



November 28, 2022

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Hecla Mining Company
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Attention: Sebastien Tolgyesi – Assistant General Manager
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Subject: 2022 Annual Geotechnical Inspection – Mining Related Structures

1.0 INTRODUCTION

NND EBA Land Protection Corp., operating as NELPCo Limited Partnership (NELPCo) was retained by Hecla Mining Company (Hecla) to complete the 2022 annual geotechnical inspection of structures related to the development of the Bellekeno Mine near Keno City, Yukon Territory.

NELPCo is a limited partnership corporation owned by the NND Development Corporation (NNDDC) and Tetra Tech Canada Inc. (Tetra Tech), NELPCo's exclusive engineering services provider.

Authorization to complete this work was by way of PO04811.

Please find the enclosed report provided by Tetra Tech which summarizes the activities and observations of the annual inspection and any corresponding recommendations.

2.0 LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Hecla Mining Company (Hecla) and their agents. NELPCo Limited Partnership (NELPCo) 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 Hecla Mining Company (Hecla), 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 the Use of this Document attached in the Appendix or Contractual Terms and Conditions executed by both parties.

3.0 CLOSURE

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Respectfully submitted,
NELPCo Limited Partnership

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2022 Annual Geotechnical Inspection of Earth Structures Hecla Mining Company



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LIMITATIONS OF REPORT

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1.0 INTRODUCTION

1.1 Background

Tetra Tech Canada Inc. (Tetra Tech), NELPCo's exclusive engineering service provider, was retained by Hecla Mining Company (Hecla) to complete the 2022 annual physical geotechnical inspection of earth structures associated with the development of the Bellekeno Mine, located near Keno City, Yukon.

Tetra Tech understands that as of September 2022, Alexco Keno Hill Mining Corporation (Alexco) has been acquired by Hecla Mining Company, and at the time of this reporting the site and personnel are operating under Hecla Yukon (Hecla).

Annual physical inspections and reporting are required under Quartz Mining Licence QZ18-044 issued by the Yukon Water Board (Yukon Water Board 2020). Tetra Tech has been completing the annual physical inspection of these earth structures for several years, the most recent in 2021 (Tetra Tech 2021). This report summarizes the 2022 annual physical inspection and is intended to supplement Hecla's annual reporting requirements.

1.2 Scope of Work

Tetra Tech's scope of services for this work includes:

- Complete a visual inspection of the following structures, identified by Hecla:
 - Bellekeno Potentially Acid Generating (PAG) waste storage facility;
 - Bellekeno Road waste rock pile;
 - Bellekeno 625 water treatment ponds and discharge line;
 - Lightning Creek bridge abutments;
 - Mill water storage ponds; and
 - Dry stacked tailings facility (DSTF).
- Collect readings of slope indicator and ground temperature cable instrumentation installed within and around the DSTF footprint.
- Provide an inspection report that includes:
 - Documentation of the inspection locations and methodologies;
 - The results of the inspection;
 - All problems identified such as physical instability, erosion, or water ponding;
 - Remedial measures recommended;
 - The status of any remedial measures recommended in the previous year's report with an explanation regarding any recommendation not implemented; and
 - Actions taken to planned in response to any identified issues and/or to prevent recurrence.

2.0 SITE VISIT

The 2022 annual inspection was completed on August 28, 2022. Tetra Tech’s representatives included Mr. Richard Trimble, P.Eng., and Mr. Ian MacIntyre, P.Eng., who were accompanied by Hecla representatives Baoyao Tang (Chief Mine Engineer), Peter Johnson (Project Manager), and Cameron Robertson (Project Engineer).

Figure 1 below shows a track collected by a GPS worn by Mr. MacIntyre. Note there were areas visited under separate scopes of work.

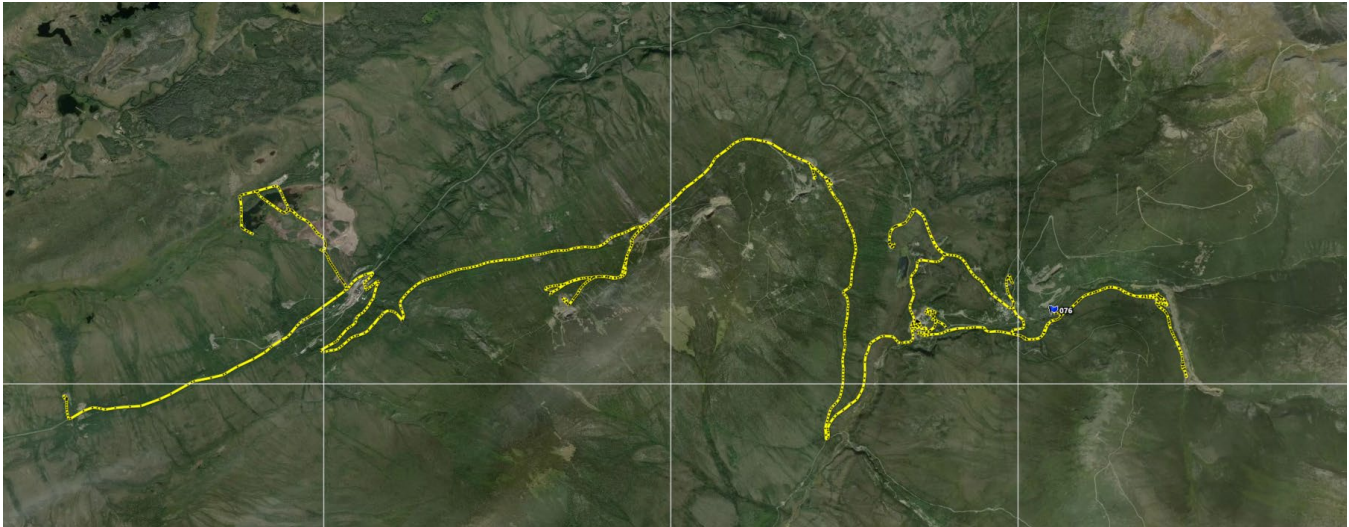


Figure 1: GPS tracklog of Mr. MacIntyre on August 28, 2022.

