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October 24, 2025

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Re: Ekati Diamond Mine – 2024 Annual Water Licence and Environmental Agreement Report

Burgundy Diamond Mines Ltd. (Burgundy) is pleased to submit the attached *Revised 2024 Annual Water Licence and Environmental Agreement Report* (the Annual Report). This report was prepared in accordance with the annual reporting requirements of Part B Condition 10 and Schedule 1 Condition 1 of Water Licence W2022L2-0001 and Article 5 of the Environmental Agreement.

An initial version of the Annual Report was submitted on May 30, 2025, and subsequently reviewed by the Government of the Northwest Territories Department of Environment and Climate Change (GNWT-ECC), the Tłįchǫ Government, the Independent Environmental Monitoring Agency, and Environment and Climate Change Canada. Following this review, the Minister's Report dated August 11, 2025 identified deficiencies. This revised version has been prepared to address the deficiencies and review recommendations outlined in that report. Burgundy's responses to the recommendations are provided in Attachment A.

Burgundy trusts that you will find this report to be clear and informative. Please contact Sheila Chernys, Head of Health, Safety, Environment, Communities & Training at sheila.chernys@burgundydiamonds.com or 403.618.8417 should you have any questions.

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Sincerely,

S. Chernys

Sheila Chernys
Head of Health, Safety, Environment, Communities & Training
Burgundy Diamond Mines Ltd.

Attachment A: Responses to Deficiencies and Comments on the 2024 Ekati Diamond Mine Annual Water Licence and Environmental Agreement Report

Responses to Deficiencies

Deficiency 1: Non-Compliance – Water Licence Limit Exceedance during Discharge

The Surveillance Network Program section of the Plain Language Summary Report (Summary Report) states that "Discharge points must meet the requirements in the Water Licence. If the water is above the limits, then the water cannot be pumped into lakes or used for road watering. All water samples met the requirements of the Water Licence before being discharged or used for road watering." (p. 15).

Not all water discharged in 2024 met the Water License limits; Burgundy Diamond Mines Ltd (Burgundy) reported two cases where effluent quality criteria (EQC) limits were exceeded. On August 1, 2024 Burgundy notified the Board that Total Aluminum had exceeded the Maximum Average Concentration in discharges from the King Pond Settling Facility (KPSF) into Cujo Lake. The other instance arose with the Spring Seepage Survey results, which identified exceedances for seven parameters at various locations: sulphate (2 stations), pH (1 station), TSS (2 stations), arsenic (6 stations), selenium (6 stations), iron (1 station), potassium (1 station). Of the ten locations sampled having exceedances, seven potentially flow into Receiving Waters as defined by the Water Licence and were reported as exceedances of the EQC.

Required Resolution:

To meet the intent of the Ekati Environmental Agreement (the Agreement), Conditions 5.1 (a)(i)[1], Conditions 5.1 (a)(iii)[2] and 5.1 (a)(v)[3], Burgundy should include these exceedance events in the Surveillance Network Program section of the Summary Report.

Outcome:

Exceedance events referenced in the deficiency have been included in the Surveillance Network Program section of the Summary Report

Deficiency 2: Aquatic Effects Monitoring Program – Elevated Selenium and Mercury Levels in Fish

The Aquatic Effects Monitoring Program (AEMP) section of the Annual Report notes increases in selenium and mercury in fish tissues. The Aquatic Response Framework (ARF) section identifies High Action Level exceedances for mercury and Medium Action Level exceedances for selenium in various lakes. It states that *"A Fish Response Plan is also already in place, this plan will be updated in 2025 to address the low Action Level exceedance for catch per unit effort and the medium and high Action Level exceedances for mercury and selenium in fish tissue."*

The changes in concentrations are substantial enough that the Agency feels further information should be provided in the Summary Report; notably that mercury in lake trout is above the ARF screening value of 0.28 mg/kg wwt in 90 to 100 % of fish sampled in the Koala watershed, and 73% in Cujo Lake. From

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47 – 75% of the samples are above the Health Canada consumption guideline of 0.500 mg/kg wwt in the Koala watershed. Round whitefish show lower but a not insignificant percentage containing high concentrations of mercury. Selenium concentrations are at levels which may impact reproductive success and population numbers.

Required Resolution:

The Summary Report should include further details on the implications of high mercury and selenium levels in fish tissues and identify mitigation measures required to address this.

Outcome:

Further details on the implications of high mercury and selenium levels in fish tissues and mitigations have been added to the Summary Report.

Deficiency 3: Air Quality Monitoring Program – Acid Deposition Evaluation

The Summary Report provides a reasonable description of the Air Quality Monitoring Program (AQMP) with respect to data collected for meteorological monitoring and air quality indicators, along with dustfall data and estimates for greenhouse gas emissions. However, the acid deposition results which are reported in connection with the dustfall monitoring has been omitted from the Summary report.

The Northwest Territories does not have an established critical load for acid deposition, and in the Annual Report Burgundy has provided provincial critical loads for comparison, while noting these terrestrial critical loads are not intended for tundra regions. The observed range of acid deposition levels did exceed the Alberta load standard, and the highest mean and median values are above 5th percentile critical soil loads for two of the eastern provinces. Adding context to the Summary Report for these observations would be useful, including a description of what potential effects and consequences could be associated with the acid deposition at these levels, and identifying any trends from past levels.

Required Resolution:

The Summary Report should include the acid deposition results and a description of the potential significance of the loadings.

Outcome:

Acid deposition results and potential significance have been added to the Summary Report.

Deficiency 4: Air Quality Monitoring Program – Stack Testing Results

Stack testing is done to evaluate the performance of an incinerator, by measuring various compounds in the emissions from the incinerator stack. Guidelines for mercury, dioxins and furans provide a yardstick to measure testing results against. Burgundy reported that stack testing was completed in 2013, 2016, and 2024 and all results were below the CCME guidelines for mercury and dioxins and furans. In addition, Burgundy reported the results suggested that complete combustion is being achieved in both

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incinerators. However, stack test results were not included with the Air Quality Monitoring Program Report, thereby omitting data that would have provided quantitative information on whether the incinerator management is effective.

Required Resolution:

A high-level reference to the stack test results being below CCME guidelines for mercury and dioxins and furans should be added to the Summary Report. Detailed incinerator stack testing results should be provided in the Annual Report or the 2024 AQMP report (Appendix A).

Outcome:

Stack test results have been added to both the Summary Report and the Annual Report.

Deficiency 5: Annual Report – Closure and Reclamation Planning – Section 3.5

Section 8.4 (b) of the Agreement requires that reclamation of the Ekati Mine shall be undertaken progressively during the life of the Project, to the extent feasible, given the mining methods employed. A progress report for the preceding year describing the ongoing reclamation of the Ekati Mine must be included in the Annual Report, as required by Section 8.1(b) of the Agreement.

The Annual Report contains information on the Closure and Reclamation Plan (Section 3.5 and Appendix H), but the information provided does not adequately convey all the supporting information related to compliance with Regulatory Instruments; results and findings of studies; and research or actions planned to address impacts or compliance problems. The closure and reclamation information presented in the Annual Report also does not adequately describe delays in progressive reclamation.

Required Resolution:

The Annual Report needs to be revised to include the following:

a) The Annual Report must identify all areas where mining has ceased, the status of progressive reclamation in those areas, reasons for any delays, and a timeline for starting reclamation work. Information about possible post-closure water quality risks associated with delays in progressive reclamation should also be presented, specifically for the Pigeon Waste Rock Storage Area. This information is needed to provide a clearer explanation about reclamation status at the Ekati Mine.

b) The Annual Report should describe Burgundy's progress and upcoming plans for advancing closure criteria, and the timeline for completing them.

c) The Annual Report should describe the status of each approved reclamation research plan, and identify any new research needs that have arisen since the Interim Closure and Reclamation Plan was last approved. The Annual Report should demonstrate that Burgundy can complete the

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research in time for the end of mine life, based on when the approved developments (Sable, Point Lake, Misery, etc.) will cease mining operations.

d) Section 6.4.6.1 discussed the implications of the referenced statement.

Outcome:

a) *Section 3: Mine Schedule* of *Appendix H* describes the status of all open pit developments and underground workings, including areas where mining has ceased. Section 6.3 has been added to provide details on the status of all mining developments and the progress of progressive reclamation activities, including explanations for any delays and timelines for initiating reclamation work.

b) Section 3.5.1 has been added to describe Burgundy's progress on closure advancement since the submission of ICRP Version 3.1, including current plans and the timeline for further development of closure criteria.

c) The status of each approved reclamation research plan is summarized in Section 6.4.

d) Section 6.4.6.1 discusses the implications of the referenced statement.

Deficiency 6: Annual Report – Compliance Reporting – Section 4.9 – Table 21

Table 21 lists the inspections conducted by ECC under the water licence and land use permits for the Ekati Mine. The list includes the date of the inspection, the permit/licence number, the area inspected and a link to the inspection report. Each link for the inspection report must be opened and reviewed to find out if the Inspector had any concerns. It would be useful to the reader if the table included a column noting if the Inspector noted any concerns during the inspection and how those concerns were resolved.

For instance, of the inspections listed in Table 21, the Inspector had concerns with two of the seven inspections and identified housekeeping issues during one inspection. It should be noted that the GNWT-ECC made a similar recommendation on the 2023 Annual Report. For that report the GNWT-ECC recommended that "Future Annual Reports should note if there were any unacceptable situations noted by the Inspector during the Inspector's visit and what Arctic did to resolve those concerns."

Required Resolution:

Table 21 should be revised to include a column that notes if the Inspector had any concerns during the inspection, what the concerns were, and how those concerns were resolved.

Outcome:

The table listing the inspections conducted by ECC under the water license and land use permits for Ekati has been updated to include the required column, noting the Inspector's concerns and how they were resolved by Burgundy.

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Deficiency 7: Annual Report – Traditional Knowledge – Section 7.2

Each Annual Report shall include the results of Burgundy's ongoing compliance with Section 11 of the Agreement, as dictated in Section 5.1(a) of the Agreement. Section 11.3 of the Agreement requires Burgundy to incorporate all available Traditional Knowledge in the Environmental Plans and Programs and give Traditional Knowledge full consideration as Environmental Plans and Programs are designed and revised. Information on how this requirement was implemented is missing from the Annual Report.

Section 7.2 of the Annual Report explains that there is a Traditional Knowledge Management Framework that outlines how Burgundy will collect, store, manage and use Traditional Knowledge in a respectful way but there is no discussion on how Traditional Knowledge influenced decision making or was incorporated into management plans that were created or modified in 2024. There is also no reference to the activities mentioned in the Traditional Knowledge Section of the Summary Report. Section 7.2 also directs the reader to Section 3.10 for a full list of Traditional Knowledge Projects and Traditional Knowledge Preservation Programs conducted in 2024. Section 3.10 of the Annual Report discusses the Engagement Plan and not Traditional Knowledge.

The GNWT-ECC has provided similar comments on previous annual reports, noting that future Annual Reports should describe if Traditional Knowledge was provided to the company and if so, how that Traditional Knowledge was incorporated into relevant management or monitoring plans.

Required Resolution:

The Annual Report should describe if Traditional Knowledge was provided to Burgundy in 2024 and how that Traditional Knowledge influenced decision making.

Outcome:

A description of the Traditional Knowledge provided to Burgundy in 2024 and how that knowledge influenced decision making has been added to the Annual Report.

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Responses to GNWT-ECC Comments

Comment 1: Plain Language Summary Report (Summary Report) – Table of contents

Reclamation Research and Land Disturbance reporting are placed under the Air Quality Monitoring and Climate heading. This is not a logical location for these topics

Recommendation 1:

Burgundy Diamond Mines Ltd. (Burgundy) should ensure that section headings in future reports properly reflect the content.

Burgundy Response 1:

Burgundy has updated the 2024 Summary Report headings to properly reflect the following content. Burgundy will ensure that section headings in future reports reflect the content correctly.

Comment 2: Summary Report – compliance reporting

Section 5.1(a)(i) of the Ekati Environmental Agreement (the Agreement) requires the Annual Report to contain compliance reports with respect to the Water License, the Surface Leases, the Land Use Permits and other Regulatory Instruments. The Summary Report does not mention if Burgundy was in compliance with regulatory instruments in 2024. A high-level summary of compliance should be included in the Plain Language Summary.

Recommendation 2:

Burgundy should ensure information on compliance with regulatory instruments is included in future Summary Reports.

Burgundy Response 2:

Burgundy will ensure to include information on compliance with regulatory instruments in future Summary Reports.

Comment 3: Annual Report - report formatting

Previous Annual Reports were organized based on reporting requirements under the type A water licence and reporting requirements under the Agreement. This structure made it easy to determine if reporting requirements were being achieved. The structure of the 2024 Annual Report is not as easy to follow. Burgundy included a concordance table to assist the reader locate required information but this table contained inaccuracies.

Additionally, the section headings in the Annual Report are not logical. For example, Section 4 is Measuring and Reporting on Water and Waste but it includes unrelated items, such as a summary of the

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Wildlife Effects Monitoring Program, a summary of the meteorology monitoring program, a summary of the air quality monitoring program and summaries of operational activities in 2024 and 2025.

Recommendation 3:

Burgundy should ensure future Annual Reports are organized in an easy-to-follow matter and that section headings properly reflect the content.

Burgundy Response 3:

Burgundy appreciates the comment and will ensure that the concordance table is accurate to assist readers locate information as well as ensure that section headers correctly identify the information provided in the subsequent section in future reports.

Burgundy will review the 2024 Annual Report format and will adjust as needed for future Annual Reports to ensure that the document is easy to follow and readers can easily identify if reporting requirements have been met.

Comment 4: Annual Report – proof reading

Table 1 of the Annual Report states that information on compliance reports with respect to the Water Licence, the Surface Leases, the Land Use Permits and other Regulatory Instrument can be found in Section 2 and Section 4.14. This is incorrect, as information on compliance reporting is found in Section 4.9 and there is no Section 4.14 in the Annual Report.

Table 1 also states that information on Traditional Knowledge can be found in Section 7.3. The Annual Report does not contain a Section 7.3.

Recommendation 4:

Burgundy must ensure future Annual Reports have been proof-read and cross-references are accurate.

Burgundy Response 4:

Burgundy appreciates the comment and will ensure that future Annual Reports are thoroughly reviewed, and cross-references are accurate. Table 1 cross-references have been updated.

Comment 5: Annual Report - visual summary of mine water and liquid waste summary and mine solid waste

Previous Annual Reports included a visual summary of mine water and liquid waste and mine solid waste. While it is helpful that those visual summaries are included on page 10 of the Summary Report, it would also be helpful to include those visual summaries in the Annual Report as well.

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Recommendation 5:

GNWT-ECC recommends that future Annual Reports include a visual summary of mine water and liquid waste and mine solid waste in addition to narrative text and/or tables describing those activities.

Burgundy Response 5:

Burgundy appreciates that a visual summary of mine water and liquid waste and mine solid waste would be beneficial to include Annual Reports and will be sure to include it in future submissions.

Comment 6: Annual Report – Compliance Reporting – Section 4.9 – Page 4-54

Section 4.9 of the Annual Report states that surface leases and land use permits are inspected regularly by the GNWT Departments of Lands. The Departments of Lands and the Department of Environment and Natural Resources merged to form the Department of Environment and Climate Change (ECC) on April 1, 2023. The Department of Lands no longer exists. ECC Inspectors conduct surface leases and land use permit inspections at the Ekati Mine. ECC Inspectors also conduct inspections under the Water Licence for the Ekati Mine.

Recommendation 6:

Please refer to the Department of Environment and Climate Change instead of the Department of Lands in future reports when stating which government body conducts lease, land use permit and Water Licence inspections at the Ekati Mine.

Burgundy Response 6:

Burgundy appreciates the comment and will make sure that future reporting only includes The Department of Environment and Climate Change (ECC).

Comment 7: Annual Report - land disturbances

Section 5.1(a)(iii) of the Agreement requires the Annual Report to include the results and findings of environmental monitoring programs. Section 7.2 of the Agreement lists the environmental components that should be included in environmental monitoring programs. That list includes monitoring vegetation, including the loss of habitat.

The main body of the Annual Report does not contain information on the loss of habitat. However, this information is presented on page 16 of the Summary Report and in Appendix G, the 2024 Wildlife Effects Monitoring Program Report. The Summary Report states that "Habitat loss between January 2024 to December 2024 was the result of expansions of the Sable Waste Rock Storage Area and development at the Point Lake Pit. Total habitat loss in 2024 was 95.4 ha (less than 0.01% of available habitat in the study area). A total of 4,043.0 ha of habitat has been lost due to development of the mine footprint since 1997, or 2.5% of the total pre-development habitat in the study area." This information should be included in the main body of the Annual Report. Ideally, the Annual Report would also discuss whether the total habitat loss due to development of the mine footprint is within the predicted amounts.

Recommendation 7:

Include information on the loss of habitat due to the development of the mine footprint in the main body of future Annual Reports.

Burgundy Response 7:

Burgundy will ensure that the habitat loss information is included in the main body of future Reports.

Comment 8: Ambient Air Quality

Section 5.1(a)(iii) of the Agreement requires the Annual Report to include the results and findings of environmental monitoring programs. Section 7.2 lists the environmental components that should be included in environmental monitoring programs. That list includes monitoring ambient air quality. The main body of the Annual Report does not include the results of the ambient air quality monitoring conducted at the Ekati Mine. The reader must refer to Appendix A for any information on ambient air quality information.

The 2024 Air Quality Monitoring Program at the Ekati Mine includes monitoring of total suspended particulate matter (TSP) and particulate matter with aerodynamic diameter less than 2.5 µm (PM2.5) as part of the continuous air monitoring (CAM) and the partisol station sampling and continuous ambient air quality monitoring of sulphur dioxide (SO2), nitrogen dioxide (NO2), nitric oxide (NO), and nitrogen oxides (NOX) as part of the continuous air quality monitoring.

Recommendation 8:

Include a summary of the findings of the ambient air monitoring conducted at the Ekati Mine in the main body of future Annual Reports.

Burgundy Response 8:

Burgundy will include a summary of the ambient air monitoring conducted at Ekati in the main body of future Annual Reports.

Comment 9: Engagement with the Independent Environmental Monitoring Agency on the Summary Report

The Independent Environmental Monitoring Agency (the Agency) has considered the Summary Report to be unsatisfactory in five of the last six years.

Section 5.1(b) of the Agreement requires Burgundy to consult with the Agency, among others, on the data to be included in the Annual Report, with an aim of ensuring that each Annual Report meets the

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requirements of the Agreement. It is not clear if Burgundy and the Agency are communicating on the content of the Summary Report. Additionally, Burgundy received an extension for the Annual Report and could have used that time to engage with the Agency on the content of the Summary Report.

It should be noted that the GNWT-ECC made a similar recommendation on the 2023 Annual Report.

Recommendation 9:

GNWT-ECC recommends that Burgundy engage the Agency on the content included in the Summary Report prior to submission of future Summary Reports.

Burgundy Response 9:

Burgundy appreciates the comment and will strive to consult with relevant parties prior to the submission of the Annual Report going forward.

Comment 10: Appendix A –Air Quality Monitoring Program – Section 1.1.2 – Page 1-5

Burgundy reported that stack testing was completed in 2013, 2016, and 2024 and all results were below the CCME guidelines for mercury and dioxins and furans. In addition, Burgundy reported the results suggested that complete combustion is being achieved in both incinerators. However, stack test results were not included with the Air Quality Monitoring Program Report.

The Ekati Incinerator Management Plan, Version 7.1 states that stack testing will be completed once every three years, with a test scheduled for 2023. On October 13, 2023 the Wek’èezhìı Land and Water Board (WLWB) approved Burgundy’s request to delay stack testing until 2024 due to wildfires in the NWT in 2023. The WLWB directed Burgundy to include this change in the next version of its Waste Management Plan (as the Ekati Incinerator Management Plan is a component of the Waste Management Plan). The GNWT-ECC note that the Waste Management Plan for the Ekati Mine was updated in May 2025 but the Incinerator Management Plan was not updated at that time. Without the updated Incinerator Management Plan it is unclear if the next stack test will occur in 2026, as originally scheduled, or in 2027 to adjust for the delay in testing in 2023.

Recommendation 10:

GNWT-ECC requests that Burgundy provide the results of the 2024 stack test, along with their comparison to the CCME guidelines for mercury and dioxins and furans. GNWT-ECC recommends that the stack test results be included in the Air Quality Monitoring Program Report. Please confirm when the next stack testing will occur.

Burgundy Response 10:

Burgundy has added the stack test results to both the Summary Report and Annual Report and will include the stack test results in the next Air Quality Monitoring Report. The next stack testing is set to take place in 2026.

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Comment 11: Appendix A –Air Quality Monitoring Program – Section 3.2 Results - Page 3-19 - Completeness of Data

In 2024 the Continuous Air Monitoring Building (CAMB) annual data completeness was 53% for PM2.5. As noted in the 2024 Air Quality Monitoring Program report, CCME data quality objectives require a data completeness rate of 75% to ensure confidence in the conclusion or decisions made with resulting data. The GNWT's Ambient Air Quality Monitoring Guideline in Support of the Environmental Agreements and Memorandums of Understanding with Mine Operators also have a minimum data completeness requirement of 75%.While the AQMP report notes that Burgundy is reviewing potential changes to the monitoring with respect to the low data capture rates for the aging CAM equipment, this issue should have been resolved prior to 2024, as the data completeness rate for PM2.5 in 2023 was also below the 75% target.

Recommendation 11:

Burgundy should ensure that underlying issues for the low capture rate for PM2.5 are resolved as soon as possible and that the data completeness rate of 75% or higher is achieved for PM2.5.

Burgundy Response 11:

Burgundy is committed to continuous improvement in equipment to provide consistent and accurate data collection in all areas of operation including the equipment at the CAMB. Burgundy will provide consistent maintenance and calibration of air quality equipment at the CAMB. Specific attention to the PM2.5 and TSP monitoring instruments has occurred which will yield higher data completeness for 2025.

Comment 12: Appendix A –Air Quality Monitoring Program – Section 3.2.3.1 – Page 3-3 – Removal of Jay dustfall stations and Section 4 – Page 4-1 – Recommendations

On March 14, 2024 the GNWT wrote to Burgundy and requested an updated Air Quality Management and Monitoring Plan for the Ekati Mine. This request was made in response to statements Burgundy made in recent Environmental Agreement and Water Licence Annual Reports (Annual Reports) and the 2019-2021 Environmental Impact Report where Burgundy proposed a reduction in the number of dustfall stations along roads, and a reduction in the number of snow chemistry and lichen sampling locations.

A review of the draft AQMMP would allow parties to engage with Burgundy on proposed changes to the AQMMP and provide an opportunity for parties to discuss other related topics, such as the use of dust suppressants at the Ekati Mine. The GNWT has not received a response to the March 14, 2024 letter. Dustfall monitoring stations JAY-U30, JAY-D30, JAY-D90, and JAY-D300 were eliminated from the Ekati dustfall monitoring program in 2023 and the 2024 AQMP report is recommending the removal of all Mis (Misery Haul Road) stations and a reduction in the number of snow chemistry and lichen sampling locations.

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Recommendation 12:

GNWT-ECC requests that Burgundy provide a draft Air Quality Management and Monitoring Plan (AQMMP) for the Ekati Mine for review by interested parties. Burgundy should also provide a rationale for any proposed changes to the current AQMMP, which has not been formally updated since 2009, and provide the option of a virtual meeting to discuss the AQMMP. Burgundy should also align the draft AQMMP with the guidance provided in GNWT-ECC's Ambient Air Quality Monitoring Guideline in Support of the Environmental Agreements and Memorandums of Understanding with Mine Operators.

Burgundy Response 12:

Dustfall stations PL-U30, PL-D30, PL-D90, PL-D300 and PL-D1000 were strategically deployed on a transect along the Point Lake Haul Road, between the intersection of the Lac du Sauvage Road and the Misery Haul Road to effectively monitor fugitive dust from all Point Lake activities. These dustfall stations replaced the previously removed JAY dustfall stations that were discontinued, as the area was inactive of mine operations.

Partisol sampling at the CAMB and Grizzly Station were removed. This change was made in February 2025. The Partisols contribute minimal value to the Air Quality Monitoring Program at Ekati as they are limited in nature, representing a static sample. The Partisols act as an unnecessary level of redundancy as the CAM building currently monitors PM2.5 and TSP continuously.

At this moment, no further changes to the AQMP have occurred and Burgundy will review previous suggestions in light of recent operational changes at Ekati. If Burgundy determines that previous recommendations continue to be relevant or new recommendations are needed, they will engage with the GNWT-ECC to determine a path forward.

Comment 13: Appendix A – Air Quality Monitoring Program - Section 4 – Page 4-1 – Recommendations

A recommendation in the AQMP report is for Burgundy to review potential changes to the monitoring equipment and QAQC processes in the CAMB to allow for better completeness of data and/or consistent monitoring of air quality components.

Recommendation 13:

Burgundy should consider guidance in GNWT- ECC's Ambient Air Quality Monitoring Guideline in Support of the Environmental Agreements and Memorandums of Understanding with Mine Operators when selecting air quality monitoring equipment or updating QAQC procedures.

Burgundy Response 13:

Burgundy is committed to continuous improvement in equipment to provide consistent and accurate data collection in all areas of operation including the equipment at the CAMB. Burgundy

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will provide consistent maintenance and calibration of air quality equipment at the CAMB and will continue to refer to air quality monitoring guidelines when choosing new or updating existing monitoring equipment and reviewing current procedures.

Comment 14: Appendix G – Wildlife Effects Monitoring Program Report

GNWT-ECC distributed the 2024 Wildlife Effects Monitoring Program Report for review on May 13, 2025. Comments from reviewers, and the response from Burgundy, can be viewed on the Online Review System at: https://new.onlinereviewsystem.ca/review/EA6949D2-0F2D-F011-8B3E-6045BD5DF280.

Recommendation 14:

N/A Comment provided for information only.

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Responses to Tłı̨chǫ Government Comments

General Comment 1: Greenhouse Gases

Burgundy stated in the annual report that, "In 2024, GHG emissions for the Ekati Diamond Mine totaled 157,425 tonnes CO2 equivalent. This is approximately 8% lower than the estimated GHG emissions in 2023". What contributed most to this reduction? Is there a reduction in the sources of emission? What plans does Burgundy have to move towards renewable sources of energy? We note that the Diavik mine has made good use of both solar and wind energy. With the closing of Diavik mine, has Burgundy looked into acquiring renewable energy assets from Diavik

Burgundy Response 1:

Diesel fuel consumption for transportation (motive, helicopter and gasoline) sources was lower in 2024 which likely resulted in the reduced GHG emissions between 2023 and 2024. However, several updates were made to the GHG calculations and emissions categories for 2024 to better reflect federal GHGRP reporting program requirements, so some 2024 value calculations are not direct comparisons with previous years' results.

Currently, Burgundy is solely focused on maintaining mine operations and will look into renewable sources of energy if and when it becomes more feasible.

General Comment 2: Increase in Mercury and Selenium concentration

Increases in mercury and selenium concentration: In the annual report, Burgundy stated that," Fourteen Slimy Sculpin (small-bodied fish), eight Lake Trout (large-bodied fish), and 21 for Round Whitefish (large bodied fish) variables were evaluated in 2024 for mine-related changes in the Koala Watershed. Downstream of the LLCF, lower catch per unit effort was observed for Slimy Sculpin and increases in mercury and selenium concentrations were observed for all three fish species. Lower catch per unit effort for Slimy Sculpin and increases in mercury in all three fish species were also observed in Kodiak Lake, which is not downstream of the LLCF." Besides the deductive conclusion made through the Kodiak Lake comparison, was any other effort made towards investigating potential mercury concentration level at LLCF content/effluent? Secondly, does the statement imply that there was no increase in selenium concentration at Kodiak Lake (reference lake).? If that is correct, was the cause of increase in selenium at the LLCF identified?

Burgundy Response 2:

The Fish Response Plan Version 4.0 was submitted to the Board on July 29, 2025 and was posted for public review on September 12, 2025. This plan outlines the likely cause(s) of the observed increases in mercury and selenium concentrations as well as additional recommended actions to address the observed changes. This includes an investigation of cause regarding mercury concentrations.

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Responses to the Independent Environmental Monitoring Agency Comments

Comment 1: Non-Compliance – Water Licence Limit Exceedance during Discharge

The Surveillance Network Program section of the Summary Report states that "Discharge points must meet the requirements in the Water Licence. If the water is above the limits, then the water cannot be pumped into lakes or used for road watering. All water samples met the requirements of the Water Licence before being discharged or used for road watering." (p. 15).

In fact, not all water discharged in 2024 met the Water License limits; Burgundy reported two cases where effluent quality criteria (EQC) limits were exceeded. On August 1, 2024 Burgundy notified the Board that Total Aluminum had exceeded the Maximum Average Concentration in discharges from the King Pond Settling Facility (KPSF) into Cujo Lake. The other instance arose with the Spring Seepage Survey results, which identified exceedances for seven parameters at various locations: sulphate (2 stations), pH (1 station), TSS (2 stations), arsenic (6 stations), selenium (6 stations), iron (1 station), potassium (1 station). Of the ten locations sampled having exceedances, seven potentially flow into Receiving Waters as defined by the Water Licence and were reported as exceedances of the EQC.

Recommendation 1:

In order to meet the spirit and intent of the Summary Report and Conditions 5.1 (a)(i), Conditions 5.1 (a)(iii) and 5.1 (a)(v) of the EA, Burgundy should include these exceedance events in the Surveillance Network Program section of the Summary Report.

Burgundy Response 1:

Burgundy appreciates the comment and exceedance events referenced in the comment have been included in the Surveillance Network Program section of the Summary Report (Deficiency 1).

Comment 2: Aquatic Effects Monitoring Program – Elevated Selenium and Mercury Levels in Fishes

The Aquatic Effects Monitoring Program (AEMP) section of the Annual Report notes increases in selenium and mercury in fish tissues. The Aquatic Response Framework (ARF) section identifies High Action Level exceedances for mercury and Medium Action Level exceedances for selenium in various lakes. It states that "A Fish Response Plan is also already in place, this plan will be updated in 2025 to address the low Action Level exceedance for catch per unit effort and the medium and high Action Level exceedances for mercury and selenium in fish tissue." The changes in concentrations are substantial enough that the Agency feels further information should be provided in the Summary Report; notably that mercury in lake trout is above the ARF screening value of 0.28 mg/kg wwt in 90 to 100 % of fish sampled in the Koala watershed, and 73% in Cujo Lake. From 47 – 75% of the samples are above the Health Canada consumption guideline of 0.500 mg/kg wwt in the Koala watershed. Round whitefish show lower but a not insignificant percentage containing high concentrations of mercury. Selenium concentrations are at levels which may impact reproductive success and population numbers.

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Recommendation 2:

The Summary Report should include further details on the implications of high mercury and selenium levels in fish tissues, and identify mitigation measures required to address this

Burgundy Response 2:

The Summary Report has been edited to address this comment and recommendation (Deficiency 2).

Comment 3: Air Quality Monitoring Program – Acid Deposition Evaluation; Stack Testing Results

The Summary Report provides a reasonable description of the Air Quality Monitoring Program (AQMP) with respect to data collected for meteorological monitoring and air quality indicators, along with dustfall data and estimates for greenhouse gas emissions. However, two aspects of the air quality monitoring program have been omitted from the Summary report: the Acid Deposition results which are reported in connection with the dustfall monitoring, and the results of stack testing of the incinerator.

The NWT does not have an established critical load for acid deposition, and Burgundy has provided provincial critical loads for comparison, while noting these terrestrial critical loads are not intended for tundra regions. The observed range of acid deposition levels did exceed the Alberta load standard and the highest mean and median values are above 5th percentile critical soil loads for two of the eastern provinces. The Agency suggests that adding context to the Summary Report for these observations would be useful, including a description of what potential effects and consequences could be associated with the acid deposition at these levels, and identifying any trends from past levels.

Stack testing is done to evaluate the performance of the incinerator, by measuring various compounds in the emissions from the incinerator stack. Guidelines for mercury, dioxins and furans provide a yardstick to measure testing results against. Including the data from the stack testing in the AQMP report would have provided quantitative information on whether the incinerator management is effective.

Recommendation 3:

The Summary Report should include the Acid Deposition results and a description of the potential significance of the loadings. In addition, incinerator stack testing results should be provided either with the Summary Report or in the 2024 AQMP report (Appendix A).

Burgundy Response 3:

Acid deposition results and potential significance have been added to the Summary Report (Deficiency 3) and stack test results have been added to both the Summary Report and the Annual Report (Deficiency 4).

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Comment 4: Period of Discharge from King Pond

There is a discrepancy in the Annual Report for the period of King Pond discharge for the year. On p. 4-59 it is stated the discharge from King Pond into Cujo Lake occurred between June 27 and July 20 while p. 8-66 has it at between June 24 and July 21. The AEMP report also states the latter dates.

Recommendation 4:

The Annual Report should correct the erroneous dates of King Pond discharge

Burgundy Response 4:

The Annual Report has been updated to reflect the correct dates throughout (June 24 and July 21).

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Responses to Environment and Climate Change Canada Comments

Comment 1: Clarity for Summary of Meteorology Monitoring Program

In Section 4.7, the text states that the mean precipitation data and snow depths at Koala and regional meteorological stations are presented in Table 18 and Table 19. Table 18 is suitably titled total monthly precipitation for the stations rather than mean precipitation. The term Snow Depth is applicable for a certain day. Table 19 appears to indicate Total Snowfall, and thus, the total for the year is more meaningful for total snowfall than snow depth.

ECCC Recommendation 1:

ECCC requests that the text refer to Table 18 as total monthly precipitation rather than mean precipitation, and Table 19 as total monthly snowfall. Additionally, ECCC requests that the table description and column description for Table 19 be changed from Total Snow Depth to Total Snowfall.

Burgundy Response 1:

Burgundy appreciates the comment and the 2024 Annual Report has been updated to reflect the requested changes to the tables and descriptions.

Comment 2: Wind direction variability and dustfall measurements for 30-day periods

Section 2.2.3 states that winds at the mine were dominantly from the northwest with a sub- component from the east-southeast. However, Section 3.1.3 states that stations ranged from approximately 30 m northeast (predominantly upwind), to 1 km southwest (predominantly downwind) of the road centrelines." The wind rose shown in Figure 2.2-7 does not have strong directional asymmetry during the snow free period when dust generation is more likely to occur. Furthermore, Figure 2.1-1 shows that the orientation of the roads varies from place to place. Finally, wind directions may vary substantially during the 30 day period of dustfall collections.

Recommendation 2:

ECCC requests that wind speed and direction variability during each 30-day sampling period, as well as road orientation, be considered when evaluating which are the dominantly upwind and downwind locations for each dustfall measurement.

Burgundy Response 2:

Burgundy appreciates the comment and will take into account the above considerations when evaluating upwind and downwind locations for dustfall measurements going forward.

Comment 3: Spills and unauthorized discharges

Section 5 and Appendix J of the Annual Report provide details of the 14 spills that were reported to the NT-NU Spill Report Line. Annual reports frequently also contain brief details about spills that occurred

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but did not meet criteria for reporting. Including these details in the annual report can increase transparency and provides a better overall indication of the nature and types of spills occurring as part of the project. This also allows regulators to provide insight into possible solutions for continuous improvement (a principle which Ekati commits to in section 4.3.7 of the Spill Contingency Plan – Investigations and Continuous Improvement).

Recommendation 3:

ECCC recommends the Proponent include details (e.g., type and quantity of substance spilled, cause of spill, date, time) of spills that occurred during 2024 but that did not meet criteria for reporting to the NT-NU Spill Report Line.

Burgundy Response 3:

Burgundy follows spill reporting regulations set in the NWT Guidelines for Spill contingency Planning. Further requirements for spill reporting can be acknowledged during the renewal of Burgundy's Land use Permits.

Comment 4: Drip trays under equipment

The Spill Contingency Plan notes that: "Stationary equipment and storage tanks at the Ekati Diamond Mine are outfitted with secondary containment trays or berms to prevent spills to the environment from primary containment failures, leaks or spills from equipment breakdown, or human error such as overfilling tanks or spillage during refuelling."

In the list of reportable spills, a spill of 100 L of diesel occurred from a lubricant truck that was parked at the Ekati truck shop laydown. It is noted that if a drip tray had been used (as indicated in the spill contingency plan), such a spill may have been mitigated before it reached the environment. The Spill Contingency Plan currently does not specify when a secondary containment tray would be used for stationary vehicles (i.e., after what period of time or under what conditions). It is recommended that the procedures for use of secondary containment under stationary vehicles and equipment be clarified in the Spill Contingency Plan.

Recommendation 4:

It is recommended that the proponent update the Spill Contingency Plan to specify under what conditions a secondary containment tray would be used for stationary vehicles and equipment. E2 recommends that equipment that has been idling or not in use for two or more hours should have a secondary containment tray placed beneath it. Positioning of the tray should be based on the likely points of leakage from the vehicle or equipment, including engine components, hydraulic lines, and fuel lines.

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Burgundy Response 4:

Currently, Burgundy is required to utilize drip trays under all equipment parked for more than 2 hours under Land Use Permits W2017D004, W2021D005 and W2023D002. Although these permits do not apply to the Ekati Main camp area, spill trays are used under downed equipment parked for long periods of time. Burgundy will include more detail on drip trays in the Spill Contingency Plan V 16.1.

Comment 5: Maintenance of equipment / level sensors

Spills 2024099 and 2024360 referenced in Appendix J occurred, at least in part, due to failure of high-level switches / sensors, resulting in over-filling and a consequent spill of diesel fuel. It is noted in the Spill Contingency Plan that all equipment, infrastructure (including storage tanks and distribution systems) undergo regular inspection and maintenance. These two reported spills may not have occurred had a preventative maintenance or inspection program discovered the fault in the switches / sensors.

Recommendation 5:

It is recommended that the frequency of inspection and / or preventative maintenance be reviewed for critical safety systems such as high-level switches / sensors.

Burgundy Response 5:

Burgundy will review its maintenance schedules and testing procedure regarding high level switches in response to these events.

Comment 6: Breeding bird/nest reporting

In the 2024 Ekati Diamond Mine Environmental Agreement and Water License Annual Report, the Proponent states that “breeding was not confirmed for any migratory birds in 2024.” However, in Appendix F of the 2024 AEMP Summary Report, on page vi, the report states that “breeding was observed on eight occasions for [...] five waterbird and one shorebird [species]. Birds with broods were also observed on five occasions.”

The proponents do not identify the bird species observed breeding. Migratory birds can be found breeding in the project area from mid-May to mid-August (Nesting Zone N9). Under the *Migratory Birds Convention Act* (MBCA), ECCC has management responsibilities for migratory birds. In addition, the Migratory Bird Regulations (MBR) prohibit the disturbance or destruction of migratory birds and their nests or eggs.

Migratory birds, their nests and their eggs can be inadvertently harmed, killed, disturbed or destroyed because of many activities including, but not limited to, clearing of trees and other vegetation, draining or flooding land, or using fishing gear. Harming of individual birds, nests or eggs, can have long-term consequences for migratory bird populations in Canada, especially through the cumulative effects of many different incidents.

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Burgundy Response 6:

Breeding wasn't confirmed for any incidental migratory bird sightings in 2024, however breeding activity for migratory birds was recorded on eight occasions, with broods observed an additional five times during formal LLCF surveys. The breeding activity was observed in Cells A to D of the Long Lake Containment Facility, however as there was no clearing activity in the area and discharge only occurred only into Cell D and only after the breeding season ended (August 15), there was no danger to any potential nests or eggs that may have been present as a result of breeding activity. Burgundy will provide the species for any observed breeding activity in future reports.

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BURGUNDY
DIAMOND MINES

2024

Ekati Diamond Mine

Annual Water Licence and Environmental Agreement Report Summary

Table of Contents

Introduction

This report is the summary of the Ekati Diamond Mine's 2024 Environmental Agreement and Water Licence Annual Report written in the plain English Language. An annual report has been published since 1997 providing an overview of how the environment at Ekati Diamond Mine has been managed according to the terms of the Water Licence and the Environment Agreement. The plain language summary report is intended for readers who are unfamiliar with technical language. The summary does not present the same level of detail as the Annual Report.

Burgundy Diamond Mines Ltd.

Founded in Perth, Western Australia, Burgundy Diamond Mines Ltd. (Burgundy) is a premier independent global diamond company that proudly produces and delivers ethically sourced diamonds from our world-renowned Ekati Mine, in Canada's Northwest Territories to market. Burgundy is the sole owner and operator of the Ekati Mine and has been purchased from the previous owner, Arctic Canadian Diamond Mine, in July 2023. Burgundy is the parent company of Arctic Canadian, which continues to maintain the previous company name as the named Licence/Permit holder; however, all business is conducted directly by Burgundy.

The Ekati Diamond Mine Story

In the early 1980s two geologists, Charles Fipke and Stewart Blusson, began searching for diamonds in the Canadian Arctic. In 1989 they found kimberlite, a rock that often contains diamonds, in an area near Lac de Gras. Their exciting discovery led to a rush of exploration and staking in the area; two years later, they found diamonds.

After environmental studies and permitting were carried out and construction was completed, the Ekati Mine – Canada's first diamond mine – officially opened on October 14, 1998. This event put Canada on the map as a world-class diamond producer.

Burgundy is the current operator of the Ekati Diamond Mine.

The Ekati Diamond Mine Location

The Ekati Diamond Mine sits in Canada's Northwest Territories, specifically within the sub-Arctic tundra. Positioned 100 km beyond the tree line, it lies 310 km northeast of Yellowknife and 200 km south of the Arctic Ocean. The terrain comprises boulder fields, heath tundra, wetlands, eskers, and over 8,000 interconnected lakes. Accessibility primarily relies on air transport for most of the year, while an ice road permits access for approximately two months annually. Figure 1 shows the mine's location.

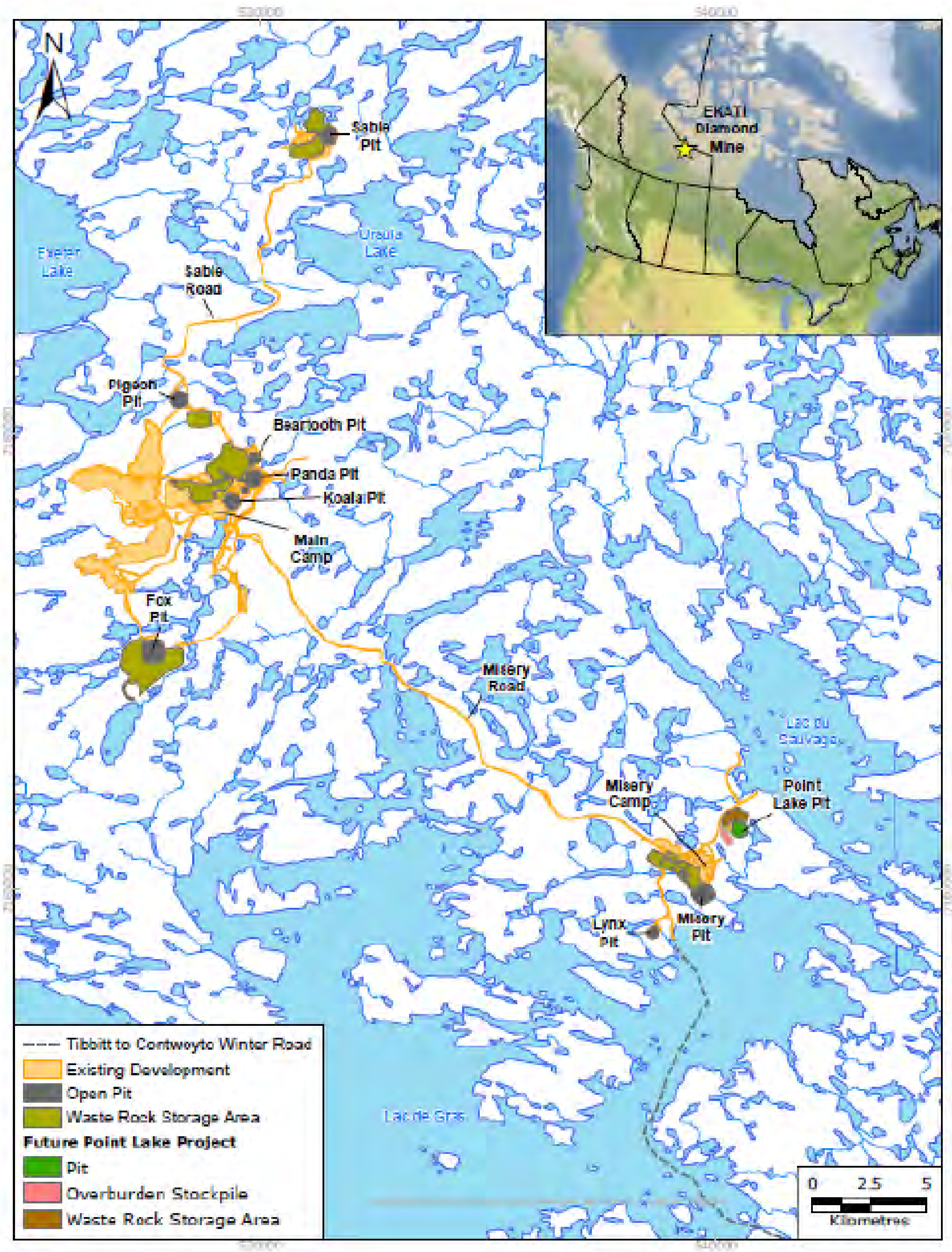


Figure 1. Location of the Ekati Mine

How it Works

At the Ekati Diamond Mine, miners currently use two methods to remove the diamond-rich kimberlite ore from the ground: open pit mining and underground mining. In open pit mines, workers remove waste rock and earth to get to the kimberlite pipe using digging equipment and explosives. In underground mines, spiral-shaped tunnels are built to allow mining equipment to drill, blast, dig, and haul the ore from deeper parts of the kimberlite pipes.

The ore is moved to the process plant by haul trucks or duel powered road trains (DPRT). At the process plant, crushing machines reduce the size of the ore. Mechanical scrubbers are then used to remove sand, grit, and other waste material (called fine processed kimberlite). The diamonds are then separated from the remaining ore and sorted using X-ray technology. The rough diamonds are shipped for additional sorting, where they will be polished for jewelry or used in industrial devices for cutting, grinding, and polishing.

The Ekati Diamond Mine Components

The Ekati Diamond Mine is made up of a series of open pits, some of which have underground mines.

The mine site spreads over several watersheds, with the Koala Watershed being the largest. Panda, Koala, Koala North, Fox, and Beartooth pits, the Koala and Koala North underground mines, and most of the Ekati Diamond Mine infrastructure are located within the Koala Watershed.

Within the Koala Watershed, the main mine site includes:

- the process plant, where the diamonds are removed from the kimberlite;
- the Long Lake Containment Facility (LLCF), which holds fine processed kimberlite from the process plant (the fine processed kimberlite is a slurry of fine particles and water);
- three waste rock storage areas: Fox, Pigeon, and Panda/Koala/Beartooth;
- an employee camp (the Main Camp);
- an airstrip; and
- haul truck roads.

The King-Cujo Watershed, about 30 km southeast of the main site, contains Misery Pit, Lynx Pit, Misery and Lynx Waste Rock Storage Areas, King Pond Settling Facility, a crusher pad, Lac du Sauvage Road, a Point Lake access road and utility pad, and a small employee camp. The area is linked to the Main Camp by the Misery Road.

The Carrie Pond Watershed includes a portion of Misery Pit and the Misery Waste Rock Storage Area, and Desperation Sump.

The Pigeon-Fay and Upper Exeter Watershed contains Pigeon Pit and the Pigeon Stream Diversion.

The Horseshoe Watershed contains Sable Pit, Sable West and South Waste Rock Storage Areas, and the Two Rock Sedimentation Pond.

The Point Lake Watershed contains the Point Lake Development, which includes the Point Lake Open Pit, an access road, a WRSA, the Point Lake WRSA Seepage Collection Sump, and an overburden stockpile.

The Ekati Diamond Mine plan involves bringing pits and underground mines into production over time:

- Panda, Koala, Koala North, Beartooth, Fox, Lynx, Pigeon, and Misery open pits have all been developed, placed into production, and are now closed.
- Panda, Koala, and Koala North underground mines have all been developed, placed into production, and are now closed.
- Beartooth, Panda, and Koala pits have all become **containment facilities** for fine processed kimberlite.
- Open pit mining production in Sable Pit and underground mining at Misery Underground was ongoing throughout the reporting period.

*A **watershed** is an area defined by a ridge of high land. All rain and snow that falls within the area eventually ends up in the same body of water. Rain may land **directly in a stream or lake, or it may fall on land where it will drain or seep into a marsh, stream, river, or lake.***

Containment Facilities are water bodies that hold water used in mine activities until the water can be released back into the environment.

Sustainable Development at the Ekati Diamond Mine

Burgundy understands the importance of the Arctic tundra environment. The Company is committed to maintaining a safe and healthy environment for people, plants, and animals. This means mining the diamonds found at the Ekati Diamond Mine site in the safest, most environmentally responsible way by meeting the terms of the Environmental Agreement, Water Licence, and other authorizations. Burgundy has created a Sustainability Policy (see below) to outline important goals and approaches for the business.

SUSTAINABILITY POLICY

Burgundy Diamond Mines is committed to the safety and well-being of our people and the communities in which we operate, mitigating our environmental impact and delivering ethically produced natural diamonds.

SUSTAINABILITY PILLARS

SAFETY
Our goal: To continuously improve our safety performance and culture.
Our approach: To continuously learn, share and improve safety by meaningful worker engagement and safety leadership. Burgundy is committed to providing a safe work environment.

HEALTH
Our goal: To enhance the health and well-being of our people.
Our approach: To promote and deliver occupational health services to our people; ensuring personal health, wellness, and the prevention of workplace related illnesses.

ENVIRONMENTAL RESPONSIBILITY
Our goal: To protect the environment, through responsible and innovative resource development.
Our approach: Foster a culture of environmental stewardship and respect within our workforce, in-line with Indigenous, Government and Regulatory values and expectations.

PEOPLE
Our goal: To build and sustain a high-performing workforce.
Our approach: To commit to a high performance and purpose-led culture, in which everyone demonstrates care and accountability. Burgundy respects and supports the dignity, well-being and human rights of all people, including our workforce, the communities where we live, work and operate, and others affected by our activities and business relationships.

RISK MANAGEMENT
Our goal: To identify and effectively manage risk.
Our approach: To maintain a working environment where risk management is proactive and integrated into daily operations; following a strong process of assessment, development, and monitoring of critical risks.

STAKEHOLDER COMMITMENT
Our goal: Establish positive and collaborative relationships with our key internal and external stakeholders.
Our approach: To communicate openly and honestly, support local programs and contribute to the communities in which we operate.

COMPLIANCE
Our goal: To fulfill our obligations, and requirements, as an industry leader.
Our approach: To maintain integrity with community commitments and regulations and to promote collaboration with our partners and stakeholders.

CREATING VALUE
Our goal: To maximize profit and opportunities for the benefit of our stakeholders.
Our approach: To set and achieve business objectives through continuous improvement and innovation.

CONTINUAL IMPROVEMENT
Our goal: To achieve excellence in Health Safety and Environmental culture by the implementation of identified best practices.
Our approach: To set objectives and targets for continuous improvement in areas that include occupational health and safety, prevention of pollution, waste management, processed kimberlite disposal management, progressive reclamation, biodiversity conservation, energy use, greenhouse gas emissions and water use.

Mine Plan

The Mine Plan is Burgundy's schedule for the life of each Kimberlite pipe at the Ekati Diamond Mine. The Mine Plan changes over time and will continue to change as the business develops and the value of diamonds changes. Figure 2 shows the current mine plan for the Ekati Diamond Mine.

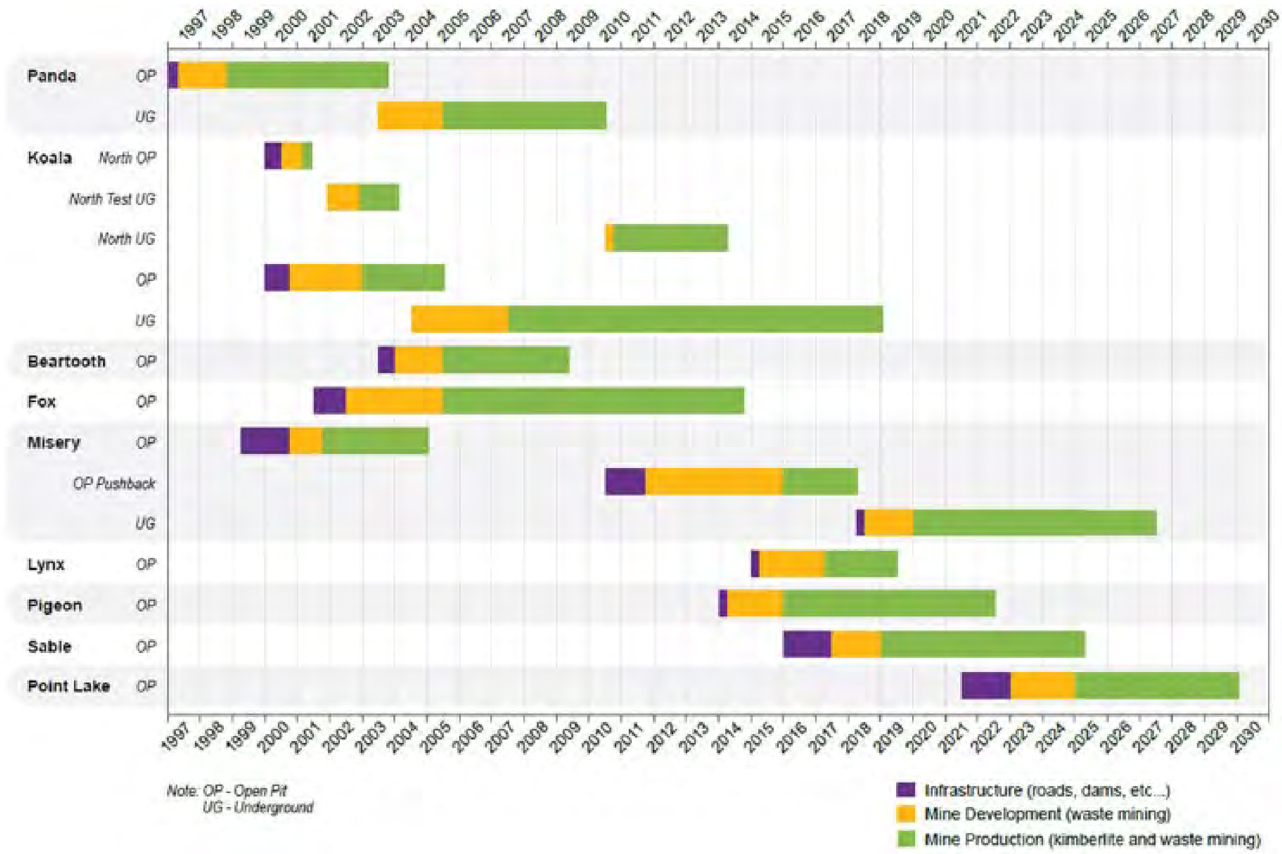


Figure 2. Mine Plan

Ekati Diamond Mine Activities in 2024

Misery Underground (MUG) infrastructure

Burgundy continued developing the MUG Project in 2024

- Included a double sump system on each level from 1950 to below to improve water and mud separation.
- Decline waste development continued to the 1825 level.

Point Lake Development

Burgundy continued construction at the Point Lake project site in 2024 and were able to complete the following:

- Construction of a perimeter road (ring road) around the pit commenced.
- Construction of the waste rock storage area commenced.
- Construction of a lined ditch and sump to collect seepage water from the Point Lake waste rock storage area commenced.

Waste Rock Storage Areas

In 2024, over 4 million tonnes of kimberlite ore were processed through the process plant. Over 8 million wet metric tonnes of waste rock were placed into the Misery, Point Lake, Sable South, Sable West, and Sable East Waste Rock Storage Areas and 1.1 million tonnes of course kimberlite reject material from the process plant was placed in the Coarse Kimberlite Rejects Storage Areas (CKRSA) (Figure 3).

Water and Waste Management

Most of the used water and liquid waste generated at the Ekati Diamond Mine is deposited into either the LLCF, Beartooth Pit, Koala Pit, or Panda Pit (Figure 4).

This includes fine processed kimberlite and water from the process plant, minewater from Panda and Koala surface sumps and underground mines, Pigeon Pit minewater, and other sump water and runoff from the Main Camp area.

Minewater from Misery Underground, and sump water and runoff from the Misery area was deposited into the Kind Pond Settling Facility, then pumped to Lynx Pit. In 2024, 465,685 m^3 were discharged from the King Pond Settling Facility into Cujo Lake.

Minewater from Sable Pit, and sump water and runoff from Sable area was deposited in the Two Rock Sedimentation Pond. In 2024, 268,101 m^3 were discharged to Horseshoe Lake. In addition, 36,320 m^3 was used for road watering.

Spills and Unauthorized Discharges

A total of 14 spills were reported to the Northwest Territories (NWT) Spill Line or the Online Spill Reporting Tool in 2024. Four spills from 2024 remain open with the NWT Spill Line. Details from these four spills can be found below:

A **Discharge** is defined in the Water Licence as "direct or indirect release of any water or waste to the receiving environment."

Spill-2024042: Sewage pipe underneath Misery accommodations froze, causing an estimated 14158L of greywater to spill. Spill was cleaned up in the spring of 2024.

Spill-2024044: Loader operator punctured a waste oil/coolant tote with forks while trying to pick up tote to move to waste management resulting in a 200L spill. The area was cleaned up and the material was properly disposed.

Spill-2024048: A water truck drove off Sable haul road and tipped on its side spilling potable water onto the tundra.

Spill-2024424: Road train lost 2 trailers in the ditch on Sable haul road due to slippery road conditions while trying to avoid hitting caribou. 1L of hydraulic fluid sprayed over side of road and tundra during the accident. 90 tonnes of Kimberlite spilt on tundra. Kimberlite and contaminated snow were cleaned up.

In 2024, the Ekati Diamond Mine Emergency Response Team (ERT) consisted of 61 active members trained to respond to both underground and surface emergencies. The ERT is equipped with a fully stocked spill response trailer and is capable of mobilizing quickly in the event of a spill. Of the 61 members, 39 are stationed at Main Camp and 22 at Misery Camp. ERT members undergo extensive training and regularly participate in both field-based and desktop simulation exercises to maintain readiness for major spill events. On average, each ERT member received 67 hours of training over the year. Incident Management Team (IMT) exercises were held and attended to at Diavik Diamond Mine.

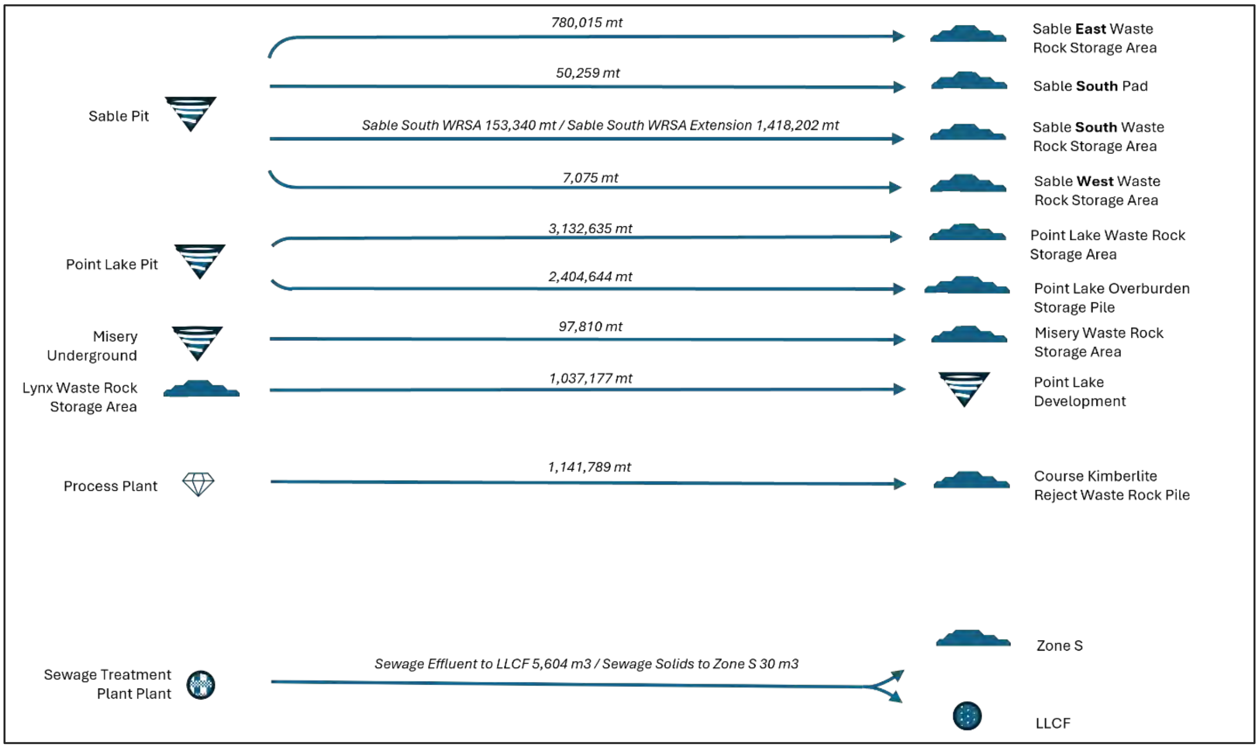


Figure 3. Summary of Solid Waste Transfers in 2024

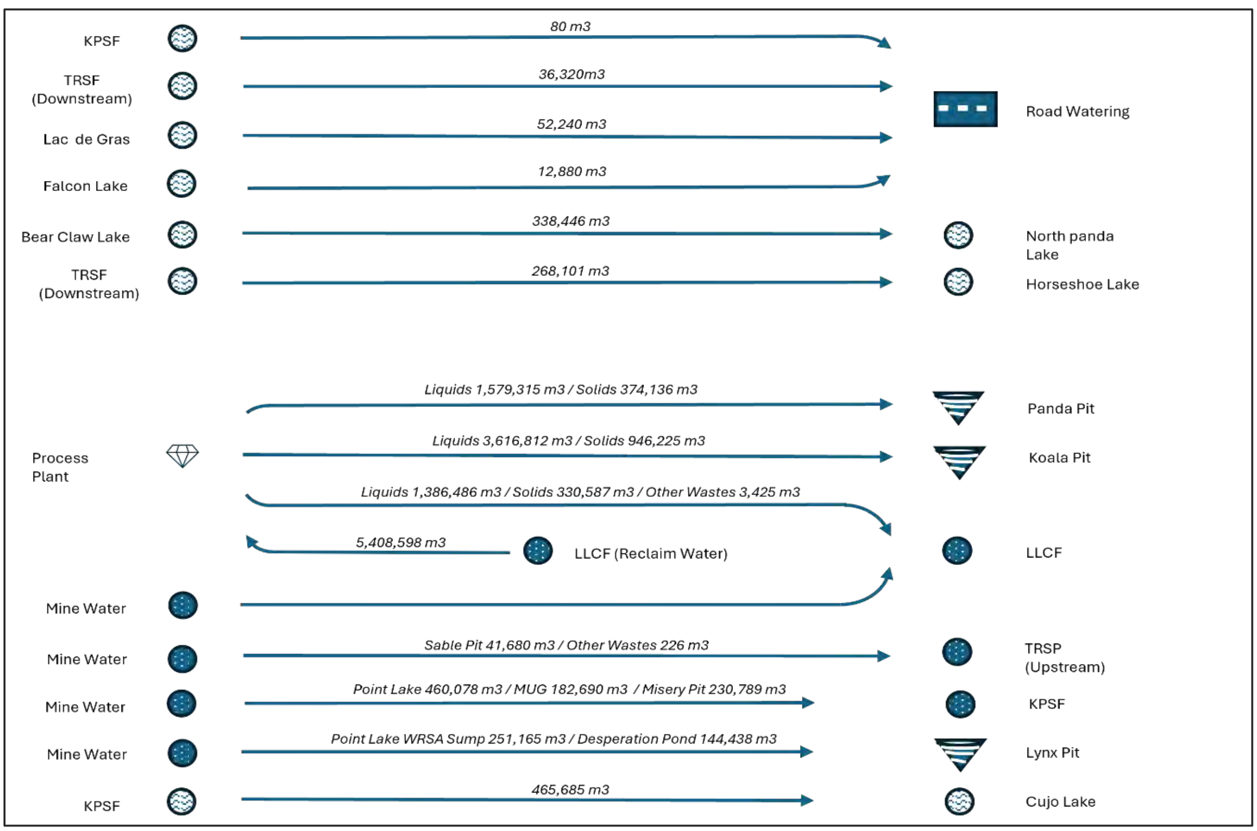


Figure 4. Summary of Water and Wastewater Transfers in 2024

Ekati Diamond Mine Activities Planned for 2025

Current operations are focused on mining ore from Misery Underground and advancing Point Lake construction. Production and Development of these ore bodies will continue through 2025.

Environmental Permits and Agreements

The Ekati Diamond Mine operates under several environmental permits and agreements guided by different regulatory departments:

- The Type A Water Licence and 11 Type A Land Use Permits administered by the Wek'eezhii Land and Water Board
- Environmental Agreement between the Crown-Indigenous Relations and Northern Affairs, Government of the Northwest Territories, and Arctic Canadian. The Environmental Agreement continues in effect until full final reclamation of the Project site is completed
- Three active **Fisheries Act Authorizations (FAAs)** issued by Fisheries and Oceans Canada (DFO)
- 121 mineral leases and 11 surface leases which were issued subject to the *Territorial Lands Act* and the *Northwest Territories Lands Regulations*

The active FAAs are for Desperation-Carrie, the Point Lake Development, and the Misery Pit Development. While the Lynx Pit FAA is officially closed, the offsetting requirements associated with the project still need to be completed, future monitoring is scheduled for 2026 and 2028. The Pigeon Stream Diversion (PSD) FAA (SC99037) is also considered closed, but the final year of monitoring (year 10) was completed in the summer of 2023 a final monitoring report was submitted in 2024.

Ekati Diamond Mine operations must meet the terms of the environmental responsibilities outlined in the agreement, permits, and authorizations. To meet these terms, many environmental monitoring programs are planned and conducted each year.

Figure 5 below shows all ongoing environmental plans and programs. The results and components of environmental programs are driven directly and/or indirectly by the plans in place, each with the overarching goal to protect land, air, water, and wildlife.

***Fisheries Act* Authorizations (FAAs)** *provide approval to conduct work that results in the harmful alteration, disruption, or destruction of fish habitat. The Ekati mine has six applicable FAAs. Three of those have been closed in 2018 and 2019 (SC99037, 15-HCAA-00266, and SCA96021) with offsetting commitments extending beyond the valid authorization period.*

Three FAAs (SC01111 and SC00028, and 21-HCAA-00266) remain active.

Figure 5. Environmental Protection through Environmental Management Programs and Plans.

Traditional Knowledge and Community Engagement

The Ekati Diamond Mine is built on the traditional lands of Indigenous people, who used the land long before the mine existed and will continue to use it long after the mine is closed. Knowledge shared by traditional land users and community members has become part of environmental management at the mine.

Generally, the programs that Burgundy supports vary year-to-year based on requests from communities and annual reviews. Projects completed in 2024 include:

- Community Fish Monitoring Program
- Wildlife Effects Monitoring Plan Point Lake Addendum – Post-Dewatering Monitoring Engagement
- Road Modification Plan Engagement
- Closure Engagement 2024:
    - Pigeon Pit
    - Waste Rock Storage Areas Final Closure and Reclamation Plans
    - Wildlife Safety

Burgundy remains committed to incorporating oral and recorded Traditional Knowledge into decision making at the Ekati Diamond Mine

Traditional Knowledge is knowledge gained through experience and direct observations by Indigenous people and groups, handed down over generation.

Air Quality Monitoring and Climate

Air quality is tested to see if mining activities at the Ekati Diamond Mine (including blasting, construction, and emissions from diesel generators and vehicles) are affecting air quality. In May 2025, Burgundy released the 2024 Air Quality Monitoring Program (AQMP) Report which discussed meteorological trends and air quality data collected in 2024, as well as greenhouse gas emissions and air pollution.

Ambient Air Quality

Air quality monitoring stations sample air year-round for tiny airborne particles, dust, and gases. Continuous ambient monitoring has been performed since the beginning of 2008 and is housed within the Continuous Air Monitoring Building (CAMB). Air testing at Ekati Diamond Mine is compared against the Government of Northwest Territories standards as well as the Canadian Council of Ministers of the Environment (CCME) guidelines. The results demonstrated three of four days where total suspended particulate (TSP) (airborne solid and liquid particles) exceeded the GNWT standards; however, the exceedances occurred during the summer months of June to July which coincided with regional wildfire events.

Dust from heavy vehicles like haul trucks may fall on the plants and soil near the road. This dust is measured as dustfall during the summer months (June to September) at the Ekati Diamond Mine. During the 2024 summer sampling season, dustfall was measured in 27 monitoring locations spread out over 10 different areas. As expected, dustfall was higher close to the haul roads and decreased farther away from the roads. The average of the dustfall measurements taken 300 m away from the roads were below the standards created by the GNWT.

Dustfall monitoring also included analysis for potentially acidifying sulphate and nitrate compounds during the summer months. While there is no critical load established for the NWT or other tundra regions within Canada, other jurisdictions were reviewed for comparison. The Alberta potential acid input (PAI) load standard of 250 eq/ha/yr is the most stringent of the reviewed criteria, though it is not for a tundra terrestrial zone. Only one of 27 actively monitored stations had mean values measured above the Alberta criteria. This station was the nearest station to Sable road and transect stations further from the active road measured well below the Alberta criteria. The average PAI at all stations was 133 kg/ha/yr.

The criteria is an annual input value, and summer months will have higher dustfall than winter months. This makes it likely that the summer average at all stations is an elevated value, and that the actual annual acid deposition from Mine activities is lower than the summer average and was of low impact. Please note that deposited buffering compounds were not included in the analysis, which could lower the total PAI measured.

Greenhouse Gases

Burgundy reports Greenhouse Gas (GHG) emissions to the Environment and Climate Change Canada (ECCC) Greenhouse Gas Emissions Reporting Program. The GHG emissions that were estimated can change year to year based on the amount of diesel that was used for fueling equipment, heating the buildings, and generating electricity in the powerhouse. In 2024, GHG emissions for the Ekati Diamond Mine totaled 157,425 tonnes CO_2 equivalent. This is approximately 8% lower than the estimated GHG emissions in 2023. Table 1 below shows a breakdown of different sources and their estimated GHG emissions at the Ekati Diamond Mine. Stationary sources such as heating and power generation and transportation contribute the most to GHG emissions at the Ekati Diamond Mine.

Burgundy reports many different greenhouse gas emissions to Environment Canada, not just CO_2. For example, Burgundy also reports other greenhouse gases that have a much stronger global warming potential than CO_2. CO_2 equivalency is a way to convert the emissions from all of the different greenhouse gases into one unit (CO_2 equivalent). This makes it easier to track, set reduction goals, and compare emissions from different sources.

Table 1. Ekati Diamond Mine Greenhouse Gas Emissions, 2024

Emission Source	Total GHG Emissions, tCO_2e
Stationary: • Diesel, Non-motive • Heating • Power • Waste Oil	86,149
Industrial: • Blasting	900
Transportation: • Diesel, Motive • Helicopter • Gasoline	70,248
Waste: • Incinerator • Composter • Sewage Treatment Plant	129
Total	**157,425**

Stack Testing

Stack testing was set to occur in 2023, but due to unforeseen circumstances revolving around the state of Emergency that the NWT faced in the summer and Fall of 2023, as a result of wildfires, Burgundy requested to defer stack testing to 2024. Upon approval from the WLWB, stack testing was scheduled to be completed in the Fall of 2024 at both incinerators at Ekati.

Stack testing was completed at the South Incinerator in September, 2024. Testing was not completed at the North Incinerator in 2024 due to maintenance issues at the incinerator that would have resulted in inaccurate results.

Stack test results from the South Incinerator were below CMME Guidelines for furans, dioxins, and mercury. A Venturi scrubbing system was installed at the incinerators in 2012 and results below guidelines in 2012, 2016 and most recently in 2024 suggest that complete combustion is being achieved at both incinerators, thereby reducing the production of harmful chemicals that occur from incomplete combustion.

Climate

At the Koala meteorological station, the annual air temperature for 2024 was warmer compared to the historical mean available since 1995. 2024 was the seventh warmest year on record for the Ekati Diamond Mine.

Precipitation (rain and snow) data from 2024 was 125 mm lower than the long-term record of 312 mm; similar patterns were seen in Yellowknife. In 2024, the annual precipitation was 40% lower than the 1994 to 2024 average, representing the 3rd-lowest total precipitation year from 1994 to 2024.

The Ekati Diamond Mine region is generally windy due to lack of ground cover. Wind patterns were similar to previous years. Winds at the mine were omni directional and dominantly came from the northwest and east-southeast in 2024. The most common wind speeds ranged from 2.4 to 4.3 m/s (8.6 to 15.5 km/h).

Reclamation Research

Reclamation research at the Ekati Diamond Mine has been underway since the start of mine operations. The reclamation research program helps Burgundy understand what types of reclamation will be successful at mine closure. The research plans continue to evolve to accommodate ongoing updates in research findings, mine operating schedule, Environmental Management Plans, and changes to the Interim Closure and Reclamation Plan.

Reclamation research in 2024 mainly focused on field research in the LLCF. Crews have done trials with mycorrhizae, moss, topsoil, and organic matter to help with soil health, vegetation growth and cover the LLCF. Researchers have also continued monitoring the growth of planted species across LLCF which has mostly shown great success in survivability. Crews will continue to monitor the different trials to come up with the best plan for LLCF closure in the future.

Land Disturbances

At the Ekati Diamond Mine, land disturbance and loss of wildlife habitat occurs through site clearing, industrial development and facility expansion during the Construction and Operation phases.

Habitat loss between January 2024 to December 2024 was the result of expansions of the Sable Waste Rock Storage Area and development at the Point Lake Pit. Total habitat loss in 2024 was 95.4 ha (less than 0.01% of available habitat in the study area). A total of 4,043.0 ha of habitat has been lost due to development of the mine footprint since 1997, or 2.5% of the total pre-development habitat in the study area.

As mining activities progress, areas will be reclaimed once mining is complete in that area. Areas that can't be reclaimed as mine operation continues will be returned to a natural or productive state once the mine is closed.

Water Quality Monitoring

Water quality is important for wildlife and people's well-being. One-third of the Ekati Diamond Mine claim block is covered with water, so monitoring water quality is a key concern at the mine. The Water Licence sets out the amount of water that Burgundy can take from lakes and streams to use in camps or for watering roads to keep down the dust and controls the quality of the processed water Burgundy can return to the environment.

According to the current Water Licence, the Ekati Diamond Mine must have two programs to monitor the quality of water released from the LLCF, Two Rock Sedimentation Pond, or King Pond Settling Facility into the downstream lakes. These programs are the Surveillance Network Program and the Aquatic Effects Monitoring Program. The Water Licence also indicates that seepage water quality from the waste rock storage areas must be monitored as it enters the environment.

Water naturally contains many substances like metals (e.g., nickel), nutrients, and suspended solids.

Scientists test for these constituents or water quality variables to see if the mine is causing changes to the water's natural contents

Surveillance Network Program

The Surveillance Network Program monitors the quality of water at sites around the Ekati Diamond Mine. Two of the sites are at Discharge points – places where water from the Ekati Diamond Mine re-enters the natural environment. These two Discharge points monitor water released from the King Pond Settling Facility to Cujo Lake, and the Two Rock Sedimentation Pond to Horseshoe Lake. The remaining sites monitor the water passing through various mine facilities.

In 2024, water samples were collected from 17 different SNP sampling stations. Water quality indicators from the Discharge points must meet the requirements in the Water Licence. If the water is above the limits, then the water cannot be pumped into lakes or used for road watering.

Effluent Quality Criteria Exceedances

In 2024, two instances occurred where effluent quality criteria limits were exceeded. Discharge from the King Pond Settling Facility to Cujo Lake occurred between June 24, 2024, to July 21, 2024. Weekly water quality sampling during this discharge period met the EQC for all grab samples but exceeded the Monthly Maximum Average Concentration for Aluminum (Al). The GNWT inspector was notified on August 1st, 2024.

The second exceedance event occurred during the 2024 Spring Seepage Survey, which identified exceedances for seven parameters at various locations: sulphate (2 stations), pH (1 station), TSS (2 stations), arsenic (6 stations), selenium (6 stations), iron (1 station), potassium (1 station). In response to these exceedances, comprehensive silt curtains were installed at the appropriate seep locations. The GNWT Inspector and the Board were notified on December 18th, 2024 by Burgundy of the seeps and actions taken.

Aquatic Effects Monitoring Program

The purpose of the Aquatic Effects Monitoring Program is to determine if water Discharged from mining activities changes water quality affecting the plants and animals that live in water downstream from the Ekati Diamond Mine. The program works as an early warning system by detecting slight changes in the levels of water quality indicators including nutrients, salts, and metals. Early detection allows the Ekati Diamond Mine team to address water quality changes before they have a negative effect in the Receiving Environment.

The five major areas monitored in 2024 for potential effects by mine activities were:

- The Koala Watershed, where most Ekati Diamond Mine operations are located;
- The King-Cujo Watershed, which contains the Misery site and King Pond Settling Facility;
- The Pigeon-Fay and Upper Exeter Watershed, which contains Pigeon Open Pit, support facilities as well as the Pigeon Stream Diversion;
- The Horseshoe Watershed, which contains the Sable site and Two Rock Sedimentation Pond; and
- The Point Lake Development Lakes, where the Point Lake Pit and associated infrastructure are currently being constructed.

Not all parts of the lakes are monitored in all watersheds every year. In 2024, Burgundy monitored water flow, water quality, and aquatic biology variables including **plankton**, lake and stream benthic invertebrates (called **benthos**), and large- and small-bodied fish species.

Koala Watershed and Lac de Gras

In 2024, 22 water quality variables were evaluated for mine-related changes in lakes and streams in the Koala Watershed and Lac de Gras. Although several of those variables have stabilized or decreased, 16 remain above **baseline** or **reference** concentrations downstream of the LLCF. The comparison with reference lakes and streams suggests that the changes are related to the Discharge of water from the LLCF into the Receiving Environment. Concentrations of two water quality variables were also higher at sites near the mine that do not receive Discharge water from the LLCF (Figure 6).

Water quality variables are also compared to limits that have been set to protect aquatic life, wildlife, and drinking water quality. These limits are called water quality benchmarks. In 2024, none of the water quality concentrations in the Koala Watershed and Lac de Gras were greater than benchmark values and therefore would not be expected to have negative effects to aquatic life. pH was lower than the benchmark value at some sites but this was also the case at reference sites, therefore this was not considered to be related to the mine (Figure 6).

A total of 12 plankton and 8 benthos variables were evaluated in 2024 for mine-related changes in the Koala Watershed and Lac de Gras. Downstream of the LLCF, three mine-related changes were observed in the types of plankton that live in lakes (Figure 7). These changes have been observed in previous years, and similar to some changes in water quality, some of the changes in plankton appeared smaller than have been observed in previous years. No mine-related effects were detected lake or stream benthos at any sites in this watershed.

Fourteen Slimy Sculpin (small-bodied fish), eight Lake Trout (large-bodied fish), and 21 for Round Whitefish (large-bodied fish) variables were evaluated in 2024 for mine-related changes in the Koala Watershed. Downstream of the LLCF, lower **catch per unit effort** was observed for Slimy Sculpin and increases in mercury and selenium concentrations were observed for all three fish species. Lower catch per unit effort for Slimy Sculpin and increases in mercury in all three fish species were also observed in Kodiak Lake, which is not downstream of the LLCF. The mercury concentrations measured in large-bodied fish tissues caught in Koala Watershed monitored lakes suggest there is potential for human health effects if consumed on a regular basis. However, similar mercury concentrations in Lake Trout collected from reference lakes suggest that there is also a regional source of mercury that is not related to the Ekati Mine. The source(s) and significance of the observed mercury concentrations in fish tissues requires further investigation, which has been proposed in the Fish Response Plan Version 4.0 (see Aquatic Response Framework section below). Selenium concentrations in large-bodied fish suggest there are no potential human health effects anticipated related to the consumption of fish from Koala Watershed monitored lakes. The mercury and selenium tissue concentrations are not expected to result in potential adverse effects in large-bodied fish populations.

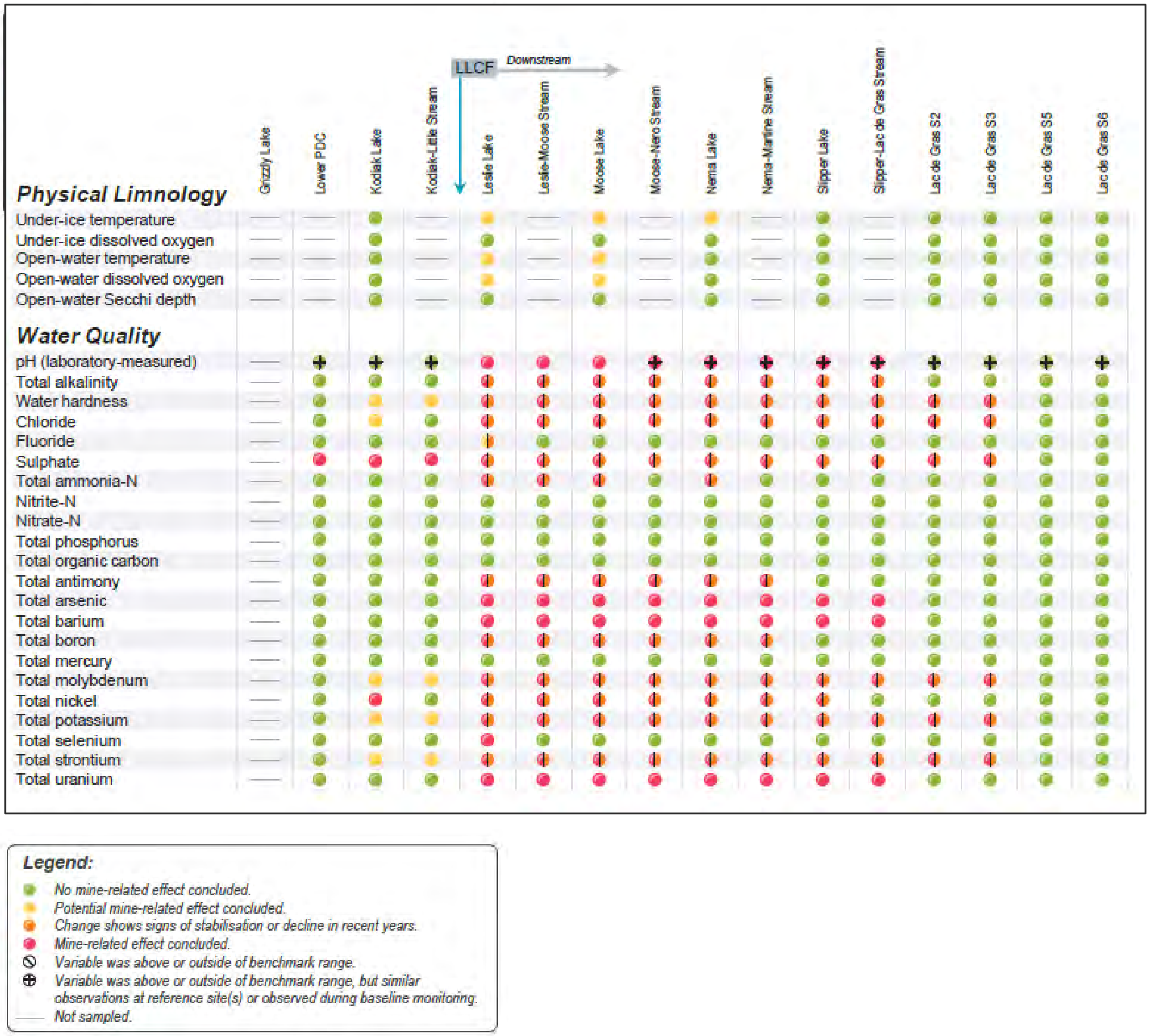


Figure 6. Summary of Water Quality Changes in the Koala Watershed and Lac de Gras

Figure 7. Summary of Biological Changes in the Koala Watershed and Lac de Gras

King-Cujo Watershed and Lac du Sauvage

In 2024, 22 water quality variables were evaluated for mine-related changes in lakes and streams in the King-Cujo Watershed and Lac du Sauvage. Although concentrations of several of those variables have stabilized or decreased, 18 remain above **baseline** or reference concentrations downstream of the KPSF. The comparison with reference lakes and streams suggests that the changes are related to the Discharge of water from the KPSF into the Receiving Environment (Figure 8). In 2024, the concentration of one water quality variable (total phosphorus) was greater than the benchmark value in Cujo Lake during the summer. Concentrations greater than the total phosphorus benchmark do not cause toxic effects to the plants and animals living in the lake but could cause changes related to nutrient enrichment, such as more plankton. pH was lower than the benchmark value at some sites, but this was also the case at reference sites, therefore this was not considered to be related to the mine. A decrease in **Secchi depth** was also observed in Cujo Lake in 2024.

A total of 12 plankton and 8 benthos variables were evaluated for mine-related effects in the King-Cujo Watershed and Lac du Sauvage. Seven mine-related changes were observed in plankton and benthos variables (Figure 9).

Fourteen Slimy Sculpin (small-bodied fish), eight Lake Trout (large-bodied fish), and 19 for Round Whitefish (large-bodied fish) variables were evaluated in 2024 for mine-related changes in the King-Cujo Watershed. Downstream of the KPSF in Cujo Lake, lower catch per unit effort was observed for Slimy Sculpin, increases in selenium were observed for Round Whitefish, and increases in mercury concentrations were observed for all three fish species (Figure 9). The mercury concentrations measured in large-bodied fish tissues caught in Cujo Lake suggest there is a potential for human health effects if consumed on a regular basis. However, similar mercury concentrations in Lake Trout collected from reference lakes suggest that there is also a regional source of mercury that is not related to the Ekati Mine. The source(s) and significance of the observed mercury concentrations in fish tissues requires further investigation, which has been proposed in the Fish Response Plan Version 4.0 (see Aquatic Response Framework section below). Selenium concentrations in large-bodied fish suggest there are no potential human health effects anticipated related to the consumption of fish from Cujo Lake. The mercury and selenium tissue concentrations are not expected to result in potential adverse effects in large-bodied fish populations.

Pigeon-Fay and Upper Exeter Watershed

Water quality samples were collected in the Pigeon-Fay and Upper Exeter Watershed in 2024 but an evaluation of potential mine-related effects was not conducted. This watershed does not receive Discharge from the mine and mining is no longer being conducted in Pigeon Open Pit, thus yearly evaluation of potential mine-related effects is not required as part of the AEMP Design Plan. Evaluation of potential mine-related effects in the Pigeon-Fay and Upper Exeter Watershed will be done next in 2026 (once every three years). In 2023 when the last evaluation of effects was completed for this watershed, it was determined that concentrations of water quality variables had generally decreased and/or stabilized since 2008 and there were no mine-related effects for aquatic biology variables.

Legend:
- No mine-related effect concluded.
- Potential mine-related effect concluded.
- Change shows signs of stabilisation or decline in recent years.
- Mine-related effect concluded.
- Variable was above or outside of benchmark range.
- Variable was above or outside of benchmark range, but similar observations at reference site(s) or observed during baseline monitoring.
- —— Not sampled.

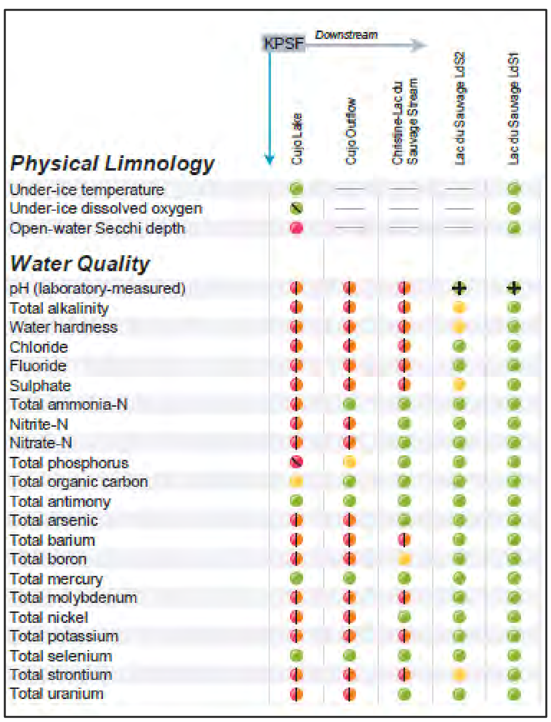


Figure 8. Summary of Water Quality Changes in the King-Cujo Watershed and Lac du Sauvage

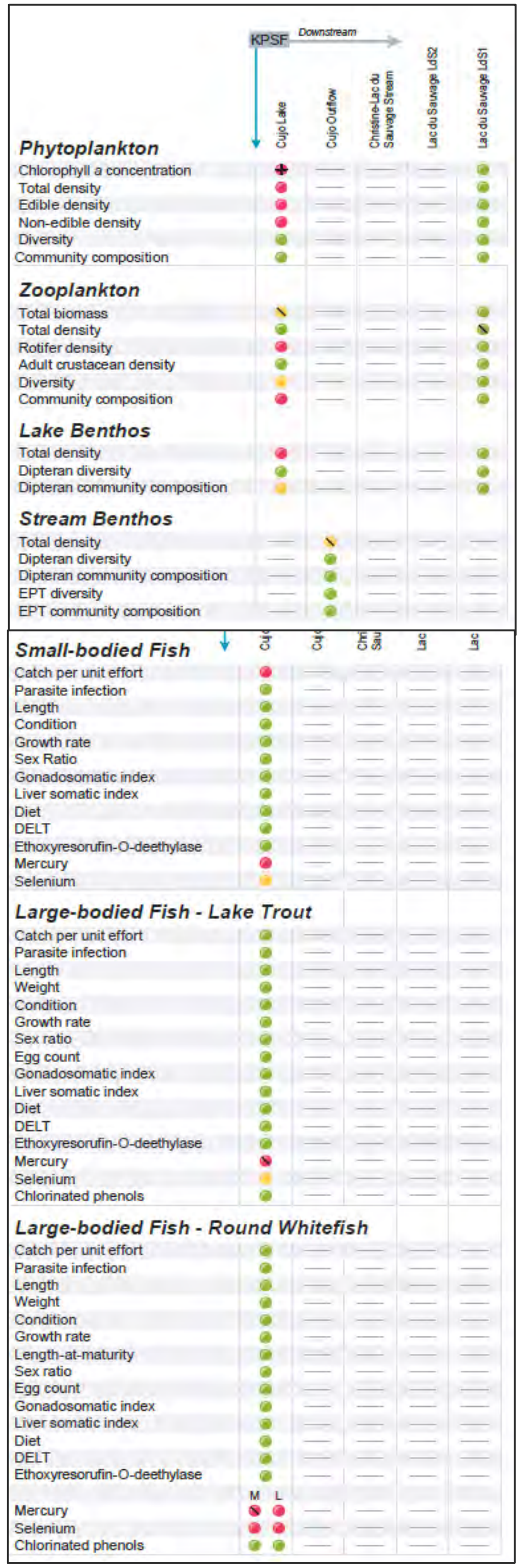


Figure 9. Summary of Biological Changes in the King-Cujo Watershed and Lac du Sauvage

Horseshoe Watershed and Lower Exeter Lake

In 2024, 25 water quality variables were evaluated for lakes and streams in the Horseshoe Watershed and Lower Exeter Lake (Figure 10). The results showed that there were some changes in water quality in Ulu Lake and Outflow, which are not downstream of Discharge from the TRSP, but it was not clear whether these changes were related to the mine. Ulu Lake and Outflow don't receive Discharge from the TRSP and no seepage has been seen flowing from the Sable WRSAs towards these waterbodies. Downstream of the TRSP, results showed that concentrations of 5 water quality variables have increased in Horseshoe Lake or Outflow, which is likely a result of discharge from the TRSP. In 2024, concentrations of one water quality variable (total iron) were above the benchmark value in the outflow streams of Ulu and Horseshoe lakes but mine-related effects were not concluded for total iron in these streams. pH was lower than the benchmark value at some sites, but this was also the case at reference sites, therefore this was not considered to be related to the mine. No other water quality benchmarks were exceeded in 2024 in this watershed.

In 2024, 12 plankton, eight benthos, and 14 Slimy Sculpin (small-bodied fish) variables were evaluated for mine-related effects in the Horseshoe Watershed and Lower Exeter Lake. No mine-related effects were concluded for any aquatic biology variables (Figure 11).

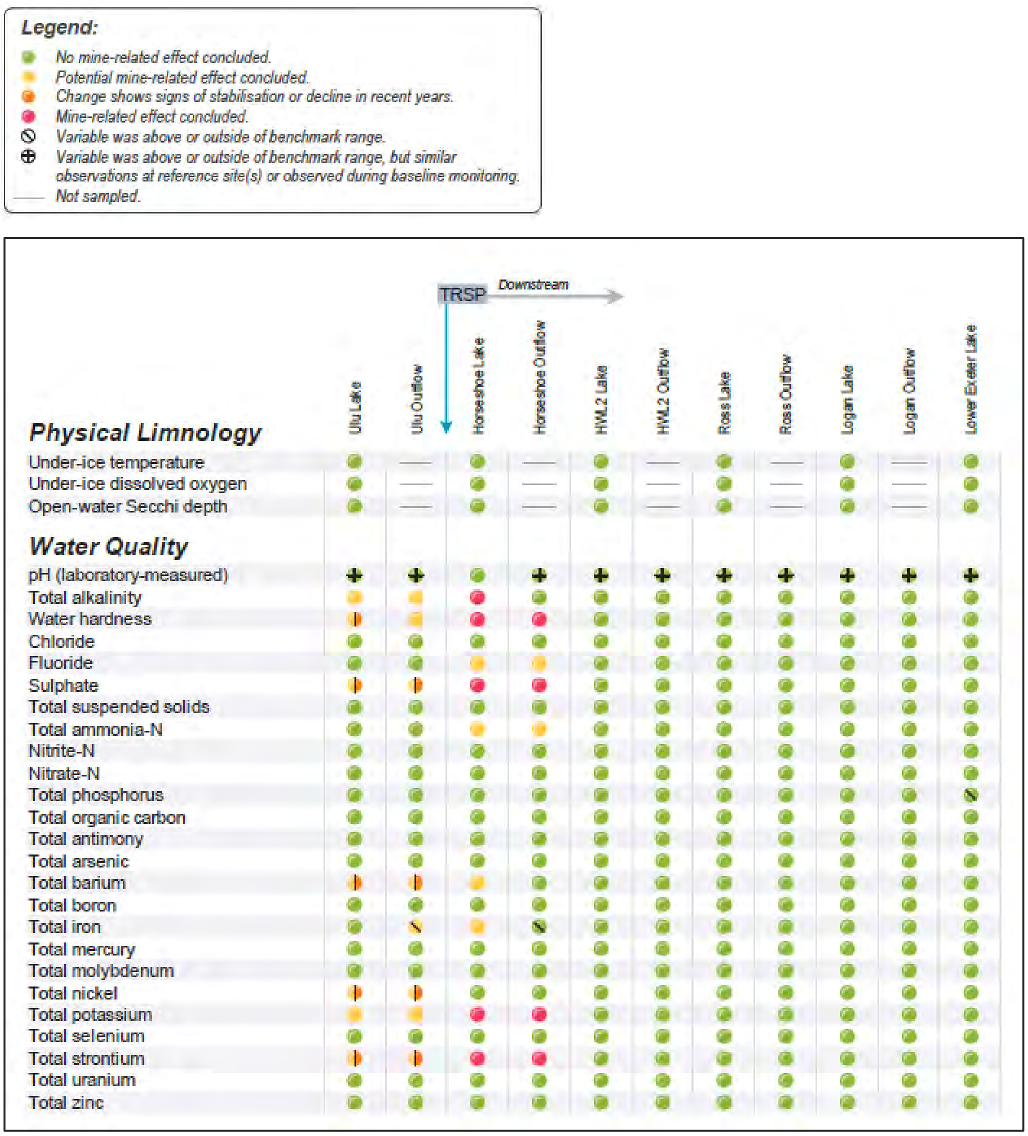


Figure 10. Summary of Water Quality Changes in Horseshoe Watershed and Lower Exeter Lake

Figure 11. Summary of Biological Changes in Horseshoe Watershed and Lower Exeter Lake

Point Lake Development Lakes

The year 2024 was the first year of post-baseline monitoring for the Point Lake Development Lakes. AEMP monitoring began in the summer of 2024 because construction to establish the Point Lake Overburden Stockpile and Point Lake WRSA, as well as blasting for construction of the Point Lake Open Pit, began during the winter ice-covered season. A total of 22 water quality variables and 6 plankton variables were evaluated for mine-related effects in the Point Lake Development lakes in 2024. No mine-related effects were detected (Figure 12). None of the water quality concentrations in the Point Lake Development Lakes were greater than benchmark values. pH was lower than the benchmark value at all sites but this was also the case at reference sites, therefore this was not considered to be mine-related.

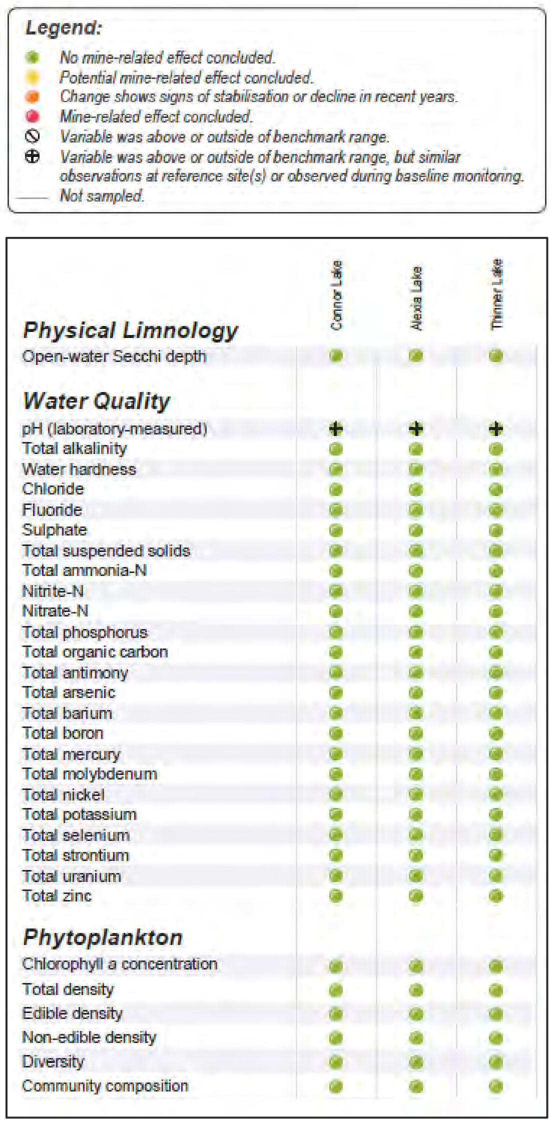


Figure 12. Summary of Water Quality and Biological Changes in Point Lake Development Lakes

Aquatic Response Framework

*An **Action Level** is an amount of change in something scientists are testing for in the water (e.g. potassium, chloride, etc.) that requires Burgundy to take action. Actions might include changes to operations, investigations, or finding new ways to prevent effects in the water.*

The Ekati Mine Water Licence defines the Aquatic Response Framework as "*a systematic approach to responding when the results of a monitoring program indicate that an **Action Level** has been reached*". Each year, the AEMP data are screened against Action Levels described in the AEMP Design Plan.

