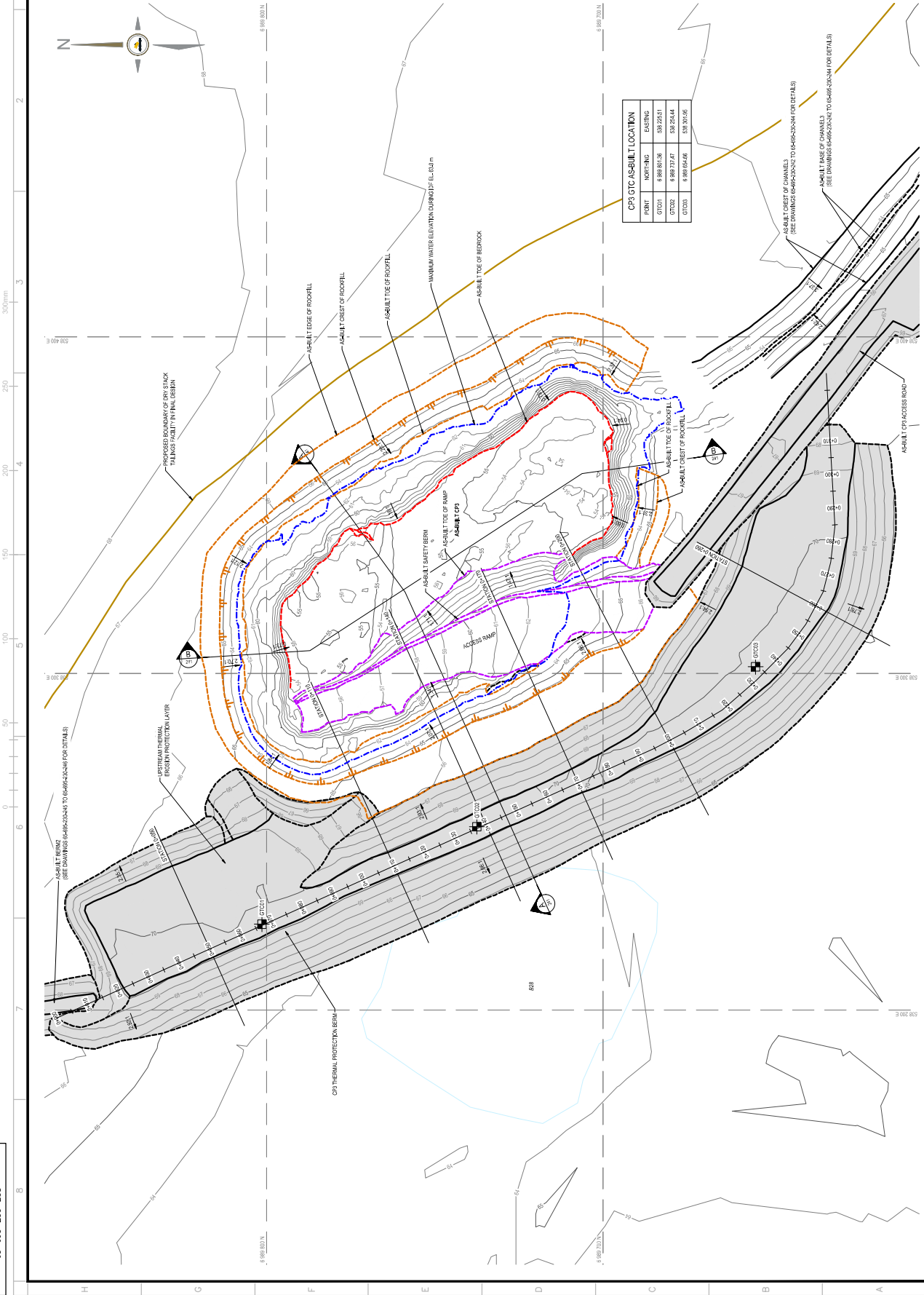


## Pond CP2 Water Elevations (2024)



## APPENDIX D

### POND CP3, CHANNELS, AND BERMS



CP3 GTC AS-BUILT LOCATION		
POINT	NORTHING	EASTING
GTC01	6 989 401.36	538 225.51
GTC02	6 989 737.47	538 254.44
GTC03	6 989 654.66	538 301.95

REV.	DATE	DESCRIPTION	PREP'D BY	APP'D BY	CHECKED
1	2018-08-27	RECORD DRAWINGS	EL	WIN	
2	2018-08-21	ISSUED FOR CONSTRUCTION	MC	WIN	
3	2018-08-28	ISSUED FOR REVIEW	MC	WIN	

**REVISIONS**

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TIME / TITLE  
AGNICO EAGLE MELADINE GOLD PROJECT  
CP3 AND CP3 THERMAL PROTECTION BERM  
LAYOUT PLAN

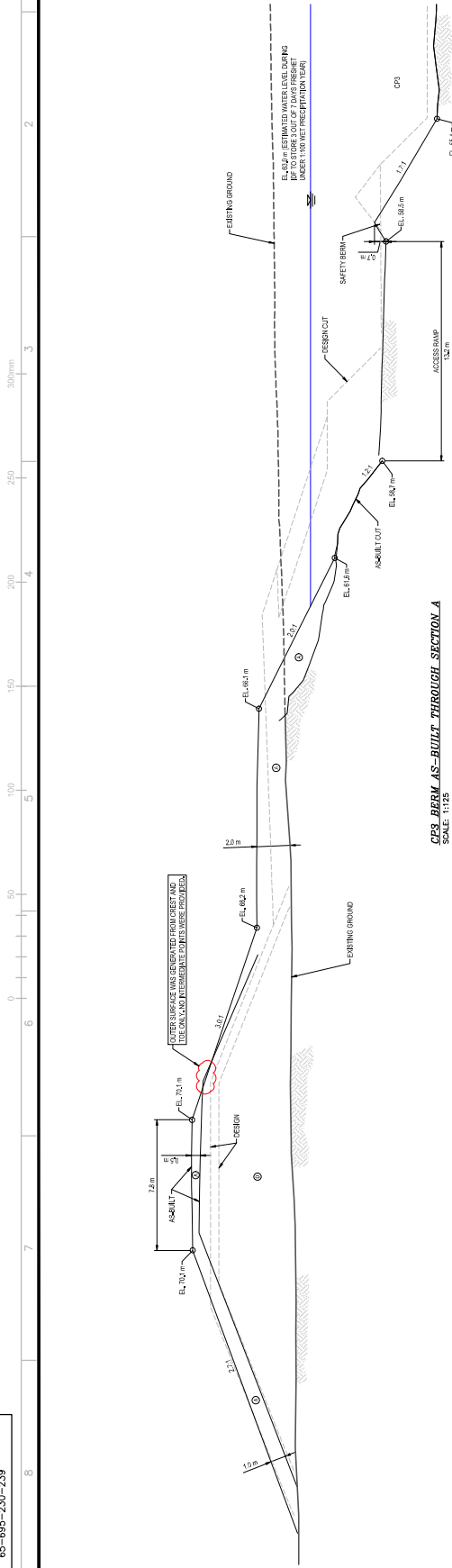
DATE	APPROVED FOR APPROVAL BY	EL	DATE
2019-06-12			
2019-06-12			
2019-06-12			

SCALE	1:500	2019-06-12			
NO. DESIGN DRAWING NO.					
65-695-230-238					
NO. PROJECT PROJECT NO.	6515	<table border="1"> <tr> <td>REVISION</td> <td>1</td> <td>1 / 13</td> </tr> </table>	REVISION	1	1 / 13
REVISION	1	1 / 13			

\\Fsrmcna\Endowment\F\41\Endowment\WFO\MGM\CP3\_Ac-Bu\165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1106-1107-1108-1109-1110-1111-1112-1113-1114-1115-1116-1117-1118-1119-1120-1121-1122-1123-1124-1125-1126-1127-1128-1129-1130-1131-1132-1133-1134-1135-1136-1137-1138-1139-1140-1141-1142-1143-1144-1

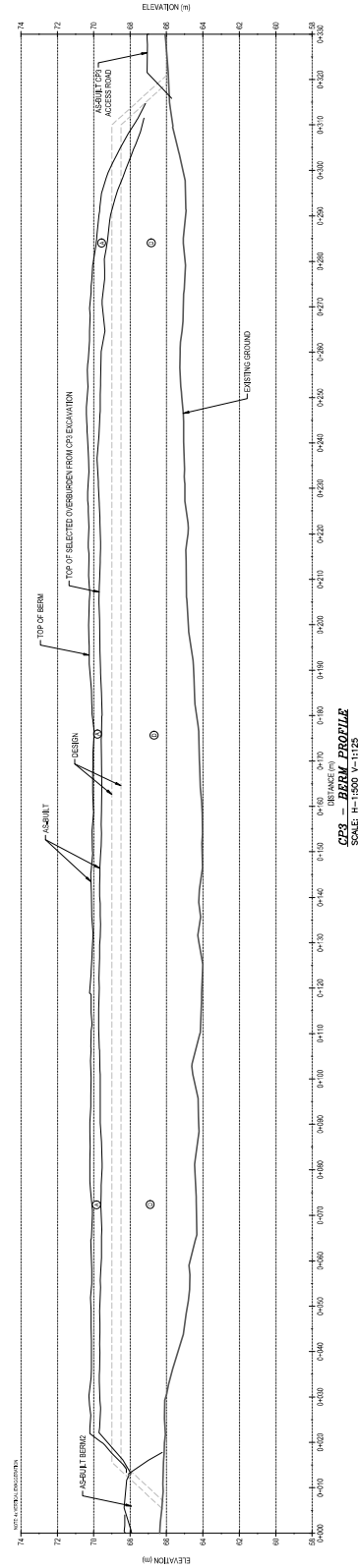
REF ID: A6-666-636-636-6





**CP3 BERM AS-BUILT THROUGH SECTION A**  
SCALE: 1:125

SCALE: 1:125



**CP3 - BERM PROFILE**  
SCALE: H=1:500 V=1:125  
DISTANCE (m)

SCALE: H=1:500 V=1:125

**TECHNICAL DRAWING: DAM CROSS-SECTION**

**Legend:**

- ① ASSUMED CONSTRUCTION SCHEDULE DATED JANUARY 2010.
- ② ASSUMED OPTIMIZATION SCHEME BASED ON POND DESIGN CAPACITY.
- ③ POND DESIGN CAPACITY IS BASED ON RECORDS & OUT OF THE DAM.
- ④ THE DAM WALL IS AN UNWEIGHTED CONCRETE GRADE WITH A 1% SLOPE.
- ⑤ AT ELEVATION 100m, INSIDE THE DESIGNER'S PROFILE, THE DAM WALL IS AN UNWEIGHTED CONCRETE GRADE WITH A 1% SLOPE.
- ⑥ SHOULD BE IN ACCORDANCE WITH THE FLOOD HAZARD STUDY REPORT.
- ⑦ SUPPLEMENTAL TETRA TECH LOG #.

**Legend:**

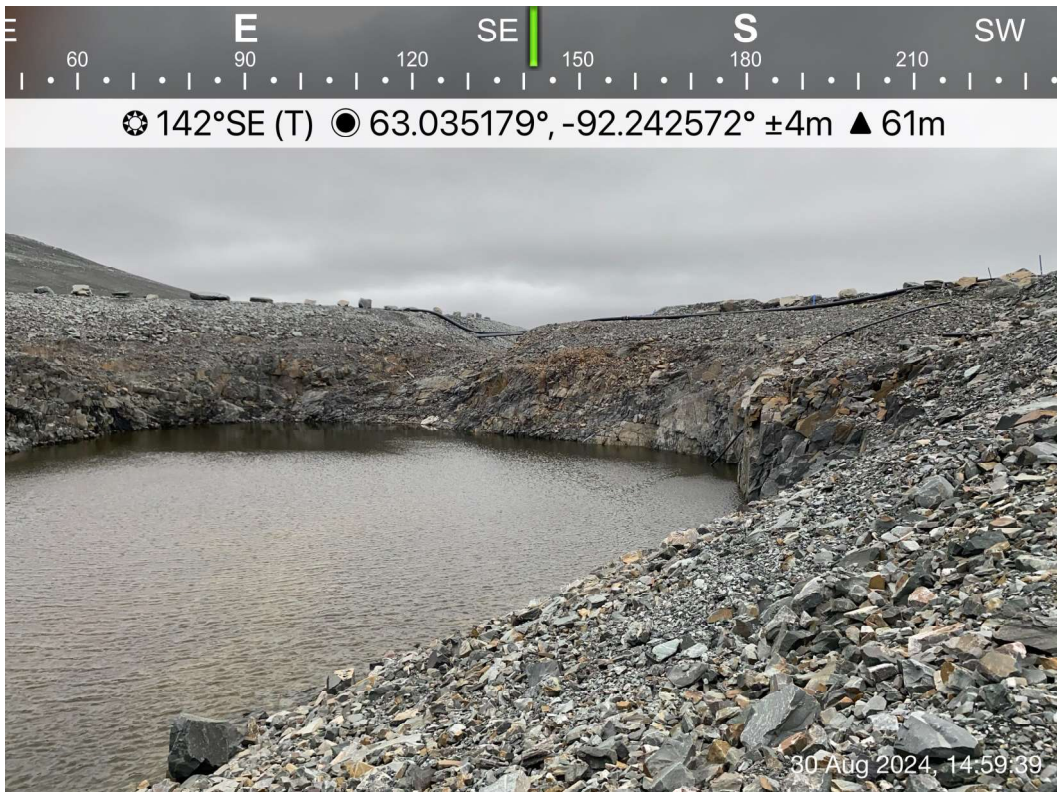
- ① CLEAR FOOTING FROM EXCAVATION (800 mm MINUS)
- ② OVERBURDEN FROM EXCAVATION (100 mm UNDER)

**REVISIONS:**

NO.	DATE	DESCRIPTION
1	2010-01-20	DESIGNER'S PROFILE
2	2010-01-20	CONTRACTOR'S PROFILE
3	2010-01-20	AS SHOWN
4	2010-01-20	AS BUILT



**CP3 - Photo 1:** CP3 - Small amount of water stored in CP3, bedrock slopes with fractured rock, no stability concern.



**CP3 - Photo 2:** CP3 - View of Channel 3 outlet and rockfill cover placed between TSF toe and CP3 as thermal protection. Facing southeast.



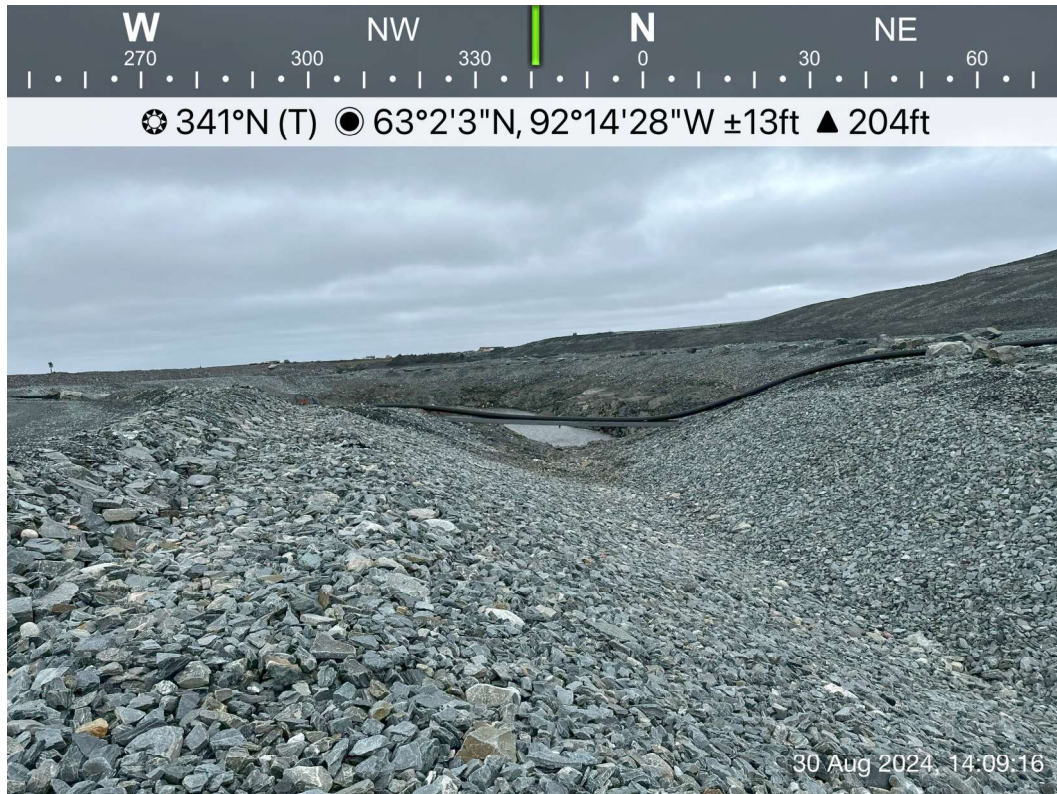


**CP3 - Photo 3:** CP3 - Snow stockpile between TSF and CP3 Thermal Berm. Facing west.



**CP3 Thermal Berm Photo 4:** CP3 Thermal Berm - Crest of CP3 Thermal Berm, minor thaw settlement observed, similar conditions to the previous year. Facing north.





**Channel 3 - Photo 5:** Channel 3 - Channel 3 outlet, entering CP3. Facing north.



**Channel 3 - Photo 6:** Channel 3 - View of Channel 3. Facing East.





**Channel 3 -  
Photo 7:**

Channel 3 - View of middle section. Facing southeast.



**Channel 3 -  
Photo 8:**

Channel 3 - View of east end section of Channel 3. Facing east.





**Berm 2 - Photo 9:** Berm 2 - Berm 2 north portion, slope and crest, performing well, no stability concern. Facing southwest.



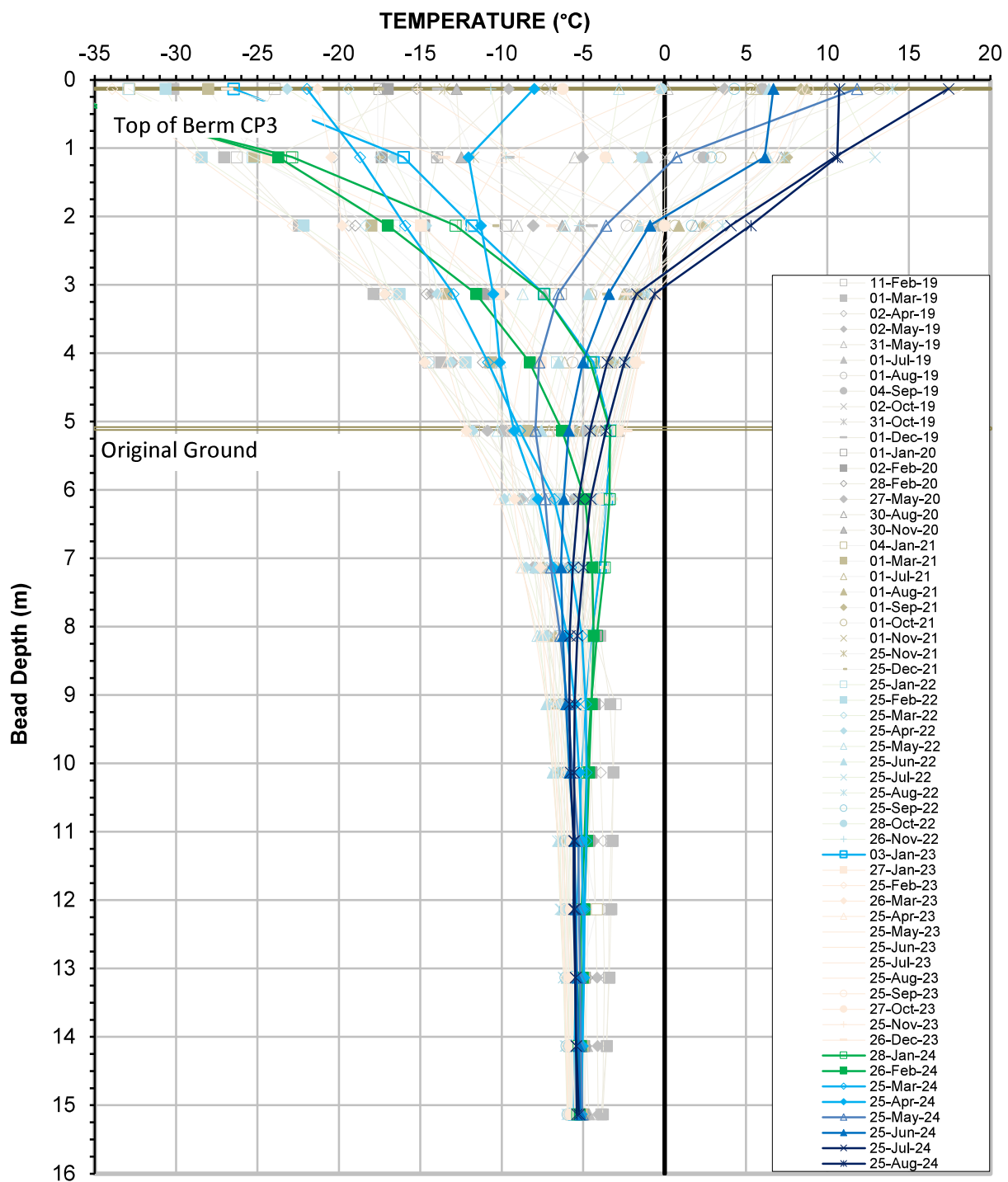
**Berm 2 - Photo 10:** Berm 2 - Berm 2 middle portion, slope and crest, performing well, no stability concern, ponded water on both sides. Facing south.





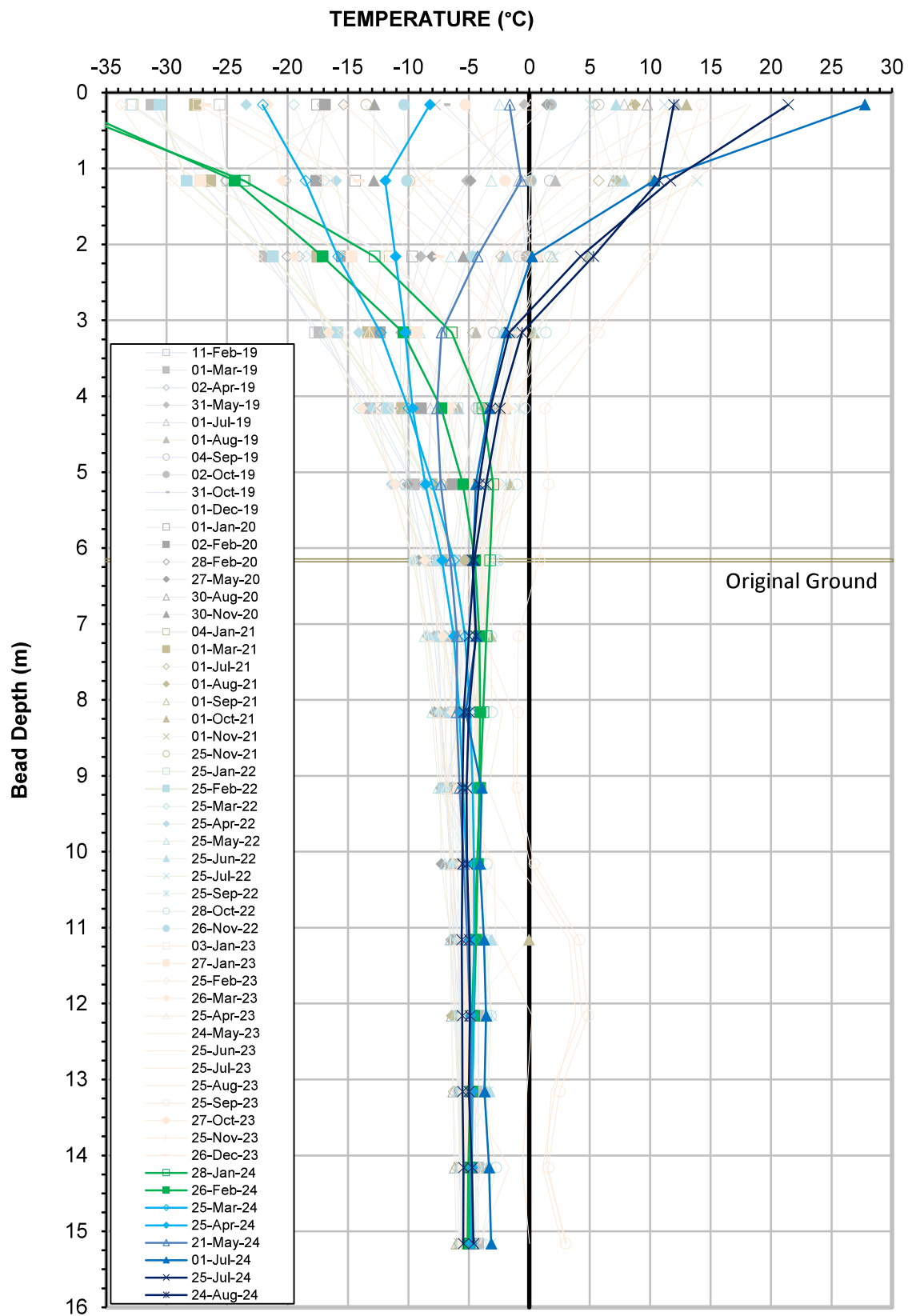
**Berm 2 -  
Photo 11:**

Berm 2 - Berm 2 south portion, slope and crest, performing well, no stability concern. Facing south.



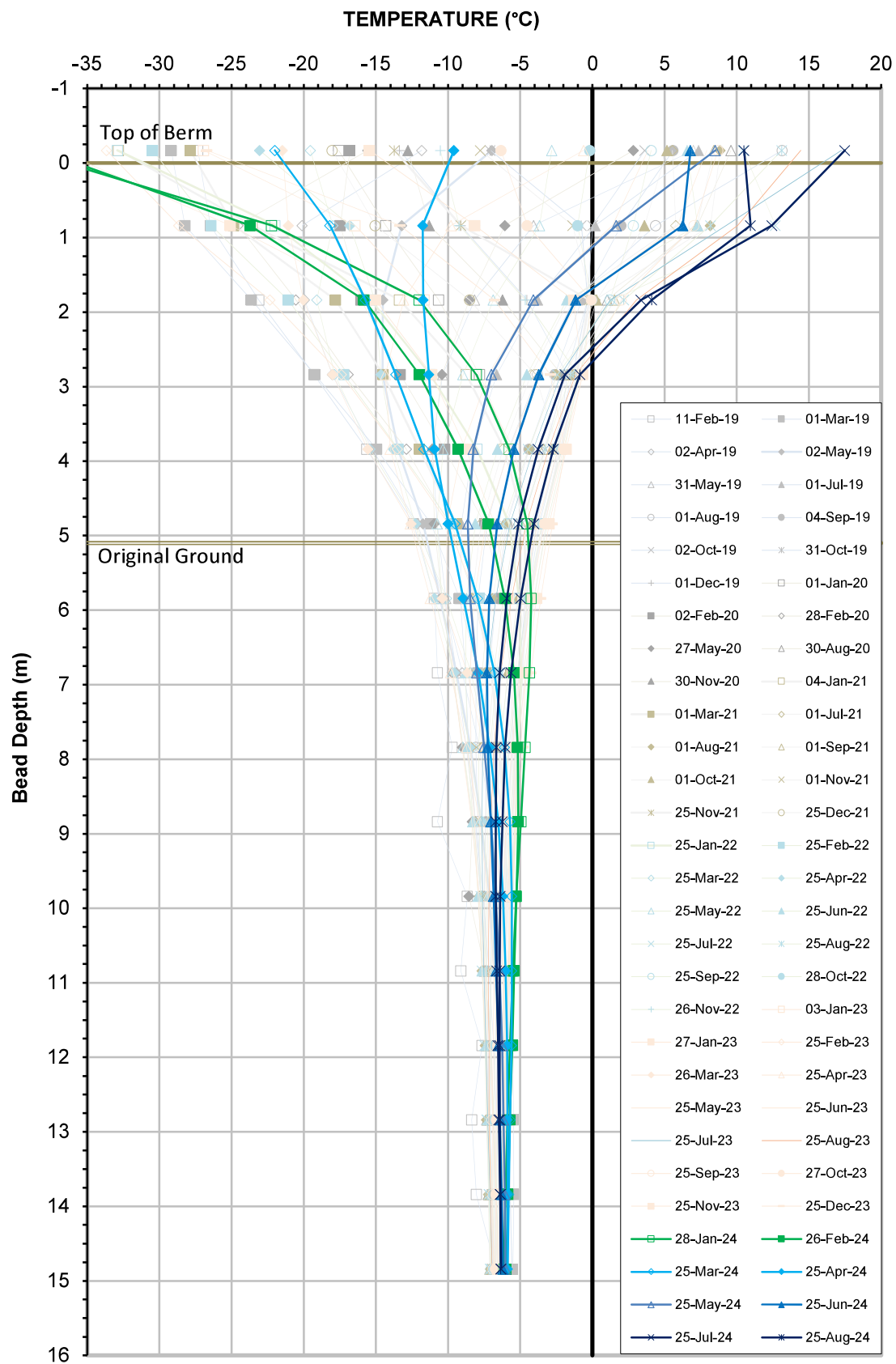
**Ground Temperature Profile for Cable  
GTC-01**

Serial No.: 2644



Serial No.: 2645  
Date Installed: February 11, 2019

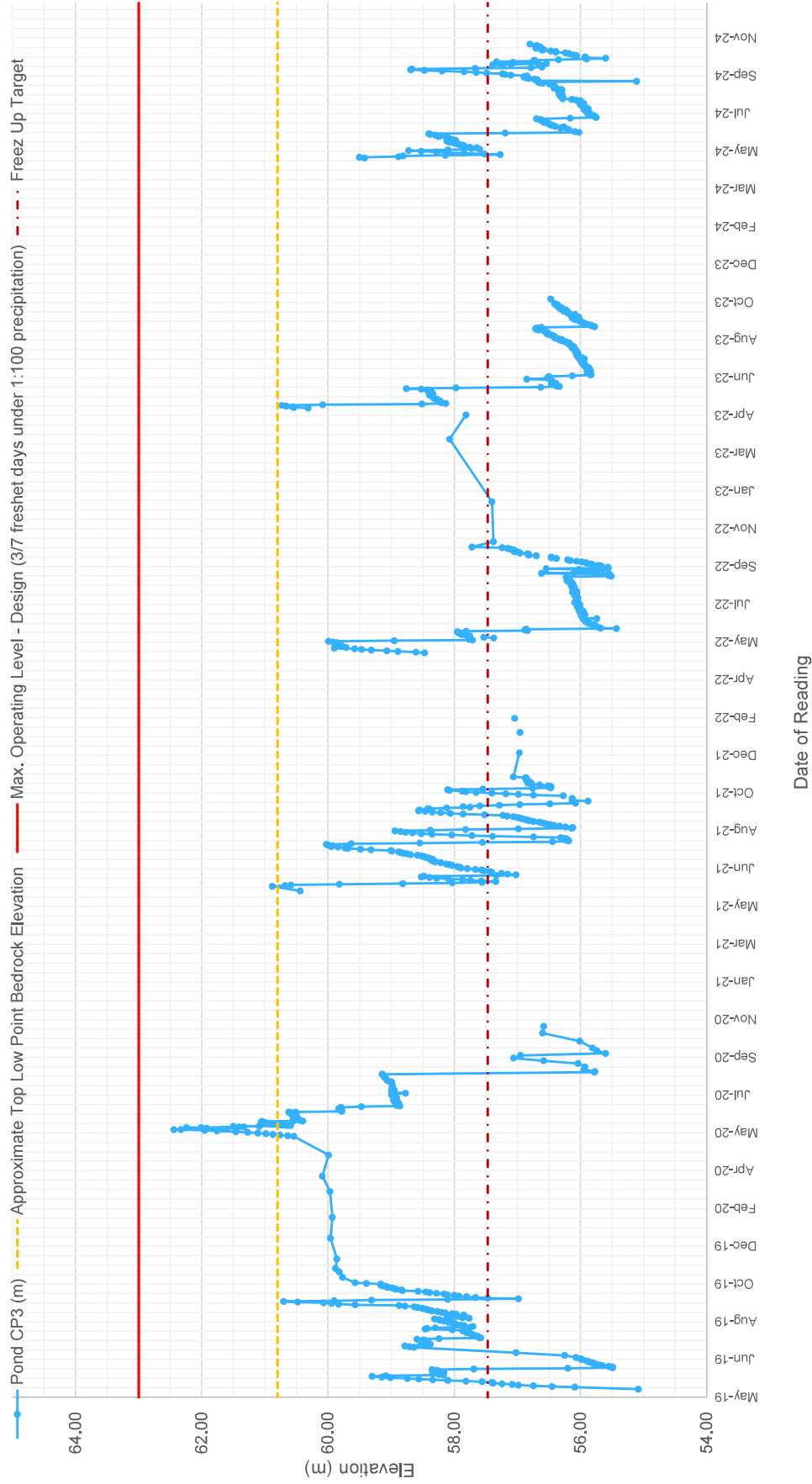




**Ground Temperature Profile for Cable GTC-03**  
**Berm CP3**

Serial No.: 2644  
Date Installed: February 11, 2019

# Pond CP3 Water Elevations (2019 - 2024)

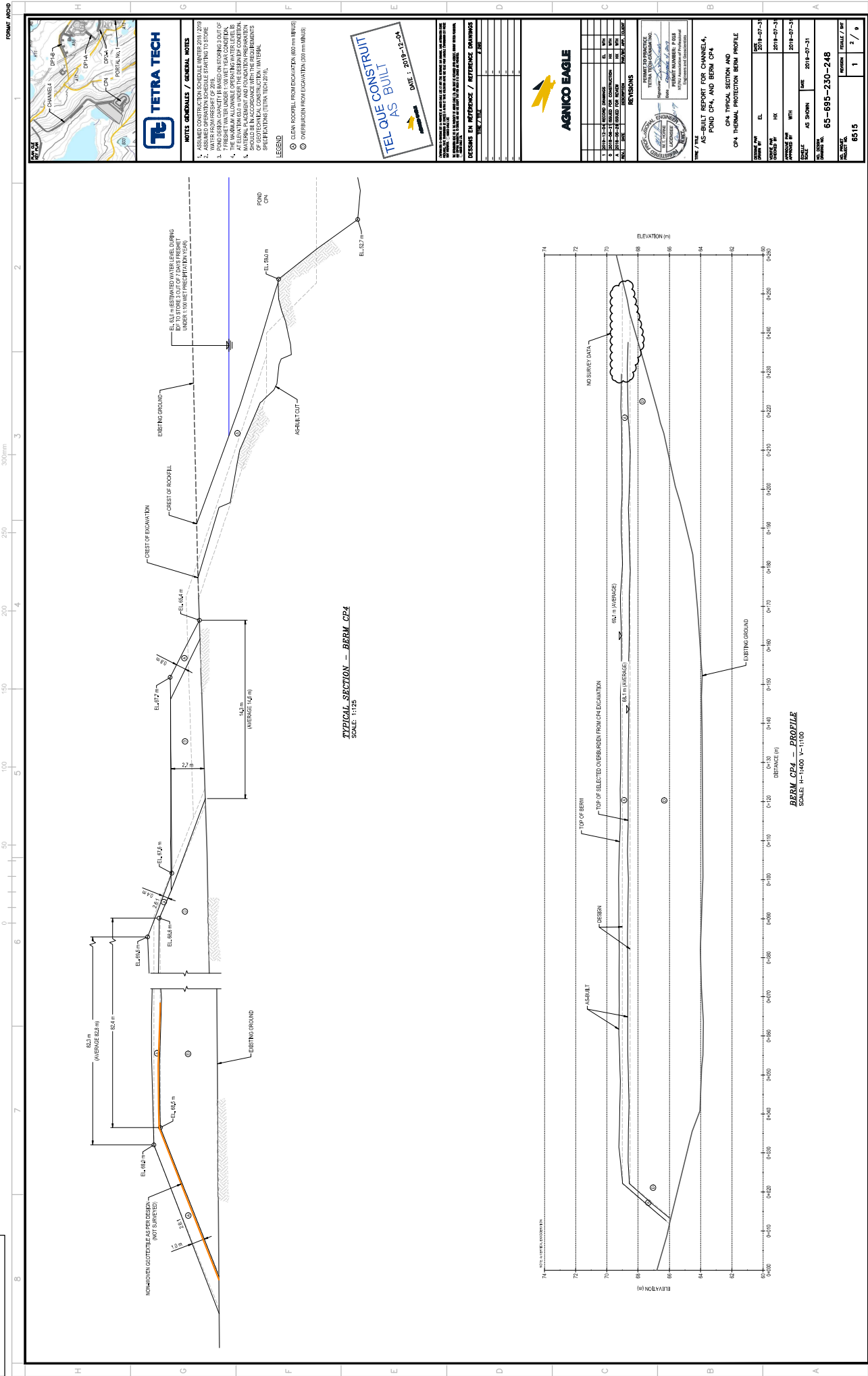


## APPENDIX E

### POND CP4, CHANNELS, AND BERMS









**TETRA TECH**

- NOTES GÉNÉRALES / GENERAL NOTES**
1. ASSUMED CONSTRUCTION SCHEDULE FOR CHANNEL 4 FALL / WINTER 2010.
  2. ASSUMED GEOTECH THAT MEETS MATERIAL SPECIFICATION WILL BE AVAILABLE AT SITE FOR CHANNEL 4 CONSTRUCTION.
  3. MATERIAL, PLACEMENT AND FOUNDATION PREPARATION SHOULD BE IN ACCORDANCE WITH THE REQUIREMENTS OF GEOTECHNICAL CONSTRUCTION MATERIAL SPECIFICATIONS (TETRA TECH 2018).

### LEGEND

- ④ CLEAN ROCK FILL FROM EXCAVATION (300 mm MINUS)  
⑤ RIP RAP

[illegible]

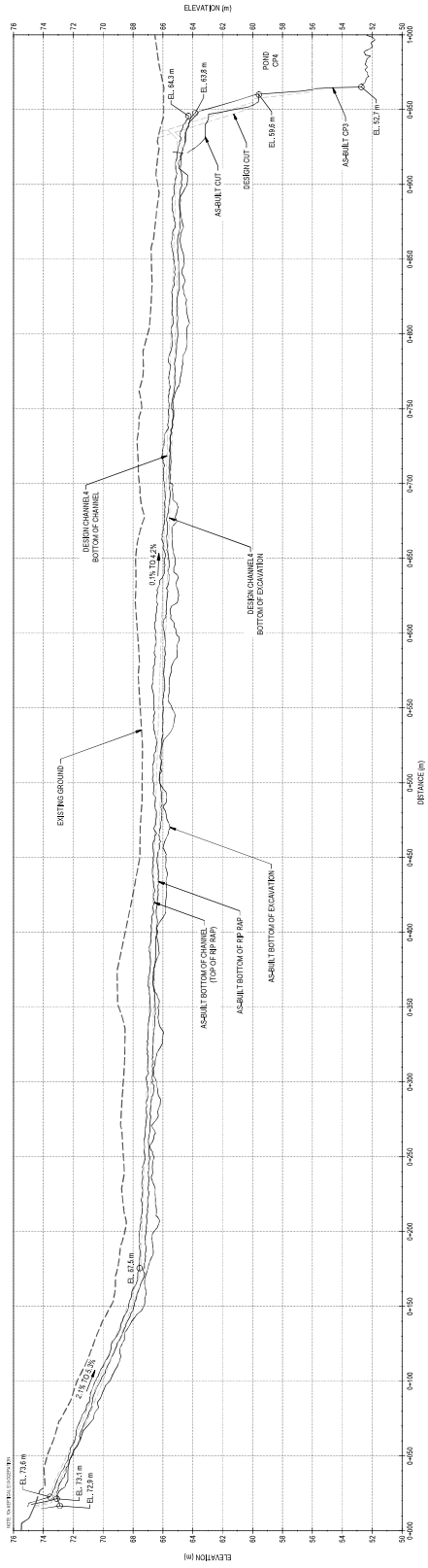
REV.	DATE	DESCRIPTION	PREP'D BY	CHECK'D BY
1	2019-12-04	RECORD DRAWINGS	EL	WITH
0	2018-06-21	ISSUED FOR CONSTRUCTION	HO	WITH
A	2018-05-24	ISSUED FOR REVIEW	HO	WITH

REVISIONS

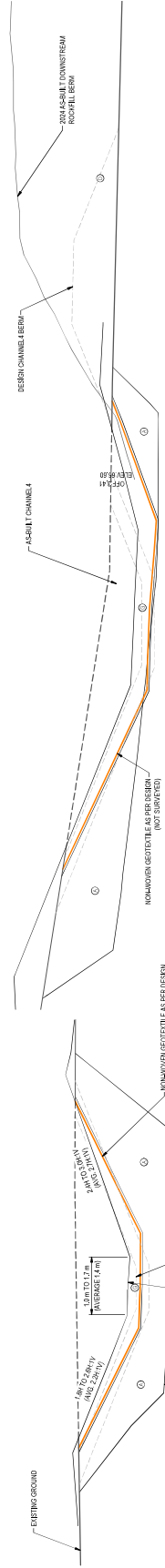
AS-BUILT REPORT FOR CHANNEL 4,  
POND CP4, AND BERM CP4

DECISION MADE BY	EL	DATE	2019-07-31
VERIFIED BY	HO		
APPROVED BY	WITH		
DATE			2019-07-31

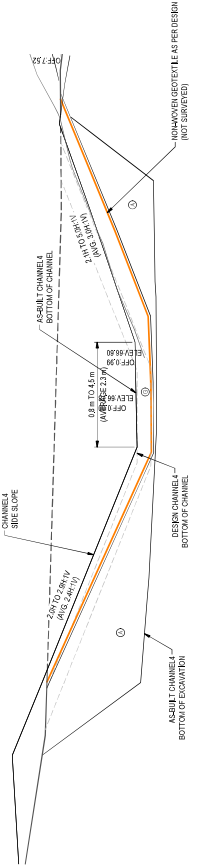
65-695-230-252 INC. PROJECT PROJECT NO.	REVISION	FEUILLE / SHEET
	1	7 / 9



**CHANNEL 4 PROFILE**  
SCALE: H-1:1500 V-1:150



CHANNEL 4 BERM AS-BUILT FROM STATION 0+180 TO 0+620  
SCALE: 1"=50'



CHANNEL 4 AS-BUILT FROM STATION 0+160 TO 0+923 (2 m WIDE CHANNEL BOTTOM)  
SCALE: 1:50





# NOTES / GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
2. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
3. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
4. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
5. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
6. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
7. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
8. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
9. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.
10. CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TETRA TECH SPECIFICATIONS.

AS-BUILT REPORT FOR CHANNEL, FOND CP4, AND BERM CP4

CHANNEL AS-BUILT SECTIONS (1 of 2)

65-695-230-253-1

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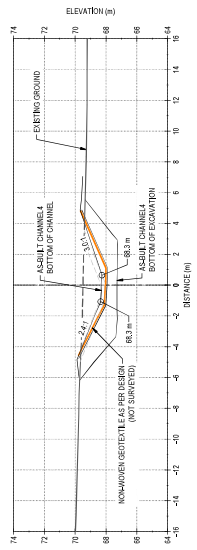
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43

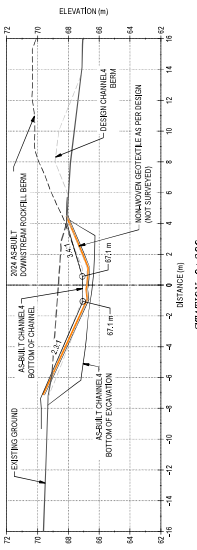
44

45

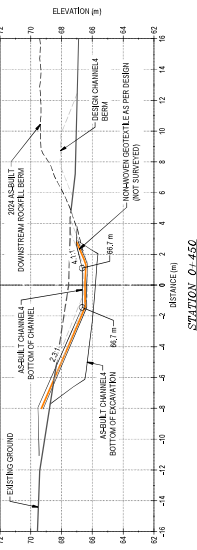
46



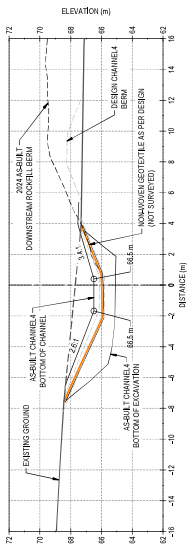
STATION 0+150



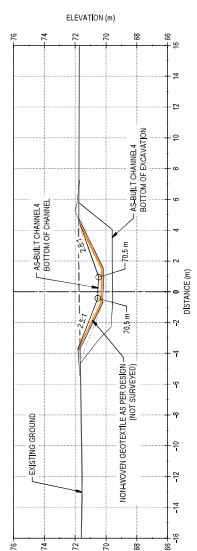
STATION 0+300



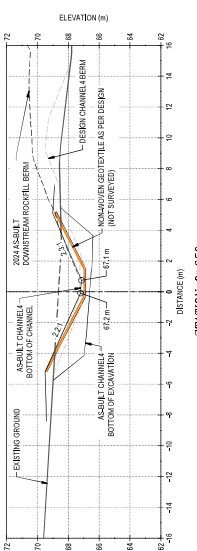
STATION 0+450



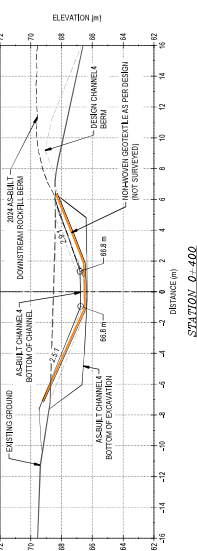
STATION 0+600



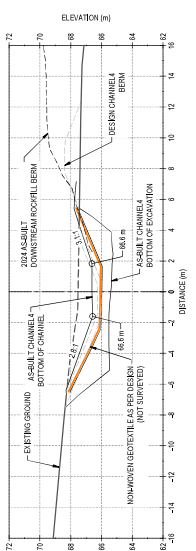
STATION 0+100



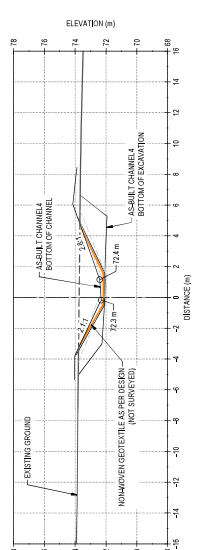
STATION 0+350



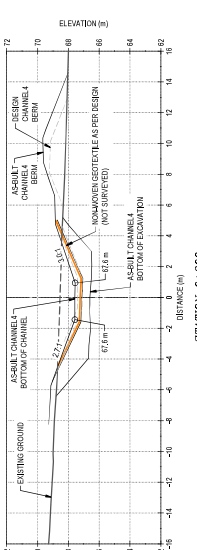
STATION 0+400



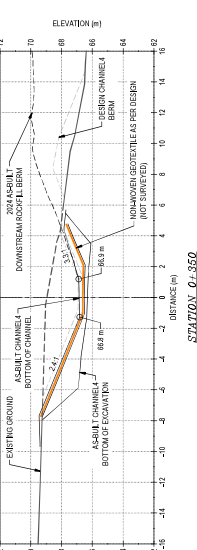
STATION 0+550



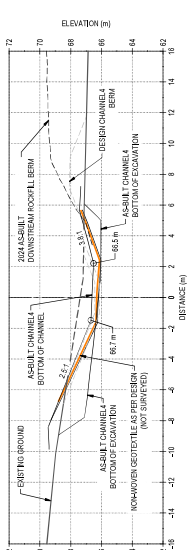
STATION 0+050



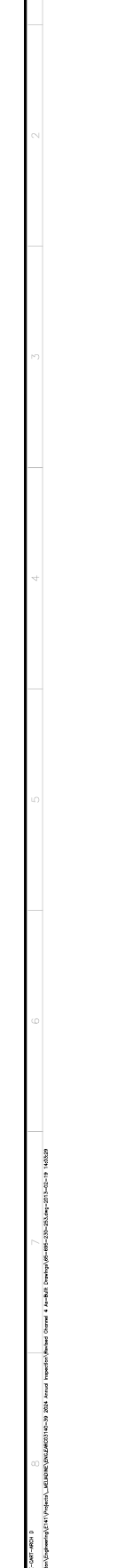
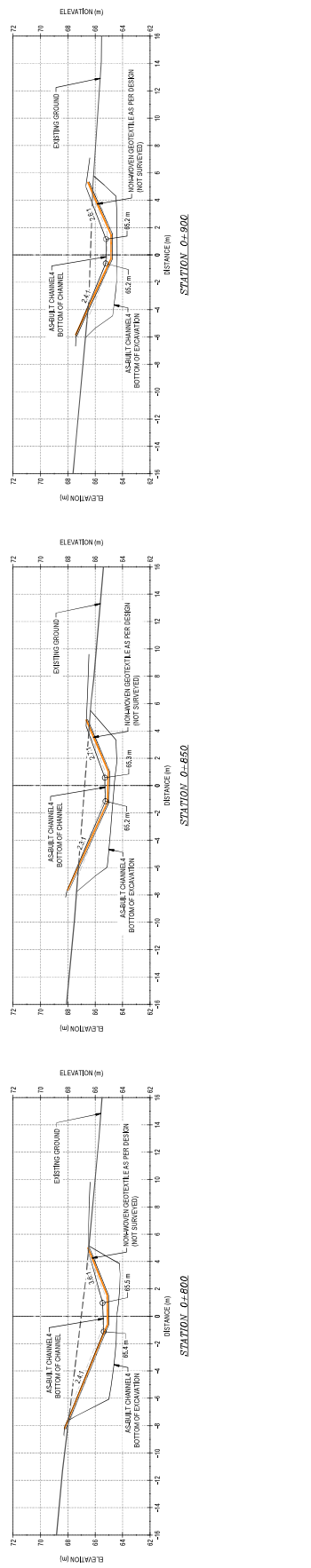
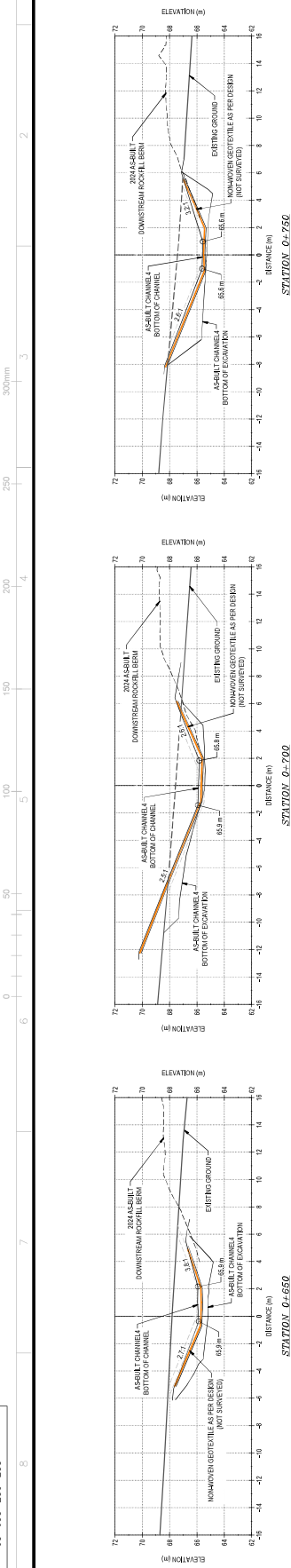
STATION 0+200



STATION 0+350



STATION 0+500





**CP4 - Photo 1:** CP4 - View of CP4. Facing south.



**CP4 - Photo 2:** CP4 - View of northeast slope. Facing southeast.



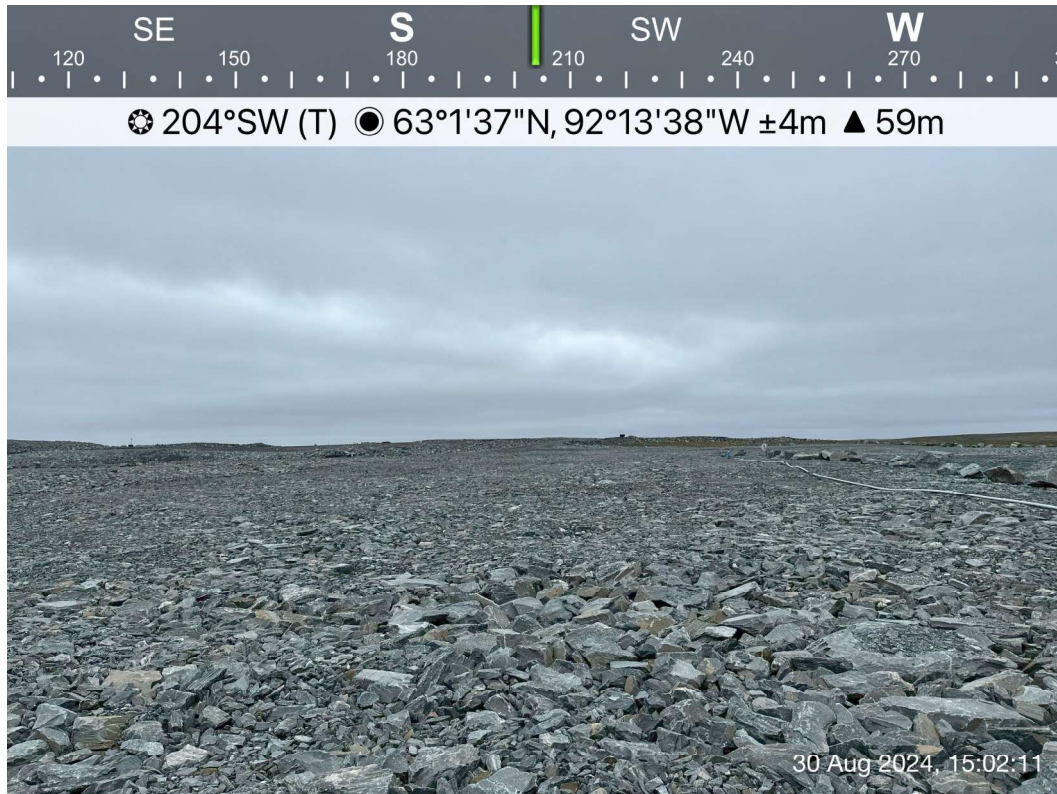


**CP4 - Photo 3:** CP4 - View of northwest slope. Facing south.



**CP4 Thermal Berm Photo 4:** CP4 Thermal Berm - GTC data collection system. Facing southeast.





**CP4 Thermal  
Berm Photo 5:**

CP4 Thermal Berm - Recently graded, performing well, no stability concern.  
Facing southwest.



**CP4 Thermal  
Berm Photo 6:**

CP4 Thermal Berm - View of downstream side slope. Facing southwest.





**CP4 Thermal  
Berm - Photo 7:**

CP4 Thermal Berm - View of upstream side slope. Facing southwest.



**CP4 Thermal  
Berm Photo 8:**

CP4 Thermal Berm - Upstream side slope of CP4 Thermal Berm and south end of Channel 4. Facing north.





**Channel 4 -  
Photo 9:**

Channel 4 - Channel 4, ponding water at base of channel, some thaw subsidence observed between Channel 4 and WRSF1. Facing southeast.



**Channel 4 -  
Photo 10:**

Channel 4 - Channel 4, ponding water at base of channel, some thaw subsidence observed between Channel 4 and WRSF1. Facing northwest.





