Appendix A

Phase I Environmental Site Assessment

DILLON CONSULTING

BUILD NOVA SCOTIA

Phase I Environmental Site Assessment (Final)

Former Frenchvale Mine Site, Frenchvale, Nova Scotia

Property **Identification Designation Number: 15845167**

April 2025 – 24-8606

April 11, 2025

Build Nova Scotia
45 Wabana Court
Sydney, Nova Scotia
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Attention: Cory MacPhee, P. Eng., PMP
Project Manager - Environmental Group Strategic Infrastructure and Development Division

Phase I Environmental Site Assessment (Final)
Former Frenchvale Mine Site, Frenchvale, Nova Scotia
Parcel Identification Designation Number 15845167

Dillon Consulting Limited (Dillon) is pleased to provide this Phase I Environmental Site Assessment (ESA) of the Former Frenchvale Mine property located in Frenchvale, Nova Scotia, and identified by Parcel Identification Designation Number (PID No.) 15845167.

Should you have any questions, please do not hesitate to contact us.

Sincerely,

DILLON CONSULTING LIMITED

Nadine Wambolt, B. Tech, CET
Project Manager

Enclosure

Our file: 24-8606

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Table of Contents

Figures

Tables

Appendices

References

Executive Summary

Dillon Consulting Limited (Dillon) was commissioned by Build Nova Scotia (BNS) to complete a Phase I Environmental Site Assessment (ESA) of the property located at Parcel Identification Designation Number (PID No.) 15845167, with the objective of assessing whether the site is or may be subject to actual or potential contamination.

The Phase I ESA was conducted in accordance with the Canadian Standard Association (CSA) Standard Z768-01 for Phase I ESAs (CSA, R2022) and included a records review and reporting of the findings.

Subject Property	
Site Identifier	PID No. 15845167
Property Owner	Her Majesty the Queen in Right of The Province of Nova Scotia, Nova Scotia Department of Natural Resources and Renewables
Property Lessee	Not Applicable
Site Name	Former Frenchvale Mine Site
Property Area	6.6 hectares
Property Zoning	Provincial forest
Current Property Use	Vacant
Former Property Use	Limestone and dolomite mining operations

Based on the information gathered and observations made during this assessment, the Phase I ESA has identified the following areas of potential environmental concern (APECs) and associated contaminants of potential concern (COPCs):

APEC No.	APEC	COPCs	Media of Concern	Comments
1	Overburden/fill (stockpiled material)	• Metals • pH • Gross Alpha Beta for Potential Naturally Occurring Radioactive Material (NORM) • Acid rock drainage (ARD)	Soil, SW Sediment	Stockpiled materials derived from processing operations.

APEC No.	APEC	COPCs	Media of Concern	Comments
2	Surface debris/waste scattered across the site	• Metals • Petroleum Hydrocarbons (PHC), including benzene, toluene, ethylbenzene, xylenes (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) • Polycyclic aromatic hydrocarbons (PAHs) • Polychlorinated Biphenyls (PCBs) • pH	Soil, SW, Sediment	Debris in various areas of the site, including heavy equipment debris, burned heavy equipment tires, rusted steel, drums, motor oil containers, an air compressor, concrete debris, discarded fishing gear, and geotextile liner rolls.
3	Buried and/or partially buried debris	• Metals • General Chemistry[3] • PHCs • PAHs • PCBs	Soil, SW, Sediment	Weigh scale foundation remains. Partially buried geotextile rolls (potential for additional buried debris). Unknown demolition/ decommissioning practices; and possible iron precipitate observed in watercourses/ditches.
4	Waste-Rock Pile	• Metals • pH • PHCs • PAHs • Gross Alpha Beta for NORM • ARD	Soil, SW, Sediment	Waste rock pile with iron staining and seep identified during the Phase I ESA site visit.
5	Former off-site and upgradient quarry operations	• Metals • pH • PHCs • PAHs • Gross Alpha Beta for NORM • ARD	Soil, SW, Sediment	Partially buried debris identified at site boundary during the Phase I ESA site visit; unknown demolition/ decommissioning practices.

Notes:
1. SW denotes surface water;
2. SED denotes sediment;
3. General chemistry (a.k.a. RCAP) is analysis only completed on water;
4. Inferred surface water outflow direction in the area is south/southeast towards Gouthro Lake; and
5. Metals analysis in all media to include analysis of mercury and sulphur.

Based on the identified APECs and corresponding COPCs, assessment of relevant media of concern (i.e., soil, surface water, and sediment) is recommended to include metals (including mercury and sulphur), PHCs, PAHs, PCBs, pH, conductivity, and general chemistry. Potential NORM can be initially assessed for by collection of one sample for gross alpha beta analysis. It is recommended that ARD be pre-screened by assessing concentrations of sulphur, chloride, electrical conductivity, sodium adsorption ratio, and pH at select surface soil and sediment sample locations in areas where overburden piles and waste rock have been identified (i.e., APECs #1 and #4).

Debris should be removed from the site for appropriate disposal at a licenced facility.

The statements made in this Executive Summary are subject to the same disclaimer presented in Section 8.0 and are to be read in conjunction with the remainder of this report.

1.0 Introduction

Dillon Consulting Limited (Dillon) was commissioned by Build Nova Scotia (BNS), on behalf of Nova Scotia Department of Natural Resources and Renewables (NSDNRR) to complete a Phase I Environmental Site Assessment (ESA) of the Former Frenchvale Mine property (herein referred to as the "site" or the "subject property") located in Frenchvale, Cape Breton County, Nova Scotia.

1.1 Objective and Scope of Work

The objective of the Phase I ESA was to assess whether the site is or may be subject to actual or potential contamination. Contamination is defined as "the presence of a substance of concern, or a condition, in concentrations above appropriate pre-established criteria in soil, sediment, surface water, groundwater, air, or structures" (CSA, R2022).

To fulfill the objective of the Phase I ESA, the following scope of work was agreed to:

- Review of historical and current records that were reasonably attainable for the site and surrounding area;
- Interviews of persons knowledgeable with respect to past and current uses of the site and/or adjoining properties;
- A site visit to observe the site and surrounding properties; and
- Evaluation of the findings and reporting.

This Phase I ESA was performed following the Phase I ESA guideline document produced by the Canadian Standards Association (CSA Z768-01, R2022). As such, this report is based on review of available historical records, requests for information filed with government or other regulatory agencies, an interview, and a site visit. This ESA did not include sample collection, analysis or measurements, and is not intended to be a definitive investigation of contamination or other environmental concerns at the subject property.

2.0 Background

The former Frenchvale Mine site (i.e., PID No. 15845167) is owned by NSDNRR and is classified as provincial forest (resource). The site can be accessed by an unpaved road (Quarry Road) that extends west from Gouthro Road. A metal gate is present along this access road to the east of the site boundary. A former mill processing area and weigh scales were historically present on-site, with a former limestone quarry located off-site to the northwest and west (note, for the purpose of this assessment, the former off-site quarry is considered an adjoining property). Historically, the former off-site quarry supplied the Sydney Steel Plant with carbonate materials, including limestone and dolomite, and operated from 1964 to 1970 and then reopened in 1971 for an unknown period of time. Crushing,

screening, and milling operations associated with the former quarry took place at the site. Overburden and plant screening materials were reportedly dumped and spread over areas of the site. Tailings were not reported to have been present at the site. Structures and infrastructure (i.e., weigh scale) were constructed to support site operations. While the majority of the former site infrastructure has been removed, some remnants were observed on-site (e.g., former weigh scale foundation) during the Phase I ESA site visit.