The following low Action level exceedances were identified for water quality variables in 2024:

- Under-ice dissolved oxygen (Cujo Lake);
- Total phosphorus (open-water season in Cujo Lake);
- Total iron (open-water season in Horseshoe Lake); and
- Total potassium (ice-covered season in Leslie Lake).

No medium or high Action Levels were exceeded for water quality variables in 2024.

Aquatic Response Plans were already in place to address exceedances of low Action Levels for under-ice dissolved oxygen, total phosphorus, and total potassium prior to 2024. An Aquatic Response Plan for Total Iron was submitted to the Wek'èezhìi Land and Water Board in February 2025. No further response is necessary to address these water quality Action Level exceedances at this time.

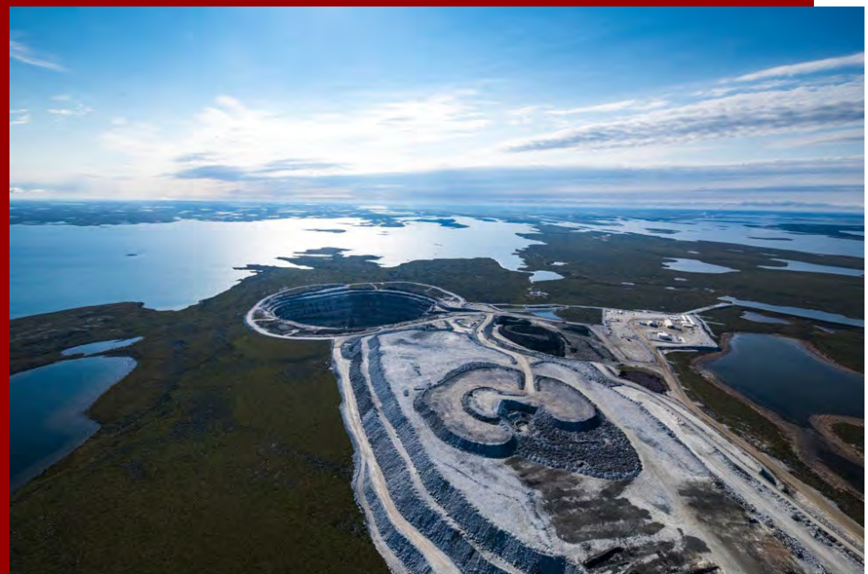
Action level exceedances were also identified for the following biological variables in 2024:

- Phytoplankton biomass (medium Action Level in Cujo Lake);
- Phytoplankton community composition (low Action Level in Leslie Lake);
- Zooplankton community composition (low Action Level in Leslie, Moose, and Cujo lakes);
- Catch per unit effort (low Action Level in Kodiak, Leslie, Moose, and Cujo lakes);
- Fish tissue mercury concentrations (high Action Level for Kodiak, Leslie, Moose, and Cujo lakes); and
- Fish tissue selenium concentrations (medium Action Level for Leslie Lake, low Action Level for Moose and Cujo lakes).

An Aquatic Response Plan is already in place for plankton, this plan will be updated in 2025 to address the medium Action Level exceedance for phytoplankton biomass observed in Cujo Lake in 2024, since the medium Action Level for phytoplankton biomass has not previously been exceeded. A Fish Response Plan is also already in place, this plan will be updated in 2025 to address the low Action Level exceedance for catch per unit effort and the medium and high Action Level exceedances for mercury and selenium in fish tissue. Both plans will include proposed management and/or mitigation actions to address the Action level exceedances observed in 2024. A key action will be to conduct a study to better understand what is causing the increased mercury concentrations in fish tissues.

All Response Plans are posted for public review before final approval by the Wek'èezhìi Land and Water Board. A summary of versions and approvals are tracked through the AEMP reports.

Waste Rock Storage Area Seepage Survey



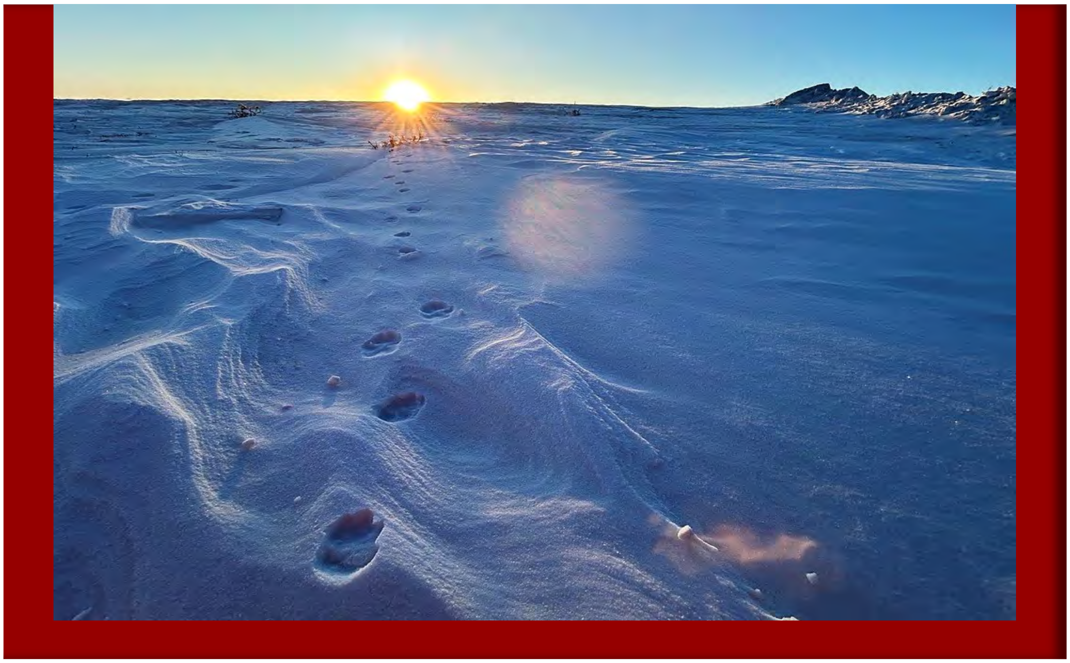
When mining for diamonds within the kimberlite ore, workers must remove other rock (referred to as waste rock) from the ground. After kimberlite ore has been processed to remove diamonds, a mixture of fine and coarse materials, called processed kimberlite, is generated. Waste rock and coarse kimberlite from the process plant are placed in Waste Rock Storage Areas, as set out in the approved Waste Rock and Ore Storage Management Plan. Without carefully designed management plans and monitoring programs, contaminants found in the waste rock and coarse processed kimberlite may enter the receiving environment through waste rock seepage.

Over 90% of the waste rock stored at the Ekati Diamond Mine is granite. The remaining waste rock is either metasediment, diabase, or waste kimberlite. In 2024, Waste Rock was principally produced at Sable and Point Lake, and minor quantities from MUG. Waste rock at MUG was sampled at a rate of three samples per 12 months. The 2024 results showed that the MUG granite mined are not potentially acid generating or have low acid generating potential. Analyses of the four samples of Point Lake materials also indicate that the materials are non-potentially acid generating.

Burgundy monitors seepage water quality every year at freshet and in the fall. During the 2024 seepage surveys, 30 different seeps were sampled.

Waste rock seepage *refers to water that drains over and through the waste rock piles and which may pick up contaminants as it comes into contact with this material.*

Freshet *refers to the spring thaw of the snow and ice surrounding the mine in late May and early June that initiates the start of the open-water sampling season. Freshet will usually last several weeks.*



Wildlife Monitoring

Wildlife Effects Monitoring Plan

There is a variety of wildlife within the Ekati Diamond Mine claim block, including bears, caribou, foxes, wolves, wolverines, raptors and nesting birds. The Wildlife Effects Monitoring Plan (WEMP) focuses on animals or groups that are considered particularly important or that have special conservation status; these animal species are referred to as Valued Ecosystem Components (VEC). The plan identifies the effects mining activities can have on the health of these animals and through monitoring efforts, helps Burgundy determine how well actions aimed to reduce these effects are working.

Wildlife and Traffic

To increase wildlife safety, Burgundy works hard to minimize potential interactions between mine- related traffic and wildlife by:

- Giving wildlife the right-of-way, temporarily closing roads when necessary, scanning for wildlife on or near roads, and posting wildlife caution signs
- Reducing speed limits and implementing short- and long-term road closures following action levels determined in the Caribou Road Mitigation Plan (CRMP), which requires increased caribou monitoring, traffic speed reductions, and temporary road closures as caribou approach the Ekati Diamond Mine and associated roads
- Strengthening employee education and awareness efforts (i.e., posters, presentations, and site-wide e-mail notifications)
- Using Traditional Knowledge to inform road construction and caribou crossing locations.
- Removing carcasses on or near the roads (to help minimize traffic risks to predator and scavenger species)

These mitigation practices are important to minimize vehicle and aircraft interactions with wildlife. Burgundy continues to focus on education and awareness to manage traffic-related mortalities, and there has been continuous improvement in the level and detail of reporting vehicle-related mortalities.

The CRMP, a three-level hierarchy of management and mitigation above the regular Operational Level (Blue) response to wildlife interactions with roads at the Ekati Mine, was applied to Misery haul road and Sable haul road beginning in mid-2016. The 2024 reporting year represents the eighth full year that the CRMP was implemented. In

2024, the Operational Level was in effect for 28 days, from January 5th to February 2nd and 17 days from February 12th to 29th, while alert levels beyond the Operational Level were triggered for most of the year due to caribou presence near the roads. Level 1 (Yellow – low risk) was triggered on two occasions, for a total duration of five days, and Level 3 (Red – high risk) was triggered frequently for a total duration of 302 days.

During the 2024 reporting period, there were 28 vehicle-related wildlife mortalities reported at the Ekati Mine. These included arctic hare (eight), arctic ground squirrel (one), caribou (two), wolverine (one), and unknown ptarmigan (16). No aircraft-related mortalities occurred in 2024.

Eight interactions between wildlife and vehicles occurred in 2024. Three events required grizzly bears to be deterred off roadways using light vehicles. All individuals involved in wildlife-vehicle interactions were unharmed and work continued after the wildlife moved out of the area. Caribou did not require vehicle deterrence in 2024. Only one interaction occurred where a caribou required deterring from the airstrip. To enhance wildlife safety, measures like visual monitoring, temporary road closures, and wildlife signage are implemented while animals are near mine roads. Use of Traditional Knowledge to inform construction of accessible road crossing ramps and implementation of the CRMP are key measures in limiting wildlife-vehicle interactions.

Wildlife Incidents and Mortalities

Wildlife incidents are recorded and reviewed as part of Burgundy's management plan to reduce the potential for wildlife-related safety concerns for employees, and to minimize the potential effects of mine activities on wildlife. A total of 51 non-vehicle wildlife incidents were reported. Caribou accounted for the majority of the incidents, with 29 recorded events. These incidents occurred when caribou were on the road or near mine infrastructure, leading to road closures or work stoppages. Fourteen incidents involving grizzly bears requiring deterrence from mine infrastructure or roads occurred while there were 11 other incidents involving red foxes, unknown foxes, wolves, and common ravens. Deterrents were used during wildlife interactions that involved field crews or mine infrastructure. In 2024 deterrents were used on 16 occasions and included bear bangers, scare cartridges, rubber bullets, light vehicles, and a helicopter.

Wildlife mortalities unrelated to vehicle traffic were also recorded. During the 2024 reporting period, there were four wildlife mortalities reported at the Ekati Mine. They included two VEC species (two caribou and one grizzly bear), and one non-VEC species (one common raven). The cause of death for one caribou was unknown, while the second caribou mortality potentially occurred due to predation, as wolves were observed feeding on the caribou carcass. The grizzly bear mortality was also likely predation as an adult male grizzly bear was observed feeding on the carcass of a grizzly bear cub. The common raven mortality was due to unknown causes.

Wildlife Management

Burgundy implements wildlife management activities when actual or possible interactions may pose a safety risk to animals, humans or both. These may include site-wide notifications via email, radio, or phone, giving presentations, posting wildlife notices, and implementing road closures or work stoppages.

During the 2024 reporting period, 455 general wildlife management actions were implemented in response to wildlife activity at the Ekati Mine, including actions directed at caribou (197), grizzly bear (194), wolf (44), wolverine (eight), fox (10) and moose (one). The remaining wildlife management actions (seven) were general to all wildlife, or a combination of species, encountered.

*A **Wildlife Incident** is defined as an interaction between an animal(s) and human(s) that may compromise the safety of the animal(s) and/or human(s). Incidents also include any action where deterrent measures are deemed necessary.*

Caribou Road Mitigation Plan Activity Levels

- *Operational Level: (Blue – continual operational level)*
- *Level 1 (Yellow – low risk)*
- *Level 2 (Orange – medium risk)*
- *Level 3 (Red – high risk)*

Wildlife Attractions and Waste Management

Waste from the mine site must be carefully managed to keep materials that might attract or harm wildlife out of landfills. Proper disposal of waste is an ongoing challenge that Ekati Diamond Mine staff take seriously. Inspections are regularly conducted on waste bins and the landfill to ensure that waste is being disposed of correctly. Regular employee education sessions are conducted to stress the dangers posed to wildlife and mine personnel from improperly disposed waste. Overall, misdirected waste was found in 1% of waste bins surveyed at Main Camp and Misery Camp and 3% at Sable Office in 2024. The percentage of total landfill surveys detecting food waste (34%) is comparable to previous years.

Wildlife Monitoring

Caribou

During the 2024 reporting period, there were 13 caribou observations (1,041 individuals) over 83 surveys at the Long Lake Containment Facility (LLCF). For most observations, group size was less than 50 individuals, however there was one observation of approximately 1,000 caribou. Most of the behaviours observed were caribou travelling, feeding, and standing and no injuries or signs of distress were observed. Other wildlife and/or wildlife signs (i.e., tracks, scat) were also observed in the LLCF including six mammal and 36 bird species, suggesting wildlife species are using the LLCF area.

There were 207 incidental observations of caribou reported during the 2024 reporting period totaling 5,306 animals (note that incidental observations likely include the same individuals or groups observed on multiple occasions). The number of incidental observations in 2024 was one more than recorded in 2023 (206), however the total number of caribou observed in 2024 was lower than the number of caribou observed in 2023 (11,555).

Consistent with the collar data, the highest percentage of caribou observed incidentally in 2024 occurred during the winter (January 1 to April 19 and December 1 to 31) and fall migration (September 7 to November 30) seasons, approximately 48%. In most reporting years, the migration periods have been when most animals are observed around the Ekati Mine.

Information from satellite-collared Beverly/Ahiak female caribou collected by ENR continues to indicate that the Beverly/Ahiak herd overlaps with the Ekati Mine during winter. Incidental caribou observations at the Ekati Mine in 2024 support the kernel UD maps that indicate caribou were observed most often at the Ekati Mine during the winter and the fall migration periods.

Grizzly Bear

During the 2024 reporting period, there were 94 incidental grizzly bear sightings, totaling 136 grizzly bears on 65 separate days near the Ekati Mine.

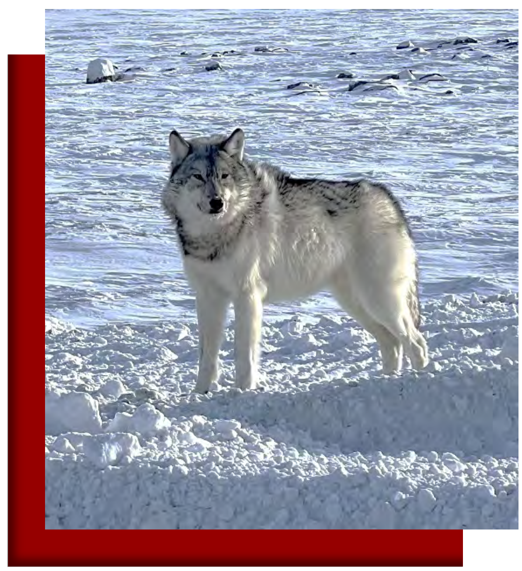
Multiple animals or family groups were observed on 19 occasions in 2024 for a total of 14 individual family groups. The most observed family group composition included one adult female with three cubs, which was observed on four occasions. The number of grizzly bear sightings with family groups observed in 2024 decreased from 2023 (30), while the number of individual grizzly bear sightings also decreased in 2024 from 2023. The decreased number of observations of grizzly bears in 2024 may be a result of natural fluctuations in breeding females around the Ekati Mine.

In 2024, one potential active grizzly bear den was located. One adult female with three cubs was spotted in proximity to the den, indicating potential use.

As in past years, grizzly bear site-wide notifications were delivered following the first evidence of grizzly bear activity of the season.

Wolf

There were 45 incidental wolf sightings, totaling 63 wolves on 39 separate days near the Ekati Mine during the 2024 reporting period.



The lower number of observations in recent years may be associated with natural changes to wolf migratory patterns and behavior and is in line with past reporting years.

Wolverine

In 2024, there were 10 incidental observations of wolverines recorded on nine separate days near the Ekati Mine, which falls below the average number (25) of observations recorded since 2003.

Burgundy has implemented adaptive mitigation measures to reduce the likelihood of attracting wolverines to site, including a proactive waste management program, increased educational awareness, improvements and regular examination and maintenance to the accommodation structures that inhibit possible access to buildings by wolverines, and proactive management activities that include site-wide notifications about wolverine and other carnivore species near infrastructure.

Fox

During the 2024 reporting period, there were 58 incidental sightings of 65 individual foxes on 57 separate days near the Ekati Mine. Most observations (53) were red foxes while the remaining observations were unknown foxes (nine). In addition, five red foxes, three arctic foxes, two cross foxes (melanistic colour variant of the red fox) and one unknown fox were observed during LLCF surveys. Fox sightings were distributed across numerous roads around the Ekati Mine Site, the Main Camp, the incinerator building, and the landfill area.

Raptors and Corvids

In 2024, there were 20 incidental sightings of 33 individual raptors representing five species over 24 separate days near the Ekati Mine, including incidental sightings during LLCF surveys. Species observed incidentally include bald eagle (two), gyrfalcon (seven), peregrine falcon (four), rough legged hawk (two) and northern harrier (3). Common raven (five) was also observed and is included with raptors due to similar nesting habitat. Two common raven nests were recorded: one active nest was discovered at the Misery Crusher power substation in April, and one active nest was discovered inside a ventilation hood of the incinerator building in May.

Burgundy monitors the open pits at the Ekati Mine to identify raptor nesting activity, as a variety of bird species (including common ravens, peregrine falcons, rough-legged hawks, and gyrfalcon) will use pit walls as nesting habitat. During the 2024 reporting period, a total of 264 pit wall nest surveys over 82 days were conducted at the Sable pit between March 27 and June 25, 2024.

Migratory Birds

During the 2024 reporting period, 13 incidental bird sightings occurred, for a total of approximately 274 individuals from five discernable species. Species observed include Canada goose (60), greater white-fronted goose (110), northern pintail (37), rock ptarmigan (2), snow goose (40), unknown ptarmigan (24), and one unidentified bird species. Norther pintail is a species of conservation concern and ranked as Sensitive in the NWT (GNWT 2024). An additional 5,842 migratory birds representing 32 unique species over 58 separate days were recorded during LLCF surveys in 2024.

Other Wildlife

In 2024, there were two incidental sightings of moose (individual animals) on two separate days near the Ekati Mine. No calves were observed in 2024. Observations of moose have become more common in recent years at the Ekati Mine, with a total of 106 moose recorded between 2013 and 2024.

There were two incidental sightings of muskox (one group of seven and one group of 15 animals) on two separate days with two calves confirmed; no observations of muskox were recorded in 2022 or 2023.

There were six incidental observations of arctic ground squirrel on two separate days during LLCF surveys in 2024

Conclusion

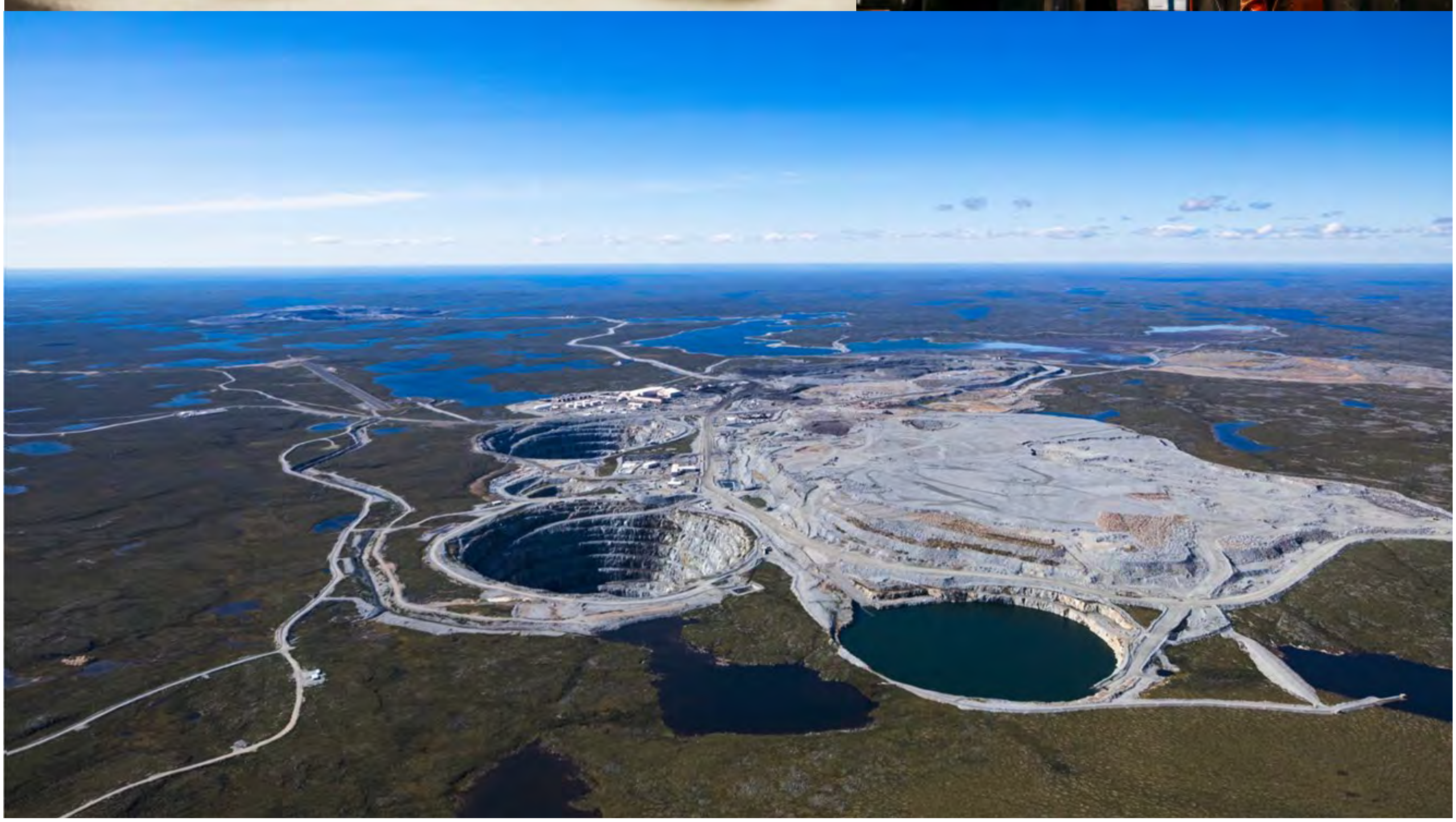
The Ekati Diamond Mine continues to meet the terms of its Water Licence and the Environmental Agreement. Ongoing monitoring programs and other improvements mentioned in this summary will be critical to provide ample time to address changes that might lead to serious effects to the environment.

In 2025, Burgundy will continue to monitor air, water, and wildlife in and around the Ekati Diamond Mine, find ways to minimize the mine's effect on the environment, and continue with progressive reclamation.

EKATI DIAMOND MINE

2024 Annual Water Licence and Environmental Agreement Report

October 2025



BURGUNDY
DIAMOND MINES

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ACRONYMS AND ABBREVIATIONS

Abbreviation	Definition
AQMP	Air Quality Monitoring Program
AEMP	Aquatic Effects Monitoring Program
Arctic Canadian	Arctic Canadian Diamond Company Ltd.
ATV	All- Terrain Vehicle
Board (the)	Wek'èezhìi Land and Water Board
Burgundy	Burgundy Diamond Mines Ltd.
CAM	Continuous Air Monitoring
CAMB	Continuous Air Monitoring Building
CIRNAC	Crown-Indigenous Relations and Northern Affairs (formerly INAC)
CKR	Coarse Kimberlite Rejects
CKRSA	Coarse Kimberlite Rejects Storage Area
CO_2	Carbon Dioxide
CO_2 e	Carbon Dioxide Equivalent
CPUE	Catch per unit effort
CRMP	Caribou Road Mitigation Plan
CRP	Closure and Reclamation Plan
CSCF	Contaminated Snow Containment Facility
DFO	Department of Fisheries and Oceans Canada
DDEC	Dominion Diamond Ekati Corporation
ECC	Department of Environment and Climate Change (GNWT)
ECCC	Environment and Climate Change Canada
ENR	Environment and Natural Resources
EQ	Equipment Blank
EQC	Effluent Quality Criteria
ERT	Emergency Response Team
FAA	Fisheries Act Authorization
FB	Field Blank
FD	Field Duplicate
FPK	Fine Processed Kimberlite
GHG	Greenhouse Gas
GNWT	Government of the Northwest Territories
GTC	Ground Temperature Cable

Abbreviation	Definition
HADD	Harmful Alteration, Disruption or Destruction
HAL	High Action Level
HSE	Health, Safety and Environment
IBA	Impact Benefit Agreement
ICRP	Interim Closure and Reclamation Plan
IEMA	Independent Environmental Monitoring Agency
IMT	Incident Management Team
ITI	Department of Industry, Tourism and Investment
KPSF	King Pond Settling Facility
LAL	Low Action Level
LLCF	Long Lake Containment Facility
LOM	Life of Mine
m^3	Cubic metres
MAL	Medium Action Level
MPA	Max Potential Acidity
MVRMA	Mackenzie Valley Resource Management Act
NO	Nitric oxide
NO_X	Nitrogen oxides
NO_2	Nitrogen dioxide
NP	Neutralization Potential
NWT	Northwest Territories
OVBSP	Overburden Stockpile
PAG	Potentially acid generating
PDC	Panda Diversion Channel
PK	Processed Kimberlite
$PM_{2.5}$	Particulate Matter 2.5 µm
PSD	Pigeon Stream Diversion
QA/QC	Quality Assurance and Quality Control
RPD	Relative Percent Difference
SCP	Spill Contingency Plan
SO_2	Sulphur dioxide
SoPC	Seep of Potential Concern
SNP	Surveillance Network Program

Abbreviation	Definition
SRF	Seepage Response Framework
TB	Travel Blank
TG	Tłı̨chǫ Government
TK	Traditional Knowledge
TKEG	Traditional Knowledge Elders Group
TRSP	Two Rock Sedimentation Pond
TSM	Towards Sustainable Mining
TSP	Total Suspended Particulate
TSS	Total Suspended Solids
VEC	Valued Ecosystem Component
Water Licence	Type A Water Licence W2022L2-0001
WEMP	Wildlife Effects Monitoring Program
WMP	Waste Management Plan
WMMP	Wildlife Management and Monitoring Program
WRSA	Waste Rock Storage Area
WPKMP	Wastewater and Processed Kimberlite Management Plan
WROMP	Waste Rock and Ore Storage Management Plan
YOY	Young-of-year
YTD	Year to Date
ZOI	Zone of Influence

UNIT OF MEASURE

Abbreviation	Definition
%	percent
°C	degrees Celsius
ha	hectare
km	kilometre
L	litre
m	metre
m^3	cubic metre
wmt	wet metric tonnes

1. INTRODUCTION

Burgundy Diamond Mines Ltd. (Burgundy) is a premier independent global diamond company that proudly produces and delivers ethically sourced diamonds from our world-renowned Ekati Mine, in Canada's Northwest Territories (NWT) to market.

Burgundy's unique end-to-end business model with total chain of custody provides unquestionable diamond origin and traceability in every step of the process, providing the ability to safeguard ethical production of our diamonds from mining to marketing and discovery to design. Our strategy focuses on capturing margins along the full value chain of the diamond market, inclusive of mining, production, cutting and polishing and the marketing and sale of diamonds. Burgundy was founded in Perth, Western Australia, and is listed on the Australian Stock Exchange as ASX:BDM.

Burgundy is the sole owner and operator of Ekati Mine, having purchased the asset from the previous owner, Arctic Canadian Diamond Company Limited (Arctic Canadian), in July 2023. Based on the transaction terms, Burgundy is the parent company of Arctic Canadian, which continues to maintain the previous company name as the named Licence/Permit holder; however, all business is conducted directly by Burgundy.

The 2024 Annual Water Licence and Environmental Agreement Report for Ekati Diamond Mine has been prepared to meet the annual reporting obligations outlined in the following regulatory documents:

- Type A Water Licence W2020L2-0004 (Water Licence) was issued prior to devolution under the federal *Northwest Territories Waters Act* and the *Mackenzie Valley Resource Management Act* (MVRMA), as currently administered by the Wek'èezhìi Land and Water Board (the Board). Post devolution, the Water Licence was amended and issued under the *Waters Act*, a territorial legislation. In 2023, the Type A Water Licence was renewed for a term of 10 years and reissued as W2022L2-0001.
- The Environmental Agreement between the Queen in Right of Canada (represented by the Minister of Crown-Indigenous Relations and Northern Affairs [CIRNAC], formerly Indigenous and Northern Affairs Canada), the Government of the Northwest Territories (GNWT; represented by the Minister of Resources, Wildlife and Economic Development, presently Environment and Climate Change [ECC]), and BHP Billiton, executed January 1997. Arctic has assumed the rights and responsibilities of BHP Billiton under the Environmental Agreement.

The following report summarizes activities conducted during the 2024 calendar year to meet the requirements of the Water Licence and Environmental Agreement. Burgundy is pleased to submit this report and welcomes comments from reviewers and recipients.

2. PROJECT OVERVIEW

2.1 Location

The Ekati Diamond Mine is located within the central Arctic region of the Northwest Territories (NWT), within the Lac de Gras watershed at the headwaters of the Coppermine River drainage basin. This basin flows north to the Arctic Ocean, approximately 310 km northeast of Yellowknife, NWT, Canada (Figure 1). Situated 200 km south of the Arctic Circle and 100 km north of the tree line, the mine is set within the Arctic Tundra, a landscape characterized by boulder fields, tundra, wetlands, and numerous interconnected lakes and streams. The Ekati claim block contains over 8,000 lakes. The region experiences continuous permafrost with a shallow active layer, less than 2 meters thick, which thaws briefly during the summer.

The Mine is comprised of open pit and underground workings, 600-person main camp with airstrip, approximate 14,000 tonnes/day kimberlite processing plant, 200-person satellite camp at the Misery site, processed kimberlite (tailings) containment areas within dammed impoundments and exhausted open pits and connecting roads. The Mine extends approximately 36 km in a north-southerly orientation and approximately 34 km in an east-westerly orientation. The general layout of the Mine is illustrated on.

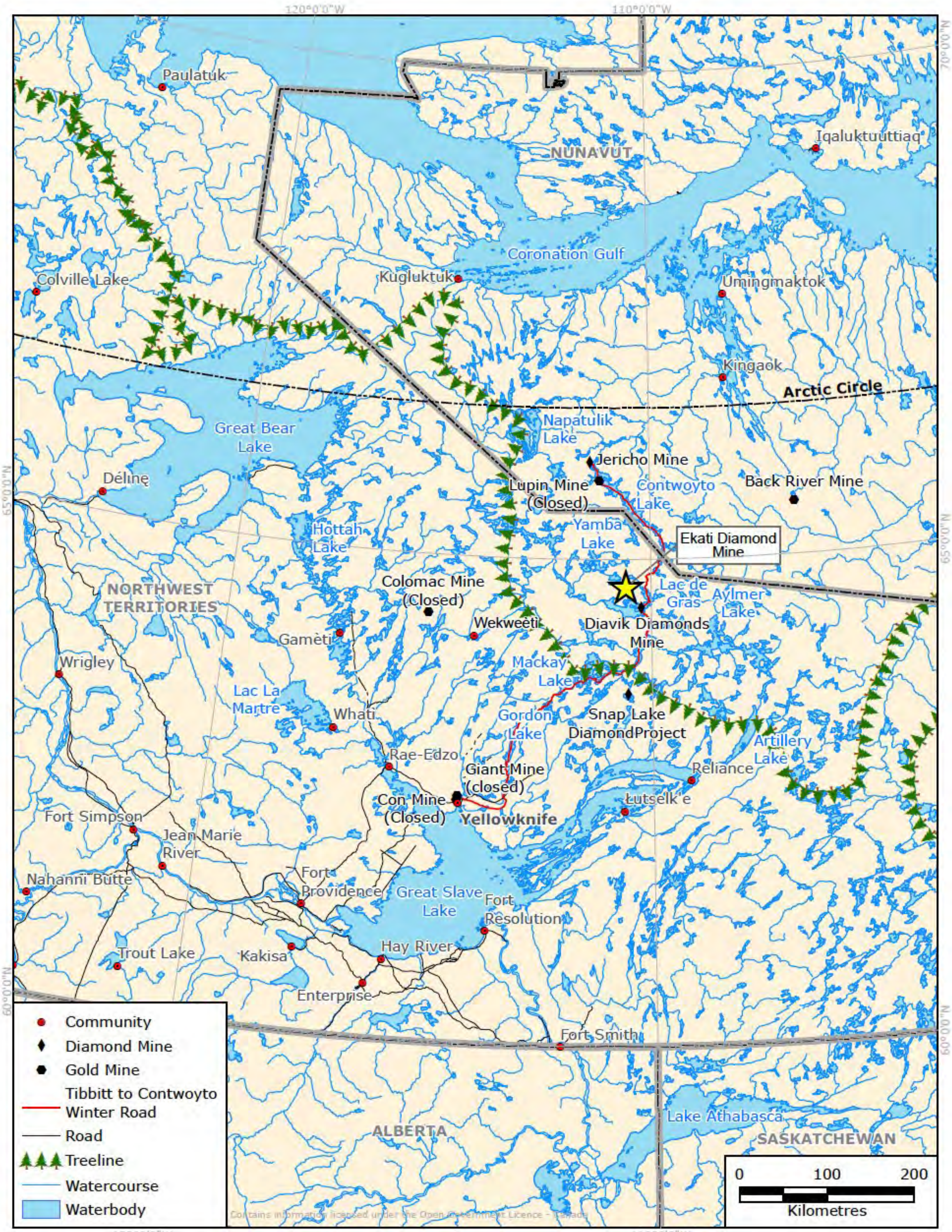

Figure 1. Ekati Diamond Mine Location

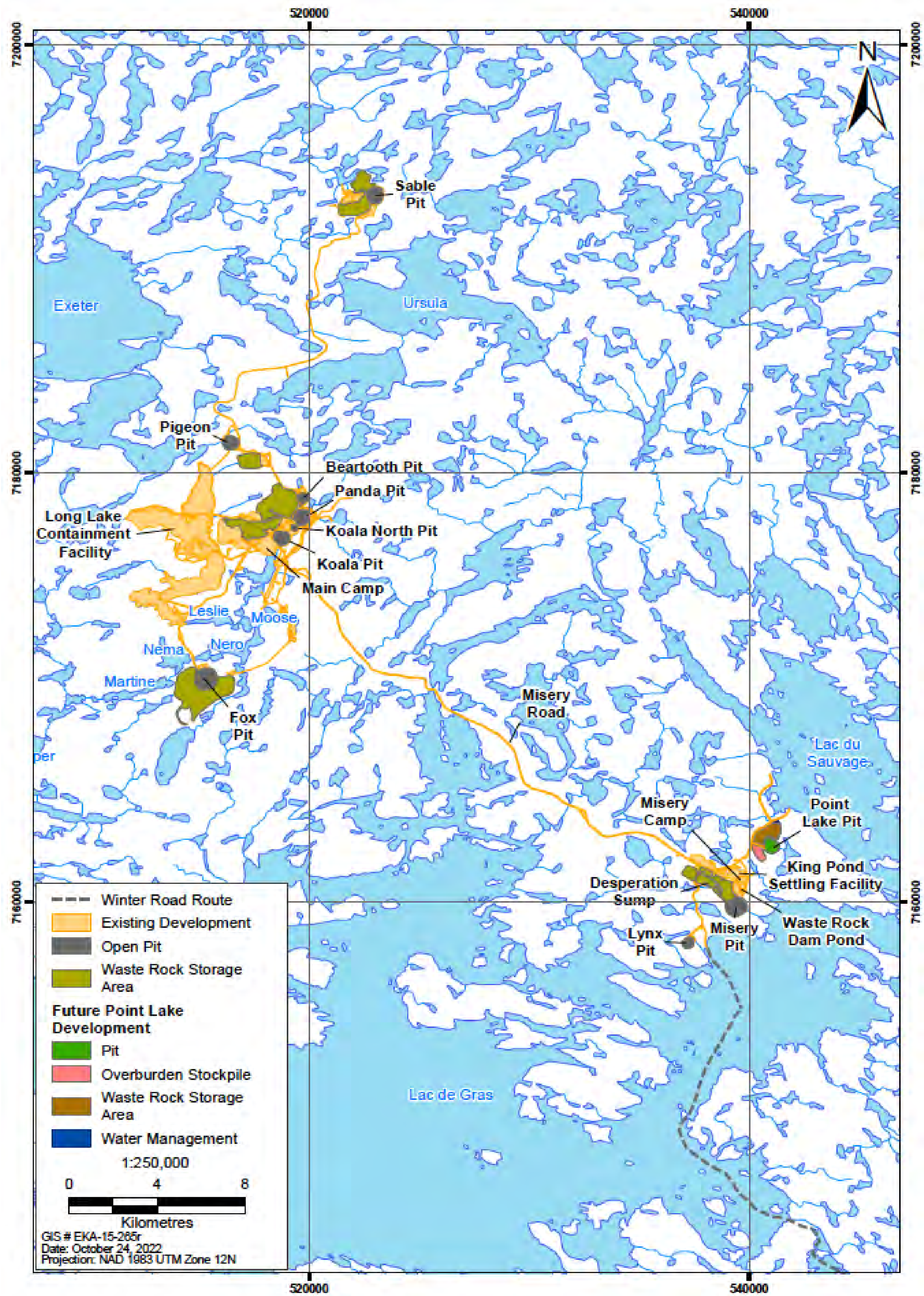

Figure 2. Ekati Mine Layout

2.2 Sustainability Policy

The Sustainability Policy (Figure 3) was created as part of the mine's Integrated Health, Safety, and Environment (HSE) Management System to reflect the commitment to sustainability and continuous improvement. The HSE Management System provides a framework to complete tasks consistently, correctly, and effectively that will drive continual improvement in HSE performance.

Towards Sustainable Mining (TSM) is an initiative of the Mining Association of Canada and is designed to improve the performance of the mining industry through continual improvement and alignment with guiding principles. In 2024, the Ekati Diamond Mine participated in this initiative and subscribed to the guiding principles of TSM. These indicators are designed to identify the industry's current performance in key areas, point to improvement, and must be routinely confirmed by independent auditing agencies. Areas for which performance indicators have been developed include Tailings Management, Climate Change, Indigenous and Community Relationships, Crisis Management and Communications Planning, Safety and Health, Biodiversity Conservation Management, Water Stewardship, and Preventing Child and Forced Labour.

Further information on TSM can be found on www.mining.ca.

SUSTAINABILITY POLICY

Burgundy Diamond Mines is committed to the safety and well-being of our people and the communities in which we operate, mitigating our environmental impact and delivering ethically produced natural diamonds.

SUSTAINABILITY PILLARS

SAFETY
Our goal: To continuously improve our safety performance and culture.
Our approach: To continuously learn, share and improve safety by meaningful worker engagement and safety leadership. Burgundy is committed to providing a safe work environment.

HEALTH
Our goal: To enhance the health and well-being of our people.
Our approach: To promote and deliver occupational health services to our people; ensuring personal health, wellness, and the prevention of workplace related illnesses.

ENVIRONMENTAL RESPONSIBILITY
Our goal: To protect the environment, through responsible and innovative resource development.
Our approach: Foster a culture of environmental stewardship and respect within our workforce, in-line with Indigenous, Government and Regulatory values and expectations.

PEOPLE
Our goal: To build and sustain a high-performing workforce.
Our approach: To commit to a high performance and purpose-led culture, in which everyone demonstrates care and accountability. Burgundy respects and supports the dignity, well-being and human rights of all people, including our workforce, the communities where we live, work and operate, and others affected by our activities and business relationships.

RISK MANAGEMENT
Our goal: To identify and effectively manage risk.
Our approach: To maintain a working environment where risk management is proactive and integrated into daily operations; following a strong process of assessment, development, and monitoring of critical risks.

STAKEHOLDER COMMITMENT
Our goal: Establish positive and collaborative relationships with our key internal and external stakeholders.
Our approach: To communicate openly and honestly, support local programs and contribute to the communities in which we operate.

COMPLIANCE
Our goal: To fulfill our obligations, and requirements, as an industry leader.
Our approach: To maintain integrity with community commitments and regulations and to promote collaboration with our partners and stakeholders.

CREATING VALUE
Our goal: To maximize profit and opportunities for the benefit of our stakeholders.
Our approach: To set and achieve business objectives through continuous improvement and innovation.

CONTINUAL IMPROVEMENT
Our goal: To achieve excellence in Health Safety and Environmental culture by the implementation of identified best practices.
Our approach: To set objectives and targets for continuous improvement in areas that include occupational health and safety, prevention of pollution, waste management, processed kimberlite disposal management, progressive reclamation, biodiversity conservation, energy use, greenhouse gas emissions and water use.

Figure 3. Ekati Diamond Mine's Sustainability Policy

2.3 Regulatory Instruments and Contractual Agreements

Ekati Diamond Mine is regulated through licences, permits, and authorizations. These regulatory documents are governed by many parties including federal and territorial agencies and resource management boards. In addition to complying with government regulations, Ekati Diamond Mine has an Environmental Agreement, which is a contractual obligation between the Government of Canada, the GNWT, and Burgundy.

On April 1, 2014 the GNWT became responsible for managing public land, water, and resources in the NWT. Devolution was the last major transfer of powers from the federal government to the territorial government. The Department of Industry, Tourism and Investment (ITI) became responsible for administration of mineral exploration activities (mineral tenure, royalties) under the modernized Mining Regulations. Mine operation activities (e.g., water and land use) will continue to be regulated under the MVRMA. The MVRMA remains federal legislation, however, devolution gave the GNWT significant delegated authorities.

ITI will continue to have responsibility for the negotiation and administration of socio-economic agreements and facilitating and enabling employment and business development associated with mineral exploration and mine development and operations.

2.3.1 Water Licence W2022L2-0001

Ekati Diamond Mine's Water Licence (W2022L2-0001) was issued by the Board and went into effect on December 18^{th}, 2023. The Licence will expire on December 17^{th}, 2033.

2.3.2 Environmental Agreement

The Environmental Agreement (originally signed in 1997) is signed by Her Majesty the Queen in Right of Canada (represented by CIRNAC), the GNWT (represented by the Minister of ECC) and Arctic Canadian. The Environmental Agreement continues in effect until full final reclamation of the Ekati Mine site is completed.

2.3.3 Authorizations for Works or Undertakings Affecting Fish Habitat

The Ekati Mine has six applicable Fisheries Act Authorizations (FAAs). Three of the six FAAs were closed in 2018 and 2019 (SC99037, 15-HCAA-00266, and SCA96021) with offsetting commitments extending beyond the valid authorization period for SC99037 and 15-HCAA-00266. Three FAAs (i.e., SC01111, 00-HCAA-CA6-00120 [previously SC00028], and 21-HCAA-02471) remain active and provide approval to conduct work that results in the harmful alteration, disruption, or destruction (HADD) of fish habitat. These FAAs are summarized in Section 4.8.3 of this report.

2.4 Concordance with Environmental Agreement and Water Licence

Table 1. Concordance of the 2024 Annual Report with the Water Licence W2022L2-0001.

Water Licence Criterion	Environmental Agreement Criterion	Annual Report Section
-	i) compliance reports with respect to the Water Licence, the Surface Leases, the Land Use Permits and other Regulatory Instruments	Section 4.8
Measuring and Reporting on Water and Waste:		
a) The monthly and annual quantities in cubic metres of water obtained from any sources for the uses listed in Part D, Conditions 2, 3, and 4, where appropriate this is to differentiate between water diverted and water that has been otherwise used;	-	Section 4.1.1 Table 2.
b) The monthly elevations of water during the open-water season for Grizzly Lake, Little Lake, Thinner Lake, Upper Panda Lake, Lac de Gras, Lac du Sauvage, Ursula Lake, Upper Exeter Lake, Cell E of the Long Lake Containment Facility, the King Pond Settling Facility, the Two Rock Sedimentation Pond, Misery pit during its use as the Misery Pit Minewater Facility, and Lynx pit during its use for Misery Underground Development;	-	Section 4.1.2 Table 3.
c) The monthly and total quantities in cubic metres of water Dewatered from Point, Sable, Pigeon, Two Rock Lakes, and Lac du Sauvage;	-	Section 4.1.3 Table 4.
d) The monthly and annual quantities in cubic metres of each Waste deposited into the Long Lake Containment Facility, King Pond Settling Facility, Phase 1 Tailings Containment Area, and Two Rock Sedimentation Pond, the Misery Pit Minewater Facility, Beartooth and Panda/Koala processed kimberlite containment areas, and Lynx pit	-	Section 4.1.4 Table 5.

Water Licence Criterion	Environmental Agreement Criterion	Annual Report Section
during its use for Misery Underground and Point Lake Developments;		
e) The monthly and annual quantities in cubic metres of any Discharges of water or Waste by location and nature of the Discharge;	-	Section 4.1.4 Table 6.
f) The monthly and annual quantities in cubic metres of Minewater pumped from each open pit and the underground mine and its deposit location;	-	Section 4.1.4 Table 7.
g) The monthly and annual quantities in cubic metres of treated Sewage effluent discharged from the Sewage Disposal Facilities;	-	Section 4.1.5 Table 8.
h) The monthly and annual quantities in cubic metres of Sewage solids removed from the Sewage Disposal Facilities;	-	Section 4.1.5 Table 8.
i) The monthly and annual quantities in cubic metres of recycled water, identifying both source and use;	-	Section 4.1.6
j) Tabular summaries of all data and information generated under the Surveillance Network Program and graphical summaries of parameters in the effluent quality criteria under Part H at the points of compliance (SNP stations 1616-30, 1616-43, 1616-47, 0008-Sa3) in an electronic format acceptable to the Board. The Licensee shall provide raw data in electronic form upon request by the Board;	-	Section 4.1.7 Table 11. Table 12.
k) In the report, for the reporting year following completion of monitoring at SNP Station 1616-55 (related to the trial of underwater remote mining at the Lynx Open Pit), a summary monitoring report.		Section 4.1.7
-	vii) lists and abstracts of all Environmental Plans and Programs	Section 3
Management Plans and Activities:		

Water Licence Criterion	Environmental Agreement Criterion	Annual Report Section
l) A summary of Dewatering and Drawdown activities in accordance with Part E, Conditions 1-3;	iii) results and findings of environmental monitoring programs	Section 4.1.3 Table 4
m) A summary of Construction activities and an updated Mine Plan;	-	Section 4.11
n) A summary of all work carried out over the last year under the approved Management Plans referred to in Part H, Conditions 3, 5, and 6 of this Licence including:	iv) summary of operational activities during the Reporting Year	Section 4.2
i. the quantity of kimberlite processed through the process plant;		Section 4.2.1 Table 13
ii. the quantity of Waste Rock by type and Overburden from each open pit and underground mine deposited in each of the Waste Rock Storage Areas and Overburden Stockpiles and a description of Construction compared to the Board approved design for each Waste Rock Storage Area;		Section 4.2.1 Table 13
iii. the quantity of Coarse Processed Kimberlite deposited in each deposition location;		Section 4.2.1 Table 13
iv. the quantity of Fine Processed Kimberlite deposited in each deposition location;		Section 4.1.4 Table 5
v. a summary of the results of Seepage surveys conducted in accordance with Part H, Condition 9 of this Licence; and		Section 4.2.2
vi. updated results of ongoing Acid Rock Drainage and related geochemical test work;		Section 4.2.3
o) A summary of any Modifications carried out in accordance with Part G of this Licence and/or major maintenance work carried out on any water or Waste management facilities including, but not limited to, Water Supply Facilities, Settling Ponds, Long Lake Containment Facility, King Pond Settling Facility,	-	No modifications or major maintenance work, as defined in Part G of the Water Licence were undertaken in 2024

Water Licence Criterion	Environmental Agreement Criterion	Annual Report Section
Sewage Disposal Facilities, Two Rock Sedimentation Pond, Pigeon Diversion Channel, and associated structures;		
p) A summary of the results of the Aquatic Effects Monitoring Program in accordance with Part J of this Licence;	iii) results and findings of environmental monitoring programs	Section 4.3
q) A progress report on any studies requested by the Board that relate to Waste management, water use, or mine site Reclamation and a brief description of any future studies planned by the Licensee;	ii) results and findings of studies and research conducted in the preceding year	Section 4.9
r) A summary of any revisions to the approved: i. Waste Management Plan, Wastewater and Processed Kimberlite Management Plan, and Waste Rock and Ore Storage Management Plan referred to in Part H of this Licence; and ii. Spill Contingency Plan and Hydrocarbon-Contaminated Materials Management Plan referred to in Part I of this Licence.	-	Section 3.11
s) A summary of the results of the monitoring carried out under the Hydrocarbon Contaminated Materials Management Plan referred to in Part I, Condition 6 of this Licence	iii) results and findings of environmental monitoring programs	Section 4.5
Spills and Unauthorized Release:		
t) A list and description, including volumes, of all Unauthorized Releases and summaries of follow-up action taken	-	Section 5
u) An outline of any spill training and communications exercises carried out	-	Section 5
Closure Reclamation:		

Water Licence Criterion	Environmental Agreement Criterion	Annual Report Section
v) A summary of the results of the Annual Closure and Reclamation Plan Progress Report referred to in Part K of this Licence	iii) results and findings of environmental monitoring programs	Section 6
Other Reporting Requirements:		
w) Any other details on water use or Waste disposal requested by the Board by November 1st of the year being reported	-	Section 7.1
x) A description of how Traditional Knowledge, including but not limited to that received from the Traditional Knowledge Elders Group, influenced decision making.	-	Section 7.2

3. MANAGEMENT PLANS AND ACTIVITIES

Burgundy implements multiple interrelated environmental plans and programs at the Ekati Diamond Mine to confirm the protection of land, air, water, and wildlife. Figure 4 provides an overview of all ongoing environmental initiatives at the site. These programs are guided by established plans, with results and components directly or indirectly influenced by their objectives.

The environmental plans and programs active in 2024, along with brief descriptions are provided in sections below. Additional details can be found in the corresponding appendices, approved plans, and published technical reports.

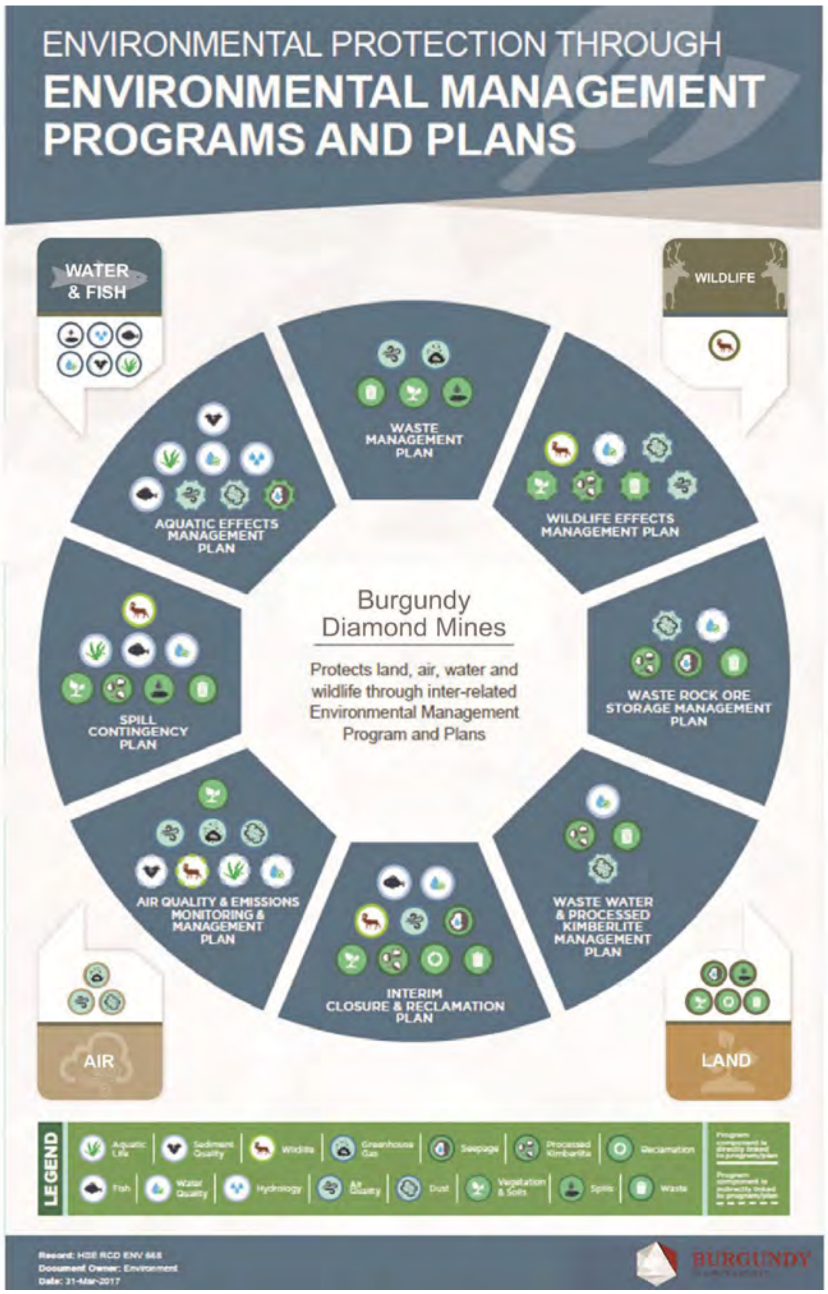

Figure 4. Environmental Protection through Environmental Management Programs and Plans

3.1 Surveillance Network Program

The Surveillance Network Program (SNP) required as per Schedule 10, Part D, condition 1 of the Water Licence, outlines a series of monitoring stations within the Ekati Diamond Mine claim area (Figure 5). The SNP prescribes a sampling frequency for each station with a specific set of water quality variables that are to be monitored. In addition, it requires monitoring and measurement of water pumping and Discharge volumes, fresh and recycled water use, sewage effluents, waste rock and ore production, and meteorological data.

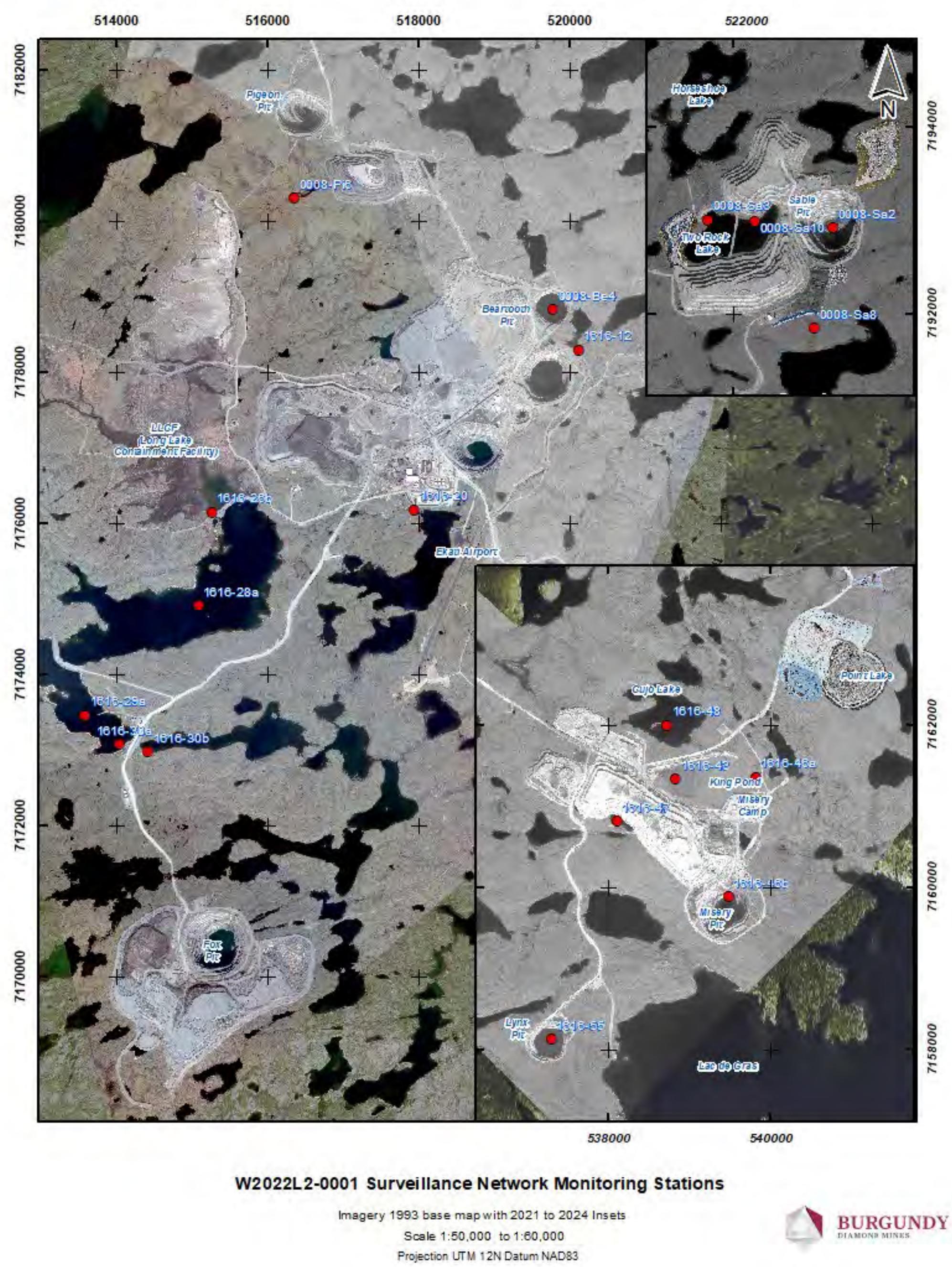

Figure 5. Ekati Diamond Mine SNP sampling locations, 2024.

3.2 Wastewater and Processed Kimberlite Management Plan

The maintenance of a current Wastewater and Processed Kimberlite Management Plan (WPKMP) for the Ekati Diamond Mine is required by the Water Licence. The WPKMP incorporates the placement of processed kimberlite (PK) within the Long Lake Containment Facility (LLCF) over the Life of Mine, an update of operations (since 2006), and the site-wide Wastewater Management Strategy. The WPKMP is a guidance document that allows the Ekati Diamond Mine to adapt to changes in the Life of Mine Plan, processing performance in the plant, and the characterization of kimberlite being mined. The Ekati Diamond Mine is committed to meeting the Water Licence Discharge criteria and causing no significant adverse environmental effects in the Receiving Environment downstream. See Section 3.11 of this report for a summary of recent revisions.

3.3 Aquatic Effects Monitoring Program

The Aquatic Effects Monitoring Program (AEMP) is a requirement of the Ekati Mine Water Licence. The primary objective of the AEMP is to serve as an early warning system, identifying changes in the aquatic ecosystem, assessing their magnitude and extent, and determining whether they may be attributed to mine-related activities. The AEMP study area extends beyond the immediate zone of influence (ZOI) of the mine and includes both reference/control areas and five key geographic areas that may be affected by mining activities:

- Koala Watershed and Lac de Gras;
- King-Cujo Watershed and Lac du Sauvage;
- Pigeon-Fay and Upper Exeter Watershed;
- Horseshoe Watershed and Lower Exeter Lake; and
- Point Lake Development Lakes.

The following components are included as part of the AEMP:

- Stream hydrology;
- Physical limnology;
- Lake and stream water quality;
- Lake sediment quality;
- Phytoplankton;
- Zooplankton;
- Lake and stream benthos; and
- Small- and large-bodied fish.

A key component of the AEMP in 2024 was the monitoring of small- and large-bodied fish to assess potential mine-related effects. Small-bodied fish, such as Slimy Sculpin (*Cottus cognatus*), are analyzed every three years and large-bodied fish, including Lake Trout (*Salvelinus namaycush*) and Round Whitefish (*Prosopium cylindraceum*) are assessed every six years. In 2024, both small- and large-bodied fish sampling efforts were successfully completed.

The AEMP Aquatic Response Framework provides a response mechanism to adaptively manage the AEMP and the aquatic environment. Results from the annual AEMP are screened against Action Levels defined in the AEMP Design Plan, and if the results exceed a defined Action Level, this triggers the development or update of an Aquatic Response Plan, as required.

3.4 Wildlife Effects Monitoring Program

The Wildlife Effects Monitoring Program (WEMP) is a requirement of the Environmental Agreement (Articles V and VII) and the Wildlife Act (subsection 95 [1998]) for the Ekati Mine. The WEMP is guided by the Wildlife Effects Monitoring Plan (Golder Associates 2017). The Plan was last updated in 2017 to incorporate effects identified during the Jay Project Environmental Assessment (DDEC 2014) and obligations under various Acts and regulations relevant to wildlife in the NWT. Final approval of the updated WEMP, including the Caribou Road Mitigation Plan (CRMP), was received on July 31, 2018. Through a stakeholder workshop in December 2021 and subsequent comment and response cycles, the Point Lake WEMP Addendum (Arctic Canadian 2021a) was finalized in 2022 with post-dewatering monitoring initiatives. Burgundy is currently in the process of finalizing an updated Wildlife Mitigation and Monitoring Plan (WMMP), which will be implemented upon final approval by the Government of the Northwest Territories Department of Environment and Natural Resources (GNWT ENR or ENR, now the Department of Environment and Climate Change; ECC) and is expected in 2025.

The Plan is based on the predicted effects to wildlife identified in the Ekati Environmental Impact Statement (BHP Billiton 1995), the Environmental Assessment Report for the Sable, Pigeon, and Beartooth Kimberlite Pipes (BHP and Dia Met 2000), the Developer's Assessment Report (DDEC 2014) for the Jay Project, and the Point Lake Project Description (Arctic Canadian 2021b). Although the Jay Project has been cancelled, the wildlife monitoring and mitigation initiatives for the area have been adopted and implemented site-wide and will also be applied to the Point Lake Project.

The WEMP monitors wildlife and documents wildlife effects resulting from mining development and associated activities and interactions at the Ekati Diamond Mine. The WEMP also assesses the effectiveness of wildlife mitigation and management efforts. The program focuses on wildlife species of conservation concern or species/groups considered to be important, and which will experience residual effects from some aspects of the project. These species and groups are identified as Valued Ecosystem Components (VECs) and include caribou (*Rangifer tarandus groenlandicus*), grizzly bear (*Ursus arctos)*, wolf (*Canis lupus)*, wolverine (*Gulo gulo)*, and raptors. Additional species and groups not considered VEC but still monitored as part of the WEMP are foxes (*Vulpes spp.*), frequently found at Ekati, and migratory birds as they interact with the Ekati Mine frequently, are protected under the *Migratory Birds Convention Act* (1994) and include species of concern.

The following components are included as part of the WEMP:

- Monitoring of caribou;
- Monitoring of carnivores, including grizzly bears, wolves, wolverine, and foxes;
- Monitoring of raptors and migratory birds;
- Monitoring interactions between wildlife and traffic, and assessing success of mitigation efforts;
- Monitoring wildlife mortalities and incidents and assessing the effectiveness of mitigation efforts;
- Monitoring potential wildlife attractants and assessing the effectiveness of waste management efforts;
- Inspecting buildings (i.e., accommodation skirting) and fencing structures at the Ekati Mine's Main Camp and Misery Camp for evidence of interaction with or disturbance by wildlife;
- Monitoring wildlife interactions with the Long Lake Containment Facility; and
- Monitoring wildlife interactions with the Misery haul road power line and additional mine roads.

The WEMP is a living document that is reviewed every five years and updated as needed. It incorporates revisions based on feedback from extensive consultation with stakeholders, including regulators, scientists, and Indigenous people. The WEMP uses scientific methodology and Traditional Knowledge (TK) as sources of information regarding wildlife and local ecology. The Ekati Mine employs several full-time Environment Specialists, an Environment

Advisor dedicated to the implementation of the WEMP, seasonal hires and consultant wildlife biologists to assist, as required.

3.5 Closure and Reclamation Plan

The Interim Closure and Reclamation Plan (ICRP) describes the proposed reclamation activities for the Ekati Diamond Mine based on the Life of Mine Plan at the time of submission. The Ekati Diamond Mine is required under the Water Licence and the Environmental Agreement to have a closure plan in place during active mining operations, and to update that plan on a regular basis and/or when there is a significant change to the Life of Mine Plan. A final closure plan will be prepared and submitted to the Board at least two years before the end of active mining.

The ICRP is developed with input from Impact Benefit Agreement (IBA) communities and regulatory agencies and incorporates specific reclamation activities and objectives detailed in conformance documents that include Water Licences, the Environmental Agreement, Land Use Permits, Land Leases, and Fisheries Agreements.

Reclamation of the mine site is guided by the Reclamation Goal to return the Ekati Diamond Mine to viable, and wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment, human activities, and the surrounding environment. Closure objectives are used to guide reclamation activities through closure criteria and performance-based standards that measure how successfully closure activities meet closure objectives.

The ICRP includes Reclamation Research Plans that address key uncertainties related to mine closure, such as water quality, wildlife safety, and sustainability of vegetation cover. A closure monitoring plan is also in place as a method of observing and tracking the performance of reclamation work against closure criteria. Monitoring programs and schedules are tailored to individual criteria, with identified parameters, methods, evaluation, and response thresholds. Monitoring results indicate when reclamation work has been successful, or if there is a need for further reclamation work.

ICRP Version 3.1 was submitted on December 23, 2022, as per Part K in the Water Licence W2022L2-0001. On April 19, 2023, the Board sought feedback on the timing of ICRP Version 4.0, considerations for anticipated end of operations in 2029, future engagements and approval of Version 3.1. Burgundy provided responses to public review comments on December 13, 2023. Consistent with some reviewers' commentary, Burgundy recommended that the Board not move forward with an approval of ICRP Version 3.1 at that time or conduct further public review of the document.

Burgundy believes that ICRP Version 3.1 has served a purpose in advancing several important closure planning items (i.e., incorporation of approved closure objectives, an approved Point Lake closure plan, and approved security adjustments). Additionally, ICRP Version 3.1 has generated substantive discussion and comment that provides direction for the next iteration of the ICRP. On April 12, 2024, the Board made the decision not to approve Version 3.1, requiring the submission of ICRP Version 4.0 by April 1, 2026. This decision also specified the submission dates for the Pigeon Open Pit and Waste Rock Storage Area Final Closure and Reclamation Plans as December 31, 2024, and April 30, 2025, respectively. However, due to the ongoing Life of Mine Plan update, Burgundy initially requested a deferral of these submissions on November 12, 2024. On November 29, 2024, the Board decided not to approve the extension request, citing the need for more relevant and detailed rationale, which Burgundy subsequently provided on December 30, 2024. On April 23, 2025, the Board responded to the request, outlining action items for Burgundy.

Additionally, on June 28, 2023, Burgundy submitted Version 1.0 of the Final Closure and Reclamation Plan (FCRP) for Panda, Koala, and Koala North Underground. Following conformity correspondence with Board staff, a revised

FCRP was submitted on February 23, 2024, and subsequently posted for public review on February 20, 2025. Burgundy provided responses to the review comments on April 17, 2025.

The 2024 Annual Closure and Reclamation Plan Progress Report (CRP Progress Report) was submitted on January 31, 2025; as required by Part K, Item 5 of the Water Licence. An updated RECLAIM estimate including the proposed winter road construction costs was provided with the CRP Progress Report for the Board's consideration. Given the ongoing preparation of ICRP Version 4.0, no amendments to ICRP Version 3.1 were proposed in the 2024 CRP Progress Report. A summary of reclamation work conducted in 2024 can be found in Section 4.10.1 of this report.

3.5.1 Closure Progress and Criteria Advancement Plans

Since the submission of the ICRP in 2023, Burgundy has advanced the technical and modelling work required in preparation of ICRP Version 4.0. Reclamation research has also progressed during this period, as described in Section 6.4.

In 2023, Burgundy advanced technical assessments on the long-term effects of erosion, which is an important element in site-wide closure criteria development. The erosional framework was developed to evaluate erosion-related risks for closure landforms. Previously completed erosion modelling was expanded to incorporate material characteristics, closure prescriptions, and various closure landforms across the site, including the Long Lake Containment Facility and Buildings and Infrastructure (e.g., roads and pads). The potential effects of climate change on erosion were also evaluated. This update demonstrates Burgundy's commitment to mitigating erosion-related closure risks through design. The erosional framework modelling and analytical results were submitted with the 2023 CRP Progress Report in early 2024.

Engineering design for Pigeon progressive reclamation was also advanced. Detailed outflow channel and conceptual littoral zone designs were developed. The hydraulic performance of the outflow channel design cross-section was analyzed under freshet conditions, and three conceptual littoral zones were presented: the Northwest (NLZ), Southwest (SLZ), and Ramp (RLZ). Thermal analyses were conducted from 2024 to 2130 (post-closure) using two CMIP6 climate scenarios. An updated design report for the Pigeon WRSA was submitted in early 2024, including revised thermal, seepage, and stability evaluations for the preliminary closure cover design. These results informed seepage and water quality modelling inputs. These designs were also presented and discussed during the 2024 engagement sessions.

The Post-Closure Water Quantity and Quality Model for the Pigeon WRSA was developed using GoldSim software (version 14.0) and its contaminant transport module. This ongoing work aims to predict seepage quantity and quality over a 100-year post-closure period and assess potential effects on Receiving Waters. Geochemical source terms were developed using historical datasets for granite, glacial till, and current Pigeon seepage data. Updated seepage predictions are underway, and Burgundy will provide a summary report to inform engagement prior to finalizing the Pigeon WRSA FCRP.

In 2024, Burgundy completed the final supplemental study for the Effective Neutralization Potential (ENP) investigation and submitted the report in early 2025. The study provided a final interpretation of kinetic test results, confirming preliminary findings and refining ENP calculations. The updated ENP assessment incorporated historical data and recent testing from the Point Lake open pit, addressing recommendations from the interim report. Where applicable, the ENP results will be integrated into final seepage prediction models and used to inform closure criteria and design for the Pigeon WRSA FCRP, consistent with the ICRP 3.1 RFD (Revision C).

Closure criteria advancement in 2024 focused primarily on the Pigeon FCRPs, which will inform ICRP 4.0 development. Burgundy held two engagement sessions in summer 2024 to advance closure planning and criteria development. Discussions included closure objectives, the Objectives-Based Approach to Closure Planning, the

Closure Criteria Framework, and component-specific topics such as littoral zone concepts, outflow channel design, WRSA stability, and water quality modeling.

Progress on Research Plan 4 for the Pigeon WRSA, including infiltration, slope stability, seepage water balance and quality, was also discussed. Burgundy is continuing closure modelling, criteria development and design alternatives assessments through 2025 and 2026. Although progress has slowed due to updates to the Life of Mine Plan, work is ongoing. Updates on this work will be provided in the 2025 Annual Report. Future engagement on closure criteria, including the required water quality workshops as per previous Board decisions, is planned for late 2025 or early 2026. Following these engagement sessions, Burgundy will incorporate feedback into the closure criteria and plans to present the updated criteria for further discussion ahead of the ICRP Version 4.0 submission in 2026.

3.6 Air Quality Monitoring Program

The Ekati Diamond Mine Air Quality Monitoring Program (AQMP) is a requirement under Section VII of the Environmental Agreement. In accordance with the agreement and commitments made in the 1995 Environmental Impact Statement, an AQMP was initiated in 1998 to support the management of air quality throughout the life of the Ekati Diamond Mine's operations.

The 2024 AQMP is comprised of the following components:

- Meteorological monitoring
- Air contaminant and greenhouse gas (GHG) calculations
- Monitoring of total suspended particulate matter (TSP) and particulate matter with aerodynamic diameter less than 2.5 µm (PM2.5) as part of the continuous air monitoring (CAM) and the partisol station sampling
- Continuous ambient air quality monitoring of sulphur dioxide (SO2), nitrogen dioxide (NO2), nitric oxide (NO), and nitrogen oxides (NOX) as part of the CAM
- Lichen tissue monitoring
- Monitoring for dust deposition (dustfall) including total dustfall, acid deposition, and metal deposition snow chemistry sampling, and
- Fuel use summary

Emissions calculations, TSP, and $PM_{2.5}$ monitoring have been conducted yearly since the start of the program in 1998, while snow chemistry and lichen tissue sampling have been conducted every three years. The snow chemistry sampling and the lichen tissue monitoring were last completed in 2023, with the report being submitted in April 2024 that comprises the three-year summary report for the AQMP 2021-2023 reporting period.

Continuous ambient monitoring has been performed continuously since the beginning of 2008 and is housed within the Continuous Air Monitoring Building (CAMB). A copy of the 2024 annual AQMP report is provided in Appendix A.

3.7 Waste Management Plan

The objective of the Waste Management Plan (WMP) is to maintain a safe and healthy workplace at the Ekati Diamond Mine and ensure that potential adverse effects to the environment and wildlife are minimized through sound waste management practices. The WMP provides clear direction to Burgundy staff, contractors, and stakeholders on how waste from the Ekati Diamond Mine is managed through each of the waste streams to final disposal. The WMP ensures that Burgundy is in line with the values of the Sustainability Policy (Figure 3). The WMP includes several guidance plans, outlined below:

Incinerator Management Plan

The Incinerator Management Plan was created to ensure the safe and efficient operation of incinerator units at the Ekati Diamond Mine. This plan includes a detailed look at the incineration waste cycle including waste segregation, collection, incinerator operation, ash management and data recording. The Incinerator Management Plan includes initiatives to minimize incinerator waste volumes as well reduce harmful stack emissions including dioxins, furans, and mercury.

The Waste Management Building continues to operate as a Waste transfer facility, collecting and processing hazardous Waste such as oily rags, aerosol cans, waste grease, waste oil, fuel filters, and other miscellaneous Waste. Hazardous waste transferred off site is sent to KBL Environmental Waste transfer facility in Yellowknife, NT, where it is combined with Waste from other facilities and economies of scale allow for further recycling.

The incinerators continued to operate as per the approved Incinerator Management Plan in 2024. The incinerators remain on a preventative maintenance plan with the manufacturer to inspect the condition of the chamber refractory, check system settings, and maintain proper fuel-to-air ratios in the burners.

The in-vessel composter continues to be an effective means of organic Waste management at the Ekati mine. Organic Waste such as food scraps, paper, and cardboard are broken down in an agricultural mixer and conveyed into the in-vessel composter in batches. The composter completes one full rotation at one revolution per minute at set intervals throughout the day to aerate the organic material and provide optimal conditions for microorganisms.

Hazardous Waste Management Plan

The Hazardous Waste Management Plan outlines strategies for managing hazardous waste, and direction for staff and contractors to processes waste not suitable for the landfill through the Waste Management Team for offsite disposal.

Landfill Management Plan

The primary objective of the Landfill Management Plan is to prevent waste from entering the landfill that may attract or be harmful to wildlife or the environment. The plan outlines what wastes are suitable for disposal in the on-site landfill.

Landfill inspections are conducted daily by Waste Management technicians, and results of the inspections are reported to the Team Leader, Waste Management. The Environment Department conducts three landfill inspections and several waste bin surveys per week and reports the results from both inspections to the Team Leader, Environment. All inspections are completed to assess compliance with the Waste Management Plan. The objectives are to confirm that the waste management rules and policy are understood and applied across the Ekati workforce and to address non-compliance promptly. The Team Leader, Environment provides weekly inspection results to the Head of the Environment Department, who shares them with senior management. The Environment Department also updates the Weekly Welcome Back presentation with landfill and wastebin results so all returning workers are kept current on weekly site performance.

Hydrocarbon Impacted Materials Management Plan

The Hydrocarbon Impacted Materials Management Plan was created to provide a framework and guidance for the management of hydrocarbon impacted materials at the Ekati Diamond Mine. This plan identifies sources of hydrocarbon contaminated materials as well as facilities on site dedicated to treatment and disposal of hydrocarbon impacted waste.

This WMP is related closely to EKA PLA.2104 Spill Contingency Plan. In the event of a large spill requiring the activation of the Spill Contingency plan, hydrocarbon contaminated waste resulting from the spill response will be managed according to the Hydrocarbon Impacted Materials Management Plan.

3.8 Waste Rock and Ore Storage Management Plan

The Waste Rock and Ore Storage Management Plan (WROMP) for Ekati Diamond Mine is a requirement of the Water Licence, Schedule 6, Condition 2. The WROMP needs to be in accordance with the Department of Indian and Northern Affairs and Northern Development's *Guidelines for Acid Rock Drainage Protection in the North*, September 1992, or in the case of the Point Lake Development, Mine Environment Neutral Drainage's *Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials*, December 2009. The WROMP includes several components:

- Ekati Waste Rock Storage Areas (WRSAs) Geochemical Characterization
- Ekati Waste Rock Seepage
- Ekati Ground Temperature Monitoring
- Ekati Waste Rock Seepage Management; and
- Ekati Waste Rock and Ore Storage Management and Monitoring
    - Physical Monitoring
    - Temperature Monitoring
    - WRSAs Geochemistry Monitoring
    - Seepage Monitoring
    - Lynx Diabase risk Mitigation
    - Aquatic Effects Monitoring
    - Adaptive Management Plan

The WROMP follows the growth of the mine and is modified accordingly as needed by the Water Licence.

As outlined in the WROMP, ground temperatures in the WRSAs are measured quarterly using ground temperature cables (GTCs) installed at various locations. Monitoring of the GTCs has been conducted since 2000 and is reported to the Board annually as part of the CRP Progress Report. The 2024 GTC report is provided in Appendix B, as it was not part of the 2024 CRP Progress Report.

3.9 Spill Contingency Plan

This Spill Contingency Plan (SCP) was developed to establish and document practices for responsible management of controlled substance spills at the Ekati Diamond Mine. The principle guiding its development and implementation has been that an effective and high-quality SCP must provide the following:

- A clear chain of command for all spill-related emergency activities
- Accountability for the performance of the spill response
- Well-defined expectations regarding spill response and subsequent clean-up programs
- Well-defined task and operational hazards/risk
- Comprehensive hazard prevention and control methods
- Reporting and record keeping requirements to track program progress

This SPC has been developed with the Ekati Mine and area-specific hazard/risk analysis in mind. It outlines the necessary resources, personnel, logistics, and initial actions to facilitate a prompt, coordinated, and rational approach to emergency incidents. This SCP also contains sufficient detail to enable those who are involved to respond effectively; each person within the facility must know their role as well as the roles of those with whom they will interact.

3.10 Engagement Plan

The Ekati Mine Engagement Plan guides the communication and outreach activities Burgundy undertakes with affected parties. The Engagement Plan addresses how affected parties can develop an understanding of proposed projects and assists Burgundy in developing an understanding of the social, cultural, and environmental conditions in the area. Burgundy has developed and implemented new dispute resolution and community question follow-up procedures for the latest version of this Engagement Plan. Version 5.1 of the Ekati Mine Engagement Plan was submitted and approved by the Board.

3.11 Updates and Revisions to Management Plans

An addendum to Version 8.1 of the AEMP Design Plan was submitted to the Board on October 4, 2024 and approved on October 8, 2024. The Board approved updates to the Aquatic Response Framework (part of the AEMP Design) in their Reasons for Decision on the Response Plan for Plankton and Benthos, Version 3.2 and proposed updates to the Aquatic Response Framework. The Board required Burgundy to update the Aquatic Response Framework as an addendum to Version 8.1 of the AEMP Design Plan to replace Section 5.3.

Version 8.1 of the Waste Management Plan submitted to the Board on July 8th, 2022 as part of the Reasons for decisions with the Point Lake Project. The WMP was approved as part of the Reasons for Decision for the Point Lake Water License Amendment. The WMP is the overarching plan that includes the Landfill Management Plan, Hazardous Wastes Management Plan, Compost Management Plan, Hydrocarbon-Impacted Materials Management Plan, and Incinerator Management Plan. Version 9.0 of the Waste Management Plans was reviewed and updated per the annual review requirement of the Water Licence and submitted on April 20, 2025. The submission included the Hydrocarbon Impacted Material Management Plan and the Solid Waste Landfill Management Plan. These updates are administrative and have no impact on the intent, scope or implementation of the Plans.

Version 10.1 of the Wastewater and Processed Kimberlite Management Plan was submitted to the Board on March 5th, 2024 and approved March 5th 2024. The primary changes to the WPKMP for Version 10.0 and 10.1 was the addition of Point Lake to the plan and the removal of Jay Pit as mining plans changed. Version 11.0 of the WPKMP is being submitted accompanying this 2024 Annual Report to address the administrative revisions outlined in the Reasons for Decision for Version 10.0.

Waste Rock and Ore Management Plan Version 12.1 was submitted on March 6th, 2024, as required by the Board's Reasons for Decision for WPKMP Version 10 and approved by the board on March 7th, 2024. The primary change introduced through WROMP Version 12.1 is to incorporate the required updates of Water Licence W2022L2-0001 and removal of activities stated that are not in compliance with the Licence as directed by WROMP Revision #1 by the Board in the Reason for Decision on March 1st, 2024.

On September 26th, 2024, Version 13.0 of the WROMP was submitted as required by Water Licence W2022L2-0001 and by Board's Reasons for Decision on the 2022 3-Year WRSA Seepage Program Report , WROMP Version 12.0, and Overburden Stockpile Seepage and Runoff Exemption Request. WROMP Version 13.0 was approved on February 28th, 2025. Version 13.1 was submitted on May 29th, 2025, as per the Board's Reasons for Decision for Version 13.0.

4. MEASURING AND REPORTING

4.1 Summary of the Surveillance Network Program

4.1.1 Freshwater

A summary of freshwater use is presented in Table 2. No water was obtained from Little Lake, Lac du Sauvage or Thinner Lake in 2024. Water from Falcon Lake and Lac de Gras was mainly used for Road Watering purposes while Grizzly Lake serves as the primary source of fresh water for the Ekati Main Accommodations and surrounding outbuildings.

Table 2. Freshwater use for 2024 in cubic meters

Month	Grizzly Lake	Little Lake	Thinner Lake	Falcon Lake	Lac de Gras	Lac du Sauvage	Bearclaw Lake
	Used	Used	Used	Used	Used	Used	Diverted
January	6,237	0	0	0	0	0	0
February	4,956	0	0	0	0	0	0
March	5,980	0	0	0	0	0	0
April	6,816	0	0	0	0	0	0
May	6,955	0	0	0	2,240	0	0
June	7,144	0	0	12,320	18,800	0	70,652
July	7,590	0	0	400	25,600	0	154,951
August	7,622	0	0	160	5,600	0	112,843
September	7,130	0	0	0	0	0	0
October	6,667	0	0	0	0	0	0
November	8,020	0	0	0	0	0	0
December	7,202	0	0	0	0	0	0
Annual Total	**82,319**	**0**	**0**	**12,880**	**52,240**	**0**	**338,446**
Maximum Limit as Per Water Licence	**200,000**	**400,000**	**15,000**	**100,000**	**100,000**	**100,000**	**N/A**

N/A: Not Applicable

4.1.2 Lake Elevation

Lake levels are assessed monthly during open water season. Open-water season is typically from June through September. Monthly lake levels are summarized in Table 3. On July 13, 2024, the survey group discovered that the June water elevation measurements for Ursula Lake and Upper Exeter Lake were erroneous due to the use of the wrong coordinate system. Burgundy cannot provide June water elevation data for both lakes. This oversight was rectified for the month of July.

Table 3. Lake Level Elevations for 2024 in meters above sea level.

Month	Grizzly Lake	Little Lake	Thinner Lake	Falcon Lake	Lad du Sauvage	Upper Panda Lake	Lac de Gras	Ursula Lake	Upper Exeter Lake	Cell E LLCF	King Pond Settling Facility	TRSP (Sable)	Lynx Pit
January	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
February	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
March	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
April	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
May	468.34	449.92	451.81	469.74	415.77	460.83	415.48	ND	ND	448.06	445.46	487.69	ND
June	468.05	449.42	451.74	469.88	416.10	460.58	415.64*	464.41*	445.34	448.33	445.51	487.70	426.63
July	467.92	449.22	451.76	469.80	416.21	460.50	415.80	462.92	443.66	448.38	444.35	487.59	427.86
August	467.86	448.91	451.89	469.62	415.93	460.54	415.80	462.868	443.579	448.31	444.52	487.15	428.38
September	467.92	449.11	451.66	469.56	416.38	460.53	416.23	ND	ND	448.18	445.28	487.06	428.71
October	ND	ND	451.81	ND	416.20	ND	416.23	462.87	443.58	ND	445.60	487.08	428.86
November	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
December	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
Maximum Drawdown as Per Water Licence	468.05	449.15	451.74	469.5	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA: Not Applicable
ND: No Data
Note: * Erroneous

4.1.3 Dewatering and Drawdown

A total of 460,078 m^3 was dewatered from Point Lake to King Pong in 2024 (Table 4).

Table 4.Monthly Dewatering Quantities from Point Lake for 2024 in cubic metres.

Month	Point Lake
January	0
February	0
March	0
April	0
May	0
June	0
July	84,694
August	375,384
September	0
October	0
November	0
December	0
Annual Total	460,078

4.1.4 Pumping and Discharge

4.1.4.1 Pumping

Process Plant Total solids to LLCF and Process Plant Fine Tails Discharge to LLCF values in Table 5 were under reported in December 2024. The correct values are 7,137m^3 and 35,465 m^3 respectively. This changes the year to date (YTD) values to 1,386,486m^3 and 330,587m^3 respectively.

Table 5. Waste Deposit to Containment Facilities for 2024 in cubic meters.

Facilities		Long Lake Containment Facility		Koala		Panda		Beartooth		Two Rock		King Pond		Lynx Pit	
Descriptive	Process Plant Liquids	Process Plant Solids	Mine water	Other Waste[(a)]	Process Plant Liquids	Process Plant Solids	Process Plant Liquids	Process Plant Solids	Mine water	Other Waste[(a)]	Mine water	Other Waste[(a)]	Mine water	Other Waste[(a)]	Mine water
January	44,123	12,195	0	0	489,518	135,298	0	0	0	0	0	0	469	0	0
February	18,749	5,229	0	0	450,144	125,550	0	0	0	0	0	28	1,227	0	0
March	10,315	3,114	0	0	535,799	161,733	0	0	0	0	0	88	301	0	0
April	55,154	17,796	0	0	456,565	147,318	0	0	0	0	0	0	206	0	0
May	102,935	30,050	0	319	355,853	103,883	0	0	0	0	6,960	0	54,333	0	0
June	204,158	54,521	0	883	48,212	12,875	337,472	90,124	0	0	3,280	0	11,346	0	0
July	199,746	52,795	0	725	29,170	7,710	376,460	99,502	0	0	160	0	143,188	0	257,946
August	179,218	40,660	0	430	86,010	19,514	338,493	76,796	0	0	2,640	0	138,250	0	81,973
September	182,158	37,994	0	877	42,968	8,962	369,673	77,106	0	0	20,400	110	431,370	0	17,220
October	326,774	63,619	0	69	116,947	22,768	157,216	30,608	0	0	8,240	0	32,275	0	12,400
November	27,691	5,477	0	30	507,557	100,383	0	0	0	0	0	0	34,468	0	80
December	35,465	7,137	0	92	498,070	100,231	0	0	0	0	0	0	26,124	0	0
Annual Total	1,386,486	330,587	0	3,425	3,616,812	946,225	1,579,315	374,136	0	0	41,680	226	873,557	0	369,619

Note [a] "other waste" refers to the liquids removed from sumps within the truck shop and surface sumps which are not tied into dewatering systems

4.1.4.2 Discharge

A summary of the monthly quantities of water or Waste Discharged by location and nature of Discharge are presented in Table 6.

Authorizations for these Discharges, which can all be found on the Board Registry, are outlined below:

- *Authorization for Road Watering and Discharge water from King Pond Settling Facility to Cujo Lake, June 24th, 2024.*

- *Authorization to Discharge water from Two Rock Pond Sedimentation Pond to Horseshoe Lake & Authorization to Use Water from Two Rock Sedimentation Pond for Road Watering, June 20th, 2024.*

Table 6. Discharge and Use of Waste or Water by Location and Type for 2024 in cubic meters.

Month	LLCF		Two Rock		King Pond		Beartooth	
	Leslie Lake	Road Water	Horseshoe Lake	Road Water	Cujo Lake	Road Water	Road Water	LLCF
January	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0
June	0	0	0	6,880	104,547	0	80	0
July	0	0	0	22,320	361,138	0	0	0
August	0	0	177,171	7,120	0	0	0	0
September	0	0	90,930	0	0	0	0	0
October	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0
Annual Total	**0**	**0**	**268,101**	**36,320**	**465,685**	**0**	**80**	**0**

4.1.4.3 Open Pit and Underground

Few volume discrepancies were notified during the monthly reporting season. Table 7 in the Annual Report reflect the proper volume of Minewater pumped from each open pit and underground mine and its deposit location.

The discharge volumes from Misery UG and Misery Pit into King Pond were over reported in June 2024. The correct values are 2,145m^3 from Misery UG and 9,201m^3 from Misery Sumps, totaling 11,346m^3 of Open Pit and Underground water for the month of June deposited in King Pond.

Misery Sumps volume to King Pond for the month of July was over reported as it contained Minewater from Desperation Pond (106,308 m^3). The proper volume for Misery Sumps for the month of July is 14,739 m^3.

The deposit volume from Misery Sumps into King Pond was under reported in September 2024. The correct value is 7,941m^3 from Misery Sumps.

Table 7. Minewater Pumped from All Open Pits and Underground Mine for 2024 in cubic meters

Destination	Two Rock	Misery Sumps	King Pond
Source	Sable	MUG	Misery Sumps
January	0	469	0
February	0	1,227	0
March	0	301	0
April	0	206	0
May	6,960	9,398	44,935
June	3,280	2,145	9,201
July	160	22,141	14,739
August	2,640	5,891	47,665
September	20,400	2,145	7,941
October	8,240	32,275	0
November	0	34,468	0
December	0	26,124	0
Annual Total	**41,680**	**136,790**	**86,351**

4.1.5 Sewage Effluent and Discharge

All sewage went through primary and secondary treatment in the central facility at the main Ekati Diamond Mine camp in 2024. Sewage from the underground facilities, Misery Camp, and Sable Camp was trucked to the central facility. Treated effluent water was piped with the Fine Processed Kimberlite (FPK) slurry to the LLCF, Panda Pit, or Koala Pit. A total of 73,302m^3 of liquid sewage effluent was deposited into containment facilities.

There was 366m^3 of sewage solids removed from the sewage treatment plant in 2024. Sewage solids were deposited into Zone S on the Panda/Koala WRSA. Table 8 provides quantities of both treated sewage effluents and sludge Discharged from the sewage treatment facility.

Table 8. Treated Sewage Effluent and Sludge Discharge Volumes for 2024 in cubic metres

Month	Sewage Effluent Discharged	Sewage Solids
Destination	**LLCF**	**Zone S[a]**
January	4,650	31
February	3,500	29
March	3,813	31
April	5,630	30
May	5,929	31
June	5,559	30
July	7,349	31
August	9,743	31
September	9,215	30
October	7,111	31
November	5,604	30
December	5,199	31
Annual Total	**73,302**	**366**

Notes: [a] Values estimated based on the capacity of he trucks hauling the sewage sludge

4.1.6 Recycled Water

There was 5,408,598m^3 of recycled water drawn from Cell D of the LLCF and used in the Process Plant as process water in 2024. No water was withdrawn from Phase 1 Containment Facility for use in processing in 2024; this facility was decommissioned in 2002 and is now reclaimed. Process Plant water use is summarized in Table 9.

Table 9. Recycled Process Plant Water Usage for 2024 in cubic meters

Source	Cell D (Reclaim Barge)
Destination	**Process Plant**
January	514,747
February	418,665
March	473,692
April	440,888
May	373,132
June	481,862
July	487,579
August	463,235
September	399,434
October	398,516
November	464,536
December	492,312
Annual Total	**5,408,598**

4.1.7 Water Quality

Quality Assurance and Quality Control (QA/QC) samples were collected. Results were assessed to identify whether the water quality data gathered were suitable standard. The data assessment consisted of comparison of field and laboratory QA/QC results document in accordance with the relevant guidelines.

Field duplicates (FD) should represent a minimum of 10% of all samples taken in a calendar year. FD are collected to monitor the precision of field sampling and analyses variability. These samples also test for contamination during samples collection, transport, and analysis. FD need to be collected at the same location as any field and travel blanks. Twelve FD were collected following the same methods and at the same location as a subset of SNP station samples.

Field blanks (FB) and Travel Blanks should represent a minimum of 5% of all samples taken in a calendar year. During 2024, eight FB samples were collected (2 in March, 1 in May, 1 in July, 3 in September, 1 in October). Acceptable precision constitutes a relative percent difference (RDP) between FD ≤ 20% for analyte concentrations at or greater than five times the reported Detection Limit (DL). If one of a set of duplicate values is greater than five times DL, then RDP values greater than 20% indicate a possible issue. Values greater than 50% indicate a more significant cause. Higher RDP values can be the result of contamination that occurred during field collection, sample transport, and/or laboratory analytical. No more than one travel blank should be transported to the field per day. Travel blanks need not to be collected at the same sample station as FB. There are no paired travel blanks for dissolved nutrients, dissolved metals and dissolved mercury monitoring samples due to filtering/contamination issues at the laboratory and will not be analyzed as per BV recommendations. Overall, 12 travel blanks were sampled in 2024.

Two Equipment Blanks (EQ) were collected in 2024. The purpose of an EQ is to assess the cleanliness of sampling equipment. Results for the EQ should be below analytical DL indicating that the collection and processing equipment is not compromising the quality of the environmental samples.

Overall, 97 SNP samples, 12 FD, eight FB, 12 TB and two EQ were collected in 2024 for SNP (Table 10).

All data and information under the SNP can be found in Appendix C. 2024 tabular summaries of parameters of the effluent quality criteria under Part H at the point of compliance (SNP station 1616-30, 1616-43, 1616-47, 0008-Sa3) are in Table 11 and Table 12.

Some samples were received outside of appropriate holding times (in particular for orthophosphate), which may increase uncertainty of some the analytes with the most sensitive holding times but does not necessarily imply that results are compromised.

The Maximum Concentration for any grab sample was below the discharge sample for 1616-43 (King Pond) and 0008-Sa3 (Two Rock) throughout 2024. For station 0008-Sa3, the Maximum Average Concentration was below Effluent Quality Criteria (EQC). On July 8, 2024, the Maximum Average Concentration for 1616-43 exceeded the criteria, with a Total Aluminum level of 0.21 mg/L breaching upper threshold of 0.17 mg/L. Section 8.1.2 has additional details about this exceedance.

No summary monitoring report is available for the trial of underwater remote mining at the Lynx Open Pit; the trial is planned to take place in 2026.