**Channel 4 -  
Photo 11:**

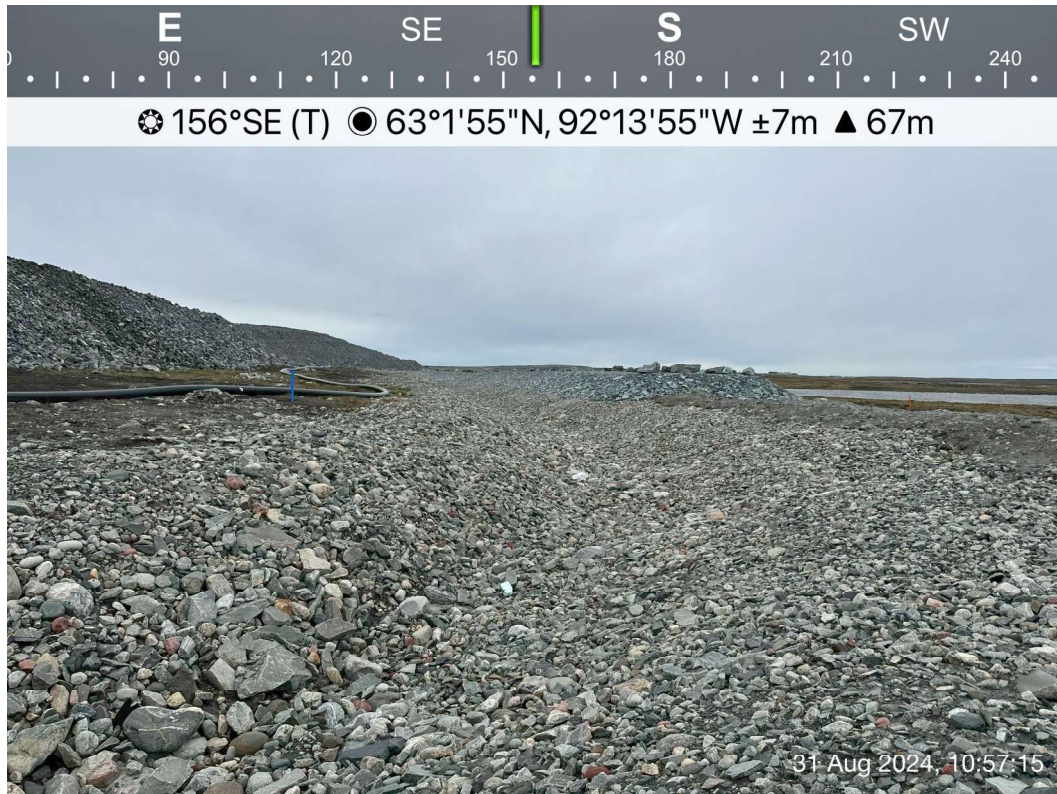
Channel 4 - Channel 4 and recently placed ROM cover to mitigate surface erosion downstream of the channel. Facing southeast.



**Channel 4 -  
Photo 12:**

Channel 4 - View downstream of Channel 4, performing well, no stability or seepage concerns. Facing southeast.





**Channel 4 -  
Photo 13:**

Channel 4 - Upper portion, performing well, no stability concerns. Facing southeast.



**Channel 4 -  
Photo 14:**

Channel 4 - Upper portion, performing well, no stability concerns. Facing south.





**Channel 4 -  
Photo 15:**

Channel 4 - Upper portion, performing well, no stability concerns. Facing northeast.



**Channel 4 -  
Photo 16:**

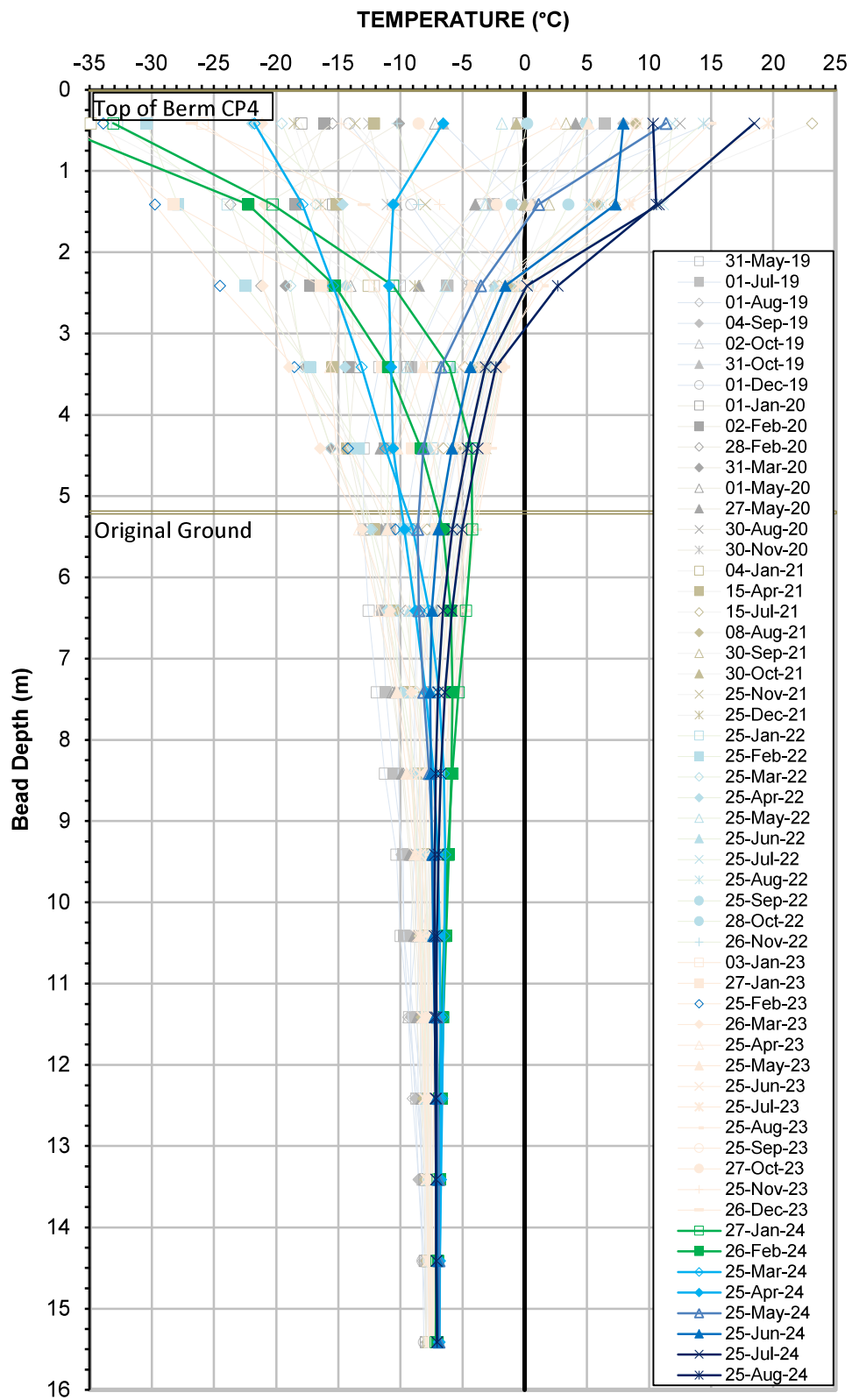
Channel 4 - Southern portion, thaw subsidence, minor settlement, exposed geotextile and minor cracking. Facing southeast.



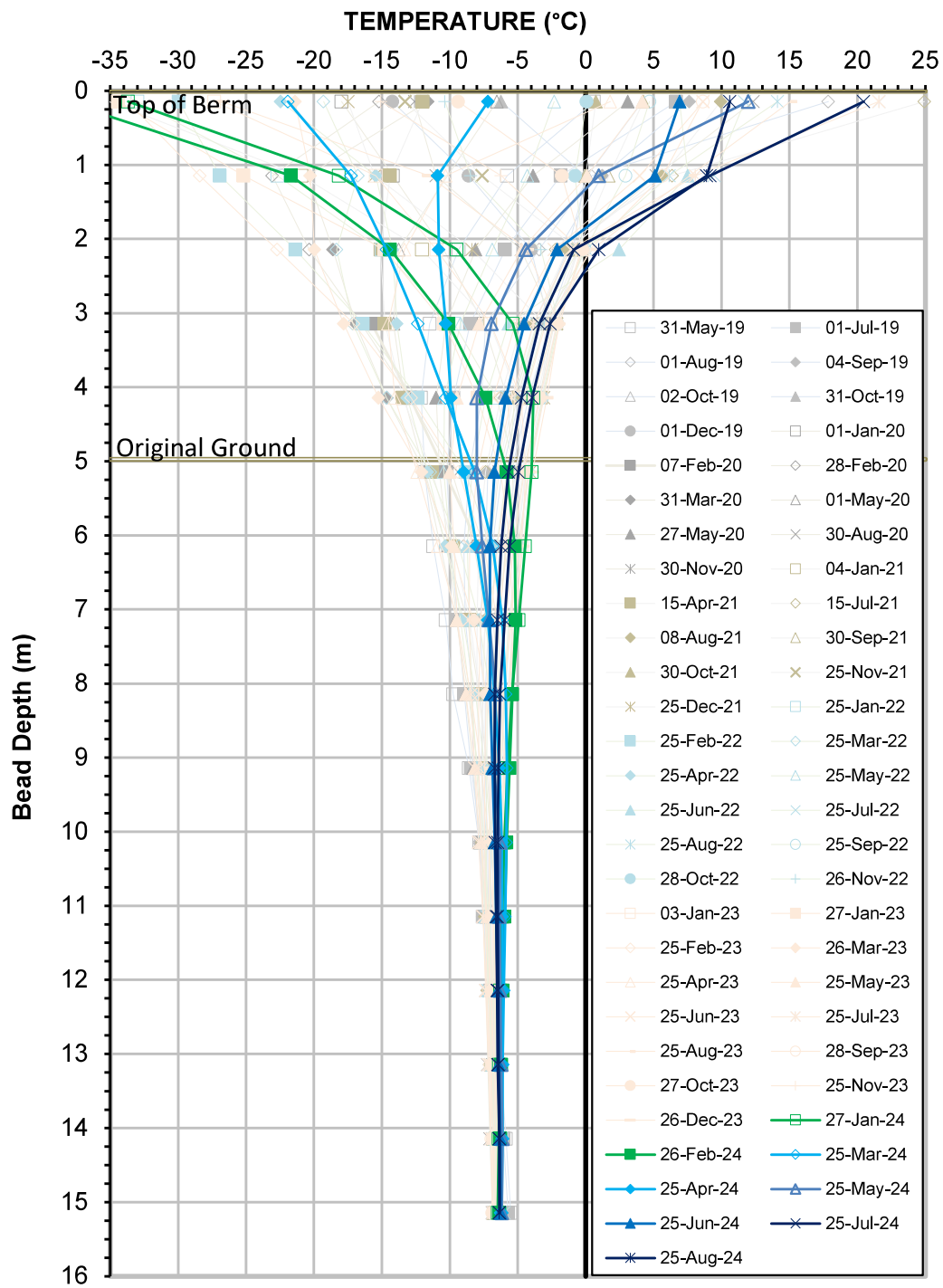


**Channel 4 -  
Photo 17:**

Channel 4 - Upper portion, thaw subsidence and minor cracking. Facing south.



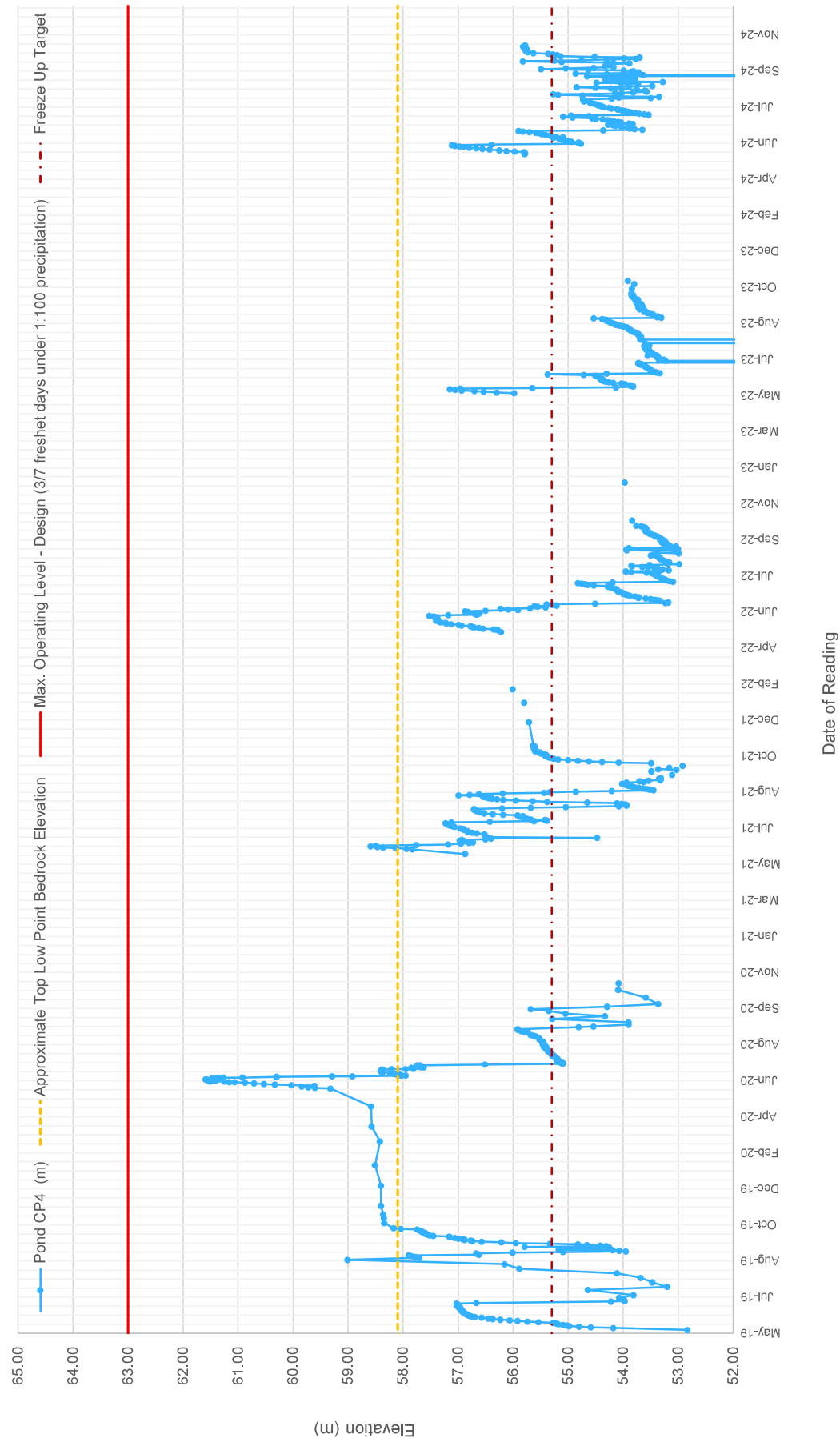




**Ground Temperature Profile for Cable GTC-02**  
**Berm CP4**

Serial No.: 2686  
 Date Installed: May 18, 2019

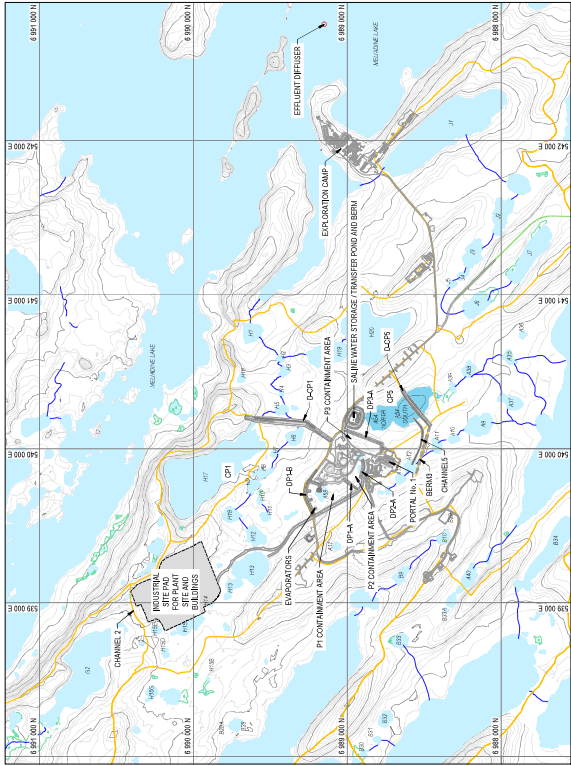
Pond CP4 Water Elevations (2019-2024)



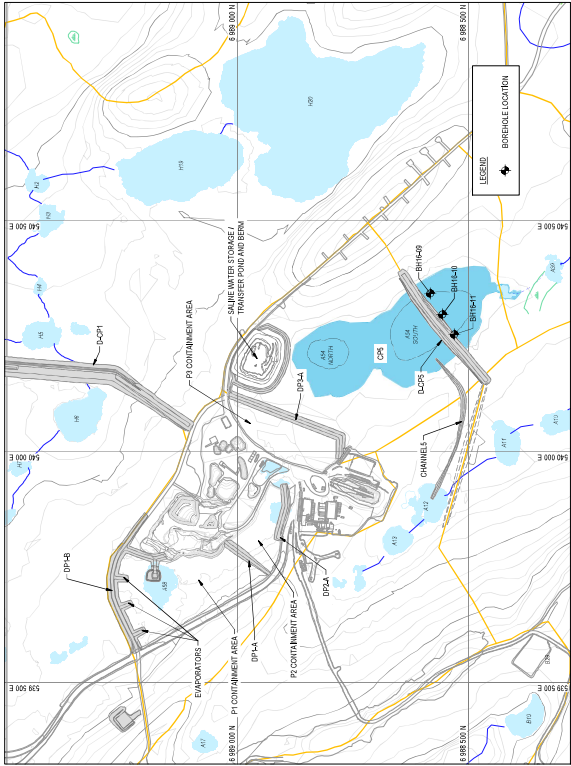
## APPENDIX F

### POND CP5 AND D-CP5

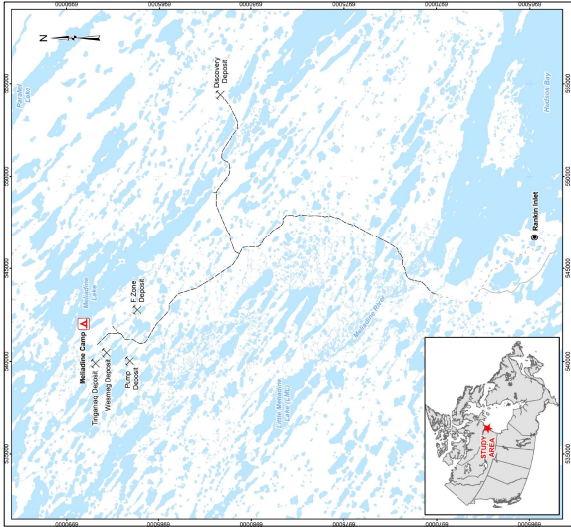




GENERAL SITE LOCATION  
SCALE: 1:15,000



D-OPS SITE LOCATION  
SCALE: 1:15,000



LOCATION MAP  
SCALE: N.T.S.

D-OPS AS-BUILT DRAWING INDEX

DRAWING NUMBER	DRAWING TITLE
65-685-230-214	D-OPS AS-BUILT GENERAL LOCATION PLAN
65-685-230-215	D-OPS AS-BUILT KEY TRENCH AND IN-ELAYOUT PLAN
65-685-230-216	D-OPS AS-BUILT PROFILES
65-685-230-217	D-OPS AS-BUILT THERMAL COVER LAYOUT PLAN AND PROFILES
65-685-230-218	D-OPS AS-BUILT TYPICAL SECTIONS AND QUANTITIES
65-685-230-219	D-OPS AS-BUILT SECTIONS STATION 4+00 TO 4+70
65-685-230-220	D-OPS AS-BUILT SECTIONS STATION 4+80 TO 4+90
65-685-230-221	D-OPS AS-BUILT INSTRUMENTATION PLAN AND DETAILS FOR GROUND TEMPERATURE CABLES
65-685-230-222	D-OPS AS-BUILT INSTRUMENTATION PLAN AND DETAILS FOR GROUND TEMPERATURE CABLES AND SETTLEMENT SURVEY MONUMENT POINTS



NOTES GENERALES / GENERAL NOTES

- USE STANDARD MATERIALS UNLESS OTHERWISE SPECIFIED
- TO DOPS CONSTRUCTION

PERMIT TO PRACTICE  
TETRA TECH (CANADA) INC.  
Date: 2017-10-19  
Signature: [Signature]  
PERMIT NUMBER: P-018  
N.T.S.  
Engineers and Geoscientists

TEL QUE CONSTITUT  
AS BUILT  
DATE: 2017-10-19

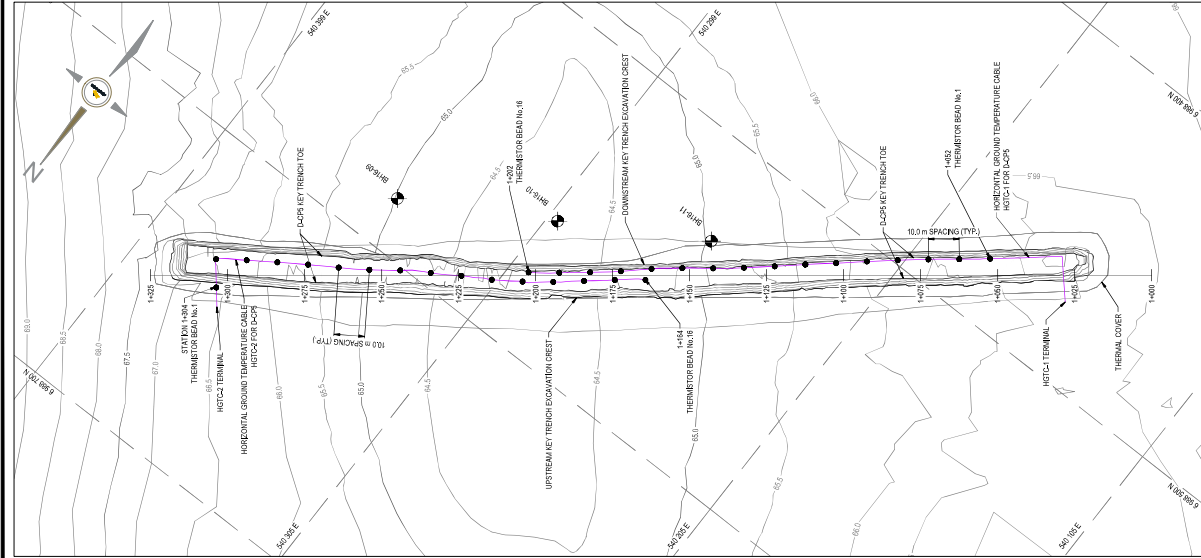


REVISIONS
1. 2017-10-19 ISSUED FOR REVIEW
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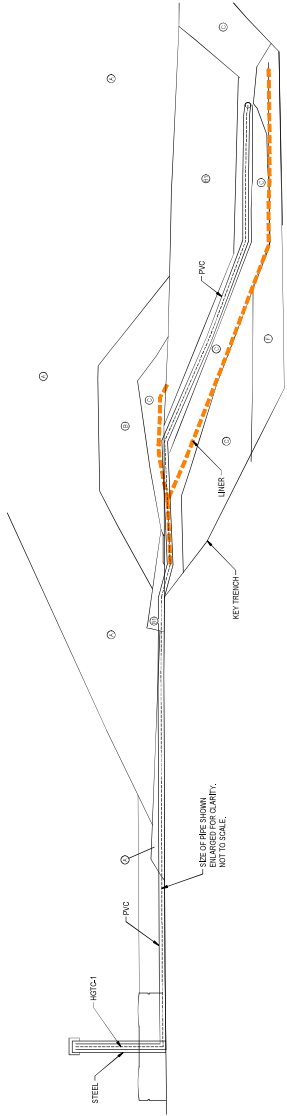


AGNCO EAGLE MELADINE GOLD PROJECT  
D-OPS AS-BUILT  
GENERAL LOCATION PLAN

REVISION	DATE	BY	APP'D
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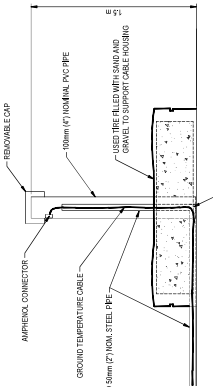
D-CPS AS-BUILT HORIZONTAL GROUND TEMPERATURE CABLE LAYOUT  
SCALE: 1:750



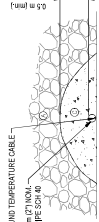
D-CPS AS-BUILT HORIZONTAL GROUND TEMPERATURE CABLE - SOUTH TERMINAL SECTION THROUGH STATION 1+028  
SCALE: 1:100



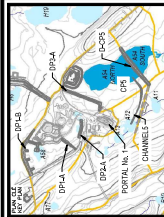
D-CPS AS-BUILT HORIZONTAL GROUND TEMPERATURE CABLE - NORTH TERMINAL SECTION THROUGH STATION 1+304  
SCALE: 1:100



TEMPERATURE CABLE - TERMINAL SUPPORT DETAIL  
SCALE: 1:100



TEMPERATURE CABLE - PROTECTIVE COVER SECTION  
SCALE: 1:100



NOTES GENERALS / GENERAL NOTES

PERMIT TO PRACTICE  
TETRA TECH-SARADA, INC.  
Signature: *[Signature]*  
Date: *2017-10-19*  
PRIME NUMBER: P 018  
NOTES: *[Notes]*  
Engineers and Geoscientists

TEL QUE CONSTRUIT  
AS BUILT  
DATE: 2017-10-19

REVISIONS  
NO. DESCRIPTION  
1. AS-BUILT  
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NO.	DESCRIPTION	DATE
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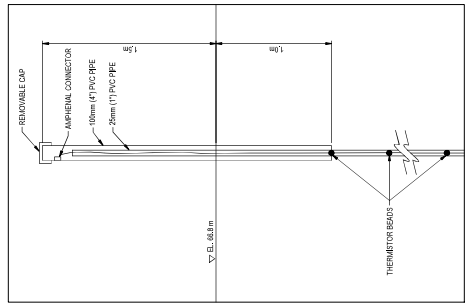
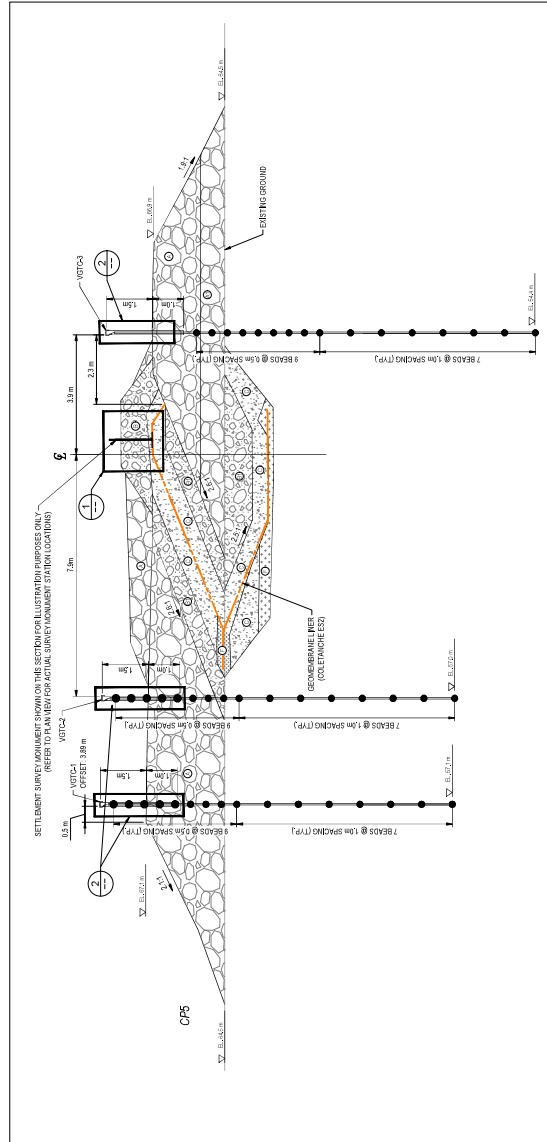
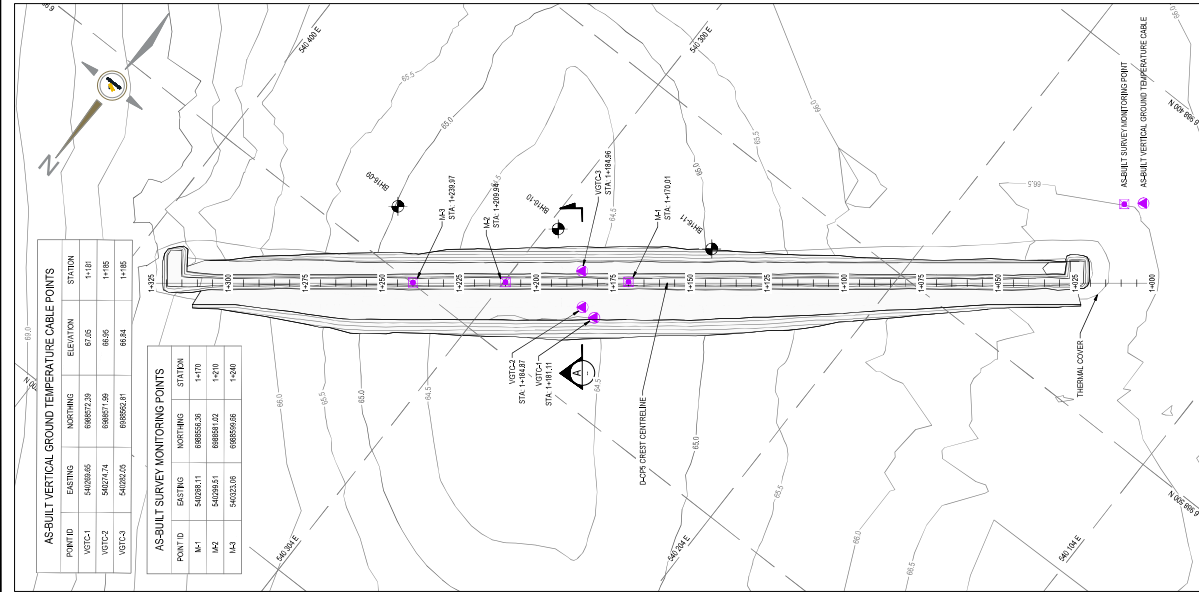


AGNICO EAGLE MELANEO GOLD PROJECT  
D-CPS AS-BUILT  
INSTRUMENTATION PLAN AND DETAILS  
FOR GROUND TEMPERATURE CABLES

NO.	DESCRIPTION	DATE
1	AS-BUILT	2017-10-19
2	AS-BUILT	2017-10-19
3	AS-BUILT	2017-10-19
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NO.	DESCRIPTION	DATE
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D-CPI TYPICAL VERTICAL GROUND TEMPERATURE CABLE TERMINAL DETAIL

**PERMIT TO PRACTICE**  
TETRA TECH SARADA INC.  
Signature: *[Signature]*  
Date: 2017-10-18  
PRIME NUMBER: P-018  
NOTES: Engineers and Geoscientists

**TEL QUE CONSTITUT AS BUILT**  
DATE: 2017-10-18

**NOTES GENERALES / GENERAL NOTES**

**AGNICO EAGLE**

**REVISIONS**

NO.	DESCRIPTION	DATE	BY	CHK
1	ISSUED FOR CONSTRUCTION	2017-08-08	KJ	
2	ISSUED FOR CONSTRUCTION	2017-08-15	KJ	
3	ISSUED FOR CONSTRUCTION	2017-08-15	KJ	

**AGNICO EAGLE WELDON COLD PROJECT**

D-CPS AS-BUILT - INSTRUMENTATION PLAN AND DETAILS FOR GROUND TEMPERATURE CABLES AND SETTLEMENT SURVEY MONUMENT POINTS

DATE: 2017-08-08  
BY: KJ  
CHECKED: KJ  
DATE: 2017-08-08

DATE: 2017-08-08  
BY: KJ  
CHECKED: KJ  
DATE: 2017-08-08

DATE: 2017-08-08  
BY: KJ  
CHECKED: KJ  
DATE: 2017-08-08

**PROJECT INFORMATION**

PROJECT NO.	PROJECT NAME	PROJECT LOCATION
65-685-230-221		

PROJECT NO. 65-685-230-221\_R1



## North East Elevation

☼ 245°SW (T) ● 63.025027°, -92.202400° ±7m ▲ 71m



**D-CP5 - Photo 1:** Dike D-CP5 - Dike downstream side slope. Facing southwest.

## East Elevation

☼ 259°W (T) ● 63.025073°, -92.202440° ±9m ▲ 70m



**D-CP5 - Photo 2:** Dike D-CP5 - Dike upstream side slope. Facing west.

## South West Elevation

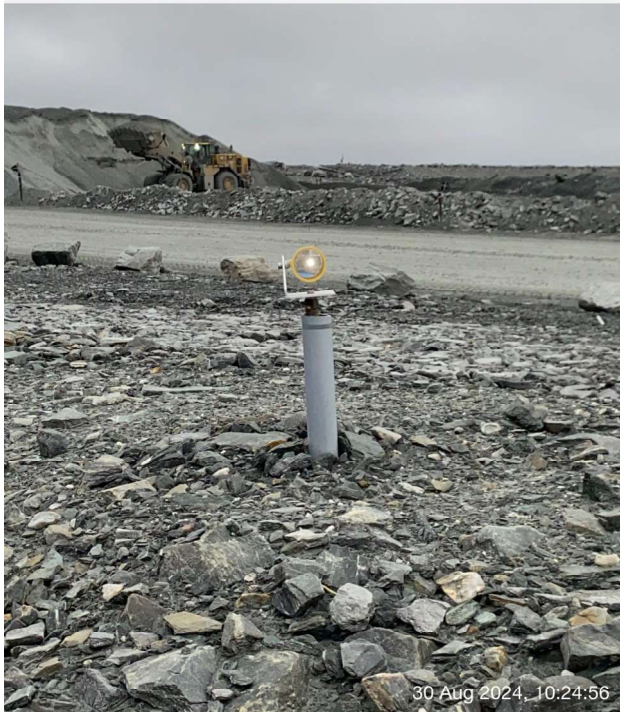
☉ 54°NE (T) ● 63.023573°, -92.206651° ±4m ▲ 69m



**D-CP5 - Photo 3:** Dike D-CP5 - Dike crest. Looking northeast.

## West Elevation

☉ 90°E (T) ● 63.024615°, -92.203793° ±4m ▲ 60m



**D-CP5 - Photo 4:** Dike D-CP5: Dike crest view – Survey Prism. Facing east.



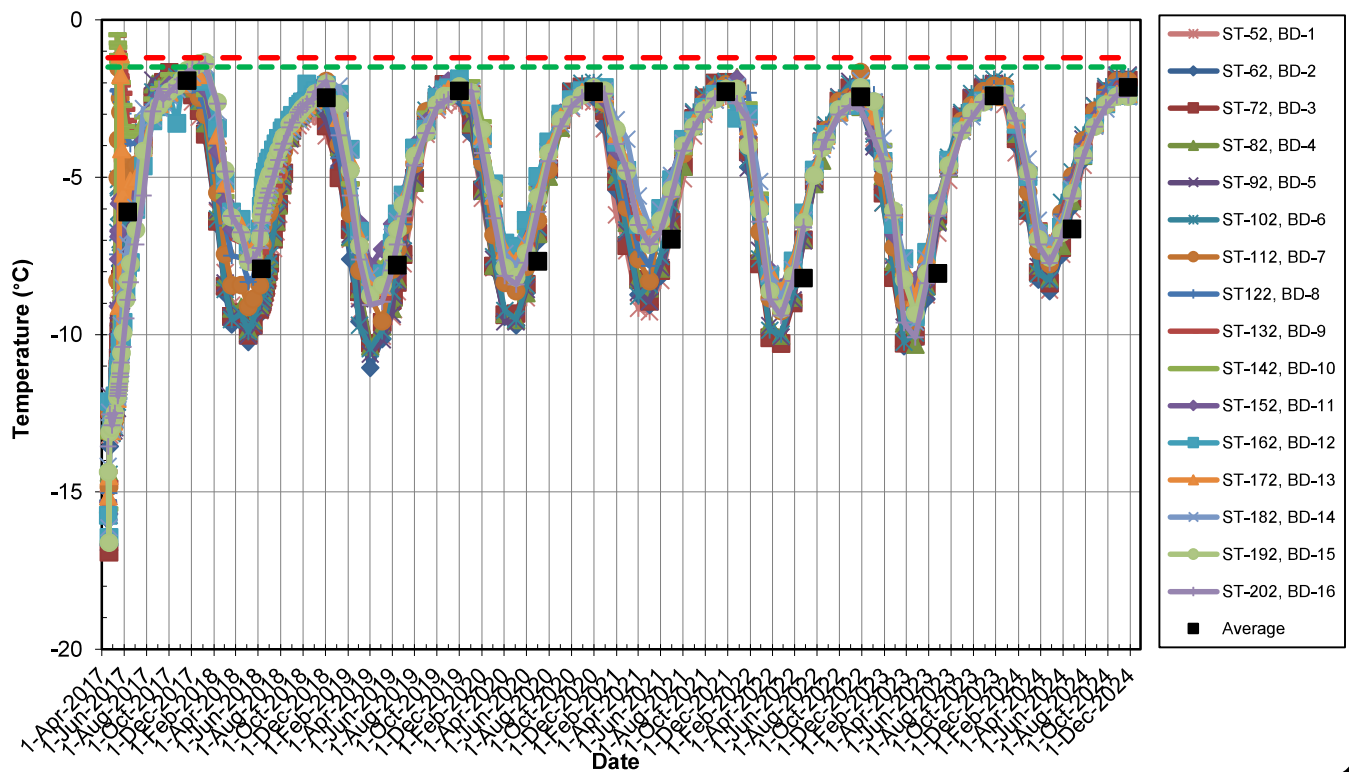
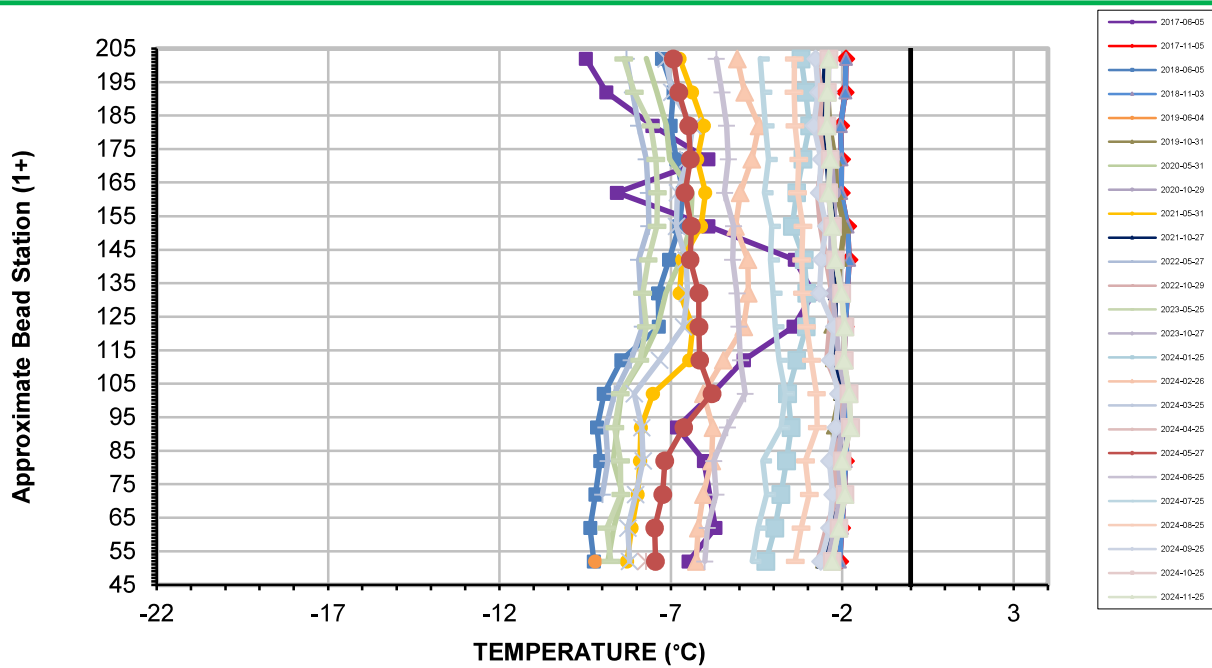


**D-CP5 - Photo 5:** Dike D-CP5: View of upstream side of dike. Facing southwest.



**CP5 Jetty - Photo 6:** CP5 Jetty: View of CP5 Jetty and pumping house. Facing North.



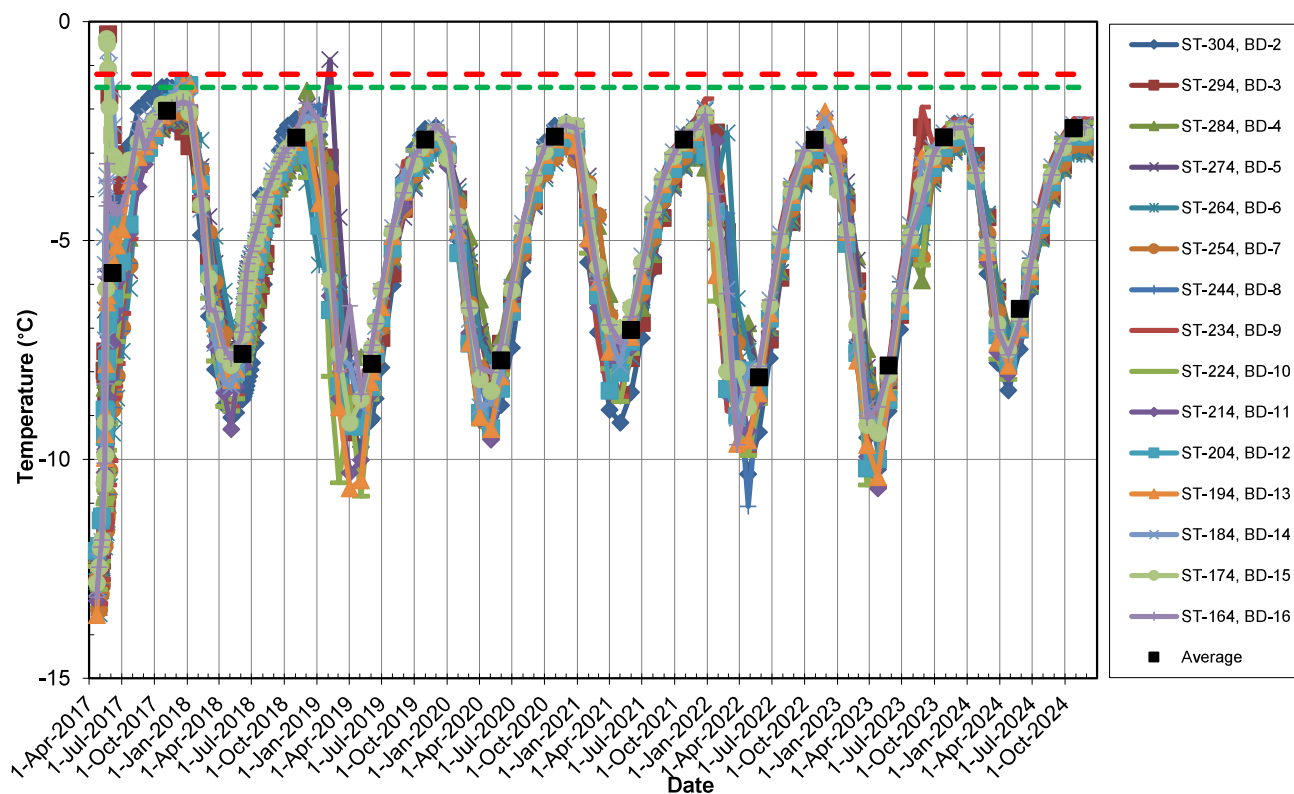
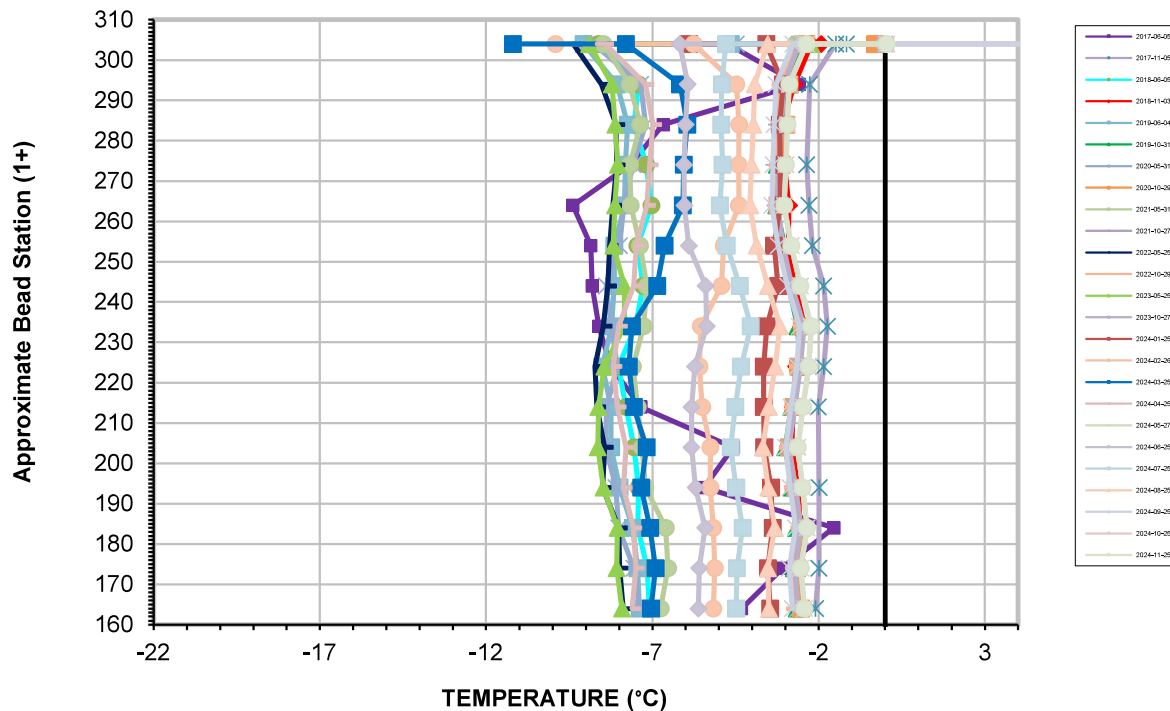


Serial No.: 2600  
Date Installed: April 15, 2017

EBA File No: E14103230.01-023

### Horizontal Ground Temperature Profile for Cable #1 (HGTC-01) Dike D-CP5



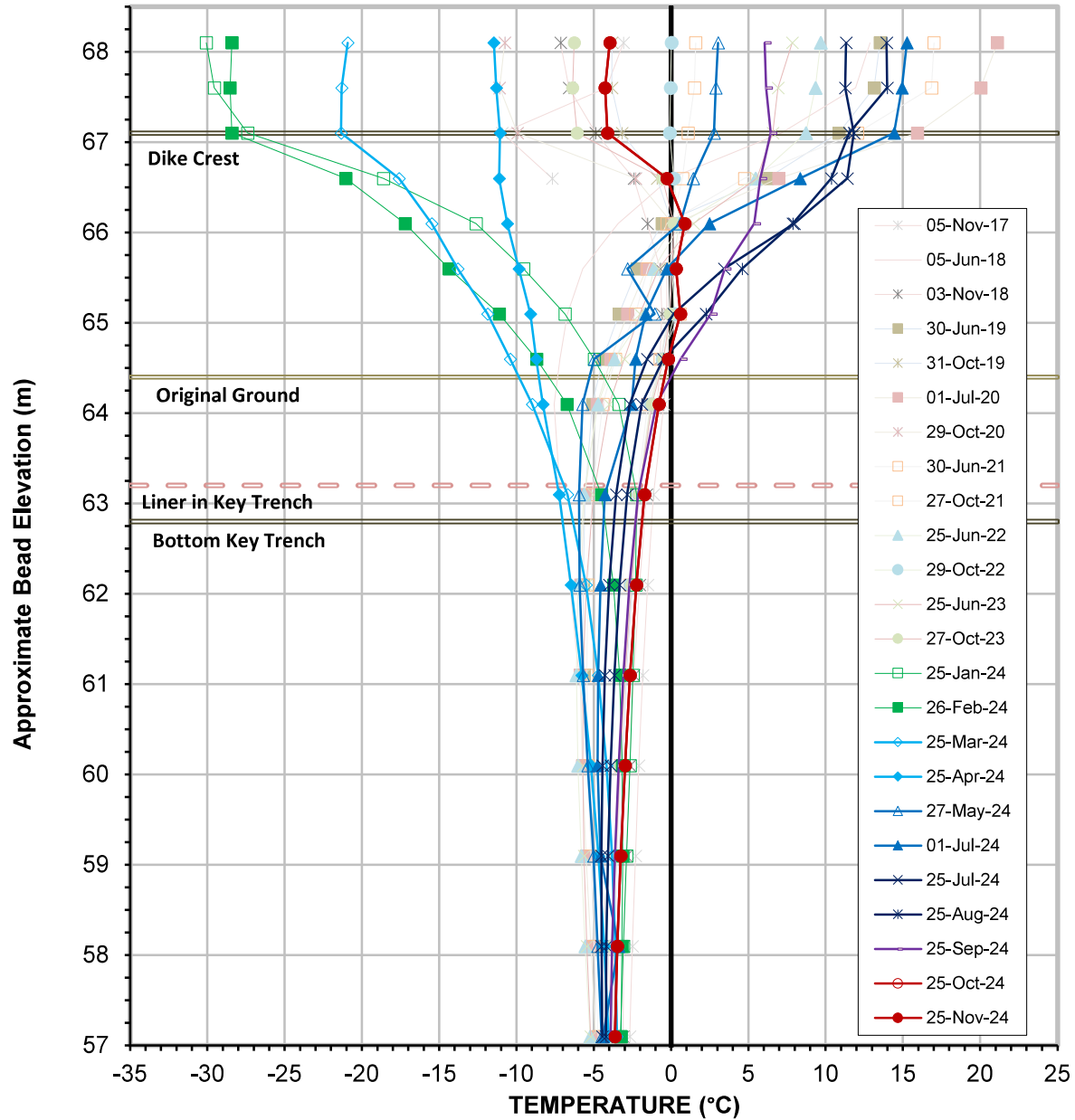


Serial No.: 2601  
Date Installed: April 20, 2017

EBA File No: E14103230.01-023

Horizontal Ground Temperature Profile for Cable #2 (HGTC-02)  
Dike D-CP5



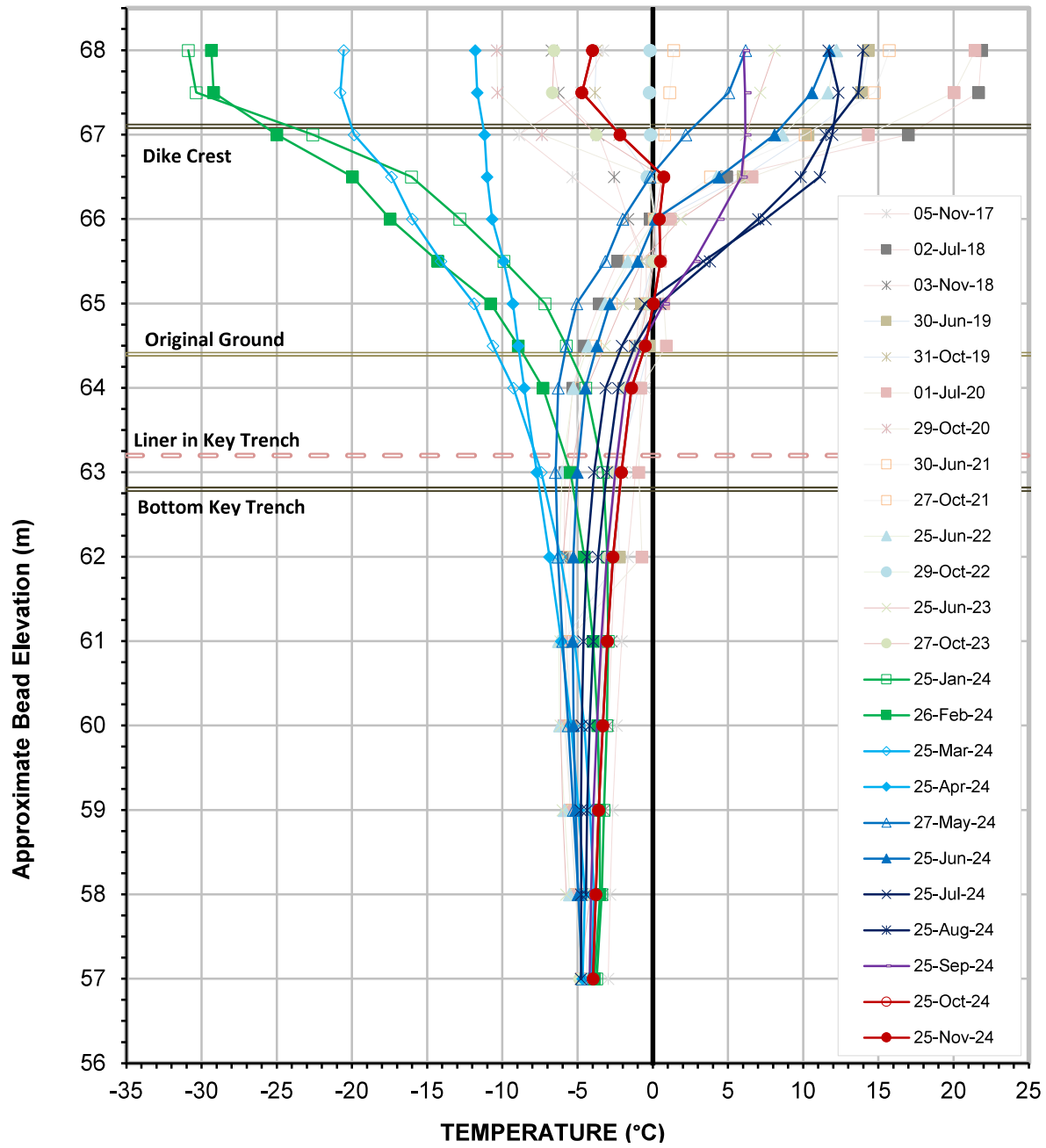


Serial No.: 2631  
Date Installed: July 24, 2017

#### Average Annual Temperature at Various Elevations

	November 2020 - November 2021	November 2021 - November 2022	November 2022 - November 2023	November 2023 - November 2024
Bottom of Cable	-3.9	-4.1	-4.2	-3.9
Liner Base Elevation	-4.3	-4.6	-4.7	-3.7

