REPORT

Closure Investigation Work Plan

Closure and Reclamation Plan, Meadowbank Complex

Submitted to:

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Submitted by:

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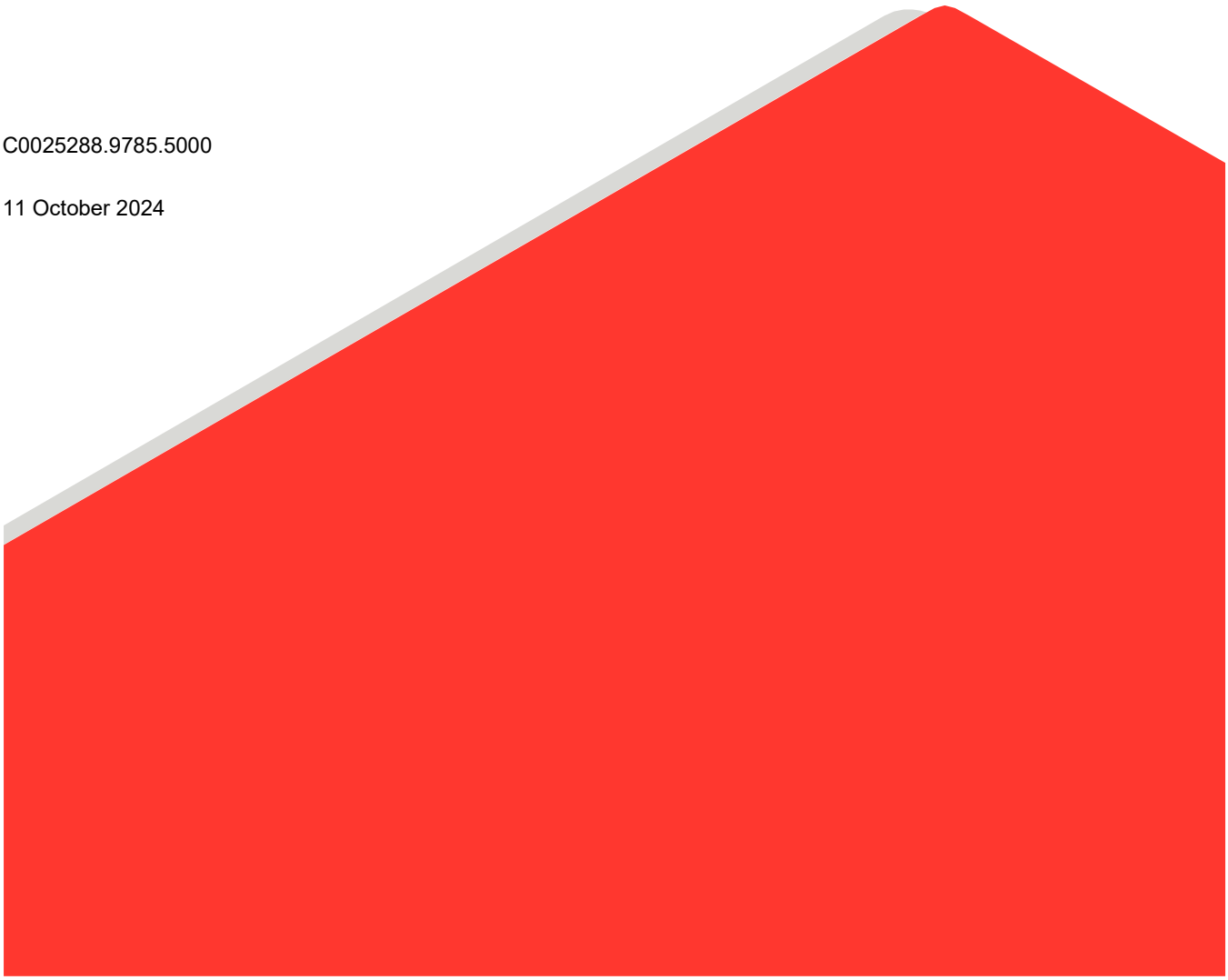

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1.0 INTRODUCTION

WSP Canada Inc. (WSP) was retained by Agnico Eagle Mines Limited (Agnico Eagle), through a Master Services Agreement with Nuqsana Golder, to develop a closure investigation work plan (Plan) as part of the Closure and Reclamation Plan (CRP) for the Meadowbank Complex, Kivalliq Region, Nunavut in preparation for a final closure. The Meadowbank Complex project locations are shown in Figure 1.

This report outlines the methods of Phase I and II environmental site assessments (ESAs) that will be completed at the Meadowbank Complex to identify the areas of potential environmental concern (APECs) and parameters of potential concern (PoPCs) and estimate volumes of contaminated soil that will need to be addressed (i.e., through remediation or risk management measures) during closure.

1.1 Background

The Meadowbank Complex is nearing the end of its mine life and Agnico Eagle is in the process of updating the previously approved CRP. The project's Type A Licence (2AM-WTP1830) requires a CRP to be submitted at least 12 months prior to the expected end of planned mining (Agnico Eagle 2020). The updated CRP will be inclusive of the entire Meadowbank Complex, combining the Meadowbank and Whale Tail Interim CRPs (ICRPs) that were previously presented separately (Agnico Eagle 2020; SNC Lavalin 2020). The CRP will provide the Nunavut Water Board (NWB) with a conceptual design of the closure concepts and related closure activities to be executed at the Meadowbank Complex following the temporary or permanent suspension of mine operations (INAC 2002; Agnico Eagle 2020). The CRP must address the four core principles of closure: (1) physical stability, (2) chemical stability, (3) no longer-term active care requirement and (4) future land use for each component of the Meadowbank Complex (INAC 2007; MVLWB/AANDC 2013; Qikiqtani Inuit Association (QIA) no date).

Progressive closure and reclamation of some features have occurred at the Complex during operation (Agnico Eagle 2020; SNC Lavalin 2020). As part of the progressive reclamation and closure of the Meadowbank Complex, Agnico Eagle retained WSP to complete a Desktop Study and Phase I and Phase II ESAs of the non-mine related areas of the Meadowbank Complex in 2023 and 2024 (WSP 2023, 2024a,b,c). The desktop study provided high-level discussion of APECs and associated PoPCs as well as estimated quantities of potentially contaminated soil in the non-mining industrial areas of the Meadowbank Complex based on a review of historical spill records. The Desktop Study excluded the operational mining areas, such as the open pits, tailing ponds, waste rock storage facilities, dikes, dams and roads within and interconnecting the mine sites. Locations with spills with more than 10 L of products including hydraulic oil, diesel fuel, jet-A fuel, motor oil, engine oil, transmission oil, compressor oil, other petroleum products (unspecified), grease, waste oil, coolants and/or glycol, and did not have confirmatory samples and assessments following the reported clean-up, were identified as APECs. In addition, the environmental quality guidelines from the Government of Nunavut (GN), Canadian Council of Ministers of the Environment (CCME) and Government of Canada sources, to identify those most applicable to Site conditions were evaluated (WSP 2023).