3.0 OBSERVATIONS AND RECOMMENDATIONS

3.1 General

The following sections summarize observations for each structure and describe remedial actions recommended to improve stability, if required. These recommended remedial actions have been separated into geotechnical stability concerns, and ongoing facility maintenance to assist in the prioritization of efforts and allocation of resources.

Select photographs taken during the inspection have been included.

3.2 Bellekeno PAG Waste Facility

The PAG waste storage facility is located south of the Bellekeno portal, as shown on Figure 1, and has not been used since 2013, but currently stores some waste rock.

The PAG observed during previous inspections appears to have been removed, and Tetra Tech understands it was placed underground.

At the time of the inspection, the remaining perimeter berms appeared intact with no visible signs of instability or distress. A drainage relief was excavated at the downstream end of the facility to minimize water ponding.

No remedial actions related to geotechnical performance are recommended at this time.



Photo 1: Bellekeno PAG Storage Facility, facing north (I. MacIntyre, Aug. 28, 2022)

3.3 Bellekeno Waste Rock Pile

The Bellekeno waste rock pile forms a portion of the Bellekeno Haul Road north of the Bellekeno portal, as shown on Figure 1.

At the time of the inspection the waste rock pile crest, slopes, and toe showed no signs of deep-seated instabilities, significant movement, distress, sloughing or bulging. The condition of the facility appears generally unchanged from previous inspections.

No remedial actions related to geotechnical performance are recommended at this time.



Photo 2: Bellekeno Road Waste Rock Pile, facing southwest (I. MacIntyre, Aug. 28, 2022)

3.4 Bellekeno 625 Water Treatment Ponds

The Bellekeno 625 water treatment ponds are located north of the Bellekeno 625 portal, as shown on Figure. The facility consists of two water treatment ponds. Treated water is discharged through a HDPE pipe onto the hillside above Lightning Creek.

The primary treatment pond was operating at below its discharge elevation with a freeboard of approximately 1.0 m below the perimeter berm. The secondary treatment pond was also below its discharge elevation with a freeboard of approximately 1.0 m below the perimeter berm.

The rip in the liner near the end of the secondary pond noted in 2021 was still evident and does not appear to have increased in size. Any rips or tears in the liner should be repaired.

The conditions at the discharge do not appear to have changed. Flow is discharged directly onto the natural slope. While the slope is vegetated, some erosion is visible immediately around the discharge. While minor for now, the erosion may increase in severity, and options should be evaluated to provide some armoring around the discharge point.



Photo 3: Bellekeno 625 Water Treatment Ponds, facing northwest (I. MacIntyre, Aug. 28, 2022)



Photo 4: Bellekeno 625 Water Treatment Ponds, north end, rip visible (I. MacIntyre, Aug. 28, 2022)

3.5 Lightning Creek Bridge Abutments (Bellekeno Haul Road)

The Lightning Creek bridge is located on the Bellekeno Haul Road, southwest of Keno City, as shown on Figure 1.

The bridge consists of a single span steel structure with a wooden deck and is founded on earth filled timber crib abutments.

At the time of the inspection the bridge abutments appeared stable and sufficiently protected from erosion by riprap armoring. As has been documented in previous inspections, some erosion was noted along the road edge.

The formed erosion gully should be backfilled using coarse grained material and proper road drainage established to minimize erosion.



Photo 5: Lightning Creek Bridge - Bellekeno Haul Road (I. MacIntyre, Aug. 28, 2022)



Photo 6: Lightning Creek Bridge - Bellekeno Haul Road, abutment armoring (I. MacIntyre, Aug. 28, 2022)



Photo 7: Lightning Creek Bridge - Bellekeno Haul Road, erosion gully forming along road edge (I. MacIntyre, Aug. 28, 2022)

3.6 Lightning Creek Bridge Abutments (Onek Road)

The Lightning Creek bridge crossing on the Onek Road is located east of Keno City, as shown on Figure 1. The bridge consists of a single span steel structure founded on earth-filled cribbing abutments.

At the time of the inspection the bridge abutments appeared stable and sufficiently protected from erosion by riprap armoring. No remedial actions related to geotechnical performance are recommended at this time.



Photo 8: Lightning Creek Bridge - Onek Road (I. MacIntyre, Aug. 28, 2022)



Photo 9: Lightning Creek Bridge – abutment riprap (I. MacIntyre, Aug. 28, 2022)

3.7 Mill Water Storage Ponds

Two water storage ponds are located near the mill site, west of Keno City, as shown on Figure 1.

At the time of the inspection, the freeboards in the northmost and southmost ponds were approximately 1.0 m and 2.0 m, respectively.

The liners and berms of each pond appeared to be in generally good condition.

An erosion gully was noted in the area above the north pond near its southeast corner. While the erosion has not yet impacted the pond, it should be repaired, and proper drainage established to prevent future issues.

No other remedial actions are recommended at this time.