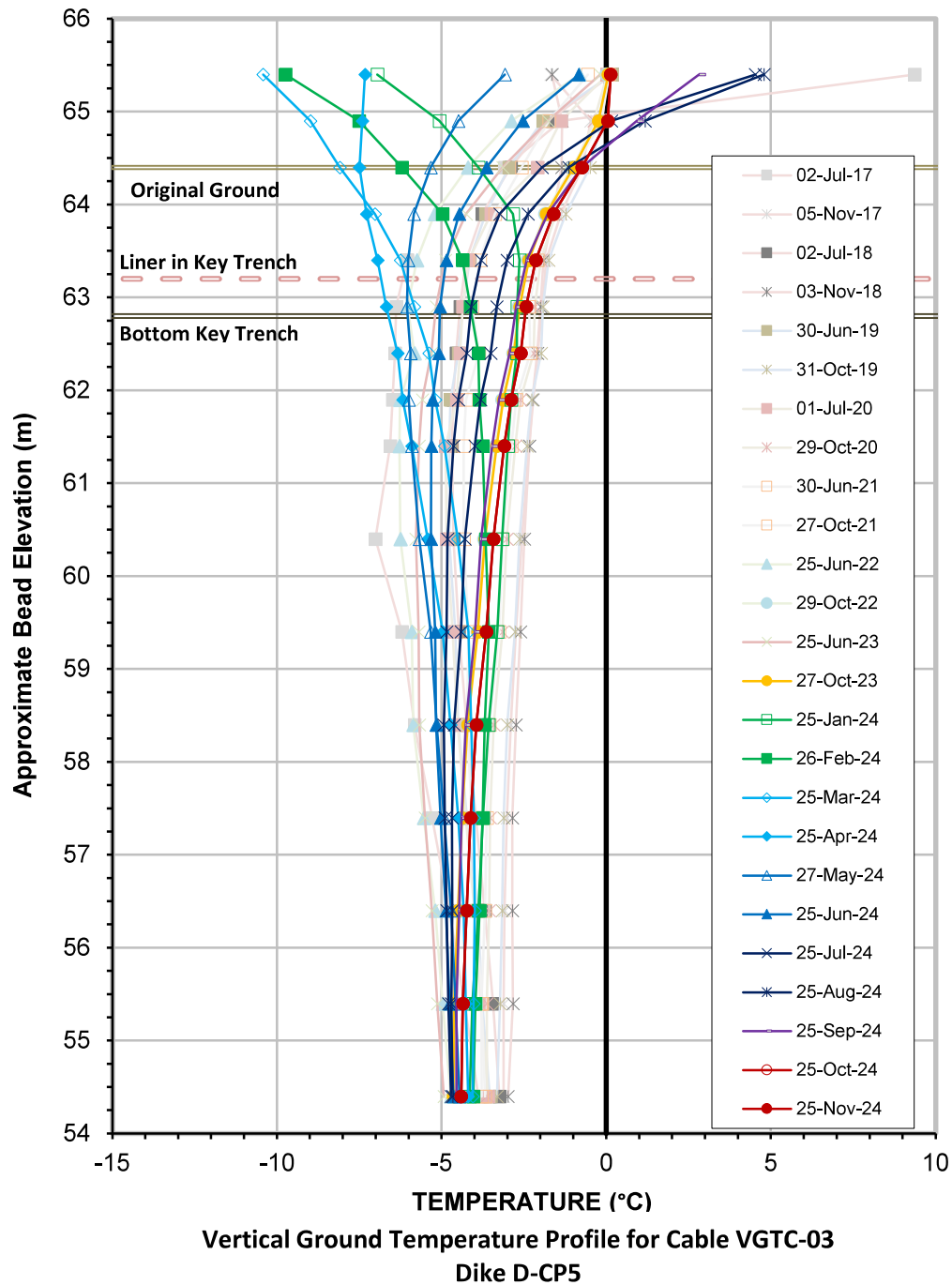




Serial No.: 2632  
Date Installed: July 24, 2017

#### Average Annual Temperature at Various Elevations

	November 2020 - November 2021	November 2021 - November 2022	November 2022 - November 2023	November 2023 - November 2024
Bottom of Cable	-4.1	-4.4	-4.6	-4.1
Liner Base Elevation	-4.8	-5.2	-5.3	-4.3

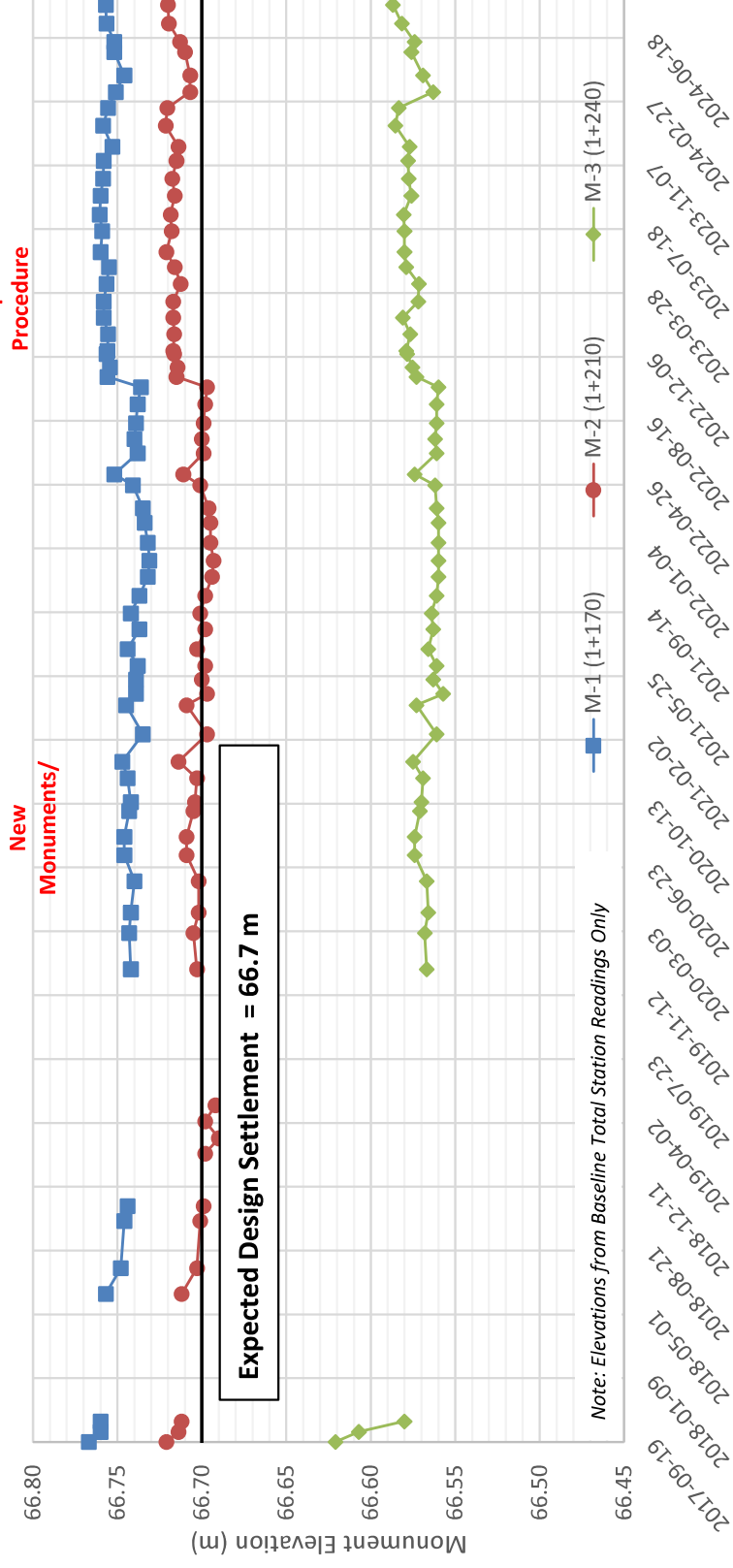


#### Average Annual Temperature at Various Elevations

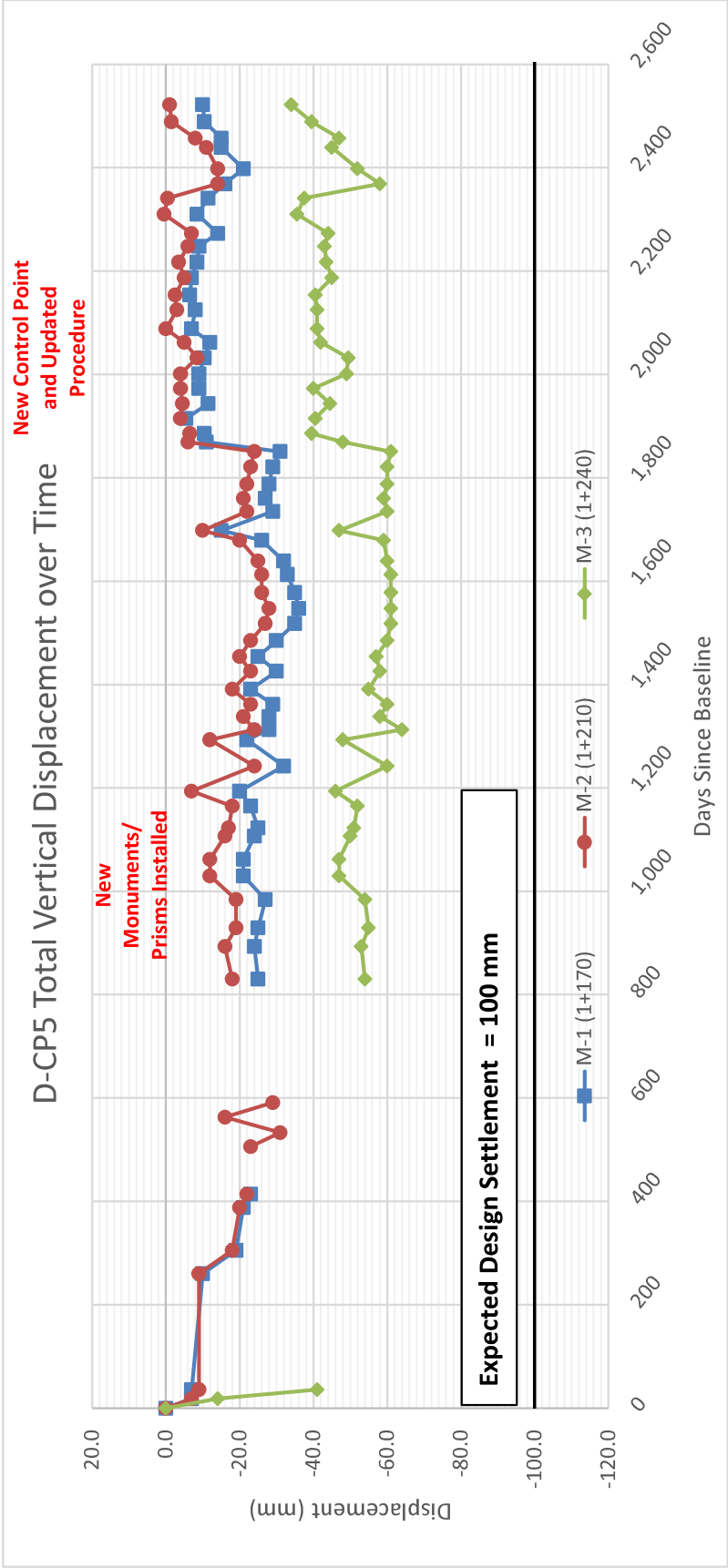
	November 2020 - November 2021	November 2021 - November 2022	November 2022 - November 2023	November 2023 - November 2024
Bottom of Cable	-3.5	-4.1	-4.5	-4.4
Liner Base Elevation	-3.3	-4.7	-4.5	-4.0

## D-CP5 Liner Elevation

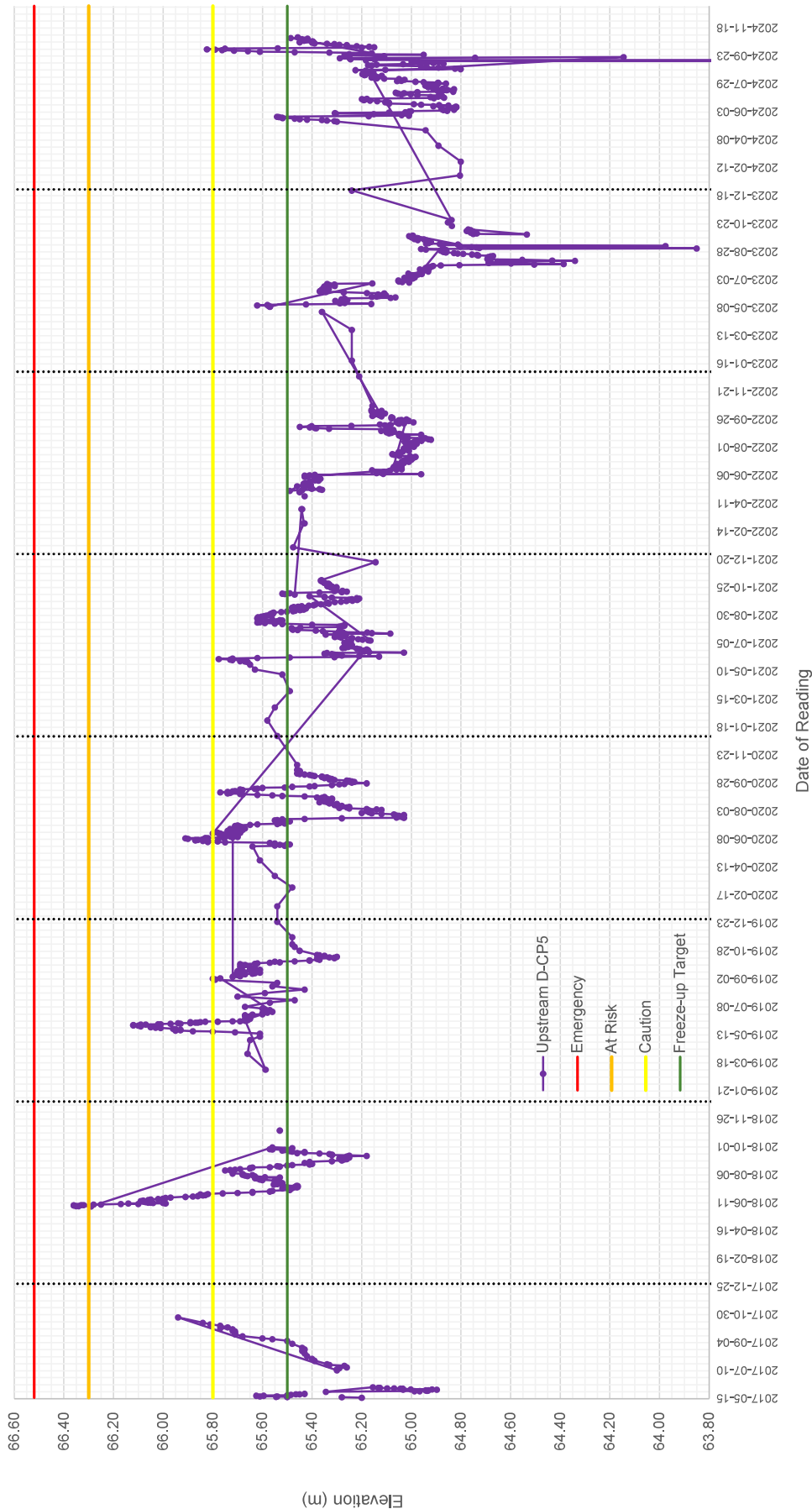
New Control Point  
and Updated  
Procedure







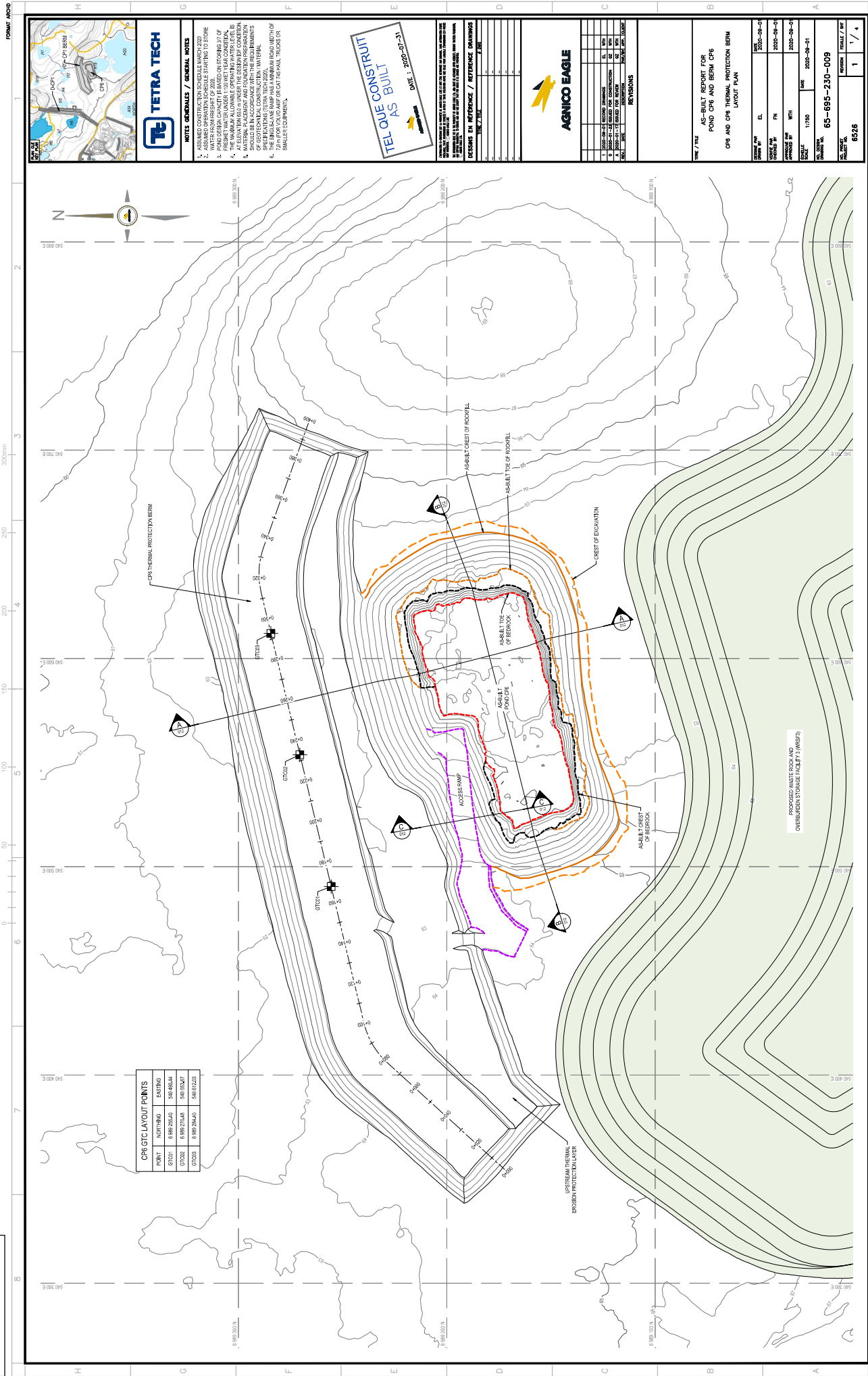
D-CP5 Upstream Water Elevations (2017 to 2024) - Open Water TARPs



## APPENDIX G

### POND CP6 AND BERM





CRITICAL LAYOUT POINTS		
POINT	NORTHING	EASTING
GT001	6 889 250.00	546 484.44
GT002	6 889 274.68	546 550.27
GT003	6 889 284.40	546 612.23



**TETRA TECH**

**NOTES / GENERAL NOTES**

1. ASSUMED CONSTRUCTION SCHEDULE STARTING 2020
2. ASSUMED OPERATION SCHEDULE STARTING TO STORE
3. POND DESIGN CAPACITY IS BASED ON STORING 30 OF
4. PRESENT WATER UNDER 100 MMT YEAR CONDITION.
5. IF ELEVATION GOES UNDER THE DESIGN CONDITION,
6. THE DESIGN CAPACITY SHOULD BE IN ACCORDANCE WITH THE DESIGN
7. OF GEOTECHNICAL CONSTRUCTION MATERIAL.
8. THE DESIGN CAPACITY SHOULD BE IN ACCORDANCE WITH THE DESIGN
9. OF GEOTECHNICAL CONSTRUCTION MATERIAL.
10. THE DESIGN CAPACITY SHOULD BE IN ACCORDANCE WITH THE DESIGN
11. OF GEOTECHNICAL CONSTRUCTION MATERIAL.

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**AS BUILT**  
DATE : 2020-07-31

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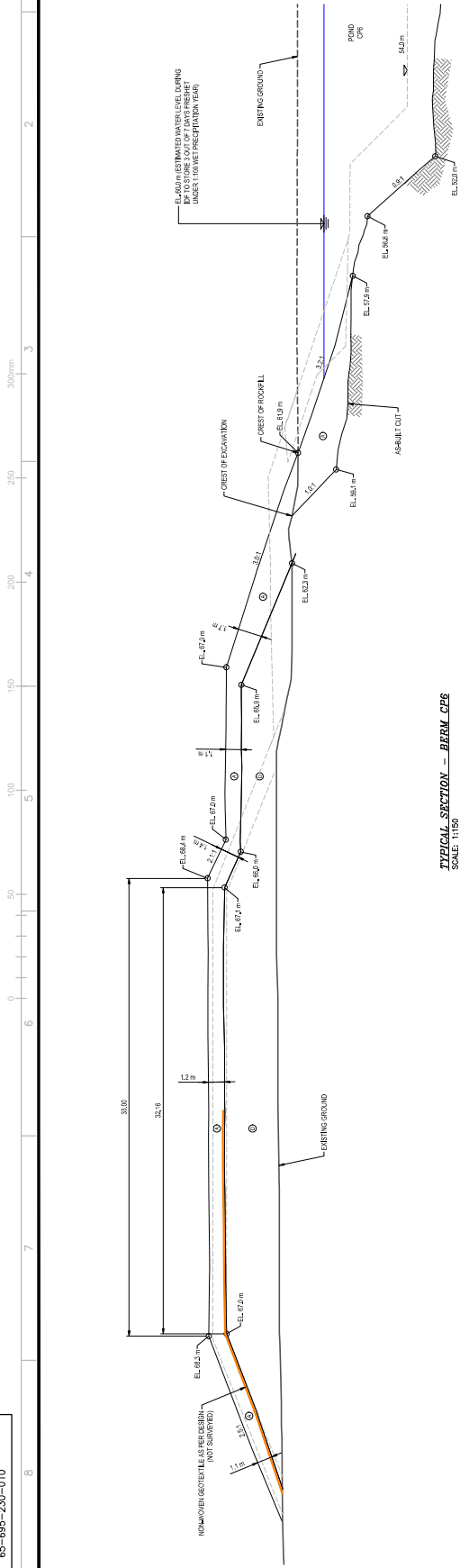


REVISION	DATE	DESCRIPTION
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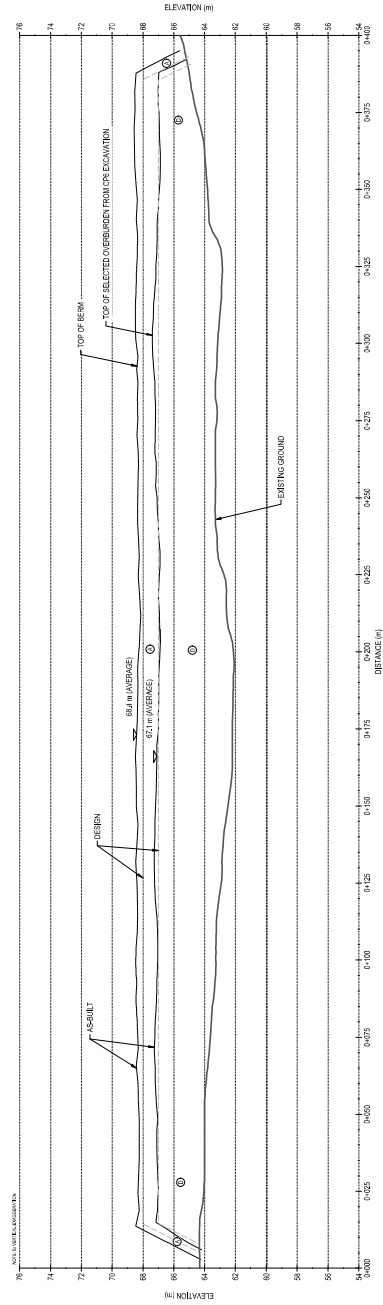
**AS-BUILT REPORT FOR**  
**POND CR6 AND BERM CR6**  
**CPS AND CR6 THERMAL PROTECTION BERM**  
**LAYOUT PLAN**

REVISION	DATE	DESCRIPTION
1	2020-07-31	AS BUILT

PROJECT NO.	65-695-230-009
REVISION	1
DATE	2020-07-31



**TYPICAL SECTION - BERM CP6**  
SCALE: 1:150



**BERM CP6 - PROFILE**  
SCALE: H-1:750 V-1:150

[illegible]

TEL QUE CONSTRUIT  
AS BUILT

DATE : 2020-07-31

 **REVISION**



**AGNICO EAGLE**



**TETRA TECH**

**NOTES GENERALES / GENERAL NOTES**

1. ASSUMED CONSTRUCTION SCHEDULE STARTING MARCH 2020
2. ASSUMED OPERATION SCHEDULE STARTING TO STORE WATER FROM FRESHET OF 2020.
3. POND DESIGN CAPACITY IS BASED ON STORING 317 OF FRESHNET WATER UNDER 1100 NET YEAR CONDITION.
4. THE MAXIMUM ALLOWABLE OPERATING WATER LEVEL IS AT ELEVATION 60.0m UNDER THE DESIGN FLOOD CONDITION.
5. MATERIAL PLACEMENT AND FOUNDATION PREPARATIONS SHOULD BE IN ACCORDANCE WITH THE REQUIREMENTS OF GEOTECHNICAL CONSTRUCTION MATERIAL SPECIFICATIONS TETRA TECH 2020.

**LEGEND**

④ CLEAN ROCK/FILL FROM EXCAVATION (600 mm MINUS)

③ OVERBURDEN FROM EXCAVATION (300 mm MINUS)

① **NUMBER 3-2000** IS A PIONEER IN MARKING THE 100TH ANNIVERSARY OF THE NATIONAL FIRE PROTECTION ASSOCIATION. THE ASSOCIATION WAS FOUNDED IN 1900. A PART OF THIS CELEBRATION ARE THE CALL FOR LOCAL COMMUNITIES TO HAVE FIRE DEPARTMENTS. ② **MARK PAGE 1, 100**

DESIGNS EN RÉFÉRENCE / REFERENCE DRAWINGS

[illegible]

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AGNICO EAGLE

1	2020-09-01	RECORD DRAWING	EL	WITH

REV.	DATE	DESCRIPTION	PREP'D BY	APP.	CLIENT
0	2020-01-22	ISSUED FOR CONSTRUCTION	QZ	WITH	
A	2020-01-17	ISSUED FOR REVIEW	QZ	WITH	

## REVISIONS

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AS-BUILT REPORT FOR  
POND CP6 AND BERM CP6CP6 TYPICAL SECTION AND  
CP6 THERMAL PROTECTION BERM PROFILE

DESIGN: PAIR	FL.	DATE: 2020-09-01
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VERIFIED AND CHECKED BY	FN	2020-09-0
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APPROVE FOR APPROVED BY	WITH	2020-09-01
COVILLE	DATE	

NO. DESIGN DRAWING NO.	AS SHOWN	2020-09-01
65-605-230-010		

NO. PROJET PROJECT NO.	REVISION	FICHE / SHEET
03-053-01		

6526	1	2 / 4
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**CP6 - Photo 1:** CP6 - View of ramp entering CP6. Facing northeast.



**CP6 - Photo 2:** CP6 - Overview of CP6. Facing southwest.



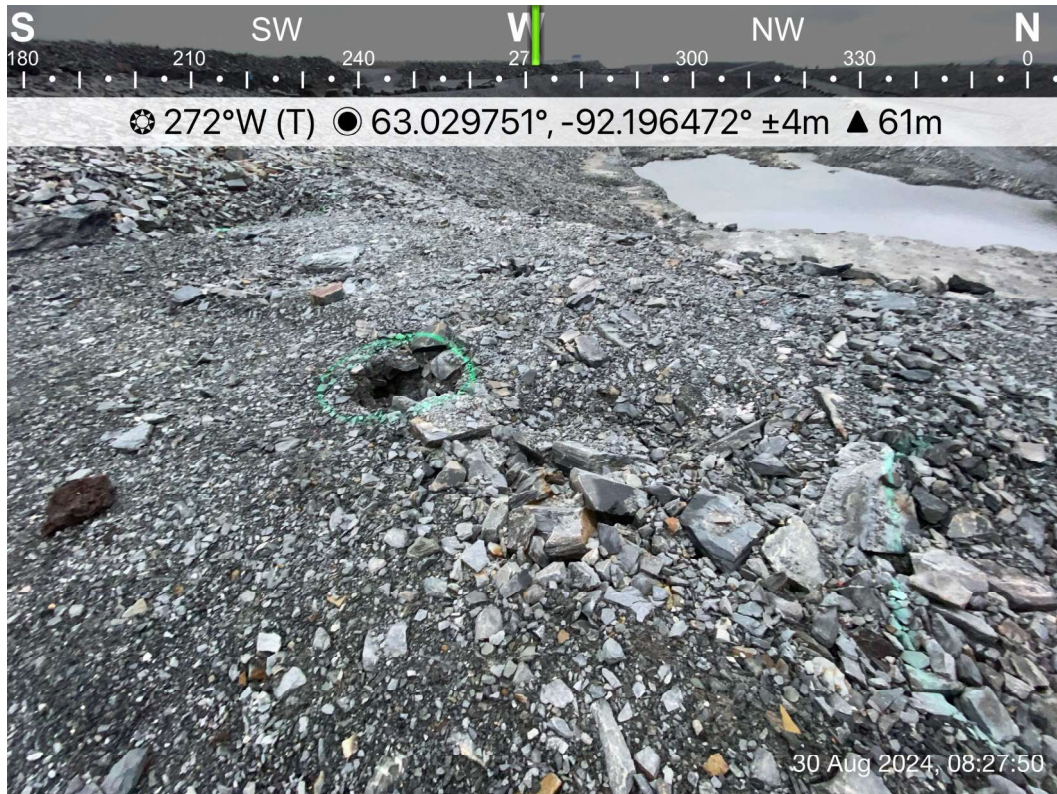


**CP6 - Photo 3:** CP6 - Overview of CP6. Facing east.



**CP6 - Photo 4:** CP6 - CP6 overview, minor water stored in CP6. Facing southwest.





**CP6 - Photo 5:** CP6 - View of east side perimeter, thaw settlement and cracking observed. Facing west.



**CP6 - Photo 6:** CP6 - View of east side perimeter, thaw settlement and cracking observed. Facing north.





**CP6 Thermal Berm - Photo 7:** CP6 Thermal Berm - View of downstream and crest of berm, performing well, no stability concerns. Facing east.

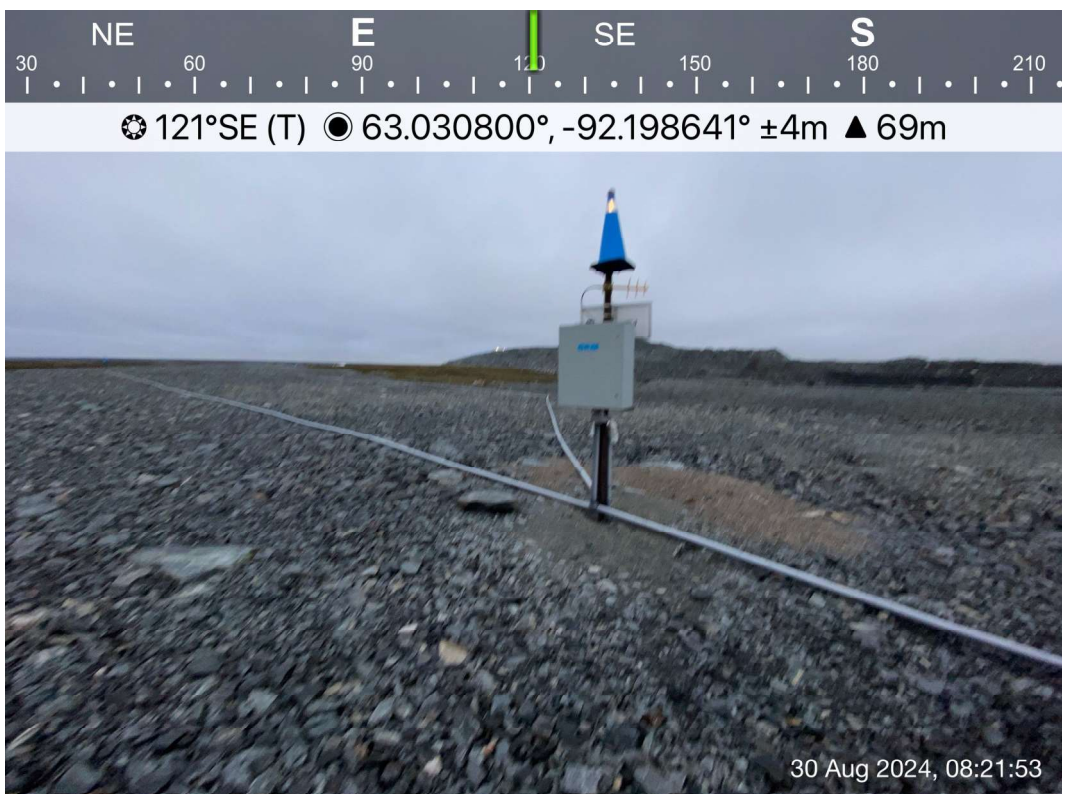


**CP6 Thermal Berm - Photo 8:** CP6 Thermal Berm - Crest view, thaw settlement observed at various areas. Facing southwest.

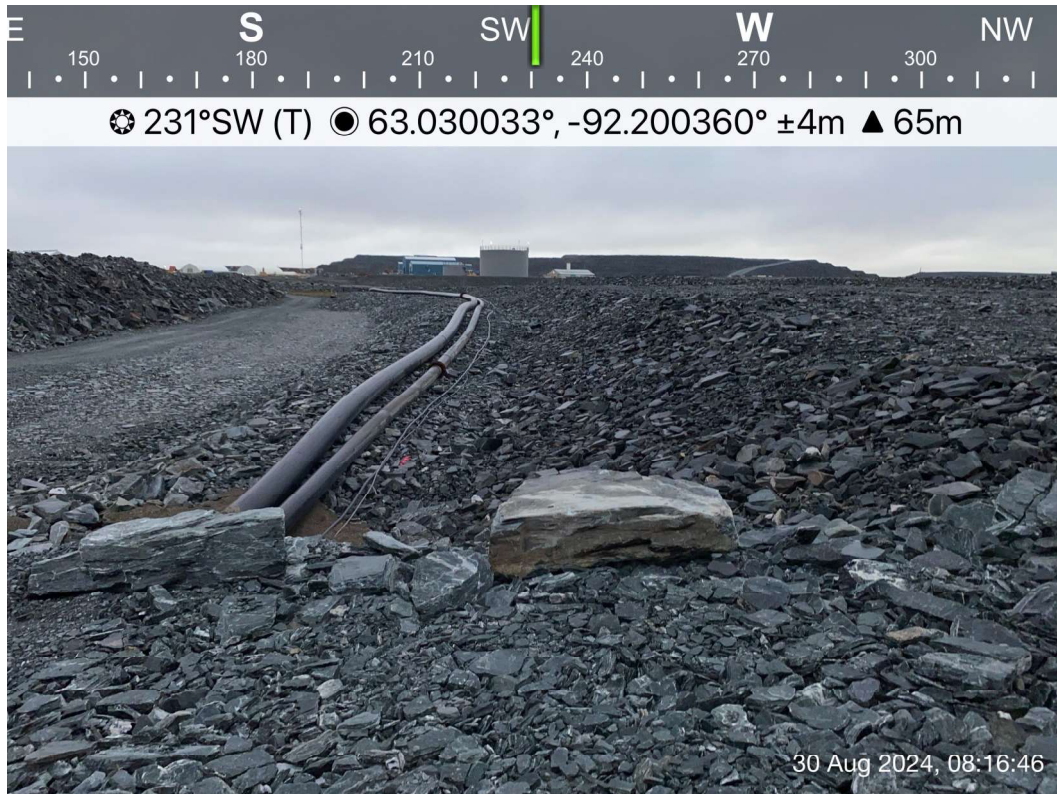




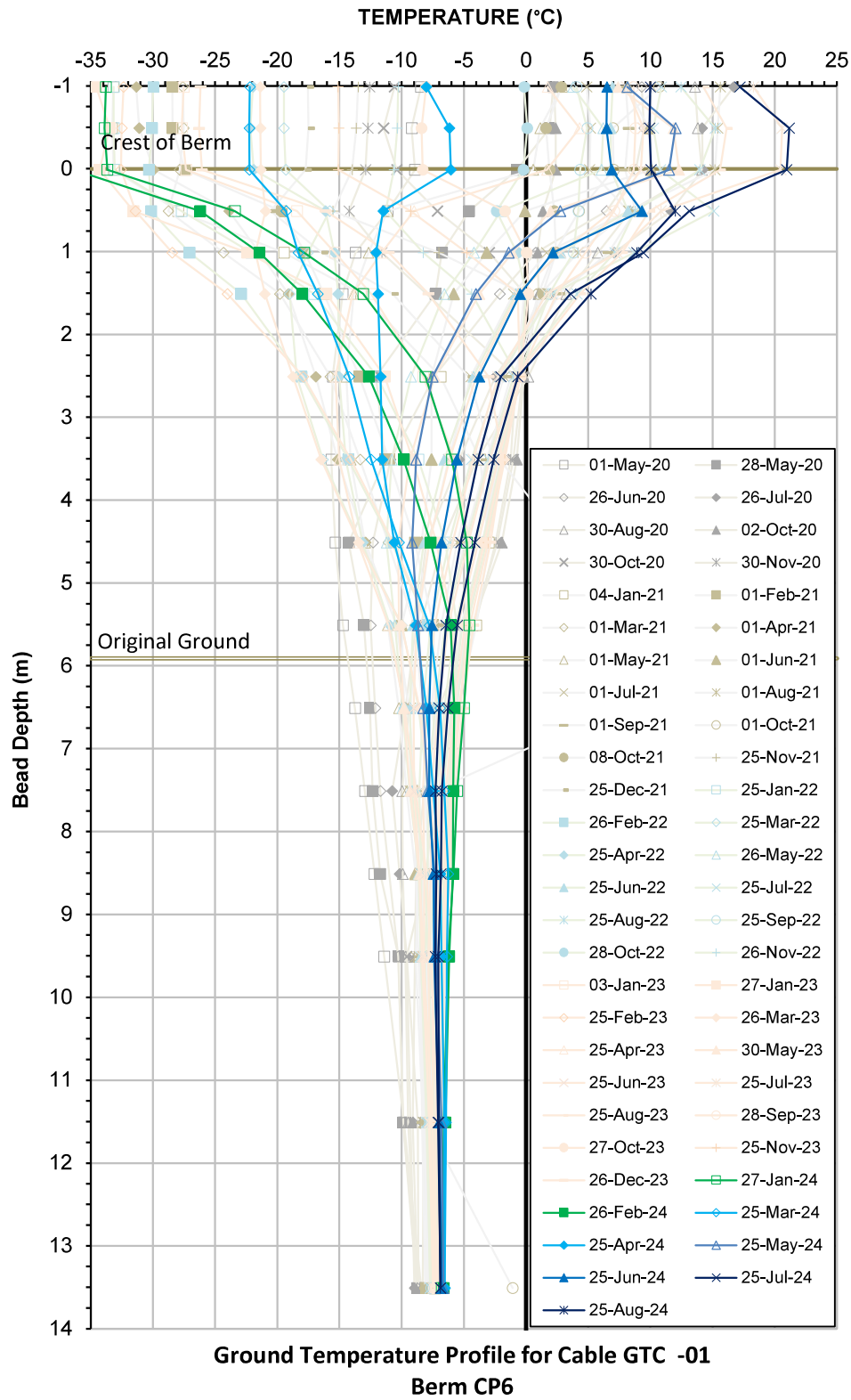
**CP6 Thermal Berm - Photo 9:** CP6 Thermal Berm - Upstream slope and crest of thermal berm. Facing southwest.



**CP6 Thermal Berm - Photo 10:** CP6 Thermal Berm - GTC data collection system. Facing southeast.

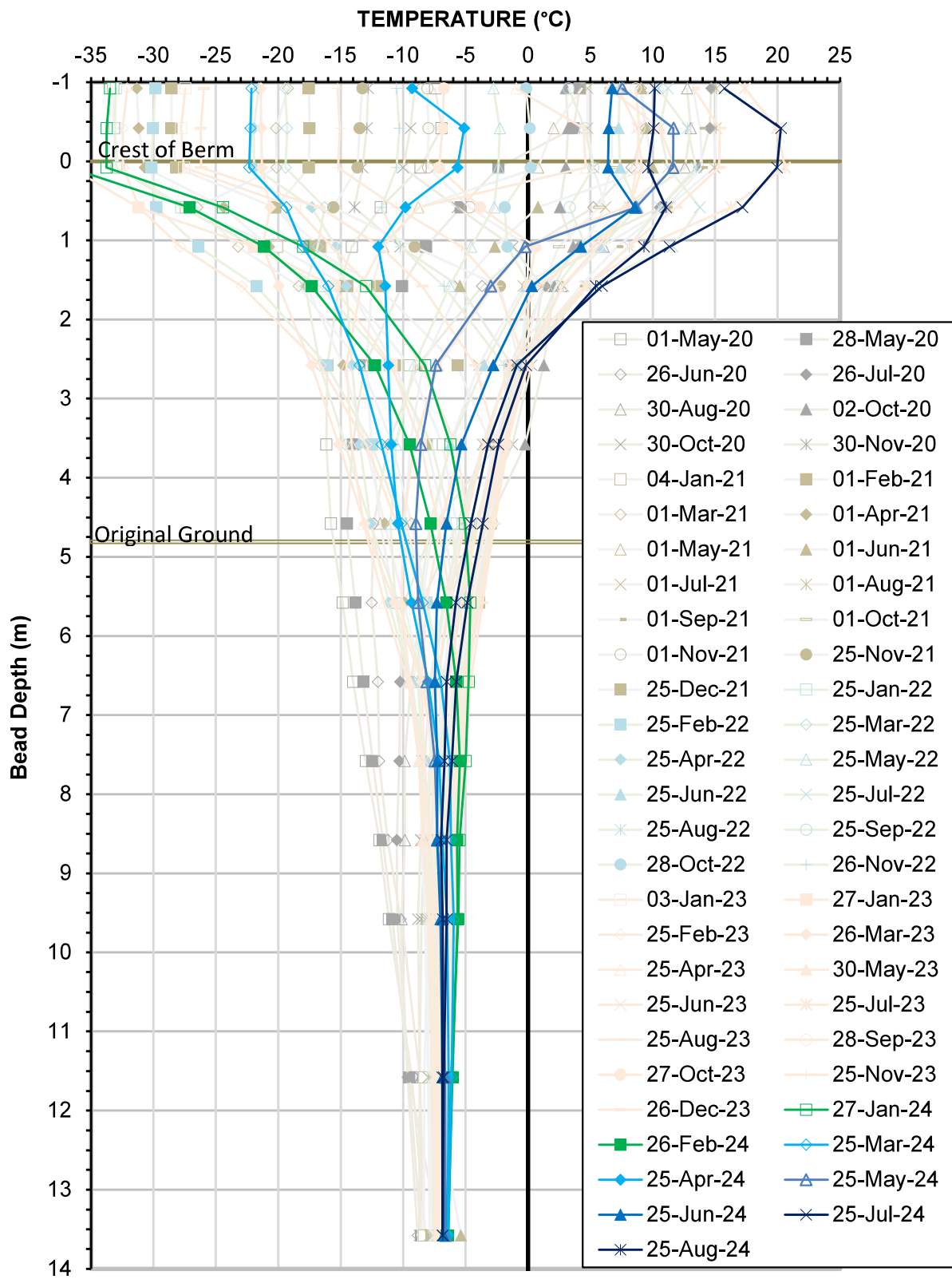


**CP6 Thermal Berm - Photo 11:** CP6 Thermal Berm - Previous depression with ponding water, filled with rock-fill, no ponding water present. Facing southwest.



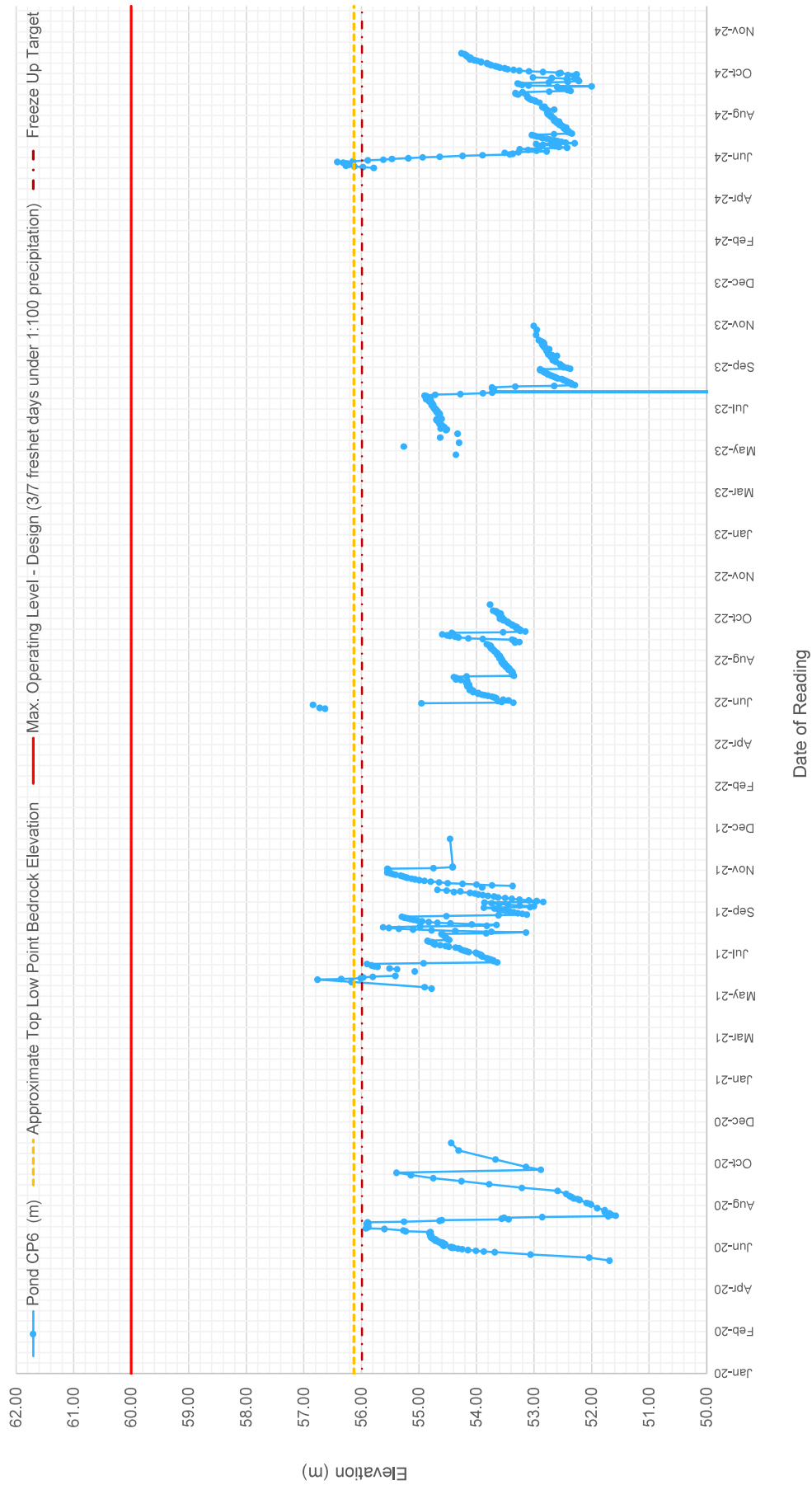
Serial No.: 2728  
Date Installed: April 23, 2020





Serial No.: 2730  
Date Installed: April 23, 2020

Pond CP6 Water Elevations (2020 - 2024)



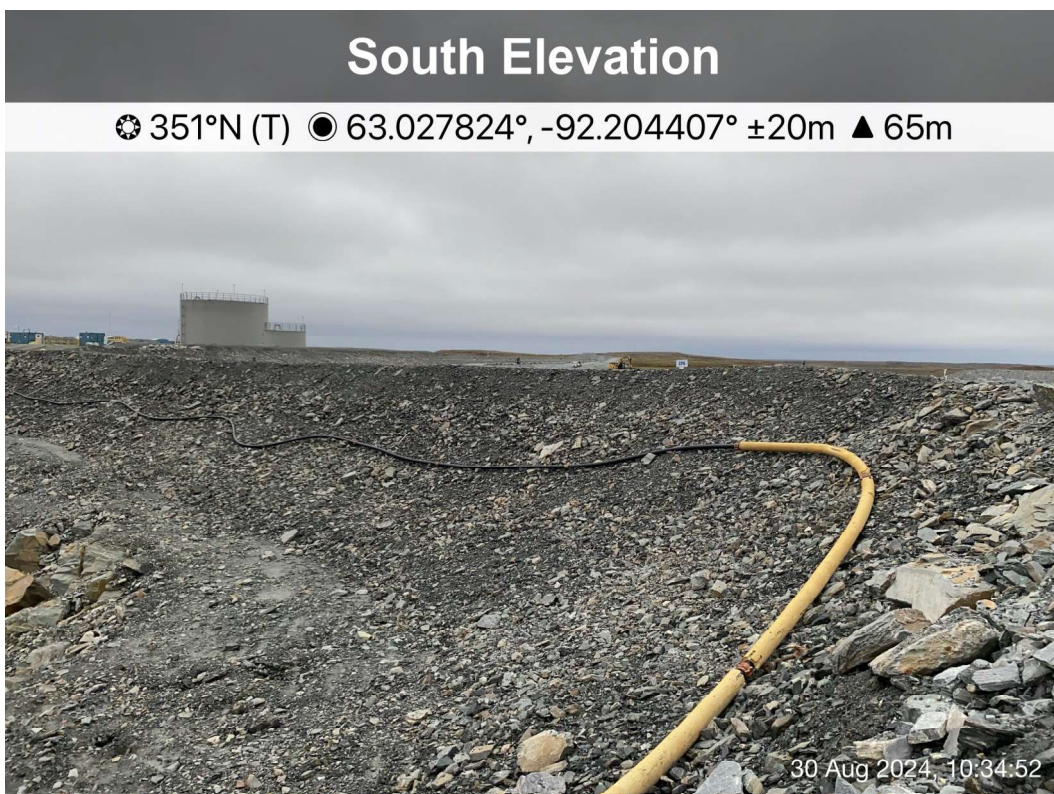
## APPENDIX H

### SALINE PONDS





**SP1 - Photo 1:** SP1 Saline Pond - Overview of SP1, pond in bedrock, ROM covered overburden slopes. Facing North.



**SP1 - Photo 2:** SP1 Saline Pond - Perimeter berm side slope. Facing northwest.



## North East Elevation

☉ 242°SW (T) ☉ 63.027713°, -92.205107° ±4m ▲ 62m



**SP1 - Photo 3:** SP1 Saline Pond - Perimeter berm side slope and bedrock side wall. Facing southwest.

## West Elevation

☉ 103°E (T) ☉ 63.027733°, -92.205457° ±4m ▲ 59m



**SP1 - Photo 4:** SP1 Saline Pond - Access ramp, pipelines and safety berms. Facing east.



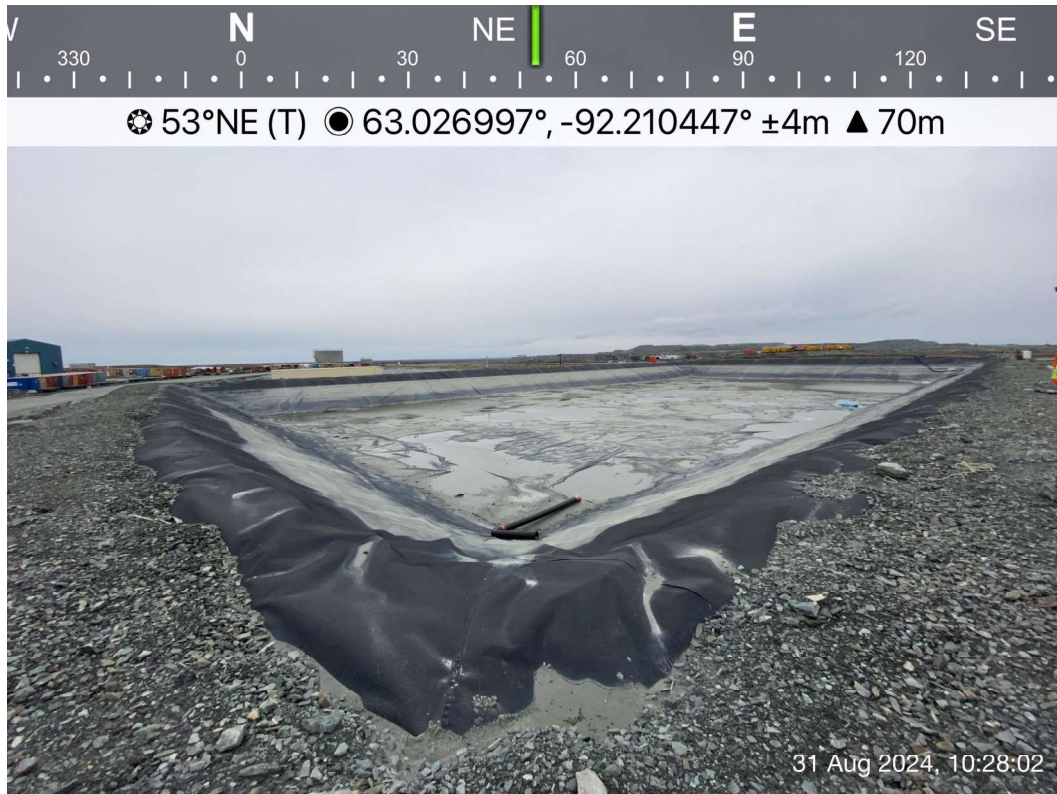


**SP1 - Photo 5:** SP1 Saline Pond - Deformation and cracking on top of overburden protected slope, southwestern side of SP1. Facing south.



**SP1 - Photo 6:** SP1 Saline Pond - Deformation and cracking on top of overburden protected slope, southwestern side of SP1. Facing north.





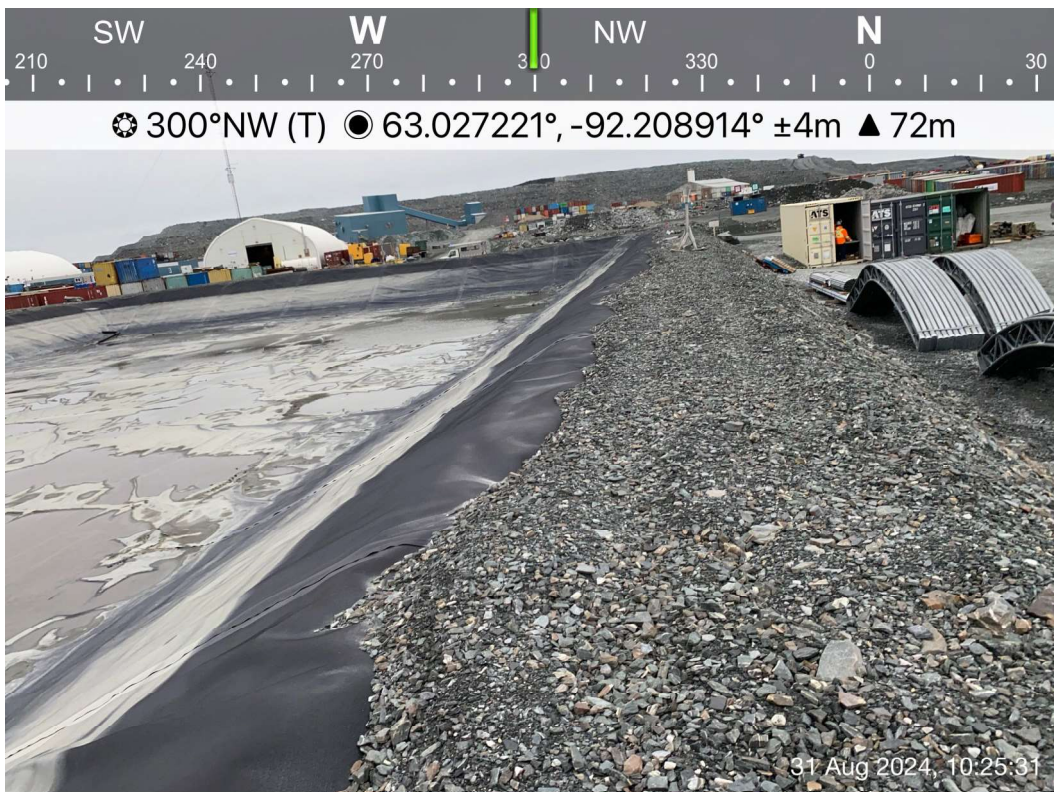
**SP3 - Photo 7:** SP3 Saline Pond - Overview of SP3. Facing northeast.