The Phase I ESA completed by WSP in 2023 expanded upon the Desktop Study. Through further record searches and Site reconnaissance, including interviews with Site personnel, APECs associated with ancillary activities (i.e., unrelated to mine-derived waste, such as mine pits, tailings and waste rock disposal) were identified and Phase II ESA was recommended to verify soil impacts that may represent materially significant environmental risks or liabilities. Based on the request of Agnico Eagle on 5 April 2024, the Phase I ESA was updated to incorporate the quarries, eskers and roads (All-Weather Access Road [AWAR], haul roads, and site access roads). The findings of the Phase I ESA were based on observations of the conditions at the time of the

ground reconnaissance, interviews, and a desktop review of available sources of information like aerial photographs and corporate and regulatory documents (WSP 2024a).

The first stage of Phase II ESA was completed by WSP at some APECs (as time allowed) at the Meadowbank Mine and Vault Pit Sites in 2023 (WSP 2024b,c). At the Meadowbank Mine, soil samples were collected from the Mill and Assay Road Seepage Areas for laboratory analysis of benzene, toluene, ethylbenzene, xylene (BTEX), petroleum hydrocarbon (PHC) Fractions F1 to F4, polycyclic aromatic hydrocarbon (PAHs), cyanide (free, total and weak acid dissociable [WAD]), salinity, metals, glycols, polychlorinated biphenyls (PCBs), chlorinated volatile organic compounds (VOCs), alcohols and/or perfluoroalkyl substances (PFAs). At the Vault Pit, soil samples were collected from the Former Shelter / Parking Area, Current Heavy Equipment Maintenance / Storage Area, Former Fuel Tank Farm Area, Water Treatment Plant/White Coverall Area, Detonator Magazine and Powder Magazine for the laboratory analysis of BTEX, PHC Fractions F1 to F4, PAHs, salinity, metals, glycols, PCBs and/or alcohols. The analytical results were compared to the guidelines listed below:

- Preliminary soil remediation guidelines (WSP 2023);
- CCME Soil Quality Guidelines for residential/parkland land use and coarse-grained soils (CCME 1999 and updates);
- CCME Tier 1 Levels for Petroleum Hydrocarbons for Residential/Parkland Land Use and Coarse-Grained Soils (CCME 2008); and
- Remedial Objective, hydrocarbon-contaminated soil, abandoned military sites (INAC 2008a,b).

Note that the analytical data will be re-assessed in the future using a risk-based soil quality remediation objectives (SQROs) developed by WSP (Section 2.3; WSP 2024d,e).

Table 1 presents the APECs with contaminants that exceeded the applied guidelines at the Meadowbank Mine and Vault Pit.

Table 1: Summary of Contaminants Exceedances at the Meadowbank Mine and Vault Pit

Mine Site	APEC	Contaminants Exceeding Applied Guidelines
Meadowbank Mine	Mill Area	Salinity, metals and methanol
	Assay Road Seepage Area	Cyanide, salinity, metals and methanol
Vault Pit	Former Shelter / Parking Area and Current Heavy Equipment Maintenance / Storage	PHC Fraction F3, metals and methanol
	Water Treatment Plant/White Coverall Area	Metals and methanol
	Detonator Magazine	Salinity
	Powder Magazine	PHC Fraction F3, salinity and metals

Supplemental Phase II ESAs at the Meadowbank Complex were also conducted in the summer of 2024 in the non-mine related APECs. For the 2024 supplemental Phase II ESAs, the results are not yet ready to be discussed in this Plan.

This Plan is needed to achieve Agnico Eagle's goal of having a final CRP, so that progressive reclamation can occur during late operations and approved closure activities can commence immediately once Agnico Eagle decides to close the mine. This Plan will be applied to any infrastructure that has not been remediated upon closure.

1.2 Objectives of the Plan

The objective of this Plan is to outline the methods that Agnico Eagle will implement to:

- conduct a Phase I ESA to identify APECs and PoPCs at the mine features, such as open pits, underground workings, mine waste disposal facilities (tailings ponds and waste rock repositories) and any area affected by the transfer of contaminants from the historical mine operations of these features;
- complete a Phase II ESA to determine the presence and extent of PoPCs at the identified APECs in the Phase I ESAs;
- achieve practical PoPC delineation and estimate the volumes of contaminated soil to the extent that is feasible to develop a remedial action plan or risk management plan to address human health and ecological risks associated with confirmed parameters of concern (PoCs).

1.3 Scope of the Plan

This Plan outlines the methodology for the Phase I and II ESAs that will be completed by Agnico Eagle during the end of operations and upon final mine closure. The Plan is conceptual, in that the exact sampling locations are not predetermined but reasonable assumptions that outline extent and effort to be expected in the investigation are included. The Plan has documented how Agnico Eagle will identify APECs and PoPCs to be assessed with the purpose of determining the potential extent of remediation and/or risk management.

2.0 REGULATORY CONTEXT

2.1 Closure and Reclamation Planning

In Nunavut, it is a regulatory requirement for every mine site, at all stages of operation, to have a CRP that outlines the measures to be implemented upon closure (INAC 2002). A mine site CRP is a flexible document that allows amendments as the life of the mine progresses and adapts new and improved technologies. CRPs are required to ensure responsible exploration, development and abandonment of mine sites by proponents as mine operation activities may have effects on the environment. The activities associated with mine operations include, but not limited to:

- drilling;
- bulk sampling;
- development of mine workings and construction of associated infrastructure;
- extraction of ore; and
- ore processing and disposal of waste rock and tailings (ENC 2009).

The above activities have potential environmental concerns like:

- wastewater runoff;
- ore processing and mine related wastes;
- release of airborne particulate matter;
- effects on terrestrial ecosystem, aquatic ecosystem, local and regional surface water and groundwater flow; and
- alteration of the landscape (ENC 2009).

As such, when mine operations come to an end, all infrastructure and facilities should be removed (except for the ones that will be preserved for post-closure land use); dumps, pits and drill holes should be properly capped; areas that have been disturbed should be reclaimed; and areas that have been contaminated should be identified and remediated to ensure human health and safety for post-closure land use (ENC 2009).

The Meadowbank Complex includes the Meadowbank Mine Site, Whale Tail Mine Site, Vault Pit, Baker Lake Site Facilities, as well as the interconnecting roads (Figure 1). Although mining of the Portage and Goose Pits at the Meadowbank Mine and the Vault Pit ceased in 2019, the mill at the Meadowbank Mine remains in operation, processing ore from Whale Tail's underground operations and pit. Progressive closure of some features of the Meadowbank Mine, primarily the Goose pit, tailings and waste rock storage facilities, has commenced, in accordance with the current ICRP (Agnico Eagle 2020; SNC Lavalin 2020).

In addition to plans for demolition of infrastructure and closure of mine waste storage facilities, the CRP update includes details on remediation or management of contaminated soil and water derived from historical operations at the Meadowbank Complex. The sections below summarize the discussion on the remediation or management of contaminated soil and water in the 2025 CRP. The 2025 CRP indicates that light-end hydrocarbon contaminated soil will be treated on-site, and non-treatable soil will be placed directly in the TSF or report to the Whale Tail underground. The open pits will be completely flooded at closure with water quality monitored to verify compliance with the criteria established by the Meadowbank or Whale Tail Water Licence (2AM MEA 1526 and 2AM WTP 1830). Once the water quality meets the criteria, the pit lakes will be reconnected to the surrounding aquatic environment. Contact water from the TSF and WRSF will report to the pits in closure.

