EDGEWARE BATTERY ENERGY STORAGE SYSTEM

Class Environmental Assessment Screening Report

Edgeware BESS Project Limited Partnership

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Project name:	Edgeware Battery Energy Storage System	DNV Canada Ltd
Report title:	Class Environmental Assessment Screening Report	70 Richmond Street East, Suite 315,
Customer:	Edgeware BESS Project Limited Partnership	M5C 1N8 Toronto, CANADA
	219 Dufferin Street, Suite 117C,	Enterprise No.: 1368458
	Toronto, ON M6K 3J1	
Contact person:	Kendra Kallevig and Laura Bashford	
Date of issue:	16 March 2026	
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Task and objective:

This report presents the results of the comparison of the Project to the Class Environmental Assessment for Transmission Facilities screening criteria and to identify the information that led to the determination of potential environmental effects.

Prepared by:	Verified by:	Approved by:
Frédéric Gagnon Senior Environmental Permitting Manager Environmental, Permitting and Sustainability	Michelle Murphy Permitting Team Lead Environmental, Permitting and Sustainability	Gabriel Constantin Director Environmental, Permitting and Sustainability

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Issue	Date	Reason for Issue	Prepared by	Verified by	Approved by
A	12 February 2026	Draft	F. Gagnon	M. Murphy	G. Constantin
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List of abbreviations

Abbreviation	Meaning
AA	Archaeological Assessment
BESS	Battery Energy Storage System
CCSPA	Catfish Creek Source Protection Area
CHER	Cultural Heritage Evaluation Report
CHVI	Cultural Heritage Value or Interest
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
Class EA for TF	Class Environmental Assessment for Transmission Facility
CREC	Controlled Recognized Environmental Condition
CLI	Canadian Land Inventory
DNV	DNV Canada Ltd.
EASR	Environmental Activity and Sector Registry
ECA	Environmental Compliance Approval
EIS	Environmental Impact Study
EL	Employment Lands
ESC	Erosion and Sediment Control
ESA	Endangered Species Act
ha	Hectare(s)
HONI	Hydro One Networks Inc.
HIA	Heritage Impact Assessment
IESO	Independent Electricity System Operator
KCCA	Kettle Creek Conservation Authority
km	Kilometre
kV	Kilovolt
LT1	Long-Term 1
m	Meter
MMAH	Ontario Ministry of Citizenship and Multiculturalism
MCM	Ministry of Citizenship and Multiculturalism
MECP	Ministry of Environment, Conservation and Parks
MNR	Ontario Ministry of Natural Resources
NOC	Notice of Commencement
MOEE	Ontario Ministry of Energy and Electrification
OEB	Ontario Energy Board
OPG	Ontario Power Generation
PPS	Provincial Policy Statement
REC	Recognized Environmental Condition
RFP	Request of Proposal
SAR	Species at Risk
SCC	Species of Conservation Concern
SWH	Significant Wildlife Habitat

1 INTRODUCTION

Edgeware BESS Project Limited Partnership (the “Proponent”) is developing the 75 MW Edgeware Battery Energy Storage System (“BESS”) project (the “Project”), which is located within the boundaries of the City of St. Thomas, Ontario, Canada. The Project location is shown in Figure 1-1.

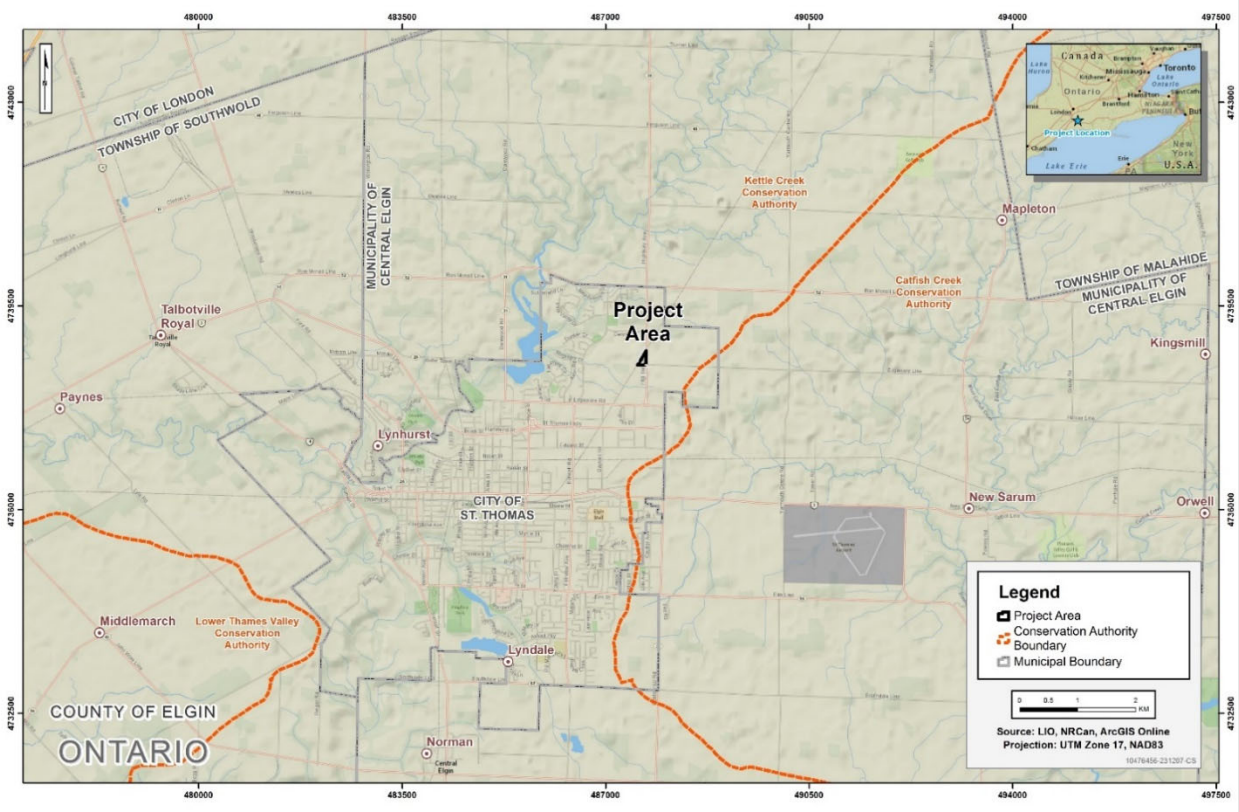


Figure 1-1 Edgeware Project Area

The Project will include a transmission station that connects the BESS to the Ontario electricity grid. The Project was awarded a contract in June of 2024 under the Independent Electricity System Operator’s (“IESO”) Long-Term 1 (LT1) Request for Proposal (RFP) for the electricity capacity stream.

The Project follows the Class Environmental Assessment for Transmission Facilities (Class EA for TF) [1] under the Ontario *Environmental Assessment Act*. According to the Class EA for TF, new transmission stations and lines with operating voltages of at least 115 kV are subject to assessment if the lines exceed 2 km in length. Since the Project’s transmission line is less than 2 km and connects to existing Hydro One infrastructure, it is not subject to the TF Class EA; however, the Project is planning to construct a new transmission station with operating voltage over 115 kV and is therefore subject to the Class EA for TF.

The Class EA is a streamlined process to ensure that transmission projects with a predictable range of effects understand potential impacts and have feasible environmental mitigation and/or protection measures in place. Per the Class EA for TF document, projects that do not have significant environmental effects can follow the Class EA Screening Process instead of the full Class EA Process.

Such projects are compared to the screening criteria listed in the Class EA for TF document to determine if they have the suitable technical parameters and environmental conditions to allow them to be screened out of the full Class EA Process.

The purpose of this report is to describe the Project and the related activities, identify any potential environmental and social effects, document the results of the comparison of the Project to the screening criteria outlined in Section 3.3.3 of the Class EA for TF document, and to record the information that support the analysis. In addition, this report documents the results of the other steps as outlined in the Class EA for TF document, namely:

- Establish need;
- Identify and evaluate alternatives to the Project;
- Define the Study Area; and
- Issue Notice of Commencement.

2 DESCRIPTION OF THE UNDERTAKING

2.1 Project description

The Project is a 75 MW, four-hour duration BESS, with 300 MW-hours (MWh) of storage. The project will connect to Hydro One Networks Inc. (HONI) infrastructure through a 230-kV interconnection that will be less than 2 km long. The Project includes:

- 85 lithium-ion battery energy storage units;
- A 75 MW/300 MWh substation with transformers, located within the Project property;
- Transmission station and interconnection line;
- An access road to access the property, and internal access roads to access the substation and the battery packs; and
- A perimeter fence.

The Project is located on approximately five acres of land located on the west side of Highbury Avenue and Edgeware Line, in the City of St. Thomas, Ontario. Specifically, it is located on Concession 1, Part of Lot 8, Range 1. Project land is owned by Edgeware BESS Project Limited Partnership. The Project Area is shown in Figure 2-1.



Figure 2-1 Edgeware Project Site

2.2 Schedule

Subject to the outcome of the Class EA for TF process and any other required permits/approvals, construction is anticipated to begin in Q3 2026 with anticipated in-service date in Q3 2027.

2.3 Need for the Project

The Office of the Auditor General of Ontario reported in 2015 that, from 2021 to 2032, Ontario will average 2.8 terawatt hours per year of Surplus Baseload Generation, which occurs when production exceeds demand [1]. Baseload generation includes nuclear, hydroelectric, wind, and solar power. In 2021, the IESO projected surplus baseload conditions for 2021 and 2022 [3].

Ontario's limited storage capacity means electricity must be used immediately, curtailed, or exported at low prices [1]. Energy storage solutions, like batteries, can store excess renewable power during off-peak periods and supply it during peak demand. The IESO forecasts a 75% increase in annual energy demand by 2050, highlighting urgent storage capacity needs [4]. Projects selected under the LT1 process will help address these deficiencies by balancing the grid through efficient storage and redistribution of electricity, storing surplus electricity from the grid during off-peak periods, then redistributing that power during on-peak periods. The Project was awarded a contract in June of 2024 under the IESO LT1 RFP, confirming the need for the Project.

2.4 Alternatives to the Project

The Class EA for TF screening process requires an identification and evaluation of reasonable alternatives to the Project. Alternatives must be technically, economically, and environmentally reasonable. Furthermore, alternatives must be of a scope and scale that can be implemented by the Proponent.

As discussed in the following sections, the BESS alternative (planned Project) is preferred as it addresses Ontario’s energy storage capacity needs identified by IESO, mitigates operational and environmental risks, and aligns with the Proponents development objectives.

2.4.1 Alternative 1: Do Nothing

The “do nothing” alternative involves no new facilities to meet IESO’s capacity needs and fails to resolve Ontario’s inefficient energy generation and supply issues [5]. As it does not address the LT1 requirements, this option is not considered viable for further review.

2.4.2 Alternative 2: Mechanical Energy Storage

A range of energy storage technologies can support grid balancing by converting electrical energy into mechanical energy, which is stored as potential energy. Examples of mechanical energy storage include pumped-storage hydroelectricity, compressed air energy storage, and flywheel storage. However, these methods present certain disadvantages, such as substantial project footprints, significant capital costs, possible reliance on fossil fuel combustion, and more complex siting requirements. Additionally, mechanical energy storage resources typically require extended development and construction timelines, which would prevent the Proponent from meeting the LT1 procurement requirement for operational readiness between 2026 and 2028. Due to these challenges, mechanical energy storage solutions are not being considered as viable alternatives for further evaluation on technical and economic grounds.

2.4.3 Alternative 3: Battery Energy Storage System (planned Project)

A BESS stores surplus electricity when supply exceeds demand, then returns it to the grid during peak periods. Among various energy storage methods, batteries are considered reliable and efficient for utility-scale use, thanks to their falling costs, high energy density, long lifespan, and high efficiency.

2.5 Project Construction

Construction and installation of the Project infrastructure consists of the following:

2.5.1 Site Preparation

- Land Clearing: Vegetation and debris are removed from the site to prepare for construction.
- Grading and Excavation: The ground is levelled and excavated as needed to create a stable foundation for the BESS infrastructure.
- Access Roads: Access roads are constructed to facilitate the transportation of equipment and materials to the site.

2.5.2 Foundation and Civil Works

- Foundation Construction: Foundations will be comprised of either pre-cast or pour in place concrete pads, or steel piles driven into the ground to support the weight of the battery containers and associated equipment.
- Drainage Systems: Drainage systems are installed to manage stormwater and prevent flooding.
- Utility Connections: Connections are set-up for utilities such as water, electricity, and communication lines.

2.5.3 Installation of Battery Units

- Delivery and Placement: Transport battery containers to the site and place them on the prepared foundations using cranes or other heavy machinery. Each unit is equipped with cooling systems to manage the temperature of the batteries and prevent overheating, as well as fire detection and suppression systems to enhance safety and mitigate fire risks.
- Anchoring: Secure the containers to the foundations to ensure stability and safety.

2.5.3.1 Electrical Infrastructure

- Inverters and Transformers: Inverters are installed to convert the stored DC power to AC power, and transformers to adjust voltage levels for grid compatibility.
- Switchgear and Protection Systems: Switchgear and protection systems are set-up to manage power flow and protect the BESS from electrical faults.
- Cabling and Wiring: Cables and wiring between the batteries, inverters, transformers, and the grid connection point are laid down and connected. Underground lines are installed by trenching; no directional drilling is planned.

2.5.4 Auxiliary Systems

- Control and Monitoring Systems: Set up control systems to manage the operation of the BESS and monitoring systems to track performance and detect issues.

2.5.5 Testing and Commissioning

- System Testing: Comprehensive tests are conducted to ensure all components are functioning correctly and safely. This includes electrical tests, performance tests, and safety checks.
- Grid Integration: The BESS is connected to the power grid and final commissioning tests are performed to confirm operational readiness.
- Regulatory Inspections: The BESS undergoes inspections by regulatory authorities to ensure compliance with all relevant codes and standards.
- Final Approvals: Operations can begin once the necessary approvals and certifications are obtained.

2.6 Project Operations

Once the Project is operational, few activities will occur on site. The main activity will consist of monitoring and managing the state of charge, temperature, and overall health of the battery units and substation. Some preventive maintenance will occur, including routine inspections of all components. Occasional corrective maintenance may be required and would primarily consist of replacing parts or conducting unplanned repairs if necessary.

2.7 Preliminary List of Permits and Approvals

Permit/Approval	Authority[1]	Trigger
Electricity Storage License (*Ontario Energy Board Act)*	OEB	Storage facility operations.
Electricity Safety Authority Permit	Ontario Provincial Electrical Safety Authority	Construction.
Archaeological Clearance (*Heritage Act*)	MCM	Known occurrences of archaeological resources within the Project Area.
Section 28(1) permit (*Conservation Authorities Act*)	KCCA	Development and activities in or adjacent to river or stream valleys, Great Lakes and inland lakes shorelines, watercourses, hazardous lands and wetlands that are within the jurisdiction of the Authority.
Environmental Activity and Sector Registry (EASR) (Air/Noise) Compliance (*Environmental Protection Act*)	MECP	Activity prescribed for the purposes of subsection 20.21 (1) of the *Environmental Protection Act*.
Environmental Compliance Approval (ECA) – Industrial Sewage Works (*Environmental Protection Act*)	MECP	Activities that may discharge into the natural environment any contaminant, other than water, in an amount, concentration or level in excess of that prescribed by the regulation
Site alteration permit (By-law No. 42-2010)	City of St. Thomas	Activity that changes grades, modifies drainage, adds structures, or involves fill or excavation.
Building permit	City of St. Thomas	Construction or alteration of any building occupying an area greater than 10 square meters (108 sq. ft.). Structure providing service systems (electrical/mechanical).

1. Please refer to the List of Abbreviations for full Authority definitions.

3 STAKEHOLDER ENGAGEMENT

The following is a summary of the various engagement activities that have occurred with different stakeholders.

3.1 Project Stakeholders

The Proponent is committed to consulting and engaging with stakeholders throughout the Project's lifecycle. Consultation activities were initiated early in the Project's development process with the preparation of a Community and Indigenous Engagement Plan. The engagement process incorporates and encourages two-way dialogue involving:

- Landowners within 500 m from the Project Area;
- Residents within the City of St. Thomas;
- City of St. Thomas;
- Indigenous communities;
- Kettle Creek Conservation Authority (KCCA);
- Provincial agencies; and
- Third-party utilities.

The Project Stakeholder List is provided in Appendix A.

3.2 Engagement methods

The engagement methods went beyond the minimal requirements stated in the Class EA for TF, including:

- Notice of a community public meeting (published in local newspaper and mailed to all addresses with 500 m of the Project Area);
- Community public meeting;
- Project Website (https://edp.com/en/north-america/na/projects/edgeware-energy-storage);
- Notice of commencement of a Class EA for TF;
- Letters and emails to notify interested parties and provide updates on the Project; and
- Targeted agency consultation.

In addition, the Proponent has held several pre-consultation meetings with various stakeholders, such as the Conservation Authority and Indigenous communities. A Delegation of Duty to Consult was previously obtained from the Ministry of Energy and Mines identifying First Nations and Métis communities anticipated to have an interest in the Project.

The detailed consultation documentation is provided in Appendix B.

3.3 Notice of Commencement

The Notice of Commencement (NOC), which included information about the Project and the Class EA for TF process, was published in a local newspaper and mailed to every address within 500 m of the Project Area. Furthermore, it was emailed directly to Indigenous communities anticipated to have an interest in the Project, provincial and local government agencies, third-party utilities and interest groups as per the Class EA for TF (see Appendix A for the Project Stakeholder List, Appendix B for the NOC, and Appendix C for the Comment/Response Log):

- Indigenous communities:
    - Aamjiwnaang First Nation;
    - Caldwell First Nation;
    - Chippewas of Kettle and Stony Point First Nation;
    - Chippewas of the Thames First Nation;
    - Oneida Nation of the Thames;
    - Walpole Island First Nation (Bkejwanong Territory); and
    - Three Fires Confederacy.
- Government agencies:
    - City of St. Thomas;
    - Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) - Ontario Region;
    - Ontario Ministry of Citizenship and Multiculturalism (MCM);
    - Ontario Ministry of Energy and Electrification (MOEE);
    - Ontario Ministry of Municipal Affairs and Housing (MMAH);
    - Ontario Ministry of Natural Resources (MNR); and
    - Ontario Ministry of the Environment, Conservation and Parks (MECP)
- Other stakeholders:
    - Hydro One Networks Inc;
    - Kettle Creek Conservation Authority; and
    - Ontario Power Generation (OPG).

The NOC was emailed between January 31 and February 6, 2025. Publication in the St. Thomas Times occurred on February 7, 2025. Refer to Appendix B for and example of the letters and the publication.

3.4 Acknowledgement of receipt and comments received

Details regarding the correspondence are presented in Appendix C. Correspondences are provided in Appendix B.

4 CLASS EA SCREENING

The evaluation of the Project against the screening criteria listed in the Class EA for TF document is described in Table 4-1 below and additional considerations based on the MECP's Areas of Interest (Appendix D)[6] for the Project are described in Table 4-2.

Table 4-1 Project evaluation against Class EA for TF screening criteria

No.	Screening Criteria	No / Yes / Possibly	Rationale
1	Conflict with written environmental goals, objectives, plans, standards, policy statements or guidelines approved or adopted by the Province of Ontario; municipal government or local body within an unorganized territory as project is to be located defined in the Municipal Act, 2001 where the project is to be located.	No	The proposed Project does not conflict with any goals, objectives, plans, standards, policy statements or guidelines identified in the Provincial Policy Statement (PPS) [7]. The PPS promotes long-term economic prosperity which should be supported by energy conservation and opportunities for increased energy supply. More specifically, planning authorities should, among other things, provide opportunities for the development of transmission and distribution systems, district energy, and renewable energy systems and alternative energy systems, to accommodate current and projected needs. The City of St. Thomas Draft Official Plan promotes sustainable development, including in the form of climate change resiliency, and renewable and low-carbon energy [8]. The proposed Project is therefore not expected to conflict with any environmental goals, objectives, plans, standards, policy statements or guidelines adopted by the Province of Ontario.
2	Have significant effects on persons or property, including lands zoned to permit residential or other sensitive land uses.	No	The proposed Project is located on 2 ha of private fallow agricultural land. Project infrastructure will be located within regulatory setbacks. The Project Area is bordered by a four-lane road to the east, a railroad to the west and a lot used by HONI for a transmission substation to the south. The Project Area is zoned Employment Lands (EL) [10]. While the by-law does not specifically list energy storage projects as a permitted use, the Planning and Building Services Department has confirmed that the zoning by-law definition of "manufacturing" (i.e., storing or adapting of any goods, substance, article or thing) includes electricity [11]. Most properties within 500 m of the Project site are not zoned residential. The distance between the Project and the nearest sensitive land use (a private residence) is approximately 250 m to the southeast. No significant effects on persons or property, including land zoned residential or other sensitive land uses will occur.
3	Necessitate the irreversible commitment of any significant amount of non-renewable resources, including Prime Agricultural Lands, which includes Specialty Crop Areas (as defined in the Provincial Policy Statement under the Inventory Classes 1, 2 and 3 lands Planning Act) and/or Canada Land.	No	While the Project property is classified as prime agricultural lands (soil classification 1) under the Canada Land Inventory (CLI), it is comprised of fallow agricultural land with no speciality crop areas [12] and zoned Employment Lands (EL). It could be restored to conditions suitable for agricultural at the end of the 25-year contract. The Project is not expected to lead to significant adverse impacts associated with the loss of agricultural land. Given that the site is small, consists of fallow agricultural land and is zoned for employment uses, there will be no substantial fragmentation of lands, nor incompatibility with

No.	Screening Criteria	No / Yes / Possibly	Rationale
			surrounding land uses. The Project will not involve the irreversible commitment of any significant quantity of non-renewable resources.
4	Pre-empt the use, or potential use, of a significant natural resource for any other purpose.	No	The proposed undertaking will occur on fallow land. Project construction and operation activities will not result in any change in permanent land use and, therefore, will not pre-empt the use, or potential use, of a significant natural resource for any other purpose.
5	Result in a significant detrimental effect on air or water quality or on ambient noise levels for adjacent areas.	No	Emissions from the Project construction activities will be primarily noise, dust, and equipment exhaust. These emissions will be localized in and around the construction activities and will occur for a relatively short duration, with a negligible effect on the surrounding area. A dust management plan will be implemented, and dust suppressants will be utilized when and where necessary. Only small volumes of water may be used during construction, mainly for washing equipment. Used water will be collected and transported off-site for proper disposal. The Project substation will include engineered drainage works which will be permitted through an Environmental Compliance Approval (ECA). No in-water work is anticipated. There are no wetlands, well head protection areas, highly vulnerable aquifers or significant ground water recharge areas within the Project Area [12]. A small creek runs along the southern boundary of the Project property. The Project is located within the jurisdiction of the Kettle Creek Conservation Authority, and a permit under the *Conservation Authorities Act* will be sought. The site is characterized by soils with slow infiltration rate, and groundwater is expected to be relatively shallow due to the low permeability of the glacial silt and clay soils [12]. Construction of the Project is not expected to require much dewatering. Construction activities, such as the operation of construction vehicles and machinery, could potentially result in a temporary localized increase in noise levels above current conditions. This will be similar to other localized industrial construction activities, and will have a negligible effect on the surrounding area. Noise sources associated with BESS projects are typically the HVAC equipment (heating, ventilation, air conditioning) located in the battery units, the power conversion system units, and the main power transformers. The Project is designed to ensure compliance with Ontario's strict noise regulations. A Noise Impact Assessment [13] completed for the Project indicates that it complies with the applicable noise limits of 45 dBA at every noise sensitive receptor (Appendix E). The Project will be registered on the Environmental Activity and Sector Registry (EASR) – Air/Noise. The Project is not anticipated to result in a substantial detrimental effect on air, ambient noise levels, or water quality for adjacent areas or features.
6	Cause significant interference with the movement of any resident or migratory fish,	No	The results of the environmental surveys [12] completed in 2024 for the Project indicate that there is no confirmed Specialized Wildlife Habitat, no habitat for any other Species at Risk (SAR), including habitat for bird or

No.	Screening Criteria	No / Yes / Possibly	Rationale
	wildlife species, species at risk, or their respective habitats.		mammal species, and no animal movement corridors are within the study area. One watercourse in the southern portion of the Project Area provides fish habitat; however, it is unlikely that fish inhabit the reaches within the Project Area. In addition, potential fish passage barriers downstream of the Project Area and the piped conditions upstream may further limit fish access to the site. The Project construction activities will not result in significant interference with the movement of any resident or migratory fish, wildlife species, species at risk, or their respective habitats.
7	Establish a precedent or involve a new technology, either of which is likely to have significant environmental effects now or in the future.	No	No new technology will be employed to complete construction and operation activities. The Project will use existing practices and standards in place to complete the proposed work.
8	Be a pre-condition to the implementation of another larger and more environmentally significant project that is subject to an Individual Environmental Assessment or Renewable Energy Approval that has not yet been approved at the issuance of the Notice of Commencement of the undertaking.	No	The proposed undertaking is not a precondition of another larger and more environmentally significant Project.
9	Likely generate significant secondary effects, directly caused by the proponent's activities, which will adversely affect the environment.	No	Secondary effects from the Project are discussed under item 5. Secondary effect can be effectively mitigated through standard mitigation measures and Best Management Practices. The proposed undertaking will occur on privately owned fallow land.
10	Block pleasing views or significantly affect the aesthetic image of the surrounding area.	No	The Project Area is adjacent to a HONI substation and transmission line corridor, a railroad and a four-lane road. Furthermore, the Project is mostly surrounded by non-residential properties. The Project will not alter the aesthetic image of the surrounding area; however, vegetative screening will nonetheless be installed along Highbury Road.
11	Significantly change the social structure or demographic characteristics of the surrounding neighbourhood or community.	No	The Project is located on fallow land zone Employment Land. It is adjacent to a HONI transmission line and substation, and away from residential areas. The construction and operation activities will not significantly change the social structure or demographic characteristics of the surrounding neighbourhood or community.
12	Overtax existing community services or facilities (e.g., transportation, water supply, sanitary and storm sewers, solid waste disposal system, schools, parks and/or care facilities).	No	The proposed construction and operation activities will not overtax existing community services or facilities. No community services or facilities will be required to construct and operate the undertaking. All waste will be disposed of in accordance with applicable regulatory requirements. The Project is located in proximity to municipal fire hydrants in the event of a fire.

No.	Screening Criteria	No / Yes / Possibly	Rationale
			A stormwater management pond will be constructed on-site. Discharge will not use municipal stormwater sewers. An Environmental Compliance Approval (ECA) for Industrial Sewage Works will be sought.
13	Result in undesired or inappropriate access to previously inaccessible areas.	No	The Project includes the construction of two access roads that will connect to an existing four-lane road (Highbury Ave). The undertaking will not result in undesired or inappropriate access to previously inaccessible areas.
14	Create the removal of a significant amount of timber resources.	No	No significant amount of timber resources will be removed. The Project is sited on fallow agricultural land and includes little woody vegetation >1 m in height [7].
15	Result in significant effects to natural heritage resources.	No	An Environmental Impact Study [12] (Appendix F) was completed for the Project in February 2026. The study was completed for the Project property and a 120 m buffer beyond the property boundary. The Project is situated in on fallow agricultural land with small areas of cultural meadow in the north and southwest corners of the subject property. The meadows are primarily composed of Reed Canary Grass, Panicled Aster, and Staghorn Sumac, with certain areas affected by the presence of the invasive European Reed species. Many bird species have the potential to be present, and several were observed during the site investigation in 2024. While several herpetofauna, mammal and insect species have the potential to be present, none were observed. Also, no wildlife SAR were observed. No seasonal concentration areas, confirmed Significant Wildlife Habitat (SWH), rare vegetation communities, specialized wildlife habitat, habitat for Species of Conservation Concern (SCC), or animal movement corridors were identified within the study area. Small sections of shrub over 1 m tall along the watercourse in the southern portion of the Project Area may provide suitable habitat for Eastern Red Bat and Hoary Bat. As a precaution, this shrub growth is considered potential habitat for these bat species at risk. No other SAR habitat was identified within the study area. While the watercourse on the southern boundary of the Project Area offers fish habitat, presence of fish is unlikely due to downstream barriers and upstream piping that restrict access. The watercourse on the western boundary along the existing rail corridor of the Project Area was not evaluated because it is over 30 meters away, and is unlikely to be affected by the development due to its location. While there are few natural heritage features in the Project Area, mitigation measures proposed in the EIS will be implemented to reduce impacts to wildlife and their habitat in the Project Area. These mitigation measures are provided in Table 4-2 under “Mitigation and Monitoring”. With the implementation of the mitigation measures, monitoring commitments, and contingency plans described in the EIS, the Project is not anticipated to result in significant effects to natural heritage resources.
16	Result in significant effects to cultural heritage resources (which may include built heritage resources, cultural heritage landscapes, and/or archaeological resources).	No	A Cultural Heritage Screening [14] (Appendix G) was completed for the Project in August 2024 using the checklist of the Ministry of Citizenship and Multiculturalism (MCM) Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes. The report concluded that the property should not be reviewed further through a Cultural Heritage Evaluation Report (CHER) or Heritage Impact

No.	Screening Criteria	No / Yes / Possibly	Rationale
	Significant effects to cultural heritage resources are to be determined based on technical, cultural heritage studies prepared by qualified persons		Assessment (HIA) because it is of limited or no heritage value in the categories of design, history, and context, the three main categories to be considered in heritage evaluations under Ontario Regulation 9/06 of the Ontario Heritage Act. A Stage 1-2 Archaeological Assessment (AA) [15] (Appendix H) was conducted between July and September 2024 in accordance with Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The results of the Stage 1 AA identified one previously recorded archaeological site (AeHg-61) and one previously identified findspot. The Stage 2 AA resulted in the re-identification of AeHg-61, the identification of two new sites (AeHg-142 and AeHg-150), and three diffuse scatters (L-01, L-02, and L-03). Only on site (AeHg-61) met the conditions to trigger a Stage 3 AA. The Stage 1-2 AA was submitted to the MCM for review and a letter confirming Review and Entry into the Ontario Public Register of Archaeological Reports has been issued (Appendix H) [16]. A Stage 3 AA [17] (Appendix I) was completed for site AeHg-61 in September 2024. A total of 2,311 artifacts were recovered consisting of 2 Pre-contact Indigenous period artifacts and 2,309 historical Euro-Canadian artifacts. AeHg-61 was considered to possess Cultural Heritage Value or Interest (CHVI) and Stage 4 mitigation of development impacts was recommended prior to any further impacts or disturbances to the project landscape. The Stage 3 AA was submitted to the MCM for review and a letter confirming Review and Entry into the Ontario Public Register of Archaeological Reports has been issued [18] (Appendix I). A Stage 4 AA [19] (Appendix J) was undertaken in May 2025 to mitigate archaeological site AeHg-61 to be impacted by the Project. As such all archaeological concerns can be considered addressed and the site fully mitigated of development impacts. The Stage 4 AA was submitted to the MCM for review and a letter confirming Review and Entry into the Ontario Public Register of Archaeological Reports has been issued [20] (Appendix J). If archaeological material is encountered during the course of the Project construction, all activities with the potential to affect the archaeological material would cease immediately and a licensed archaeologist would be engaged, as well as the MCM. In the event that human remains are encountered, the Proponent would immediately stop work in the area and notify the police, the coroner's office, MCM and the Registrar of Cemeteries. Consequently, Project activities will not result in significant effects to built heritage resources, archaeological resources and cultural heritage landscapes.

Table 4-2 Additional Areas of Interest

Area of Interest	Description
Planning and Policy	Provincial policy and planning matters are discussed in Table 4-1 Item 1. Preliminary permits and approvals are discussed in Section 2.7.
Source Water Protection	The Project Area is in the Catfish Creek Source Protection Area (CCSPA). There are no wellhead protection areas, highly vulnerable aquifers, or significant groundwater recharge areas in the Project Area

Area of Interest	Description
	based on a review of the MECP Source Protection Information Atlas [21]. The Project is not expected to affect drinking water or source water.
Climate Change	The Project will store energy during off-peak hours and supply it to the grid when demand is high, supporting Ontario's transition to a more sustainable SMART grid. It is expected to have a positive impact on climate change during operation. The brief construction phase is not typically regarded as relevant to future climate change impacts.
Air Quality, Dust and Noise	Air quality, dust, and noise matters are considered in Table 4-1 Item 5.
Ecosystem Protection and Restoration	The natural heritage component is discussed in Table 4-1 Item 15.
Species at Risk	No SAR were observed in the Project Area. SAR are considered in Table 4-1 Item 15.
Surface Water	The Project Area includes one small stream in the southern portion of the Project Area. The Project Area therefore intersects the regulated area of the KCCA from which a Section 28(1) permit will be sought. A stormwater management pond will be developed in line with the stipulations outlined in the ECA, ensuring effective handling of site run-off throughout operational activities. Furthermore, secondary containment beneath the transmission station will serve to prevent any risk of contamination to nearby surface water features. With robust mitigation measures established for managing stormwater and any possible releases from the transformer, no adverse impacts to surface water are expected. Comprehensive erosion and sediment control measures will be put in place to address any potential effects that may arise during the construction phase. Mitigation measures will be implemented to reduce the risk of spills, and a Spill Response Plan will be prepared.
Groundwater	Groundwater is considered in Table 4-1 Item 5. Groundwater levels are expected to be relatively shallow due to the low permeability of the glacial silt and clay soils. Mitigation measures will be implemented to reduce the risk of spills, and a Spill Response Plan will be prepared. The Project's potential dewatering rates will not trigger the need for Environmental Activity and Sector Registry or Permits to Take Water.
Excess Materials Management	Localized grading and excavation will be required during construction. A nominal amount of material may be generated, which will be handled in accordance with Ontario Regulation 406/19.
Contaminated Sites	Based on a review of the Canada Federal Contaminated Sites Inventory [22], there are no known federal contaminated sites or underground storage tanks in or adjacent to the Project Area. Furthermore, a search of the MECP Large and Small Landfill Sites Databases [23] and a review of the St. Thomas Official Plan [8] identified no landfills or waste disposal sites in or adjacent to the Project Area. A Phase I Environmental Site Assessment (ESA) [24] has been completed in conformance with the scope and limitations of ASTM E1527-21 Practice for the development of Phase I ESAs and the Canadian Standards Association (CSA) Z768-01 Practice to identify and characterize potential areas of environmental contamination. No Recognized Environmental Conditions (REC), Controlled RECs (CREC), or significant data gaps were identified in connection to the Site. Should the removal or movement of soils be required, all Project activities will comply with Ontario Regulation 406/19: On-site and Excess Soil Management.
Servicing, Utilities and Facilities	The Project Area is adjacent to an existing transmission line, and HONI is in the process of constructing a new line south of the Project Area. Potential effects on existing community services or facilities are discussed in Table 4-1 Item 12.
Mitigation and Monitoring	In addition to the implementation of general best practices, the following mitigation measures are proposed for natural heritage features in the Project Area: ▪ No vegetation removal will occur during the breeding bird period (April 1 – August 31) to minimize potential disturbance to breeding birds. If vegetation removal must occur during the breeding bird period (April 1 – August 31), a biologist will conduct nest searches in areas where vegetation will be removed. If an active bird nest is identified, the area will be protected

Area of Interest	Description
	and no construction activities will occur until the young have fledged or until the nest is no longer active, as confirmed by a qualified biologist; ▪ Schedule noise-producing activities to occur during daylight hours to avoid excessive noise and/or light disturbances to wildlife, wherever possible; ▪ Removal of potential SAR bat habitat (woody vegetation >1 m in height) must occur between December 1st and March 31st, outside of the peak roosting period for bats (April 1st – November 30th in southern Ontario). If any trimming or removal of woody vegetation over 1m in height must be conducted from April 1st-Nov 30th, MECP should be consulted to determine next steps, and if any additional mitigation measures can be implemented.; ▪ Clearly delineate work area to avoid accidental damage or removal of retained vegetation species; ▪ Place fencing or barriers along the watercourse buffer limit, and as far away as possible from other natural features and habitats; ▪ Avoid the use of herbicides, to the extent possible (project related activities only). If herbicide use is considered necessary to control noxious weeds its use should be minimized to the extent possible and measures should be taken to avoid incidental application on adjacent native vegetation; ▪ Develop and implement an Erosion and Sediment Control (ESC) plan; ▪ Install, monitor, and maintain ESC measures around the project footprint for the duration of the construction activities, as identified within the ESC plan; ▪ Place the erosion fencing along the limits of the watercourse buffer and anywhere else where sediment-borne runoff may flow downslope to natural vegetation; ▪ Store any stockpiled material more than 30 m from natural features, including the meadow habitat and watercourse, throughout the construction phase; ▪ Schedule grading to avoid times of high runoff volumes, wherever possible. ▪ Re-vegetate areas adjacent to the project footprint as soon as practical after construction activities are complete; ▪ The stormwater management facility will consist of enhanced swales, culverts, storm sewers, and a dry pond designed to manage water quantity, quality, and erosion control. Two orifices and an overflow control at the exit of the dry pond will be installed, which will allow post-development flows to get as close as reasonably practicable to pre-development flows, and protect the watercourse from increase flow, erosion and flooding; ▪ The dry pond will meet the 60% long-term suspended solids removal requirement, as outlined in the MECP Stormwater Management Planning and Design Manual; ▪ The dry pond provides a minimum detention time of 24 hours, with a calculated detention storage volume of 253 m^3 for the 100-year storm and 307 m^3 for the regional storm. The ponding elevation during these events remains within the design limits, ensuring safe and effective water detention and gradual release through a system of two orifices and an emergency overflow weir; ▪ Minimize the use of impervious surfaces where possible, such as utilizing permeable surface material (i.e., gravel) to increase infiltration, and reduce surface water runoff; ▪ Minimize paved surfaces and design roads to promote infiltration; ▪ Clearly delineate work area to minimize invasive species seed transfer; ▪ Vehicle use will occur primarily in agricultural habitats, where invasive and non-native vegetation species are less likely to be concentrated; ▪ Develop a spill response plan and train staff on appropriate procedures; ▪ Keep emergency spill kits on site; ▪ Keep contact information for the MECP Spills Action Centre in a designated area on-site. ▪ Dispose of waste material by authorized and approved off-site vendors; ▪ Store hazardous materials in designated areas;

Area of Interest	Description
	▪ Locate all vehicle refueling or washing, as well as the storage of chemical and construction equipment, more than 30 m from natural features; ▪ If regular (non-critical) project maintenance activities occur during the breeding bird period (April 1 – August 31), schedule these activities to occur during daylight hours to avoid excessive noise and/or light disturbances to wildlife, wherever possible; ▪ Direct ground-level lights (i.e., buildings) downward, where possible, to avoid shining into adjacent natural features. Environmental monitoring will occur during the construction phase. Sediment and erosion control measures will be monitored daily in areas where work is taking place and prior to, and after, any storm events. Sediment and erosion control measures will be monitored weekly in areas where active construction is not occurring until the construction phase is complete, or otherwise in accordance with the ESC Plan. Inspection of the stormwater management facilities is recommended annually to identify maintenance, as well as after significant storm events to ensure proper functioning of the system.
Consultation	A description of consultation efforts is provided in Section 3 of this report.
Class EA process	This report follows the Class EA for TF Screening process. A preliminary list of permits and approvals is provided in Table 4-1.

The Proponent will advise the MECP in writing upon completion of the successful screening, in accordance with Section 3.3 of the Class EA for TF.

The Project has been assessed based on the information available at the time this report was produced. If Project designs change as development progresses, or if any additional components are identified as being required for the Project, the Proponent will need to undertake the appropriate screening or assessment per the Class EA for TF requirements, as required.

5 CONCLUSION

The evaluation of the Project against the Class EA for TC screening criteria indicates that no significant adverse social or environmental effects are anticipated as a result of the Project; therefore, the Project is eligible to proceed under the Screening Process outlined in Section 3.3.3 of the Class EA for TF document.

6 REFERENCES

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[3] Independent Electricity System Operator, Reliability Outlook: An adequacy assessment of Ontario's Electricity System (January 2026 – June 2027), 18 December 2025. Online: https://www.ieso.ca/Sector-Participants/Planning-and-Forecasting/Reliability-Outlook

[4] Independent Electricity System Operator, Annual Planning Outlook – Ontario's electricity system needs: 2026-2050, 24 April 2025. Online: https://www.ieso.ca/Sector-Participants/Planning-and-Forecasting/Annual-Planning-Outlook

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[7] Ministry of Municipal Affairs and Housing, Provincial Policy Statement, 2020, Under the Planning Act, 1 May 2020. Available online: https://files.ontario.ca/mmah-provincial-policy-statement-2020-accessible-final-en-2020-02-14.pdf

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[11] Email correspondence from McCoomb J. (St. Thomas Manager of Planning Services) to Bashford L. (EDP Renewables), Subject: Edgeware Energy Storage Project, 7 August 2024.

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[15] True North Archaeological Services, Stage 1 and 2 Archaeological Assessments, Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario, MCM PIF Number: P311-0354-2024, 15 September 2025.

[16] Ontario Ministry of Citizenship and Multiculturalism (MCM). Review and Entry into the Ontario Public Register of Archaeological Reports: Stage 1 & 2 Archaeological Assessments, Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County (now City of St. Thomas, Ontario), Project Information Form No. P311-0354-2024, 24 July 2025.

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[18] Ontario Ministry of Citizenship and Multiculturalism (MCM). Review and Entry into the Ontario Public Register of Archaeological Reports: Stage 3 Archaeological Assessment, Edgeware Battery Energy Storage Site, AEH-G-61, 100 Highbury Avenue South, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County (now City of St. Thomas, Ontario), Project Information Form No. P311-0363-2025, 23 December 2025.

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DNV

APPENDIX A – PROJECT STAKEHOLDER LIST

Stakeholder	Role	Type of consultation
Conservation Authority		
Kettle Creek Conservation Authority	Conservation Authority (Watershed Management)	Mandatory Notification (Class EA Requirement); Written Correspondence (Letter and Email). Meetings for permitting Requirements.
Federal Agencies, Departments and Ministries		
Environmental Assessment Agency of Canada (IAAC) – Ontario Office	Federal Impact Assessment Authority	No Consultation Required. Project not subject to review.
Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) – Ontario Region	Federal Regulatory Authority	No Consultation Required. Project not subject to review.
Environment and Climate Change Canada – Canadian Wildlife Service – Ontario Region	Natural Heritage / Species at Risk Authority	No Consultation Required. Project not subject to review.
Environment and Climate Change Canada – Ontario Region	Federal Regulatory Authority	No Consultation Required. Project not subject to review.
Transport Canada / Canadian Coast Guard – Navigation Protection Program	Navigation / Waterway Authority	No Consultation Required. Project not subject to review.
Fisheries and Oceans Canada (DFO) – Fish and Fish Habitat Protection Program	Fisheries and Aquatic Resources Authority	No Consultation Required. Project not subject to review.
Transport Canada	Transportation Infrastructure Authority	No Consultation Required. Project not subject to review.
Indigenous community		
Aamjiwnaang First Nation	Indigenous Rights Holder (Asserted or Established)	Mandatory Notification (Class EA Requirement); Delegation of Crown's Duty to Consult; Participation in archaeological Studies.
Caldwell First Nation	Indigenous Rights Holder (Asserted or Established)	Mandatory Notification (Class EA Requirement); Delegation of Crown's Duty to Consult; Participation in archaeological Studies.
Chippewas of Kettle and Stony Point First Nation	Indigenous Rights Holder (Asserted or Established)	Mandatory Notification (Class EA Requirement); Delegation of Crown's Duty to Consult; Participation in archaeological Studies.
Chippewas of the Thames First Nation	Indigenous Rights Holder (Asserted or Established)	Mandatory Notification (Class EA Requirement); Delegation of Crown's Duty to Consult; Participation in archaeological Studies.
Oneida Nation of the Thames	Indigenous Rights Holder (Asserted or Established)	Mandatory Notification (Class EA Requirement); Delegation of Crown's Duty to Consult; Participation in archaeological Studies.
Walpole Island First Nation (Bkejwanong Territory)	Indigenous Rights Holder (Asserted or Established)	Mandatory Notification (Class EA Requirement); Delegation of Crown's Duty to Consult; Participation in archaeological Studies.

Stakeholder	Role	Type of consultation
Interest Groups		
ENBRIDGE GAS INC.	Utility Owner / Operator; Information-Only Stakeholder	Notification (Mailed letter)
Hydro One Networks Inc.	Utility Owner / Operator	Notification (Mailed letter) / Technical Review
ONTARIO HYDRO	Adjacent Landowner; Information-Only Stakeholder	Notification (Mailed letter)
Ontario Power Generation (OPG)	Utility Owner / Operator	Notification (Mailed letter) / Technical Review
UNION GAS LIMITED	Utility Owner / Operator; Information-Only Stakeholder	Notification (Mailed letter)
Other landowners within 500 m	Information-Only Stakeholder	Notification (Mailed letter)
Public	Information-Only Stakeholder	Public Notice (St. Thomas Times (Newspaper publication, Website)
Municipal Departments and Services		
City of St. Thomas – Fire Prevention Office	Emergency Services Authority	Mandatory Notification (Class EA Requirement); Written Correspondence (Letter and Email); Meetings for permitting Requirements; Project review for Building permit.
City of St. Thomas – Planning and Building Services	Municipal Land-Use Planning Authority	Mandatory Notification (Class EA Requirement); Written Correspondence (Letter and Email); Meetings for permitting Requirements; Project review for Site Alteration and Building permits.
Provincial Agencies, Departments and Ministries		
Ontario Ministry of Citizenship and Multiculturalism (MCM)	Provincial Regulatory Authority	Agency Circulation / Technical Review
Ontario Ministry of Agricultural, Food and Rural Affairs (OMAFRA)	Provincial Regulatory Authority	No Consultation Required. Project not subject to review.
Ontario Ministry of Energy and Electrification (MOEE)	Provincial Regulatory Authority	Duty to Consult Assessment; Mandatory Notification (Class EA Requirement)
Ontario Ministry of Municipal Affairs and Housing (MMAH)	Provincial Regulatory Authority	Mandatory Notification (Class EA Requirement); Written Correspondence (Letter and Email)
Ontario Ministry of Indigenous Affairs (MIA)	Provincial Regulatory Authority	No Consultation Required. Project not subject to review.
Ontario Ministry of Natural Resources (MNR) – Aylmer-Guelph District	Crown Land Administrator	Mandatory Notification (Class EA Requirement); Written Correspondence (Letter and Email)
Ontario Ministry of the Environment, Conservation and Parks (MECP)	Provincial Environmental Assessment Authority	Mandatory Notification (Class EA Requirement); Written Correspondence (Letter or Email)
Ontario Ministry of the Environment, Conservation and Parks (MECP) – Southwest Region	Provincial Environmental Assessment Authority	Mandatory Notification (Class EA Requirement); Written Correspondence (Letter or Email)
Ontario Ministry of Tourism, Culture and Sport (MTCS)	Provincial Regulatory Authority	No Consultation Required. Project not subject to review.
Infrastructure Ontario	Adjacent Utility / Infrastructure Owner	No Consultation Required. Project not subject to review.

APPENDIX B – CONSULTATION DOCUMENTATION

Including, but not limited to:

- Notice of a Public Community Meeting – 3 November 2023
- Community Meeting Minutes, Presentation Boards, and Questions and Answers – 23 November 2023
- Environmental Impact Assessment Terms of Reference – August 2024
- Ministry of Energy and Electrification Delegation Letter of the Duty to Consult – 12 August 2024
- First Nations Communities General Consultation Request – 19 August 2024
- First Nations Communities – Engagement for Archaeological Studies - 19 August 2024 to 4 May 2025
    - Notifications of Commencement of archaeological assessments
    - Requests for participation in the archaeological assessment field programs
    - Requests for review of the archaeological assessment reports
- Notice of Commencement of a Class Environmental Assessment for Transmission Facilities – January-February 2025
    - Emails to Stakeholders and responses
    - Confirmation of mailing to landowners within 500 m
    - Newspaper publication
- Notice of Completion of a Class Environmental Assessment for Transmission Facilities – March 2026

PLANNING & BUILDING SERVICES DEPARTMENT
t. (519) 633.2560 **f.** (519) 633.6581
9 Mondamin Street
St. Thomas, Ontario, N5P 2T9

December 4, 2024

EDP Renewables Canada Ltd. ("EDPR")
219 Dufferin Street, Unit 217C
Toronto, ON
M6K 3J1

Attention: Nathan Roscoe

Re: Edgeware BESS Zoning Confirmation

Dear Mr. Roscoe

This letter is to confirm the understanding between EDP Renewables Canada Ltd. ("EDPR") and The City of St. Thomas (the "City") with respect to the property legally described as Plan M59 Pt Block 94, St. Thomas, Ontario (Roll No.: 342102021507600 , PIN: 35163-0277) (the "Property").

I have been advised that the Property is currently subject to an Agreement of Purchase and Sale between the City and EDPR dated as of June 27, 2022, as amended, for which a Caution of Agreement of Purchase and Sale was registered with Land Registry Office No. 11 on July 18, 2024 under Registration No. CT243571 (the "Purchase Agreement").

The City understands that EDPR desires (through itself or an EDPR affiliate) to purchase the Property and construct the Edgeware Energy Storage Project (the "Energy Storage Project") on it.

The Property is currently classified under the City Zoning By-law 50-88 ("Zoning By-Law") as an Employment Lands Zone ("EL"). One of the EL permitted uses under the Zoning By-Laws is "manufacturing".

As has been discussed, the City staff are of the opinion that the Energy Storage Project for storing and adapting electricity (changing from DC to AC current) fits within and qualifies under the "manufacturing" definition as a EL permitted use. Subsection 1.74 to By-law 50-88 defines "manufacturing" as:

"MANUFACTURING means assembling, making, preparing, processing, inspecting, ornamenting, manufacturing, finishing, treating, altering, repairing, storing or adapting of any goods, substance, article or thing." Staff are of the opinion that the proposed Energy Storage Project specifically meets with the "…storage or adapting of any goods, substance, article or thing." aspect of the definition.

As also discussed, manufacturing uses on EL property is exempt from site plan controls, so no site-plan will need to be provided or approved for the Energy Storage Project to be constructed on the Property.

The City also hereby confirms and acknowledges that, after construction of the Energy Storage Project, should the zoning of the Property change, the ability of the Energy Storage Project to be operated in

compliance with the City's zoning, siting, or other regulations, any approved or existing uses, including the location of any existing buildings or structures, would be considered legal non-conforming.

Regards,

Jim McCoomb, MCIP, RPP
Manager of Planning Services

November 3, 2023

RE: Notice of Edgeware Battery Storage Project - Public Community Meeting

Dear Stakeholder:

EDP Renewables Canada Ltd. (the "Qualified Applicant") is pleased to invite you to a public community information meeting to present the proposed **Edgeware Battery Storage Project** (**the "Project"**). The proposed Project is being developed in answer to the Independent Electricity System Operator's (IESO) Long-Term Request for Proposals (LT1 RFP) for the procurement of capacity services to meet system reliability needs.

The proposed Project is a battery energy storage facility sized to provide up to 75 MW over at least four (4) consecutive hours (300 MWh). It occupies approximately 5 acres of land located on the west side of Highbury Avenue and Edgeware Line, in the City of St. Thomas. A map of the Project area is attached.

Date of the Public Meeting
Thursday, 23 November 2023, 6 pm to 8 pm

Address
CASO Station, Farley Waiting Room
750 Talbot Street, St. Thomas, ON N5P 1E2

We hope you will be able to join us to meet our team, learn more about the Project, and provide your feedback. Please contact me for any questions regarding the meeting or the Project.

Sincerely,

Darren Carl
Sr. Development Project Manager
darren.carl@edp.com
416-988-9198

Edgeware Battery Storage Project
Public Community Meeting – Meeting Minutes

Date: November 23rd, 2023
Time: 6:00 pm to 8:00 pm
Location: CASO Station, Farley Waiting Room (750 Talbot Street St. Thomas, ON N5P 1E2)
Hosts: EDP Renewables Canada Ltd. and Edgeware BESS Project Limited Partnership

- Four (4) EDPR Canada employees were present.
- Two (2) DNV employees were present.
- Two (2) SunGrid employees were present.

Summary of the Event

EDP Renewables Canada Ltd. (the "Qualified Applicant") and Edgeware BESS Project Limited Partnership (the "Proponent") hosted a Public Community Meeting on November 23rd, 2023, at the CASO Station, Farley Waiting Room in St. Thomas, ON.

EDP Renewables Canada Ltd. greeted attendees at a welcome table near the entrance of the room. Guests were able to voluntarily provide contact information on the sign-in sheet, and were also offered event feedback forms, as well as take-home information about the Company and Battery Storage. Light refreshments were also made available to attendees. Approximately 8-10 community members attended. The attendees were encouraged to view the informational poster boards displayed, listen to the presentation, and ask questions during the Question-and-Answer Session.

Schedule of the Event (approximate timing) and Resources:

6:00 pm to 6:57 pm – Doors opened at 6:00 pm. Attendees were encouraged to view the Poster Boards which were displayed in the room. EDP Renewables Canada and Subject Matter Experts were available to answer any questions. The Poster Boards that were displayed may be viewed on the project website or in Appendix A.

6:58 pm to 7:10 pm – EDP Renewables Canada presented a PowerPoint presentation.

7:11 pm to 7:21 pm – A Question-and-Answer Session was held where attendees could ask questions that were answered by EDP Renewables Canada, DNV, and SunGrid employees. The Question-and-Answer Session notes may be viewed on the Project Website or in Appendix B.

7:21 pm to 8:00 pm – Many of the guests left after the Question-and-Answer session. Doors were closed at 8:00 pm

Other Information:

Project Website: https://www.edpr.com/north-america/edgeware-battery-storage-project
Project Email: edgeware-bess@edpr.com

EDP Renewables Canada Ltd.
219 Dufferin Street, Unit 117C
Toronto, Ontario M6K 3J1
T: 416.479.3736 | F: 416.502.1706

Appendix A – Poster Boards





ABOUT EDP RENEWABLES NORTH AMERICA

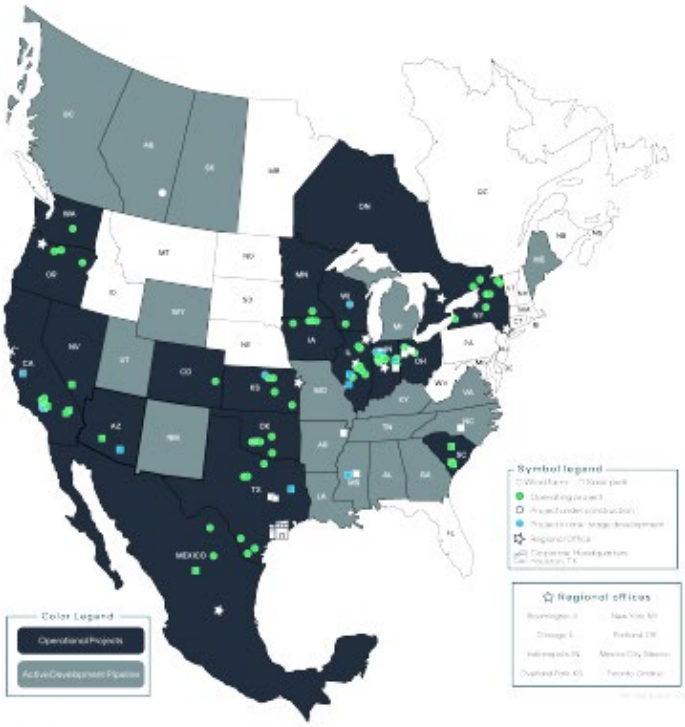
EDP Renewables Canada is a wholly-owned subsidiary of EDP Renovaveis, S.A.. EDPR Canada is headquartered in Toronto, Ontario and has been developing projects since 2012. The company currently operates the South Branch Wind Farm (30MW) and the Nation Rise Wind Farm (100MW), in the United Counties of Stormont, Dundas, and Glengarry, Ontario. Additionally, EDPR Canada is currently constructing the Sharp Hills Wind Farm (300MW) in Alberta and has over 1GW of wind, solar, and battery storage projects in development across the country. The company is supported by EDP Renewables North America, headquartered in Houston, Texas.

OPERATIONAL PROJECTS

58 WIND FARMS

10 SOLAR PARKS

8,400+ MEGAWATTS



EDPR NA'S **IMPACT** (dollar figures in USD)

CREATED
1,090 permanent jobs
7,900+ construction jobs

GENERATED
the equivalent of
2 million+ homes'
energy consumption

MAINTAINED
278 million+ hours
of operational history

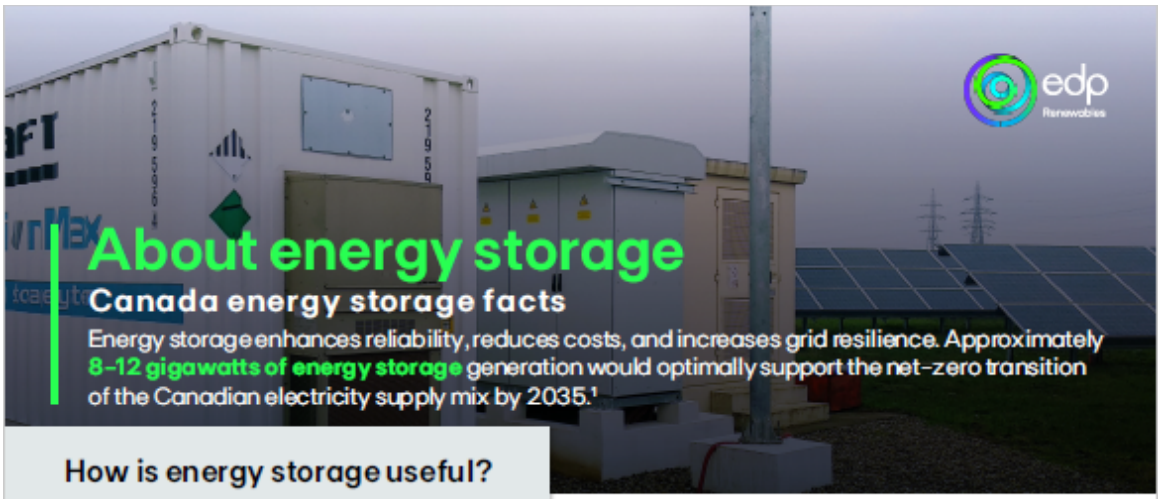
PAID
$379 million+ to landowners
$308 million+ to local governments

SAVED
12.4 billion+ gallons of water
AVOIDED
24 billion+ pounds of CO_2

INVESTED
$17 billion+ (approx.)
in capital

EDP RENEWABLES CANADA LTD.
219 Dufferin Street, Suite 117C, Toronto, ON M6K 3J1

DARREN CARL, PROJECT MANAGER
416.988.9198
darren.carl@edp.com



About energy storage

Canada energy storage facts

Energy storage enhances reliability, reduces costs, and increases grid resilience. Approximately **8–12 gigawatts of energy storage** generation would optimally support the net-zero transition of the Canadian electricity supply mix by 2035.[1]

How is energy storage useful?

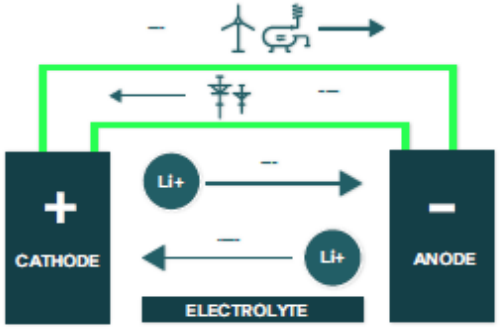
- Reduces outages and enhances resilience
- Decreases costs and saves money
- Bolsters a sustainable electrical grid
- Supports local economies

What is a lithium-ion cell?

The battery is comprised of a positive cathode, a negative anode, a separator, an electrolyte, and positive and negative current collectors. When the battery is being charged by a power source, such as wind or solar power, lithium-ions move from the cathode, through the electrolyte and to the negative anode, storing energy for future use. When discharging power, lithium-ions are released by the anode and received by the cathode.

How does energy storage work?

The most common electrochemical storage method is the **lithium-ion battery**. These are similar to the batteries that power your cell phones, laptops, or electric vehicles.



Energy storage systems are fuel-neutral. This means that they can capture and dispense electricity from oil, gas, coal, nuclear, geothermal, and EDP Renewables' wind and solar energy projects.

Energy storage will contribute to powering Canada's journey to net-zero by 2050.[1]

Canada's energy transition BY THE NUMBERS

10.5% increase

Overall, the wind, solar, and energy storage sectors grew by **10.5%** in 2023.[1]

~ 7+ megawatts (MW) will be added

Forecasted to gain **more than 5 GW** of wind and **2 GW** of solar in the short term.[1]

Ranked 8th in the world

Canada ranked **8th in the world** for installed wind energy capacity at the end of 2022.[2]

19+ GW of clean energy

More than **19 GW** of installed utility-scale wind and solar energy.[1]

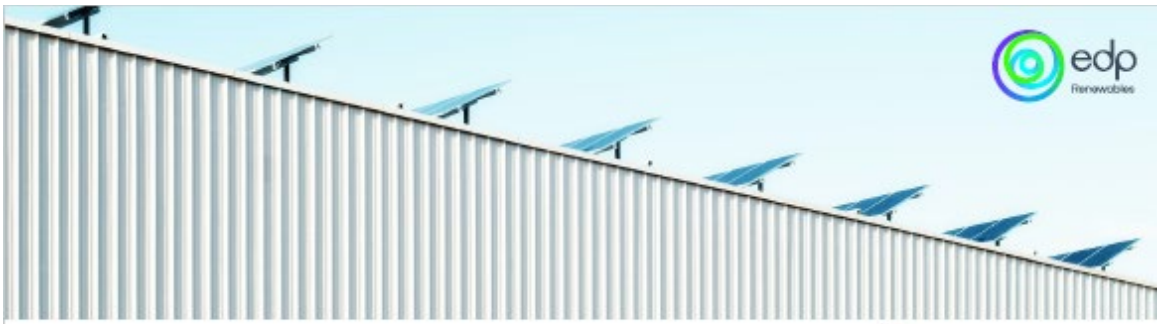
1.8+ GW of new generation

More than **1.8 GW of new generation** capacity in 2022, more than 2021's new capacity.[1]

~7% of electricity demand

Approximately **7% of Canada's 2020 electricity demand** was met by wind and solar energy in 2021.[3]

1. Canadian Renewable Energy Association, Canada's 2050 Vision Report.
2. IRENA, Renewable Electricity Capacity and Generation Statistics, 2023.
3. Canadian Renewable Energy Association, January 2022.



Edgeware Battery Storage Project



Proponent name: Edgeware BESS Project Limited Partnership

Edgeware Battery Storage Project will be located in the City of St. Thomas in Elgin County, Ontario. The Edgeware Battery Storage Project is being developed in answer to the Independent Electricity System Operator's (IESO) Long-Term Request for Proposals (LT1 RFP) for the procurement of capacity services to meet system reliability needs..

UP TO
75 MW

The proposed Edgeware Battery Storage Project is a battery energy storage facility sized to provide up to 75 MW of power over at least four (4) consecutive hours, totalling 300 MWh.

Community Benefits

EDPR Canada has a strong track record of providing benefits to the local communities that host projects through tax revenue and economic development funds that create additional growth and civic investment, as demonstrated through our existing operational projects in Ontario.

The Edgeware Battery Storage Project will contribute annual tax payments to the City of St. Thomas.

STABLE JOB CREATION

During construction, typical jobs include general labourers, BESS installers, concrete suppliers.

During operations, employees are needed for inspection and maintenance activities.

LOCAL BUSINESS GROWTH

The project will spur new business for community halls, restaurants, gas stations, hotels, and more.

STRENGTHENING LOCAL INFRASTRUCTURE

The project's tax payments will help fund local resources such as roads, schools, and first responders.



ENERGY INDEPENDENCE

Edgeware Battery Storage Project will contribute to the energy security for the Province of Ontario, helping diversify domestic supply.

Energy storage will contribute to powering Canada's journey to net-zero by 2050.

Energy storage enhances reliability, reduces costs, and increases grid resilience.

EDP RENEWABLES CANADA LTD.
219 Dufferin Street, Suite 117C,
Toronto, ON M6K 3J1

edgewarebatterystorage.com

DARREN CARL, PROJECT MANAGER
416.988.9198
darren.carl@edp.com

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The IESO Opportunity

South Branch Wind Farm | ON

The Province of Ontario's Need

After more than a decade of strong electricity supply, Ontario is entering a period of electricity generation needs. This is largely due to an increase in demand, the retirement of the Pickering Nuclear Plant, expiration of contracts for existing facilities, and the refurbishment of other nuclear generating units.

To address these needs, the IESO is procuring energy storage systems (capacity services) through the Long-Term 1 Request for Proposals (LT1 RFP).

LT1 RFP – Natural Gas and Battery Storage (Capacity)

Competitively procure 2,518 MW of year-round capacity services:

- 1,600 MW of storage
- 918 MW of non-storage capacity (natural gas)

Edgeware Battery Storage Project is intended to help address the growing electricity needs identified by the Independent Electricity System Operator in their Annual Planning Outlook, and the Ministry of Energy's report Powering Ontario's Growth.

For more information, visit the following websites:
IESO: www.ieso.ca/en/Sector-Participants/Planning-and-Forecasting/Annual-Planning-Outlook
Ministry of Energy: www.ontario.ca/page/powering-ontarios-growth

Sources:
IESO, Annual Acquisition Report & Long-Term Request for Proposals (LT1 RFP) Procurement Update (March 2023)
Ministry of Energy, Powering Ontario's Growth: Ontario's Plan for a Clean Energy Future (July 2023)

IESO Opportunity – Long Term 1 Request for Proposals (LT1 RFP)

The proposed Project is being developed in answer to the Independent Electricity System Operator's (IESO) Long-Term Request for Proposals (LT1 RFP) for the procurement of capacity services to meet system reliability needs.

LONG TERM 1 RFP TIMELINE

September 29, 2023	IESO's released the Final LT1 Request for Proposals (RFP) and LT1 Contract
November 17, 2023	Proponent's deadline to submit questions and comments to the IESO
November 28, 2023	IESO's deadline for issuing Addenda to LT1 RFP and LT1 Contract, if any
December 12, 2023	Proposal submission deadline
May 10, 2024	Target date for IESO notification to all proponents and announcement of selected proposals
May 2027 - May 2028	Commercial Operations Date



Nation Rise Wind Farm | ON



Safety Measures

As a company committed to a clean energy future, we take our impacts on the land, water, and air extremely seriously and devote significant resources to ensuring proper permitting, siting, and emergency preparations are taken.

Safe, Well-Tested Technology

Energy storage has been a part of our electricity grid since the 1930s and enjoys a safety record that is similar or better than other electricity generation, distribution, or management methods. In fact, the United States has more than 8,800 MW of battery storage capacity currently online.[1] In Canada, energy storage accounted for 214 MW by year-end 2022, with the majority coming from projects located in Ontario.[2]

Chemical Safety

BESS facilities are designed to manage chemicals on site. In the unlikely event of a leak containment measures such as bunding, spill trays and chemical absorbents are in place to capture materials on site.

Chemical hazards or 'dangerous goods' are typically identified and addressed by way of a Hazard Assessment and Emergency Management Plan (or equivalent).

Safety Risk

Most of us have a lithium-ion battery in our pocket all the time in our cell phone, or in electric cars – these aren't risk free either but are manageable and considered safe for the public when operated correctly.

BESS facilities are equipped with Battery Management Systems (BMS) that monitor the operational and fault status of the system for all parameters required to ensure safe operation of the BESS, including State of Charge (SOC), voltage, current, power limits, and temperatures. Parameters are monitored at the appropriate level of the battery cell, module and rack as applicable. The BMS functions to prevent potential fires by shutting down battery modules/racks if monitored conditions are outside of those permissible for safe operation.

Safeguarding the Environment

As with all BESS projects in Canada, we have to comply with federal, provincial and local wildlife regulations and standards to minimize any impact to surrounding wildlife.

Clean energy projects such as storage systems are far less harmful to wildlife than the energy sources it traditionally displaces, and the industry is proactively addressing the modest impacts on wildlife it could have.

1 U.S. Energy Information Administration, Electricity explained energy storage for electricity generation, August 2025.
2 Canadian Renewable Energy Association, NEW WAVE 2025: Canada installed 1.9 GW of wind and solar in 2022, January 2023.

edgewarebatterystorage.com



Emergency Preparedness

EMERGENCY PREVENTION MEASURES

Containerized battery energy storage systems (BESS) are mandated to have a variety of prevention measures to ensure safe operation.

- To begin with, the BESS is designed to strict federal and provincial standards.
- Each BESS features smoke and temperature sensors as well as internal fire suppression systems. They are also monitored 24/7.
- BESS systems feature internal containment trays to capture any dripping liquids from internal fire suppression systems and battery cell electrolytes which prevents spillage.
- The layout of the BESS incorporates adequate spacing to mitigate fire spread to adjacent containers.
- BESS containers are designed with exterior steel walls, with interior insulation for better cooling and to ensure fire containment.
- BESS containers feature pressure relief systems such as deflagration panels which automatically vent any gases generated and allow the flames to vent out in a controlled manner to prevent damage to the surroundings.

Emergency Response Plan

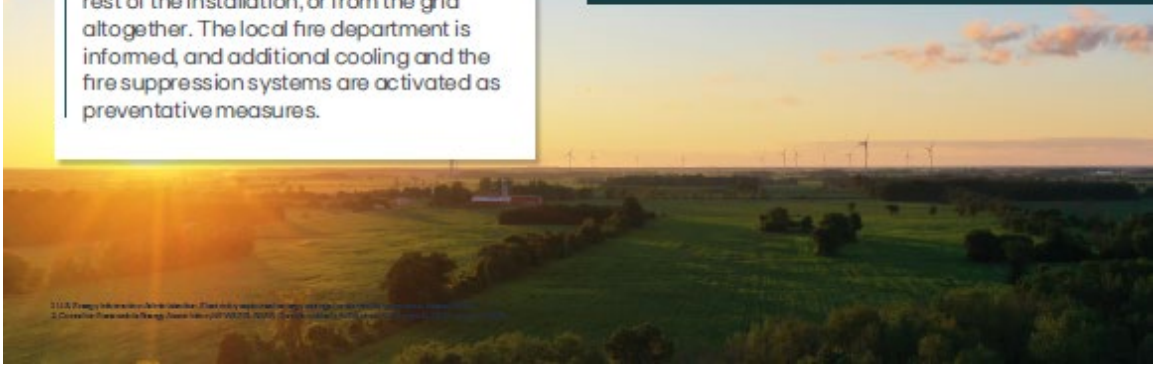
In addition to the emergency procedures, a successful applicant is **required to formulate an Emergency Response Plan** which includes first responder integration, education training and awareness of the local community.

In the unlikely event of fire or emergency, the remote monitoring centre will be informed and the affected battery container can be isolated from the rest of the installation, or from the grid altogether. The local fire department is informed, and additional cooling and the fire suppression systems are activated as preventative measures.

WHAT ABOUT SPECIAL EQUIPMENT & TRAINING?

No special equipment other than regular firefighting equipment is required during an emergency.

Safety features and internal fire suppression systems are already installed inside the BESS containers. As part of the development of the Emergency Response Plan, we would engage with the local fire department on emergency response plans in conjunction with training opportunities.





Permitting Overview

The Ministry of Environment, Conservation and Parks is the main authority that provides Provincial permitting and oversight.

The Project will be assessed through the Class Environmental Assessment (EA) for Minor Transmission Facilities. It will be eligible for registration on the Environmental Activity and Sector Registry (EASR) Air/Noise. It will also require an Environmental Compliance Approval (ECA) for Sewage Works. Some local permits may be required.

TENTATIVE PERMITTING TIMELINE

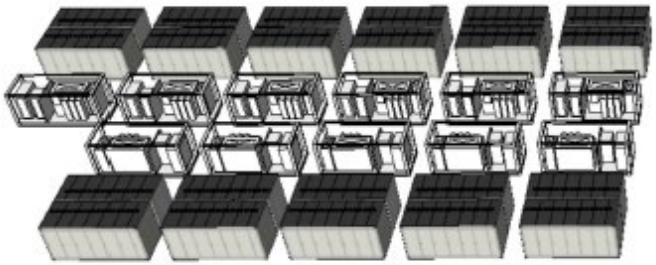
Q4 2023	Preliminary site characterization
Q2 2024	LT1 Selection Announcement
Q2 2024	Notice of Commencement of a Class EA Screening
Q2-Q3 2024	Natural Heritage Baseline
Q2-Q3 2024	Noise Impact Assessment
Q4 2024	Notice of Completion of a Class EA Screening
Q4 2024	Environmental Compliance Approval for Sewage Works
Q4 2024	Environmental Activity and Sector Registry
Q4 2024	Local permits



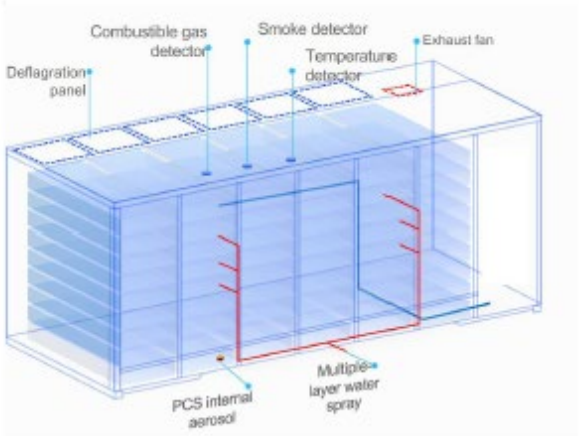
Example of Container & Transformer



Example of Multiple Containers & Multiple Transformers

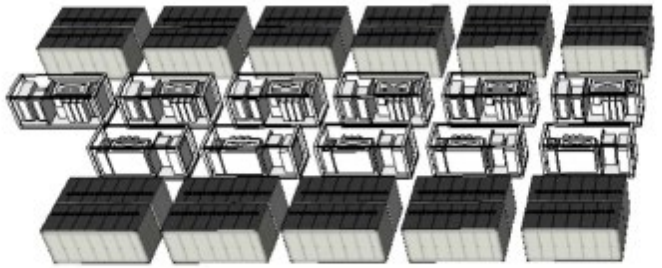


Example of BESS Safety Features

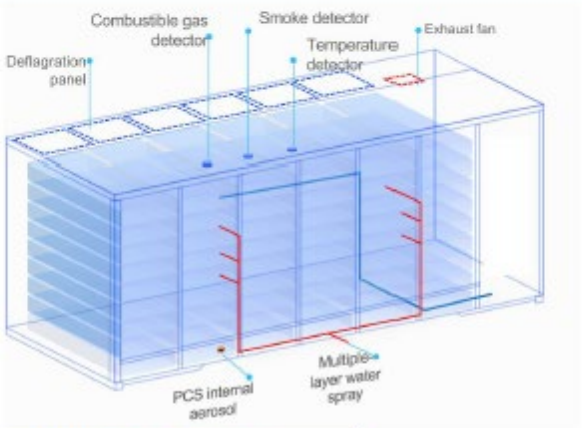




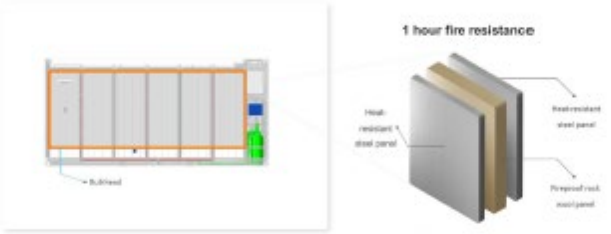
Example of Container & Transformer



Example of Multiple Containers & Multiple Transformers

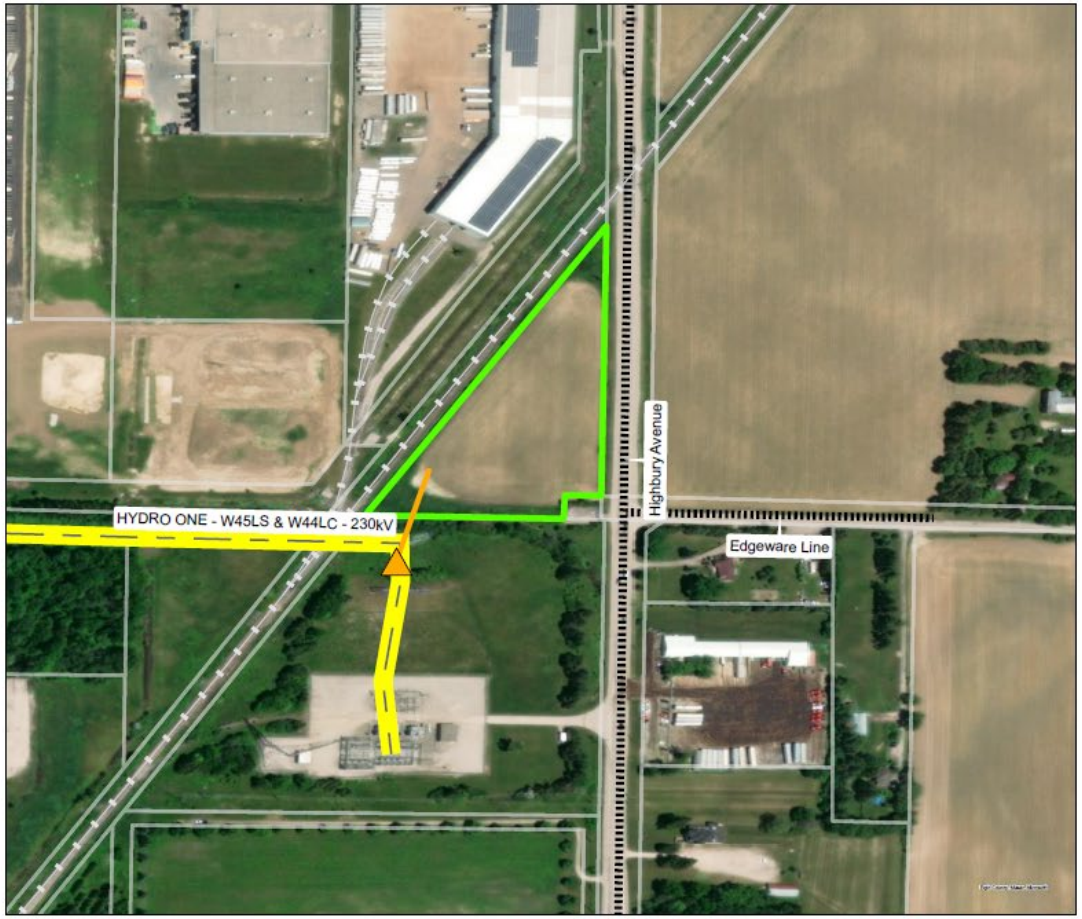


Example of BESS Safety Features



Example of BESS safety feature (construction)

Edgeware Battery Storage Project



edp Renewables

EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

Legend
- Connection Point
- Connection Line
- Existing Hydro One Transmission Line
- Railroads
- Public Roads
- South Branch Battery Storage Project Land (Project Site)
- Land Parcels

N

0 25 50 100 Metres



November 2023
Note: Connection Line is approximate

Project Location
The proposed project would occupy approximately 5 acres of land within a parcel located on the west side of Highbury Avenue and Edgeware Line in the City of St. Thomas, Ontario.

Project Proponent Name
Edgeware BESS Project Limited Partnership

Technology of the Long-Term Reliability Project
Lithium-ion battery storage

Nameplate Capacity: Up to 75 MW
The proposed Project is a battery storage facility size to provide up to 75 MW over at least four (4) consecutive hours (300 MWh).

edgewarebatterystorage.com

Appendix B – Question & Answer Session

Edgeware Battery Storage Project – Public Community Meeting
Location: CASO Station, Farley Waiting Room
(750 Talbot Street, St. Thomas, ON N5P 1E2)
Date: November 23rd, 2023

Siting

1. **Q: Do you own the land right now?**
    A. The property is under a purchase agreement between the project and the landowner.

2. **Q: Why St. Thomas?**
    A. The project is located next to the Hydro One Networks (HONI) 230kV substation and transmission circuits which makes it an ideal location to connect to the transmission system. The project was submitted as part of the IESO Long-term I RFP Deliverability Assessment and received a positive result which qualified the project to be submitted into the Long Term I RFP.

3. **C: Please build on why you chose this location:**
    A. The further you get away from interconnection, the more losses there are in the distribution of the electricity to the system need. The closer we are to the substation, the more likely it is for the electricity to reach the system need.

4. **Q: Will the output serve more than St. Thomas?**
    A. The output will support electricity demand both locally in St. Thomas and in other areas where the electricity is needed via the transmission system. Essentially, it's like a tree with branches. The transmission line is the root, as it hits branches, it shoots off and is taken where electricity is needed.

5. **Q: Where is the start/finish of the transmission line?**
    A. The transmission line that runs near the site connects into a transmission grid that covers roughly a third of North America. It's all same frequency, stepping down voltages. The specific transmission lines connected to the HONI substation connect to other substations in London and continue west towards Windsor.

6. **Q: When did you first start looking at this site?**
    A. This project was identified by EDP as a potential development early in 2022.

Project Timeline/Lifecycle

7. **Q: When would you expect to have it up and running?**

A. We want to have the site commissioned by 2027. The earliest date would be May of 2027, at the latest, at the end of 2028.

8. **Q: What is the timeframe for construction?**
    A. After a contract award and successful permitting, we are assuming a year for construction. If we went operational in 2027, civil construction would begin in 2026 with testing and commissioning taking place in 2027.

9. **Q: What's the life of the batteries?**
    A. There are two types of battery aging — calendar aging and aging over use. Calendar aging is where the battery ages gradually over time. Aging over use is where the battery ages depending on its use. Battery systems usually have an 8,000-to-10,000-hour cycle of life. Contractually, they are useful for a period of 20 years.

Technology

10. **Q: Where do the battery containers come from/where are the battery units themselves made?**
    A. We don't have a supply agreement in place right now as we are early in the process, so we don't know what technology we would use at this time. Typically, the batteries used are lithium-ion. That said, we also do not yet have a selected manufacturer or supplier.

    SunGrid Solutions: We are Ontario based, and our Canadian office is in Cambridge, ON. We build battery system across North America. The batteries could be coming from somewhere in Asia, like Japan or China, or the U.S. There are manufacturers here in Canada as well. The battery sites located in Ontario that are currently under construction have batteries from all the locations listed previously.

11. **Q: What technology would change it from AC to DC and DC to AC?**
    A. The most popular technologies are silicon carbide. They are standard inverters, same as a solar inverter, designed to discharge electricity. They are simple, run of the mill converters, just bigger. They do the transmission switching, and they do this very efficiently both ways. This is not new technology, and the quality is ever evolving.

Decommissioning

12. **Q: What happens at the end of life?**
    A. There is a growing industry for battery recycling in North America. Companies are incentivized to recycle the batteries and are seeing a 95% recovery rate. Batteries from the site will be recycled at the decommissioning phase. These batteries contain valuable materials and there would be multiple recycling

facilities that would be bidding to recycle them at their end of life. Some of these facilities are:

i. Li-Cycle (Canada) with plants in Kingston (ON), Rochester (NY, USA), Tuscaloosa (AL, USA), Gilbert (AZ, USA), Germany (Magdeburg)
ii. Redwood Materials (USA), Camp Hall, Berkeley County (CA, USA)
iii. Lithion (Canada), St. Bruno-de-Montarville (QC, Canada), Montreal (QC, Canada) operational by year end 2023
iv. Retriev Technologies (recently acquired Battery Solutions and Heritage Battery Recycling) with facilities in Trail (BC, Canada), Lancaster, Baltimore, Ohio, Brea, California (USA).

13. Q: Will they then be replaced? Will you have new cells to replace the old ones?
    A. If the Independent Electricity System Operator (IESO) still needs the project to operate, we would likely do a re-powering. This is when we open and remove cells to replace them with new ones. The contracts for this procurement are 20 years in duration. At the moment, there are no discussions about re-powering or extending the contract past those 20 years.

14. Q: Would there be clean up at the site?
    A. Yes. We would establish a Decommissioning Plan as part of the permitting process. There will be practices involved to see what that would look like. We typically remove topsoil, stockpile it, and then return the land back to previous use. That is the ultimate goal: to bring the property back to its previous use.

Outlook

FW: Edgeware BESS EIS - Terms of Reference (proj3221F)

From LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Date Mon 2026-03-16 2:03 PM
To Gagnon, Frédéric <frederic.gagnon@dnv.com>

From: Joe Gordon <joe@kettlecreekconservation.on.ca>
Sent: August 7, 2024 1:18 PM
To: Tara Livingstone <tlivingstone@nrsi.on.ca>; lpompilii@stthomas.ca; sreitsma@stthomas.ca
Cc: LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; DARREN CARL <DARREN.CARL@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; gabriel.constantin@dnv.com; Charlotte Teat <cteat@nrsi.on.ca>
Subject: RE: Edgeware BESS EIS - Terms of Reference (proj3221F)

Hi Tara

Thank you for the opportunity to comment.

I can confirm that consistent with O.Reg.686/21: Mandatory Programs and Services under the *Conservation Authorities Act (CA Act)*, KCCA's review of the proposed Edgeware BESS will solely be based on its responsibilities for review of risks to certain natural hazards. In this capacity our review will consider delegated responsibilities for provincial interest of natural hazard policies of the Provincial Policy Statement (PPS), and natural hazard regulations enacted under section 28 of the CA Act. (ie. O.Reg.41/24).

Therefore, KCCA will refer review and comment on the terms of reference for the EIS to the City of St. Thomas.

KCCA's Regulation Limit in the area of the subject property applies to two constructed drainage features to the south and west of the property that would meet the definition of a watercourse within a non-apparent valley under the CA Act. We have no records of any flooding or erosion hazard concerns for these features. Therefore, the regulatory jurisdiction of KCCA will apply to 15m landward of the bankfull width of the watercourse on both sides.

KCCA would appreciate an opportunity to review the final site plan and proposed stormwater management for the development in order to confirm whether a permit will be required from KCCA prior to its construction.

Please do not hesitate to contact me if you have any questions.

Thank you,

Joe Gordon
Manager of Planning and Development
Kettle Creek Conservation Authority

From: Tara Livingstone <tlivingstone@nrsi.on.ca>
Sent: Friday, July 26, 2024 11:43 AM
To: lpompilii@stthomas.ca; sreitsma@stthomas.ca; Joe Gordon <joe@kettlecreekconservation.on.ca>
Cc: LAURA.BASHFORD@EDP.COM; DARREN.CARL@EDP.COM; NATHAN.ROSCOE@EDP.COM; KENDRA.KALLEVIG@EDP.COM; Gagnon, Frédéric <frederic.gagnon@dnv.com>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Charlotte Teat <cteat@nrsi.on.ca>
Subject: Edgeware BESS EIS - Terms of Reference (proj3221F)

You don't often get email from tlivingstone@nrsi.on.ca. Learn why this is important

Good morning,

NRSI has been retained by DNV, on behalf of Edgeware BESS Project Limited Partnership and EDP Renewables Canada Ltd., to support the environmental and permitting process for the proposed Edgeware Battery Energy Storage System (BESS).

We have prepared the attached Terms of Reference for the Environmental Impact Study (EIS) for the project for your review.

Please let me know if you have any questions or comments.

Thank you,

Tara

--

Tara Livingstone B.Sc.
Terrestrial and Wetland Biologist
Natural Resource Solutions Inc.
Proudly Indigenous-owned
415 Phillip Street, Unit C
Waterloo, ON N2L 3X2
(p) 519-725-2227 (f) 519-725-2575
(w) www.nrsi.on.ca (e) tlivingstone@nrsi.on.ca
@nrsinews Natural Resource Solutions Inc.
Over 25 years of environmental consulting excellence

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mesma, por correio eletrónico, e apague este e-mail do seu sistema.

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From: LAURA BASHFORD
To: amy.gibson@ontario.ca
Cc: KENDRA KALLEVIG; NATHAN ROSCOE; DARREN CARL
Subject: Edgeware BESS - Request for Duty to Consult Assessment
Date: July 8, 2024 4:38:00 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
EDPR Edgeware BESS - First Nation and Metis Inquiry - Jul2024 - final.pdf
Edgeware Battery Storage Map.pdf
Edgeware BESS - Property Boundary.kmz

Good afternoon Ms. Gibson,

Please find attached a request for a Duty to Consult Assessment for EDP Renewables (EDPR) Edgeware Battery Storage Project. I'm also attaching a map of the project and a KMZ file of the property boundary.

Please let me know if you require any additional info. I can be reached at 289-200-4127.

Thanks,
Laura

Laura Bashford
Development
EDP Renewables Canada Ltd.
a 219 Dufferin Street, Suite 117C, Toronto, ON M6K 3J1
c 289.200.4127

Please reply during your own working hours and consider the environment before printing.

July 8, 2024

Amy Gibson, Manager
Energy Networks and Indigenous Policy Branch
Ministry of Energy and Electrification
Phone: 416.315.8641
Email: amy.gibson@ontario.ca

RE: Edgeware Battery Energy Storage Project – First Nations and Métis Inquiry

Dear Ms.Gibson:

EDP Renewables Canada Ltd. (EDPR) is developing the Edgeware Battery Storage Project (the ''Project''), which was selected by the IESO (Independent Electricity System Operator) for the IESO's Long-Term Request for Proposals (LT1 RFP).

The 75 MW (300 MWh) Project will occupy approximately 2 hectares of land located on the west side of Highbury Avenue and Edgeware Line, in the City of St. Thomas, Ontario (42,7995°; -81,151°). A map and KMZ of the Project area are attached. The project is proposing to connect to the adjacent 230 kV Hydro One Networks Inc. (HONI) W45LS circuit through a short interconnection line (approximately 100 m). The Project will connect by the means of line tap via a step-up transformer station, with necessary facilities required by HONI. Interconnection infrastructure and distances are subject to change based on the studies done as part of the IESO connection process and consultation with the relevant transmitter.

The Project Area consists primarily of fallow land and is surrounded by a mix of industrial and agricultural land, with one watercourse intersecting the southern edge of the Project Area. No wetlands or waterbodies were identified. Some meadowland, identified as old field meadows, was located in the northern and southern corners of the Project Area.

The work will consist of the installation of foundations, battery systems, electrical infrastructure, collector lines, access roads, and a fence. Excavation and foundation work will be similar to that of other electrical infrastructure such as substations. Foundations will be dug to a minimum frost depth around 1-2 m. The collector lines will be installed at a depth of 1-3 m by trenching. The Project will include a small laydown area that will be located within the Project area.

It is not expected that any tree clearing or disruption to natural features will be required for this Project. The Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) database does not identify any wetlands or woodlands within the Project area, nor are there any identified areas of confirmed or likely Significant Wildlife Habitat. The Project will conduct best management practices to avoid and/or minimize disruption to natural features.

The Project will be assessed via the Class Environmental Assessment for Transmission Facilities Screening Process, after which an Environmental Compliance Approval (ECA) for Sewage works will be obtained for the transformer. The Project will also be registered on the Environmental Activity and Sector Registry (EASR) for air emissions (Noise). Furthermore, the Project will obtain the required permits from the City of St. Thomas and, if necessary, the Conservation Authorities. Lastly, the Project will comply with all applicable legal and regulatory requirements.

The Project has an Indigenous Participation agreement with Caldwell First Nation. Caldwell First Nation (via Indigenous Holding Vehicle CFN St. Thomas Holding Ltd.) holds 50% equity participation. Additionally, EDPR has engaged with the Chippewas of the Thames First Nation (COFTTN).

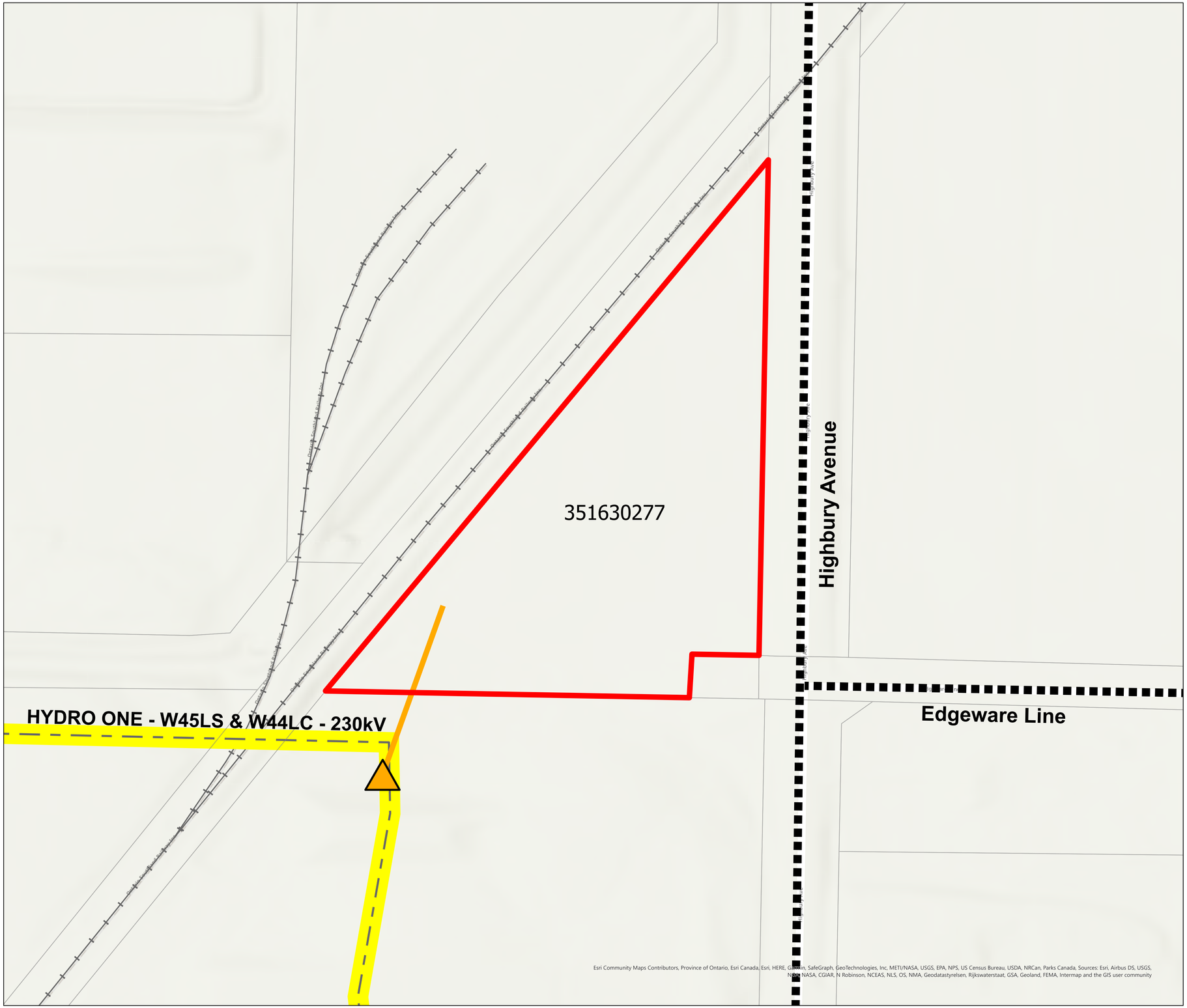
Please advise whether the Project will require Aboriginal and treaty rights consultation. If affirmative, please provide the comprehensive list of First Nation and/or Metis communities that must be consulted on the Project and indicate what level of consultation is required for each community. We would appreciate if the Crown could notify the communities that it has delegated the procedural aspects of consultation on the Project to EDPR.

EDPR recognizes that if, during public consultations, any First Nation or Métis community makes an assertion of a potential impact of the Project on its Aboriginal or treaty rights, the Crown will be notified with respect to any potential duty to consult and accommodate. EDPR is also aware of the need to be mindful of possible archaeological material in the area. For this reason, we would appreciate a map of the traditional territories and/ or culturally sensitive areas in that locale if this is available.

Sincerely,

Darren Carl
Associate Director of Development
darren.carl@edp.com
416.988.9198

Cc Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Laura Bashford (EDPR)



edp Renewables

EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

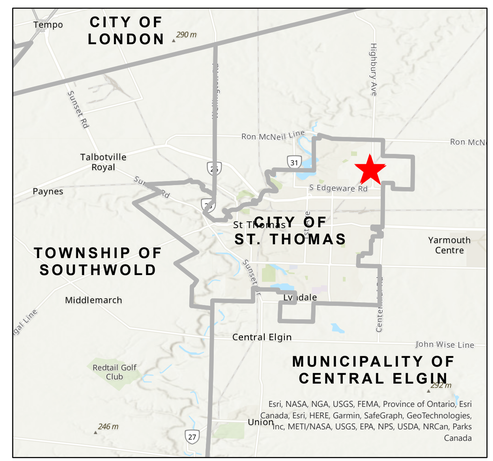
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 900

Legend

- Public Roads
- South Branch Battery Storage Project Land (Project Site)
- Land Parcels
- Connection Point
- Connection Line
- Existing Hydro One Transmission Line
- Railroads

N

0 0.02 0.05 0.1 Kilometres



November 2023
Note: Connection Line is approximate

From:	Gaboury, Bree-Anna (ENERGY)
To:	LAURA BASHFORD
Cc:	McCabe, Shannon (She/Her) (ENERGY); Gibson, Amy (ENERGY)
Subject:	Delegation Letter: Edgeware BESS Project
Date:	August 12, 2024 3:58:39 PM
Attachments:	image001.png Delegation Letter EDP Edgeware Battery Energy Storage Project-08122024.pdf

Good afternoon Laura,

Please find the attached letter of delegation from the Ministry of Energy and Electrification in relation to the Edgeware Battery Energy Storage System Project.

Please know that we will be notifying the Indigenous communities identified in this letter of the Crown's delegation within the next few days.

If you have any questions, please let us know.

Thank you and have a wonderful rest of the week,

Bree-Anna Gaboury

Bree-Anna Gaboury (she/her)
Policy Advisor| Indigenous Energy Policy Unit | Ontario Ministry of Energy and Electrification | Bree-Anna.Gaboury@Ontario.ca

Ontario

EVERY CHILD MATTERS

Ministry of Energy and Electrification

Energy Networks and Indigenous Policy Branch

Indigenous Energy Policy

77 Grenville Street, 6th Floor
Toronto, ON M7A 67C
Tel: (416) 315-8641

Ministère de l'Énergie et de l'Électrification

Direction Générale des Réseaux Énergétiques et des Politiques Autochtones

Politique Énergétique Autochtones

77 Rue Grenville, 6e Étage
Toronto, ON M7A 67C
Tel: (416) 315-8641

August 12, 2024 VIA EMAIL

Laura Bashford
Development
EDP Renewables Canada Ltd.
219 Dufferin Street, Suite 117C
Toronto, ON M6K 3J1
Email: laura.bashford@edp.com

Re: IESO Long-Term Request for Proposals (LT1 RFP) – EDP Renewables Canada Ltd. Edgeware Battery Energy Storage System Project – Delegation of Procedural Aspects of the Crown's Duty to Consult

Dear Laura Bashford,

Thank you for notifying the Ministry of Energy and Electrification (ENERGY) of EDP Renewables Canada Ltd.'s (EDP Renewables) Long-Term (LT1) Contract from the Independent Electricity System Operator (IESO) for the proposed Edgeware Battery Energy Storage System (the Project), and for providing information about the proposed Project.

We understand that EDP Renewables is proposing to develop a 75 MW Battery Energy Storage System in the City of St. Thomas (the Project). The Project will consist of the installation of foundations, battery systems, collector lines and access roads; and will connect to the electricity system via a step-up transformer station.

Duty to Consult with Indigenous Communities

The Government of Ontario (the Crown) has a constitutional duty to consult and, where appropriate, accommodate Indigenous communities when it has knowledge of established or credibly asserted Aboriginal or treaty rights protected under section 35 of Canada's *Constitution Act 1982* (s. 35 rights) and it contemplates conduct that might adversely those rights.

Although the legal duty to consult remains with the Crown, the Crown may delegate the procedural aspects of consultation to project proponents. The procedural aspects of the duty to consult are those portions of consultation related to the process of consultation, such as sharing information, holding meetings, and/or receiving comments from Indigenous communities. Project proponents are typically best positioned to speak to the specific planning, technical and environmental aspects of projects and, where appropriate, to consider

possible ways to address or mitigate any concerns raised by Indigenous communities about potential impacts of the project. The Crown remains responsible for the substantive aspects of consultation, such as providing oversight of the consultation process and for ensuring the adequacy of consultation with communities to whom the duty to consult is owed.

Based on ENERGY's review of the information provided by EDP Renewables with respect to the Project, including the nature and location of the Project and anticipated environmental effects, and the Crown's current understanding of established or credibly asserted s. 35 rights in the Project area, ENERGY has determined that the Crown may have a duty to consult with Indigenous communities in respect of the Project. Therefore, on behalf of the Crown, ENERGY is delegating through this letter the procedural aspects of any consultation owed in respect of the Project.

Delegation of Procedural Aspects of the Crown's Duty to Consult

On behalf of the Crown, ENERGY is delegating the procedural aspects of any consultation owed in respect of the Project to EDP Renewables through this letter.

Please see the appendix for detailed information on the respective roles and responsibilities of the Crown and EDP Renewables. You should seek guidance from ENERGY at any time if you are unclear about your roles and responsibilities.

Based on the Crown's assessment of established and credibly asserted s. 35 rights and potential Project impacts, EDP Renewables should consult with the following Indigenous communities:

Community	**Contact Information** *(Note: contact information is believed to be accurate, however, personnel may have changed)*
Aamjiwnaang First Nation	978 Tashmoo Ave. Sarnia, ON N7T 7H5 T: 519-336-8410 cjackson@aamjiwnaang.ca cobrien@aamjiwnaang.ca
Caldwell First Nation	14 Orange Street Leamington, ON N8H 1P5 T: (519) 322-1766 ecc@caldwellfirstnation.ca
Chippewas of the Thames First Nation	320 Chippewa Road Muncey, ON N0L 1Y0 T: (519) 289-5555 rsmith@cottfn.com
Chippewas of Kettle and Stony Point First Nation	6247 Indian Lane Lambton Shores, ON N0N 1J2 T: (519) 786-2125 consultation@kettlepoint.org Jessica.Wakefield@threefires.com

Oneida Nation of the Thames	2212 Elm Avenue, Southwold, ON N0L 2G0 T: (519) 652-3244 environment@oneida.on.ca
Walpole Island First Nation	117 Tahgahoning Rd Wallaceburg, ON N8A 4K9 T: (519) 627-1481 larissa.wrightman@wifn.org

This consultation list is subject to change based on new information becoming available or changes to the scope of the Project. For example, Indigenous communities may make new rights assertions at any time, and project-related developments may require additional Indigenous communities to be notified and/or consulted. A community may also indicate they are not interested in being consulted in respect of the Project. If any of the above should occur, EDP Renewables must notify ENERGY immediately so that updates to the consultation list can be made. We recommend that you contact the Crown if you are unsure about how to deal with a concern raised by an Indigenous community, particularly if the concern relates to a potential adverse impact on established or credibly asserted s.35 rights.

Indigenous Consultation Record

Please send your Indigenous Consultation Record, as described in the appendix, to me at shannon.mccabe@ontario.ca **at least 90 days** prior to the date you anticipate commencing, clearing, grading, or material alteration of the project site. This timeline is intended to provide ENERGY with sufficient time to review and understand any rights-based concerns raised and, where appropriate, for ENERGY to provide further direction to you on any additional consultation that should take place. Should you have any questions about the appropriate time to provide the Ministry with your Indigenous Consultation Record, please do not hesitate to contact ENERGY.

The consultation record will be used by the Ministry to assess the adequacy of rights-based consultation undertaken by EDP Renewables with potentially affected Indigenous communities.

Where the Crown's duty to consult may be triggered in relation to an Electricity Storage Facility subject to an IESO LT1 Contract, a proponent is prohibited from commencing or carrying out any clearing, grading or material alteration of the project site unless the proponent has provided to the IESO a copy of ENERGY's written confirmation of its satisfaction with any delegated procedural aspects of consultation undertaken by EDP Renewables (Letter of Sufficiency).

Acknowledgement

By accepting this letter, EDP Renewables acknowledges this Crown delegation and the procedural consultation responsibilities enumerated in the appendix.

I trust that this letter provides clarity and direction regarding the respective roles of the Crown and EDP Renewables. If you have any questions about this letter or require any additional information, please contact me directly.

Sincerely,

Shannon McCabe

Shannon McCabe
A/Manager, Strategic Indigenous Initiatives
Energy Networks and Indigenous Policy
Ontario Ministry of Energy and Electrification

C: Amy Gibson, Manager, Indigenous Energy Policy, Ministry of Energy and Electrification

APPENDIX: ROLES AND RESPONSIBILITIES OF THE PROPONENT AND THE CROWN RELATED TO CONSULTATION WITH INDIGENOUS COMMUNITIES

Roles and Responsibilities Delegated to the Proponent (EDP Renewables)

The consultation process must maintain sufficient flexibility to respond to new information. Generally, your delegated roles and responsibilities include:

- providing notice(s) of and plain language information about the Project to the Indigenous communities identified in the letter above, with sufficient detail and at a stage(s) in the process that allows the communities to prepare their views on the Project and, if appropriate, for changes to be made to the Project. Project information may include:
    - a detailed description of the nature and scope of the Project, textual or otherwise;
    - a description of the Project location;
    - maps or other visuals showing the Project location and any other affected area(s);
    - information about the Project lands (e.g., whether the Project is on privately-owned or Crown lands);
    - the potential effects of the Project, including any negative effects from an environmental standpoint (e.g., effects on ecologically sensitive areas, water bodies, wetlands, forests or the habitat of species at risk and habitat corridors), or on established or credibly asserted s. 35 rights. Information on the severity, geographic scope and likely duration of Projects impacts may also be relevant to share;
    - a description of Project milestones and projected timing for the same (e.g., details about other provincial or federal approvals that may be required for the Project to proceed);
    - identification of any mechanisms to avoid, minimize or mitigate potential adverse impacts; and
    - any additional information that might be helpful to the community;
- indicating to Indigenous communities your contact information and availability to discuss the Project and consultation process in face-to-face or digital meetings (depending on the community's preference);
- providing a written request to Indigenous communities for their feedback on:
    - any potential adverse impacts on the community's established or credibly asserted s. 35 rights;
    - any suggested measures for avoiding, minimizing or mitigating potential adverse impacts; and
    - how information provided as part of the consultation process will be collected, stored, used, and shared;
- identifying a requested timeline for response(s) from the Indigenous community;
- following up, as necessary, with Indigenous communities to ensure they received Project notices and information and are aware of the opportunity to comment, raise questions or concerns and identify potential adverse impacts on their established or credibly asserted rights;

- If a community is unresponsive to efforts to notify and consult, you should nonetheless make attempts to update the community on the progress of the Project, the environmental assessment (if applicable) and any other regulatory approvals.

- bearing the reasonable costs associated with the procedural aspects of consultation (e.g., paying for meeting costs, making technical support available) and providing reasonable capacity funding to Indigenous communities to assist in their participation in the consultation process;
- considering and responding to comments and concerns raised by Indigenous communities and answering questions about the Project and its potential impacts on established or credibly asserted s. 35 rights;
    - If you are unclear about the nature of a concern raised by an Indigenous community, you should seek clarification and further details from the community, provide opportunities to listen to community concerns and discuss options, and clarify any issues that fall outside the scope of the consultation process. These steps should be taken to ensure that the consultation process is meaningful and that concerns are heard and, where possible, addressed;
- as appropriate, discussing and implementing changes to the Project in response to concerns raised by Indigenous communities;
    - This could include modifying the Project to avoid or minimize an impact on established or credibly asserted s. 35 right (e.g., altering the season when construction will occur to avoid interference with mating or migratory patterns of wildlife); and
- informing Indigenous communities about how their concerns were taken into consideration and whether the Project proposal was altered in response.

Consultation should occur throughout the duration of the Project, including project development and design, approvals, construction, operation and decommissioning. You should make all reasonable efforts to build positive relationships with all Indigenous communities potentially affected by the Project. You may wish to consider translating communications with communities into Indigenous languages, or other languages, where appropriate.

The Crown reserves the right to participate in the consultation process as it sees fit, including but not limited to providing further instructions to proponents that are delegated procedural aspects of consultation.

Indigenous Consultation Record

You are responsible for maintaining an Indigenous Consultation Record, which the Crown considers in determining whether consultation with Indigenous communities and any necessary accommodation is sufficient.

Your Indigenous Consultation Record should include records of all of your consultation activities with Indigenous communities (or any sub-contractors or consultants retained by the Proponent to support the procedural aspects of consultation undertaken by the Proponent, which, at a minimum includes:

- a list of the identified Indigenous communities that were contacted;

- details of all attempts to notify or contact the community regarding the Project, all interactions with and feedback from the community, and all efforts to respond to community concerns, including:
    - copies of correspondence (e.g., letters and electronic communications) sent and received;
    - any evidence that communications were distributed to, and received by, the Indigenous communities (e.g., courier slips);
    - written accounts, including dates and contact information, related to discussions with Indigenous communities (e.g., summaries or notes of phone calls or meetings, including where the meeting took place and who attended) and any related meeting documentation (e.g., meeting notices, agenda);
- responses and information provided by Indigenous communities, including in relation to:
    - established or credibly asserted s. 35 rights,
    - traditional lands, claims, or cultural heritage features; or
    - potential adverse impacts on such s. 35 rights, or sites of cultural significance (e.g., burial grounds, archaeological sites), and measures for avoiding, minimizing or mitigating those potential adverse impacts; and
- how comments or concerns were considered or addressed, including any changes made to the Project as a result of consultation, such as:
    - changing the Project scope or design;
    - changing the timing of proposed activities;
    - minimizing or altering the site footprint or location of the proposed activity; or
    - environmental monitoring.

If sub-contractors or consultants are retained by the Proponent to support the procedural aspects of consultation undertaken by the Proponent, Indigenous communities should be made aware of the sub-contractor or consultant's role and the Proponent should inform the Crown if any issues arise that concern established or assert s.35 rights.

As part of its supervisory role, the Crown may, at any time during the consultation and approvals stage of the Project, request records from the Proponent relating to consultations with Indigenous communities. Any records provided to the Crown will be subject to the *Freedom of Information and Protection of Privacy Act*. The records may be exempted from disclosure under section 15.1 (Relations with Aboriginal communities) of the Act. Additionally, please note that the information provided to the Crown may also be subject to disclosure where required under any other applicable laws or as part of litigation or other dispute resolution proceedings.

The nature of the contents of your consultation record should be shared at the onset with Indigenous communities and their permission for you sharing this information with the Crown should be obtained.

It is considered a best practice to share your consultation record with Indigenous communities prior to finalizing it to ensure it is a robust and accurate record of the consultation process.

Roles and responsibilities of the Crown

The roles and responsibilities of the Crown include:

- identifying, and updating as appropriate, the list of Indigenous communities to consult;
- notifying Indigenous communities that they have been identified for consultation and that the procedural aspects of consultation have been delegated to the Proponent;
- carrying out, from time to time, any necessary assessment of the extent of consultation or, where appropriate, accommodation, required;
- supervising the aspects of the consultation process delegated to the Proponent; and
- determining the sufficiency of consultation and, where appropriate, accommodation of Indigenous communities.

If the Crown considers that there are outstanding issues related to consultation, the Crown may undertake additional consultation with Indigenous communities, which could result in delays to the Project.

August 19th, 2024

Chief Chris Plain
Aamjiwnaang First Nation
978 Tashmoo Ave.
Sarnia, ON N7T 7H5

Re: Edgeware Battery Energy Storage Project – Consultation Request

Dear Chief Chris Plain,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a privately-owned 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

The Project will include the construction of battery energy storage units, a transformer station, transmission connection facilities, and ancillary components. It will connect to an adjacent 230 kV Hydro One Networks Inc. (HONI) circuit through a short interconnection line (approximately 100 m). It will ultimately provide a maximum of 75 megawatts (MW) of energy storage and up to four consecutive hours (300 MWh) of electricity output available during periods of high electricity grid demand.

The Project area consists primarily of fallow land and is surrounded by a mix of industrial and agricultural land, with one watercourse intersecting the southern edge of the Project Area. No wetlands or waterbodies were identified. Some meadowland, identified as old field meadows, was located in the northern and southern corners of the Project Area. It is not expected that any trees or disruption to natural features would be required for this Project.

The property has been assessed to have limited or no heritage value for Built Heritage Resources (BHRs) and Cultural Heritage Landscapes (CHLs). Archaeological assessments for which you have been provided an opportunity to participate in are planned for September 2024.

The Project will be assessed through the Class Environmental Assessment for Transmission Facilities Screening Process, after which an Environmental Compliance Approval (ECA) for sewage works will be obtained for the transformer. The Project will also be registered on the Environmental Activity and Sector Registry (EASR) for air emissions. Furthermore, the Project will obtain the required permits from the City of St. Thomas and, if necessary, the Kettle Creek Conservation Authority. Lastly, the Project will comply with all applicable legal and regulatory requirements.

The Notice of Commencement of a Class Environmental Assessment for Transmission Facilities will be published shortly, and the Screening Process will be ongoing until the end of 2024. The permits necessary for construction and operation of the Project will be obtained prior to the start of construction in summer 2026.

EDP Renewables Canada Ltd.
219 Dufferin Street, Unit 117C
Toronto, Ontario M6K 3J1
T: 416.479.3736 | F: 416.502.1706

www.edpr.com/north-america

In its Duty to Consult, the Crown has notified you that it has delegated the procedural aspects of consultation on the Project to EDPR. You are therefore invited to participate in the Screening Process by providing inputs regarding any potential adverse impacts on your community's established or credibly asserted s. 35 rights, and any suggested measures for avoiding, minimizing or mitigating potential adverse impacts.[1]

To provide comments or to request additional project information, please contact Laura Bashford (laura.bashford@edp.com) or Nathan Roscoe (nathan.roscoe@edp.com).

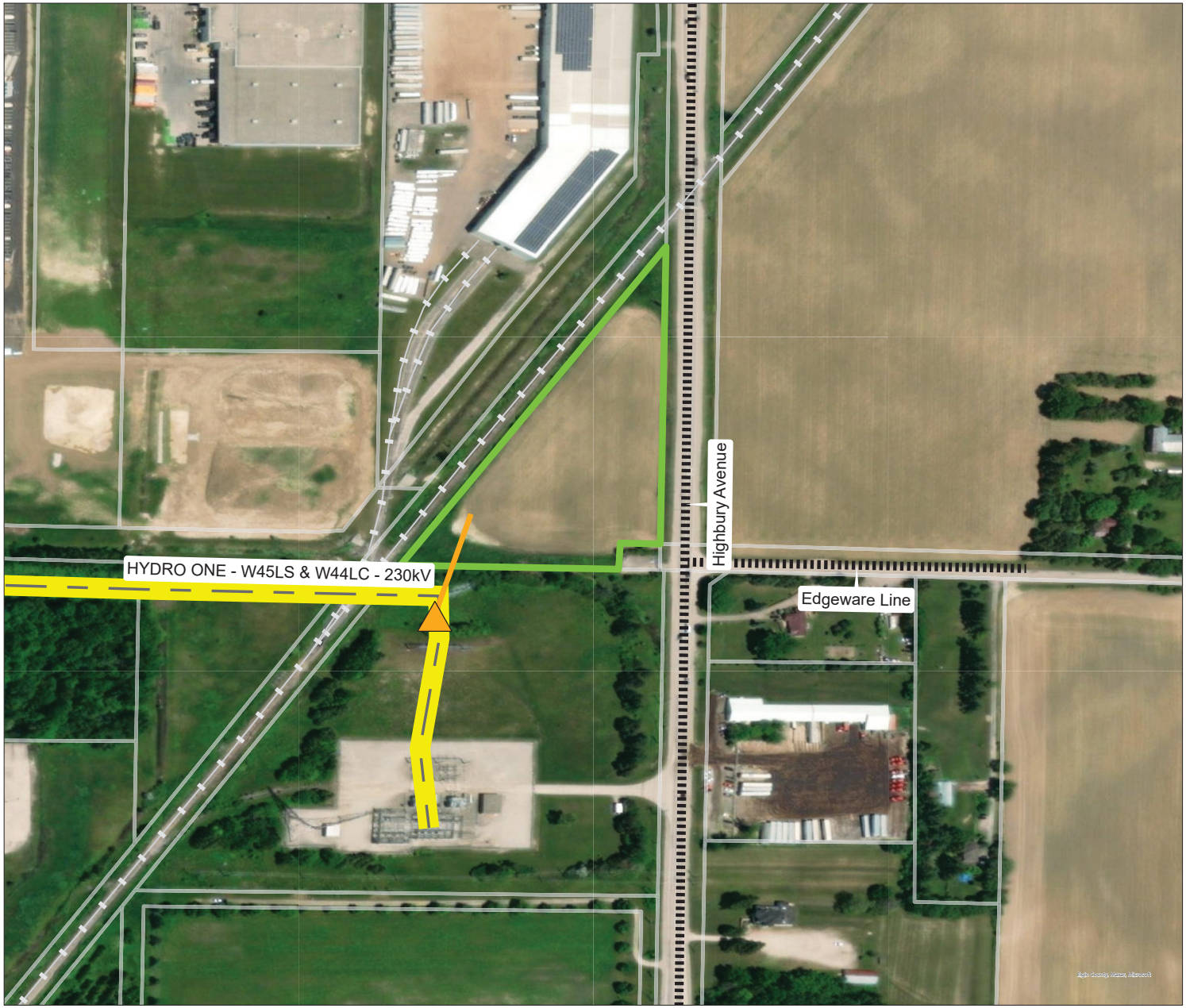
EDPR would also welcome the opportunity to meet with representatives of your community to share information, respond to questions, and identify further engagement opportunities.

Sincerely,
Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Harrison Plain, Cathleen O'Brien, Courtney Jackson, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)

[1] All personal information included in your request – such as name, address, telephone number and property location – is collected, under the authority of Section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As the information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment, Conservation and Parks' Freedom of Information and Privacy Coordinator at foi.mecp@ontario.ca.



EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

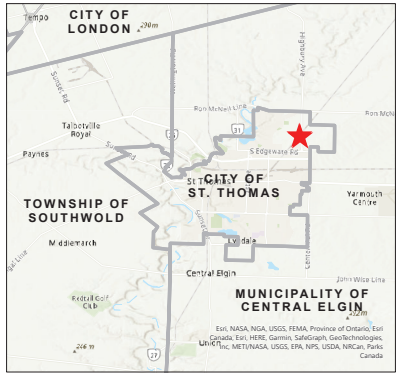
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

Legend

- Connection Point
- Connection Line
- Existing Hydro One Transmission Line
- Railroads
- Public Roads
- Battery Storage Project Land (Project Site)
- Land Parcels

N

0 25 50 100
Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Mary Duckworth
Caldwell First Nation
14 Orange Street,
Leamington, ON N8H 1P5

Re: Edgeware Battery Energy Storage Project – Consultation Request

Dear Chief Mary Duckworth,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a privately-owned 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

The Project will include the construction of battery energy storage units, a transformer station, transmission connection facilities, and ancillary components. It will connect to an adjacent 230 kV Hydro One Networks Inc. (HONI) circuit through a short interconnection line (approximately 100 m). It will ultimately provide a maximum of 75 megawatts (MW) of energy storage and up to four consecutive hours (300 MWh) of electricity output available during periods of high electricity grid demand.

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The Project will be assessed through the Class Environmental Assessment for Transmission Facilities Screening Process, after which an Environmental Compliance Approval (ECA) for sewage works will be obtained for the transformer. The Project will also be registered on the Environmental Activity and Sector Registry (EASR) for air emissions. Furthermore, the Project will obtain the required permits from the City of St. Thomas and, if necessary, the Kettle Creek Conservation Authority. Lastly, the Project will comply with all applicable legal and regulatory requirements.

The Notice of Commencement of a Class Environmental Assessment for Transmission Facilities will be published shortly, and the Screening Process will be ongoing until the end of 2024. The permits necessary for construction and operation of the Project will be obtained prior to the start of construction in summer 2026.

EDP Renewables Canada Ltd.
219 Dufferin Street, Unit 117C
Toronto, Ontario M6K 3J1
T: 416.479.3736 | F: 416.502.1706

www.edpr.com/north-america

In its Duty to Consult, the Crown has notified you that it has delegated the procedural aspects of consultation on the Project to EDPR. You are therefore invited to participate in the Screening Process by providing inputs regarding any potential adverse impacts on your community's established or credibly asserted s. 35 rights, and any suggested measures for avoiding, minimizing or mitigating potential adverse impacts.[1]

To provide comments or to request additional project information, please contact Laura Bashford (laura.bashford@edp.com) or Nathan Roscoe (nathan.roscoe@edp.com).

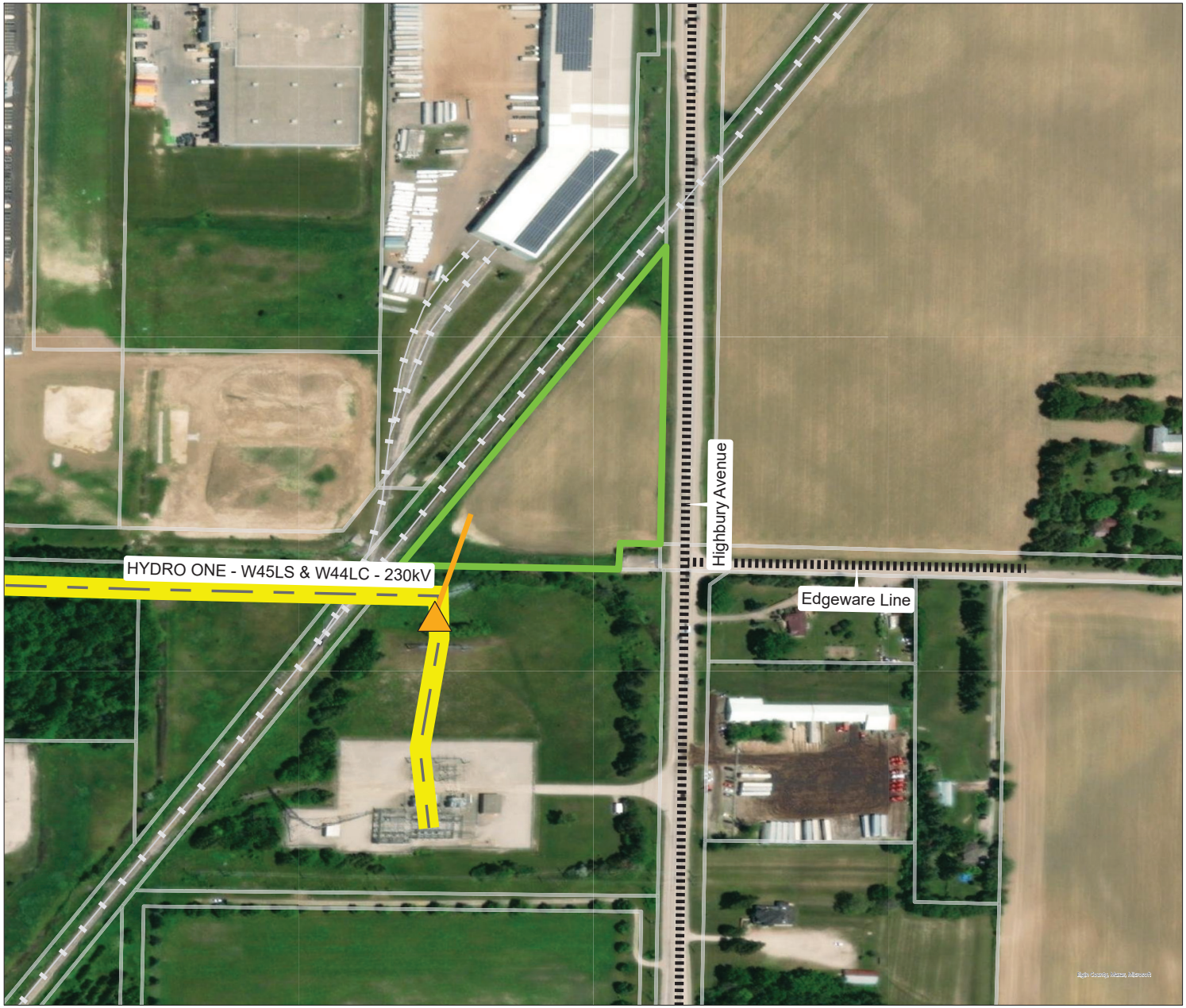
EDPR would also welcome the opportunity to meet with representatives of your community to share information, respond to questions, and identify further engagement opportunities.

Sincerely,
Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Michael McMaster, Allen Deleary, Zack Hamm, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)

[1] All personal information included in your request – such as name, address, telephone number and property location – is collected, under the authority of Section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As the information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment, Conservation and Parks' Freedom of Information and Privacy Coordinator at foi.mecp@ontario.ca.



EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

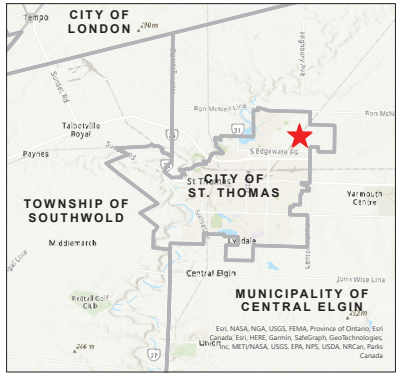
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

Legend

- Connection Point
- Connection Line
- Existing Hydro One Transmission Line
- Railroads
- Public Roads
- Battery Storage Project Land (Project Site)
- Land Parcels

N

0 25 50 100
Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Kimberly Bressette
Chippewas of Kettle and Stony Point First Nation
6247 Indian Lane,
Kettle and Stony Point FN, ON N0N 1J1

Re: Edgeware Battery Energy Storage Project – Consultation Request

Dear Chief Kimberly Bressette,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a privately-owned 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

The Project will include the construction of battery energy storage units, a transformer station, transmission connection facilities, and ancillary components. It will connect to an adjacent 230 kV Hydro One Networks Inc. (HONI) circuit through a short interconnection line (approximately 100 m). It will ultimately provide a maximum of 75 megawatts (MW) of energy storage and up to four consecutive hours (300 MWh) of electricity output available during periods of high electricity grid demand.

The Project area consists primarily of fallow land and is surrounded by a mix of industrial and agricultural land, with one watercourse intersecting the southern edge of the Project Area. No wetlands or waterbodies were identified. Some meadowland, identified as old field meadows, was located in the northern and southern corners of the Project Area. It is not expected that any trees or disruption to natural features would be required for this Project.

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The Project will be assessed through the Class Environmental Assessment for Transmission Facilities Screening Process, after which an Environmental Compliance Approval (ECA) for sewage works will be obtained for the transformer. The Project will also be registered on the Environmental Activity and Sector Registry (EASR) for air emissions. Furthermore, the Project will obtain the required permits from the City of St. Thomas and, if necessary, the Kettle Creek Conservation Authority. Lastly, the Project will comply with all applicable legal and regulatory requirements.

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EDP Renewables Canada Ltd.
219 Dufferin Street, Unit 117C
Toronto, Ontario M6K 3J1
T: 416.479.3736 | F: 416.502.1706

www.edpr.com/north-america

In its Duty to Consult, the Crown has notified you that it has delegated the procedural aspects of consultation on the Project to EDPR. You are therefore invited to participate in the Screening Process by providing inputs regarding any potential adverse impacts on your community's established or credibly asserted s. 35 rights, and any suggested measures for avoiding, minimizing or mitigating potential adverse impacts.[1]

To provide comments or to request additional project information, please contact Laura Bashford (laura.bashford@edp.com) or Nathan Roscoe (nathan.roscoe@edp.com).

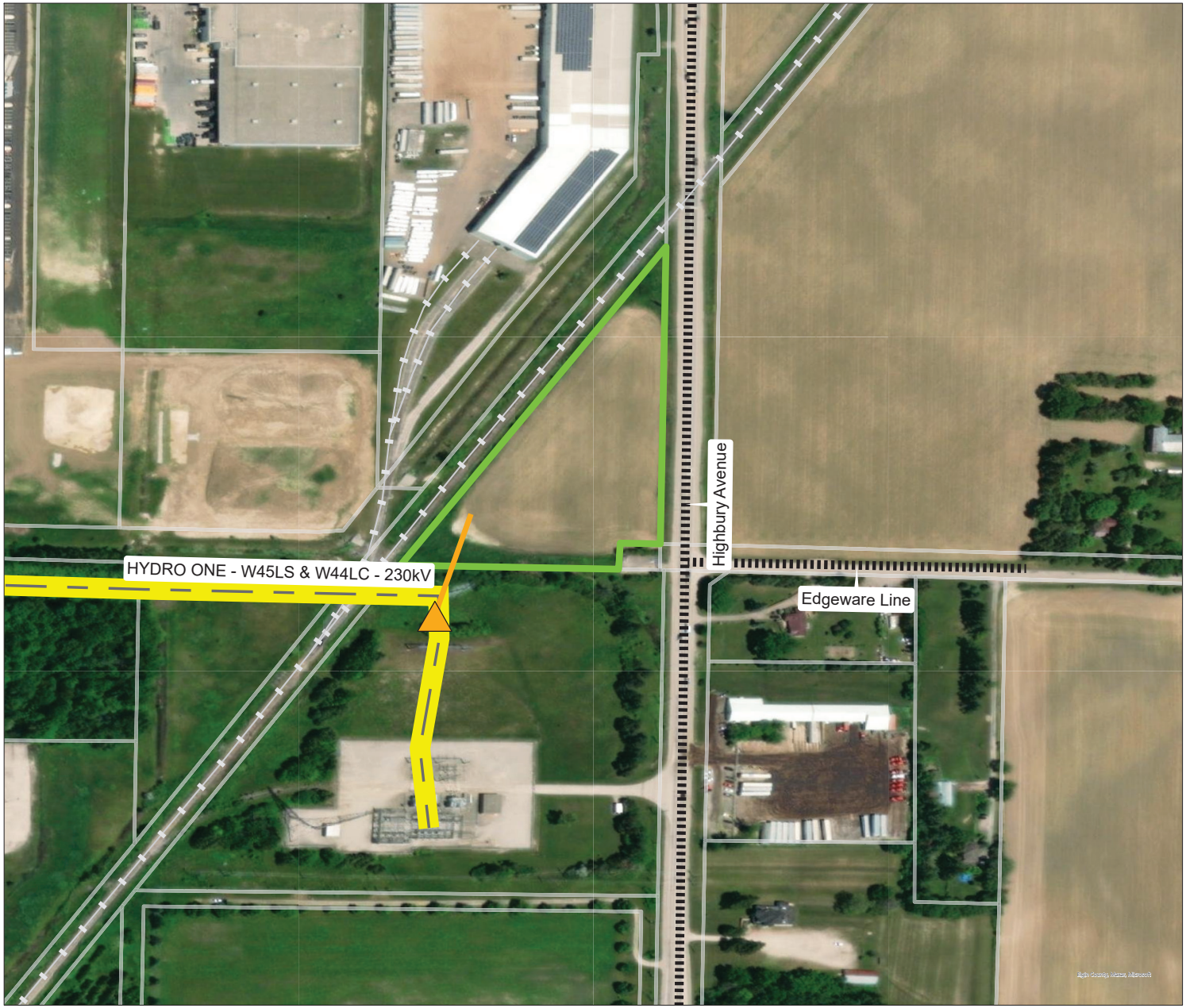
EDPR would also welcome the opportunity to meet with representatives of your community to share information, respond to questions, and identify further engagement opportunities.

Sincerely,
Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Corrinda Jackson, Chenoa Lunham, Jessica Wakefield, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)

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EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

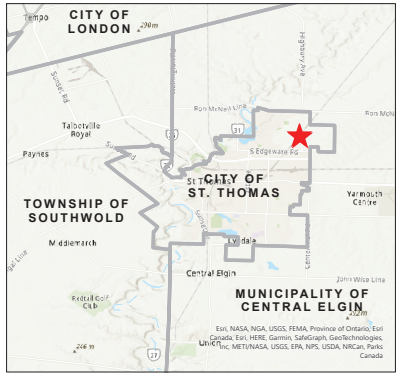
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

Legend

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- Battery Storage Project Land (Project Site)
- Land Parcels

N

0 25 50 100
Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Joe Miskokomon
Chippewas of the Thames First Nation
320 Chippewa Rd,
Muncey, ON N0L 1Y0

Re: Edgeware Battery Energy Storage Project – Consultation Request

Dear Chief Joe Miskokomon,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a privately-owned 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

The Project will include the construction of battery energy storage units, a transformer station, transmission connection facilities, and ancillary components. It will connect to an adjacent 230 kV Hydro One Networks Inc. (HONI) circuit through a short interconnection line (approximately 100 m). It will ultimately provide a maximum of 75 megawatts (MW) of energy storage and up to four consecutive hours (300 MWh) of electricity output available during periods of high electricity grid demand.

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Toronto, Ontario M6K 3J1
T: 416.479.3736 | F: 416.502.1706

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To provide comments or to request additional project information, please contact Laura Bashford (laura.bashford@edp.com) or Nathan Roscoe (nathan.roscoe@edp.com).

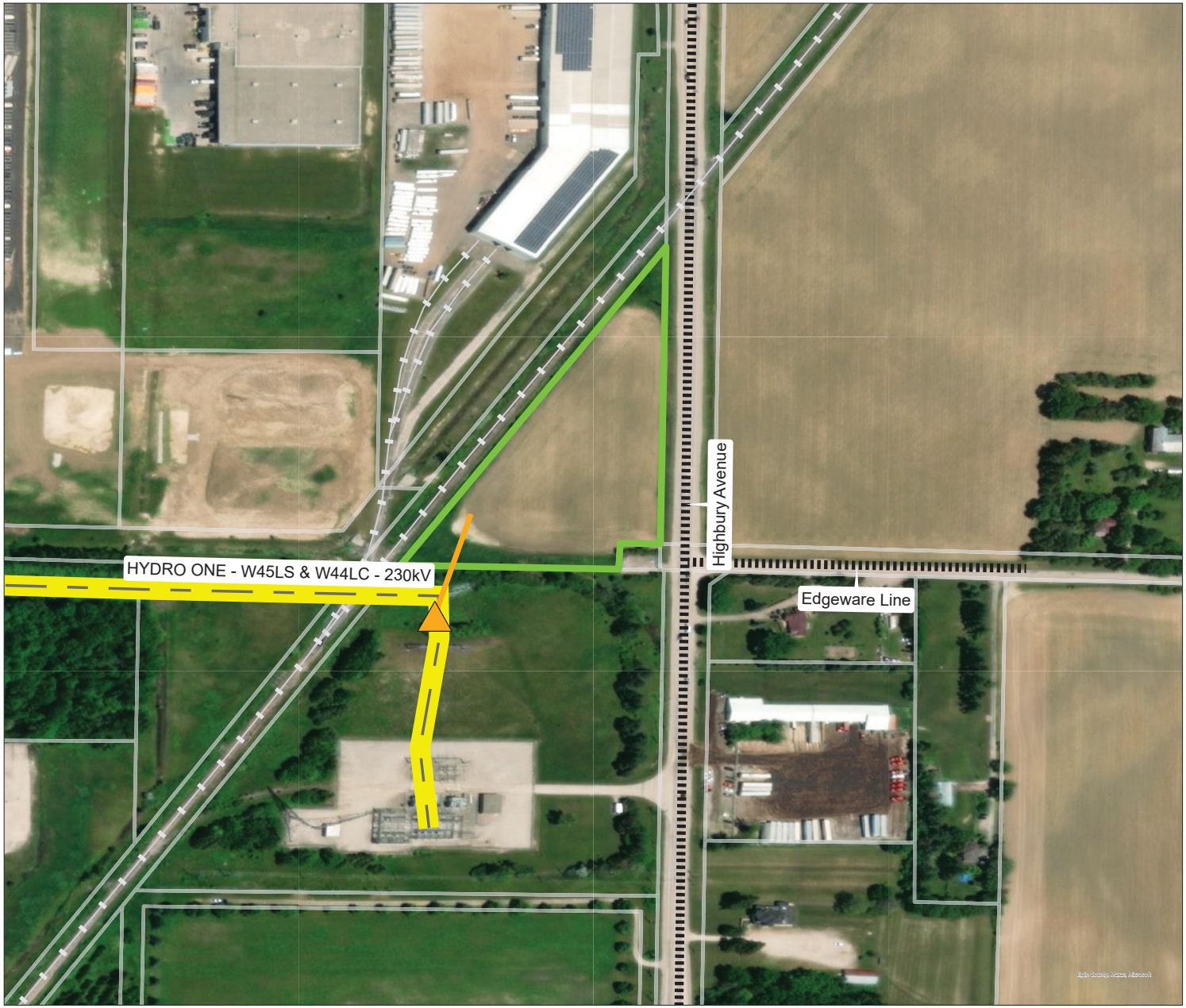
EDPR would also welcome the opportunity to meet with representatives of your community to share information, respond to questions, and identify further engagement opportunities.