Photo 10: Mill water storage ponds – facing southwest (I. MacIntyre, Aug. 28, 2022)



Photo 11: Mill water storage ponds – facing north (I. MacIntyre, Aug. 28, 2022)



Photo 12: Mill water storage ponds, erosion gully – facing northeast (R. Trimble, Aug. 28, 2022)



Photo 13: Mill water storage ponds, erosion gully – facing east (R. Trimble, Aug. 28, 2022)

3.8 Dry Stacked Tailings Facility

The dry stacked tailings facility (DSTF) is located near the mill site, west of Keno City, as shown on Figure 1. Production and tailings placement was paused at the time of the inspection.

Several areas were observed that required attention:

- Near the south end of the upper bench of the DSTF, tailings were observed to have been dumped loose and not placed per proper procedure. Tetra Tech recommended the proper placement, grading, and compaction of these tailings.
 - Note: while onsite in September for another scope, these areas and recommendations were noted to have been addressed.
- Several small sinkhole-like features were noted within the cover material along the southwest facing slope of the DSTF. Tetra Tech recommended these be backfilled and repaired with properly compacted material.
 - Note: while onsite in September for another scope, these areas and recommendations were noted to have been addressed.

Previously noted tension cracks were not visible at the time of the inspection.

An area of the cover material along the north facing slope was also observed to be sloughing, with a notable tension crack near the crest. It appears this failure surface is primarily restricted to the cover material layer, and likely not deep-seated. This cover material appears to be relatively uncompacted and loose. It should be compacted using tracked equipment operating parallel to slope contours to minimize runoff erosion impacts.

In general, the items discussed above may all be associated with surface runoff and ensuring proper surface water drainage is implemented (e.g., proper placement of tailings to minimize ponded water) will aid in mitigating these occurrences in the future. Tetra Tech and Hecla also discussed the possibility of attempting some snow removal prior to spring freshet to minimize runoff and potential erosion within the facility.

As recommended in 2021, any of these occurrences (i.e., sinkholes, blow outs, tension cracks, etc.) should be surveyed and reported to Tetra Tech along with photos immediately when they are observed.

Tetra Tech was also asked to comment on the performance of a velocity dissipation structure (VDS) Hecla constructed southeast of Phase 1A, and within the footprint of Phase 1B. The intent of this structure is to minimize the accumulation of eroded material within the DSTF drainage ditches, thereby reducing the required maintenance efforts. Some recommendations related to the construction of the VDS were provided in the previous 2021 Annual Inspection Report (Tetra Tech 2021). The VDS structure was excavated into the in-situ granular material.

Based on a visual review of the VDS, and discussion with site staff regarding its performance, Tetra Tech believes the temporary structure is performing adequately and not negatively impacting the overall stability of the DSTF. Frequent inspections should be completed, and accumulated debris cleaned as required. If changing conditions are noted Tetra Tech should be contacted to provide additional recommendations. The temporary nature of this structure was also discussed, as it is located within the DSTF Phase 1B footprint and will likely be covered with tailings in the near future.



Photo 14: DSTF Phase 1A area, near top, south end. Loose, poorly graded, and uncompacted tailings visible. VDS visible in left of frame. Facing north. (I. MacIntyre, Aug. 28, 2022)



Photo 15: DSTF Phase 1A area, near top, north end. Sloughing and cracking of loose, uncompacted cover material. Facing west. (I. MacIntyre, Aug. 28, 2022)



Photo 16: DSTF Phase 1A area, near top, north end. Sloughing of loose, uncompacted cover material. Crack approx. 60 cm deep. (I. MacIntyre, Aug. 28, 2022)



Photo 17: DSTF Phase 1A area, southwest slope. Small sink hole indicating migration of materials. Appears to be limited mostly to cover material. Facing west. (I. MacIntyre, Aug. 28, 2022)

3.8.1 Instrumentation

Performance of the DSTF has historically been monitored through regular readings of instrumentation installed during and after design and construction.

Ground Temperature Cables

During DSTF Phase 1 design and construction seven ground temperature cables (GTC’s) were installed. Through years of operations, several of these have been damaged beyond repair.

Updated ground temperature readings were collected from accessible and functioning cables, and are presented in Appendix B. As with the previous inspection, the protective casing for BH17 is damaged and the cable is not accessible to confirm functionality or collect readings. BH23 was not located. The cable located in BH40, extending through the tailings into the underlying foundation soils, was previously recommended to be replaced. During a drilling program in Fall 2022, piping was installed to lower a new cable into a new borehole, immediately adjacent to BH40. A summary of the cables is provided below:

Table 1 – GTC Instrumentation Status and Comments

Cable ID	Status	Additional Comments
BH15	Functioning	Possible erroneous readings at depth
BH17	Cable not accessible due to damaged casing. Functionality not known	NA
BH18	Functioning	NA
BH23	Not located – status unknown	Previous erroneous readings at depth
BH31	Functioning	Possible erroneous readings at depth
BH32	Functioning	NA
BH40	Not functioning	Replacement in progress.

In general, the data collected continues to indicate typical ranges of near surface temperatures. Several cables continue to show sufficiently low temperatures (i.e., less than -3°C) that it may indicate individual thermistor beads have been compromised or are malfunctioning.

Slope Inclinometers

During Phase 1 design and construction three slope inclinometers (SI’s) were installed to monitor lateral movement of the foundation soils. Through years of operations, two these have been damaged beyond repair.

The remaining instrument, BH36 is located just north of the mill building. Tetra Tech attempted to collect data from this instrument however due to equipment issues no data was able to be collected. No SI data has been provided in this submission.

3.9 OMS Manual update – Dry Stacked Tailings Facility

The existing Operation, Maintenance and Surveillance (OMS) manual needs to be updated for the DSTF. It is our recommendation that this be completed as part of the design process for the Phase II expansion, currently being designed.

