2021 TDF Dam Safety Inspection Report

Myra Falls Mine Ltd.
Myra Falls Mine Tailings Disposal Facilities
Project # NX14001B3.1

Prepared for:

Myra Falls Mine Ltd.
P.O. Box 800, Campbell River, BC, V9W 5E2

Prepared by:

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31 March 2022

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Wood File #: Project # NX14001B3.1
31 March 2022

Nicole Pesonen
Environmental Superintendent
Myra Falls Mine Ltd.
P.O. Box 800
Campbell River, BC V9W 5E2

Re: 2021 TDF Dam Safety Inspection Report

Dear Ms. Pesonen,

Wood Environment & Infrastructure Solutions is pleased to submit the report of the Dam Safety Inspection of the tailings disposal facilities at the Myra Fall Mine. This Dam Safety Inspection report summarizes the performance and operations of Lynx and Old Tailings Disposal Facilities during 2021.

Sincerely,

Wood Environment & Infrastructure Solutions
a Division of Wood Canada Limited

Dixie Ann Simon, P.Eng.
Principal Geotechnical Engineer
Engineer of Record

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Executive Summary

This Dam Safety Inspection report (DSI) summarizes the performance and operations of two Tailings Disposal Facilities (TDFs) at Myra Falls Mine during 2021. The two TDFs are the Lynx TDF and the Old TDF.

Myra Falls Mine Ltd. (MFM), A Trafigura Group Company owns and operates the mine. Wood Environment & Infrastructure Solutions (Wood) prepared this report, in accordance with the requirements of the British Columbia Ministry of Energy, Mines and Low Carbon Innovation (EMLI). The following list provides the information to be included in the executive summary for facilities that impound water or saturated tailings as required by the Health Safety and Reclamation Code Guidance Document (EMLI, 2016).

a) Summary of Facility Description

Old TDF

The Old TDF is classified as a high consequence tailings dam in the post-operation, transition phase of its lifecycle. Construction of the dam started in the early 1980s based on designs created by Knight Piésold Ltd. The dam was built using upstream methods by hydraulically placing conventional cyclone overflow (fine) tailings from the outer embankment berm. The outer embankment was constructed of till and waste rock with an overall downstream slope of about 4H:1V. Cyclone underflow (coarse) tailings were used for mine backfill or hydraulically placed in an adjacent cell at the west end of the Old TDF, where the Old TDF Surge Pond is now located. In the late 1990s, Klohn-Crippen Consultants Ltd., (Klohn) was retained to assume the role of geotechnical engineering consultant for the TDF. Klohn identified that the tailings were susceptible to liquefaction, so between 1999 and 2013 a seismic upgrade berm was built around the outside of the outer embankment to improve the stability.

In the early 2000s it was determined that the Old TDF's outer embankment had reached its practical elevation limit. Two new internal cells were constructed on the tailings surface at a suitable setback from the outer embankment (Klohn 2001). Soon after construction of the new cells, the mine constructed a Paste Plant to produced thickened paste tailings. The two cells were then combined to form the Amalgamated Paste Area (APA), and the combined perimeter cell berm was designated the APA Berm (formerly called the Paste Berm). The APA Berm is constructed of well-graded waste rock with some coarse tailings sand inclusions in various areas. The APA reached its final elevation of 344 m in 2006.

Wood[1] has fulfilled the role of geotechnical engineering consultant and Engineer of Record (EOR) for the TDFs at Myra Falls Mine since 2006. Wood has designed and implemented several significant upgrades to the Old TDF:

- A review of the APA Berm indicated that it would deform significantly during a seismic event. Wood included a conceptual seismic stabilization plan for the APA berm in preliminary closure plans in 2011 and produced a detailed design of a toe berm in 2016. The toe berm was constructed in 2017.
- A review of the hydrology of the Old TDF indicated that the existing Lower Lynx Diversion Ditch (LLDD) was significantly undersized with respect to the Inflow Design Flood (IDF) from the upland terrain. A design for upgrade of the LLDD was prepared in 2015 and implemented in 2015/2016.

[1] Including predecessor companies: AMEC Earth & Environmental from 2006 to 2011 and AMEC Environment & Infrastructure from 2011 to 2014, each respectively a Division of AMEC Americas Limited, and Amec Foster Wheeler Environment and Infrastructure from 2014 to 2017).

- A review of the surface water hydrology of the Old TDF indicated that existing drainage structures within the facility were not sufficiently sized to convey the IDF from within the facility. A design for new decants, new culvert crossings under the Operations Spillway, a new lined channel in the West Strip, and a new Surge Pond were prepared in 2015 and implemented in 2015/2016.

A permit level closure cover design was prepared by Wood in December 2016 (Amec Foster Wheeler 2016f) and is currently in the process of permitting. A detailed design for Phase 1 of the work was prepared in 2018 (Wood, 2018b) and was authorized under a departure from approval, as the design was only slightly different from the theoretical design authorized in 2013.

Lynx TDF

The Lynx TDF is classified as a High consequence tailings dam in the Operations phase of its lifecycle. The facility was designed in the early 2000s by Klohn, and the starter dam was partially constructed when Wood assumed the role of geotechnical consultant. Tailings deposition in the facility started in 2008. Tailings are retained on the south by the Lynx Dam, and to the north by Lynx Pit walls and waste rock dumps. The Lynx Dam is a centreline earthfill dam that has been raised to a height of about 46 m with a crest elevation of approximately 373.5 m. It is a centerline dam in that the upstream section of the dam is partly supported by tailings. The embankment has a relatively wide, horizontal crest, with a total width of 16 m. Internally the dam consists of a vertical filter zone extending 6 m horizontal distance (i.e., 6 m filter zone width) downstream from the upstream crest. The filter zone is constructed of well-graded, fine-grained granular material (Zone J), which provides filter compatibility between the impoundment contents and the downstream shell. The downstream shell is constructed of well-graded, densely compacted, granular rock fill (Zone A). The upstream shell is built of a nominally compacted mixture of coarse- and fine-grained granular materials and boulders (Zone J or A) which interacts with tailings for overall support of the dam in the upstream direction. The facility design includes a paste beach against the upstream slope which to date has been successfully developed along the majority of the dam's upstream face.

Pond level in the facility is controlled by pumping. The facility has the capacity to store the Environmental Design Flood (EDF), a 24-hour storm event with a 1/200 Annual Exceedance Probability (AEP).
An operations spillway near the west abutment. The spillway is designed to safely pass the inflow design flood (IDF). The IDF for Lynx is 1/3 between 1/1000 AEP and Probable Maximum Flood (PMF).

b) Summary of key hazards

The key hazards to both tailings facilities, some of which are inherited from legacy designs, are:

- Tailings with high susceptibility to earthquake-induced liquefaction (Lynx Dam upstream and APA berm, which are partly constructed on tailings).
- High seismic hazard.
- High intensity precipitation or prolonged periods of precipitation. Snowmelt from higher elevations of the catchments area.
- Mountainous terrain above the facilities with associated terrain stability hazards including rock falls and debris flows.
- Waste rock dumps on slopes above the facilities that have been assessed as having factors of safety below recommended targets.
- Sulphide-rich potentially acid-generating (PAG) mine waste and tailings, and associated metal leaching and acid rock drainage impacted surface water and groundwater (not within Wood's scope).

For Lynx TDF, there are two additional key hazards:

- Potentially unreliable upstream water diversions across steep catchment areas.
- Flooding of the underground mine workings beneath the facility if the tailings facility breaches through the remnants of the crown pillar and underlying sand-filled stopes (not within Wood's scope).

Hazards associated with possible flow through the operations spillway as designed include:

- Spilling of mine-impacted waters to the environment (as intended by design for floods greater than the EDF).
- Moderate to severe erosion of the flow path from the terminus of the spillway towards Myra Creek, including in the mill laydown area, camp area, and Cookhouse Borrow.
- Damage to infrastructure such as the ore conveyor, buried infrastructure, fuelling station, lime silos, sand shed, cookhouse, and camp buildings (necessitating likely evacuation of site accommodations).
- Possible mobilization of potentially acid generating (PAG) mine waste along the flow path with deposition in Myra Creek.
- Possible transport of other contaminants from the mill laydown area such as hydrocarbons from the fuelling station.

The spillway hazards noted above occur at a very low probability. Spillway flow is not anticipated for flood conditions less than 1/200 AEP, and the design assumptions in determining EDF storage volume neglect existing controls such as drawdown in advance of a flood event.

c) Classification of dam(s) in terms of Consequence of Failure in accordance with Table 2-1 of the CDA Dam Safety Guidelines (2014)

The Old TDF and Lynx TDF have been classified as High Consequence dams. The classification is primarily because of the potential environmental consequences associated with release of tailings and mine waste into the hypothetical breach inundation area, which were interpreted by others to constitute a "significant loss or deterioration of important fish habitat".

Further details are available in Sections 2.3.2 and 2.4.2.

d) Summary of significant changes (e.g., construction, development downstream, etc.)

Dam raise construction work was carried out on Lynx TDF in 2021. A detailed discussion of construction work is included in Section 8.0. Major construction work of the TDFs included:

- Lynx dam crest was raised from an approximately 368.5 m to 373.5 m elevation.
- Lynx operations spillway was raised across the west arm of the Lynx Dam.
- Waste rock was removed from Waste Rock Dump 2 (WRD 2), Waste Rock Dump 3 (WRD 3), Waste Rock Dump 6 (WRD6) on the slopes above Lynx TDF to provide materials for dam construction.
- Paste tailings were deposited in the Lynx TDF to form a beach along the upstream dam face.

e) Significant changes in instrumentation and/or visual monitoring records

Performance of the Old TDF and Lynx TDF is assessed by visual inspections and monitoring instrumentation. Instrumentation includes piezometers for measuring pore water pressures, survey monuments for monitoring settlement and displacement and slope inclinometers for measuring internal deformation. The following changes to the instrumentation system occurred in 2021:

- Some vibrating wire piezometers (VWP) were temporarily disconnected from their transmitter (RStar) during construction.
- One RStar transmitter stopped working and was replaced January 2021.
- Fourteen (14) surface deformation monuments for the Lynx TDF were removed for construction in July 2021 and ten (10) were reinstated in September 2021 on the crest of the dam.
- The Old TDF surface deformation monuments have not been reinstated. A more robust method for firmly attaching the monuments to the dam surface is currently being investigated by MFM.

A detailed discussion of the instrumentation monitoring results is provided in Section 7.0.

Old TDF VWPs generally followed previously observed trends.

In 2021, piezometer readings with the foundation remained relatively stable except the seasonal spikes that occurred in Q1 and Q4. The threshold exceedances occurred in 2021 for piezometers installed within tailings where historical maximums were exceeded because of rising tailings and pond levels.

The following visual inspections were carried out as part of routine surveillance activities:

- Forty-nine (49) weekly inspections of the tailings facilities were reported to have been carried out by MFM personnel.
- Eight (8) monthly inspections were carried out by the Engineer of Record or delegate (Wood).
- A total of 57 inspections were carried out.

Visual monitoring indicates that both TDF dams continue to perform satisfactorily. Additional details regarding visual inspections are discussed in Section 6.0.

f) Significant changes to dam stability and/or surface water control

Material was removed from WRD 2 and WRD 3 on the slopes above Lynx TDF, which changed the established surface water flow, infiltration and discharge patterns for the area. The changes to surface water infiltration and discharge are still being observed but at the time are not considered to impact the safety of Lynx TDF.

g) Summary of review of the Operation, Maintenance and Surveillance (OMS) Manual

The OMS Manual was reviewed by Wood in March 2020. Subsequently, MFM reviewed and updated the OMS Manual in March 2021.

h) Summary of review of the Emergency Preparedness and Response Plan (EPRP)

The EPRP can be found in Section 9 of the OMS Manual. The EPRP section was reviewed and updated in March 2021.

i) Scheduled date for the next formal Dam Safety Review (DSR) in accordance with the Health, Safety and Reclamation Code for Mines in British Columbia (EMLI 2021) and the CDA Dam Safety Guidelines (CDA 2013)

A DSR should be carried out at minimum frequency of every 5 years as per EMLI 2021. The recent DSR was carried out in 2020 by Thurber Engineering Ltd. and was submitted to EMLI in March 2021 to meet regulatory requirements. The 2020 DSR recommendations are presented in Thurber (2021).

A formal DSR was completed for both tailings facilities in June 2016 by Tierra Group International Ltd. (Tierra). The previous DSR was completed in 2013 by Robertson Geotechnical Consulting Ltd. (RGC). These reviews were completed at a higher frequency than the minimum frequency recommended by EMLI (2021) or the CDA guidelines (2013). A summary tracking the status of recommendations from RGC and Tierra's reviews is provided in Section 10.1.

j) Summary of recommendations

The status of recommendations from previous DSIs and DSRs is provided in Section 10.0. Recommendations are provided in the table below based on 2021 engineering work with respect to operations, maintenance and surveillance for the TDFs:

Structure	Tracking Number	Deficiency or Non-Conformance	Regulatory Requirement or OMS Reference	Recommended Action	Priority (1)	Recommended Deadline/Status
Old TDF	2021-01	Erosion of seismic upgrade berm by concentrated surface water runoff.		Complete Phase 1 of the Reclamation/Closure plan and direct surface water runoff to the spillways for controlled discharge down the seismic berm slope.	3	Q3 2022
Old TDF	2021-02	Old TDF instrument Upgrades – The existing instrument network primarily was intended for monitoring pore pressures during construction and operation of the Old TDF There are no instruments in the foundation or in the tailings directly above the foundation. Instruments on some planes are sparse.		The existing instrument network should be evaluated with consideration given to long-term closure monitoring. Evaluate the existing network, assess coverage and develop a plan for upgrading the monitoring system. Assess need to replace the lost SI and/or install additional SIs.	3	Plan to complete by Q4 2022; installation after reclamation.
Old TDF/Surge Pond	2021-03	Sediments have encroached around the Surge Pond west decant.		Sediments should be removed from the Surge Pond.	4	Q3 2022
Old TDF	2021-04	A portion of the vertical grates have been dissolved due to rust at the Old TDF decant inlet.		Replacement of grates on Old TDF decants as needed for safety concerns or to prevent debris from entering the decant.	3	Q3 2022
Old TDF	2021-05	Accumulation of sediments around the Old TDF APA decants and, in and around the spillway culverts.		During the dry season, remove sediments that have accumulated.	4	Q3 2022

Structure	Tracking Number	Deficiency or Non-Conformance	Regulatory Requirement or OMS Reference	Recommended Action	Priority (1)	Recommended Deadline/Status
Lynx TDF	2021-06	El. 373.5 m dam raise crest tie in to the 10L portal is incomplete.		Backfill 10L portal and complete the 373.5 m raise in this area to the lines and grades shown on the drawings.	2	Q3 2022
Lynx TDF	2021-07	Suitable, permanent staff gauge not yet installed to measure pond levels.		Install a permanent staff gauge possibly on the rock face opposite the pumping area.	4	Q3 2022
Lynx TDF	2021-08	Surface grading near Panel 15 drain standpipe.		Grade the toe area of the Lynx dam such that water does not pond in and around the standpipe intended to monitor water levels in the Panel 15 Drain.	3	Q2 2023
Lynx TDF	2021-09	Lynx instrument upgrades and data gaps.		Assess existing operation instrumentation on Lynx given dam raises and instrument losses over the years.	3	Q2 2022

Priority levels are defined by EMLI (2016) as follows:

Priority Level 1. A high probability or actual dam safety issues considered immediately dangerous to life, health or the environment, or a significant risk of regulatory enforcement.

Priority Level 2. If not corrected, could likely result in dam safety issues leading to injury, environmental impact or significant regulatory enforcement, or a repetitive deficiency that demonstrates a systematic breakdown of procedures.

Priority Level 3. Single occurrences of deficiencies or non-conformances that [alone] would not be expected to result in dam safety issues.

Priority Level 4. Best Management Practice – further improvements are necessary to meet industry best practices or reduce potential risks.

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List of Acronyms and Abbreviations

AEP	Annual Exceedance Probability
APA	Amalgamated Paste Area
CDA	Canadian Dam Association
CGVD	Canadian Geodetic Vertical Datum
DDSD	Diversion Ditch Springs Drain
DSI	Dam Safety Inspection
DSR	Dam Safety Review
EDF	Environmental Design Flood
EMLI	British Columbia Ministry of Energy, Mines and Low Carbon Innovation
EOR	Engineer of Record
EPRP	Emergency Preparedness and Response Plan
FoS	Factor of Safety
HSRC	Health Safety and Reclamation Code
IDF	Inflow Design Flood
IWCE	IWC Excavation Ltd.
Klohn	Klohn-Crippen Consultants Ltd. (and predecessors)
LLDD	Lower Lynx Diversion Ditch
LLO	Low level outlet
MFM	Myra Falls Mine Ltd.
MOE	Ministry of Environment and Climate Change Strategy
NAD 83	North American Datum of 1983
OEL	Onsite Engineering Ltd.
OMS	Operation, Maintenance and Surveillance
PAG	Potentially Acid Generating
PGA	Peak Ground Acceleration
PMF	Probable Maximum Flood
RGC	Robertson GeoConsultants Inc.
TDF	Tailing Disposal Facility
Tierra	Tierra Group International Ltd.
UAV	Unmanned Aerial Vehicle
ULDD	Upper Lynx Diversion Ditch
UTM	Universal Transverse Mercator
VWP	Vibrating Wire Piezometer
Wood	Wood Environment and Infrastructure Solutions (and predecessors)
WRD	Waste Rock Dump
Bi-Monthly	Every Two Months

1.0 Introduction

This Dam Safety Inspection report (DSI) summarizes of the operations, maintenance, and surveillance of the Tailings Disposal Facilities (TDFs) at Myra Falls Mine during 2021. The Old TDF and the Lynx TDF are the two tailing disposal facilities at the site. Drawing 010702 shows the locations of the TDFs.

Myra Falls Mine Ltd. (MFM)[2], A Trafigura Group Company, owns and operates the mine. Wood Environment & Infrastructure Solutions (Wood) prepared this report.

1.1 Scope of Report

Regulatory reporting requirements for annual DSI reports require that the report addresses the calendar year and be submitted no later than 31 March of the following year. The scope of this report addresses the period spanning 1 January through 31 December 2021, which is referred to as the "reporting period". Information presented is based on observations made during site visits, analysis of instrumentation and monitoring data, reviews of construction activities and correspondence. The report generally does not address changes or conditions after the end of the reporting period.

Construction activities undertaken and completed in 2021 for which Wood provided designs and monitoring are documented under separate cover in the 2021 Construction Record Report (Wood, 2022a). A summary of construction activities related to the TDFs is provided in Section 8.0 of this report.

1.2 Annual Reporting Requirements

This report was prepared in accordance with the requirements of the British Columbia Ministry of Energy, Mines and Low Carbon Innovation (EMLI)[3] presented in the April 2021 "Health Safety and Reclamation Code for Mines in BC" (HSRC) and the July 2016 "Guidance Document – Health, Safety and Reclamation Code (HSRC) for Mines in British Columbia" (HSRC Guidance Document).

The numbered items required for the Annual DSI by Section 4.2 of the HSRC Guidance Document are found in the following sections of this report.

1. Executive Summary – precedes the Table of Contents.
2. Facility Description – Section 2.0 and Section 5.0 (also see Section 8.0 for summary of construction).
3. Identification of Engineer of Record (EOR) and TSF Qualified Person – Section 1.3.
4. Updated plan and representative cross sections – drawings appended to the end of the report.
5. Site Photographs – Appendix A.
6. Review of Climate Data – Section 3.0.
7. Water balance review and reconciliation – Section 5.0.
8. Freeboard and storage availability (in excess of the design flood) – Section 4.0.
9. Water discharge system, volumes and quality – Section 5.0 and the 2021 Monitoring Report for Effluent Permit PE-6858 submitted to the Ministry of Environment and Climate Change Strategy (MOE) (MFM, 2022a).

[2] Formerly Nyrstar Myra Falls Ltd. (NMF).

[3] Ministry of Energy, Mines and Low Carbon Innovation (EMLI), formerly referred to as Ministry of Energy, Mines and Petroleum Resources (EMPR).

10. Seepage occurrence and water quality – Section 5.0 and the 2021 Reclamation Report for Mines Act Permit M-26 submitted to EMLI (MFM, 2022b).
11. Surface water control and surface erosion – Section 5.0.
12. Instrumentation Review – Section 7.0 and Appendix B1 and B2.
13. Recommendations – Section 10.0.

1.3 Engineer of Record and TDF Qualified Person

The EOR and TDF Qualified Person for the tailings disposal facilities at the Myra Falls Mine are identified in Table 1-1. Roles and responsibilities of the EOR and TDF Qualified Person are defined in the HSRC Guidance Document (EMLI 2016).

Table 1-1: Responsible Persons

Function	Name	Company	Contact Information
Engineer of Record	Dixie Ann Simon, P.Eng.	Wood Environment & Infrastructure Solutions	dixieann.simon@woodplc.com 250-643-3410
TDF Qualified Person	Nicole Pesonen	Myra Falls Mine	nicole.pesonen@myrafallsmine.com 250-202-9468

2.0 Background and Facility Design

2.1 Elevation Datum and Coordinate System

The global coordinate system used for surface works at the mine is the North American Datum of 1983 (NAD 83) with coordinates projected to Universal Transverse Mercator (UTM) Zone 10 and the geodetic datum is Canadian Geodetic Vertical Datum (CGVD) 1928 and hybrid geoid model HTv2_0.

Before 2016 a local grid coordinate system (Mine Grid) was used for the site; where older data is referenced it has been converted from Mine Grid to UTM. Mine Grid distances are in meters but bearing and elevations are adjusted. Mine Grid north is on a bearing of approximately 48° relative to true north. Mine datum elevations are adjusted upwards by 3,047.518 m so that all values remain positive to the bottom of the underground mine. Mine datum and geodetic elevations do not overlap. The lowest topographic point near site is the surface of Buttle Lake at approximately geodetic elevation 222.5 m (Mine Grid elevation 3,270 m), whereas the highest point near site is Mt. Myra at geodetic elevation 1,810 m (Mine Grid elevation 4,857.5 m).

2.2 Historical Development

Prospecting began in the early 1900s, with the first industrial mine production in the 1960s and the development of the Lynx open pit. Most surface mining operations terminated around 1975, after which the underground development of the Lynx and H-W ore bodies commenced. During this period, the cyclone segregated sand fraction of the tailings was used as backfill in decommissioned underground workings, and the fine fraction of the tailings was deposited directly in the south end of Buttle Lake.

In the early 1980s the provincial government prohibited further tailings deposition to Buttle Lake due to concerns over water quality, resulting in the design and construction of the Old TDF. The Old TDF operated as the primary TDF between 1984 and 2008, with final deposition in 2009.

The Lynx TDF was built in the old Lynx pit area as the Old TDF neared its ultimate design life. The Lynx TDF first received tailings in 2008 and is currently the only active TDF on site.

Additional details on the design and operation of each facility are presented below.

2.3 Old TDF

2.3.1 Construction Summary

The Old TDF was designed by Knight Piésold Ltd. with a modified-centreline (upstream) constructed tailings dam in the early 1980s. Conventional cyclone overflow tailings in the Old TDF were hydraulically placed from the outer embankment, which was raised periodically by filling with till and waste rock on top of the upstream side of the previous berm and over the edge of the uncompacted tailings beach, achieving an overall dam slope of about 4H:1V. The Old TDF included two primary deposition cells: Area I and Area II.

Further investigations and stability analysis in the mid-1990s by Knight Piésold Ltd. and Klohn-Crippen Consultants Ltd. (Klohn), determined that the tailings had a high susceptibility to liquefaction, and therefore the Old TDF had a high probability of failure during strong seismic ground motion. Klohn was retained to design a seismic upgrade for the Old TDF and assume the role of geotechnical engineering consultant for the TDF. The Seismic Upgrade Berm was built between 1999 and 2013 to buttress the outer embankment.

In the early 2000s Klohn determined that the Old TDF's outer embankment had reached its practical elevation limit. Two new internal cells were constructed on the tailings surface at a suitable setback from the outer embankment (Klohn, 2001a). Soon after construction of the new cells, the mine constructed a Paste Plant to produced thickened paste tailings. The two cells were then combined to form the Amalgamated Paste Area (APA), and the combined perimeter cell berm was designated the APA Berm (formerly called the Paste Berm). The APA Berm is constructed of well-graded waste rock with some coarse tailings sand inclusions in various areas.

Wood[4] has fulfilled the role of geotechnical engineering consultant for the TDFs at Myra Falls Mine since 2006. Wood has designed and implemented several significant upgrades to the Old TDF:

- A review of the APA Berm indicated that it would deform significantly during a seismic event. Wood included a conceptual seismic stabilization plan for the APA berm in preliminary closure plans in 2011 and produced a detailed design of a toe berm in 2016. The toe berm was constructed in 2017.
- A review of the hydrology of the Old TDF indicated that the existing Lower Lynx Diversion Ditch (LLDD) was significantly undersized with respect to the Inflow Design Flood (IDF) from the upland terrain. A design for upgrade of the LLDD was prepared in 2015 and implemented in 2015/2016.
- A review of the surface water hydrology of the Old TDF indicated that existing drainage structures within the facility were not sufficiently sized to convey the IDF from within the facility. A design for new decants, new culvert crossings under the Operations Spillway, a new lined channel in the West Strip, and a new Surge Pond were prepared in 2015 and implemented in 2015/2016.

[4] Including predecessor companies: AMEC Earth & Environmental from 2006-2011 and AMEC Environment & Infrastructure from 2011 to 2014, each respectively a Division of AMEC Americas Limited, and Amec Foster Wheeler Environment and Infrastructure from 2014 to 2017).

The Old TDF is currently in the "Transition" phase of its lifecycle (between Operations and Closure-Active Care) as defined by the CDA mining dams bulletin (CDA, 2014). A permit level closure cover design was prepared by Wood in December 2016 (Amec Foster Wheeler, 2016f), and a detailed design for Phase 1 of the work was prepared in 2018 (Wood, 2018b), and is currently in the permitting process.

2.3.2 Dam Classification

The Old TDF is assessed as having a "High" consequence classification relative to criteria outlined in Table 2-1 of the CDA guidelines (CDA, 2013), based primarily to the potential environmental consequences associated with release of tailings and mine waste into the hypothetical breach inundation area, which are interpreted by MFM to constitute a "significant loss or deterioration of important fish habitat". This consequence classification was confirmed by MFM upon the completion of a dam breach inundation study (Amec Foster Wheeler, 2015a).

2.3.3 Key Design Criteria

Key design criteria for the Old TDF are summarized in Table 2-1.

Table 2-1: Old TDF Design Criteria

Aspect	Original Design Criteria	Updated Criteria[1]
Environmental Design Flood (EDF)	Based on 24-hour storm event Assume diversion functions 1/200 AEP, 24-hour storm event	Based on 24-hour storm event Assume diversion functions 1/200 AEP, 24-hour storm event
Inflow Design Flood	Based on 24-hour storm event Assume diversion failure Operations and Closure: 1/1000 AEP, 24-hour storm event	Based on 24-hour storm event Applies to both diversions and impoundment Operations, Transition, Closure-Active Care[2]: 1/3 between 1/1000 AEP and Probable Maximum Flood (PMF) Closure-Passive Care: 2/3 between 1/1000 AEP and PMF
Flood storage and freeboard	Operations: Dry in normal conditions Flood attenuation through storage Spillway flow if diversion ditch breaches Spillway flow if Environmental Design Flood exceeded Minimum 0.5 m freeboard	Operations, Transition: Dry in normal conditions Minimize water storage Spillway flow if EDF exceeded Minimum 1.0 m freeboard up to IDF

Aspect	Original Design Criteria	Updated Criteria[1]
	Closure: Dry cover, no flood storage or freeboard	Closure-Active Care and Closure-Passive Care: Dry cover, no flood storage or freeboard
Dam Stability (static)	Short term or temporary: FoS[3] ≥ 1.3 Long term, steady state: FoS ≥ 1.5	Short term or temporary: FoS ≥ 1.3 Long term, steady state: FoS ≥ 1.5
Dam stability (post-seismic)	Operations and Closure: Based on 50% of Maximum Credible Earthquake, PGA = 0.30 g M7.5 intraplate earthquake Post-seismic FoS ≥ 1.1	Operations, Transition, Closure-Active Care[2]: 1/2475 AEP, 0.55 g M9.0 subduction earthquake Closure-Passive Care: 1/2 between 1/2475 and 1/10000 AEP, 0.63 g M9.0 subduction earthquake Post-seismic FoS ≥ 1.2, post-earthquake

Note(s):

1. Updated criteria are derived from the updated CDA Guidelines and Mining Dams Bulletin (CDA 2013, 2014), revised EMLI requirements for 1.0 m minimum freeboard, MOE requirements for the EDF magnitude, and the updated seismic hazard assessment (Amec Foster Wheeler 2016b).
2. CDA Mining Dams Bulletin (CDA 2014) recommends that the higher "Closure – Passive Care" standards should be considered where it is anticipated that the "Closure – Active Care" configuration is expected to last decades or centuries if there are not sufficient resources on hand to address emergencies stemming from extreme floods or major earthquakes.
3. FoS: Factor of Safety.
4. Seismic design criteria are to be applied to normal wet-season operating water level conditions, and conversely hydrotechnical design criteria are to be applied in static conditions. The hydrotechnical and seismic design criteria constitute separate extreme loading conditions as defined in Section 5.0 of the CDA geotechnical bulletin (CDA 2007).

2.4 Lynx TDF

2.4.1 Summary

The Lynx TDF is retained by a U-shaped, centreline constructed, rockfill embankment dam across the low side of the Lynx open pit with its base at a minimum elevation of about 325.5 m. The dam was raised seven times, most recently in 2021 as described in Section 8.0. The current crest is at approximately elevation 373.5 m. The centreline remains at a fixed alignment during each raise and the downstream toe extends further from the centreline. The ultimate design crest height is planned to be elevation 382.5 m, about 9 m above the current crest. The south and west sides of the embankment are sloped at 2H:1V and the east side is at 4H:1V. The upstream buttress is sloped at 2H:1V. The embankment has a relatively wide,

horizontal crest, with a total width of 16 m at completion. Internally the dam consists of a vertical filter zone extending 6 m horizontal distance (i.e., 6 m filter zone width) downstream from the upstream crest. The filter zone is constructed of well-graded, fine-grained granular material (Zone J), which provides filter compatibility between the impoundment contents and the downstream shell. The downstream shell is constructed of well-graded, densely compacted, granular rock fill (Zone A).

The upstream shell is built of a nominally compacted mixture of coarse- and fine-grained granular materials and boulders (Zone J or A). The facility design includes a paste beach against the upstream slope which to date has been successfully developed along the majority of the dam's upstream face.

An operations spillway was raised in 2021, through the west arm of the dam to discharge the IDF. The design intent of the Operations Spillway is to allow release of water in events more extreme than the EDF (1/200 AEP, 24-hour event). The Operations Spillway was designed to safely convey water from within the impoundment to beyond the facility toe in order to preserve dam structural integrity with respect to erosion during a release of water.

The most recent the Lynx TDF designs can be found in the 2021 Lynx TDF Ultimate dam detailed design addendum (Wood 2020g) and the 373.5 m Lynx Dam Raise design (Wood, 2021f).

2.4.2 Dam Classification

The Lynx TDF is assessed as having a High consequence classification relative to criteria outlined in Table 2-1 of the CDA guidelines (CDA, 2019), based primarily to the potential environmental consequences associated with release of tailings and mine waste into the hypothetical breach inundation area, which is interpreted by MFM to constitute a "significant loss or deterioration of important fish habitat" (CDA, 2019). This consequence classification was confirmed by MFM upon the completion of a dam breach inundation study (Amec Foster Wheeler, 2015a).

2.4.3 Key Design Criteria

Key design criteria for the Lynx TDF are summarized in Table 2-2:

Table 2-2: Lynx TDF Design Criteria

Aspect	Original Design Criteria	Previous Criteria	Updated Criteria[1]
Environmental Design Flood	Based on 24-hour storm event Assume diversion functions 1/200 AEP, 24-hour storm event	Based on 24-hour storm event Assume diversion functions 1/200 AEP, 24-hour storm event: 303,000 m^3	Based on 24-hour storm event Assume partial function of the diversion ditches (Wood, 2020a). Separate storage values based on "dry season" and "wet season" climate data (Wood, 2019b) 1/200 AEP, 24-hour storm event: Wet Season: 226,000 m^3 total volume Dry Season: 91,200 m^3 total volume
Inflow Design Flood	Based on 24-hour storm event Assume diversions function effectively Operations and Closure: 1/1000 AEP 78,000 m^3 total volume Closure: PMF	Based on 24-hour storm event Assume diversions fail Operations, Transition, Closure-Active Care[2]: 1/3 between 1/1000 AEP and PMF Closure-Passive Care: 2/3 between 1/1000 AEP and PMF	Same as previous criteria
Flood storage and freeboard	Operations: Maximum 1 m water against dam crest in normal conditions Store IDF Minimum 0.5 m freeboard	Operations, Transition: Minimize water against dam crest in normal conditions Store EDF Minimum 1.0 m freeboard	Minimum 1.11 m freeboard at normal water level (Wood, 2019b) Minimum 0.3 m freeboard during passage of IDF (Wood, 2019d)

Aspect	Original Design Criteria	Previous Criteria	Updated Criteria[1]
	No spillway Closure: Not designed, presumed dry cover and spillway	Spillway required to route IDF Active and Closure-Passive Care: Minimize storage, clean water spillway	
Dam Stability (static)	Short term or temporary: FoS ≥ 1.3 Long term, steady state: FoS ≥ 1.5	Short term or temporary: FoS ≥ 1.3 Long term, steady state: FoS ≥ 1.5	Same as previous criteria
Dam stability (post-seismic)	Operations and Closure: Based on 100% or the Maximum Credible Earthquake, PGA = 0.60 g M7.5 intraplate earthquake Post-seismic FoS ≥ 1.3	Operations, Transition, Closure-Active Care [(2)]: 1/2475 AEP, 0.55 g M9.0 subduction earthquake Closure-Passive Care: 1/2 between 1/2475 and 1/10000 AEP, 0.63 g M9.0 subduction earthquake FoS ≥ 1.2, post-earthquake	

Note(s):

1. Updated criteria are derived from the updated CDA Guidelines and Mining Dams Bulletin (CDA, 2013, 2014 and 2019), wind/wave analysis to assess minimum freeboard (Wood 2019c), MOE requirements for the EDF magnitude, and the updated seismic hazard assessment (Amec Foster Wheeler, 2016b).
2. CDA Mining Dams Bulletin (CDA, 2019) recommends that the higher "Closure – Passive Care" standards should be considered where it is anticipated that the "Closure – Active Care" configuration is expected to last decades or centuries if there are not sufficient resources on hand to address emergencies stemming from extreme floods or major earthquakes.
3. Seismic design criteria are to be applied to normal wet-season operating water level conditions, and conversely hydrotechnical design criteria are to be applied in static conditions. The hydrotechnical and seismic design criteria constitute separate extreme loading conditions as defined in Section 5.0 of the CDA geotechnical bulletin (CDA, 2007).

2.5 Waste Rock Dumps

Additional information regarding the Waste Rock Dumps (WRD) for 2021 will be published in the forthcoming "2021 Annual Waste Rock Dump Report" (Wood, 2022b).

Four waste rock dumps are located above and adjacent to Lynx TDF. They are irregularly shaped with benches, over steepened slopes, and crossed by several active and abandoned roads. They were built between 1960s and 2015. Limited dumping plans or records exist.

WRD 2 is located on the upper slopes northeast of the Lynx TDF. Cut slopes in the dump are generally over steepened and marginally stable.

WRD 3 is located within the Lower Pit, northwest of Lynx TDF. It is divided into two zones: Zone 3A is located between 390 and 500 m elevation and Zone 3B is located between 320 and 390 m elevation. The face of Zone 3A had slope angles between 38° and 40° and contains some overhangs up to 5 m high.

Wood presented a stability review of the waste rock dumps in March 2016 (Amec Foster Wheeler 2016c) in response to a ministerial requirement. The stability review identified potentially low static and pseudo-static factors of safety and as a result, potential hazards to Lynx TDF related to the presence of the dumps above the facility. The initial report recommended following up the stability review with analysis and design of slope stabilization measures.

Wood (Amec Foster Wheeler, 2017b) completed a preliminary stabilization design for WRD 2, 3A and 3B. The stabilization design concluded that WRD 2 and WRD 3A must be removed, and that WRD 3B might contain tailings and therefore in order to meet stability requirements must also be substantially removed unless further investigation and analysis indicates that it is stable. A previously unknown as-built report "Myra Falls Tailings Facility, Lynx Tailings Relocation Program As-built Report" (Klohn, 2000), was discovered in 2019. This report indicates that the lower portions of WRD 3B were constructed using tailings relocated from the Cookhouse Borrow Area. The presence of these tailings confirms that WRD3B should be substantively removed in order to meet stability objectives.

Portions of WRD 2 and WRD 3 were removed in 2017, 2018 and 2019. Work to remove the dumps continued in 2020 and 2021 as described in Section 8.0.

3.0 Climate Review

The climate in the Myra Falls area is classified as Marine West Coast, based on the Köppen Climate Classification System (Government of Canada 1957). Weather patterns in the area are typical of the coastal regions of British Columbia. The climate at Myra Falls is characterized by a cool, wet season starting in September and extending until May and a warm, dry season starting in May and extending to September. Most winters are temperate in that they do not have prolonged periods of sub-zero temperatures; exceptions do occur, and some winters remain slightly below zero for extended periods. Most of the annual precipitation at the mine site falls in the wet season as rain, with occasional snow during the winter months. Snow is common at higher elevations between mid-fall and late spring, and so the hydrology of the surrounding natural streams typically includes a significant spring runoff component, usually peaking in late May to late June.

There is one automated weather station on site, located near the Camp. It records daily and hourly measurements of air temperature, relative humidity, wind speed, wind direction, rainfall and snow depth. The weather station is powered by a combination of solar panels and batteries.

3.1 Precipitation

Monthly precipitation totals and extremes are presented in Table 3-1 and Figure 3-1. Annual precipitation totals are summarized on Figure 3-2. Based on data collected between 1979 and 2021, the site has an average annual precipitation of 2,622 mm. The total annual precipitation recorded in 2021 was greater than average with 2,922 mm and was made up of 2,711 mm rain and 211 mm of snow water equivalent. It should be noted that snowfall values are estimated using recorded snow depth, with the assumption that snow density is equal to 10% of water density.

Table 3-1: Monthly Precipitation

Month	Monthly Total Precipitation (mm)	
	Historical Average [1]	2021
January	368	561
February	261	172
March	251	277
April	155	70
May	96	96
June	63	39
July	43	0
August	57	4
September	124	323
October	337	534
November	477	617
December	391	230
Total	2,622	2,922

Note(s):

1. Historical precipitation data was obtained from MFM from the former Powerhouse weather station from 1979 to 2014, from the Paste Plant weather station from 2015 to 2020 and the Camp weather station onwards).
2. Snow depth data was manually checked for erroneous values (large spike in snow depth). When one was observed, the hourly data for the day was calculated after the erroneous value was removed.

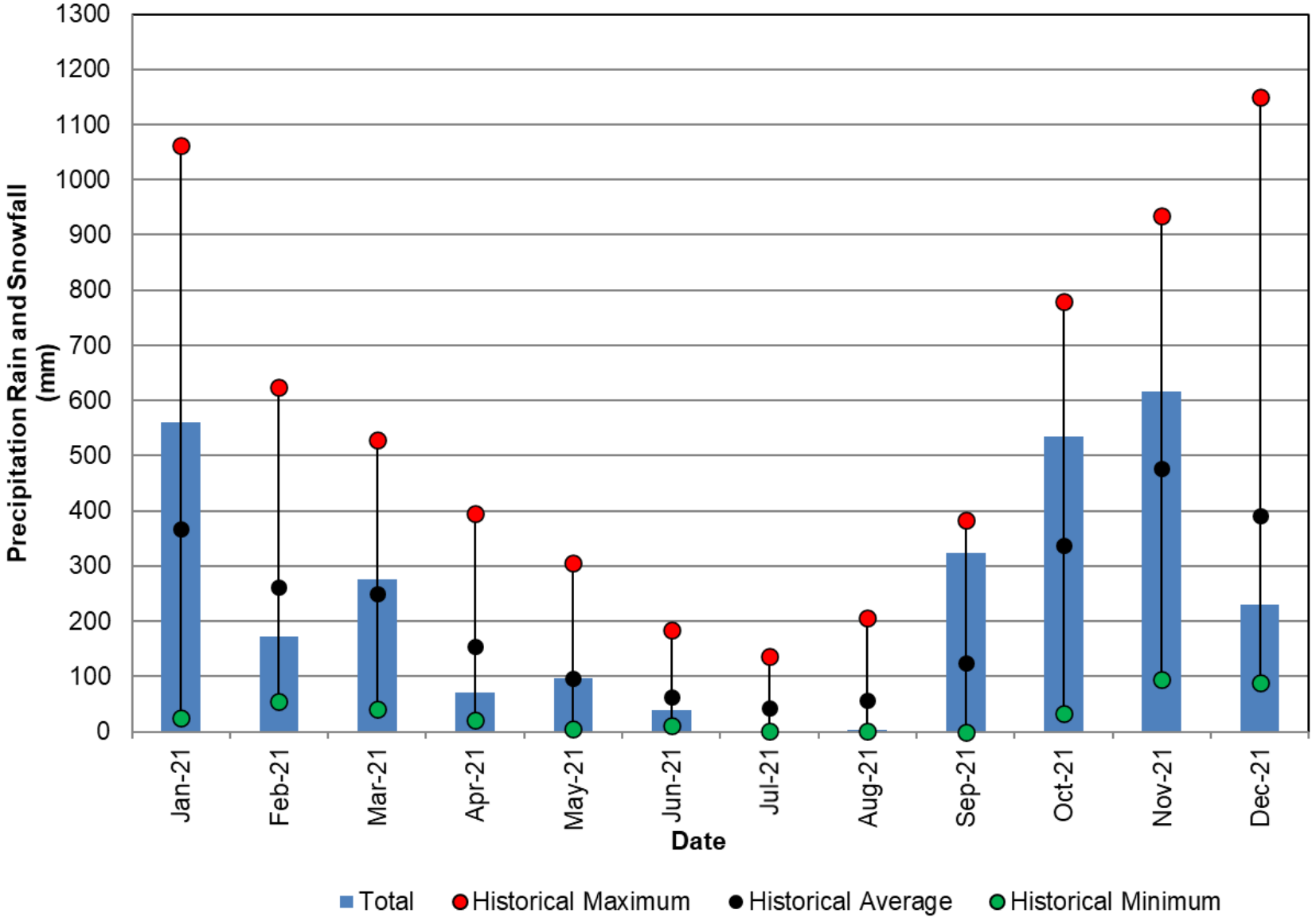

Figure 3-1: Monthly Precipitation Data

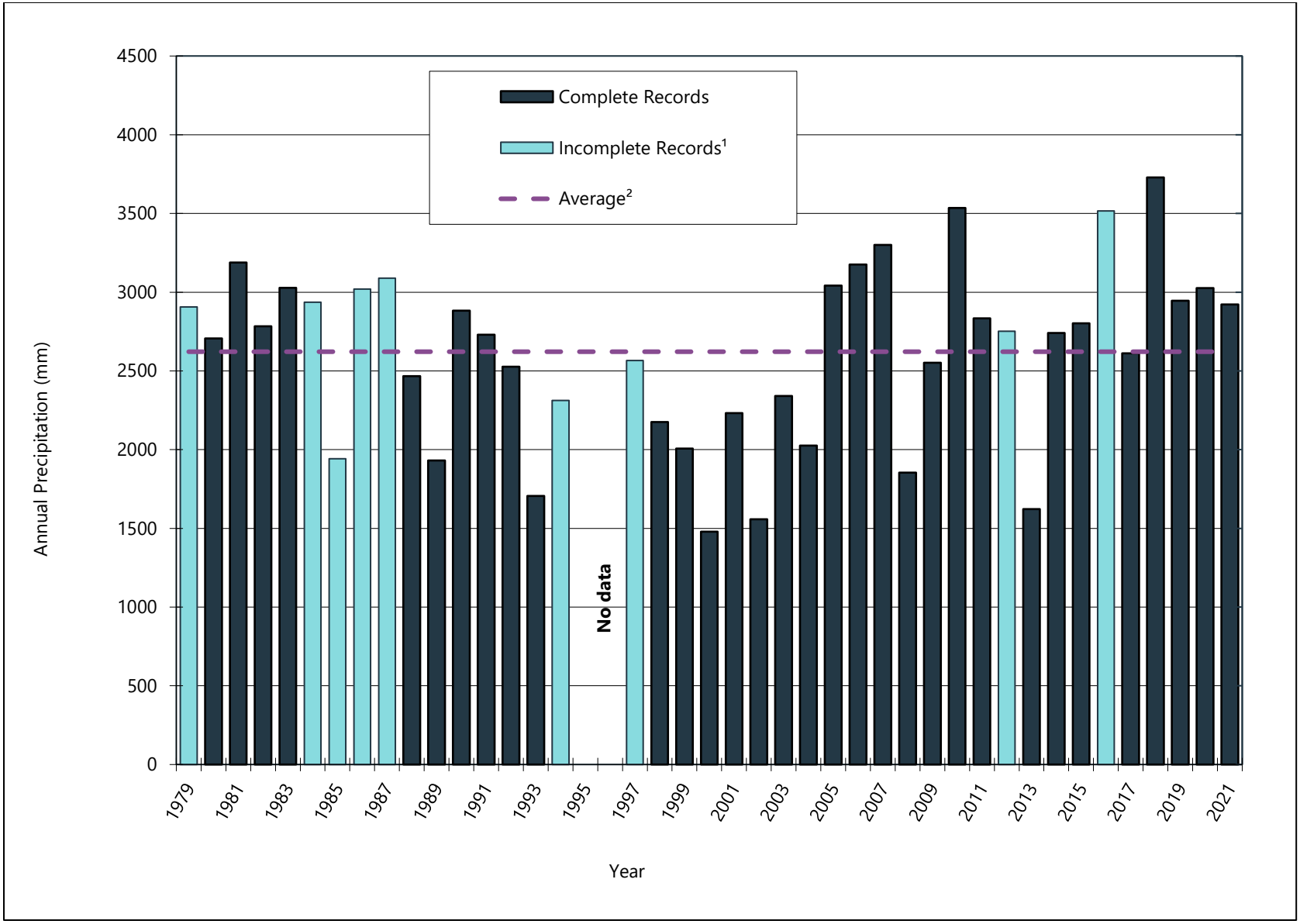

Figure 3-2: Annual Total Precipitation 1979-2021

3.2 Temperature

Monthly average temperature extremes for 2021 were recorded at the Paste Plant weather station and are compared to the historical data (2012 to 2021) in Table 3-2. The data indicates that most of 2021 had colder than average temperatures (January through May and September through December).

Table 3-2: Monthly Temperatures

Month	Historical averages (°C) (1)			2021 averages (°C) (1)		
	Daily Average	Daily Maximum	Daily Minimum	Daily Average	Daily Maximum	Daily Minimum
January	0.9	3.3	-0.8	0.8	3.0	-0.6
February	1.3	5.3	-1.1	-0.4	3.1	-2.3
March	3.7	8.8	0.2	2.4	7.7	-0.8
April	7.2	13.1	2.6	7.1	15.0	1.5
May	12.9	19.8	7.1	10.9	17.9	5.2
June	15.4	21.8	9.9	16.8	24.2	10.4
July	19.0	26.1	12.8	20.4	28.4	13.3
August	19.2	26.3	13.3	19.9	28.0	13.1
September	14.2	20.2	9.8	13.4	19.0	9.5
October	8.3	12.6	5.3	6.1	9.5	3.9
November	3.3	6.0	1.2	2.6	5.1	0.9
December	0.3	2.2	-1.4	-2.7	-0.5	-5.0

Note(s):

1. Temperature data provided by MFM, from the Paste Plant weather Station 2012 to 2021.
2. Values shown are averages of the recorded daily average, daily maximum, daily minimum temperatures.

4.0 Tailings Management

The mine site went into care and maintenance when milling operations and tailings production were suspended in June 2015 in order to upgrade various infrastructure on the site. Tailings deposited prior to 2015 were produced using a cycloning process to separate the mill tailings stream into fine and coarse tailings. The tailings stream was typically separated into approximately 55% coarse tailings and 45% fine tailings by dry mass. In general, the fine tailings were thickened by the Paste Plant and deposited in the TDFs; however, coarse tailings were used as underground backfill with excess stockpiled in the Reclaimed Sand Area (now the site of the Surge Pond) or used for construction. Details on how coarse and fine tailings were processed and stored are available in the 2016 DSI (Amec Foster Wheeler 2017c).

MFM commenced a restart of operations in 2018. Some tailings were deposited September 2018 and December when commission tests at the mill were conducted. Production milling restarted again in May 2019. The process changes during the upgrades included a change to the use of unfractionated tailings

for underground backfill, and accordingly the surface deposition strategy has been amended to use unfractionated tailings paste or cake. The upgraded Paste Plant is similar in design and function to the prior configuration and includes a gravity thickener, vacuum filters, mix tanks, and positive displacement pumps.

4.1 Old TDF Tailings Management

The Old TDF is in the Transition phase of its lifecycle (between Operations and Closure). The volume of tailings placed in the facility since 2009 is insignificant. The APA Berm is at its final elevation of approximately 344.0 m and has not been raised since May 2006. The tailings inside the APA Berm are at the maximum storage elevation of 342.0 m.

Survey data indicates the APA Berm is not subject to significant ongoing settlement or deformation; however, the sloping paste surface of the APA continues to be gradually eroded by surface runoff. The LiDAR survey of July 2015 indicated the erosion gullies were up to about 2 m deep and 6 m wide. An unmanned aerial vehicle (UAV) survey of January 2018 indicated the size of the gullies has increased to about 8 m wide.

The eroded material is ultimately deposited in low-gradient areas along the upstream side of the APA Berm, reducing the overall flood storage in the APA. Although storage has been reduced, the EDF can still be stored without overtopping of the Old TDF spillway. The reduced storage capacity results in higher water levels in the APA and subsequently higher flows to the Surge Pond through the East and West Decants. The Surge Pond spillway could become active at flows less than the EDF.

A UAV survey was completed in December 2020. An assessment of the grading required to re-establish design EDF water levels and to mitigate erosion of the paste going forward is in progress.

4.2 Lynx TDF Tailings Management

Historically Lynx TDF was filled primarily with fine paste tailings, with lesser amounts of bulk coarse tailings, construction waste, sludge from the water treatment ponds, and fines from sump cleanouts. The facility was originally designed with a central paste deposition point near the pit highwall and tailings sloping down towards the dam. Fine paste tailings were discharged from the Springs Drain platform near the north pit wall at an approximate elevation of 353.5 m. Operational difficulties in the Paste Plant during the final year of deposition prior to suspension of mining operations necessitated deposition of partially thickened tailings from the Paste Plant thickener as a slurry at about 50% solids by total mass. The slurry filled the lower areas of the paste surface at a nearly level grade.

The period of care and maintenance resulted in the primary usage of Lynx TDF being to store dredgate (dredge spoils) from the mine's treatment ponds. The dredgate consists of treatment pond slimes resulting from the chemical processes in the treatment system and of sediment that is conveyed into the treatment ponds from around the site, including tailings eroded from the APA. The dredgate gradually flooded the original paste stack such that the entire impoundment deposition surface in the facility was nearly level.

Amendment of the design in 2015 (Amec Foster Wheeler, 2015c) changed the deposition plan from a single point discharge at the northeast side of the facility to distributed discharge from the dam crest in order to form a paste beach. Reasons for the change are outlined in the design update reports (Amec Foster Wheeler, 2018a and Wood, 2020f) but are principally related to moving the supernatant pond away from the dam fills. The paste beach has since been developed around the majority of the dam perimeter with the exception of the northern portion of the west area (in the vicinity of the pumps). MFM is now focusing paste deposition such that a complete beach develops.

4.2.1 Material Deposition in Lynx TDF

Deposition of whole tailings (paste) occurred in 2021 at multiple discharge points from the dam crest, primarily along the east and south arms of the dam. Paste consistency has improved from previous years. As a result, the issues related to a beach surface that was somewhat flatter than planned have been resolved.

4.2.2 As-Built Storage and Raise Requirements

The OMS Manual for Lynx TDF stipulates quarterly tailings surface surveying and capacity verification, which were suspended in 2018 due to lack of tailings deposition. Quarterly surveys resumed in 2019 with the resumption of tailings deposition and were continued in 2020. Five (5) paste surveys were carried out in 2020: March, June, July, August and October. Three (3) tailings surveys were carried out in 2021: January, June and September.

Construction work in 2021 raised the Lynx Dam crest to an elevation 373.5 m, with spillway invert at 372.25 m. MFM tracked the reduction in available storage in the TDF during the year by comparing the surveys taken during 2021.

The estimated volume remaining in the TDF between the September 2021 tailings surface and the lowest point on the 373.5 m raise operations spillway crest (372.25 m) was approximately 617,700 m^3, of which 226,000 m^3 was required for EDF storage leaving 263,000 m^3 for tailings deposition (assuming free water volume remains relatively constant). The volume comparison is approximate as the facility contained a shallow but unknown depth of water at the time of the survey and the survey identified the water surface, rather than the tailings bed.

Under normal operations MFM would project to deposit approximately 20,000 m^3 of tailings into the TDF each month. In 2021, deposition in the TDF decreased as MFM had diverted more paste underground to backfill mine workings. The TDF storage capacity appears to be sufficient at the time of this reporting. However, to allow construction of the outstanding upstream bench of 373.5 m raise and future dam raises using the centreline dam construction method, the tailings beach elevation will require increasing, by further deposition in the TDF. Ongoing evaluation of the TDF storage will be required in order to consider potential changes of backfill throughput to the underground.

5.0 Water Management

The mine's water management system has two main purposes:

1. Divert non-contact water around the surface workings, waste rock dumps, and tailings facilities and convey the water directly into Myra Creek.
2. Capture contact water including surface runoff and pumped water from mine-affected areas and convey it to the water treatment system for release to Myra Creek.

The water management system consists of a series of diversion ditches upslope of the mine area, storage within the tailings facilities, various pumping systems, decant structures, and a series of treatment ponds. MFM monitors the treated water for water quality.

The following sections provide a brief description on the configuration and performance of the pertinent aspects of the water management system. For a detailed account of water quality monitoring results and objectives, the reader is referred to the MFM's annual reports: "Nyrstar Myra Falls - Annual Reclamation Report 2019" (Nyrstar, 2020) and "2019 Surface Water and Groundwater Monitoring Report, Nyrstar Myra Falls" (Robertson GeoConsultants Inc., 2020) submitted to MOE.

For a detailed account of site water balance under peak demand, see Wood's previous water management report (AMEC, 2008a). The site-wide water balance was updated in 2020 by RGC as part of the Site-Wide Geochemical Model Update.

5.1 Non-Contact Water

The main diversion ditch system is located on the north side of the valley and collects non-contact runoff water from the three primary drainage areas upslope from the mine site. Drainage areas for the mine are shown on Drawing 010714. The main diversion ditch system consists of three ditches:

1. Arnica Diversion Ditch, which flows east to west above the Lynx TDF into Arnica Creek.
2. Upper Lynx Diversion Ditch (ULDD) which flows from west to east above the Lynx TDF and into a natural unnamed stream, locally referred to as "Cascade Reach".
3. Lower Lynx Diversion Ditch (LLDD) which diverts Cascade Reach and runoff from the hillside above the Old TDF from west to east along the north upstream edge of the Old TDF and into Myra Creek downstream of the Pumphouse 4 Bridge.

Formal inspections of the diversion ditch system are typically carried out on a quarterly basis, and more frequently during and immediately after significant storm events. Inspection of the LLDD is carried out during MFM's weekly inspections. Inspection reports are included in Appendix C. Typical maintenance activities have included removal of fallen trees, rocks or debris from the ditches, and minor repairs to the LLDD lining.

5.1.1 Arnica Diversion

The Upper and Lower Arnica Reach functioned as intended through the reporting period. Specific concerns outside of normal maintenance items were not observed.

Erosion was observed in the Upper Lynx Diversion at the transition between Upper Arnica and Lower Arnica ditches during the April 2019 inspection and is described in the section below.

5.1.2 Upper Lynx Diversion

The ULDD functioned as intended during the reporting period. Specific concerns were not observed.

The road connection from the South Runaway Lane on WRD 2 to the ULDD access trail was re-established. It had been removed during 2017 construction activities on the dump. The trail forms a secondary access to the ULDD and therefore the trail and connection from WRD 2 should be maintained.

During the April 2019 inspection, erosion was observed in the Upper Lynx Diversion at the transition between Upper Arnica and Lower Arnica ditches which has damaged the geomembrane liner beyond functionality. The ditch would still function to divert peak flows, but low flows are likely to escape via groundwater to the Lynx Upper pit. MFM inspected the transition regularly during 2021. Their reports and photographs document that it was functioning as intended.

5.1.3 Lower Lynx Diversion

MFM completed repairs of the damage to the liner in 2019. No further damage was observed during Wood's 2021 inspections.

MFM inspected the LLDD regularly during 2021. Their reports and photographs document that it was functioning as intended through the reporting period.

5.1.4 Old TDF - Seismic Upgrade Berm

The original design intent for water management of the Old TDF Seismic Upgrade Berm area is for distributed runoff over the clean fill cover directly into Myra Creek.

Following the completion of the Seismic Upgrade Berm in 2013 there have been some observed areas of ponded water on the relatively flat surface of its main bench. The Seismic Upgrade design assumes that the buttress remains unsaturated. Ponding water on top of the buttress potentially increases local infiltration and could reduce stability conditions, and therefore potentially represents a departure from the design. The 2013 Construction As-built Report recommended grading the surface of the seismic upgrade berm at a minimum of 2% towards Myra Creek to reduce ponding. Wood proposed a regrading design in the Old TDF Closure Cover Phase 1 Detailed Design (Wood, 2018b). The proposed regrading will direct surface runoff from the 6:1 slope and main bench areas through a central drainage swale towards the main drainage channels, which will convey surface water down to Myra Creek. Longitudinal profile slope gradients in the swales are a minimum of 1% towards the main channels.

Work to remedy ponding on the Seismic Upgrade Berm was completed in 2018, and only relatively minor ponding was noted during subsequent inspections. This condition should be continually monitored, and additional grading complete when necessary to maintain good surface drainage and minimize erosion.

5.1.5 Lynx TDF Area

The Lynx TDF is fully within the contact water portion of the site and as such does not have non-contact water.

5.2 Old TDF Contact Water

The Old TDF receives water from the following sources:

- Release of porewater from within the tailings mass during long-term consolidation.
- Precipitation on the impoundment area.
- Groundwater flux into the facility.
- Discharge from the LLDD sub-drainage system.

The release of water due to the long-term consolidation of the tailings in the APA and the Strip is considered negligible in the current surface water balance (as the consolidation of these areas is functionally complete with respect to measurable settlements). Precipitation is, therefore, the largest source of water to the Old TDF (about 1 million m^3 per year) and the influx of groundwater is an important secondary source (about 5 to 10 L/s or 160, 000 m^3 per year of additional flow to the sub-surface) (RGC 2014b). Shallow groundwater flows are significant with respect to the contaminant load balance for this area of the site. Shallow flows also affect surface water management when it flows to the Strip Area at the toe of the east abutment of the APA Berm.

The LLDD subdrain system drains water to the north side of the APA where it then flows across the tailings surface to either the east or west decant. The total volume of water reporting to the tailings surface from these drains is not known. The drains have typically been observed to be dry since installation in 2016, except during peak runoff events where three of the drains have been noted to flow “full”, estimated to be on the order of 20 L/s each.

Water leaves the Old TDF by surface drainage and subsurface drainage into the underlying aquifer. The Inner and Outer Drains collect sufficient groundwater to capture most of the subsurface geochemical load. Some groundwater bypasses the drains and flows down the valley in the underlying aquifer.

Groundwater flows in the Inner and Outer Drains report to the treatment system via Pumphouse 4. Further discussion of flows to groundwater and the Old TDF under-drains is provided in RGC (2014a) and was incorporated into the Interim Site-Wide Closure and Reclamation Plan that was submitted in July 2014 (RGC, 2014c).

The current water management system is designed to convey flows from the various internal catchments to the Surge Pond up to the IDF. Flows from the Surge Pond up to 1/1000 AEP are routed to the treatment system. Flows in excess of 1/1000 AEP, up to the IDF, would be discharged to Myra Creek through the Surge Pond Emergency Spillway.

Key water management issues encountered in the Old TDF during the reporting period are discussed in the sections that follow.

5.2.1 Amalgamated Paste Area

The APA is configured as an internal impoundment cell containing a paste stack that slopes up at about 5% from the APA berm to the toe of WRD6 or the hillside. New decants were constructed in 2016 in the impoundment's southeast and southwest corners. Approximately the western two-thirds of the surface drain to the West Decant at the southwest corner, from which it is routed through a pipeline to the Surge Pond. The eastern third of the surface drains to the East Decant, from which it is routed through a pipeline to the East Strip area. A single pond will form between the decants across the length of the APA during peak runoff events or in the event that the decants have reduced functionality or become blocked.

The old decant structure was the single means of passive drainage in operational conditions until 2016 when the East and West Decants were constructed. It is located near the new West Decant, and previously conveyed water through a pipeline directly to the treatment system inlet ditch. The portion of the old decant pipeline passing below the APA berm was to be decommissioned by grouting in 2017; however, equipment failures during the grouting operation resulted in only the downstream end of the section being grouted, as described in the 2017 DSI (Amec Foster Wheeler, 2018b). The upstream end of the pipe and the decant tower remain unfilled. Further work has been recommended to complete decommissioning of the old decant.

A shallow pond is typically present in the southeast corner of the APA during the wet season and has been associated with seepage at the toe of the APA Berm. The APA Buttress project included measures for reducing the permeability of the upstream face of the APA Berm, providing additional filtration on the downstream face, and included a continuous drainage layer from the East Decant to the east abutment. The drainage layer includes 3 outlets and discharge of seepage from the outlets is generally observed during the wet season.

5.2.2 TDF Strip and Old TDF Surge Pond

Water levels in the Strip Area were generally at normal levels during the reporting period. During the Wood inspection in October 2021, minor bubbling was observed within the Strip, approximately 5 m east of the APA spillway. The cause of the bubbling is unknown but is thought to be through a buried pipe reportedly present in the area that was damaged during maintenance activities. Monitoring of the area by MFM has continued and no increase in activity has been reported.

Contact water flows west from the East Strip, through 3 parallel culverts below the APA Operations Spillway, and through the geomembrane-lined West Strip Channel into the Old TDF Surge Pond.

The Surge Pond is lined with HDPE geomembrane to reduce the infiltration of water through the tailings and into the underlying aquifer and assist with sediment removal during maintenance. The design includes an underdrainage system below the liner to reduce the potential for liner uplift when the pond is empty. Discharge from the subdrain outlet piping has not been observed to date.

The design for the Surge Pond assumes a normal operating water depth of about 2.5 m to promote sedimentation in order to reduce the volume of eroded tailings or other sediments reporting to the treatment system. The pond has approximately 1 m of freeboard below the lip of the spillway during normal operations. A concrete decant tower is located at the west end of the Surge Pond. The tower has a large orifice to control flow during normal operations and has a low-level outlet (LLO) gate valve that can be opened to lower water levels to within 0.5 m of the bottom of the deepest part of the pond for maintenance or inspection.

Operating the pond at the design water level provides the intended degree of surge attenuation and optimizes sedimentation within the Surge Pond. Operating the pond drawn down to the LLO greatly increases the potential surge attenuation capacity until the upper orifice becomes active. A which time an open LLO results in increased flow and high sediment loading to Super Pond. Reportedly, operating with the LLO open has resulted in non-compliance. As such, the Surge Pond is operated with the LLO closed. Both management strategies (LLO open or normally closed) are safe from a dam management perspective.

A field review in summer 2018 identified that the LLO gate valve had been severely damaged by corrosion. The corrosion damage has eroded the seating surfaces of the valve body and gate and prevents full closing of the valve. A stainless-steel plate was suspended over the LLO on the outside face of the decant tower as a temporary measure until a new valve can be installed. The plate was mostly effective, and the pond operated at or near design normal operating water levels throughout the reporting period.

5.2.3 Diversion Ditch Spring Drain

The Diversion Ditch Springs Drain (DDSD) was constructed in August 2016 to capture and convey seepage water from a large spring at the APA Berm east abutment. The seepage water is thought to originate as overflow from the valley sidewall within the natural talus adjacent to the Old TDF. Flow from the spring has only been observed during periods of intense peak runoff. The DDSD consists of a high permeability capture and conveyance zone upstream of the APA Berm which discharges to the east end of the East Strip. The high permeability zone is isolated from the adjacent APA tailings and APA Berm fills by a filter sequence and was constructed using non-PAG materials to reduce the potential for water contamination within the drain.

MFM inspections reported that the DDSD functioned as intended in 2021.

5.3 Lynx TDF Contact Water

The Lynx TDF operates as an open-ended system with several unquantifiable inputs and outputs and therefore does not have a detailed water balance that is kept current. The facility water management design basis is focussed on management of short duration peak runoff events, and operational water management requires maintenance of a relatively small pond during normal operating conditions.

The Lynx TDF receives water from the following four sources.

- Release of water from tailings or waste materials deposited as paste or slurries upon initial deposition (can be significant: from raw tailings, paste plant thickener underflow, or from treatment pond dredgate slurries).

- Additional release of porewater from within the tailings mass during long-term consolidation (insignificant compared to other sources).
- Precipitation on the impoundment and catchment area (potentially the single largest source, and the most variable).
- Groundwater flux into the facilities (potentially significant).

The Lynx TDF dam design assumes that the dam fill is relatively permeable such that significant porewater pressures do not develop. The design does not include a core, as the tailings are of relatively low permeability and the exposure of the dam is limited to the inundated upstream face. A filter zone is provided to prevent tailings migration through the dam. As such the facility should generally be operated with as little water in contact with the dam face as practical. Transient flood storage is within the stated operating rules, with the maximum storage being approximately 226,000 m^3 associated with a 24-hour duration EDF event for the annual/wet season. The EDF storage requirement for the dry season is 91,200 m^3.

Under normal operating circumstances, ponded water either infiltrates around the periphery of the facility (into the pit walls or the dam) or is pumped from the facility and discharged into the treatment system. Pumping capacity varies with the season but is typically provided by one diesel pump with a capacity of 0.08 m^3/s (1,200 gpm). Additional diesel pumps with capacities varying from 0.07 to 0.16 m^3/s (1,200 to 2600 gpm) are deployed if necessary.

The operating guidance is to consider taking Lynx TDF pumping offline during times when heavy precipitation threatens to cause flows to the treatment system that exceed its capacity. The facility is designed with sufficient freeboard to store the full volume of the 24-hour EDF above the maximum normal operating water level before spillway flow would commence. The excess water above the maximum normal operating water level should be pumped to the treatment system as soon as the treatment system is capable of sustaining the flow. Maximum normal operating water level (NOWL) is established with each quarterly UAV survey (subject to tailings production rates and mill shut-downs).

The following sections detail specific water management items for Lynx TDF during the reporting period.

5.3.1 Lynx Dam Toe

A temporary sump was constructed at the toe of Lynx dam near panel 13/14 in 2017. The sump was constructed with the intention for it to collect water that drains from the Panel 15 toe drain sump and surface runoff from the downstream dam face; however, MFM reports that water has not collect in the sump since it was constructed. The temporary sump is within the footprint of the 373.5 m dam raise. The temporary sump will be replaced with a more robust, yet still temporary sump located outside the footprint of the dam. Water levels in the sump will be monitored and a permanent system installed when the Lynx toe ditch is constructed. The Lynx toe ditch will be constructed after the dam has reached the ultimate design elevation and vegetation has been established on the closure cover.

5.3.2 Lynx Springs Drain

A significant bedrock source of groundwater was uncovered in 2011 near elevation 352.5 m on the east side of the Lynx TDF, below WRD2. Capture and conveyance of the spring is essential to the long-term stability of the Lynx TDF surface, particularly during closure conditions (AMEC, 2013). The Lynx Springs Drain is designed to convey the spring water out of the facility by gravity drainage. Construction of a portion of drain up to Sta. 0+263 was carried out in 2014, 2017 and 2018. Construction of the concrete sump box and 650 mm pipe between the sump box and Manhole 2 were carried out in 2019. The Lynx Springs drain has been essentially complete since 2020. All that remains to be constructed is the sump

box outlet channel that will eventually direct Lynx Springs Drain flows to Myra creek (vs Super Pond) should water quality meet direct discharge criteria.

The Lynx Springs Drain functioned as intended during 2021. Two vibrating wire piezometers (VWPs) were installed in the portion of the drain built in 2017. The piezometers currently are not reporting to a data logger. Wood is in the process of updating wiring diagrams for instruments and data loggers.

5.3.3 Sinkholes in the Tailings Surface

Multiple sinkholes (also referred to historically as depressions) in the tailings surface have been observed during the Lynx TDF operations between 2008 and 2021. These depressions varied in size and location. Most of the sinkholes/depressions have disappeared during ongoing tailings deposition in the TDF.

One of the sinkholes has repeatedly formed in the paste surface near the north corner of the Lynx TDF. The sinkhole is near the midpoint of the north end of the facility, roughly equidistant from the northeast highwall, the tailings beach against WRD3B, and the west abutment of the Lynx Dam. It was first observed in the spring of 2012 and has been persistent, re-forming after being covered with fresh tailings or pond dredging material. It has been surveyed on several occasions and the diameter ranges from about 10 to 15 m and the horizontal location appears to migrate slightly over time within a consistent general location. The area is observed weekly by MFM and bi-monthly by Wood, and the presence or absence of this sinkhole is noted, and photographs are taken. The recurring sinkhole was observed during parts of the reporting period but has not apparently changed in location or size. No new depressions or sinkholes on the tailings surface were observed by Wood or reported to Wood in 2021.

Formation of the sinkhole is likely the result of internal erosion of the tailings by downwards groundwater flow, presumably into the underground workings. Current assessment suggests that the erosion is occurring at the base of the tailings from other groundwater sources, and that the overlying tailings are settling into the resulting void space. Drainage from surface through the depression sinkhole is not evident nor suspected as it does not appear to change in response to pond levels and obvious signs of flow towards the sinkhole have not been observed to date.

Groundwater flow paths involved with any sinkhole or depression formation in Lynx TDF are likely complicated and could involve exposed stopes, intercepted drifts, manways, ore passes, mill holes, exploration drill holes, natural joints, or manmade fractures in the pit walls. Survey data and mine records indicate that this sinkhole overlies 12-Level stope, which is directly below the base of the Lynx TDF and was partly exposed during removal of the crown pillar. MFM indicated that entry into the underground mine below the facility for the purposes of investigation of the sinkhole is not safe as the area has not been maintained in decades.

This sinkhole is distant from the dam. Risks to dam safety include upstream instability should the tailings suddenly flow into the underground creating the potential for a rapid draw down situation. Internal erosion of the tailings into the underground presents a potential long-term issue relating to stability of the tailings surface and may influence closure cover designs. Accordingly, Wood has provided preliminary recommendations for mitigation of the sinkhole to be considered at or before closure planning for the final configuration of the impoundment.

MFM and Wood will continue to actively monitor the occurrence and conditions of tailings sinkholes or depressions during routine inspections. Photographs will be taken from key vantage points to document the condition of the tailings surface as well as the presence or absence of the recurring sinkhole at the time of the inspections. MFM will notify Wood of new sinkholes observed during their weekly inspections.

5.4 Other Contact Water Management

In other areas of the mine site where runoff, seepage, and other flows are potentially impacted by acid rock drainage, these flows are collected in various sumps and ditches and directed to the treatment system. Around the tailings facilities, these areas include waste rock dumps, haul roads, and the dam shells. Flows are directed to the treatment system by a combination of ditching, pumping and decants.

5.5 Water Treatment

The water treatment system is based on mitigation of low pH water to reduce the solubility of dissolved metals. Lime is added in mixing tanks at the inlet of the treatment system at the head of the Super Pond. The Super Pond is the primary settling pond, after which the treated water flows through six additional polishing ponds to improve water clarity. The locations of the Super Pond and the Polishing Ponds are shown on Drawing 010702. The various aspects of the water treatment system are inspected monthly by MFM personnel. The details of the operation and performance of the water treatment system including water management inspection reports by MFM are summarized in MFM's annual reports to EMLI and MOE for 2019 (MFM 2020) (Robertson GeoConsultants Inc., 2020). Wood prepared a 2019 DSI report for the Super Pond and the Polishing Ponds under separate cover (Wood, 2020d). This DSI does not report on dam safety conditions for the treatment system ponds. A dam safety review for the ponds was completed in 2021 (Wood, 2021e).

6.0 Dam Inspections

6.1 Inspections by MFM

Visual inspections of the Lynx and Old TDFs are carried out as part of ongoing monitoring activities. Inspections are routinely conducted or event-driven, following flooding or an earthquake. Routine TDF inspections were carried out weekly by MFM during most of the year and on a monthly basis if the site is covered in snow. The LLDD is inspected weekly with the upper diversions inspected quarterly.