Sincerely,
Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Emma Young, Fallon Burch, Jennifer Mills, Rochelle Smith, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)

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Edgeware Battery Storage Project

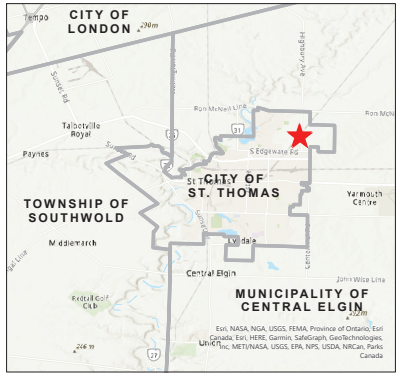
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

Legend

- Connection Point
- Connection Line
- Existing Hydro One Transmission Line
- Railroads
- Public Roads
- Battery Storage Project Land (Project Site)
- Land Parcels

N

0 25 50 100
Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Todd Cornelius
Oneida Nation of the Thames
2210 Elm Ave.,
Southwold, ON N0L 2G0

Re: Edgeware Battery Energy Storage Project – Consultation Request

Dear Chief Todd Cornelius,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a privately-owned 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

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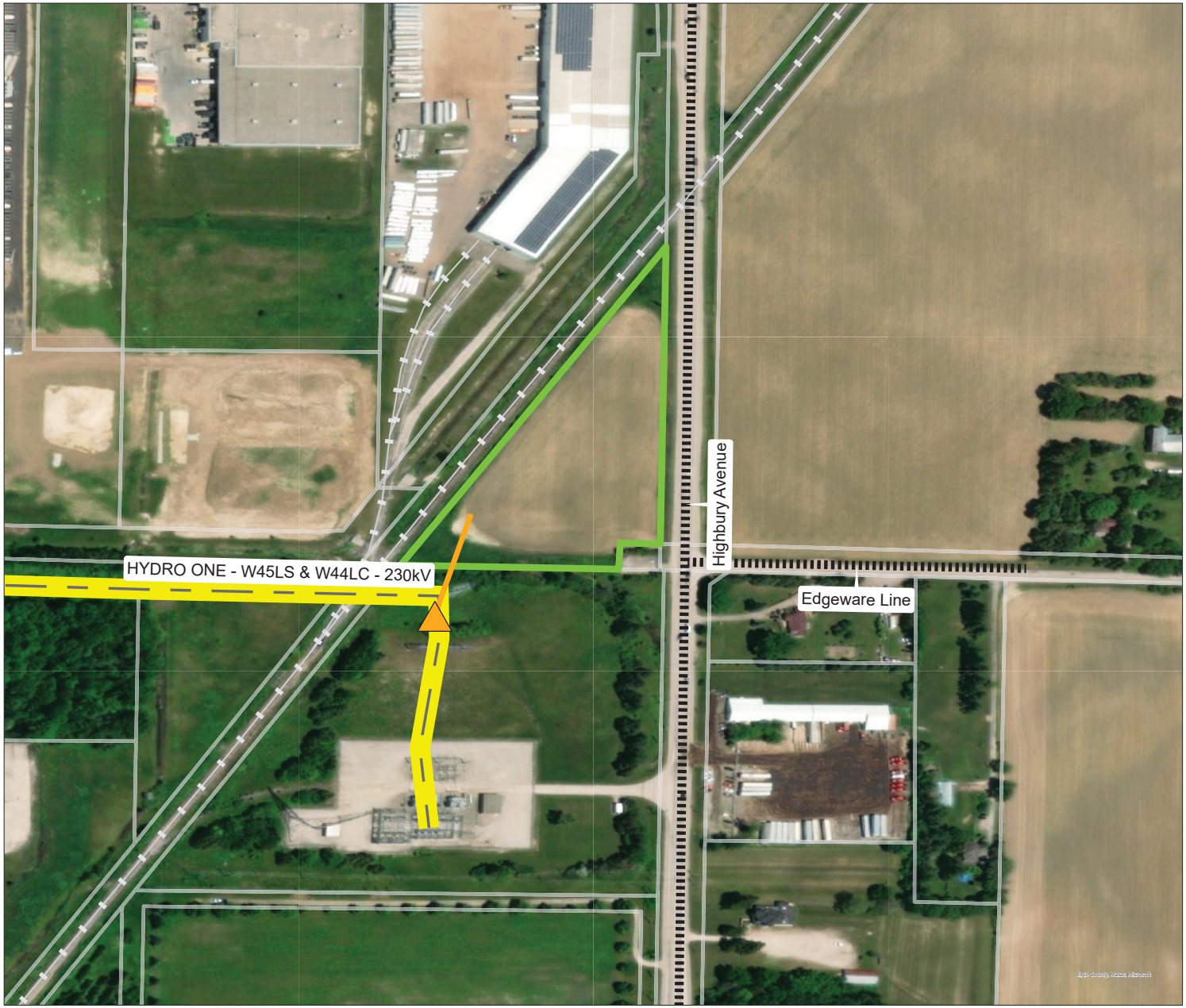
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Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Brandon Doxtator, Rosalind Antone, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)

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Edgeware Battery Storage Project

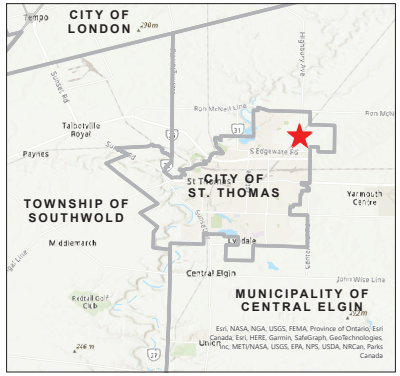
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

Legend

- Connection Point
- Connection Line
- Existing Hydro One Transmission Line
- Railroads
- Public Roads
- Battery Storage Project Land (Project Site)
- Land Parcels

N

0 25 50 100
Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Dan Miskokomon
Walpole Island First Nation (Bkejwanong Territory)
117 Tahgahoning Rd,
Wallaceburg, ON N8A 4K9

Re: Edgeware Battery Energy Storage Project – Consultation Request

Dear Chief Dan Miskokomon,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a privately-owned 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

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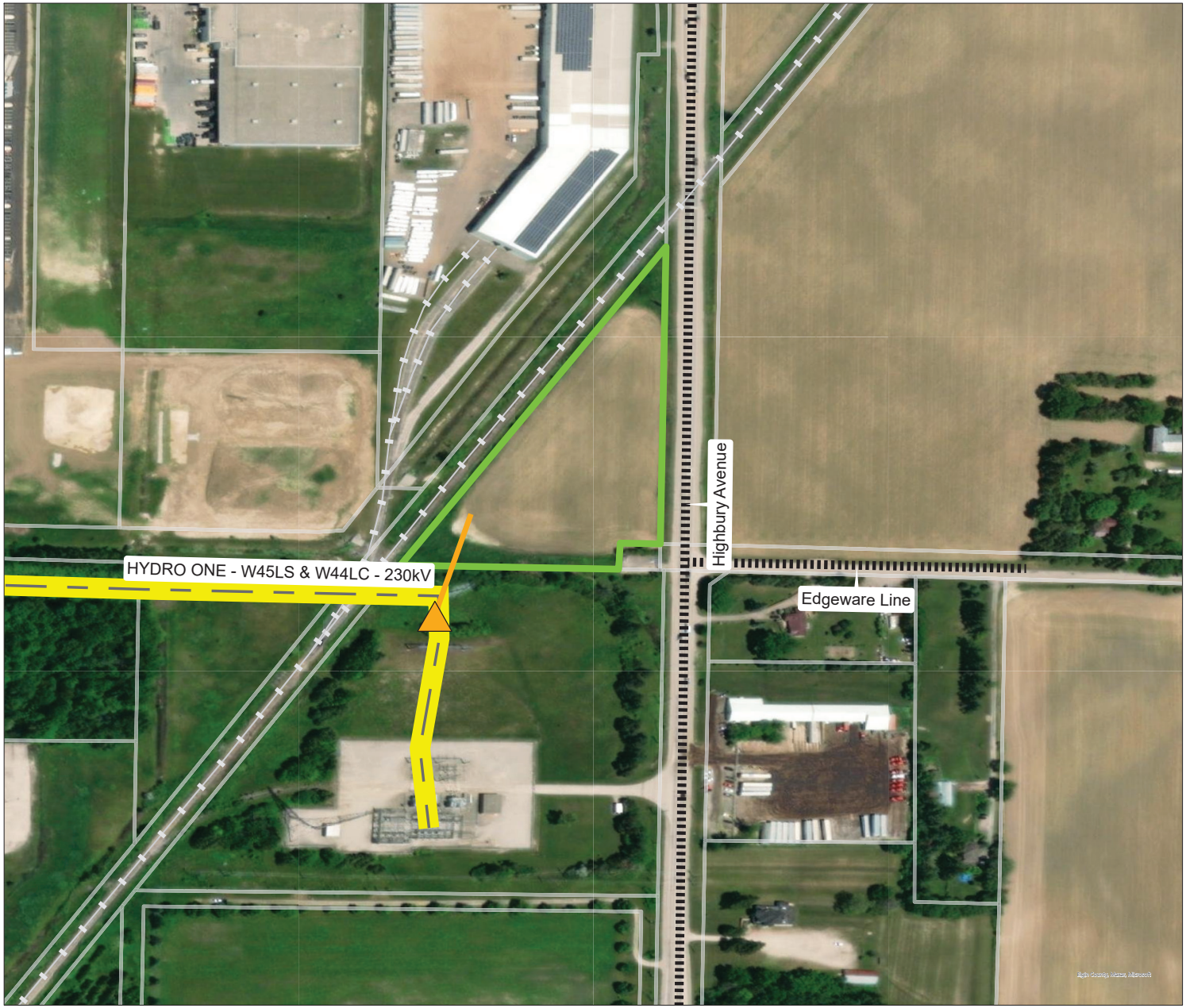
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Sincerely,
Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
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Cc: Lisa Williams, Larissa Wrightman, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)

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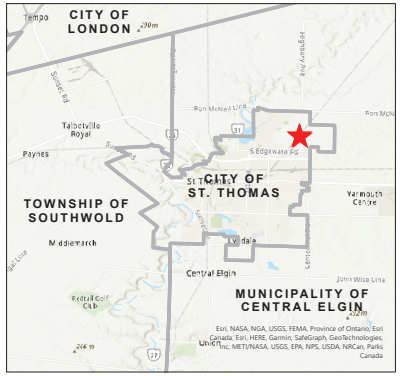
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

Legend

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- Land Parcels

N

0 25 50 100
Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Chris Plain
Aamjiwnaang First Nation
978 Tashmoo Ave.
Sarnia, ON N7T 7H5

Re: Edgeware Battery Energy Storage Project - Stage 2 and 3 Archaeological Assessments

Dear Chief Chris Plain,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

EDPR, through DNV, have hired True North Archaeological Services Inc. to undertake a Stage 2 and 3 Archaeological Assessments. The Stage 3 is for a site-specific assessment of AeHg-61 which has been registered as a short-term historic Euro-Canadian occupation dating to between 1840 and 1850. AeHg-61 was first documented and reported on in June of 1993 during a Stage 1 and 2 assessment of a larger study area. Based on the results of that assessment, a Stage 3 site specific assessment was recommended.

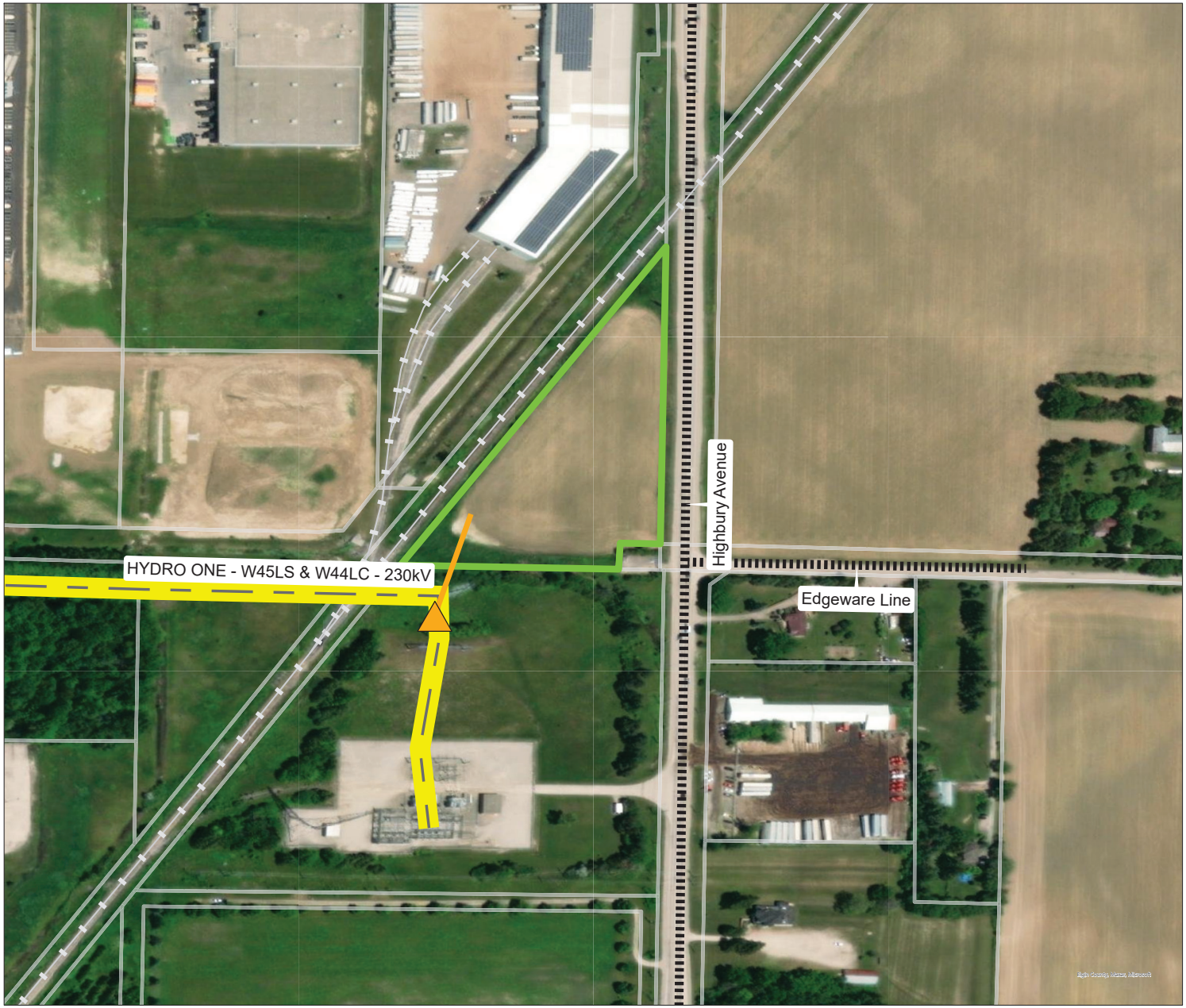
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EDPR would also welcome the opportunity to meet with representatives of your community to share information, respond to questions, and identify further engagement opportunities.

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Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Harrison Plain, Cathleen O’Brien, Courtney Jackson, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)



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Edgeware Battery Storage Project

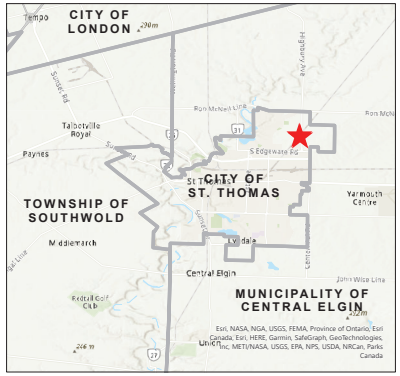
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- Land Parcels

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Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Mary Duckworth
Caldwell First Nation
14 Orange Street,
Leamington, ON N8H 1P5

Re: Edgeware Battery Energy Storage Project - Stage 2 and 3 Archaeological Assessments

Dear Chief Mary Duckworth,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

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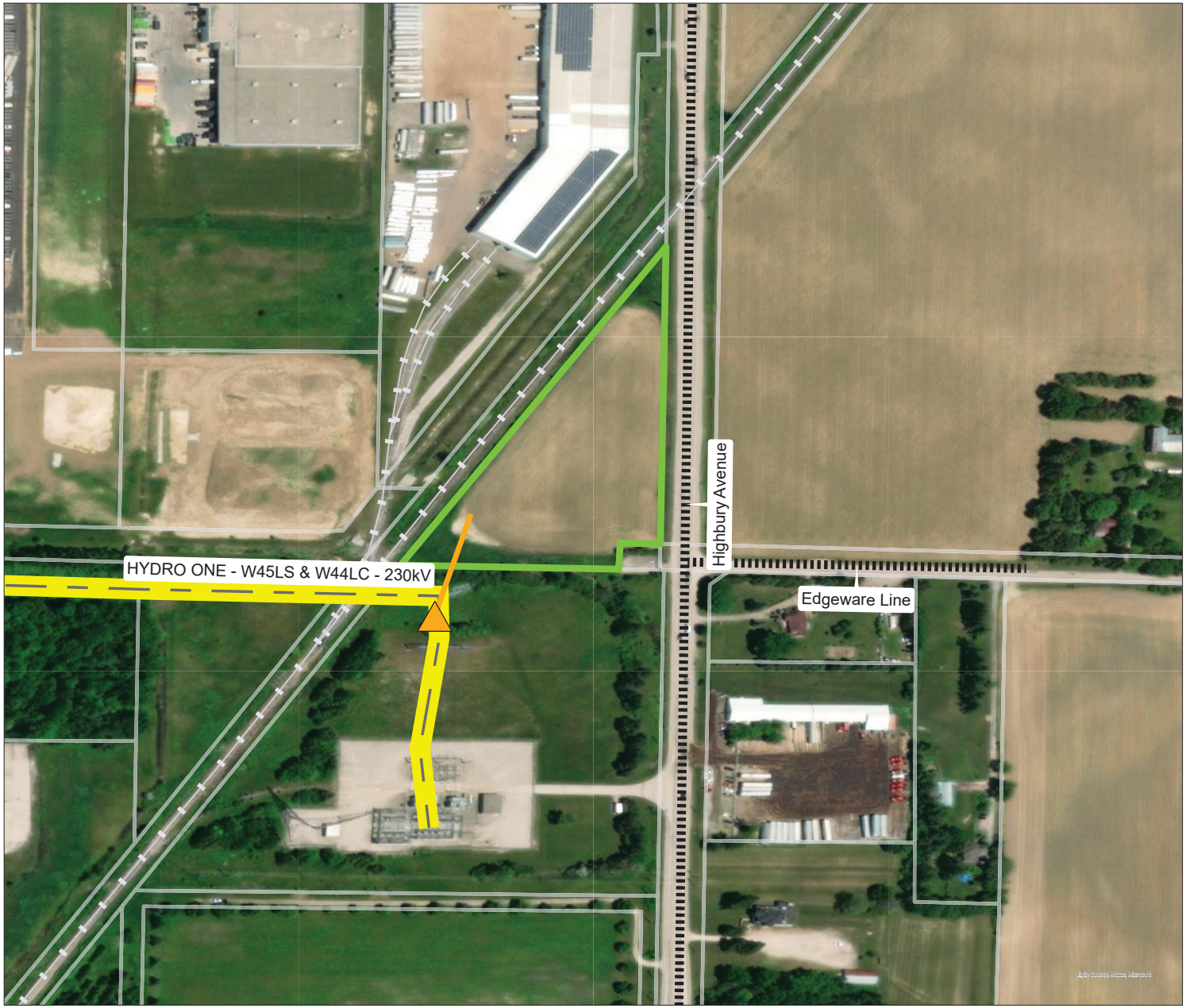
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Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Michael McMaster, Allen Deleary, Zack Hamm, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)



EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

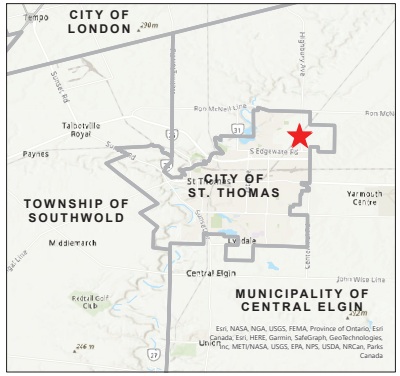
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Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Kimberly Bressette
Chippewas of Kettle and Stony Point First Nation
6247 Indian Lane,
Kettle and Stony Point FN, ON N0N 1J1

Re: Edgeware Battery Energy Storage Project - Stage 2 and 3 Archaeological Assessments

Dear Chief Kimberly Bressette,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

EDPR, through DNV, have hired True North Archaeological Services Inc. to undertake a Stage 2 and 3 Archaeological Assessments. The Stage 3 is for a site-specific assessment of AeHg-61 which has been registered as a short-term historic Euro-Canadian occupation dating to between 1840 and 1850. AeHg-61 was first documented and reported on in June of 1993 during a Stage 1 and 2 assessment of a larger study area. Based on the results of that assessment, a Stage 3 site specific assessment was recommended.

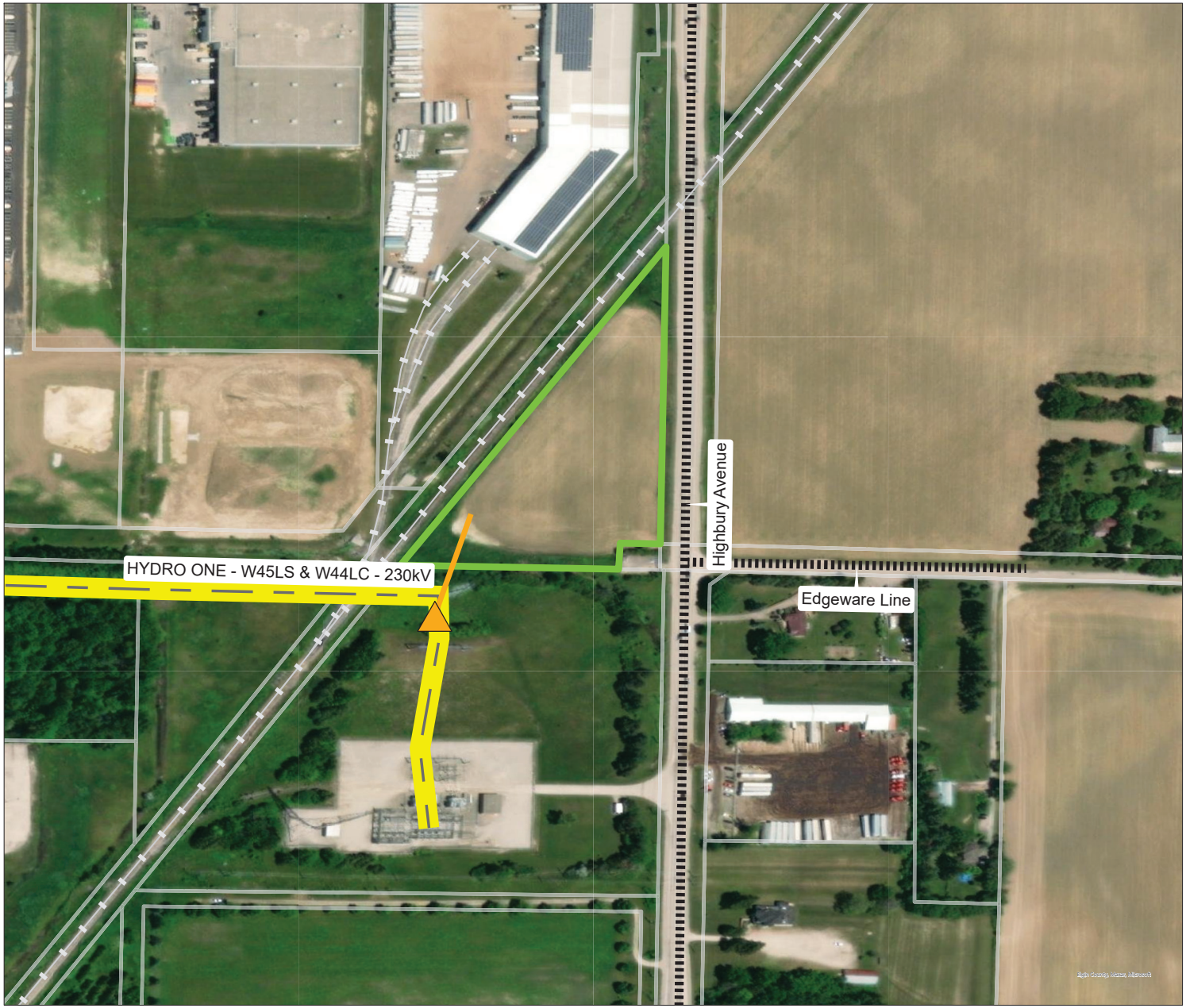
You are invited to participate in this process through an opportunity for input and involvement. To provide comments or to request additional project information, please contact Laura Bashford (laura.bashford@edp.com) and Nathan Roscoe (nathan.roscoe@edp.com). In order to allow time to coordinate initial project logistics, we request a response by August 30th, 2024. The Stage 2 and 3 Archaeological Assessments field work is scheduled to occur mid to late September 2024 during a single day.

EDPR would also welcome the opportunity to meet with representatives of your community to share information, respond to questions, and identify further engagement opportunities.

Sincerely,
Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Corrinda Jackson, Chenoa Lunham, Jessica Wakefield, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)



EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

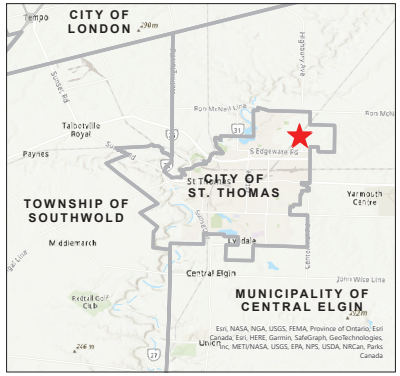
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

Legend

- Connection Point
- Connection Line
- Existing Hydro One Transmission Line
- Railroads
- Public Roads
- Battery Storage Project Land (Project Site)
- Land Parcels

N

0 25 50 100
Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Joe Miskokomon
Chippewas of the Thames First Nation
320 Chippewa Rd,
Muncey, ON N0L 1Y0

Re: Edgeware Battery Energy Storage Project - Stage 2 and 3 Archaeological Assessments

Dear Chief Joe Miskokomon,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

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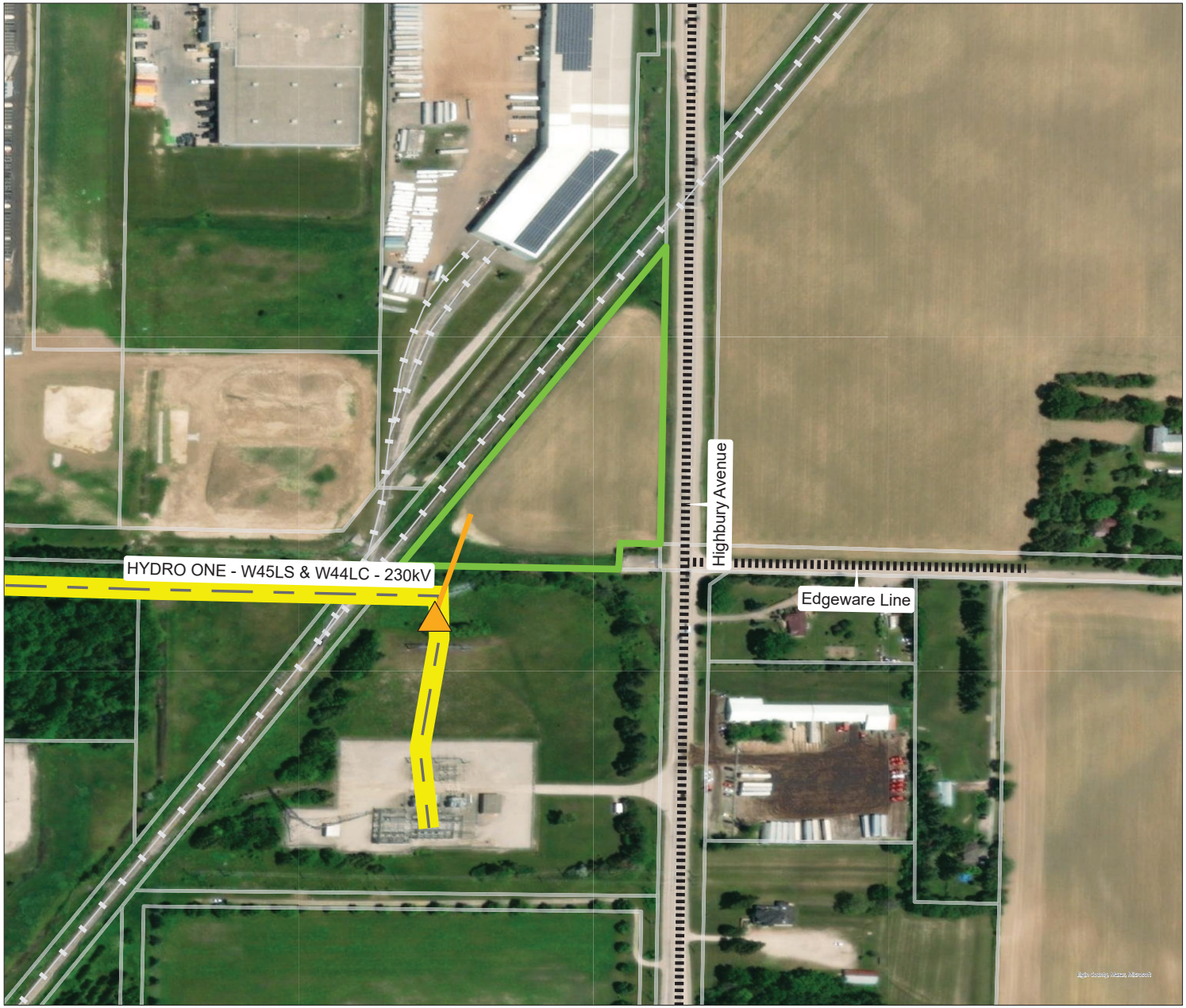
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EDPR would also welcome the opportunity to meet with representatives of your community to share information, respond to questions, and identify further engagement opportunities.

Sincerely,
Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Emma Young, Fallon Burch, Jennifer Mills, Rochelle Smith, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)



EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

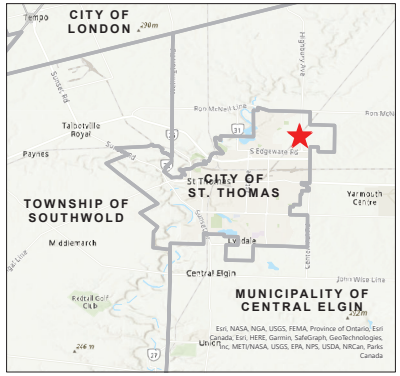
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0 25 50 100
Metres



November 2023
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August 19th, 2024

Chief Todd Cornelius
Oneida Nation of the Thames
2210 Elm Ave.,
Southwold, ON N0L 2G0

Re: Edgeware Battery Energy Storage Project - Stage 2 and 3 Archaeological Assessments

Dear Chief Todd Cornelius,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

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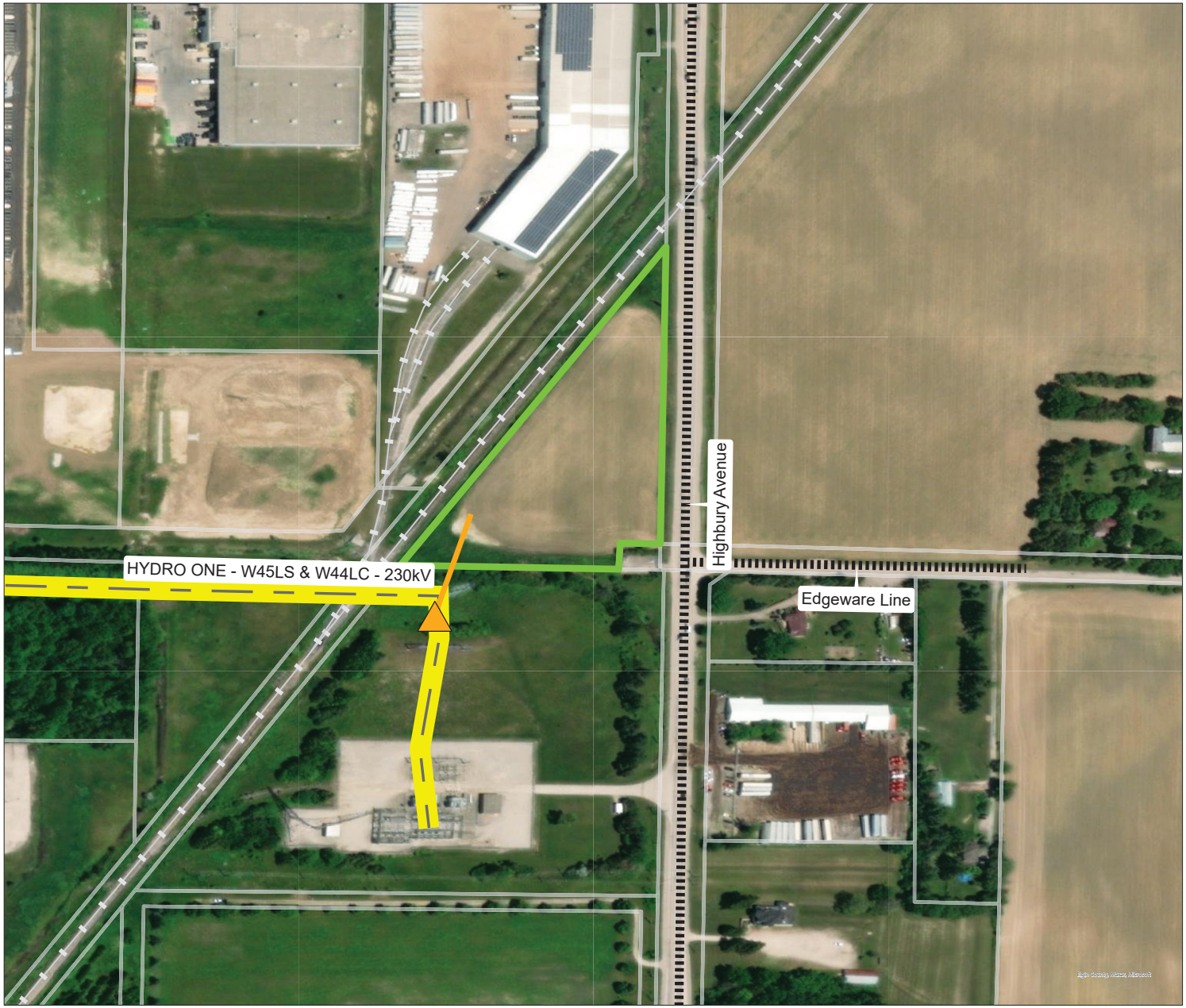
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Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Brandon Doxtator, Rosalind Antone, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)



EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

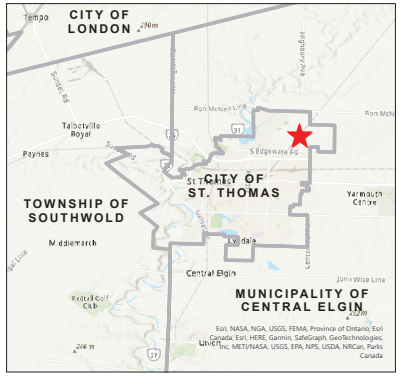
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Metres



November 2023
Note: Connection Line is approximate

August 19th, 2024

Chief Dan Miskokomon
Walpole Island First Nation (Bkejwanong Territory)
117 Tahgahoning Rd,
Wallaceburg, ON N8A 4K9

Re: Edgeware Battery Energy Storage Project - Stage 2 and 3 Archaeological Assessments

Dear Chief Dan Miskokomon,

This letter is being distributed to inform you that EDP Renewables (EDPR) is proposing to construct a Battery Energy Storage Facility (the Project) within the limits of the City of St. Thomas, Ontario. The Edgeware Battery Energy Storage Project (the ‘’Project’) is located on a 2-hectare parcel in the northwest corner of the intersection of Highbury Avenue South and Edgeware Line within Part Lot 8, Range 1 North of Edgeware Road, City of St. Thomas, Ontario. A map of the proposed project site is attached.

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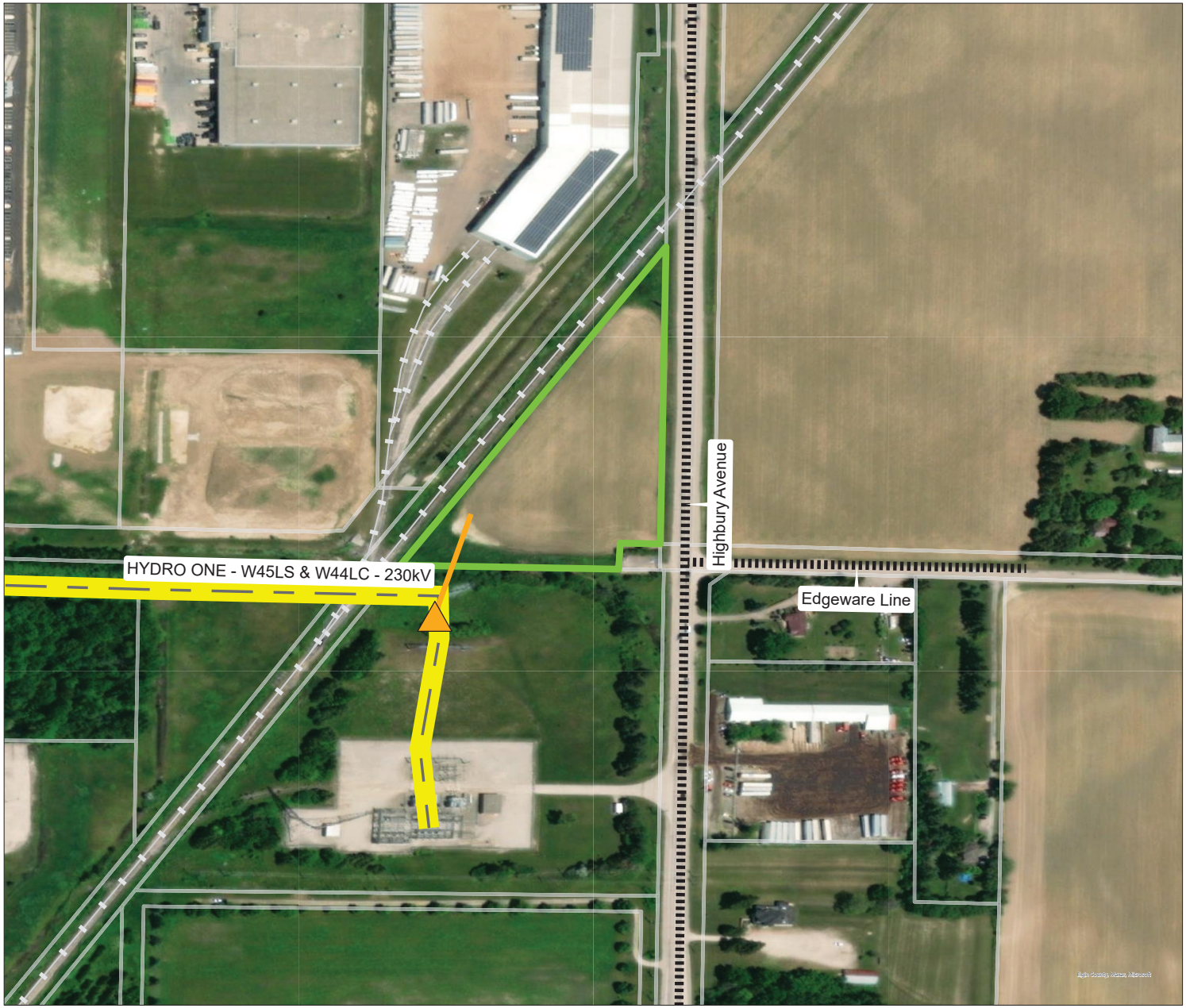
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Laura Bashford

Senior Project Developer
EDP Renewables Canada Ltd.
289.200.4127
laura.bashford@edp.com

Cc: Lisa Williams, Larissa Wrightman, Kendra Kallevig (EDPR), Nathan Roscoe (EDPR), Frédéric Gagnon (DNV), Gabriel Constantin (DNV)



EDP Renewables Canada Ltd.
Edgeware Battery Storage Project

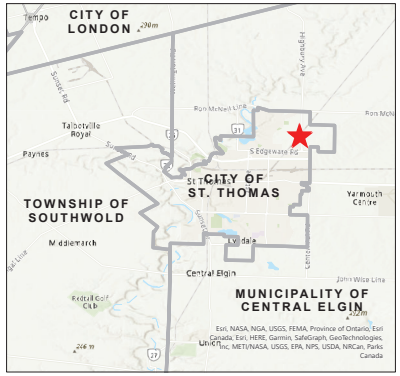
Proponent: Edgeware BESS Project Limited Partnership
Project Name: Edgeware Battery Storage Project
Capacity: Up to 75MW
Location: City of St. Thomas, Ontario
Map Scale: 1: 1,500

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0 25 50 100
Metres



November 2023
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RECORD OF ENGAGEMENT

Stage 1 to 4 Archaeological Assessments

Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario

Submitted to:

DNV
70 Richmond Street East, Suite 201
Toronto, Ontario
M5C 1N8

Submitted by:

True North Archaeological Services Inc.
2D-220 Terence Matthews Crescent, Ottawa, Ontario, K2M 0E2

TNAS Project Number: 2024022

11 March 2026

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1.0 RECORD OF ENGAGEMENT: AAMJIWNAANG FIRST NATION 1
2.0 RECORD OF ENGAGEMENT: CALDWELL FIRST NATION 2
3.0 RECORD OF ENGAGEMENT: CHIPPEWAS OF KETTLE AND STONY POINT FIRST NATION 3
4.0 RECORD OF ENGAGEMENT: CHIPPEWAS OF THE THAMES FIRST NATION .. 4

1.0 RECORD OF ENGAGEMENT: AAMJIWNAANG FIRST NATION

From: Bradley Drouin
To: ttms.maness@gmail.com; cjackson@aamjiwnaang.ca
Cc: Constantin, Gabriel; Gagnon, Frédéric; Tara Livingstone
Subject: Edgeware BESS - Archaeology and aquatic survey
Date: Tuesday, September 10, 2024 1:09:00 PM
Attachments: image001.png

Hi Courtney and Wanda,

It was a pleasure meeting you both on Friday. Following up on that conversation, Wanda, I was wondering if you'd able to send the monitoring agreement that you had mentioned? It'd be nice to get that sorted in advance of the planned archaeological fieldwork start (anticipating Sept. 23).

On Friday's call, interest was expressed in participating in the upcoming aquatics survey that NSRI will be completing on site. It's my understanding that the NSRI team has tentatively planned that fieldwork around the same period as the archaeology scope (Sept. 23rd to Oct. 1). Please let us know if you'd like to have someone out with that team and if that timing is feasible. Alternatively, if participation isn't possible, the draft report can be sent for review and comment. I've cc'd Tara from the NSRI team who can provide additional information if needed.

In terms of the monitoring agreement, would it be possible to have an overarching agreement to capture all engagement activities (archaeology, aquatics, review/input) or would you prefer to have task specific agreements set up?

Please let me know who else I should be cc'ing from your team on project communications.

Happy to have a call to talk through the details if that's easier.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com



From:	Bradley Drouin
To:	"Wanda Maness"
Cc:	cjackson@aamjiwnaang.ca; NATHAN ROSCOE; LAURA BASHFORD; Constantin, Gabriel; Gagnon, Frédéric
Subject:	RE: Edgeware BESS - Archaeology and aquatic survey
Date:	Monday, September 16, 2024 2:14:00 PM
Attachments:	image001.png AFN_Edgeware BESS Agreement TTMS_2024.pdf

Hi Wanda,

Thanks for your patience. Please find attached the completed and signed agreement. Once reviewed, if you see any edits, please let me know and I can make the changes.

As mentioned on the initial project call, our plan is to have our field team on site the morning of Monday 23 September 2024. I'll be sending out a detailed email tomorrow about meet locations, crew, PPE, etc.

I'm looking forward to working with you on this project.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Wanda Maness <ttms.maness@gmail.com>
Sent: Tuesday, September 10, 2024 3:26 PM
To: Bradley Drouin <brad@truenortharchaeology.com>
Subject: Re: Edgeware BESS - Archaeology and aquatic survey

Hi Bradley
attached is the agreement
Regards
Wanda Maness

On Tue, Sep 10, 2024 at 1:09 PM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hi Courtney and Wanda,
>
> It was a pleasure meeting you both on Friday. Following up on that conversation, Wanda, I was wondering if you'd able to send the monitoring agreement that you had mentioned? It'd

be nice to get that sorted in advance of the planned archaeological fieldwork start (anticipating Sept. 23).

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-Brad-

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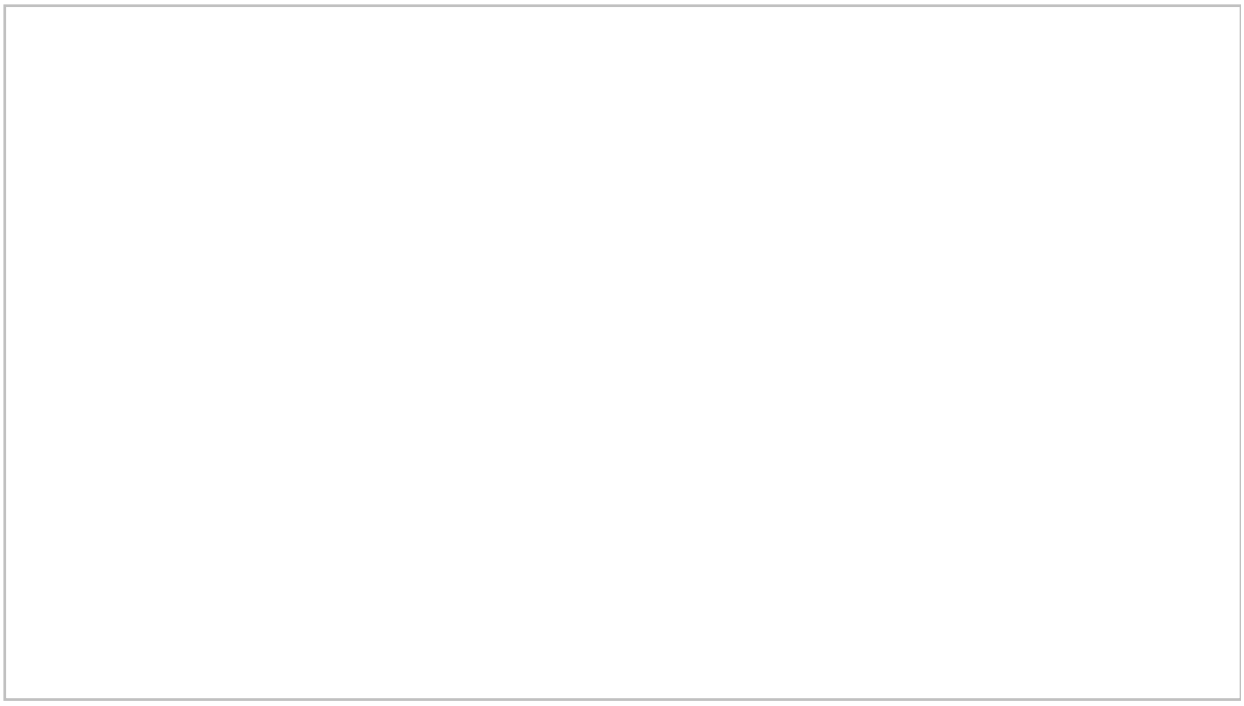
From: Bradley Drouin
To: Wanda Maness
Cc: cjackson@aamjiwnaang.ca; NATHAN ROSCOE; LAURA BASHFORD; Constantin, Gabriel; Gagnon, Frédéric
Subject: Edgeware BESS - upcoming Archaeology field programs - Stage 2 and 3
Date: Tuesday, September 17, 2024 8:05:00 AM
Attachments: image001.png
image002.png

Hello Wanda,

As noted, below are the details for the planned Stage 2 and 3 fieldwork for the Edgeware BESS Project located in St. Thomas, ON. Fieldwork is slated to begin on Monday 23 September 2024 and run through to approximately 2 October. Relevant details are below.

If you have any questions, please reach out.

Project Name	Edgeware BESS (Battery Energy Storage Site)
Start Date/Time:	23 September 2024 – 8:00am
Site/Meet Location:	120 Highbury Avenue South, St. Thomas. This address gets you to the approximate location. See screen shot below for exact location.
Duration:	9 consecutive days - 1 day for Stage 2, and 8 days for Stage 3
Daily work schedule	8:00 am to ~4:00/4:30 pm
Proponent:	EDP Renewables Canada Ltd.
Licensed Archaeologist:	Bradley Drouin (P311) 613-863-7811 brad@truenortharchaeology.com
Field Director	Gabby Belyea 343-987-1684 gabryell@truenortharchaeology.com
TNAS Crew:	Lydia Spooner, Kelly Berckmans, Julia Chebott and Brandon Calbeck
Scope of Work:	Stage 2 Pedestrian survey and shovel testing Stage 3 Unit Excavation of AeHg-1 a mid-nineteenth century historic homestead. Potential Stage 3 of secondary location, should it be required.
PPE:	CSA steel toe boots, safety vest and gloves.
Washrooms:	Porta-potty will be on site



Parking/muster point may change depending on confirmation of access.

Please reach out if you have any questions.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From: Wanda Maness
To: Bradley Drouin
Subject: Re: Edgeware BESS - Update and input
Date: Tuesday, September 24, 2024 3:32:16 PM
Attachments: image001.png

Hi Bradley
the standard background will do for me
Regards
Wanda

On Tue, Sep 24, 2024 at 3:24 PM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hello Wanda and Courtney,
>
> I wanted to reach out to connect on a few items regarding the archaeology scope of the Edgeware BESS project. Once reviewed, if you prefer to set up a call to discuss, I'd be happy to do so.
>
> 1. In preparation for completing the Stage 1 background portion of the combined Stage 1 and 2, I was wondering if there was any information that you would like to have included.
>
> 2. Our team completed the majority of the Stage 2 yesterday. They re-located the historic scatter associated with AeHg-61 as well as the second historic scatter at the north end of the property. The second location is quite large so a detailed review of the artifact assemblage back at the lab will be required prior to determining next steps (e.g. Stage 3 or not). In addition to the historic scatters, the team identified some likely Pre-Contact Indigenous artifacts primarily in the southern portion of the study area. These too will need some additional review and input.
>
> 3. Given that Monday September 30th is National Day for Truth and Reconciliation there will be no archaeological fieldwork being undertaken. Work will resume on Tuesday October 1st (and we will be working on the weekend – 28th and 29th)
>
> If you'd like a call to discuss, please let me know and I can set something up.
>
> All the best,

-Brad-

Bradley Drouin, M.A.

Principal, Senior Archaeologist

True North Archaeological Services Inc.

Mobile: 613-863-7811

Email: brad@truenortharchaeology.com

57 Beaufort Drive

Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From: Wanda Maness
To: Bradley Drouin
Subject: Re: Edgeware BESS - Stage 2 and 3 Interim Update
Date: Thursday, October 10, 2024 1:26:41 PM
Attachments: image001.png

Hi Bradley
Week of Oct 15 work for TTMS
Regards
Wanda Maness

On Tue, Oct 8, 2024 at 9:19 AM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hi Courtney and Wanda,
>
> The following provides an update on the interim results of the Stage 2 and 3 archaeological field programs completed between September 23rd and October 2nd for the Edgeware BESS project.
>
> The Stage 2 pedestrian survey and shovel testing portion was completed on September 23rd and resulted in the identification and recovery of approximately 1,092 artifacts from 213 CSP (surface find) locations. Of those, 1,075 are historic and 17 are pre-contact Indigenous lithics. Map 1 provides a visual of the overall distribution of the respective artifact locations. As can be seen from the CSP results, there are two distinct cluster of historic artifacts: the original find location associated with AeHg-61 along the western boundary and a second cluster located in the northern corner of the study area. The pre-contact Indigenous lithics recovered from the site had one small cluster in the north consisting of 5 flakes within a 12m x 8m area with the remainder of the lithics more widely distributed across the study area. The lithic artifacts recovered consisted primarily of tertiary and secondary flake debitage with one flaked Late Woodland Projectile point (likely Daniels Triangular) and a possible ground stone point (Image 1). The ground stone point doesn't show typical use-wear from grinding or polishing so it may be a natural lithic that has a similar form to a projectile point. It has been retained as a point until a more detail review can be completed. Based on the Ministry of Citizenship and Multiculturalism's *Standards and Guidelines for Consultant Archaeologist*, the distribution of pre-contact Indigenous artifacts does not trigger a requirement for a Stage 3.
>
> Following completion of the Stage 2, the crew began the Stage 3 site specific assessment of AeHg-61. Work on this site was completed between September 24th and October 2nd and resulted in the excavation of 47 1m x 1m units and the recovery of approximately 2,330 artifacts (Map 2). Over the next week or two, the artifact assemblage will be washed and I'll be able to provide firmer artifact counts. In addition to the historic artifacts recovered, which cluster around the mid-19th century, a number of features were also identified. As a result, AeHg-61 will be recommended for Stage 4 through topsoil stripping and possible some hand excavation. However, prior to moving forward with developing the Stage 4

methodology for the historic component, the artifacts will be reviewed in detail to determine if there is a pre-contact Indigenous component that may require a different mitigation strategy. If that is the case, I will reach out to start discussions regarding preferred approaches.

With respect to the norther cluster of historic artifacts, and through discussions with the client, that area will be recommended for Stage 3 site specific assessment. Given that it's already getting late in the season, the client would like to move forward with the Stage 3 as soon as possible. I understand that there are internal review periods on your end but was hoping to begin the Stage 3 by the week of October 15th. Please let me know if this is too rushed and what other information you need.

If a call to go over the results in more detail is something of interest, please let me know and I can set something up where I can share my screen.

Respectfully,

-Brad-

Bradley Drouin, M.A.

Principal, Senior Archaeologist

True North Archaeological Services Inc.

Mobile: 613-863-7811

Email: brad@truenortharchaeology.com

57 Beaufort Drive

Ottawa, ON, K2L 2B9

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From:	Wanda Maness
To:	Bradley Drouin
Cc:	laura rogers
Subject:	Re: Edgeware BESS - Draft Stage 3 results for AeHg-61 - Stage 4 recommended
Date:	Monday, November 18, 2024 4:32:21 PM
Attachments:	image001.png

sounds good. Laura will be the monitor 519-312-0676, I cc'd her to this email. We'll be awaiting the start date and time.

Regards
Wanda

On Mon, Nov 18, 2024 at 6:30 AM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hello Wanda and Courtney,
>
> I wanted to provide the draft results of the AeHg-61 Stage 3 archaeological assessment completed between 25 September and 2 October 2024 for the Edgeware BESS project. The artifacts recovered during the Stage 3 assessment have now been washed with a cursory review completed. A total of approximately 2,335 artifacts were recovered with the majority (2,332) representing the historic occupation and 3 potential tertiary flakes also being recovered.
>
> The recovered historic material is primarily domestic in nature (plates, bowls, personal items, smoking pipes, etc.) with some structural elements (nails, small brick fragments and window glass). A large number of early decoration styles were observed: hand painted, industrial slip, and early transfer print. Additionally, ceramic pipe bowls were also recovered along with one gun flint. Given the nature of the observed assemblage, AeHg-61 appears to date to approximately the mid to late nineteenth century.
>
> In addition to the recovered artifacts, six likely features were also observed in the subsoil of the Stage 3 units. These were documented in the field as per Ministry Standards and Guidelines and covered before backfilling the respective units. Based on the results to date, AeHg-61 does meet the requirements for Stage 4 mitigation of development impacts. As the site is located within the middle of the planned Edgeware BESS development, avoidance and protection isn't an option. As such, we are recommending Stage 4 mitigation by mechanical topsoil removal.
>
> The proposed Stage 4 mitigation approach includes the mechanical topsoil removal (MTR) within the Stage 3 excavation limits of archaeological site AeHg-61 (Map 1), and the identification and hand excavation of exposed subsurface features considered to possess archaeological significance in accordance with the MCM *Standards and Guidelines for*

Consultant Archaeologists (2011). The Stage 4 MTR approach will be to mechanically remove the former ploughzone overlying the intact subsoil deposits to expose and delineate potential in-situ subsurface cultural features. The MTR component will employ heavy equipment (e.g., excavator) to pull soil away using a smooth bucket. All exposed subsoil surfaces will be cleaned by shovel or trowel following the MTR.

In accordance with the MCM *Standards and Guidelines for Consultant Archaeologists* (2011), each identified feature documented within the excavation area will be fully exposed and will be drawn to scale in plan view before a cross-section of each feature is hand excavated stratigraphically by lot, with the backdirt screened through 6 mm mesh. All artifacts recovered during the feature excavation will be bagged according to location and stratigraphic layer and the location of all archaeologically significant features will be mapped. A general field log will be maintained along with digital photographs of the Stage 4 archaeological mitigation.

This approach is based on Section 4.2.3 "*Excavation by mechanical topsoil removal (topsoil stripping)*" and Section 4.2.7 "*Site-specific requirements: 19th century domestic archaeological sites*" documented in the MCM *Standards and Guidelines for Consultant Archaeologists* (2011) and Section 7.2.2 "*Formulating the Strategy for Stage 4*" described in the *Draft Bulletin for the Archaeology of Rural Historical Farmsteads in Ontario* (2014) issued by the MCM.

The Stage 4 schedule is uncertain but EDP Renewables wishes to proceed towards the end of November 2024/beginning of December in order to have the archaeological reports and clearances received over the winter. Once you've had a chance to review the above information, please let me know if you have any questions and if the proposed schedule (being completed in 2024) is suitable.

All the best,

-Brad-

Bradley Drouin, M.A.

Principal, Senior Archaeologist

True North Archaeological Services Inc.

Mobile: 613-863-7811

Email: brad@truenortharchaeology.com

57 Beaufort Drive

Ottawa, ON, K2L 2B9

www.truenortharchaeology.com



From: Wanda Maness
To: Bradley Drouin
Cc: cjackson@aamjiwnaang.ca; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: Re: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 2 of 2
Date: Wednesday, March 5, 2025 12:24:58 PM
Attachments: image001.png

Looks good to me.
No comments from me
Regards
Wanda Maness

On Tue, Mar 4, 2025 at 8:41 AM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hi Courtney and Wanda,
>
> As noted in my previous email, attached is the Stage 3 Site Specific Assessment report for AeHg-61 located within the Edgeware BESS project area. Once reviewed, please let me know what edits or comments you may have.
>
> If schedules allow, please provide comments/edits by March 21st.
>
> All the best,
>
> -Brad-
>
> **Bradley Drouin, M.A.**
>
> **Principal, Senior Archaeologist**
>
> **True North Archaeological Services Inc.**
>
> **Mobile:** 613-863-7811
>
> **Email**: brad@truenortharchaeology.com

From: Bradley Drouin
Sent: Tuesday, March 4, 2025 8:37 AM
To: cjackson@aamjiwnaang.ca; Wanda Maness <ttms.maness@gmail.com>
Cc: NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Hi Courtney and Wanda,

I hope the winter has treated you both well. Please find attached the Draft Stage 1 and 2 archaeological assessment report for the Edgeware BESS Project for your review and comment.

As noted in correspondence from last year, we had identified two predominantly historic artifact scatters during the Stage 2 pedestrian survey and test pitting program – one in the south (AeHg-61) and one in the north (AeHg-142). Initially we had planned to undertake a Stage 3 for AeHg-142 but through a detailed review of the historical Lot information and artifact analysis, AeHg-142 was not recommended for Stage 3 as it primarily dates to the early 20th century.

Due to large file size, I'll send the Stage 3 Draft report covering AeHg-61 for your review and comment under separate cover. Due to the mid-nineteenth century date, AeHg-61 did meet the requirements for Stage 4 mitigation by topsoil stripping which we're hoping to complete as soon as field conditions allow. There were two Pre-Contact Indigenous flakes recovered during the Stage 3 assessment of AeHg-61. When combined with the Stage 2 results, the Indigenous component does not meet the MCM standards for additional assessment. Once the results are reviewed, I'd be happy to set up a time to discuss.

Depending on the weather over the next two to three weeks, we'd like to complete that 5-day Stage 4 field program sometime towards the end of March. Please let us know if this timing is suitable and whether you will have someone in the field with us? I can provide firm dates a bit closer to the time.

If you could provide comments March 21st that would be appreciated.

All the best,

-Brad-

Bradley Drouin, M.A.

Principal, Senior Archaeologist

True North Archaeological Services Inc.

Mobile: 613-863-7811

Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D

Ottawa, ON, K2M 0E2

www.truenortharchaeology.com



From: Wanda Maness
To: Bradley Drouin
Subject: Re: Edgeware BESS - Stage 4 - May 26th
Date: Saturday, May 17, 2025 4:57:07 PM
Attachments: image001.png

---

yes we would like to participate. Laura will be the monitor for this job. Her cell is 519-312-0676

Wanda

On Wed, May 14, 2025 at 1:38 PM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hi Wanda,
>
> We have everything now lined up for the Edgeware BESS Stage 4 for AeHg-61. As this is a historic farmstead site, the methodology will consist of topsoil removal followed by the documentation and investigation of any features identified in the subsoil.
>
> We are planning to be on site for 9am on Monday May 26th, 2025. Our crew will consist of four Archaeologists with fieldwork planned for roughly 4 – 5 days.
>
> Required PPE includes steel toed boots, high-vis vest and hard hat.
>
> There is an access road into site off the west side of Highbury Avenue but parking off of Edgeware Line is likely the best option.
>
> Attached is rough map showing the location of the site and general parking.
>
> Any questions, please let me know.
>
> -Brad-
>
> **Bradley Drouin, M.A.**
>
> **Principal, Senior Archaeologist**

True North Archaeological Services Inc.

Mobile: 613-863-7811

Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D

Ottawa, ON, K2M 0E2

www.truenortharchaeology.com



From:	Wanda Maness
To:	Bradley Drouin
Cc:	cjackson@aamjiwnaang.ca; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	Re: Edgeware BESS Draft Stage 4 AA - historic AeHg-61 Report
Date:	Wednesday, September 17, 2025 10:19:31 PM
Attachments:	image001.png

No comments from me.
Regards
Wanda Maness

On Wed, Sep 17, 2025 at 3:28 PM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hi Courtney and Wanda,
>
> I hope the summer has treated you well. Please find attached the Draft Stage 4 archaeological assessment report for AeHg-61 for the Edgeware BESS Project for your review and comment.
>
> I realize it's a quick turnaround, but having comments back by October 1st would be appreciated.
>
> All the best,
>
> -Brad-
>
> **Bradley Drouin, M.A.**
>
> **Principal, Senior Archaeologist**
>
> **True North Archaeological Services Inc.**
>
> **Mobile:** 613-863-7811
>
> **Email**: brad@truenortharchaeology.com
>
> 220 Terence Matthews Crescent, Unit 2D
>
> Ottawa, ON, K2M 0E2
>
> **www.truenortharchaeology.com**

2.0 RECORD OF ENGAGEMENT: CALDWELL FIRST NATION

From:	Bradley Drouin
To:	Michael McMaster
Cc:	Constantin, Gabriel; NATHAN ROSCOE; Gagnon, Frédéric; Oliver MacLaren; George Cholakis; LAURA BASHFORD; Natalya Garrod; Zack Hamm
Subject:	RE: Edgeware - Caldwell Payments
Date:	Monday, September 16, 2024 2:15:00 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png image007.png image008.png image009.png CFN_TRA 2024_Edgeware (1).pdf CFN_RPP 2024 FPA_Edgeware.pdf

---

HI Michael,

Thanks for taking my call this morning! As discussed, attached are the two completed and signed documents. Once reviewed, if you see any edits, please let me know and I can make the changes.

As mentioned, our plan is to have our field team on site the morning of Monday 23 September 2024. I'll be sending out a detailed email about meet locations, crew, PPE, etc.

I'm looking forward to working with you on this project.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From: Michael McMaster <ecd.assistant@caldwellfirstnation.ca>
Sent: Monday, September 16, 2024 8:30 AM
To: NATHAN ROSCOE <NATHAN.ROSCOE@edp.com>
Cc: Constantin, Gabriel <gabriel.constantin@dnv.com>; Bradley Drouin <brad@truenortharchaeology.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; Oliver

MacLaren <OMacLaren@oktlaw.com>; George Cholakis <ghcenergy@gmail.com>; LAURA BASHFORD <LAURA.BASHFORD@edp.com>; Natalya Garrod <natalya.garrod@caldwellfirstnation.ca>; Zack Hamm <ecd.manager@caldwellfirstnation.ca>
Subject: Re: Edgeware - Caldwell Payments

Nathan,
I just spoke with Brad about coordinating with his team for deployment, we are good to send someone for the beginning of field work.

Miigwech,

On Mon, Sep 16, 2024 at 9:09 AM NATHAN ROSCOE <NATHAN.ROSCOE@edp.com> wrote:

> Good morning Michael,
>
> I've included Brad Drouin who is our archaeological consultant for this project and Gab Constantin who is leading the permitting efforts for the project with DNV. We would ask that the archaeology agreement be through Brad's company and the technical review be through DNV. Brad will be in touch regarding the mobilization for field work.
>
> Very glad to hear you will be joining us on this effort,
>
> ---
>
> **Nathan Roscoe**
> EDPR
> PD - Canada - I
>
> 219 Dufferin Street, Unit 117C, Toronto, CA M6K 3J1, Canada
>
> ---
>
> *Please reply during your own working hours and consider the environment before* printing.
>
> **From:** Michael McMaster <ecd.assistant@caldwellfirstnation.ca>
> **Sent:** Monday, September 16, 2024 8:53 AM
> **To:** NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>
> **Cc:** Oliver MacLaren <OMacLaren@oktlaw.com>; George Cholakis <ghcenergy@gmail.com>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; Natalya Garrod <natalya.garrod@caldwellfirstnation.ca>; Zack Hamm

<ecd.manager@caldwellfirstnation.ca>
Subject: Re: Edgeware - Caldwell Payments

Good morning Nathan,

As per Zack's email, I've attached our standard Field Participation and Technical Review agreements for your review and signature. Please have the field director contact me with deployment details as soon as possible so I may schedule an FLR to join the team on site. If you have any questions, please do not hesitate to contact me.

On Fri, Sep 13, 2024 at 4:31 PM Zack Hamm <ecd.manager@caldwellfirstnation.ca> wrote:

> Good afternoon Nathan,
>
> Thanks for checking in. We can certainly have a project meeting sometime soon. I'll leave it with Natalya to schedule.
> Our department assistant, Michael, will be in touch with some agreements we use for field participation. CC'd him here.
>
> Best,
>
> Zack Hamm
> *Environment and Consultation Department Manager*
> *Environment and Consultation Department (ECD)*
>
> Caldwell First Nation
> 14 Orange Street
> Leamington | ON | N8H 1P5
> Phone: 226-936-2940
> ecd.manager@caldwellfirstnation.ca
>
> ~Indinawemaaganidog~
>
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On Wed, Sep 4, 2024 at 3:16 PM NATHAN ROSCOE <NATHAN.ROSCOE@edp.com> wrote:

> Hi Oliver,
>
> Thanks for the quick response. I'll continue to message the timing of the restated agreement and the associated work.
>
> Zack and Natalya, nice to e-meet you. Please let us know if you would like to have an introductory call with our project development team to catch-up on the latest permitting and engagement efforts. I've included Laura on this email. Laura is the internal lead on the Edgeware project and will continue to lead it's development.
>
> ---
>
> 
>
> **Nathan Roscoe**
> EDPR
> PD - Canada - I
>
> 219 Dufferin Street, Unit 117C, Toronto, CA M6K 3J1, Canada
>
> 
>
> ---
>
> *Please reply during your own working hours and consider the environment before* printing.
>
> **From:** Oliver MacLaren <OMacLaren@oktlaw.com>
> **Sent:** Wednesday, September 4, 2024 3:03 PM
> **To:** NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; George Cholakis <ghcenergy@gmail.com>
> **Cc:** John Wladarski <CEO@northwindbusiness.com>; Chief Mary Duckworth <ChiefMaryDuckworth@caldwellfirstnation.ca>; Zack Hamm <ecd.manager@caldwellfirstnation.ca>; Natalya Garrod <natalya.garrod@caldwellfirstnation.ca>
> **Subject:** RE: Edgeware - Caldwell Payments
>
> Thanks for the update Nathan.
>
> In terms of the new SPV and the updated partnership agreement, please be aware there's an election on September 14th in Caldwell – it may take a week or so for

the dust to settle after that to contemplate the execution of documents.

I've copied Caldwell's consultation representatives, Zack Hamm and Natalya Garrod. They're in receipt of the attached notices. As owners, Caldwell has a heightened interest in seeing consultation done efficiently on these projects. If there are any concerns, they would be raised by Zack or Natalya.

Oliver

Oliver W. MacLaren
Partner

Olthuis, Kleer, Townshend LLP
250 University Avenue, 8th Floor
Toronto, ON M5H 3E5
omaclaren@oktlaw.com
T: 416.981.9331
C: 416.700.9331
F: 416.981.9350
www.oktlaw.com

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From: NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>
Sent: September 4, 2024 10:43 AM
To: Oliver MacLaren <OMacLaren@oktlaw.com>; George Cholakis <ghcenergy@gmail.com>
Subject: RE: Edgeware - Caldwell Payments

Good morning Oliver,

We are working through internal approvals for the new corporate structure for the project which would allow the project to potentially receive the maximum ITC credit. Our intention is to create the new SPV and complete the updated

partnership agreement with Caldwell First Nation. I know we intended for execution in September and we are pushing to have a draft over to you within the next few weeks.

On another note, we are starting the archaeology work at Edgeware the last week of September and have invited six First Nations to participate which includes Caldwell. Can you confirm if Calwell has any interest in this part of the permitting process?

Nathan Roscoe
EDPR
PD - Canada - I

219 Dufferin Street, Unit 117C, Toronto, CA M6K 3J1, Canada

Please reply during your own working hours and consider the environment before printing.

From: Oliver MacLaren <OMacLaren@oktlaw.com>
Sent: Tuesday, August 20, 2024 9:58 AM
To: NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; George Cholakis <ghcenergy@gmail.com>
Subject: RE: Edgeware - Caldwell Payments

Thanks for sending this along Nathan. We're encouraged by these numbers.

Caldwell is looking for an update on the draft agreements. Let me know when we can expect to receive these for review.

Thanks,
Oliver

Oliver W. MacLaren
Partner

Olthuis, Kleer, Townshend LLP

250 University Avenue, 8th Floor
Toronto, ON M5H 3E5
omaclaren@oktlaw.com
T: 416.981.9331
C: 416.700.9331
F: 416.981.9350
www.oktlaw.com

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****

From: NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>
Sent: Monday, August 12, 2024 5:49 PM
To: Oliver MacLaren <OMacLaren@oktlaw.com>; George Cholakis <ghcenergy@gmail.com>
Subject: Edgeware - Caldwell Payments

Oliver and George,

Please see the latest estimates for the Caldwell contributions associated with the Edgeware BESS project. Please let me know if you have any questions.

Nathan Roscoe
EDPR
PD - CANADA

219 Dufferin Street Toronto Canada

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--



Michael McMaster
Assistant
Environment and Consultation Department
(226) 936-1081
72 Talbot St. Leamington, ON

--



Michael McMaster
Assistant
Environment and Consultation Department
(226) 936-1081
72 Talbot St. Leamington, ON

From:	Zack Hamm
To:	LAURA BASHFORD; Bradley Drouin
Cc:	Michael McMaster; Melanie Thomas; Constantin, Gabriel; NATHAN ROSCOE
Subject:	Re: FW: EDP Renewables - Edgeware Battery Energy Storage System (BESS) - Notices for Consultation and Archaeological Assessments
Date:	Wednesday, October 2, 2024 11:26:31 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png 46. CFN_TRA 2024_Edgeware (1).pdf 47. CFN_RPP 2024 FPA_Edgeware.pdf

---

Good morning Laura and Brad,

Please find our signed agreements attached.

Best,

Zack Hamm

Environment and Consultation Department Manager

Environment and Consultation Department (ECD)



Caldwell First Nation

14 Orange Street

Leamington | ON | N8H 1P5

Phone: 226-936-2940

ecd.manager@caldwellfirstnation.ca

~Indinawemaaganidog~

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On Fri, Sep 13, 2024 at 5:11 PM LAURA BASHFORD <LAURA.BASHFORD@edp.com> wrote:

> Good afternoon Michael,
>
> Thank you very much for confirming Caldwell First Nation's interest to participate in the archaeological assessments and for sharing the documents.
>
> I'm including Brad Drouin from True North Archaeological Services on this email. Brad is the lead archaeologist on this project, and he will be doing the coordination and contracting with the First Nations that would like to participate in the Stage 2 and 3 assessments.
>
> If you'd like us to set up a call to discuss further, we would be happy to! Please let us know.
>
> Thanks, and have a great weekend!
>
> Laura

Laura Bashford
Development
EDP Renewables Canada Ltd.
a 219 Dufferin Street, Suite 117C, Toronto, ON M6K 3J1

c 289.200.4127

Please reply during your own working hours and consider the environment before printing.

From: Michael McMaster <ecd.assistant@caldwellfirstnation.ca>
Sent: Friday, September 13, 2024 3:47 PM
To: LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Cc: Zack Hamm <ecd.manager@caldwellfirstnation.ca>; Melanie Thomas <flr2@caldwellfirstnation.ca>
Subject: EDP Renewables - Edgeware Battery Energy Storage System (BESS) - Notices for Consultation and Archaeological Assessments

Laura,

Good afternoon. I'm responding to indicate Caldwell First Nation's intention to participate in this archaeological assessment. To that end, I've attached our standard, prefered partner rate FPA and TRA documents. I should also direct you to Nations Connect, which is our platform for engagement for consultation: https://nationsconnect.ca/sign-in

Please have the agreements signed and returned to us as soon as possible along with the deployment details for the stage 2 and 3 assessments and I can schedule FLRs to join the crews on site.

--



Michael McMaster

Assistant

Environment and Consultation Department

(226) 936-1081

72 Talbot St. Leamington, ON

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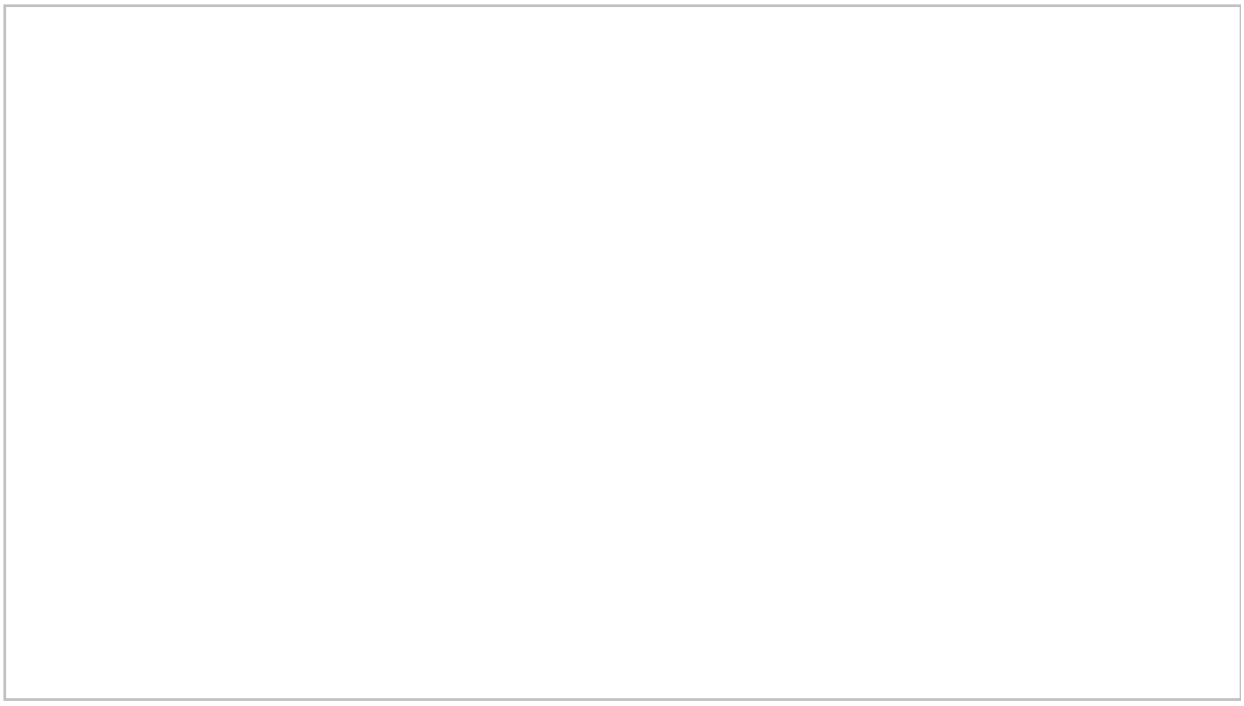
From: Bradley Drouin
To: Michael McMaster
Cc: Zack Hamm; George Cholakis; NATHAN ROSCOE; LAURA BASHFORD; Constantin, Gabriel; Gagnon, Frédéric
Subject: Edgeware BESS - upcoming Archaeology field programs - Stage 2 and 3
Date: Tuesday, September 17, 2024 8:06:00 AM
Attachments: image001.png
image002.png

Good Morning Michael,

As noted, below are the details for the planned Stage 2 and 3 fieldwork for the Edgeware BESS Project located in St. Thomas, ON. Fieldwork is slated to begin on Monday 23 September 2024 and run through to approximately 2 October. Relevant details are below.

If you have any questions, please reach out.

Project Name	Edgeware BESS (Battery Energy Storage Site)
Start Date/Time:	23 September 2024 – 8:00am
Site/Meet Location:	120 Highbury Avenue South, St. Thomas – this address gets you to the approximate location. See screen shot below for exact location.
Duration:	9 consecutive days - 1 day for Stage 2, and 8 days for Stage 3
Daily work schedule	8:00 am to ~4:00/4:30 pm
Proponent:	EDP Renewables Canada Ltd.
Licensed Archaeologist:	Bradley Drouin (P311) 613-863-7811 brad@truenortharchaeology.com
Field Director	Gabby Belyea 343-987-1684 gabryell@truenortharchaeology.com
TNAS Crew:	Lydia Spooner, Kelly Berckmans, Julia Chebott and Brandon Calbeck
Scope of Work:	Stage 2 Pedestrian survey and shovel testing Stage 3 Unit Excavation of AeHg-1 a mid-nineteenth century historic homestead. Potential Stage 3 of secondary location, should it be required.
PPE:	CSA steel toe boots, safety vest and gloves.
Washrooms:	Porta-potty will be on site



Parking/muster point may change depending on confirmation of access.

Please reach out if you have any questions.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From:	Bradley Drouin
To:	Michael McMaster
Cc:	Oliver MacLaren; Zack Hamm; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	Edgeware BESS - Update and input
Date:	Tuesday, September 24, 2024 3:22:00 PM
Attachments:	image001.png

Hi Michael,

I wanted to reach out to connect on a few items regarding the archaeology scope of the Edgeware BESS project. Once reviewed, if you prefer to set up a call to discuss, I'd be happy to do so.

1. In preparation for completing the Stage 1 background portion of the combined Stage 1 and 2, I was wondering if there was any information that you would like to have included.

2. Our team completed the majority of the Stage 2 yesterday. They re-located the historic scatter associated with AeHg-61 as well as the second historic scatter at the north end of the property. The second location is quite large so a detailed review of the artifact assemblage back at the lab will be required prior to determining next steps (e.g. Stage 3 or not). In addition to the historic scatters, the team identified some likely Pre-Contact Indigenous artifacts primarily in the southern portion of the study area. These too will need some additional review and input.

3. Given that Monday September 30th is National Day for Truth and Reconciliation there will be no archaeological fieldwork being undertaken. Work will resume on Tuesday October 1st (and we will be working on the weekend – 28th and 29th)

If you'd like a call to discuss, please let me know and I can set something up.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com



From: Michael McMaster
To: Bradley Drouin
Cc: Zack Hamm; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: Re: Edgeware BESS - Stage 2 and 3 Interim Update
Date: Thursday, October 10, 2024 2:46:37 PM
Attachments: image001.png

No worries, just get the deployment details to me ASAP and I can make sure I've got someone scheduled to join your crew.

On Thu, Oct 10, 2024 at 2:31 PM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hi Michael,
>
> I'm reaching out to see if you had any questions about the summary provided, or concerns with commencing the Stage 3 on the northern historic scatter middle of next week or around October 21st. I realize that I haven't provided much notice but with winter around the corner, we're trying to take advantage of these fleeting snow free days.
>
> Happy to set up a call if you prefer.
>
> All the best,
>
> -Brad-
>
> **Bradley Drouin, M.A.**
>
> **Principal, Senior Archaeologist**
>
> **True North Archaeological Services Inc.**
>
> **Mobile:** 613-863-7811
>
> **Email**: brad@truenortharchaeology.com
>
> ---
>
> **From:** Bradley Drouin
> **Sent:** Tuesday, October 8, 2024 9:18 AM
> **To:** Michael McMaster <ecd.assistant@caldwellfirstnation.ca>

Cc: Zack Hamm <ecd.manager@caldwellfirstnation.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS - Stage 2 and 3 Interim Update

Hi Michael,

Thank you for the call on Friday and apologies for the miss-understanding in the project schedule.

The following provides an update on the interim results of the Stage 2 and 3 archaeological field programs completed between September 23rd and October 2nd for the Edgeware BESS project.

The Stage 2 pedestrian survey and shovel testing portion was completed on September 23rd and resulted in the identification and recovery of approximately 1,092 artifacts from 213 CSP (surface find) locations. Of those, 1,075 are historic and 17 are pre-contact Indigenous lithics. Map 1 provides a visual of the overall distribution of the respective artifact locations. As can be seen from the CSP results, there are two distinct cluster of historic artifacts: the original find location associated with AeHg-61 along the western boundary and a second cluster located in the northern corner of the study area. The pre-contact Indigenous lithics recovered from the site had one small cluster in the north consisting of 5 flakes within a 12m x 8m area with the remainder of the lithics more widely distributed across the study area. The lithic artifacts recovered consisted primarily of tertiary and secondary flake debitage with one flaked Late Woodland Projectile point (likely Daniels Triangular) and a possible ground stone point (Image 1). The ground stone point doesn't show typical use-wear from grinding or polishing so it may be a natural lithic that has a similar form to a projectile point. It has been retained as a point until a more detail review can be completed. Based on the Ministry of Citizenship and Multiculturalism's *Standards and Guidelines for Consultant Archaeologist*, the distribution of pre-contact Indigenous artifacts does not trigger a requirement for a Stage 3.

Following completion of the Stage 2, the crew began the Stage 3 site specific assessment of AeHg-61. Work on this site was completed between September 24th and October 2nd and resulted in the excavation of 47 1m x 1m units and the recovery of approximately 2,330 artifacts (Map 2). Over the next week or two, the artifact assemblage will be washed and I'll be able to provide firmer artifact counts. In addition to the historic artifacts recovered, which cluster around the mid-19th century, a number of features were also identified. As a result,

AeHg-61 will be recommended for Stage 4 through topsoil stripping and possible some hand excavation. However, prior to moving forward with developing the Stage 4 methodology for the historic component, the artifacts will be reviewed in detail to determine if there is a pre-contact Indigenous component that may require a different mitigation strategy. If that is the case, I will reach out to start discussions regarding preferred approaches.

With respect to the norther cluster of historic artifacts, and through discussions with the client, that area will be recommended for Stage 3 site specific assessment. Given that it's already getting late in the season, the client would like to move forward with the Stage 3 as soon as possible. I understand that there are internal review periods on your end but was hoping to begin the Stage 3 by the week of October 15th. Please let me know if this is too rushed and what other information you need.

If a call to go over the results in more detail is something of interest, please let me know and I can set something up where I can share my screen.

Respectfully,

-Brad-

Bradley Drouin, M.A.

Principal, Senior Archaeologist

True North Archaeological Services Inc.

Mobile: 613-863-7811

Email: brad@truenortharchaeology.com

57 Beaufort Drive

Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

--

Michael McMaster
Assistant
Environment and Consultation Department
(226) 936-1081
72 Talbot St. Leamington, ON

From:	Zack Hamm
To:	Bradley Drouin
Cc:	Michael McMaster; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	Re: Edgeware BESS - Draft Stage 3 results for AeHg-61 - Stage 4 recommended
Date:	Monday, November 18, 2024 10:21:36 AM
Attachments:	image001.png

Good morning Bradley,

I appreciate your breakdown of the information associated with the site and your proposed strategy. Our Department sees no issue with your approach given the provenance and dates of your site. Please feel free to proceed with a field schedule for later this month and inform us as soon as possible. We will deploy one field liaison to monitor your MTR.

Best,

Zack Hamm

Environment and Consultation Department Manager

Environment and Consultation Department (ECD)

Caldwell First Nation

14 Orange Street

Leamington | ON | N8H 1P5

Phone: 226-936-2940

ecd.manager@caldwellfirstnation.ca

~Indinawemaaganidog~

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On Mon, Nov 18, 2024 at 6:30 AM Bradley Drouin <brad@truenortharchaeology.com> wrote:

> Hi Michael,
>
> I wanted to provide the draft results of the AeHg-61 Stage 3 archaeological assessment completed between 25 September and 2 October 2024 for the Edgeware BESS project. The artifacts recovered during the Stage 3 assessment have now been washed with a cursory review completed. A total of approximately 2,335 artifacts were recovered with the majority (2,332) representing the historic occupation and 3 potential tertiary flakes also being recovered.
>
> The recovered historic material is primarily domestic in nature (plates, bowls, personal items, smoking pipes, etc.) with some structural elements (nails, small brick fragments and window glass). A large number of early decoration styles were observed: hand painted, industrial slip, and early transfer print. Additionally, ceramic pipe bowls were also recovered along with one gun flint. Given the nature of the observed assemblage, AeHg-61 appears to date to approximately the mid to late nineteenth century.
>
> In addition to the recovered artifacts, six likely features were also observed in the subsoil of the Stage 3 units. These were documented in the field as per Ministry Standards and Guidelines and covered before backfilling the respective units. Based on the results to date, AeHg-61 does meet the requirements for Stage 4 mitigation of development impacts. As the site is located within the middle of the planned Edgeware BESS development, avoidance and protection isn't an option. As such, we are recommending Stage 4 mitigation by mechanical topsoil removal.
>
> The proposed Stage 4 mitigation approach includes the mechanical topsoil removal (MTR) within the Stage 3 excavation limits of archaeological site AeHg-61 (Map 1), and the identification and hand excavation of exposed subsurface features considered to possess archaeological significance in accordance with the MCM *Standards and Guidelines for Consultant Archaeologists* (2011). The Stage 4 MTR approach will be to mechanically remove the former ploughzone overlying the intact subsoil deposits to expose and delineate potential in-situ subsurface cultural features. The MTR component will employ heavy equipment (e.g., excavator) to pull soil away using a smooth bucket. All exposed subsoil surfaces will be cleaned by shovel or trowel following the MTR.
>
> In accordance with the MCM *Standards and Guidelines for Consultant Archaeologists* (2011), each identified feature documented within the excavation area will be fully exposed and will be drawn to scale in plan view before a cross-section of each feature is hand

excavated stratigraphically by lot, with the backdirt screened through 6 mm mesh. All artifacts recovered during the feature excavation will be bagged according to location and stratigraphic layer and the location of all archaeologically significant features will be mapped. A general field log will be maintained along with digital photographs of the Stage 4 archaeological mitigation.

This approach is based on Section 4.2.3 "*Excavation by mechanical topsoil removal (topsoil stripping)*" and Section 4.2.7 "*Site-specific requirements: 19th century domestic archaeological sites*" documented in the MCM *Standards and Guidelines for Consultant Archaeologists* (2011) and Section 7.2.2 "*Formulating the Strategy for Stage 4*" described in the *Draft Bulletin for the Archaeology of Rural Historical Farmsteads in Ontario* (2014) issued by the MCM.

The Stage 4 schedule is uncertain but EDP Renewables wishes to proceed towards the end of November 2024/beginning of December in order to have the archaeological reports and clearances received over the winter. Once you've had a chance to review the above information, please let me know if you have any questions and if the proposed schedule (being completed in 2024) is suitable.

All the best,

-Brad-

Bradley Drouin, M.A.

Principal, Senior Archaeologist

True North Archaeological Services Inc.

Mobile: 613-863-7811

Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D

Ottawa, ON, K2M 0E2

From:	Bradley Drouin
To:	Melanie Thomas
Cc:	NATHAN ROSCOE; LAURA BASHFORD; Zack Hamm; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric; Monica Dobetsberger
Subject:	Edgeware BESS - Stage 4 - May 26th
Date:	Wednesday, May 14, 2025 1:38:00 PM
Attachments:	image001.png Parking and Site location.jpg

Hi Melanie,

We have everything now lined up for the Edgeware BESS Stage 4 for AeHg-61. As this is a historic farmstead site, the methodology will consist of topsoil removal followed by the documentation and investigation of any features identified in the subsoil.

We are planning to be on site for 9am on Monday May 26th, 2025. Our crew will consist of four Archaeologists with fieldwork planned for roughly 4 – 5 days.

Required PPE includes steel toed boots, high-vis vest and hard hat.

There is an access road into site off the west side of Highbury Avenue but parking off of Edgeware Line is likely the best option.

Attached is rough map showing the location of the site and general parking.

Any questions, please let me know.

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2
www.truenortharchaeology.com

3.0 RECORD OF ENGAGEMENT: CHIPPEWAS OF KETTLE AND STONY POINT FIRST NATION

From:	Bradley Drouin
To:	Jessica Wakefield; Todd Jardine
Cc:	consultation@kettlepoint.org; Reggie George; Michael George; kimberly.bressette@kettlepoint.org; Constantin, Gabriel; Gagnon, Frédéric; KENDRA KALLEVIG; LAURA BASHFORD; NATHAN ROSCOE; Tara Livingstone
Subject:	Edgeware BESS - archaeology/engagement agreement
Date:	Tuesday, September 10, 2024 7:56:00 AM
Attachments:	image001.png

Hi Jessica,

It was a pleasure virtually meeting you and the rest of the team on yesterday's call. Following up on that discussion, would it be possible to send through the draft template agreement?

Todd – if you have time over the next couple of days, it'd be great to connect to discuss sub-contractor services as it relates to the Stage 2 and 3.

If there are those on this chain that aren't required, please let me know and I can update the distribution list on my end.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From:	Bradley Drouin
To:	Jessica Wakefield
Cc:	Michael George; LAURA BASHFORD; Constantin, Gabriel; Gagnon, Frédéric; KENDRA KALLEVIG; NATHAN ROSCOE
Subject:	RE: Edgeware BESS - archaeology/engagement agreement
Date:	Wednesday, September 18, 2024 6:24:00 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png CKSPFN_CapacityAgreement_EDP.pdf CKSPFN_CapacityAgreement_EDP_BD.docx

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Hi Jessica,

I appreciate the understanding. Attached is a clean pdf with signatures and the word document with track changes so you can see where I added information.

Let me know if there's anything else once you've reviewed.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Sent: Tuesday, September 17, 2024 1:13 PM
To: Bradley Drouin <brad@truenortharchaeology.com>
Cc: Michael George <michael.george@southwindcorp.ca>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>
Subject: Re: Edgeware BESS - archaeology/engagement agreement

Hi Brad,

We are okay with the 30-day review period and will aim for this on all reviews but would like to keep the window open to for an extension if needed, with reasonable notice provided by our team.

Thanks,
Jess

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From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: Tuesday, September 17, 2024 10:40:18 AM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>
Subject: RE: Edgeware BESS - archaeology/engagement agreement

Hi Jessica,

Overall, the agreement seems good. One small revision request if possible.

Section 1, Clause 3 – is it possible to reduce the comment and review period from 45 days to 30 days? If the change will delay the execution of the agreement and the in-field participation in the archaeology/aquatic program, we can work with 45 days but were hoping for a slightly reduced period.

Respectfully,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Sent: Monday, September 16, 2024 2:46 PM
To: LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; Bradley Drouin <brad@truenortharchaeology.com>
Cc: Michael George <michael.george@southwindcorp.ca>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; Tara Livingstone <tlivingstone@nrsi.on.ca>
Subject: Re: Edgeware BESS - archaeology/engagement agreement

Hi Brad,

Here is a draft agreement for your review. Please reach out with any comments or questions.

Thanks,
Jess

From: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Sent: Thursday, September 12, 2024 5:17 PM
To: LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; Bradley Drouin <brad@truenortharchaeology.com>
Cc: Michael George <michael.george@southwindcorp.ca>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; Tara Livingstone <tlivingstone@nrsi.on.ca>
Subject: Re: Edgeware BESS - archaeology/engagement agreement

Hi Laura,

Thank you for following up. The draft agreement and proposed budget is going through review by Mike and should be steady to share tomorrow morning.

Thanks,
Jess

From: LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Sent: Thursday, September 12, 2024 12:35 PM
To: Bradley Drouin <brad@truenortharchaeology.com>; Jessica Wakefield <Jessica.Wakefield@threefires.com>; Todd Jardine <Todd.Jardine@threefires.com>
Cc: consultation@kettlepoint.org <consultation@kettlepoint.org>; Reggie George <Reggie.George@threefires.com>; Michael George <michael.george@southwindcorp.ca>; kimberly.bressette@kettlepoint.org <kimberly.bressette@kettlepoint.org>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; Tara Livingstone <tlivingstone@nrsi.on.ca>
Subject: RE: Edgeware BESS - archaeology/engagement agreement

Good afternoon Jessica,

Hope you are doing well.

As we prepare for the on-site archaeological assessments, I wanted to check in to see if you would

be able to send the draft template agreement so that Brad can work with you on getting the contract executed?

Thank you,
Laura

Laura Bashford
Development
EDP Renewables Canada Ltd.
a 219 Dufferin Street, Suite 117C, Toronto, ON M6K 3J1
c 289.200.4127

Please reply during your own working hours and consider the environment before printing.

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: Tuesday, September 10, 2024 7:57 AM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>; Todd Jardine <Todd.Jardine@threefires.com>
Cc: consultation@kettlepoint.org; Reggie George <Reggie.George@threefires.com>; Michael George <michael.george@southwindcorp.ca>; kimberly.bressette@kettlepoint.org; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; Tara Livingstone <tlivingstone@nrsi.on.ca>
Subject: Edgeware BESS - archaeology/engagement agreement

Hi Jessica,

It was a pleasure virtually meeting you and the rest of the team on yesterday's call. Following up on that discussion, would it be possible to send through the draft template agreement?

Todd – if you have time over the next couple of days, it'd be great to connect to discuss sub-contractor services as it relates to the Stage 2 and 3.

If there are those on this chain that aren't required, please let me know and I can update the distribution list on my end.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com



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From: Bradley Drouin
To: Jessica Wakefield
Cc: Michael George; NATHAN ROSCOE; LAURA BASHFORD; Constantin, Gabriel; Gagnon, Frédéric
Subject: Edgeware BESS - upcoming Archaeology field programs - Stage 2 and 3
Date: Tuesday, September 17, 2024 8:04:00 AM
Attachments: image001.png
image002.png

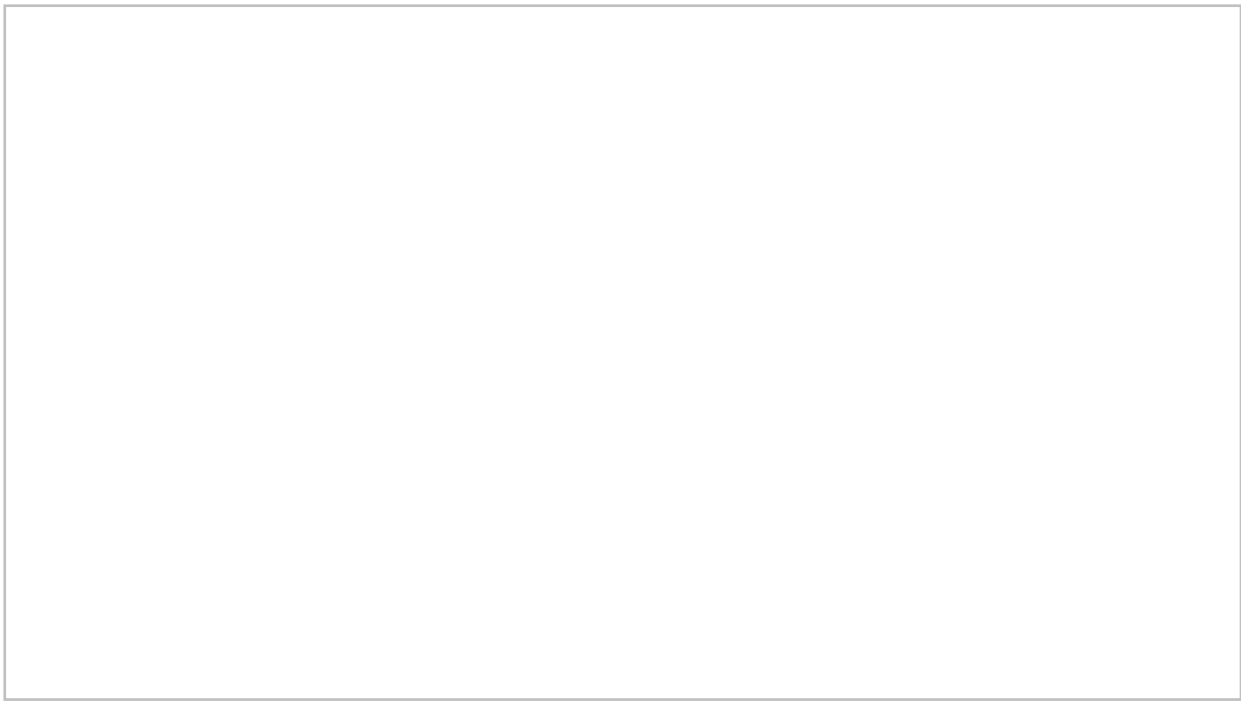
Hello Jessica,

Thank you for sending through the draft agreement for review. I'm aiming to get you the signed document back today.

In the interim and as noted previously, below are the details for the planned Stage 2 and 3 fieldwork for the Edgeware BESS Project located in St. Thomas, ON. Fieldwork is slated to begin on Monday 23 September 2024 and run through to approximately 2 October. Relevant details are below. Hopefully the timing is still suitable.

If you have any questions, please reach out.

Project Name	Edgeware BESS (Battery Energy Storage Site)
Start Date/Time:	23 September 2024 – 8:00am
Site/Meet Location:	120 Highbury Avenue South, St. Thomas. This address gets you to the approximate location. See screen shot below for exact location.
Duration:	9 consecutive days - 1 day for Stage 2, and 8 days for Stage 3
Daily work schedule	8:00 am to ~4:00/4:30 pm
Proponent:	EDP Renewables Canada Ltd.
Licensed Archaeologist:	Bradley Drouin (P311) 613-863-7811 brad@truenortharchaeology.com
Field Director	Gabby Belyea 343-987-1684 gabryell@truenortharchaeology.com
TNAS Crew:	Lydia Spooner, Kelly Berckmans, Julia Chebott and Brandon Calbeck
Scope of Work:	Stage 2 Pedestrian survey and shovel testing Stage 3 Unit Excavation of AeHg-1 a mid-nineteenth century historic homestead. Potential Stage 3 of secondary location, should it be required.
PPE:	CSA steel toe boots, safety vest and gloves.
Washrooms:	Porta-potty will be on site



Parking/muster point may change depending on confirmation of access.

Please reach out if you have any questions.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From: Jessica Wakefield
To: Bradley Drouin
Cc: Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: Re: Edgeware BESS - Update and input
Date: Friday, September 27, 2024 11:38:27 AM
Attachments: image001.png

Hi Brad,

Thank you for this update, it is helpful to receive some real-time information. For question 1, at a high level the area is part of our traditional territory and we are happy to review the background section in the report and add comments as needed. We appreciate the consideration of National Day for Truth and Reconciliation. Terry has enjoyed his time so far and is eager to continuing supporting, including the field days this weekend.

Have a great weekend!

Thanks,
Jess

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: Tuesday, September 24, 2024 3:21 PM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS - Update and input

Hello Jessica,

I wanted to reach out to connect on a few items regarding the archaeology scope of the Edgeware BESS project. Once reviewed, if you prefer to set up a call to discuss, I'd be happy to do so.

1. In preparation for completing the Stage 1 background portion of the combined Stage 1 and 2, I was wondering if there was any information that you would like to have included.

2. Our team completed the majority of the Stage 2 yesterday. They re-located the historic scatter associated with AeHg-61 as well as the second historic scatter at the north end of the property. The second location is quite large so a detailed review of the artifact assemblage back at the lab will be required prior to determining next steps (e.g. Stage 3 or not). In addition to the historic scatters, the team identified some likely Pre-Contact Indigenous artifacts primarily in the southern portion of the study area. These too will

need some additional review and input.

3. Given that Monday September 30th is National Day for Truth and Reconciliation there will be no archaeological fieldwork being undertaken. Work will resume on Tuesday October 1st (and we will be working on the weekend – 28th and 29th)

If you'd like a call to discuss, please let me know and I can set something up.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com



From:	Jessica Wakefield
To:	Bradley Drouin
Cc:	Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	Re: Edgeware BESS - Stage 2 and 3 Interim Update
Date:	Thursday, October 10, 2024 3:34:53 PM
Attachments:	image001.png

Hi Brad,

Thank you for following up on this. Your summary below is very helpful. We are okay with moving forward with the next round of field work, either starting mid-next week or the week of the 21st.

Thanks,
Jess

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: Thursday, October 10, 2024 2:31 PM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: Edgeware BESS - Stage 2 and 3 Interim Update

Hi Jessica,

I'm reaching out to see if you had any questions about the summary provided, or concerns with commencing the Stage 3 on the northern historic scatter middle of next week or around October 21st. I realize that I haven't provided much notice but with winter around the corner, we're trying to take advantage of these fleeting snow free days.

Happy to set up a call if you prefer.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Bradley Drouin

Sent: Tuesday, October 8, 2024 9:19 AM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS - Stage 2 and 3 Interim Update

Hi Jessica,

The following provides an update on the interim results of the Stage 2 and 3 archaeological field programs completed between September 23rd and October 2nd for the Edgeware BESS project.

The Stage 2 pedestrian survey and shovel testing portion was completed on September 23rd and resulted in the identification and recovery of approximately 1,092 artifacts from 213 CSP (surface find) locations. Of those, 1,075 are historic and 17 are pre-contact Indigenous lithics. Map 1 provides a visual of the overall distribution of the respective artifact locations. As can be seen from the CSP results, there are two distinct cluster of historic artifacts: the original find location associated with AeHg-61 along the western boundary and a second cluster located in the northern corner of the study area. The pre-contact Indigenous lithics recovered from the site had one small cluster in the north consisting of 5 flakes within a 12m x 8m area with the remainder of the lithics more widely distributed across the study area. The lithic artifacts recovered consisted primarily of tertiary and secondary flake debitage with one flaked Late Woodland Projectile point (likely Daniels Triangular) and a possible ground stone point (Image 1). The ground stone point doesn't show typical use-wear from grinding or polishing so it may be a natural lithic that has a similar form to a projectile point. It has been retained as a point until a more detail review can be completed. Based on the Ministry of Citizenship and Multiculturalism's *Standards and Guidelines for Consultant Archaeologist*, the distribution of pre-contact Indigenous artifacts does not trigger a requirement for a Stage 3.

Following completion of the Stage 2, the crew began the Stage 3 site specific assessment of AeHg-61. Work on this site was completed between September 24th and October 2nd and resulted in the excavation of 47 1m x 1m units and the recovery of approximately 2,330 artifacts (Map 2). Over the next week or two, the artifact assemblage will be washed and I'll be able to provide firmer artifact counts. In addition to the historic artifacts recovered, which cluster around the mid-19th century, a number of features were also identified. As a result, AeHg-61 will be recommended for Stage 4 through topsoil stripping and possible some hand excavation. However, prior to moving forward with developing the Stage 4 methodology for the historic component, the artifacts will be reviewed in detail to determine if there is a pre-contact Indigenous component that may require a different mitigation strategy. If that is the case, I will reach out to start discussions regarding preferred approaches.

With respect to the norther cluster of historic artifacts, and through discussions with the client, that area will be recommended for Stage 3 site specific assessment. Given that it's already getting late in the season, the client would like to move forward with the Stage 3 as soon as possible. I understand that there are internal review periods on your end but was hoping to begin the Stage 3 by the week of October 15th. Please let me know if this is too rushed and what other information you need.

If a call to go over the results in more detail is something of interest, please let me know and I can set something up where I can share my screen.

Respectfully,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com



From:	Jessica Wakefield
To:	Bradley Drouin
Cc:	Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric; Jana George
Subject:	Re: Edgeware BESS - Draft Stage 3 results for AeHg-61 - Stage 4 recommended
Date:	Wednesday, November 20, 2024 11:09:42 AM
Attachments:	image001.png

Hi Brad,

Thank you for this breakdown of the draft results. It is helpful to read through and understand what is next for the arch assessment. I do not have any questions and the proposed schedule works for us.

Thanks,
Jess

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: Monday, November 18, 2024 6:30 AM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; Jana George <Jana.George@threefires.com>
Subject: Edgeware BESS - Draft Stage 3 results for AeHg-61 - Stage 4 recommended

Hi Jessica,

I wanted to provide the draft results of the AeHg-61 Stage 3 archaeological assessment completed between 25 September and 2 October 2024 for the Edgeware BESS project. The artifacts recovered during the Stage 3 assessment have now been washed with a cursory review completed. A total of approximately 2,335 artifacts were recovered with the majority (2,332) representing the historic occupation and 3 potential tertiary flakes also being recovered.

The recovered historic material is primarily domestic in nature (plates, bowls, personal items, smoking pipes, etc.) with some structural elements (nails, small brick fragments and window glass). A large number of early decoration styles were observed: hand painted, industrial slip, and early transfer print. Additionally, ceramic pipe bowls were also recovered along with one gun flint. Given the nature of the observed assemblage, AeHg-61 appears to date to approximately the mid to late nineteenth century.

In addition to the recovered artifacts, six likely features were also observed in the subsoil

of the Stage 3 units. These were documented in the field as per Ministry Standards and Guidelines and covered before backfilling the respective units. Based on the results to date, AeHg-61 does meet the requirements for Stage 4 mitigation of development impacts. As the site is located within the middle of the planned Edgeware BESS development, avoidance and protection isn't an option. As such, we are recommending Stage 4 mitigation by mechanical topsoil removal.

The proposed Stage 4 mitigation approach includes the mechanical topsoil removal (MTR) within the Stage 3 excavation limits of archaeological site AeHg-61 (Map 1), and the identification and hand excavation of exposed subsurface features considered to possess archaeological significance in accordance with the MCM *Standards and Guidelines for Consultant Archaeologists* (2011). The Stage 4 MTR approach will be to mechanically remove the former ploughzone overlying the intact subsoil deposits to expose and delineate potential in-situ subsurface cultural features. The MTR component will employ heavy equipment (e.g., excavator) to pull soil away using a smooth bucket. All exposed subsoil surfaces will be cleaned by shovel or trowel following the MTR.

In accordance with the MCM *Standards and Guidelines for Consultant Archaeologists* (2011), each identified feature documented within the excavation area will be fully exposed and will be drawn to scale in plan view before a cross-section of each feature is hand excavated stratigraphically by lot, with the backdirt screened through 6 mm mesh. All artifacts recovered during the feature excavation will be bagged according to location and stratigraphic layer and the location of all archaeologically significant features will be mapped. A general field log will be maintained along with digital photographs of the Stage 4 archaeological mitigation.

This approach is based on Section 4.2.3 "*Excavation by mechanical topsoil removal (topsoil stripping)*" and Section 4.2.7 "*Site-specific requirements: 19th century domestic archaeological sites*" documented in the MCM *Standards and Guidelines for Consultant Archaeologists* (2011) and Section 7.2.2 "*Formulating the Strategy for Stage 4*" described in the *Draft Bulletin for the Archaeology of Rural Historical Farmsteads in Ontario* (2014) issued by the MCM.

The Stage 4 schedule is uncertain but EDP Renewables wishes to proceed towards the end of November 2024/beginning of December in order to have the archaeological reports and clearances received over the winter. Once you've had a chance to review the above information, please let me know if you have any questions and if the proposed schedule (being completed in 2024) is suitable.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From: Jana George
To: Bradley Drouin; Jessica Wakefield
Cc: Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: Re: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 2 of 2
Date: Thursday, March 6, 2025 3:44:56 PM
Attachments: image001.png
Outlook-gqqzum4j.png

Hi Bradley,

Confirming receipt of this report as well.

Thank you for sharing!

Jana George
Consultation & Monitoring Coordinator

Email: jana.george@threefires.com

A-9119 W Ipperwash Rd
Kettle & Stony Point First Nation
Ontario N0N 1J1
www.threefires.com

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: March 4, 2025 8:41 AM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; Jana George <Jana.George@threefires.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 2 of 2

Hi Jessica,

As noted in my previous email, attached is the Stage 3 Site Specific Assessment report for AeHg-61 located within the Edgeware BESS project area. Once reviewed, please let me know what edits or comments you may have.

If schedules allow, please provide comments/edits by March 21st.

All the best,

-Brad-

Bradley Drouin, M.A.

Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Bradley Drouin
Sent: Tuesday, March 4, 2025 8:36 AM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; Jana George <Jana.George@threefires.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Hi Jessica,

I hope the winter has treated you well. Please find attached the Draft Stage 1 and 2 archaeological assessment report for the Edgeware BESS Project for your review and comment.

As noted in correspondence from last year, we had identified two predominantly historic artifact scatters during the Stage 2 pedestrian survey and test pitting program – one in the south (AeHg-61) and one in the north (AeHg-142). Initially we had planned to undertake a Stage 3 for AeHg-142 but through a detailed review of the historical Lot information and artifact analysis, AeHg-142 was not recommended for Stage 3 as it primarily dates to the early 20th century.

Due to large file size, I'll send the Stage 3 Draft report covering AeHg-61 for your review and comment under separate cover. Due to the mid-nineteenth century date, AeHg-61 did meet the requirements for Stage 4 mitigation by topsoil stripping which we're hoping to complete as soon as field conditions allow. There were two Pre-Contact Indigenous flakes recovered during the Stage 3 assessment of AeHg-61. When combined with the Stage 2 results, the Indigenous component does not meet the MCM standards for additional assessment. Once the results are reviewed, I'd be happy to set up a time to discuss.

Depending on the weather over the next two to three weeks, we'd like to complete that 5-day Stage 4 field program sometime towards the end of March. Please let us know if this timing is suitable and whether you will have someone in the field with us? I can provide firm dates a bit closer to the time.

If you could provide comments March 21st that would be appreciated.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D

From:	Jana George
To:	Bradley Drouin; Jessica Wakefield
Cc:	Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	Re: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2
Date:	Thursday, March 6, 2025 3:43:47 PM
Attachments:	image002.png Outlook-pwwtkepk.png

Good afternoon Bradley,

Thank you for sharing these reports with us. Our team looks forward to reviewing in detail. We do have a substantial number of reports that we are reviewing this month, so are wondering if we can submit our comments by April 4th?

Please let us know if this would work with your timelines.

Thank you,

Jana George
Consultation & Monitoring Coordinator

Email: jana.george@threefires.com

A-9119 W Ipperwash Rd
Kettle & Stony Point First Nation
Ontario N0N 1J1
www.threefires.com

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: March 4, 2025 8:36 AM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; Jana George <Jana.George@threefires.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Hi Jessica,

I hope the winter has treated you well. Please find attached the Draft Stage 1 and 2 archaeological assessment report for the Edgeware BESS Project for your review and comment.

As noted in correspondence from last year, we had identified two predominantly historic artifact scatters during the Stage 2 pedestrian survey and test pitting program – one in the south (AeHg-61) and one in the north (AeHg-142). Initially we had planned to undertake a Stage 3 for AeHg-142 but through a detailed review of the historical Lot information and artifact analysis, AeHg-142 was not recommended for Stage 3 as it primarily dates to the early 20th

century.

Due to large file size, I'll send the Stage 3 Draft report covering AeHg-61 for your review and comment under separate cover. Due to the mid-nineteenth century date, AeHg-61 did meet the requirements for Stage 4 mitigation by topsoil stripping which we're hoping to complete as soon as field conditions allow. There were two Pre-Contact Indigenous flakes recovered during the Stage 3 assessment of AeHg-61. When combined with the Stage 2 results, the Indigenous component does not meet the MCM standards for additional assessment. Once the results are reviewed, I'd be happy to set up a time to discuss.

Depending on the weather over the next two to three weeks, we'd like to complete that 5-day Stage 4 field program sometime towards the end of March. Please let us know if this timing is suitable and whether you will have someone in the field with us? I can provide firm dates a bit closer to the time.

If you could provide comments March 21st that would be appreciated.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
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Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2
www.truenortharchaeology.com

From: Jana George
To: Bradley Drouin; Jessica Wakefield
Cc: Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: Re: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2
Date: Monday, March 24, 2025 8:05:39 PM
Attachments: image001.png
image002.png
Outlook-qg5nkcyv.png
Outlook-20o1hro0.png

Good afternoon Bradley,

Our team has finished reviewing the Stage 1 and 2 Archaeological Assessments Report and the Stage 3 Archaeological Assessment Report. We do not have any questions or concerns at this time.

Thank you,

Jana

Jana George
Consultation & Monitoring Coordinator

Email: jana.george@threefires.com

A-9119 W Ipperwash Rd
Kettle & Stony Point First Nation
Ontario N0N 1J1
www.threefires.com

From: Jana George <Jana.George@threefires.com>
Sent: March 14, 2025 1:58 PM
To: Bradley Drouin <brad@truenortharchaeology.com>; Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Re: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Hi Bradley,

We will try to complete a review and share any comments before the end of day March 24th.

Thank you,

Jana George
Consultation & Monitoring Coordinator

Email: jana.george@threefires.com

A-9119 W Ipperwash Rd
Kettle & Stony Point First Nation
Ontario N0N 1J1
www.threefires.com

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: March 11, 2025 11:14 AM
To: Jana George <Jana.George@threefires.com>; Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Hi Jana,

Thank you for the quick reply.

There are some project critical timelines that the client is looking to meet – specifically the geotechnical investigations in early April. Prior to doing so, the Stage 4 mitigation by topsoil stripping of the historic AeHg-61 requires completion. As such, we were hoping to be out on site for March 31st for the roughly 5-day field program.

Knowing the context behind the timing of the review, is it possible to have the reports reviewed by the week of March 24th? Happy to jump on a call if that's easier.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Jana George <Jana.George@threefires.com>
Sent: Thursday, March 6, 2025 3:44 PM
To: Bradley Drouin <brad@truenortharchaeology.com>; Jessica Wakefield <Jessica.Wakefield@threefires.com>

Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Re: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Good afternoon Bradley,

Thank you for sharing these reports with us. Our team looks forward to reviewing in detail. We do have a substantial number of reports that we are reviewing this month, so are wondering if we can submit our comments by April 4th?

Please let us know if this would work with your timelines.

Thank you,

Jana George
Consultation & Monitoring Coordinator

Email: jana.george@threefires.com

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Kettle & Stony Point First Nation
Ontario N0N 1J1
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From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: March 4, 2025 8:36 AM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; Jana George <Jana.George@threefires.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Hi Jessica,

I hope the winter has treated you well. Please find attached the Draft Stage 1 and 2 archaeological assessment report for the Edgeware BESS Project for your review and comment.

As noted in correspondence from last year, we had identified two predominantly historic artifact scatters during the Stage 2 pedestrian survey and test pitting program – one in the south (AeHg-61) and one in the north (AeHg-142). Initially we had planned to undertake a Stage 3 for AeHg-142 but through a detailed review of the historical Lot information and artifact analysis, AeHg-142 was not recommended for Stage 3 as it primarily dates to the early

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If you could provide comments March 21st that would be appreciated.

All the best,

-Brad-

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Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2
www.truenortharchaeology.com

From:	Bradley Drouin
To:	Jana George; Jessica Wakefield
Cc:	Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	Edgeware BESS - Stage 4 - May 26th
Date:	Wednesday, May 14, 2025 1:39:00 PM
Attachments:	image001.png Parking and Site location.jpg

Hi Jessica,

We have everything now lined up for the Edgeware BESS Stage 4 for AeHg-61. As this is a historic farmstead site, the methodology will consist of topsoil removal followed by the documentation and investigation of any features identified in the subsoil.

We are planning to be on site for 9am on Monday May 26th, 2025. Our crew will consist of four Archaeologists with fieldwork planned for roughly 4 – 5 days.

Required PPE includes steel toed boots, high-vis vest and hard hat.

There is an access road into site off the west side of Highbury Avenue but parking off of Edgeware Line is likely the best option.

Attached is rough map showing the location of the site and general parking.

Any questions, please let me know.

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2
www.truenortharchaeology.com

From: Jana George
To: Bradley Drouin; Jessica Wakefield
Cc: Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: Re: Edgeware BESS - Stage 4 - May 26th
Date: Thursday, May 15, 2025 10:01:44 AM
Attachments: image001.png
Outlook-tawleb1z.png

Hi Bradley,

Thank you for sharing this information. I have confirmed that one of our monitors, Patrick Henry, is available to attend. His email is patrickroyhenrykp@gmail.com and his cell phone number is 548-997-9459.

Thank you,

Jana George
Consultation & Monitoring Coordinator

Email: jana.george@threefires.com

A-9119 W Ipperwash Rd
Kettle & Stony Point First Nation
Ontario N0N 1J1
www.threefires.com

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: May 14, 2025 1:39 PM
To: Jana George <Jana.George@threefires.com>; Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS - Stage 4 - May 26th

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Attached is rough map showing the location of the site and general parking.

Any questions, please let me know.

-Brad-

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Email: brad@truenortharchaeology.com

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Ottawa, ON, K2M 0E2
www.truenortharchaeology.com



From: Jana George
To: Bradley Drouin; Jessica Wakefield
Cc: Michael George; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: Re: Edgeware BESS Draft Stage 4 AA - historic AeHg-61 Report
Date: Wednesday, October 1, 2025 4:02:43 PM
Attachments: image001.png
image.png
Outlook-1qllppqk.png

Good afternoon Bradley,

I hope you are well! Our team has finished reviewing the report and we do not have any comments or questions at this time. We appreciate having the opportunity to review.

Thank you,

Jana George
Consultation & Monitoring Coordinator

Email: jana.george@threefires.com

A-9119 W Ipperwash Rd
Kettle & Stony Point First Nation
Ontario N0N 1J1
www.threefires.com

From: Jana George <Jana.George@threefires.com>
Sent: September 19, 2025 9:10 AM
To: Bradley Drouin <brad@truenortharchaeology.com>; Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Re: Edgeware BESS Draft Stage 4 AA - historic AeHg-61 Report

Hi Bradley,

Thank you for sharing the draft report. We have several report reviews due around the same time, but we will do our best to submit comments by the end of day October 1st. If we find we will not be able to complete the review by this time, we will reach out as soon as possible.

Thank you,

Jana George
Consultation & Monitoring Coordinator

Email: jana.george@threefires.com

A-9119 W Ipperwash Rd
Kettle & Stony Point First Nation
Ontario N0N 1J1
www.threefires.com

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: September 17, 2025 3:28 PM
To: Jessica Wakefield <Jessica.Wakefield@threefires.com>
Cc: Michael George <michael.george@southwindcorp.ca>; Jana George <Jana.George@threefires.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS Draft Stage 4 AA - historic AeHg-61 Report

Hi Jessica,

I hope the summer has treated you well. Please find attached the Draft Stage 4 archaeological assessment report for AeHg-61 for the Edgeware BESS Project for your review and comment.

I realize it's a quick turnaround, but having comments back by October 1st would be appreciated.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2
www.truenortharchaeology.com

4.0 RECORD OF ENGAGEMENT: CHIPPEWAS OF THE THAMES FIRST NATION

From:	LAURA BASHFORD
To:	Jennifer Mills; Kodi Deleary; Erna-Marie Leclair
Cc:	Bradley Drouin; tlivingstone@nrsi.on.ca; Constantin, Gabriel; Gagnon, Frédéric; NATHAN ROSCOE
Subject:	RE: arch contract
Date:	Tuesday, September 10, 2024 3:04:33 PM
Attachments:	~WRD0000.jpg image001.png image002.png image003.png image004.png image005.png Edgeware BESS - First Nation Intro - Sept 2024 - Final.pdf

Good afternoon Jennifer, Kodi, and Erna-Marie,

Thank you for your time on the call this morning! It was great to meet you all and to re-connect with you, Jennifer.

I appreciate you sending the contract. I'm attaching the presentation that we shared during the meeting. I will also add this presentation to the NationsConnect website as I know COTTFN would like documents uploaded there.

Kodi, I will be in touch shortly to set up another meeting with my manager, Nathan Roscoe (included here) to continue the discussion.

In the meantime, we will be updating our Community and Indigenous Plan which is posted on the Edgeware BESS website: https://www.edpr.com/north-america/edgeware-battery-storage-project

I mentioned this morning that we have an agreement with Algonquins of Pikwàkanagàn First Nation at the Nation Rise Wind Farm, here is a video which explains a bit about the partnership:
https://www.youtube.com/watch?v=Dxt9daCRETk

Thanks again, and hope you have a great week!
Laura

Laura Bashford
Development
EDP Renewables Canada Ltd.
a 219 Dufferin Street, Suite 117C, Toronto, ON M6K 3J1
c 289.200.4127

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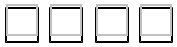
From: Jennifer Mills <jmills@cottfn.com>
Sent: Tuesday, September 10, 2024 2:04 PM
To: brad@truenortharchaeology.com; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; tlivingstone@nrsi.on.ca
Subject: arch contract

Hi

Great to meet with you this morning. Please see attached our Field Liaison agreement. I changed the reference to “Field Liaison” instead of specifically archaeology so that it could cover the aquatic assessment as well.

If you have any questions, please let me know.

Jennifer Mills (she/her)
Energy Sector Consultation Coordinator
Chippewas of the Thames First Nation
Email: jmills@cottfn.com
Cell: 647-990-7897 | Admin Office: 519-289-5555 Ex: 236
320 Chippewa Road, Muncey, Ontario



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From:	Jennifer Mills
To:	Bradley Drouin; Carolyn Albert
Cc:	Kodi Deleary; LAURA BASHFORD; NATHAN ROSCOE; Constantin, Gabriel; Gagnon, Frédéric
Subject:	RE: arch contract
Date:	Monday, September 16, 2024 4:23:21 PM
Attachments:	image001.png COTTFN_AFL Contract 2024 Edgeware BESS signed.pdf

Great, thanks. Please see signed agreement attached.

I'm copying Carolyn Albert who coordinates the logistics. That date should be fine for us. Please do send out the meeting details and Carolyn will write back closer to the date with the name and number of the Field Liaison.

Jen

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: September 16, 2024 2:14 PM
To: Jennifer Mills <jmills@cottfn.com>; Consultation <consultation@cottfn.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: arch contract

Hi Jennifer,

Thanks for your patience. Please find attached the completed and signed agreement. Once reviewed, if you see any edits, please let me know and I can make the changes.

As mentioned on the initial project call, our plan is to have our field team on site the morning of Monday 23 September 2024. I've included the consultation@cottfn.com email as directed in the consultation protocol. Please let me know if the proposed timing of the fieldwork is feasible and if I should be including any one else on this chain.

I'll be sending out a detailed email tomorrow about meet locations, crew, PPE, etc.

I'm looking forward to working with you on this project.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Jennifer Mills <jmills@cottfn.com>
Sent: Tuesday, September 10, 2024 1:04 PM
To: Bradley Drouin <brad@truenortharchaeology.com>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; tlivingstone@nrsi.on.ca
Subject: arch contract

Hi

Great to meet with you this morning. Please see attached our Field Liaison agreement. I changed the reference to "Field Liaison" instead of specifically archaeology so that it could cover the aquatic assessment as well.

If you have any questions, please let me know.

Jennifer Mills (she/her)
Energy Sector Consultation Coordinator
Chippewas of the Thames First Nation
Email: jmills@cottfn.com
Cell: 647-990-7897 | Admin Office: 519-289-5555 Ex: 236
320 Chippewa Road, Muncey, Ontario

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From:	Bradley Drouin
To:	Carolyn Albert
Cc:	Fallon Burch; Jennifer Mills; Gabyrell Kurtzrock Belyea
Subject:	RE: arch contract
Date:	Friday, September 20, 2024 3:11:00 PM
Attachments:	image001.png image002.jpg

Hi Carolyn,

I forgot to answer your earlier question. Yes, the intent is for the field program to be 9 consecutive days.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Carolyn Albert <calbert@cottfn.com>
Sent: Friday, September 20, 2024 10:39 AM
To: Bradley Drouin <brad@truenortharchaeology.com>
Cc: Fallon Burch <fburch@cottfn.com>; Jennifer Mills <jmills@cottfn.com>; Gabyrell Kurtzrock Belyea <gabryell@truenortharchaeology.com>
Subject: RE: arch contract

Hi Bradley/Gabby

I did see the location and supervisor in another email, so we are good. The field liaison for Monday will be Lisa Kechego on behalf of Chippewa and her cell number is (519) 494 – 2186 in case the supervisor needs it for any changes to the schedule.
Can someone please confirm if this is 1 day or 9 consecutive days?

Thanks,

Carolyn

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: Friday, September 20, 2024 10:19 AM
To: Carolyn Albert <calbert@cottfn.com>
Cc: Fallon Burch <fburch@cottfn.com>; Jennifer Mills <jmills@cottfn.com>; Gabyrell Kurtzrock Belyea <gabryell@truenortharchaeology.com>

Subject: Re: arch contract

> You don't often get email from brad@truenortharchaeology.com. Learn why this is important

Hi Carolyn,

I'm out in the field but have included Gabby who's our Field Director. She'll pass along her contact details and the location pin.

All the best,

-Brad-

From: Carolyn Albert <calbert@cottfn.com>
Sent: Friday, September 20, 2024 9:03:35 a.m.
To: Bradley Drouin <brad@truenortharchaeology.com>
Cc: Fallon Burch <fburch@cottfn.com>; Jennifer Mills <jmills@cottfn.com>
Subject: RE: arch contract

Hi Bradley

Can I get the pin location for the site on Monday along with the supervisor and his phone number to give to the field worker.

Thanks,

Carolyn

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: Tuesday, September 17, 2024 1:25 PM
To: Jennifer Mills <jmills@cottfn.com>; Carolyn Albert <calbert@cottfn.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Tara Livingstone <tlivingstone@nrsi.on.ca>; Charlotte Teat <cteat@nrsi.on.ca>
Subject: RE: arch contract

> Some people who received this message don't often get email from brad@truenortharchaeology.com. Learn why this is important

Hi Jennifer and Carolyn,

I also wanted to follow-up on the upcoming Aquatic survey that the NSRI team will be undertaking as part the Edgeware BESS.

Tara (cc'd) and her team have tentatively planned it for one day on September 23rd between 9am and 4pm. Realizing that the timing is tight, is this feasible and still of interest to participate? If so, are we able to undertake the work in the agreement sent yesterday or will another separate one be required? I'm fine with invoicing all under the same agreement.

Thanks,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Bradley Drouin
Sent: Monday, September 16, 2024 1:14 PM
To: Jennifer Mills <jmills@cottfn.com>; consultation@cottfn.com
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: arch contract

Hi Jennifer,

Thanks for your patience. Please find attached the completed and signed agreement. Once reviewed, if you see any edits, please let me know and I can make the changes.

As mentioned on the initial project call, our plan is to have our field team on site the morning of Monday 23 September 2024. I've included the consultation@cottfn.com email as directed in the consultation protocol. Please let me know if the proposed timing of the fieldwork is feasible and if I should be including any one else on this chain.

I'll be sending out a detailed email tomorrow about meet locations, crew, PPE, etc.

I'm looking forward to working with you on this project.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Jennifer Mills <jmills@cottfn.com>
Sent: Tuesday, September 10, 2024 1:04 PM
To: Bradley Drouin <brad@truenortharchaeology.com>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; tlivingstone@nrsi.on.ca
Subject: arch contract

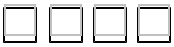
Hi

Great to meet with you this morning. Please see attached our Field Liaison agreement. I changed the reference to "Field Liaison" instead of specifically archaeology so that it could cover the aquatic assessment as well.

If you have any questions, please let me know.



Jennifer Mills (she/her)
Energy Sector Consultation Coordinator
Chippewas of the Thames First Nation
Email: jmills@cottfn.com
Cell: 647-990-7897 | Admin Office: 519-289-5555 Ex: 236
320 Chippewa Road, Muncey, Ontario



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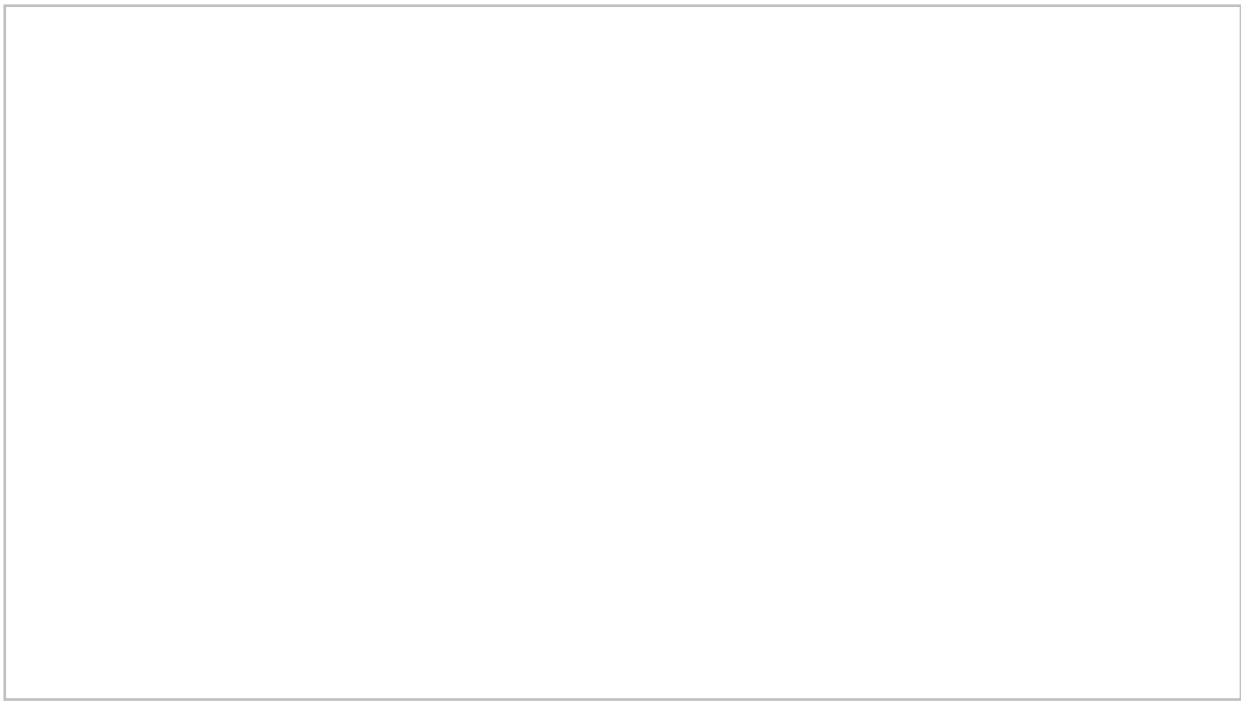
From: Bradley Drouin
To: Jennifer Mills; calbert@cottfn.com
Cc: Kodi Deleary; LAURA BASHFORD; NATHAN ROSCOE; Constantin, Gabriel; Gagnon, Frédéric
Subject: Edgeware BESS - upcoming Archaeology field programs - Stage 2 and 3
Date: Tuesday, September 17, 2024 8:08:00 AM
Attachments: image001.png
image002.png

Hello Carolyn and Jennifer,

As noted, below are the details for the planned Stage 2 and 3 fieldwork for the Edgeware BESS Project located in St. Thomas, ON. Fieldwork is slated to begin on Monday 23 September 2024 and run through to approximately 2 October. Relevant details are below.

If you have any questions, please reach out.

Project Name	Edgeware BESS (Battery Energy Storage Site)
Start Date/Time:	23 September 2024 – 8:00am
Site/Meet Location:	120 Highbury Avenue South, St. Thomas – this address gets you to the approximate location. See screen shot below for exact location.
Duration:	9 consecutive days - 1 day for Stage 2, and 8 days for Stage 3
Daily work schedule	8:00 am to ~4:00/4:30 pm
Proponent:	EDP Renewables Canada Ltd.
Licensed Archaeologist:	Bradley Drouin (P311) 613-863-7811 brad@truenortharchaeology.com
Field Director	Gabby Belyea 343-987-1684 gabryell@truenortharchaeology.com
TNAS Crew:	Lydia Spooner, Kelly Berckmans, Julia Chebott and Brandon Calbeck
Scope of Work:	Stage 2 Pedestrian survey and shovel testing Stage 3 Unit Excavation of AeHg-1 a mid-nineteenth century historic homestead. Potential Stage 3 of secondary location, should it be required.
PPE:	CSA steel toe boots, safety vest and gloves.
Washrooms:	Porta-potty will be on site



Parking/muster point may change depending on confirmation of access.

Please reach out if you have any questions.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From: Carolyn Albert
To: Bradley Drouin
Cc: Jennifer Mills; Fallon Burch
Subject: RE: Edgeware BESS - Update and input
Date: Friday, September 27, 2024 10:24:51 AM
Attachments: image001.png

Hi Bradley

I am responding to a field worker for this weekend. Lisa Kechego is on the site now and will work the weekend. She has already confirmed and let the supervisor know also.
Thank you for observing Monday as National Truth and Reconciliation day.

Carolyn

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: Tuesday, September 24, 2024 3:26 PM
To: Jennifer Mills <jmills@cottfn.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; Carolyn Albert <calbert@cottfn.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS - Update and input

Hello Jennifer,

I wanted to reach out to connect on a few items regarding the archaeology scope of the Edgeware BESS project. Once reviewed, if you prefer to set up a call to discuss, I'd be happy to do so.

1. In preparation for completing the Stage 1 background portion of the combined Stage 1 and 2, I was wondering if there was any information that you would like to have included.

2. Our team completed the majority of the Stage 2 yesterday. They re-located the historic scatter associated with AeHg-61 as well as the second historic scatter at the north end of the property. The second location is quite large so a detailed review of the artifact assemblage back at the lab will be required prior to determining next steps (e.g. Stage 3 or not). In addition to the historic scatters, the team identified some likely Pre-Contact Indigenous artifacts primarily in the southern portion of the study area. These too will need some additional review and input.