Table 10. SNP Samples collected for 2024

Date Sampled	Job Lab Number	Sample ID	Duplicate	Comment
15-Jan-24	C403617	1616-46b	No	
11-Feb-24	C410660	1616-46b	No	
10-Mar-24	C417934	1616-46b	No	
19-Mar-24	C420072	0008-Be4-M	No	Field Blank
		0008-Be4-T	No	
13-Mar-24	C420041	1616-28a-M	No	Equipment Blank, Field Blank, Travel Blank
		1616-28a-T	1616-288	
		1616-29a-M	No	
		1616-29a-T	No	
9-Apr-24	C427109	1616-46b	No	
7-May-24	C432781	1616-48	No	
9-May-24	C434810	1616-46b	No	Travel Blank
11-May-24	C434806	0008-Sa2	No	
17-May-24	C436387	1616-46a	No	
18-May-24	C436930	1616-20	No	Field Blank
19-May-24	C436393	0008-Sa8	No	
20-May-24	C436394	0008-Sa2	No	
25-May-24	C438782	1616-12	No	
	C438809	0008-Sa2	No	
26-May-24	C438804	0008-Pi6	No	
30-May-24	C441151	0008-Sa2	No	
9-Jun-24	C443426	1616-46b	No	Travel Blank
	C443415	0008-Sa2	No	
10-Jun-24	C443387	0008-Sa9b	No	
	C443391	0008-Sa6	No	
16-Jun-24	C445577	1616-43_Discharge	1616-434	
	C445586	0008-Sa2	No	
	C445596	1616-46a	No	
17-Jun-24	C445641	1616-48	No	
24-Jun-24	C448022	1616-48	No	
	C448014	1616-43_Discharge	No	
25-Jun-24	C448032	1616-12	1616-290	Field blank, Travel blank
2-Jul-24	C449842	1616-43	No	Bioassay–Ceriodaphnia Dubia

Date Sampled	Job Lab Number	Sample ID	Duplicate	Comment
	C449839	1616-43_Discharge	No	
	C449844	1616-48	No	
7-Jul-24	C452428	1616-46a	No	
8-Jul-24	C452411	1616-48	No	
	C452418	1616-43_Discharge	No	
5-Jul-24	C452457	1616-28a-M	No	Equipment Blank
		1616-28a-T	No	
		1616-29a-M	No	
		1616-29a-T	No	
10-Jul-24	C452334	1616-43	No	Bioassay–Pseudokirch subcapita
14-Jul-24	C454201	1616-46b	1616-456	
15-Jul-24	C454177	1616-48	No	
	C454205	1616-43_Discharge	No	
	C454226	0008-Sa10	0008-Sa103,	Travel Blank, Field Blank
		0008-Sa9b	No	
		0008-Sa3	0008-Sa32	
16-Jul-24	C454157	1616-43	No	Bioassay–Rainbow trout LC50 multi concentration & Daphnia Magna LC50 multi-concentration
21-Jul-24	C456083	1616-43_Discharge	No	Last day of Discharge sample
	C456091	1616-48	No	
19-Jul-24	C456101	0008-Be4-T	0008-Be488	
		0008-Be4-M	No	
24-Jul-24	C458539	1616-12	No	Travel Blank
3-Aug-24	C460552	0008-Sa10	No	First Day of Discharge
		0008-Sa3	0008-Sa32	
		0008-Sa9b	No	
4-Aug-24	C460530	1616-46a	No	
5-Aug-24	C460549	0008-Sa2	No	
11-Aug-24	C462652	1616-46a	No	
	C462649	1616-46b	No	
12-Aug-24	C462640	0008-Sa9b	No	Travel Blank
		0008-Sa3	No	
		0008-Sa10	0008-Sa103	
19-Aug-24	C464875	0008-Sa9b	No	Travel Blank

Date Sampled	Job Lab Number	Sample ID	Duplicate	Comment
		0008-Sa3	No	
		0008-Sa10	No	
24-Aug-24	C469924	1616-12	1616-290	
	C469880	1616-43	No	
26-Aug-24	C469899	0008-Sa10	No	
		0008-Sa9b	No	
		0008-Sa3	No	
27-Aug-24	C466889	0008-Sa3_Discharge	No	Bioassay
4-Sep-24	C469930	0008-Sa10	No	
		0008-Sa3	No	
		0008-Sa9b	No	
6-Sep-24	C471594	0008-Sa2	No	Field blank, Trip Blank
9-Sep-24	C471599	0008-Sa10	No	
		0008-Sa3	No	
		0008-Sa9b	No	
8-Sep-24	C471593	1616-46b	No	
11-Sep-24	C471573	0008-Sa3_Discharge	No	Bioassay sample, partial results available
	C473831	0008-Sa10	No	
		0008-Sa3	No	
		0008-Sa9b	No	
15-Sep-24	C473837	1616-46a	No	Field blank, Trip Blank
	C473844	0008-Sa2	No	
	C473839	0008-Pi6	No	
24-Sep-24	C476623	0008-Sa2	No	Field blank
28-Sep-24	C479153	1616-12	1616-290	Trip blank
6-Oct-24	C481509	1616-46b	No	
8-Oct-24	C481504	1616-43_Discharge	No	Bioassay
11-Oct-24	C482656	0008-Sa2	0008-Sa26	Field blank, Trip Blank
15-Oct-24	C483304	1616-43_Discharge	No	Bioassay
22-Oct-24	C485911	0008-Sa2	No	
17-Nov-24	C494548	1616-46b	No	
8-Dec-24	C4A0801	1616-46b	No	

Table 11. 2024 Summary data for SNP Station 1616-43

Sample ID	Date Sampled	Bureau Veritas Job No.	Bureau Veritas Sample ID	Hardness (CaCO3)	pH	Solids	Ammonia (N)	Chloride (Cl)	Nitrate (N)	Phosphorus (P)	Sulphate (SO4)	Arsenic (As)	Copper (Cu)	Aluminum (Al)	Cadmium (Cd)	Chromium (Cr)	Iron (Fe)	Potassium (K)	Uranium (U)	Total hydrocarbons C5-C30
					u.s	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1616-43	16-Jun-24	C445577	CPR784	42.6	6.56	5.1	<0.0050	11	2.5	0.0039	48	0.0015	0.0018	0.31	0.00003	0.0013	0.6	12	0.0018	<0.22
1616-43	24-Jun-24	C448014	CQE930	38.8	7.38	3.4	0.0015	13	2.6	0.0028	51	0.0012	0.0016	0.22	<0.000020	<0.0010	0.37	13	0.0016	ND
1616-43	2-Jul-24	C449839	CQO547	41.5	8.13	3	0.008	13	2.8	0.0046	53	0.0015	0.0018	0.2	<0.000020	<0.0010	0.3	14	0.0019	ND
1616-43	8-Jul-24	C452418	CRC546	41.1	8.02	1.9	0.009	12	2.4	0.012	58	0.0013	0.0017	0.11	<0.000020	<0.0010	0.37	14	0.0016	ND
1616-43	15-Jul-24	C454205	CRM367	44.8	7.42	4.4	0.019	14	2	0.015	61	0.0017	0.002	0.22	<0.000020	<0.0010	0.37	14	0.0028	ND
1616-43	21-Jul-24	C456083	CRY579	45.1	6.77	2.3	0.008	17	1.9	0.011	61	0.0015	0.002	0.16*	<0.000020	<0.0010	0.4	18	0.0027	ND

Note *: Total aluminum breached upper threshold of 0.17 for Maximum Average Concentration

Table 12. 2024 Summary data for SNP Station 0008-Sa3

Sample ID	Date Sampled	Bureau Veritas Job No.	Bureau Veritas Sample ID	Hardness (CaCO3)	pH	Solids	Turbidity	Ammonia (N)	Nitrate (N)	Nitrite (N)	Phosphorus (P)	Aluminum (Al)	Arsenic (As)	Copper (Cu)	Cadmium (Cd)	Chromium (Cr)	Lead (Pb)	Zinc (Zn)	Nickel (Ni)
					u.s	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
0008-Sa3	3-Aug-24	C460552	CSW892	57.5	6.82	<1.0	<0.10	0.023	0.64	0.0059	0.0039	0.017	0.00046	<0.0010	<0.000020	<0.0010	<0.00020	<0.0030	0.0026
0008-Sa3	12-Aug-24	C462640	CTI747	67.3	6.42	4.3	2.3	0.048	0.84	0.0056	0.0073	0.110	0.00048	<0.0010	<0.000020	<0.0010	<0.00020	<0.0030	0.0038
0008-Sa3	19-Aug-24	C464875	CTV130	63.5	6.48	<0.99	<0.10	0.018	1.1	0.0056	0.0032	0.038	0.00050	<0.0010	<0.000020	<0.0010	<0.00020	<0.0030	0.0034
0008-Sa3	26-Aug-24	C469899	CUW082	66.5	6.85	<1.0	1.5	0.041	1.4	0.0052	0.0042	0.012	0.00049	<0.0010	<0.000020	<0.0010	<0.00020	<0.0030	0.0027
0008-Sa3	4-Sep-24	C469930	CUW397	75.5	6.43	<1.0	0.12	0.033	1.9	0.0061	0.0024	0.01	0.00043	<0.0010	<0.000020	<0.0010	<0.00020	<0.0030	0.0027
0008-Sa3	9-Sep-24	C471599	CVF865	80.6	6.72	1.8	1.6	0.033	2.3	0.0071	0.0091	0.15	0.00039	<0.0010	<0.000020	<0.0010	0.00031	<0.0030	0.0038
0008-Sa3	11-Sep-24	C473831	CVT091	80.1	6.14	<1.0	<1.0	0.029	2.5	0.005	0.0025	0.017	0.00047	<0.0010	<0.000020	<0.0010	<0.00020	<0.0030	0.0057

4.2 Summary Waste Rock Storage Area

A summary of the WRSA-related activities conducted under the approved Management Plans is provided in provided below:

- the quantity of Kimberlite processed through the process plant,
- the quantity of Waste Rock by type and Overburden from each open pit and underground mine deposited in each of the Waste Rock Storage Areas and Overburden Stockpiles and a description of Construction compared to the Board-approved design for each Waste Rock Storage Area
- the quantity of Coarse Processed Kimberlite deposited in each deposition location
- the quantity of Fine Processed Kimberlite deposited in each deposition location
- updated results of ongoing Acid/Alkaline Rock Drainage and related geochemical test work, and;
- a summary of the results of Seepage surveys conducted in accordance with Part H, Condition 5 of this Licence.

4.2.1 Waste Rock, Overburden, Coarse Rejects and Coarse Production

All WRSAs have been constructed based on approved designs by the Board. More details on WRSAs can be found in the Burgundy's WROMP V13.0 published on the Board's public registry. The Results of the 2024 WRSA physical stability inspections have been included as Appendix D.

On February 23, 2024, Burgundy requested the exemption of Point Lake OVBSP seepage and runoff from the Collection System. The Board approved that collection of seepage and runoff is not required at the Point Lake OVBSP or at the Point Lake Access Road and work pad. The Board directed Burgundy to commit to monthly visual inspections for seepage at the toe of the OVBSP during construction and re-mining. The request is available on the Board's Public Registry Website:

- Ekati- Overburden Stockpile Seepage and Runoff- Request to Board- Feb 23_24.pdf

There were 8,043,979 wet metric tonnes (wmt) of Waste Rock deposited in 2024. Reject material from the Process Plant was placed in the Coarse Kimberlite Rejects Storage Area (CKRSA) located in the Panda/Koala WRSA (Table 13). An estimated 4,099,497 wet metric tonnes of Coarse Kimberlite (Ore) was produced during 2024 (Table 14). Quantity of FPK deposited in each deposition location can be seen in Section 4.1.4.

Table 13. Quantity of Waste Rock Produced for 2024 in wet metric tonnes.

Origin	Misery Underground		Point Lake Pit		Sable Pit						Coarse Kimberlite Reject	Coarse Kimberlite Rejects Storage Area
Storage Area	Misery Ore Pad	Misery WRSA	Point Lake WRSA	Point Lake OVBSP	Sable West WRSA	Sable South WRSA	Sable South WRSA Ext	Sable South Pad	Sable East WRSA	Sable Ore Pad	Coarse Kimberlite Rejects Storage Area	Primary Crusher
Type	Coarse Kimberlite	Granite	Meta	OVB	Granite / Diabase	Granite / Diabase	Granite / Diabase	Granite / Diabase	Granite / Diabase	Coarse Kimberlite	Processed Kimberlite	Processed Kimberlite
January	69,654	8,970	-	-	0	110,969	0	0	373,740	267,519	88,394	0
February	78,727	10,868	-	-	0	38,023	191,487	14,932	344,402	295,786	77,453	0
March	84,329	12,144	-	-	7,075	0	206,911	0	58,354	413,373	94,376	0
April	90,556	10,446	-	-	0	1,449	485,241	0	0	257,849	99,615	0
May	86,396	4,161	143,739	105,828	0	814	234,535	0	3,519	366,691	72,069	0
June	88,692	9,040	288,608	140,066	0	454	101,884	7,363	0	345,578	112,207	0
July	85,053	9,869	54,511	156,684	0	1,542	61,786	26,086	0	44,341	114,666	9,315
August	81,823	14,482	891,526	70,358	0	0	10,617	1,551	0	248,695	121,151	53,513
September	93,217	3,230	541,720	198,903	0	0	20,836	0	0	239,589	91,642	66,256
October	85,503	7,903	742,186	212,432	0	0	90,567	327	0	159,372	101,624	13,494
November	100,341	1,380	333,415	545,839	0	89	11,614	0	0	341,549	93,740	33,399
December	103,669	5,317	136,930	974,534	0	0	2,724	0	0	114,321	74,852	27,231
Annual Total	**1,047,960**	**97,809**	**3,132,635**	**2,404,644**	**7,075**	**153,340**	**1,418,202**	**50,259**	**780,015**	**3,094,663**	**1,141,789**	**203,208**

OVB: Overburden
Meta: Metasediment

Table 14. Kimberlite Ore Processed in 2024 in wet metric tonnes.

Month	Ore Tonnes Processed
January	363,651
February	289,827
March	371,516
April	345,480
May	268,903
June	378,779
July	397,995
August	392,905
September	342,093
October	338,347
November	320,895
December	289,106
Annual Total	**4,099,497**

All data reported in wet metric tonnes

4.2.2 Summary of Seepage Monitoring

As a condition of the Water Licence, it is required to monitor WRSA seepage quality and characterize Waste Rock at the Ekati Diamond Mine. Findings of these monitoring programs are reported annually in the Waste Rock and WRSA Seepage Survey Report which has been attached to the submission of the Environmental Agreement and Water Licence Annual Report.

In 2024, routine monitoring of Waste Rock Seepage during freshet (June) and fall (September) continued following established protocols. The toes of each WRSA (Panda/Koala, including the CKRSA, Fox, Misery, Lynx, Pigeon, and Sable) were checked on foot along the tundra in all areas where drainage flowed away from the Waste Rock. All existing seeps were checked for flow, and water quality samples were collected from all seeps with measurable flow. Seeps with standing water were not sampled. None of the Sable WRSA seeps were flowing; therefore, this area was not sampled in 2024 (ERM 2025b).

A total of 30 unique seeps were sampled in 2024, within 45 seeps sampling events. Based on these criteria, a total of 12 SoPCs were identified in 2024 and are listed in Table 15.

Table 15. Seeps of Potential Concerns per Waste Rock Storage Area in 2024

Panda/Koala NE/NW	Fox	Misery and Lynx
SEEP-018B	SEEP-370	SEEP-059
SEEP-357	SEEP-373	SEEP-080A
-	SEEP-377	SEEP-081
-	SEEP-388	SEEP-081A
-	SEEP-522	-
-	SEEP-536	-

EQCs have been applied as specified in Part H, Condition 26, of the Water Licence W2022L2-0001. EQCs applicable to Surveillance Network Program (SNP) Station 1616-30 (Part H, Condition 26[a]) were used in the assessment of all seeps in the Panda/Koala, Fox, and Pigeon WRSAs. EQCs applicable to SNP Station 1616-43 (Part H, Condition 26 [b]) were used in the assessment of the seeps in the Misery and Lynx WRSAs. For hardness-dependent EQC, the hardness obtained from the sample or, if appropriate, relevant receiving environment was used in the calculations. All other seeps sampled in 2024 were not identified as a potential for concern based on the screening criteria. A summary of all seeps identified as a Seep of Potential Concern (SoPC) since 2017 are captured in Table 16.

The Reasons for Decisions (RFD) for Versions 11.0 and 12.0 of the Waste Rock and Ore Storage Management Plan, dated March 15, 2022, and January 31, 2024 included the following requirements:

> *- Until there is a Board approved WROMP that addresses management of seeps with water quality that exceed EQCs at point the seep daylights from the WRSA, Arctic is required to notify the GNWT Inspector and the Board if a seep exceeds an EQC at point of daylighting from the WRSA, and to seek the GNWT Inspector's direction on how to manage the seep (Version 11.0)*
>
> *-Until the Seepage Response Framework is approved and implemented, Arctic is to increase the frequency of seep screening. Specifically, Arctic is to screen samples within 30 days of receiving the water quality results (Version 12.0)*

The exceedance letters related to the above are available on Board's registry.

2024 Waste Rock and Waste Rock Storage Area and Seepage Survey Summary Report has been prepared and is provided in Appendix E.

Table 16. 2024 Tracking Table of Seeps of Potential Concern and Planned Adaptive Management Action

Seep			Seeps of Potential Concern (SoPC)			Response Action
WRSA	Destination Waterbody	SEEP	Year(s) It Was a SoPC	95th Percentile Constituent[1]	EQC Exceedance	
Panda/Koala NE/NW	Bearclaw Lake	018B	2018 2022 2023 2024	[2018] Chloride, total and dissolved potassium [2022] Alkalinity (total as $CaCO_3$), total and dissolved molybdenum [2023] Alkalinity (total as $CaCO_3$) [2024] Alkalinity (total as $CaCO_3$)	[2018] None [2022] None [2023] None [2024] None	<u>Planned:</u> Continue regular Seepage monitoring (no EQC exceedances observed in 2024).
		019	2017 2020 2022 2023	[2017] Aluminum [2020] None [2022] Dissolved chromium [2023] Acidity (pH 8.3) [2024] None	[2017] Aluminum [2020] Dissolved aluminum [2022] None [2023] Dissolved aluminum [2024] None	<u>Planned:</u> Continue regular Seepage monitoring and examination of any potential correlations with trends observed in the Aquatic Effects Monitoring Program (AEMP).
		357	2020 2021 2022 2023 2024	[2020] Total and dissolved sodium [2021] None [2022] Alkalinity (total as $CaCO_3$), total boron, dissolved boron, dissolved chromium [2023] Total and dissolved boron [2024] Total and dissolved boron	[2020] None [2021] Alkalinity (total as $CaCO_3$), total potassium, dissolved boron, dissolved potassium, dissolved strontium [2022] None [2023] None [2024] None	<u>Planned:</u> Continue regular Seepage monitoring (no EQC exceedances observed in 2024).
	Pelzer Pond	501	2018	[2018] None	[2018] Field pH	Sampling and comparison of field pH to EQC was not completed in 2019 as planned, because the seep wasn't flowing in 2019. 2018 results for SEEP-501 were re-evaluated, and the seep was identified as a tentative monitoring station and that likely represents melt water. This seep was not sampled from 2020–2024, inclusive, due to no flow.

Seep			Seeps of Potential Concern (SoPC)			Response Action
WRSA	Destination Waterbody	SEEP	Year(s) It Was a SoPC	95th Percentile Constituent[1]	EQC Exceedance	
		540	2022	[2022] Total boron, total molybdenum, dissolved boron, dissolved molybdenum	[2022] None	Planned: Continue regular Seepage monitoring. This seep was not sampled in 2024 because of no flow.
Fox	Nema Lake	390A	2021	[2021] None	[2021] TSS, total aluminium, total chromium, total nickel	Planned: Continue regular Seepage monitoring. This seep was not sampled in 2024.
		390	2022	[2022] None	[2022] None	Planned: Continue regular Seepage monitoring. This seep was not sampled in 2024.
	Three Hump Lake	373	2017 2018 2022 2023 2024	[2017] Molybdenum, nickel, selenium, strontium, sulphate, TDS, uranium [2018] None [2022] Sulphate, dissolved barium, dissolved nickel	[2017] TSS [2018] TSS [2022] None [2023] None [2024] None	Sampling and evaluation of SEEP-373A was completed in 2019. SEEP-373 was not flowing in 2019. SEEP-373 was not sampled in 2020, and SEEP-373A was not considered a SoPC in 2020. Both SEEP-373 and-373A were sampled in 2021 and neither were considered a SoPC. SEEP-373 was identified as a SoPC in 2022, 2023, and 2024.
Fox	Three Hump Lake	373	2017 2018 2022 2023 2024	[2023] Alkalinity (total as $CaCO_3$), conductivity, sulphate, hardness, total and dissolved calcium, dissolved magnesium, total and dissolved sodium, total and dissolved strontium, total and dissolved sulphur, dissolved nickel, dissolved potassium, dissolved selenium, dissolved silicon [2024] Alkalinity (total as $CaCO_3$), conductivity, sulphate, hardness, total and dissolved calcium, total and dissolved magnesium, total	[2017] TSS [2018] TSS [2022] None [2023] None [2024] None	Planned: Continue regular Seepage monitoring (no EQC exceedances observed in 2024). In regard to WROMP 13.0 RFD Decision #3, the difference in response actions between SEEP-373 and SEEP-377 (see below) is explained as follows: SEEP 373 has not shown a continuation of elevated TSS in 2022–2024 compared to SEEP-373 where elevations have been relatively consistent in TSS concentrations into 2024.

Seep			Seeps of Potential Concern (SoPC)			Response Action
WRSA	Destination Waterbody	SEEP	Year(s) It Was a SoPC	95th Percentile Constituent[1]	EQC Exceedance	
				and dissolved strontium, total and dissolved sulphur, total and dissolved uranium, dissolved nickel, dissolved potassium, dissolved selenium		
		377	2017 2018 2021 2022 2023 2024	[2017] Arsenic, selenium, strontium, TDS, uranium [2018] Total strontium [2022] Hardness, sulphate [2023] Alkalinity (total as $CaCO_3$), conductivity, hardness, TSS, total and dissolved calcium, total sodium, total uranium [2024] Conductivity, sulphate, hardness, TSS, total and dissolved calcium, dissolved magnesium, total and dissolved molybdenum, total and dissolved potassium, total and dissolved strontium, total uranium	[2017] TSS [2018] TSS [2021] TSS [2022] TSS [2023] TSS [2024] TSS	The 2019 sampling and evaluation of potential trend for total strontium was completed. SEEP-377 was sampled three times in 2019, and SEEP-377A was established downstream of SEEP-377 to study the evolution of Seepage water chemistry as it travels across the tundra. This seep was not sampled in 2020, but was sampled 2021 through 2024. A comprehensive silt curtain was installed at SEEP-377 in 2024 as a response action to EQG exceedances (see Appendix E). Planned: Continue regular Seepage monitoring and examination of any potential correlations with trends observed in the AEMP. In regard to WROMP 13.0 RFD Decision #3, the difference in response actions between SEEP-373 and SEEP-377 (see above) is explained as follows: SEEP 373 has not shown a continuation of elevated TSS in 2022–2024 compared to SEEP-373 where elevations have been relatively consistent in TSS concentrations into 2024.
		519A	2021	[2021] None	[2021] TSS	This seep was not sampled during 2022–2024. Planned: Continue regular Seepage monitoring.
	South Fox Lake	362A	2021 2022	[2021] None [2022] None	[2021] TSS [2022] TSS	SEEP-362A is located downstream of SEEP-362. Sampled in 2024, but not identified as a SOPC.

Seep			Seeps of Potential Concern (SoPC)			Response Action
WRSA	Destination Waterbody	SEEP	Year(s) It Was a SoPC	95th Percentile Constituent[1]	EQC Exceedance	
						Planned: Continue regular Seepage monitoring.
		362	2017 2018 2020	[2017] Nickel [2018] None [2020] None	[2017–2018] TSS [2020] TSS	The seep was not sampled during 2021–2024. Planned: Continue regular Seepage monitoring.
	South Fox Lake 2	388	2023 2024	[2023] None [2024] Total chromium, total nickel	[2023] TSS* [2024] TSS*	Seep was first sampled in 2016 and then in 2017. It was not sampled from 2018–2022. Planned: Continue regular Seepage monitoring and examination of any potential correlations with trends observed in the Aquatic Effects Monitoring Program (AEMP).
Fox	South Fox Lake 2	536	2023 2024	[2023] None [2024] Acidity (pH 8.3)	[2023] TSS* [2024] None	Seep was first identified and sampled in 2021; it was not sampled in 2022. Planned: Continue regular Seepage monitoring (no EQC exceedances observed in 2024).
	Pond D	370	2017 2023 2024	[2017] Arsenic, molybdenum, nickel [2023] None [2024] Total and dissolved boron, total and dissolved molybdenum, total and dissolved potassium, total uranium, dissolved strontium	[2017] None [2023] TSS* [2024] None	The seep was sampled in 2018 and 2022 but not found to be a SoPC. The seep was not sampled in 2020 or 2021. Planned: Continue regular Seepage monitoring (no EQC exceedances observed in 2024).
		391	2023	[2023] Acidity	[2023] None	Seep was first sampled in 2017. Sampled in 2024, but not identified as a SOPC. Planned: Continue regular Seepage monitoring.
		522	2024	[2024] None	[2024] Total arsenic	New seep in 2024.

Seep			Seeps of Potential Concern (SoPC)			Response Action
WRSA	Destination Waterbody	SEEP	Year(s) It Was a SoPC	95th Percentile Constituent[1]	EQC Exceedance	
						Planned: Continue regular Seepage monitoring and examination of any potential correlations with trends observed in the Aquatic Effects Monitoring Program (AEMP).
Misery	Lac de Gras	057	2022	[2022] Chloride	[2022] None	Seep was not sampled in 2023. It was sampled in 2024 but not identified as a SOPC. Planned: Continue regular Seepage monitoring.
		059	2020 2024	[2020] None [2024] Dissolved silicon	[2020] Total and dissolved cadmium [2024] None	This seep was sampled in 2021, 2022, and 2023, but not found to be a SoPC. Planned: Continue regular Seepage monitoring (no EQC exceedances observed in 2024).
		525	2022	[2022] Chloride, dissolved silicon	[2022] None	Seep was not sampled in 2023.It was sampled in 2024 but not identified as a SOPC. Planned: Continue regular Seepage monitoring.
LCP	Unnamed Lake	080A	2021 2022 2023 2024	[2021] None [2022] None [2023] Acidity (pH 8.3), sulphate, total and dissolved magnesium, total and dissolved nickel, total and dissolved sulphur [2024] Acidity (pH 8.3), sulphate, hardness, total and dissolved cadmium, total calcium, total copper, total and dissolved lithium,	[2021] Total nickel, total zinc [2022] Total aluminum, total copper, total iron [2023] Total aluminum, total cadmium, total copper, total iron [2024] Total aluminum, total cadmium, total copper	Planned: Continue regular Seepage monitoring and examination of any potential correlations with trends observed in the AEMP. Mitigation measures will be implemented in spring 2025 (see Appendix E).

Seep			Seeps of Potential Concern (SoPC)			Response Action
WRSA	Destination Waterbody	SEEP	Year(s) It Was a SoPC	95th Percentile Constituent[1]	EQC Exceedance	
				total and dissolved magnesium, total and dissolved nickel, total and dissolved sulphur, total and dissolved zinc		
LCP *(cont'd)*	Cujo Lake	081	2017 2018 2020 2021 2022 2023 2024	[2017] Aluminum, ammonia, antimony, arsenic, chloride, chromium, copper, iron, lead, molybdenum, nickel, nitrate, nitrite, silicon, strontium, uranium [2018] Ammonia, chloride, nitrate, nitrite, total arsenic, chromium, copper, iron, potassium, selenium, strontium, uranium [2020] None [2021] Alkalinity [2022] Alkalinity [2023] Acidity (pH 8.3), alkalinity (Total as $CaCO_3$) [2024] None	[2017] Total ammonia [2018] Ammonia, total phosphate, copper, iron, uranium [2020] Total and dissolved aluminum, cadmium, copper, iron, potassium, cadmium, potassium [2021] Sulphate, total aluminum, total cadmium, total copper, total and dissolved iron, total phosphorus [2022] Total aluminum, total copper, total iron [2023] Total aluminum, total cadmium, total copper, total iron [2024] Total aluminum, total cadmium, total copper, total iron, total uranium	A comprehensive silt curtain was installed at SEEP-081 in 2024 as a response action to EQG exceedances (see Appendix E). <u>Planned:</u> Burgundy will manage Seepage in accordance with the Board's direction on WROMP V11.0 Reasons for Decision. Until there is a Board-approved WROMP that addresses management of seeps with water quality that exceed EQCs at point the seep daylights from the WRSA, Burgundy is required to notify the GNWT Inspector and seek the GNWT Inspector's direction on how to manage the seep.
		081A	2021 2022 2023 2024	[2021] None [2022] None [2023] Acidity (pH 8.3), alkalinity (Total as $CaCO_3$) [2024] None	[2021] Sulphate [2022] Total aluminum, total copper, total iron [2023] Total aluminum, total cadmium, total copper, total iron [2024] Total aluminum, total cadmium, total copper	<u>Planned:</u> Managed as per upstream SEEP-081.
Lynx	Mossing Lake	399	2018	[2018] None	[2018] TSS, ammonia, total phosphorus, total chromium, copper, iron	This seep was not sampled from 2020 through 2024.

Seep			Seeps of Potential Concern (SoPC)			Response Action
WRSA	Destination Waterbody	SEEP	Year(s) It Was a SoPC	95th Percentile Constituent[1]	EQC Exceedance	
		538	2021	[2021] None	[2021] TSS, total aluminium, total nickel, total zinc	This seep was not sampled in 2022 through 2024. Planned: Continue regular Seepage monitoring.
	Unnamed Lake	500	2018	[2018] None	[2018] Field pH, TSS, total phosphorus, total chromium, copper, iron	This seep was not sampled from 2020 through 2024.
Sable	Osprey Pond 2	532	2021	[2021] None	[2021] TSS, total aluminium	This seep was not sampled during 2022–2024. Planned: Continue regular Seepage monitoring.
	UNUW Lake	533	2021	[2021] None	[2021] Total aluminium	This seep was not sampled during 2022–2024. Planned: Continue regular Seepage monitoring.
		534	2021	[2021] None	[2021] TSS	This seep was not sampled during 2022–2024. Planned: Continue regular Seepage monitoring.

Notes:
EQC = effluent quality criteria; TSS = total suspended solids; WRSA = Waste Rock Storage Area
* TSS exceedance at freshet only, back to low levels in fall (Burgundy installed a silt curtain on July 9, 2024, as a response action to EQC exceedances [see 2024 Seepage Report], which greatly reduced the TSS load).
Orange shading indicates SoPC identified in 2024.
[1] To meet the 95th percentile constituent screening criteria, the variable needs to have exceeded the 95th percentile 2 years in a row.

4.2.3 Acid Rock Drainage and Geochemistry

In 2024, Waste Rock was primarily produced at Sable Pit, with minor quantities from Misery Underground, while overburden material and metasedimentary Waste Rock was generated from the excavation of the Point Lake Pit. Waste Rock was removed from the Lynx WRSA to form the basal layer of the Point Lake WRSA. No Waste Rock was removed from the Panda/Koala/Beartooth developments in 2024, and none from the Pigeon Pit. All sampling of Waste Rock in 2024 was in accordance with the approved WROMP.

The MUG granite samples, and Point Lake overburden sample and one metasediment waste rock sample were classified as not potentially acid generating (non-PAG), with ratios of neutralization potential to maximum potential acidity (NP/MPA) greater than two. Lynx diabase Waste Rock that was moved as part of the construction materials to be used for the Point Lake WRSA and other construction at the site was also classified as non-PAG. Overall, no major changes were noted for Waste Rock and coarse kimberlite characteristics in 2024. 2024 characterization is summarised below (see Appendix E for more details):

- In 2024, eight samples of Coarse Kimberlite Rejects (CKR) were analyzed. The NP/MPA ratios of all samples indicated that they were non-PAG (average 22.6 kg $CaCO3$ eq/t). Results continue to indicate that overall, in the CKRSA, there is sufficient NP within CKR to neutralize acid produced through oxidation of contained sulphides.

- The three MUG granite samples collected in 2024 were all classified as non-PAG based on the ratio of NP/MPA >2, and had similar characteristics to previously sampled Misery granite. Although average chromium and manganese concentrations remained elevated in 2024, low concentrations of sulphide-sulphur in MUG granite Waste Rock suggest an absence of metal sulphides.

- The Waste Rock sampling for Sable Pit was limited to 2 years, as the granite waste rock is already well characterized. Therefore, no samples have been collected for geochemical characterization since 2020.

- Three samples of overburden and one sample of Point Lake metasediment were collected in 2024. Granite from Lynx WRSA was used to form the basal layer of the Point Lake WRSA and in construction. The Lynx geological model indicates 90% of the Waste Rock from the Lynx Pit is granite. Analyses of the four samples of Point Lake materials and the nine Lynx diabase Waste Rock samples indicate that the materials are non-PAG based on their ratios of NP/MPA >2.

4.3 Summary of Aquatic Effects Monitoring Program

The 2024 AEMP was successfully completed. The following AEMP components of the aquatic ecosystem were monitored in 2024:

- Stream hydrology;
- Ice-covered and open-water season physical limnology and lake water quality;
- Open-water season stream water quality; and
- Aquatic biology (i.e., phytoplankton, zooplankton, lake and stream benthos, and small- and large-bodied fish).

The executive summary for the 2024 AEMP can be found in Appendix F. The full report is available on the Board's public registry:

- 2024 AEMP Annual Report- Cover Letter.pdf
- 2024 AEMP Part 1 – Executive Summary and Section 1 and 2

- 2024 AEMP Part 1- Sections 3 and 4
- 2024 AEMP Part 1 - Sections 5 to end
- 2024 AEMP Part 1- Appendices.pdf
- 2024 AEMP Part 2 – Statistical Report.pdf
- 2024 AEMP- HTML Files.zip
- 2024 AEMP- Data File.xlsx

4.4 Summary of Wildlife Effects Monitoring Program

The 2024 period was the 27th year of the annual monitoring program. Wildlife monitoring around the Ekati Mine was conducted in a study area of approximately 2,800 km^2 (square kilometres) in 2024 (Appendix G).

The complete Ekati Diamond Mine 2024 Wildlife Effects Monitoring Plan Annual Report is available on the Board's Public Registry website:

- Ekati- 2024 Annual WEMP Report- Part 1- Apr 8 25.pdf
- Ekati- 2024 Annual WEMP Report- Part 2- Apr 8 25.pdf
- Ekati- 2024 Annual WEMP Report- Part 3- Apr 8 25.pdf

4.4.1 Wildlife Attractants and Waste Management

The percentage of surveys detecting food or food packages at the landfill was 32% in 2024, which was slightly higher than in 2023 (27%). Overall, 1% of waste bins surveyed in 2024 contained items of misdirected waste or wildlife attractants at the Ekati Mine Main Camp and Misery Camp while 3% of waste bins surveyed contained misdirected wastes or wildlife attractants at the Sable Office.

4.4.2 Wildlife Management

Through 2024, 455 general wildlife management actions were implemented in response to wildlife activity at the Ekati Mine including actions directed at caribou (*Rangifer tarandus groenlandicus;* 197), grizzly bear (*Ursus arctos*; 194), wolf (*Canis lupus*; 44), wolverine (*Gulo gulo*; eight), fox (*Vulpes spp.*; 10) and moose (*Alces alces*; one). Seven actions were directed at wildlife in general. Management actions followed a successive hierarchy, starting with site-wide notifications, wildlife notice signs, road closures and/or work stoppages.

The Caribou Road Mitigation Plan (CRMP), a management and mitigation response to wildlife interactions with roads at the Ekati Mine, was applied to Misery haul road and Sable haul road. In 2024, the Operational Level (Blue) was in effect for 28 days, while alert levels beyond the Operational Level were triggered frequently due to caribou presence near the roads. Level 1 (Yellow – low risk) was triggered for a total duration of five days and Level 3 (Red – high risk) was triggered for a total duration of 302 days.

4.4.3 Wildlife Interactions

4.4.3.1 Vehicle Interactions

In 2024, there were 28 vehicle-related wildlife mortalities reported at the Ekati Mine. These included eight arctic hare (*Lepus arctcus*), one arctic ground squirrel (*Spermophilus parryii*), two caribou, one wolverine, and 16 unknown ptarmigan (*Lagopus spp.*). There were no aircraft related mortalities.

Eight interactions between wildlife and vehicles occurred in 2024. Three events involved vehicle mitigations where grizzly bears were deterred off roadways. One interaction involved a caribou being deterred from the airstrip.

4.4.3.2 Non-Vehicle Interactions

Four non-vehicle wildlife mortalities occurred in 2024 including two caribou, one grizzly bear and one common raven (*Corvus corax*). The cause of death of one caribou and the common raven was unknown, while predation was likely the cause of death of the second caribou and the grizzly bear cub.

Fifty-one non-vehicle interactions were reported including 29 interactions with caribou, 14 with grizzly bear and 11 with red fox (*Vulpes vulpes*), unknown fox, wolf and common raven. Deterrents were used on 16 occasions.

4.4.4 Infrastructure Inspections

A total of 124 skirting inspections at the Ekati Main Mine Camp and Misery Camp were completed in 2024 with two cases of damage to skirting reported. Sixty fencing inspections at Misery Camp were completed with three cases of damage observed and reported.

4.4.5 Wildlife Monitoring

4.4.5.1 Caribou

There were 207 incidental observations of caribou reported during 2024, totaling 5,306 animals (note that incidental observations likely include the same caribou observed on multiple occasions). The number of incidental observation events in 2024 was one more than in 2023 (206), however, the total number of caribou observed in 2024 was lower than the total number of caribou observed in 2023 (11,555).

There were 13 caribou observations, totalling 1,041 individuals over 83 surveys at the LLCF. For most observations, group size was less than 50 individuals, however one observation was of approximately 1,000 caribou. Most of the behaviour observed was classified as travelling, feeding, and standing.

Consistent with the collar data, most caribou observed in 2024 occurred during the winter (January 1 to April 19 and December 1 to 31) and fall migration (September 7 to November 30) seasons, approximately 48%. In most reporting years, the migration periods are when increased numbers of caribou are observed around the Ekati Mine. Information from satellite-collared Beverly/Ahiak female caribou collected by ENR continues to indicate that the Beverly/Ahiak herd overlaps with the Ekati Mine during winter. Incidental caribou observations at the Ekati Mine in 2024 support the kernel UD maps that indicate caribou were observed most often at the Ekati Mine during the winter and the fall migration periods

A total of 53 focal behavioural surveys were completed on 50 caribou including both males and females. Observations indicate that male caribou spent most of their time feeding or walking and female caribou spent most of their time walking, feeding, or other.

In addition, eight behavioural scan surveys were completed on four caribou groups of different composition. On average, the most common behaviour was walking, while feeding was the second most common behaviour. Alert behaviour was not consistently observed following stressor events.

Road surveys and powerline surveys along Sable, Misery, and Lac du Sauvage roads were completed for a combined total of 295 days, with caribou observed on 390 occasions for a total of 12,646 caribou (observations likely included the same individuals or groups on multiple occasions). The three largest groups estimated at 800, 1,000 and 1,500 caribou each, were observed along Sable and Misery haul roads. Observations of caribou near and crossing all roads/powerlines suggest that the roads do not impede caribou movement at a local scale.

Cameras were deployed on the Misery and Sable haul roads and Point Lake to monitor vehicle traffic. The average daily count of vehicles at the Misery, Sable and Point Lake camera locations was 72, 141 and 227 respectively.

4.4.5.2 Grizzly Bear

In 2024, there were 94 incidental grizzly bear observations, for a total of 136 grizzly bears observed on 65 separate days near the Ekati Mine. Five of these incidental observations occurred during the LLCF surveys on five separate days. Incidental grizzly bear observations occurred between January 6 and October 8, 2024. Many of these observations were likely the same bears reported on multiple occasions and does not represent the total number of bears present near the Ekati Mine.

Reports of grizzly bear sightings showed a decrease in 2024 when compared to 2023 (132). This may be due to increased bear activity in 2023 from the Pigeon Stream Diversion as well as a result of natural fluctuations in breeding females year to year around the Ekati Mine.

Multiple animals or family groups were observed on 19 occasions in 2024 totalling 14 family groups; no family groups were observed during LLCF surveys. The number of grizzly bear sightings of family groups observed in 2024 decreased from 2023 (30).

In 2024, one potentially active grizzly bear den was located. One adult female with three cubs was spotted in proximity of the den, indicating potential use.

4.4.5.3 Wolf

There were 45 incidental wolf sightings, for a total of 63 wolves on 39 separate days near the Ekati Mine during 2024. One of the incidental sightings (one wolf) occurred during LLCF surveys. The number of incidental observations in 2024 is below the average yearly wolf observations (59) since monitoring began in 2001. The lower number of observations in 2024 may be associated with natural changes to wolf migratory patterns and behaviour and is in line with past reporting years.

4.4.5.4 Wolverine

In 2024, there were 10 incidental observations of wolverines recorded on nine separate days near the Ekati Mine, which falls below the average number (25) of observations recorded since 2003. No wolverines were recorded during LLCF surveys. Burgundy has implemented adaptive mitigation measures to reduce the likelihood of attracting wolverines to site.

4.4.5.5 Fox

During the 2024 reporting period, there were 58 incidental sightings of 65 foxes on 57 separate days near the Ekati Mine. Most observations (53) were red foxes, while the remaining observations were an unknown species (nine). In addition, five red foxes, three arctic foxes (*Vulpes lagopus)*, two cross foxes (melanistic colour variant of the red fox) and one unknown fox were observed during LLCF surveys. Fox sightings were distributed among the many roads around the Ekati Mine Site, the Main Camp, the incinerator building, and the landfill area.

4.4.5.6 Raptors and Corvids

In 2024, there were 20 incidental sightings of 33 individual raptors representing six species over 24 separate days near the Ekati Mine, including incidentals from LLCF surveys. Species observed include bald eagle (*Haliaeetus leucocephalus*; five), gyrfalcon (*Falco rusticolus*; seven), peregrine falcon (*Falco peregrinus;* five), rough-legged hawk (*Buteo lagopus*; four), northern harrier (*Circus cyaneus;* three), and common raven (*Corvus corax;* five). The common raven is included with raptors due to similar nesting habits.

Two common raven nests were recorded in 2024: one active nest at the Misery Crusher Power Substation was discovered in April and one active nest inside a ventilation hood of the incinerator building was discovered in May. No other confirmed breeding activities for raptors were observed in 2024.

Burgundy monitors pits at the Ekati Mine to identify raptor nesting activity, as raptors will use pit walls as nesting habitat

. During the 2024 reporting period, a total of 264 pit wall nest surveys over 82 days were conducted at Sable Pit between March 27 and June 25, 2024. No nests were identified during surveys.

4.4.5.7 Migratory Birds

During the 2024 reporting period, 13 incidental bird observations occurred, totaling approximately 274 individuals from five discernable species. Species observed include Canada Goose (*Branta canadensis;* 60), greater white-fronted goose (*Anser albifrons;* 110), northern pintail (*Anas acuta;* 37), rock ptarmigan (*Lagopus muta;* 2), snow goose (*Anser caerulescens;* 40), unknown ptarmigan (*Lagopus* spp.; 24), and one unidentified bird species. An additional 5,842 migratory birds from 32 species on 58 separate days were recorded during LLCF surveys. In 2024, one species of conservation concern was recorded; northern pintail is ranked as Sensitive in the NWT (GNWT 2024). Breeding was not confirmed for any migratory birds detected in 2024.

4.4.5.8 Other Wildlife

In 2024, two incidental observations of moose were recorded (individual animals) over two separate days near the Ekati Mine. There were two incidental observations of muskox (*Ovibos moschatus)* recorded; one group of seven and one group of 15 were observed on two separate days, with two calves confirmed. There were six incidental observations of arctic ground squirrel on two separate days during LLCF surveys in 2024.

4.5 Summary of Hydrocarbon Monitoring

Results of monitoring carried out under the Ekati Diamond Mine Hydrocarbon-Impacted Materials Management Plan are as follows:
Volume of treated soil removed from the Landfarm each year:

- No soil was removed from the Landfarm in 2024.

Volume of water Discharged from the Contaminated Snow Containment Facility (CSCF) to the LLCF:

- No water was Discharged from the CSCF to the LLCF in 2024. No water was Discharged from the Landfarm sump to the LLCF in 2024.

4.6 Summary of Meteorology Monitoring Program

In 2024, meteorological data were collected at the Ekati Diamond Mine from the Koala station. The Koala station is located near the airstrip and has operated continuously since 1993. The meteorological monitoring program includes the operation of the Koala automated meteorological station that has been in continuous operation since 1993. The Koala station operates year-round and continuously monitors air temperature, relative humidity, precipitation, wind speed, wind direction and snow depth. Results from the station are also reported on an annual basis in the annual Air Quality Monitoring Program reports (Appendix A).

The 12-month mean air temperatures measured at the Koala and regional meteorological stations are presented in Table 17. The total monthly precipitation data and total monthly snowfall at Koala and regional meteorological stations are presented in Table 18 and Table 19.

Polar Lake micrometeorological station was not operated in 2024. In 2023, the station was moved to Panda Lake and was operated during the open-water season to provide data for estimating open-water evaporation. However, the Panda Lake station was removed from the requirements of the Water License (W2012L2, formerly W2020L2-0004) and the station was decommissioned in October 2023.

Table 17. Mean Monthly Air Temperature for Koala Station and Regional Meteorological Stations, 2024

Month	Koala Station	Kugluktuk A Station	Yellowknife A Station
	Average of Mean Temp (°C)		
January	-29.9	-26.6	-27.5
February	-25.6	-23.0	-20.7
March	-23.4	-23.1	-16.1
April	-10.7	-11.6	-2.7
May	1.1	0.4	8.6
June	8.6	8.6	12.8
July	15.5	12.4	18.5
August	12.7	12.9	15.5
September	6.5	6.6	10.0
October	-3.5	-2.8	-1.1
November	-16.1	-13.8	-12.2
December	-23.0	-21.4	-19.1
Mean	**-7.3**	**-6.8**	**-2.8**

Notes:
Data for Kugluktuk A Station and Yellowknife A Station from ECCC, 2025.

Table 18. Total Monthly Precipitation at Koala Station and Regional Meteorological Stations, 2024

Month	Koala Station[a]	Kugluktuk A Station	Yellowknife A Station
	Total Precipitation (mm)		
January	1.9	21.6	6.2
February	4.8	28.3	19.0
March	7.2	22.4	0.6
April	6.3	9.4	0.4
May	12.4	18.0	16.2
June	2.5	4.5	14.2
July	18.0	25.9	7.4
August	48.8	10.2	20.6
September	50.7	4.4	33.3
October	21.1	0.0	27.0
November	10.3	16.7	16.3
December	2.9	6.0	16.6
Total	**186.9**	**167.4**	**177.8**

Notes:
[a] Adjusted precipitation corrects for wind-induced undercatch. See ERM (2021) for methods.
Data for Kugluktuk A Station and Yellowknife A Station from ECCC, 2025.

Table 19. Total Monthly Snowfall at Koala Station and Regional Meteorological Stations, 2024

Month	Koala Station[a]	Kugluktuk A Station	Yellowknife A Station
	Total Snowfall (cm)		
January	6.7	21.6	8.8
February	11.1	28.3	25.2
March	13.7	22.4	1.2
April	13.4	9.4	0.6
May	2.9	0.4	0.0
June	0.0	0.0	0.0
July	0.0	0.0	0.0
August	0.0	0.0	0.0
September	0.0	0.0	0.0
October	0.8	3.6	18.2
November	5.3	40.9	31.7
December	3.1	27.2	35.9
Total	**57.0**	**153.8**	**121.6**

Notes:
[a] The Koala Station snowfall values are lower than the snowfall of the broader general area due to windswept snow at the station's location.
Data for Kugluktuk A Station and Yellowknife A Station from ECCC, 2025

4.7 Summary of Air Quality Monitoring Program

4.7.1 Greenhouse Gas Emissions

Burgundy reports Greenhouse Gas (GHG) emissions to the Environment and Climate Change Canada (ECCC) Greenhouse Gas Emissions Reporting Program (GHGRP). Reported GHG emissions are based on diesel consumption from the mobile fleet, aviation, power generation, heating, blasting, incineration, and non-motive fuel consumption such as crushers, compressors, and pumps. Burgundy also reports estimated emissions from the sewage treatment plant, the in-vessel composter and used oil consumption. Table 20 summarizes the annual totals of GHG emissions (direct emissions) from different sources at the Mine in tonnes CO_2e for 2024. A total of 157.4 kt CO_2e of GHG emissions were estimated to be emitted in 2024. This is approximately 8% lower than the estimated GHG emissions in 2023.

Table 20. Summary of GHG Emissions at the Ekati Diamond Mine, 2024

Sources	Carbon Dioxide (CO_2), tonnes	Methane (CH_4), tCO_2e	Nitrous Oxide (N_2O), tCO_2e	Total GHG Emissions, tCO_2e
Stationary				
Diesel, Non-Motive	18,664.6	15.2	36.9	18,716.7
Power	67,244.3	54.8	132.9	67,432.0
Oil	0	0	0	0
Industrial				
Blasting	899.8	0	0	899.8
Transportation				
Diesel, Motive	69,399.9	52.9	717.7	70,170.5
Helicopter	71.5	0.055	0.1414	71.7
Gasoline	4.7	0.61	0.00706	5.3
Waste				
Incinerator	51.4	0	3.50	54.9
Composter	n/a	6.7	7.52	14.2
Sewage Treatment Plant	n/a	10.4	49.2	59.7
Total				**157,424.8**

Notes*:*
n/a = The values marked "n/a" are not a reporting requirement to the GHGRP, so they do not contribute to the overall total GHG reported for the GHG Reporting Program.
tCO2e = tonnes of CO2 equivalent.

4.7.2 Stack Testing

Stack testing was set to occur in 2023, but due to unforeseen circumstances revolving around the state of Emergency that the NWT faced in the summer and fall of 2023, as a result of wildfires, Burgundy requested to defer stack testing to 2024. Upon approval from the Board, stack testing was scheduled to be completed in the fall of 2024 at both incinerators at Ekati.

Stack testing was completed at the South Incinerator in September 2024. Testing was not completed at the North Incinerator in 2024 due to maintenance issues at the incinerator that would have led to inaccurate results. Stack test results from the South Incinerator were below the Canadian Council of Ministers of the Environment (CCME) Guidelines for furans, dioxins and mercury.

A Venturi scrubbing system was installed at the incinerators in 2012 to reduce stack emissions and results below guidelines during testing in 2012, 2016 and most recently in 2024, suggest that nearly complete combustion is being achieved at both incinerators.

Test results for dioxins, furans and mercury can be found in Table 21 and Table 22. Tests were run three times and results were averaged.

Table 21: Summary and Dioxin Furan Test Results – South Incinerator

Parameter	Run 1	Run 2	Run 3	Average
Test Date- Dioxin Furan	20-Sep-24	21-Sep-24	21-Sep-24	
Test Time – Dioxin Furan	08:35 – 12:37	09:03 – 13:04	14:17 – 18:18	
Duration- Minutes	240	240	240	240
Stack Temperature (°C)	78.3	77.6	78.2	78.0
Average Gas Velocity (m/s)	17.5	17.3	17.9	17.6
Dry Flow Rate (Rm^3/min)	16.0	15.9	15.8	15.9
Moisture (Vol. %)	41.0	41.3	43.6	42.0
Oxygen (Vol %) (dry basis)	7.75	8.90	7.91	8.19
Carbon Dioxide (Vol %) (dry basis)	8.63	7.88	8.75	8.42
PCDD & PCDF TEQ (pg/Rm^3)	58.5	29.0	10.9	32.8
PCDD & PCDF TEQ (pg/Rm^3 @ 11% O_2)	44.0	23.9	8.29	25.4
PCDD & PCDF TEQ (grams/day)	1.35E-06	6.65E-07	2.47E-07	7.53E-07
Isokinetic Variation (%)	98.8	98.1	98.9	98.6

Table 22: Mercury Results – South Incinerator

Metal	Test 1	Test 2	Test 3	Average
	(mg/Sm3) (@ 11% O_2)			
Mercury (Hg)	0.000032	0.0000030	0.0000012	0.000012

4.8 Compliance Reporting

Section 2 of this report provides details on compliance with the Type A Water Licence and DFO Authorizations that regulate the Ekati Diamond Mine. Surface Leases and Land Use Permits are inspected regularly by GNWT Department of Environment and Climate Change (ECC).

The GNWT Department of Environment and Climate Change Inspector performed seven inspections at Ekati Diamond Mine throughout 2024. Table 23 summarizes the inspections conducted in 2024 and provides the links to the Board's Public Registry of these inspections

Table 23: Summary of GNWT-ECC inspections conducted at Ekati in 2024

Date	Permit / Licence #	Area Inspected	Concerns and Resolution	Board Registry link
01-Feb-2024	W2023D0002	• Sable Fuel Farm • Sable Ore Pad Extension	N/A	Ekati- Sable Development- Inspection Report for Feb 1 2024- Feb 23_24.pdf
27-Mar-2024	W2023D0002	• Sable Fuel Farm • Sable Ore Pad Extension	• Drip and staining observed from parked heavy equipment. Spill was cleaned up and spill containment was placed. • Staining observed at the rear of parked generator at Sable. Staining was cleaned up and spill containment was placed. • Waste bin for paper, wood, and plastic contained oily rags and equipment parts. Items were removed and placed in appropriate waste bins	Ekati- Sable Development- Inspection Report March 2024- Mar 27_24.pdf
26-Mar-2024 & 23-Apr-2024	W2023D0002	• Parking Sable Equipment • Sable Fuel Farm • Waste Management	• Some of the spill pads underneath parked equipment were becoming saturated. Saturated pads were replaced and disposed of accordingly. • Some spilled waste was observed within a waste bin and could possibly leak out once the snow melts. Spill in the waste container was cleaned out before freshet. • Some spilled product remains within the containment berm from NT Spill# 2024099 that occurred on April 9th, 2024. Remaining spilled products were cleaned up and waste material was disposed of appropriately.	Ekati- Sable Development- Inspection Report March and April 2024- Jun 7_24.pdf
13-Mar-2024 & 24-Apr-2024	W2021D0005	• Point Lake Road Construction • Point Lake Waste Rock Pile Construction and Trench • Drip Trays • Waste Management • Permit awareness and Compliance	N/A	Ekati- Point Lake- Land Use Inspection Report- March 13-April 24 2024- Jun 07_24.pdf

18-Jun-2024	W2022L2-0001	• Refueling Stations • King Pond Settling Facility • Misery Crusher • Fox Pit area • Landfill • Zone S • Bearclaw Lake Pumping	• Pipe insulation and debris littered along shoreline of west access at King Pond Settling Facility. Clean-up of the littered material was conducted and completed 3-Jul-2024. • AN stored in drums and megabag adjacent to AN building had respectively corroded and tipped over resulting in AN leaking. _______ • Fish screen on pipe pumping from Bearclaw Lake to North Panda Lake was not compliant with the Water Licence. Pumps were turned off until appropriate fish screen was installed. On July 5th pumps were restarted however the pump could not be set low enough to completely meet the fish screen guideline requirements. It was the Inspectors position that the new screen was still protective of fish in the short term until the water levels could be dropped enough to inspect and recommission the Bearclaw pumphouse.	Ekati- Water Licence Inspection Report- June 18 2024- Jul 11_24.pdf
14-15-Aug-2024 & 11-12-Sep-2024	W2022L2-0001	• Bearclaw Lake Pumping • LLCF Dyke D • Ammonium Nitrate Storage Building • Landfill • Laydowns • King Pond and Two Rock Settling Facilities • Refueling Stations • Point Lake Construction • Waste Management Building and Yard • Incinerator Building	• Broken pallets and debris were present in the Boneyard. This housekeeping issue was addressed and cleaned up. • Some broken down equipment had been removed and had left some hydrocarbon staining. The contaminated material was cleaned up and disposed of appropriately. • Misery Pit Laydown had broken bags of Bentonite that was spilling onto the ground. The laydown was cleaned up and material was disposed of accordingly. • The containment sump at the Misery Refuelling Station was full of water. The containment was pumped out to ensure emergency spill containment. • Process Plant Laydown had several broken bags and small spills. The area was cleaned up and material was disposed of appropriately. • The ash bin was inspected and showed some incomplete incineration. This issue should be rectified when the burners are tuned for optimal performance. Burner tuning and stack testing was scheduled later in 2024.	Ekati- Water Licence Inspection Report- August and September 2024- Oct 10_24.pdf
23-24-Oct-2024 & 20-21-Nov-2024	W2022L2-0001	• Point Lake Project • Misery Camp • Landfill	• The containment sump at the Misery refuelling station was iced over during the 23-24 October inspection. The area was chipped out and free of ice which was also observed in the 20-21 November water licence inspection.	Ekati- Water Licence Inspection Report- October November 2024- Dec 6_24.pdf

		• Coarse Processed Kimberlite Dump • Incinerator Building • Zone S • Panda Diversion Channel (PDC) Culverts • Refueling Stations • Sable Development and Sable Haul Road • Process Plant Laydown	• The culverts along the PDC were beginning to fill in with snow. Culverts at the PDC and Airport were covered to prevent future flooding. • NT Spill #2024424 occurred on November 18, 2024. Clean-up was under way during the Inspectors visit and was completed 26-Nov-2025. • Garbage was being collected and segregated properly; however, there were no labelled containers. Labels were created and placed on containers to comply with the approved Waste Management Plan.	

4.8.1 Surface and Mining Leases

Burgundy holds 121 mineral leases and 11 surface leases which were issued subject to the *Territorial Lands Act*. The surface leases are summarized in Table 24. As of April 1, 2014, the Ekati Mine leases became subject to the *Northwest Territories Lands Act* and the *Northwest Territories Lands Regulations*.

Table 24. Surface Leases

Surface Lease	Size (hectares)	Area
76D/9-3-2	1,121.2	Misery Pit- facilities and road
76D/9-4-2	12	Misery Facilities
76D/10-2-2	6,023	Koala, Panda and Fox Pits and facilities
76D/10-3-2	3,701	Long Lake Containment Facility
76D/10-4-2	110	Airstrip and facilities
76D/15-4-4	998	Sable Pit and facilities
76D/10-5-2	155	Main Camp
76D/10-7-3	324.6	Pigeon Pit and facilities
76D/9-10-2	186.4	Lynx Waste Rock Storage Area
76D/9-11-2	173.1	Lynx Pit and road
76D/9-12-2	499.1	Point Lake
Total	13,303.4	-

4.8.2 Land Use Permits

In 2024, Burgundy held 11 Type A Land Use Permits with the Board related to activities at Ekati Diamond Mine. These Land Use Permits are listed in Table 25.

Table 25. Land Use Permits

Type A Land Use Permit #	Activity Covered	Issue Date	Expiry Date
W2018C0005[1]	Mineral Exploration, Winter Road Construction, Camp, Fuel Storage, and Associated Activities	October 24, 2018	October 23, 2025
W2021D0002	Lynx Pit and Access Road	April 15, 2021	April 14, 2026
W2022D0003	Lynx Waste Rock Storage Area	April 27, 2022	April 26, 2027
W2021I0006	Misery Powerline	July 23, 2021	July 22, 2026
W2023D0002	Sable Pit and Associated Activities	May 12, 2023	May 11, 2028
W2023D0003	Pigeon Pit and Associated Activities	July 19, 2023	July 18, 2028
W2023F0004	Pigeon and Sable Haul Road	July 19, 2023	July 18, 2028
W2017D0004[1]	Misery Underground Activities	July 12, 2018	July 11, 2025
W2021X0004	Point Lake Early Works	October 19, 2021	October 18, 2026
W2021D0005	Point Lake Project	May 13, 2022	May 12, 2027
W2024D0006	Sable Underground Development	July 9, 2024	July 8,2026

Notes: [1] Will be going through the LUP renewal or extension process in 2025.

Land Use Permit W2024D0006 was issued in 2024 for the Sable Underground Project. An amendment request regarding the security deposit payment timeline was approved by the Board in December 2024. Throughout 2024, Ekati Diamond Mine complied with the conditions of the Land Use Permits and surface leases. The GNWT inspection reports are public record.

4.8.3 Fisheries Act Authorization

Ekati Mine currently holds three active FAAs for Desperation-Carrie, the Point Lake Development, and the Misery Pit Development. While the Lynx Pit FAA is officially closed, the offsetting requirements associated with the project still need to be completed.

In fulfilment of the requirements for the Pigeon Stream Diversion (PSD) FAA (SC99037), which is closed, the final year of monitoring (Year 10) was completed in the summer of 2023 and the final monitoring report was submitted to the Department of Fisheries and Oceans Canada (DFO) in 2024.

While the Lynx Pit FAA (15-HCAA-00266) is also officially closed, the offsetting monitoring requirements associated with the project still need to be completed. Fisheries Act Authorization #15-HCAA-00266 was closed-out in January 2019 as per Arctic Canadian’s request following completion of works described in the Authorization, specifically, the dewatering of Lynx Lake. The remedial work in Pike Creek was completed in late summer 2018 and the monitoring of the habitat improvement of Pike Creek is the only outstanding requirement under the Authorization.

Year 1 of monitoring at Pike Creek was planned to be conducted in 2019, 2020, and 2021. However, the spawning migration and the young-of-year (YOY) outmigration monitoring programs were ceased in 2019 due to a community tragedy, and the 2020 and 2021 programs could not be completed due to the COVID-19 pandemic and the Territorial Government restrictions on the incoming travel to the Northwest Territories. With the inability to complete the first year of post-construction monitoring in 2019, 2020, and 2021, monitoring was completed in 2022. Monitoring was scheduled to again occur in 2024; however, due to an unprecedented early freshet (approximately three weeks earlier than historical timing) and staff transitions at Burgundy, the monitoring program could not be completed as planned. On May 2, 2025, DFO approved a revised monitoring schedule, which includes two additional monitoring years in 2026 and 2028.

4.9 Summary of Research Studies at Ekati Mine 2024

4.9.1 Reclamation Research

Reclamation research plans and reclamation engineering studies are described, carried out, and reported under the requirements of the Board-approved ICRP and the Water Licence. As part of the 2024 CRP Progress Report, Burgundy provided a Technical Report on the Final Effective Neutralization Potential (ENP) Investigation to supplement the interim ENP Investigation Report submitted in October 2021. The study provides further context for the ENP using historical data and recent kinetic testing from the ongoing Point Lake open pit development. The Final ENP Report includes a compilation of results used to confirm preliminary findings and update the ENP calculations that formed the basis of the interim report.

The CRP Progress Report also includes the summary of the ongoing reclamation research at the LLCF. The purpose of the LLCF Reclamation Research Program is to determine the vegetation elements of the LLCF final cover system to physically stabilize processed kimberlite (PK). Reclamation Research at the LLCF continued in 2024 with the following efforts undertaken:

- Monitoring of existing species trials and investigation into optimal planting strategies;
- Evaluation of soil amendments, moss propagation and topdressing trials within Cell B of the LLCF;
- Establishment of new seedlings and topdressing trials in Cell B;
- Monitoring existing Species and Mycorrhizae trials in Cell A; and
- Establishment of new Seedlings Planting and Permanent Transects Trials in Cell A.

4.9.2 Dust Suppression

With an intent to continually improve environmental practices, and to address comments and concerns received from community members, regulators, and the Independent Environmental Monitoring Agency (IEMA), Burgundy undertook an Envirokleen pilot study in 2015 and expanded on the pilot study from 2016- 2019 to investigate ways to improve dust suppression practices at the Ekati Mine.

In 2024, EnviroKleen® and water was used around the Main Camp and Misery Haul Roads from kilometer 1 to 27 with marked spray zone and no spray zone markers. Sable Haul Road also applied an application of EnviroKleen® from kilometer 1 to 17 with marked spray zone and no spray zone markers. EK-35 was also applied on the airport runway, apron, and taxi-way. Road watering was used to supplement dust suppression when necessary.

For further details and data related to dust management at Ekati Mine, see Section 1.1.3 in Appendix A, 2024 Air Quality Monitoring Program report.

4.10 Summary of Construction Activities

4.10.1 Misery Underground (MUG) Infrastructure

- Completion of development and the commissioning of 2x Sturda decant weirs on M2215 to help remove suspended solids from the mine water before being introduced to the Mudwizard;
- Inclusion of double sump system (dirty and clean) on each level from M1950 and below to improve water and mud separation; and
- Decline waste development underway to the M1925 level (9th mine level).

4.10.2 Point Lake Infrastructure

- Construction of the Point Lake Perimeter Road commenced;
- Construction of the Point Lake Seepage Ditch and Sump commenced; and
- Construction of the Point Lake Waste Rock Storage Area commenced.

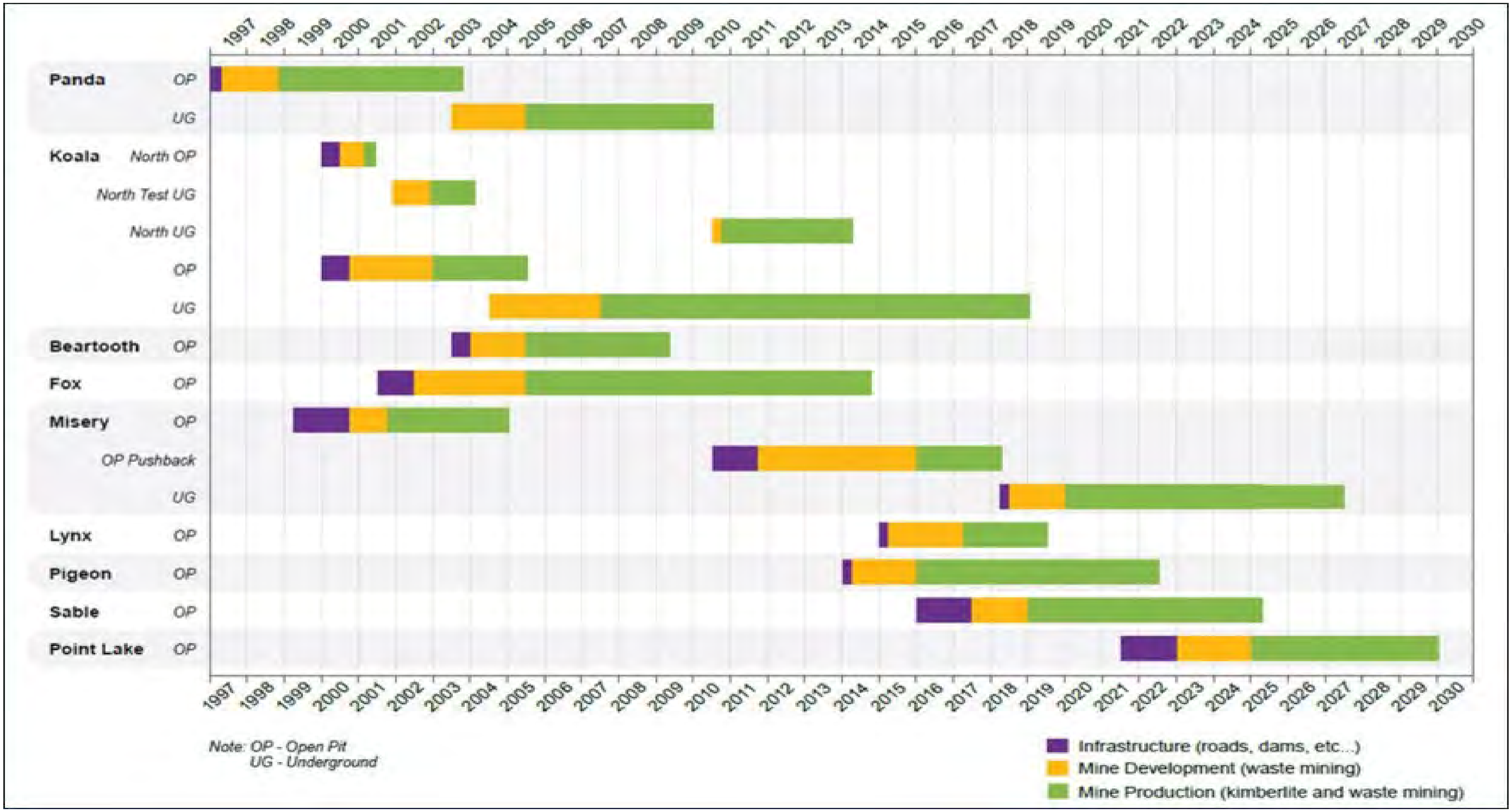

Figure 6. Updated Life of Mine Plan, 2024.

4.11 Summary of Operational Activities in 2024

4.11.1 Koala Watershed

The Koala Watershed contains the majority of the Ekati Diamond Mine infrastructure including the Ekati Camp, the process plant, the LLCF, and the airstrip, as well as the completed Panda, Koala, Koala North, Fox, and Beartooth pits with associated WRSAs and the PDC (an engineered channel constructed to divert water, allowing flow and fish passage between North Panda and Kodiak lakes). Relevant mine-related activities that took place in the Koala Watershed during the 2024 AEMP monitoring period are outlined below:

- Mining Activities:
  - Material from the Coarse Kimberlite Rejects Storage Area was hauled to the process plant to supplement ore feed.
- Dewatering and Discharge:
  - No Discharge from the LLCF to the Receiving Water (Leslie Lake) occurred during the 2024 AEMP year.
  - Freshwater use from Grizzly Lake continued. The total volume of water drawn from Grizzly Lake was approximately 82,319 m3.

4.11.2 King-Cujo Watershed

The King-Cujo Watershed contains the King Pond Settling Facility (KPSF), as well as a portion of the Misery Development (i.e., Misery Camp and Misery WRSA). Relevant mine-related activities that took place in the King-Cujo Watershed during the 2024 AEMP monitoring period are outlined below:

- Mining Activities:
  - Misery Underground Development operation (i.e. production mining) continued. Misery kimberlite ore was stockpiled at the Misery Ore Storage and transported to the process plant.
  - Completion of development and the commissioning of 2x Sturda decant weirs on M2215 to help remove suspended solids from the mine water before being introduced to the Mudwizard;
  - Inclusion of double sump system (dirty and clean) on each level from M1950 and below to improve water and mud separation; and
  - Decline waste development underway to the M1925 level (9th mine level).
  - Dewatering of Point Lake continued.
- Discharge:
  - Approximately 465,685 m3 was discharged from the KPSF to the Receiving Water (Cujo Lake) between June 24 and July 21, 2024.

4.11.3 Carrie Pond Watershed

The Carrie Pond Watershed is to the southwest of the King-Cujo Watershed and, as approved by the Board during the 2019 AEMP Re-evaluation (ERM 2019b; WLWB 2021), is no longer monitored as part of the AEMP because Discharge to the aquatic environment from Desperation Sump no longer occurs. However, if Discharge from Desperation Sump to the Carrie Pond Watershed was to occur in future years, AEMP monitoring at Mossing Outflow would resume in accordance with monitoring protocols for other AEMP streams, as indicated in the Plan (ERM

2023a). Relevant mine-related activities that took place in the Carrie Pond Watershed during the 2024 AEMP monitoring period are outlined below:

- Mining Activities:
    - Mining of the Lynx WRSA was completed to transport Lynx waste rock to the Point Lake WRSA, Misery Crusher, and Point Lake Pit.

4.11.4 Pigeon-Fay Upper Exeter Watershed

The Pigeon-Fay and Upper Exeter Watershed contains Pigeon Open Pit and the Pigeon Stream Diversion (PSD; an engineered channel constructed to divert water, allowing flow and fish passage between Upper Pigeon Pond A and Fay Bay). Mining in Pigeon Open Pit commenced in 2014 and was completed in April 2022.

- No operational activities occurred in the Pigeon-Fay Upper Exeter Watershed in 2024.

4.11.5 Horseshoe Watershed and Lower Exeter Lake

The Horseshoe Watershed contains the Sable Open Pit, Sable South WRSA, Sable West WRSA, Sable East WRSA, and Two Rock Sedimentation Pond (TRSP). Construction for the Sable Development commenced in 2016. Relevant mine-related activities that took place in the Horseshoe Watershed during the 2024 AEMP monitoring period are outlined below:

- Mining Activities:
    - Production mining continued at the Sable Open Pit.
    - Kimberlite ore from Sable Open Pit was stockpiled at the Sable Ore Storage and transported to the process plant.
    - Sable Waste Rock was transported to the Sable East WRSA, West WRSA, South WRSA, South WRSA Extension, and South Pad.
- Discharge:
    - Approximately 258,340 m^3 was discharged from TRSP to the Receiving Water (Horseshoe Lake) between August 3 and September 11, 2024.

4.11.6 Point Lake Watershed

The Point Lake Development is an approved development adjacent (to the east) to the King-Cujo Watershed. In 2024, Dewatering from Point Lake continued (initiated in 2022), and all water was directed to the KPSF and Lynx Pit. As per the AEMP Design Plan (ERM 2023a), the potential for mine-related effects from the Point Lake Development will be monitored and reported within the AEMP once monitoring is initiated (i.e., the ice-covered or open-water season that follows the commencement of mining at the Point Lake Development). Relevant mine-related activities that took place in the Horseshoe Watershed during the 2024 reporting period:

- Mining Activities:
    - Stripping of Point Lake overburden material began with material being transported to the Point Lake OVBSP.
    - Point Lake waste rock was transported to the Point Lake WRSA.

  - Production Mining began at the Point Lake Open Pit.
- Dewatering:
  - Dewatering of Point Lake continued, discharging into Lynx Pit and King Pond

4.12 Summary of Operational Activities for 2025

4.12.1 MUG Development

- Production on M1975, M1950 and M1925.
- Ore and waste development on M1950, M1925, M1900 and M1875.
- Continued exploration work on M2100 SW extension, with bulk sampling.
- Exploration through diamond drilling program and bulk sampling at MUG Main pipe.
- Production targets at 3600t through wet seasons, and 3400t through freeze seasons.

4.12.2 Point Lake Development

- Freshet dewatering of Point Lake pit
- Completion of the Point Lake Waste Rock Storage Sump and Ditch
- Completion of bulk sampling
- Ore and waste development through production mining at Point Lake pit.

4.12.3 SUG Development

No development will occur for Sable Underground.

4.12.4 Waste Movement

- Sable: 0 wmt
- MUG: 126,779 wmt
- Point Lake Waste: 4,637,630 wmt

4.12.5 Ore Movement

- Sable Ore: 0 wmt
- MUG Ore: 1,149,484 wmt
- Point Lake Ore: 3,751,986 wmt

5. SPILLS AND UNAUTHORIZED DISCHARGE

A total of 14 spills were reported to the Northwest Territories (NWT) Spill Line or the Online Spill Reporting Tool in 2024. Four spills from 2024 remain open with the NWT Spill Line. Details from these four spills can be found below:

- Spill-2024042*:* Sewage pipe underneath Misery accommodations froze, causing an estimated 14158L of greywater to spill. Spill was cleaned up in the spring of 2024.
- Spill-2024044*:* Loader operator punctured a waste oil/coolant tote with forks while trying to pick up tote to move to waste management resulting in a 200L spill. The area was cleaned up and the material was properly disposed.
- Spill-2024048*:* A water truck drove off Sable haul road and tipped on its side spilling potable water onto the tundra.
- Spill-2024424***:*** Road train lost 2 trailers in the ditch on Sable haul road due to slippery road conditions while trying to avoid hitting caribou. 1L of hydraulic fluid sprayed over side of road and tundra during the accident. 90 tonnes of Kimberlite spilt on tundra. Kimberlite and contaminated snow were cleaned up.

Externally reported spills at the Ekati Diamond Mine can be found at the ECC database of hazardous material spills at https://www.enr.gov.nt.ca/en/spills

In 2024, the Ekati Diamond Mine Emergency Response Team (ERT) consisted of 61 active members trained to respond to both underground and surface emergencies. The ERT is equipped with a fully stocked spill response trailer and is capable of mobilizing quickly in the event of a spill. Of the 61 members, 39 are stationed at Main Camp and 22 at Misery Camp.

ERT members undergo extensive training and regularly participate in both field-based and desktop simulation exercises to maintain readiness for major spill events. On average, each ERT member received 67 hours of training over the year.

Incident Management Team (IMT) exercises were held and attended to at Diavik Diamond Mine.

- Incident Management Team (IMT) Exercises:
  - In September 2024, Ekati Environment Team Leader participated in a full-scale simulation at Diavik that included firefighting scenarios using diesel, encompassing environmental emergency training.

6. CLOSURE AND RECLAMATION

6.1 Vegetation Research Monitoring

Reclamation efforts, including revegetation success, soil suitability, and plant diversity and density, are supported by annual vegetation monitoring. These activities are conducted at various sites to aid vegetation reclamation research. A summary of 2024 Vegetation Research was provided in the 2024 Annual CRP Progress Report included in Appendix H. A detailed report on the vegetation research and monitoring will be presented in the Reclamation Research Report per Part K, Condition 8 of the Water Licence. However, findings from the 2024 vegetation monitoring sites are summarised below:

6.1.1 Fred's Channel Stockpile

Following the flooding and sedimentation events of 2000–2001, Fred's Channel and the surrounding area were left covered by a fresh sediment layer, largely devoid of vegetation. Since then, the area has naturally vegetated and now supports diverse, developing native plant communities. Monitoring of Fred's Channel began in 2008 with the establishment of three permanent transects (Transects 1, 2, and 3), followed by the addition of Transects 4 and 5 in 2011. Comprehensive monitoring of all five transects took place in 2011, 2018, and 2024. The 2024 monitoring results show that shrubs have become the dominant component of vascular plant cover across all transects, indicating that the area is progressing toward shrub-dominated tundra vegetation

6.1.2 Natural Recovery Along a Section of Abandoned Winter Road and Quarry

In 2006, a study was established along an abandoned winter road and quarry at the Ekati Mine, which had been inactive for about 15 years. Four permanent transects were established across disturbed and undisturbed sites to examine plant community development. The study provides valuable insights for the reclamation of constructed roadways at Ekati, highlighting that landscape position, particularly moisture availability, influences native plant recruitment.

Monitoring in 2024 shows that total cover increased on all transects, with notable changes on Transect 4, where decreased shrub cover was offset by increased non-vascular plant cover. Overall, natural colonization is enhanced by rough, loose surfaces, and while 30 years may be needed for full restoration, signs of the "restoration trajectory" can be seen in as little as 10 to 15 years.

6.1.3 Panda / Koala Till and Lake Sediment Stockpiles

A mixture of free-dumped glacial till and lake sediment overburden is stored in two stockpiles covering 15.69 ha at the north end of the Panda/Koala WRSA. In 2002, the stockpiles were aerially fertilized and seeded with two native grass cultivars. Plant community development has been monitored using two permanent transects, one established in 2008 (Transect WRSA-1) and the other in 2011 (Transect WRSA-2).

On WRSA-1, seeded grass cover has declined over time. By 2024, a relatively diverse plant community including five shrub species was recorded. In contrast, seeded grasses remain dominant on WRSA-2 with fewer species colonizing the area. The substrate at WRSA-2 contains more lake sediment, which forms a hard, smooth surface not conducive to plant establishment. Although more slowly, natural colonization is occurring along WRSA-2. However, areas where the material is mixed with coarse glacial till have a less compact surface, which allows for more frequent plant establishment. Glacial till, by itself, serves as a relatively good growth medium. These stockpiles of mixed material may be well-suited for use as cover on waste rock piles thereby freeing up the till currently stored for that purpose and allowing it be repurposed for reclamation efforts elsewhere.

6.1.4 Old Camp

Final surface reclamation of Old Camp was completed in the summer of 2017, with the goal of stabilizing the site and making it suitable for natural colonization by tundra vegetation. Salvaged topsoil and stockpiled gravel were spread, and accessible areas were roughened to facilitate plant establishment. In July 2019, permanent transects were set up at four representative locations to monitor revegetation progress, and two additional transects were established in 2024.

Since monitoring began in 2019, ground cover and species richness have generally increased on the original four transects. In 2024, the most notable changes occurred along Transects 1 and 3, where surface conditions are most conducive to natural plant colonization. Transect 2 appears to be situated on remnant PK material, while Transect 4 lies on a gravelly slope with a southern aspect that could not be scarified, which may inhibit plant establishment at those locations. Incremental vegetation changes since 2019 indicate that natural processes are underway, and over time, plant cover is expected to increase, with more native species colonizing the site. Grasses are well-established on Transect 5, while vegetation development is still in the early stages on Transect 6. Scattered industrial debris remains near Transects 1 and 2, but no signs of instability were observed in 2024.

6.2 Permafrost

The monitoring of permafrost response to operations at the Ekati Diamond Mine occurred from July 26-29, 2024, as part of the annual geotechnical inspection. The annual geotechnical inspection of the completed water retaining structures on site was conducted, and 14 structures were visually assessed during the 2024 inspection including Sable Two Rock Dam, Two Rock Filter Dike, Panda Diversion Dam, Bearclaw Diversion Dam, Intermediate Dike B, Intermediate Dike C, Intermediate Dike D, Long Lake Outlet Dam, Phase 1 Pond, Waste Rock Dam, Seepage Collection Dam, Desperation Pond Cofferdams, King Pond Dam and Saddle Dam. Each review consisted of visual observations and collection and review of ground temperature and settlement survey data, where possible. The results of this inspection are presented in Appendix I: 2024 Annual Geotechnical Inspection Report.

6.3 Progressive Reclamation

In 2024, Misery Underground was the only underground mine in active production. Underground operations at Koala, Koala North, and Panda have been completed and reclaimed. Sable open pit was in production in 2024, while Point Lake development began in 2024. Open pits mining operations have been completed in Panda, Koala, Koala North, Misery, Beartooth, Fox, Lynx and Pigeon. Of these, Beartooth, Panda, Koala and Koala North pits are approved Processed Kimberlite Containment Areas (PKCAs), and in-pit deposition of processed kimberlite is ongoing. Lynx pit is currently being used for water management from the King Pond Settling Facility.

Progressive reclamation is an ongoing process and will continue throughout the Life of Mine Plan. Areas no longer needed for operations and with no potential for future mining are assessed for suitability for reclamation. Mine operations schedules determine which mine components can be reclaimed during the remaining mine life. In 2024, no progressive reclamation activities were completed or planned for 2025 due to ongoing updates to the Life of Mine Plan, which includes consideration of mine life extension opportunities. The updated LOM plan will inform future progressive reclamation priorities to ensure alignment with evolving operational needs and the objectives of the Interim Closure and Reclamation Plan. Table 26 below provides the status of progressive reclamation for areas where mining has ceased.

Table 26. Progressive Reclamation Timelines

Area	Component	Activity	Projected Commencement	Comments
Beartooth	Open Pit	Flooding	Ongoing	Processed kimberlite deposition and pit flooding are ongoing, which will reduce the volume of water required for back-flooding.
Panda	Open Pit	Flooding	Ongoing	Processed kimberlite deposition and pit flooding have been ongoing since 2019, which will reduce the volume of water required for back-flooding.
Koala	Open Pit	Flooding	Ongoing	Processed kimberlite deposition and pit flooding have been ongoing since 2019, which will reduce the volume of water required for back-flooding.
Panda, Koala, and Koala North	Underground	Capping Vent Raises	Dependent on Board's approval	Vent raises will be sealed with concrete caps, representing the final reclamation activity required for these underground operations. The FCRP Version 1.0 was submitted to the Board in February 2024, with an updated Version 1.1 submitted on September 8, 2025. Approval of the FCRP is required before installation of the caps can commence.
Pigeon	Open Pit	Flooding	TBD	The commencement of pit back-flooding is dependent on the use of the Open Pit to support ongoing mining operations. The potential use of the pit for PK deposition is currently being evaluated to support the 2025 LOM Plan. The outcome of the site-wide PK management evaluation will inform the next steps for progressive reclamation.
	WRSA	Closure	TBD	There is uncertainty regarding whether a cover is required for the closure of the Pigeon WRSA and, if so, what type of cover would be appropriate. This uncertainty is being addressed through Research Plan 4, and an evaluation study is currently underway to close out this plan. The results of this study will inform the development of the final Closure and Reclamation Plan ahead of the 2026 submission deadline. Potential water quality risks are being monitored through the annual seepage survey program.
Misery	WRSA	Capping	2028/end of mining	The Misery WRSA is constructed to encapsulate internal layers of metasediment within a 5 m thick cover of granite. Capping of remaining metasediment waste rock with 5 m of granite will commence after underground operations are completed, which are scheduled to end in 2027, per the 2025 LOM Plan.

Fox	Open and WRSA	Flooding and Closure		A feasibility study for underground development is underway. Therefore, the Open Pit cannot be reclaimed due to planned future operations. The WRSA is predominantly granite and does not require a cover. Kimberlite within the WRSA is surrounded by an extensive (~40 m thick) granite zone. As part of end of open-pit operations, hydrocarbon-impacted materials deposited in Zone S were covered with granite.
Lynx	Open Pit	Flooding	Ongoing	The open pit is currently being utilized for water management from the King Pond Settling Facility, which will reduce volume of water required for back-flooding.

6.3.1 Timeline and Risk Considerations

Following the update to the Life of Mine plan, existing developments are being evaluated for potential future operational use and to reassess areas that may be suitable candidates for progressive reclamation. Reclamation plans and timelines will be updated in the next (2026) iteration of the ICRP, and progress updates will be provided in the CRP Progress Report following completion of this evaluation. While the LOM update may temporarily defer some progressive reclamation activities, these delays do not introduce new post-closure risks beyond those already being managed through established monitoring and management programs, which continue to guide closure planning. Ekati maintains long-term management plans, monitoring programs, and response frameworks that are regularly reviewed, updated and approved to effectively manage project-related risks.

Burgundy has considered the environmental risks associated with delays in progressive reclamation for both the Pigeon Open Pit and WRSA. For the open pit, although the potential for acid generation and metal leaching may increase due to exposure of metasediments along the pit walls, all Minewater remains contained within the pit. No discharge to the environment is occurring or planned. For the WRSA, seepage from all WRSAs, including Pigeon, is actively managed in accordance with the Water Licence and the approved WROMP. This includes biannual seepage surveys and collaboration with the GNWT-ECC Inspector to address any exceedances and apply response actions as necessary. As described in Appendix E, seepage from the Pigeon WRSA has remained stable over time, maintaining circumneutral pH conditions. While some variation in leaching influence has been observed depending on seep location, the overall decrease in particulate matter indicates a reduction in weathering effects on seepage chemistry. No Seeps of Potential Concern were identified from the WRSA in 2024.

6.4 Reclamation Research Plans

Reclamation research has been ongoing at the Ekati Mine since operations began. The Research Plans (RPs) were initially approved by the Board in 2011 as part of ICRP Version 2.4 and subsequently incorporated into ICRP Version 3.1. Burgundy conducts reclamation research to evaluate the effectiveness of planned closure activities, assess potential environmental effects, and support the achievement of closure objectives. The research focuses on water quality, air quality, facility stability, wildlife safety, and traditional land uses, using engineering studies, research projects, and Traditional Knowledge.

The research currently includes seven RPs designed to address key closure uncertainties. The removal of the Jay Project from the 2022 Life of Mine Plan eliminated the need for *RP-3: Misery and Jay Meromictic Pit Lake Freshwater Cap* and *RP-6: Jay WRSA Co-placement*. The numbering of the remaining RPs has been maintained for consistency:

- RP 1 – Wildlife Safety
- RP 2 – Panda/Koala Closure Freshwater Cap Depth
- RP 4 – Pigeon Waste Rock Storage Area Closure Cover
- RP 5 – Waste Kimberlite Seepage
- RP 7 – Kimberlite Waste Rock and Coarse Processed Kimberlite Vegetation Physical Stabilization
- RP 8 – Long Lake Containment Facility Stabilization Cover
- RP 9 – Long Lake Containment Facility Water Quality

In 2024, Burgundy continued reclamation research and monitoring to address these identified closure uncertainties. The evolution of the RPs will be documented in the Reclamation Research Report and incorporated into ICRP 4.0, reflecting ongoing updates in research findings, the mine operating schedule and management plans. Changes to the LOM Plan may affect the timing of some RPs, and any updates will be communicated through the Reclamation Research Report or the Annual CRP Progress Report.

6.4.1 RP 1 – Wildlife Safety

There is uncertainty regarding the best approach to ensuring wildlife safety on and around individual WRSAs (e.g., providing ramps or discouraging access) and road segments (e.g., smooth [esker-like] or scarified surfaces) during closure. The objective of RP1 is to inform closure planning by understanding regional wildlife movement and behaviour, with the goal of minimizing barriers to movement and reducing the risk of injury or mortality from interactions with reclaimed areas. This research integrates regional data collection and operational monitoring (e.g., WEMP) and focuses on engaging communities and Traditional Knowledge holders, establishing wildlife cameras, tracking telemetry data, conducting behavioural surveys, recording incidental observations and advancing preliminary designs for roads and WRSAs with stakeholder feedback.

In summer 2024, Burgundy held engagement sessions focused on closure planning and wildlife safety, involving community members and Traditional Knowledge holders. WRSA wildlife safety and caribou accessibility through sloping and contouring were discussed during the engagement. The site tour included visits to target habitats, potential camera locations, caribou monitoring points, and road mitigations for Sable, Misery, and Lac du Sauvage roads. Further details are provided in Section 7.2 and the 2024 CRP Progress Report.

In 2024, data collection continued through the WEMP wildlife camera monitoring program to improve understanding of wildlife migration patterns across the site and use of established caribou crossings. Incidental observations as well as behavioural surveys on or near non-active mine components also continued. Typically, around 20 surveys are conducted per year at Ekati, supplemented with data from Diavik Mine. Collected behavioural data from the Ekati mine, as well as from the Diavik mine, will be reviewed, with recommendations developed on supporting evaluation of closure-specific questions. Wildlife camera findings are summarized in the Wildlife Camera Monitoring Summary Report every three years, while behavioural data are included and analyzed in the WEMP Annual Report.

6.4.2 Panda/Koala Closure Freshwater Cap Depth

There is uncertainty regarding whether a 30 m freshwater cap over PK in the Panda and Koala pit lakes will result in post-closure water quality that meets closure criteria. The objective of RP-2 is to use ongoing operational monitoring data to inform predictions of closure water quality for pit lakes capped with freshwater over PK.

In 2024, operational monitoring continued at SNP Station 0008-Be4 during both under-ice and open-water seasons, with results reported through the SNP program. In-pit elevations and quantities of PK and water inflows were routinely recorded. Monitoring of seepage from the Panda/Koala/Beartooth WRSA also continued. Nitrogen compound levels remain low in the Panda/Koala NE and NW seepage areas, indicating limited residual flushing of blasting residues. Since 2016, there is indication that physical weathering/erosional processes contributing to Panda/Koala NE/NW Seepage is not significantly occurring.

The 30 m freshwater cap associated with the closure of Panda/Koala Pit Lakes and PKCA's was designed with the substantive Jay Project factored in. With the removal of the Jay Project, less PK may be deposited in the pits. Following the 2025 LOM Plan update, Burgundy will reassess PK management to confirm whether future deposition volumes align with previous assumptions. The outcome of this assessment will inform the appropriate freshwater cap depth for closure.

Burgundy will continue to collect and analyze monitoring data to support this research. Updates on findings will be provided in future Reclamation Research Reports, and outcomes will be incorporated into the ICRP.

6.4.3 RP 4 – Pigeon Waste Rock Storage Area Closure Cover

Closure cover requirements for the Pigeon WRSA remain uncertain. The objective of RP4 is to evaluate the need for a cover based on seepage quality data collected through post-construction monitoring. In 2024, post-construction monitoring of WRSA performance continued, including seepage sampling as required under the Water Licence and physical stability monitoring. Predictive modelling and assessment for this research plan have advanced as described in Section 3.5.1, leading to the development of a revised preliminary cover design.

Evaluation of whether a cover is required, and its design, is ongoing and scheduled for completion by the end of 2025. Final determinations will be reported in the Pigeon WRSA FCRP.

6.4.4 RP 5 – Waste Kimberlite Seepage

The effects of sediment loading in seepage from exposed kimberlite at the Fox WRSA and Coarse Kimberlite Reject Storage Area (CKRSA) on post-closure water quality remain uncertain. Elevated sediment levels could affect closure water quality criteria, particularly total suspended solids. The objective of this research is to better understand and address these potential impacts to inform final closure planning.

In 2024, monitoring of the Fox WRSA and CKRSA continued, including seepage sampling in accordance with the Water Licence and physical stability inspections. Seepage results showed continued variability in TSS concentrations, indicating ongoing sediment transport and seasonal fluctuations. Analyses suggest that silicate particulate matter from low-grade Fox kimberlite is contributing to trace metal and metalloid concentrations through gradual chemical weathering along flow paths. With the inclusion of the Fox Underground Project in the 2025 LOM Plan, operational monitoring will continue to collect site-specific data to refine the understanding of seepage-related risks and inform closure planning.

6.4.5 RP 7 – Kimberlite Waste Rock and Coarse Processed Kimberlite Vegetation Physical Stabilization

Vegetation has been shown to establish naturally and through active planting in FPK at the LLCF and is therefore considered part of the final stabilization cover. However, due to the larger grain size and differing physical properties of exposed KWR at the Fox WRSA and CPK at the CKRSA, it is uncertain whether vegetation can effectively provide physical stabilization. The objective of RP7 is to determine how to achieve a physically stable surface on exposed KWR and CPK using vegetation.

Reclamation trials at the Fox portal continue to provide insights into vegetation recovery. Monitoring in 2022 showed that organic soil topdressing supports significantly higher vegetation cover (53%) compared to esker sand and lake sediment (approximately 5%), with native shrubs well established and evidence of ongoing natural colonization. Non-vascular plants and litter also increased, indicating gradual ecosystem development. The Fox portal plots were not monitored in 2024 due to the five-year schedule, but annual vegetation monitoring was conducted at other key sites as described in Section 6.1. This includes Fred's Channel Stockpile, the abandoned winter road and quarry area, Panda/Koala till and lake sediment stockpiles, and Old Camp, to inform reclamation planning and vegetation cover strategies across the site.

Monitoring results are summarized in the Annual CRP Progress Reports, with comprehensive findings to be reported in the Reclamation Research Report. Analyses of long-term monitoring data will support a final study to close out RP7 if sufficient information is available to guide progressive reclamation activities.

6.4.6 RP 8 – Long Lake Containment Facility Stabilization Cover

There is uncertainty regarding the ability of vegetation in the LLCF cover to provide sufficient long-term stabilization of deposited PK. The objective of RP8 is to determine the vegetation components of the LLCF final cover system necessary to physically stabilize the PK. In 2024, reclamation research at the LLCF continued with monitoring of existing species and mycorrhizae trials in Cell A, alongside investigations into optimal planting strategies. Soil amendments, moss propagation, and topdressing trials were evaluated in Cell B, and new trials were established in both Cell A and Cell B, including Seedlings Planting Trials, Permanent Transects, and topdressing with ProGanics Dual Trial.

RP8 is anticipated to continue until the closure design for PKCAs is finalized. The overall goal of this research is to develop reclamation designs that can be implemented as progressive reclamation activities during ongoing mine operations. Future trial establishment, monitoring, and progressive reclamation schedules will be guided by the analyses and conclusions drawn from the RP.

6.4.6.1 Revegetation of the LLCF Surface

Following eight years of vegetation research at Ekati, one of the key lessons reported in ICRP 2.4 was that "*the tailings surface should be revegetated as soon as possible after final elevation is reached to control salt accumulation at the surface*" based on the mine operating schedule at that time. At that point, soil salts were moderate and did not noticeably affect the growth of native grass cultivars or natural colonization by dwarf birch.

Since then, progressive reclamation planning has incorporated this lesson through ongoing soil amendment trials initiated in 2013 to evaluate strategies for mitigating elevated sodium levels in PK and supporting plant growth. Amendments tested include gypsum, alfalfa pellets, calcium nitrate, and organic matter. Results show that alfalfa pellets and other organic amendments consistently enhance vegetation establishment and reduce surface salts. These findings directly inform progressive reclamation methods for revegetating PK surfaces, ensuring that salt accumulation is managed and vegetation can establish successfully once deposition concludes. Ongoing monitoring and trials continue to refine these approaches. The LLCF is still active for PK deposition and will remain active to support the 2025 LOM Plan.

6.4.7 RP 9 – Long Lake Containment Facility Water Quality

Implications for water quality in the LLCF after closure are uncertain. The objective of this RP is to evaluate the long-term LLCF water quality in closure using numerical modelling tools. In 2024, operational water quality monitoring continued through the SNP in the LLCF and in the Receiving Waters as part of the AEMP.

Since the LLCF is still being used for PK deposition, evaluations of permafrost aggradation and porewater quality have not yet commenced. The operational data collected will feed into future water quality models. Updates to the closure water quality model are dependent on the site-wide PK management strategy, which is being reviewed under the 2025 LOM Plan. Additional details on future plans for this RP will be provided in the Reclamation Research Report.

7. OTHER REPORTING REQUIREMENTS

7.1 Details on Water Use or Waste Disposal Requested by the Board

On December 4, 2024, Burgundy submitted WPKMP V10.0 as required by the Water Licence to the Board. After revision, there was a question raised about contingencies related to wastewater management in the Kind Pond Settling Facility. The Board asked Burgundy to adapt its schedule for Point Lake Stage 2 Dewatering, if necessary, and to provide contingencies plan to avoid the need for an emergency discharge from King Pond to Cujo Lake within 45 days of receiving this decision. On April 24, 2024, an extension request was approved for no later than April 30, 2024.

On April 30th, 2024, Burgundy submitted King Pond Settling Facility Contingency Plan to the Board.

- W2022L2-0001 Contingency Plan for the King Pond Settling Facility. April 30th, 2024. (Appendix J).

7.2 Traditional Knowledge

Burgundy is committed to incorporating oral and recorded TK into decision making at the Ekati Diamond Mine. With significant input from Indigenous parties and the Traditional Knowledge Elders Group (TKEG), Burgundy developed a Traditional Knowledge Management Framework to outline how Burgundy will collect, store, manage, and use TK in a respectful way. As per Section 5 of the Framework, Burgundy respects that Indigenous people own and control their TK, and Burgundy will only use their TK with consent, and only as intended in the context of which it was shared. Burgundy maintains that it is not appropriate to disclose TK that has been obtained in a public document not directly related to the aspect of which it was shared. Burgundy has also developed an Engagement Plan which is consistent with the requirements of the Engagement and Consultation Policy released by the Land and Water Boards of the Mackenzie Valley in 2013.

Burgundy approaches community engagement and the incorporation of TK in many ways. Burgundy has been supporting larger regional monitoring programs, hosting in-person workshops and meetings, and supporting community-led TK programs. Burgundy remains committed to collaborating with TK holders and affected communities through the approved engagement plan.

Engagement that occurred in 2024 and a description of how Traditional Knowledge shared during the session was incorporated at Ekati to aid and influence decision making or was incorporated into management plans that were created or modified in 2024 is outlined below:

- Wildlife and Closure Workshops: July / August, 2024; September 2024

Burgundy hosted two Wildlife and Closure Workshops in 2024. The first workshop included participants from the Yellowknives Dene First Nation, Łutsël K'é Dene First Nation, North Slave Métis Alliance, Tłı̨chǫ Government (TG), and the Hamlet of Kugluktuk on July 31st and August 1st, 2024 and the second workshop was held with only TG on September 27th and 28th, 2024. Topics discussed included Pigeon Pit closure, Pigeon Wase Rock Storage Area closure, camera locations for caribou monitoring, and road mitigations for Sable, Misery and Lac du Sauvage roads. Participants provided valuable insight that was taken into consideration for:

- Pigeon Pit
- Waste Rock Storage Areas Final Closure and Reclamation Plans
- Wildlife Safety

- The Point Lake Road Modification Plan
- Wildlife Effects Monitoring Plan Point Lake Addendum – Post-Dewatering Monitoring Engagement - Caribou monitoring through use of wildlife cameras
- Updating the 2025 Wildlife Management and Monitoring Plan Submission

Generally, the programs that Burgundy supports vary year-to-year based on requests from Indigenous Groups and annual reviews. In 2024, Burgundy provided support to TG for their Point Lake *Ekwǫ̀ Nàxoèhdee K'è* Monitoring Program. Burgundy typically supports IBA schools with their TK and cultural programs but were unable to do so in 2024 as the donations program was put on hold due to winter road expenses. Unfortunately, due to unforeseen circumstances and economic conditions, the company was unable to contribute to the same number of TK Projects and Community Outreach programs in 2024 as Burgundy has in past years. However, Burgundy remains committed to incorporating oral and recorded TK into decision making at Ekati.

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8. ACTIONS TO ADDRESS IMPACTS AND COMPLIANCE ISSUES

8.1 Effluent Quality Criteria Exceedances

8.1.1 Seepage

Burgundy utilizes an adaptive management approach to identify potential future issues (through rigorous monitoring programs) and to develop action plans to address these potential future issues before they become impacts and/or compliance concerns. The following discussion is designed to provide an update on current adaptive management programs and highlight new initiatives.

In response to the EQC exceedances exhibited by the seeps monitored during the Spring 2024 Seepage Survey, comprehensive silt curtains were installed at Seep-377, Seep-388, and Seep-081, which captures flow from Seep-081A. Seep-545 and Seep-530 did not have silt curtains installed as their flow is captured by the LLCF.

Seep-546 did not flow into the Receiving Environment (seep water was confined to Point Lake WRSA Seepage Sump's West Collection Channel). Seep-656 pertains to water originating from the Point Lake Channel, which at this stage primarily consist of Minewater, as construction activities in this channel are still ongoing, indicating that the exceedance may be related to construction water than seepage. Seep-546 water was transported and deposited into Lynx Pit.

The GNWT-ECC Inspector and the Board were notified on December 18th, 2024 by Burgundy of the seeps and actions taken. Copies of the letter are available in Appendix J or on the Board's Public Registry Website.

- Spring 2024 Seepage EQC Exceedances Notification
- Resubmission Spring 2024 Seepage EQC Exceedances Notification

Burgundy is developing a Seepage Response Framework (SRF) that is anticipated to drive future Seepage response actions. If an Action Level is triggered, as described in an approved SRF, the development of a Seepage Response Plan will be required. The SRF is anticipated to include a description and confirmation of any exceedances and, if required, proposed monitoring and management actions that need to be undertaken to mitigate these exceedances. The management actions will be dependent on the location of the seep and the nature of the exceedance.

SRF V1.0 was submitted on March 18, 2024, but the Board did not approve it. After communicating the Reason for Decision, Burgundy had 125 days (January 10, 2025) to submit SRF V1.1, per the Board's requirements. Burgundy requested to extend the framework submission deadline. The extension request was approved and the Board directed Burgundy to submit V1.1 of the framework by December 31, 2025.

- Seepage Response Framework V1.0
- Seepage Response Framework V1.1 Extension Request

Until the SRF is approved and implemented, Burgundy will increase the frequency of seep screening within 30 days of receiving water quality results. The GNWT Inspector and the Board will be notified of any seep EQC exceedances. Burgundy will seek the GNWT Inspector's direction on how to manage the seep.

8.1.2 King Pond

Burgundy was granted pumping authorization to Discharge from the King Pond Settling Facility to Cujo Lake on June 24th, 2024. Discharge from the King Pond Settling Facility to Cujo Lake occurred between June 24, 2024, to July 21, 2024. Weekly water quality sampling during this discharge period met the EQC for all grab samples but exceeded the Monthly Maximum Average Concentration for Aluminum (Al). The pump had already stopped when final sampling results were received by Burgundy. A total of 465,684 m^3 of water was Discharged from the King Pond Settling Facility into Cujo Lake. The GNWT inspector was notified on August 1st, 2024. The letter can be seen either in Appendix J or on the Board's Public Registry Website.

- W2022L2-0001 – Monthly Maximum Average Concentration Exceedance for Water Quality (Al) at King Pond Settling Facility Discharge to Cujo Lake in July 2024

8.2 Action Level Exceedances

The AEMP evaluates water quality, plankton, benthos, and fish variables against pre-defined Action Levels outlined in the Aquatic Response Framework. These assessments follow the criteria defined in the Ekati Diamond Mine: 2023 to 2025 AEMP Design Plan, Version 8.1 and associated addendum (ERM 2023a, 2024a). As per Part J, Condition 9(a) of Water Licence W2022L2-0001, if an Action Level exceedance is detected, Burgundy must notify the Board within 60 days.