Visual inspection reports are included in Appendix C. The reviews are based on visual inspection of the following:

- The Lynx TDF for active areas of paste deposition, the location, extent, and clarity of ponded water, and the function of the sump pump.
- The APA, Strip, and Surge Pond areas for the extent and clarity of ponded water and the function of the decant in each area.
- The Lynx TDF, Old TDF APA Berm, OEB, and Seismic Upgrade for surface erosion, settlement, depressions, cracks, bulges, and signs of seepage.
- The diversion ditch for flow rate, obstructions (slumps, fallen trees, etc.), and damage to lined areas.
- Any other anomalies or changes for any of the above structures.

MFM reported forty-nine (49) inspections between 08 January and 21 December 2021. Forty-three (43) of the inspections were documented with a written report and photographs. Six (6) of the inspections were documented with reports only. The site files contained photographic documentation of the inspections. MFM inspections are not always completed on weeks when Wood is performing their inspections however, in general, the observations in MFM inspection reports are consistent with those made by Wood during bi-monthly inspections. A summary table of MFM observations and the complete inspection report records are presented in Appendix C.

6.2 Inspections by Wood

The EOR or designate inspected the Old TDF, Lynx TDF, and diversion ditch systems on a bi-monthly basis during the reporting period as outlined in the OMS. Conditions are observed in and around the facilities, with emphasis on water management, dam stability, and seepage conditions. Wood personnel met with MFM staff during the inspection site visits to discuss any concerns relating to the facility operation. Wood carried out eight (8) inspections in 2021. Dam inspection summaries are presented in Appendix D. Where applicable, the outstanding actions are referenced to the recommendation's summary in Sections 10.1 and 10.2 of this report.

7.0 Instrumentation Monitoring Results

Instrumentation for monitoring performance of the Old TDF and Lynx TDF includes piezometers for measuring pore water pressures, deformation monuments for tracking dam deformation and slope inclinometers (SI) for measuring internal deformation. This section presents a summary of the instrumentation network and the observed data. A summary of the instrumentation status is provided in Appendix B1. A summary of instrumentation data for 2021 and an instrumentation summary report of Q1 of 2021 are provided in Appendix B2.

Data is received and reviewed by Wood on a typically quarterly basis or as needed. Monitoring data includes:

- Rainfall and temperature records (refer to Section 3.0).
- Vibrating wire piezometer readings.
- Deformation monument surveys.

Wood and MFM also carry out surveys of the slope inclinometer casings twice per year, typically in Q2 and Q4.

Quarterly reporting of instrumentation monitoring results by Wood was halted after Q1 of 2021. Wood continued to carry out periodic instrumentation data review (on a quarterly basis at a minimum) and communicated the findings of the data review with MFM through emails or oral discussions.

The piezometers and weather station are connected to an automated network. The automated network records data at frequencies varying between hourly and daily for various piezometers. The maximum readings for each week of the monitoring period were processed for review.

Some individual components of the automated network have occasionally malfunctioned resulting in some of the data recordings not being completed per the schedule outlined in the OMS. Before Q2 of 2021, the extent of missing data and its causes have been summarized in each quarterly instrumentation review. The causes are now summarized within the annual DSI report. Causes of data loss are varied but mainly stem from solar charging and power supply issues. Progressive steps have been implemented to troubleshoot the system, improve its reliability, and reduce the occurrence of missed data records.

7.1 Old TDF Monitoring

The Old TDF instrumentation monitoring results and modifications to the instrumentation network during the reporting period are summarized in this section.

7.1.1 Piezometers

The Old TDF piezometer network comprises:

- VWPs under the outer embankment berm and in the upper tailings beach along instrumentation planes A and C (data collected in Hut A and Hut C).
- VWPs located below the base of the APA Berm (data collected in Hut B).
- VWPs in the APA Berm fill, foundation tailings and soils, divided between instrumentation Planes 1 through 6.
- VWPs in the paste tailings, in the southeast corner of the Amalgamated Paste Area.
- VWPs at the base, southeast slope toe and east slope crest of the Old TDF Surge Pond.
- TDF Surge Pond, installed during the 2016 Surge Pond East Slope Site Investigation.

The configuration of the Old TDF piezometer network is shown in plan and profile on the attached Drawings 010703, 010704, 010705, 010706 and 010707. The majority of the piezometers monitor porewater pressures within the tailings with the exception of two (2) VWPs that were installed in the underlying foundation soils.

Thresholds for the Old TDF piezometers were developed in 2016 based on limit equilibrium stability models (Amec Foster Wheeler, 2017a). Four threshold levels were established for each piezometer based on changes to static and post seismic FoS within the model relative to varying porewater pressures. The stability model is based on groundwater pressure assumptions that average general spatial trends seen in the monitoring data; however, some of the piezometers typically report trends that vary from the general trend. For this reason, some of the piezometers routinely exceed their respective thresholds. A review of the stability models to refine the thresholds was carried out in 2021 to improve the pore pressure monitoring (Appendix E). New thresholds were included in the 2021 piezometer data table which is presented in Appendix B.

Thresholds are developed in relation to each piezometer; however, most of the piezometers on a plane would need to meet or exceed the threshold level in order to develop the associated reduction in FoS. Wood reviews the exceedances in detail on a quarterly basis. Individual exceedances are not considered as dam safety issues provided the monitoring data falls within prior patterns, given that the generalized spatial model was developed on the basis of the overall dataset.

Pore pressures recorded during the reporting period generally showed similar seasonal trends consistent with previous years. Pressures have been relatively higher in winter with readings decreasing towards summer and fall seasons. The lower pressure readings have typically occurred in August to September. The 2021 pressure readings were within the thresholds that were updated in 2021.

Work to repair, review and inspect the instrumentation network was completed throughout the year. This work is summarized in the instrumentation status table in Appendix B1 and the quarterly reports in Appendix B2.

7.1.2 Deformation Monuments

Deformation monuments are installed on the crest of key embankments of the Old TDF to monitor horizontal and vertical movements. Monuments are installed on the APA Berm, Outer Embankment Berm and the outer crest of the Seismic Upgrade Berm as shown on Drawing 010708.

Survey of the deformation monuments were not completed in 2020 and 2021 because of the poor condition of monuments identified in 2018. The monuments could be easily moved by hand with only very slight force applied. The survey methodology includes resection and accordingly the observed deformations are interpreted to be an error with surveying related to unstable prism mountings. MFM is currently evaluating options for a more robust method of securing the deformation monuments to the dam structure, in order to get better coupling of the prism to the ground surface.

7.1.3 Slope Inclinometers

Two (2) slope inclinometer casings are installed in the Outer Embankment Berm of the Old TDF and identified as BH15-32 and BH15-35. Profile surveys of the casings were performed in July and October 2021. Significant displacements were not observed. A brief summary is presented below:

- BH15-32 – Two surveys were conducted on 10 July and 16 October. The readings show movement to the upstream direction since November 2020, indicating inconsistent trends of movement direction, which may be due to system accuracy or casing compression or buckling. No visible zones of shearing were observed.
- BH15-35 – One survey was conducted on 10 July. The readings followed historical trends with no visible zones of sharing. Maximum movement to downstream direction had been about 2 to 3 mm since November 2020 on the portion near surface, which may be due to system accuracy or casing compression or buckling. A second survey was attempted on 16 October; however, the slope inclinometer probe became lodged deep within the casing and attempts to retrieve the probe have been unsuccessful. The second survey was deemed incomplete.

Cumulative displacement plots from the slope inclinometers are shown in Appendix B3.

7.2 Lynx TDF Monitoring

The Lynx TDF instrumentation monitoring results and modifications to the instrumentation network during the reporting period are summarized in this section.

7.2.1 Deformation Monuments

Surface deformation monuments were re-established along the Lynx Dam in December 2019 with a new baseline reading. In 2021, all monuments along the crest were surveyed each month up until the end of June and beginning of July. All 14 existing monuments were removed during construction activities between July and September 2021. Ten (10) monuments along the crest were re-established in the middle of September after completion of dam crest raise.

Position data and calculated cumulative displacements in the traverse (i.e., perpendicular to the dam alignment), longitudinal (i.e. parallel to the dam alignment) and vertical directions are presented in Appendix B3 in tabulated form. In general, the majority of the cumulative displacements and settlements between the initial survey and the last, are less than the calculated error of the survey equipment.

The maximum recorded cumulative magnitude of movement was 82 mm from April 2021 to September 2021 from monument Lynx20-14. After the post construction re-establishment, the maximum recorded magnitude of movement was 43 mm from September 2021 to December 2021 from monument Lynx20-05. The maximum recorded magnitude of settlement was 57 mm from September 2021 to December 2021 from monument Lynx20-05.

7.2.2 Piezometers

The Lynx TDF piezometer network consists of:

- VWPs along the upstream toe of Lynx Dam.
- VWPs in Lynx Dam core and downstream buttress fill.
- VWPs in the foundation soils within the Lynx Dam ultimate footprint.

The VWPs that were installed within the paste tailings are no longer functional.

Piezometer installation details are found in the reports: 2011 Paste Investigation (AMEC 2012), 2014 Lynx Foundation Investigation (Amec Foster Wheeler 2015b), 2015 Lynx Supplemental Drilling (Amec Foster Wheeler 2016a) and Lynx Starter Dam 2019 Site Investigation (Wood 2019f).

The configuration of the network is shown on Drawing 010709. Cross-sections along Instrumentation Planes D, E and F are provided on Drawings 010711, 010712 and 010713. The Lynx piezometer levels are influenced by seasonal precipitation and generally follow a repeatable trend through the wet and dry season cycle. Pressure levels during the dry season (typically April to September) are typically near zero in the dam fills and shallow foundation and stabilized at the minimum level of the Myra Valley aquifer in the deep foundation. Pressure levels are highly influenced by precipitation trends in the wet season. The sensitivity to precipitation trends varies amongst the piezometer groups depending on their location, with the response in the deep aquifer being the strongest, and the response in the dam fills being only minor amounts of perched groundwater pressure as precipitation percolates through the dam shell. Porewater pressures in the tailings gradually increase over time as the pond surface increases with deposition and shows moderate response relative to precipitation and pond level fluctuations in the wet season.

The monitoring thresholds for Lynx TDF were updated in November 2020. Limit equilibrium stability models were used to assess the effect of increased pore water pressures on calculating target FoS. Static stability analyses were conducted for the downstream slope. The thresholds were prepared based on the current dam geometry at the time (2019 crest elevation of 365.1 m and ongoing 2020 dam raise with a crest elevation of 368.5 m with additional downstream raise at 351 m). Overall, the FoS had been improved from the previous thresholds.

Notification and trigger thresholds for Lynx TDF were developed based on stability modeling and a review of the historic records. The notifications and triggers are intended to flag potentially changed conditions, and piezometer data should be reviewed in detail if a notification or trigger occurs.

A notification level A1 was established at the lower of the pore water pressure S1 which is associated with lowering the FoS below 1.5, or the maximum previous recorded level for the piezometer. A select number of piezometers were also assigned S2 and S3 trigger levels where plausible elevated pore water pressures could lower the FoS below 1.3 and 1.1.

The thresholds should be reviewed after each raise and the OMS revised appropriately. The thresholds should also be reviewed if piezometric data indicates significant changes to the average or maximum measured pressures have occurred.

Pore pressures recorded during the reporting period generally showed similar seasonal trends consistent with previous years. In 2021, piezometer readings with the foundation remained relatively stable except the seasonal spikes that occurred in Q1 and Q4. The threshold exceedances occurred in 2021 for piezometers installed within tailings where historical maximums were exceeded because of rising tailings and pond levels. The readings increased by about 2 m in VW17731, VW17727 and VW17728. No S1 to S3 exceedances were recorded during 2021.

The pond level in the Lynx facility is controlled by pumping and varied during operations. The pond level is monitored by MFM during routine inspection and was measured at elevations from 362.6 m to 363.03 m in October to November 2021.

Work to repair, review and inspect the instrumentation network was completed throughout the year. This work is summarized in the piezometer status table in Appendix B1.

7.2.3 Slope Inclinometers

Three (3) slope inclinometer casings are located on the crest of Lynx TDF. One was installed in 2015 in borehole BH14-08A and extended during the dam raise in 2019. Two (2) were installed in 2019 in boreholes BH19-01 and BH19-04, through the dam crest. The locations of the inclinometers are shown in plan and cross-section on the attached drawings.

Each of the three slope inclinometer casing profiles were surveyed between July 10 and 15, 2021 when the Lynx dam crest was still at El. 368.5 m.

BH14-08A readings previously indicated that movement was in the upstream direction. The July 2021 readings show movement in the downstream direction for the zone located at approximately 10 m to 15 m below the crest (El. 358.5 to 353.5 m). Readings have been in the order of 20 mm since November 2020. The profile displacement followed historical trends. The movement is interpreted to be caused by deformation in relation to vertical and horizontal consolidation settlement of the upstream side of the dam. Settlement of this nature is considered typical for a centreline-raised tailings dam and does not pose a concern based on the slow rate and relatively minor amount of deflection that has been observed.

BH19-01 readings show upper portion downstream rotation with respect to the base of the slope inclinometer, with a maximum displacement of about 25 mm on the surface since November 2020. The strain is negligible for a 40 m height of rockfill material. No visible zones of shearing were observed at this SI to date.

BH19-04 readings from July indicate downstream displacement of about 25 mm and 6 mm at approximate depths of 5 m to 35 m, respectively. The strain is negligible for a 45 m height of rockfill material at this SI location. No visible zones of shearing were observed at this SI to date.

Cumulative displacement plots from the slope inclinometers are shown in Appendix B3.

8.0 Summary of Construction

Details of construction activities on site are provided in the 2021 Construction Record Report (Wood, 2022a). An overview of construction activities is provided in the following subsections. Significant construction work included:

- Completion of the Lynx dam raise crest to elevation 368.5 m.
- Construction of the Lynx dam raise crest to elevation 373.5 m (except for upstream bench to be constructed in stages).
- Construction of the Lynx operations spillway to invert elevation 372.25 m.
- Construction of the Lynx additional downstream shell to elevation 346 m.
- Construction of the closure cover trials.

Activities carried out by Wood included preparing designs, providing field review, monitoring construction, and conducting geotechnical quality control and quality assurance. Construction monitoring staff included junior geotechnical engineers and a senior engineering technician/technologist from Wood.

Bi-monthly inspections were completed by senior geotechnical engineers from Wood, who also supervised the construction monitors, reviewed weekly reports, and responded to information requests from MFM. Furthermore, construction and construction management along with procurement services were carried out by MFM while surveying was provided by Mifflin Surveys Ltd. of Campbell River, BC.

Wood was not involved with other construction activities that occurred during the time in which Wood personnel were on site. For example, design oversight and record reporting related to the mill, underground, site infrastructure, treatment ponds, Lynx ore chute and removal of WRD3 were completed by others and are not documented in this report.

Wood personnel were on site full time during construction to perform the following:

- Reviewing and approving subgrades prior to fill placement.
- Monitoring of fill placement for appropriate material gradation, moisture content, and removal of deleterious inclusions.
- Monitoring appropriate lift thickness, compaction, and adequate scarification between lifts.
- Assessing lift compaction by observing proof rolling.
- Collecting samples of fill materials from borrow sources and placed fill for laboratory gradation testing.
- Liaising with site supervisors and operators.
- Preparing weekly reports and assembling photographic records as the work progressed.

8.1 Lynx Dam Raise

Work on the Lynx dam was completed between 07 April and 31 October 2021. Construction activities are summarized briefly below.

Construction of upstream shell extension began on 02 July 2021 when the average elevation of the tailings beach had reached 363.5 m. The beach surface was leveled by placing tailings in low lying areas and compacting using an excavator bucket. The coarse tailings provided a stable pad for workers to walk on to place the heavy weight geotextile. The geotextile was placed over the current upstream shell bench and extended out approximately 7 m onto the tailings beach. An excavator was used to cover the geotextile with an approximate 0.5 m thick layer of Zone A rockfill material followed by the second lift of Zone A rockfill material after waiting 5 days for excess porewater pressure to dissipate.

The upstream shell bench continued to be raised with 0.5 m lift thicknesses in stages, dependent on the tailings beach elevation. The upstream shell elevation was at 366 m by end of October 2021. Until the tailings beach elevation reaches 368 m, the average elevation difference between the beach and the upstream bench should not exceed 1.0 m.

Following the extension of upstream bench in July 2021, the remaining upstream part of the previous years Lynx dam crest raise to elevation 368.5 m was completed. Subsequently, the crest was raised from approximately 368.5 m elevation to 373.5 m elevation. The crest surface was reviewed prior to placement of new material, which included a proof-roll test with a loaded 30 or 40 tonne haul truck. Following review, the surface was scarified by moving dozer tracks in a twisting motion prior to placement of the next lift.

During the raise 8 to crest elevation 373.5 m, the filter (Zone J) shifting continued until the filter zone is center on the dam crest. The purpose of the filter re-alignment is to move the upstream edge of the filter zone out of the projection line of future incremental upstream shell raises so the full filter width can be established prior to the completion of the upstream shell raise. For each lift, the surface was scarified, and Zone J/Zone A material placed and compacted in 0.5 m lifts.

The existing filter located along the eastern abutment intersection with WRD 1 was raised from approximately 368.5 m to 373.5 m elevation. The filter zone is approximately 15 m wide and 100 m long, extending from the Zone J dam crest filter to a bedrock outcrop adjacent to WRD 1. The purpose of the filter is to prevent migration of the tailings into WRD 1 and manage seepage into the downstream ponds. Prior to placement of Zone J material, each lift was scarified by moving dozer tracks in a twisting motion. Zone J material was placed in 0.5 m thick lifts and track packed using a Komatsu D85 dozer.

The additional downstream shell, comprised of Zone A, was raised to approximately 346 m elevation.

Zone A Fill materials were sourced from WRD 2, WRD 6, Portal Philips Reach Stockpile, crusher stockpiles, APA stockpiles. Zone J fill materials were sourced from WRD 6, WRD 3, APA stockpiles and suitable material from foundation excavations.

8.2 Foundation Preparation

The dam foundation zone is divided into 15 panels nominally 50 m wide, with Panel 1 at the west abutment and Panel 15 at the southeast dam corner. Most work for the preparation of the dam foundation was completed to ultimate dam toe in June of 2020 to allow for greater flexibility in design plans for future years. Hence, during 2021 Raise 8 construction, foundation preparation was only required in Panel 2, Panel 3 (near the operations spillway extents), and a small portion near the west abutment and the east abutment. Foundation approval forms were completed for these areas by the construction monitor.

8.3 Lynx Springs Drain

No construction for the Lynx Springs Drain occurred in 2021. The construction was completed in 2020 (Wood, 2021a).

8.4 Lynx Operations Spillway

The Lynx operations spillway construction was completed between 20 July and 30 October 2021 as detailed in the 2021 construction record report (Wood, 2022a). The average elevation of the as-built concrete barrier forming the spillway crest invert elevation was 372.25 m. A summary of the spillway construction is listed below:

Spillway Inlet and Crest

- Excavation of side slopes to about 6H:1V.
- Installation of 12 concrete median barriers across spillway at crest of downstream slope.
- Placement and compaction of 0.2 m thick fine filter material.
- Placement and overlapping of geomembrane. Geomembrane was wrapped over the top of the median barriers on the downstream side. Geomembrane was left with overhang on the upstream side until the upstream shell can be raised to an elevation where it can be tied in. Overlap was done with the waterflow direction in mind, with the bottom sheet closest to the downstream. The overlap was approximately 1 m between sheets of geomembrane.

- Placement and overlapping of geotextile. Geotextile was wrapped over the top of the concrete median barriers on the downstream side. Geotextile was left with overhang on the upstream side until the upstream shell can be raised to an elevation where it can be tied in. Overlap was done with the waterflow direction in mind, with the bottom sheet closest to the downstream.
- Placement of Class 25 kg riprap over the geotextile.
- Placement of coarse filter gravel over the riprap to build an access road across the spillway.

Spillway Channel

- Placement and overlapping of geotextile layer.
- Placement of bedding gravel over geotextile.
- Placement of Class 500 kg and 1000 kg riprap as specified on drawings.

9.0 Review of Operation Documents

9.1 Operation, Maintenance and Surveillance (OMS) Manual

The OMS Manual was reviewed and updated by MFM in March 2021. Wood provided comments on the previous update in April 2020. The OMS Manual includes dam safety requirements for the Old TDF and Lynx TDF facilities.

9.2 Emergency Preparedness and Response Plan (EPRP)

The EPRP summary can be found in Section 9 of the OMS Manual. The EPRP was reviewed and updated by MFM in March 2021.

MFM Emergency Procedures indicate that once an emergency situation has been declared, the site will utilize established response practices and procedures. These form the core of the Emergency Management Program, comprised of these separate manuals: the Emergency Preparedness Plan, the Emergency Response Plan, the Emergency Communications Plan, the Environmental Emergency Response Plan, the Tailings Facility Emergency Response Plan and Mine Shutdown Emergency Procedures.

These documents provide the detailed action plans and the notification procedures and should be the primary source of response protocols in the event of an emergency.

Wood has not reviewed these documents during 2021.

9.3 Dam Safety Review (DSR)

A DSR should be carried out at minimum frequency of every 5 years as per EMLI 2021. The recent DSR for the tailings facilities was carried out in 2020 by Thurber Engineering Ltd. and was submitted to EMLI in March 2021 to meet regulatory requirements. The 2020 DSR recommendations are presented in Thurber (2021).

A formal DSR was completed for both tailings facilities in June 2016 by Tierra Group International Ltd. (Tierra). The previous DSR was completed in 2013 by Robertson Geotechnical Consulting Ltd. (RGC). These reviews were completed at a higher frequency than the minimum frequency recommended by EMLI (2021) or the CDA guidelines (2013). A summary tracking the status of recommendations from RGC and Tierra's reviews is provided in Section 10.1.

10.0 Summary of Recommendations

10.1 Previous Recommendations

Outstanding recommendations discussed in the 2020 Dam Safety Inspection Report are provided in Table 10-1. The table indicates what action has been taken with respect to the recommendations and the status of each item in terms of priority from both dam safety and mine management/planning perspectives.

Recommendations that were indicated in the previous report as completed have been omitted from the table. A complete table of recommendations is provided Appendix F.

Table 10-1: Summary of Previous Recommendations

Structure	Tracking Number	Previous Recommendation	Update	Status/Priority
2013 Dam Status Report (AMEC 2014a)				
Old TDF	2013-11	Additional grading should be undertaken on any remaining areas of the main bench of the Old TDF Seismic Upgrade Berm where water continues to pond. Surface water should be redirected such that erosion on the slope of the Seismic berm is minimized.	Ponded water continued to be observed on the seismic upgrade berm in 2018. Berm regrading began during Winter 2018/2019. Relatively minor water ponding observed in 2019 and 2020. Additional grading is detailed in the Old TDF Closure Phase 1 detailed design (Wood 2018b). Revisions to Phase 1 are currently underway by Wood in 2022.	In Progress Priority 3
2013 OLD TDF DSR (RGC 2014a)				
Old TDF	2013-19	Expedite closure planning and construction of approved closure works.	Permit-level closure cover design developed in 2016 by Amec Foster Wheeler (2016s). This design was not approved and is scheduled to be revised/resubmitted for permitting in 2021/2022. Old TDF Closure Phase 1 detailed design was prepared in 2018 by Wood (Wood 2018b). Revisions to Phase 1 are currently underway by Wood in 2022.	In Progress Priority 4
2013 Lynx TDF DSR (RGC 2014a)				
Lynx TDF	2013-23	Consider relocating the waste rock dumps [above Lynx TDF] as soon as is practical.	Removal of WRD 2 and WRD 3 continued in 2021. Removal of WRD3 was completed in 2021. Additional work is planned for 2022 and beyond as waste rock dumps are used as material source for dam raise construction.	In Progress Priority 2

Structure	Tracking Number	Previous Recommendation	Update	Status/Priority
2014-Q3 DSI Report (AMEC 2014b)				
Old TDF	2014-03	Measures should be taken to mitigate erosion of the paste stack in the APA. Implementation of a simple waste rock cover is likely the most practical option.	The springs along the top of the paste stack were collected in a surface ditch. The ditch was filled over as part of the LLDD project. Re-establishing it was included in the project specification but has not been completed. Additional work was carried out in this area in 2018, including cover of some areas with construction wastes. A detailed design for the east half of the LLDD collector and the cover subdrain in the APA was developed. (Wood 2018b) Revisions to this design are currently underway by Wood in 2022.	In Progress Priority 4
2015 DSI Report (Amec Foster Wheeler 2016d)				
Old TDF	2015-04	Install freeboard indicators in the east and west Strip and Old TDF Surge Pond (no longer applicable to West strip).	MFM is in the process of adding freeboard indicators to most ponds/sumps/impoundments at the site. MFM compares and records impoundment level to culverts in the East strip. This may continue until a standard staff gauge can be installed.	In Progress, only one staff gauge installation remaining Priority 4
2018 DSI Report (Wood, 2019d)				
Old TDF/ Treatment Ponds	2018-05	Myra Creek hydrology and riprap assessment was carried out for the updated IDF (Closure-Passive Care). The assessment identified limitations and/or inaccuracies with respect to the current flow measurements in Myra Creek.	1. Complete: New flow gauge installed at Road Bridge, and a second station was installed at the red pipe bridge along with updated Myra Creek rating curve. 2. Complete: To be performed by MFM and/or Wood staff as required or requested.	Partially Complete Priority 3

Structure	Tracking Number	Previous Recommendation	Update	Status/Priority
		Recommendations from the assessment: 1. Install flow gauge, 2. Post event inspections, 3. Revise riprap on north bank, 4. Remove non-flexible vegetation, 5. Semi-quantitative risk assessment of high flows (Wood 2019a).	3. In progress: MFM planning to widen creek channel by 2 m at closure to address this. 4. Completed but will need annual maintenance. 5. Completed in September 2021	
All	2018-06	1. Carry out detailed review of instrumentation data logger wiring. 2. Create a wiring diagram and operation manual for each instrumentation hut. 3. Prepare updated scripts for all data loggers which are consistent in functionality an appropriate to the hardware.	1. Schematic review completed by Wood and MFM. 2. Not complete. 3. Not complete.	In Progress Priority 2
Old TDF	2018-10	Establish a more robust method to attach survey deformation monuments to dam surface.	Design is complete, installation is in progress.	In Progress Priority 2
Old TDF	2018-12	New corrosion resistant gate valve purchased in Q3. Install the new gate valve when conditions allow.	In Progress.	In Progress Priority 4
Lynx TDF	2018-13	Add an R-Star data logger for the Lynx Springs Drain VWPs.	Incomplete.	Incomplete Priority 4

Structure	Tracking Number	Previous Recommendation	Update	Status/Priority
Old TDF	2018-15	Conduct a formal risk assessment to inform the detailed closure design, in the vicinity of the west decant, and determine if the old, partially grouted (2017) decant can be left in place (through closure and beyond) or if it must be abandoned.	To be completed during detailed closure planning.	Incomplete Priority 4
2020 DSI Report (Wood, 2021d)				
Surge Pond	2020-03	Erosion of sides slopes of Lower Strip and south slope of Surge Pond. Provide erosion protection.	To be completed during 2022.	Incomplete Priority 3
Old TDF	2020-04	Instrument cables are exposed and subject to damage. Bury or protect instrument cables.	To be completed during 2022.	Incomplete Priority 3
General	2020-05	OMS manual was not updated after 368.5 m raise 2020. OMS Manual should be updated yearly.	MFM updated the manual in March 2021.	In progress Priority 4

10.2 New Recommendations from 2021

Table 10-2 summarizes Wood's recommendations with respect to the operations, maintenance, and surveillance of the tailings dams and associated structures based on engineering work carried out in 2021.

Priority levels from 1 to 4 are defined by EMLI (2016) as follows:

- Priority Level 1 – A high probability or actual dam safety issues considered immediately dangerous to life, health or the environment, or a significant risk of regulatory enforcement.
- Priority Level 2 – If not corrected, could likely result in dam safety issues leading to injury, environmental impact or significant regulatory enforcement, or a repetitive deficiency that demonstrates a systematic breakdown of procedures.
- Priority Level 3 – Single occurrences of deficiencies or non-conformances that [alone] would not be expected to result in dam safety issues.
- Priority Level 4 – Best Management Practice – further improvements are necessary to meet industry best practices or reduce potential risks.

Table 10-2: Summary of New Recommendations

Structure	Tracking Number	Deficiency or Non-Conformance	Regulatory Requirement or OMS Reference	Recommended Action	Priority (1)	Recommended Deadline/Status
Old TDF	2021-01	Erosion of seismic upgrade berm by concentrated surface water runoff.		Complete Phase 1 of the Reclamation/Closure plan and direct surface water runoff to the spillways for controlled discharge down the seismic berm slope.	3	Q3 2022
Old TDF	2021-02	Old TDF instrument Upgrades – The existing instrument network primarily was intended for monitoring pore pressures during construction and operation of the Old TDF There are not instruments in the foundation or in the tailings directly above the foundation. Instruments on some planes are sparse.		The existing instrument network should be evaluated with consideration given to long-term closure monitoring. Evaluate the existing network, assess coverage and develop a plan for upgrading the monitoring system. Assess need to replace the lost SI and/or install additional SIs.	3	Plan to complete by Q4 2022; installation after reclamation.
Old TDF/Surge Pond	2021-03	Sediments have encroached around the Surge Pond west decant.		Sediments should be removed from the Surge Pond.	4	Q3 2022
Old TDF	2021-04	A portion of the vertical grates have been dissolved due to rust at the Old TDF decant inlet.		Replacement of grates on Old TDF decants as needed for safety concerns or to prevent debris from entering the decant.	3	Q3 2022
Old TDF	2021-05	Accumulation of sediments around the Old TDF APA decants and, in and around the spillway culverts.		During the dry season, remove sediments that have accumulated.	4	Q3 2022

Structure	Tracking Number	Deficiency or Non-Conformance	Regulatory Requirement or OMS Reference	Recommended Action	Priority [1]	Recommended Deadline/Status
Lynx TDF	2021-06	El. 373.5 m dam raise crest tie in to the 10L portal is incomplete.		Backfill 10L portal and complete the 373.5 m raise in this area to the lines and grades shown on the drawings.	2	Q3 2022
Lynx TDF	2021-07	Suitable, permanent staff gauge not yet installed to measure pond levels.		Install a permanent staff gauge, possibly on the rock face opposite the pumping area.	4	Q3 2022
Lynx TDF	2021-08	Ponding of water near Panel 15 drain standpipe.		Grade the toe area of the Lynx dam such that water does not pond in and around the standpipe intended to monitor water levels in the Panel 15 Drain.	3	Q2 2023
Lynx TDF	2021-09	Lynx instrument upgrades and data gaps.		Assess existing operation instrumentation on Lynx given dam raises and instrument losses over the years.	3	Q2 2022

11.0 Closure

This annual tailings facility report has been prepared for the exclusive use of Myra Falls Mine Ltd. for specific application to the area within this report and is subject to the limitations given in Section 13.0. Recommendations presented herein are based on a geotechnical evaluation of the information available. If conditions other than those reported are noted during subsequent phases of the project, Wood should be notified and be given the opportunity to review and revise the current recommendations, if necessary. Recommendations presented herein may not be valid if an adequate level of review or inspection is not provided during construction.

Sincerely,

Wood Environment & Infrastructure Solutions
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31 MAR 2022

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PERMIT TO PRACTICE
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Signature
Date 31-Mar-2022 16:11 PDT
PERMIT NUMBER: 1000679
Engineers and Geoscientists
British Columbia
PDF Digitally Signed

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13.0 Limitations

1. The work performed in the preparation of this report and the conclusions presented herein are subject to the following:
   a) The contract between Wood and the Client, including any subsequent written amendment or Change Order duly signed by the parties (hereinafter together referred as the "Contract");
   b) Any and all time, budgetary, access and/or site disturbance, risk management preferences, constraints or restrictions as described in the contract, in this report, or in any subsequent communication sent by Wood to the Client in connection to the Contract; and
   c) The limitations stated herein.
2. **Standard of care:** Wood has prepared this report in a manner consistent with the level of skill and are ordinarily exercised by reputable members of Wood's profession, practicing in the same or similar locality at the time of performance, and subject to the time limits and physical constraints applicable to the scope of work, and terms and conditions for this assignment. No other warranty, guaranty, or representation, expressed or implied, is made or intended in this report, or in any other communication (oral or written) related to this project. The same are specifically disclaimed, including the implied warranties of merchantability and fitness for a particular purpose.
3. **Limited locations:** The information contained in this report is restricted to the site and structures evaluated by Wood and to the topics specifically discussed in it, and is not applicable to any other aspects, areas, or locations.
4. **Information utilized:** The information, conclusions and estimates contained in this report are based exclusively on: i) information available at the time of preparation, ii) the accuracy and completeness of data supplied by the Client or by third parties as instructed by the Client, and iii) the assumptions, conditions, and qualifications/limitations set forth in this report.
5. **Accuracy of information:** No attempt has been made to verify the accuracy of any information provided by the Client or third parties, except as specifically stated in this report (hereinafter "Supplied Data"). Wood cannot be held responsible for any loss or damage, of either contractual or extra-contractual nature, resulting from conclusions that are based upon reliance on the Supplied Data.
6. **Report interpretation:** This report must be read and interpreted in its entirety, as some sections could be inaccurately interpreted when taken individually or out-of-context. The contents of this report are based upon the conditions known and information provided as of the date of preparation. The text of the final version of this report supersedes any other previous versions produced by Wood.
7. **No legal representations:** Wood makes no representations whatsoever concerning the legal significance of its findings, or as to other legal matters touched on in this report, including but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.
8. **Decrease in property value:** Wood shall not be responsible for any decrease, real or perceived, of the property or site's value or failure to complete a transaction, as a consequence of the information contained in this report.
9. **No third-party reliance:** This report is for the sole use of the party to whom it is addressed unless expressly stated otherwise in the report or Contract. Any use or reproduction which any third party makes of the report, in whole or in part, or any reliance thereon or decisions made based on any information or conclusions in the report is the sole responsibility of such third party. Wood does not

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10. **Assumptions:** Where design recommendations are given in this report, they apply only if the project contemplated by the Client is constructed substantially in accordance with the details stated in this report. It is the sole responsibility of the Client to provide to Wood changes made in the project, including but not limited to, details in the design, conditions, engineering, or construction that could in any manner whatsoever impact the validity of the recommendations made in the report. Wood shall be entitled to additional compensation from Client to review and assess the effect of such changes to the project.
11. **Time dependence:** If the project contemplated by the Client is not undertaken within a period of 18 months following the submission of this report, or within the time frame understood by Wood to be contemplated by the Client at the commencement of Wood's assignment, and/or, if any changes are made, for example, to the elevation, design or nature of any development on the site, its size and configuration, the location of any development on the site and its orientation, the use of the site, performance criteria and the location of any physical infrastructure, the conclusions and recommendations presented herein should not be considered valid unless the impact of the said changes is evaluated by Wood, and the conclusions of the report are amended or are validated in writing accordingly.

    Advancements in the practice of geotechnical engineering, engineering geology and hydrogeology and changes in applicable regulations, standards, codes or criteria could impact the contents of the report, in which case, a supplementary report may be required. The requirements for such a review remain the sole responsibility of the Client or their agents.

    Wood will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.
12. **Limitations of visual inspections:** Where conclusions and recommendations are given based on a visual inspection conducted by Wood, they relate only to the natural or man-made structures, slopes, etc. inspected at the time the site visit was performed. These conclusions cannot and are not extended to include those portions of the site or structures, which were not reasonably available, in Wood's opinion, for direct observation.
13. **Limitations of site investigations:** Site exploration identifies specific subsurface conditions only at those points from which samples have been taken and only at the time of the site investigation. Site investigation programs are a professional estimate of the scope of investigation required to provide a general profile of subsurface conditions.

    The data derived from the site investigation program and subsequent laboratory testing are interpreted by trained personnel and extrapolated across the site to form an inferred geological representation and an engineering opinion is rendered about overall subsurface conditions and their likely behaviour with regard to the proposed development. Despite this investigation, conditions between and beyond the borehole/test hole locations may differ from those encountered at the borehole/test hole locations and the actual conditions at the site might differ from those inferred to exist, since no subsurface exploration program, no matter how comprehensive, can reveal all subsurface details and anomalies.

Final sub-surface/bore/profile logs are developed by geotechnical engineers based upon their interpretation of field logs and laboratory evaluation of field samples. Customarily, only the final bore/profile logs are included in geotechnical engineering reports.

Bedrock, soil properties and groundwater conditions can be significantly altered by environmental remediation and/or construction activities such as the use of heavy equipment or machinery, excavation, blasting, pile-driving or draining or other activities conducted either directly on site or on adjacent terrain. These properties can also be indirectly affected by exposure to unfavorable natural events or weather conditions, including freezing, drought, precipitation and snowmelt.

During construction, excavation is frequently undertaken which exposes the actual subsurface and groundwater conditions between and beyond the test locations, which may differ from those encountered at the test locations. It is recommended that Wood be retained during construction to confirm that the subsurface conditions throughout the site do not deviate materially from those encountered at the test locations, that construction work has no negative impact on the geotechnical aspects of the design, to adjust recommendations in accordance with conditions as additional site information is gained, and to deal quickly with geotechnical considerations if they arise.

Interpretations and recommendations presented herein may not be valid if an adequate level of review or inspection by Wood is not provided during construction.

14. **Factors that may affect construction methods, costs and scheduling:** The performance of rock and soil materials during construction is greatly influenced by the means and methods of construction. Where comments are made relating to possible methods of construction, construction costs, construction techniques, sequencing, equipment or scheduling, they are intended only for the guidance of the project design professionals, and those responsible for construction monitoring. The number of test holes may not be sufficient to determine the local underground conditions between test locations that may affect construction costs, construction techniques, sequencing, equipment, scheduling, operational planning, etc.

    Any contractors bidding on or undertaking the works should draw their own conclusions as to how the subsurface and groundwater conditions may affect their work, based on their own investigations and interpretations of the factual soil data, groundwater observations, and other factual information.

15. **Groundwater and Dewatering:** Wood will accept no responsibility for the effects of drainage and/or dewatering measures if Wood has not been specifically consulted and involved in the design and monitoring of the drainage and/or dewatering system.

16. **Environmental and Hazardous Materials Aspects:** Unless otherwise stated, the information contained in this report in no way reflects on the environmental aspects of this project, since this aspect is beyond the Scope of Work and the Contract. Unless expressly included in the Scope of Work, this report specifically excludes the identification or interpretation of environmental conditions such as contamination, hazardous materials, wild life conditions, rare plants or archeology conditions that may affect use or design at the site. This report specifically excludes the investigation, detection, prevention or assessment of conditions that can contribute to moisture, mould or other microbial contaminant growth and/or other moisture related deterioration, such as corrosion, decay, rot in buildings or their surroundings. Any statements in this report or on the boring logs regarding odours, colours, and unusual or suspicious items or conditions are strictly for informational purposes.

17. **Sample Disposal:** Wood will dispose of all uncontaminated soil and rock samples after 30 days following the release of the final geotechnical report. Should the Client request that the samples be retained for a longer time, the Client will be billed for such storage at an agreed upon rate.

Contaminated samples of soil, rock or groundwater are the property of the Client, and the Client will be responsible for the proper disposal of these samples, unless previously arranged for with Wood or a third party.

18. **Effect of iron minerals:** This report does not address issues related to the discovery or presence of iron minerals, such as pyrite, or the effects of iron minerals, if any, in the soil or to be used in concrete. Should specific information be required, additional testing may be requested by the Client for which Wood shall be entitled to additional compensation.

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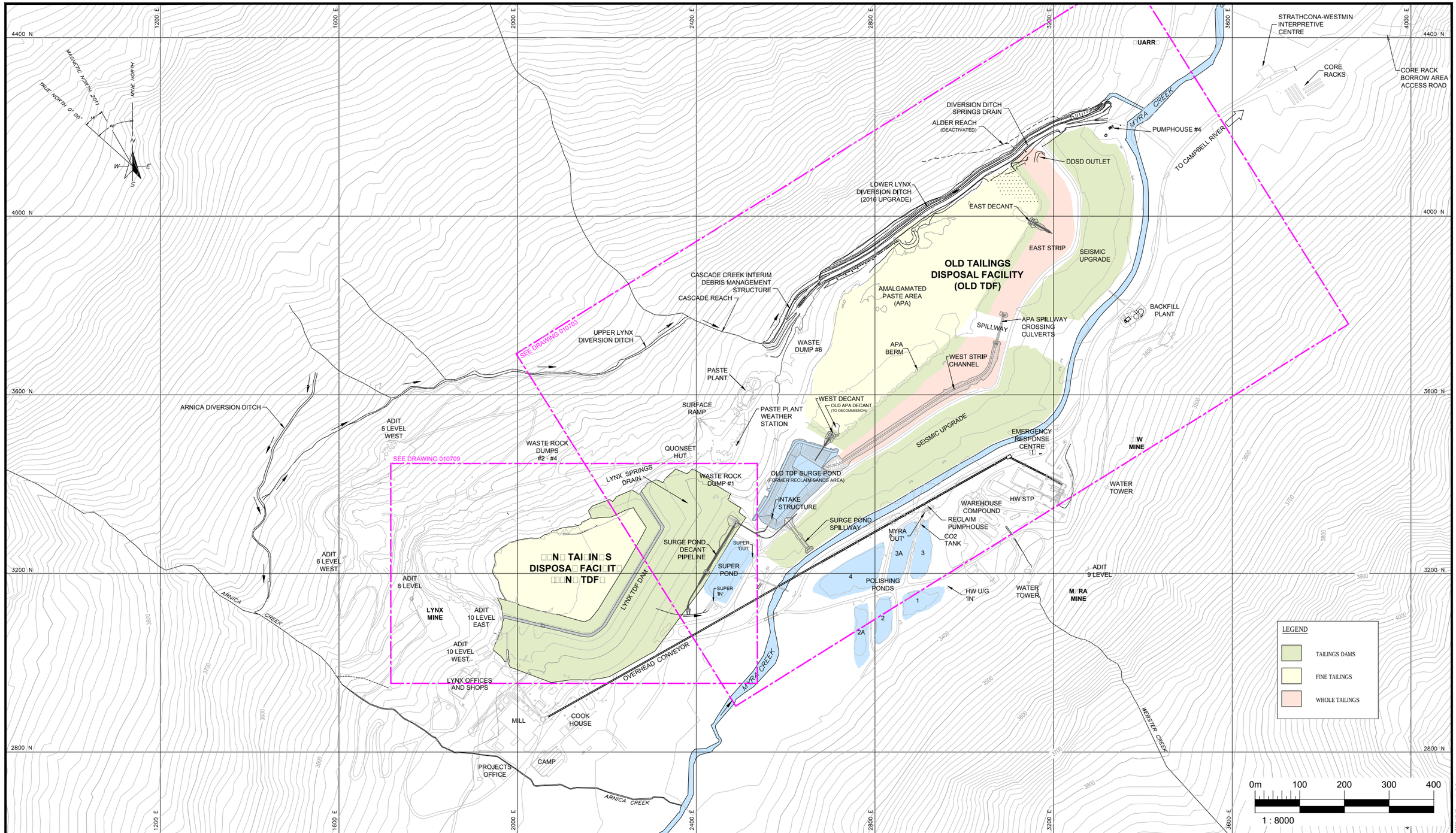
Drawings

wood.



NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B3 "2021 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2022.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT.
3. CONTOUR INTERVAL: 10 m.

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
A						
B						
C						
D	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
E	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
F	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
G	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES 2021 DAM SAFETY INSPECTION

TITLE: GENERAL SITE ARRANGEMENT PLAN

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010702

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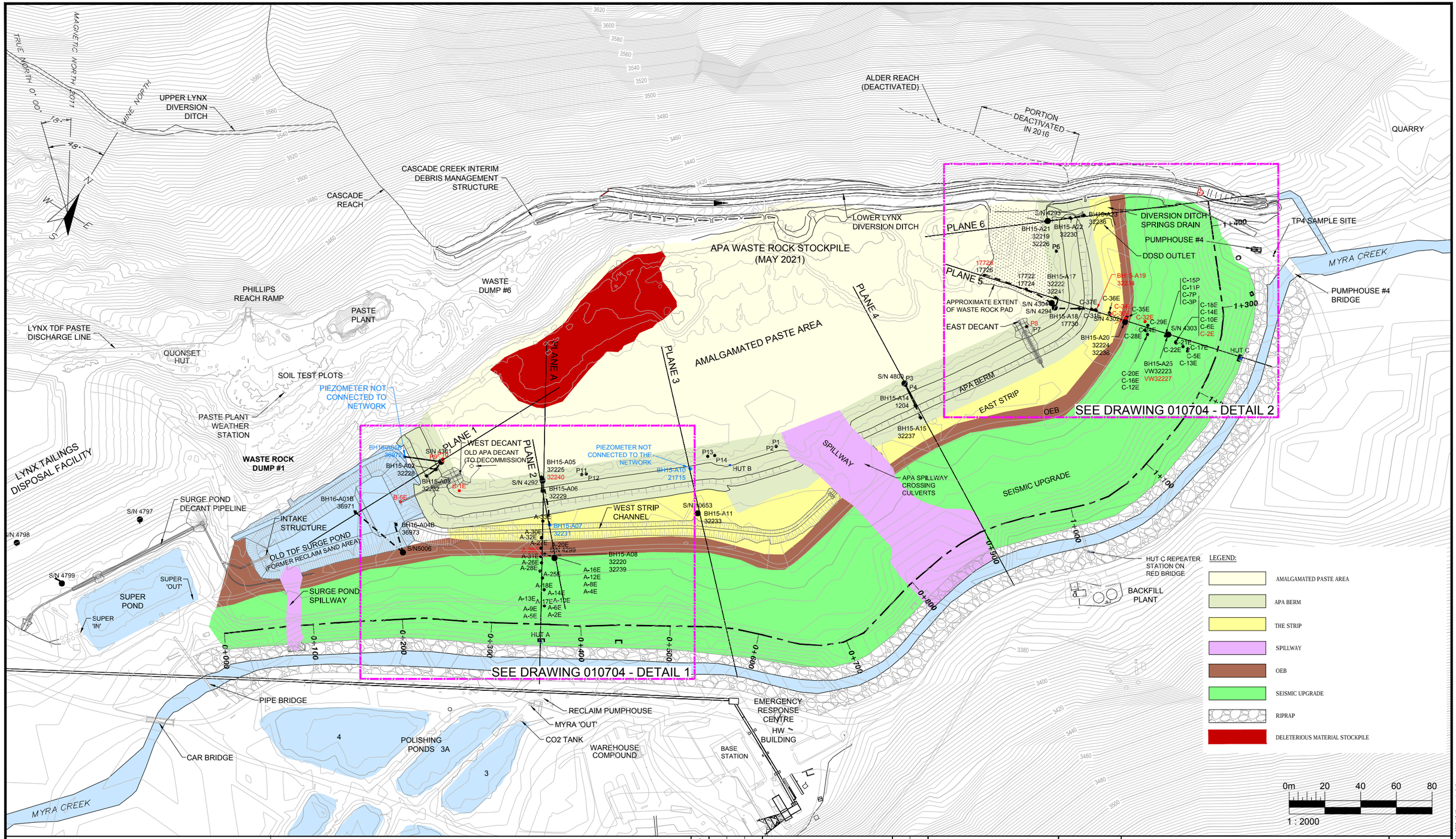

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B1 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT.
3. DELETERIOUS MATERIAL SURVEY COMPLETED ON 6 MARCH 2019 BY MIFFLIN SURVEYS.

LEGEND:
- A-28E — PIEZOMETER (FUNCTIONAL)
- A-28E — PIEZOMETER (REMOVED FROM MONITORING PROGRAM)
- A-28E — PIEZOMETER (DATA NOT AVAILABLE)
- S/N 10646 — SINGLE-CHANNEL DATALOGGER
- S/N 4300 — MULTI-CHANNEL DATALOGGER
- BURIED WIRE(S)
- EXPOSED WIRE(S)

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
6						
5						
4						
3	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
2	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
1	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
0	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY:	KL
CHECKED BY:	LF
DATUM:	WGS84
PROJECTION:	GEODETIC
SCALE:	AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES 2021 DAM SAFETY INSPECTION

TITLE: OLD TAILINGS DISPOSAL FACILITY INSTRUMENTATION PIEZOMETERS

DATE:	JANUARY 2022
PROJECT NO:	NX14001B3.1.520
REV. NO:	D
FIG NO:	010703

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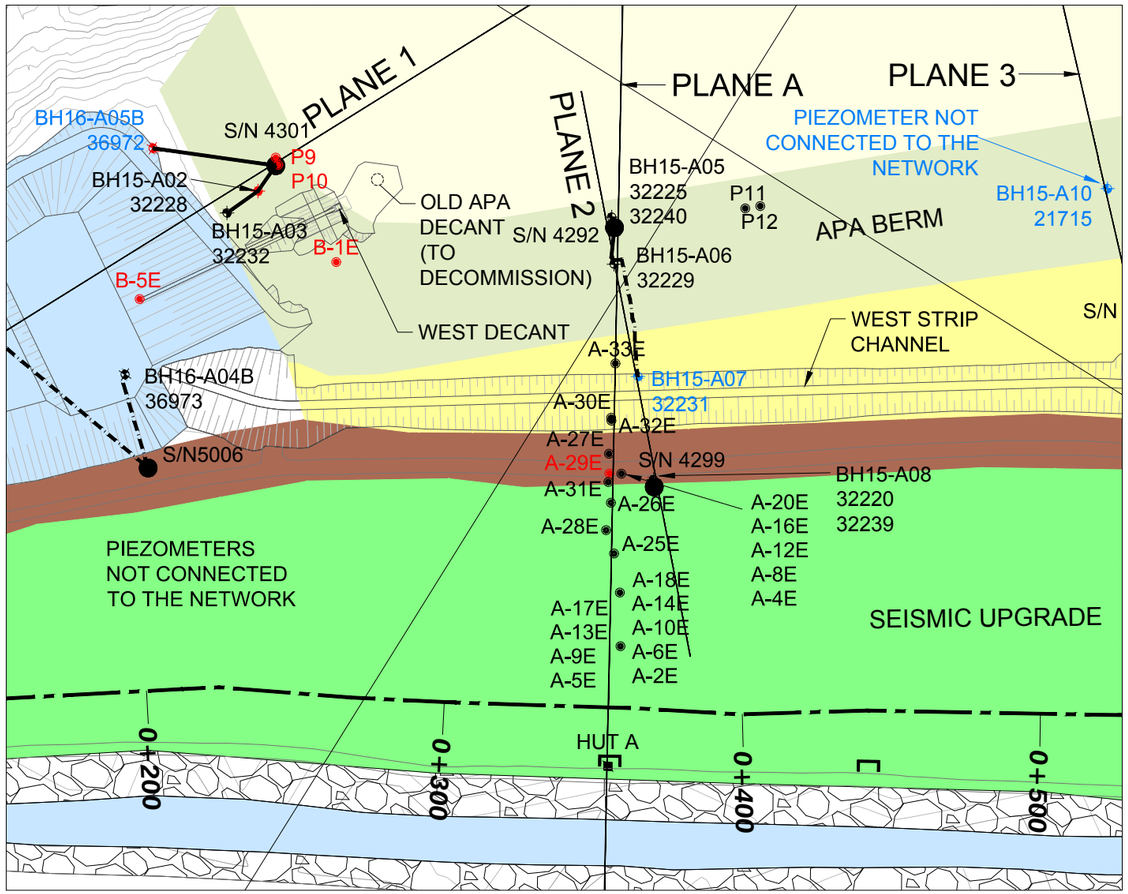
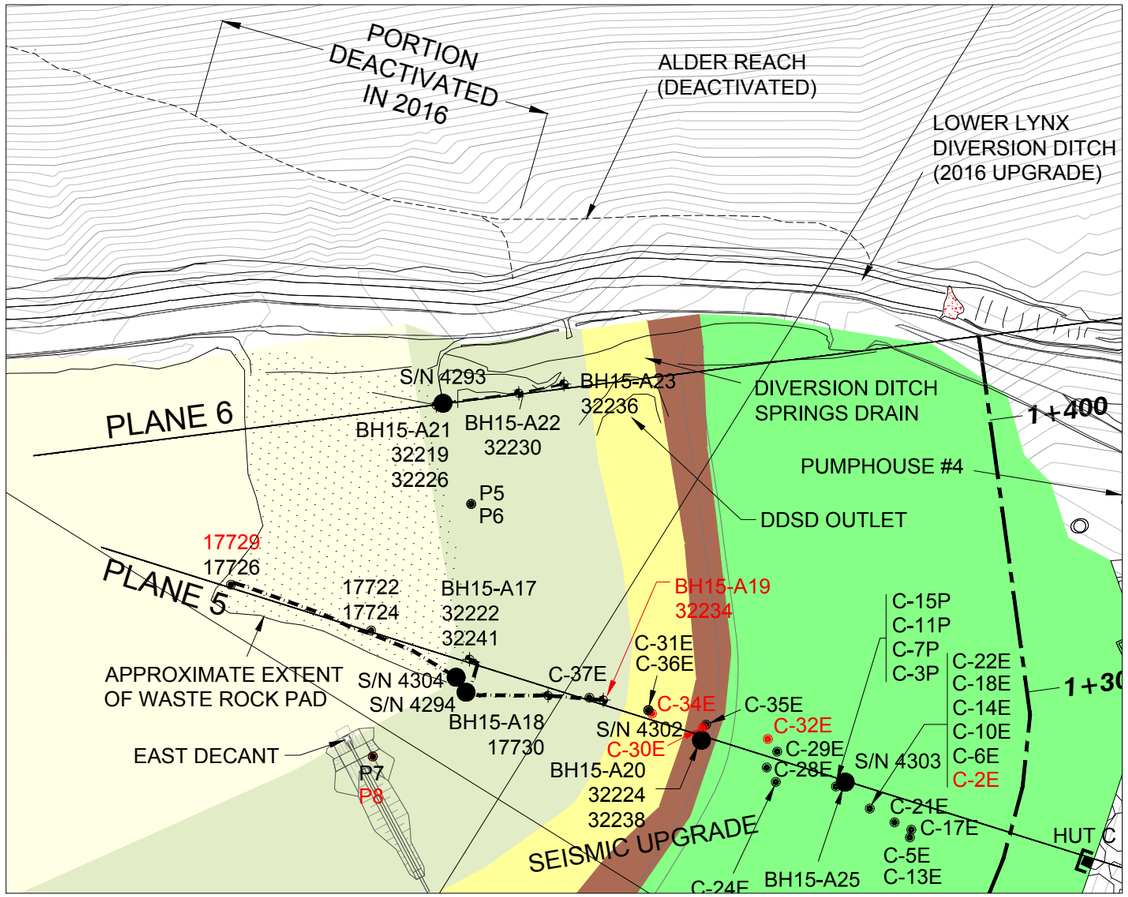


DETAIL 1
INSTRUMENT PLANES 1 & 2



DETAIL 2
INSTRUMENT PLANES 5 & 6

0m 20 40 60 80

1 : 1000

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT.
3. THIS SURVEY IS REFERENCED TO MIND DATUM (MASL + 3047.5 m).

LEGEND:

● A-28E	PIEZOMETER (FUNCTIONAL)
● A-28E	PIEZOMETER (REMOVED FROM MONITORING PROGRAM)
● A-28E	PIEZOMETER (DATA NOT AVAILABLE)
● S/N 10646	SINGLE-CHANNEL DATALOGGER
● S/N 4300	MULTI-CHANNEL DATALOGGER
	BURIED WIRE(S)
	EXPOSED WIRE(S)

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
6						
5						
4						
3	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
2	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
1	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
0	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES
2021 DAM SAFETY INSPECTION

TITLE: OLD TAILINGS DISPOSAL FACILITY
INSTRUMENTATION - PIEZOMETERS
DETAILS 1 & 2

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010704

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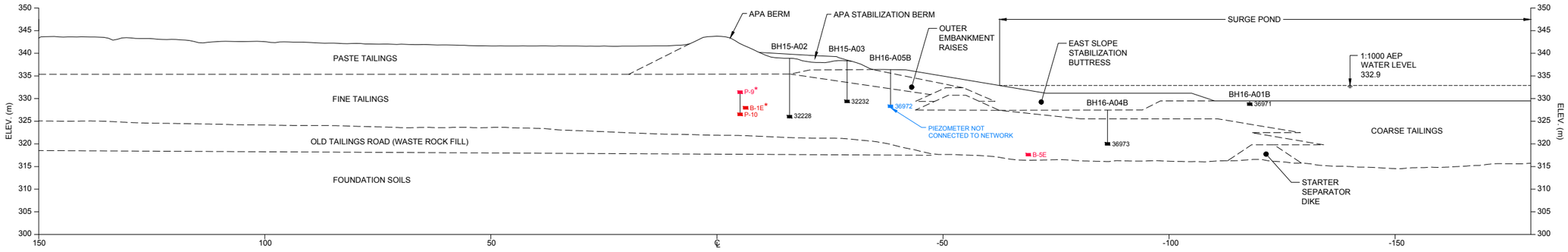
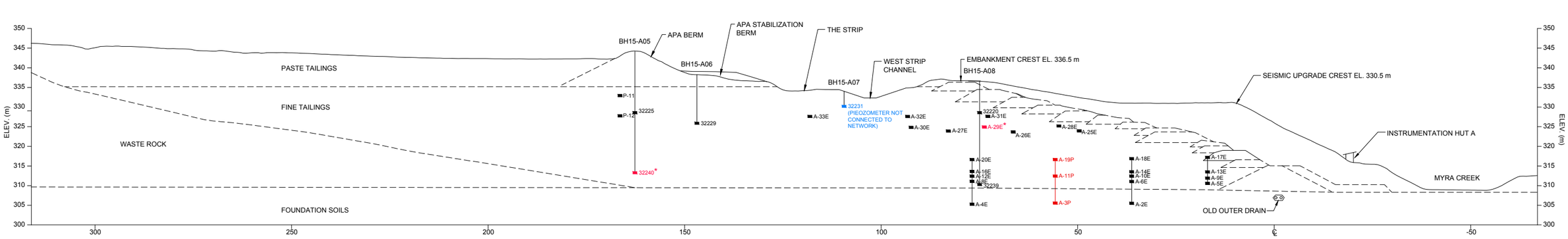
P:\CAD\CIV\010704-DSI.dwg – 704 – Mar. 29, 2022 10:43am – kevin.lin



SECTION 1 / 703 INSTRUMENTATION PLANE 1
STA. 1+252



SECTION A / 703 INSTRUMENTATION PLANE A (PLANE 2)
STA. 0+355

NOTES:
1. SECTION A ADOPTED FROM KLOHN CRIPPEN BERGER, PROJECT No. M07632 A52, DRAWING No. D-52304, REV. B DATED MARCH 31, 2006.
2. ORIGINAL GROUND SURFACE TOPOGRAPHY DEVELOPED FROM KNIGHT AND PIESOLD DRAWING 1287.046, DATED 31 MAY 1983.
3. INSIDE MATERIAL ZONE BOUNDARIES, SECTION LOCATIONS AND ORIENTATIONS ARE APPROXIMATE.
4. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
5. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT.
6. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

0m 10 20 30 40
1 : 1000

LEGEND:
- A-20E PIEZOMETER (DATA NOT AVAILABLE)
- A-19P PIEZOMETER (FUNCTIONAL)
- A-20E* PIEZOMETER (REMOVED FROM MONITORING PROGRAM)

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
6						
5						
4						
3	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
2	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
1	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine, A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES 2021 DAM SAFETY INSPECTION

TITLE: OLD TAILINGS DISPOSAL FACILITY INSTRUMENTATION PLANES 1 & 2

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010705

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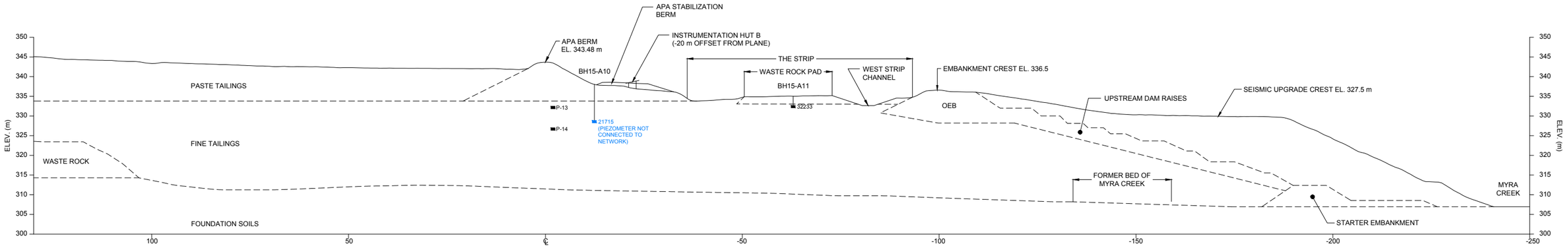
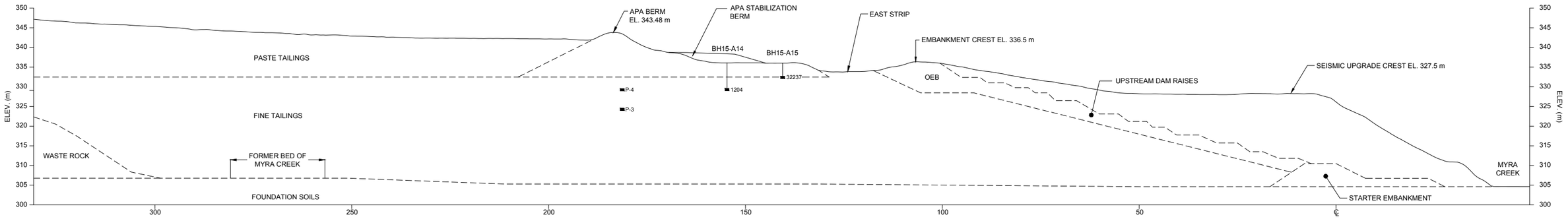


SECTION 3 / 703 INSTRUMENTATION PLANE 3



SECTION 4 / 703 INSTRUMENTATION PLANE 4
STA. 0+900

NOTES:
1. ORIGINAL GROUND SURFACE TOPOGRAPHY DEVELOPED FROM KNIGHT AND PIESOLD DRAWING 1287.046, DATED 31 MAY 1983.
2. INSIDE MATERIAL ZONE BOUNDARIES, SECTION LOCATIONS AND ORIENTATIONS ARE APPROXIMATE.
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
4. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT.
5. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

0m 10 20 30 40
1 : 1000

LEGEND:
- A-20E PIEZOMETER (DATA NOT AVAILABLE)
- A-19P PIEZOMETER (FUNCTIONAL)
- A-20E* PIEZOMETER (REMOVED FROM MONITORING PROGRAM)

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
6						
5						
4						
3	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
2	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
1	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES
2021 DAM SAFETY INSPECTION

TITLE: OLD TAILINGS DISPOSAL FACILITY INSTRUMENTATION PLANES 3 & 4

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010706

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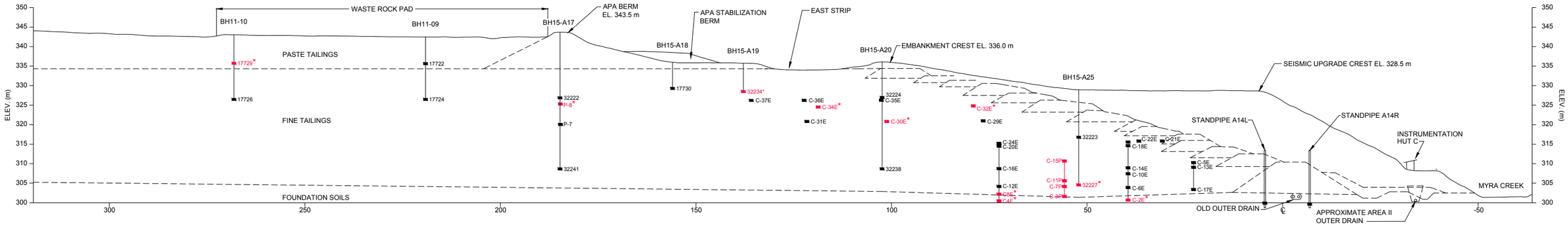

SECTION 5 / 703 INSTRUMENTATION PLANE 5 / PLANE C
STA. 1+252

SECTION 6 / 703 INSTRUMENTATION PLANE 6
STA. 1+428

NOTES:
1. SECTION 5 ADOPTED FROM KLOHN CRIPPEN BERGER, PROJECT No. M07632 A52, DRAWING No. D-52304, REV. B DATED MARCH 31, 2006.
2. INSIDE MATERIAL ZONE BOUNDARIES, SECTION AND LOCATIONS AND ORIENTATIONS ARE APPROXIMATE.
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
4. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT.
5. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

0m 10 20 30 40
1 : 1000

LEGEND:
- A-20E PIEZOMETER (DATA NOT AVAILABLE)
- A-19P PIEZOMETER (FUNCTIONAL)
- A-20E* PIEZOMETER (REMOVED FROM MONITORING PROGRAM)

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
G						
F						
E						
D	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
C	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
B	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine, A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES
2021 DAM SAFETY INSPECTION

TITLE: OLD TAILINGS DISPOSAL FACILITY
INSTRUMENTATION
PLANES 5 & 6

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010707

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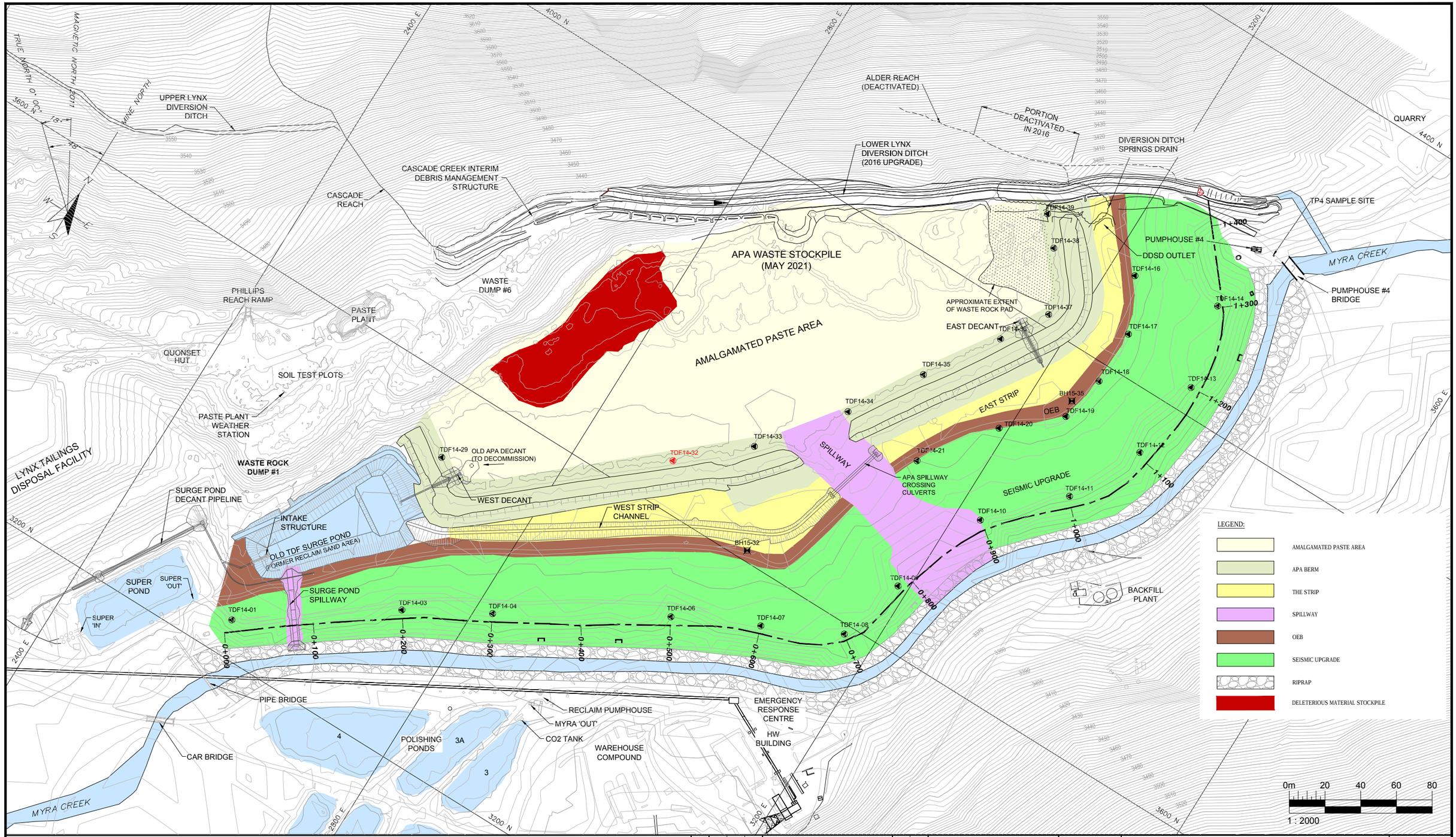

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT.
3. CONTOUR INTERVAL: 2 m.
4. DELETERIOUS MATERIAL SURVEY COMPLETED ON 6 MARCH 2019 BY MIFFLIN SURVEYS.

LEGEND:
- TDF14-04 — SURFACE MOVEMENT MONUMENT
- TDF14-04 — SURFACE MONUMENT (NON-FUNCTIONING)
- BH15-35 — SLOPE INCLINOMETER

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
E						
D	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
C	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
B	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES 2021 DAM SAFETY INSPECTION

TITLE: OLD TAILINGS DISPOSAL FACILITY INSTRUMENTATION MONUMENTS AND INCLINOMETERS

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010708

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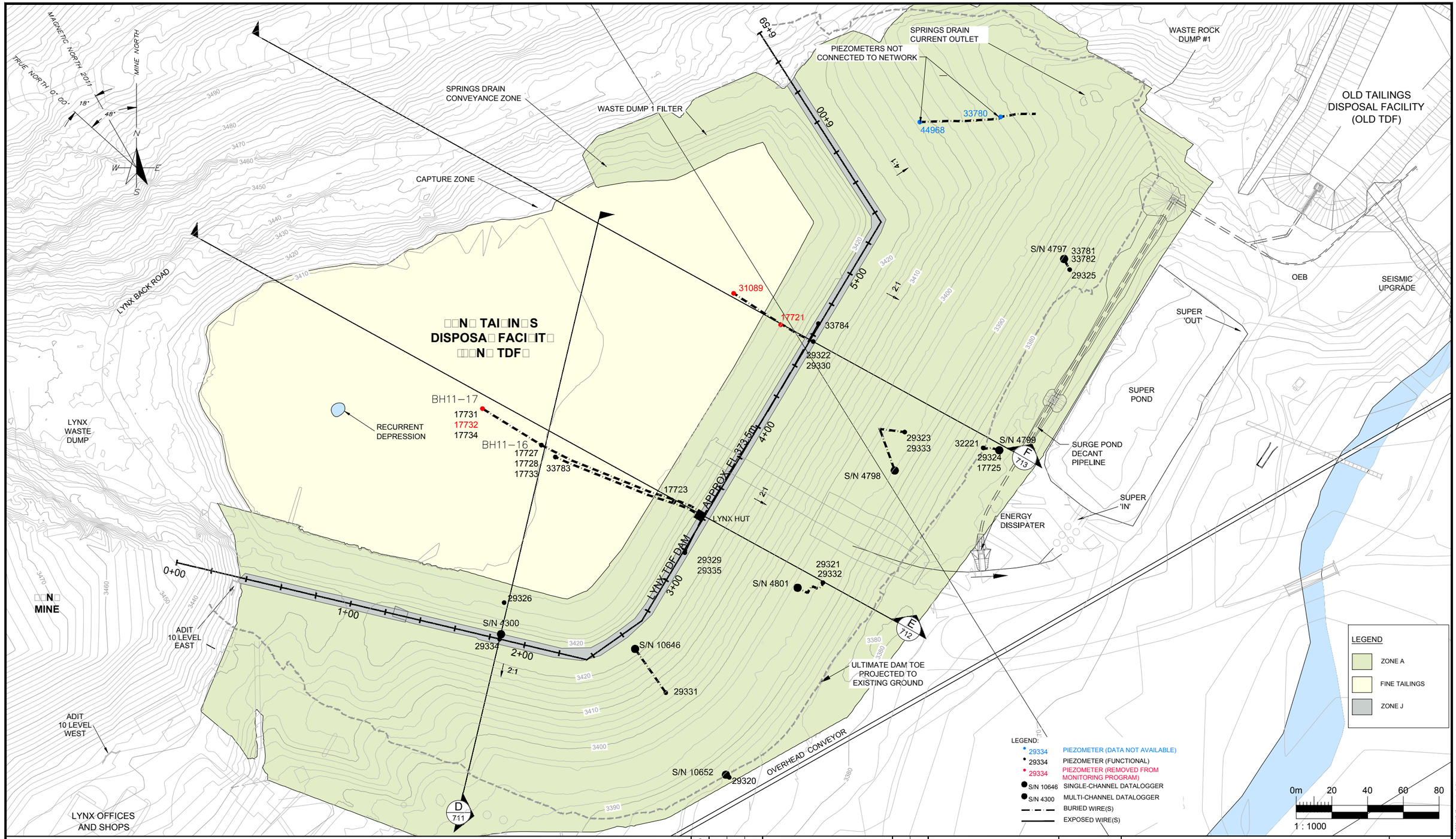

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B3 "2021 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2022.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT. RECENT LYNX TDF TAILINGS SURVEY WAS IN SEPTEMBER 2021.
3. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m)
4. CONTOUR INTERVAL: 2 m
5. 2017 SPRING DRAIN PIEZO SURVEY PROVIDED BY CLIENT ON 11 JANUARY 2018. UAV SURVEY RECEIVED FROM CLIENT ON 24 JANUARY 2018.