3. Given that Monday September 30th is National Day for Truth and Reconciliation there will be no archaeological fieldwork being undertaken. Work will resume on Tuesday

October 1st (and we will be working on the weekend – 28th and 29th)

If you'd like a call to discuss, please let me know and I can set something up.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com



From:	Jennifer Mills
To:	Bradley Drouin
Cc:	Kodi Deleary; Carolyn Albert; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	RE: Edgeware BESS - Stage 2 and 3 Interim Update
Date:	Thursday, October 10, 2024 3:06:22 PM
Attachments:	image001.png

Thanks for that. It is helpful that the site for the stage 3 overlaps with the Indigenous lithic cluster. Please send us the fieldwork logistics when available and Carolyn will see if we have capacity.

Jen

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: October 10, 2024 10:36 AM
To: Jennifer Mills <jmills@cottfn.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; Carolyn Albert <calbert@cottfn.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: Edgeware BESS - Stage 2 and 3 Interim Update

Hi Jennifer,

Thanks for getting back to me. I agree, the wide distribution of lithics may be attributed to the plough – similar to how the historic material is also widely distributed in some areas.

The five Indigenous lithics are located directly in the center of the proposed Stage 3 for the historic component. If there is a pre-contact Indigenous component in the northern area we'll identify it as effectively we'll be completing a Stage 3 over that small cluster.

With respect to what would trigger a Stage 3 for the lithics based on Stage 2 results – the Ministry outlines 10 flakes in a 10m x 10m area ploughed field, or one diagnostic and 2 flakes within a 10m x 10m of a ploughed field. There are other situations but they don't apply to our site currently.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Jennifer Mills <jmills@cottfn.com>
Sent: Thursday, October 10, 2024 10:04 AM
To: Bradley Drouin <brad@truenortharchaeology.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; Carolyn Albert <calbert@cottfn.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: Edgeware BESS - Stage 2 and 3 Interim Update

Hi

Thanks for the information. I did want to clarify something about the northern cluster. You mentioned that the Indigenous lithics were found in a small cluster in the north and then a widely distributed scatter. That could be due to the ploughing of the field over time. I understand that the distributed scatter does not meet Ministry standards to trigger stage 3. You then mention doing a stage 3 assessment for the northern cluster, but for the historic artifacts/features. Would that also then encompass the Indigenous lithics in the same area? If not, can you clarify how many flakes would have had to be found within that area to trigger stage 3 for the Indigenous component?

That said, I don't have a concern with the stage 3 work proceeding.

Thanks

Jen

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: October 8, 2024 9:18 AM
To: Jennifer Mills <jmills@cottfn.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; Carolyn Albert <calbert@cottfn.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS - Stage 2 and 3 Interim Update

Hi Jennifer,

The following provides an update on the interim results of the Stage 2 and 3 archaeological field programs completed between September 23rd and October 2nd for the Edgeware BESS project.

The Stage 2 pedestrian survey and shovel testing portion was completed on September 23rd and resulted in the identification and recovery of approximately 1,092 artifacts from 213 CSP (surface find) locations. Of those, 1,075 are historic and 17 are pre-contact Indigenous lithics. Map 1 provides a visual of the overall distribution of the respective artifact locations. As can be seen from the CSP results, there are two distinct cluster of historic artifacts: the original find location associated with AeHg-61 along the western boundary and a second cluster located in the northern corner of the study area. The pre-contact Indigenous lithics recovered from the site had one small cluster in the north consisting of 5 flakes within a 12m x 8m area with the remainder of the lithics more widely distributed across the study area. The lithic artifacts recovered consisted primarily of tertiary and secondary flake debitage with one flaked Late Woodland Projectile point (likely Daniels Triangular) and a possible ground stone point (Image 1). The ground stone point doesn't show typical use-wear from grinding or polishing so it may be a natural lithic that has a similar form to a projectile point. It has been retained as a point until a more detail review can be completed. Based on the Ministry of Citizenship and Multiculturalism's *Standards and Guidelines for Consultant Archaeologist*, the distribution of pre-contact Indigenous artifacts does not trigger a requirement for a Stage 3.

Following completion of the Stage 2, the crew began the Stage 3 site specific assessment of AeHg-61. Work on this site was completed between September 24th and October 2nd and resulted in the excavation of 47 1m x 1m units and the recovery of approximately 2,330 artifacts (Map 2). Over the next week or two, the artifact assemblage will be washed and I'll be able to provide firmer artifact counts. In addition to the historic artifacts recovered, which cluster around the mid-19th century, a number of features were also identified. As a result, AeHg-61 will be recommended for Stage 4 through topsoil stripping and possible some hand excavation. However, prior to moving forward with developing the Stage 4 methodology for the historic component, the artifacts will be reviewed in detail to determine if there is a pre-contact Indigenous component that may require a different mitigation strategy. If that is the case, I will reach out to start discussions regarding preferred approaches.

With respect to the norther cluster of historic artifacts, and through discussions with the client, that area will be recommended for Stage 3 site specific assessment. Given that it's already getting late in the season, the client would like to move forward with the Stage 3 as soon as possible. I understand that there are internal review periods on your end but was hoping to begin the Stage 3 by the week of October 15th. Please let me know if this is too rushed and what other information you need.

If a call to go over the results in more detail is something of interest, please let me know and I can set something up where I can share my screen.

Respectfully,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

57 Beaufort Drive
Ottawa, ON, K2L 2B9

www.truenortharchaeology.com

From:	Bradley Drouin
To:	Jennifer Mills; Carolyn Albert
Cc:	Kodi Deleary; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	Edgeware BESS - Draft Stage 3 results for AeHg-61 - Stage 4 recommended
Date:	Monday, November 18, 2024 5:33:00 AM
Attachments:	image001.png Map 1 - AeHg-61 MTR limits.pdf

Hi Jennifer and Carolyn,

I wanted to provide the draft results of the AeHg-61 Stage 3 archaeological assessment completed between 25 September and 2 October 2024 for the Edgeware BESS project. The artifacts recovered during the Stage 3 assessment have now been washed with a cursory review completed. A total of approximately 2,335 artifacts were recovered with the majority (2,332) representing the historic occupation and 3 potential tertiary flakes also being recovered.

The recovered historic material is primarily domestic in nature (plates, bowls, personal items, smoking pipes, etc.) with some structural elements (nails, small brick fragments and window glass). A large number of early decoration styles were also observed: hand painted, industrial slip, and early transfer print. Additionally, ceramic pipe bowls were recovered along with one gun flint. Given the nature of the observed assemblage, AeHg-61 appears to date to approximately the mid to late nineteenth century.

In addition to the recovered artifacts, six likely features were also observed in the subsoil of the Stage 3 units. These were documented in the field as per Ministry Standards and Guidelines and covered before backfilling the respective units. Based on the results to date, AeHg-61 does meet the requirements for Stage 4 mitigation of development impacts. As the site is located within the middle of the planned Edgeware BESS development, avoidance and protection isn't an option. As such, we are recommending Stage 4 mitigation by mechanical topsoil removal.

The proposed Stage 4 mitigation approach includes the mechanical topsoil removal (MTR) within the Stage 3 excavation limits of archaeological site AeHg-61 (Map 1), and the identification and hand excavation of exposed subsurface features considered to possess archaeological significance in accordance with the MCM *Standards and Guidelines for Consultant Archaeologists* (2011). The Stage 4 MTR approach will be to mechanically remove the former ploughzone overlying the intact subsoil deposits to expose and delineate potential in-situ subsurface cultural features. The MTR component will employ heavy equipment (e.g., excavator) to pull soil away using a smooth bucket. All exposed subsoil surfaces will be cleaned by shovel or trowel following the MTR.

In accordance with the MCM *Standards and Guidelines for Consultant Archaeologists* (2011), each identified feature documented within the excavation area will be fully exposed and will be drawn to scale in plan view before a cross-section of each feature is hand excavated

stratigraphically by lot, with the backdirt screened through 6 mm mesh. All artifacts recovered during the feature excavation will be bagged according to location and stratigraphic layer and the location of all archaeologically significant features will be mapped. A general field log will be maintained along with digital photographs of the Stage 4 archaeological mitigation.

This approach is based on Section 4.2.3 "*Excavation by mechanical topsoil removal (topsoil stripping)*" and Section 4.2.7 "*Site-specific requirements: 19th century domestic archaeological sites*" documented in the MCM *Standards and Guidelines for Consultant Archaeologists* (2011) and Section 7.2.2 "*Formulating the Strategy for Stage 4*" described in the *Draft Bulletin for the Archaeology of Rural Historical Farmsteads in Ontario* (2014) issued by the MCM.

The Stage 4 schedule is uncertain but EDP Renewables wishes to proceed towards the end of November 2024/beginning of December in order to have the archaeological reports and clearances received over the winter. Once you've had a chance to review the above information, please let me know if you have any questions and if the proposed schedule (being completed in 2024) is suitable.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2

www.truenortharchaeology.com

From: Jennifer Mills
To: Bradley Drouin
Cc: Carolyn Albert; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: RE: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 2 of 2
Date: Wednesday, March 5, 2025 10:57:59 AM
Attachments: image001.png

Hi Brad

Thanks for sharing the reports. I should be able to review them and send any comments by March 21st. We are aiming to have some Field Liaisons hired back by the end of March.

Jen

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: March 4, 2025 8:42 AM
To: Jennifer Mills <jmills@cottfn.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; Carolyn Albert <calbert@cottfn.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 2 of 2

Hi Jennifer,

As noted in my previous email, attached is the Stage 3 Site Specific Assessment report for AeHg-61 located within the Edgeware BESS project area. Once reviewed, please let me know what edits or comments you may have.

If schedules allow, please provide comments/edits by March 21st.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

From: Bradley Drouin
Sent: Tuesday, March 4, 2025 8:36 AM
To: Jennifer Mills <jmills@cottfn.com>

Cc: Kodi Deleary <kodi.deleary@cottfn.com>; Carolyn Albert <calbert@cottfn.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Hi Jennifer,

I hope the winter has treated you well. Please find attached the Draft Stage 1 and 2 archaeological assessment report for the Edgeware BESS Project for your review and comment.

As noted in correspondence from last year, we had identified two predominantly historic artifact scatters during the Stage 2 pedestrian survey and test pitting program – one in the south (AeHg-61) and one in the north (AeHg-142). Initially we had planned to undertake a Stage 3 for AeHg-142 but through a detailed review of the historical Lot information and artifact analysis, AeHg-142 was not recommended for Stage 3 as it primarily dates to the early 20th century.

Due to large file size, I'll send the Stage 3 Draft report covering AeHg-61 for your review and comment under separate cover. Due to the mid-nineteenth century date, AeHg-61 did meet the requirements for Stage 4 mitigation by topsoil stripping which we're hoping to complete as soon as field conditions allow. There were two Pre-Contact Indigenous flakes recovered during the Stage 3 assessment of AeHg-61. When combined with the Stage 2 results, the Indigenous component does not meet the MCM standards for additional assessment. Once the results are reviewed, I'd be happy to set up a time to discuss.

Depending on the weather over the next two to three weeks, we'd like to complete that 5-day Stage 4 field program sometime towards the end of March. Please let us know if this timing is suitable and whether you will have someone in the field with us? I can provide firm dates a bit closer to the time.

If you could provide comments March 21st that would be appreciated.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2

www.truenortharchaeology.com

From:	Jennifer Mills
To:	Bradley Drouin
Cc:	Carolyn Albert; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject:	RE: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2
Date:	Friday, March 21, 2025 11:17:25 AM
Attachments:	image001.png

Hi Brad

Thanks for providing the reports. I enjoyed reading them. They were very comprehensive, including the Indigenous history. I don't have any questions or concerns.

Few minor edits:

Stage 1-2 report

- Cover page – date at top says January 2024 (only this page)
- P. 10 – check spelling of Point Pelee
- P. 34 – it says Marwood eloped on the day of his marriage. But on p.11, it stated that he was already married to Fanny (1851) and suggested it was the wedding day of the young relative in 1859.

Stage 3 report

- P. 9 – spelling of Point Pelee
- P. 17 - fieldwork happened in Sept 2024, not 2025
- P. 33 – same Marwood note as above

I will get an invoice prepared for the report review.

In terms of field monitors, we are getting their contracts signed next week, so we should have liaisons ready for week of March 31st.

Please keep me and Carolyn informed of the fieldwork plans.

Thanks

Jen

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: March 4, 2025 8:36 AM
To: Jennifer Mills <jmills@cottfn.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; Carolyn Albert <calbert@cottfn.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>

Subject: Edgeware BESS Draft Archaeology Reports and Update on Stage 4 - email 1 of 2

Hi Jennifer,

I hope the winter has treated you well. Please find attached the Draft Stage 1 and 2 archaeological assessment report for the Edgeware BESS Project for your review and comment.

As noted in correspondence from last year, we had identified two predominantly historic artifact scatters during the Stage 2 pedestrian survey and test pitting program – one in the south (AeHg-61) and one in the north (AeHg-142). Initially we had planned to undertake a Stage 3 for AeHg-142 but through a detailed review of the historical Lot information and artifact analysis, AeHg-142 was not recommended for Stage 3 as it primarily dates to the early 20th century.

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If you could provide comments March 21st that would be appreciated.

All the best,

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.

Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2

www.truenortharchaeology.com

From: Jennifer Mills
To: Bradley Drouin; Carolyn Albert
Subject: RE: Edgeware BESS - Stage 4 - May 26th
Date: Thursday, May 22, 2025 10:27:47 AM
Attachments: image001.png

Hi Brad

Thanks for the notice. I'm just realizing that our last agreement expired Dec. 31st. Could I send you a new one to sign for 2025?

Jen

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: May 14, 2025 1:40 PM
To: Jennifer Mills <jmills@cottfn.com>; Carolyn Albert <calbert@cottfn.com>
Cc: NATHAN ROSCOE <nathan.roscoe@edp.com>; LAURA BASHFORD <laura.bashford@edp.com>; KENDRA KALLEVIG <kendra.kallevig@edp.com>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS - Stage 4 - May 26th

Hi Jennifer and Carolyn,

We have everything now lined up for the Edgeware BESS Stage 4 for AeHg-61. As this is a historic farmstead site, the methodology will consist of topsoil removal followed by the documentation and investigation of any features identified in the subsoil.

We are planning to be on site for 9am on Monday May 26th, 2025. Our crew will consist of four Archaeologists with fieldwork planned for roughly 4 – 5 days.

Required PPE includes steel toed boots, high-vis vest and hard hat.

There is an access road into site off the west side of Highbury Avenue but parking off of Edgeware Line is likely the best option.

Attached is rough map showing the location of the site and general parking.

Any questions, please let me know.

-Brad-

Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

220 Terence Matthews Crescent, Unit 2D
Ottawa, ON, K2M 0E2
www.truenortharchaeology.com

From: Carolyn Albert
To: Bradley Drouin
Subject: AFL Time Sheet Week of May 26-30 Edgware Bess Site
Date: Tuesday, June 10, 2025 6:50:14 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
AFL Time Sheet for Jennifer.pdf

Hi Bradley

See attached time sheet for Jennifer Antone for the week of May 26 – 30th on the Edgware Bess site. This is for your reference only but if you see any differences, please let me know.

Thank you,

Carolyn Albert
Administrative Coordinator
Chippewas of the Thames First Nation
Email: calbert@cottfn.com
Office: 519-289-5555 ext. 233
320 Chippewa Road, Muncey, Ontario

Visit us online at cottfn.com

From: Jennifer Mills
To: Bradley Drouin
Cc: Carolyn Albert; NATHAN ROSCOE; LAURA BASHFORD; KENDRA KALLEVIG; Constantin, Gabriel; Gagnon, Frédéric
Subject: RE: Edgeware BESS Draft Stage 4 AA - historic AeHg-61 Report
Date: Thursday, October 2, 2025 10:07:11 AM
Attachments: image001.png

Hi Brad

Thanks for the opportunity to review this report. Once again found it an interesting read. I just have one comment:

p. 9 “The Chiefs agreed to vacate the land…”. Would you be open to adding, “According to the Treaty text, the Chiefs agreed to vacate the land…”. Given the linguistic and cultural differences, as well as who created the written records, it’s hard to say now what the understanding was of the First Nations signatories. COTTFN definitely asserts Aboriginal and Treaty rights to practice traditional uses over that land.

No other comments or questions. Thanks!

Jen

From: Bradley Drouin <brad@truenortharchaeology.com>
Sent: September 17, 2025 3:29 PM
To: Jennifer Mills <jmills@cottfn.com>
Cc: Kodi Deleary <kodi.deleary@cottfn.com>; Carolyn Albert <calbert@cottfn.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: Edgeware BESS Draft Stage 4 AA - historic AeHg-61 Report

Hi Jennifer,

I hope the summer has treated you well. Please find attached the Draft Stage 4 archaeological assessment report forAeHg-61 for the Edgeware BESS Project for your review and comment.

I realize it’s a quick turnaround, but having comments back by October 1st would be appreciated.

All the best,

-Brad-

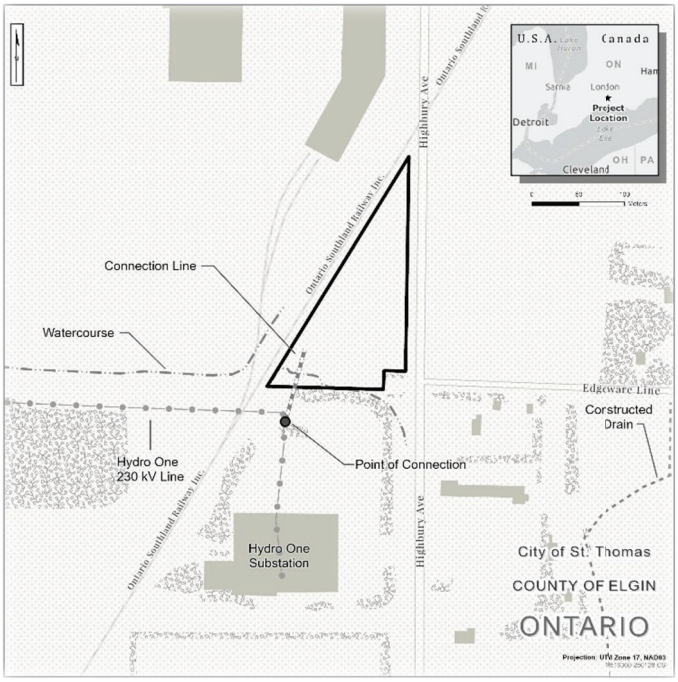
Bradley Drouin, M.A.
Principal, Senior Archaeologist
True North Archaeological Services Inc.
Mobile: 613-863-7811
Email: brad@truenortharchaeology.com

NOTICE OF COMMENCEMENT
CLASS ENVIRONMENTAL ASSESSMENT FOR TRANSMISSION FACILITIES
Proposed Edgeware Battery Energy Storage Project

Edgeware BESS Project Limited Partnership (the Proponent) is initiating a Class Environmental Assessment (EA) for the Edgeware Battery Energy Storage System (BESS) Project. This project is a development partnership between EDP Renewables Canada Ltd. and Caldwell First Nation. The project occupies approximately 5 acres of land located on the west side of Highbury Avenue and Edgeware Line, in the City of St. Thomas, Ontario.

Project Description

The Project will include the construction of battery energy storage units, a transformer station, transmission connection facilities, and ancillary components. The project will ultimately provide a maximum of 75 megawatts (MW) of power storage and up to four consecutive hours (300 MWh) of electricity output available during periods of electricity grid demand. The project will connect to the transmission grid through the Hydro One Networks Inc. transmission system.



Need for the Project

Ontario's Independent Electricity System Operator (IESO) has identified a significant need for new power supply in the province. The project was awarded a 20-year contract with IESO the under the Long-Term 1 RFP in 2024. The proposed BESS would help meet increasing local and provincial demands by providing stored energy. The BESS will generally be charged during off-peak periods and discharged back to the grid during periods of peak demand.

Class Environmental Assessment Process

While the battery storage units are not subject to an environmental assessment (EA), the proposed transformer station is subject to the Class EA for Transmission Facilities (Class EA for TF) in accordance with Ontario's Environmental Assessment Act.

Project Contacts

For questions or comments on the Project, please mail or email them to:
Laura Bashford, Senior Project Developer
219 Dufferin Street Toronto M6K 3J1
T: 289.200.4127
edgeware-bess@edpr.com

edp Renewables

Stay up to date on the Project by visiting the Project webpage at:
https://www.edpr.com/north-america/edgeware-energy-storage-project

All personal information included in your request – such as name, address, telephone number and property location – is collected, under the authority of Section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As the information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment, Conservation and Parks' Freedom of Information and Privacy Coordinator at foi.mecp@ontario.ca.

Outlook

Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Fri 2025-01-31 2:45 PM
To joe@kettlecreekconservation.on.ca <joe@kettlecreekconservation.on.ca>

1 attachment (363 KB)
Edgeware BESS - Notice of Commencement of Class EA.pdf;

Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are providing this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn

Outlook

RE: Notice of Commencement of a Class EA - Edgeware BESS

From Maisa Fumagalli <maisa@kettlecreekconservation.on.ca>
Date Thu 2025-02-06 4:36 PM
To Gagnon, Frédéric <frederic.gagnon@dnv.com>

You don't often get email from maisa@kettlecreekconservation.on.ca. Learn why this is important

Caution: This email originated from outside of the **DNV Organization.** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Frederic,

Please add me to the circulation list for this project. It appears the project area contains KCCA Regulated lands and flood hazard lands. Please keep KCCA involved as the project develops; a permit from the KCCA would be required for any work within our regulated areas.

Thanks,

Maisa Fumagalli

Planning and Regulations Supervisor
Kettle Creek Conservation Authority
Tel: (519) 631-1270 ext.226
www.kettlecreekconservation.on.ca

From: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Sent: January 31, 2025 2:46 PM
To: Joe Gordon <joe@kettlecreekconservation.on.ca>
Subject: Notice of Commencement of a Class EA - Edgeware BESS

You don't often get email from frederic.gagnon@dnv.com. Learn why this is important

Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are providing this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn



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****

Outlook

Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Fri 2025-01-31 2:44 PM
To Gagnon, Frédéric <frederic.gagnon@dnv.com>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Bcc lrosales@aamjiwnaang.ca <lrosales@aamjiwnaang.ca>; cjackson@aamjiwnaang.ca <cjackson@aamjiwnaang.ca>; ecc@caldwellfirstnation.ca <ecc@caldwellfirstnation.ca>; Jessica.Wakefield@threefires.com <Jessica.Wakefield@threefires.com>; consultation@kettlepoint.org <consultation@kettlepoint.org>; rsmith@cottfn.com <rsmith@cottfn.com>; environment@oneida.on.ca <environment@oneida.on.ca>; abeveridge@aamjiwnaang.ca <abeveridge@aamjiwnaang.ca>; larissa.wrightman@wifn.org <larissa.wrightman@wifn.org>

1 attachment (363 KB)
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Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn



Outlook

Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Fri 2025-01-31 2:48 PM
To Gagnon, Frédéric <frederic.gagnon@dnv.com>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Bcc ecd@caldwellfirstnation.ca <ecd@caldwellfirstnation.ca>

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn

Outlook

Re: Notice of Commencement of a Class EA - Edgeware BESS

From Jessica Wakefield <Jessica.Wakefield@threefires.com>
Date Wed 2025-02-05 1:28 PM
To Gagnon, Frédéric <frederic.gagnon@dnv.com>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; Jana George <Jana.George@threefires.com>; Michael George <michael.george@southwindcorp.ca>

Caution: This email originated from outside of the **DNV Organization.** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Frédéric,

Thank you for the notification. We look forward to our involvement in the Class EA process.

We are interested in learning more about the Class EA process for this project and participating in any document review, discussions around potential impacts and participation in any fieldwork monitoring opportunities.

We have an existing capacity funding agreement with EDP and True North Archaeological Services. Would this agreement apply to our involvement in the Class EA or should a different agreement be created?

Thanks,
Jess

From: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Sent: Friday, January 31, 2025 2:44 PM
To: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Cc: Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Subject: Notice of Commencement of a Class EA - Edgeware BESS

Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are providing this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn



****
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****

Outlook

Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Mon 2025-02-03 4:28 PM
To MEDEIROS Barbara -ENV H&S <barbara.medeiros@opg.com>
Cc LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>

1 attachment (363 KB)
Edgeware BESS - Notice of Commencement of Class EA.pdf;

Hi Barbara,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are submitting this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services

Tel: +1-438-454-4722 / Extension 80505

DNV

From: MEDEIROS Barbara -ENV H&S <barbara.medeiros@opg.com>
Sent: 3 février 2025 16:21
To: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: RE: query with opg.com (NoC)

You don't often get email from barbara.medeiros@opg.com. Learn why this is important

Caution: This email originated from outside of the **DNV Organization.** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Fred,

Thank you for reaching out to OPG to inform regarding a Notice of Commencement of a Class EA for your project. Can you please send me the NoC for review of impacts to OPG?

Thanks,
Barb

Barbara Medeiros, M.Sc. (She/Her)

Senior Manager
Environment, Health & Safety
647-462-8487

From: Ontario Power Generation <support@opg.com>
Sent: Monday, February 3, 2025 4:15 PM
To: MEDEIROS Barbara -ENV H&S <barbara.medeiros@opg.com>
Subject: opg.com | Message from Frederic about Regulatory Affairs

Hi Barb,
Thank you for taking this request and getting back to Mr. Gagnon. His contact info is:

Fred Gagnon
frederic.gagnon@dnv.com

Please let me know if you have any questions that I can help with.

Lori
Support Team Member
support@opg.com
Subscribe to stay informed.

Description:
Hi, Per the Guide for Class Environmental Assessment for Transmission Facilities, we are required to submit to OPG a Notice of Commencement of a Class EA for our project. To what email address should the NoC be submitted? Thank you, Fred
---

Please do not remove or modify the following reference:
ref:_00D5eeL5cF._500JQZP9SA:ref

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this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.

Outlook

RE: opgprojects.com | Message from Frederic about New Post Creek

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Thu 2025-02-06 9:01 AM
To Ontario Power Generation <support@opg.com>
Cc MEDEIROS Barbara -ENV H&S <barbara.medeiros@opg.com>

Good Morning,

Thank you for your response, but someone from your Environment, Heath and Safety Branch has already reached out.

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services

Tel: +1-438-454-4722 / Extension 80505

DNV

From: Ontario Power Generation <support@opg.com>
Sent: 6 février 2025 08:36
To: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Subject: opgprojects.com | Message from Frederic about New Post Creek

You don't often get email from support@opg.com. Learn why this is important

Caution: This email originated from outside of the **DNV Organization.** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Frederic,
Are you able to provide us with more information about what you are looking for? What is the project associated with the EA? Why are you looking to submit the Notice of Commencement to OPG? Is it related to one of our facilities?

Thank you,

Kate

Kate Cantin
Senior Communications Advisor, Northeast Operations

support@opg.com

Subscribe to stay informed.

Description:

Hi, I would like the email address where I can submit a Notice of Commencement of a Class EA. Per the Guide for Class Environmental Assessment for Transmission Facilities, the NoC for our project should be submitted to OPG. Thank you. Fred Original message: 2025-01-31 21:20:47

Please do not remove or modify the following reference:

ref:_00D5eeL5cF._500JQZXrxa:ref

Outlook

RE: Notice of Commencement of Class EA - Edgeware BESS

From CURRIE J. Brent <J.Brent.Currie@HydroOne.com>
Date Thu 2025-02-06 2:30 PM
To LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Cc Gagnon, Frédéric <frederic.gagnon@dnv.com>; Constantin, Gabriel <gabriel.constantin@dnv.com>; Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; NG Perry Pak Kai <PerryPakKai.Ng@hydroone.com>; DOMINGUES Abigail <Abigail.Domingues@hydroone.com>; YAGNIK Prayosha <Prayosha.Yagnik@hydroone.com>

1 attachment (358 KB)
Edgeware BESS - Notice of Commencement of Class EA.pdf;

Some people who received this message don't often get email from j.brent.currie@hydroone.com. Learn why this is important

Caution: This email originated from outside of the **DNV Organization.** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks Laura,

For the EA notice, I'll share this with the team internally.

Thanks,

J. Brent Currie

Hydro One Networks Inc.
Tx. Account Executive
Key Accounts Management
Cell: (226) 280-1030
Email: J.Brent.Currie@hydroone.com

From: LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Sent: Thursday, February 6, 2025 1:46 PM
To: CURRIE J. Brent <J.Brent.Currie@HydroOne.com>
Cc: Gagnon, Frédéric <frederic.gagnon@dnv.com>; Constantin, Gabriel <gabriel.constantin@dnv.com>; NATHAN ROSCOE <NATHAN.ROSCOE@EDP.COM>; KENDRA KALLEVIG <KENDRA.KALLEVIG@EDP.COM>; NG Perry Pak Kai <PerryPakKai.Ng@hydroone.com>; DOMINGUES Abigail <Abigail.Domingues@hydroone.com>
Subject: Notice of Commencement of Class EA - Edgeware BESS

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Good afternoon Brent,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are submitting this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS). Please see attached for the

document.

If there is another contact at HONI that you think should receive the Notice, could you please let me know their contact information?

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

Thank you,
Laura

Laura Bashford
Development
EDP Renewables Canada Ltd.
a 219 Dufferin Street, Suite 117C, Toronto, ON M6K 3J1
c 289.200.4127

Please reply during your own working hours and consider the environment before printing.

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Se recebeu esta mensagem por engano, pedimos que não divulgue nem faça uso desta informação. Agradecemos que avise o remetente da mesma, por correio eletrónico, e apague este e-mail do seu sistema.

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Este mensaje y los archivos adjuntos pueden contener información confidencial y/o privilegiada, que no deberá ser divulgada, copiada, guardada o distribuida de acuerdo al cumplimiento de la ley vigente.
Si ha recibido este mensaje por error, le pedimos que no divulgue o haga uso de esta información. Le agradecemos que notifique el error al remitente enviándole un correo electrónico y elimine este email de su dispositivo.

Outlook

Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Fri 2025-01-31 2:46 PM
To kdestun@stthomas.ca <kdestun@stthomas.ca>; lpompilii@stthomas.ca <lpompilii@stthomas.ca>; jmccoomb@stthomas.ca <jmccoomb@stthomas.ca>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>

1 attachment (363 KB)
Edgeware BESS - Notice of Commencement of Class EA.pdf;

Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are providing this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn

Outlook

Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Mon 2025-02-03 10:57 AM
To karla.barboza@ontario.ca <karla.barboza@ontario.ca>; Gibson, Amy (ENERGY) <amy.gibson@ontario.ca>; mnrf.ayl@ontario.com <mnrf.ayl@ontario.com>; msowest@ontario.ca <msowest@ontario.ca>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>

1 attachment (363 KB)
Edgeware BESS - Notice of Commencement of Class EA.pdf;

Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are providing this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn



Outlook

Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Mon 2025-02-03 11:14 AM
To 'mso-sw@ontario.ca' <mso-sw@ontario.ca>

1 attachment (363 KB)
Edgeware BESS - Notice of Commencement of Class EA.pdf;

Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are providing this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn

Outlook

Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Fri 2025-01-31 2:30 PM
To ClassEAnotices@ontario.ca <ClassEAnotices@ontario.ca>; eanotification.swregion@ontario.ca <eanotification.swregion@ontario.ca>; john.s.ritchie@ontario.ca <john.s.ritchie@ontario.ca>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>

1 attachment (363 KB)
Edgeware BESS - Notice of Commencement of Class EA.pdf;

Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are submitting this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

Per the Guide for *Class Environmental Assessment for Transmission Facilities*, we await your initial input regarding the Class EA for this project.

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
dnv.com | LinkedIn



Outlook

Automatic reply: Notice of Commencement of a Class EA - Edgeware BESS

From EA Notices to SWRegion (MECP) <eanotification.swregion@ontario.ca>
Date Fri 2025-01-31 2:31 PM
To Gagnon, Frédéric <frederic.gagnon@dnv.com>

Caution: This email originated from outside of the **DNV Organization.** Do not click links or open attachments unless you recognize the sender and know the content is safe.

This is to acknowledge your email has been delivered to the Regional email account. A Regional EA Coordinator will contact you if additional information is needed. To speak directly to a Regional EA Coordinator, go to the INFO-GO website and under our ministry, select: 1) Drinking Water and Environmental Compliance Division 2) applicable Regional Office 3) Technical Support Section 4) Air, Pesticides, and Environmental Planning 5) Environmental Planner and EA Coordinator

Outlook

RE: Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Mon 2025-02-03 10:34 AM
To Macki, Monika (MECP) <Monika.MacKi@ontario.ca>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>

1 attachment (123 KB)
Streamlined_ea_project_information_form_2.xlsx;

Hi Monika,

Here is the Project Information Form as requested,

Please let me know if you need anything else.

Best,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services

Tel: +1-438-454-4722 / Extension 80505

DNV

From: Macki, Monika (MECP) <Monika.MacKi@ontario.ca>
Sent: 3 février 2025 10:03
To: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Cc: Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Subject: RE: Notice of Commencement of a Class EA - Edgeware BESS

You don't often get email from monika.macki@ontario.ca. Learn why this is important

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Hi Frederic,

Thank you for the notice of commencement for the Edgeware BESS project. Can you please fill and submit the Project Information Form and send back to eanotification.swregion@ontario.ca. Can you please specify the date of issuance for this NOC?

Thanks,

Monika Macki
Environmental Resource Planner/Environmental Assessment Coordinator
Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
monika.macki@ontario.ca

From: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Sent: Friday, January 31, 2025 2:31 PM
To: EAB Director (MECP) <EABDirector@ontario.ca>; EA Notices to SWRegion (MECP) <eanotification.swregion@ontario.ca>; Ritchie, John (He/Him) (MECP) <John.S.Ritchie@ontario.ca>
Cc: Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Subject: Notice of Commencement of a Class EA - Edgeware BESS

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Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are submitting this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

Per the Guide for *Class Environmental Assessment for Transmission Facilities*, we await your initial input regarding the Class EA for this project.

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
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Outlook

RE: Notice of Commencement of a Class EA - Edgeware BESS

From Gagnon, Frédéric <frederic.gagnon@dnv.com>
Date Mon 2025-02-03 10:45 AM
To 'eanotification.swregion@ontario.ca' <eanotification.swregion@ontario.ca>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>; 'Macki, Monika (MECP)' <Monika.MacKi@ontario.ca>

2 attachments (486 KB)
Edgeware BESS - Notice of Commencement of Class EA.pdf; Streamlined_ea_project_information_form_2.xlsx;

Good Morning,

Please receive the Project Information Form for this Project.

Best,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services

Tel: +1-438-454-4722 / Extension 80505

DNV

From: Macki, Monika (MECP) <Monika.MacKi@ontario.ca>
Sent: 3 février 2025 10:03
To: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Cc: Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Subject: RE: Notice of Commencement of a Class EA - Edgeware BESS

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Hi Frederic,

Thank you for the notice of commencement for the Edgeware BESS project. Can you please fill and submit the Project Information Form and send back to eanotification.swregion@ontario.ca. Can you please specify the date of issuance for this NOC?

Thanks,

Monika Macki
Environmental Resource Planner/Environmental Assessment Coordinator
Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
monika.macki@ontario.ca

From: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Sent: Friday, January 31, 2025 2:31 PM
To: EAB Director (MECP) <EABDirector@ontario.ca>; EA Notices to SWRegion (MECP) <eanotification.swregion@ontario.ca>; Ritchie, John (He/Him) (MECP) <John.S.Ritchie@ontario.ca>
Cc: Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>
Subject: Notice of Commencement of a Class EA - Edgeware BESS

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Hello,

On behalf of Edgeware BESS Project Limited Partnership (the Proponent), we are submitting this Notice of Commencement of a Class EA for the Edgeware Battery Energy Storage System (BESS).

Per the Guide for *Class Environmental Assessment for Transmission Facilities*, we await your initial input regarding the Class EA for this project.

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

Regards,

Frédéric Gagnon
Senior Scientist
Environmental & Permitting Services
Energy Systems

DNV Canada Inc.
frederic.gagnon@dnv.com
Tel: +1-438-454-4722 / Extension 80505
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Outlook

RE: Notice of Commencement of a Class EA - Edgeware BESS

From Abrazhevich, Anastasia (MCM) <Anastasia.Abrazhevich2@ontario.ca>
Date Tue 2025-03-04 9:59 AM
To Gagnon, Frédéric <frederic.gagnon@dnv.com>; Barboza, Karla (She/Her) (MCM) <Karla.Barboza@ontario.ca>; Gibson, Amy (ENERGY) <Amy.Gibson@ontario.ca>; mnrf.ayl@ontario.com <mnrf.ayl@ontario.com>; msowest@ontario.ca <msowest@ontario.ca>
Cc Nathan Roscoe <NATHAN.ROSCOE@EDP.COM>; LAURA BASHFORD <LAURA.BASHFORD@EDP.COM>

2 attachments (584 KB)

2025-03-04-CityofStThomas_EdgewareBatteryEnergySystem_NofCommencement.pdf; 2025-02-03 Edgeware_BESS_NofCommencement.pdf;

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Dear Frédéric

Thanks for sending the Notice of Commencement for the above referenced project to the Ministry of Citizenship and Multiculturalism. Please find attached MCM's preliminary comments on this Addendum.

If you have any questions or require clarification, do not hesitate to contact us.

Kind regards,

Anastasia Abrazhevich
Heritage Planner | Citizenship, Inclusion and Heritage Division
Ministry of Citizenship and Multiculturalism | Ontario Public Service
437 240 2379 anastasia.abrazhevich2@ontario.ca

Ontario

Taking pride in strengthening Ontario, its places and its people

From: Gagnon, Frédéric <frederic.gagnon@dnv.com>
Sent: Monday, February 3, 2025 10:58 AM
To: Barboza, Karla (She/Her) (MCM) <Karla.Barboza@ontario.ca>; Gibson, Amy (ENERGY) <Amy.Gibson@ontario.ca>; mnrf.ayl@ontario.com; msowest@ontario.ca

Outlook

Mailing Shipped Today

From
Date Wed 2025-02-19 2:09 PM
To Gagnon, Frédéric <frederic.gagnon@dnv.com>

Caution: This email originated from outside of the **DNV Organization.** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Frederic,

We were able to complete your mailing and se nd it into Canada Post today. I have attached the SOM that confirms all of the mailing details. Please note that this is **not** an invoice, an invoice will follow through regular channels.
As Mail-It has paid your postage in advance, please ensure payment is made upon receipt of your invoice.

Attached is a screenshot showing the tracking #'s for he Registered Mail as well.

Thanks again for the opportunity to work on this project and p lease let me kno w if you need anything else.

Regar ds ,
Scott

-- Scott DoernMail-It Inc.16A-650 Woodlawn Rd WGuelph ON N1K 1B8Phone: 519.823.7941Cell: 519.993.8591Web: www.mail-it.ca

Classifieds

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Public Notices

NOTICE OF COMMENCEMENT
CLASS ENVIRONMENTAL ASSESSMENT FOR TRANSMISSION FACILITIES
Proposed Edgeware Battery Energy Storage Project

Edgeware BESS Project Limited Partnership (the Proponent) is initiating a Class Environmental Assessment (EA) for the Edgeware Battery Energy Storage System (BESS) Project. This project is a development partnership between EDP Renewables Canada Ltd. and Caldwell First Nation. The project occupies approximately 5 acres of land located on the west side of Highbury Avenue and Edgeware Line, in the City of St. Thomas, Ontario.

Project Description
The Project will include the construction of battery energy storage units, a transformer station, transmission connection facilities, and ancillary components. The project will ultimately provide a maximum of 75 megawatts (MW) of power storage and up to four consecutive hours (300 MWh) of electricity output available during periods of electricity grid demand. The project will connect to the transmission grid through the Hydro One Networks Inc. transmission system.



Need for the Project
Ontario's Independent Electricity System Operator (IESO) has identified a significant need for new power supply in the province. The project was awarded a 20-year contract with IESO the under the Long-Term 1 RFP in 2024. The proposed BESS would help meet increasing local and provincial demands by providing stored energy. The BESS will generally be charged during off-peak periods and discharged back to the grid during periods of peak demand.

Class Environmental Assessment Process
While the battery storage units are not subject to an environmental assessment (EA), the proposed transformer station is subject to the Class EA for Transmission Facilities (Class EA for TF) in accordance with Ontario's Environmental Assessment Act.

Project Contacts
For questions or comments on the Project, please mail or email them to: Laura Bashford, Senior Project Developer
219 Dufferin Street Toronto M6K 3J1
T: 289.200.4127
edgeware-bess@edpr.com

Stay up to date on the Project by visiting the Project webpage at:
https://www.edpr.com/north-america/edgeware-energy-storage-project

All personal information included in your request – such as name, address, telephone number and property location – is collected, under the authority of Section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As the information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment, Conservation and Parks' Freedom of Information and Privacy Coordinator at foi.mecp@ontario.ca.

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Obituaries

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Obituaries



SMITH, Cameron "Cam"

On February 4, 2025, in his 72nd year, Cam quietly sailed away "into the mystic," or, as a serious Trekkie, off to "the final frontier." He leaves behind his loving family – wife, Judie Land; daughter, Mallory Smith; son, Mackenzie Smith and his wife, Lindsay; his sister and brother-in-law, Chris and John Heidt, his brother-in-law, Rob Corbierre, his brother- and sister-in law, Kent and Carla Corbierre; three nephews and their families, Jeremy and Corey Smith, and Kian Corbierre; and the delights of his life, his two granddaughters, Evelyn and Gabriella Smith. His late parents, Bill and Miriam Smith, were waiting on the other side for him.

A graduate from Parkside Collegiate, University of Waterloo (Bachelors of Psychology), and Western University (Bachelors of Education), Cam explored everything that fell in his path, except for math. He was a lifelong voracious reader of newspapers, sci fi novels, fables, science texts, and the comics, from the time he taught himself to read cereal boxes. This thirst for information spanned the ridiculous to the sublime, from advertisements to philosophy and space research, and he later shared his love of the written word by teaching literacy, as a volunteer, while he worked at Ford Motor Company and branched out into communications through amateur radio. He also participated enthusiastically in Bad Joke Thursday, every week.

His family's flower business nurtured another lifelong interest in all growing things, and he started out, with his sister, Chris, assembling boxes for Smith's Elmdale Flowers, where they worked through their teens into their twenties, Cam often driving the Posy Express all over the county. He loved to get down and "play in the dirt," often to the accompaniment of whatever was playing on the radio, from folk to classic rock to jazz. He knew hundreds of lyrics and particularly enjoyed going to live music venues, ranging from Home County to kindergarten rhythm bands.

Cam was his kids' faithful fan at all their plays, concerts, sporting events, and beyond, and liked to have their friends crowded around the kitchen table eating or just chatting. He taught them how to wire a lamp, use a microscope, read the night skies, and navigate a canoe. Cam was a great believer that the "little stuff IS the big stuff," whether that was a good (and frequent) cup of coffee, a day spent with his rod in the water not catching anything, a barbeque, listening to the Beach Boys, watching a James Bond movie (all of them, repeatedly), checking on "his island" in Manitoulin, or just hanging out with friends and relatives. Most recently, he said that he was a very rich man.

If you are able to come and celebrate the rich life of Cam, visitation will be from noon till two, with a service and then a reception following, all at Williams Funeral Home, 45 Elgin Street, St. Thomas on Sunday, February 9, 2025 where we will launch him onto the next part of his travels, with tears and laughter and a heartfelt "ciao." Donations to the St. Thomas Library or the Aeolian Music Hall or any charity that speaks to you would be most appreciated. He will be missed and remembered, and his ashes will be interred when the weather shines bright and the world looks new again: "And in the end, the love you take, is equal to the love you make."

Obituaries

SPEHAR , Ankica "Anna"

Of St. Thomas, passed peacefully on Thursday, February 6, 2025 in her 85th year. Beloved wife of the late Nick Spehar (1994). Dearly loved mother of Marina Caron (Paul) and Daniel Spehar. Cherished grandmother of Abigale and Nicole, and Jim and great-grandmother of four. Dear sister of Nada Pozeg (Nick), Janko Belanic (Francika), Ivan Belanic (Barbara) and Marica Vukobratovic (late Petar). Lovingly remembered by several nieces, nephews, cousins and friends. Anna was born in Croatia on April 10, 1940, daughter of the late Blaz Belanic (1989) and Dragica (Klobucar) Belanic (2003). She was retired from the St. Thomas-Elgin General Hospital. Anna was a long-time member of St. Leopold Mandic Croatian Church.

Resting at Williams Funeral Home, 45 Elgin Street, St. Thomas where the family will receive friends on Monday, February 10, 2025 from 7:00-9:00p.m. Prayers will be recited at 7:00p.m. Mass of the Christian Burial will be recited at St. Leopold Mandic Church on Tuesday, February 11, 2025 at 11:00a.m. Interment to follow in Holy Angels' Cemetery. Memorial donations may be made to St. Leopold Mandic Croatian Church.



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APPENDIX C – CONSULTATION LOG

Stakeholder	Purpose	Date	Comment / Response	Date
Aamjiwnaang First Nation	General consultation request	19 August 2024	No response	-
	Invitation to participate in Stage 2 and 3 Archaeological Assessments	19 August 2024	No response	-
	Confirming interest in participating in the aquatics survey as well as looking to enter into a formal agreement for the participation in the archaeology assessment scope of work.	10 September 2024	No comment with respect to aquatics participation but agreement for participation sent via email.	10 September 2026
	Formal agreement fully executed	16 September 2024	N/A	N/A
	Stage 2 Archaeological Assessment Field Program initiation email	17 September 2024	Confirmation of participation in the Stage 2	19 September 2024
	Stage 1 Archaeological Assessment Traditional Knowledge and information request	24 September 2024	No additional information requested to be included in the Stage 1	24 September 2024
	Stage 2 Archaeological Assessment results email and notification of Stage 3 for the week of 15 October 2024	8 October 2024	No comment on results and confirmation of participation in Stage 3	8 October 2024
	Notification email regarding further results of the 2 and 3 Archaeological Assessments and recommendation of Stage 4 Archaeological Assessment. Sought input on the pre-contact artifacts and the recommendation for no further work. Email also notified of intended Stage 4 Archaeological Assessment for the end of November/start of December	18 November 2024	Responded with confirmation of participation in the Stage 4.	18 November 2024
	Mandatory Notification (Class EA Requirement)	31 January 2025	No response	-
	Sought input into the review of the Stage 3 Archaeological Assessment report	4 March 2025	Reviewed. No comments provided	5 March 2025
	Notification of intended commencement for Stage 4 Archaeological Assessment of AeHg-61	14 May 2025	Confirmation sent of participation in fieldwork	17 May 2025
	Request for review of the report related to the Stage 4 Archaeological Assessment of AeHg-61	17 September 2025	Reviewed. No comments provided	17 September 2025

Stakeholder	Purpose	Date	Comment / Response	Date
Caldwell First Nation	General consultation request	19 August 2024	No response	-
	Invitation to participate in Stage 2 and 3 Archaeological Assessments	19 August 2024	No response	-
	Confirming interest in participating in the aquatics survey as well as looking to enter into a formal agreement for the participation in the archaeology scope of work.	10 September 2024	No comment with respect to aquatics participation but agreement for participation sent via email.	10 September 2026
	Expression of interest from Caldwell First Nation to participate in Stage 2 Archaeological Assessment field work	13 September 2024	N/A	N/A
	Stage 2 Archaeological Assessment Field Program initiation email	17 September 2024	Confirmation of participation in the Stage 2	19 September 2024
	Stage 1 Archaeological Assessment Traditional Knowledge and information request	24 September 2024	No input provided	N/A
	Formal agreement fully executed	3 October 2024	N/A	N/A
	Stage 2 Archaeological Assessment results email and notification of Stage 3 for the week of 15 October 2024	8 October 2024	No comment on results and confirmation of participation in Stage 3	10 October 2024
	Notification email regarding further results of the 2 and 3 Archaeological Assessments and recommendation of Stage 4 Archaeological Assessment. Sought input on the pre-contact artifacts and the recommendation for no further work. Email also notified of intended Stage 4 Archaeological Assessment for the end of November/start of December	18 November 2024	Responded with confirmation of participation in the Stage 4 and agreement in approach.	18 November 2024
	Mandatory Notification (Class EA Requirement)	31 January 2025	Acknowledgement of NOC. Request to participate in fieldwork.	5 February 2025
	Sought input into the review of the Stage 3 Archaeological Assessment report	4 March 2025	Reviewed. No comments provided	3 April 2025
	Agreements for 2024 work sent by Caldwell FN	3 April 2025	Agreement signed by TNAS	22 April 2025
	Notification of intended commencement for Stage 4 Archaeological Assessment of AeHg-61	14 May 2025	No response	N/A
	Request for review of the report related to the Stage 4 Archaeological Assessment of AeHg-61	17 September 2025	No response	N/A

Stakeholder	Purpose	Date	Comment / Response	Date
Chippewas of Kettle and Stony Point First Nation	General consultation request	19 August 2024	No response	-
	Invitation to participate in Stage 2 and 3 Archaeological Assessments	19 August 2024	No response	-
	Confirming interest in participating in the aquatics survey as well as looking to enter into a formal agreement for the participation in the archaeology scope of work.	10 September 2024	No comment with respect to aquatics participation but agreement for participation sent via email.	10 September 2026
	Formal agreement fully executed	18 September 2024	N/A	N/A
	Stage 2 Archaeological Assessment Field Program initiation email	17 September 2024	Email received and notified that no monitor will be available	27 September 2024
	Stage 1 Archaeological Assessment Traditional Knowledge and information request	24 September 2024	No additional information requested other than acknowledgement of the project within the traditional territory	27 September 2024
	Stage 2 Archaeological Assessment results email and notification of Stage 3 Archaeological Assessment for the week of 15 October 2024	8 October 2024	No comment on results and confirmation of participation in Stage 3	15 October 2024
	Notification email regarding further results of the 2 and 3 Archaeological Assessments and recommendation of Stage 4 Archaeological Assessment. Sought input on the pre-contact artifacts and the recommendation for no further work. Email also notified of intended Stage 4 Archaeological Assessment for the end of November/start of December	18 November 2024	Responded with confirmation of participation in the Stage 4 and no comments on Stage 2 and 3 results.	20 November 2024
	Mandatory Notification (Class EA Requirement)	31 January 2025	Acknowledged receipt. Interested in learning more and participating in fieldwork monitoring.	5 February2025
	Sought input into the review of the Stage 3 Archaeological Assessment report	4 March 2025	Reviewed. No comments provided	5 March 2025
	Notification of intended commencement for Stage 4 Archaeological Assessment of AeHg-61	14 May 2025	Confirmation sent of participation in fieldwork	15 May 2025
	Request for review of the report related to the Stage 4 Archaeological Assessment of AeHg-61	17 September 2025	Reviewed. No comments provided	1 October 2025

Stakeholder	Purpose	Date	Comment / Response	Date
Chippewas of The Thames First Nation	General consultation request	19 August 2024	No response	-
	Invitation to participate in Stage 2 and 3 Archaeological Assessments	19 August 2024	No response	-
	Confirming interest in participating in the aquatics survey as well as looking to enter into a formal agreement for the participation in the archaeology scope of work.	10 September 2024	No comment with respect to aquatics participation but agreement for participation sent via email.	10 September 2026
	Formal agreement fully executed	16 September 2024	N/A	N/A
	Stage 2 Archaeological Assessment Field Program initiation email	17 September 2024	Confirmation of participation in the Stage 2	20 September 2024
	Stage 1 Archaeological Assessment Traditional Knowledge and information request	24 September 2024	No response	N/A
	Stage 2 Archaeological Assessment results email and notification of Stage 3 Archaeological Assessment for the week of 15 October 2024	8 October 2024	Sought clarification on northern cluster of artifacts. TNAS responded with additional information	10 October 2024
	Notification email regarding further results of the 2 and 3 Archaeological Assessments and recommendation of Stage 4 Archaeological Assessment. Sought input on the pre-contact artifacts and the recommendation for no further work. Email also notified of intended Stage 4 Archaeological Assessment for the end of November/start of December	18 November 2024	Responded with confirmation of participation in the Stage 4.	18 November 2024
	Mandatory Notification (Class EA Requirement)	31 January 2025	No response	-
	Sought input into the review of the Stage 3 Archaeological Assessment report	4 March 2025	Reviewed. Edits requested to both Stage 1 and 2 report as well as Stage 3 report. Comments were editorial in nature and all addressed prior to issuance of the final report.	21 March 2025
	Notification of intended commencement for Stage 4 Archaeological Assessment of AeHg-61	14 May 2025	Confirmation sent of participation in fieldwork	17 May 2025
	New 2025 Agreement requested by COTTFN	22 May 2025	TNAS signed and executed agreement	22 May 2025

Stakeholder	Purpose	Date	Comment / Response	Date
	Request for review of the report related to the Stage 4 Archaeological Assessment of AeHg-61	17 September 2025	Reviewed. One comment related to wording within treaty section. Comment changed and report updated prior to finalization	2 October 2025
City of St.Thomas	Review of Environmental Impact Study Terms of Reference	26 July 2024	Provided information on Conservation Authority's jurisdictional limits. Deferred review of the TOR to the City of St. Thomas. Request to review the final site plans and stormwater management plan.	7 August 2024
	Zoning of Project. Project Update Meeting with City of St. Thomas Economic Development Department, Planning Department, Building Department and Kettle Creek Conservation Authority (KKCA).	7 August 2024	Received Zoning Confirmation Letter from the City of St. Thomas Planning Department.	4 December 2024
	Mandatory Notification (Class EA Requirement)	31 January 2025	No response	-
	Project Update Meeting with City of St. Thomas Economic Development Department, Planning Department, Building Department, Fire Department	21 May 2025	N/A	N/A
	Project Update Meeting with City of St. Thomas Economic Development Department, Planning Department and Building Department	23 October 2025	N/A	N/A
Enbridge Gas Inc.	Notice of Commencement of Class EA (Mailing)	19 February 2025	No response	-
Hydro One Networks Inc (HONI)	Notice of Commencement of Class EA	6 February 2025	Acknowledgement of NOC.	6 February 2025
	Notice of Commencement of a Class EA (Mailing)	19 February 2025	No response	-
Landowners within 500 m of the Project area	Notice of Commencement of a Class EA (Mailing)	19 February 2025	No response	-
Kettle Creek Conservation Authority (KCCA)	Review of Environmental Impact Study Terms of Reference	26 July 2024	Provided information on Conservation Authority's jurisdictional limits. Deferred review of the TOR to the City of St. Thomas. Request to review the final site plans and stormwater management plan.	7 August 2024

Stakeholder	Purpose	Date	Comment / Response	Date
	Meeting held with KCCA to align on permitting requirements	7 August 2024	Provided information on Conservation Authority's jurisdictional limits.	N/A
	Mandatory Notification (Class EA Requirement)	31 January 2025	Acknowledgement of NOC. Request to be kept informed. Will review Project site plans for Section 28(1) permit.	6 February 2025
Ministry of Citizenship and Multiculturalism (MCM)	Notice of Commencement of Class EA	3 February 2025	Provided Class EA requirements regarding cultural heritage	4 March 2025
Ministry of Energy and Electrification (MOEE)	Crown's Duty to Consult Assessment	8 July 2024	Acknowledgement of request. provided letter regarding the Delegation of Procedural Aspects of the Crown's Duty to Consult	12 August 2024
Ministry of Environment, Conservation and Parks (MECP)	Mandatory Notification (Class EA Requirement)	31 January 2025	Acknowledgement of NOC and Area of intertest letter. Request to submit a Project Information Form.	3 February 2025
	Submission of Project Information Form submitted	3 February 2025	No response	-
Ministry of Environment, Conservation and Parks (MECP) – SW Region	Mandatory Notification (Class EA Requirement)	31 January 2025	Acknowledgement of email.	31 January 2025
Ministry of Natural Resources (MNR) – Aylmer-Guelph District	Mandatory Notification (Class EA Requirement)	3 February 2025	No response	-
Ministry of Municipal Affairs and Housing (MMAH)	Mandatory Notification (Class EA Requirement)	3 February 2025	No response	-
Oneida Nation of the Thames	General consultation request	19 August 2024	No response	-
	Invitation to participate in Stage 2 and 3 Archaeological Assessments	19 August 2024	No response	-

Stakeholder	Purpose	Date	Comment / Response	Date
	Mandatory Notification (Class EA Requirement)	31 January 2025	No response	-
Ontario Hydro	Notice of Commencement of a Class EA (Mailing)	19 February 2025	No response	-
Ontario Power Generation (OPG)	Notice of Commencement of Class EA	3 February 2025	Acknowledgement of NOC. Provided additional notification contact. No further response.	3 February 2025
Public	Notice of Public Community Meeting	3 November 2023	No response	-
	Public Community meeting	23 November 2023	No response	-
	Notice of Commencement of Class EA (Newspaper publication)	7 February 2025	No response	-
Union Gas Limited	Notice of Commencement of Class EA (Mailing)	19 February 2025	No response	-
Walpole Island First Nation (Bkejwanong Territory)	General consultation request	19 August 2024	No response	-
	Invitation to participate in Stage 2 and 3 Archaeological Assessments	19 August 2024	No response	-
	Mandatory Notification (Class EA Requirement)	31 January 2025	No response	-

APPENDIX D – MECP ACKNOWLEDGEMENT OF NOTICE OF COMMENCEMENT / AREAS OF INTEREST

Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations environnementales

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Téléc. : 416 314-8452

February 3, 2025

Laura Bashford
Edgeware BESS Project LP
Laura.bashford@edp.com

BY EMAIL ONLY

Re: **Edgeware BESS Project**
Edgeware BESS Project LP
Class Environmental Assessment for Transmission Facilities
Acknowledgement of Notice of Commencement

Dear Laura,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that Edgeware BESS Project LP (proponent) has indicated that the project is following the approved environmental planning process under the Class Environmental Assessment for Transmission Facilities (Class EA).

The **updated (August 2022)** attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule. Information about the Notice of Completion is provided at the end of the Areas of Interest document**.**

Please send a copy of the Notice of Completion to the MECP's Southwest Region EA notification email account (eanotification.swregion@ontario.ca) and a copy of the draft Environmental Study Report to me for download, if applicable. Should the proponent determine that the project qualifies to follow the Class EA Screening Process, the proponent must at a minimum advise the MECP that the project has been screened.

Should you or any members of your project team have any questions regarding the material above, please contact me at monika.macki@ontario.ca.

Yours truly,

Monika Macki

Monika Macki
Regional Environmental Planner –Southwest Region
Project Review Unit, Environmental Assessment Branch

Enclosed: Areas of Interest

Attached: Client's Guide to Preliminary Screening for Species at Risk

AREAS OF INTEREST (v. August 2022)

It is suggested that you check off each section after you have considered / addressed it.

Planning and Policy

- Applicable plans and policies should be identified in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.
    - Projects located in MECP Central, Eastern or West Central Region may be subject to **A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020)**.
    - Projects located in MECP Central or Eastern Region may be subject to the **Oak Ridges Moraine Conservation Plan (2017)** or the **Lake Simcoe Protection Plan (2014)**.
    - Projects located in MECP Central, Southwest or West Central Region may be subject to the **Niagara Escarpment Plan (2017)**.
    - Projects located in MECP Central, Eastern, Southwest or West Central Region may be subject to the **Greenbelt Plan (2017)**.
    - Projects located in MECP Northern Region may be subject to the **Growth Plan for Northern Ontario (2011).**

- The **Provincial Policy Statement (2020)** contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.

- In addition to the provincial planning and policy level, the report should also discuss the planning context at the municipal and federal levels, as appropriate.

Source Water Protection

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.

- If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a

risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.

- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.

- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: http://www.applications.ene.gov.on.ca/swp/en/index.php. Note that various layers (including WHPAs, WHPA-Q1 and WHPA-Q2, IPZs, HVAs, SGRAs, EBAs, ICAs) can be turned on through the "Map Legend" bar on the left. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.

- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

Climate Change

The document "Considering Climate Change in the Environmental Assessment Process" (Guide) is part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. Proponents should review this Guide in detail.

- **The MECP expects proponents of projects under a Class EA to:**

    1. Consider during the assessment of alternative solutions and alternative designs, the following:
        a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
        b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
    2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "Community Emissions Reduction Planning: A Guide for Municipalities" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

Air Quality, Dust and Noise

- If there are sensitive receptors in the surrounding area of this project, a quantitative air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**

- If a quantitative Air Quality Impact Assessment is not required for the project, the MECP expects that the report contain a qualitative assessment which includes:

    - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
    - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;

- A discussion of local air quality impacts that could arise from this project during both construction and operation; and
- A discussion of potential mitigation measures.

- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.

- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to *Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities* report prepared for Environment Canada. March 2005.

- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

- Noise associated with a proposed transmission station should be evaluated. Note that any noise monitoring and assessment should be conducted in accordance with the requirements of MECP guidelines, such as MECP Publication NPC-233, "*Information to be Submitted for Approval of Stationary Sources of Sound*".

- In order to address potential noise impacts of the transmission station, it may be necessary to first monitor ambient noise levels prior to the installation of the transmission station, and to then conduct a noise assessment after the transmission station is installed and operational. Depending on the results of these studies and the proximity to sensitive receptors, remedial measures may be needed to address noise generated by the transmission station.

Ecosystem Protection and Restoration

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.

- Natural heritage and hydrologic features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
  - Key Natural Heritage Features: Habitat of endangered species and threatened species, fish habitat, wetlands, areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars.

- Key Hydrologic Features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands.
- Other natural heritage features and areas such as: vegetation communities, rare species of flora or fauna, Environmentally Sensitive Areas, Environmentally Sensitive Policy Areas, federal and provincial parks and conservation reserves, Greenland systems etc.

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features.

Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. Information, standards, guidelines, reference materials and technical resources to assist you are found at https://www.ontario.ca/page/species-risk.

- The Client's Guide to Preliminary Screening for Species at Risk (Draft May 2019) has been attached to the covering email for your reference and use. Please review this document for next steps.

- For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.

- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry's Stormwater Management Planning and Design Manual (2003) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA Process** that includes:

    - Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
    - Watershed information, drainage conditions, and other relevant background information
    - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
    - Information on maintenance and monitoring commitments.

- Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the *Ontario Water Resources Act* (OWRA) will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

Groundwater

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.

- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.

- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts. For example, where construction of transmission towers is proposed, any pile driving into the subsurface that is required for steel pile type tower foundations, particularly to the bedrock surface at depth, may have an adverse effect on local groundwater resources.

- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information.

- Consultation with the railroad authorities is necessary wherever there is a plan to use construction dewatering in the vicinity of railroad lines or where the zone of influence of the construction dewatering potentially intercepts railroad lines.

- Groundwater should be protected from the potential for spills, dewatering and wood pole preservative during construction. A plan should be in place for preventing and dealing with spills. All spills that could potentially cause damage to the environment should be reported to the Spills Action Centre of the Ministry of the Environment, Conservation and Parks at 1-800-268-6060.

Excess Materials Management

- In December 2019, MECP released a new regulation under the Environmental Protection Act, titled "On-Site and Excess Soil Management" (O. Reg. 406/19) to support improved management of excess construction soil. This regulation is a key step to support proper management of excess soils, ensuring valuable resources don't go to waste and to provide clear rules on managing and reusing excess soil. New risk-based standards referenced by this regulation help to facilitate local beneficial reuse which in turn will reduce greenhouse gas emissions from soil transportation, while ensuring strong protection of human health and the environment. The new regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit https://www.ontario.ca/page/handling-excess-soil.

- The report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).

- All waste generated during construction must be disposed of in accordance with ministry requirements.

Contaminated Sites

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites. We recommend referring to the MECP's D-4 guideline for land use considerations near landfills and dumps.
    - Resources available may include regional/local municipal official plans and data; provincial data on large landfill sites and small landfill sites; Environmental Compliance Approval information for waste disposal sites on Access Environment.

- Other known contaminated sites (local, provincial, federal) in the study area should also be identified in the report (Note – information on federal contaminated sites is found on the Government of Canada's website).

- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.

- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Consideration of potential environmental contamination should be given following regulatory guidance where the project involves decommissioning of facilities. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

- Where poles are being removed that have been chemically treated, we recommend that the proponent consider soil testing to determine the extent of any related soil contamination. Soil testing may be contingent on factors such as proximity to water bodies or wetlands, proximity to wells, locations where poles are being removed but not replaced, and the treatment chemicals used (i.e. chromated copper arsenate (CCA) or creosote). In the case of poles which have been treated with CCA or creosote, testing for arsenic, copper and creosote should be completed.

Servicing, Utilities and Facilities

- The report should identify any above or underground utilities in the study area such as transmission lines, telephone/internet, oil/gas etc. The owners should be consulted to discuss impacts to this infrastructure, including potential spills.

- The report should identify any servicing infrastructure in the study area such as wastewater, water, stormwater that may potentially be impacted by the project.

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with MECP's Environmental Permissions Branch to determine whether a new or amended ECA will be required for any proposed infrastructure.

- We recommend referring to the ministry's environmental land use planning guides to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

Mitigation and Monitoring

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.

- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.

- The proponent's construction and post-construction effects monitoring strategies and programs must be documented in the report.

- The proponent must consider cumulative effects when planning projects. The assessment will include the proposed undertaking and any other proposed undertakings in the immediate project area where documentation is available (e.g. other environmental assessments).

Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning

process. The report should also include copies of comments submitted on the project, and the proponent's responses to these comments.

- Please include the full distribution/consultation list in the documentation.

Class EA Process

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.

- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment (including planning, natural, social, cultural, economic, technical). The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments, cultural heritage assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA Process should be referenced and included as part of the report.

- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, MTO permits and approvals under federal impact assessment legislation.

- Ministry guidelines and other information related to the issues above are available at http://www.ontario.ca/environment-and-energy/environment-and-energy. We encourage you to review all the available guides and to reference any relevant information in the report.

Notice of Completion

Once the report is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the proponent. The Notice of Completion must be sent to the appropriate MECP Regional Office email address.

The public has the ability to request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director (of the Environmental Assessment Branch) will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion.

At this time, the Director may request additional information from the proponent. Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Therefore, the proponent cannot proceed with the project until at least 30 days after the end of the comment period provided for in the Notice of Completion. Further, the proponent may not proceed after this time if:

- a Section 16 Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or
- the Director has issued a Notice of Proposed order regarding the project.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Section 16 Order requests on those matters should be addressed in writing to:

Minister of the Environment, Conservation and Parks

777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca

What to do:
Step 1: Look for the type of EA project in column B that applies to you.
Step 2: Complete columns C to J for that project.
Step 3: Send this form in Excel format to the MECP regional office email address where the project is located.
MECP regional office email addresses are listed at
www.ontario.ca/page/preparing-environmental-assessments

	Class EA/Streamlined EA	**Proponent Name**	**Proponent Contact**	**Project Name**
1	CO - Remedial flood and erosion control projects			
2	GO Transit - Class EA			
3	Hydro One - Minor transmission facilities	Edgeware BESS Project LP	Laura Bashford Laura.Bashford@EDP.COM	Edgeware Battery Energy Storage System
4	MEA - Class EA for municipal infrastructure projects			
5	Ministry of Infrastructure - Public work			
6	MNDM - Activities of the Ministry of Northern Development and Mines under the Mining Act			
7	MNRF - Provincial parks and conservation reserves			
8	MNRF - Resource stewardship and facility development projects			
9	MTO - Provincial transportation facilities			
10	O. Reg. 101/07 - Waste management projects			
11	O. Reg. 116/01 - Electricity projects			
12	OWA - Waterpower projects			

		Enter the proponent's name.	Enter the name and email address of the person who the MECP should contact about your project. This should be the same contact person who is listed on the notice.	Enter the project name as it appears on the notice.

Project Schedule	Project Type	Project Location	MOECC Region	Project Initiation Date
Transmission stations	Transformer stations	St. Thomas, City of	Southwestern	31 January 2025

Select the project schedule from the drop-down menu.	Select the project type from the drop-down menu.	Select the name of the municipality or unorganized/unsurveyed area where your project is located from the drop-down menu.	Select the MECP region from the drop-down menu. Read the "MECP regions" worksheet to find the MECP region where your project is located.	Enter the date that the streamlined EA process was initiated (e.g. notice of commencement). This date may be when the project notice was first published.

APPENDIX E – NOISE IMPACT ASSESSMENT

EDGEWARE ENERGY STORAGE PROJECT

Noise Impact Assessment

Edgeware BESS Project LP

Document No.: 10516360-HOU-R-04
Issue: B, **Status:** Final
Date: 13 March 2026



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Project name:	Edgeware Energy Storage Project	DNV Canada Ltd.
Report title:	Noise Impact Assessment	70 Richmond Street East, Suite 315,
Customer:	Edgeware BESS Project LP	M5C 1N8 Toronto, CanadaEnterprise
	219 Dufferin Street, Unit 117C, Toronto	No.: 860480037
	ON M6K 3J1, Canada	
Contact person:	Laura Bashford	
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Prepared by:	Verified by:	Approved by:
Aren Nercessian Project Siting and Acoustics Environment, Permitting and Sustainability	Frederic Gagnon Senior Scientist Environment, Permitting and Sustainability Gabriel Constantin Director Environmental, Permitting and Sustainability	Kristofer Tassis. P.Eng Siting and Acoustics Engineer, Environment, Permitting and Sustainability

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1 INTRODUCTION

Edgeware BESS Project LP (the “Customer”) retained DNV Canada Ltd. (“DNV”) to prepare a Noise Impact Assessment (“NIA”) for the Edgeware Energy Storage Project (the “Project”) located in the City of St Thomas, in Elgin County, Ontario.

The Project is a 75-megawatt (300MWh) project consisting of up to 88 Battery Energy Storage Systems (BESS) along with 22 medium voltage transformers (MVS), and one substation transformer. The currently proposed project consists of 73 BESS units and 19 MVSs. An augmentation after year 4 and year 12 of operation is also being proposed. Year 4 will consist of 8 additional BESS units and 2 additional MVSs and year 12 will consist of 7 additional BESS units and 1 additional MVS. All current and future equipment has been included in this study.

DNV has prepared the NIA according to the noise requirements of the Ontario Ministry of the Environment Conservation and Parks (MECP) contained within Publication NPC-300 Environmental Noise Guidelines [1].

The purpose of this study is to verify compliance of the Project to current Ontario noise guidelines by calculating the cumulative noise levels generated by the most significant noise producing sources associated with the Project at all sensitive Points of Reception (PoR) within 1 km of the facility.

This study comprises three main sections: (i) general description of the Project Area, existing noise sources and noise receptors, (ii) a description of the Project’s components including noise sources, and (iii) noise impact assessment results.

2 GENERAL DESCRIPTION OF PROJECT AREA

2.1 General characteristics

The proposed Project is located in St-Thomas, Ontario at the North West corner of Highbury Avenue South and Edgeware Line in Eglin County. A map of the Project area can be found in Figure 2-1.

The Project is located around the following geographic coordinates: Figure 2-1Latitude 42.799, Longitude: -81.151.

2.2 Land Use Description

The Project area and the surrounding areas lie within the city limits of St-Thomas, Ontario. The land uses surrounding the property are a mixture of various commercial and industrial establishments, as well as dense residential use west of Burwell Rd. Most notably, as of October 2025, a new Volkswagen/PowerCo plant [2] is being constructed immediately east of the Project area.

The Project area is zoned Employment Lands (EL), and the lands surrounding the Project within 1 km are zoned as one of the following: Employment Land (EL), Natural Heritage (NH), Regional Recreational Facilities (RF), Business Employment Lands (BEL), Open Space and Park (OS), First Residential (R1), Third Residential (R3), and Fifth Residential (R5).

An interactive zoning map of St Thomas can be found on the city's website [3].

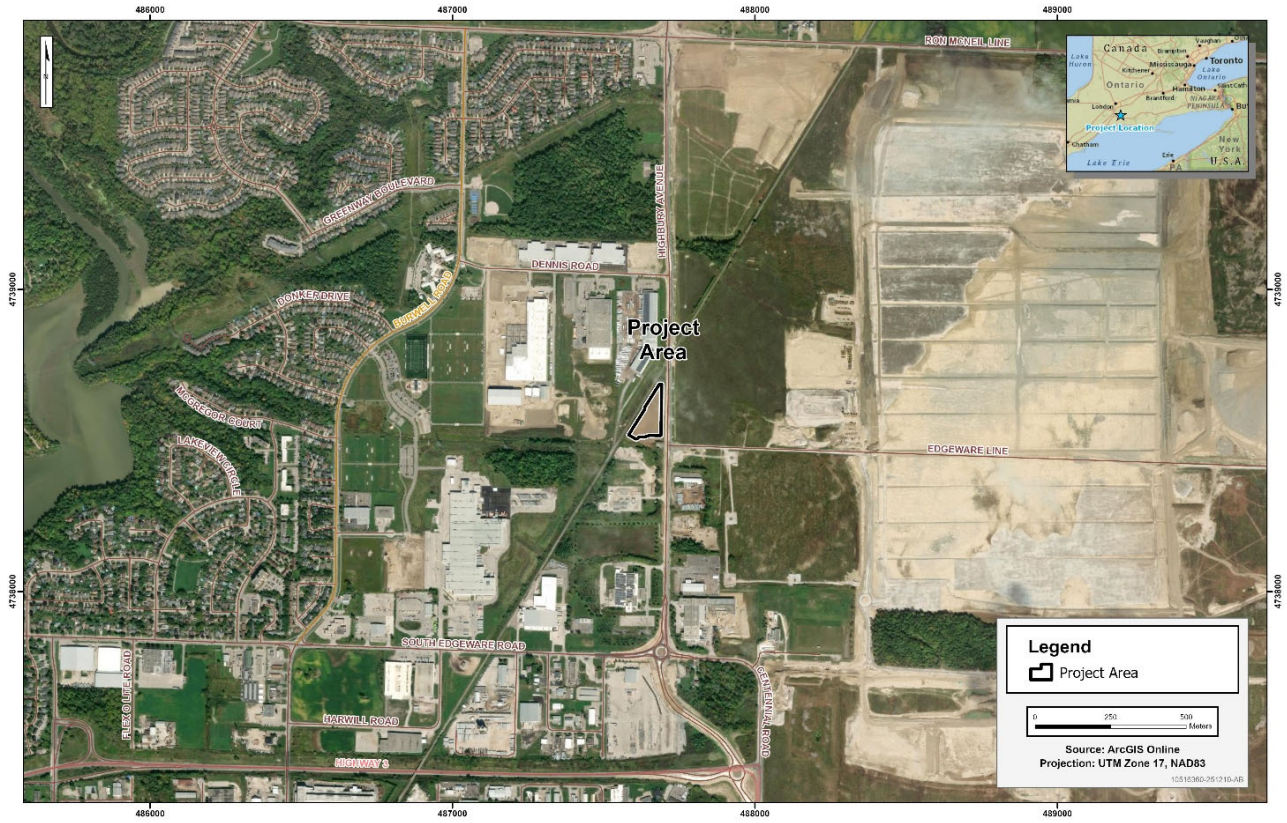


Figure 2-1 Approximate Project Area

2.3 Assessment Criteria

In NPC-300, the MECP categorizes Points of Reception (PoRs) into four area Classes: 1, 2, 3, and 4. Each area Class requires a different set of permissible sound level limits.

Classes 1 to 3 are described as follows:

1. Major population centre: Background sound level dominated by activities of people, usually road traffic.
2. Area representative of both Class 1 (Daytime) and 3 area (Nighttime).
3. Rural area: Background sound level dominated by natural sounds having little or no road traffic.

The area immediately adjacent to the Project can be characterized mostly as industrial and commercial, with dense residential dwellings west of Burwell road, and notable volumes of road traffic noise from Highbury Ave, Edgeware Rd, and Burwell Rd.

The current assessment classifies all receptors within 1 km of the Project boundary as a Class 2 area, which is representative of a mixed use area dominated by industrial or commercial activity, combined with a dense urban population centre and traffic noise. The classification is further supported by the traffic study [4], which indicates that the current traffic volumes result in ambient sound levels exceeding the Class 2 exclusion limits set out by NPC-300. Therefore, applying Class 2 sound level limits represent a conservative approach to ensure compliance at the Points of Reception (PoR).

Under NPC-300, the sound limits for Class 2 areas are outlined as follows:

Table 2-1 Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA) Outdoor Points of Reception (Class 2)

Time of Day	One Hour L_{eq} [dBA] – Class 2
07:00 – 19:00	50
19:00 – 07:00	45

Table 2-2 Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA) Plane of Window of Noise Sensitive Spaces (Class 2)

Time of Day	One Hour L_{eq} [dBA] – Class 2
07:00 – 19:00	50
19:00 – 23:00	50
23:00 – 07:00	45

A nighttime limit of 45 dBA has been considered as the limiting factor for this assessment at all receptor locations. The Project is conservatively assumed to emit the same maximum sound level for 24 hours a day for the entire year.

2.4 Points of Reception

Points of Reception (PoR) were identified and broadly reviewed against aerial photos by DNV. DNV did not field validate this information on site. This assessment includes all existing noise sensitive receptors (individual dwellings, community center, retirement home) located within approximately 1 km of the proposed Project area. Additionally, Vacant Lot Receptors (VLR) were placed in vacant lots according to the procedure outlined in NPC-300.

All receptors (real structures and VLRs) were conservatively modeled at two stories, with a height of 4.5 m above ground level, except for R79 and R87, which are both one story dwellings (1.5 m).

The topography between the facility and the noise sensitive receptors is generally flat.

Appendix B provides a map with the PoR locations and Table 4-1 provides the results of the 20 PoRs with the highest modelled sound levels.

3 PROJECT DESCRIPTION

The Project is a 75 MW, four-hour duration BESS, with 300 MWh of storage. The Project will connect to the transmission grid through the Hydro One Networks Inc. (HONI) transmission system. The Project includes:

- 73 lithium-ion battery energy storage units;
- 19 MVSs;
- A substation with transformer (86 MVA 230 kV), located within the Project property;
- Transmission connection facilities;
- A control building;
- An access road to access the property, and internal access roads to access the substation and the battery units;
- A stormwater catchment; and
- A perimeter fence.

The Project includes a planned augmentation after year 4 and 12 of operation. Year 4 will consist of 8 additional BESS units and 2 additional MVSs and year 12 will consist of 7 additional BESS units and 1 additional MVS. The final equipment totals after all planned augmentations are shown in the following subsection.

3.1 Noise Sources

The primary noise producing sources for the Project are:

- 88 BESS units.
    - Sungrow PowerTitan 2.0 (model ST5015UX-4H)
    - Built-in inverter
    - Low noise cooling attachment included for 78 of 88 BESS units
- 22 Medium Voltage Substations (MVS), specifically designed for the PowerTitan 2.0 [5]
    - Sungrow model (MVS5140-LS or equivalent)
    - Each transformer connects to 4 BESS units
- Main substation step up transformer (rated 86 MVA, 230 kV)
- HVAC units at control building (2 x 1.5 ton units)

All other equipment are insignificant noise contributors.

DNV based the sound power levels on sound data provided by the manufacturer for the BESS units and MVSs.

The main substation transformer and HVAC units at the control building were modeled based on equipment specifications and DNV's experience performing similar sound models and measurements in Ontario.

3.1.1 BESS, MVS, HVAC

The sound levels for the BESS units, including the low noise air cooled heat exchanger, and MVSs were based on sound measurements provided by Sungrow [6][7][8].

The sound level for the BESS unit at 35°C ambient temperature and 100% fan speed was used for the standard configuration and with the low noise air cooled heat exchanger.

The octave band sound power levels are shown in Table 3-1.

Table 3-1 BESS and MVS sound power level (dBA)

Frequency [Hz]	31.5	63	125	250	500	1000	2000	4000	8000	Broadband (dBA)
BESS (35°C 100% fan), low noise	47.0	58.2	68.4	71.7	75.1	77.2	75.5	70.7	60.9	81.9
BESS (35°C 100% fan),	54.2	63.2	71.9	91.1	101.1	99.3	96.8	89.9	79.8	104.5
MVS	62.3	65.8	76.6	86.1	85.7	84.6	82.3	76.3	65.7	91.3

Full octave bands are shown above for simplicity. The model was performed with the measured 1/3 octave bands for the BESS and MVS noise sources.

These sound levels were adjusted to include the reported measurement uncertainty (+2.4 dB, +2.56 dB, and +2.5 dB for BESS low noise, BESS standard and MVS, respectively). The MVS also includes a +5 dB tonal penalty.

The BESS units were modeled as points sources at a height of 2.9 m above ground level. BESS units with the low noise air cooled heat exchanger were modeled 1 m higher due to the heat exchanger being installed on top of the container; resulting a final height of 3.9 m above ground level.

The MVS units were modeled as point sources at a height of 2.9 m above ground level.

The two 1.5-ton (18,000 BTU) HVAC units used to cool the controlling building were modeled conservatively at a combined sound power output of 95.6 dBA and were placed on the roof of the control building, at a height of 3.1 m agl.

3.1.2 Main transformer

The main transformer is rated 230 kV and 86 MVA.

The transformer's sound power level was conservatively estimated to be 97.0 dBA, according to IEEE C57.12.90 methodology [9] and manufacturer design details provided by the Customer [10]. This includes a 5 dB tonal penalty as recommended in ISO 1996-2 [11]. A typical transformer octave band distribution [12] was scaled to the broadband sound power level and is shown in Table 3-2.

Table 3-2 Main transformer sound power level (dBA)

Frequency [Hz]	31.5	63	125	250	500	1000	2000	4000	8000	Broadband (dBA)
Main transformer 230 kV, 86 MVA	54.2	73.4	85.5	88.0	93.4	90.6	86.8	81.6	72.5	97.0

The transformer was modeled conservatively as a point source at a height of 4.5 m above ground level.

3.1.3 Summary

Table 3-3 lists the relevant noise source details. All noise sources were modeled as omnidirectional point sources with varying heights.

Table 3-3 Noise source summary table

Source Description	Sound Power Level [dB(A)]	Source Location[1]	Sound Characteristics[2]	Noise Control Measures[3]
Main Transformer	97.0	O	S, T	U
HVAC for Control Building	95.6	O	S	U
MVS Transformer (x22)	91.3	O	S, T	U
PowerTitan 2.0 low noise (x78)	81.9	O	S	S
PowerTitan 2.0 (x10)	104.5	O	S	U

1. O – located/installed outside the building
2. S – Steady, T - Tonal
3. U: Uncontrolled, S: Silencer/Muffler

Sources indicated as Tonal include a 5 dB tonal penalty. Appendix A provides a figure with the location of the sources.

4 NOISE IMPACT ASSESSMENT

As stated in MECP's publication NPC-300, the sound level limit at a point of reception must be established based on the principle of "predictable worst case" noise impact. The sound pressure level at each Point of Reception for the aggregate of all noise sources associated with the Edgeware Energy Storage Project was calculated based on the ISO 9613-2 model [13] with all noise sources operating at their maximum sound level. This level can be applicable to the day, evening and night-time periods and their corresponding sound limits. The Project's BESS energy storage noise sources and containers were modeled at a height of 2.9 m and at 3.9 m, without and with the low noise air cooled heat exchanger respectively, per manufacturer specifications. The substation transformer was modeled at a height of 4.5 m and the medium voltage transformers were modeled at a height of 2.9 m.

The ISO 9613 standard provides a prediction of the equivalent continuous A-weighted sound pressure levels at a distance from one or more point sources under meteorological conditions favourable to propagation of sound emissions.

The method consists of octave-band algorithms (i.e. with nominal mid-band frequencies from as low as 31.5 Hz to 8 kHz) for calculating the attenuation of the emitted sound. When 1/3 octave band data was available, it was included in the model, with a range of 25 Hz to 10 kHz.The algorithm takes into account the following physical effects:

- Geometrical divergence – attenuation due to spherical spreading from the sound source;
- Atmospheric absorption – attenuation due to absorption by the atmosphere; and
- Ground effect – attenuation due to the acoustic properties of the ground.

ISO-9613-2 parameters were set as follows:

- Ambient air temperature: 10ºC;
- Ambient barometric pressure: 101.32 kPa;
- Humidity: 70%;
- Global Ground Factor: 0.5;
- Localized Ground Factor: 0 (for the project area surface gravel)
- PoR height: 4.5 m representing 2 story structures for all receptors except POR079 and POR087 at 1.5 m

Acoustic shielding provided by the Control Building, with the footprint supplied by the Customer and an assumed height of 3 m, was included in the model.

A total of 13 other large existing buildings were added to the model to account for their acoustic shielding.

Additional calculations concerning attenuation from foliage were not performed in this report, implying that the values calculated for sound attenuation are likely to be conservative in areas where there is foliage or obstacles present in the line of sight between any noise source and a Point of Reception.

4.1 Results

The calculated sound levels at the PoRs within 1 km of any noise source of the Project, are found to be compliant with daytime, evening and night-time permissible sound levels, in accordance with NPC-300.

Results for the predicted cumulative sound contribution of all relevant noise sources are presented in Table 4-1. The results of the top 20 most impacted receptors is shown. All other receptors within 1 km of the Project have lower sound levels and remain compliant. A sound iso-contour map of the cumulative sound pressure levels can be found in Appendix B.

Table 4-1 Cumulative Acoustic Contribution of Project at the 20 loudest PoRs

Description	Point of Reception ID	Easting[1] [m]	Northing[1] [m]	Distance to Closest Equipment [m]	Sound Level at PoR [dBA]	Night time Sound Level Limit (Class 2) [dBA]	Compliance
Dwelling	POR079	487754	4737762	773	45.0	45	YES
Community Center	POR217	486880	4738682	746	45.0		YES
Vacant Lot	VLR08	487647	4739254	602	44.8		YES
Vacant Lot	VLR07	487640	4739312	660	44.6		YES
Vacant Lot	VLR06	487641	4739361	709	44.3		YES
Vacant Lot	VLR27	486880	4738233	795	44.0		YES
Dwelling	POR218	487641	4739415	763	43.9		YES
Dwelling	POR139	486734	4738835	926	43.6		YES
Vacant Lot	VLR05	487648	4739460	808	43.5		YES
Dwelling	POR012	486770	4738861	902	43.5		YES
Dwelling	POR203	486764	4738870	910	43.4		YES
Dwelling	POR148	486726	4738843	936	43.3		YES
Dwelling	POR060	487006	4739202	871	43.3		YES
Dwelling	POR167	486759	4738883	919	43.2		YES
Dwelling	POR182	486994	4739204	881	43.2		YES
Vacant Lot	VLR04	487662	4739504	851	43.2		YES
Dwelling	POR011	487004	4739276	920	43.1		YES
Dwelling	POR076	486982	4739205	891	43.0		YES
Dwelling	POR070	486994	4739271	924	43.0		YES
Dwelling	POR093	486984	4739265	928	43.0		YES

[1] Coordinates are provided in UTM Zone 17 NAD 83

4.2 Mitigation Measures

The overall predicted noise levels for all identified PoR, based on site operations, comply with applicable sound level limits for daytime, evening and night-time operations. As a result, no additional mitigation will be required to ensure compliance with MECP's guidelines other than the implementation of the low noise heat exchanger on all BESS units.

5 CONCLUSION

DNV calculated the predicted cumulative noise levels generated by the Edgeware Energy Storage Project based on the ISO 9613-2 (2024) standard using Cadna/A software. Based on the approach presented in this study, the modeled acoustic impacts are considered to be compliant with the MECP NPC-300 permissible sound limits for Class 2 areas.

6 REFERENCES

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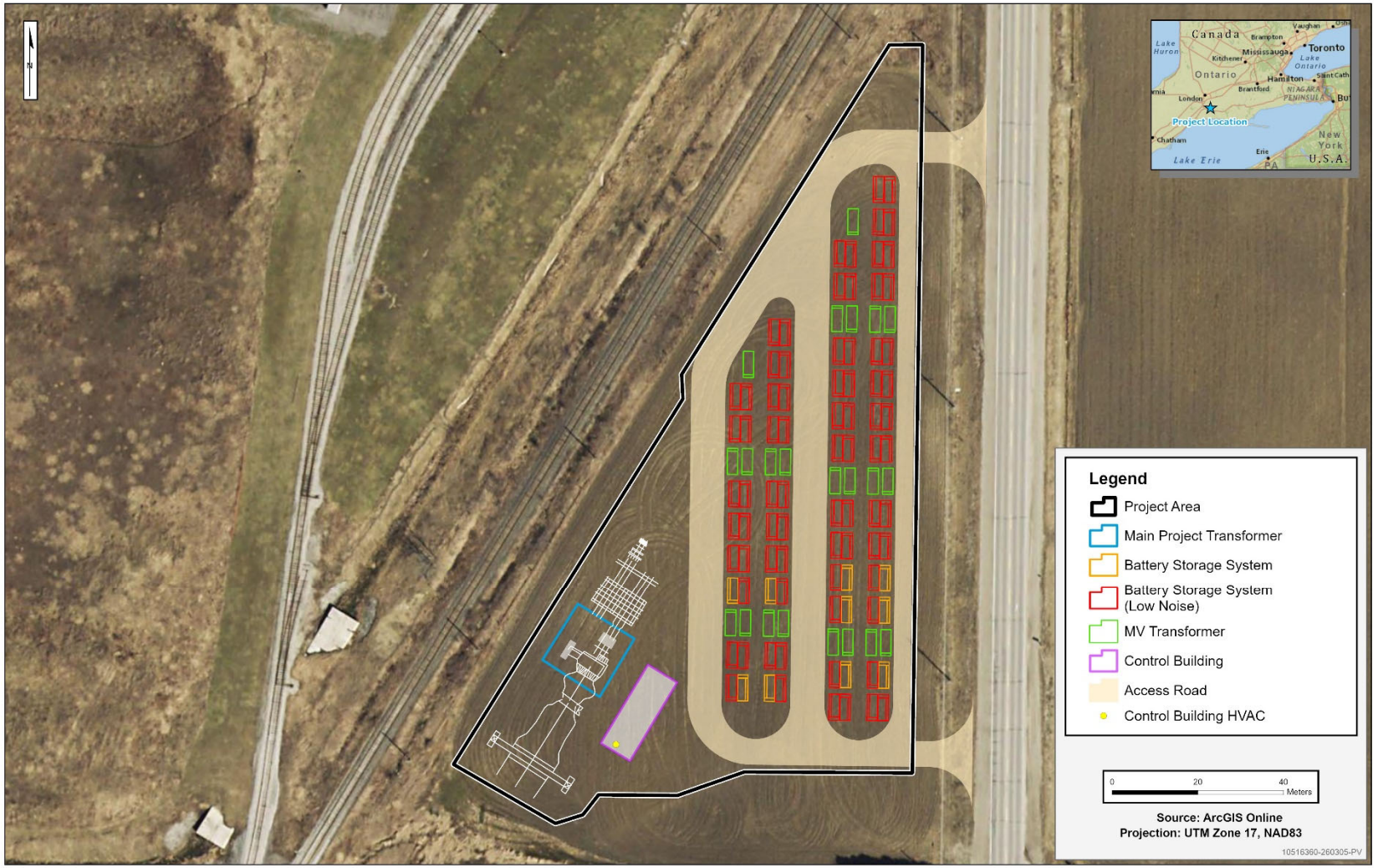
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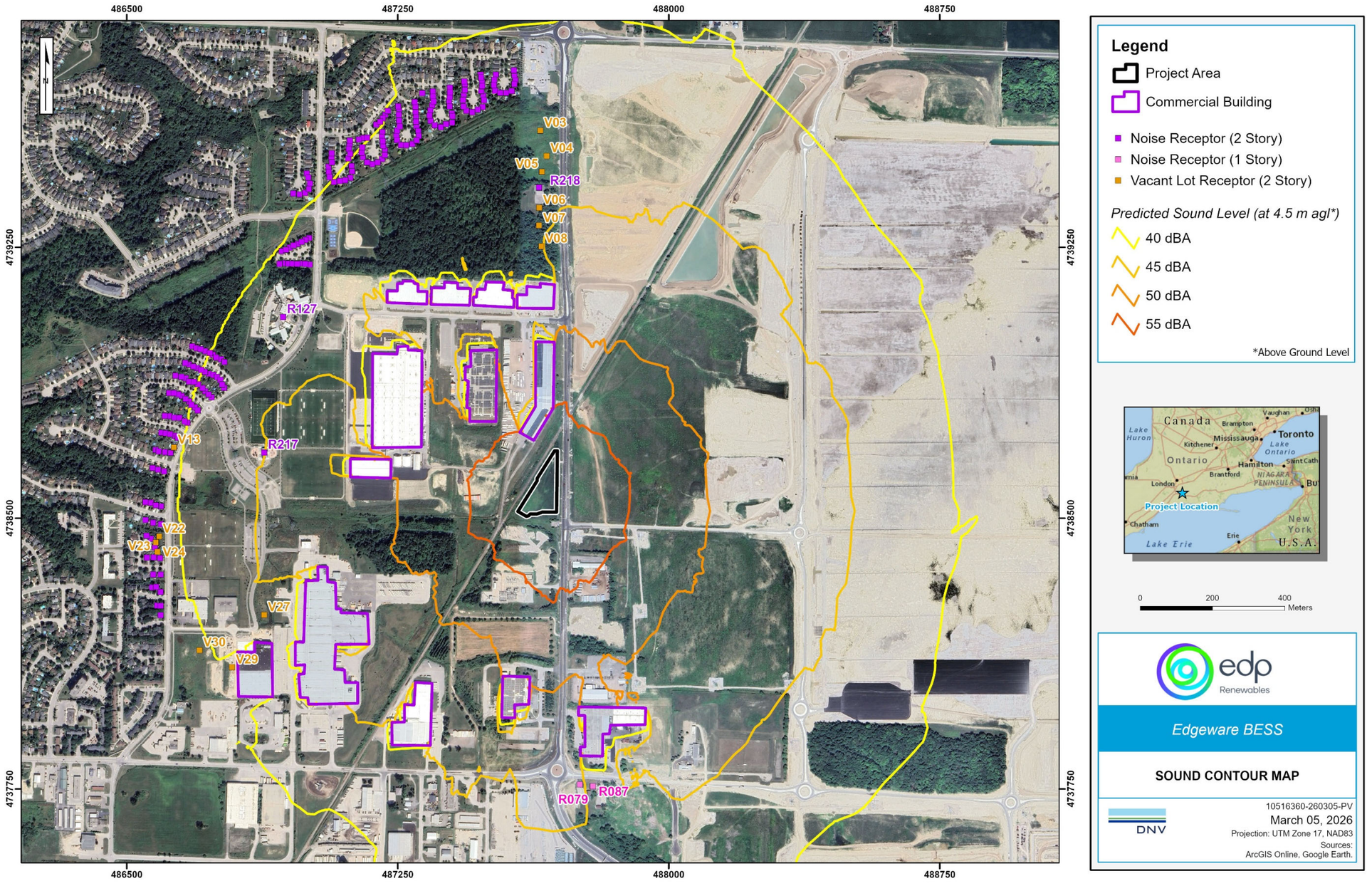
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APPENDIX A – PROJECT LAYOUT AND MODELED NOISE SOURCES



APPENDIX B – NOISE ISO-CONTOURS





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APPENDIX F – ENVIRONMENTAL IMPACT STUDY AND TERMS OF REFERENCE



Edgeware Battery Energy Storage System

Environmental Impact Study

Prepared for:

EDP Renewables Canada Ltd.
219 Dufferin Street, Unit 117C
Toronto, Ontario
M6K3J1

Project No. 3221F | March 2026

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Edgeware Battery Energy Storage System

Project Team

Staff	Role
Ryan Archer	Senior Biologist, Project Advisor
Tara Livingstone	Terrestrial and Wetland Biologist, Project Manager
Ashley Cantwell	Aquatic Biologist
Elaine Gosnell	Terrestrial and Wetland Biologist
Jonathon Nene	Aquatic Biologist and Avian Specialist
Kathryn Hoo	Terrestrial and Wetland Biologist
Mark Bosco	Terrestrial and Wetland Biologist
Meagan Beck	Terrestrial and Wetland Biologist
Nathan Tuck	Aquatic Biologist
Pat Deacon	Terrestrial and Wetland Biologist
Robert Pivar	Terrestrial and Wetland Biologist
Sara Howe	Terrestrial and Wetland Biologist
Chenxi Liu	GIS Specialist and Biologist

Report submitted on March 11, 2026



Tara Livingstone
Project Manager
Terrestrial and Wetland Biologist

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1.0 Introduction

Natural Resource Solutions Inc. (NRSI) was retained by DNV Canada Ltd., on behalf of Edgeware BESS Project Limited Partnership, to complete an Environmental Impact Study (EIS) for the proposed Edgeware Battery Energy Storage System (BESS; herein "the Project"), located west of Highbury Avenue, north of Edgeware Line, in the City of St. Thomas, Ontario. The proposed activities will include the construction of a 75-megawatt (300MWh) battery-based energy storage facility that will collect and store energy before discharging into the provincial electrical grid at a later time.

For the purposes of this report, the "subject property" refers to the property being considered for the development of the Edgeware BESS, including all project-related activities and proposed infrastructure associated with the main project site and associated transmission lines. The Project will include the construction of battery energy storage units, a transformer station, transmission connection facilities, and ancillary components. The Project will connect to the transmission grid through the Hydro One transmission system.

The "study area" refers to the subject property and all lands within 120m of the subject property, to ensure any contiguous and/or adjacent natural features and wildlife habitats are considered (Map 1). The subject property consists of fallow agricultural land with some smaller areas of cultural meadow in the north and south, and a watercourse along the southern boundary. The study area consists of industrial land, fallow agricultural lands, cultural meadow, and watercourses.

The study area does not include lands designated as Natural Heritage in the Official Plan for the City of St. Thomas (2022). However, there are watercourses within or immediately outside of the western and southern boundaries of the subject property that are regulated by the Kettle Creek Conservation Authority (KCCA) under Ontario Regulation 41/24. These regulated lands extend into the southern portion of the subject property. Also, in accordance with the Official Plan for the City of St. Thomas (2022), no development or site alteration is permitted within the Habitat of Endangered Species or Threatened Species, or within, or adjacent to, fish habitat unless authorized by the Department of Fisheries and Oceans (DFO) in consultation with the local Conservation Authority.

This report summarizes background information on natural heritage features and the results of field surveys completed in 2023, 2024, and 2025. It describes any significant and sensitive

features to provide a comprehensive characterization of existing conditions within the study area. This report includes recommendations to mitigate impacts to identified natural heritage features and ecological functions in accordance with municipal policies.

An EIS Terms of Reference (Appendix I) was submitted to the KCCA and the City of St. Thomas on July 26, 2024. Comments were received from the KCCA on August 7, 2024 and have been incorporated into this report, where applicable; however, no comments were received from the City.

2.0 Background Review

2.1 Collection and Review of Background Information

In order to determine a study approach for the EIS, existing natural heritage information was first gathered and reviewed to identify key natural heritage features and species that are reported from, or have potential to occur, within the study area. Background information on the natural environment features within the general vicinity of the study area was also gathered from the Ministry of Natural Resources (MNR) Natural Heritage Information Centre (NHIC) online database of provincially-tracked species (MNRF 2023), the MNRF's Land Information Ontario (LIO) mapping, and relevant taxa-specific databases, as listed below.

Relevant background information sources were collected and reviewed, including the following:

- Aquatic Resource Area (ARA) Data (Government of Ontario 2025a);
- Atlas of the Mammals of Ontario (Dobbyn 1994);
- Official Plan for the City of St. Thomas (2022);
- DFO Aquatic Species at Risk Mapping (2024);
- Government of Canada *Species at Risk Act* (SARA) Registry (2024);
- Handbook of Canadian Mammals, Volume 2: Bats (van Zyll de Jong 1985);
- Kettle Creek Conservation Authority: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (2006);
- Kettle Creek Conservation Authority Interactive Mapping Tool (2024);
- Land Information Ontario (LIO) data (Government of Ontario 2024b);
- Natural Heritage Information Centre (NHIC) database (MNR 2024a);
- NHIC Natural Heritage Areas mapping (MNR 2024b);
- Ontario Breeding Bird Atlas (OBBA; Bird Studies Canada et al. 2006);
- Ontario Butterfly Atlas (Macnaughton et al. 2023);
- Ontario Odonate Atlas Database (OOAD 2023);
- Ontario Regulation 230/08: Species At Risk in Ontario List; and
- Ontario Reptile and Amphibian Atlas (Ontario Nature 2019);

Initial wildlife species lists were compiled to provide information on species reported from the vicinity of the study area (e.g., up to 10km) using various atlases, including the Ontario Breeding Bird Atlas (Bird Studies Canada (BSC) et al. 2006), the Ontario Mammal Atlas (Dobbyn 1994), the Ontario Reptile and Amphibian Atlas (Ontario Nature 2019), the Ontario Butterfly Atlas (Macnaughton et al. 2023), and the Ontario Odonata Atlas Database (OOAD 2023). Since

these atlases provide data based on 10x10km survey squares, information on taxa from the square that overlaps the study area was compiled. These initial species lists (Appendix II) were used to guide the scope and type of wildlife field surveys required as outlined in the following sections.

2.2 Significant Species and Habitat Screening

Based on these initial species lists, a list of all Species at Risk (SAR) and Species of Conservation Concern (SCC) with occurrence records in the study area vicinity was compiled. For the purposes of this EIS, SAR are those listed on the Species at Risk in Ontario List (MECP 2023) that forms Ontario Regulation 230/08 under the *Endangered Species Act,* 2007 (ESA). These include species identified by the Committee on the Status of Species at Risk in Ontario (COSSARO) as provincially Threatened or Endangered. These species are protected by the ESA, which includes protection of their habitat. Aquatic species and migratory birds listed as Threatened or Endangered on Schedule 1 of the *Species at Risk Act* (SARA) are also considered SAR in this EIS.

Species of Conservation Concern are those identified as:

- species designated provincially as Special Concern;
- species that have been assigned a conservation status (S-Rank) of S1 to S3 or SH by the NHIC; and
- terrestrial species that are designated federally as Threatened or Endangered on the federal SARA, but not provincially by the ESA.

SCC are discussed further within the context of Significant Wildlife Habitat (SWH).

A preliminary screening exercise was conducted on these species to identify which species have suitable habitat within the study area. This involved cross-referencing the preferred habitat for reported SAR (MNR 2000) against habitats known to occur within the study area. This was completed to ensure that the potential presence of all regulated SAR and SCC within the study area was adequately assessed in this EIS.

Based on the results of the screening, the SAR and SCC listed in Table 1 below were identified as having potentially suitable habitat within the study area.

Table 1. Summary of SAR and SCC with Potentially Suitable Habitat within the Edgeware BESS Study Area

Scientific Name	Common Name	S-Rank	SARO Status	COSEWIC Status	SARA Status (Schedule)
Species at Risk (SAR)					
Avian Species					
Chaetura pelagica	Chimney Swift	S3B	THR	THR	THR (Schedule 1)
Dolichonyx oryzivorus	Bobolink	S4B	THR	SC	THR (Schedule 1)
Melanerpes erythrocephalus	Red-headed Woodpecker	S3	END	END	END (Schedule 1)
Riparia riparia	Bank Swallow	S4B	THR	THR	THR (Schedule 1)
Sturnella magna	Eastern Meadowlark	S4B,S3N	THR	THR	THR (Schedule 1)
Mammals					
Lasionycteris noctivagans	Silver-haired Bat	S4	END	END	-
Lasiurus borealis	Eastern Red Bat	S4	END	END	-
Lasiurus cinereus	Hoary Bat	S4	END	END	-
Myotis leibii	Eastern Small-footed Myotis	S2S3	END	-	-
Myotis lucifugus	Little Brown Myotis	S3	END	END	END (Schedule 1)
Myotis septentrionalis	Northern Myotis	S3	END	END	END (Schedule 1)
Perimyotis subflavus	Tri-colored Bat	S3?	END	END	END (Schedule 1)
Taxidea taxus jacksoni	American Badger (Southwestern Ontario population)	S1	END	END	END (Schedule 1)
Species of Conservation Concern (SCC)					
Avian Species					
Ammodramus savannarum	Grasshopper Sparrow	S4B	SC	SC	SC (Schedule 1)
Baeolophus bicolor	Tufted Titmouse	S3			
Chordeiles minor	Common Nighthawk	S4B	SC	SC	SC (Schedule 1)
Contopus virens	Eastern Wood-Pewee	S4B	SC	SC	SC (Schedule 1)
Hirundo rustica	Barn Swallow	S4B	SC	SC	THR (Schedule 1)
Hylocichla mustelina	Wood Thrush	S4B	SC	THR	THR (Schedule 1)
Spatula discors	Blue-winged Teal	S3B,S4M	-	-	-
Butterflies					
Asterocampa celtis	Hackberry Emperor	S3	-	-	-
Asterocampa clyton	Tawny Emperor	S3	-	-	-
Danaus plexippus	Monarch	S2N, S4B	SC	END	END (Schedule 1)
Euphyes conspicua	Black Dash	S3	-	-	-
Herpetofauna					
Chelydra serpentina	Snapping Turtle	S4	SC	SC	SC (Schedule 1)
Thamnophis saurita septentrionalis	Northern Ribbonsnake	S4	SC	SC	SC (Schedule 1)
Mammals					

Scientific Name	Common Name	S-Rank	SARO Status	COSEWIC Status	SARA Status (Schedule)
Microtus pinetorum	Woodland Vole	S3?	SC	SC	SC (Schedule 1)
Odonates					
Phanogomphus graslinellus	Pronghorn Clubtail	S3	-	-	-
Vascular Species					
Symphyotrichum prenanthoides	Crooked-stem Aster	S2?	**SC**	**SC**	SC (Schedule 1)

Provincial Rank (S-Rank)
S1: Critically Imperilled
S2: Imperilled
S3: Vulnerable
S4: Apparently Secure
SH: Historic

SARO and COSEWIC Status
END: Endangered
THR: Threatened
SC: Special Concern

See Appendix II for the full habitat screening table for SAR and SCC with occurrence records in the vicinity of the study area.

A screening for the presence of SWH was also completed for the study area. The Significant Wildlife Habitat Technical Guide (SWHTG) is a guideline document that outlines the types of habitats that the MNR considers significant in Ontario, as well as criteria to identify these habitats within Ecoregion 7E (MNR 2000, MNRF 2015). The SWHTG groups SWH into four broad categories: seasonal concentration areas, rare vegetation communities and specialized wildlife habitat, habitats of SCC, and animal movement corridors. These candidate SWH types are discussed further in this report. Full results of the SWH screening are provided in Appendix III.

2.3 Relevant Policies and Legislation

Table 2 provides a general overview of the natural heritage-based policies, legislation, and regulations that are relevant to the study area. As applicable, the characterization and evaluation of natural features within the study area will be evaluated against relevant policies, regulations, and legislation outlined in the following sections to facilitate a clear and consistent approach to project siting, impact assessment, and the development of any relevant mitigation strategies.

Table 2. Relevant Policies, Regulations and Legislation

Policy/Legislation	Description	Project Relevance

Provincial Planning Statement (PPS; OMMAH 2024)	• Issued under the authority of Section 3 of the Planning Act and came into effect on October 20, 2024, replacing the 2020 PPS.
	• Section 4.1 of the PPS – Natural Heritage establishes clear direction on the adoption of an ecosystem approach and the protection of resources that have been identified as 'significant'.
	• The Natural Heritage Reference Manual (MNR 2010) and the SWHTG (MNR 2000) were prepared by the MNR to provide guidance on identifying natural features and in interpreting the Natural Heritage sections of the PPS.
		• Natural features that occur, or may occur, within the study area, and which receive protection under the PPS, include:
		  • Potential Significant Wildlife Habitat;
		  • Potential fish habitat; and
		  • Potential habitat of Endangered and Threatened species.
		• Section 4.1.5 of the PPS states that development or site alteration shall not be permitted in Significant Wildlife Habitat unless it has been demonstrated that there will be no negative impacts on the features or their ecological functions.
		• Section 4.1.6 of the PPS states that development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.
		• Section 4.1.7 of the PPS states that development and site alteration shall not be permitted in habitat of Endangered or Threatened species except in accordance with provincial and federal requirements.
		• Section 4.1.8 of the PPS states that development and site alteration shall not be permitted on adjacent lands to the natural features identified in policies 4.1.4, 4.1.5, and 4.1.6, unless it is demonstrated that there will be no negative impacts to the natural features or their ecological functions.

Official Plan for the City of St. Thomas (2022)	• The Official Plan for the City of St. Thomas was most recently consolidated in 2022.
	• The Official Plan provides policies for land use planning and development within and adjacent to natural heritage features.
	• Section 8.3 of the Plan outlines the various natural heritage policies, and the Schedules outline their locations within the City.
		• The study area does not contain any known natural heritage features, as defined and mapped in the Official Plan for the City of St. Thomas (2022). However, natural features that may occur within the study area, and which receive protection under the Official Plan, include:
		  • Potential habitat of Endangered and Threatened species; and
		  • Potential fish habitat.
		• Section 8.3.2.4 of the Official Plan states that no development or site alteration shall be permitted within the Habitat of Endangered Species or Threatened Species.
		• Section 8.3.2.5 of the Official Plan states that development or site alteration may be permitted within or adjacent to fish habitat if authorized by the Federal Department of Fisheries and Oceans in consultation with the local conservation authority.

Policy/Legislation	Description	Project Relevance
Endangered Species Act (ESA) (2007)	• The original ESA, written in 1971, underwent a year-long review which resulted in a number of changes which came into force in 2007. • The ESA prohibits killing, harming, harassing or capturing Endangered and Threatened species. • The ESA also protects habitat of Endangered and Threatened species from damage and destruction. • Ontario is planning to replace the ESA with the *Species Conservation Act* (SCA). The exact date the SCA will be in place is yet to be determined by the provincial government	• Several species at risk protected by the ESA were identified as potentially occurring in the vicinity of the study area. The field program was scoped to confirm if habitat for these species is present. • If Species at Risk protected by the ESA and/or their habitat are confirmed within the study area a mitigation plan, project registration, or permit from the MECP may be required.
Protect Ontario by Unleashing our Economy Act (2025)	• Bill 5, the Protect Ontario by Unleashing our Economy Act, 2025, received Royal Assent on June 5, 2025. • Interim changes to the ESA will be in effect from Royal Assent of Bill 5 until the SCA is officially in force. Key changes include: • With the passing of Bill 5 on June 5, 2025, habitat is defined as physical dwellings (e.g., dens, nests, hibernacula) and the immediate surrounding area necessary for breeding, rearing, or hibernation. • Going forward, proponents will no longer have the option to pay a conservation charge instead of undertaking on-the-ground mitigation. The associated fund will also be dissolved, and the species conservation charge regime will be discontinued.	• If Species at Risk protected by the ESA and/or their habitat are confirmed within the study area a mitigation plan, project registration, or permit from the MECP may be required.

Policy/Legislation	Description	Project Relevance

Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits (O. Reg. 41/24)	• O. Reg. 41/24 allows Conservation Authorities, including the KCCA, to regulate development in floodplains, wetlands and hazardous lands to protect against flooding and erosion.	• The watercourses within or adjacent to the western and southern boundaries of the subject property are regulated by the KCCA.
		• Development activities are prohibited in the area of jurisdiction of the KCCA without a Permit from KCCA. Development activities include:
		  • The construction, reconstruction, erection or placing of a building or structure of any kind,
		  • Any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,
		  • Site grading, or
		  • The temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.

Canadian Fisheries Act	• Manages threats to the sustainability and productivity of Canada's commercial, recreational and Aboriginal fisheries. • The Act prohibits "serious harm to fish" including destruction of habitat • DFO has developed an online, self-assessment tool, where proponents can determine whether their projects require DFO review based on the type of water body the work is occurring in and the nature of the proposed activity.	• The approach to stormwater management may have implications for potential fish habitat in the watercourses within or adjacent to the western and southern boundaries of the subject property.
Species at Risk Act (SARA) (2002)	• The SARA is a federal piece of legislation that protects species listed as Endangered, Threatened or Special Concern on Schedule 1 of the *Act*. • SARA prohibits killing, harming, harassing, capturing, or taking of individuals. • Under SARA, prohibitions regarding individuals and residences for migratory birds and aquatic species at risk apply wherever they occur in Canada (including private lands).	• The SARA must be considered during any potential impact to migratory birds and fish.

Policy/Legislation	Description	Project Relevance
	• For terrestrial species at risk, these prohibitions only apply on federal lands. • In the case of a migratory bird species listed under the *Migratory Birds Convention Act*, certain SARA prohibitions protecting individuals and residences (e.g., nests or dens) of endangered, threatened and extirpated species apply automatically. Additionally, Critical Habitat for these species, where identified, is protected. • In the case of aquatic species at risk, SARA prohibitions protect individuals, residence (e.g., fish spawning areas, mussel beds or burrows) and identified critical habitat.	
Migratory Birds Convention Act (MBCA) (1994) and Migratory Birds Regulations (MBR) (2022)	• The MBCA, which came into force in 1994, protects migratory game birds, insectivorous birds, and several other migratory non-game birds from persecution in the form of harassment. • The schedule of on-site work must consider MBCA timing windows, with the breeding bird season typically occurring between April 1 and August 31 as described by the Canadian Wildlife Service (CWS); however, this is a guideline, since the MBCA applies to nesting bird species at any time. • "Incidental take" (unintentional harming, killing, disturbance, or destruction of migratory birds, their nests, or eggs as a result of an activity that is not specifically targeting the bird or nest) is considered illegal, with the exception of a permit obtained by the Canadian Wildlife Service.	• Species protected by the MBCA were identified in the background screening. • The timing of construction activities, especially vegetation clearing, must have consideration for the MBCA. Typically, this involves avoiding tree and vegetation removal during the peak breeding bird period (April 1 to August 31).

Policy/Legislation	Description	Project Relevance
	• Schedule 1 of the MBR 2022 provides year-round nest protection for 18 species that are known to re-use nests annually.	
Fish and Wildlife Conservation Act (FWCA) (1997)	• The FWCA provides protection for certain bird species not protected under the MBCA (i.e. raptors), as well as furbearing mammals and their dens or habitual dwellings, aside from the Red Fox (*Vulpes vulpes*) and Striped Skunk (*Mephitis mephitis*).	• Construction activities must have consideration for bird nesting and den sites of furbearing mammals.

3.0 Field Methods

NRSI biologists completed field surveys in order to characterize and identify significant and sensitive natural heritage features and species within the study area. A variety of field surveys were undertaken which are described in detail below. A summary of the field surveys conducted, including their dates and weather conditions are outlined in Table 3. Incidental observations of all wildlife, including signs of wildlife presence (if applicable), were recorded during all site visits. Field methods were consistent with those outlined in the Terms of Reference (Appendix I) and monitoring locations are shown on Map 2.

3.1 Vegetation Community Mapping and Species Inventory

Vegetation communities within the study area were classified and mapped using the Ecological Land Classification (ELC) system for southern Ontario (Lee et al. 1998). In conjunction with the ELC classification and mapping fieldwork, NRSI biologists conducted an inventory of vegetation species that were identifiable within the subject property. Details including relative species abundance and significant species (if present) were documented. Study area lands outside of the subject property were characterized as could be viewed from property boundaries or from aerial photo interpretation. Vegetation communities are delineated on Map 3. Table 3 lists the survey dates of vegetation surveys.

3.2 Significant Wildlife Habitat Assessments

Assessments of potential SWH were conducted within the study area according to the SWH Technical Guide (OMNR 2000), following criteria provided within the SWH Criteria Schedule for Ecoregion 7E (OMNR 2015).

Assessments of Candidate SWH presence or absence were conducted concurrently with the vegetation community characterization surveys. Surveys included area searches for habitat features, such as nests, snags, fallen logs, tree cavities, cliffs/banks, caves, burrows, dens, rock piles/stone walls, organics piles, karsts, old foundations, vernal pools/woodland ponds, sand, and fine sandy gravel.

3.3 Amphibian Breeding Habitat Surveys

NRSI conducted three evening amphibian call surveys, twice in May (May 15th and May 30th, 2024), and once in June (June 17th, 2024). The April 2024 survey period was missed due to the timing of project initiation. Therefore, an additional survey was conducted on April 30th, 2025, to ensure protocols were followed, and that any early season amphibian breeding activity was

documented. Surveys were conducted with a minimum of 15 days between visits. Each survey lasted three minutes, and began no earlier than one half hour after sunset and ended before midnight, following the standard Marsh Monitoring Program amphibian survey protocol (Bird Studies Canada 2009). Three point count stations (ANR-001, ANR-002, ANR-003) were used in order to adequately survey suitable habitats within the study area, including aquatic habitat along the southern and western edges of the subject property. During each survey, biologists recorded species and calling abundance codes, as well as date, time, and weather conditions. UTM coordinates were taken for each call location to ensure consistency between survey visits. The amphibian breeding habitat survey point count locations are shown on Map 2.

3.4 Breeding Bird Surveys

Peak bird breeding season in southern Ontario occurs from May 24 to July 10 (Birds Canada et al. 2021). Breeding bird surveys were conducted within the subject property on June 13th and June 24th, 2024, using the Ontario Breeding Bird Atlas methodology (Birds Canada et al. 2021). All breeding bird surveys were completed in the early morning and ended prior to 1000hrs. Surveys involved conducting area searches throughout the subject property in conjunction with 10-minute point counts at two stations (BMB-001 and BMB-002). In addition to breeding bird surveys, all birds observed within the study area were documented during each field visit. The bird survey point count locations are shown on Map 2.

3.5 Common Nighthawk Surveys

Due to the potential presence of suitable Common Nighthawk (*Chordeiles minor*) habitat (Appendix II), two evening Common Nighthawk surveys were conducted within the subject property. Surveys were conducted on June 17th and July 2nd, 2024, following the Ontario Breeding Bird Atlas Nightjar Survey Protocol (Hannah 2021). Surveys were conducted in the evenings beginning no earlier than 30 minutes prior to sunset and extending to one hour after sunset, and consisted of one 6-minute point count station (CONI-001). All birds observed, as well as the highest level of breeding evidence exhibited for each species, were recorded by an avian biologist. The Common Nighthawk survey location is shown on Map 2.

3.6 Aquatic Habitat Assessment

A general aquatic habitat assessment of the overall study area was completed on November 24th, 2023. Detailed aquatic habitat assessments of the watercourses within the subject property were conducted on October 1st, 2024. The survey followed a modified version of the standard Ontario Stream Assessment Protocol (OSAP) methodology (Stanfield 2017). The aquatic habitat assessment locations are shown on Map 2. Aquatic characteristics and habitat

features were characterized to provide an understanding of the types and quality of aquatic habitats present. The following information was collected, where applicable:

- General characteristics and channel morphology;
- Substrate composition;
- Flow conditions and water depths;
- In-stream and riparian vegetation;
- Location and type of fish habitat available, if present (e.g., refuge areas, nesting sites, areas and types of food supply including overhanging vegetation, woody debris, riffles, pools);
- Location and type of all culverts, water control structures and barriers to fish passage;
- Bank stability and signs of erosion;
- Adjacent land use and slopes;
- Evidence of groundwater discharge; and
- Single point in time water quality measurements including dissolved oxygen, pH, conductivity, and total dissolved solids.

3.7 Fish Community Assessment

A fish community assessment was conducted for the aquatic feature on October 1, 2024. NRSI submitted an Application for a Licence to Collect Fish for Scientific Purposes to the MNR on June 11, 2024 and the licence was issued on June 17, 2024 (Authorization No. AYGU-2024-FWCA-00707). Where water was present, the assessment also included an electrofishing survey, in order to characterize any fish species that may be present. This survey was undertaken through the application of the single-pass screening level assessment as outlined in the OSAP at the sampling site AHP-005 shown on Map 2 (Stanfield 2017). Due to the shallow water levels of the channel during the time of the survey, the deepest pool within the subject property was sampled in an effort to determine suitability of fish habitat within the feature. The sampling targeted different types of habitats (riffles, pools, and runs, where possible) within the watercourse to fully assess the fish community present. All fish collected were to be identified, enumerated, and released back into the channel they were captured from.

3.8 Additional Wildlife

All observations of birds, mammals, herpetofauna, butterflies and odonates (dragonflies/damselflies), were documented during all field visits. This included direct

observations of individuals, as well as indirect signs of wildlife presence (i.e., tracks, scat, dens, nests etc.).

Table 3. Field Survey Summary

Survey Type	Protocol	Date	Start and End Time (24 hrs)	Air Temp. (°C)	Wind Speed (Beaufort Scale)	Cloud Cover (%)	Precipitation	Observers
Vegetation Community Mapping, Species Inventory and Significant Wildlife Habitat Assessment	Lee et al. 1998 Significant Wildlife Habitat Technical Guide 2000	November 24, 2023	10:00-10:30	-1	1	90	None	P. Deacon A. Cantwell
Amphibian Breeding Habitat Surveys	BSC 2009	May 15, 2024	20:40-21:22	20	2	100	None	S. Howe J. Nafziger
		May 30, 2024	21:25-21:45	12	1	0	None	M. Bosco D. Skinner
		June 17, 2024	21:35-21:45	25	1-2	15	None	M. Beck C. Braun
		April 30, 2025	20:55-21:10	9	1	90	None	R. Pivar S. Howe
Breeding Bird Surveys	Birds Canada et al. 2021	June 13, 2024	7:00-7:45	20	2	90-100	None	E.Gosnell C. Braun
		June 24, 2024	6:37-7:12	16-17	2	70-80	None	J. Nene C Braun
Common Nighthawk Surveys	Hannah 2021	June 17, 2024	21:13-21:19	25	1-2	15	None	M. Beck C. Braun
		July 2, 2024	20:36-20:42	23	3	100	None	K. Hoo M. Duchenne
Aquatic Habitat Assessments and Fish Community Assessment	Modified OSAP (Stanfield 2017)	November 24, 2023	10:00-10:30	-1	1	90	None	P. Deacon A. Cantwell
		October 1, 2024	9:30-12:15	20	0-1	100	Light Rain	N. Tuck S. Gilbert

4.0 Existing Conditions

4.1 Soil, Terrain and Drainage

The subject property is located within the Mount Elgin Ridges physiographic region in Ontario (Chapman and Putnam 1984), and physiographic landforms include Till Moraines (Chapman and Putnam 2007). Soils within the subject property are characterized by a surface layer of topsoil to a depth of up to 46cm, with clay extending to depths of approximately 8.2m. The site is characterized by soils with slow infiltration rate, and groundwater is expected to be relatively shallow due to the low permeability of the glacial silt and clay soils (BBA Consultants 2025).

4.2 Designated Natural Areas

There are no provincial, County, or municipally-mapped natural areas within the study area, including provincial parks, conservation reserves, or Areas of Natural and Scientific Interest (ANSIs). The study area contains watercourse features that are regulated by the KCCA (Map 1).

4.3 Vegetation

4.3.1 Vegetation Communities

The subject property consists primarily of fallow agricultural land, with small areas of cultural meadow in the north and southwest corners of the subject property. The cultural meadow extends along the railway corridor, which is adjacent to the subject property. Vegetation communities within the study area are described in Table 4 and are shown on Map 3.

Table 4. Vegetation Communities Identified within the Edgeware BESS Subject Property

ELC Ecosite Type	ELC Description	Environmental Characteristics
Ag	Fallow Agricultural Field	The majority of the subject property consists of inactive agricultural land that has been colonized by Foxtail (*Setaria* sp.) and Common Sunflower (*Helianthus annuus*).
CUM1-1	Dry - Moist Old Field Meadow	Cultural meadow is present in the north and southwest corners of the subject property, and is dominated by Reed Canary Grass (*Phalaris arundinacea*), Panicled Aster (*Symphyotrichum lanceolatum*) and Staghorn Sumac (*Rhus typhina*). Includes areas with the invasive species European Reed *(Phragmites australis ssp. australis).*

4.3.2 Vascular Flora

In total, 44 plant species were recorded within, and immediately adjacent to, the subject property during vegetation community site investigations. Of these species, approximately 55% are considered relatively common, or native, while the remaining 45% are considered non-native species, or introduced, and reflect the disturbed nature of the subject property (MNR 2024a). No federally, provincially, or regionally significant plant species were recorded within the subject property. A complete list of these species is appended to this report (Appendix IV).

4.4 Wildlife

4.4.1 Birds

A total of 91 bird species have been reported from within 10km of the subject property based on the OBBA (BSC et al. 2008).

In total, 21 bird species were observed during breeding bird surveys completed within the subject property, including 18 species that displayed some evidence of breeding. Three species were confirmed to be breeding within the subject property, while an additional four species displayed probable breeding evidence, and 11 displayed possible breeding evidence, as defined in the OBBA (Birds Canada et al. 2021). The majority of the species documented within the subject property are relatively common and have secure populations in Ontario (MNR 2024a).

Of the SAR and SCC birds reported from the vicinity of the subject property, only Barn Swallow (*Hirundo rustica*) was documented within the subject property by NRSI. Barn Swallow is listed as Special Concern provincially and Threatened federally. This species occupies farmlands, rural areas, and other open or semi-open areas near bodies of water, and nests almost exclusively on human-made structures such as open barns, buildings, bridges and culverts (OMNR 2000). One observation of this species was made by NRSI biologists during the first round of breeding bird surveys at BMB-001. Two individuals were seen foraging over the agricultural fields; however, since Barn Swallow were only detected during one breeding bird survey, the subject property likely does not function as important foraging habitat for the species. Suitable nesting habitat for this species was also not observed within the subject property.

Refer to Appendix IV for a list of bird species recorded within the subject property and vicinity.

<u>Common Nighthawk</u>

Common Nighthawk has been reported from the OBBA within 10km of the subject property. Its habitat consists of open areas with little to no ground vegetation, including cultivated fields and along railways, which are present within the subject property and its vicinity. Specific surveys for Common Nighthawk conducted by NRSI in 2024 resulted in no observations of the target species within the study area.

4.4.2 Herpetofauna

According to the Ontario Reptile and Amphibian Atlas (Ontario Nature 2019), 21 herpetofauna (reptile and amphibian) species have been reported within 10km of the subject property.

Over the course of the amphibian call surveys undertaken by NRSI in 2024 and 2025 targeting the watercourses in the western and southern portions of the subject property, one Gray Treefrog (*Dryophytes versicolor*) individual was heard calling from each of stations ANR-001 and ANR-002, and one American Toad (*Anaxyrus americanus*) individual was heard calling from station ANR-003. These species are considered relatively common and have secure populations in Ontario (MNR 2024a). These results indicate that the study area supports relatively little suitable amphibian breeding habitat.

No other herpetofauna, including significant species, were recorded within the study area.

A complete list of herpetofauna species reported from the subject property and vicinity is provided in Appendix IV.

4.4.3 Mammals

According to the Mammal Atlas of Ontario (Dobbyn 1994), 47 mammal species have been reported from within 100km of the subject property. One mammal species, a deceased Northern Raccoon (*Procyon lotor*), was observed by NRSI staff during field surveys within the subject property. This species is relatively common and has a secure population in Ontario (MNR 2024a).

<u>American Badger</u>

American Badger (*Taxidea taxus jacksoni*) has been reported from the Mammal Atlas of Ontario within 100km of the subject property, and is a SAR that is known to use a network of dens over large geographical areas. Suitable American Badger habitat includes treed areas along the edge of open agricultural or meadow habitat. This habitat type is present on site; however, no

dens, burrows, or evidence of American Badger was observed during any field surveys within the subject property.

Species at Risk Bats

Since there are no trees within the subject property, suitable tree bat roosting habitat does not exist, but may be present within the general study area. However, small areas of potentially suitable habitat for Eastern Red Bat (*Lasiurus borealis*) and Hoary Bat (*Lasiurus cinereus*), which includes shrub vegetation over 1m in height, is present along the watercourse within the subject property. Following a precautionary approach, and because formal guidelines to survey for the presence of Eastern Red Bat and Hoary Bat have not been prepared to date, the shrub thicket vegetation along the watercourse is assumed to represent potential habitat for these bat SAR. See Section 5.2 for further discussion.

A complete list of mammals reported from the subject property and vicinity is provided in Appendix IV.

4.4.4 Insects

According to the Butterfly Atlas (Macnaughton et al. 2023), 48 butterfly species are known to occur within 10km of the subject property; however, no butterflies were observed during any field surveys within the subject property.

According to the Ontario Odonata Atlas (OOAD 2023), 33 odonate species are known to occur within 10km of the subject property; however, no odonates were observed during any field surveys within the subject property.

A complete list of insect species reported from the subject property and vicinity is provided in Appendix IV.

4.5 Aquatic Resources

A review of available background information indicates that the subject property is located within the Upper Kettle Creek watershed (KCCA 2025).

Basemapping indicates that Kettle Creek is located approximately 1.5km west of the subject property. Two watercourses originate to the south and west of the subject property, and flow west towards Kettle Creek (Government of Ontario 2024b; Map 1).

According to the ARA data (Government of Ontario 2023), no fish species have been reported from within the watercourses within the study area.

An aquatic habitat assessment of the general study area was completed in November 2023, and a detailed aquatic habitat assessment of the subject property was completed in October 2024. Five assessment locations within the subject property, AHP-001, AHP-002, AHP-003, AHP-004 and AHP-005, as well as one assessment location downstream of the subject property, AHP-006, are described in more detail below. The watercourse along the western boundary of the subject property was not assessed since it is located more than 30m from the subject property boundary, on the west side of the existing rail corridor, and it is not expected to be impacted by the development. The aquatic habitat assessment locations are shown on Map 2.

AHP-001

This assessed section of the watercourse located in the southwestern portion of the subject property had a bankfull width ranging from 3.5m to 4.9m, with bank heights ranging from 0.80m to 0.97m. The feature contained dense in-stream vegetation, including Watercress (*Nasturtium* officinale) and Cattail (*Typha* sp.), as well as dense terrestrial vegetation along the banks. Small pools of standing water were present during the time of assessment; however, no surface flow was observed.

Downstream of the subject property, the watercourse passes through two 1.0m diameter corrugated steel culverts beneath the railway. The western outlets (downstream end) of these culverts were perched. Further downstream assessments were not conducted due to site access limitations. As a result, additional perched culverts and other potential fish passage barriers may be present downstream.

AHP-002

During the survey, this section of the watercourse contained a small, isolated pool of standing water with a depth of approximately 3cm. The section had an average bankfull width of 4.1m and average bank height of 0.8m. Similar to AHP-001, AHP-002 contained dense in-stream vegetation consisting of European Reed (*Phragmites australis* ssp. *australis*) and Cattail were present. Dense terrestrial vegetation was also present along the banks.

AHP-003

This section of the watercourse had an average bankfull width of 3.5m and an average wetted width of 1.4m. Minimal water was present during the time of assessment. Dense Cattail was present within the feature, and dense terrestrial vegetation occurred along the banks, similar to the two downstream sections described above.

AHP-004

AHP-004 contained some water at the time of assessment and had an average bankfull width of 4.1m and an average bank height of 0.97m. Dense in-stream vegetation was present and was dominated by Watercress, with a low abundance of European Reed. An undercut bank was observed along the southern bank, with an approximate depth of 10cm.

AHP-005

At AHP-005 (the most upstream section), the average bankfull width and wetted width were 3.7m and 1.7m, respectively. This section of the watercourse had a bank height of 0.94m at the time of assessment. Portions of the southern bank were undercut, with an approximate depth of 10cm. In-stream vegetation, including Watercress, Cattail, and algae, was sparser compared to the other aquatic habitat assessment locations, and some deciduous trees were present along the southern bank at this location. At the upstream extent, the feature flows through a 30cm concrete culvert beneath Highbury Avenue South. A catchbasin is located on the east side of Highbury Avenue South, and the watercourse is assumed to be piped beyond this point at its upstream extent.

This section of the watercourse was the only assessment location with sufficient water depth to conduct an electrofishing survey; however, no fish were observed or captured during the electrofishing survey.

4.5.1 Fish Community

No fish were captured during the fish community assessment at AHP-005. Although this watercourse provides fish habitat, it is unlikely that fish inhabit the reaches within the subject property. In addition, potential fish passage barriers downstream of the subject property may further limit fish access to the site.

5.0 Significance and Sensitivity of Natural Features

Natural features may be afforded significance under the Official Plan for the City of St. Thomas (2022), provincial policy, and/or are regulated by the KCCA. The majority of the subject property consists of fallow agricultural land, with some smaller areas of cultural meadow in the north and southwest corners of the subject property, as well as watercourses along the western and southern portions of the study area. The following is a summary of the potential significance and sensitivity of the natural features and wildlife habitats within the study area.

5.1 Significant Wildlife Habitat

Based on background information review, desktop analysis, and field studies, no confirmed SWH has been identified within the subject property. Refer to the SWH screening exercise (Appendix III) for an analysis of each SWH type assessed within the subject property and study area. Candidate SWH types are discussed below.

5.1.1 Seasonal Concentration Areas

Wildlife seasonal concentration areas are defined as areas where animals occur in relatively high densities for all, or portions, or their life cycle (MNR 2000). These areas are generally small in size, particularly when compared to areas used by these species during other times of the year. No seasonal concentration areas were identified within the study area.

5.1.2 Rare Vegetation Communities

No rare vegetation communities are found within the study area.

5.1.3 Specialized Wildlife Habitat

Some species with specialized habitat for breeding require large areas of suitable habitat for their long-term survival. The largest and least fragmented habitats within a localized area will support the most significant populations of wildlife.

Candidate Amphibian Breeding Habitat (Wetlands) was considered within the watercourses in the southern and western portions of the subject property. However, the number of individuals recorded during amphibian call surveys within the study area was not sufficient in order to be considered significant based on existing criteria (MNR 2015).

As such, no confirmed Specialized Wildlife Habitat was identified within the study area.

5.1.4 Habitat for Species of Conservation Concern

Confirmed habitat for Species of Conservation Concern may be considered Significant Wildlife Habitat (MNR 2000). Candidate habitat for several of the reported SCC species were identified

within the subject property by comparing the results of vegetation community mapping to the habitat requirements for each of these species outlined in the SWHTG (MNR 2000). Following the results of wildlife-specific field surveys, including targeted surveys for Common Nighthawk, Barn Swallow was the only SCC observed within the subject property. Two individuals were seen foraging over the agricultural fields; however, since Barn Swallow were only detected during one breeding bird survey, the subject property likely does not function as important foraging habitat for the species. Suitable nesting habitat for Barn Swallow was also not observed within the subject property. As such, SWH for this species is not present within the study area.

The significant species screening exercise also identified potentially suitable habitat for other SCC, including turtle, snake, butterfly and odonate species within the study area (see Section 2.2). However, based on the results of field investigations, the watercourse within the subject property was determined to be of relatively low habitat quality, being very small with intermittent flow. It can be concluded that these additional species listed in Section 2.2 are unlikely to occur within the study area.

As a result of the above assessment, no confirmed Habitat for Species of Conservation Concern was identified within the study area.

5.1.5 Animal Movement Corridors

Animal movement corridors are elongated, naturally vegetated parts of the landscape used by animals to move from one habitat to another (MNR 2000). They can include natural landscapes such as shorelines as well as anthropogenic features such as trails and hydro corridors. The potential for animal movement corridors to occur in the subject property is contingent on confirming Amphibian Breeding Habitat (Wetland) SWH, and this habitat type was not confirmed within the subject property. As such, Animal Movement Corridors are not applicable.

No animal movement corridors are present within the subject property.

5.2 Habitat of Endangered and Threatened Species

As described in Section 4.4.3, treed habitat that could provide roosting habitat for the SAR Little Brown Myotis, Northern Myotis, Silver-haired Bat, and Tri-colored Bat is absent within the subject property. However, small areas of potentially suitable habitat for Eastern Red Bat and Hoary Bat, which includes shrub growth over 1m in height, is present along the watercourse within the subject property. Following a precautionary approach, this shrub growth is assumed to represent potential habitat for these bat SAR. This shrub growth should therefore be

considered as protected habitat under the Endangered Species Act. Removal of the shrub growth must only occur subject to the mitigation recommendations presented in Section 7.3 or otherwise as directed by the MECP.

No habitat for any other SAR, including habitat for bird or mammal species that were identified during the background information review, was documented within the subject property during field surveys conducted by NRSI biologists.

5.3 Aquatic Resources and Fish Habitat

During aquatic habitat assessments of the watercourse along the southern boundary of the subject property, water was present at only some locations, and observed pools were stagnant and not surficially connected. The feature likely dries out in the summer and conveys flow primarily during rainfall events, spring freshet, or during periods of elevated groundwater levels. The presence of Watercress indicates some degree of groundwater input, or that the water table is close to the ground surface. This watercourse provides fish habitat; however, it is unlikely that fish inhabit the reaches within the subject property. In addition, potential fish passage barriers downstream of the subject property and the piped conditions upstream may further limit fish access to the site.