8.2.1 Water Quality

In 2024, Action Level exceedances were identified for four water quality variables:

- Under-ice DO
  - Cujo Lake: Low Action Level (LAL)
- Total phosphorus
  - Cujo Lake: LAL (open-water season)
- Total iron
  - Horseshoe Lake: LAL (open-water season)
- Total potassium
  - Leslie Lake: LAL (ice-covered season)

Aquatic Response Plans for LAL exceedances of under-ice DO in Cujo Lake, total phosphorus in Cujo Lake, and total potassium in Leslie are already in place; no updates to these response plans are necessary. The Aquatic Response Plan for Total Iron, Version 1.0 (ERM 2025a), was submitted to the Board on February 14, 2025.

8.2.2 Biological Variables

In 2024, Action Level exceedances were identified for three plankton and benthos variables and three fish variables. The highest Action Level that was exceeded for each variable is detailed below:

- Phytoplankton biomass (as chlorophyll *a)*
  - Cujo Lake: Medium Action Level (MAL)
- Phytoplankton community composition
  - Leslie Lake: LAL
- Zooplankton community composition
  - Leslie, Moose, and Cujo lakes: LAL
- Small-bodied fish catch per unit effort (CPUE)
  - Kodiak, Leslie, Moose, and Cujo lakes: LAL

- Fish tissue mercury concentration
    - Kodiak, Leslie, Moose, and Cujo lakes: LAL for Slimy Sculpin whole body concentration and Round Whitefish liver concentration
    - Kodiak, Leslie, Moose, and Cujo lakes: High Action Level (HAL) for mean Lake Trout muscle concentration
    - Kodiak and Cujo lakes: MAL for mean Round Whitefish muscle concentration
    - Leslie and Moose lakes: HAL for mean Round Whitefish muscle concentration
- Fish tissue selenium concentration
    - Leslie Lake: LAL for Slimy Sculpin whole body and Round Whitefish liver concentration
    - Leslie Lake: MAL for mean Lake Trout muscle and Round Whitefish muscle concentration
    - Moose Lake: LAL for Slimy Sculpin whole body, Lake Trout muscle, and Round Whitefish muscle and liver concentration
    - Cujo Lake: LAL for Round Whitefish muscle and liver concentration

During 2024, the Aquatic Response Plan for Plankton and Benthos, Version 3.2 was submitted to the Board in January 2024 and was approved with additional direction for Version 3.3. Version 3.3 was submitted and approved by the Board in October 2024. Versions 3.2 and 3.3 addressed Action Level exceedances that had been observed in 2022.

The Aquatic Response Plan for Plankton and Benthos will be updated again in 2025 to address the MAL exceedance for phytoplankton biomass in Cujo Lake in 2024 since a MAL for phytoplankton biomass has not previously been exceeded. The Fish Response Plan will also be updated in 2025 to address LAL exceedances for CPUE and MAL and HAL exceedances for mercury and selenium tissue concentrations.

9. REFERENCES

1988. *Wildlife Act*, RSNWT. C. W-4.

1994. *Migratory Birds Convention Act*, SC. C. 22.

Arctic Canadian (Arctic Canadian Diamond Company Ltd.). 2021a. Ekati Mine: Wildlife Effects Monitoring Plan Point Lake Addendum. Calgary, AB. 13 pages.

Arctic Canadian. 2021b. Proposed Development of the Point Lake Project: Project Description.

BHP and Dia Met. 2000. Environmental Assessment Report for Sable, Pigeon and Beartooth Kimberlite Pipes. Prepared by BHP Diamonds Inc., Vancouver, BC, and Dia Met Minerals Ltd., Kelowna, BC.

BHP Billiton. *1995.* NWT Diamonds Project, Environmental Impact Statement. Prepared for BHP Billiton Diamonds Inc. by Rescan Environmental Services Ltd.: np.

Dominion Diamond Ekati Corporation (DDEC). 2014. Developer's Assessment Report for the Jay Project. Prepared by Golder Associates Ltd. October 2014: Yellowknife, NWT, Canada.

ECCC. 2025. Historical Climate Data. https://climate.weather.gc.ca/index_e.html

ERM. 2023a. Ekati Diamond Mine: 2023 to 2025 Aquatic Effects Monitoring Program Design Plan, Version 8.1. Prepared for Arctic Canadian Diamond Company Ltd. by ERM Consultants Canada Ltd.: Yellowknife, NT.

ERM. 2024a. Addendum to the 2023 to 2025 Aquatic Effects Monitoring Program Design Plan, Version 8.1. Prepared for Burgundy Diamond Mines Ltd. by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2025a. Ekati Diamond Mine: Aquatic Response Plan for Total Iron, Version 1.0. Prepared for Burgundy Diamond Mines Ltd. by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2025b. Ekati Diamond Mine: 2024 Waste Rock and Waste Rock Storage Area Seepage Survey Report. Prepared for Burgundy Diamond Mine Ltd. by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

Golder Associates. 2017. Wildlife Effects Monitoring Plan for the Ekati Diamond Mine, including Caribou Road Mitigation Plan. Prepared for Dominion Diamond Ekati Corporation by Golder and Associates.

Government of the Northwest Territories (GNWT). 2017. RE: Dominion Diamond Ekati Corporation (DDEC) – Approval of Wildlife Effects Monitoring Plan (WEMP), including Caribou Road Mitigation Plan (CRMP). June 2017. Letter to DDEC from Government of Northwest Territories-Environment and Natural Resources.

GNWT. 2024. Species at Risk in the Northwest Territories, 2024. Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

Appendix A 2024 Air Quality Monitoring Program Report

EKATI DIAMOND MINE

2024 Air Quality Monitoring Program

May 2025

BURGUNDY
DIAMOND MINES

EXECUTIVE SUMMARY

The Air Quality Monitoring Program (AQMP) at the Ekati Diamond Mine is a requirement under Article VII of the Environmental Agreement. In accordance with that agreement and commitments made, an AQMP was initiated to support the management of air quality throughout the life of the Ekati Diamond Mine.

The 2024 AQMP report provides and assesses results of meteorological and air quality monitoring data collected in 2024 as well as the emissions of greenhouse gases and air contaminants. The components discussed in this report include:

AQMP Program Component	Monitoring Year	Report Section
Meteorological monitoring	2024	2
Air contaminant and greenhouse gas emission	2024	3.2.4
Ambient air quality monitoring including: • Particulate sampling (Partisol equipment) • Continuous air monitoring (CAM)	2024	3.2.1 & 3.2.2
Dustfall monitoring (including metal and acid deposition)	2024	3.2.3
Fuel use summary	2024	3.2.4
A summary of the 2006 CALPUFF air dispersion modelling	-	3.2.5
Recommendations	-	4.0

In 2024, average daily temperatures above 0 degrees Celsius (ºC) were recorded in early May, marking the start of the open-water season, and average daily temperatures dropped below 0 ºC by early October, marking the end of the open-water season. The total precipitation in 2024 was 187 millimetres (mm), 40% lower than the 1994 to 2024 average of 312 mm. Winds at the Ekati Diamond Mine area were predominantly from the northwest and east-southeast, with the most common wind speeds ranging from 2.4 metres per second (m/s) to 4.3 m/s.

In 2024, there were no exceedances of the Government of the Northwest Territories (GNWT) total suspended particulate (TSP) 24-hour standard of 120 micrograms per cubic metre (µg/m³) measured at the Partisol stations, while there were four exceedances of the 24-hour TSP standard measured at the continuous air monitoring building (CAMB) station. Three of these four exceedances occurred during the months of June and July, coinciding with regional wildfire events. The annual mean TSP concentrations measured at the CAMB [15.2 µg/m³] and Partisol station [11.6 µg/m³] were well below the GNWT TSP annual standard of 60 µg/m³. The annual average concentrations of particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) measured at the CAMB [5.3 µg/m³] and Partisol station [4.6 µg/m³] were well below the applicable Canadian Council of Ministers of the Environment (CCME) and GNWT standards.

The average hourly, daily, and annual concentrations of nitrogen dioxide (NO_2) and sulphur dioxide (SO_2) measured at the CAMB station for the 2024 period were well below the applicable GNWT standards.

Dustfall sampling was conducted at 27 monitoring locations in 2024, including four haul road transects, three airstrip stations, and two control sites. Jay dustfall stations were not in operation in 2024. Measured dustfall was greater close to the haul roads and decreased with distance from the roads, with dustfall rates generally approaching background levels (dustfall concentrations at off-site stations AQ-49 and AQ-54) at approximately 300 metres (m) for all four road transects, and reaching background concentrations by 1,000 m. All seasonal averages of dustfall concentrations at 300 m from the roads were below the GNWT interim dustfall objective of 1.53 milligrams per square decimetre per day ($mg/dm^2/d$).

Acid deposition was calculated from nitrate and sulphate concentrations measured in dustfall. The highest annual median value during 2024 was 375 equivalent hydronium ions per hectare per year (eq/ha/yr) at SABLE-U30 (based on three months of data), which is above the established critical soil load threshold for provinces in eastern Canada and the Alberta potential acid input (PAI) load threshold of 250 eq/ha/yr. The metals measured included aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, lithium, magnesium, manganese, mercury, molybdenum, nickel, phosphorus, potassium, selenium, silicon, silver, sodium, strontium, thallium, tin, titanium, uranium, vanadium, zinc, and zirconium. Currently, there are no territorial or national standards/guidelines to compare the metal deposition values measured at the Ekati Diamond Mine.

A total of 157.4 kt kilotonnes of CO_2 equivalent (CO_2e) of greenhouse gas (GHG) emissions (Scope 1) were estimated to have been released from the Ekati Diamond Mine in 2024. This is about 8% lower than the estimated GHG emissions for 2023. The sources of GHG emissions at the Ekati Diamond Mine included combustion of diesel used for power generation, building heat, operating mobile equipment, and blasting; combustion of jet fuel and gasoline, and emissions from waste and wastewater facilities. The decreased GHG emissions were primarily due to the decrease of diesel fuel consumption, predominantly as lower motive fuel use based on year-to-year changes in routing of units to the operating areas of the Mine occurred.

Burgundy staff reviewed data collection from 2023 and 2024 and recommends the following modifications to the program to optimize the data collection process by reducing redundancy and focusing on key areas of interest. It is recommended that the number of dustfall stations along roads be decreased by eliminating all Lynx and Mis dustfall monitoring stations. Removing these stations will still leave sufficient dustfall stations to provide adequate information to assess the effects of vehicle traffic and dust mitigation measures on dustfall rates in the vicinity of the roads. Removing these stations will still allow for an assessment of effects of mining activities by having stations upwind and downwind of mining activities and around areas where activities are currently occurring or are planned. As well, Burgundy will review potential changes to the air monitoring equipment and QAQC process in the CAMB to allow for better completeness of data and/or consistent monitoring of air quality components.

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ACRONYMS AND ABBREVIATIONS

Acid deposition	The settling of acidic substances (mainly sulphur and nitrogen oxides, acids, and salts) from the atmosphere to the Earth's surface (e.g., rain, snow, dew).
AEMP	Aquatic Effects Monitoring Program - a monitoring program designed to determine the short- and long-term effects in the Receiving Environment resulting from the Project; to evaluate the accuracy of impact predictions; to assess the effectiveness of planned impact mitigation measures; and to identify additional impact mitigation measures to reduce or eliminate environmental effects.
AQ	Air quality
AQMP	Air Quality Monitoring Program
Arctic Canadian	Arctic Canadian Diamond Company Ltd.
ASTM	American Society for Testing and Materials
BHP	BHP Billiton Canada Inc.
Burgundy	Burgundy Diamond Mines Ltd.
BV Labs	Bureau Veritas Laboratories (Calgary, Alberta)
CALPUFF	An advanced non-steady-state meteorological and air quality modelling system.
CAM	Continuous air monitoring
CAMB	Continuous air monitoring building
CCME	Canadian Council of Ministers of the Environment
CH_4	Methane
CO	Carbon monoxide
COC	Chain of custody
Construction	"Any activities undertaken to construct or build any components of, or associated with, the development of the Project" as defined in the Class A Water Licence (W2022L2-0001).
Critical Load	A quantitative estimate of an exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment are not expected to occur according to present knowledge.
DL	Detection Limits
Dustfall	The fraction of heavier airborne particulate material that quickly falls out of the atmosphere and settles on the ground surface when particulate matter is released into the atmosphere.
Dust Suppression	An activity where a suppressant such as water or an approved water-based chemical solution is applied to a surface such as a roadway or stockpile to prevent fine dusts from becoming airborne due to wind or equipment movement.
EC	Environment Canada
ECCC	Environment and Climate Change Canada
EPA	The United States Environmental Protection Agency
ERM	ERM Consultants Canada Ltd.
eq	Equivalent (a unit of measurement, defined as the amount of a substance that will react with or supply one mole of hydrogen ions in an acid-base reaction).

eq/ha/yr	Equivalent hydronium ions per hectare per year
Fugitive dust	Any airborne, uncontrolled particulate matter generated from open sources.
Fugitive emissions	Emissions generated by industrial or other activities and that do not pass through a stack, chimney, vent or other functionally equivalent opening, but which may escape from openings (such as windows, doors, ill-fitting closures or poorly maintained equipment) or material handling equipment.
Geographic Information System (GIS)	A mapping tool that is used to depict large amounts of information in a spatial context.
Greenhouse effect	The phenomenon describing warming of the Earth's surface by trapping the sun's warmth in the lower atmosphere by "greenhouse gases" (e.g., carbon monoxide, carbon dioxide).
Greenhouse gas (GHG)	Any of various gases, especially carbon dioxide, that contribute to the greenhouse effect.
GNWT	Government of the Northwest Territories
IEMA	Independent Environmental Monitoring Agency
LED	Light emitting diode, a type of high-efficiency lightbulb
LLCF	Long Lake Containment Facility. "Comprises the basin and containment structures that are designed to contain Processed Kimberlite and other Waste" as defined in the Class A Water Licence (W2022L2-0001).
$mg/dm^2/d$	Milligrams per square decimetre per day
$mg/m^2/d$	Milligrams per square metre per day
NDM	Number of daily mean particulate concentrations
NE	Number of exceedances
NO	Nitric oxide
NO_2	Nitrogen dioxide
NO_x	Oxides of nitrogen
N_2O	Nitrous oxide
NPRI	National Pollutant Release Inventory
NWT	Northwest Territories
OT	Operational time
PAI	Potential acid input
Partisol	Thermo Scientific Partisol 2000i sampler for measuring particulate matter.
PM_{10}	Particulate matter that is less than or equal to 10 micrometres in size.
$PM_{2.5}$	Particulate matter that is less than or equal to 2.5 micrometres in size.
Project	The EKATI Diamond Mine operation in its entirety and associated activities
QA/QC	Quality assurance and quality control
SO_2	Sulphur dioxide
SWE	Snow-water-equivalent
tCO_{2e}	Tonnes of carbon dioxide equivalent

Total suspended particulates (TSP)	Airborne particles with a diameter of less than 30 microns, collected by a high-volume air sampler and recorded as micrograms per cubic metre of air (µg/m³).
Total suspended solids (TSS)	Total suspended solids
UTM	Universal Transverse Mercator
98P	98th percentile which corresponds to the concentration for which 98% of all the values are less than or equal to it, and 2% are greater than or equal to it.

1. INTRODUCTION

1.1 THE EKATI DIAMOND MINE

Burgundy Diamond Mines Ltd. is a Canadian diamond mining company which owns a controlling interest in the Ekati Diamond Mine. Burgundy acquired assets of the Ekati Diamond Mine from Arctic Canadian Diamond Company (Arctic Canadian) in July 2023.

The Ekati Diamond Mine is located in the Northwest Territories (NWT), approximately 200 kilometres (km) south of the Arctic Circle and 300 km northeast of Yellowknife. The mine is situated within the Lac de Gras Watershed at the headwaters of the Coppermine River drainage basin that flows north to the Arctic Ocean (Figure 1.1-1). The Mine is located 100 km north of the tree line on the Arctic tundra in a semi-arid environment.

The local terrain is characterized by boulder fields, tundra, wetlands, eskers, and numerous lakes with interconnecting streams. There are more than 8,000 lakes within the Ekati Diamond Mine mineral lease area. It is an area of continuous permafrost with a shallow active layer (less than 2 m thick) that thaws during the brief summer. While extreme winter temperatures dominate much of the year, there are generally five months of spring, summer and fall weather, but only four of those months (June through September) see daytime temperatures above freezing.

Construction of the Mine began in 1997, and the Ekati Diamond Mine officially opened in October 1998 as the first diamond mine in Canada. As of 2024, the Ekati Diamond Mine has been in production for 26 years and currently has two open pits (at the Pigeon and Sable kimberlites) and one underground mine (Misery Underground) in active mine development and production. Construction of the Point Lake mining project was started in 2024. Six open pits have completed development and production.

The annual Air Quality Monitoring Program (AQMP) reports are issued as an expanded version every third year. The 2023 AQMP reported on data from 2021, 2022 and 2023. The current report, the 2024 AQMP, reports on data from 2024 only, though some longer-term data and averages are included where necessary or relevant.

Section 1.1.1 provides a summary of key mine activities that occurred at the Ekati Diamond Mine over for the 2024 reporting period. Sections 1.1.2 and 1.1.3 provide summaries of air emission reduction initiatives and dust suppression activities at the site. Section 1.2 provides an overview of the purpose and content of the AQMP report.

1.1.1 SUMMARY OF ACTIVITY AT THE EKATI DIAMOND MINE IN 2024

The Ekati Diamond Mine footprint is presented in Figure 1.1-2. Key activities that occurred at the Ekati Diamond Mine over the 2024 period are listed below.

The following mining activities took place during the 2024 monitoring period:

- Material from the CKRSA (Coarse Kimberlite Rejects Storage Area) was transported to the process plant to supplement ore feed.
- Misery Underground Production mining continued.
- Kimberlite ore was stockpiled at the Misery Ore Storage and transported to the process plant.

- Misery Waste Rock was transported to the Misery WRSA.
- Production mining continued at the Sable Open Pit.
- Kimberlite ore from Sable Open Pit was transported to the process plant.
- Sable Waste Rock was transported to the Sable South, West, and East WRSAs.
- Dewatering from Point Lake to King Pond and Lynx Pit completed in 2024.
- Development and construction of the Point Lake mining project commenced in 2024.

FIGURE 1.1-1 LOCATION OF THE EKATI DIAMOND MINE, NORTHWEST TERRITORIES

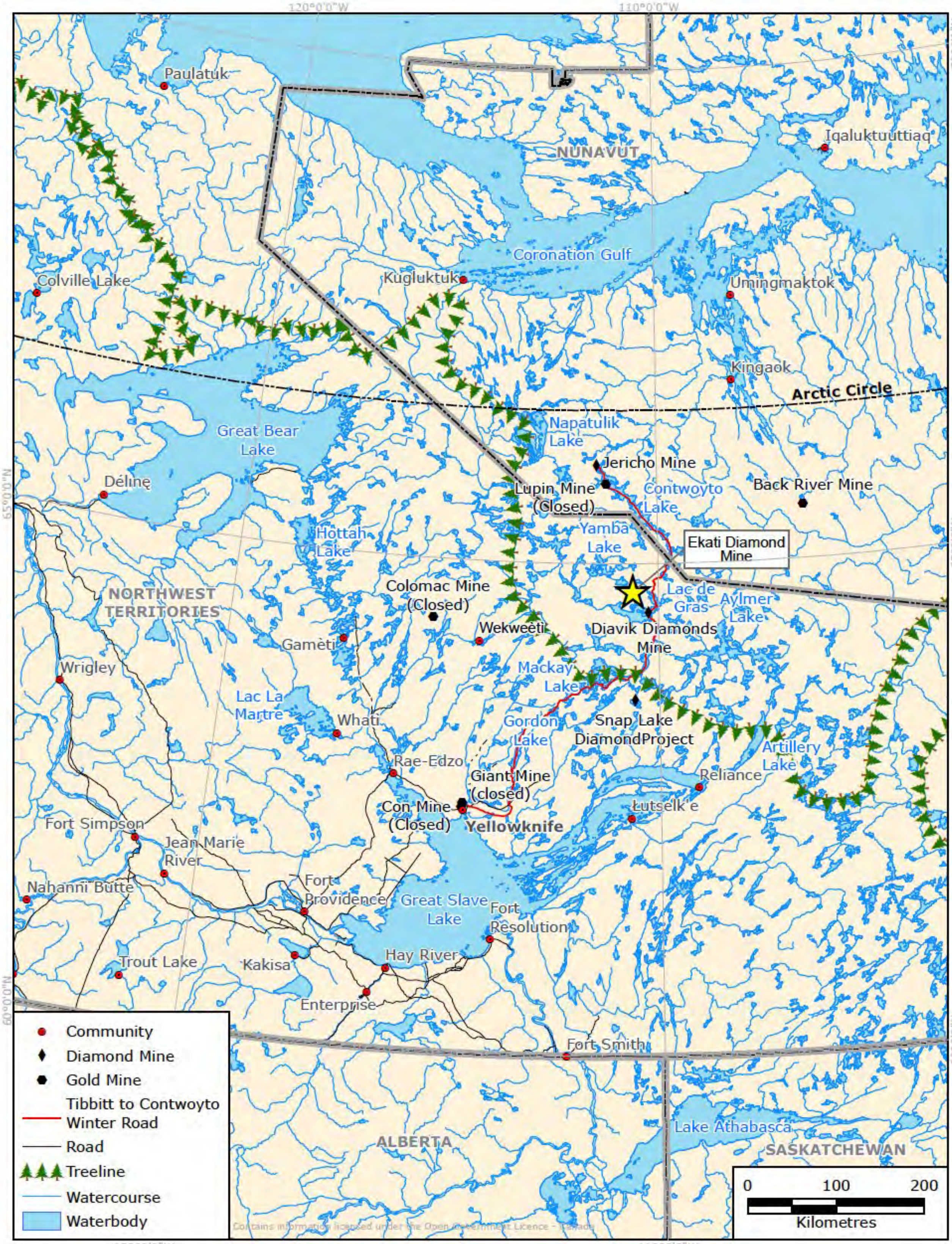
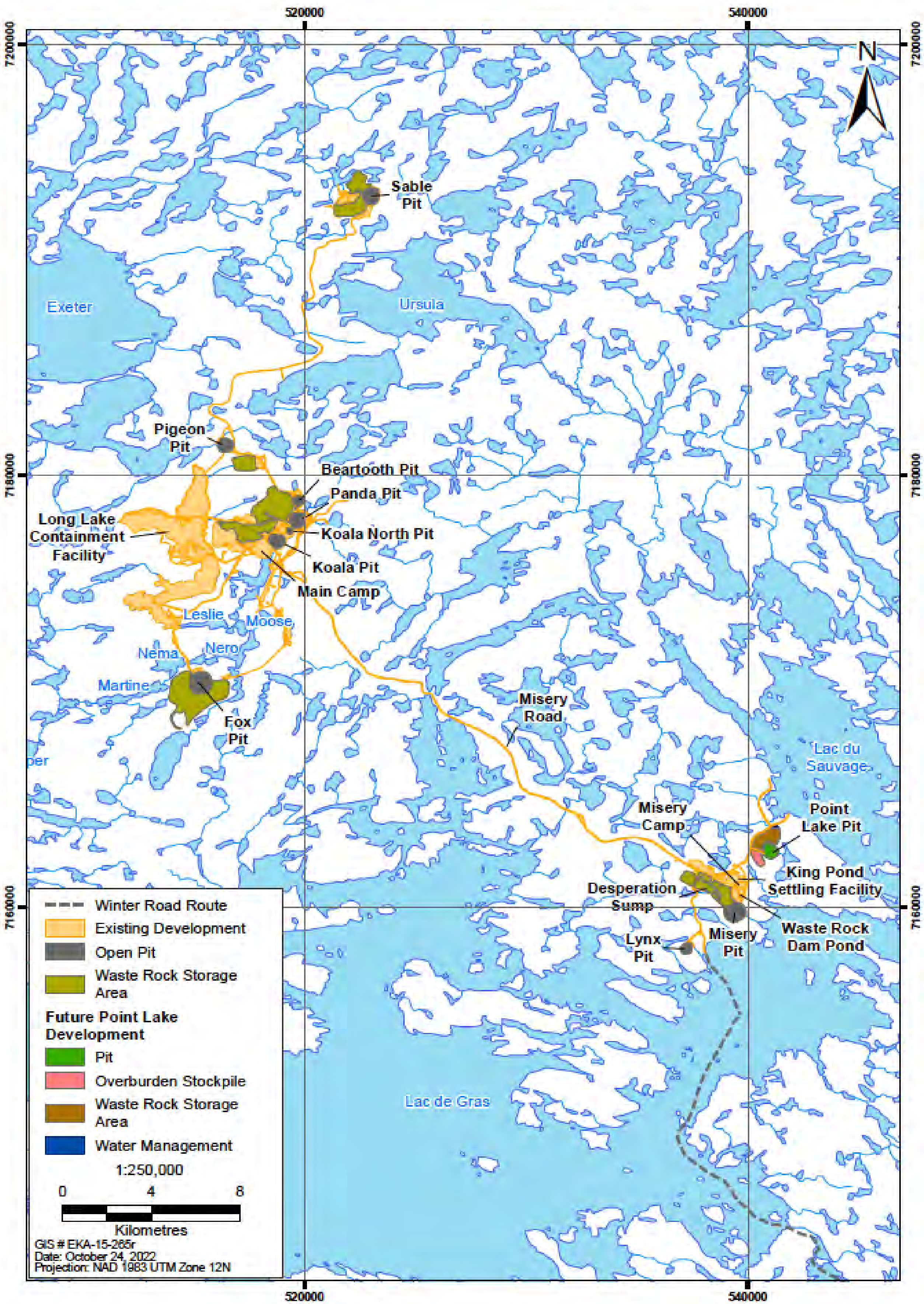


FIGURE 1.1-2 THE EKATI DIAMOND MINE SITE MAP



1.1.2 EKATI DIAMOND MINE AIR EMISSIONS

Air quality may be affected by particulate and gaseous emissions from stationary and mobile diesel-powered equipment and fugitive dust, which are all by-products of mining activities. Combustion of fossil fuels releases carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). These greenhouse gases are associated with global climate change (IPCC 2023). Arctic Canadian monitors greenhouse gas (GHG) emissions and is continuously seeking ways to improve and adapt operations to make them more energy efficient and to reduce emissions. Combustion emissions also include NO_2 and SO_2. The primary sources of particulate, gaseous emissions and fugitive dust at the Ekati Diamond Mine are:

- emissions from diesel-fired power generation;
- emissions from diesel fired boilers;
- vehicle traffic, including trucks, aircraft, and other mobile equipment on unpaved roads; and
- mining activities, including blasting and crushing granite for aggregate.

Particulates and gaseous emissions produced as a result of mine activities can pose a risk to vegetation performance in addition to indirect risks to wildlife (i.e., reduced forage quantity and or quality). Thus, a number of mitigation and management activities have been adopted at the Mine to address these potential risks including:

- Established speed limits.
- Control of fugitive dust through road watering and the use of approved dust suppressants (see further detail in Section 1.1.3).
- Blasting practices follow current best practice source reduction management strategies.
- Recyclable items are shipped off-site instead of being incinerated.
- Regular maintenance of the vehicle fleet.
- An Energy Smart Program that was initiated in 2002.
- A new incinerator was installed in 2012 with a Venturi scrubbing system to reduce stack emissions; stack testing was completed in 2013, 2016, and 2024 with all results below the CCME guidelines for mercury and dioxins and furans. In addition, the results suggested that complete combustion is being achieved in both incinerators.
- A “No Idle” Campaign (including the onsite shuttle service) that was initiated in 2013.
- Testing the use of biodiesel as a fuel during a 2014 pilot project and again in 2015.
- A composter was installed and commissioned in late 2015. The in-vessel composter greatly reduces the use of the incinerators, which in turn reduces diesel consumption and GHG emissions.
- Dust suppressant (EnviroKleen®) use underway since 2015 (see further detail in Section 1.1.3).
- An Energy Awareness campaign was launched in 2016 with posters around the Mine and regular emails about ongoing energy efficiency projects. An email address was created for employees and contractors to share their energy efficiency ideas.

- A powerline was installed from Main camp to Misery camp (completed in October 2016) to eliminate the need for additional generators to power the Misery Pit and infrastructure.
- An Energy and Automation expert was hired in 2015 to upgrade the Ekati Diamond Mine Energy Management System and lead the GHG Steering Committee with the ultimate goal to decrease energy waste, decrease fuel consumption, and ultimately decrease GHG emissions from the Ekati Diamond Mine. The Energy Steering Committee facilitated the execution of the following energy reduction projects:
  - Transitioning to LED lighting instead of fluorescent lighting to reduce diesel use.
  - Weir D Project – The Construction of a weir between Cells D and E allows for the transfer of water using gravity instead of diesel-powered pumps.
  - Panda Mine Ventilation Project – Ventilation was optimized, the overall temperature was turned down, and certain areas of the underground stopped getting heat supply. The initiative reduced used oil and diesel consumption in the fresh air raises which heat the underground. This has been decommissioned.
  - Road train versus Haulmax Project – By replacing HaulMax with Duel-Powered Road Trains, a saving in the amount of diesel consumed per tonne hauled is accumulated with estimated savings to be over 35,000 L per month.
  - Powerhouse Heat Recovery Optimization – Estimates put the diesel consumption savings at over 200,000 L of diesel saved during the winter months.
  - Compressed Air System Improvement – The decrease in compressor demand has contributed to an estimated annual savings of 86,500 L of diesel.
  - Main Camp Power Waste Reduction – Nearly 170 LED tubes in the Main Camp were equipped with motion sensor switches, allowing the lights to de-energize when the rooms are unoccupied. The estimated annual diesel savings from this initiative is 3,000 L.

1.1.3 SUMMARY OF DUST SUPPRESSION AT THE EKATI DIAMOND MINE IN 2024

Dust suppression as a mechanism to mitigate the effects of fugitive dust at the Ekati Diamond Mine has been employed since the commencement of mining in 1998. Various methods of dust suppression have been used on-site including road watering, the application of DL-10, the use of EK-35 on all areas around the airport, and the application of EnviroKleen®.

A pilot study was initiated in 2015 to address comments and concerns received from community members, regulators, and the Independent Environmental Monitoring Agency (IEMA) about whether the current dust suppression practices could be improved and to satisfy Measure 6-2 (a) of the Report of Environmental Assessment and Reasons for Decisions (MVRB 2016) for the Jay Project, which stated:

> Dominion will implement the Caribou Offset and Mitigation Plan as described in DAR MVEIRB UT2 06 and incorporate the following into the Plan:
>
> - An enhanced dust mitigation study including:
>   - A pilot test on application of dust suppressant
>   - A dustfall sampling program

- Report on results and propose improvements to be incorporated into the Air Quality Emission Monitoring and Management Plan
- If dust mitigation improvements are identified, Dominion will apply them on all roads at Ekati

The use of the dust suppressant, EnviroKleen® in the pilot study was intended to offer potential performance improvements for dust suppression over the use of DL-10. Use of EnviroKleen® has generally increased at the Ekati Diamond Mine since the pilot dust suppressant study was initiated in 2015. Since 2015, EnviroKleen® has been applied along sections, or the entirety of Misery Road, within varying distances (15 m or 30 m) from waterbodies. From 2015 to 2019, EnviroKleen® was also applied to different roads including parts or the full extent of the Sable Road and the Ekati Haul Road (2019). In accordance with GNWT Inspector approval, EnviroKleen® was permitted to be applied to within 15 m of waterbodies in 2019, similar to 2017 and 2018. In 2020 due to the Ekati Diamond Mine's temporary Care and Maintenance status (WLWB 2020), EnviroKleen® was not applied to any of the haul roads. Watering was used to manage and mitigate fugitive dust at the Ekati Diamond Mine in 2020.

Following the resumption of mining activities in 2021, dust suppressants were applied in summer in the following locations: EK-35 on the airport apron and airstrip, and EnviroKleen® and DL-10 on the Pigeon and Ekati Haul Roads and in front of the Main Camp. Once again water was used on the haul roads to Misery, Sable, and the low-grade ore pile at the Fox WRSA. In 2022 EnviroKleen® was used as dust suppressant around the Mine. Dust suppressant was applied in June in the following locations: EK-35 on the airport apron and airstrip, in front of the Main Camp, and on the Misery Haul Road (from the camp northward to km 15.5). In 2023 EnviroKleen® and water was used around Main Camp, Misery Haul Road (from Km 1-5 and 24 to 27) and Sable Haul Road. EK-35 was used on the airport apron and airstrip. In 2024 EnviroKleen® and water was used around the Main Camp and Misery Haul Roads from kilometer 1 to 27 with marked spray zone and no spray zone markers. Sable Haul Road also applied an application of EnviroKleen® from kilometer 1 to 17 with marked spray zone and no spray zone markers. EK-35 was also applied on the airport runway, apron, and taxi-way. Road watering was used to supplement dust suppression when necessary.

Ambient air quality is a valued ecosystem component at the Ekati Diamond Mine because of its potential impact on worker health and safety, and its importance for wildlife, vegetation, and water quality (BHP and Dia Met 1995). Air quality also has aesthetic qualities in terms of visibility. Local air quality can be affected by regional and global influences such as long-range transport, haze, acidic deposition (acid rain), forest fires, and climate change. These large-scale atmospheric effects have been understood to concentrate contaminants in the Arctic where they can be deposited as particulate (Cheng et al. 1993).

The AQMP for the Ekati Diamond Mine was initiated in 1998 to support the management of air quality throughout the life of mine operations. This initiative was in accordance with the requirement under Article VII of the Environmental Agreement, and commitments made in the 1995 Environmental Impact Statement (EIS; BHP and Dia Met 1995). Dominion, and now Arctic Canadian as the current operator of the Ekati Diamond Mine, has continued the AQMP to date.

The purpose of the program is to monitor ambient air quality and to assess the effectiveness of air quality management plans for maintaining air quality throughout the life of the Ekati Diamond Mine operations. The results of the AQMP are assessed by comparing to:

- Applicable ambient air quality standards and guidelines;
- Historical and reference air quality data generated at the Ekati Diamond Mine;
- Baseline air quality parameters referenced in the literature; and
- Air dispersion modelling results completed in 2006.

The 2024 AQMP report presents the results of meteorological and air quality monitoring data collected in 2024, and the estimated emissions of greenhouse gases.

The components discussed in this report include:

AQMP Program Component	Monitoring Year	Report Section
Meteorological monitoring	2024	2
Air contaminant and greenhouse gas emissions	2024	3.2.4
Ambient air quality monitoring including: • Particulate sampling (Partisol equipment) • Continuous air monitoring (CAM)	2024	3.2.1 & 3.2.2
Dustfall monitoring (including metal and acid deposition)	2024	3.2.3
Fuel use summary	2024	3.2.4
A summary of the 2006 CALPUFF air dispersion modelling	-	3.2.5
Recommendations	-	4.0

2. METEOROLOGY

2.1 METHODOLOGY

In 2024, meteorological data were collected at the Ekati Diamond Mine from the Koala station. The Koala station is located near the airstrip and has operated continuously since 1993. The station has sensors to monitor air temperature, relative humidity, precipitation, wind speed, snow depth, and wind direction. Results from the station are also reported on an annual basis as part of the Aquatic Effects Monitoring Program (ERM 2025). The station locations are listed in Table 2.1-1 and shown on Figure 2.1-1. Weather observations are also collected by personnel at the Ekati Diamond Mine airport; however, observations are only available for the hours when the airport is staffed (generally between 05:00 and 17:00 each day). Data from these observations are sent to the Meteorological Service of Canada and are available for download from their website (ECCC 2024).

Polar Lake micrometeorological station was not operated in 2024. In 2023, the station was moved to Panda Lake and was operated during the open-water season to provide data for estimating open-water evaporation. However, the Panda Lake station was removed from the requirements of the Water License (W2012L2, formerly W2020L2-0004) and the station was decommissioned in October 2023. The former station location can be found in Table 2.1-1 and shown on Figure 2.1-1.

Results are primarily based on data from the Koala station, which has the longest and most continuous meteorological data record for the Mine. Data from Environment Canada’s database for the Mackenzie Regional District are used as a historical comparison. Data from Lupin airport station (located 123 km north of Koala station) are also used as a historical comparison due to the station’s climate normal record (1991 to 2020).

The Koala station’s sensors are mounted on a 10-m high aluminum tower that is anchored to a concrete base and strengthened with guy wires. Wind speed and wind direction are measured in m/s and degrees from true north, respectively, with a RM Young model 05103 wind sensor. Temperature and relative humidity are measured with a Vaisala HMP45C, which is mounted on the tower and protected from direct radiation by a multi-plate solar radiation shield. Air temperature is measured in °C, and relative humidity in percent (%). A Geonor all-weather total precipitation gauge was installed at the Koala station in June 2014. The Geonor gauge utilizes a single Alter wind screen to reduce precipitation undercatch caused by the wind.

The sensors for the meteorological station are connected to a Campbell Scientific CR1000 datalogger that controls the operation of the station. The datalogger’s program samples the sensors every five seconds and records the hourly and daily averages and totals. The data are stored internally as well as copied to a memory storage module connected to the datalogger. The modules are changed out on a regular basis as data are downloaded. The station is powered with a 50-W solar panel and two 12-V deep cycle marine batteries, and is grounded to prevent lightning from damaging the electronics.

2.2 RESULTS AND DISCUSSION

The 2024 AQMP report provides and assesses results of meteorological data collected during 2024. The sections below summarize and compare data from 2024.

2.2.1 TEMPERATURE

Temperature data are presented in Table 2.2-1 and Figure 2.2-1. Figure 2.2-1 shows a comparison of the monthly mean temperatures from the Koala station in 2024 to the historical 1995 to 2024 Koala station temperature trend as well as regional temperatures from the ECCC Lupin airport climate station normal data (1991 to 2020). The annual average temperature from 1995 to 2024 at the Koala station was -8.8 °C (Table 2.2-1) while the annual average temperature for 2024 was -7.3 °C. The historical records indicates that 2024 was a warmer year as compared to the previous years. In 2024, similarly to historical data, seasonal trends were evident: daily mean temperatures generally rose above 0 °C in early May, marking the start of the open-water season, and summer maxima were around 20 °C. In 2024, the temperature dropped below 0 °C by early October, marking the end of the open-water season and the start of winter. Similar to the historical record, daily winter minima reached below -30 °C several times in 2024, with an absolute daily minimum of -41.1 °C.

Table 2.2-1 ranks annual temperatures for the Ekati Diamond Mine and the Mackenzie District Climate Region (ECCC 2024) from 1995 to 2024. Temperature ranks are presented as departures from the long-term average of each location's monitoring period. The two data sets range from 1995 to 2024 for the Ekati Diamond Mine and 1948 to 2024 for the Mackenzie District. There are similarities between the two data sets: 2023, 1998, and 2010 were some of the warmest years on record, while 2004 was a particularly cold year. 2024 was the 7th warmest year on record for the Ekati Diamond Mine. The 1948 to 2024 long-term regional temperatures in the Mackenzie District region had a general warming trend in the last two decades (ECCC 2024). From 1995 to 2024, the Mackenzie District region experienced an average warming trend of 0.03 °C per year. During the same period, the Koala station experienced an average warming trend of 0.03 °C per year.

2.2.2 PRECIPITATION

Precipitation data are presented in Table 2.2-2 and Figure 2.2-2, Figure 2.2-3, and Figure 2.2-4. Table 2.2-2 ranks the annual Ekati Diamond Mine precipitation amounts from 1994 to 2024.

In general, the sub-Arctic climate at the Ekati Diamond Mine is characterized by stable continental polar air masses that produce relatively low annual precipitation. Figure 2.2-2 summarizes the monthly precipitation distribution at the Ekati Diamond Mine as well as the ECCC Lupin airport climate normal (1991 to 2020) data. 2024 was the 3rd-lowest of the observed years in terms of total precipitation (a combination of snowfall measured as snow water equivalent (SWE) and rainfall; Table 2.2-2). Snow free season (June to September 2024) accumulation accounted for approximately 64% of the total precipitation in 2024 at the Ekati Diamond Mine (Figure 2.2-3; Figure 2.2-4). The highest monthly total precipitation in 2024 was measured in September, while August was the highest monthly total precipitation for the Lupin airport climate normal (Figure 2.2-2). In 2024, the annual precipitation amount was 187 mm, 40% lower than the 1994 to 2024 annual average (125 mm below the 1994 to 2024 average of 312 mm; Table 2.2-2).

TABLE 2.1-1 EKATI DIAMOND MINE METEOROLOGICAL AND AIR QUALITY MONITORING STATIONS, 2024

Station Name	Measurement Parameters	UTM Coordinates (Zone 12W)		2024 Monitoring Periods[a]
		Easting (m)	Northing (m)	
Meteorological Stations				
Koala	*	518751	7173767	Jan 1 - Dec 31
Panda Lake Micromet	***	520094	7178312	–
Partisol Stations				
Grizzly	TSP	521039	7177776	Jan 1 - Dec 31 (once every 6 days)
Cell B	TSP	515810	7178836	–
CAMB (Partisol)	$PM_{2.5}$	516439	7176425	Jan 1 - Dec 31 (once every 6 days)
Continuous Air Monitoring Building (CAMB)				
CAMB (CAM)	TSP, $PM_{2.5}$, SO_2, NO_2, NO, NO_X	516439	7176425	Jan 1 - Dec 31
Dustfall Stations				
Air-P125	Dustfall[b]	518123	7174006	Jul 17 - Aug 17 - Sep 16
Air-P162	Dustfall[b]	518625	7174826	Jul 17 - Aug 17 - Sep 16
Air-P280	Dustfall[b]	518430	7175890	Jul 17 - Aug 17 - Sep 16
AQ-49	Dustfall[b]	496949	7181965	Jul 16 - Aug 16 - Sep 16
AQ-54	Dustfall[b]	483227	7186765	Jul 16 - Aug 16 - Sep 16
LLCF-PA	Dustfall[b]	514487	7177769	Jul 17 - Aug 16 - Sep 16
LLCF-PB	Dustfall[b]	515783	7178870	Jul 17 - Aug 16 - Sep 16
Mis-U30	Dustfall[b]	522999	7170853	Jul 16 - Aug 16 - Sep 17
Mis-D30	Dustfall[b]	522986	7170777	Jul 16 - Aug 16 - Sep 17
Mis-D90	Dustfall[b]	522984	7170709	Jul 16 - Aug 16 - Sep 17
Mis-D300	Dustfall[b]	522982	7170536	Jul 16 - Aug 16 - Sep 16
Mis-D1000	Dustfall[b]	522540	7169739	Jul 16 - Aug 16 - Sep 16
MisNew-U30	Dustfall[b]	522291	7171569	Jul 16 - Aug 16 - Sep 17
MisNew-D30	Dustfall[b]	522249	7171527	Jul 16 - Aug 16 - Sep 17
MisNew-D90	Dustfall[b]	522207	7171484	Jul 16 - Aug 16 - Sep 17

Station Name	Measurement Parameters	UTM Coordinates (Zone 12W)		2024 Monitoring Periods[a]
		Easting (m)	Northing (m)	
MisNew-D300	Dustfall[b]	522058	7171336	Jul 16 - Aug 16 - Sep 16
MisNew-D1000	Dustfall[b]	521563	7170841	Jul 16 - Aug 16 - Sep 16
LYNX-U30	Dustfall[b]	537701	7159547	Jul 16 - Aug 16 - Sep 17
LYNX -D30	Dustfall[b]	537643	7159531	Jul 16 - Aug 16 - Sep 17
LYNX -D90	Dustfall[b]	537586	7159514	Jul 16 - Aug 16 - Sep 17
LYNX -D300	Dustfall[b]	537384	7159455	Jul 16 - Aug 16 - Sep 16
LYNX -D1000	Dustfall[b]	536712	7159258	Jul 16 - Aug 16 - Sep 16
Sable-U30	Dustfall2	520047	7187413	Jul 17 - Aug 16 - Sep 16
Sable-D30	Dustfall2	519987	7187413	Jul 17 - Aug 16 - Sep 16
Sable-D90	Dustfall2	519927	7187413	Jul 17 - Aug 16 - Sep 16
Sable-D300	Dustfall2	519717	7187436	Jul 16 - Aug 16 - Sep 16
Sable-D1000	Dustfall2	519017	7187413	Jul 16 - Aug 16 - Sep 16

* Measurement parameters at the Koala station: wind speed and wind direction, air temperature and relative humidity, snow depth, and precipitation.

** Measurement parameters at the Polar Lake meteorological station: wind speed and wind direction, air temperature and relative humidity, solar radiation, and precipitation.

Dash (–) = not available

TSP = total suspended particulate matter; $PM_{2.5}$ = particulate matter with aerodynamic diameter less than 2.5 µm; SO_2 = sulphur dioxide; NO_2 = nitrogen dioxide; NO = nitric oxide; NOx = nitrogen oxides

[a] Does not include times when stations were temporarily shut down due to power outages (Partisols and CAMB only), invalid samples, maintenance, etc. Dustfall station operating periods represent the dates of dustfall canister retrieval.

[b] Parameters measured include soluble and insoluble particulates, metals, and specific anions and nutrients.

FIGURE 2.1-1 METEOROLOGICAL AND AIR QUALITY MONITORING STATIONS, 2024

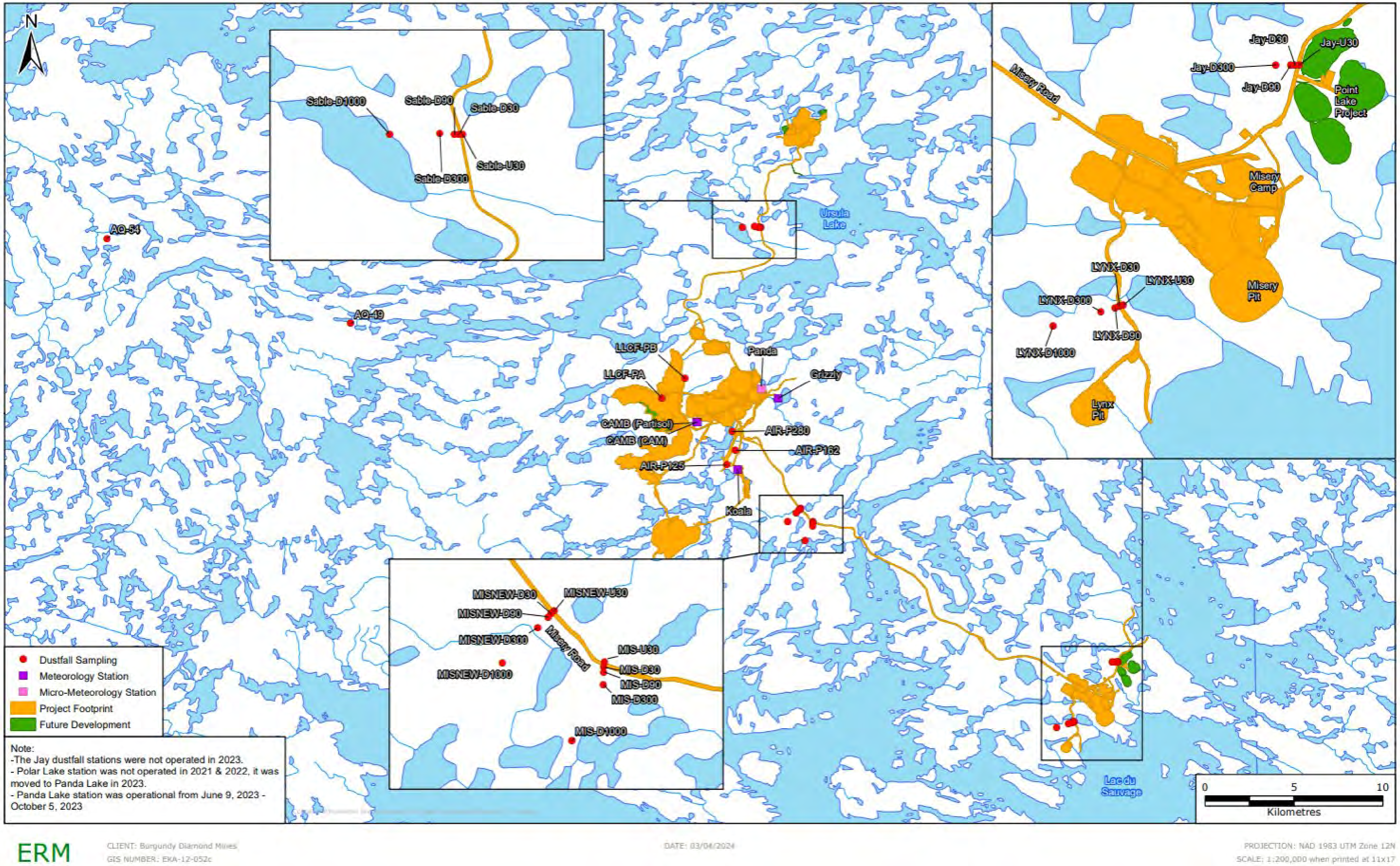


TABLE 2.2-1 RANKING OF MEAN ANNUAL TEMPERATURE FOR THE EKATI DIAMOND MINE AND THE MACKENZIE DISTRICT CLIMATE REGION

Ekati Diamond Mine (Koala Station), 1995 – 2024				Mackenzie District, 1995 -2024[c]		
Rank (30 years)	**Year [a]**	**Mean Temperature (°C)**	**Temperature Departure from 1995 to 2023 Average (°C)**	**Rank (76 years)**	**Year [a]**	**Temperature Departure from 1961 to 1990 Average(°C)**
1	2011	-3.6	5.2	1	2023	4
2	1997	-5.9	2.9	2	1998	3.3
3	2023	-5.9	2.9	3	2010	3.2
4	1998	-6.3	2.5	4	2006	3
5	2010	-6.5	2.3	5	2016	2.7
6	2006	-6.8	2.0	6	2017	2.6
7	**2024**	**-7.3**	**1.4**	**12**	**2005**	**1.9**
8	2003	-7.9	0.9	8	2015	2.3
9	2017	-8.1	0.7	9	2001	2.1
10	2012	-8.3	0.5	11	1999	1.9
11	2016	-8.3	0.5	13	2019	1.7
12	2022	-8.4	0.4	14	2012	1.7
13	1996	-8.8	0.0	16	2011	1.6
14	2013	-8.9	-0.1	17	2003	1.4
15	2015	-8.9	-0.1	18	1997	1.4
16	2021	-9	-0.2	19	2018	1.3
17	2019	-9.2	-0.4	20	2022	1.2
18	2014	-9.3	-0.5	21	2021	1.2
19	2001	-9.6	-0.8	23	2014	1.1
20	2018	-9.6	-0.8	25	2000	1.1
21	2002	-9.7	-0.9	27	2013	1
22	1999	-9.7	-0.9	32	2007	0.9
23	2007	-9.7	-0.9	31	1995	0.9
24	2009	-9.8	-1.0	33	2002	0.8
25	2020	-9.8	-1.0	34	2020	0.7
26	2005	-9.8	-1.0	35	2009	0.7
27	2008	-10.3	-1.5	38	2008	0.6

Ekati Diamond Mine (Koala Station), 1995 – 2024				Mackenzie District, 1995 -2024[c]		
Rank (30 years)	**Year [a]**	**Mean Temperature (°C)**	**Temperature Departure from 1995 to 2023 Average (°C)**	**Rank (76 years)**	**Year [a]**	**Temperature Departure from 1961 to 1990 Average(°C)**
28	1995	-10.3	-1.5	46	1996	0.2
29	2004	-12.8	-4.0	66	2004	-0.8
30	2000	-14	-5.2	–	2024[b]	–
Mean (1995 – 2024)		-8.8	–	–	–	–

Mackenzie District data source: ECCC (2024)

[a] Years 2000 and 2011 do not have accurate ranks and temperature departures due to significant periods of missing data.

[b] Year 2024 data were not available from ECCC at the time of this report.

[c] While the climate record at this station goes back to 1946, only years covered by the Koala station are included here.

Dash (–) = not available.

FIGURE 2.2-1 KOALA STATION MONTHLY AIR TEMPERATURE, 2024

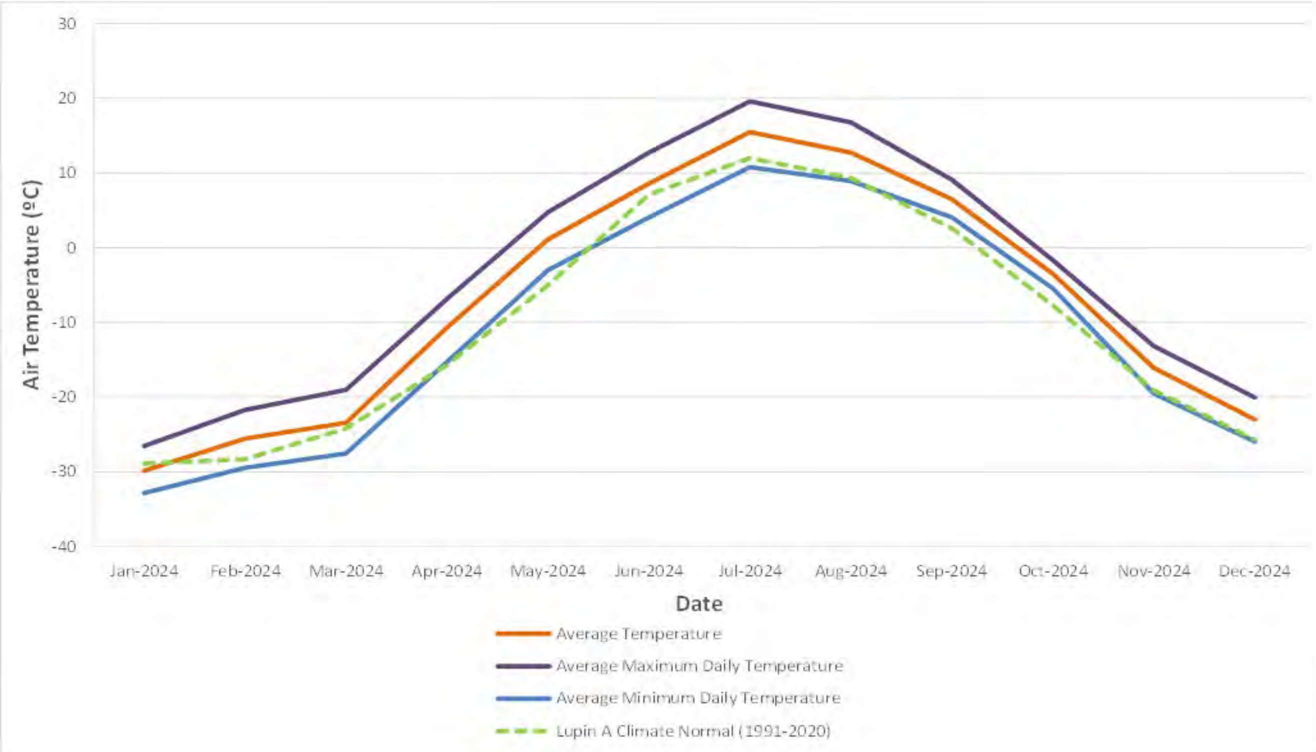


TABLE 2.2-2 RANKING OF TOTAL ANNUAL PRECIPITATION FOR THE EKATI DIAMOND MINE

Rank 30 Years	Ekati (Koala Station), 1994 – 2024			
	Year	Total Precipitation (mm)	Snowfall (%)	Precipitation Departure (%)
1	1995	519	–	64
2	1996	510	–	61
3	2012	497	72	57
4	2011	471	45	49
5	1999	458	43	45
6	2006	426	35	35
7	2008	422	22	34
8	1998	371	61	17
9	2001	336	57	6
10	2020	332	34	5
11	2002	321	24	2
12	2009	314	61	-1
13	2013	312	41	-1
14	2019	289	30	-9
15	2003	288	59	-9
16	1994	280	-	-11
17	2015	273	36	-14
18	2000	272	48	-14
19	2010	268	51	-15
20	2014	263	70	-17
21	2007	257	54	-19
22	2005	248	39	-22
23	2021	246	48	-22
24	2016	226	44	-28
25	2004	222	35	-30
26	2017	214	32	-32
27	2023	196	32	-38
28	**2024**	**187**	**25**	**-41**
29	2022	170	25	-46
30	2018	169	46	-47
–	1997	–	–	–
Average (1994 – 2024)		312	–	–

Note:

Dash (–) = not available

FIGURE 2.2-2 KOALA STATION MONTHLY TOTAL PRECIPITATION, 2024

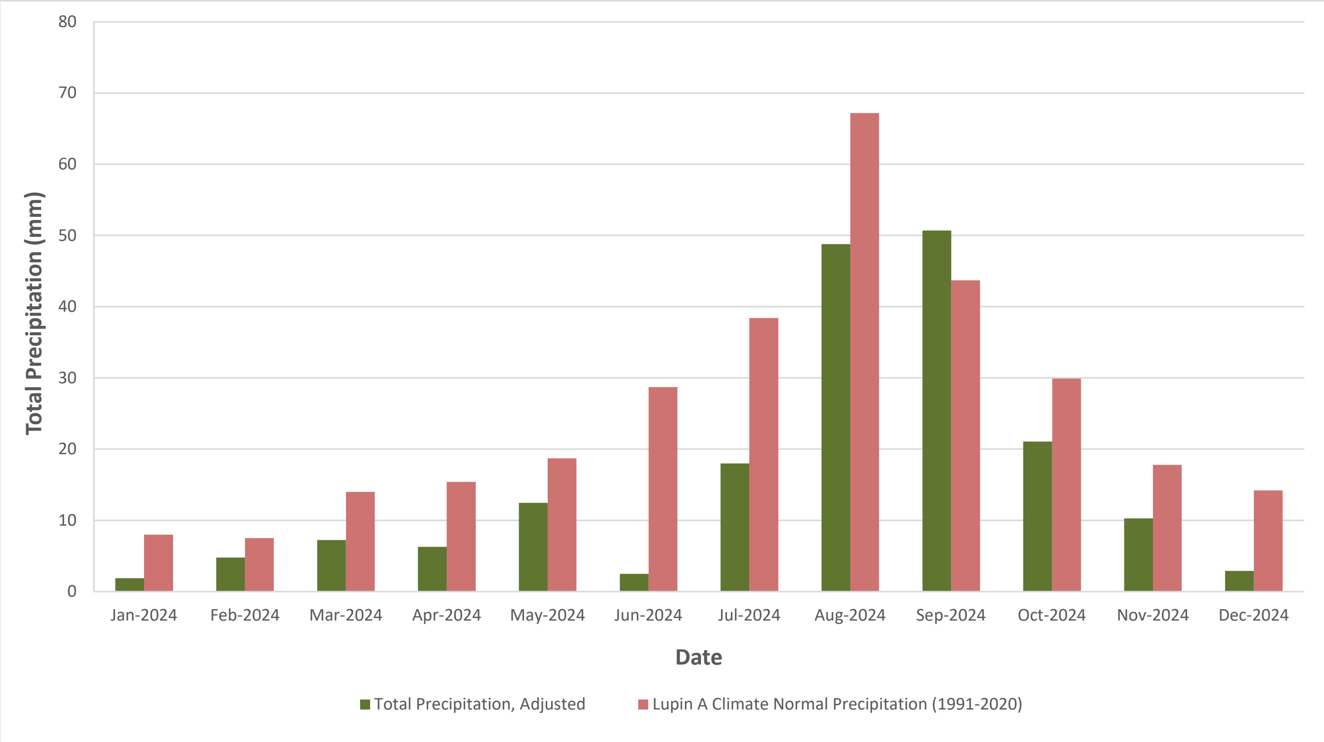


FIGURE 2.2-3 KOALA STATION MONTHLY RAINFALL, 2024

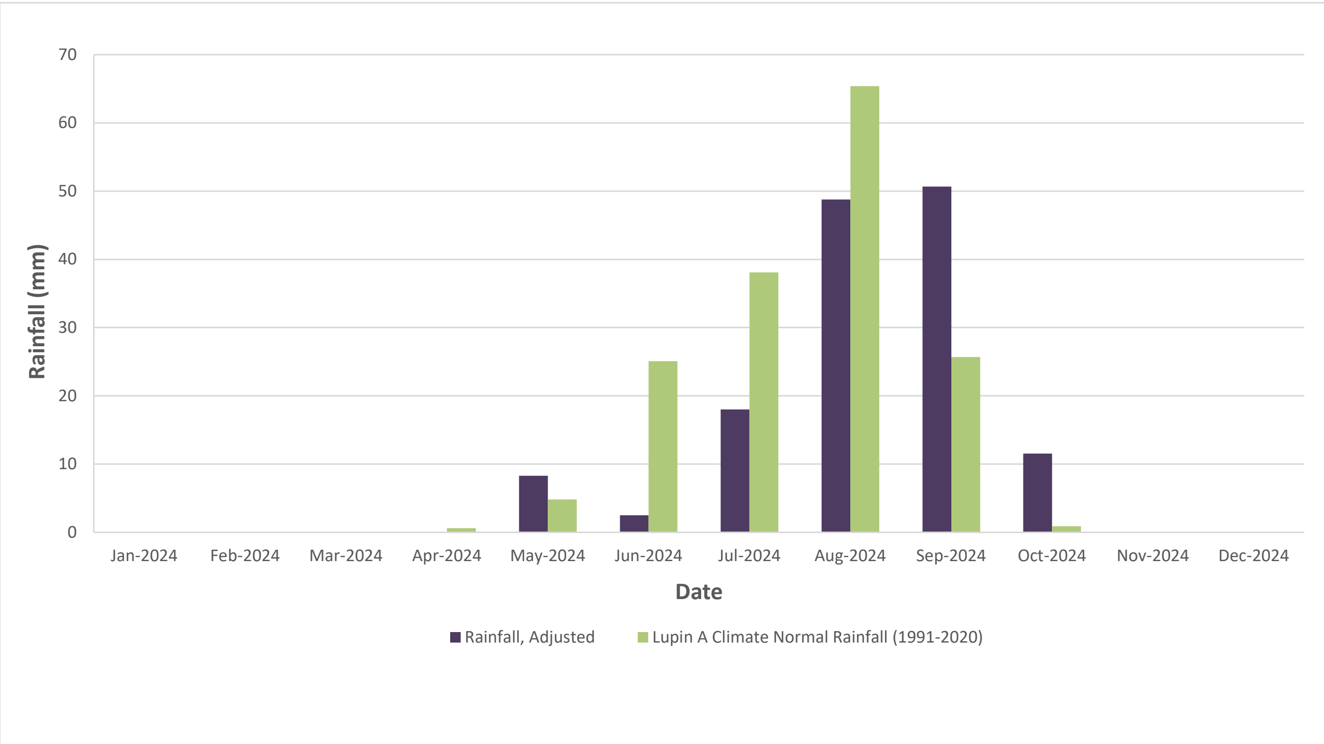
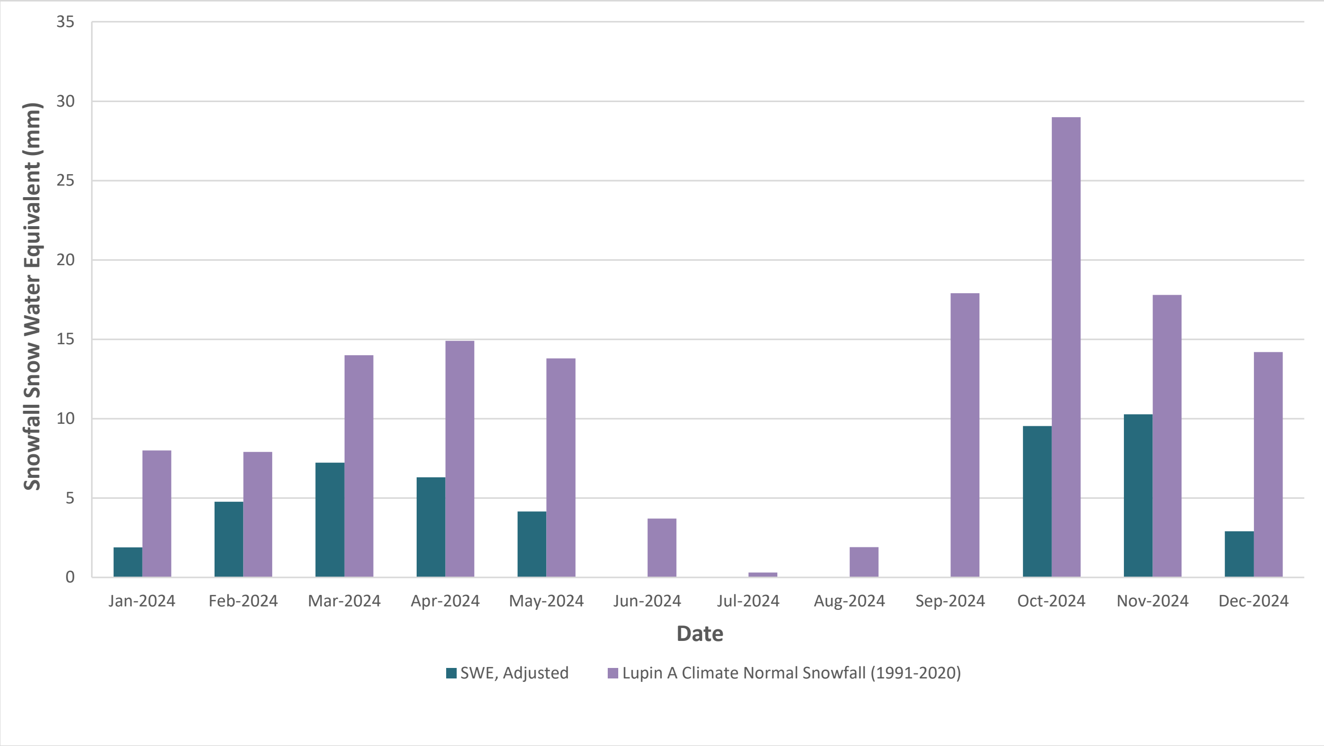


FIGURE 2.2-4 KOALA STATION MONTHLY SNOWFALL SNOW WATER EQUIVALENT, 2024



2.2.3 WIND SPEED AND WIND DIRECTION

The 2024 wind data from the Koala station is shown in Figure 2.2-5 through Figure 2.2-7. The Ekati Diamond Mine region is generally windy due to lack of ground cover. In 2024, the most common wind speeds ranged from 2.4 to 4.3 m/s (8.6 to 15.5 kilometres per hour [km/h]) followed by 4.3 to 6.1 m/s (15.5 to 22.0 km/h). These two wind speed categories accounted for approximately 50% of the annual hourly wind speeds recorded at the Ekati Diamond Mine in 2024. Winds at the Mine were dominantly from the northwest with a sub-dominant from the east-southeast (Figure 2.2-5). Historically, the Koala station wind data followed a similar trend with dominants from the east and northwest (ERM 2021, 2022, 2024).

There were 19 days of missing wind data from the Koala station in 2024, primarily due to the wind sensor freezing over during high humidity and extreme cold in the winter. The overall percent of available daily wind data during the snow cover and snow-free periods (June to September) were 93% and 100%, respectively (Figure 2.2-6; Figure 2.2-7).

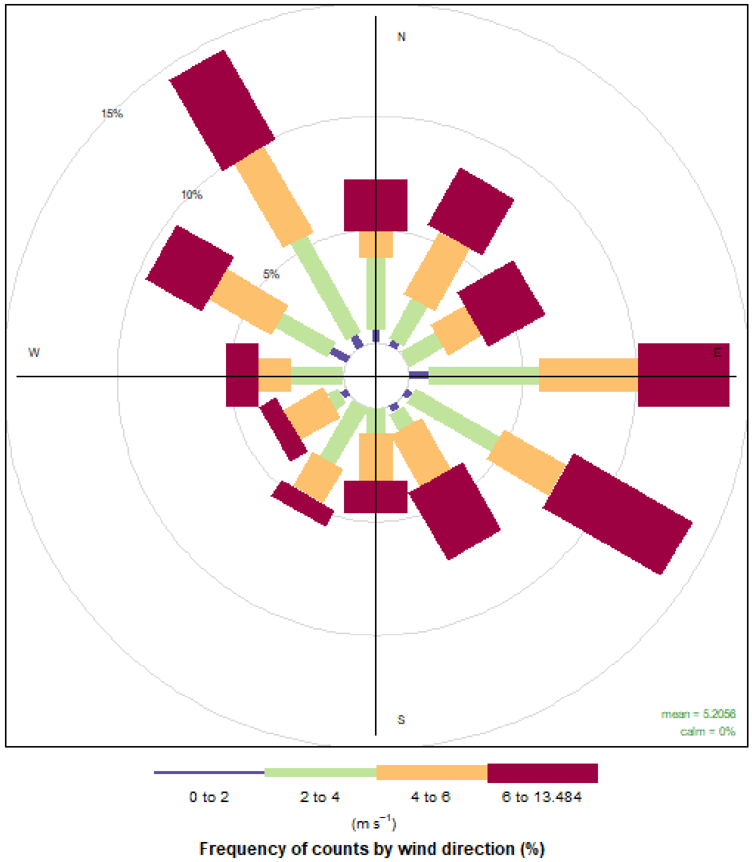
2.2.4 SUMMARY

Seasonal trends in temperature in 2024 were similar to previous years: daily mean temperatures generally rose above 0 °C in early May, marking the start of the open-water season; summer maxima generally reached around 20 °C; by early October, daily temperatures dropped below 0 °C, marking the end of the open-water season and the start of winter. Daily winter minima commonly dropped below -30 °C, with an absolute daily minimum of -41.1 °C in 2024. The annual average temperature at the Koala station from 1995 to 2024 was -8.8 °C. The historical annual temperature records from 1995 to 2024 indicates that 2024 was a warmer than average year. The 1948 to 2024 long-term regional temperature records of the Mackenzie District region show a warming trend in the last two decades. All years during the last two decades except for 2004 were warmer than the mean temperature over the period of record (ranging from 0.2 °C to 4.0 °C higher) for the Mackenzie District data. When the years 1995 to 2024 from the Koala station are compared to the 1948 to 2024 long-term regional temperatures, similar trends occur: 2023, 1998, and 2010 were some of the warmest years on record, while 2004 was a particularly cold year.

The annual precipitation in 2024 was 187 mm, 40% lower than the 1994 to 2024 average (312 mm). A recent trend of lower annual precipitation from 2022 (170 mm) to 2024 exists, while the lowest annual precipitation in the 1994 to 2024 period was measured in 2018.

Winds at the Ekati Diamond Mine area were predominantly from the northwest and east-southeast in 2024. The most common wind speeds ranged from 2.4 to 4.3 m/s (8.6 to 15.5 km/h).

FIGURE 2.2-5 KOALA STATION WIND ROSE AND WIND SPEED FREQUENCY DISTRIBUTION, 2024 ANNUAL



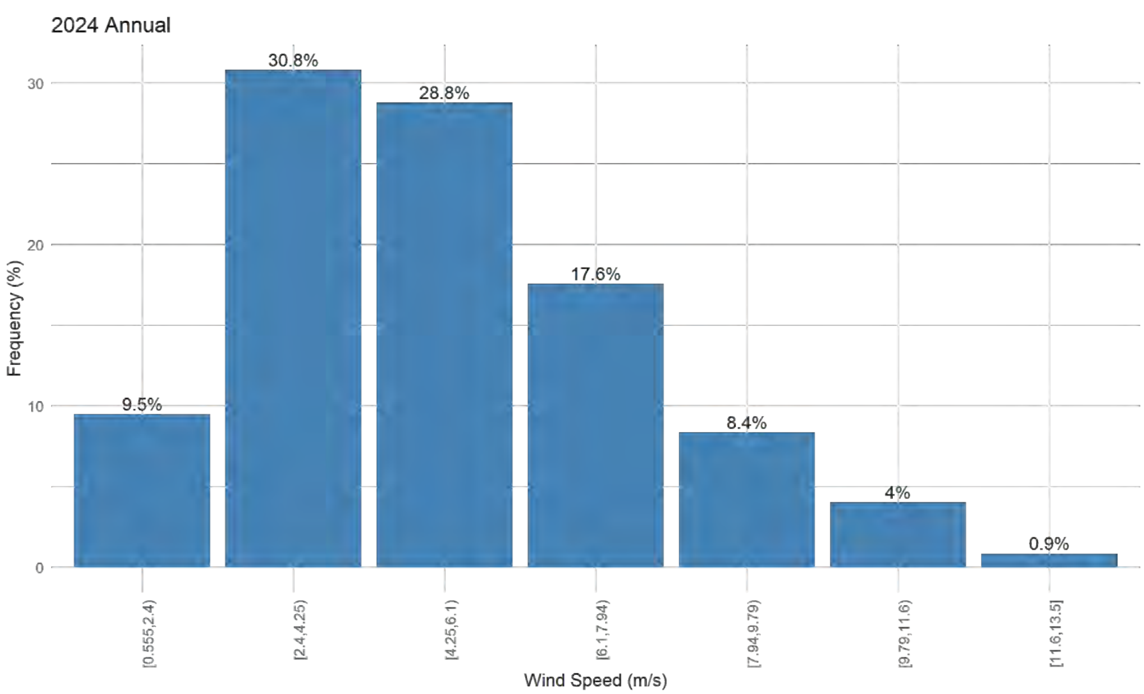
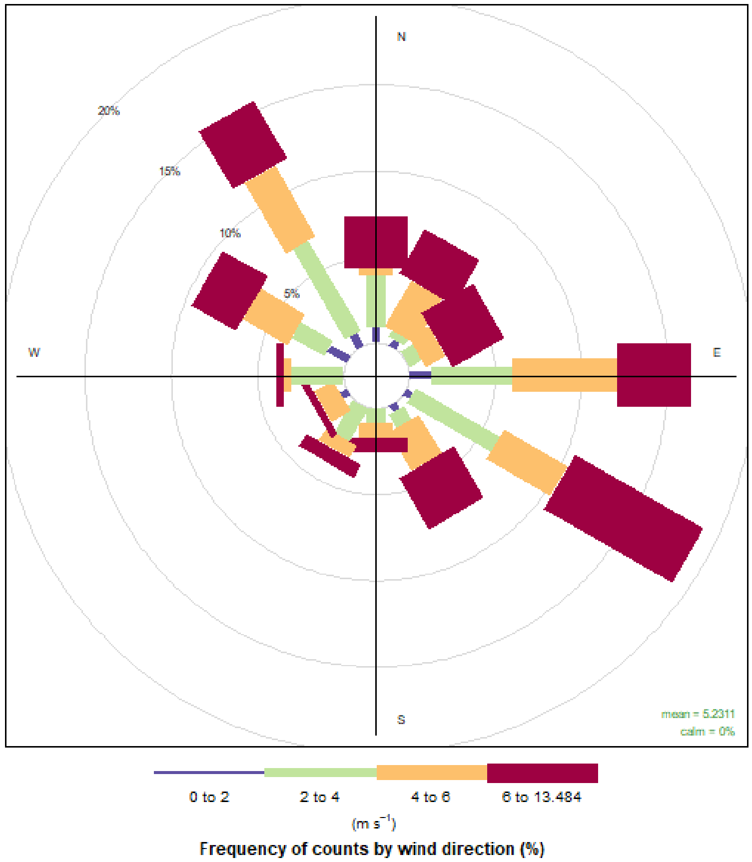


FIGURE 2.2-6 KOALA STATION WIND ROSE AND WIND SPEED FREQUENCY DISTRIBUTION, 2024 SNOW COVER PERIOD (OCTOBER TO MAY)



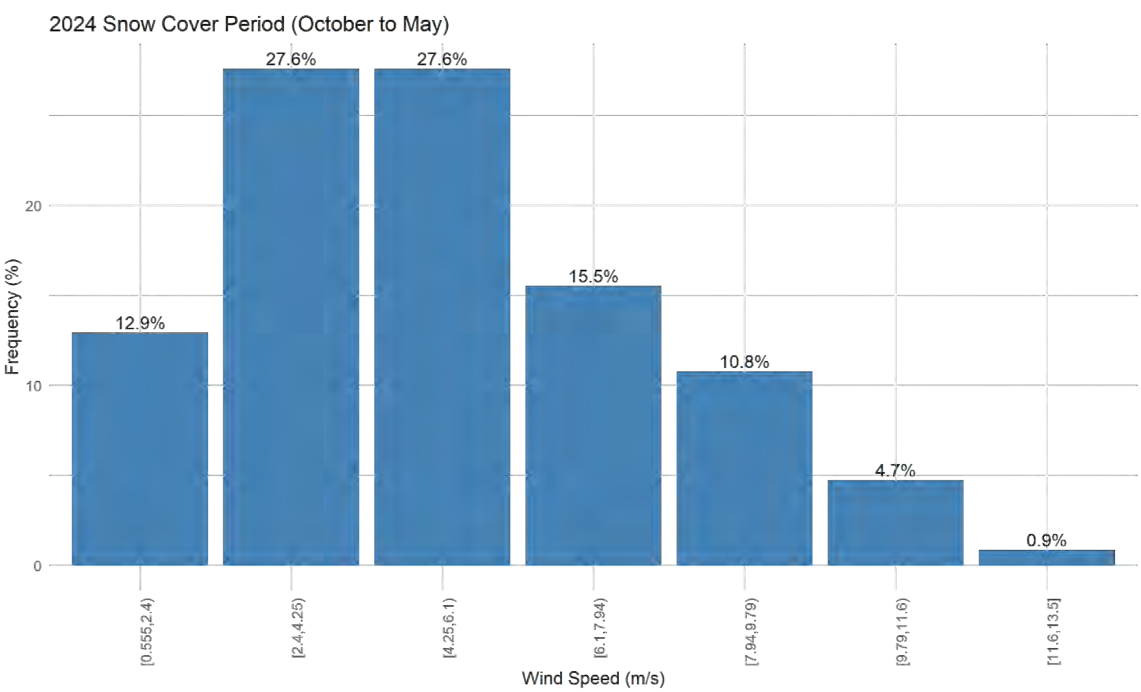
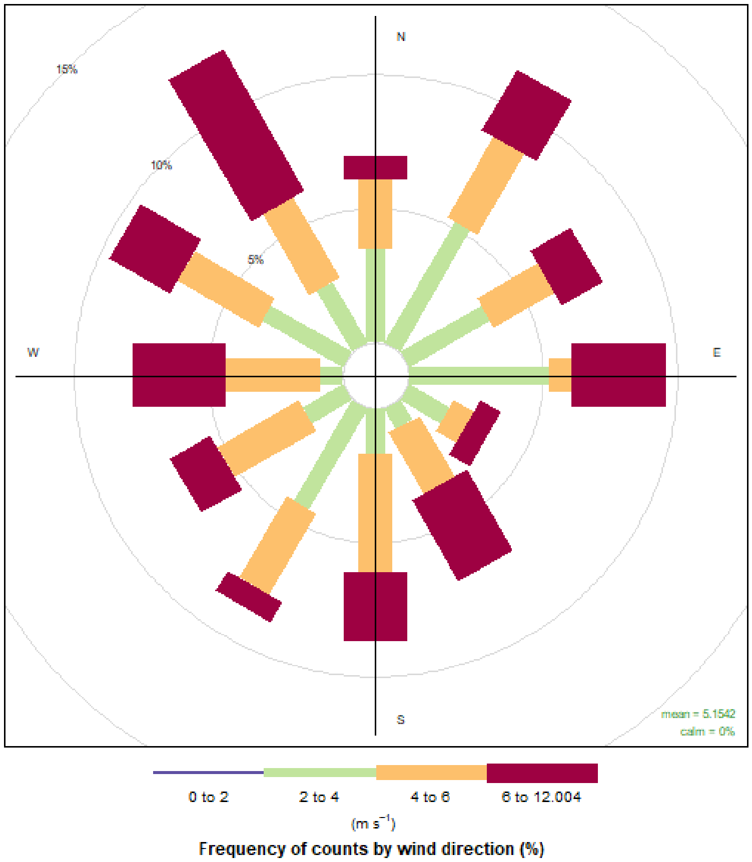
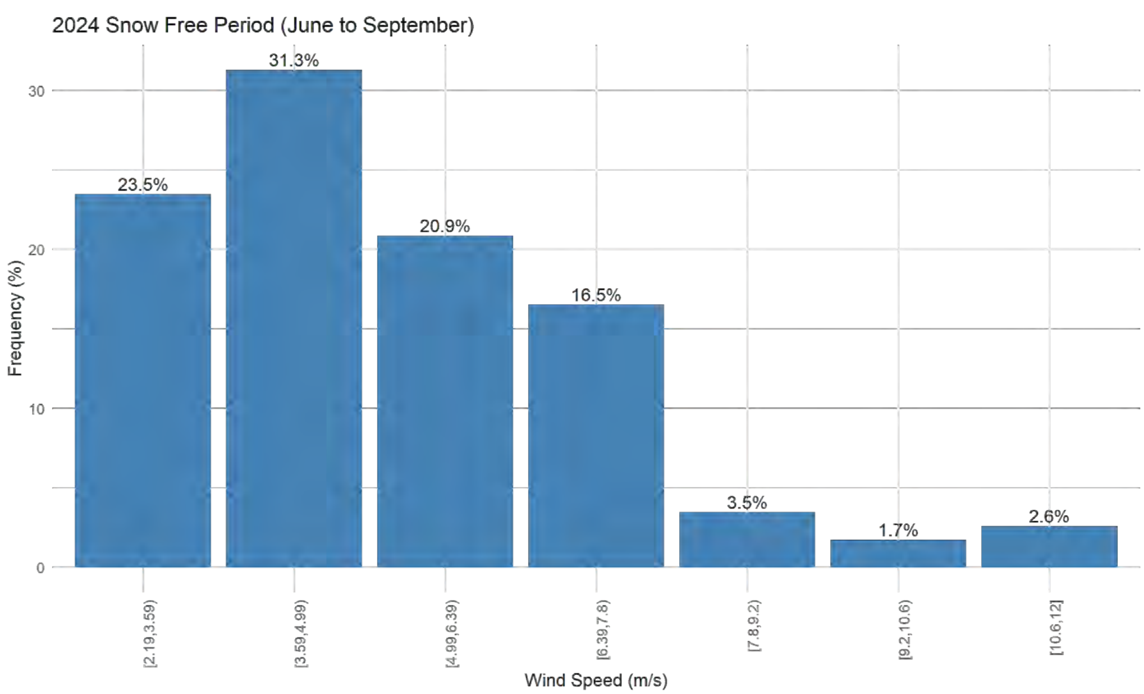


FIGURE 2.2-7 KOALA STATION WIND ROSE AND WIND SPEED FREQUENCY DISTRIBUTION, 2024 SNOW FREE PERIOD (JUNE TO SEPTEMBER)





3. AIR QUALITY

3.1 METHODOLOGY

3.1.1 PARTISOL SAMPLING

During 2024, particulate matter was collected by two Thermo Scientific Partisol 2000i model (Partisol) sampling stations: the Partisol at Grizzly station located adjacent to Grizzly Lake sampled for TSP; the Partisol adjacent to the CAM (Continuous Air Monitoring) building (CAMB station) sampled for $PM_{2.5}$ (Photo 3.1-1).

Photo 3.1-1 Continuous air monitoring building (CAMB)

The CAMB houses equipment to continuously monitor ambient air quality. The CAMB $PM_{2.5}$ Partisol sampler (red arrow) was located outside, to the right of the building with the inlet approximately 1 m above roof height.

The locations of these stations are shown in Figure 2.1-1; the coordinates and operating periods are summarized in Table 2.1-1.

Partisol samplers draw in ambient air at a measured volume, and the entrained airborne particulate matter is deposited onto a pre-weighed filter, which is collected and sent to an accredited laboratory (Bureau Veritas [BV]) for assay of the deposited particulate mass. For TSP sampling, a general inlet is used to allow the collection of all airborne particle sizes. For $PM_{2.5}$ sampling, the air is first filtered with a PM_{10} (particulate matter with aerodynamic diameter less than 10 µm) inlet followed by a $PM_{2.5}$ cyclone to filter out particulate above the $PM_{2.5}$ size fraction.

Partisol stations were operated for a 24-hour period from midnight to midnight every six days. The six-day sampling schedule followed the Canadian National Air Pollution Surveillance (NAPS) schedule (ECCC 2025). After a sampling day was completed, the filter was collected and shipped to BV for analysis of the particulate matter mass.

The quality assurance and quality control (QA/QC) procedures for Partisol stations include instrument calibration, sampling methodology, and laboratory procedures for determining deposited TSP and $PM_{2.5}$. Details on the QA/QC procedures can be found in the Ekati Diamond Mine EKA WI.2113.26 Work Instruction. The 2024 results were reviewed by Burgundy staff and any erroneous data (such as blanks and error codes) were removed from the reporting.

3.1.2 CONTINUOUS AIR MONITORING (CAM)

The continuous air monitoring program was developed to provide ambient air quality data for comparison to the GNWT criteria. The CAMB station is located at the Polar Explosives site (Figure 2.1-1, Table 2.1-1, Photo 3.1-1). The CAM equipment is housed in the CAMB, consisting of air quality monitors which continuously measure the ambient concentrations of SO_2, NO_2, nitrogen monoxide (NO), oxides of nitrogen (NO_X), TSP, and $PM_{2.5}$, as well as ambient temperature, wind speed, and wind direction. Teledyne 100E and 200E analyzers measure SO_2 and NO, NO_2, and NO_X, respectively, and two Met One BAM 1020 particulate analyzers measure TSP and $PM_{2.5}$.

Data from the CAM monitors are routinely downloaded by the Burgundy staff. CAM data used in this report were reviewed by the Environment Department, using the methodology in the Alberta Air Monitoring Directive Chapter 6: Ambient Data Quality (AEP 2016) and the Canadian Council of Ministers of the Environment Ambient Air Monitoring and Quality Assurance/Quality Control Guidelines (CCME 2019a).

3.1.3 DUSTFALL MONITORING

The dustfall monitoring program is designed to monitor dustfall at various locations at the Ekati Diamond Mine, as well as background dustfall at more distant stations. During the 2024 monitoring period, dustfall stations were located in the vicinity of the:

- LLCF (stations LLCF-PA and LLCF-PB);
- Airstrip (stations Air-P125, Air-P162 and Air-P280);
- Misery Haul Road:
    - Mis transect stations Mis-U30, Mis-D30, Mis-D90, Mis-D300, Mis-D1000, and
    - MisNew transect stations MisNew-U30, MisNew-D30, MisNew-D90, MisNew-D300 and MisNew D1000;
- Lynx Haul Road transect stations LYNX-U30, LYNX-D30, LYNX-D90, LYNX-D300, LYNX D1000;
- Sable Haul Road stations (Sable-U30, Sable-D30, Stable-D90, Sable-D300 and Sable-D1000); and
- Background (reference) off-site locations northwest of the Mine (stations AQ-49 and AQ-54).

Dustfall station locations are shown in Figure 2.1-1 and the coordinates and operating periods are summarized in Table 2.1-1. Sample canister deployment at all monitoring stations began in June and were collected monthly through to September.

The LLCF, Air and AQ, and Mis stations were operated in the same locations as in previous years. The MisNew stations were installed downwind of the Misery Haul Road to better align along the downwind path from the road compared to the original Mis stations, and have operated in the same locations since 2014.

Dustfall was measured near the Misery (two transects), Lynx, and Sable haul roads at transects that cross perpendicular to the road length (Figure 2.1-1). Stations ranged from approximately 30 m northeast (predominantly upwind), to 1 km southwest (predominantly downwind) of the road centrelines. The transects consist of five stations – 30 m upwind, and 30, 90, 300, and 1,000 m downwind. The purpose of the stations was to measure the dustfall primarily resulting from haul road traffic at varying distances away from the road.

Similar to historical dustfall monitoring (completed since 2006), dustfall was measured following the ASTM (American Society for Testing and Materials) Standard D1739-98 (ASTM 2010). This method involves the use of an open-topped collection bottle placed at the top of the dustfall monitoring stands, at a height of two metres above ground. The collection bottles were surrounded by a windscreen to reduce wind-induced undercatch, and bird spikes to help prevent contamination from bird droppings (Photo 3.1-2). Each collection bottle was supplied by BV and came prepared with deionised water and algaecide for summer monitoring. Each dustfall station consisted of two adjacent monitoring stands to collect dustfall for laboratory analysis. Each collection bottle was exposed for a period of approximately 30 days, after which the bottle was collected by Burgundy staff and sent for laboratory analysis. Samples were analyzed for particulates (soluble and insoluble), anions, nutrients (sulphate, nitrate, chloride, and ammonia) and total metals. Two samples from each station were analysed by BV laboratory. In this and past reports, the highest concentration from each station was used for further analysis. As this is an overly conservative method when comparing collocated samples, consideration is being reviewed to use the average of collocated samples for future AQMP reports. The metals described in Section 3.2.3 were selected due to their potential impact on human, wildlife, and the environment (BHP Billiton 2009). Metal deposition values were derived from the metal concentrations measured in the dustfall samples.

Photo 3.1-2 Dustfall station Air-P280, looking east. July 2016.

Acid deposition was calculated based on the acid loading factors of sulphate and nitrate (EC 2005, CCME 2008).

The QA/QC procedures for dustfall stations included sampling methodology and laboratory procedures for determining the various parameters. Details on the QA/QC procedures can be found in the Ekati Diamond Mine EKA WI.2113.18 Work Instruction. The 2024 field notes were also reviewed by Burgundy Environmental staff.

3.1.4 AIR AND GREENHOUSE GAS (GHG) EMISSIONS

Diesel fuel is consumed at the Ekati Diamond Mine to power equipment, for the production of heat and electricity, blasting, and other Mine activities. Air emissions resulting from the diesel fuel consumption and other Mine activities were estimated and reported to the National Pollutant Release Inventory (NPRI) and the Greenhouse Gas Emissions Reporting Program (GHGRP). The NPRI tracks criteria air contaminants (carbon monoxide [CO], NO_x, SO_2, volatile organic compounds [VOCs], TSP, PM_{10}, and $PM_{2.5}$) and a number of other compounds, while the GHGRP tracks total GHG emissions as CO_2e. The annual totals for GHG from 2024 are summarized in Section 3.2.4. Emission factors used in the GHGRP reporting were taken from Canada's Greenhouse Gas Quantification Requirements (ECCC 2023a) and technical guidance (ECCC 2025a, 2025b).

3.2 RESULTS

This report provides and assesses the results of air quality data collected at the Mine. Air quality monitoring results were compared to applicable air quality standards and guidelines, including the GNWT *Guideline for Ambient Air Quality Standards in the Northwest Territories* (GNWT 2014), the 2020 Canadian Council of Ministers of the Environment standard (CCME), and the *Environmental*

Assessment of Dominion Diamond Ekati Corporation's Jay Project (EA1314-01) – Measure 6-4, Interim Dustfall Objective (GNWT 2017). The applicable standards and objectives are summarized in Table 3.2-1. To be consistent with the terminology used in the GNWT guideline document, this report also refers to these values as standards.

In 2024, CAMB annual data completeness was 94% for NO_x, NO, and NO_2; 95% for SO_2; 78% for TSP; and 53% for $PM_{2.5}$. As per CCME data quality objectives, 75% data completeness is required to ensure confidence in the conclusion or decisions made with resulting data. Completeness refers to the amount of valid data represented for the indicated averaging period (45 valid one-minute averages within an hour, or 18 valid one-hour averages in a 24-hour period). In addition, 75% data completeness is recommended for assessment of compliance with all standards and objectives. Burgundy is reviewing potential changes to the monitoring with respect to the low data capture rates for the aging CAM equipment.

Note that the CCME Canadian Ambient Air Quality Standards (CAAQS) which are used for comparison to site monitoring concentrations for NO_2, SO_2, TSP and $PM_{2.5}$ in this AQMP are intended to be used in air zones as objectives for ambient air quality management and not as compliance criteria for industrial site project assessments (CCME 2025). Though the CAAQS have been routinely compared to in this and past AQMPs for the Ekati Diamond Mine, the GNWT air quality standards should be considered as the compliance criteria. The CAAQS should be considered for reference purposes only.

TABLE 3.2-1 AMBIENT AIR QUALITY STANDARDS AND OBJECTIVES

Parameter	Averaging Period	Statistical Form	Unit	Value	Agency
Nitrogen dioxide (NO_2)	1-hour	The 3-year average of the annual 98th percentile of the daily maximum 1-hour average concentrations	ppb	60	CCME
	Annual	The average over a single calendar year of all 1-hour average concentrations	ppb	17	CCME
	1-hour	1- hour average	ppb	213	GNWT
	24-hour	24-hour average	ppb	106	GNWT
	Annual	Annual arithmetic mean	ppb	32	GNWT
Sulphur dioxide (SO_2)	1-hour	The 3-year average of the annual 99th percentile of the SO_2 daily maximum 1-hour average concentrations	ppb	70	CCME
	Annual	The average over a single calendar year of all 1-hour average SO_2 concentrations	ppb	5	CCME
	1-hour	1- hour average	ppb	172	GNWT
	24-hour	24-hour average	ppb	57	GNWT
	Annual	Annual arithmetic mean	ppb	11	GNWT
Fine particulate ($PM_{2.5}$)	24-hour	The 3-year average of the annual 98th percentile of the daily 24-hour average concentrations	µg/m^3	27	CCME
	Annual	The 3-year average of the annual average of the daily 24-hour average concentrations	µg/m^3	8.8	CCME
	24-hour	24-hour average	µg/m^3	28	GNWT
	Annual	Annual arithmetic mean	µg/m^3	10	GNWT
	24-hour	Daily average	µg/m^3	120	GNWT
Total Suspended Particulate (TSP)	Annual	Annual average	µg/m^3	60	GNWT Air Quality
Dustfall	30-day[a]	Average	mg/dm^2/day	1.53	GNWT

Sources: CCME (2012, 2020a, 2020b); GNWT (2017, 2023)

[a] Measure 6-4, Interim Dustfall Objective (GWNT 2017), based on a seasonal average of dust deposition applicable at 300 m from a dust source.

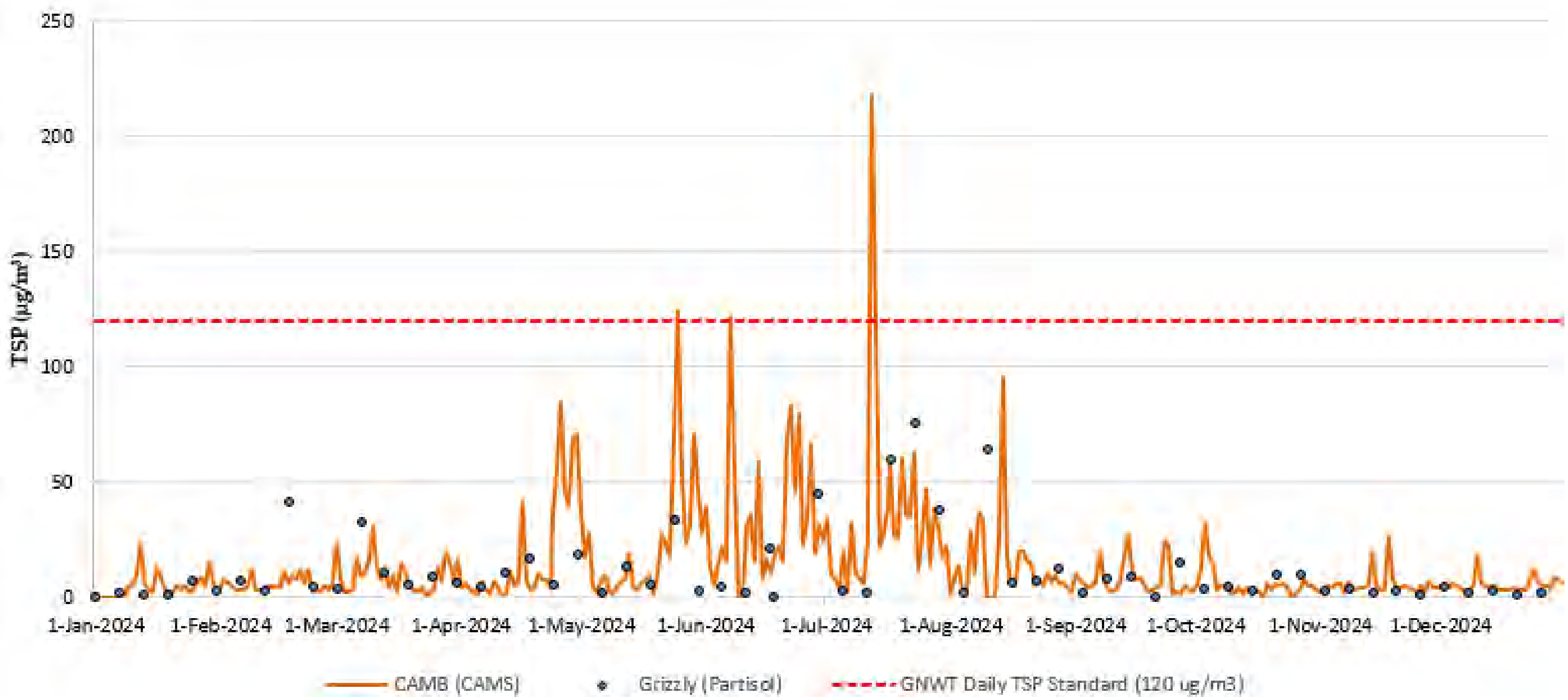
Note that CCME guidance for NO_2 and SO_2 includes reductions in the criteria thresholds for 2025, but these were not in effect for 2024 monitoring data.

3.2.1 AIRBORNE PARTICULATE MATTER

A summary of 2024 TSP and $PM_{2.5}$ results from the Partisol and CAMB (CAM) stations is presented in Table 3.2-2, and shown in Figures 3.2-1 and 3.2-2. For comparison purposes, TSP and $PM_{2.5}$ results from the CAMB (CAM) presented in Table 3.2-2 are only on those days when the Partisol stations were sampling according to the EPA six-day schedule (EPA 2023). The 2024 daily mean TSP and $PM_{2.5}$ concentrations measured at the CAMB station are presented in Appendix A.

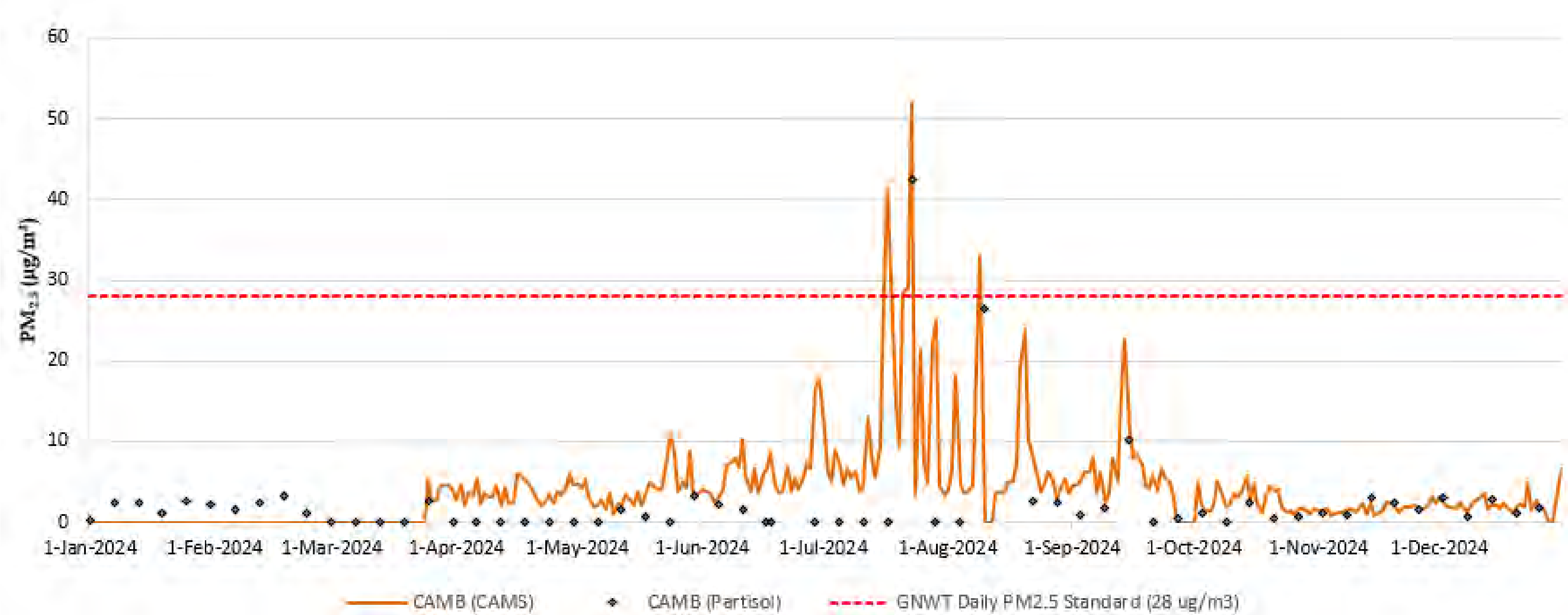
The CAM TSP results were compared against the 24-hour and annual mean GNWT air quality standards (Table 3.2-1) The $PM_{2.5}$ results from the CAMB station were compared against the CCME 24-hour standard which uses the 3-year average of the annual 98th percentile of the daily average concentrations and the GNWT (Table 3.2-1; CCME 2020). $PM_{2.5}$ results from the Partisol stations were not directly compared against the $PM_{2.5}$ CCME standards (CCME 2020) since they were sampled once every six days.