3.10 Birmingham Mine Sludge Containment Facility

Near the Birmingham water treatment plant, two lined enclosures were constructed to support sludge bags.

At the time of the inspection the facility crest, slopes, and toe showed no signs of deep-seated instabilities, significant movement, distress, sloughing or bulging. However, it was noted that the newer facility appears to have been constructed without removing all organics within the footprint. Hecla noted they believe most organics were removed, while acknowledging some remaining along the facility toe. The facility should be monitored closely, and the remaining exposed organics should be removed and replaced with compacted granular fill.



Photo 18: Birmingham Mine Sludge Waste Containment Facility – buried organics and trees visible in bottom of frame. (I. MacIntyre, Aug. 28, 2022)

4.0 DISCUSSION AND SUMMARY OF RECOMMENDATIONS

In general, the structures inspected during the physical inspection appeared to be in good condition, and no significant risks associated with geotechnical stability were observed.

The remedial actions recommended in the previous sections are summarized in Table 2 below.

Table 2 – Summary of 2022 Recommendations

Structure / Facility	Stability Recommendation	Maintenance Recommendation
Bellekeno PAG Waste Facility	<ul style="list-style-type: none"> ▪ No remedial actions related to geotechnical performance are recommended at this time. 	
Bellekeno Road Waste Rock Pile	<ul style="list-style-type: none"> ▪ No remedial actions related to geotechnical performance are recommended at this time. 	
Bellekeno 625 Water Treatment Ponds	<ul style="list-style-type: none"> ▪ Consider riprap armor at discharge. 	<ul style="list-style-type: none"> ▪ None
Lightning Creek Bridge Bellekeno Haul Road	<ul style="list-style-type: none"> ▪ None 	<ul style="list-style-type: none"> ▪ The erosion gully should be backfilled using coarse grained material and proper road drainage established to minimize erosion.
Lightning Creek Bridge Onek Road	<ul style="list-style-type: none"> ▪ No remedial actions related to geotechnical performance are recommended at this time. 	
Mill Water Storage Ponds	<ul style="list-style-type: none"> ▪ None 	<ul style="list-style-type: none"> ▪ Repair erosion gully above facility.
Dry Stacked Tailings Facility	<ul style="list-style-type: none"> ▪ Spread, grade, and compact loose tailings (completed September 2022). ▪ Repair sinkholes (completed September 2022). ▪ Survey and photograph all indications of instabilities (sinkholes, cracks, etc.) and provide to Tetra Tech when observed. 	<ul style="list-style-type: none"> ▪ Compact loose cover material using tracked equipment. ▪ Monitor / inspect VDS and maintain / clean out as required. ▪ Consider completing some proactive snow removal prior to freshet to minimize surface runoff erosion potential. ▪ Update OMS Manual as part of Phase II design process.
Birmingham Sludge Containment Facility	<ul style="list-style-type: none"> ▪ Remove visible organics and trees and replace with compacted granular fill. Monitor performance during freshet. 	<ul style="list-style-type: none"> ▪ None

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Respectfully submitted,
Tetra Tech Canada Inc.