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR
A						
F						
E						
A	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
C	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
B	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES 2021 DAM SAFETY INSPECTION

TITLE: LYNX TAILINGS DISPOSAL FACILITY INSTRUMENTATION VIBRATING WIRE PIEZOMETERS

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010709

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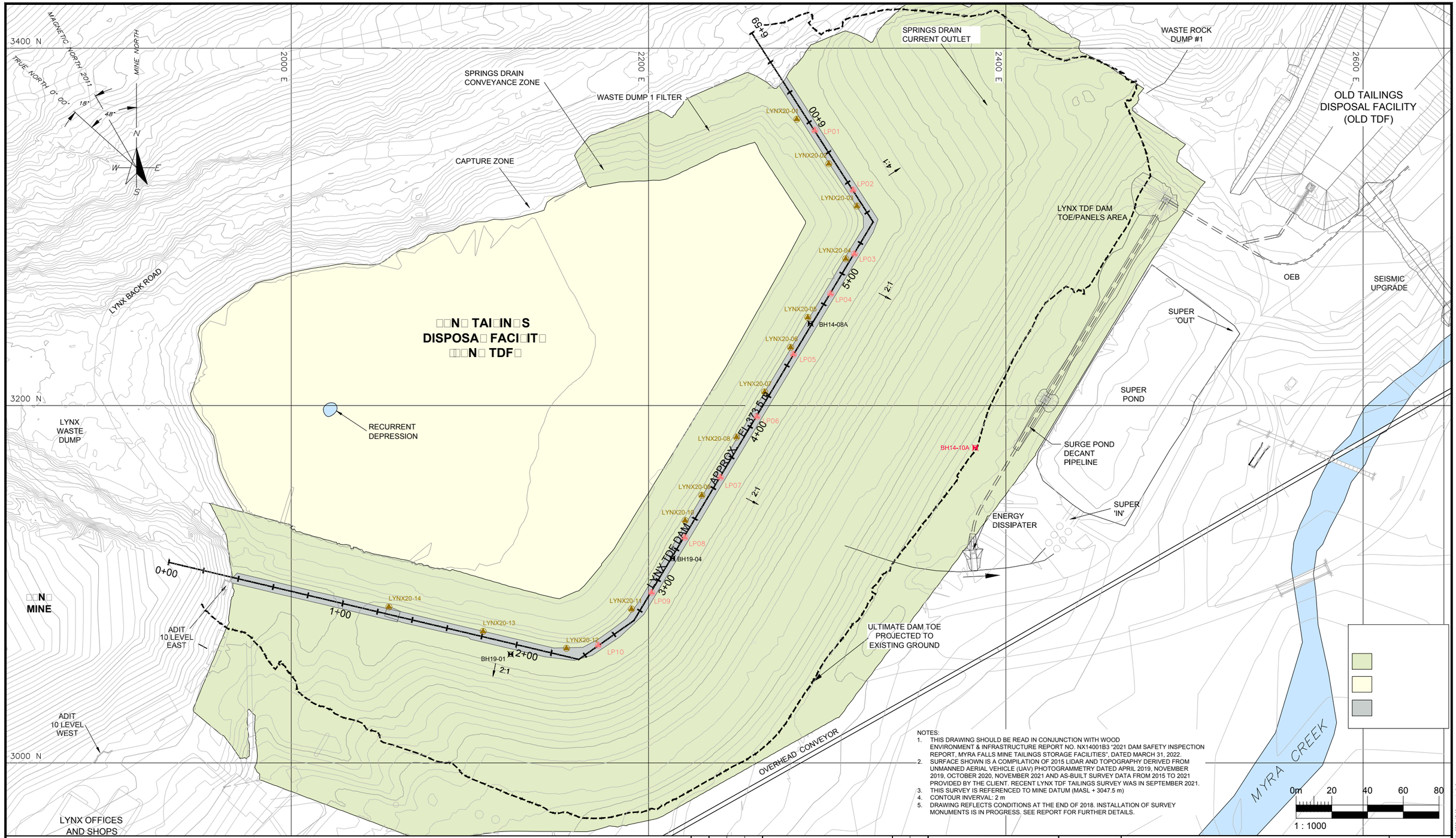

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B3 "2021 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2022.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT. RECENT LYNX TDF TAILINGS SURVEY WAS IN SEPTEMBER 2021.
3. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m)
4. CONTOUR INVERVAL: 2 m
5. DRAWING REFLECTS CONDITIONS AT THE END OF 2018. INSTALLATION OF SURVEY MONUMENTS IS IN PROGRESS. SEE REPORT FOR FURTHER DETAILS.

LEGEND:

LYNX20-04 SURFACE MOVEMENT MONUMENT

LYNX20-04 SURFACE MONUMENT (DESTROYED)

BH14-10A SLOPE INCLINOMETER

BH14-10A SLOPE INCLINOMETER (DECOMMISSIONED)

LP10 2021 SURVEY MONUMENTS

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
6						
5						
4						
3	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
2	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
1	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
0	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES 2021 DAM SAFETY INSPECTION

TITLE: LYNX TAILINGS DISPOSAL FACILITY INSTRUMENTATION MONUMENTS AND INCLINOMETERS

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010710

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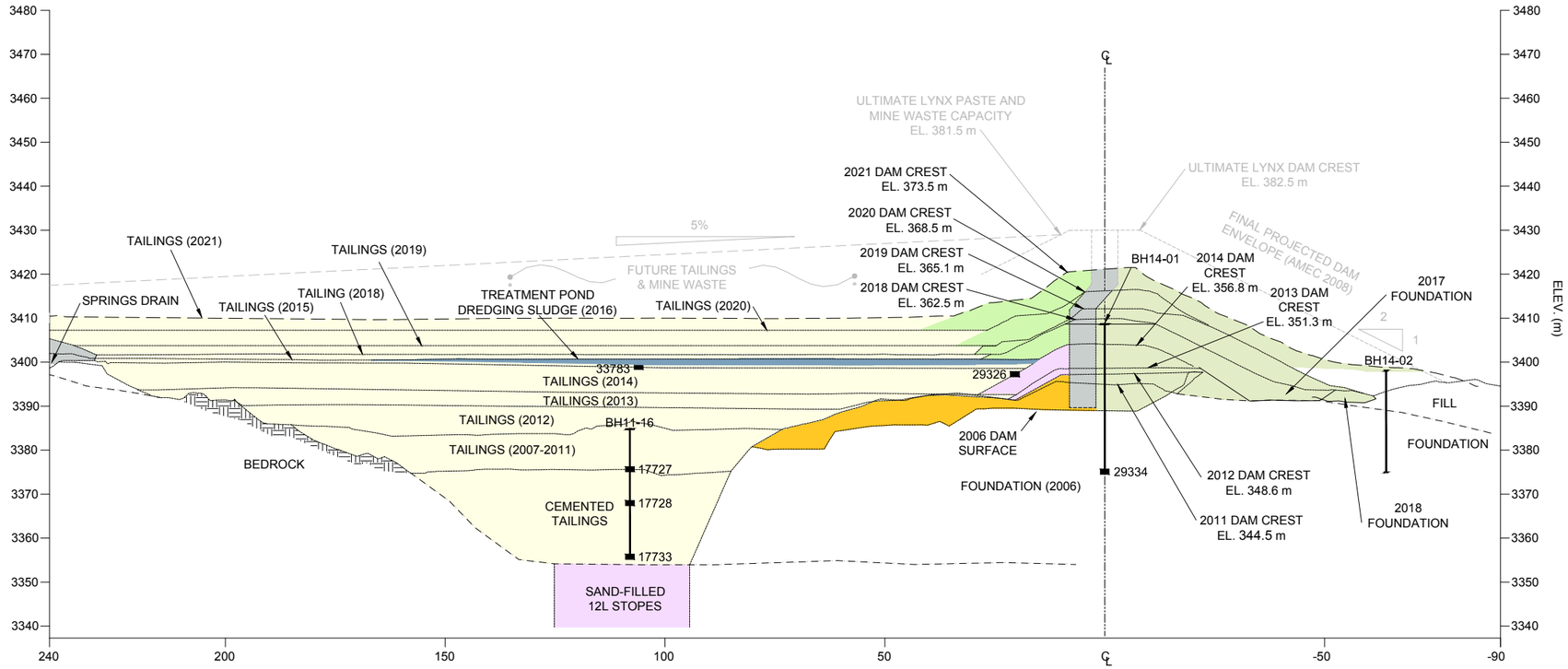

LEGEND:

- COMPACTED ROCKFILL (ZONE A)
- COMPACTED ROCKFILL AND FINES (ZONE J)
- UNCOMPACTED ROCKFILL AND TAILINGS (NOMINALLY ZONE J)
- TREATMENT POND DREDGING SLUDGE
- FINE TAILINGS (PASTE OR THICKENER UNDERFLOW)
- PERMEABLE ROCKFILL (ZONE C1-C4)
- COARSE TAILINGS (CYCLONE UNDERFLOW)
- UPSTREAM ZONE A, ZONE J AND BOULDERS

- BOREHOLE LOCATION
- 17724 PIEZOMETER (DATA NOT AVAILABLE)
- 17724 PIEZOMETER (FUNCTIONAL)
- 17724 PIEZOMETER (REMOVED FROM MONITORING PROGRAM)

SECTION D 709 — INSTRUMENT PLANE D (SCHEMATIC CROSS SECTION)
STA. 1+85

0m 10 20 30 40 50
1 : 1250

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT. RECENT LYNX TDF TAILINGS SURVEY WAS IN SEPTEMBER 2021.
3. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
G						
F						
E						
D	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
C	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
B	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES
2021 DAM SAFETY INSPECTION

TITLE: LYNX TAILINGS DISPOSAL FACILITY
INSTRUMENT PLANE D
(STA. 1+85)

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010711

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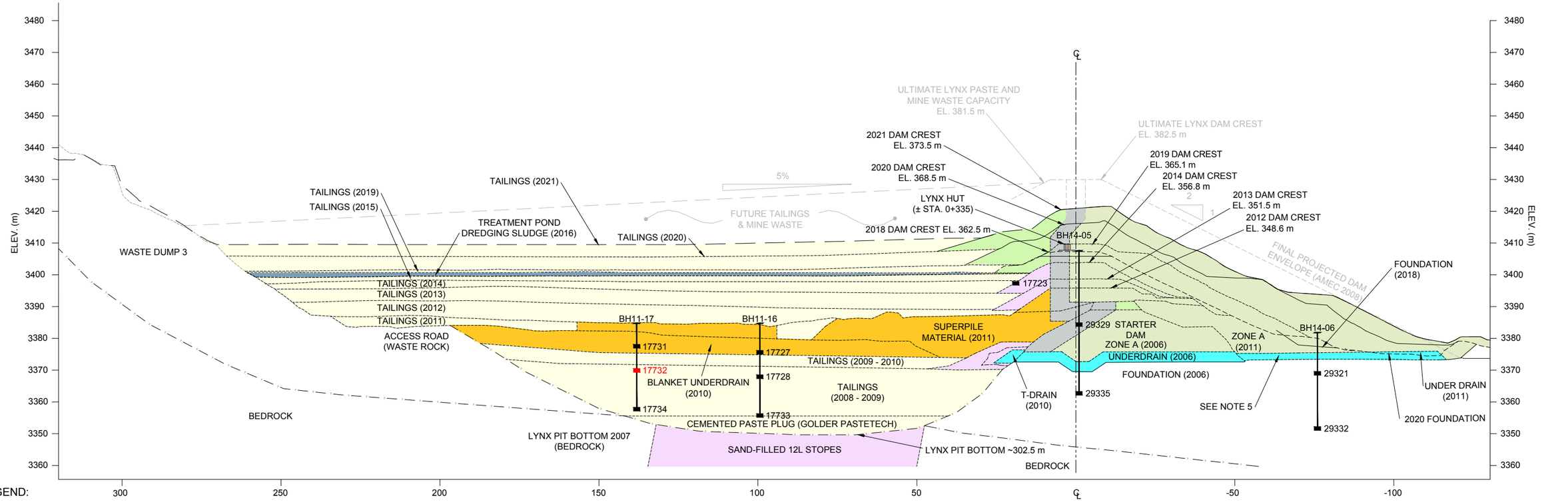

LEGEND:

- Compacted Rockfill (Zone A)
- Compacted Rockfill and Fines (Zone J)
- Uncompacted Rockfill and Tailings (Nominally Zone J)
- Treatment Pond Dredging Sludge
- Fine Tailings (Paste or Thickener Underflow)
- Permeable Rockfill (Zone C1-C4)
- Coarse Tailings (Cyclone Underflow)
- Upstream Zone A, Zone J and Boulders
- BOREHOLE LOCATION
- 17724 PIEZOMETER (DATA NOT AVAILABLE)
- 17724 PIEZOMETER (FUNCTIONAL)
- 17724 PIEZOMETER (REMOVED FROM MONITORING PROGRAM)

SECTION E 709 — INSTRUMENT PLANE E (SCHEMATIC CROSS SECTION)
STA. 3+40

0m 10 20 30 40 50
1 : 1250

NOTES:
1. 2006 TO 2011 SURVEYS MODIFIED FROM NVI MINING LTD. MYRA FALLS OPERATIONS "LYNX PIT TAILINGS FACILITY". SECTION 3 - APPROX. STA. 3+73, DATED 15 MARCH 2012.
2. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
3. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT. RECENT LYNX TDF TAILINGS SURVEY WAS IN SEPTEMBER 2021.
4. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.
5. UNDERDRAIN IS OFFSET FROM SECTION BY APPROXIMATELY 30 m.

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
G						
F						
E						
D	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
C	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
B	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES
2021 DAM SAFETY INSPECTION

TITLE: LYNX TAILINGS DISPOSAL FACILITY
INSTRUMENT PLANE E
(STA. 3+40)

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010712

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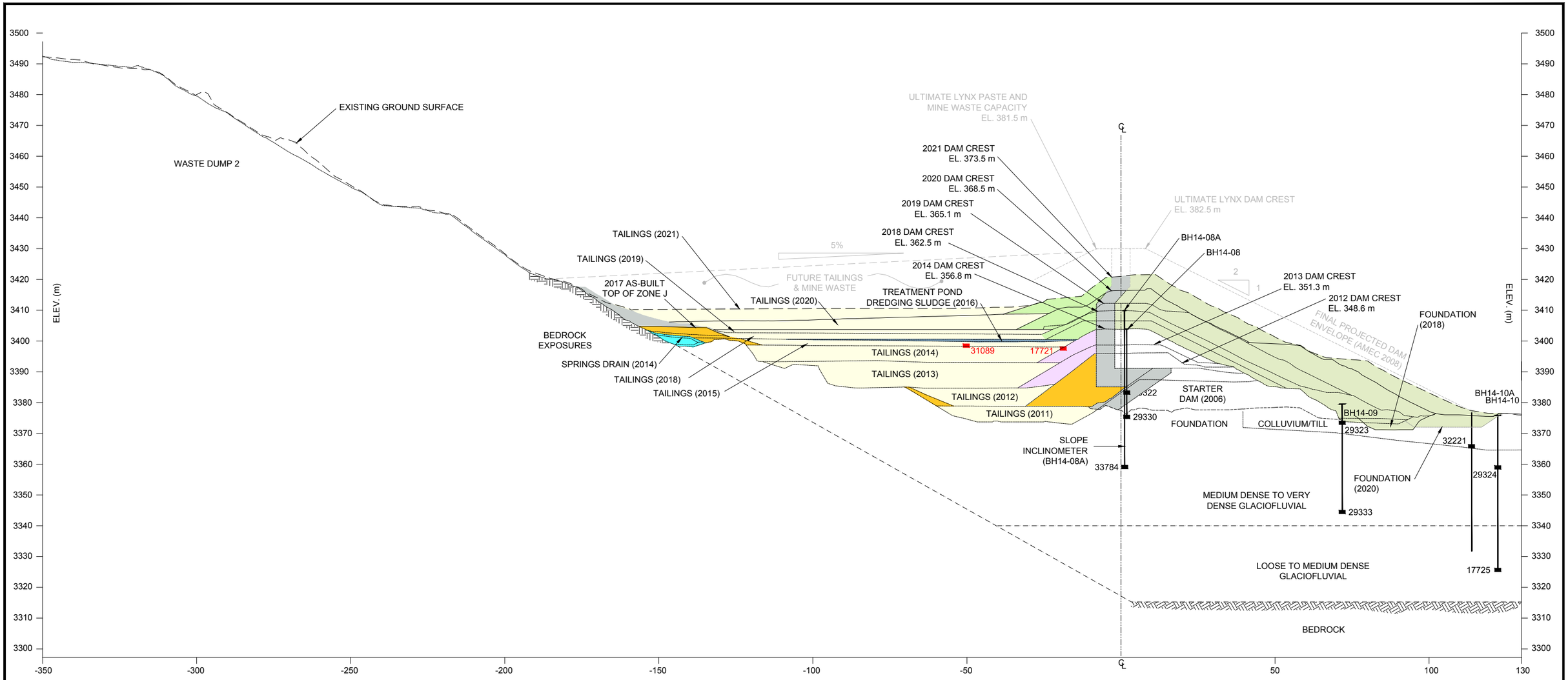

LEGEND:

- Com□acted Roc□fill (Zone A)
- Com□acted Roc□fill and Fines (Zone J)
- Uncom□acted Roc□fill and Tailings (Nominally Zone J)
- Treatment Pond Dredging Sludge
- Fine Tailings (Paste or Thic□ener Underflow)
- Permeable Roc□fill (Zone C1-C4)
- Coarse Tailings (Cyclone Underflow)
- U□stream Zone A, Zone J and Boulders

BOREHOLE LOCATION
17724 PIEZOMETER (DATA NOT AVAILABLE)
17724 PIEZOMETER (FUNCTIONAL)
17724 PIEZOMETER (REMOVED FROM MONITORING PROGRAM)

SECTION F 709 — INSTRUMENT PLANE F (SCHEMATIC CROSS SECTION)
STA. 4+57

1 : 1250

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL VEHICLE (UAV) PHOTOGRAMMETRY DATED APRIL 2019, NOVEMBER 2019, OCTOBER 2020, NOVEMBER 2021 AND AS-BUILT SURVEY DATA FROM 2015 TO 2021 PROVIDED BY THE CLIENT. RECENT LYNX TDF TAILINGS SURVEY WAS IN SEPTEMBER 2021.
3. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
6						
5						
4						
3	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
2	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
1	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company
wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES 2021 DAM SAFETY INSPECTION

TITLE: LYNX TAILINGS DISPOSAL FACILITY INSTRUMENT PLANE F (STA. 4+57)

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010713

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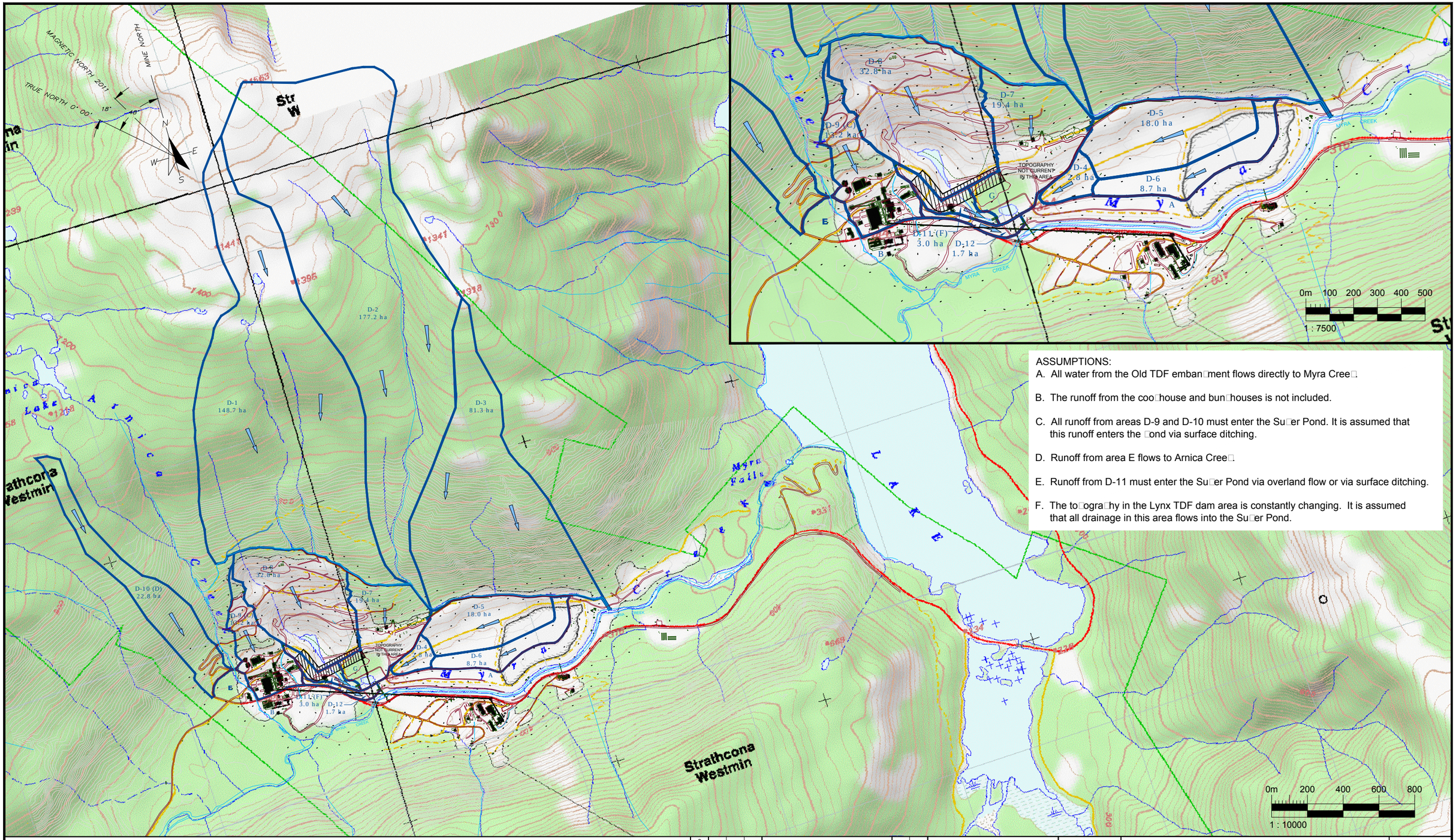

ASSUMPTIONS:

A. All water from the Old TDF embanment flows directly to Myra Cree.

B. The runoff from the coo house and bun houses is not included.

C. All runoff from areas D-9 and D-10 must enter the Su er Pond. It is assumed that this runoff enters the ond via surface ditching.

D. Runoff from area E flows to Arnica Cree.

E. Runoff from D-11 must enter the Su er Pond via overland flow or via surface ditching.

F. The to ogra hy in the Lynx TDF dam area is constantly changing. It is assumed that all drainage in this area flows into the Su er Pond.

NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
2. SURFACE TOPOGRAPHY BASED ON 2006 SURVEY DATA.
3. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m).
4. THE IMAGE PROVIDES CONTOUR INFORMATION OUTSIDE OF THE SURVEY DATA. THIS INFORMATION IS ON MASL DATUM. THE IMAGE WAS OBTAINED FROM SPECTRUM DIGITAL IMAGING LTD.

LEGEND

DRAINAGE BOUNDARY

FLOW DIRECTION

D-4 2.8 ha — DRAINAGE AREA ID / DRAINAGE AREA (in Hectares)

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.
G						
F						
E						
D	28	02	2022	ISSUED FOR DOCUMENTATION	JC	DS
C	31	03	2021	ISSUED FOR DOCUMENTATION	LF/ET	DS
B	31	03	2020	ISSUED FOR DOCUMENTATION	LF/JC	BEW
A	31	03	2019	ISSUED FOR DOCUMENTATION	AER	DHG

CLIENT: Myra Falls Mine — A Trafigura Group Company

wood.

DRAWN BY: KL
CHECKED BY: LF
DATUM: WGS84
PROJECTION: GEODETIC
SCALE: AS SHOWN

PROJECT: MYRA FALLS TAILINGS DISPOSAL FACILITIES 2021 DAM SAFETY INSPECTION

TITLE: DRAINAGE AREA MAP

DATE: JANUARY 2022
PROJECT NO: NX14001B3.1.520
REV. NO: D
FIG NO: 010714

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Appendix A – Site Photographs

Photo 1: Lynx TDF overview. (Image by MFM, July 2021)

Photo 2: Lynx TDF upstream slope at West arm looking south. (November 17, 2021)

Photo 3: Lynx TDF upstream pumping station located along the West Arm. (November 17, 2021)

Photo 4: Lynx TDF downstream shell, bench El. 346 m. View looking east (November 17, 2021)

Photo 5: Lynx TDF east abutment, view looking north (November 17, 2021)

Photo 6: Lynx TDF operations spillway crest looking north (November 17, 2021)

Photo 7: Lynx TDF punch-out in dam crest berm during precipitation event. (October 27, 2021)

Photo 8: Lynx TDF – Water ponding around standpipe near the Panel 15 drain (October 21, 2021)

Photo 9: Lynx TDF Springs Drain Sump box culvert, clear inflow (November 17, 2021)

Photo 10: Lower Lynx Diversion Ditch view facing west. (October 21, 2021)

Photo 11: Overview of Super Pond (foreground) and Polishing Ponds (background), looking south. (November 17, 2021)

Photo 12: Old TDF and Surge Pond overview. (Image by MFM, July 2021)

Photo 13: Old TDF, East end of East Strip - flow from APA drain shown in the background (October 27, 2021)

Photo 14: Old TDF West Strip, view looking west. (October 27, 2021)

Photo 15: Old TDF APA west (left) and east (right) decants. (October 27, 2021)

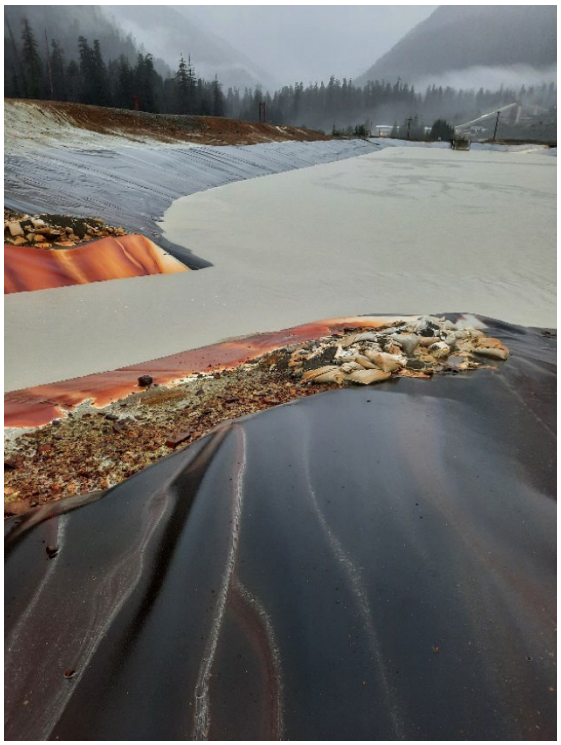


Photo 16: Old TDF West Strip channel outlet and Surge Pond. (October 21, 2021)

Photo 17: Surge Pond decant, view looking west (left) and east (right). (Oct 7 and Dec 10, 2021)

Photo 18: Old TDF Seismic Upgrade Berm - surface run-off management. (October 27, 2021)

Photo 19: Old TDF Seismic Upgrade Berm – location of erosion, view looking south. (October 27, 2021)

Photo 20: Old TDF Seismic Upgrade Berm spillway (background) and Myra Creek (foreground) (October 21, 2021)

Appendix B1 – Piezometer Status

Vibrating Wire Piezometers
Operational Status

Piezometer Number	Tip Elevation Geodetic (m)	Thermistor Status	Transducer Status	Piezometer Status
Old TDF - Plane 1				
32228	331.4	OK	OK	OK, functioning
32232	329.4	OK	OK	OK, functioning
36971	325.7	OK	OK	OK, functioning
36972	328.0	Unknown	Unknown	Cables severed June 2017. Signal measured in cables May 2018. Need to splice and reconnect to datalogger. Removed from monitoring program currently.
36973	319.7	OK	OK	OK, functioning
Old TDF - Plane A				
ATM	-	-	OK	Occasional false readings. Only used if Lynx Hut and Hut C barometer data missing.
A-0E	308.7	-	-	Destroyed August 1999
A-1E	304.8	-	-	Not functioning as of 16 August 2019, Removed from monitoring program.
A-2E	305.4	OK	OK	OK, functioning
A-4E	305.2	OK	OK	OK, functioning
A-5E	310.4	OK	OK	OK, functioning
A-6E	310.9	OK	OK	OK, functioning
A-8E	311.0	OK	OK	OK, functioning
A-9E	311.7	-	OK	Thermistor not functioning
A-10E	312.3	OK	OK	OK, functioning
A-12E	312.4	OK	OK	OK, functioning
A-13E	313.4	OK	OK	OK, functioning
A-14E	313.4	-	OK	Thermistor not functioning
A-16E	313.6	-	OK	Thermistor not functioning
A-17E	317.0	OK	OK	OK, functioning
A-18E	316.7	OK	OK	OK, functioning
A-20E	316.6	OK	OK	OK, functioning
A-25E	323.9	OK	OK	OK, functioning
A-26E	323.7	OK	OK	OK, functioning
A-27E	323.9	OK	OK	OK, functioning
A-28E	325.1	-	OK	Thermistor not functioning
A-29E	324.9	-	-	Not functioning, Removed from monitoring program.
A-30E	324.8	OK	OK	OK, functioning
A-31E	327.8	OK	OK	OK, functioning
A-32E	327.7	OK	OK	OK, functioning
A-33E	327.5	OK	OK	OK, functioning
Old TDF - Plane 2				
32225	328.6	OK	OK	OK, functioning
32240	313.3	OK	-	Not functioning. Removed from monitoring program March 2017.
32229	325.9	OK	OK	OK, functioning
32231	330.2	Unknown	Unknown	Cables severed July 2016. Signal measured in cables May 2018. Need to splice and reconnected to datalogger. Removed from monitoring program currently.
32220	328.6	OK	OK	OK, functioning
32239	310.3	OK	OK	OK, functioning

Vibrating Wire Piezometers
Operational Status

Piezometer Number	Tip Elevation Geodetic (m)	Thermistor Status	Transducer Status	Piezometer Status
Old TDF - Plane 3				
21715	329.3	Unknown	Unknown	Cables were never connected to a logger. Signal measured in cables May 2018. Need to splice and reconnect to datalogger.
32233	332.3	OK	OK	OK, functioning
Old TDF - Plane 4				
1204	329.3	OK	OK	OK, functioning
32237	332.4	OK	OK	OK, functioning
Old TDF - Plane 5				
32222	326.6	OK	OK	OK. Data logger has recorded occasional false readings signal since July 2017.
32241	308.7	OK	OK	OK. Data logger has recorded occasional false readings signal since July 2017.
17730	329.3	OK	OK	OK. Data logger has recorded occasional false readings signal since July 2017.
32234	328.5	-	-	Not functioning. Removed from program May 2018.
32224	327.0	OK	OK	OK, functioning
32238	308.7	OK	OK	OK, functioning
32223	316.8	OK	OK	OK, functioning
32227	304.6	OK	OK	Not functioning. Removed from monitoring program March 2017.
Old TDF - Plane C				
ATM	-	OK	OK	OK, functioning
C-2E	300.5	OK	OK	Not functioning. Removed from monitoring program
C-4E	300.1	OK	-	Not functioning. Removed from monitoring program
C-5E	310.1	-	OK	Thermistor not functioning
C-6E	303.7	-	OK	Thermistor not functioning
C-8E	302.5	-	-	Not functioning. Removed from monitoring program
C-10E	307.3	-	OK	Thermistor not functioning
C-12E	305.5	-	OK	Thermistor not functioning
C-13E	308.9	OK	OK	OK, functioning
C-14E	308.7	-	OK	Thermistor not functioning
C-16E	308.7	-	OK	Thermistor not functioning
C-17E	303.1	OK	OK	OK, functioning
C-18E	314.5	OK	OK	OK, functioning
C-20E	314.5	OK	OK	OK, functioning
C-21E	315.6	OK	OK	OK, functioning
C-22E	315.4	OK	OK	OK, functioning
C-24E	315.2	-	OK	Thermistor not functioning
C-29E	322.3	OK	OK	OK, functioning
C-30E	322.0	OK	-	Not functioning. Removed from monitoring program
C-31E	322.0	OK	OK	OK, functioning
C-32E	324.8	-	-	Not functioning. Removed from monitoring program
C-34E	324.7	-	-	Not functioning. Removed from monitoring program
C-35E	326.7	OK	OK	OK, functioning
C-36E	326.6	OK	OK	OK, functioning
C-37E	326.6	OK	OK	OK, functioning
17722	335.4	OK	OK	OK, functioning
17724	326.2	OK	OK	OK, functioning
17726	326.3	OK	OK	OK, functioning
17729	335.4	-	-	Not functioning. Removed from monitoring program

Vibrating Wire Piezometers
Operational Status

Piezometer Number	Tip Elevation Geodetic (m)	Thermistor Status	Transducer Status	Piezometer Status
Old TDF - Plane 6				
32219	335.2	OK	OK	OK, functioning
32226	330.6	OK	OK	OK, functioning
32230	328.8	OK	OK	OK, functioning
32236	330.4	OK	OK	OK, functioning
Old TDF - APA Berm				
B-1E	328.0	-	-	Not functioning. Cut off at ground May 2018.
B-5E	317.6	-	-	Not functioning. Cut off at ground May 2018.
P-1	324.4	OK	OK	OK, functioning
P-2	329.4	OK	OK	OK, functioning
P-3	324.3	OK	OK	OK, functioning
P-4	329.3	OK	OK	OK, functioning
P-5	325.1	OK	OK	OK, functioning
P-6	329.4	OK	OK	OK, functioning
P-7	319.8	OK	OK	OK, functioning
P-8	325.0	-	-	Not functioning after August 2011. Cut off at ground May 2018
P-9	331.4	-	-	Not functioning. Cable was not found May 2018, assume it was previously cut off.
P-10	326.9	-	-	Not functioning after September 2017. Cut off at ground May 2018.
P-11	332.6	OK	OK	OK, functioning
P-12	326.5	OK	OK	OK, functioning
P-13	332.2	OK	OK	OK, functioning
P-14	326.7	OK	OK	OK, functioning

Vibrating Wire Piezometers
Operational Status

Piezometer Number	Tip Elevation Geodetic (m)	Thermistor Status	Transducer Status	Piezometer Status
Lynx TDF - Plane D				
29334	328.4	OK	OK	OK, functioning
29326	350.0	-	-	Not functioning since September 2019.
Lynx TDF - Plane E				
17727	328.3	OK	OK	OK, functioning
17728	320.7	-	OK	Thermistor not functioning, Transducer not functioning in part of 2021.
17731	330.3	OK	OK	OK, functioning
17732	322.6	OK	-	Transducer not functioning after November 2016. Removed from program May 2018.
17733	308.5	-	OK	Thermistor not functioning, Transducer not functioning in part of 2021.
17734	310.5	-	OK	Thermistor not functioning, Transducer not functioning since August 2020.
29321	322.4	OK	OK	OK, functioning except part of 2021
29329	336.9	OK	OK	OK, functioning
29332	305.2	OK	OK	OK, functioning
29335	315.9	OK	OK	OK, functioning
17723	350.7	-	-	Not functioning since September 2019.
33783	351.6	-	OK	Thermistor not functioning
Lynx TDF - Plane F				
17725	278.3	OK	OK	OK, functioning
29322	337.3	OK	OK	OK, functioning
29323	326.1	-	-	Not functioning since July 2019.
29324	311.6	OK	OK	Not functioning in most part of 2021.
29330	328.4	OK	OK	OK, functioning
29333	296.7	-	OK	Thermistor not functioning, transducer functioning except part of 2021
29336	311.1	-	-	Removed from monitoring program March 2017.
31089	351.2	-	-	Not functioning after September 2017. Removed from program May 2018.
17721	350.9	-	-	Not functioning after September 2017. Removed from program May 2018.
32221	318.6	OK	OK	OK, functioning except part of 2021
33784	311.8	OK	OK	OK, functioning
Operational Status of Lynx TDF - Other Vibrating Wire Piezometers				
29320	323.5	OK	OK	OK, functioning except part of 2021
29325	304.3	OK	OK	OK, functioning
29331	306.3	OK	OK	OK, functioning except part of 2021
33781	314.4	OK	OK	OK, functioning
33782	294.4	OK	OK	OK, functioning
33780	Spring Drain	Unknown	Unknown	Cables were never connect to a logger. Needs to be connected to a datalogger.
44968	Spring Drain	Unknown	Unknown	Cables were never connect to a logger. Needs to be connected to a datalogger.

Appendix B2 – Quarterly Report Q1 2021

wood.

Wood Environment & Infrastructure Solutions,
a Division of Wood Canada Limited
4385 Boban Drive
Nanaimo, BC V9T 5V9
Canada
T: +1 250-758-1887

www.woodplc.com

Memo

To:	Nicole Pesonen		
From:	Liesl Dykeman, EIT	**Reviewer:**	Dixie Ann Simon, PEng, EOR
cc:		**Wood File No.:**	NX14001B3.1
Date:	19 May 2021		
Re:	**Myra Falls Mine – Tailings Disposal Facilities: Q1-2021 Dam Safety Monitoring Data Update**		

1.0 Background

Wood Environment and Infrastructure Solutions, a Division of Wood Canada Limited (Wood) was retained by Myra Falls Mine (MFM) to receive, process and review monitoring data for Myra Falls Mine Tailing Disposal Facilities (TDFs) on a quarterly basis as part of the dam operation and surveillance program. This memorandum includes a brief review of the monitoring data collected throughout the first quarter of 2021 (Q1-2021) which includes:

- Weather records (rainfall, snowfall and temperature).
- Vibrating wire piezometer (VWP) readings.
- Survey of deformation monuments for Lynx TDF.

Data collected for the quarter is presented in a series of figures and tables included as Attachments A through D. Prior to preparing these figures, Wood reviews the data for potential areas of error and spurious data. Data that indicates a dramatic jump and subsequent drop in pressure over a short period of time and is not consistent with prior and subsequent data is considered spurious. Engineering judgement is used when removing spurious or erroneous data from the data set. Weekly maximum piezometer levels provided in the tables are then presented based on reviewed data set for the quarter.

Background information on the facilities and monitoring program is not the purpose of this memorandum. Figures 1 and 2 show the layout of the current monitoring plans for the Lynx TDF and the Old TDF, respectively. For further details on facility design, development and monitoring the reader is referred to the annual Dam Safety Inspection (DSI) report and the OMS manual.

2.0 Data Received and Reviewed

A summary of data received for this quarter is provided in Table 1.

Table 1: Monitoring Data Source and Status

Monitoring Data	Source	Reading Frequency	Responsible	Comments
Weather Data	Automated Readings	Daily, Hourly	MFM	No comments
VWP Readings	Automated Readings	Hourly	MFM	No comments
Deformation Monuments	Land Survey	Quarterly	MFM	Surveys completed in January and February 2021
Lynx Pond Levels	Manual Readings	Weekly	MFM	Data not received from MFM
Tailings Surface Survey	Land Survey	Quarterly	MFM	Survey completed in January 2021
Slope Inclinometer	Profile Survey of Casing with Probe	Twice annually	Wood	Survey not completed during Q1

3.0 Weather Data

Weather data is collected automatically by a data logger at the Myra Falls Mine Weather station and includes: rainfall, snow depth, relative humidity, temperature, wind speed and wind direction. Snowfall is calculated as the daily difference in average snow depth. Erroneous values are sometimes recorded for the daily average snow depth, when this occurs the depth is calculated based on hourly average snow depth. Total daily precipitation is calculated as the sum of daily rainfall and daily snowfall converted to a water equivalent, where 10 mm of snow is equivalent to 1 mm of rain.

The weather data is presented in Attachment A. Included are tables with monthly/quarterly precipitation by year and monthly temperatures as well as graphs showing monthly precipitation and daily rainfall.

Precipitation was considered above average for the quarter, although February was under the historical average.

Monthly temperatures for January, February and March were cooler than the historical average temperatures for these months, based on previously recorded values for this period between 2012 and 2020.

4.0 Piezometer and Pond Level Data

A network of vibrating wire piezometers (VWPs) have been installed along both the Old TDF and Lynx TDF. Locations of these instruments and cross sections of the major instrumentation planes are shown on Figures 1 and 2.

Atmospheric pressures necessary to calculate pore water pressures, were logged on an hourly basis. There are two barometers at Myra Falls Mine, one in Lynx Hut and the other in Hut C. Generally, values from Lynx Hut are used for piezometric data calculations while Hut C data is considered supplemental and used to support Lynx Hut values.

4.1 Lynx TDF

The Lynx TDF piezometer network consists of:

- VWPs at various depths within the paste tailings of the Lynx TDF.
- VWPs in the Lynx Dam fill.
- VWPs in the shallow and deep foundation soils within the Lynx TDF Dam ultimate footprint.

4.1.1 Piezometer Damage and Missing Data

A total of five piezometers located within the footprint of the Lynx Dam showed erroneous data, discrepancies or non-values during Q1-2021. This does not account for any previously damaged and reported instruments. These piezometers are listed below:

- VW32221: stopped recording data during Q1-2021.
- VW29324: stopped recording data during Q1-2021.
- VW29333: stopped recording data during Q1-2021.
- VW29334: missing data for the first week of the quarter due to erroneous readings.
- VW17734: missing data during since August 2020.

4.1.2 Piezometer Results

Weekly maximum piezometer and pond levels for Lynx TDF are presented in Attachment B as Tables B-1 and B-2 and shown on Figures B-1 through B-5. Piezometer levels are generally reported in total head (geodetic elevation) except for a few locations where negative pressures (suction) have been observed, in those cases pressure heads in meters of water are plotted.

The piezometer levels are compared to thresholds developed in 2020 (Wood 2020)[1]. Notification levels (N1) are intended to flag unanticipated data for expedient review and are not linked to a specific reduction in factors of safety or to levels of concern. Thresholds S1, S2, S3 and P1 were developed based on long term static and post seismic stability models and linked to specific reductions in factor of safety. Threshold levels are summarized in Table 2.

Table 2: Lynx Piezometer Threshold Categories

Loading Condition	Threshold Level		Factor of Safety	Implications
Static	None	-	≥ 1.5	Target factors of safety met
	Notification	N1	≥ 1.5	Maximum porewater pressures measured
	Trigger	S1	< 1.5	Below long-term static factor of safety Short-term static factor of safety met
		S2	< 1.3	Below short-term static factor of safety
		S3	≤ 1.1	Critically low static factor of safety

[1] Wood Environment & Infrastructure Solutions (2020). Myra Falls Tailing Disposal Facility – Update of Vibrating Wire Piezometer Threshold. 13 November 2020.

Threshold levels for specific piezometers were established based on the pore water pressures at the specific location of the piezometer within the model when the FoS dropped below a target level. It is important to understand that although threshold levels are associated with individual instruments the associated FoS would only occur if all instruments within a plane exceeded their individual threshold.

The following threshold exceedances for piezometers installed in Lynx TDF were noted:

Tailings

- VW17728 exceeded N1 up until mid February and started exceeding on 11.08.2020.

Piezometers installed in the Lynx TDF deep paste gradually decreased towards the end of the quarter. Piezometers installed in the shallow foundation and dam fill remained constant through out the quarter, while the deep foundation piezometers spiked in January then decreased going towards March 2021. All piezometers except VW17728 remained within historical limits and on similar trends to data recorded during Q1-2020.

4.2 Old TDF

The Old TDF piezometer network is comprised of:

- VWPs under the outer embankment berm and in the upper tailings beach along instrumentation Planes A and C (data collected in Hut A and Hut C).
- VWPs located below the base of the APA Berm (data collected in Hut B).
- VWPs in the APA Berm fill, foundation tailings and soils, divided between instrumentation Planes 1 through 6.
- VWPs in the paste tailings, in the southeast corner of the Amalgamated Paste Area (APA).
- VWPs at the base, southeast slope toe and east slope crest of the Old TDF Surge Pond.

4.2.1 Piezometer Damage and Missing Data

One piezometer located within the footprint of the Old TDF showed erroneous data, discrepancies, or non-values during Q1-2021. This does not account for any previously damaged and reported instruments.

- C-22E B Units are recording; however, the thermistor appears to be functioning incorrectly as values have been steadily decreasing since installation and less than 4°C. Temperatures less than 4°C are considered unrealistically low.

4.2.2 Piezometer Results

Weekly maximum piezometer levels for the Old TDF are presented in Attachment C as Tables 1 and 3 and shown on Figures 1 through 14. The piezometer levels are reported in pressure head (in meters of water) and compared to VWP thresholds developed in March 2017 (Amec Foster Wheeler, 2017)[2]. Thresholds were developed based on a generalized pore water pressure model and the long-term static and post seismic stability models using Factor of Safety (FOS) levels summarized in the Table 2. Notification levels were not developed for the Old TDF.

[2] Amec Foster Wheeler Environment & Infrastructure (2017). Old Tailings Facility Vibrating Wire Piezometer Threshold Update. Technical Letter, File No. NX14001B, Nanaimo, 17 March 2017.

Piezometer values generally followed increasing trends during this period. Piezometric pressure head values spiked during January 2021 across all instruments which is generally consistent with historical trends but majority were less than the S3 threshold value.

VWP17726 showed an increase through the quarter and exceeded the historical maximum pressure. This was likely the result of stockpiling waste rock on top of the surface of the APA in the vicinity of this VWP. The readings have been monitored going into the second quarter and the pressures have been decreasing as material is removed from the stockpile.

Based on the method used to establish the Old TDF thresholds regular exceedances are anticipated. Work to refine the thresholds to reduce the number of exceedances is in process.

Historical Maximums

The following historical maximums were noted for the Q1-2021 Period:

- Plane 5 Upper Tailings Beach VW32224 recorded during the week of January 10.
- Plane 5 Paste Berm VW17726 recorded during the week of March 14.

Quarterly Exceedances

The following threshold exceedances were noted for the Q1-2021 Period:

Plane 1

- VW36971 exceeded S1 (has been periodically exceeding since 04.30.2017) and P1 (has been exceeding since 04.30.2017) throughout the quarter.

Plane A/Plane 2

- Outer Embankment Slope – 2
  - A-2E exceeded S3 and P1 throughout the quarter and has been exceeding both thresholds since 01.03.2010.
  - A-18E exceeded S1 in January and the second last week of March and has been periodically exceeding this threshold since 01.03.2010.
- Outer Embankment Slope – 3
  - A-4E exceeded S3 and P1 throughout the quarter and has been exceeding these thresholds since 01.03.2010.
- Upper Tailings Beach
  - A-26E exceeded S2 and P1 throughout the quarter and has exceeded both since 01.03.2010.
  - A-28E exceeded S1 to S2, and P1 throughout the quarter and has exceeded S1,2, and 3 interchangeably since 01.03.2010.
  - VW32220 exceeded S1 throughout the quarter and P1 in the first five and last three weeks of the quarter and has exceeded both thresholds since November 2020 and has periodically exceeded them since 01.03.2010.

- Strip and Paste Berm
  - VW32225 exceeded S1 throughout January (started exceeding in 12.27.2020) and exceeds P1 throughout the quarter (started exceeding 11.29.2020).
  - P-11 exceeded S1 to S2 (started exceeding in 11.22.2020), and P1 (started exceeding 11.08.2020) throughout the quarter.

Plane 3

- VW32233 exceeded S2 to S3, and P1 throughout most of the quarter.

Plane 4

- No exceedances were recorded on Plane 4.

Plane C/Plane 5

- Outer Embankment Slope – 1, C-17E exceeded S1 to S2, and P1 throughout the quarter and has been exceeding since 11.22.2020.
- Outer Embankment Slope – 2, VW32241 exceeded S1 to S2 during January to mid-February, and one week in March, and also exceeds P1 in January and started exceeding during 11.08.2020.
- Outer Embankment Slope – 3, VW32238 exceeded S1 throughout the quarter, and P1 in January and started exceeding during 11.15.2020.
- Upper Tailings Beach
  - C-29E exceeded S3 and P1 throughout the quarter and has been exceeding since 01.03.2010.
  - C-31E, C-35E, C-36E and C37E exceeded S1 and P1 throughout the quarter and have been exceeding since 01.03.2010.
  - VW32224 exceeded S2 and P1 throughout the quarter and has been periodically exceeding since 04.19.2015.
- Paste Berm
  - VW17730 (exceeding periodically since 09.27.2015), VW32222 (exceeding since 09.27.2020), and VW17724 (exceeding since 12.06.2020) exceed S1 throughout the quarter, and P1 in January and March.
  - VW17726 exceeded S1 and P1 from February to March.

Plane 6

- No exceedances were recorded on Plane 6.

Old TDF piezometer data generally followed a similar trend. Pressures were very high in January with readings decreasing towards the end of the quarter.

5.0 Slope Inclinometer

Profile surveys of the slope inclinometer casings were not scheduled for Q1-2021.

6.0 Deformation Monuments

6.1 Lynx TDF

The provided survey data and the calculated deformation magnitude and direction are provided in Attachment D. In Q1, two readings took place on 12 January 2021 and 18 February 2021. The cumulative displacement of all monuments was less than 1.5 cm since 16 September 2020, which is less than the error for the survey method, with the exception of Lynx 21-14 which had a cumulative displacement magnitude of 14.9 cm in the southwest direction. Monument settlement was no larger than 3.5 cm with the exception of Lynx 21-14 which settled by 5.8 cm. MFM should make another reading Lynx 21-14 in due course to confirm the trend of movement. Inspection of this area should be conducted during the next dam safety inspection.

6.2 Old TDF

The surface deformation monuments were not surveyed in Q1-2021.

7.0 Tailings Production and Storage

Tailings placement at the Lynx TDF was ongoing during Q1-2021, a survey of the tailings was completed and received by Wood in January 2021 from Mifflin Surveys.

No tailings placement occurred at the Old TDF during Q1-2021; however, waste rock has been temporarily stored on the surface of the APA.

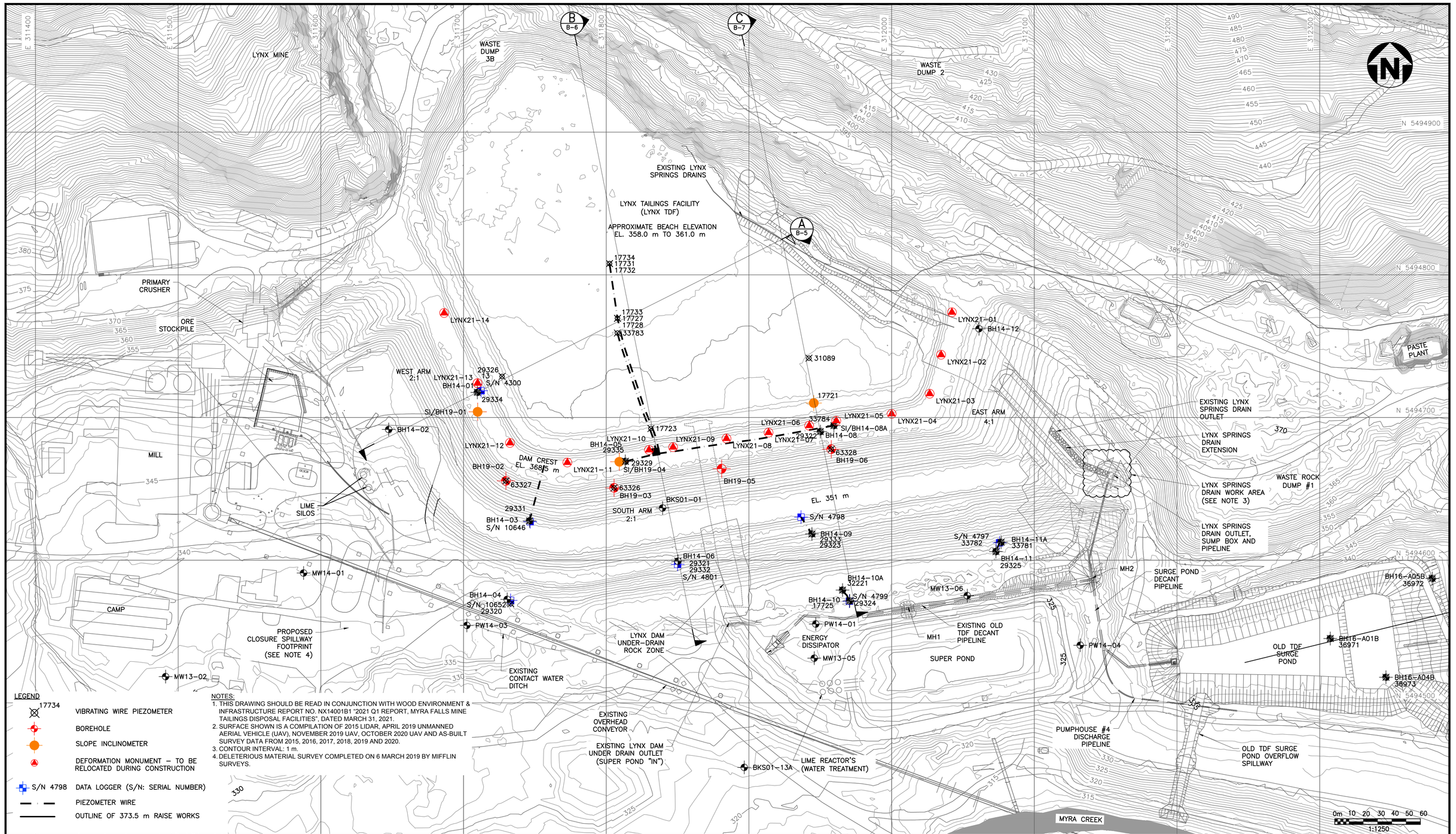
8.0 Closure

This memorandum has been prepared for the exclusive use of Myra Falls Mine for specific application to the area within this memorandum. Any use which a third party makes of this memorandum, or any reliance on or decisions made based on it, are the responsibility of such third parties. Wood accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this memorandum. It has been prepared in accordance with generally accepted geotechnical and tailings dam engineering practices. No other warranty, express or implied, is made.

Attachments

Figure 1: Lynx TDF Instrumentation Plan
Figure 2: Old TDF Instrumentation Plan
Attachment A: Weather Data
Attachment B: Lynx TDF VWP Data
Attachment C: Old TDF VWP Data
Attachment D: Lynx TDF Deformation Monuments

Figures



LEGEND

- 17734 — VIBRATING WIRE PIEZOMETER
- BOREHOLE
- SLOPE INCLINOMETER
- DEFORMATION MONUMENT – TO BE RELOCATED DURING CONSTRUCTION
- S/N 4798 — DATA LOGGER (S/N: SERIAL NUMBER)
- PIEZOMETER WIRE
- OUTLINE OF 373.5 m RAISE WORKS

NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B1 "2021 Q1 REPORT, MYRA FALLS MINE TAILINGS DISPOSAL FACILITIES", DATED MARCH 31, 2021.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR, APRIL 2019 UNMANNED AERIAL VEHICLE (UAV), NOVEMBER 2019 UAV, OCTOBER 2020 UAV AND AS-BUILT SURVEY DATA FROM 2015, 2016, 2017, 2018, 2019 AND 2020.
3. CONTOUR INTERVAL: 1 m.
4. DELETERIOUS MATERIAL SURVEY COMPLETED ON 6 MARCH 2019 BY MIFFLIN SURVEYS.

ISSUED FOR DOCUMENTATION

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 22" X 34" FORMAT DRAWINGS.

CLIENT: nyrstar

wood.
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Tel: 1-604-294-3811 Fax: 1-604-294-4664

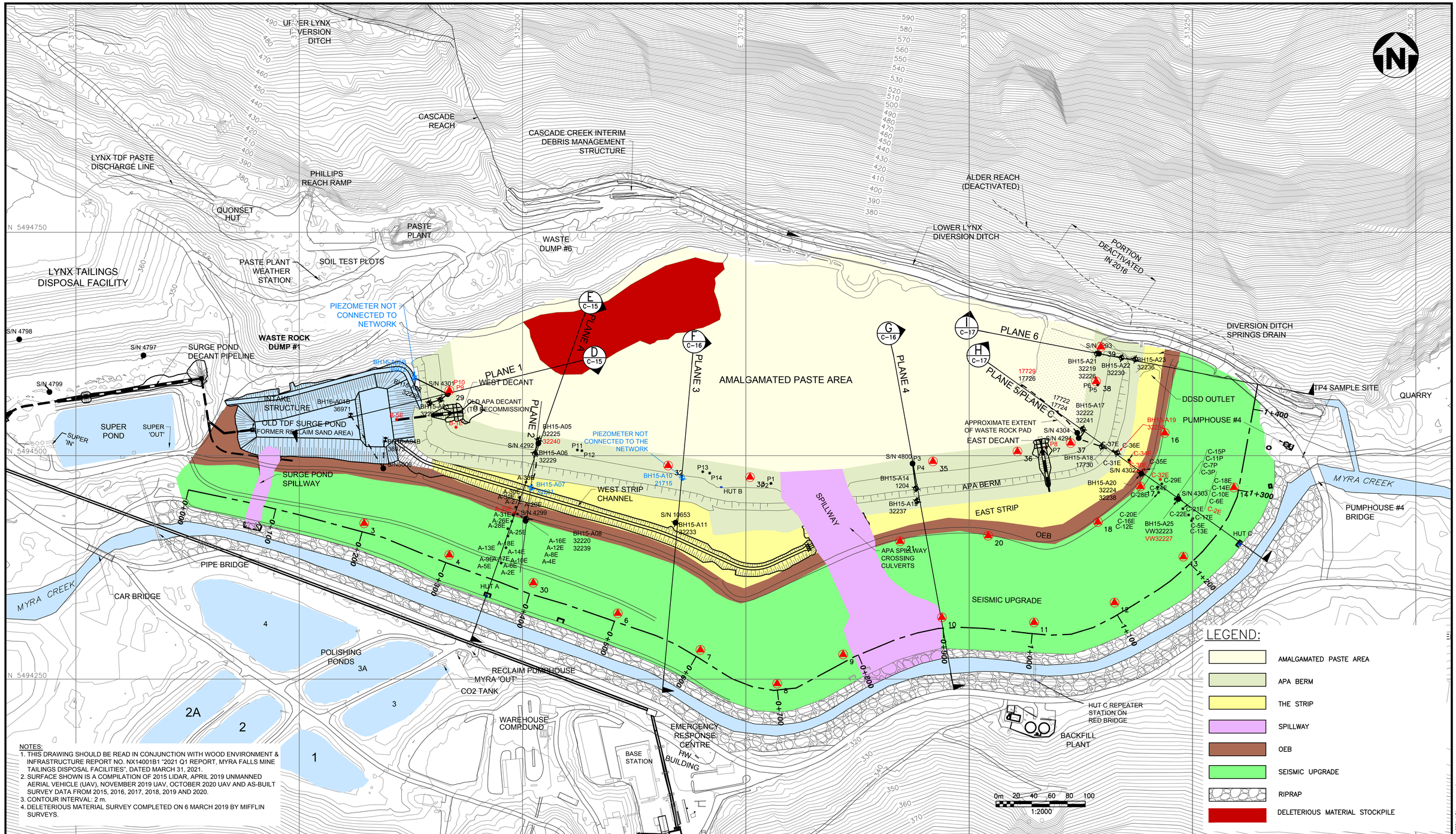
DRAWN BY:	KL
CHECKED BY:	LD
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

PROJECT: MYRA FALLS LYNX TDF
2021 Q1 QUARTERLY REPORT

TITLE: INSTRUMENTATION LAYOUT PLAN

DATE:	APRIL 2021
PROJECT NO:	NX14001B3.1.510
REV. NO:	A
FIG. NO:	FIGURE 1

P:\CAD\GIS\FIGURE 1.dwg – FIG – Apr. 23, 2021 4:33pm – yuan.chen



NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B1 "2021 Q1 REPORT, MYRA FALLS MINE TAILINGS DISPOSAL FACILITIES", DATED MARCH 31, 2021.
2. SURFACE SHOWN IS A COMPILATION OF 2015 LIDAR, APRIL 2019 UNMANNED AERIAL VEHICLE (UAV), NOVEMBER 2019 UAV, OCTOBER 2020 UAV AND AS-BUILT SURVEY DATA FROM 2015, 2016, 2017, 2018, 2019 AND 2020.
3. CONTOUR INTERVAL: 2 m.
4. DELETERIOUS MATERIAL SURVEY COMPLETED ON 6 MARCH 2019 BY MIFFLIN SURVEYS.

LEGEND:
- AMALGAMATED PASTE AREA
- APA BERM
- THE STRIP
- SPILLWAY
- OEB
- SEISMIC UPGRADE
- RIPRAP
- DELETERIOUS MATERIAL STOCKPILE

LEGEND:
- A-28E PIEZOMETER (FUNCTIONAL)
- A-28E PIEZOMETER (REMOVED FROM MONITORING PROGRAM)
- A-28E PIEZOMETER (DATA NOT AVAILABLE)
- S/N 10646 SINGLE-CHANNEL DATALOGGER
- S/N 4300 MULTI-CHANNEL DATALOGGER
- BURIED WIRE(S)
- EXPOSED WIRE(S)
- 3 MONUMENT

ISSUED FOR DOCUMENTATION

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 22" X 34" FORMAT DRAWINGS.

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DRAWN BY:	KL
CHECKED BY:	LD
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

PROJECT: MYRA FALLS LYNX TDF 2021 Q1 QUARTERLY REPORT

TITLE: OLD TAILINGS DISPOSAL FACILITY INSTRUMENTATION PIEZOMETERS

DATE:	APRIL 2021
PROJECT NO:	NX14001B3.1.510
REV. NO:	A
FIG. NO:	FIGURE 2

P:\CAD\GN\FIGURE 2.dwg – Layout1 – Apr. 23, 2021 4:34pm – yuan.chen

Attachment A
Weather Data

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Table A-1: Monthly Precipitation Data by Year

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual Total	
YEAR	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Actual	Inferred
*1979						71	125	47	384	343	187	620		(2913)
1980	270	296	90	241	52	87	70	37	181	180	497	706	2706	
1981	346	428	118	278	114	125	78	63	310	450	466	412	3189	
1982	299	505	110	193	22	27	19	35	89	779	213	493	2783	
1983	530	624	375	84	42	130	95	60	60	218	619	193	3028	
*1984	399	520		263	193	32	9	40	95	576	340	220		(2931)
*1985	64	175	148	114	85	21	32	21	77					(1902)
*1986			418	88	239	89	41	4	54	590		390		(3004)
*1987		337	425	263	223	184	59	18	98	84	592	437		(3096)
1988	343	203	212	215	215	80	25	29	114	246	582	201	2467	
1989	329	102	224	198	63	72	42	42	18	339	250	253	1931	
1990	372	283	123	59	82	130	31	70	19	565	806	344	2883	
1991	353	543	86	126	80	28	33	207	8	60	596	610	2730	
1992	860	305	45	244	6	41	11	36	90	390	257	241	2527	
1993	57	55	289	207	148	64	77	92	1	180	141	393	1705	
*1994	258		203	149	79	137	6	47	74	219	380	499		(2311)
*1995	- data not available -													
*1996	- data not available -													
*1997		64	259	217	124	183	72	114	0	442	348	374		(2573)
1998	571	419	159	21	37	14	67	3	3	130	473	279	2175	
1999	219	295	174	96	50	16	1	114	55	138	667	183	2007	
2000	50	218	99	76	132	50	124	52	62	325	168	125	1479	
2001	333	123	144	107	132	38	38	163	67	200	519	367	2233	
2002	195	134	56	93	41	23	28	27	51	34	588	288	1557	
2003	471	61	412	177	50	51	44	30	45	558	94	348	2341	
2004	327	134	160	40	24	42	23	74	157	218	489	340	2026	
2005	433	70	223	396	306	58	100	54	98	515	268	522	3043	
2006	616	316	379	125	76	46	28	5	77	139	811	561	3176	
2007	538	288	438	208	75	129	71	69	167	410	491	416	3300	
2008	250	176	188	59	80	29	8	162	22	260	458	163	1854	
2009	140	139	291	91	171	44	35	17	165	321	882	258	2553	
2010	666	353	381	223	171	60	2	19	269	478	285	629	3535	
2011	284	327	528	166	80	12	82	42	340	295	478	200	2834	
*2012	601	241	424	199	55	86	10	14	16	317	525	264		(2752)
2013	96	267	168	112	125	66	3	125	277	57	227	100	1622	
2014	170	243	341	170	48	32	32	17	144	589	404	548	2740	
*2015	259	332	460	105	35	15	20	149	217	262	248	700		(2802)
*2016	469	374	507	81	17	63	31	61	87	501	935			(3508)
*2017	25	240	377	260	55	36	9	2	32	638	851	88		(2612)
*2018	667	127	83	256	8	36	10	13	299	136	409	778		(2821)
*2019	353	64	42	212	12	32	64	65	150	228	330	545		(2097)
2020	866	205	142	85	75	54	9	88	192	244	402	338	2700	(2700)
*2021	561	172	277											(1009)
Num.	37	38	39	39	39	40	40	40	40	39	38	38	**26**	(13)
Avg.	375	260	245	163	93	64	42	57	115	327	456	382	**2580**	(2563)
St. Dev.	211	144	142	82	72	45	34	50	102	187	218	182	**581**	(541)
Max.	866	624	528	396	306	184	125	207	384	779	935	778	**3535**	(3535)
Min.	25	55	42	21	6	12	1	2	0	34	94	88	**1479**	(1479)

Notes: Data from Power House Weather Station 1979 to 2015
Data from Myra Falls Mine Weather Station 2015 to 2021
Lime shading - dry (value < monthly mean - standard deviation)
Aqua shading - wet (value > monthly mean + standard deviation)
Underlined - months with incomplete data, beginning in 2017
* = years with incomplete data sets

Table A-2: Quarterly Precipitation Data by Year

	Q1	Q2	Q3	Q4	Annual Total	
YEAR	mm	mm	mm	mm	Actual	Inferred
*1979		71	555	1150		(2605)
1980	656	380	287	1383	2706	
1981	892	517	451	1329	3189	
1982	914	243	142	1484	2783	
1983	1529	255	214	1030	3028	
*1984	919	487	144	1136		(2686)
*1985	387	221	130			(1849)
*1986	418	416	99	980		(1913)
*1987	762	670	176	1113		(2721)
1988	758	511	169	1029	2467	
1989	656	332	101	842	1931	
1990	777	270	120	1715	2883	
1991	982	234	248	1266	2730	
1992	1210	292	136	888	2527	
1993	401	420	171	714	1705	
*1994	461	365	128	1097		(2051)
*1995	- data not available -					
*1996	- data not available -					
*1997	324	524	186	1164		(2198)
1998	1148	72	73	882	2175	
1999	688	162	170	988	2007	
2000	367	257	237	618	1479	
2001	600	278	268	1086	2233	
2002	385	157	106	910	1557	
2003	944	279	119	999	2341	
2004	621	106	253	1047	2026	
2005	726	760	252	1305	3043	
2006	1310	247	110	1511	3176	
2007	1264	412	307	1316	3300	
2008	614	168	191	881	1854	
2009	569	306	217	1461	2553	
2010	1400	454	290	1392	3535	
2011	1139	258	464	973	2834	
*2012	1266	340	40	1107		(2752)
2013	532	302	405	384	1622	
2014	755	251	193	1542	2740	
2015	1051	155	386	1210		(2802)
*2016	1350	161	179	1436		(3126)
*2017	642	350	43	1578		(2612)
*2018	876	300	322	1323		(2821)
*2019	459	256	279	1103		(2097)
2020	1213	214	289	984	2700	
2021	1009					
Num.	40	40	40	39	**26**	(13)
Avg.	829	314	214	1111	**2469**	(2478)
St. Dev.	353	146	104	331	**581**	(524)
Max.	1529	760	555	1715	**3535**	(3535)
Min.	324	71	40	384	**1479**	(1479)

Notes: Data from Power House Weather Station 1979 to 2015

Data from Myra Falls Mine Weather Station 2015 to 2021

Lime shading - dry (value < monthly mean - standard deviation)

Aqua shading - wet (value > monthly mean + standard deviation)

Underlined - quarters with incomplete data, beginning in 2017

* = years with incomplete data sets

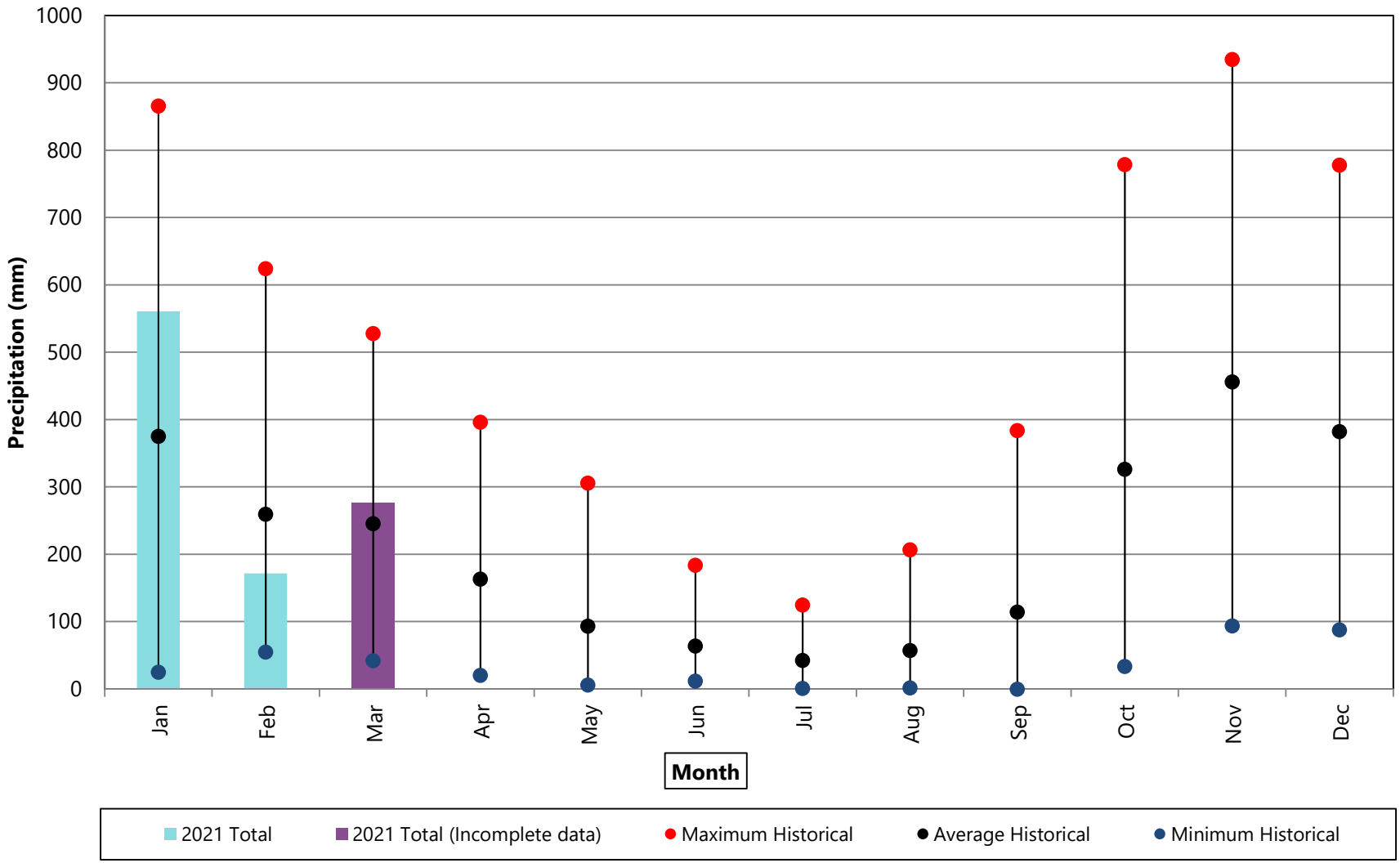
Table A-3: 2021 Monthly Temperatures (˚C)

	Historical Temperature [1]			2021 [2]		
Month	Minimum	Maximum	Average	Minimum	Maximum	Average
January	-0.6	3.2	1.0	-0.6	3.0	1.2
February	-1.2	5.0	1.4	-2.3	3.1	0.4
March	0.2	8.8	3.4	-0.8	7.7	3.5
April	2.8	12.9	7.1			
May	7.4	20.0	12.7			
June	9.8	21.5	15.3			
July	12.7	25.8	18.7			
August	13.3	26.1	19.2			
September	9.8	20.3	14.6			
October	5.4	12.9	8.7			
November	1.3	6.1	3.6			
December	-1.0	2.6	0.6			

[1] Temperature data obtained from Myra Falls site from 2012 to 2021.

[2] Temperature data recorded at the Myra Falls Mine Weather Station.

[3] Underlined values represent incomplete data sets.