3.0 Methodology

3.1 Records Review

The applicable search distance for the records review included properties immediately adjoining the subject property, and those identified by aerial photographs, historical records and regulatory requests to represent a potential environmental concern. Records reviewed for the subject property included the following:

- Aerial photographs (1939, 1947, 1953, 1966, 1975, 1983, 1993, 1999, 2009, and 2021) provided via ERIS and/or BNS) (Appendix A);
- Fire Insurance Mapping (none available);
- City Directories (none available);
- Available historical reports/documents:
  - D.A. Murray, Nova Scotia Department of Mines (1965) Limestones and Dolomites of Cape Breton Island.
  - D.A. Murray, Nova Scotia Department of Mines (1972) Frenchvale Dolomite Deposit Report for Sydney Steel Corporation, Loch Lomond Area - Cape Breton, NS.
  - William G. Shaw (1989), Geology and Commercial Aspects of the Frenchvale Carbonate Deposit, for Kelrock Limited, Cape Breton County, Nova Scotia.
  - BNS (2023), Site Visit Report.
- Provincial online property database for information regarding the subject and adjoining properties (Property Online GeoNova: https://novascotia.ca/sns/access/land/property-online.asp) (accessed July 2024); and
- Provincial regulatory requests for property-based environmental information (Nova Scotia Environment and Climate Change (NSECC) Environmental Registry Request (Appendix B).

A title search was not completed as part of the assessment; however, deed information was included in the BNS site visit report (2023). Information gathered during the records review is discussed in subsequent sections of the report.

3.2 Site Visit

On July 25, 2024, Jason Marsh, C.E.T., and Breagh Thomas, P.Eng., of Dillon conducted a site visit. Weather conditions at the time of the visit were sunny (24°C). Activities conducted during the site visit included:

- Observation of infrastructure and surrounding land at the site (to the extent possible); and
- Observation of the properties adjoining to the site (to the extent possible) to assess use, as could be viewed from the subject property and adjoining public lands.

Photographs taken during the site visit are presented in Appendix C.

3.3 Interviews

Mr. Ernie Hennick, a planning technician with the NSDNRR, was identified by BNS as a person knowledgeable with the site history. Mr. Hennick was interviewed by telephone on July 18, 2024. Information obtained through the interview has been incorporated in the following report sections.

4.0 Property Description

4.1 Subject Property Description

The subject property is located at PID No. 15845167 in Cape Breton County, Nova Scotia, as described in Table 1 and illustrated on Figures 1 and 2 attached.

Table 1: Summary of Property Information

Property Description	
Site Identifier	PID No. 15845167
Property Owner	Her Majesty the Queen in Right of The Province of Nova Scotia, Nova Scotia Department of Natural Resources and Renewables
Property Lessee	Not Applicable
Site Name	Former Frenchvale Mine Site
Property Area	6.60 hectares
Property Zoning	Provincial Forest (based on Property Online; July 2024)
Current Property Use	Vacant
Former Property Use	Limestone and dolomite milling and processing operations
Power Source	No known current on-site power services
Water Source	No known on-site water services. Municipal water services are not available for the site or the immediately surrounding area (based on Cape Breton Regional Municipality (CBRM) utility service mapping).

Property Description	
Located in Protected Wellfield or Watershed Area	Not located in a protected wellfield or watershed area based on available mapping; however, is located in the Salmon/Mira Primary Watershed area of Nova Scotia.
Wastewater	No known on-site wastewater services. Municipal wastewater services are not available for the site or the immediately surrounding area (based on discussions with CBRM).

4.1.1 Current On-Site Buildings and Structures

Based on a desktop review of available site information, interview information, and field observations made during the site visit, no known buildings are currently present at the site. Remnants of a weigh scale are present on the northwest portion of the site, as well as partially buried foundation debris.

4.1.2 Adjoining and Neighbouring Properties

Based on the desktop review of historical records, current land use for the adjoining and neighbouring properties is presented in Table 2 and on Figure 2 (attached).

Table 2: Adjoining and Neighbouring Properties – Current Land Use

Boundary of the Site	Distance from Subject Property	Current Land Use	Potential Environmental Concerns
North to northwest (PID No. 15322506)	Adjoining	Mixed residential and resource – location of former quarry operations and noted debris during the Phase I ESA site visit.	Observed partially buried debris
Northeast (PID No. 15322480)	Adjoining	Mixed residential and resource	None observed
Northeast (PID No. 15322498)	Adjoining	Mixed residential and resource	None observed
Northeast to Southeast (PID No. 15845159)	Adjoining	Resource – contains access road to site from Gouthro Road	None observed
Southeast (PID No. 15747793)	Adjoining	Gouthro Lake	None observed
South to Southwest (PID No. 15491582)	Adjoining	Resource	None observed

Based on the current land use of adjoining properties, the following actual or potential sources of environmental concern were identified:

- It is noted that during the site visit, partially buried rusted metal and other debris were observed on the adjacent property (PID No. 15322506) to the north and upgradient of the site.

4.2 Regional Geology, Hydrogeology and Topography

To describe the regional physiography and expected hydrogeologic conditions beneath the subject property, the following documents were reviewed:

- Stea, R.R., Conley, H., and Brown, Y. (compilers) 1992: Surficial Geology of the Province of Nova Scotia; Nova Scotia Department of Natural Resources, Map 92-3, Scale 1:500,000.
- Keppie, J.D. (compiler) 2000: Geological Map of the Province of Nova Scotia; Nova Scotia Department of Natural Resources, Minerals and Energy Branch, Map ME 2000-1, Scale 1:500,000.

The surficial geology of the subject area consists of stony till plain and drumlins. Till is a stony, sandy matrix and consists of material derived from local bedrock sources, ranging in thickness from 2 meters (m) to 20 m. Drumlin facies are siltier due to erosion and incorporation of older till units by glaciers, ranging in thickness from 4 m to 30 m.

The regional bedrock geology of the site is primarily mapped as the Kempt Head, Sydney River, Gays River, MacBeth Brook and Macumber Formations as part of the Lower Windsor Group formation of the Carboniferous period, consisting of anhydrite, salt, gypsum, shale, marine dolomite, and limestone.

The topography of the site is flat to rolling with many surface boulders; drumlins-elongate or oval hills veneered by stony till with underlying multiple till layers. Regional topography suggests the regional shallow groundwater flow is likely southeast towards Gouthro Lake.

Based on site interview information and site visit observations, there is potential for buried waste to be present on-site. Additionally, in-ground infrastructure (i.e., former weigh scale foundation) was identified on-site. The local shallow groundwater flow direction may vary from the regional context and be influenced by backfilled areas with coarse-grain materials and/or debris, which may provide a more permeable conduit for groundwater flow when compared to the lower permeability of the native soils.

5.0 Records Review

A summary of historical land use information for the subject property is presented in Table 3 in the following section. Historical Information for the Adjoining Properties is presented in Section 5.2 in Table 4. The documentation collected to generate Tables 3 and 4 is listed in Section 3.1.

5.1 Subject Property

A summary of historical land use information for the subject property is presented in Table 3.