**SP3 - Photo 8:** SP3 Saline Pond - View of perimeter berm. Facing north.



**SP3 - Photo 9:** SP3 Saline Pond - Overview of SP3, ponded water at base of pond. Facing southeast.

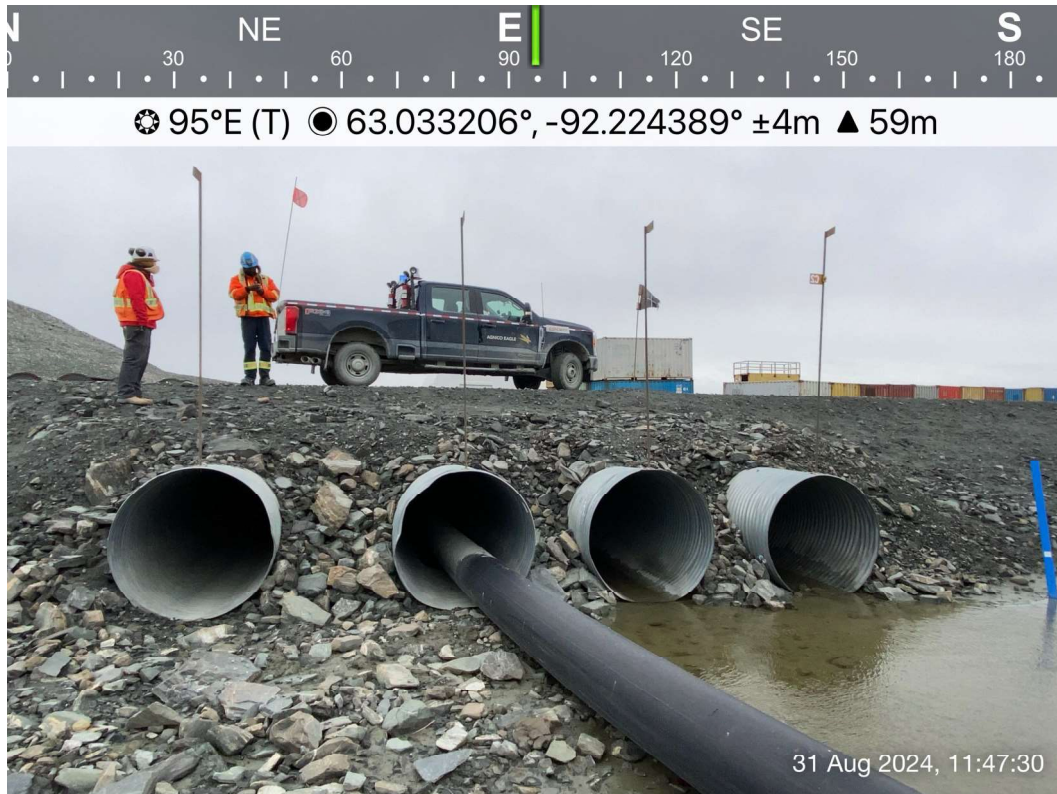


**D-CP1 - Photo 10:** SP3 Saline Pond - View of perimeter berm. Facing northwest.

## APPENDIX I

### DIVERSION CHANNELS AND BERMS





**Channel 1 -  
Photo 1:**

Channel 1 - Upper reach, culverts divert water from Lake H13 to Channel 1. Facing east.



**Channel 1 -  
Photo 2:**

Channel 1 - Upper section, south of the crusher ramp. Facing southwest.





**Channel 1 -  
Photo 3:**

Channel 1 - Section between crusher ramp and ore pad access. Facing northwest.



**Channel 1 -  
Photo 4:**

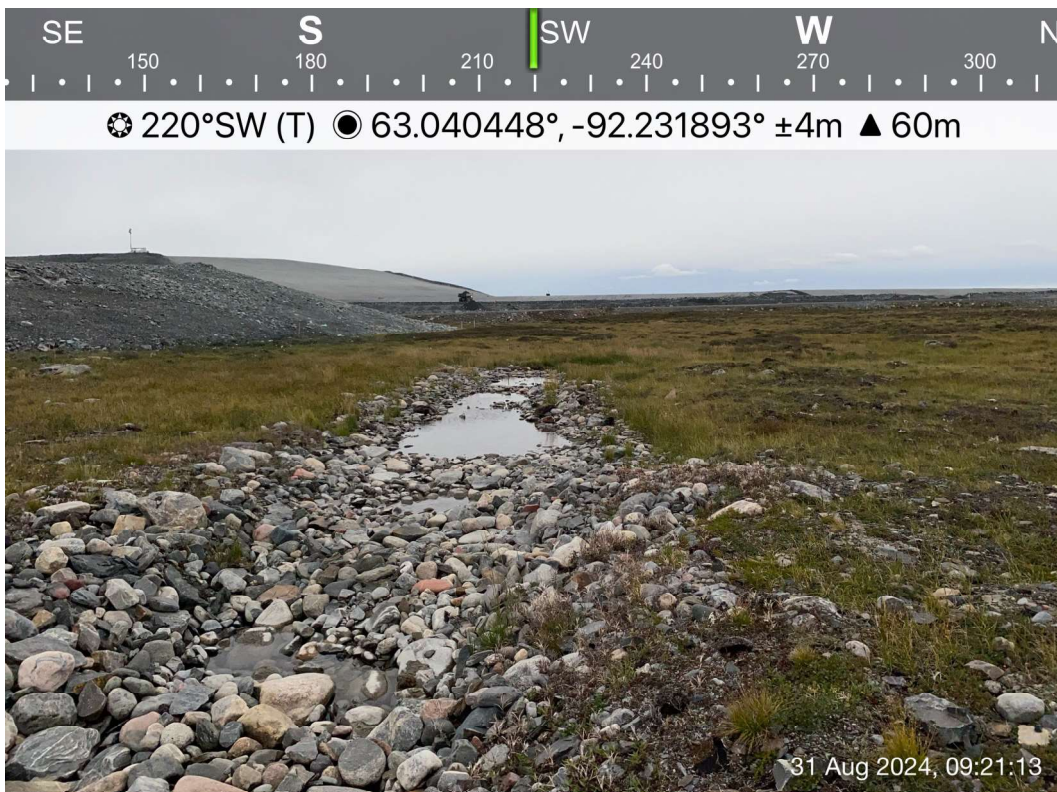
Channel 1 - Lower reach, adjacent to ore stockpiles on right. Facing northwest.





**Channel 1 -  
Photo 5:**

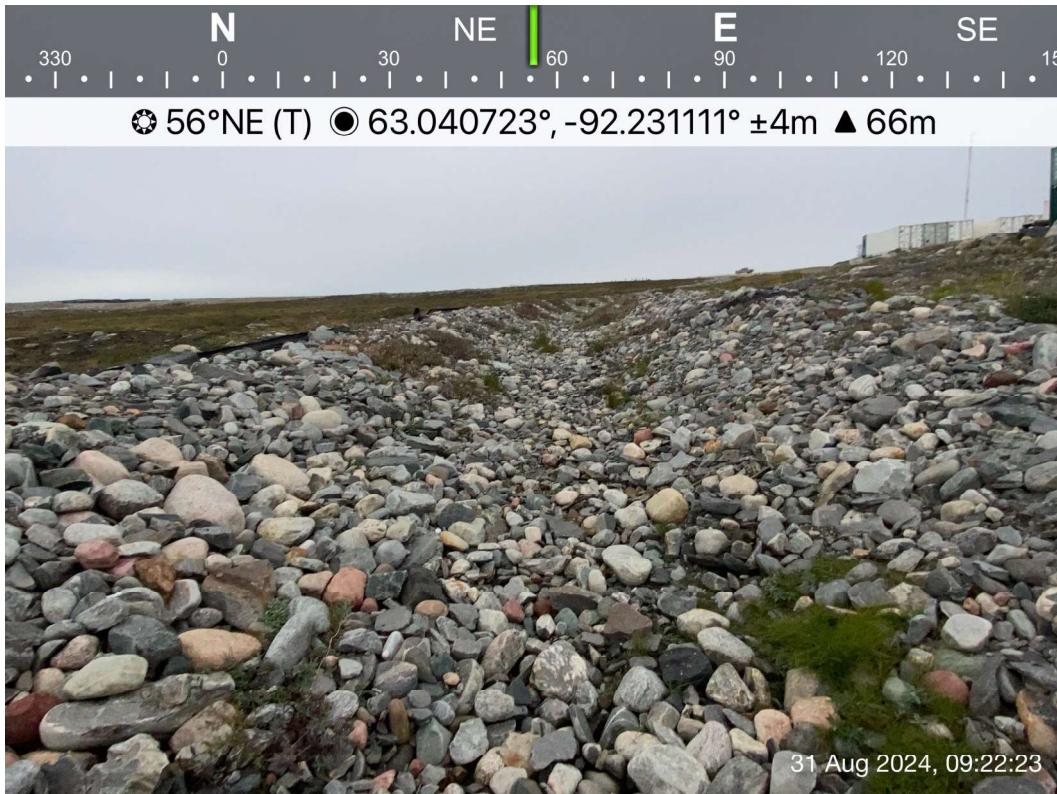
Channel 1 - Lower reach to Lake H9. Facing southeast.



**Channel 2 -  
Photo 6:**

Channel 2 - Lower reach, water ponding at the end of the channel. Facing southwest.





**Channel 2 -  
Photo 7:**

Channel 2 - Middle section. Facing northeast.



**Channel 2 -  
Photo 8:**

Channel 2 - Upper reach, camp pad on the right. Facing east.



## East Elevation

☉ 249°W (T) ☉ 63.024442°, -92.205903° ±6m ▲ 60m



**Channel 5 -  
Photo 9:**

Channel 5 - Lower reach of Channel 5, ponded water observed due to thaw subsidence.

## East Elevation

☉ 271°W (T) ☉ 63.024073°, -92.206769° ±4m ▲ 61m



**Channel 5 -  
Photo 10:**

Channel 5 - Middle section of Channel 5, ponded water observed due to thaw subsidence. Facing west.



## South East Elevation

☉ 302°NW (T) ● 63.024008°, -92.208086° ±4m ▲ 67m



**Channel 5 -  
Photo 11:**

Channel 5 - Middle section of Channel 5, ponded water observed due to thaw subsidence. Facing northwest.

## North East Elevation

☉ 246°SW (T) ● 63.024247°, -92.209912° ±4m ▲ 64m



**Channel 5 -  
Photo 12:**

Channel 5 - Upper section of Channel 5, ponded water observed due to thaw subsidence. Facing southwest.



## North East Elevation

☉ 216°SW (T) ● 63.024247°, -92.209935° ±4m ▲ 63m



**Channel 5 -  
Photo 13:**

Channel 5 - Upper section of Channel 5, ROM cover placement between Berm 3 and Channel 5. Facing southwest.



☉ 190°S (T) ● 63.031658°, -92.219046° ±5m ▲ 66m



**Channel 7 -  
Photo 14:**

Channel 7 - Upper section of Channel 7, ponded water observed due to thaw subsidence. Facing south.





**Channel 7 -  
Photo 15:**

Channel 7 - Middle section of Channel 7, minor ponding water observed due to thaw subsidence. Facing northeast.



**Berm 3 -  
Photo 16:**

Berm 3 - Berm crest, cracking observed along the crest. Facing west.



## East Elevation

☼ 290°W (T) ● 63.023952°, -92.210017° ±4m ▲ 66m



**Berm 3 -  
Photo 17:**

Berm 3 - Downstream side slope, cracking observed along the slope. Facing west.

## West Elevation

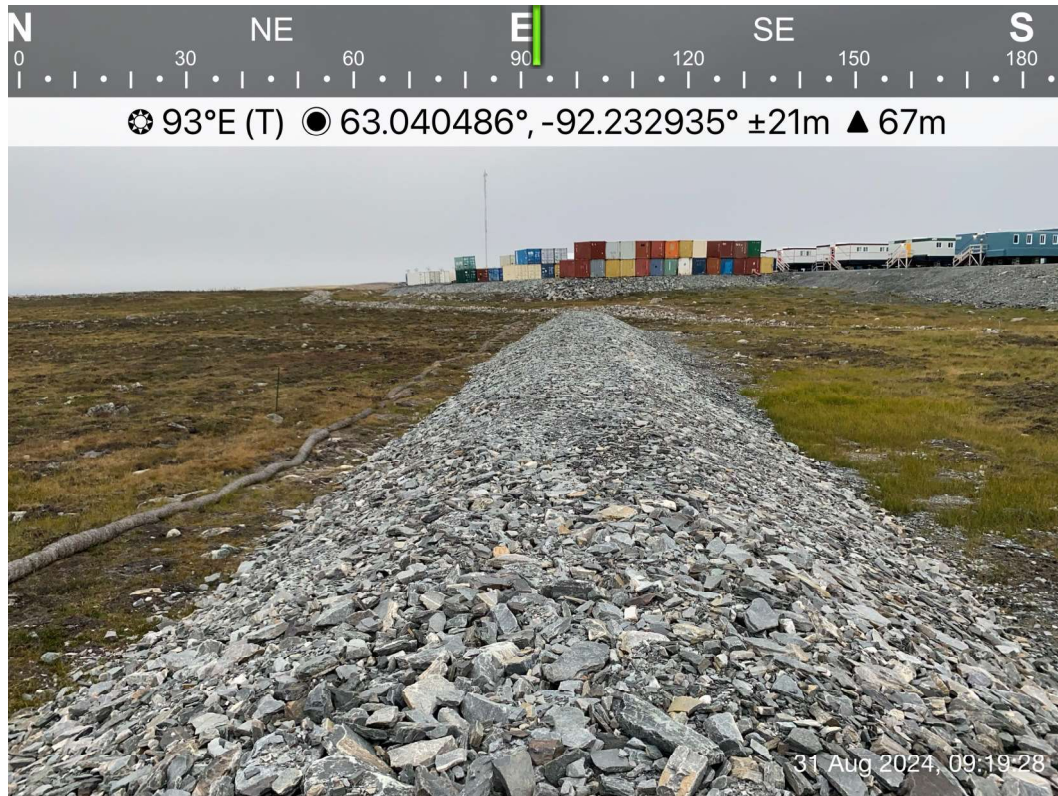
☼ 98°E (T) ● 63.023837°, -92.208482° ±4m ▲ 71m



**Berm 3 -  
Photo 18:**

Berm 3 - Upstream side slope, cracking observed along the crest, ROM cover between Berm 3 and Channel 5. Facing east.





**Channel 2 Berm** - Channel 2 Berm - Overview of the Channel 2 Berm. Facing east.  
**Photo 19:**

## APPENDIX J

### TAILINGS STORAGE FACILITY







A'

B'

C'

D'

E'

A

B

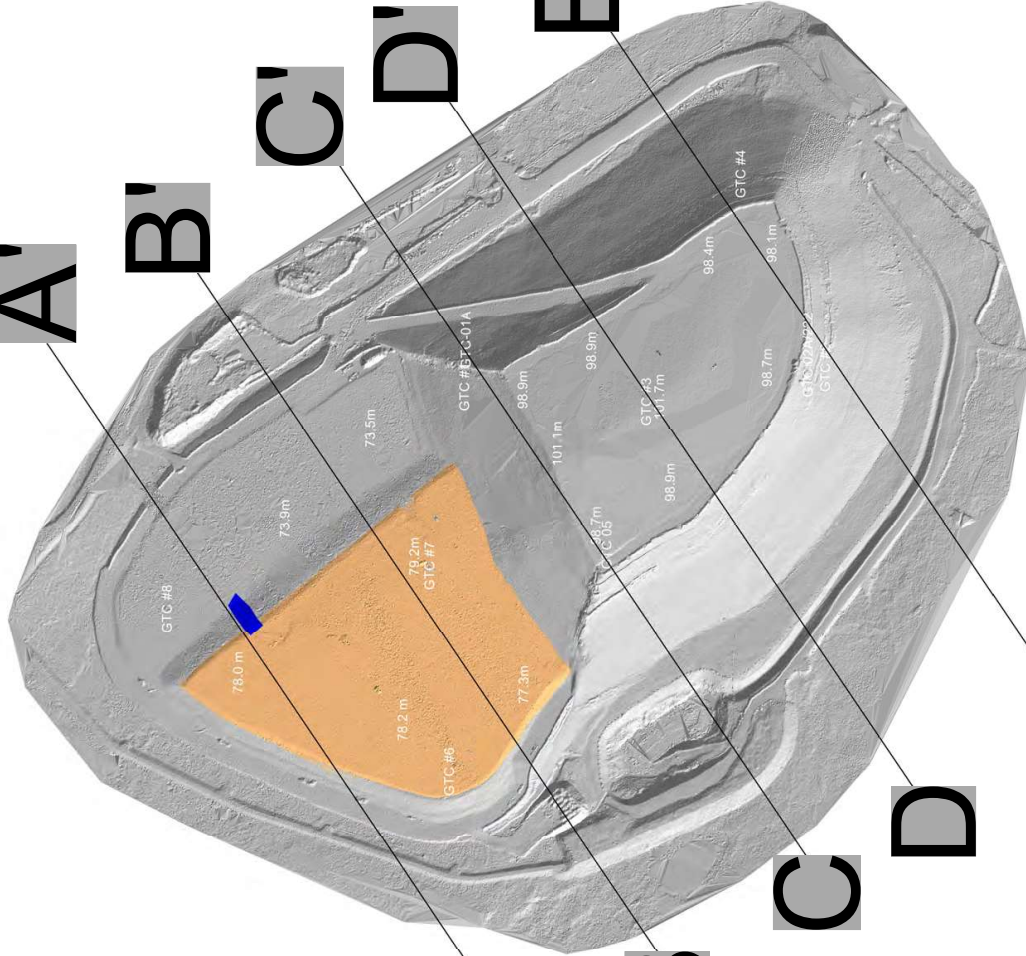
C

D

E

TAILING DEPOSIT VOLUME  
2024-09-19 to 2024-10-21 : 90 796m<sup>3</sup>

ROCK DEPOSIT VOLUME  
2024-09-19 to 2024-10-21 : 436m<sup>3</sup>



REV	DESCRIPTION		REVISIONS	
	DATE	DATE	PARBY	

 Rock  
 Tailing



DRESSING DRAWN BY		Francis Pepin	
VERIFIER PARCHECKED BY			
APPROVE PARAPROVED BY			
ECHESCALE		1:5000	
FEUILLE		1 / 3	

TITLE / TITRE		AGNICO EAGLE - MELIADINE DIVISION	
DATE		21-10-2024	
DATE		SURVEY 2024-10-21	
DATE		TSF EOM - October 2024	
IN. ESSER/ISSUING NO.			
REVISION			

A'

A

ELEV: 73.700

ELEV: 77.897

1.171

B'

B

ELEV: 74.0

ELEV: 77.981

1.467

1.251

- Original ground
- Previous tailing
- Monthly tailing
- Monthly rockfill
- Previous rockfill



DESIGNED BY	Francis Papp	DATE	2024-10-21
CHECKED BY		DATE	
APPROVED BY		DATE	
SCALE	1:467	SHEET	2 / 3

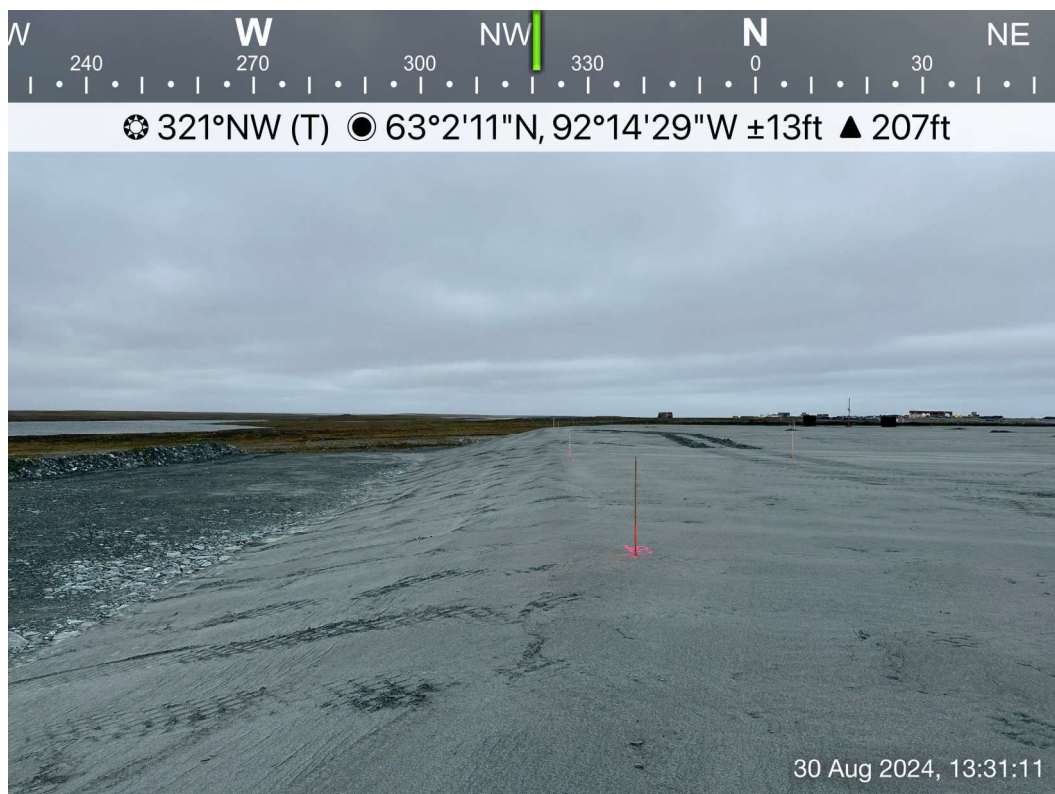
PROJECT TITLE	AGNICO EAGLE - MELIADINE DIVISION
PROJECT	TSF
DATE	CROSS SECTION - October 2024
REVISION	



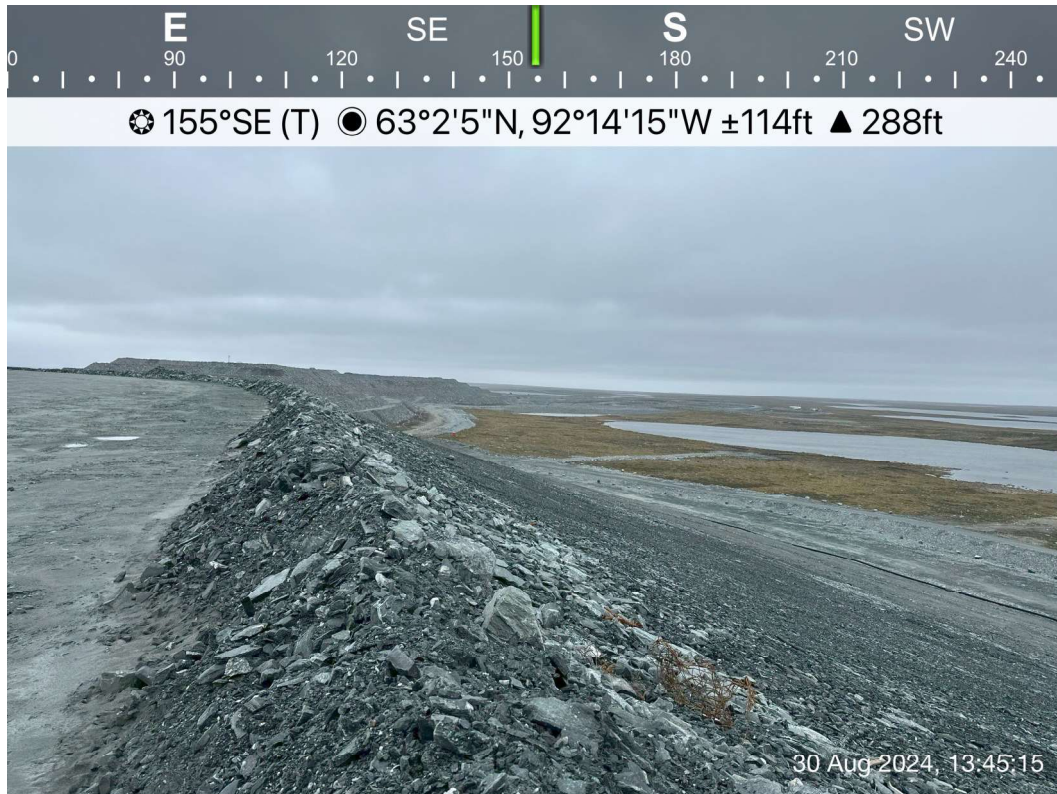




**TSF - Photo 1:** TSF - Overview of north slope of TSF Cell 1 and TSF Cell 2. Facing northwest.



**TSF - Photo 2:** TSF - Rockfill cover and west slope of TSF Cell 2. Facing northwest.



**TSF - Photo 3:** TSF - Rockfill cover slope along west side of Cell 1. Facing southeast.



**TSF - Photo 4:** TSF - Placement and compaction of tailings in Cell 2. Facing south.





**TSF - Photo 5:** TSF - GTC installation at northwest corner of Cell 1. Facing southwest.

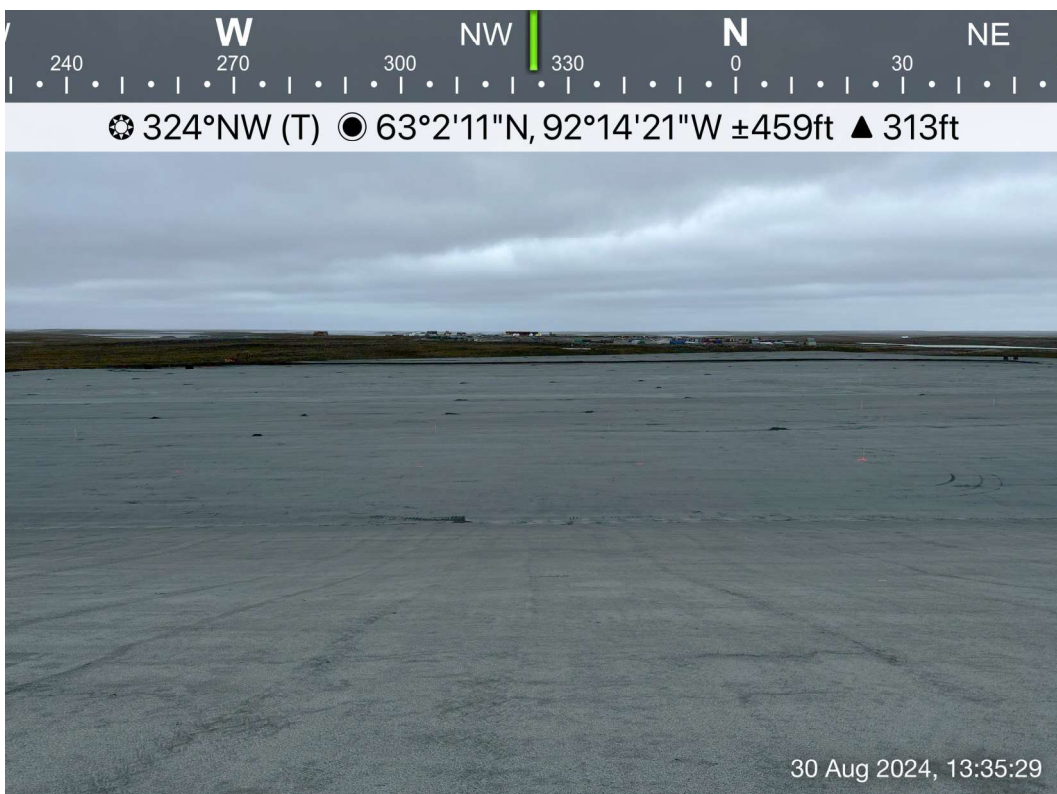


**TSF - Photo 6:** TSF - Crest of rockfill covered slope, minor cracking and settlement. Facing east.

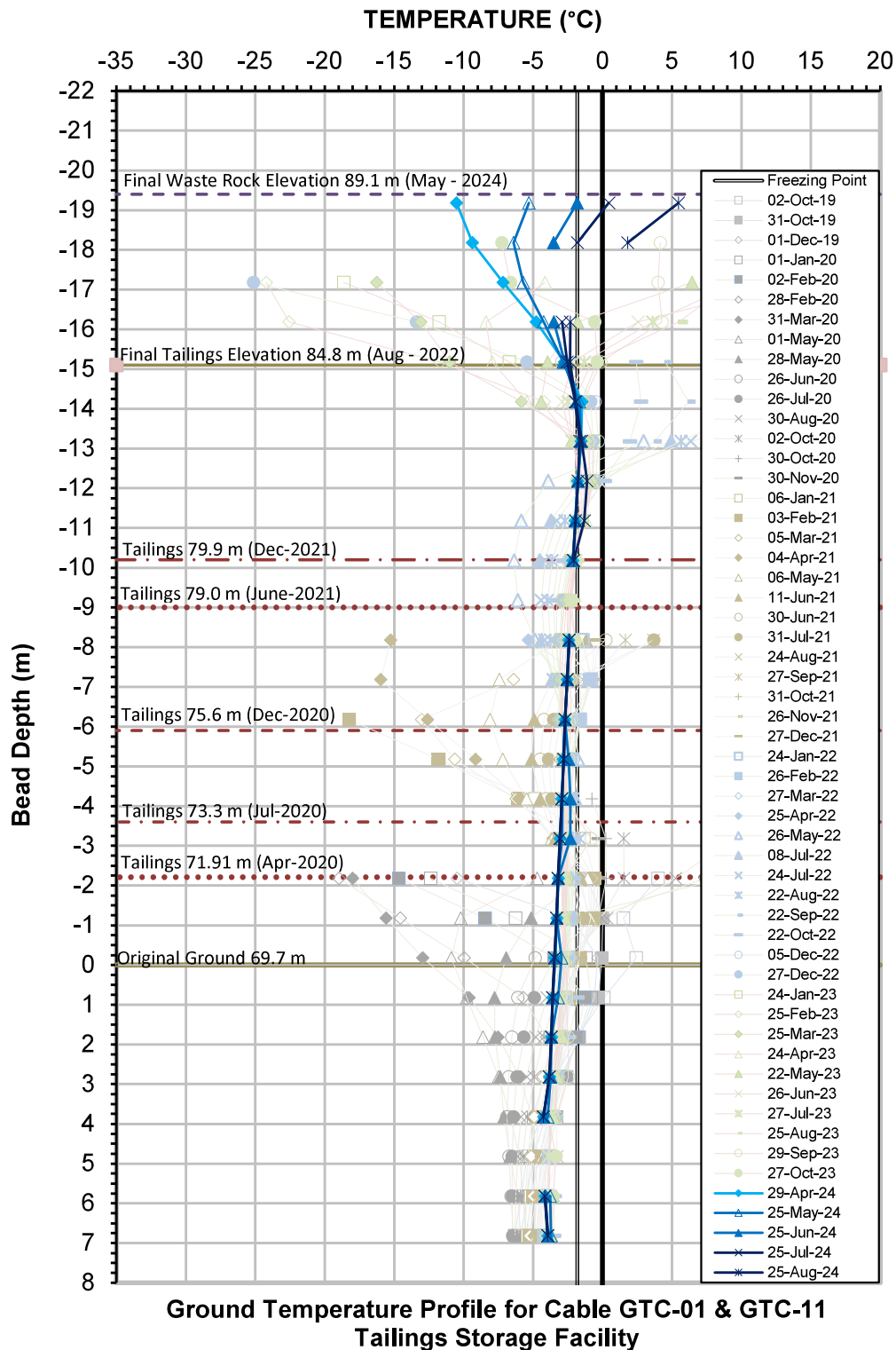




**TSF - Photo 7:** TSF - Crest of TSF Cell 1. Facing north.

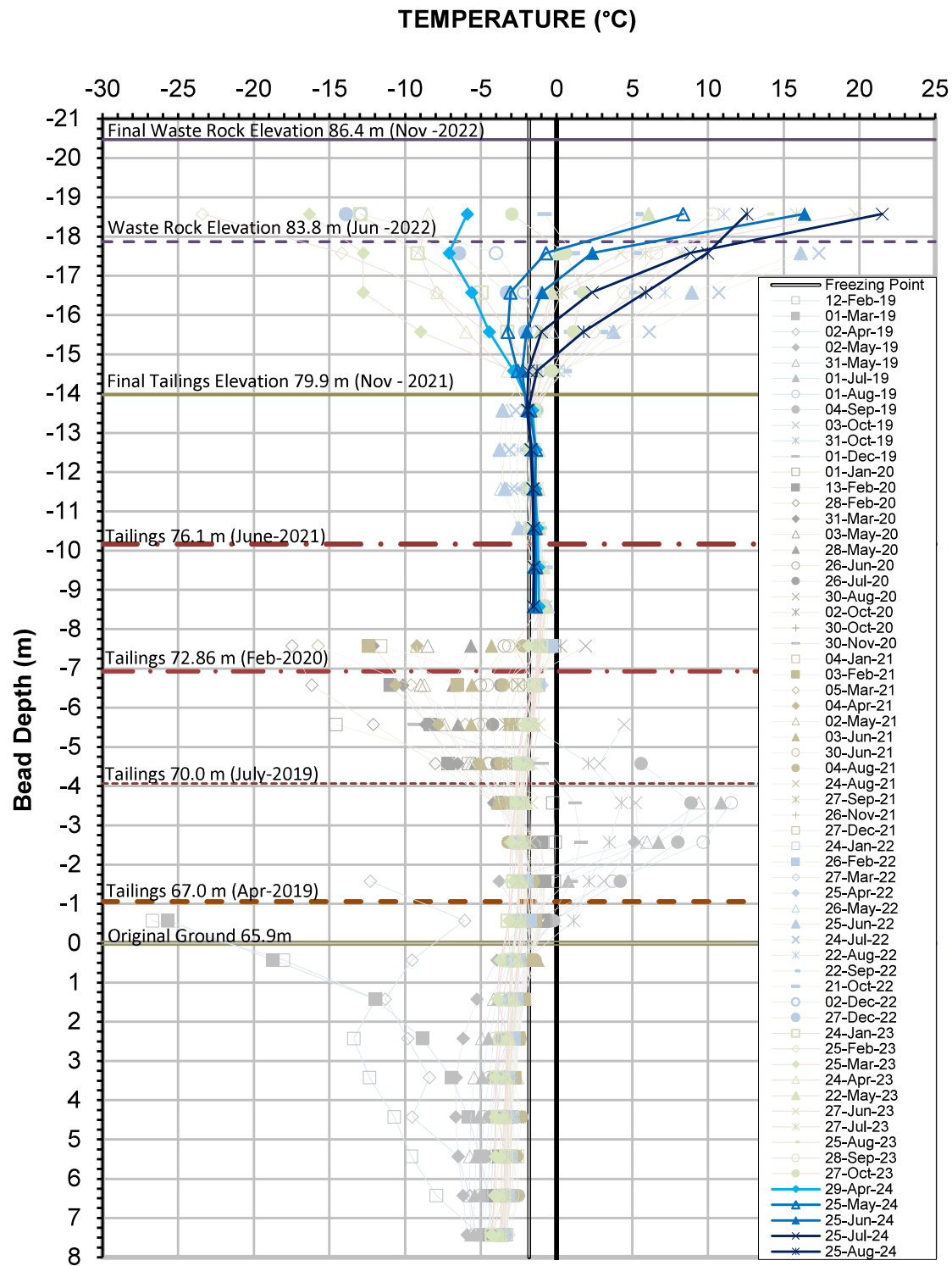


**TSF - Photo 8:** TSF - TSF Cell 2 overview, photo taken from TSF Cell 1 north slope. Facing northwest.



TSF-GTC-01A Serial No.: 2698  
Elevation: 62.9 - 77.9 m

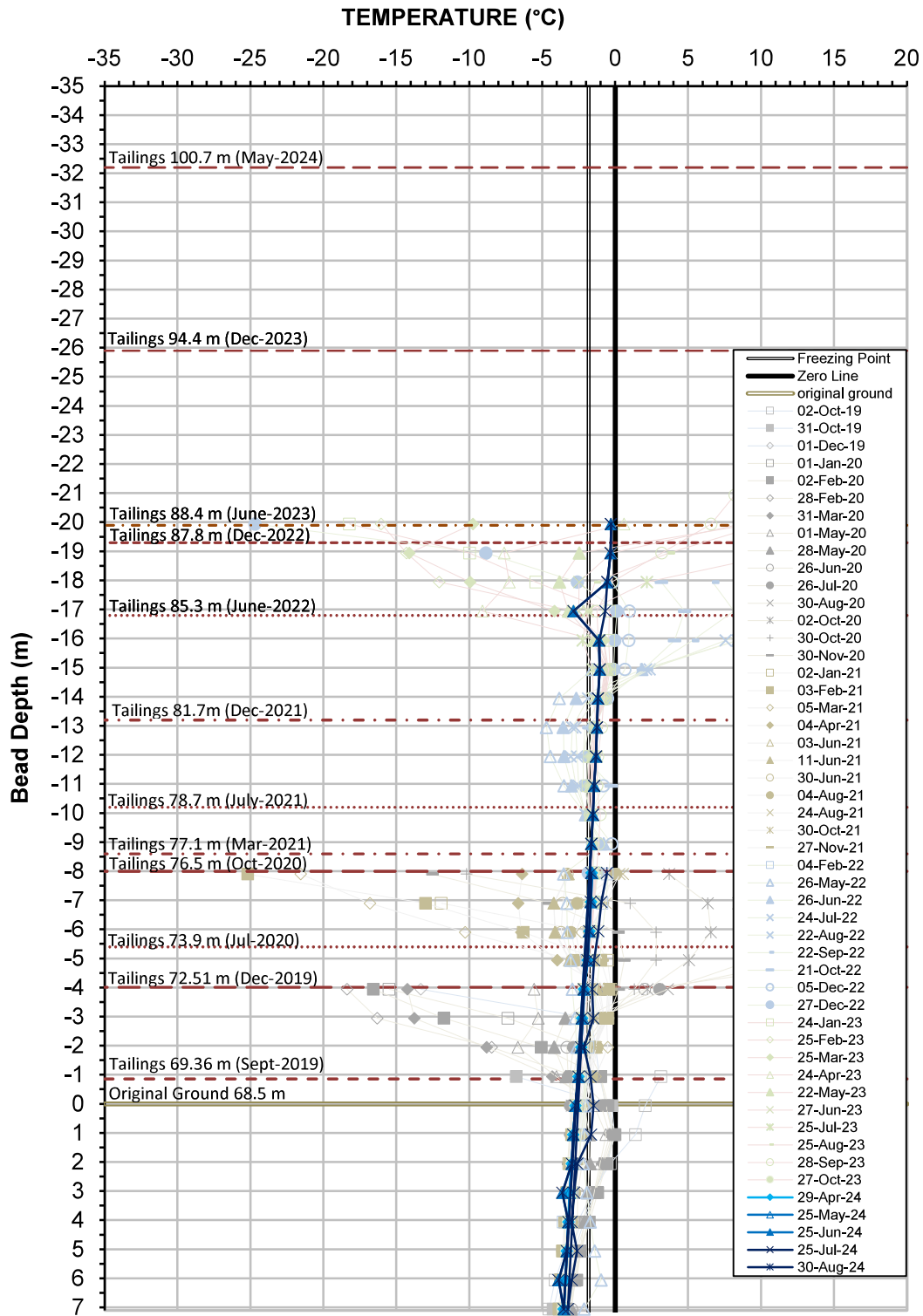
TSF-GTC-11 Serial No.: 2777  
Elevation: 78.9 - 90.9 m  
Date Installed: May 8, 2022



TSF-GTC-02 Serial No.: 2687  
 Elevation: 58.5 - 73.5 m  
 Date Installed: February 12, 2019

TSF-GTC-22 Serial No.: 2774  
 Elevation: 74.5 - 84.5 m  
 Date Installed: May 8, 2022



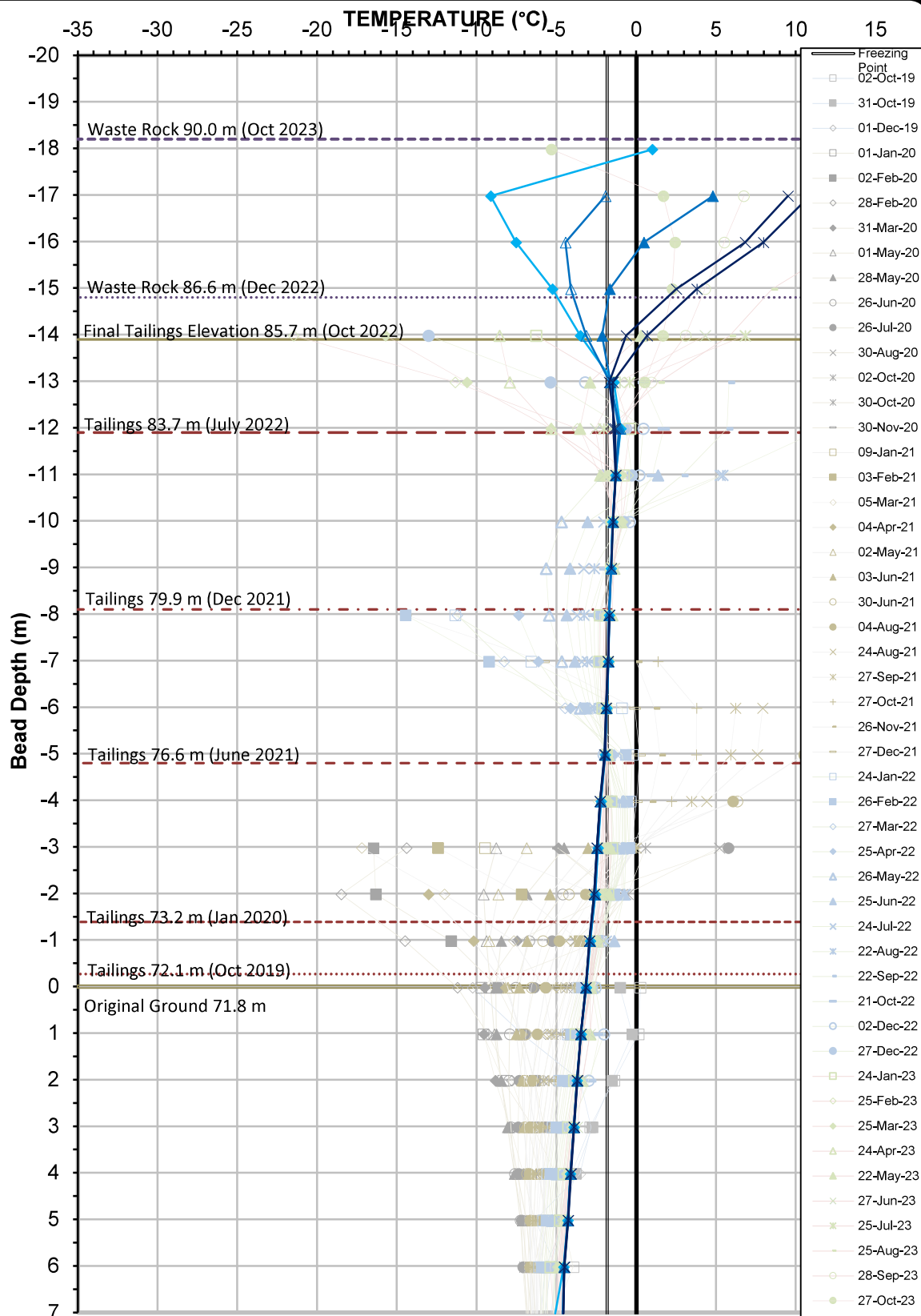


**Ground Temperature Profile for Cable GTC-03A & GTC-33**  
**Tailings Storage Facility**

TSF-GTC-03 Serial No.: 2699  
Elevation: 61.4 - 76.4 m  
Date Installed: September 20, 2019  
Date Decommissioned: May 8 2022

TSF-GTC-03A Serial No.: 17-375P13  
Elevation: 61.4 - 76.4 m  
Date Installed: May 8, 2022

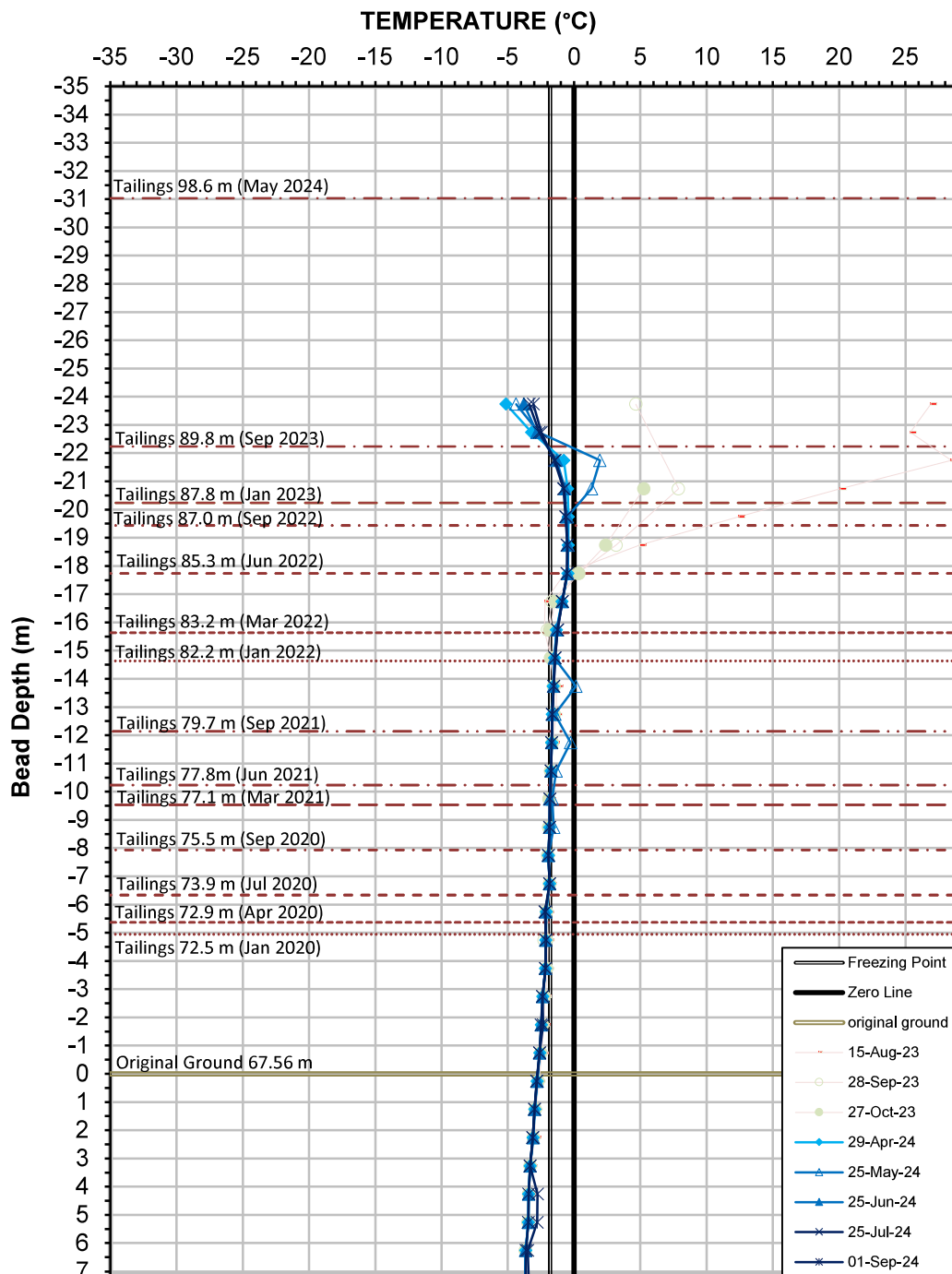
TSF-GTC-33 Serial No.: 2775  
Elevation: 77.4 - 92.4 m  
Date Installed: May 8, 2022



TSF-GTC-04 Serial No.: 2697  
Elevation: 64.8 - 79.8 m

**Ground Temperature Profile for Cable GTC-04  
& GTC-44, Tailings Storage Facility**

TSF-GTC-44 Serial No.: 2773  
Elevation: 80.8 - 92.8 m

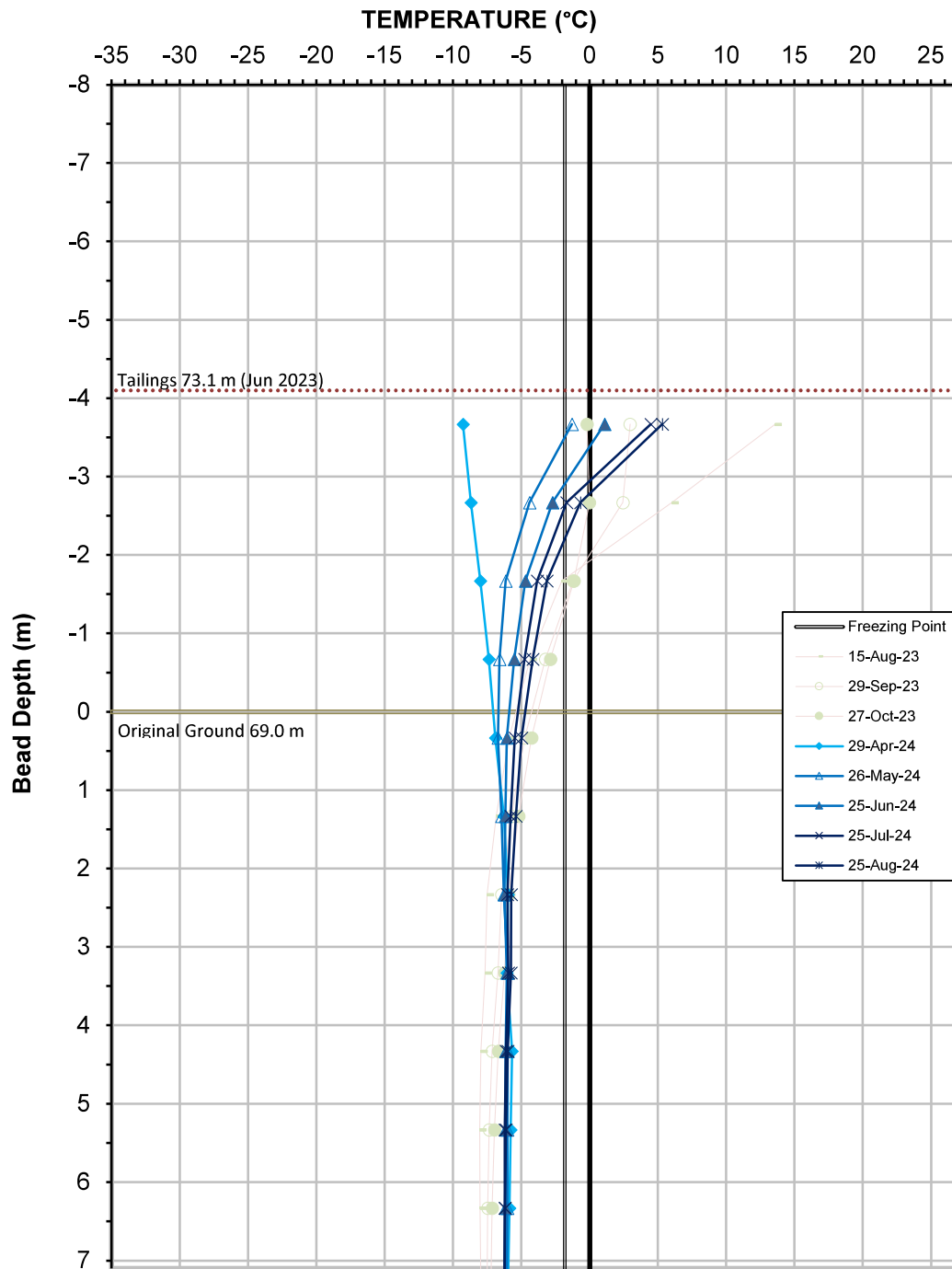


**Ground Temperature Profile for Cable GTC-05 & GTC-055  
Tailings Storage Facility**

TSF-GTC-05 Serial No.: 17-375P13  
Elevation: 60.3 - 75.3 m  
Date Installed: August 9, 2023

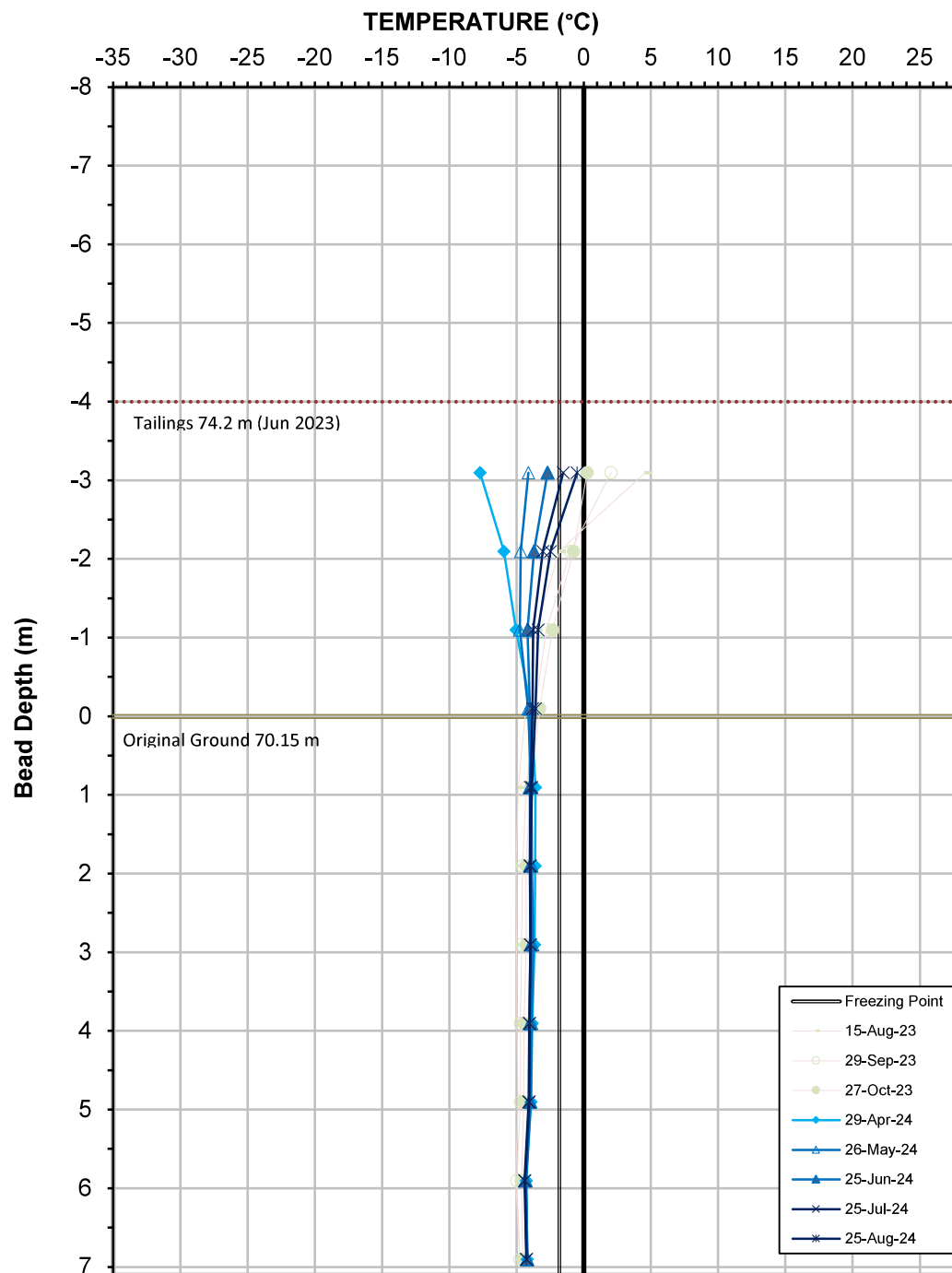
TSF-GTC-055 Serial No.: 17-375P13  
Elevation: 75.3 - 91.3 m  
Date Installed: August 9, 2023