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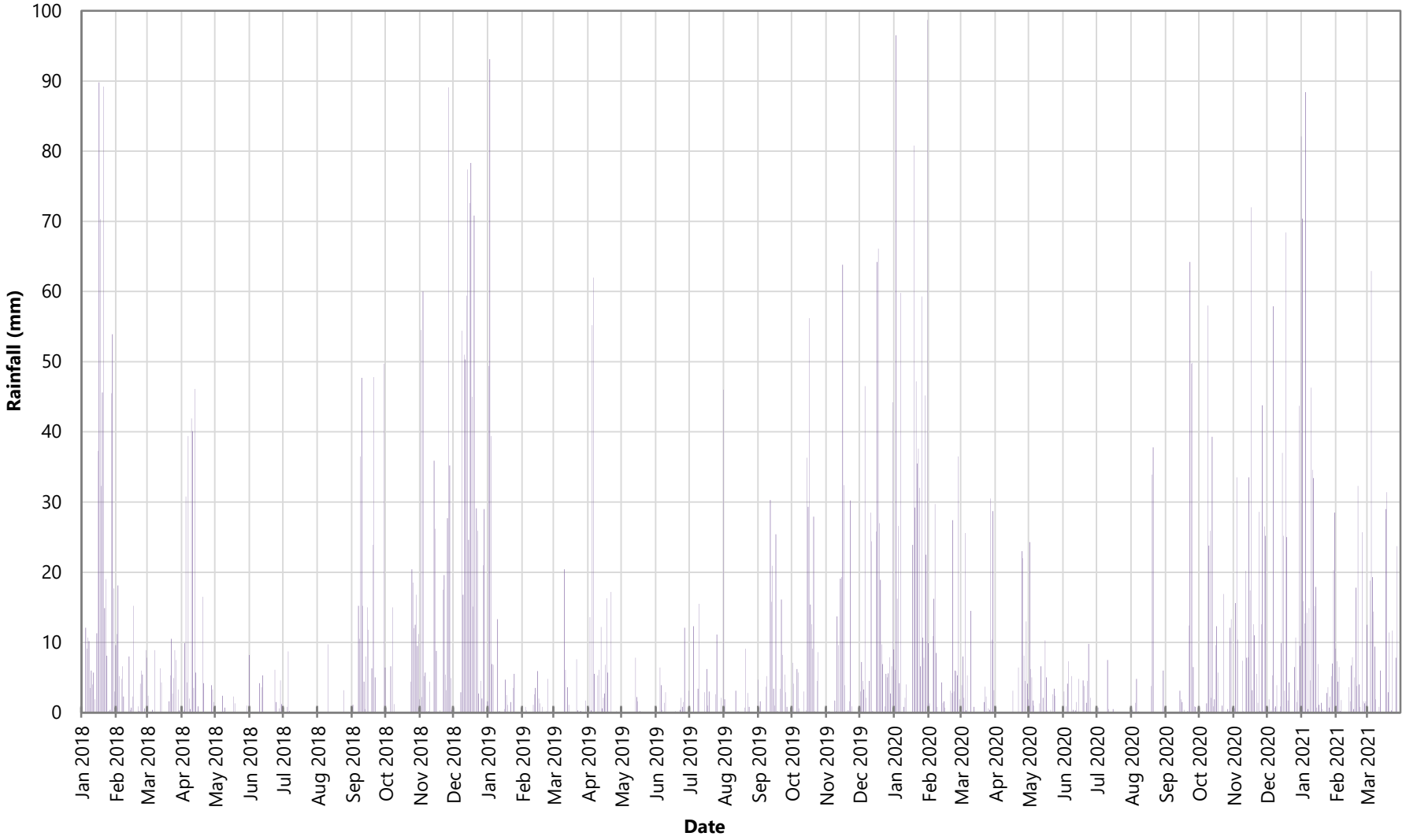
CLIENT: Myra Falls Mine
A Trafigura Group Company

PROJECT:	Myra Falls Quarterly Reporting				
TITLE:	Monthly Precipitation at Myra Falls				
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.	
April 2021	NX140001	Weather Data Analysis 2021 March.xlsx	A-1	0	



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

PROJECT: **Myra Falls Quarterly Reporting**

TITLE: **Daily Rainfall at the Myra Falls Mine Weather Station**

DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
April 2021	NX140001	Weather Data Analysis 2021	A-2	0

Attachment B
Lynx TDF VWP Data

Table/Figure/Drawing No.	Title
Table B-1	Lynx Paste Tailings – Weekly Maximum Vibrating Wire Piezometer Readings and Weekly Maximum Pond Levels
Table B-2	Lynx Dam – Weekly Maximum Vibrating Wire Piezometer Readings
Figure B-1	Lynx TDF – Deep Paste VWP Data
Figure B-2a	Lynx Dam – Shallow Foundation VWP Data
Figure B-2b	Lynx Dam – Shallow Foundation VWP Data
Figure B-3	Lynx Dam – Deep Foundation VWP Data
Figure B-4	Lynx Dam – Dam Fill VWP Data
Figure B-5	Lynx Dam Plane D VWP Quarterly Maximums and Minimums
Figure B-6	Lynx Dam Plane E VWP Quarterly Maximums and Minimums
Figure B-7	Lynx Dam Plane F VWP Quarterly Maximums and Minimums

wood.

Table B-1: Lynx Tailings - Weekly Maximum Pond Levels and Vibrating Wire Piezometer Readings, Total Head and Pressure Head

Location	Upstream Dam Toe and Tailings									
Plane and Position	**Plane D/E - Deep Tailings**		**Plane D/E - Deep Tailings**		**Plane D/E - Deep Tailings**		**Plane D/E - Deep Tailings**		**Plane D/E - Deep Tailings**	
Piezometer	**17727**		**17728**		**17733**		**17731**		**17734**	
Tip Elevation (m)	**328.36**		**320.74**		**308.5**		**330.31**		**310.5**	
Historical Max. Value	**342.67**	**14.31**	**337.13**	**16.39**	**323.96**	**15.46**	**349.35**	**19.04**	**327.38**	**16.88**
Trigger Point S1	**n/a**		**n/a**		**n/a**		**n/a**		**n/a**	
Trigger Point S2	**n/a**		**n/a**		**n/a**		**n/a**		**n/a**	
Trigger Point S3	**n/a**		**n/a**		**n/a**		**n/a**		**n/a**	
2021-01-10	342.51	14.15	**336.87**	**16.13**	319.24	10.74	348.36	18.05	N/A	N/A
2021-01-17	342.26	13.90	**336.67**	**15.93**	319.02	10.52	348.08	17.77	N/A	N/A
2021-01-24	342.28	13.92	**336.68**	**15.94**	319.16	10.66	348.14	17.83	N/A	N/A
2021-01-31	342.21	13.85	**336.79**	**16.05**	319.26	10.76	347.96	17.65	N/A	N/A
2021-02-07	341.92	13.56	**336.64**	**15.90**	319.18	10.68	347.72	17.41	N/A	N/A
2021-02-14	342.07	13.71	**336.83**	**16.09**	319.43	10.93	347.85	17.54	N/A	N/A
2021-02-21	341.68	13.32	336.23	15.49	318.71	10.21	347.64	17.33	N/A	N/A
2021-02-28	341.51	13.15	335.92	15.18	318.31	9.81	347.57	17.26	N/A	N/A
2021-03-07	341.59	13.23	336.18	15.44	318.45	9.95	347.61	17.30	N/A	N/A
2021-03-14	341.65	13.29	336.27	15.53	318.45	9.95	347.83	17.52	N/A	N/A
2021-03-21	341.53	13.17	335.86	15.12	318.15	9.65	347.75	17.44	N/A	N/A
2021-03-28	341.54	13.18	335.91	15.17	318.14	9.64	347.74	17.43	N/A	N/A

Legend:

1.8	Threshold level S1, short-term static design factor of safety below 1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level N1, notable porewater pressure requiring further review, does not represent a stability concern
330.05	Historical maximum value
328.29	Negative pore pressure (elevation head below tip elevation)
	Blank spaces indicate no data available

Note:
The noted factor of safety would only occur for a particular section if most instruments in that section were at their individual threshold level.

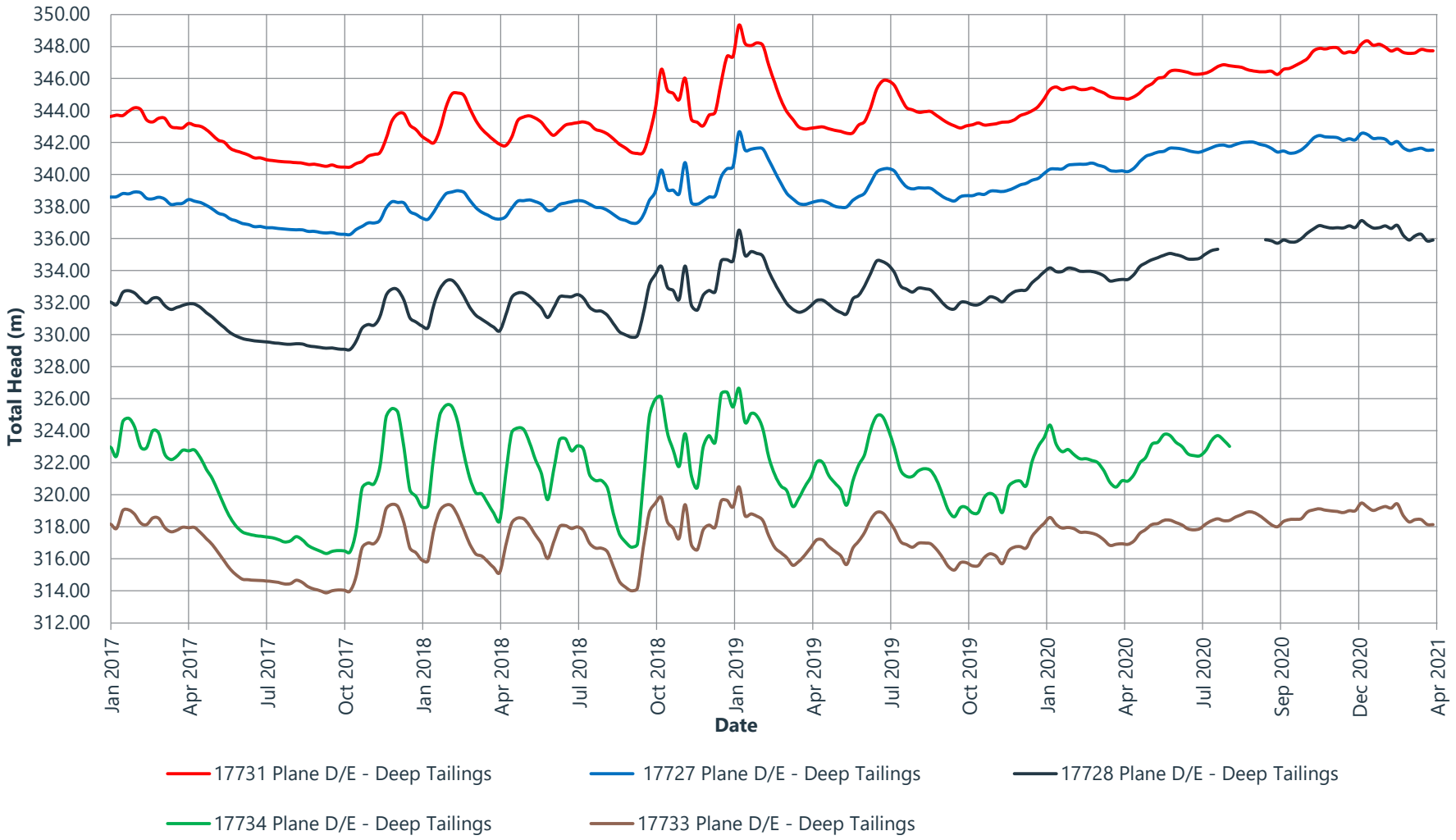
Table B-2: Lynx Dam - Weekly Maximum Vibrating Wire Piezometer Readings, Total Head and Pressure Head

Location	Shallow Foundation																								Deep Foundation						Dam Fill			
Plane and Position	Plane D below CL		Plane D/E Ultimate Dam Footprint		Plane E below CL		Plane E below Downstream Shell		Plane F below CL		Plane F Ultimate Dam Footprint		Plane D/E below Downstream Shell		Plane E below Downstream Shell		Plane D below Downstream Shell		Plane A below Downstream Shell		Plane F below Downstream Shell		Plane F Ultimate Dam Footprint		Plane F below CL		Plane F Dam Fill CL		Plane E Dam Fill CL	
Piezometer	29334		29320		29335		29321		29330		32221		29331		63326		63327		63328		29333		29324		33784		29322		29329	
Tip Elevation (m)	328.40		323.50		315.90		322.40		328.40		318.55		306.30		331.30		331.90		327.05		296.70		311.60		311.85		337.30		336.90	
Historical Max. Value	330.84	2.44	324.86	1.36	319.05	3.15	325.17	2.77	330.67	2.27	325.94	7.39	320.73	14.43	329.95		331.01		326.65		317.26	20.56	318.60	7.00	331.90	20.05	339.52	2.22	339.00	2.10
Trigger Point S1	353.00	24.60	326.10	2.60	347.00	31.10	332.50	10.10	342.50	14.10	325.40	6.85	340.50	34.20	345.00	13.70	344.50	12.60	341.00	13.95	332.00	35.30	318.70	7.10	342.50	30.65	342.50	5.20	347.00	10.10
Trigger Point S2	361.00	32.60	341.30	17.80	359.00	43.10	340.30	17.90	355.00	26.60	328.40	9.85	346.00	39.70	354.00	22.70	352.50	20.60	350.00	22.95	335.00	38.30	321.80	10.20	355.00	43.15	355.00	17.70	359.00	22.10
Tigger Point S3	367.50	39.10	346.30	22.80	362.00	46.10	345.30	22.90	362.50	34.10	331.80	13.25	350.00	43.70	359.00	27.70	357.00	25.10	357.50	30.45	336.00	39.30	325.20	13.60	362.50	50.65	362.50	25.20	362.00	25.10
Trigger Point N1	330.80	2.40	326.10	2.60	319.10	3.20	325.20	2.80	330.70	2.30	325.40	6.85	320.70	14.40	329.70		332.40		329.80		317.30	20.60	318.60	7.00	331.90	20.05	339.50	2.20	339.00	2.10
2021-01-03	N/A	N/A	324.08	0.58	316.47	0.57	323.01	0.61	328.66	0.26	N/A	N/A	317.41	11.11	*330.00*	*-1.30*	*331.72*	*-0.18*	*326.66*	*-0.39*	N/A	N/A	N/A	N/A	324.80	12.95	*337.13*	*-0.17*	*336.68*	*-0.22*
2021-01-10	328.87	0.47	323.93	0.43	316.58	0.68	323.02	0.62	328.70	0.30	N/A	N/A	316.73	10.43	*330.02*	*-1.28*	*331.75*	*-0.15*	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	324.80	12.95	*337.20*	*-0.10*	*336.70*	*-0.20*
2021-01-17	328.82	0.42	323.68	0.18	316.35	0.45	322.76	0.36	328.55	0.15	N/A	N/A	316.24	9.94	*329.99*	*-1.31*	*331.68*	*-0.22*	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	324.07	12.22	*337.12*	*-0.18*	*336.66*	*-0.24*
2021-01-24	328.85	0.45	323.68	0.18	316.48	0.58	322.69	0.29	328.68	0.28	N/A	N/A	315.09	8.79	*330.02*	*-1.28*	*331.70*	*-0.20*	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	321.69	9.84	*337.17*	*-0.13*	*336.68*	*-0.22*
2021-01-31	328.57	0.17	323.77	0.27	316.38	0.48	322.61	0.21	328.60	0.20	N/A	N/A	314.57	8.27	*329.98*	*-1.32*	*331.67*	*-0.23*	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	319.00	7.15	*337.12*	*-0.18*	*336.65*	*-0.25*
2021-02-07	328.59	0.19	323.72	0.22	316.38	0.48	322.73	0.33	328.61	0.21	N/A	N/A	314.55	8.25	*329.99*	*-1.31*	*331.69*	*-0.21*	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	317.52	5.67	*337.16*	*-0.14*	*336.67*	*-0.23*
2021-02-14	328.58	0.18	323.67	0.17	316.41	0.51	322.69	0.29	328.64	0.24	N/A	N/A	314.47	8.17	*330.00*	*-1.30*	*331.69*	*-0.21*	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	317.04	5.19	*337.13*	*-0.17*	*336.65*	*-0.25*
2021-02-21	328.54	0.14	323.79	0.29	316.31	0.41	322.62	0.22	328.54	0.14	N/A	N/A	314.42	8.12	*329.98*	*-1.32*	331.99	0.09	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	316.99	5.14	*337.16*	*-0.14*	*336.67*	*-0.23*
2021-02-28	328.56	0.16	323.85	0.35	316.38	0.48	322.74	0.34	328.61	0.21	N/A	N/A	314.92	8.62	*329.99*	*-1.31*	332.02	0.12	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	316.77	4.92	*337.12*	*-0.18*	*336.65*	*-0.25*
2021-03-07	328.73	0.33	323.82	0.32	316.34	0.44	322.79	0.39	328.58	0.18	N/A	N/A	315.60	9.30	*329.98*	*-1.32*	332.02	0.12	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	317.95	6.10	*337.13*	*-0.17*	*336.65*	*-0.25*
2021-03-14	328.77	0.37	323.74	0.24	316.35	0.45	322.82	0.42	328.60	0.20	N/A	N/A	314.93	8.63	*329.99*	*-1.31*	332.05	0.15	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	318.78	6.93	*337.16*	*-0.14*	*336.66*	*-0.24*
2021-03-21	328.78	0.38	323.77	0.27	316.32	0.42	322.76	0.36	328.58	0.18	N/A	N/A	314.85	8.55	*329.99*	*-1.31*	332.06	0.16	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	318.82	6.97	*337.17*	*-0.13*	*336.68*	*-0.22*
2021-03-28	328.81	0.41	323.76	0.26	316.35	0.45	322.77	0.37	328.60	0.20	N/A	N/A	314.72	8.42	*330.00*	*-1.30*	332.09	0.19	*326.65*	*-0.40*	N/A	N/A	N/A	N/A	318.45	6.60	*337.19*	*-0.11*	*336.69*	*-0.21*

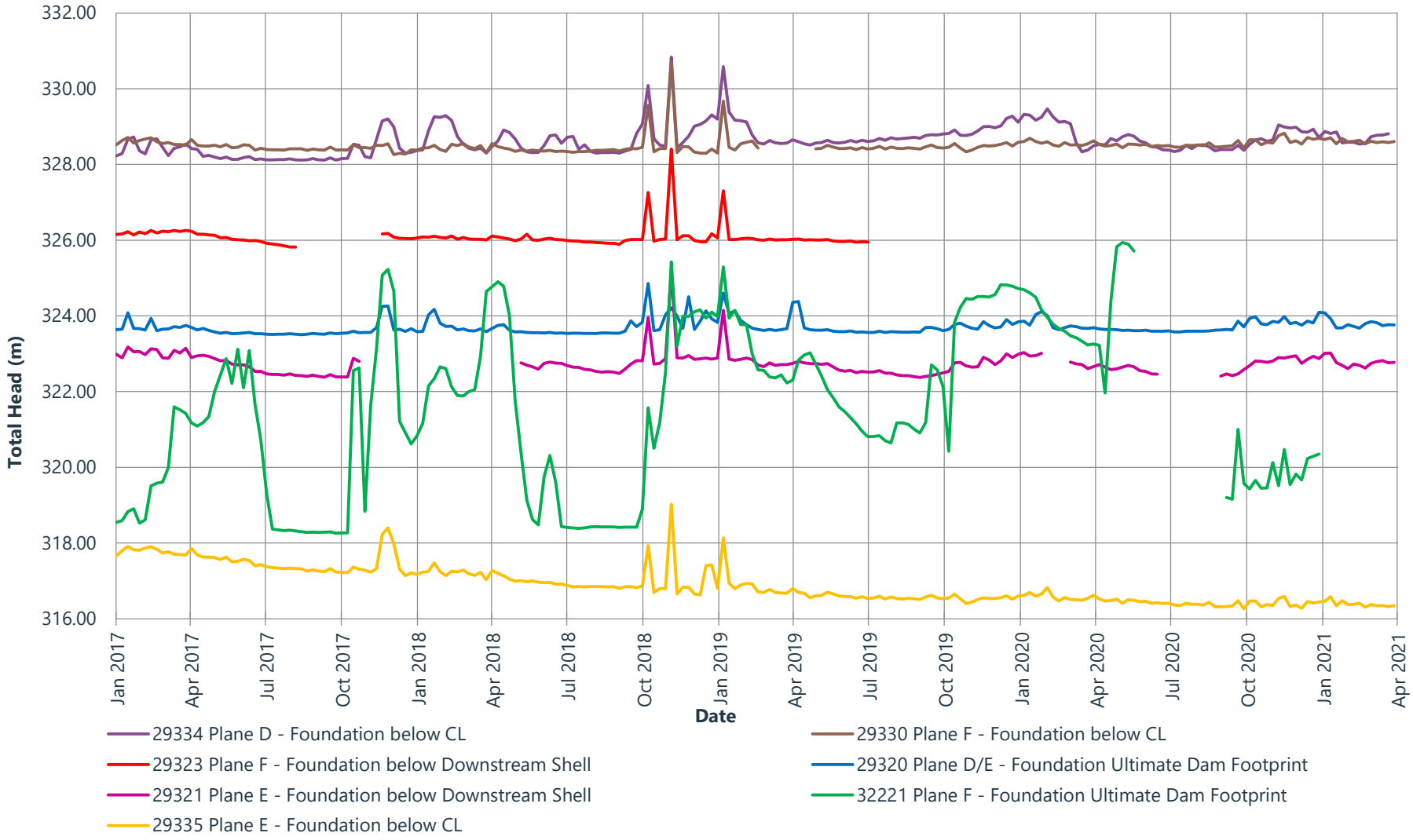
Legend:

1.8	Threshold level S1, Below long-term static factor of safety Short-term static factor of safety met, factor of safety <1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level N1, maximum porewater pressures measured, factor of safety ≥ 1.5
330.05	Historical maximum value
328.29	Negative pore pressure (elevation head below tip elevation)
	Blank spaces indicate no data available

Note:
The noted factor of safety would only occur for a particular section if most instruments in that section were at their individual threshold level.



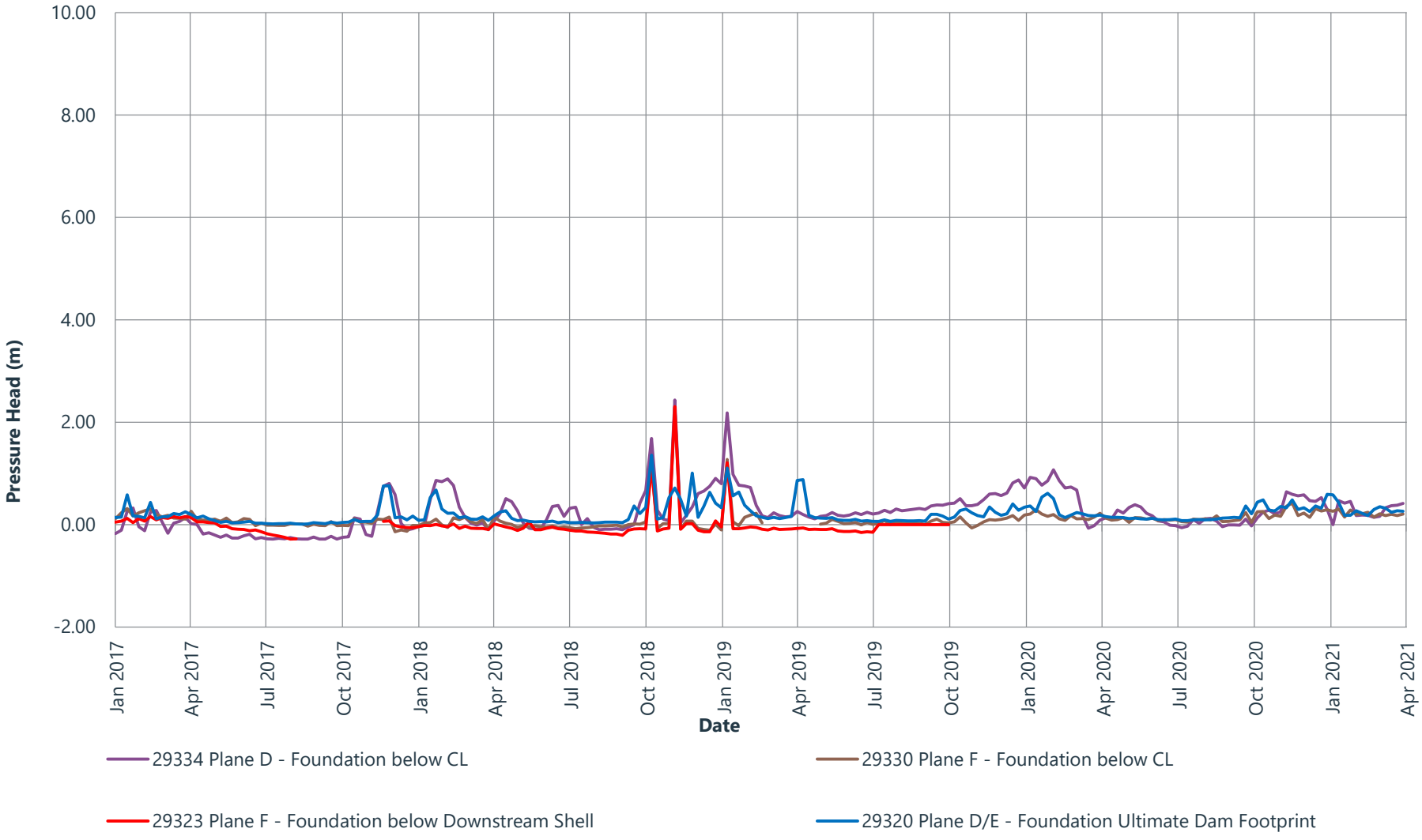
wood.	PROJECT: Myra Falls Quarterly Report				
CLIENT: Myra Falls Mine, A Trafigura Group Company	TITLE: Lynx TDF - Deep Paste VWP Data				
	DATE: April 2021	JOB No.: NX140001	FILE: Reporting Lynx TDF VWP - 2021 Rev 18June2021.xls	FIGURE No.: B-1	REV.: 0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

PROJECT: Myra Falls Quarterly Report				
TITLE: **Lynx TDF - Shallow Foundation VWP Data**				
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
April 2021	NX140001	Reporting Lynx TDF VWP - 2021_Rev_18June2021.xlsx	B-2a	0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

PROJECT: Myra Falls Quarterly Report

TITLE: Lynx TDF - Shallow Foundation VWP Data

DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
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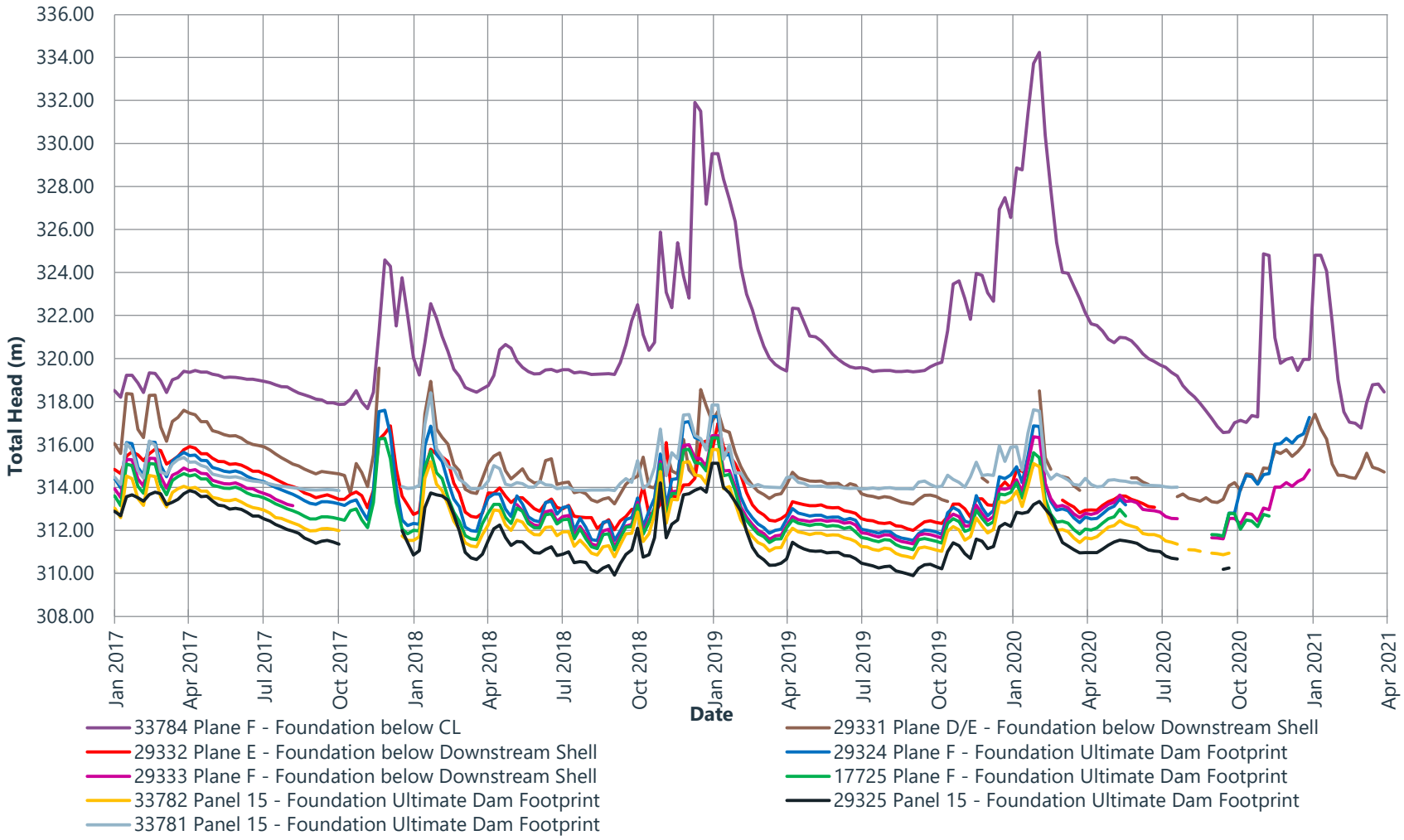
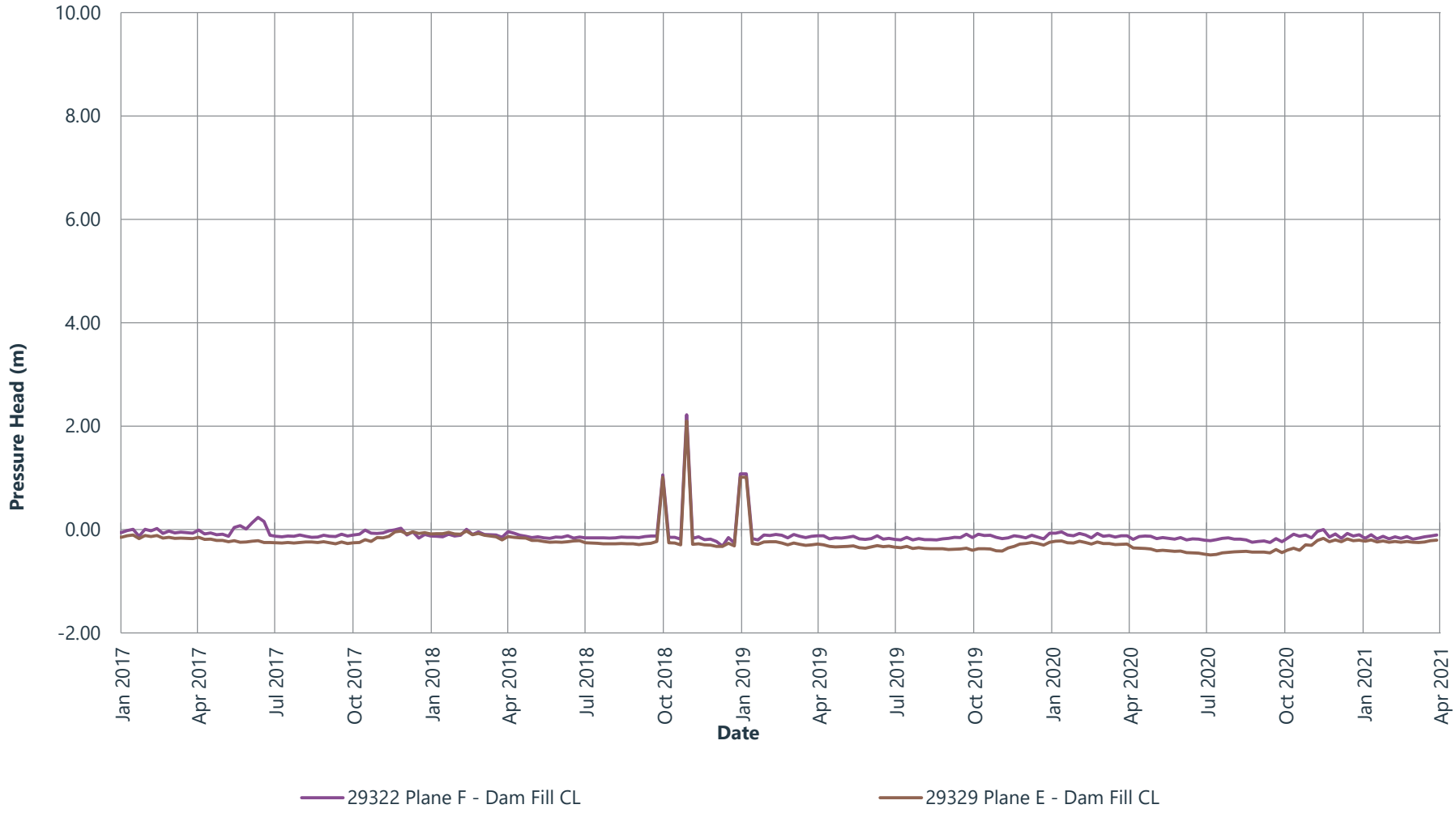


wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

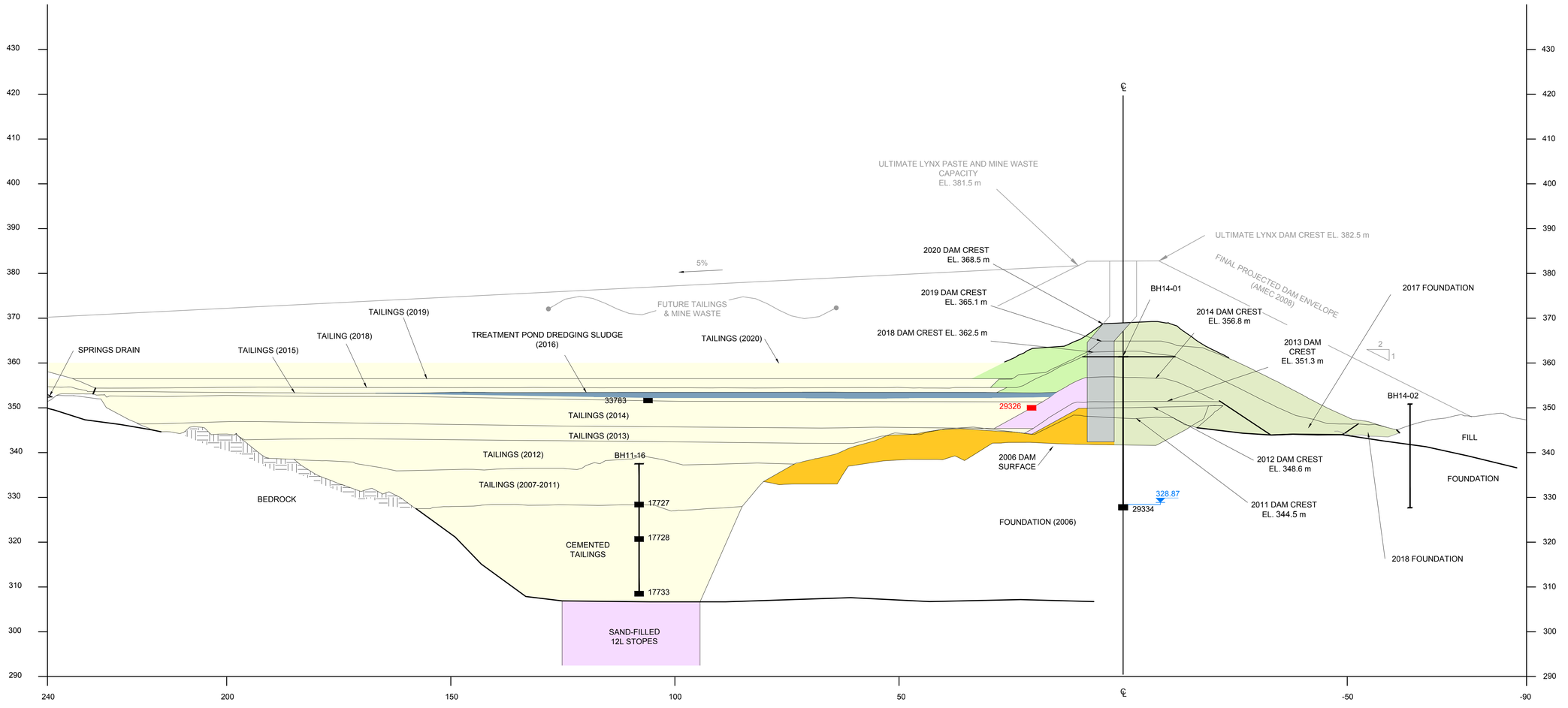
PROJECT:	Myra Falls Quarterly Report				
TITLE:	Lynx TDF - Deep Foundation VWP Data				
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.	
April 2021	NX140001	Reporting Lynx TDF VWP - 2021_Rev_18June2021.xlsx	B-3	0	



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

PROJECT: Myra Falls Quarterly Report				
TITLE: **Lynx TDF - Dam Fill VWP Data**				
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
April 2021	NX140001	Reporting Lynx TDF VWP - 2021_Rev_18June2021.xlsx	B-4	0



LEGEND:

- COMPACTED ROCKFILL (ZONE A)
- COMPACTED ROCKFILL AND FINES (ZONE J)
- UNCOMPACTED ROCKFILL AND TAILINGS (NOMINALLY ZONE J)
- TREATMENT POND DREDGING SLUDGE
- FINE TAILINGS (PASTE OR THICKENER UNDERFLOW)
- PERMEABLE ROCKFILL (ZONE C1-C4)
- COARSE TAILINGS (CYCLONE UNDERFLOW)
- UPSTREAM ZONE A, ZONE J AND BOULDERS

- BOREHOLE LOCATION
- 17724 PIEZOMETER (DATA NOT AVAILABLE)
- 17724 PIEZOMETER (FUNCTIONAL)
- 17724 PIEZOMETER (REMOVED FROM MONITORING PROGRAM)

SECTION A FIG 1 INSTRUMENT PLANE D (SCHEMATIC CROSS SECTION) STA. 1+85

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B3 "2021 Q1 REPORT, MYRA FALLS MINE TAILINGS DISPOSAL FACILITIES", DATED MARCH 31, 2021.
2. SURVEY SURFACE TOPOGRAPHY SUPPLIED BY CLIENT.
3. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

0m 5 10 15 20 25
1:500

ISSUED FOR DOCUMENTATION

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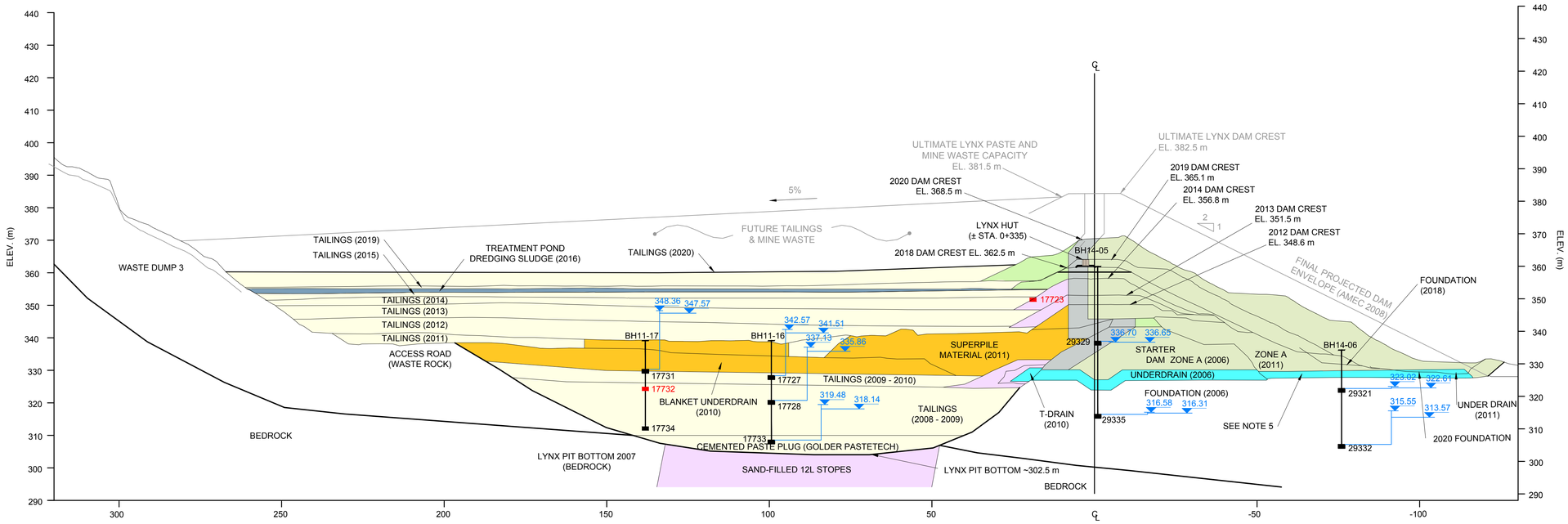
DRAWN BY:	KL
CHECKED BY:	LD
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

PROJECT: MYRA FALLS LYNX TDF 2021 Q1 QUARTERLY REPORT

TITLE: LYNX TAILINGS DISPOSAL FACILITY INSTRUMENT PLANE D (STA. 1+85)

DATE:	APRIL 2021
PROJECT NO:	NX14001B3.1.510
REV. NO:	A
FIG. NO:	FIGURE B-5



LEGEND:

- COMPACTED ROCKFILL (ZONE A)
- COMPACTED ROCKFILL AND FINES (ZONE J)
- UNCOMPACTED ROCKFILL AND TAILINGS (NOMINALLY ZONE J)
- TREATMENT POND DREDGING SLUDGE
- FINE TAILINGS (PASTE OR THICKENER UNDERFLOW)
- PERMEABLE ROCKFILL (ZONE C1-C4)
- COARSE TAILINGS (CYCLONE UNDERFLOW)
- UPSTREAM ZONE A, ZONE J AND BOREHOLE LOCATION
- 17724 PIEZOMETER (DATA NOT AVAILABLE)
- 17724 PIEZOMETER (FUNCTIONAL)
- 17724 PIEZOMETER (REMOVED FROM MONITORING PROGRAM)
- 316.58 MAXIMUM READING FOR THE QUARTER
- 316.31 MINIMUM READING FOR THE QUARTER

SECTION B FIG 1 INSTRUMENT PLANE E (SCHEMATIC CROSS SECTION) STA. 3+40

NOTES:
1. 2006 TO 2011 SURVEYS MODIFIED FROM NVI MINING LTD. MYRA FALLS OPERATIONS "LYNX PIT TAILINGS FACILITY". SECTION 3 - APPROX. STA. 3+73, DATED 15 MARCH 2012.
2. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B3 "2021 Q1 REPORT, MYRA FALLS MINE TAILINGS DISPOSAL FACILITIES", DATED MARCH 31, 2021.
3. SURVEY SURFACE TOPOGRAPHY SUPPLIED BY CLIENT.
4. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.
5. UNDERDRAIN IS OFFSET FROM SECTION BY APPROXIMATELY 30 m.

0m 10 20 30 40
1:750

ISSUED FOR DOCUMENTATION

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 22" X 34" FORMAT DRAWINGS.

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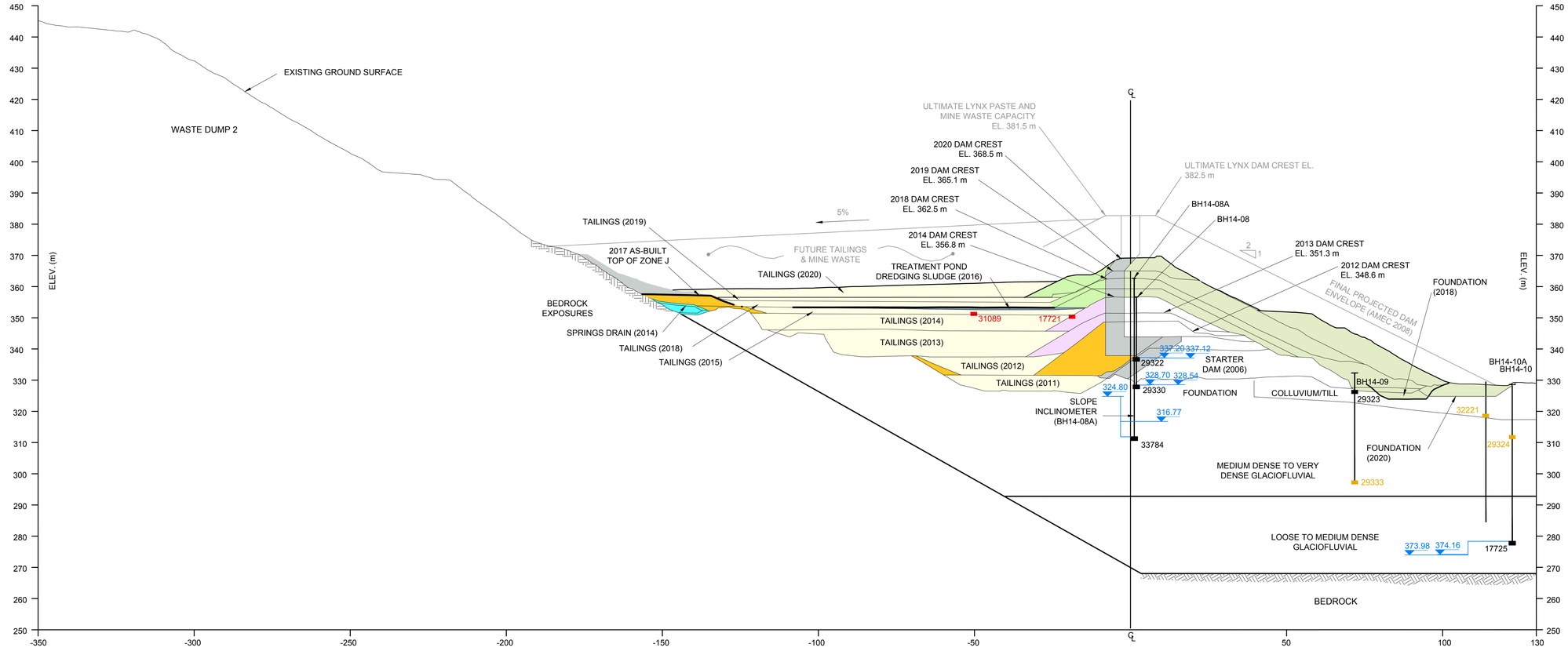
DRAWN BY:	KL
CHECKED BY:	LD
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

PROJECT: MYRA FALLS LYNX TDF 2021 Q1 QUARTERLY REPORT

TITLE: LYNX TAILINGS DISPOSAL FACILITY INSTRUMENT PLANE E (STA. 3+40)

DATE:	APRIL 2021
PROJECT NO:	NX14001B3.1.510
REV. NO:	A
FIG. NO:	FIGURE B-6



SECTION C FIG 1 INSTRUMENT PLANE F (SCHEMATIC CROSS SECTION)
STA. 4+57

LEGEND:

- COMPACTED ROCKFILL (ZONE A)
- COMPACTED ROCKFILL AND FINES (ZONE J)
- UNCOMPACTED ROCKFILL AND TAILINGS (NOMINALLY ZONE J)
- TREATMENT POND DREDGING SLUDGE
- FINE TAILINGS (PASTE OR THICKENER UNDERFLOW)
- PERMEABLE ROCKFILL (ZONE C1-C4)
- COARSE TAILINGS (CYCLONE UNDERFLOW)
- UPSTREAM ZONE A, ZONE J AND BOULDERS

- BOREHOLE LOCATION
- 17724 PIEZOMETER (DATA NOT AVAILABLE)
- 17724 PIEZOMETER (FUNCTIONAL)
- 17724 PIEZOMETER (REMOVED FROM MONITORING PROGRAM)
- 32221 PIEZOMETER (NOT RECORDING)
- 316.58 MAXIMUM READING FOR THE QUARTER
- 316.31 MINIMUM READING FOR THE QUARTER

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B3 "2021 Q1 REPORT, MYRA FALLS MINE TAILINGS DISPOSAL FACILITIES", DATED MARCH 31, 2021.
2. SURVEY SURFACE TOPOGRAPHY SUPPLIED BY CLIENT.
3. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

0m 10 20 30 40
1:750

ISSUED FOR DOCUMENTATION

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 22" X 34" FORMAT DRAWINGS.

nyrstar

wood.

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Tel: 1-604-294-3811 Fax: 1-604-294-4664

DRAWN BY:	KL
CHECKED BY:	LD
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

PROJECT: MYRA FALLS LYNX TDF 2021 Q1 QUARTERLY REPORT

TITLE: LYNX TAILINGS DISPOSAL FACILITY INSTRUMENT PLANE F (STA. 4+57)

DATE:	APRIL 2021
PROJECT NO:	NX14001B3.1.510
REV. NO:	A
FIG. NO:	FIGURE B- 7

Attachment C
Old TDF VWP Data

Table/Figure/Drawing No.	Title
Table C-1	Old TDF – Instrument Plane A – Weekly Maximum VWP Pressure Head
Table C-2	Old TDF – Instrument Planes 1, 3, 4, 6 and Outliers – Weekly Maximum VWP Pressure Head
Table C-3	Old TDF – Instrument Plane 5 – Weekly Maximum VWP Pressure Head
Figure C-1	Old TDF Piezometer Records – Plane 1
Figure C-2	Old TDF Piezometer Records – Plane A Outer Embankment Slope, Location 1
Figure C-3	Old TDF Piezometer Records – Plane A Outer Embankment Slope, Location 2
Figure C-4	Old TDF Piezometer Records – Plane A Outer Embankment Slope, Location 3
Figure C-5	Old TDF Piezometer Records – Plane A Upper Tailings Beach
Figure C-6	Old TDF Piezometer Records – Plane A Strip and Paste Berm
Figure C-7	Old TDF Piezometer Records – Plane 3 and Plane 3/4
Figure C-8	Old TDF Piezometer Records – Plane 4
Figure C-9	Old TDF Piezometer Records – Plane 5 Outer embankment Slope, Location 1
Figure C-10	Old TDF Piezometer Records – Plane 5 Outer Embankment Slope, Location 2 and Lower Tailings
Figure C-11	Old TDF Piezometer Records – Plane 5 Outer Embankment Slope, Location 3
Figure C-12	Old TDF Piezometer Records – Plane 5 Upper Tailings Beach
Figure C-13	Old TDF Piezometer Records – Plane 5 Paste Berm and Upstream Tailings
Figure C-14	Old TDF Piezometer Records – Plane 5/6 and Plane 6
Figure C-15	Old TDF Cross Section Planes 1 and 2 VWP Quarterly Maximums and Minimums
Figure C-16	Old TDF Cross Section Planes 3 and 4 VWP Quarterly Maximums and Minimums
Figure C-17	Old TDF Cross Section Planes 5 and 6 VWP Quarterly Maximums and Minimums

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Table C-1: Old TDF - Instrument Plane A - Weekly Maximum VWP Pressure Head (m)

Location	Outer Embankment Slope - 1				Outer Embankment Slope - 2					Outer Embankment Slope - 3						Upper Tailings Beach							Strip and Paste Berm				
ID	A-5E	A-9E	A-13E	A-17E	A-2E	A-6E	A-10E	A-14E	A-18E	A-4E	32239	A-8E	A-12E	A-16E	A-20E	A-26E	A-27E	A-28E	A-30E	A-32E	A-31E	32220	A-33E	32229	32225	P-11	P-12
Tip Elevation	310.4	311.7	313.4	317.0	305.4	310.9	312.3	313.4	316.8	305.2	310.3	311.0	312.3	313.6	316.7	323.7	323.9	325.2	324.8	327.7	327.8	328.6	327.5	325.9	328.6	332.6	326.6
Historical Max.	3.1	3.0	3.2	2.7	7.2	3.5	2.7	2.5	3.2	6.8	3.3	3.1	0.1	3.9	2.5	5.4	5.5	3.2	2.9	3.2	2.9	2.4	3.4	5.5	6.3	5.3	4.3
Trigger Point S1	3.75	5.12	5.12	1.09	0	4.46	5.46	5.12	1.27	0	2.8	3.6	4.7	5.56	6.61	1.68	4.7	0.7	5.28	3.29	1.53	1.13	5.5	5.74	4.92	3.15	5.45
Trigger Point S2	4.35	6.45	6.51	2.55	2.1	5.25	7.2	6.51	2.77	2.21	3.5	4.38	6	7.5	7.5	2.42	6.557	1.09	6.99	4.21	3.18	2.49	7.5	7.5	6.71	4.08	7.5
Trigger Point S3	7.25	10.75	10.85	4.25	2.1	8.75	12	10.85	4.61	2.21	5.83	7.29	10	12.5	12.5	4.83	10.97	1.81	11.64	7.02	5.16	4.15	12.5	12.5	11.3	6.79	12.5
Trigger Point P1	2.9	4.3	4.34	1.7	2.1	3.5	4.8	4.34	1.85	2.31	2.33	2.92	4	5	5	1.6	4.38	0.72	4.66	2.74	2.06	1.66	5	5	4.47	2.67	5
2021-01-03	1.5	1.3	1.9	0.0	***5.3***	1.4	1.0	1.0	1.1	***4.8***	0.7	0.7	-2.3	1.7	0.0	***4.0***	4.1	***1.1***	1.1	1.0	0.7	***2.1***	1.4	3.7	***5.1***	***4.4***	2.9
2021-01-10	1.76	1.7	2.2	0.0	***5.4***	1.6	1.2	1.3	1.4	***5.0***	0.9	0.9	-2.1	1.9	0.2	***4.2***	4.2	***1.3***	1.2	1.1	0.8	***2.3***	1.5	4.0	***5.4***	***4.5***	3.0
2021-01-17	1.86	1.7	2.3	0.0	***5.4***	1.6	1.3	1.4	1.4	***4.9***	0.8	0.8	-2.1	2.0	0.2	***4.3***	4.3	***1.4***	1.3	1.1	0.8	***2.3***	1.5	4.1	***5.4***	***4.6***	3.1
2021-01-24	1.80	1.7	2.3	0.0	***4.9***	1.5	1.3	1.3	1.4	***4.4***	0.6	0.6	-2.2	1.9	0.2	***4.3***	4.3	***1.4***	1.3	1.1	0.8	***2.1***	1.5	3.9	***5.2***	***4.1***	2.9
2021-01-31	1.40	1.4	2.0	0.0	***4.2***	1.1	1.0	1.0	1.1	***3.6***	0.2	0.2	-2.5	1.6	0.0	***4.1***	4.1	***1.1***	1.2	1.0	0.7	***1.8***	1.4	3.7	***4.9***	***3.7***	2.7
2021-02-07	1.34	1.3	1.9	0.0	***4.2***	1.0	0.9	1.0	1.1	***3.6***	0.2	0.2	-2.4	1.6	0.0	***3.9***	4.0	***0.9***	1.0	0.9	0.6	1.6	1.3	3.4	***4.6***	***3.5***	2.4
2021-02-14	1.40	1.3	1.9	0.0	***4.1***	1.0	0.9	1.0	1.1	***3.5***	0.2	0.2	-2.4	1.6	0.0	***4.0***	4.0	***1.0***	1.0	0.9	0.7	1.6	1.3	3.4	***4.5***	***3.4***	2.4
2021-02-21	1.35	1.2	1.8	0.0	***4.0***	1.0	0.9	0.9	1.0	***3.4***	0.2	0.2	-2.5	1.6	0.0	***3.9***	3.9	***0.8***	0.9	0.9	0.6	1.5	1.2	3.3	4.4	***3.3***	2.3
2021-02-28	1.32	1.2	1.8	0.0	***4.2***	1.0	0.9	0.9	1.0	***3.7***	0.3	0.3	-2.4	1.7	0.0	***3.8***	3.9	***0.8***	0.8	0.8	0.6	1.3	1.2	3.2	4.3	***3.2***	2.2
2021-03-07	1.13	1.0	1.7	0.0	***4.3***	0.9	0.8	0.9	0.9	***3.8***	0.2	0.2	-2.5	1.6	0.0	***3.8***	3.8	0.6	0.8	0.8	0.6	1.3	1.2	3.3	***4.5***	***3.6***	2.4
2021-03-14	1.27	1.1	1.8	0.0	***4.3***	1.0	0.8	0.9	1.0	***3.8***	0.3	0.3	-2.4	1.6	0.0	***3.9***	4.0	***0.9***	1.0	0.9	0.7	***1.8***	1.3	3.5	***4.7***	***3.6***	2.5
2021-03-21	1.50	1.3	1.9	0.0	***4.2***	1.1	0.9	1.0	1.8	***3.7***	0.9	0.9	-2.5	1.6	0.0	***4.0***	4.0	***1.0***	1.0	0.9	0.7	***1.9***	1.3	3.5	***4.7***	***3.7***	2.5
2021-03-28	1.65	1.4	2.0	0.0	***4.3***	1.1	1.0	1.0	1.2	***3.8***	0.3	0.3	-2.4	1.7	0.7	***4.0***	4.1	***1.1***	1.1	1.0	0.7	***2.0***	1.3	3.6	***4.8***	***3.7***	2.5

Legend

1.8	Threshold level S1, short-term static design factor of safety below 1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level P1, long-term post-seismic design factor of safety below 1.1
	Historical maximum value
	Blank spaces indicate no data available

Note:
The noted factor of safety would only occur for a particular section and failure mode if all instruments in the section were at their individual threshold level

Table C-2: Old TDF - Instrument Planes 1, 3, 4, 6 and Outliers - Weekly Maximum VWP Pressure Head (m)

Location		Plane 1			Plane 3			Plane 3/4		Plane 4				Plane 5/6		Plane 6			
Piezometer	**32228**	**36971**	**36973**	**32232**	**32233**	**P-13**	**P-14**	**P-1**	**P-2**	**1204**	**32237**	**P-3**	**P-4**	**P-5**	**P-6**	**32219**	**32226**	**32230**	**32236**
Tip Elevation	**331.4**	**325.7**	**319.7**	**329.4**	**332.4**	**332.2**	**326.7**	**324.4**	**329.4**	**329.3**	**332.4**	**324.3**	**329.3**	**325.1**	**329.4**	**335.2**	**330.6**	**328.8**	**330.4**
Histroical Max.	**2.6**	**6.8**	**4.5**	**4.2**	**4.2**	**4.1**	**3.5**	**1.3**	**2.9**	**4.7**	**3.0**	**2.8**	**4.3**	**7.9**	**6.9**	**4.6**	**6.7**	**6.3**	**5.7**
Trigger Point S1	3.2	4.4	3.7	3.5	1.7	6.4	9.0	9.0	7.5	8.7	1.7	11.0	9.5	14.3	14.9	7.9	13.5	14.1	9.0
Trigger Point S2	5.1	6.4	5.2	5.4	1.8	7.1	10.0	10.0	8.4	10.3	2.1	13.0	10.8	15.5	16.1	8.6	14.5	15.2	9.5
Trigger Point S3	7.0	8.4	6.9	7.3	2.5	9.1	13.0	13.0	11.0	12.5	2.5	16.0	13.2	17.8	18.5	9.9	16.6	17.2	11.2
Trigger Point P1	***2.3***	***3.4***	***2.9***	***2.5***	***1.4***	***5.3***	***7.5***	***7.5***	***6.3***	***8.6***	***1.8***	***11.0***	***9.2***	***12.4***	***12.9***	***6.9***	***11.6***	***12.2***	***7.8***
2021-01-03	0.8	***5.2***	-2.9	2.4	1.0	2.4	1.6	-0.9	0.7	2.7	0.9	1.3	2.6	6.3	5.6	3.0	5.2	5.1	4.6
2021-01-10	0.8	***5.3***	-2.8	***2.7***	1.0	2.4	1.8	-0.8	0.8	2.7	1.1	1.3	2.6	6.4	5.5	3.0	5.2	5.2	4.6
2021-01-17	0.9	***5.5***	-2.4	***2.7***	1.1	2.5	1.9	-0.8	0.9	2.8	1.1	1.3	2.6	6.4	5.6	2.4	4.9	4.8	4.4
2021-01-24	0.8	***5.5***	-2.0	2.4	0.8	2.1	1.5	-0.8	0.7	2.7	0.9	1.2	2.5	5.8	4.6	1.2	3.4	3.5	3.5
2021-01-31	0.9	***5.5***	-2.0	2.1	0.6	1.9	1.0	-0.8	0.7	2.7	0.6	1.3	2.6	5.2	4.2	0.3	3.0	3.1	3.2
2021-02-07	0.9	***5.4***	-2.3	2.1	0.9	1.9	0.8	-0.8	0.6	2.5	0.7	1.2	2.5	5.1	4.2	-0.1	3.1	3.2	3.3
2021-02-14	0.9	***5.4***	-2.4	2.0	0.8	1.9	0.8	-0.8	0.6	2.6	0.6	1.2	2.5	5.1	4.2	-0.1	3.0	3.1	3.2
2021-02-21	0.9	***5.4***	-2.5	1.8	0.3	1.8	0.6	-0.8	0.6	2.6	0.4	1.3	2.5	4.8	3.8	-0.2	2.7	2.7	2.6
2021-02-28	0.8	***5.2***	-2.7	1.7	0.8	1.7	0.5	-0.7	0.5	2.5	0.6	1.2	2.4	5.0	4.1	-0.3	3.0	3.0	3.2
2021-03-07	0.9	***5.2***	-2.8	2.1	1.0	2.0	0.9	-0.7	0.7	2.6	0.8	1.3	2.5	5.5	4.6	-0.1	3.6	3.8	3.6
2021-03-14	0.8	***5.3***	-2.9	2.2	1.0	2.1	1.1	-0.7	0.7	2.6	0.9	1.2	2.5	5.5	4.6	0.5	3.6	3.7	3.6
2021-03-21	0.9	***5.3***	-2.9	2.2	0.9	2.0	1.1	-0.7	0.7	2.6	0.8	1.2	2.5	5.4	4.5	0.3	3.4	3.6	3.5
2021-03-28	0.9	***5.4***	-2.8	2.3	1.2	2.0	1.1	-0.6	0.7	2.6	0.9	1.2	2.4	5.4	4.5	0.4	3.5	3.6	3.5

Legend

1.8	Threshold level S1, short-term static design factor of safety below 1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level P1, long-term post-seismic design factor of safety below 1.1
	Historical maximum value
	Blank spaces indicate no data available

Note:

The noted factor of safety would only occur for a particular section and failure mode if all instruments in the section were at their individual threshold level

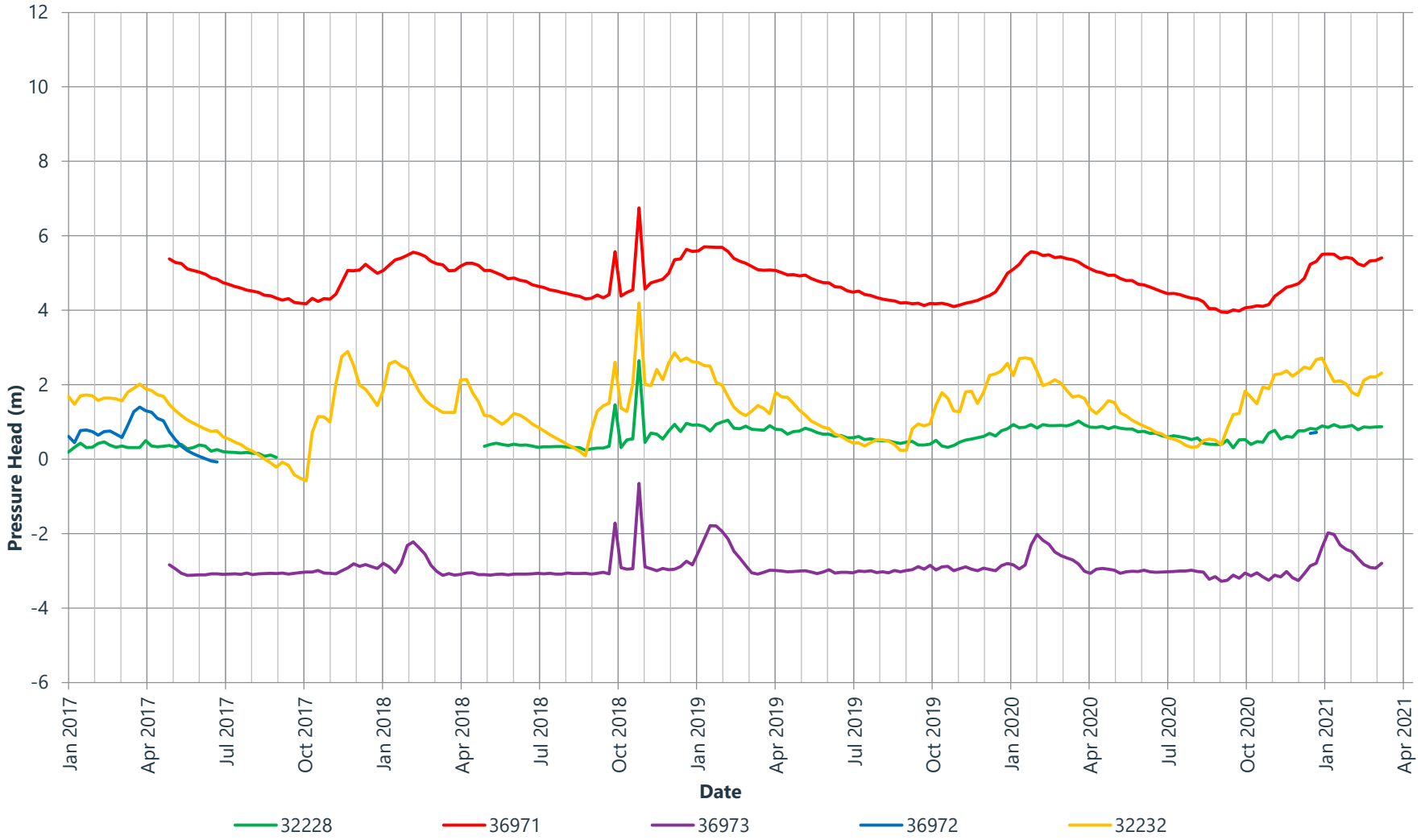
Table C-3: Old TDF - Instrument Plane 5 - Weekly Maximum VWP Pressure Head (m)

Location	Outer Embankment Slope - 1				Outer Embankment Slope - 2							Outer Embankment Slope - 3					Upper Tailings Beach						Paste Berm					
ID	C-5E	C-13E	C-17E	C-21E	C-6E	C-10E	C-14E	C-18E	C-22E	32223	32241	C-12E	C-16E	32238	C-20E	C-24E	C-29E	C-31E	C-35E	32224	C-36E	C-37E	17730	32222	P-7	17724	17726	17722
Tip Elevation	310.1	308.9	303.2	315.7	303.7	307.3	308.9	314.5	315.4	316.8	308.7	305.5	308.7	308.7	314.5	315.2	322.3	322.0	326.7	327.0	326.6	326.6	329.3	326.9	319.8	326.2	326.3	335.4
Histroical Max.	2.2	2.2	4.1	2.0	6.1	2.1	3.5	0.1	2.6	2.5	6.1	4.7	3.2	4.5	2.8	2.9	6.9	10.9	4.2	3.2	5.8	7.8	6.7	7.4	7.0	6.6	6.9	4.0
Trigger Point S1	2.0	2.0	1.5	1.3	5.5	6.5	6.5	2.8	1.1	3.2	2.3	5.3	6.5	2.3	6.5	6.4	0.0	4.7	1.3	1.1	2.5	3.1	2.5	4.0	6.1	4.5	4.4	2.1
Trigger Point S2	4.2	4.4	3.1	2.8	12.3	14.0	14.0	6.1	2.3	7.0	5.0	11.4	14.0	4.9	13.9	13.9	0.0	10.1	2.7	2.3	5.3	6.6	5.4	8.6	13.1	9.6	9.0	4.6
Trigger Point S3	7.8	8.1	5.8	5.3	22.8	26.0	25.9	11.3	3.5	12.4	9.0	20.5	26.0	9.0	25.9	25.8	0.0	18.7	5.0	4.1	9.8	12.2	10.0	16.0	24.2	17.9	17.5	8.5
Trigger Point P1	***2.6***	***2.6***	***1.9***	***1.7***	***7.3***	***8.5***	***8.5***	***3.7***	***1.1***	***4.2***	***3.0***	***6.8***	***8.5***	***3.0***	***8.5***	***8.4***	***0.0***	***6.1***	***1.6***	***1.4***	***3.3***	***4.0***	***3.3***	***5.2***	***8.0***	***5.9***	***5.7***	***2.7***
2021-01-03	0.7	-0.1	***3.1***	-0.1	5.0	1.0	1.3	-0.8	0.5	1.0	2.2	3.8	2.2	***3.2***	1.4	0.8	***5.7***	***9.5***	***2.6***	***3.1***	***4.0***	***6.3***	***5.1***	***5.8***	5.2	4.7	3.3	1.7
2021-01-10	0.8	0.1	***3.2***	-0.1	5.2	1.1	1.6	-0.8		1.6	***5.2***	4.0	2.3	***3.6***	1.5	0.7	***5.7***	***9.6***	***2.6***	***3.2***	***4.0***	***6.4***	***5.2***	***5.9***	5.3	5.1	3.3	1.9
2021-01-17	0.8	0.1	***3.0***	-0.1	5.1	1.1	1.6	-0.8		1.6	***4.5***	3.9	2.3	***3.6***	1.4	0.7	***5.5***	***9.5***	***2.5***	***3.2***	***3.9***	***6.2***	***4.8***	***5.8***	5.4	5.1	3.4	2.0
2021-01-24	0.5	-0.1	***2.5***	-0.2	4.8	0.8	1.3	-1.2		1.2	***3.9***	3.3	1.7	***3.3***	1.0	0.7	***5.2***	***8.9***	***2.2***	***3.0***	***3.6***	***5.8***	***3.5***	5.0	5.2	4.9	3.7	1.7
2021-01-31	0.0	-0.2	***2.1***	-0.2	4.3	0.3	1.0	-1.6		1.0	2.3	2.9	1.3	2.9	0.6	0.7	***5.1***	***8.7***	***2.2***	***2.9***	***3.6***	***5.7***	3.1	4.7	5.0	4.6	3.8	1.6
2021-02-07	0.0	-0.1	***2.0***	-0.2	4.2	0.2	1.1	-1.6		0.7	1.6	2.9	1.2	2.5	0.6	0.7	***5.1***	***8.7***	***2.2***	***2.9***	***3.5***	***5.6***	3.2	4.8	4.9	4.5	4.8	1.4
2021-02-14	0.0	-0.1	***2.0***	-0.2	4.1	0.1	1.2	-1.6		0.8	1.6	2.8	1.1	2.5	0.6	0.7	***5.0***	***8.6***	***2.0***	***2.9***	***3.5***	***5.4***	3.1	4.7	4.9	4.5	***6.0***	1.4
2021-02-21	0.0	-0.1	***2.4***	-0.2	4.4	0.2	1.2	-1.7		0.8	1.4	3.0	1.3	2.5	0.6	0.7	***4.9***	***8.7***	***2.0***	***2.8***	***3.5***	***5.5***	2.7	4.4	4.8	4.5	***6.3***	1.4
2021-02-28	-0.1	-0.1	***2.1***	-0.2	4.2	0.1	1.2	-1.8		0.6	1.5	2.8	1.2	2.6	0.6	0.7	***4.9***	***8.7***	***2.2***	***2.8***	***3.5***	***5.6***	3.0	4.6	4.8	4.5	***6.3***	1.3
2021-03-07	-0.1	0.0	***2.2***	-0.2	4.2	0.1	1.3	-1.5		0.5	1.5	2.9	1.3	2.5	0.7	0.7	***5.3***	***8.9***	***2.3***	***3.0***	***3.6***	***5.8***	***3.8***	5.1	5.0	4.7	***6.8***	1.5
2021-03-14	-0.1	0.0	***2.3***	-0.2	4.3	0.2	1.3	-1.5		1.0	2.3	3.0	1.3	2.7	0.7	0.7	***5.2***	***8.8***	***2.2***	***3.0***	***3.6***	***5.7***	***3.7***	5.1	5.0	4.8	***6.9***	1.6
2021-03-21	0.0	-0.1	***2.4***	-0.2	4.4	0.4	1.3	-1.4		0.9	1.9	3.1	1.5	2.7	0.8	0.7	***5.3***	***8.9***	***2.3***	***3.0***	***3.6***	***5.8***	***3.6***	5.0	5.0	4.8	***6.7***	1.5
2021-03-28	0.2	-0.1	***2.5***	-0.2	4.5	0.4	1.3	-1.4		1.0	2.2	3.2	1.5	2.8	0.8	0.7	***5.2***	***8.9***	***2.3***	***3.0***	***3.6***	***5.7***	***3.6***	5.0	5.0	4.9	***6.4***	1.6

Legend

1.8	Threshold level S1, short-term static design factor of safety below 1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level P1, long-term post-seismic design factor of safety below 1.1
	Historical maximum value
	Blank spaces indicate no data available