Table 3: Historical Information for the Subject Property

Period/Date	Land Use/Historical Information
1939 to 1953	In the 1939 aerial photograph, the site is largely undeveloped, with the exception of apparent agricultural development visible on the northeast portion of the site. The shore of Gouthro Lake is visible along the southeast site boundary. Some areas are forested.
1953 to 1975	In the 1953 aerial photograph, a portion of the site has been cleared.
1975 to 1983	In the 1975 aerial photograph, mining activities are visible at the site. Several buildings/structures and apparent stockpile areas are visible across the site. Apparent drainage paths are visible along the southeast portion of the site leading to Gouthro Lake.
1983 to 1993	In the 1983 aerial photograph, a prominent drainage path is visible at the eastern portion of the site, leading to Gouthro Lake. The majority of the formerly visible buildings/structures and stockpiles have been removed, with five buildings/structures remaining visible on the north, northwest and west portions of the site. Several areas of ponded water are visible near the stockpiles and north of the access road. A drainage path is visible intersecting the site from the northwest, continuing along the western tree line to Gouthro Lake.
1993 to 1999	In the 1993 aerial photograph, what appears to be a weigh scale is visible north of the access road. Several objects, or possible seacans, are visible in the area north of the weigh scale. An apparent foundation is present on the north portion of the site, in the area where a building/structure was previously noted in the 1983 aerial photograph. A rock pile is visible on the west portion of the site. Areas of ponded water noted in the 1983 aerial photograph are either no longer visible or have diminished. Ponded water remains to the south of the access road and at the south portion of the site (southwest of the central stockpile).
1999 to 2009	In the 1999 aerial photograph, the rock pile previously visible in the 1993 aerial photograph is no longer visible. Ponded water previously observed is no longer visible near the on-site stockpiles but remains visible to the south of the access road.
2009 to 2021	In the 2009 aerial photograph, a prominent area of ponded water has developed at the northern corner of the site property. The area of ponded water previously noted south of the access road has expanded and appears to connect to a drainage path at the east portion of the site to Gouthro Lake. Additional areas of ponded water are visible across the site. Ponded water is present surrounding the remaining stockpile to the north, west, and south. A drainage path is visible to the south of the stockpile, towards Gouthro Lake. The majority of the former structures appear to have been removed from the site. Well established access roads are visible, intersecting the site from east to west. Vegetation near the southeast site boundary, bordering Gouthro Lake, has been re-established.
2021 to Present	In the 2021 aerial photograph, no structures are visible on-site. Portions of the site appear to be covered in ponded water, to the north and west of the remaining on-site stockpiles situated on the central portion of the site.

Based on the above noted findings, potential or actual environmental concerns were identified on-site, including:

- Milling, crushing, and screening operations for off-site mined/quarried materials historically occurred on-site. Resulting waste rock piles and overburden piles have potential for leaching of potential contaminants of concern (i.e., sulphide bearing materials, metals) to site media (soil, surface water, sediment). Historical use of on-site equipment for former milling operations represents a potential for impacts to the site (e.g., petroleum hydrocarbons from fuelling/ storage or possible equipment maintenance activities). Demolition/decommissioning practices associated with the former on-site buildings/structures are unknown. Based on interview information and site visit observations, there is the potential for buried debris to be present on-site.

5.2 Database and Regulatory Review

Information requests were submitted to the regulatory bodies and databases listed in Section 3.1 for the subject property, as well as applicable adjoining and neighbouring properties that may represent an environmental concern to the subject property. The regulatory and database information obtained is discussed in the following subsections and included in Appendix B.

5.2.1 Subject Property

No records were found for the subject site, or the five adjoining properties searched as part of the NSECC Registry Request. Given the past use of the site and the adjoining former quarry to the north and northwest, Dillon contacted NSECC to discuss the search findings. NSECC again did a search of their records, with again no records found. Information obtained from interviews and site visit observations for the subject property is presented in Table 4.

Table 4: Regulatory Request Results – Subject Property

Subject Property	
Petroleum Storage Information	Based on the information obtained through the NSECC Environmental Registry search, the site is not registered as a petroleum storage site; however, based on interview information, on-site petroleum storage would have been present during historical site operations. If historically present, it is unknown if former storage tanks were removed from the site; however, no aboveground tanks or evidence of underground tanks were noted at the time of the site visit. Heavily rusted equipment debris was observed at the northern portion of the site. The equipment did not appear to have been drained of fluids; however, no staining or odours were observed in the area of the equipment.
Remediation Site Management Program / Environmental Registry Information	Based on the information obtained through the NSECC Environmental Registry search, the site does not have any registered remediation management files.

Subject Property	
PCB Storage Site	Based on the information obtained through the NSECC Environmental Registry search, the site is not registered as a PCB storage site. On-site power poles were observed during the site visit; however, former reportedly associated pole-mounted transformers, which may have contained PCBs, and power lines had been removed from the on-site power poles. Disposal activities associated with former on-site transformers are unknown.
Former Landfill/Dumpsite	Based on the information obtained through the NSECC Environmental Registry search, the site is not registered as a former landfill/dumpsite.
Other Provincial Regulatory (if applicable)	No records found.

Based on the above, the following environmental concerns were identified:

- Rusted equipment debris was observed at the northern portion of the site. The equipment has the potential to contain fluids; however, no staining or odours were observed in the area of the equipment at the time of the Phase I ESA site visit.
- On-site power poles were observed during the site visit; however, pole-mounted transformers and lines had been removed from the poles. Based on interview information, transformers were historically present at the site during operation of processing activities. Disposal activities associated with the former transformers are not known.

5.2.2 Adjoining and Neighbouring Properties

No information was obtained from the regulatory request for adjoining and neighbouring properties searched; therefore, potential or actual environmental concerns were not identified as a result of the regulatory records review.

5.3 Previous Environmental Site Assessments

The following previous environmental reports were available for review as part of the documents review:

- D.A. Murray, Nova Scotia Department of Mines (1965) Limestones and Dolomites of Cape Breton Island.
- D.A. Murray, Nova Scotia Department of Mines (1972) Frenchvale Dolomite Deposit Report for Sydney Steel Corporation, Loch Lomond Area - Cape Breton, NS.
- William G. Shaw (1989) Geology and Commercial Aspects of the Frenchvale Carbonate Deposit, Cape Breton County, Nova Scotia.
- Build Nova Scotia (2023), Site Visit Report.

Dillon was provided each of the above noted reports for review; however, some information contained in the reports was not relevant to this Phase I ESA. The following is a summary of relevant information from these reports (noting that relevant information, as presented below, has been supplemented by interview information):

- Limestone and dolomite quarrying operations first occurred at the site in 1964. Scotia Limestone operated the site from 1964 to at least 1971. Material was crushed, screened, and sorted on-site for use at the Sydney Steel Plant. Based on interview information, Scotia Limestone was later acquired by the Sydney Steel Corporation (SYSCO). There were two main quarries mined during operations at the site.
- In 1966 a deed indicated the transfer of land from John A. Cann and his wife, Jesse Cann, to Scotia Limestone Company Limited. In 1993 a deed indicated the transfer of land from Scotia Limestone Limited to Her Majesty the Queen in Right of the Province of Nova Scotia.
- Suspected overburden covers an area of approximately 11,000 square meters (m^2) and may vary in thickness. Precipitate staining, typically associated with iron, was identified in a ditch that drained from a small ponded area near the entrance of the former mine site to a watercourse, which flows south to Gouthro Lake.
- Some building foundations were reported to remain on-site.
- Dolomite impurities were identified and were noted to have a red, hematite coloring, with traces of pyrite. These impure "zones" were noted to have high potential for leaching of sulphide bearing materials if quarried. The presence of pyrite was identified.
- Granitic dykes were referenced as ranging from very basic to very acidic, soft and gabbroic in composition, and varying in colour (greenish black to light pink).
- The 1989 report documents forty-four claims held by Kelrock Limited under exploration licenses; however, there is no record of exploration associated with these claims at that time.

6.0 Site Visit and Evaluation of Findings

6.1 Site Observations

A summary of site observations and interview(s) related to items specific to the interior and exterior is presented in Table 5.