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REFERENCES

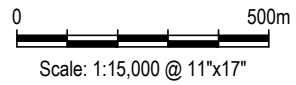
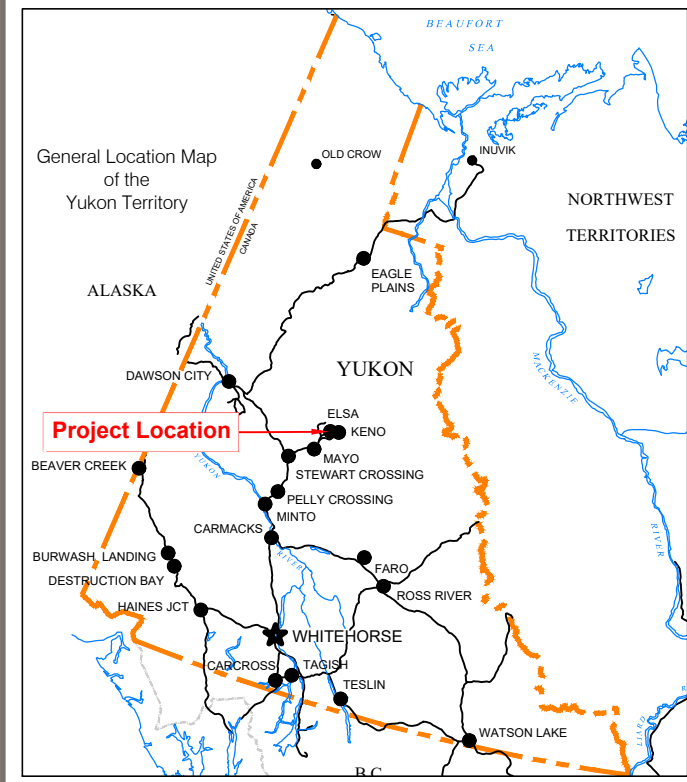
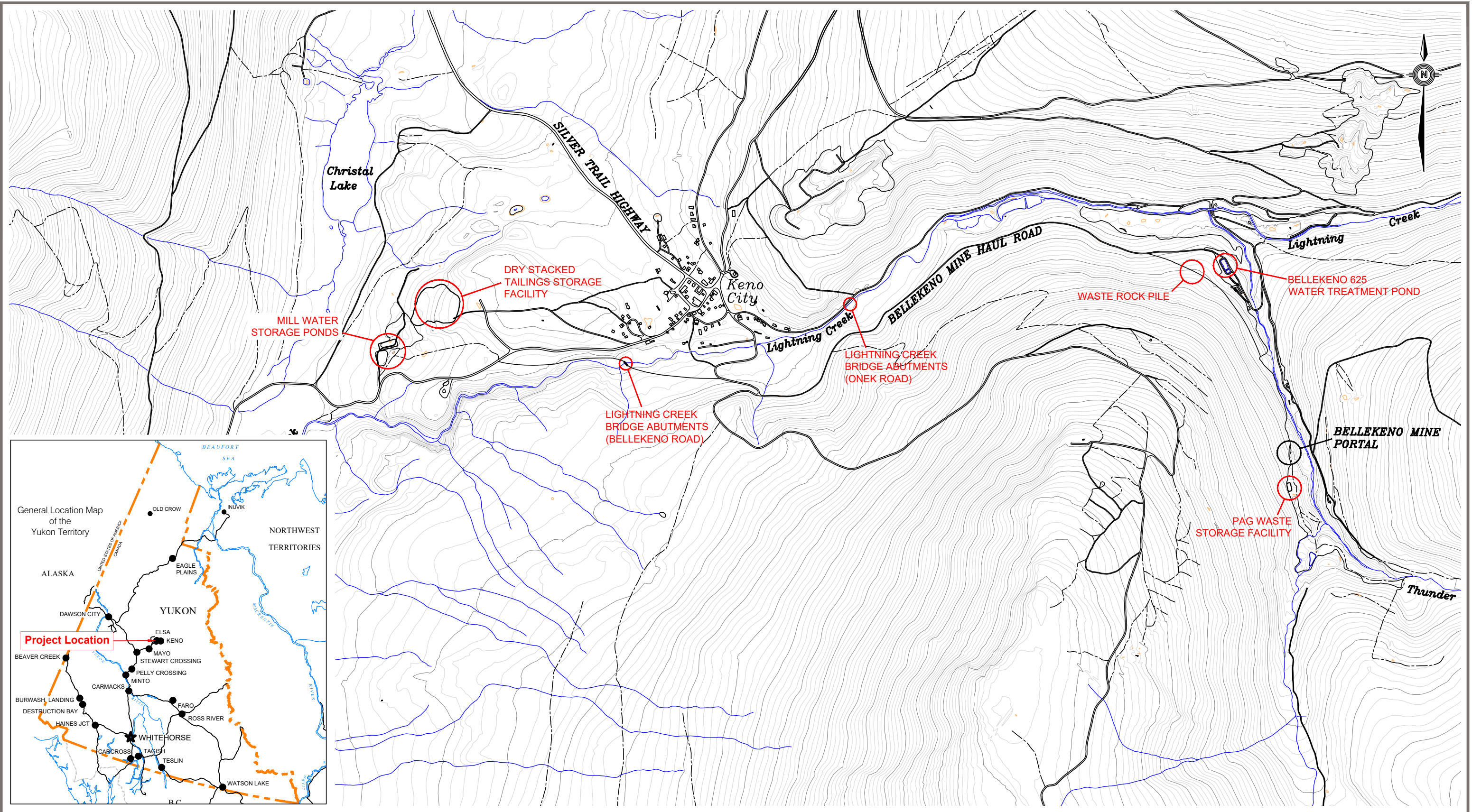
Tetra Tech 2021. *2021 Annual Geotechnical Inspection – Mining Related Structures, Bellekeno Mine – Keno City, YT*. Submitted to Alexco Keno Hill Mining Corp. November 20, 2021. Tetra Tech Project File 704-ENG.WARC04064-01

Yukon Water Board 2020. *Quartz Mining Type A Licence QZ18-044*. Quartz Mining Licence issued by the Yukon Water Board to Alexco Keno Hill Mining Corp. July 22, 2020.

FIGURES

- Figure 1 Overall Site Plan Showing Structure Locations
- Figure 2 DSTF Site Plan Showing Borehole and Instrumentation Locations

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NOTES
 CONTOUR INFORMATION IS BASED ON DRAWING PROVIDED BY ALEXCO RESOURCE INC.

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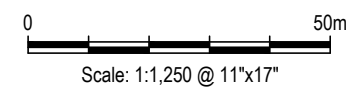



2022 AKHM ANNUAL INSPECTION BELLEKENO MINE SITE - KENO CITY, YUKON				
SITE PLAN SHOWING STRUCTURE LOCATIONS				
PROJECT NO. ENG.WARC04286-01	DWN CB	CKD IM	REV 1	Figure 1
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Q:\Whitehorse\Data\0201drawings\Keno\ENG.WARC04286-01 2022 AKHM Annual Inspection\ENG.WARC04286-01 Fig.2-RO_US.dwg [FIGURE 2] November 29, 2022 - 12:31:20 pm (BY: SWARTZ, JACOB)



LEGEND
 GTC - GROUND TEMPERATURE CABLE
 SI - SLOPE INDICATOR
 MW - MONITORING WELL



NOTES:
 1: INSTRUMENTATION SHOWN IN RED HAS BEEN DAMAGED OR DESTROYED AND IS NOT READABLE. SOME OF THESE NEED TO BE REPAIRED AND/OR REPLACED. SEE ACCOMPANYING REPORT TEXT.
 2: DRONE IMAGERY COLLECTED BY HECLA ON AUGUST 29, 2022. CONTOURS ARE APPROXIMATE, BASED ON PROCESSED DRONE IMAGERY.