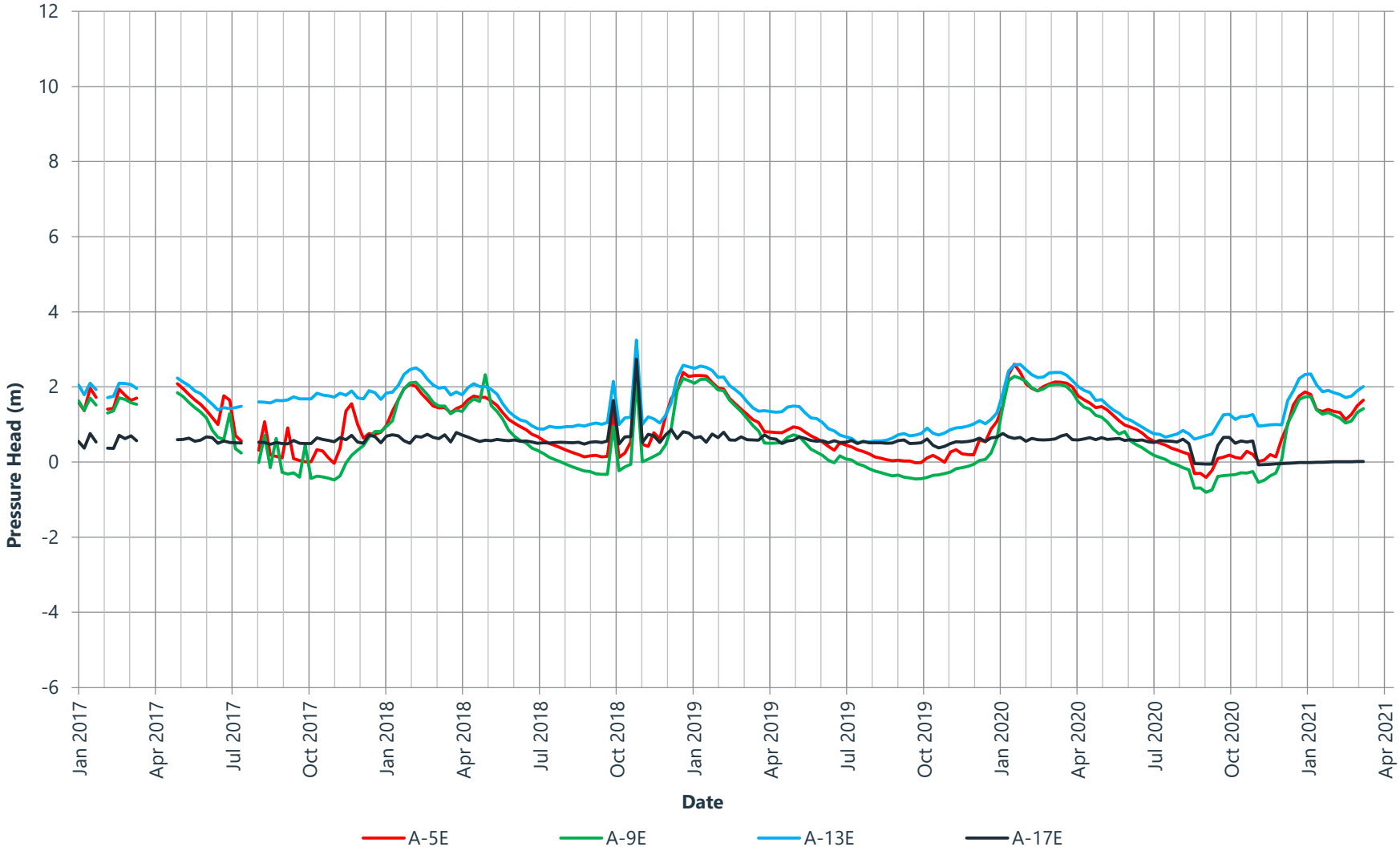
Note:
The noted factor of safety would only occur for a particular section and failure mode if all instruments in the section were at their individual threshold level



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

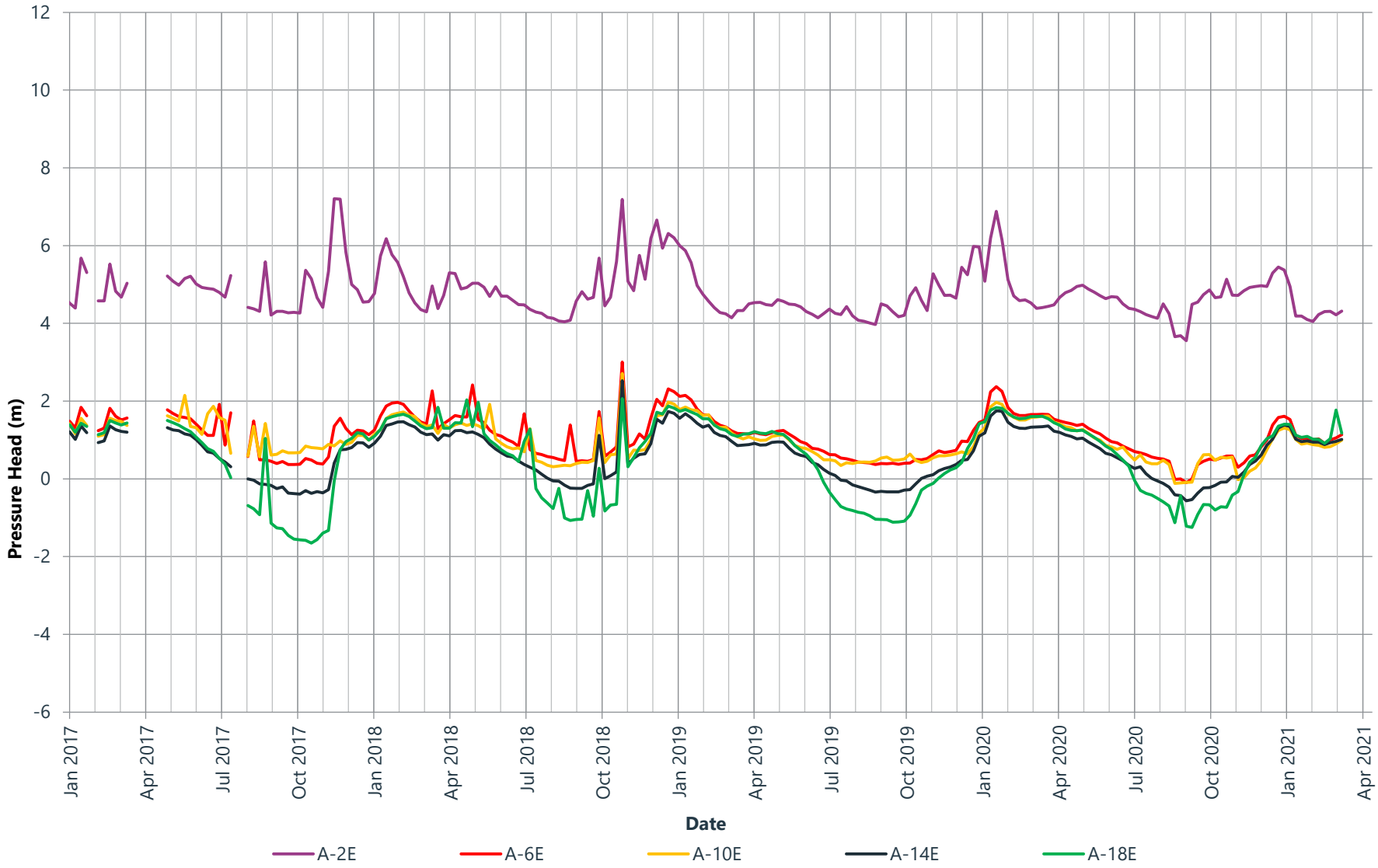
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records - Plane 1 32228, 36971, 36973, 36972, 32232				
DATE: March 2021	JOB No.: NX140001	FILE: Reporting Piezo_OldTDF_2021Data.xlsx	FIGURE No.: C-1	REV. 0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

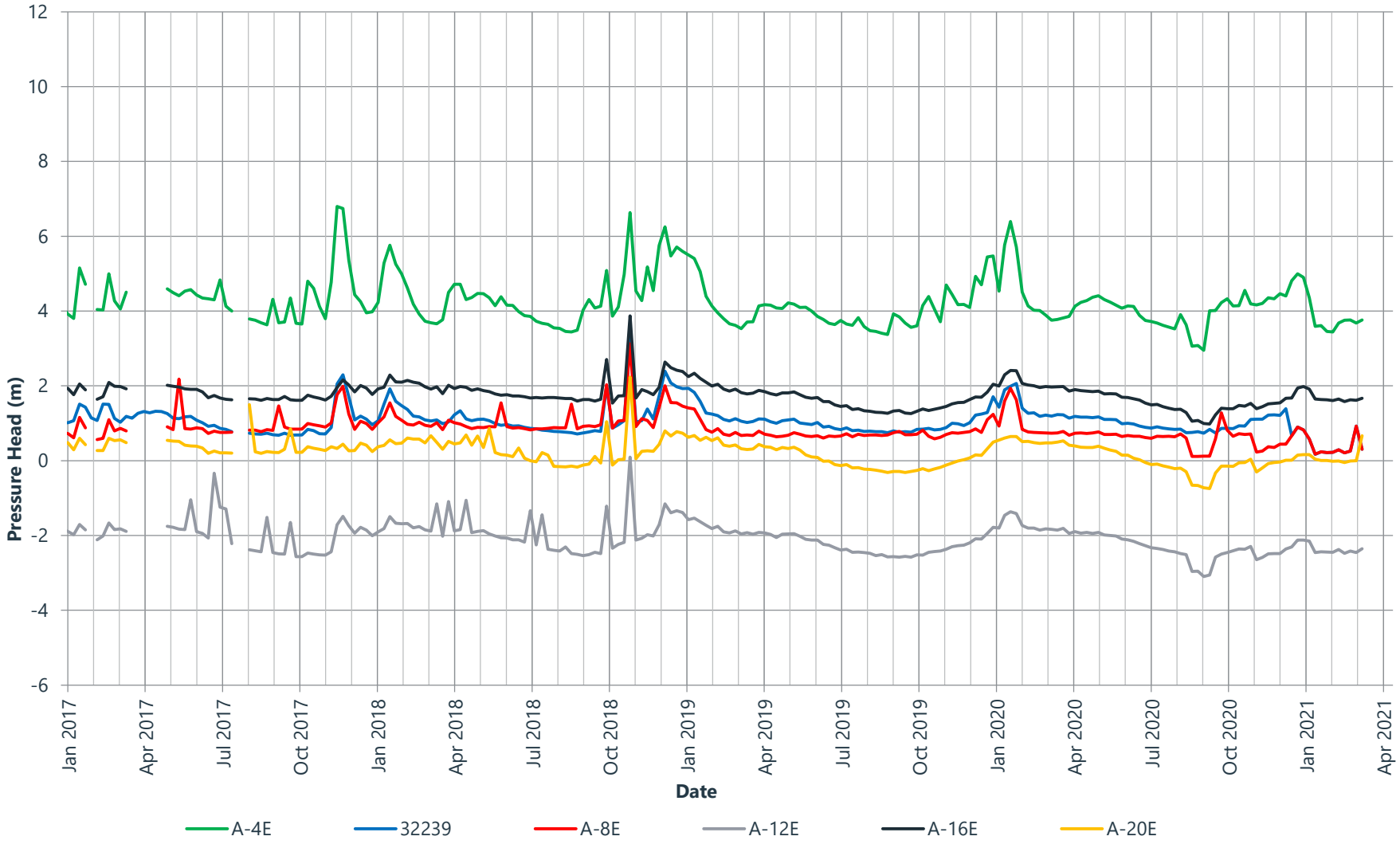
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records - Plane A Outer Embankment Slope, Location 1 A-5E, A-9E, A-13E, A-17E				
DATE: March 2021	JOB No.: NX140001	FILE: Reporting Piezo_OldTDF_2021Data.xlsx	FIGURE No.: C-2	REV.: 0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

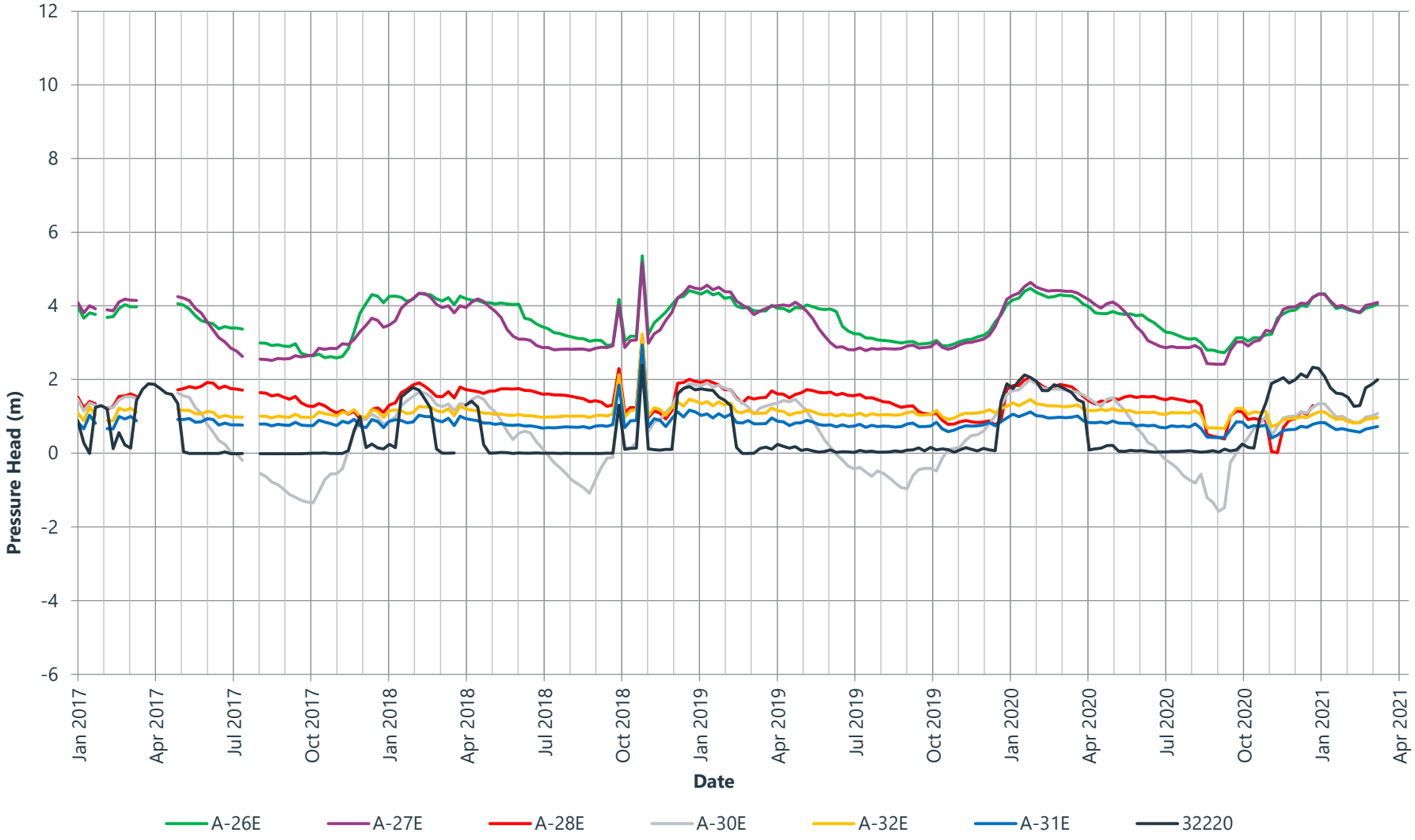
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records - Plane A Outer Embankment Slope, Location 2 A-2E, A-6E, A-10E, A-14E, A-18E				
DATE: March 2021	JOB No.: NX140001	FILE: Reporting Piezo_OldTDF_2021Data.xlsx	FIGURE No.: C-3	REV. 0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

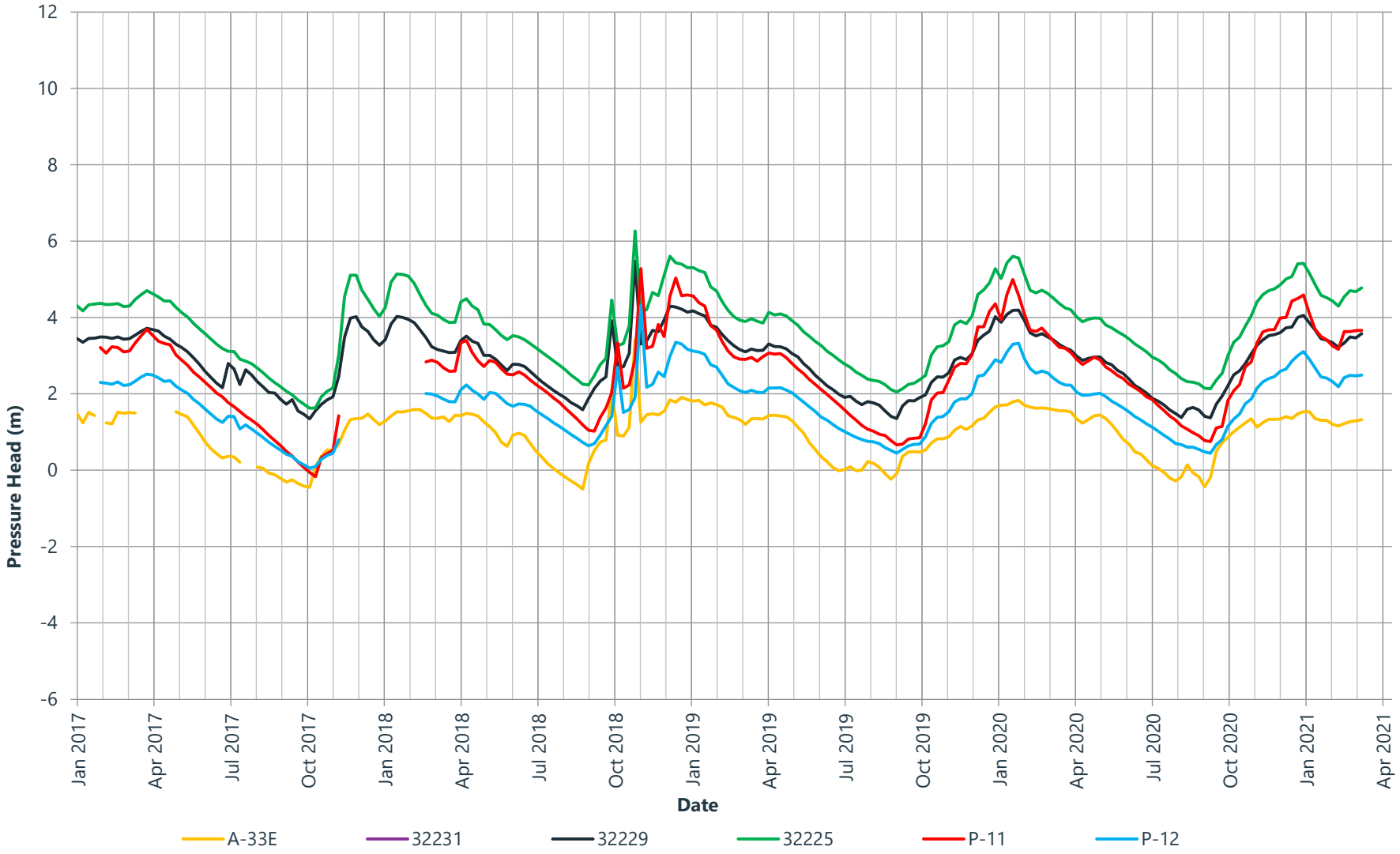
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records - Plane A Outer Embankment Slope, Location 3 A-4E, 32239, A-8E, A-12E, A-16E, A-20E				
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
March 2021	NX140001	Reporting Piezo_OldTDF_2021Data.xlsx	C-4	0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

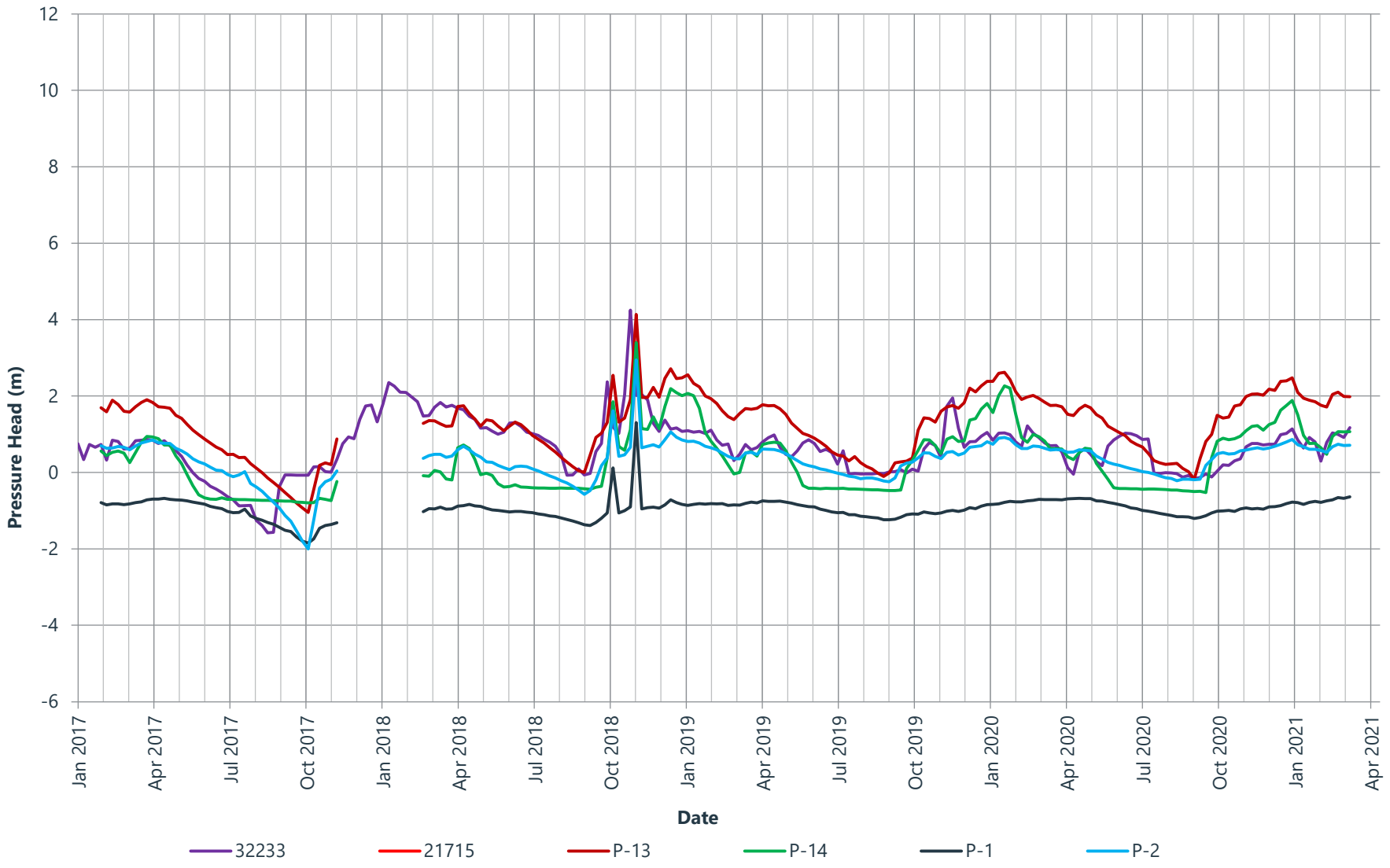
PROJECT:	Myra Falls Quarterly Report			
TITLE:	Old TDF Piezometer Records - Plane A Upper Tailings Beach A-26E, A-27E, A-28E, A-30E, A-31E, A-32E, 32220			
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
March 2021	NX140001	Reporting Piezo_OldTDF_2021Data.xlsx	C-5	0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

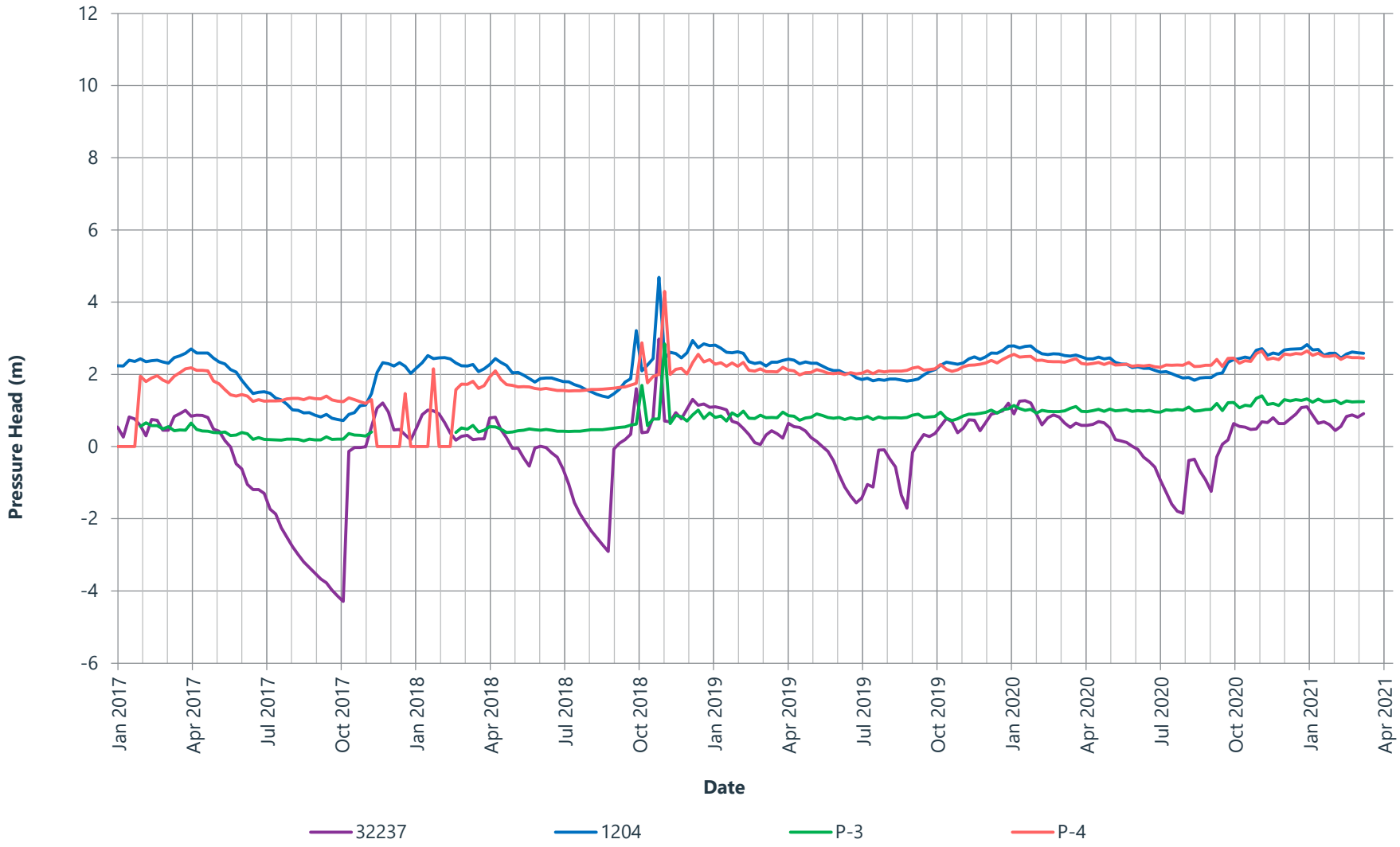
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records - Plane A Strip and Paste Berm A33-E, 32231, 32229, 32225, P-11, P-12				
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
March 2021	NX140001	Reporting Piezo_OldTDF_2021Data.xlsx	C-6	0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

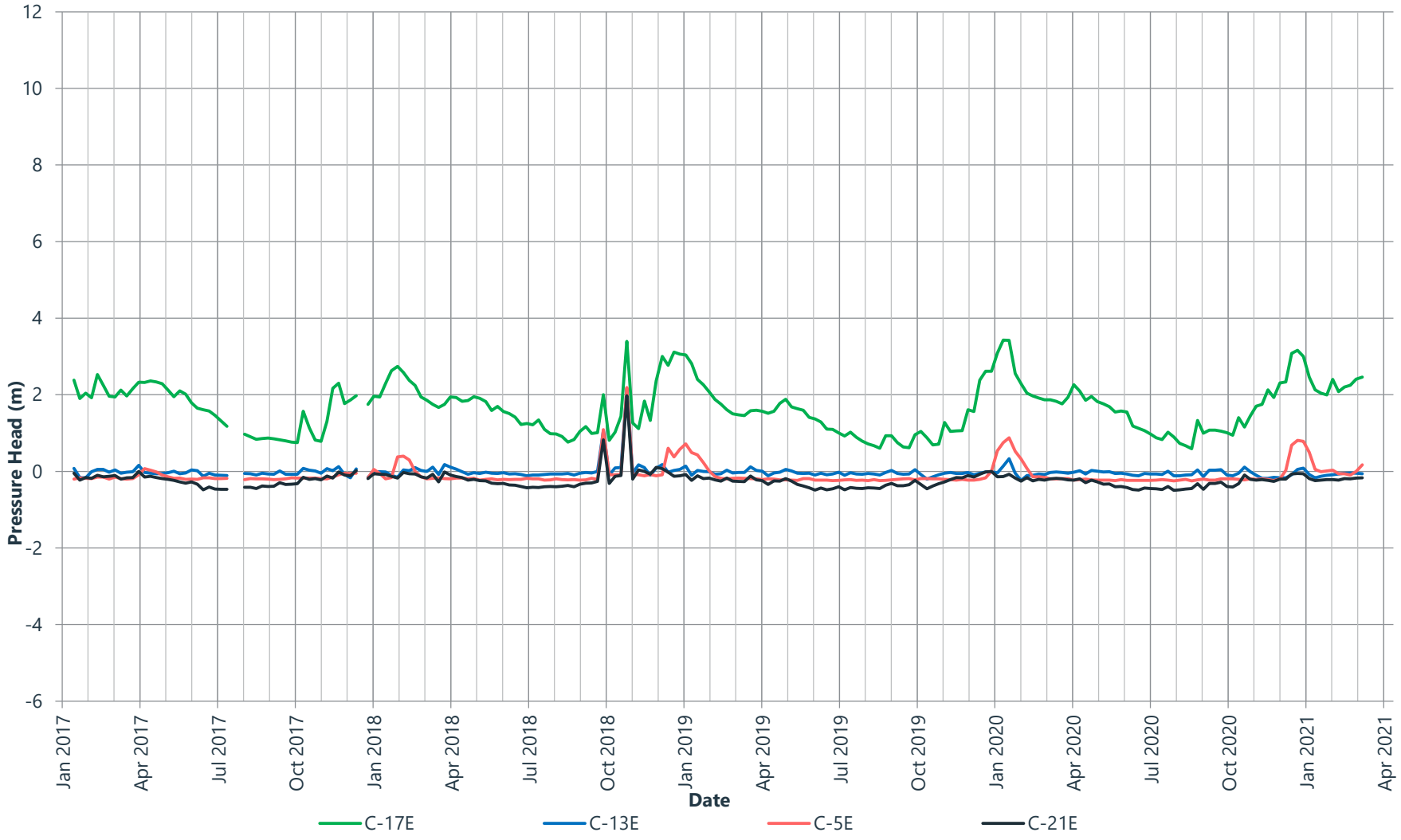
PROJECT:	Myra Falls Quarterly Report			
TITLE:	Old TDF Piezometer Records Plane 3 (32233, 21715, P-13, P-14) and Plane 3/4 (P-1, P-2)			
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
March 2021	NX140001	Reporting Piezo_OldTDF_2021Data.xlsx	C-7	0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

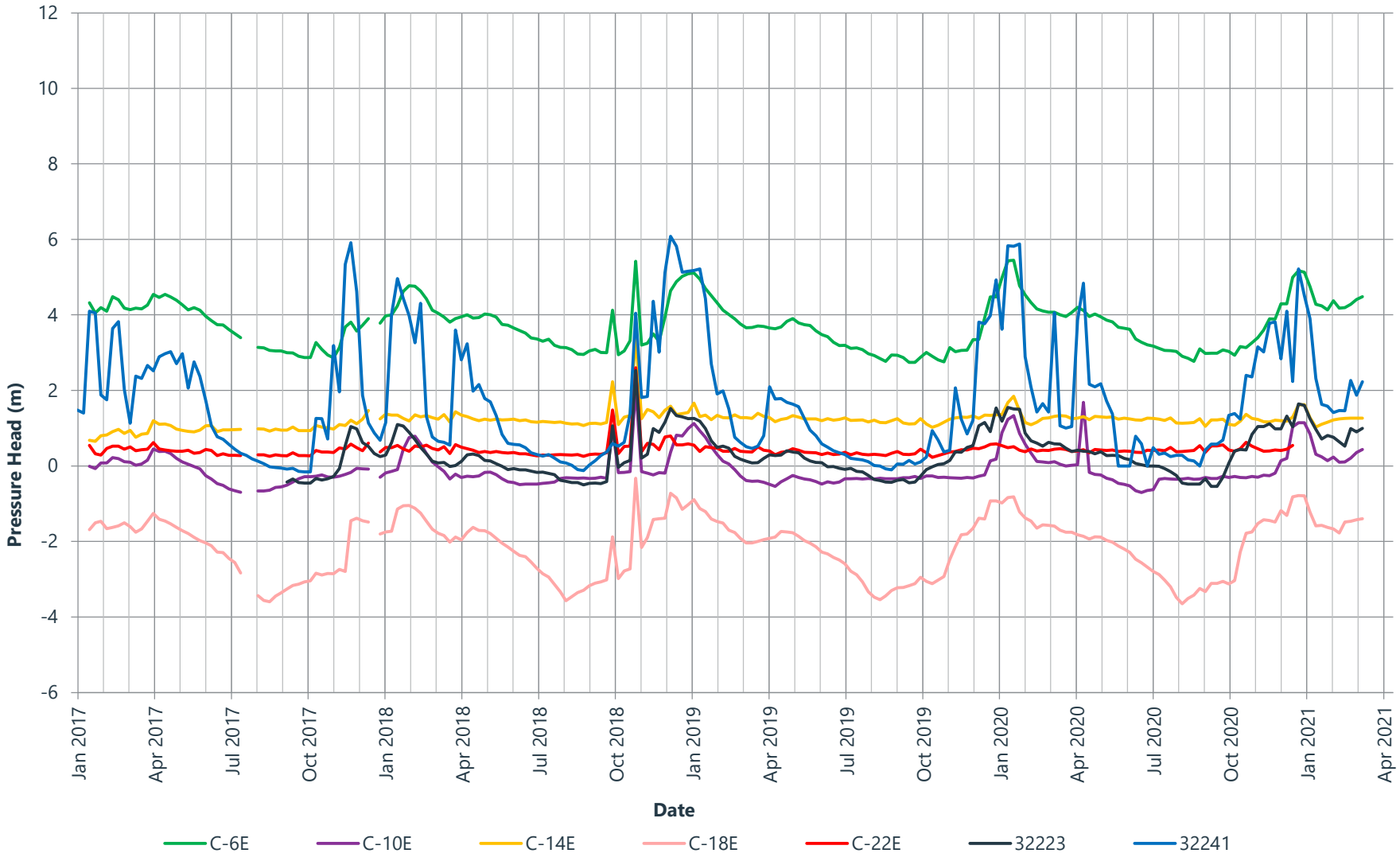
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records - Plane 4 32237, 1204, P-3, P-4				
DATE: March 2021	JOB No.: NX140001	FILE: Reporting Piezo_OldTDF_2021Data.xlsx	FIGURE No.: C-8	REV. 0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

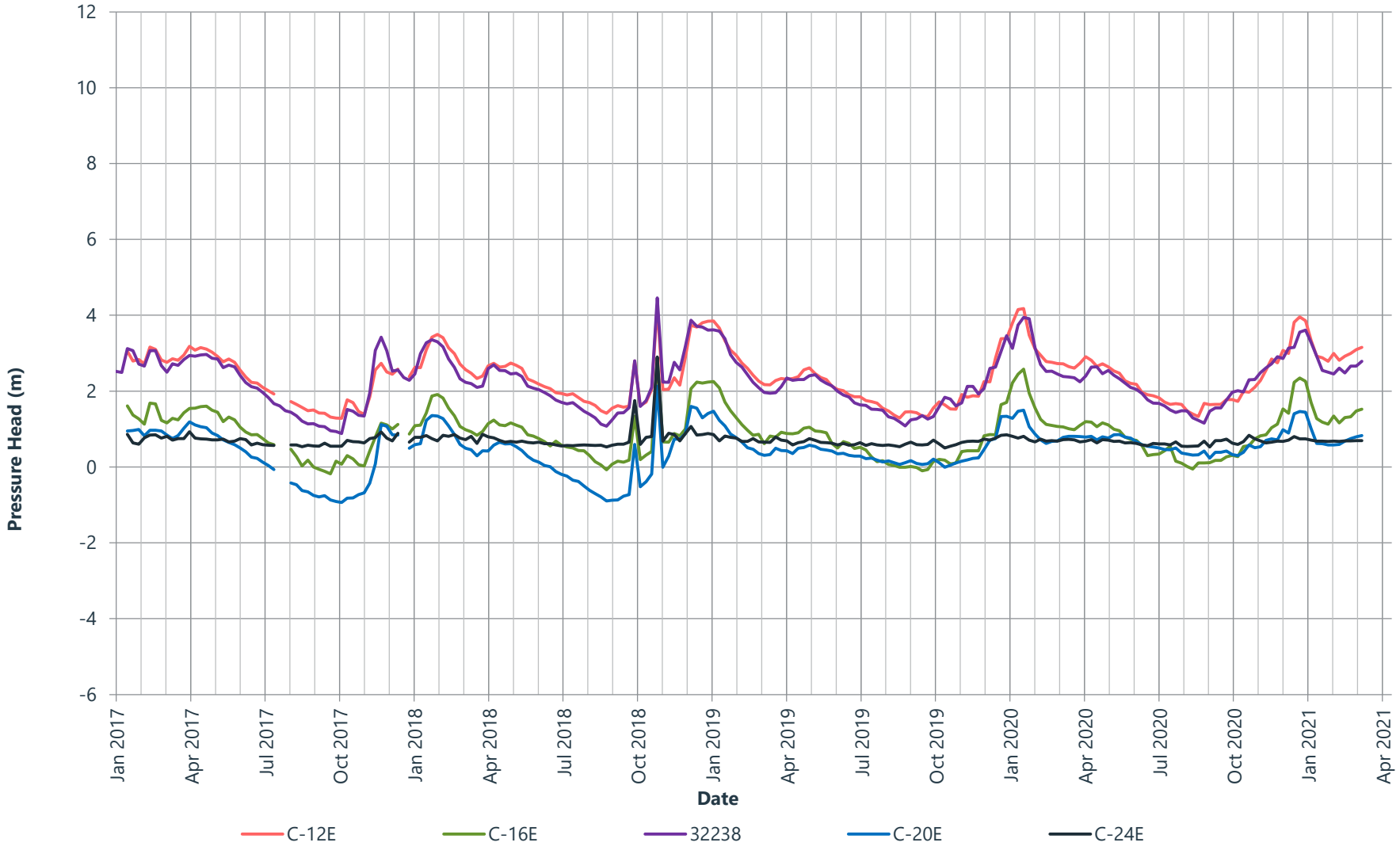
PROJECT:	Myra Falls Quarterly Report			
TITLE:	Old TDF Piezometer Records - Plane 5 Outer Embankment Slope, Location 1 C-5E, C-13E, C-17E, C-21E			
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
March 2021	NX140001	Reporting Piezo_OldTDF_2021Data.xlsx	C-9	0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

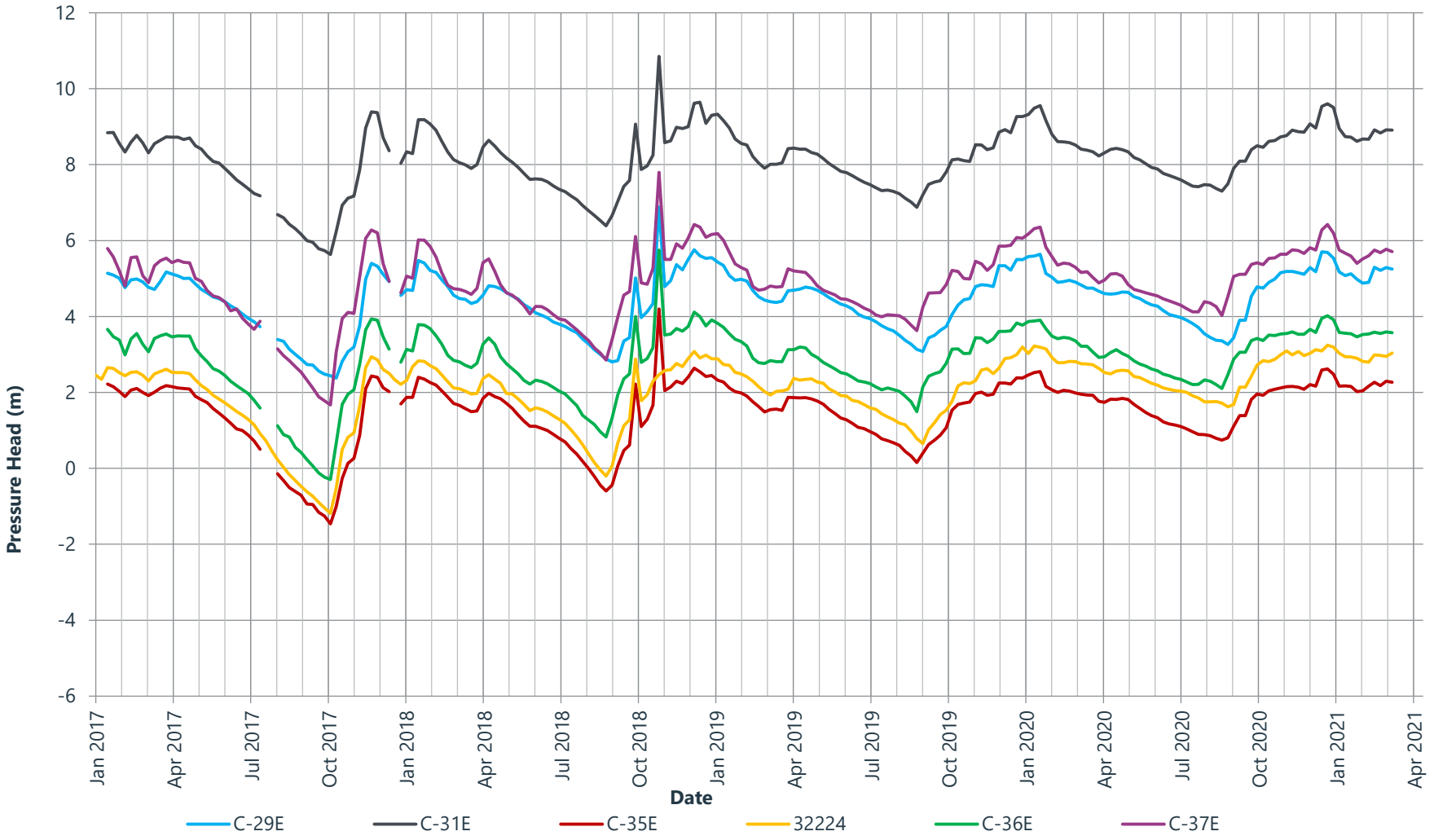
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF VWP Records - Plane 5, Outer Embankment Slope, Location 2 and Lower Tailings C-6E, C-10E, C-14E, C-18E, C-22E, 32223, 32241				
DATE: March 2021	JOB No.: NX140001	FILE: Reporting Piezo_OldTDF_2021Data.xlsx	FIGURE No.: C-10	REV.: 0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

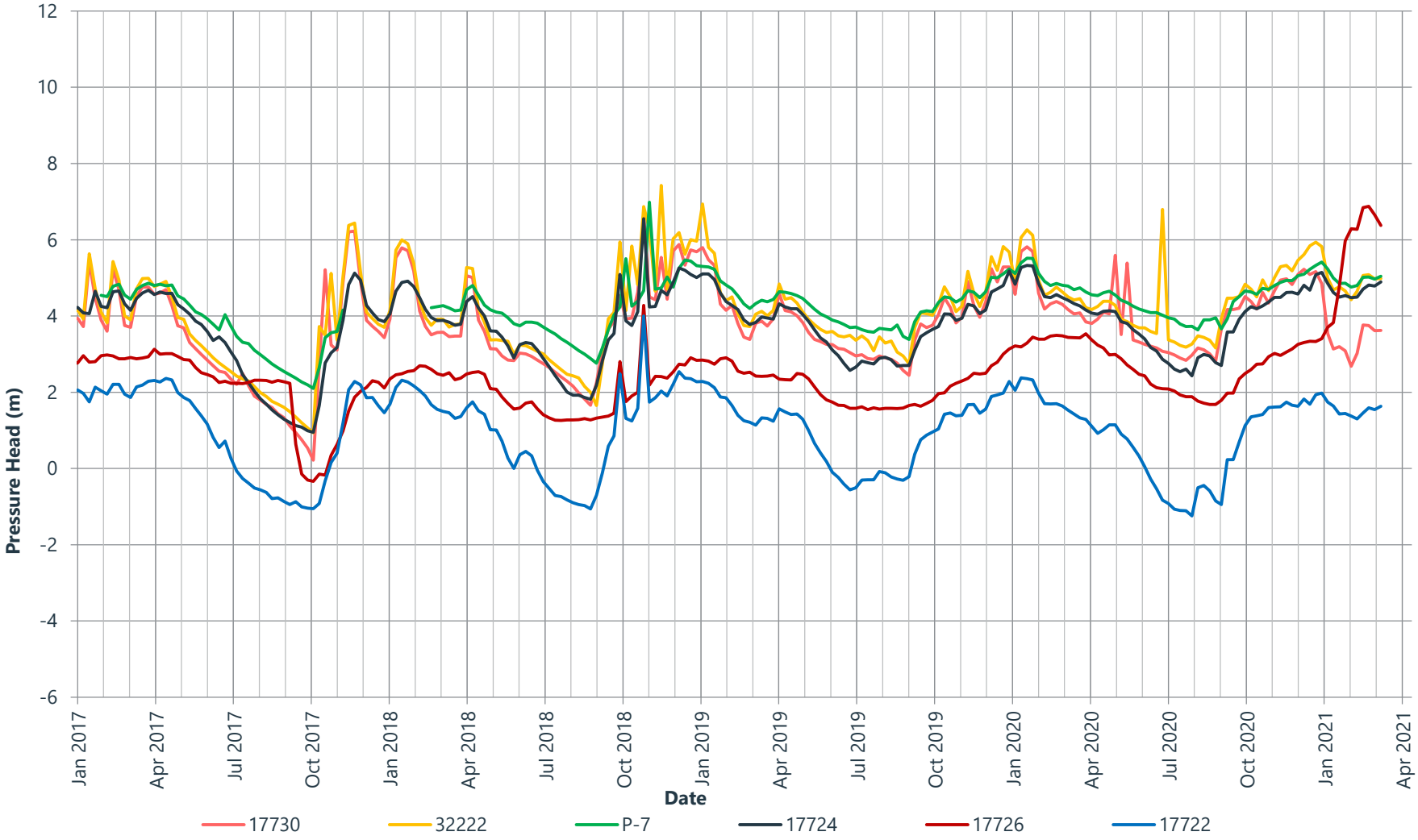
PROJECT:	Myra Falls Quarterly Report			
TITLE:	Old TDF Piezometer Records - Plane 5 Outer Embankment Slope, Location 3 C-12E, C-16E, 32238, C-20E, C-24E			
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
March 2021	NX140001	Reporting Piezo_OldTDF_2021Data.xlsx	C-11	0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

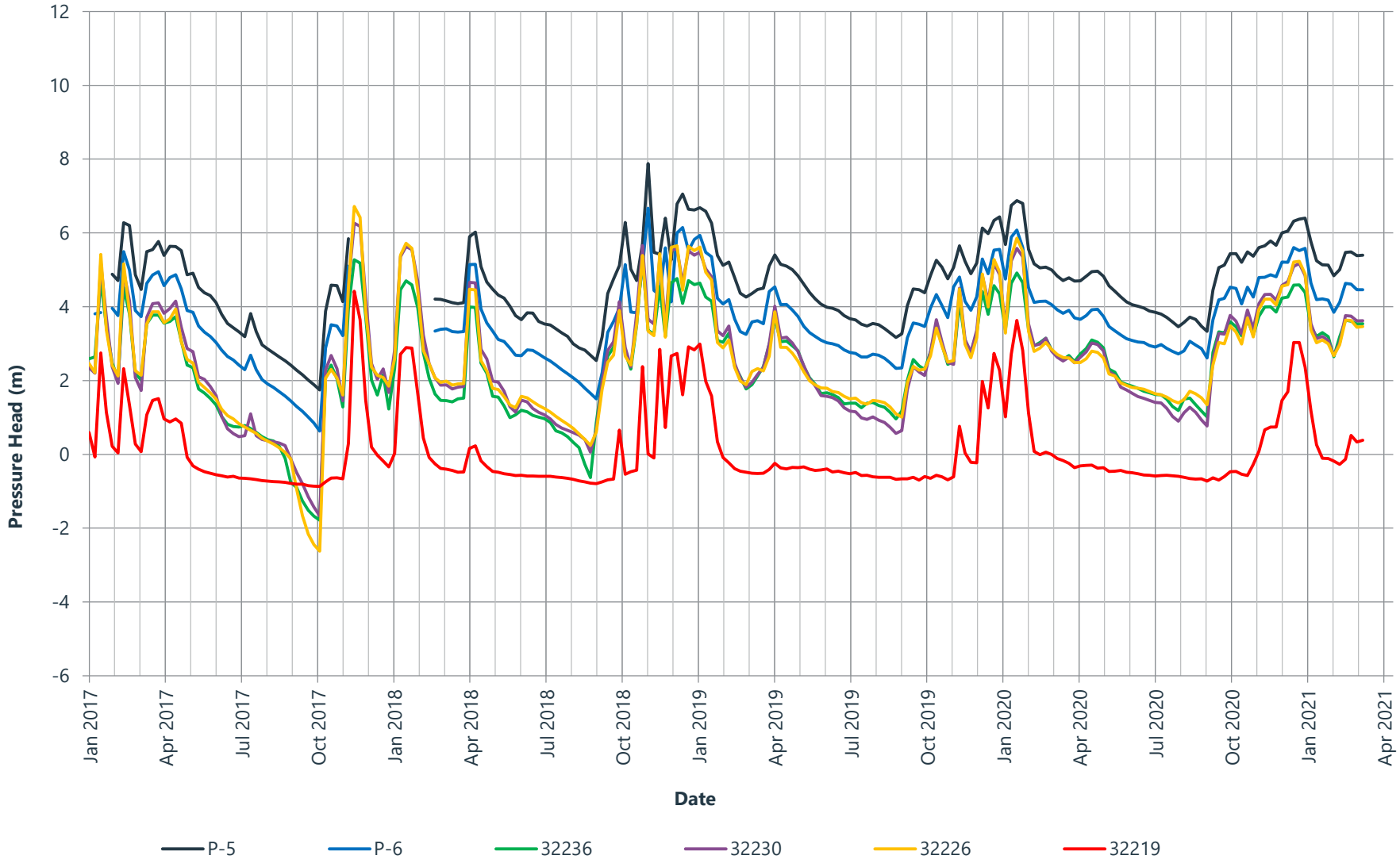
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records - Plane 5 Upper Tailings Beach C29E, C-31E, C-35E, 32224, C-36E, C-37E, 32234				
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
March 2021	NX140001	Reporting Piezo_OldTDF_2021Data.xlsx	C-12	0



wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

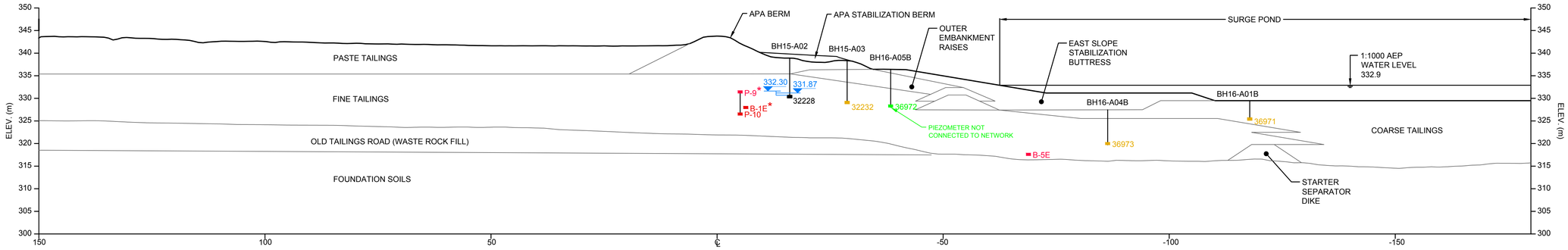
PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records - Plane 5 Paste Berm and Upstream Tailings 17730, 32222, P-7, 17724, 17726, 17722				
DATE: March 2021	JOB No.: NX140001	FILE: Reporting Piezo_OldTDF_2021Data.xlsx	FIGURE No.: C-13	REV. 0



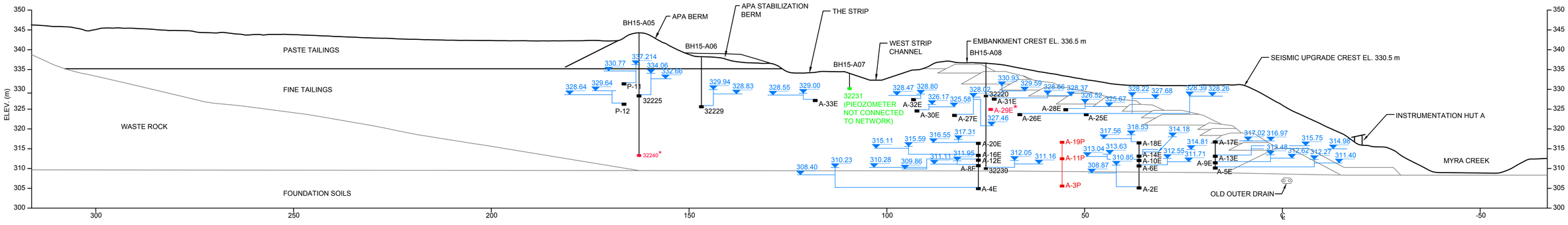
wood.

CLIENT: Myra Falls Mine
A Trafigura Group Company

PROJECT: Myra Falls Quarterly Report				
TITLE: Old TDF Piezometer Records Plane 5/6 (P-5, P-6) and Plane 6 (32236, 32230, 32226, 32219)				
DATE:	JOB No.:	FILE:	FIGURE No.:	REV.
March 2021	NX140001	Reporting Piezo_OldTDF_2021Data.xlsx	C-14	0



SECTION D FIG 2 INSTRUMENTATION PLANE 1
STA. 1+252



SECTION E FIG 2 INSTRUMENTATION PLANE A (PLANE 2)
STA. 0+355

LEGEND:

- A-20E PIEZOMETER (DATA NOT AVAILABLE)
- A-19P PIEZOMETER (FUNCTIONAL)
- A-20E* PIEZOMETER (REMOVED FROM MONITORING PROGRAM)
- 36973 PIEZOMETER (NOT RECORDING)
- 316.58 / 316.31 MAXIMUM READING FOR THE QUARTER / MINIMUM READING FOR THE QUARTER

NOTES:

1. SECTION A ADOPTED FROM KLOHN CRIPPEN BERGER, PROJECT No. M07632 A52, DRAWING No. D-52304, REV. B DATED MARCH 31, 2006.
2. ORIGINAL GROUND SURFACE TOPOGRAPHY DEVELOPED FROM KNIGHT AND PIESOLD DRAWING 1287.046, DATED 31 MAY 1983.
3. INSIDE MATERIAL ZONE BOUNDARIES, SECTION LOCATIONS AND ORIENTATIONS ARE APPROXIMATE.
4. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B3 "2021 Q1 REPORT, MYRA FALLS MINE TAILINGS DISPOSAL FACILITIES", DATED MARCH 31, 2021.
5. SURVEY SURFACE TOPOGRAPHY SUPPLIED BY CLIENT.
6. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

0m 5 10 15 20 25
1:500

ISSUED FOR DOCUMENTATION

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 22" X 34" FORMAT DRAWINGS.

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DRAWN BY:	KL
CHECKED BY:	LD
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

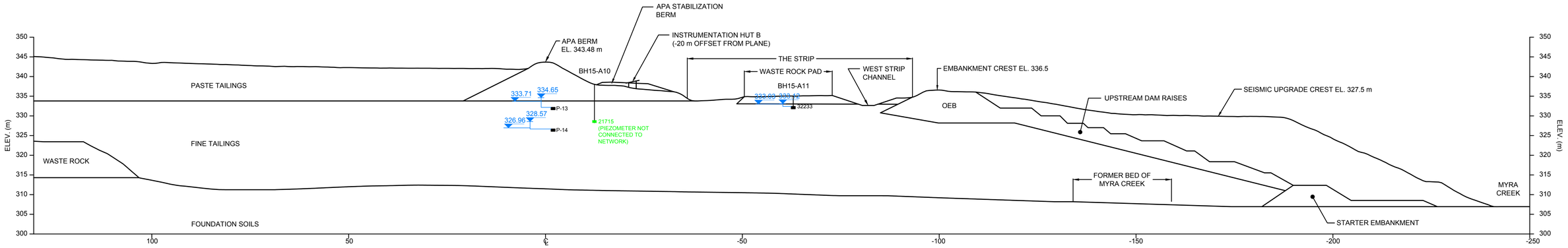
PROJECT: MYRA FALLS LYNX TDF
2021 Q1 QUARTERLY REPORT

TITLE: OLD TAILINGS DISPOSAL FACILITY
INSTRUMENTATION
PLANES 1 & 2

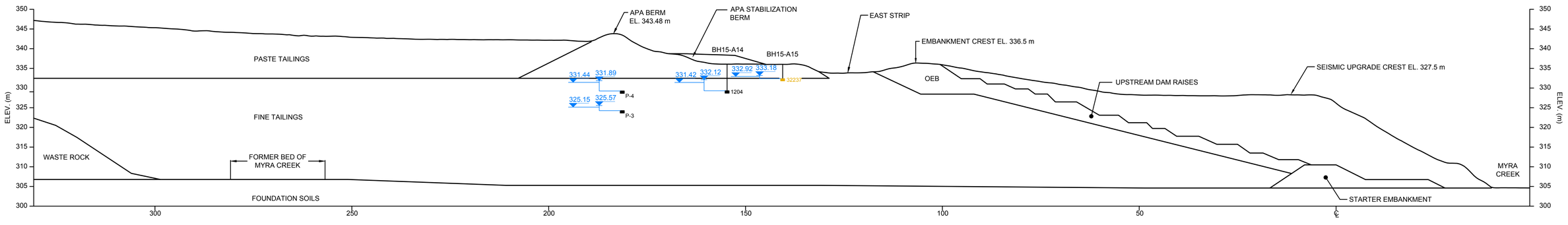
DATE:	APRIL 2021
PROJECT NO:	NX14001B3.1.510
REV. NO:	A
FIG. NO:	FIGURE C-15

P:\CAD\CIVIL\FIGURE C-15.dwg – Layout1 – Apr. 23, 2021 4:34pm – yuan.chen

P:\CAD\CIVIL\FIGURE C-15.dwg – Layout1 – Apr. 23, 2021 4:34pm – yuan.chen



SECTION F FIG 2 INSTRUMENTATION PLANE 3



SECTION G FIG 2 INSTRUMENTATION PLANE 4
STA. 0+900

LEGEND:

- A-20E PIEZOMETER (DATA NOT AVAILABLE)
- A-19P PIEZOMETER (FUNCTIONAL)
- A-20E* PIEZOMETER (REMOVED FROM MONITORING PROGRAM)
- 32237 PIEZOMETER (NOT RECORDING)
- 316.58 MAXIMUM READING FOR THE QUARTER
- 316.31 MINIMUM READING FOR THE QUARTER

NOTES:

1. ORIGINAL GROUND SURFACE TOPOGRAPHY DEVELOPED FROM KNIGHT AND PIESOLD DRAWING 1287.046, DATED 31 MAY 1983.
2. INSIDE MATERIAL ZONE BOUNDARIES, SECTION LOCATIONS AND ORIENTATIONS ARE APPROXIMATE.
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B3 "2021 Q1 REPORT, MYRA FALLS MINE TAILINGS DISPOSAL FACILITIES", DATED MARCH 31, 2021.
4. SURVEY SURFACE TOPOGRAPHY SUPPLIED BY CLIENT.
5. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

0m 5 10 15 20 25
1:500

ISSUED FOR DOCUMENTATION

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 22" X 34" FORMAT DRAWINGS.

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Suite 600 - 4445 Lougheed Highway, Burnaby, BC V5C 0E4
Tel: 1-604-294-3811 Fax: 1-604-294-4664

DRAWN BY:	KL
CHECKED BY:	LD
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

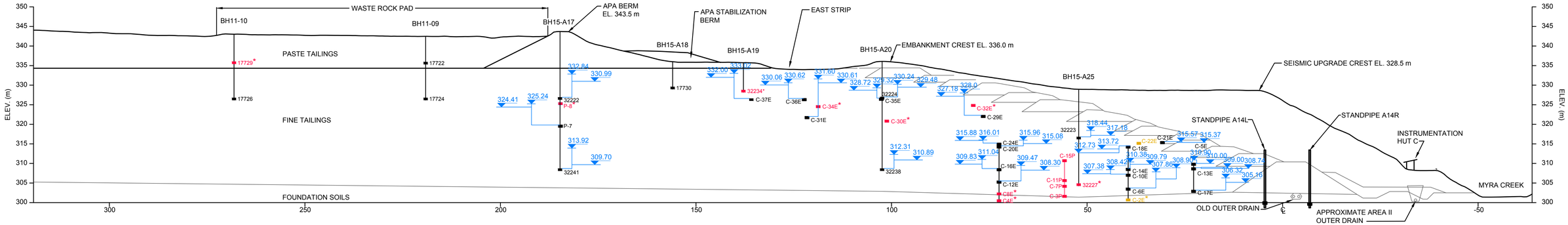
PROJECT: MYRA FALLS LYNX TDF
2021 Q1 QUARTERLY REPORT

TITLE: OLD TAILINGS DISPOSAL FACILITY
INSTRUMENTATION
PLANES 3 & 4

DATE:	APRIL 2021
PROJECT NO:	NX14001B3.1.510
REV. NO:	A
FIG. NO:	FIGURE C-16

P:\CAD\CAY\FIGURE C-16.dwg - Layout1 - Apr. 23, 2021 4:34pm - yaya.chen

D:\CAD\CAD FIGURE C-16.dwg - Layout1 - Apr. 23, 2021 4:34pm - yaya.chen



SECTION H FIG 2 — INSTRUMENTATION PLANE 5 / PLANE C
STA. 1+252

SECTION I FIG 2 — INSTRUMENTATION PLANE 6
STA. 1+428

LEGEND:

- A-20E PIEZOMETER (DATA NOT AVAILABLE)
- A-19P PIEZOMETER (FUNCTIONAL)
- A-20E* PIEZOMETER (REMOVED FROM MONITORING PROGRAM)
- C-2E* PIEZOMETER (NOT RECORDING)
- 316.58 MAXIMUM READING FOR THE QUARTER
- 316.31 MINIMUM READING FOR THE QUARTER

NOTES:

1. SECTION 5 ADOPTED FROM KLOHN CRIPPEN BERGER, PROJECT No. M07632 A52, DRAWING No. D-52304, REV. B DATED MARCH 31, 2006.
2. INSIDE MATERIAL ZONE BOUNDARIES, SECTION AND LOCATIONS AND ORIENTATIONS ARE APPROXIMATE.
3. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH WOOD ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001B2 "2020 DAM SAFETY INSPECTION REPORT, MYRA FALLS MINE TAILINGS STORAGE FACILITIES", DATED MARCH 31, 2021.
4. SURVEY SURFACE TOPOGRAPHY SUPPLIED BY CLIENT.
5. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3047.5 m) AND CONVERTED TO GEODETIC ELEVATION.

0m 5 10 15 20 25
1:500

ISSUED FOR DOCUMENTATION

THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc.) ARE BASED ON 22" X 34" FORMAT DRAWINGS.

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Tel: 1-604-294-3811 Fax: 1-604-294-4664

DRAWN BY:	KL
CHECKED BY:	LD
DATUM:	NAD 83
PROJECTION:	UTM Zone 10
SCALE:	AS SHOWN

PROJECT: MYRA FALLS LYNX TDF
2021 Q1 QUARTERLY REPORT

TITLE: OLD TAILINGS DISPOSAL FACILITY
INSTRUMENTATION
PLANES 5 & 6

DATE:	APRIL 2021
PROJECT NO:	NX14001B3.1.510
REV. NO:	A
FIG. NO:	FIGURE C- 17

LD

P:\CAD\CIV\FIGURE C- 17.dwg – Layout1 – Apr. 23, 2021 4:34pm – yuan.chen

P:\CAD\CIV\FIGURE C- 17.dwg – Layout1 – Apr. 23, 2021 4:34pm – yuan.chen

Attachment D
Lynx TDF Deformation Monuments

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Table D-1: Lynx TDF - Monument Monitoring Summary - Raw Data

	Lynx21-01			Lynx21-02			Lynx21-03			Lynx21-04			Lynx21-05		
	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
16-Sep-20	5494773.746	312042.265	369.676	5494744.013	312034.666	369.599	5494716.694	312026.695	369.681	5494702.535	312000.034	369.691	5494697.698	311961.235	369.730
8-Oct-20	5494773.749	312042.264	369.671	5494744.014	312034.661	369.593	5494716.691	312026.689	369.671	5494702.537	312000.033	369.680	5494697.701	311961.234	369.710
10-Nov-20	5494773.749	312042.262	369.669	5494744.012	312034.658	369.589	5494716.689	312026.687	369.664	5494702.538	312000.033	369.671	5494697.709	311961.229	369.691
6-Dec-20	5494773.748	312042.263	369.662	5494744.010	312034.658	369.580	5494716.688	312026.687	369.652	5494702.540	312000.034	369.660	5494697.712	311961.226	369.670
12-Jan-21	5494773.748	312042.262	369.667	5494744.009	312034.657	369.583	5494716.687	312026.683	369.653	5494702.542	312000.031	369.661	5494697.718	311961.223	369.665
18-Feb-21	5494773.748	312042.262	369.667	5494744.007	312034.652	369.582	5494716.688	312026.674	369.651	5494702.540	312000.029	369.658	5494697.721	311961.222	369.658

	Lynx21-06			Lynx21-07			Lynx21-08			Lynx21-09			Lynx21-10		
	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
16-Sep-20	5494694.226	311942.220	369.621	5494689.418	311913.741	369.659	5494685.242	311884.274	369.602	5494679.188	311846.867	369.730	5494677.234	311830.002	369.525
8-Oct-20	5494694.244	311942.221	369.602	5494689.427	311913.743	369.647	5494685.254	311884.272	369.586	5494679.202	311846.860	369.714	5494677.261	311830.007	369.490
10-Nov-20	5494694.269	311942.220	369.584	5494689.432	311913.745	369.636	5494685.265	311884.273	369.572	5494679.209	311846.860	369.701	5494677.268	311830.007	369.473
6-Dec-20	5494694.281	311942.220	369.565	5494689.433	311913.745	369.623	5494685.268	311884.272	369.558	5494679.213	311846.860	369.685	5494677.271	311830.008	369.457
12-Jan-21	5494694.303	311942.222	369.557	5494689.438	311913.746	369.624	5494685.275	311884.272	369.557	5494679.221	311846.857	369.681	5494677.279	311830.005	369.453
18-Feb-21	5494694.306	311942.219	369.551	5494689.438	311913.747	369.621	5494685.278	311884.272	369.554	5494679.224	311846.853	369.679	5494677.281	311830.003	369.447

	Lynx21-11			Lynx21-12			Lynx21-13			Lynx21-14		
	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
16-Sep-20	5494668.434	311772.749	369.662	5494682.176	311732.503	369.765	5494724.040	311709.770	369.737	5494773.385	311686.335	369.680
8-Oct-20	5494668.438	311772.748	369.651	5494682.182	311732.518	369.752	5494724.046	311709.796	369.723	5494773.397	311686.361	369.656
10-Nov-20	5494668.452	311772.753	369.639	5494682.186	311732.524	369.741	5494724.049	311709.808	369.702	5494773.404	311686.385	369.636
6-Dec-20	5494668.466	311772.756	369.622	5494682.188	311732.528	369.727	5494724.049	311709.812	369.689	5494773.406	311686.392	369.618
12-Jan-21	5494668.478	311772.758	369.622	5494682.199	311732.548	369.727	5494724.054	311709.821	369.689	5494773.413	311686.410	369.617
18-Feb-21	5494668.483	311772.757	369.620	5494682.201	311732.549	369.727	5494724.054	311709.828	369.688	5494773.265	311686.416	369.602

Notes:
1 - 2020 surveys provided by Nyrstar in October 2020.
2 - The combined measurement error (total of instrument, human and network) for the LynxTDF monument survey is approximately 2 mm and 4 mm for horizontal and vertical displacement, respectively.
3 - Values in table are reported in meters.
4 - Green shading indicates monument was placed, replaced, or re-set on that date. Displacement after that date is calculated with repect to the survey reading on the replacement date.
5 - 'NA' indicates no survey data available for that date.
6 - Bold numbers indicate upstream monument location on dam, regular numbers indicate downstrream location on dam

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Table D-2: Lynx TDF - Monument Monitoring Summary - Cumulative Displacement (Change from Initial Location

	Lynx21-01					Lynx21-02				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	0.3	346.6	-0.2	0.3	-0.5	**0.4**	**281.3**	**-0.4**	**0.0**	**-0.6**
10-Nov-20	0.4	327.1	-0.3	0.3	-0.2	**0.7**	**256.6**	**-0.6**	**-0.4**	**-0.4**
6-Dec-20	0.3	327.0	-0.2	0.2	-0.7	**0.9**	**246.9**	**-0.7**	**-0.6**	**-0.9**
12-Jan-21	0.3	310.5	-0.3	0.1	0.5	**1.0**	**243.6**	**-0.7**	**-0.7**	**0.3**
18-Feb-21	0.3	310.5	-0.3	0.1	0.0	**1.5**	**242.8**	**-1.1**	**-1.1**	**-0.1**

	Lynx21-03					Lynx21-04				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	0.7	238.1	-0.5	-0.5	-1.0	**0.2**	**346.6**	**-0.1**	**0.2**	**-1.0**
10-Nov-20	1.0	235.7	-0.6	-0.8	-0.7	**0.2**	**346.6**	**-0.1**	**0.2**	**0.0**
6-Dec-20	1.0	230.0	-0.5	-0.8	-1.2	**0.2**	**346.6**	**-0.1**	**0.2**	**0.0**
12-Jan-21	1.4	238.1	-0.9	-1.1	0.1	**0.2**	**346.6**	**-0.1**	**0.2**	**0.0**
18-Feb-21	2.2	251.8	-1.7	-1.3	-0.2	**0.2**	**346.6**	**-0.1**	**0.2**	**0.0**

	Lynx21-05					Lynx21-06				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	**0.3**	**341.8**	**-0.3**	**0.0**	**-1.9**	**1.9**	**3.9**	**-1.8**	**0.4**	**-1.9**
10-Nov-20	**1.2**	**329.9**	**-1.1**	**-0.4**	**-1.9**	**4.4**	**359.9**	**-4.3**	**0.6**	**-1.8**
6-Dec-20	**1.7**	**326.9**	**-1.5**	**-0.7**	**-2.1**	**5.6**	**0.3**	**-5.5**	**0.8**	**-1.9**
12-Jan-21	**2.3**	**327.6**	**-2.1**	**-0.9**	**-0.5**	**7.8**	**1.1**	**-7.7**	**1.3**	**-0.8**
18-Feb-21	**2.6**	**328.9**	**-2.4**	**-1.0**	**-0.7**	**8.1**	**359.2**	**-8.0**	**1.1**	**-0.6**

	Lynx21-07					Lynx21-08				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	**1.0**	**13.5**	**-0.9**	**0.4**	**-1.2**	**1.2**	**347.7**	**-1.2**	**-0.1**	**-1.6**
10-Nov-20	**1.5**	**18.8**	**-1.3**	**0.7**	**-1.1**	**2.2**	**357.7**	**-2.2**	**0.2**	**-1.4**
6-Dec-20	**1.5**	**15.6**	**-1.4**	**0.6**	**-1.3**	**2.5**	**355.3**	**-2.5**	**0.2**	**-1.4**
12-Jan-21	**2.0**	**15.0**	**-1.9**	**0.8**	**0.1**	**3.3**	**356.4**	**-3.3**	**0.3**	**-0.1**
18-Feb-21	**2.1**	**16.6**	**-1.9**	**0.9**	**-0.3**	**3.5**	**355.7**	**-3.5**	**0.2**	**-0.3**

	Lynx21-09					Lynx21-10				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	**1.6**	**334.0**	**-1.6**	**-0.5**	**-1.6**	**2.7**	**9.0**	**-2.6**	**0.8**	**-3.5**
10-Nov-20	**2.3**	**343.2**	**-2.3**	**-0.3**	**-1.3**	**3.4**	**7.0**	**-3.3**	**0.9**	**-1.7**
6-Dec-20	**2.6**	**344.6**	**-2.6**	**-0.3**	**-1.6**	**3.7**	**7.9**	**-3.6**	**1.0**	**-1.6**
12-Jan-21	**3.5**	**343.6**	**-3.5**	**-0.5**	**-0.4**	**4.4**	**3.8**	**-4.3**	**0.9**	**-0.4**
18-Feb-21	**3.9**	**339.4**	**-3.8**	**-0.8**	**-0.2**	**4.7**	**1.2**	**-4.6**	**0.8**	**-0.6**

	Lynx21-11					Lynx21-12				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	0.0	0.0	0.0	0.0	0.0
8-Oct-20	**0.4**	**334.0**	**-0.3**	**-0.3**	**-1.1**	1.6	67.7	-1.6	0.1	-1.3
10-Nov-20	**1.8**	**11.8**	**-1.8**	**-0.1**	**-1.2**	2.3	64.8	-2.3	0.0	-1.1
6-Dec-20	**3.3**	**12.4**	**-3.3**	**-0.2**	**-1.7**	2.8	64.7	-2.8	0.0	-1.4
12-Jan-21	**4.5**	**11.3**	**-4.5**	**-0.3**	**0.0**	5.1	62.5	-5.1	-0.1	0.0
18-Feb-21	**4.9**	**9.1**	**-4.9**	**-0.6**	**-0.2**	5.3	62.0	-5.3	-0.2	0.0

	Lynx21-13					Lynx21-14				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	**2.7**	**76.9**	**-2.6**	**0.6**	**-1.4**	**2.9**	**66.0**	**-2.9**	**0.1**	**-2.6**
10-Nov-20	**3.9**	**76.1**	**-3.8**	**0.8**	**-2.1**	**5.3**	**69.8**	**-5.3**	**0.5**	**-3.8**
6-Dec-20	**4.3**	**78.0**	**-4.1**	**1.0**	**-1.3**	**6.1**	**70.2**	**-6.0**	**0.7**	**-4.1**
12-Jan-21	**5.2**	**74.8**	**-5.2**	**1.0**	**0.0**	**8.1**	**69.6**	**-8.0**	**0.8**	**-5.2**
18-Feb-21	**6.0**	**75.9**	**-5.8**	**1.2**	**-0.1**	**14.6**	**145.9**	**-2.1**	**14.4**	**-5.8**

Notes:
1 - 2020 surveys provided by Nyrstar in October 2020.
2 - The combined measurement error (total of instrument, human and network) for the LynxTDF monument survey is approximately 1.5 cm and 1.0 cm for horizontal and vertical displacement, respectively.
3 - Negative values are in the upstream direction, positive values are in the downward direction.
4 - Negative values are descending stations along dam centreline and positive values are for ascending stations.
5 - Green shading indicates monument was placed, replaced, or re-set on that date. Displacement after that date is calculated with repect to the initial survey reading on the replacement date.
6 - 'NA' indicates no survey data available for that date. Displacement values are based on changes from the last available readings.
7 - Bold numbers indicate upstream monument location on dam, regular numbers indicate downstrream location on dam

Appendix B3 – Instrumentation Data Summary

wood.