Table 5: Subject Property Observations

	Item	Observations	Environmental Concern?
1.	Chemical Management	No chemical storage was observed on-site.	No

	Item	Observations	Environmental Concern?
2.	Waste Management	Metal debris was observed to be present throughout the site at the time of the site visit; however, the majority of metal debris was observed to be within the northern portion of the site. Metal debris was observed within a watercourse at the northern portion of the site. The majority of on-site metal debris was observed to be heavily rusted. Rusted equipment debris was observed at the northern portion of the site. No staining or odours were observed in the area of the equipment debris. Several rusted and/or crushed drums were observed on the site. Drums appeared to be empty, and no staining or odours were observed near the drums at the time of the site visit. A bicycle was observed in a ponded area north of the access road near a culvert. Burned tires were observed at the northern portion of the site. Soil surrounding the burned tires was observed to be discoloured. Rolls of geotextile were observed near the burned tires, and also partially buried under stockpiles within the central portion of the site. Several empty motor oil containers were also observed at the site. No staining or odours were noted in the area of the containers. A waste rock pile, estimated to be approximately 1,350 m^2, was present on the western portion of the site.	Yes
3.	Hazardous Waste Management	No hazardous waste was observed during the site visit. Drums have the potential to have previously contained hazardous materials. Based on site interview information, and site visit observations, there is potential for buried waste to be present on-site.	Potential
4.	Fill Material	Overburden material and waste rock remain on-site from former mining operations. Demolition practices associated with the former on-site buildings/structures are unknown.	Yes
5.	Spill and Stained Areas	No spills were observed during the site visit. Soil surrounding burned tires observed during the site visit was noted to be discoloured.	Yes
6.	Wastewater Management	No wastewater is currently generated at the site.	No
7.	Drains, and Sumps	No drains, sumps, or pits were observed on-site.	No
8.	Air Emissions / Quality	No air emissions are generated at the site.	No
9.	Radon	Based on the site geology and available mapping, there is a low to medium risk for radon in indoor air; however, given that there are no buildings present at the subject property, radon is not expected to be a concern. *	No
10.	Electromagnetic Fields (EMFs)	No sources of EMFs were observed on-site.	No
11.	Noise, Odour and Vibration	No significant sources of noise and vibration were noted associated with the site.	No
12.	Pesticides/Herbicides	No known sources of pesticides/herbicides used on-site.	No
13.	Pits/Lagoons	No lagoons were observed on the subject property. Remnants of a weigh scale foundation are present on the northwest portion of the site and is currently holding water,	No (Safety hazard)

	Item	Observations	Environmental Concern?
14.	Watercourses, Ditches or Standing Water	An on-site pond is located north of the site access road, flowing into a culvert and draining into Gouthro Lake. Multiple watercourses were observed throughout the site, several of which discharge into Gouthro Lake. A roadside ditch is situated along the access road to the site, flowing into the on-site pond. A wash out area was observed to the south and downgradient of an on-site stockpile, upgradient of Gouthro Lake. Although this area was observed to be dry during the site visit, it appeared to have the potential to act as a ditch in high water and/or stormwater conditions. Standing water was observed in many areas of the site. A large washout was observed to the south of the stockpile area, creating a trench/ditch towards Gouthro Lake. It is noted that many all-terrain vehicle (ATV) tracks were observed throughout the site and appear to have created and connected drainage paths throughout the site.	Potential (Contaminant Pathway)
15.	On-site Wells	No on-site wells were observed or are known to be located on-site.	No

*The presence/absence of significant levels of radon can only be determined through testing, and tests for radon were not conducted during this Phase I ESA.

Based on the above, the following environmental concerns were identified:

- Metal debris was identified throughout the site, the majority of which was observed to be within the northern portion of the site. Metal debris was observed within a watercourse at the northern portion of the site, and also within the water body situated north of the access road. The majority of on-site metal debris was observed to be heavily rusted.
- Heavily rusted equipment debris was observed at the northern portion of the site. This equipment has the potential to contain fluids. No staining or odours were observed in the area of the equipment.
- Several heavily rusted and/or crushed drums were observed on the site. Drums appeared to be empty and were not labelled. No staining or odours were observed near the drums.
- Burned tires were observed at the northern portion of the site. No obvious signs of accelerants were observed; however, soil surrounding burned tires was observed to be discoloured.
- Rolls of geotextile were observed near the burned tires and also partially buried under stockpiles within the central portion of the site. This material is inert and does not represent an environmental concern to the site; however, it represents the potential for other materials and/or debris to be buried on-site.
- Two (2) one litre motor oil containers and one (1) air compressor were observed at the site. It is noted that the containers were observed to be empty, and no staining or odours were observed in the area.
- Multiple watercourses, a roadside ditch, an on-site pond, and culvert were observed throughout the site, several of which discharge into Gouthro Lake. Observed on-site ATV tracks appeared to have

created and connected drainage paths throughout the site. These watercourses and drainage pathways have the potential to transport on-site COPCs to Gouthro Lake.

- Debris should be removed from the site for appropriate disposal at a licensed facility.

6.1.1 Special Attention Items

A summary of site observations and information obtained through the records review and interview(s) related to special attention items is presented in Table 6. A description of special attention items are included in Appendix D for reference.

Table 6: Special Attention Items

	Item	Observations	Environmental Concern?
1.	Lead	Potential sources of lead were not observed during the site visit.	No [1]
2.	Mercury	Potential sources of mercury were not observed during the site visit.	No [1]
3.	Polychlorinated Biphenyls (PCBs)	PCB containing materials were not observed during the site visit.	No [1]
4.	Asbestos-Containing Materials (ACMs)	ACMs were not observed during the site visit.	No [1]
5.	Urea Formaldehyde Foam Insulation (UFFI)	UFFI was not observed during the site visit.	No[1]
6.	Ozone-Depleting Substances (ODSs)	ODSs were not observed during the site visit.	No

Note:

1. Demolition/Decommissioning practices associated with former on-site buildings are unknown. If building/infrastructure debris is buried on-site, there is potential for special attention items to be present.

Based on the above, no potential or actual environmental concerns were identified. However, if buried debris is confirmed on-site further consideration should be given to the above noted special attention items.

7.0 Conclusions

The identified APECs are illustrated on Figure 3 (attached) and presented in Table 7, below:

Table 7: Summary of Identified Relevant APECs and COPCs

APEC No.	APEC	COPCs	Media of Concern	Comments
1	Overburden/fill (stockpiled material)	• Metals • pH • Gross Alpha Beta for NORM • Acid rock drainage (ARD)	Soil, SW Sediment	Stockpiled materials derived from processing operations.
2	Surface debris/waste scattered across the site	• Metals • PHCs • PAHs • PCBs • pH	Soil, SW, Sediment	Debris in various areas of the site, including heavy equipment debris, burned heavy equipment tires, rusted steel, drums, motor oil containers, an air compressor, concrete debris, discarded fishing gear, and degrading geotextile liner rolls.
3	Buried an/or partially buried debris	• Metals • General Chemistry[5] • PHCs • PAHs • PCBs	Soil, SW, Sediment	Weigh scale foundation remains. Partially buried geotextile rolls (potential for additional buried debris), Unknown demolition/decommissioning practices. Possible iron precipitate observed in watercourses/ditches.
4	Waste-Rock Pile	• Metals • pH • PHCs • PAHs • Gross Alpha Beta for NORM • ARD	Soil, SW, Sediment	Waste rock pile with iron staining and seep identified during the Phase I ESA site visit.
5	Former off-site and upgradient quarry operations	• Metals • pH • PHCs • PAHs • Gross Alpha Beta for NORM • ARD	Soil, SW, Sediment	Partially buried debris identified from site boundary during the Phase I ESA site visit; an unknown demolition/ decommissioning practices.

Notes:

1. SW denotes surface water;
2. SED denotes sediment;
3. General chemistry (a.k.a. RCAP) is analysis only completed on water;
4. Inferred surface water outflow direction in the area is south/southeast towards Gouthro Lake; and
5. Metals analysis in all media to include analysis of mercury and sulphur.

Based on the identified APECs and corresponding COPCs, assessment of relevant media of concern (i.e., soil, surface water, and sediment) is recommended to include metals (including mercury and sulphur), PHCs, PAHs, PCBs, pH, conductivity, and general chemistry. Potential NORM can be initially assessed for by collection of one sample for gross alpha beta analysis. It is recommended that ARD be pre-screened by assessing concentrations of sulphur, chloride, electrical conductivity, sodium adsorption ratio, and pH at select surface soil and sediment sample locations in areas where overburden piles and waste rock have been identified (i.e., APECs #1 and #4).