CLIENT



2022 AKHM ANNUAL INSPECTION BELLEKENO MINE SITE - KENO CITY, YUKON				
SITE PLAN SHOWING BOREHOLE AND INSTRUMENTATION LOCATIONS				
PROJECT NO. ENG.WARC04286-01	DWN CB	CKD IM	REV 1	Figure 2
OFFICE EBA-WHSE	DATE November 29, 2022			

APPENDIX A

TETRA TECH'S AND LIMITATIONS ON THE USE OF THIS DOCUMENT

LIMITATIONS ON USE OF THIS DOCUMENT

GEOTECHNICAL

1.1 USE OF DOCUMENT AND OWNERSHIP

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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.

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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

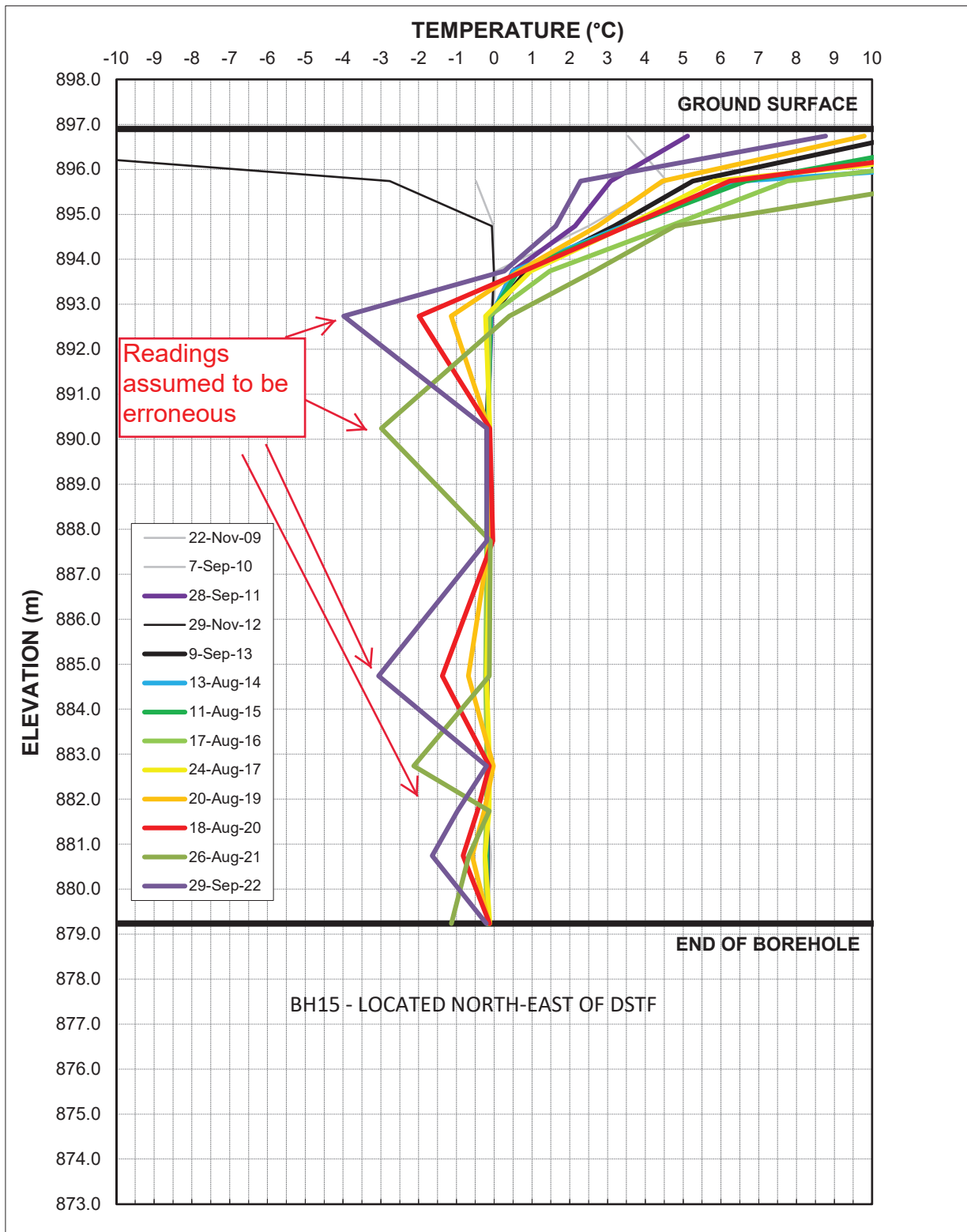
Design bearing capacities, loads and allowable stresses quoted in this report relate to a specific soil or rock type and condition. Construction activity and environmental circumstances can materially change the condition of soil or rock. The elevation at which a soil or rock type occurs is variable. 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.