The watercourse along the western boundary of the subject property was not assessed since it is located more than 30m from the subject property boundary, on the west side of the existing rail corridor, and was not accessible to NRSI biologists. However, given its location relative to the subject property, it is not expected to be impacted by the development.

KCCA's Regulation Limit applies to these two drainage features, which meet the definition of a watercourse within a non-apparent valley under the *Conservation Authorities Act.* According to the KCCA, the regulatory jurisdiction of the KCCA applies to areas within 15m of the bankfull width of the watercourses on both sides (J. Gordon, personal communication, August 7, 2024).

6.0 Buffers

Buffers are required for natural heritage features such as woodlands, wetlands, significant wildlife habitats, and watercourses to protect them from impacts during development. Buffers protect the natural form and function of the feature and the species that inhabit them. The outer limit of the buffers determines the outer boundary of the protected natural features and the constraints to guide development activities within the subject property. All development, including any form of construction or grading, should remain outside of the recommended buffer limits.

The watercourses should be protected by 15m minimum buffers on either side of the bankfull width. According to Project layout mapping, grading activities generally occur outside of this buffer, but there may be some encroachment into the buffer for the watercourse along the southern boundary of the subject property. The reduced buffer is seen as appropriate based on the existing conditions of the watercourse, and since the grading activities will be temporary and the area will be naturalized once construction is complete. Map 4 shows the proposed development layout in relation to existing natural features.

7.0 Impact Analysis

7.1 Description of the Proposed Undertaking

The majority of the subject property is proposed for development of the BESS facility, which will consist of containerized battery energy storage units, a transformer station, transmission connection facilities, and ancillary components. Overhead and/or buried connection lines will extend south from the subject property to connect to an existing Hydro One transmission system outside of the subject property. The proposed stormwater management (SWM) facility for this development will include enhanced ditches, culverts, catchbasin manholes, storm sewers and a dry pond. Discharge will outlet into the watercourse along the southern boundary of the subject property. The BESS and associated infrastructure are expected to remain in place for up to 20 years, and no decommissioning activities are expected.

Map 4 shows the proposed development layout in relation to the existing natural features.

7.2 Approach to Impact Analysis

Potential impacts arising from the proposed development are determined by comparing the details of the proposed development with the characteristics of the existing natural features and their ecological functions. Where the development overlaps with natural features and significant habitats, impacts may arise. The types of impacts which will be discussed include the following:

- Direct impacts to the natural features within the study area associated with disruption or displacement caused by the actual proposed 'footprint' of the undertaking.
- Indirect impacts associated with changes in site conditions such as drainage.

The project activities, extent of impact, and potential negative impacts to significant features during the construction and operational phases of the proposed Edgeware BESS are summarized in Table 5.

Table 5. Summary of Construction and Operational Activities and Potential Negative Environmental Impacts Associated with the Proposed Edgeware BESS

Project Activity	Extent of Impact	Potential Negative Impacts to Significant Feature or Habitat
Construction		
Battery Storage and Supporting Facility Construction	Facilities associated with the project include containerized batteries and a substation, including a transformer station, transmission connection facilities, and ancillary components. Grading activities are expected to occur throughout the project footprint. A SWM facility including enhanced ditches, culverts, catch basin manholes, storm sewer and a dry pond, will be constructed.	• Vegetation removal including the removal of potential SAR bat roosting habitat (i.e. woody vegetation >1m in height) • Mortality, injury or harassment of migratory bird species, or destruction of their eggs or nests • Increased erosion and sedimentation of natural features including aquatic features • Fugitive dust emission • Changes in soil moisture and compaction • Spills and leaks (oil, gas, etc.), and contamination • Increase in impervious surfaces • Changes in surface water drainage • Changes in shallow groundwater regime or flow paths • Temporary noise and vibrations, and potential avoidance or disturbance of wildlife species • Nighttime illumination of roosting habitats by construction lighting • Increased vegetation species competition through introduction of invasive vegetation species
Access Road Construction	Access roads will be created throughout the subject property in order to access the battery storage facility.	
Electrical Collector Line Installation	Overhead and/or buried connection line will extend south from the subject property to connect to an existing Hydro One transmission system outside of the subject property. Although the exact locations of all electrical collector lines are currently unknown, the potential impacts associated with electrical collector lines within the subject property have been considered as part of this EIS.	
Operation		
Battery Facility Operation and Maintenance	Regular maintenance activities will occur at the battery facility. In addition to regularly scheduled maintenance, occasional unscheduled maintenance activities may be required.	• Mortality, injury or harassment of migratory bird species, or destruction of their eggs or nests • Spills and leaks (oil, gas, etc.), and contamination • Water quality impacts to drainage feature stormwater discharge receptors and downstream aquatic resources • Changes in surface water discharge volumes or flow rates to drainage feature stormwater receptor • Temporary noise, and potential avoidance or disturbance of wildlife species • Nighttime illumination of roosting habitats by facility lighting
Electrical Collector Line Operation	Routine vegetation removal or pruning may be required for clearance of any overhead electrical collector lines during operations.	

7.3 Direct and Indirect Impacts and Mitigation Measures

NRSI has identified potential negative impacts, proposed mitigation measures, performance objectives, monitoring commitments, and contingency plans associated with the construction and operational phases of the project, which are outlined in Tables 6 and 7 below.

Table 6. Summary of Potential Negative Impacts and Mitigation Measures for Natural Features and Wildlife Habitats During the Construction Phase of the Proposed Edgeware BESS

Mitigation Measure	Details of Proposed Mitigation Measure	Performance Objective(s)	Monitoring Commitment(s)	Contingency Plan(s)
Adherence to Wildlife Timing Windows (Birds)	• No vegetation removal will occur during the breeding bird period (April 1 – August 31) to minimize potential disturbance to breeding birds. • Schedule construction activities to occur during daylight hours to avoid excessive noise and/or light disturbances to wildlife, wherever possible.	To minimize the potential disturbance, displacement, and/or mortality to birds that might be breeding within these habitats. To minimize impacts on species that are relatively inactive at night and not accustomed to nighttime disturbances.	• Environmental monitoring will occur during the construction phase.	• If vegetation removal must occur during the breeding bird period (April 1 – August 31), a biologist will conduct nest searches in areas where vegetation will be removed. If an active bird nest is identified, the area will be protected and no construction activities will occur until the young have fledged or until the nest is no longer active, as confirmed by a qualified biologist. • If construction activities must occur outside of daylight hours, spotlights will be directed downward and/or away from the adjacent natural features to limit potential light disturbance to breeding birds.
Adherence to Wildlife Timing Windows (Bats)	• Removal of potential SAR bat habitat (woody vegetation >1m in height) must occur between December 1st and March 31st, outside of the peak roosting period for bats (April 1st – November 30th in southern Ontario).	To minimize disturbance, displacement, and mortality to roosting bats.	• Environmental monitoring will occur during the construction phase.	• If any trimming or removal of woody vegetation over 1m in height must be conducted from April 1st-Nov 30th, MECP should be consulted to determine next steps, and if any additional mitigation measures can be implemented.
Delineation of Work Area	• Clearly delineate work area to avoid accidental damage or removal of retained vegetation species. • Place fencing or barriers along the watercourse buffer limit, and as far away as possible from other natural features and habitats.	To avoid accidental damage or removal of vegetation. To maintain a 15m buffer on either side of the watercourse.	• Environmental monitoring will occur during the construction phase.	• Prune any tree limbs or roots that are accidentally damaged by construction activities using proper arboricultural techniques; to be completed by a Certified Arborist or Registered Professional Forester. • Accidental damage, or unexpected vegetation removal, may require re-planting of similar, native species, depending on the extent of damage incurred. • Areas of adjacent natural feature disturbance should be restored through application of a native herbaceous seed mix appropriate to the site conditions.
Herbicide Avoidance	• Avoid the use of herbicides, to the extent possible (project related activities only). If herbicide use is considered necessary to control noxious weeds its use should be	To minimize potential impacts to vegetation species in natural features.	• Environmental monitoring will occur during the construction phase.	• No contingency plan required.

Mitigation Measure	Details of Proposed Mitigation Measure	Performance Objective(s)	Monitoring Commitment(s)	Contingency Plan(s)
	minimized to the extent possible and measures should be taken to avoid incidental application on adjacent native vegetation			
Minimization of Erosion and Sedimentation	• Develop and implement an ESC plan • Install, monitor, and maintain ESC measures around the project footprint for the duration of the construction activities, as identified within the ESC plan. • Place the erosion fencing along the limits of the watercourse buffer and anywhere else where sediment-borne runoff may flow downslope to natural vegetation. • Store any stockpiled material more than 30m from natural features, including the meadow habitat and watercourse, throughout the construction phase. • Schedule grading to avoid times of high runoff volumes, wherever possible. • Re-vegetate areas adjacent to the project footprint as soon as practical after construction activities are complete. • According to the SWM Plan, the SWM facility will consist of enhanced swales, culverts, storm sewers, and a dry pond designed to manage water quantity, quality, and erosion control. • The dry pond will meet the 60% long-term suspended solids removal requirement, as outlined in the MECP Stormwater Management Planning and Design Manual. • The dry pond provides a minimum detention time of 24 hours, with a	To minimize potential impacts associated with erosion in natural features.	• Monitor sediment and erosion control measures daily in areas where work is taking place and prior to, and after, any storm events. • Monitor sediment and erosion control measures weekly in areas where active construction is not occurring until the construction phase is complete, or otherwise in accordance with the ESC Plan.	• If deficiencies in erosion control measures are noted, the on-site environmental monitor will notify the general contractor and the proponent and recommend remedial actions. • If erosion control measures fail or/and degradation of natural feature occurs, appropriate contingency measures will be implemented as described in the ESC Plan, which may include re-establishing mitigation measures, habitat remediation, and/or seeding of permanently damaged areas, depending on the extent of degradation incurred.

Mitigation Measure	Details of Proposed Mitigation Measure	Performance Objective(s)	Monitoring Commitment(s)	Contingency Plan(s)
	calculated detention storage volume of 253 m³ for the 100-year storm and 307 m³ for the regional storm. The ponding elevation during these events remains within the design limits, ensuring safe and effective water detention and gradual release through a system of two orifices and an emergency overflow weir.			
Minimization of Impacts to Infiltration	• Minimize the use of impervious surfaces where possible, such as utilizing permeable surface material (i.e. gravel) to increase infiltration, and reduce surface water runoff. • According to the SWM Plan, the SWM facility will consist of enhanced swales, culverts, storm sewers, and a dry pond designed to manage water quantity, quality, and erosion control. Two orifices and an overflow control at the exit of the dry pond will be installed, which will allow post-development flows to get as close as reasonably practicable to pre-development flows, and protect the watercourse from increase flow, erosion and flooding.	To minimize impacts to infiltration.	• Environmental monitoring will occur during the construction phase.	• No contingency plan required.
Minimization of Impacts to Soil Moisture and Compaction	• Minimize the use of impervious surfaces where possible, such as utilizing permeable surface material (i.e. gravel) to increase infiltration, and reduce surface water runoff. • Minimize paved surfaces and design roads to promote infiltration.	To minimize impacts to soil moisture regime.	• Environmental monitoring will occur during the construction phase.	• No contingency plan required.
Minimization of Invasive Species Seed Transfer	• Clearly delineate work area to minimize invasive species seed transfer.	To minimize impacts to vegetation communities.	• Environmental monitoring will occur during the construction phase.	• No contingency plan required.

Mitigation Measure	Details of Proposed Mitigation Measure	Performance Objective(s)	Monitoring Commitment(s)	Contingency Plan(s)
	• Vehicle use will occur primarily in agricultural habitats, where invasive and non-native vegetation species are less likely to be concentrated.			
Minimization of Spills	• Develop a spill response plan and train staff on appropriate procedures. • Keep emergency spill kits on site. • Keep contact information for the MECP Spills Action Centre in a designated area on-site. • Dispose of waste material by authorized and approved off-site vendors. • Store hazardous materials in designated areas. • Locate all vehicle refueling or washing, as well as the storage of chemical and construction equipment more than 30m from natural features.	To minimize spills within 30m of natural features.	• Environmental monitoring will occur during the construction phase.	• In the event of a spill, notify the MECP Spills Action Centre, immediately stop work, and ensure all efforts are made to completely remediate affected areas, especially prior to rain events. • If a spill occurs, the on-site environmental monitor will be notified and a follow-up site inspection will be conducted to document extent of degradation of the features, if any. • If degradation of natural features or wildlife habitats occurs as a result of the spill, appropriate contingency measures will be implemented, which may include re-establishing mitigation measures, habitat remediation, and/or seeding of permanently damaged areas depending on the extent of degradation incurred.

Table 7. Summary of Potential Negative Impacts and Mitigation Measures for Natural Features and Wildlife Habitats During the Operational Phase of the Edgeware BESS

Mitigation Measure	Details of Proposed Mitigation Measure	Performance Objective(s)	Monitoring Commitment(s)	Contingency Plan(s)
Adherence to Wildlife Timing Windows (Birds)	• If regular (non-critical) project maintenance activities occur during the breeding bird period (April 1 – August 31), schedule these activities to occur during daylight hours to avoid excessive noise and/or light disturbances to wildlife, wherever possible.	To minimize the potential disturbance and displacement of breeding birds. Minimize impacts on species that are relatively inactive at night and not accustomed to nighttime disturbances.	• No monitoring required.	• If maintenance activities must occur outside of daylight hours, spotlights will be directed downward and/or away from natural features to limit potential light disturbance to bird species.
Lighting Strategy	• Direct ground-level lights (i.e. buildings) downward, where possible, to avoid shining into adjacent natural features.	To reduce the potential disturbance to wildlife species.	• No monitoring required.	• No contingency plan required.
Herbicide Avoidance	• Avoid the use of herbicides (project related activities only)	To avoid impacts to vegetation species in natural features.	• No monitoring required.	• No contingency plan required.
Minimization of Erosion and Sedimentation	• According to the SWM Plan, the SWM facility will consist of enhanced swales, culverts, storm sewers, and a dry pond designed to manage water quantity, quality, and erosion control. • The dry pond will meet the 60% long-term suspended solids removal requirement, as outlined in the MECP Stormwater Management Planning and Design Manual. • The dry pond provides a minimum detention time of 24 hours, with a calculated detention storage volume of 253 m^3 for the 100-year storm and 307 m^3 for the regional storm. The ponding elevation during these events remains within	To minimize potential impacts associated with erosion in natural features.	• According to the SWM Plan, inspection of the SWM facilities is recommended annually to identify maintenance, as well as after significant storm events to ensure proper functioning of the system	• If erosion control measures fail or/and degradation of natural feature occurs, appropriate contingency measures will be implemented as described in the ESC Plan, which may include re-establishing mitigation measures, habitat remediation, and/or seeding of permanently damaged areas, depending on the extent of degradation incurred.

Mitigation Measure	Details of Proposed Mitigation Measure	Performance Objective(s)	Monitoring Commitment(s)	Contingency Plan(s)
	the design limits, ensuring safe and effective water detention and gradual release through a system of two orifices and an emergency overflow weir.			
Minimization of Spills	• Develop a spill response plan and train staff on appropriate procedures. • Keep emergency spill kits on site. • Keep contact information for the MECP Spills Action Centre in a designated area on-site. • Dispose of waste material by authorized and approved off-site vendors. • Store hazardous materials in designated areas. • Locate all maintenance activities, vehicle refueling or washing, as well as the storage of chemicals and heavy equipment more than 30m from natural features and wildlife habitats.	To minimize spills within 30m of natural features.	• No monitoring plan required.	• In the event of a spill, notify the MECP Spills Action Centre, immediately stop work, and ensure all efforts are made to completely remediate affected areas, especially prior to rain events. • If degradation of natural features or wildlife habitats occurs as a result of the spill, appropriate contingency measures will be implemented, which may include re-establishing mitigation measures, habitat remediation, and/or seeding of permanently damaged areas depending on the extent of degradation incurred.

8.0 Restoration and Enhancement of Natural Features

In addition to the mitigation measures identified above, there are opportunities to restore and enhance the subject property after construction. Restoration is recommended in the areas within and adjacent to the watercourse buffer that are not being used for development, including within the former agricultural field and cultural meadow habitat, as well as in areas where grading encroaches slightly into the watercourse buffer along the southern portion of the subject property. NRSI recommends the application of a native herbaceous seed mix appropriate to the site conditions in these areas.

European Reed was observed within, and adjacent to, the watercourse in the southwest corner of the subject property. To prevent further spread of the species along the rail line corridor, and in other areas, NRSI recommends management activities for the species, including spraying the European Reed with herbicide applied by a licensed herbicide contractor. Glyphosate would be applied in late summer using a pressurized backpack sprayer. The herbicide would be applied to all living tissue of the European Reed. The first application should be monitored for effectiveness several weeks after the spraying and if live material persists, a second follow-up treatment should occur the following year.

9.0 Monitoring

Environmental monitoring is recommended during the construction and operational phases of the project, including the following:

- Ensuring no disturbance to adjacent buffer/natural areas during construction activities by delineating the work area to avoid accidental damage or removal of retained vegetation species. Fencing or barriers should be placed along the watercourse buffer limit within the subject property to mitigate unauthorized access or inadvertent damage to buffer vegetation. An on-site environmental monitor will be present to ensure compliance throughout the construction phase of the project. The environmental monitor will ensure that no unauthorized construction personnel access, refused dumping or stockpiling of materials or equipment within the buffer zone occurs.
- Verifying the establishment of seeded restoration areas post-construction. Monitoring is recommended to be undertaken in Year 1 following seeding to evaluate whether the seeded areas have been revegetated. If requested by the City of St. Thomas, a letter report will be provided to City staff to track progress and current conditions, recommended actions, and confirmation that vegetation has been established. Additional post-construction monitoring beyond Year 1 would be conditional on the Year 1 monitoring results and would be completed in coordination with the City.
- Verifying the success of areas where European Reed management activities have taken place. Herbicide treatment should be assessed several weeks after the initial spraying to determine if touch-up treatment is required or if all of the European Reed has been effectively managed and no further effort is needed. If live material persists, a second follow-up treatment should occur the following year. In conjunction with monitoring the seeded restoration areas outlined above, the European Reed re-establishment will also be assessed in Year 1 following herbicide treatment, and a summary of the conditions will be included in a letter report to City staff, if requested. Additional post-construction monitoring beyond Year 1 would be conditional on the Year 1 monitoring results and would be completed in coordination with the City.

10.0 Summary

NRSI was retained by DNV Canada Ltd., on behalf of EDP Renewables Canada Ltd., to complete an EIS for the proposed Edgeware BESS, in the City of St. Thomas, Ontario. The intent of this report is to provide a summary of the natural features within the study area, an analysis of the significance and sensitivity of these natural features, and an assessment of potential impacts caused by the construction and operations of the proposed development.

The subject property consists of fallow agricultural land with some smaller areas of cultural meadow in the north and south. The study area consists of industrial land, fallow agricultural lands, cultural meadow, and watercourses. There are watercourses within or immediately outside of the western and southern boundaries of the subject property that are regulated by the Kettle Creek Conservation Authority (KCCA) under Ontario Regulation 41/24. These regulated lands extend into the southern portion of the subject property.

Based on the potential impacts associated with the proposed development, NRSI biologists have recommended a series of mitigation measures, monitoring commitments, and contingency plans to be implemented as part of the development of the Edgeware BESS. Assuming the implementation of the proposed mitigation measures, monitoring programs, and contingency plans (if necessary), no negative impacts to natural features or ecological functions are anticipated. The proposed development is therefore expected to be in conformance with the applicable natural heritage policies of the City's Official Plan and other applicable policies, legislation and regulations presented in Section 2.3.

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Maps

Map 1. Background Information

Map 2. Monitoring Station Locations

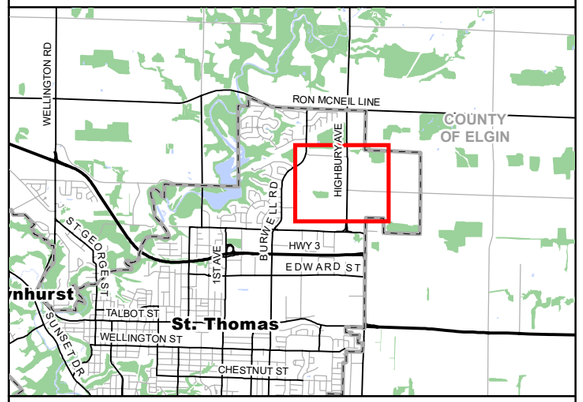
Map 3. Vegetation Communities

Map 4. Constraints

Map 1

Edgeware BESS

Study Area and Natural Features



Legend

- Study Area (120m)
- Subject Property
- Utility Line
- Railway
- Primary Road
- Secondary Road
- Permanent Watercourse (LIO)
- Permanent / Intermittent Watercourse (NRSI)
- Water Body (LIO)
- Wooded Area (LIO)
- KCCA Regulation Limit (15m)

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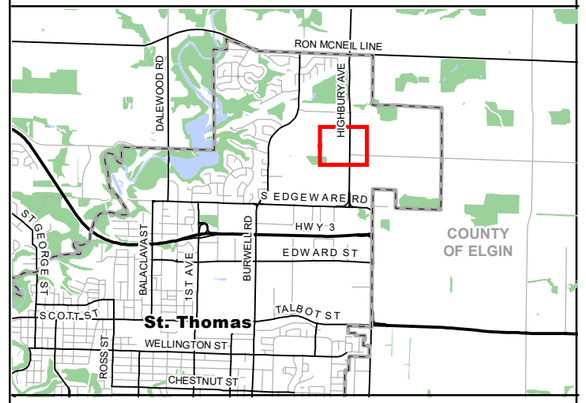
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Map 2

Edgeware BESS

Monitoring Station Locations



Legend

- Study Area (120m)
- Subject Property
- Utility Line
- Railway
- Permanent Watercourse (LIO)
- Permanent / Intermittent Watercourse (NRSI)
- Wooded Area (LIO)
- KCCA Regulation Limit (15m)

Monitoring Station Locations

- (AHP) Aquatic Habitat Assessment Station
- (ANR) Anuran Call Survey Station
- (BMB) Breeding Bird Survey Station
- (CONI) Common Nighthawk Survey Station

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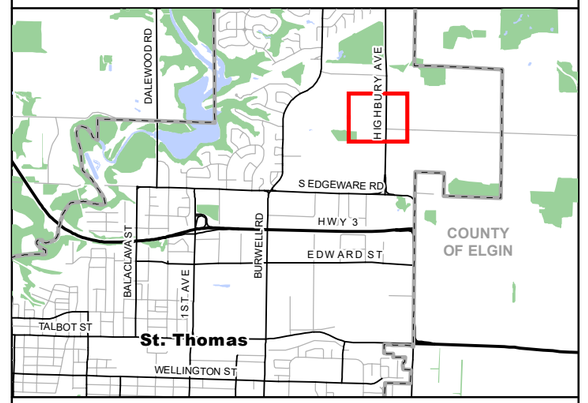
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Map 3

Edgeware BESS

Vegetation Communities



Legend

- Study Area (120m)
- Subject Property
- Utility Line
- Railway
- Permanent Watercourse (LIO)
- Permanent / Intermittent Watercourse (NRSI)
- Wooded Area (LIO)
- Ecological Land Classification (ELC)

(Ag) Agriculture

(CUM1-1) Dry - Moist Old Field Meadow Type

(FOD/SWD) Deciduous Forest / Deciduous Swamp

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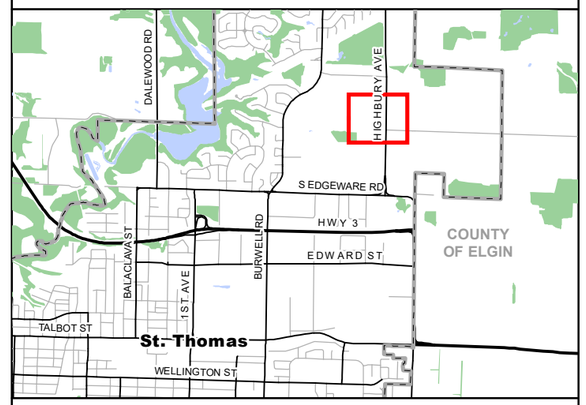
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Map 4

Edgeware BESS

Constraints



Legend

- Study Area (120m)
- Subject Property
- Utility Line
- Railway
- Permanent Watercourse (LIO)
- Ecological Land Classification (ELC)

(Ag) Agriculture

(CUM1-1) Dry - Moist Old Field Meadow Type

(FOD/SWD) Deciduous Forest / Deciduous Swamp

Significant Habitat

- Permanent / Intermittent Watercourse (NRSI)
- KCCA Regulation Limit (15m)

Project Components

- Site Plan
- Grading
- Battery
- Substation
- Drainage Swale
- Stormwater System - Pond Outlet to Creek / Outflow Swale
- Retention Pond
- VOI Axe
- Bollard
- Hydrant
- Underground Infrastructure
- Fence

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APPENDIX I Terms of Reference

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

July 26, 2024 Project No. 3221F

Lou Pompilii
Director, Planning and Building Services
City of St. Thomas
lpompilii@stthomas.ca

RE: Edgeware Battery Energy Storage Site
Environmental Impact Study – Terms of Reference

On behalf of Natural Resource Solutions Inc. (NRSI), I am pleased to provide the following Terms of Reference (TOR) to complete an Environmental Impact Study (EIS) for a proposed Battery Energy Storage System (BESS). NRSI has been hired by DNV, an independent consultant, to support the environmental and permitting process. The approval is being sought in order to construct the 75MW (300MWh) Edgeware BESS. The Project is being developed by Edgeware BESS Project Limited Partnership and EDP Renewables Canada Ltd. (EDPR Canada). The Project was awarded a contract under the Independent Electricity System Operator's (IESO) Long-Term 1 procurement in May 2024. The Project is located on the west side of Highbury Avenue and Edgeware Line in St. Thomas, Ontario (the 'subject property,' Map 1).

The subject property is approximately 2 hectares (ha) in size. It does not contain any natural heritage areas, watercourses or waterbodies, as defined in the Official Plan for the City of St. Thomas (2022); however, the watercourses along the western and southern boundaries of the subject property are regulated by the Kettle Creek Conservation Authority (KCCA) under Ontario Regulation 41/24.

An EIS will be prepared to support the development application, and will serve to characterize existing natural features and assess the impacts of the proposed undertaking on these features. This TOR outlines our approach to complete the EIS in three phases, including:

I. Background information review;
II. Natural feature characterization, and;
III. EIS reporting (impact assessment).

Phase I: Background Information Review

NRSI completed a background information review to inform this TOR. Existing background information was collected from the one 1x1km grid overlapping the subject property. Background sources that were reviewed included the following:

- Official Plan for the City of St. Thomas (2022);
- Land Information Ontario (LIO) data (Government of Ontario 2023);
- Natural Heritage Information Centre (NHIC) database (MNRF 2023a);
- NHIC Natural Heritage Areas map (MNRF 2023b).
- Ministry of Environment, Conservation and Parks (MECP) Species at Risk list (2024);
- Government of Canada Species at Risk Act (SARA) Registry (2024);

- Ontario Breeding Bird Atlas (Bird Studies Canada *et al*. 2006);
- Ontario Reptile and Amphibian Atlas (Ontario Nature 2019);
- Ontario Butterfly Atlas (Macnaughton *et al*. 2022);
- Ontario Odonata Atlas Database (MNRF 2022);
- Atlas of the Mammals of Ontario (Dobbyn 1994);
- Kettle Creek Conservation Authority Interactive Mapping Tool (2024);
- Department of Fisheries and Oceans (DFO) Aquatic Species at Risk mapping (2024); and
- Aquatic Resource Area (ARA) Data (Government of Ontario 2024).

The background review identified a preliminary list of species that may have suitable habitat within the subject property, as outlined in the table below.

Scientific Name	Common Name	S-Rank	SARO Status	COSEWIC Status
Species at Risk (SAR)				
Avian Species				
Chaetura pelagica	Chimney Swift	S3B	THR	THR
Dolichonyx oryzivorus	Bobolink	S4B	THR	SC
Melanerpes erythrocephalus	Red-headed Woodpecker	S3	END	END
Riparia riparia	Bank Swallow	S4B	THR	THR
Sturnella magna	Eastern Meadowlark	S4B, S3N	THR	THR
Mammals				
Myotis leibii	Eastern Small-footed Myotis	S2S3	END	
Myotis lucifugus	Little Brown Myotis	S3	END	END
Myotis septentrionalis	Northern Myotis	S3	END	END
Perimyotis subflavus	Tri-colored Bat	S3?	END	END
Taxidea taxus jacksoni	American Badger (Southwestern Ontario population)	S1	END	END
Species of Conservation Concern (SCC)				
Avian Species				
Ammodramus savannarum	Grasshopper Sparrow	S4B	SC	SC
Baeolophus bicolor	Tufted Titmouse	S3		
Chordeiles minor	Common Nighthawk	S4B	SC	SC
Contopus virens	Eastern Wood-pewee	S4B	SC	SC
Hirundo rustica	Barn Swallow	S4B	SC	SC
Hylocichla mustelina	Wood Thrush	S4B	SC	THR
Butterflies				
Asterocampa celtis	Hackberry Emperor	S3		
Asterocampa clyton	Tawny Emperor	S3		
Danaus plexippus	Monarch	S2N, S4B	SC	END
Herpetofauna				
Chelydra serpentina	Snapping Turtle	S4	SC	SC
Thamnophis sauritus septentrionalis	Northern Ribbonsnake	S4	SC	SC
Mammals				
Lasionycteris noctivagans	Silver-haired Bat	S4		END
Lasiurus borealis	Eastern Red Bat	S4		END
Lasiurus cinereus	Hoary Bat	S4		END
Microtus pinetorum	Woodland Vole	S3?	SC	SC
Odonates				
Phanogomphus graslinellus	Pronghorn Clubtail	S3		

Vascular Plants				
Symphyotrichum prenanthoides	Crooked-stem Aster	S2?	SC	SC

Provincial Rank (S-Rank)
S1: Critically Imperilled
S2: Imperilled
S3: Vulnerable
S4: Apparently Secure
SH: Historic

SARO and COSEWIC Status
END: Endangered
THR: Threatened
SC: Special Concern
DD: Data Deficient

NRSI completed a wildlife habitat screening exercise that identified a preliminary list of potential wildlife habitats that may be present on the subject property, and within the study area. Potential wildlife habitats that may occur within the subject property, include:

- Amphibian Breeding Habitat (Wetland);
- Open Country Bird Breeding Habitat;
- Species at Risk Habitat;
- Special Concern and Rare Wildlife Species Habitat; and
- Candidate Fish Habitat.

Based on the scope of the proposed undertaking, field surveys have been proposed to confirm the presence or absence of wildlife habitat types that may be present within, and immediately adjacent to, the subject property (see Phase II).

Phase II: Natural Feature Characterization

This phase includes the completion of all proposed field surveys, based on the expected site conditions, available habitat, and historical species presence. It also includes a preliminary analysis of field survey data to inform the development plan, including proposed setbacks, buffers, and natural heritage constraints.

Field Surveys

Vegetation Community Description and Mapping

Vegetation communities within the study area were mapped and classified in November 2023 following the Ecological Land Classification (ELC) system for southern Ontario (Lee *et al*. 1998). Details on the vegetation communities were recorded, including species composition, dominance, and uncommon species or features.

Vegetation Inventory

A vegetation inventory was also conducted in November 2023, in tandem with ELC surveys to record all species of vascular flora within the subject property. The subject property and immediately adjacent habitats were systematically searched for plant species and any rare species were documented and georeferenced. Vascular flora species were recorded by ELC polygon. Due to the lack of vegetation within the subject property, additional vegetation surveys were not warranted in 2024.

Amphibian Breeding Habitat Surveys

NRSI conducted three evening amphibian call surveys, twice in May and once in June 2024, with a minimum of 15 days between visits. Each survey lasted three minutes, and began no earlier than one half hour after sunset and ended before midnight, following the accepted Marsh

Monitoring Program protocol (Bird Studies Canada 2009). Three point count stations were used in order to adequately survey the area. Stations were located adjacent to the aquatic habitat along the southern and western edges of the subject property. During each survey, biologists recorded species and calling abundance codes, along with other appropriate information (e.g., date, time, weather). UTM coordinates were taken for each call location to ensure consistency between survey visits.

Breeding Bird Surveys

Two breeding bird surveys were completed in June 2024. Two point count stations were surveyed, and an area search of the property was undertaken on each survey date to document the species breeding within, or adjacent to, the subject property. These surveys were completed in the early morning, ending prior to 1000hrs, and were spaced at least 10 days apart, to appropriately capture breeding activity. Breeding evidence was recorded in accordance with the Ontario Breeding Bird Atlas protocol (2021).

Common Nighthawk Surveys

Two evening Common Nighthawk surveys were conducted, one in each of late June and early July 2024 following the Ontario Breeding Bird Atlas Nightjar Survey protocol (Hannah 2021). Surveys consisted of one 6-minute point count, where suitable Common Nighthawk habitat may be present within the subject property. Common Nighthawk surveys were conducted in the evenings beginning no earlier than 30 minutes prior to sunset and extending to one hour after sunset. All birds observed, as well as the highest level of breeding evidence exhibited for each species, was recorded by an avian biologist.

Terrestrial Habitat Assessments and Documentation of Other Wildlife

NRSI biologists continually assessed wildlife habitats within the subject property during all of the site visits. Any features that may be indicative of wildlife habitat or habitat for Species at Risk (SAR) was documented in detail, photographed, and georeferenced, as applicable. Incidental observations of mammals, reptiles, amphibians, butterflies and odonates (dragonflies/damselflies), and all other wildlife will be recorded while on-site. In addition to direct observations, any evidence such as dens, tracks, and scat were also documented.

Aquatic Habitat Assessment

An aquatic habitat assessment will be conducted in the fall or early winter of 2024 to characterize the waterbody along the southern boundary of the subject property. When water is present in the channel, this assessment will also include an electrofishing survey, in order to characterize any fish species that may be present.

Natural Feature, Mitigation and Constraints Assessment

The results of the field surveys will be combined with the background information to provide a detailed summary of the existing natural features that occur within the subject property and study area. This will include detailed vegetation community descriptions and mapping, and summaries of wildlife species present within the subject property and adjacent areas.

Buffers for any identified natural features or habitats on the property will be recommended and mapped as environmental constraints. All other aspects of natural feature significance or sensitivity identified through the field surveys will be incorporated into this assessment, and provided to the proponent to inform their plan.

Phase III: EIS Reporting

Environmental Impact Study Report

NRSI will prepare a report to characterize the subject property from a natural heritage perspective, and make recommendations with regard to buffers from the watercourses and any other natural heritage constraints. Recommendations will be provided to avoid, or otherwise minimize or mitigate potentially adverse impacts to natural features associated with the proposed development, such as erosion and sediment control, timing windows for vegetation removal, and best practices. If any Species at Risk implications are noted, these will be also addressed in the EIS with advisement on next steps.

Please contact me if you have any questions or comments, or require additional information for this TOR.

Sincerely,
Natural Resource Solutions Inc.



Tara Livingstone, B.Sc.
Project Manager, Terrestrial & Wetland Biologist

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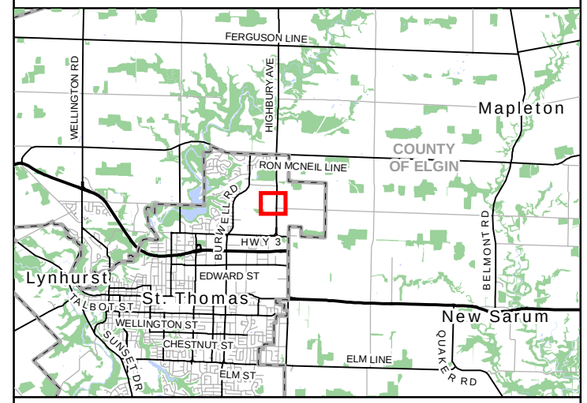
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Map

Map 1

Edgeware BESS EIS

Study Area and Natural Features



Legend

- Study Area (120m)
- Subject Property
- Utility Line
- Railway
- Permanent Watercourse
- Wooded Area
- Regulation Limit (KCCA)(Approximate)

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

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Project: 3221F
Date: July 3, 2024

NAD83 - UTM Zone 17
Size: 11x17"
1:2,000

0 20 40 60 80 100 120 Metres

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HIGHBURY AVE

EDGEWARE LINE

Path: X:\3221_DNV_BESS\3221F_EDPRBESS\NRSI_3221F_Map1_StudyAreaNaturalFeatures_Edgeware_3K_2024_07_03_KEF.mxd

APPENDIX II SAR and SCC Screening

#3221F - Edgeware BESS

Appendix II - Species at Risk (SAR) and Species of Special Concern (SCC) Screening Table

Common Name	Scientific Name	SRANK	SARO	COSEWIC	SARA	SARA Schedule	NRSI Observed	Habitat Source	Habitat Preference	Suitable Habitats within Study Area	Suitable Habitats within Subject Property	Rationale
Birds												
Grasshopper Sparrow	*Ammodramus savannarum*	S4B	SC	SC	SC	Schedule 1	No	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Well-drained grassland or prairie with low cover of grasses, taller weeds or sandy soil; hayfields or weedy fallow fields; uplands with ground vegetation of various densities. Requires perches for singing and tracts of grassland generally >5ha.	No	No	Fallow fields within the subject property and study area are smaller than 5ha in size.
Tufted Titmouse	*Baeolophus bicolor*	S3	-	-	-	-	No	Cornell Lab of Ornithology 2024	Deciduous woodlands or mixed evergreen-deciduous woodlands with tall trees, typically in areas with a dense canopy and many tree species. Common in orchards, parks, and suburban areas. Generally found at low elevations.	Yes	No	Woodland within the study area may provide suitable habitat for this species.
Chimney Swift	*Chaetura pelagica*	S3B	THR	T	T	Schedule 1	No	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Commonly found in urban areas near buildings; nests in chimneys, hollow trees, and crevices of rock cliffs. Feeds over open water.	Yes	Yes	Hollow trees may be present within the subject property and study area.
Common Nighthawk	*Chordeiles minor*	S4B	SC	SC	SC	Schedule 1	No	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Open ground; clearings in dense forests (including burns and logged areas); rock barrens; peat bogs; ploughed fields; gravel beaches or barren areas with rocky soils; open woodlands; flat gravel roofs.	Yes	Yes	The fields and rail corridor may provide suitable habitat for this species.
Eastern Wood-Pewee	*Contopus virens*	S4B	SC	SC	SC	Schedule 1	No	Species at Risk in Ontario (MECP 2024)	Mid-canopy layer of forest clearings and edges of deciduous and mixed forest. Abundant in intermediate-age mature forest stands with little understory vegetation.	Yes	No	Forested habitat within the study area may provide suitable habitat for this species.
Bobolink	*Dolichonyx oryzivorus*	S4B	THR	SC	T	Schedule 1	No	Recovery Strategy for the Bobolink and Eastern Meadowlark in Ontario (McCracken et al. 2013)	Large (>10 ha), open expansive grasslands, pastures, hayfields, meadows or fallow fields with dense ground cover. Occasionally nest in large (>50 ha) fields of winter wheat and rye in southwestern Ontario.	No	No	Fallow field is present within the subject property and study area; however, these habitats are smaller than 10ha in size.
Barn Swallow	*Hirundo rustica*	S4B	SC	SC	T	Schedule 1	Yes	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Farmlands, rural areas and other open or semi-open areas near body of water. Nests almost exclusively on human-made structures such as open barns, buildings, bridges and culverts.	Yes	No	Buildings and culverts are present within the study area.
Wood Thrush	*Hylocichla mustelina*	S4B	SC	T	T	Schedule 1	No	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Carolinian and Great Lakes-St. Lawrence forest zones. Undisturbed moist mature deciduous or mixed forest with deciduous sapling growth. Near pond or swamp. Must have some trees higher than 12 m.	No	No	There are no undisturbed forests within the subject property or study area.
Red-headed Woodpecker	*Melanerpes erythrocephalus*	S3	END	E	E	Schedule 1	No	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Open, deciduous forest with little understory; fields, parks or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees. Requires cavity trees with at least 40 cm dbh.	Yes	No	The forested habitat within the study area may provide suitable habitat for this species.
Bank Swallow	*Riparia riparia*	S4B	THR	T	T	Schedule 1	No	Recovery Strategy for the Bank Swallow in Ontario (Falconer et al. 2016)	Nests in burrows in natural and human-made settings with vertical faces in silt and sand deposits. Usually on banks of river and lakes, but also found in sand and gravel pits.	No	No	There are no river/lake banks or sand/gravel pits present within the study area or subject property.
Blue-winged Teal	*Spatula discors*	S3B,S4M	-	-	-	-	No	Cornell Lab of Ornithology 2024	Inhabits shallow ponds and wetlands across much of North America. Prefers grasslands bordering small potholes and other freshwater wetlands.	No	No	There are no ponds or wetlands present within the study area or subject property.
Eastern Meadowlark	*Sturnella magna*	S4B,S3N	THR	T	T	Schedule 1	No	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Open pastures, hayfields, grasslands or grassy meadows with elevated singing perches (small trees, shrubs or fence posts). Also weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields or other open areas. Generally prefers larger tracts of habitat >10 ha, but will sometimes use smaller tracts.	No	No	Fallow field is present within the subject property and study area; however, these habitats are smaller than 10ha in size.
Butterflies												
Black Dash	*Euphyes conspicua*	S3	-	-	-	-	No	Butterflies and Moths of North America Online (2021)	Boggy marshes, wet meadows, and marshy stream banks with host plants Carex stricta.	No	No	There is no wetland habitat present within the study area or subject property.
Hackberry Emperor	*Asterocampa celtis*	S3	-	-	-	-	No	Butterflies and Moths of North America Online (2021)	Wooded streams, forest glades and river edges, wooded roadsides, urban areas. Requires host tree species of the genus Celtis.	Yes	No	Woodland is present within the study area but not within the subject property.
Tawny Emperor	*Asterocampa clyton*	S3	-	-	-	-	No	Butterflies and Moths of North America Online (2021)	Densely wooded riparian areas, dry woods, open woods. Requires host tree species of the genus Celtis.	Yes	No	Woodland is present within the study area but not within the subject property.
Monarch	*Danaus plexippus*	S2N,S4B	SC	E	E	Schedule 1	No	Species at Risk in Ontario (MECP 2024)	Adults found in a diversity of habitats with a variety of wildflowers. Caterpillars are confined to meadows and open areas where milkweeds grow (larval food plants).	Yes	Yes	The fields within the study area and subject property may provide suitable habitat for this species.
Herpetofauna												

Snapping Turtle	*Chelydra serpentina*	S4	SC	SC	SC	Schedule 1	No	Species at Risk in Ontario (MECP 2024)	Slow-flowing rivers and streams, lakes, and permanent or semi-permanent wetlands with soft substrates and vegetation. Key habitat requirements: open areas with structures for basking, open sand or gravel areas for nesting, shallow areas with soft substrates to bury in, soft banks or substrates for hibernation.	Yes	No	The watercourse within the subject property is not suitable habitat for this species; however, there may be suitable habitat within the study area.
Northern Ribbonsnake	*Thamnophis saurita septentrionalis*	S4	SC	SC	SC	Schedule 1	No	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Sunny grassy areas with low dense vegetation near bodies of shallow permanent quiet water; wet meadows grassy marshes or sphagnum bogs; borders of ponds, lakes or streams; hibernates in groups.	Yes	No	The watercourse within the subject property is not suitable habitat for this species; however, there may be suitable habitat within the study area.
Mammals												
Silver-haired Bat	*Lasionycteris noctivagans*	S3	END	E	NS	No schedule	No	COSEWIC Assessment and Status Report on the Hoary Bat Lasiurus cinereus Eastern Red Bat Lasiurus borealis Silver-haired Bat Lasionycteris noctivagans in Canada (COSEWIC 2023)	Roosts primarily in cavities, crevices, and exfoliating bark of typically large-diameter trees in forests and occasionally in or on buildings. Forages in forests of any age, along forests edges and in openings in forests. Primarily overwinters within the U.S.	Yes	No	Trees within the study area may provide suitable habitat for this species.
Eastern Red Bat	*Lasiurus borealis*	S3	END	E	NS	No schedule	No	COSEWIC Assessment and Status Report on the Hoary Bat Lasiurus cinereus Eastern Red Bat Lasiurus borealis Silver-haired Bat Lasionycteris noctivagans in Canada (COSEWIC 2023)	Roosts in foliage of trees; reproductive roosting occurs in upper foliage of typically large-diameter, super-canopy trees in deciduous and coniferous forests of any age. Males occasionally roost in shrubs or saplings. Primarily overwinters within the U.S.	Yes	Yes	Trees within the study area and woody vegetation >1m in the subject property may provide suitable habitat for this species.
Hoary Bat	*Lasiurus cinereus*	S3	END	E	NS	No schedule	No	COSEWIC Assessment and Status Report on the Hoary Bat Lasiurus cinereus Eastern Red Bat Lasiurus borealis Silver-haired Bat Lasionycteris noctivagans in Canada (COSEWIC 2023)	Roosts in foliage of trees; reproductive roosting occurs in upper foliage of typically large-diameter, super-canopy trees in deciduous and coniferous forests of any age. Forages in the open, such as open wetlands, grasslands and fields with patchy tree cover. Primarily overwinters in the U.S.	Yes	Yes	Trees within the study area and woody vegetation >1m in the subject property may provide suitable habitat for this species.
Woodland Vole	*Microtus pinetorum*	S3?	SC	SC	SC	Schedule 1	No	Species at Risk in Ontario (MECP 2022)	Mature deciduous forest in the Carolinian region where there is a deep litter layer that allows it to burrow.	Yes	No	Forested habitat within the study area may provide suitable habitat for this species.
Eastern Small-footed Myotis	*Myotis leibii*	S2S3	END	-	-	-	No	Recovery Strategy for the Eastern Small-footed Myotis (Myotis leibii) in Ontario (Humphrey, C. 2017)	Roosts, including maternity roosts, in crevices in open, sunny, rocky habitats and in buildings. Hibernates in caves or mines. Hunts in forests and wetlands.	Yes	No	Forested habitat within the study area may provide suitable habitat for this species.
Little Brown Myotis	*Myotis lucifugus*	S3	END	E	E	Schedule 1	No	Recovery Strategy for the Little Brown Myotis, Northern Myotis and Tri-colored Bat in Ontario (Humphrey, C. & H. Fotherby 2019)	Uses caves, quarries, tunnels, hollow trees or buildings for roosting. Winters in humid caves. Maternity sites in dark warm areas such as attics and barns. Feeds primarily in wetlands and forest edges.	Yes	No	Trees within the study area may provide suitable habitat for this species.
Northern Myotis	*Myotis septentrionalis*	S3	END	E	E	Schedule 1	No	Recovery Strategy for the Little Brown Myotis, Northern Myotis and Tri-colored Bat in Ontario (Humphrey, C. & H. Fotherby 2019)	Roosts in houses and man-made structures but prefers hollow trees or under loose bark. Hibernates in mines or caves. Hunts within forest, below the canopy.	Yes	No	Trees within the study area may provide suitable habitat for this species.
Tri-colored Bat	*Perimyotis subflavus*	S3?	END	E	E	Schedule 1	No	Recovery Strategy for the Little Brown Myotis, Northern Myotis and Tri-colored Bat in Ontario (Humphrey, C. & H. Fotherby 2019)	Roosts and maternity colonies in older forests and occassionally in barns or other structures. Forage over water and along streams in the forest. Hibernate in caves.	Yes	No	Forested habitat within the study area may provide suitable habitat for this species.
American Badger (Southwestern Ontario population)	*Taxidea taxus jacksoni*	S1	END	E	E	Schedule 1	No	Significant Wildlife Habitat Technical Guide: Appendix G (OMNR 2000)	Open grasslands and oak savannahs; dens in new hole or enlarged existing hole; sometimes makes food caches	Yes	Yes	Fields within the study area and subject property may provide suitable habitat for this species.
Odonates												
Pronghorn Clubtail	*Phanogomphus graslinellus*	S3	-	-	-	-	No	Wisconsin Odonata Survey (2023)	Ponds, lakes, and slow-moving areas of small and large streams	No	No	The watercourses within the study area and subject property may provide suitable habitat for this species.
Vascular Plants												
Crooked-stem Aster	*Symphyotrichum prenanthoides*	S2?	SC	SC	SC	Schedule 1	No	Flora of North America Online (Flora of North America Editorial Committee, eds. 1993+)	Moist or swampy grounds, woods, thickets, meadows, seeps, stream banks, and roadsides. Flowering in late summer to fall.	Yes	Yes	Woodland, fields, stream banks and roadside habitat is present within the study area and subject property.

APPENDIX III Significant Wildlife Habitat Screening

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Waterfowl Stopover and Staging Areas (Terrestrial)					
Habitat important to migrating waterfowl	American Black Duck Northern Pintail Gadwall Blue-winged Teal Green-winged Teal American Wigeon Northern Shoveler Tundra Swan	CUM1 CUT1 - Plus evidence of annual spring flooding from melt water or run-off within these Ecosites. - Fields with seasonal flooding and waste grain in the Long Point, Rondeau, Lake. St. Clair, Grand Bend and Pt. Pelee areas may be important to Tundra Swans.	Fields with sheet water during Spring (mid March to May). • Fields flooding during spring melt and run-off provide important invertebrate foraging habitat for migrating waterfowl. • Agricultural fields with waste grains are commonly used by waterfowl, these are not considered SWH unless they have spring sheet water available[cxlviii] <u>Information Sources</u> • Anecdotal information from the landowner, adjacent landowners or local naturalist clubs may be good information in determining occurrence. • Reports and other information available from Conservation Authorities (CAs) • Sites documented through waterfowl planning processes (eg. EHJV implementation plan) • Field Naturalist Clubs • Ducks Unlimited Canada • Natural Heritage Information Centre (NHIC) Waterfowl Concentration Area	Studies carried out and verified presence of an annual concentration of any listed species, evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • Any mixed species aggregations of 100[l] or more individuals required. • The area of the flooded field ecosite habitat plus a 100-300m radius buffer dependant on local site conditions and adjacent land use is the significant wildlife habitat[cxlviii]. • Annual use of habitat is documented from information sources or field studies (annual use can be based on studies or determined by past surveys with species numbers and dates). • SWHMIST[cxlix] Index #7 provides development effects and mitigation measures.	No large cultural meadow or cultural thicket ecosite types are present in the study area. Additionally, no concentration of waterfowl observed on any field visits and none reported from the study area. **Not SWH**
Waterfowl Stopover and Staging Areas (Aquatic)					
Important for local and migrant waterfowl populations during the spring or fall migration or both periods combined. Sites identified are usually only one of a few in the eco-district	Canada Goose Cackling Goose Snow Goose Green-winged Teal American Black Duck Northern Pintail Northern Shoveler American Wigeon Gadwall Blue-winged Teal Hooded Merganser Common Merganser Red-breasted Merganser Lesser Scaup Greater Scaup	MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7	• Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration. Sewage treatment ponds and storm water ponds do not qualify as a SWH, however a reservoir managed as a large wetland or pond/lake does qualify. • These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water). <u>Information Sources</u> • Environment Canada	Studies carried out and verified presence of: • Aggregations of 100[l] or more of listed species for 7 days[l], results in >700 waterfowl use days. • Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH[cxlix] • The combined area of the ELC ecosites and a 100m radius area is the SWH[cxlviii] • Wetland area and shorelines associated with sites identified within the SWHTG[cxlviii] Appendix K[cxlix] are significant wildlife	No wetlands or large aquatic habitats are present within the study area. **Not SWH**

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
	Common Goldeneye Bufflehead Long-tailed Duck Surf Scoter White-winged Scoter Black Scoter Canvasback Redhead Ruddy Duck Brant White-winged Scoter Black Scoter		• Naturalist clubs often are aware of staging/stopover areas • OMNRF Wetland Evaluations indicate presence of locally and regionally significant waterfowl staging. • Sites documented through waterfowl planning processes (eg. EHJV implementation plan) • Ducks Unlimited projects • Element occurrence specification by Nature Serve: http://www.natureserve.org • Natural Heritage Information Centre (NHIC) Waterfowl Concentration Area	habitat. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • Annual Use of Habitat is Documented from Information Sources or Field Studies (Annual can be based on completed studies or determined from past surveys with species numbers and dates recorded). • SWHMIST[cxlix] Index #7 provides development effects and mitigation measures.	
Shorebird Migratory Stopover Area					
High quality shorebird stopover habitat is extremely rare and typically has a long history of use	Greater Yellowlegs Lesser Yellowlegs Marbled Godwit Hudsonian Godwit Black-bellied Plover American Golden-Plover Semipalmated Plover Solitary Sandpiper Spotted Sandpiper Semipalmated Sandpiper Pectoral Sandpiper White-rumped Sandpiper Baird's Sandpiper Least Sandpiper Purple Sandpiper Stilt Sandpiper Short-billed Dowitcher Red-necked Phalarope Whimbrel Ruddy Turnstone Sanderling Dunlin	BBO1 BBO2 BBS1 BBS2 BBT1 BBT2 SDO1 SDS2 SDT1 MAM1 MAM2 MAM3 MAM4 MAM5	Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats. Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. Sewage treatment ponds and storm water ponds do not qualify as a SWH. <u>Information Sources</u> • Western hemisphere shorebird reserve network • Canadian Wildlife Service (CWS) Ontario Shorebird Survey • Bird Studies Canada • Ontario Nature • Local birders and naturalist clubs • Natural Heritage Information Center (NHIC) Shorebird Migratory Concentration Area	Studies confirming: • Presence of 3 or more of listed species and > 1000[l] shorebird use days during spring or fall migration period (shorebird use days are the accumulated number of shorebirds counted per day over the course of the fall or spring migration period). • Whimbrel stop briefly (<24hrs) during spring migration, any site with >100[l] Whimbrel used for 3 years or more is significant. • The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100m radius area[cxlviii] • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • SWHMIST[cxlix] Index #8 provides development effects and mitigation measures.	No wetlands or large aquatic habitats are present within the study area. **Not SWH**
Raptor Wintering Area					
Sites used by multiple species, a high number of	Rough-legged Hawk Red-tailed Hawk Northern Harrier	<u>Hawks/Owls:</u> Combination of ELC Community Series; need to	The habitat provides a combination of fields and woodlands that provide roosting,	Studies confirm the use of these habitats by: • One or more Short-eared Owls,	There are fields and woodland present within the study area; however, the areas are not more than 15ha in size.

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
individuals and used annually are most significant	American Kestrel Snowy Owl <u>Special Concern</u>: Short-eared Owl Bald Eagle	have present one Community Series from each land class. Forest: FOD, FOM, FOC Upland: CUM, CUT, CUS, CUW <u>Bald Eagle:</u> Forest Community Series: FOD, FOM, FOC, SWD, SWM, or SWC, on shoreline areas adjacent to large rivers or adjacent to lakes with open water (hunting area).	foraging and resting habitats for wintering raptors. Raptor wintering (hawk/owl) sites need to be > 20ha[cxlviii, cxlix] with a combination of forest and upland[xvi, xvii, xviii, xix, xx, xxi]. Least disturbed sites, idle/fallow or lightly grazed field/meadow (>15ha) with adjacent woodlands[cxlix] Field area of the habitat is to be wind swept with limited snow depth or accumulation. Eagle sites have open water and large trees and snags aviable for roosting[cxlix] <u>Information Sources</u> • OMNRF Districts • Natural clubs • Natural Heritage Information Centre (NHIC) Raptor Winter Concentration Area • Data from Bird Studies Canada • Reports and other information available from CAs • Results of Christmas Bird Counts	or, One of more Bald Eagles or; at least 10 individuals and two listed hawk/owl species • To be significant a site must be used regularly (3 in 5 years)[cxlix] for a minimum of 20 days by the above number of birds[l]. • The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • SWHMIST[cxlix] Index #10 and #11 provides development effects and mitigation measures.	**Not SWH**
Bat Hibernacula					
Bat hibernacula, are rare habitats in all Ontario landscapes.	Big Brown Bat Eastern Pipistrelle/Tri-colored Bat	Bat Hibernacula may be found in these ecosites: CCR1 CCR2 CCA1 CCA2 (Note: buildings are not considered to be SWH)	Hibernacula may be found in caves, mine shafts, underground foundations and Karsts. Active mine sites should not be considered The locations of bat hibernacula are relatively poorly known. <u>Information Sources</u> • OMNRF for possible locations and contact for local experts • Natural Heritage Information Centre (NHIC) Bat Hibernaculum	• All sites with confirmed hibernating bats are SWH[l]. • The area includes 200m radius around the entrance of the hibernaculum[cxlviii, ccvii, l]. for the development types and 1000m for wind farms [ccv.] • Studies are to be conducted during the peak swarming period (Aug. – Sept.). Surveys should be conducted following methods outlined in the[ccv]."Bats and Bat Habitats: Guidelines for Wind Power Projects" [ccv] • SWHMIST[cxlix] Index #1	No cave ecosite types are present within the study area. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			• Ministry of Northern Development and Mines for location of mine shafts • Clubs that explore caves (eg. Sierra Club) • University Biology Departments with bat experts	provides development effects and mitigation measures.	
Bat Maternity Colonies					
Known locations of forested bat maternity colonies are extremely rare in all Ontario landscapes.	Big Brown Bat Silver-haired Bat	Maternity colonies considered SWH are found in forested Ecosites. All ELC Ecosites in ELC Community Series: FOD FOM SWD SWM	Maternity colonies can be found in tree cavities, vegetation and often in building [sxxii, xxv, xxvi, xxvii, xxxi] (buildings are not considered to be SWH). • Maternity roosts are not found in caves and mines in Ontario[xxii]. • Maternity colonies located in Mature deciduous or mixed forest stands[ccix, ccx] with >10/ha large diameter (>25cm dbh) wildlife trees[ccvii]. • Female Bats prefer wildlife tree (snags) in early stages of decay, class 1-3[ccxiv] or class 1 or 2[ccxii]. • Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred[ccx]. <u>Information Sources</u> • OMNRF for possible locations and contact for local experts • University Biology Departments with bat experts	Maternity Colonies with confirmed use by: • >10 Big Brown Bats[l] • >5 Adult Female Silver-haired Bats[l] • The area of the habitat includes the entire woodland or the forest stand ELC Ecosite containing the maternity colonies[l]. • Evaluation methods for maternity colonies should be conducted following methods outlined in the "Bats and Bat Habitats: Guidelines for Wind Power Projects"[ccv]. • SWHMIST[cxlix] Index #12 provides development effects and mitigation measures.	Bat roost trees may be present within the forested habitat in the study area; however, these areas are well outside of the subject property and will not be impacted by the proposed development activities. **Not SWH**
Turtle Wintering Area					
Generally sites are the only known sites in the area. Sites with the highest number of individuals are most significant.	Midland Painted Turtle <u>Special Concern</u>: Northern Map Turtle Snapping Turtle	Snapping and Midland Painted Turtles: ELC Community Classes: SW, MA, OA and SA ELC Community Series: FEO and BOO Northern Map Turtle: Open Water areas such as deeper rivers or streams and lakes	• For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates. • Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen[cix, cx,	• Presence of 5 over-wintering Midland Painted Turtles is significant[l]. • One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant[l]. • The mapped ELC ecosite area with the over wintering turtles is the SWH. If the hibernation site	There are watercourses within the study area; however, they are not deep enough not to freeze in order to be considered candidate Turtle Wintering Area habitat. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
		with current can also be used as over-wintering habitat.	[cxi, cxviii]. • Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH <u>Information Sources</u> • EIS studies carried out by Conservation Authorities • Field naturalists clubs • OMNRF Ecologist or Biologist • Natural Heritage Information Centre (NHIC)	is within a stream or river, the deep-water pool where the turtles are over wintering is the SWH. • Over wintering areas may be identified by searching for congregations (Basking Areas) of turtles on warm, sunny days during the fall (Sept. – Oct.) or spring (Mar. – Apr)[cvii]. Congregation of turtles is more common where wintering areas are limited and therefore significant[cix, cx, cxi, cxii]. • SWHMIST[cxlix] Index #28 provides development effects and mitigation measures for turtle wintering habitat.	
Reptile Hibernaculum					
Generally sites are the only known sites in the area. Sites with the highest number of individuals are most significant	<u>Snakes:</u> Eastern Gartersnake Northern Watersnake Northern Red-bellied Snake Northern Brownsnake Smooth Green Snake Northern Ring-necked Snake <u>Special Concern</u>: Milksnake Eastern Ribbonsnake	For all snakes, habitat may be found in any ecosite in southern Ontario other than very wet ones. Talus, Rock Barren, Crevice and Cave, and Alvar sites may be directly related to these habitats. Observations of congregations of snakes on sunny warm days in the spring or fall is a good indicator. The existence of rock piles or slopes, stone fences, and crumbling foundations assist in identifying candidate SWH.	For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural locations. Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost line[xliv, l, li, lii, cxii]. Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover. <u>Information Sources</u> • In spring, local residents or landowners may have observed the emergence of snakes on their property (e.g. old dug wells). • Reports and other information available from CAs • Local naturalists and experts, as well as university herpetologists may also know where to find some of these sites.	Studies confirming: • Presence of snake hibernacula used by a minimum of five individuals of a snake sp., or, individuals of two or more snake spp. • Congregations of a minimum of five individuals of a snake sp., or, individuals of two or more snake spp. near potential hibernacula (eg. foundation or rocky slope) on sunny warm days in Spring (Apr/May) and Fall (Sept/Oct)[l]. • Note: If there are Special Concern Species present, then site is SWH • Note: Sites for hibernation possess specific habitat parameters (e.g. temperature, humidity, etc.) and consequently are used annually, often by many of the same individuals of a local population (i.e. strong hibernation site fidelity). Other critical life processes (e.g. mating) often take place in close proximity to hibernacula. The	No Talus, Rock Barren, Crevice and Cave, or Alvar ecosites are present within the study area. **Not SWH.**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			• Natural Heritage Information Centre (NHIC)	feature in which the hibernacula is located plus a 30m buffer is the SWH[cxlix]. • SWHMIST[cxlix] Index #13 provides development effects and mitigation measures for snake hibernacula.	
Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)					
Historical use and number of nests in a colony make this habitat significant. An identified colony can be very important to local populations. All swallow population are declining in Ontario.	Cliff Swallow Northern Rough-winged Swallow (this species is not colonial but can be found in Cliff Swallow colonies)	Eroding banks, sandy hills, borrow pits, steep slopes, and sand piles Cliff faces, bridge abutments, silos, barns Habitat found in the following ecosites: CUM1 CUT1 CUS1 BLO1 BLS1 BLT1 CLO1 CLS1 CLT1	• Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed/permitted aggregate area. • Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles. • Does not include a licensed/permitted Mineral Aggregate Operation. <u>Information Sources</u> • Reports and other information available from CAs • Ontario Breeding Bird Atlas[ccv]. • Bird Studies Canada: Nature Counts http://www.birdscanada.org/birdmon/ • Field Naturalist clubs	Studies confirming: • Presence of 1 or more nesting sites with 8[cxlvix] or more cliff swallow pairs and/or rough-winged swallow pairs during the breeding season. • A colony identified as SWH will include a 50m radius habitat area from the peripheral nests[ccvii]. • Field surveys to observe and count swallow nests are to be completed during the breeding season. Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi]. • SWHMIST[cxlix] Index #4 provides development effects and mitigation measures.	There are no exposed soil banks within the study area. **Not SWH**
Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs)					
Large colonies are important to local bird population, typically sites are only known colony in area and are used annually.	Great Blue Heron Black-crowned Night-Heron Great Egret Green Heron	SWM2 SWM3 SWM5 SWM6 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7 FET1	• Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used. • Most nests in trees are 11 to 15 m from ground, near the top of the tree. <u>Information Sources</u> • Ontario Breeding Bird Atlas[ccv], colonial nest records. • Ontario Heronry Inventory 1991 available from Bird Studies Canada or NHIC (OMNRF).	Studies confirming: • Presence of 2 or more active nests of Great Blue Heron or other list species. • The habitat extends from the the edge of the colony and a minimum 300m radius or extent of the Forest Ecosite containing the colony or any island <15.0ha with a colony is the SWH[cc, ccvii]. • Confirmation of active colonies must be achieved through site visits conducted during the nesting season (April to August) or by evidence such as the	There are no wetland habitats within the study area. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			• Natural Heritage Information Centre (NHIC) Mixed Wader Nesting Colony • Aerial photographs can help identify large heronries. • Reports and other information available from CAs • MNRF District Offices • Field naturalist clubs	presence of fresh guano, dead young and/or eggshells • SWHMIST[cxlix] Index #5 provides development effects and mitigation measures.	
Colonially - Nesting Bird Breeding Habitat (Ground)					
Colonies are important to local bird population, typically sites are only known colony in area and are used annually.	Herring Gull Great Black-backed Gull Little Gull Ring-billed Gull Common Tern Caspian Tern Brewer's Blackbird	Any rocky island or peninsula (natural or artificial) within a lake or large river (two-lined on a 1:50,000 NTS map). Close proximity to watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird) MAM1 – 6 MAS1 – 3 CUM CUT CUS	• Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas. • Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands. <u>Information Sources</u> • Ontario Breeding Bird Atlas[ccv], rare/colonial species records. • Canadian Wildlife Service • Reports and other information available from CAs • Natural Heritage Information Centre (NHIC) Colonial Waterbird Nesting Area • MNRF District Offices • Field naturalist clubs	Studies confirming: • Presence of >25 active nests for Herring Gulls, >5 active nests for Common Tern or >2 active nests for Caspian Tern[i]. • Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant[i]. • Presence of 5 or more pairs for Brewer's Blackbird[i]. • The edge of the colony and a minimum 150m radius area of the habitat, or the extent of the ELC ecosites containing the colony or any island <3.0ha with a colony is the SWH[cc, ccvii]. • Studies would be done during May/June when actively nesting. Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi]. • SWHMIST[cxlix] Index #6 provides development effects and mitigation measures.	There are no islands or peninsulas within the study area. Sparsely vegetated fields are present; however, no Brewer's Blackbirds were observed during breeding bird surveys within the subject property. **Not SWH**
Migratory Butterfly Stopover Areas					
Butterfly stopover areas are extremely rare habitats and are biologically important for butterfly species that migrate south for the winter	Painted Lady Red Admiral <u>Special Concern</u>: Monarch	Combination of ELC Community Series; need to have present one Community Series from each landclass: Field: CUM CUT CUS	A butterfly stopover area will be a minimum of 10ha in size with a combination of field and forest habitat present, and will be located within 5km of Lake Ontario and Erie[cxlix]. • The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long	Studies confirm: • The presence of Monarch Use Days (MUD) during fall migration (Aug/Oct)[xliii]. MUD is based on the number of days a site is used by Monarchs, multiplied by the number of individuals using the site. Numbers of butterflies can range from 100-500/day[xxxvii], significant variation can occur	The study area is not located within 5km of Lake Ontario or Lake Erie. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
		Forest: FOC FOD FOM CUP Anecdotally, a candidate sight for butterfly stopover will have a history of butterflies being observed.	migration south [xxxii, xxxiii, xxxiv, xxxv, xxxvi]. • The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat [cxlviii, cxlix]. • Staging areas usually provide protection from the elements and are often spits of land or areas with the shortest distance to cross the Great Lakes [xxxvii, xxxviii, xxxix, xl, xli]. <u>Information Sources</u> • MNRF District Offices • Natural Heritage Information Centre (NHIC) • Agriculture Canada in Ottawa may have list of butterfly experts. • Field Naturalist Clubs • Toronto Entomologists Association • Conservation Authorities	between years and multiple years of sampling should occur[xl, xlii]. • Observational studies are to be completed and need to be done frequently during the migration period to estimate MUD • MUD of >5000 or >3000 with the presence of Painted Ladies or White Admiral's is to be considered significant[l]. • SWHMIST[cxlix] Index #16 provides development effects and mitigation measures.	
Landbird Migratory Stopover Areas					
Sites with a high diversity of species as well as high numbers are most significant	All migratory songbirds Canadian Wildlife Service Ontario website: http://www.on.ec.gc.ca/wildlife_e.html All migrant raptors species Ontario Ministry of Natural Resources: Fish and Wildlife Conservation Act, 1997. Schedule 7: Specially Protected Birds (Raptors)	All Ecosites associated with these ELC Community Series: FOC FOM FOD SWC SWM SWD	Woodlots need to be >5 ha[l] in size and within 5km [iv, v, vi, vii, viii, ix, x, xi, xii, xiii, xiv, xv] of Lake Ontario and Erie. If woodlands are rare in an area of shoreline, woodland fragments 2-5ha can be considered for this habitat • If multiple woodlands are located along the shoreline those Woodlands <2km from Lake Erie or Ontario are more significant[cxlix]. • Sites have a variety of habitats: forest, grassland and wetland complexes[cxlix]. • The largest sites are more significant[cxlix] • Woodlots and forest fragments are important habitats to migrating birds[ccxviii], these features located along the shore and located within 5km of Lake Ontario and Lake Erie are Candidate SWH[cxlviii].	Studies confirm: • Use of the habitat by >200 birds/day and with >35 spp. with at least 10 bird spp. recorded on at least 5 different survey dates[l]. This abundance and diversity of migrant bird species is considered above average and significant. • Studies should be completed during spring (March/May) and fall (Aug/Oct) migration using standardized assessment techniques. Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi]. • SWHMIST[cxlix] Index #9 provides development effects and mitigation measures.	The study area is not located within 5km of Lake Ontario or Lake Erie. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			Information Sources • Bird Studies Canada • Ontario Nature • Local birders and naturalist clubs • Ontario Important Bird Areas (IBA) Program		
Deer Winter Congregation Areas					
Deer movement during winter in the southern areas of Ecoregion 7E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands to reduce or avoid the impacts of winter conditions [cxlviii]	White-tailed Deer	All Forested Ecosites with these ELC Community Series: FOC FOM FOD SWC SWM SWD Conifer plantations (CUP) smaller than 50 ha may also be used.	• Woodlots >100 ha in size or if large woodlots are rare in a planning area woodlots>50ha[i]. • Deer movement during winter in Ecoregion 7E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands[cxlviii]. • Large woodlots > 100ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha[ccxxiv]. • Woodlots with high densities of deer due to artificial feeding are not significant[i]. Information Sources • MNRF District Offices • LIO/NRVIS	Studies confirm: • Deer management is an MNRF responsibility, deer winter congregation areas considered significant will be mapped by MNRF[cxlviii]. • Use of the woodlot by white-tailed deer will be determined by MNRF, all woodlots exceeding the area criteria are significant, unless determined not to be significant by MNRF[i]. • Studies should be completed during winter (Jan/Feb) when >20cm of snow is on the ground using aerial survey techniques[ccxxiv], ground or road surveys, or a pellet count deer density survey[ccxxv]. • SWHMIST[cxlix] Index #2 provides development effects and mitigation measures.	No forested habitat within the study area is large enough to support deer winter congregation areas. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 2. Characteristics of Rare Vegetation Communities

Rationale	Candidate SWH			Confirmed SWH	Study Area
	ELC Ecosite Codes	Habitat Description	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Cliffs and Talus Slopes					
Cliffs and Talus Slopes are extremely rare habitats in Ontario.	Any ELC Ecosite within Community Series: TAO CLO TAS CLS TAT CLT	A Cliff is vertical to near vertical bedrock >3m in height. A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris.	Most cliff and talus slopes occur along the Niagara Escarpment. Information Sources • The Niagara Escarpment Commission has detailed information on location of these habitats. • OMNRF Districts • Natural Heritage Information Centre (NHIC) has location information available on their website • Field naturalist clubs • Conservation Authorities	• Confirm any ELC Vegetation Type for Cliffs or Talus Slopes[lxxviii] • SWHMIST[cxlix] Index #21 provides development effects and mitigation measures.	Cliff or talus slope ecosites are not present in the study area. **Not SWH**
Sand Barren					
Sand barrens are rare in Ontario and support rare species. Most Sand Barrens have been lost due to cottage development and forestry.	ELC Ecosites: SBO1 SBS1 SBT1 Vegetation cover varies from patchy and barren to continuous meadow (SBO1), thicket-like (SBS1), or more closed and treed (SBT1). Tree cover always ≤ 60%.	Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion. They have little or no soil and the underlying rock protrudes through the surface. Usually located within other types of natural habitat such as forest or savannah. Vegetation can vary from patchy and barren to tree covered but less than 60%.	A sand barren area >0.5ha in size Information Sources • OMNRF Districts • Natural Heritage Information Centre (NHIC) has location information available on their website • Field naturalist clubs • Conservation Authorities	• Confirm any ELC Vegetation Type for Sand Barrens[lxxviii] • Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotics sp)[i]. • SWHMIST[cxlix] Index #20 provides development effects and mitigation measures.	Sand barren ecosites are not present in the study area. **Not SWH**
Alvar					
Alvars are extremely rare habitats in Ecoregion 7E	ALO1 ALS1 ALT1 FOC1 FOC2 CUM2 CUS2 CUT2-1 CUW2 **Five Alvar Indicator Species:**	An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil. The hydrology of alvars is complex, with alternating periods of inundation and drought. Vegetation cover varies from sparse lichen-moss associations to	An Alvar site > 0.5ha in size[lxxv]. Alvar is particularly rare in Ecoregion 7E where the only known sites are found in the western islands of Lake Erie[cxcix]. Information Sources • Alvars of Ontario (2000), Federation of Ontario Naturalists[lxxvi]. • Ontario Nature – Conserving Great Lakes Alvars[ccviii].	Field studies identify four of the five **Alvar indicator species**[lxxv] at a candidate Alvar site is Significant • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics). • The alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses[lxxv]. • SWHMIST[cxlix] Index #17	Alvar ecosites are not present in the study area. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 2. Characteristics of Rare Vegetation Communities

Rationale	Candidate SWH			Confirmed SWH	Study Area
	ELC Ecosite Codes	Habitat Description	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
	1) Carex crawei 2) Panicum philadelphicum 3) Eleocharis compressa 4) Scutellaria parvula 5) Trichostema brachiatum These indicator species are very specific to Alvars within Ecoregion 7E[cxlix]	grasslands and shrublands and comprising a number of characteristic or indicator plant. Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animals species. Vegetation cover varies from patchy to barren with a less than 60% tree cover[lxxviii].	• Natural Heritage Information Centre (NHIC) has location information available on their website • OMNRF Staff • Field Naturalist clubs • Conservation Authorities	provides development effects and mitigation measures.	
Old Growth Forest					
Due to historic logging practices and land clearance for agriculture, old growth forest is rare in Ecoregion 7E.	Forest Community Series: FOD FOC FOM SWD SWC SWM	Old growth forests are characterized by heavy mortality or turnover of overstorey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris.	Woodland area is >0.5ha <u>Information Sources</u> • OMNRF Forest Resource Inventory mapping • OMNRF Districts • Field naturalist clubs • Conservation Authorities • Sustainable Forestry Licence (SFL) companies will possibly know locations through field operations. • Municipal forestry departments	Field Studies will determine: • If dominant trees species of the ecosite are >140 years old, then stand is Significant Wildlife Habitat[cxlviii]. • The forested area containing the old growth characteristics will have experienced no recognizable forestry activities [cxlviii] (cut stumps will not be present) • Determine ELC Vegetation Type for forest area containing the old growth characteristics[lxxviii]. • SWHMIST[cxlix] Index #23 provides development effects and mitigation measures.	Old growth forest may be present within the forested habitat in the study area; however, these areas are well outside of the subject property and will not be impacted by the proposed development activities. **Not SWH**
Tallgrass Prairie					
Tallgrass Prairies are extremely rare habitats in Ontario.	TPO1 TPO2	A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has < 25% tree cover. In Ecoregion 7E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in	No minimum size to site[l]. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH. <u>Information Sources</u> • Natural Heritage Information Centre (NHIC has location information available on their website • OMNRF Districts • Field naturalists clubs • Conservation Authorities	Field studies confirm one or more of the Prairie indicator species listed in[lxxv] Appendix N should be present[l]. Note: Prairie plant spp. list from Ecoregion 7E should be used. • Area of the ELC Vegetation Type is the SWH[lxxviii]. • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics).	Tallgrass prairie ecosites are not present in the study area. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 2. Characteristics of Rare Vegetation Communities

Rationale	Candidate SWH			Confirmed SWH	Study Area
	ELC Ecosite Codes	Habitat Description	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
		the Toronto area (north of Lake Ontario)[cc].		• SWHMIST[cxlix] Index #19 provides development effects and mitigation measures.	
Savannah					
Savannahs are extremely rare habitats in Ontario.	TPS1 TPS2 TPW1 TPW2 CUS2	A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60%. In Ecoregion 7E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in the Toronto area (north of Lake Ontario)[cc].	No minimum size to site[l] Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH. Information Sources • OMNRF Districts • Natural Heritage Information Centre (NHIC) has location data available on their website • Field naturalists clubs • Conservation Authorities	Field studies confirm one or more of the Savannah indicator species listed in[lxxv] Appendix N should be present[j]. Note: Savannah plant spp. list from Ecoregion 7E should be used. • Area of the ELC Vegetation type is the SWH[lxxviii]. • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics). • SWHMIST[cxlix] Index #18 provides development effects and mitigation measures.	Savannah ecosites are not present in the study area. **Not SWH**
Other Rare Vegetation Communities					
Plant communities that often contain rare species which depend on the habitat for survival.	Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG[cxlviii]. Any ELC Ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in appendix M[cxlviii]. The OMNRF/NHIC will have up to date listing for rare vegetation communities. Information Sources • Natural Heritage Information Centre (NHIC) has location information available on their website • OMNRF Districts • Field naturalists clubs • Conservation Authorities	Field studies should confirm if an ELC Vegetation Type is a rare vegetation community based on listing within Appendix M of SWHTG[cxlviii]. • Area of the ELC Vegetation Type polygon is the SWH. • SWHMIST[cxlix] Index #37 provides development effects and mitigation measures.	Rare vegetation communities and/or ecosites may be present within the forested habitat in the study area; however, these areas as well outside of the subject property and will not be impacted by the proposed development activities. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Waterfowl Nesting Area					
Important to local waterfowl populations, sites with greatest number of species and highest number of individuals are significant	American Black Duck Northern Pintail Northern Shoveler Gadwall Blue-winged Teal Green-winged Teal Wood Duck Hooded Merganser Mallard	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SWT1 SWT2 SWD1 SWD2 SWD3 SWD4 **Note: includes adjacency to Provincially Significant Wetlands**	A waterfowl nesting area extends: 120m[cxlix] from a wetland (>0.5ha) or a wetland (>0.5ha) with small wetlands (0.5ha) within 120m or a cluster of 3 or more small (<0.5 ha) wetlands within 120m of each individual wetland where waterfowl nesting is known to occur[cxlix]. • Upland areas should be at least 120m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests. • Wood Ducks and Hooded Mergansers utilize large diameter trees (>40cm dbh) in woodlands for cavity nest sites. <u>Information Sources</u> • Ducks Unlimited staff may know the locations of particularly productive nesting sites. • OMNRF Wetland Evaluations for indication of significant waterfowl nesting habitat. • Reports and other information available from CAs	Studies confirmed: • Presence of 3 or more nesting pairs for listed species excluding Mallards[l], or, • Presence of 10 or more nesting pairs for listed species including Mallards[l]. • Any active nesting site of an American Black Duck is considered significant. • Nesting studies should be completed during the spring breeding season (April - June). Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • A field study confirming waterfowl nesting habitat will determine the boundary of the waterfowl nesting habitat for the SWH, this may be greater or less than 120m[cxlviii] from the wetland and will provide enough habitat for waterfowl to successfully nest. • SWHMIST[cxlix] Index #25 provides development effects and mitigation measures.	Wetland habitat is not present within the study area. **Not SWH**
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat					
Nest sites are fairly uncommon in Ecoregion 7E and are used annually by these species. Many suitable nesting locations may be lost due to increasing shoreline development pressures and scarcity of habitat.	Osprey <u>Special Concern</u>: Bald Eagle	ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds and wetlands.	Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water. Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy. Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and	Studies confirm the use of these nests by: • One or more active Osprey or Bald Eagle nests in an area[cxlviii]. • Some species have more than one nest in a given area and priority is given to the primary nest with alternate nests included within the area of the SWH. • For an Osprey, the active nest and a 300m radius around the nest or the contiguous woodland stand is the SWH[ccvii],	Forested shoreline habitat is not present within the study area. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			constructed nesting platforms). Information Sources • Natural Heritage Information Center (NHIC) compiles all known nesting sites for Bald Eagles in Ontario • MNRF values information (LIO/NRVIS) will list known nesting locations, Note: data from NRVIS is provided as a point format and does not include all the habitat. • Nature Counts, Ontario Nest Records Scheme data • OMNRF Districts • Check the Ontario Breeding Bird Atlas[ccv] or Rare Breeding Birds in Ontario for species documented • Reports and other information available from CAs • Field naturalists clubs	maintaining undisturbed shorelines with large trees within this area is important[cxlviii]. • For a Bald Eagle the active nest and a 400-800m radius around the nest is the SWH[cvi, ccvii]. Area of the habitat from 400-800m is dependant on site lines from the nest to the development and inclusion of perching and foraging habitat[cvi]. • To be significant a site must be used annually. When found inactive, the site must be known to be inactive for ≥3 years or suspected of not being used for >5 years before being considered not significant[ccvii]. • Observational studies to determine nest site use, perching sites and foraging areas need to be done from mid March to mid August. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • SWHMIST[cxlix] Index #26 provides development effects and mitigation measures.	
Woodland Raptor Nesting Habitat					
Nests sites for these species are rarely identified; these area sensitive habitats are often used annually by these species.	Northern Goshawk Cooper's Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk	May be found in all forested ELC Ecosites. May also be found in SWC, SWM, SWD and CUP3	All natural or conifer plantation woodland/forest stands combined >30ha or with >4ha of interior habitat[lxxxviii, lxxxix, xc, xci, xciii, xciv, xcv,xcvi, cxxxiii]. Interior habitat determined with a 200m buffer[cxlviii]. • Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small off-shore islands. • In disturbed sites, nests may be used again, or a new nest will be	Studies confirm: • Presence of 1 or more active nests from species list is considered significant[cxlviii]. • Red-shouldered Hawk and Northern Goshawk – A 400m radius around the nest or 28 ha of habitat is the SWH[ccvii].(the 28ha habitat area would be applied where optimal habitat is irregularly shaped around the nest) • Barred Owl – A 200m radius around the nest is the SWH[ccvii]. • Broad-winged Hawk and Coopers Hawk – A 100m radius	Woodland within the study area is too small to support this SWH. Additionally, breeding bird survey results did not meet the SWH criteria. **Not SWH**

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			in close proximity to old nest. Information Sources • OMNRF Districts • Check the Ontario Breeding Bird Atlas[ccv] or Rare Breeding Birds in Ontario for species documented. • Check data from Bird Studies Canada • Reports and other information available from CAs	around the nest is the SWH[ccvii]. • Sharp-Shinned Hawk – A 50m radius around the nest is the SWH[ccvii]. • Conduct field investigations from early March to end of May. The use of call broadcasts can help in locating territorial (courting/nesting) raptors and facilitate the discovery of nests by narrowing down the search area. • SWHMIST[cxlix] Index #27 provides development effects and mitigation measures.	
Turtle Nesting Areas					
These habitats are rare and when identified will often be the only breeding site for local populations of turtles.	Midland Painted Turtle Special Concern: Northern Map Turtle Snapping Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100m)[cxlviii] or within the following ELC Ecosites: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 BOO1 FEO1	• Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals. • For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH. • Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used. Information Sources • Use Ontario Soil Survey reports and maps to help find suitable substrate for nesting turtles (well-drained sands and fine gravels). • Check the Ontario Herpetofaunal Summary Atlas records or other similar atlases for uncommon turtles; location information may help to find potential nesting habitat for them.	Studies confirm: • Presence of 5 or more nesting Midland Painted Turtles[l] • One or more Northern Map Turtle or Snapping Turtle nesting is a SWH[l] • The area or collection of sites within an area of exposed mineral soils where the turtles nest, plus a radius of 30-100m around the nesting area dependant on slope, riparian vegetation and adjacent land use is the SWH[cxlviii]. • Travel routes from wetland to nesting area are to be considered within the SWH as part of the 30-100m area of habitat[cxlix]. • Field investigations should be conducted in prime nesting season typically late spring to early summer. Observation studies observing the turtles nesting is a recommended method. • SWHMIST[cxlix] Index #28 provides development effects and mitigation measures for turtle nesting habitat.	Marshes, shorelines, shallow aquatic, bogs or fens are not present within the study area. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			• Natural Heritage Information Center (NHIC) Field naturalist clubs		
Seeps and Springs					
Seeps/Springs are typical of headwater areas and are often at the source of coldwater streams	Wild Turkey Ruffed Grouse Spruce Grouse White-tailed Deer Salamander spp.	Seeps/Springs are areas where ground water comes to the surface. Often they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs.	Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system[cxvii, cxlix]. • Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species[cxix, cxx, cxxi, cxxii, cxiii, cxiv]. Information Sources • Topographical Map • Thermography • Hydrological surveys conducted by CAs and MOE • Field naturalists and landowners • Municipalities and Conservation Authorities may have drainage maps and headwater areas mapped	Field Studies confirm: • Presence of a site with 2 or more[l] seeps/springs should be considered SWH. • The area of a ELC forest ecosite containing the seeps/springs is the SWH. The protection of the recharge area considering the slope, vegetation, height of trees and groundwater condition need to be considered in delineation of the habitat[cxlviii]. • SWHMIST[cxlix] Index #30 provides development effects and mitigation measures.	Seeps and springs were not observed within the study area. **Not SWH**
Amphibian Breeding Habitat (Woodland)					
These habitats are extremely important to amphibian biodiversity within a landscape and often represent the only breeding habitat for local amphibian populations	Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Western Chorus Frog Wood Frog	All Ecosites associated with these ELC Community Series: FOC FOM FOD SWC SWM SWD Breeding pools within the woodland or the shortest distance from forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians.	• Presence of a wetland, pond or woodland pool (including vernal pools) >500m^2 (about 25m diameter) [ccvii] within or adjacent (within 120m) to a woodland (no minimum size)[clxxxii, lxiii, lxv, lxvi, lxvii, lxviii, lxix, lxx]. Some small wetlands may not be mapped and may be important breeding pools for amphibians. • Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat[cxlviii]. Information Sources • Ontario Herpetofaunal Summary Atlas (or other similar atlases) for records • Local landowners may also	Studies confirm: • Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog/toad species with at least 20 individuals (adults or eggs masses) or 2 or more of the listed frog/toad species with Call Level Codes of 3. • A combination of observational study and call count surveys [cviii] will be required during the spring (March-June) when amphibians are concentrated around suitable breeding habitat within or near the woodland/wetlands. • The habitat is the wetland area plus a 230m radius of woodland area[lxiii, lxv, lxvi, lxvii, lxviii, lxix,	Wetlands, ponds or woodland pools are not present within the study area. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			provide assistance as they may hear spring-time choruses of amphibians on their property. • OMNRF Districts and wetland evaluations • Field naturalist clubs • Canadian Wildlife Service Amphibian Road Call Survey • Ontario Vernal Pool Association: http://www.ontariovernalpools.org	[lxx, lxxi]. If a wetland area is adjacent to a woodland, a travel corridor connecting the wetland to the woodland is to be included in the habitat. • SWHMIST[cxlix] Index #14 provides development effects and mitigation measures.	
Amphibian Breeding Habitat (Wetland)					
Wetlands supporting breeding for these amphibian species are extremely important and fairly rare within Central Ontario Landscapes	Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	ELC Community Classes SW, MA, FE, BO, OA and SA. Typically these wetland ecosites will be isolated (>120m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g. Bull Frog) may be adjacent to woodlands.	• Wetlands >500m^2 (about 25m diameter)[ccvii] supporting high species diversity are significant: some small or ephemeral habitats may not be identified on MNR mapping and could be important amphibian breeding habitats[clxxxiv]. • Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators. • Bullfrogs require permanent water bodies with abundant emergent vegetation. <u>Information Sources</u> • Ontario Herpetofaunal Summary Atlas (or other similar atlases) • Canadian Wildlife Service Amphibian Road Surveys and Backyard Amphibian Call Count. • OMNRF Districts and wetland evaluations • Reports and other information available from CAs	Studies confirm: • Presence of breeding population of 1or more of the listed newt/salamander species or 2 or more of the listed frog or toad species and with at least 20 breeding individuals (adults and eggs masses)[lxxi, lxxiii] or 2 or more of the listed frog/toad species with Call Level of 3. or; Wetland with confirmed breeding Bullfrogs are significant[l]. • The ELC ecosite wetland area and the shoreline are the SWH. • A combination of observational study and call count surveys cviii to determine breeding/larval stages will be required during the spring (May March-June) when amphibians are concentrated around suitable breeding habitat within or near the woodland/wetlands. • If a SWH is determined for Amphibian Breeding Habitat (Wetlands) then Movement Corridors are to be considered as outlined in Table 1.4.1 of this Schedule. • SWHMIST[cxlix] Index #15 provides development effects and mitigation measures.	The watercourses within the study area may provide suitable habitat for breeding amphibians. However, during amphibian call surveys that were undertaken within the subject property in 2024 and 2025, the number of individuals recorded was not considered significant. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Woodland Area-Sensitive Bird Breeding Habitat					
Large, natural blocks of mature woodland habitat within the settled areas of Southern Ontario are important habitats for area sensitive interior forest song birds.	Yellow-bellied Sapsucker Red-breasted Nuthatch Veery Blue-headed Vireo Northern Parula Black-throated Green Warbler Blackburnian Warbler Black-throated Blue Warbler Ovenbird Scarlet Tanager Winter Wren Pileated Woodpecker <u>Special Concern</u>: Cerulean Warbler Canada Warbler	All Ecosites associated with these ELC Community Series: FOC FOM FOD SWC SWM SWD	• Habitats where interior forest breeding birds are breeding, typically large mature (>60 yrs. old) forest stands or woodlots >30ha[cv, cxxxi, cxxxii, cxxxiii, cxxxiv, cxxxv, cxxxvi, cxxxvii, cxxxviii, cxxxix, cxl, cxli, cxlii, cxliii, cxliv, cxlv, cxlvi, cl, cli, clii, cliii, cliv, clv, clvi, clvii, clviii, clix]. • Interior forest habitat is at least 200m from forest edge habitat[clxiv]. <u>Information Sources</u> • Local birder clubs • Canadian Wildlife Service (CWS) for the location of forest bird monitoring • Bird Studies Canada conducted a 3-year study of 287 woodlands to determine the effects of forest fragmentation on forest birds and to determine what forests were of greatest value to interior species. • Reports and other information available from CAs	Studies confirm: • Presence of nesting or breeding pairs of 3 or more of the listed wildlife species[i]. • Note: any site with breeding Cerulean Warblers or Canada Warbler is to be considered SWH[i]. • Conduct field investigations in early summer when birds are singing and defending their territories. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • SWHMIST[cxlix] Index #34 provides development effects and mitigation measures.	Forested habitat within the study area is not large enough to support woodland area sensitive breeding bird habitat. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 4. Characteristics of Habitat for Species of Conservation Concern

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Marsh Bird Breeding Habitat					
Wetlands for these bird species are typically productive and fairly rare in Southern Ontario landscapes.	American Bittern Virginia Rail Sora Common Gallinule American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Green Heron Trumpeter Swan <u>Special Concern</u>: Black Tern Yellow Rail	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SAS1 SAM1 SAF1 FEO1 BOO1 For Green Heron: All SW, MA and CUM1 sites	• Nesting occurs in wetlands • All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present[cxxiv]. • For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water. <u>Information Sources</u> • OMNRF Districts and wetland evaluations • Field naturalist clubs • Natural Heritage Information Centre (NHIC) • Reports and other information available from CAs • Ontario Breeding Bird Atlas[ccv]	Studies confirm: • Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or breeding by any combination of 4 or more of the listed species[l]. • Note: any wetland with breeding of 1 or more Trumpeter Swans, Black Terns, Green Heron or Yellow Rail is SWH[l]. • Area of the ELC ecosite is the SWH • Breeding surveys should be done in May/June when these species are actively nesting in wetland habitats. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • SWHMIST[cxlix] Index #35 provides development effects and mitigation measures	Wetland habitat is not present within the study area. Additionally, breeding bird survey results do not meet SWH criteria. **Not SWH**
Open Country Bird Breeding Habitat					
This wildlife habitat is declining throughout Ontario and North America. Species such as the Upland Sandpiper have declined significantly the past 40 years based on CWS (2004) trend records.	Upland Sandpiper Grasshopper Sparrow Vesper Sparrow Northern Harrier Savannah Sparrow <u>Special Concern</u>: Short-eared Owl	CUM1 CUM2	Large grassland areas (includes natural and cultural fields and meadows) >30ha[clx, clxi, clxii, clxiii, clxiv, clxv, clxvi, clxvii, clxviii, clxix]. Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e. no row cropping or intensive hay or livestock pasturing in the last 5 years)[l]. Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least 5 years or older. The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species.	Field Studies confirm: • Presence of nesting or breeding of 2 or more of the listed species[l]. • A field with 1 or more breeding Short-eared Owls is to be considered SWH. • The area of SWH is the contiguous ELC ecosite field areas. • Conduct field investigations of the most likely areas in spring and early summer when birds are singing and defending their territories. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • SWHMIST[cxlix] Index #32	Fallow field is present within the study area; however, it is not more than 30ha in size. Additionally, breeding bird survey results do not meet SWH criteria. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 4. Characteristics of Habitat for Species of Conservation Concern

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			Information Sources • Agricultural land classification maps Ministry of Agriculture • Local birder clubs • Ontario Breeding Bird Atlas[ccv] • EIS Reports and other information available from CAs	provides development effects and mitigation measures	
Shrub/Early Successional Bird Breeding Habitat					
This wildlife habitat is declining throughout Ontario and North America. The Brown Thrasher has declined significantly over the past 40 years based on CWS (2004) trend records.	Indicator Spp: Brown Thrasher Clay-coloured Sparrow Common Spp. Field Sparrow Black-billed Cuckoo Eastern Towhee Willow Flycatcher Special Concern: Yellow-breasted Chat Golden-winged Warbler	CUT1 CUT2 CUS1 CUS2 CUW1 CUW2 Patches of shrub ecosites can be complexed into a larger habitat such as woodland area for some bird species.	Large natural field areas succeeding to shrub and thicket habitats >10ha[clxiv] in size. Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e. no row-cropping, haying or live-stock pasturing in the last 5 years)[i]. Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species[clxxiii]. Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands. Information Sources • Agricultural land classification maps, Ministry of Agriculture. • Local bird clubs • Ontario Breeding Bird Atlas[ccv] • Reports and other information available from CAs	Field Studies confirm: • Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species[i]. • A field with breeding Yellow-breasted Chat or Golden-winged Warbler is to be considered as Significant Wildlife Habitat[i]. • The area of the SWH is the contiguous ELC ecosite field/thicket area. • Conduct field investigations of the most likely areas in spring and early summer when birds are singing and defending their territories • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"[ccxi] • SWHMIST[cxlix] Index #33 provides development effects and mitigation measures.	There are no natural field areas succeeding to shrub and thicket habitats greater than 10ha in size within the study area. **Not SWH**
Terrestrial Crayfish					
Terrestrial Crayfish are only found within SW Ontario in Canada and their habitats are very rare. [Ccii]	Chimney or Digger Crayfish (*Fallicambarus fodiens*) Devil Crawfish or Meadow Crayfish (*Cambarus Diogenes*)	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 MAS1 MAS2 MAS3 SWD SWT	Wet meadow and edges of shallow marshes (no minimum size) identified should be surveyed for terrestrial crayfish. • Constructs burrows in marshes, mudflats, meadows, the ground can't be too moist. Can often be found far from water. • Both species are a semi-terrestrial burrower which spends most of its life within burrows	Studies Confirm: • Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable marsh meadow or terrestrial sites[cci]. • Area of ELC Ecosite or an ecoelement area of meadow marsh or swamp within the large ecosite area is the SWH • Surveys should be done April	Terrestrial crayfish chimneys were not observed within the subject property. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 4. Characteristics of Habitat for Species of Conservation Concern

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
		SWM CUM1 with inclusions of above meadow marsh ecosites can be used by terrestrial crayfish	consisting of a network of tunnels. Usually the soil is not too moist so that the tunnel is well formed. <u>Information Sources</u> • Information sources from "Conservation Status of Freshwater Crayfishes" by Dr. Premek Hamr for the WWF and CNF March 1998.	to August in temporary or permanent water. Note the presence of burrows or chimneys are often the only indicator of presence, observance or collection of individuals is very difficult [cci] • SWHMIST[cxlix] Index #36 provides development effects and mitigation measures.	
Special Concern and Rare Wildlife Species					
These species are quite rare or have experienced significant population declines in Ontario	All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species. Lists of these species are tracked by the Natural Heritage Information Centre (NHIC).	All plant and animal element occurrences (EO) within a 1 or 10km grid. Older element occurrences were recorded prior to GPS being available, therefore location information may lack accuracy.	When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially Rare species; linking candidate habitat on the site needs to be completed to ELC Ecosites[lxxviii]. <u>Information Sources</u> • Natural Heritage Information Centre (NHIC) will have the Special Concern and Provincially Rare (S1-S3, SH) species lists and element occurrences for these species. • NHIC Website: "Get Information" http://nhic.mnr.gov.on.ca • Ontario Breeding Bird Atlas[ccv] • Expert advice should be sought as many of the rare spp. have little information available about their requirements.	Studies Confirm: • Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable. • The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH, this must be delineated through detailed field studies. The habitat needs to be easily mapped and cover an important life stage component for a species e.g. specific nesting habitat for foraging habitat. • SWHMIST[cxlix] Index #37 provides development effects and mitigation measures.	The SCC screening exercise identified potentially suitable habitat for SCC, including bird, turtle, snake, butterfly and odonate species within the study area. However, as a result of field investigations, habitat quality, and with the watercourse within the subject property being very small with intermittent flow, it can be concluded that these species are unlikely to occur within the study area. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 5. Characteristics of Animal Movement Corridors

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Amphibian Movement Corridors					
Movement corridors for amphibians moving from their terrestrial habitat to breeding habitat can be extremely important for local populations.	Eastern Newt American Toad Blue-spotted Salamander Spotted Salamander Four-toed Salamander Gray Treefrog Northern Leopard Frog Pickerel Frog Western Chorus Frog	Corridors may be found in all ecosites associated with water. • Corridors will be determined based on identifying the significant breeding habitat for these species in Table 1.1.	Movement corridors between breeding habitat and summer habitat[clxxiv, clxxv, clxxvi, clxxvii, clxxviii, clxxix, clxxx, clxxxi] Movement corridors must be considered when Amphibian breeding habitat is confirmed as SWH from Table 1.2.2 (Amphibian Breeding Habitat – Wetland) of this Schedule[i]. <u>Information Sources</u> • MNRF District Office • Natural Heritage Information Centre NHIC • Reports and other information available from CAs • Field naturalist Clubs	• Field Studies must be conducted at the time of year when species are expected to be migrating or entering breeding sites. • Corridors should consist of native vegetation, with several layers of vegetation. Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant[cxlix]. • Corridors should have at least 15m of vegetation on both sides of waterway[cxlix] or be up to 200m wide[cxlix] of woodland habitat and with gaps <20m[cxlix] • Shorter corridors are more significant than longer corridors, however amphibians must be able to get to and from their summer and breeding habitat[cxlix]. • SWHMIST[cxlix] Index #40 provides development effects and mitigation measures.	There are no significant amphibian breeding habitats within the study area, and therefore no significant amphibian movement corridors are present. **Not SWH**

Significant Wildlife Habitat Assessment: Ecoregion 7E.

Table 7. Significant Wildlife Habitat Screening for the Edgeware BESS

Rationale	Wildlife Species	Candidate SWH			Confirmed SWH	Study Area
		ELC Ecosites	Habitat Description	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Bat Migratory Stopover Area						
Stopover areas for long distance migrant bats are important during fall migration.	Hoary Bat Eastern Red Bat Silver-haired Bat	No specific ELC types		• Long distance migratory bats typically migrate during late summer and early fall migrating summer breeding habitats throughout Ontario to southern wintering areas. Their annual fall migration may concentrate these species of bats at stopover areas. • This is the only known bat migratory stopover habitats based on current information. <u>Information Sources</u> • OMNRF for possible locations and contact for local experts • University of Waterloo, Biology Department	• Long Point (42°35'N, 80°30'E, to 42°33'N, 80°03'E) has been identified as a significant stop-over habitat for fall migrating Silver-haired bats, due to significant increases in abundance, activity and feeding that was documented during fall migration[ccxv]. • The confirmation criteria and habitat areas for this SWH are still being determined. • SWHMIST[cxlix] Index #38 provides development effects and mitigation measures	The forested habitat in the study area may provide suitable bat migratory stopover habitat; however, these areas are well outside of the subject property and will not be impacted by the proposed development activities. **Not SWH**

APPENDIX IV Vegetation and Wildlife Species Reported from the Study Area

Plant Species Reported from the Study Area - Edgeware BESS (Project #3221F)

Scientific Name	Common Name	SRANK	SARO	COSEWIC	SARA	SARA Schedule	Elgin	NHIC Data*	NRSI Observed	Additional Surveys/ ELC polygons	Additional Surveys/ ELC polygons
		MNRF 2024a	MECP 2024	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	Oldham 2017	MNRF 2024b	NRSI Results From 2023	CUM1-1	Ag (Fallow field)
Gymnosperms	**Conifers**										
Cupressaceae	**Cypress Family**										
Thuja occidentalis	Eastern White Cedar	S5					C		X	X	
Dicotyledons	**Dicots**										
Aceraceae	**Maple Family**										
Acer negundo	Manitoba Maple	S5					C		X	X	
Anacardiaceae	**Sumac or Cashew Family**										
Rhus typhina	Staghorn Sumac	S5					C		X	X	
Apiaceae	**Carrot or Parsley Family**										
Daucus carota	Wild Carrot	SE5					IC		X	X	
Asclepiadaceae	**Milkweed Family**										
Asclepias syriaca	Common Milkweed	S5					C		X	X	
Asteraceae	**Composite or Aster Family**										
Centaurea sp.	Knapweed sp.								X	X	
Cirsium arvense	Creeping Thistle	SE5					IC		X	X	
Cirsium vulgare	Bull Thistle	SE5					IC		X	X	
Erigeron canadensis	Canada Horseweed	S5					C		X	X	
Helianthus annuus	Common Sunflower	SE4					IR		X		X
Solidago altissima	Tall Goldenrod	S5							X	X	
Symphyotrichum lanceolatum ssp. lanceo	Panicled Aster	S5							X	X	
Symphyotrichum novae-angliae	New England Aster	S5					C		X	X	
Symphyotrichum pilosum var. pilosum	Old Field Aster	S5					X		X	X	
Symphyotrichum prenanthoides	Crooked-stem Aster	S2?	SC	SC	SC	Schedule 1	U	X			
Caprifoliaceae	**Honeysuckle Family**										
Viburnum lentago	Nannyberry	S5					C		X	X	
Viburnum opulus	Cranberry Viburnum	S5							X	X	
Celastraceae	**Staff-tree Family**										
Celastrus scandens	Climbing Bittersweet	S5					X		X	X	
Euonymus europaeus	European Euonymus	SE2					IR		X	X	
Chenopodiaceae	**Goosefoot Family**										
Chenopodium album	White Goosefoot	SE5					IC		X	X	
Cornaceae	**Dogwood Family**										
Cornus racemosa	Gray Dogwood	S5					X		X	X	
Cornus sericea	Red-osier Dogwood	S5					C		X	X	
Dipsacaceae	**Teasel Family**										
Dipsacus fullonum	Common Teasel	SE5					IC		X	X	
Elaeagnaceae	**Oleaster Family**										
Elaeagnus umbellata	Autumn Olive	SE3					IR		X	X	
Fabaceae	**Pea Family**										
Trifolium pratense	Red Clover	SE5					IX		X	X	
Vicia cracca	Tufted Vetch	SE5					IX		X	X	
Juglandaceae	**Walnut Family**										
Juglans nigra	Black Walnut	S4?					C		X	X	
Lythraceae	**Loosestrife Family**										
Lythrum salicaria	Purple Loosestrife	SE5					IC		X	X	
Moraceae	**Mulberry Family**										
Morus alba	White Mulberry	SE5					IU		X	X	
Oleaceae	**Olive Family**										

Fraxinus americana	White Ash	S4					C		X	X	
Onagraceae	**Evening-primrose Family**										
Oenothera sp.	Evening-primrose sp.								X	X	
Polygonaceae	**Smartweed Family**										
Rumex crispus	Curly Dock	SE5					IC		X	X	
Rhamnaceae	**Buckthorn Family**										
Rhamnus cathartica	Common Buckthorn	SE5					IC		X	X	
Rosaceae	**Rose Family**										
Rosa multiflora	Multiflora Rose	SE5					IX		X	X	
Rubus occidentalis	Black Raspberry	S5					X		X	X	
Scrophulariaceae	**Figwort Family**										
Verbascum thapsus	Common Mullein	SE5					IC		X	X	
Solanaceae	**Nightshade Family**										
Solanum dulcamara	Bittersweet Nightshade	SE5					IC		X	X	
Verbenaceae	**Vervain Family**										
Verbena hastata	Blue Vervain	S5					C		X	X	
Vitaceae	**Grape Family**										
Vitis riparia	Riverbank Grape	S5					C		X	X	
Monocotyledons	**Monocots**										
Poaceae	**Grass Family**										
Bromus inermis	Smooth Brome	SE5					IC		X	X	
Panicum dichotomiflorum	Fall Panicgrass	SE5					IC		X	X	
Phalaris arundinacea	Reed Canary Grass	S5					C		X	X	
Phragmites australis ssp. australis	European Reed	SE5					IX		X	X	
Poa pratensis	Kentucky Bluegrass	S5							X	X	
Setaria sp.	Foxtail sp.								X		X
Total								**1**	**44**	**43**	**2**

*NHIC Atlas Square: 17MH9738

Bird Species Reported from the Study Area - Edgeware BESS (Project #3221F)

Scientific Name	Common Name	SRANK	SARO	COSEWIC	SARA	SARA Schedule	OBBA*	NHIC Data**	NRSI Observed: Highest Level of Breeding Evidence	BMB-001	BMB-002	Other Observations
		MNRF 2024a	MECP 2024	Government of Canada 2025	Government of Canada 2024	Government of Canada 2024	BSC et al. 2006	MNRF 2024b	NRSI Results from 2024			
Anatidae	**Ducks, Geese & Swans**											
Aix sponsa	Wood Duck	S5B,S3N					CO					
Anas platyrhynchos	Mallard	S5					CO					
Branta canadensis	Canada Goose	S5					CO					
Lophodytes cucullatus	Hooded Merganser	S5					CO					
Spatula discors	Blue-winged Teal	S3B,S4M					PR					
Phasianidae	**Partridges, Grouse & Turkeys**											
Bonasa umbellus	Ruffed Grouse	S5					PO					
Meleagris gallopavo	Wild Turkey	S5					CO					
Phasianus colchicus	Ring-necked Pheasant	SNA					PO					
Columbidae	**Pigeons & Doves**											
Columba livia	Rock Pigeon	SNA					CO		**OB**			OB
Zenaida macroura	Mourning Dove	S5					CO		**PO**	PO	PO	
Cuculiformes	**Cuckoos & Anis**											
Coccyzus americanus	Yellow-billed Cuckoo	S4B					PO					
Caprimulgidae	**Goatsuckers**											
Chordeiles minor	Common Nighthawk	S4B	SC	SC	SC	Schedule 1	PR					
Apodidae	**Swifts**											
Chaetura pelagica	Chimney Swift	S3B	THR	T	T	Schedule 1	PR					
Trochilidae	**Hummingbirds**											
Archilochus colubris	Ruby-throated Hummingbird	S5B					CO					
Rallidae	**Rails, Gallinules & Coots**											
Porzana carolina	Sora	S5B					PO					
Charadriidae	**Plovers & Lapwings**											
Charadrius vociferus	Killdeer	S4B					CO		**PO**	PO	PO	
Scolopacidae	**Sandpipers & Allies**											
Actitis macularius	Spotted Sandpiper	S5B					CO		**PO**	PO		
Scolopax minor	American Woodcock	S4B					CO					
Laridae	**Gulls, Terns & Skimmers**											
Larus delawarensis	Ring-billed Gull	S5							**OB**	OB		OB
Ardeidae	**Herons & Bitterns**											
Ardea herodias	Great Blue Heron	S4					PO					
Butorides virescens	Green Heron	S4B					PR					
Cathartidae	**Vultures**											
Cathartes aura	Turkey Vulture	S5B,S3N					PO					
Accipitridae	**Hawks, Kites, Eagles & Allies**											
Accipiter cooperii	Cooper's Hawk	S4	NAR	NAR	NS	No schedule	CO					
Buteo jamaicensis	Red-tailed Hawk	S5	NAR	NAR	NS	No schedule	CO					
Circus hudsonius	Northern Harrier	S5B,S4N	NAR	NAR	NS	No schedule	PR					
Strigidae	**Typical Owls**											
Asio otus	Long-eared Owl	S4					PO					
Bubo virginianus	Great Horned Owl	S4					CO					
Megascops asio	Eastern Screech-Owl	S4	NAR	NAR	NS	No schedule	CO					
Alcedinidae	**Kingfishers**											
Megaceryle alcyon	Belted Kingfisher	S5B,S4N					CO					
Picidae	**Woodpeckers**											
Colaptes auratus	Northern Flicker	S5					CO					
Dryobates pubescens	Downy Woodpecker	S5					CO					
Dryobates villosus	Hairy Woodpecker	S5					CO					
Dryocopus pileatus	Pileated Woodpecker	S5					CO					
Melanerpes carolinus	Red-bellied Woodpecker	S5					PR					
Melanerpes erythrocephalus	Red-headed Woodpecker	S3	END	E	E	Schedule 1	PO					

Sphyrapicus varius	Yellow-bellied Sapsucker	S5B,S3N					PR					
Falconidae	**Caracaras & Falcons**											
Falco sparverius	American Kestrel	S4					CO					
Tyrannidae	**Tyrant Flycatchers**											
Contopus virens	Eastern Wood-Pewee	S4B	SC	SC	SC	Schedule 1	PR					
Empidonax minimus	Least Flycatcher	S5B					PR					
Empidonax traillii	Willow Flycatcher	S4B					PR		**PR**	PO	PR	PO
Myiarchus crinitus	Great Crested Flycatcher	S5B					CO					
Sayornis phoebe	Eastern Phoebe	S5B					CO					
Tyrannus tyrannus	Eastern Kingbird	S4B					CO		**PO**	PO	PO	
Vireonidae	**Vireos**											
Vireo gilvus	Warbling Vireo	S5B					PR					
Vireo olivaceus	Red-eyed Vireo	S5B					PR					
Corvidae	**Crows & Jays**											
Corvus brachyrhynchos	American Crow	S5					CO		**PO**	PO		
Cyanocitta cristata	Blue Jay	S5					CO					
Alaudidae	**Larks**											
Eremophila alpestris	Horned Lark	S4					CO					
Hirundinidae	**Swallows**											
Hirundo rustica	Barn Swallow	S4B	SC	SC	T	Schedule 1	CO		**OB**	OB		
Petrochelidon pyrrhonota	Cliff Swallow	S4S5B					CO					
Riparia riparia	Bank Swallow	S4B	THR	T	T	Schedule 1	CO					
Stelgidopteryx serripennis	Northern Rough-winged Swallow	S4B					CO					
Tachycineta bicolor	Tree Swallow	S4S5B					CO					
Paridae	**Chickadees & Titmice**											
Baeolophus bicolor	Tufted Titmouse	S3					CO					
Poecile atricapillus	Black-capped Chickadee	S5					CO					
Sittidae	**Nuthatches**											
Sitta canadensis	Red-breasted Nuthatch	S5					PR					
Sitta carolinensis	White-breasted Nuthatch	S5					CO					
Certhiidae	**Creepers**											
Certhia americana	Brown Creeper	S5					PO					
Troglodytidae	**Wrens**											
Thryothorus ludovicianus	Carolina Wren	S4					CO					
Troglodytes aedon	House Wren	S5B					CO					
Turdidae	**Thrushes**											
Catharus fuscescens	Veery	S5B					PO					
Hylocichla mustelina	Wood Thrush	S4B	SC	T	T	Schedule 1	PR					
Sialia sialis	Eastern Bluebird	S5B,S4N	NAR	NAR	NS	No schedule	CO					
Turdus migratorius	American Robin	S5					CO		**CO**	PO		CO
Mimidae	**Mockingbirds, Thrashers & Allies**											
Dumetella carolinensis	Gray Catbird	S5B,S3N					CO					
Toxostoma rufum	Brown Thrasher	S4B					CO					
Sturnidae	**Starlings**											
Sturnus vulgaris	European Starling	SNA					CO		**CO**	CO	PO	FY
Bombycillidae	**Waxwings**											
Bombycilla cedrorum	Cedar Waxwing	S5					CO					
Passeridae	**Old World Sparrows**											
Passer domesticus	House Sparrow	SNA					CO					
Fringillidae	**Finches & Allies**											
Haemorhous mexicanus	House Finch	SNA					CO					
Spinus tristis	American Goldfinch	S5					CO		**PR**	PR	PR	PR
Passerellidae	**New World Sparrows & Allies**											
Ammodramus savannarum	Grasshopper Sparrow	S4B	SC	SC	SC	Schedule 1	CO					
Melospiza georgiana	Swamp Sparrow	S5B,S4N					PO					
Melospiza melodia	Song Sparrow	S5					CO		**PR**	PO	PO	PR
Passerculus sandwichensis	Savannah Sparrow	S5B,S3N					PR					
Pipilo erythrophthalmus	Eastern Towhee	S4B,S3N					PO					
Pooecetes gramineus	Vesper Sparrow	S4B					CO					
Spizella passerina	Chipping Sparrow	S5B,S3N					CO					

Spizella pusilla	Field Sparrow	S4B,S3N					CO					
Zonotrichia albicollis	White-throated Sparrow	S5					PO					
Icteridae	**Troupials & Allies**											
Agelaius phoeniceus	Red-winged Blackbird	S5					CO		**PR**	PR	PO	PO
Dolichonyx oryzivorus	Bobolink	S4B	THR	SC	T	Schedule 1	CO					
Icterus galbula	Baltimore Oriole	S4B					CO		**PO**	PO		
Molothrus ater	Brown-headed Cowbird	S5					CO		**PO**	PO	PO	PO
Quiscalus quiscula	Common Grackle	S5					CO		**CO**	CO	CO	PO
Sturnella magna	Eastern Meadowlark	S4B,S3N	THR	T	T	Schedule 1	CO					
Parulidae	**Wood Warblers**											
Geothlypis trichas	Common Yellowthroat	S5B,S3N					CO		**PO**			PO
Seiurus aurocapilla	Ovenbird	S5B					PR					
Setophaga petechia	Yellow Warbler	S5B					CO					
Cardinalidae	**Cardinals, Grosbeaks & Allies**											
Cardinalis cardinalis	Northern Cardinal	S5					CO		**PO**	PO	PO	PO
Passerina cyanea	Indigo Bunting	S5B					CO		**PO**			PO
Pheucticus ludovicianus	Rose-breasted Grosbeak	S5B					PR		**PO**		PO	
Total							**91**	**0**	**21**	**17**	**12**	**13**

*OBBA Atlas Square: 17MH83

**NHIC Atlas Square: 17MH9738

Reptile and Amphibian Species Reported from the Study Area - Edgeware BESS (Project #3221F)

Scientific Name	Common Name	SRANK	SARO	COSEWIC	SARA	SARA Schedule	ORAA*	NHIC Data**	NRSI Observed	Anuran Call Survey
		MNRF 2024a	MECP 2024	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	Ontario Nature 2019	MNRF 2024b	NRSI Results from 2024-2025	
Turtles										
Chelydra serpentina	Snapping Turtle	S4	SC	SC	SC	Schedule 1	X			
Chrysemys picta marginata	Midland Painted Turtle	S4		SC	SC	Schedule 1	X			
Trachemys scripta	Pond Slider	SNA					X			
Snakes										
Lampropeltis triangulum	Eastern Milksnake	S4	NAR	SC	SC	Schedule 1	X			
Nerodia sipedon sipedon	Northern Watersnake	S5	NAR	NAR	NS	No schedule	X			
Storeria dekayi	Dekay's Brownsnake	S5	NAR	NAR	NS	No schedule	X			
Thamnophis saurita septentrionalis	Northern Ribbonsnake	S4	SC	SC	SC	Schedule 1	X			
Thamnophis sirtalis sirtalis	Eastern Gartersnake	S5					X			
Salamanders										
Hemidactylium scutatum	Four-toed Salamander	S4	NAR	NAR	NS	No schedule	X			
Necturus maculosus	Mudpuppy	S4	NAR	N-A	NS	No schedule	X			
Notophthalmus viridescens viridescens	Red-spotted Newt	S5					X			
Plethodon cinereus	Eastern Red-backed Salamander	S5					X			
Frogs and Toads										
Anaxyrus americanus	American Toad	S5					X		**X**	**X**
Dryophytes versicolor	Gray Treefrog	S5					X		**X**	**X**
Pseudacris triseriata pop. 1	Western Chorus Frog (Carolinian populati	S4	NAR	NAR	NS	No schedule	X			
Pseudacris crucifer	Spring Peeper	S5					X			
Lithobates catesbeianus	American Bullfrog	S4					X			
Lithobates clamitans	Green Frog	S5					X			
Lithobates palustris	Pickerel Frog	S4	NAR	NAR	NS	No schedule	X			
Lithobates pipiens	Northern Leopard Frog	S5	NAR	NAR	NS	No schedule	X			
Lithobates sylvaticus	Wood Frog	S5					X			
Total							**21**	**0**	**2**	**2**

*ORAA Atlas Square: 17MH83

**NHIC Atlas Square: 17MH9738

Mammal Species Reported from the Study Area - Edgeware BESS (Project #3221F)

Scientific Name	Common Name	SRANK	SARO	COSEWIC	SARA	SARA Schedule	Ontario Mammal Atlas	NHIC Data**
		MNRF 2024a	MECP 2024	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	Dobbyn 1994	MNRF 2024b
Didelphimorphia	**Opossums**							
Didelphis virginiana	Virginia Opossum	S4					X	
Eulipotyphla	**Shrews, Moles, Hedgehogs, and Allies**							
Blarina brevicauda	Northern Short-tailed Shrew	S5					X	
Condylura cristata	Star-nosed Mole	S5					X	
Parascalops breweri	Hairy-tailed Mole	S4					X	
Sorex cinereus	Masked Shrew	S5					X	
Sorex fumeus	Smoky Shrew	S5					X	
Sorex hoyi	Pygmy Shrew	S4					X	
Sorex palustris	Water Shrew	S5					X	
Chiroptera	**Bats**							
Eptesicus fuscus	Big Brown Bat	S4					X	
Lasionycteris noctivagans	Silver-haired Bat	S3	END	E	NS	No schedule	X	
Lasiurus borealis	Eastern Red Bat	S3	END	E	NS	No schedule	X	
Lasiurus cinereus	Hoary Bat	S3	END	E	NS	No schedule	X	
Myotis leibii	Eastern Small-footed Myotis	S2S3	END				X	
Myotis lucifugus	Little Brown Myotis	S3	END	E	E	Schedule 1	X	
Myotis septentrionalis	Northern Myotis	S3	END	E	E	Schedule 1	X	
Perimyotis subflavus	Tri-colored Bat	S3?	END	E	E	Schedule 1	X	
Lagomorpha	**Rabbits and Hares**							
Lepus americanus	Snowshoe Hare	S5					X	
Lepus europaeus	European Hare	SNA					X	
Sylvilagus floridanus	Eastern Cottontail	S5					X	
Rodentia	**Rodents**							
Castor canadensis	Beaver	S5					X	
Erethizon dorsatum	Porcupine	S5					X	
Glaucomys volans	Southern Flying Squirrel (Great Lakes Pla	S4	NAR	NAR	NS	No schedule	X	
Marmota monax	Woodchuck	S5					X	
Microtus pennsylvanicus	Meadow Vole	S5					X	
Microtus pinetorum	Woodland Vole	S3?	SC	SC	SC	Schedule 1	X	
Mus musculus	House Mouse	SNA					X	
Napaeozapus insignis	Woodland Jumping Mouse	S5					X	
Ondatra zibethicus	Muskrat	S4					X	
Peromyscus leucopus	White-footed Mouse	S5					X	
Peromyscus maniculatus	Deer Mouse	S5					X	
Rattus norvegicus	Norway Rat	SNA					X	
Sciurus carolinensis	Eastern Gray Squirrel	S5					X	
Synaptomys cooperi	Southern Bog Lemming	S4					X	
Tamias striatus	Eastern Chipmunk	S5					X	
Tamiasciurus hudsonicus	Red Squirrel	S5					X	
Zapus hudsonius	Meadow Jumping Mouse	S5					X	
Canidae	**Canines**							
Canis latrans	Coyote	S5					X	
Vulpes vulpes	Red Fox	S5					X	
Felidae	**Felines**							

Lynx canadensis	Canada Lynx	S5	NAR	NAR	NS	No schedule	X	
Mephitidae	**Skunks and Stink Badgers**							
Mephitis mephitis	Striped Skunk	S5					X	
Mustelidae	**Weasels and Allies**							
Mustela richardsonii	American Ermine	S5					X	
Neogale frenata	Long-tailed Weasel	S4					X	
Neogale vison	American Mink	S4					X	
Taxidea taxus jacksoni	American Badger (Southwestern Ontario	S1	END	E	E	Schedule 1	X	
Procyonidae	**Raccoons and Allies**							
Procyon lotor	Northern Raccoon	S5					X	
Artiodactyla	**Deer and Bison**							
Cervus elaphus	Elk	SNA	EXP				X	
Odocoileus virginianus	White-tailed Deer	S5					X	
Total							**47**	**0**

*Mammal Atlas Square Number: MT83
**NHIC Atlas Square: 17MH9738

Butterfly Species Reported from the Study Area - Edgeware BESS (Project #3221F)

Scientific Name	Common Name	SRANK	SARO	COSEWIC	SARA	SARA Schedule	Ontario Butterfly Atlas*	NHIC Data**
		MNRF 2024a	MECP 2024	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	Macnaughton et al. 2023	MNRF 2024b
Hesperiidae	**Skippers**							
Ancyloxypha numitor	Least Skipper	S5					X	
Epargyreus clarus	Silver-spotted Skipper	S4					X	
Erynnis baptisiae	Wild Indigo Duskywing	S4					X	
Erynnis juvenalis	Juvenal's Duskywing	S5					X	
Euphyes conspicua	Black Dash	S3					X	
Euphyes dion	Dion Skipper	S4					X	
Hylephila phyleus	Fiery Skipper	SNA					X	
Poanes hobomok	Hobomok Skipper	S5					X	
Poanes viator	Broad-winged Skipper	S4					X	
Polites mystic	Long Dash Skipper	S5					X	
Polites origenes	Crossline Skipper	S4					X	
Polites peckius	Peck's Skipper	S5					X	
Polites themistocles	Tawny-edged Skipper	S5					X	
Thymelicus lineola	European Skipper	SNA					X	
Papilionidae	**Swallowtails**							
Battus philenor	Pipevine Swallowtail	SNA					X	
Heraclides cresphontes	Giant Swallowtail	S4					X	
Papilio glaucus	Eastern Tiger Swallowtail	S5					X	
Papilio polyxenes	Black Swallowtail	S5					X	
Pieridae	**Whites and Sulphurs**							
Colias eurytheme	Orange Sulphur	S5					X	
Colias philodice	Clouded Sulphur	S5					X	
Pieris rapae	Cabbage White	SNA					X	
Lycaenidae	**Harvesters, Coppers, Hairstreaks, Blues**							
Celastrina neglecta	Summer Azure	S5					X	
Celastrina sp.	Azure species	SNA					X	
Cupido comyntas	Eastern Tailed Blue	S5					X	
Satyrium calanus	Banded Hairstreak	S4					X	
Satyrium caryaevorus	Hickory Hairstreak	S4					X	
Satyrium liparops	Striped Hairstreak	S5					X	
Nymphalidae	**Brush-footed Butterflies**							
Aglais milberti	Milbert's Tortoiseshell	S5					X	
Asterocampa celtis	Hackberry Emperor	S3					X	
Asterocampa clyton	Tawny Emperor	S3					X	
Cercyonis pegala	Common Wood-Nymph	S5					X	
Coenonympha california	Common Ringlet	S5					X	
Danaus plexippus	Monarch	S2N,S4B	SC	E	E	Schedule 1	X	
Junonia coenia	Common Buckeye	SNA					X	
Lethe anthedon	Northern Pearly-Eye	S5					X	
Libytheana carinenta	American Snout	SNA					X	
Limenitis archippus	Viceroy	S5					X	
Limenitis arthemis astyanax	Red-spotted Purple	S5					X	
Megisto cymela	Little Wood-Satyr	S5					X	
Nymphalis antiopa	Mourning Cloak	S5					X	

Nymphalis l-album	Compton Tortoiseshell	S5					X	
Phyciodes cocyta	Northern Crescent	S5					X	
Polygonia comma	Eastern Comma	S5					X	
Polygonia interrogationis	Question Mark	S5					X	
Speyeria cybele	Great Spangled Fritillary	S5					X	
Vanessa atalanta	Red Admiral	S5B					X	
Vanessa cardui	Painted Lady	S5B					X	
Vanessa virginiensis	American Lady	S5					X	
Total							**48**	**0**

*TEA Atlas Square: Square #
**NHIC Atlas Square: Square #

Odonate Species Reported from the Study Area - Edgeware BESS (Project #3221F)

Scientific Name	Common Name	SRANK	SARO	COSEWIC	SARA	SARA Schedule	Odonate Atlas*	NHIC Data**
		MNRF 2024a	MECP 2024	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	OOAD 2023	MNRF 2024b
Calopterygidae	**Broadwinged Damselflies**							
Calopteryx maculata	Ebony Jewelwing	S5					X	
Hetaerina americana	American Rubyspot	S4					X	
Lestidae	**Spreadwings**							
Lestes disjunctus	Northern Spreadwing	S5					X	
Lestes unguiculatus	Lyre-tipped Spreadwing	S5					X	
Coenagrionidae	**Narrow-winged Damselflies**							
Argia apicalis	Blue-fronted Dancer	S4					X	
Argia fumipennis violacea	Violet Dancer	S5					X	
Argia moesta	Powdered Dancer	S5					X	
Enallagma antennatum	Rainbow Bluet	S4					X	
Enallagma aspersum	Azure Bluet	S4					X	
Enallagma boreale	Boreal Bluet	S5					X	
Enallagma carunculatum	Tule Bluet	S5					X	
Enallagma civile	Familiar Bluet	S5					X	
Enallagma ebrium	Marsh Bluet	S5					X	
Enallagma exsulans	Stream Bluet	S5					X	
Enallagma geminatum	Skimming Bluet	S4					X	
Enallagma signatum	Orange Bluet	S4					X	
Ischnura posita	Fragile Forktail	S4					X	
Ischnura verticalis	Eastern Forktail	S5					X	
Aeshnidae	**Darners**							
Aeshna umbrosa	Shadow Darner	S5					X	
Boyeria vinosa	Fawn Darner	S5					X	
Gomphidae	**Clubtails**							
Phanogomphus graslinellus	Pronghorn Clubtail	S3					X	
Corduliidae	**Emeralds**							
Epitheca cynosura	Common Baskettail	S5					X	
Epitheca princeps	Prince Baskettail	S5					X	
Libellulidae	**Skimmers**							
Celithemis eponina	Halloween Pennant	S4					X	
Erythemis simplicicollis	Eastern Pondhawk	S5					X	
Leucorrhinia intacta	Dot-tailed Whiteface	S5					X	
Libellula luctuosa	Widow Skimmer	S5					X	
Libellula pulchella	Twelve-spotted Skimmer	S5					X	
Pachydiplax longipennis	Blue Dasher	S5					X	
Pantala hymenaea	Spot-winged Glider	S4					X	
Perithemis tenera	Eastern Amberwing	S4					X	
Plathemis lydia	Common Whitetail	S5					X	
Sympetrum rubicundulum	Ruby Meadowhawk	S5					X	
Total							**33**	**0**

**Odonate Atlas Square Numbers: 17MH83*

APPENDIX G – CULTURAL HERITAGE SCREENING

SUMMARY REPORT

Cultural Heritage Screening: Edgeware Parcel, BESS, St. Thomas, ON.

Prepared For
Bradley Drouin
True North Archaeological Services Inc.
57 Beaufort Drive
Ottawa, ON, K2L 2B9
E: brad@truenortharchaeology.com

Submitted for Client Review
12 August 2024

Submitted By
Julie Harris
Senior Architectural Historian & Heritage Planner
Matrix Heritage

Matrix Heritage Inc.
6131 Perth Street
Richmond
Ontario K0A 2Z0
Tel: (613) 807-2071
www.MatrixHeritage.ca

Report: MH1309-REP.01R1

1.0 Executive Summary

Matrix Heritage, on behalf of True North Archaeology, undertook an updated Cultural Heritage Screening required for a property identified for a Battery Energy Storage System, identified as the Edgeware BESS Parcel (Map 1). As part of an Environmental Assessment for Minor Transmission Facilities, the Cultural Heritage Screening provides a checklist evaluating the potential for Built Heritage Resources (BHRs) and Cultural Heritage Landscapes (CHLs) to be present in the study area.

This report concludes that this property should not be reviewed further through a CHER or HIA because it is of limited or no heritage value in the categories of design, history, and context, the three main categories to be considered in heritage evaluations under Regulation 9/06 of the Ontario Heritage Act.

This study was led by Julie Harris, CAHP, Senior Heritage Specialist, Matrix Heritage. Natalie Anderson Rathwell, Architectural Historian, and Kristian Johnson, Cultural Heritage Technician, Matrix Heritage, assisted with research.

2.0 Project Information

Heritage Study Personnel	Julie Harris, Prof. Member, CAHP Senior Heritage Specialist Matrix Heritage 613-799-4059 E: jharris@matrixheritage.ca Natalie Anderson Rathwell Architectural Historian Matrix Heritage E: nrathwell@matrixheritage.ca Kristian Johnson Cultural Heritage Technician Matrix Heritage E: kjohnson@matrixheritage.ca
Client Representative	Bradley Drouin True North Archaeological Services Inc. 57 Beaufort Drive Ottawa, ON, K2L 2B9 E: brad@truenortharchaeology.com
Property Information	Edgeware Parcel – Corner of Edgeware Line and Highbury Avenue S, St. Thomas, ON, PLAN M59 PT BLOCK 94

Acronyms

BHR(s)	Built Heritage Resource(s)
CHER	Cultural Heritage Evaluation Report
CHL(s)	Cultural Heritage Landscape(s)
CHR	Cultural Heritage Resource
CHVI	Cultural Heritage Value or Interest
HIA	Heritage Impact Assessment

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6.2 Primary Data Gaps 5

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8.0 Conclusion 6

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Illustrative Materials

Figure 1: View of the Edgeware parcel looking north-west from Highbury Ave S at Edgeware Line. Source: Google Streetview, April 2021. (Link) 8

Figure 2. View of the Edgeware parcel looking west from Highbury Ave S. Source: Google Streetview, October 2022. (Link) 8

Map 1: Location, Edgeware Parcel. 9

Map 2: Current Conditions, Edgeware Parcel. 10

4.0 Introduction

Matrix Heritage, on behalf of True North Archaeology, undertook an updated Cultural Heritage Screening required for a property identified for a Battery Energy Storage System (BESS), identified as the Edgeware BESS (Map 1, Map 2). As part of an Environmental Assessment for Minor Transmission Facilities, the Cultural Heritage Screening provides a checklist evaluating the potential for Built Heritage Resources (BHRs) and Cultural Heritage Landscapes (CHLs) to be present in the study area.

If the screening checklist confirms that potential heritage resources are present, each resource would require a Cultural Heritage Evaluation Report (CHER) by a qualified heritage specialist to determine whether potential heritage resources are of sufficient cultural heritage value or interest to warrant conservation. Those resources would then be the subject of a Heritage Impact Assessment (HIA) of the proposed undertaking.

The completed screening checklist is attached here as Appendix 1. Information for the checklist was drawn from heritage inventories (City of St. Thomas, Ontario Heritage Trust, Parks Canada Directory of Federal Heritage Designations and the Canadian Register of Historic Places in Canada) and the previous report, *Critical Issues Analysis: Edgeware BESS and South Branch Parcels* (Nov. 2023), written by Julie Harris, Matrix Heritage.

Archaeology is a separate area of analysis.

5.0 About the Study Area

The Edgeware BESS parcel is 1.8 ha in size (Map 1). The assigned address is 0 Highbury Avenue S, St. Thomas, ON. The legal description is PLAN M59 PT BLOCK 94, City of St. Thomas.

The study area is a triangular property (Map 2). The parcel is within a light-industrial area on the northeast side of St. Thomas, ON (Figure 1, Figure 2). The west-northwest edge of the parcel is adjacent to an active railway right-of-way. The south side is adjacent to an easement for a high-voltage power transmission line, and the west side is bounded by Highbury Avenue S at the intersection of Edgeware Line. The closest buildings are a residence dating from c. 1975 on the southeast corner of Highbury Avenue and Edgeware Line, and a new logistics facility across the railway line. The logistics facility, which has a dedicated siding from the railway line, backs onto Highbury Avenue. The entire area was once used as farmland.

The Edgeware parcel is located within the boundaries of the City of St. Thomas, ON. The City has a municipal heritage program that includes a Municipal Heritage Committee which is very active on planning and heritage matters. The City maintains a list of fully designated properties and properties that are not fully designated but are included on the Heritage Register, both of which are provisions of the Ontario Heritage Act.[1]

[1] City of St. Thomas, "Municipal Heritage Committee," online at www.stthomas.ca/cms/one.aspx?portalId=12189805&pageId=13290088 and "Heritage", including lists of fully designated and registered heritage properties, online at www.stthomas.ca/cms/one.aspx?portalId=12189805&pageId=12517860.

6.0 Determining CHRs Present

6.1 Categories of Heritage

Using the checklist of the MCM *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes*, the consultant accessed online inventories to confirm that there were no CHRs in the relevant categories of:

- Properties designated under Part IV of the Ontario Heritage Act
- Properties designated as a part of a Heritage Conservation District under Part V of the Ontario Heritage Act
- A National Historic Site (or part of)
- Properties identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)
- Properties listed on the municipal heritage register.

6.2 Primary Data Gaps

The following are the primary data gaps impacting the Cultural Heritage Screening:

1. An analysis of the presence of potential cultural heritage resources of interest or significance was undertaken through online imagery and a review of online lists of properties identified formally as "heritage" either through full designation under the *Ontario Heritage Act* or by inclusion on the Heritage Register in compliance with the *Ontario Heritage Act*.
2. St. Thomas was not contacted to confirm whether any properties in the study area may be under consideration as BHRs or CHLs of interest or significance through other means, such as informal lists assembled by heritage advocates or organizations.
3. A formal historical study of the study area was not undertaken to document the history and historical significance of the properties within the study area.

6.3 Heritage Checklist

The *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes*, known as the heritage checklist, is designed to be used by a non-expert to identify the potential for a study area to include potential cultural heritage resources. The key question that is often noted as "yes" and can lead to a full heritage evaluation asks whether the study area "contains buildings or structures that are 40 or more years old?" When the answer is "yes", a Cultural Heritage Evaluation Report is normally required. It is important to note that the evaluation must be completed by a "qualified person," as per the Class EA MTF. The *Standards and Guidelines for Conservation of Provincial Heritage Properties*[2] (discussed below) describe a "qualified person" as someone "who individually or working in a team provides advisory or other services for cultural heritage resources – a professional engineer, an architect, a licensed archaeologist, a historian, landscape architect, a specialist in historic preservation, conservator, heritage planner, etc." While there is no certification for determination of being "qualified", most organizations, such as Infrastructure Ontario, request

[2] Ontario, *Standards and Guidelines for Conservation of Provincial Heritage Properties*, online at: www.ontario.ca/page/standards-and-guidelines-conservation-provincial-heritage-properties.

that the consultant be a Professional Member of the Canadian Association of Heritage Professionals and show competency in heritage evaluations through their professional experience.