Debris should be removed from the site for appropriate disposal at a licenced facility.

8.0 Disclaimer

This report was prepared exclusively for the purposes, project, and site location(s) outlined in the report. The report is based on information provided to or obtained by Dillon Consulting Limited ("Dillon") as indicated in the report and applies solely to site conditions existing at the time of the site investigation(s). Although a reasonable investigation was conducted by Dillon, Dillon's investigation was by no means exhaustive and cannot be construed as a certification of the absence of any contaminants from the site(s). Rather, Dillon's report represents a reasonable review of available information within an agreed work scope, schedule and budget. It is therefore possible that currently unrecognized contamination or potentially hazardous materials may exist at the site(s), and that the levels of contamination or hazardous materials may vary across the site(s). Further review and updating of the report may be required as local and site conditions, and the regulatory and planning frameworks, change over time.

This report was prepared by Dillon for the sole benefit of Build Nova Scotia and their client NSDNRR. The material in the report reflects Dillon's best judgment in light of the information available to Dillon at the time of preparation. Any use which a third party (i.e., a party other than Build Nova Scotia) makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Dillon accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Figures

BUILD NOVA SCOTIA

Former Frenchvale Mine Site
Phase I ESA

★ Site Location

SITE LOCATION PLAN

FIGURE 1

DILLON CONSULTING

MAP DRAWING INFORMATION:
DATA PROVIDED BY ESRI Imagery, Build Nova Scotia, GeoNova & Dillon Consulting Ltd.

MAP CREATED BY: CHM
MAP CHECKED BY: NJW
MAP PROJECTION: WGS 1984 Web Mercator Auxiliary Sphere

SCALE 1:80,000

0 0.5 1 2 Kilometers

N W E S

PROJECT: 24-8606 STATUS: FINAL DATE: 2025-04-14

FILE LOCATION: K:\2024\248606\Product\Client\Frenchvale Mine Site\Frenchvale Mine Site\Frenchvale Mine Site.aprx

BUILD NOVA SCOTIA

Former Frenchvale Mine Site
Phase I ESA

Subject Property Boundary

Adjacent Parcels

ADJOINING AND NEIGHBORING PROPERTIES

FIGURE 2

DILLON CONSULTING

MAP DRAWING INFORMATION:
DATA PROVIDED BY ESRI Imagery, Build Nova Scotia, GeoNova & Dillon Consulting Ltd.

MAP CREATED BY: CHM
MAP CHECKED BY: NJW
MAP PROJECTION: NAD 1983 CSRS UTM Zone 20N

SCALE 1:7,500

0 50 100 200 Metres

N W E S

PROJECT: 24-8606 STATUS: FINAL DATE: 2025-04-14

FILE LOCATION: K:\2024\248606\Product\Client\Frenchvale Mine Site\Frenchvale Mine Site\Frenchvale Mine Site.aprx

BUILD NOVA SCOTIA

Former Frenchvale Mine Site
Phase I ESA

Subject Property Boundary
Adjacent Parcels
Culvert
APEC (Area of Potential Environmental Concern)
Weigh Scale Foundation

IDENTIFIED APECS

FIGURE 3

DILLON CONSULTING

MAP DRAWING INFORMATION:
DATA PROVIDED BY ESRI Imagery, Build Nova Scotia, GeoNova & Dillon Consulting Ltd.

MAP CREATED BY: CHM
MAP CHECKED BY: NJW
MAP PROJECTION: NAD 1983 CSRS UTM Zone 20N

SCALE 1:1,900

0 15 30 60 Metres

N W E S

PROJECT: 24-8606 STATUS: FINAL DATE: 2025-04-14

FILE LOCATION: K:\2024\248606\Product\Client\Frenchvale Mine Site\Frenchvale Mine Site\Frenchvale Mine Site.aprx

Appendix A

Aerial Photographs and Images

ERIS

HISTORICAL AERIALS

Project Property: Former Frenchvale Mine Site
Phase I/II ESA
n/a
Frenchvale NS

Project No:

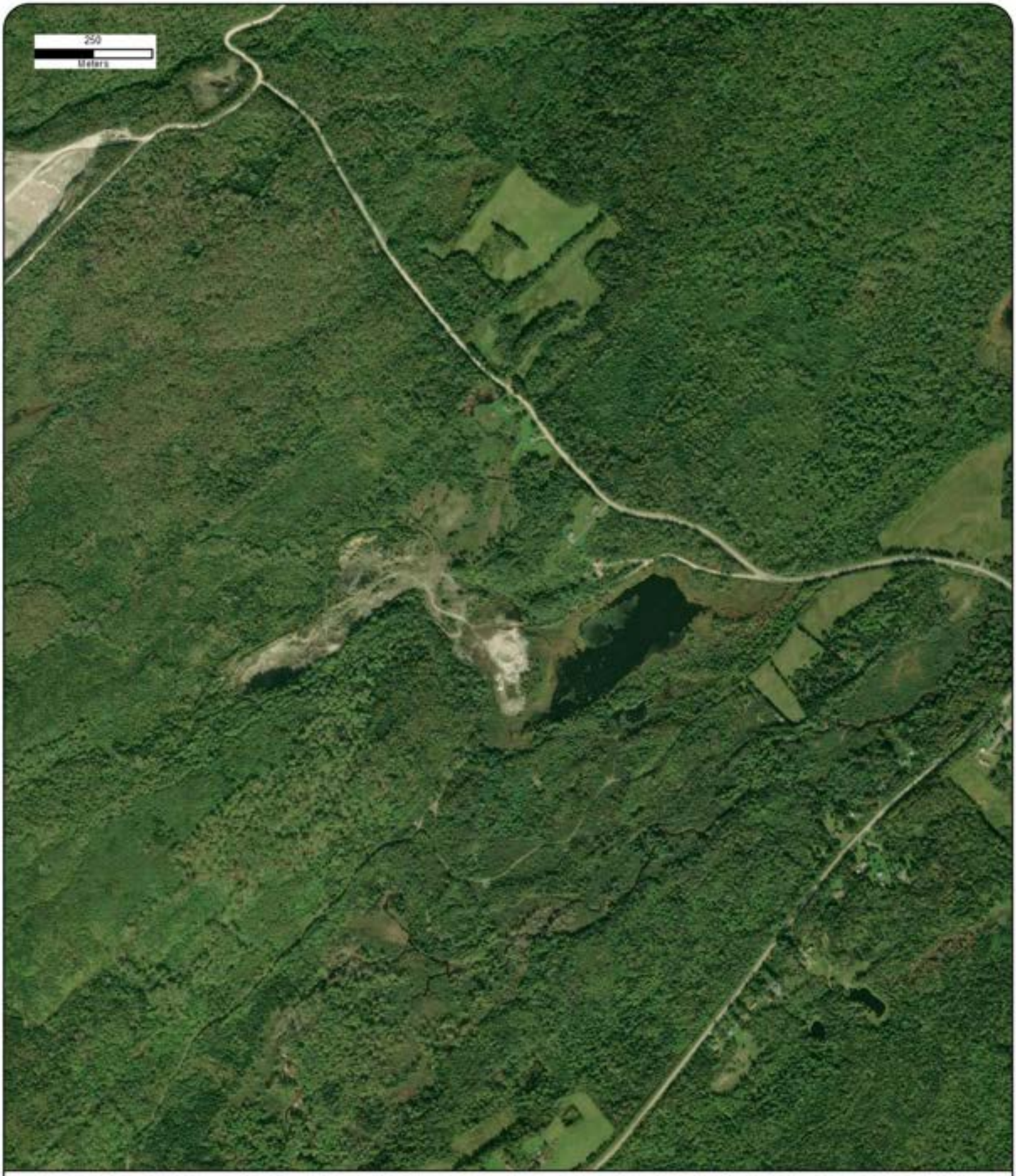
Requested By: Dillon Consulting Limited

Order No: 24070900537

Date Completed: July 10,2024

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Date	Source	Scale	Comments
2021	Maxar Technologies	10,000	
1966	National Air Photo Library	10,000	
1953	National Air Photo Library	10,000	
1947	National Air Photo Library	10,000	
1939	National Air Photo Library	10,000	