Appendix B3-1
Lynx TDF VWP Data

Table/Figure/Drawing No.	Title
Table 1	Lynx Paste Tailings – Weekly Maximum Vibrating Wire Piezometer Readings and Weekly Maximum Pond Levels
Table 2	Lynx Dam – Weekly Maximum Vibrating Wire Piezometer Readings
Figure 1	Lynx TDF – Deep Paste VWP Data
Figure 2a	Lynx Dam – Shallow Foundation VWP Data
Figure 2b	Lynx Dam – Shallow Foundation VWP Data
Figure 3	Lynx Dam – Deep Foundation VWP Data
Figure 4	Lynx Dam – Dam Fill VWP Data

Table 1: Lynx Tailings - Weekly Maximum Pond Levels and Vibrating Wire Piezometer Readings, Total Head and Pressure Head

Location		Upstream Dam Toe and Tailings									
Plane and Position	Lynx TDF Pond Levels	Plane D/E - Deep Tailings		Plane D/E - Deep Tailings		Plane D/E - Deep Tailings		Plane D/E - Deep Tailings		Plane D/E - Deep Tailings	
Piezometer	Gauge Reading	17727		17728		17733		17731		17734	
Tip Elevation (m)		328.36		320.74		308.5		330.31		310.5	
Historical Max. Value	n/a	343.69	15.33	337.60	16.86	323.96	15.46	349.82	19.51	327.38	16.88
Trigger Point S1	n/a	n/a		n/a		n/a		n/a		n/a	
Trigger Point S2	n/a	n/a		n/a		n/a		n/a		n/a	
Trigger Point S3	n/a	n/a		n/a		n/a		n/a		n/a	
Trigger Point N1	n/a	342.70	14.34	336.50	15.76	324.00	15.50	349.40	19.09	327.40	16.90
2021-01-03		342.57	14.21	**337.13**	**16.39**	319.48	10.98	348.15	17.84		
2021-01-10		342.51	14.15	**336.87**	**16.13**	319.24	10.74	348.36	18.05		
2021-01-17		342.26	13.90	**336.67**	**15.93**	319.02	10.52	348.08	17.77		
2021-01-24		342.28	13.92	**336.68**	**15.94**	319.16	10.66	348.14	17.83		
2021-01-31		342.21	13.85	**336.79**	**16.05**	319.26	10.76	347.96	17.65		
2021-02-07		341.92	13.56	**336.64**	**15.90**	319.18	10.68	347.72	17.41		
2021-02-14		342.07	13.71	**336.83**	**16.09**	319.43	10.93	347.85	17.54		
2021-02-21		341.68	13.32	336.23	15.49	318.71	10.21	347.64	17.33		
2021-02-28		341.51	13.15	335.92	15.18	318.31	9.81	347.57	17.26		
2021-03-07		341.59	13.23	336.18	15.44	318.45	9.95	347.61	17.30		
2021-03-14		341.65	13.29	336.27	15.53	318.45	9.95	347.83	17.52		
2021-03-21		341.53	13.17	335.86	15.12	318.15	9.65	347.75	17.44		
2021-03-21		341.53	13.17	335.86	15.12	318.15	9.65	347.75	17.44		
2021-03-28		341.54	13.18	335.91	15.17	318.14	9.64	347.74	17.43		
2021-04-04		341.59	13.23					347.73	17.42		
2021-04-11		341.78	13.42					347.91	17.60		
2021-04-18		341.85	13.49					348.16	17.85		
2021-04-25		341.69	13.33					348.15	17.84		
2021-05-02		341.66	13.30					348.02	17.71		
2021-05-09		341.48	13.12					347.86	17.55		
2021-05-16		341.65	13.29					347.93	17.62		
2021-05-23		341.73	13.37					348.01	17.70		
2021-05-30		341.90	13.54					348.08	17.77		
2021-06-06		341.91	13.55					348.11	17.80		
2021-06-13		341.82	13.46					348.08	17.77		
2021-06-20		341.63	13.27					347.94	17.63		
2021-06-27		341.67	13.31					347.97	17.66		
2021-07-04		341.76	13.40					347.95	17.64		
2021-07-11		341.91	13.55					348.12	17.81		
2021-07-18		342.04	13.68					348.31	18.00		
2021-07-25		342.14	13.78					348.41	18.10		
2021-08-01		342.42	14.06					348.51	18.20		
2021-08-08		342.64	14.28					348.60	18.29		
2021-08-15		**342.76**	**14.40**					348.78	18.47		
2021-08-22		**342.79**	**14.43**					348.78	18.47		
2021-08-29		**342.92**	**14.56**					348.87	18.56		
2021-09-05		**342.81**	**14.45**					348.88	18.57		
2021-09-12		**342.80**	**14.44**					349.13	18.82		
2021-09-19		**343.03**	**14.67**					349.12	18.81		
2021-09-26		**343.18**	**14.82**					349.22	18.91		
2021-10-03	362.60	**343.21**	**14.85**					349.30	18.99		
2021-10-10	362.60	**343.31**	**14.95**					349.37	19.06		
2021-10-17	362.60	**343.54**	**15.18**					**349.62**	**19.31**		
2021-10-24		**343.69**	**15.33**	**337.60**	**16.86**	320.48	11.98	**349.82**	**19.51**		
2021-10-31		**343.52**	**15.16**	**337.34**	**16.60**	320.23	11.73	**349.71**	**19.40**		
2021-11-07		**343.29**	**14.93**	**336.74**	**16.00**	319.40	10.90	**349.66**	**19.35**		
2021-11-14		**343.21**	**14.85**	**336.66**	**15.92**			**349.53**	**19.22**		
2021-11-21	363.02	**342.91**	**14.55**	336.24	15.50	318.76	10.26	349.30	18.99		
2021-11-28		**342.79**	**14.43**	336.04	15.30			349.24	18.93		
2021-12-05		**342.85**	**14.49**	336.23	15.49			349.28	18.97		
2021-12-12		**342.89**	**14.53**	336.32	15.58			349.32	19.01		
2021-12-19		**342.82**	**14.46**	336.28	15.54			**349.41**	**19.10**		
2021-12-26		**342.99**	**14.63**	**336.68**	**15.94**			**349.56**	**19.25**		

Legend:

1.8	Threshold level S1, short-term static design factor of safety below 1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level N1, notable porewater pressure requiring further review, does not represent a stability concern
330.05	Historical maximum value
328.29	Negative pore pressure (elevation head below tip elevation)
	Blank spaces indicate no data available

Note:
The noted factor of safety would only occur for a particular section if most instruments in that section were at their individual threshold level.

Table 2: Lynx Dam - Weekly Maximum Vibrating Wire Piezometer Readings, Total Head and Pressure Head

Location	Shallow Foundation																				Deep Foundation						Dam Fill			
Plane and Position	Plane D below CL		Plane D/E Ultimate Dam Footprint		Plane E below CL		Plane E below Downstream Shell		Plane F below CL		Plane F Ultimate Dam Footprint		Plane D/E below Downstream Shell		Plane E below Downstream Shell		Plane D below Downstream Shell		Plane A below Downstream Shell		Plane F below Downstream Shell		Plane F Ultimate Dam Footprint		Plane F below CL		Plane F Dam Fill CL		Plane E Dam Fill CL	
Piezometer	29334		29320		29335		29321		29330		32221		29331		63326		63327		63328		29333		29324		33784		29322		29329	
Tip Elevation (m)	328.40		323.50		315.90		322.40		328.40		318.55		306.30		331.30		331.90		327.05		296.70		311.60		311.85		337.30		336.90	
Historical Max. Value	330.84	2.44	324.86	1.36	319.05	3.15	325.17	2.77	330.67	2.27	325.94	7.39	320.73	14.43	329.95		331.01		326.65		317.26	20.56	318.60	7.00	331.90	20.05	339.52	2.22	339.00	2.10
Trigger Point S1	353.00	24.60	326.10	2.60	347.00	31.10	332.50	10.10	342.50	14.10	325.40	6.85	340.50	34.20	345.00	13.70	344.50	12.60	341.00	13.95	332.00	35.30	318.70	7.10	342.50	30.65	342.50	5.20	347.00	10.10
Trigger Point S2	361.00	32.60	341.30	17.80	359.00	43.10	340.30	17.90	355.00	26.60	328.40	9.85	346.00	39.70	354.00	22.70	352.50	20.60	350.00	22.95	335.00	38.30	321.80	10.20	355.00	43.15	355.00	17.70	359.00	22.10
Tigger Point S3	367.50	39.10	346.30	22.80	362.00	46.10	345.30	22.90	362.50	34.10	331.80	13.25	350.00	43.70	359.00	27.70	357.00	25.10	357.50	30.45	336.00	39.30	325.20	13.60	362.50	50.65	362.50	25.20	362.00	25.10
Trigger Point N1	330.80	2.40	326.10	2.60	319.10	3.20	325.20	2.80	330.70	2.30	325.40	6.85	320.70	14.40	329.70		332.40		329.80		317.30	20.60	318.60	7.00	331.90	20.05	339.50	2.20	339.00	2.10
2021-01-03			324.08	0.58	316.47	0.57	323.01	0.61	328.66	0.26	321.11	2.56	317.41	11.11	*330.00*	*-1.30*	*331.72*	*-0.18*	*326.66*	*-0.39*	315.27	18.57			324.80	12.95	*337.13*	*-0.17*	*336.68*	*-0.22*
2021-01-10	328.87	0.47	323.93	0.43	316.58	0.68	323.02	0.62	328.70	0.30	320.26	1.71	316.73	10.43	*330.02*	*-1.28*	*331.75*	*-0.15*	*326.65*	*-0.40*	315.02	18.32	314.59	2.99	324.80	12.95	*337.20*	*-0.10*	*336.70*	*-0.20*
2021-01-17	328.82	0.42	323.68	0.18	316.35	0.45	322.76	0.36	328.55	0.15	319.49	0.94	316.24	9.94	*329.99*	*-1.31*	*331.68*	*-0.22*	*326.65*	*-0.40*	314.64	17.94			324.07	12.22	*337.12*	*-0.18*	*336.66*	*-0.24*
2021-01-24	328.85	0.45	323.68	0.18	316.48	0.58	322.69	0.29	328.68	0.28	319.36	0.81	315.09	8.79	*330.02*	*-1.28*	*331.70*	*-0.20*	*326.65*	*-0.40*	313.80	17.10			321.69	9.84	*337.17*	*-0.13*	*336.68*	*-0.22*
2021-01-31	328.57	0.17	323.77	0.27	316.38	0.48	322.61	0.21	328.60	0.20	319.48	0.93	314.57	8.27	*329.98*	*-1.32*	*331.67*	*-0.23*	*326.65*	*-0.40*	313.30	16.60			319.00	7.15	*337.12*	*-0.18*	*336.65*	*-0.25*
2021-02-07	328.59	0.19	323.72	0.22	316.38	0.48	322.73	0.33	328.61	0.21	319.42	0.87	314.55	8.25	*329.99*	*-1.31*	*331.69*	*-0.21*	*326.65*	*-0.40*	313.25	16.55			317.52	5.67	*337.16*	*-0.14*	*336.67*	*-0.23*
2021-02-14	328.58	0.18	323.67	0.17	316.41	0.51	322.69	0.29	328.64	0.24	319.24	0.69	314.47	8.17	*330.00*	*-1.30*	*331.69*	*-0.21*	*326.65*	*-0.40*	313.02	16.32			317.04	5.19	*337.13*	*-0.17*	*336.65*	*-0.25*
2021-02-21	328.54	0.14	323.79	0.29	316.31	0.41	322.62	0.22	328.54	0.14	319.46	0.91	314.42	8.12	*329.98*	*-1.32*	331.99	0.09	*326.65*	*-0.40*	313.16	16.46			316.99	5.14	*337.16*	*-0.14*	*336.67*	*-0.23*
2021-02-28	328.56	0.16	323.85	0.35	316.38	0.48	322.74	0.34	328.61	0.21	319.95	1.40	314.92	8.62	*329.99*	*-1.31*	332.02	0.12	*326.65*	*-0.40*	313.54	16.84			316.77	4.92	*337.12*	*-0.18*	*336.65*	*-0.25*
2021-03-07	328.73	0.33	323.82	0.32	316.34	0.44	322.79	0.39	328.58	0.18	320.20	1.65	315.60	9.30	*329.98*	*-1.32*	332.02	0.12	*326.65*	*-0.40*	313.75	17.05			317.95	6.10	*337.13*	*-0.17*	*336.65*	*-0.25*
2021-03-14	328.77	0.37	323.74	0.24	316.35	0.45	322.82	0.42	328.60	0.20	319.66	1.11	314.93	8.63	*329.99*	*-1.31*	332.05	0.15	*326.65*	*-0.40*	313.46	16.76			318.78	6.93	*337.16*	*-0.14*	*336.66*	*-0.24*
2021-03-21	328.78	0.38	323.77	0.27	316.32	0.42	322.76	0.36	328.58	0.18	319.62	1.07	314.85	8.55	*329.99*	*-1.31*	332.06	0.16	*326.65*	*-0.40*	313.37	16.67			318.82	6.97	*337.17*	*-0.13*	*336.68*	*-0.22*
2021-03-28	328.78	0.38	323.77	0.27	316.32	0.42	322.76	0.36	328.58	0.18	319.44	0.89	314.85	8.55	*329.99*	*-1.31*	332.06	0.16	*326.65*	*-0.40*	313.27	16.57			318.82	6.97	*337.17*	*-0.13*	*336.68*	*-0.22*
2021-04-04	328.81	0.41	323.76	0.26	316.35	0.45	322.77	0.37	328.60	0.20	319.37	0.82	314.72	8.42	*330.00*	*-1.30*	332.09	0.19	*326.65*	*-0.40*	313.12	16.42			318.45	6.60	*337.19*	*-0.11*	*336.69*	*-0.21*
2021-04-11	328.62	0.22	323.65	0.15	316.29	0.39	322.64	0.24	328.55	0.15	319.39	0.84	314.50	8.20	*329.99*	*-1.31*	332.06	0.16	*326.65*	*-0.40*	312.96	16.26			317.66	5.81	*337.13*	*-0.17*	*336.64*	*-0.26*
2021-04-18	328.52	0.12	323.64	0.14	316.21	0.31	322.60	0.20	328.46	0.06	319.23	0.68	314.31	8.01	*329.97*	*-1.33*	332.03	0.13	*326.65*	*-0.40*	313.34	16.64			317.45	5.60	*337.13*	*-0.17*	*336.62*	*-0.28*
2021-04-25	328.74	0.34	323.62	0.12	316.34	0.44	322.61	0.21	328.60	0.20	319.24	0.69	314.53	8.23	*330.00*	*-1.30*	332.09	0.19	*326.65*	*-0.40*	313.56	16.86			317.28	5.43	*337.13*	*-0.17*	*336.64*	*-0.26*
2021-05-02	328.73	0.33	323.60	0.10	316.34	0.44	322.59	0.19	328.59	0.19	319.27	0.72			*330.00*	*-1.30*	332.07	0.17	*326.65*	*-0.40*	313.55	16.85			317.12	5.27	*337.10*	*-0.20*	*336.63*	*-0.27*
2021-05-09	328.72	0.32	323.62	0.12	316.32	0.42	322.60	0.20	328.58	0.18	319.30	0.75			*330.02*	*-1.28*	332.09	0.19	*326.65*	*-0.40*	313.49	16.79			316.89	5.04	*337.16*	*-0.14*	*336.64*	*-0.26*
2021-05-16	328.61	0.21	323.58	0.08	316.23	0.33	322.50	0.10	328.49	0.09	319.32	0.77			*329.99*	*-1.31*	332.03	0.13	*326.65*	*-0.40*	313.52	16.82			316.59	4.74	*337.10*	*-0.20*	*336.60*	*-0.30*
2021-05-23	328.68	0.28	323.60	0.10	316.33	0.43	322.52	0.12	328.58	0.18	319.47	0.92			*330.02*	*-1.28*	332.08	0.18	*326.65*	*-0.40*	313.49	16.79			316.33	4.48	*337.13*	*-0.17*	*336.62*	*-0.28*
2021-05-30	328.70	0.30	323.63	0.13	316.35	0.45	322.50	0.10	328.59	0.19	319.44	0.89			*330.03*	*-1.27*	332.13	0.23	*326.65*	*-0.40*	313.50	16.80			315.97	4.12	*337.18*	*-0.12*	*336.64*	*-0.26*
2021-06-06	328.66	0.26	323.60	0.10	316.29	0.39	322.45	0.05	328.54	0.14	319.31	0.76			*330.00*	*-1.30*	332.09	0.19	*326.65*	*-0.40*	313.47	16.77			315.77	3.92	*337.14*	*-0.16*	*336.61*	*-0.29*
2021-06-13	328.70	0.30	323.60	0.10	316.31	0.41	322.45	0.05	328.56	0.16	319.37	0.82			*330.00*	*-1.30*	332.10	0.20	*326.65*	*-0.40*	313.35	16.65			315.92	4.07	*337.13*	*-0.17*	*336.61*	*-0.29*
2021-06-20	328.70	0.30	323.59	0.09	316.32	0.42	322.46	0.06	328.58	0.18	319.32	0.77			*329.99*	*-1.31*	332.11	0.21	*326.65*	*-0.40*	313.47	16.77			315.80	3.95	*337.13*	*-0.17*	*336.61*	*-0.29*
2021-06-27	328.66	0.26	323.59	0.09	316.30	0.40	322.46	0.06	328.56	0.16					*329.98*	*-1.32*	332.09	0.19	*326.65*	*-0.40*	313.51	16.81			315.78	3.93	*337.12*	*-0.18*	*336.60*	*-0.30*
2021-07-04	328.68	0.28	323.60	0.10	316.32	0.42			328.58	0.18					*329.97*	*-1.33*	332.07	0.17	*326.65*	*-0.40*					315.81	3.96	*337.11*	*-0.19*	*336.60*	*-0.30*
2021-07-11	328.70	0.30	323.60	0.10	316.25	0.35			328.52	0.12					*329.95*	*-1.35*	332.05	0.15	*326.65*	*-0.40*					315.79	3.94	*337.09*	*-0.21*	*336.58*	*-0.32*
2021-07-18	328.76	0.36	323.66	0.16	316.24	0.34			328.51	0.11					*329.95*	*-1.35*	332.06	0.16	*326.65*	*-0.40*					315.68	3.83	*337.09*	*-0.21*	*336.58*	*-0.32*
2021-07-25	328.81	0.41	323.71	0.21	316.20	0.30			328.47	0.07					*329.94*	*-1.36*	332.06	0.16	*326.66*	*-0.39*					315.61	3.76	*337.10*	*-0.20*	*336.57*	*-0.33*
2021-08-01	328.82	0.42	323.70	0.20	316.23	0.33			328.50	0.10					*329.95*	*-1.35*	332.07	0.17	*326.66*	*-0.39*					315.56	3.71	*337.09*	*-0.21*	*336.57*	*-0.33*
2021-08-08	328.71	0.31	323.63	0.13	316.28	0.38			328.55	0.15					*329.96*	*-1.34*	332.07	0.17	*326.66*	*-0.39*					315.48	3.63	*337.12*	*-0.18*	*336.59*	*-0.31*
2021-08-15	328.68	0.28	323.60	0.10	316.26	0.36			328.53	0.13					*329.96*	*-1.34*			*326.66*	*-0.39*					315.39	3.54	*337.12*	*-0.18*	*336.60*	*-0.30*
2021-08-22	328.92	0.52	323.61	0.11	316.32	0.42			328.58	0.18					*330.00*	*-1.30*			*326.66*	*-0.39*					315.27	3.42	*337.15*	*-0.15*	*336.64*	*-0.26*
2021-08-29	328.91	0.51	323.58	0.08	316.31	0.41			328.58	0.18					*330.00*	*-1.30*			*326.66*	*-0.39*					315.16	3.31	*337.13*	*-0.17*	*336.64*	*-0.26*
2021-09-05	328.96	0.56			316.29	0.39			328.55	0.15					*329.99*	*-1.31*			*326.67*	*-0.38*					315.09	3.24	*337.14*	*-0.16*	*336.65*	*-0.25*
2021-09-12	328.94	0.54			316.28	0.38			328.55	0.15					*329.98*	*-1.32*			*326.67*	*-0.38*					314.92	3.07	*337.13*	*-0.17*	*336.65*	*-0.25*
2021-09-19	329.21	0.81			316.45	0.55			328.71	0.31						*-331.30*			*326.67*	*-0.38*					314.86	3.01	*337.22*	*-0.08*	*336.69*	*-0.21*
2021-09-26	329.14	0.74			316.33	0.43			328.59	0.19						*-331.30*			*326.67*	*-0.38*					314.90	3.05	*337.14*	*-0.16*	*336.65*	*-0.25*
2021-10-03	329.23	0.83			316.44	0.54			328.70	0.30						*-331.30*			*326.67*	*-0.38*					315.30	3.45	*337.18*	*-0.12*	*336.69*	*-0.21*
2021-10-10	329.28	0.88			316.36	0.46			328.62	0.22					*329.94*	*-1.36*			*326.67*	*-0.38*					315.30	3.45	*337.14*	*-0.16*	*336.67*	*-0.23*
2021-10-17	329.22	0.82			316.32	0.42			328.58	0.18					*329.96*	*-1.34*			*326.67*	*-0.38*					315.23	3.38	*337.14*	*-0.16*	*336.69*	*-0.21*
2021-10-24	329.46	1.06			316.41	0.51			328.67	0.27						*-331.30*			*326.67*	*-0.38*					315.71	3.86	*337.13*	*-0.17*	*336.68*	*-0.22*
2021-10-31	329.66	1.26			316.60	0.70			328.86	0.46						*-331.30*			*326.67*	*-0.38*					316.13	4.28	*337.25*	*-0.05*	*336.77*	*-0.13*
2021-11-07	329.70	1.30			316.69	0.79			328.61	0.21					*330.28*	*-1.02*			*326.78*	*-0.27*					316.85	5.00	*336.87*	*-0.43*	*336.57*	*-0.33*
2021-11-14	329.78	1.38			316.80	0.90			328.68	0.28					*330.30*	*-1.00*			*326.78*	*-0.27*					317.22	5.37	*336.92*	*-0.38*	*336.59*	*-0.31*
2021-11-21	329.65	1.25			316.62	0.72			328.59	0.19					*330.29*	*-1.01*			*326.78*	*-0.27*					317.63	5.78	*336.85*	*-0.45*	*336.56*	*-0.34*
2021-11-28	329.44	1.04			316.45	0.55			328.48	0.08					*330.27*	*-1.03*			*326.78*	*-0.27*					317.22	5.37	*336.85*	*-0.45*	*336.54*	*-0.36*
2021-12-05	329.32	0.92			316.41	0.51			328.47	0.07					*330.27*	*-1.03*			*326.78*	*-0.27*					316.82	4.97	*336.79*	*-0.51*	*336.50*	*-0.40*
2021-12-12	329.36	0.96			316.56	0.66			328.64	0.24					*330.31*	*-0.99*			*326.78*	*-0.27*					316.83	4.98	*336.90*	*-0.40*	*336.59*	*-0.31*
2021-12-19	329.30	0.90			316.55	0.65			328.63	0.23					*330.31*	*-0.99*			*326.78*	*-0.27*					316.60	4.75	*336.84*	*-0.46*	*336.54*	*-0.36*
2021-12-26	329.23	0.83			316.56	0.66			328.68	0.28					*330.31*	*-0.99*			*326.78*	*-0.27*					316.04	4.19	*336.89*	*-0.41*	*336.56*	*-0.34*

Legend:

1.8	Threshold level S1, Below long-term static factor of safety Short-term static factor of safety met, factor of safety <1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level N1, maximum porewater pressures measured, factor of safety ≥ 1.5
330.05	Historical maximum value
328.29	Negative pore pressure (elevation head below tip elevation)
	Blank spaces indicate no data available

Note:
The noted factor of safety would only occur for a particular section if most instruments in that section were at their individual threshold level.

Figure 1: Lynx TDF - Deep Paste VWP Data

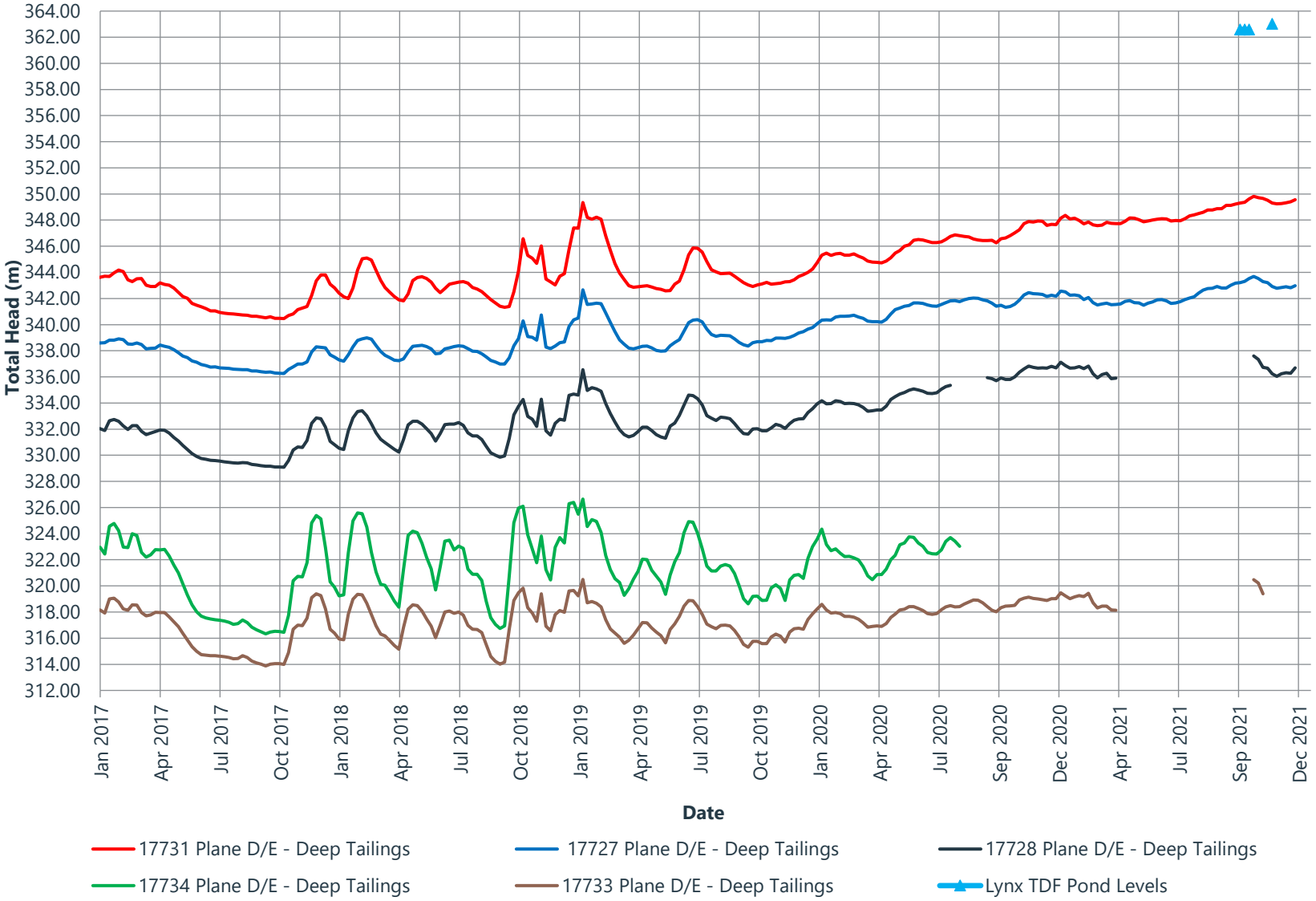


Figure 2a: Lynx Dam - Shallow Foundation VWP Data

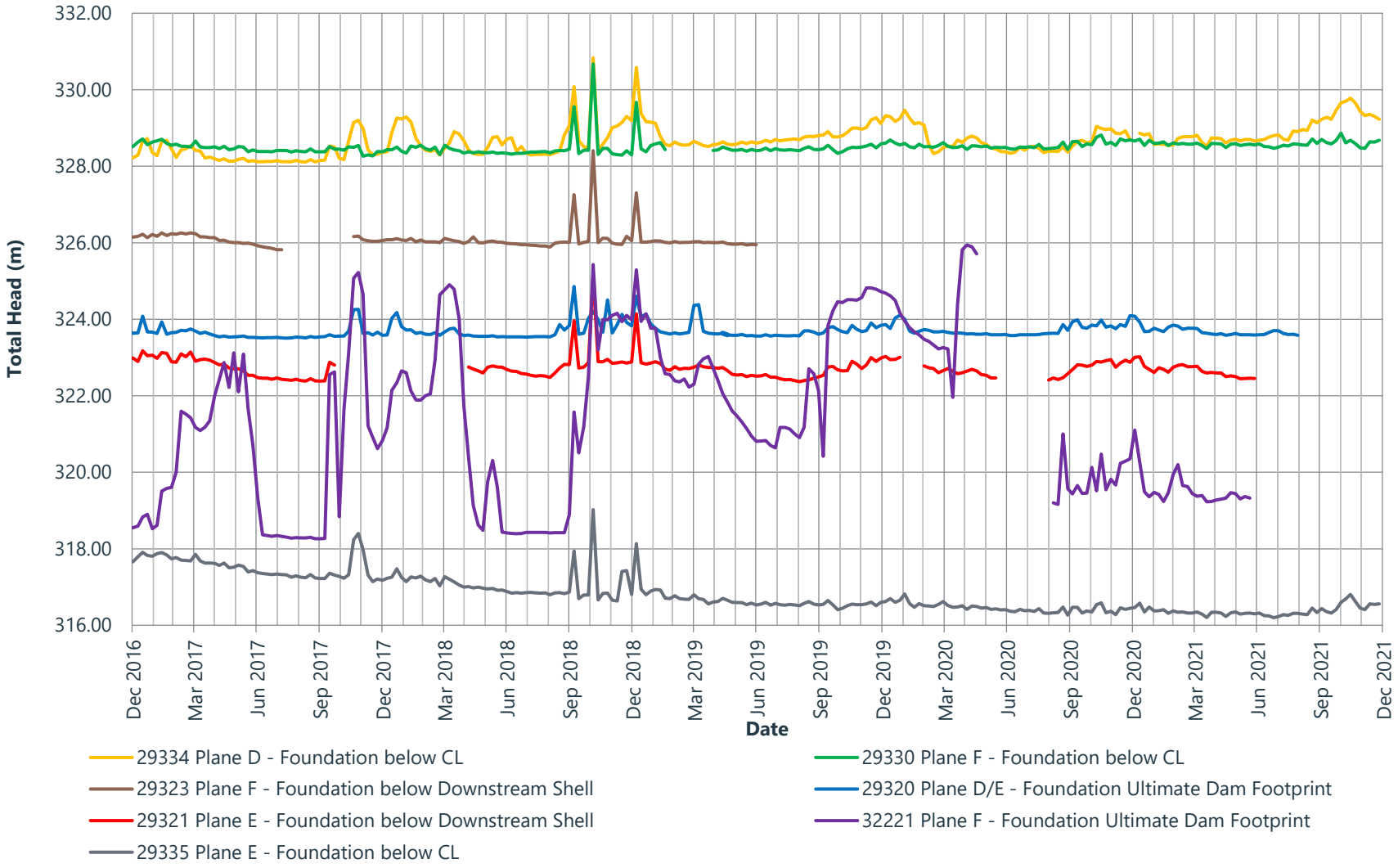


Figure 2b: Lynx Dam - Shallow Foundation VWP Data

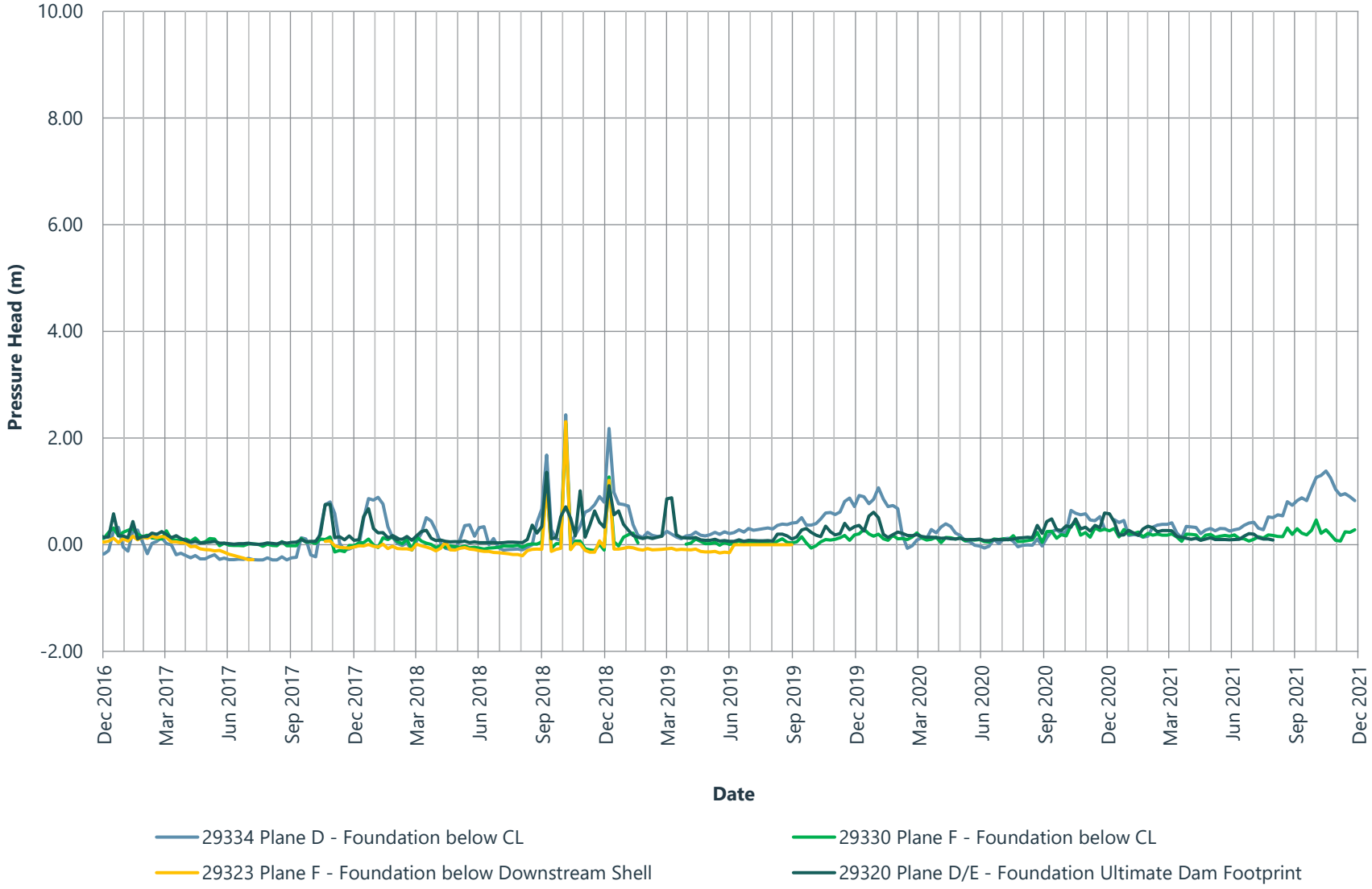


Figure 3: Lynx Dam - Deep Foundation VWP Data

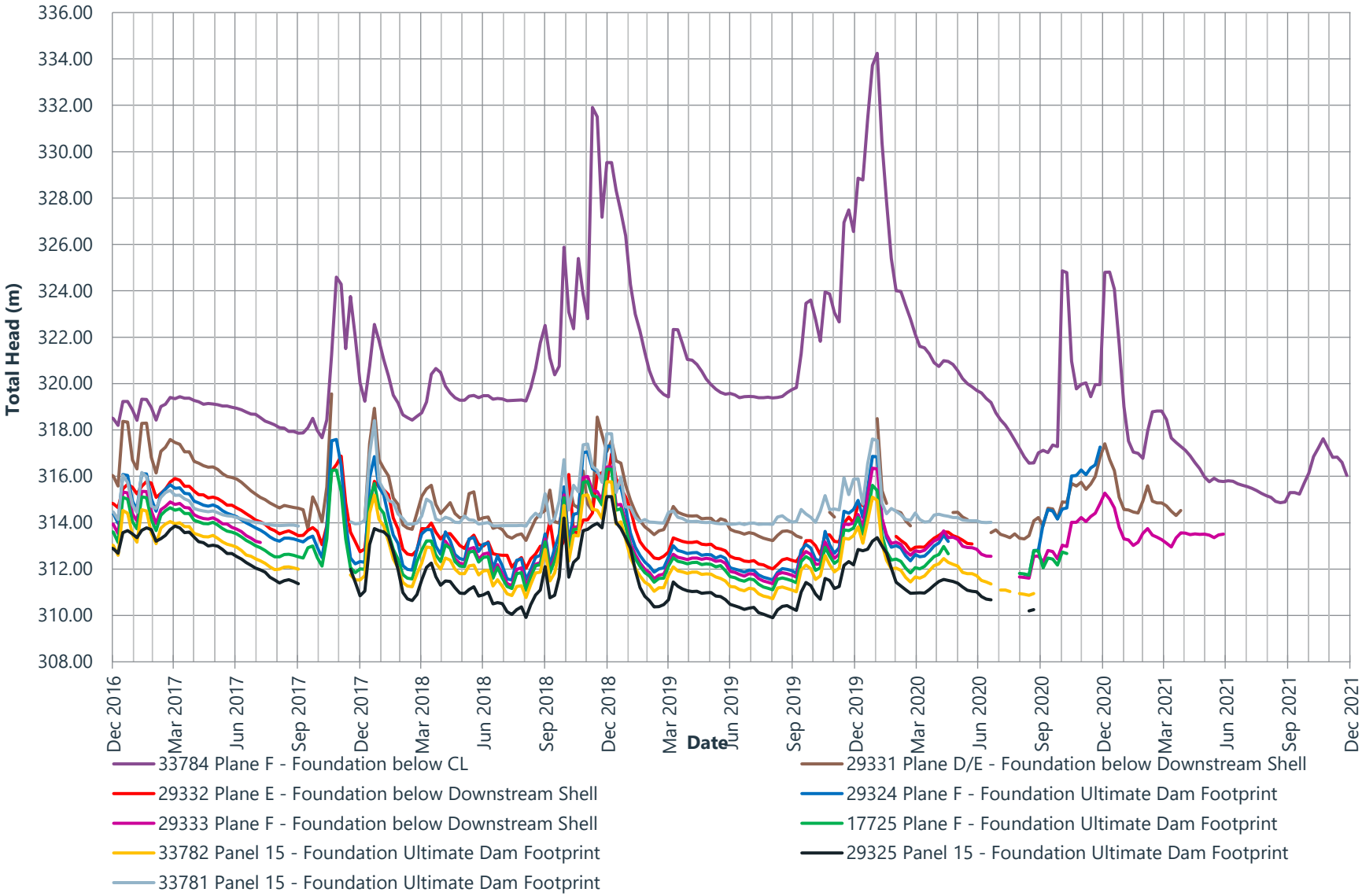
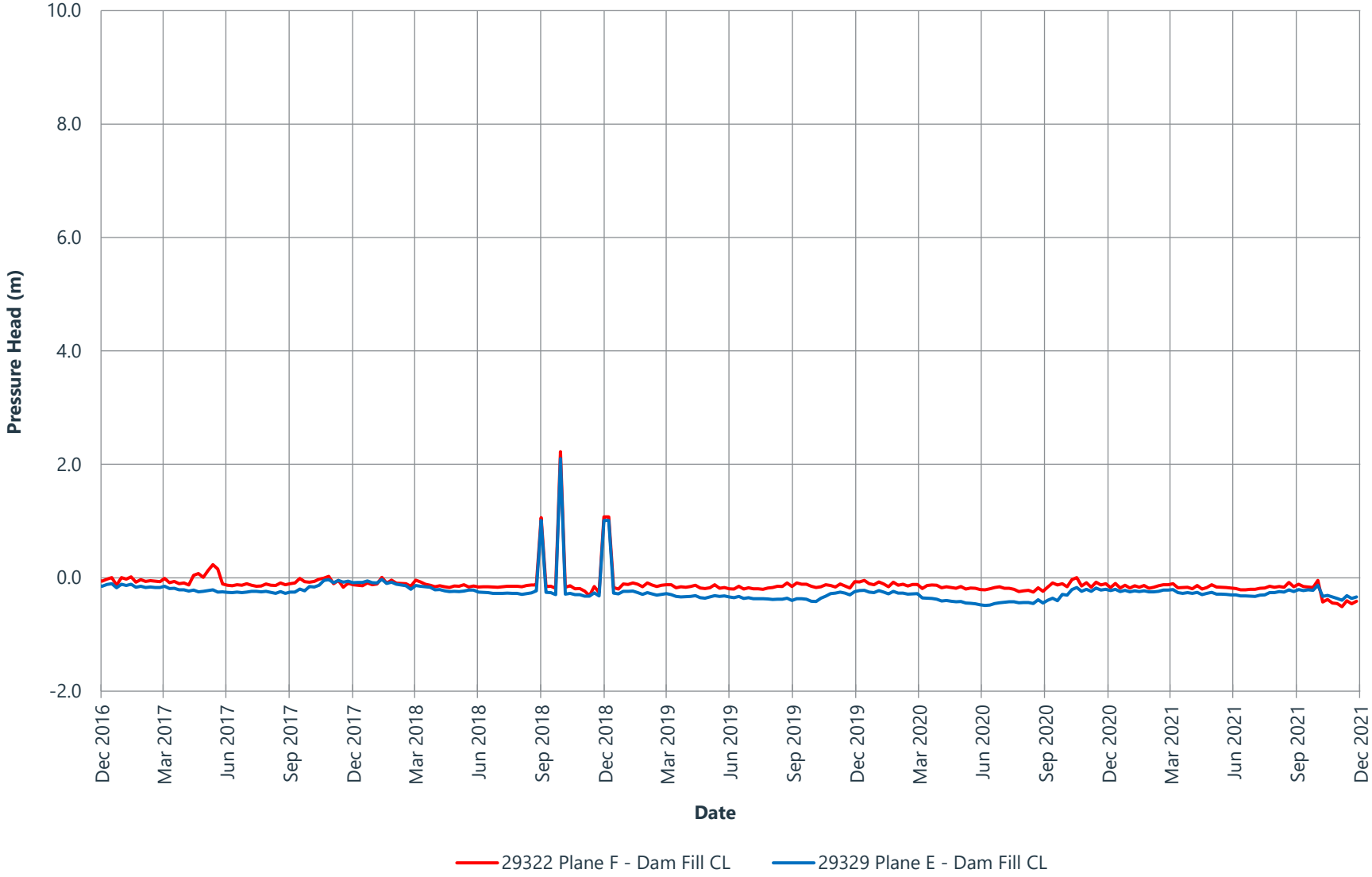


Figure 4: Lynx Dam - Dam Fill VWP Data



Appendix B3-2
Old TDF VWP Data

Table/Figure/Drawing No.	Title
Table 1	Old TDF – Instrument Plane A – Weekly Maximum VWP Pressure Head
Table 2	Old TDF – Instrument Planes 1, 3, 4, 6 and Outliers – Weekly Maximum VWP Pressure Head
Table 3	Old TDF – Instrument Plane 5 – Weekly Maximum VWP Pressure Head
Figure 1	Old TDF Piezometer Records – Plane 1
Figure 2	Old TDF Piezometer Records – Plane A Outer Embankment Slope, Location 1
Figure 3	Old TDF Piezometer Records – Plane A Outer Embankment Slope, Location 2
Figure 4	Old TDF Piezometer Records – Plane A Outer Embankment Slope, Location 3
Figure 5	Old TDF Piezometer Records – Plane A Upper Tailings Beach
Figure 6	Old TDF Piezometer Records – Plane A Strip and Paste Berm
Figure 7	Old TDF Piezometer Records – Plane 3 and Plane 3/4
Figure 8	Old TDF Piezometer Records – Plane 4
Figure 9	Old TDF Piezometer Records – Plane 5 Outer embankment Slope, Location 1
Figure 10	Old TDF Piezometer Records – Plane 5 Outer Embankment Slope, Location 2 and Lower Tailings
Figure 11	Old TDF Piezometer Records – Plane 5 Outer Embankment Slope, Location 3
Figure 12	Old TDF Piezometer Records – Plane 5 Upper Tailings Beach
Figure 13	Old TDF Piezometer Records – Plane 5 Paste Berm and Upstream Tailings
Figure 14	Old TDF Piezometer Records – Plane 5/6 and Plane 6

wood.

Table 1: Old TDF - Instrument Plane A - Weekly Maximum VWP Pressure Head (m)

Location	Outer Embankment Slope - 1				Outer Embankment Slope - 2					Outer Embankment Slope - 3						Upper Tailings Beach							Strip and Paste Berm				
ID	A-5E	A-9E	A-13E	A-17E	A-2E	A-6E	A-10E	A-14E	A-18E	A-4E	32239	A-8E	A-12E	A-16E	A-20E	A-26E	A-27E	A-28E	A-30E	A-32E	A-31E	32220	A-33E	32229	32225	P-11	P-12
Tip Elevation	310.4	311.7	313.4	317.0	305.4	310.9	312.3	313.4	316.8	305.2	310.3	311.0	312.3	313.6	316.7	323.7	323.9	325.2	324.8	327.7	327.8	328.6	327.5	325.9	328.6	332.6	326.6
Historical Max.	3.1	3.0	3.2	2.7	7.2	3.5	2.7	2.5	3.2	6.8	3.3	3.1	0.1	3.9	2.5	5.4	5.5	3.2	2.9	3.2	2.9	2.4	3.4	5.5	6.3	5.3	4.3
Trigger Point S1	6.1	5.1	5.1	5.7	10.2	4.5	5.5	5.1	6.2	9.8	6.3	6.1	4.7	5.6	6.6	8.4	8.5	6.2	5.9	5.2	5.9	5.4	5.5	8.5	9.3	8.3	7.3
Trigger Point S2	9.1	6.5	6.5	8.7	13.2	9.5	8.7	8.5	9.2	12.8	9.3	9.1	6.0	7.5	7.5	11.4	11.5	7.8	8.9	6.3	8.2	7.4	7.5	11.5	12.3	11.3	10.3
Trigger Point S3	12.1	10.8	10.9	16.2	16.2	12.5	12.0	10.9	12.2	15.8	12.3	12.1	10.0	12.5	12.5	12.3	13.1	8.8	10.2	7.3	9.2	8.4	9.5	14.5	15.3	13.4	13.3
Trigger Point P1	5.6	4.3	4.34	5.2	9.7	6	5.2	5	5.7	9.3	5.8	5.6	4	5	5	7.9	8	5.7	5.4	5	5.4	4.9	5	8	8.8	7.8	6.8
2021-01-03	2.0	1.8	2.1	0.6	5.8	1.9	1.5	1.3	1.5	5.3	1.3	1.2	-1.8	1.9	0.5	4.3	4.5	1.9	1.9	1.4	1.0	2.1	1.8	3.7	5.1	4.4	2.9
2021-01-10	2.3	2.1	2.5	0.6	6.0	2.1	1.8	1.5	1.8	5.6	1.7	1.5	-1.6	2.2	0.6	4.4	4.6	2.0	2.0	1.5	1.1	2.3	1.8	4.0	5.4	4.5	[illegible]
2021-01-17	2.4	2.3	2.6	0.6	5.9	2.1	1.8	1.7	1.8	5.4	1.8	1.3	-1.6	2.2	0.6	4.6	4.8	2.2	2.1	1.5	1.1	2.3	1.9	4.1	5.4	4.6	3.1
2021-01-24	2.4	2.3	2.6	0.6	5.5	2.1	1.8	1.6	1.8	4.9	1.4	1.1	-1.6	2.2	0.6	4.6	4.8	2.2	2.1	1.5	1.1	2.1	1.9	3.9	5.2	4.1	2.9
2021-01-31	1.9	1.9	2.3	0.5	4.7	1.6	1.5	1.3	1.5	4.1	1.3	0.7	-1.9	1.9	0.5	4.4	4.5	1.9	1.9	1.4	1.0	1.8	1.7	3.7	4.9	3.7	2.7
2021-02-07	1.9	1.8	2.1	0.6	4.7	1.5	1.4	1.2	1.5	4.1	1.1	0.7	-1.9	1.9	0.4	4.2	4.4	1.7	1.8	1.3	0.9	1.6	1.7	3.4	4.6	3.5	2.4
2021-02-14	2.0	1.9	2.2	0.6	4.7	1.6	1.5	1.3	1.5	4.0	1.2	0.8	-1.9	1.9	0.5	4.3	4.5	1.8	1.8	1.4	1.0	1.6	1.7	3.4	4.5	3.4	2.4
2021-02-21	1.9	1.8	2.1	0.5	4.6	1.5	1.4	1.2	1.4	3.9	1.2	0.7	-1.9	1.9	0.4	4.1	4.3	1.6	1.7	1.2	0.9	1.5	1.5	3.3	4.4	3.3	2.3
2021-02-28	1.8	1.7	2.0	0.5	4.7	1.5	1.4	1.2	1.4	4.2	1.2	0.8	-1.9	1.9	0.4	4.1	4.2	1.5	1.6	1.2	0.9	1.3	1.5	3.2	4.3	3.2	2.2
2021-03-07	1.6	1.5	1.9	0.5	4.8	1.4	1.3	1.1	1.3	4.2	1.1	0.7	-2.0	1.8	0.3	4.0	4.2	1.3	1.6	1.2	0.8	1.3	1.5	3.3	4.5	3.6	2.4
2021-03-14	1.8	1.6	2.0	0.5	4.8	1.5	1.3	1.2	1.4	4.2	1.2	0.7	-1.9	1.8	0.4	4.1	4.4	1.6	1.7	1.2	0.9	1.8	1.6	3.5	4.7	3.6	2.5
2021-03-21	2.0	1.8	2.1	0.6	4.8	1.6	1.4	1.2	2.1	4.2	1.2	1.4	-1.9	1.9	0.4	4.2	4.5	1.7	1.8	1.3	1.0	1.9	1.7	3.5	4.7	3.7	2.5
2021-03-28	2.1	1.9	2.2	0.5	4.8	1.6	1.5	1.2	1.5	4.2	1.2	0.7	-1.9	1.9	1.0	4.2	4.5	1.8	1.8	1.3	1.0	2.0	1.6	3.6	4.8	3.7	2.5
2021-04-04	2.2	1.9	2.3	0.6	4.8	1.7	1.5	1.3	1.6	4.3	1.2	0.8	-1.8	1.9	1.1	4.3	4.5	2.0	1.9	1.4	1.0	1.8	1.7	3.5	4.6	3.5	2.4
2021-04-11	2.1	1.9	2.2	0.6	4.7	1.6	1.5	1.3	1.6	4.1	1.1	0.8	-1.0	1.9	1.0	4.3	4.5	1.8	1.8	1.4	1.0	1.6	1.7	3.3	4.4	3.3	2.3
2021-04-18	2.0	1.8	2.2	0.6	4.8	1.6	1.4	1.2	1.5	4.2	1.1	0.8	-1.8	1.9	1.0	4.2	4.4	1.6	1.7	1.3	0.9	1.4	1.6	3.1	4.2	3.2	2.2
2021-04-25	1.9	1.6	2.0	0.6	4.9	1.6	1.4	1.2	1.4	4.3	1.2	0.8	-1.9	1.9	0.4	4.1	4.3	1.5	1.6	1.2	0.9	1.3	1.5	3.1	4.1	3.1	2.1
2021-05-02	1.9	1.6	2.1	0.8	5.2	1.7	1.5	1.3	1.5	4.6	1.1	1.0	-1.8	2.0	0.5	4.2	4.3	1.7	1.6	1.3	1.0	0.0	1.5	2.9	4.0	3.0	2.0
2021-05-09	1.6	1.4	1.9	0.7	5.0	1.5	1.4	1.2	1.3	4.4	1.2	0.9	-1.8	2.0	0.4	4.2	4.1	1.7	1.4	1.3	0.9	0.0	1.3	2.9	3.9	2.9	2.0
2021-05-16	1.7	1.5	1.9	0.7	5.0	1.6	1.4	1.2	1.7	4.5	1.1	0.9	-1.2	2.0	0.9	4.2	4.1	1.7	1.4	1.3	1.0	0.0	1.4	2.7	3.7	2.7	1.8
2021-05-23	1.5	1.0	1.6	0.7	5.0	1.4	1.2	1.0	2.4	4.5	1.1	1.4	-2.0	1.8	0.9	4.1	3.8	1.7	1.1	1.2	0.8	0.1	1.1	2.7	3.7	2.6	1.8
2021-05-30	1.2	0.8	1.3	0.7	5.0	1.3	1.0	0.8	1.5	4.4	1.1	0.8	-2.0	1.8	0.2	4.1	3.6	1.7	0.9	1.2	0.8	0.1	1.1	2.6	3.6	2.6	1.7
2021-06-06	1.3	0.9	1.5	0.9	5.1	1.4	1.2	1.0	1.6	4.5	1.1	1.5	-1.8	2.0	0.5	4.2	3.8	1.9	1.1	1.5	1.1	0.1	1.3	2.6	3.6	2.6	1.6
2021-06-13	1.3	0.9	1.5	0.9	5.1	1.4	1.2	0.9	1.0	4.5	1.0	1.0	-1.8	2.0	0.4	4.2	3.7	1.9	1.1	1.4	1.1	0.1	1.3	2.6	3.6	2.4	1.6
2021-06-20	1.1	0.7	1.3	0.7	4.9	1.2	0.9	0.7	0.8	4.4	0.9	0.8	-1.9	1.8	0.3	3.9	3.5	1.8	0.8	1.3	0.9	0.0	1.0	2.4	3.4	2.4	1.5
2021-06-27	1.1	0.6	1.3	0.8	5.0	1.1	1.0	0.7	1.1	4.4	1.0	1.4	-1.3	1.9	0.9	3.9	3.4	1.8	0.7	1.3	1.0	0.0	1.0	2.4	3.4	2.3	1.4
2021-07-04	1.0	0.5	1.2	0.7	4.9	1.0	0.9	0.6	0.6	4.4	1.0	0.8	-1.6	1.7	0.2	3.8	3.2	1.7	0.5	1.3	0.9	0.0	0.7	2.3	3.3	2.1	1.4
2021-07-11	0.8	0.3	1.2	0.6	4.7	1.8	0.7	0.4	1.0	4.1	0.9	0.7	-2.2	1.6	0.0	3.6	3.0	1.6	0.2	1.1	0.8	0.0	0.4	2.1	3.1	2.1	1.2
2021-07-18	0.6	1.0	1.1	0.5	4.5	0.7	0.6	0.3	0.7	3.9	0.9	0.6	-1.6	1.5	-0.1	3.5	2.8	1.5	0.0	1.1	0.7	0.0	0.2	2.0	3.0	1.6	0.8
2021-07-25	0.8	0.3	1.4	0.7	4.7	1.7	0.6	0.4	1.4	4.0	0.8	0.8	-1.4	1.7	0.5	3.6	3.0	1.7	-0.1	1.3	0.9	0.0	0.2	1.8	2.9	1.5	0.7
2021-08-01	0.7	0.3	1.4	0.7	4.6	0.8	0.6	0.3	1.1	3.9	0.8	1.5	-2.2	1.7	0.3	3.6	3.0	1.7	-0.1	1.3	0.9	0.0	0.2	1.7	2.7	1.4	0.6
2021-08-08	0.6	0.2	1.5	0.8	4.5	0.8	0.6	0.2	-0.1	3.9	0.8	0.9	-2.2	1.6	0.6	3.5	3.0	1.7	-0.3	1.4	1.0	0.1	0.1	1.6	2.6	1.2	0.5
2021-08-15	0.5	0.1	1.5	0.7	4.4	0.7	0.4	0.1	0.3	3.8	0.8	0.8	-2.3	1.6	-0.1	3.4	2.9	1.6	-0.5	1.3	0.9	0.0	-0.2	1.4	2.4	1.1	0.4
2021-08-22	0.5	0.1	1.6	0.7	4.4	0.7	0.5	0.1	-0.3	3.8	0.8	0.9	-2.2	1.6	0.2	3.4	2.9	1.7	-0.5	1.3	1.0	0.0	-0.1	1.4	2.4	0.9	0.3
2021-08-29	0.3	-0.2	1.4	0.5	4.2	0.5	0.1	-0.2	-0.6	3.6	0.8	0.6	-2.5	1.3	-0.3	3.2	2.7	1.4	-0.9	1.1	0.7	0.1	-0.5	1.2	2.2	0.7	0.2
2021-09-05	0.2	-0.3	1.4	0.5	4.1	0.4	0.9	-0.2	-0.6	3.5	0.8	0.6	-2.6	1.3	-0.3	3.1	2.7	1.3	-1.0	1.1	0.7	0.0	-0.6	1.2	2.1	0.6	0.0
2021-09-12	0.2	-0.2	1.5	0.6	4.3	0.5	0.2	-0.2	-0.6	3.6	0.7	0.7	-2.5	1.4	-0.3	3.2	2.8	1.3	-1.1	1.1	0.8	0.1	-0.4	1.1	2.0	0.5	0.0
2021-09-19	0.2	-0.3	1.5	0.5	4.2	0.4	0.1	-0.3	-0.4	3.6	0.9	0.6	-2.6	1.3	-0.3	3.1	2.7	1.3	-1.1	1.1	0.7	0.2	-0.5	1.1	1.9	0.4	-0.1
2021-09-26	-0.3	-0.8	1.2	-0.1	4.0	0.0	-0.4	-0.5	-1.1	3.4	0.8	0.1	-3.0	1.1	-0.4	2.8	2.3	0.4	-1.3	0.7	0.4	0.1	-0.1	1.5	1.9	0.3	0.0
2021-10-03	-0.1	-0.8	1.3	-0.1	4.9	0.0	-0.3	-0.5	-0.4	4.3	0.9	0.1	-3.0	1.1	-0.7	2.8	2.3	0.4	-0.9	0.7	0.4	0.1	0.3	1.7	2.2	0.7	0.3
2021-10-10	-0.2	-0.8	1.3	-0.1	4.3	0.0	-0.3	-0.5	-1.1	3.8	0.9	0.1	-3.0	1.1	-0.6	2.8	2.4	0.3	-0.5	0.7	0.4	0.1	0.5	2.0	2.6	1.2	0.6
2021-10-17	-0.1	-0.8	1.3	-0.1	4.8	0.1	-0.3	-0.4	-1.1	4.1	0.9	0.1	-3.0	1.1	-0.6	2.9	2.4	0.3	-0.3	0.7	0.4	0.5	0.7	2.3	3.0	1.8	0.9
2021-10-24	0.0	-0.8	1.3	-0.1	5.1	0.2	-0.3	-0.2	-0.7	4.6	1.4	0.2	-2.9	1.1	-0.5	2.9	2.6	0.2	-0.1	0.7	0.4	2.0	0.8	3.1	4.1	2.5	1.3
2021-10-31	0.5	-0.4	1.3	-0.1	5.7	0.7	0.1	0.2	0.1	5.3	1.5	0.8	-2.5	1.5	-0.3	3.4	3.4	0.2	0.5	0.7	0.5	2.1	1.2	3.4	4.5	3.4	2.1
2021-11-07	0.4	-0.4	1.3	-0.1	5.5	0.7	0.2	0.3	0.4	5.0	1.5	0.6	-2.5	1.5	-0.1	3.9	3.7	0.2	0.8	0.8	0.5	2.0	1.3	3.6	4.9	3.8	2.3
2021-11-14	0.5	-0.2	1.3	0.0	5.4	0.8	0.4	0.6	0.7	4.8	1.7	0.6	-2.4	1.6	0.0	3.9	4.0	0.9	1.0	1.0	0.6	2.3	1.4	3.9	5.1	4.0	2.5
2021-11-21	0.7	0.5	1.3	0.0	5.3	0.9	0.6	0.8	0.8	4.8	1.6	0.7	-2.3	1.7	0.0	4.0	4.1	1.2	1.2	1.0	0.7	2.1	1.5	3.9	5.1	3.9	2.6
2021-11-28	1.4	1.1	1.7	0.0	5.4	1.3	0.9	1.0	0.9	4.9	1.4	0.7	-2.3	1.7	0.0	4.0	4.1	1.1	1.2	1.0	0.7	1.9	1.4	3.8	4.9	3.8	2.4
2021-12-05	1.7	1.6	2.2	0.0	5.9	1.7	1.2	1.3	1.4	5.4	1.8	1.1	-2.0	2.0	0.1	4.2	4.3	1.3	1.3	1.1	0.8	2.2	1.6	3.9	5.2	4.1	2.7
2021-12-12	1.5	1.5	2.2	0.0	4.9	1.5	1.2	1.2	1.3	4.3	1.7	0.6	-2.2	1.9	0.1	4.2	4.2	1.3	1.3	1.1	0.8	2.1	1.5	4.0	5.1	3.8	2.6
2021-12-19	1.3	1.3	1.9	0.0	4.4	1.1	0.9	1.0	1.1	3.8	1.4	0.2	-2.5	1.6	0.0	4.0	4.0	1.0	1.1	1.0	0.7	1.8	1.4	3.7	4.8	3.4	2.2
2021-12-26	1.2	1.2	1.9	0.0	4.2	1.1	0.9	1.0	1.1	3.7	1.3	0.2	-2.4	1.6	0.0	4.0	4.0	1.0	1.1	1.0	0.7	1.7	1.4	3.6	4.6	3.1	2.1

Legend

1.8	Threshold level S1, short-term static design factor of safety below 1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level P1, long-term post-seismic design factor of safety below 1.1
	Historical maximum value
	Blank spaces indicate no data available

Note:
The noted factor of safety would only occur for a particular section and failure mode if all instruments in the section were at their individual threshold level

Table 2: Old TDF - Instrument Planes 1, 3, 4, 6 and Outliers - Weekly Maximum VWP Pressure Head (m)

Location		Plane 1			Plane 3			Plane 3/4		Plane 4				Plane 5/6		Plane 6			
Piezometer	32228	36971	36973	32232	32233	P-13	P-14	P-1	P-2	1204	32237	P-3	P-4	P-5	P-6	32219	32226	32230	32236
Tip Elevation	331.4	325.7	319.7	329.4	332.4	332.2	326.7	324.4	329.4	329.3	332.4	324.3	329.3	325.1	329.4	335.2	330.6	328.8	330.4
Histroical Max.	2.6	6.8	4.5	4.2	4.2	4.1	3.5	1.3	2.9	4.7	3.0	2.8	4.3	7.9	6.9	4.6	6.7	6.3	5.7
Trigger Point S1	4.1	7.3	5.5	4.4	4.7	6.4	9.0	9.0	7.5	8.7	3.2	11.0	9.5	14.3	14.9	7.9	13.5	14.1	9.0
Trigger Point S2	5.1	7.8	6.0	5.4	6.0	7.1	10.0	10.0	8.4	10.3	3.8	13.0	10.8	15.5	16.1	8.6	14.5	15.2	9.5
Trigger Point S3	7.0	8.3	6.5	7.9	9.0	9.1	13.0	13.0	11.0	12.5	4.5	16.0	13.2	17.8	18.5	9.9	16.6	17.2	11.2
Trigger Point P1	*4.4*	*6.8*	*5.5*	*4.8*	*4.5*	*5.3*	*7.5*	*7.5*	*6.3*	*8.6*	*3.5*	*11.0*	*9.2*	*12.4*	*12.9*	*6.9*	*11.6*	*12.2*	*7.8*
2021-01-03	0.8	5.2	-2.9	2.4	1.0	2.4	1.6	-0.9	0.7	2.7	0.9	1.3	2.6	6.3	5.6	3.0	5.2	5.1	4.6
2021-01-10	0.8	5.3	-2.8	2.7	1.0	2.4	1.8	-0.8	0.8	2.7	1.1	1.3	2.6	6.4	5.5	3.0	5.2	5.2	4.6
2021-01-17	0.9	5.5	-2.4	2.7	1.1	2.5	1.9	-0.8	0.9	2.8	1.1	1.3	2.6	6.4	5.6	2.4	4.9	4.8	4.4
2021-01-24	0.8	5.5	-2.0	2.4	0.8	2.1	1.5	-0.8	0.7	2.7	0.9	1.2	2.5	5.8	4.6	1.2	3.4	3.5	3.5
2021-01-31	0.9	5.5	-2.0	2.1	0.6	1.9	1.0	-0.8	0.7	2.7	0.6	1.3	2.6	5.2	4.2	0.3	3.0	3.1	3.2
2021-02-07	0.9	5.4	-2.3	2.1	0.9	1.9	0.8	-0.8	0.6	2.5	0.7	1.2	2.5	5.1	4.2	-0.1	3.1	3.2	3.3
2021-02-14	0.9	5.4	-2.4	2.0	0.8	1.9	0.8	-0.8	0.6	2.6	0.6	1.2	2.5	5.1	4.2	-0.1	3.0	3.1	3.2
2021-02-21	0.9	5.4	-2.5	1.8	0.3	1.8	0.6	-0.8	0.6	2.6	0.4	1.3	2.5	4.8	3.8	-0.2	2.7	2.7	2.6
2021-02-28	0.8	5.2	-2.7	1.7	0.8	1.7	0.5	-0.7	0.5	2.5	0.6	1.2	2.4	5.0	4.1	-0.3	3.0	3.0	3.2
2021-03-07	0.9	5.2	-2.8	2.1	1.0	2.0	0.9	-0.7	0.7	2.6	0.8	1.3	2.5	5.5	4.6	-0.1	3.6	3.8	3.6
2021-03-14	0.8	5.3	-2.9	2.2	1.0	2.1	1.1	-0.7	0.7	2.6	0.9	1.2	2.5	5.5	4.6	0.5	3.6	3.7	3.6
2021-03-21	0.9	5.3	-2.9	2.2	0.9	2.0	1.1	-0.7	0.7	2.6	0.8	1.2	2.5	5.4	4.5	0.3	3.4	3.6	3.5
2021-03-28	0.9	5.4	-2.8	2.3	1.2	2.0	1.1	-0.6	0.7	2.6	0.9	1.2	2.4	5.4	4.5	0.4	3.5	3.6	3.5
2021-04-04	0.8	5.3	-2.7	2.1	1.3	1.9	0.9	-0.7	0.7	2.5	0.8	1.2	2.4	5.2	4.4	0.2	3.2	3.3	3.3
2021-04-11	0.8	5.2	-2.9	1.7	1.2	1.8	0.7	-0.7	0.6	2.4	0.5	1.2	2.4	5.1	4.1	-0.1	2.8	2.8	2.8
2021-04-18	0.7	5.1	-3.0	1.6	1.3	1.6	0.4	-0.7	0.5	2.3	0.4	1.1	2.3	4.8	4.0	-0.2	2.6	2.6	2.5
2021-04-25	0.9	5.1	-3.1	1.5	0.8	1.6	0.3	-0.7	0.5	2.4	0.3	1.3	2.4	4.8	3.7	-0.3	2.5	2.7	2.6
2021-05-02	0.8	5.0	-3.0	1.3	0.6	1.5	0.1	-0.7	0.4	2.4	0.2	1.2	2.4	4.7	3.7	-0.3	2.3	2.5	2.5
2021-05-09	0.8	5.0	-3.0	1.3	0.1	1.4	-0.1	-0.6	0.4	2.3	0.2	1.2	2.4	4.8	3.8	-0.3	2.3	2.5	2.5
2021-05-16	0.7	4.9	-3.0	1.1	-0.1	1.3	-0.4	-0.8	0.2	2.3	0.1	1.2	2.3	4.6	3.5	-0.4	2.2	2.4	2.4
2021-05-23	0.8	4.9	-3.0	1.1	0.1	1.2	-0.4	-0.8	0.2	2.3	0.0	1.2	2.4	4.6	3.5	-0.4	2.2	2.4	2.4
2021-05-30	0.8	4.8	-3.0	1.1	0.4	1.3	-0.4	-0.8	0.2	2.3	0.1	1.3	2.4	4.6	3.7	-0.3	2.3	2.5	2.4
2021-06-06	0.7	4.8	-3.0	1.2	0.6	1.3	-0.4	-0.8	0.2	2.3	0.2	1.2	2.4	4.6	3.7	-0.4	2.5	2.6	2.6
2021-06-13	0.7	4.7	-3.0	1.1	0.9	1.1	-0.3	-0.9	0.2	2.3	0.2	1.2	2.4	4.5	3.5	-0.4	2.3	2.3	2.3
2021-06-20	0.7	4.6	-3.0	1.0	0.9	1.2	-0.3	-0.9	0.2	2.2	-0.2	1.2	2.3	4.3	3.3	-0.5	1.9	1.9	1.9
2021-06-27	0.7	4.6	-3.1	1.0	0.7	1.0	-0.4	-0.9	0.1	2.2	-0.3	1.2	2.3	4.2	3.3	-0.5	1.9	1.9	1.9
2021-07-04	0.7	4.6	-3.1	0.9	0.8	0.8	-0.4	-1.0	0.1	2.2	-0.6	1.3	2.4	4.2	3.1	-0.5	1.8	1.9	2.0
2021-07-11	0.6	4.5	-3.0	0.9	0.8	0.8	-0.4	-1.0	0.0	2.1	-1.0	1.2	2.3	4.1	3.1	-0.5	1.8	1.7	1.7
2021-07-18	0.6	4.5	-3.1	0.8	0.8	0.4	-0.7	-1.6	-0.5	2.0	-1.2	0.6	1.7	3.4	2.5	-0.6	1.7	1.5	1.6
2021-07-25	0.5	4.4	-3.0	0.7	0.4	0.2	-0.7	-1.6	-0.6	1.9	-1.4	0.6	1.7	3.3	2.4	-0.6	1.5	1.2	1.3
2021-08-01	0.5	4.4	-3.1	0.7	0.3	0.2	-0.7	-1.6	-0.6	1.9	-1.7	0.6	1.7	3.1	2.3	-0.6	1.4	1.1	1.2
2021-08-08	0.5	4.4	-3.0	0.5	0.0	0.1	-0.7	-1.7	-0.7	1.9	-2.0	0.6	1.7	2.9	2.1	-0.6	1.2	0.8	1.0
2021-08-15	0.4	4.3	-3.0	0.4	0.0	0.0	-0.6	-1.7	-0.7	1.8	-2.2	0.6	1.7	2.7	2.0	-0.7	1.1	0.5	0.7
2021-08-22	0.5	4.3	-3.0	0.4	0.0	-0.2	-0.8	-1.7	-0.8	1.8	-2.2	0.6	1.7	2.6	1.7	-0.7	1.0	0.5	0.6
2021-08-29	0.4	4.2	-3.0	0.2	0.0	-0.3	-0.8	-1.8	-0.9	1.8	-2.5	0.8	1.7	2.4	1.6	-0.7	0.8	0.3	0.2
2021-09-05	0.4	4.3	-3.0	0.1	0.0	-0.4	-0.7	-1.8	-1.0	1.7	-2.1	0.6	1.7	2.3	1.4	-0.7	0.7	0.2	0.1
2021-09-12	0.3	4.2	-3.0	0.0	0.0	-0.5	-0.8	-1.8	-1.1	1.7	-3.0	0.6	1.7	2.1	1.3	-0.7	0.4	0.0	-0.2
2021-09-19	0.4	4.3	-2.9	0.0	0.1	-0.6	-0.8	-1.9	-1.2	1.8	-1.4	0.6	1.7	2.6	1.8	-0.6	0.4	0.6	1.3
2021-09-26	0.3	4.2	-2.9	0.7	0.0	-0.4	-0.7	-1.9	-1.1	1.7	-0.1	0.6	1.7	3.7	3.0	-0.7	2.4	2.3	2.6
2021-10-03	0.4	4.2	-3.0	1.5	0.0	0.4	-0.8	-1.8	-0.7	1.7	0.2	0.6	1.7	4.8	4.1	-0.7	3.6	3.8	3.6
2021-10-10	0.3	4.2	-3.0	1.7	0.1	0.8	-0.6	-1.7	-0.2	1.9	0.5	0.6	1.7	5.0	4.1	-0.6	3.5	3.8	3.6
2021-10-17	0.4	4.3	-2.9	1.8	0.1	1.2	0.3	-1.6	-0.2	2.2	0.7	0.6	1.7	5.3	4.7	-0.5	4.2	4.4	4.1
2021-10-24	0.7	4.6	-2.9	2.5	0.5	1.4	0.6	-1.7	-0.1	2.6	1.2	0.7	1.7	5.8	5.1	1.8	5.3	5.3	4.7
2021-10-31	0.7	4.6	-2.9	2.5	0.5	1.8	1.2	-1.5	0.2	2.6	1.2	0.7	1.8	6.5	5.6	2.9	5.8	5.6	4.9
2021-11-07	0.6	4.8	-2.9	2.5	1.5	1.9	1.2	-1.6	0.1	2.6	1.1	0.7	1.8	6.2	5.2	2.6	5.5	5.4	4.7
2021-11-14	0.7	5.0	-2.8	2.7	1.5	2.0	1.4	-1.5	0.2	2.7	1.3	0.7	1.8	6.1	4.9	1.6	4.7	4.8	4.3
2021-11-21	0.7	5.1	-2.8	2.6	1.2	1.9	1.4	-1.4	0.3	2.7	1.2	0.7	1.8	6.2	5.2	1.8	5.0	5.0	4.5
2021-11-28	0.7	5.2	-2.6	2.4	1.0	1.9	1.0	-1.5	0.1	2.5	0.9	0.7	1.8	5.8	5.3	0.7	4.4	4.6	4.2
2021-12-05	0.7	5.3	-2.5	2.6	1.0	2.1	1.4	-1.3	0.3	2.6	1.2	0.7	1.9	6.5	5.7	3.1	5.6	5.5	4.8
2021-12-12	1.0	5.5	-2.1	2.4	0.8	1.8	1.2	-1.4	0.2	2.7	1.1	0.7	1.9	5.6	4.4	1.1	3.8	4.0	3.8
2021-12-19	1.0	5.4	-2.3	2.2	0.9	1.6	0.7	-1.4	0.1	2.6	0.8	0.7	1.8	5.0	4.1	0.4	3.9	4.1	3.9
2021-12-26	1.1	5.5	-2.3	2.0	1.0	1.5	0.5	-1.4	0.1	2.6	0.7	0.7	1.8	4.7	3.6	0.1	3.1	3.3	3.3