7.0 Analysis

The key issue of this project is the expected result of the first step required for provincial cultural heritage processes, namely, completing the Cultural Heritage Checklist (see Appendix 1). If the checklist indicates that BHRs or CHLs might be present in the study area, a full cultural heritage evaluation is required for the resources.

A review of the lists of the City of St. Thomas and the Ontario Heritage Trust shows that the City has designated two landscapes. These are Pinafore Park, 95 Elm Street (By-law 96-2005) which is a municipal park with many historic and scenic features, and Waterworks Park, 2 South Edgeware Road (By-law 152-2006), which is a municipal park that contains a historic site with scenic features. Neither of these properties bears similarities to the Edgeware parcel. All other designated properties (33 individual properties and one fully designated heritage district) are designated because they contain at least one historic building or engineering work. All 122 properties listed on the municipal heritage register contain historic buildings.

A review of the Parks Canada Directory of Federal Heritage Designations and the Canadian Register of Historic Places (The Canadian Register) confirms that there are three federally designated buildings in the city of St. Thomas, two of which are among the properties individually designated by the City. These buildings are not in proximity to the Edgeware Parcel.

8.0 Conclusion

A qualified person is highly unlikely to identify this property as being of cultural heritage value or interest using prescribed criteria of Regulation 9/06 and 10/06 of the *Ontario Heritage Act* because:

1. There are no heritage properties on the City of Thomas list of heritage properties (fully designated or cited on the heritage register) in the vicinity of the study area with attributes similar to those of the subject property. For example, all properties on these lists contain historic buildings. Any landscapes of potential heritage value include designed elements, such as floral displays and scenic features.

2. No properties near the subject property appear to contain buildings that are 40 years or older, with characteristics similar to those identified by the City as being of cultural heritage interest or value.

3. The property is a remnant of a farm, rather than, at a minimum for most properties of heritage interest as cultural landscapes, a complete and intact landscape.

This report concludes that this property does not require further cultural heritage study through a CHER or HIA because it is of limited or no heritage value in the categories of design, history, and context, the three main categories to be considered in heritage evaluations under Regulation 9/06 of the Ontario Heritage Act.

9.0 Sources

The Canadian Register. Online at https://www.historicplaces.ca/en/pages/register-repertoire.aspx

City of St. Thomas. "Designated Heritage Properties." Online at https://www.stthomas.ca/UserFiles/Servers/Server_12189721/File/City%20Hall/City%20Clerk/Designated%20Heritage%20Properties%20-%20Complete%20List%20-%202024.pdf

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Ontario Ministry of Heritage, Sport, Tourism and Culture Industries. 2006. *Ontario Heritage Tool Kit.* Online at: www.mtc.gov.on.ca/en/heritage/heritage_toolkit.shtml.

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Parks Canada, Directory of Federal Heritage Designations. Online at https://www.pc.gc.ca/apps/DFHD/default_eng.aspx

Parks Canada, *Standards and Guidelines for the Conservation of Historic Places in Canada*, 2nd Edition, 2010.

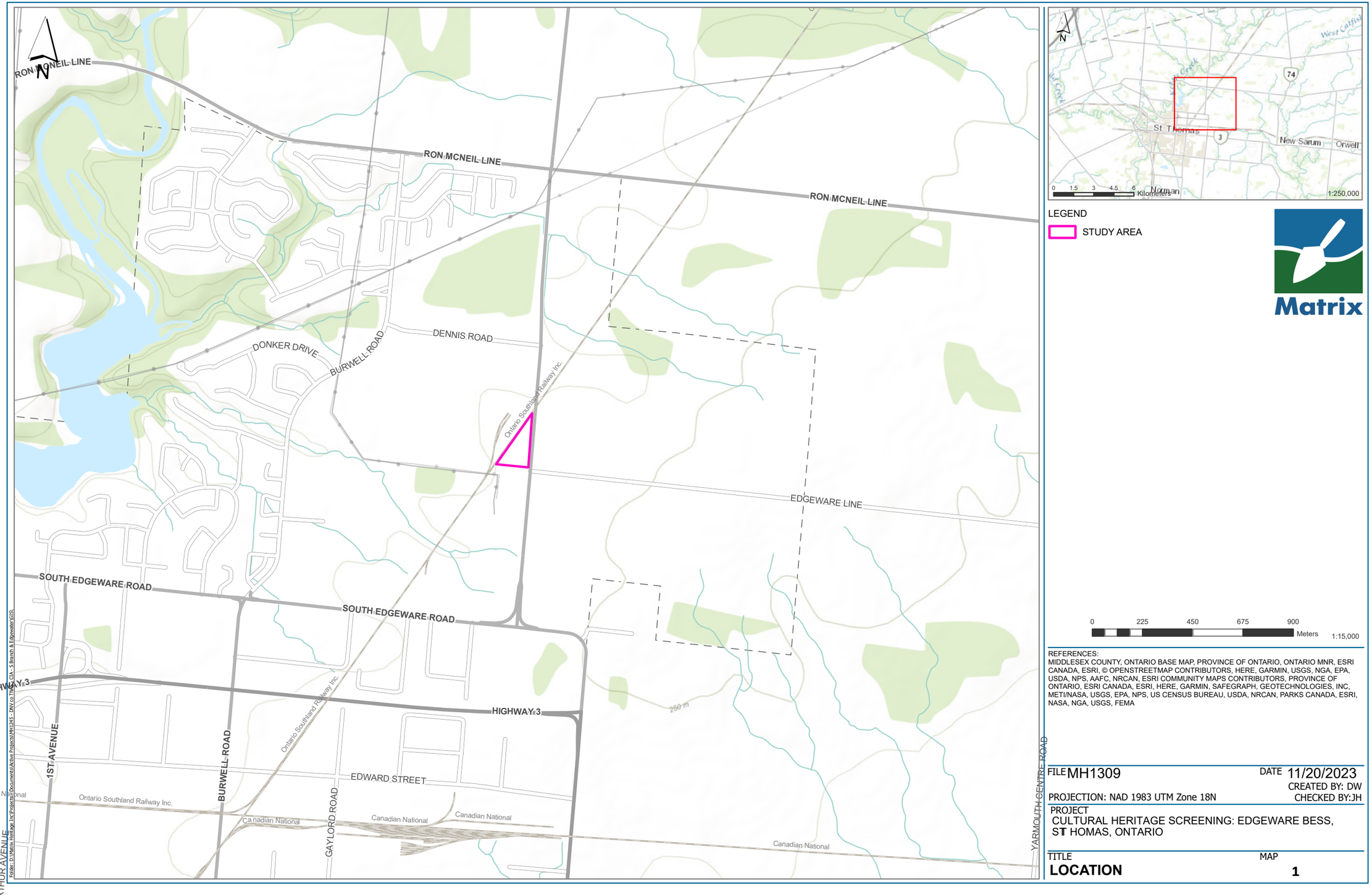
10.0 Figures



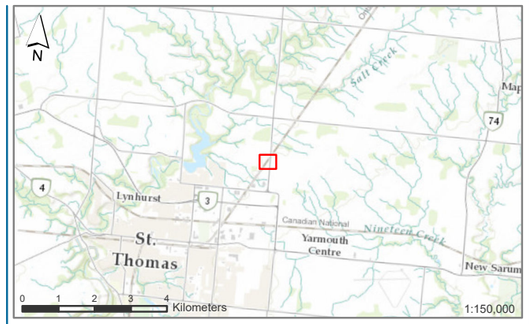
Figure 1: View of the Edgeware parcel looking north-west from Highbury Ave S at Edgeware Line. Source: Google Streetview, April 2021. (Link)



Figure 2. View of the Edgeware parcel looking west from Highbury Ave S. Source: Google Streetview, October 2022. (Link)


RON MCNEIL LINE
RON MCNEIL LINE
RON MCNEIL LINE
DONKER DRIVE
BURWELL ROAD
DENNIS ROAD
Ontario Southland Railway Inc.
EDGEWARE LINE
SOUTH EDGEWARE ROAD
SOUTH EDGEWARE ROAD
HIGHWAY 3
HIGHWAY 3
1ST AVENUE
BURWELL ROAD
Ontario Southland Railway Inc.
EDWARD STREET
Canadian National
Ontario Southland Railway Inc.
Canadian National
GAYLORD ROAD
Canadian National
Canadian National
Canadian National
ARTHUR AVENUE
YARMOUTH CENTRE ROAD
250 m
Folder: D:\Matrix Heritage Inc\Projects\Documents\Active Projects\MH1245 - DW\ co TNC\A - S Branch & Edgewater\GIS\
St. Thomas
New Sarum
Orwell
Norman
74
3
0 1.5 3 4.5 6 Kilometers
1:250,000
LEGEND
STUDY AREA
Matrix
0 225 450 675 900 Meters
1:15,000
REFERENCES:
MIDDLESEX COUNTY, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ONTARIO MNR, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, ESRI COMMUNITY MAPS CONTRIBUTORS, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, SAFEGRAPH, GEOTECHNOLOGIES, INC, METI/NASA, USGS, EPA, NPS, US CENSUS BUREAU, USDA, NRCAN, PARKS CANADA, ESRI, NASA, NGA, USGS, FEMA
FILE MH1309
DATE 11/20/2023
CREATED BY: DW
PROJECTION: NAD 1983 UTM Zone 18N
CHECKED BY:JH
PROJECT
CULTURAL HERITAGE SCREENING: EDGEWARE BESS, ST THOMAS, ONTARIO
TITLE
LOCATION
MAP
1





LEGEND

STUDY AREA

Matrix



REFERENCES:
MIDDLESEX COUNTY, PROVINCE OF ONTARIO, ONTARIO MNR, ESRI CANADA, ESRI, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN, MAXAR

FILE MH1309 DATE 11/20/2023
CREATED BY: DW
PROJECTION: NAD 1983 UTM Zone 18N CHECKED BY:JH

PROJECT
CULTURAL HERITAGE SCREENING: EDGEWARE BESS, ST. T HOMAS, ONTARIO

TITLE MAP
CURRENT CONDITIONS **2**

Appendix 1: Cultural Heritage Checklist – Edgeware Parcel

Cultural Heritage Checklist	
Conforming to the Ontario Ministry of Tourism Culture and Sport *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes*	
Project or Property Name:	Edgeware BESS
Project or Property Location:	"0" Highbury Avenue S, St. Thomas, Ontario. PLAN M59 PT BLOCK 94, City of St. Thomas.
Proponent Name:	True North Archaeological Services Inc.
Proponent Contact Information:	57 Beaufort Drive Ottawa, ON, K2L 2B9

Screening Questions	Yes/No
1. Is there a pre-approved screening checklist, methodology or process in place (municipal or provincial)?	No
If Yes, please follow the pre-approved screening checklist, methodology or process. If No, continue to Question 2.	
Part A: Screening for known (or recognized) Cultural Heritage Value	
2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?	No
If Yes, the rest of this checklist will not be completed. The proponent, property owner and/or approval authority will: • summarize the previous evaluation and • add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken The summary and appropriate documentation may be: • submitted as part of a report requirement • maintained by the property owner, proponent or approval authority If No, continue to Question 3.	
3. Is the property (or project area):	
a. identified, designated or otherwise protected under the Ontario Heritage Act as being of cultural heritage value?	No
b. a National Historic Site (or part of)?	No
c. designated under the Heritage Railway Stations Protection Act?	No
d. designated under the Heritage Lighthouse Protection Act?	No
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	No
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	No
If Yes to any of the above questions: • a Cultural Heritage Evaluation Report is required, if a Statement of Cultural Heritage Value has not previously been prepared, or the statement needs to be updated If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed: • a Heritage Impact Assessment (HIA) is required – the report will assess and avoid, eliminate or mitigate impacts If No, continue to Question 4.	
Part B: Screening for Potential Cultural Heritage Value	
4. Does the property (or project area) contain a parcel of land that:	
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	No
b. has or is adjacent to a known burial site and/or cemetery?	No
c. is in a Canadian Heritage River watershed?	No

d. contains buildings or structures that are 40 or more years old?	No
Part C: Other Considerations	
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):	
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	No
b. has a special association with a community, person or historical event?	No
c. contains or is part of a cultural heritage landscape?	No
If Yes to one or more of the questions in Parts B and C, there is potential for cultural heritage resources on the property or within the project area. The following must be undertaken: • a Cultural Heritage Evaluation Report (CHER) If the property is determined to be of cultural heritage value and alterations or development is proposed: • a Heritage Impact Assessment (HIA) is required – the report will assess and avoid, eliminate or mitigate impacts	

APPENDIX H – STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENTS

Ministry of Citizenship and Multiculturalism (MCM)

Archaeology Program Unit
Heritage Branch
Citizenship, Inclusion and Heritage Division
5th Floor, 400 University Ave.
Toronto ON M7A 2R9
Tel.: (613) 852-7942
Email: Stephen.Jarrett@Ontario.ca

Ministère des Affaires civiques et du Multiculturalisme (MCM)

Unité des programme d'archéologie
Direction du patrimoine
Division de la citoyenneté, de l'inclusion et du patrimoine
5e étage, 400 ave. University
Toronto ON M7A 2R9
Tél. : (613) 852-7942
Email: Stephen.Jarrett@Ontario.ca

Jul 24, 2025

Bradley Drouin (P311)
True North Archaeological Services Inc.
2D - 220 Terence Matthews Ottawa ON K2M0E2

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 & 2 Archaeological Assessments Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario ", Dated Jun 3, 2025, Filed with MCM on Jul 23, 2025, MCM Project Information Form Number P311-0354-2024, MCM File Number 0022221

Dear Bradley Drouin (P311):

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Map 10 of the above titled report and recommends the following:

The results of the Stage 1 and 2 archaeological assessment documented within this report formed the basis for the following recommendations:

1) The historic component of AeHg-61 can be dated to the early and mid 19th century and therefore meets the criteria outlined in Standard 2.2.1 in the MCM Standards and Guidelines for Consultant Archaeologists (MCM 2011) (Map SD-11). The Stage 3 assessment should be completed by a means of 1 m test units at 5 m intervals across the site with an additional 20% infill units in areas of interest.

2) As 80% of the historic artifact assemblage for AeHg-142 postdates 1870 and where the historical background research has sufficiently demonstrated that the site does not retain CHVI, no further work is recommended for the scatter of artifacts as defined on Map SD-1 and SD-2.

3) Single component L-01 and L-02 and the historic component of AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 3.4.2 Standard 1 and as such, no further work

is recommended.

4) The pre-contact Indigenous period components of AeHg-61, AeHg-142, AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 2.2 Standards 1 or Section 3.4.1 Standard 1 and as such, no further work is recommended.

5) No further archaeological assessment is recommended for portions of the BESS Study Area that are not identified in this report as requiring further archaeological assessments as outlined on Map SD-11.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Stephen Jarrett
Archaeology Review Officer

cc. Archaeology Licensing Officer
Laura Bashford,EDP Renewables Canada Ltd.
TBD TBD,Ministry of the Environment, Conservation and Parks

[1] *In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*

REVISED REPORT

Stage 1 & 2 Archaeological Assessments

Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario

Archaeological Licensee: Bradley Drouin

MCM PIF Number: P311-0354-2024

Submitted to:

DNV
70 Richmond Street East, Suite 201
Toronto, Ontario
M5C 1N8

Attention: Gabriel Constantin, Director of Environmental and Permitting Services, Energy Systems

Submitted by:

True North Archaeological Services Inc.
2D-220 Terence Matthews Crescent, Ottawa, Ontario, K2M 0E2

TNAS Project Number: 2024022

3 June 2025

Distribution List

1 e-copy – DNV

1 e-copy – Ministry of Citizenship and Multiculturalism

1 e-copy – True North Archaeological Services Inc.

1 e-copy – Aamjiwnaang First Nation

1 e-copy – Caldwell First Nation

1 e-copy – Chippewas of Kettle and Stony Point First Nation

1 e-copy – Chippewas of the Thames First Nation

Executive Summary

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.

True North Archaeological Services Inc. (TNAS) was retained by DNV on behalf of Edgeware BESS Project Limited Partnership to undertake a Stage 1 and 2 archaeological assessment of the approximate 2 hectare property located at 100 Highbury Avenue South, situated within Part Lot 8, Range 1 North of Edgeware Road, Geographic Township of Yarmouth, Elgin County, now the City of St. Thomas, for a planned Battery Energy Storage System ("BESS Study Area"; Maps 1 and 2).

The objectives of the Stage 1 background study were to provide information on the geography, history, previous archaeological fieldwork and current land conditions to evaluate the property's potential for containing archaeological resources. The results of the Stage 1 assessment identified one previously recorded archaeological site within the property, AeHg-61, and one previously identified findspot (ASI 1993), as such, the BESS Study Area retained archaeological potential. Further indicators of potential included the proximity to Highbury Avenue South, a historic transportation corridor, its location between two bluffs, and a small tributary of Kettle Creek draining the southwest corner of the Study Area. As a result, a Stage 2 archaeological assessment of the entire BESS Study Area was recommended. The Stage 2 archaeological assessment was completed on 23 and 24 September 2024 with the ploughed agricultural field assessed by pedestrian survey at 5 m intervals and the field margins located to the north and south of the agricultural field assessed by a shovel test pit survey at 5 m intervals. The Stage 2 archaeological assessment resulted in the re-identification of AeHg-61, and the identification of AeHg-142 (originally ASI Location 1-1), AeHg-150, L-01, L-02, and L-03..

The pre-contact Indigenous artifacts consisted of 14 flakes, one possible spoke shave, and a Late Woodland Period triangular point (AeHg-150). The scatter was diffuse and spread out over an area measuring approximately 175m north-south by 100m east-west. The distribution of the pre-contact Indigenous artifacts did not meet Section 2.2, Standards 1a or 1b, and as such, no further work is recommended for the pre-contact Indigenous component of the BESS Study Area.

The previously registered AeHg-61 site was re-identified as a concentrated artifact scatter consisting of 55 artifacts which generally date to the early to mid 19th century. The 19th century component of the site is likely associated with the occupation of Lot 8 by Marwood Gilbert from ca. 1860 to 1883. AeHg-61 therefore retains Cultural and Heritage Value or Interest and meets the criteria outlined in Section 2.2 Standard 1c in the MCM *Standards and Guidelines for Consultant Archaeologists* for a Stage 3 archaeological assessment. Of the 16 pre-contact artifacts recovered from the BESS Study Area, three were located within the AeHg-61. Based on the limited number of artifacts recovered, the pre-contact Indigenous component does meet Section 2.2 Standard 1.a.i and does not retain Cultural heritage value or interest.

Multi-component AeHg-142, previously recorded as a Location 1-1 by ASI was re-identified as a concentrated artifact scatter consisting of 883 artifacts which generally date to the late 19th and early 20th century, with a diffuse pre-contact Indigenous component. The historical component of the site is likely associated with the occupation of the Lot 8 by the Dennis family from ca. 1910 to the modern era. As over 80% of the assemblage and occupation post-dates 1870, AeHg-142 does not meet the Section 3.4.2 Standard 1 and therefore no further work is recommended. Of the 16 pre-contact artifacts recovered from the BESS Study Area, six were located within the AeHg-142 limits. Based on the limited number of

artifacts recovered, the pre-contact Indigenous component does meet Section 2.2 Standard 1.a.i and does not retain Cultural heritage value or interest.

AeHg-150 is a multi-component site that contained 15 artifacts, 13 of which date to late 19th century and into the early 20th century. Two pre-contact Indigenous artifacts were also recovered: one undiagnostic flake and a Late Woodland triangular point. Based on the results of the detailed controlled surface pickup and the recovered artifacts, the pre-contact Indigenous component does not meet Section 2.2 Standard 1.a.i and therefore no further work is recommended. Additionally, the historic component of AeHg-150 does not meet Section 3.4.2 Standard 1 and as such, no further work is recommended.

L-01 and L-02 represent diffuse scatters of historic artifacts that generally date to the late 19th and 20th century. Due to the limited number of artifacts recovered in both L-01 and L-02, neither meet Section 2.2 Standard 1c, nor Section 3.4.2, Standard 1. Additionally, when reviewing L-01 and L-02, nether loci meet the requirements to be registered as outlined in Section 2.2 of the MCM 2015 *Archaeological Site Forms* Technical Bulletin.

L-03 represents a multi-component scatter of 9 historic artifacts dating to the late 19th century and into the 20th century with two undiagnostic chert flakes. Based on the quantity and nature of the recovered artifacts, L-03 does not meet Section 2.2 Standard 1c, nor Section 3.4.2, Standard 1. Additionally, L-03, does not meet the requirements to be registered as outlined in Section 2.2 of the MCM 2015 *Archaeological Site Forms* Technical Bulletin.

Lastly, the four remaining surface finds not associated with the registered sites or Loci do not meet Section 2.2 Standard 1c, nor Section 3.4.2, Standard 1, nor the requirements to be registered as outlined in Section 2.2 of the MCM 2015 *Archaeological Site Forms* Technical Bulletin. As such, no further work is recommended.

The results of the Stage 1 and 2 archaeological assessment documented within this report formed the basis for the following recommendations:

1) The historic component of AeHg-61 can be dated to the early and mid 19th century and therefore meets the criteria outlined in Standard 2.2.1 in the MCM *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) (Map SD-11). The Stage 3 assessment should be completed by a means of 1 m test units at 5 m intervals across the site with an additional 20% infill units in areas of interest.

2) As 80% of the historic artifact assemblage for AeHg-142 postdates 1870 and where the historical background research has sufficiently demonstrated that the site does not retain CHVI, no further work is recommended for the scatter of artifacts as defined on Map SD-1 and SD-2.

3) Single component L-01 and L-02 and the historic component of AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 3.4.2 Standard 1 and as such, no further work is recommended.

4) The pre-contact Indigenous period components of AeHg-61, AeHg-142, AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 2.2 Standards 1 or Section 3.4.1 Standard 1 and as such, no further work is recommended.

5) No further archaeological assessment is recommended for portions of the BESS Study Area that are not identified in this report as requiring further archaeological assessments as outlined on Map SD-11.

Project Personnel

Client Contact:	Gabriel Constantin, Director of Environmental and Permitting Services, DNV
Project Manager:	Bradley Drouin, M.A. (P311)
Archaeological Licensee:	Bradley Drouin
Field Director:	Gabryell Kurtzrock Belyea, M.A. (R1195)
Field Technicians:	Kelly Berkmans, B.A.
	Julia Chebott, B.A.
	Lydia Spooner, B.sc.
	Brandon Calbeck
Material Culture Analysis:	Bradley Drouin
Lab Technicians	Kelly Berckmans
	Julia Chebott
Report Preparation:	Gabryell Kurtzrock Belyea, MA (R1195)
Spatial IM:	Gabryell Kurtzrock Belyea
Senior Technical Review:	Aaron Mior, MMA (1077)

First Nation Field Participants

Aamjiwnaang First Nation:	Laura Rogers
Chippewa of the Thames First Nation:	Lisa Kechego
Chippewa of Kettle and Stony Point First Nation:	Terry Johnson

Report Abbreviations

AA	Archaeological Assessment
ASI	Archaeological Services Inc.
B.P.	Years Before Present
CHVI	Cultural Heritage Value or Interest
CSP	Controlled Surface Pickup
CRW	Coarse Red Earthenware
CSW	Coarse Stoneware
ft	Feet
ha	Hectares
Ins. No.	Instrument Number (Land Registry)
km	Kilometres
m	Metres
MCM	Ministry of Citizenship and Multiculturalism
MNE	Minimum Number of Elements
PCA	Parks Canada Agency
PIF	Project Information Form issued by the MCM
PWE	Pearlware
RWE	Refined White Earthenware
TNAS	True North Archaeological Services Inc.
VWE	Vitrified White Earthenware
YEW	Yellowware

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1.0 Project Context

1.1 Development Context

True North Archaeological Services Inc. (TNAS) was retained by DNV on behalf of Edgeware BESS Project Limited Partnership, to undertake a Stage 1 and 2 archaeological assessment (AA) for the Edgeware Battery Energy Storage System project, located within Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario (Maps 1 and 2). This Stage 1 and 2 archaeological assessment was completed as part of an Environmental Assessment process for Minor Transmission Facilities.

The proposed Battery Energy Storage System study area (BESS Study Area) is bound to the east by Highbury Avenue South, to the west and north by an active rail line and the south by an existing power station. The BESS Study Area measures approximately 2 ha in size, with current land conditions consisting of ploughed agricultural field and low shrubs and vegetation along the field margins.

In 1993, ASI completed a Stage 1 and 2 AA for a larger study area which encompassed the current BESS Study Area. The results identified AeHg-61 as well as a late 19th to 20th century scatter of historic artifacts identified as Location 1-1. Although the previously completed Stage 2 archaeological assessment is understood to have encompassed the entire Project Area, the Stage 1 and 2 assessment was completed prior to the current Ministry of Citizenship and Multiculturalism's (MCM) 2011 *Standards and Guidelines for Consultant Archaeologists*. Through communications with MCM on 3 July 2024, MCM confirmed that because the previous assessment was completed under 1993 Technical Guidelines, an updated Stage 1 and 2 would need to be completed in compliance with the current 2011 *Standards and Guidelines for Consultant* Archaeologists (Appendix A).

Permission to access the site to conduct all required archaeological fieldwork, including the recovery of artifacts, was granted by DNV on behalf of the proponent, with no limitations or restrictions.

1.2 Objectives

This Stage 1 and 2 archaeological assessment was completed to assess the archaeological potential of the BESS Study Area (Stage 1), as well as to complete an archaeological testing program (Stage 2) to identify archaeological resources within the BESS Study Area. The objectives of the Stage 1 and 2 AA are based on principals outlined in the *Ontario Heritage Act* (consolidated 2007) and the Ontario MCM *Standards and Guidelines for Consulting Archaeologists* (2011). More specifically, this Stage 1 and 2 AA was completed with the following objectives:

- To provide information about the BESS Study Area's geography, environment, cultural history, previous archaeological fieldwork and current land condition;
- To evaluate in detail the BESS Study Area's archaeological potential and assess whether the property contains archaeological resources requiring additional archaeological assessment;
- To document observed archaeological resources on the property;
- To recommend appropriate Stage 3 assessment strategies for archaeological sites identified, if applicable.

2.0 Historic Context

2.1 Regional Indigenous Context

The following narrative is intended to provide a general overview of the interpreted land use during the "Pre-Contact and Post-Contact Periods" within the vicinity of the current BESS Study Area. This overview generally reflects inferences and interpretations based on archaeological and historical interpretations primarily made by non-Indigenous representatives.

This section is intended to provide a general historical overview that can be referenced when determining the potential for archaeological resources within the current BESS Study Area. The text and comments below, including the cited references, may reflect archaeological literature within general publications, but may not represent the opinions of those Indigenous communities whose history it is purported to reflect.

2.1.1 Paleo Period (13,000 – 9,000 B.P.)

Based on archaeological literature, the Paleo Period is inferred to begin around 13,000 years before the present (B.P.), when glacial ice began to recede within the modern-day area of Elgin County. As the glacial ice receded, the existing landscape began to warm with vegetation adapting to the evolving environment and caribou and other subarctic animals arriving following the glacial recession (Warrick 2012).

The Paleo Period in Ontario is broadly characterized by many small groups of hunter-gatherers whose subsistence strategies exploited large areas, while often travelling distances in excess of 150 km in an effort to procure raw materials for the production of lithic tools and the hunting of contemporary animals along migratory routes including caribou as well as mammoth and mastodon. The environment in southern Ontario during the Early Paleo Period would also have been able to support a variety of other plant and animal resources including fish, birds, moose, elk and muskoxen, and it is reasonable to suggest these resources were also incorporated into the contemporary subsistence strategies (Peers 1985).

Diagnostic signatures of Early Paleo Period populations include the production of projectile points with channel flakes or flutes predominately manufactured from Collingwood or Onondaga chert. Paleo Period fluted points may be a reflection of large game hunting, while tools such as scrapers, piercing implements and gravers that are typically associated with Paleo Period sites may have been used in the manufacture and repair of wooden implements, bone tools and clothing (Peers 1985).

Archaeological excavations indicate many Early Paleo Period sites tend to be located within areas of elevated topography on well-drained loamy soils, as well as on former beach ridges associated with glacial lakes. Many of the archaeologically investigated Paleo Period sites are relatively small in size compared to later periods, and typically represent contemporary camp sites, with only a few large sites, such as the Parkhill and Fisher sites, recognized as extending over several hectares. It is likely these larger sites were formed as people continued to occupy the same area for short durations over the course of several years. Given their placement in locations conducive to the interception of migratory mammals such as caribou, it has been suggested these larger sites may also represent communal hunting camps (Ellis and Deller 1997).

During the Paleo Period, enclosed coniferous forests dominated the contemporary landscape, although by the Late Paleo Period (9,500 - 9,000 B.P.) deciduous forests were developing in southern Ontario.

Pollen samples collected from nearby Pinehurst Lake and assessed by Dr. J.H. McAndrews of the Royal Ontario Museum indicate deciduous forest species such as oak and beech accounted for more than 50% of the forest cover in the region by the Late Paleo Period (Nixon 1982).

With the environmental transition, it is likely that many of the large game species that had been hunted during the Early Paleo Period had either moved further north, or in the case of the mastodons and mammoths, became extinct. Similar to the inhabitants during the Early Paleo Period, Late Paleo Period populations traversed large territories in response to seasonal resource fluctuations. The transition to the Late Paleo Period also included projectile points comprised of smaller unfluted projectiles along with lanceolate parallel flaked stemmed and non-stemmed Plano points, while hunting strategies may have transitioned from communal groups to more individualized pursuits (Ellis and Deller 1997).

At least seven archaeological sites within Elgin County have been registered as reflecting evidence of land use during the Paleo Period. AeHh-146 situated 7.5 km south of the southern limit of the BESS Study Area, represents the closest registered site to the Study Area.

2.1.2 Archaic Period (9,000 – 2,950 B.P.)

During the Early Archaic Period (9,000 – 8,000 B.P.), a gradual increase in atmospheric humidity in conjunction with warmer summers influenced the environmental landscape within the general BESS Study Area vicinity. Fossil pollen and spore identification from sedimentation cores lifted from Lovesick Lake provide evidence of a changing climate, with jack pine forests becoming dominant during the beginning of the Early Archaic Period (Teichroeb 2007).

Concurrent with the environmental changes during the Early Archaic Period were notable diagnostic technological changes including the appearance of side and corner-notched projectile points, bifurcated points, and the distinctive serrated point. Other significant innovations included the introduction of ground stone tools such as celts and axes, which may reflect an emerging woodworking industry (Ellis, Kenyon & Spence 1990).

Populations in Ontario during this period primarily utilized maritime landscapes during the spring, summer and fall seasons with large base camps on islands, near river mouths, and on the shores of embayment's where a variety of flora, fish, and wild fowl resources could be obtained. Smaller hunting and specialized campsites were also established in the uplands and along smaller watercourses. The waterways appear to be the preferred method of travel, and many burials are located along these waterways (Taylor 2015), including the traditionally visited islands. Access to these shoreline occupation areas would have been facilitated by a variety of Indigenous watercraft such as bark canoes, skin boats and dugout canoes (Monk 1999).

While only a limited number of Indigenous vessels have been discovered within the Great Lakes region, the tools and implements utilized for their construction provide insight into the methods used and the locations where these vessels were manufactured. Tools commonly associated with Indigenous vessel construction included stone gouges, adzes, wedges, hammers, knives, scrapers, and awls manufactured from wood and bone (Monk 1999), while other tools manufactured from bone, chert, quartz and wood were also utilized when necessary.

During the Middle Archaic Period (8,000 – 4,000 B.P.) the environmental landscape continued to evolve with the jack pine forests prevalent during the Early Archaic Period being primarily replaced by white pine growth, suggesting a gradual increase in humidity and a continuation of hot summers (Teichroeb 2007).

The trend towards more diverse toolkits also continued into the Middle Archaic Period, as the presence of netsinkers and fish weirs indicate that fishing was an important component of the subsistence strategy, with Lake Erie, Kettle Creek, and its many tributaries, providing an abundance of fishing opportunities for a variety of species including sturgeon (General and Warrick 2012). Netsinkers were typically used with both gill nets and seine nets, which were employed for both shoreline and offshore fishing activities. Gill nets were kept vertical with stone sinkers on the bottom and floats on the top, and were often anchored to a specific location with larger stones. Seine nets essentially acted as fences and were used to coral and hold the fish and needed to be kept tight to the water bottom by attaching many closely spaced sinkers to the bottom of the net with floats attached to the top (Ingleman *et al* 2012; Prowse 2003). Many Indigenous fishing nets were commonly made from hemp or nettle (Needs-Howarth 1999) and are rarely preserved in the archaeological record (Ingleman *et al* 2012).

Another characteristic of the Middle Archaic Period was an increased reliance on local, often poor quality, chert and quartz resources for manufacturing projectile points. While groups occupied larger territories during the Paleo and Early Archaic Periods, which provided the opportunity to visit primary outcrops of high-quality chert at least once during their seasonal round, during the Middle Archaic Period groups traveled within comparatively smaller territories that did not always possess a source of high-quality raw materials. In these instances, lower quality materials that had been previously deposited by the glaciers in the local till and river gravels were utilized.

It was also during the latter part of the Middle Archaic Period that long-distance trade routes began to develop, spanning the northeastern part of the continent. In particular, copper tools manufactured from a source located northwest of Lake Superior were being traded (Ellis, Kenyon and Spence 1990), with a wide range of copper tools such as socketed and tanged spear points, projectile points, harpoons, crescent knives, gouges, pikes and celts being produced during this period (Dawson 1983).

Trade networks established during the Middle Archaic Period also continued to flourish during the Late Archaic Period (4,000 – 2,950 B.P.). Copper implements from northern Ontario and marine shell artifacts from the Mid-Atlantic coast are frequently encountered with burials (Ellis, Kenyon and Spence 1990; Ellis, Timmins and Martelle 2009). Late Archaic Period sites have also been discovered in greater numbers compared to Early and Middle Archaic Period sites, suggesting the local population was rapidly expanding. Due to an increase in population, territories were shrinking which was reflected in reduced mobility and fewer residential camps throughout the year (Ellis, Kenyon & Spence 1990).

The development of designated burial areas during the Late Archaic Period has been interpreted as a response to increased population densities and competition between local groups for access to natural resources. It has been theorized that formalized burial grounds may have provided strong symbolic claims over a local territory and the surrounding resources and are often located within areas of elevated topography containing well-drained sandy and gravel soils adjacent to major watercourses. Burial sites reflect the importance of the landscape to Indigenous populations as they represent locations along travel routes that would be returned to, where feasts would occur, and the dead could be honoured (Taylor 2015).

Regionalized variations during the Late Archaic Period are also reflected in projectile point manufacturing, with distinct locally diagnostic styles appearing within the archaeological record. Other artifacts including polished stone pipes and banded slate gorgets also appear on Late Archaic Period sites, as well as "birdstones", which are small, bird-like effigies usually manufactured from green banded slate (Ellis, Kenyon and Spence 1990).

During the Archaic Period, it has been estimated there would have been upwards of 400 inhabitants in the Grand River watershed (Warrick 2012) and the significant number of registered archaeological sites dating to the Archaic Period documented in Elgin County indicate this area was extensively traversed. At least 27 sites representing land use during the Archaic Period have been documented in Elgin County, with an additional 31 sites exhibiting Early Archaic Period components, 33 sites reflecting Middle Archaic attributes, and 54 sites with diagnostic attributes reflecting the Late Archaic Period (MCM 2024). At least 8 archaeological sites reflecting land use during the Archaic Period have been registered within 1.5 km of the BESS Study Area, spanning the Early, Middle and Late Periods and confirming land use in the vicinity throughout this period.

2.1.3 Woodland Period (2,950 – 500 B.P.)

The Early Woodland Period (2,950 – 2,200 B.P.) is distinguished from the Late Archaic Period primarily by the introduction of pottery. The first pots were thick walled and friable, suggesting they may have primarily been used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil (Spence, Pihl and Murphy 1990). These vessels were not easily portable, and their fragile nature suggests they may have required regular replacement. There have also been numerous Early Woodland Period sites identified where ceramics were absent from the recovered assemblage, suggesting ceramic vessels may have not been completely integrated within the daily lives of Early Woodland Period populations.

Besides the addition of ceramic technology, the cultural affinity of Early Woodland Period inhabitants shows a great deal of continuity with the preceding Late Archaic Period. For instance, birdstones continued to be manufactured, although the Early Woodland Period varieties have "pop-eyes" that protrude from the sides of their heads (Spence, Pihl and Murphy 1990). Another example of general continuity from the terminal segment of the Archaic Period is represented by the thin, well-made projectile points, although the Early Woodland Period variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance. The distinctive Meadowood cache blade or preform was frequently recycled into other tool forms such as end scrappers, perforators and flint strikers for fire making kits. One of the most striking features of the Meadowood tradition is the occurrence of large caches of well-made Meadowood preforms (Spence, Pihl and Murphy 1990).

Middle Woodland Period inhabitants appeared to have relied more extensively on ceramic technology, with contemporary ceramic vessels often decorated with impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of vessels manufactured during the Middle Woodland Period can be diagnostically distinct. Popular decoration techniques include dentate stamping and pseudo-scallop shell impressions. Three complexes represent the Middle Woodland; Couture in the most southwestern part of Ontario, Saugeen in the rest of southwestern Ontario, and Point Peninsula in south central and eastern Ontario (Spence, Pihl and Murphy 1990).

The accessibility of watercraft contributed to the rapid spread of ceramic technology and other material cultural attributes during the Woodland Period. The watercraft utilized during the Archaic Period continued to be employed along the navigable waterways and would have provided the ability to transport not only the larger ceramic containers, which were not easily portable over land, but also the concepts and technology associated with Early Woodland Period pottery manufacturing. Evidence of exchange networks during the early stages of the Woodland Period indicate numerous reciprocal, down-the-line

exchanges between trade partners located both short and long distances away. There is a gradual intensification of these types of trade throughout the period continuing into, and reaching its apex in, the Middle and Late Woodland Periods (Hartmann 1996).

In terms of subsistence strategies, the Middle Woodland Period (2,200 - 1,100 B.P.) reflects an evolving transition from patterns observed from archaeological excavations documenting Archaic and Early Woodland Period sites. While Middle Woodland Period populations still relied on hunting and gathering to meet their subsistence requirements, an increased consumption of fish became an important dietary component. Some Middle Woodland Period sites have produced literally thousands of bones from spring spawning species including walleye and sucker (MCR 1981), reflecting the importance of this subsistence resource to the local population.

Food sources such as tree nuts and a proliferation of plant greens and seeds were also utilized during the Middle Woodland Period. The seasonal variety and relative dependability of these foods encouraged population growth in many areas. The land use patterns reflected from archaeological investigations of Middle Woodland Period sites generally reflect densely occupied locations that appear on the valley floor of major rivers, often producing sites with significant artifact deposits. Unlike earlier seasonally utilized locations, many Middle Woodland Period sites appear to have functioned as base camps, occupied periodically over the course of the year and situated to take advantage of the greatest number of resources. There are also numerous small upland Middle Woodland Period sites, many of which can be interpreted as special purpose camps where localized natural resources were exploited (MCR 1981).

The transition from the Middle to Late Woodland Period is marked by the introduction of triangular projectile point styles and cord-wrapped stick decorated ceramics, which are associated with the Princess Point Complex (Martin 2004; Crawford *et al* 1997; Bursey 1995; Ferris and Spence 1995; Spence, Pihl and Murphy 1990; Williamson 1990; Ritchie 1971), although these attributes may not always reflect diagnostic components of specific Nations as many interacted and shared cultural traits. The Princess Point Complex is organized into three regional Foci; the Point Pelee Foci in southwestern Ontario, the Ausable Focus near Lake Huron, and a Grand River Focus around the west end of Lake Ontario (Fox 1990).

The Late Woodland Period in the counties of Essex, Kent, Lambton and portions of Middlesex and West Elgin Counties is represented by the distinct culture of the Younge Tradition which developed from the earlier Princess Point Tradition. The Younge tradition is part of the archaeological manifestations referred to as the Western Basin tradition which connects groups in southwestern Ontario, southeastern Michigan and northwestern Ohio centered along the drainages of western Lake Erie, Lake St. Clair and lower Lake Huron. This period is characterized by complex ceramic decorations and a marked decrease in stone tool use, as stone tools were typically made on locally available pebble cherts from secondary deposits. Settlements were known to be located on sand plains, moraines, lakeshores and prairie borders where elevation provided good drainage and ideal conditions for subsistence, fuel and shelter (Murphy and Ferris 1990).

Many of the villages maintained by Nations who established agricultural economies during the Late Woodland Period included palisades that enclosed community longhouses (Fox 1990; Smith 1990; Williamson 1990), with the villages often surrounded by gardens and field crops, which were worked by the clan families of the village (Hill 2017). At least 20 village sites dating to the Woodland Period have been documented within Elgin County (MCM 2024), although a significant part of the contemporary

population did not reside within sedentary, or semi-sedentary, villages and continued to traverse the land and utilize areas along waterways during the summer months and inland hunting sites during the winter.

Land use during the Woodland Period in Elgin County has been extensively documented during archaeological investigations over the past 50 years, with at least 37 sites generally dating to the Woodland Period in addition to 23 sites with Early Woodland Period attributes, 44 sites reflecting Middle Woodland Period components and 76 sites with diagnostic attributes indicating land use during the Late Woodland Period (MCM 2024). Two Woodland Period sites are located within 500 m of the western boundary of the BESS Study Area.

Early contact with European settlers at the end of the Late Woodland Period resulted in changes to the traditional lifestyles of most populations inhabiting Ontario including settlement size, population distribution, and material culture. The introduction of European-borne diseases significantly increased mortality rates, resulting in a drastic decrease in population size (Warrick 2000).

2.1.4 European Contact and Post-Contact Period

In 1615-16, Samuel de Champlain travelled with the Huron through Georgian Bay and was likely the first European to be in contact with Indigenous peoples. In 1622 Etienne Brule traveled into the area and encountered several Indigenous community groups. Champlain accompanied members of the Huron community against the Iroquois in modern-day New York State. Following the battle, many Huron returned to modern-day Ontario although by the 1640s, the Huron, Petun, and Anishinaabeg had left the area around Lake Ontario as a result of increasing conflicts with the Haudenosaunee and the warfare and disease that had arrived with European colonization.

In 1701, representatives from the Haudenosaunee and more than 20 Anishinaabeg Nations assembled in Montreal to participate in the Great Peace negotiations, sponsored by the French Governor Callière (Johnston 2006; Johnston 2004). A peace treaty between the Anishinaabeg and the Kanien'kehá:ka (Mohawk) was agreed to once again share in the bounty of the territory (One Dish, One Spoon) as partners, although this partnership was strained by the "Great Imbalance" represented by the fur trade with European capitalists (Monague 2022).

The resulting treaty document signed at Montreal was not the only record made of the Peace between the Anishinaabeg and the Haudenosaunee. At a council held at Lake Superior, the Haudenosaunee secured peace by delivering a wampum belt to the Anishinaabeg. This belt was carried by successive generations of leaders who were charged with remembering the meaning of symbols worked upon the shell beads and each generation had a responsibility to renew the peace forged by their ancestors (Johnston 2006).

Following the establishment of peace between the Indigenous Nations, the Anishinaabeg represented the primary community along and extending northward of Lake Ontario and Lake Erie (Hathaway 1930). From 1701 to the fall of New France in 1759, the fur trade continued around the Lake Ontario region with both the Ojibwa and Mississauga and various other groups within the Anishinaabeg, trading with both the English and the French.

Subsistence patterns within Indigenous communities in the Great Lakes region during the initial Contact Period included a primary focus on hunting, fishing, and gathering, with minimal focus on agriculture (McMillian and Yellowhorn 2004). The annual migratory cycle included small groups subsisting on forest game throughout the winter, moving to the groves of maple for the spring sap-run, meeting with other groups concentrated at the lake and trout and white-fish spawning grounds in spring and early summer,

and seeking out the beds of wild rice in the fall. Their impact upon their environment was minimalized by population densities, although they utilized the vast landscape according to traditional lifeways (Osborne and Ripmeester 1997).

Shortly after the French abandonment around the Great Lakes, English merchant Alexander Henry ventured into the Great Lakes area where he communicated with Anishinaabeg leader Minavanana in September 1761. Henry was informed that the English would suffer retaliation for Anishinaabeg war losses unless the English King made peace with them and compensated them with gifts. Shortly after, most of the former French forts in the Great Lakes were within Anishinaabeg control. In response, King George III issued a Royal Proclamation on 7 October 1763 acknowledging that Indigenous Nations residing on all lands outside the boundaries of the settled colonies "not having been ceded to or purchased by Us, are reserved to them, or any of them, as their Hunting Grounds" (Reimer 2019:38). The territory reserved for Indigenous Nations encompassed the entire Great Lakes region and peace was secured following discussions between the British and more than 1,500 Anishinaabeg leaders at Niagara Falls in July 1764 where the alliance was sealed by two magnificent wampum belts (Johnston 2006).

Although they did not own the land, the British surrendered the Haudenosaunee settlements in modern-day New York State to the Americans in the Treaty of Paris (1783). To compensate for this loss, the British negotiated the transfer of lands along the Grand River tract from the Mississaugas to the Haudenosaunee (Hill 2017).

2.2 Contextual Study Area History

An extensive historical overview of the surrounding area is outside the current scope of work. The following is included to provide a general historical overview in relation to the potential archaeological resources that may be located within the current BESS Study Area.

First Nations have utilized land within the BESS Study Area vicinity since time immemorial, which has been recorded through oral histories, previous archaeological assessments and contextual research reports. Archaeological evidence of this land use dates at least to the Early Paleo Period and extends through the Late Woodland Period and into the contact period, representing land use over a period of approximately 11,000 years prior to the arrival of Europeans to the area.

An overview of registered archaeological sites confirming the presence of Indigenous peoples in the BESS Study Area vicinity prior to 1650 is presented in Table 1.

Table 1: Registered Archaeological Sites Confirming Indigenous Land Use Within 5 km of the Study Area BESS Study Area Prior to European Contact

Period	Sub-Period	Temporal Context	Number of Registered Sites
Paleo	Early	13,000 – 10,000 BP	0
	Middle	10,000 – 9,500 BP	0
	Late	9,500 – 9,000 BP	0

Period	Sub-Period	Temporal Context	Number of Registered Sites
	Unspecified	11,000 – 9,000 BP	1
Archaic	Early	9,000 – 8,000 BP	3
	Middle	8,000 – 4,000 BP	3
	Late	4,000 – 2,950 BP	7
	Unspecified	9,000 – 2,950 BP	0
Woodland	Early	2,950 – 2,200 BP	2
	Middle	2,200 - 1,100 BP	5
	Late	1,100 – 350 BP	8
	Unspecified	2,950 – 500 BP	1
Pre-Contact	Unspecified	11,000 – 500 BP	7

When assessed within the context of the contemporary landscape, the documentation of these archaeological sites reflects the intensified activity and the preference for land use within proximity to the Kettle Creek and Lake Erie shorelines in the BESS Study Area vicinity. Although previous archaeological investigations have not documented occupation within 1 km of the BESS Study Area prior to 9,000 B.P., the Great Lakes area has witnessed an Indigenous presence since time immemorial (Warrick 2012) and the absence of registered archaeological sites within 1 km of the BESS Study Area pre-dating the Early Archaic Period may be a result of environmental transitions and landscape disturbances following the arrival of Europeans that have influenced the propensity of earlier Paleo Period sites to be identified within the archaeological record.

The BESS Study Area falls within lands covered by the 1790 McKee Purchase (Treaty No.2), signed on 19 May 1790. The purchase is named after the Deputy Agent of Indian Affairs, Alexander McKee, who gathered with 27 Chiefs of local Ojibwa, Odawa, Pottawatomie, and Wendat nations in Detroit in order to regularize settlements on the British side of the Detroit River and the Thames Valley. McKee had been instructed by the Crown to purchase land along the shoreline of Lake Erie from Long Point to Chenal Écarté River on the St. Clair River from these gathered Chiefs. The Chiefs agreed to vacate the land for a payment of goods worth 1200 pounds of Quebec currency. This agreement contained the stipulation for the creation of only two reserves, the Huron Reserve and the Huron Church Reserve near what would later become known as Windsor (Surtees 1983).

These lands include the traditional territories of Aamjiwnaang First Nation, Chippewas of the Thames First Nation and Walpole Island First Nation, which should be noted was not surrendered during this period of purchase and treaty signing (Surtees 1983). The McKee Purchase also covered the land of Point Peele, which is the traditional territory of Caldwell First Nation who were not present for the signing of Treaty No. 2 and never agreed to surrender their lands. Nonetheless they were removed from Point Peele and were not given a reserve on which they could establish their community. In 2006, after several decades of

failed talks with the federal government, Caldwell First Nation was awarded a settlement, and 10 years later were finally given land for a reserve, 17 km northwest of Point Peele in Leamington (Forester 2020).

The Irish born Colonel Thomas Talbot emigrated to Canada in 1791 where he served as personal secretary to John Graves Simcoe, Lieutenant Governor of Upper Canada. For his service, Talbot was granted 5,000 acres in Elgin County. Between the years of 1814 and 1837, the Talbot settlement grew to 50,000 inhabitants, all settling in the Thames River area. Despite his success in convincing settlers to take up residence in his settlement, Talbot was known to be despotic, and his abuse of power was a contributing factor to the Upper Canada Rebellion of 1837 (Ermatinger 1904).

Colonel Talbot believed Yarmouth Township to be the best township due to its lakefront location. The township was established in 1792, and the first lots that were settled were located along Talbot Road (Yarmouth Township Council 1967). In 1810 Captain Daniel Rapelje from New York State founded Kettle Creek village, later renamed St. Thomas after Colonel Talbot. Rapelje divided his farm into village lots, which he then sold to settlers. More families arrived in St. Thomas around this time including the Mandevilles, Drakes, Smiths, McNeils and Curtis'. Upon his return from the War of 1812, Mandeville built a grist mill on his property. At this time the entire region along Lake Erie had suffered from devastating American raids and few mills remained in this area (Mika 1977). This hardship did not last long as Yarmouth grew to be the most populous township of the Talbot settlement by the 1840s, with 24,000 acres under cultivation, five grist mills, and ten sawmills (Ermatinger 1904).

Upper Canada's first medical school was built in St. Thomas in 1824 by Dr. Charles Duncombe which grew to be quite prestigious. By 1853, St. Thomas was incorporated as a village with a population of 1,300 with the town hall having been built around the same time by the new village council was established. The first county courthouse was opened by Judge David Hughes the same year the village was incorporated. Further growth was sporadic until the 1870s when the Canada Southern and Great Western Rail companies built their lines through St. Thomas (Mika 1977). In 1885, the railway in St. Thomas became internationally notorious when the Barnum circus's most famous elephant, Dumbo, was being transferred back onto the train where it was struck by a freight train and killed (Wilson 2002).

Along Edgeware Road a small community grew and included Richard Gilbert of Devonshire, along with his wife, five sons, and three adult friends (Ermatinger 1904). Gilbert and several future prominent settler families arrived in the United States on the ship *Calypso*, with the group landing along the east coast and travelling to Buffalo, New York. There the group took refuge in a tavern whose keeper, a man named Miller, convinced the Englishmen to settle in Canada in order to continue to be "under the British Flag". The group then took the lake schooner *Niagara* under a Captain Scott and landed at Port Stanley. Gilbert and his cohort were disappointed to be met with a measly settlement of one warehouse and felt as though they had been sold a lie by the tavern keeper. However, their contract with Captain Scott meant they had to disembark regardless of their ire. Gilbert and another man named George Westlake took the blazed trail from Port Stanley to Port Talbot to meet with Colonel Talbot from whom Gilbert purchased land on 23 September 1831. Gilbert was given Lots 12 and 13 South of Edgeware Road and Lot 12 North of Edgware Road. The rest of the Gilbert family travelled the perilous route from Port Stanley to their new home via wagon. The family erected a rough log hut as temporary shelter before Gilbert purchased another lot to add to his 300 acres (NYWI 1951).

In 1832 the Crown patent for Lot 8, Concession 1, was granted to Edward Peverency. In 1840, Peverency sold the lot to Richard Gilbert. The 1861 census lists Marwood Gilbert, Richard's youngest son, as inhabiting a single-story frame house. It is not clear when Marwood Gilbert was granted the land,

however, by 1868 Marwood is listed on the land registry as leasing part of the lot to Effie Gilbert, his mother. The 1864 Tremaine Map of Yarmouth township depicts an M.A. Gilbert on the lot which is likely Marwood (Map 3; Image 1). An 1872 directory of Yarmouth township confirms that Marwood was a freeholder on Lot 8 (ASI 1993).

Marwood Gilbert was a man of some notoriety. In 1859 he married Fanny Bluett who gave birth to his only child, a daughter. In 1859, on the day of her wedding, Marwood eloped with a female relative of Fanny's before being compelled to return the young woman to her household. Desperate to be reunited, Marwood showed up at the Bluett residence where he was shot by his brother-in-law William in the abdomen. Marwood was then returned to the Gilbert home before he managed to make a complete recovery (Richmond Dispatch 1859). Despite this indiscretion he remained married to Fanny until her death in 1871. Twelve years later, Marwood remarried a young woman named Lucy Bluett, likely a relative of Fanny. It is possible that this was the young woman with whom he had eloped with in the late 1850s as Lucy would have been 13 at the time. The 1883 voter registration list for Elgin County lists Marwood as a resident of Port Stanley, and by 1891 he and his wife settled in Kent, Ontario. Lucy does not give Marwood any further children and he dies in 1898.

By 1877 the Page & Co Map of Yarmouth County lists R. Gilbert as a resident of Lot 8 with a homestead directly west of the BESS Study Area (Map 3). This R. Gilbert is likely the son of one of Marwood's brothers as he never had a male heir. In 1886, Richard Gilbert sold the whole lot to Thomas Penhale. The Penhale family arrived in St Thomas on the same boat as Richard Gilbert Sr. but had made their way to the city after the Gilberts had established themselves on Edgware Road (NYWI 1951). The 1861 census lists Thomas as the resident of a one and a half story brick house on Lot 10, Range 1 South of Edgeware Road. In 1887 Thomas sold the lot to Matthew Penhale. The 1861 census lists Matthew as the resident of a single-story frame house on Lot 15, Concession 7. It is likely the Penhale's never occupied Lot 8 due to their recorded occupation of houses elsewhere in the township.

In 1909 Matthew Penhale sold the lot to Edwin Smith Hokum, who then immediately sold it to George W. Dennis in 1910. That same year Dennis sold a portion of the lot to the Canadian Pacific Railway which serves as the western border of the BESS Study Area. A 1913 topographic map of St. Thomas depicts a building in the north end of the BESS Study Area. The 1921 census confirms Dennis is the head of a household located on Lot 7 - 8 North of Edgeware Road, with his residence given the number 14. By 1929 the structure is no longer present (Map 4). George Dennis appears to have passed by the 1940s as the property history lists George as deeding the property to members of the Dennis family.

An aerial image taken in 1945 depicts the BESS Study Area as an empty agricultural field (Map 5). By 1978 the BESS Study Area remained largely the same, however development has begun in the surrounding area (Map 5).

3.0 Archaeological Context

3.1 Study Area Environment and Landscape

The BESS Study Area consists of an active agricultural field that is bordered by a railway to the west and north, Highbury Avenue South to the east and a hydro station to the south (Map 2). The northern shore of Lake Erie is located 14 km to the south and Kettle Creek is located 1.5 km to the west of the BESS Study Area. The overall topography is flat

The BESS Study Area is located in the Mount Elgin Ridges physiographic region which is a succession of ridges and vales which lie between the Thames Valley and Norfolk Sand Plain. The general elevation of this region rises from 800 m above sea level (asl) in the lowlands to 1,000 m asl in the northeast which generally gives the area a relief of 100 m and slopes greater than 10%. The two major landforms of this region provide contrasting soils; the ridges are well drained and comprised of clay till while the lowlands are imperfect to poorly drained and comprised of silt and sand. The Kettle, Catfish, and Otter Creeks drain the Westminster and St. Thomas moraines into Lake Erie. There are numerous streams within the basins with no drainage outlets which form a series of small kettles such as Mud Lake, and wide swampy hollows (Chapman and Putnam 1984). The BESS Study Area is comprised of a Till Moraine physiographic landform (Map 6).

The surficial geology of the BESS Study Area is entirely comprised of Port Stanley Till which is a silty clay till. A series of bluffs are located north and southeast of the BESS Study Area, which generally run southwest to northeast (Map 7). Soils within the BESS Study Area consist of the Gobles loamy phase which is an imperfectly drained soil (Map 8). A small tributary of Kettle Creek drains the southwest corner of the BESS Study Area with the creek itself located 1.5 km to the west. Kettle Creek originates at Lake Whitacker and drains into Lake Erie at Port Stanley (KCCA 2024).

The BESS Study Area is located within the Niagara subregion of the Deciduous Forest Region. Prior to European agricultural practices and the removal of woodlots for agricultural purposes, the forest cover would have consisted of broadleaved trees such as; beech, sugar maple, basswood, red maple, red and white oak, bur oak, black walnut, sycamore, swamp white oak, shagbark hickory, bitternut and butternut hickory, rock elm, silver maple, and blue beech (Rowe 1972).

3.2 Previously Completed Archaeological Assessments

A review of the MCM (2024) database and accessible reports was undertaken on 6 January 2025 and identified 5 previously completed archaeological assessments that encompassed the Stage 1 and 2 BESS Study Area and adjacent 50 m radius (Map 9).

Table 2: Previously Completed Archaeological Assessments within 50 m of Project Area

Report Title	MCM PIF Number	Report Date	Results/Recommendations	Location
Stage 1 and 2 Archaeological Assessment, Dalewood Meadows Subdivision, City of St. Thomas, Elgin County	1993-016	July 1993	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Overlaps current BESS Study Area
Stage 1 Archaeological Assessment, Proposed Development, Elgin County	P324-0708-2021	March 2022	Stage 2 archaeological assessment recommended for part of the study area	Outside current BESS Study Area
Stage 1 and 2 Archaeological Assessment, Proposed Industrial Development, City of St. Thomas, Elgin County	P324-0737-2022	November 2022	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Outside current BESS Study Area
Stage 1 Archaeological Assessment, Proposed Road Widening, City of St. Thomas, Elgin County	P243-0506-2023	September 2023	Stage 2 archaeological assessment recommended for part of the study area	Overlaps current BESS Study Area
Stage 1 and 2 Archaeological Assessment, Proposed Centennial Transformer Station	P1189-0041-2023	February 2024	No additional archaeological assessment recommended	Outside current BESS Study Area

The following subsections provide relevant information for the assessments that were completed within the limits of the BESS Study Area.

Stage 1 and 2 Archaeological Assessment, Dalewood Meadows Subdivision (PIF Number 1993-016)

A Stage 1 and 2 archaeological assessment was completed for the original property development boundary in 1993 (ASI 1993). This assessment was completed before the publication of *The Standards and Guidelines for Consulting Archaeologists* in 2011.

The Stage 2 field assessment included pedestrian survey of ploughed fields, and test pit survey at 5 m intervals. Twenty sites were identified during the Stage 2 assessment, 3 of which were historic, while the remaining 17 were pre-contact. Only 5 of the sites recorded met the MCM criteria at the time for possessing Cultural Heritage Value or Interest (CHVI) and were designated as Borden Numbers AeHg-61, AeHg-62, AeHg-63, AeHg-63, AeHg-64 and AeHg-65 respectively.

The Stage 1 and 2 archaeological assessments provided the following recommendations:

1) *Find Locations 1-1,2-2,2-3,2-4,2-9,2-10,2-15,2-19,2-20,2-21,2-23, 3-2, 4-1, 5-1, and 5-2 are of insufficient cultural heritage value to warrant further investigation.*

2) *Find Location 1-4 (AeHg-61) is of sufficient cultural heritage value to warrant a Stage 3 archaeological assessment as per MTCS Standards and Guidelines Section 2.2.1c, in order to verify the date of occupation and size of artifact scatter.*
3) *Find Location 2-13 (AeHg-62), 2-14 (AeHg-63), 2-17 (AeHg-64), and 3-1 (AeHg-25) were registered as they consisted of one single diagnostic artifact which was determined to be reflective of the extensive use of the area, despite later disturbance to the area.*
4) *The property, with the exception of AeHg-61 in the southeast corner of the study area should be released of any further heritage concerns.*

In addition to AeHg-61, ASI identified Location 1-1 which was mapped as being located within the northern corner of the current BESS Study Area. Based on the ASI Stage 2 assessment, Location 1-1 was interpreted to be a historic scatter dating from the late 19th century to possibly the mid 20th century. Due to late date of the artifact assemblage represented at Location 1-1, ASI recommended no further work.

Stage 2 Archaeological Assessment, Proposed Road Widening, City of St. Thomas, Elgin County (PIF Number P243-0506-2023)

A Stage 1 archaeological assessment was conducted within Lots 8 to 11 Concession 11, Lots 6 to 8 and 10 Range 1 South of Edgeware Road, and Lots 7 to 9 Range 1 North of Edgeware Road as part of a Schedule C Municipal Class Environmental for the purposes of Road Widening. The assessment area was found to retain potential with the exception of portions which had been previously mitigated or were part of established roadway ROWs. The assessment, however, identified the BESS Study Area as having been previously assessed and cleared of any further archaeological assessments, despite the ASI report which identified site AeHg-61 as requiring further work.

The Stage 2 archaeological assessment provided the following recommendations:

1) *A Stage 2 archaeological assessment was recommended for portions of the study area which should be completed by means of shovel test pit and pedestrian survey.*

3.2 Known Archaeological Sites and Resources Within One Kilometre of BESS Study Area

The primary source of information regarding previously registered archaeological sites within the Province of Ontario is the MCM archaeological sites database which designates archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 km east to west and approximately 18.5 km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found.

A search of the MCM online database for registered archaeological sites was completed on 6 January 2025 and indicated sixteen registered archaeological sites within 1 km of the BESS Study Area (MCM 2024). An overview of the known archaeological sites and resources located within 1 km of the BESS Study Area is provided in Table 3. Blank entries within the table indicate the relevant information was not included with the corresponding entry in the MCM database or available from accessible reports.

Table 3: Registered Archaeological Sites within 1 km of the Study Area BESS Study Area

Borden Number	PIF(s) Associated with Site	Spatial Relationship to Study Area	Temporal Context	Cultural Context	Inferred Site Type	Development Review Status
AeHg-61	1993-016	Within project area	Post-Contact	Euro-Canadian	Scatter	Further CHVI
AeHg-62	1993-016	450 m west	Late Woodland	Indigenous	Findspot	No Further CHVI
AeHg-63	1993-016	250 m west	Late Archaic	Indigenous	Findspot	No Further CHVI
AeHg-64	1993-016	470 m west	Early Woodland	Indigenous	Findspot	No Further CHVI
AeHg-65	1993-016	990 m west	Late Woodland	Indigenous	Findspot	No Further CHVI
AeHg-69	1998-010	975 m northwest	Middle Woodland	Indigenous	Findspot	No Further CHVI
AeHg-118	P324-0737-2022	290 m east	Middle Archaic	Indigenous	Findspot	No Further CHVI
AeHg-119	P324-0737-2022; P324-0757-2022	815 m southeast	Early Archaic	Indigenous	Findspot	No Further CHVI
AeHg-122	P324-0761-2022	955 m east	Pre-Contact; Post-Contact	Indigenous; Euro-Canadian	Findspot; Farmstead	Further CHVI
AeHg-124	P324-0761-2022; P324-0772-2022; P324-0791-2022	260 m east	Post-Contact	Euro-Canadian	Farmstead	No Further CHVI
AeHg-136	P450-0112-2023	833 m south				

AeHg-61 represents the only registered archaeological site situated within 100 m of the current BESS Study Area. This site was originally discovered during the Stage 1 and 2 archaeological assessments for the Dalewood Meadows Subdivision (ASI 1993) and was not further investigated. The site has been

interpreted to represent an occupation dating to the 1820s – 1850s based on historical research and the artifact assemblage recovered during the Stage 2 field investigations completed in 1993.

3.3 Assessing Archaeological Potential

Several factors are employed when assessing archaeological potential within a particular area. In addition to the proximity to known archaeological sites, factors for determining archaeological potential for Indigenous and Euro-Canadian historical materials include watershed area (primary and secondary watercourses), distance from water, drainage patterns, identification of historical water sources (e.g. beach ridges, river beds, relic creeks, ancient shorelines, etc.), elevated topography, identification of significant physiological and geological features (e.g. knolls, drumlins, eskers, plateaus, etc.), soil geomorphology, distinctive land formations (e.g. mounds, caverns, waterfalls, peninsulas, etc.), known burials sites and cemeteries, biological features (e.g. distribution of food and animal resources before European colonization), features identifying early Euro-Canadian settlements (e.g. monuments, structures, etc.), historical transportation routes (e.g. historical roads, trails, portages, rail corridors, etc.) and properties designated and/or listed under the Ontario Heritage Act. Local knowledge from Indigenous communities and heritage organizations, as well as consultation of available historical and archaeological literature and cartographic resources, aids in the identification of features denoting archaeological potential.

These criteria are based on the MCM's *Standards and Guidelines for Consultant Archaeologists* (2011) and were used to assess the potential for archaeological resources within the Study Area.

The BESS Study Area landscape is considered to possess high potential for cultural materials as it is situated adjacent to a tributary of Kettle Creek as well as bordered by Highbury Avenue South which is a historic transportation corridor. Additionally, within the BESS Study Area is registered archaeological site AeHg-61. When combined, these criteria indicate that the BESS Study Area has high archaeological potential.

In recommending a Stage 2 property survey based on determining archaeological potential for a Study Area, the MCM stipulates that:

- no areas within 300 metres of a previously identified archaeological site; water sources; areas of early Euro-Canadian Settlement; or locations identified through local knowledge or informants can be recommended for exemption from further assessment
- no areas within 100 metres of early transportation routes can be recommended for exemption from further assessment
- no areas within the property containing an elevated topography; pockets of well-drained sandy soil; distinctive land formations; or resource areas can be recommended for exemption from further assessment

Based on the MCM attributes for determining archaeological potential, the entire BESS Study Area is considered to possess the potential for archaeological resources due to location in close proximity to a tributary of Kettle Creek as well as being bordered by Highbury Avenue South which is a historic corridor. Additionally, within the BESS Study Area is registered archaeological site AeHg-61.

4.0 Stage 2 Record of Finds

Due to the BESS Study Area retaining archaeological potential and cultural heritage value or interest (CHVI), a Stage 2 AA was undertaken to identify archaeological resources determined to possess CHVI within the BESS Study Area boundaries that may be impacted by the proposed development project.

An inventory of the documentary record generated from the Stage 2 fieldwork is presented in Table 4. The results of the Stage 2 fieldwork are presented in Maps SD-1 and SD-2 and described below.

Table 4: Inventory of Documentary Record

Document Type	Current Location of Document	Additional Comments
Field Notes	Maintained by Project Field Director	Original Field Notebook and Digital Copy. 2 pages.
Maps provided by Client	Maintained by Project Field Director	Stored in Project SharePoint
Digital Photographs	Maintained by Project Field Director	24 photos. Stored in Project SharePoint
GPS Data	Maintained by Project Field Director	Stored in Project SharePoint

4.1 Stage 2 Field Methodology

The Stage 2 archaeological assessment was completed between 23 and 24 September 2024 under PIF Number P311-0354-2024 issued to Bradley Drouin, MA (P311). Gabryell Kurtzrock Belyea, M.A. (R1195) served as field director for the Stage 2 fieldwork. All Stage 2 archaeological work was conducted in accordance with the MCM's *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) Section 2.1 Standards 2a, 3 and 6, and Sections 2.1.1 and 2.1.2.

The weather both days was cloudy with a high of 31° C. At no time was the weather or lighting conditions detrimental to the recognition or identification of archaeological resources. Permission to access the BESS Study Area was provided by DNV on behalf of the proponent, with no restrictions or limitations. The results of the Stage 2 assessment and the locations of all photos included in this report are shown on Maps 10.

Approximately 1.5 ha (86.5%) of the BESS Study Area was pedestrian surveyed at 5 m intervals, 0.14 ha (8.2%) was test pit surveyed at 5 m intervals, 0.03 ha (1.5%) consisted of a disturbed road ditch, while the remaining 0.13 ha (7.2%) was photo-documented but not test pit surveyed due to permanently wet conditions. Prior to undertaking the pedestrian survey, the field had been ploughed and allowed to weather by one significant rain fall event with surface visibility approaching 100%. The pedestrian survey was initially completed at 5 m intervals. When archaeological resources were identified, the survey transect intervals were reduced to 1 m over a minimum of a 20 m radius or until the limits of the scatter were identified. Each controlled surface pickup (CSP) location was flagged using a pin flag for recording and collecting. The portions of the BESS Study Area which could not be ploughed for pedestrian survey were assessed by means of hand excavated test pits at 5 m intervals, with each test pit dug at least 30 cm in diameter and at least 5 cm into sterile subsoil. The sediments from each test pit were screened through 6 mm mesh and backfilled upon completion. Each test pit was examined for stratigraphy, cultural

features and evidence of fill or previous disturbances. In order to ensure the entire Stage 2 BESS Study Area was fully investigated, the BESS Study Area was uploaded to a Samsung Tablet with QField GIS software to accurately locate the boundaries of the BESS Study Area while in the field. All photo locations were recorded using the tablet.

As per Section 2.2.2 of *The Archaeology of Rural Historic Farmsteads: A Draft Technical Bulletin for Consultant Archaeologists in Ontario* (MCM 2014), and Section 3.2.1 of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011), a detailed controlled surface pickup (CSP) was completed where all artifacts visible on the surface were collected. The CSP was completed using a Trimble DA2 GNSS receiver with the Catalyst real-time kinematic (RTK) network positioning subscription. The high accuracy GPS was mounted on a 2 m pole and provided sub-decimetre horizontal accuracy. Each find location or grouping of finds within a 1 m radius was given a unique identifier – SF##. Appendix B provides the full artifact catalogue with corresponding catalogue numbers and CSP (SF) numbers.

A field log was maintained for the duration of the Stage 2 field investigation detailing pertinent information and digital photographs were taken of the tested areas, general field conditions, specific representative test pits and general landscape and topography

4.2 Stage 2 Results

The southeast corner of the BESS Study Area consisted of a largely open and overgrown area that was test pit surveyed at 5 m intervals (Image 2) and is delineated on Maps 10, SD-1 and SD-2. The soil stratigraphy in this area consisted of 10 to 25 cm of brown sandy loam topsoil with rootlet inclusions, over 5 to 10 cm of orange brown silty sand subsoil (Image 3). The other area assessed by test pit survey at 5 m intervals was located in the northern corner of the BESS Study Area (Image 4; Maps 10 and SD-2). Natural soil stratigraphy in this area consisted of 45 cm of dark brown loam topsoil over yellow clay mottled with orange brown sand subsoil. The eastern border of this area consisted of a road ditch associated with Highbury Avenue South (Image 5). Test pits excavated along the edge of the ditch consisted of 120 cm of compact yellow brown clay fill with clay and asphalt inclusions (Image 6). The southwest corner of the BESS Study Area consisted of a wetland at the terminus of a tributary of Kettle Creek (Image 7; Maps 10 and SD-1).

The remaining areas which retained archaeological potential were assessed by pedestrian survey at 5 m intervals (Images 8 to 10; Maps 10, SD-1 and SD-2). Surface visibility during the pedestrian survey was nearing 100%. A total of 992 artifacts were recovered from 193 separate controlled surface find (SF) locations during the Stage 2 pedestrian survey. No artifacts were recovered during the test pit survey.

Two previously registered sites were re-identified as a result of the pedestrian survey: AeHg-61 and AeHg-142 (formerly Location 1-1; Map SD-1 and SD-2, respectively) and one newly identified multi-component site was identified: AeHg-150 (Map SD-1). Additionally, two single component historic period loci were identified (Loci-01 and -02) and one multi-component loci (L-03) was identified during the Stage 2. The overall distribution of historic artifacts is such that there are two larger concentrations corresponding to AeHG-61 and AeHg-142 with ancillary surface find locations between the two sites and within the remainder of the BESS Study Area that have been grouped together as per Section 2.2, Standard 1c of the *Standards and Guidelines for Consultant* Archaeologists and Section 2.1 of the MCM *The Archaeology of Rural Historical Farmsteads* (Maps SD-1 an SD-2).

In addition to the historic artifacts, a total of 16 Pre-Contact Indigenous artifacts were identified across the

BESS Study Area with only one diagnostic tool: a Late Woodland triangular Projectile Point made of Onondaga chert (Map SD-3).

4.2.1 Summary of Pre-Contact Indigenous Artifacts

A total of 16 pre-contact Indigenous lithic artifacts were recovered across the entire BESS Study Area. Table 5 provides a summary of the lithic artifacts recovered. Approximately 88% of the assemblage is composed of flaked debitage with over 50% consisting of tertiary flakes (both complete and incomplete) (Image 11). One possible spoke shave was recovered as was one nearly complete late Woodland projectile point (Image 12). A possible projectile point was also collected while undertaking the CSP due to its visual similarity to a ground stone stemmed projectile point. The dorsal surface is generally smooth but exhibits no evidence of grinding which usually presents itself as very fine linear groove marks. Additionally, the ventral surface shows no evidence of modification, either in the form of griding or flaking. Similarly, the lateral margins are lacking evidence of modification. As a result of the lack of identifiable attributes, this object was not recorded as an artifact but was photo documented and included in this report as the Indigenous Community members on site felt that it was or could be an artifact.

Table 5: Pre-contact Indigenous Artifact Summary

Lithic Classification	Frequency	% of Assemblage
flake: tertiary	8	50%
flake: secondary	3	19%
flake: indeterminate	2	13%
flake: primary	1	6%
point: woodland	1	6%
tool: spoke shave	1	6%
Total	**16**	**100%**

Table 6 summarizes the inferred lithic source material for each of the 16 recovered artifacts. Due to the small size of the lithic debitage and general variability within the source material with respect to colour and mottling, the source material is inferred based on the existing reference collection and experience. Regardless, each lithic artifact is fashioned from a fine grain silicious raw stone such as chert.

Table 6: Lithic Material Type

Lithic Classification	Frequency	% of Assemblage
chert: Haldimand	6	38%
chert: indeterminate	6	38%
chert: Onondaga	3	19%

chert: Ancaster	1	6%
Total	**16**	100%

The distribution of the lithic artifacts across the site is very diffuse and spread across an area of approximately 70 m east-west and 120 m north-south with no identifiable concentrations. There is a small cluster of four flakes within an area measuring approximately 8 m east-west by 7 m north-south within AeHg-61 site limits, with the six lithic artifacts within AeHg-142. The projectile point (SF#229) was found in isolation from other lithic material with the closest flake located 25 m to the southwest. SF#229 has been registered as AeHg-150. Similarly, the spokeshave (SF#56) is located 10 m northwest of the closest flake (Map SD-3). The remaining two flakes (SF#38 and SF#93) were found in isolation and not associated with a site or loci (Map SD-1)

4.2.2 Summary of Historic Artifact Analysis

A total of 976 historic Euro-Canadian artifacts were recovered from 180 individual surface find locations. Table 7 provides an overview of the historic artifacts classified by material, with over half the assemblage composed of glass (52%) while the second highest class of artifacts is ceramic at 42%. Only a small percentage (5%) is represented by other material types such as metal, fauna, coal, synthetic, clinker, composite and stone artifacts.

Table 7: Historic Artifacts by Material

Material	No. of Artifacts	% of Assemblage
glass	519	52%
ceramic	407	41%
metal	18	2%
fauna	14	1%
coal	9	1%
synthetic	4	< 1%
clinker	3	< 1%
composite	1	< 1%
stone	1	<1%
Grand Total	**976**	**100**

Assessment of the Stage 2 historic assemblage functional components indicates the majority of the artifacts were food/beverage related (48%) while the next highest class is indeterminate at 31% (Table 8). Of the 303 indeterminate artifacts, 256 are holloware glass consisting primarily of clear/colourless glass (n=166), brown (26), aqua (25), and manganese (19), with the remaining being green, cobalt blue, black, white, or light blue.

Of the 122 structural artifacts, 101 are window pane shards, six brick fragments and the remainder consisted of drainage tile, electrical knobs and one rectangular machine cut nail.

Table 8: Historic Artifacts by Functional Class

Function	No. of Artifacts	% of Assemblage
food/beverage	478	48%
indeterminate	303	31%
structural	122	12%
personal/societal	35	4%
furnishing	17	2%
tools/equipment	9	1%
fauna: indeterminate	7	1%
fuel	3	< 1%
transportation	1	< 1%
geological	1	< 1%
Grand Total	**976**	**100**

However, reviewing the artifacts as a single assemblage does not accurately represent the distribution and uniqueness of each registered archaeological site and loci. As such, the following sections present more detailed findings related to each registered site and Loci.

4.2.2.1 – AeHg-61 Summary

As noted in Section 4.2, AeHg-61 was re-located and documented during the pedestrian survey of the BESS Study Area between 23 and 24 September 2024 (Map SD-1). All artifacts were collected and recorded with spatial coordinates with sub-decimetre accuracy using a high accuracy RTK GPS unit. The artifact distribution associated with AeHg-61 consisted of a distinct concentration composed of 55 historic artifacts from 28 individual surface find locations. The AeHg-61 artifact distribution encompasses an area measuring approximately 70 m north-south by 40 m east-west.

A total of four pre-contact Indigenous Period artifacts were recovered within the limits of AeHg-61. Spatially they are dispersed over an area of approximately 50 m northeast-southwest and 10 m northwest-southeast (SD-3). Two tertiary flakes, one primary flake and spoke shave were recovered (SD-3).

The recovered historic artifacts are classified within two material classes as outlined in Table 9: ceramic and glass. From a functional perspective, 75% (n=37) of the assemblage consisted of ceramic tableware, storage container (n=2), health and hygiene (n=1) and an indeterminate fragment (n=1) (Table 10). The

glass assemblage can be further subdivided into beverage containers (n=8), window pane (n=5) and one inferred lamp chimney fragment (n=1). Besides the window pane, no other structural or building related artifacts were recovered.

Table 9: AeHg-61 Artifacts by Material

Material	Frequency	% of Assemblage
Ceramic	41	75%
Glass	14	25%
Total	**55**	**100%**

Table 10: AeHg-61 Artifacts by Material and Function 2

Artifact Description	Frequency	% of Assemblage
Ceramic	**41**	
tableware	37	68%
storage container	1	2%
Health and hygiene	1	2%
indeterminate	1	2%
Glass	**14**	
beverage container	8	15%
building component: window pane	5	9%
lighting	1	2%
Total	**55**	**100%**

All ceramic artifacts recovered from AeHg-61 comprised refined white earthenware (RWE) (Map SD-7). In general, RWE first went into production in 1805 but mostly became available in Canada by 1830 (Miller 2000). Objects made from RWE are still be produced at present.

As such, RWE on its own is not a good indicator for dating a site. Ceramic decorations provide a diagnostic indicator and approximate date range for occupation of a site. Specific to AeHg-61, four main decorative styles were identified: plain or clear/colourless (n=16), transfer printed (n=12), hand painted (n=6), hand painted edgeware (n=2) and one example of industrial slip (Images 11 and 12) (Map SD-8). Table 11 provides date ranges for the various decoration types recovered from AeHg-61.

Table 11: Tableware decoration on Refined White Earthenware

Artifact Description	Frequency	% of Assemblage	Date Range	Source
plain	**16**	44%		
clear/colourless	16		1805 – present, with availability by 1830	Miller 2000
transfer printed	**12**	32%		
blue	9		1805 – present, with peak production between 1810s to 1840s	MACL 2002
brown	3		1818 to 1869, with peak production 1829 - 1843	MACL 2002
hand painted	**6**	15%		
late palette	3=4		1830s to 1870s	Miller 1991
blue: dark	1		1815 to 1830s	Samford 2014
orange/brown	1		1795 to 1820s	Miller 1991
edge decorated: blue	**1**	3%		
impressed curved lines/scalloped	1		Production range 1795 to 1845 for curved lines; 1800 – 1850 for blue edge	Miller 1987 Jouppien 1980
edge decorated: green	**1**	3%		
impressed curved lines/scalloped	1		Production range 1795 to 1845 for curved lines; 1800 – 1836 for green edge	Miller 1987 Kenyon 1991
industrial slip	**1**	3%		
banded			Common after 1840s and into 20th century	Miller 1991
Total	**37**	**100%**		

The glass assemblage consisted of either window pane or cylindrical holloware, inferred to represent bottles (Table 12). There are no firm dates for the production of dark olive-green bottle glass but this artifact class tends to be associated with later 18th to 19th century alcohol bottles (Fike 1987). The main diagnostic artifact within the glass assemblage is the single example of the lime green soda bottle. These typically represent 20th century production. However, given the overall date range of the artifacts from

AeHg-61, this isolated 20th century artifact should be considered as a non-significant outlier.

Table 12: Glass Artifacts by Object and Attribute

Artifact Description	Frequency	% of Assemblage	Date Range	Source
window pane				
aqua: light	5	36%	Non-diagnostic – broad date range	
bottle: wine				
green: dark olive	4	29%	Primarily 18th and 19th century	Fike 1987
bottle: indeterminate				
aqua: light	1	7%		
green: dark	2	14%	Primarily 18th and 19th century	Fike 1987
lamp chimney				
clear/colourless	1	7%	18th and 19th century	Fike 1987
bottle: soda				
green: lime	1	7%	almost exclusively 20th century	Lindsey 2010
Total	**14**	**~100%**		

Overall, the artifact assemblage from AeHg-61 represents material reflecting land use from the early to mid 19th century with a single 20th century outlier which should not be considered significant.

4.2.2.2 – AeHg-142 Summary

As noted in Section 4.2, AeHg-142 was identified and recorded during the pedestrian survey of the BESS Study Area between 23 and 24 September 2024 (Maps 10 and SD-2). All artifacts were collected and recorded with spatial coordinates with sub-decimetre accuracy using a high accuracy RTK GPS unit.

Six pre-contact Indigenous period flakes were recovered from the limits of AeHg-142 (Map SD-3). Of the six flakes, four were made from Haldimand chert and two from an indeterminate chert material. Of the Haldimand flakes, two were secondary flakes, one tertiary and one indeterminate flake. Of the flakes made from the indeterminate chert, one flake was classified as a secondary flake while the other lacked the attributes to accurately catalogue the stage of reduction. Spatially, the flakes were generally clustered within the centre of AeHg-142 (Map SD-3) in an area measuring approximately 12 m northeast-southwest by 8 m northwest-southeast.

The historic artifact distribution associated with AeHg-142 consisted of 877 artifacts from 122 individual surface find locations. The AeHg-142 artifact distribution encompasses and area measuring

approximately 75 m north-south by 50 m east-west.

The recovered artifacts reflect eight material classes as outlined in Table 13. Two material types dominate the historic assemblage: glass at 55% (n=484) and ceramic at 39% (n=346). The remainder of the assemblage consisted of metal (2%), faunal remains (1%), coal (1%), and synthetic, clinker and composite artifacts all representing less than 1%.

Table 13: AeHg-142 Artifacts by Material

Material	Frequency	% of Assemblage
glass	484	55%
ceramic	346	39%
metal	16	2%
fauna	14	1%
coal	9	1%
synthetic	4	< 1%
clinker	3	< 1%
composite	1	< 1%
Total	**877**	**100**

Table 14 provides the distribution of the AeHg-142 historic assemblage by functional class, with the assemblage primarily consisting of glass and ceramic food and beverage related artifacts (45%, n=398). The indeterminate class consists primarily of glass holloware (n=168) with 29 ceramic artifacts, in addition to minimal numbers of other artifact classes. The structural elements are primarily window glass (n=96) with the remaining composed of various other items discussed in more detail further below.

Table 14: AeHg-142 Artifacts by Functional Class and material

Functional Class	Frequency	% of Assemblage
food/beverage	398	45%
indeterminate	295	34%
structural	116	13%
personal/societal	33	4%
furnishing	16	2%
tools/equipment	8	1%

fauna: indeterminate	7	1%
fuel	3	0%
transportation	1	0%
Total	**877**	**100%**

Table 15 summarizes key diagnostic elements of the glass assemblage. Specific to manufacturing, 74 examples of machine-made glass (8%) were recovered while 34 examples of moulded contacted glass (4%) were recovered (Map SD-9). Moulded contact glass was one of the first commercial manufacturing techniques which began in 18th century. This was then replaced by machine made glass starting around 1881 (Jones & Sullivan 1989). With the advent of machine-made glass also came improvements in glass clarity, with clear and colourless glass beginning to be the main glass type manufactured and used within late 19th to 20th century households. Two glass artifacts with Owens suction scars were recovered. First patented by Michael Owens in 1903, Owens machine-made glass is another manufacturing technique which was developed to improve the quality and efficiency of glass production. Owens made glass was so successful that by 1917 half the bottles in the US were made by Owen's machines (Sullivan & Jones 1989).

Another diagnostic attribute for dating sites is the colour of glass (Image 18). Table 15 summarizes the colour of representative glass artifacts from the AeHg-142 assemblage. These were selected as they represent the highest frequency of objects recovered and/or retained a date range that provides meaningful insight into the inferred occupation of the area. Clear/colourless glass represents 22% of the overall assemblage and 40% of the glass assemblage. As indicated above, clear/colourless glass was generally used by 1875 but reached it peak after 1900 when machine-glass became more prevalent and available (Fike 1987). Amber glass represents approximately 7% of the glass assemblage. Although first available in the 1860s, amber glass manufacturing peaked in the early to mid 20th century when it was used for beer bottles (SHA 2024). Artifacts made from dark olive-green bottle glass tend to be alcohol related with a broad date range through the 19th century within Ontario sites. Manganese or solarized glass represents approximately 4% of the glass assemblage and was primarily used from the 1880s to about 1920 (Lockhart 2006). Lime green and white glass are another key diagnostic artifact with date ranges primarily within the 20th century (Lindsey 2010; Fike 1987). Lime green glass is often associated with soda pop bottles while white glass was first manufactured in 1890 but became more widely used in the early to mid 20th century. The distribution of machine-made glass within the Stage 2 assemblage is provided on Map SD-9.

Bottle finishes are another diagnostic attribute that can aid in dating a site (Image 19). Table 15 provides a summary of the diagnostic glass assemblage including finishes recovered from the AeHg-142 site. Only 28 of the 484 (6%) glass artifacts recovered retained a complete or partial finish. Of those, half (n=14) had a threaded finish which has a patent date of 1920s while the remaining 14 examples of bottle finishes consisted of two-part (n=4) and one-part (n=2), crown (n=2), lug (n=2), patent (n=2), Davis (n=1), and prescription (n=1). These have a broad date range with some examples dating to the 18th and 19th century while others have patent dates in the 20th century (e.g. crown and lug finishes).

Finally, four examples of glass bottles produced by the Dominion Glass Company were recovered (Image 20; Map SD-10). Dominion glass was first produced in 1928 and is a clear indication of occupation within

the 20th century.

Table 15: Diagnostic Glass Artifacts

Artifact	Frequency	% of total Assemblage	Date Range	Source
Glass: Manufacturing Type				
Machine Made	74	8%	Patented in 1881	Jones & Sullivan 1989
Moulded Contact	34	4%	Became more frequently used during the 18th century and generally replaced by machine made containers beginning in 1881	Jones & Sullivan 1989
Machine Made: Owens	2	0%	Patented 1903	Jones & Sullivan 1989
Glass: Colour				
Clear/colourless	191	22%	c. 1875 becomes widely used	Fike 1987
Amber glass	36	4%	1860s becomes widely used	Fike 1987
Dark Olive Green	27	3%	Primarily 19th century	Fike 1987
Manganese	18	2%	1880 – 1920s	Lockhart 2006
Lime green	19	2%	Exclusively 20th century	Lindsey 2010
White	6	1%	In general use between 1890s and 1960s	Fike 1987
Glass: Finishes				
finish: threaded	14	2%	1920s – present	Lindsey 2010
finish: 2 part	4	<1 %	1750 – 1880	Jones & Sullivan 1989
finish: 1 part	2	<1 %	1870 - 1920	Jones & Sullivan 1989
finish: crown	2	<1 %	1910s – present	Jones & Sullivan 1989
finish: lug	2	<1 %	1906 – 1930s	Lindsey 2010
finish: patent	2	<1 %	Pre-1870s	Lindsey 2010
finish: Davis type	1	<1 %	Late 19th to early 20th century	Jones & Sullivan 1989
finish: prescription	1	<1 %	Pre-1870s	Lindsey 2010
Dominion Glass	4	<1 %	Post 1928	Miller & Jorgenson 1986

Nine ceramic ware types were recovered from the Stage 2 pedestrian survey of AeHg-142. Table 16 provides a summary of the frequency of each ware type recovered and includes date ranges for production and use.

Of the wares recovered, RWE contains the highest frequency representing 38% (n=130) of the ceramic assemblage while vitrified white earthenware contains the second highest frequency (n=84) representing 24% of the assemblage. Refined white earthenware (RWE) was first produced in 1805 but became common after 1820s (Miller 2000). Vitrified white earthenware (VWE) was first produced in the 1840s and increasingly dominated the market by the 1870s but declined by the 1890s (Kenyon 1991). Yelloware began production in the 1840s and reached its peak from 1870s to 1900 (Gallo 1985). Porcelain becomes more available by the late 19th century and peaks in popularity by the early 20th century (Kenyon 1991). Twenty-three examples of porcelain artifacts were recovered while only four examples are represented by yelloware. Twelve sherds of ironstone were recovered and contained embossed motifs comprising moulded wheat pattern (n=4), and grape and floral motifs (n=1, respectively). The remaining six ironstone sherds contained indeterminate motifs. Moulded motifs in ironstone generally have a date range beginning in the mid 19th century and extending into the 20th century (MACL 2002) (Image 15).

Table 16: Ceramic Ware Types

Artifact Description	Frequency	% of Assemblage	Date Range	Source
Refined White Earthenware	130	38%	production in 1805 but mostly became available in Canada by 1830 and available to present	Miller 2000
Vitrified White Earthenware	84	24%	1840 – present	Jouppien 1980
coarse stoneware	50	14%		
coarse earthenware	30	9%		
Porcelain	23	7%	rare on most 19th century Ontario sites, by early 1900s becomes more prevalent	Kenyon 1980
Ironstone	12	3%	1842 – 1930	Miller 2000
fine stoneware	7	2%		
fine earthenware	6	2%		
Yelloware	4	1%	1830 – 1940	Miller 2000
	346	100%		

Decoration styles on ceramic wares can provide greater resolution in terms of dating a site. Table 17 provides a summary of the datable decorations on ceramics recovered from AeHg-142. Both Albany slip and salt glaze represent the ceramic treatment with the highest frequency (n=26 and n=24, respectively)

(Image 17). Vessels made from both were interpreted to be storage containers fashioned from coarse stoneware, which have a broad date range and not ideal for dating a site. Twenty-five examples of transfer printed sherds were also recovered, with varying date ranges but all with a primary manufacturing date around the mid-19th century (Table 17). Transfer print colours include blue, light blue, brown, black, green, red, and flow blue. However, these were recovered in very low frequency or as single objects. The earliest dating decoration style was a sherd of fine stoneware Jackfield pottery. Jackfield glaze has a narrow manufacturing date range starting in 1796 and ending in the 1830s (Jouppien 1980). Conversely, four examples of above glaze decal sherds were also recovered. These were first produced in the 1890s but really only become popular and available in the rural areas in the early part of the 20th century (Huddleson 2013; Miller 2010).

Table 17: Datable Ceramic decorations/treatments

Artifact	Frequency	% of total Assemblage	Date Range	Source
Ceramics				
Albany slip	26	3%	1805 – 1920	Miller 2000
Glaze: salt	24	3%	1796 – 1900	Jouppien 1980
Glaze: Rockingham	3	< 1%	Mid-1800s to 1929	Burke 1991
Glaze: Jackfield	1	< 1%	1796 – 1830	Jouppien 1980
Ironstone Moulded	12	1%	1840s – 1900s	MACL; Sussman 1985; Kenyon 1991;
Decal/lithograpth	4	< 1%	First commercially viable in 1890, becomes popular in early 1900s	Huddleson 2013; Miller 2000
Sponged: blue	2	< 1%	1840 – 1870	Jouppien 1980
Transfer printed: blue	6	1%	1805 – present, with peak production between 1810s to 1840s	MACL 2002
Transfer printed: brown	4	< 1%	1818 to 1869 with peak production 1829 - 1843	MACL 2002
Transfer printed: black	3	< 1%	1785 – 1894, peak between 1825 – 1838	MACL 2002
Transfer printed: light blue	2	< 1%	range of production 1818 to 1867	MACL 2002
Transfer printed: green	1	< 1%	range of production 1829 to 1859, peak between 1832 – 1850	MACL 2002
Transfer printed: green: dark	1	< 1%	range of production 1829 to 1859, peak between 1832 – 1850	MACL 2002

Transfer printed: red	1	< 1%	range of production 1829 to 1880, peak between 1829 - 1842	MACL 2002
Transfer printed: flow blue	7	1%	Peak 1840s – 1870s	Richardson 2013
Hand Painted:	2	< 1%	1830s to 1870s	Miller 1991
Total	**75**	9%		

Building and structural artifacts recovered included window pane shards (n=96), electrical knobs (n=7), brick fragments (n=5), drainage tile (n=2), one rectangular common nail as well as a large diameter washer and indeterminate metal (Image 21). The presence of this class of artifact with low quantities indicates the scatter likely does not represent the remains of a demolished structure but rather discarded debris.

A One Cent penny was also recovered from within the limits of AeHg-142 (Image 23). It is quite worn but the word “ONE” is discernible on the upper portion of the coin with an “..89..” where the date should be, and has been interpreted to date between 1890 and 1899.

Of interest was a composite rubber and nail boot heal with embossed lettering. The heal contained “GOODYEAR MADE IN CANADA 342R 10” (Image 24). Goodyear first produced vulcanized rubber footwear in 1908 (Goodyear 2024).

Fourteen faunal elements were recovered from AeHg-142 (Image 25). Of these, five showed evidence of butchering, one was burnt and one was calcined. The remaining elements were unaltered examples of faunal bone. One pig canine and possible sheep molar were noted while all remaining elements were mammal long bone fragments.

The overall assemblage recovered from AeHg-142 has a date range of between the early 19th century to the early-mid 20th century. However, the artifacts with the earlier 19th century date ranges are present in very low quantities whereas those artifacts which have a date range of popular use in the 20th century are the highest frequency (e.g. clear/colourless glass, threaded finishes, soda lime and brown bottle glass). Overall, the AeHg-142 site assemblage clearly shows the majority of occupation is reflected in the 20th century.

4.2.2.3 – AeHg-150 Summary

AeHg-150 is a multi-component site situated within the southeast corner of the BESS Study Area (Map SD-1 and SD-6) that contained 14 artifacts; 12 historic Euro-Canadian artifacts, one possible pre-contact Indigenous spoke shave and a single Late Woodland Period projectile point (Image 12) (Map SD-3). As noted in Section 4.2.1, this scatter of 14 artifacts was assigned Borden AeHg-150 due to the presence of the single diagnostic pre-Contact projectile point. However, as the remaining 13 historic artifacts were all clustered in close proximity, and as per Section 2.2 Standard 1, all 14 artifacts have been grouped together under a single Borden number.

The historic component of AeHg-150 contains two ceramic sherds, nine glass shards and one indeterminate metal object. Of the ceramic artifacts, one was an Albany slip with salt glaze sherd from a

storage container while the second artifact was a sherd of blue transfer print tableware on RWE (Map SD-7). Albany slip dates to between 1805 and 1920 (Miller 2000) while blue transfer print was also manufactured starting in 1805 and continues through to the present. Of the 9 glass artifacts, seven were from beverage containers: three of which were lime green soda bottle glass with the fourth brown bottle glass (Map SD-7). The remaining three glass artifacts were all indeterminate clear/colourless holloware. Lime green glass is exclusively 20th century (Lindsey 2010) while brown bottle glass becomes widely available starting in the 1860s but extends through the modern period (Fike 1987).

4.2.2.4 – Loci-01 Summary

L-01 is a small and diffuse scatter of six historic period artifacts located just over 20 m to the south of AeHg-61. One indeterminate clear / colourless glass shard was recovered along with five sherds of Albany slip and salt glaze coarse brown stoneware, all likely from the same storage vessel. Albany slip dates to between 1805 and 1920 (Miller 2000).

4.2.2.5 – Loci-02 Summary

L-02 is a small and diffuse scatter of 8 historic period artifacts situated in the center of the BESS Study Area (Maps SD-1 and SD-3). Four glass artifacts, three ceramic and one metal artifact were recovered during the Stage 2 assessment. All eight artifacts were clustered and spatially separated by more than 20 m from the surrounding surface finds and as such were grouped into a single Loci.

The four glass artifacts are black in colour and classified as indeterminate as they lacked any definable attributes. Based on their shared characteristics, they likely all originate from the same object. The three ceramic artifacts were all undecorated tableware. Two of the ceramic artifacts were RWE while the third was VWE. RWE has a broad manufacturing date range which starts in 1805 but becomes popular in Canada in 1805 but extends through to the present (Miller 2000). Similarly, VWE has a manufacturing range of 1840s to the present (Jouppien 1980). As such, neither can be used to provide any reliable dating for the scatter.

4.2.2.6 – Loci-03 Summary

L-03 is a multi-component scatter of 11 artifacts: three pre-contact Indigenous period flakes and nine historic period artifacts spread out over an area of roughly 35 m by 15 m and located on eastern edge of the BESS Study Area (Map SD-1 and SD-3). As identified in Section 4.2.1, three undiagnostic tertiary chert flakes were recovered during the Stage 2. Of the nine remaining historic period artifacts, seven were glass shards while the last artifact was a brick fragment. Of the seven glass artifacts, one fragment represented an embossed brown health and hygiene bottle while the remaining six were catalogued as holloware made from brown glass (n=4), light aqua glass (n=1), and dark olive green (n=1). Of the glass objects recovered, five were machine made (SD-9). Moulded glass tends to be mid-19th century with machine made glass starting to become more prevalent by 1881 (Jones & Sullivan 1989)

4.2.2.7 – Summary of remaining Individual Surface Finds

Falling outside of the three registered sites and the three loci, are four solitary find spots (Map SD-1 and SD-3). SF#38 is a single tertiary flake made from Ancaster chert. SF#89 contain two fragments of undecorated VWE tableware. SF#92 is an undecorated sherd of RWE tableware while the last artifact, SF#93, is an Onondaga chert tertiary flake. These four surface find locations were all situated more than 20 m from one another and outside the limits of the closest registered site or Loci.

5.0 Analysis and Conclusions

The Stage 1 background study completed as part of this combined Stage 1 and 2 archaeological assessment determined that the entire BESS Study Area retained archaeological potential for both pre-contact Indigenous and historic Euro-Canadian resources. Given the results of the Stage 1, it was recommended that a Stage 2 archaeological assessment be completed for the entire BESS Study Area.

From a pre-contact Indigenous land use history, there is archaeological evidence which demonstrates that the general vicinity around the BESS Study Area and St. Thomas has been continuously occupied since at least 9,500 years BP. The continuous land use by Indigenous inhabitants is evidenced by the presence of 37 previously recorded Indigenous archaeological sites located within 5 km of the BESS Study Area.

Pre-Contact Indigenous Component

A total of 16 pre-contact Indigenous lithic artifacts were recovered from the overall BESS Study Area. Of the collected artifacts, 14 consisted of lithic debitage ranging from primary to tertiary flakes. One possible spoke shave was collected in addition to one late Woodland triangular point. In order to determine the exact nature and extent of the observed artifacts, a CSP of all artifacts was complete at the time of the pedestrian survey. The results of which demonstrate that the scatter of 16 pre-contact Indigenous artifacts is quite diffuse and spread out over the majority of the BESS Study Area.

When reviewing the pre-contact Indigenous period artifacts by registered site and loci, Section 2.2 Standard 1a is still not met as none of the locations neither contain 10 or more non-diagnostic artifacts in a 10 m by 10 m area (Standard 1a(3)) nor at least one diagnostic artifact and two or more non-diagnostic artifacts in a 10 m by 10 m area (Standard 1a(a)). As such, the pre-contact Indigenous period components of AeHg-61, AeHg-142, AeHg-150, and L-03 do not retain CHVI and are not recommended for Stage 3 site specific assessment. Additionally, the two isolated flakes (SF#38 and #93) do not represent unique artifact as outlined in Section 2.2, Standards 1 and 2 and as such do not retain CHVI and are not recommended for Stage 3 site-specific assessment.

Historic Euro-Canadian Component

Specific to the current lot and concession, the Crown patent for Lot 8, Concession 1, was granted to Edward Peverency in 1832, who sold it to Marwood Gilbert in 1840. The 1861 census lists Marwood Gilbert living in a single-story frame house, though it is unclear when he settled the land. The 1864 Tremaine Map of Yarmouth Township shows an M.A. Gilbert on the lot, likely Marwood Gilbert, Richard Gilbert youngest son. By 1868, Marwood was leasing part of the lot to his mother, Effie Gilbert. He was listed as a freeholder on Lot 8 in the 1872 directory. Marwood, known for his colorful personal life, married

Fanny Bluett in 1851 and had one daughter. After an infamous elopement with one of Fanny's relatives in 1859, Marwood was shot by his brother-in-law but recovered. He remained married to Fanny until her death in 1871, and later remarried Lucy Bluett, possibly the young woman he had eloped with. Marwood lived in Port Stanley and Kent, Ontario, before his death in 1898.

By 1877, the Page & Co. Map of Yarmouth County listed R. Gilbert as residing on Lot 8, though it is likely he was a relative of Marwood, as Marwood had no male heirs. In 1886, Richard Gilbert sold the lot to Thomas Penhale, whose family retained it until the modern era. The Penhale family arrived in St. Thomas alongside Richard Gilbert Sr., later settling in the city. In 1909, Matthew Penhale sold the lot to Edwin Smith Hokum, who immediately transferred it to George W. Dennis in 1910. That same year, Dennis sold part of the lot to the Canadian Pacific Railway, marking the western boundary of the BESS Study Area. A 1913 topographic map shows a building in the northern part of the area. The 1921 census lists Dennis as head of a household at Lot 7-8 North of Edgeware Road, with his residence numbered 14. By 1929, the structure was no longer present. Dennis appears to have passed away by the 1940s, with the property later deeded to his family members.

The current Stage 2 assessment resulted in the identification and recovery of 992 total artifacts from 193 distinct surface find/CSP locations. Of the total artifact assemblage, 976 artifacts were catalogued as historic Euro-Canadian while the remaining 16 artifacts were catalogued as pre-contact Indigenous flakes and tools. The historic assemblage was primarily concentrated into two distinct loci: a 50 m north-south by 25 m east-west concentration in the southwest corner and a 75 m north-south by 50 m east-west concentration in the north extent of the BESS Study Area. The two concentrations correspond to the two previously documented locations identified by ASI during their Stage 2 archaeological assessment (ASI 1993).

AeHg-61 which was previously registered by ASI as an early to mid-19th century site was re-identified in the southwest corner of the BESS Study Area while Location 1-1, interpreted by ASI in 1993 as a 20th century site, was re-identified in the north end of the BESS Study Area. The 1993 Stage 2 ASI report recommended AeHg-61 for Stage 3 site-specific assessment while Location 1-1 was not recommended for further work.

As outlined in Section 4.2.1.1, the artifact assemblage associated with AeHg-61 is composed primarily of ceramic artifacts (75%) with glass artifacts making up the remaining 25%. Almost all ceramics recovered from AeHg-61 were refined white earthenware tableware (n=37) with one example of a coarse stoneware storage vessel sherd and one indeterminate. Decorations on the RWE tableware varied but all have date ranges from the late 18th to early 19th centuries and mostly terminating in the mid- to late-19th century. These decorations included blue and brown transfer prints, late palette, orange/brown and dark blue hand painted examples, as well as impressed scalloped edge decoration with hand painted blue and green. The glass assemblage of AeHg-61 lacks the diagnostic dates found in the ceramic assemblage but nonetheless trends to an early to late 19th century occupation evidenced by the presence of dark olive green bottle glass and an undecorated lamp chimney shard. A single example of lime green soda bottle which has a purely 20th century manufacturing date should be considered as an outlier and not indicative of the timeline for occupation.

Of the 55 artifacts recovered, five were classified as structural consisting of window pane glass. All remaining artifacts were catalogued as tableware or indeterminate. The lack of structural elements such as nails, mortar, brick or structural iron suggests that any earlier structures were either ephemeral in nature and completely removed upon abandonment or the structure was located just outside the study area. The presence of edge decorated ceramic sherds as well as blue and brown transfer print, and the

low quantities of glass confirm a likely date range of early to mid-19th century. This determination is supported by the historical documentation noted above with the Gilbert family occupying Lot 8 between 1840 and 1886 in a timber frame structure. This structure is also identified on the 1877 historical atlas (Map 3).

As outlined in Section 4.2.1.2, the artifact assemblage of AeHg-142 consisted primarily of glass (55%) and ceramic (39%) artifacts. Metal was the next highest artifact type comprising only 2% of the entire assemblage. Of the ceramic and glass artifacts, 45% were food and beverage related while 34% were indeterminate, consisting primarily of clear/colourless glass which are primarily indeterminate holloware. Structural artifacts represent 13% of the assemblage, consisting primarily of window glass. Of the identifiable food and beverage related artifacts and those with dateable attributes, the overall assemblage trends to a period of occupation beginning in the later 19th century but extending into the 1920s and 1930s. The glass assemblage is dominated by clear and colourless glass (n=191; ~40%). As technology improved and impurities were able to be removed, this type of glass became more common in rural areas of Ontario. Manufacturing of clear and colourless glass begins around 1875 but became more common by the later 19th century and into the 20th century. Moulded contact as a manufacturing technique is represented by 34 examples. Of these, clear and colourless glass is primary colour represented by 16 shards. Light aqua (n=6), brown (n=5), white (n=4), cobalt and light blue (n=1) and manganese (n=1). Moulded contact glass manufacturing replaced hand blowing and is common throughout the 19th century. This development coincides with machine made glass which was first patented in 1881 (Jones & Sullivan 1989). A total of 74 (8%) shards of glass holloware were observed in the AeHg-142 assemblage. Additionally, examples of Owens made glass (n=2) and Dominion Glass Company (n=4) were both catalogued and represent strictly 20th century artifacts. The bottle finishes vary in date ranges with one and two-part finishes (n=2 and n=4), patent (n=2), prescription (n=1) and Davis type finishes (n=1) all having manufacturing dates beginning in the 19th century but extending into the 20th. Bottle finishes with exclusively 20th century dates include threaded (n=14), crown (n=2) and lug (n=2). Of the observed finishes, threaded finishes represent the highest frequency type with only infrequent examples of the other finishes.

There are examples of early ceramics such as blue, brown, black, green and red transfer print on refined white earthenware, as well as sponge blue and flow blue but these examples have frequencies of between 1 and 7, representing less than 1% of the total assemblage when combined. Present in significant quantities are undecorated RWE (n=93), plain and decorated VWE (n=84), porcelain (n=23) as well as coarse stoneware and coarse earthenware storage vessels (n=50 and n=30, respectively). Even though VWE has a manufacture initiation date of the 1840s, it is commonly associated with later occupations and is still manufactured at present (Jouppien 1980). Porcelain is another indicator of late 19th to early 20th century occupations and becomes more prevalent in Ontario during this period (Kenyon 1980).

The overall assemblage consists of food and beverage related artifacts or indeterminate artifacts primarily consisting of glass holloware. Other than window glass (n=96) there were very few structural or building related artifacts recovered. Examples of drainage tile (n=3), bricks (n=5) and electrical elements such as knobs (n=8) were also noted, among other items. Electrical knobs first became in use in 1880s but the availability of electricity was slow to move to the more rural areas.

The historic assemblage of AeHg-150 was diffuse and dominated by glass objects (75%). Of the glass artifacts, three consisted of lime green soda bottle glass which is strictly a 20th century object with one brown bottle, likely beer bottle, which also dates towards the 20th century. Additionally, the Albany slip with salt glaze that represents a storage container trends towards the later 19th and into the 20th century.

Given the later date range, and the quantity of historic artifacts not meeting Section 2.2 Standard 1c nor Section 3.4.2 Standard 1a, the historic component of AeHg-150 does not retain CHVI and is not recommended for Stage 3 site specific assessment.

Similarly, the historic assemblages associated with L-01, L-02, and L-03 primarily date towards the later part of the 19th century and into the 20th century. Given the later date range, and more importantly, the limited quantity of historic artifacts recovered, L-01, L-02, and L-03 do not meet Section 2.2 Standard 1c nor Section 3.4.2 Standard 1a, and as such do not retain CHVI and are not recommended for Stage 3 site specific assessment.

The two isolated historic find spots not associated with the three registered sites or the three loci do not represent a unique artifact assemblage and as such do not retain CHVI and are not recommended for Stage 3 site-specific assessment.

The historical occupation of Lot 8, Range 1 North of Edgeware Road, supports an early 20th century occupation around the area of AeHg-142. Based on the available information, the Penhale family owned Lot 8, but they likely didn't reside on it. It was not until 1910 when the land transferred from Matthew Penhale to Edwin Smith Hokum to George W. Dennis where the lot becomes occupied in earnest. Based on the land registry records and 1921 census records, it indicates that the Dennis family is living on Lot 8. This is corroborated by the structure illustrated on the 1913 and 1924 topographic maps (Map 4). By 1929, the structure is no longer present, and George Dennis has deeded the land to a family member. When considering how material objects, especially ceramic tablewares can be curated, the assemblage from AeHg-142 trends to a period of occupation coinciding with the land registry and census records for Dennis occupation of Lot 8 in the 20th century.

There are a number of similar late 19th century domestic sites in the general area of the BESS Study Area. AeHg-122 is located on Lot 10, Range 1 North of Edgeware Road, approximately 950 m to the east of the study area. The site is associated with the occupation of the lot by Flora Black from 1877 to 1903. The scatter was fairly large, measuring 135 m by 92 m and consisted of 863 Post-Contact artifacts with one Pre-Contact artifact. The majority of the artifacts (63.5%) were classed as food and beverage, of which the majority are ceramic sherds. The most common ceramic type was ironstone, followed by RWE and porcelain. Decoration on the RWE sherds included late palette painted, tight and open sponged, blue transfer printed and flown and decoration on the ironstone sherds included moulded and transfer printed. Decoration on the semiporcelain sherds included flown, transfer printed, moulded, decal, and gilded. Decoration on the porcelain sherds included transfer printed, decal and moulded. Glass artifacts largely post-dated 1870 (manganese, opaque white, and machine-made) or were canning jars which likely post-date 1870 when manufacturers rushed to produce jars after Mason's patents expired in the 1870s and 1880s (TMHC 2023). The majority of the assemblage (80%) post-dated the 1870s, as such a Stage 3 was not recommended for AeHg-122.

AeHg-1255 is located on Lot 11, Range 1 South of Edgeware Road, approximately 1.5 km to the east of the BESS Study Area. The site is associated with the occupation of the lot by Archibald Black (c. 1871-1887) and Mathew Gilbert (c. 1887-1900). The scatter measured approximately 68 m by 76 m and consisted of 156 artifacts. The majority of the artifacts (66.6%) were classed as food and beverage. Decoration on the RWE artifacts included late palette painted, stamped and transferred printed, decoration. On the ironstone artifacts, all decorations consisted of moulded patterns, one of which contained a maker's mark which post-dated the artifact to 1891, and the porcelain artifacts were moulded or decal. The assemblage was dominated by ironstone and manganese glass which were common after 1875. Due to the short occupation of the lot and the late 19th century artifacts, a Stage 3 archaeological

assessment was not recommended.

AeHg-131 is located on Lot 58, North of Talbot Road East, approximately 2.3 km southeast of the study area. The site measured approximately 87 m by 61 m and consisted of 482 artifacts which post-dated 1880, as such a Stage 3 assessment was not recommended. Finally, AeHg-139 is located on Lot 59, North of Talbot Road East, approximately 2.6 km southeast of the study area. The site measured approximately 30 m by 31 m and consisted of 270 artifacts which post-dated 1875, as such a Stage 3 assessment was not recommended.

In reviewing the historical documentation and artifact assemblages from AeHg-61 against indicators showing cultural heritage value or interest as defined in Table 3.2, and Section 2.2 Standard 1c and 1d and Section 3.4.2 of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) it is evident that AeHg-61 meets the minimum requirements for CHVI and a recommendation of Stage 3 Site Specific Assessment. The Gilbert family represents the first occupation of Lot 8 Range 1 North of Edgeware Road and occupied the land in a single-story frame house between 1840 and extending to 1886. The artifact assemblage corroborates this early date. Additionally, Marwood Gilbert represents an individual of some notoriety as he was shot for eloping with a relative on the day of his marriage. This event sparked local interest and was featured in the local newspaper. As the artifact assemblage contains more than 20 artifacts pre-dating 1900 and where 80% or more of the assemblage pre-dates 1870, AeHg-61 retains CHVI.

In reviewing the historical documentation and artifact assemblages from AeHg-142 against indicators showing cultural heritage value or interest as defined in Table 3.2, and Section 2.2 Standard 1c and 1d and Section 3.4.2 of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) it is evident that AeHg-142 does not retain CHVI. Based on available historical documentation, AeHg-142 does not represent the first occupation of Lot 8 but rather the later occupation by the Dennis family which began around 1910. This later occupation is evidenced by historical topographic mapping that shows a built structure in the area of the artifact scatter from at least 1913 and extending ending at some point between 1924 and 1929. Based on the historical occupation alone, the site does not meet the requirements outlined in Table 3.2 (MCM 2011). Additionally, even though there are more than 20 artifacts that pre-date 1900, which meets Section 2.2 Standard 1c and 1, because a CSP was undertaken where all artifacts were collected and where detailed background information was reviewed, the assemblage can be reviewed against Section 3.4.2 (MCM 2011). As over 80% of the AeHg0142 assemblage postdates 1870, the site does not retain CHVI and therefore does not meet the requirements for Stage 3 Site-Specific Assessment.

In the Original Report submitted 4 April 2025, a recommendation of partial clearance had been provided. However, the Stage 3 assessment of AeHg-61 was completed (PIF P311-0355-2024) with the site limits clearly defined through a systematic site-specific assessment. As such, the recommendation for partial clearance is no longer relevant and has been removed from this report.

6.0 Recommendations

The results of the Stage 1 and 2 archaeological assessment documented within this report formed the basis for the following recommendations:

1) The historic component of AeHg-61 can be dated to the early and mid 19th century and therefore meets the criteria outlined in Standard 2.2.1 in the MCM *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) (Map SD-11). The Stage 3 assessment should be completed by a means of 1 m test units at 5 m intervals across the site with an additional 20% infill units in areas of interest.

2) As 80% of the historic artifact assemblage for AeHg-142 postdates 1870 and where the historical background research has sufficiently demonstrated that the site does not retain CHVI, no further work is recommended for the scatter of artifacts as defined on Map SD-1 and SD-2.

3) Single component L-01 and L-02 and the historic component of AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 3.4.2 Standard 1 and as such, no further work is recommended.

4) The pre-contact Indigenous period components of AeHg-61, AeHg-142, AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 2.2 Standards 1 or Section 3.4.1 Standard 1 and as such, no further work is recommended.

5) No further archaeological assessment is recommended for portions of the BESS Study Area that are not identified in this report as requiring further archaeological assessments as outlined on Map SD-11.

7.0 Advice on Compliance with Legislation

This report is submitted to the Ministry of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33, (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Public and Business Service Delivery and Procurement.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

8.0 Important Information and Limitations of this Report

This report has been prepared for the specific site, development objective, and purpose as requested by the client and outlined in the original proposal, and subsequent agreed changes, for this project. The specific results, factual data, interpretations, and recommendations, outlined in this report are for the sole use of the client, and applicable only to this project and site location. No other warranty, expressed or implied, is made. No other party may rely on all, or portions, of this report without True North Archaeological Services Inc.'s express written consent. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of True North Archaeological Services Inc. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client can only rely upon the electronic media versions of this True North Archaeological Services Inc. report or other work products at their discretion.

True North Archaeological Services Inc. prepared this report in a manner consistent with the level of care and skill ordinarily exercised by other members of the archaeological consulting community currently practicing within the Province of Ontario, in accordance with the *Ontario Heritage Act* the Ministry of Citizenship and Multiculturalism's (MCM) 2011 *Standards and Guidelines for Consultant Archaeologists*, and all the subsequent MCM bulletins.

There are special risks whenever an archaeological assessment is completed, whether they be solely desktop assessments or in-field assessments, and even a thorough background study, comprehensive field investigation or sampling and testing program may fail to detect all archaeological resources present within the project area. The desktop review, field strategies and subsequent interpretations utilized for this report comply with the Ministry of Citizenship and Multiculturalism's (MCM) 2011 *Standards and Guidelines for Consultant Archaeologists*, and all the subsequent MCM bulletins.

All artifacts collected as part of this archaeological assessment, when applicable, will be housed and curated by True North Archaeological Services Inc. until such time that the collection may be transferred to an appropriate MCM approved repository or repatriated to an appropriate First Nation. As part of Licensing obligations, this report, along with pertinent written information will be uploaded to the MCM Past Portal website and reviewed for compliance with the 2011 *Standards and Guidelines for Consultant Archaeologists*.

9.0 References

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2022 **Stage 1 and 2 Archaeological Assessment Proposed Industrial Development Part of Lots 9 and 10, Range 1 South of Edgeware Road and Lots 9 and 10, Range 1 North of Edgeware Road, City of St. Thomas, Lots 11 and 12, Range 1 South of Edgeware Road Lot 11, Range**

1 North of Edgeware Road and Lots 9, 10, and 11, Range 2 North of Edgeware Road Municipality of Central Elgin, Geographic Township of Yarmouth, Elgin County, Ontario. Consultant's Report Submitted to the Ministry of Tourism, Culture and Sport PIF Number P324-0737-2022.

2024 **Stage 1-2 Archaeological Assessment Centennial Transformer Station and Line Project, Part of Lots 8 and 9, Range 1 South of Edgeware Road, City of St. Thomas, Geographic Township of Yarmouth, Elgin County, Ontario.** Consultant's Report Submitted to the Ministry of Tourism, Culture and Sport PIF Number P1189-0041-2023

Warrick, Gary

2012 *Buried Stories: Archaeology and Aboriginal Peoples of the Grand River, Ontario*. **Journal of Canadian Studies**, 46(2):153-177.

2000 *The Precontact Iroquoian Occupation of Southern Ontario*. **Journal of World Prehistory**, 14(4): 415-456.

Williamson, Ronald F.

1990 *The Early Iroquoian Period of Southern Ontario*. **The Archaeology of Southern Ontario to A.D. 1650**.C.J. Ellis and N. Ferris (eds), Ontario Archaeology Society, p. 291-320.

Wilson, Susan

2002 *An Elephant's Tale: An Unadulterated and Relatively True Story Chronicling the Life, Death and Afterlife of Jumbo, Tufts' Illustrious Mascot.* **Tufts Online Magazine.** Accessed at: "https://web.archive.org/web/20150123215504/http://www.tufts.edu/alumni/magazine/spring2002/jumbo.html"

10.0 Images



Image 1. Portrait of a young Marwood Gilbert (courtesy of Ancestry.ca).



Image 2: Crew shovel testing along the southern boundary of the BESS Study Area, view southwest.



Image 3: Typical shovel test from southern boundary of the BESS Study Area, view north.



Image 4. View of field crew completing shovel test pit survey at 5 m intervals in the north end of the BESS Study Area, view southeast.



Image 5. View of road ditch along northeast boundary of the BESS Study Area, view north.



Image 6: Typical shovel test from the north end of the Study Area showing disturbed soils, view east



Image 7: Wetland at the terminus of a tributary of Kettle Creek, view south.



Image 8. View of field crew completing pedestrian survey at 5 m intervals, view south.



Image 9. View of field crew completing pedestrian survey at 5 m intervals, southeast.



Image 10. View of field crew completing pedestrian survey at 5 m intervals, view northwest.



Image 11: Lithic Debitage. A (cat 380) primary flake; B (cat 756) secondary flake; C (cat 608) secondary flake; D (cat 794) tertiary flake; E (cat 468) tertiary flake; F (cat 465) tertiary flake; G (cat 795) tertiary flake.



Image 12: Lithic Tools and Geological Sample from BESS Study Area. A (cat 417) spoke shave; B not catalogued; C (cat 1157) late Woodland projectile point.



Image 13: Ceramic Decoration Styles. A (cat 574) RWE transfer print: flow blue ; B (cat 494) RWE transfer print: flow blue; C (cat 596) RWE sponged blue; D (cat 978) RWE transfer print black - teapot; E (cat 441) RWE transfer print blue; F (cat 626) RWE transfer print dark blue; G (cat 643) RWE transfer print black; H (cat 620) Vitrified white earthenware blue decal; I (cat 1098) RWE transfer print pink; J (cat 696) RWE transfer red; K (cat 396 and 682) RWE transfer brown; L (cat 397) RWE transfer print blue.



Image 14: Examples of Hand Painted Tableware from AeHg-61. A (cat 424) RWE hand painted; B (cat 415) RWE hand painted late palette; C (cat 529) RWE hand painted; D (cat 390) scallop blue edge decorated RWE with impressed curved lines; E (422) scallop green edge decorated RWE with impressed curved lines.



Image 15: Examples of Embossed Ironstone: A (cat 657) VWE moulded wheat pattern; B (cat 578) VWE moulded floral pattern; C (cat 582) moulded ironstone with grape pattern; D (581) ironstone moulded wheat pattern.



Image 16: Example of Makers Marks on Tableware: A (cat 481) RWE plate base with partial makers mark; B (cat 633) RWE plate base with partial makers mark.



Image 17: Storage Vessels. A (cat 543) coarse stoneware jackfield glaze; B (cat 723) coarse buff earthenware with speckled brown glaze; C (cat 749) Coarse stoneware with salt glaze exterior and Albany interior; D (cat 594) fine stoneware with Rockingham glaze; E (cat 492) coarse stoneware with Albany interior glaze;
F (cat 490) fine buff earthenware with Rockingham glaze; G (cat 375) coarse stoneware with salt glaze exterior; H (cat 842) coarse stoneware with clear colourless interior glaze.



Image 18: Examples of colour variation within the Glass Assemblage of AeHg-142. A (cat 748) cobalt blue indeterminate holloware; B (cat 759) pink indeterminate holloware; C (cat 1108) clear/colourless bottle glass; D (cat 1001) manganese glass; E (cat 443) soda lime bottle with enameled crown decoration; E (cat 487) aqua coloured bottle glass; E (cat 213) brown holloware glass.



Image 19: Variation of Bottle Finishes from AeHg-142. A (cat 505) two-part finish; B (cat 510) one-part finish; C (cat 519) one-part finish; D (cat 676) patent finish; E (cat 593) patent finish;
F (cat 780) Davis type finish; G (cat 548) crown cap finish; H (cat 662) threaded finish; I (cat 1142) threaded finish; J (cat 886) lug finish.



Image 20: Soda Bottle and Dominion Glass from AeHg-142. A (cat 406) soda bottle base with embossed letter; B (cat 1104) Dominion Glass.



Image 21: Building Related and Structural Elements from AeHg-142. A (cat 1110) washer; B (cat 751) steel strap; C (cat 853) rectangular machine made nail; D (cat 418) window pane;
E (cat 469) brick;



Image 22: Building and electrical artifacts from AeHg-142. A (cat 781) electrical component; B (cat 925) electrical know.



Image 23: One Cent Coin (cat 946) from AeHg-142.

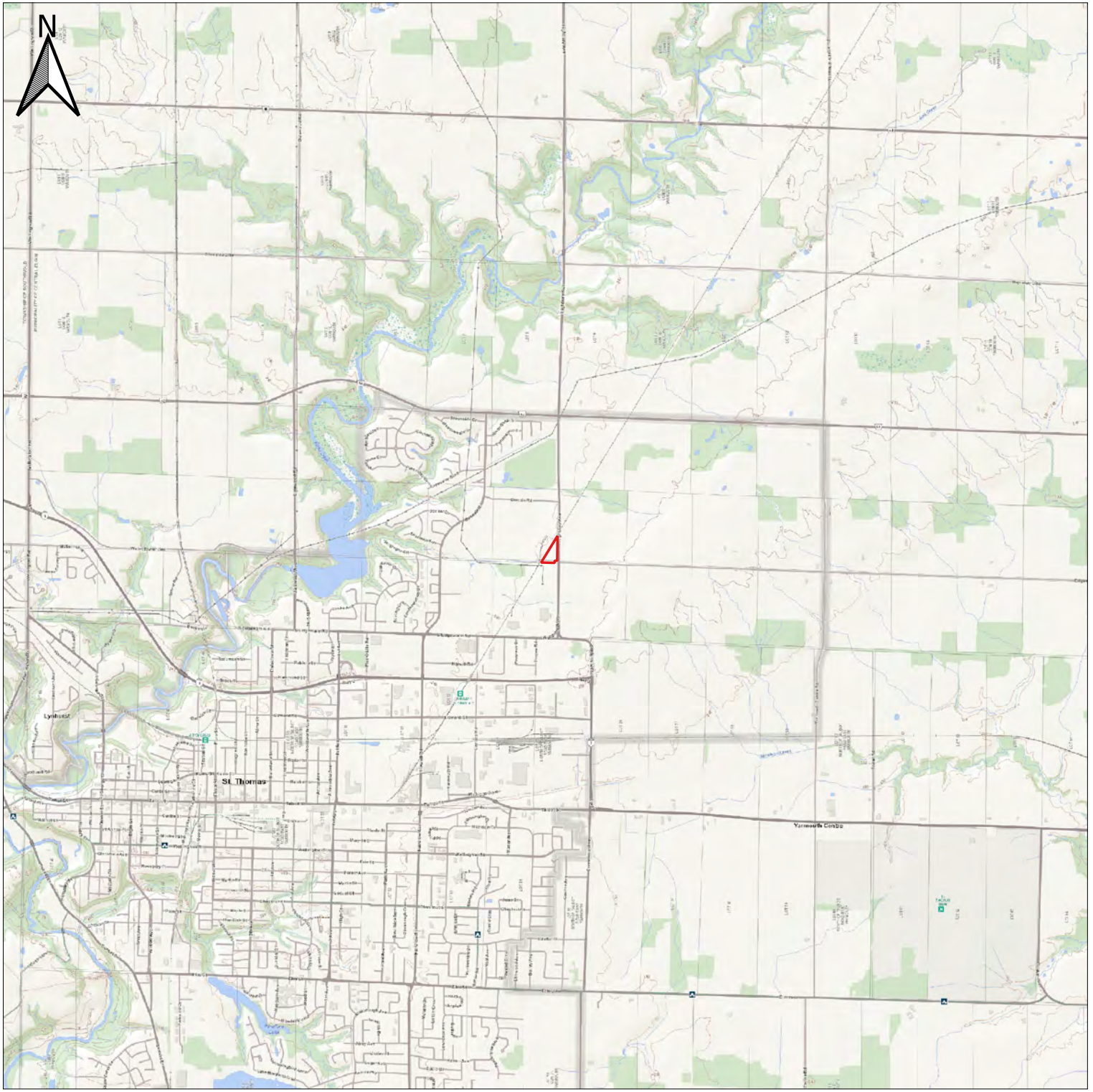


Image 24: Boot Heal (cat 854) recovered from AeHg-142.



Image 25: Example of Faunal remains from AeHg-142. A (cat 700) small ungulate molar; B (cat 541) pig canine; C (cat 1109) mammal long bone.

11.0 Maps



LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLANs: OPEN DATA LIO TOPOGRAPHIC MAP

700 0 700 1,400 2,100 m

SCALE 1:50,000

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

KEY PLAN

CONSULTANT

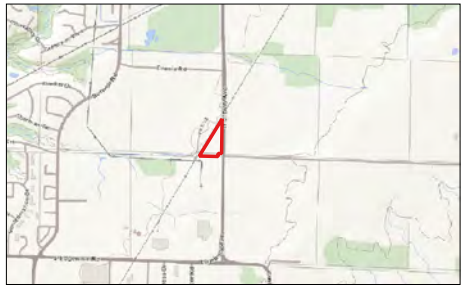
TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-01-31
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
20240022	001	1



KEY MAP



SCALE 1:50,000

LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLANS: LAND INFORMATION ONTARIO (LIO) OPEN DATA SWOOP 2015 AND LIO TOPOGRAPHIC MAP

50 0 50 100 150 m

SCALE 1:4,250

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

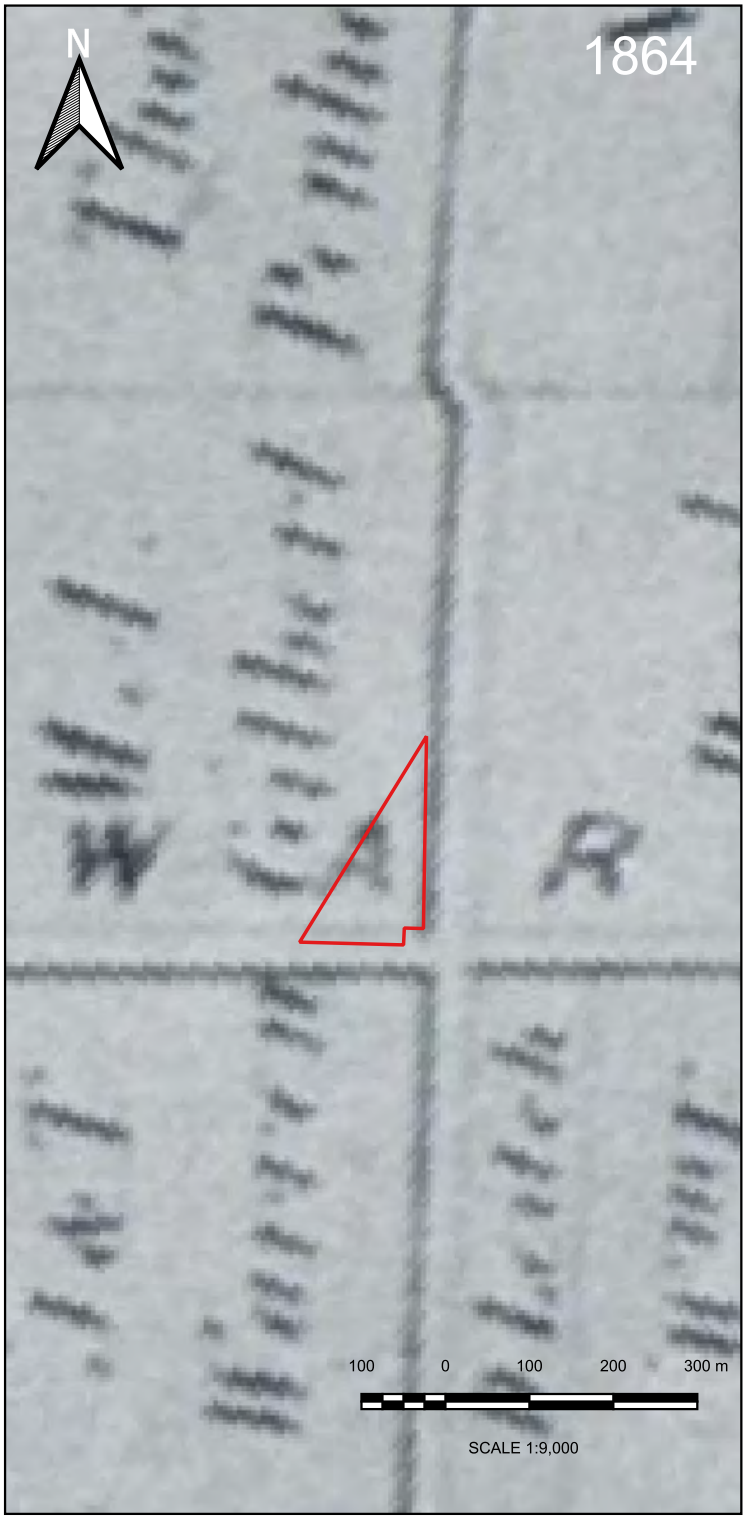
SITE PLAN

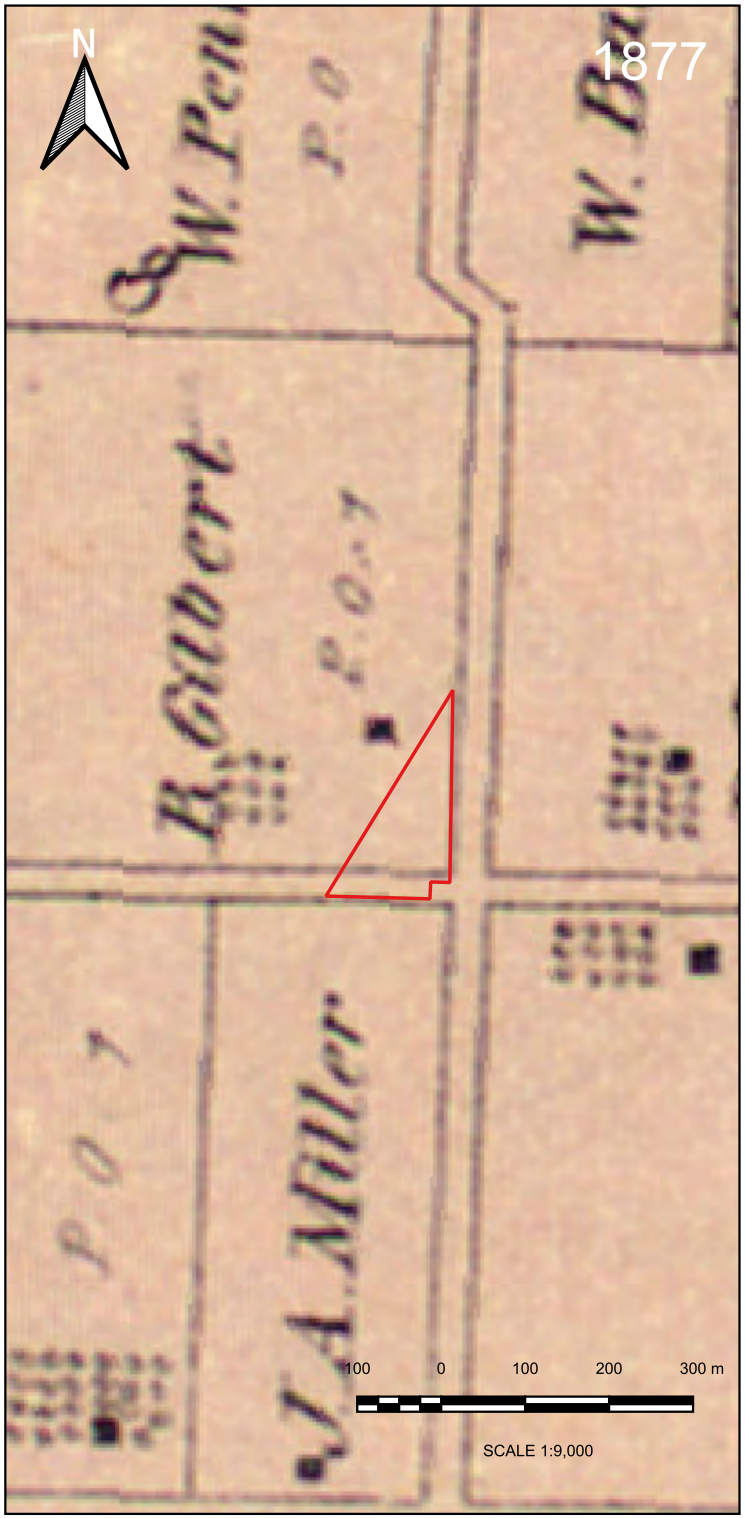
CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-01-31
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	2





LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. 1864 PLAN OF YARMOUTH TOWNSHIP, ELGIN COUNTY, GEORGE R. TREMAINE

3. 1877 PLAN OF YARMOUTH TOWNSHIP, ELGIN COUNTY, H.R. PAGE & CO.