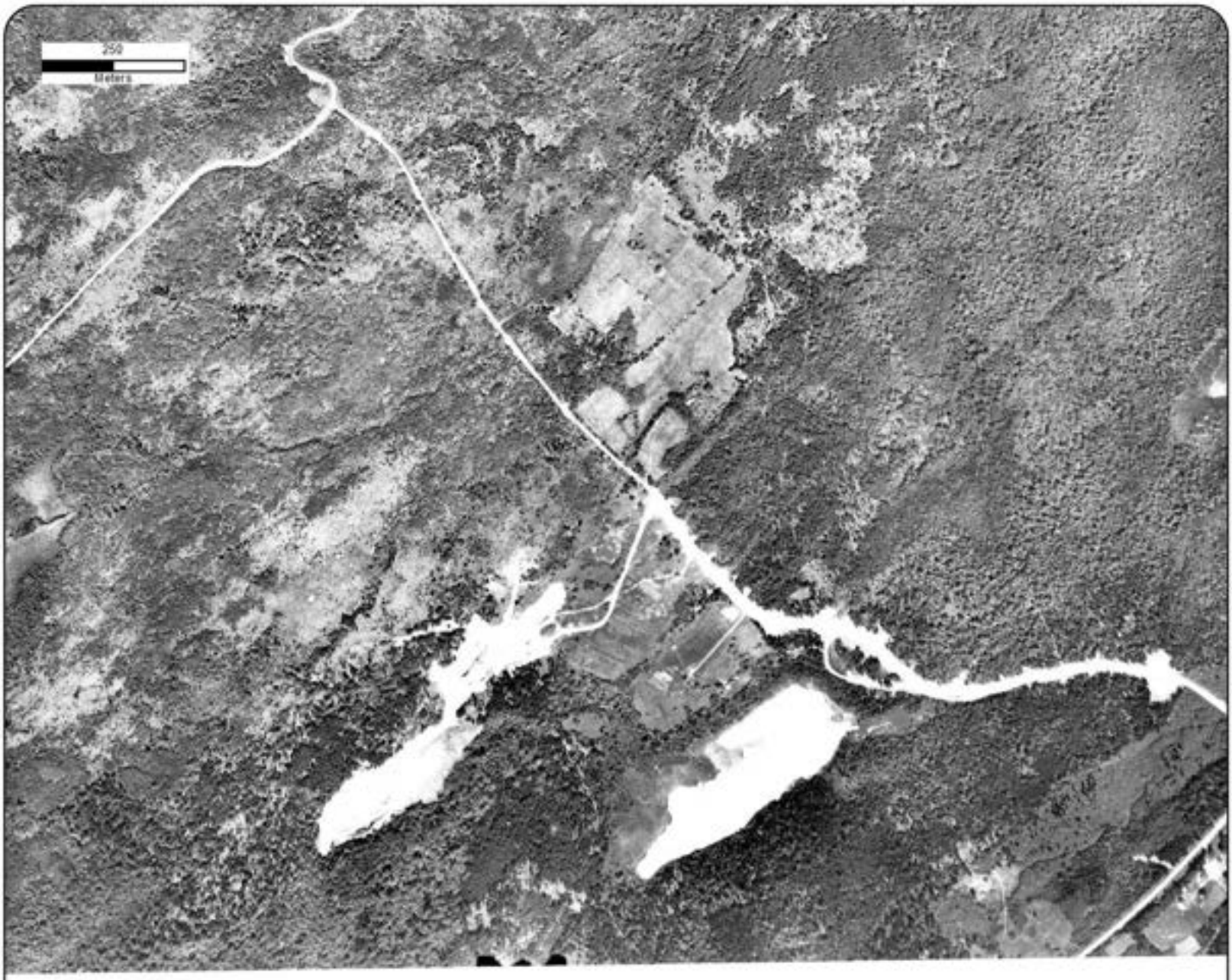


Year: 2021
Source: MAXAR
Scale: 10,000
Comment:

Address: n/a, Frenchvale, NS
Approx Center: -60.4050543,46.1028024

Order No: 24070900537

ERIS

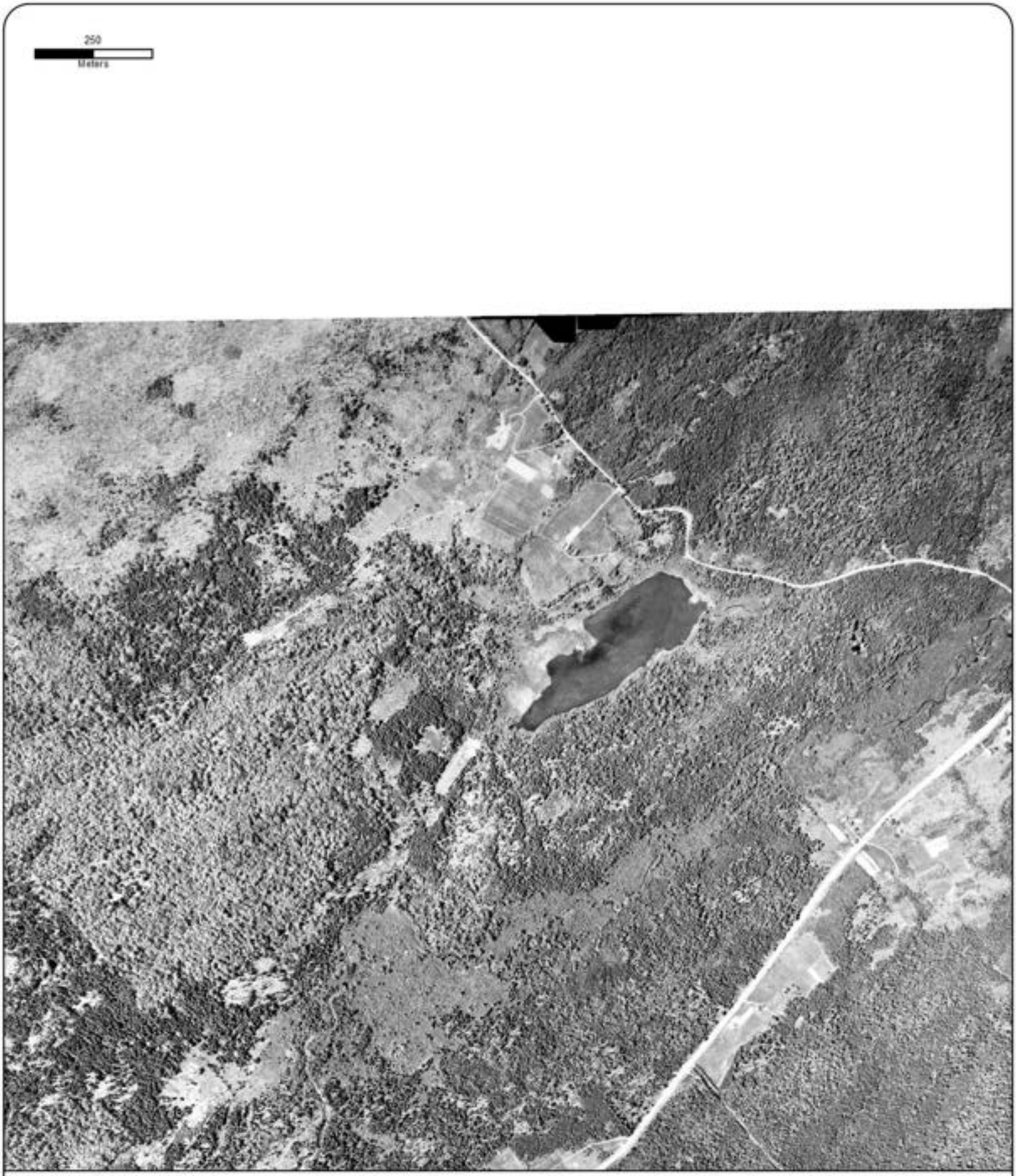


Year: 1966
Source: NAPL
Scale: 10,000
Comment:

Address: n/a, Frenchvale, NS
Approx Center: -60.4050543,46.1028024

Order No: 24070900537

ERIS



Year: 1953
Source: NAPL
Scale: 10,000
Comment:

Address: n/a, Frenchvale, NS
Approx Center: -60.4050543,46.1028024

Order No: 24070900537

ERIS

Year: 1947
Source: NAPL
Scale: 10,000
Comment:

Address: n/a, Frenchvale, NS
Approx Center: -60.4050543,46.1028024

Order No: 24070900537

ERIS

Year: 1939
Source: NAPL
Scale: 10,000
Comment:

Address: n/a, Frenchvale, NS
Approx Center: -60.4050543,46.1028024

Order No: 24070900537

ERIS


2-19
C.A.S. 75258
200
11K/1W


1-04
SW CORNER
83304-104
VIII-47-66
83-06-22
1:10,000
11K/1

2-1-2

SW CORNER 83304-172 VIII-46-65 83-06-22 1:10,000 11K/1


S.W. COR. 93310 6 93-06-15 11K 1:10000


S.W. CORNER 99321 9 L-8 99-09-02 11K/1 1: 10 000


0244
S.W.CORNER 2009308 226 L-16
2009-07-10 11K/01 1: 12 500


S.W.CORNER
20210921_0288
L-209
2021-09-21
11K/01
1:10 000

Appendix B

Regulatory Information

NOVA SCOTIA
Environment and Climate Change

Information Access /and Privacy

PO Box 442
Halifax, Nova Scotia
B3J 2P8

ph: (902) 424-2549
fax: (902) 424-6925

August 6, 2024 Our file # ENV-2024-2995/3000

Email: bthomas@dillon.ca

Breagh Thomas
Dillon Consulting
275 Charlotte Street
Sydney NS B1P 1C6

RE: Gouthro Rd. (PID 15845167); Gouthro Rd. (PID 15845159); Gouthro Rd. (PID 15491582); 253 Gouthro Rd. (PID 15322506); 195 Gouthro Rd. (PID 15322498); and 223 Gouthro Rd. (PID 15322480), Frenchvale

I refer to your enquiry of the Environmental Registry received on July 9, 2024. We acknowledge receipt of payment for 6 properties.

No information was located through the Environmental Registry with regards to the above referenced properties.

Nova Scotia Environment makes no representations or warranties on the accuracy or completeness of the information provided.

Sincerely,

Areum Chae
For/Tina Skeir
Information Access Officer

Appendix C

Site Photographs

Photo 1: View of an on-site pond with apparent beaver activity, facing northwest. (July 25, 2024)

Photo 2: View of an on-site wetland area and the adjacent Gouthro Lake, facing northeast. (July 25, 2024)

Photo 3: View of possible iron precipitate observed in an on-site watercourse that discharges to Gouthro Lake. (July 25, 2024)

Photo 4: View of stockpile washout to the shore of Gouthro Lake, facing north. (July 25, 2024)

Photo 5: View of on-site stockpiles and ponded water, facing east. (July 25, 2024)

Photo 6: View of an on-site waste rock pile with iron staining observed. (July 25, 2024)

Photo 7. View of a pipe observed on-site, use unknown. (July 25, 2024)

Photo 8: View of discarded fishing gear observed on-site near northeast property boundary. (July 25, 2024)

Photo 9: View of rusted vehicle/equipment debris. (July 25, 2024)

Photo 10: View of weigh scale remains. (July 25, 2024)

Photo 11: View of rusted metal debris observed within an on-site watercourse; located upgradient of an on-site pond. (July 25, 2024)

Photo 12: View of burned heavy equipment, tires, metal, geotextiles, and concrete debris. (July 25, 2024)

Appendix D

Special Attention Items Descriptions

Lead

Paint manufacturers historically added lead to paint as a pigment and to accelerate drying times. In 1976, Canadian regulators established the Hazardous Materials Product Act - Liquid Coating that limited the amount of lead in interior paint to 0.5%. In 1990, an industry agreement ceased the use of lead in exterior paint. Subsequent to this, the Surface Coating Materials Regulations were promulgated (in 2005), reducing the allowable lead content of interior paints to 0.06% (600 ppm). This value was reduced from 600 ppm to 90 ppm in October 2010; however, it is important to note that there is not a direct correlation between the concentrations of lead in a material to the potential occupational exposure if the material is disturbed. Other historical uses of lead in buildings include, but are not limited to, water pipes, pipe fitting solder, cable trays, roof flashings, batteries used in emergency lighting.

Mercury

Mercury is commonly found in buildings as mercury vapour lighting, in thermometers, thermostats, and some electrical switches. Mercury can also be found in minor amounts in fluorescent lamp tubes, compact fluorescent lights (CFLs) and in paints and adhesives.

Mercury or mercury vapour within light fixtures, thermometers, and electrical switches poses no risk to workers or occupants provided the mercury containers remain intact and undisturbed. Canadian Council of Ministers of the Environment (CCME) has developed Canada-Wide Standards for mercury-containing lights and mercury emissions. The goal of the standards is to reduce release of mercury into the environment.

PCBs

PCBs are a man-made compound first manufactured in 1929 and used extensively until the late 1970s as a dielectric fluid in transformers, motor capacitors and lighting ballasts. Current legislation prohibits the manufacture and sale of new equipment containing PCBs (effective 1980) and that existing PCB containing equipment must be removed from service prior to specific dates. Ballasts manufactured prior to the early 1980s are assumed to contain PCBs unless markings indicate otherwise.

Asbestos Containing Materials (ACMs)

Asbestos is a family of naturally occurring fibrous minerals with similar chemical and physical properties. Known for its durability, tensile strength, insulating characteristics, chemical and fire resistance properties, asbestos was mined and used extensively in construction materials from the late 1800s until the 1970s. Materials that may contain asbestos fibres includes (but are not limited to) mechanical insulation, sprayed-on fireproofing and building materials used in walls, flooring and ceiling construction. Between the 1970s and late 1980s, the use of asbestos was generally discontinued in Canada voluntarily or through legislation. Vermiculite, typically used in attic insulation and sometimes in masonry block wall construction, may also be contaminated with asbestos fibres. The health risk associated with asbestos occurs when asbestos fibres are released from asbestos containing materials (ACMs) into the ambient air.

The manufacture, import, sale, and use of asbestos-containing products was not banned in Canada until December 30, 2018, therefore, asbestos fibres may still be present in some roofing products, tars and cement based products (e.g. drainage piping in high rise building) that have been imported into Canada prior to the 2018 ban.

Urea Foam Formaldehyde Insulation (UFFI)

UFFI was developed in Europe in the 1950s. It was used in Canada primarily in residential buildings between 1977 and 1980, after which time it was banned from use.

Ozone Depleting Substances (ODS)

Ozone depleting substances (ODS) are manufactured chemical compounds (refrigerants) that contain chlorine and/or bromine that can deplete the stratospheric ozone layer. They include chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) that are used in a variety of applications such as in air-conditioning units, heat pumps, industrial solvents, foam products, and fire suppressants. Each province in Canada has passed legislation requiring mandatory recovery and reclamation of refrigerants during the maintenance of air-conditioning equipment.