Legend

1.8	Threshold level S1, short-term static design factor of safety below 1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level P1, long-term post-seismic design factor of safety below 1.1
	Historical maximum value
	Blank spaces indicate no data available

Note:
The noted factor of safety would only occur for a particular section and failure mode if all instruments in the section were at their individual threshold level

Table 3: Old TDF - Instrument Plane 5 - Weekly Maximum VWP Pressure Head (m)

Location	Outer Embankment Slope - 1				Outer Embankment Slope - 2							Outer Embankment Slope - 3					Upper Tailings Beach						Paste Berm					
ID	C-5E	C-13E	C-17E	C-21E	C-6E	C-10E	C-14E	C-18E	C-22E	32223	32241	C-12E	C-16E	32238	C-20E	C-24E	C-29E	C-31E	C-35E	32224	C-36E	C-37E	17730	32222	P-7	17724	17726	17722
Tip Elevation	310.1	308.9	303.2	315.7	303.7	307.3	308.9	314.5	315.4	316.8	308.7	305.5	308.7	308.7	314.5	315.2	322.3	322.0	326.7	327.0	326.6	326.6	329.3	326.9	319.8	326.2	326.3	335.4
Histroical Max.	2.2	2.2	4.1	2.0	6.1	2.1	3.5	0.1	2.6	2.5	6.2	4.7	3.2	4.5	2.8	2.9	6.9	10.9	4.2	3.4	5.8	7.8	6.7	7.4	7.0	6.6	6.9	4.0
Trigger Point S1	3.2	3.2	5.1	3.0	7.1	6.5	6.5	2.8	2.8	3.5	7.1	5.7	6.5	5.5	6.5	6.4	7.9	11.9	5.2	4.2	6.8	8.8	7.7	8.4	8.0	7.6	7.9	5.0
Trigger Point S2	7.2	7.2	9.1	7.0	11.1	14.0	14.0	6.1	6.1	7.5	11.1	9.7	14.0	9.5	13.9	13.9	9.7	14.9	8.3	8.0	9.8	10.4	10.7	12.4	13.1	11.6	11.9	8.6
Trigger Point S3	11.2	11.2	13.1	11.0	15.1	17.0	17.0	11.3	11.8	12.4	15.1	13.7	23.3	13.5	17.5	16.8	10.7	15.7	9.3	9.0	11.8	11.4	11.7	16.4	16.0	17.9	17.5	9.6
Trigger Point P1	*3.7*	*3.7*	*5.6*	*3.5*	*7.6*	*4.0*	*5.0*	*3.7*	*3.8*	*4.2*	*7.6*	*6.0*	*4.8*	*6.0*	*4.5*	*4.5*	*8.4*	*12.4*	*5.7*	*4.7*	*7.3*	*9.3*	*8.2*	*8.9*	*8.5*	*8.1*	*8.4*	*5.5*
2021-01-03	0.6	-0.1	3.0	-0.1	4.9	0.9	1.2	-0.9	0.5	1.0	2.2	3.7	2.1	3.2	1.3	0.8	5.6	9.4	2.5	3.1	3.9	6.1	5.4	5.8	5.2	4.7	3.3	1.7
2021-01-10	0.7	-0.1	3.2	-0.1	5.1	1.1	1.5	-0.9	0.5	1.6	5.2	3.9	2.2	3.6	1.4	0.8	5.5	9.4	2.4	3.2	3.9	6.2	5.5	5.9	5.3	5.1	3.3	1.9
2021-01-17	0.6	0.0	2.9	-0.2	5.0	1.0	1.5	-0.9	0.4	1.6	4.5	3.7	2.1	3.6	1.3	0.7	5.4	9.4	2.3	3.2	3.8	6.0	5.4	5.8	5.4	5.1	3.4	2.0
2021-01-24	0.5	0.0	2.4	-0.1	4.7	0.8	1.3	-1.3	0.5	1.2	3.9	3.3	1.6	3.3	1.0	0.8	5.1	8.9	2.1	3.0	3.6	5.7	4.6	5.0	5.2	4.9	3.7	1.7
2021-01-31	0.1	-0.1	2.1	-0.2	4.3	0.3	1.1	-1.6	0.5	1.0	2.3	2.9	1.2	2.9	0.7	0.7	5.0	8.7	2.1	2.9	3.5	5.5	4.3	4.7	5.0	4.6	3.8	1.6
2021-02-07	-0.1	-0.1	2.0	-0.2	4.2	0.2	1.1	-1.6	0.4	0.7	1.6	2.8	1.1	2.5	0.6	0.7	5.0	8.6	2.1	2.9	3.5	5.5	4.4	4.8	4.9	4.5	4.8	1.4
2021-02-14	-0.1	-0.1	1.9	-0.2	4.1	0.1	1.1	-1.7	0.4	0.8	1.6	2.7	1.1	2.5	0.6	0.7	4.9	8.6	2.0	2.9	3.4	5.3	4.3	4.7	4.9	4.5	6.0	1.4
2021-02-21	-0.2	-0.1	2.3	-0.3	4.2	0.1	1.2	-1.7	0.4	0.8	1.4	2.9	1.2	2.5	0.5	0.6	4.7	8.5	1.9	2.8	3.4	5.4	4.1	4.4	4.8	4.5	6.3	1.4
2021-02-28	-0.2	0.0	2.1	-0.2	4.1	0.1	1.3	-1.8	0.4	0.6	1.5	2.8	1.1	2.6	0.6	0.7	4.9	8.7	2.2	2.8	3.5	5.6	4.3	4.6	4.8	4.5	6.3	1.3
2021-03-07	-0.2	0.0	2.1	-0.2	4.1	0.1	1.2	-1.5	0.4	0.5	1.5	2.9	1.2	2.5	0.6	0.7	5.2	8.8	2.2	3.0	3.6	5.7	4.7	5.1	5.0	4.7	6.8	1.5
2021-03-14	-0.2	0.0	2.2	-0.2	4.2	0.2	1.3	-1.5	0.5	1.0	2.3	3.0	1.3	2.7	0.8	0.7	5.2	8.8	2.1	3.0	3.6	5.5	4.7	5.1	5.0	4.8	6.9	1.6
2021-03-21	-0.2	0.0	2.3	-0.2	4.4	0.3	1.3	-1.5	0.4	0.9	1.9	3.0	1.4	2.7	0.8	0.7	5.2	8.7	2.1	3.0	3.5	5.6	4.6	5.0	5.0	4.8	6.7	1.5
2021-03-28	0.0	0.0	2.3	-0.2	4.4	0.4	1.3	-1.4	0.5	1.0	2.2	3.1	1.4	2.8	0.8	0.7	5.1	8.7	2.1	3.0	3.5	5.5	4.6	5.0	5.0	4.9	6.4	1.6
2021-04-04	0.0	-0.1	2.2	-0.2	4.3	0.2	1.2	-1.6	0.4	0.9	2.0	2.9	1.3	2.8	0.9	0.7	5.0	8.6	2.0	3.0	3.4	5.4	4.4	4.8	5.0	4.8	6.2	1.5
2021-04-11	-0.1	-0.2	2.2	-0.3	4.2	0.1	1.2	-1.7	0.3	0.8	1.8	2.8	1.2	2.6	0.9	0.6	4.9	8.5	1.9	2.8	3.3	5.2	4.1	4.5	4.9	4.6	6.5	1.4
2021-04-18	-0.2	0.0	2.4	-0.2	4.4	0.2	1.3	-1.8	0.5	0.6	1.4	3.0	1.5	2.5	1.0	0.7	4.8	8.5	1.9	2.8	3.1	5.0	4.0	4.3	4.8	4.4	6.1	1.2
2021-04-25	-0.2	0.0	2.2	-0.2	4.3	0.1	1.3	-1.8	0.5	0.6	3.1	3.0	1.4	2.8	1.0	0.7	4.7	8.5	1.8	2.7	2.9	4.9	3.7	4.1	4.7	4.3	5.5	1.1
2021-05-02	-0.2	0.0	2.1	-0.3	4.2	0.1	1.3	-1.9	0.5	0.5	2.8	2.9	1.3	2.7	1.0	0.7	4.6	8.4	1.7	2.5	2.9	4.8	3.5	3.9	4.6	4.1	5.2	0.9
2021-05-09	-0.2	-0.1	2.1	-0.4	4.1	-0.1	1.2	-2.1	0.4	0.5	2.5	2.7	1.2	2.6	0.8	0.6	4.5	8.3	1.6	2.5	2.8	4.7	3.5	3.9	4.6	4.0	4.9	0.8
2021-05-16	-0.2	0.0	2.1	-0.3	4.1	-0.1	1.3	-2.1	0.5	0.4	2.2	2.8	1.2	2.5	0.9	0.7	4.5	8.2	1.6	2.4	2.8	4.7	3.4	3.8	4.4	3.8	4.6	0.7
2021-05-23	-0.2	0.0	1.9	-0.3	4.0	-0.2	1.3	-2.2	0.5	0.4	2.4	2.6	1.1	2.6	0.9	0.7	4.4	8.2	1.5	2.3	2.8	4.7	3.4	3.8	4.5	3.8	4.6	0.7
2021-05-30	-0.3	0.0	1.9	-0.4	4.0	-0.3	1.2	-2.3	0.4	0.4	1.9	2.6	1.1	2.5	0.8	0.6	4.4	8.2	1.6	2.4	2.9	4.8	3.6	3.9	4.4	3.8	4.3	0.6
2021-06-06	-0.2	0.0	1.8	-0.4	3.9	-0.4	1.3	-2.4	0.4	0.3	1.9	2.5	1.0	2.4	0.8	0.7	4.4	8.2	1.5	2.4	2.8	4.7	3.7	4.1	4.4	3.8	4.1	0.7
2021-06-13	-0.2	0.0	1.7	-0.4	3.8	-0.5	1.3	-2.4	0.5	0.3	1.8	2.4	0.9	2.4	0.8	0.7	4.3	8.1	1.4	2.4	2.7	4.7	3.5	3.9	4.4	3.8	4.1	0.7
2021-06-20	-0.3	0.0	1.7	-0.4	3.7	-0.5	1.3	-2.5	0.4	0.3	1.3	2.3	0.9	2.2	0.7	0.6	4.3	8.0	1.4	2.2	2.6	4.6	3.2	3.6	4.3	3.6	3.8	0.4
2021-06-27	-0.2	0.0	1.7	-0.4	3.7	-0.5	1.3	-2.5	0.5	0.3	1.3	2.3	0.9	2.2	0.7	0.7	4.3	7.9	1.3	2.2	2.6	4.5	3.2	3.6	4.3	3.5	3.7	0.4
2021-07-04	-0.3	-0.1	1.5	-0.5	3.6	-0.6	1.2	-2.7	0.4	0.2	1.4	2.1	0.7	2.2	0.6	0.6	4.3	7.9	1.3	2.1	2.5	4.5	3.1	3.5	4.1	3.4	3.5	0.1
2021-07-11	-0.3	-0.1	1.4	-0.5	3.5	-0.7	1.2	-2.8	0.4	0.2	1.2	2.1	0.6	2.0	0.6	0.6	4.2	7.8	1.2	2.1	2.4	4.4	3.1	3.5	4.1	3.2	3.3	-0.3
2021-07-18	-0.2	-0.2	1.2	-0.6	3.4	-0.7	1.2	-2.9	0.4	0.1	0.9	2.0	0.6	1.9	0.5	0.5	4.0	7.7	1.1	2.1	2.3	4.3	3.0	3.4	3.5	3.0	3.1	-0.7
2021-07-25	-0.3	-0.1	1.2	-0.6	3.3	-0.7	1.2	-3.0	0.4	0.1	0.8	1.9	0.5	1.8	0.5	0.6	4.0	7.6	1.0	2.0	2.2	4.2	2.9	3.4	3.4	2.8	3.0	-0.9
2021-08-01	-0.3	-0.1	1.1	-0.5	3.2	-0.7	1.2	-3.1	0.4	0.1	0.7	1.9	0.3	1.7	0.6	0.6	3.9	7.5	0.9	1.9	2.1	4.0	2.8	3.3	3.3	2.6	2.9	-1.1
2021-08-08	-0.3	-0.1	1.1	-0.5	3.2	-0.7	1.2	-3.2	0.4	0.0	0.6	1.8	0.3	1.6	0.5	0.6	3.8	7.4	0.8	1.8	2.0	3.9	2.6	3.2	3.2	2.3	2.7	-1.2
2021-08-15	-0.2	-0.1	1.1	-0.5	3.2	-0.4	1.2	-3.4	0.5	-0.3	0.5	1.8	0.3	1.6	0.5	0.6	3.6	7.3	0.7	1.7	1.9	3.8	2.4	2.9	3.1	2.1	2.5	-1.4
2021-08-22	-0.2	-0.1	1.0	-0.5	3.1	-0.4	1.2	-3.7	0.5	-0.4	0.5	1.7	0.3	1.6	0.5	0.6	3.5	7.2	0.6	1.6	1.7	3.6	2.3	2.8	2.9	2.0	2.5	-1.4
2021-08-29	-0.2	-0.1	1.0	-0.5	3.1	-0.4	1.2	-3.5	0.4	-0.5		1.7	0.4	1.4	0.5	0.6	3.4	7.0	0.4	1.4	1.4	3.4	2.1	2.5	2.8	1.8	2.3	-1.5
2021-09-05	-0.3	-0.1	0.9	-0.5	3.1	-0.4	1.1	-3.5	0.4	-0.6	0.3	1.6	0.5	1.4	0.4	0.5	3.3	6.9	0.2	1.2	1.3	3.3	2.0	2.5	2.6	1.7	2.1	-1.5
2021-09-12	-0.2	0.0	1.2	-0.3	3.2	-0.3	1.3	-3.2	0.6	-0.7		1.7	0.2	1.3	0.5	0.7	3.2	7.0	0.0	0.9	1.5	3.5	1.8	2.2	2.6	1.5	1.9	-1.6
2021-09-19	-0.2	-0.1	1.2	-0.4	3.1	-0.3	1.2	-3.3	0.5	-0.5	0.5	1.7	0.2	1.4	0.4	0.6	3.1	7.5	0.6	0.8	2.4	4.6	2.0	2.1	2.5	1.6	1.9	-1.5
2021-09-26	-0.2	0.0	1.5	-0.3	3.2	-0.3	1.2	-3.2	0.6	-0.6	0.3	1.9	0.3	1.5	0.5	0.7	3.4	8.0	1.0	1.7	2.9	5.1	3.6	4.0	3.2	2.7	1.7	-0.7
2021-10-03	-0.2	0.0	1.3	-0.4	3.2	-0.3	1.2	-3.2	0.5	-0.5	1.7	1.9	0.4	1.9	0.4	0.7	4.3	8.4	1.7	2.1	3.3	5.4	4.4	4.8	3.8	3.4	1.8	0.1
2021-10-10	-0.2	-0.1	1.6	-0.4	3.3	-0.3	1.1	-3.1	0.5	-0.1	1.7	2.1	0.5	1.9	0.4	0.6	4.7	8.6	1.9	2.5	3.5	5.6	4.5	4.9	4.0	3.8	1.6	0.6
2021-10-17	-0.2	0.0	1.8	-0.3	3.5	-0.3	1.2	-2.9	0.5	0.4	1.7	2.3	0.8	2.3	0.4	0.7	5.3	9.0	2.3	2.8	3.8	6.0	4.8	4.9	4.1	4.0	1.6	1.0
2021-10-24	-0.2	0.2	2.2	-0.1	3.7	-0.3	1.4	-1.4	0.8	1.3	4.4	2.7	1.0	2.9	0.8	1.0	5.5	9.4	2.5	3.4	4.0	6.3	5.5	5.9	4.3	4.7	2.1	1.7
2021-10-31	-0.2	-0.1	2.4	-0.1	4.0		1.3	-1.3	0.6	1.6	5.6	2.9	1.3	3.1	0.9	0.8	5.5	9.4	2.4	3.3	3.9	6.3	5.7	6.2	4.8	4.9	2.1	1.7
2021-11-07	-0.2	-0.1	2.7	-0.2	4.5	0.1	1.3	-1.1	0.6	1.6	5.2	3.4	1.8	3.1	1.1	0.8	5.5	9.4	2.4	3.2	4.0	6.3	5.6	6.1	4.7	4.9	2.3	1.9
2021-11-14	0.5	-0.1	3.1	-0.1	4.9	0.7	1.3	-1.0	0.6	1.9	5.2	3.7	2.1	3.4	1.2	0.8	5.4	9.4	2.4	3.4	4.0	6.3	5.3	5.8	4.8	5.1	2.5	2.1
2021-11-21	0.5	-0.3	2.7	-0.2	4.8	0.8	1.3	-1.1	0.4	1.7	5.3	3.5	1.8	3.5	1.1	0.7	5.2	9.3	2.3	3.3	3.8	6.0	5.5	5.9	4.9	5.1	2.5	2.0
2021-11-28	0.7	-0.1	3.3	-0.2	5.3	1.2	1.6	-0.9	0.4	1.4	3.6	4.0	2.4	3.2	1.3	0.7	5.6	9.6	2.6	3.2	4.1	6.5	5.1	5.6	4.7	4.8	2.6	1.9
2021-12-05	0.7	0.1	3.0	-0.1	5.2	1.2	1.7	-0.9	0.6	1.8	6.2	3.9	2.3	3.8	1.3	0.9	5.6	9.6	2.5	3.3	4.0	6.3	5.8	6.3	5.1	5.2	2.6	2.1
2021-12-12	0.6	0.0	2.7	-0.1	5.0	1.0	1.4	-1.1	0.6	1.8	4.8	3.6	1.9	3.7	1.1	0.9	5.3	9.1	2.3	3.3	3.8	5.9	4.9	5.4	4.9	5.2	2.8	2.0
2021-12-19	0.3	-0.1	2.5	-0.2	4.7	0.6	1.3	-1.4	0.6	1.3	5.7	3.2	1.6	3.1	0.9	0.9	5.2	9.0	2.2	3.2	3.7	5.8	4.9	5.3	4.5	4.7	2.8	1.8
2021-12-26										1.2	2.2			2.9						3.1			4.4	4.8	4.4	4.5	2.8	1.6

Legend

1.8	Threshold level S1, short-term static design factor of safety below 1.5
5.5	Threshold level S2, short-term static design factor of safety below 1.3
11.2	Threshold level S3, critically low static factor of safety below 1.1
8.3	Threshold level P1, long-term post-seismic design factor of safety below 1.1
	Historical maximum value
	Blank spaces indicate no data available

Note:
The noted factor of safety would only occur for a particular section and failure mode if all instruments in the section were at their individual threshold level

Figure 1: Old TDF Piezometer Records - Plane 1
32228, 36971, 36973, 36972, 32232

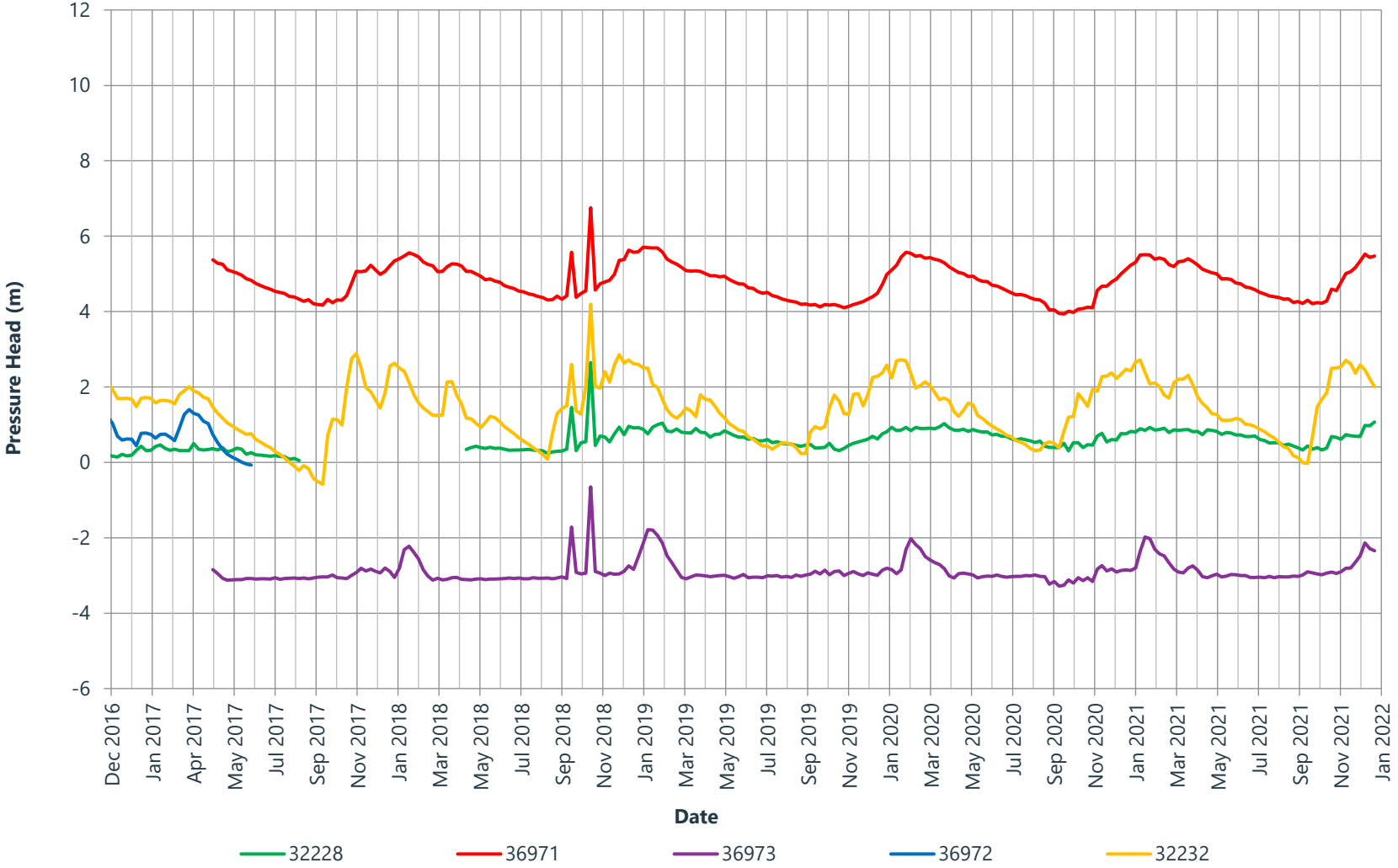


Figure 2: Old TDF Piezometer Records - Plane A
Outer Embankment Slope, Location 1
A-5E, A-9E, A-13E, A-17E

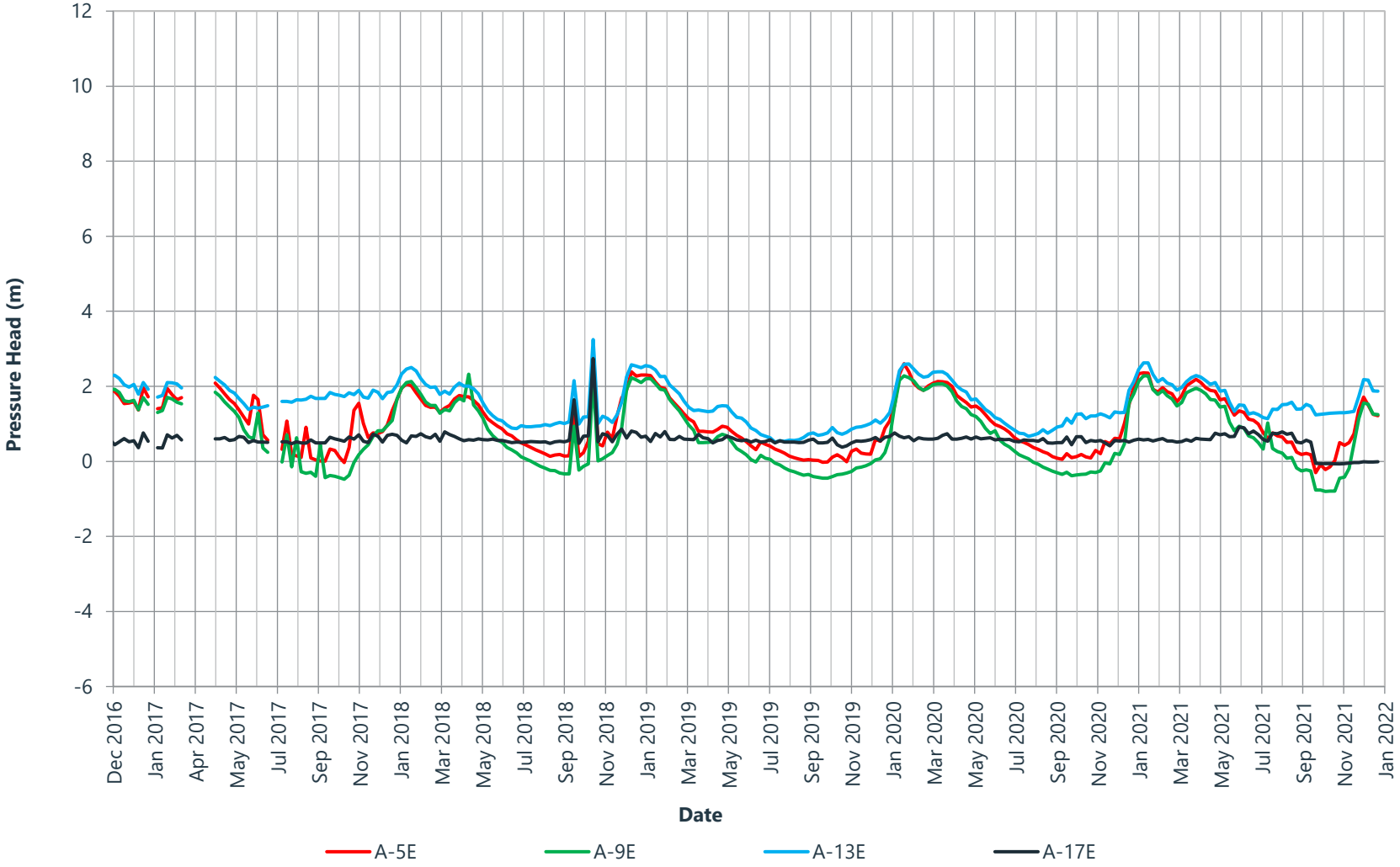


Figure 3: Old TDF Piezometer Records - Plane A
Outer Embankment Slope, Location 2
A-2E, A-6E, A-10E, A-14E, A-18E

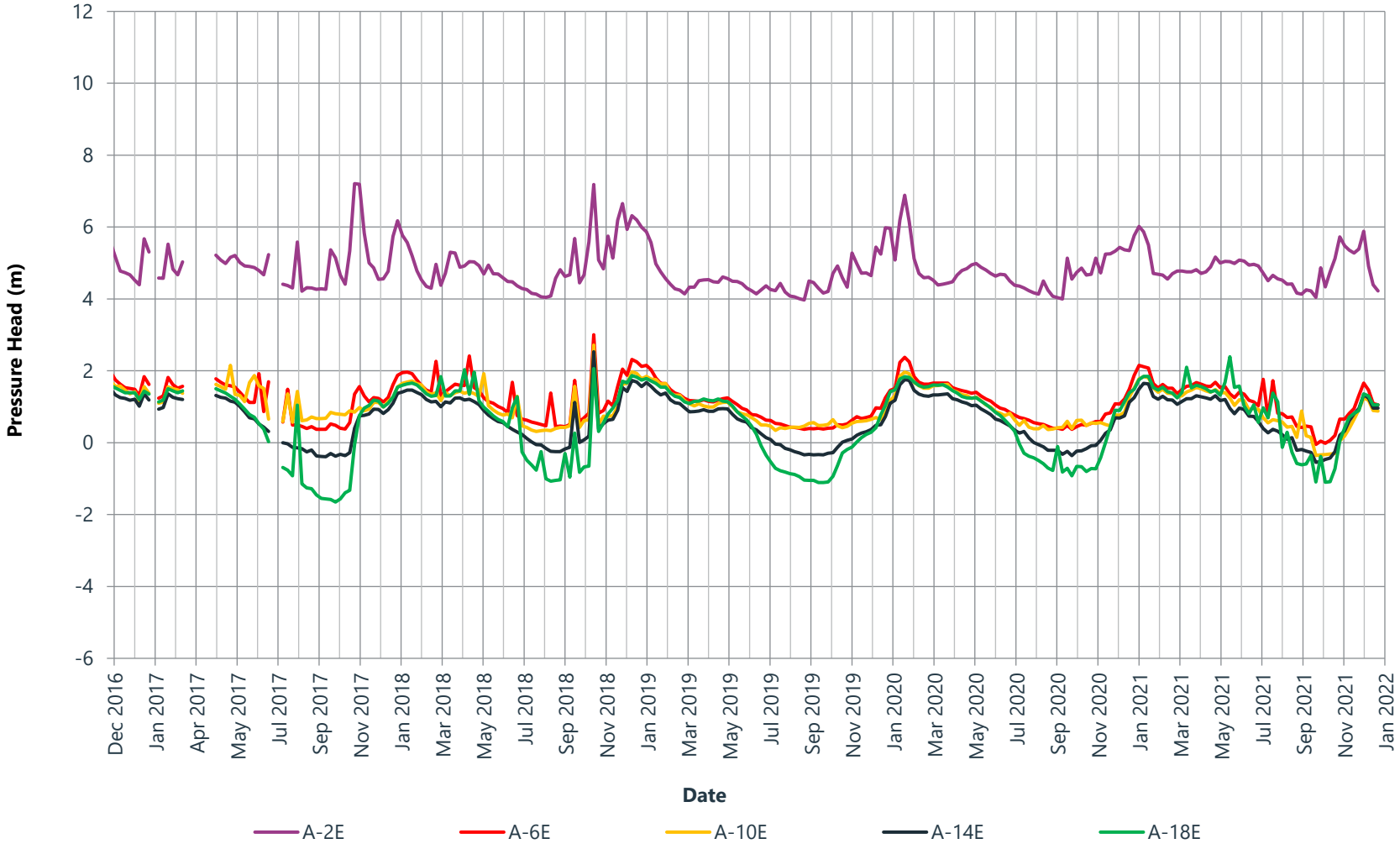


Figure 4: Old TDF Piezometer Records - Plane A
Outer Embankment Slope, Location 3
A-4E, 32239, A-8E, A-12E, A-16E, A-20E

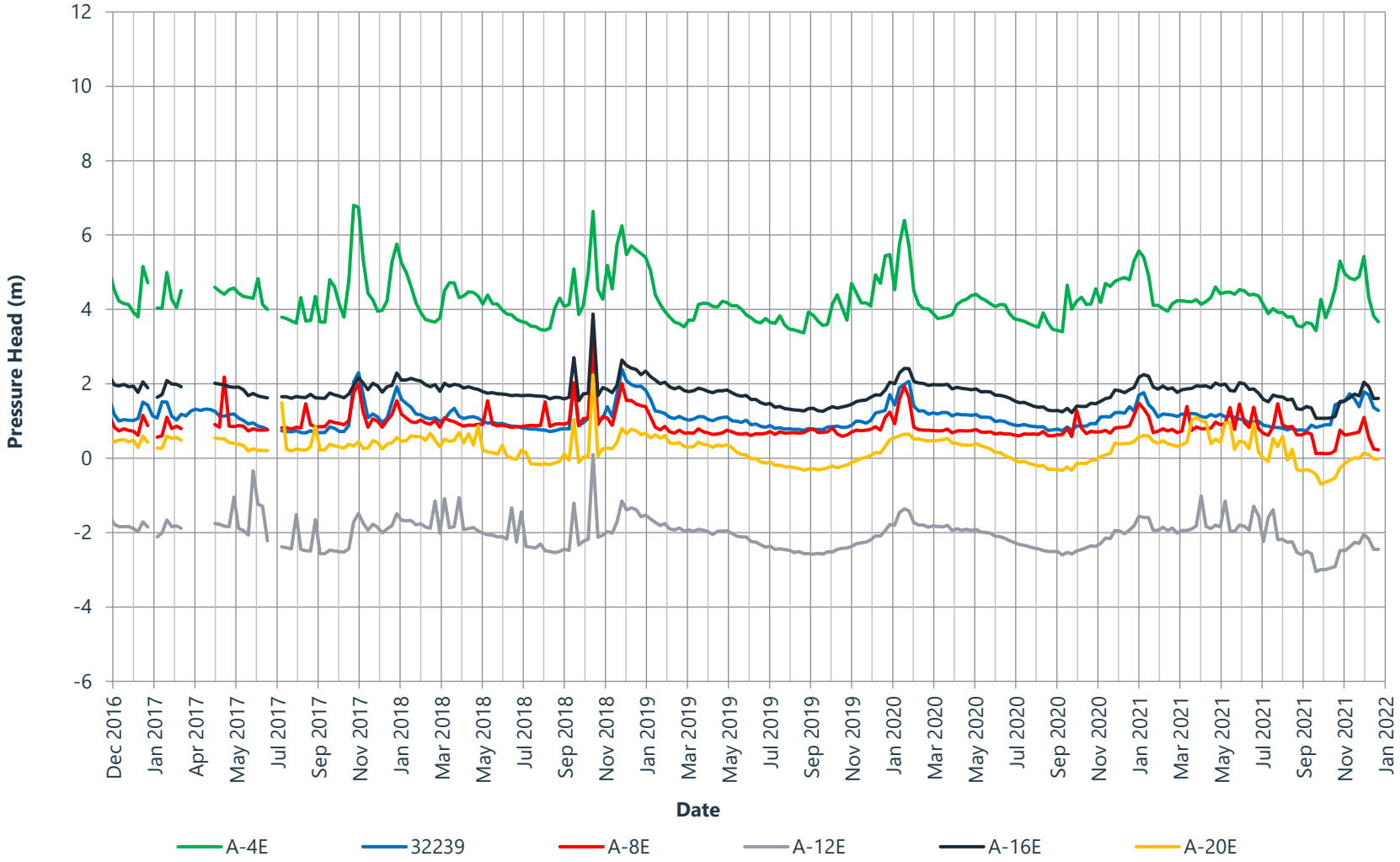


Figure 5: Old TDF Piezometer Records - Plane A
Upper Tailings Beach
A-26E, A-27E, A-28E, A-30E, A-31E, A-32E, 32220

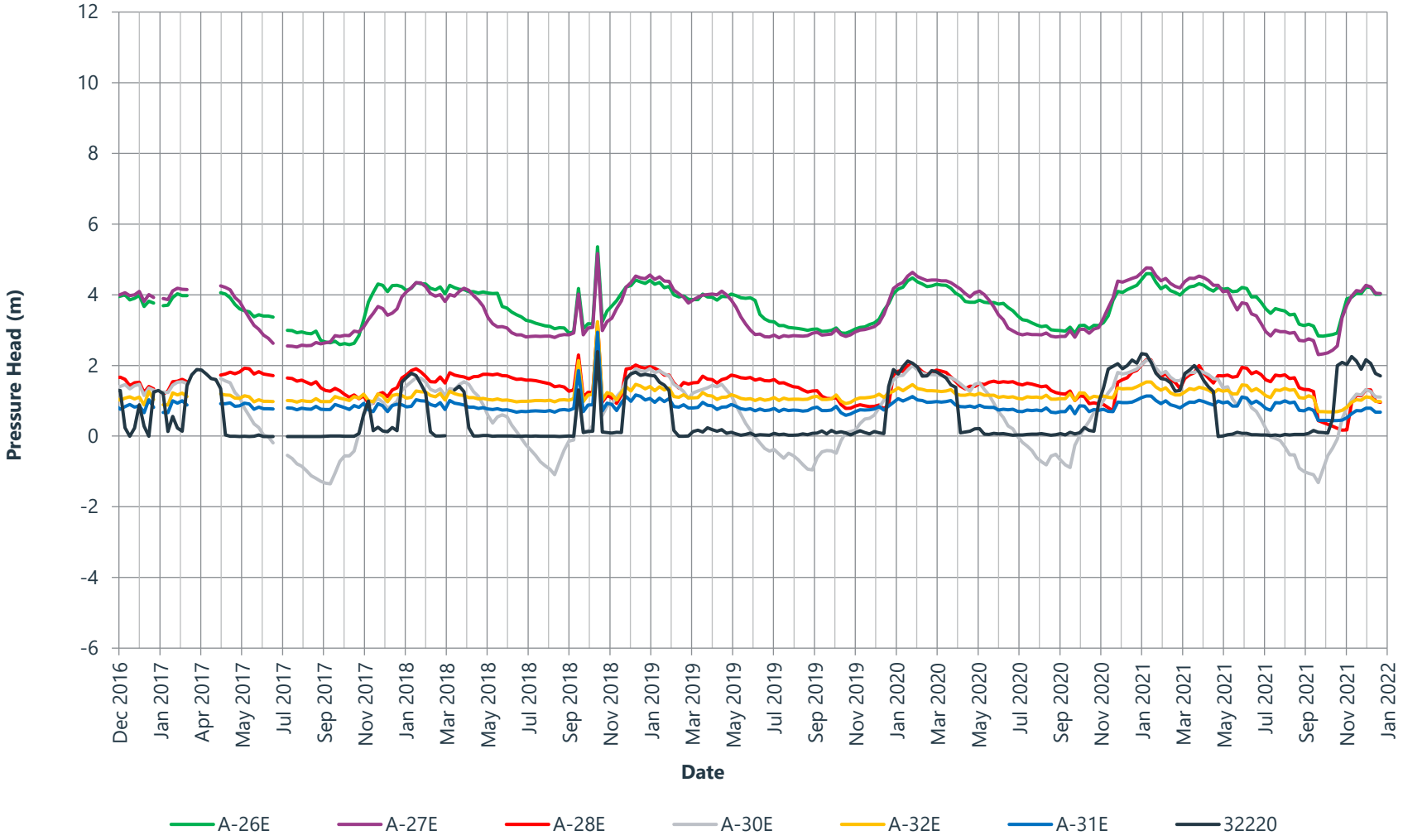


Figure 6: Old TDF Piezometer Records - Plane A
Strip and Paste Berm
A33-E, 32231, 32229, 32225, P-11, P-12

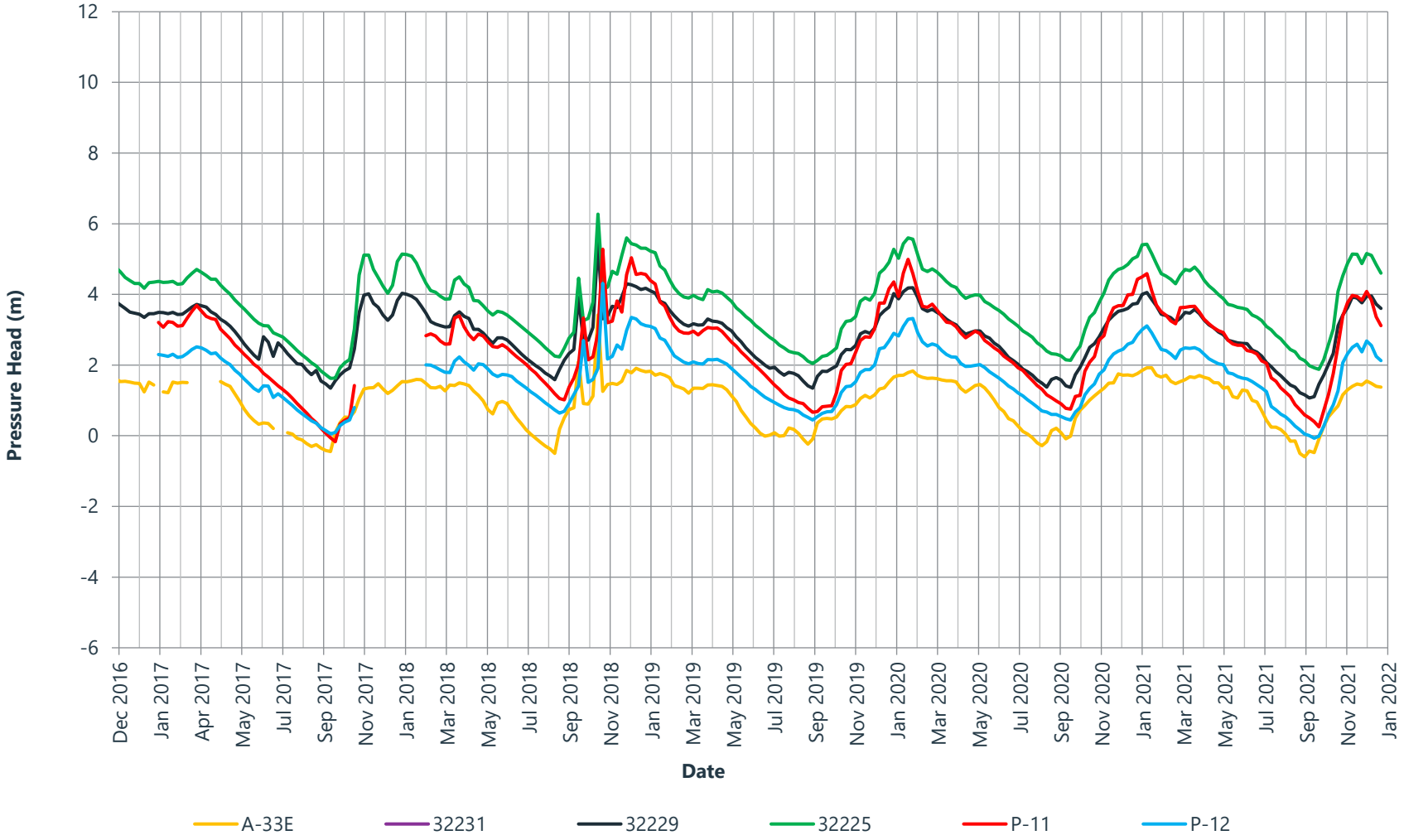


Figure 7: Old TDF Piezometer Records
Plane 3 (32233, 21715, P-13, P-14) and Plane 3/4 (P-1, P-2)

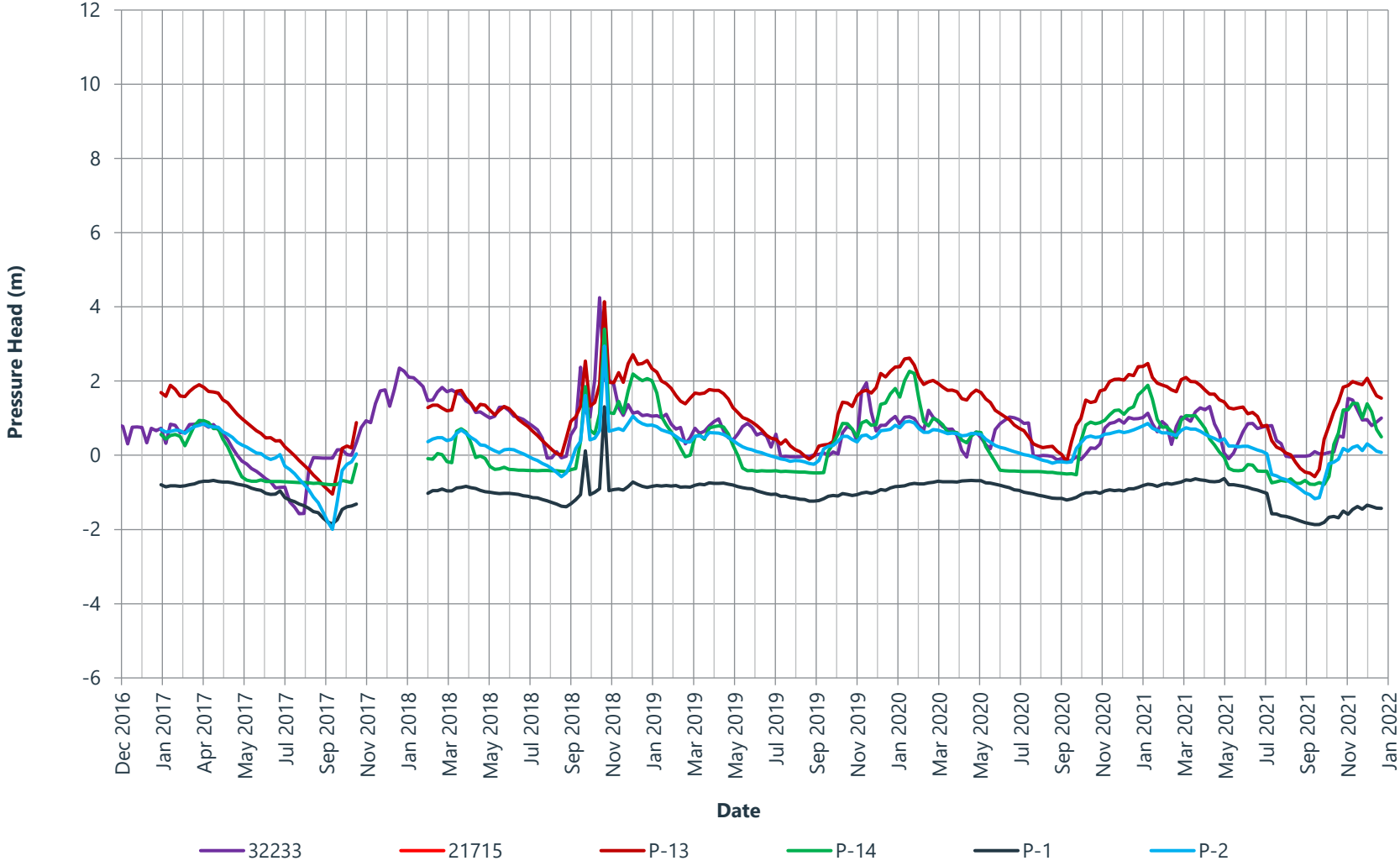


Figure 8: Old TDF Piezometer Records - Plane 4
32237, 1204, P-3, P-4

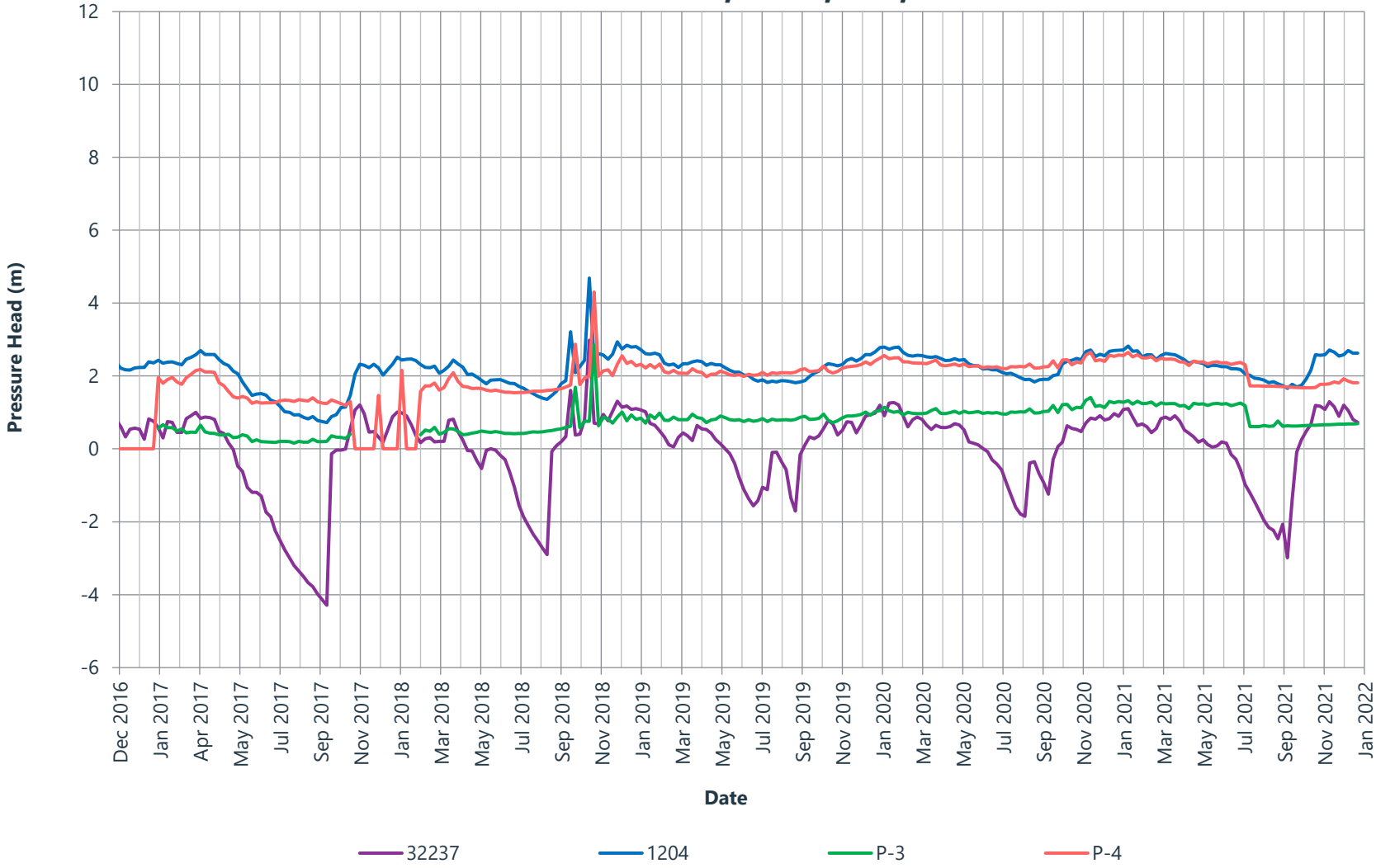
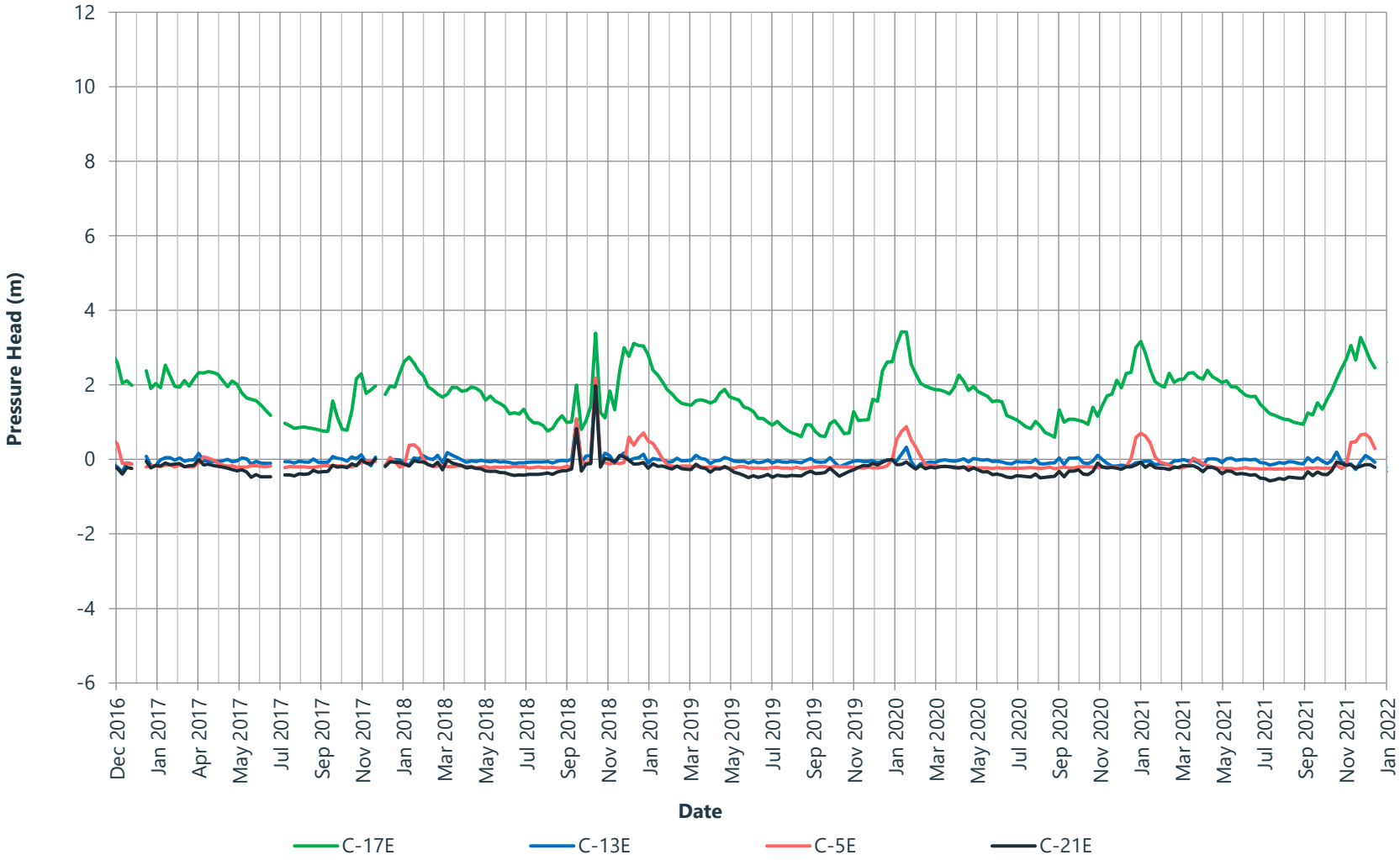


Figure 9: Old TDF Piezometer Records - Plane 5
Outer Embankment Slope, Location 1
C-5E, C-13E, C-17E, C-21E



wood.

Figure 10: Old TDF Piezometer Records - Plane 5
Outer Embankment Slope, Location 2 and Lower Tailings
C-6E, C-10E, C-14E, C-18E, C-22E, 32223, 32241

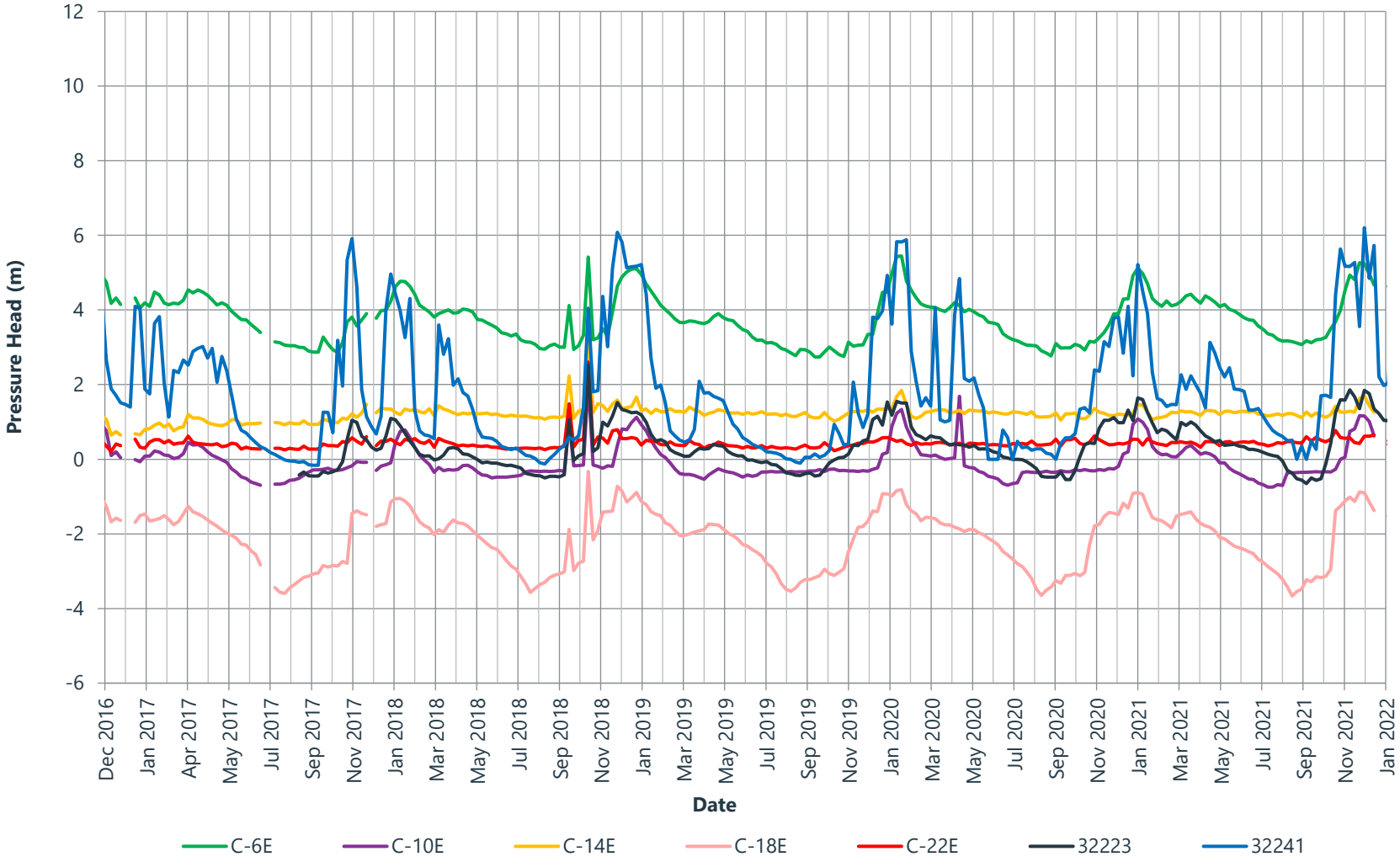


Figure 11: Old TDF Piezometer Records - Plane 5
Outer Embankment Slope, Location 3
C-12E, C-16E, 32238, C-20E, C-24E

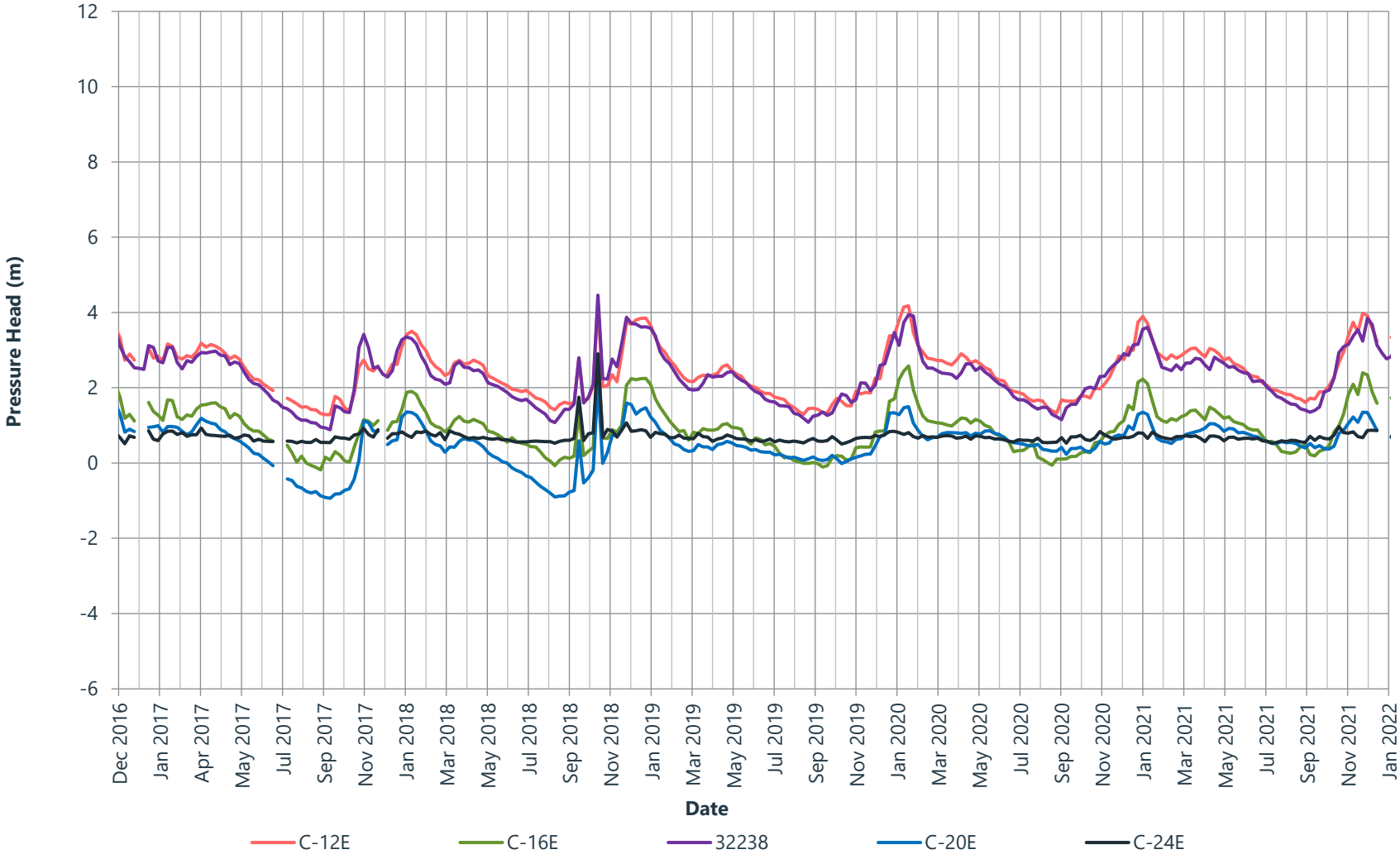


Figure 12: Old TDF Piezometer Records - Plane 5
Upper Tailings Beach
C29E, C-31E, C-35E, 32224, C-36E, C-37E, 32234

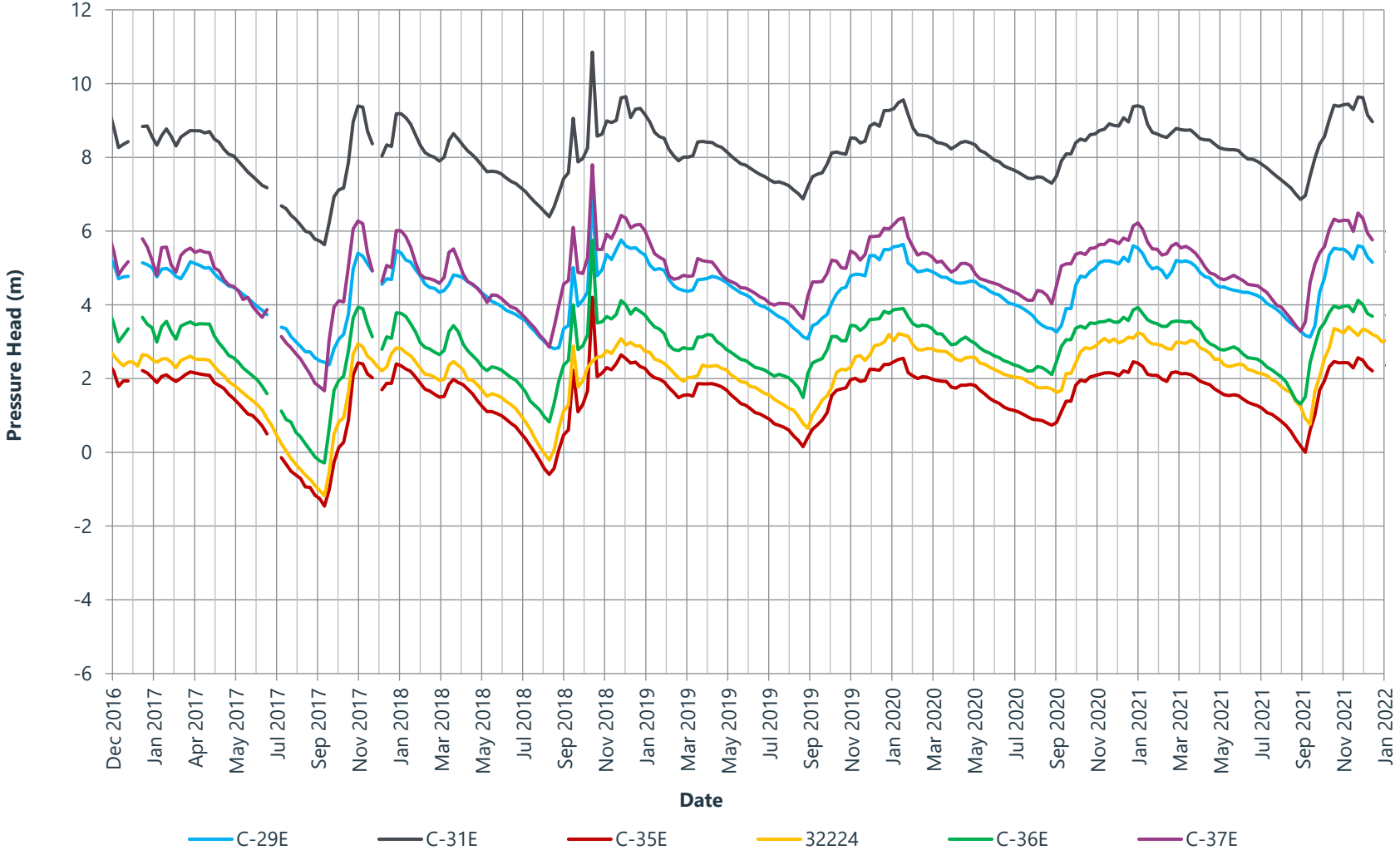


Figure 13: Old TDF Piezometer Records - Plane 5
Paste Berm and Upstream Tailings
17730, 32222, P-7, 17724, 17726, 17722