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

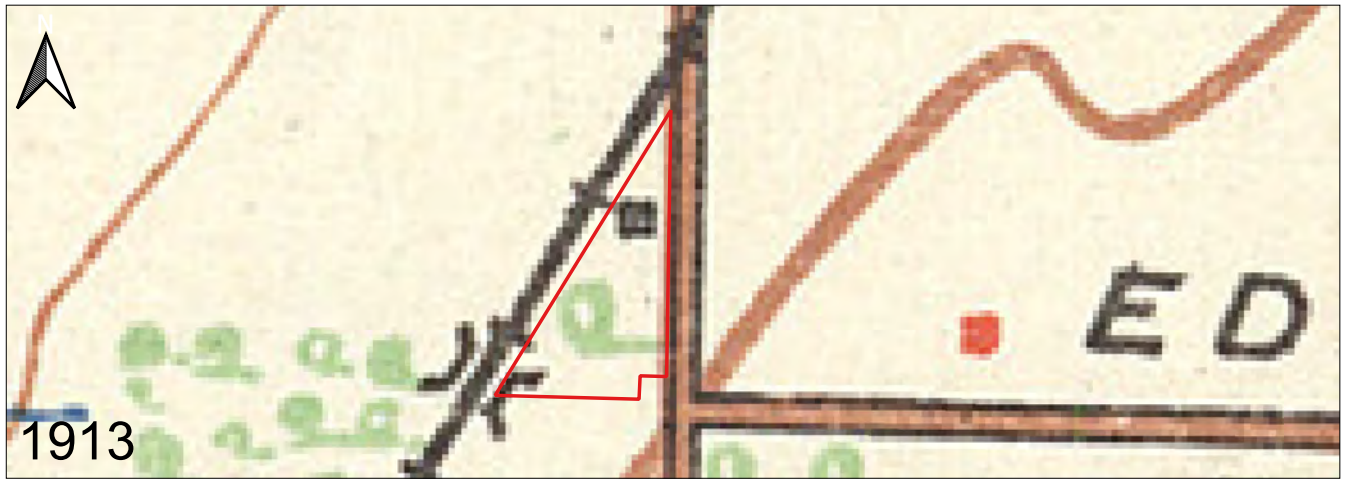
1864 AND 1877 HISTORIC MAPS, YARMOUTH TOWNSHIP

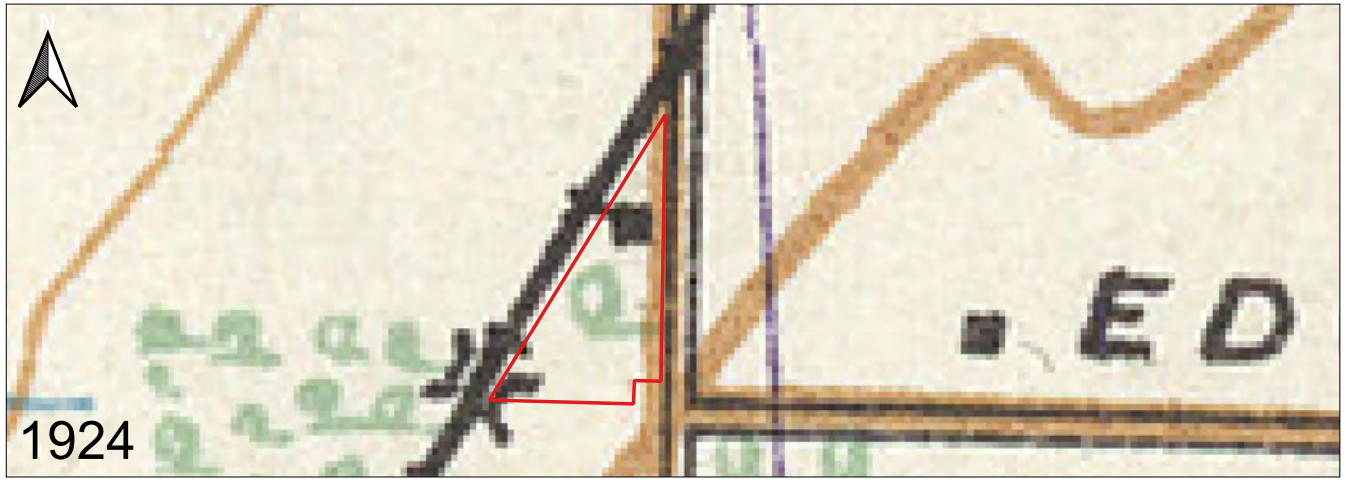
CONSULTANT

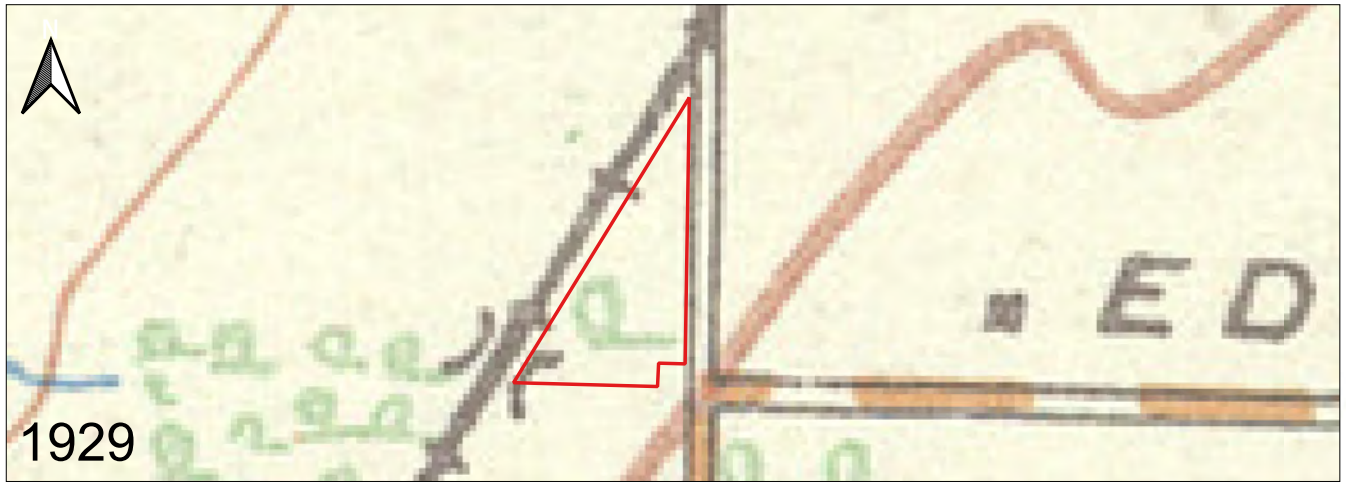
TRUE NORTH ARCHAEOLOGICAL SERVICES

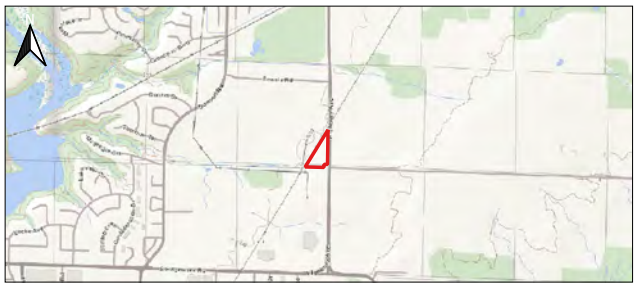
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PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	3









SCALE 1:50,000

LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLANS: NATIONAL DEPARTMENT OF DEFENCE, ST. THOMAS SHEET 40I/14 (1913, 1924 AND 1929, LIO TOPOGRAPHIC MAPPING

100 0 100 200 300 m

SCALE 1:6,500

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

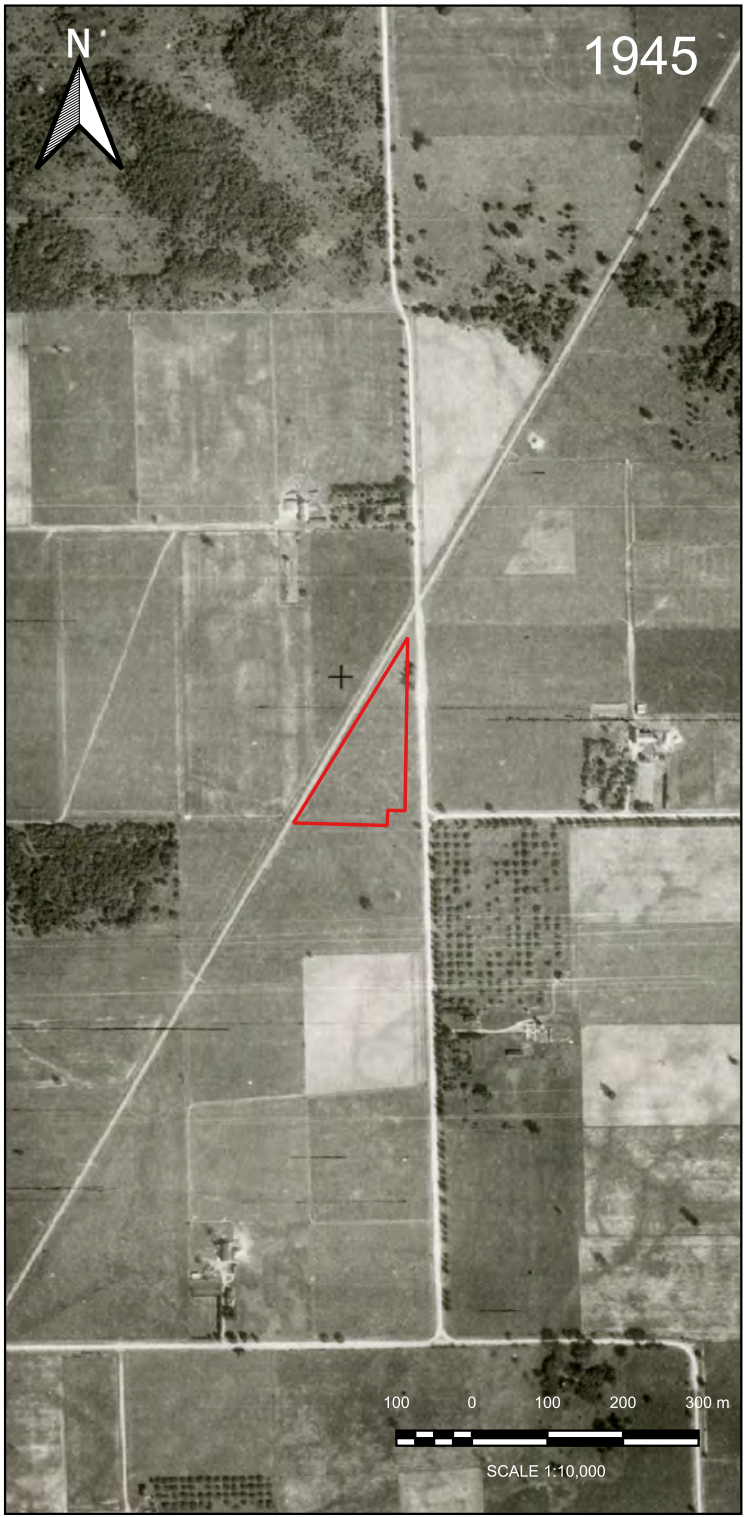
TOPOGRAPHIC MAPPING

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-01-31
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	4





LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. 1945 NATIONAL AIR PHOTO LIBRARY, ROLL#: A9205, PHOTO#: 78

3. 1978, DEPARTMENT OF FORESTRY AND MINING, ROLL#: 4255, PHOTO#: 204_50

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

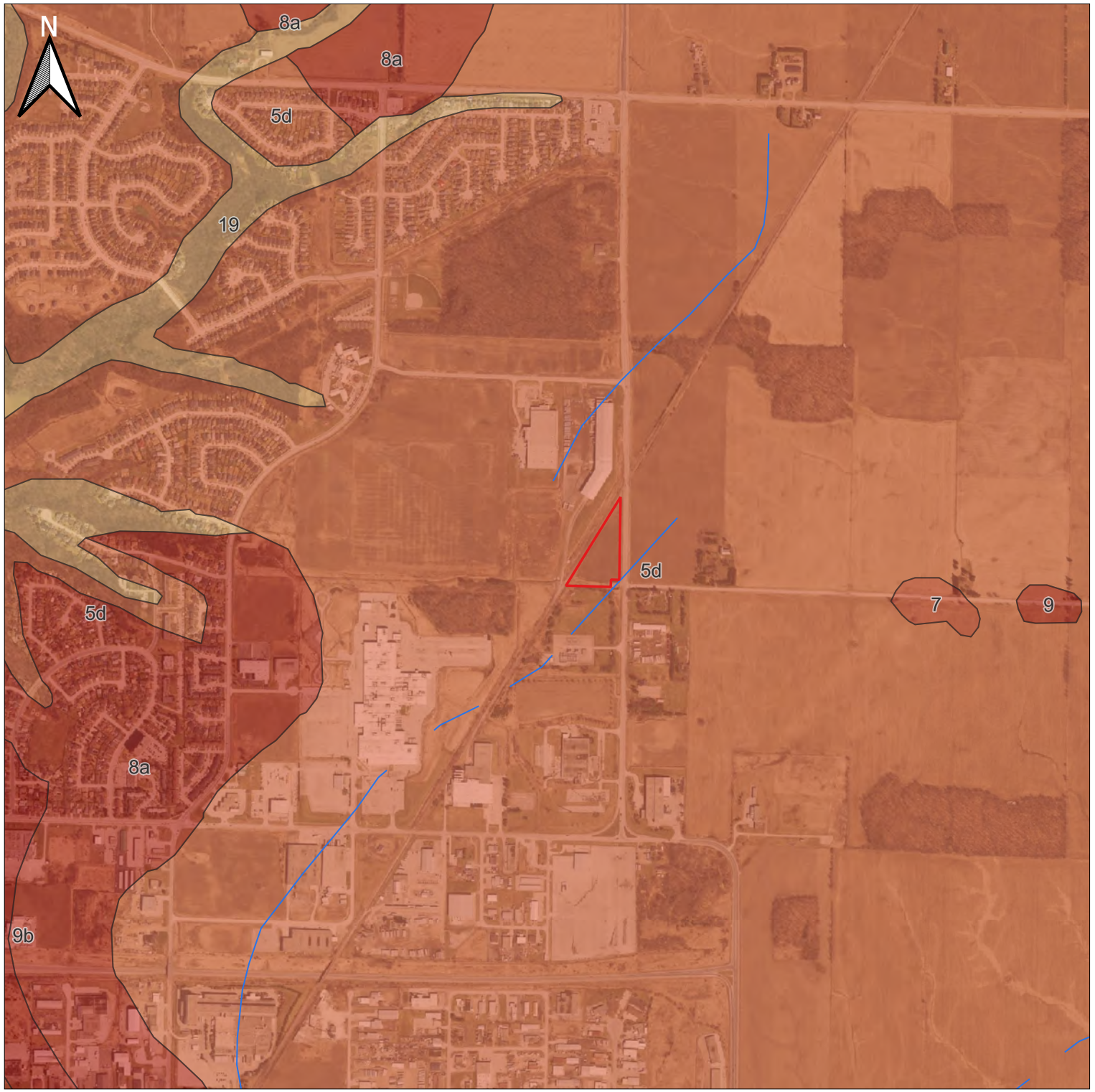
1945 AND 1978 AERIAL IMAGES

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-01-31
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	5



LEGEND

Study Area

Surficial Geology

- 19 — Modern Floodplain: deposits of gravel, sand and silt
- 5d — Glacial Till: deposits of silty clay till
- 7 — Glaciofluvial: deposits of gravel and a gravelly sand
- 8a — Glaciolacustrine: deposits of clay and clayey silt
- 9 — Glaciolacustrine: deposits of silt, silty sand, and clay
- 9b — Glaciolacustrine: deposits of gravel and gravelly sand

Surficial Geology Features

- Bluff

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. ONTARIO GEOLOGICAL SURVEY 2010. SURFICIAL GEOLOGY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 128-REV

200 0 200 400 600 m

SCALE 1:15,000

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

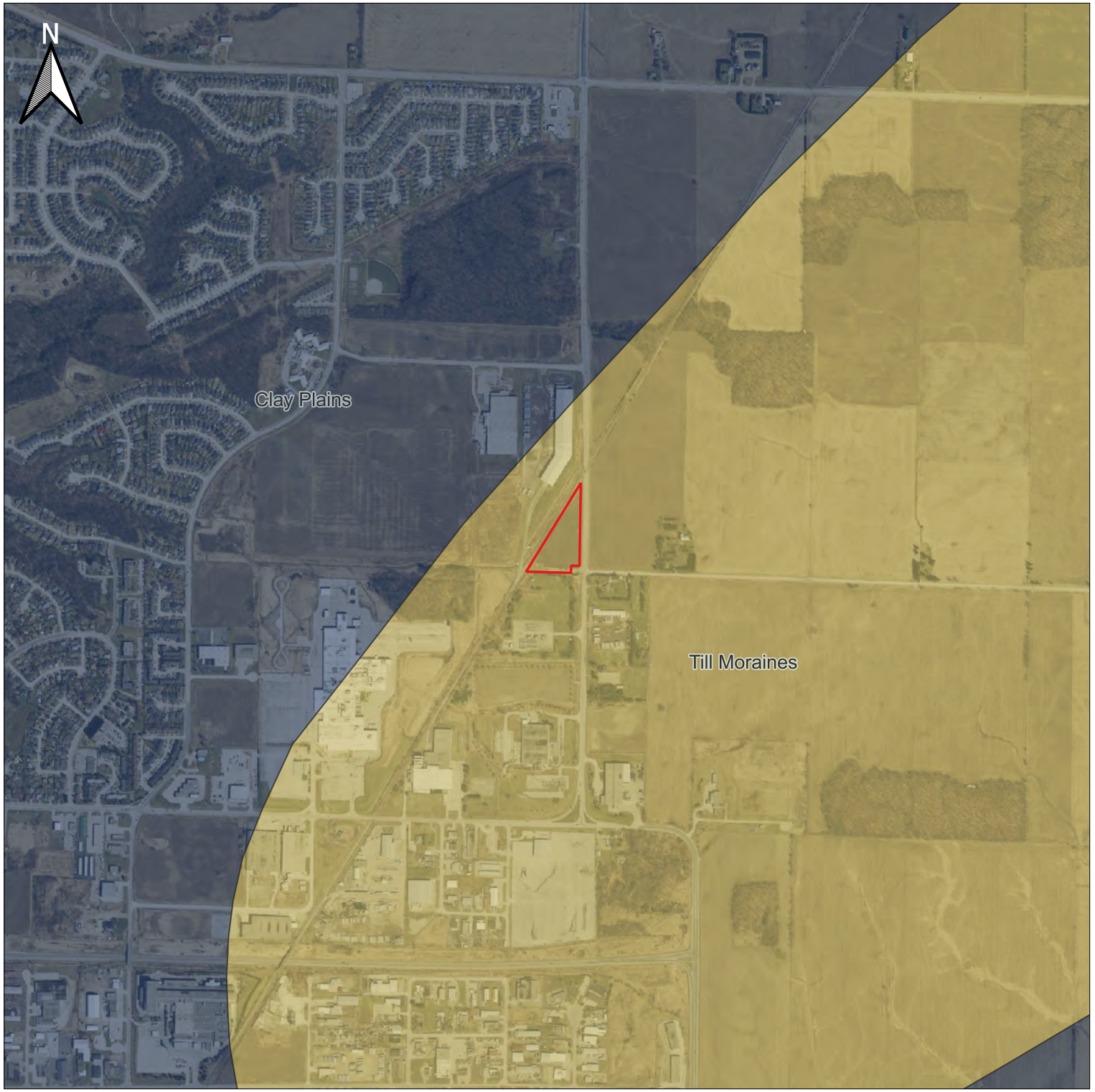
SURFICIAL GEOLOGY

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-01-31
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	6



LEGEND

- Study Area

Historic Maps

Physiographic Landform

- Clay Plains
- Till Moraines

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 2008

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SCALE 1:15,000

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

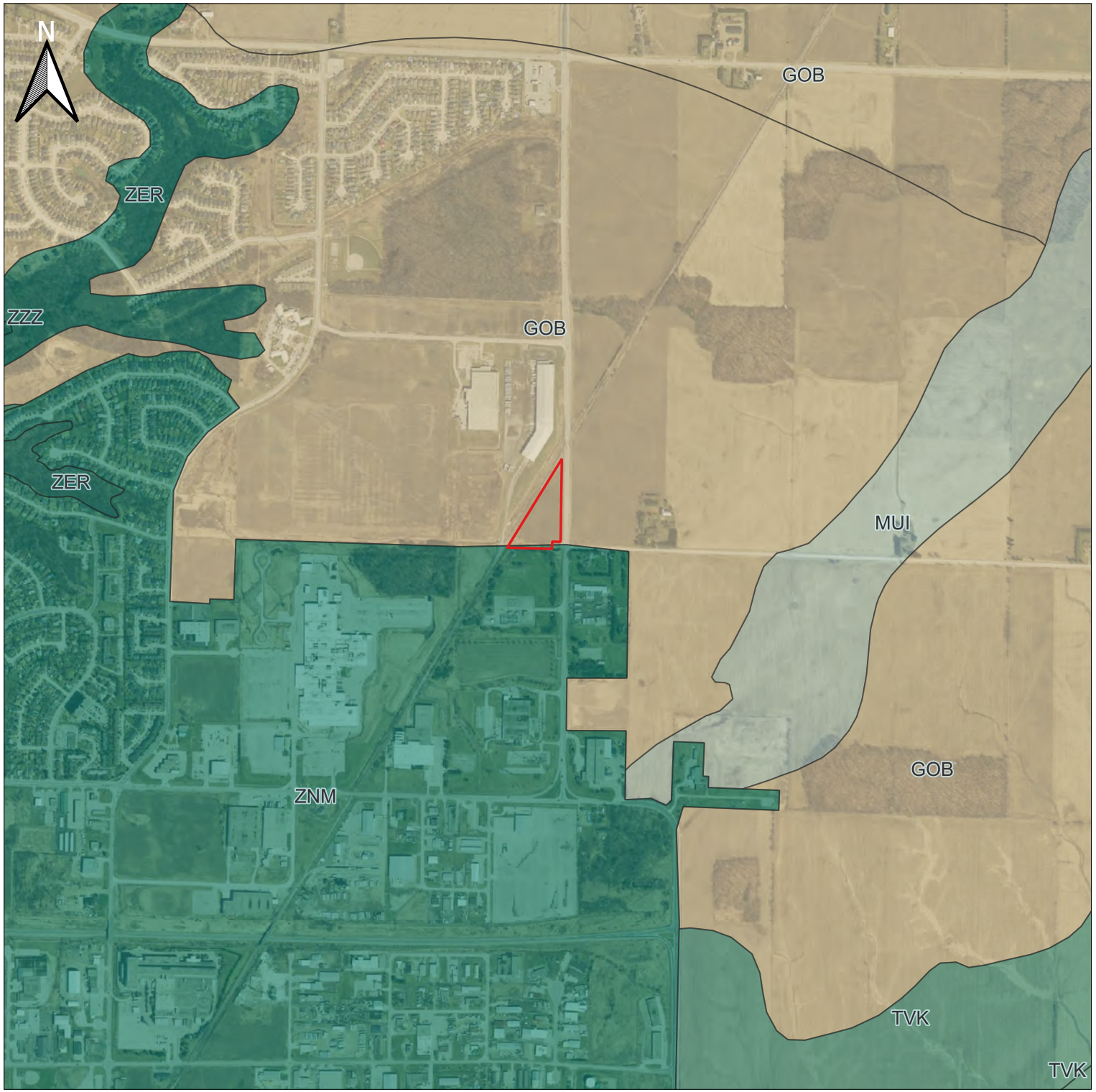
PHYSIOGRAPHY

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-01-31
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	7



LEGEND

- Study Area

Soil Survey Complex

- GOB — Gobles Loam
- MUI — Muriel Silty Clay
- TVK — Tavistock Till
- ZER — Eroded Channel
- ZNM — Not Mapped
- ZZZ — Water

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. SOIL SURVEY COMPLEX, ONTARIO MINISTRY OF AGRICULTURE, FOOD AND RURAL AFFAIRS, 2019-11-06

200 0 200 400 600 m

SCALE 1:15,000

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

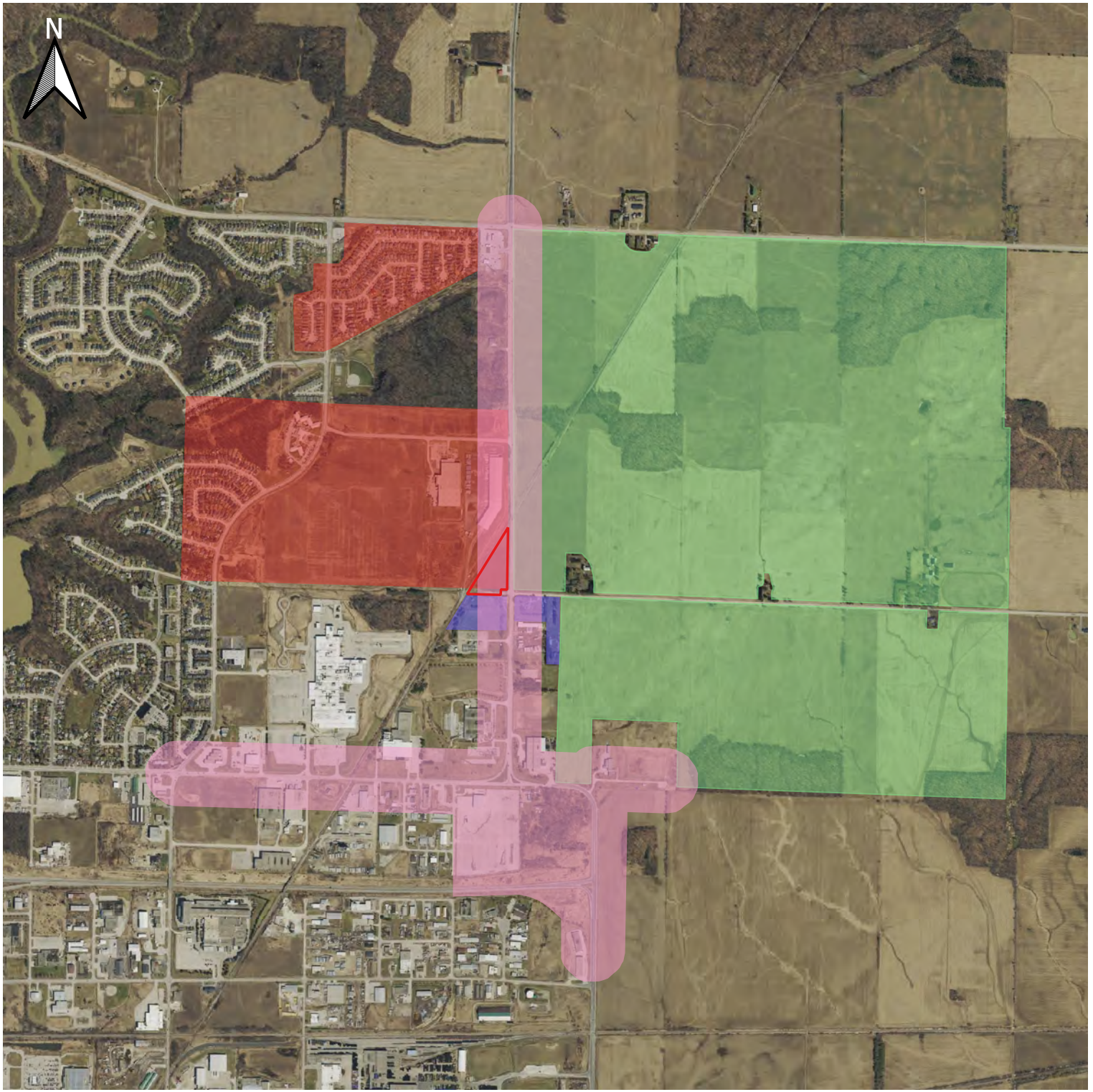
SOIL SURVEY COMPLEX

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-01-31
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	8



LEGEND

Study Area

Previous Archaeological Assessments

Parslow Heritage Consultancy Inc.
Stage 1 Archaeological Assessment
MCM PIF No. P243-0506-2023

Timmins Martelle Heritage Consultants
Stage 1 and 2 Archaeological Assessments
MCM PIF No. P1189-0041-2023

Timmins Martelle Heritage Consultants
Stage 1 and 2 Archaeological Assessments
MCM PIF No. P324-0708-2021&P324-0737-2022

Archaeological Services Inc.
Stage 1 and 2 Archaeological Assesments
MCM PIF No. 1993-016

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLAN: LAND INFORMATION ONTARIO (LIO) OPEN DATA, SWOOP 2015

3. SPATIAL INFORMATION FOR ALL ARCHAEOLOGICAL ASSESSMENTS DEPICTED ON THIS MAP ARE REFERECNED FROM AVAILABLE REPORTS AND INFORMATION MAINTAINED BY THE MCM

250 0 250 500 750 m

SCALE 1:20,000

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

PREVIOUSLY COMPLETED ARCHAEOLOGICAL ASSESSMENTS WITHIN 50 METRES OF STUDY AREA

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-01-31
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	9



LEGEND

- Study Area

Stage 2 Results

- Permanently Wet: No further archaeology recommended
- Pedestrian Survey at 5 m Intervals:
- Shovel Test Pit Survey at 5 m Intervals:
- Disturbed Soils: No further Archaeology recommended
- Field Photographs: Location, Orientation and Corresponding Report Image #

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLAN: LAND INFORMATION ONTARIO (LIO) OPEN DATA SWOOP 2015

20 0 20 40 60 m

SCALE 1:3,000

CLIENT

DNV

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

RESULTS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-06-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	10

12.0 Signature Page

We trust that this report meets with your current needs. If you have any questions, or if we may be of further assistances, please contact either of the undersigned.

TRUE NORTH ARCHAEOLOGICAL SERVICES INC.

Gabryell Kurtzrock Belyea, M.A.
Project Archaeologist

Bradley Drouin, M.A.
Principal, Senior Archaeologist

APPENDIX A: ARTIFACT INVENTORY

Project #	MTCS PIF #	Provenience	ID	SF#	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Attribute 1	Attribute 2	Manufacture	Alteration	# of Artifacts	# of Objects
2024022	P311-0354-2024	L-01	375	012	ceramic	coarse stoneware: brown	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	L-01	377	014	ceramic	coarse stoneware: brown	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	L-01	376	016	ceramic	coarse stoneware: brown	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	L-01	378	017	ceramic	coarse stoneware: brown	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	L-01	379	018	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	indeterminate	indeterminate	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-61	380	022	stone	chert: indeterminate	tools/equipment		flake: primary	complete		grey	knapped		1	1
2024022	P311-0354-2024	L-03	381	029	glass	indeterminate	food/beverage	beverage container	bottle: case/gin	body	plain	green: dark olive	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-150	382	030	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	indeterminate	indeterminate	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	L-01	383	031	ceramic	coarse stoneware: brown	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-61	385	032	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	384	032	ceramic	refined white earthenware	food/beverage	tableware	holloware: indeterminate	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-61	387	033	ceramic	refined white earthenware	food/beverage	tableware	teacup	body	hand painted	blue: dark			1	1
2024022	P311-0354-2024	AeHg-61	386	033	ceramic	refined white earthenware	food/beverage	tableware	teacup	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	388	033	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	390	034	ceramic	refined white earthenware	food/beverage	tableware	plate: dinner (9-12")	rim	edge decorated: blue	impressed curved lines/scalloped			1	1
2024022	P311-0354-2024	AeHg-61	389	034	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	392	035	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	hand painted	late palette			1	1
2024022	P311-0354-2024	AeHg-61	391	035	ceramic	refined white earthenware	food/beverage	tableware	plate: dinner (9-12")	body	transfer printed	brown			1	1
2024022	P311-0354-2024	AeHg-150	393	036	ceramic	coarse stoneware: grey	food/beverage	storage container	crock	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-150	394	037	stone	indeterminate	geological		indeterminate						1	1
2024022	P311-0354-2024		395	038	stone	chert: ancaster	tools/equipment		flake: tertiary	complete			knapped		1	1
2024022	P311-0354-2024	AeHg-61	398	040	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			4	1
2024022	P311-0354-2024	AeHg-61	396	040	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	transfer printed	brown			1	1
2024022	P311-0354-2024	AeHg-61	397	040	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	transfer printed	blue			2	1
2024022	P311-0354-2024	AeHg-61	400	041	ceramic	refined white earthenware	food/beverage	tableware	teacup	body	hand painted	orange			1	1
2024022	P311-0354-2024	AeHg-61	399	041	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	401	041	glass	indeterminate	food/beverage	beverage container	bottle: wine	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	402	042	stone	chert: indeterminate	tools/equipment		flake: tertiary	incomplete					1	1
2024022	P311-0354-2024	AeHg-61	403	043	ceramic	coarse earthenware: red	indeterminate	indeterminate	indeterminate	incomplete					1	1
2024022	P311-0354-2024	AeHg-61	406	044	glass	indeterminate	food/beverage	beverage container	bottle: soda	base	embossed	green: light	machine made		1	1
2024022	P311-0354-2024	AeHg-61	404	044	ceramic	refined white earthenware	food/beverage	tableware	saucer	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	405	044	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	407	044	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	base	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	408	046	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	shoulder	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	409	047	stone	chert: haldimand	tools/equipment		flake: tertiary	incomplete					1	1
2024022	P311-0354-2024	AeHg-61	410	048	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	indeterminate	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-61	411	049	ceramic	refined white earthenware	food/beverage	tableware	holloware: cylindrical	body	industrial slip	indeterminate			1	1
2024022	P311-0354-2024	AeHg-150	412	050	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-150	413	052	glass	indeterminate	food/beverage	beverage container	bottle: soda	base	stippling	green: lime	machine made		2	1
2024022	P311-0354-2024	AeHg-150	414	053	glass	indeterminate	food/beverage	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	415	054	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	hand painted	late palette			1	1
2024022	P311-0354-2024	AeHg-61	416	055	ceramic	coarse earthenware: red	food/beverage	storage container	indeterminate	body	glaze	brown			1	1
2024022	P311-0354-2024	AeHg-61	417	056	stone	chert: haldimand	tools/equipment		spoke shave	complete			knapped		1	1
2024022	P311-0354-2024	AeHg-61	418	057	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	422	058	ceramic	refined white earthenware	food/beverage	tableware	plate: dinner (9-12")	rim	edge decorated: green	impressed curved lines/scalloped			1	1
2024022	P311-0354-2024	AeHg-61	421	058	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	base	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	423	058	glass	indeterminate	furnishing	lighting	lamp chimney	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	419	058	ceramic	refined white earthenware	food/beverage	tableware	teacup	rim	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-61	420	058	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-61	424	059	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	hand painted	late palette		spalled	1	1
2024022	P311-0354-2024	AeHg-61	426	059	glass	indeterminate	food/beverage	beverage container	bottle: wine	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	425	059	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	427	060	ceramic	refined white earthenware	food/beverage	tableware	teacup	rim	transfer printed	blue			2	1
2024022	P311-0354-2024	AeHg-61	428	060	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	430	061	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	hand painted	late palette			1	1
2024022	P311-0354-2024	AeHg-61	432	061	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	431	061	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-61	429	061	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	433	062	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	434	063	ceramic	refined white earthenware	food/beverage	tableware	teacup	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	435	063	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	rim	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-61	436	064	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: dark	machine made		1	1
2024022	P311-0354-2024	AeHg-61	437	064	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	aqua: light	machine made		1	1
2024022	P311-0354-2024	AeHg-61	438	065	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	439	066	glass	indeterminate	food/beverage	beverage container	bottle: wine	base	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	440	067	ceramic	refined white earthenware	food/beverage	tableware	teacup	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	441	067	ceramic	refined white earthenware	personal/societal	health/hygiene	basin	rim	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-150	442	069	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-150	443	071	glass	indeterminate	food/beverage	beverage container	bottle: beer	body	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-150	444	072	glass	indeterminate	food/beverage	beverage container	bottle: beer	body	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-150	445	072	metal	indeterminate	indeterminate	indeterminate	clinker	incomplete				heat altered: melted	1	1
2024022	P311-0354-2024	L-02	446	073	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	black	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	L-02	447	074	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	black	indeterminate		1	1
2024022	P311-0354-2024	L-02	448	075	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	black	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-61	449	076	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-61	450	077	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	transfer printed	brown			1	1
2024022	P311-0354-2024	AeHg-61	452	078	ceramic	coarse earthenware: red	food/beverage	storage container	indeterminate	rim	glaze: lead	brown			1	1
2024022	P311-0354-2024	AeHg-61	451	078	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-61	454	079	glass	indeterminate	food/beverage	beverage container	bottle: wine	base	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-61	453	079	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	base	transfer printed	blue			1	1
2024022	P311-0354-2024	L-02	455	080	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	L-02	456	081	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	L-02	457	081	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	black	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-150	458	082	glass	indeterminate	food/beverage	beverage container	bottle: beer	body	plain	brown	machine made		2	1
2024022	P311-0354-2024	L-03	459	084	stone	chert: indeterminate	tools/equipment		flake: tertiary	incomplete	plain	grey: light	knapped		1	1
2024022	P311-0354-2024	L-03	460	085	glass	indeterminate	personal/societal	health/hygiene	bottle: rectangular	base	embossed	brown	machine made		1	1
2024022	P311-0354-2024	L-02	461	087	ceramic	refined white earthenware	food/beverage	tableware	teacup	rim	transfer printed	blue: dark			1	1
2024022	P311-0354-2024	L-02	462	088	metal	iron	tools/equipment	indeterminate	indeterminate	incomplete	plain				1	1
2024022	P311-0354-2024		463	089	ceramic	vitrified white earthenware	food/beverage	tableware	teacup	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024		464	089	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	L-03	465	090	stone	chert: indeterminate	tools/equipment		flake: tertiary	incomplete	plain	brown: light	knapped		1	1
2024022	P311-0354-2024	L-03	466	091	glass	indeterminate	food/beverage	beverage container	bottle: beer	base	plain	brown	machine made		1	1
2024022	P311-0354-2024		467	092	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	incomplete	plain	clear/colourless			1	1
2024022	P311-0354-2024		468	093	stone	chert: onondaga	tools/equipment		flake: tertiary	complete	plain		knapped		1	1

2024022	P311-0354-2024	L-03	469	095	ceramic	coarse earthenware: red	structural	building component	brick	incomplete	plain				1	1
2024022	P311-0354-2024	L-03	470	095	glass	indeterminate	food/beverage	beverage container	bottle: beer	body	plain	brown	machine made		1	1
2024022	P311-0354-2024	L-03	471	095	glass	indeterminate	food/beverage	beverage container	bottle: cylindrical	neck	plain	aqua: light	moulded		1	1
2024022	P311-0354-2024	L-03	472	097	glass	indeterminate	food/beverage	beverage container	bottle: beer	body	plain	brown	machine made		2	1
2024022	P311-0354-2024	L-03	473	098	stone	chert: onondaga	tools/equipment		flake: tertiary	incomplete	plain	grey: mottled	knapped		1	1
2024022	P311-0354-2024	AeHg-142	474	099	fauna	bone	fauna: indeterminate	bird	scapula	complete					1	1
2024022	P311-0354-2024	AeHg-142	475	100	ceramic	coarse earthenware: red	food/beverage	storage container	holloware: cylindrical	incomplete	glaze	brown			1	1
2024022	P311-0354-2024	AeHg-142	477	101	glass	indeterminate	food/beverage	tableware	holloware: indeterminate	body	diamonds	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	476	101	ceramic	vitrified white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	483	102	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	base	embossed	green: dark olive	machine made		1	1
2024022	P311-0354-2024	AeHg-142	482	102	ceramic	fine stoneware: white	food/beverage	storage container	crock	body	glaze: lead	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	479	102	ceramic	ironstone	food/beverage	tableware	plate: indeterminate	rim	moulded	Wheat			1	1
2024022	P311-0354-2024	AeHg-142	480	102	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	481	102	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	base	transfer printed	black			1	1
2024022	P311-0354-2024	AeHg-142	478	102	ceramic	vitrified white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	486	103	glass	indeterminate	personal/societal	health/hygiene	bottle: panel	body	embossed	aqua: light	machine made		1	1
2024022	P311-0354-2024	AeHg-142	487	103	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	embossed	aqua: light	machine made		1	1
2024022	P311-0354-2024	AeHg-142	489	103	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		5	1
2024022	P311-0354-2024	AeHg-142	488	103	glass	manganese	indeterminate	indeterminate	bottle: indeterminate	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	485	103	ceramic	porcelain: hard paste	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	484	103	ceramic	refined white earthenware	food/beverage	tableware	plate: dinner (9-12")	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	500	104	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	base	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	502	104	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	base	plain	green	machine made: Owens		1	1
2024022	P311-0354-2024	AeHg-142	501	104	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	499	104	ceramic	coarse stoneware: grey	food/beverage	storage container	crock	rim	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	492	104	ceramic	coarse stoneware: white	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	490	104	ceramic	fine earthenware: buff	food/beverage	storage container	holloware: cylindrical	body	glaze: Rockingham	brown			1	1
2024022	P311-0354-2024	AeHg-142	498	104	ceramic	porcelain: hard paste	food/beverage	tableware	teacup	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	491	104	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	glaze: yellow	yellow			1	1
2024022	P311-0354-2024	AeHg-142	493	104	ceramic	refined white earthenware	food/beverage	tableware	plate: dinner (9-12")	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	495	104	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	496	104	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	494	104	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	transfer printed: flow	blue			2	1
2024022	P311-0354-2024	AeHg-142	497	104	ceramic	vitrified white earthenware	food/beverage	tableware	teacup	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	504	105	glass	indeterminate	food/beverage	beverage container	bottle: case/gin	body	plain	green: olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	505	105	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	finish: 2 part	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	503	105	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	506	106	ceramic	coarse earthenware: orange	structural	building component	brick	incomplete	plain	orange			1	1
2024022	P311-0354-2024	AeHg-142	507	106	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	incomplete	glaze	brown			1	1
2024022	P311-0354-2024	AeHg-142	508	107	ceramic	coarse stoneware: brown	food/beverage	storage container	holloware: cylindrical	body	glaze	brown			1	1
2024022	P311-0354-2024	AeHg-142	509	107	ceramic	refined white earthenware	structural	electrical	electrical insulator	knob	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	513	108	glass	indeterminate	food/beverage	beverage container	holloware: cylindrical	body	embossed	aqua: light	machine made		1	1
2024022	P311-0354-2024	AeHg-142	510	108	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	finish: 1 part	plain	green: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	511	108	glass	indeterminate	food/beverage	beverage container	bottle: beer	body	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	512	108	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	515	109	ceramic	coarse earthenware: red	indeterminate	indeterminate	indeterminate	incomplete	plain				1	1
2024022	P311-0354-2024	AeHg-142	518	109	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	514	109	ceramic	coarse stoneware: grey	food/beverage	storage container	crock	body	glaze: salt	Albany (interior)			1	1
2024022	P311-0354-2024	AeHg-142	516	109	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	517	109	ceramic	vitrified white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	519	110	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	finish: 1 part	plain	green:dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	520	110	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	524	111	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	base	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	525	111	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	523	111	glass	manganese	indeterminate	indeterminate	holloware: cylindrical	neck	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	521	111	ceramic	refined white earthenware	food/beverage	tableware	holloware: indeterminate	rim	plain			heat altered: burnt	1	1
2024022	P311-0354-2024	AeHg-142	522	111	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	plain	clear/colourless		heat altered: burnt	1	1
2024022	P311-0354-2024	AeHg-142	526	112	glass	indeterminate	food/beverage	food container	holloware: indeterminate	incomplete	panel	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	527	112	glass	indeterminate	food/beverage	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	528	112	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: olive	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	529	112	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	hand painted	late pallette			1	1
2024022	P311-0354-2024	AeHg-142	533	113	glass	indeterminate	food/beverage	tableware	bowl	base	embossed	floral	machine made		1	1
2024022	P311-0354-2024	AeHg-142	531	113	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	532	113	glass	indeterminate	food/beverage	beverage container	bottle: beer	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	530	113	glass	indeterminate	structural	building component	window pane	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	536	113	ceramic	ironstone	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	534	113	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	535	113	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	base	impressed	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	537	113	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	542	114	ceramic	coarse earthenware: red	indeterminate	indeterminate	indeterminate	incomplete	glaze	brown: dark			1	1
2024022	P311-0354-2024	AeHg-142	541	114	fauna	dentition	fauna: indeterminate	indeterminate	tooth	complete					1	1
2024022	P311-0354-2024	AeHg-142	539	114	glass	indeterminate	food/beverage	indeterminate	holloware: cylindrical	incomplete	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	540	114	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	538	114	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	543	114	ceramic	coarse stoneware: grey	food/beverage	tableware	indeterminate	body	glaze: jackfield	brown: dark			1	1
2024022	P311-0354-2024	AeHg-142	544	114	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	545	114	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	transfer printed: flow	blue			1	1
2024022	P311-0354-2024	AeHg-142	546	114	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	547	114	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	548	115	glass	indeterminate	food/beverage	beverage container	bottle: soda	finish: crown	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	549	115	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	550	115	ceramic	coarse stoneware: white	food/beverage	tableware	holloware: indeterminate	body	glaze: lead	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	551	115	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	rim	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	556	116	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	shoulder	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	557	116	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	558	116	glass	manganese	indeterminate	indeterminate	holloware: indeterminate	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	555	116	ceramic	coarse stoneware: white	food/beverage	tableware	holloware: indeterminate	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	552	116	ceramic	fine stoneware: white	food/beverage	tableware	holloware: indeterminate	body	glaze: lead	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	554	116	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	553	116	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	transfer printed: flow	blue: dark			1	1
2024022	P311-0354-2024	AeHg-142	564	117	ceramic	coarse earthenware: red	indeterminate	indeterminate	indeterminate	body	glaze	brown: dark			1	1
2024022	P311-0354-2024	AeHg-142	559	117	fauna	bone	fauna: indeterminate	indeterminate	long bone	midshaft					1	1
2024022	P311-0354-2024	AeHg-142	562	117	glass	indeterminate	personal/societal	indeterminate	holloware: cylindrical	body	embossed	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	560	117	glass	indeterminate	personal/societal	heating/temperature control	lamp chimney	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	561	117	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	incomplete	ribbed	aqua: light	indeterminate		1	1

2024022	P311-0354-2024	AeHg-142	563	117	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	565	117	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	569	118	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: indeterminate	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	566	118	metal	iron	tools/equipment	building component	strap	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	567	118	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	clear/colourless	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	568	118	glass	manganese	indeterminate	indeterminate	holloware: cylindrical	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	570	118	ceramic	fine earthenware: red	food/beverage	tableware	indeterminate	body	glaze	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	572	118	ceramic	porcelain: hard paste	food/beverage	tableware	teacup	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	571	118	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	589	119	Clinker	indeterminate	furnishing	heating/temperature control	clinker						2	1
2024022	P311-0354-2024	AeHg-142	583	119	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	aqua: light	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	584	119	glass	indeterminate	food/beverage	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	585	119	glass	indeterminate	food/beverage	beverage container	bottle: case/gin	base	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	586	119	glass	indeterminate	food/beverage	beverage container	bottle: case/gin	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	587	119	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	588	119	glass	indeterminate	personal/societal	health/hygiene	bottle: indeterminate	neck	ribbed	screw finish	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	573	119	ceramic	coarse stoneware: white	food/beverage	tableware	holloware: indeterminate	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	582	119	ceramic	ironstone	food/beverage	tableware	bowl	rim	moulded	grapes			1	1
2024022	P311-0354-2024	AeHg-142	581	119	ceramic	ironstone	food/beverage	tableware	plate: indeterminate	rim	moulded	Wheat			1	1
2024022	P311-0354-2024	AeHg-142	580	119	ceramic	ironstone	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	576	119	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	575	119	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	transfer printed	green			1	1
2024022	P311-0354-2024	AeHg-142	574	119	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	transfer printed: flow	blue: dark			1	1
2024022	P311-0354-2024	AeHg-142	578	119	ceramic	vitrified white earthenware	food/beverage	tableware	teacup	body	moulded	floral			1	1
2024022	P311-0354-2024	AeHg-142	577	119	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	579	119	ceramic	vitrified white earthenware	food/beverage	tableware	plate: indeterminate	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	595	120	ceramic	coarse stoneware: brown	furnishing	building component	tile	incomplete	glaze	brown			1	1
2024022	P311-0354-2024	AeHg-142	593	120	glass	indeterminate	personal/societal	health/hygiene	bottle: indeterminate	finish: patent	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	590	120	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	incomplete	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	600	120	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	591	120	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	592	120	glass	manganese	indeterminate	indeterminate	indeterminate	incomplete	plain	purple: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	594	120	ceramic	fine stoneware: white	food/beverage	storage container	holloware: indeterminate	body	glaze: Rockingham				1	1
2024022	P311-0354-2024	AeHg-142	599	120	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	glaze	yellow			1	1
2024022	P311-0354-2024	AeHg-142	597	120	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	596	120	ceramic	refined white earthenware	food/beverage	tableware	teacup	body	sponged	blue			1	1
2024022	P311-0354-2024	AeHg-142	598	120	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	601	121	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	602	121	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	603	121	ceramic	vitrified white earthenware	food/beverage	tableware	bowl	body	plain	clear/colourless		heat altered: burnt	1	1
2024022	P311-0354-2024	AeHg-142	614	122	ceramic	coarse stoneware: grey	food/beverage	storage container	crock	lid	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	608	122	stone	chert: haldimand	tools/equipment		flake: secondary	complete					1	1
2024022	P311-0354-2024	AeHg-142	604	122	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	606	122	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	613	122	ceramic	fine earthenware: red	indeterminate	indeterminate	indeterminate	body	plain				1	1
2024022	P311-0354-2024	AeHg-142	605	122	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	607	122	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	plain	purple: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	612	122	ceramic	fine stoneware: grey	food/beverage	indeterminate	indeterminate	body	glaze	brown			1	1
2024022	P311-0354-2024	AeHg-142	611	122	ceramic	fine stoneware: grey	food/beverage	indeterminate	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	609	122	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	transfer printed	brown			1	1
2024022	P311-0354-2024	AeHg-142	610	122	ceramic	vitrified white earthenware	food/beverage	tableware	teacup	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	615	123	fauna	bone	indeterminate	indeterminate	mammal	mid shaft				heat altered: burnt	1	1
2024022	P311-0354-2024	AeHg-142	616	123	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete			indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	617	123	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	618	124	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	619	124	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	621	125	glass	indeterminate	food/beverage	beverage container	bottle: beer	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	620	125	ceramic	vitrified white earthenware	food/beverage	tableware	plate: indeterminate	body	decal/lithograph	blue			1	1
2024022	P311-0354-2024	AeHg-142	622	126	ceramic	fine stoneware: grey	food/beverage	tableware	holloware: indeterminate	body	glaze	brown: dark			1	1
2024022	P311-0354-2024	AeHg-142	623	127	glass	indeterminate	food/beverage	beverage container	bottle: wine	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	625	128	clinker	indeterminate	furnishing	heating/temperature control	clinker						1	1
2024022	P311-0354-2024	AeHg-142	624	128	glass	indeterminate	food/beverage	indeterminate	holloware: indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	627	129	ceramic	coarse earthenware: red	structural	building component	brick	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	626	129	ceramic	refined white earthenware	food/beverage	tableware	teacup	rim	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-142	634	130	glass	indeterminate	personal/societal	indeterminate	vase	rim	flat	blue: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	629	130	glass	indeterminate	food/beverage	indeterminate	holloware: indeterminate	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	630	130	glass	indeterminate	personal/societal	health/hygiene	neck	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	631	130	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	base	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	628	130	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	632	130	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	indeterminate	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	633	130	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	637	131	ceramic	coarse stoneware: white	food/beverage	tableware	indeterminate	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	635	131	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	636	131	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	646	132	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	638	132	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	639	132	glass	indeterminate	personal/societal	health/hygiene	holloware: polygonal	base	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	640	132	glass	indeterminate	food/beverage	beverage container	bottle: case/gin	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	641	132	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	stippling	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	645	132	ceramic	porcelain: hard paste	personal/societal	tableware	teacup: child's	base	ribbed	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	644	132	ceramic	porcelain: hard paste	indeterminate	indeterminate	indeterminate	rim	moulded	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	642	132	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	643	132	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	transfer printed	black			1	1
2024022	P311-0354-2024	AeHg-142	647	133	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	base	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	648	133	glass	manganese	indeterminate	indeterminate	indeterminate	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	649	133	ceramic	refined white earthenware	food/beverage	tableware	holloware: cylindrical	base	transfer printed: flow	blue			1	1
2024022	P311-0354-2024	AeHg-142	658	134	metal	iron	transportation	railway related	spike	complete					1	1
2024022	P311-0354-2024	AeHg-142	651	134	glass	indeterminate	food/beverage	beverage container	bottle: cylindrical	body	embossed	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	650	134	glass	indeterminate	food/beverage	beverage container	bottle: cylindrical	body	plain	aqua: light	indeterminate		5	1
2024022	P311-0354-2024	AeHg-142	652	134	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	653	134	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	654	134	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	stippling & flutes	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	655	134	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			7	1
2024022	P311-0354-2024	AeHg-142	656	134	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-142	657	134	ceramic	vitrified white earthenware	indeterminate	indeterminate	holloware: indeterminate	body	moulded	Wheat			1	1

2024022	P311-0354-2024	AeHg-142	659	135	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	661	135	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	663	135	coal	indeterminate	fuel	heating/temperature control	coal						1	1
2024022	P311-0354-2024	AeHg-142	662	135	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	finish: threaded	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	660	135	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	670	136	ceramic	coarse earthenware: buff	food/beverage	storage container	holloware: cylindrical	rim	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	667	136	ceramic	ironstone	food/beverage	tableware	holloware: indeterminate	body	moulded	Wheat			1	1
2024022	P311-0354-2024	AeHg-142	665	136	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	664	136	glass	indeterminate	indeterminate	indeterminate	indeterminate	rim	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	666	136	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	669	136	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	668	136	ceramic	vitrified white earthenware	indeterminate	indeterminate	holloware: indeterminate	body	moulded	linear			1	1
2024022	P311-0354-2024	AeHg-142	674	138	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	aqua	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	673	138	glass	indeterminate	food/beverage	beverage container	bottle: case/gin	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	676	138	glass	indeterminate	personal/societal	health/hygiene	bottle: indeterminate	finish: patent	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	671	138	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	675	138	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	672	138	glass	manganese	indeterminate	indeterminate	holloware: cylindrical	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	677	139	ceramic	ironstone	indeterminate	indeterminate	holloware: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	679	139	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: dark olive	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	680	139	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	678	139	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	686	140	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	685	140	ceramic	ironstone	indeterminate	indeterminate	holloware: indeterminate	rim	moulded	Wheat			1	1
2024022	P311-0354-2024	AeHg-142	687	140	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	688	140	fauna	bone	food/beverage		mammal	long bone				butchered	1	1
2024022	P311-0354-2024	AeHg-142	681	140	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	682	140	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	transfer printed	brown			1	1
2024022	P311-0354-2024	AeHg-142	683	140	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	684	140	ceramic	vitrified white earthenware	food/beverage	tableware	teacup	body	transfer printed	red			1	1
2024022	P311-0354-2024	AeHg-142	691	141	ceramic	coarse earthenware: buff	indeterminate	indeterminate	indeterminate	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	692	141	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	base	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	693	141	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: indeterminate	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	689	141	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	690	141	glass	manganese	indeterminate	indeterminate	holloware: indeterminate	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	695	141	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	moulded	floral			1	1
2024022	P311-0354-2024	AeHg-142	694	141	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	697	142	ceramic	fine earthenware: red	food/beverage	tableware	indeterminate	body	glaze: salt	red			1	1
2024022	P311-0354-2024	AeHg-142	700	142	fauna	dentition	indeterminate	indeterminate	mammal	tooth					1	1
2024022	P311-0354-2024	AeHg-142	698	142	glass	indeterminate	food/beverage	beverage container	bottle: soda	shoulder	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	699	142	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	696	142	ceramic	refined white earthenware	food/beverage	tableware	cup/mug	body	transfer printed	red			1	1
2024022	P311-0354-2024	AeHg-142	703	143	glass	indeterminate	furnishing	heating/temperature control	lamp covering	base	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	702	143	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	701	143	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	711	144	ceramic	coarse stoneware: buff	food/beverage	storage container	holloware: cylindrical	body	glaze	brown			1	1
2024022	P311-0354-2024	AeHg-142	710	144	ceramic	coarse stoneware: buff	food/beverage	storage container	crock	rim	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	712	144	fauna	bone	indeterminate	indeterminate	mammal	long bone				heat altered: calcined	1	1
2024022	P311-0354-2024	AeHg-142	706	144	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	713	144	coal	indeterminate	furnishing	heating/temperature control	coal						2	1
2024022	P311-0354-2024	AeHg-142	705	144	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	incomplete	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	707	144	glass	indeterminate	food/beverage	beverage container	bottle: cylindrical	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	708	144	glass	indeterminate	food/beverage	storage container	jar: cylindrical	finish: threaded	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	704	144	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	clear/colourless	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	709	144	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	723	145	ceramic	coarse earthenware: buff	indeterminate	indeterminate	indeterminate	body	glaze: brown	mottled brown			1	1
2024022	P311-0354-2024	AeHg-142	722	145	ceramic	coarse earthenware: buff	food/beverage	storage container	crock	base	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	720	145	ceramic	porcelain: hard paste	indeterminate	indeterminate	indeterminate	incomplete	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	717	145	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	715	145	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	716	145	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	718	145	glass	manganese	indeterminate	indeterminate	holloware: indeterminate	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	721	145	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			4	1
2024022	P311-0354-2024	AeHg-142	719	145	ceramic	vitrified white earthenware	food/beverage	tableware	plate: indeterminate	footring/footrim	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	724	146	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: indeterminate	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	725	146	fauna	bone	food/beverage		mammal	long bone				butchered	1	1
2024022	P311-0354-2024	AeHg-142	726	147	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	727	147	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	729	148	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	indeterminate		indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	728	148	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	731	149	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	730	149	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	736	150	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	735	150	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	734	150	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	starburst	embossed pattern	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	733	150	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-142	732	150	ceramic	vitrified white earthenware	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	737	151	ceramic	ironstone	indeterminate	indeterminate	indeterminate	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	738	151	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	740	152	ceramic	coarse earthenware: red	structural	building component	brick	body	plain				1	1
2024022	P311-0354-2024	AeHg-142	743	152	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	744	152	metal	iron	furnishing	horse related	horse equipment: shoe: other anima	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	741	152	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	742	152	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	739	152	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	746	153	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	745	153	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	750	154	ceramic	coarse stoneware: buff	food/beverage	storage container	holloware: indeterminate	body	glaze	brown			1	1
2024022	P311-0354-2024	AeHg-142	749	154	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: indeterminate	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	751	154	metal	iron	structural	building component	strap	incomplete	fastener hole				1	1
2024022	P311-0354-2024	AeHg-142	747	154	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	748	154	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	blue: cobalt	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	752	155	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: indeterminate	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	753	155	ceramic	coarse stoneware: white	food/beverage	storage container	holloware: indeterminate	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	754	156	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	base	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1

2024022	P311-0354-2024	AeHg-142	756	157	stone	chert: haldimand	tools/equipment		flake: secondary	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	755	157	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	757	158	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: dark olive	indeterminate	patinated	1	1
2024022	P311-0354-2024	AeHg-142	758	158	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	ribbed	embossed pattern	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	759	158	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	plain	pink	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	760	158	ceramic	vitrified white earthenware	food/beverage	tableware	cup/mug	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	767	159	ceramic	coarse earthenware: buff	indeterminate	indeterminate	indeterminate	body	glaze: yellow				1	1
2024022	P311-0354-2024	AeHg-142	768	159	ceramic	coarse earthenware: red	structural	building component	brick	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	766	159	ceramic	ironstone	indeterminate	indeterminate	holloware: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	762	159	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	769	159	coal	indeterminate	furnishing	heating/temperature control	coal						1	1
2024022	P311-0354-2024	AeHg-142	761	159	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		2	1
2024022	P311-0354-2024	AeHg-142	763	159	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	base	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	764	159	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	765	159	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	771	160	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	774	160	coal	indeterminate	furnishing	heating/temperature control	coal						2	1
2024022	P311-0354-2024	AeHg-142	772	160	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	773	160	glass	manganese	indeterminate	indeterminate	holloware: cylindrical	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	770	160	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	775	161	ceramic	coarse stoneware: white	food/beverage	storage container	holloware: indeterminate	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	777	161	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	776	161	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	780	161	glass	indeterminate	personal/societal	health/hygiene	bottle: indeterminate	finish: Davis type	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	778	161	glass	indeterminate	indeterminate	indeterminate	holloware: polygonal	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	779	161	glass	indeterminate	structural	building component	window pane	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	787	162	ceramic	coarse earthenware: buff	structural	building component	tile	incomplete	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	781	162	ceramic	porcelain: hard paste	structural	building component	knob	incomplete	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	785	162	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	788	162	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	786	162	synthetic	plastic	indeterminate	indeterminate	indeterminate	incomplete	ribbed	black			1	1
2024022	P311-0354-2024	AeHg-142	782	162	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			4	1
2024022	P311-0354-2024	AeHg-142	784	162	ceramic	refined white earthenware	indeterminate	indeterminate	indeterminate	incomplete	moulded				1	1
2024022	P311-0354-2024	AeHg-142	783	162	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	791	163	ceramic	ironstone	indeterminate	indeterminate	indeterminate	incomplete	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	789	163	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	790	163	glass	indeterminate	structural	building component	window pane	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	793	163	ceramic	refined white earthenware	food/beverage	tableware	teacup	body	hand painted	late pallette			1	1
2024022	P311-0354-2024	AeHg-142	792	163	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	794	164	stone	chert: haldimand	tools/equipment		flake: tertiary	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	795	165	stone	chert: indeterminate	tools/equipment		flake: indeterminate	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	800	166	ceramic	coarse earthenware: red	structural	building component	tile	body	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	799	166	ceramic	fine earthenware: red	indeterminate	indeterminate	indeterminate	body	glaze: salt	red			1	1
2024022	P311-0354-2024	AeHg-142	796	166	glass	indeterminate	food/beverage	beverage container	bottle: beer	base	stippling	embossed pattern	machine made		1	1
2024022	P311-0354-2024	AeHg-142	797	166	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	798	166	ceramic	vitrified white earthenware	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	806	167	ceramic	coarse earthenware: buff	food/beverage	tableware	holloware: cylindrical	body	glaze: Rockingham				1	1
2024022	P311-0354-2024	AeHg-142	802	167	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	803	167	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	801	167	glass	indeterminate	structural	building component	window pane	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	805	167	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-142	804	167	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	809	168	ceramic	porcelain: hard paste	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	808	168	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	807	168	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	811	169	glass	indeterminate	personal/societal	health/hygiene	bottle: polygonal	body	plain	aqua: light	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	810	169	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	812	169	ceramic	vitrified white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	813	170	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	aqua: light	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	814	171	ceramic	fine earthenware: buff	food/beverage	tableware	indeterminate	body	glaze: salt	brown			1	1
2024022	P311-0354-2024	AeHg-142	816	171	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	815	171	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	819	172	ceramic	coarse earthenware: red	indeterminate	indeterminate	indeterminate	incomplete	glaze: brown				1	1
2024022	P311-0354-2024	AeHg-142	822	172	ceramic	coarse stoneware: white	food/beverage	storage container	holloware: indeterminate	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	818	172	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	817	172	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	821	172	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	820	172	ceramic	vitrified white earthenware	food/beverage	tableware	teacup	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	825	173	ceramic	coarse earthenware: buff	food/beverage	storage container	holloware: indeterminate	incomplete	slipped	Albany (interior)			1	1
2024022	P311-0354-2024	AeHg-142	823	173	glass	indeterminate	food/beverage	beverage container	bottle: case/gin	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	824	173	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-142	827	173	ceramic	vitrified white earthenware	food/beverage	tableware	cup/mug	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	826	173	ceramic	vitrified white earthenware	food/beverage	tableware	cup/mug	body	transfer printed	red			1	1
2024022	P311-0354-2024	AeHg-142	828	174	ceramic	porcelain: hard paste	indeterminate	indeterminate	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	830	174	glass	indeterminate	indeterminate	indeterminate	holloware: polygonal	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	834	174	fauna	bone	food/beverage		mammal	long bone				butchered	1	1
2024022	P311-0354-2024	AeHg-142	833	174	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	831	174	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	832	174	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	829	174	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	836	175	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	837	175	coal	indeterminate	furnishing	heating/temperature control	coal						1	1
2024022	P311-0354-2024	AeHg-142	835	175	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	840	176	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	838	176	glass	indeterminate	food/beverage	beverage container	bottle: beer	base	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	839	176	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	841	176	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	845	177	ceramic	coarse earthenware: buff	indeterminate	indeterminate	indeterminate	incomplete	slipped	Albany (interior)			1	1
2024022	P311-0354-2024	AeHg-142	847	177	ceramic	coarse earthenware: orange	structural	building component	brick	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	844	177	ceramic	coarse stoneware: brown	food/beverage	storage container	crock	rim	glaze: salt	brown			1	1
2024022	P311-0354-2024	AeHg-142	846	177	ceramic	coarse stoneware: red	structural	building component	tile: drainage	rim	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	842	177	ceramic	coarse stoneware: white	food/beverage	storage container	crock	rim	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	843	177	ceramic	coarse stoneware: white	food/beverage	storage container	holloware: cylindrical	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	850	177	ceramic	ironstone	food/beverage	tableware	holloware: indeterminate	body	moulded	floral			1	1
2024022	P311-0354-2024	AeHg-142	853	177	metal	iron	structural	building component	nail: indeterminate	head	rectangular head		machine made		1	1

2024022	P311-0354-2024	AeHg-142	854	177	synthetic	rubber	personal/societal	footwear	shoe	heal	embossed				1	1
2024022	P311-0354-2024	AeHg-142	851	177	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			3	1
2024022	P311-0354-2024	AeHg-142	852	177	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	incomplete	transfer printed	aqua			1	1
2024022	P311-0354-2024	AeHg-142	849	177	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: indeterminate	rim	moulded	floral			1	1
2024022	P311-0354-2024	AeHg-142	848	177	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	863	178	glass	indeterminate	indeterminate	indeterminate	indeterminate	body	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	856	178	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	plain	clear/colourless	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	855	178	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	857	178	glass	indeterminate	food/beverage	beverage container	bottle: indeterminate	body	plain	green	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	858	178	glass	indeterminate	food/beverage	beverage container	bottle: soda	finish: crown	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	862	178	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	864	178	glass	indeterminate	food/beverage	beverage container	bottle: beer	base	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	865	178	glass	indeterminate	personal/societal	health/hygiene	bottle: cylindrical	base	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	867	178	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	866	178	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		9	1
2024022	P311-0354-2024	AeHg-142	859	178	glass	manganese	indeterminate	indeterminate	bottle: indeterminate	neck	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	860	178	glass	indeterminate	indeterminate	indeterminate	holloware: indeterminate	body	embossed	snowflake	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	861	178	glass	indeterminate	indeterminate	indeterminate	indeterminate	base	embossed	spikes	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	869	178	glass	indeterminate	indeterminate	indeterminate	indeterminate	incomplete	plain	white	machine made		1	1
2024022	P311-0354-2024	AeHg-142	868	178	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	871	179	ceramic	coarse earthenware: red	structural	building component	pipe: drain	incomplete	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	872	179	glass	indeterminate	indeterminate		indeterminate	incomplete	indeterminate	brown	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	873	179	glass	indeterminate	indeterminate		bottle: indeterminate	finish: threaded	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	874	179	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		5	1
2024022	P311-0354-2024	AeHg-142	870	179	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	876	180	fauna	bone	fauna: indeterminate		mammal	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	877	180	stone	chert: haldimand	tools/equipment		flake: indeterminate	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	878	181	ceramic	coarse earthenware: red	structural	building component	pipe: drain	incomplete	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	880	181	ceramic	porcelain: hard paste	food/beverage	tableware	teacup	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	881	181	ceramic	refined white earthenware	food/beverage	tableware	saucer	footring/footrim	transfer printed: flow	blue			1	1
2024022	P311-0354-2024	AeHg-142	889	181	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	885	181	glass	indeterminate	indeterminate		bottle: oval	base	embossed	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	886	181	glass	indeterminate	indeterminate		jar: indeterminate	finish: lug	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	888	181	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	887	181	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	884	181	synthetic	plastic: indeterminate	indeterminate		indeterminate	incomplete	plain	white	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	882	181	ceramic	vitrified white earthenware	food/beverage	tableware	plate: bread (3-7")	rim	moulded	rim line			1	1
2024022	P311-0354-2024	AeHg-142	883	181	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	879	181	ceramic	yellowware	food/beverage	food preparation	bowl	rim	glaze: Rockingham	brown			1	1
2024022	P311-0354-2024	AeHg-142	875	182	stone	chert: indeterminate	tools/equipment		flake: secondary	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	890	183	ceramic	refined white earthenware	food/beverage	tableware	flatware	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	892	183	glass	indeterminate	indeterminate		holloware: indeterminate	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	891	183	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	893	184	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	895	184	ceramic	porcelain: hard paste	food/beverage	tableware	saucer	footring/footrim	moulded	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	894	184	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	898	185	ceramic	refined white earthenware	food/beverage	tableware	cup/mug	rim	moulded	rim line			1	1
2024022	P311-0354-2024	AeHg-142	896	185	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	897	185	ceramic	yellowware	food/beverage	tableware	teapot	spout	glaze: Rockingham	brown			1	1
2024022	P311-0354-2024	AeHg-142	902	186	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	904	186	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	901	186	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	amber	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	900	186	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	899	186	metal	metal: ind. White	indeterminate		sheet	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	903	186	ceramic	vitrified white earthenware	food/beverage	tableware	saucer	body	transfer printed	aqua			1	1
2024022	P311-0354-2024	AeHg-142	908	188	ceramic	coarse earthenware: red	food/beverage	food container	holloware: cylindrical	body	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	907	188	ceramic	porcelain: hard paste	structural	building component	knob	incomplete	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	909	188	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	906	188	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	905	188	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: light	machine made		1	1
2024022	P311-0354-2024	AeHg-142	910	188	ceramic	vitrified white earthenware	food/beverage	tableware	flatware	base	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	913	189	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	911	189	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: light	machine made		1	1
2024022	P311-0354-2024	AeHg-142	912	189	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	914	190	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	916	190	glass	indeterminate	indeterminate		holloware: cylindrical	incomplete	embossed: lettering	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	915	190	glass	indeterminate	indeterminate		jar: indeterminate	finish: threaded	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	919	190	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		8	1
2024022	P311-0354-2024	AeHg-142	918	190	glass	indeterminate	food/beverage	tableware	bowl	rim	moulded	clear/colourless	moulded: contact	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	917	190	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	923	191	glass	indeterminate	indeterminate		indeterminate	base	embossed: lettering	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	922	191	glass	indeterminate	indeterminate		indeterminate	incomplete	indeterminate	clear/colourless	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	924	191	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	921	191	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	920	191	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	929	192	ceramic	refined white earthenware	food/beverage	tableware	flatware	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	926	192	ceramic	refined white earthenware	food/beverage	tableware	teacup	body	transfer printed	blue			1	1
2024022	P311-0354-2024	AeHg-142	925	192	composite	porcelain: hard paste	structural	building component	knob	complete	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	933	192	glass	indeterminate	indeterminate		holloware: polygonal	body	plain	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	934	192	glass	indeterminate	indeterminate		bottle: cylindrical	base	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	935	192	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	930	192	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: light	machine made		1	1
2024022	P311-0354-2024	AeHg-142	932	192	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	finish: 2 part	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	931	192	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	927	192	ceramic	vitrified white earthenware	food/beverage	tableware	saucer	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	928	192	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	937	193	ceramic	coarse earthenware: red	tools/equipment	agricultural	flower pot	body	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	938	193	ceramic	coarse stoneware: buff	furnishing	decorative	jardinière saucer	incomplete	moulded/slipped	grey-green			1	1
2024022	P311-0354-2024	AeHg-142	936	193	ceramic	porcelain: hard paste	food/beverage	tableware	saucer	footring/footrim	decal/lithograph	polychrome			1	1
2024022	P311-0354-2024	AeHg-142	942	193	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	940	193	glass	indeterminate	indeterminate		bottle: cylindrical	body	plain	brown	moulded: contact	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	945	193	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		5	1
2024022	P311-0354-2024	AeHg-142	946	193	metal	copper alloy	personal/societal	commerce	coin: penny	complete	Canadian	18--			1	1
2024022	P311-0354-2024	AeHg-142	939	193	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	943	193	glass	indeterminate	food/beverage	tableware	holloware: cylindrical	body	ribbed	clear/colourless	moulded: contact		1	1

2024022	P311-0354-2024	AeHg-142	944	193	glass	indeterminate	food/beverage	food container	bottle: cylindrical	body	ribbed	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	941	193	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	953	194	ceramic	coarse earthenware: red	tools/equipment	agricultural	flower pot	body	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	952	194	ceramic	coarse stoneware: buff	food/beverage	storage container	holloware: cylindrical	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	955	194	ceramic	refined white earthenware	food/beverage	tableware	saucer	body	transfer printed	brown			1	1
2024022	P311-0354-2024	AeHg-142	950	194	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	951	194	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	956	194	coal		fuel		sample						1	1
2024022	P311-0354-2024	AeHg-142	948	194	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	949	194	glass	indeterminate	food/beverage	beverage container	bottle: wine	base	plain	green: olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	947	194	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	954	194	ceramic	yelloware	food/beverage	tableware	holloware: cylindrical	body	glaze: Rockingham	brown			1	1
2024022	P311-0354-2024	AeHg-142	963	195	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	glaze: salt	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	965	195	ceramic	refined white earthenware	food/beverage	tableware	cup/mug	rim	transfer printed	brown			1	1
2024022	P311-0354-2024	AeHg-142	966	195	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	base	transfer printed	green: dark			1	1
2024022	P311-0354-2024	AeHg-142	962	195	glass	indeterminate	indeterminate		holloware: cylindrical	base	knurled	clear/colourless	machine made		2	2
2024022	P311-0354-2024	AeHg-142	960	195	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		4	1
2024022	P311-0354-2024	AeHg-142	961	195	glass	indeterminate	indeterminate		holloware: polygonal	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	957	195	glass	indeterminate	food/beverage	beverage container	bottle: flask	base/body	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	958	195	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	959	195	glass	manganese	indeterminate		holloware: cylindrical	body	plain	purple: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	964	195	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	rim	transfer printed/moulded	aqua			1	1
2024022	P311-0354-2024	AeHg-142	969	196	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	968	196	glass	indeterminate	food/beverage	beverage container	bottle: wine	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	967	196	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	972	197	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	971	197	ceramic	refined white earthenware	food/beverage	tableware	flatware	rim	transfer printed	black		spalled	1	1
2024022	P311-0354-2024	AeHg-142	970	197	fauna	bone	fauna: indeterminate		mammal	incomplete				butchered	1	1
2024022	P311-0354-2024	AeHg-142	976	197	glass	manganese	personal/societal	health/hygiene	bottle: panel	body	embossed: lettering	purple: light	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	975	197	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	body	plain	green: dark olive	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	974	197	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	973	197	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	979	198	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	977	198	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	978	198	ceramic	vitrified white earthenware	food/beverage	tableware	teapot	lid	transfer printed	black			1	1
2024022	P311-0354-2024	AeHg-142	982	199	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	980	199	glass	indeterminate	personal/societal	health/hygiene	bottle: indeterminate	finish: prescription	plain	aqua: light	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	981	199	glass	indeterminate	indeterminate	indeterminate	holloware: cylindrical	body	indeterminate		indeterminate		ironstone	1
2024022	P311-0354-2024	AeHg-142	983	200	ceramic	coarse stoneware: buff	furnishing	decorative	jardinière saucer	incomplete	moulded/slipped	grey-green			1	1
2024022	P311-0354-2024	AeHg-142	984	200	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	lid	glaze: salt	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	985	200	ceramic	porcelain: hard paste	structural	building component	knob	complete	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	988	200	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	986	200	glass	indeterminate	food/beverage	tableware	flatware	rim	plain	white	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	987	200	glass	indeterminate	food/beverage	beverage container	bottle: alcohol	body	plain	green: dark olive	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	994	201	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	995	201	ceramic	porcelain: hard paste	food/beverage	tableware	gravy boat	handle	decal/lithograph	polychrome			1	1
2024022	P311-0354-2024	AeHg-142	990	201	glass	indeterminate	indeterminate		holloware: cylindrical	base	knurled	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	989	201	glass	indeterminate	indeterminate		holloware: cylindrical	base	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	991	201	glass	indeterminate	indeterminate		jar: indeterminate	finish: lug	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	992	201	glass	indeterminate	food/beverage	beverage container	bottle: soda	neck	embossed: lettering	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	993	201	glass	indeterminate	personal/societal	health/hygiene	bottle: polygonal	body	plain	white	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	996	201	metal	iron	indeterminate		indeterminate	incomplete	decorated		cast		1	1
2024022	P311-0354-2024	AeHg-142	1000	202	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	997	202	fauna	bone	fauna: indeterminate		mammal	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	999	202	glass	indeterminate	structural	building component	window pane	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	998	202	metal	iron	indeterminate		container: indeterminate	rim: rolled					1	1
2024022	P311-0354-2024	AeHg-142	1002	203	ceramic	coarse stoneware: buff	furnishing	decorative	jardinière saucer	incomplete	moulded/slipped	grey-green			1	1
2024022	P311-0354-2024	AeHg-142	1001	203	ceramic	refined white earthenware	personal/societal	health/hygiene	chamber pot	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1005	203	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1006	203	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1003	203	glass	indeterminate	indeterminate		bottle: cylindrical	base	ribbed	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1004	203	glass	manganese	indeterminate		holloware: cylindrical	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1011	204	ceramic	porcelain: hard paste	indeterminate		saucer	body	moulded	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1007	204	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1009	204	glass	indeterminate	indeterminate		bottle: oval	base	embossed: numbering	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1008	204	glass	indeterminate	indeterminate		jar: indeterminate	finish: threaded	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1010	204	glass	indeterminate	indeterminate		bottle: indeterminate	body	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1018	205	ceramic	refined white earthenware	food/beverage	tableware	holloware: cylindrical	body	moulded	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1017	205	ceramic	refined white earthenware	food/beverage	tableware	saucer	rim	transfer printed	aqua			1	1
2024022	P311-0354-2024	AeHg-142	1014	205	glass	indeterminate	indeterminate		indeterminate	incomplete	indeterminate	clear/colourless	indeterminate	heat altered: melted	2	1
2024022	P311-0354-2024	AeHg-142	1015	205	glass	indeterminate	indeterminate		bottle: polygonal	base	plain	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1012	205	glass	indeterminate	food/beverage	beverage container	bottle: wine	body	plain	green: dark olive	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1016	205	glass	indeterminate	personal/societal	health/hygiene	bottle: polygonal	base	plain	blue: cobalt	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1013	205	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	1019	205	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1020	207	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1022	207	glass	indeterminate	indeterminate		bottle: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1024	207	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	1023	207	glass	indeterminate	personal/societal	health/hygiene	bottle: polygonal	base	plain	white	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1025	207	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		7	1
2024022	P311-0354-2024	AeHg-142	1026	207	metal	iron	indeterminate		indeterminate	incomplete			cast		1	1
2024022	P311-0354-2024	AeHg-142	1021	207	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1028	208	ceramic	refined white earthenware	food/beverage	tableware	holloware: cylindrical	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	1033	208	glass	indeterminate	indeterminate		bottle: cylindrical	base	knurled	clear/colourless	machine made		2	1
2024022	P311-0354-2024	AeHg-142	1032	208	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		7	1
2024022	P311-0354-2024	AeHg-142	1029	208	glass	indeterminate	personal/societal	health/hygiene	holloware: indeterminate	body	moulded	white	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1030	208	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1031	208	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		5	1
2024022	P311-0354-2024	AeHg-142	1034	208	metal	metal: ind. White	indeterminate		closure: screw band lid						1	1
2024022	P311-0354-2024	AeHg-142	1027	208	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	rim	decal/lithograph	polychrome			1	1
2024022	P311-0354-2024	AeHg-142	1037	209	glass	indeterminate	indeterminate		bottle: indeterminate	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1036	209	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	1035	209	glass	indeterminate	structural	building component	window pane	incomplete	plain	clear/colourless	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	1044	210	ceramic	coarse earthenware: red	tools/equipment	agricultural	flower pot	body	glaze: none				2	1
2024022	P311-0354-2024	AeHg-142	1045	210	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	lid	glaze: salt	clear/colourless			1	1

2024022	P311-0354-2024	AeHg-142	1048	210	ceramic	porcelain: hard paste	personal/societal	decorative	figure	incomplete	moulded	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1039	210	glass	indeterminate	indeterminate		bottle: cylindrical	base	knurled	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1041	210	glass	indeterminate	indeterminate		jar: cylindrical	finish: threaded	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1042	210	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		5	1
2024022	P311-0354-2024	AeHg-142	1043	210	glass	indeterminate	indeterminate		holloware: polygonal	body	plain	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1038	210	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		2	1
2024022	P311-0354-2024	AeHg-142	1040	210	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	1046	210	ceramic	vitrified white earthenware	food/beverage	tableware	platter	base	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1047	210	ceramic	vitrified white earthenware	personal/societal	health/hygiene	toilet bowl	body	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	1053	211	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1052	211	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1050	211	glass	indeterminate	indeterminate		jar: indeterminate	finish: threaded	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1051	211	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1054	211	fauna	bone	fauna: indeterminate		mammal	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	1049	211	glass	indeterminate	personal/societal	health/hygiene	bottle: indeterminate	body	ribbed	brown	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1063	213	ceramic	coarse earthenware: red	tools/equipment	agricultural	flower pot	body	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	1062	213	ceramic	porcelain: hard paste	structural	building component	knob	complete	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1056	213	glass	indeterminate	indeterminate		holloware: indeterminate	base/body	plain	brown	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1059	213	glass	indeterminate	indeterminate		jar: indeterminate	finish: threaded	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1061	213	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		7	1
2024022	P311-0354-2024	AeHg-142	1057	213	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	enamelled	green: lime	machine made	heat altered: burnt	2	1
2024022	P311-0354-2024	AeHg-142	1055	213	glass	indeterminate	food/beverage	food container	stopper: club-sauce type	complete	plain	aqua: light	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1060	213	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		4	1
2024022	P311-0354-2024	AeHg-142	1058	213	glass	manganese	indeterminate		holloware: indeterminate	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1065	214	ceramic	coarse earthenware: red	food/beverage	food container	holloware: cylindrical	body	glaze: lead	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1064	214	ceramic	refined white earthenware	food/beverage	tableware	platter	base	perforated	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1068	214	glass	indeterminate	indeterminate		bottle: polygonal	body	plain	clear/colourless	moulded: contact		3	1
2024022	P311-0354-2024	AeHg-142	1069	214	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	1066	214	glass	indeterminate	food/beverage	beverage container	holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1067	214	glass	indeterminate	personal/societal	health/hygiene	bottle: oval	base	plain	clear/colourless	machine made: Owens		1	1
2024022	P311-0354-2024	AeHg-142	1070	215	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	base	glaze: salt	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1073	215	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	blue: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1075	215	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	1071	215	coal	indeterminate	fuel		sample						1	1
2024022	P311-0354-2024	AeHg-142	1074	215	glass	indeterminate	food/beverage	beverage container	holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1072	215	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1079	216	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	1078	216	glass	indeterminate	indeterminate		holloware: cylindrical	body	embossed: lettering	aqua: light	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1077	216	glass	indeterminate	indeterminate		holloware: cylindrical	incomplete	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1076	216	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1080	217	metal	iron	furnishing	heating/temperature control	stove: indeterminate	incomplete			cast		1	1
2024022	P311-0354-2024	AeHg-142	1084	217	glass	indeterminate	personal/societal	health/hygiene	bottle: cylindrical	body	embossed: lettering	blue: light	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1082	217	glass	indeterminate	food/beverage	beverage container	holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1083	217	glass	indeterminate	personal/societal	health/hygiene	bottle: panel	body	plain	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1081	217	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1087	219	ceramic	refined white earthenware	food/beverage	tableware	plate: indeterminate	base	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1086	219	glass	indeterminate	indeterminate		bottle: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1085	219	glass	indeterminate	indeterminate		bottle: cylindrical	body	plain	green: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1090	220	glass	indeterminate	indeterminate		holloware: polygonal	body	plain	brown	moulded: contact		3	1
2024022	P311-0354-2024	AeHg-142	1093	220	glass	indeterminate	indeterminate		bottle: oval	base	plain	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1094	220	glass	indeterminate	indeterminate		jar: indeterminate	finish: threaded	plain	clear/colourless	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	1095	220	glass	indeterminate	indeterminate		bottle: indeterminate	finish: 2 part	plain	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1096	220	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1089	220	metal	iron	indeterminate		sheet	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	1091	220	glass	indeterminate	personal/societal	health/hygiene	holloware: indeterminate	body	plain	blue: cobalt	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1092	220	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1088	220	synthetic	rubber: indeterminate	indeterminate		tube	incomplete	plain	black	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1097	220	ceramic	vitrified white earthenware	food/beverage	tableware	plate: indeterminate	base	plain	clear/colourless			2	1
2024022	P311-0354-2024	AeHg-142	1099	221	ceramic	porcelain: hard paste	food/beverage	tableware	saucer	rim	hand painted	rim line: blue			1	1
2024022	P311-0354-2024	AeHg-142	1100	221	ceramic	porcelain: hard paste	food/beverage	tableware	saucer	footring/footrim	moulded	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1109	221	fauna	bone	indeterminate		mammal	incomplete				butchered	1	1
2024022	P311-0354-2024	AeHg-142	1103	221	glass	indeterminate	indeterminate		jar: indeterminate	body	plain	aqua: light	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	1104	221	glass	indeterminate	indeterminate		holloware: cylindrical	base	knurled	brown	indeterminate		2	1
2024022	P311-0354-2024	AeHg-142	1106	221	glass	indeterminate	indeterminate		jar: indeterminate	finish: 2 part	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1107	221	glass	indeterminate	indeterminate		bottle: rectangular	base	plain	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1108	221	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1110	221	metal	iron	indeterminate		washer	complete					1	1
2024022	P311-0354-2024	AeHg-142	1105	221	glass	manganese	indeterminate		holloware: indeterminate	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1102	221	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		4	1
2024022	P311-0354-2024	AeHg-142	1101	221	ceramic	vitrified white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1098	221	ceramic	vitrified white earthenware	food/beverage	tableware	plate: dinner (9-12")	rim	transfer printed	pink			1	1
2024022	P311-0354-2024	AeHg-142	1111	222	glass	indeterminate	personal/societal	health/hygiene	bottle: rectangular	body	plain	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1112	222	ceramic	vitrified white earthenware	food/beverage	tableware	flatware	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1113	223	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	body	slipped/glaze: salt	Albany (interior)/clear (exterior)			1	1
2024022	P311-0354-2024	AeHg-142	1116	223	metal	iron	indeterminate		indeterminate	incomplete	plain				1	1
2024022	P311-0354-2024	AeHg-142	1115	223	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1114	223	ceramic	yelloware	food/beverage	food preparation	holloware: cylindrical	base	glaze: Rockingham	brown			1	1
2024022	P311-0354-2024	AeHg-142	1117	224	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1121	224	glass	indeterminate	indeterminate		holloware: cylindrical	body	enamelled	clear/colourless	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1122	224	glass	indeterminate	indeterminate		indeterminate	incomplete	indeterminate	clear/colourless	indeterminate	heat altered: melted	1	1
2024022	P311-0354-2024	AeHg-142	1120	224	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	1118	224	glass	indeterminate	personal/societal	health/hygiene	bottle: polygonal	body	fluted	white	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1119	224	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1129	225	ceramic	coarse earthenware: red	tools/equipment	agricultural	flower pot	body	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	1128	225	ceramic	refined white earthenware	indeterminate		indeterminate	body	plain	clear/colourless	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	1132	225	ceramic	porcelain: hard paste	food/beverage	tableware	saucer	footring/footrim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1131	225	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1130	225	ceramic	refined white earthenware	food/beverage	tableware	saucer	rim	sponged	blue			1	1
2024022	P311-0354-2024	AeHg-142	1126	225	glass	indeterminate	indeterminate		bottle: indeterminate	body	plain	aqua: light	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1127	225	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1124	225	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1123	225	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1125	225	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1134	226	ceramic	refined white earthenware	food/beverage	tableware	indeterminate	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1137	226	glass	indeterminate	indeterminate		holloware: indeterminate	body	moulded	clear/colourless	moulded: contact		2	1

2024022	P311-0354-2024	AeHg-142	1135	226	glass	indeterminate	indeterminate		jar: indeterminate	finish: threaded	plain	clear/colourless	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1136	226	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		4	1
2024022	P311-0354-2024	AeHg-142	1133	226	ceramic	vitrified white earthenware	personal/societal	health/hygiene	toilet bowl	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1139	227	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	brown	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1142	227	glass	indeterminate	indeterminate		jar: indeterminate	finish: threaded	plain	clear/colourless	machine made		2	1
2024022	P311-0354-2024	AeHg-142	1143	227	glass	indeterminate	indeterminate		bottle: indeterminate	finish: threaded	plain	clear/colourless	machine made		2	1
2024022	P311-0354-2024	AeHg-142	1144	227	glass	indeterminate	indeterminate		holloware: cylindrical	body	plain	clear/colourless	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	1146	227	metal	iron	indeterminate		rod	incomplete					1	1
2024022	P311-0354-2024	AeHg-142	1140	227	glass	manganese	indeterminate		holloware: cylindrical	body	plain	purple: light	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1138	227	glass	indeterminate	food/beverage	beverage container	bottle: soda	base	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1145	227	ceramic	vitrified white earthenware	food/beverage	tableware	holloware: cylindrical	body	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1141	227	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua	indeterminate		1	1
2024022	P311-0354-2024	AeHg-142	1148	228	ceramic	coarse earthenware: red	tools/equipment	agricultural	flower pot	rim	glaze: none				1	1
2024022	P311-0354-2024	AeHg-142	1149	228	ceramic	coarse stoneware: grey	food/beverage	storage container	holloware: cylindrical	base	glaze: lead	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1147	228	ceramic	porcelain: hard paste	structural	building component	knob	complete	embossed: lettering	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1150	228	ceramic	refined white earthenware	food/beverage	tableware	saucer	rim	plain	clear/colourless			1	1
2024022	P311-0354-2024	AeHg-142	1152	228	glass	indeterminate	indeterminate		holloware: polygonal	body	plain	brown	indeterminate		3	1
2024022	P311-0354-2024	AeHg-142	1155	228	glass	indeterminate	indeterminate		holloware: indeterminate	body	plain	clear/colourless	indeterminate		7	1
2024022	P311-0354-2024	AeHg-142	1154	228	glass	indeterminate	indeterminate		holloware: polygonal	body	plain	white	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1156	228	glass	indeterminate	food/beverage	tableware	glassware	foot	decorated	clear/colourless	moulded: contact		1	1
2024022	P311-0354-2024	AeHg-142	1151	228	glass	indeterminate	food/beverage	beverage container	bottle: soda	body	plain	green: lime	machine made		1	1
2024022	P311-0354-2024	AeHg-142	1153	228	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		5	1
2024022	P311-0354-2024	AeHg-150	1157	229	stone	chert: onondaga	tools/equipment		point: straight	complete	Woodland				1	1

APPENDIX I – STAGE 3 ARCHAEOLOGICAL ASSESSMENT

Ministry of Citizenship and Multiculturalism (MCM)

Archaeology Program Unit
Heritage Operations Branch
Citizenship, Inclusion and Heritage Division
5th Floor, 400 University Ave.
Toronto ON M7A 2R9
Tel.: (613) 852-7942
Email: Stephen.Jarrett@Ontario.ca

Ministère des Affaires civiques et du Multiculturalisme (MCM)

Unité des programme d'archéologie
Direction des opérations du patrimoine
Division de la citoyenneté, de l'inclusion et du patrimoine
5e étage, 400 ave. University
Toronto ON M7A 2R9
Tél. : (613) 852-7942
Email: Stephen.Jarrett@Ontario.ca

Sep 15, 2025

Bradley Drouin (P311)
True North Archaeological Services Inc.
2D - 220 Terence Matthews Ottawa ON K2M0E2

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 3 Archaeological Assessments Edgeware Battery Energy Storage Site, AeHg-61, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario ", Dated Sep 3, 2025, Filed with MCM on Sep 10, 2025, MCM Project Information Form Number P311-0355-2024, MCM File Number 0022221

Dear Bradley Drouin (P311):

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Map 11 of the above titled report and recommends the following:

1) AeHg-61 possesses CHVI and Stage 4 mitigation of development impacts is recommended prior to any further impacts or disturbances to the project landscape. As AeHg-61 is located within the proposed Edgeware Battery Energy Storage System Project footprint and cannot be avoided, the Stage 4 mitigation of development impacts should consist of the mechanical topsoil removal of the plough zone down to the subsoil interface to expose potential cultural features. Mechanical topsoil removal should continue to the edges of the original Stage 3 unit excavations and 10 m past any identified cultural feature. The Stage 4 mitigation by mechanical topsoil removal should follow the standards outlined in Section 4.2.3 of the MCM's (2011) Standards and Guidelines for Consultant Archaeologists.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no

representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Stephen Jarrett
Archaeology Review Officer

cc. Archaeology Licensing Officer
Laura Bashford,EDP Renewables Canada Ltd.
TBD TBD,Ministry of the Environment, Conservation and Parks

[1] *In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*

REVISED REPORT

Stage 3 Archaeological Assessment

Edgeware Battery Energy Storage Site, AeHg-61, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario

Archaeological Licensee: Bradley Drouin

MCM PIF Number: P311-0355-2024

Submitted to:

DNV
70 Richmond Street East, Suite 201
Toronto, Ontario
M5C 1N8

Attention: Gabriel Constantin, Director of Environmental and Permitting Services, Energy Systems

Submitted by:

True North Archaeological Services Inc.
2D-220 Terence Matthews Crescent, Ottawa, Ontario, K2M 0E2

TNAS Project Number: 2024022

3 September 2025

Distribution List

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1 e-copy – Caldwell First Nation

1 e-copy – Chippewas of Kettle and Stony Point First Nation

1 e-copy – Chippewas of the Thames First Nation

Executive Summary

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.

True North Archaeological Services Inc. (TNAS) was retained by DNV on behalf of Edgeware BESS Project Limited Partnership to undertake a Stage 3 archaeological assessment of AeHg-61, a mid-19th century historic Euro-Canadian site located at 100 Highbury Avenue South, situated within Part Lot 8, Range 1 North of Edgeware Road, Geographic Township of Yarmouth, Elgin County, now the City of St. Thomas, for a planned Battery Energy Storage System ("BESS Study Area"; Maps 1 and 2).

The principal objectives of this Stage 3 assessment were to determine the extent of the archaeological site, to collect a representative sample of artifacts, to assess the cultural heritage value or interest of the archaeological site, and to determine the need for mitigation of development impacts and recommend appropriate strategies for mitigation.

The previous Stage 1 and 2 archaeological assessments recovered 992 artifacts from across the BESS Study Area: 16 Pre-contact Indigenous period artifacts and 976 historical Euro-Canadian artifacts. The Pre-contact Indigenous artifacts were widely distributed across the BESS Study Area and as such did not meet the Ministry of Citizenship and Multiculturalism *Standards and Guidelines for Consultant Archaeologists* for additional work. The historical period occupation was primarily centered on two larger scatters each associated with a separate occupation within Lot 8, Range 1 North of Edgeware Road: AeHg-61 a mid-19th century occupation and AeHg-142 an early 20th century refuse scatter. The results of the previous Stage 1 and 2 determined that AeHg-61 had Cultural Heritage Value or Interest (CHVI) and was recommended for Stage 3 site specific assessment while AeHg-142 did not retain CHVI and no further work was recommended.

The Stage 3 site-specific archaeological assessment for AeHg-61 was completed between 23 – 29 September 2024 and consisted of the hand excavation of 47 1 m^2 test units on a 5 m grid, including eight infill units. A total of 2,311 artifacts were recovered from AeHg-61 consisting of 2 Pre-contact Indigenous period artifacts and 2,309 historical Euro-Canadian artifacts. Three subsurface features were identified during the Stage 3 site specific assessment. Each feature was exposed at the subsoil interface, recorded through both hand drawings and digital photographs, then covered with geotextile fabric and reburied. The results of the artifact analysis, in conjunction with the detailed historical land registry and census review, confirmed that AeHg-61 represents the first occupation of Lot 8, Range 1 North of Edgeware Road and dates to the mid-19th century. As per Section 3.4.2 of the MCM's (2011) *Standards and Guidelines for Consultant Archaeologists,* Stage 4 archaeological mitigation is required for *Domestic archaeological sites dating after 1830*.

The results of the Stage 3 site specific archaeological assessment documented within this report formed the basis for the following recommendations:

1) AeHg-61 possesses CHVI and Stage 4 mitigation of development impacts is recommended prior to any further impacts or disturbances to the project landscape. As AeHg-61 is located within the proposed Edgeware Battery Energy Storage System Project footprint and cannot be avoided, the Stage 4 mitigation of development impacts should consist of the mechanical topsoil removal of the plough zone down to the subsoil interface to expose potential cultural features. Mechanical topsoil removal should continue to the edges of the original Stage 3 unit excavations and 10 m past any identified cultural feature. The Stage 4 mitigation by mechanical topsoil removal should follow the standards outlined in Section 4.2.3 of the MCM's (2011) *Standards and Guidelines for Consultant Archaeologists.*

Project Personnel

Client Contact:	Gabriel Constantin, Director of Environmental and Permitting Services, DNV
Project Manager:	Bradley Drouin, M.A. (P311)
Archaeological Licensee:	Bradley Drouin
Field Director:	Gabryell Kurtzrock Belyea, M.A. (R1195)
Field Technicians:	Kelly Berkmans, B.A.
	Julia Chebott, B.A.
	Lydia Spooner, B.Sc.
	Brandon Calbeck
Material Culture Analysis:	Bradley Drouin
Lab Technicians	Kelly Berckmans
	Julia Chebott
Report Preparation:	Gabryell Kurtzrock Belyea, MA (R1195)
Spatial IM:	Gabryell Kurtzrock Belyea
Senior Technical Review:	Aaron Mior, MMA (1077)

First Nation Field Participants

Aamjiwnaang First Nation:	Laura Rogers
Chippewa of the Thames First Nation:	Lisa Kechego
Chippewa of Kettle and Stony Point First Nation:	Terry Johnson

Report Abbreviations

AA	Archaeological Assessment
ASI	Archaeological Services Inc.
B.P.	Years Before Present
CHVI	Cultural Heritage Value or Interest
cm	Centimetre
CSP	Controlled Surface Pickup
CRW	Coarse Red Earthenware
GIS	Geographic Information System
ha	Hectares
Ins. No.	Instrument Number (Land Registry)
km	Kilometres
m	Metres
mm	Millimetre
MCM	Ministry of Citizenship and Multiculturalism
PIF	Project Information Form issued by the MCM
PWE	Pearlware
RWE	Refined White Earthenware
TNAS	True North Archaeological Services Inc.
VWE	Vitrified White Earthenware

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1.0 Project Context

1.1 Development Context

True North Archaeological Services Inc. (TNAS) was retained by DNV on behalf of Edgeware BESS Project Limited Partnership, to undertake a Stage 3 site specific archaeological assessment (AA) of AeHg-61, a mid 19th century historical site, for the Edgeware Battery Energy Storage System project, located within Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario (Maps 1 and 2). This Stage 3 site specific archaeological assessment of AeHg-61 was completed as part of an Environmental Assessment process for Minor Transmission Facilities.

The proposed Battery Energy Storage System study area (BESS Study Area) is bound to the east by Highbury Avenue South, to the west and north by an active rail line and the south by an existing power station. The BESS Study Area measures approximately 2 ha in size, with current land conditions consisting of ploughed agricultural field and low shrubs and vegetation along the field margins.

A previous Stage 1 and 2 archaeological assessment completed by TNAS (draft 2025) recovered 992 artifacts from across the BESS Study Area: 16 Pre-contact Indigenous period artifacts and 976 historical Euro-Canadian artifacts. The Pre-contact Indigenous artifacts were widely distributed across the BESS Study Area and as such did not meet the Ministry of Citizenship and Multiculturalism *Standards and Guidelines for Consultant Archaeologists* for additional work. The historical period occupation was primarily centered on two larger scatters each associated with a separate occupation of Lot 8, Range 1 North of Edgeware Road: AeHg-61 a mid-19th century occupation and AeHg-142 an early 20th century refuse scatter. The results of the previous Stage 1 and 2 determined that AeHg-61 had Cultural Heritage Value or Interest and was recommended for Stage 3 site specific assessment while AeHg-142 did not retain CHVI and no further work was recommended.

Permission to access the property to conduct all required Stage 3 archaeological fieldwork, including the recovery of artifacts, was granted by DNV on behalf of the proponent, with no limitations or restrictions.

1.2 Objectives

The primary objectives of the Stage 3 archaeological assessment were to assess the extent and cultural heritage value or interest (CHVI) of AeHG-61. These objectives are based on principals outlined in the *Ontario Heritage Act* (consolidated 2007) and the Ontario Ministry of Citizenship and Multiculturalism's (MCM) *Standards and Guidelines for Consulting Archaeologists* (2011). More specifically, this Stage 3 archaeological assessment was completed with the following objectives:

- To determine the extent of the archaeological site and the characteristics of the artifacts
- To collect a representative sample of artifacts
- To document observed archaeological resources on the property
- To assess the cultural heritage value or interest of the archaeological site
- To determine the need for mitigation of development impacts and recommend appropriate strategies for mitigation and future conservation

2.0 Historic Context

2.1 Regional Indigenous Context

The following narrative is intended to provide a general overview of the interpreted land use during the "Pre-Contact and Post-Contact Periods" within the vicinity of the current study area. This overview generally reflects inferences and interpretations based on archaeological and historical interpretations primarily made by non-Indigenous representatives.

This section is intended to provide a general historical overview that can be referenced when determining the potential for archaeological resources within the current project study area. The text and comments below, including the cited references, may reflect archaeological literature within general publications, but may not represent the opinions of those Indigenous communities whose history it is purported to reflect.

2.1.1 Paleo Period (13,000 – 9,000 B.P.)

Based on archaeological literature, the Paleo Period is inferred to begin around 13,000 years before the present (B.P.), when glacial ice began to recede within the modern-day area of Elgin County. As the glacial ice receded, the existing landscape began to warm with vegetation adapting to the evolving environment and caribou and other subarctic animals arriving following the glacial recession (Warrick 2012).

The Paleo Period in Ontario is broadly characterized by many small groups of hunter-gatherers whose subsistence strategies exploited large areas, while often travelling distances in excess of 150 km in an effort to procure raw materials for the production of lithic tools and the hunting of contemporary animals along migratory routes including caribou as well as mammoth and mastodon. The environment in southern Ontario during the Early Paleo Period would also have been able to support a variety of other plant and animal resources including fish, birds, moose, elk and muskoxen, and it is reasonable to suggest these resources were also incorporated into the contemporary subsistence strategies (Peers 1985).

Diagnostic signatures of Early Paleo Period populations include the production of projectile points with channel flakes or flutes predominately manufactured from Collingwood or Onondaga chert. Paleo Period fluted points may be a reflection of large game hunting, while tools such as scrapers, piercing implements and gravers that are typically associated with Paleo Period sites may have been used in the manufacture and repair of wooden implements, bone tools and clothing (Peers 1985).

Archaeological excavations indicate many Early Paleo Period sites tend to be located within areas of elevated topography on well-drained loamy soils, as well as on former beach ridges associated with glacial lakes. Many of the archaeologically investigated Paleo Period sites are relatively small in size compared to later periods, and typically represent contemporary camp sites, with only a few large sites, such as the Parkhill and Fisher sites, recognized as extending over several hectares. It is likely these larger sites were formed as people continued to occupy the same area for short durations over the course of several years. Given their placement in locations conducive to the interception of migratory mammals such as caribou, it has been suggested these larger sites may also represent communal hunting camps (Ellis and Deller 1997).

During the Paleo Period, enclosed coniferous forests dominated the contemporary landscape, although by the Late Paleo Period (9,500 - 9,000 B.P.) deciduous forests were developing in southern Ontario.

Pollen samples collected from nearby Pinehurst Lake and assessed by Dr. J.H. McAndrews of the Royal Ontario Museum indicate deciduous forest species such as oak and beech accounted for more than 50% of the forest cover in the region by the Late Paleo Period (Nixon 1982).

With the environmental transition, it is likely that many of the large game species that had been hunted during the Early Paleo Period had either moved further north, or in the case of the mastodons and mammoths, became extinct. Similar to the inhabitants during the Early Paleo Period, Late Paleo Period populations traversed large territories in response to seasonal resource fluctuations. The transition to the Late Paleo Period also included projectile points comprised of smaller unfluted projectiles along with lanceolate parallel flaked stemmed and non-stemmed Plano points, while hunting strategies may have transitioned from communal groups to more individualized pursuits (Ellis and Deller 1997).

At least seven archaeological sites within Elgin County have been registered as reflecting evidence of land use during the Paleo Period. AeHh-146 situated 7.5 km south of the southern limit of the BESS Study Area, represents the closest registered site to the Study Area.

2.1.2 Archaic Period (9,000 – 2,950 B.P.)

During the Early Archaic Period (9,000 – 8,000 B.P.), a gradual increase in atmospheric humidity in conjunction with warmer summers influenced the environmental landscape within the general BESS Study Area vicinity. Fossil pollen and spore identification from sedimentation cores lifted from Lovesick Lake provide evidence of a changing climate, with jack pine forests becoming dominant during the beginning of the Early Archaic Period (Teichroeb 2007).

Concurrent with the environmental changes during the Early Archaic Period were notable diagnostic technological changes including the appearance of side and corner-notched projectile points, bifurcated points, and the distinctive serrated point. Other significant innovations included the introduction of ground stone tools such as celts and axes, which may reflect an emerging woodworking industry (Ellis, Kenyon & Spence 1990).

Populations in Ontario during this period primarily utilized maritime landscapes during the spring, summer and fall seasons with large base camps on islands, near river mouths, and on the shores of embayment's where a variety of flora, fish, and wild fowl resources could be obtained. Smaller hunting and specialized campsites were also established in the uplands and along smaller watercourses. The waterways appear to be the preferred method of travel, and many burials are located along these waterways (Taylor 2015), including the traditionally visited islands. Access to these shoreline occupation areas would have been facilitated by a variety of Indigenous watercraft such as bark canoes, skin boats and dugout canoes (Monk 1999).

While only a limited number of Indigenous vessels have been discovered within the Great Lakes region, the tools and implements utilized for their construction provide insight into the methods used and the locations where these vessels were manufactured. Tools commonly associated with Indigenous vessel construction included stone gouges, adzes, wedges, hammers, knives, scrapers, and awls manufactured from wood and bone (Monk 1999), while other tools manufactured from bone, chert, quartz and wood were also utilized when necessary.

During the Middle Archaic Period (8,000 – 4,000 B.P.) the environmental landscape continued to evolve with the jack pine forests prevalent during the Early Archaic Period being primarily replaced by white pine growth, suggesting a gradual increase in humidity and a continuation of hot summers (Teichroeb 2007).

The trend towards more diverse toolkits also continued into the Middle Archaic Period, as the presence of netsinkers and fish weirs indicate that fishing was an important component of the subsistence strategy, with Lake Erie, Kettle Creek, and its many tributaries, providing an abundance of fishing opportunities for a variety of species including sturgeon (General and Warrick 2012). Netsinkers were typically used with both gill nets and seine nets, which were employed for both shoreline and offshore fishing activities. Gill nets were kept vertical with stone sinkers on the bottom and floats on the top, and were often anchored to a specific location with larger stones. Seine nets essentially acted as fences and were used to coral and hold the fish and needed to be kept tight to the water bottom by attaching many closely spaced sinkers to the bottom of the net with floats attached to the top (Ingleman *et al* 2012; Prowse 2003). Many Indigenous fishing nets were commonly made from hemp or nettle (Needs-Howarth 1999) and are rarely preserved in the archaeological record (Ingleman *et al* 2012).

Another characteristic of the Middle Archaic Period was an increased reliance on local, often poor quality, chert and quartz resources for manufacturing projectile points. While groups occupied larger territories during the Paleo and Early Archaic Periods, which provided the opportunity to visit primary outcrops of high-quality chert at least once during their seasonal round, during the Middle Archaic Period groups traveled within comparatively smaller territories that did not always possess a source of high-quality raw materials. In these instances, lower quality materials that had been previously deposited by the glaciers in the local till and river gravels were utilized.

It was also during the latter part of the Middle Archaic Period that long-distance trade routes began to develop, spanning the northeastern part of the continent. In particular, copper tools manufactured from a source located northwest of Lake Superior were being traded (Ellis, Kenyon and Spence 1990), with a wide range of copper tools such as socketed and tanged spear points, projectile points, harpoons, crescent knives, gouges, pikes and celts being produced during this period (Dawson 1983).

Trade networks established during the Middle Archaic Period also continued to flourish during the Late Archaic Period (4,000 – 2,950 B.P.). Copper implements from northern Ontario and marine shell artifacts from the Mid-Atlantic coast are frequently encountered with burials (Ellis, Kenyon and Spence 1990; Ellis, Timmins and Martelle 2009). Late Archaic Period sites have also been discovered in greater numbers compared to Early and Middle Archaic Period sites, suggesting the local population was rapidly expanding. Due to an increase in population, territories were shrinking which was reflected in reduced mobility and fewer residential camps throughout the year (Ellis, Kenyon & Spence 1990).

The development of designated burial areas during the Late Archaic Period has been interpreted as a response to increased population densities and competition between local groups for access to natural resources. It has been theorized that formalized burial grounds may have provided strong symbolic claims over a local territory and the surrounding resources and are often located within areas of elevated topography containing well-drained sandy and gravel soils adjacent to major watercourses. Burial sites reflect the importance of the landscape to Indigenous populations as they represent locations along travel routes that would be returned to, where feasts would occur, and the dead could be honoured (Taylor 2015).

Regionalized variations during the Late Archaic Period are also reflected in projectile point manufacturing, with distinct locally diagnostic styles appearing within the archaeological record. Other artifacts including polished stone pipes and banded slate gorgets also appear on Late Archaic Period sites, as well as "birdstones", which are small, bird-like effigies usually manufactured from green banded slate (Ellis, Kenyon and Spence 1990).

During the Archaic Period, it has been estimated there would have been upwards of 400 inhabitants in the Grand River watershed (Warrick 2012) and the significant number of registered archaeological sites dating to the Archaic Period documented in Elgin County indicate this area was extensively traversed. At least 27 sites representing land use during the Archaic Period have been documented in Elgin County, with an additional 31 sites exhibiting Early Archaic Period components, 33 sites reflecting Middle Archaic Period attributes, and 54 sites with diagnostic attributes reflecting the Late Archaic Period (MCM 2024). At least 8 archaeological sites reflecting land use during the Archaic Period have been registered within 1.5 km of the BESS Study Area, spanning the Early, Middle and Late Periods and confirming land use in the vicinity throughout this period.

2.1.3 Woodland Period (2,950 – 500 B.P.)

The Early Woodland Period (2,950 – 2,200 B.P.) is distinguished from the Late Archaic Period primarily by the introduction of pottery. The first pots were thick walled and friable, suggesting they may have primarily been used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil (Spence, Pihl and Murphy 1990). These vessels were not easily portable, and their fragile nature suggests they may have required regular replacement. There have also been numerous Early Woodland Period sites identified where ceramics were absent from the recovered assemblage, suggesting ceramic vessels may have not been completely integrated within the daily lives of Early Woodland Period populations.

Besides the addition of ceramic technology, the cultural affinity of Early Woodland Period inhabitants shows a great deal of continuity with the preceding Late Archaic Period. For instance, birdstones continued to be manufactured, although the Early Woodland Period varieties have "pop-eyes" that protrude from the sides of their heads (Spence, Pihl and Murphy 1990). Another example of general continuity from the terminal segment of the Archaic Period is represented by the thin, well-made projectile points, although the Early Woodland Period variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance. The distinctive Meadowood cache blade or preform was frequently recycled into other tool forms such as end scrappers, perforators and flint strikers for fire making kits. One of the most striking features of the Meadowood tradition is the occurrence of large caches of well-made Meadowood preforms (Spence, Pihl and Murphy 1990).

Middle Woodland Period inhabitants appeared to have relied more extensively on ceramic technology, with contemporary ceramic vessels often decorated with impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of vessels manufactured during the Middle Woodland Period can be diagnostically distinct. Popular decoration techniques include dentate stamping and pseudo-scallop shell impressions. Three complexes represent the Middle Woodland Period; Couture in the most southwestern part of Ontario, Saugeen in the rest of southwestern Ontario, and Point Peninsula in south central and eastern Ontario (Spence, Pihl and Murphy 1990).

The accessibility of watercraft contributed to the rapid spread of ceramic technology and other material cultural attributes during the Woodland Period. The watercraft utilized during the Archaic Period continued to be employed along the navigable waterways and would have provided the ability to transport not only the larger ceramic containers, which were not easily portable over land, but also the concepts and technology associated with Early Woodland Period pottery manufacturing. Evidence of exchange networks during the early stages of the Woodland Period indicate numerous reciprocal, down-the-line exchanges between trade partners located both short and long distances away. There is a gradual

intensification of these types of trade throughout the period continuing into, and reaching its apex in, the Middle and Late Woodland Periods (Hartmann 1996).

In terms of subsistence strategies, the Middle Woodland Period (2,200 - 1,100 B.P.) reflects an evolving transition from patterns observed from archaeological excavations documenting Archaic and Early Woodland Period sites. While Middle Woodland Period populations still relied on hunting and gathering to meet their subsistence requirements, an increased consumption of fish became an important dietary component. Some Middle Woodland Period sites have produced literally thousands of bones from spring spawning species including walleye and sucker (MCR 1981), reflecting the importance of this subsistence resource to the local population.

Food sources such as tree nuts and a proliferation of plant greens and seeds were also utilized during the Middle Woodland Period. The seasonal variety and relative dependability of these foods encouraged population growth in many areas. The land use patterns reflected from archaeological investigations of Middle Woodland Period sites generally reflect densely occupied locations that appear on the valley floor of major rivers, often producing sites with significant artifact deposits. Unlike earlier seasonally utilized locations, many Middle Woodland Period sites appear to have functioned as base camps, occupied periodically over the course of the year and situated to take advantage of the greatest number of resources. There are also numerous small upland Middle Woodland Period sites, many of which can be interpreted as special purpose camps where localized natural resources were exploited (MCR 1981).

The transition from the Middle to Late Woodland Period is marked by the introduction of triangular projectile point styles and cord-wrapped stick decorated ceramics, which are associated with the Princess Point Complex (Martin 2004; Crawford *et al* 1997; Bursey 1995; Ferris and Spence 1995; Spence, Pihl and Murphy 1990; Williamson 1990; Ritchie 1971), although these attributes may not always reflect diagnostic components of specific Nations as many interacted and shared cultural traits. The Princess Point Complex is organized into three regional Foci; the Point Pelee Foci in southwestern Ontario, the Ausable Focus near Lake Huron, and a Grand River Focus around the west end of Lake Ontario (Fox 1990).

The Late Woodland Period in the counties of Essex, Kent, Lambton and portions of Middlesex and West Elgin Counties is represented by the distinct culture of the Younge Tradition which developed from the earlier Princess Point Tradition. The Younge tradition is part of the archaeological manifestations referred to as the Western Basin tradition which connects groups in southwestern Ontario, southeastern Michigan and northwestern Ohio centered along the drainages of western Lake Erie, Lake St. Clair and lower Lake Huron. This period is characterized by complex ceramic decorations and a marked decrease in stone tool use, as stone tools were typically made on locally available pebble cherts from secondary deposits. Settlements were known to be located on sand plains, moraines, lakeshores and prairie borders where elevation provided good drainage and ideal conditions for subsistence, fuel and shelter (Murphy and Ferris 1990).

Many of the villages maintained by Nations who established agricultural economies during the Late Woodland Period included palisades that enclosed community longhouses (Fox 1990; Smith 1990; Williamson 1990), with the villages often surrounded by gardens and field crops, which were worked by the clan families of the village (Hill 2017). At least 20 village sites dating to the Woodland Period have been documented within Elgin County (MCM 2024), although a significant part of the contemporary population did not reside within sedentary, or semi-sedentary, villages and continued to traverse the land and utilize areas along waterways during the summer months and inland hunting sites during the winter.

Land use during the Woodland Period in Elgin County has been extensively documented during archaeological investigations over the past 50 years, with at least 37 sites generally dating to the Woodland Period in addition to 23 sites with Early Woodland Period attributes, 44 sites reflecting Middle Woodland Period components and 76 sites with diagnostic attributes indicating land use during the Late Woodland Period (MCM 2024). Two Woodland Period sites are located within 500 m of the western boundary of the BESS Study Area.

Early contact with European settlers at the end of the Late Woodland Period resulted in changes to the traditional lifestyles of most populations inhabiting Ontario including settlement size, population distribution, and material culture. The introduction of European-borne diseases significantly increased mortality rates, resulting in a drastic decrease in population size (Warrick 2000).

2.1.4 European Contact and Post-Contact Period

In 1615-16, Samuel de Champlain travelled with the Huron through Georgian Bay and was likely the first European to be in contact with Indigenous peoples. In 1622 Etienne Brule traveled into the area and encountered several Indigenous community groups. Champlain accompanied members of the Huron community against the Iroquois in modern-day New York State. Following the battle, many Huron returned to modern-day Ontario although by the 1640s, the Huron, Petun, and Anishinaabeg had left the area around Lake Ontario as a result of increasing conflicts with the Haudenosaunee and the warfare and disease that had arrived with European colonization.

In 1701, representatives from the Haudenosaunee and more than 20 Anishinaabeg Nations assembled in Montreal to participate in the Great Peace negotiations, sponsored by the French Governor Callière (Johnston 2006; Johnston 2004). A peace treaty between the Anishinaabeg and the Kanien'kehá:ka (Mohawk) was agreed to once again share in the bounty of the territory (One Dish, One Spoon) as partners, although this partnership was strained by the "Great Imbalance" represented by the fur trade with European capitalists (Monague 2022).

The resulting treaty document signed at Montreal was not the only record made of the Peace between the Anishinaabeg and the Haudenosaunee. At a council held at Lake Superior, the Haudenosaunee secured peace by delivering a wampum belt to the Anishinaabeg. This belt was carried by successive generations of leaders who were charged with remembering the meaning of symbols worked upon the shell beads and each generation had a responsibility to renew the peace forged by their ancestors (Johnston 2006).

Following the establishment of peace between the Indigenous Nations, the Anishinaabeg represented the primary community along and extending northward of Lake Ontario and Lake Erie (Hathaway 1930). From 1701 to the fall of New France in 1759, the fur trade continued around the Lake Ontario region with both the Ojibwa and Mississauga and various other groups within the Anishinaabeg, trading with both the English and the French.

Subsistence patterns within Indigenous communities in the Great Lakes region during the initial Contact Period included a primary focus on hunting, fishing, and gathering, with minimal focus on agriculture (McMillian and Yellowhorn 2004). The annual migratory cycle included small groups subsisting on forest game throughout the winter, moving to the groves of maple for the spring sap-run, meeting with other groups concentrated at the lake and trout and white-fish spawning grounds in spring and early summer, and seeking out the beds of wild rice in the fall. Their impact upon their environment was minimalized by

population densities, although they utilized the vast landscape according to traditional lifeways (Osborne and Ripmeester 1997).

Shortly after the French abandonment around the Great Lakes, English merchant Alexander Henry ventured into the Great Lakes area where he communicated with Anishinaabeg leader Minavanana in September 1761. Henry was informed that the English would suffer retaliation for Anishinaabeg war losses unless the English King made peace with them and compensated them with gifts. Shortly after, most of the former French forts in the Great Lakes were within Anishinaabeg control. In response, King George III issued a Royal Proclamation on 7 October 1763 acknowledging that Indigenous Nations residing on all lands outside the boundaries of the settled colonies "not having been ceded to or purchased by Us, are reserved to them, or any of them, as their Hunting Grounds" (Reimer 2019:38). The territory reserved for Indigenous Nations encompassed the entire Great Lakes region and peace was secured following discussions between the British and more than 1,500 Anishinaabeg leaders at Niagara Falls in July 1764 where the alliance was sealed by two magnificent wampum belts (Johnston 2006).

Although they did not own the land, the British surrendered the Haudenosaunee settlements in modern-day New York State to the Americans in the Treaty of Paris (1783). To compensate for this loss, the British negotiated the transfer of lands along the Grand River tract from the Mississaugas to the Haudenosaunee (Hill 2017).

2.2 Contextual Study Area History

An extensive historical overview of the surrounding area is outside the current scope of work. The following is included to provide a general historical overview in relation to the potential archaeological resources that may be located within the current BESS Study Area.

First Nations have utilized land within the BESS Study Area vicinity since time immemorial, which has been recorded through oral histories, previous archaeological assessments and contextual research reports. Archaeological evidence of this land use dates at least to the Early Paleo Period and extends through the Late Woodland Period and into the contact period, representing land use over a period of approximately 11,000 years prior to the arrival of Europeans to the area.

An overview of registered archaeological sites confirming the presence of Indigenous peoples in the BESS Study Area vicinity prior to 1650 is presented in Table 1.

Table 1: Registered Archaeological Sites Confirming Indigenous Land Use Within 5 km of the Study Area BESS Study Area Prior to European Contact

Period	Sub-Period	Temporal Context	Number of Registered Sites
Paleo	Early	13,000 – 10,000 BP	0
	Middle	10,000 – 9,500 BP	0
	Late	9,500 – 9,000 BP	0
	Unspecified	11,000 – 9,000 BP	1

Period	Sub-Period	Temporal Context	Number of Registered Sites
Archaic	Early	9,000 – 8,000 BP	3
	Middle	8,000 – 4,000 BP	3
	Late	4,000 – 2,950 BP	7
	Unspecified	9,000 – 2,950 BP	0
Woodland	Early	2,950 – 2,200 BP	2
	Middle	2,200 - 1,100 BP	5
	Late	1,100 – 350 BP	8
	Unspecified	2,950 – 500 BP	1
Pre-Contact	Unspecified	11,000 – 500 BP	7

When assessed within the context of the contemporary landscape, the documentation of these archaeological sites reflects the intensified activity and the preference for land use within proximity to the Kettle Creek and Lake Erie shorelines in the BESS Study Area vicinity. Although previous archaeological investigations have not documented occupation within 1 km of the BESS Study Area prior to 9,000 B.P., the Great Lakes area has witnessed an Indigenous presence since time immemorial (Warrick 2012) and the absence of registered archaeological sites within 1 km of the BESS Study Area pre-dating the Early Archaic Period may be a result of environmental transitions and landscape disturbances following the arrival of Europeans that have influenced the propensity of earlier Paleo Period sites to be identified within the archaeological record.

The BESS Study Area falls within lands covered by the 1790 McKee Purchase (Treaty No.2), signed on 19 May 1790. The purchase is named after the Deputy Agent of Indian Affairs, Alexander McKee, who gathered with 27 Chiefs of local Ojibwa, Odawa, Pottawatomie, and Wendat nations in Detroit in order to regularize settlements on the British side of the Detroit River and the Thames Valley. McKee had been instructed by the Crown to purchase land along the shoreline of Lake Erie from Long Point to Chenal Écarté River on the St. Clair River from these gathered Chiefs. The Chiefs agreed to vacate the land for a payment of goods worth 1200 pounds of Quebec currency. This agreement contained the stipulation for the creation of only two reserves, the Huron Reserve and the Huron Church Reserve near what would later become known as Windsor (Surtees 1983).

These lands include the traditional territories of Aamjiwnaang First Nation, Chippewas of the Thames First Nation and Walpole Island First Nation, which should be noted was not surrendered during this period of purchase and treaty signing (Surtees 1983). The McKee Purchase also covered the land of Point Peele, which is the traditional territory of Caldwell First Nation who were not present for the signing of Treaty No. 2 and never agreed to surrender their lands. Nonetheless they were removed from Point Peele and were not given a reserve on which they could establish their community. In 2006, after several decades of failed talks with the federal government, Caldwell First Nation was awarded a settlement, and 10 years later were finally given land for a reserve, 17 km northwest of Point Peele in Leamington (Forester 2020).

The Irish born Colonel Thomas Talbot emigrated to Canada in 1791 where he served as personal secretary to John Graves Simcoe, Lieutenant Governor of Upper Canada. For his service, Talbot was granted 5,000 acres in Elgin County. Between the years of 1814 and 1837, the Talbot settlement grew to 50,000 inhabitants, all settling in the Thames River area. Despite his success in convincing settlers to take up residence in his settlement, Talbot was known to be despotic, and his abuse of power was a contributing factor to the Upper Canada Rebellion of 1837 (Ermatinger 1904).

Colonel Talbot believed Yarmouth Township to be the best township due to its lakefront location. The township was established in 1792, and the first lots that were settled were located along Talbot Road (Yarmouth Township Council 1967). In 1810 Captain Daniel Rapelje from New York State founded Kettle Creek village, later renamed St. Thomas after Colonel Talbot. Rapelje divided his farm into village lots, which he then sold to settlers. More families arrived in St. Thomas around this time including the Mandevilles, Drakes, Smiths, McNeils and Curtis'. Upon his return from the War of 1812, Mandeville built a grist mill on his property. At this time the entire region along Lake Erie had suffered from devastating American raids and few mills remained in this area (Mika 1977). This hardship did not last long as Yarmouth grew to be the most populous township of the Talbot settlement by the 1840s, with 24,000 acres under cultivation, five grist mills, and ten sawmills (Ermatinger 1904).

Upper Canada's first medical school was built in St. Thomas in 1824 by Dr. Charles Duncombe which grew to be quite prestigious. By 1853, St. Thomas was incorporated as a village with a population of 1,300 with the town hall having been built around the same time by the new village council was established. The first county courthouse was opened by Judge David Hughes the same year the village was incorporated. Further growth was sporadic until the 1870s when the Canada Southern and Great Western Rail companies built their lines through St. Thomas (Mika 1977). In 1885, the railway in St. Thomas became internationally notorious when the Barnum circus's most famous elephant, Dumbo, was being transferred back onto the train where it was struck by a freight train and killed (Wilson 2002).

Along Edgeware Road a small community grew and included Richard Gilbert of Devonshire, along with his wife, five sons, and three adult friends (Ermatinger 1904). Gilbert and several future prominent settler families arrived in the United States on the ship *Calypso*, with the group landing along the east coast and travelling to Buffalo, New York. There the group took refuge in a tavern whose keeper, a man named Miller, convinced the Englishmen to settle in Canada in order to continue to be "under the British Flag". The group then took the lake schooner *Niagara* under a Captain Scott and landed at Port Stanley. Gilbert and his cohort were disappointed to be met with a measly settlement of one warehouse and felt as though they had been sold a lie by the tavern keeper. However, their contract with Captain Scott meant they had to disembark regardless of their ire. Gilbert, and another man named George Westlake, took the blazed trail from Port Stanley to Port Talbot to meet with Colonel Talbot from whom Gilbert purchased land on 23 September 1831. Gilbert was given Lots 12 and 13 South of Edgeware Road and Lot 12 North of Edgware Road. The rest of the Gilbert family travelled the perilous route from Port Stanley to their new home via wagon. The family erected a rough log hut as temporary shelter before Gilbert purchased another lot to add to his 300 acres (NYWI 1951).

In 1832 the Crown patent for Lot 8, Concession 1, was granted to Edward Peverency. In 1840, Peverency sold the lot to Richard Gilbert. The 1861 census lists Marwood Gilbert, Richard's youngest son, as inhabiting a single-story frame house. It is not clear when Marwood Gilbert was granted the land, however, by 1868 Marwood is listed on the land registry as leasing part of the lot to Effie Gilbert, his mother. The 1864 Tremaine Map of Yarmouth township depicts an M.A. Gilbert on the lot which is likely

Marwood (Map 3; Image 1). An 1872 directory of Yarmouth township confirms that Marwood was a freeholder on Lot 8 (ASI 1993).

Marwood Gilbert was a man of some notoriety. In 1859 he married Fanny Bluett who gave birth to his only child, a daughter. In 1859, on the day of her wedding, Marwood eloped with a female relative of Fanny's before being compelled to return the young woman to her household. Desperate to be reunited, Marwood showed up at the Bluett residence where he was shot by his brother-in-law William in the abdomen. Marwood was then returned to the Gilbert home before he managed to make a complete recovery (Richmond Dispatch 1859). Despite this indiscretion he remained married to Fanny until her death in 1871. Twelve years later, Marwood remarried a young woman named Lucy Bluett, likely a relative of Fanny. It is possible that this was the young woman with whom he had eloped with in the late 1850s as Lucy would have been 13 at the time. The 1883 voter registration list for Elgin County lists Marwood as a resident of Port Stanley, and by 1891 he and his wife settled in Kent, Ontario. Lucy does not give Marwood any further children and he dies in 1898.

By 1877 the Page & Co Map of Yarmouth County lists R. Gilbert as a resident of Lot 8 with a homestead directly west of the BESS Study Area (Map 3). This R. Gilbert is likely the son of one of Marwood's brothers as he never had a male heir. In 1886, Richard Gilbert sold the whole lot to Thomas Penhale. The Penhale family arrived in St Thomas on the same boat as Richard Gilbert Sr. but had made their way to the city after the Gilberts had established themselves on Edgware Road (NYWI 1951). The 1861 census lists Thomas as the resident of a one and a half story brick house on Lot 10, Range 1 South of Edgeware Road. In 1887 Thomas sold the lot to Matthew Penhale. The 1861 census lists Matthew as the resident of a single-story frame house on Lot 15, Concession 7. It is likely the Penhale's never occupied Lot 8 due to their recorded occupation of houses elsewhere in the township.

In 1909 Matthew Penhale sold the lot to Edwin Smith Hokum, who then immediately sold it to George W. Dennis in 1910. That same year Dennis sold a portion of the lot to the Canadian Pacific Railway which serves as the western border of the BESS Study Area. A 1913 topographic map of St. Thomas depicts a building in the north end of the BESS Study Area. The 1921 census confirms Dennis is the head of a household located on Lot 7 - 8 North of Edgeware Road, with his residence given the number 14. By 1929 the structure is no longer present (Map 4). George Dennis appears to have passed by the 1940s as the property history lists George as deeding the property to members of the Dennis family.

An aerial image taken in 1945 depicts the BESS Study Area as an empty agricultural field (Map 5). By 1978 the BESS Study Area remained largely the same, however development has begun in the surrounding area (Map 5).

3.0 Archaeological Context

3.1 Study Area Environment and Landscape

The BESS Study Area consists of an active agricultural field that is bordered by a railway to the west and north, Highbury Avenue South to the east and a hydro station to the south (Map 2). The northern shore of Lake Erie is located 14 km to the south and Kettle Creek is located 1.5 km to the west of the BESS Study Area. The overall topography is flat

The BESS Study Area is located in the Mount Elgin Ridges physiographic region which is a succession of ridges and vales which lie between the Thames Valley and Norfolk Sand Plain. The general elevation of this region rises from 800 m above sea level (asl) in the lowlands to 1,000 m asl in the northeast which generally gives the area a relief of 100 m and slopes greater than 10%. The two major landforms of this region provide contrasting soils; the ridges are well drained and comprised of clay till while the lowlands are imperfect to poorly drained and comprised of silt and sand. The Kettle, Catfish, and Otter Creeks drain the Westminster and St. Thomas moraines into Lake Erie. There are numerous streams within the basins with no drainage outlets which form a series of small kettles such as Mud Lake, and wide swampy hollows (Chapman and Putnam 1984). The BESS Study Area is comprised of a Till Moraine physiographic landform (Map 7).

The surficial geology of the BESS Study Area is entirely comprised of Port Stanley Till which is a silty clay till. A series of bluffs are located north and southeast of the BESS Study Area, which generally run southwest to northeast (Map 6). Soils within the BESS Study Area consist of the Gobles loamy phase which is an imperfectly drained soil (Map 8). A small tributary of Kettle Creek drains the southwest corner of the BESS Study Area with the creek itself located 1.5 km to the west. Kettle Creek originates at Lake Whitacker and drains into Lake Erie at Port Stanley (KCCA 2024).

The BESS Study Area is located within the Niagara subregion of the Deciduous Forest Region. Prior to European agricultural practices and the removal of woodlots for agricultural purposes, the forest cover would have consisted of broadleaved trees such as; beech, sugar maple, basswood, red maple, red and white oak, bur oak, black walnut, sycamore, swamp white oak, shagbark hickory, bitternut and butternut hickory, rock elm, silver maple, and blue beech (Rowe 1972).

3.2 Previously Completed Archaeological Assessments

A review of the MCM (2024) database and accessible reports was undertaken on 6 January 2025 and identified 5 previously completed archaeological assessments that encompassed the Stage 1 and 2 BESS Study Area and adjacent 50 m radius (Table 2; Map 9).

Table 2: Previously Completed Archaeological Assessments within 50 m of Project Area

Report Title	MCM PIF Number	Report Date	Results/Recommendations	Location
Stage 1 and 2 Archaeological Assessment Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario	P311-0354-2024	January 2025 (Draft)	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Overlaps current BESS Study Area
Stage 1 and 2 Archaeological Assessment, Dalewood Meadows Subdivision, City of St. Thomas, Elgin County	1993-016	July 1993	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Overlaps current BESS Study Area
Stage 1 Archaeological Assessment, Proposed Development, Elgin County	P324-0708-2021	March 2022	Stage 2 archaeological assessment recommended for part of the study area	Outside current BESS Study Area
Stage 1 and 2 Archaeological Assessment, Proposed Industrial Development, City of St. Thomas, Elgin County	P324-0737-2022	November 2022	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Outside current BESS Study Area
Stage 1 Archaeological Assessment, Proposed Road Widening, City of St. Thomas, Elgin County	P243-0506-2023	September 2023	Stage 2 archaeological assessment recommended for part of the study area	Overlaps current BESS Study Area
Stage 1 and 2 Archaeological Assessment, Proposed Centennial Transformer Station	P1189-0041-2023	February 2024	No additional archaeological assessment recommended	Outside current BESS Study Area

The following subsections provide relevant information for the assessments that were completed within the limits of the BESS Study Area.

Stage 1 and 2 Archaeological Assessment, Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario (P311-0354-2024)

A Stage 1 and 2 archaeological assessment was completed as part of the current EA process, which determined the entire triangular shaped BESS Study Area retained archaeological potential. The Stage 2 component identified a scatter of 14 Pre-contact Indigenous flakes, one possible spokeshave and a late Woodland period projectile point. However, as the artifacts were widely distributed across the entire BESS Study Area, Stage 3 was not triggered by the MCM requirements. Two historical scatters were also identified during the Stage 2 pedestrian survey and were registered with the MCM as Borden NumbersAeHg-61 and AeHg-142. The results of the Stage 2 indicated that AeHg-61 represented a historical occupation dating to the mid 19th century while AeHg-142 was a historical refuse scatter associated with a 20th century structure located to the north of the BESS Study Area. The Stage 1 and 2 AA provided the following recommendations:

1) *The historic component of AeHg-61 can be dated to the early and mid 19th century and therefore meets the criteria outlined in Standard 2.2.1 in the MCM Standards and Guidelines for Consultant Archaeologists (MCM 2011) (Map SD-11). The Stage 3 assessment should be completed by a means of 1 m test units at 5 m intervals across the site with an additional 20% infill units in areas of interest.*

2) *As 80% of the historic artifact assemblage for AeHg-142 postdates 1870 and where the historical background research has sufficiently demonstrated that the site does not retain CHVI, no further work is recommended for the scatter of artifacts as defined on Map SD-1 and SD-2.*

3) *Single component L-01 and L-02 and the historic component of AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 3.4.2 Standard 1 and as such, no further work is recommended.*

4) *The pre-contact Indigenous period components of AeHg-61, AeHg-142, AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 2.2 Standards 1 or Section 3.4.1 Standard 1 and as such, no further work is recommended.*

5) *No further archaeological assessment is recommended for portions of the BESS Study Area that are not identified in this report as requiring further archaeological assessments as outlined on Map SD-11.*

Stage 1 and 2 Archaeological Assessment, Dalewood Meadows Subdivision (PIF Number 1993-016)

A Stage 1 and 2 archaeological assessment was completed for the original property development boundary in 1993 (ASI 1993). This assessment was completed before the publication of *The Standards and Guidelines for Consulting Archaeologists* in 2011.