References

Cape Breton Regional Municipality, Source Water Protection Areas: https://www.cbrm.ns.ca/images/stories/SourceWater/2014_Overview_8.pdf

Cape Breton Regional Municipality Water Utility, Water Infrastructure Location: https://immediac.blob.core.windows.net/aagp-website/images/Resources/MapGallery/CBRM_Water%20Utility%20Infrastructure.pdf

https://fletcher.novascotia.ca/DNRViewer/?viewer=Radon

Keppie, J.D. (compiler) 2000: Geological Map of the Province of Nova Scotia; Nova Scotia Department of Natural Resources, Minerals and Energy Branch, Map ME 2000-1, scale 1:500,000

Nova Scotia Groundwater Atlas https://fletcher.novascotia.ca/DNRViewer/?viewer=Groundwater

https://www.novascotia.ca/nse/water/docs/waterstrategy_nswatershedmap.pdf

https://novascotia.ca/nse/water/docs/Protected.Water.Areas.Map.pdf

Service Nova Scotia Property Online Database (accessed July 2024).

Stea, R.R., Conley, H., and Brown, Y. (compilers) 1992: Surficial Geology of the Province of Nova Scotia; Nova Scotia Department of Natural Resources, Map 92-3, Scale 1:500,000.

Appendix B

Test Pit Logs

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH1									
BH1 0-0.15m	0 - 0.15	5108858	700472	Brown to Black	Sand with some gravel, damp	N	N	5	Burned tire debris at surface.
BH1 0.30m	0.15 - 0.30			Brown to Black	Sand with some gravel, damp; iron oxides observed	Y	N	5	Black and orange staining observed
BH2									
BH2 0-0.15m	0 - 0.15	5108863	700492	Reddish grey to brown	Silty sand with crushed gravel, damp	N	N	5	
BH 0.37m	0.15 - 0.37			Brown	Silty sand with crushed gravel, damp	N	N	5	
BH3									
BH3 0-0.15m	0 - 0.15	5108850	700480	Dark brown	Silty sand, gravel and glass pieces, damp	N	N	5	
BH3 0.34m	0.15-0.34			Brown	Silty gravelly sand with crushed gravel	N	N	5	egg shell pieces observed.
BH4									
BH4 0-0.15m	0 - 0.15	5108686	700569	Grey	Organics underlain with silty sand and crushed gravel, damp	N	N	5	
No sample collected	0.15-0.50			Dark brown	Silty sand and crushed gravel, damp to wet	N	N	-	
BH4 0.65m	0.50-0.65			Yellowish grey	Silty sand with crushed gravel, damp to wet; possible iron oxides	Y	N	5	Orange staining observed
BH5									
BH5 0-0.15m	0 - 0.15	5108633	700605	Dark Brown/grey	Peat underlain with fine grained sand/silt, damp	N	N	5	
BH5 1.00m	0.15 - 1.0			Dark Brown	Grey sand with fine grained sand/silt	N	N	5	

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH6									
BH6 0-0.15m	0 - 0.40	5108728	700544	Dark grey	Gravelly sand, some silt and crushed gravel, damp	N	N	-	
BH6 0.55m	0.40-0.55			Reddish grey	Gravelly sand, some silt and crushed gravel, damp	N	N	-	
BH7									
BH7 0-0.15m	0 - 0.15	5108758	700557	Reddish grey	Gravelly sand, crushed gravel, dry to damp	N	N	-	
BH7 0.49m	0.15 - 0.49			Reddish grey	Gravelly sand, crushed gravel, dry to damp	N	N	-	
BH8									
BH8 0-0.15m	0-0.45	5108787	700580	Grey/red	Sand and crushed gravel, damp	N	N	-	
BH8 1.0m	0.45 - 1.0			Grey	Sand and crushed gravel, damp	N	N	-	
BH9									
BH9 0-0.15m	0 - 0.15	5108774	700624	Black/grey to Orange brown	Horse hair, moss/organics underlain with black/grey sand, some gravel, wet	N	N	-	
BH9 1.0m	0.15-1.0			Dark grey	Sand with trace gravel, saturated	N	N	-	Groundwater encountered at 0.75m
BH10									
BH10 0-0.15m	0 - 0.15	5108725	700614	Dark brown	Silt with some organics, damp	N	N	-	
BH10 1.00m	0.15 - 1.00			Grey Brown	Silt with some organics, wet	N	N	-	
BH11									
BH11 0-0.15m	0 - 0.15	5108767	700465	Grey	Organics underlain with sand, crushed gravel, wet; possible waste rock observed	N	N	-	
BH11 0.27m	0.15-0.27			Grey	Sand with crushed gravel, wet; possible waste rock observed	N	N	-	

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH12									
BH12 0-0.15m	0 - 0.15	5108876	700483	Dark Brown	Sand, crushed gravel and organics, damp	N	N	5	
BH12 0.47m	0.15 - 0.47			Brown	Sand and crushed gravel, wet	N	N	0	
BH13									
BH13 0-0.15m	0 - 0.15	5108811	700491	Brown to grey	Organics underlain with sand, some silt and crushed gravel, wet	N	N	5	
BH13 0.51m	0.15-0.51			Grey	Sand and crushed gravel, wet	N	N	0	
BH14									
BH14 0-0.15m	0 - 0.15	5108834	700539	Brown	Silty sand, crushed gravel and some silt, damp	N	N	5	Petroleum hydrocarbon odour
BH14 0.90m	0.70-0.90			Brown	Silty sand, some gravel	Y	Y	10	Groundwater encountered at approximately 0.70m.
BH15									
BH15 0-0.15m	0 - 0.15	5108876	700531	Dark Brown	Silty gravelly sand and some organics, wet	N	N	5	Groundwater encountered at approximately 0.15m
BH15 0.29m	0.15 - 0.29			Dark Brown	Silty gravelly sand and some organics, wet	N	N	0	
BH16									
BH16 0-0.15m	0 - 0.15	5108812	700402	Brown/grey	Sand with waste rock pieces, some organics, damp	N	N	-	
BH16 0.30m	0.15 - 0.30			Dark brown	Sand with waste rock piece and 2" gravel, some organics, damp	N	N	-	
BH17									
BH17 0-0.15m	0 - 0.15	5108888	700476	Grey/brown	Medium to coarse sand and gravel overlain by waste rock and leaf litter, damp.	N	N	-	

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH18									
BH18 0-0.15m	0-0.15	5108846	700545	Brown	Organic layer at surface, sand with some silt, crushed red gravel and organics, damp.	N	N	-	
BH19									
BH19 0-0.15m	0-0.15	5108662	700534	Reddish brown	Silty sand with gravel; mica fragments observed	N	N	-	

Appendix C

Site Photographs

Photo 1: Overview of the site, looking southeast (October 15, 2024).

Photo 2: View of on-site stockpiles, looking south (October 15, 2024).

Photo 3: View of borehole completed near the former weigh scale (October 15, 2024).

Photo 4: View of borehole completed near rusted metal debris (October 15, 2024).

Photo 5: Borehole completed near geotextile debris (October 15, 2024).

Photo 6: Borehole completed near tire debris (October 15, 2024).

Photo 7: Borehole completed downgradient of stockpiles (October 15, 2024).

Photo 8: Borehole completed downgradient of waste rock pile (October 15, 2024).

Photo 9: View of surface water/sediment location (SW/SED1) (October 17, 2024).

Photo 10: View of dry planned surface/sediment location (SW/SED2) (October 17, 2024).

Photo 11: View of surface water/sediment location (SW/SED4) (October 17, 2024).

Photo 12: View of surface water/sediment location (SW/SED5) (October 17, 2024).

Photo 13: View of surface water/sediment location (SW/SED7) (October 17, 2024).

Photo 14: View of surface water/sediment location (SW/SED9) (October 17, 2024).