2.2 Site Investigation Methodologies

As discussed in Section 2.1, ESA is one of the closure activities completed to ensure PoPCs associated with fuel, chemicals, tailings and/or ore-associated metals released accidentally or failure of management systems from the mine components will not endanger human, wildlife, or environmental health and safety at post-closure land use (INAC 2007). In accordance with the CCME Guidance Manual for Environmental Site Characterization (2016), a phased ESA approach will be implemented as follows:

- Phase I ESA - preliminary site investigation that involves evaluation of historical and current land use. A Phase I ESA includes site reconnaissance but does not include sampling and interpretation of data.
- Phase II ESA - intrusive investigation to verify whether contamination is present or absent
- Phase III ESA - executed to delineate contamination identified in the Phase II ESA and provide information for risk assessment/management and remediation planning (CCME 2016).

The following sections discuss the methodologies of these ESAs in detail.

2.2.1 Phase I ESA

The purpose of a Phase I ESA is to preliminarily identify APECs and associated PoPCs that may have resulted from current and/or historical land use of the site (Canadian Standards Association [(CSA] 2001). Table 2 presents a summary of the Phase I ESA methodologies (CSA 2001).

Table 2: Summary of Phase I ESA Methodology

Phase I ESA Method	Description
Record Review	Review of documents to collect data on the past and current activities that could be contributing to the contamination of the site. Examples of documents to be reviewed are listed below: • Aerial photographs (pre-disturbance to most recently available); • Previous site investigation reports, if available; • Company records such as site plans, annual reports, spill records and clean-up reports; and • Regulatory information, including permits, records of compliance and spill database.
Site Visit	Following the review of available records, site visit should be completed by an assessor to record the current uses and evidence of past uses of the site to assess the treatment, storage, disposal and generation of wastewater and hazardous materials. In addition, surface water features on the site and adjacent lands should be identified and recorded.
Interview	Site personnel who are knowledgeable about the site should be interviewed before, during or after the site visit to augment the information gathered in the review of records.
Information evaluation and reporting	The information gathered from the review of records, site visit and interviews will be evaluated if areas of actual or potential contaminations are present at the site. The findings recommendations are be presented in a written report.

2.2.2 Phase II ESA

The purpose of the Phase II ESA is to confirm the presence and characterize the PoPCs at the identified APECs in the Phase I ESA (CAN/CSA 2000). Table 3 presents the activities that take place in a Phase II ESA (CAN/CSA 2000).

Table 3: Phase II ESA Activities

Phase II ESA Activity	Description
Planning the site investigation	The planning stage includes the following activities: 1. Review of existing information, including the Phase I ESA and previous Phase II ESAs (as available). 2. Development of a sampling plan that provides a detailed description of: • Proposed sampling locations and rationale; • Proposed sampling methods, including field screening techniques and preservation and transportation of samples; • Proposed number of samples; and • Identify types of analytes to be analyzed and both field and laboratory quality assurance and quality control (QA/QC) measures.
Conducting the site investigation	1. Preparing for the site investigation, which includes, but not limited to, • Reviewing the sampling plan; • Mobilization of personnel and equipment to the site; • Preparation of health and safety, spill contingency and emergency plans; and

Phase II ESA Activity	Description
	• Locating utilities across the identified APECs and update the sampling plan, if required. 2. Conducting the Phase II ESA, where the sampling plan are implemented (i.e., boreholes drilling or test pits excavation, monitoring well installation and soil/groundwater/surface water sampling) and any deviation from the sampling plan are also document. All activities are recorded, including photographs of the sampling activities and site conditions are taken.
Sampling shipment and analysis	Collected samples must be handled and shipped for laboratory analysis following proper QA/QC procedures. Proper chain of custody must be established and followed for each shipment.
Interpretation and evaluation of information gathered	Prepare report documenting Phase II ESA activities. The laboratory analytical data are compared to applicable guidelines and presented in tables. The results are also be presented on maps to the extent of CoCs at the investigated APECs.

If required, Phase III ESA (i.e., a supplemental Phase II ESA) is conducted to delineate areas of known contamination and facilitate the estimation of the contaminated soil volume for preparation of a remedial action plan or risk management plan. The Phase III ESA follows a similar sampling method as that of the Phase II ESA but has a more specific and detailed investigation plan as the objective is to close a data gap (CCME 2016).

2.3 Remediation Criteria

Under the *Environmental Protection Act* (1988), the Government of Nunavut (GN) Minister of Environment, has the authority to administer the Environmental Guideline for Contaminated Site Remediation (the Guideline, GN 2014) as a measure to protect, preserve and enhance the natural environment of the territory. Specifically, the Guideline provides the framework for mitigation of human health and ecological risks posed by contaminated soil, water and sediment through the systematic process of environmental site assessment, remediation/risk management, site closure and long-term monitoring using either the generic criteria-based approach (Tier 1), modified-criteria approach (Tier 2) or risk-based approach (Tier 3) (GN 2014).

The Tier 1 - criteria-based approach listed in the Guideline apply to either fine- or coarse-grained soil in four specific land uses (agricultural/wildland, residential/parkland, commercial and industrial), sourced from the CCME CEQGs, published in various years, dating back to 1999 (CCME 1999). The CEQGs adopted in the Guideline include the Canadian Soil Quality Guidelines for the Protection of Environment and Human Health, Canadian Water Quality Guidelines for Protection of Aquatic Life and Canadian Sediment Quality Guidelines for Protection of Aquatic Life. The Tier 1 criteria-based approach is applicable to sites where receptors and exposure pathways are like the conditions assumed in the development of the remediation criteria (GN 2014).

In some cases, certain pathways may be eliminated and the Tier 2 – modified criteria-based approach can be implemented as remediation criteria (GN 2014). Tier 2 – modified criteria-based approach is applied when the site condition, land use, receptors or exposure pathways indicate a slight difference from the ones considered to develop the Tier 1 criteria. This approach helps to eliminate unnecessary remediation at a site by considering accurate site-specific information into the ESA.

The Tier 3-risk-based approach is used in a situation where the pathways of exposure, target chemicals, receptors or other site characteristics are significantly different from the ones considered in developing the Tier 1 remediation criteria (GN 2014). This approach is suitable for sites with:

- Significant ecological concerns like sensitive habitats, parkland or ecological reserves, or special hunting or trapping resources;
- Data gap where the site exposure pathways and receptor information are uncertain; and
- Special site characteristics like being in a remote area and the site conditions differ significantly from the Tier 1 or Tier 2 remediation criteria (GN 2014).

The CEQGs adopted by GN were developed for non-Arctic settings where receptor characteristics and exposure scenarios may differ significantly. As such, WSP is currently conducting a human health and ecological risk assessment (HHERA) for the Meadowbank Complex (WSP 2024d). The HHERA focuses on the post-closure conditions and the development of soil quality remediation objectives (SQROs) for PoPCs, such as PHCs, metals and glycols (WSP 2024d,e). The SQROs are developed by iteratively inputting calculated soil concentrations into the equations used to calculate doses and risk estimates for the selected receptors and exposure pathways to obtain hazard quotients of 0.2 and incremental lifetime of 1 in 100,000. The lowest objective derived for a PoPC in soil for all receptors, exposure pathways and endpoints, will be selected as the overall SQRO. The HHERA will consider changes in metal concentrations in soil due to windblown deposition that occurs during operation. Typically, it is assumed that, at closure, contaminated soils resulting from releases or wind-blown tailings deposition within the mine boundary will be identified and remediated to meet SQROs that are protective of human and ecological health. If new PoPCs are identified during the closure site investigation, SQROs will be developed following the same methods in the SQROs document (WSP 2024e).