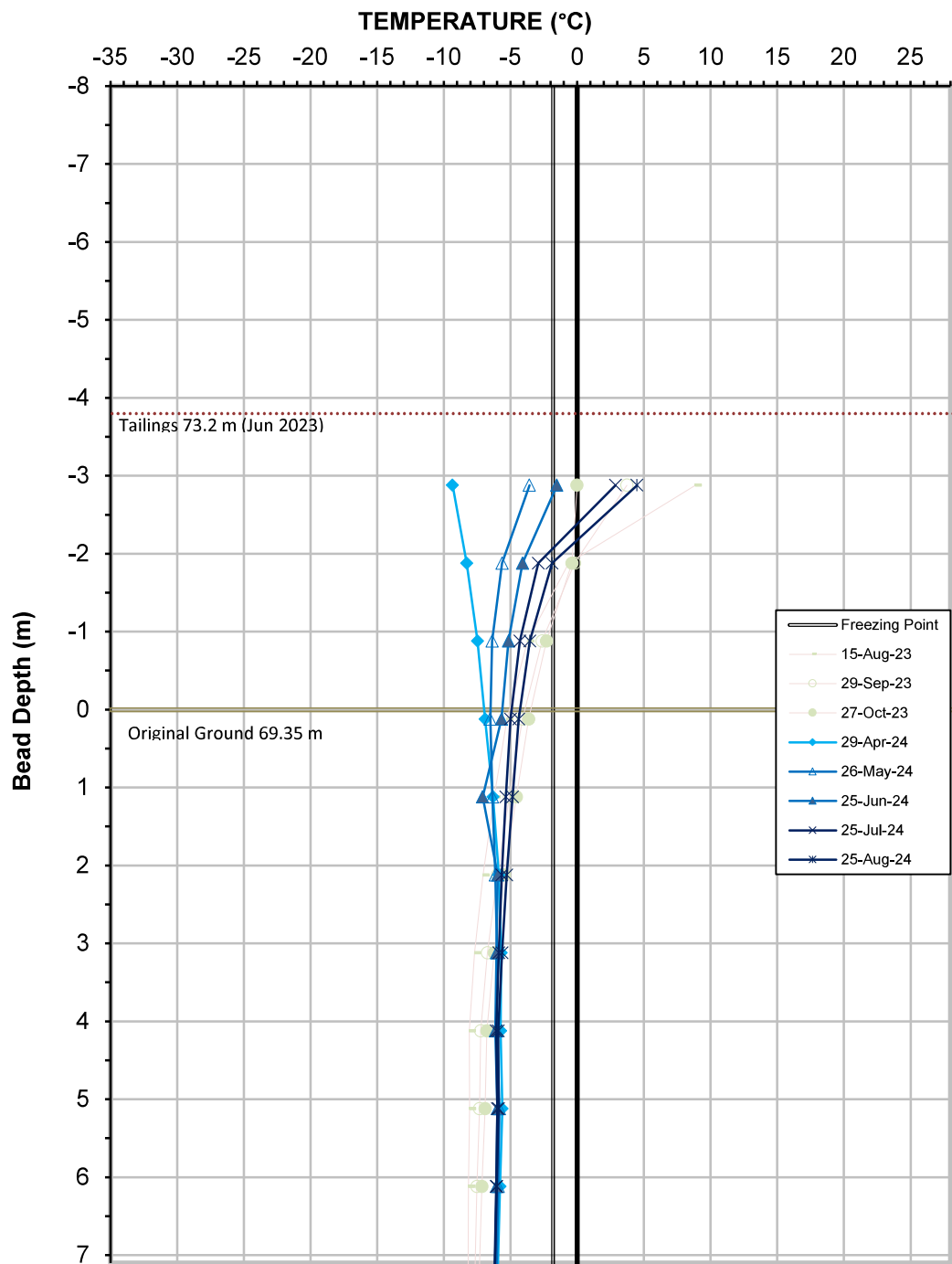


Ground Temperature Profile for Cable GTC-06  
Tailings Storage Facility

TSF-GTC-06 Serial No.: 17-375P13  
Elevation: 61.7 - 76.7m  
Date Installed: August 9, 2023



TSF-GTC-07 Serial No.: 17-375P13  
Elevation: 63.3 - 78.3 m  
Date Installed: August 9, 2023



**Ground Temperature Profile for Cable GTC-08**  
**Tailings Storage Facility**

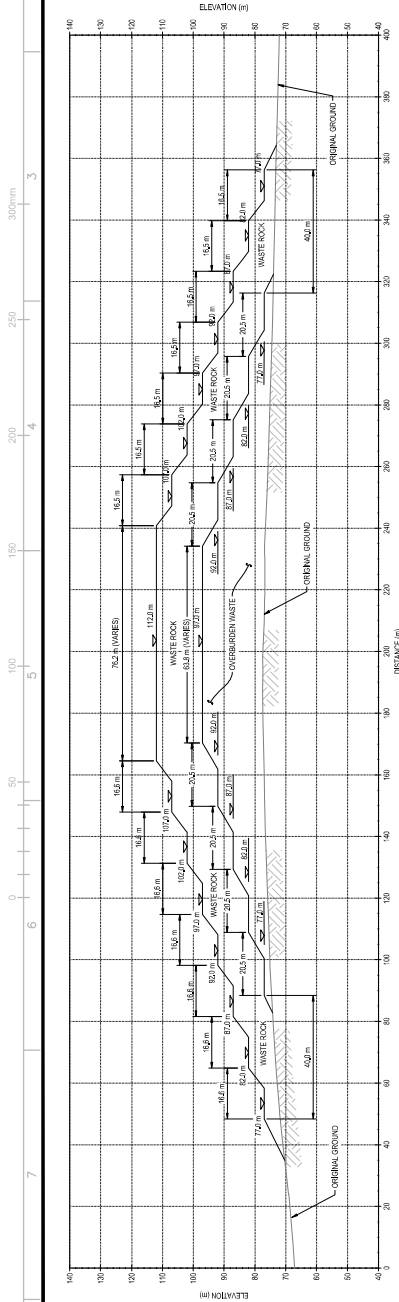
TSF-GTC-08 Serial No.: 13-375P13  
Elevation: 62.23 - 77.2 m  
Date Installed: August 9, 2023



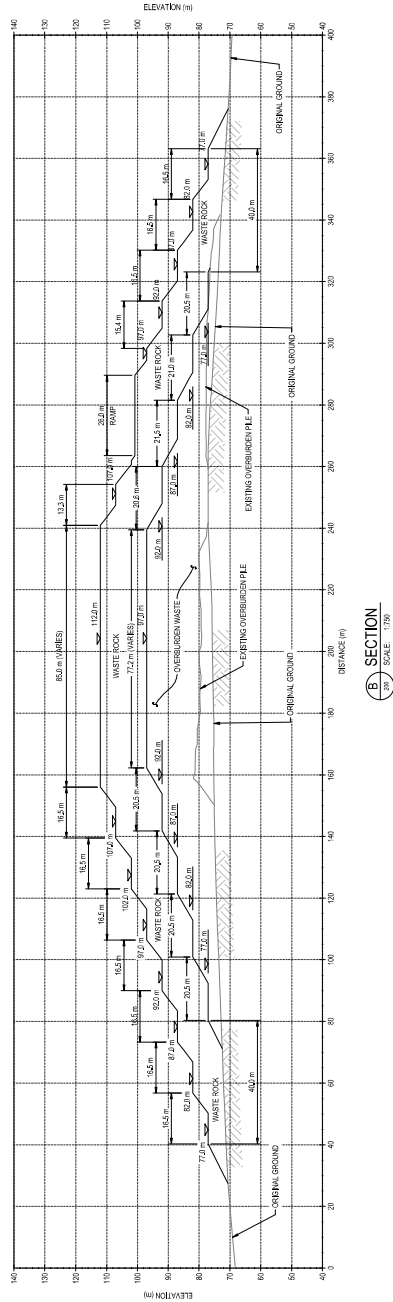
## APPENDIX K

### WASTE ROCK STORAGE FACILITY 1

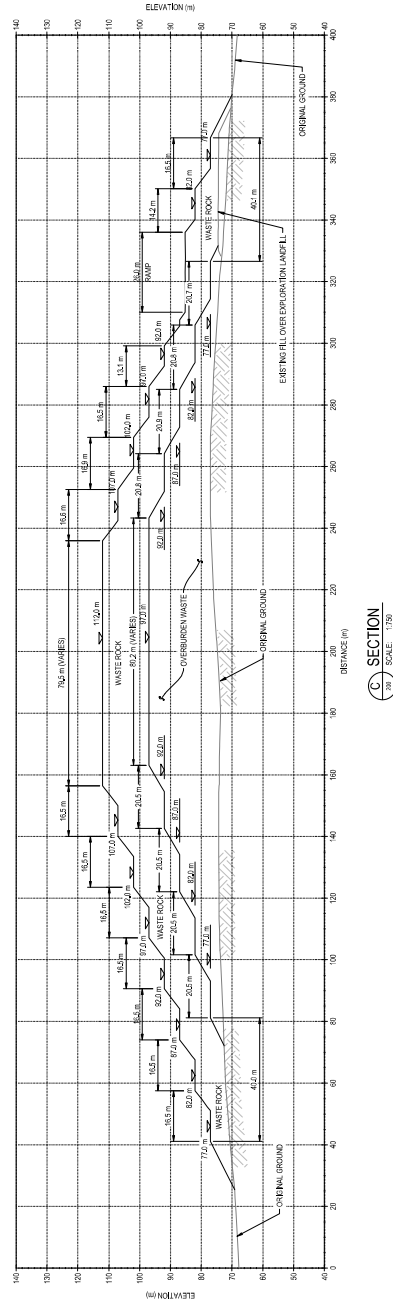




**A** SECTION  
200 SCALE: 1:750



SECTION  
200 SCALE: 1/8"=1'-0"



SECTION  
SCALE: 1/8" = 1'-0"



## NOTES GÉNÉRALES / GENERAL NOTES

1. THE WRSF-1 DESIGN PRESENTED HEREIN HAS BEEN BASED ON THE WASTE ROCK AND OVERBURDEN PRODUCTION PLAN THAT WAS REVISED ON SEPTEMBER 22, 2010 AND THE COMBINED WASTE ROCK AND OVERBURDEN PRODUCTION AND PLACEMENT PLAN THAT WAS DEVELOPED FOR THE DESIGN OF WRSF-1. THIS DESIGN SHOULD BE REVIEWED OR UPDATED IF REQUIRED IF THE FINAL WASTE ROCK AND OVERBURDEN PLACEMENT PLAN FOR WRSF-1, ESPECIALLY THE PLACEMENT PLAN FOR THE INITIAL BATCHES (77 MM AND 82 MM) OF THE OVERBURDEN, IS DIFFERENT FROM THAT USED FOR THIS DESIGN.
2. THE MATERIAL TO BE DISPOSED DURING WASTE PLACEMENT SHOULD BE LIMITED TO 5.0 MTPD FOR OVERBURDEN WASTE AND TO 5.0 MTPD FOR THE WASTE ROCK.

[illegible][illegible]

TIME / TITLE  
AGNICO EAGLE MELIADINE GOLD PROJECT  
WASTEROCK STORAGE FACILITY No. 1

SECTIONS A TO C OF WRSF1

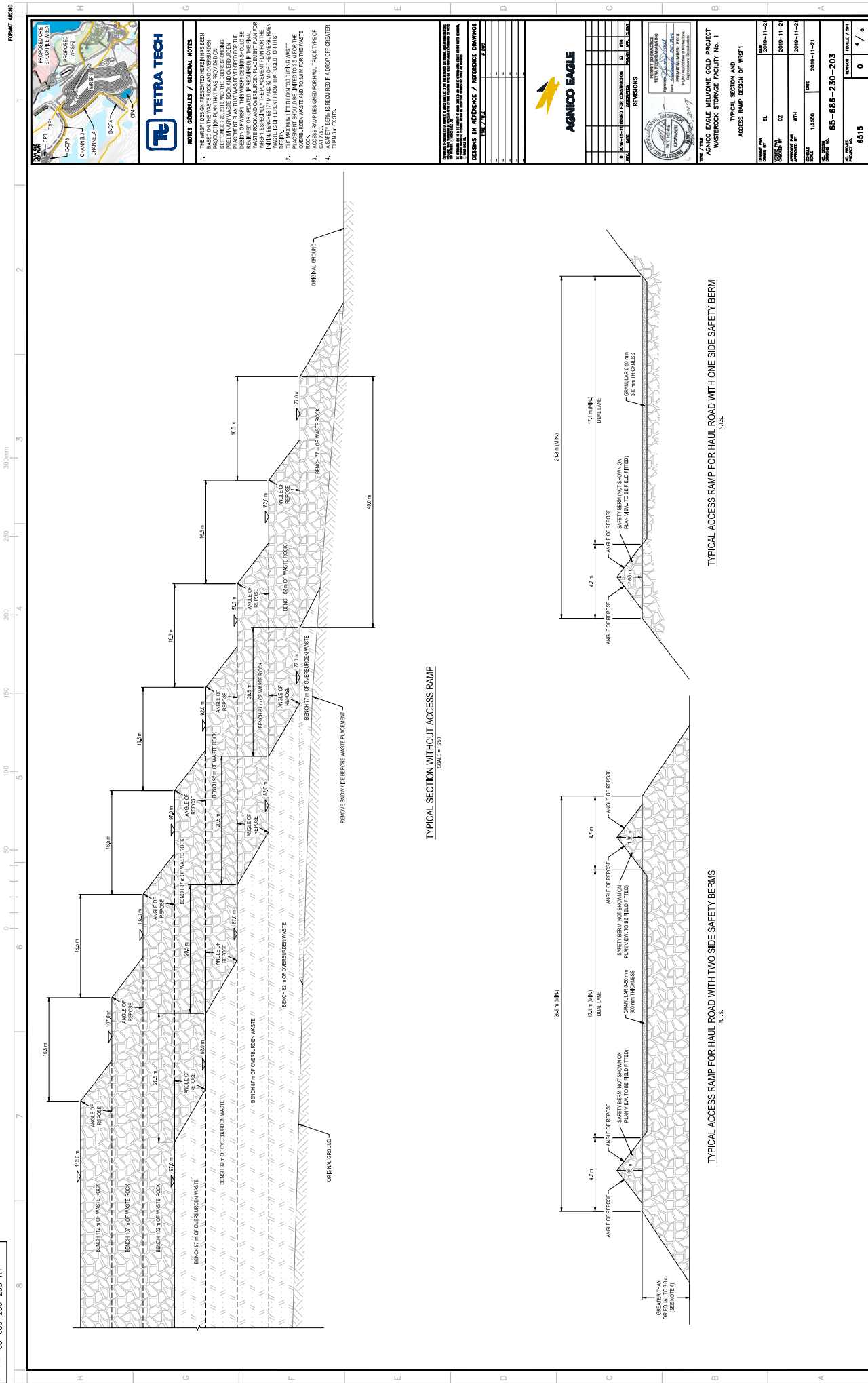
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2010-11-20	EL	2010-11-20	OZ
2010-11-20		2010-11-20	WITH

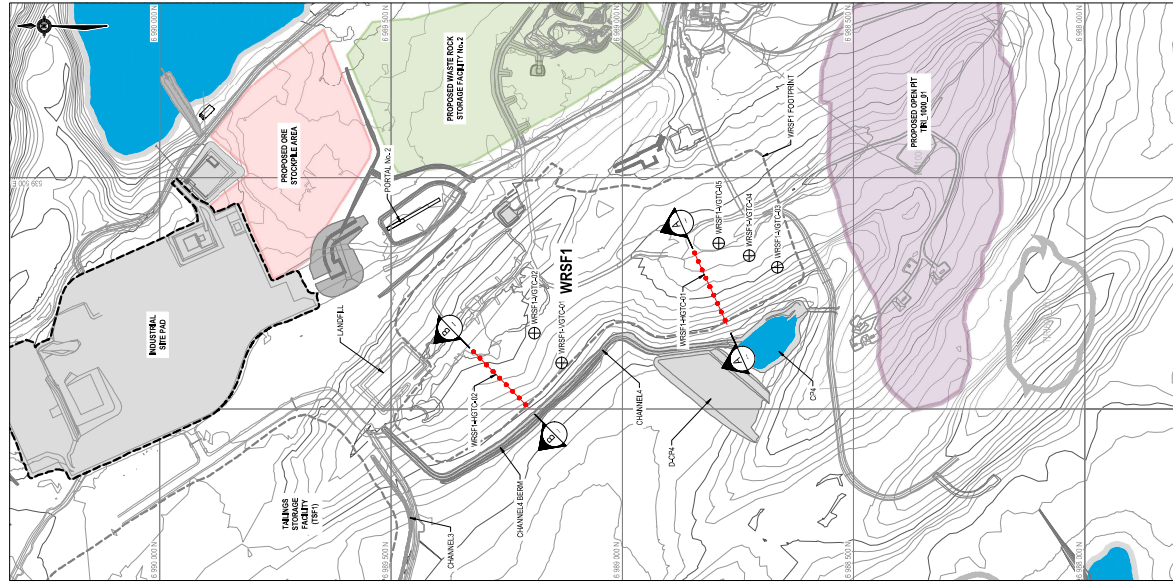
## 65-686-230-201

NO. PROJET PROJECT NO.	REVISION	FEUILLE / SHEET
	0	2 / 5







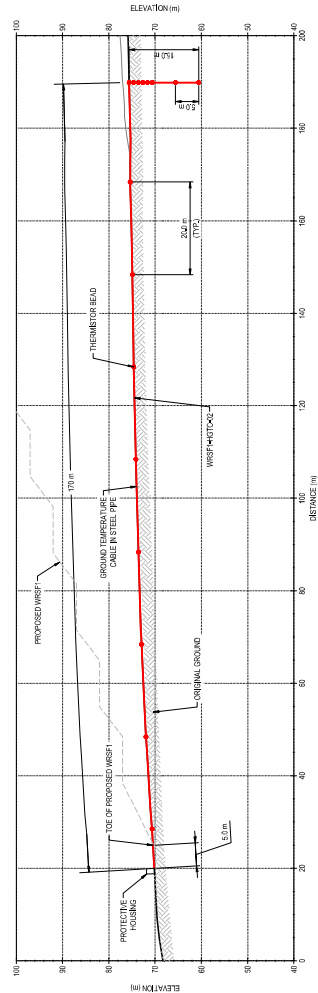


PLAN VIEW SHOWING PROPOSED LOCATIONS OF GROUND TEMPERATURE CABLES FOR WRSF1

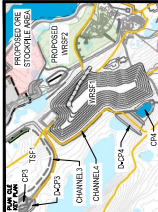
DATE: 1/20/20



A WRSF1-HGTC-01  
SCALE: 1:500



B WRSF1-HGTC-02  
SCALE: 1:500



NOTES, GENERAL, / GENERAL NOTES

- 1. TOTAL OF 16 THERMISTOR BEAD FOR EACH GROUND TEMPERATURE CABLE

REVISIONS

NO.	DATE	BY	CHKD.	DESCRIPTION
1	2019-11-20	WTH	WTH	ISSUED FOR CONSTRUCTION



REVISIONS

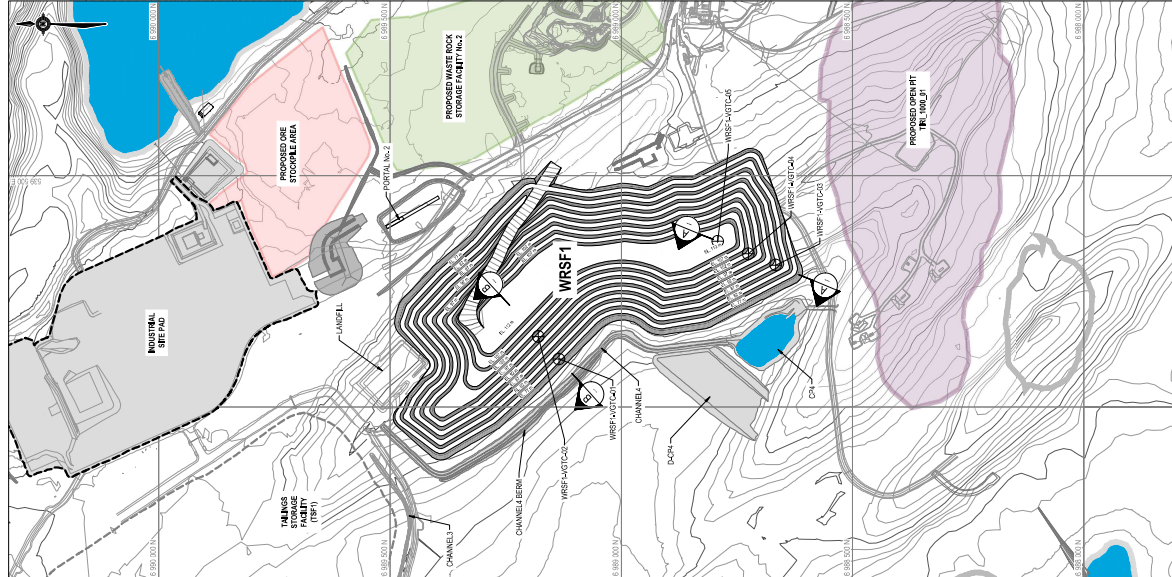
NO.	DATE	BY	CHKD.	DESCRIPTION
1	2019-11-20	WTH	WTH	ISSUED FOR CONSTRUCTION



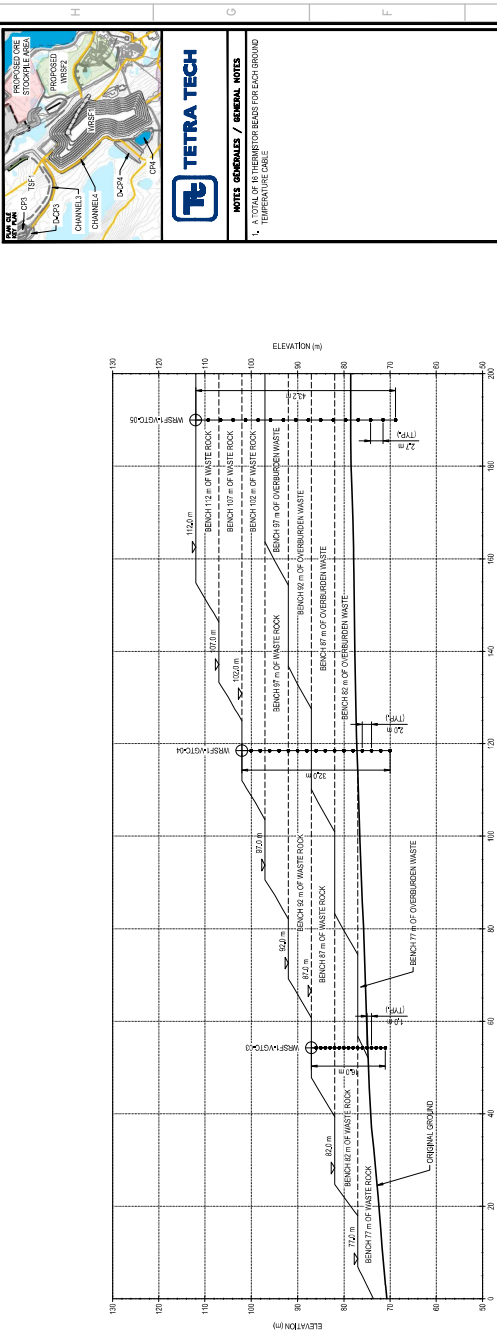
AGNICO EAGLE MELDORNE GOLD PROJECT  
WASTE ROCK STORAGE FACILITY No. 1  
PROPOSED GROUND TEMPERATURE CABLE AND  
THERMISTOR BEAD LOCATIONS FOR WRSF1

PROJECT NO.	65-686-230-204
DATE	2019-11-20
BY	WTH
CHKD.	WTH
DATE	2019-11-20
PROJECT NO.	65-686-230-204
DATE	2019-11-20
BY	WTH
CHKD.	WTH
DATE	2019-11-20

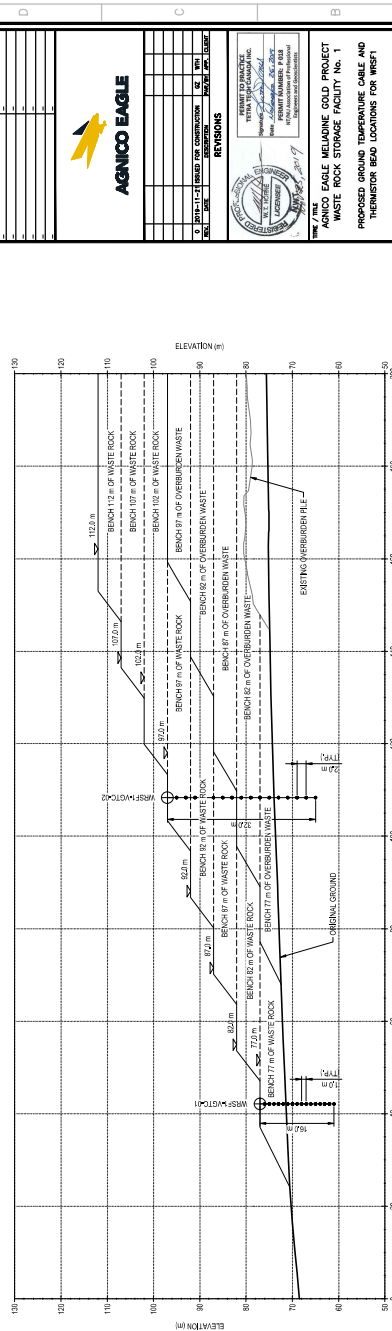




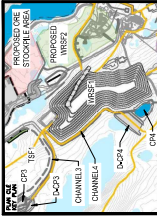
PLAN VIEW SHOWING PROPOSED LOCATIONS OF GROUND TEMPERATURE CABLES FOR WRSF1



A  
INSTRUMENTATION  
SCALE: 1:500



B  
INSTRUMENTATION  
SCALE: 1:500



**NOTES / GENERAL NOTES**

1. TOTAL OF 16 THERMISTOR BEAD LOCATIONS FOR GROUND TEMPERATURE CABLE

**DESIGN / REFERENCE / REFERENCES**

1. 1:500



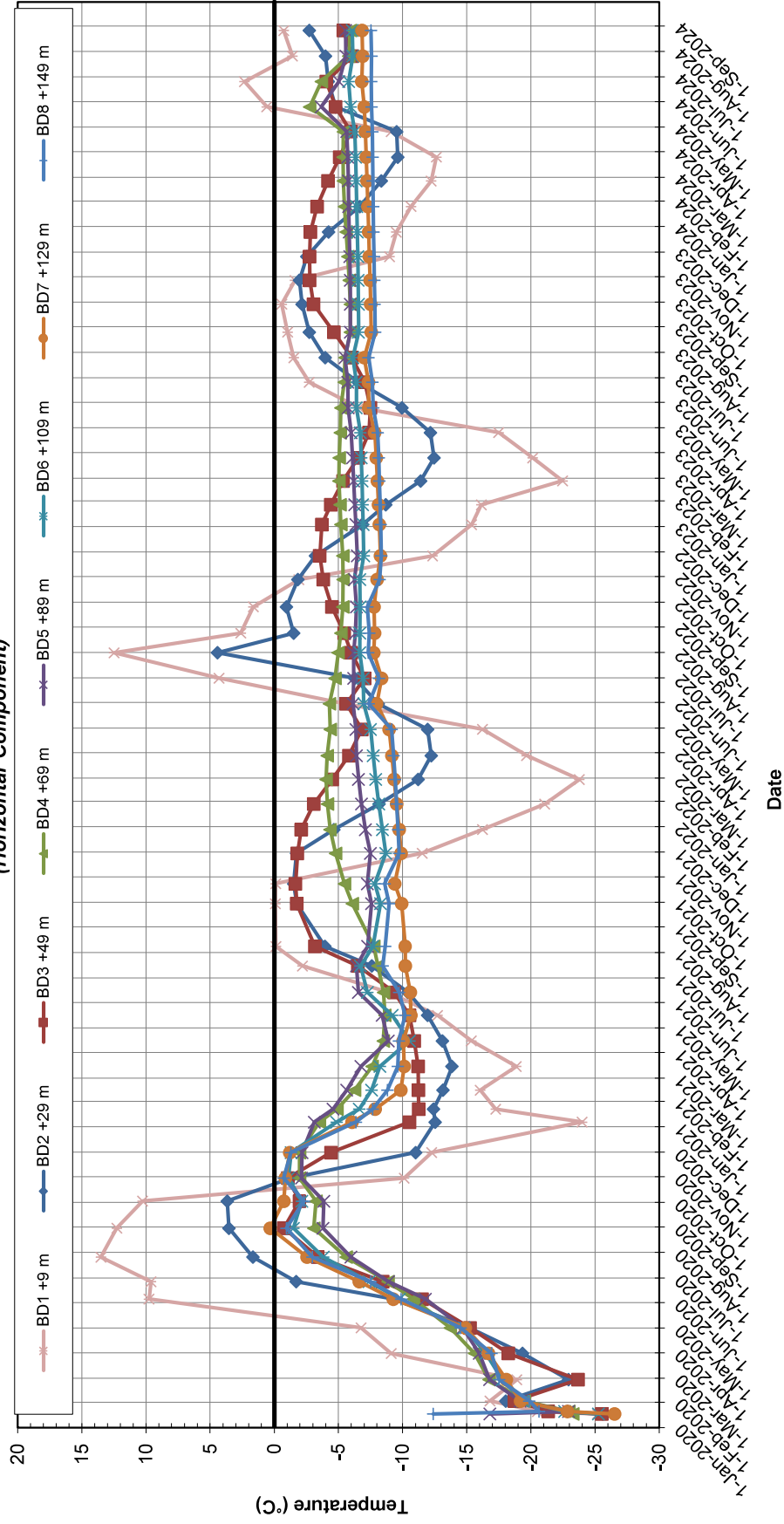
NO.	DESCRIPTION	DATE	BY	CHKD.
1	1:500	2018-11-21	WTH	WTH



**AGNICO EAGLE MELDORNE GOLD PROJECT**  
**WASTE ROCK STORAGE FACILITY No. 1**  
**PROPOSED GROUND TEMPERATURE CABLE AND THERMISTOR BEAD LOCATIONS FOR WRSF1**

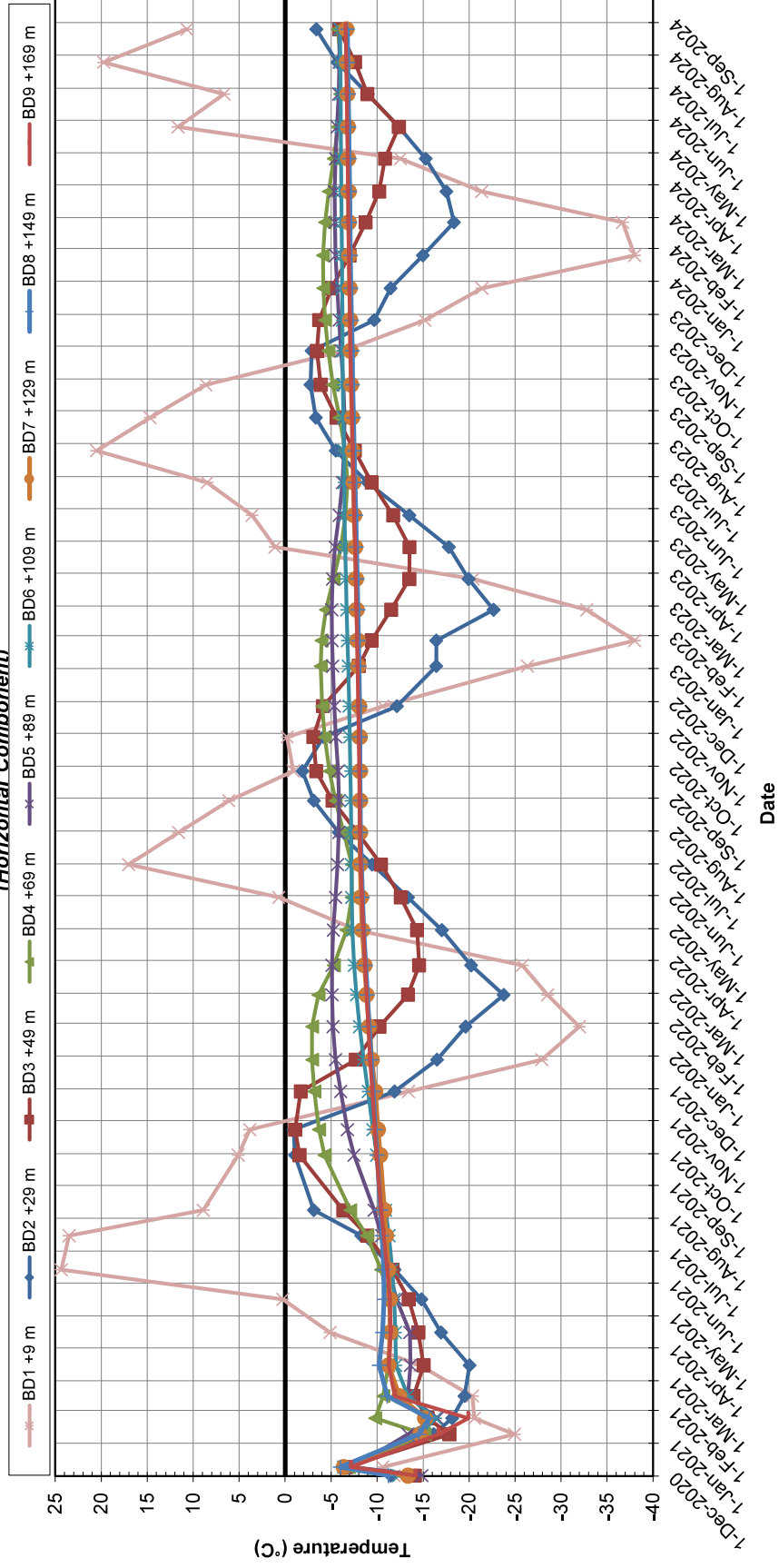
DATE OF ISSUE	2018-11-21
ISSUED BY	WTH
APPROVED BY	WTH
DATE	2018-11-21
SCALE	1:500
PROJECT NO.	65-686-230-205
REVISION	0
THICK / 24	6

**WRSF1-HGTC-01**  
(Horizontal Component)

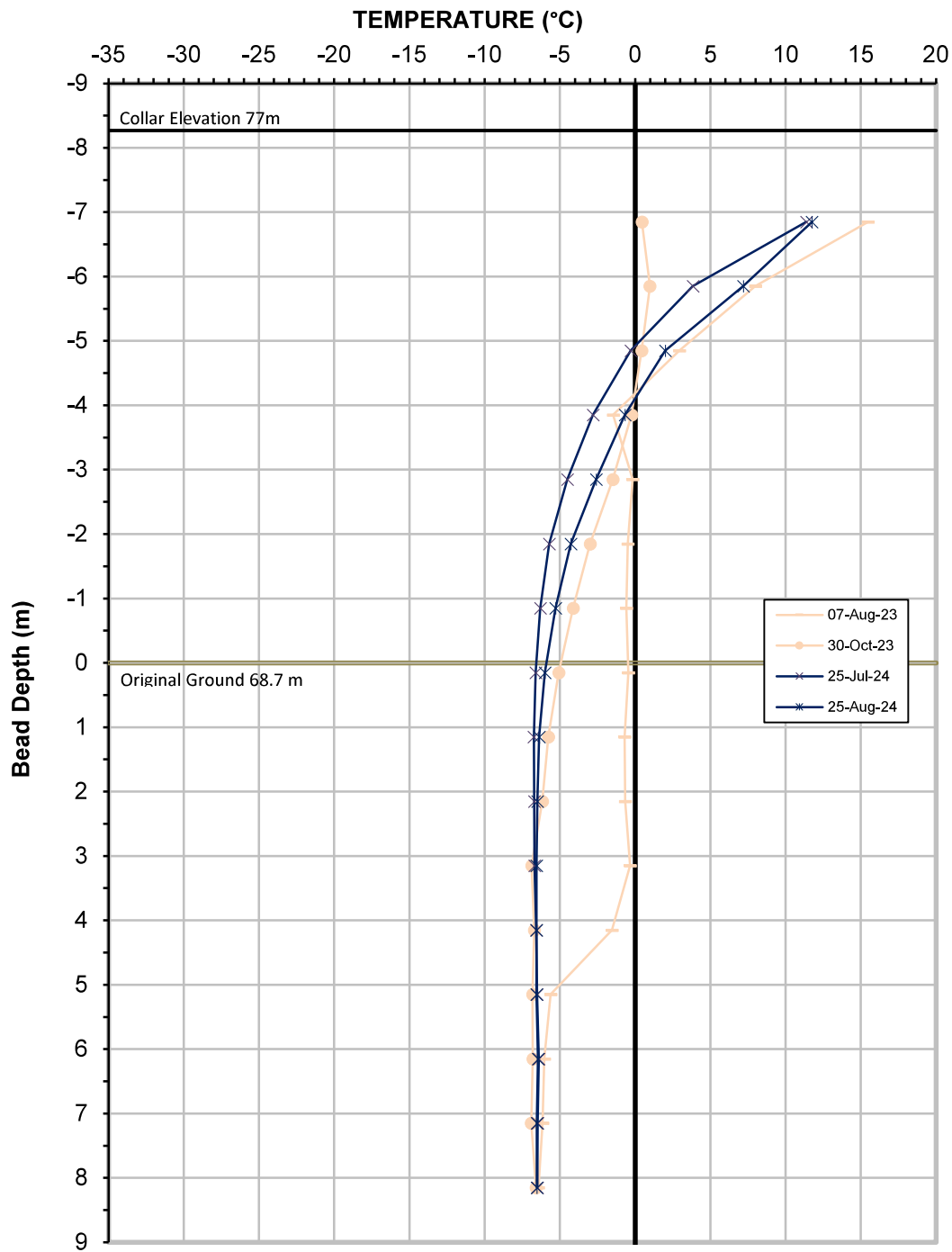


# WRSF1-HGTC-02

(Horizontal Component)

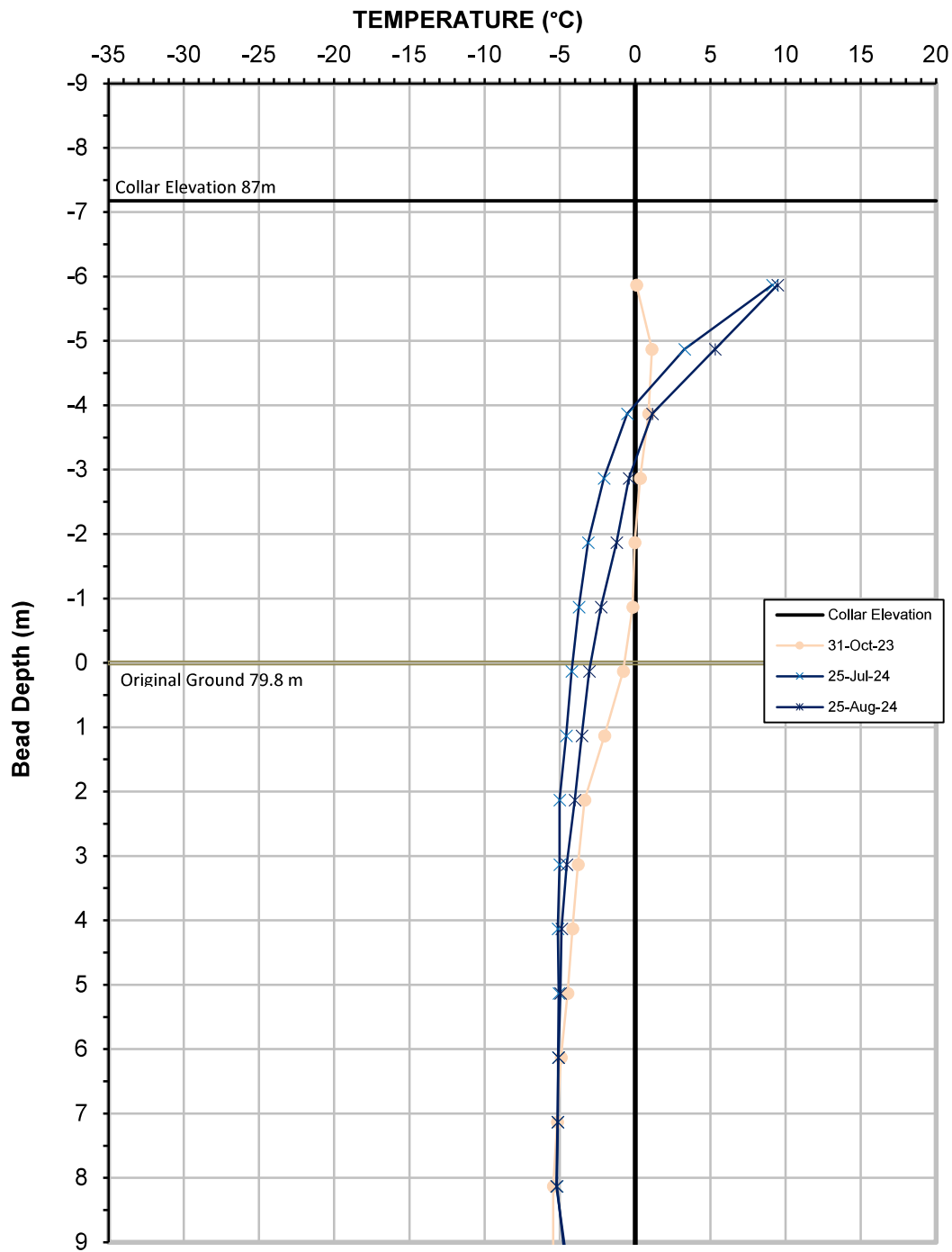






**Ground Temperature Profile for Cable VGTC-01**  
**Waste Rock Storage Facility**

WRSF-VGTC-01 Serial No.: xxx  
Elevation: 60.6 - 76.8 m  
Date Installed: August 7, 2023





**WRSF1 - Photo 1:** WRSF1 - Crest of WRSF1 from bench 107 m. Facing north.



**WRSF1 - Photo 2:** WRSF1 - West side benches and slopes, Channel 3 and 4 in the background. Facing northwest.





**WRSF1 - Photo 3:** WRSF1 - West side benches and slopes, CP4 and CP4 Thermal Berm in the background. Facing southwest.

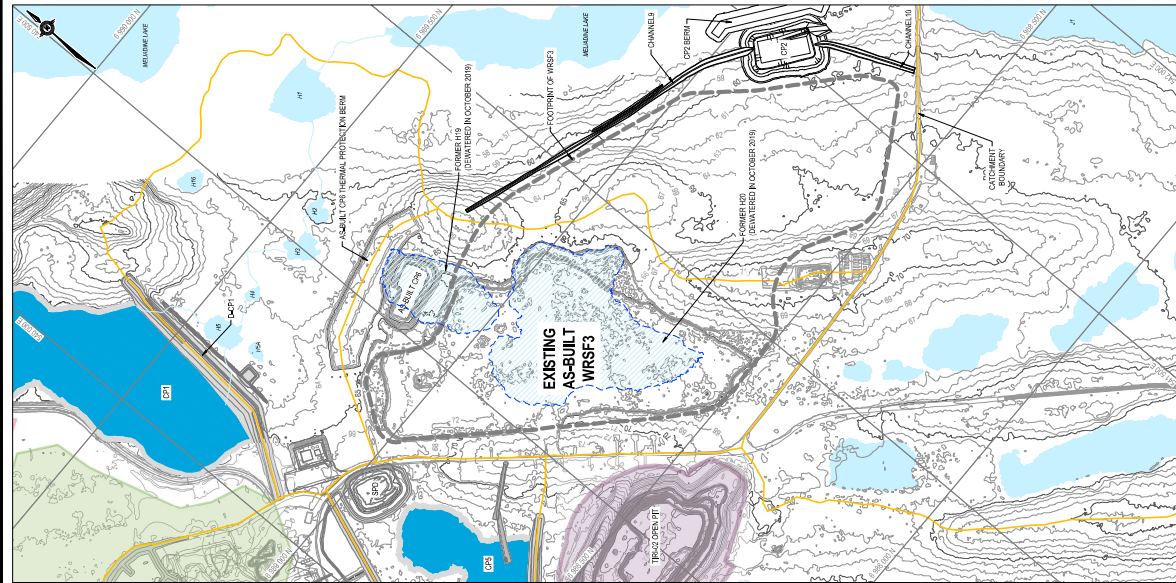


**WRSF1 - Photo 4:** WRSF1 - Free dumps spread on bench 97 m. Facing south.

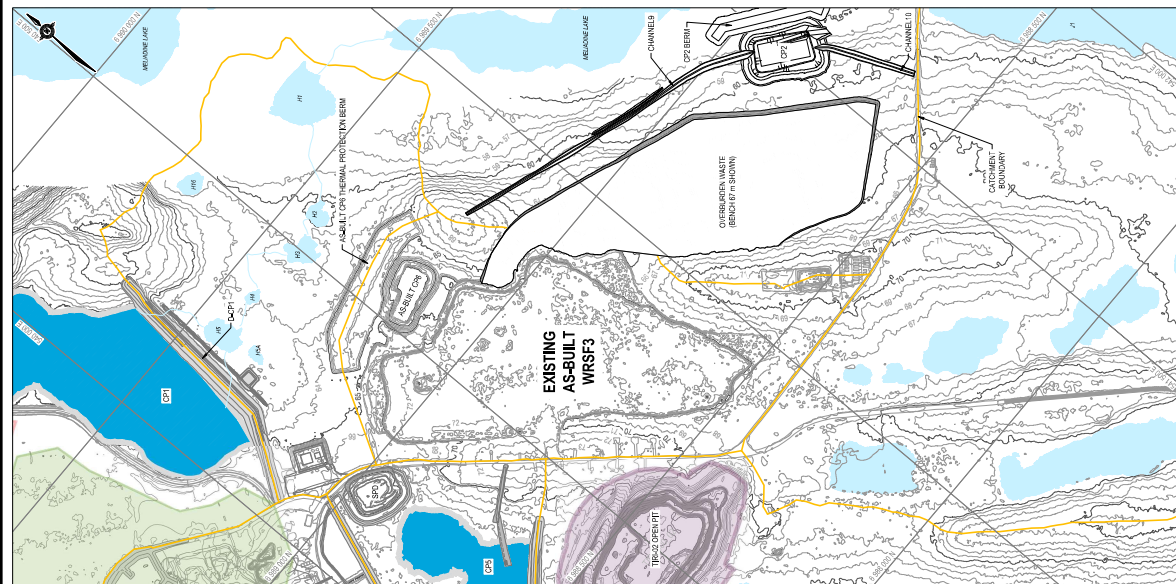
## APPENDIX L

### WASTE ROCK STORAGE FACILITY 3

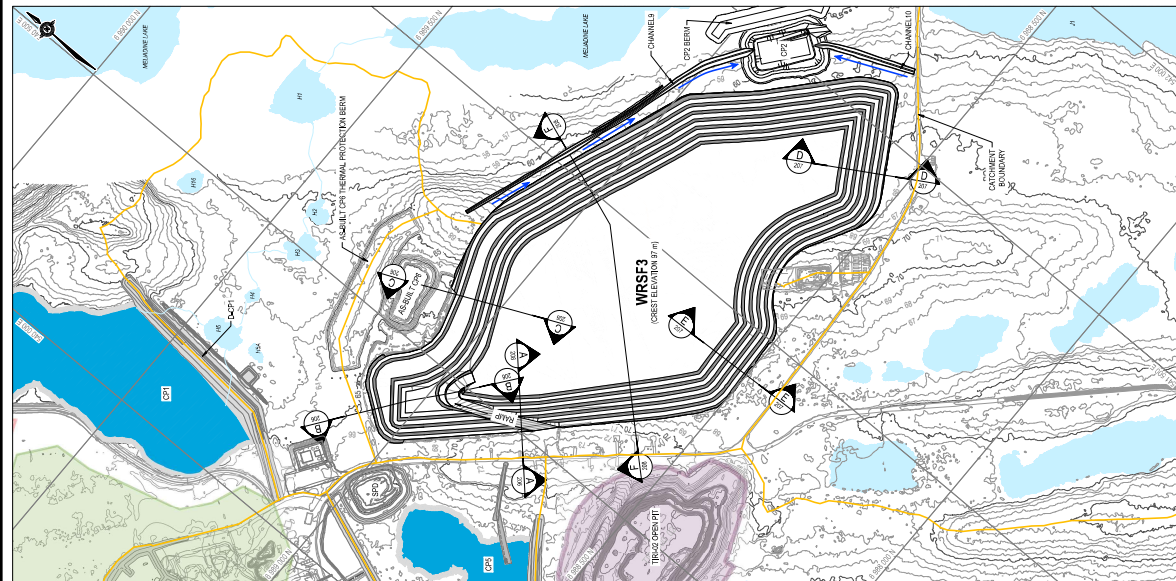




PLAN VIEW SHOWING CURRENT CONDITION  
SCALE = 1:1000



PLAN VIEW SHOWING INTERNAL DESIGN GEOMETRY OF OVERBURDEN WASTE IN WRSF3  
SCALE = 1:500



PLAN VIEW SHOWING DESIGN GEOMETRY OF WASTE ROCK OUTSIDE SHELL FOR WRSF3  
SCALE = 1:500



NOTES / GENERAL NOTES

1. THE WRSF3 DESIGN PRESENTED HEREIN HAS BEEN BASED ON THE WASTE ROCK AND OVERBURDEN DATA PROVIDED BY THE CLIENT. THE WRSF3 DESIGN SHOULD BE REVIEWED OR UPDATED IF THE WASTE ROCK AND OVERBURDEN DATA IS FOUND TO BE DIFFERENT FROM THAT USED IN THIS DESIGN.