The Stage 2 field assessment included pedestrian survey of ploughed fields, and test pit survey at 5 m intervals. Twenty sites were identified during the Stage 2 assessment, 3 of which were historic, while the remaining 17 were pre-contact. Only 5 of the sites recorded met the MCM criteria at the time for possessing Cultural Heritage Value or Interest (CHVI) and were designated as Borden Numbers AeHg-61, AeHg-62, AeHg-63, AeHg-63, AeHg-64 and AeHg-65 respectively.

The Stage 1 and 2 archaeological assessments provided the following recommendations:

1) *Find Locations 1-1,2-2,2-3,2-4,2-9,2-10,2-15,2-19,2-20,2-21,2-23, 3-2, 4-1, 5-1, and 5-2 are of insufficient cultural heritage value to warrant further investigation.*
2) *Find Location 1-4 (AeHg-61) is of sufficient cultural heritage value to warrant a Stage 3 archaeological assessment as per MTCS Standards and Guidelines Section 2.2.1c, in order to verify the date of occupation and size of artifact scatter.*
3) *Find Location 2-13 (AeHg-62), 2-14 (AeHg-63), 2-17 (AeHg-64), and 3-1 (AeHg-25) were registered as they consisted of one single diagnostic artifact which was determined to be reflective of the extensive use of the area, despite later disturbance to the area.*
4) *The property, with the exception of AeHg-61 in the southeast corner of the study area should be released of any further heritage concerns.*

In addition to AeHg-61, ASI identified Location 1-1 which was mapped as being located within the northern corner of the current BESS Study Area. Based on the ASI Stage 2 assessment, Location 1-1 was interpreted to be a historic scatter dating from the late 19th century to possibly the mid 20th century. Due to late date of the artifact assemblage represented at Location 1-1, ASI recommended no further work.

Stage 2 Archaeological Assessment, Proposed Road Widening, City of St. Thomas, Elgin County (PIF Number P243-0506-2023)

A Stage 1 archaeological assessment was conducted within Lots 8 to 11 Concession 11, Lots 6 to 8 and 10 Range 1 South of Edgeware Road, and Lots 7 to 9 Range 1 North of Edgeware Road as part of a Schedule C Municipal Class Environmental for the purposes of Road Widening. The assessment area was found to retain potential with the exception of portions which had been previously mitigated or were part of established roadway ROWs. The assessment, however, identified the BESS Study Area as having been previously assessed and cleared of any further archaeological assessments, despite the ASI report which identified site AeHg-61 as requiring further work.

The Stage 2 archaeological assessment provided the following recommendations:

1) *A Stage 2 archaeological assessment was recommended for portions of the study area which should be completed by means of shovel test pit and pedestrian survey.*

3.3 Known Archaeological Sites and Resources Within One Kilometre of BESS Study Area

The primary source of information regarding previously registered archaeological sites within the Province of Ontario is the MCM archaeological sites database which designates archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 km east to west and approximately 18.5 km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found.

A search of the MCM online database for registered archaeological sites was completed on 6 January 2025 and indicated sixteen registered archaeological sites within 1 km of the BESS Study Area (MCM 2024). An overview of the known archaeological sites and resources located within 1 km of the BESS

Study Area is provided in Table 3. Blank entries within the table indicate the relevant information was not included with the corresponding entry in the MCM database or available from accessible reports.

Table 3: Registered Archaeological Sites within 1 km of the Study Area BESS Study Area

Borden Number	PIF(s) Associated with Site	Spatial Relationship to Study Area	Temporal Context	Cultural Context	Inferred Site Type	Development Review Status
AeHg-61	1993-016	Within project area	Post-Contact	Euro-Canadian	Scatter	Further CHVI
AeHg-62	1993-016	450 m west	Late Woodland	Indigenous	Findspot	No Further CHVI
AeHg-63	1993-016	250 m west	Late Archaic	Indigenous	Findspot	No Further CHVI
AeHg-64	1993-016	470 m west	Early Woodland	Indigenous	Findspot	No Further CHVI
AeHg-65	1993-016	990 m west	Late Woodland	Indigenous	Findspot	No Further CHVI
AeHg-69	1998-010	975 m northwest	Middle Woodland	Indigenous	Findspot	No Further CHVI
AeHg-118	P324-0737-2022	290 m east	Middle Archaic	Indigenous	Findspot	No Further CHVI
AeHg-119	P324-0737-2022; P324-0757-2022	815 m southeast	Early Archaic	Indigenous	Findspot	No Further CHVI
AeHg-122	P324-0761-2022	955 m east	Pre-Contact; Post-Contact	Indigenous; Euro-Canadian	Findspot; Farmstead	Further CHVI
AeHg-124	P324-0761-2022; P324-0772-2022; P324-0791-2022	260 m east	Post-Contact	Euro-Canadian	Farmstead	No Further CHVI
AeHg-136	P450-0112-2023	833 m south				

AeHg-61 represents the only registered archaeological site situated within 100 m of the current BESS Study Area. This site was originally discovered during the Stage 1 and 2 archaeological assessments for the Dalewood Meadows Subdivision (ASI 1993) and was not further investigated. The site has been interpreted to represent an occupation dating to the 1820s – 1850s based on historical research and the artifact assemblage recovered during the Stage 2 field investigations completed in 1993 as well as the Stage 2 completed by TNAS in 2024.

4.0 Stage 3 Archaeological Investigation

4.1 Stage 3 Methodology

Due to the cultural heritage value or interest (CHVI) identified for AeHg-61 during the Stage 2 archaeological assessment (TNAS 2025), a Stage 3 site specific archaeological assessment comprising the hand excavation of 1 m² test unit excavations were completed over 7 days between 23 – 29 September 2024.

The Stage 3 test unit excavations were conducted according to the fieldwork methodology detailed in the MCM *Standards and Guidelines for Consultant Archaeologists* (2011), with the test units placed on a 5 m grid with infill units strategically located to investigate areas of archaeological interest. The AeHg-61 excavation area was primarily located within a ploughed agricultural field, and extended 1 – 2 m into the adjacent vegetated hedge row that forms the western border of the site. The strategy for determining the location and number of Stage 3 test units was primarily based on the Stage 2 controlled surface pick up (CSP) results (TNAS 2025) and was designed to accommodate Table 3.1 Standards 1 and 2, and Section 3.4.2 of the MCM *Standards and Guidelines for Consultant Archaeologists* (2011) with the following objectives:

- Provide a uniform level of data collection from across the site;
- Focus testing on key areas (e.g. site core, site periphery, areas of lower artifact concentration, isolated concentrations of diagnostics or classes of artifacts), as deemed appropriate based on professional judgement;
- Gather a representative artifact sample from across the site;
- Assess the nature of the subsurface deposits;
- Determine the extent of the archaeological site; and,
- Support the recommendations for Stage 4 mitigation strategies.

The Stage 3 archaeological fieldwork was completed during daylight hours and under favorable weather conditions that did not hinder the archaeological fieldwork or recording of archaeological deposits. An overview of the weather conditions for each field day is provided in Table 4.

Table 4: Weather conditions during Stage 3 Archaeological Assessment

Date of Stage 3 Fieldwork	Weather Conditions in the Field	Temperature High (°C)
23 September 2024	Cloudy	31
24 September 2024	Cloudy	25
25 September 2024	Sunny	25

Date of Stage 3 Fieldwork	Weather Conditions in the Field	Temperature High (°C)
26 September 2024	Sunny	26
27 September 2024	Sunny	25
28 September 2024	Cloudy	24
29 September 2024	Cloudy	28

The Stage 3 grid was established directly after the Stage 2 CSP with the limits defined by the distribution of surface finds. A total of 47 Stage 3 test units measuring 1 m² were hand excavated at least 5 cm into sterile subsoil, expect where a potential cultural feature was identified (Map 10). Each unit was excavated and recorded by stratigraphic lot.

As per Section 3.2.3 Table 3.1 number 1, the Stage 3 focused on areas of interest and continued until a repetitive low yielding units (comparatively to the site core) was encountered on the site periphery. The archaeological investigation continued until the site boundary was established within the development property boundary and resulted in the recovery of 2,311 culturally significant artifacts and the identification of three cultural features. Images 2 to 7 illustrate field conditions and the excavation methods employed during the Stage 3 test unit excavations.

The soil from each Stage 3 unit was screened through 6 mm mesh, with each stratigraphic layer examined for artifacts and features of archaeological significance. Soils from each excavated unit were backfilled using the original soils upon completion of Stage 3 fieldwork activities. Artifacts were collected and recorded based on provenience correlating to the excavation unit location and stratigraphic lot where they were collected, with all recovered artifacts returned to the TNAS laboratory in Ottawa for analysis and cataloguing. An artifact inventory has been produced and is included as Appendix A.

The topographic survey data was collected during the Stage 3 archaeological assessment using a Trimble DA2 GNSS receiver with the Catalyst real-time kinematic (RTK) network positioning subscription service providing sub-decimetre horizonal accuracy. All survey data was collected using the Universal Transverse Mercator (UTM) projection and North American Datum 1983 (NAD 83, Zone 17). The spatial data was collected in the field using QField GIS software on a Samsung TAB S9 tablet. Following the Stage 3 field investigation, the field data was downloaded as SHP files and integrated into the Project GIS database.

A field log was maintained for the duration of the Stage 3 investigation detailing information of archaeological and project significance. This documentary record was supplemented by field recording forms that included specific information for each test unit. Digital photographs were taken of the Stage 3 excavation area, features of archaeological interest and of specific soil profiles. The location and direction of each field image provided in this report is illustrated on Map 10.

Following the completion of the Stage 3 archaeological field investigation, contemporary aerial imagery was collected using a DJI Mini 3 drone. Ground control points were surveyed using the Trimble DA2 GNSS receiver and the aerial imagery was geo-referenced within the project spatial database.

Permission to access the property to complete the Stage 3 archaeological assessment was provided by DNV on behalf of the proponent, Edgeware BESS Project Limited Partnership. No restrictions or

limitations were placed on accessing the property to complete the archaeological assessment.

4.2 Artifact Analysis and Curation Methods

This report and the corresponding artifact inventory (Appendix A) provide a record of the cultural materials recovered during the Stage 3 archaeological assessment completed for the study area detailed on Maps 10, 11-1, 11-2 & 11-3. This information provides a basis for the analysis and recommendations regarding the significance of the recovered cultural materials and appropriate mitigation measures. This report also aims to provide sufficient information that a future researcher may determine whether cultural materials recovered from the study area are relevant to their investigation.

4.2.1 The Inventory System

The artifact inventory was compiled in a Microsoft Office Access database system. Each entry in the project specific database contains the following information:

- An individual inventory number
- Spatial location (provenience) within the study area (operation, stratigraphic layer, etc.)
- Artifact analysis (see below)
- Quantity

4.2.2 Artifact Analysis

The artifact analysis was based on the MCM's standard requirements, detailed in Tables 6.1 and 6.2 of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011). Each artifact entry in the database includes material composition, artifact type (object), the function that it served and if any alterations had been made to the original artifact (e.g., burning). Additional artifact descriptions were based on the type of artifact (see below).

4.2.3 Indigenous Artifacts

Typical Indigenous cultural belongings recovered during archaeological assessments include stone, ceramic and faunal material. Lithic debitage is generally recorded by descriptive category (e.g., primary, secondary, etc.) and measurements are provided of all recovered formal tools. Ceramic decorative styles are noted, if present, as well as identifiable manufacturing methods and techniques.

4.2.4 Euro-Canadian Historical Artifacts

Euro-Canadian historical artifacts generally include ceramic objects, glass items, and other inorganic and organic cultural material (e.g., metal, stone, flora, fauna, etc.). Date ranges are provided where possible, with all references cited. All other artifacts are described in as much detail as possible, including surface treatment, decorative pattern and technique of manufacture where applicable and identifiable.

4.2.5 Storage and Curation

The artifact collection recovered during the Stage 3 archaeological assessment at the AeHg-61 site was packed for storage by spatial location (provenience). When inventoried, artifacts were bagged in transparent, re-sealable (zippered) polyethylene bags that are inert and moisture resistant. Contents were identified on archival quality labels (acid-free, non-yellowing, acrylic adhesive), with an archival ink that is

permanent and fade resistant. The artifact bags were then placed in a banker's box (12" W x 15" D x 10" H).

Artifact collections are stored in the TNAS Ottawa office until the report has been submitted to the MCM, after which they will be moved to a secure, indoor, climate controlled storage facility.

This Stage 3 collection contains 2,311 artifacts and is packed in two banker's boxes.

5.0 Record of Finds

The Stage 3 archaeological fieldwork was conducted employing methods described in Section 4.1 of this report. An inventory of the documentary record generated from the Stage 3 fieldwork is provided in Table 5.

Table 5: Inventory of Documentary Record for Stage 3 Field Investigation

Document/Data Type	Current Location of Document/Data	Additional Comments
Field Notes	TNAS Office, Ottawa	Original field notebook with scanned copy in project file
Maps Provided by Client	TNAS Office, Ottawa	Stored electronically in the project file
Digital Photographs	TNAS Office, Ottawa	Stored electronically in the project file
GPS/GIS Data	TNAS Office, Ottawa	Stored electronically in the project file

5.1 Unit Excavation

A total of 47 1 m² Stage 3 test units were excavated during the seven days of field work (Map 11-1). Table 6 provides a summary of each Stage 3 unit and includes unit depth and total artifacts recovered. Where a feature was encountered, that unit has been identified in red font. Infill units are identified as those with **bold** font.

Table 6: Stage 3 Units, Total depths and Artifact Frequency

Unit	Depth (cm)	# of Artifacts	Unit	Depth (cm)	# of Artifacts	Unit	Depth (cm)	# of Artifacts
N495 E505	37	10	N515 E510	40	41	N530 E500	52	64
N495 E510	30	22	N515 E515	33	32	N530 E505	35	35
N500 E505	43	10	**N517 E502**	33	94	N530 E510	30	45
N500 E510	49	37	N520 E500	58	162	N530 E515	39	11
N505 E500	30	39	N520 E505	50	92	N530 E520	28	12
N505 E505	39	75	N520 E510	35	61	N530 E525	31	8
N505 E510	25	47	N520 E515	30	15	N535 E500	63	49
N505 E515	50	26	**N523 E504**	37	55	N535 E505	35	27

Unit	Depth (cm)	# of Artifacts	Unit	Depth (cm)	# of Artifacts	Unit	Depth (cm)	# of Artifacts
N508 E507	50	42	**N524 E514**	36	38	N535 E510	30	24
N510 E500	55	117	N525 E500	58	167	N535 E515	33	22
N510 E505	50	74	N525 E505	35	82	N535 E520	33	3
N510 E510	42	36	N525 E510	36	43	**N540 E503**	40	27
N510 E515	32	15	N525 E515	29	95	N540 E505	40	25
N513 E502	36	63	N525 E520	33	7	N540 E510	33	7
N515 E500	50	217	**N527 E514**	32	40	N540 E515	41	4
N515 E505	30	80	**N527 E516**	32	14			

5.2 Site Stratigraphy

The stratigraphy was fairly uniform across the entire site with details of each stratum provided below in Table 7. The stratigraphic context of AeHg-61 was influenced by its location within a ploughed field with the exception of units located along the very western edge of the site which was located within the field margin and was therefore differentiated from soils located within the field. Lots 4 to 9 are associated with features, however as none of features were fully exposed none of these lots were excavated and have no associated artifacts. Typical site stratigraphy in units located within the ploughed field can be seen in Images 8 to 10. Typical site stratigraphy in units located along the field margin can be seen in Image 11.

Table 7. Site Stratigraphy at AeHg-61

Lot #	Provenience	Context	Soil Description	Compaction	Average Thickness (cm)	Inclusions	Number of Stage 3 Artifacts
1	All units except E500	Ploughzone	Brown clay loam	Medium to loose	16-39cm	Rootlets	1,495
2	N510E500:1, N515E500:1, N520E500:1, N525E500:1, N530E500:1, N535E500:1	Topsoil	Brown clay loam	Medium to loose	40-50cm	Rootlets	816
3	All Units	Subsoil	Orange brown silty clay/ yellow orange brown clay sand/ yellow brown silty sand	Medium to hard	5-31cm	n/a	n/a

Lot #	Provenience	Context	Soil Description	Compaction	Average Thickness (cm)	Inclusions	Number of Stage 3 Artifacts
4	N525E515:2	Feature 1 fill	Brown clay mottled with yellow orange clay	Medium	n/a	Degraded brick and charcoal	n/a
5	N525E515:3	Feature 1 fill	Brown loam mottled with gray white ash	Medium	n/a	Charcoal	n/a
6	N515E500:2	Feature 4 fill	Brown clay loam mottled with orange brown clay	Medium hard	n/a	Mortar, degrading brick, charcoal, gravel	n/a
7	N515E500:3	Feature 4 fill	Dark brown loam	Medium loose	n/a	Charcoal, rootlets	n/a
8	N527E514:2	Feature 5 fill	Brown clay loam mottled with yellow orange silty clay	Medium	n/a	Charcoal, degrading brick, mortar	n/a
9	N527E514:3	Feature 5 fill	Brown clay loam	Medium	n/a	Degrading brick, charcoal	n/a

It should be noted that although Lot 2 has been identified as topsoil, that historically it was within the ploughed agricultural field. The topsoil did not exhibit the typical humic development commonly seen in undisturbed Gobles loam topsoil.

5.3 Features

A total of three subsurface features were identified during the Stage 3 assessment of AeHg-61, with each assigned a unique feature number. Spatially, the features were identified within the central portion of the AeHg-61 site (Map 11-1). Similarities between Features 1, 2, and 3 suggest they may be related to the same event, in particular Features 1 and 3, which are located within 1 m. Unit N527 E514 was excavated in an attempt to define the extent of Feature 1, as such, two additional units were excavated to the northeast and southwest of Unit N525 E515 (N527 E516 & N524 E514). Similar deposits were not located in either of these units, suggesting the deposit associated with Features 1 and 3 appear to be oriented northwest-southeast (Map 11-1).

Feature 1 was exposed within Unit N525 E515 at the ploughzone – subsoil interface at approximately 30 cm below surface. As the feature was not fully exposed in the unit, it was not excavated and covered with geotextile fabric (Image 12). The feature is located within the northeastern portion of the site and was interpreted to be associated with the end of the occupation of Marwood Gilbert as it was comprised of degrading brick, mortar, with a notable concentration of charcoal and ash. Feature 1 is a deposit likely associated with the demolition of Marwood's homestead in the 19th century. As the feature was not excavated there are no artifacts associated directly with the deposit.

Feature 2 was exposed within Unit N515 E500 at the ploughzone – subsoil interface at approximately 50 cm below surface. As the feature was not fully exposed in the unit it was not excavated and covered with geotextile fabric (Image 13). The feature is located along the western edge of the site within the field margin which separates the BESS Study Area and the railway at the western development boundary. The feature was interpreted as a possible occupation layer due to the deposit being comprised of looser and darker soils. As the feature was not excavated there are no artifacts associated directly with the deposit.

Feature 3 was exposed within Unit N527 E514 at the ploughzone – subsoil interface at approximately 30 cm below surface. As the feature was not fully exposed in the unit it was not excavated and covered with geotextile fabric (Image 14). The feature is located within the northeastern portion of the site and was interpreted to be associated with the end of the historical occupation by Marwood Gilbert as it is comprised of degrading brick, mortar, with a notable concentration of charcoal and ash. As the feature was not excavated there are no artifacts associated directly with the deposit.

5.4 Material Culture

A total of 2,311 artifacts were recovered during the Stage 3 test unit excavations. A summary of artifacts by general time period is provided in Table 8 (Maps 11-2 & 11-3).

Table 8: Artifact Frequency based on General Time Period

Function	Frequency	% of Total Assemblage
Pre-contact Indigenous	2	0.1%
Post-contact Historic Euro-Canadian	2,309	99.9%

A summary of the artifacts classified by function is presented in Table 9. The most common function represented in the assemblage was food/beverage (74%), followed by structural material (16%), faunal remains (4%), fuel (3%), and personal/societal (2%), with the remaining tools/equipment, indeterminate, furnishings, Indigenous lithics, arms/ammunition, and health/hygiene each representing less than 1% of the total assemblage.

Table 9: Artifact Function Totals

Function	Number	Percentage
Food and Beverage	1,704	74%

Function	Number	Percentage
Structural	376	16%
Faunal/Floral	90	4%
Fuel	65	3%
Personal/societal	46	2%
Tools/Equipment	16	<1%
Unidentifiable	6	<1%
Furnishings	4	<1%
Pre-Contact Indigenous	2	<1%
Arms/Military	1	<1%
Health/Hygiene	1	<1%
Total	**2,311**	**~100%**

5.4.1 Chipped Stone

A total of 2 Pre-contact Indigenous lithic artifacts were recovered during the Stage 3 excavation of the AeHg-61 site. Both are composed of flaked debitage with one broken flake and one secondary flake (Image 15). The broken flake (inv.#1596) is fairly thin with minimal flake scars on the ventral surface with small use wear flake scars on both lateral sides. The secondary flake (inv.#1507) is also broken with a fairly thick platform comprised of cortex. The ventral side of the flake has flake scars on one of the later sides. The dorsal side of the flake is smooth and has evidence of a bulb of percussion.

Both flaked debitage were made of Onondaga chert. Due to the small size of the lithic debitage and general variability within the source material with respect to colour and mottling, the source material is inferred based on the existing reference collection and experience. Regardless, each lithic artifact is fashioned from a fine grain silicious raw stone such as chert.

The distribution of the lithic artifacts across the site is fairly concentrated as both flakes were recovered from units within 10 m of each other (Map 11-3).

5.4.2 Food and Beverage

As identified in Table 9, the majority of the Stage 3 assemblage is composed of food and beverage related artifacts (n=1,704). Ceramic artifacts dominate consisting of 96% (n=1,639) of the assemblage with glass (4%), aluminum (<1%) and metal (<1%) making up the remaining 65 artifacts (Table 10).

Of the ceramic food and beverage artifacts, 1,539 consist of tableware with 1,183 indeterminate objects, 149 flatware sherds, 95 holloware sherds, 70 plate sherds, 31 tea/coffee pot sherds, 8 teacup sherds, 2 bowl sherds, and 1 handle sherd. All 100 utilitarian artifacts consisted of holloware objects.

Glass artifacts comprised either beverage containers (n=39), indeterminate holloware (n=20) or tableware objects (n=4).

Table 10: Food and Beverage Artifacts by Object

Material / Object	Number	Percentage
Ceramic	1,639	96%
Tableware	*1,539*	
Utilitarian ware	*100*	
Glass	63	4%
Beverage Container	*39*	
Indeterminate holloware	*20*	
Tableware	*4*	
Aluminum	1	<1%
Container: can	*1*	
Ferrous	1	<1%
Utensil: fork	*1*	
Total	**1,704**	**~100%**

Ceramic tableware can provide insight into the temporal nature of the artifact assemblage as ceramic ware types and decoration styles were used during specific time frames. Table 11 summarizes the ceramic tableware assemblage by ware type. The majority of the assemblage consists of refined white earthenware (RWE), which first went into production in 1805 but mostly became available in Canada by 1830 and is still produced at present (Miller et al. 2000). As such, RWE on its own is not a good indicator for dating a site. The second highest ware type is Pearlware which can be grouped with Creamware as ware types that were popular from the late 18th century to early 19th century. Pearlware is often referred to as “China glazed” as it was manufactured in an attempt to recreate the look of Chinese porcelain pottery. Creamware was also known as “Queen’s ware” whose distinctive feature was a yellow-tinged glaze. Creamware vessels were commonly left plain with moulded borders (Kenyon 1991)

Table 12 summarizes the ceramic tableware assemblage by decoration type. Although undecorated ceramics represent the highest percentage, the most common decoration type is transfer print (17%; Image 16), followed by the hand painted technique (14%), and the sponged technique (7%; Images 17& 18). Further decoration styles include blue and green scalloped edgeware (1%), straight green edgeware (<1%) straight blue edgeware (<1%), and blue crowfoot edgeware (<1%; Image 19). One percent of the ceramic tableware assemblage consists of slipware with a smaller occurrence of banded, moulded and stamped ware (Image 20).

The ceramic tableware assemblage and associated decorative styles generally provides a date from the early to mid 19th century for the AeHg-61 site. Spatially, the ceramic tableware assemblage was diffused and spread across the site, which is generally expected for a site located within a post-dating ploughed agricultural field. There were no notable concentrations of datable tableware in any specific area of AeHg-61.

Table 11: Broad Date Range for Ceramic Ware Types

Ware	Number	Percentage	Date Range	Source
Refined White Earthenware	1,390	90%	1820+	Burke 1991
Pearlware	87	6%	1780 - 1840	Kenyon 1991
Fine earthenware	31	2%	1796+	Jouppien 1980
Yellowware	14	1%	1830+	Kenyon 1991
Vitrified White Earthenware	7	<1%	1840+	Miller et al. 2000
Pearlware or RWE	6	<1%		
Creamware or RWE	2	<1%		
Creamware	1	<1%	1796 - 1920 (Ontario made)	Newlands 1979
Porcelain	1	<1%	1840+	Sprague 2002
Total Tableware	**1,539**	**~100%**		

Table 12: Decoration on Refined White Earthenware

Decoration	Frequency	Percentage	Date Range	Source
clear/colourless	791	57%	1820+	Burke 1991
transfer	234	17%		
blue	*196*		1825+	Kenyon 1991
red	*22*		1828+	Miller et al. 2000
brown	*13*		1832 – 1860	Kenyon 1991
black	*2*		1832 – 1845	Kenyon 1991
blue: negative	*1*		1819 – 1835	Miller et. al. 2000
other	*1*			
hand painted	195	14%		
late palette	*120*		1830 – 1872	Kenyon 1991
indeterminate	*65*		1820 – 1872	Kenyon 1991

Decoration	Frequency	Percentage	Date Range	Source
early palette	*10*		1820 – 1860	Kenyon 1991
sponged	100	7%		
blue	*72*		1843 – 1875	Majewski and O'Brien 1987
other	*18*		1843 – 1875	Majewski and O'Brien 1987
green	*10*		1843 – 1875	Majewski and O'Brien 1987
Edgeware	34	2%		
scalloped rim: blue	*17*		1820 – 1850	Miller 1988
straight rim: blue	*7*		1841 – 1857	Miller et. al. 2000
scalloped rim: green	*3*		1820 – 1840	Kenyon 1991
straight rim: green	*2*		1820 – 1840	Kenyon 1991
Indeterminate: blue	*3*			
Indeterminate: green	*2*			
Crows foot: blue	*2*		1840 - 1850	Jouppien 1980
Slipware	17	1%	1820 – 1920	Burke 1991
Banded	13	1%	1820+	Burke 1991
moulded	4	<1%	1820+	Burke 1991
stamped	2	<1%	1843 – 1875	Kenyon 1991
Total	**1390**	**~100%**		

The majority of the Pearlware objects were far too fragmentary to provide much insight into decoration styles, however less than half of the assemblage were identified as decorated (Table 13, Image 21).

Table 13: Decorations on Pearlware and Creamware Tableware

Decoration	Frequency	Percentage	Date Range	Source
Pearlware	87			
Clear/colourless	*49*		1780 - 1840	Kenyon 1991
Hand painted	*26*		1780 - 1840	Kenyon 1991
Edged	*12*		1780 - 1840	Kenyon 1991

Decoration	Frequency	Percentage	Date Range	Source
Creamware	1		1796 - 1920 (Ontario made)	Newlands 1979

All ceramic utilitarian objects were holloware objects, none of which were able to provide a more refined date for the occupation of AeHg-61 (Table 14, Image 21).

Table 14: Ceramic Utilitarian Objects by Ware type

Decoration	Frequency	Percentage	Date Range	Source
Creamware	75	75%		
Glazed: red	*50*		1796 - 1920 (Ontario made)	Newlands 1979
Unglazed: red	*25*		1796 - 1920 (Ontario made)	Newlands 1979
Coarse red earthenware	23	23%		
Unglazed: red	*23*		1796+ (Ontario made)	Newlands 1979
Fine earthenware	*2*	2%		
unglazed	*2*		Non-diagnostic	
Total	**100**	**100%**		

Table 15 summarizes key diagnostic elements of the glass assemblage. Specific to manufacturing, 52 (83%) examples of mould blown glass were recovered while 8 (13%) examples of machine made glass were documented. Moulded contact glass was one of the first commercial manufacturing techniques which began in the 18th century. This was then replaced by machine made glass starting around 1881 (Jones & Sullivan 1989). The mould blown glass bottles components consisted of either emerald green (n=21) dark green (n=11), or dark olive or olive green (n=7). Two mould blown bottles retained partial finishes: wine and packer finish, respectively. Packer finishes, when combined with emerald green were likely made during the 1860s. The wine finish was a common style on bottles manufactured between the 1860s and the 1920s (Lindsey 2010). Of note is the occurrence of machine made glass (n=8) which provides a late 19th century date. Pressed glass makes up 5% of the glass assemblage with one piece being decorated with a flower or sunburst (Image 22).

Table 15: Glass Tableware Manufacturing

Decoration	Frequency	Percentage	Date Range	Source
Mould blown	52	83%		
Bottle	*39*			
Indeterminate holloware	*13*			

Decoration	Frequency	Percentage	Date Range	Source
Machine made	8	13%		
Indeterminate holloware	7		1889+	Miller & Sullivan 1984
Glass Tableware	1			
Pressed	3	5%		
Glass Tableware	3			
Total	**100**	**100%**		

5.4.3 Structural Artifacts

A total of 376 structural artifacts were recovered from the AeHg-61 Stage 3 unit excavations. Table 16 summarises the structural artifacts recovered and includes date ranges for diagnostic elements (Image 23). Of those artifacts recovered, window glass is the most common representing 46% of the structural assemblage while brick fragments represent the second highest frequency at 34%. Only small non-diagnostic brick fragments were observed, with the fractured nature of the both the brick and the window glass indicating the site limits have been actively ploughed likely since abandonment.

Three categories of nails were also recovered, which are classified as cut, wrought, and wire. Machine cut nails (n=46) were the most frequent followed by wrought (n=18) and wire nails (n=5). Production of machine cut nails first began in 1805 but did not become readily available in more rural areas until decades later (Vincent 1993). Wire nails on the other hand were first mass produced around the 1870s but did not become available in rural areas until the later part of the 19th century. The presence of predominantly cut nails with lesser frequencies of both wrought and wire points to a period of occupation within the middle of the 19th century as all three manufacturing processes are present.

Spatially, there was some clustering of the structural material between the N510 line and the N520 line, and between E500 and 510. Interestingly, this greater concentration of structural elements is located to the south of Feature 1 (N525 E515), which contained the mortar.

Table 16: Structural Artifacts

Object	Frequency	Percentage	Date Range	Source
Window Glass	173	46%	Non-diagnostic	
Brick	127	34%	Non-diagnostic	
Nail	72	19%		
Cut	*46*		1805s+	Vincent 1993
Wrought	*18*		Pre-1805	Vincent 1993
Wire	*5*		1870+	Vincent 1993
Indeterminate	*3*			

Object	Frequency	Percentage	Date Range	Source
Mortar	4	1%	Non-diagnostic	
	376	100%		

5.4.4 Fuel

A total of 65 fuel related artifacts/samples were recovered from the AeHg-61 unit excavations, comprising 56 charcoal samples and 9 coal fragments. The presence of coal implies the use of this material as a source of heating for the dwelling.

5.4.5 Personal and Societal

A total of 46 personal/societal related artifacts were recovered during the Stage 3-unit excavations (Table 17, Image 24). Smoking pipe fragments are the predominant artifact type within the personal/societal class. Of those, 27 were undiagnostic while 13 retained some decorative elements. Two pipe bowls included a masonic symbol, while three bowls retained either raised lines or ridges. One bowl fragment included a lead design and another had a raised flower motif. Finally, one bowl retained an embossed TD encircled in a sunburst motif.

In addition to the smoking pipe fragments recovered, one shell and one prosser button, one weathered coin (no date) and one thimble were also documented.

Table 17: Personal / Societal Artifacts

Artifact type	Frequency	Percentage	Date Range	Source
Smoking Pipe	40	87%		
Plain stem	*16*			
Plain bowl	*11*			
Decorated Bowl	*10*			
Marked Bowl	*3*			
Button	3	7%		
Shell	*1*		1800+	Sprague 2002
Prosser	*1*		1840+	Sprague 2002
Indeterminate	*1*			
Coin/Token	1	2%	No discernable date	
Thimble	1	2%		
Rope/twine sample	1	2%		

Artifact type	Frequency	Percentage	Date Range	Source
Total	**46**	**100%**		

5.4.6 Tools and Equipment

Tools and equipment material represented less than 1% (n=16) of the total Stage 3 assemblage and consisted of six fragments scrap metal, four fragments of sheet metal, one slot screw, one horseshoe nail, one brace and one indeterminate ferrous object. Additionally, one slag sample was collected along with one non-ferrous piece of metal wire. Of the material collected and classified as tools and equipment, all are relatively undiagnostic.

5.4.7 Indeterminate

Six indeterminate objects were recovered which could not be classified. Three melted glass objects, one piece of plastic, one unmodified shell object and an object of indeterminate material.

5.4.8 Furnishings

Four glass oil lamp shards representing less than 1% of the total artifact assemblage were recovered. None of the oil lamp shards retained any decoration and were from the body of the lamp itself. Kerosene lamps started to become commonly used around the 1850s.

5.4.9 Arms and Ammunition

A single complete gun flint was recovered from unit N525 E510 (inv.# 2040). The gun flint is made of a fine-grained silicious stone which is dark gray in colour (Image 25). Typically gun flints manufactured in England were made from gray to black flint which is generally opaque (Durst 2009; Austin 2011). As such it is likely that the gun flint is of English origin.

There are two types of gun flints, gunspalls which were simply large flakes with limited secondary flaking and blade gun flints which were struck from a core by direct percussion using a specially made hammer. Blade gunflints were first manufactured by the French. The technology was not adopted by the English until the last quarter of the 18th century and they quickly eclipsed the French in the mass production of gunflints. The general morphology of the gun flint indicates that it is a square heeled blade gun flint made for a pistol. Blade gun flints are trapezoidal in profile and posses bevelled side and back surfaces with a flat to concave midsection face. The square heeled variety are typified by three to four margins trimmed through secondary flaking (Austin 2011). Inv.# 2040 is generally rectangular in shape, with a flat surface on its face and three trimmed margins and is trapezoidal in profile (Image 25).

5.4.10 Health and Hygiene

A single mould blown light green panel bottle was recovered from the Stage 3 excavation. Based on the attributes present, it was catalogued as a pharmaceutical container (Image 26).

6.0 Analysis and Conclusions

The Stage 2 archaeological assessment for the entire BESS Study Area resulted in the re-identification of AeHg-61, which as outlined in Section 3.2 met the provincial standard for a Stage 3 archaeological assessment as 80% or more of the artifact assemblage predates 1870.

The current Stage 3 assessment resulted in the identification and recovery of a total of 2,311 artifacts from 47 one-metre by one-metre test units. Of the total artifact assemblage, 2,309 artifacts were catalogued as historical Euro-Canadian while the remaining 2 artifacts were catalogued as Pre-contact Indigenous chipping debitage. The site as defined by the Stage 3 excavation measured roughly 45 m north-south by 25 east-west m in the southwest corner of the overall BESS Study Area.

From a Pre-contact Indigenous land use history, there is archaeological evidence which demonstrates that the general vicinity around the BESS Study Area and St. Thomas area has been continuously occupied since at least 9,500 years BP. The continuous land use by Indigenous inhabitants is evidenced by the presence of 37 previously recorded Indigenous archaeological sites located within 5 km of the BESS Study Area.

The methodology employed to undertake the Stage 3 site specific assessment complied with Section 3.1 Standard 1, Section 3.2 Standards 1 -4, Section 3.2.2 Standards 1 -8, and Section 3.2.3 Table 3.1 Number 1. Specifically, the results of the Stage 3 site specific assessment of AeHg-61 focused unit excavations on the site core, defined the limits of the site based on repetitive low yielding units compared to the site core artifact counts, and collected a representative sample of artifacts, enough to inform the recommendations outlined in Section 7.0 (TNAS 2025; SD-1).

Based on the distribution of artifacts, the primary core of the site is centred along the E500 and E505 lines and between N505 and N530. Over 52% of the historic assemblage originates from 12 Stage 3 1-m² units (25%). A secondary site core was observed that centres on unit N525 E515 where a potential feature was identified. Three in-fill units were placed around N525 E515 which resulted in additional artifacts being recovered and unit N527 E514 showing evidence of the continuation of the feature identified in N525 E515 (SD Map 11-2). Combined, these two concentrated clusters of artifacts (cores) represent 60% of the total Stage 3 historic assemblage.

With respect to the Stage 2 surface find outliers not directly covered by Stage 3-unit excavation, the southern most surface find (SF#22) is a chert flake and as such not associated with the historic component of AeHg-61 and the subject of the Stage 3 site specific assessment. Along the eastern boundary, three surface finds extend beyond the limits of the Stage 3-unit excavations: SF#46, SF#54 and SF#55. SF#46 and SF#55 are sherds of undiagnostic undecorated RWE while SF#46 is a sherd of hand painted RWE that is located over 15 m to the east of a Stage 3 unit which produced eight artifacts and approximately 25 m away from the eastern site core/concentration of artifacts. Similarly, the two outlier surface finds at the northern end of the mapped Stage 2 limits include one shard of bottle glass (SF#79) and a sherd of blue transfer RWE (SF#76). As the date of manufacture of SF#79 post dates the inferred occupation of AeHg-61, it can be considered not directly associated with the main occupation. SF#76 does date to within the timeframe of the main occupation but is located approximately 20 m to the northeast of the eastern most core/concentration of artifacts. All historic artifacts associated with the outlier locations are representative of the those recovered from the site core, and therefore there is no evidence the outlier locations provide any additional information not already obtained during the Stage 3 excavation.

The extent of the site was determined based on repetitively decreasing unit counts from the core(s) of the site as well the identification of three features. The presence of several outlying surface finds is consistent with the overall low density of distributed artifacts scattered across the site which decreases in frequency from higher count locations.

Given the extent of the site, as determined by the core(s) and decreasing artifact frequencies in the adjacent units, sufficient information was acquired to satisfy Section 3.2.3 of the MCM 2011 *Standards and Guidelines for Consultant Archaeologists*.

Pre-Contact Indigenous Component

A total of two Pre-contact Indigenous lithic artifacts were recovered from the Stage 3 archaeological assessment of AeHg-61. The assemblage consisted of one broken flake and one secondary flake both made of Onondaga chert. When reviewing the Stage 3 data in conjunction with the Stage 2 results, the Pre-contact Indigenous assemblage within the limits of AeHg-61 totals only 5 artifacts. Based on the limited number of Pre-contact Indigenous artifacts and the broad horizontal distribution of the lithic artifacts, MCM Standard 3.4.1.1 is not met, as such, Stage 4 is not recommended for the Pre-contact Indigenous component of AeHg-61.

Historic Euro-Canadian Component

The artifact assemblage associated with the AeHg-61 site is primarily composed of food and beverage artifacts (74%), with structural artifacts (16%) making up the second most common artifact class, followed by faunal/flora (4%), fuel (3%), personal/societal (2%), with tools and equipment, furnishings, arms and ammunition, and health and hygiene all making up less than 1% of the assemblage. Decorations on the RWE tableware varied with associated dates ranging from the late 18th to late 19th centuries, largely terminating in the mid- to late-19th century. These decoration styles include blue, red, brown, and black transfer prints, early and late palette hand painted, sponged, impressed scallop shelled decoration with hand painted blue and green, stamped, banded, moulded and slipped. There were also examples of pearlware and creamware vessels. The glass assemblage of AeHg-61 provides dates which range from the mid 19th century to the late 19th century, evidenced by the presence of dark olive-green bottle glass, pieces of machine made glass, a wine finished bottle, and a packer finish on a piece of emerald green bottle glass.

Of the 376 structural artifacts recovered, window glass was the most common, followed by non-diagnostic brick fragments as the second most component. Three categories of nails were recovered with cut nails the most numerous, followed by wrought nails, with wire nails the least common. The nail assemblage points to a mid 19th century assemblage. Looking at the artifact assemblage from AeHg-61 as a whole, the ceramic tableware, glass and nail assemblages provide a date from the early to mid 19th century.

There are a number of similar early to mid 19th century domestic sites in the general vicinity of the BESS Study Area. Registered sites AdHg-6, AeHe-28, AeHh-119, AeHh-120, AeHg-121, AeHg-124, and AehH-117 are all examples of Euro-Canadian domestic sites within Elgin County which were recommended for Stage 4 based on the majority of the assemblage (80%) pre-dating the 1870s. Of note is AeHg-124 which is located on Lot 9, Range 1 North of Edgeware Road, 330 m to the east of AeHg-61. The Stage 3 assessment comprised the excavation of 18 units which recovered 1,498 artifacts. The assemblage included creamware, pearlware, luster fine earthenware, early palette painted décor, and scalloped edge décor which provide a date of between 1850 and 1870. The 19th century occupation of the AeHg-124 site is associated with the Leitch family who were residents of the lot from 1851 to 1903. Due to the date of

the artifact assemblage the site was recommended for Stage 4 mitigation of development impacts by means of mechanical topsoil stripping (TMHC 2023). The Stage 4 recovered another 1,435 artifacts and has been mitigated of any further CHVI.

Specific to the BESS Study Area, the Crown patent for Lot 8, Concession 1, was granted to Edward Peverency in 1832, who sold it to Marwood Gilbert in 1840. The 1861 census lists Marwood Gilbert living in a single-story frame house, though it is unclear when he settled the land. The 1864 Tremaine Map of Yarmouth Township shows an M.A. Gilbert on the lot, which likely represents Marwood Gilbert. By 1868, Marwood was leasing part of the lot to his mother, Effie Gilbert. He was listed as a freeholder on Lot 8 in the 1872 directory. Marwood, known for his colorful personal life, having married Fanny Bluett in 1851 and having one daughter. After an infamous elopement with one of Fanny's relatives in 1859, Marwood was shot by his brother-in-law but recovered. He remained married to Fanny until her death in 1871, and later remarried Lucy Bluett, possibly the young woman he had previously eloped with. Marwood lived in Port Stanley and Kent, Ontario, before his death in 1898.

By 1877, the Page & Co. Map of Yarmouth County listed an R. Gilbert as residing on Lot 8, who was likely a relative of Marwood, as Marwood had no male heirs. In 1886, Richard Gilbert sold the lot to Thomas Penhale. The Penhale family arrived in St. Thomas alongside Richard Gilbert Sr., later settling in the city. In 1909, Matthew Penhale sold the lot to Edwin Smith Hokum, who immediately transferred it to George W. Dennis in 1910. That same year, Dennis sold part of the lot to the Canadian Pacific Railway, marking the western boundary of the BESS Study Area. A 1913 topographic map shows a building in the northern part of the area. The 1921 census lists Dennis as head of a household at Lot 7-8 North of Edgeware Road, with his residence numbered 14. By 1929, the structure was no longer present. Dennis appears to have passed away by the 1940s, with the property later deeded to his family members.

In reviewing the historical documentation and artifact assemblages from AeHg-61 against indicators showing cultural heritage value or interest as defined in Table 3.2, and Section 3.4.2 Standard 1a of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011), it is evident that AeHg-61 meets the minimum requirements for CHVI and a recommendation of Stage 4 Mitigation of Development Impacts is required. The Gilbert family represents the first occupation of Lot 8 Range 1 North of Edgeware Road and occupied the land in a single-story frame house between 1840 and extending to 1886. The artifact assemblage corroborates with this early date. Additionally, Marwood Gilbert represents an individual of some notoriety as he was shot for eloping with a relative on the day of his marriage. This event sparked local interest and was featured in the local newspaper.

As 80% or more of the artifact assemblage pre-dates 1870, the historical component of AeHg-61 retains CHVI.

7.0 Recommendations

This Stage 3 site-specific archaeological assessment has provided the basis for the following recommendations:

1) AeHg-61 possesses CHVI and Stage 4 mitigation of development impacts is recommended prior to any further impacts or disturbances to the project landscape. As AeHg-61 is located within the proposed Edgeware Battery Energy Storage System Project footprint and cannot be avoided, the Stage 4 mitigation of development impacts should consist of the mechanical topsoil removal of the plough zone down to the subsoil interface to expose potential cultural features. Mechanical topsoil removal should continue to the edges of the original Stage 3 unit excavations and 10 m

past any identified cultural feature. The Stage 4 mitigation by mechanical topsoil removal should follow the standards outlined in Section 4.2.3 of the MCM's (2011) *Standards and Guidelines for Consultant Archaeologists.*

8.0 Advice on Compliance with Legislation

This report is submitted to the Ministry of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33, (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Public and Business Service Delivery and Procurement.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

9.0 Important Information and Limitations of this Report

This report has been prepared for the specific site, development objective, and purpose as requested by the client and outlined in the original proposal, and subsequent agreed changes, for this project. The specific results, factual data, interpretations, and recommendations, outlined in this report are for the sole use of the client, and applicable only to this project and site location. No other warranty, expressed or implied, is made. No other party may rely on all, or portions, of this report without True North Archaeological Services Inc.'s express written consent. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of True North Archaeological Services Inc. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client can only rely upon the electronic media versions of this True North Archaeological Services Inc. report or other work products at their discretion.

True North Archaeological Services Inc. prepared this report in a manner consistent with the level of care and skill ordinarily exercised by other members of the archaeological consulting community currently practicing within the Province of Ontario, in accordance with the *Ontario Heritage Act* the Ministry of Citizenship and Multiculturalism's (MCM) 2011 *Standards and Guidelines for Consultant Archaeologists*, and all the subsequent MCM bulletins.

There are special risks whenever an archaeological assessment is completed, whether they be solely desktop assessments or in-field assessments, and even a thorough background study, comprehensive field investigation or sampling and testing program may fail to detect all archaeological resources present within the project area. The desktop review, field strategies and subsequent interpretations utilized for this report comply with the Ministry of Citizenship and Multiculturalism's (MCM) 2011 *Standards and Guidelines for Consultant Archaeologists*, and all the subsequent MCM bulletins.

All artifacts collected as part of this archaeological assessment, when applicable, will be housed and curated by True North Archaeological Services Inc. until such time that the collection may be transferred to an appropriate MCM approved repository or repatriated to an appropriate First Nation. As part of Licensing obligations, this report, along with pertinent written information will be uploaded to the MCM Past Portal website and reviewed for compliance with the 2011 *Standards and Guidelines for Consultant Archaeologists*.

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True North Archaeological Services Inc.

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11.0 Images



Image 1. Portrait of Marwood Gilbert



Image 2. Overall view of AeHg-61 from the south end of site, view north



Image 3. Aerial overview of AeHg-61 during excavation, view west.



Image 4. Aerial overview of AeHg-61 post excavation, view west.



Image 5. Field crew completing unit excavation at AeHg-61, view southeast.



Image 6. Field crew completing unit excavation at AeHg-61, view east.



Image 7. Field crew completing unit excavation at AeHg-61, view south.



Image 8. Unit N540 E515 showing varied subsoil encountered at AeHg-61, view east.



Image 9. Plan view of unit N520 E510 at close, view north.



Image 10. Plan view of unit N520 E505 at close, view south.



Image 11. North profile of unit N535 E500 at close.



Image 12. Plan view of Feature 1 in Unit N525 E515, view east.



Image 13. Plan view of Feature 4 in Unit N515 E500, view north.



Image 14. Plan view of Feature 5 in Unit N527 E514, view west.



Image 15. A (inv.# 1596) broken flake made of Onondaga chert; B (inv.#1507) secondary flake made of Onondaga chert.

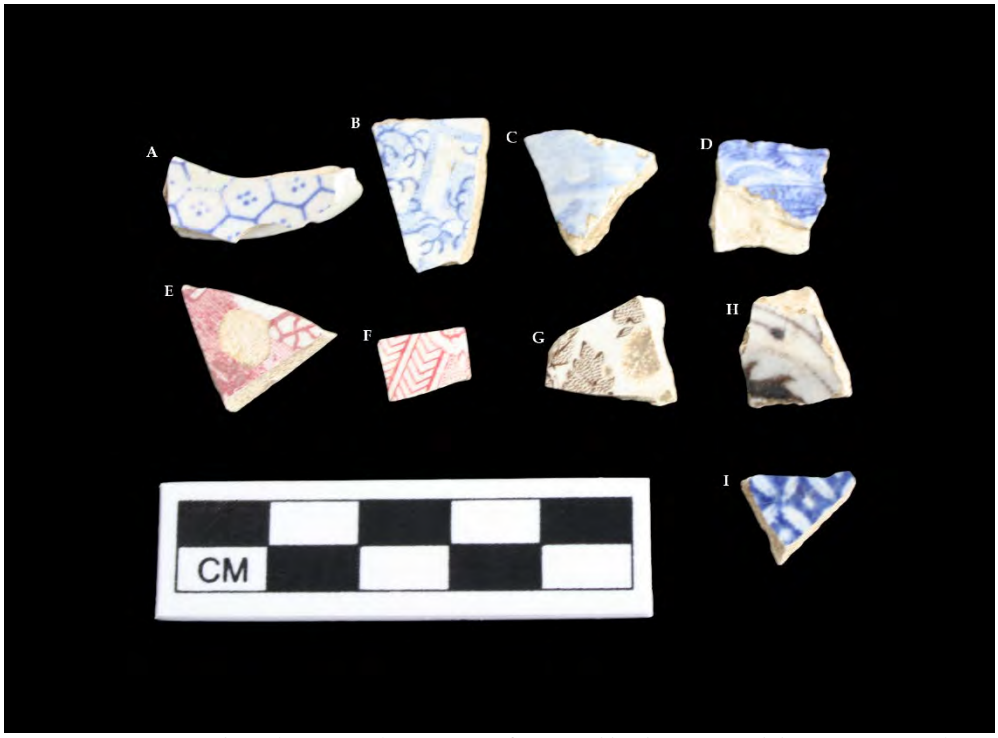


Image 16. Ceramic Decoration Style. A (inv.#2011) RWE transfer print: blue hexagon and dot pattern; B-D (inv.#2046) RWE transfer print: blue floral pattern; E (inv.#2005) RWE red transfer print; F (inv.#1912) RWE red transfer print; G (inv.#2158) RWE brown transfer print; H (inv.#1663) RWE black transfer print; I (inv.#1854) RWE negative blue transfer print.



Image 17. Examples of Hand Painted Tableware from AeHg-61. A (inv.#1704) RWE hand painted early palette; B (inv.#1740) RWE hand painted early palette; C (inv. 1743) RWE hand painted early palette; D (inv.#1567) RWE hand painted late palette; E (inv.#1568) RWE hand painted late palette.

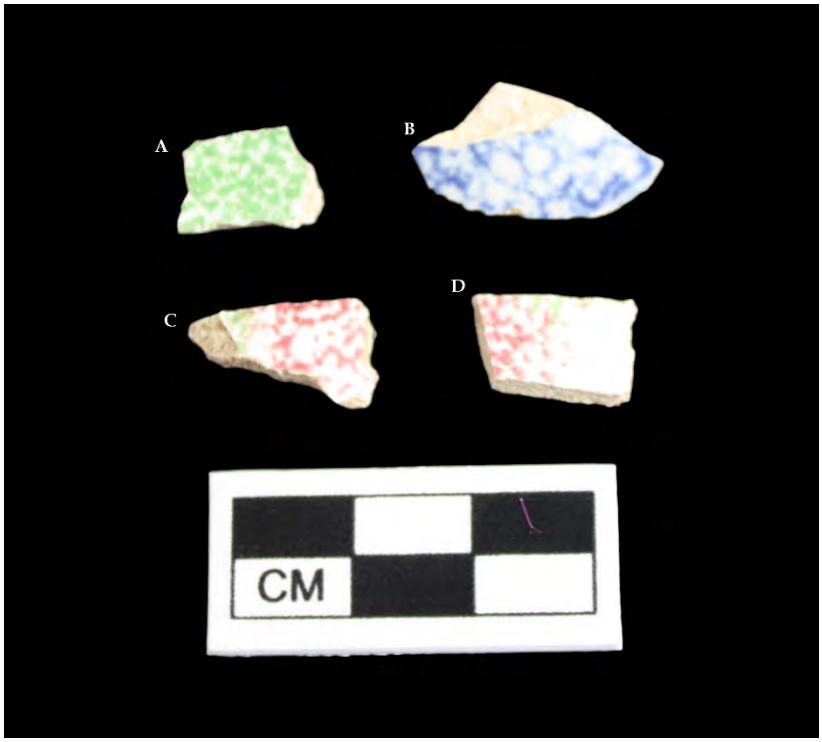


Image 18. Examples of Sponged Tableware from AeHg-61. A (inv.#2152) RWE green sponged; B (inv.#2157) RWE sponged blue; C&D (inv.#1652) RWE sponged.



Image 19. Examples of Hand Painted edged Tableware from AeHg-61. A (inv.#1689) scallop green edge decorated RWE with impressed curved lines; B (inv.#1785) scallop blue edge decorated RWE with impressed curved lines; C (inv.#2116) straight green edge decorated RWE; D (inv.#1773) straight blue edged decorated RWE; E (inv.# 2155) blue edged straight rim crows' feet decorated RWE.



Image 20. Examples of Embossed & Stamped RWE and Slipware from AeHg-61. A (inv.#1787) moulded RWE; B (inv.#1784) moulded blue transfer print decorated RWE; C (inv.#1890) black stamped decorated RWE; D (inv.#1662) moulded brown banded decorated RWE slipware; E (inv.#1791) VWE slipware; F&G (inv.#2160) RWE painted slipware.



Image 21. Examples of Early Tableware from AeHg-61. A (inv.#2070) scallop blue edge decorated PWE with impressed curved lines; B (inv.#1607) blue painted PWE; C (inv.#1851) blue painted PWE; D (inv.# 1775) blue painted PWE; E (inv.#1623) plain CCE; F (inv.#2009) scallop green edge decorated PWE with impressed curved lines; G (inv.#1531) brown glazed red CRW; H (inv.#1604) brown glazed red CRW.



Image 22. Examples of colour and finish variation within the Glass Assemblage of AeHg-61. A (inv.#1878) pressed colourless stemware; B (inv.#1576) colourless machine made bottle glass; C (inv.#1993) aqua mould blown bottle glass; D (inv.#2273) light green mould blown bottle glass, wine finish; E (inv.#2180) emerald green mould blown bottle glass, packer finish; F (inv.#1899) dark green mould blown bottle glass; G (inv.#1644) emerald green mould blown bottle glass; H (inv.# 2147) dark green mould blown bottle glass; I (inv.#1757) olive green mould blown bottle glass.



Image 23. Building and Structural Elements from AeHg-61. A (inv.#2237) wire nail; B&C (inv.#1627) machine cut nails; D (inv.#2060) wrought nail; E (inv.#1905) brick; F&G (inv.#1897) window glass; H (inv.#1641) mortar.



Image 24. Personal Items from AeHg-61. A (inv.#1986) masonic decorated smoking pipe bowl; B (inv.#1985) decorated smoking pipe bowl with a raised TD in sunburst; C (inv.#1645) smoking pipe stem; D (inv.#2141) copper-alloy thimble; E (inv.#1904) worn copper-alloy coin; F (inv.#1865) shell button with a star pattern; G (inv.#2250) prosser button.

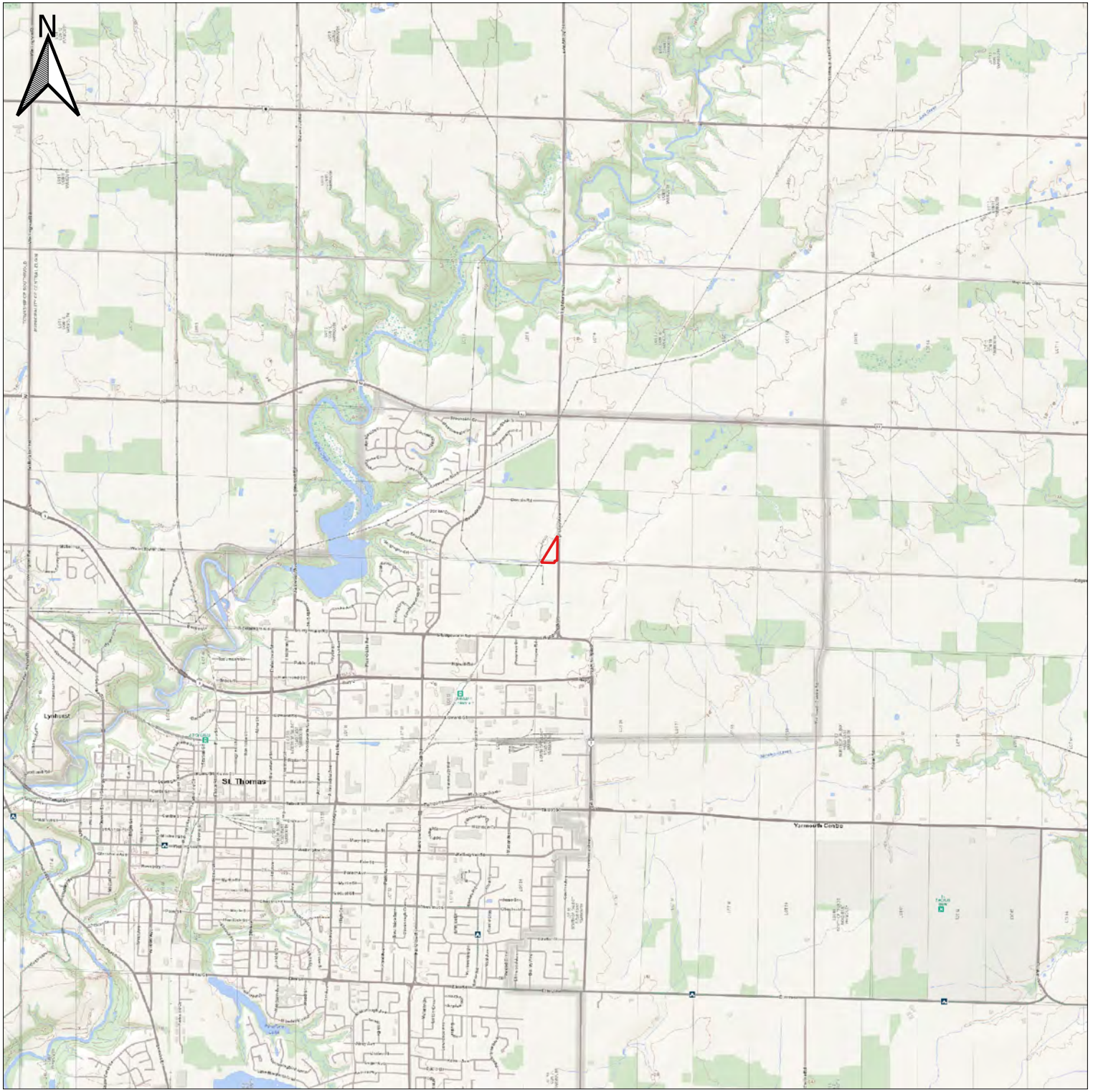


Image 25. Pistol gun flint made from English flint (inv.#2040).



Image 26. Light green mould blown pharmaceutical panel bottle glass (inv.#1696).

12.0 Maps



LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLAN: OPEN DATA LIO TOPOGRAPHIC MAP

700 0 700 1,400 2,100 m

SCALE 1:50,000

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

KEY PLAN

CONSULTANT

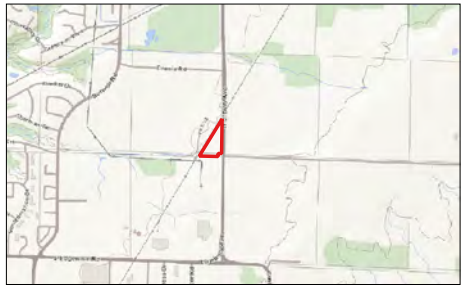
TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
20240022	002	1



KEY MAP



SCALE 1:50,000

LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLANS: LAND INFORMATION ONTARIO (LIO) OPEN DATA SWOOP 2015 AND LIO TOPOGRAPHIC MAP

50 0 50 100 150 m

SCALE 1:4,250

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

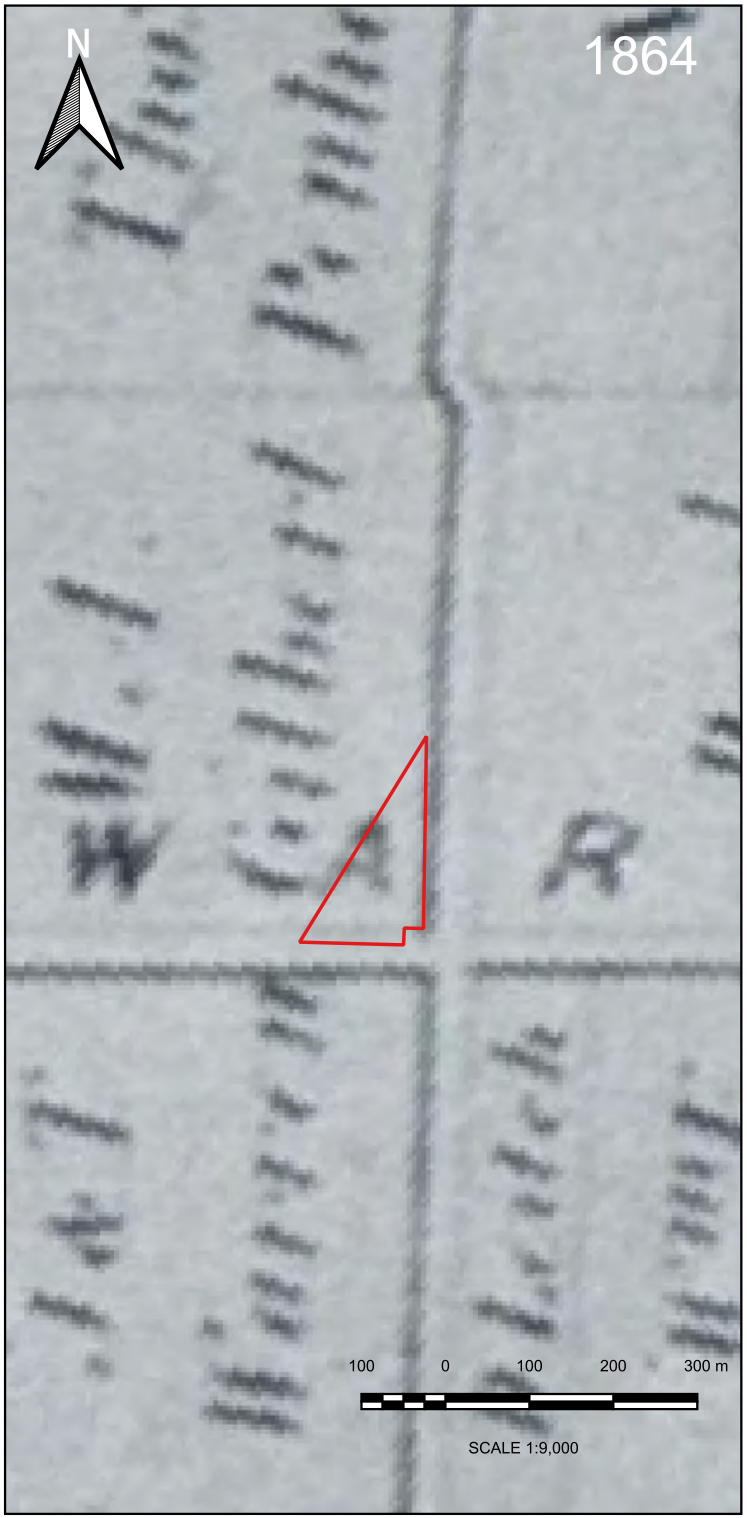
SITE PLAN

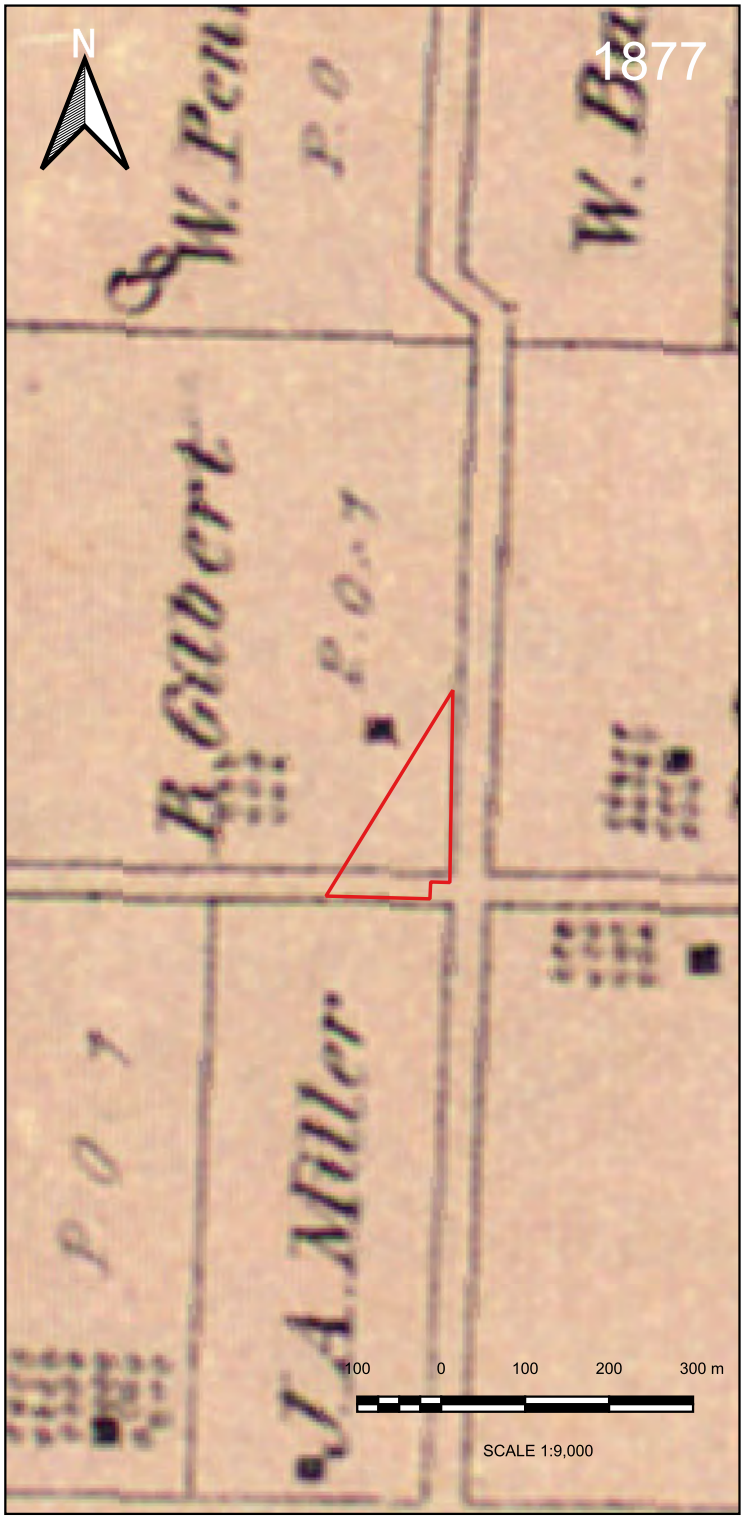
CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	2





LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. 1864 PLAN OF YARMOUTH TOWNSHIP, ELGIN COUNTY, GEORGE R. TREMAINE

3. 1877 PLAN OF YARMOUTH TOWNSHIP, ELGIN COUNTY, H.R. PAGE & CO.

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

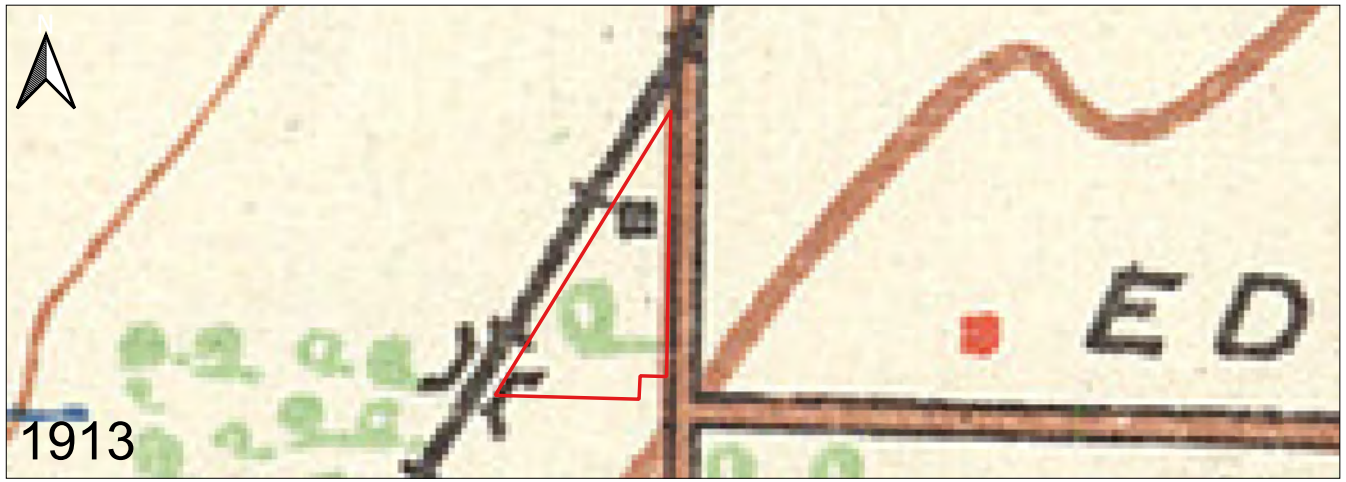
1864 AND 1877 HISTORIC MAPS, YARMOUTH TOWNSHIP

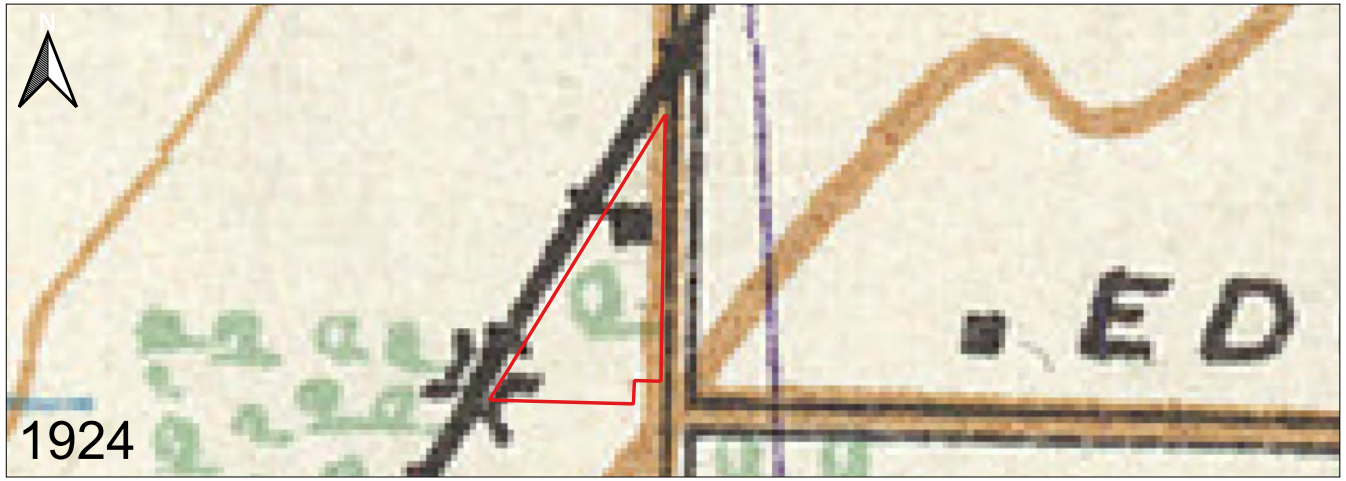
CONSULTANT

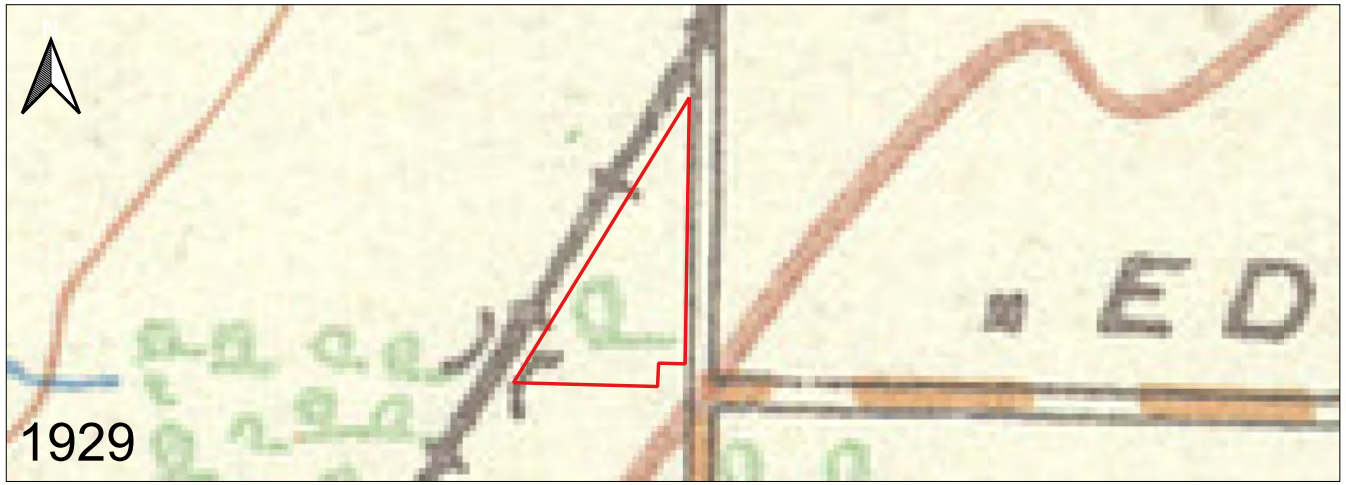
TRUE NORTH ARCHAEOLOGICAL SERVICES

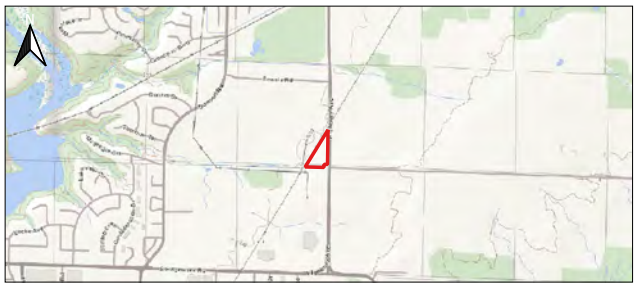
YYYY-MM-DD	2024-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	3









SCALE 1:50,000

LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLANS: NATIONAL DEPARTMENT OF DEFENCE, ST. THOMAS SHEET 40I/14 (1913, 1924 AND 1929, LIO TOPOGRAPHIC MAPPING

100 0 100 200 300 m

SCALE 1:6,500

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

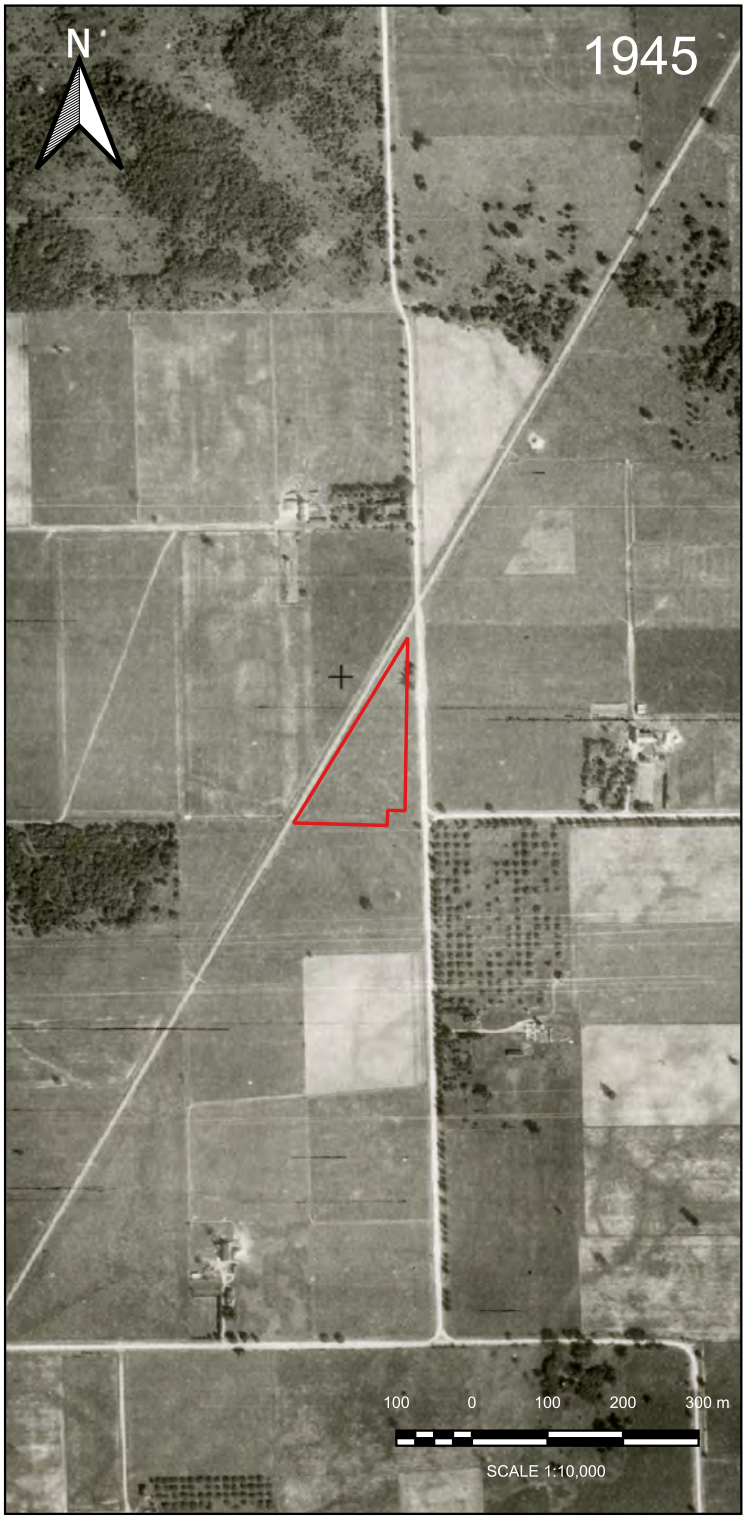
TOPOGRAPHIC MAPPING

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

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2024022	002	4





LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. 1945 NATIONAL AIR PHOTO LIBRARY, ROLL#: A9205, PHOTO#: 78

3. 1978, DEPARTMENT OF FORESTRY AND MINING, ROLL#: 4255, PHOTO#: 204_50

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

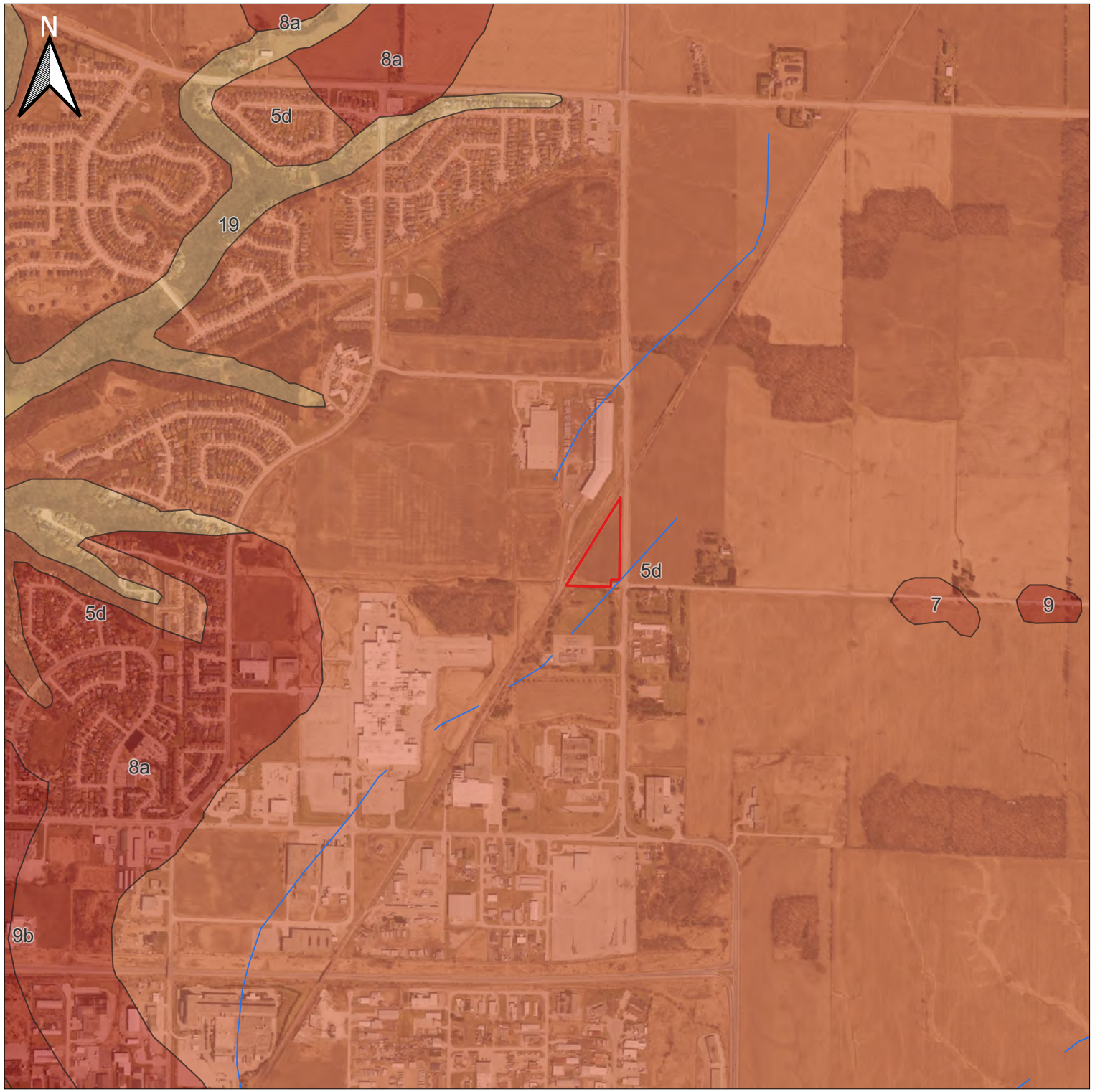
1945 AND 1978 AERIAL IMAGES

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	5



LEGEND

Study Area

Surficial Geology

- 19 — Modern Floodplain: deposits of gravel, sand and silt
- 5d — Glacial Till: deposits of silty clay till
- 7 — Glaciofluvial: deposits of gravel and a gravelly sand
- 8a — Glaciolacustrine: deposits of clay and clayey silt
- 9 — Glaciolacustrine: deposits of silt, silty sand, and clay
- 9b — Glaciolacustrine: deposits of gravel and gravelly sand

Surficial Geology Features

- Bluff

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. ONTARIO GEOLOGICAL SURVEY 2010. SURFICIAL GEOLOGY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 128-REV

200 0 200 400 600 m

SCALE 1:15,000

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

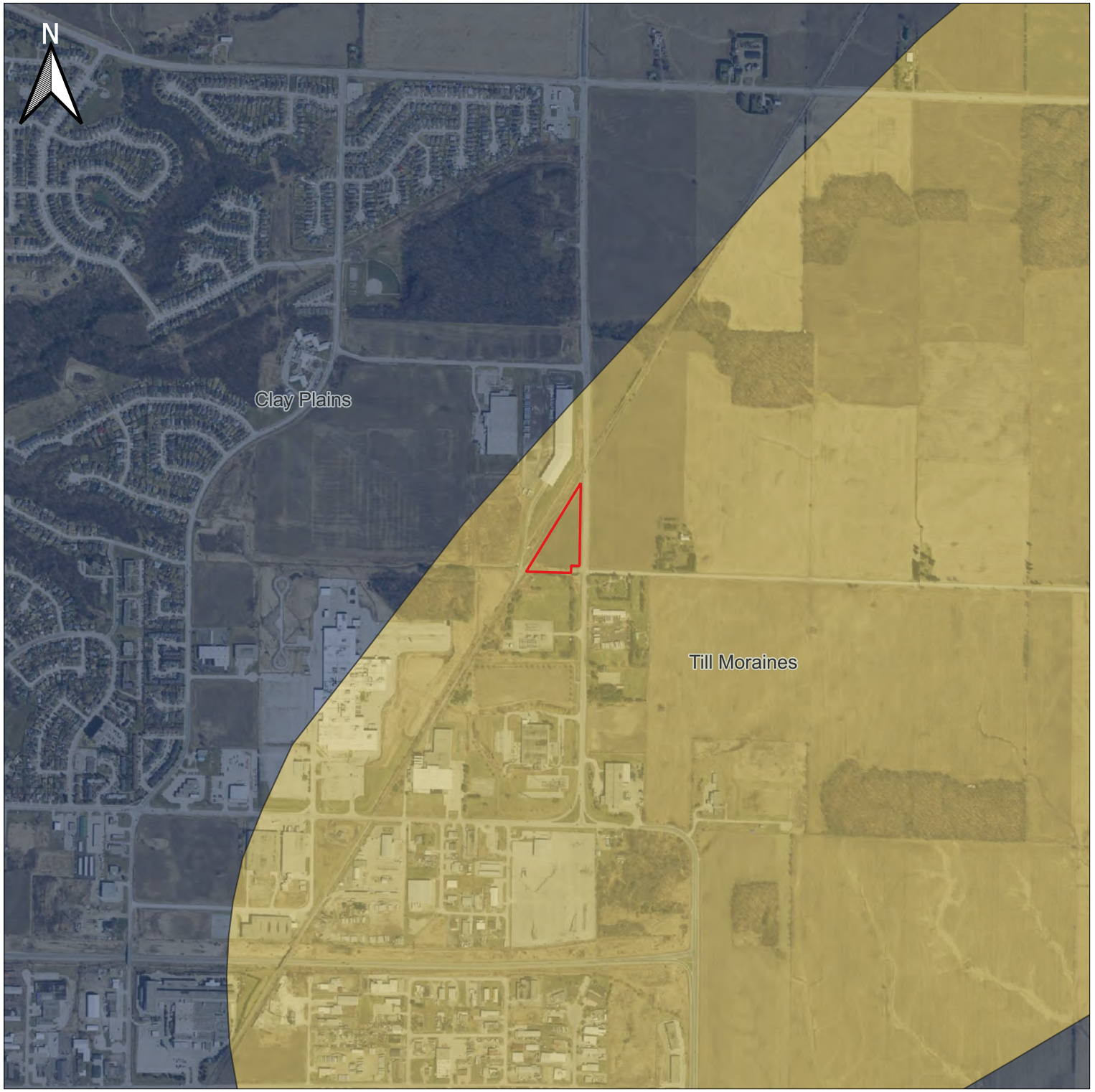
SURFICIAL GEOLOGY

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	6



LEGEND

- Study Area

Physiographic Landform

- Clay Plains
- Till Moraines

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 2008

200 0 200 400 600 m

SCALE 1:15,000

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

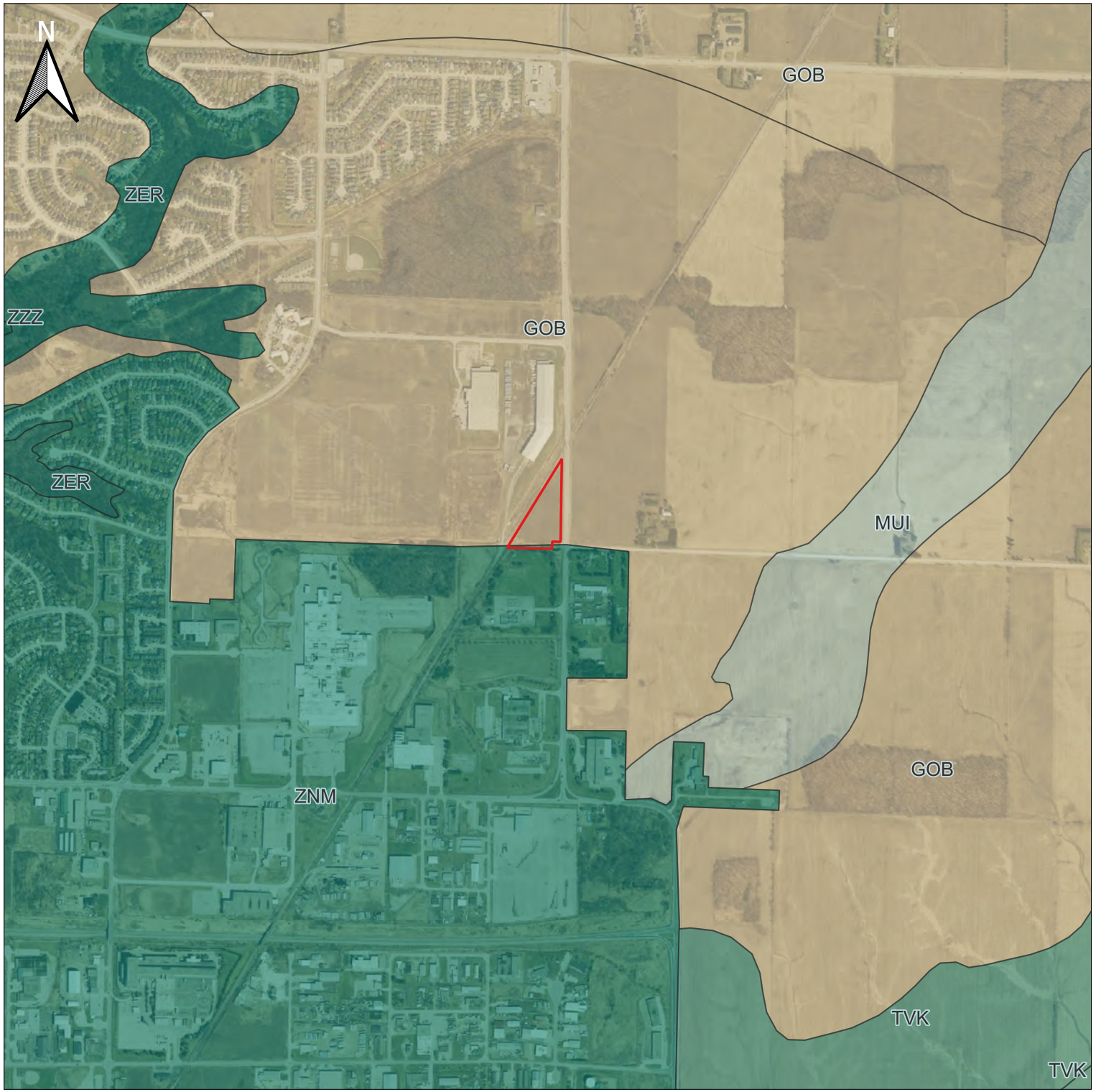
PHYSIOGRAPHY

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
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LEGEND

Study Area

Soil Survey Complex

- GOB — Gobles Loam
- MUI — Muriel Silty Clay
- TVK — Tavistock Till
- ZER — Eroded Channel
- ZNM — Not Mapped
- ZZZ — Water

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. SOIL SURVEY COMPLEX, ONTARIO MINISTRY OF AGRICULTURE, FOOD AND RURAL AFFAIRS, 2019-11-06

200 0 200 400 600 m

SCALE 1:15,000

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

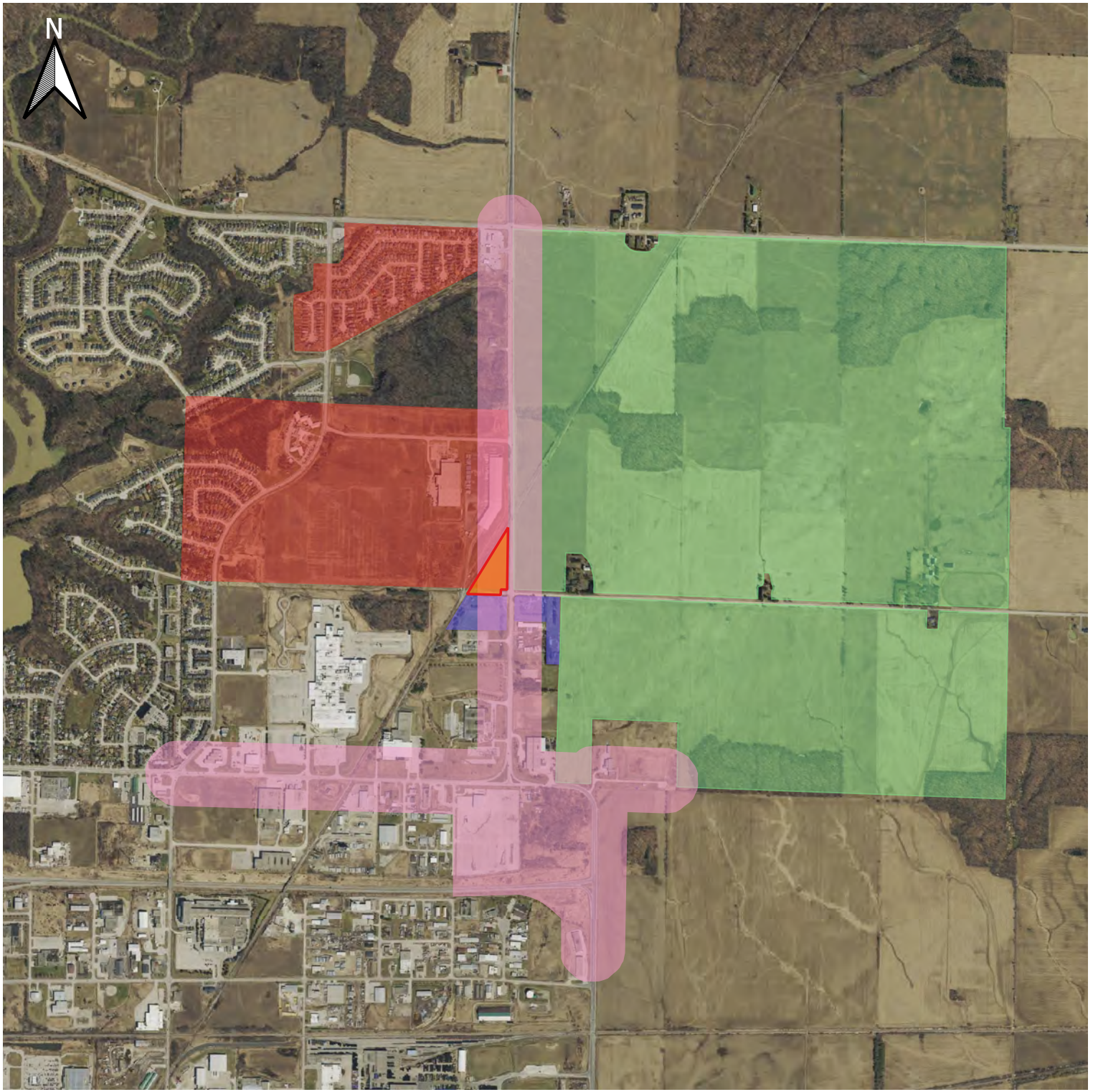
SOIL SURVEY COMPLEX

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	8



LEGEND

Study Area

Previous Archaeological Assessments

- Parslow Heritage Consultancy Inc.
  Stage 1 Archaeological Assessment
  MCM PIF No. P243-0506-2023
- Timmins Martelle Heritage Consultants
  Stage 1 and 2 Archaeological Assessments
  MCM PIF No. P1189-0041-2023
- Timmins Martelle Heritage Consultants
  Stage 1 and 2 Archaeological Assessments
  MCM PIF No. P324-0708-2021&P324-0737-2022
- Archaeological Services Inc.
  Stage 1 and 2 Archaeological Assesments
  MCM PIF No. 1993-016
- True North Archaeological Services
  Stage 1 and 2 Archaeological Assessments
  MCM PIF No. P311-0354-2024

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLAN: LAND INFORMATION ONTARIO (LIO) OPEN DATA, SWOOP 2015

3. SPATIAL INFORMATION FOR ALL ARCHAEOLOGICAL ASSESSMENTS DEPICTED ON THIS MAP ARE REFERECNED FROM AVAILABLE REPORTS AND INFORMATION MAINTAINED BY THE MCM

250 0 250 500 750 m

SCALE 1:20,000

CLIENT

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PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

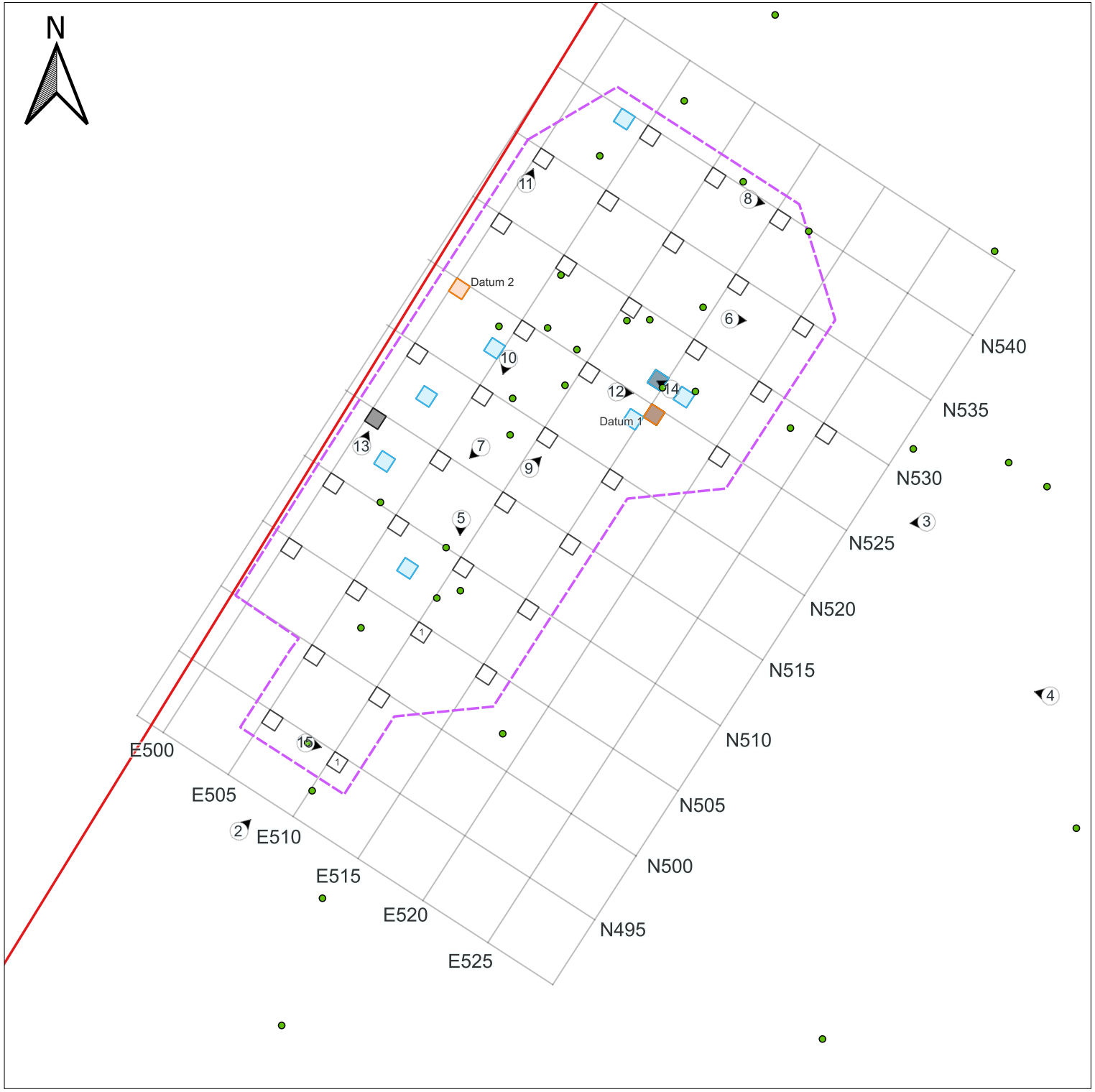
PREVIOUSLY COMPLETED ARCHAEOLOGICAL ASSESSMENTS WITHIN 50 METRES OF STUDY AREA

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	9



LEGEND

- Study Area

Stage 2 Archaeological Assessment

- Surface Find

Stage 3 Archaeological Assessment

- Field Photograph Location and Direction With Corresponding Report Image #
- AeHg-61 Site Limits
- pre-contactcount
- Stage 3 Unit
- Stage 3 Infill Unit
- Location of Cultural Feature
- Datum
- 5 m Grid

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

5 0 5 10 15 m

SCALE 1:350

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

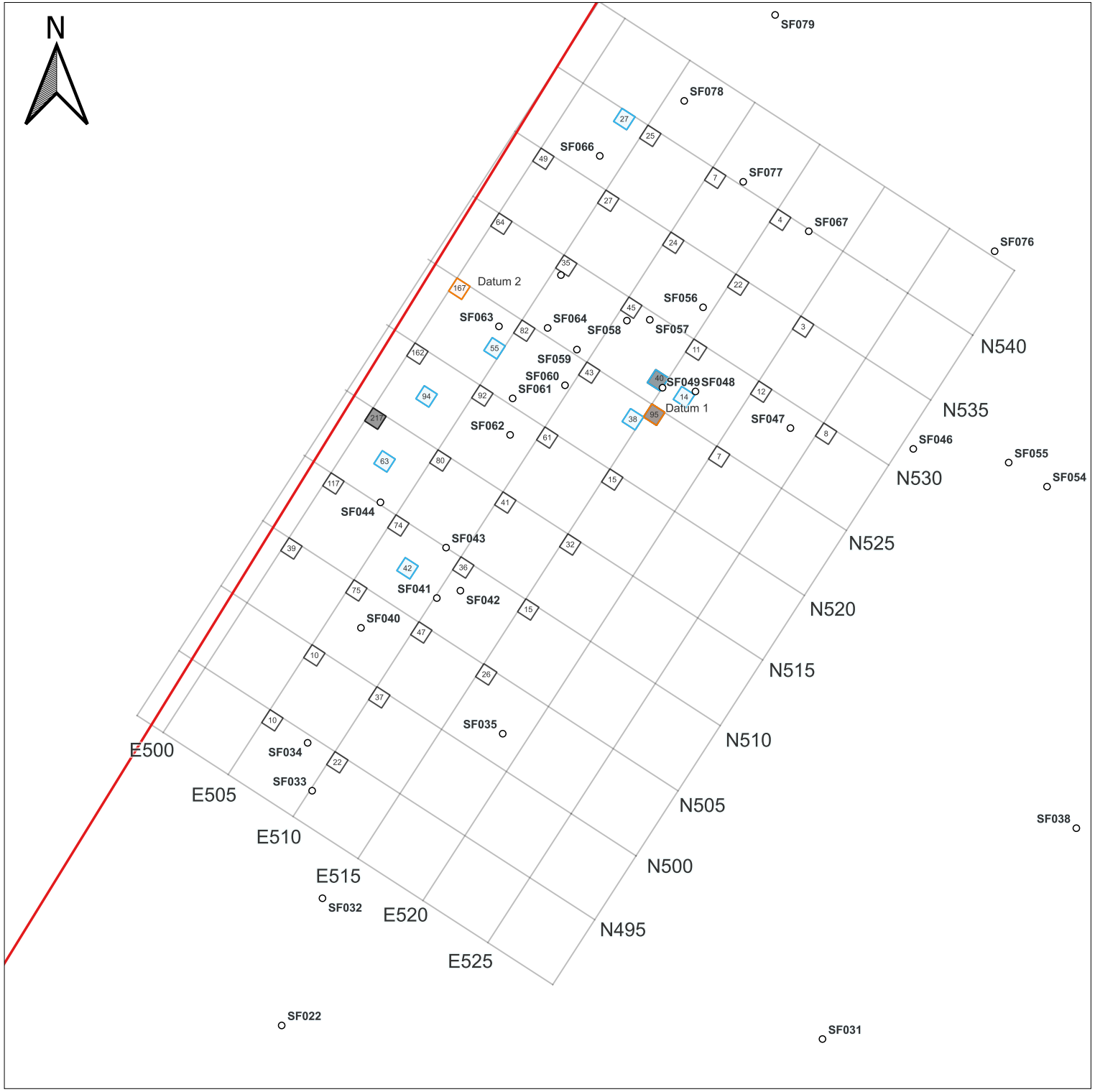
FIELD PHOTOGRAPHS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	10



LEGEND

- Study Area

Stage 2 AA Results (PIF#: P311-0354-2024)

- Surface Find

Stage 3 AA Results (PIF#: P311-0355-2024)

- Stage 3 Unit; with corresponding artifact count
- Stage 3 Infill Unit
- Location of Cultural Feature
- Datum
- 5 m Grid

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

5 0 5 10 15 m

SCALE 1:350

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

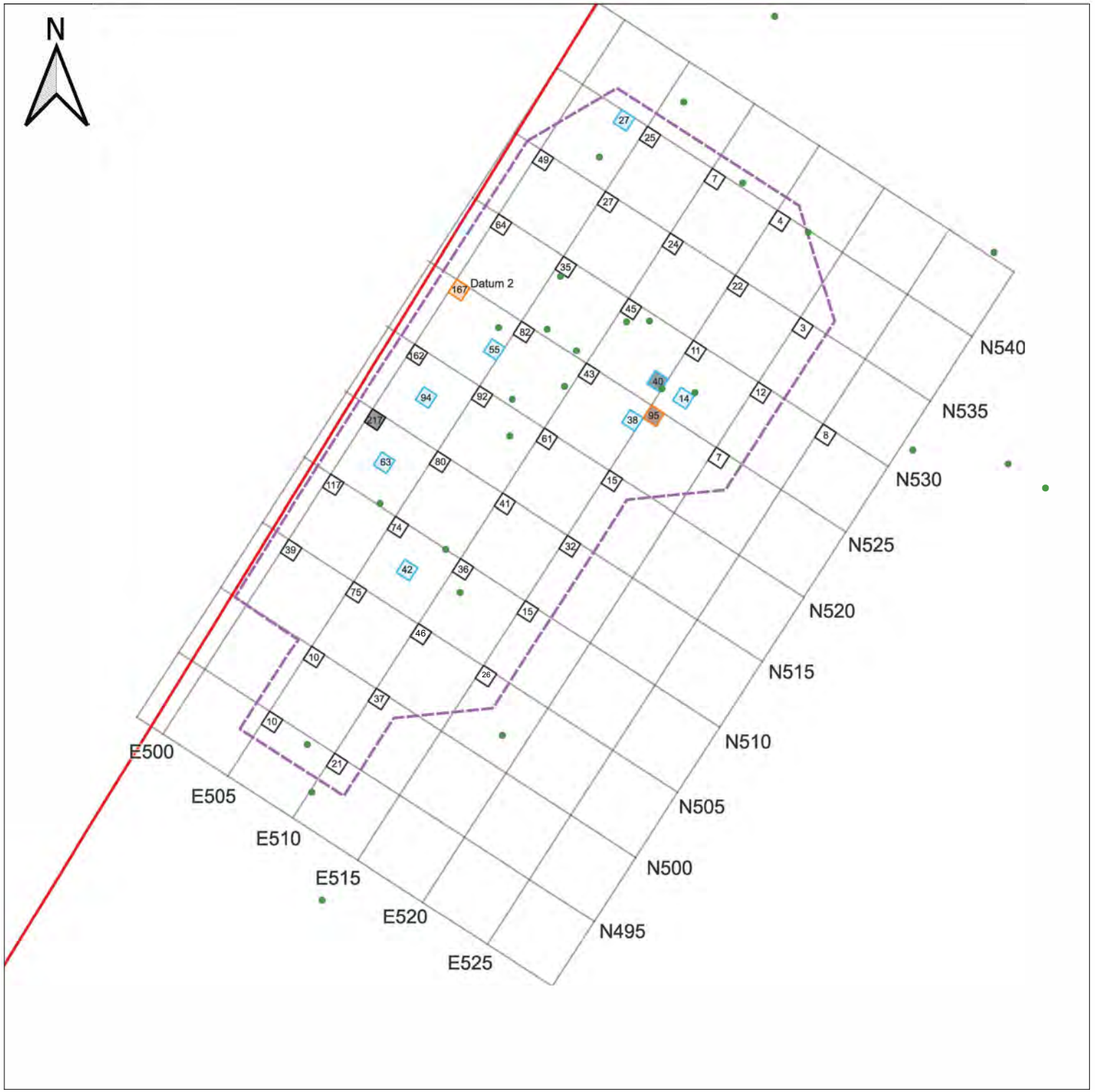
STAGE 3 RESULTS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	**11-1**



LEGEND

- Study Area

Stage 2 Archaeological Assessment

- Historic Surface Find

Stage 3 Archaeological Assessment

- AeHg-61 Site Limits
- Stage 3 Unit; with corresponding artifact count
- Stage 3 Infill Unit
- Location of Cultural Feature
- Datum
- 5 m Grid

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83. COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

5 0 5 10 15 m

SCALE 1:350

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

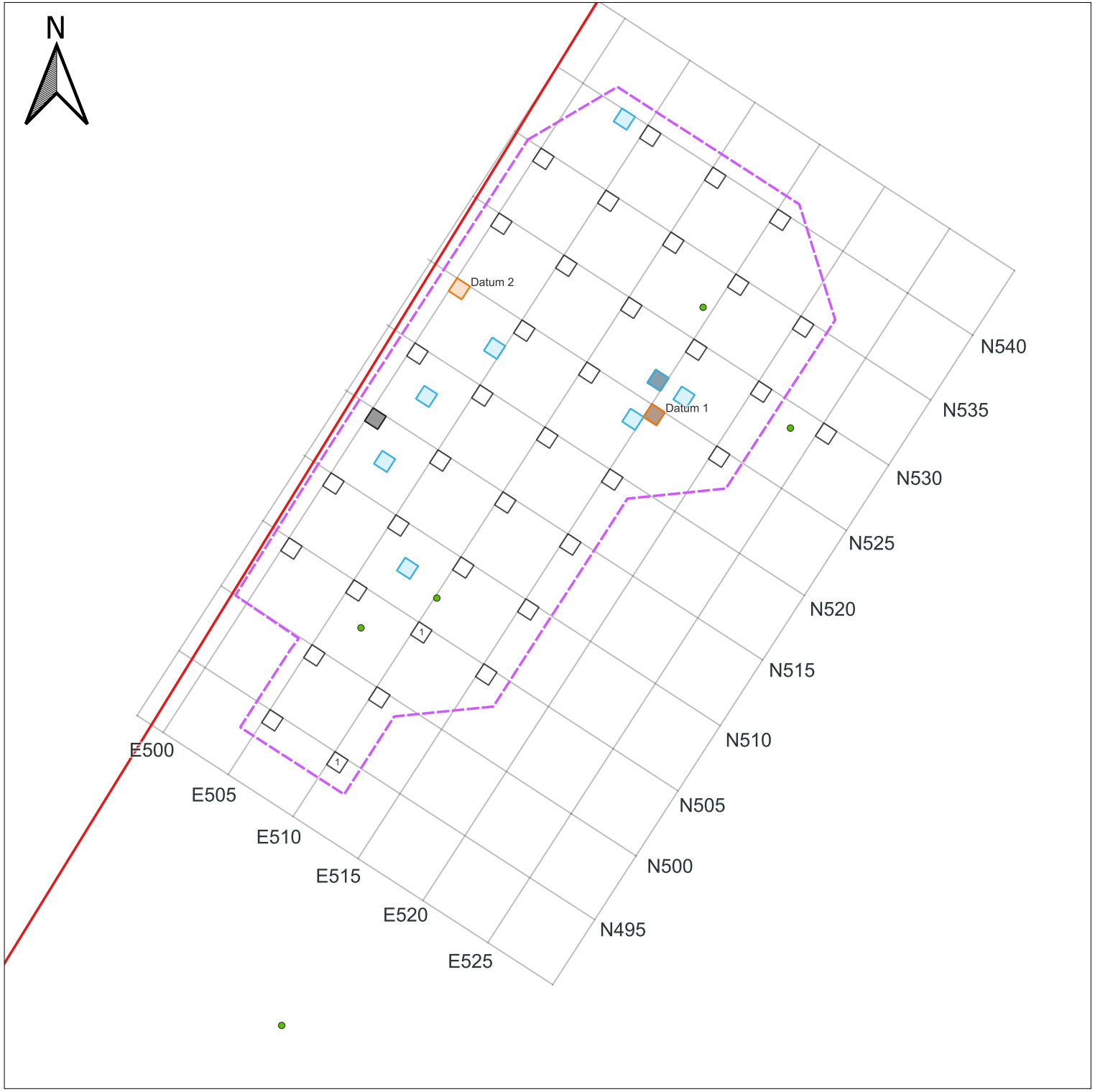
STAGE 3 RESULTS: HISTORC ARTIFACTS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	11-2



LEGEND

- Study Area

Stage 2 Archaeological Assessment

- Pre-Contact Surface Find

Stage 3 Archaeological Assessment

- AeHg-61 Site Limits
- Stage 3 Unit; with corresponding artifact count
- Stage 3 Infill Unit
- Location of Cultural Feature
- Datum
- 5 m Grid

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83. COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

5 0 5 10 15 m

SCALE 1:350

CLIENT

DNV

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

STAGE 3 RESULTS: PRE-CONTACT ARTIFACTS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-09-03
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	002	**11-3**

13.0 Signature Page

We trust that this report meets with your current needs. If you have any questions, or if we may be of further assistances, please contact either of the undersigned.

TRUE NORTH ARCHAEOLOGICAL SERVICES INC.

Gabryell Kurtzrock Belyea, M.A.
Project Archaeologist

Bradley Drouin, M.A.
Principal, Senior Archaeologist

14.0 APPENDIX A : ARTIFACT INVENTORY

Inventory Number	Borden Number	Unit	Lot	Quantity	Material	Class	Group	Object	Ware	Datable Attribute	Attribute 1	Attribute 2	Alt	Fragment	Comments	Date Range
1500	AeHg-61	N495 E505	1	2	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
1501	AeHg-61	N495 E505	1	1	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1502	AeHg-61	N495 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	VWE	Vitrified White Earthenware	clear/colourless			Rim		1840+
1503	AeHg-61	N495 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1504	AeHg-61	N495 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	hand painted			Body	blue	1780 - 1840
1505	AeHg-61	N495 E505	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1506	AeHg-61	N495 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body	circle pattern	1825+
1507	AeHg-61	N495 E510	1	1	Chert	Indigenous	Chipped Stone	Unidentifiable		Unidentifiable						
1509	AeHg-61	N495 E510	1	1	Ferrous	Structural	Nails	Nail		Cut			corroded		partial	
1508	AeHg-61	N495 E510	1	3	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2043	AeHg-61	N525 E510	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Decorated Bowl		Unidentifiable				Bowl		
1511	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown/red glaze	1796 - 1920 (Ontario made)
1512	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1513	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	PWE	Pearlware	edged			Rim	blue edged, scalloped rim incised curved lines	
1514	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	scalloped rim, cinsied curved line	green		Rim	green edged, scalloped rim incised curved lines	
1515	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	red	1820 - 1872
1516	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	slipware			Body	dark brown slip	1820 - 1920
1517	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body	floral	1825+
1518	AeHg-61	N495 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1519	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1520	AeHg-61	N495 E510	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1521	AeHg-61	N495 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	clear/colourless			Base		1820+
1550	AeHg-61	N500 E505	1	1	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1560	AeHg-61	N500 E510	1	3	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1563	AeHg-61	N500 E510	1	1	Mortar	Structural	Construction Materials	Wall Finishing		Not applicable					tan mortar	
1510	AeHg-61	N495 E510	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable				Bowl		
1526	AeHg-61	N505 E500	1	1	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Not applicable					mammal	
1561	AeHg-61	N500 E510	1	1	Ferrous	Structural	Nails	Nail		Unidentifiable			Corroded		partial	
1758	AeHg-61	N515 E500	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Mould blown				Body	aqua	
1530	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1531	AeHg-61	N505 E500	1	3	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze, multiple vessels	1796 - 1920 (Ontario made)
1532	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	PWE	Pearlware	edged			Brim	green edged	
1533	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	PWE	Pearlware	edged			Rim	green edged scalloped rim	
1534	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	clear/colourless				red trasnfer mark	1820+
1535	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	transfer	blue		Rim	dot pattern	1825+
1536	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Rim		1825+
1537	AeHg-61	N505 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1538	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	other		Body	green sponged	1843 - 1875
1539	AeHg-61	N505 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1540	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Rim	blue, moslty delaminated	1820 - 1920
1541	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	straight rimedged, incised curved	blue		Rim	blue edged straight rim incised curved lines	1841-1857
1542	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue, floral	1820 - 1872
1543	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue, large brush strokes	1820 - 1872
1544	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	faint blue	1825+
1545	AeHg-61	N505 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	sponged	blue	Burnt	Rim	mends	1843 - 1875
1546	AeHg-61	N505 E500	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless				multiple vessels	1820+
1547	AeHg-61	N505 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1548	AeHg-61	N500 E505	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
1562	AeHg-61	N500 E510	1	1	Ferrous	Structural	Nails	Nail		Cut			Corroded		partial	
1551	AeHg-61	N500 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1552	AeHg-61	N500 E505	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Rim	brown glaze	1796 - 1920 (Ontario made)
1553	AeHg-61	N500 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, straight rim	blue		Rim	blue edged straight rim	1841-1857
1554	AeHg-61	N500 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue painted	1820 - 1872
1555	AeHg-61	N500 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	green painted	1830 - 1872
1556	AeHg-61	N500 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless					1820+
1557	AeHg-61	N500 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1558	AeHg-61	N500 E510	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1942	AeHg-61	N520 E515	1	2	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Mould blown				Body	aqua	
1522	AeHg-61	N505 E500	1	2	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1523	AeHg-61	N505 E500	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
1524	AeHg-61	N505 E500	1	3	Ferrous	Structural	Nails	Nail		Wire					partials	
1527	AeHg-61	N505 E500	1	1	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1564	AeHg-61	N500 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)

1565	AeHg-61	N500 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1566	AeHg-61	N500 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1567	AeHg-61	N500 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Bowl	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1568	AeHg-61	N500 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1569	AeHg-61	N500 E510	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Rim		1825+
1570	AeHg-61	N500 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	edged	green		Brim	green edged	1820 - 1840
1571	AeHg-61	N500 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	green		Body		1843 - 1875
1572	AeHg-61	N500 E510	1	16	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1573	AeHg-61	N505 E505	1	3	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
2209	AeHg-61	N535 E505	1	1	Ferrous	Tools/Equipment	Miscellaneous Hardware	Brace		Ferrous					slightly curved, hole at one end	
1575	AeHg-61	N505 E505	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1993	AeHg-61	N525 E500	1	3	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Mould blown				Body	aqua	
1878	AeHg-61	N520 E500	1	2	Glass	Food and Beverage	Glass Tableware	Stemware		Pressed				Stem	colourless	
1578	AeHg-61	N505 E505	1	1	Plastic	Unidentifiable	Unidentifiable	Unidentifiable		20th century					white plastic	
1579	AeHg-61	N505 E505	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1580	AeHg-61	N505 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1581	AeHg-61	N505 E505	1	4	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body	dalaminated	1796+ (Ontario made)
1582	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	Sponged	green		Rim		1843 - 1875
1583	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	early palette		Body	early palette	1820 - 1860
1584	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body		1820 - 1872
1585	AeHg-61	N505 E505	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1586	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	red		Body	foliage	1828+
1587	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	brown		Body	foliage	1832 - 1860
1588	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1589	AeHg-61	N505 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised cur	blue		Rim	blue edged scalloped rim incsiced curved lines	1820 - 1845
1590	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Rim	scalloped rim	1825+
1591	AeHg-61	N505 E505	1	6	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
1592	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	indeterminate		Rim	blue	1820 - 1872
1593	AeHg-61	N505 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	decoration	other	Burnt	Body	slipware or banded	1820+
1594	AeHg-61	N505 E505	1	34	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1595	AeHg-61	N505 E505	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	UWE	Pearlware or RWE				Body		
1597	AeHg-61	N505 E510	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1602	AeHg-61	N505 E510	1	2	Ferrous	Structural	Nails	Nail		Cut			corroded		partials	
1599	AeHg-61	N505 E510	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
1600	AeHg-61	N505 E510	1	2	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
2212	AeHg-61	N535 E510	1	1	Ferrous	Tools/Equipment	Stable/Barn	Horseshoe Nail		Cut					partial	
1603	AeHg-61	N505 E510	1	2	Ferrous	Structural	Nails	Nail		Wrought			corroded		partials	
1598	AeHg-61	N505 E510	1	4	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1604	AeHg-61	N505 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	CRW	Creamware	glazed	red		Rim	brown glazed line	1796 - 1920 (Ontario made)
1605	AeHg-61	N505 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1606	AeHg-61	N505 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	YEW	Yellowware	banded			Body	white bands	
1607	AeHg-61	N505 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Cup	PWE	Pearlware	hand painted			Base and Body	blue	1780 - 1840
1608	AeHg-61	N505 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	green/grey slip	1820 - 1920
1609	AeHg-61	N505 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body	light blue	1825+
1610	AeHg-61	N505 E510	1	7	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
1611	AeHg-61	N505 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1612	AeHg-61	N505 E510	1	18	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1613	AeHg-61	N505 E515	1	1	Chert	Indigenous	Chipped Stone	Unidentifiable		Unidentifiable						
1614	AeHg-61	N505 E515	1	2	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1615	AeHg-61	N505 E515	1	1	Ferrous	Structural	Nails	Nail		Wrought			corroded		partial	
1616	AeHg-61	N505 E515	1	3	Ferrous	Structural	Nails	Nail		Cut			corroded		partials	
1617	AeHg-61	N505 E515	1	1	Ferrous	Structural	Nails	Nail		Unidentifiable			corroded		partial	
1618	AeHg-61	N505 E515	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1619	AeHg-61	N505 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Bowl	RWE	Refined White Earthenware	slipware			Rim	green/grey slip	1820 - 1920
1620	AeHg-61	N505 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	transfer	blue		Body	vinegttes	1825+
1621	AeHg-61	N505 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised lin	green		Rim	green edged scalloped rim incised curved lines	
1622	AeHg-61	N505 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue sprig	1820 - 1872
1623	AeHg-61	N505 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	XWE	Creamware or RWE				Body		
1624	AeHg-61	N505 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	clear/colourless			Base		1820+
1625	AeHg-61	N505 E515	1	11	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1641	AeHg-61	N508 E507	1	1	Mortar	Structural	Construction Materials	Wall Finishing		Not applicable					tan mortar	
1627	AeHg-61	N508 E507	1	2	Ferrous	Structural	Nails	Nail		Cut					partials	
1628	AeHg-61	N508 E507	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
1629	AeHg-61	N508 E507	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1712	AeHg-61	N510 E510	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable				Bowl		
1631	AeHg-61	N508 E507	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
1632	AeHg-61	N508 E507	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1633	AeHg-61	N508 E507	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872

1634	AeHg-61	N508 E507	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	early palette		Body	early palette	1820 - 1860
1635	AeHg-61	N508 E507	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1636	AeHg-61	N508 E507	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	green		Body		1843 - 1875
1637	AeHg-61	N508 E507	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1638	AeHg-61	N508 E507	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	red		Body		1828+
1639	AeHg-61	N508 E507	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1640	AeHg-61	N508 E507	1	23	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1626	AeHg-61	N508 E507	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1642	AeHg-61	N510 E500	1	4	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1643	AeHg-61	N510 E500	1	4	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1559	AeHg-61	N500 E510	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Machine made				Body	colourless	1889+
1766	AeHg-61	N515 E500	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable				Bowl		
1646	AeHg-61	N510 E500	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1647	AeHg-61	N510 E500	1	5	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body		1796 - 1920 (Ontario made)
1648	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1649	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
1650	AeHg-61	N510 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1651	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue	Burnt	Rim		1825+
1652	AeHg-61	N510 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	other		Body	red and green sponged	1843 - 1875
1653	AeHg-61	N510 E500	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
1654	AeHg-61	N510 E500	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1655	AeHg-61	N510 E500	1	9	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
1656	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	hand painted			Rim	blue	1780 - 1840
1657	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	mocha	1820 - 1920
1658	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	grey slip	1820 - 1920
1659	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	red		Body		1828+
1660	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Body	brown bands	1820+
1661	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	brown		Rim		1832 - 1860
1662	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Body	brown bands, moulded lines and light blue slipware	1820+
1663	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	black		Body		1832 - 1845
1664	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	VWE	Vitrified White Earthenware	hand painted			Rim	green band	1840+
1665	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	banded			Body	light brown band	1820+
1666	AeHg-61	N510 E500	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body		1830 - 1872
1667	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
1668	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim	blue		Rim	blue edged slightly scalloped rim	1820 - 1850
1669	AeHg-61	N510 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	yellow slip with brown paint	1820 - 1920
1670	AeHg-61	N510 E500	1	6	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1671	AeHg-61	N510 E500	1	48	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1672	AeHg-61	N510 E505	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1673	AeHg-61	N510 E505	1	1	Aluminum	Food and Beverage	Metal Containers	Can		Pull tab					canada dry pull tab	
1674	AeHg-61	N510 E505	1	10	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1675	AeHg-61	N510 E505	1	2	Ferrous	Structural	Nails	Nail		Cut					partials	
2076	AeHg-61	N525 E520	1	1	Slag	Tools/Equipment	Miscellaneous Material	Sample		Not applicable						
1879	AeHg-61	N520 E500	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable				Bowl		
1678	AeHg-61	N510 E505	1	16	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1679	AeHg-61	N510 E505	1	3	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
1680	AeHg-61	N510 E505	1	1	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						
1681	AeHg-61	N510 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1682	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body	geometric pattern	1825+
1683	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
1684	AeHg-61	N510 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1685	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Body		1830+
1686	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	green		Body		1843 - 1875
1687	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, straight rim	blue		Rim	blue edged straight rim with simple band	1841-1857
1688	AeHg-61	N510 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised cur	blue		Rim	blue edged scalloped rim incised curved lines	1820 - 1845
1689	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised lin	green		Rim	green edged scalloped rim incised curved lines	
1690	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1691	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	clear/colourless			Base		1780 - 1840
1692	AeHg-61	N510 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Body	brown bands	1820+
1693	AeHg-61	N510 E505	1	22	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1699	AeHg-61	N510 E510	1	4	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1695	AeHg-61	N510 E510	1	1	Glass	Furnishings	Hardware	Oil Lamp		Unidentifiable						
1696	AeHg-61	N510 E510	1	1	Glass	Medical/Hygiene	Pharmaceutical Containers	Panel Bottle		Mould blown				Body	light green	
1698	AeHg-61	N510 E510	1	1	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1700	AeHg-61	N510 E510	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
1694	AeHg-61	N510 E510	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1701	AeHg-61	N510 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)

1702	AeHg-61	N510 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Rim	late palette	1830 - 1872
1703	AeHg-61	N510 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	late palette	1820 - 1872
1704	AeHg-61	N510 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	early palette		Rim	early palette	1820 - 1860
1705	AeHg-61	N510 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Body	willow	1825+
1706	AeHg-61	N510 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised cur	blue		Rim	blue edged scalloped rim incised curved lines	1820 - 1845
1707	AeHg-61	N510 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	hand painted			Body	blue	1780 - 1840
1708	AeHg-61	N510 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1709	AeHg-61	N510 E510	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
1710	AeHg-61	N510 E510	1	8	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1711	AeHg-61	N510 E510	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1957	AeHg-61	N523 E504	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable				Bowl		
1713	AeHg-61	N510 E515	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1714	AeHg-61	N510 E515	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
1715	AeHg-61	N510 E515	1	1	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1576	AeHg-61	N505 E505	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Machine made				Body	colourless	1889+
1717	AeHg-61	N510 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1718	AeHg-61	N510 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1719	AeHg-61	N510 E515	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1720	AeHg-61	N510 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	clear/colourless		Burnt	Base		1820+
1721	AeHg-61	N510 E515	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1722	AeHg-61	N510 E515	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1723	AeHg-61	N513 E502	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
1728	AeHg-61	N513 E502	1	3	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1759	AeHg-61	N515 E500	1	2	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Machine made				Body	colourless	1889+
2084	AeHg-61	N527 E514	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Machine made				Body	colourless	1889+
1727	AeHg-61	N513 E502	1	1	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						
1729	AeHg-61	N513 E502	1	2	Ferrous	Structural	Nails	Nail		Wrought					partials	
1724	AeHg-61	N513 E502	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1987	AeHg-61	N525 E500	1	2	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable				Bowl		
1731	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1732	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	green		Rim		1843 - 1875
1733	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	VWE	Vitrified White Earthenware	transfer			Body	red	1840+
1734	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	transfer	red		Body		1828+
1735	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	sponged	other		Base	red and blue sponged	1843 - 1875
1736	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	other		Body	red and green sponged	1843 - 1875
1737	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, incised curved lines	blue		Rim	blue egded incised curved lines	
1738	AeHg-61	N513 E502	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	hand painted			Body	blue	1780 - 1840
1739	AeHg-61	N513 E502	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1740	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	POR	Porcelain	hand painted			Rim	early palette	
1741	AeHg-61	N513 E502	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1742	AeHg-61	N513 E502	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
1743	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	early palette		Body	early palette	1820 - 1860
1744	AeHg-61	N513 E502	1	25	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1745	AeHg-61	N513 E502	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1746	AeHg-61	N513 E502	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
1747	AeHg-61	N515 E500	1	19	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1748	AeHg-61	N515 E500	1	1	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						
1749	AeHg-61	N515 E500	1	15	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1750	AeHg-61	N515 E500	1	2	Plaster	Structural	Construction Materials	Wall Finishing		Not applicable						
1751	AeHg-61	N515 E500	1	1	Ferrous	Structural	Nails	Nail		Cut					8cm	
1752	AeHg-61	N515 E500	1	6	Ferrous	Structural	Nails	Nail		Cut					partials	
1753	AeHg-61	N515 E500	1	1	Ferrous	Structural	Nails	Nail		Wrought					partial	
1754	AeHg-61	N515 E500	1	1	Ferrous	Tools/Equipment	Miscellaneous Material	Scrap Metal		Ferrous						
1755	AeHg-61	N515 E500	1	8	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2021	AeHg-61	N525 E505	1	1	Glass	Food and Beverage	Glass Tableware	Hollowware		Pressed				Body	colourless, flower or sun burst	
2276	AeHg-61	N530 E525	1	1	Glass	Food and Beverage	Glass Tableware	Hollowware		Machine made				Rim	colourless, possibly a tumbler	1889+
1898	AeHg-61	N520 E505	1	2	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Machine made				Body	colourless, small sherds	1889+
1577	AeHg-61	N505 E505	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Bottle		Mould blown				Body	dark green	
1760	AeHg-61	N515 E500	1	1	Glass	Unidentifiable	Unidentifiable	Unidentifiable		Unidentifiable			Burnt		colourless, melted	
1761	AeHg-61	N515 E500	1	5	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze, mutiple vessels	1796 - 1920 (Ontario made)
1762	AeHg-61	N515 E500	1	4	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1763	AeHg-61	N515 E500	1	3	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
1764	AeHg-61	N515 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1765	AeHg-61	N515 E500	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
2025	AeHg-61	N525 E505	1	2	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable				Bowl		
2130	AeHg-61	N530 E505	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable				Bowl		
1645	AeHg-61	N510 E500	1	2	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Stem		Unidentifiable				Stem		
1769	AeHg-61	N515 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	red		Rim	red, geometric pattern, mends	1828+

1770	AeHg-61	N515 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	transfer	red		Body	red, geometric	1828+
1771	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	red		Rim	circle pattern	1828+
1772	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	transfer	blue		Rim	folaige	1825+
1773	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, straight rim, incised lines	blue		Rim	blue edged straight rim incised straight lines	1841-1857
1774	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	hand painted			Body	early palette	1780 - 1840
1775	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	hand painted			Body	blue sprig	1780 - 1840
1776	AeHg-61	N515 E500	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	other		Body	red and green sponged	1843 - 1875
1777	AeHg-61	N515 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Base	mends	1825+
1778	AeHg-61	N515 E500	1	6	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1779	AeHg-61	N515 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
1780	AeHg-61	N515 E500	1	15	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Rim and Body		1830 - 1872
1781	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
1782	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Handles/Pulls	RWE	Refined White Earthenware	transfer	blue		Handle	tea cup handle	1825+
1783	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	indeterminate	Burnt	Body	blue	1820 - 1872
1784	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	moulded			Body	moulded nad blue transfer printed	1820+
1785	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised cur	blue		Rim	blue edged scalloped rim incised curved lines	1820 - 1845
1786	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim	blue		Rim	blue edged scalloped rim	1820 - 1850
1787	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	moulded			Body		1820+
1788	AeHg-61	N515 E500	1	8	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
1789	AeHg-61	N515 E500	1	10	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
1790	AeHg-61	N515 E500	1	64	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1791	AeHg-61	N515 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	VWE	Vitrified White Earthenware	decoration	other		Body	brown slipware, heavily vitified	
1792	AeHg-61	N515 E505	1	17	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1677	AeHg-61	N510 E505	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Stem		Unidentifiable				Stem		
1794	AeHg-61	N515 E505	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1796	AeHg-61	N515 E505	1	4	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1797	AeHg-61	N515 E505	1	1	Ferrous	Structural	Nails	Nail		Unidentifiable			corroded		partial	
1798	AeHg-61	N515 E505	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glazed	1796 - 1920 (Ontario made)
1799	AeHg-61	N515 E505	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
1800	AeHg-61	N515 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	other		Rim	red and green sponged	1843 - 1875
1801	AeHg-61	N515 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	VWE	Vitrified White Earthenware	hand painted			Rim	green band	1840+
1802	AeHg-61	N515 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Body	light brown band	1820+
1803	AeHg-61	N515 E505	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body		1830 - 1872
1804	AeHg-61	N515 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1805	AeHg-61	N515 E505	1	7	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1806	AeHg-61	N515 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Rim	willow	1825+
1807	AeHg-61	N515 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	moulded			Body		1820+
1808	AeHg-61	N515 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Cup	RWE	Refined White Earthenware	clear/colourless			Base	tea cup base	1820+
1809	AeHg-61	N515 E505	1	30	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1810	AeHg-61	N515 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	hand painted			Body	blue	1780 - 1840
1811	AeHg-61	N515 E510	1	8	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1812	AeHg-61	N515 E510	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
1813	AeHg-61	N515 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
1814	AeHg-61	N515 E510	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1815	AeHg-61	N515 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1816	AeHg-61	N515 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Body		1830+
1817	AeHg-61	N515 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim	blue		Rim	blue egded scalloped rim	1820 - 1850
1818	AeHg-61	N515 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue				1825+
1819	AeHg-61	N515 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1820	AeHg-61	N515 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	early palette		Body	early palette	1820 - 1860
1821	AeHg-61	N515 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1822	AeHg-61	N515 E510	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
1823	AeHg-61	N515 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Body	willow	1825+
1824	AeHg-61	N515 E510	1	11	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless				multiple vessels	1820+
1828	AeHg-61	N515 E515	1	1	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1826	AeHg-61	N515 E515	1	1	Glass	Unidentifiable	Unidentifiable	Unidentifiable		Unidentifiable			Burnt		colourless, melted	
1827	AeHg-61	N515 E515	1	4	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1830	AeHg-61	N515 E515	1	1	Ferrous	Structural	Nails	Nail		Cut			corroded		partial	
1869	AeHg-61	N520 E500	1	1	Ferrous	Tools/Equipment	Miscellaneous Material	Scrap Metal		Cast						
1825	AeHg-61	N515 E515	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1831	AeHg-61	N515 E515	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
1832	AeHg-61	N515 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1833	AeHg-61	N515 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	other		Body	red and green sponged	1843 - 1875
1834	AeHg-61	N515 E515	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1835	AeHg-61	N515 E515	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1836	AeHg-61	N515 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Rim	brown slip	1820 - 1920
1837	AeHg-61	N515 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate	Burnt	Rim	blue	1820 - 1872
1838	AeHg-61	N515 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	XWE	Creamware or RWE				Body		
1839	AeHg-61	N515 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1840	AeHg-61	N515 E515	1	8	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+