3.0 CLOSURE INVESTIGATION WORK PLAN

The site investigations completed at the Meadowbank Complex to date focused on operational areas, AWAR, Vault Road, Whale Tail Haul Road and existing quarries/eskers along the roads specified by Agnico Eagle and identified as part of the desktop reviews, site reconnaissance and interviews (WSP 2023, WSP 2024a). This conceptual Plan is for the site investigation activities to be executed in conjunction with final mine closure (i.e., areas of mine-derived waste and surrounding areas impacted by their operation). The sections below discuss the approaches for identifying and investigating APECs and PoPCs for the purpose of identifying locations of future remedial action or risk management.

3.1 Phase I ESA

The Phase I ESA will be completed in accordance with the CSA document Z768-01 (R2022) – Phase I Environmental Site Assessment (CSA 2001) (see Section 2.2.1). The purpose of the Phase I ESA will be to identify APECs and associated PoPCs at the mine features of the Meadowbank Complex and areas affected by their operation. Note that components of the Meadowbank Complex that are related to ancillary activities, AWAR, Vault Road, Whale Tail Haul Road and existing quarries/eskers along the roads are not included in this Plan as they were investigated in the Phase I ESA completed as part of the progressive closure (WSP 2024a). Table 4 presents a preliminary list of mine features at the Meadowbank Complex identified from the site plans (Agnico Eagle 2020; SNC Lavalin 2020). Figures 2 to 4 also show the mine features to be investigated at closure on the site layouts for the Meadowbank Mine, Vault Pit and Whale Tail Mine, respectively. The Baker Lake Facilities is not included in this Plan as there are no mine features at this component of the Meadowbank Complex.

Table 4: Mine Features at the Meadowbank Complex

Site	Mining-Related Features
Meadowbank Mine	Saddle Dam 1, North Cell TSF, Portage WRSF PAG, Stormwater Dike, South Cell TSF, Portage Pit A, Central Dike, Central Dump, East Dike, South Camp Dike, Portage NAG Stockpile, Portage Pit E, Goose Dump, Goose NAG Stockpile, Goose Pit, Bay Goose Dike
Vault Pit	Vault Pit, Vault WRSF/Waste Dump, Ponds A to D, Phaser Pit, BB Phase Pit, Vault Dike, Vault Attenuation Pond
Whale Tail Mine	Whale Tail Ore Stockpiles (No.1 to 3), IVR Pit, Whale Tail WRSF, WRSF Pond, IVR Ore Stockpile, Whale Tail WRSF Dike, Temporary NPAG WRSF (No. 2 & 3), Whale Tail Dike, Waste Rock Exploration Pad, Groundwater Storage Ponds (GSP-1 to GSP-3), IVR Attenuation Pond, IVR WRSF, Saline wastewater Treatment Plant, Underground workings, Contact Water Collection Systems

Notes:
WRSF - waste rock storage facility
PAG – potentially acid generating

3.1.1 Document Review

Documents will be reviewed confirm additional mine features (i.e., aside from those already under investigation) that may have impacted soil quality at the Meadowbank Complex. The following sections summarize potential documents that will be reviewed pertaining to Meadowbank Complex mining operations.

Aerial Photographs

Aerial photographs of the Meadowbank Complex and surrounding area will be reviewed from pre-disturbance to most recently available and will be used to develop a history of the mine features and to identify APECs. The available aerial photographs to be reviewed are taken between 1982 and 2024 and obtained from Agnico Eagle, the National Air Photo Library (NRC), Google Earth, Maxar Earthstar Geographics and other sources. Features noted in the aerial photograph review will be verified using Agnico Eagle-provided plans, with additional information obtained during ground reconnaissance and interviews. Aerial photographs and information obtained in the current site investigations will also be reviewed (WSP 2024a).

Corporate File Review

Available documents will be reviewed to identify APECs at the Meadowbank Complex. These will include annual reports, spill records and clean-up reports, ICRP site plans and previous investigations reported between 2009 and 2024.

Similar to the current site investigations, locations with spills of products including hydraulic oil, diesel fuel, jet-A fuel, motor oil, engine oil, transmission oil, compressor oil, grease, waste oil, coolants, glycols and other new potential contaminants, and did not have confirmatory samples and assessments following the reported clean-up, will be identified as APECs (WSP 2023, 2024a). In addition, areas potentially affected by contaminated runoff, seepage and airborne contaminants from mine waste areas will be considered.

Regulatory File Review

Records related to the Meadowbank Complex from applicable regulators within the region, including Nunavut Impact Review Board (NIRB), Nunavut Water Board (NWB), Environment and Climate Change Canada (ECCC) and Environment and Natural Resources (ENR) will be reviewed. The regulatory records were already acquired for the previous Phase I ESA, but the review did not include the mine features (WSP 2024a). Therefore, the focus of the review for the areas addressed in this Plan will be on information related to reported spills, non-compliances and complaints regarding the historical operational activities that may result in APECs.

Private Database File Review

Reports from Environmental Risk Information Services (ERIS) will also be reviewed to support the findings of corporate and regulatory file reviews and identify additional APECs and PoPCs that may have not been identified from these reviews.

3.1.2 Ground Reconnaissance

Following the review of available documents, a site visit will be completed by an assessor to document the current conditions and evidence of past uses of the mine features to assess the treatment, storage, disposal and generation of wastewater and hazardous materials like tailings and acid generating waste rocks. In addition, surface water features (i.e., drainages and storage areas) will be identified and recorded. Any area that shows evidence of environmental concern (e.g., odours, stains, drains and sumps) will be identified as APEC and the associated chemicals or hazardous materials will be determined to be PoPCs. Information acquired in the previous site visits will also be utilized to support the closure site investigation.

3.1.3 Interviews

Interviews will be conducted with people knowledgeable about the Meadowbank Complex prior to, throughout, or during the ground reconnaissance. The interview will focus on, but not be limited to the activities, chemicals used or stored, hazardous waste generated and disposed of the mine features and surrounding areas. Interviews that were conducted for the previous Phase I ESA will also be used as an input (WSP 2924a).

3.2 Phase II ESA

The Phase II ESA will be completed in accordance with the CSA document Z769-00 (R2023) – Phase II Environmental Site Assessment (CAN/CSA 2000). The purpose of the Phase II ESA will be to confirm the presence or absence of contamination in the APECs identified in the Phase I ESA. The sections below discuss the methods that will be implemented for the Phase II ESA during end of Operations and into the mine closure.

3.2.1 Planning

Based on the APECs and PoPCs identified in the Phase I ESA, a scope of work with sampling plan will be developed. The sampling plan will include the proposed locations of boreholes and/or test pits and the rationale, investigation methods, number of samples and analytes. The site layouts will be used to indicate the locations of proposed drilling.

3.2.2 Site Investigation

Consistent with the current Phase II ESA, the following activities will be conducted.

Site Survey

The locations of the closure test pits will be plotted and staked by the on-site geotechnical department of Agnico Eagle (or others). The locations will be approved and authorized by Agnico Eagle mine operations.