DESIGN / REFERENCE / REFERENCES

1. WRSF3 DESIGN

REVISIONS

NO.	DESCRIPTION	DATE
1	WRSF3 DESIGN	2019-10-10

AGNICO EAGLE

AGNICO EAGLE MELANEO GOLD PROJECT  
WASTE ROCK STORAGE FACILITY No. 3  
MELANEO WRSF3 DETAILED DESIGN  
PLAN VIEW

PROJECT NUMBER: 2019  
PROJECT LOCATION: MELANEO  
PROJECT SCALE: 1:500

DATE: 2019-10-10  
DRAWN BY: [Name]  
CHECKED BY: [Name]  
APPROVED BY: [Name]

FILE NO. 65-686-230-205

REVISIONS

1. WRSF3 DESIGN

2. WRSF3 DESIGN

3. WRSF3 DESIGN

4. WRSF3 DESIGN

5. WRSF3 DESIGN

6. WRSF3 DESIGN

7. WRSF3 DESIGN

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11. WRSF3 DESIGN

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25. WRSF3 DESIGN

26. WRSF3 DESIGN

27. WRSF3 DESIGN

28. WRSF3 DESIGN

29. WRSF3 DESIGN

30. WRSF3 DESIGN

31. WRSF3 DESIGN

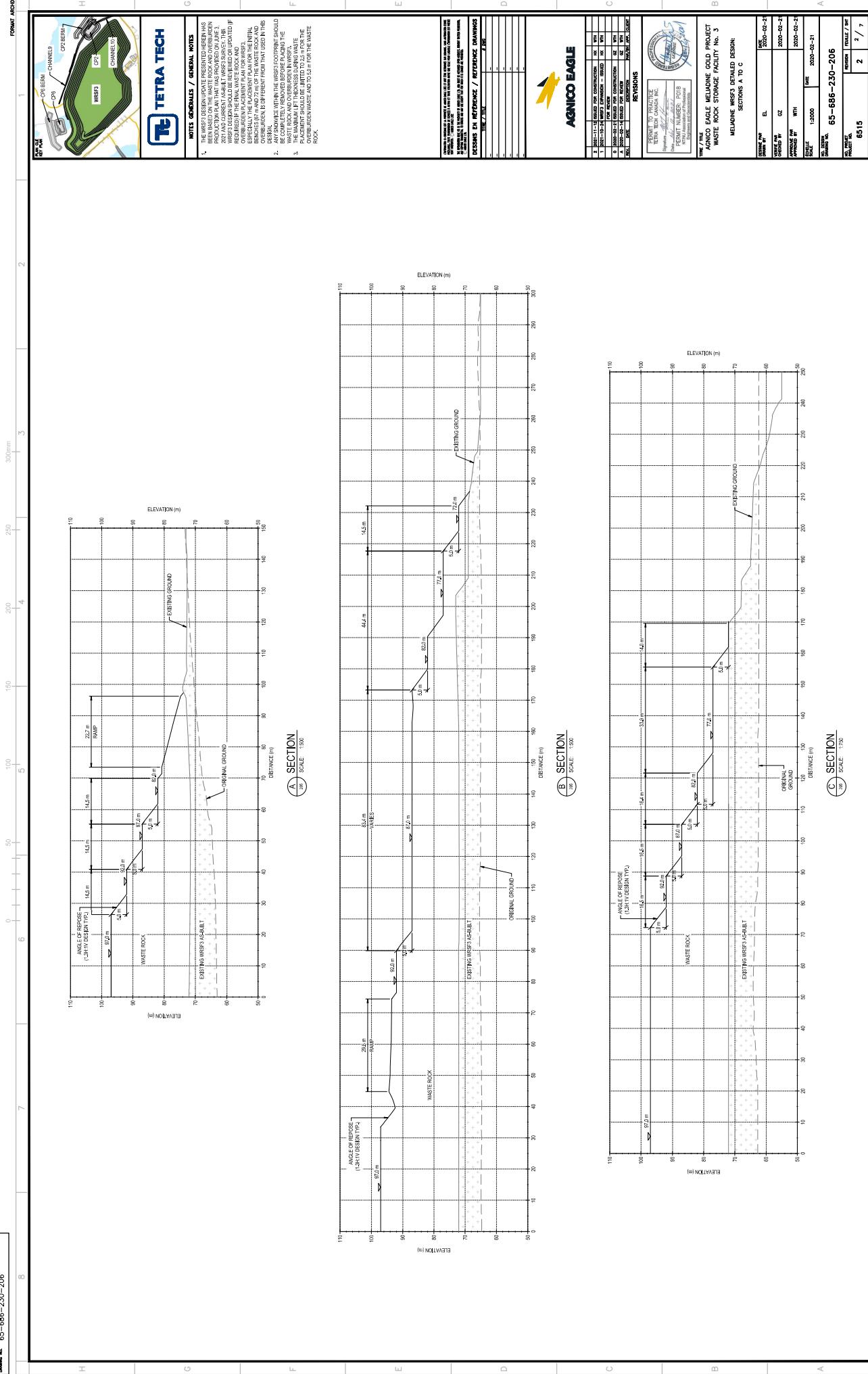
32. WRSF3 DESIGN

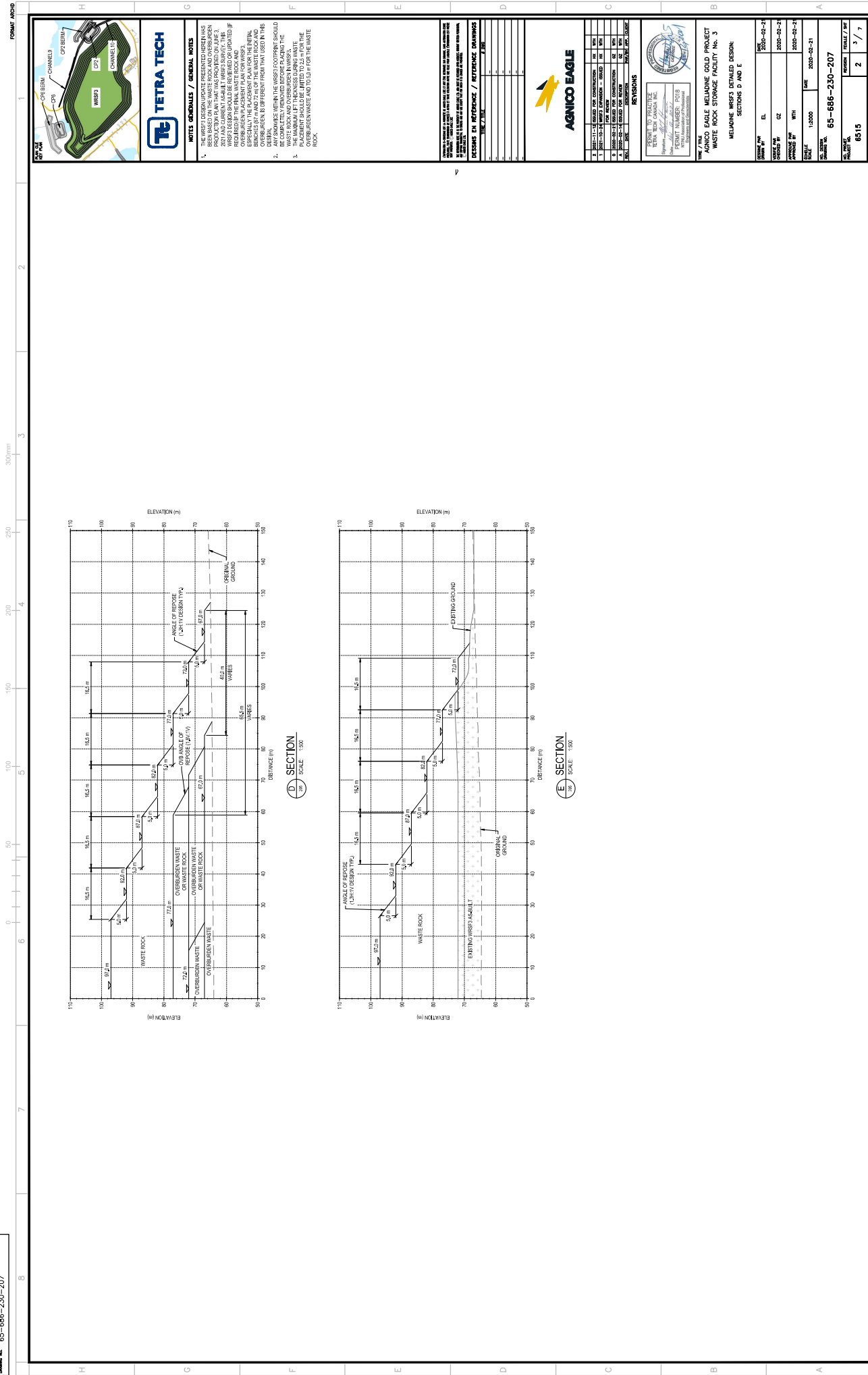
33. WRSF3 DESIGN

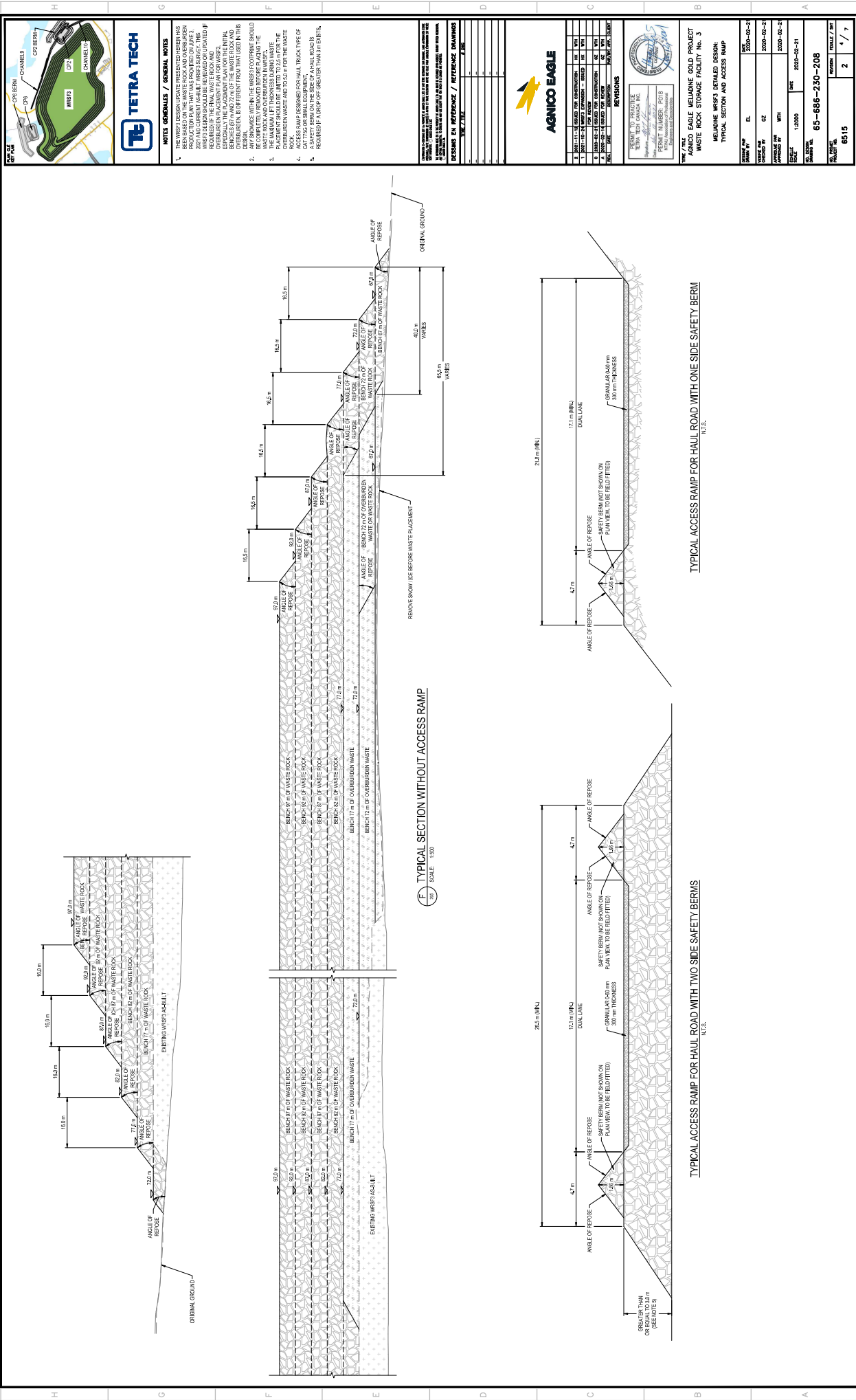
34. WRSF3 DESIGN

35. WRSF3 DESIGN

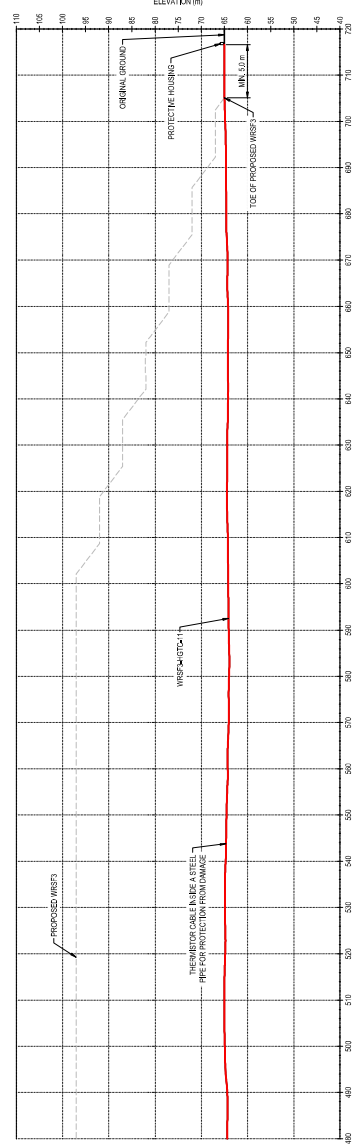
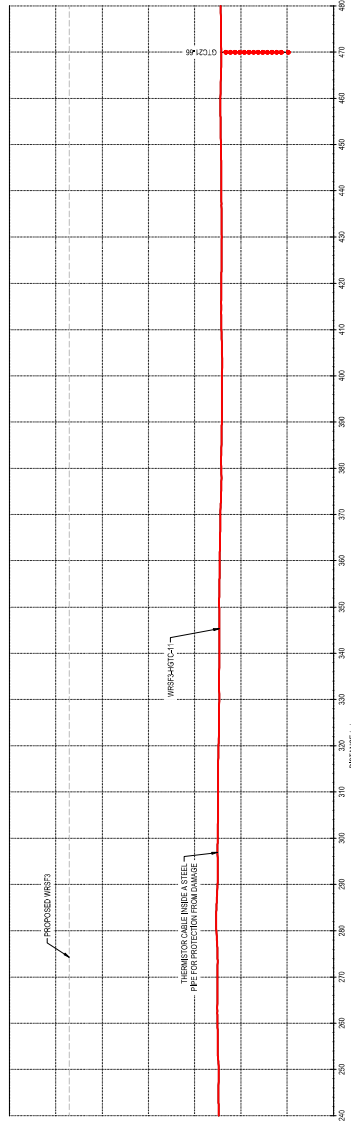
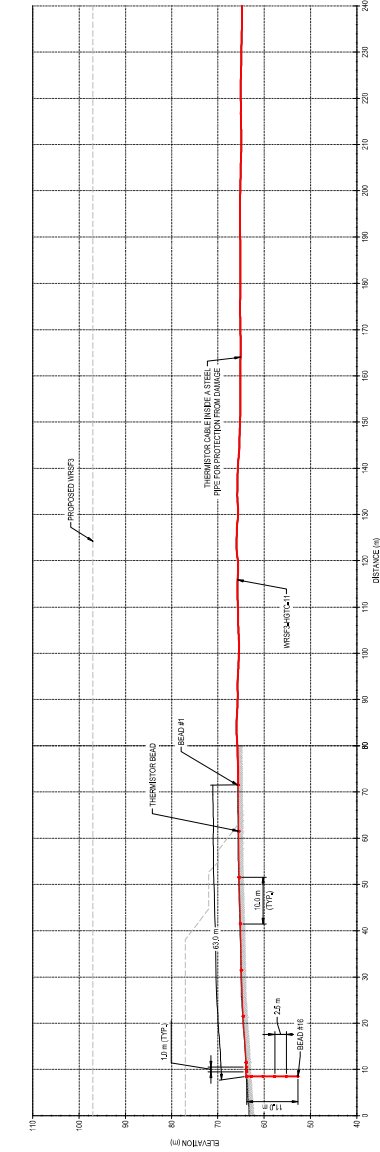












A WRSF3-HGTC-11  
SCALE: 1500



## NOTES GÉNÉRALES / GENERAL NOTES

1. A TOTAL OF 16 THERMISTOR BEADS FOR EACH GROUND TEMPERATURE CABLE.
2. THE THERMISTOR CABLES FOR WRSF-34-GTC-11 AND WRSF-14-GTC-2 WERE MANUFACTURED BEFORE THE DESIGN OF WRSF-2. THESE CABLES WERE INSTALLED ON JANUARY 25, AND 26, 2020 DURING THE SITE INVESTIGATION, DUE TO HOLE SLUGHING ISSUE, THE BOTTOMS OF BOTH CABLES WERE NOT INSTALLED TO THE DESIGN DEPTH, THE AS-INSTALLED BEAD LOCATIONS INSIDE THE HOLES ARE SHOWN ON THIS DRAWING.

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DESSEINS EN RÉFÉRENCE / REFERENCE DRAWINGS

[illegible]

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AGNICO EAGLE

2	2021-11-13	ISSUED FOR CONSTRUCTION	HK	WITH
1	2021-10-24	WMS3 EXPANSION - ISSUED	HK	WITH
		FOR REVIEW		

REV.	DATE	DESCRIPTION	PREP'D BY	APP.	CHECKED
0	2020-02-21	ISSUED FOR CONSTRUCTION			WTH
A	2020-02-14	ISSUED FOR REVIEW			WTH

**REVISIONS**

PERMIT TO PRACTICE  
TETRA TECH CANADA INC.

Signature: [Signature]  
Date: Feb 17, 2011  
PERMIT NUMBER: P018

INTERNATIONAL ASSOCIATION OF PROFESSIONAL  
ENGINEERS AND GEOSCIENTISTS

AGNICO EAGLE MELADINE GOLD PROJECT  
WASTE ROCK STORAGE FACILITY No. 3

**MELJADINE WRSF3 DETAILED DESIGN:  
GROUND TEMPERATURE CABLE AND**

ISSUED FOR ISSUED BY	EL	DATE 2020-02-21
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ADDITIONAL PAGE	02	2020-02-20
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APPROVE FOR	DATE	2020-02-21
APPROVED BY	DATE	2020-02-21

NO. DESIGN  
DRAWING NO.  
65-686-230-209-001

NO. PROJECT PROJECT NO.	REVISION	FEEDBACK / SHF	E /

6515	2	2/7
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FILE NO. 65-686-230-209-001.dwg



## NOTES GÉNÉRALES / GENERAL NOTES

1. A TOTAL OF 16 THERMISTOR BEADS FOR EACH GROUND TEMPERATURE CABLE.
2. THE THERMISTOR CABLES FOR WRSF-34GTCA-1 AND WRSF-34GTCA-2 WERE MANUFACTURED BEFORE THE DESIGN OF WRSF. THESE CABLES WERE INSTALLED ON THE BOTTOMS OF BOTH CAIRDS AS A PREVENTATIVE INVESTIGATION DUE TO HOLES AS A KNOWN ISSUE. THE BOTTOMS OF BOTH CAIRDS WERE NOT INSTALLED TO THE DESIRED DEPTH. THE HOLES ARE SHOWN ON THIS LOCATION INSIDE THE ISLES INSTALLED ON THIS DRAWSING. 072466 WAS INSTALLED ON APRIL 26, 2021 DURING THE SPRING 2021 GEOTECHNICAL DRILLING PROGRAM. THE GTC CABLE WILL BE EXTENDED HORIZONTALLY TO THE TOE OF THE WREXES.



NO.	DATE	DESCRIPTION	WTH APP.	CLIENT
2	2021-11-12	ISSUED FOR CONSTRUCTION	OK	WTH
1	2021-10-24	WSP3 EXPANSION - ISSUED FOR REVIEW	OK	WTH
0	2020-03-21	ISSUED FOR CONSTRUCTION	OK	WTH
4	2020-02-14	ISSUED FOR REVIEW	OK	WTH

DATE	REVISIONS
10/26/2013	REVISIONS

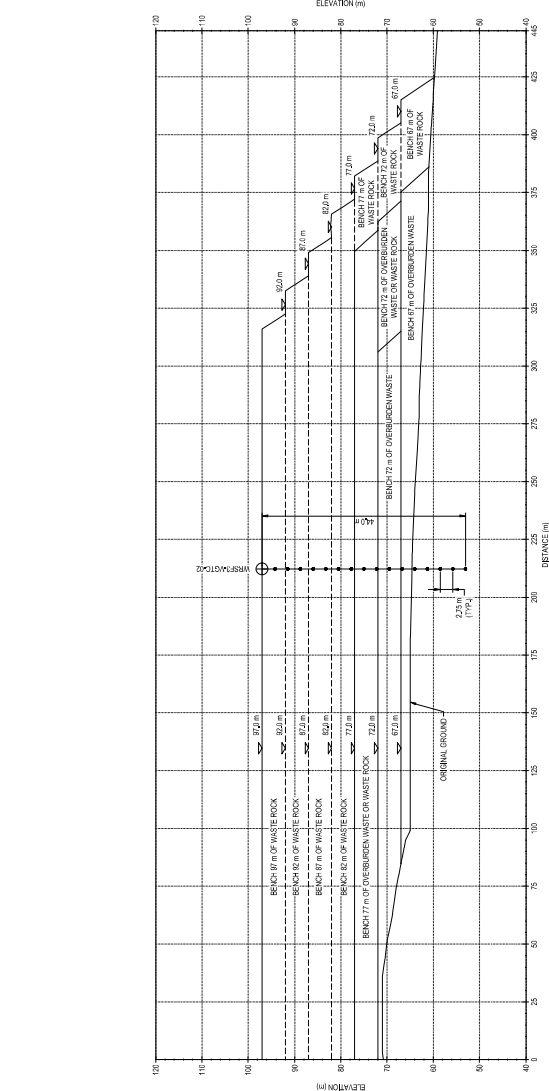


**TIME / TITLE**  
**AGNICO EAGLE MELADINE GOLD PROJECT**  
**WASTE ROCK STORAGE FACILITY No. 3**

DESIGNED BY	EL	DATE	2020-02-21
CHECKED BY	OZ	DATE	2020-02-21
APPROVED BY	WITH	DATE	2020-02-21
SCALE	1:2000	DATE	2020-02-21

65-686-230-200-002

NO. PROJECT PROJECT NO.	REVISION	FOLLETT / SHEET
	2	6 / 7



PLAN VIEW SHOWING LOCATIONS OF GROUND TEMPERATURE CABLES FOR WRSF3

SCALE = 1:5000



DESSINS EN RÉFÉRENCE / REFERENCE DRAWINGS		TYPE / TYPE	N° / NO
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REV	DATE	DESCRIPTION	CHK/APP	CLIENT
0	2020-02-21	ISSUED FOR CONSTRUCTION	02	WITH
1	2021-10-24	WSE2 EXPANSION - ISSUED FOR REVIEW	02	WITH
2	2021-11-12	ISSUED FOR CONSTRUCTION	02	WITH

## REVISIONS



**MELADINE WRSF'S DETAILED DESIGN:  
GROUND TEMPERATURE CABLE AND  
THERMISTOR BEAD LOCATIONS**

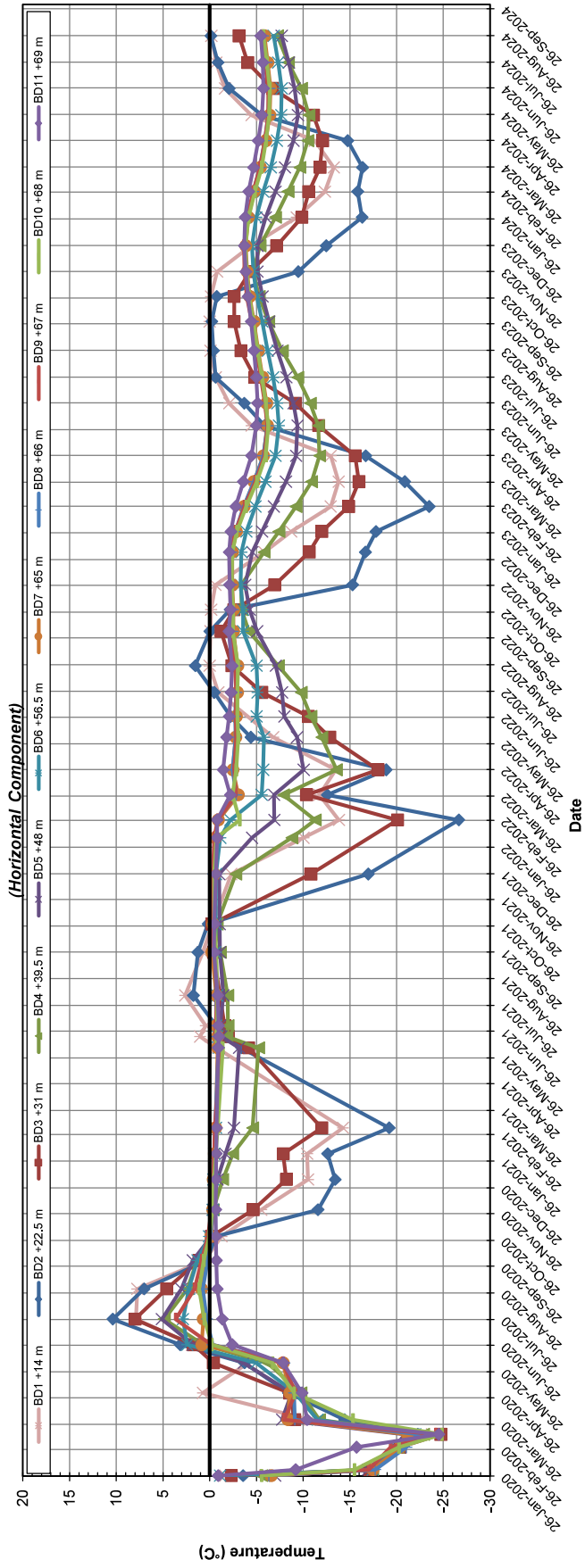
DESIGNED BY	EL	DATE	2020-02-21
CHECKED BY			
DESIGNED BY	OZ	DATE	2020-02-21
CHECKED BY			
APPROVED BY	WITH	DATE	2020-02-21
CHECKED BY			
SCALE	1:2000		

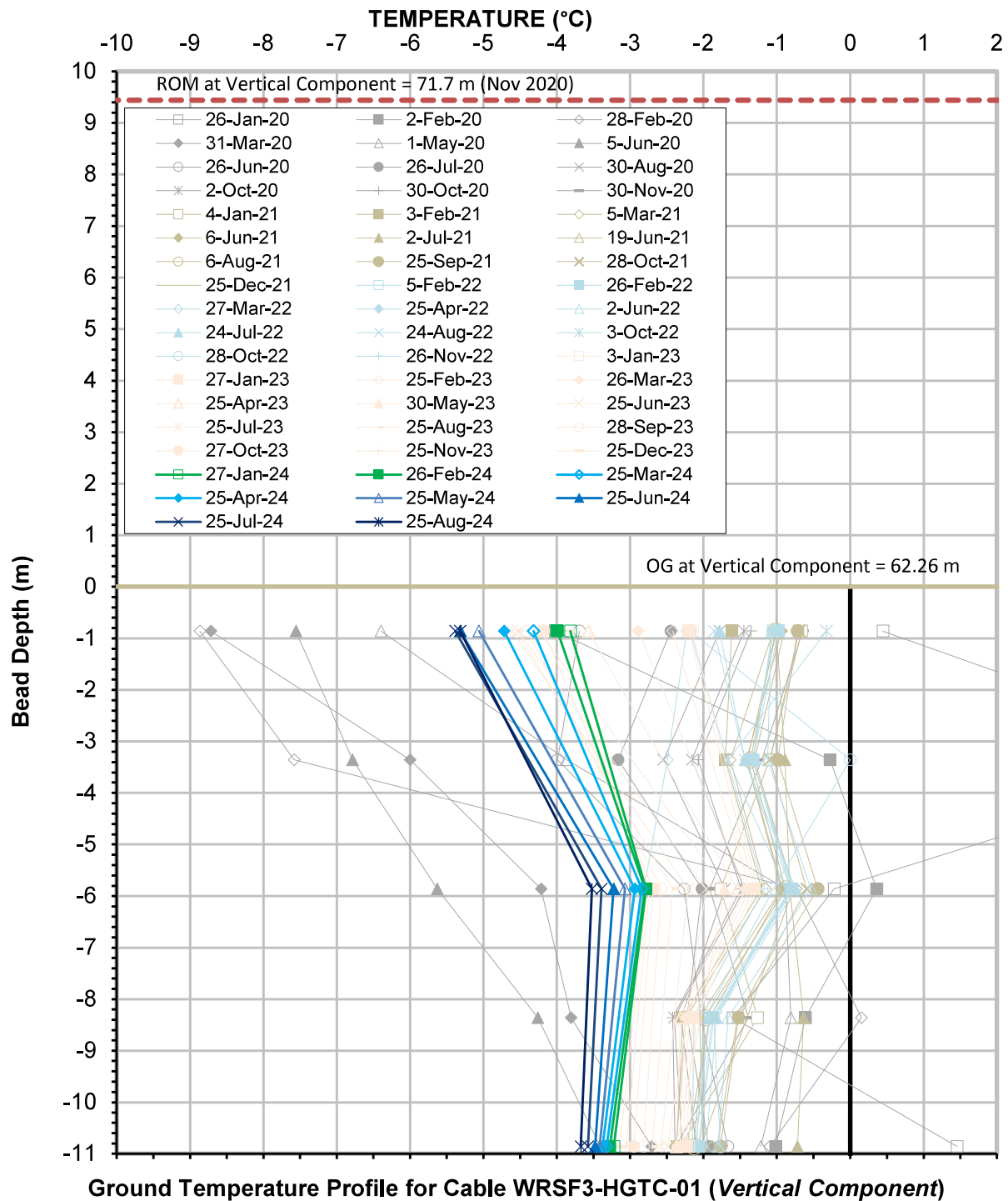
NO. PROJECT PROJECT NO.	6515	REVISION	2	7 / 7
		65-686-230-209-003		



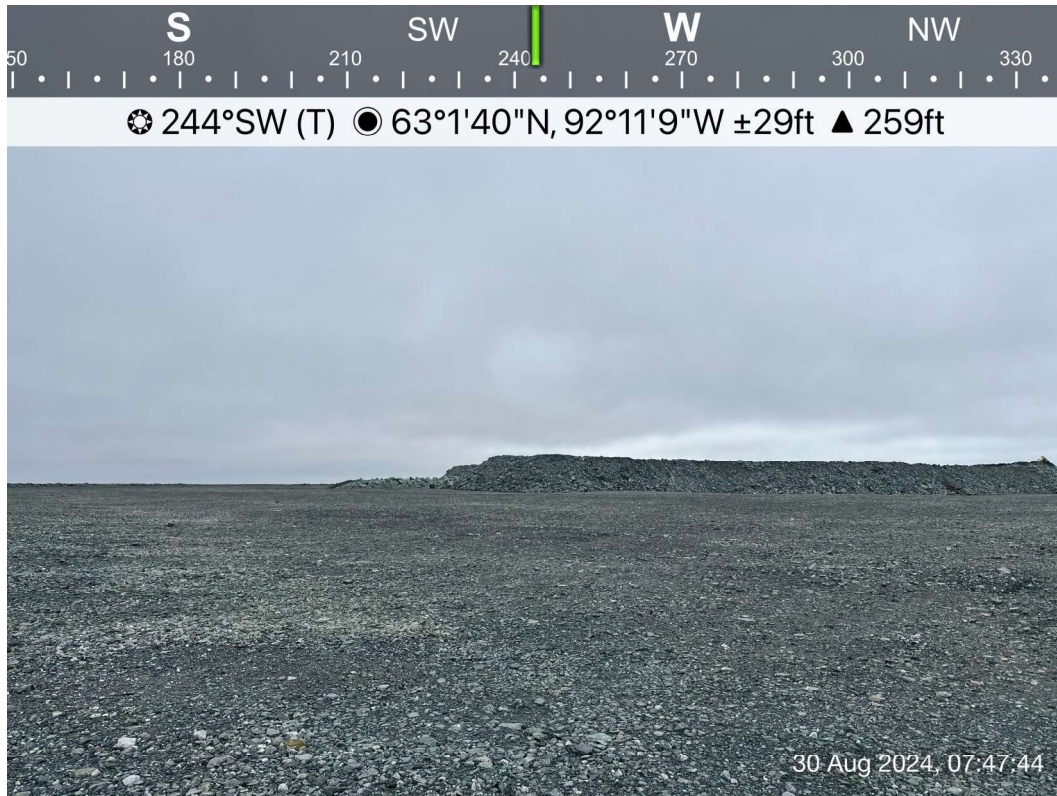
(Horizontal Component)

*(Horizontal Component)*

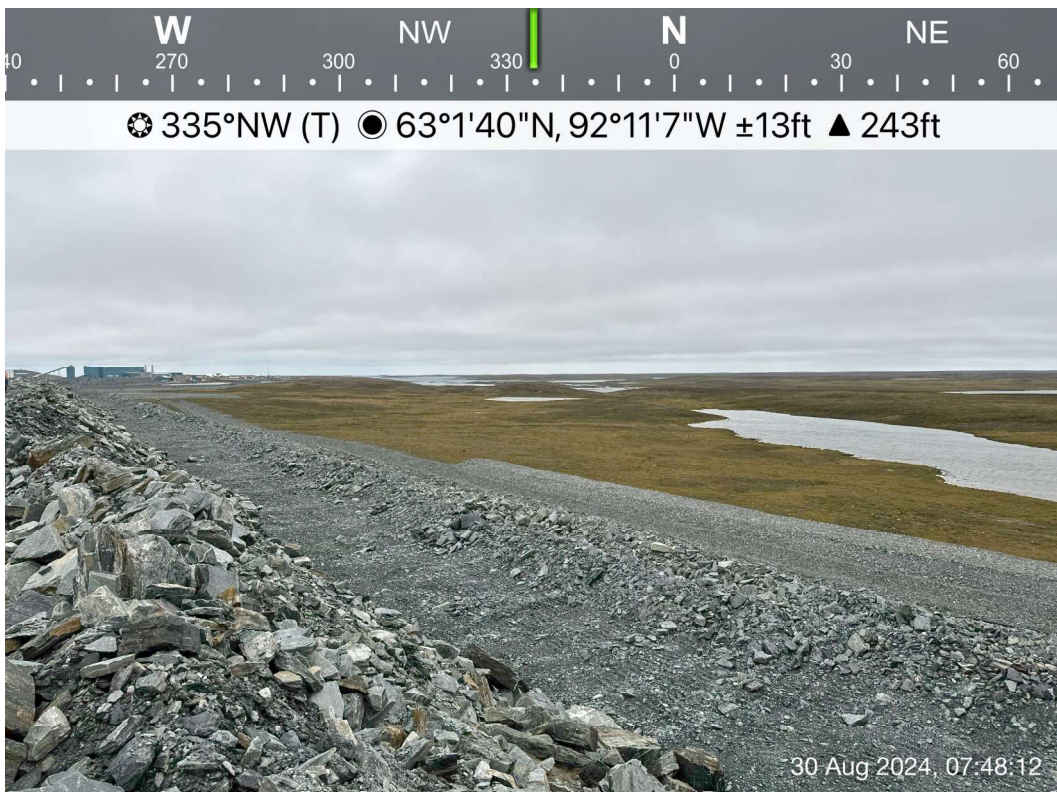




Serial No.: 2712  
Date Installed: January 25, 2020



**WRSF3 - Photo 1:** WRSF3 - Crest of WRSF3 from bench 82 m. Facing southwest.

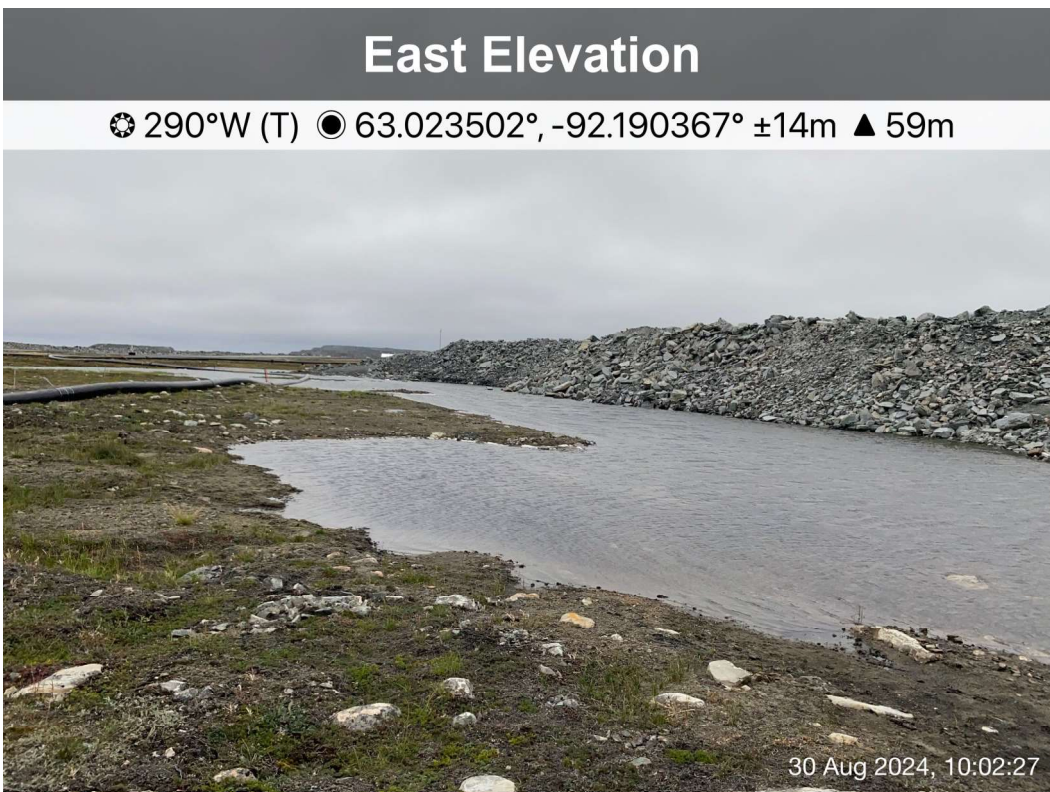


**WRSF3 - Photo 2:** WRSF3 - East side benches and slopes, Channel 9 and Channel 9 Berm in the background. Facing northwest.





**WRSF3 - Photo 3:** WRSF3 - East side benches and slopes, Channel 9, CP2 and CP2 Thermal Berm in the background. Facing east.



**WRSF3 - Photo 4:** WRSF3 - Ponded water observed at southwest corner of WRSF3. Facing west.

## South West Elevation

☉ 66°NE (T) ● 63.023522°, -92.190309° ±7m ▲ 67m



**WRSF3 - Photo 5:** WRSF3 - Ponded water observed at southwest corner of WRSF3. Facing northeast.

## APPENDIX M

### SITE ROADS





**Site Road -  
Photo 1:**

Site Road - Road to Emulsion AN Pad and storage area. Facing northwest.



**Site Road -  
Photo 2:**

Site Road - Road to Emulsion AN Pad. Facing southwest.





**Site Road -  
Photo 3:**

Site Road - CP3 access road. Facing south.



**Site Road -  
Photo 4:**

Site Road - Landfarm access road. Facing southwest.



## West Elevation

☀ 81°E (T) ● 63.030016°, -92.166928° ±4m ▲ 56m



**Site Road -  
Photo 5:**

Site Road - Exploration camp diffuser access road. Facing east.



☀ 23°NE (T) ● 63.027173°, -92.210571° ±4m ▲ 55m



**Site Road -  
Photo 6:**

Site Road - SP3 access road. Facing northeast.





**Site Road -  
Photo 7:**

Site Road - Portal 1 access road. Facing southwest.



**Site Road -  
Photo 8:**

Site Road - Paste plant access road. Facing north.



**Site Road -  
Photo 9:**

Site Road - Paste plant ramp. Facing southeast.



**Site Road -  
Photo 10:**

Site Road - Access road on south side of paste plant. Facing southeast.





**Site Road -  
Photo 11:**

Site Road - Crusher pad ramp. Facing north.



**Site Road -  
Photo 12:**

Site Road - Crusher pad ramp. Facing south.



## APPENDIX N

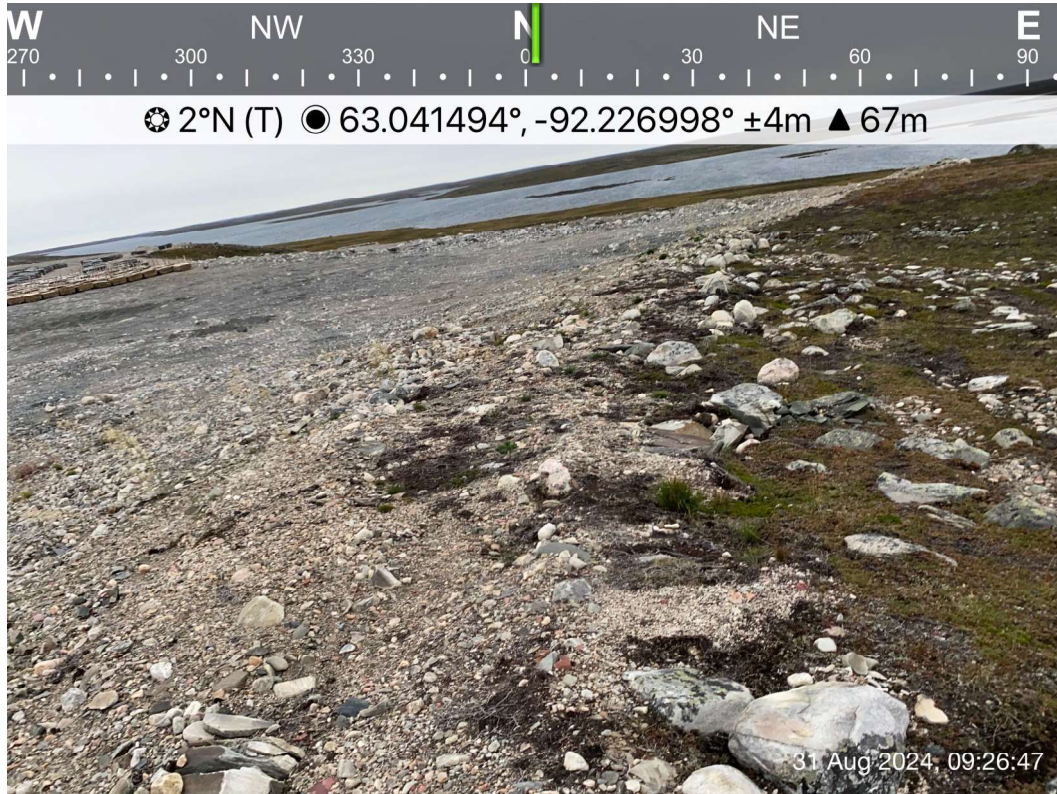
### BORROW SOURCES



**Meliadine Esker** Borrow Source - Meliadine esker borrow source overview. Facing southeast.  
**Photo 1:**



**West Meg Esker** Borrow Source - West Meg esker borrow source overview. Facing east.  
**- Photo 2:**



**Meliadine North Esker - Photo 3:** Borrow Source - Meliadine north esker borrow source overview. Facing north.



## APPENDIX O

### ORE STOCKPILES



**Ore Stockpile - Photo 1:** Ore Stockpile - Ore stockpile overview. Facing east.



**Ore Stockpile - Photo 2:** Ore Stockpile - View from crusher ramp. Facing east.

## APPENDIX P

### OTHER MELIADINE FACILITIES



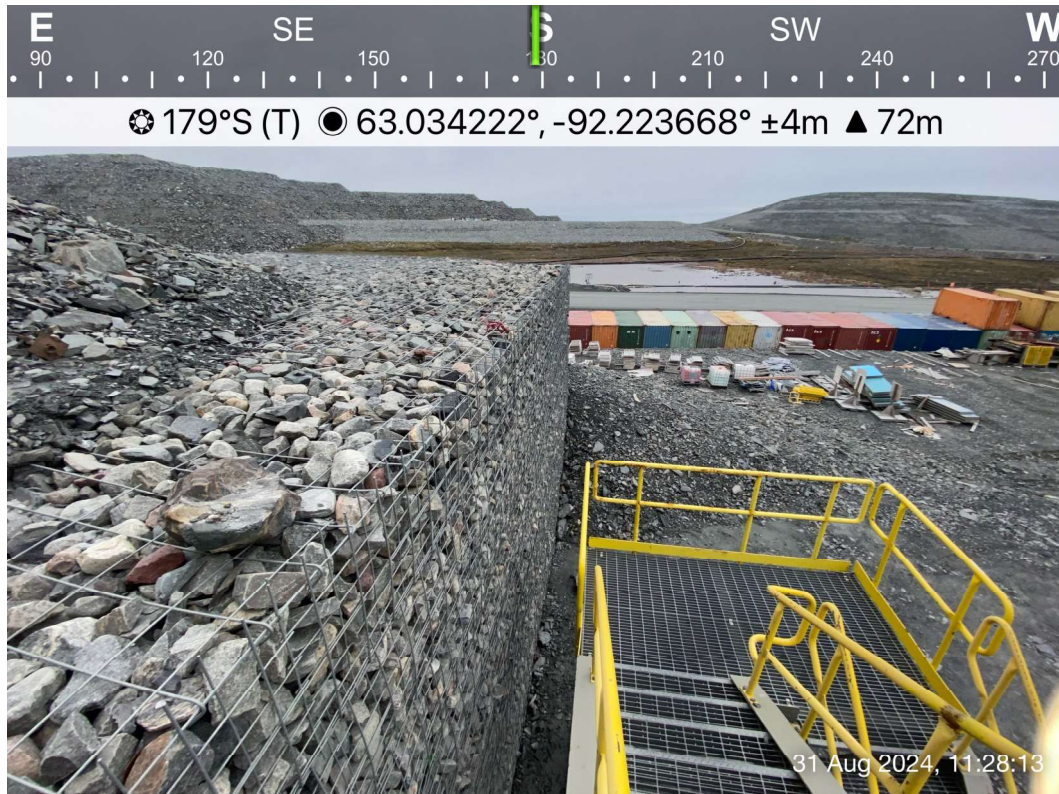


**Crusher Ramp - Photo 1:** Crusher Ramp - Overview of crusher ramp. Facing north.



**Crusher Ramp - Photo 2:** Crusher Ramp - Ramp side slope overview. Facing east.





**Crusher Pad - Photo 3:** Crusher Pad - MSE Retaining wall on the northwest corner. Facing south.



**Crusher Pad - Photo 4:** Crusher Pad - MSE retaining wall on the northwest corner. Facing east.





**Crusher Pad -  
Photo 5:**

Crusher Pad - Overview of MSE retaining wall and crusher building, north-west side. Facing southeast.



**Crusher Pad -  
Photo 6:**

Crusher Pad - Overview of MSE retaining wall and crusher building, north-east side. Facing south.





**Landfill - Photo 7:** WRSF1 Landfill - Overview of landfill. Facing southwest.



**Landfill - Photo 8:** WRSF1 Landfill - Landfill east side slope overview. Facing southeast.





**Landfill - Photo 9:** WRSF1 Landfill - Landfill north side slope. Facing southwest.

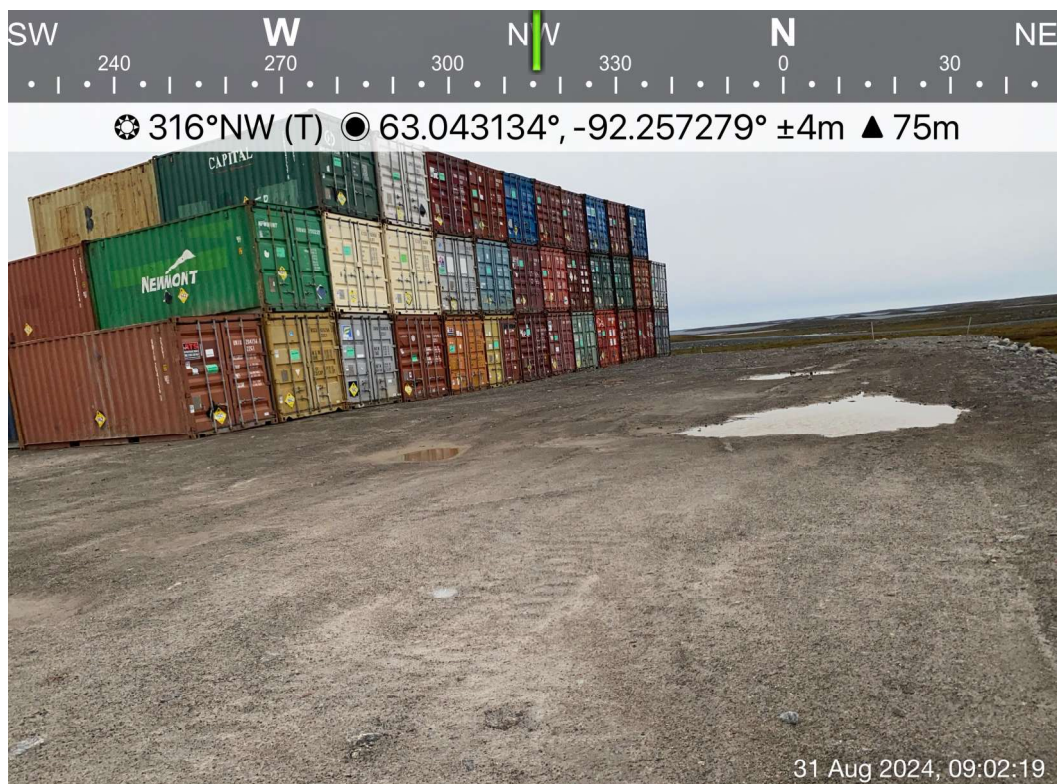


**Landfill - Photo 10:** WRSF1 Landfill - Landfill overview, waste and debris. Facing south.





**Emulsion Plant Pad - Photo 11:** Emulsion Plant Pad - Overview of pad. Facing southeast.



**Emulsion Plant Pad - Photo 12:** Emulsion Plant Pad - Overview of pad, small depressions and ponding water. Facing northwest.



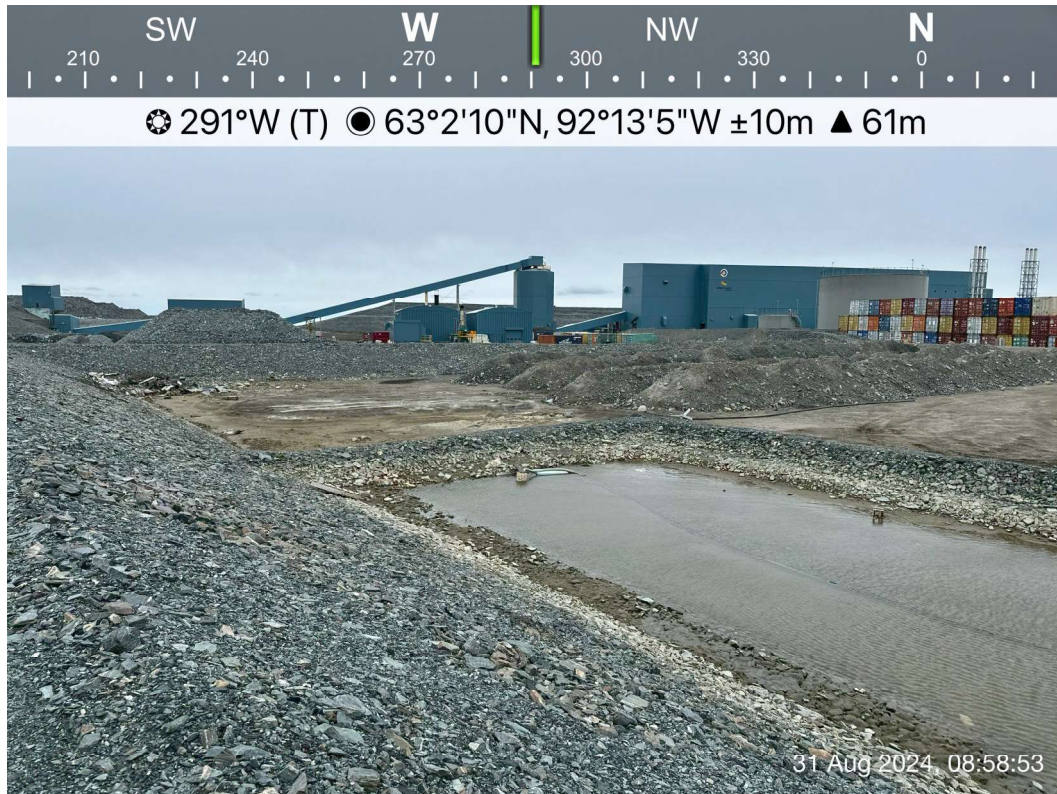


**Emulsion Plant Pad - Photo 13:** Emulsion Storage Pad - Overview of pad and storage. Facing southwest.



**Emulsion Plant Pad - Photo 14:** Emulsion Storage Pad - Overview of pad and storage. Facing south.





**Landfarm -  
Photo 15:**

Landfarm - Overview of landfarm. Facing west.



**Landfarm -  
Photo 16:**

Landfarm - Overview of perimeter berm crest. Facing southwest.





**Landfarm -  
Photo 17:**

Landfarm - Overview of landfarm. Facing northeast.



**Landfarm -  
Photo 18:**

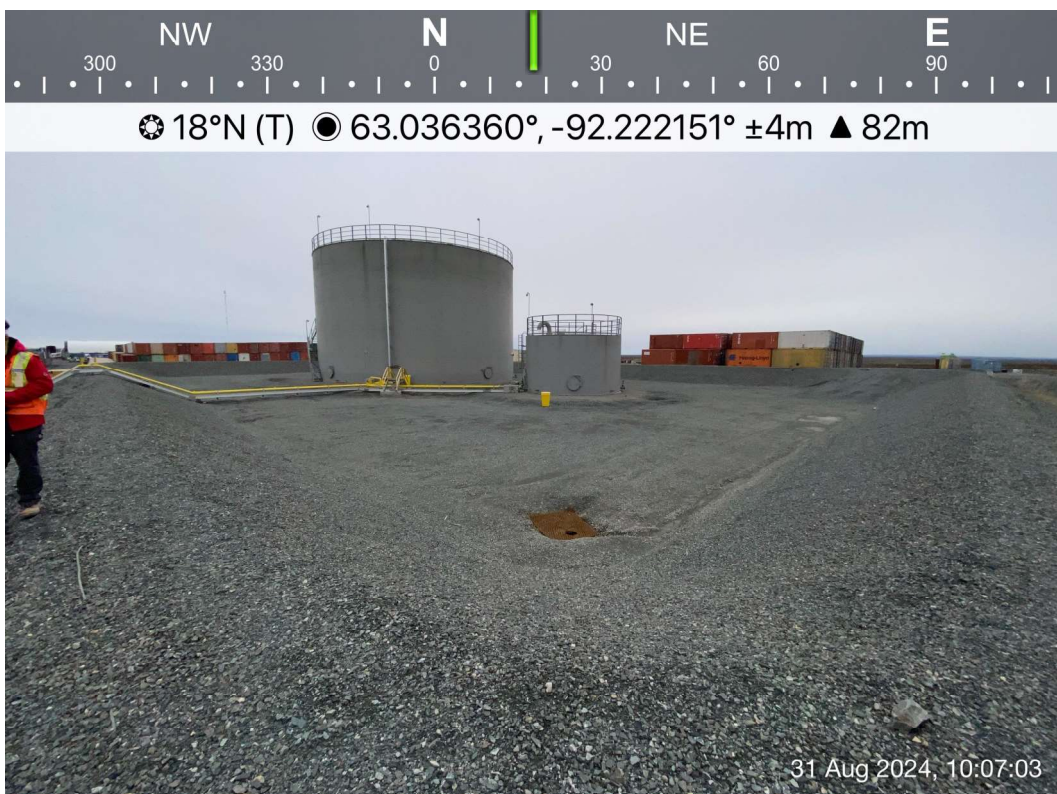
Landfarm - Water collection pond and ponding water. Facing west.





**Landfarm -  
Photo 19:**

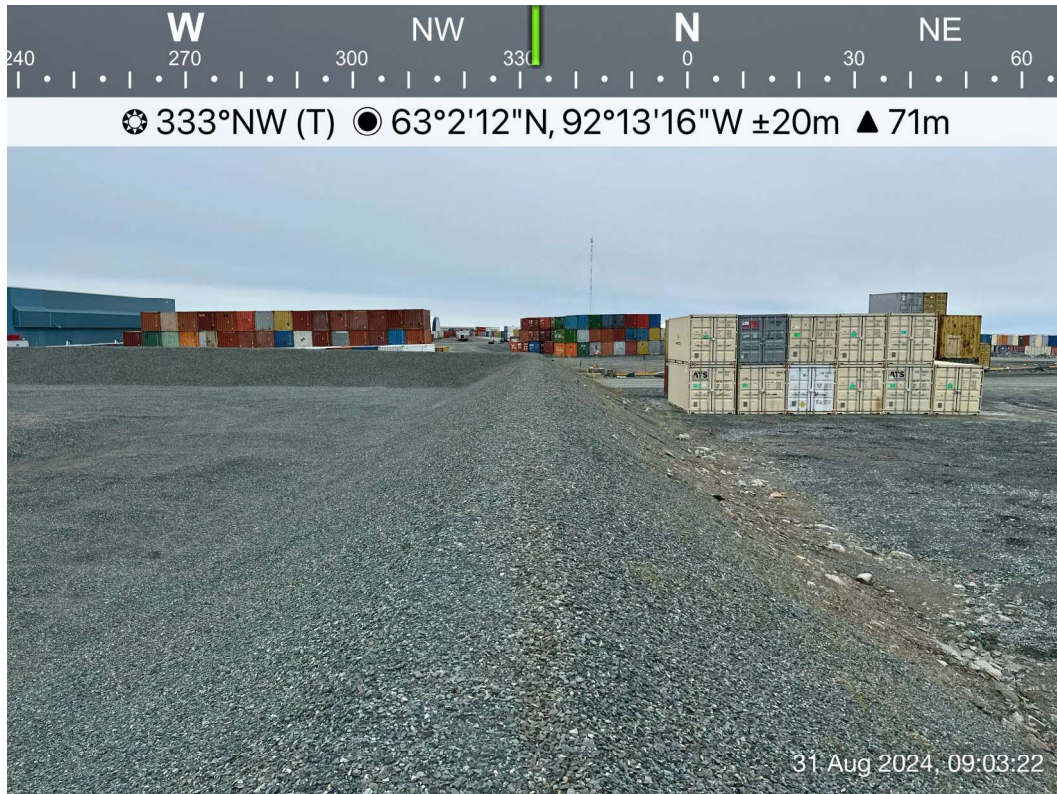
Landfarm - Perimeter berm side slope overview. Facing southwest.



**Industrial Fuel  
Tanks - Photo 20:**

Industrial Fuel Tanks - Overview of tanks. Facing north.



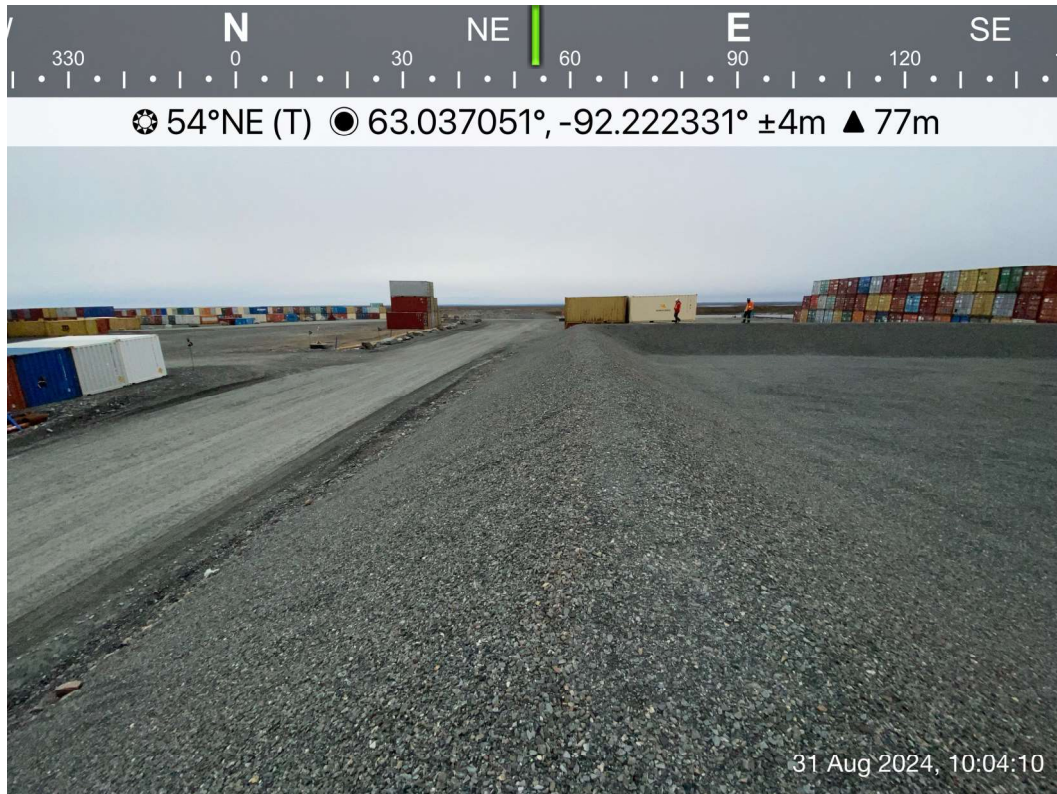


**Industrial Fuel Tanks - Photo 21:** Industrial Fuel Tanks - East side berm overview. Facing northwest.



**Industrial Fuel Tanks - Photo 22:** Industrial Fuel Tanks - West side berm overview, cracking on crest. Facing south.





**Industrial Fuel Tanks - Photo 23:** Industrial Fuel Tanks - North side berm overview. Facing northeast.



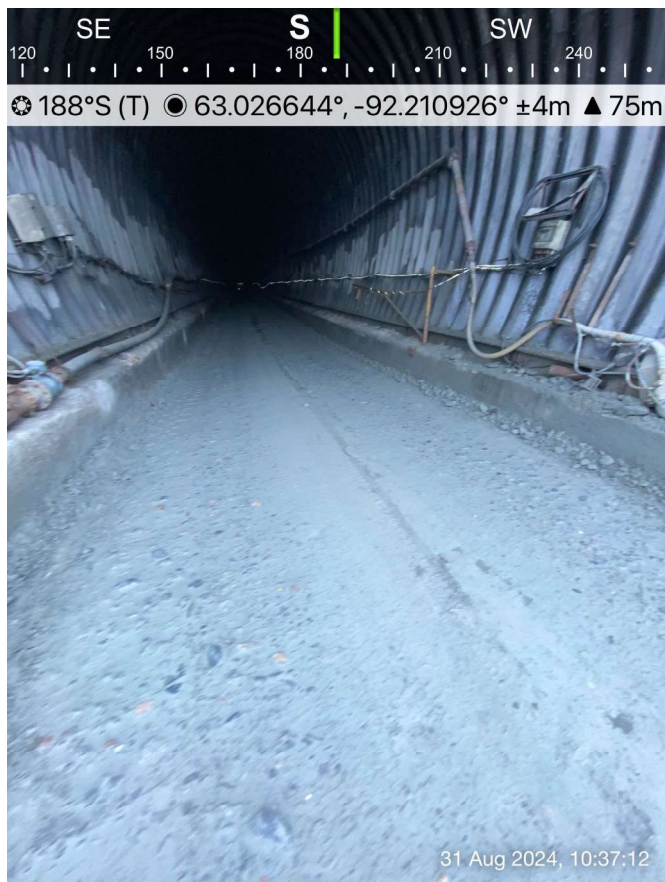
**Industrial Fuel Tanks - Photo 24:** Industrial Fuel Tanks - South side berm overview, cracking on crest. Facing east.