FIGURE 3.2-1 PARTISOL AND CONTINUOUS MONITORING TSP, 2024



Note: Gaps indicate missing data.

FIGURE 3.2-2 PARTISOL AND CONTINUOUS MONITORING $PM_{2.5}$, 2024



Note: Gaps indicate missing data.

3.2.1.1 TOTAL SUSPENDED PARTICULATES (TSP)

During the 2024 monitoring period, 60 valid TSP samples were collected at the Grizzly Partisol station (Table 3.2-2). A maximum of 61 TSP samples could have been collected in 2024 based on the 6-day sampling frequency, but some data were missing or deemed invalid due to equipment malfunctions or lack of access. No TSP concentrations were measured above the 24-hour GNWT TSP standard of 120 µg/m^3 at the Grizzly Partisol Station. Daily mean 2024 TSP concentrations from the Grizzly station ranged from 0.5 to 75.4 µg/m^3. The annual mean TSP concentration was 11.6 µg/m^3 at the Grizzly station, well below the annual GNWT TSP standard of 60 µg/m^3.
For comparison purposes, the CAM station TSP results for the concurrent days when Partisol equipment was sampling TSP (once every six days) are presented in Table 3.2-2.

Table 3.2-2 presents the measurements obtained from the TSP and $PM_{2.5}$ continuous air monitors on dates that aligned with the concurrent NAPS schedule Partisol station sampling (nominally every 6th day). In comparison, Table 3.2-3 presents the continuous ambient air monitoring results from the CAMB station.

The daily TSP concentrations measured at the CAMB ranged from 0.4 to 218.2 µg/m^3 and the maximum daily concentration was measured in the month of July (Table 3.2-3). TSP concentrations recorded at CAMB exceeded the 24-hour GNWT TSP standard of 120 µg/m^3 four times during the months of May to July. The annual mean concentration was 15.2 µg/m^3 and was below the GNWT annual TSP standard of 60 µg/m^3. Differences in TSP results between the Partisol and the CAM equipment can primarily be attributed to different sampling locations and different sampling frequencies. The Partisol equipment samples particulate once every six days, while the CAM equipment monitors continuously.

TABLE 3.2-2 PARTISOL AND CAMB STATIONS TSP AND PM2.5 RESULTS, 2024

Parameter	Units	TSP		$PM_{2.5}$	
		Grizzly (Partisol)	**CAMB (CAM)[c]**	**CAMB (Partisol)**	**CAMB (CAM)[c]**
No. of samples		60	57	51	44
Maximum 24-hour Average	µg/m³	75.4	71.0	42.5	52.1
Minimum 24-hour Average	µg/m³	0.5	1.6	0.0	1.3
Annual Mean	µg/m³	11.6	14.4	4.6	6.9
Hours of Valid Data	%	98%	97%	84%	73%
NDM > 120 µg/m³ for TSP[a]	µg/m³	0	0	–	–
NDM > 27 µg/m³ for $PM_{2.5}$[b]	µg/m³	–	–	2	2

[a] Number of daily mean (NDM) TSP concentrations greater than 120 µg/m³.

[b] Number of daily mean $PM_{2.5}$ concentrations greater than 27 µg/m³.

[c] The results from the TSP and $PM_{2.5}$ continuous air monitoring equipment were calculated on dates when concurrent Partisol station sampling was conducted (approximately every 6 days).

Dash (–) = not available

TABLE 3.2-3 CONTINUOUS AMBIENT AIR MONITORING OF TSP AND $PM_{2.5}$, 2024 MONTHLY SUMMARY

Month	TSP ($\mu g/m^3$)				$PM_{2.5}$ ($\mu g/m^3$)			
	Max 24-hour	NE (>120 $\mu g/m^3$)[a]	Mean	% Hours of Valid Data	Max 24-hour	Annual 98P[b]	Mean	% Hours of Valid Data
2024								
January	23.7	0.0	7.5	58%	0.0	–	–	0%
February	12.6	0.0	6.1	86%	0.0	–	–	0%
March	31.0	0.0	10.6	90%	4.7	–	4.0	19%
April	71.0	0.0	22.0	67%	6.1	–	3.7	93%
May	124.6	1.0	32.7	65%	11.1	–	4.1	94%
June	121.5	1.0	37.9	67%	17.8	–	6.4	70%
July	218.2	2.0	40.1	77%	52.1	–	13.9	94%
August	95.3	0.0	16.3	68%	18.9	–	7.3	68%
September	26.8	0.0	7.8	90%	22.7	–	7.0	73%
October	32.7	0.0	6.5	87%	5.9	–	2.9	55%
November	26.0	0.0	5.8	87%	3.1	–	1.8	23%
December	18.1	0.0	5.7	97%	4.8	–	2.5	45%
Annual	218.2	4	15.2	78%	52.1	25.6	5.3	53%

Note: Dash (–) = not available

[a] Number of exceedances (NE) of 120 $\mu g/m^3$ 24-hour GNWT standard for TSP.

[b] Annual 98th percentile of the daily 24-hour average concentrations.

Available TSP concentrations measured in 2024 were generally lower than the TSP results during the same period in 2023. A seasonal trend was observed in 2024 similar to previous years where higher TSP concentrations were measured between May to August relative to other months of the year. Notably, during the summer months of June and July in 2024, exceedances of the air quality standards occurred. This coincided with the presence of regional wildfires. Information available from the Canadian Wildland Fire Information System (Photo 3.2-1) indicates that the increased levels of daily TSP concentrations can be attributed to the proximity of regional wildfires during the summer of 2024 (NRCAN 2024).

3.2.1.2 PARTICULATE MATTER LESS THAN 2.5 MICRONS ($PM_{2.5}$)

During the 2024 monitoring period, 51 valid $PM_{2.5}$ samples were collected at the Partisol station located adjacent to the CAMB (Table 3.2-2). A maximum of 61 $PM_{2.5}$ samples could have been collected in 2024 based on the 6-day sampling frequency, but some data were missing or flagged as invalid due to equipment malfunction. The annual mean concentration was 4.6 µg/m^3. Daily mean $PM_{2.5}$ concentrations sampled from this station ranged from 0.0 to 42.5 µg/m^3. Two daily $PM_{2.5}$ concentrations at the CAMB (Partisol) station in 2024 were above the 24-hour GNWT $PM_{2.5}$ standard of 28 µg/m^3. Results from the CAMB (Partisol) station were not compared against the applicable $PM_{2.5}$ CCME standards (CCME 2012) since they were sampled once every six days.

The daily $PM_{2.5}$ concentrations measured at the CAMB (CAM) station in 2024 ranged from 0.9 to 52.1 µg/m^3 when compared to CAMB Partisol for contemporaneous measurements with an annual mean concentration of 5.3 µg/m^3 (Table 3.2-2). During 2024, all instances of exceeding the 24-hour GNWT standard occurred during the summer months of July and August, coinciding with regional wildfires in the regional area. According to the information provided on Canadian Wildland Fire Information System, the elevated levels of daily $PM_{2.5}$ concentrations can be attributed to the nearby regional wildfires, an example of which is shown in Photo 3.2-1 (NRCAN, 2024).

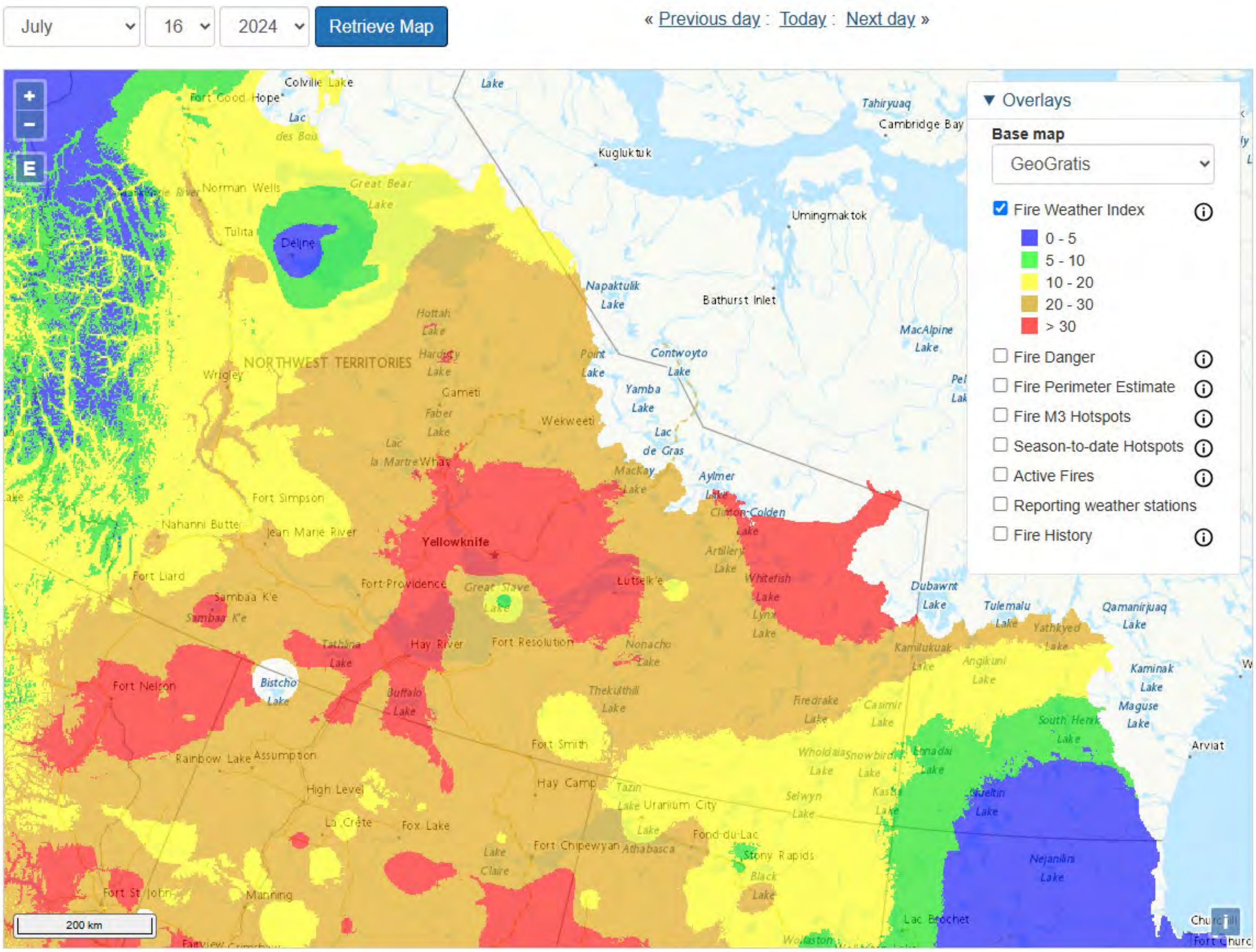


Photo 3.2-1 PM2.5 Smoke Forecast of July 16, 2024 (NRCAN, 2024).

The completeness of valid measured PM2.5 CAM data in 2024 was 53% (Table 3.2-3).

PM2.5 concentrations measured at the CAMB (CAM) and CAMB (Partisol) stations in 2024 were lower compared to the 2023 results. Seasonal trends during the 2024 period were consistent to the 2023 period, with higher PM2.5 concentrations during June to September compared to other months of the year. Months that had elevated mean PM2.5 concentrations also had elevated mean TSP concentrations.

3.2.2 GASEOUS AIR CONTAMINANTS (SO_2, NO_2, NO, NO_X)

A summary of hourly, daily, and annual mean SO_2, NO_2, NO, and NO_X concentrations measured at the CAMB station in 2024 are presented in Table 3.2-4 and shown in Figure 3.2-3. The 2024 daily mean SO_2, NO_2, NO, and NO_X concentrations are included in Appendix B.

The three-year average of the annual 98th percentile of the daily maximum 1-hour concentration for the 2022 to 2024 period and the annual 2024 average of all hourly SO_2 concentrations were both well below the relevant 2020 CCME standards (Figure 3.2-3; Table 3.2-4). The maximum hourly, daily, and monthly mean concentrations were 9.8 ppb, 3.5 ppb, and 0.8 ppb, respectively (Table 3.2-4)

The 3-year average of the annual 98th percentile of the daily maximum 1-hour concentration for the 2022 to 2024 period and the annual 2024 average of all hourly NO_2 concentrations were both well below the relevant 2020 CCME standards (Figure 3.2-3; Table 3.2-4). The maximum hourly, daily, and monthly mean concentrations were 67.2, 28.8, and 3.1 ppb, respectively (Table 3.2-4).

SO_2 and NO_x are primarily formed by the burning of fossil fuels. Fuel at the Ekati Diamond Mine is consumed at a higher rate during the winter than during the summer, primarily due to heating needs during the winter. During 2024, the concentrations of gases were generally higher during the colder months (Table 3.2-4 and Figure 3.2-3). This trend was consistent with the previous years' results (ERM 2021, 2022).

FIGURE 3.2-3 CAMB STATION SO_2, NO_2, NO, AND NO_X, 2024

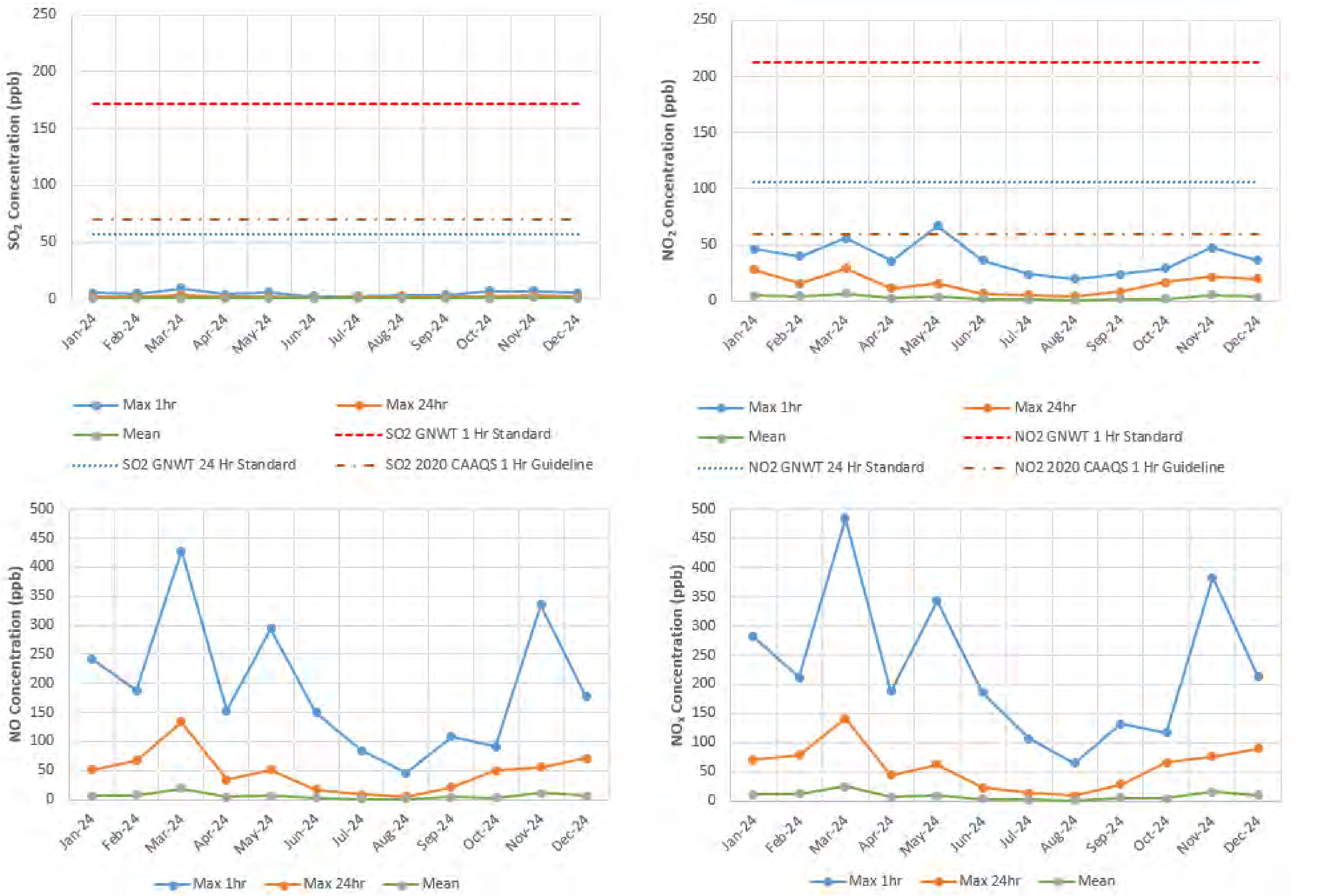


TABLE 3.2-4 CAMB STATION SO_2, NO_2, NO, AND NO_X RESULTS, 2024

Month	SO_2 (ppb)						NO_2 (ppb)						NO (ppb)				NO_X (ppb)			
	Max 1 hr		99P of the Daily Maximum 1-hr Average	Max 24 hr	Mean	OT	Max 1 hr		98P of the Daily Maximum 1-hr Average	Max 24 hr	Mean	OT	Max 1 hr	Max 24 hr	Mean	OT	Max 1 hr	Max 24 hr	Mean	OT
	Value	NE		Value	Monthly	(%)	Value	NE		Value	Monthly	(%)	Value	Value	Monthly	(%)	Value	Value	Monthly	(%)
2024																				
Jan-24	5.3	0.0	-	1.8	0.5	95%	46.2	0.0	-	27.8	4.6	93%	242.0	51.1	6.9	93%	281.8	70.3	11.6	93%
Feb-24	4.9	0.0	-	1.9	0.7	96%	39.8	0.0	-	15.3	4.3	95%	187.8	67.0	8.1	95%	212.1	79.2	12.4	95%
Mar-24	9.8	0.0	-	3.5	0.8	95%	55.6	0.0	-	28.8	6.3	94%	427.8	133.5	19.2	94%	483.5	141.4	25.5	94%
Apr-24	4.4	0.0	-	2.1	0.8	96%	35.3	0.0	-	11.4	2.4	96%	152.6	33.6	4.3	95%	187.9	45.0	6.6	95%
May-24	6.2	0.0	-	1.7	0.9	96%	67.2	1.0	-	15.4	3.4	96%	293.4	50.7	6.1	94%	342.9	62.6	9.4	95%
Jun-24	2.5	0.0	-	1.2	0.6	96%	36.1	0.0	-	6.3	1.5	96%	149.9	16.7	2.5	93%	185.9	23.1	3.9	93%
Jul-24	2.8	0.0	-	1.9	0.9	93%	23.4	0.0	-	5.5	1.2	90%	83.9	9.0	1.1	88%	107.3	13.6	2.2	88%
Aug-24	3.3	0.0	-	2.6	0.9	94%	19.8	0.0	-	4.0	0.8	92%	45.1	4.9	0.9	90%	64.9	8.9	1.6	90%
Sep-24	3.5	0.0	-	1.8	1.0	96%	23.4	0.0	-	8.2	2.0	96%	108.3	20.8	3.7	96%	131.7	29.0	5.7	96%
Oct-24	7.3	0.0	-	2.8	1.1	94%	29.2	0.0	-	16.8	1.6	94%	91.1	49.3	3.2	94%	117.4	66.1	4.9	94%
Nov-24	7.0	0.0	-	2.9	1.1	96%	47.3	0.0	-	21.6	5.3	95%	335.0	55.5	11.3	95%	382.3	77.1	16.5	95%
Dec-24	5.2	0.0	-	2.0	0.6	96%	36.4	0.0	-	19.8	3.5	96%	176.9	70.9	6.6	96%	212.8	90.6	10.1	96%
2024 Annual	9.8	0.0	7.1	3.5	0.8	95%	67.2	1.0	46.3	28.8	3.1	94%	427.8	133.5	6.2	94%	483.5	141.4	9.3	94%
3-year Average (2022 – 2024)	**10.1**	**0**	**6.9**	**4.5**	**1.8**	**64%**	**97.2**	**2**	**47.9**	**27.1**	**4.0**	**37%**	**369.0**	**85.9**	**6.7**	**37%**	**439.8**	**113.8**	**10.5**	**36%**

Notes:

OT = Operational Time

NE = Number of Exceedances

n/a = Not Available / Not Applicable

Dash (-) = erroneous data

[1] The annual mean is calculated using hourly average concentrations.

Short durations of missing data were primarily caused by routine maintenance, power failures, erroneous data spikes, or other unknown reason.

[2]Short durations of missing data were primarily caused by routine maintenance, power failures, erroneous data spikes, or other unknown reasons.

3.2.3 DUSTFALL

3.2.3.1 TOTAL DUSTFALL

The dustfall monitoring program was developed to determine the deposition patterns for fugitive dust from mine activities. In 2008, the program was expanded to sample at additional locations to reflect the evolving mine footprint. Five additional locations were added in each of 2015 and 2016, and nine additional locations in 2017. In 2020, the dustfall monitoring program was reduced to sample a total of 10 locations because the Mine was in Care and Maintenance over the dustfall monitoring period (June to September). In 2021 and 2022, the monitoring program returned to its previous 2019 scope of 31 sample locations. In 2023, the dustfall monitoring program underwent a reduction, resulting in a revised sampling plan that included 27 locations in 2024. As part of this adjustment, the following locations were eliminated: JAY-U30, JAY-D30, JAY-D90, and JAY-D300.

A summary of the key findings of the analysis is provided below and in Table 3.2-5 and shown in Figure 3.2-4A, Figure 3.2-4A, and Figure 3.2-5.

Seasonal average dustfall concentrations at distances 300 m from a source were compared to the GNWT interim dustfall objective of 1.53 $mg/dm^2/d$ (GNWT 2017). The GNWT interim dustfall objective was based on a seasonal average of dust deposition applicable at 300 m from a dust source (GNWT 2017).

In 2024, the mean dustfall concentrations at 300 m from roads (Mis-D300, MisNew-D300, LYNX-D300, and SABLE-D300) were below the GWNT Measure 6-4, Interim Dustfall Objective of 1.53 $mg/dm^2/d$ (GWNT 2017).

Dustfall at Misery Road, New Misery Road, Lynx and Sable dustfall stations was measured at transects that crossed perpendicular to the road length: 30 m from the road (upwind), and 30, 90, 300, and 1,000 m from the road (downwind). In general, dustfall rates decreased with distance from the haul road, with dustfall rates generally approaching background levels (dustfall concentrations at off-site stations AQ-49 and AQ-54) at approximately 300 m and reaching background levels at 1,000 m in 2024 (Figures 3.2-8 and 3.2-9). In 2024, the average dustfall concentration at MisNew-D300 (300 m from the roads) was below the GNWT Measure 6-4 Interim Dustfall objective (1.53 $mg/dm^2/d$; Table 3.2-5).

Total dustfall measured at the airstrip and LLCF stations were generally comparable to the background stations except at Air-P162 which was higher and ranged from 0.6 $mg/dm^2/d$ (in July/August) to 2.4 $mg/dm^2/d$ (in August/September). In general, June/July samples were higher at airstrip and LLCF stations compared to the background stations during the same time period (Figure 3.2-5). Dustfall rates at the background stations ranged from 0.2 $mg/dm^2/d$ (AQ-54 in June/July and AQ-49 in August/September) to 1.5 $mg/dm^2/d$ (AQ-49 in August/September; Table 3.2-5).

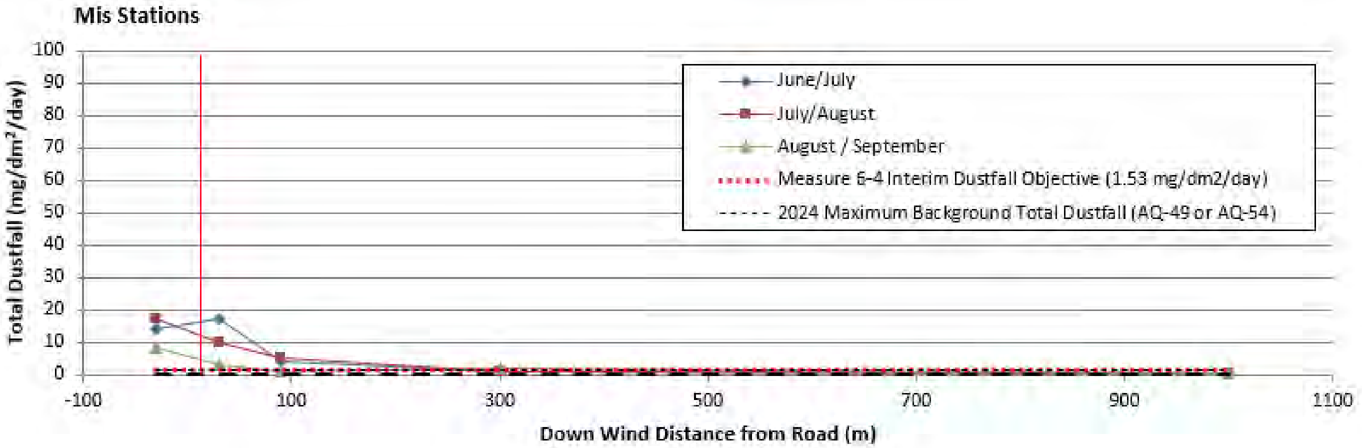
TABLE 3.2-5 TOTAL DUSTFALL (MG/DM^2/D) OBSERVED, 2024

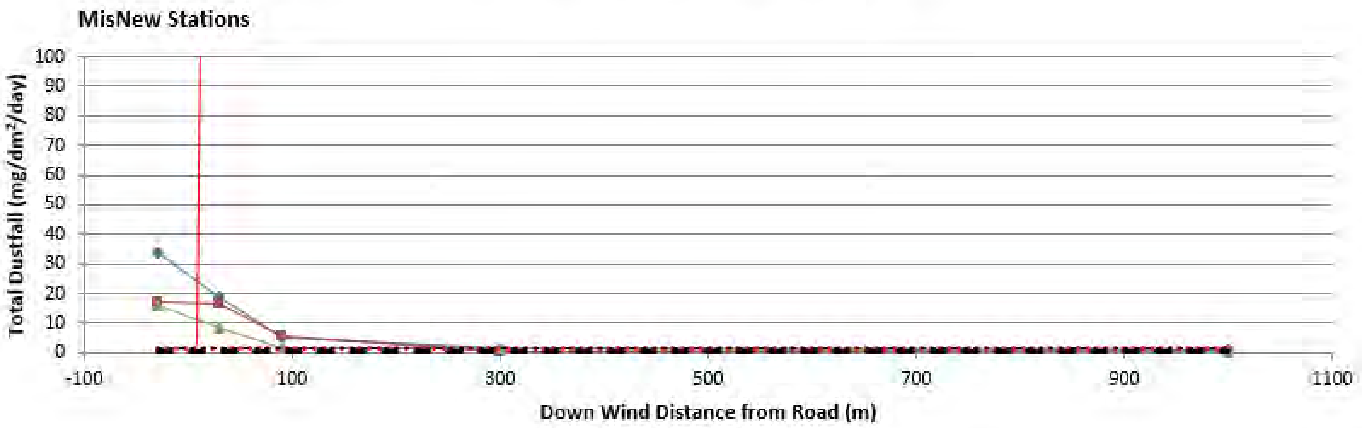
Station	2024			
	June / July	July / August	August / September	Mean
Air-P125	1.7	0.6	1.9	1.4
Air-P162	1.9	0.6	2.4	1.6
Air-P280	2.0	0.8	1.8	1.5
AQ-49	0.4	0.3	1.5	0.7
AQ-54	0.2	0.3	1.1	0.5
LLCF-PA	1.3	1.7	1.2	1.4
LLCF-PB	1.7	0.8	1.0	1.2
Mis-U30	14.3	17.3	8.6	13.4
Mis-D30	17.2	9.9	3.0	10.0
Mis-D90	4.4	5.3	1.1	3.6
Mis-D300	1.0	1.0	1.9	1.3
Mis-D1000	0.7	0.4	0.8	0.6
MisNew-U30	34.1	17.2	16.3	22.5
MisNew-D30	19.1	16.6	8.6	14.8
MisNew-D90	5.0	5.5	1.6	4.0
MisNew-D300	1.4	0.7	1.5	1.2
MisNew-D1000	0.8	0.7	0.5	0.7
LYNX-U30	2.5	3.0	3.7	3.0
LYNX-D30	2.2	2.8	0.9	2.0
LYNX-D90	0.6	1.1	1.2	1.0
LYNX-D300	0.5	0.5	1.0	0.6
LYNX-D1000	0.3	0.6	1.3	0.7
JAY-U30	–	–	–	–
JAY-D30	–	–	–	–
JAY-D90	–	–	–	–
JAY-D300	–	–	–	–
SABLE-U30	42.4	26.5	26.3	31.7
SABLE-D30	20.3	13.3	10.4	14.6
SABLE-D90	7.3	5.1	2.0	4.8
SABLE-D300	3.3	2.4	1.2	2.3
SABLE-D1000	1.0	1.0	1.8	1.3

Notes:

Values in mg/dm^2/d; Dash (–) = not available

FIGURE 3.2-4A TOTAL DUSTFALL AT MISERY, LYNX, JAY AND SABLE HAUL ROAD STATIONS, 2024

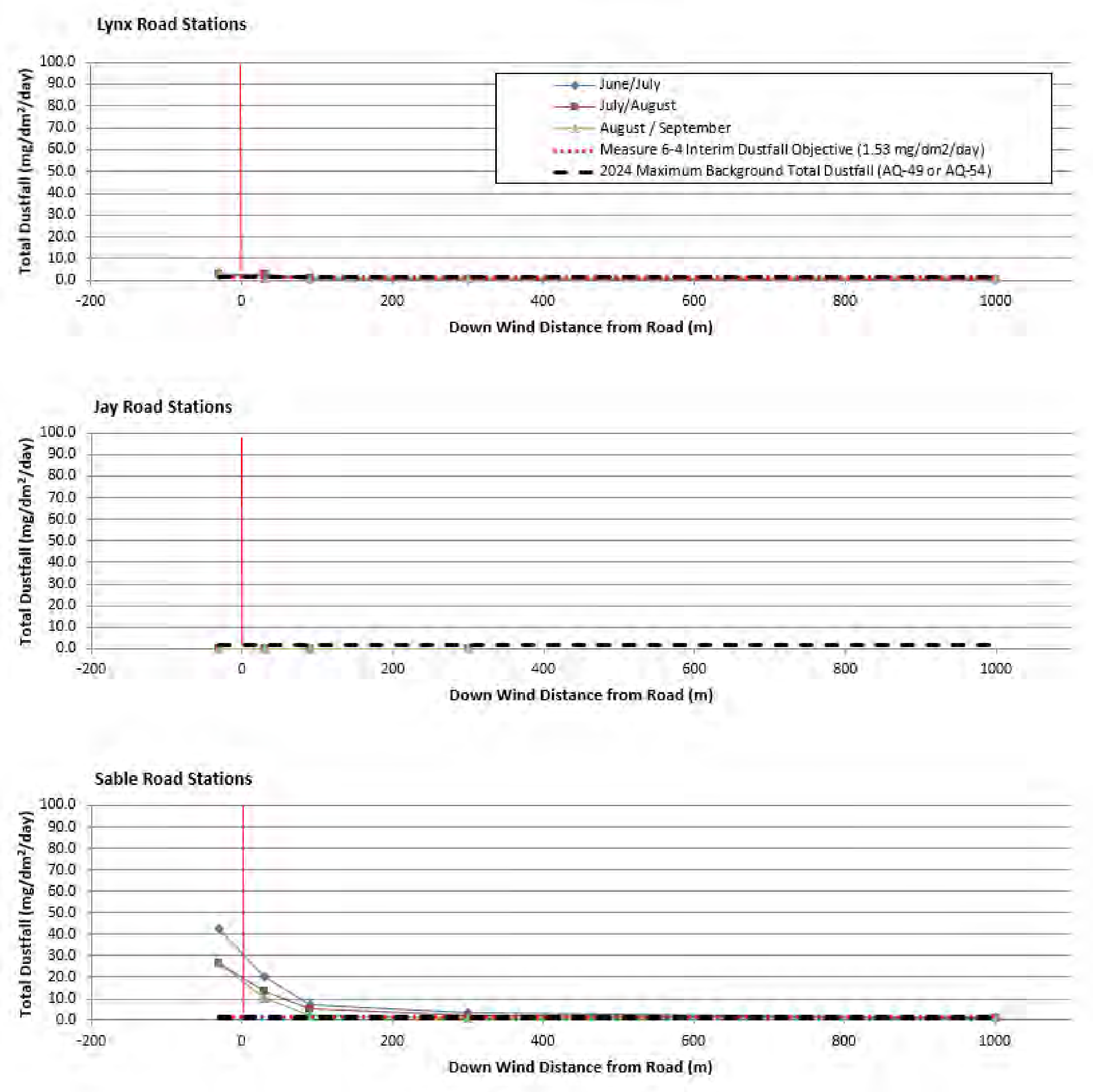




Notes:

Negative downwind distances represent upwind distance from road.

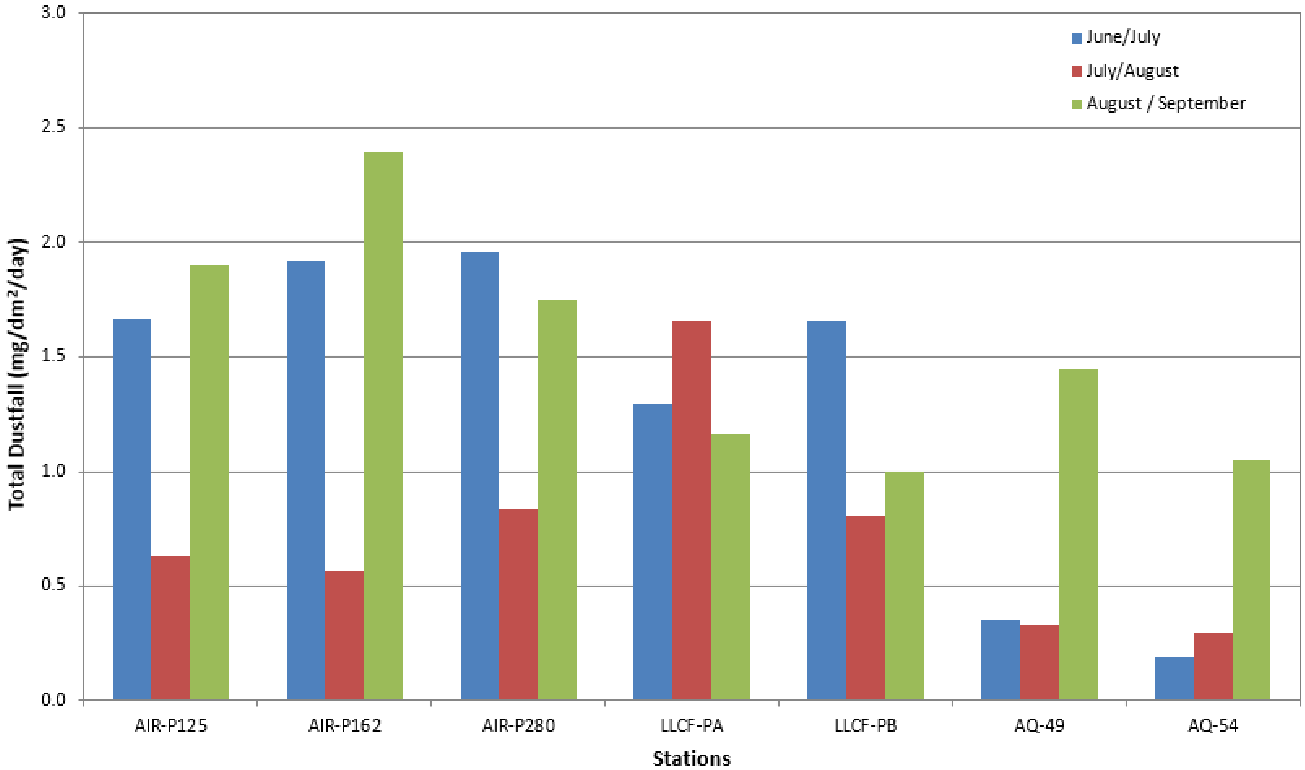
FIGURE 3.2-4B TOTAL DUSTFALL AT MISERY, LYNX, JAY AND SABLE HAUL ROAD STATIONS, 2024



Notes:

Negative downwind distances represent upwind distance from road.

FIGURE 3.2-5 TOTAL DUSTFALL RESULT AT AIRSTRIP AND BACKGROUND STATIONS, 2024



3.2.3.2 ACID DEPOSITION

Estimates of critical load ranges have been established for both aquatic and terrestrial ecosystems for many areas of Canada. Terrestrial critical loads have yet to be established for the NWT or other Canadian regions characterized by tundra. Table 3.2-6 shows the range of established critical loads for soil in other Canadian jurisdictions that can be compared to loadings at the Ekati Diamond Mine to provide some context as to the likely effect of the Mine on acid deposition (EC 2005).

TABLE 3.2-6 ESTABLISHED CRITICAL LOADS FOR SOIL IN CANADIAN JURISDICTIONS

Province	Median (eq/ha/yr)	5^{th} Percentile (eq/ha/yr)
Newfoundland	572	247
Nova Scotia	817	277
Prince Edward Island	2,063	715
New Brunswick	1,169	559
Quebec	519	358
Ontario	548	388
Average*	559	358

Source: EC (2004)

* Average is representative of the average area of eastern provinces. Values are area-weighted.

A summary of the 2024 acid deposition results at the Ekati Diamond Mine is presented in Table 3.2-7 and shown in Figure 3.2-6. Acid deposition was calculated from the acid loading of sulphate and nitrate deposition assessed at the dustfall monitoring stations from the months of June to September.

The calculated acid deposition for all stations ranged from 20.6 eq/ha/year (AQ-49 and AQ-54 in June/July and Air-P125 in July/August) to 492.5 eq/ha/year (Air-P162 in June/July). The calculated acid deposition for background stations AQ-49 and AQ-54 ranged from 20.6 to 195 eq/ha/year in 2024. The highest mean and median values observed at all sites was 322 and 375 eq/ha/yr respectively (SABLE-U30). This median value is above the 5^{th} percentile critical soil load for two out of six of the eastern provinces (Newfoundland and Nova Scotia) (Table 3.2-6) and the Alberta PAI load standard (250 eq/ha/yr); however, these terrestrial critical loads are not for regions characterized by tundra.

TABLE 3.2-7 ACID DEPOSITION RESULTS, 2024

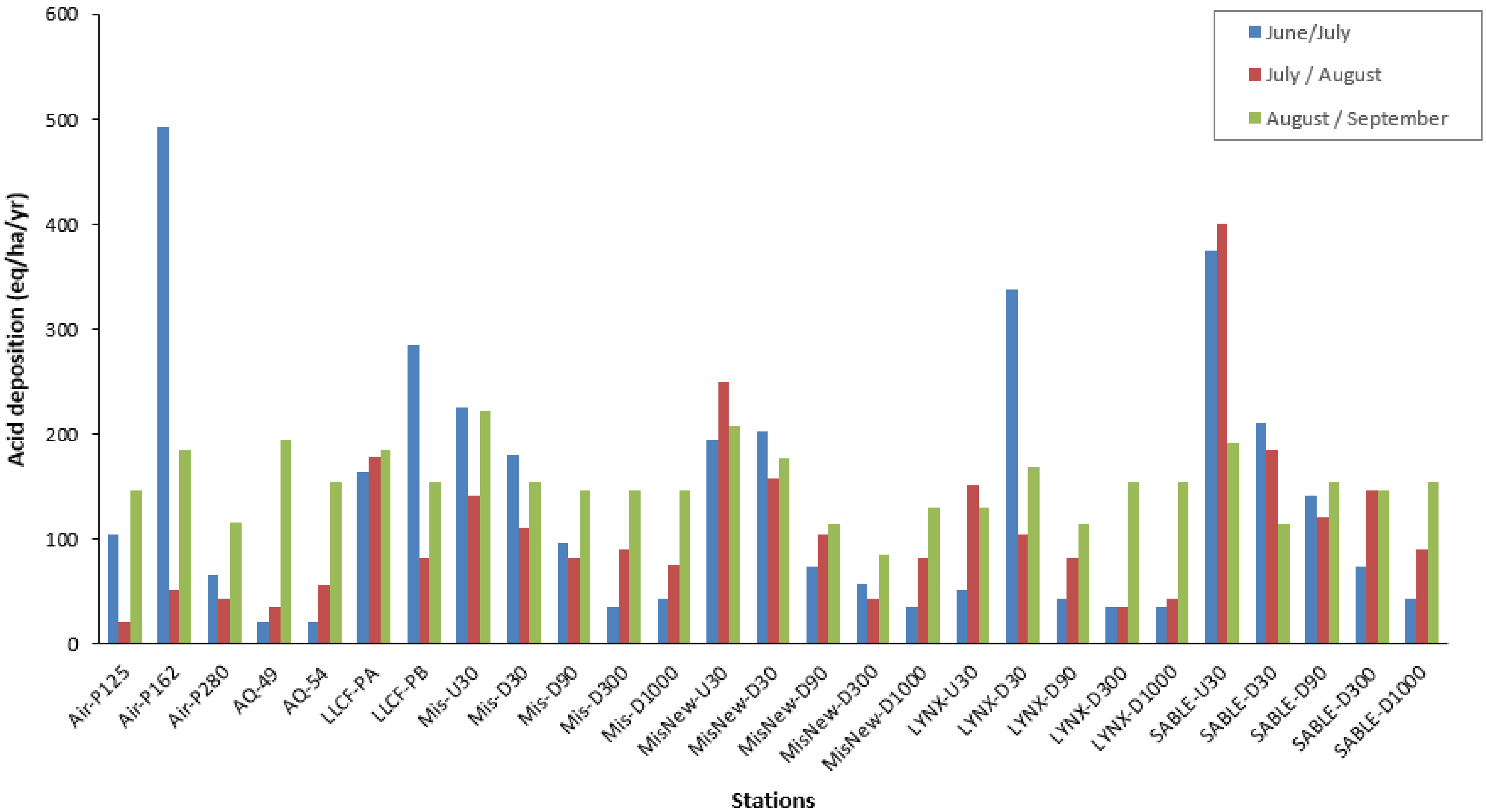
Station	2024			
	June / July	July / August	August / September	Mean
Air-P125	104	21	147	90
Air-P162	492	51	184	243
Air-P280	66	43	116	75
AQ-49	21	36	195	84
AQ-54	21	56	154	77
LLCF-PA	165	178	184	176
LLCF-PB	284	82	154	174
Mis-U30	226	142	222	197
Mis-D30	180	112	154	149
Mis-D90	97	81	147	108
Mis-D300	36	90	147	91
Mis-D1000	43	75	147	88
MisNew-U30	195	250	207	217
MisNew-D30	203	157	177	179
MisNew-D90	74	105	115	98
MisNew-D300	59	43	85	62
MisNew-D1000	36	82	130	83
LYNX-U30	51	151	130	111
LYNX-D30	337	105	169	204
LYNX-D90	43	82	115	80
LYNX-D300	36	36	154	75
LYNX-D1000	36	43	154	78
JAY-U30	–	–	–	–
JAY-D30	–	–	–	–
JAY-D90	–	–	–	–
JAY-D300	–	–	–	–
SABLE-U30	375	400	191	322
SABLE-D30	210	185	115	170
SABLE-D90	142	120	154	139
SABLE-D300	74	147	147	122
SABLE-D1000	43	90	154	96

Note:

Unit for all values is eq/ha/yr.

Dash (–) = not available

FIGURE 3.2-6 ACID DEPOSITION RESULTS, 2024



3.2.3.3 METAL DEPOSITION

Metal deposition analytical results are summarized in Table 3.2-8. Figure 3.2-7 shows the maximum deposition for select metals (aluminum, calcium, magnesium, potassium, and sodium) at each station. The selected metals are associated with soil nutrient cations that affect soil pH (aluminum and sodium) and are essential to plant growth (calcium, magnesium, and potassium).

There are no guidelines to compare the metal deposition values measured at the Ekati Diamond Mine. Information on metal deposition is used for lichen analysis, which is completed every three years, and for assessing the potential contributions of dustfall to the aquatic environment. Several metals had concentrations below or close to the analytical detection limit. In general, the metal deposition concentrations are proportional to the amount of total dustfall.

3.2.4 GREENHOUSE GAS (GHG) EMISSIONS

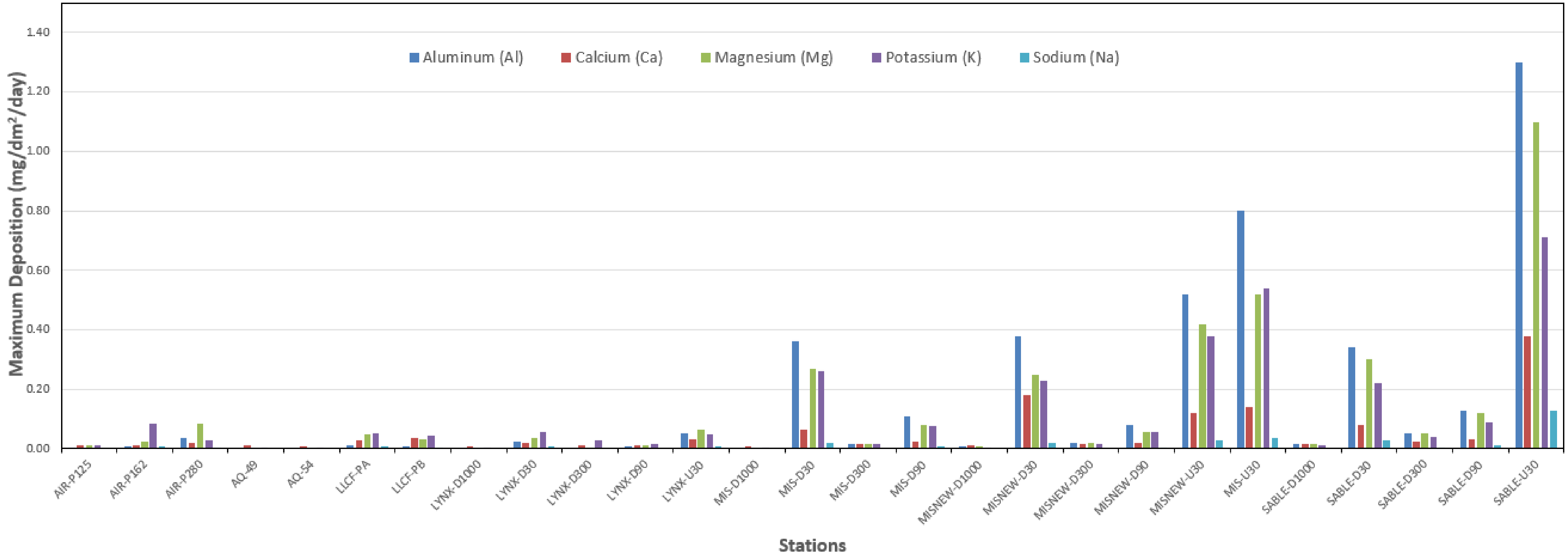
At the Ekati Diamond Mine, the combustion of diesel is the main source of GHG emissions. Diesel combustion is used for power generation, operating mobile equipment, building heat, and blasting. Other sources of GHG emissions are from the combustion of jet fuel for helicopters, waste incineration, composting and wastewater (sewage treatment plant [STP]) facilities).

Monthly fuel consumption at the Ekati Diamond Mine in 2024 is presented in Table 3.2-9 and the resulting GHG emissions in term of tonnes of CO_2 equivalent (t CO_2e), is presented in Table 3.2-10.

In 2024, diesel fuel consumption decreased by approximately 8% compared to 2023. Waste oil consumption was reported as zero in 2024. 2024 diesel consumption included 918,234 L of non-motive diesel and 5,910,639 L heating fuel.

Table 3.2-10 summarizes the annual totals of GHG emissions (Scope 1, i.e., direct emissions) from different sources at the Mine in tonnes CO_2e for 2024. A total of 157.4 kt CO_2e of GHG emissions were estimated to be emitted in 2024. This is approximately 8% lower than the estimated GHG emissions in 2023 (171.8 kt CO_2e; ERM 2024). Stationary (heating, power generation, waste oil and non-motive) and transportation (motive, helicopter and gasoline) sources were estimated to emit 86.1 kt CO_2e and 70.2 kt CO_2e, respectively, in 2024. This was an increase by about 1% from 2023 levels for stationary, respectively, and 17% less than 2023 consumption levels for transportation. Helicopters which fueled at the airport were included in the annual totals for fuel use and associated GHG emissions for the Ekati Diamond Mine. Combustion of diesel used for blasting and gas released from waste facilities (non-biomass incineration, wastewater treatment and compost) had an estimated GHG emissions of 0.90 kt CO_2e and 0.13 kt CO_2e in 2024, respectively, which are about 45% lower and 0% lower compared to 2023 respectively. Note that several updates were made to the GHG calculations and emission categories for 2024 to better reflect federal GHGRP reporting program requirements, so some 2024 values presented in Table 3.2-10 are not direct comparisons with previous years' results.

FIGURE 3.2-7 MAXIMUM METAL DEPOSITION, 2024



Note: Maximum values during the annual reporting periods, June through September. Gaps indicate missing data.

TABLE 3.2-8 SUMMARY OF METAL DEPOSITION AT DUSTFALL STATIONS, 2024

Parameter ($mg/dm^2/d$)	Measurements below Detection Limit	Mean	Median	Std. Dev.	Min.	Max.	Station with Max. Value
Aluminum	2	0.091964	0.009200	0.203641	0.000130	1.300000	SABLE-U30
Antimony	81	0.000007	0.000003	0.000005	0.000003	0.000013	AIR-P125
Arsenic	70	0.000018	0.000009	0.000017	0.000007	0.000100	MIS-U30
Barium	14	0.001320	0.000280	0.002817	0.000013	0.020000	SABLE-U30
Beryllium	77	0.000006	0.000003	0.000004	0.000003	0.000011	AIR-P125
Bismuth	79	0.000013	0.000007	0.000009	0.000007	0.000026	AIR-P125
Boron	81	0.000132	0.000065	0.000091	0.000065	0.000260	AIR-P125
Cadmium	72	0.000001	0.000001	0.000001	0.000001	0.000003	LYNX-U30
Calcium	24	0.029121	0.012000	0.052627	0.001300	0.380000	SABLE-U30
Chromium	52	0.000321	0.000130	0.000608	0.000013	0.004100	SABLE-U30
Cobalt	40	0.000064	0.000013	0.000129	0.000003	0.000830	SABLE-U30
Copper	39	0.000092	0.000024	0.000178	0.000006	0.001200	SABLE-U30
Iron	17	0.126419	0.013000	0.268777	0.000650	1.600000	SABLE-U30
Lead	55	0.000026	0.000013	0.000048	0.000003	0.000300	SABLE-U30
Lithium	54	0.000291	0.000130	0.000515	0.000013	0.002600	SABLE-U30
Magnesium	9	0.078709	0.014000	0.163686	0.000325	1.100000	SABLE-U30
Manganese	13	0.001692	0.000300	0.003326	0.000013	0.018000	SABLE-U30
Mercury	81	0.000001	0.000001	0.000001	0.000001	0.000003	SABLE-U30
Molybdenum	67	0.000013	0.000005	0.000020	0.000003	0.000140	SABLE-U30
Nickel	21	0.000376	0.000079	0.000763	0.000007	0.005500	SABLE-U30
Phosphorus	46	0.007342	0.002600	0.012113	0.000650	0.069000	SABLE-U30
Potassium	22	0.065928	0.013000	0.123934	0.000650	0.710000	SABLE-U30
Selenium	81	0.000028	0.000013	0.000020	0.000013	0.000055	AIR-P125

Parameter (mg/dm^2/d)	Measurements below Detection Limit	Mean	Median	Std. Dev.	Min.	Max.	Station with Max. Value
Silicon	10	0.143928	0.018000	0.310413	0.000325	2.200000	SABLE-U30
Silver	78	0.000001	0.000001	0.000001	0.000001	0.000003	AIR-P125
Sodium	41	0.007965	0.002600	0.016329	0.000650	0.130000	SABLE-U30
Strontium	21	0.000241	0.000072	0.000477	0.000007	0.003700	SABLE-U30
Thallium	55	0.000005	0.000002	0.000012	0.000000	0.000065	LYNX-D90
Tin	74	0.000015	0.000008	0.000010	0.000007	0.000039	MIS-U30
Titanium	11	0.009539	0.000900	0.020179	0.000033	0.110000	SABLE-U30
Uranium	49	0.000014	0.000003	0.000036	0.000001	0.000250	SABLE-U30
Vanadium	27	0.000245	0.000029	0.000523	0.000003	0.003300	SABLE-U30
Zinc	35	0.000524	0.000130	0.000923	0.000033	0.005400	SABLE-U30
Zirconium	71	0.000020	0.000008	0.000024	0.000007	0.000200	SABLE-U30

Notes:

There are no available guidelines to compare the metal deposition values measured at the Ekati Diamond Mine.

For those values below laboratory detection limits, it was assumed that their value was half the detection limit for calculation.

TABLE 3.2-9 MONTHLY FUEL CONSUMPTION AT THE EKATI DIAMOND MINE, 2024

Month	Diesel, Other Non-Motive (L)	Diesel, Motive (L)	Diesel, Heating (L)	Diesel, Power Generation (L)	Blasting Diesel (L)	Helicopter (L)	Waste Oil (L)	Gasoline (L)
2024								
24-Jan	162,845	2,312,868	810,166	2,206,631	20,886	0	0	410
24-Feb	66,627	2,138,452	875,987	2,172,061	15,639	0	0	0
24-Mar	51,656	2,308,265	945,536	2,204,834	13,118	0	0	410
24-Apr	66,382	2,111,681	547,309	1,979,009	17,805	0	0	0
24-May	14,870	2,196,361	347,479	1,946,067	18,366	0	0	0
24-Jun	18,308	2,082,183	91,568	1,994,244	12,392	3,524	0	205
24-Jul	52,202	1,613,283	22,222	1,665,562	4,839	3,891	0	0
24-Aug	46,001	2,079,786	35,831	2,085,049	16,237	8,356	0	0
24-Sep	32,003	2,156,418	85,971	1,979,781	27,122	10,016	0	410
24-Oct	27,592	2,015,446	259,499	2,015,608	27,411	893	0	410
24-Nov	78354	2,461,778	721,496	2,372,096	22,960	0	0	0
24-Dec	301,394	2,409,292	1,167,576	2,460,852	19,092	0	0	205
2024 Total	**918,234**	**25,885,813**	**5,910,639**	**25,081,794**	**215,867**	**26,680**	**0**	**2,050**

TABLE 3.2-10 SUMMARY OF GHG EMISSIONS AT THE EKATI DIAMOND MINE, 2024

Sources	Carbon Dioxide (CO_2), tonnes	Methane (CH_4), tCO_2e	Nitrous Oxide (N_2O), tCO_2e	Total GHG Emissions, tCO_2e
Stationary				
Diesel, Non-Motive	18,664.6	15.2	36.9	18,716.7
Power	67,244.3	54.8	132.9	67,432.0
Oil	0	0	0	0
Industrial				
Blasting	899.8	0	0	899.8
Transportation				
Diesel, Motive	69,399.9	52.9	717.7	70,170.5
Helicopter	71.5	0.055	0.1414	71.7
Gasoline	4.7	0.61	0.00706	5.3
Waste				
Incinerator	51.4	0	3.50	54.9
Composter	n/a	6.7	7.52	14.2
Sewage Treatment Plant	n/a	10.4	49.2	59.7
Total				**157,424.8**

Source: Ekati NPRI and GHG Reporting Spreadsheet

Notes:

n/a = The values marked “n/a” are not a reporting requirement to the GHGRP, so they do not contribute to the overall total GHG reported for the GHG Reporting Program.

tCO_2e = tonnes of CO_2 equivalent.

3.2.5 2006 CALPUFF AIR DISPERSION MODELLING SUMMARY

A CALPUFF air dispersion modelling study was completed in 2006 and published by Rescan (2006). Limited comparison was made to the predictions of the air dispersion model in the 2005 AQMP because the model results at the time were preliminary. The results of the 2024 AQMP presented in this report are therefore reviewed in the context of the 2006 CALPUFF modelling results. A summary of the findings of the Ekati Diamond Mine CALPUFF air dispersion modelling report (Rescan 2006) are described below.

Model predictions of ambient SO_2 and NO_2 concentrations included that the NWT Ambient Air Quality Standards and Canadian Ambient Air Quality Objectives (those values applicable in 2006, see Table 3.2-1 for 2024 values) were predicted to be met outside of the active mining area. The active mining area was defined as any footprint area that is subject to or associated with various mining activities (e.g., active open pits, haul roads, plant site, and processed kimberlite containment areas). Ambient concentrations of SO_2 and NO_2 were predicted to be well below applicable standards outside the Ekati Diamond Mine mineral lease area.

Model predictions of 24-hour $PM_{2.5}$ concentrations exceeded NWT guidelines of 30 μg/m^3 (value applicable in 2006) within a corridor along the Misery Haul Road and the active mining areas. The corridor was defined in the dispersion model to represent the haul roads between the Ekati Diamond Mine Main Camp and Misery. In addition, model concentrations of 24-hour TSP and annual average TSP exceeded NWT guidelines within this corridor. The model predicted that standards for ambient $PM_{2.5}$ and TSP concentrations were met outside the Ekati Diamond Mine mineral lease area.

The model results predicted that the Potential Acid Input (PAI) loads were less than 250 eq/ha/yr at a distance of 2.5 to 3.0 km from the centre of the Ekati Diamond Mine, or effectively outside the active mine area. A PAI load of 250 eq/ha/yr is the standard for highly sensitive soils adopted by the Government of Alberta; the Government of NWT does not currently have critical load standards.

Model predictions for nitrate deposition were not conclusive due to uncertainties associated with chemical reaction rates of NO_X conversion to nitrate. However, model predictions of potential (maximum) nitrate deposition rates show that contributions of mining operations to nitrate deposition are negligible beyond 5 to 10 km from the mine areas.

The model results showed a steep gradient of airborne particulate deposition close to sources, and the deposition of airborne particulates resulting from mine fugitive emissions was indistinguishable from background deposition rates at a distance of 14 to 20 km from the active mining areas. This finding is consistent with the findings from the 2005, 2008, 2011, 2014, 2017, 2021, and 2023 AQMP reports, as well as the 2024 results described in previous sections of this report. It is important to note that there are changes between mine areas modelled in 2006 and those active in 2024, therefore a direct comparison at specific locations between modelled and measured values is not possible.

3.2.6 SUMMARY

The daily mean 2024 TSP concentrations measured at the CAMB ranged from 0.4 to 218.2 µg/m^3, with 24-hour maximum value recorded in the month of July. Four daily TSP concentrations were above the 24-hour GNWT TSP standard of 120 µg/m^3, though wildfire smoke occurred in the summer, contributing to higher concentrations. The annual mean concentration was 15.2 µg/m^3 and was well below the GNWT annual TSP standard of 60 µg/m^3. Differences in TSP results between the Partisol and the CAM equipment can primarily be attributed to different sampling locations and different sampling frequencies. The Partisol equipment samples particulate once every six days, while the CAM equipment monitors continuously.

The daily $PM_{2.5}$ concentrations measured at the CAMB (CAM) station in 2024 ranged from 0.9 to 52.1 µg/m^3 when compared to CAMB Partisol for contemporaneous measurements with an annual mean concentration of 5.3 µg/m^3. During 2024, all instances of exceeding the 24-hour GNWT standard occurred during the summer months of July and August, coinciding with regional wildfires in the regional area. According to the information provided on Canadian Wildland Fire Information System, the elevated levels of daily $PM_{2.5}$ concentrations can be attributed to the nearby regional wildfires. Seasonal trends during the 2024 period were consistent to the 2023 period, with higher $PM_{2.5}$ concentrations during June to September compared to other months of the year. Months that had elevated mean $PM_{2.5}$ concentrations also had elevated mean TSP concentrations.

All NO_2 and SO_2 hourly, daily, and annual average values were well below the applicable standards. Concentrations of SO_2 and NO_X (NO and NO_2) were higher in the winter compared to the summer in response to seasonal fuel usage for heating. This trend was consistent with the previous years.

CALPUFF air dispersion modelling completed in 2006 (Rescan 2006) predicted that SO_2, NO_2, NO_X, $PM_{2.5}$, and TSP concentrations would be below GNWT standards outside the active mining area. The CAMB station is located at the Polar Explosives site, which is close to the active mining area, hence, contaminant concentrations outside this area are expected to be lower than airborne particulate matter measured at the CAMB station, on average, because airborne contaminant concentrations generally decrease with distance from the source. The CALPUFF model predictions are conservative estimates of ambient concentrations, which is consistent with the monitoring results from the CAMB station. In 2024, no exceedances of CCME or GNWT standards were measured for SO_2 and NO_2.

In 2024, all mean values of dustfall concentrations at 300 m (downwind) from the roads remained below the GNWT interim dustfall objective of 1.53 mg/dm^2/d. In 2024, the mean dustfall concentrations at 300 m from roads (Mis-D300, MisNew-D300, LYNX-D300, and SABLE-D300) were below the GNWT interim dustfall objective.

The highest mean and median acid deposition value in 2024 measured at all sites was 322 and 375 eq/ha/yr respectively (SABLE-U30). This median value is above the established critical soil load for provinces in eastern Canada and the Alberta PAI load standard of 250 eq/ha/yr. Currently, there are no relevant guidelines available for comparison to the metal deposition values measured at the Ekati Diamond Mine.

In 2024, diesel fuel consumption decreased by approximately 8% compared to 2023. A total of 157.4 kt CO_2e of GHG emissions were estimated to be emitted in 2024. This is approximately 8% lower than the estimated GHG emissions in 2023. Note that several updates were made to the GHG calculations and emission categories for 2024 to better reflect federal GHGRP reporting program requirements, so some 2024 values calculations are not direct comparisons with previous years' results.

4. RECOMMENDATIONS

The monitoring program at the Ekati Diamond Mine as described in this report has been relatively consistent over time. Based on the results of this AQMP report the following changes are recommended to align the monitoring approach with current Mine operations and environmental conditions while maintaining the necessary data collection to continue to assess the potential effects of the Ekati Diamond Mine on the environment:

1. Reduce the number of dustfall stations along roads.

   There are an excess number of dustfall stations along certain roads and it is recommended that the following redundant stations be eliminated. These stations include:

   - All Mis stations- these stations are made redundant by having MisNew stations. The MisNew stations are better aligned with the wind making the Mis stations unnecessary.
   - Removing these stations will still leave sufficient dustfall stations to provide adequate information to assess the effects of vehicle traffic and dust mitigation measures on dustfall rates in the vicinity of the roads. These or other stations can always be re-installed if mine operating conditions dictate a need for renewed monitoring.

2. Reduce the number of snow chemistry and lichen sampling locations.

   There are a large number of stations along a number of transects. Some of these stations can be eliminated and all remaining stations will measure snow chemistry and lichen at every station. The remaining stations will align along an east-west transect that correlates with one of the dominant wind directions (from the east). In addition, stations will be maintained near to areas of mining activity. It is recommended that the following stations be removed:

   - AQ-54, AQ-122, AQ-115, AQ-49, AQ-114, AQ-109, AQ-48, AQ-108, AQ-123, AQ-C2, AQ-C5, AQ-116, AQ-118.

   Removing these stations will still allow for an assessment of effects of mining activities by having stations upwind and downwind of mining activities and around areas where activities are currently occurring or are planned.

   The remaining snow chemistry and lichen monitoring components of the AQMP should remain unchanged.

3. In 2023, CAMB NO daily span failed most of the year. This resulted in flagging the data during the QA/QC process and produced low data completeness for the year. It is recommended to do frequent maintenance and calibration checks especially during the times when daily span check fails. It is required to verify analyser's response when the daily span drifts +/- 10% from the reference value to ensure high data completeness percentage for the year.
4. Review potential changes to the monitoring equipment and QAQC processes in the CAMB to allow for better completeness of data and/or consistent monitoring of air quality components.

5. REFERENCES

Definitions of the acronyms and abbreviations used in this reference list can be found in the Glossary and Abbreviations section.

AEP. 2016. Air Monitoring Directive Chapter 6: Ambient Data Quality. https://open.alberta.ca/dataset/9f75b54e-641a-4d9d-885f-e87e973321b4/resource/eb4cc6dd-686a-4865-bc40-fb77bb432766/download/amd-chapter6-dataquality-dec16-2016a.pdf. Alberta Parks and Environment: Edmonton, AB. (accessed March 2023).

ASTM Standard D1739-98. Reapproved 2010. Standard Test Method for Collection and Measurement of Dustfall (Settleable Particulate Matter). D1739-98. ASTM International: West Conshohocken, PA.

Bargagli, R. and I. Mikhailova. 2002. Accumulation of inorganic contaminants. In Monitoring with Lichens - Monitoring Lichens. Ed. P. L. Nimis, C. Sheidegger, and P. A. Wolseley. 65-84. Dordrecht, The Netherlands: Klewer Academic Publishers.

Bates, J. W. 1992. Mineral nutrient acquisition and retention by bryophytes. Journal of Bryology 17: 223-40.

BHP and Dia Met. 1995. NWT Diamonds Project: Environmental Impact Statement. Prepared by BHP Diamonds Inc., Vancouver, BC and Dia Met Minerals Ltd.: Kelowna, BC.

BHP Billiton (BHP Billiton Diamonds Inc.). 2009. EKATI Diamond Mine Air Quality Management and Monitoring Plan. March 2009.

Borg, T., O. Ryeset, and E. Steinnes. 1994. Principal component analysis of data for trace elements and main components in precipitation falling on Norway. Environmental Monitoring and Assessment 31 (3): 259-73.

Carvalho, A. O. M. and M. Freitas. 2011. Airborne chemical elements: correlation between atmospheric levels and lichen content. International Journal of Environment and Health, 5 (1/2): 134-47.

CCME. 2008. A National Picture of Acid Deposition Critical for Forest Soils in Canada https://www.ccme.ca/files/Resources/air/acid_rain/national_picture_acid_deposition_pn1412.pdf.

CCME. 2012. Guidance Document on Achievement Determination Canadian Ambient Air Quality Standards for Fine Particulate Matter and Ozone. Canadian Council of Ministers of the Environment. https://ccme.ca/en/res/pn1483_gdad_eng-secured.pdf (Accessed March 2022).

CCME. 2019a. Ambient Air Monitoring and Quality Assurance/Quality Control Guidelines. National Air Pollution Surveillance Program. Canadian Council of Ministers of the Environment. https://ccme.ca/en/res/ambientairmonitoringandqa-qcguidelines_ensecure.pdf (accessed March 2023).

CCME. 2019b. Guidance Document on Air Zone Management. National Air Pollution Surveillance Program. Canadian Council of Ministers of the Environment. https://ccme.ca/en/res/guidancedocumentonairzonemanagement_secured.pdf (accessed March 2023).

CCME. 2020a. Guidance Document on Achievement Determination for Canadian Ambient Air Quality Standards for Sulphur Dioxide. National Air Pollution Surveillance Program.

Canadian Council of Ministers of the Environment. https://ccme.ca/en/res/gdadforcaaqsforsulphurdioxide_en1.0.pdf (accessed March 2023).

CCME. 2020b. Guidance Document on Achievement Determination for Canadian Ambient Air Quality Standards for Nitrogen Dioxide. National Air Pollution Surveillance Program. Canadian Council of Ministers of the Environment. https://ccme.ca/en/res/gdadforcaaqsfornitrogendioxide_en1.0.pdf (accessed March 2023).

CCME. 2025. CANADIAN AMBIENT AIR QUALITY STANDARDS HANDBOOK. Canadian Council of Ministers of the Environment. https://ccme.ca/en/res/pn1483_gdad_eng-secured.pdf (Accessed March 2022).

Cheng, M. D., P. K. Hopke, L. Barrie, A. Rippe, M. Olson, and S. Landsberge. 1993. Qualitative determination of source regions of aerosol in Canadian high arctic. Environmental Science and Technology, 27 (10): 2063-71.

Cleveland, W. S., E. Grosse, and W. M. Shyu. 1992. Local regression models In Statistical Models in S. Ed. J.M. Chambers and T. J. Hastie. Wadsworth & Brooks/Cole.

Dominion. 2020. Dust Suppression Pilot Study Report 2018/2019.

EC. 2005. Canadian Acid Deposition Science Assessment 2004. Environment Canada. Meteorological Service of Canada: Downsview, ON. http://publications.gc.ca/collections/Collection/En4-46-2004E.pdf (accessed March 2023).

ECCC. 2021b. National Inventory Report 1990-2021: Greenhouse Gas Sources and Sink in Canada. https://publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-1-eng.pdf (accessed March 2023).

ECCC. 2024. Climate Trends and Variations Bulletin. https://www.canada.ca/en/environment-climate-change/services/climate-change/science-research-data/climate-trends-variability/trends-variations.html (accessed February 2023).

ECCC. 2025a. Reporting greenhouse gas emissions data: technical guidance. https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/facility-reporting/reporting/technical-guidance.html#toc5. (accessed March 2025).

ECCC. 2025b. Annex 6. Emission Factors. NATIONAL INVENTORY REPORT 1990–2023: GREENHOUSE GAS SOURCES AND SINKS IN CANADA.

Enns, K. A. 2015. Lichen Monitoring at the Ekati Diamond Mine, NWT: 2014 Re-Measurement. Prepared for ERM Consultants Canada Ltd. by Delphinium Holdings Inc.: Castlegar, British Columbia.

EPA. 2023. EPA Sampling Schedule. https://www.epa.gov/system/files/documents/2022-10/2023%20sampling%20schedule.pdf (accessed February 2023).

ERM. 2015. EKATI Diamond Mine: 2014 Air Quality Monitoring Program. Prepared for BHP Billiton Canada Inc. by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2018. Ekati Diamond Mine: 2017 Air Quality Monitoring Program. Prepared for Dominion Diamond Ekati ULC by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2019. Ekati Diamond Mine: 2018 Air Quality Monitoring Program. Prepared for Dominion Diamond Ekati ULC by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2020. Ekati Diamond Mine: 2019 Air Quality Monitoring Program. Prepared for Dominion Diamond Ekati ULC by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2021. Ekati Diamond Mine: 2020 Air Quality Monitoring Program. Prepared for Dominion Diamond Ekati ULC by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2022. Ekati Diamond Mine: 2021 Air Quality Monitoring Program. Prepared for Dominion Diamond Ekati ULC by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2024. Ekati Diamond Mine: 2023 Air Quality Monitoring Program. Prepared for Dominion Diamond Ekati ULC by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

ERM. 2025. Ekati Diamond Mine: 2024 Aquatic Effects Monitoring Program Annual Report. Prepared for Arctic Canadian Diamond Company Ltd. by ERM Consultants Canada Ltd.: Yellowknife, Northwest Territories.

Garty, J. 2001. Biomonitoring atmospheric heavy metals with lichens: theory and application. Critical Reviews in Plant Science, 20: 309-71.

GNWT. 1997. Environmental Agreement between BHP Diamonds Inc. and the governments of Canada and the Northwest Territories.

GNWT. 2014. Guideline for Ambient Air Quality Standards in the Northwest Territories. Department of Environment and Natural Resources. https://www.gov.nt.ca/sites/ecc/files/guidelines/air_quality_standards_guideline.pdf (accessed February 2024).

GNWT. 2023. Ambient Air Quality Monitoring Guideline. Government of the Northwest Territories. Government of the Northwest Territories https://www.gov.nt.ca/ecc/sites/ecc/files/resources/ambient_air_quality_monitoring_guideline.pdf (accessed February 2024).

GNWT. 2017. Environmental Assessment of Dominion Diamond Ekati Corporation's Jay Project (EA1314-01) – Measure 6-4, Interim Dustfall Objective. http://reviewboard.ca/upload/project_document/EA1314-01_GNWT_dustfall_standard_Measure_6-4_from_Report_of_EA.PDF (accessed February 2020).

IPCC. 2023. Climate Change 2023: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/ (accessed March 2022).

Johnson, R. A. and D. Wichern. 1992. Applied Multivariate Statistical Analysis. Prentice Hall.

MVRB. 2016. Report of Environmental Assessment and Reasons for Decisions, Dominion Diamond Ekati Corp., Jay Project. Mackenzie Valley Review Board. EA1314-01.

Natural Resources Canada (NRCAN). 2024. Canadian Wildland Fire Information System Interactive map. https://cwfis.cfs.nrcan.gc.ca/interactive-map (accessed May 2025).

Olmes, I., M. Gulovali, and G. E. Gordon. 1985. Trace element concentrations near a coal-fired power plant. Atmospheric Environment, 19 (10): 1663-69.

R Core Team. 2023. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

Rescan. 2006. EKATI Diamond Mine: CALPUFF Air Dispersion Modelling Assessment. Prepared for BHP Billiton Diamonds Inc. by Rescan Environmental Services Ltd.

Sakamoto, Y., Ishiguro, M., and Kitagawa, G. 1986. Akaike information criterion statistics. Dordrecht, The Netherlands: D. Reidel, 81(10.5555), 26853.

Salemaa, M., J. Derome, H. Helmisaari, T. Nieminen, and I. Vanha-Majamaa. 2004. Element accumulation in boreal bryophytes, lichens and vascular plants exposed to heavy metal and sulfur deposition in Finland. Science of The Total Environment, 34 (1-3): 141-60.

Seaward, M. R. D. 1992b. Lichens as monitors of radioelements. In Monitoring with lichens. Vol. 7 of Nato Science Series. Earth and Environmental Sciences. 85-96. London: Kluwer Academic Publishers.

Walker, T. R., P. D. Crittenden, S. D. Young, and H. Zhang. 2003a. Anthropogenic metal enrichment of snow and soil in north-eastern European Russia. Environmental Pollution, 121: 11-21.

Walker, T. R., S. D. Young, and P. D. Crittenden. 2003b. Regional variation in the chemical composition of winter snow pack and terricolous lichens in relation to sources of acid emission in the Usa river basin, northeast European Russia. Environmental Pollution, 125: 401-412. Environmental Pollution, 125: 401-12.

WLWB. 2020. Decision from the Wek'èezhìi Land and Water Board meeting of September 29, 2020 (Re: Requests and Notifications due to Temporary Care and Maintenance). Prepared by the Wek'èezhìi Land and Water Board.

Wood, S. N. 2016. Generalized Additive Models: An Introduction with R. Chapman and Hall.

APPENDIX A DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

APPENDIX A: DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

Sampling Date	Partisol Stations (µg/m^3)		CAM (µg/m^3)	
	Grizzly (TSP)	CAMB (PM2.5)	TSP	PM2.5
1-Jan-2024	0.7	0.23	M	M
2-Jan-2024	-	-	M	M
3-Jan-2024	-	-	M	M
4-Jan-2024	-	-	M	M
5-Jan-2024	-	-	M	M
6-Jan-2024	-	-	M	M
7-Jan-2024	1.9	2.38	M	M
8-Jan-2024	-	-	M	M
9-Jan-2024	-	-	4.86	M
10-Jan-2024	-	-	4.97	M
11-Jan-2024	-	-	9.48	M
12-Jan-2024	-	-	23.71	M
13-Jan-2024	1.3	2.31	5.95	M
14-Jan-2024	-	-	3.61	M
15-Jan-2024	-	-	3.00	M
16-Jan-2024	-	-	12.79	M
17-Jan-2024	-	-	8.62	M
18-Jan-2024	-	-	3.18	M
19-Jan-2024	1.0	1.17	2.81	M
20-Jan-2024	-	-	2.22	M
21-Jan-2024	-	-	5.04	M
22-Jan-2024	-	-	3.44	M
23-Jan-2024	-	-	5.12	M
24-Jan-2024	-	-	2.15	M
25-Jan-2024	7.0	2.64	3.71	M
26-Jan-2024	-	-	6.91	M
27-Jan-2024	-	-	8.65	M
28-Jan-2024	-	-	5.21	M
29-Jan-2024	-	-	15.35	M
30-Jan-2024	-	-	7.14	M
31-Jan-2024	3.3	2.15	4.33	M
1-Feb-2024	-	-	2.50	M
2-Feb-2024	-	-	7.43	M
3-Feb-2024	-	-	7.20	M
4-Feb-2024	-	-	4.99	M
5-Feb-2024	-	-	3.85	M
6-Feb-2024	7.8	1.60	3.20	M
7-Feb-2024	-	-	3.09	M
8-Feb-2024	-	-	4.79	M
9-Feb-2024	-	-	12.30	M
10-Feb-2024	-	-	3.35	M
11-Feb-2024	-	-	3.05	M
12-Feb-2024	3.3	2.31	3.40	M
13-Feb-2024	-	-	5.32	M
14-Feb-2024	-	-	4.53	M
15-Feb-2024	-	-	5.39	M
16-Feb-2024	-	-	4.15	M

Note:
M = Data missing
— = Data unavailable

APPENDIX A: DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

Sampling Date	Partisol Stations (µg/m^3)		CAM (µg/m^3)	
	Grizzly (TSP)	CAMB (PM2.5)	TSP	PM2.5
17-Feb-2024	-	-	11.41	M
18-Feb-2024	41.4	3.24	6.46	M
19-Feb-2024	-	-	9.92	M
20-Feb-2024	-	-	7.91	M
21-Feb-2024	-	-	12.63	M
22-Feb-2024	-	-	5.75	M
23-Feb-2024	-	-	12.20	M
24-Feb-2024	5.2	1.05	2.67	M
25-Feb-2024	-	-	3.21	M
26-Feb-2024	-	-	2.30	M
27-Feb-2024	-	-	5.04	M
28-Feb-2024	-	-	3.87	M
29-Feb-2024	-	-	5.71	M
1-Mar-2024	3.6	0.00	23.27	M
2-Mar-2024	-	-	7.93	M
3-Mar-2024	-	-	3.00	M
4-Mar-2024	-	-	2.47	M
5-Mar-2024	-	-	3.31	M
6-Mar-2024	-	-	17.47	M
7-Mar-2024	32.9	M	9.16	M
8-Mar-2024	-	-	10.84	M
9-Mar-2024	-	-	15.71	M
10-Mar-2024	-	-	30.96	M
11-Mar-2024	-	-	12.91	M
12-Mar-2024	-	-	7.75	M
13-Mar-2024	10.9	M	13.30	M
14-Mar-2024	-	-	4.57	M
15-Mar-2024	-	-	9.21	M
16-Mar-2024	-	-	2.44	M
17-Mar-2024	-	-	14.82	M
18-Mar-2024	-	-	11.02	M
19-Mar-2024	5.3	M	4.30	M
20-Mar-2024	-	-	3.84	M
21-Mar-2024	-	-	2.96	M
22-Mar-2024	-	-	4.46	M
23-Mar-2024	-	-	1.69	M
24-Mar-2024	-	-	1.75	M
25-Mar-2024	8.7	2.61	3.08	5.38
26-Mar-2024	-	-	13.38	2.52
27-Mar-2024	-	-	7.00	3.05
28-Mar-2024	-	-	20.22	4.44
29-Mar-2024	-	-	15.45	4.67
30-Mar-2024	-	-	7.76	4.53
31-Mar-2024	6.2	M	16.45	3.95
1-Apr-2024	-	-	4.40	2.75
2-Apr-2024	-	-	6.51	4.65
3-Apr-2024	-	-	3.73	2.00

Note:
M = Data missing
— = Data unavailable

APPENDIX A: DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

Sampling Date	Partisol Stations (µg/m³)		CAM (µg/m³)	
	Grizzly (TSP)	CAMB (PM2.5)	TSP	PM2.5
4-Apr-2024	-	-	2.72	3.55
5-Apr-2024	-	-	1.57	3.34
6-Apr-2024	5.1	M	7.06	5.30
7-Apr-2024	-	-	3.15	2.26
8-Apr-2024	-	-	1.84	3.60
9-Apr-2024	-	-	6.71	3.13
10-Apr-2024	-	-	4.22	3.25
11-Apr-2024	-	-	1.00	4.40
12-Apr-2024	11.2	M	1.85	2.16
13-Apr-2024	-	-	11.49	4.30
14-Apr-2024	-	-	5.16	2.28
15-Apr-2024	-	-	6.68	2.45
16-Apr-2024	-	-	42.13	6.09
17-Apr-2024	-	-	7.72	5.71
18-Apr-2024	17.3	M	3.37	5.15
19-Apr-2024	-	-	4.40	4.63
20-Apr-2024	-	-	10.72	3.79
21-Apr-2024	-	-	8.25	3.04
22-Apr-2024	-	-	8.08	2.16
23-Apr-2024	-	-	4.13	2.59
24-Apr-2024	6.0	M	35.25	3.33
25-Apr-2024	-	-	54.42	2.33
26-Apr-2024	-	-	85.01	3.90
27-Apr-2024	-	-	46.66	3.45
28-Apr-2024	-	-	39.79	4.21
29-Apr-2024	-	-	68.85	6.00
30-Apr-2024	19.2	M	71.00	4.65
1-May-2024	-	-	38.12	4.74
2-May-2024	-	-	17.80	4.34
3-May-2024	-	-	28.26	5.39
4-May-2024	-	-	4.33	3.27
5-May-2024	-	-	2.17	1.94
6-May-2024	2.4	M	7.16	2.05
7-May-2024	-	-	9.67	2.83
8-May-2024	-	-	2.48	1.75
9-May-2024	-	-	1.46	3.52
10-May-2024	-	-	5.43	1.05
11-May-2024	-	-	7.21	2.27
12-May-2024	13.7	1.54	7.99	2.00
13-May-2024	-	-	18.96	3.28
14-May-2024	-	-	4.66	2.74
15-May-2024	-	-	3.65	2.11
16-May-2024	-	-	5.89	3.88
17-May-2024	-	-	7.49	2.11
18-May-2024	5.4	0.68	9.24	3.92
19-May-2024	-	-	1.99	4.85
20-May-2024	-	-	10.47	4.45

Note:
M = Data missing
— = Data unavailable

APPENDIX A: DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

Sampling Date	Partisol Stations (µg/m³)		CAM (µg/m³)	
	Grizzly (TSP)	CAMB (PM2.5)	TSP	PM2.5
21-May-2024	-	-	27.05	4.05
22-May-2024	-	-	23.83	4.20
23-May-2024	-	-	17.46	6.89
24-May-2024	33.6	11.81	67.44	11.14
25-May-2024	-	-	124.61	8.51
26-May-2024	-	-	53.62	3.86
27-May-2024	-	-	24.01	4.83
28-May-2024	-	-	30.96	4.27
29-May-2024	-	-	70.60	8.73
30-May-2024	3.0	3.20	47.15	3.14
31-May-2024	-	-	28.18	3.57
1-Jun-2024	-	-	39.04	3.99
2-Jun-2024	-	-	13.29	3.79
3-Jun-2024	-	-	5.45	3.65
4-Jun-2024	-	-	14.65	2.42
5-Jun-2024	4.7	2.25	21.92	3.05
6-Jun-2024	-	-	15.92	4.09
7-Jun-2024	-	-	121.50	7.00
8-Jun-2024	-	-	58.01	7.21
9-Jun-2024	-	-	M	8.03
10-Jun-2024	-	-	M	6.86
11-Jun-2024	2.0	1.49	30.43	10.38
12-Jun-2024	-	-	36.33	5.47
13-Jun-2024	-	-	15.91	3.87
14-Jun-2024	-	-	58.87	6.70
15-Jun-2024	-	-	7.49	3.52
16-Jun-2024	-	-	16.58	5.96
17-Jun-2024	21.8	1.33	10.12	6.71
18-Jun-2024	M	1.21	18.01	8.53
19-Jun-2024	-	-	21.45	4.52
20-Jun-2024	-	-	16.01	3.50
21-Jun-2024	-	-	68.14	3.80
22-Jun-2024	-	-	83.50	6.95
23-Jun-2024	-	-	45.74	3.75
24-Jun-2024	-	-	79.96	5.65
25-Jun-2024	-	-	22.50	4.06
26-Jun-2024	-	-	34.48	5.53
27-Jun-2024	-	-	66.44	7.50
28-Jun-2024	-	-	19.54	6.64
29-Jun-2024	45.0	13.77	31.18	16.90
30-Jun-2024	-	-	24.10	17.77
1-Jul-2024	-	-	34.38	14.00
2-Jul-2024	-	-	9.29	6.12
3-Jul-2024	-	-	8.83	5.20
4-Jul-2024	-	-	3.47	9.04
5-Jul-2024	2.8	0.68	20.38	6.96
6-Jul-2024	-	-	2.21	4.67

Note:
M = Data missing
— = Data unavailable

APPENDIX A: DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

Sampling Date	Partisol Stations (µg/m^3)		CAM (µg/m^3)	
	Grizzly (TSP)	CAMB (PM2.5)	TSP	PM2.5
7-Jul-2024	-	-	32.16	6.71
8-Jul-2024	-	-	10.29	5.54
9-Jul-2024	-	-	8.30	6.14
10-Jul-2024	-	-	6.52	3.78
11-Jul-2024	2.3	1.42	23.21	4.16
12-Jul-2024	-	-	218.15	13.06
13-Jul-2024	-	-	120.81	8.65
14-Jul-2024	-	-	22.14	5.58
15-Jul-2024	-	-	27.60	9.27
16-Jul-2024	-	-	38.13	28.28
17-Jul-2024	59.9	34.36	60.34	41.37
18-Jul-2024	-	-	26.97	24.96
19-Jul-2024	-	-	25.16	14.51
20-Jul-2024	-	-	60.13	9.21
21-Jul-2024	-	-	35.54	28.45
22-Jul-2024	-	-	34.64	29.01
23-Jul-2024	75.4	42.50	63.01	52.10
24-Jul-2024	-	-	11.61	3.43
25-Jul-2024	-	-	26.68	21.38
26-Jul-2024	-	-	46.92	7.45
27-Jul-2024	-	-	14.24	4.84
28-Jul-2024	-	-	38.85	22.08
29-Jul-2024	38.2	20.56	30.53	25.14
30-Jul-2024	-	-	17.33	4.50
31-Jul-2024	-	-	23.09	3.45
1-Aug-2024	-	-	1.80	4.08
2-Aug-2024	-	-	8.43	6.33
3-Aug-2024	-	-	14.18	18.13
4-Aug-2024	2.3	0.50	2.71	4.66
5-Aug-2024	-	-	1.29	3.59
6-Aug-2024	-	-	28.67	3.77
7-Aug-2024	-	-	10.21	4.44
8-Aug-2024	-	-	36.73	18.84
9-Aug-2024	-	-	34.34	33.14
10-Aug-2024	64.3	26.43	M	M
11-Aug-2024	-	-	M	M
12-Aug-2024	-	-	M	M
13-Aug-2024	-	-	24.36	3.61
14-Aug-2024	-	-	95.31	3.83
15-Aug-2024	-	-	17.47	3.67
16-Aug-2024	6.9	5.15	6.37	4.85
17-Aug-2024	-	-	5.21	5.18
18-Aug-2024	-	-	20.09	7.38
19-Aug-2024	-	-	20.14	18.92
20-Aug-2024	-	-	15.34	23.90
21-Aug-2024	-	-	14.83	10.06
22-Aug-2024	7.3	2.68	5.34	8.50

Note:
M = Data missing
— = Data unavailable

APPENDIX A: DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

Sampling Date	Partisol Stations (µg/m³)		CAM (µg/m³)	
	Grizzly (TSP)	CAMB (PM2.5)	TSP	PM2.5
23-Aug-2024	-	-	8.12	5.71
24-Aug-2024	-	-	5.00	3.74
25-Aug-2024	-	-	10.64	4.67
26-Aug-2024	-	-	6.68	6.15
27-Aug-2024	-	-	9.62	5.01
28-Aug-2024	12.3	2.34	6.17	2.84
29-Aug-2024	-	-	6.21	3.96
30-Aug-2024	-	-	4.23	5.27
31-Aug-2024	-	-	2.76	3.54
1-Sep-2024	-	-	10.34	4.44
2-Sep-2024	-	-	7.52	4.75
3-Sep-2024	1.8	0.82	6.00	5.43
4-Sep-2024	-	-	4.10	6.14
5-Sep-2024	-	-	5.04	6.18
6-Sep-2024	-	-	7.33	8.23
7-Sep-2024	-	-	20.22	3.64
8-Sep-2024	-	-	7.62	6.20
9-Sep-2024	8.0	1.76	3.38	2.53
10-Sep-2024	-	-	2.25	3.59
11-Sep-2024	-	-	3.53	7.84
12-Sep-2024	-	-	6.54	5.09
13-Sep-2024	-	-	17.57	15.80
14-Sep-2024	-	-	26.76	22.67
15-Sep-2024	9.1	10.25	12.00	11.29
16-Sep-2024	-	-	8.17	7.92
17-Sep-2024	-	-	8.70	8.42
18-Sep-2024	-	-	4.95	7.33
19-Sep-2024	-	-	2.88	4.42
20-Sep-2024	-	-	3.05	4.33
21-Sep-2024	0.5	0.61	4.00	5.66
22-Sep-2024	-	-	4.83	4.04
23-Sep-2024	-	-	24.69	6.70
24-Sep-2024	-	-	23.15	5.53
25-Sep-2024	-	-	1.61	4.93
26-Sep-2024	-	-	2.50	2.89
27-Sep-2024	14.9	0.42	1.60	M
28-Sep-2024	-	-	4.80	M
29-Sep-2024	-	-	3.13	M
30-Sep-2024	-	-	2.35	M
1-Oct-2024	-	-	5.31	M
2-Oct-2024	-	-	12.37	4.81
3-Oct-2024	4.1	1.05	32.66	1.99
4-Oct-2024	-	-	18.50	1.53
5-Oct-2024	-	-	15.25	1.35
6-Oct-2024	-	-	3.74	2.10
7-Oct-2024	-	-	4.88	5.05
8-Oct-2024	-	-	4.32	3.40

Note:
M = Data missing
— = Data unavailable

APPENDIX A: DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

Sampling Date	Partisol Stations (µg/m^3)		CAM (µg/m^3)	
	Grizzly (TSP)	CAMB (PM2.5)	TSP	PM2.5
9-Oct-2024	4.5	1.40	3.08	1.84
10-Oct-2024	-	-	2.05	2.17
11-Oct-2024	-	-	3.00	3.57
12-Oct-2024	-	-	4.28	3.13
13-Oct-2024	-	-	2.13	3.83
14-Oct-2024	-	-	4.04	5.87
15-Oct-2024	2.7	2.42	3.62	2.83
16-Oct-2024	-	-	2.87	4.95
17-Oct-2024	-	-	2.94	2.10
18-Oct-2024	-	-	0.35	1.32
19-Oct-2024	-	-	5.91	3.46
20-Oct-2024	-	-	3.11	4.43
21-Oct-2024	9.6	0.55	6.21	3.74
22-Oct-2024	-	-	5.39	4.12
23-Oct-2024	-	-	5.65	1.88
24-Oct-2024	-	-	4.23	1.11
25-Oct-2024	-	-	M	1.47
26-Oct-2024	-	-	1.50	1.09
27-Oct-2024	10.1	0.67	3.51	1.70
28-Oct-2024	-	-	7.88	1.70
29-Oct-2024	-	-	4.87	1.46
30-Oct-2024	-	-	5.57	1.08
31-Oct-2024	-	-	3.33	1.67
1-Nov-2024	-	-	2.41	1.43
2-Nov-2024	3.2	1.03	2.54	1.50
3-Nov-2024	-	-	5.14	1.64
4-Nov-2024	-	-	4.75	0.89
5-Nov-2024	-	-	5.77	1.11
6-Nov-2024	-	-	6.00	1.21
7-Nov-2024	-	-	3.00	1.26
8-Nov-2024	4.2	0.92	7.19	1.50
9-Nov-2024	-	-	4.52	1.73
10-Nov-2024	-	-	3.36	1.18
11-Nov-2024	-	-	4.04	1.57
12-Nov-2024	-	-	4.25	2.35
13-Nov-2024	-	-	4.87	0.99
14-Nov-2024	2.2	3.00	18.87	2.54
15-Nov-2024	-	-	5.41	0.89
16-Nov-2024	-	-	3.09	1.31
17-Nov-2024	-	-	3.35	1.34
18-Nov-2024	-	-	26.04	2.59
19-Nov-2024	-	-	7.62	2.22
20-Nov-2024	3.4	2.40	4.25	1.95
21-Nov-2024	-	-	3.99	1.18
22-Nov-2024	-	-	5.55	1.86
23-Nov-2024	-	-	4.58	1.93
24-Nov-2024	-	-	3.37	1.85

Note:
M = Data missing
— = Data unavailable

APPENDIX A: DAILY TSP AND $PM_{2.5}$ CONCENTRATIONS, 2024

Sampling Date	Partisol Stations (µg/m^3)		CAM (µg/m^3)	
	Grizzly (TSP)	CAMB (PM2.5)	TSP	PM2.5
25-Nov-2024	-	-	2.99	1.99
26-Nov-2024	1.7	1.65	5.00	1.61
27-Nov-2024	-	-	2.41	1.67
28-Nov-2024	-	-	6.75	1.76
29-Nov-2024	-	-	4.54	3.09
30-Nov-2024	-	-	4.27	2.40
1-Dec-2024	-	-	5.58	3.23
2-Dec-2024	4.5	3.09	4.83	2.25
3-Dec-2024	-	-	4.04	1.88
4-Dec-2024	-	-	5.88	1.78
5-Dec-2024	-	-	5.51	1.72
6-Dec-2024	-	-	3.84	2.45
7-Dec-2024	-	-	3.74	1.56
8-Dec-2024	2.3	0.61	3.62	1.32
9-Dec-2024	-	-	4.96	2.38
10-Dec-2024	-	-	18.15	2.72
11-Dec-2024	-	-	5.99	3.05
12-Dec-2024	-	-	5.35	3.61
13-Dec-2024	-	-	4.21	1.71
14-Dec-2024	2.9	2.93	5.54	2.10
15-Dec-2024	-	-	3.43	2.00
16-Dec-2024	-	-	3.67	1.56
17-Dec-2024	-	-	3.87	2.25
18-Dec-2024	-	-	3.25	1.73
19-Dec-2024	-	-	3.95	1.29
20-Dec-2024	0.9	1.02	3.24	1.72
21-Dec-2024	-	-	3.65	2.20
22-Dec-2024	-	-	3.53	1.93
23-Dec-2024	-	-	7.53	4.79
24-Dec-2024	-	-	12.63	1.53
25-Dec-2024	-	-	6.92	2.63
26-Dec-2024	2.6	1.84	5.42	1.63
27-Dec-2024	-	-	4.95	1.60
28-Dec-2024	-	-	3.05	M
29-Dec-2024	-	-	9.13	M
30-Dec-2024	-	-	8.04	2.59
31-Dec-2024	-	-	7.21	6.52

Note:
M = Data missing
— = Data unavailable

APPENDIX B DAILY MEAN SO_2, NO_2, NO, NO_X CONCENTRATIONS, 2024

APPENDIX B: DAILY MEAN SO_2, NO_2, NO, AND NO_X CONCENTRATIONS, 2024

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean	Max 1 h	Mean	Max 1 h	Mean	Max 1 h	Mean	Max 1 h
	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)
1-Jan-2024	38.32	132.00	24.06	91.20	14.25	40.70	0.70	2.20
2-Jan-2024	7.95	27.80	1.85	11.20	6.08	16.60	0.00	0.00
3-Jan-2024	0.78	5.90	0.13	1.70	0.66	5.70	0.00	0.00
4-Jan-2024	0.21	1.10	0.09	0.40	0.14	0.70	0.00	0.00
5-Jan-2024	M	27.70	M	6.90	M	22.40	0.00	0.00
6-Jan-2024	6.10	23.90	1.71	7.00	4.41	17.70	0.00	0.00
7-Jan-2024	1.48	8.80	0.67	4.30	0.82	4.50	0.01	0.10
8-Jan-2024	4.17	15.60	0.73	4.40	3.43	12.40	0.05	0.20
9-Jan-2024	21.92	109.10	8.68	71.90	13.26	37.20	0.34	1.90
10-Jan-2024	2.91	10.00	0.65	4.40	2.27	7.70	0.00	0.00
11-Jan-2024	7.81	77.20	2.85	42.70	4.95	34.60	0.00	0.00
12-Jan-2024	70.31	225.90	42.49	179.50	27.82	46.20	0.34	2.70
13-Jan-2024	2.50	5.60	0.57	1.50	1.94	4.40	0.00	0.00
14-Jan-2024	0.77	7.60	0.35	3.40	0.43	4.20	0.00	0.00
15-Jan-2024	1.87	12.80	0.47	3.90	1.42	9.50	0.00	0.00
16-Jan-2024	0.13	0.70	0.04	0.20	0.11	0.60	0.00	0.00
17-Jan-2024	36.42	281.80	26.70	242.00	9.71	39.70	0.42	4.70
18-Jan-2024	0.12	1.70	0.05	0.50	0.09	1.20	0.00	0.00
19-Jan-2024	2.08	13.30	1.20	7.60	0.86	5.70	0.07	0.30
20-Jan-2024	2.12	35.80	1.25	22.50	0.89	13.30	0.58	1.20
21-Jan-2024	0.53	3.30	0.31	2.10	0.25	1.20	0.51	0.90
22-Jan-2024	1.00	4.70	0.29	1.70	0.73	3.40	0.39	0.80
23-Jan-2024	2.23	14.70	0.34	3.50	1.90	14.10	0.85	1.20
24-Jan-2024	0.41	3.60	0.17	1.90	0.26	1.70	0.88	1.10
25-Jan-2024	7.78	81.20	3.51	51.50	4.28	29.70	0.87	1.80
26-Jan-2024	3.90	22.40	0.99	10.20	2.90	13.00	0.51	1.00
27-Jan-2024	67.95	166.30	51.06	130.80	16.90	39.40	1.68	3.00
28-Jan-2024	0.73	2.30	0.12	0.40	0.62	2.20	1.25	1.50
29-Jan-2024	14.94	99.70	9.63	73.20	5.31	26.50	1.69	3.40
30-Jan-2024	28.53	159.90	21.08	121.80	7.47	38.10	1.83	4.10
31-Jan-2024	10.71	219.20	8.45	181.20	2.26	38.00	1.37	5.30
1-Feb-2024	15.69	83.80	10.25	63.00	5.45	20.80	1.55	2.90
2-Feb-2024	43.51	184.70	33.33	150.00	10.20	36.20	1.61	4.00
3-Feb-2024	3.57	45.40	2.08	29.70	1.50	15.70	0.86	1.60
4-Feb-2024	6.69	55.30	3.28	31.00	3.40	24.40	0.37	1.00
5-Feb-2024	1.29	8.80	0.69	5.10	0.59	3.70	0.27	0.60
6-Feb-2024	3.36	8.40	0.30	1.40	3.05	8.10	0.06	0.30
7-Feb-2024	3.28	11.40	0.27	1.20	3.02	10.30	0.24	0.40
8-Feb-2024	18.58	138.60	10.47	101.80	8.10	36.70	0.60	2.50
9-Feb-2024	21.58	111.60	10.54	75.90	11.04	35.70	0.47	2.00
10-Feb-2024	20.30	76.70	10.87	46.90	9.40	32.00	0.98	1.90
11-Feb-2024	1.76	9.60	0.68	7.00	1.07	4.40	1.22	1.30
12-Feb-2024	0.12	1.60	0.03	0.60	0.09	1.00	0.63	1.10