Test Pitting

Test pits will be excavated at the proposed sampling locations to an estimated depth of 3.00 metres below ground surface or depth of encountered permafrost or bedrock. Excavated soil will be stockpiled to allow safe access to sample. Following sampling, the test pits will immediately be backfilled with the excavated material in the reverse order they were excavated. The test pits will then be compacted with the excavator bucket and tracks.

Soil Sampling

Soil samples will be collected at approximately 1.0 metre intervals or in zones of apparent contamination, or lithological changes. Investigation will be advanced vertically through the depth of assumed impact, if present. The collected soil samples will be submitted for laboratory analysis of PoPCs identified in the Phase I ESA. For quality control (QC) purposes, field duplicate samples will be collected as well. All reusable field equipment will be decontaminated using mild, non-phosphate detergent and distilled water between each sample collected. Soil samples will not be directly contacted by hand. To limit cross-contamination, stainless steel sampling instruments and a new pair of clean nitrile gloves will be used during sample collection. Where applicable, the appropriate laboratory-supplied preservative will be added to the soil samples placed in laboratory-supplied sample jars.

Depending on the identified PoPCs, soil samples will also be field screened. An RKI Eagle Portable Gas Monitor will be used to identify volatile and combustible hydrocarbons and x-ray fluorescence (XRF) will be used to screen for metals (CCME 2016). Soil samples will be selected for laboratory analysis based on physical observations (e.g., evidence of PHC staining and/or odour, soil colour and/or texture) and field screening results (e.g., greatest headspace vapour concentrations or EC and metals readings). The field screening methods for hydrocarbons and metals are discussed below in detail.

Field Screening for Hydrocarbons

Each soil sample collected for screening will be split, with approximately half being placed in laboratory-supplied sample jars for analysis and the remaining portion placed into sealable plastic bags for measurement of headspace vapour concentrations using an RKI Eagle Portable Gas Monitor.

Field Screening for Metals

Field portable XRF will be used to detect select metals in each soil sample. Each soil sample collected for metals analysis will be split, with approximately half being placed in laboratory-supplied sample container for analysis and the remaining portion will be prepared and placed in a sample cup. The sample will be prepared using the procedure developed by USEPA (Method 6200), which consists of oven drying, homogenization, grounding and sieving (USEPA 2007). The sieved soil sample will be placed in a sample cup (half or three-quarter full), which will then be placed on top of the probe window inside the protective sample cover of the XRF instrument for analysis of select metals (USEPA 2007). All equipment utilized in the sample preparation will be decontaminated to avoid cross-contamination.

Surface Water Sampling

Surface water samples will be collected from existing water bodies, water bodies that may be created during closure (e.g., flooded pits), and drainages. Samples will be field screened for oxidation-reduction potential, pH, dissolved oxygen, temperature and EC using a multiparameter sensor. Sampling equipment and sensor probes will be decontaminated between sampling locations using mild, non-phosphate detergent and distilled water. The water samples will be collected and placed in laboratory-supplied containers suitable for the analytes, and where

applicable, the appropriate laboratory-supplied preservative will be added to the samples. For QA/QC purposes, field duplicate and blank water samples will also be collected.

Groundwater Sampling

The HHERA indicated that direct exposure of human, terrestrial plants and invertebrates to the groundwater is not an operable exposure pathway at the Meadowbank Complex, as such, groundwater sampling is not considered in this Plan.

3.2.3 Samples Shipment and Analysis

All samples that are placed in laboratory-supplied containers will be submitted in ice-filled coolers under chain-of-custody protocols to Bureau Veritas Laboratories (BVL) in Mississauga, Ontario via the Agnico Eagle charter flight from the Meadowbank Complex. Once received, BVL will ship them to secondary BVL laboratory locations for analysis as needed. BVL is accredited by the Standards Council of Canada. Proper chain-of-custody procedures will be followed to ensure that the samples are analyzed for the appropriate parameters and within the prescribed hold times.

3.2.4 Interpretation and Evaluation of Information Gathered

The soil analytical data received from the laboratory will be compared to the SQROs that is being developed by WSP (see Section 2.3) to confirm the presence and extent of contamination. The results will be presented both graphically and in tables.

The analytical data for surface water samples will be compared to the criteria established by the Meadowbank and Whale Tail Water Licences. If the water samples do not meet the criteria set in the Water Licences, the water will be treated to meet the criteria before discharging to the environment (Agnico Eagle 2020; SNC Lavalin 2020).

The quality of information gathered will be evaluated through field procedures, laboratory procedures and the use of QC samples to quantify the results of the closure site investigation. Data quality review will be conducted by calculating the surrogate recovery, method blank concentration, laboratory and field duplicates relative percent difference and matrix, and blank spikes recovery for each laboratory submission.

3.3 Remediation Planning

The soil analytical results will be shown on the site layout to determine the lateral extent of contamination, if any. Using the illustration, the contaminated areas will be calculated if delineation is achieved. If delineation is not achieved, additional soil samples will be collected by excavating test pits few distance away from the sides of the contaminated area that requires further delineation. Similarly, the analytical data will be assessed to determine if delineation is achieved vertically. Once the contaminated areas are delineated laterally and vertically, the volume of contaminated soil that requires remediation or offsite disposal will be determined.

Contaminated soil with light-end PHCs will be excavated and taken to the landfarms at the Meadowbank Mine Site or Whale Tail Site for remediation (Agnico Eagle 2020; SNC Lavalin 2020). The hazardous waste and contaminated soil that is not suitable for remediation (i.e., soil contaminated with heavy-end hydrocarbons [e.g., hydraulic fluid and grease] and metals) at the on-site landfarms, will be excavated for offsite disposal or treatment at an approved facility (Agnico Eagle 2020; SNC Lavalin 2020). Appropriate remediation and/or risk management measures will be implemented based on the recommendations of the HHERA (WSP 2024d,e).

4.0 Execution Plan

The Meadowbank Mine and Whale Tail Mine Sites are currently in operation, and closure is anticipated to occur in 2028 (WSP 2024d). This Plan will be implemented as part of the progressive closure activities in late operations and into closure. Table 5 presents the anticipated execution plan for the site closure investigation to take place. Note that Phase I and II ESAs have already been completed for non-mining areas at the Meadowbank Complex as part of the progressive closure (WSP 2024a-c). Phase I and Phase II ESA activities for some mining areas could take place during late operations with the remainder of the activities occurring at closure.

Table 5: Proposed Execution Plan

Site Investigation Activity	Year															
	1				2				3				4			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Phase I ESA Document Review																
Phase I ESA Site Reconnaisance and Interviews																
Phase II ESA																
Remediation Planning and Design																
Supplemental Phase II ESA (if needed)																
Remedial Execution (Ongoing)																

Notes:

Site investigation schedule for Meadowbank Mine Site

Remedial execution schedule for the entire Complex

Site investigation schedule for Whale Tail Mine Site

5.0 REFERENCES

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WSP. 2024b. Preliminary Phase II Environmental Site Assessment, Meadowbank Mine Site, Meadowbank Complex, Kivalliq Region, Nunavut. 10 April 2024.

WSP. 2024c. Preliminary Phase II Environmental Site Assessment, Vault Mine Site, Meadowbank Complex, Kivalliq Region, Nunavut. 10 April 2024.

WSP. 2024d. DRAFT Human Health and Ecological Risk Assessment, Closure and Reclamation Plan, Meadowbank Complex, Kivalliq Region, Nunavut. 12 June 2024.