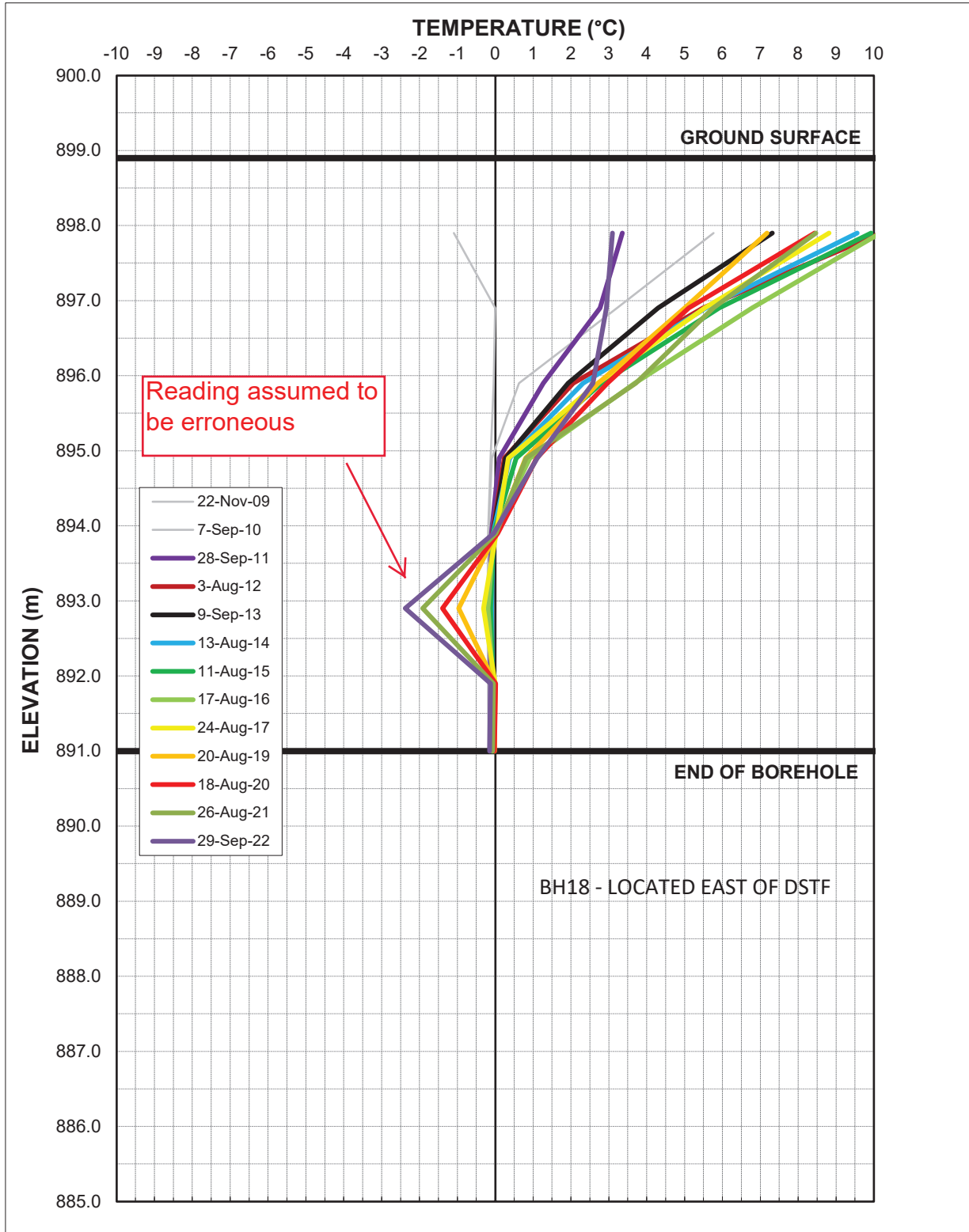
APPENDIX B

GROUND TEMPERATURE READINGS FOR ACTIVE CABLES



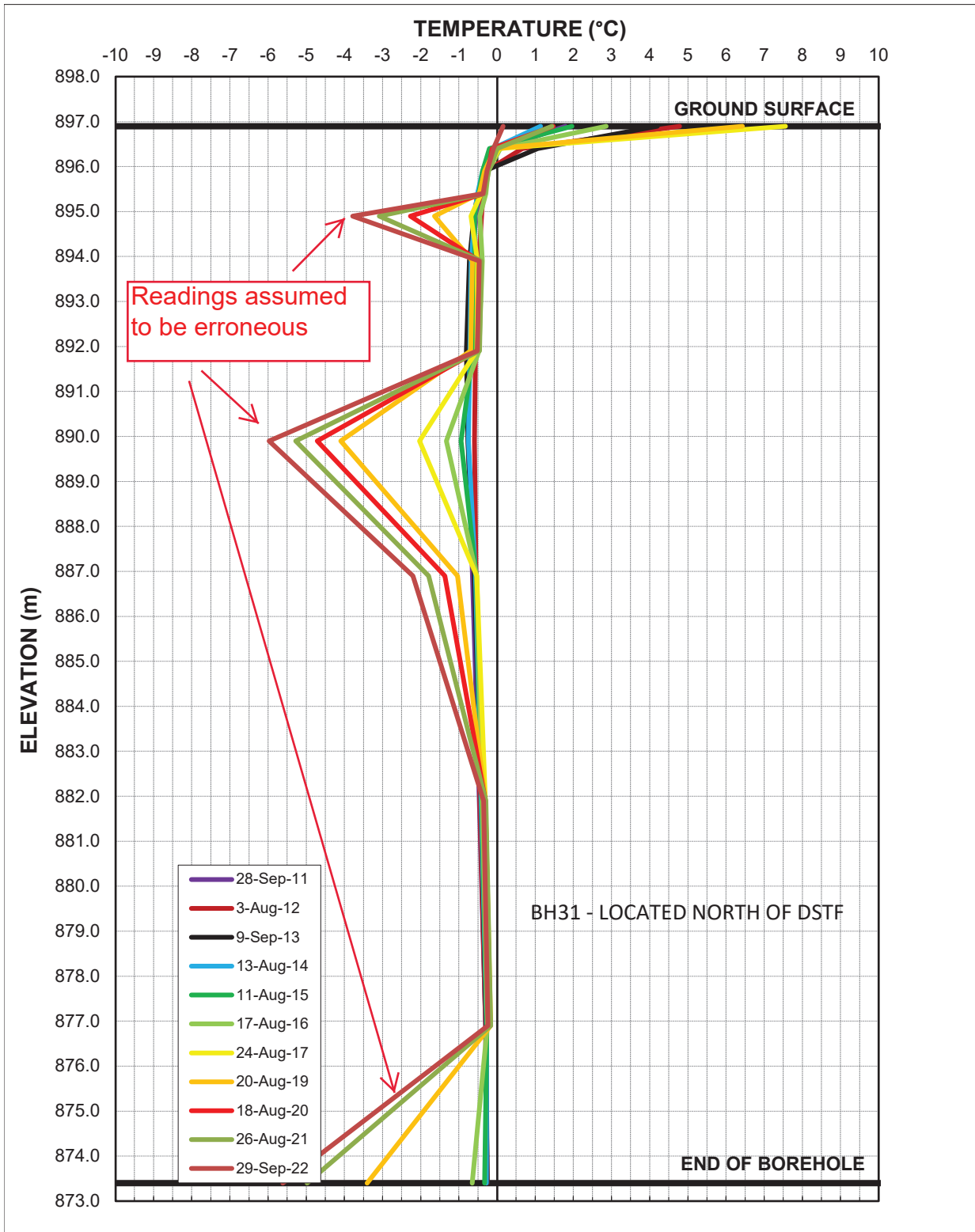
Install Date August 30, 2009
 Last Updated September 29, 2022
 Cable No: 2207