Note: M = Data missing

APPENDIX B: DAILY MEAN SO_2, NO_2, NO, AND NO_X CONCENTRATIONS, 2024

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)
13-Feb-2024	12.19	51.20	3.34	24.40	8.85	26.80	0.03	0.20
14-Feb-2024	5.00	34.70	1.57	10.70	3.44	24.00	0.00	0.00
15-Feb-2024	2.70	16.30	1.25	10.30	1.45	5.90	0.03	0.10
16-Feb-2024	1.37	11.10	0.66	6.40	0.72	4.70	0.53	0.80
17-Feb-2024	1.32	11.50	0.77	8.00	0.57	3.70	0.12	0.50
18-Feb-2024	6.00	25.90	2.97	13.80	3.03	12.10	0.17	0.60
19-Feb-2024	13.65	135.80	11.23	123.20	2.40	12.60	0.34	2.80
20-Feb-2024	9.41	90.90	7.49	82.20	1.92	8.60	0.38	1.70
21-Feb-2024	79.17	212.10	66.97	187.80	12.20	27.40	1.86	4.90
22-Feb-2024	13.60	144.00	10.74	120.50	2.89	23.60	0.43	2.40
23-Feb-2024	1.77	17.20	0.83	9.30	0.96	7.90	1.48	2.10
24-Feb-2024	3.38	18.30	2.47	14.00	0.92	6.30	1.00	1.30
25-Feb-2024	0.29	3.90	0.23	3.20	0.07	0.70	1.31	1.80
26-Feb-2024	0.90	6.50	0.56	5.00	0.35	2.30	0.88	1.50
27-Feb-2024	4.82	19.30	2.47	10.80	2.33	8.40	1.00	1.40
28-Feb-2024	25.08	156.80	12.50	117.00	12.59	39.80	1.23	3.70
29-Feb-2024	40.69	132.30	25.35	95.60	15.34	36.60	1.54	3.10
1-Mar-2024	81.27	257.30	59.39	208.00	21.89	49.30	1.96	5.10
2-Mar-2024	11.63	126.90	6.60	85.70	5.03	41.10	0.27	2.10
3-Mar-2024	6.05	25.80	3.51	16.30	2.54	9.90	0.00	0.00
4-Mar-2024	0.48	1.50	0.12	0.30	0.38	1.20	0.04	0.30
5-Mar-2024	3.27	18.60	1.40	10.10	1.90	8.50	0.33	0.60
6-Mar-2024	115.05	483.50	86.20	427.80	28.84	55.60	2.03	9.80
7-Mar-2024	125.07	352.40	97.27	305.70	27.79	46.70	2.57	7.20
8-Mar-2024	62.16	315.40	41.64	264.40	20.52	51.10	1.11	6.10
9-Mar-2024	34.91	104.00	21.72	67.30	13.20	37.00	1.67	2.90
10-Mar-2024	11.90	90.80	6.75	59.40	5.17	31.50	1.75	2.80
11-Mar-2024	1.53	7.50	0.31	1.70	1.23	5.80	0.67	1.40
12-Mar-2024	13.32	101.70	8.17	73.70	5.15	27.90	0.16	1.30
13-Mar-2024	7.62	62.80	4.47	39.80	3.16	23.10	0.15	0.90
14-Mar-2024	2.02	17.40	0.97	10.60	1.06	6.80	0.43	0.70
15-Mar-2024	0.33	3.20	0.18	1.90	0.18	1.60	0.03	0.20
16-Mar-2024	4.22	17.90	1.83	9.60	2.40	8.30	0.00	0.00
17-Mar-2024	1.33	4.80	0.26	1.50	1.08	3.50	0.16	0.60
18-Mar-2024	0.25	1.20	0.04	0.30	0.22	1.20	0.02	0.20
19-Mar-2024	0.30	2.60	0.22	1.70	0.09	0.90	0.00	0.00
20-Mar-2024	0.42	3.80	0.20	1.30	0.26	2.60	0.00	0.00
21-Mar-2024	0.12	0.80	0.08	0.60	0.08	0.20	0.00	0.00
22-Mar-2024	8.89	27.40	4.30	15.40	4.60	16.50	0.00	0.00
23-Mar-2024	M	9.70	M	0.50	M	9.60	0.34	0.60
24-Mar-2024	2.62	7.70	0.24	1.10	2.45	7.50	0.45	0.70
25-Mar-2024	0.30	1.00	0.03	0.30	0.42	1.20	0.94	1.30
26-Mar-2024	41.15	113.40	24.26	80.70	16.92	37.80	1.19	2.50

Note: M = Data missing

APPENDIX B: DAILY MEAN SO_2, NO_2, NO, AND NO_X CONCENTRATIONS, 2024

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean	Max 1 h	Mean	Max 1 h	Mean	Max 1 h	Mean	Max 1 h
	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)
27-Mar-2024	9.40	54.10	3.27	27.90	6.15	26.20	0.23	0.80
28-Mar-2024	17.74	96.60	11.86	71.20	5.92	25.40	0.28	1.70
29-Mar-2024	38.24	217.30	35.47	206.30	2.77	11.00	0.83	4.70
30-Mar-2024	141.44	320.40	133.53	306.40	7.90	18.60	3.53	7.30
31-Mar-2024	46.59	131.50	41.81	122.30	4.80	12.80	2.27	4.00
1-Apr-2024	1.23	6.00	0.14	1.30	1.20	4.70	2.07	2.40
2-Apr-2024	0.91	5.10	0.52	3.60	0.52	1.80	1.07	1.50
3-Apr-2024	0.77	4.30	0.06	0.50	0.85	4.30	0.46	0.70
4-Apr-2024	1.04	4.40	0.40	2.10	0.74	2.30	0.24	0.50
5-Apr-2024	1.41	6.20	0.05	0.50	1.49	6.20	0.38	0.60
6-Apr-2024	9.76	110.70	4.52	81.90	5.31	28.70	0.70	2.30
7-Apr-2024	12.09	91.40	6.76	65.10	5.42	33.90	1.26	2.30
8-Apr-2024	1.42	7.60	0.11	1.50	1.43	7.50	1.68	1.90
9-Apr-2024	13.04	121.50	7.71	88.70	5.38	32.80	1.33	3.30
10-Apr-2024	4.00	74.60	2.53	53.00	1.60	21.70	0.34	1.30
11-Apr-2024	0.33	2.70	0.15	2.40	0.28	0.60	0.61	1.00
12-Apr-2024	1.42	5.10	0.40	3.30	1.28	4.50	1.47	1.80
13-Apr-2024	21.10	101.70	10.89	74.30	10.25	29.20	1.91	3.30
14-Apr-2024	0.67	5.80	0.03	0.70	0.80	5.80	1.11	1.50
15-Apr-2024	2.15	33.90	1.94	32.90	0.33	1.00	0.31	0.70
16-Apr-2024	3.57	40.00	2.50	39.30	1.15	8.70	0.00	0.00
17-Apr-2024	2.19	24.00	1.64	23.40	0.65	2.30	0.00	0.00
18-Apr-2024	1.55	7.70	0.75	6.00	0.83	2.90	0.00	0.00
19-Apr-2024	4.58	33.60	3.17	26.10	1.50	11.80	0.13	0.40
20-Apr-2024	20.53	153.30	16.10	126.60	4.50	26.70	0.54	2.50
21-Apr-2024	5.29	42.70	3.88	41.60	1.65	10.00	1.22	1.60
22-Apr-2024	0.60	4.00	0.06	0.50	0.64	3.50	0.85	1.30
23-Apr-2024	3.46	22.50	2.29	21.80	1.17	4.10	0.51	0.60
24-Apr-2024	45.00	172.00	33.60	143.90	11.38	29.70	1.33	3.70
25-Apr-2024	19.04	187.90	14.81	152.60	4.91	35.30	1.25	4.40
26-Apr-2024	3.24	42.20	2.81	41.30	0.45	2.00	0.57	0.80
27-Apr-2024	4.75	39.50	3.93	37.70	0.85	3.40	0.57	0.80
28-Apr-2024	2.60	25.60	2.04	25.00	0.64	3.30	0.70	1.00
29-Apr-2024	3.49	15.70	1.68	14.60	1.86	6.70	0.52	0.70
30-Apr-2024	4.90	45.40	2.24	27.50	2.74	17.90	0.09	0.60
1-May-2024	1.68	13.80	1.17	13.20	0.61	2.90	0.01	0.10
2-May-2024	3.93	17.80	2.15	15.90	1.82	4.30	0.02	0.20
3-May-2024	62.64	342.90	50.72	293.40	11.95	49.40	1.16	6.20
4-May-2024	2.76	13.20	0.62	6.70	2.21	8.60	0.45	0.80
5-May-2024	0.78	7.60	0.32	3.80	0.56	3.80	0.93	1.20
6-May-2024	27.13	83.40	15.96	55.30	11.17	28.80	1.43	2.30
7-May-2024	34.12	153.30	24.23	124.60	9.94	28.70	1.49	3.70
8-May-2024	7.67	85.80	4.95	62.40	2.79	23.40	1.23	2.10

Note: M = Data missing

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)
9-May-2024	5.79	44.70	2.37	23.20	3.48	21.40	1.17	1.40
10-May-2024	17.92	79.90	12.61	61.50	5.32	19.60	1.70	2.90
11-May-2024	1.82	15.40	1.17	10.70	0.69	4.70	0.89	1.60
12-May-2024	3.22	35.70	2.08	18.80	1.38	16.90	0.79	1.30
13-May-2024	8.21	82.70	4.07	58.00	4.17	24.80	1.32	2.60
14-May-2024	1.28	18.80	0.45	9.40	0.93	9.40	1.45	1.80
15-May-2024	0.39	2.40	0.16	1.60	0.32	1.30	0.95	1.20
16-May-2024	10.79	109.90	4.87	47.70	5.76	67.20	0.93	2.10
17-May-2024	1.46	14.80	1.13	14.30	0.43	1.70	0.73	1.00
18-May-2024	41.53	75.60	26.16	51.00	15.36	25.00	0.90	1.40
19-May-2024	0.70	4.30	0.27	1.60	0.50	2.80	0.25	1.60
20-May-2024	0.98	3.00	0.29	2.10	0.75	2.30	0.34	0.70
21-May-2024	3.21	19.70	1.13	8.80	2.04	13.10	0.53	0.90
22-May-2024	0.67	2.70	0.13	1.60	0.74	3.00	0.65	1.00
23-May-2024	0.84	4.20	0.23	3.50	0.72	4.30	0.95	1.40
24-May-2024	1.26	9.30	0.31	2.40	1.04	8.70	1.23	2.10
25-May-2024	15.54	101.90	8.35	66.40	7.29	35.50	1.52	2.70
26-May-2024	15.37	75.00	10.21	54.40	5.18	20.70	0.83	1.70
27-May-2024	10.24	71.90	6.62	48.30	3.52	23.70	0.36	1.00
28-May-2024	3.18	37.70	1.62	22.70	1.65	15.00	0.82	1.20
29-May-2024	4.70	31.80	1.77	11.80	3.22	20.00	1.15	1.50
30-May-2024	0.77	2.00	0.06	0.20	0.77	1.80	0.70	0.80
31-May-2024	0.16	0.80	0.00	0.00	0.29	0.90	0.71	0.80
1-Jun-2024	3.83	16.80	1.94	8.30	2.08	8.50	0.74	1.10
2-Jun-2024	0.00	0.10	0.00	0.00	0.11	0.20	0.36	0.60
3-Jun-2024	0.07	0.40	0.01	0.20	0.13	0.60	0.42	0.70
4-Jun-2024	0.43	5.40	0.35	5.20	0.16	0.40	0.51	0.80
5-Jun-2024	0.75	12.90	0.65	12.20	0.18	0.70	0.40	0.70
6-Jun-2024	4.61	96.70	3.02	66.90	1.70	29.90	0.22	1.50
7-Jun-2024	19.43	110.20	13.19	87.80	6.29	24.50	0.27	1.80
8-Jun-2024	23.13	185.90	16.67	149.90	6.22	36.10	0.22	2.50
9-Jun-2024	1.55	20.20	1.10	19.30	0.51	1.70	0.01	0.10
10-Jun-2024	4.14	29.90	2.17	17.10	2.07	15.50	0.24	0.50
11-Jun-2024	13.88	93.60	8.46	69.30	5.48	24.40	0.60	1.50
12-Jun-2024	2.15	22.90	1.34	22.30	0.86	7.40	0.83	1.40
13-Jun-2024	1.53	19.40	1.05	18.60	0.55	3.60	0.99	1.50
14-Jun-2024	1.79	19.90	1.15	18.90	0.71	2.20	0.73	1.10
15-Jun-2024	1.18	20.60	1.03	20.40	0.23	1.00	0.67	1.00
16-Jun-2024	0.09	1.10	0.06	1.00	0.07	0.40	0.37	0.70
17-Jun-2024	0.45	4.30	0.25	3.60	0.23	1.10	0.72	1.20
18-Jun-2024	1.74	29.00	1.46	27.50	0.42	1.60	0.79	1.20
19-Jun-2024	0.25	1.10	0.05	0.50	0.32	1.30	0.87	1.40
20-Jun-2024	0.49	5.00	0.23	4.60	0.35	3.20	0.64	1.10

Note: M = Data missing

APPENDIX B: DAILY MEAN SO_2, NO_2, NO, AND NO_X CONCENTRATIONS, 2024

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean	Max 1 h	Mean	Max 1 h	Mean	Max 1 h	Mean	Max 1 h
	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)	(Errors removed, >=75% complete)	(Errors removed)
21-Jun-2024	5.64	53.50	3.49	34.50	2.16	19.00	0.73	1.60
22-Jun-2024	4.20	49.70	1.67	27.00	2.60	22.70	1.24	1.80
23-Jun-2024	9.46	57.80	5.78	36.70	3.75	21.10	1.06	1.80
24-Jun-2024	1.64	8.00	0.61	4.50	1.12	3.90	0.70	1.20
25-Jun-2024	1.63	26.70	1.37	25.80	0.33	1.40	0.92	1.30
26-Jun-2024	0.58	5.50	0.34	5.20	0.36	1.30	0.70	1.20
27-Jun-2024	10.51	104.50	6.93	78.40	3.48	26.00	0.80	2.00
28-Jun-2024	1.53	15.90	1.04	15.50	0.54	2.30	0.45	1.00
29-Jun-2024	0.56	2.80	0.10	1.20	0.58	1.50	0.42	0.70
30-Jun-2024	0.64	2.20	0.20	1.60	0.65	1.70	0.72	1.00
1-Jul-2024	3.30	22.00	0.65	9.80	2.81	14.50	0.88	1.10
2-Jul-2024	0.07	0.90	0.03	0.60	0.18	0.30	0.59	0.90
3-Jul-2024	0.13	1.20	0.00	0.00	0.27	1.40	0.49	0.90
4-Jul-2024	0.41	2.10	0.13	1.10	0.38	1.00	1.09	1.30
5-Jul-2024	1.22	3.90	0.67	3.10	0.63	1.70	1.13	1.30
6-Jul-2024	0.80	7.70	0.53	7.40	0.36	1.30	0.90	1.40
7-Jul-2024	1.06	5.70	0.27	3.00	0.89	5.50	0.72	0.90
8-Jul-2024	0.51	6.20	0.38	5.90	0.23	0.60	0.60	0.80
9-Jul-2024	0.42	4.30	0.23	3.90	0.32	1.00	0.87	1.20
10-Jul-2024	0.34	2.80	0.22	2.40	0.20	0.50	0.65	1.10
11-Jul-2024	3.10	9.10	1.33	6.20	1.72	5.30	0.32	0.50
12-Jul-2024	5.82	50.20	2.73	32.40	3.29	20.10	0.37	0.90
13-Jul-2024	13.55	60.30	7.86	41.50	5.50	22.00	0.63	1.30
14-Jul-2024	0.70	4.30	0.40	3.90	0.35	1.10	0.67	0.90
15-Jul-2024	0.30	1.90	0.17	1.50	0.21	0.80	0.77	1.00
16-Jul-2024	0.33	1.20	0.03	0.30	0.52	1.00	0.97	1.30
17-Jul-2024	1.95	9.00	0.50	4.90	1.50	4.10	0.97	1.20
18-Jul-2024	0.62	3.70	0.03	0.50	0.76	3.20	0.89	1.10
19-Jul-2024	1.46	9.50	0.76	8.60	0.79	6.50	0.34	1.00
20-Jul-2024	M	3.40	M	0.00	M	3.60	M	0.00
21-Jul-2024	M	2.90	M	2.30	M	1.70	M	0.20
22-Jul-2024	0.75	2.80	0.21	1.90	0.69	1.00	0.28	0.60
23-Jul-2024	0.81	2.10	0.07	0.60	0.89	1.50	0.76	1.00
24-Jul-2024	M	36.70	M	28.60	M	8.00	0.30	0.70
25-Jul-2024	M	2.70	M	2.30	0.69	1.40	0.78	1.10
26-Jul-2024	12.41	107.30	9.00	83.90	4.07	23.40	1.34	2.80
27-Jul-2024	1.07	13.20	0.69	12.90	0.48	1.10	1.59	1.80
28-Jul-2024	1.04	8.70	0.30	4.40	0.90	4.30	1.85	2.10
29-Jul-2024	1.03	3.20	0.42	2.20	0.70	2.60	1.87	2.10
30-Jul-2024	1.92	13.00	1.21	12.60	0.74	5.60	1.79	2.00
31-Jul-2024	2.65	21.00	1.27	10.00	1.45	11.00	1.35	1.80
1-Aug-2024	1.39	27.60	0.99	21.50	0.51	6.10	0.77	1.00
2-Aug-2024	1.68	19.20	1.31	18.70	0.42	2.30	0.28	0.50

Note: M = Data missing

APPENDIX B: DAILY MEAN SO_2, NO_2, NO, AND NO_X CONCENTRATIONS, 2024

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)
3-Aug-2024	2.15	16.90	0.86	8.80	1.42	9.30	0.19	0.40
4-Aug-2024	5.39	30.60	3.27	21.50	2.24	9.10	0.08	0.40
5-Aug-2024	0.83	8.90	0.35	6.50	0.56	3.20	0.00	0.00
6-Aug-2024	3.00	15.90	1.29	15.40	1.73	5.70	0.00	0.00
7-Aug-2024	1.38	17.90	1.18	17.40	0.30	1.60	0.00	0.00
8-Aug-2024	1.78	16.60	1.22	15.80	0.69	1.70	0.07	0.40
9-Aug-2024	1.61	15.60	1.30	15.10	0.46	0.90	0.43	0.80
10-Aug-2024	M	0.20	M	0.00	M	0.30	M	1.00
11-Aug-2024	M	2.00	M	0.70	M	1.80	0.83	1.20
12-Aug-2024	1.53	7.20	0.17	2.30	1.44	4.90	1.38	2.00
13-Aug-2024	1.50	19.70	0.59	11.60	0.94	8.10	0.60	1.10
14-Aug-2024	8.89	64.90	4.86	45.10	4.01	19.80	0.53	1.30
15-Aug-2024	2.81	11.50	1.06	6.20	1.75	5.80	0.39	0.50
16-Aug-2024	4.28	26.70	2.52	25.70	1.70	8.80	0.27	0.50
17-Aug-2024	1.77	23.30	1.53	22.50	0.26	0.80	0.23	0.50
18-Aug-2024	0.46	2.60	0.17	2.20	0.32	0.60	0.17	0.30
19-Aug-2024	0.63	3.40	0.21	2.90	0.45	1.10	0.62	1.20
20-Aug-2024	0.93	4.70	0.40	3.90	0.59	1.00	2.58	3.10
21-Aug-2024	0.51	1.50	0.10	0.30	0.40	1.40	1.41	2.50
22-Aug-2024	2.19	37.70	1.84	36.30	0.37	1.50	1.23	1.90
23-Aug-2024	0.67	2.80	0.13	0.30	0.55	2.60	2.00	2.40
24-Aug-2024	0.53	2.20	0.23	1.00	0.33	1.60	1.96	2.40
25-Aug-2024	0.00	0.00	0.00	0.00	0.00	0.00	1.57	2.10
26-Aug-2024	0.00	0.00	0.00	0.00	0.00	0.00	1.19	1.40
27-Aug-2024	0.00	0.00	0.00	0.00	0.00	0.00	1.76	3.30
28-Aug-2024	0.00	0.00	0.00	0.00	0.00	0.00	2.09	2.50
29-Aug-2024	0.00	0.00	0.00	0.00	0.00	0.00	1.22	1.40
30-Aug-2024	0.19	3.10	0.12	2.70	0.08	0.40	1.54	1.90
31-Aug-2024	1.92	18.80	1.07	13.90	0.87	5.80	1.10	1.30
1-Sep-2024	9.17	95.60	6.48	76.70	2.74	18.90	1.70	3.30
2-Sep-2024	27.77	98.00	20.49	78.20	7.31	20.90	1.83	3.50
3-Sep-2024	2.95	15.50	1.34	7.60	1.61	7.90	0.69	0.90
4-Sep-2024	0.74	2.80	0.42	1.70	0.33	1.20	0.66	1.00
5-Sep-2024	1.60	12.40	0.32	2.10	1.27	11.60	0.45	1.00
6-Sep-2024	0.85	4.00	0.40	2.40	0.48	1.50	1.74	2.30
7-Sep-2024	1.21	7.50	0.33	2.40	0.88	5.20	1.71	2.00
8-Sep-2024	2.21	19.80	0.83	6.40	1.39	13.40	1.70	1.90
9-Sep-2024	29.04	88.40	20.85	65.20	8.19	23.20	1.64	2.60
10-Sep-2024	0.50	1.30	0.20	0.50	0.29	0.80	1.23	1.40
11-Sep-2024	0.47	1.40	0.26	0.80	0.25	0.70	0.93	1.20
12-Sep-2024	0.50	1.50	0.17	0.30	0.33	1.30	0.96	1.20
13-Sep-2024	3.24	11.70	0.82	6.10	2.43	8.60	1.09	1.30
14-Sep-2024	20.63	131.70	14.08	108.30	6.57	23.40	1.47	3.30

Note: M = Data missing

APPENDIX B: DAILY MEAN SO_2, NO_2, NO, AND NO_X CONCENTRATIONS, 2024

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)
15-Sep-2024	2.95	9.90	0.65	6.20	2.29	6.20	1.24	1.30
16-Sep-2024	1.10	3.90	0.22	0.60	0.88	3.80	1.26	1.70
17-Sep-2024	1.20	5.80	0.64	4.00	0.57	1.90	0.77	1.10
18-Sep-2024	24.05	104.70	18.27	86.90	5.77	17.70	1.49	2.80
19-Sep-2024	1.34	6.10	0.92	4.30	0.42	1.80	0.93	1.30
20-Sep-2024	0.30	1.30	0.15	0.50	0.15	1.10	0.29	0.70
21-Sep-2024	0.75	6.00	0.26	2.00	0.50	4.00	0.00	0.00
22-Sep-2024	9.66	61.10	5.41	41.80	4.27	19.30	0.08	0.80
23-Sep-2024	8.67	36.20	4.19	23.00	4.48	13.20	0.23	0.70
24-Sep-2024	1.80	5.20	0.45	0.80	1.36	4.40	0.77	1.00
25-Sep-2024	8.07	111.50	6.23	98.90	1.82	12.60	1.11	3.30
26-Sep-2024	5.40	104.70	4.51	91.80	0.88	13.00	1.51	3.20
27-Sep-2024	0.82	1.80	0.49	1.20	0.32	0.70	1.10	1.40
28-Sep-2024	1.30	8.80	0.79	6.20	0.50	2.50	0.75	1.10
29-Sep-2024	0.99	5.70	0.54	3.80	0.46	1.90	1.00	1.10
30-Sep-2024	0.80	3.90	0.44	2.40	0.37	1.60	1.05	1.30
1-Oct-2024	0.69	3.40	0.31	1.20	0.37	2.20	0.75	0.90
2-Oct-2024	0.30	0.70	0.20	0.50	0.09	0.30	0.56	0.80
3-Oct-2024	0.21	0.30	0.17	0.20	0.05	0.10	0.59	0.80
4-Oct-2024	1.03	6.70	0.57	3.90	0.46	2.80	0.71	0.90
5-Oct-2024	1.83	8.10	0.95	4.40	0.90	3.80	0.73	0.90
6-Oct-2024	6.61	24.50	3.70	16.40	2.92	9.00	0.79	1.10
7-Oct-2024	1.60	8.60	0.30	1.10	1.29	8.10	0.62	1.10
8-Oct-2024	15.59	82.90	11.61	65.20	3.98	17.70	1.13	2.30
9-Oct-2024	0.50	1.80	0.21	0.50	0.31	1.40	0.85	1.20
10-Oct-2024	0.45	1.70	0.24	1.10	0.20	0.70	0.14	0.40
11-Oct-2024	66.15	111.00	49.35	88.60	16.77	23.30	1.11	2.00
12-Oct-2024	3.67	37.50	1.72	23.80	1.93	13.70	0.01	0.30
13-Oct-2024	0.30	0.70	0.16	0.20	0.13	0.50	0.13	0.70
14-Oct-2024	5.97	42.60	4.07	34.10	1.92	8.70	0.80	1.60
15-Oct-2024	0.34	0.80	0.18	0.50	0.16	0.40	0.68	1.40
16-Oct-2024	1.05	4.30	0.42	2.30	0.63	2.70	0.63	0.80
17-Oct-2024	3.54	25.20	2.29	17.40	1.27	10.10	1.33	1.80
18-Oct-2024	M	2.90	M	1.90	M	1.50	M	7.30
19-Oct-2024	1.39	3.60	0.62	2.20	0.78	1.50	1.30	1.50
20-Oct-2024	0.63	1.30	0.31	1.00	0.32	0.70	1.00	2.60
21-Oct-2024	3.20	11.40	1.79	6.90	1.42	4.50	0.75	1.00
22-Oct-2024	0.28	0.40	0.16	0.30	0.11	0.20	1.80	2.70
23-Oct-2024	3.49	24.40	2.02	16.50	1.49	8.00	2.79	3.00
24-Oct-2024	0.88	3.00	0.40	1.10	0.47	2.00	2.37	2.70
25-Oct-2024	1.26	7.60	0.70	4.00	0.56	3.60	1.54	2.00
26-Oct-2024	1.78	12.90	0.81	5.20	0.98	7.70	0.84	1.10
27-Oct-2024	9.15	113.40	6.02	91.10	3.12	22.30	1.67	3.30

Note: M = Data missing

APPENDIX B: DAILY MEAN SO_2, NO_2, NO, AND NO_X CONCENTRATIONS, 2024

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)
28-Oct-2024	11.07	117.40	7.25	88.20	3.82	29.20	2.37	4.10
29-Oct-2024	0.59	2.30	0.30	1.00	0.31	1.40	1.76	2.10
30-Oct-2024	0.80	2.40	0.31	0.80	0.48	1.70	0.82	1.30
31-Oct-2024	2.22	14.60	0.55	3.20	1.65	14.00	0.66	0.90
1-Nov-2024	20.40	164.50	12.86	126.60	7.57	38.00	1.07	3.90
2-Nov-2024	4.68	35.10	2.60	23.20	2.09	16.30	1.04	1.30
3-Nov-2024	30.59	99.40	18.90	71.70	11.69	27.70	1.79	3.00
4-Nov-2024	3.40	5.30	0.82	1.60	2.58	3.70	1.63	1.80
5-Nov-2024	36.87	222.20	26.56	184.60	10.33	37.60	1.50	5.10
6-Nov-2024	49.26	163.30	35.26	132.80	14.02	30.60	2.70	5.10
7-Nov-2024	2.18	6.40	0.73	3.90	1.45	4.10	1.43	2.20
8-Nov-2024	4.99	57.20	3.05	38.80	1.94	18.30	2.15	3.50
9-Nov-2024	4.17	14.00	2.04	7.60	2.13	6.80	1.41	2.00
10-Nov-2024	1.21	3.00	0.39	0.70	0.83	2.70	0.91	1.30
11-Nov-2024	42.11	296.80	31.18	250.50	10.92	46.30	1.59	7.00
12-Nov-2024	63.77	237.70	47.72	200.80	16.05	39.30	2.45	5.90
13-Nov-2024	22.56	120.60	14.36	92.40	8.18	31.70	1.47	3.50
14-Nov-2024	41.44	174.90	28.27	138.20	13.15	36.60	1.30	3.70
15-Nov-2024	9.77	140.50	7.02	111.10	2.76	29.40	1.28	3.20
16-Nov-2024	0.48	2.00	0.20	0.40	0.30	1.70	2.06	2.60
17-Nov-2024	0.70	1.30	0.23	0.50	0.47	1.10	2.58	2.80
18-Nov-2024	51.73	197.50	37.87	162.80	13.86	34.70	2.91	6.10
19-Nov-2024	2.04	15.10	1.24	9.50	0.79	6.20	0.72	1.60
20-Nov-2024	1.06	7.30	0.30	0.80	0.75	6.60	0.00	0.00
21-Nov-2024	1.39	6.80	0.56	3.60	0.83	3.90	0.00	0.00
22-Nov-2024	0.46	2.10	0.25	0.90	0.21	1.20	0.00	0.10
23-Nov-2024	3.87	25.30	1.70	12.80	2.18	13.90	0.00	0.10
24-Nov-2024	1.37	17.30	0.81	10.40	0.56	6.90	0.11	0.50
25-Nov-2024	0.31	0.50	0.18	0.30	0.12	0.20	0.71	1.10
26-Nov-2024	0.97	3.50	0.27	1.50	0.70	2.00	0.75	1.20
27-Nov-2024	2.29	7.00	0.75	2.50	1.55	4.60	0.02	0.30
28-Nov-2024	4.92	11.10	0.88	2.30	4.04	9.40	0.00	0.00
29-Nov-2024	77.07	382.30	55.52	335.00	21.57	47.30	0.79	6.90
30-Nov-2024	11.38	119.60	6.34	90.30	5.04	29.40	0.05	1.10
1-Dec-2024	1.64	6.40	0.30	0.80	1.34	5.60	0.00	0.00
2-Dec-2024	16.05	83.10	9.58	60.40	6.49	25.40	0.31	2.00
3-Dec-2024	2.97	24.30	1.23	12.20	1.75	12.10	0.20	0.70
4-Dec-2024	23.60	139.20	16.87	108.00	6.72	31.10	0.43	2.80
5-Dec-2024	90.62	212.80	70.86	176.90	19.76	35.80	1.83	4.40
6-Dec-2024	0.60	1.40	0.22	0.50	0.39	1.20	1.05	1.40
7-Dec-2024	2.82	25.00	1.04	15.80	1.80	9.20	1.14	1.30
8-Dec-2024	0.46	1.00	0.20	0.40	0.27	0.70	0.64	1.10
9-Dec-2024	0.42	2.00	0.24	1.10	0.18	0.90	0.12	0.50

Note: M = Data missing

Date	NO_X (ppb)		NO (ppb)		NO_2 (ppb)		SO_2 (ppb)	
	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)	Mean (Errors removed, >=75% complete)	Max 1 h (Errors removed)
10-Dec-2024	6.46	49.30	1.54	20.00	4.92	29.30	0.00	0.00
11-Dec-2024	10.50	58.50	2.62	25.50	7.86	33.00	0.00	0.00
12-Dec-2024	2.27	22.10	0.91	15.40	1.36	6.70	0.72	1.40
13-Dec-2024	1.73	14.60	0.90	8.60	0.84	6.00	1.35	1.70
14-Dec-2024	1.17	8.40	0.62	4.30	0.55	4.30	0.38	1.00
15-Dec-2024	0.81	2.50	0.27	0.70	0.53	1.90	0.00	0.10
16-Dec-2024	0.67	7.20	0.33	3.70	0.33	3.50	0.00	0.00
17-Dec-2024	0.62	3.60	0.29	2.30	0.34	1.30	0.00	0.00
18-Dec-2024	0.58	2.30	0.27	1.40	0.32	0.90	0.01	0.10
19-Dec-2024	1.06	3.00	0.43	1.10	0.63	2.00	0.00	0.00
20-Dec-2024	4.85	26.50	1.76	14.30	3.08	14.70	0.18	0.80
21-Dec-2024	3.61	15.20	1.90	8.70	1.70	6.60	0.53	0.70
22-Dec-2024	3.93	13.00	0.47	1.10	3.46	12.30	0.77	1.20
23-Dec-2024	5.29	42.60	2.33	27.40	2.98	15.20	1.60	2.30
24-Dec-2024	43.88	212.60	33.00	176.40	10.88	36.40	2.01	5.20
25-Dec-2024	18.40	112.20	12.37	81.30	6.02	30.80	1.96	3.40
26-Dec-2024	2.06	8.80	0.48	4.10	1.58	6.30	1.40	1.70
27-Dec-2024	29.50	82.00	18.84	67.70	9.92	26.10	1.42	2.80
28-Dec-2024	10.11	69.30	6.57	53.00	3.54	16.40	0.83	1.70
29-Dec-2024	26.44	115.30	16.77	84.50	9.67	30.80	0.73	2.30
30-Dec-2024	0.33	0.50	0.21	0.40	0.11	0.20	0.00	0.10
31-Dec-2024	0.30	0.40	0.18	0.30	0.12	0.20	0.00	0.00

Note: M = Data missing

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Appendix B 2024 Summary of Waste Rock Storage Area Ground Temperature Conditions

May 28, 2025

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FILE: 704-ENG.EARC03231-02.004
Via Email: Feyi.Adebayo@burgundydiamonds.com

Burgundy Diamond Mines Ltd.
900-606 4 Street SW
Calgary, AB T2P 1T1

Attention: Feyi Adebayo
Environmental Advisor – Projects and Closure Planning

Subject: 2024 Summary of Waste Rock Storage Area Ground Temperature Conditions
Ekati Diamond Mine, NT

1.0 INTRODUCTION

1.1 Scope of Work

Tetra Tech Canada Inc. (Tetra Tech) was retained by Burgundy Diamond Mines Ltd. (Burgundy) to review 2024 ground temperature data and summarize the ground temperature conditions within the waste rock storage areas (WRSAs) at the Ekati Diamond Mine, NT (Ekati).

1.2 Project Description

Ground temperatures in the WRSAs have historically been read a minimum of four times per year, using ground temperature cables (GTCs) installed at various locations. However, in recent years reading frequencies have decreased due to staffing, time constraints, and limited access. The available data provided by Burgundy is presented and assessed in this report.

The locations and current operating status of the GTCs are shown in Figures 1 through 4 and are summarized in Table A (attached). GTCs that are damaged or inoperable are highlighted in grey.

Ground temperature data is presented in Figures 5 through 35. This data is presented in two formats:

- Profiles showing ground temperature versus depth; and
- Plots displaying ground temperature versus time for selected depths within the WRSAs and toe berms. These figures are denoted by the suffix “a” in the figure number.

Typically, only ground temperatures from the spring and late fall are plotted on these figures. This allows for easier interpretation of cooling or warming trends as these are usually the times of year when ground temperatures are generally at their coolest (spring) or warmest (late fall).

1.3 Limitations of Memorandum

This report and its contents are intended for the sole use of Burgundy Diamond Mines Ltd. and their agents. Tetra Tech Canada Inc. does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Burgundy Diamond Mines Ltd., or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this report is subject to the terms and

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conditions stated in Tetra Tech Canada Inc.'s Services Agreement. Tetra Tech's Limitations on Use of this Document are provided in Appendix A of this report.

2.0 CLIMATE CONDITION

As part of the ground temperature summary, historical monthly air temperatures at Ekati are provided by Burgundy and reviewed to assist with interpreting the measured waste rock temperatures. Air temperatures do not exclusively influence ground temperatures (other factors such as snow cover, wind speed, and solar radiation also play a role); however, they do provide some help in understanding the observed temperature variances and future trends.

Historical air temperature data at Ekati are available from September 1993 to present; however, significant portions of the data set prior to 2002 are incomplete and were not included as part of this analysis. Table B (attached) summarizes the historical air temperatures and calculated freezing index at Ekati. The freezing index provides a measure of how cold a winter is and allows for relative comparison between years (higher values indicate colder winter temperatures or a longer season duration). It is calculated by summing the mean daily temperatures for those days when air temperatures are below 0°C. Average monthly air temperatures and calculated freezing indices are presented in Figures A and B below.

Temperatures between July 18 to July 24, 2024, were noted to be missing or unavailable from the database provided by Burgundy.

Table B data shows that the winter of 2005/2006 was the warmest winter on record, which was evident with a reduced winter road season due to particularly warm temperatures. The winter temperatures of 2007/2008 were the coldest temperatures on record. The most recent winter temperatures from 2023/2024 are warmer than the winter temperatures from 2022/2023.

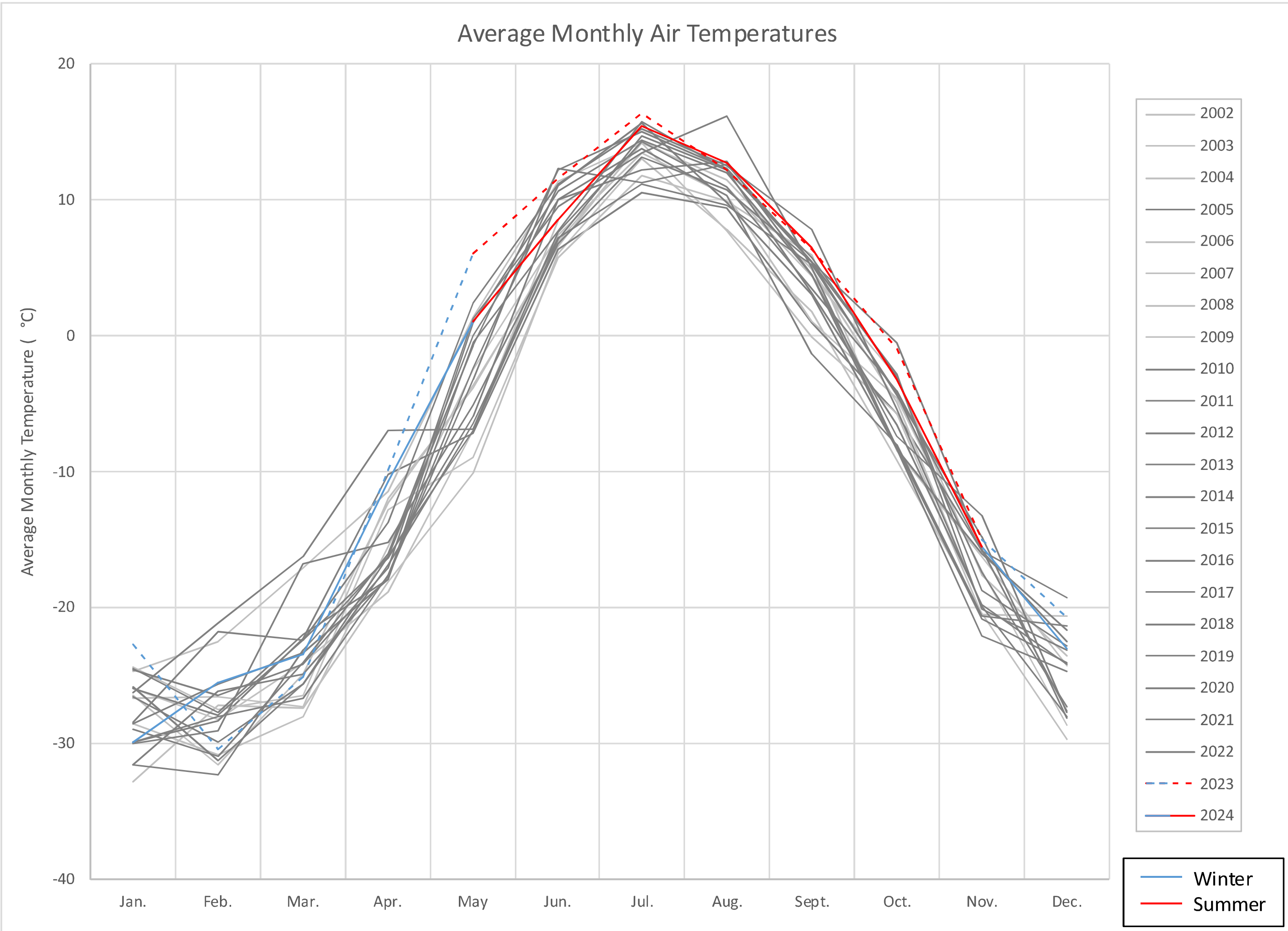

Figure A: Average Monthly Air Temperatures

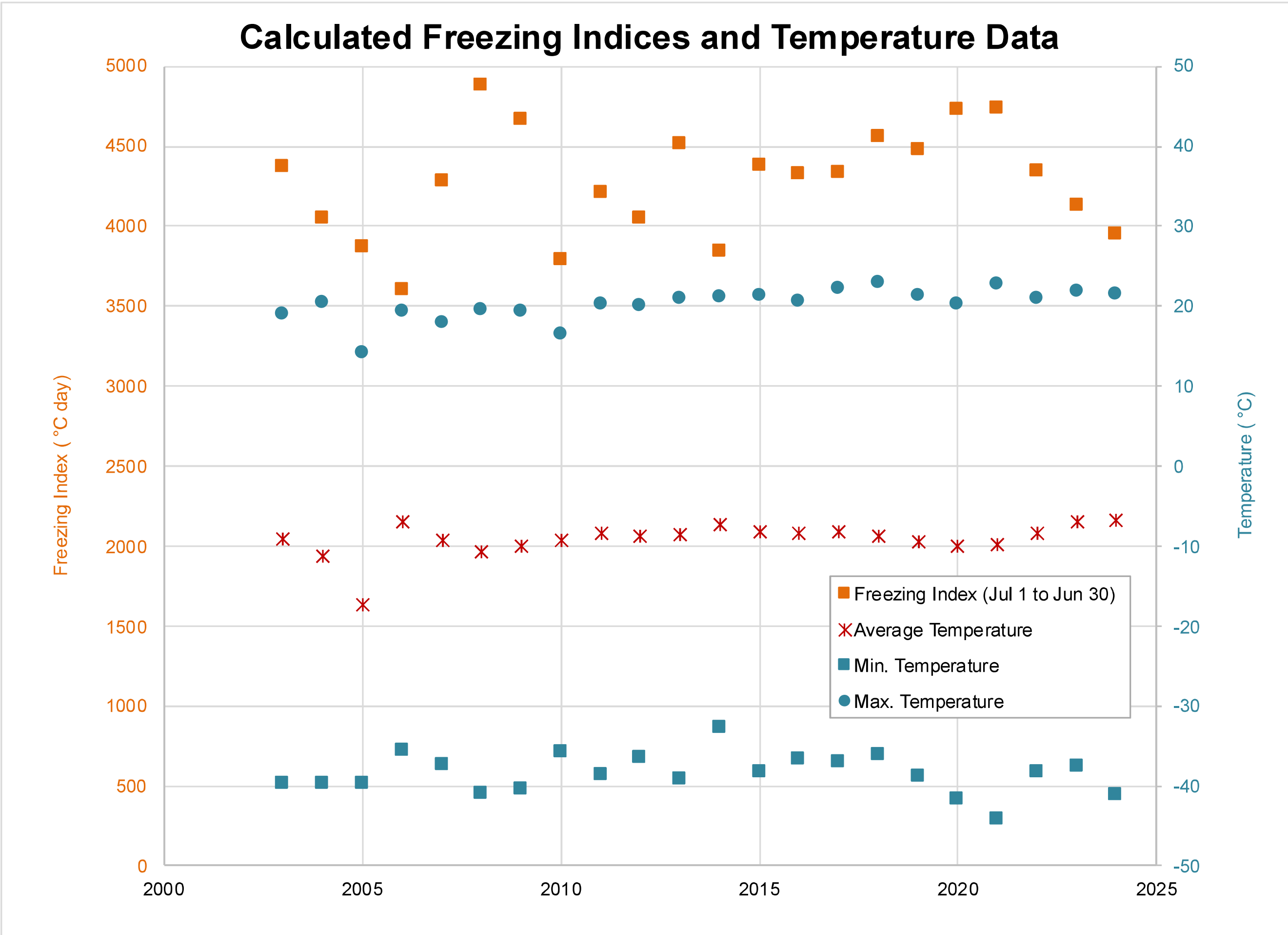

Figure B: Calculated Freezing Indices and Temperature Data

3.0 GROUND TEMPERATURE DATA

The following sections summarize the available ground temperature data in the Panda/Koala, Fox, Misery, and Pigeon WRSAs as well as the Coarse Processed Kimberlite Storage Pile (CPKSP). The Point Lake WRSA is being developed as open pit mining progresses. No instrumentation has been installed in the Point Lake WRSA at this time.

3.1 Panda/Koala WRSA and Toe Berms

Ten GTCs are installed in the Panda/Koala WRSA and adjacent toe berms as shown in Figure 1. In the fall of 2021, access to GTCs 1378 and 1379 located on the lowest bench was reduced and cable readings have been taken sporadically since. Ground temperature data for the WRSA are presented in Figures 5 through 9, while the toe berm data are presented in Figures 10 through 14.

3.1.1 Panda/Koala WRSA

Ground temperature data from the Panda/Koala WRSA (GTCs 1534, 1377, 1378, 1379, and 1380) shows that the waste rock pile continues to be in a permafrost condition, with the exception of the seasonal active layer. Temperature conditions in the Panda/Koala WRSA are summarized in Table 3-1 below.

Table 3-1: Panda/Koala WRSA Ground Temperature Summary

GTC	Spring 2024 Temperature in WR (°C)	Summer 2024 Temperature in WR (°C)	Summer 2024 Temperature at Original Ground (°C)	Figures
1377	N/A	-6.3 to 15.7	-4.9	7 & 7a
1378	N/A	-4.3 to 6.8	-3.3	5 & 5a
1379	N/A	-7.9 to 11.7	-6.7	6 & 6a
1380[1]	N/A	N/A	N/A	8 & 8a
1534[2]	N/A	N/A	N/A	9 & 9a

WR refers to Waste Rock.
1 – Not read.
2 – Dead cable since 2017.

Ground temperature cable 1377 (Figure 7), from summer 2024 shows that the measured active layer thickness is approximately 2.0 m to 3.0 m thick. Ground temperature measurements, for cables 1377, 1378, and 1379, generally show similar active layer thickness range.

During the summer of 2024 ground temperatures around the perimeter of the WRSA (Figures 5 through 7) range from -3.3°C to -6.7°C at the pile base, which is similar to typical permafrost temperatures observed at Ekati (typically around -3.0°C to -5.0°C). Historically, temperatures around the perimeter of the WRSA are significantly colder compared to the centre of the pile (Figure 9). These cooler temperatures suggest convective cooling cells developing around the WRSA perimeter, which provides enhanced cooling for the pile.

GTC 1378 (Figure 5) indicates a slight cooling trend compared to the previous year and suggests ongoing stabilization of ground temperatures where material was removed from the lower bench for use as crusher feed. Ground temperatures in GTCs 1377, 1378, and 1379 remain below 0°C below the active layer. Ground temperatures for GTC 1380 approach 0°C at depth of approximately 24 m (el. 479 m). This is consistent with readings over the last number of years; however, the precise cause of this localized warming is uncertain.

Figure 7a suggests a constant temperature at the base of the WRSA since approximately 2006, then a slight warming in 2023. Figures 5a, 6a, and 8a (GTCs 1378, 1379, and 1380, respectively) show a pronounced increase in basal temperature of the waste rock due to the removal of the thermal cover material in this area. This result of removal of material is shown clearly in the warmer temperatures on Figures 5, 6, and 8.

One cable was installed in the central portion of the pile (GTC 1534, Figure 9). The active layer in this area was around 8 m from 2002 until 2011 when the apparent active layer began to increase. This may be a function of additional waste rock being placed around the GTC installation. By 2006 several beads on the cable had malfunctioned. Readings after 2011 were inconsistent, but still show a potential increase in the active layer. The cable has been completely inoperable since October 2017 and current ground temperature conditions are unknown.

3.1.2 Panda/Koala Toe Berm

Ground temperature conditions in the Panda/Koala toe berms are summarized in Table 3-2 and discussed below.

Table 3-2: Panda/Koala Toe Berm Ground Temperature Summary

GTC	Spring 2024 Temperature through Fill Material (°C)	Summer 2024 Temperature through Fill Material (°C)	Summer 2024 Temperature at Original Ground (°C)	Figures
1482	N/A	-6.6 to -6.3	-6.5	12 & 12a
1483	N/A	-5.3 to -3.6	-5.3	10 & 10a
1484	N/A	-5.3 to -5.1	-5.3	11 & 11a
1485	N/A	-6.6 to -6.4	-6.6	13 & 13a
1746(1)	N/A	-7.6 to -4.8	-8.0	14 & 14a

1 – Bearclaw Toe Berm.

In 2010, excavation occurred around the northeast portion of the Panda/Koala WRSA, in the vicinity of the Bearclaw and Panda toe berms, and some of the thermal cover over the toe berms was removed. Warming of the ground temperatures were observed in 2010 in two of the toe berm GTCs (GTCs 1482 and 1485) due to the impact of the construction activities (crusher feed excavation) coupled with the warmer winter season in 2009/2010 (Figures 12a and 13a). These cables have shown an increase in temperature since 2012 and the 2024 temperature measurements continue to show a general warming trend through the fill material; however, the original ground has appeared to stabilize. Overall, ground temperatures are still below typical permafrost temperatures at Ekati.

The review of the ground temperature data for the GTCs installed in the toe berms shows the following:

- Summer 2024 readings in GTCs 1483 and 1484 (Figures 10 and 11) show slightly warmer temperatures at mid depth when compared with 2023 readings.
- Summer 2024 readings in GTCs 1482 (Figure 12) show slightly warmer temperatures when compared with 2023 readings.
- Summer 2024 readings in GTC 1485 (Figure 13) shows slightly warmer temperatures when compared to 2023 readings.
- Summer 2024 readings in GTC 1746 (Figure 14), in the Bearclaw toe berm, shows slightly cooler temperatures in the Lacustrine fill and similar temperatures in the waste rock and original ground when compared with summer 2023 readings.

Temperatures in the toe berm are still generally below typical permafrost temperatures observed at Ekati.

3.2 Fox WRSA and Toe Berms

A total of 11 GTCs have been installed in and around the Fox WRSA and toe berms, with locations provided in Figure 2. Three GTCs were installed in the Fox WRSA in 2006 and three GTCs installed in the toe berms in 2004. In June 2015, five additional GTCs were installed in the Fox WRSA during a geotechnical drilling investigation program. Ground temperature data for the Fox WRSA is provided in Figures 15 through 22, while toe berm data is presented in Figures 23 through 25. The beads from GTC 1920 and 1933 have stopped working since 2017 and 2021 respectively.

3.2.1 Fox WRSA

Ground temperature conditions in the Fox WRSA are summarized in Table 3-3 and discussed below.

Table 3-3: Fox WRSA Ground Temperature Summary

GTC	Active Layer Thickness (m)	Spring 2024 Temperature in WR (°C)	Summer 2024 Temperature in WR (°C)	Summer 2024 Temperature at Original Ground (°C)	Figures
1920	5.0[(1)]	N/A	N/A	N/A	15
1931	6.1[(2)]	N/A	-2.0 to 9.7	0.6[(4)]	16 & 16a
1932	7.0[(2)]	N/A	-1.4 to 2.7	1.4[(5)]	17 & 17a
1933	4.8[(3)]	N/A	N/A	N/A	18 & 18a
2538	3.8[(3)]	N/A	-3.2 to 4.0	1.4[(6)]	19
2539	5.0[(3)]	N/A	-2.0 to 9.7	3.0[(7)]	20
2540	5.6[(3)]	N/A	-1.8 to 5.2	2.3[(8)]	21
2541	5.9[(3)]	N/A	-2.3 to 7.7	-2.3[(9)]	22

WR refers to Waste Rock.
GTC #1920 damaged in 2017.
GTC #1933 appears to be damaged.
(1) Active layer thickness is based on the 2016 measurements.
(2) Active layer thickness is based on 2018 fall measurements.
(3) Active layer thickness is based on 2019 fall measurements.
(4) Measurements are taken 1.2 m above (450.2 m) original ground (449 m).
(5) Measurements are taken 0.5 m above (467.9 m) original ground (467.4 m).
(6) Measurements are taken 0.2 m below (448.4 m) original ground (448.6 m).
(7) Measurements are taken 0.5 m above (443.1 m) original ground (442.6 m).
(8) Measurements are taken 1.4 m above (469.2 m) original ground (467.8 m).
(9) Measurements are taken 0.5 m above (472.7 m) original ground (472.2 m).

With the exception of an active layer that displays periods of freezing behaviour, large portions of the waste rock pile continue to be unfrozen. GTC 1932 (Figure 17) and GTC 1933 (Figure 18) have seen gradual cooling mid depth over the last 15 years. GTC 2538 (Figure 19), GTC 2539 (Figure 20), and GTC 2540 (Figure 21) also show cooling mid depth.

Specific observations are presented as follows:

- The 2024 temperatures in the original two GTCs 1931 and 1932 (Figures 17 and 18) show slight variations from those observed in 2023.
- Temperature data in 2024 for GTCs 1931 and 1932 (Figures 16 and 17) show slightly cooler temperatures compared with the 2023 and 2022 measurements.
- The original ground elevation of GTC 1932 (Figure 17) remains unfrozen, consistent with observations in the previous year.
- The base of GTC 1931 (Figure 16), located 1.2 m above the original ground, remains in an unfrozen condition, but has progressively cooled since 2007 (from 2.0°C in 2007 to 0.6°C in 2024).

The newest GTCs (GTCs 2538, 2539, 2540, and 2541) were installed in 2015. GTCs 2538 (Figure 19), 2539 (Figure 20), and 2540 (Figure 21) have experienced gradual cooling mid depth since installation. Specific observations are presented as follows:

- GTCs 2538 (Figure 19), 2539 (Figure 20), and 2540 (Figure 21) show temperatures mostly above 0°C, consistent with previously installed GTCs.
- The temperature at the bottom bead of GTC 2540 (Figure 21) has been gradually increasing to above 0°C.
- Temperature data for GTCs 2538 (Figure 19), 2539 (Figure 20), and 2540 (Figure 21) in 2024 shows slightly cooler temperatures mid depth when compared with the measurements made in 2022 and 2023.
- The temperatures seen in GTC 2541 (Figure 22) are frozen beneath the active layer and have been at or below 0°C since the cable was installed. The minimum temperature of -6.2°C was recorded in the fall of 2018.
- GTCs 1920 (Figure 15) and 1933 (Figure 18) are damaged with only the first bead giving temperature readings.

3.2.2 Fox Toe Berms

Ground temperature conditions in the Fox toe berms are summarized in Table 3-4 and discussed below.

Table 3-4: Fox Toe Berm Ground Temperature Summary

GTC	Spring 2024 Temperature through Lacustrine Material (°C)	Summer 2024 Temperature through Lacustrine Material (°C)	Summer 2024 Temperature at Original Ground (°C)	Figures
1743	N/A	-6.8 to -6.6	-7.0	23 & 23a
1744	N/A	-8.7 to -7.8	-7.1	24 & 24a
1745	N/A	-7.7 to -3.5	-7.7	25 & 25a

Ground temperature data has been collected for the Fox toe berms since their construction in 2004. In all cases, the low permeable lacustrine materials remain in a permafrost condition with temperatures ranging from -3.5°C to -8.7°C. A review of the ground temperatures indicates the following:

- GTCs 1743, 1744, and 1745 (Figures 23, 24, and 25) indicate that the entire section is in continuous permafrost.
- Summer 2024 temperature readings in GTCs 1743 and 1745 (Figures 23 and 25) show slight warming compared to ground temperatures in 2023.
- Summer 2024 temperature readings in GTCs 1744 (Figure 24) are comparable to ground temperatures in 2023.

3.3 Misery WRSA

GTCs have been installed at seven locations in the Misery WRSA, as shown on Figure 3. GTCs at Misery were installed over several years, from June 2001 to May 2005. Of the originally installed cables, only GTC 1772 remains active, but is understood to be no longer accessible. All the other cables have been damaged or destroyed. On February 28, 2018, two new GTCs were installed by Golder Associates Ltd. One of the GTCs was damaged after installation. Ground temperature data for the WRSA is presented in Figures 26 through 32. Table 3-5 summarizes the ground temperature conditions in the Misery WRSA. Discussion pertaining to the ground temperatures is provided below.

Table 3-5: Misery WRSA Ground Temperature Summary

GTC	Active Layer Thickness (m)	Spring 2024 Temperature in WR (°C)	Summer 2024 Temperature in WR (°C)	Summer 2024 Temperature at Pile Base (°C)	Cable Status	Figures
1541 / 1466	N/A	N/A	N/A	N/A	Destroyed	26 & 26a
1542 / 1467	N/A	N/A	N/A	N/A	Destroyed	27 & 27a
1606	N/A	N/A	N/A	N/A	Damaged	28 & 28a
1772	N/A	N/A	N/A	N/A	Active/No Longer Accessible	29 & 29a
1773	N/A	N/A	N/A	N/A	Buried	30 & 30a
1774	N/A	N/A	N/A	N/A	Buried	31 & 31a
2303(1)	4.0(2)	N/A	N/A	N/A	Active	32 & 32a

WR refers to Waste Rock.
1 – There are no beads extending to the base of the pile.
2 – Active layer thickness is based on the 2023 measurements.

All GTCs in the Misery WRSA, except for GTCs 1772 and 2303 have been damaged, destroyed, or buried. GTC 1772 was understood to be not accessible during 2024. Historical data plots for the damaged cables have been included in the figures section for reference.

- GTC 2303 is being monitored by a datalogger. Data from the logger is plotted in Figures 32 and 32a. No readings were collected in 2024. Temperatures in the granite closer to the surface (5.0 m) have decreased slightly in 2022 and 2023, while deeper readings in the schist (11.0 m to 15.0 m) have slightly warmed in the same period.

Historical data suggests the WRSA below the active layer is in a permafrost state. The thickness of the active layer is quite variable in the Misery WRSA, ranging from an estimated 4 m to 6 m based on 2023 data. The large active layer thicknesses in the Misery WRSA are likely a function of the proximity of some cables to the sideslopes and the accumulation of snow, which acts as a thermal blanket reducing heat transfer from the waste rock at some locations. However, Misery WRSA development has continued beyond the termination of GTC data and historical active layer measurements may not reflect current conditions.

3.4 Coarse Processed Kimberlite Storage Pile

GTCs 1468 and 1469 were installed in the CPKSP. Their locations are shown on Figure 1. Both cables were installed in summer 2001. GTC 1468 was damaged, and no data was recorded after fall 2005. Ground temperature conditions in the CPKSP continued to be monitored by GTC 1469 until spring 2014. GTC 1469 was buried between the spring and fall of 2014 and there are no longer functioning GTCs in the CPKSP. Historical ground temperature data for the CPKSP is presented in Figures 33 and 34.

The materials making up the storage pile at the GTC locations are shown on Figures 33 and 34. The thickness of coarse processed kimberlite (CPK) at installation was 6.0 m and 8.5 m at the locations of GTCs 1468 and 1469, respectively. At the time of GTC installation, the surface of the CPKSP was roughly equal to the ground elevation at the cables.

No ground temperature readings have been available in the CPKSP since 2014. At the time, ground temperatures through the CPK were hovering near 0°C, with marginally frozen foundation conditions. The CPKSP is an active deposition area and ground temperatures are expected to have been impacted by operations. Comments on current ground temperature conditions cannot be provided. Historical ground temperature data have been provided in Figures 33 and 34 for reference.

3.5 Pigeon WRSA

In 2019, the University of Waterloo installed a horizontal GTC in a 15 cm to 20 cm trench on the 529 m bench of the Pigeon WRSA. Burgundy provided the data and location drawing to Tetra Tech for inclusion in this report.

The GTC has 15 beads located over a distance of 208 m as shown on Figure 4. A datalogger was installed in December 2020 to take regular readings; however, early in 2020, some of the beads stopped functioning.

The data for this cable is presented in Figure 35. Readings were taken one week after installation (December 15, 2019) and then on May 11 and July 8, 2020. Directly after installation, beads 1 to 12 measured temperatures from -16.0°C to -21.3°C, which would be expected at that time of the year. Beads 13, 14, and 15 read temperatures of 0°C indicating a malfunction with these beads; subsequent measurements have not provided any readings.

In May 2020, functional bead readings (beads 1 to 5, 11, and 12) ranged from 7.9°C to -5.3°C. In July, the temperatures of the same beads ranged from 18.2°C to 10.4°C. For both data sets, the temperatures recorded by beads 1 to 4 were several degrees higher than the temperatures recorded by the other beads. It is understood that material has been added on top portions of the cable, which may influence ground temperatures, but installation details were not available at the time of reporting.

On July 20, 2020, the readings from the datalogger changed to values that suggest that the cable is no longer working. No subsequent ground temperature readings have been received from this cable.

4.0 SUMMARY AND RECOMMENDATIONS

Ground temperatures within the Ekati WRSAs and toe berms generally show similar temperature trends to those observed last year.

The Panda/Koala WRSA and toe berms remain in a permafrost condition, consistent with previous years. It would be useful to survey the waste rock that has been removed from the Panda/Koala WRSA, as this data will help determine where and how much material has been removed from the WRSA and understand the effects on thermal properties. Otherwise, there are no immediate concerns or issues with respect to thermal conditions in the Panda/Koala WRSA and toe berms.

Large portions of the Fox WRSA remain unfrozen, as in previous years. Temperature measurements indicate that ground temperatures are cooling at the locations of GTCs 1932 and 1933; however, the time for freeze-back is unknown. Overall, there are no immediate concerns or issues with respect to thermal conditions in the Fox WRSA.

The GTC's at the Fox toe berms indicate that the berms are continuously frozen as in previous years and the readings suggest an active layer from 1.0 m to 4.0 m from the surface. The temperature readings from summer 2024 shows an active layer thickness within this range. The maximum temperature of the lacustrine core material is -8.7°C based on summer 2024 readings. There are no immediate concerns or issues with respect to thermal conditions in the Fox toe berms.

There are only two operating GTCs in the Misery WRSA. Historic data from the cable indicates the WRSA is in a permafrost condition; however, conditions across the entire pile cannot be evaluated with the current GTC layout. There are no immediate issues or concerns with respect to the ground temperatures in the Misery WRSA.

Ground temperature data in the CPKSP is limited to readings prior to spring 2014 as there are no longer any functioning cables; however, there are no immediate issues or concerns with respect to the ground temperatures in the CPKSP.

Tetra Tech recommends the following:

- Ground temperature readings be obtained four times per year, keeping consistent with past practice if possible.
- Conduct a drone survey where the waste rock that has been removed from the Panda/Koala WRSA to help understand where and how much material has been removed from the WRSA and understand the effects on thermal properties.
- Develop a plan and schedule to install GTCs in the Misery WRSA, CPKSP, Pigeon WRSA, and Point Lake WRSA either during construction, or following the completion of the pile construction, as part the overall closure design and monitoring strategy.

5.0 CLOSURE

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

Respectfully submitted,
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TABLES

Table A - Ground Temperature Cable Installation Summary

Cable ID	Date Installed	Location	Comments
1378	August 30, 2000	Panda/Koala WRSA Site 1 – 15 m Bench	Installed by BBCI with design input from EBA.
1379	August 30, 2000	Panda/Koala WRSA Site 2 – 15 m Bench	Installed by BBCI with design input from EBA.
1377	August 30, 2000	Panda/Koala WRSA Site 3 – 15 m Bench	Installed by BBCI with design input from EBA.
1380	August 30, 2000	Panda/Koala WRSA Site 4 – 30 m Bench	Installed by BBCI with design input from EBA.
1534	February 16, 2002	Panda/Koala WRSA Site 4 – centre of pile	Cable damaged and no longer operable since October 2017.
1482	January 31, 2002	Panda Toe Berm	
1483	January 31, 2002	Panda Toe Berm	
1484	January 31, 2002	Panda Toe Berm	
1485	January 31, 2002	Panda Toe Berm	
1468	July 8, 2001	CPKSP	Cable destroyed in 2005.
1469	July 8, 2001	CPKSP	Cable buried between the spring and fall in 2014.
1746	November 30, 2004	Bearclaw Toe Berm	
1931	October 19, 2006	Fox Low Grade Kimberlite Dump	Installed by BBCI.
1932	October 14, 2006	Fox Waste Granite Dump	Installed by BBCI.
1933	October 23, 2006	Fox Waste Kimberlite Dump	Installed by BBCI. Cable damaged in 2021.
1743	November 28, 2004	Fox Toe Berm, Southeast Valley	
1744	November 28, 2004	Fox Toe Berm, 3 Hump Lake Streams	
1745	November 30, 2004	Fox Toe Berm, Fox Lake Trail	
WRP#1 – 1466	June 5, 2001	Misery WRSA	WRP#1 consists of two cables. Second cable installed to coincide with additional waste rock placement. Cable damaged during mining and could not be read.
WRP#1 – 1541	March 7, 2002		
WRP#2 – 1467	June 13, 2001	Misery WRSA	WRP#2 consists of two cables. Second cable installed to coincide with additional waste rock placement. Cable damaged during mining and could not be read.
WRP#2 – 1542	March 6, 2002		
WRP#3 – 1606	June 13, 2002	Misery WRSA	Cable damaged in 2014 and could not be read.
WRP#4 – 1773	April 26, 2005	Misery WRSA	Cable buried. Last reading taken in 2015.
WRP#5 – 1772	April 26, 2005	Misery WRSA	
WRP#6 – 1774	April 26, 2005	Misery WRSA	Cable buried under waste rock in 2013.
2303	February 28, 2018	Misery WRSA	Installed by Golder Associates Ltd. Data provided by Burgundy.
BH15-1 / 2538	June 11, 2015	Fox Low Grade Kimberlite Dump	
BH15-2 / 2539	June 19, 2015	Fox Waste Granite/Kimberlite Dump	
BH15-3 / 1920	June 15, 2015	Fox Waste Kimberlite Dump	Cable damaged in 2017.
BH15-4 / 2541	June 13, 2015	Fox Waste Kimberlite Dump	
BH15-6 / 2540	June 20, 2015	Fox Waste Granite/Kimberlite Dump	

Notes:
EBA refers to EBA Consultants Ltd., now Tetra Tech Canada Inc.
BBCI refers to BHP Billiton Canada Inc., now Burgundy Diamond Mines Ltd.
Grey shaded cells denote damaged or inoperable cables.

Table B - Summary of Monthly Air Temperature at Ekati

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean	Freezing Index
2002	-25.9	-28.2	-24.1	-18.9	-7	8.5	12.9	9.2	3.4	-8.6	-16.4	-19.2	-9.5	
														4,370
2003	-26.5	-31.6	-24.9	-12.3	-3.6	6.6	14.4	11	4.4	-3	-17.6	-23.5	-8.9	
														4,835
2004	-32.8	-27.2	-27.4	-18.1	-10.1	6.1	13.1	7.8	1.8	-9.2	-20.4	-29.7	-12.2	
														4,757
2005	-29.9	-28.3	-22.3	-10.2	-7.2	6.4	10.6	9.4	1	-5.7	-15.8	-19.3	-9.3	
														3,599
2006	-24.7	-22.5	-17.1	-11.5	1.4	11.4	14.2	11.5	4.9	-4.9	-20	-18.9	-6.3	
														4,279
2007	-24.4	-27.5	-26.5	-12	-3.8	6.9	14.2	7.7	-0.1	-5.7	-20.5	-20.6	-9.4	
														4,875
2008	-28.6	-30.8	-28	-15.5	-2.5	7.4	13.5	10.3	1.1	-4.6	-17.3	-28.7	-10.3	
														4,670
2009	-26.7	-26.6	-27.3	-12.8	-8.9	5.8	11.8	9.9	6	-8.4	-16.3	-24.3	-9.8	
														3,792
2010	-26.3	-21.2	-16.3	-7	-6.9	7.6	14.3	11	3.5	-4.1	-15.8	-22.5	-7.0	
														4,208
2011	-28.6	-25.6	-23.3	-17.9	-0.5	7.7	15.8	12.2	5.8	-3	-18.8	-22.8	-8.3	
														4,047
2012	-28.5	-21.8	-22.4	-13.8	2.4	11.2	15.2	12.5	7.8	-5.4	-19.9	-28	-7.6	
														4,516
2013	-31.6	-26.2	-24.9	-17.7	-3.2	12.3	11.3	12.6	5.4	-2.8	-20.1	-23.1	-9.0	
														3,815
2014	-29.9	-28	-26.7	-17.6	-2.4	11.1	15.7	9.8	3	-8.3	-22.1	-24.7	-10.0	
														4,378
2015	-29	-31	-24.1	-16	0	10	12.2	12.8	4.5	-8.3	-16	-21.7	-8.9	
														4,327
2016	-24.5	-27.7	-22	-17.9	1	10.7	14.4	12	4.5	-7.4	-13.2	-27.7	-8.1	
														4,280
2017	-24.6	-26.5	-24.2	-17.1	1.3	9.5	13.5	16.2	5	-8.2	-20.8	-24.1	-8.3	
														4,507
2018	-25.9	-27.9	-22.4	-16.4	-5.9	10	13.8	10.3	-1.3	-8	-20.6	-21.4	-9.6	
														4,479
2019	-30	-29.1	-16.8	-15.2	-5.1	7.2	11.2	9.6	5.2	-4.3	-17.4	-27.3	-9.3	
														4,726
2020	-26.6	-29.9	-25.6	-16.2	-7	7.1	14.7	12.2	3.1	-6.6	-19.8	-24.2	-9.9	
														4,740
2021	-25.8	-31.3	-25.6	-16.9	-6.4	6.8	13.2	10.8	5.4	-0.5	-15.7	-27.6	-9.5	
														4,346
2022	-31.6	-32.3	-23.2	-16.3	-0.7	12.3	15.0	12.3	5.4	-4.4	-14.7	-28.1	-8.9	
														4,125
2023	-22.7	-30.5	-25.1	-9.9	6.0	11.6	16.4	12.2	6.4	-0.9	-15.0	-20.7	-6.0	
														3,949
2024	-29.9	-25.6	-23.4	-10.7	1.1	8.6	15.5	12.7	6.5	-3.2	-15.5	-23.0	-7.2	

FIGURES

LEGEND:

- GROUND TEMPERATURE CABLE
- PANDA TOE BERM
- BEARCLAW TOE BERM

0 500 m

Scale: 1: 12 500

NOTES

1. 2023 INFRASTRUCTURE LINEWORK PROVIDED BY BURGUNDY.
2. 2021 SATELLITE BASE IMAGE PROVIDED BY BURGUNDY.
3. GTC 1378 AND 1379 IS NOT SAFELY ACCESSIBLE.

STATUS
ISSUED FOR USE

CLIENT
BURGUNDY
DIAMONDS

TETRA TECH

2024 WRSA GROUND TEMPERATURE SUMMARY
EKATI DIAMOND MINE, NT

PANDA / KOALA AND CPKSP
TEMPERATURE CABLE LOCATION PLAN

PROJECT NO.	DWN	CKD	REV
ENG.EARC03231-02	ME	GDK	A
OFFICE	DATE		
Edmonton	May 2025		

Figure 1

LEGEND:

GROUND TEMPERATURE CABLE

0 500 m

Scale: 1: 12 500

NOTES

1. 2023 INFRASTRUCTURE LINEWORK PROVIDED BY BURGUNDY.
2. BASE IMAGE PROVIDED BY ESRI.

STATUS
ISSUED FOR USE

CLIENT

BURGUNDY DIAMONDS

TETRA TECH

2024 WRSA GROUND TEMPERATURE SUMMARY
EKATI DIAMOND MINE, NT

FOX WRSA
TEMPERATURE CABLE LOCATION PLAN

PROJECT NO.	DWN	CKD	REV
ENG.EARC03231-02	ME	GDK	A

OFFICE	DATE
Edmonton	May 2025

Figure 2

C:\pwworking\can_infra\dms31797\EARC03231-02_Figure_2.dwg [FIGURE 2] April 14, 2025 - 10:19:54 am (BY: ESTRADA, MARK)

LEGEND:

GROUND TEMPERATURE CABLE

0 — 500 m

Scale: 1: 10 000

NOTES

1. 2023 INFRASTRUCTURE LINEWORK PROVIDED BY BURGUNDY.
2. 2021 SATELLITE BASE IMAGE PROVIDED BY BURGUNDY.

STATUS
ISSUED FOR USE

CLIENT

BURGUNDY DIAMONDS

TETRA TECH

2024 WRSA GROUND TEMPERATURE SUMMARY
EKATI DIAMOND MINE, NT

MISERY WRSA
TEMPERATURE CABLE LOCATION PLAN

PROJECT NO.	DWN	CKD	REV
ENG.EARC03231-02	ME	GDK	A

OFFICE	DATE
Edmonton	May 2025

Figure 3

LAYOUT POINTS

POINT #	X-COORDINATE	Y-COORDINATE	ELEVATION
1	7180755.630	517217.710	527.760
2	7180749.220	517215.970	527.790
3	7180744.210	517215.780	527.890
4	7180739.390	517214.760	527.950
5	7180734.370	517214.060	528.040
6	7180716.960	517210.980	528.160
7	7180699.120	517208.070	28.370
8	7180680.590	517204.360	528.250
9	7180662.140	517201.220	527.830
10	7180643.570	517197.890	527.830
11	7180625.010	517194.580	527.880
12	7180606.380	517191.480	528.040
13	7180587.590	517188.230	527.850
14	7180569.160	517185.170	527.230
15	7180550.710	517182.210	527.370

LEGEND:

GROUND TEMPERATURE CABLE AND BEAD LOCATION

0 200 m

Scale: 1: 4 000

NOTES
1. 2023 INFRASTRUCTURE LINEWORK PROVIDED BY BURGUNDY.
2. 2023 DRONE BASE IMAGE PROVIDED BY BURGUNDY.
3. GTC BEAD LOCATIONS PROVIDED BY BURGUNDY.

STATUS
ISSUED FOR USE

CLIENT

BURGUNDY DIAMONDS

TETRA TECH

2024 WRSA GROUND TEMPERATURE SUMMARY
EKATI DIAMOND MINE, NT

PIGEON WRSA
TEMPERATURE CABLE LOCATION PLAN

PROJECT NO.	DWN	CKD	REV
ENG.EARC03231-02	ME	GDK	A

OFFICE	DATE
Edmonton	May 2025

Figure 4

C:\pwworking\can_infra\dms31797\EARC03231-02_Figure_4.dwg [FIGURE 4] April 05, 2025 - 8:11:11 am (BY: ESTRADA, MARK)

ENG.EARC03231-02 | Panda/Koala Waste Rock Storage Area
Ekati Diamond Mine, NT | November 2024

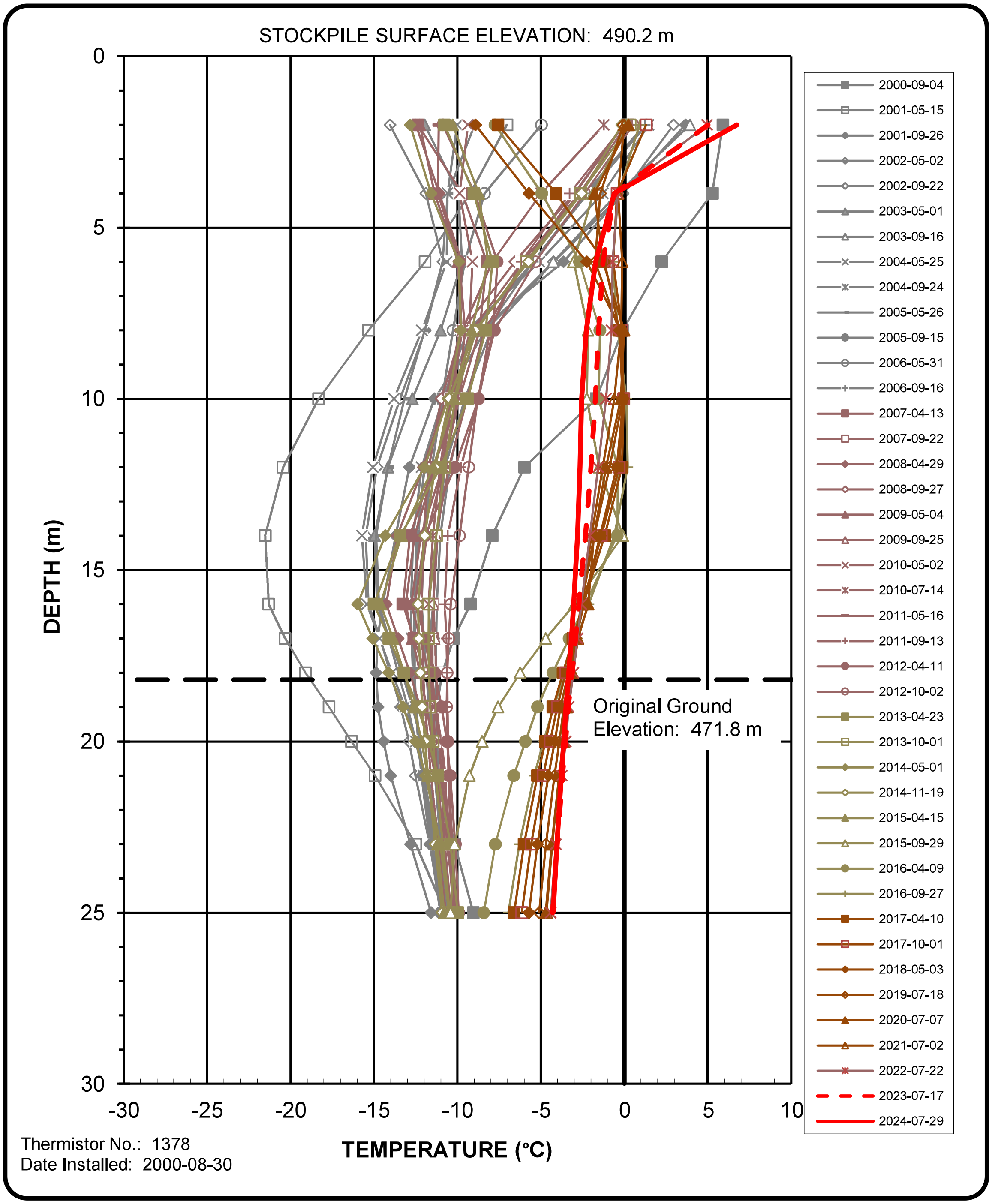


Figure 5
Ground Temperature Profile
Site 1 (15 m Bench)
Panda/Koala Waste Rock Storage Area

TETRA TECH

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC- Panda Figures (Fig. 5-13).xlsx]Profile #1378

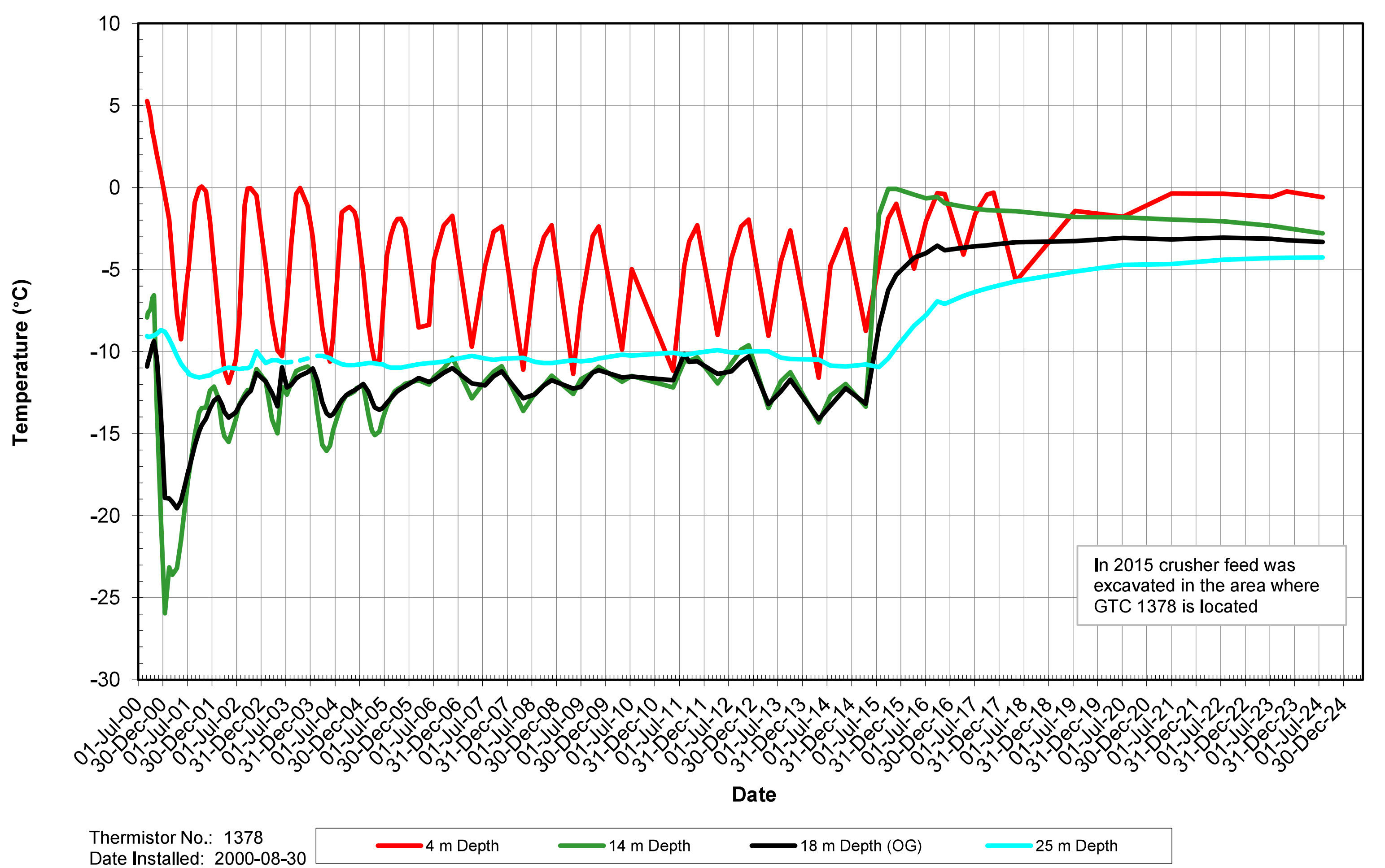


Figure 5a
Ground Temperature History
Site 1 (15 m Bench)
Panda/Koala Waste Rock Storage Area

Panda/Koala Waste Rock Storage Area
Ekati Diamond Mine, NT

ENG.EARC03231-02 November 2024

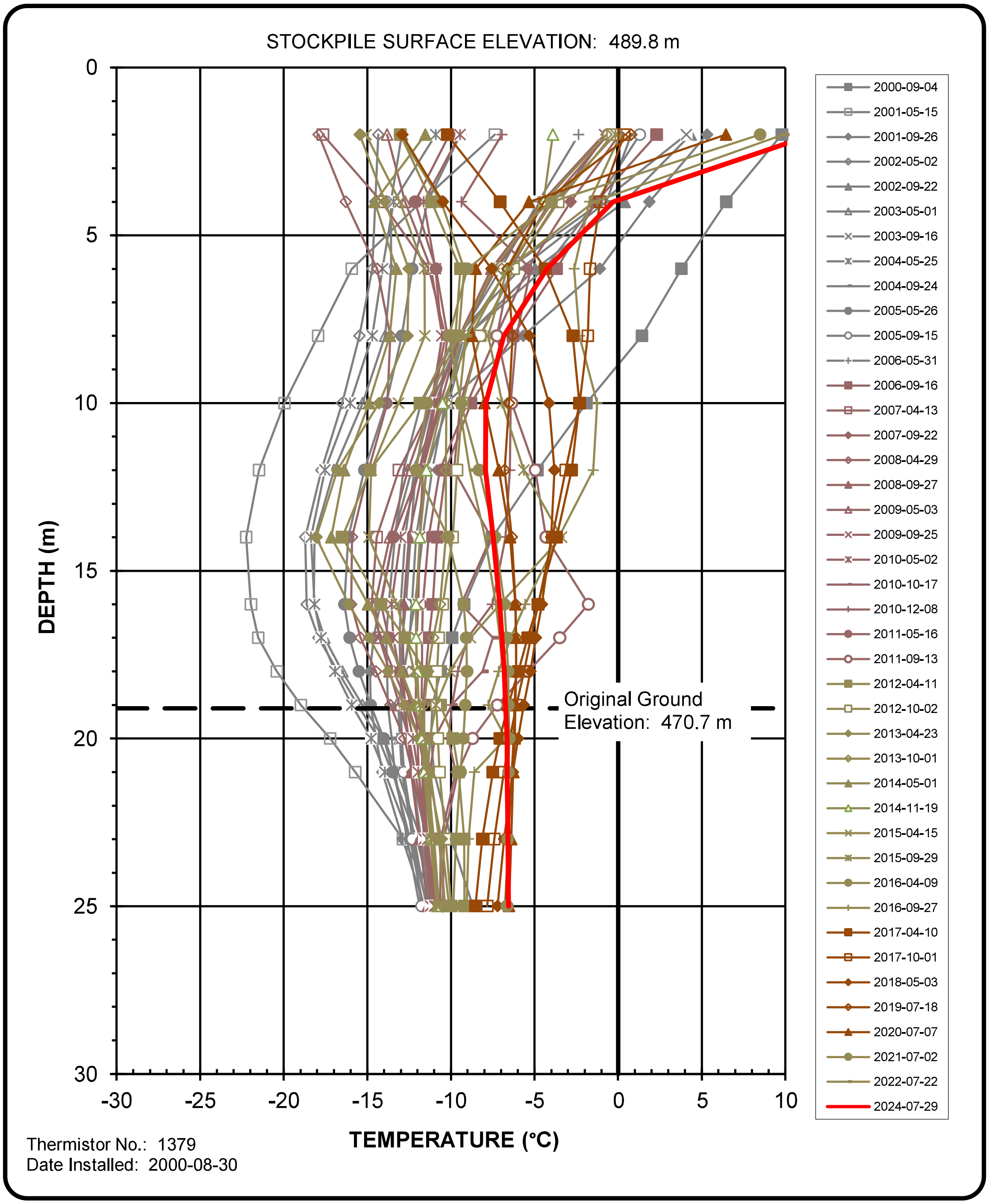


Figure 6
Ground Temperature Profile
Site 2 (15 m Bench)
Panda/Koala Waste Rock Storage Area

TETRA TECH

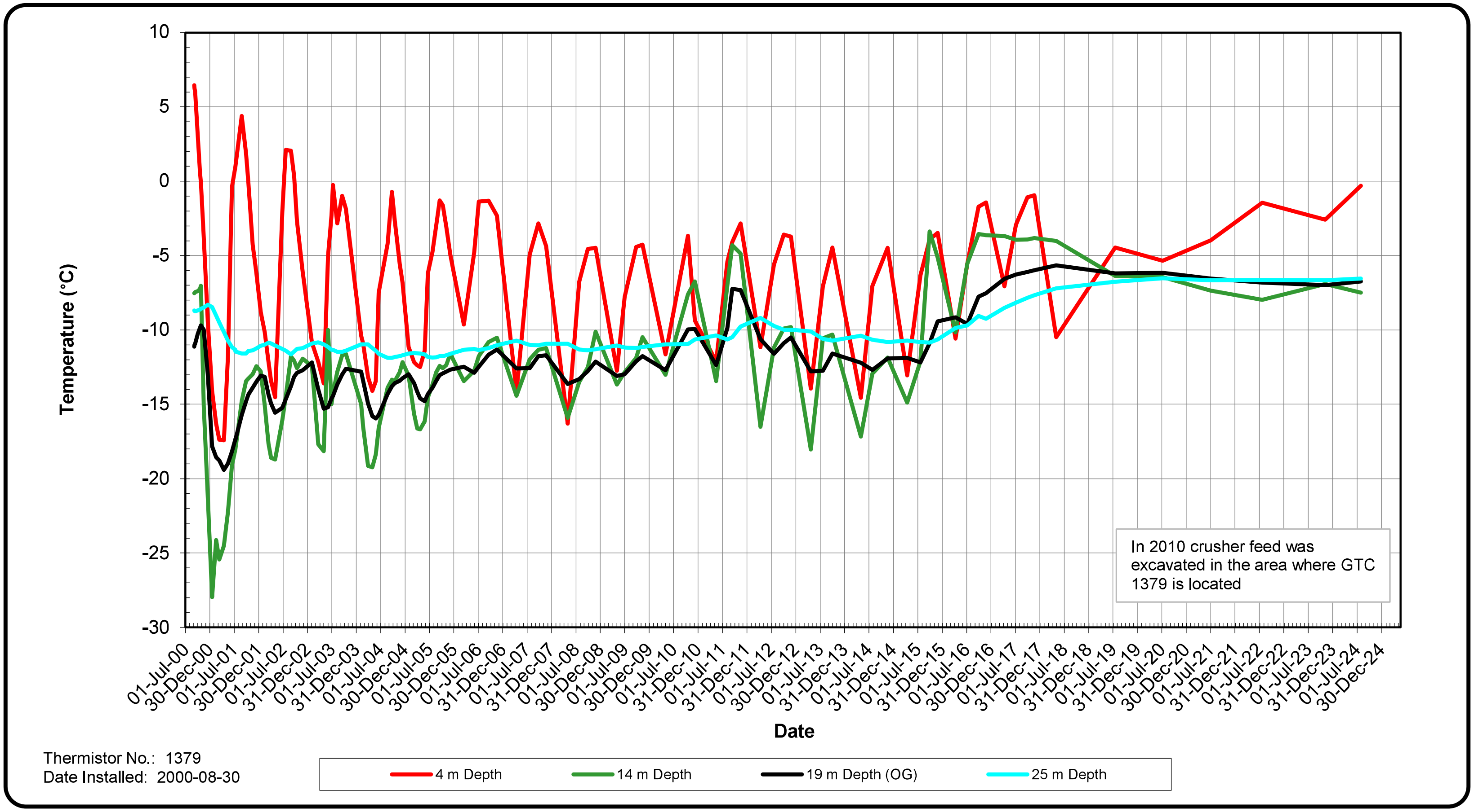


Figure 6a
Ground Temperature History
Site 2 (15 m Bench)
Panda/Koala Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC- Panda Figures (Fig. 5-13).xlsx]History #1379

Panda/Koala Waste Rock Storage Area
ENG.EARC03231-02 Ekati Diamond Mine, NT November 2024

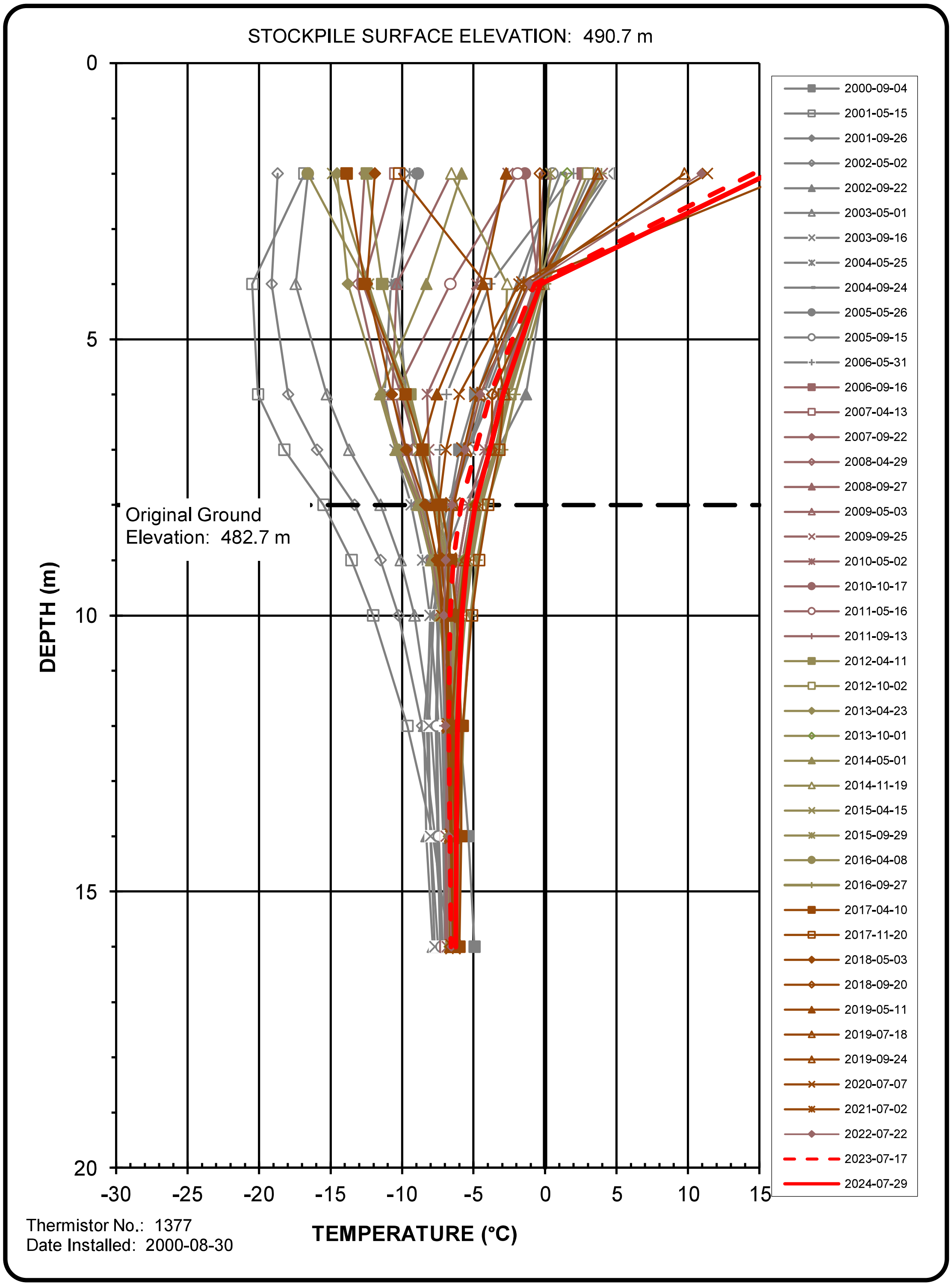


Figure 7
Ground Temperature Profile
Site 3 (15 m Bench)
Panda/Koala Waste Rock Storage Area

TETRA TECH

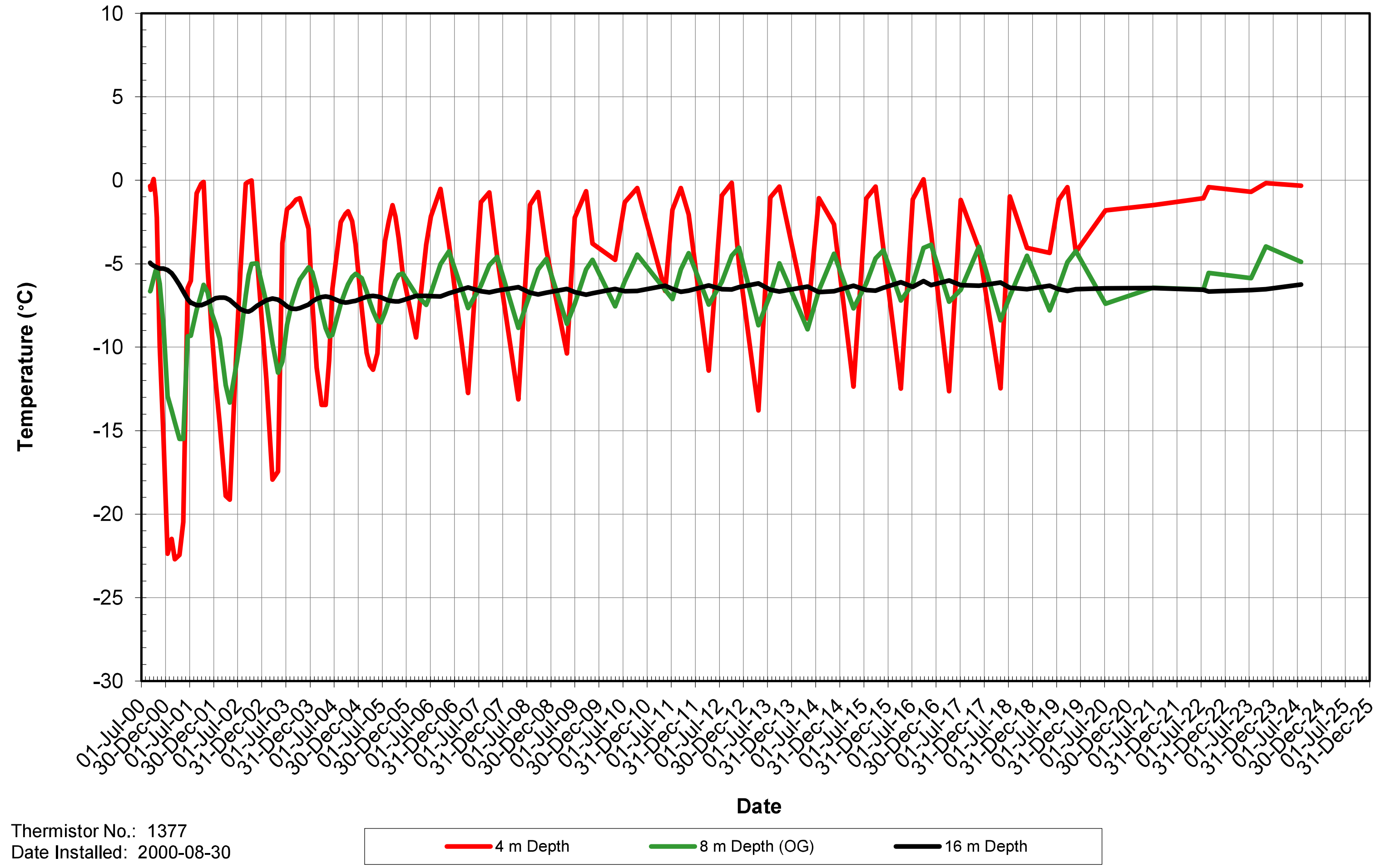
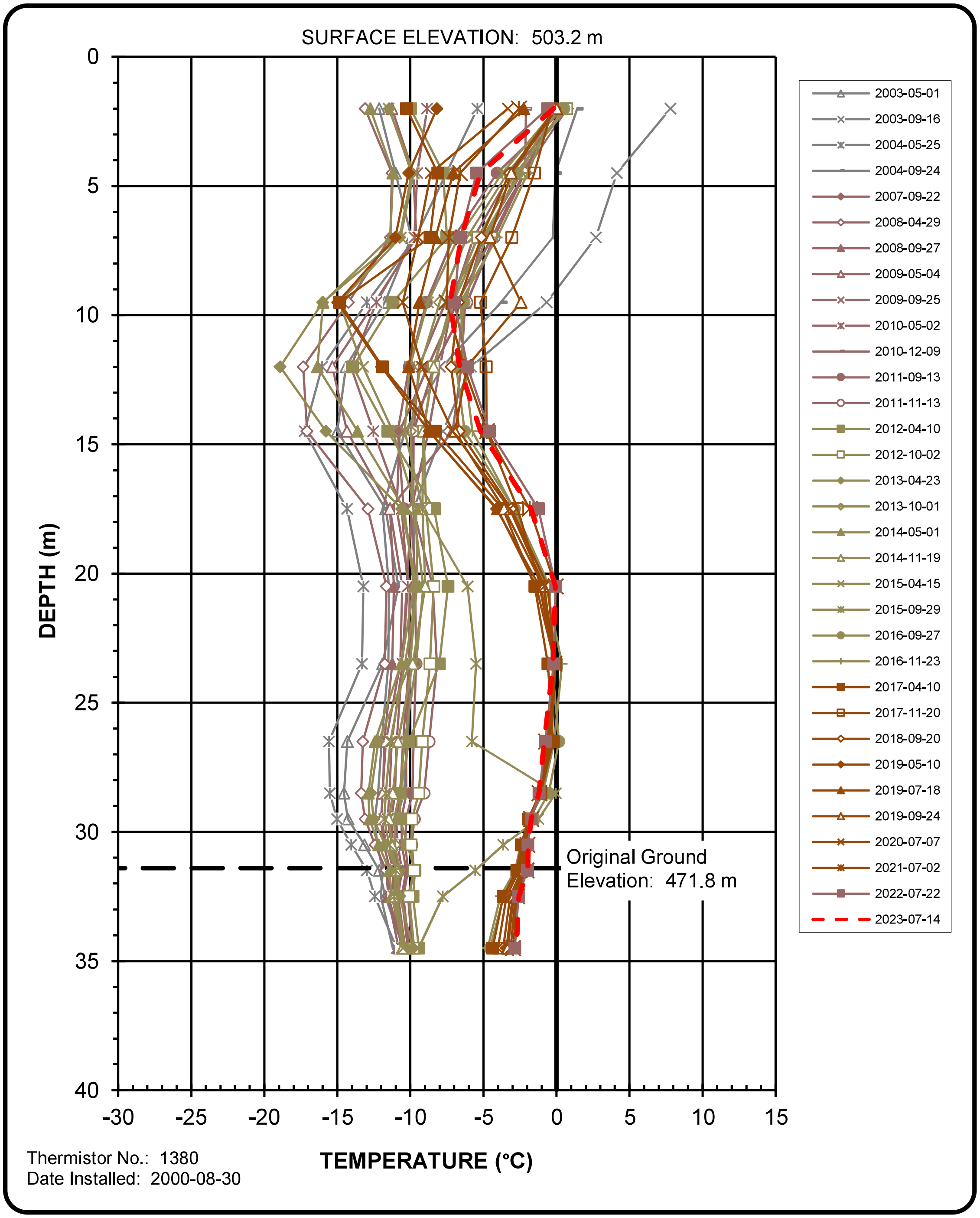