WSP. 2024e. DRAFT Soil Quality Remediation Objectives, Closure and Reclamation Plan, Meadowbank Complex, Kivalliq Region, Nunavut. 27 August 2024.

6.0 STATEMENT OF LIMITATIONS

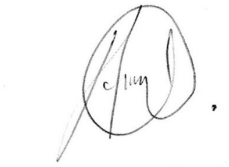
This report was prepared for the exclusive use of Agnico Eagle Mines Limited. The report, which specifically includes all tables, is based on data and information provided by Agnico Eagle Mines Limited as described in this report.

The services performed as described in this report were conducted in a manner consistent with that level of care and skill normally exercised by other members of the engineering and science professions currently practicing under similar conditions, subject to the time limits and financial and physical constraints applicable to the services. Any use which a third party makes of this report, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. WSP Canada Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The content of this report is based on information collected during our investigation, our present understanding of the Site conditions, and our professional judgment in light of such information at the time of this report. This report provides a professional opinion and therefore no warranty is expressed, implied, or made as to the conclusions, advice and recommendations offered in this report. This report does not provide a legal opinion regarding compliance with applicable laws. With respect to regulatory compliance issues, it should be noted that regulatory statutes and the interpretation of regulatory statues are subject to change. The findings and conclusions of this report are valid only as of the date of this report. If new information is discovered in future work, WSP Canada Inc. should be requested to re-evaluate the conclusions of this report, and to provide amendments as required.

Signature Page

WSP Canada Inc.