Ground Temperature Profile
Keno Hill District Mill Site Borehole BH15
Figure T1



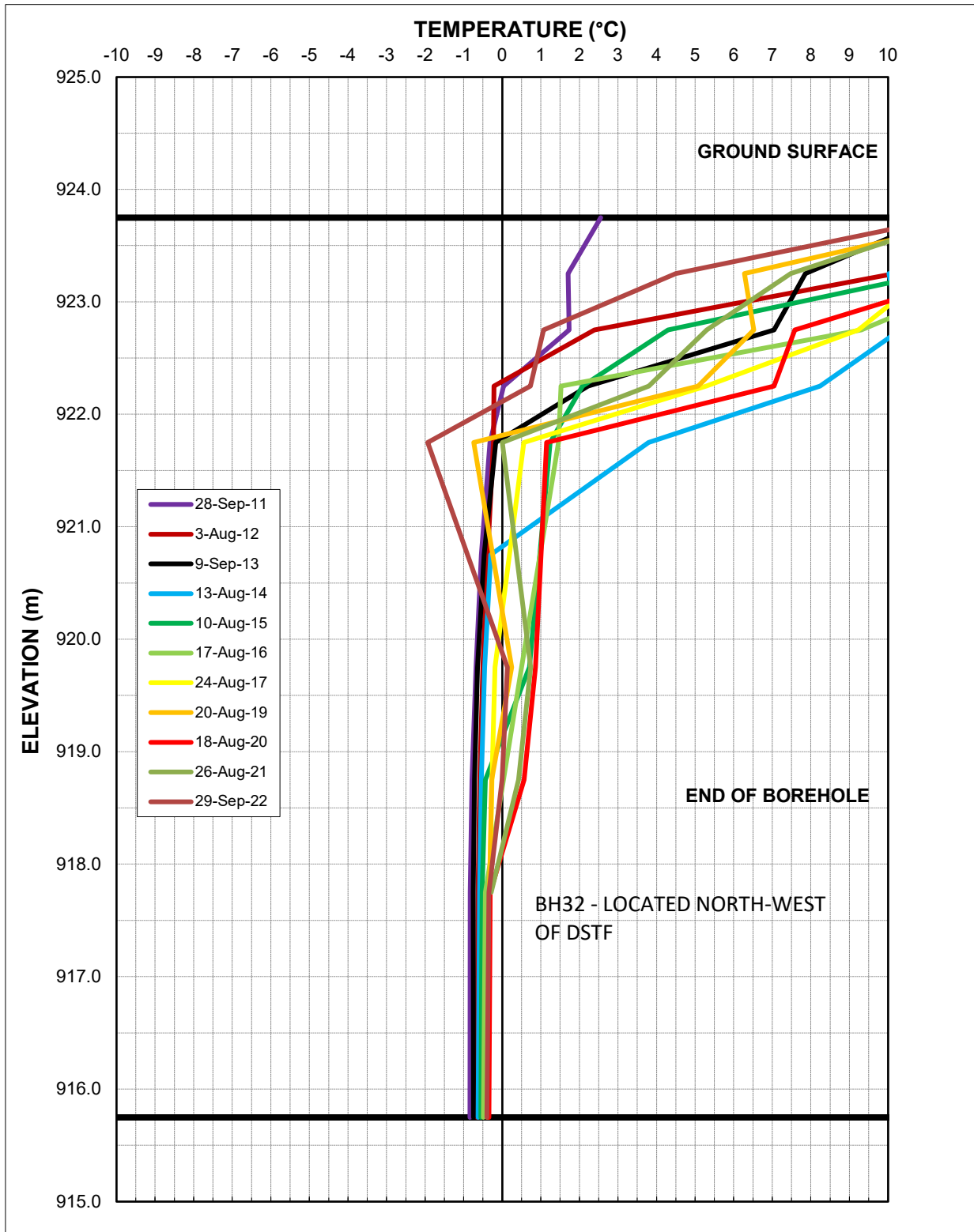
Install Date September 2, 2009
 Last Updated September 29, 2022
 Cable No: 2209

Ground Temperature Profile
Keno Hill District Mill Site Borehole BH18
Figure T3



Install Date February 22, 2011
 Last Updated September 29, 2022
 Cable No: 2263

Ground Temperature Profile
Keno Hill District Mill Site Borehole BH31
Figure T5



Install Date February 22, 2011
 Last Updated September 29, 2022
 Cable No: 2264

Ground Temperature Profile
Keno Hill District Mill Site Borehole BH32
Figure T6