Figure 7a
Ground Temperature History
Site 3 (15 m Bench)
Panda/Koala Waste Rock Storage Area

ENG.EARC03231-02

Panda/Koala Waste Rock Storage Area
Ekati Diamond Mine, NT

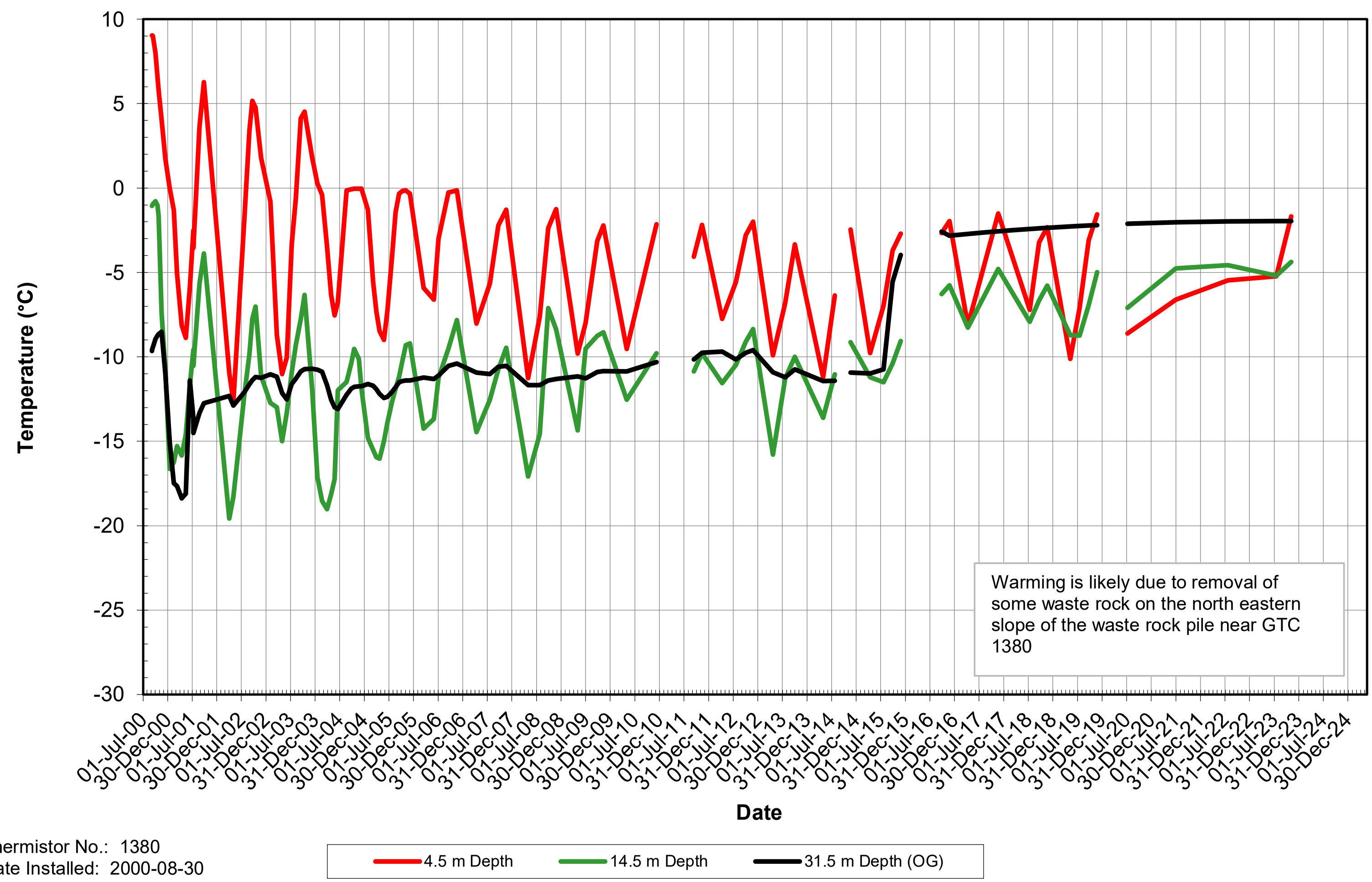
November 2024



NOTE: Surface covered with overburden September 2003

Figure 8
Ground Temperature Profile
Site 4 (30 m Bench)
Panda/Koala Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC- Panda Figures (Fig. 5-13).xlsx]Profile #1380

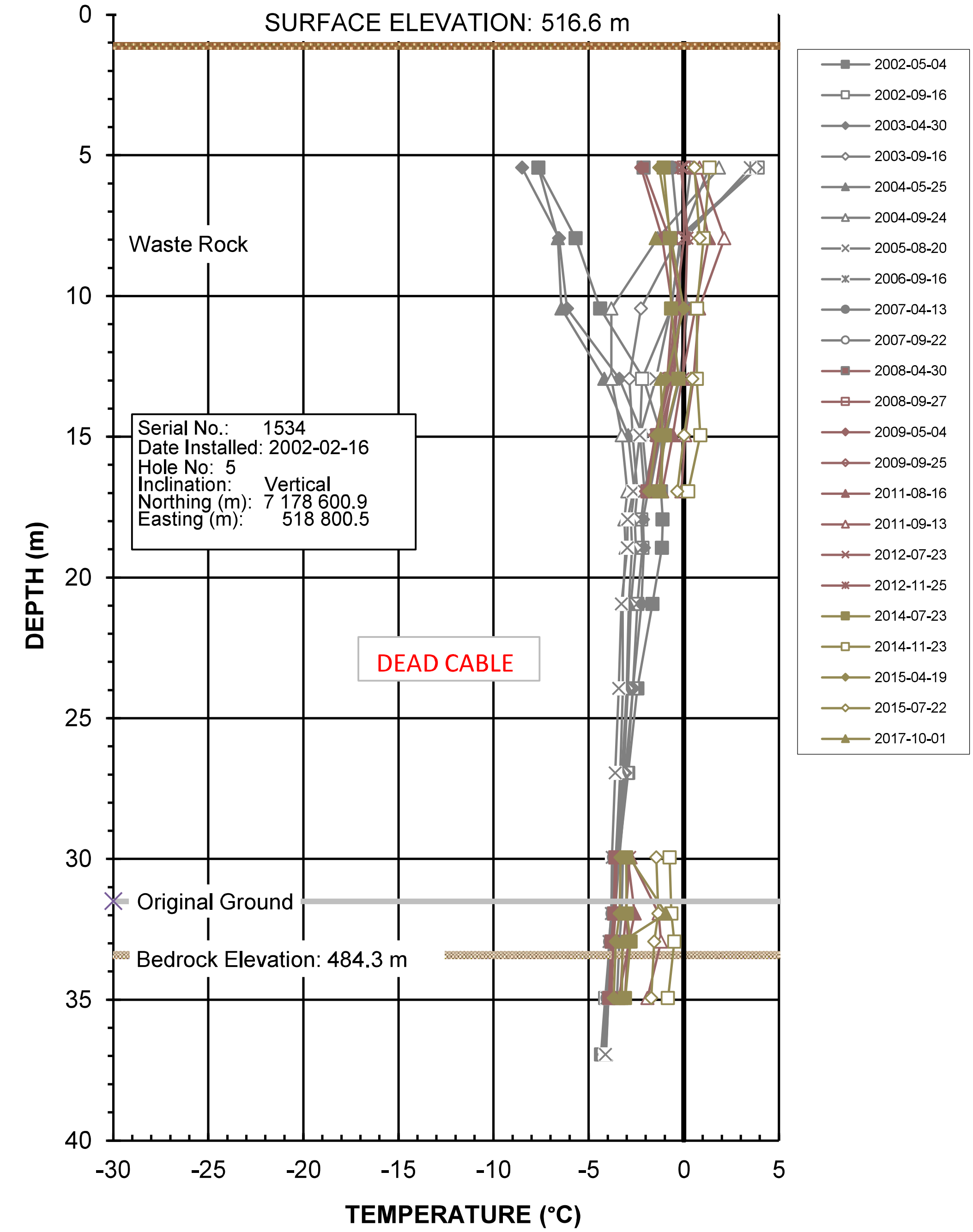


Thermistor No.: 1380
Date Installed: 2000-08-30

Figure 8a
Ground Temperature History
Site 4 (30 m Bench)
Panda/Koala Waste Rock Storage Area

TETRA TECH

Panda/Koala Waste Rock Storage Area
ENG.EARC03231-02 Ekati Diamond Mine, NT November 2024

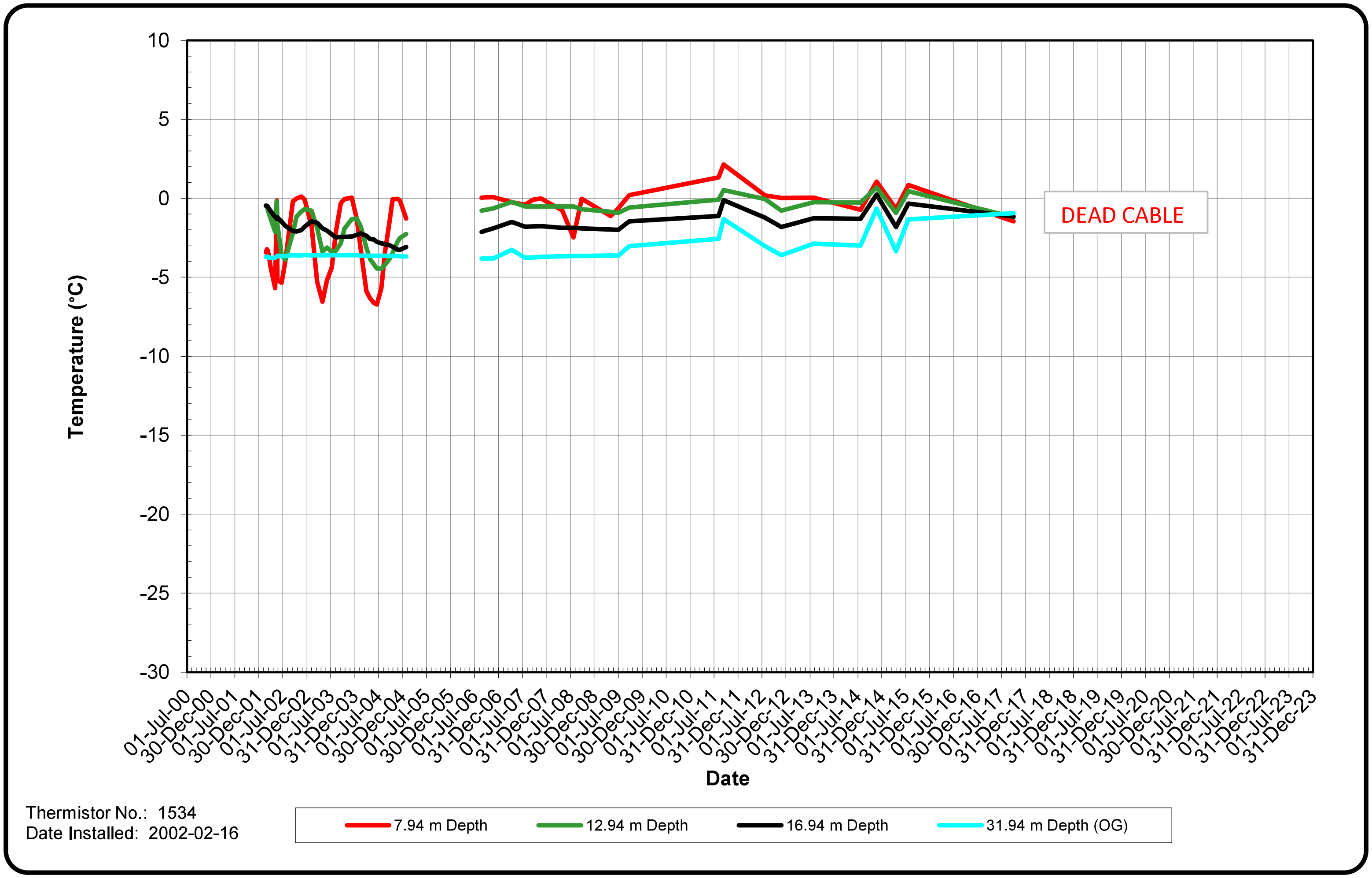


Note: Stockpile surface elevation in the vicinity of cable raised to 516.6 m from 513.66 m in August 2006

Figure 9
Ground Temperature Profile
Site 5 (Centre of Top Bench)
Panda/Koala Waste Rock Storage Area

TETRA TECH

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC- Panda Figures (Fig. 5-13).xlsx]Profile #1534



Note: Stockpile surface elevation in the vicinity of cable raised to 516.6 m from 513.66 m from August 2006

Figure 9a
Ground Temperature History
Site 5 (Centre of Top Bench)
Panda/Koala Waste Rock Storage Area

ENG.EARC03231-02 | **Panda/Koala Waste Rock Storage Area Ekati Diamond Mine, NT** | **November 2024**

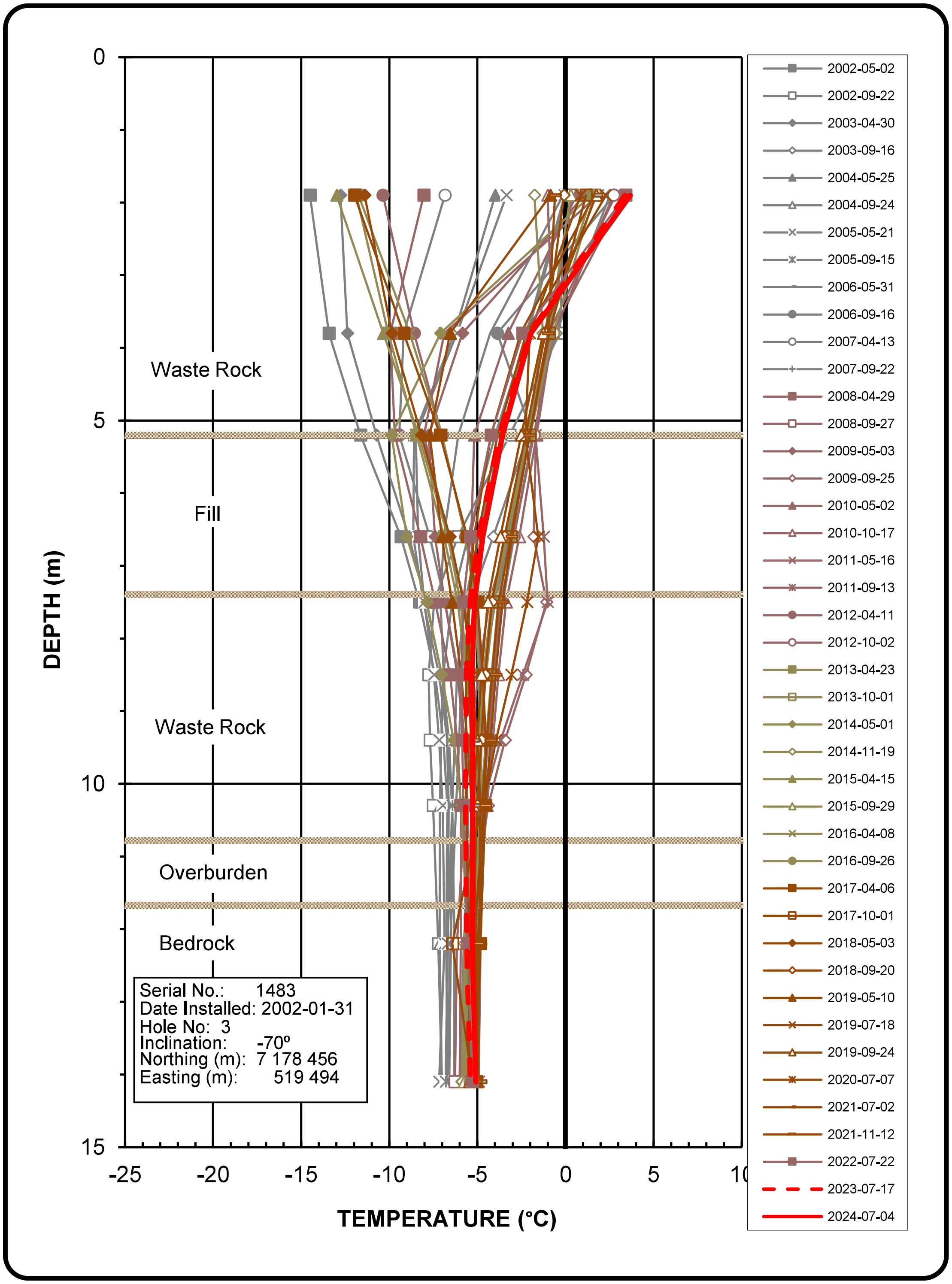


Figure 10
Ground Temperature Profile No.1
Site 6 (In the Panda Toe Berm)
Panda/Koala Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC- Panda Figures (Fig. 5-13).xlsx]Profile #1483

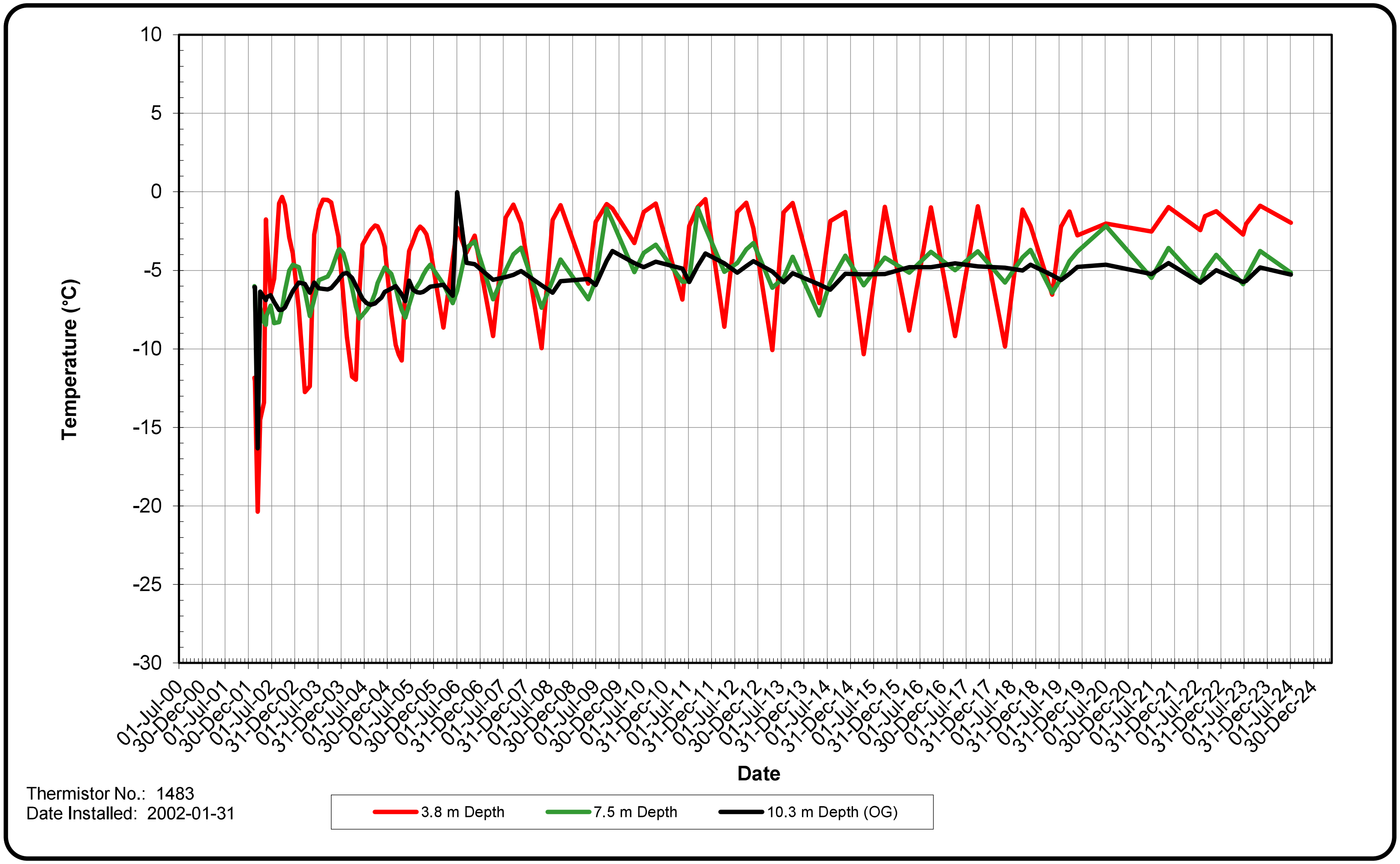


Figure 10a
Ground Temperature History No.1
Site 6 (In the Panda Toe Berm)
Panda/Koala Waste Rock Storage Area

ENG.EARC03231-02 | Panda/Koala Waste Rock Storage Area
Ekati Diamond Mine, NT | November 2024

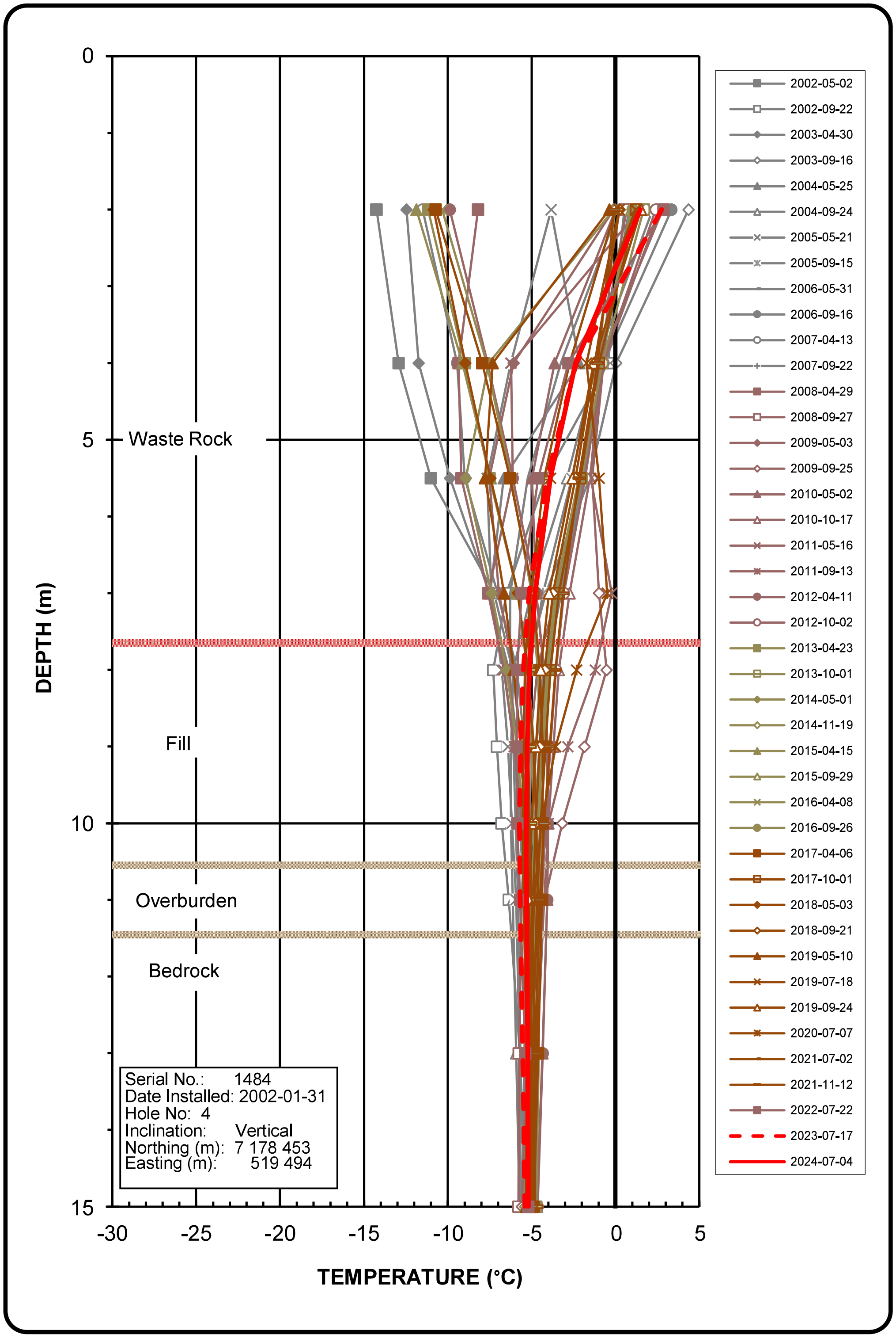
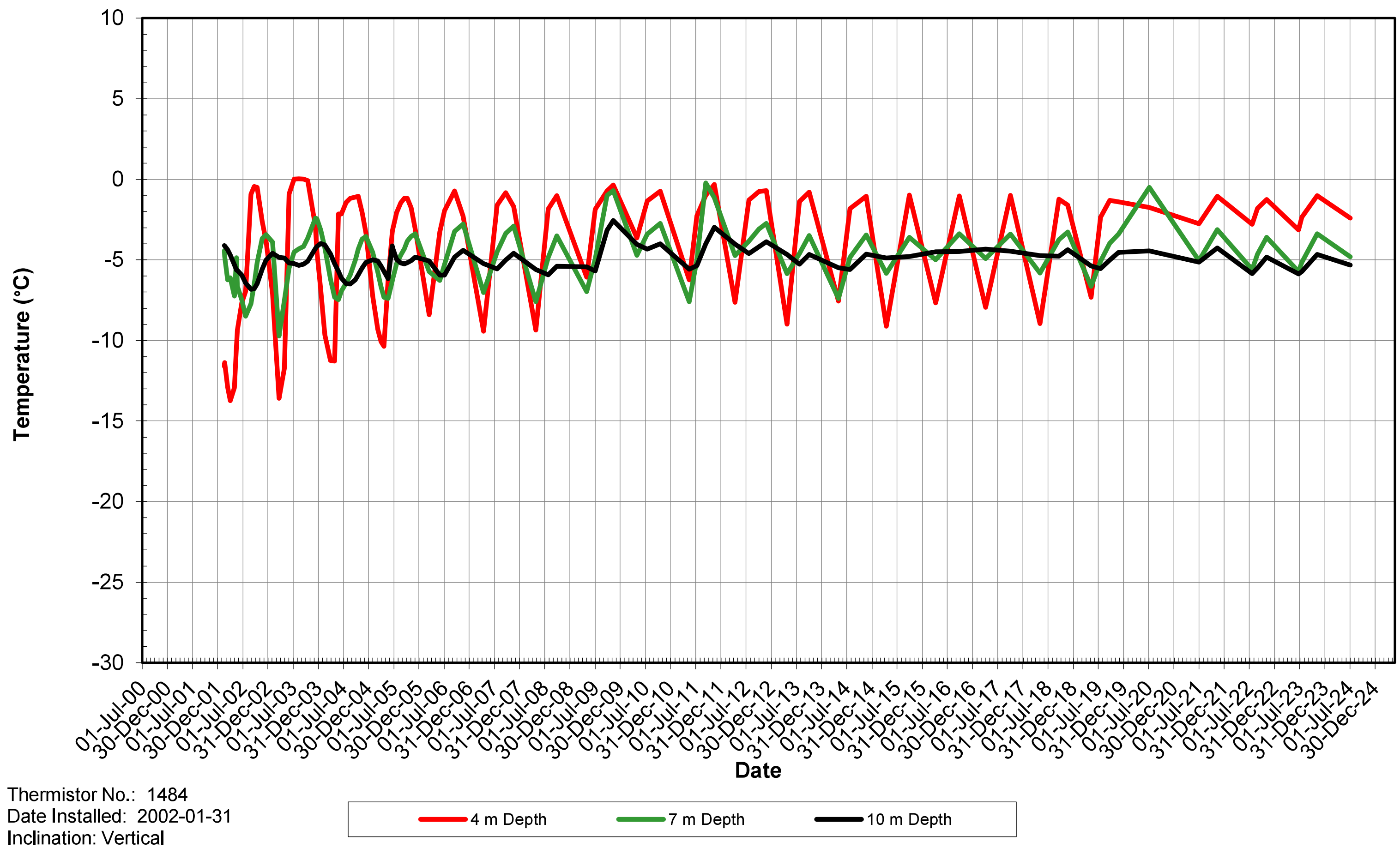


Figure 11
Ground Temperature Profile No.2
Site 6 (In the Panda Toe Berm)
Panda/Koala Waste Rock Storage Area

TETRA TECH

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC- Panda Figures (Fig. 5-13).xlsx]Profile #1484



Thermistor No.: 1484
Date Installed: 2002-01-31
Inclination: Vertical

Figure 11a
Ground Temperature History No.2
Site 6 (In the Panda Toe Berm)
Panda/Koala Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC- Panda Figures (Fig. 5-13).xlsx]History # 1484

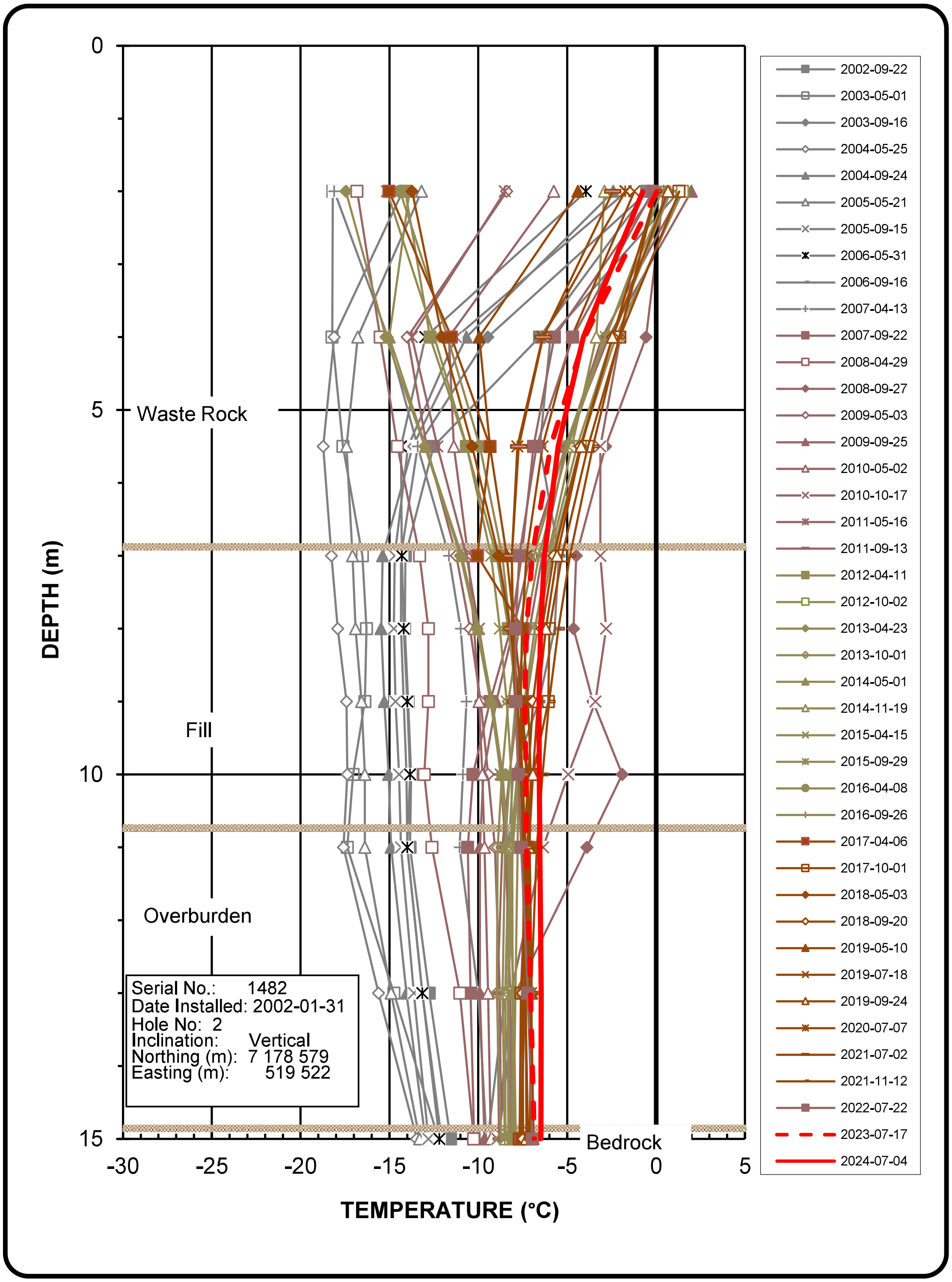


Figure 12
Ground Temperature Profile No.1
Site 7 (In the Panda Toe Berm)
Panda/Koala Waste Rock Storage Area

TETRA TECH

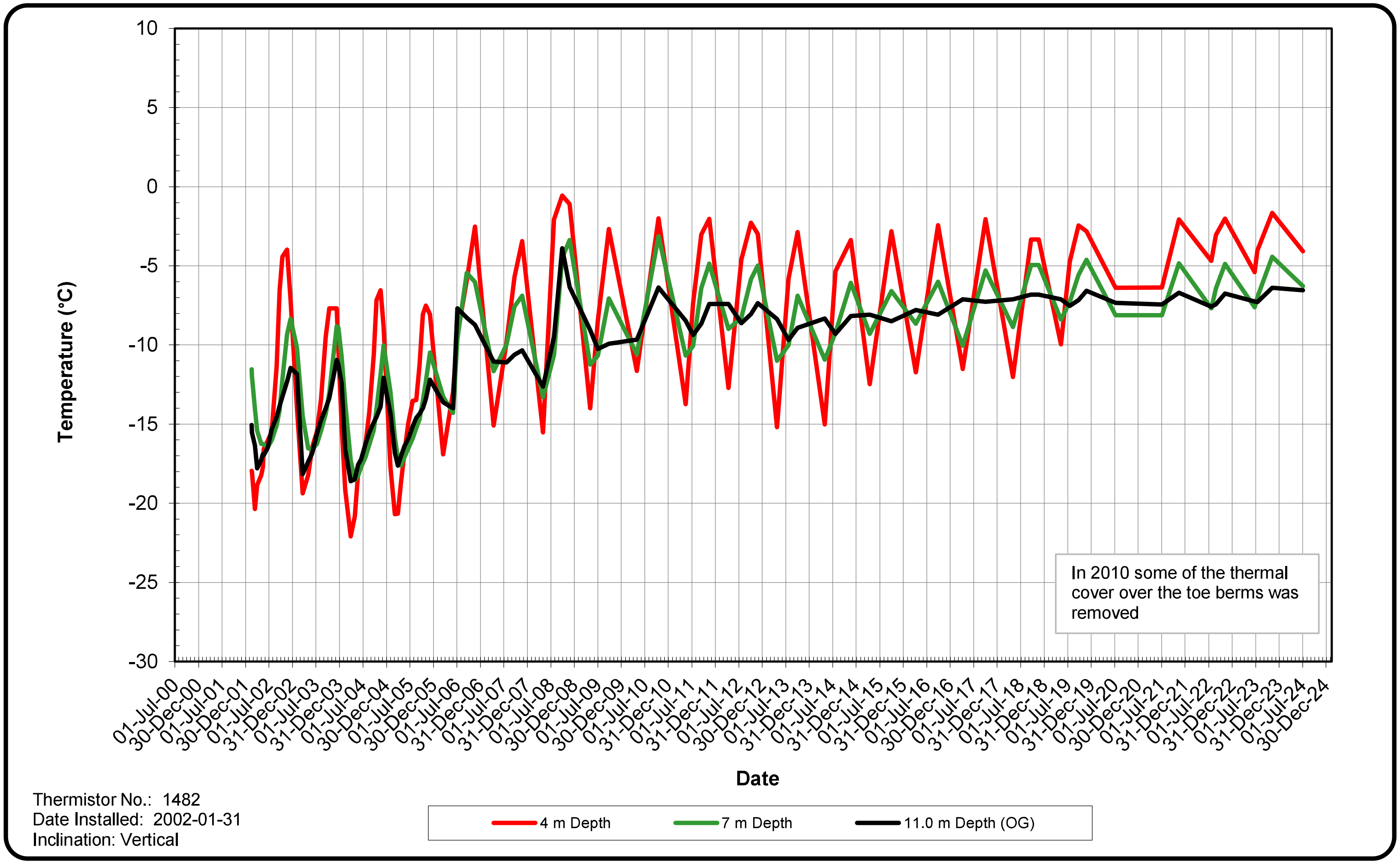


Figure 12a
Ground Temperature History No.1
Site 7 (In the Panda Toe Berm)
Panda/Koala Waste Rock Storage Area

Panda/Koala Waste Rock Storage Area

ENG.EARC03231-02 **Ekati Diamond Mine, NT** **November 2024**

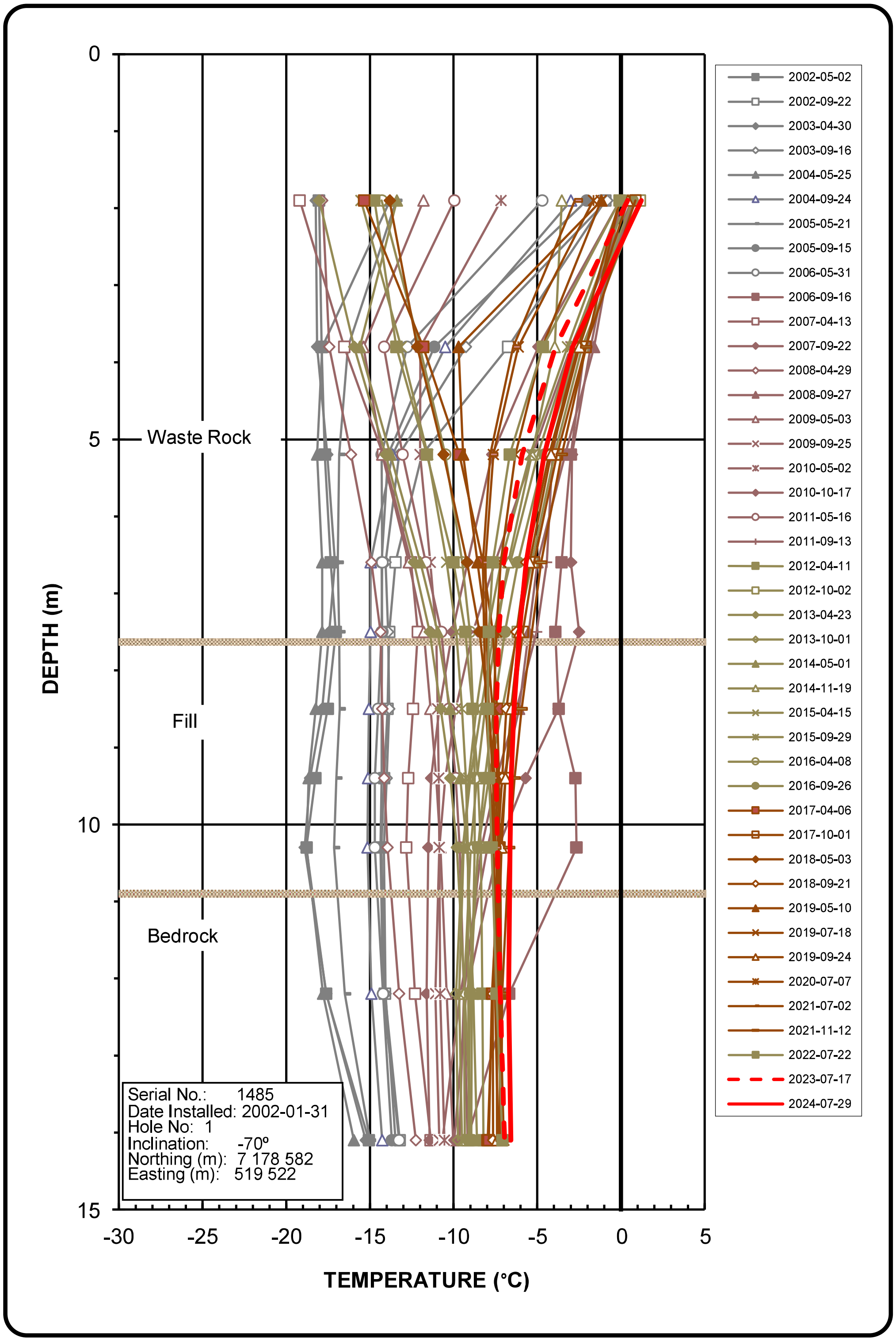
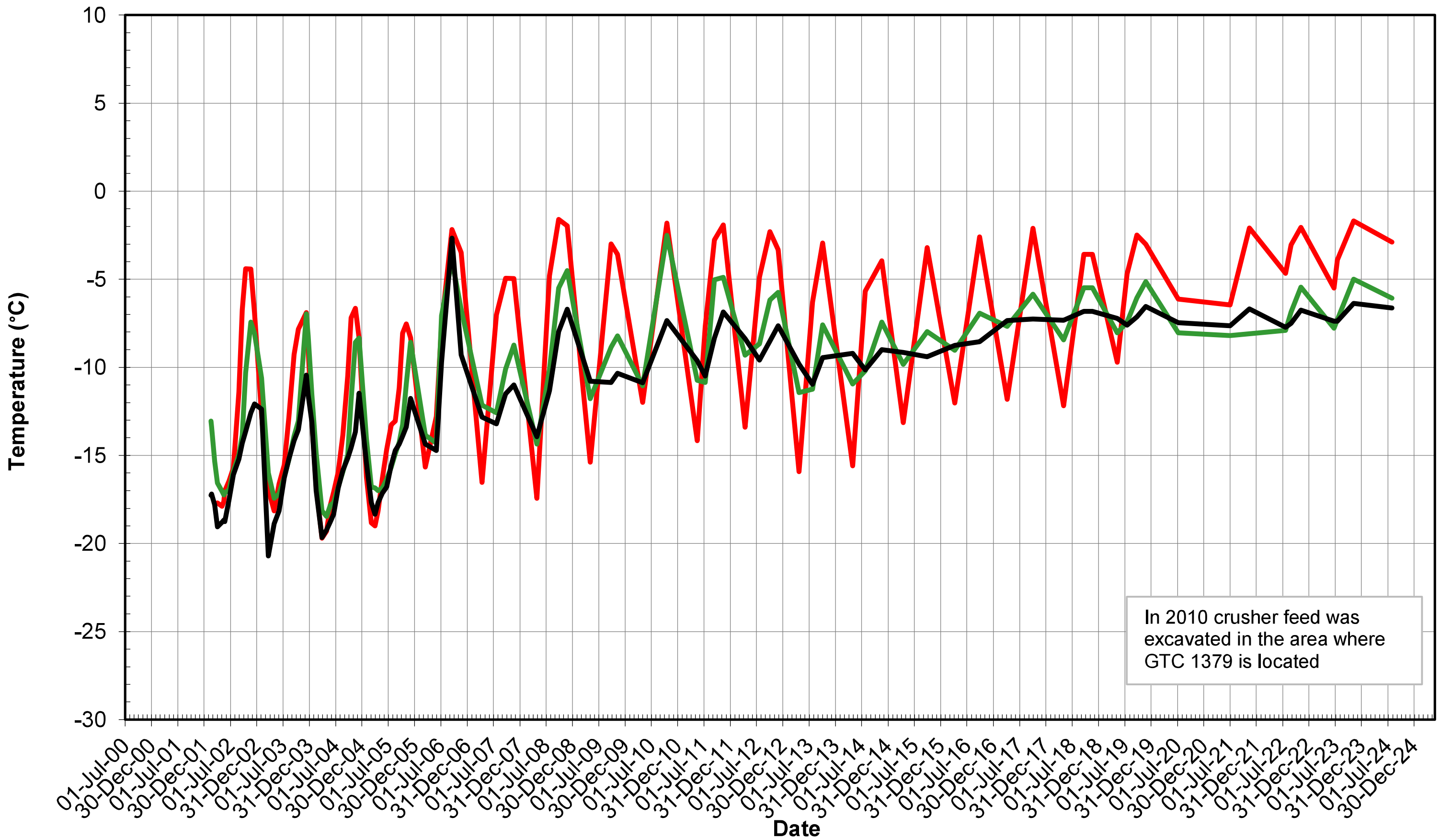


Figure 13
Ground Temperature Profile No.2
Site 7 (In the Panda Toe Berm)
Panda/Koala Waste Rock Storage Area



Thermistor No.: 1485
Date Installed: 2002-01-31
Inclination: -70°

Figure 13a
Ground Temperature History No.2
Site 7 (In the Panda Toe Berm)
Panda/Koala Waste Rock Storage Area

ENG.EARC03231-02 | Bearclaw Toe Berm
Ekati Diamond Mine, NT | July 2024

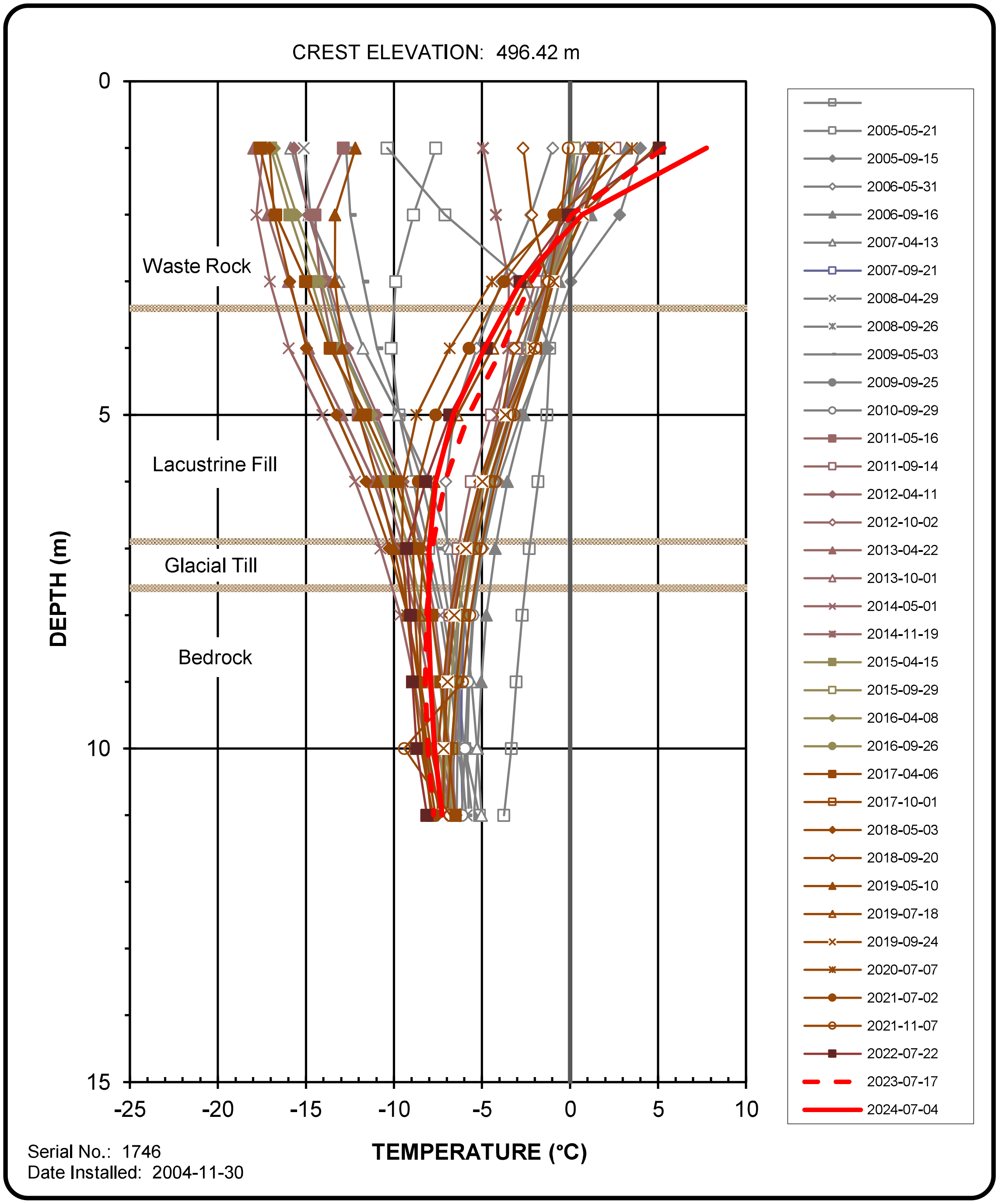
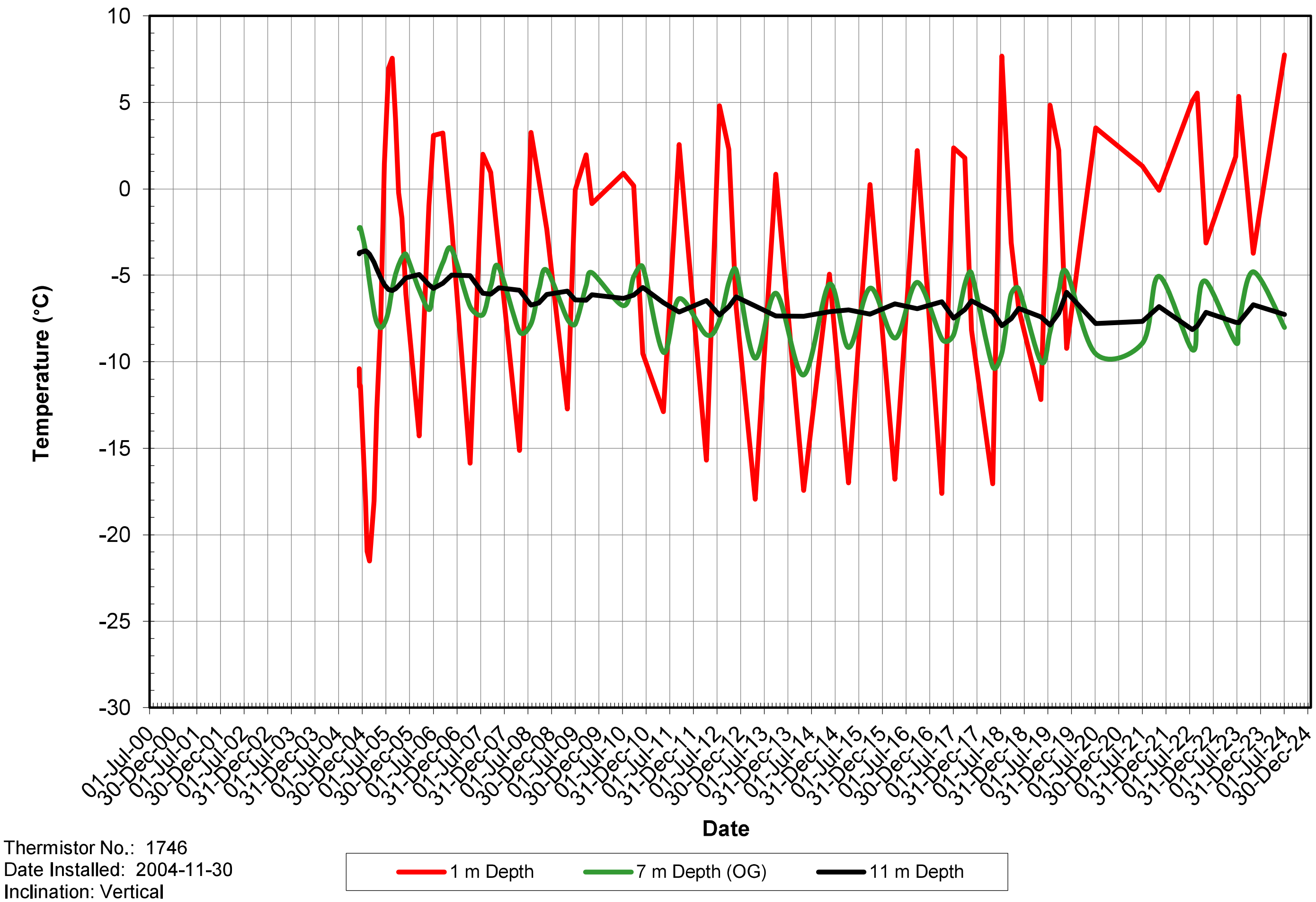


Figure 14
Ground Temperature Profile
Bearclaw Toe Berm

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Bearclaw Figure (Fig. 14).xlsx]String #1746



Thermistor No.: 1746
Date Installed: 2004-11-30
Inclination: Vertical

Figure 14a
Ground Temperature History
Site 7 (Adjacent to Toe of Storage Pile)
Bearclaw Toe Berm

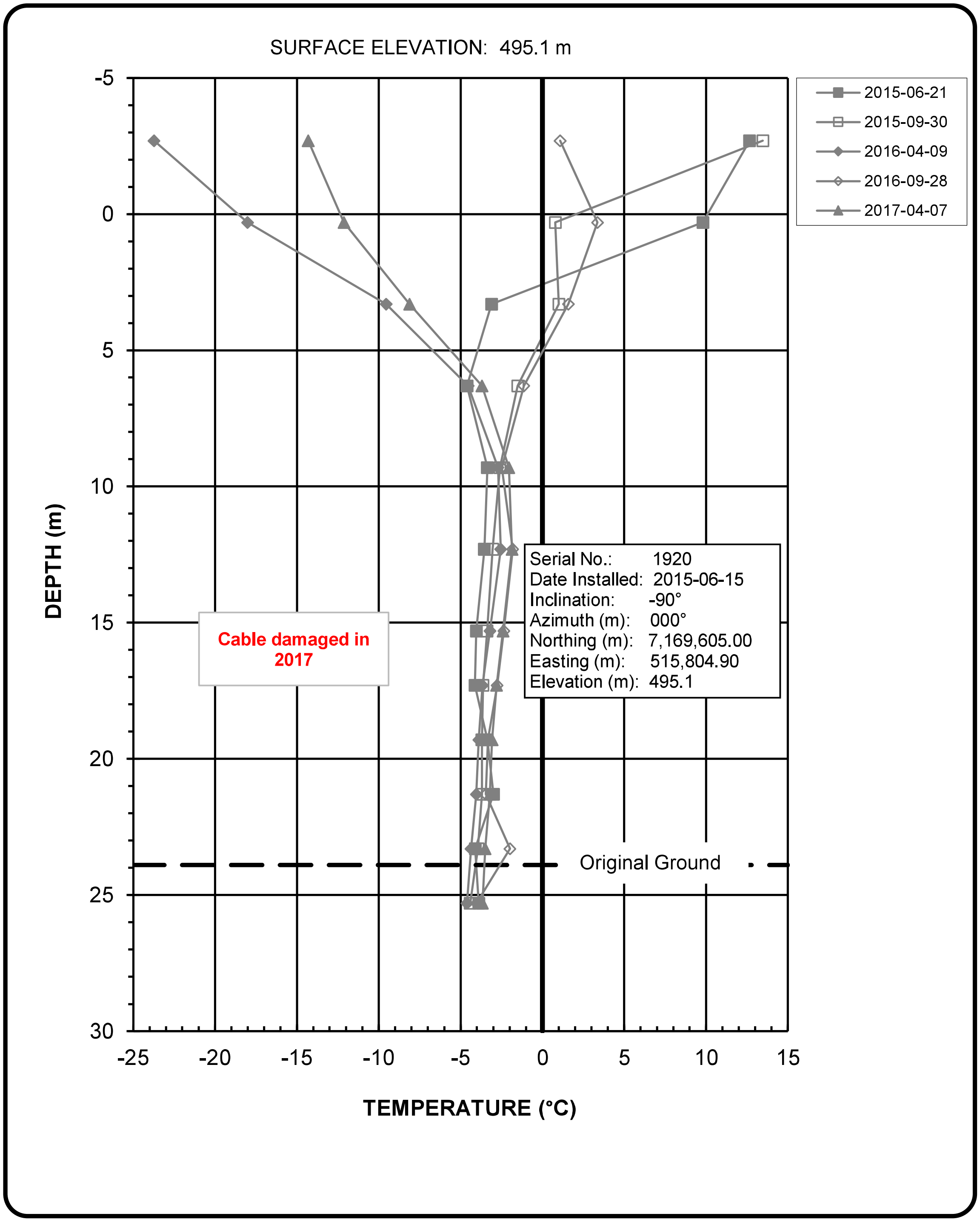


Figure 15
Ground Temperature Profile No.1
Fox Waste Kimberlite Dump
Fox Waste Rock Storage Area

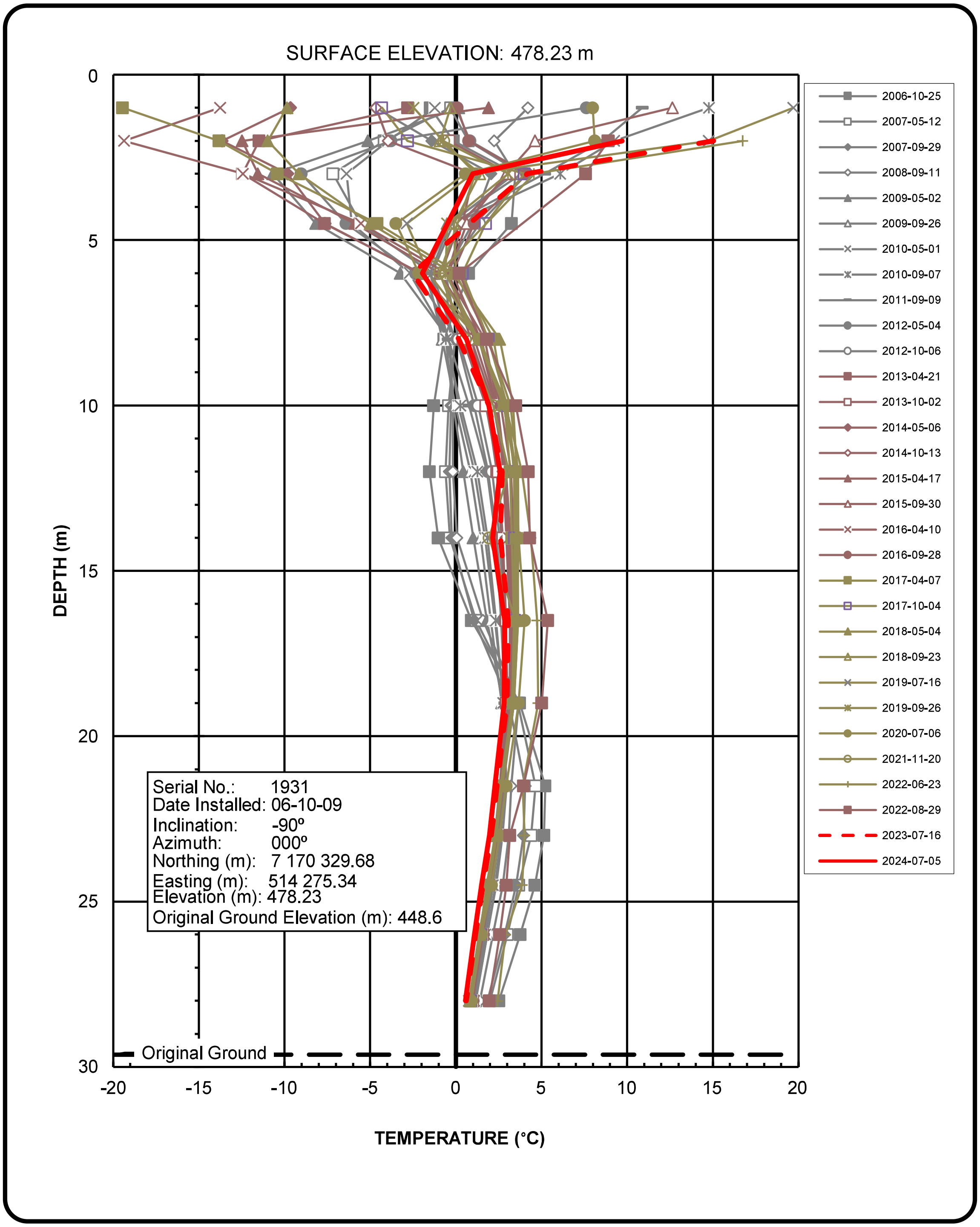


Figure 16
Ground Temperature Profile No.1
Fox Low Grade Kimberlite Dump
Fox Waste Rock Storage Area

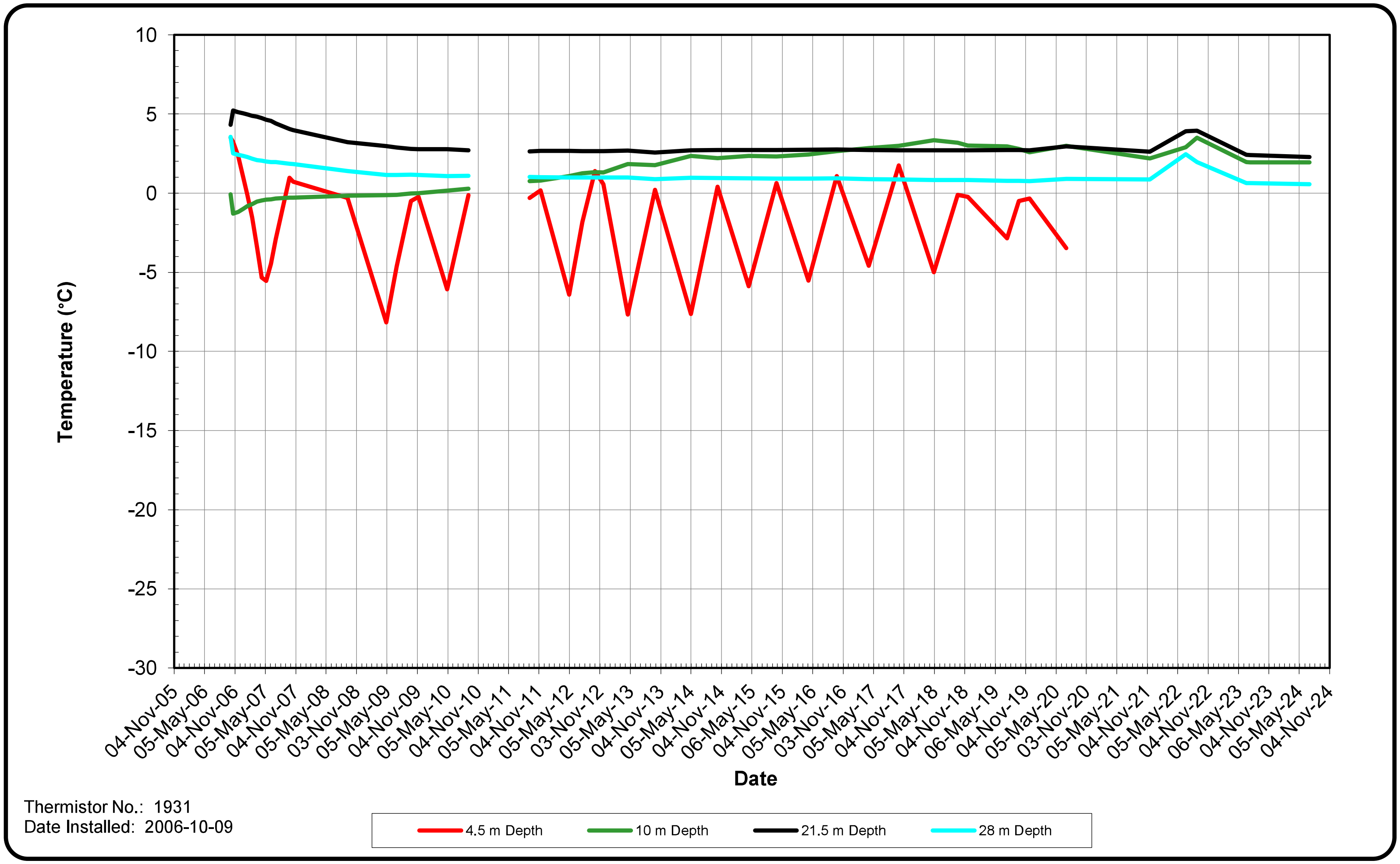


Figure 16a
Ground Temperature History
Fox Low Grade Kimberlite Dump
Fox Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Fox Figures (15-22).xlsx]History #1931

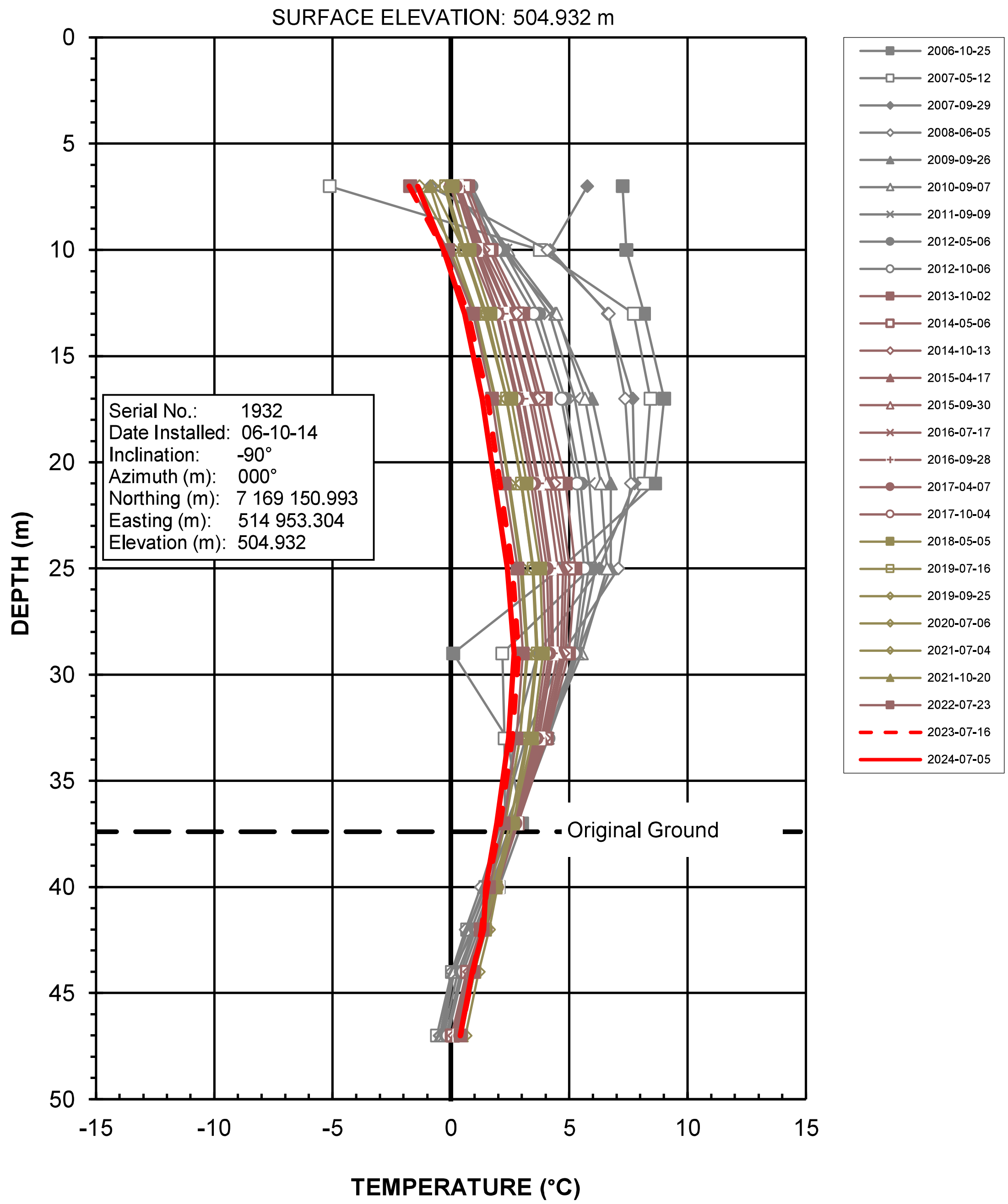


Figure 17
Ground Temperature Profile
Fox Waste Granite Dump
Fox Waste Rock Storage Area

TETRA TECH

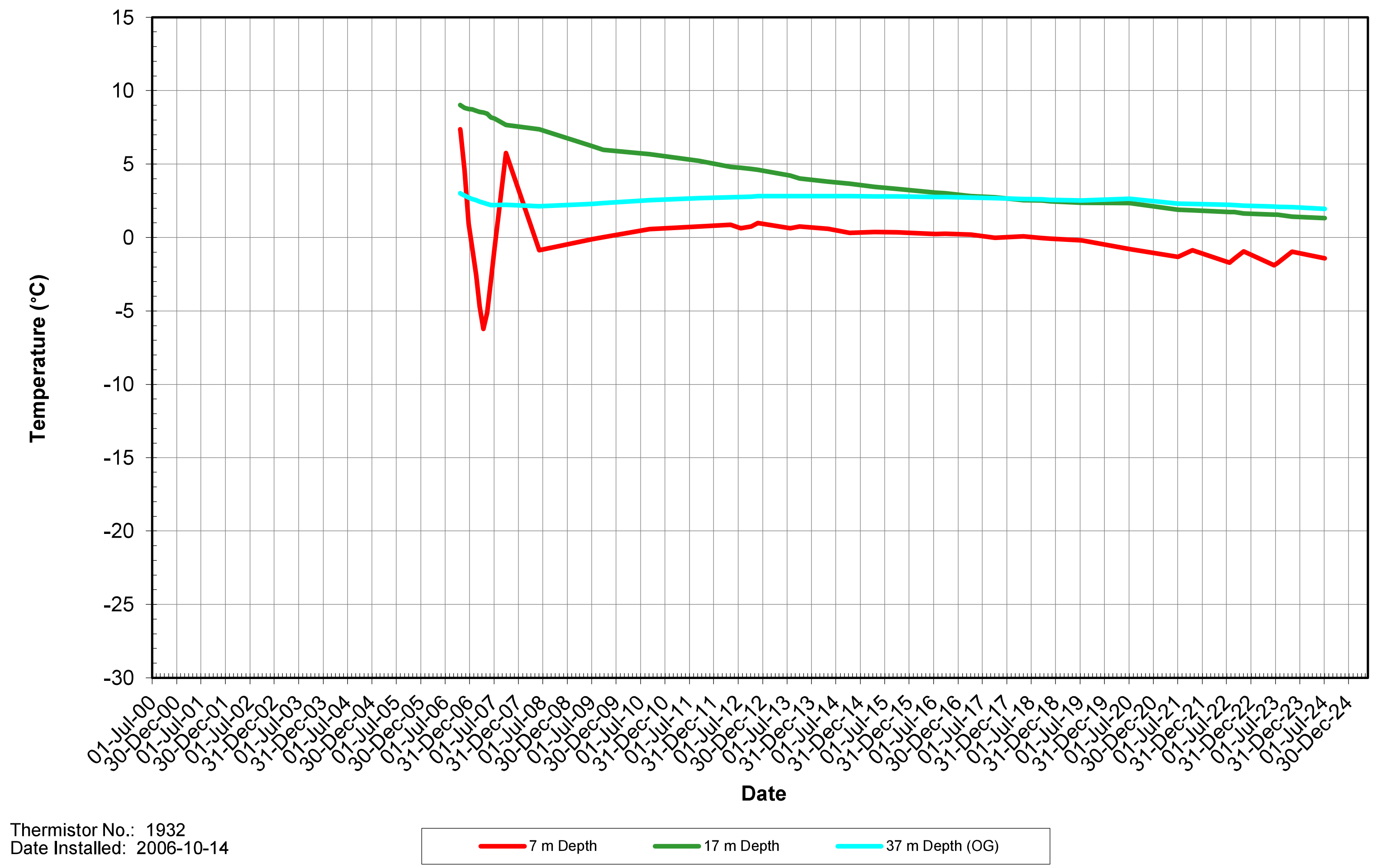


Figure 17a
Ground Temperature History
Waste Granite Dump
Fox Waste Rock Storage Area

ENG.EARC03231-02 | Fox Waste Rock Storage Area
Ekati Diamond Mine, NT | November 2024

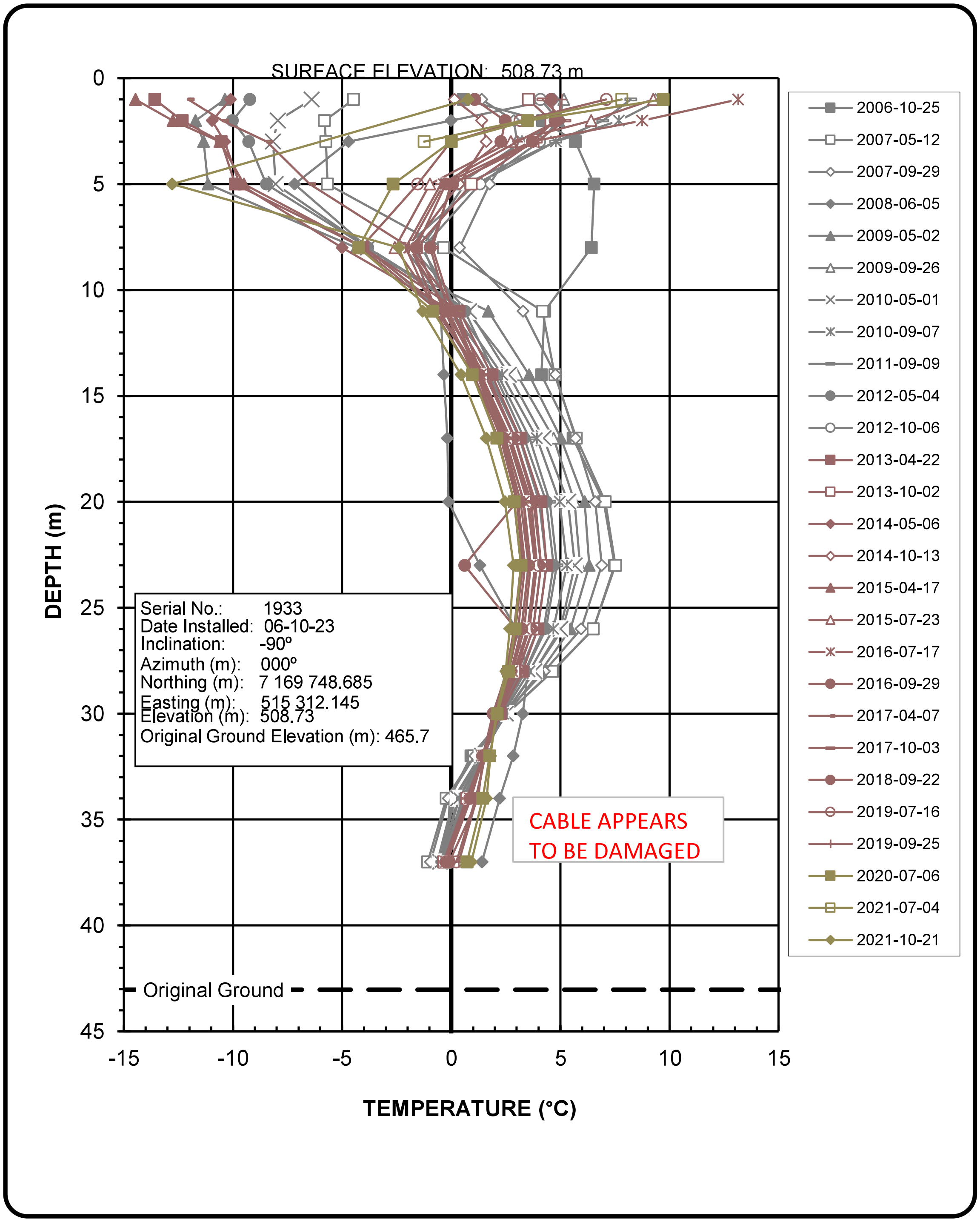


Figure 18
Ground Temperature Profile No.2
Fox Waste Kimberlite Dump
Fox Waste Rock Storage Area

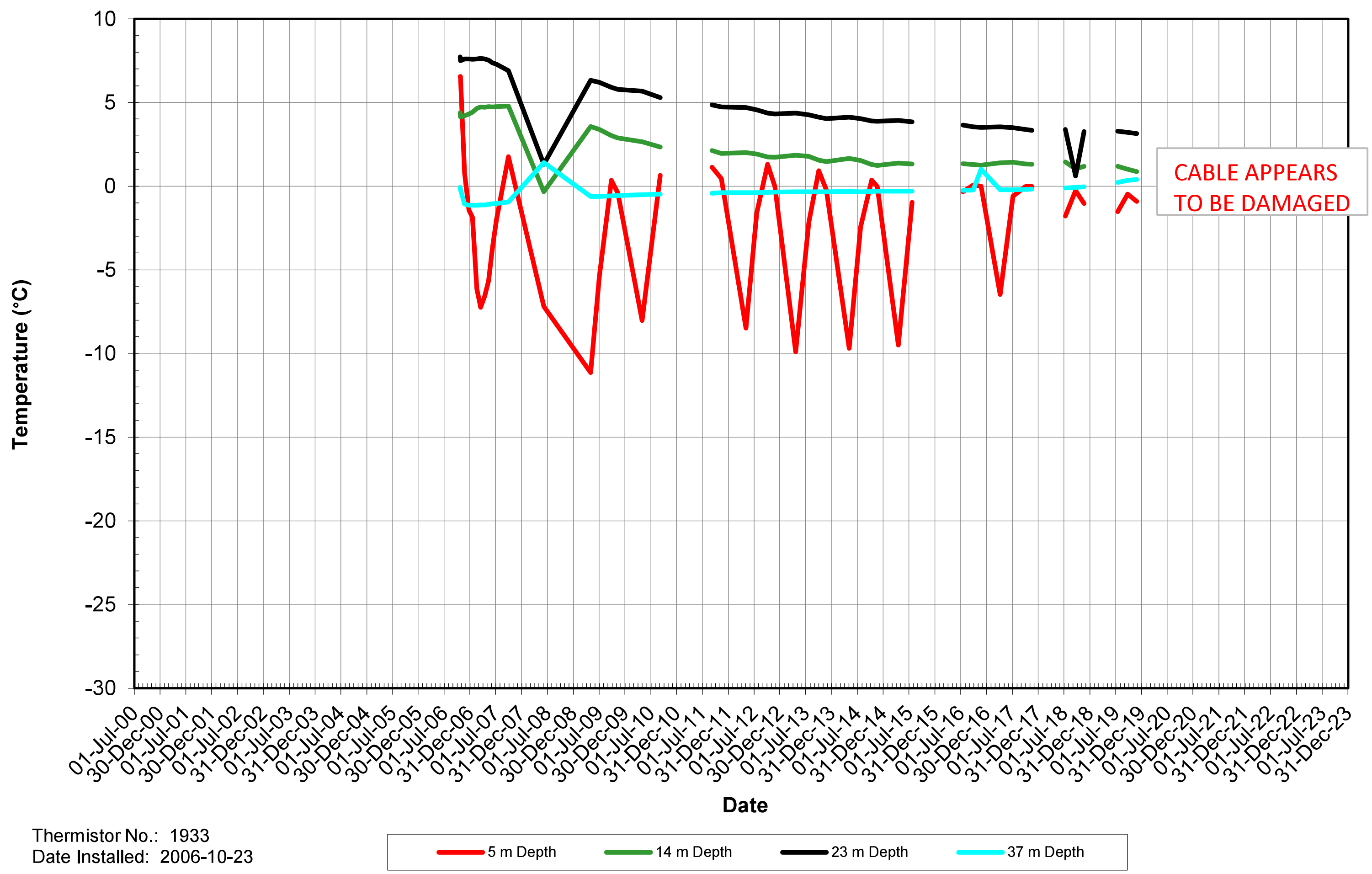


Figure 18a
Ground Temperature History
Fox Waste Kimberlite Dump
Fox Waste Rock Storage Area

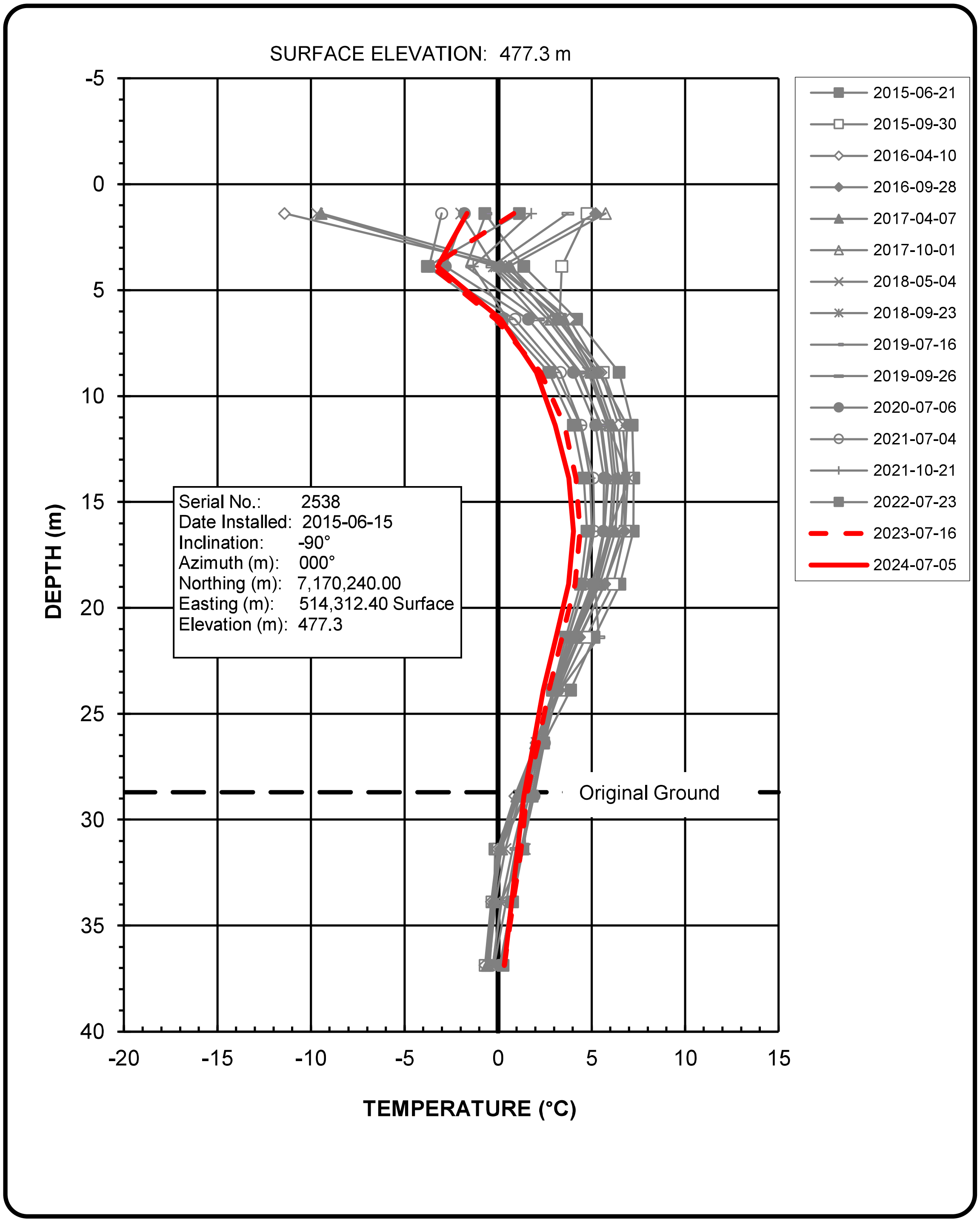


Figure 19
Ground Temperature Profile No.2
Fox Low Grade Kimberlite Dump
Fox Waste Rock Storage Area

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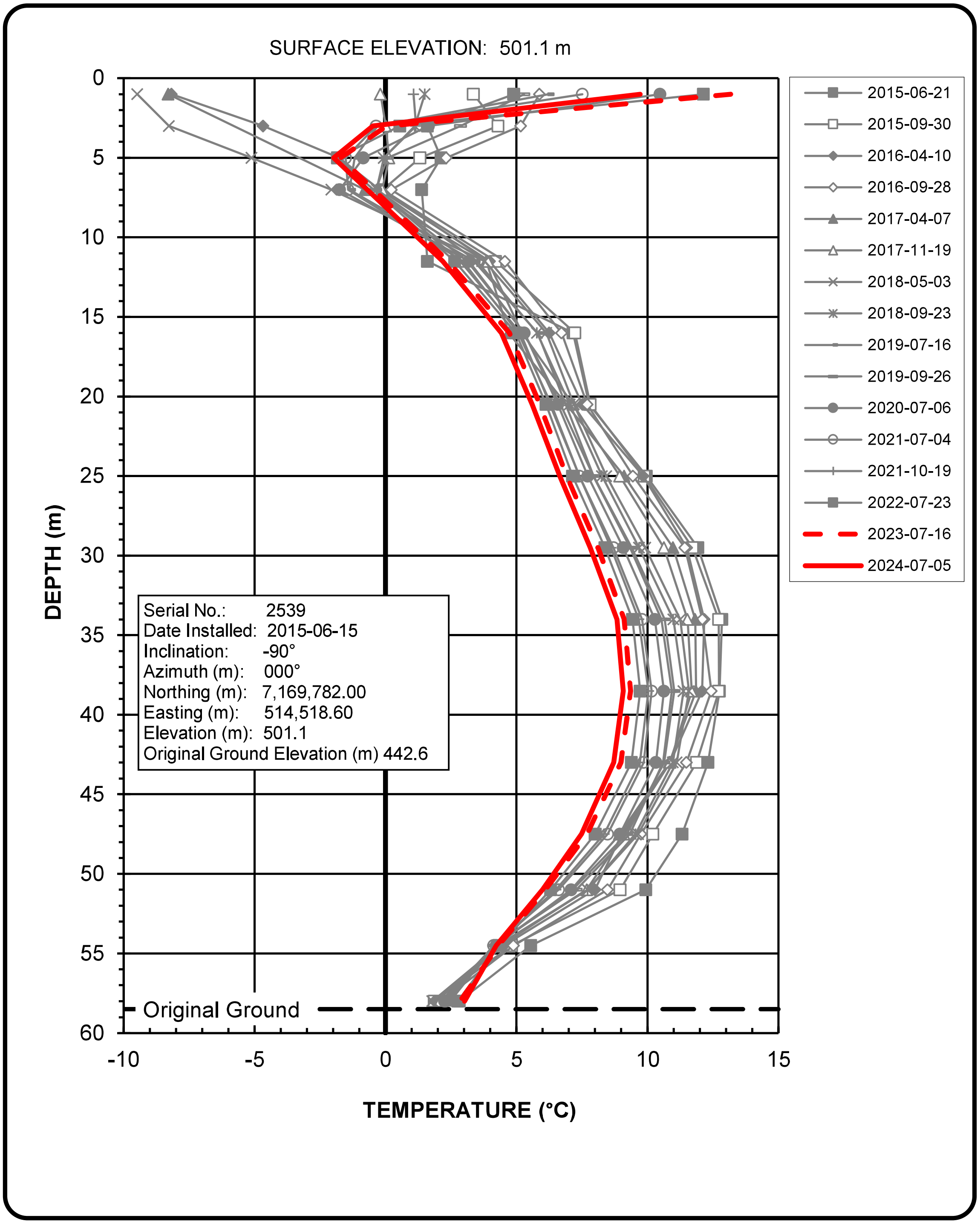


Figure 20
Ground Temperature Profile No.1
Fox Waste Granite/Kimberlite Dump
Fox Waste Rock Storage Area

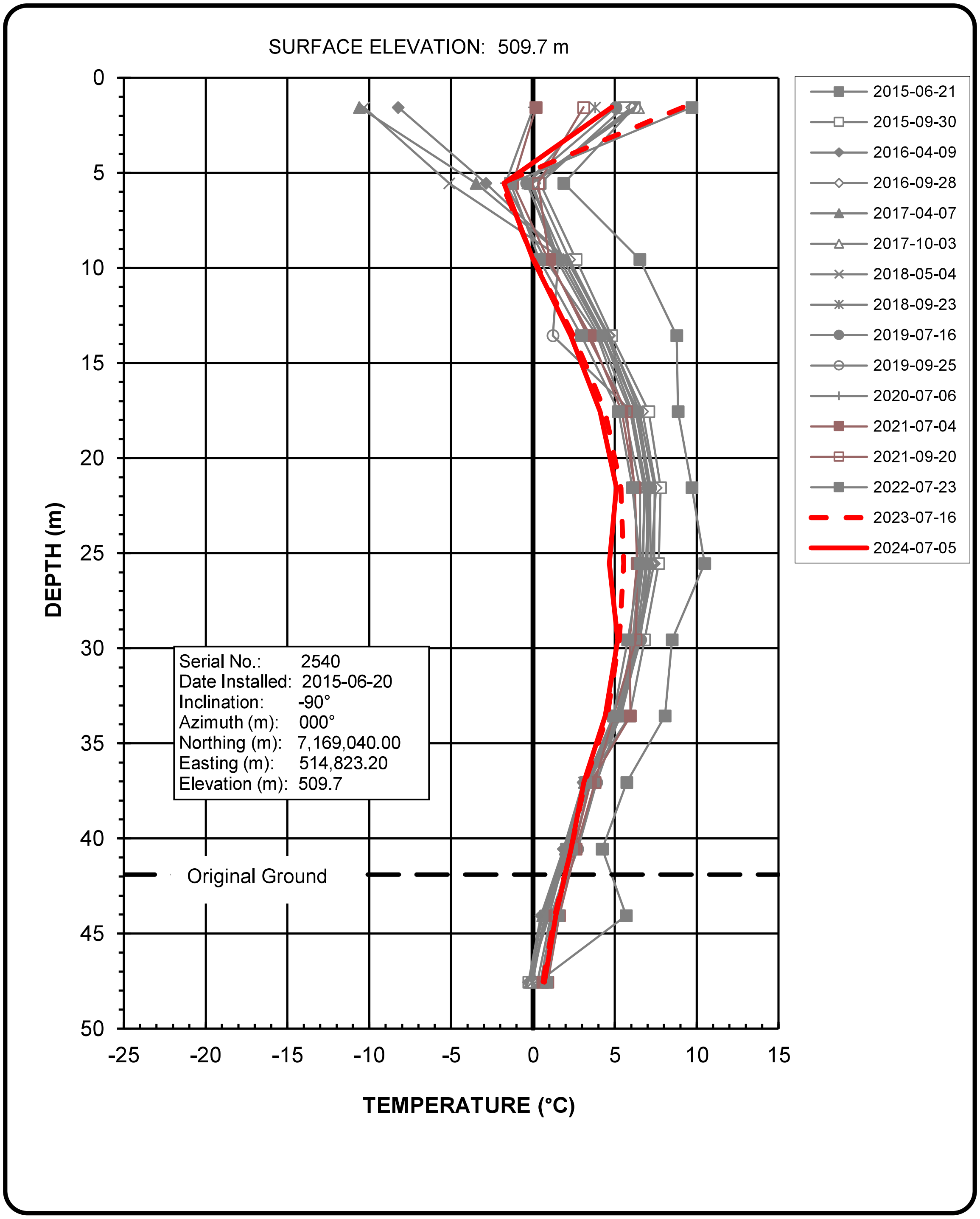


Figure 21
Ground Temperature Profile No.2
Fox Waste Granite/Kimberlite Dump
Fox Waste Rock Storage Area

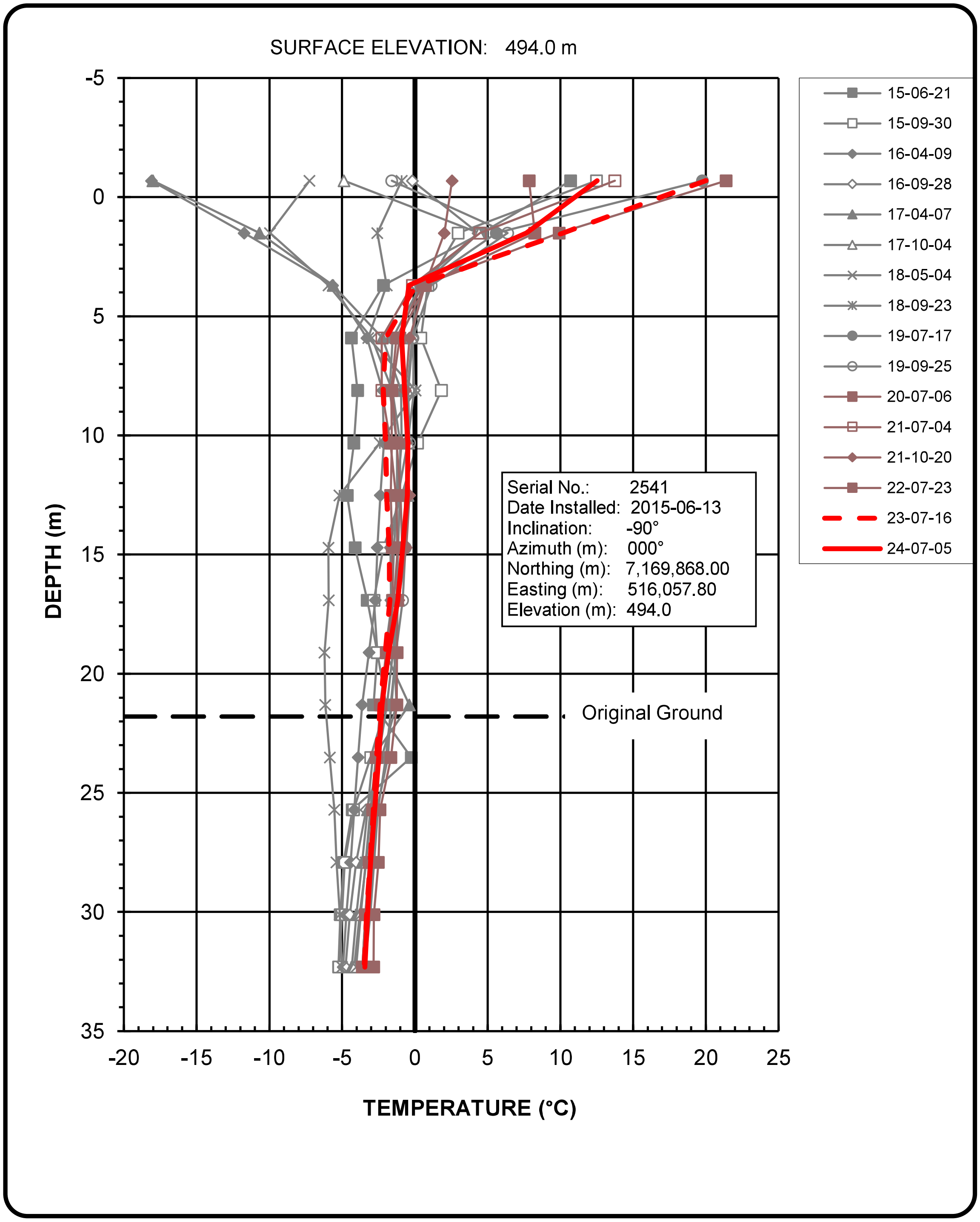


Figure 22
Ground Temperature Profile No.3
Fox Waste Kimberlite Dump
Fox Waste Rock Storage Area