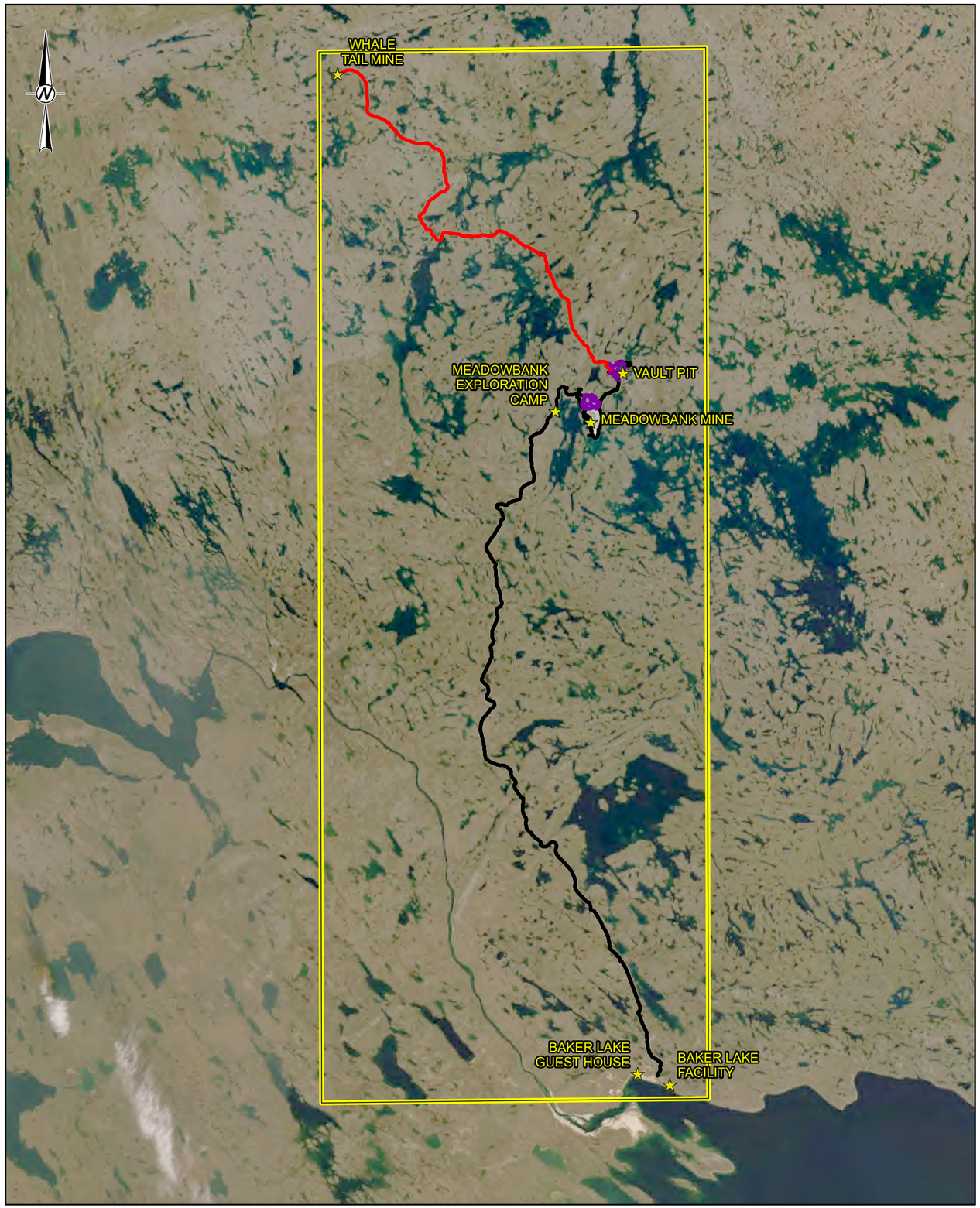


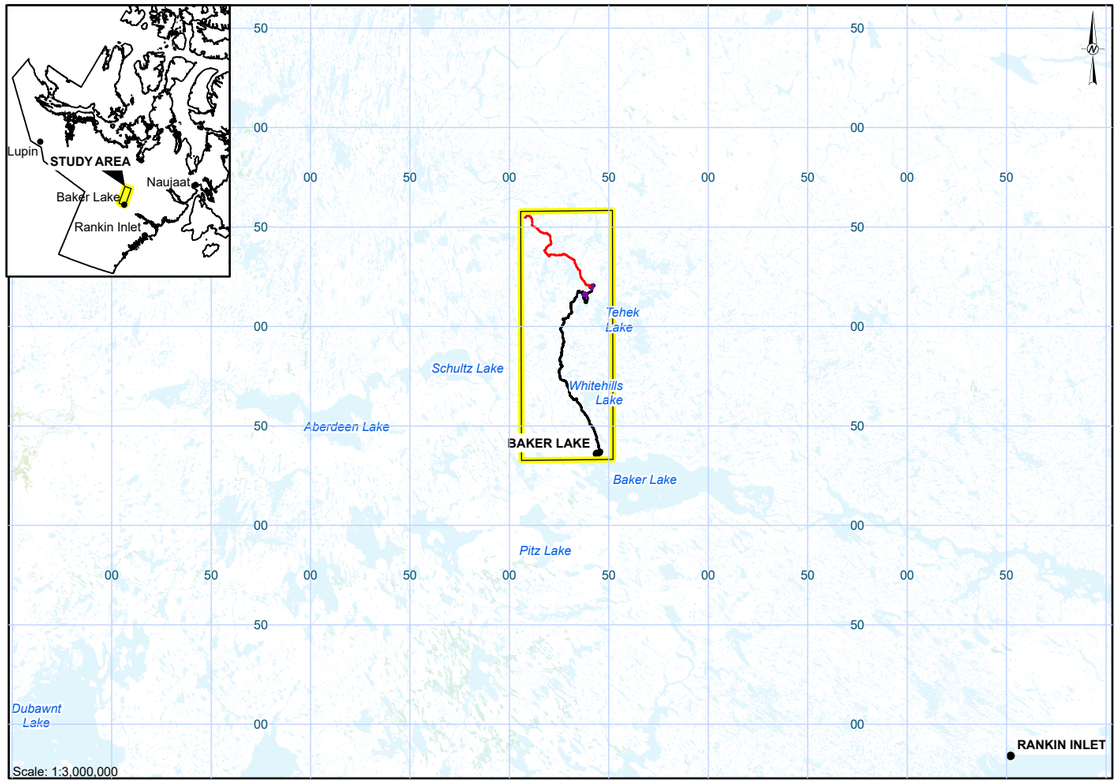
Azeb Habte, EIT
Environmental Scientist

Lenz Haderlein
Principal Project Director

Andrea Hachkowski, PEng
Project Director

FIGURES





LEGEND

- CONTOUR (100 M INTERVAL)
- WATERBODY
- SWAMP
- WOODED AREA
- STUDY AREA
- ALL WEATHER ACCESS ROAD
- HAUL ROAD
- VAULT ROAD

REFERENCE(S)

1. BASE MAP: EARTHSTAR GEOGRAPHICS; MAZAR IMAGE SOURCE DATE: JULY 26, 2022.
2. KEY TOPOGRAPHICAL MAP CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - CANADA.
3. PROJECTION: NAD 1983 CSRS UTM ZONE 14N, TRANSVERSE MERCATOR

0 20 40

1:550,000 METRES

CLIENT
AGNICO EAGLE MINES LIMITED

CONSULTANT
wsp

YYYY-MM-DD	2024-10-11
DESIGNED	J.REDSTONE
PREPARED	J.REDSTONE
REVIEWED	J.SANTANA
APPROVED	L.HADERLEIN

PROJECT
CLOSURE INVESTIGATION PLAN
MEADOWBANK COMPLEX
KIVALLIQ REGION, NUNAVUT

TITLE
MEADOWBANK COMPLEX PROJECT LOCATIONS

PROJECT NO.	PHASE-TASK	REV.	FIGURE
CA0025288.9785	5000.5001	0	1

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25mm

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KEY MAP

N

WHALE TAIL MINE

MEADOWBANK EXPLORATION CAMP

VAULT PIT

MEADOWBANK MINE

BAKER LAKE GUEST HOUSE

BAKER LAKE FACILITY

Scale: 1:18,000

Saddle Dam 1

NORTH CELL TSF

PORTAGE WRSF PAG

Stormwater Dike

SOUTH CELL TSF

PORTAGE PIT A

East Dike

Airstrip

Central Dike

CENTRAL DUMP

Service Buildings

Fresh Water Barge

Mills

Teardrop Lake

Second Portage Lake

Third Portage Lake

South Camp Dike

PORTAGE NAG STOCKPILE

PORTAGE PIT E

FGL/Sana Shop

GOOSE NAG STOCKPILE

GOOSE DUMP

GOOSE PIT

Third Portage Lake

Bay Goose Dike

LEGEND

- ROAD
- CREST
- TOE
- ROCK STORAGE FACILITY
- WASTE DUMP STORAGE
- WASTE ROCK STORAGE
- PIT
- CELL
- TSF NPAG COVER
- EXISTING DIKE
- FORMER DIKE
- EXISTING INFRASTRUCTURE
- PROJECT WATERBODY
- ROADWA
- AREAS ADDRESSED BY THE PLAN
- APECS FROM CURRENT PHASE I ESA (WSP 2024a)

1:18,000 0 180 360 720 METRES

LIST OF APPLICABLE ABBREVIATIONS

NAG	NON ACID-GENERATING
NPAG	NON-POTENTIALLY ACID-GENERATING
PAG	POTENTIALLY ACID-GENERATING
TSF	TAILINGS STORAGE FACILITY
RSF	ROCK STORAGE FACILITY
APEC	AREA OF POTENTIAL ENVIRONMENTAL CONCERN
WRSF	WASTE ROCK STORAGE FACILITY

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. ORIGINAL DRAWING PDF OBTAINED FROM SNC.LAVALIN; FILE: SNC651196_RP_F2-1-SITE_LAYOUT_TAB_180622.MXD; SCALE: 1:20,000; DATE: JUNE 2018.
2. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - CANADA
3. BASE MAP: EARTHSTAR GEOGRAPHICS, MAXAR
4. COORDINATE SYSTEM: NAD 1983 CSRS UTM ZONE 14N

CLIENT
AGNICO EAGLE MINES LIMITED

PROJECT
CLOSURE INVESTIGATION PLAN
MEADOWBANK COMPLEX
KIVALLIQ REGION, NUNAVUT

TITLE
AREAS ADDRESSED BY THE PLAN AT MEADOWBANK MINE

CONSULTANT

wsp

YYYY-MM-DD	2024-10-11
DESIGNED	J.REDSTONE
PREPARED	J.REDSTONE
REVIEWED	J.SANTANA
APPROVED	L.HADERLEIN

PROJECT NO.	PHASE-TASK	REV.	FIGURE
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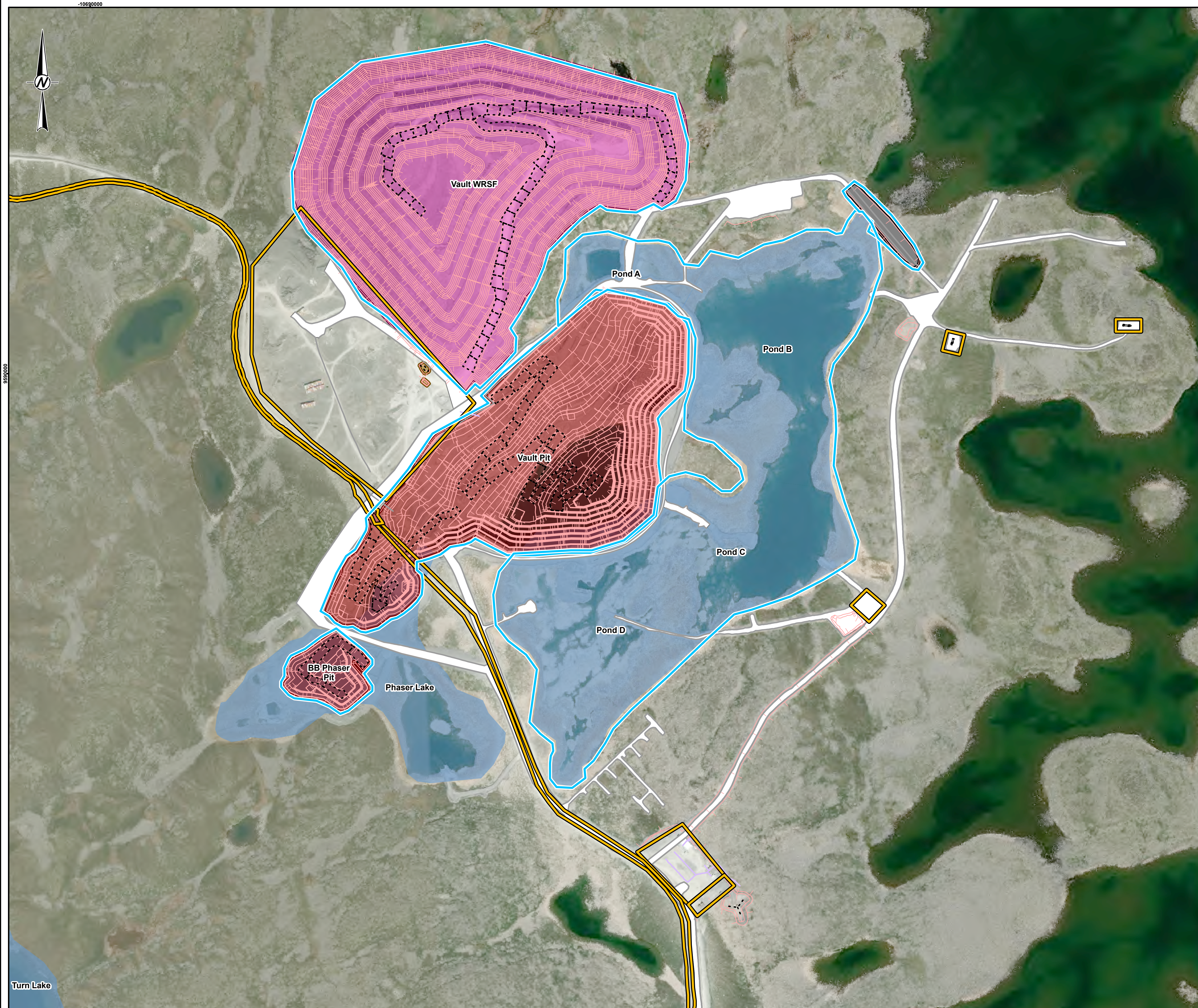