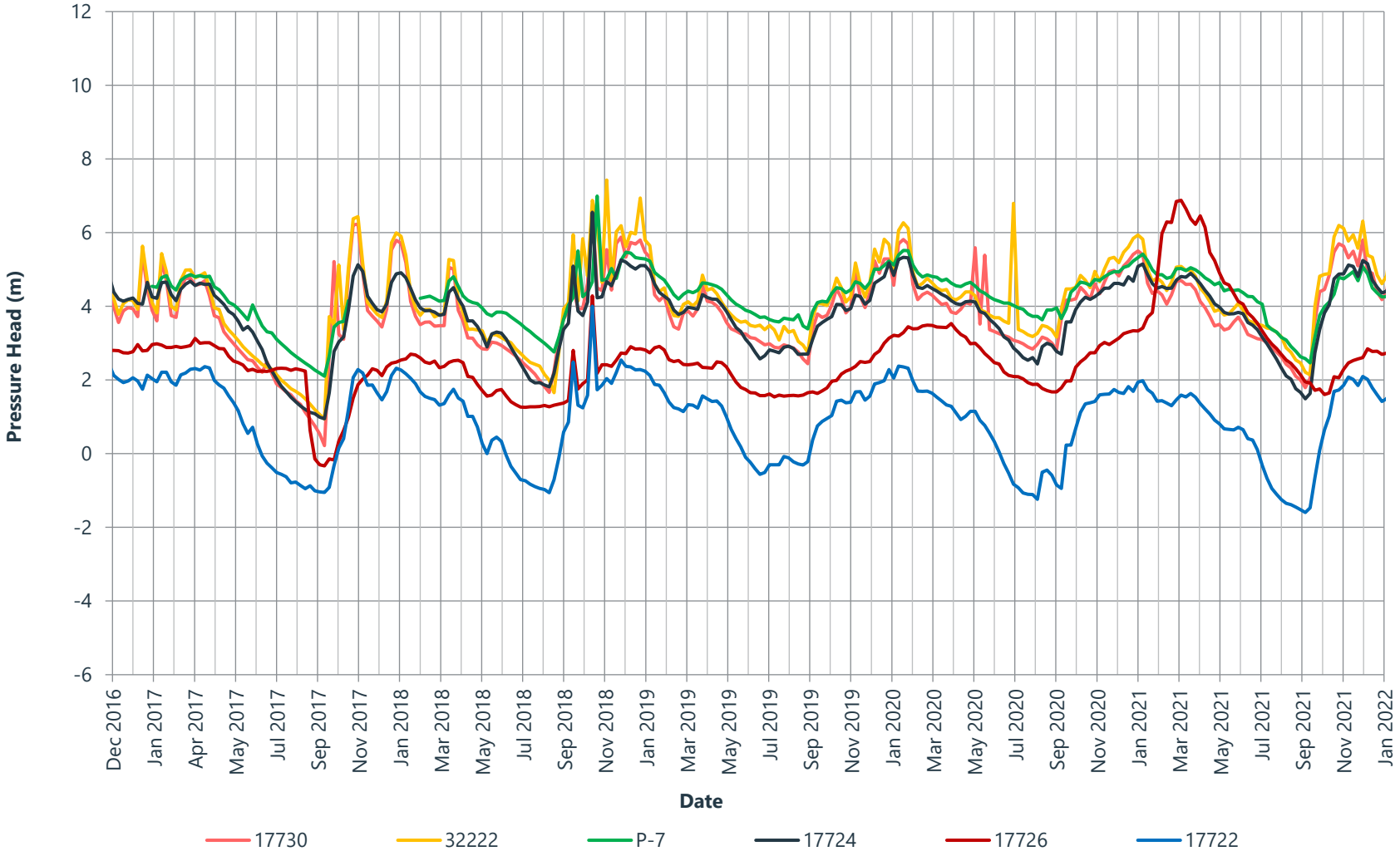
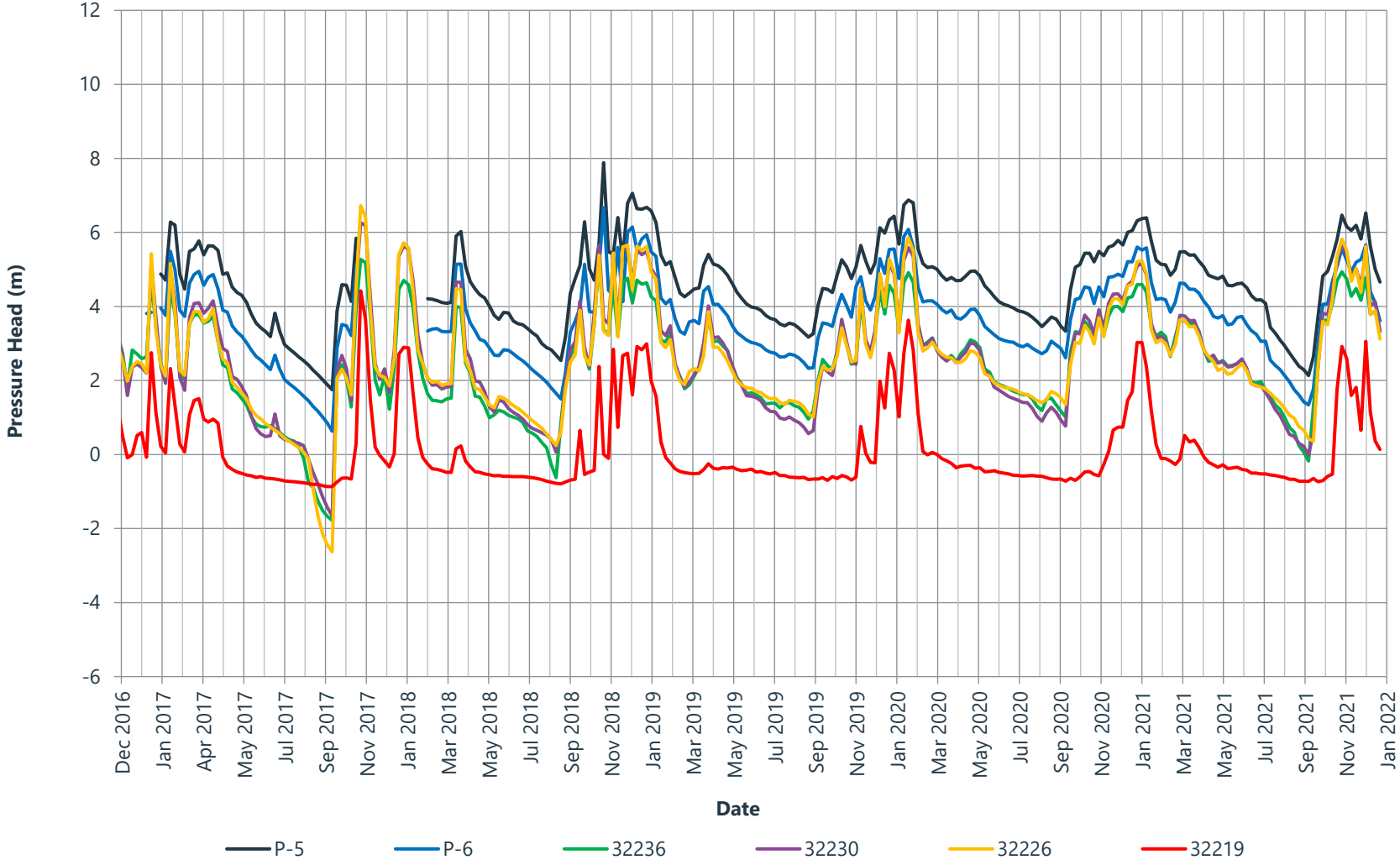
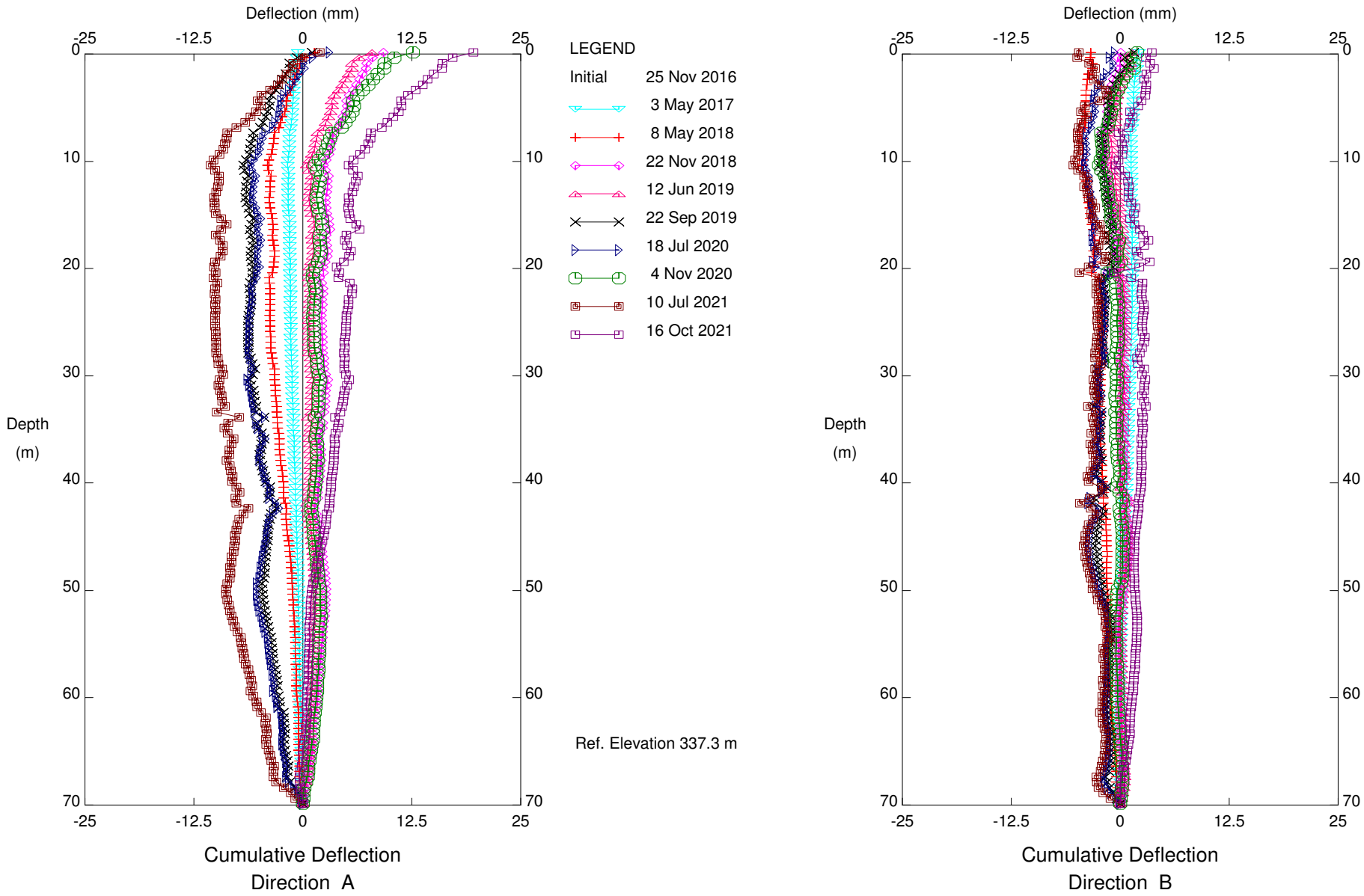


Figure 14: Old TDF Piezometer Records
Plane 5/6 (P-5, P-6) and Plane 6 (32236, 32230, 32226, 32219)



Appendix B3-3
Slope Inclinometer Data

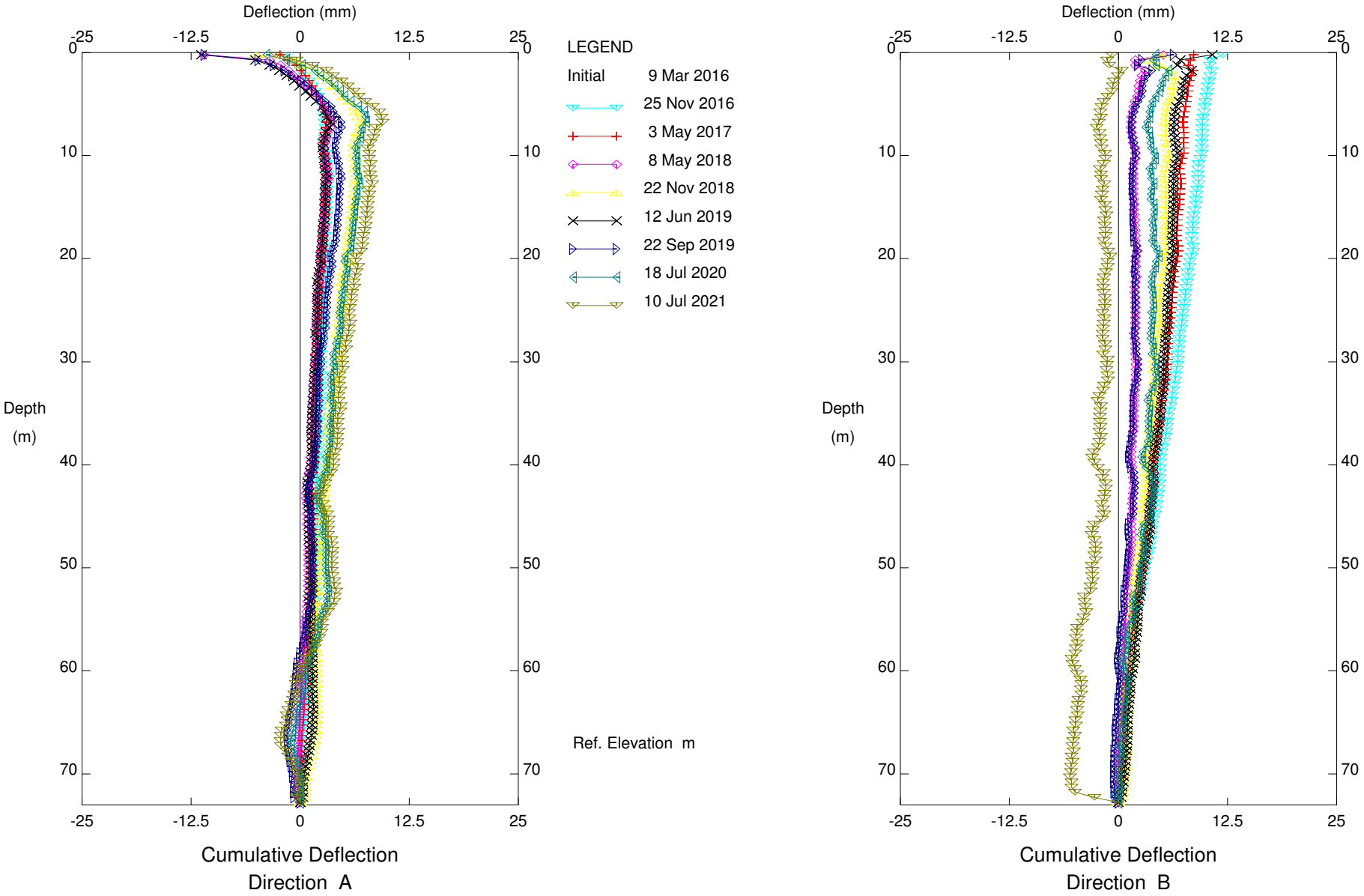
Figure No.	Title
Figure 1	Cumulative Displacement – BH15-32
Figure 2	Cumulative Displacement – BH15-35
Figure 3	Cumulative Displacement – BH14-08A
Figure 4	Cumulative Displacement – BH19-04
Figure 5	Cumulative Displacement – BH19-01



Myra Falls, Inclinometer BH15-32

Myra Falls Mine Ltd.

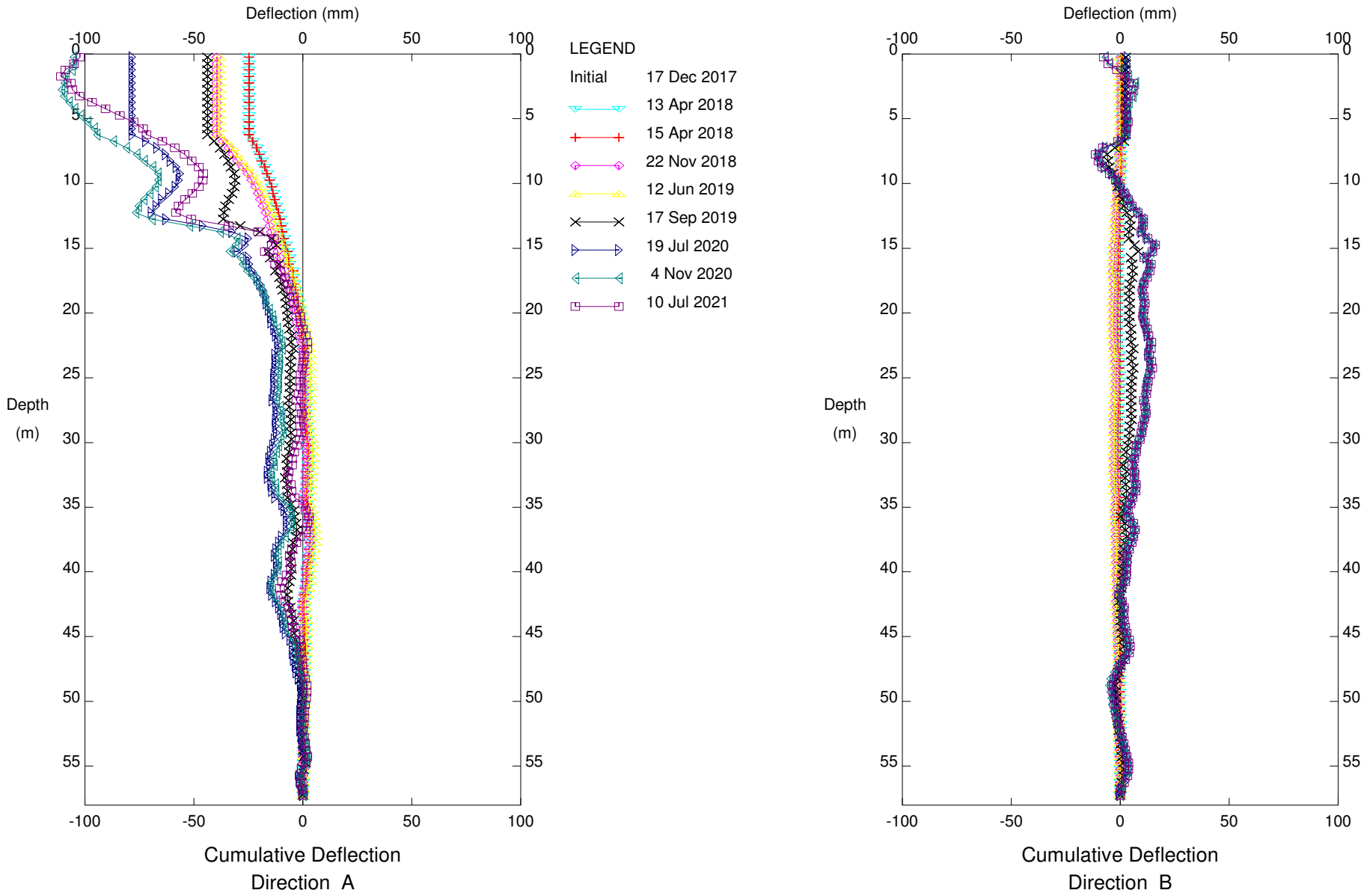
Wood - Edmonton AB



Myra Falls, Inclinometer BH15-35

Myra Falls Mine Ltd.

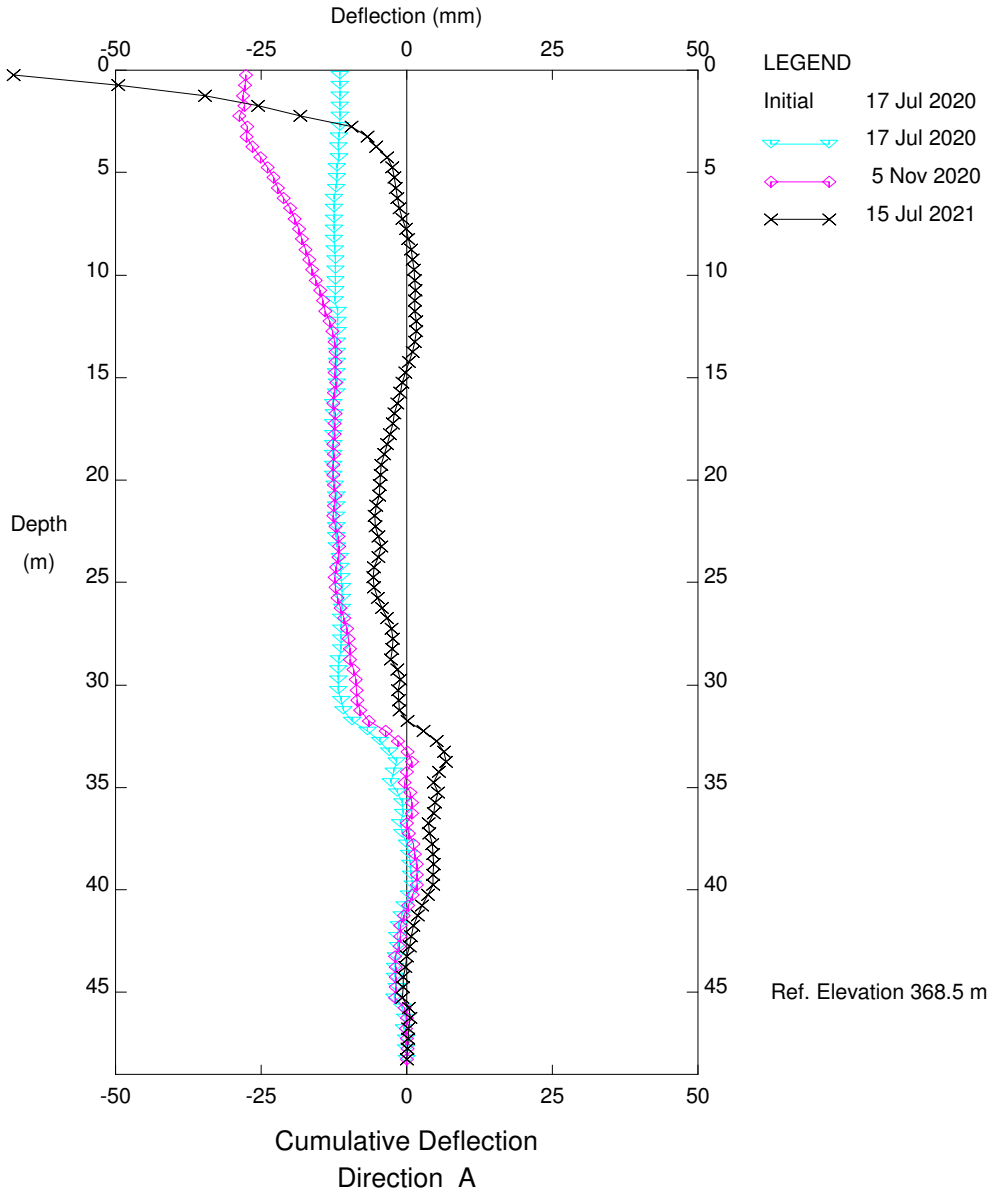
Wood - Edmonton AB



Myra Falls, Inclinometer BH14-08A

Myra Falls Mine Ltd.

Wood - Edmonton AB



LEGEND

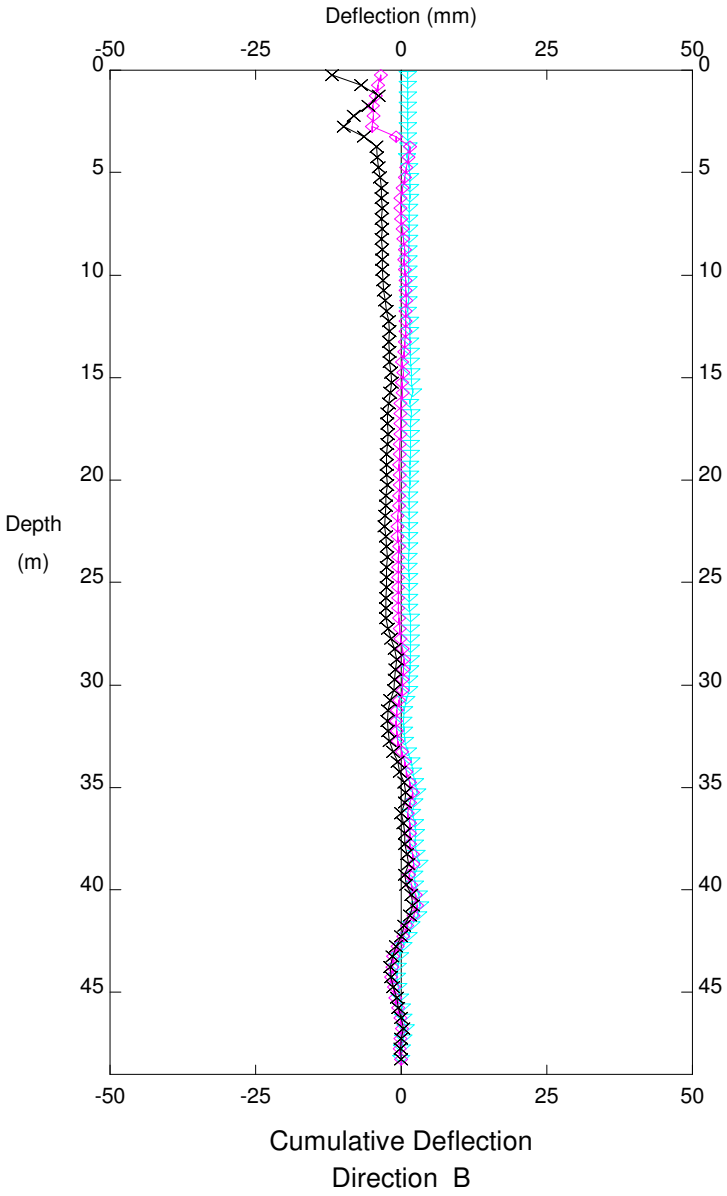
Initial 17 Jul 2020

17 Jul 2020

5 Nov 2020

15 Jul 2021

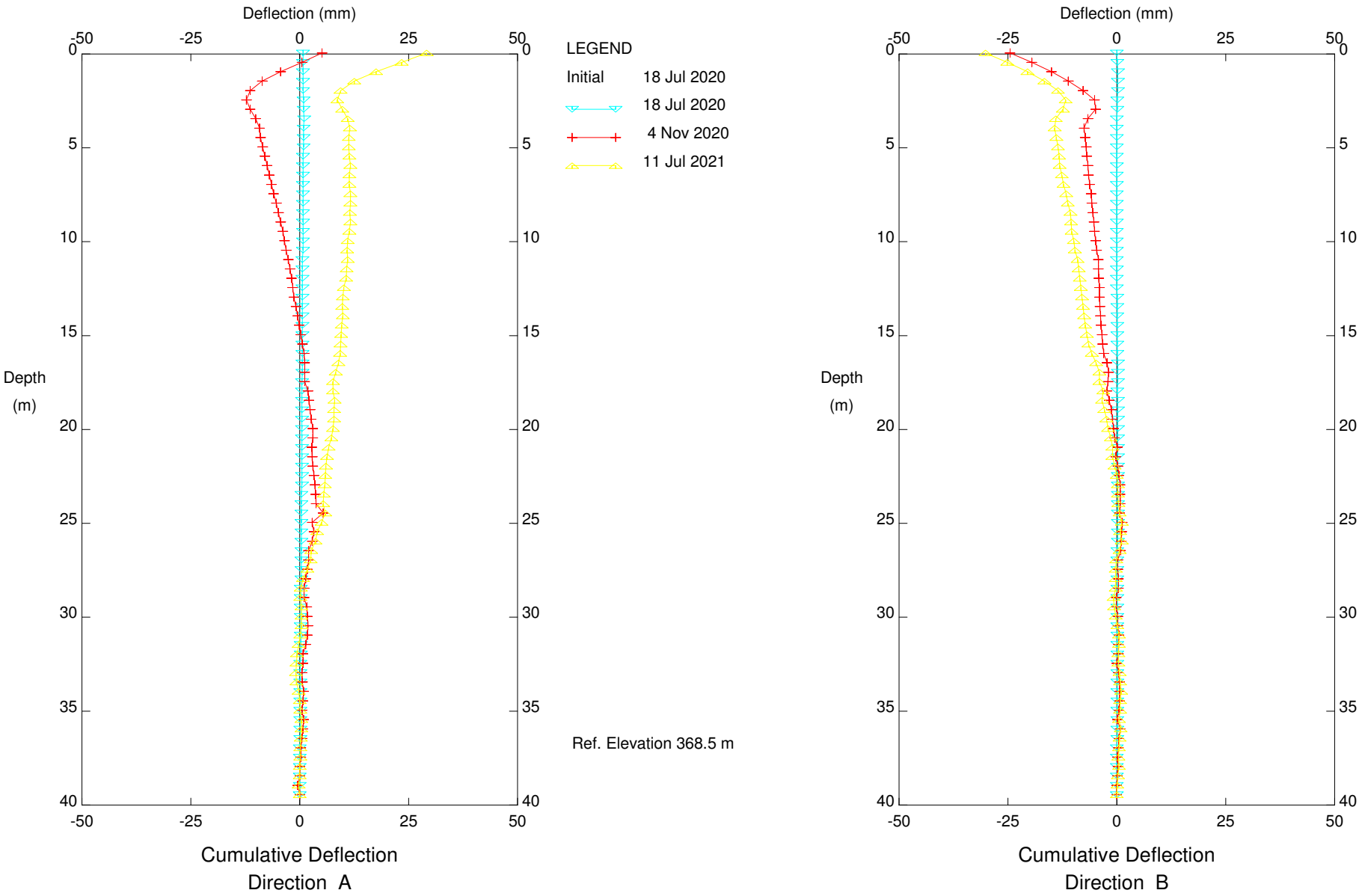
Ref. Elevation 368.5 m



Myra Falls, Inclinometer BH19-04

Myra Falls Mine Ltd.

Wood - Edmonton AB



Myra Falls, Inclinometer BH19-01
Myra Falls Mine Ltd.

Appendix B3-4
Lynx TDF Deformation Monuments

wood.

wood.

Table 1: Lynx TDF - Monument Monitoring Summary - Raw Data

	Lynx21-01			Lynx21-02			Lynx21-03			Lynx21-04			Lynx21-05		
	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
16-Sep-20	**5494773.746**	**312042.265**	**369.676**	5494744.013	312034.666	369.599	**5494716.694**	**312026.695**	**369.681**	**5494702.535**	**312000.034**	**369.691**	**5494697.698**	**311961.235**	**369.730**
8-Oct-20	**5494773.749**	**312042.264**	**369.671**	5494744.014	312034.661	369.593	**5494716.691**	**312026.689**	**369.671**	**5494702.537**	**312000.033**	**369.680**	**5494697.701**	**311961.234**	**369.710**
10-Nov-20	**5494773.749**	**312042.262**	**369.669**	5494744.012	312034.658	369.589	**5494716.689**	**312026.687**	**369.664**	**5494702.538**	**312000.033**	**369.671**	**5494697.709**	**311961.229**	**369.691**
6-Dec-20	**5494773.748**	**312042.263**	**369.662**	5494744.010	312034.658	369.580	**5494716.688**	**312026.687**	**369.652**	**5494702.540**	**312000.034**	**369.660**	**5494697.712**	**311961.226**	**369.670**
12-Jan-21	**5494773.748**	**312042.262**	**369.667**	5494744.009	312034.657	369.583	**5494716.687**	**312026.683**	**369.653**	**5494702.542**	**312000.031**	**369.661**	**5494697.718**	**311961.223**	**369.665**
18-Feb-21	**5494773.748**	**312042.262**	**369.667**	5494744.007	312034.652	369.582	**5494716.688**	**312026.674**	**369.651**	**5494702.540**	**312000.029**	**369.658**	**5494697.721**	**311961.222**	**369.658**
18-Apr-21	**5494773.764**	**312042.268**	**369.718**	**5494744.023**	**312034.656**	**369.632**	**5494716.702**	**312026.682**	**369.700**	**5494702.564**	**312000.038**	**369.707**	**5494697.738**	**311961.225**	**369.703**
29-Apr-21	**5494773.766**	**312042.260**	**369.717**	**5494744.020**	**312034.654**	**369.631**	**5494716.699**	**312026.679**	**369.698**	**5494702.562**	**312000.033**	**369.704**	**5494697.740**	**311961.225**	**369.698**
6-May-21	**5494773.764**	**312042.259**	**369.717**	**5494744.022**	**312034.658**	**369.631**	**5494716.701**	**312026.684**	**369.698**	**5494702.563**	**312000.039**	**369.704**	**5494697.741**	**311961.225**	**369.698**
13-May-21	**5494773.765**	**312042.258**	**369.717**	**5494744.022**	**312034.656**	**369.631**	**5494716.702**	**312026.681**	**369.697**	**5494702.563**	**312000.037**	**369.703**	**5494697.742**	**311961.225**	**369.697**
20-May-21	**5494773.765**	**312042.257**	**369.716**	**5494744.020**	**312034.655**	**369.630**	**5494716.701**	**312026.678**	**369.695**	**5494702.563**	**312000.037**	**369.701**	**5494697.742**	**311961.224**	**369.694**
27-May-21	**5494773.764**	**312042.260**	**369.715**	**5494744.020**	**312034.654**	**369.628**	**5494716.696**	**312026.678**	**369.692**	**5494702.556**	**312000.039**	**369.694**	**5494697.737**	**311961.226**	**369.686**
3-Jun-21	**5494773.763**	**312042.258**	**369.716**	**5494744.019**	**312034.655**	**369.629**	**5494716.696**	**312026.677**	**369.692**	**5494702.553**	**312000.037**	**369.693**	**5494697.737**	**311961.224**	**369.684**
19-Jun-21	**5494773.763**	**312042.258**	**369.716**	**5494744.016**	**312034.656**	**369.626**	**5494716.690**	**312026.680**	**369.685**	**5494702.551**	**312000.040**	**369.687**	**5494697.736**	**311961.226**	**369.678**
26-Jun-21	**5494773.763**	**312042.257**	**369.717**	**5494744.016**	**312034.654**	**369.627**	**5494716.692**	**312026.678**	**369.685**	**5494702.553**	**312000.041**	**369.687**	**5494697.738**	**311961.226**	**369.678**
3-Jul-21	**5494773.764**	**312042.259**	**369.717**	**5494744.015**	**312034.656**	**369.626**	**5494716.689**	**312026.678**	**369.681**	**5494702.550**	**312000.042**	**369.683**	**5494697.736**	**311961.226**	**369.675**
10-Jul-21	**5494773.764**	**312042.257**	**369.716**	**5494744.015**	**312034.654**	**369.624**	**5494716.691**	**312026.675**	**369.679**	**5494702.552**	**312000.040**	**369.681**	**5494697.746**	**311961.224**	**369.670**
17-Jul-21	**5494773.763**	**312042.257**	**369.710**	**5494744.013**	**312034.653**	**369.616**	**5494716.688**	**312026.674**	**369.671**	**5494702.550**	**312000.040**	**369.673**	**5494697.746**	**311961.222**	**369.661**
23-Jul-21	**5494773.762**	**312042.258**	**369.704**	**5494744.012**	**312034.653**	**369.609**	**5494716.690**	**312026.674**	**369.661**	**5494702.551**	**312000.042**	**369.662**	**5494697.751**	**311961.222**	**369.651**
29-Jul-21	**5494773.761**	**312042.257**	**369.705**	**5494744.013**	**312034.649**	**369.609**	**5494716.689**	**312026.670**	**369.661**	**5494702.551**	**312000.040**	**369.663**	**5494697.757**	**311961.218**	**369.650**
15-Sep-21	**5494762.015**	**312043.922**	**374.521**	**5494724.194**	**312032.113**	**374.385**	**5494700.522**	**312005.223**	**374.541**	**5494696.379**	**311979.583**	**374.479**	**5494690.525**	**311940.229**	**374.606**
21-Sep-21	**5494762.014**	**312043.922**	**374.520**	**5494724.193**	**312032.114**	**374.381**	**5494700.524**	**312005.222**	**374.536**	**5494696.381**	**311979.583**	**374.473**	**5494690.527**	**311940.227**	**374.599**
29-Sep-21	**5494762.013**	**312043.922**	**374.516**	**5494724.193**	**312032.111**	**374.375**	**5494700.525**	**312005.221**	**374.528**	**5494696.384**	**311979.582**	**374.467**	**5494690.531**	**311940.228**	**374.592**
8-Oct-21	**5494762.011**	**312043.920**	**374.516**	**5494724.190**	**312032.108**	**374.375**	**5494700.527**	**312005.219**	**374.527**	**5494696.386**	**311979.578**	**374.464**	**5494690.535**	**311940.224**	**374.588**
16-Oct-21	**5494762.012**	**312043.920**	**374.515**	**5494724.192**	**312032.107**	**374.371**	**5494700.531**	**312005.218**	**374.524**	**5494696.391**	**311979.579**	**374.460**	**5494690.540**	**311940.226**	**374.585**
27-Oct-21	**5494762.013**	**312043.921**	**374.513**	**5494724.192**	**312032.110**	**374.369**	**5494700.532**	**312005.221**	**374.518**	**5494696.396**	**311979.581**	**374.454**	**5494690.544**	**311940.230**	**374.580**
5-Nov-21	**5494762.012**	**312043.920**	**374.513**	**5494724.192**	**312032.106**	**374.367**	**5494700.534**	**312005.219**	**374.514**	**5494696.399**	**311979.579**	**374.450**	**5494690.549**	**311940.227**	**374.576**
12-Nov-21	**5494762.011**	**312043.917**	**374.513**	**5494724.190**	**312032.102**	**374.366**	**5494700.534**	**312005.217**	**374.514**	**5494696.401**	**311979.577**	**374.449**	**5494690.552**	**311940.227**	**374.574**
30-Nov-21	**5494762.012**	**312043.913**	**374.510**	**5494724.191**	**312032.099**	**374.358**	**5494700.539**	**312005.217**	**374.505**	**5494696.408**	**311979.576**	**374.441**	**5494690.561**	**311940.226**	**374.564**
31-Dec-21	**5494762.009**	**312043.911**	**374.504**	**NA**	**NA**	**NA**	**5494700.540**	**312005.214**	**374.494**	**5494696.411**	**311979.574**	**374.424**	**5494690.568**	**311940.225**	**374.549**

	Lynx21-06			Lynx21-07			Lynx21-08			Lynx21-09			Lynx21-10		
	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
16-Sep-20	**5494694.226**	**311942.220**	**369.621**	**5494689.418**	**311913.741**	**369.659**	**5494685.242**	**311884.274**	**369.602**	**5494679.188**	**311846.867**	**369.730**	**5494677.234**	**311830.002**	**369.525**
8-Oct-20	**5494694.244**	**311942.221**	**369.602**	**5494689.427**	**311913.743**	**369.647**	**5494685.254**	**311884.272**	**369.586**	**5494679.202**	**311846.860**	**369.714**	**5494677.261**	**311830.007**	**369.490**
10-Nov-20	**5494694.269**	**311942.220**	**369.584**	**5494689.432**	**311913.745**	**369.636**	**5494685.265**	**311884.273**	**369.572**	**5494679.209**	**311846.860**	**369.701**	**5494677.268**	**311830.007**	**369.473**
6-Dec-20	**5494694.281**	**311942.220**	**369.565**	**5494689.433**	**311913.745**	**369.623**	**5494685.268**	**311884.272**	**369.558**	**5494679.213**	**311846.860**	**369.685**	**5494677.271**	**311830.008**	**369.457**
12-Jan-21	**5494694.303**	**311942.222**	**369.557**	**5494689.438**	**311913.746**	**369.624**	**5494685.275**	**311884.272**	**369.557**	**5494679.221**	**311846.857**	**369.681**	**5494677.279**	**311830.005**	**369.453**
18-Feb-21	**5494694.306**	**311942.219**	**369.551**	**5494689.438**	**311913.747**	**369.621**	**5494685.278**	**311884.272**	**369.554**	**5494679.224**	**311846.853**	**369.679**	**5494677.281**	**311830.003**	**369.447**
18-Apr-21	**5494694.331**	**311942.225**	**369.595**	**5494689.460**	**311913.751**	**369.668**	**5494685.299**	**311884.275**	**369.601**	**5494679.244**	**311846.858**	**369.724**	**5494677.298**	**311830.008**	**369.493**
29-Apr-21	**5494694.331**	**311942.222**	**369.593**	**5494689.459**	**311913.752**	**369.667**	**5494685.298**	**311884.274**	**369.599**	**5494679.244**	**311846.858**	**369.724**	**5494677.298**	**311830.007**	**369.491**
6-May-21	**5494694.331**	**311942.227**	**369.593**	**5494689.459**	**311913.754**	**369.666**	**5494685.298**	**311884.273**	**369.597**	**5494679.244**	**311846.856**	**369.722**	**5494677.298**	**311830.005**	**369.489**
13-May-21	**5494694.333**	**311942.225**	**369.591**	**5494689.460**	**311913.752**	**369.665**	**5494685.300**	**311884.274**	**369.596**	**5494679.246**	**311846.856**	**369.720**	**5494677.299**	**311830.005**	**369.487**
20-May-21	**5494694.331**	**311942.226**	**369.590**	**5494689.459**	**311913.752**	**369.663**	**5494685.301**	**311884.272**	**369.597**	**5494679.247**	**311846.855**	**369.719**	**5494677.301**	**311830.003**	**369.486**
27-May-21	**5494694.324**	**311942.229**	**369.585**	**5494689.452**	**311913.755**	**369.659**	**5494685.294**	**311884.274**	**369.591**	**5494679.240**	**311846.856**	**369.713**	**5494677.295**	**311830.006**	**369.480**
3-Jun-21	**5494694.324**	**311942.227**	**369.582**	**5494689.453**	**311913.753**	**369.659**	**5494685.296**	**311884.271**	**369.591**	**5494679.243**	**311846.853**	**369.712**	**5494677.297**	**311830.002**	**369.479**
19-Jun-21	**5494694.322**	**311942.230**	**369.578**	**5494689.449**	**311913.756**	**369.655**	**5494685.294**	**311884.274**	**369.587**	**5494679.241**	**311846.854**	**369.706**	**5494677.294**	**311830.003**	**369.472**
26-Jun-21	**5494694.323**	**311942.231**	**369.578**	**5494689.450**	**311913.757**	**369.656**	**5494685.296**	**311884.276**	**369.588**	**5494679.243**	**311846.857**	**369.707**	**5494677.296**	**311830.006**	**369.473**
3-Jul-21	**5494694.321**	**311942.231**	**369.575**	**5494689.447**	**311913.756**	**369.653**	**5494685.294**	**311884.274**	**369.586**	**5494679.241**	**311846.854**	**369.703**	**5494677.295**	**311830.005**	**369.469**
10-Jul-21	**5494694.325**	**311942.231**	**369.572**	**5494689.451**	**311913.757**	**369.650**	**5494685.300**	**311884.274**	**369.581**	**5494679.249**	**311846.853**	**369.697**	**5494677.301**	**311830.004**	**369.463**
17-Jul-21	**5494694.323**	**311942.232**	**369.563**	**5494689.450**	**311913.756**	**369.643**	**5494685.300**	**311884.273**	**369.573**	**5494679.249**	**311846.853**	**369.689**	**5494677.300**	**311830.004**	**369.453**
23-Jul-21	**5494694.324**	**311942.233**	**369.554**	**5494689.449**	**311913.757**	**369.634**	**5494685.302**	**311884.274**	**369.563**	**5494679.254**	**311846.852**	**369.676**	**5494677.305**	**311830.004**	**369.439**
29-Jul-21	**5494694.326**	**311942.229**	**369.553**	**5494689.450**	**311913.755**	**369.633**	**5494685.306**	**311884.272**	**369.563**	**5494679.259**	**311846.852**	**369.676**	**5494677.309**	**311830.003**	**369.437**
15-Sep-21	**5494683.792**	**311900.382**	**374.650**	**5494677.565**	**311861.215**	**374.693**	**5494671.234**	**311822.629**	**374.632**	**5494665.674**	**311787.101**	**374.771**	**5494669.642**	**311745.276**	**374.675**
21-Sep-21	**5494683.794**	**311900.380**	**374.644**	**5494677.569**	**311861.214**	**374.687**	**5494671.235**	**311822.628**	**374.626**	**5494665.675**	**311787.100**	**374.765**	**5494669.642**	**311745.275**	**374.668**
29-Sep-21	**5494683.798**	**311900.380**	**374.637**	**5494677.573**	**311861.214**	**374.678**	**5494671.239**	**311822.628**	**374.617**	**5494665.677**	**311787.100**	**374.758**	**5494669.645**	**311745.276**	**374.662**
8-Oct-21	**5494683.802**	**311900.377**	**374.635**	**5494677.578**	**311861.213**	**374.675**	**5494671.242**	**311822.627**	**374.615**	**5494665.681**	**311787.099**	**374.754**	**5494669.646**	**311745.277**	**374.659**
16-Oct-21	**5494683.806**	**311900.377**	**374.630**	**5494677.581**	**311861.212**	**374.672**	**5494671.247**	**311822.627**	**374.612**	**5494665.686**	**311787.101**	**374.752**	**5494669.651**	**311745.277**	**374.656**
27-Oct-21	**5494683.806**	**311900.381**	**374.627**	**5494677.582**	**311861.214**	**374.669**	**5494671.246**	**311822.629**	**374.607**	**5494665.685**	**311787.104**	**374.748**	**5494669.648**	**311745.281**	**374.652**
5-Nov-21	**5494683.811**	**311900.378**	**374.621**	**5494677.587**	**311861.211**	**374.663**	**5494671.252**	**311822.629**	**374.601**	**5494665.690**	**311787.103**	**374.744**	**5494669.648**	**311745.281**	**374.652**
12-Nov-21	**5494683.817**	**311900.376**	**374.620**	**5494677.593**	**311861.211**	**374.662**	**5494671.257**	**311822.629**	**374.601**	**5494665.695**	**311787.102**	**374.744**	**5494669.656**	**311745.282**	**374.649**
30-Nov-21	**5494683.826**	**311900.374**	**374.609**	**5494677.601**	**311861.215**	**374.653**	**5494671.262**	**311822.632**	**374.595**	**5494665.699**	**311787.104**	**374.737**	**5494669.662**	**311745.281**	**374.639**
31-Dec-21	**5494683.833**	**311900.373**	**374.595**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**5494665.704**	**311787.103**	**374.721**	**5494669.661**	**311745.285**	**374.624**

	Lynx21-11			Lynx21-12			Lynx21-13			Lynx21-14		
	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
16-Sep-20	**5494668.434**	**311772.749**	**369.662**	**5494682.176**	**311732.503**	**369.765**	**5494724.040**	**311709.770**	**369.737**	**5494773.385**	**311686.335**	**369.680**
8-Oct-20	**5494668.438**	**311772.748**	**369.651**	**5494682.182**	**311732.518**	**369.752**	**5494724.046**	**311709.796**	**369.723**	**5494773.397**	**311686.361**	**369.656**
10-Nov-20	**5494668.452**	**311772.753**	**369.639**	**5494682.186**	**311732.524**	**369.741**	**5494724.049**	**311709.808**	**369.702**	**5494773.404**	**311686.385**	**369.636**
6-Dec-20	**5494668.466**	**311772.756**	**369.622**	**5494682.188**	**311732.528**	**369.727**	**5494724.049**	**311709.812**	**369.689**	**5494773.406**	**311686.392**	**369.618**
12-Jan-21	**5494668.478**	**311772.758**	**369.622**	**5494682.199**	**311732.548**	**369.727**	**5494724.054**	**311709.821**	**369.689**	**5494773.413**	**311686.410**	**369.617**
18-Feb-21	**5494668.483**	**311772.757**	**369.620**	**5494682.201**	**311732.549**	**369.727**	**5494724.054**	**311709.828**	**369.688**	**5494773.265**	**311686.416**	**369.602**
18-Apr-21	**5494668.498**	**311772.762**	**369.672**	**5494682.213**	**311732.559**	**369.781**	**5494724.067**	**311709.838**	**369.743**	**5494773.284**	**311686.438**	**369.655**
29-Apr-21	**5494668.498**	**311772.761**	**369.671**	**5494682.211**	**311732.559**	**369.778**	**5494724.065**	**311709.837**	**369.741**	**5494773.283**	**311686.442**	**369.651**
6-May-21	**5494668.501**	**311772.759**	**369.670**	**5494682.212**	**311732.557**	**369.776**	**5494724.065**	**311709.835**	**369.739**	**5494773.284**	**311686.442**	**369.649**
13-May-21	**5494668.503**	**311772.757**	**369.668**	**5494682.214**	**311732.560**	**369.775**	**5494724.067**	**311709.837**	**369.738**	**5494773.288**	**311686.449**	**369.648**
20-May-21	**5494668.503**	**311772.757**	**369.668**	**5494682.215**	**311732.559**	**369.773**	**5494724.066**	**311709.836**	**369.739**	**5494773.291**	**311686.453**	**369.649**
27-May-21	**5494668.506**	**311772.755**	**369.666**	**5494682.212**	**311732.554**	**369.770**	**5494724.057**	**311709.834**	**369.735**	**5494773.285**	**311686.454**	**369.644**
3-Jun-21	**5494668.500**	**311772.758**	**369.662**	**5494682.207**	**311732.555**	**369.766**	**5494724.059**	**311709.834**	**369.735**	**5494773.290**	**311686.457**	**369.644**
19-Jun-21	**5494668.498**	**311772.757**	**369.657**	**5494682.205**	**311732.554**	**369.761**	**5494724.057**	**311709.833**	**369.734**	**5494773.292**	**311686.463**	**369.642**
26-Jun-21	**5494668.501**	**311772.760**	**369.660**	**5494682.206**	**311732.557**	**369.766**	**5494724.057**	**311709.837**	**369.737**	**5494773.291**	**311686.469**	**369.648**
3-Jul-21	**5494668.499**	**311772.759**	**369.656**	**5494682.205**	**311732.556**	**369.759**	**5494724.056**	**311709.835**	**369.733**	**5494773.292**	**311686.467**	**369.642**
10-Jul-21	**5494668.509**	**311772.760**	**369.652**	**5494682.212**	**311732.557**	**369.755**	**5494724.061**	**311709.836**	**369.728**	**5494773.301**	**311686.482**	**369.638**
17-Jul-21	**5494668.507**	**311772.760**	**369.642**	**5494682.210**	**311732.559**	**369.748**	**5494724.058**	**311709.837**	**369.723**	**5494773.303**	**311686.489**	**369.628**
23-Jul-21	**5494668.517**	**311772.760**	**369.631**	**5494682.214**	**311732.564**	**369.731**	**5494724.056**	**311709.840**	**369.708**	**5494773.306**	**311686.501**	**369.612**
29-Jul-21	**5494668.523**	**311772.759**	**369.628**	**5494682.215**	**311732.568**	**369.732**	**5494724.059**	**311709.842**	**369.710**	**5494773.316**	**311686.513**	**369.609**

Notes:
1 - Surveys provided by Mifflin Surveys in November 2021.
2 - The combined measurement error (total of instrument, human and network) for the LynxTDF monument survey is approximately 2 mm and 4 mm for horizontal and vertical displacement, respectively.
3 - Values in table are reported in meters.
4 - Green shading indicates monument was placed, replaced, or re-set on that date. Displacement after that date is calculated with repect to the survey reading on the replacement date.
5 - 'NA' indicates no survey data available for that date.
6 - Bold numbers indicate upstream monument location on dam, regular numbers indicate downstrream location on dam

Table 2: Lynx TDF - Monument Monitoring Summary - Cumulative Displacement (Change from Initial Location)

	Lynx21-01					Lynx21-02				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct-20	0.3	346.6	-0.2	0.3	-0.5	0.4	281.3	-0.4	0.0	-0.6
10-Nov-20	0.4	327.1	-0.3	0.3	-0.6	0.7	256.6	-0.6	-0.4	-1.0
6-Dec-20	0.3	327.0	-0.2	0.2	-1.3	0.9	246.9	-0.7	-0.6	-1.9
12-Jan-21	0.3	310.5	-0.3	0.1	-0.8	1.0	243.6	-0.7	-0.7	-1.6
18-Feb-21	0.3	310.5	-0.3	0.1	-0.8	1.5	242.8	-1.1	-1.1	-1.7
18-Apr-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Apr-21	0.8	284.0	-0.8	-0.1	-0.1	0.4	213.7	-0.1	-0.3	-0.1
6-May-21	0.9	270.0	-0.9	-0.3	-0.1	0.2	116.6	0.2	0.0	-0.1
13-May-21	1.0	275.7	-1.0	-0.2	-0.1	0.1	180.0	0.0	-0.1	-0.1
20-May-21	1.1	275.2	-1.1	-0.2	-0.2	0.3	198.4	0.0	-0.3	-0.2
27-May-21	0.8	270.0	-0.8	-0.2	-0.3	0.4	213.7	-0.1	-0.3	-0.4
3-Jun-21	1.0	264.3	-0.9	-0.4	-0.2	0.4	194.0	0.0	-0.4	-0.3
19-Jun-21	1.0	264.3	-0.9	-0.4	-0.2	0.7	180.0	0.2	-0.7	-0.6
26-Jun-21	1.1	264.8	-1.0	-0.4	-0.1	0.7	195.9	0.0	-0.7	-0.5
3-Jul-21	0.9	270.0	-0.9	-0.3	-0.1	0.8	180.0	0.2	-0.8	-0.6
10-Jul-21	1.1	270.0	-1.0	-0.3	-0.2	0.8	194.0	0.1	-0.8	-0.8
17-Jul-21	1.1	264.8	-1.0	-0.4	-0.8	1.0	196.7	0.0	-1.0	-1.6
23-Jul-21	1.0	258.7	-0.9	-0.5	-1.4	1.1	195.3	0.0	-1.1	-2.3
29-Jul-21	1.1	254.7	-1.0	-0.6	-1.3	1.2	215.0	-0.4	-1.2	-2.3
15-Sep-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-Sep-21	0.1	196.7	0.0	-0.1	-0.1	0.1	145.0	0.1	-0.1	-0.4
29-Sep-21	0.2	188.5	0.0	-0.2	-0.5	0.3	246.5	-0.2	-0.2	-1.0
8-Oct-21	0.5	209.9	-0.1	-0.5	-0.5	0.7	233.0	-0.4	-0.5	-1.0
16-Oct-21	0.4	217.5	-0.1	-0.4	-0.6	0.7	252.4	-0.5	-0.4	-1.4
27-Oct-21	0.2	213.0	-0.1	-0.2	-0.8	0.4	238.8	-0.3	-0.3	-1.6
5-Nov-21	0.4	217.5	-0.1	-0.4	-0.8	0.8	254.7	-0.6	-0.4	-1.8
12-Nov-21	0.7	233.0	-0.4	-0.5	-0.8	1.2	250.5	-1.0	-0.7	-1.9
30-Nov-21	1.0	252.1	-0.8	-0.6	-1.1	1.5	258.2	-1.3	-0.7	0.0
31-Dec-21	1.3	242.0	-0.9	-0.9	-1.7	NA	NA	NA	NA	NA

	Lynx21-03					Lynx21-04				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct-20	0.7	238.1	-0.5	-0.5	-1.0	0.2	346.6	-0.1	0.2	-1.0
10-Nov-20	1.0	235.7	-0.6	-0.8	-1.7	0.4	353.7	-0.1	0.3	-1.9
6-Dec-20	1.0	230.0	-0.5	-0.8	-2.8	0.6	5.0	-0.1	0.6	-3.0
12-Jan-21	1.4	238.1	-0.9	-1.1	-2.8	0.8	343.2	-0.4	0.6	-2.9
18-Feb-21	2.2	251.8	-1.7	-1.3	-3.0	0.7	320.0	-0.6	0.4	-3.2
18-Apr-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Apr-21	0.4	225.0	-0.2	-0.4	-0.2	0.5	251.6	-0.4	-0.3	-0.2
6-May-21	0.2	116.6	0.2	0.0	-0.2	0.2	108.4	0.2	0.0	-0.2
13-May-21	0.1	270.0	-0.1	0.0	-0.3	0.1	225.0	0.0	-0.1	-0.4
20-May-21	0.4	256.0	-0.4	-0.2	-0.5	0.1	225.0	0.0	-0.1	-0.5
27-May-21	0.7	213.7	-0.2	-0.7	-0.8	0.8	168.7	0.4	-0.7	-1.2
3-Jun-21	0.8	219.8	-0.3	-0.7	-0.8	1.1	182.7	0.3	-1.0	-1.4
19-Jun-21	1.2	189.5	0.2	-1.2	-1.5	1.3	168.7	0.6	-1.1	-1.9
26-Jun-21	1.1	201.8	-0.1	-1.1	-1.5	1.1	161.6	0.7	-0.9	-1.9
3-Jul-21	1.4	197.1	0.0	-1.4	-1.9	1.4	161.6	0.8	-1.2	-2.4
10-Jul-21	1.3	212.5	-0.3	-1.3	-2.1	1.2	167.7	0.6	-1.0	-2.6
17-Jul-21	1.6	209.7	-0.3	-1.6	-2.9	1.4	169.5	0.6	-1.2	-3.4
23-Jul-21	1.4	213.7	-0.4	-1.4	-3.9	1.3	160.2	0.8	-1.1	-4.5
29-Jul-21	1.8	222.7	-0.7	-1.6	-3.9	1.3	168.7	0.6	-1.1	-4.3
15-Sep-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-Sep-21	0.2	340.7	-0.1	0.2	-0.5	0.2	0.0	-0.1	0.2	-0.6
29-Sep-21	0.3	330.5	-0.3	0.2	-1.3	0.5	348.7	-0.2	0.4	-1.2
8-Oct-21	0.6	323.5	-0.5	0.4	-1.4	0.9	324.5	-0.7	0.5	-1.5
16-Oct-21	1.0	332.4	-0.7	0.7	-1.7	1.3	341.6	-0.7	1.0	-1.9
27-Oct-21	1.0	350.4	-0.5	0.9	-2.3	1.7	353.3	-0.7	1.6	-2.5
5-Nov-21	1.3	342.9	-0.7	1.0	-2.7	2.0	348.7	-1.0	1.8	-2.9
12-Nov-21	1.3	334.6	-0.9	1.0	-2.7	2.3	344.7	-1.2	1.9	-3.0
30-Nov-21	1.8	341.5	-1.1	1.4	-3.6	3.0	346.4	-1.5	2.6	-3.8
31-Dec-21	2.0	334.2	-1.4	1.5	-4.7	3.3	344.3	-1.8	2.8	-5.5

	Lynx21-05					Lynx21-06				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct-20	0.3	341.8	-0.3	0.0	-1.9	1.9	3.9	-1.8	0.4	-1.9
10-Nov-20	1.2	329.9	-1.1	-0.4	-3.9	4.4	359.9	-4.3	0.6	-3.7
6-Dec-20	1.7	326.9	-1.5	-0.7	-5.9	5.6	0.3	-5.5	0.8	-5.6
12-Jan-21	2.3	327.6	-2.1	-0.9	-6.4	7.8	1.1	-7.7	1.3	-6.4
18-Feb-21	2.6	328.9	-2.4	-1.0	-7.2	8.1	359.2	-8.0	1.1	-7.0
18-Apr-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Apr-21	0.2	0.0	-0.2	0.0	-0.5	0.3	270.0	0.0	-0.3	-0.2
6-May-21	0.3	0.0	-0.3	0.0	-0.5	0.2	90.0	0.0	0.2	-0.2
13-May-21	0.4	0.0	-0.4	0.1	-0.6	0.2	0.0	-0.2	0.0	-0.4
20-May-21	0.4	346.0	-0.4	0.0	-0.9	0.1	90.0	0.0	0.1	-0.5
27-May-21	0.1	135.0	0.1	0.1	-1.7	0.8	150.3	0.8	0.3	-1.0
3-Jun-21	0.1	225.0	0.1	-0.1	-1.9	0.7	164.1	0.7	0.1	-1.3
19-Jun-21	0.2	153.4	0.2	0.1	-2.5	1.0	150.9	1.0	0.4	-1.7
26-Jun-21	0.1	90.0	0.0	0.1	-2.5	1.0	143.1	0.9	0.5	-1.7
3-Jul-21	0.2	153.4	0.2	0.1	-2.8	1.2	149.0	1.1	0.4	-2.0
10-Jul-21	0.8	352.9	-0.8	0.0	-3.3	0.8	135.0	0.7	0.5	-2.3
17-Jul-21	0.9	339.4	-0.8	-0.2	-4.2	1.1	138.8	0.9	0.6	-3.2
23-Jul-21	1.3	347.0	-1.3	-0.1	-5.2	1.1	131.2	0.8	0.7	-4.1
29-Jul-21	2.0	339.8	-2.0	-0.4	-5.3	0.6	141.3	0.6	0.3	-4.2
15-Sep-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-Sep-21	0.3	319.6	-0.2	-0.1	-0.7	0.3	319.6	-0.2	-0.1	-0.6
29-Sep-21	0.6	353.3	-0.6	0.0	-1.4	0.6	344.2	-0.6	-0.1	-1.3
8-Oct-21	1.1	334.8	-1.1	-0.3	-1.8	1.1	334.8	-1.1	-0.3	-1.5
16-Oct-21	1.5	349.8	-1.5	-0.1	-2.1	1.5	341.4	-1.5	-0.3	-2.0
27-Oct-21	1.9	3.9	-1.9	0.4	-2.6	1.4	357.1	-1.4	0.1	-2.3
5-Nov-21	2.4	355.9	-2.4	0.2	-3.0	1.9	349.0	-1.9	-0.1	-2.9
12-Nov-21	2.7	356.4	-2.7	0.2	-3.2	2.6	347.2	-2.6	-0.2	-3.0
30-Nov-21	3.6	355.7	-3.6	0.3	-4.2	3.5	347.2	-3.5	-0.3	-4.1
31-Dec-21	4.3	355.1	-4.3	0.3	-5.7	4.2	348.0	-4.2	-0.3	-5.5

	Lynx21-07					Lynx21-08				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct-20	1.0	13.5	-0.9	0.4	-1.2	1.2	347.7	-1.2	-0.1	-1.6
10-Nov-20	1.5	18.8	-1.3	0.7	-2.3	2.2	357.7	-2.2	0.2	-3.0
6-Dec-20	1.5	15.6	-1.4	0.6	-3.6	2.5	355.3	-2.5	0.2	-4.4
12-Jan-21	2.0	15.0	-1.9	0.8	-3.5	3.3	356.4	-3.3	0.3	-4.5
18-Feb-21	2.1	16.6	-1.9	0.9	-3.8	3.5	355.7	-3.5	0.2	-4.8
18-Apr-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Apr-21	0.1	135.0	0.1	0.1	-0.1	0.1	225.0	0.1	-0.1	-0.2
6-May-21	0.3	108.4	0.1	0.3	-0.2	0.2	243.4	0.1	-0.2	-0.4
13-May-21	0.1	90.0	0.0	0.1	-0.3	0.1	315.0	-0.1	-0.1	-0.5
20-May-21	0.1	135.0	0.1	0.1	-0.5	0.4	303.7	-0.2	-0.3	-0.4
27-May-21	0.9	153.4	0.8	0.3	-0.9	0.5	191.3	0.5	-0.2	-1.0
3-Jun-21	0.7	164.1	0.7	0.1	-0.9	0.5	233.1	0.2	-0.4	-1.0
19-Jun-21	1.2	155.6	1.2	0.3	-1.3	0.5	191.3	0.5	-0.2	-1.4
26-Jun-21	1.2	149.0	1.1	0.4	-1.2	0.3	161.6	0.3	0.1	-1.3
3-Jul-21	1.4	159.0	1.4	0.3	-1.5	0.5	191.3	0.5	-0.2	-1.5
10-Jul-21	1.1	146.3	1.0	0.5	-1.8	0.1	315.0	-0.1	-0.1	-2.0
17-Jul-21	1.1	153.4	1.1	0.4	-2.5	0.2	296.6	-0.1	-0.2	-2.8
23-Jul-21	1.3	151.4	1.2	0.4	-3.4	0.3	341.6	-0.3	-0.1	-3.8
29-Jul-21	1.1	158.2	1.0	0.3	-3.5	0.8	336.8	-0.7	-0.2	-3.8
15-Sep-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-Sep-21	0.4	350.1	-0.4	0.0	-0.6	0.1	325.0	-0.1	-0.1	-0.6
29-Sep-21	0.8	355.0	-0.8	0.0	-1.5	0.5	352.0	-0.5	0.0	-1.5
8-Oct-21	1.3	352.5	-1.3	0.0	-1.8	0.8	348.0	-0.8	-0.1	-1.7
16-Oct-21	1.6	350.4	-1.6	0.0	-2.1	1.3	352.5	-1.3	0.0	-2.0
27-Oct-21	1.7	357.6	-1.7	0.2	-2.4	1.2	1.4	-1.2	0.2	-2.5
5-Nov-21	2.2	350.5	-2.2	0.0	-3.0	1.8	1.0	-1.8	0.3	-3.1
12-Nov-21	2.8	352.5	-2.8	0.0	-3.1	2.3	0.7	-2.3	0.4	-3.1
30-Nov-21	3.6	0.5	-3.6	0.5	-4.0	2.8	6.7	-2.7	0.7	-3.7
31-Dec-21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

	Lynx21-09					Lynx21-10				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	**1.6**	**334.0**	**-1.6**	**-0.5**	**-1.6**	**2.7**	**9.0**	**-2.6**	**0.8**	**-3.5**
10-Nov-20	**2.3**	**343.2**	**-2.3**	**-0.3**	**-2.9**	**3.4**	**7.0**	**-3.3**	**0.9**	**-5.2**
6-Dec-20	**2.6**	**344.6**	**-2.6**	**-0.3**	**-4.5**	**3.7**	**7.9**	**-3.6**	**1.0**	**-6.8**
12-Jan-21	**3.5**	**343.6**	**-3.5**	**-0.5**	**-4.9**	**4.4**	**3.8**	**-4.3**	**0.9**	**-7.2**
18-Feb-21	**3.9**	**339.4**	**-3.8**	**-0.8**	**-5.1**	**4.7**	**1.2**	**-4.6**	**0.8**	**-7.8**
18-Apr-21	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
29-Apr-21	**0.0**	**#DIV/0!**	**0.0**	**0.0**	**0.0**	**0.1**	**296.6**	**-0.1**	**-0.1**	**-0.2**
6-May-21	**0.2**	**270.0**	**0.0**	**-0.2**	**-0.2**	**0.3**	**279.5**	**-0.1**	**-0.3**	**-0.4**
13-May-21	**0.3**	**315.0**	**-0.2**	**-0.2**	**-0.4**	**0.3**	**296.6**	**-0.2**	**-0.3**	**-0.6**
20-May-21	**0.4**	**315.0**	**-0.3**	**-0.3**	**-0.5**	**0.6**	**305.0**	**-0.4**	**-0.4**	**-0.7**
27-May-21	**0.4**	**206.6**	**0.4**	**-0.3**	**-1.1**	**0.3**	**218.7**	**0.2**	**-0.2**	**-1.3**
3-Jun-21	**0.5**	**258.7**	**0.0**	**-0.5**	**-1.2**	**0.6**	**265.2**	**0.0**	**-0.6**	**-1.4**
19-Jun-21	**0.5**	**233.1**	**0.2**	**-0.4**	**-1.8**	**0.6**	**235.0**	**0.3**	**-0.5**	**-2.1**
26-Jun-21	**0.1**	**225.0**	**0.1**	**-0.1**	**-1.7**	**0.3**	**233.1**	**0.1**	**-0.2**	**-2.0**
3-Jul-21	**0.5**	**233.1**	**0.2**	**-0.4**	**-2.1**	**0.4**	**230.2**	**0.2**	**-0.3**	**-2.4**
10-Jul-21	**0.7**	**315.0**	**-0.6**	**-0.4**	**-2.7**	**0.5**	**311.2**	**-0.4**	**-0.3**	**-3.0**
17-Jul-21	**0.7**	**315.0**	**-0.6**	**-0.4**	**-3.5**	**0.5**	**302.0**	**-0.3**	**-0.4**	**-4.0**
23-Jul-21	**1.2**	**329.0**	**-1.1**	**-0.4**	**-4.8**	**0.8**	**331.9**	**-0.8**	**-0.3**	**-5.4**
29-Jul-21	**1.6**	**338.2**	**-1.6**	**-0.4**	**-4.8**	**1.3**	**336.5**	**-1.2**	**-0.3**	**-5.6**
15-Sep-21	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
21-Sep-21	**0.1**	**325.0**	**-0.1**	**-0.1**	**-0.6**	**0.1**	**251.6**	**0.0**	**-0.1**	**-0.7**
29-Sep-21	**0.3**	**346.9**	**-0.3**	**0.0**	**-1.3**	**0.3**	**0.0**	**-0.3**	**0.0**	**-1.3**
8-Oct-21	**0.7**	**346.3**	**-0.7**	**-0.1**	**-1.7**	**0.4**	**15.3**	**-0.3**	**0.2**	**-1.6**
16-Oct-21	**1.2**	**1.4**	**-1.2**	**0.2**	**-1.9**	**0.9**	**6.6**	**-0.8**	**0.2**	**-1.9**
27-Oct-21	**1.1**	**16.7**	**-1.0**	**0.5**	**-2.3**	**0.8**	**41.4**	**-0.5**	**0.6**	**-2.3**
5-Nov-21	**1.6**	**8.2**	**-1.6**	**0.5**	**-2.7**	**0.8**	**41.4**	**-0.5**	**0.6**	**-2.3**
12-Nov-21	**2.1**	**3.5**	**-2.1**	**0.4**	**-2.7**	**1.5**	**23.7**	**-1.3**	**0.8**	**-2.6**
30-Nov-21	**2.5**	**7.5**	**-2.4**	**0.7**	**-3.4**	**2.0**	**14.3**	**-1.9**	**0.8**	**-3.6**
31-Dec-21	**3.0**	**4.4**	**-2.9**	**0.7**	**-5.0**	**2.1**	**25.7**	**-1.7**	**1.2**	**-5.1**

	Lynx21-11					Lynx21-12				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	**0.4**	**334.0**	**-0.3**	**-0.3**	**-1.1**	**1.6**	**67.7**	**-1.6**	**0.1**	**-1.3**
10-Nov-20	**1.8**	**11.8**	**-1.8**	**-0.1**	**-2.3**	**2.3**	**64.8**	**-2.3**	**0.0**	**-2.4**
6-Dec-20	**3.3**	**12.4**	**-3.3**	**-0.2**	**-4.0**	**2.8**	**64.7**	**-2.8**	**0.0**	**-3.8**
12-Jan-21	**4.5**	**11.3**	**-4.5**	**-0.3**	**-4.0**	**5.1**	**62.5**	**-5.1**	**-0.1**	**-3.8**
18-Feb-21	**4.9**	**9.1**	**-4.9**	**-0.6**	**-4.2**	**5.3**	**62.0**	**-5.3**	**-0.2**	**-3.8**
18-Apr-21	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
29-Apr-21	**0.1**	**270.0**	**0.0**	**-0.1**	**-0.1**	**0.2**	**180.0**	**0.1**	**0.2**	**-0.3**
6-May-21	**0.4**	**315.0**	**-0.2**	**-0.4**	**-0.2**	**0.2**	**243.4**	**0.2**	**0.0**	**-0.5**
13-May-21	**0.7**	**315.0**	**-0.3**	**-0.6**	**-0.4**	**0.1**	**45.0**	**-0.1**	**0.0**	**-0.6**
20-May-21	**0.7**	**315.0**	**-0.3**	**-0.6**	**-0.4**	**0.2**	**0.0**	**-0.1**	**-0.2**	**-0.8**
27-May-21	**1.1**	**318.8**	**-0.6**	**-0.9**	**-0.6**	**0.5**	**258.7**	**0.5**	**-0.1**	**-1.1**
3-Jun-21	**0.4**	**296.6**	**-0.1**	**-0.4**	**-1.0**	**0.7**	**213.7**	**0.6**	**0.4**	**-1.5**
19-Jun-21	**0.5**	**270.0**	**0.1**	**-0.5**	**-1.5**	**0.9**	**212.0**	**0.8**	**0.5**	**-2.0**
26-Jun-21	**0.4**	**326.3**	**-0.2**	**-0.3**	**-1.2**	**0.7**	**195.9**	**0.5**	**0.5**	**-1.5**
3-Jul-21	**0.3**	**288.4**	**0.0**	**-0.3**	**-1.6**	**0.9**	**200.6**	**0.6**	**0.6**	**-2.2**
10-Jul-21	**1.1**	**349.7**	**-1.0**	**-0.5**	**-2.0**	**0.2**	**243.4**	**0.2**	**0.0**	**-2.6**
17-Jul-21	**0.9**	**347.5**	**-0.8**	**-0.4**	**-3.0**	**0.3**	**180.0**	**0.1**	**0.3**	**-3.3**
23-Jul-21	**1.9**	**354.0**	**-1.8**	**-0.7**	**-4.1**	**0.5**	**78.7**	**-0.5**	**0.1**	**-5.0**
29-Jul-21	**2.5**	**353.2**	**-2.3**	**-1.0**	**-4.4**	**0.9**	**77.5**	**-0.9**	**0.2**	**-4.9**

	Lynx21-13					Lynx21-14				
	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)	Magnitude (cm)	Direction 2 (deg)	Transverse[3] (cm)	Longitudinal[4] (cm)	Vertical[5] (cm)
16-Sep-20	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
8-Oct-20	**2.7**	**76.9**	**-2.6**	**0.6**	**-1.4**	**2.9**	**66.0**	**-2.9**	**0.1**	**-2.4**
10-Nov-20	**3.9**	**76.1**	**-3.8**	**0.8**	**-3.5**	**5.3**	**69.8**	**-5.3**	**0.5**	**-4.4**
6-Dec-20	**4.3**	**78.0**	**-4.1**	**1.0**	**-4.8**	**6.1**	**70.2**	**-6.0**	**0.7**	**-6.2**
12-Jan-21	**5.2**	**74.8**	**-5.2**	**1.0**	**-4.8**	**8.1**	**69.6**	**-8.0**	**0.8**	**-6.3**
18-Feb-21	**6.0**	**75.9**	**-5.8**	**1.2**	**-4.9**	**14.6**	**145.9**	**-2.1**	**14.4**	**-7.8**
18-Apr-21	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
29-Apr-21	**0.2**	**206.6**	**0.2**	**0.1**	**-0.2**	**0.4**	**97.1**	**-0.3**	**0.2**	**-0.4**
6-May-21	**0.4**	**236.3**	**0.4**	**0.0**	**-0.4**	**0.4**	**82.9**	**-0.4**	**0.1**	**-0.6**
13-May-21	**0.1**	**270.0**	**0.1**	**0.0**	**-0.5**	**1.2**	**67.8**	**-1.2**	**0.1**	**-0.7**
20-May-21	**0.2**	**243.4**	**0.2**	**0.0**	**-0.4**	**1.7**	**63.4**	**-1.7**	**0.0**	**-0.6**
27-May-21	**1.1**	**201.8**	**0.8**	**0.7**	**-0.8**	**1.6**	**84.6**	**-1.5**	**0.6**	**-1.1**
3-Jun-21	**0.9**	**206.6**	**0.7**	**0.5**	**-0.8**	**2.0**	**71.1**	**-2.0**	**0.2**	**-1.1**
19-Jun-21	**1.1**	**206.6**	**0.9**	**0.7**	**-0.9**	**2.6**	**71.2**	**-2.6**	**0.3**	**-1.3**
26-Jun-21	**1.0**	**185.7**	**0.5**	**0.9**	**-0.6**	**3.2**	**76.4**	**-3.1**	**0.7**	**-0.7**
3-Jul-21	**1.1**	**195.3**	**0.8**	**0.9**	**-1.0**	**3.0**	**73.7**	**-3.0**	**0.5**	**-1.3**
10-Jul-21	**0.6**	**198.4**	**0.4**	**0.5**	**-1.5**	**4.7**	**68.3**	**-4.7**	**0.3**	**-1.7**
17-Jul-21	**0.9**	**186.3**	**0.5**	**0.8**	**-2.0**	**5.5**	**69.1**	**-5.4**	**0.5**	**-2.7**
23-Jul-21	**1.1**	**169.7**	**0.3**	**1.1**	**-3.5**	**6.7**	**70.3**	**-6.6**	**0.7**	**-4.3**
29-Jul-21	**0.9**	**153.4**	**0.0**	**0.9**	**-3.3**	**8.2**	**66.6**	**-8.2**	**0.4**	**-4.6**

Notes:
1 - The combined measurement error (total of instrument, human and network) for the LynxTDF monument survey is approximately 1.5 cm and 1.0 cm for horizontal and vertical displacement, respectively.
2 - Negative values are in the upstream direction, positive values are in the downward direction.
3 - Negative values are descending stations along dam centreline and positive values are for ascending stations.
4 - Green shading indicates monument was placed, replaced, or re-set on that date. Displacement after that date is calculated with repect to the initial survey reading on the replacement date.
5 - 'NA' indicates no survey data available for that date. Displacement values are based on changes from the last available readings.
6 - **Bold** numbers indicate upstream monument location on dam, regular numbers indicate downstream location on dam

Appendix C – MFM Inspection Reports

(Transmitted Separately)

Appendix D – Wood Inspections

(Transmitted Separately)

wood.

Appendix E – Old TDF VWP Threshold Memorandum

(Transmitted Separately)

wood.

Appendix F – All DSI Recommendations

(Transmitted Separately)

wood.