TETRA TECH

ENG.EARC03231-02 | Fox Toe Berm
Ekati Diamond Mine, NT | November 2024

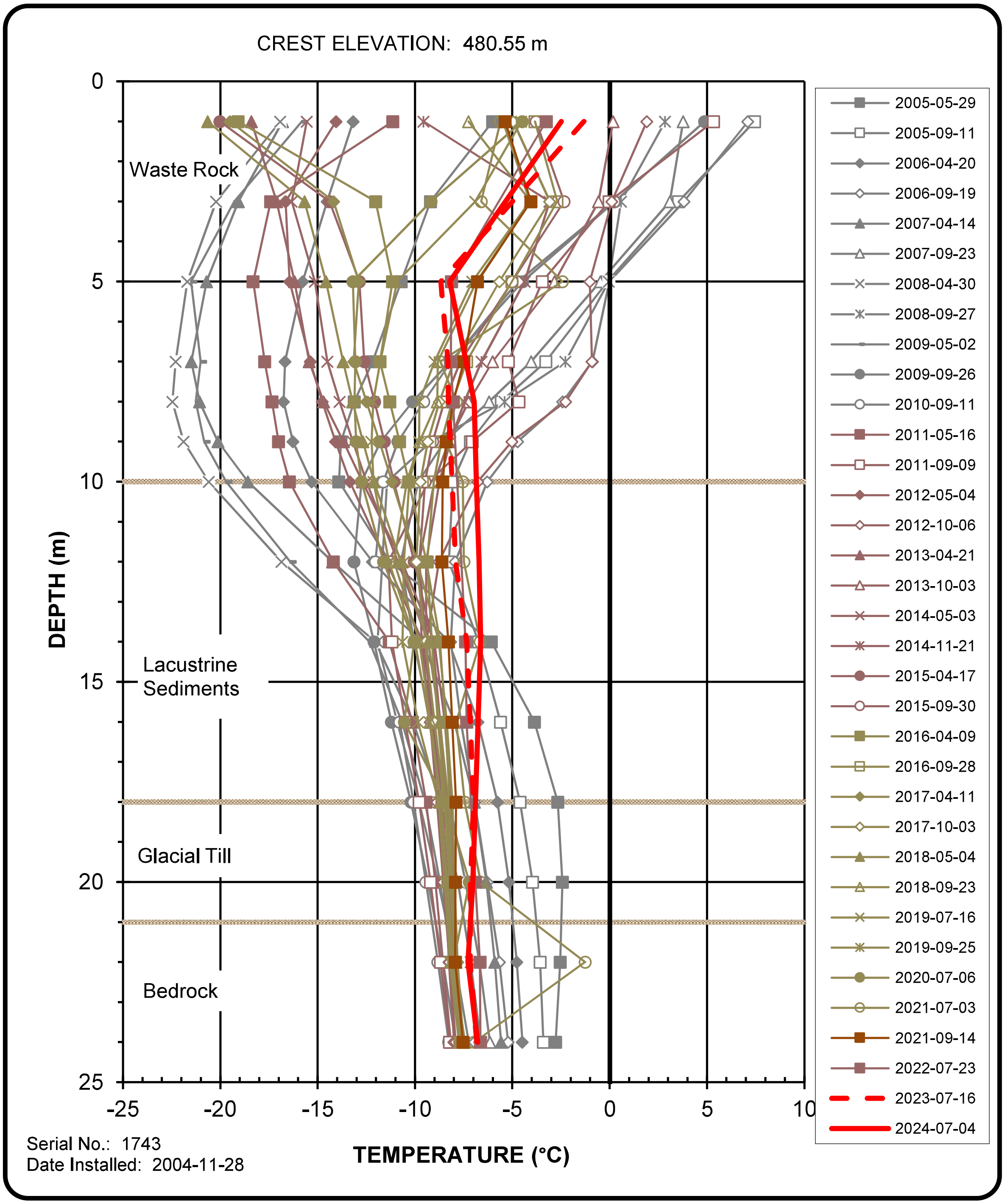
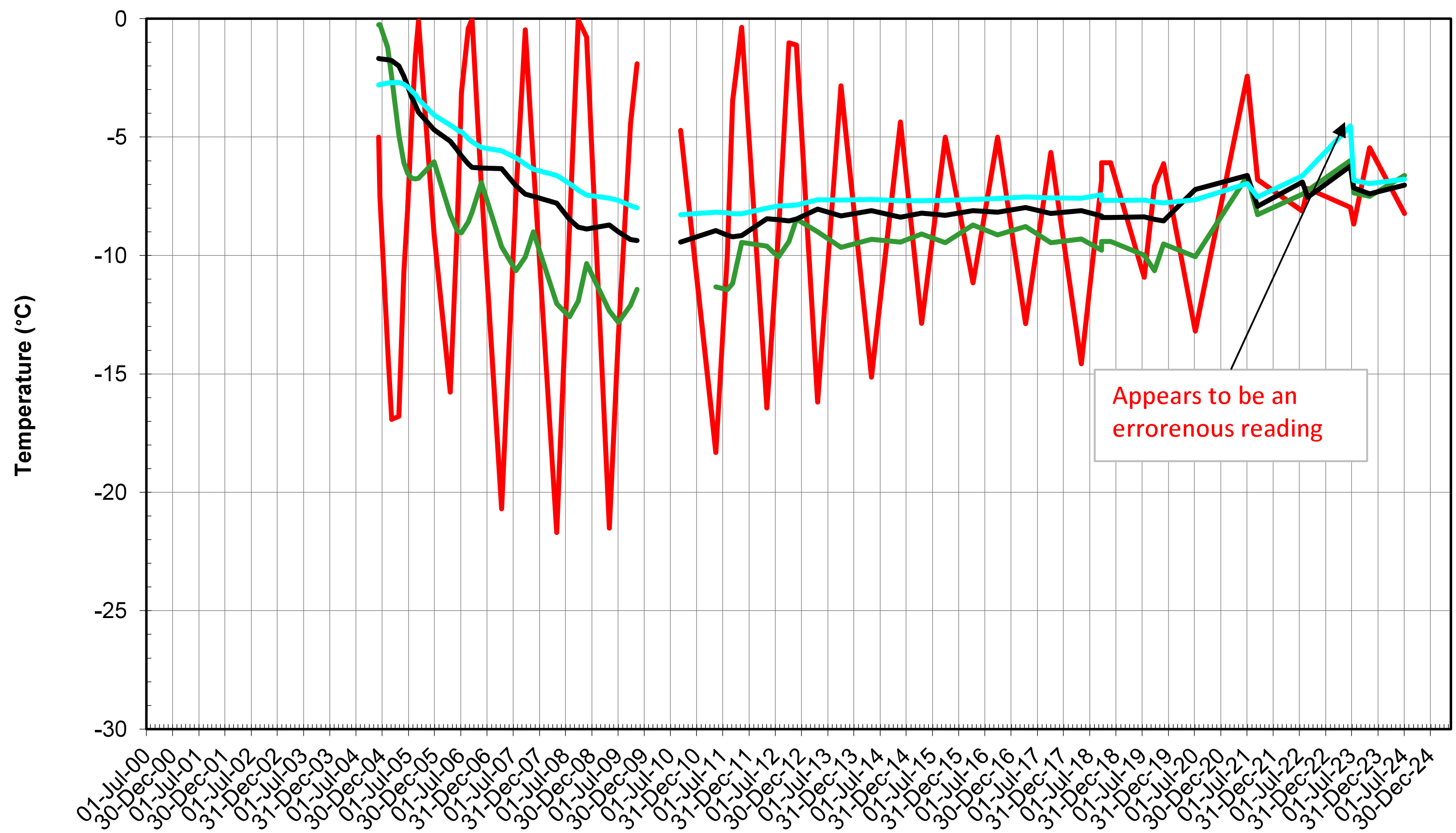


Figure 23
Ground Temperature Profile
Fox Toe Berm Southeast Valley

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Fox Toe Berm (Fig. 23-25).xlsx]String #1743



Thermistor No.: 1743
Date Installed: 2004-11-28

Figure 23a
Ground Temperature History
Fox Toe Berm Southeast Valley

ENG.EARC03231-02 | Fox Toe Berm
Ekati Diamond Mine, NT | November 2024

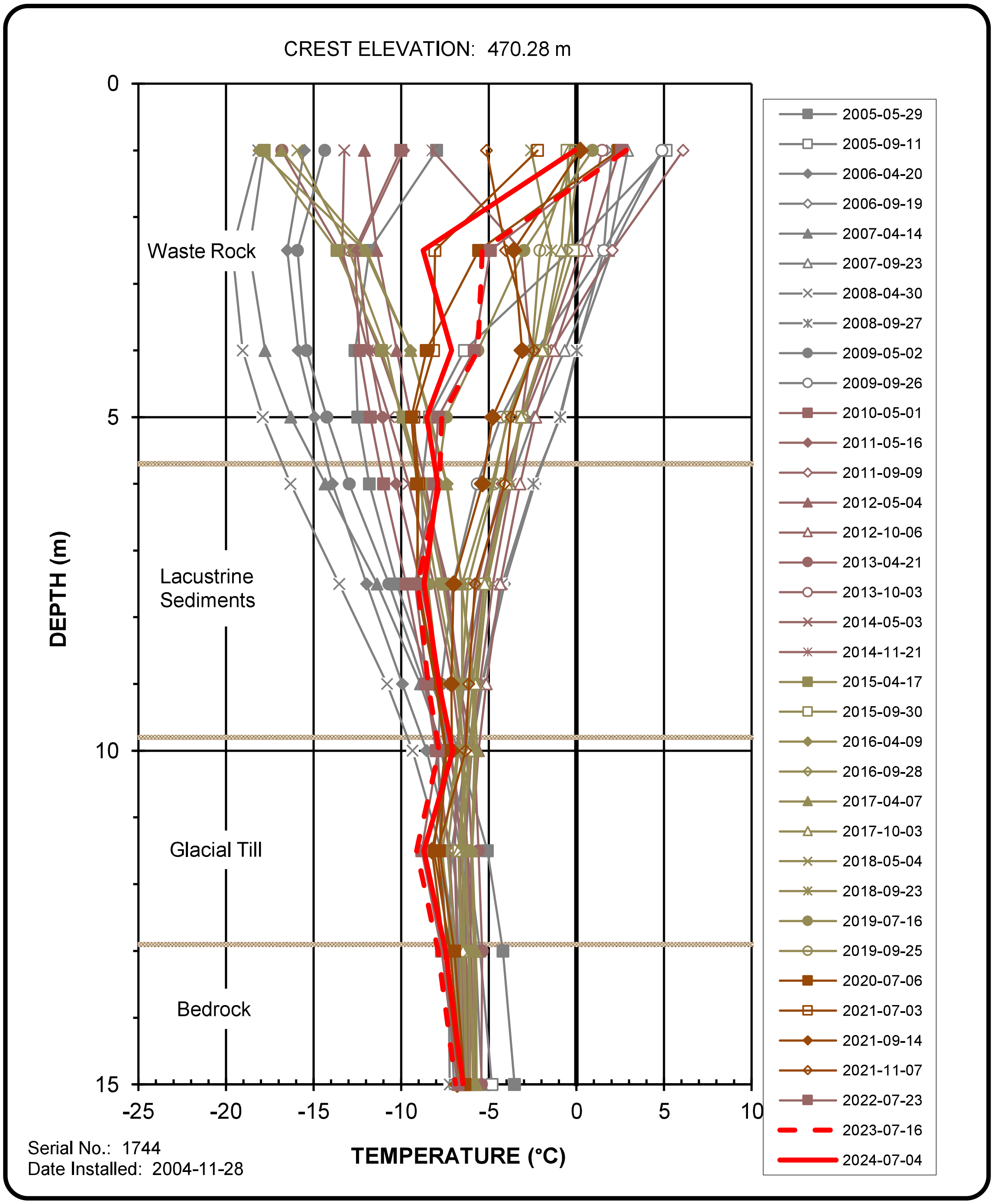


Figure 24
Ground Temperature Profile
Fox Toe Berm 3 Hump Lake Streams

TETRA TECH

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Fox Toe Berm (Fig. 23-25).xlsx]String #1744

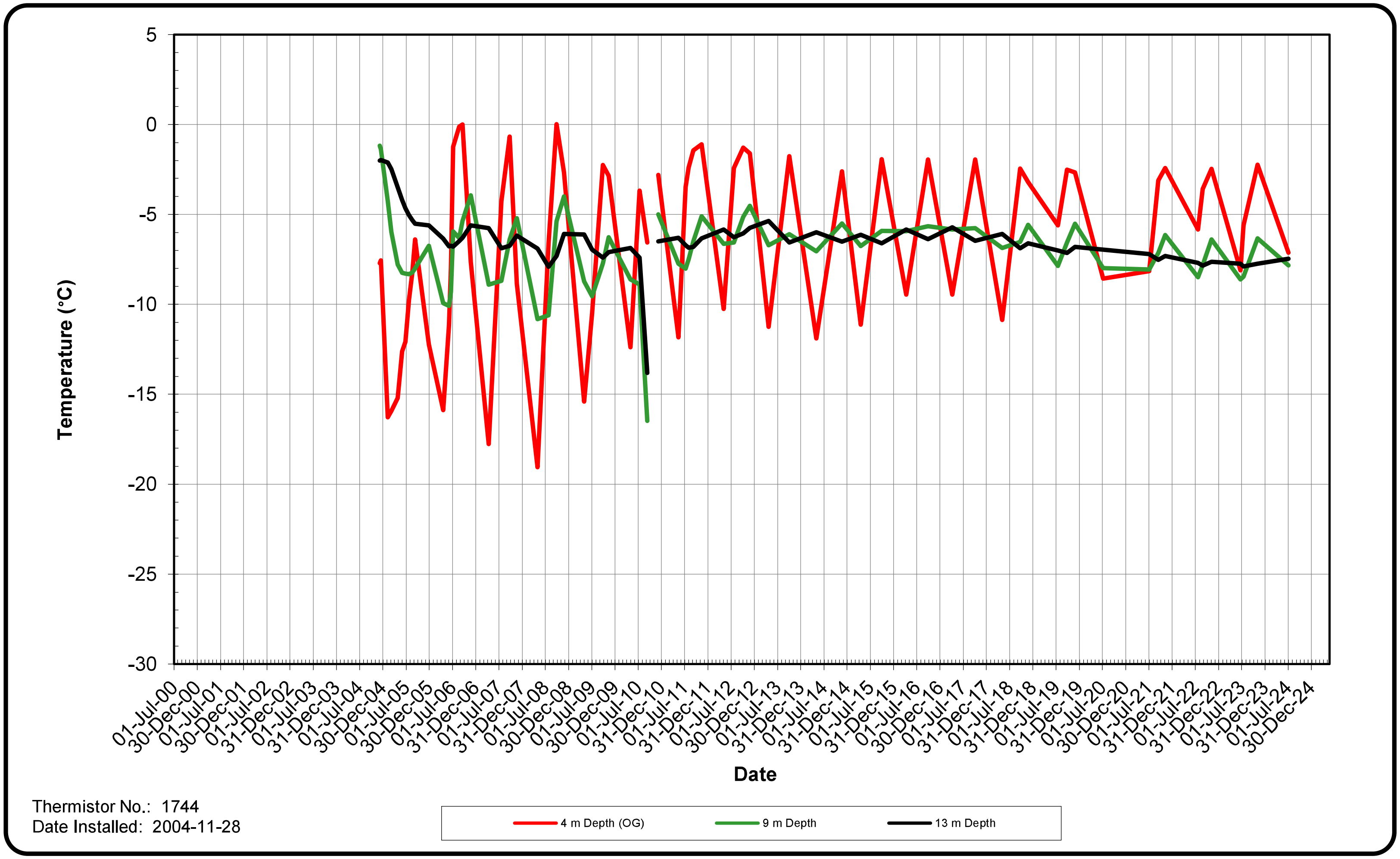


Figure 24a
Ground Temperature History
Fox Toe Berm 3 Hump Lake Streams

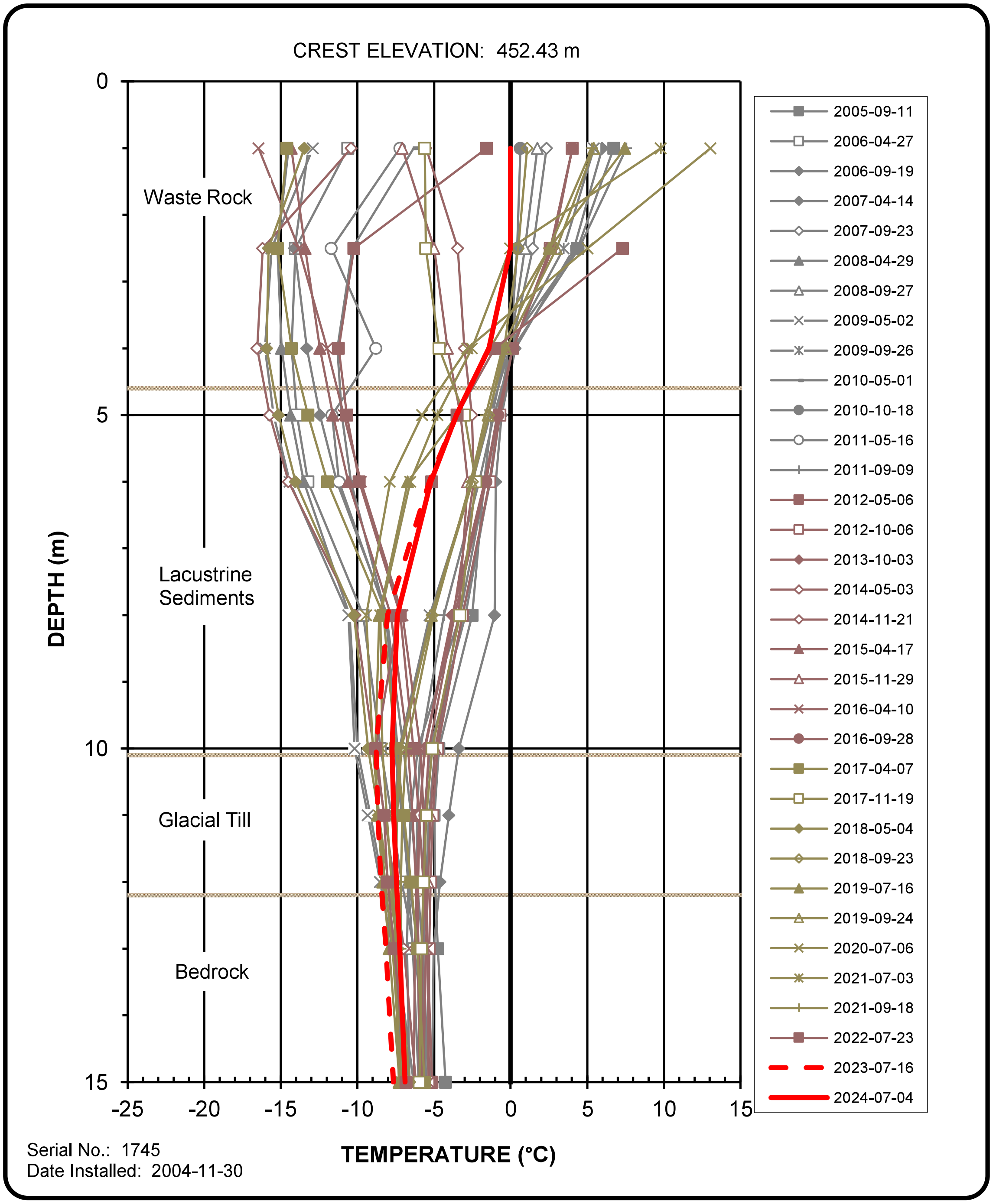
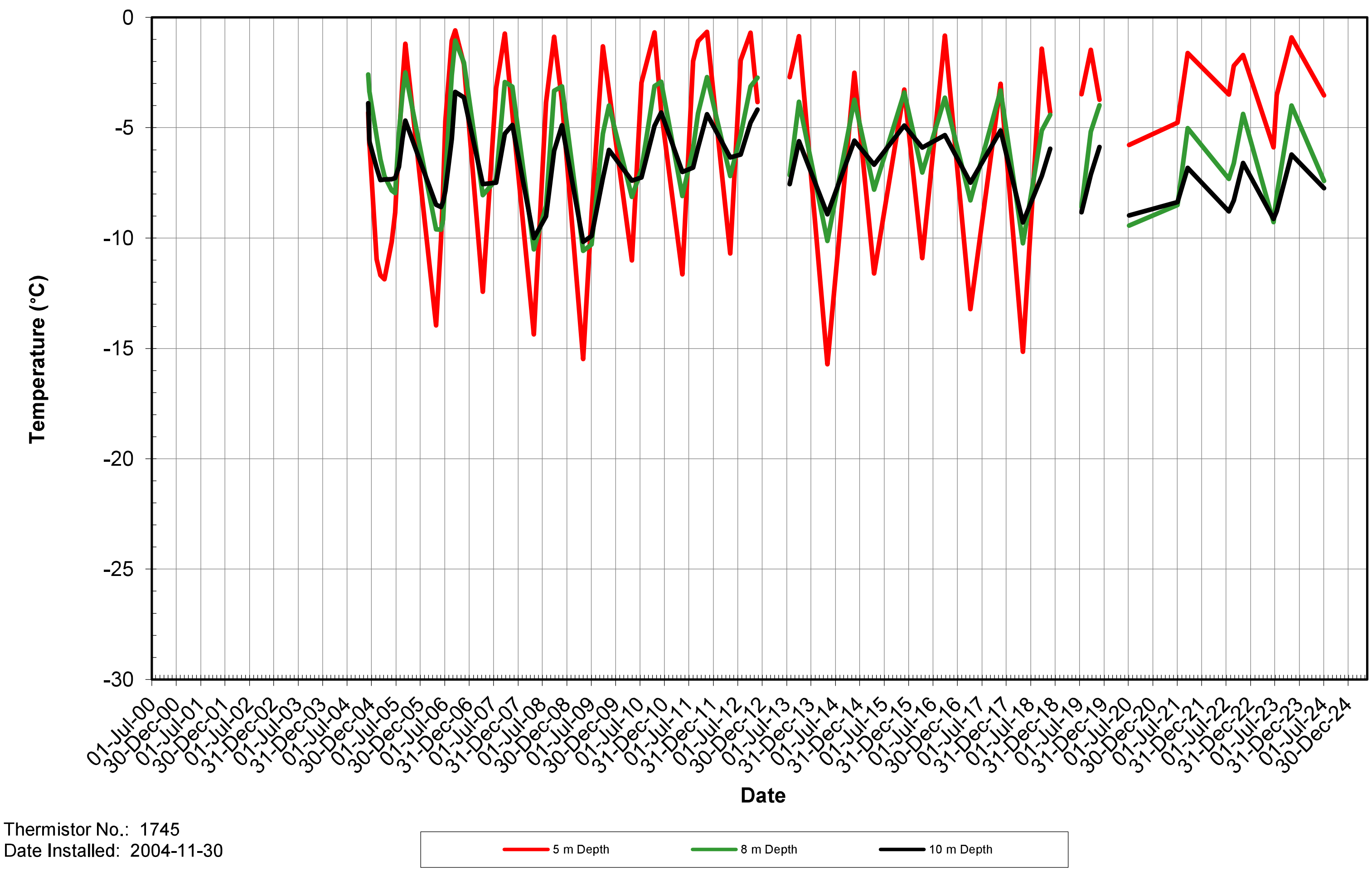


Figure 25
Ground Temperature Profile
Fox Toe Berm Fox Lake Tail

TETRA TECH

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Fox Toe Berm (Fig. 23-25).xlsx]String #1745

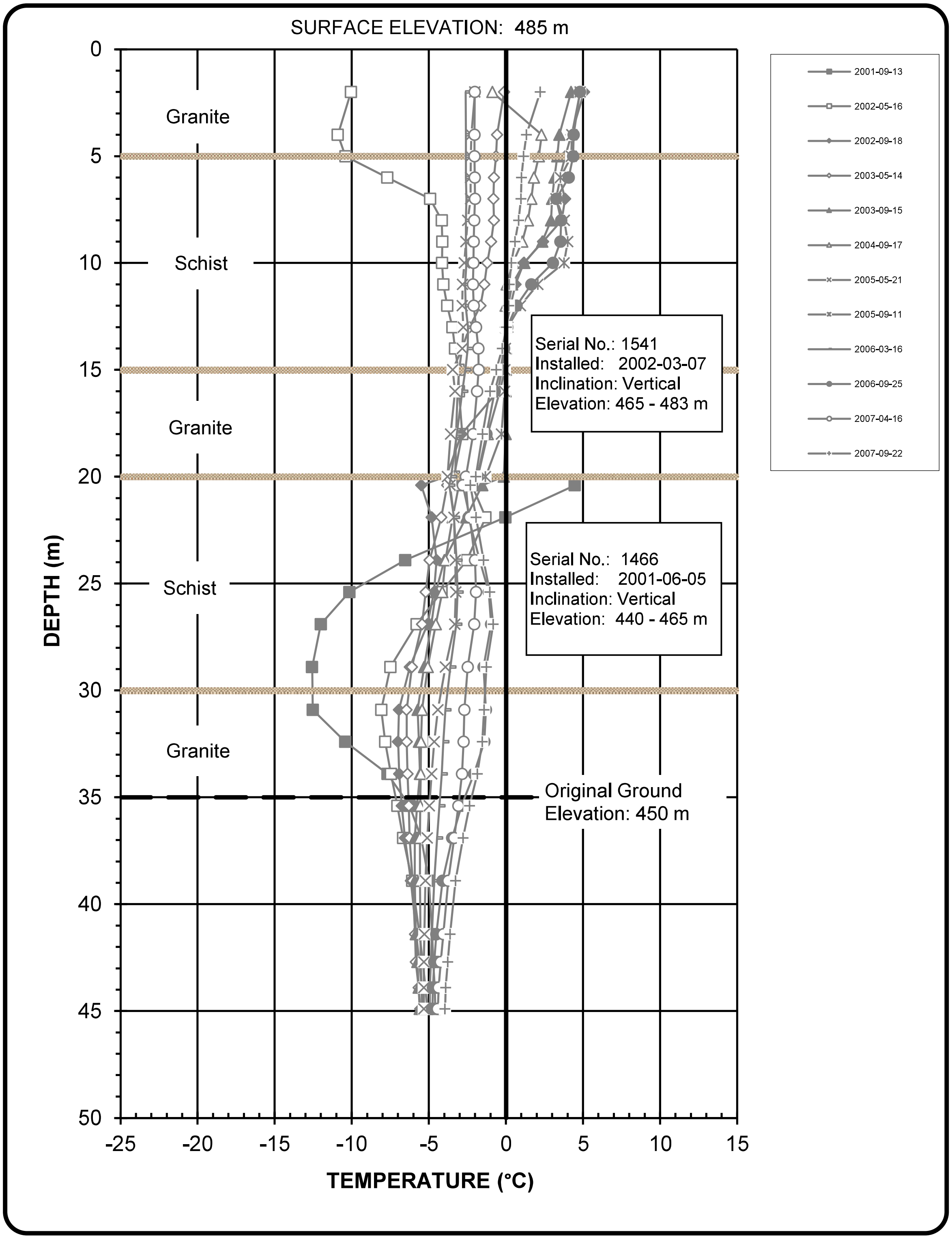
Fox Toe Berm
Ekati Diamond Mine, NT



Thermistor No.: 1745
Date Installed: 2004-11-30

Figure 25a
Ground Temperature History
Fox Toe Berm Fox Lake Tail

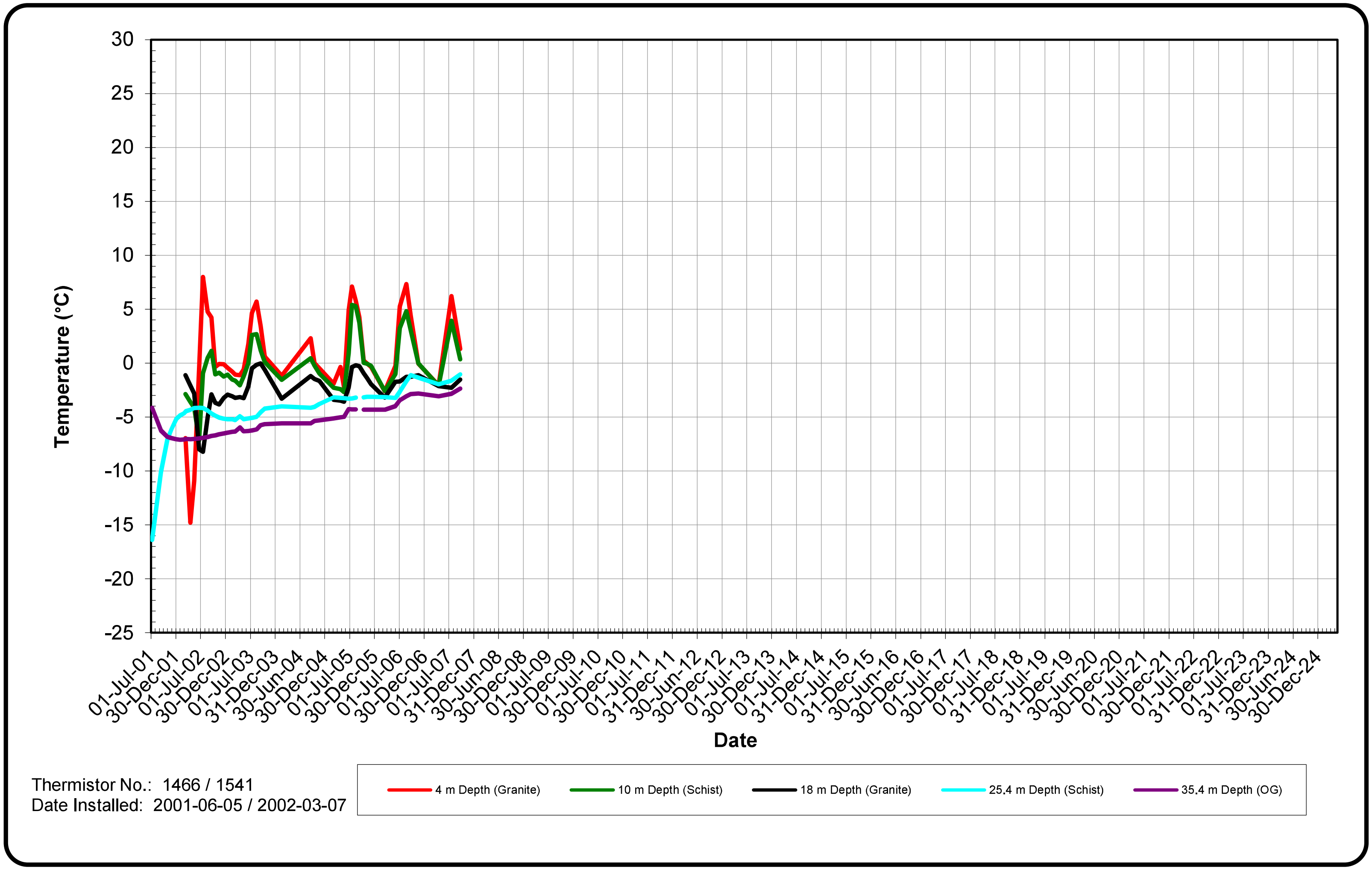
ENG.EARC03231-02 | **Misery Waste Rock Storage Area** **Ekati Diamond Mine, NT** | **November 2024**



Notes: Ground temperature instrumentation installed by BHP Billiton personnel. Stratigraphic details provided by BHP Billiton.

Figure 26
Ground Temperature Profile
WRP#1
Misery Waste Rock Storage Area

TETRA TECH

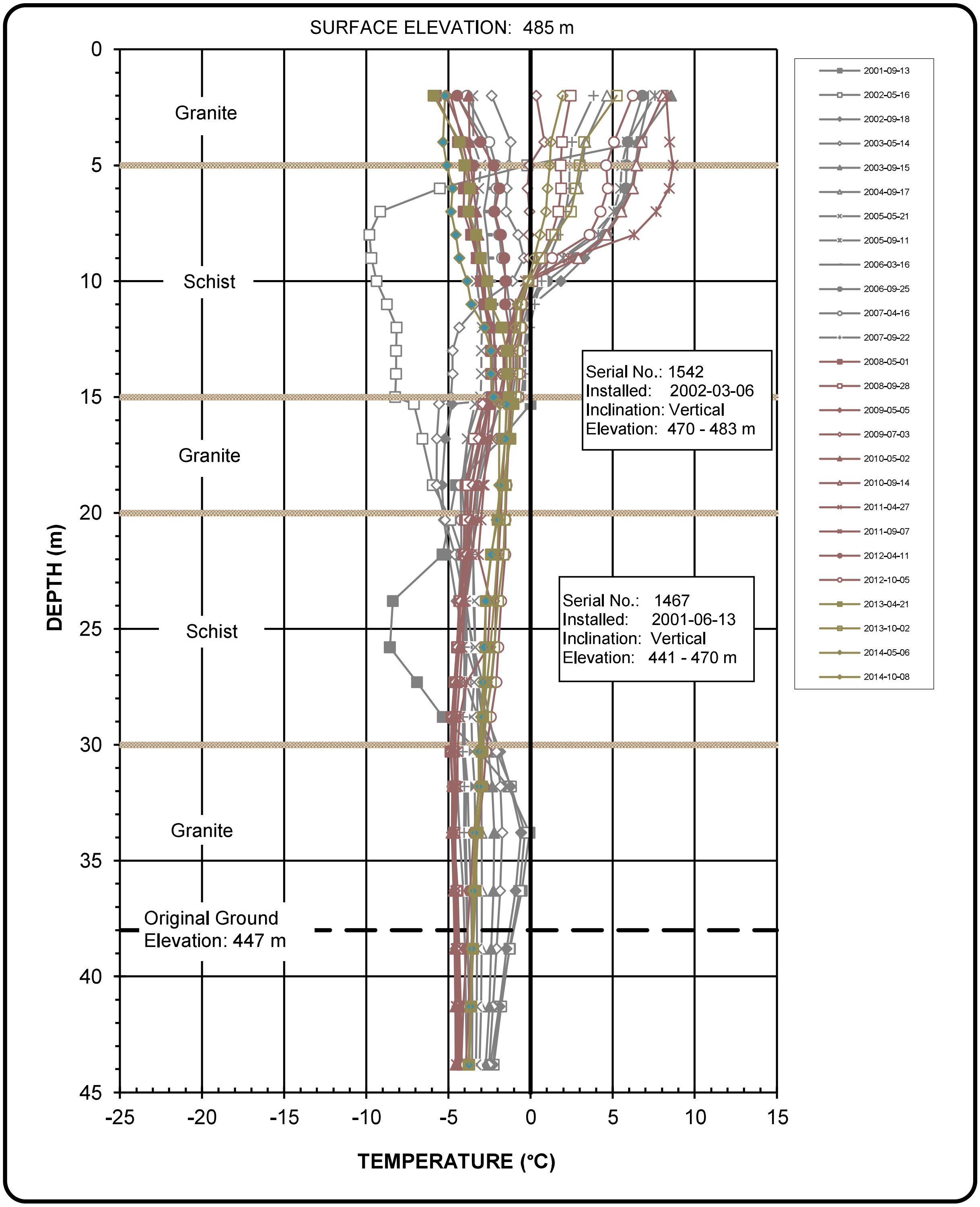


Notes: Ground temperature instrumentation installed by BHP Billiton personnel. Stratigraphic details provided by BHP Billiton.

Figure 26a
Ground Temperature History
WRP#1
Misery Waste Rock Storage Area

Misery Waste Rock Storage Area

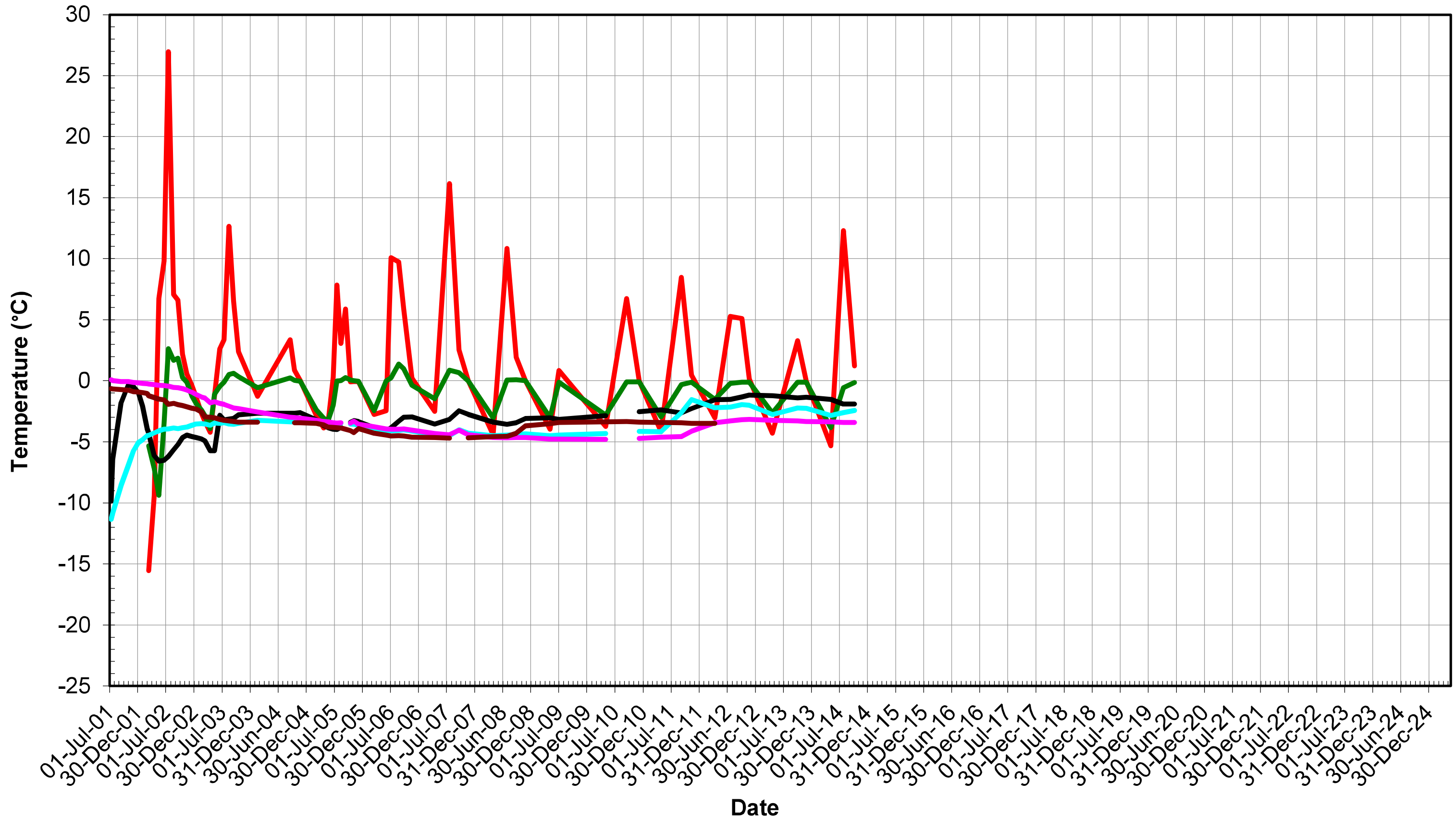
ENG.EARC03231-02 **Ekati Diamond Mine, NT** **November 2024**



Notes: Ground temperature instrumentation installed by BHP Billiton personnel. Stratigraphic details provided by BHP Billiton.

Figure 27
Ground Temperature Profile
WRP#2
Misery Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Misery Figures V2 (Fig 26-32).xlsx]1542 & 1467 EBA Profile



Thermistor No.: 1467 / 1542
Date Installed: 2001-06-13 / 2002-03-06

4 m Depth (Granite)
10 m Depth (Schist)
16.8 m Depth (Granite)
25.8 m Depth (Schist)
33.8 m Depth (Granite)
36.3 m Depth (OG)

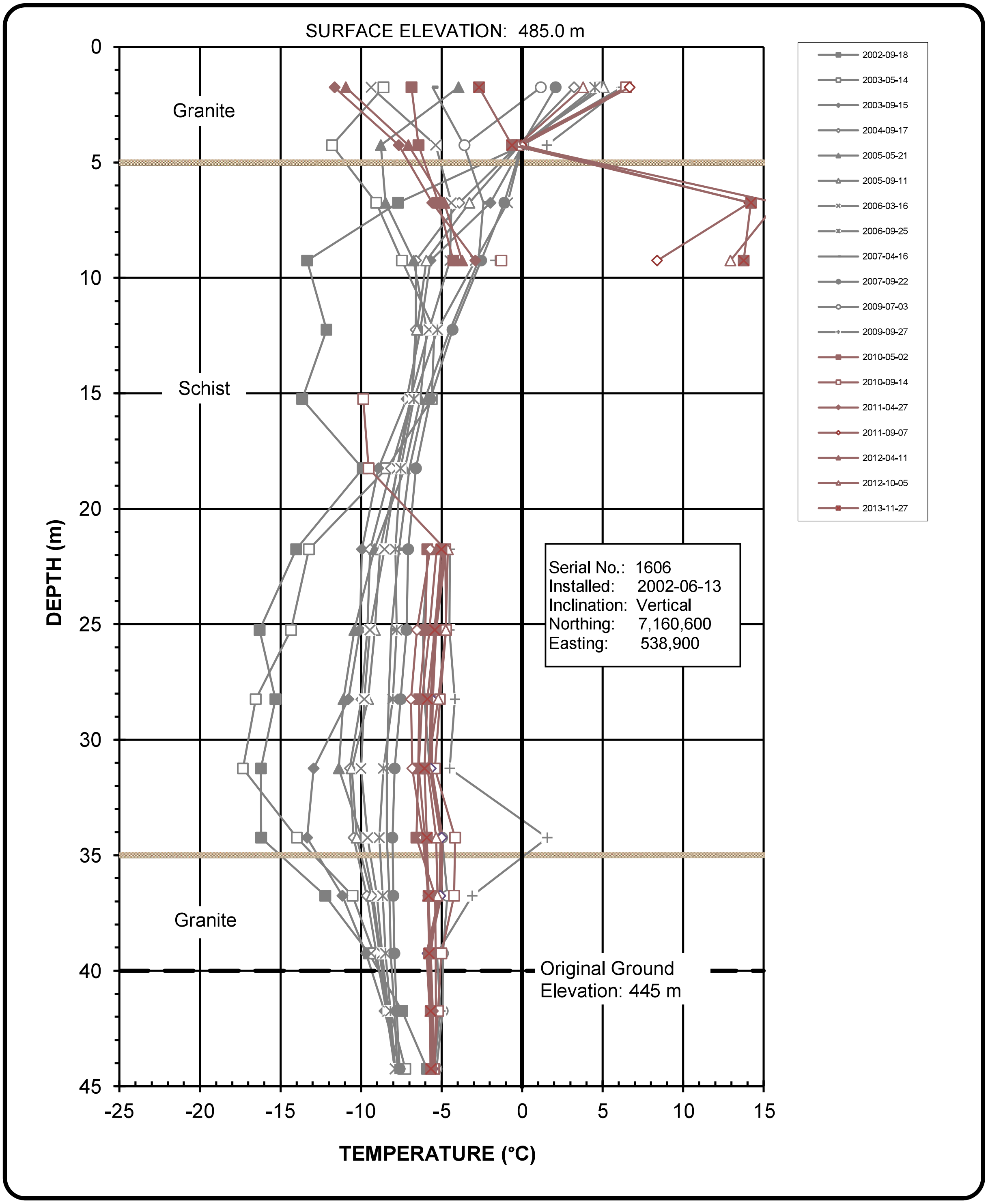
Notes: Ground temperature instrumentation installed by BHP Billiton personnel. Stratigraphic details provided by BHP Billiton.

Figure 27a
Ground Temperature History
WRP#2
Misery Waste Rock Storage Pile

TETRA TECH

Misery Waste Rock Storage Area

ENG.EARC03231-02 **Ekati Diamond Mine, NT** **November 2024**

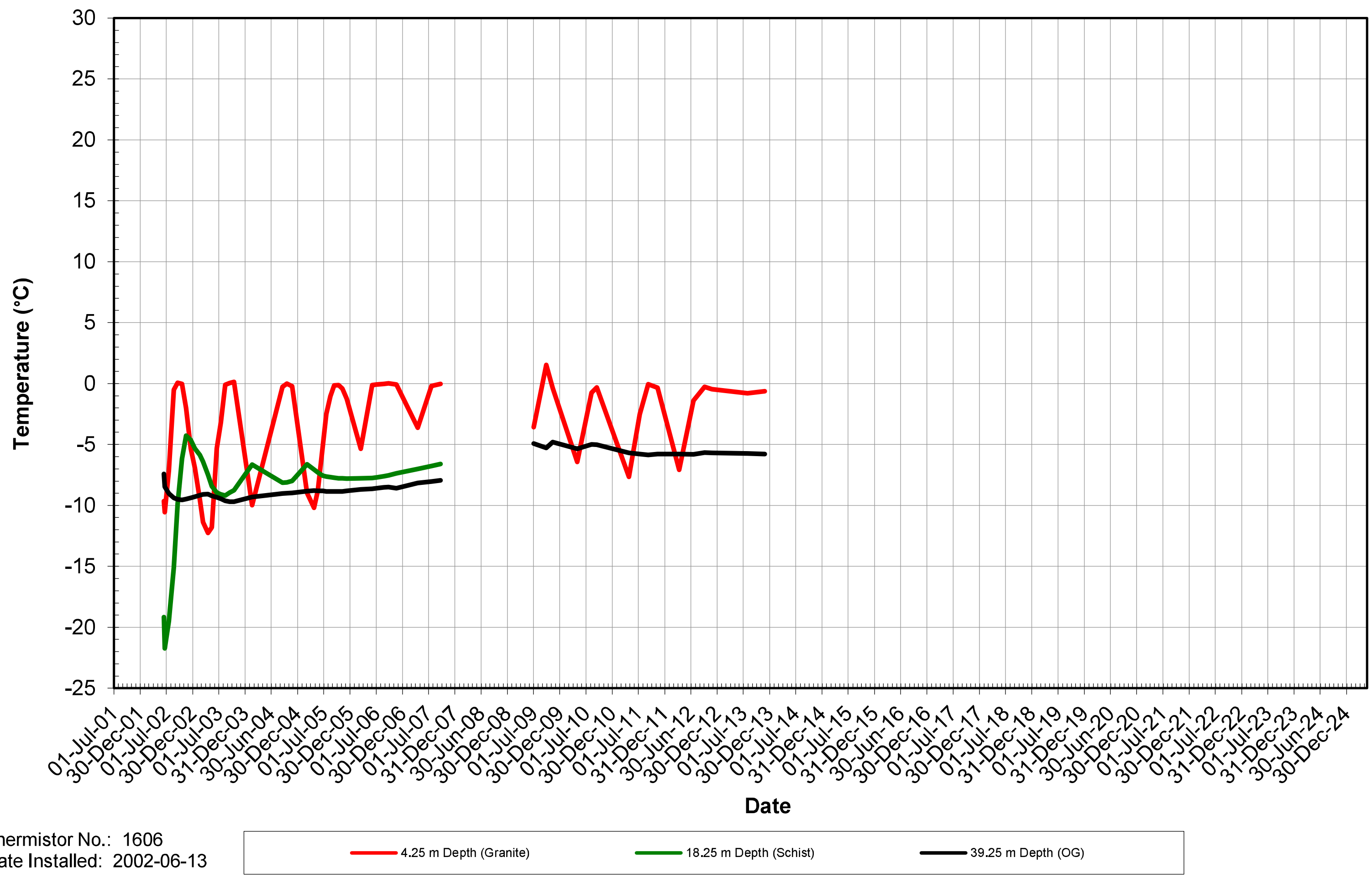


Notes: Ground temperature instrumentation installed by BHP Billiton personnel. Stratigraphic details provided by BHP Billiton.

Figure 28
Ground Temperature Profile
WRP#3
Misery Waste Rock Storage Area

TETRA TECH

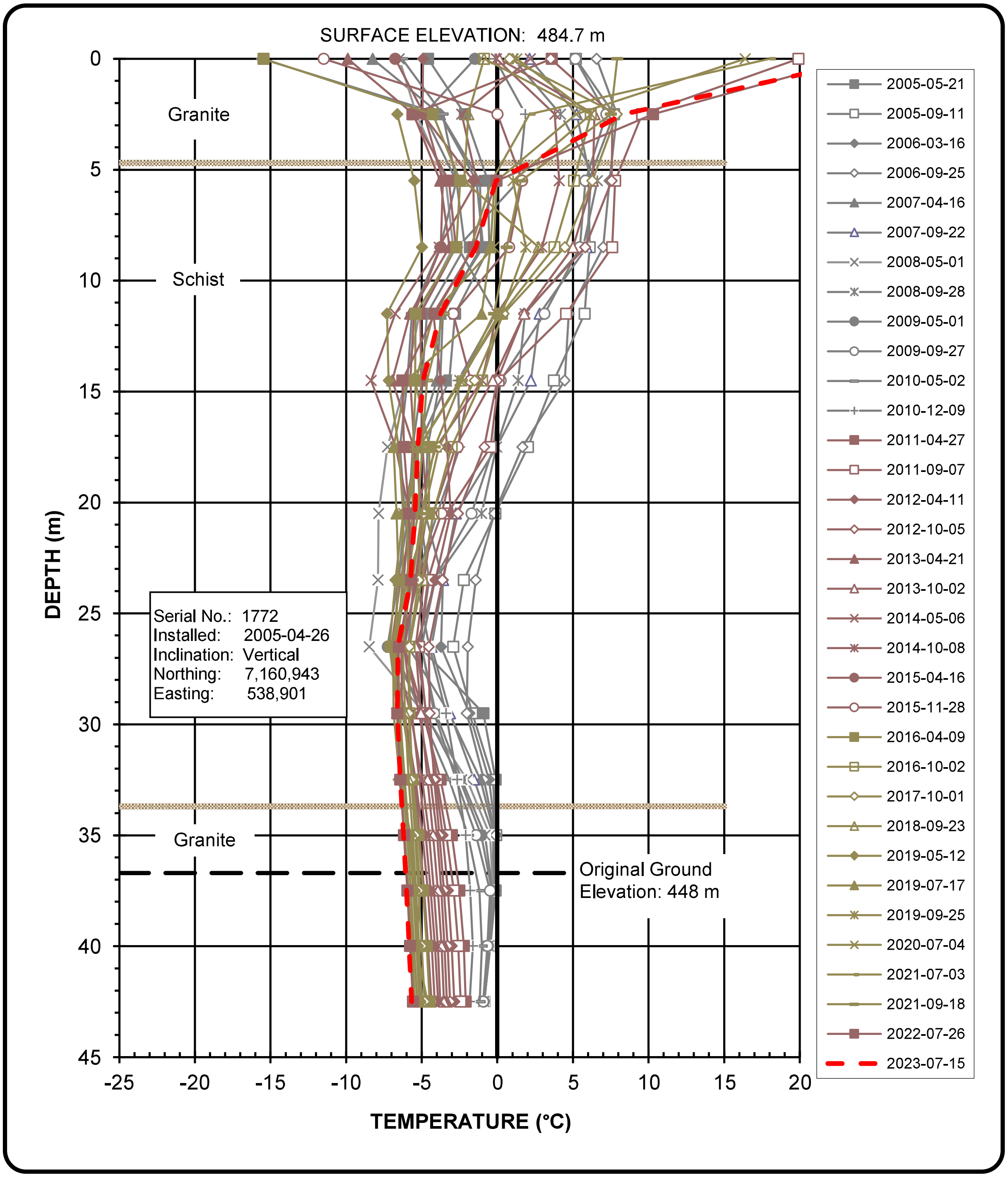
https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Misery Figures V2 (Fig 26-32).xlsx]1606 EBA Profile



Notes: Ground temperature instrumentation installed by BHP Billiton personnel. Stratigraphic details provided by BHP Billiton.

Figure 28a
Ground Temperature History
WRP#3
Misery Waste Rock Storage Area

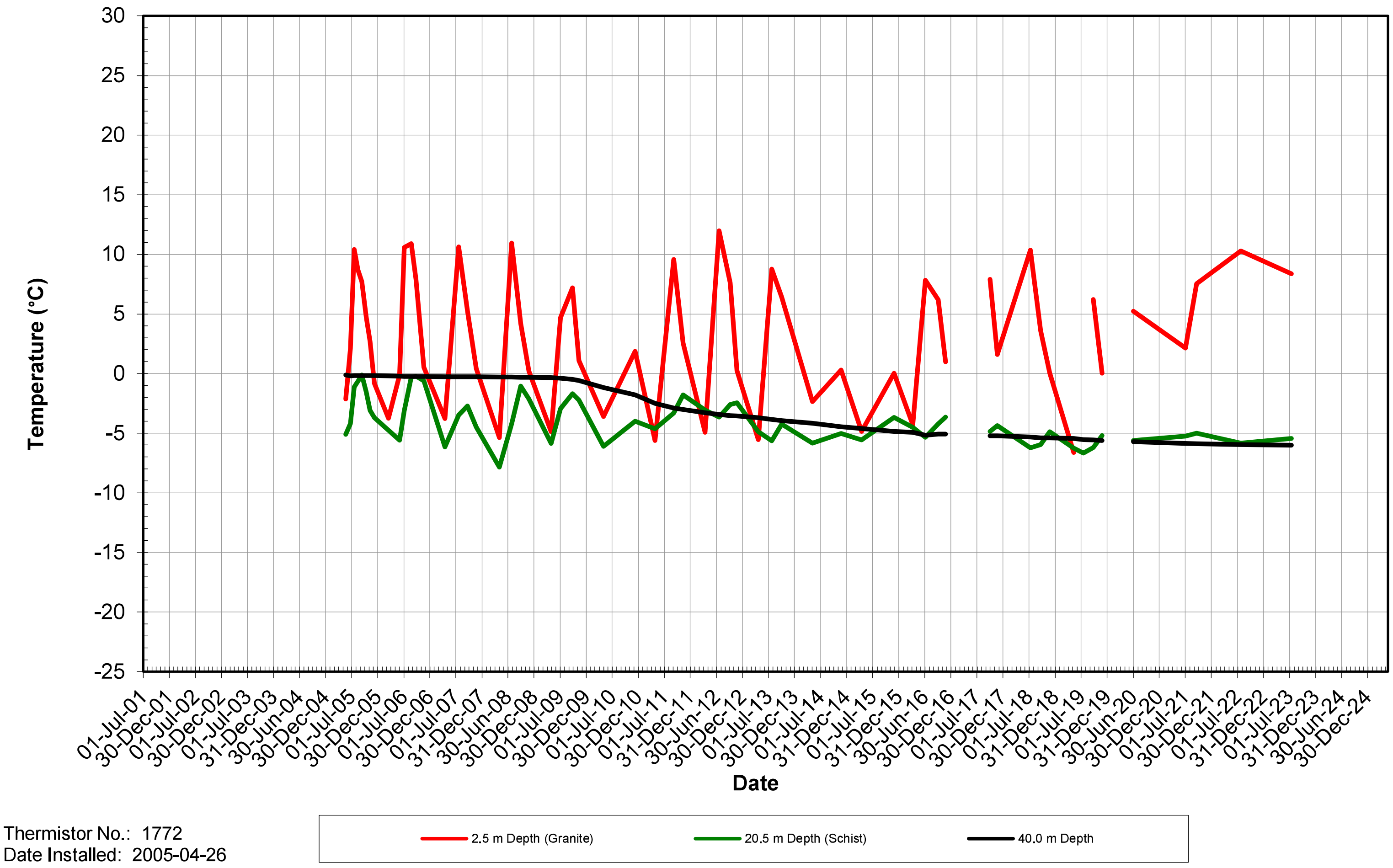
ENG.EARC03231-02 — **Misery Waste Rock Storage Area**
Ekati Diamond Mine, NT — **November 2024**



Notes: Stratigraphic details provided by BHP Billiton.

Figure 29
Ground Temperature Profile
WRP#5
Misery Waste Rock Storage Area

TETRA TECH

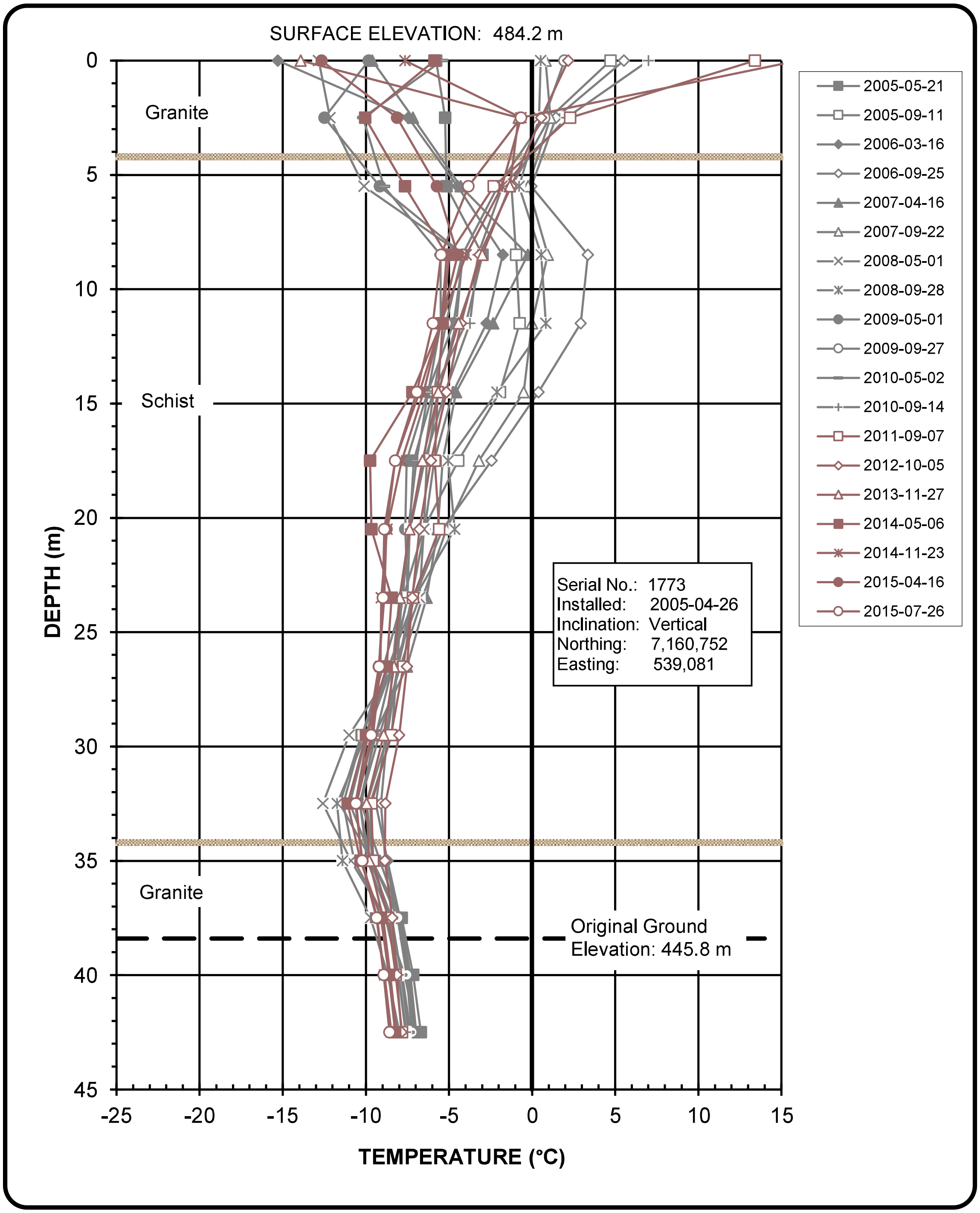


Notes: Stratigraphic details provided by BHP Billiton.

Figure 29a
Ground Temperature History
WRP#5
Misery Waste Rock Storage Area

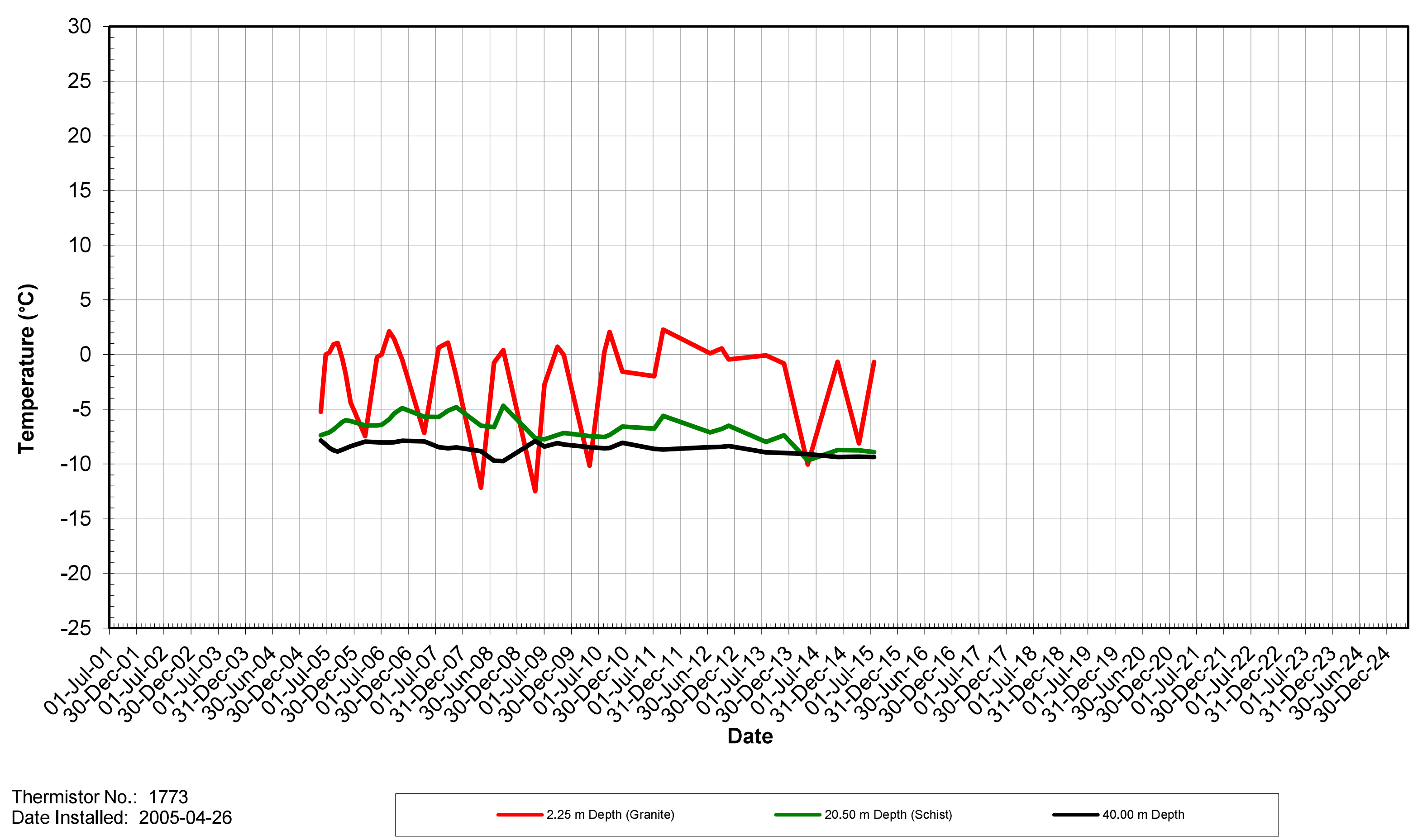
Misery Waste Rock Storage Area

ENG.EARC03231-02 **Ekati Diamond Mine, NT** **November 2024**



Notes: Stratigraphic details provided by BHP Billiton.

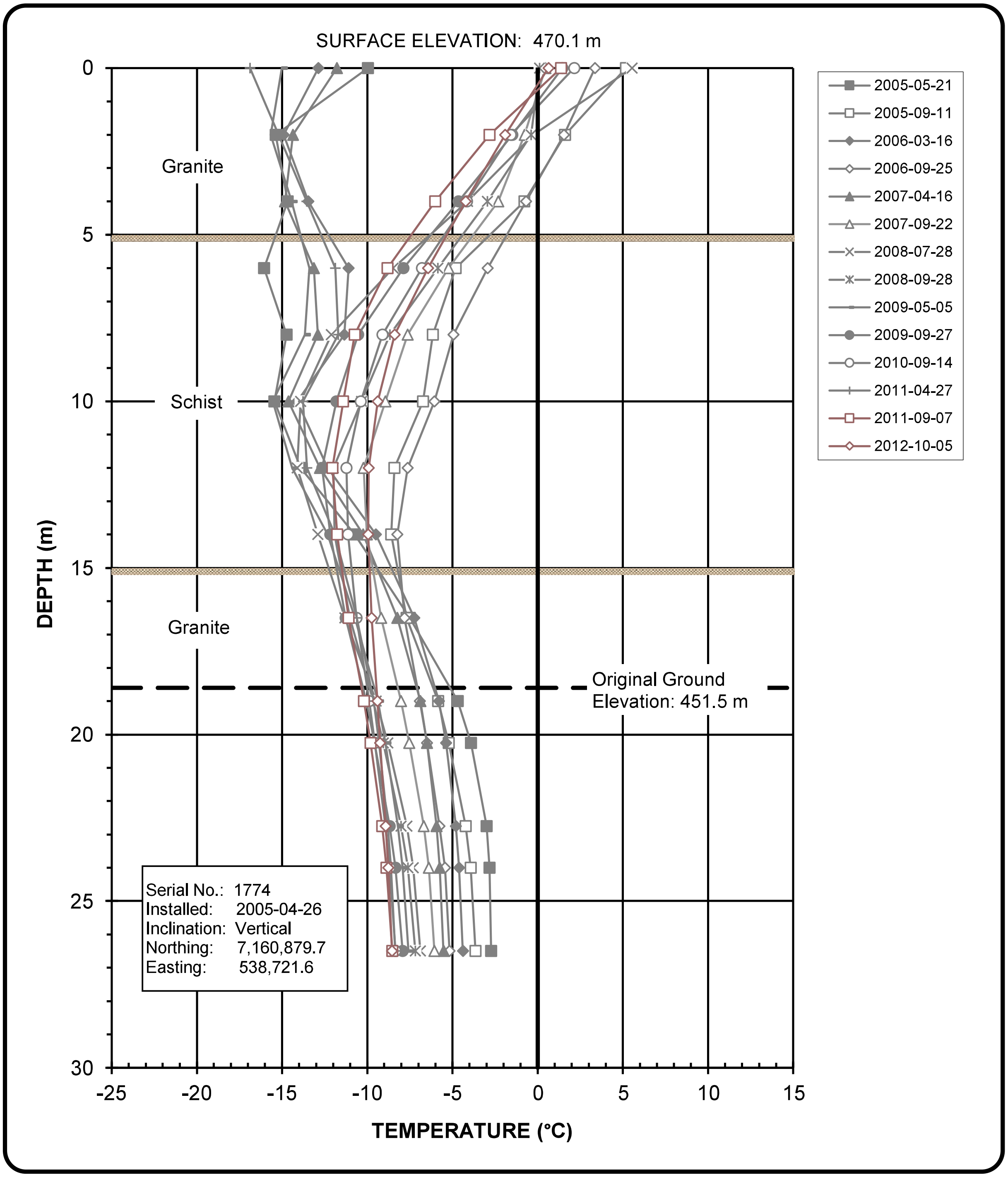
Figure 30
Ground Temperature Profile
WRP#4
Misery Waste Rock Storage Area



Notes: Stratigraphic details provided by BHP Billiton.

Figure 30a
Ground Temperature History
WRP#4
Misery Waste Rock Storage Area

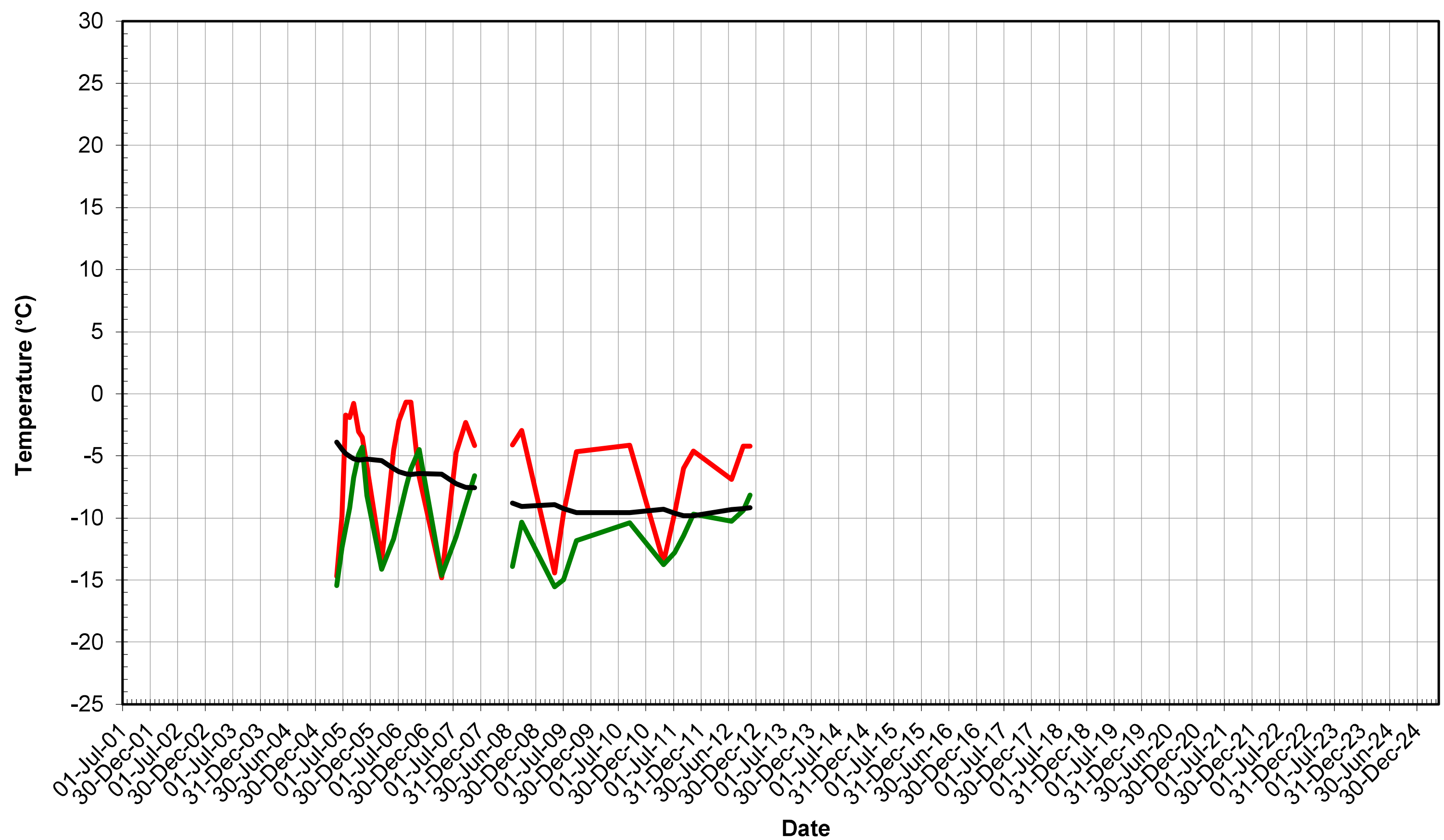
TETRA TECH



Notes: Stratigraphic details provided by BHP Billiton.

Figure 31
Ground Temperature Profile
WRP#6
Misery Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Misery Figures V2 (Fig 26-32).xlsx]1774 EBA Profile



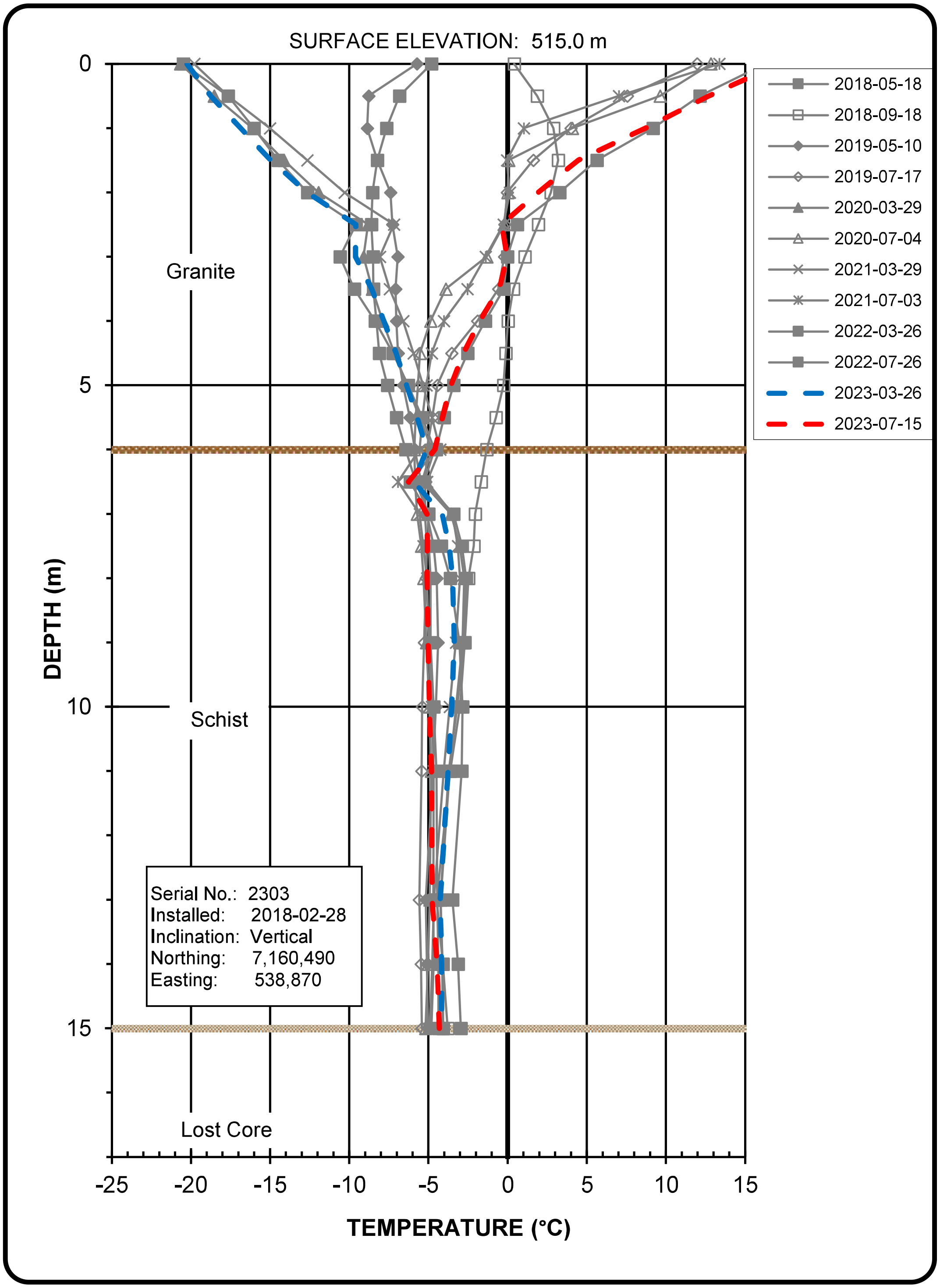
Notes: Stratigraphic details provided by BHP Billiton.

Figure 31a
Ground Temperature History
WRP#6
Misery Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Misery Figures V2 (Fig 26-32).xlsx]1774 EBA History

Misery Waste Rock Storage Area

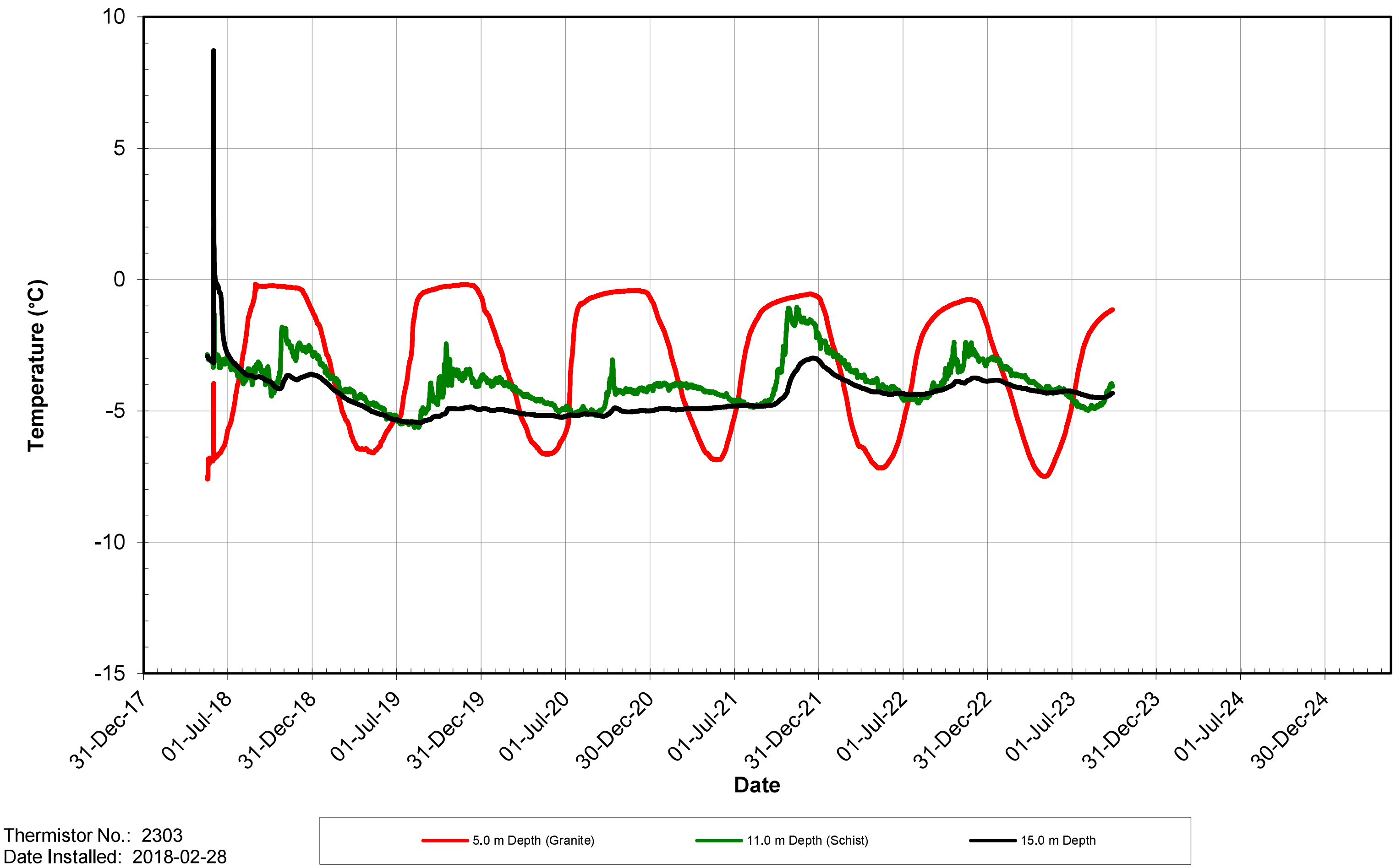
ENG.EARC03231-02 **Ekati Diamond Mine, NT** **November 2024**



Notes: Stratigraphic details provided by DD Mines ULC.

Figure 32
Ground Temperature Profile
Misery Waste Rock Storage Area

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Misery Figures V2 (Fig 26-32).xlsx]2303 Profile



Thermistor No.: 2303
Date Installed: 2018-02-28

Notes: Stratigraphic details provided by DD Mines ULC.

Figure 32a
Ground Temperature History
Misery Waste Rock Storage Area

Coarse Processed Kimberlite Storage Pile - CPKSP

ENG.EARC03231-02 **Ekati Diamond Mine, NT** **November 2024**

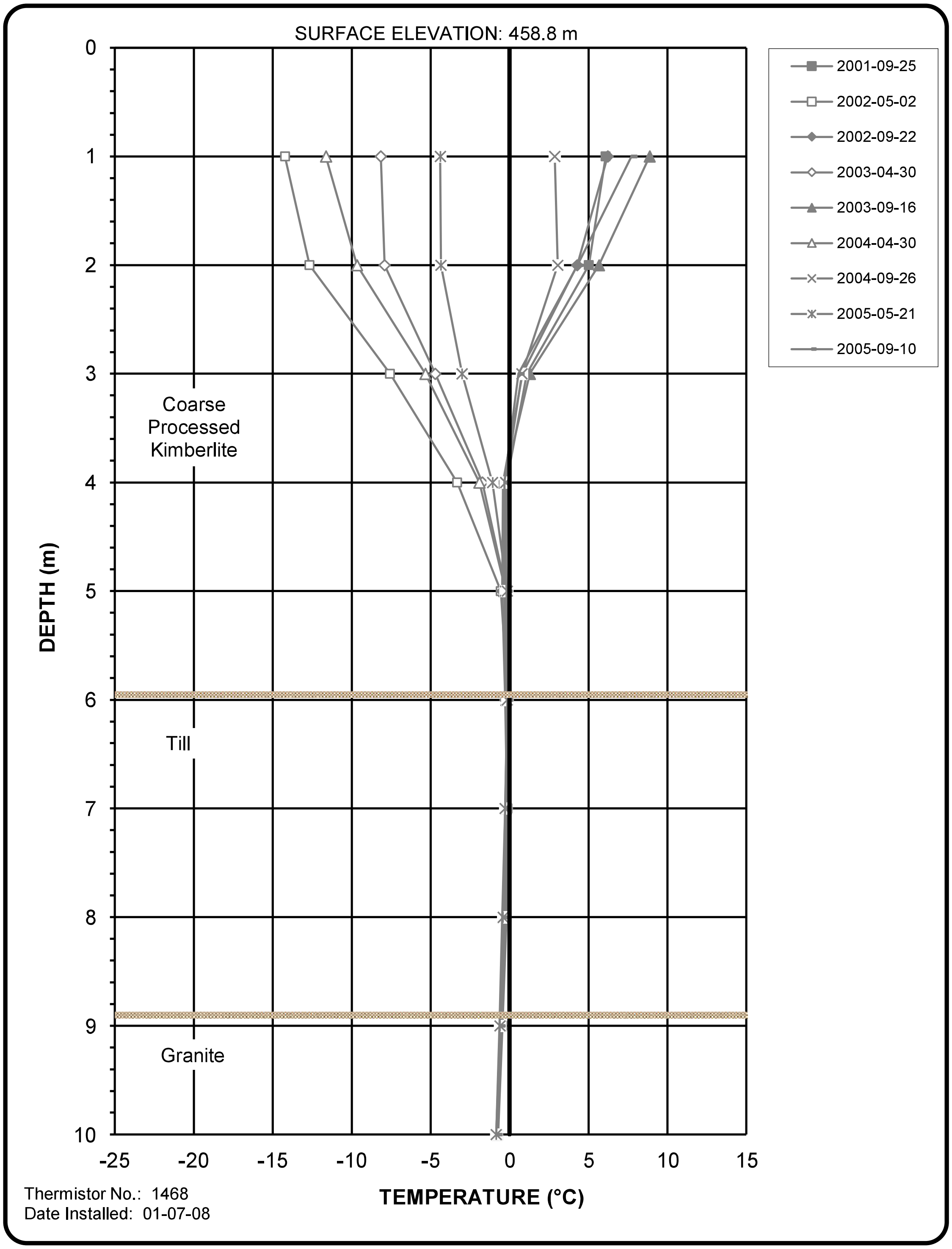


Figure 33
Ground Temperature Profile No.1
Coarse Processed Kimberlite Storage Pile

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Coarse Ore Figures (Fig. 33-34).xlsx]String #1468 (1580.024-06)

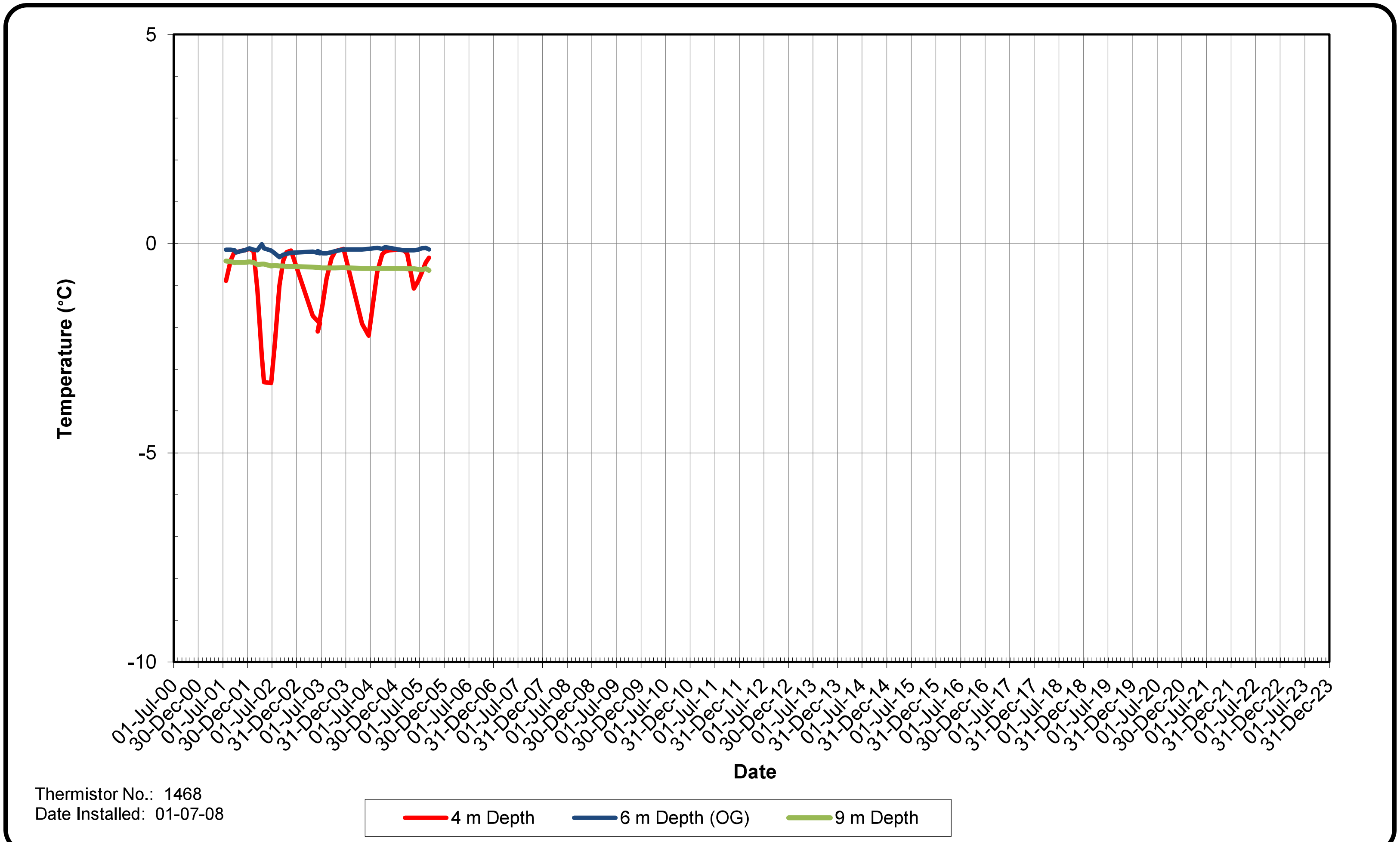


Figure 33a
Ground Temperature History No.1
Coarse Processed Kimberlite Storage Area

Coarse Processed Kimberlite Storage Pile - CPKSP

ENG.EARC03231-02 | **Ekati Diamond Mine** | **November 2024**

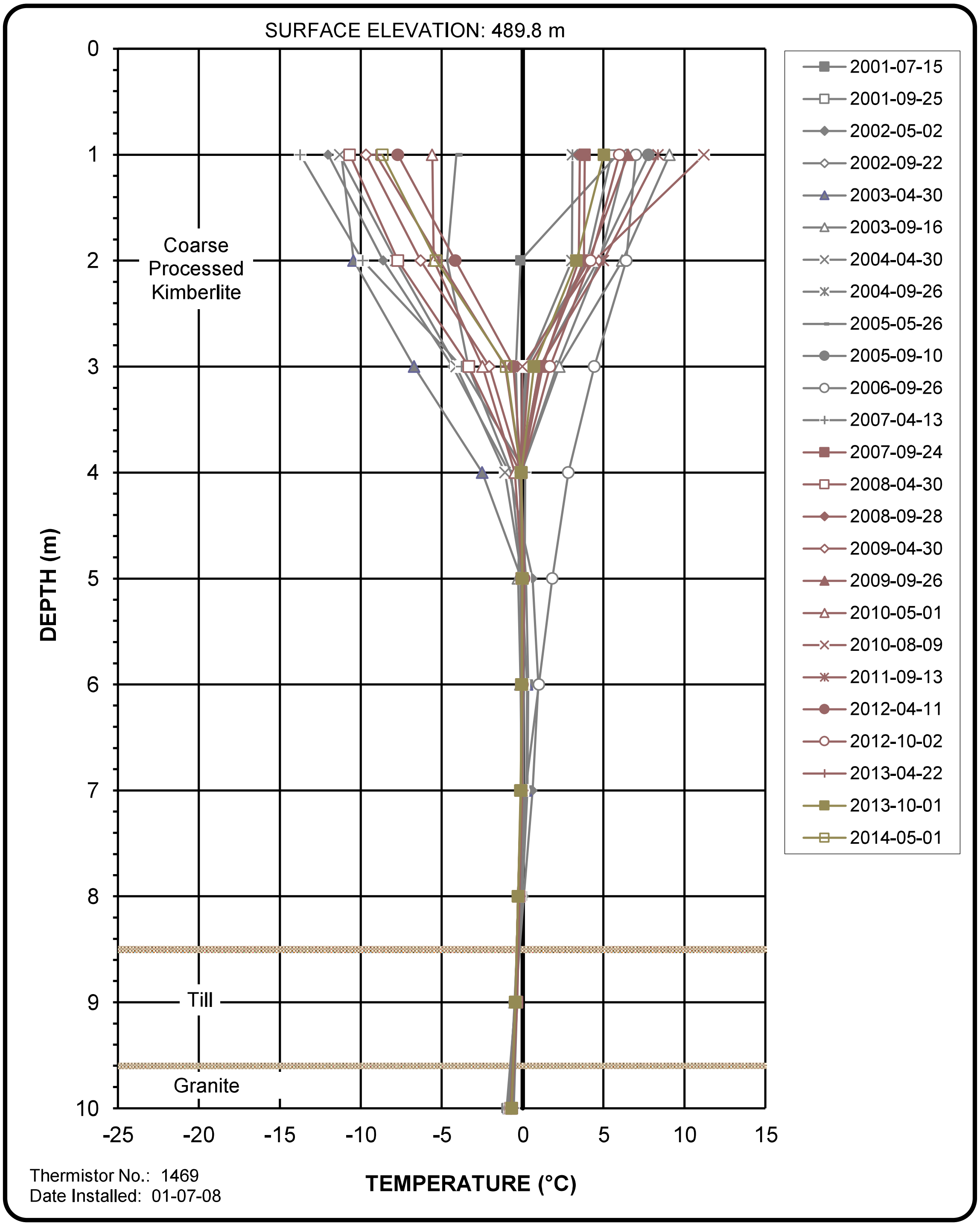


Figure 34
Ground Temperature Profile No.2
Coarse Processed Kimberlite Storage Pile

https://tetratechinc.sharepoint.com/teams/704-ENG.EARC03231-02/Shared Documents/000 GTC Data/2024/[2024 GTC - Coarse Ore Figures (Fig. 33-34).xlsx]String #1469 (1580.024-07c)

Coarse Processed Kimberlite Storage Pile
Ekati Diamond Mine, NT

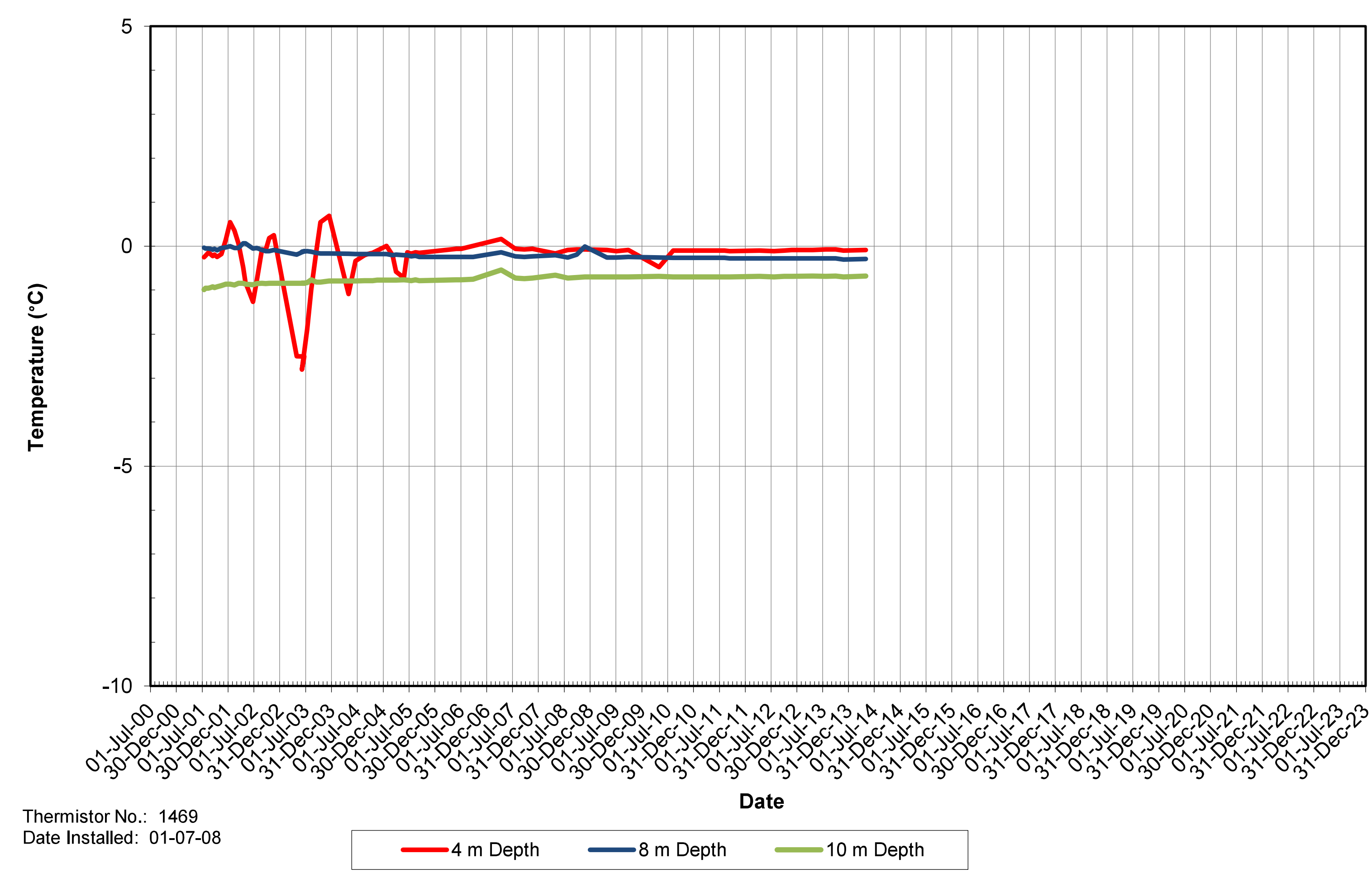
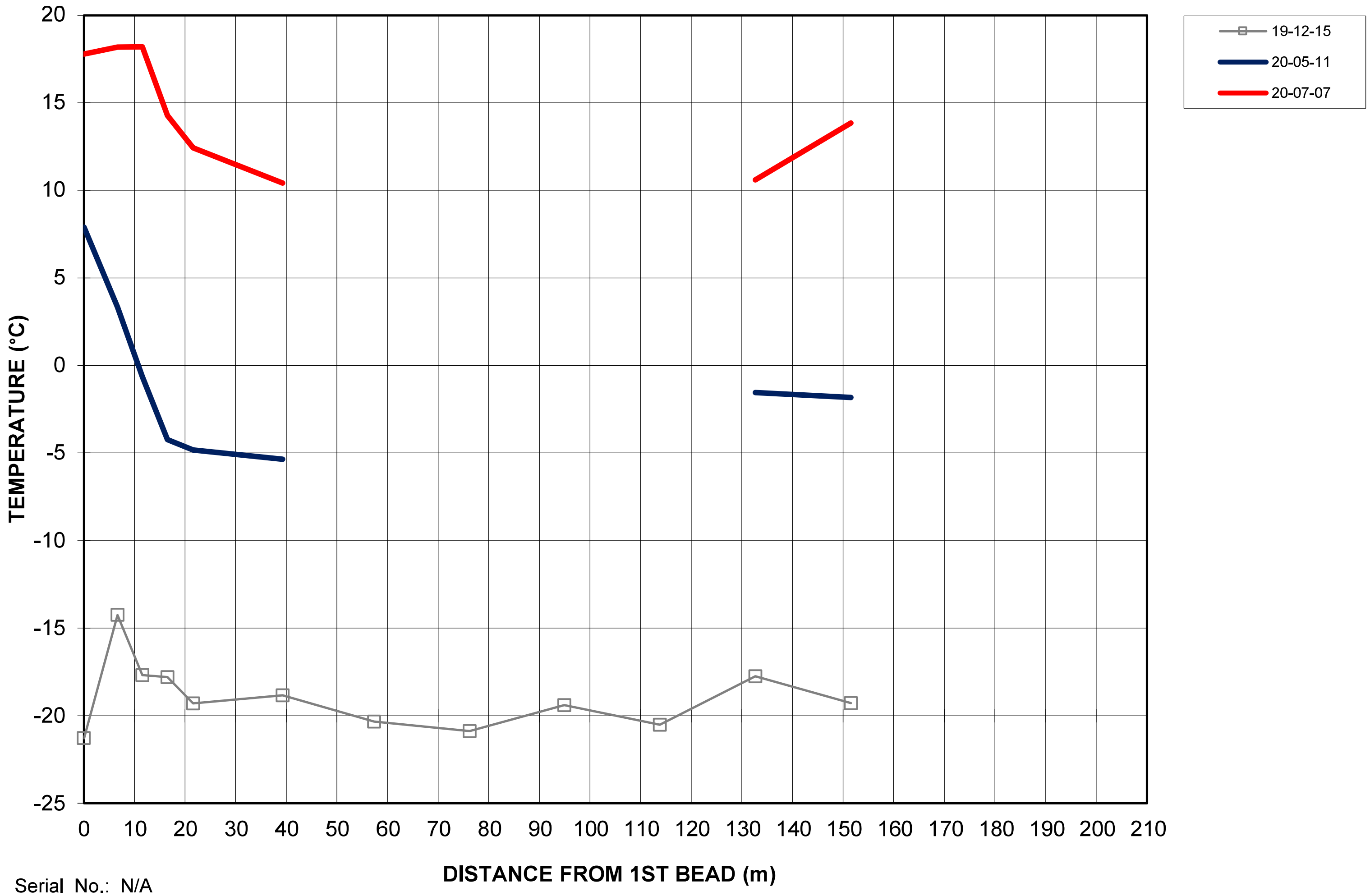


Figure 34a
Ground Temperature History No.2
Coarse Processed Kimberlite Storage Area

529 Bench, Pigeon Waste Rock Storage Area

Ekati Diamond Mine, NT

November 2024



Serial No.: N/A
Date Installed: 2019-12-08

Figure 35
Transverse Ground Temperature Distribution
Pigeon WRSA 529 Bench

APPENDIX A

TETRA TECH'S LIMITATIONS ON USE OF THIS DOCUMENT

LIMITATIONS ON USE OF THIS DOCUMENT

GEOTECHNICAL

1.1 USE OF DOCUMENT AND OWNERSHIP

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

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

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1.2 ALTERNATIVE DOCUMENT FORMAT

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

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

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

1.3 STANDARD OF CARE

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

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

1.4 DISCLOSURE OF INFORMATION BY CLIENT

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

1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

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

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

1.6 GENERAL LIMITATIONS OF DOCUMENT

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

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

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

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

1.7 ENVIRONMENTAL AND REGULATORY ISSUES

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

1.8 NATURE AND EXACTNESS OF SOIL AND ROCK DESCRIPTIONS

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

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

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

1.9 LOGS OF TESTHOLES

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

1.10 STRATIGRAPHIC AND GEOLOGICAL INFORMATION

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

1.11 PROTECTION OF EXPOSED GROUND

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

1.12 SUPPORT OF ADJACENT GROUND AND STRUCTURES

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

1.13 INFLUENCE OF CONSTRUCTION ACTIVITY

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

1.14 OBSERVATIONS DURING CONSTRUCTION

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

1.15 DRAINAGE SYSTEMS

Unless otherwise specified, it is a condition of this report that effective temporary and permanent drainage systems are required and that they must be considered in relation to project purpose and function. Where temporary or permanent drainage systems are installed within or around a structure, these systems must protect the structure from loss of ground due to mechanisms such as internal erosion and must be designed so as to assure continued satisfactory performance of the drains. Specific design details regarding the geotechnical aspects of such systems (e.g. bedding material, surrounding soil, soil cover, geotextile type) should be reviewed by the geotechnical engineer to confirm the performance of the system is consistent with the conditions used in the geotechnical design.

1.16 DESIGN PARAMETERS

Bearing capacities for Limit States or Allowable Stress Design, strength/stiffness properties and similar geotechnical design parameters quoted in this report relate to a specific soil or rock type and condition. Construction activity and environmental circumstances can materially change the condition of soil or rock. The elevation at which a soil or rock type occurs is variable. It is a requirement of this report that structural elements be founded in and/or upon geological materials of the type and in the condition used in this report. Sufficient observations should be made by qualified geotechnical personnel during construction to assure that the soil and/or rock conditions considered in this report in fact exist at the site.

1.17 SAMPLES

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

1.18 APPLICABLE CODES, STANDARDS, GUIDELINES & BEST PRACTICE

This document has been prepared based on the applicable codes, standards, guidelines or best practice as identified in the report. Some mandated codes, standards and guidelines (such as ASTM, AASHTO Bridge Design/Construction Codes, Canadian Highway Bridge Design Code, National/Provincial Building Codes) are routinely updated and corrections made. TETRA TECH cannot predict nor be held liable for any such future changes, amendments, errors or omissions in these documents that may have a bearing on the assessment, design or analyses included in this report.

Appendix C 2024 Surveillance Network Program Summary

1. Ekati - SNP Report January 2024
2. Ekati - SNP Report February 2024
3. Ekati - SNP Report March 2024
4. Ekati - SNP Report April 2024
5. Ekati - SNP Report May 2024
6. Ekati - SNP Report June 2024
7. Ekati - SNP Report July 2024
8. Ekati - SNP Report August 2024
9. Ekati - SNP Report September 2024
10. Ekati - SNP Report October 2024
11. Ekati - SNP Report November 2024
12. Ekati - SNP Report December 2024