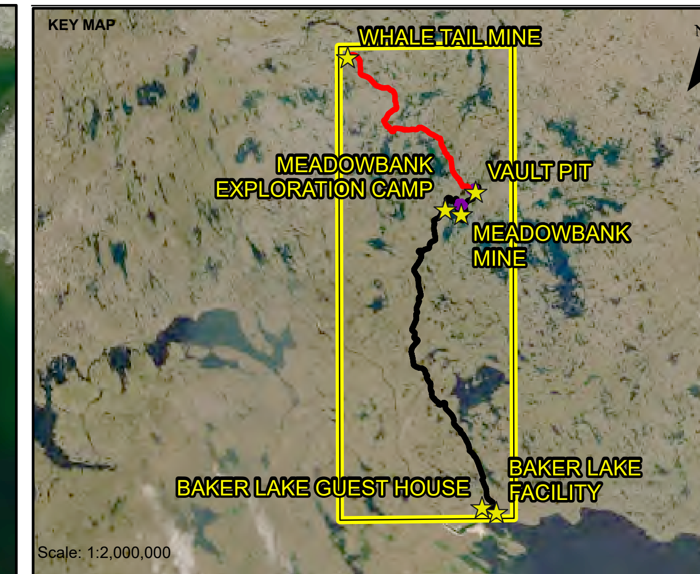

LEGEND

- EXISTING INFRASTRUCTURE
- UTILITY
- ROAD
- CREST
- TOE
- WASTE DUMP STORAGE WASTE
- ROCK STORAGE
- PIT
- EXISTING DIKE
- EXISTING INFRASTRUCTURE
- PROJECT WATERBODY
- ROADWAY
- AREAS ADDRESSED BY THE PLAN
- APECS FROM CURRENT PHASE I ESA (WSP 2024a)

LIST OF APPLICABLE ABBREVIATIONS

APEC	AREA OF POTENTIAL ENVIRONMENTAL CONCERN
WRSF	WASTE ROCK STORAGE FACILITY

0 500 1,000

1:12,000 METRES

REFERENCE(S)

1. ORIGINAL DRAWING OBTAINED FROM MEADOWBANK DIVISION ENGINEERING, APRIL 12, 2023.
2. BASE MAP: EARTHSTAR GEOGRAPHICS, MAXAR
3. PROJECTION: NAD 1983 CSRS UTM ZONE 14N, TRANSVERSE MERCATOR

CLIENT

AGNICO EAGLE MINES LIMITED

PROJECT

CLOSURE INVESTIGATION PLAN
MEADOWBANK COMPLEX
KIVALLIQ REGION, NUNAVUT

TITLE

AREAS ADDRESSED BY THE PLAN AT THE VAULT PIT

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DESIGNED	J.REDSTONE
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PROJECT NO.	PHASE - TASK	REV.	FIGURE
CA0025288.9785	5000.5001	0	3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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-10760000

9850000

Nemo Lake

Water Intake in Nemo Lake and Freshwater Pump Station

Whale Tail Landfill

Whale Tail WRSF

WRSF Pond

Whale Tail WRSF Dike

IVR ORE Stockpile

IVR Pit

Whale Tail Pit Expansion

Groundwater Storage Pond GSP-3

Groundwater Storage Pond GSP-2

Groundwater Storage Pond GSP-1

Waste Rock Exploration Pad

IVR WRSF

Whale Tail Ore Stockpile

Whale Tail Ore Stockpile (No.2)

Whale Tail Ore Stockpile (No. 3)

IVR Attenuation Pond

WHL #1 WT Attenuation Pond

Whale Tail Dike

Temporary NPAG WRSF (No. 2 & 3)

Whale Tail Lake

KEY MAP

N

WHALE TAIL MINE

MEADOWBANK EXPLORATION CAMP

VAULT PIT

MEADOWBANK MINE

BAKER LAKE GUEST HOUSE

BAKER LAKE FACILITY

Scale: 1:2,000,000

LEGEND

- EXISTING INFRASTRUCTURE
- MINING FEATURE
- PAD
- DIKE
- PROJECT CONTOUR
- UTILITY
- PUMPING SYSTEM
- CULVERT
- DIVERSION DITCH
- ROAD
- PARCEL SEGMENT
- NATURAL FEATURE
- WASTE DUMP STORAGE WASTE
- ROCK STORAGE
- PIT
- EXISTING DYKE
- EXISTING INFRASTRUCTURE
- PROJECT WATERBODY
- AREAS ADDRESSED BY THE PLAN
- APECS FROM CURRENT PHASE I ESA (WSP 2024a)

LIST OF APPLICABLE ABBREVIATIONS

APEC	AREA OF POTENTIAL ENVIRONMENTAL CONCERN
NPAG	NON-POTENTIALLY ACID-GENERATING
WRSF	WASTE ROCK STORAGE FACILITY

0 500 1,000

1:15,000 METRES

REFERENCE(S)

1. INFRASTRUCTURE OBTAINED FROM AGNICO EAGLE LIMITED FROM AMQ_2025Q4V7_DWG.
2. BASE MAP: EARTHSTAR GEOGRAPHICS, MAXAR
3. PROJECTION: NAD 1983 CSRS UTM ZONE 14N, TRANSVERSE MERCATOR

CLIENT

AGNICO EAGLE MINES LIMITED

PROJECT

CLOSURE INVESTIGATION PLAN
MEADOWBANK COMPLEX
KIVALLIQ REGION, NUNAVUT

TITLE

AREAS ADDRESSED BY THE PLAN AT THE WHALE TAIL MINE

CONSULTANT

wsp

YYYY-MM-DD	2024-10-11
DESIGNED	J.REDSTONE
PREPARED	J.REDSTONE
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PROJECT NO.	PHASE - TASK	REV.	FIGURE
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