**Portal 1 -  
Photo 25:**

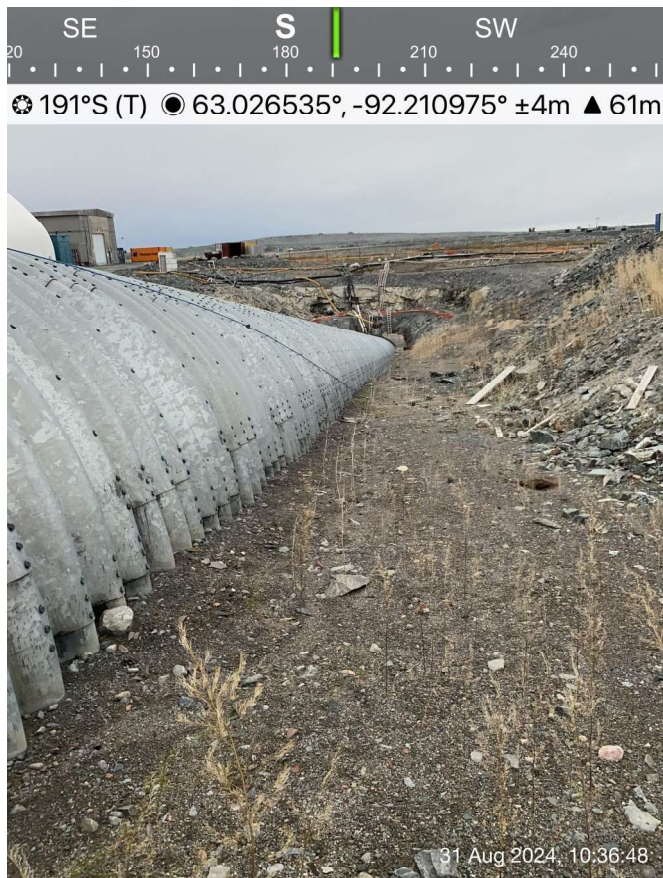
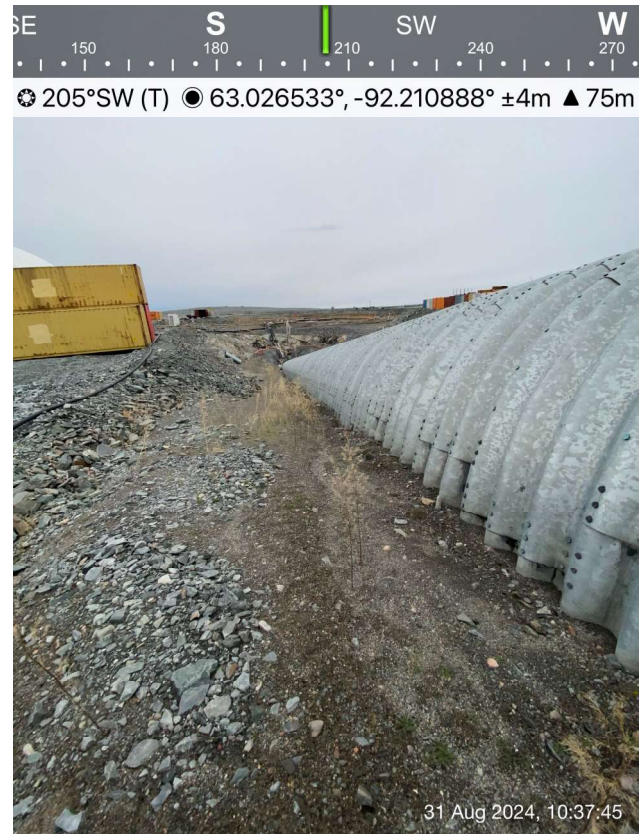
Portal 1 - Overview of Portal 1. Facing south.



**Portal 1 -  
Photo 26:**

Portal 1 - Entrance of portal. Facing south.

**Portal 1 -** Portal 1 - East side of Portal 1. Facing west.  
**Photo 27:**



**Portal 1 -** Portal 1 - West side of Portal 1. Facing south.  
**Photo 28:**





**Portal 2 -  
Photo 29:**

Portal 2 - Overview of Portal 2. Facing southeast.



**Portal 2 -  
Photo 30:**

Industrial Fuel Tanks - South side berm overview, cracking on crest. Facing east.





**3M Fuel Tanks - Photo 31:** 3M Fuel Tanks - Overview of 3M fuel tanks. Facing east.



**3M Fuel Tanks - Photo 32:** 3M Fuel Tanks - Overview of 3M fuel tanks. Facing south.



**3M Fuel Tanks - Photo 33:** 3M Fuel Tanks - Overview of perimeter berm. Facing southeast.

## APPENDIX Q

### EXPLORATION CAMP



## West Elevation

☀ 81°E (T) ● 63.029482°, -92.169573° ±4m ▲ 59m



30 Aug 2024, 09:46:58

**Exploration  
Camp - Photo 1:**

Exploration Camp - Overview of the exploration camp. Facing East.

## South West Elevation

☀ 60°NE (T) ● 63.029628°, -92.167851° ±8m ▲ 60m



30 Aug 2024, 09:48:10

**Exploration  
Camp - Photo 2:**

Exploration Camp - Fuel storage overview, northwest side. Facing northeast.



## South West Elevation

☉ 37°NE (T) ● 63.029552°, -92.167574° ±4m ▲ 74m



30 Aug 2024, 09:48:36

**Exploration  
Camp - Photo 3:**

Exploration Camp - Fuel storage overview, southeast side. Facing Northeast.

## South East Elevation

☉ 331°NW (T) ● 63.029308°, -92.170307° ±5m ▲ 58m



30 Aug 2024, 09:45:48

**Exploration  
Camp - Photo 4:**

Exploration Camp - Freshwater intake pump house. Facing northwest.



## West Elevation

☉ 81°E (T) ● 63.030016°, -92.166928° ±4m ▲ 56m



30 Aug 2024, 09:50:14

**Exploration  
Camp - Photo 5:**

Exploration Camp - Diffuser access road, looking east.

## West Elevation

☉ 82°E (T) ● 63.029910°, -92.163111° ±14m ▲ 52m



30 Aug 2024, 09:53:18

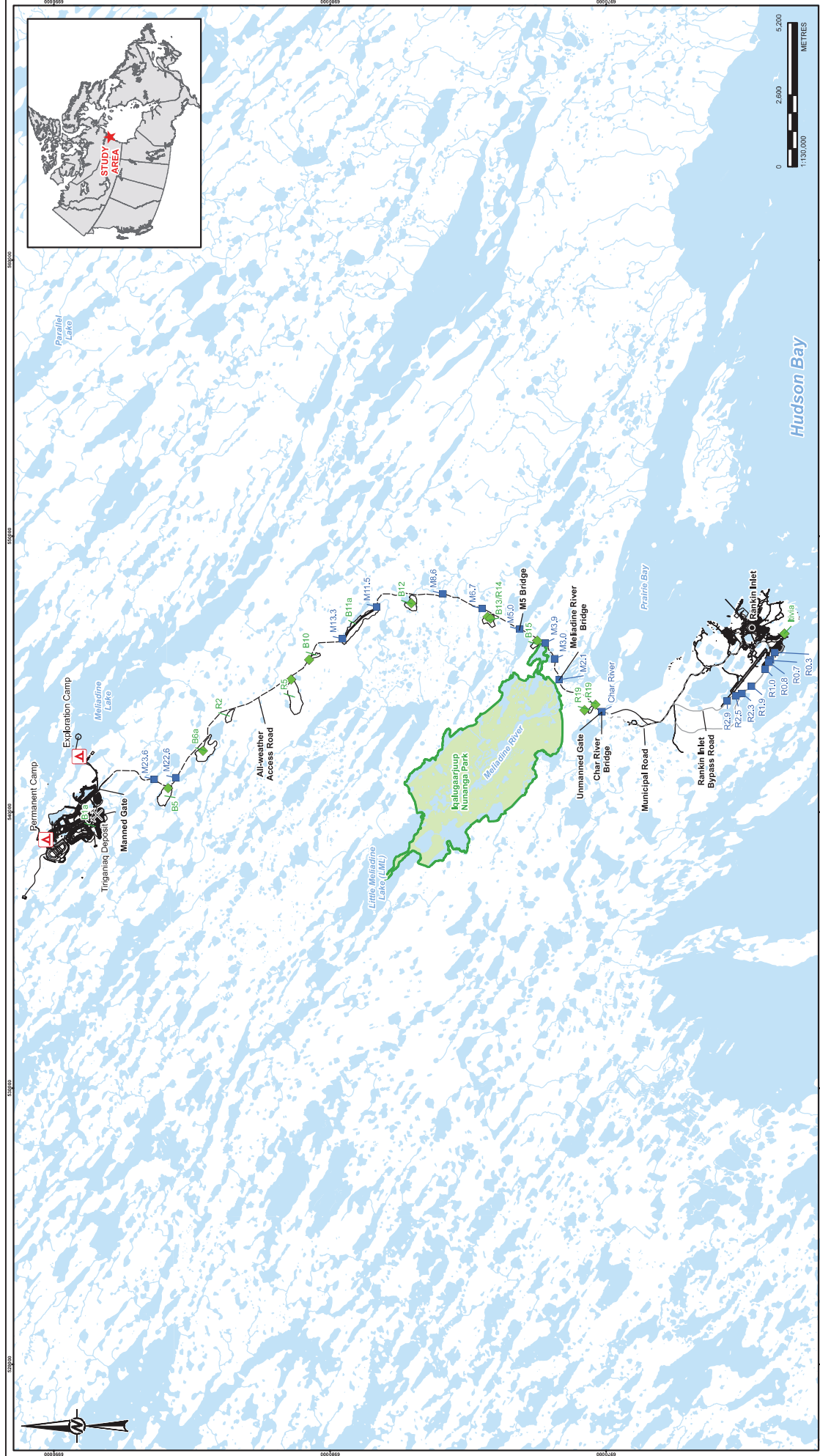
**Exploration  
Camp - Photo 6:**

Exploration Camp - Diffuser pipeline overview. Facing east.



## APPENDIX R

### ALL-WEATHER ACCESS ROAD (AWAR)



**LEGEND**

- CAMP
- PROPOSED MINE SITE
- QUARRY/BORROW PIT LOCATION
- WATERCOURSE CROSSING
- ALL-WEATHER ACCESS ROAD (AWAR)
- ROAD - EXISTING
- ROAD - NEW
- WATERCOURSE
- WATERBODY
- TERRITORIAL PARK

**REFERENCE(S)**

1. BASE DATA OBTAINED FROM AGNICO EAGLE MINES LIMITED.
2. DATUM: NAD83 PROJECTION UTM ZONE 15

**CLIENT**  
AGNICO EAGLE MINES LTD.

**CONSULTANT**  
GOLDER

**PROJECT**  
MELIADINE GOLD PROJECT

**TITLE**  
MELIADINE ALL WEATHER ACCESS ROAD  
WITH QUARRIES AND WATERCOURSE CROSSINGS

DESIGNED	FE
PREPARED	COB
REVIEWED	FE
APPROVED	ACI

PROJECT NO.: 18105719  
CONTROL: 3000/002  
REV: 0  
FIGURE: 5



## North West Elevation

☼ 137°SE (T) ● 62.850041°, -92.150480° ±13m ▲ 39m



**AWAR Road/  
Culvert - Photo 1:** Culvert KM 4.9 - Inlet.



☼ 5°N (T) ● 62°50'59"N, 92°9'1"W ±4m ▲ 20m



**AWAR Road/  
Culvert - Photo 2:** Culvert KM 4.9 - Outlet.





**AWAR Road/  
Culvert - Photo 3:** Culvert KM 5.5 - Inlet.



**AWAR Road/  
Culvert - Photo 4:** Culvert KM 5.5 - Outlet.





**AWAR Road/  
Culvert - Photo 5:** Char River Bridge KM 6.0 - Overview.



**AWAR Road/  
Culvert - Photo 6:** Char River Bridge KM 6.0 - South Abutment.



## West Elevation

☉ 112°E (T) ☉ 62.858973°, -92.142758° ±4m ▲ 13m



**AWAR Road/  
Culvert - Photo 7:** Char River Bridge KM 6.0 - North Abutment.



☉ 350°N (T) ☉ 62°51'35"N, 92°8'27"W ±4m ▲ 0m

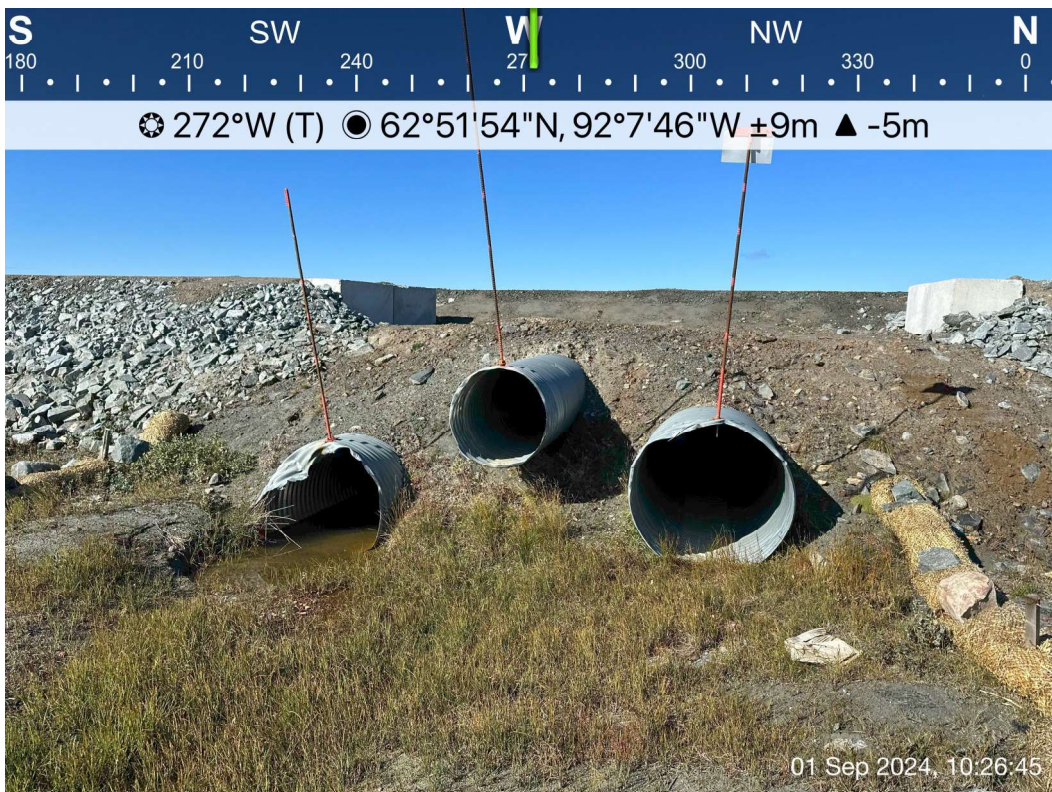


**AWAR Road/  
Culvert - Photo 8:** Culvert KM 6.2 - Inlet.





**AWAR Road/** Culvert KM 6.2 - Outlet.  
**Culvert - Photo 9:**



**AWAR Road/** Culvert KM 7.0 - Inlet.  
**Culvert - Photo 10:**





**AWAR Road/  
Culvert - Photo 11:** Culvert KM 7.0 - Outlet.



**AWAR Road/  
Culvert - Photo 12:** Culvert KM 7.1 - Inlet.





**AWAR Road/  
Culvert - Photo 13:** Culvert KM 7.1 - Outlet.



**AWAR Road/  
Culvert - Photo 14:** Culvert KM 7.4 - Inlet.





**AWAR Road/  
Culvert - Photo 15:** Culvert KM 7.4 - Outlet.



**AWAR Road/  
Culvert - Photo 16:** Meliadine River Bridge KM 8.0.





**AWAR Road/  
Culvert - Photo 17:** Meliadine River Bridge KM 8.0.



**AWAR Road/  
Culvert - Photo 18:** Meliadine River Bridge KM 8.0 - East abutment.





**AWAR Road/  
Culvert - Photo 19:** Meliadine River Bridge KM 8.0 - West abutment.



**AWAR Road/  
Culvert - Photo 20:** Culvert KM 8.8 - Inlet.





**AWAR Road/  
Culvert - Photo 21:** Culvert KM 8.8 - Outlet.



**AWAR Road/  
Culvert - Photo 22:** Culvert KM 9.1 - Inlet.





**AWAR Road/  
Culvert - Photo 23:** Culvert KM 9.1 - Outlet.



**AWAR Road/  
Culvert - Photo 24:** Culvert KM 9.5 - Inlet.





**AWAR Road/  
Culvert - Photo 25:** Culvert KM 9.5 - Outlet.



**AWAR Road/  
Culvert - Photo 26:** M-5 Bridge KM 10.5.



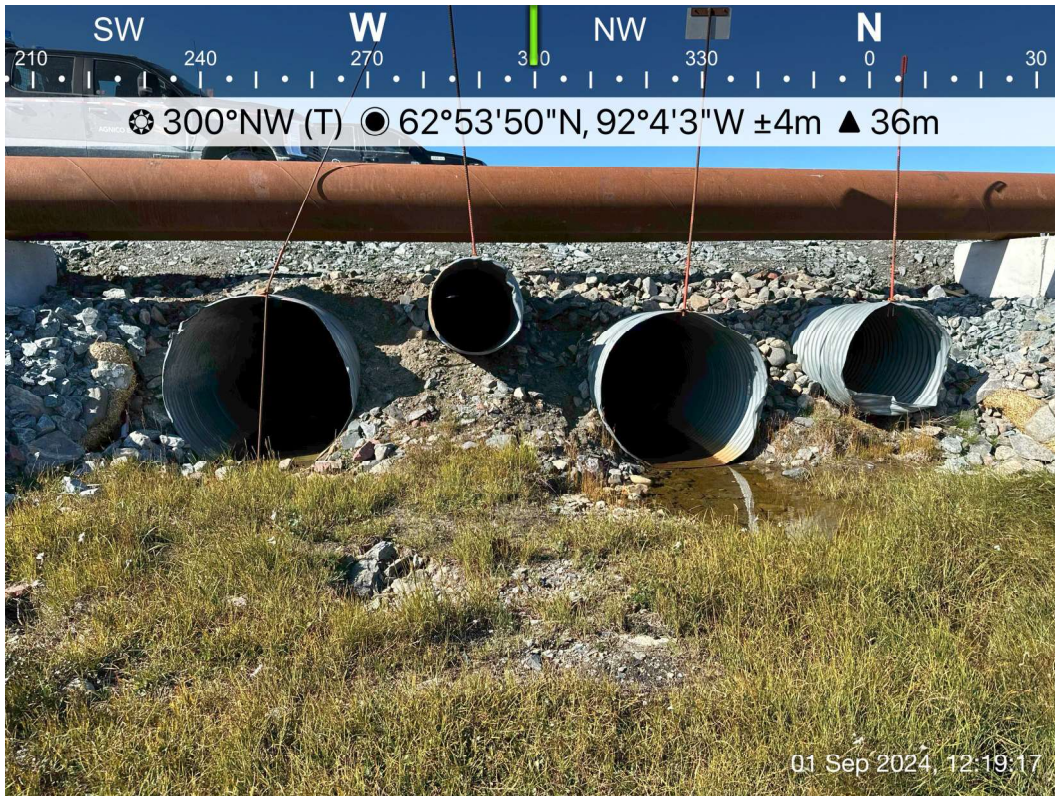


**AWAR Road/  
Culvert - Photo 27:** M-5 Bridge KM 10.5 - South abutment.



**AWAR Road/  
Culvert - Photo 28:** M-5 Bridge KM 10.5 - North abutment.





**AWAR Road/  
Culvert - Photo 29:** Culvert KM 12.1 - Inlet.



**AWAR Road/  
Culvert - Photo 30:** Culvert KM 12.1 - Outlet.





**AWAR Road/  
Culvert - Photo 31:** KM 12.6 - No culvert installed, poor drainage condition, no sign of water flow.



**AWAR Road/  
Culvert - Photo 32:** KM 12.6 - No culvert installed, poor drainage condition, no sign of water flow.





**AWAR Road/  
Culvert - Photo 33:** Culvert KM 13.5 - Inlet.

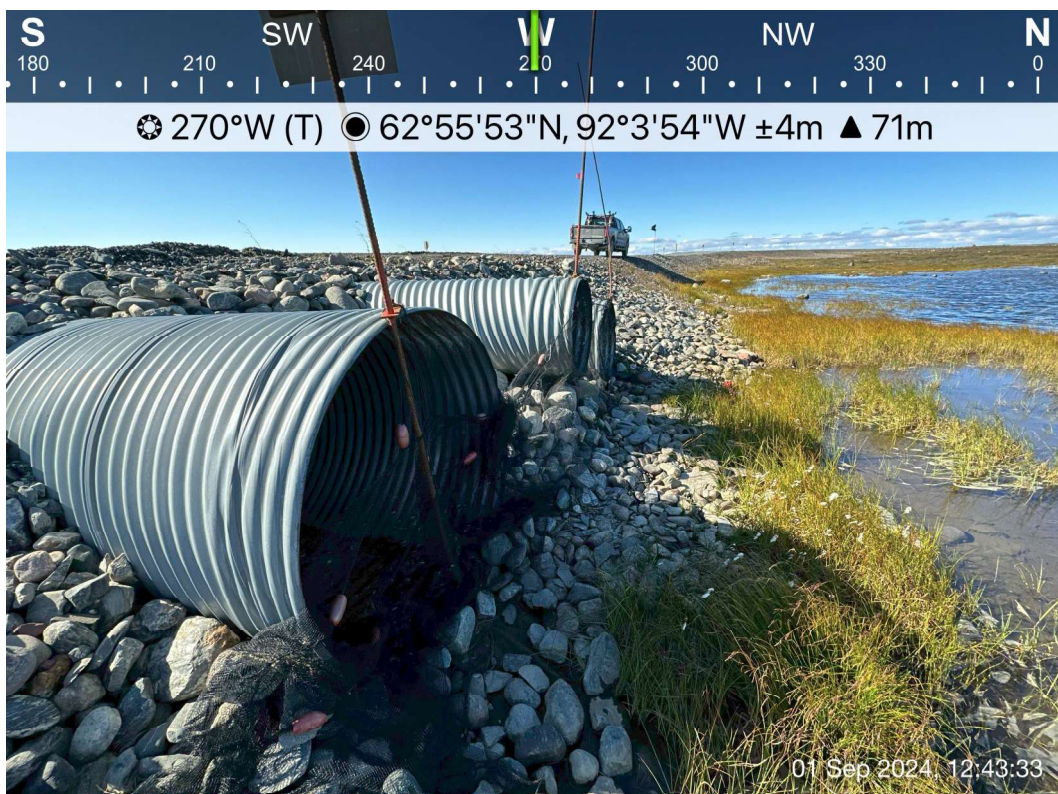


**AWAR Road/  
Culvert - Photo 34:** Culvert KM 13.5 - Outlet.





**AWAR Road/  
Culvert - Photo 35:** Culvert KM 14.7 - Outlet.



**AWAR Road/  
Culvert - Photo 36:** Culvert KM 16.3 - Inlet.





**AWAR Road/  
Culvert - Photo 37:** Culvert KM 16.3 - Outlet.

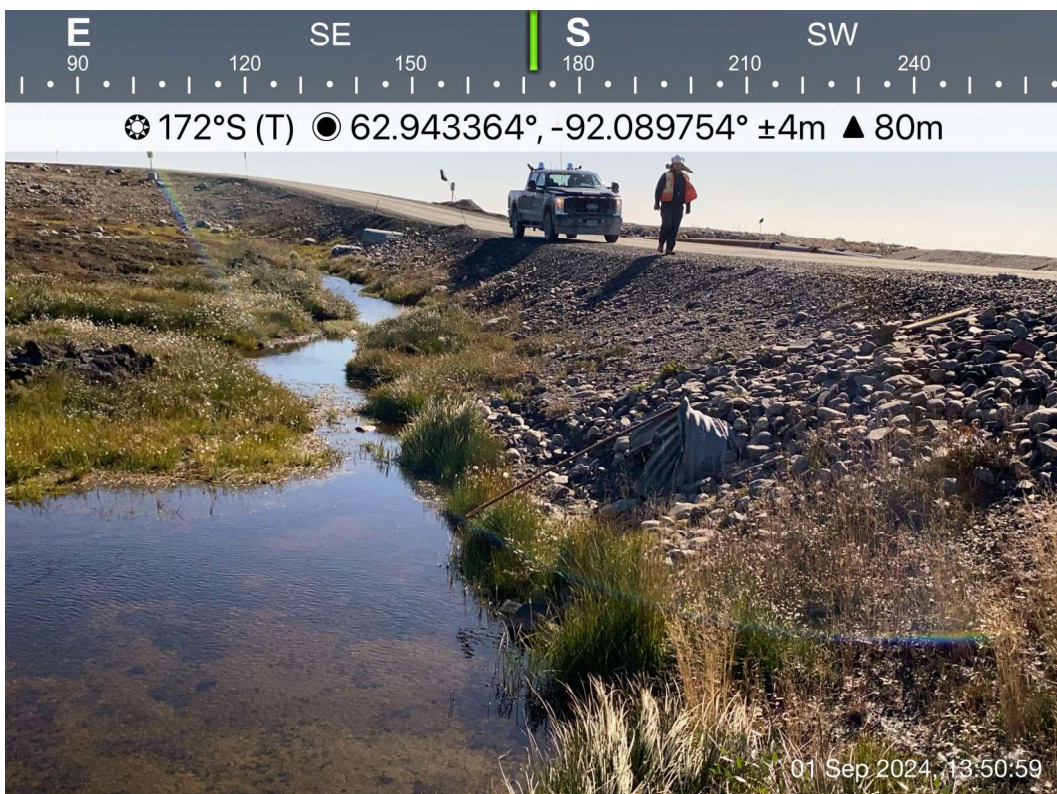


**AWAR Road/  
Culvert - Photo 38:** Culvert KM 18.1 - Inlet.





**AWAR Road/  
Culvert - Photo 39:** Culvert KM 18.1 - Outlet.



**AWAR Road/  
Culvert - Photo 40:** Culvert KM 18.15 - Inlet.





**AWAR Road/  
Culvert - Photo 41:** Culvert KM 18.15 - Outlet.



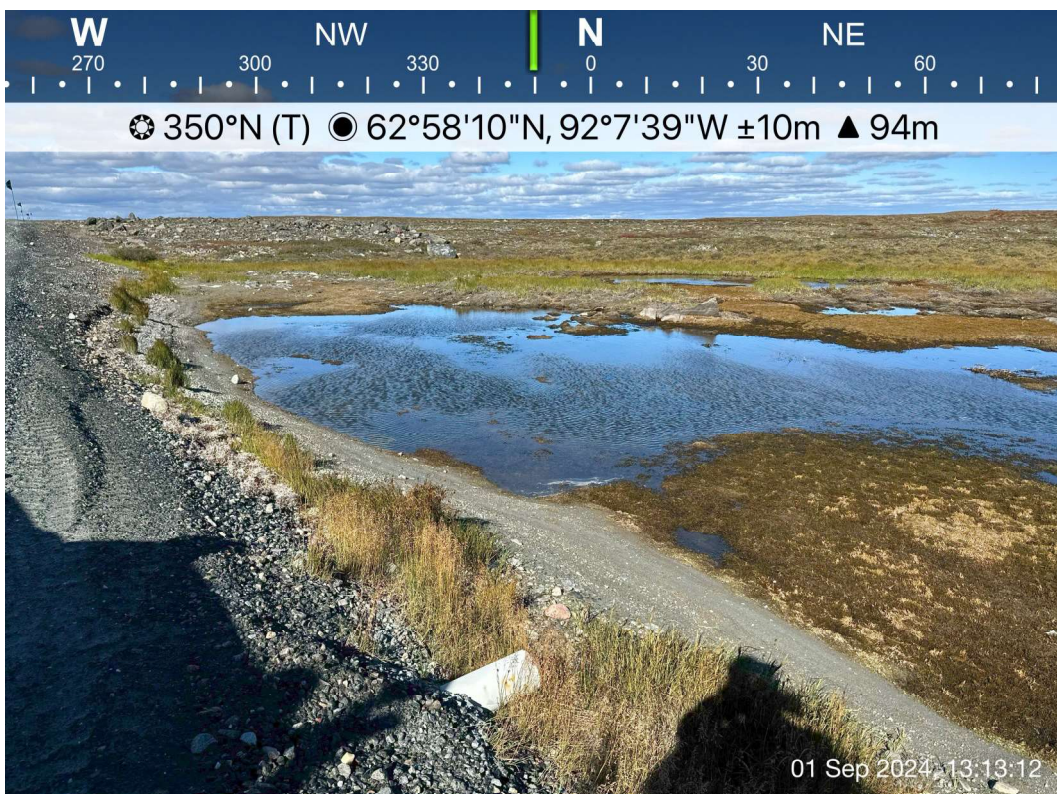
**AWAR Road/  
Culvert - Photo 42:** KM 19 - No culvert installed, ponded water upstream, no sign of overflow.





**AWAR Road/  
Culvert - Photo 43:**

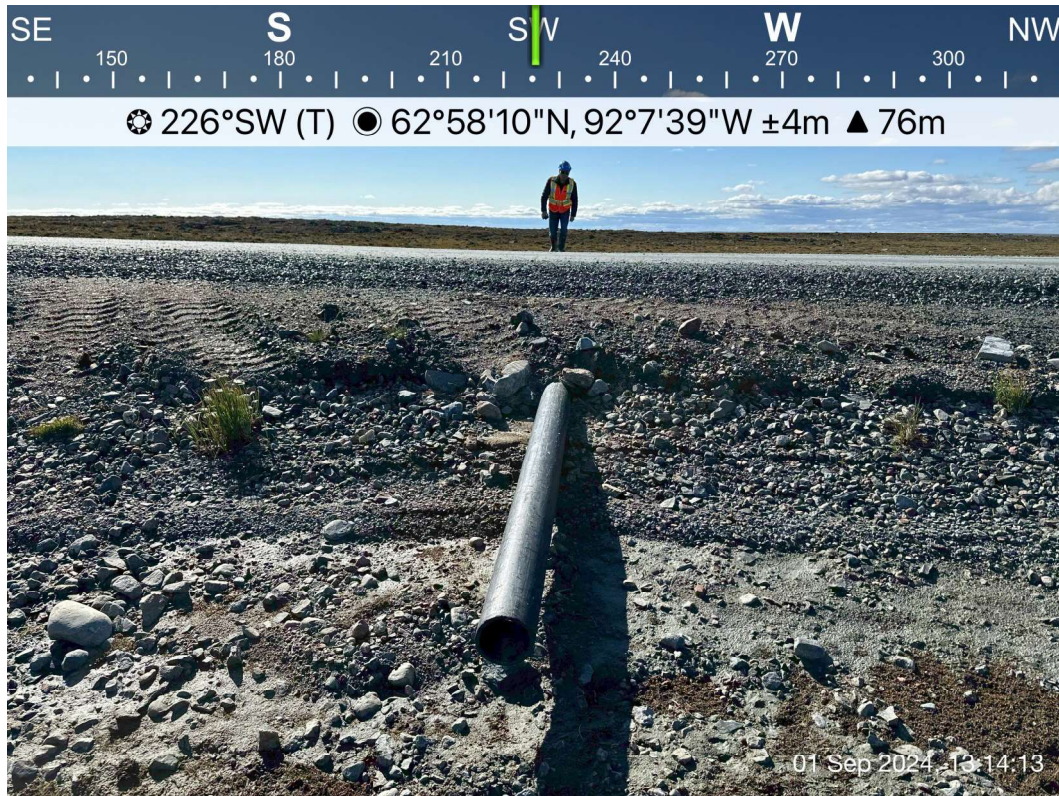
KM 21.0 to 21.5 - No culvert installed, ponded water upstream.



**AWAR Road/  
Culvert - Photo 44:**

Culvert KM 21.7 - Inlet.



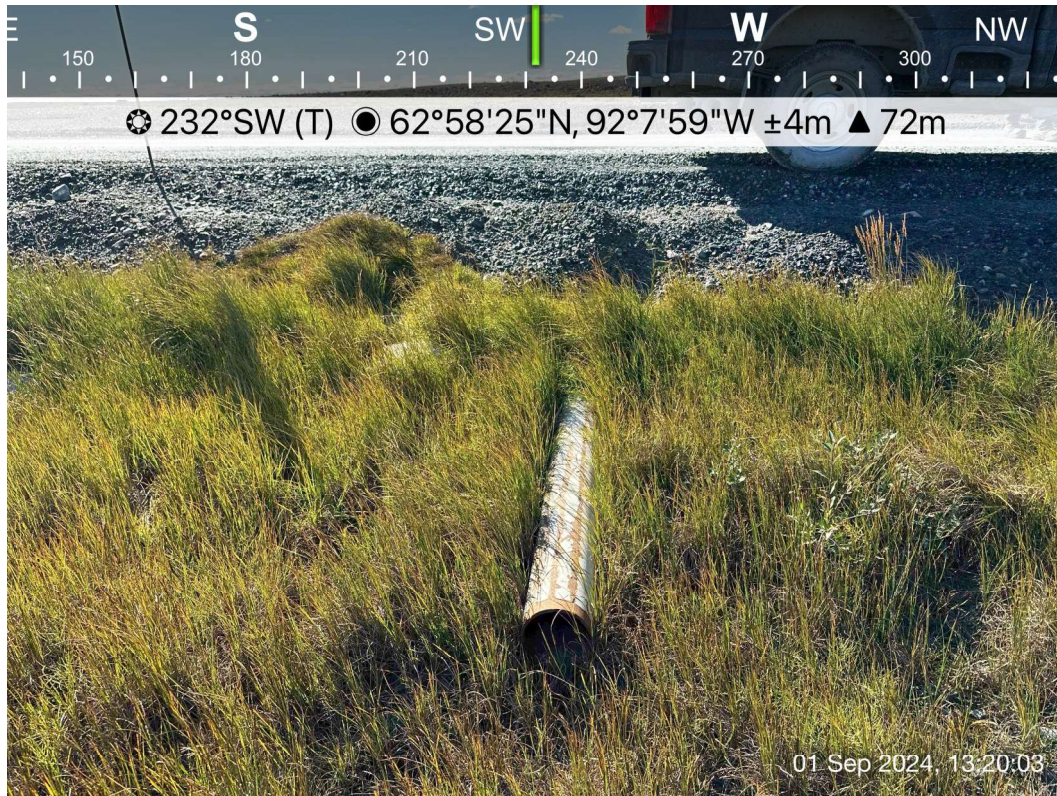


**AWAR Road/  
Culvert - Photo 45:** Culvert KM 21.8 - Inlet.



**AWAR Road/  
Culvert - Photo 46:** Culvert KM 21.8 - Outlet.





**AWAR Road/  
Culvert - Photo 47:** Culvert KM 22.3 - Inlet.



**AWAR Road/  
Culvert - Photo 48:** KM 22.7 to 23.0 - No culvert installed, ponded water upstream.





**AWAR Road/  
Culvert - Photo 49:**

KM 22.7 to 23.0 - No culvert installed, ponded water downstream.



**AWAR Road/  
Culvert - Photo 50:**

KM 25.8 Corrugated HDPE Culvert - Inlet, eroded pipe bedding material.





**AWAR Road/  
Culvert - Photo 51:**

KM 25.8 Corrugated HDPE Culvert - Inlet, eroded pipe bedding material.



**AWAR Road/  
Culvert - Photo 52:**

KM 25.8 Corrugated HDPE Culvert - Culvert filled with bedding material.





**AWAR Road/  
Culvert - Photo 53:**

KM 25.8 Corrugated HDPE Culvert - Outlet.



**AWAR Road/  
Culvert - Photo 54:**

KM 26.2 Culvert - Inlet.





**AWAR Road/  
Culvert - Photo 55:** KM 26.2 Culvert - Outlet.

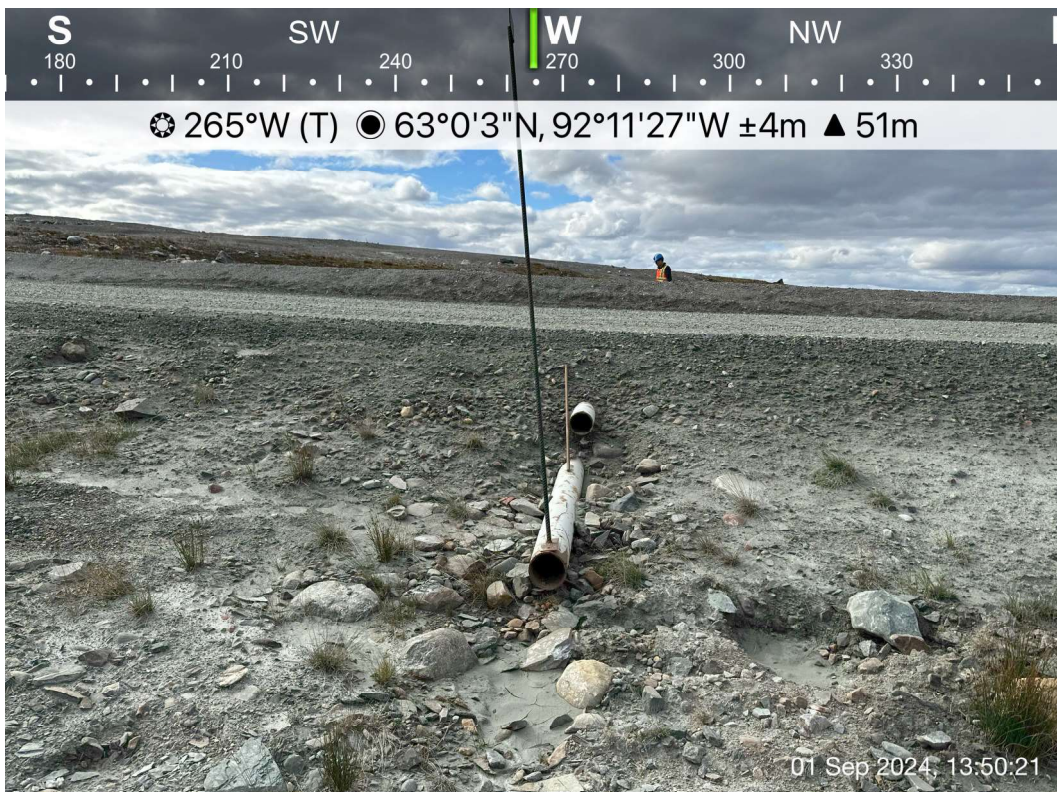


**AWAR Road/  
Culvert - Photo 56:** KM 26.5 Culvert - Inlet.





**AWAR Road/  
Culvert - Photo 57:** KM 26.5 Culvert - Outlet.



**AWAR Road/  
Culvert - Photo 58:** KM 26.8 Culvert - Outlet.





**AWAR Road/  
Culvert - Photo 59:** KM 26.8 Culvert - Inlet has been blocked by new AWAR pipeline, high water marks from ponding water seen on pipeline bedding slope.



**AWAR Road/  
Culvert - Photo 60:** KM 27.1 Culvert - Inlet.





**AWAR Road/  
Culvert - Photo 61:** KM 27.1 Culvert - Outlet.



**AWAR Road/  
Culvert - Photo 62:** KM 28.7 - High water mark and erosion on upstream side.





**AWAR Road/  
Culvert - Photo 63:** KM 29.6 - Sump and Pump J6.



**AWAR Borrow  
Source - Photo 64:** KM 19.4 - Borrow source south of AWAR.





**AWAR Borrow Source - Photo 65:** KM 19.7 - Borrow source north of AWAR.

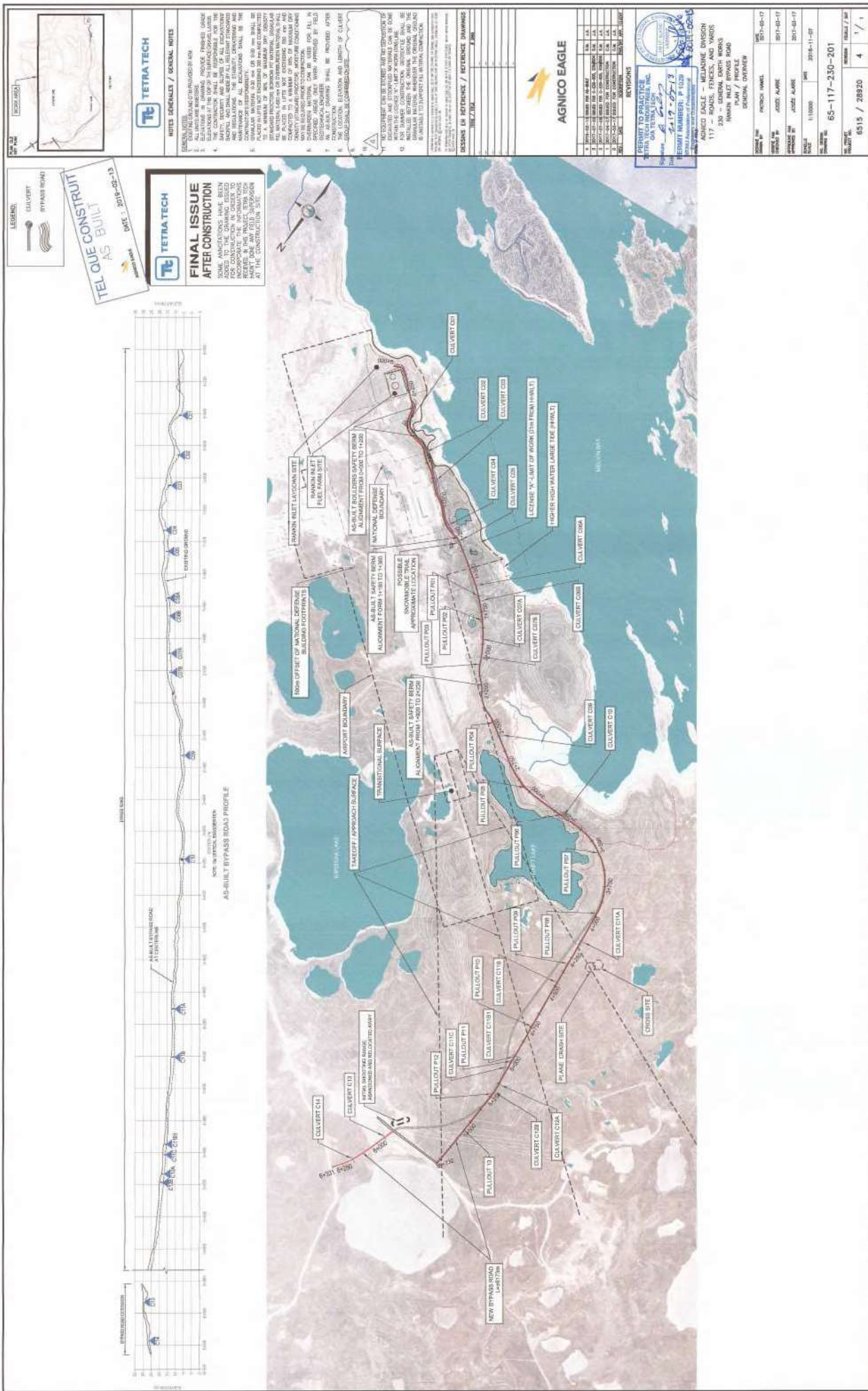


**AWAR Borrow Source - Photo 66:** KM 24.7 - Borrow source south of AWAR.

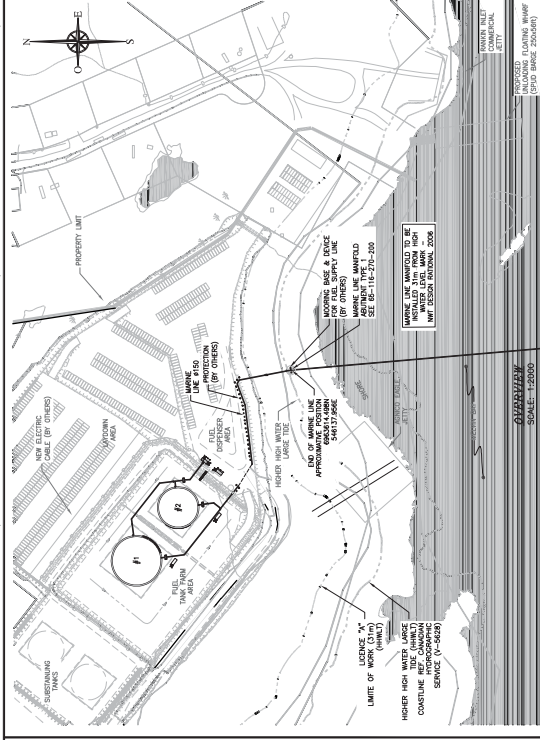


## APPENDIX S

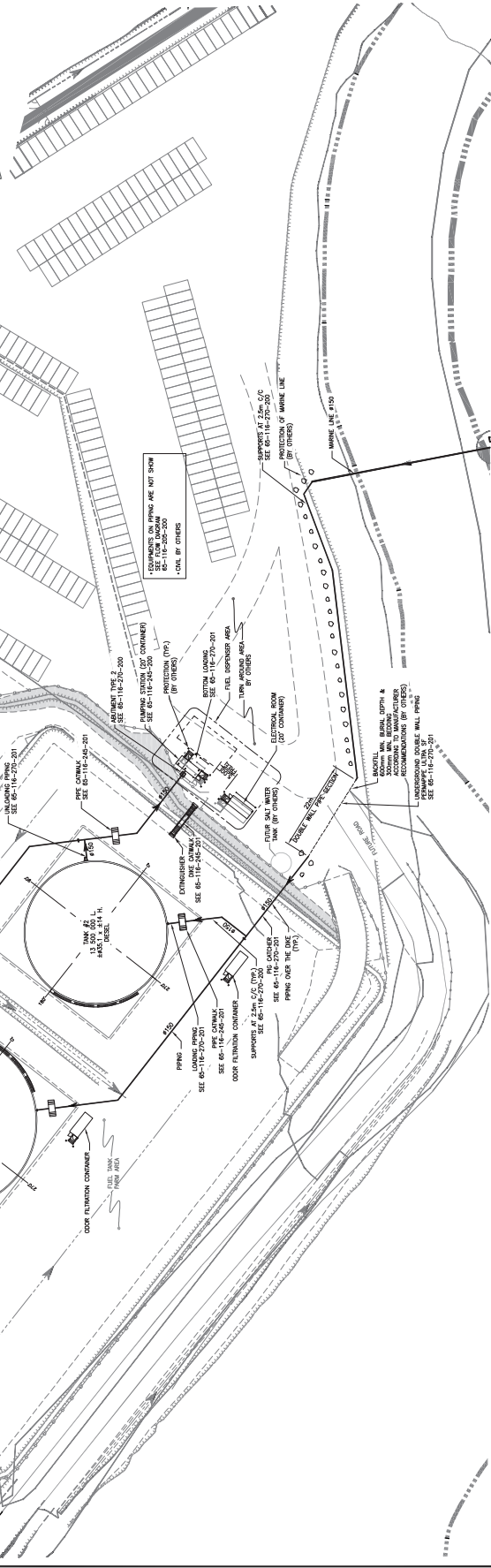
### ITIVIA FUEL STORAGE AND BYPASS ROAD







POUR CONSTRUCTION  
FOR CONSTRUCTION  
DATE: 2017-05-31



**WSP**  
WATER & SEWER  
1116 - FUEL TANK FARM  
210 - FUEL TANK FARM  
1116 - FUEL TANK FARM  
210 - FUEL TANK FARM

**NOTES GENERALES / GENERAL NOTES**  
1. TANK DIMENSIONS ADJUSTED ACCORDING TO INFORMATION PROVIDED BY CONTRACTOR  
2. REPLACE DRAWING 1 65-116-210-200

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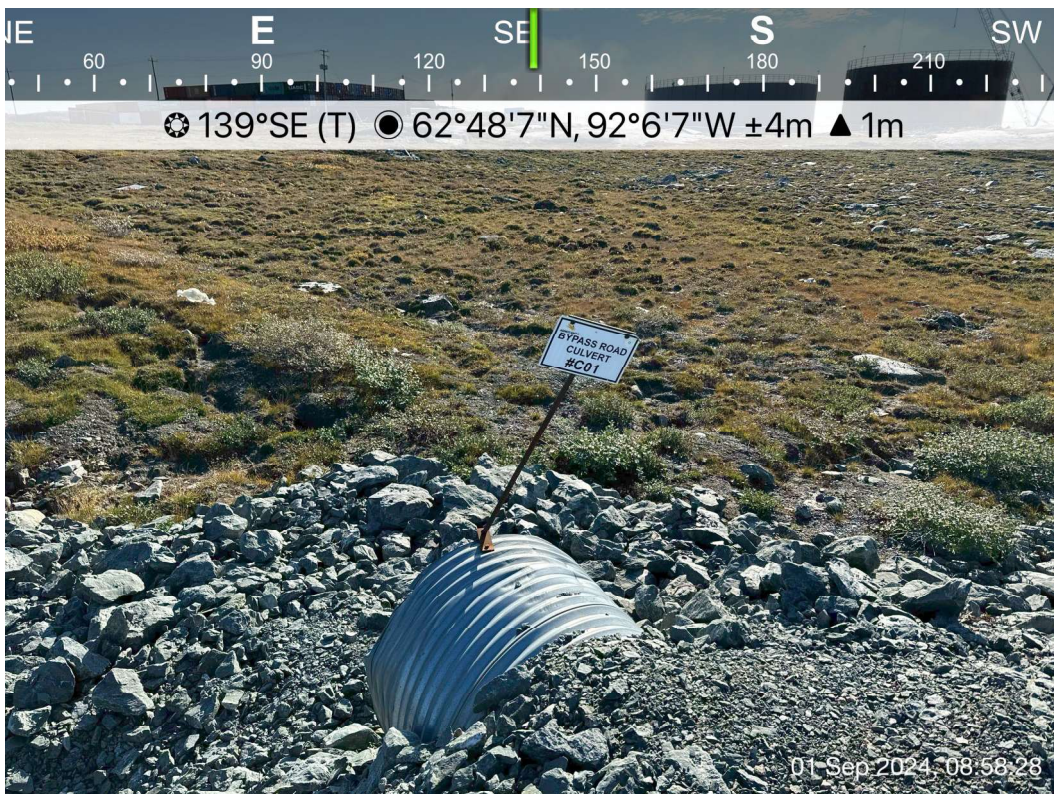
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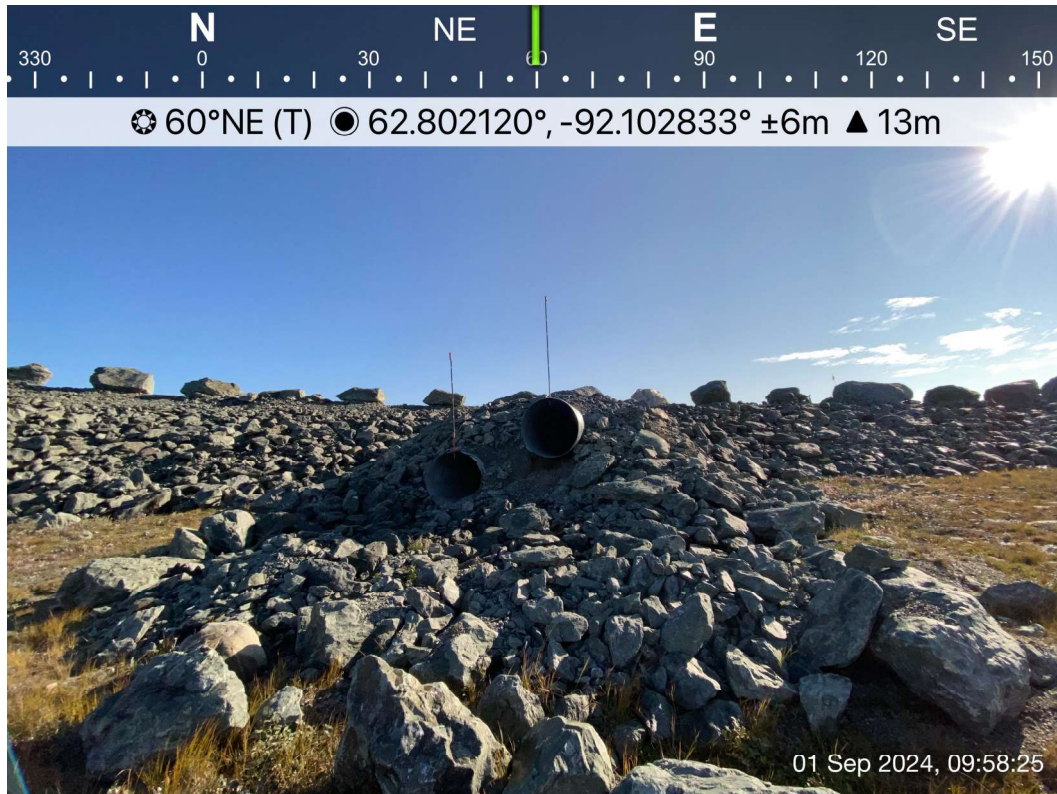


**Itivia Bypass Road/  
Culvert - Photo 1:** Culvert C01 - KM 0.35 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 2:** Culvert C01 - KM 0.35 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 3:**

Culvert C01 - KM 0.35 - Outlet.



**Itivia Bypass Road/  
Culvert - Photo 4:**

Culvert C02 - KM 0.6 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 5:**

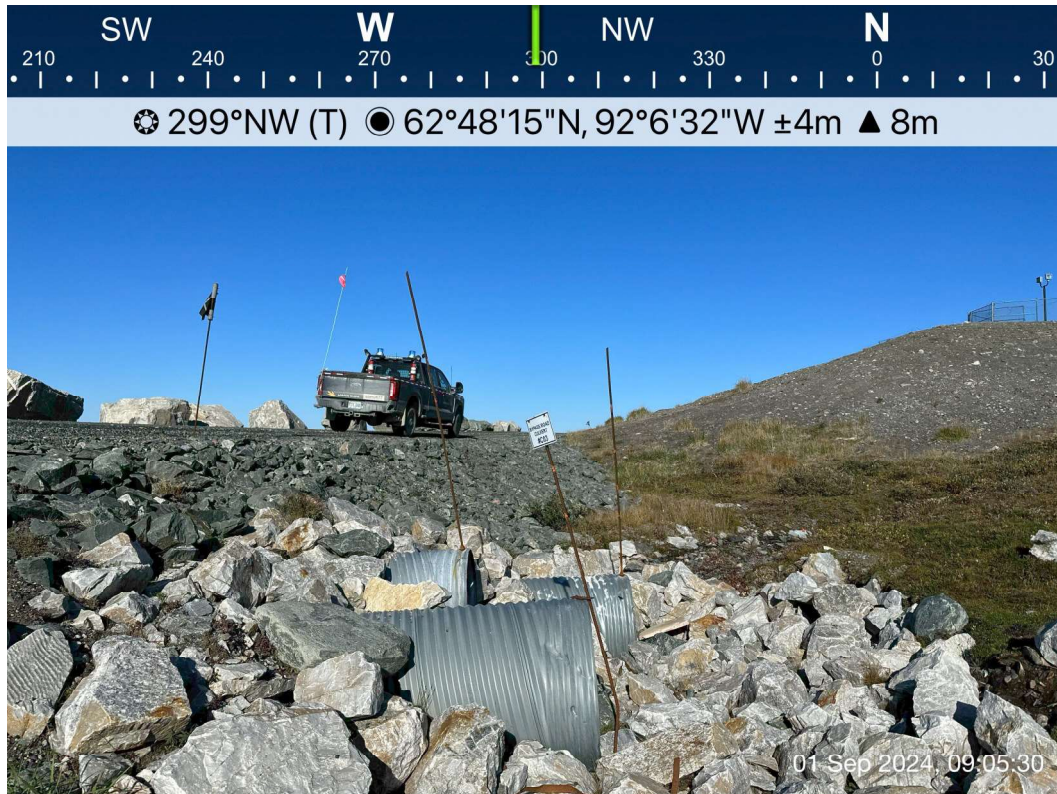
Culvert C02 - KM 0.6 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 6:**

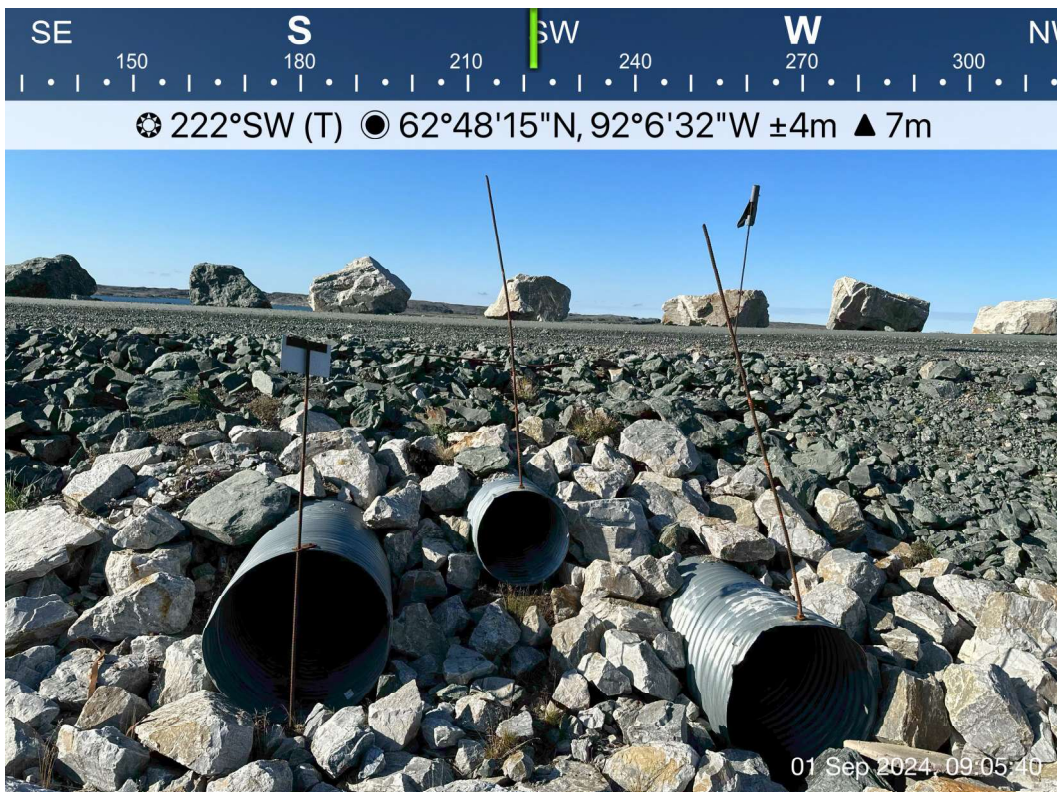
Culvert C02 - KM 0.6 - Outlet.





**Itivia Bypass Road/  
Culvert - Photo 7:**

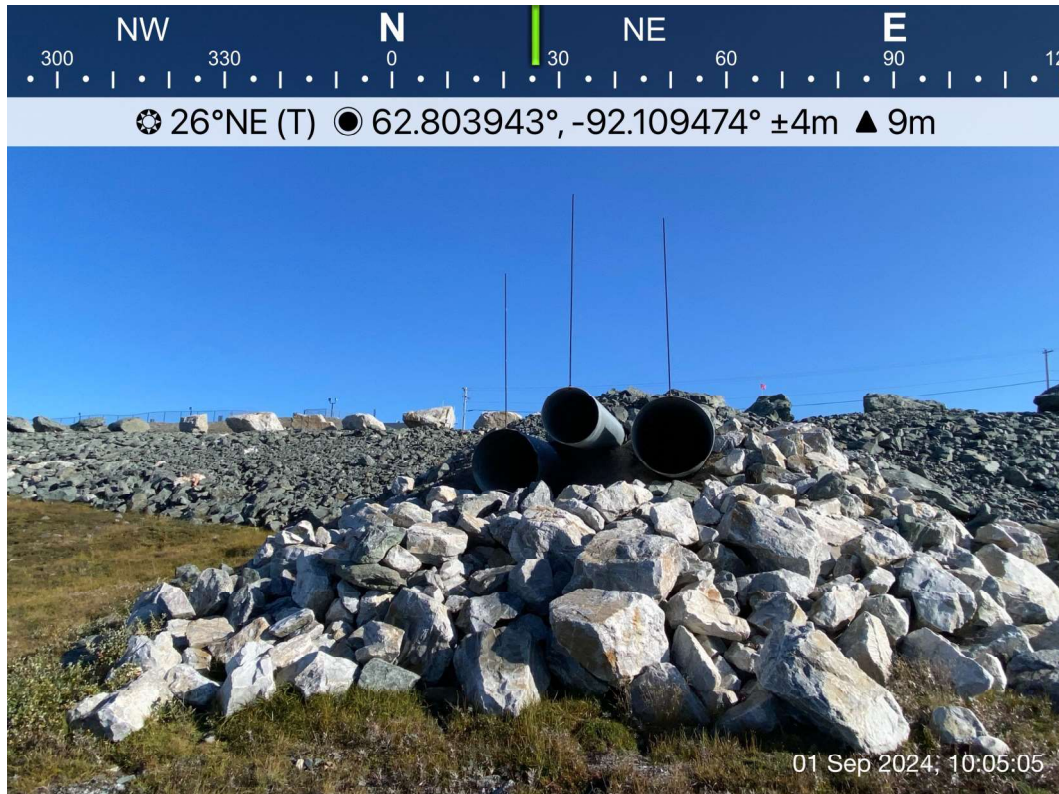
Culvert C03 - KM 0.8 - Inlet.



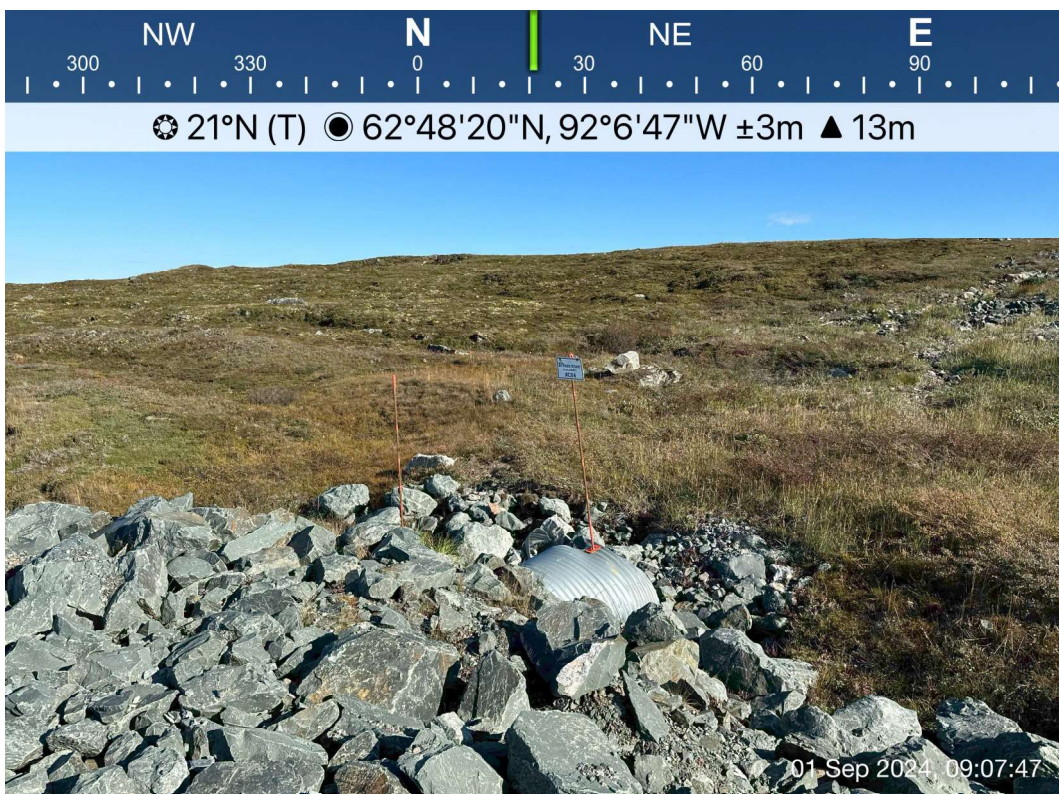
**Itivia Bypass Road/  
Culvert - Photo 8:**

Culvert C03 - KM 0.8 - Inlet.



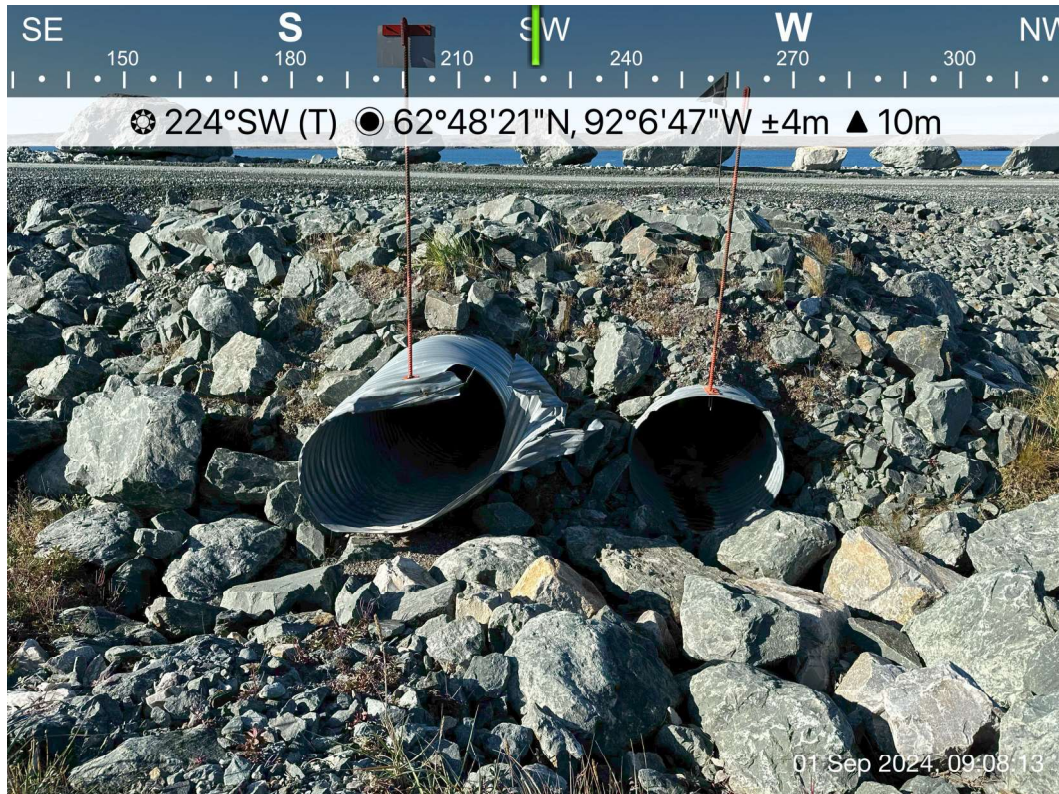


**Itivia Bypass Road/  
Culvert - Photo 9:** Culvert C03 - KM 0.8 - Outlet.



**Itivia Bypass Road/  
Culvert - Photo 10:** Culvert C04 - KM 1.0 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 11:**

Culvert C04 - KM 1.0 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 12:**

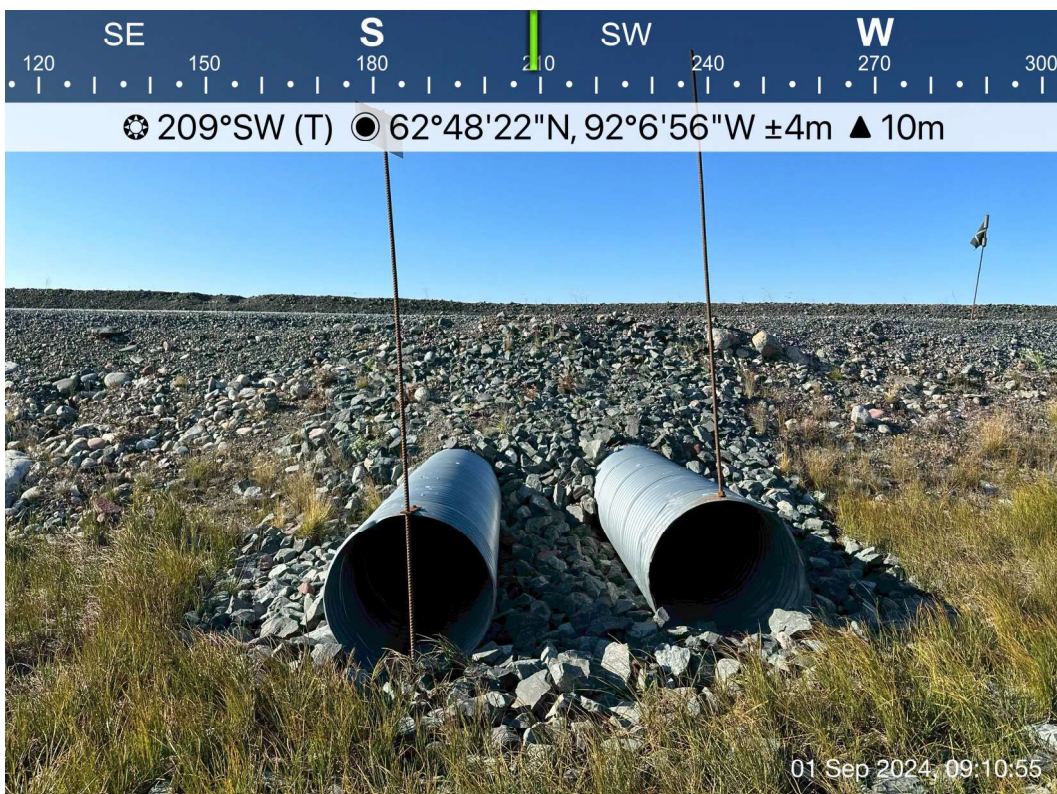
Culvert C04 - KM 1.0 - Outlet.





**Itivia Bypass Road/  
Culvert - Photo 13:**

Culvert C05 - KM 1.2 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 14:**

Culvert C05 - KM 1.2 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 15:**

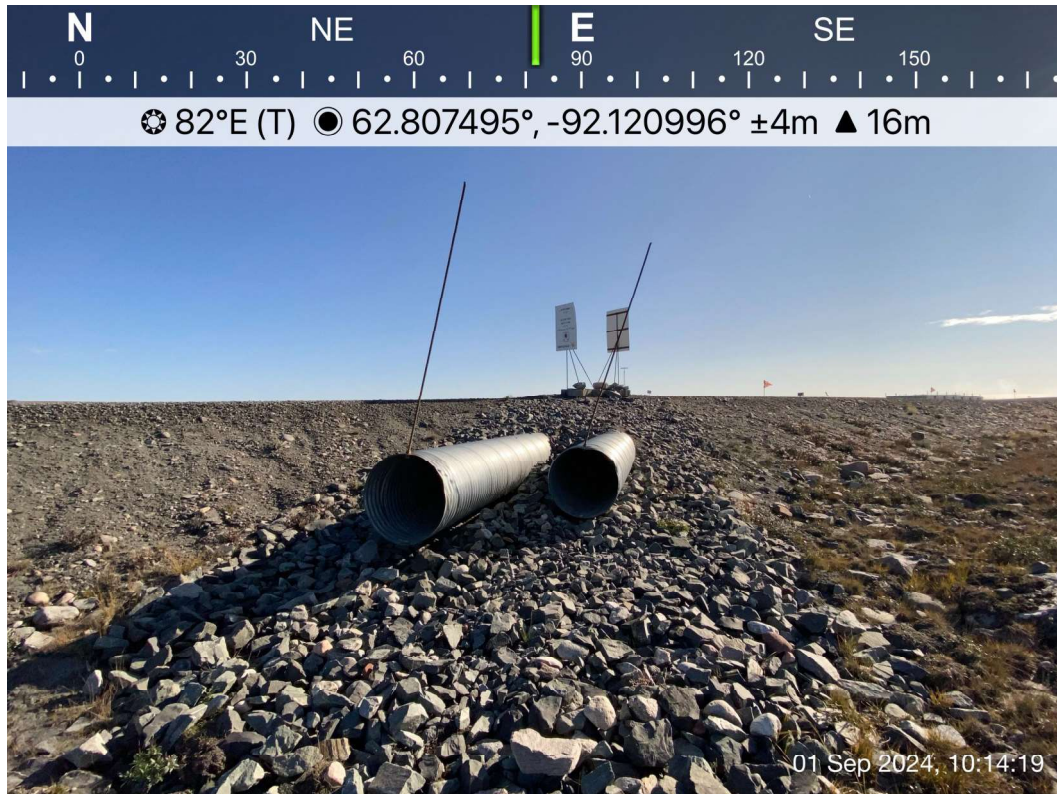
Culvert C06 - KM 1.5 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 16:**

Culvert C06 - KM 1.5 - Inlet.



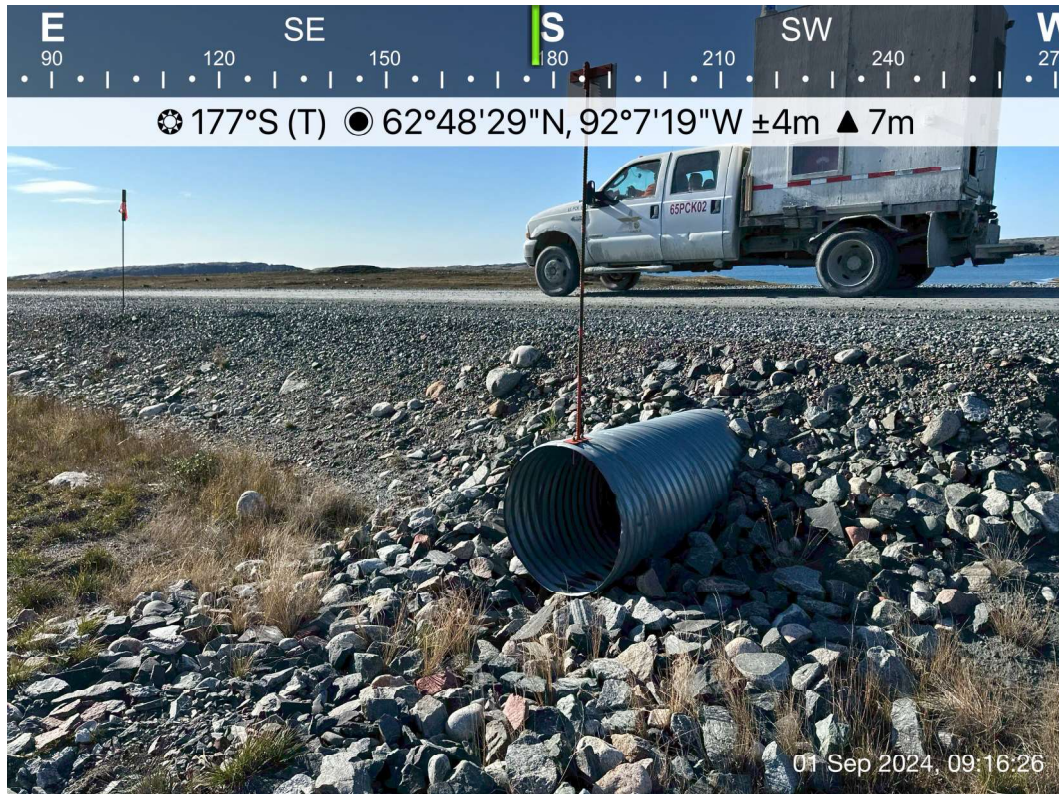


**Itivia Bypass Road/  
Culvert - Photo 17:** Culvert C06 - KM 1.5 - Outlet.



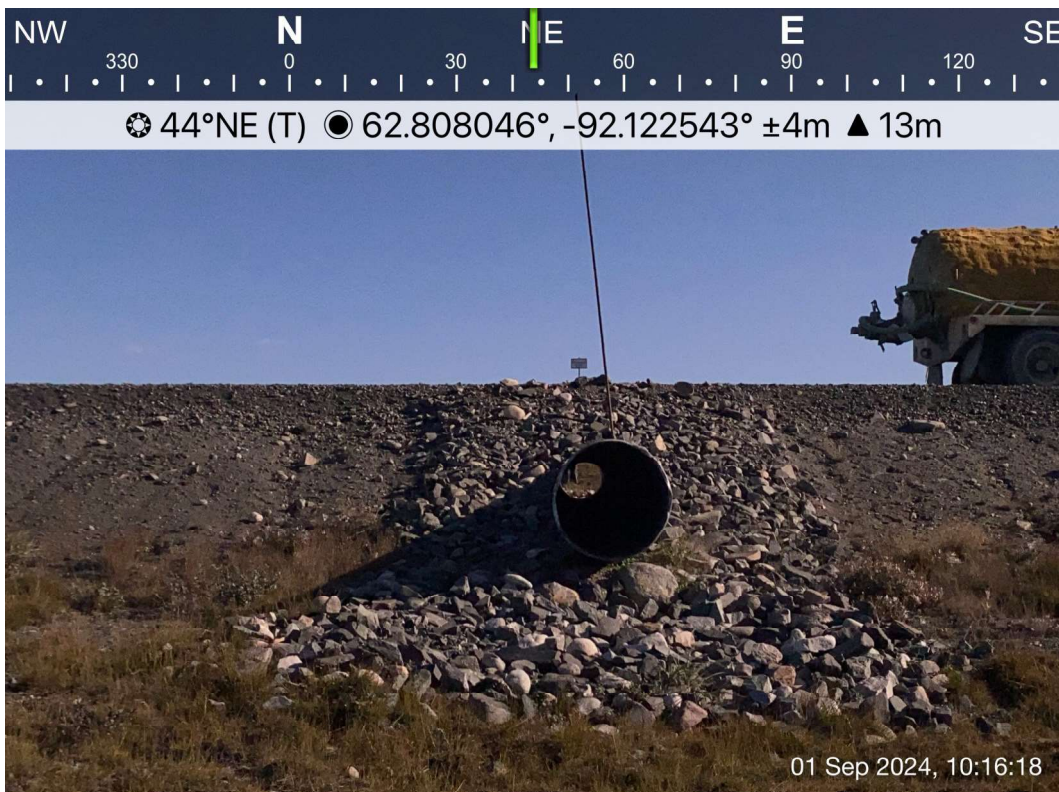
**Itivia Bypass Road/  
Culvert - Photo 18:** Culvert C07 - KM 1.6 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 19:**

Culvert C07 - KM 1.6 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 20:**

Culvert C07 - KM 1.6 - Outlet.





**Itivia Bypass Road/  
Culvert - Photo 21:**

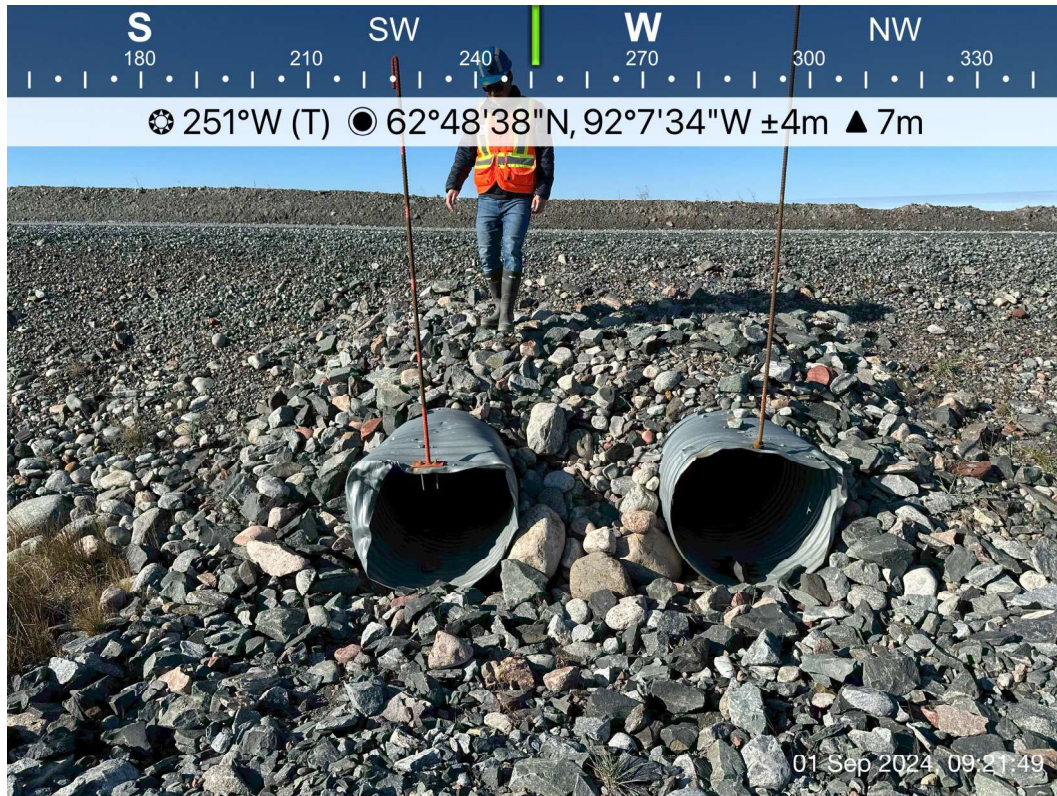
Culvert C08 - KM 1.8 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 22:**

Culvert C08 - KM 1.8 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 23:**

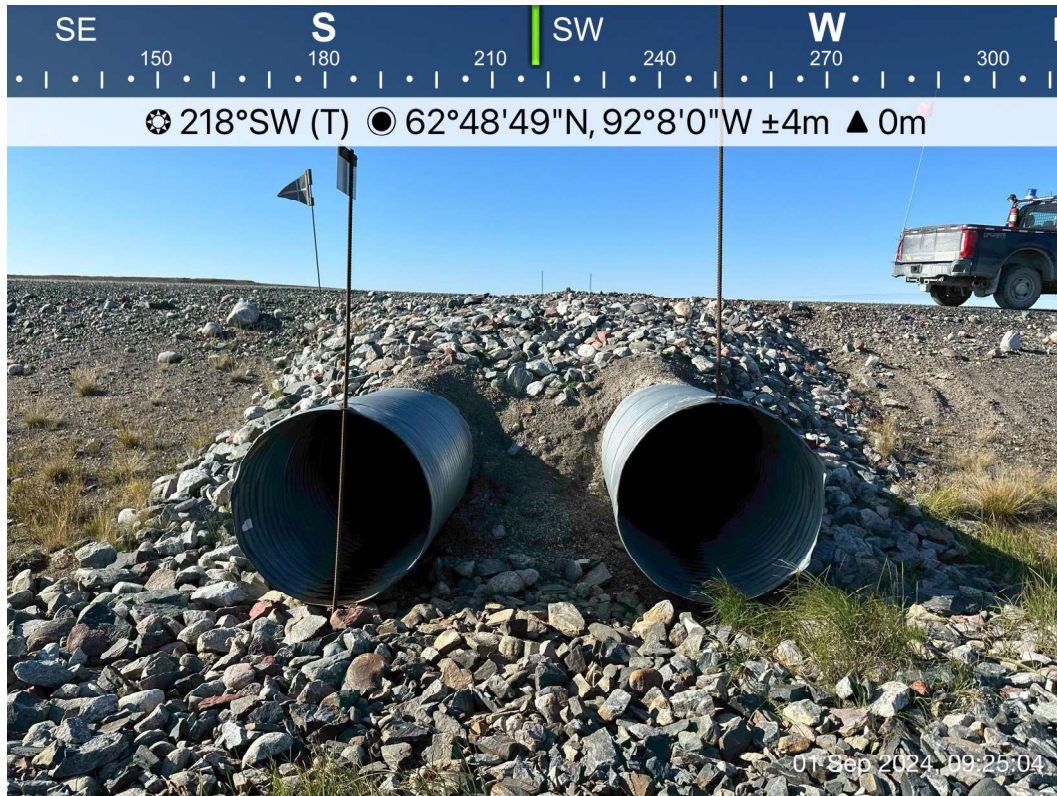
Culvert C09 - KM 1.9 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 24:**

Culvert C10 - KM 2.4 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 25:**

Culvert C10 - KM 2.4 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 26:**

Culvert C11 - KM 3.1 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 27:**

Culvert C11 - KM 3.1 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 28:**

Culvert C11 - KM 3.1 - Outlet.





**Itivia Bypass Road/  
Culvert - Photo 29:**

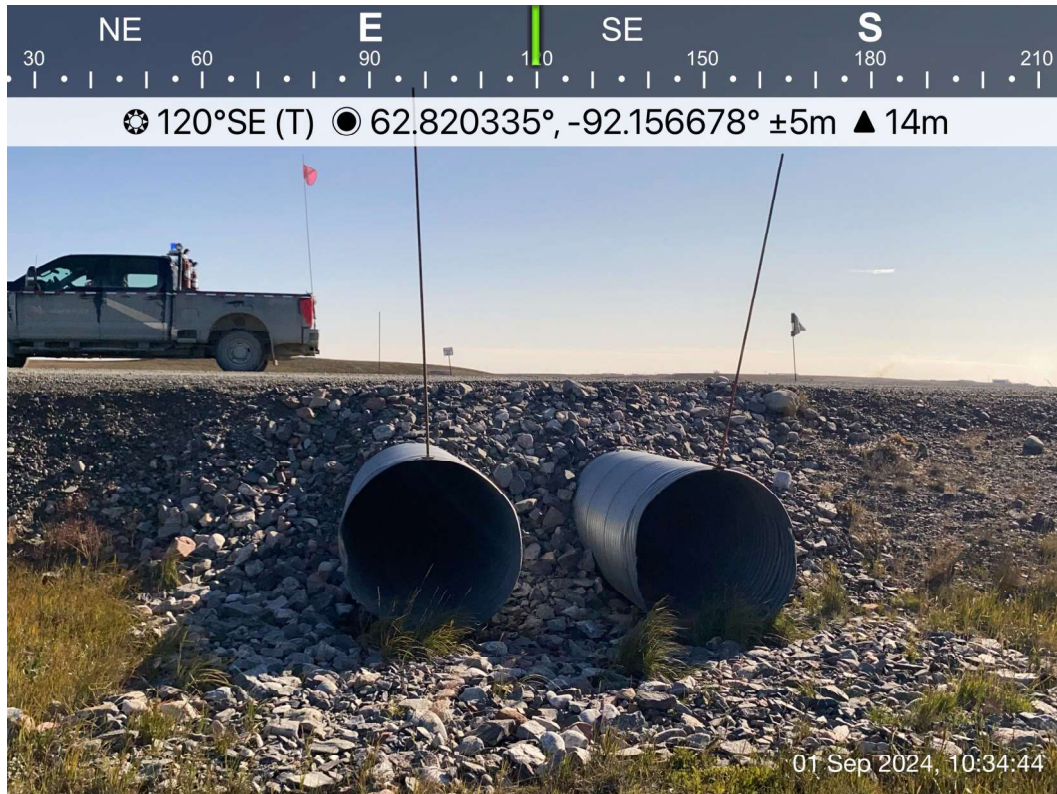
Culvert C12 - KM 4.0 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 30:**

Culvert C12 - KM 4.0 - Outlet.





**Itivia Bypass Road/  
Culvert - Photo 31:**

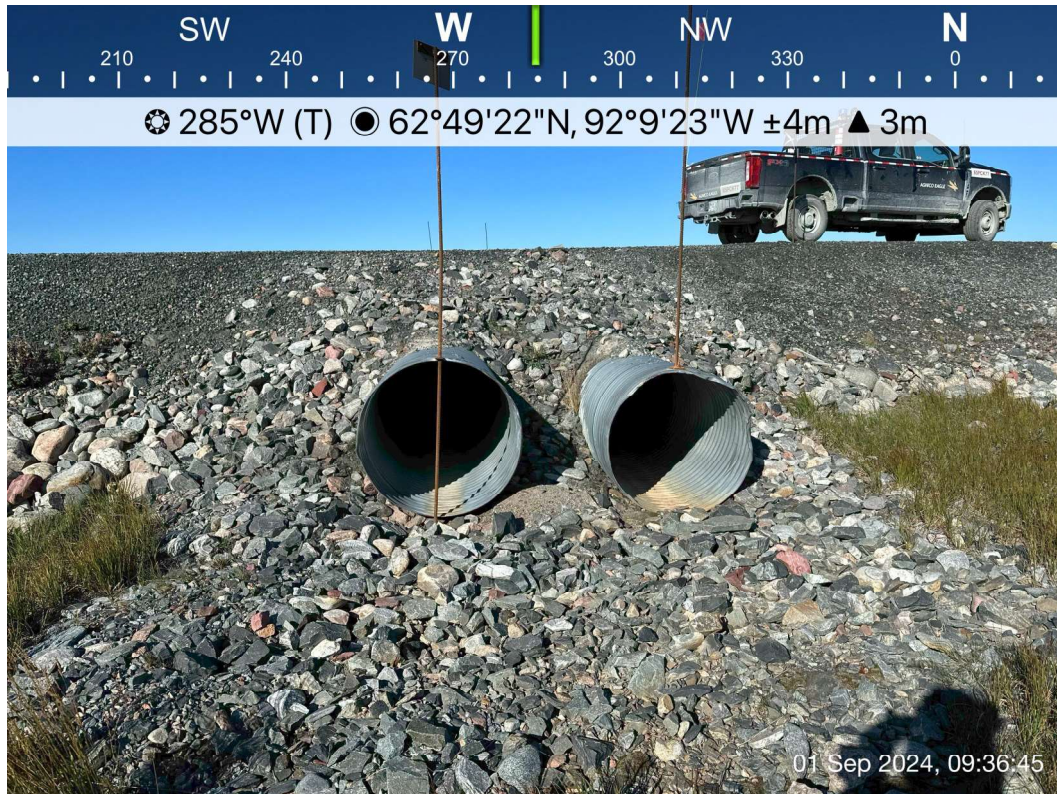
Culvert C12 - KM 4.0 - Outlet.



**Itivia Bypass Road/  
Culvert - Photo 32:**

Culvert C13 - KM 4.3 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 33:**

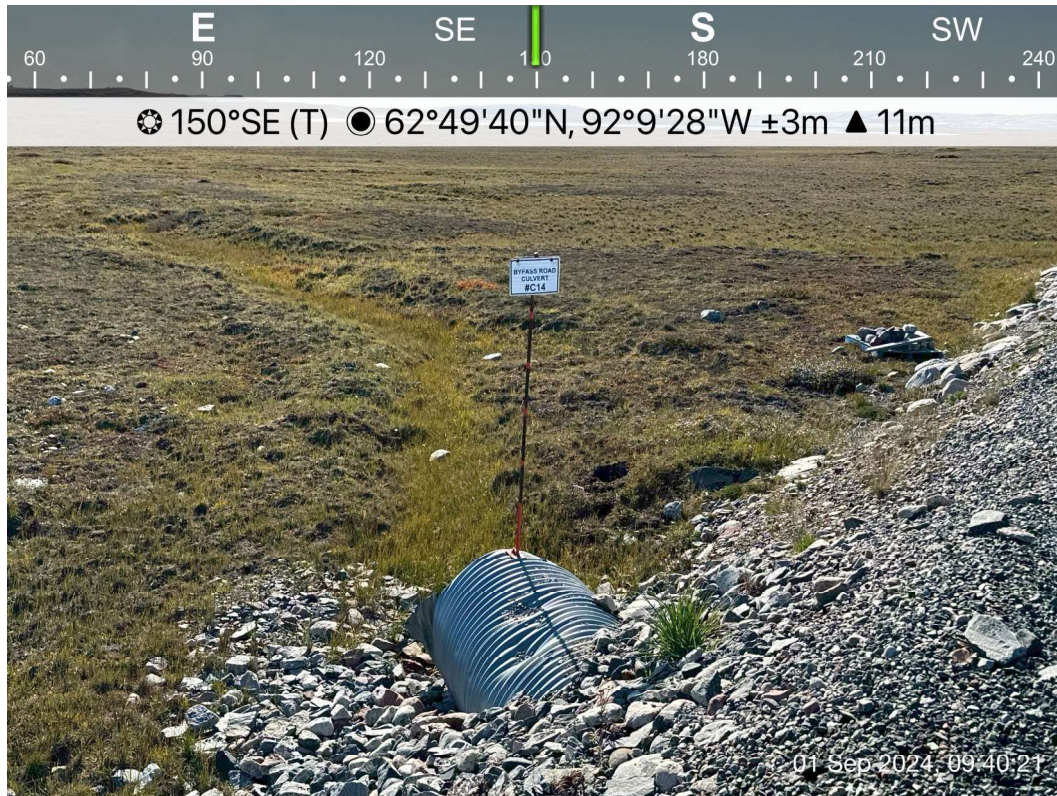
Culvert C13 - KM 4.3 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 34:**

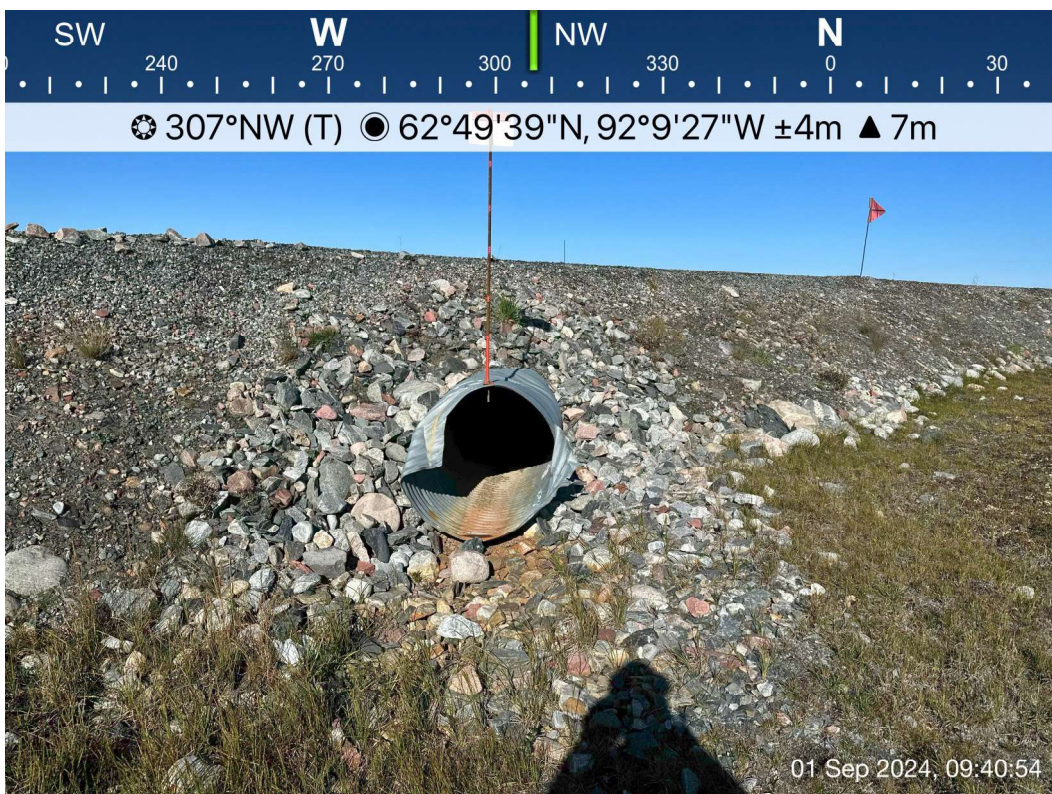
Culvert C13 - KM 4.3 - Outlet.





**Itivia Bypass Road/  
Culvert - Photo 35:**

Culvert C14 - KM 4.8 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 36:**

Culvert C14 - KM 4.8 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 37:**

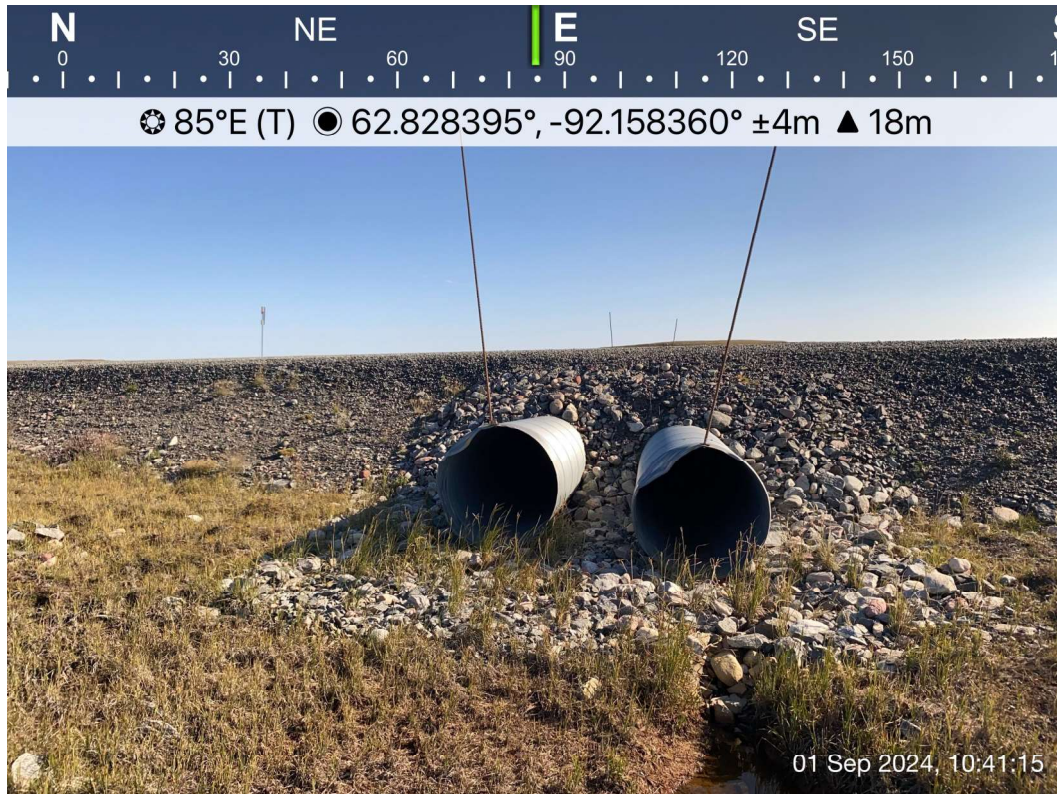
Culvert C14 - KM 4.8 - Outlet.



**Itivia Bypass Road/  
Culvert - Photo 38:**

Culvert C15 - KM 4.9 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 39:**

Culvert C15 - KM 4.9 - Outlet.



**Itivia Bypass Road/  
Culvert - Photo 40:**

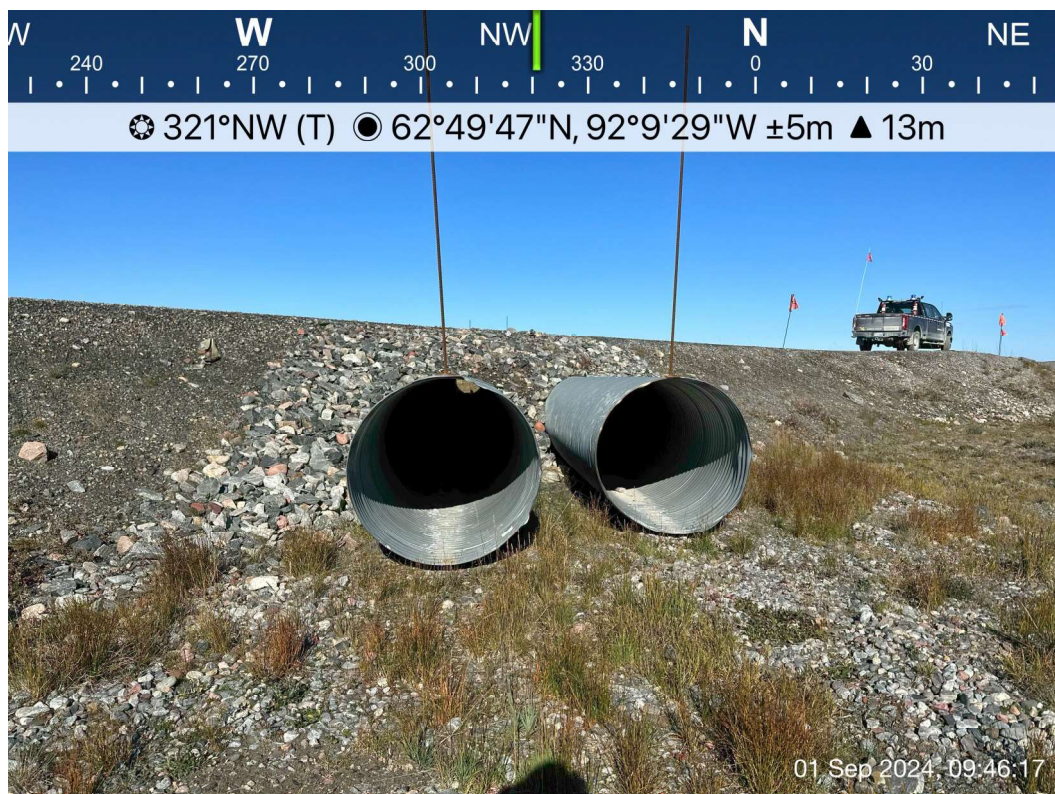
Culvert C16 - KM 5.0 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 41:**

Culvert C16 - KM 5.0 - Outlet.



**Itivia Bypass Road/  
Culvert - Photo 42:**

Culvert C17 - KM 5.1 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 43:**

Culvert C17 - KM 5.1 - Outlet.



**Itivia Bypass Road/  
Culvert - Photo 44:**

Culvert C18 - KM 6.2 - Inlet.





**Itivia Bypass Road/  
Culvert - Photo 45:**

Culvert C18 - KM 6.2 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 46:**

Culvert C18 - KM 6.2 - Outlet.





**Itivia Bypass Road/  
Culvert - Photo 47:**

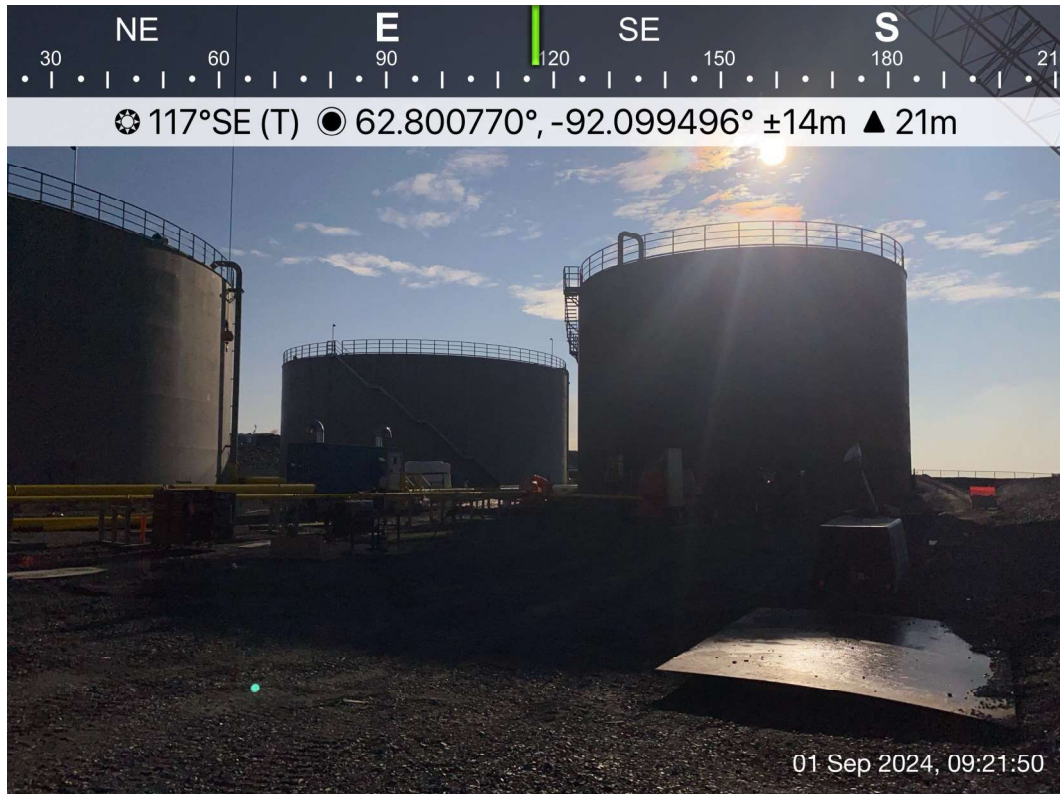
Culvert C19 - KM 6.3 - Inlet.



**Itivia Bypass Road/  
Culvert - Photo 48:**

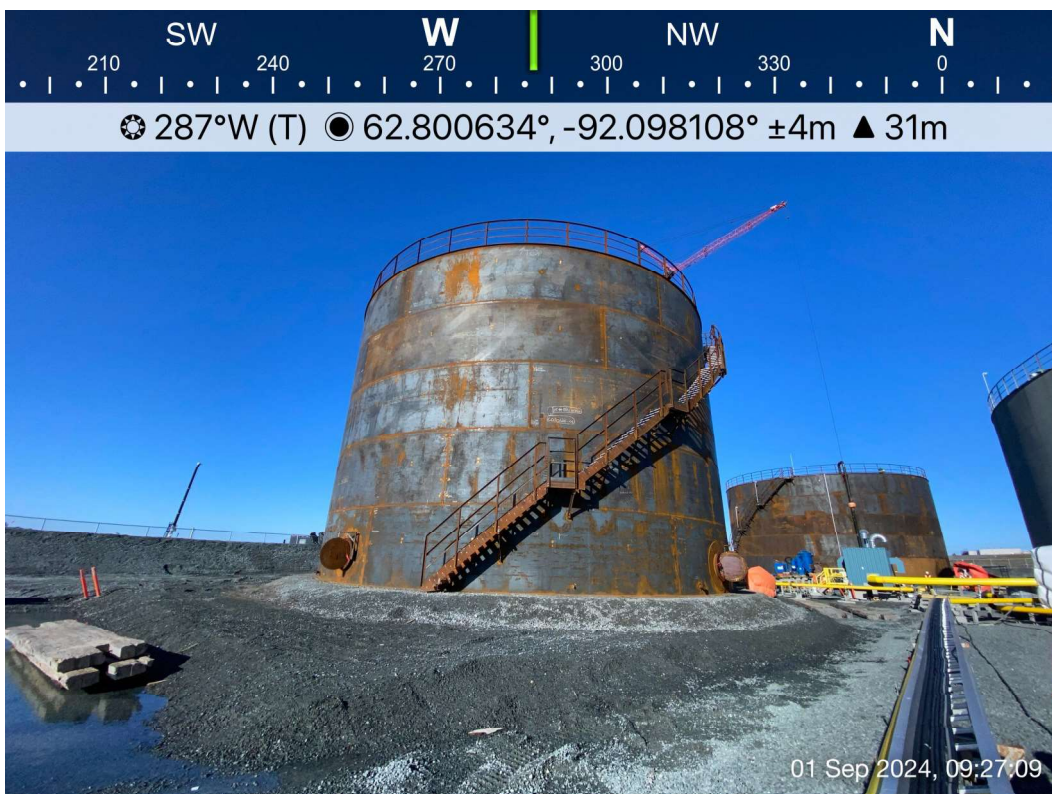
Culvert C19 - KM 6.3 - Inlet.





**Itivia Fuel Tankfarm - Photo 1:**

Itivia Fuel Tankfarm - Overview of tankfarm. Facing southeast.



**Itivia Fuel Tankfarm - Photo 2:**

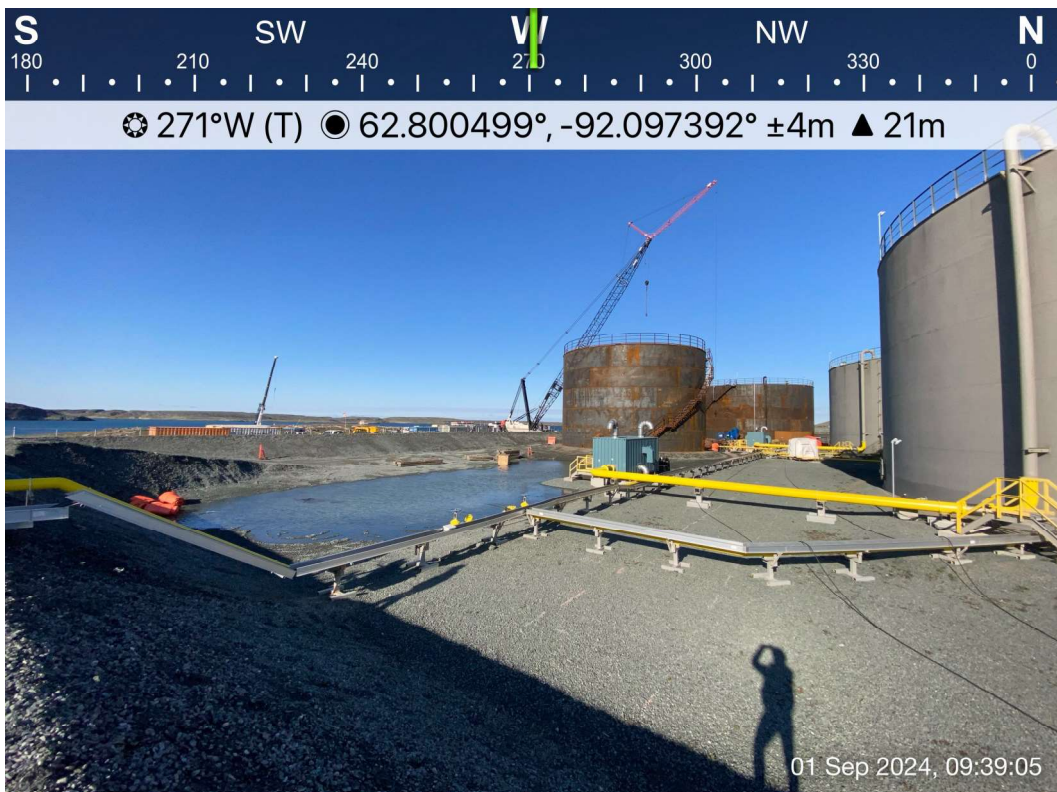
Itivia Fuel Tankfarm - Overview of tankfarm. Facing west.





**Itivia Fuel  
Tankfarm - Photo 3:**

Itivia Fuel Tankfarm - Localized depressions and ponding water on floor, Facing west.



**Itivia Fuel  
Tankfarm - Photo 4:**

Itivia Fuel Tankfarm - Ponding water. Facing west.





**Itivia Fuel  
Tankfarm - Photo 5:**

Itivia Fuel Tankfarm - Ponding water. Facing northwest.



**Itivia Fuel  
Tankfarm - Photo 6:**

Itivia Fuel Tankfarm - Northwest perimeter berm. Facing Northeast.





**Itivia Fuel  
Tankfarm - Photo 7:**

Itivia Fuel Tankfarm - Northeast perimeter berm. Facing northwest.