1841	AeHg-61	N517 E502	1	1	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1842	AeHg-61	N517 E502	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1843	AeHg-61	N517 E502	1	12	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
1844	AeHg-61	N517 E502	1	1	Ferrous	Structural	Nails	Nail		Wrought					partial	
1845	AeHg-61	N517 E502	1	1	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1716	AeHg-61	N510 E515	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	dark green	
1726	AeHg-61	N513 E502	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	dark green	
1768	AeHg-61	N515 E500	1	3	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Stem		Unidentifiable				Stem		
1849	AeHg-61	N517 E502	1	4	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
1850	AeHg-61	N517 E502	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1851	AeHg-61	N517 E502	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	hand painted			Rim	blue	1780 - 1840
1852	AeHg-61	N517 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	YEW	Yellowware	mocha			Body	mocha	
1853	AeHg-61	N517 E502	1	10	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1854	AeHg-61	N517 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer: negative	blue		Body		1819 - 1835
1855	AeHg-61	N517 E502	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
1856	AeHg-61	N517 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	red	Burnt	Body		1828+
1857	AeHg-61	N517 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
1858	AeHg-61	N517 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	black dots	1820 - 1872
1859	AeHg-61	N517 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised cur	blue		Rim	blue edged scalloped rim incised curved lines	1820 - 1845
1860	AeHg-61	N517 E502	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
1861	AeHg-61	N517 E502	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	small sherds	1825+
1862	AeHg-61	N517 E502	1	31	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1863	AeHg-61	N517 E502	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1864	AeHg-61	N520 E500	1	1	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1793	AeHg-61	N515 E505	1	2	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Stem		Unidentifiable				Stem		
1866	AeHg-61	N520 E500	1	4	Brick	Structural	Construction Materials	Construction Block		Not applicable					red brick	
1867	AeHg-61	N520 E500	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
1868	AeHg-61	N520 E500	1	1	Ferrous	Structural	Nails	Nail		Wrought					partial	
2128	AeHg-61	N530 E505	1	1	Ferrous	Tools/Equipment	Miscellaneous Material	Scrap Metal		Ferrous						
1848	AeHg-61	N517 E502	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Stem		Unidentifiable				Stem		
1870	AeHg-61	N520 E500	1	4	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Stem		Unidentifiable				Stem		
1958	AeHg-61	N523 E504	1	2	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Stem		Unidentifiable				Stem		
1873	AeHg-61	N520 E500	1	4	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1874	AeHg-61	N520 E500	1	7	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1875	AeHg-61	N520 E500	1	16	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1877	AeHg-61	N520 E500	1	2	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	dark green	
1899	AeHg-61	N520 E505	1	2	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	dark green	
2147	AeHg-61	N530 E510	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	dark green	
2257	AeHg-61	N540 E505	5	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Stem		Unidentifiable				Stem		
1880	AeHg-61	N520 E500	1	4	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1881	AeHg-61	N520 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1882	AeHg-61	N520 E500	1	3	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
1883	AeHg-61	N520 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Cup	RWE	Refined White Earthenware	hand painted	late palette		Body		1830 - 1872
1884	AeHg-61	N520 E500	1	6	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1885	AeHg-61	N520 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Body	banded and slipped	1820+
1886	AeHg-61	N520 E500	1	10	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1887	AeHg-61	N520 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	red		Base		1828+
1888	AeHg-61	N520 E500	1	19	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
1889	AeHg-61	N520 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, straight rim	blue		Rim	blue edged	1841-1857
1890	AeHg-61	N520 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	stamped			Body	black	1843 - 1875
1891	AeHg-61	N520 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Body	light brown	1820+
1892	AeHg-61	N520 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	hand painted			Body	blue	1780 - 1840
1893	AeHg-61	N520 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Cup	RWE	Refined White Earthenware	hand painted	indeterminate		Base	blue	1820 - 1872
1894	AeHg-61	N520 E500	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1895	AeHg-61	N520 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
1896	AeHg-61	N520 E500	1	48	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multople vessels	1820+
1905	AeHg-61	N520 E505	1	20	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
2181	AeHg-61	N535 E500	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	dark green	
2251	AeHg-61	N540 E505	5	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	dark green	
1900	AeHg-61	N520 E505	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
1901	AeHg-61	N520 E505	1	1	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1865	AeHg-61	N520 E500	1	1	Shell	Personal/societal	Fasteners	Button		Shell					D=0.9cm, 4 hole, star pattern	
1906	AeHg-61	N520 E505	1	4	Ferrous	Structural	Nails	Nail		Cut					partials	
1897	AeHg-61	N520 E505	1	6	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1907	AeHg-61	N520 E505	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1908	AeHg-61	N520 E505	1	2	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						

1909	AeHg-61	N520 E505	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
1910	AeHg-61	N520 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	VWE	Vitrified White Earthenware	hand painted			Rim	green band	1840+
1911	AeHg-61	N520 E505	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1912	AeHg-61	N520 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	red				1828+
1913	AeHg-61	N520 E505	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1914	AeHg-61	N520 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
1915	AeHg-61	N520 E505	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1916	AeHg-61	N520 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised lin	blue		Rim	blue edged scalloped rim incised curved ilnes bud pattern	1820 - 1845
1917	AeHg-61	N520 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim	blue		Rim	blue edged scalloped rim	1820 - 1850
1918	AeHg-61	N520 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue	Burnt	Body		1825+
1919	AeHg-61	N520 E505	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body	small sherds	1780 - 1840
1920	AeHg-61	N520 E505	1	28	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1921	AeHg-61	N520 E510	1	11	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1923	AeHg-61	N520 E510	1	1	Glass	Food and Beverage	Glass Beverage Containers	Gin Bottle		Mould blown				Body	dark green	
2271	AeHg-61	N540 E510	1	1	Glass	Food and Beverage	Glass Beverage Containers	Unidentifiable Bottle/Container Glass		Mould blown				Body	dark green, possibly sane empontilled base	
1924	AeHg-61	N520 E510	1	1	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						
1925	AeHg-61	N520 E510	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1926	AeHg-61	N520 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Rim	brown glaze	1796 - 1920 (Ontario made)
1927	AeHg-61	N520 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
1928	AeHg-61	N520 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Rim		1830+
1929	AeHg-61	N520 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Body	willow	1825+
1930	AeHg-61	N520 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Rim	multiple vessels	1825+
1931	AeHg-61	N520 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1932	AeHg-61	N520 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1933	AeHg-61	N520 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1934	AeHg-61	N520 E510	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
1935	AeHg-61	N520 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Rim	brown bands	1820+
1936	AeHg-61	N520 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	early palette		Body	early palette	1820 - 1860
1937	AeHg-61	N520 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Base		1820+
1938	AeHg-61	N520 E510	1	23	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
1939	AeHg-61	N520 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
1940	AeHg-61	N520 E515	1	2	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1943	AeHg-61	N520 E515	1	1	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
2098	AeHg-61	N527 E516	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Bottle		Mould blown				Body	dark olive green	
1941	AeHg-61	N520 E515	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1944	AeHg-61	N520 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Cup	RWE	Refined White Earthenware	transfer	blue		Body	landscape and floral pattern	1825+
1945	AeHg-61	N520 E515	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1946	AeHg-61	N520 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Rim		1830 - 1872
1947	AeHg-61	N520 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	edged, straight rim, moulded p	blue		Brim	blue edged	1841-1857
1948	AeHg-61	N520 E515	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1949	AeHg-61	N523 E504	1	3	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
1950	AeHg-61	N523 E504	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
1951	AeHg-61	N523 E504	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
1952	AeHg-61	N523 E504	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2224	AeHg-61	N535 E515	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	dark olive green	
1954	AeHg-61	N523 E504	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1955	AeHg-61	N523 E504	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1956	AeHg-61	N523 E504	1	2	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						
1525	AeHg-61	N505 E500	1	1	Metal	Personal/societal	Fasteners	Button		Not applicable					D=1.1cm, flower pattern surrounded byt dots, alpha shank	
2250	AeHg-61	N540 E505	5	1	Ceramic	Personal/societal	Fasteners	Button	POR	Porcelain	Prosser				D=1.1cm, four hole, pie crust	1840+
1959	AeHg-61	N523 E504	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
1960	AeHg-61	N523 E504	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	red		Rim		1828+
1961	AeHg-61	N523 E504	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette			late palette	1830 - 1872
1962	AeHg-61	N523 E504	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1963	AeHg-61	N523 E504	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
1964	AeHg-61	N523 E504	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	indeterminate		Rim	blue	1820 - 1872
1965	AeHg-61	N523 E504	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	other		Body	red and green sponged	1843 - 1875
1966	AeHg-61	N523 E504	1	20	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1967	AeHg-61	N523 E504	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1968	AeHg-61	N524 E514	1	1	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1971	AeHg-61	N524 E514	1	2	Ferrous	Structural	Nails	Nail		Wrought			corroded		partials	
1970	AeHg-61	N524 E514	1	1	Glass	Unidentifiable	Unidentifiable	Unidentifiable		Unidentifiable			Burnt		aqua, melted	
1969	AeHg-61	N524 E514	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1973	AeHg-61	N524 E514	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1974	AeHg-61	N524 E514	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
1975	AeHg-61	N524 E514	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
1976	AeHg-61	N524 E514	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)

1977	AeHg-61	N524 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, crows foot	blue		Rim	blue edged simple band crows feet	1840 - 1850
1978	AeHg-61	N524 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim	blue		Rim	blue edged scalloped rim	1820 - 1850
1979	AeHg-61	N524 E514	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
1980	AeHg-61	N524 E514	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1981	AeHg-61	N524 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Body		1825+
1982	AeHg-61	N524 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	yellow	1820 - 1872
1983	AeHg-61	N524 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	moulded			Body	moulded lines, yellow paint	1820+
1984	AeHg-61	N524 E514	1	15	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless				multiple vessels	1820+
1904	AeHg-61	N520 E505	1	1	Copper-alloy	Personal/societal	Currency	Coin/Token		Copper-alloy					D=2.7cm, worn	
1872	AeHg-61	N520 E500	1	2	Ceramic	Personal/societal	Smoking Pipes	White Clay, Decorated Bowl		Unidentifiable				Bowl	masonic	
1986	AeHg-61	N525 E500	1	2	Ceramic	Personal/societal	Smoking Pipes	White Clay, Decorated Bowl		Unidentifiable				Bowl	masonic	
1871	AeHg-61	N520 E500	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Plain Bowl		Unidentifiable					part of bowl and stem with spur	
1989	AeHg-61	N525 E500	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
1990	AeHg-61	N525 E500	1	3	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
1994	AeHg-61	N525 E500	1	1	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
1528	AeHg-61	N505 E500	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green	
1644	AeHg-61	N510 E500	1	3	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green	
1996	AeHg-61	N525 E500	1	1	Ferrous	Structural	Nails	Nail		Cut					8.5cm	
2198	AeHg-61	N535 E500	1	1	Ferrous	Tools/Equipment	Miscellaneous Material	Scrap Metal		Ferrous			corroded			
1991	AeHg-61	N525 E500	1	3	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1997	AeHg-61	N525 E500	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
1998	AeHg-61	N525 E500	1	6	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
1999	AeHg-61	N525 E500	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
2000	AeHg-61	N525 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
2001	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Body	early palette	1830 - 1872
2002	AeHg-61	N525 E500	1	9	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette			late palette	1830 - 1872
2003	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	other		Body	red and green sponged	1843 - 1875
2004	AeHg-61	N525 E500	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2005	AeHg-61	N525 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	red		Body		1828+
2006	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	other		Body	purple	
2007	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	grey slip	1820 - 1920
2008	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	edged, incised curved lines	blue		Brim	blue edged with simmple band and incised curved lines	
2009	AeHg-61	N525 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Plate	PWE	Pearlware	edged			Rim	green edged scalloped rim incised curved lines	
2010	AeHg-61	N525 E500	1	7	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
2011	AeHg-61	N525 E500	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body	hexagon and dot pattern	1825+
2012	AeHg-61	N525 E500	1	8	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
2013	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Rim		1825+
2014	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	blue		Base	willow	1825+
2015	AeHg-61	N525 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
2016	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
2017	AeHg-61	N525 E500	1	10	Ceramic	Food and Beverage	Ceramic Tableware	Plate	PWE	Pearlware	clear/colourless					1780 - 1840
2018	AeHg-61	N525 E500	1	74	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless				multiple vessels	1820+
2019	AeHg-61	N525 E500	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	RCE	Fine earthenware			Burnt	Body		
2023	AeHg-61	N525 E505	1	2	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
1756	AeHg-61	N515 E500	1	5	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green	
2022	AeHg-61	N525 E505	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
2024	AeHg-61	N525 E505	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
2020	AeHg-61	N525 E505	1	13	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1630	AeHg-61	N508 E507	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Decorated Bowl		Unidentifiable				Bowl	raised flower?	
2026	AeHg-61	N525 E505	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
2027	AeHg-61	N525 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	brown	Burnt	Base	brown	1832 - 1860
2028	AeHg-61	N525 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	hexagon and dot pattern	1825+
2029	AeHg-61	N525 E505	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2030	AeHg-61	N525 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
2031	AeHg-61	N525 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Body	brown band	1820+
2032	AeHg-61	N525 E505	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
2033	AeHg-61	N525 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised cut	blue		Rim	blue edged scalloped rim incised curved lines	1820 - 1845
2034	AeHg-61	N525 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	grey slip	1820 - 1920
2035	AeHg-61	N525 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	early palette		Body	early palette	1820 - 1860
2036	AeHg-61	N525 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	other		Body	red and blue sponged	1843 - 1875
2037	AeHg-61	N525 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	UWE	Pearlware or RWE				Body		
2038	AeHg-61	N525 E505	1	37	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
2042	AeHg-61	N525 E510	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
2040	AeHg-61	N525 E510	1	1	Flint	Arms/Military	Gunflints	Gunflint		Blade					pistol gun flint, L=2.0cm W=1.6cm, T=0.6cm	
2041	AeHg-61	N525 E510	1	1	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
2039	AeHg-61	N525 E510	1	8	Glass	Structural	Window Glass	Pane Glass		Not applicable						

2062	AeHg-61	N525 E515	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Decorated Bowl		Unidentifiable				Bowl	raised leaf design	
2044	AeHg-61	N525 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
2045	AeHg-61	N525 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	hexagon and dot pattern	1825+
2046	AeHg-61	N525 E510	1	6	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body	floral, multiple vessels	1825+
2047	AeHg-61	N525 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
2048	AeHg-61	N525 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2049	AeHg-61	N525 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	other		Body	green and red sponged	1843 - 1875
2050	AeHg-61	N525 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Body		1830+
2051	AeHg-61	N525 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	hand painted			Body	blue	1780 - 1840
2052	AeHg-61	N525 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	PWE	Pearlware	hand painted				blue	1780 - 1840
2053	AeHg-61	N525 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, straight rim	blue		Rim	blue edged straight rim	1841-1857
2054	AeHg-61	N525 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
2055	AeHg-61	N525 E510	1	11	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless				multiple vessels	1820+
2056	AeHg-61	N525 E515	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
2057	AeHg-61	N525 E515	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
2058	AeHg-61	N525 E515	1	36	Charcoal	Fuel	Cooking/Heating	Sample		Not applicable						
2059	AeHg-61	N525 E515	1	6	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
2060	AeHg-61	N525 E515	1	2	Ferrous	Structural	Nails	Nail		Wrought					partials	
2061	AeHg-61	N525 E515	1	8	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1730	AeHg-61	N513 E502	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Decorated Bowl		Unidentifiable				Bowl	raised lines	
2063	AeHg-61	N525 E515	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	RCE	Fine earthenware				Body		
2064	AeHg-61	N525 E515	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
2065	AeHg-61	N525 E515	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
2066	AeHg-61	N525 E515	1	4	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
2067	AeHg-61	N525 E515	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
2068	AeHg-61	N525 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Rim		1825+
2069	AeHg-61	N525 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Body		1830+
2070	AeHg-61	N525 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	PWE	Pearlware	edged			Rim	blue edged scalloped rim bud	
2071	AeHg-61	N525 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	edged			Rim	blue eged scalloped rim	
2072	AeHg-61	N525 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	PWE	Pearlware	edged			Brim	green edged inclsued cruved lines	
2073	AeHg-61	N525 E515	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
2074	AeHg-61	N525 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
2075	AeHg-61	N525 E515	1	19	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	mutliple vessels	1820+
2256	AeHg-61	N540 E505	5	2	Ferrous	Tools/Equipment	Miscellaneous Material	Scrap Metal		Ferrous						
2077	AeHg-61	N525 E520	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
2078	AeHg-61	N525 E520	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	late palette		Body		1830 - 1872
2079	AeHg-61	N525 E520	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2080	AeHg-61	N525 E520	1	1	Shell	Unidentifiable	Unidentifiable	Unidentifiable		Unidentifiable					blue painted small shell	
2081	AeHg-61	N527 E514	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
2082	AeHg-61	N527 E514	1	1	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						
2085	AeHg-61	N527 E514	1	2	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
1846	AeHg-61	N517 E502	1	4	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green	
2086	AeHg-61	N527 E514	1	2	Ferrous	Structural	Nails	Nail		Cut					partials	
2083	AeHg-61	N527 E514	1	3	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2087	AeHg-61	N527 E514	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
2088	AeHg-61	N527 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
2089	AeHg-61	N527 E514	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
2090	AeHg-61	N527 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	red		Rim		1828+
2091	AeHg-61	N527 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue and pink	1820 - 1872
2092	AeHg-61	N527 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Rim	brown bands, yellow slip	1820+
2093	AeHg-61	N527 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	green		Body		1843 - 1875
2094	AeHg-61	N527 E514	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue				1825+
2095	AeHg-61	N527 E514	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	early palette		Body	early palette	1820 - 1860
2096	AeHg-61	N527 E514	1	15	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
2097	AeHg-61	N527 E516	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1876	AeHg-61	N520 E500	1	2	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green	
2099	AeHg-61	N527 E516	1	1	Ferrous	Food and Beverage	Utensils	Fork		Ferrous					3 prong, small fork	
2100	AeHg-61	N527 E516	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Body		1830+
2101	AeHg-61	N527 E516	1	6	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless					1820+
2102	AeHg-61	N527 E516	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
2103	AeHg-61	N527 E516	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
2104	AeHg-61	N527 E516	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	late palette		Body		1830 - 1872
2105	AeHg-61	N530 E500	1	3	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1922	AeHg-61	N520 E510	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green	
2107	AeHg-61	N530 E500	1	3	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
2108	AeHg-61	N530 E500	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
2109	AeHg-61	N530 E500	1	1	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						
1676	AeHg-61	N510 E505	1	1	Ferrous	Tools/Equipment	Miscellaneous Hardware	Screw		Slot						
2111	AeHg-61	N530 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	blue	1820 - 1920

2112	AeHg-61	N530 E500	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2113	AeHg-61	N530 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body	hexagon and dot pattern	1825+
2114	AeHg-61	N530 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	banded			Body	light brown bands	1820+
2115	AeHg-61	N530 E500	1	10	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body	multiple vessels	1825+
2116	AeHg-61	N530 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	edged, straight rim	green		Rim	green edged	
2117	AeHg-61	N530 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	edged			Rim	blue edged	
2118	AeHg-61	N530 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
2119	AeHg-61	N530 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	hand painted			Body	blue	1780 - 1840
2120	AeHg-61	N530 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
2121	AeHg-61	N530 E500	1	26	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
2124	AeHg-61	N530 E505	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
2129	AeHg-61	N530 E505	1	2	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
2126	AeHg-61	N530 E505	1	1	Ferrous	Structural	Nails	Nail		Cut					7.5cm	
2127	AeHg-61	N530 E505	1	2	Ferrous	Structural	Nails	Nail		Cut					partials	
1574	AeHg-61	N505 E505	1	1	Ferrous	Tools/Equipment	Miscellaneous Material	Sheet Metal		Ferrous						
2125	AeHg-61	N530 E505	1	7	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1767	AeHg-61	N515 E500	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Decorated Bowl		Unidentifiable				Bowl	raised lines	
2131	AeHg-61	N530 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
2132	AeHg-61	N530 E505	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body		1796 - 1920 (Ontario made)
2133	AeHg-61	N530 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless		Burnt	Body		1830+
2134	AeHg-61	N530 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
2135	AeHg-61	N530 E505	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
2136	AeHg-61	N530 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
2137	AeHg-61	N530 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	PWE	Pearlware	hand painted			Body	early palette	1780 - 1840
2138	AeHg-61	N530 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	edged, straight rim	blue		Rim	blue edged	1841-1857
2139	AeHg-61	N530 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
2140	AeHg-61	N530 E505	1	6	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
1988	AeHg-61	N525 E500	1	1	Ceramic	Personal/societal	Smoking Pipes	White Clay, Decorated Bowl		Unidentifiable				Bowl	raised ridges	
2142	AeHg-61	N530 E510	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
2143	AeHg-61	N530 E510	1	2	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
2144	AeHg-61	N530 E510	1	2	Ferrous	Structural	Nails	Nail		Cut					partials	
2145	AeHg-61	N530 E510	1	6	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2146	AeHg-61	N530 E510	1	3	Glass	Furnishings	Lighting Devices	Oil Lamp		Unidentifiable						
1953	AeHg-61	N523 E504	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green	
1992	AeHg-61	N525 E500	1	2	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green	
2149	AeHg-61	N530 E510	1	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
2150	AeHg-61	N530 E510	1	3	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
2151	AeHg-61	N530 E510	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body		1796 - 1920 (Ontario made)
2152	AeHg-61	N530 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	sponged	green		Body	green	1843 - 1875
2153	AeHg-61	N530 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue	Burnt	Body		1825+
2154	AeHg-61	N530 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	PWE	Pearlware	edged			Rim	green edged scalloped rim	
2155	AeHg-61	N530 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	edged, crows foot	blue		Rim	blue edged staright rim crows feet	1840 - 1850
2156	AeHg-61	N530 E510	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue				1825+
2157	AeHg-61	N530 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2158	AeHg-61	N530 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
2159	AeHg-61	N530 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	indeterminate		Rim	blue	1820 - 1872
2160	AeHg-61	N530 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	green slip and painted	1820 - 1920
2161	AeHg-61	N530 E510	1	10	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body	multiple vessels	1820+
2163	AeHg-61	N530 E515	1	1	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
2162	AeHg-61	N530 E515	1	1	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2164	AeHg-61	N530 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
2165	AeHg-61	N530 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2166	AeHg-61	N530 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2167	AeHg-61	N530 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	variegated	1820 - 1920
2168	AeHg-61	N530 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
2169	AeHg-61	N530 E515	2	1	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
2170	AeHg-61	N530 E515	2	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2171	AeHg-61	N530 E515	2	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	early palette		Body		1820 - 1860
2172	AeHg-61	N530 E515	2	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body		1830 - 1872
2176	AeHg-61	N530 E520	1	1	Ferrous	Structural	Nails	Nail		Wrought					partial	
2175	AeHg-61	N530 E520	1	1	Coal	Fuel	Cooking/Heating	Sample		Not applicable						
2174	AeHg-61	N530 E520	1	1	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2177	AeHg-61	N530 E520	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Body		1830+
2178	AeHg-61	N530 E520	1	7	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2239	AeHg-61	N540 E503	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	emerald green, embossed	
2180	AeHg-61	N535 E500	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Finish	emerald green, packer finish	

2106	AeHg-61	N530 E500	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Mould blown				Body	green	
2183	AeHg-61	N535 E500	1	5	Bone	Faunal/Floral	Bone	Mammal Bone		Unidentifiable						
2184	AeHg-61	N535 E500	1	1	Dentition	Faunal/Floral	Other Organic	Tooth/Teeth		Unidentifiable						
2185	AeHg-61	N535 E500	1	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
2186	AeHg-61	N535 E500	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
2187	AeHg-61	N535 E500	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2188	AeHg-61	N535 E500	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Body	late palette	1830 - 1872
2189	AeHg-61	N535 E500	1	9	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue			multiple vessels	1825+
2190	AeHg-61	N535 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
2191	AeHg-61	N535 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	transfer	red		Rim		1828+
2192	AeHg-61	N535 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Rim		1825+
2193	AeHg-61	N535 E500	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	green		Body		1843 - 1875
2194	AeHg-61	N535 E500	1	9	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless					1820+
2195	AeHg-61	N535 E500	1	4	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
2196	AeHg-61	N535 E500	1	1	Galvanized Metal	Structural	Nails	Nail		Cut					partial	
2197	AeHg-61	N535 E500	1	3	Ferrous	Structural	Nails	Nail		Wrought					partials	
1601	AeHg-61	N505 E510	1	1	Ferrous	Tools/Equipment	Miscellaneous Material	Sheet Metal		Ferrous						
2208	AeHg-61	N535 E505	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
2200	AeHg-61	N535 E505	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
2201	AeHg-61	N535 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	VWE	Vitrified White Earthenware	clear/colourless			Body		1840+
2202	AeHg-61	N535 E505	1	7	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2203	AeHg-61	N535 E505	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
2204	AeHg-61	N535 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	indeterminate		Rim	green band	1820 - 1872
2205	AeHg-61	N535 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	red	Burnt	Body		1828+
2206	AeHg-61	N535 E505	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	other		Body	green and red sponged	1843 - 1875
2207	AeHg-61	N535 E505	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised cur	blue		Rim	blue egded with scalloped rim incised curved lines	1820 - 1845
2199	AeHg-61	N535 E505	1	7	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2110	AeHg-61	N530 E500	1	2	Ferrous	Tools/Equipment	Miscellaneous Material	Sheet Metal		Ferrous						
2211	AeHg-61	N535 E510	1	1	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
2213	AeHg-61	N535 E510	1	1	Ferrous	Structural	Nails	Nail		Cut					partial	
1995	AeHg-61	N525 E500	1	1	Ferrous	Tools/Equipment	Miscellaneous Hardware	Unidentifiable		Cast					heavy curved piece	
2210	AeHg-61	N535 E510	1	4	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1985	AeHg-61	N525 E500	1	3	Ceramic	Personal/societal	Smoking Pipes	White Clay, Marked Bowl		Unidentifiable				Bowl	rasied TD encircled in sunburst	
2215	AeHg-61	N535 E510	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Coarse red earthenware				Body		1796+ (Ontario made)
2216	AeHg-61	N535 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, incised lines	blue		Brim	blue edged inscised curved lines	
2217	AeHg-61	N535 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Rim		1830 - 1872
2218	AeHg-61	N535 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	sponged	green		Body	green	1843 - 1875
2219	AeHg-61	N535 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	indeterminate		Rim	blue	1820 - 1872
2220	AeHg-61	N535 E510	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2221	AeHg-61	N535 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
2222	AeHg-61	N535 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	black		Body		1832 - 1845
2225	AeHg-61	N535 E515	1	1	Ferrous	Structural	Nails	Nail		Wrought					partial	
2148	AeHg-61	N530 E510	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Mould blown				Body	light aqua	
2223	AeHg-61	N535 E515	1	6	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2226	AeHg-61	N535 E515	1	1	Unidentified	Unidentifiable	Unidentifiable	Unidentifiable		Unidentifiable					unidentifiable material	
2227	AeHg-61	N535 E515	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
2228	AeHg-61	N535 E515	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Rim		1796 - 1920 (Ontario made)
2229	AeHg-61	N535 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	slipware			Body	brown slip	1820 - 1920
2230	AeHg-61	N535 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
2231	AeHg-61	N535 E515	1	5	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2232	AeHg-61	N535 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Body		1830+
2233	AeHg-61	N535 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	late palette		Rim		1830 - 1872
2234	AeHg-61	N535 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
2235	AeHg-61	N535 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	slipware			Body	blue slip	1820 - 1920
2236	AeHg-61	N535 E520	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	YEW	Yellowware	clear/colourless			Body		1830+
2237	AeHg-61	N535 E520	1	2	Ferrous	Structural	Nails	Nail		Wire					4.5cm	
2240	AeHg-61	N540 E503	1	2	Ferrous	Structural	Nails	Nail		Cut					partial	
1725	AeHg-61	N513 E502	1	2	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Mould blown				Body	light blue, small sherds	
2241	AeHg-61	N540 E503	1	1	Ferrous	Structural	Nails	Nail		Cut					8cm	
2249	AeHg-61	N540 E503	2	2	Ferrous	Structural	Nails	Nail		Cut			corroded		partials	
2242	AeHg-61	N540 E503	1	1	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	glazed	red		Body	brown glaze	1796 - 1920 (Ontario made)
2243	AeHg-61	N540 E503	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2244	AeHg-61	N540 E503	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	hand painted	late palette		Body		1830 - 1872
2245	AeHg-61	N540 E503	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
2246	AeHg-61	N540 E503	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
2247	AeHg-61	N540 E503	1	12	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+

2248	AeHg-61	N540 E503	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless		Burnt	Body		1820+
2238	AeHg-61	N540 E503	1	1	Glass	Structural	Window Glass	Pane Glass		Not applicable						
2214	AeHg-61	N535 E510	1	1	Textile	Personal/societal	Unidentifiable	Sample		Not applicable					rope/twine	
2182	AeHg-61	N535 E500	1	1	Glass	Food and Beverage	Unidentifiable Glass Containers	Unidentifiable Bottle/Container Glass		Mould blown				Body	light green, indent	
2254	AeHg-61	N540 E505	5	3	Brick	Structural	Construction Materials	Construction Block		Not applicable					reb brick	
2253	AeHg-61	N540 E505	5	1	Bone	Faunal/Floral	Bone	Mammal Bone		Burnt			Burnt		calcined	
2255	AeHg-61	N540 E505	5	1	Ferrous	Structural	Nails	Nail		Wrought					8.2cm	
2252	AeHg-61	N540 E505	5	1	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1829	AeHg-61	N515 E515	1	1	Metal	Tools/Equipment	Miscellaneous Material	Wire		metal						
2141	AeHg-61	N530 E510	1	1	Copper-alloy	Personal/societal	Sewing	Thimble		Copper-alloy					solid band, rolled edge	
2258	AeHg-61	N540 E505	5	2	Ceramic	Food and Beverage	Ceramic Utilitarian Ware	Hollowware	CRW	Creamware	unglazed	red		Body		1796 - 1920 (Ontario made)
2259	AeHg-61	N540 E505	5	1	Ceramic	Food and Beverage	Ceramic Tableware	Tea Pot/Coffee Pot	RCE	Fine earthenware	Jackfield-like			Body		1796+
2260	AeHg-61	N540 E505	5	1	Ceramic	Food and Beverage	Ceramic Tableware	Plate	RWE	Refined White Earthenware	edged, scalloped rim, incised cur	blue	Burnt	Rim	blue edged scalloped rim incised curved lines	1820 - 1845
2261	AeHg-61	N540 E505	5	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	hand painted	indeterminate		Body	blue	1820 - 1872
2262	AeHg-61	N540 E505	5	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
2263	AeHg-61	N540 E505	5	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	hand painted			Body	blue	1780 - 1840
2264	AeHg-61	N540 E505	5	2	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	blue		Body		1843 - 1875
2265	AeHg-61	N540 E505	5	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	hand painted	late palette		Rim		1830 - 1872
2266	AeHg-61	N540 E505	5	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2267	AeHg-61	N540 E510	1	3	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2268	AeHg-61	N540 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Hollowware	RWE	Refined White Earthenware	sponged	green		Body		1843 - 1875
2269	AeHg-61	N540 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Body		1825+
2270	AeHg-61	N540 E510	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	brown		Body		1832 - 1860
2273	AeHg-61	N540 E515	1	1	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Finish	light green, wine finish	
2272	AeHg-61	N540 E515	1	2	Glass	Structural	Window Glass	Pane Glass		Not applicable						
1757	AeHg-61	N515 E500	1	2	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	olive green	
2274	AeHg-61	N540 E515	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Flatware	RWE	Refined White Earthenware	transfer	blue		Rim		1825+
1847	AeHg-61	N517 E502	1	3	Glass	Food and Beverage	Glass Beverage Containers	Bottle		Mould blown				Body	olive green	
2277	AeHg-61	N530 E525	1	2	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	PWE	Pearlware	clear/colourless			Body		1780 - 1840
2278	AeHg-61	N530 E525	1	4	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	clear/colourless			Body		1820+
2279	AeHg-61	N530 E525	1	1	Ceramic	Food and Beverage	Ceramic Tableware	Tableware	RWE	Refined White Earthenware	transfer	blue		Body		1825+

APPENDIX J – STAGE 4 ARCHAEOLOGICAL ASSESSMENT

Ministry of Citizenship and Multiculturalism (MCM)

Archaeology Program Unit
Heritage Operations Branch
Citizenship, Inclusion and Heritage Division
5th Floor, 400 University Ave.
Toronto ON M7A 2R9
Tel.: (613) 852-7942
Email: Stephen.Jarrett@Ontario.ca

Ministère des Affaires civiques et du Multiculturalisme (MCM)

Unité des programme d'archéologie
Direction des opérations du patrimoine
Division de la citoyenneté, de l'inclusion et du patrimoine
5e étage, 400 ave. University
Toronto ON M7A 2R9
Tél. : (613) 852-7942
Email: Stephen.Jarrett@Ontario.ca

Dec 23, 2025

Bradley Drouin (P311)
True North Archaeological Services Inc.
2D - 220 Terence Matthews Ottawa ON K2M0E2

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 4 Archaeological Assessment Edgeware Battery Energy Storage Site, AeHg-61, 100 Highbury Avenue South, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario ", Dated Dec 9, 2025, Filed with MCM on Dec 16, 2025, MCM Project Information Form Number P311-0363-2025, MCM File Number 0022221

Dear Bradley Drouin (P311):

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Map 8 and Map 9 of the above titled report and recommends the following:

This Stage 4 excavation archaeological assessment has provided the basis for the following recommendations:
1) The Stage 4 mitigation by mechanical topsoil removal of AeHg-61 has been completed in accordance with the standards outlined in Section 4.2.3 and 4.4 of the MCM's (2011) Standards and Guidelines for Consultant Archaeologists, as such all archaeological concerns can be considered addressed and the site fully mitigated of development impacts.

2) In the event that future planning results in the identification of additional areas of impact beyond the limits of the BESS Study Area, located on part of Lot 8, Range 1 North of Edgeware Road, Geographic township of Yarmouth, Elgin County, now the City of St. Thomas, not under assessment as part of the current development, further Stage 1 and 2 archaeological assessments may be required. It should be noted that impacts include all aspects of the proposed development causing soil disturbances or other alterations, including additional temporary property needs (i.e. access roads, staging/lay down areas,

associated works etc.).

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Stephen Jarrett
Archaeology Review Officer

cc. Archaeology Licensing Officer
Laura Bashford,EDP Renewables Canada Ltd.
TBD TBD,Ministry of the Environment, Conservation and Parks

[1] *In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*

REVISED REPORT

Stage 4 Archaeological Assessment

Edgeware Battery Energy Storage Site, AeHg-61, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario

Archaeological Licensee: Bradley Drouin

MCM PIF Number: P311-0363-2025

Submitted to:
DNV
70 Richmond Street East, Suite 201
Toronto, Ontario
M5C 1N8

Attention: Gabriel Constantin, Director of Environmental and Permitting Services, Energy Systems

Submitted by:

True North Archaeological Services Inc.
2D-220 Terence Matthews Crescent, Ottawa, Ontario, K2M 0E2

TNAS Project Number: 2024022

9 December 2025

Distribution List

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1 e-copy – Aamjiwnaang First Nation

1 e-copy – Caldwell First Nation

1 e-copy – Chippewas of Kettle and Stony Point First Nation

1 e-copy – Chippewas of the Thames First Nation

Executive Summary

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.

True North Archaeological Services Inc. (TNAS) was retained by DNV on behalf of Edgeware BESS Project Limited Partnership to undertake a Stage 4 archaeological assessment of AeHg-61, a mid-19th century historic Euro-Canadian site located at 100 Highbury Avenue South, situated within Part Lot 8, Range 1 North of Edgeware Road, Geographic Township of Yarmouth, Elgin County, now the City of St. Thomas, for a planned Battery Energy Storage System ("BESS Study Area"; Maps 1 and 2).

The principal objectives of this Stage 4 assessment, which consisted of mitigation through mechanical topsoil removal, were to determine the extent of the AeHg-61, to collect all observed artifacts, and to document the cultural heritage value or interest of the archaeological site.

Due to the cultural heritage value or interest (CHVI) identified for registered site AeHg-61 during the Stage 3 archaeological assessment (TNAS 2025b), the Stage 4 archaeological investigation was undertaken to mitigate archaeological resources determined to possess CHVI within the site boundaries that were to be impacted by the proposed development project.

The Stage 4 mitigation by mechanical topsoil removal was completed over 3 days between 26 and 28 May 2025. A total of 7 subsurface features were assessed for cultural significance during the Stage 4 excavation, which included 3 features initially recorded during the Stage 3 assessment (TNAS 2025b). Following the complete exposure and delineation of each feature, they were drawn in plan view, cross sectioned and drawn in profile before being completed excavated.

Within the Stage 4 limits, Feature 1 was interpreted to represent a root cellar and Feature 3 was interpreted to represent a refuse pit. These cultural features were archaeologically mitigated during the Stage 4 excavation as such the site no longer retains CHVI. The remaining Features were determined to either be natural in the case of Features 4, 5, 6, & 7 or modern in the case of Feature 2.

The results of the Stage 4 archaeological assessment documented within this report formed the basis for the following recommendations:

1) The Stage 4 mitigation by mechanical topsoil removal of AeHg-61 has been completed in accordance with the standards outlined in Section 4.2.3 and 4.4 of the MCM's (2011) *Standards and Guidelines for Consultant Archaeologists,* as such all archaeological concerns can be considered addressed and the site fully mitigated of development impacts.

2) In the event that future planning results in the identification of additional areas of impact beyond the limits of the BESS Study Area, located on part of Lot 8, Range 1 North of Edgeware Road, Geographic township of Yarmouth, Elgin County, now the City of St. Thomas, not under assessment as part of the current development, further Stage 1 and 2 archaeological assessments may be required. It should be noted that impacts include all aspects of the proposed development causing soil disturbances or other alterations, including additional temporary property needs (i.e. access roads, staging/lay down areas, associated works etc.).

Project Personnel

Client Contact:	Gabriel Constantin, Director of Environmental and Permitting Services, DNV
Project Manager:	Bradley Drouin, M.A. (P311)
Archaeological Licensee:	Bradley Drouin
Field Director:	Gabryell Kurtzrock Belyea, M.A. (P1195)
	Randy Hahn, PhD, (P1107)
Field Technicians:	Kelly Berckmans, B.A.
	Brynn Walker, B.A.
Material Culture Analysis:	Gabryell Kurtzrock Belyea
Lab Technicians	Kelly Berckmans
	Brynn Walker
Report Preparation:	Gabryell Kurtzrock Belyea
	Bradley Drouin
Spatial IM:	Gabryell Kurtzrock Belyea
Senior Technical Review:	Aaron Mior, MMA (1077)

First Nation Field Participants

Aamjiwnaang First Nation:	Laura Rogers
Chippewa of the Thames First Nation:	Jenn Antone
Chippewa of Kettle and Stony Point First Nation:	Patrick Henry
Caldwell First Nation	Jack Scott
	Vartina Shawood

Report Abbreviations

AA	Archaeological Assessment
ASI	Archaeological Services Inc.
B.P.	Years Before Present
CHVI	Cultural Heritage Value or Interest
cm	Centimetre
CSP	Controlled Surface Pickup
CRW	Coarse Red Earthenware
GIS	Geographic Information System
ha	Hectares
Ins. No.	Instrument Number (Land Registry)
km	Kilometres
m	Metres
mm	Millimetre
MCM	Ministry of Citizenship and Multiculturalism
MTR	Mechanical Topsoil Removal
PIF	Project Information Form issued by the MCM
PWE	Pearlware
RWE	Refined White Earthenware
TNAS	True North Archaeological Services Inc.
VWE	Vitrified White Earthenware

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1.0 Project Context

1.1 Development Context

True North Archaeological Services Inc. (TNAS) was retained by DNV on behalf of Edgeware BESS Project Limited Partnership, to undertake a Stage 4 archaeological assessment (AA) consisting of mechanical topsoil removal (MTR) of AeHg-61, a mid 19th century historical site, for the Edgeware Battery Energy Storage System project, located within Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario (Maps 1 and 2). This assessment follows the recommendations for registered site AeHg-61 detailed in the Stage 3 archaeological assessment report submitted for the Edgeware BESS Project (TNAS 2025b). The Stage 4 MTR of AeHg-61 was completed as part of an Environmental Assessment process for Minor Transmission Facilities.

The proposed Battery Energy Storage System study area (BESS Study Area) is bound to the east by Highbury Avenue South, to the west and north by an active rail line and the south by an existing power station. The BESS Study Area measures approximately 2 ha in size, with current land conditions consisting of ploughed agricultural field and low shrubs and vegetation along the field margins. Through discussions with the proponent, it was determined that AeHg-61 could not be avoided and as such Stage 4 of development impacts by means of mechanical topsoil removal was required.

Permission to access the property to conduct all required Stage 4 MTR fieldwork, including the recovery of artifacts, was granted by DNV on behalf of the proponent, with no limitations or restrictions.

1.2 Objectives

The primary objectives of this Stage 4 archaeological assessment follow the Ministry of Citizenship's (MCM) *Standards and Guidelines for Consultant Archaeologists* (2011). These objectives include:

- To address development impacts on an archaeological site with a level of cultural heritage value or interest that has been determined to require mitigation;
- To document the archaeological context, cultural features and artifacts for all parts of the archaeological site that may be impacted by the potential land development activities;
- To document the removal of the archaeological site recommended for excavation within the proposed development limits, and;
- To preserve the information about the archaeological site for future study.

2.0 Historic Context

2.1 Regional Indigenous Context

The following narrative is intended to provide a general overview of the interpreted land use during the "Pre-Contact and Post-Contact Periods" within the vicinity of the current study area. This overview generally reflects inferences and interpretations based on archaeological and historical interpretations primarily made by non-Indigenous representatives.

This section is intended to provide a general historical overview that can be referenced when determining the potential for archaeological resources within the current project study area. The text and comments below, including the cited references, may reflect archaeological literature within general publications, but may not represent the opinions of those Indigenous communities whose history it is purported to reflect.

2.1.1 Paleo Period (13,000 – 9,000 B.P.)

Based on archaeological literature, the Paleo Period is inferred to begin around 13,000 years before the present (B.P.), when glacial ice began to recede within the modern-day area of Elgin County. As the glacial ice receded, the existing landscape began to warm with vegetation adapting to the evolving environment and caribou and other subarctic animals arriving following the glacial recession (Warrick 2012).

The Paleo Period in Ontario is broadly characterized by many small groups of hunter-gatherers whose subsistence strategies exploited large areas, while often travelling distances in excess of 150 km in an effort to procure raw materials for the production of lithic tools and the hunting of contemporary animals along migratory routes including caribou as well as mammoth and mastodon. The environment in southern Ontario during the Early Paleo Period would also have been able to support a variety of other plant and animal resources including fish, birds, moose, elk and muskoxen, and it is reasonable to suggest these resources were also incorporated into the contemporary subsistence strategies (Peers 1985).

Diagnostic signatures of Early Paleo Period populations include the production of projectile points with channel flakes or flutes predominately manufactured from Collingwood or Onondaga chert. Paleo Period fluted points may be a reflection of large game hunting, while tools such as scrapers, piercing implements and gravers that are typically associated with Paleo Period sites may have been used in the manufacture and repair of wooden implements, bone tools and clothing (Peers 1985).

Archaeological excavations indicate many Early Paleo Period sites tend to be located within areas of elevated topography on well-drained loamy soils, as well as on former beach ridges associated with glacial lakes. Many of the archaeologically investigated Paleo Period sites are relatively small in size compared to later periods, and typically represent contemporary camp sites, with only a few large sites, such as the Parkhill and Fisher sites, recognized as extending over several hectares. It is likely these larger sites were formed as people continued to occupy the same area for short durations over the course of several years. Given their placement in locations conducive to the interception of migratory mammals such as caribou, it has been suggested these larger sites may also represent communal hunting camps (Ellis and Deller 1997).

During the Paleo Period, enclosed coniferous forests dominated the contemporary landscape, although by the Late Paleo Period (9,500 - 9,000 B.P.) deciduous forests were developing in southern Ontario. Pollen samples collected from nearby Pinehurst Lake and assessed by Dr. J.H. McAndrews of the Royal

Ontario Museum indicate deciduous forest species such as oak and beech accounted for more than 50% of the forest cover in the region by the Late Paleo Period (Nixon 1982).

With the environmental transition, it is likely that many of the large game species that had been hunted during the Early Paleo Period had either moved further north, or in the case of the mastodons and mammoths, became extinct. Similar to the inhabitants during the Early Paleo Period, Late Paleo Period populations traversed large territories in response to seasonal resource fluctuations. The transition to the Late Paleo Period also included projectile points comprised of smaller unfluted projectiles along with lanceolate parallel flaked stemmed and non-stemmed Plano points, while hunting strategies may have transitioned from communal groups to more individualized pursuits (Ellis and Deller 1997).

At least seven archaeological sites within Elgin County have been registered as reflecting evidence of land use during the Paleo Period. AeHh-146 situated 7.5 km south of the southern limit of the BESS Study Area, represents the closest registered site to the Study Area.

2.1.2 Archaic Period (9,000 – 2,950 B.P.)

During the Early Archaic Period (9,000 – 8,000 B.P.), a gradual increase in atmospheric humidity in conjunction with warmer summers influenced the environmental landscape within the general BESS Study Area vicinity. Fossil pollen and spore identification from sedimentation cores lifted from Lovesick Lake provide evidence of a changing climate, with jack pine forests becoming dominant during the beginning of the Early Archaic Period (Teichroeb 2007).

Concurrent with the environmental changes during the Early Archaic Period were notable diagnostic technological changes including the appearance of side and corner-notched projectile points, bifurcated points, and the distinctive serrated point. Other significant innovations included the introduction of ground stone tools such as celts and axes, which may reflect an emerging woodworking industry (Ellis, Kenyon & Spence 1990).

Populations in Ontario during this period primarily utilized maritime landscapes during the spring, summer and fall seasons with large base camps on islands, near river mouths, and on the shores of embayment's where a variety of flora, fish, and wild fowl resources could be obtained. Smaller hunting and specialized campsites were also established in the uplands and along smaller watercourses. The waterways appear to be the preferred method of travel, and many burials are located along these waterways (Taylor 2015), including the traditionally visited islands. Access to these shoreline occupation areas would have been facilitated by a variety of Indigenous watercraft such as bark canoes, skin boats and dugout canoes (Monk 1999).

While only a limited number of Indigenous vessels have been discovered within the Great Lakes region, the tools and implements utilized for their construction provide insight into the methods used and the locations where these vessels were manufactured. Tools commonly associated with Indigenous vessel construction included stone gouges, adzes, wedges, hammers, knives, scrapers, and awls manufactured from wood and bone (Monk 1999), while other tools manufactured from bone, chert, quartz and wood were also utilized when necessary.

During the Middle Archaic Period (8,000 – 4,000 B.P.) the environmental landscape continued to evolve with the jack pine forests prevalent during the Early Archaic Period being primarily replaced by white pine growth, suggesting a gradual increase in humidity and a continuation of hot summers (Teichroeb 2007).

The trend towards more diverse toolkits also continued into the Middle Archaic Period, as the presence of netsinkers and fish weirs indicate that fishing was an important component of the subsistence strategy, with Lake Erie, Kettle Creek, and its many tributaries, providing an abundance of fishing opportunities for a variety of species including sturgeon (General and Warrick 2012). Netsinkers were typically used with both gill nets and seine nets, which were employed for both shoreline and offshore fishing activities. Gill nets were kept vertical with stone sinkers on the bottom and floats on the top, and were often anchored to a specific location with larger stones. Seine nets essentially acted as fences and were used to coral and hold the fish and needed to be kept tight to the water bottom by attaching many closely spaced sinkers to the bottom of the net with floats attached to the top (Ingleman *et al* 2012; Prowse 2003). Many Indigenous fishing nets were commonly made from hemp or nettle (Needs-Howarth 1999) and are rarely preserved in the archaeological record (Ingleman *et al* 2012).

Another characteristic of the Middle Archaic Period was an increased reliance on local, often poor quality, chert and quartz resources for manufacturing projectile points. While groups occupied larger territories during the Paleo and Early Archaic Periods, which provided the opportunity to visit primary outcrops of high-quality chert at least once during their seasonal round, during the Middle Archaic Period groups traveled within comparatively smaller territories that did not always possess a source of high-quality raw materials. In these instances, lower quality materials that had been previously deposited by the glaciers in the local till and river gravels were utilized.

It was also during the latter part of the Middle Archaic Period that long-distance trade routes began to develop, spanning the northeastern part of the continent. In particular, copper tools manufactured from a source located northwest of Lake Superior were being traded (Ellis, Kenyon and Spence 1990), with a wide range of copper tools such as socketed and tanged spear points, projectile points, harpoons, crescent knives, gouges, pikes and celts being produced during this period (Dawson 1983).

Trade networks established during the Middle Archaic Period also continued to flourish during the Late Archaic Period (4,000 – 2,950 B.P.). Copper implements from northern Ontario and marine shell artifacts from the Mid-Atlantic coast are frequently encountered with burials (Ellis, Kenyon and Spence 1990; Ellis, Timmins and Martelle 2009). Late Archaic Period sites have also been discovered in greater numbers compared to Early and Middle Archaic Period sites, suggesting the local population was rapidly expanding. Due to an increase in population, territories were shrinking which was reflected in reduced mobility and fewer residential camps throughout the year (Ellis, Kenyon & Spence 1990).

The development of designated burial areas during the Late Archaic Period has been interpreted as a response to increased population densities and competition between local groups for access to natural resources. It has been theorized that formalized burial grounds may have provided strong symbolic claims over a local territory and the surrounding resources and are often located within areas of elevated topography containing well-drained sandy and gravel soils adjacent to major watercourses. Burial sites reflect the importance of the landscape to Indigenous populations as they represent locations along travel routes that would be returned to, where feasts would occur, and the dead could be honoured (Taylor 2015).

Regionalized variations during the Late Archaic Period are also reflected in projectile point manufacturing, with distinct locally diagnostic styles appearing within the archaeological record. Other artifacts including polished stone pipes and banded slate gorgets also appear on Late Archaic Period sites, as well as "birdstones", which are small, bird-like effigies usually manufactured from green banded slate (Ellis, Kenyon and Spence 1990).

During the Archaic Period, it has been estimated there would have been upwards of 400 inhabitants in the Grand River watershed (Warrick 2012) and the significant number of registered archaeological sites dating to the Archaic Period documented in Elgin County indicate this area was extensively traversed. At least 27 sites representing land use during the Archaic Period have been documented in Elgin County, with an additional 31 sites exhibiting Early Archaic Period components, 33 sites reflecting Middle Archaic Period attributes, and 54 sites with diagnostic attributes reflecting the Late Archaic Period (MCM 2024). At least 8 archaeological sites reflecting land use during the Archaic Period have been registered within 1.5 km of the BESS Study Area, spanning the Early, Middle and Late Periods and confirming land use in the vicinity throughout this period.

2.1.3 Woodland Period (2,950 – 500 B.P.)

The Early Woodland Period (2,950 – 2,200 B.P.) is distinguished from the Late Archaic Period primarily by the introduction of pottery. The first pots were thick walled and friable, suggesting they may have primarily been used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil (Spence, Pihl and Murphy 1990). These vessels were not easily portable, and their fragile nature suggests they may have required regular replacement. There have also been numerous Early Woodland Period sites identified where ceramics were absent from the recovered assemblage, suggesting ceramic vessels may have not been completely integrated within the daily lives of Early Woodland Period populations.

Besides the addition of ceramic technology, the cultural affinity of Early Woodland Period inhabitants shows a great deal of continuity with the preceding Late Archaic Period. For instance, birdstones continued to be manufactured, although the Early Woodland Period varieties have "pop-eyes" that protrude from the sides of their heads (Spence, Pihl and Murphy 1990). Another example of general continuity from the terminal segment of the Archaic Period is represented by the thin, well-made projectile points, although the Early Woodland Period variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance. The distinctive Meadowood cache blade or preform was frequently recycled into other tool forms such as end scrappers, perforators and flint strikers for fire making kits. One of the most striking features of the Meadowood tradition is the occurrence of large caches of well-made Meadowood preforms (Spence, Pihl and Murphy 1990).

Middle Woodland Period inhabitants appeared to have relied more extensively on ceramic technology, with contemporary ceramic vessels often decorated with impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of vessels manufactured during the Middle Woodland Period can be diagnostically distinct. Popular decoration techniques include dentate stamping and pseudo-scallop shell impressions. Three complexes represent the Middle Woodland Period; Couture in the most southwestern part of Ontario, Saugeen in the rest of southwestern Ontario, and Point Peninsula in south central and eastern Ontario (Spence, Pihl and Murphy 1990).

The accessibility of watercraft contributed to the rapid spread of ceramic technology and other material cultural attributes during the Woodland Period. The watercraft utilized during the Archaic Period continued to be employed along the navigable waterways and would have provided the ability to transport not only the larger ceramic containers, which were not easily portable over land, but also the concepts and technology associated with Early Woodland Period pottery manufacturing. Evidence of exchange networks during the early stages of the Woodland Period indicate numerous reciprocal, down-the-line exchanges between trade partners located both short and long distances away. There is a gradual

intensification of these types of trade throughout the period continuing into, and reaching its apex in, the Middle and Late Woodland Periods (Hartmann 1996).

In terms of subsistence strategies, the Middle Woodland Period (2,200 - 1,100 B.P.) reflects an evolving transition from patterns observed from archaeological excavations documenting Archaic and Early Woodland Period sites. While Middle Woodland Period populations still relied on hunting and gathering to meet their subsistence requirements, an increased consumption of fish became an important dietary component. Some Middle Woodland Period sites have produced literally thousands of bones from spring spawning species including walleye and sucker (MCR 1981), reflecting the importance of this subsistence resource to the local population.

Food sources such as tree nuts and a proliferation of plant greens and seeds were also utilized during the Middle Woodland Period. The seasonal variety and relative dependability of these foods encouraged population growth in many areas. The land use patterns reflected from archaeological investigations of Middle Woodland Period sites generally reflect densely occupied locations that appear on the valley floor of major rivers, often producing sites with significant artifact deposits. Unlike earlier seasonally utilized locations, many Middle Woodland Period sites appear to have functioned as base camps, occupied periodically over the course of the year and situated to take advantage of the greatest number of resources. There are also numerous small upland Middle Woodland Period sites, many of which can be interpreted as special purpose camps where localized natural resources were exploited (MCR 1981).

The transition from the Middle to Late Woodland Period is marked by the introduction of triangular projectile point styles and cord-wrapped stick decorated ceramics, which are associated with the Princess Point Complex (Martin 2004; Crawford *et al* 1997; Bursey 1995; Ferris and Spence 1995; Spence, Pihl and Murphy 1990; Williamson 1990; Ritchie 1971), although these attributes may not always reflect diagnostic components of specific Nations as many interacted and shared cultural traits. The Princess Point Complex is organized into three regional Foci; the Point Pelee Foci in southwestern Ontario, the Ausable Focus near Lake Huron, and a Grand River Focus around the west end of Lake Ontario (Fox 1990).

The Late Woodland Period in the counties of Essex, Kent, Lambton and portions of Middlesex and West Elgin Counties is represented by the distinct culture of the Younge Tradition which developed from the earlier Princess Point Tradition. The Younge tradition is part of the archaeological manifestations referred to as the Western Basin tradition which connects groups in southwestern Ontario, southeastern Michigan and northwestern Ohio centered along the drainages of western Lake Erie, Lake St. Clair and lower Lake Huron. This period is characterized by complex ceramic decorations and a marked decrease in stone tool use, as stone tools were typically made on locally available pebble cherts from secondary deposits. Settlements were known to be located on sand plains, moraines, lakeshores and prairie borders where elevation provided good drainage and ideal conditions for subsistence, fuel and shelter (Murphy and Ferris 1990).

Many of the villages maintained by Nations who established agricultural economies during the Late Woodland Period included palisades that enclosed community longhouses (Fox 1990; Smith 1990; Williamson 1990), with the villages often surrounded by gardens and field crops, which were worked by the clan families of the village (Hill 2017). At least 20 village sites dating to the Woodland Period have been documented within Elgin County (MCM 2024), although a significant part of the contemporary population did not reside within sedentary, or semi-sedentary, villages and continued to traverse the land and utilize areas along waterways during the summer months and inland hunting sites during the winter.

Land use during the Woodland Period in Elgin County has been extensively documented during archaeological investigations over the past 50 years, with at least 37 sites generally dating to the Woodland Period in addition to 23 sites with Early Woodland Period attributes, 44 sites reflecting Middle Woodland Period components and 76 sites with diagnostic attributes indicating land use during the Late Woodland Period (MCM 2024). Two Woodland Period sites are located within 500 m of the western boundary of the BESS Study Area.

Early contact with European settlers at the end of the Late Woodland Period resulted in changes to the traditional lifestyles of most populations inhabiting Ontario including settlement size, population distribution, and material culture. The introduction of European-borne diseases significantly increased mortality rates, resulting in a drastic decrease in population size (Warrick 2000).

2.1.4 European Contact and Post-Contact Period

In 1615-16, Samuel de Champlain travelled with the Huron through Georgian Bay and was likely the first European to be in contact with Indigenous peoples. In 1622 Etienne Brule traveled into the area and encountered several Indigenous community groups. Champlain accompanied members of the Huron community against the Iroquois in modern-day New York State. Following the battle, many Huron returned to modern-day Ontario although by the 1640s, the Huron, Petun, and Anishinaabeg had left the area around Lake Ontario as a result of increasing conflicts with the Haudenosaunee and the warfare and disease that had arrived with European colonization.

In 1701, representatives from the Haudenosaunee and more than 20 Anishinaabeg Nations assembled in Montreal to participate in the Great Peace negotiations, sponsored by the French Governor Callière (Johnston 2006; Johnston 2004). A peace treaty between the Anishinaabeg and the Kanien'kehá:ka (Mohawk) was agreed to once again share in the bounty of the territory (One Dish, One Spoon) as partners, although this partnership was strained by the "Great Imbalance" represented by the fur trade with European capitalists (Monague 2022).

The resulting treaty document signed at Montreal was not the only record made of the Peace between the Anishinaabeg and the Haudenosaunee. At a council held at Lake Superior, the Haudenosaunee secured peace by delivering a wampum belt to the Anishinaabeg. This belt was carried by successive generations of leaders who were charged with remembering the meaning of symbols worked upon the shell beads and each generation had a responsibility to renew the peace forged by their ancestors (Johnston 2006).

Following the establishment of peace between the Indigenous Nations, the Anishinaabeg represented the primary community along and extending northward of Lake Ontario and Lake Erie (Hathaway 1930). From 1701 to the fall of New France in 1759, the fur trade continued around the Lake Ontario region with both the Ojibwa and Mississauga and various other groups within the Anishinaabeg, trading with both the English and the French.

Subsistence patterns within Indigenous communities in the Great Lakes region during the initial Contact Period included a primary focus on hunting, fishing, and gathering, with minimal focus on agriculture (McMillian and Yellowhorn 2004). The annual migratory cycle included small groups subsisting on forest game throughout the winter, moving to the groves of maple for the spring sap-run, meeting with other groups concentrated at the lake and trout and white-fish spawning grounds in spring and early summer, and seeking out the beds of wild rice in the fall. Their impact upon their environment was minimalized by population densities, although they utilized the vast landscape according to traditional lifeways (Osborne and Ripmeester 1997).

Shortly after the French abandonment around the Great Lakes, English merchant Alexander Henry ventured into the Great Lakes area where he communicated with Anishinaabeg leader Minavanana in September 1761. Henry was informed that the English would suffer retaliation for Anishinaabeg war losses unless the English King made peace with them and compensated them with gifts. Shortly after, most of the former French forts in the Great Lakes were within Anishinaabeg control. In response, King George III issued a Royal Proclamation on 7 October 1763 acknowledging that Indigenous Nations residing on all lands outside the boundaries of the settled colonies "not having been ceded to or purchased by Us, are reserved to them, or any of them, as their Hunting Grounds" (Reimer 2019:38). The territory reserved for Indigenous Nations encompassed the entire Great Lakes region and peace was secured following discussions between the British and more than 1,500 Anishinaabeg leaders at Niagara Falls in July 1764 where the alliance was sealed by two magnificent wampum belts (Johnston 2006).

Although they did not own the land, the British surrendered the Haudenosaunee settlements in modern-day New York State to the Americans in the Treaty of Paris (1783). To compensate for this loss, the British negotiated the transfer of lands along the Grand River tract from the Mississaugas to the Haudenosaunee (Hill 2017).

2.2 Contextual Study Area History

An extensive historical overview of the surrounding area is outside the current scope of work. The following is included to provide a general historical overview in relation to the potential archaeological resources that may be located within the current BESS Study Area.

First Nations have utilized land within the BESS Study Area vicinity since time immemorial, which has been recorded through oral histories, previous archaeological assessments and contextual research reports. Archaeological evidence of this land use dates at least to the Early Paleo Period and extends through the Late Woodland Period and into the contact period, representing land use over a period of approximately 11,000 years prior to the arrival of Europeans to the area.

An overview of registered archaeological sites confirming the presence of Indigenous peoples in the BESS Study Area vicinity prior to 1650 is presented in Table 1.

Table 1: Registered Archaeological Sites Confirming Indigenous Land Use Within 5 km of the Study Area BESS Study Area Prior to European Contact

Period	Sub-Period	Temporal Context	Number of Registered Sites
Paleo	Early	13,000 – 10,000 BP	0
	Middle	10,000 – 9,500 BP	0
	Late	9,500 – 9,000 BP	0
	Unspecified	11,000 – 9,000 BP	1
Archaic	Early	9,000 – 8,000 BP	3
	Middle	8,000 – 4,000 BP	3
	Late	4,000 – 2,950 BP	7

Period	Sub-Period	Temporal Context	Number of Registered Sites
	Unspecified	9,000 – 2,950 BP	0
Woodland	Early	2,950 – 2,200 BP	2
	Middle	2,200 - 1,100 BP	5
	Late	1,100 – 350 BP	8
	Unspecified	2,950 – 500 BP	1
Pre-Contact	Unspecified	11,000 – 500 BP	7

When assessed within the context of the contemporary landscape, the documentation of these archaeological sites reflects the intensified activity and the preference for land use within proximity to the Kettle Creek and Lake Erie shorelines in the BESS Study Area vicinity. Although previous archaeological investigations have not documented occupation within 1 km of the BESS Study Area prior to 9,000 B.P., the Great Lakes area has witnessed an Indigenous presence since time immemorial (Warrick 2012) and the absence of registered archaeological sites within 1 km of the BESS Study Area pre-dating the Early Archaic Period may be a result of environmental transitions and landscape disturbances following the arrival of Europeans that have influenced the propensity of earlier Paleo Period sites to be identified within the archaeological record.

The BESS Study Area falls within lands covered by the 1790 McKee Purchase (Treaty No.2), signed on 19 May 1790. The purchase is named after the Deputy Agent of Indian Affairs, Alexander McKee, who gathered with 27 Chiefs of local Ojibwa, Odawa, Pottawatomie, and Wendat nations in Detroit in order to regularize settlements on the British side of the Detroit River and the Thames Valley. McKee had been instructed by the Crown to purchase land along the shoreline of Lake Erie from Long Point to Chenal Écarté River on the St. Clair River from these gathered Chiefs. According to Treaty text, the Chiefs agreed to vacate the land for a payment of goods worth 1200 pounds of Quebec currency. This agreement contained the stipulation for the creation of only two reserves, the Huron Reserve and the Huron Church Reserve near what would later become known as Windsor (Surtees 1983).

These lands include the traditional territories of Aamjiwnaang First Nation, Chippewas of the Thames First Nation and Walpole Island First Nation, which should be noted was not surrendered during this period of purchase and treaty signing (Surtees 1983). The McKee Purchase also covered the land of Point Peele, which is the traditional territory of Caldwell First Nation who were not present for the signing of Treaty No. 2 and never agreed to surrender their lands. Nonetheless they were removed from Point Peele and were not given a reserve on which they could establish their community. In 2006, after several decades of failed talks with the federal government, Caldwell First Nation was awarded a settlement, and 10 years later were finally given land for a reserve, 17 km northwest of Point Peele in Leamington (Forester 2020).

The Irish born Colonel Thomas Talbot emigrated to Canada in 1791 where he served as personal secretary to John Graves Simcoe, Lieutenant Governor of Upper Canada. For his service, Talbot was granted 5,000 acres in Elgin County. Between the years of 1814 and 1837, the Talbot settlement grew to 50,000 inhabitants, all settling in the Thames River area. Despite his success in convincing settlers to take up residence in his settlement, Talbot was known to be despotic, and his abuse of power was a contributing factor to the Upper Canada Rebellion of 1837 (Ermatinger 1904).

Colonel Talbot believed Yarmouth Township to be the best township due to its lakefront location. The township was established in 1792, and the first lots that were settled were located along Talbot Road (Yarmouth Township Council 1967). In 1810 Captain Daniel Rapelje from New York State founded Kettle Creek village, later renamed St. Thomas after Colonel Talbot. Rapelje divided his farm into village lots, which he then sold to settlers. More families arrived in St. Thomas around this time including the Mandevilles, Drakes, Smiths, McNeils and Curtis'. Upon his return from the War of 1812, Mandeville built a grist mill on his property. At this time the entire region along Lake Erie had suffered from devastating American raids and few mills remained in this area (Mika 1977). This hardship did not last long as Yarmouth grew to be the most populous township of the Talbot settlement by the 1840s, with 24,000 acres under cultivation, five grist mills, and ten sawmills (Ermatinger 1904).

Upper Canada's first medical school was built in St. Thomas in 1824 by Dr. Charles Duncombe which grew to be quite prestigious. By 1853, St. Thomas was incorporated as a village with a population of 1,300 with the town hall having been built around the same time by the new village council was established. The first county courthouse was opened by Judge David Hughes the same year the village was incorporated. Further growth was sporadic until the 1870s when the Canada Southern and Great Western Rail companies built their lines through St. Thomas (Mika 1977). In 1885, the railway in St. Thomas became internationally notorious when the Barnum circus's most famous elephant, Dumbo, was being transferred back onto the train where it was struck by a freight train and killed (Wilson 2002).

Along Edgeware Road a small community grew and included Richard Gilbert of Devonshire, along with his wife, five sons, and three adult friends (Ermatinger 1904). Gilbert and several future prominent settler families arrived in the United States on the ship *Calypso*, with the group landing along the east coast and travelling to Buffalo, New York. There the group took refuge in a tavern whose keeper, a man named Miller, convinced the Englishmen to settle in Canada in order to continue to be "under the British Flag". The group then took the lake schooner *Niagara* under a Captain Scott and landed at Port Stanley. Gilbert and his cohort were disappointed to be met with a measly settlement of one warehouse and felt as though they had been sold a lie by the tavern keeper. However, their contract with Captain Scott meant they had to disembark regardless of their ire. Gilbert, and another man named George Westlake, took the blazed trail from Port Stanley to Port Talbot to meet with Colonel Talbot from whom Gilbert purchased land on 23 September 1831. Gilbert was given Lots 12 and 13 South of Edgeware Road and Lot 12 North of Edgware Road. The rest of the Gilbert family travelled the perilous route from Port Stanley to their new home via wagon. The family erected a rough log hut as temporary shelter before Gilbert purchased another lot to add to his 300 acres (NYWI 1951).

In 1832 the Crown patent for Lot 8, Concession 1, was granted to Edward Peverency. In 1840, Peverency sold the lot to Richard Gilbert. The 1861 census lists Marwood Gilbert, Richard's youngest son, as inhabiting a single-story frame house. It is not clear when Marwood Gilbert was granted the land, however, by 1868 Marwood is listed on the land registry as leasing part of the lot to Effie Gilbert, his mother. The 1864 Tremaine Map of Yarmouth township depicts an M.A. Gilbert on the lot which is likely Marwood (Map 3; Image 1). An 1872 directory of Yarmouth township confirms that Marwood was a freeholder on Lot 8 (ASI 1993).

Marwood Gilbert was a man of some notoriety. In 1851 he married Fanny Bluett who gave birth to his only child, a daughter. In 1859, on the day of her wedding, Marwood eloped with a female relative of Fanny's before being compelled to return the young woman to her household. Desperate to be reunited, Marwood showed up at the Bluett residence where he was shot by his brother-in-law William in the abdomen. Marwood was then returned to the Gilbert home before he managed to make a complete

recovery (Richmond Dispatch 1859). Despite this indiscretion he remained married to Fanny until her death in 1871. Twelve years later, Marwood remarried a young woman named Lucy Bluett, likely a relative of Fanny. It is possible that this was the young woman with whom he had eloped with in the late 1850s as Lucy would have been 13 at the time. The 1883 voter registration list for Elgin County lists Marwood as a resident of Port Stanley, and by 1891 he and his wife settled in Kent, Ontario. Lucy does not give Marwood any further children and he dies in 1898.

By 1877 the Page & Co Map of Yarmouth County lists R. Gilbert as a resident of Lot 8 with a homestead directly west of the BESS Study Area (Map 3). This R. Gilbert is likely the son of one of Marwood's brothers as he never had a male heir. In 1886, Richard Gilbert sold the whole lot to Thomas Penhale. The Penhale family arrived in St Thomas on the same boat as Richard Gilbert Sr. but had made their way to the city after the Gilberts had established themselves on Edgware Road (NYWI 1951). The 1861 census lists Thomas as the resident of a one and a half story brick house on Lot 10, Range 1 South of Edgeware Road. In 1887 Thomas sold the lot to Matthew Penhale. The 1861 census lists Matthew as the resident of a single-story frame house on Lot 15, Concession 7. It is likely the Penhale's never occupied Lot 8 due to their recorded occupation of houses elsewhere in the township.

In 1909 Matthew Penhale sold the lot to Edwin Smith Hokum, who then immediately sold it to George W. Dennis in 1910. That same year Dennis sold a portion of the lot to the Canadian Pacific Railway which serves as the western border of the BESS Study Area. A 1913 topographic map of St. Thomas depicts a building in the north end of the BESS Study Area. The 1921 census confirms Dennis is the head of a household located on Lot 7 - 8 North of Edgeware Road, with his residence given the number 14. By 1929 the structure is no longer present (Map 4). George Dennis appears to have passed by the 1940s as the property history lists George as deeding the property to members of the Dennis family.

An aerial image taken in 1945 depicts the BESS Study Area as an empty agricultural field (Map 5). By 1978 the BESS Study Area remained largely the same, however development has begun in the surrounding area (Map 5).

3.0 Archaeological Context

3.1 Study Area Environment and Landscape

The BESS Study Area consists of an active agricultural field that is bordered by a railway to the west and north, Highbury Avenue South to the east and a hydro station to the south (Map 2). The northern shore of Lake Erie is located 14 km to the south and Kettle Creek is located 1.5 km to the west of the BESS Study Area. The overall topography is flat.

The BESS Study Area is located in the Mount Elgin Ridges physiographic region which is a succession of ridges and vales which lie between the Thames Valley and Norfolk Sand Plain. The general elevation of this region rises from 800 m above sea level (asl) in the lowlands to 1,000 m asl in the northeast which generally gives the area a relief of 100 m and slopes greater than 10%. The two major landforms of this region provide contrasting soils; the ridges are well drained and comprised of clay till while the lowlands are imperfect to poorly drained and comprised of silt and sand. The Kettle, Catfish, and Otter Creeks drain the Westminster and St. Thomas moraines into Lake Erie. There are numerous streams within the basins with no drainage outlets which form a series of small kettles such as Mud Lake, and wide swampy hollows (Chapman and Putnam 1984). The BESS Study Area is comprised of a Till Moraine physiographic landform.

The surficial geology of the BESS Study Area is entirely comprised of Port Stanley Till which is a silty clay till. A series of bluffs are located north and southeast of the BESS Study Area, which generally run southwest to northeast. Soils within the BESS Study Area consist of the Gobles loamy phase which is an imperfectly drained soil. A small tributary of Kettle Creek drains the southwest corner of the BESS Study Area with the creek itself located 1.5 km to the west. Kettle Creek originates at Lake Whitacker and drains into Lake Erie at Port Stanley (KCCA 2024).

The BESS Study Area is located within the Niagara subregion of the Deciduous Forest Region. Prior to European agricultural practices and the removal of woodlots for agricultural purposes, the forest cover would have consisted of broadleaved trees such as; beech, sugar maple, basswood, red maple, red and white oak, bur oak, black walnut, sycamore, swamp white oak, shagbark hickory, bitternut and butternut hickory, rock elm, silver maple, and blue beech (Rowe 1972).

3.2 Previously Completed Archaeological Assessments

A review of the MCM (2025) database and accessible reports was undertaken on 25 March 2025 and identified 7 previously completed archaeological assessments that encompassed the Stage 1 and 2 BESS Study Area and adjacent 50 m radius (Table 2; SD04).

Table 2: Previously Completed Archaeological Assessments within 50 m of the Project Area

Report Title	MCM PIF Number	Report Date	Results/Recommendations	Location
Stage 1 and 2 Archaeological Assessment Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario	P311-0354-2024	April 2025	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Overlaps current BESS Study Area
Stage 3 Archaeological Assessment Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas,	P311-0355-2024	September 2025	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Overlaps current BESS Study Area
Stage 1 and 2 Archaeological Assessment, Dalewood Meadows Subdivision, City of St. Thomas, Elgin County	1993-016	July 1993	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Overlaps current BESS Study Area
Stage 1 Archaeological Assessment, Proposed Development, Elgin County	P324-0708-2021	March 2022	Stage 2 archaeological assessment recommended for part of the study area	Outside current BESS Study Area
Stage 1 and 2 Archaeological Assessment, Proposed Industrial Development, City of St. Thomas, Elgin County	P324-0737-2022	November 2022	Additional archaeological assessment required for sites that retain Cultural Heritage Value or Interest (CHVI)	Outside current BESS Study Area
Stage 1 Archaeological Assessment, Proposed Road Widening, City of St. Thomas, Elgin County	P243-0506-2023	September 2023	Stage 2 archaeological assessment recommended for part of the study area	Overlaps current BESS Study Area
Stage 1 and 2 Archaeological Assessment, Proposed Centennial Transformer Station	P1189-0041-2023	February 2024	No additional archaeological assessment recommended	Outside current BESS Study Area

The following subsections provide relevant information for the assessments that were completed within the limits of the BESS Study Area.

Stage 1 and 2 Archaeological Assessments, Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario (P311-0354-2024)

A Stage 1 and 2 archaeological assessment was completed as part of the current EA process, which determined the entire triangular shaped BESS Study Area retained archaeological potential. The Stage 2 component identified a scatter of 14 Pre-contact Indigenous flakes, one possible spokeshave and a late Woodland period projectile point. However, as the artifacts were widely distributed across the entire BESS Study Area, Stage 3 was not triggered by the MCM requirements. One previously recorded archaeological site, AeHg-61, was re-identified, while 5 additional scatters were recorded: AeHg-142, AeHg-159, and Locations 01 – 03. The Stage 1 and 2 AA provided the following recommendations:

1) *The historic component of AeHg-61 can be dated to the early and mid 19th century and therefore meets the criteria outlined in Standard 2.2.1 in the MCM Standards and Guidelines for Consultant Archaeologists (MCM 2011) (Map SD-11). The Stage 3 assessment should be completed by a means of 1 m test units at 5 m intervals across the site with an additional 20% infill units in areas of interest.*

2) *As 80% of the historic artifact assemblage for AeHg-142 postdates 1870 and where the historical background research has sufficiently demonstrated that the site does not retain CHVI, no further work is recommended for the scatter of artifacts as defined on Map SD-1 and SD-2.*

3) *Single component L-01 and L-02 and the historic component of AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 3.4.2 Standard 1 and as such, no further work is recommended.*

4) *The pre-contact Indigenous period components of AeHg-61, AeHg-142, AeHg-150 and L-03 do not meet the minimum requirements for Stage 3 as outlined in Section 2.2 Standards 1 or Section 3.4.1 Standard 1 and as such, no further work is recommended.*

5) *No further archaeological assessment is recommended for portions of the BESS Study Area that are not identified in this report as requiring further archaeological assessments as outlined on Map SD-11.*

Stage 3 Archaeological Assessment, Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario (P311-0355-2024)

Following the reidentification of AeHg-61 in the Stage 1 and 2 AA, a Stage 3 AA was completed. The results of the Stage 3 AA indicated that AeHg-61 represented a historical occupation dating to the mid 19th century likely associated with the occupation of the lot by Marwood Gilbert. Forty-seven units 1 m x 1 m test units were excavated and a total of 2,311 artifacts were recovered, 99.9% of which were Post-Contact historic artifacts and 0.1% were Pre-Contact artifacts. Three features were identified as part of the Stage 3 assessment which likely represented the demolition of a structure in the surrounding area. Due to the inferred date of the site and the identification of cultural features, the site was deemed to retain CHVI and require a Stage 4 Mitigation of Development Impacts. A more detailed description of the Stage 3 sites specific archaeological assessment of AeHg-61 can be found in the cited Stage 3 TNAS report (TNAS 2025b). The Stage 3 AA provided the following recommendation:

1) *AeHg-61 possesses CHVI and Stage 4 mitigation of development impacts is recommended prior to any further impacts or disturbances to the project landscape. As AeHg-61 is located within the proposed Edgeware Battery Energy Storage System Project footprint and cannot be avoided, the Stage 4 mitigation of development impacts should consist of the mechanical topsoil removal of the plough zone down to the subsoil interface to expose potential cultural features. Mechanical topsoil removal should continue to the edges of the original Stage 3 unit excavations and 10 m past any identified cultural feature. The Stage 4 mitigation by mechanical topsoil removal should follow the standards outlined in Section 4.2.3 of the MCM's (2011) Standards and Guidelines for Consultant Archaeologists.*

Stage 1 and 2 Archaeological Assessment, Dalewood Meadows Subdivision (PIF Number 1993-016)

A Stage 1 and 2 archaeological assessment was completed for the original property development boundary in 1993 (ASI 1993). This assessment was completed before the publication of *The Standards and Guidelines for Consulting Archaeologists* in 2011.

The Stage 2 field assessment included pedestrian survey of ploughed fields, and test pit survey at 5 m intervals. Twenty sites were identified during the Stage 2 assessment, 3 of which were historic, while the remaining 17 were pre-contact. Only 5 of the sites recorded met the MCM criteria at the time for possessing Cultural Heritage Value or Interest (CHVI) and were designated as Borden Numbers AeHg-61, AeHg-62, AeHg-63, AeHg-63, AeHg-64 and AeHg-65 respectively.

The Stage 1 and 2 archaeological assessments provided the following recommendations:

1) *Find Locations 1-1,2-2,2-3,2-4,2-9,2-10,2-15,2-19,2-20,2-21,2-23, 3-2, 4-1, 5-1, and 5-2 are of insufficient cultural heritage value to warrant further investigation.*
2) *Find Location 1-4 (AeHg-61) is of sufficient cultural heritage value to warrant a Stage 3 archaeological assessment as per MTCS Standards and Guidelines Section 2.2.1c, in order to verify the date of occupation and size of artifact scatter.*
3) *Find Location 2-13 (AeHg-62), 2-14 (AeHg-63), 2-17 (AeHg-64), and 3-1 (AeHg-25) were registered as they consisted of one single diagnostic artifact which was determined to be reflective of the extensive use of the area, despite later disturbance to the area.*
4) *The property, with the exception of AeHg-61 in the southeast corner of the study area should be released of any further heritage concerns.*

In addition to AeHg-61, ASI identified Location 1-1 which was mapped as being located within the northern corner of the current BESS Study Area. Based on the ASI Stage 2 assessment, Location 1-1 was interpreted to be a historic scatter dating from the late 19th century to possibly the mid 20th century. Due to late date of the artifact assemblage represented at Location 1-1, ASI recommended no further work.

Stage 2 Archaeological Assessment, Proposed Road Widening, City of St. Thomas, Elgin County (PIF Number P243-0506-2023)

A Stage 1 archaeological assessment was conducted within Lots 8 to 11 Concession 11, Lots 6 to 8 and 10 Range 1 South of Edgeware Road, and Lots 7 to 9 Range 1 North of Edgeware Road as part of a Schedule C Municipal Class Environmental for the purposes of Road Widening. The assessment area was found to retain potential with the exception of portions which had been previously mitigated or were part of established roadway ROWs. The assessment, however, identified the BESS Study Area as having

been previously assessed and cleared of any further archaeological assessments, despite the ASI report which identified site AeHg-61 as requiring further work.

The Stage 2 archaeological assessment provided the following recommendations:

1) *A Stage 2 archaeological assessment was recommended for portions of the study area which should be completed by means of shovel test pit and pedestrian survey.*

3.3 Known Archaeological Sites and Resources Within One Kilometre of BESS Study Area

The primary source of information regarding previously registered archaeological sites within the Province of Ontario is the MCM archaeological sites database which designates archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 km east to west and approximately 18.5 km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found.

A search of the MCM online database for registered archaeological sites was completed on 25 March 2025 and indicated thirteen registered archaeological sites within 1 km of the BESS Study Area (MCM 2024). An overview of the known archaeological sites and resources located within 1 km of the BESS Study Area is provided in Table 3. Blank entries within the table indicate the relevant information was not included with the corresponding entry in the MCM database or available from accessible reports.

Table 3: Registered Archaeological Sites within 1 km of the Study Area BESS Study Area

Borden Number	PIF(s) Associated with Site	Spatial Relationship to Study Area	Temporal Context	Cultural Context	Inferred Site Type	Development Review Status
AeHg-61	1993-016	Within project area	Post-Contact	Euro-Canadian	Scatter	Further CHVI
AeHg-62	1993-016	450 m west	Late Woodland	Indigenous	Findspot	No Further CHVI
AeHg-63	1993-016	250 m west	Late Archaic	Indigenous	Findspot	No Further CHVI
AeHg-64	1993-016	470 m west	Early Woodland	Indigenous	Findspot	No Further CHVI
AeHg-65	1993-016	990 m west	Late Woodland	Indigenous	Findspot	No Further CHVI
AeHg-69	1998-010	975 m northwest	Middle Woodland	Indigenous	Findspot	No Further CHVI

AeHg-118	P324-0737-2022	290 m east	Middle Archaic	Indigenous	Findspot	No Further CHVI
AeHg-119	P324-0737-2022; P324-0757-2022	815 m southeast	Early Archaic	Indigenous	Findspot	No Further CHVI
AeHg-122	P324-0761-2022	955 m east	Pre-Contact; Post-Contact	Indigenous; Euro-Canadian	Findspot; Farmstead	Further CHVI
AeHg-124	P324-0761-2022; P324-0772-2022; P324-0791-2022	260 m east	Post-Contact	Euro-Canadian	Farmstead	No Further CHVI
AeHg-136	P450-0112-2023	833 m south				
AeHg-142	P311-0354-2024	100 m north	Post-Contact	Euro-Canadian	Scatter	No Further CHVI
AeHg-150	P311-0354-2024	70 m north	Post-Contact	Euro-Canadian	Scatter	No Further CHVI

AeHg-61, AeHg-142 and AeHg-150 represents the only registered archaeological sites situated within 100 m of the current BESS Study Area. AeHg-61, subject of the current Stage 4 mitigation by MTR was originally discovered during the Stage 1 and 2 archaeological assessments for the Dalewood Meadows Subdivision (ASI 1993). Subsequently, AeHg-61 was investigation under PIF P311-0354-2024 and determined to retain CHVI. AeHg-142 and AeHg-150 were identified and assessed under PIF P311-0354-2024 and reported on by True North Archaeological Services Inc (2025a). Both sites were represented early 20th century historic scatters that did not contain CHVI. No further work was recommended (TNAS 2025a).

4.0 Summary of Stage 3 Archaeological Investigation

4.1 Stage 3 Methodology

Due to the cultural heritage value or interest (CHVI) identified for AeHg-61 during the Stage 2 archaeological assessment (TNAS 2025), a Stage 3 site specific archaeological assessment comprising the hand excavation of 1 m² test unit excavations were completed over 7 days between 23 – 29 September 2024.

The Stage 3 grid was established directly after the Stage 2 controlled surface pickup (CSP) with the limits defined by the distribution of surface finds (Map 6). A total of 47 Stage 3 test units measuring 1 m² were hand excavated at least 5 cm into sterile subsoil, expect where potential cultural features were identified (Maps 7). Each unit was excavated and recorded by stratigraphic lot. The archaeological investigation continued until the site boundary was established within the development property boundary and the landscape limitations and resulted in the recovery of 2,311 culturally significant artifacts and the identification of three cultural features.

4.2 Site Stratigraphy

The stratigraphy was fairly uniform across the site due to its location within a ploughed field. The only exception was along the western edge, where units in the field margin showed slightly different soil characteristics. Lot 1, which was found in every united except the E500 line was generally 16 – 39 cm thick and consisted of brown clay loam ploughzone. Lot 2 was the first lot encountered within units located in the E500 line was generally 40 – 50 cm thick and consisted of brown clay loam former plough zone. Subsoil varied across site and consisted of either and orange-brown silty clay, a yellow orange brown clay sand, and a yellow brown silty sand. Lots 4 to 9 are associated with features, however as none of the features were fully exposed none of these lots were excavated and have no associated artifacts. All of the features were covered with geotextile fabric and reburied under topsoil. A total of three features were identified during the Stage 3 archaeological assessment. Features 1 and 3 were identified as deposits likely associated with the occupation of Marwood Gilbert's homestead in the 19th century due to the inclusion of degrading brick, mortar, charcoal and ash. Feature 2 was identified as a possible occupation layer due to the deposit consisting of looser and darker soils.

4.3 Material Culture

A total of 2,311 artifacts were recovered during the Stage 3 test unit excavations, 2,309 of which were Post-contact Historic artifacts likely of Euro-Canadian origin and two of which were Pre-Contact artifacts likely of Indigenous origin.

The most common artifact function was food/beverage (74%), followed by structural material (16%), faunal remains (4%), fuel (3%), and personal/societal (2%), with the remaining tools/equipment, indeterminate, furnishings, Indigenous lithics, arms/ammunition, and health/hygiene each representing less than 1% of the total assemblage.

Ceramic tableware can provide insight into the temporal nature of the artifact assemblage as ceramic ware types and decoration styles were used during specific time frames. The majority of the assemblage consists of refined white earthenware (RWE), which first went into production in 1805 but mostly became available in Canada by 1830 and is still produced at present (Miller et al. 2000). As such, RWE on its own is not a good indicator for dating a site. The second highest ware type is Pearlware which can be

grouped with Creamware as ware types that were popular from the late 18th century to early 19th century. Pearlware is often referred to as “China glazed” as it was manufactured in an attempt to recreate the look of Chinese porcelain pottery. Creamware was also known as “Queen’s ware” whose distinctive feature was a yellow-tinged glaze. Creamware vessels were commonly left plain with moulded borders (Kenyon 1991). The ceramic tableware assemblage and associated decorative styles generally provides a date from the early to mid-19th century for the AeHg-61 site. Spatially, the ceramic tableware assemblage was diffused and spread across the site, which is generally expected for a site located within a post-dating ploughed agricultural field. There were no notable concentrations of datable tableware in any specific area of AeHg-61.

The glass assemblage of the food/beverage group may also provide insight into the temporal nature of a site. Fifty-two (83%) examples of mould blown glass were recovered while 8 (13%) examples of machine made glass were documented. Moulded contact glass was one of the first commercial manufacturing techniques which began in the 18th century. This was then replaced by machine made glass starting around 1881 (Jones & Sullivan 1989). Two mould blown bottles retained partial finishes: wine and packer finish, respectively. Packer finishes, when combined with emerald green were likely made during the 1860s. The wine finish was a common style on bottles manufactured between the 1860s and the 1920s (Lindsey 2010). Of note is the occurrence of machine made glass (n=8) which provides a late 19th century date. Pressed glass made up 5% of the glass assemblage with one piece being decorated with a flower or sunburst.

A total of 376 structural artifacts were recovered from the AeHg-61 Stage 3 excavations. Of note is the nail assemblage which consisted of cut, wrought and wire nails. Production of machine cut nails first began in 1805 but did not become readily available in more rural areas until decades later (Vincent 1993). Wire nails on the other hand were first mass produced around the 1870s but did not become available in rural areas until the later part of the 19th century. The presence of predominantly cut nails with lesser frequencies of both wrought and wire points to a period of occupation within the middle of the 19th century as all three manufacturing processes are present.

The artifact assemblage of AeHg-61 generally confirms an early to mid 19th century occupation for the AeHg-61 site.

5.0 Stage 4 Archaeological Investigation

5.1 Stage 4 Methodology

The Stage 4 mitigation of development impacts was completed by means of mechanical topsoil removal (MTR) and hand excavation of exposed features over 3 days between the 26th and 28th of May 2025 (Images 3 to 5). The Stage 4 limits and features were mapped out using a Samsung TAB A tablet in the field.

The Stage 4 feature excavations were conducted according to the fieldwork methodology detailed in the MCM *Standards and Guidelines for Consultant Archaeologists* (2011). The limits of the Stage 4 MTR was primarily based on the Stage 3 site specific archaeological assessment results (TNAS 2025b) and was compliant with Section 4.2.3. of the MCM *Standards and Guidelines for Consultant Archaeologists* (2011). MTR was completed using a Toromont CAT 626F excavator with a 1.21 m wide smooth bucket (Images 6 & 7). All mechanically excavated soils were pulled towards the excavator to provide the ability to recognize any potential subsurface features or artifact concentrations. The initial MTR stopped at the

topsoil/subsoil interface (MCM S&G Section 4.2.3, Standard 3) to investigate the potential for cultural resources or features. The exposed subsoil surface was immediately cleaned by shovel and/or trowel following MTR (MCM S&G Section 5.2.3, Standard 6) and the inspection of the subsoil surface was completed before the soils could dry out (MCM S&G Section 4.2.3, Standard 4). The Stage 4 archaeological assessment was also guided by the following objectives:

- Determine the nature and CHVI of subsurface deposits and features;
- Assess the historical context of the site;
- Mitigate archaeological resources within the Stage 4 excavation area;
- Provide appropriate recommendations following the completion of the Stage 4 excavation.

Prior to initiating the Stage 4 MTR, the boundary defining the area recommended for Stage 4 mitigation was uploaded to a Samsung TAB A tablet, which was used to establish the Stage 4 mitigation area. The Stage 4 limits was defined by the property boundary running along the western edge and the limits of the Stage 3 assessment, plus an additional 10 m past any intact archaeological feature exhibiting CHVI. Stage 4 field data was collected during the Stage 4 archaeological assessment using a Trimble DA2 GNSS receiver with the Catalyst real-time kinematic (RTK) network positioning subscription service providing sub-decimetre horizonal accuracy. All survey data was collected using the Universal Transverse Mercator (UTM) projection and North American Datum 1983 (NAD 83, Zone 17). The spatial data was collected in the field using QField GIS software on a Samsung TAB A tablet. The Stage 3 units and location of Stage 3 features were uploaded to the tablet to provide the ability to spatially locate all locations of interest during the Stage 4 MTR and confirm the accuracy of the topographic survey by geolocating the outline of the Stage 3 units visible in the ploughzone/subsoil interface.

The Stage 4 archaeological fieldwork was completed during daylight hours and under favorable weather conditions that did not hinder the archaeological fieldwork or recording of archaeological deposits. An overview of the weather conditions for each field day is provided in Table 4.

Table 4: Weather conditions during Stage 3 Archaeological Assessment

Date of Stage 4 Fieldwork	Weather Conditions in the Field	Temperature High (°C)
26 May 2025	Sunny with clouds	21
27 May 2025	Sunny	21
28 May 2025	Cloudy to light rain	10

A total of 7 subsurface features were assessed for cultural significance during the Stage 4 excavation, including 3 features initially recorded during the Stage 3 assessment (TNAS 2025b) and 5 features discovered during the Stage 4 MTR. Feature 1 and 3 originally uncovered during the Stage 3 assessment were determined to represent a single feature after complete exposure during the Stage 4 MTR. As a result, Features 1 and 3 from the Stage 3 were renumbered to Feature 1 for the Stage 4. Feature 2 from

the Stage 3 remained as Feature 2. All newly identified features uncovered during the Stage 4 assessment were numbered Features 3 through 7.

Following the complete exposure and delineation of each feature, the features were drawn in plan view, cross sectioned and drawn in profile.

Each feature within the Stage 4 excavation area was hand excavated, with soils screened through 6 mm mesh. Artifacts were collected and recorded based on provenience correlating to the feature number and/or stratigraphic lot where they were observed. Brick fragments greater than 10 cm in diameter were collected, and samples of architectural materials such as plaster, mortar, charcoal, slag and clinker were collected from each representative stratum where they were identified. Artifacts recovered during the Stage 4 excavation were taken to the TNAS laboratory in Ottawa for analysis and cataloguing. A complete artifact inventory has been produced and is included as Appendix A.

Following the completion of the Stage 4 archaeological assessment, the MTR area was backfilled with the originally excavated soils.

A field log was maintained for the duration of the Stage 4 investigation detailing information of archaeological and project significance. This documentary record was supplemented by field recording forms that included specific information for each feature. Digital photographs were taken of the Stage 4 MTR area and process, and all archaeological features and of specific soil profiles. The location and direction of each field image provided in this report is illustrated on Map 10.

Following the completion of the Stage 4 assessment, contemporary aerial imagery was collected using a DJI Mini 3 drone. Ground control points were surveyed using the Trimble DA2 GNSS receiver and the aerial imagery was geo-referenced within the project spatial database.

Permission to access the property to complete the Stage 4 archaeological assessment was provided by DNV on behalf of the proponent, Edgeware BESS Project Limited Partnership. No restrictions or limitations were placed on accessing the property to complete the archaeological assessment.

5.2 Artifact Analysis and Curation Methods

This report and the corresponding artifact inventory (Appendix A) provide a record of the cultural materials recovered during the Stage 4 archaeological assessment completed for the study area detailed on Maps 8 to 10. This information provides a basis for the analysis and recommendations regarding the significance of the recovered cultural materials and appropriate mitigation measures. This report also aims to provide sufficient information that a future researcher may determine whether cultural materials recovered from the study area are relevant to their investigation.

5.2.1 The Inventory System

The artifact inventory was compiled in a Microsoft Office Access database system. Each entry in the project specific database contains the following information:

- An individual inventory number
- Spatial location (provenience) within the study area (operation, stratigraphic layer, etc.)
- Artifact analysis (see below)
- Quantity

5.2.2 Artifact Analysis

The artifact analysis was based on the MCM's standard requirements, detailed in Tables 6.1 and 6.2 of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011). Each artifact entry in the database includes material composition, artifact type (object), the function that it served and if any alterations had been made to the original artifact (e.g., burning). Additional artifact descriptions were based on the type of artifact (see below).

5.2.3 Euro-Canadian Historical Artifacts

Euro-Canadian historical artifacts generally include ceramic objects, glass items, and other inorganic and organic cultural material (e.g., metal, stone, flora, fauna, etc.). Date ranges are provided where possible, with all references cited. All other artifacts are described in as much detail as possible, including surface treatment, decorative pattern and technique of manufacture where applicable and identifiable.

5.2.4 Archaeobotanical Remains

Soil samples are generally taken from large features, such as root cellars in accordance with Standards 4.4.1, 4.4.2 and 4.4.3 of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011). Archaeobotanical analysis was completed by Morningstar Archaeology and Paleobotany Inc. (MAP) on 8 samples taken from Feature 1. The soil samples were subject to floatation, subsampling and analysis by MAP. Section 6.4 provides a summary of the archaeobotanical results while Appendix B provides the full detailed analysis.

5.2.5 Storage and Curation

The artifact collection recovered during the Stage 3 archaeological assessment at the AeHg-61 site was packed for storage by spatial location (provenience). When inventoried, artifacts were bagged in transparent, re-sealable (zippered) polyethylene bags that are inert and moisture resistant. Contents were identified on archival quality labels (acid-free, non-yellowing, acrylic adhesive), with an archival ink that is permanent and fade resistant. The artifact bags were then placed in a banker's box (12" W x 15" D x 10" H).

Artifact collections are stored in the TNAS Ottawa office until the report has been submitted and cleared by the MCM, after which they will be moved to a secure, indoor, climate controlled storage facility.

This Stage 4 collection contains 1,332 artifacts and is packed in one banker boxes.

6.0 Record of Finds

The Stage 4 archaeological fieldwork was conducted employing methods described in Section 5.0 of this report. An inventory of the documentary record generated from the Stage 4 fieldwork is provided in Table 5. Maps indicating the exact site location and each archaeological features are included in the Supplemental Documentation to this report.

Table 5: Inventory of Documentary Record for Stage 4 Field Investigation

Document/Data Type	Current Location of Document/Data	Additional Comments
Field Notes	TNAS Office, Ottawa	Original field notebook with scanned copy in project file
Maps Provided by Client	TNAS Office, Ottawa	Stored electronically in the project file
Digital Photographs	TNAS Office, Ottawa	Stored electronically in the project file
GPS/GIS Data	TNAS Office, Ottawa	Stored electronically in the project file

6.1 Site Stratigraphy

The site stratigraphy was correlated across the entire site and was continued from the Stage 3 excavation (TNAS 2025b). All lots identified during the Stage 3 and/or Stage 4 excavation are detailed in Table 6. Red text denotes lots documented during the Stage 3 only, blue text represents lots identified during the Stage 4 only, and black text indicates lots recorded during both the Stage 3 and Stage 4 assessments.

Table 6. Site Stratigraphy at AeHg-61

Lot #	Context	Soil Description	Compaction	Average Thickness (cm)	Inclusions	Feature(s)	Number of Artifacts	Notes
1	Ploughzone	Brown clay loam	Medium to loose	16-39cm	Rootlets		1,495	
2	Topsoil – remnant ploughzone	Brown clay loam	Medium to loose	40-50cm	Rootlets		816	
3	Subsoil	Orange brown silty clay/ yellow orange brown clay sand/ yellow brown silty sand	Medium to hard	5-31cm	n/a		n/a	

Lot #	Context	Soil Description	Compaction	Average Thickness (cm)	Inclusions	Feature(s)	Number of Artifacts	Notes
4	Feature 1 fill (Feature 1 in the Stage 3)	Brown clay mottled with yellow orange clay	Medium	n/a	Degraded brick and charcoal	1	n/a	Identified as Lot 16 in the Stage 4
5	Feature 1 fill (Feature 1 in the Stage 3)	Brown loam mottled with grey, white ash	Medium	n/a	Charcoal	1	n/a	Identified as Lot 11 in the Stage 4
8	Feature 1 fill (Feature 3 in the Stage 3)	Brown clay loam mottled with yellow orange silty clay	Medium	n/a	Charcoal, degrading brick, mortar	1	n/a	Identified as Lot 16 in the Stage 4
9	Feature 1 fill (Feature 3 in the Stage 3)	Brown clay loam	Medium	n/a	Degrading brick, charcoal	1	n/a	Identified as Lot 11 in the Stage 4
10	Feature 3 fill	Dark brown sandy clay	Medium	10 cm	n/a	3	37	
11	Feature 1 upper fill	Brown clay loam mottled with beige clay	Medium	40-60 cm	charcoal	1	220	
12	Feature 4 fill	Dark grey sandy clay mottled with red sand	Medium	30 cm	n/a	4	n/a	
13	Degraded wood lining	Brown clay loam	Medium loose	20 cm	Degraded wood, mortar, charcoal, ash	1	223	
14	Feature 7 fill	Dark grey clay mottled with red sandy clay	Medium	15 cm	charcoal	7	n/a	
15	Feature 6 fill	Dark grey clay mottled	Medium	15 cm	n/a	6	23	

Lot #	Context	Soil Description	Compaction	Average Thickness (cm)	Inclusions	Feature(s)	Number of Artifacts	Notes
		with brown sandy clay						
16	Feature 1 demolition fill					1	130	
17	Feature 1 lower fill	Brown clay loam	Medium loose	60-70 cm		1	688	
18	Feature 2 fill	Black sand	Medium	25 cm	Ash, cobbles and gravel	2	n/a	
19	Feature 2 fill	Dark grey brown sandy loam	Loose	22 cm	plastic	2	3	Identified as Feature 2 in the Stage 3
20	Feature 1 entry fill	Brown clay loam	medium	20 cm	charcoal	1	8	

It should be noted that although Lot 2 has been identified as topsoil, that historically it was within the ploughed agricultural field. The topsoil did not exhibit the typical humic development commonly seen in undisturbed Gobles loam topsoil and as such it was interpreted as a remnant ploughzone.

6.2 Features

Each identified subsurface feature was assigned a unique feature number. The feature numbers were correlated across the entire site and were continued from the Stage 3 excavation (TNAS 2025b). All features documented during the Stage 3 and/or Stage 4 excavation are detailed in Table 7. Dimensions including length, width and thickness are only provided for features that were completely exposed and not integrated within a larger feature context.

The location and spatial extent of each feature is illustrated on Map 8, and the location and direction of each field image provided in this report is included on Map 10.

A total of 7 subsurface features were assessed for cultural significance during the Stage 4 excavation, including 3 features initially recorded during the Stage 3 assessment (TNAS 2025b) and 5 features discovered during the Stage 4 MTR. Feature 1 and 3 originally uncovered during the Stage 3 assessment were determined to represent a single feature after complete exposure during the Stage 4 MTR. As a result, Features 1 and 3 from the Stage 3 were renumbered to Feature 1 for the Stage 4. Feature 2 from the Stage 3 remained as Feature 2. All newly identified features uncovered during the Stage 4 assessment were numbered Features 3 through 7.

Further investigation during the Stage 4 excavation through cross sectioning following the full exposure of each subsurface feature determined that only 2 distinct features recorded during the Stage 4 excavation (Features 1 and 3) represent cultural features associated with the historic occupation of the site.

Table 7: AeHg-61 Feature Descriptions

Feature Number	First Identified In	Length (cm)	Width (cm)	Average Thickness (cm)	Associated Lot(s)	Context	Image(s)	Map(s)
1	Stage 3	420	480	80-106	4, 5, 8, 9, 11, 13, 16, 17, 20	Root cellar	3, 4, 8-13	7, 8, 9, 10
2	Stage 3	280	80	22	19	Modern refuse pit	20	8 and 10
3	Stage 4	150	115	10	10	Refuse pit	5, 14, 15	7, 8, 9, 10
4	Stage 4	100	175	30	12	Not cultural	18 and 19	8 and 10
5	Stage 4	125	180	25	18	Not cultural Burn event	16 and 17	8 and 10
6	Stage 4	65	195	25	15	Not cultural	23 and 24	8 and 10
7	Stage 4	95	100	15	14	Not cultural	21 and 22	8 and 10

Information detailing features that were completely exposed and investigated during the Stage 4 archaeological assessment is provided below.

6.2.1 Feature 1

Length: 420 cm	**Width**: 480 cm	**Avg. Thickness**: 80-106 cm
Associated Lot: 4, 5, 8, 9, 11, 13, 16, 17, 20	**Number of Artifacts:** 1,269	
Image Number(s): 3, 4, 8 to 13, (See TNAS 2025b for Stage 3 pictures)	**Map Number(s)**: 7, 8, 9, 10	

Feature 1 was originally identified as Features 1 and 3 within Stage 3 units N525 E515, N527 E516 and N524 E514 and situated along the eastern edge of AeHg-61 (TNAS 2025b). This feature was completely exposed during the Stage 4 MTR and confirmed to possess CHVI. Based on the results of the Stage 4, Feature 1 has been interpreted to be a small root cellar. The cellar was mostly covered in a fill (Lot 11) which was drawn in plan view pre-excavation. Lots 5 and 9, identified during the Stage 3, are likely apart of the same depositional event as Lot 11. Following excavation, the feature was determined to be sub-square in shape. Beneath Lot 11, the feature was circular in plan view with a possible entryway in the southeastern quadrant (Lot 20). Lot 13 consists of the degrading wood lining of the feature which extended around all four quadrants of the feature. Lot 16 has been interpreted to represent a demolition layer due to the presence of degrading brick, charcoal, mottled subsoil and topsoil and mortar. Lots 4 and 8, identified during the Stage 3, are likely part of the same depositional event as Lot 16. Finally, Lot 17

consisted of fill within the wood lined cellar feature. At the base of the cellar, Lot 16 contained a thicker deposit of ash.

6.2.2 Feature 2

Length: 280 cm	**Width**: 80 cm	**Avg. Thickness**: 22
Associated Lot: 19	**Number of Artifacts:** 3	
Image Number(s): 20	**Map Number(s)**: 8 & 10	

Feature 2 was located along the western edge of AeHg-61 during the Stage 3 assessment and was originally interpreted to be an occupation layer located in unit N515 E500 (TNAS 2025b). This deposit was completely exposed during the Stage 4 mechanical topsoil removed and was determined to possess CHVI and was sectioned and excavated. However, once the first section of the feature had been excavated, plastic bag remnants were encountered at the bottom of the feature. It was therefore determined to be a modern construct.

6.2.3 Feature 3

Length: 150 cm	**Width**: 115 cm	**Avg. Thickness**: 10 cm
Associated Lot: 10	**Number of Artifacts:** 37	
Image Number(s): 5, 14 & 15	**Map Number(s)**: 7, 8, 9, 10	

Feature 3 was completely exposed during the Stage 4 MTR and was confirmed to possess CHVI following excavation. The feature was rectangular in plan and was irregular and shallow in profile. A number of artifacts were recovered that were contemporary with the occupation of the site by Marwood Gilbert, due to the concentration of the artifacts the feature was determined to be a historic refuse pit.

6.2.4 Feature 4

Length: 125 cm	**Width**: 180 cm	**Avg. Thickness**: 25
Associated Lot: 18	**Number of Artifacts:** 0	
Image Number(s): 18 & 19	**Map Number(s)**: 8 & 10	

Feature 4 was exposed in the northern extent of AeHg-61 during the Stage 4 MTR. The feature slightly overlaps with unit N540 E503 which exhibited a very slight discoloration at the subsoil interface during the Stage 3. The discoloration was determined to be the result of natural formation processes during the Stage 3 and was excavated within the unit. Following hand excavation during the Stage 4, the feature was determined not to be cultural and the result of root burn. No artifacts were recovered as a result of the excavation.

6.2.5 Feature 5

Length: 100 cm	**Width**: 175 cm	**Avg. Thickness**: 30
Associated Lot: 12	**Number of Artifacts:** 0	
Image Number(s): 16 & 17	**Map Number(s)**: 8 & 10	

Feature 5 was exposed in the northwest corner of AeHg-61 during the Stage 4 MTR. Following hand excavation, the feature was determined not to be cultural and the result of bioturbation and root burn. No artifacts were recovered during the feature excavation.

6.2.6 Feature 6

Length: 65 cm	**Width**: 195 cm	**Avg. Thickness**: 25
Associated Lot: 15	**Number of Artifacts:** 23	
Image Number(s): 23 and 24	**Map Number(s)**: 8 & 10	

Feature 6 was exposed in the southern half of AeHg-61 during the Stage 4 MTR. Following hand excavation, the feature was determined to be not cultural and consisting of irregular undulation in the subsoil. Twenty-three artifacts were recovered as a result of the excavation and determined to have resulted from intrusion from the upper plough zone deposits.

6.2.7 Feature 7

Length: 95 cm	**Width**: 100 cm	**Avg. Thickness**: 15
Associated Lot: 14	**Number of Artifacts:** 0	
Image Number(s): 21 and 22	**Map Number(s)**: 8 & 10	

Feature 7 was exposed in the southern portion of AeHg-61 during the Stage 4 MTR. Following excavation, the feature was determined to be not cultural and the result of root burn. No artifacts were recovered as a result of the excavation.

6.3 Material Culture Analysis

Of the 1,332 artifacts recovered during the Stage 4 feature excavation, 1,269 were recovered from Feature 1, followed by 37 artifacts recovered from Feature 3, 23 from Feature 6, and 3 from Feature 2.

6.3.1 Feature 1

A summary of the artifacts classified by function is presented in Table 8. The most common function represented in the assemblage was food/beverage (59%), followed by fauna/flora (20%), structural material (12%), personal/societal (6%), and indeterminate (3%), with the remaining tools/equipment and military each representing less than 1% of the total assemblage.

Table 8: Artifact Function Totals

Function	Number	% of Total Assemblage
Food/Beverage	743	59%
Fauna/Flora	252	20%
Structural Material	153	12%
Personal/Societal	79	6%
Indeterminate	40	3%
Arms and Ammunition	1	<1%
Tools/Equipment	1	<1%
Total	**1,269**	**~100%**

Table 9 presents the total artifacts recovered by Lot and material type for Feature 1. Lot 17 contained the highest number of artifacts (n=688) representing 54% of the total Feature 1 assemblage. Lot 13 was next highest with 18%, followed by Lot 11 (17%), Lot 16 (10%) and Lot 20 (8%).

Common across lots was ceramics being the predominant material type generally followed by faunal remains, and either glass or metal.

Table 9: Feature 1 Artifacts by Lot

Lot and Material	Number	% of Total Assemblage
Lot 17	**688**	54%
ceramic	*351*	
fauna	*159*	
metal	*100*	
glass	*76*	
flora	*2*	
Lot 13	**223**	18%
ceramic	*164*	

Lot and Material	Number	% of Total Assemblage
fauna	*46*	
glass	*4*	
metal	*7*	
mortar	*1*	
stone	*1*	
Lot 11	**220**	17%
ceramic	*189*	
fauna	*13*	
glass	*13*	
metal	*5*	
Lot 16	**130**	10%
ceramic	*78*	
fauna	*36*	
glass	*9*	
metal	*7*	
Lot 20	**8**	1%
ceramic	*7*	
metal	*1*	
Total	1,269	100

As each Lot identified within Feature 1 represents a separate depositional event, the following sections present a detailed artifact analysis of the Feature 1 assemblage by Lot.

6.3.1.1 Lot 17

Feature 1 Lot 17 consists of the lower fill and is located beneath Lot 11 and within Lots 13 and 16 which consist of the wood lining and a demolition layer respectively. Lot 17 is the lowest fill deposit in the root cellar feature and was likely deposited inside the root cellar after it was demolished and filled in order to continue agricultural activities in the area. Table 10 details the artifact counts by function in the Lot 17 assemblage.

Table 10: Feature Lot 17 Artifacts by Functional Category

Material	Number	% of Total Assemblage
food/beverage	323	47%
fauna: indeterminate	158	23%
structural	113	16%
personal/societal	61	9%
indeterminate	33	5%
Total	**688**	**100%**

Food and Beverage

The majority of the Lot 17 assemblage is composed of food and beverage related artifacts (n=323). Ceramic artifacts dominate consisting of 93% (n=301) with glass (5%), metal (1.5%), and bone (<1%), making up the remaining 22 artifacts (Table 11).

Table 11: Food and Beverage Artifacts by Object

Material / Object	Number	Percentage
Ceramic	**301**	93%
Tableware	*285*	
Food Container	*11*	
Storage Container	*5*	
Glass	**16**	5%
Indeterminate Bottle	*16*	
Copper Alloy	**2**	<1%
Utensil: spoon	*2*	
Ferrous	**2**	<1%
Cooking Knife	*2*	
Antler	**1**	<1%
Utensil: knife handle	1	
Silver Alloy	**1**	<1%
Utensil: spoon	1	

Material / Object	Number	Percentage
Total	**323**	**~100%**

Ceramic tableware can provide insight into the temporal nature of the artifact assemblage as ceramic ware types and decoration styles were used during specific time frames. Table 12 summarizes the ceramic tableware assemblage by ware type. The majority of the assemblage consists of refined white earthenware (RWE), which first went into production in 1805 but mostly became available in Canada by 1830 and is still produced at present (Miller et al. 2000). As such, RWE on its own is not a good indicator for dating a site. The second highest ware type is Pearlware which can be grouped with Creamware as ware types that were popular from the late 18th century to early 19th century. Pearlware is often referred to as "China glazed" as it was manufactured in an attempt to recreate the look of Chinese porcelain pottery. Creamware was also known as "Queen's ware" whose distinctive feature was a yellow-tinged glaze. Creamware vessels were commonly left plain with moulded borders (Kenyon 1991)

Table 13 summarizes the ceramic tableware assemblage by decoration type. Although undecorated ceramics represent the highest percentage, the most common decoration type is hand painted (32%; Images 25 & 26), followed by transfer print (21%; Image 27), and blue scalloped edgeware (3%; Image 28). Further decoration styles include the sponged (5%; Image 29), glazed (2%), and slipware (1%; Image 30).

The ceramic tableware assemblage and associated decorative styles generally provides a date from the early to mid-19th century for Lot 17, Feature 1.

Table 12: Broad Date Range for Ceramic Ware Types

Ware	Number	Percentage	Date Range	Source
Refined White Earthenware	235	82%	1820+	Burke 1991
Pearlware	43	15%	1780 - 1840	Kenyon 1991
Coarse earthenware	3	1%	1796+	Jouppien 1980
Fine earthenware	2	1%	1796+	Jouppien 1980
Yellowware	2	1%	1830+	Kenyon 1991
Total Ceramic	**285**	**~100%**		

Table 13: Decoration on Tableware

Decoration	Frequency	Percentage	Date Range	Source
clear/colourless	**103**	36%	1820+	Burke 1991
hand painted	**91**	32%		
late palette	*45*		1830 – 1872	Kenyon 1991
late polychrome	*28*		1830-1840	

Decoration	Frequency	Percentage	Date Range	Source
early palette	*15*		1820 – 1860	Kenyon 1991
Pearlware blue and white	*3*		1775-1840	Miller 1991
Transfer Printed	**59**	21%		
blue	*42*		1825+	Kenyon 1991
brown	*9*		1832 – 1860	Kenyon 1991
red	*5*		1828+	Miller et al. 2000
black	*3*		1832 – 1845	Kenyon 1991
Sponged	**14**	5%		
Red and green	*11*		1843 – 1875	Majewski and O'Brien 1987
blue	*3*		1843 – 1875	Majewski and O'Brien 1987
Edgeware	**10**	3%		
scalloped rim: blue	*10*		1820 – 1850	Miller 1988
Glazed	**5**	2%		
Jackfield	2		1796+ (Ontario made)	Newlands 1979
plain	*2*			
coloured	*1*			
Slipware	**3**	1%	1820 – 1920	Burke 1991
banded	2		1785-1840	Miller 1991
Light blue cabled	1		1790-1820	Sussman 1997
Total	**285**	**~100%**		

The ceramic utilitarian assemblage consists of brown (10), light brown (5), and yellow brown (1) lead glazed sherds which does not provide a specific date range (Image 31). Of the 285 artifacts recovered from the food/beverage function of Lot 17, all of which consisted of shards of clear bottle glass.

A number of utensil and food preparation artifacts were recovered including two large, corroded iron knives and an antler knife handle. Two spoons were also recovered, one of which was made of copper alloy and the other silver (Image 33).

Fauna

A detailed discussion of the faunal assemblage can be found in Section 6.5.

Structural

A total of 113 structural artifacts were recovered from Lot 17, Feature 1. Table 14 summarises the structural artifacts recovered and includes date ranges for diagnostic elements (Image 34). Of those artifacts recovered, window glass is the most common representing 53% of the structural assemblage while nails represent the second highest frequency at 45%, with brick representing 2% of the total assemblage each. Only small non-diagnostic brick fragments were observed, with the fractured nature of the both the brick and the window glass indicating the site limits have been actively ploughed likely since abandonment. Only machine cut nails were recovered from Lot 17. Production of machine cut nails first began in 1805 but did not become readily available in more rural areas until decades later (Vincent 1993). It should be noted that Lot 17 represents the highest concentration of structural materials within Feature 1.

Table 14: Structural Artifacts

Object	Frequency	Percentage	Date Range	Source
Window Glass	**60**	53%	Non-diagnostic	
Nail	**51**	45%		
Cut	*51*		1805s+	Vincent 1993
Brick	**2**	2%	Non-diagnostic	
Grand Total	**113**	100%		

Personal Societal

A total of 61 personal/societal related artifacts were recovered from Lot 17, Feature 1 (Table 15, Image 35). Smoking pipe fragments are the predominant artifact type within the personal/societal class. Of those, 21 were undiagnostic while 27 retained some decorative elements. Five pipe bowl fragments included a maritime motif with an anchor, five pipe bowl fragments included a floral motif, while ten bowl fragments retained the 4-band fluted decoration style. Two glazed mouth pieces were recovered with the glaze having a faint amber colour. Finally, five bowl fragments could be mended together to create a human head effigy pipe bowl. Human effigy pipe bowls are typically referred to as “Turks’ head” pipe bowls. The practice of linking a mustachioed head with tobacco began as early at 1658 when Dutch tobacco stores would use a statuette of a person of Turkish origin over their door. The mustachioed effigy pipe bowls are relatively rare in Ontario but are more popular in 19th century sites in New York State. Unfortunately, none of the pipe stems had a maker’s mark which makes it difficult to return a more accurate manufacture date (Kenyon & Kenyon 2008).

In addition to the smoking pipe fragments, several buttons were recovered including four metal buttons, and two wood buttons, and one thimble. Of particular note are the metal buttons, three of the buttons are made of copper alloy and the fourth is made of iron. Two of the copper alloy buttons are decorated with the same geometric design. The final copper alloy button was likely affixed to a hunting jacket as it

contains a scene of a man riding a horse with a shot gun and hunting dogs. Buttons made of copper alloy with this sort of design was popular from 1834 to 1843 (Kenyon & Kenyon 2008).

Of further note are five copper half pennis. The half pennies are all adorned with the same motifs and were made by the Bank of Montreal for the Province of Canada. Four of the half pennies can be dated to 1844 and one dates to 1842.

Table 15: Personal / Societal Artifacts

Artifact type	Frequency	Percentage	Date Range	Source
Smoking Pipe	48	78%		
Plain stem	*17*		1700+	Bradley 2000
Plain bowl	*4*		1700+	Bradley 2000
Marked Bowl	*10*		1700+	Bradley 2000
Decorated stem	*5*		1700+	Bradley 2000
Decorated Bowl	*5*		1850+	Kenyon & Kenyon 2008
Mouthpiece	*2*		1700+	
Effigy Bowl	*5*		1850+	Kenyon & Kenyon 2008
Button	6	10%		
Metal	*3*		1790+	Ferris 1984
Wood	*2*		1700+	Marcel 1994
Coin/Token	5	8%	1842, 1844	
Thimble	1	2%		
Metal Weight	1	2%		
Total	**61**	**100%**		

Indeterminate

Thirty-three indeterminate objects were recovered which consist of corroded miscellaneous metal.

6.3.1.2 Lot 13

Lot 13 represents the degrading exterior wood lining of Feature 1. It should be noted that there was a high density of degrading wood and mortar within this lot which was sampled. Table 16 below breaks down artifact count by function in the Lot 13 assemblage.

Table 16: Feature Lot 13 Artifacts by Functional Category

Material	Number	% of Total Assemblage
food/beverage	153	69%
fauna: indeterminate	46	21%
personal/societal	12	5%
indeterminate	5	2%
structural	5	2%
arms/ammunition	1	<1%
tools/equipment	1	<1%
Total	**223**	**100%**

Food and Beverage

As identified in Table 16, the majority of the Stage 4 assemblage is composed of food and beverage related artifacts (n=153). Ceramic artifacts dominate consisting of 99% (n=151) of the assemblage glass (1%), making up the remaining 2 artifacts.

Glass artifacts comprised of an indeterminate beverage container and the base of a cup.

Table 17: Food and Beverage Artifacts by Object

Material / Object	Number	Percentage
Ceramic	**151**	99%
Tableware	*145*	
Storage Container	*4*	
Food Container	*2*	
Glass	**2**	1%
Indeterminate Bottle	*1*	
Tableware	*1*	
Total	**153**	**~100%**

Table 18 summarizes the ceramic tableware assemblage by ware type. The majority of the assemblage consists of pearlware, followed by refined white earthenware, creamware, and coarse earthenware. Table 19 summarizes the ceramic tableware assemblage by decoration type. Although undecorated ceramics represent the highest percentage, the most common decoration type is hand painted (72%; Image 25 & 26), followed by transfer print (13%; Image 27), glazed (1%), and slipware (<1%; Image 30).

The ceramic tableware assemblage and associated decorative styles generally provides a date from the early to mid-19th century for Lot 13, however there is a notable concentration of earlier ceramic tableware decoration in this lot (Table 19).

Table 18: Broad Date Range for Ceramic Ware Types

Ware	Number	Percentage	Date Range	Source
Pearlware	104	72%	1780 - 1840	Kenyon 1991
Refined White Earthenware	33	23%	1820+	Burke 1991
Creamware	6	4%	1796 - 1920 (Ontario made)	Newlands 1979
Coarse earthenware	2	1%	1796+	Jouppien 1980
Total Ceramic	**145**	**~100%**		

Table 19: Decoration on Tableware

Decoration	Frequency	Percentage	Date Range	Source
hand painted	**104**	72%		
Pearlware blue and white	*95*		1775-1840	Miller 1991
late palette	*1*		1830 – 1872	Kenyon 1991
late polychrome	*5*		1830-1840	
early palette	*3*		1820 – 1860	Kenyon 1991
clear/colourless	**19**	13%	1820+	Burke 1991
Transfer printed	**19**	13%		
black	*11*		1832 – 1845	Kenyon 1991
red	*5*		1828+	Miller et al. 2000
blue	*3*		1825+	Kenyon 1991
Slipware	**1**	<1%		
banded	1		1820-1920	Burke 1991
Glazed	**2**	1%		
Jackfield	2		1796+ (Ontario made)	Newlands 1979
Total	**145**	**~100%**		

The ceramic utilitarian assemblage is comprised of five pieces of lead glaze sherd, three of which are light brown, with one red sherd and one medium brown sherd respectively. The final sherd is decorated with light brown glaze.

The glass assemblage is comprised of one clear/colourless decorated shard and one clear/colourless moulded shard. Moulded contact glass was one of the first commercial manufacturing techniques which began in the 18th century. This was then replaced by machine made glass starting around 1881 (Jones & Sullivan 1989). The base of a small glass drinking cup was recovered which was likely made in a contact mould as evidenced by the decorative elements of the exterior of the cup. A suction scar is located on the base of the glass cup. (Image 32).

Fauna

A detailed discussion of the faunal assemblage can be found in Section 6.5.

Personal Societal

The personal/societal class is entirely comprised of the smoking group, more specifically 6 pieces of plain pipe bowls, and 6 pieces of plain pipe stems. Due to the lack of decoration there is not much temporal information that made be derived from the assemblage.

Indeterminate

The indeterminate group consists of 5 unidentifiable fragments of corroded metal.

Structural

As previously stated, Lot 13 is comprised of the wood lining of Feature 1, as such there is a sample of mortar taken from the high density of mortar within the deposit. There are two pieces window glass, one cut nail, and one piece of terracotta tile.

Arms and Ammunition

A single complete gun flint was recovered from Feature 1 in Lot 13 (inv.# 272). The gun flint is made of a fine-grained silicious stone which is dark gray in colour (Image 36). Typically, gun flints manufactured in England were made from gray to black flint which is generally opaque (Durst 2009; Austin 2011). As such it is likely that the gun flint is of English origin.

There are two types of gun flints, gunspalls which were simply large flakes with limited secondary flaking and blade gun flints which were struck from a core by direct percussion using a specially made hammer. Blade gunflints were first manufactured by the French. The technology was not adopted by the English until the last quarter of the 18th century, and they quickly eclipsed the French in the mass production of gunflints. The general morphology of the gun flint indicates that it is a square heeled blade gun flint made for a pistol. Blade gun flints are trapezoidal in profile and posses bevelled side and back surfaces with a flat to concave midsection face. The square heeled variety are typified by three to four margins trimmed through secondary flaking (Austin 2011). Inv.# 272 is generally rectangular in shape, with a flat surface on its face and three trimmed margins and is trapezoidal in profile (Image 36).

Tools and Equipment

The tools and equipment group consist of a single corroded metal hook.

6.3.1.3 Lot 11

Lot 11 consists of the upper fill of Feature 1 which is located both within the opening of the feature and as a cap on the very top of the feature. It is likely that Lot 11 represents a post use deposit meant to fill in the pit in order to level out the area so that agricultural crops can be grown in the area.

Table 20: Feature Lot 11 Artifacts by Functional Category

Material	Number	% of Total Assemblage
food/beverage	185	84%
structural	19	9%
fauna: indeterminate	12	5%
personal/societal	4	2%
Total	**220**	**100%**

Food and Beverage

As identified in Table 20, the majority of the Lot 11 assemblage is composed of food and beverage related artifacts (n=185). Ceramic artifacts dominate consisting of >99% (n=185) of the assemblage with one piece of black indeterminate bottle glass representing the remaining single artifact (Table 21).

Table 21: Food and Beverage Artifacts by Object

Material / Object	Number	Percentage
Ceramic	**184**	>99%
Tableware	*144*	
Food Container	*28*	
Storage Container	*12*	
Glass	**1**	<1%
Indeterminate Bottle	*1*	
Total	**185**	**100%**

Table 22 summarizes the ceramic tableware assemblage by ware type. The majority of the assemblage consists of refined white earthenware (104), The second highest ware type is Pearlware (27) followed by

Creamware (13).

Table 23 summarizes the ceramic tableware assemblage by decoration type. Although undecorated ceramics represent the highest percentage, the most common decoration type is hand painted (21.5%), followed closely by transfer print (121%), and edge decorated (13%). The edge decorated styles include blue and green scalloped edgeware and straight blue edgeware. Further decoration styles include the slipware (4%), sponged (2.6%), and moulded (2%).

The ceramic tableware assemblage and associated decorative styles generally provides a date from the early to mid-19th century for Lot 11.

Table 22: Broad Date Range for Ceramic Ware Types

Ware	Number	Percentage	Date Range	Source
Refined White Earthenware	104	72%	1820+	Burke 1991
Pearlware	27	19%	1780 - 1840	Kenyon 1991
Creamware	13	9%	1796 - 1920 (Ontario made)	Newlands 1979
Total Ceramic	**144**	**~100%**		

Table 23: Decoration on Tableware

Decoration	Frequency	Percentage	Date Range	Source
clear/colourless	**52**	36%	1820+	Burke 1991
hand painted	**31**	21.5%		
early palette	*14*		1820 – 1860	Kenyon 1991
late palette	*13*		1830 – 1872	Kenyon 1991
Pearlware blue and white	*4*		1775-1840	Miller 1991
late polychrome	*3*		1830-1840	
transfer	**30**	21%		
blue	*22*		1825+	Kenyon 1991
black	*4*		1832 – 1845	Kenyon 1991
brown	*3*		1832 – 1860	Kenyon 1991
Blue flow	*1*		1780-1840	
Edgeware	**19**	13%		
scalloped rim: blue	*13*		1820 – 1850	Miller 1988
straight rim: blue	*2*		1841 – 1857	Miller et. al. 2000

Decoration	Frequency	Percentage	Date Range	Source
scalloped rim: green	*1*		1820 – 1840	Kenyon 1991
Slipware	**6**	4%		
banded	5		1820 – 1920	Burke 1991
Light blue cabled	1		1790-1820	Sussman 1997
Sponged	3	2%		
red	*3*		1843 – 1875	Majewski and O'Brien 1987
Moulded	**3**	2%	1820+	Burke 1991
Total	**144**	**~100%**		

Of note in the ceramic utilitarian assemblage are the pieces of fine stoneware, which provide dates for both the early and mid 19th century, the remainder of the assemblage does not provide a specific date range (Table 24, Image 31).

Table 24: Ceramic Utilitarian Objects by Ware type

Decoration	Frequency	Percentage	Date Range	Source
Coarse red earthenware	**27**	67.5%		
Glazed: lead	*18*		1796 - 1920 (Ontario made)	Newlands 1979
Unglazed	*6*		1796 - 1920 (Ontario made)	Newlands 1979
Glazed: coloured	*3*		1796 - 1920 (Ontario made)	Newlands 1979
Coarse earthenware	**10**	25%		
Glazed: lead	*8*		1796+ (Ontario made)	Newlands 1979
Glazed: coloured	*2*		1796+ (Ontario made)	Newlands 1979
Fine stoneware	**3**	7.5%		
Derbyshire	*3*		1840-1890	Burke 1991
Total	**40**	**100%**		

Structural

The structural class consists of twelve pieces of window glass, five machine cut nails and two pieces of non-diagnostic brick fragments.

Fauna

A more detailed description of the fauna assemblage can be found in Section 6.5.

Personal Societal

The personal/societal class consists of three artifacts from the smoking group and the clothing group. The smoking group consisted of two pieces of plain pipe bowls and one piece of plain pipe stem. The clothing group consisted of one four-hole shell button.

6.3.1.4 Lot 16

Lot 16, Feature 1 consists of the lowest fill deposit and is located inside Lot 13 which consists of the wood lining. Lot 16 is the demolition layer which likely represents the original remnants of the root cellar. Table 25 details the artifact count by function in the Lot 16 assemblage.

Table 25: Feature Lot 16 Artifacts by Functional Category

Material	Number	% of Total Assemblage
food/beverage	75	58%
fauna: indeterminate	36	28%
structural	15	12%
indeterminate	2	2%
personal/societal	2	2%
Total	**130**	**100%**

Food and Beverage

As identified in Table 26, the majority of the Stage 3 assemblage is composed of food and beverage related artifacts (n=75). Ceramic artifacts dominate consisting of 98% (n=74) of the assemblage with one piece of clear indeterminate bottle glass (2%) making up the remaining single artifact (Table 26).

Table 26: Food and Beverage Artifacts by Object

Material / Object	Number	Percentage
Ceramic	**74**	98%
Tableware	*70*	
Storage Container	*3*	
Food Container	*1*	
Glass	**1**	2%

Material / Object	Number	Percentage
Indeterminate Bottle	*1*	
Total	**75**	**~100%**

Table 27 summarizes the ceramic tableware assemblage by ware type. The majority of the assemblage consists of pearlware, followed by refined white earthenware, and creamware.

Table 28 summarizes the ceramic tableware assemblage by decoration type. Although undecorated ceramics represent the highest percentage, the most common decoration type is hand painted (50%), followed by blue scallop edgeware (10%). Further decoration styles include slipware (4%) and transfer print (1%).

The ceramic tableware assemblage and associated decorative styles generally provides a date from the early to mid-19th century for Lot 16.

Table 27: Broad Date Range for Ceramic Ware Types

Ware	Number	Percentage	Date Range	Source
Pearlware	45	61%	1780 - 1840	Kenyon 1991
Refined White Earthenware	21	28%	1820+	Burke 1991
Creamware	4	5%	1796 - 1920 (Ontario made)	Newlands 1979
Total Ceramic	**70**	**~100%**		

Table 28: Decoration on Tableware

Decoration	Frequency	Percentage	Date Range	Source
Hand painted	**35**	50%		
Pearlware blue and white	*16*		1775-1840	Miller 1991
late polychrome	12		1830-1840	
early palette	*5*		1820 – 1860	Kenyon 1991
late palette	*2*		1830 – 1872	Kenyon 1991
Clear/colourless	**24**	34.5%	1820+	Burke 1991
Edgeware	**7**	10%		
scalloped rim: blue	*7*		1820 – 1850	Miller 1988
Slipware	**3**	4%		
banded	3		1820 – 1920	Burke 1991

Decoration	Frequency	Percentage	Date Range	Source
Transfer	**1**	1.5%		
brown	*1*		1832 – 1860	Kenyon 1991
Total	**70**	**~100%**		

The ceramic utilitarian assemblage consists of three pieces of light brown lead glazed red coarse earthenware and one piece of black basalt fine stoneware which can provide a date from between 1750 and 1820 (Burke 1991).

Fauna

A detailed discussion of the faunal assemblage can be found in Section 6.5.

Structural

The structural class consists of 8 pieces of window glass, five nails, one piece of brick, and one piece of terracotta tile. Two categories of nails were also recovered, classified as cut (3) and wrought (2). Production of machine cut nails first began in 1805 but did not become readily available in more rural areas until decades later (Vincent 1993). The presence of predominantly cut nails with lesser frequencies of wrought nails points to a period of occupation within the middle of the 19th century as both manufacturing processes are present.

Indeterminate

The indeterminate class consists of two pieces of corroded metal.

Personal Societal

The personal/societal class consists entirely of the smoking group with one piece of a plain pipe bowl and one piece of a plain pipe stem.

6.3.1.5 Lot 20

Lot 20 represents the entry way to the root cellar in the southeast corner of Feature 1 and spatially covered the smallest area within the feature. As such, only three artifacts were recovered from the deposit. One cut nail, one plain pearlware sherd, and one brown glazed coarse red earthenware sherd.

6.3.2 Feature 3

Feature 3 contained a total of 37 artifacts, 22 of which belong to the food/beverage function,10 belong to the structural function and 5 mammal bones. The structural artifacts consist of 8 machine made nails and 2 piece of window glass.

Twenty-one of the artifacts from the food/beverage function consist of ceramic artifacts, 20 of which are tableware. Of note are 13 sherds of an industrial slip bowl which is decorated with a blue circular cabled pattern on top of a grey background with black bands on either side of the pattern. This decorative style

can be dated between 1790 and 1820 (Sussman 1997). The remaining food/beverage artifacts consist of 6 sherds of plain refine white earthenware tableware, one sherd of blue transfer print refined white earthenware, one sherd of black glazed coarse red earthenware, and one sherd of bottle glass made of clear/colourless glass.

6.3.4 Feature 2

A total of three artifacts were recovered from Feature 2, two of which are plain sherds of refined white earthenware and one piece of a degraded plastic bag.

The presence of artifacts within Feature 2, which has been interpreted to be a modern pit is likely due to intrusion of ploughzone artifacts into the Feature 2 lot.

6.3.5 Feature 6

Feature 6 contained a total of 23 artifacts, 19 of which belong to the food/beverage function, 3 are mammal bones, and one sherd indeterminate plain smoking pipe. The majority of the food/beverage function consists of 13 shards of plain glass stemware with a suction scar also located on the base of the wine glass (Image 32). The remaining artifacts consist of 4 sherds of blue flow transfer printed pearlware, one sherd of plain pearlware, and one sherd of plain refined white earthenware.

The presence of artifacts within Feature 6, which has been interpreted to be natural, and likely due to natural formation processes of ploughzone artifacts being pushed into the Feature 6 lot rather than cultural processes.

6.4 Archaeobotanical Analysis

As per Section 4.4 Standards 1 – 4 and Section 6.3 Standards 3 – 4 of the MCM *Standards and Guidelines for Consultant Archaeologist (2011),* the following provides a summary of the archaeobotanical analysis completed for root cellar (Feature 1). The detailed archaeobotanical analysis can be found in Appendix B (MAP 2025).

6.4.1. Methodology

The soil samples were subject to water floatation and their archaeobotanical contents were examined under a high-resolution microscope. A total of 24.1 L of soil was subject to floatation, subsampling, and analysis.

Samples were subjected to machine-assisted water flotation using a modified Siraf machine (De Moulins 1996; Pearsall 2015:44–59; Williams 1973, 1976). Each sample was slowly poured into water over 1 mm wire mesh and agitated by hand with the assistance of pressured agitator under the mesh which allowed for the separation and suspension of lighter, organic material from the surrounding soil matrix. The water containing the suspended materials was then slowly decanted over a 300-micron cloth mesh to separate the light from the heavy fractions. Soil left at the bottom of the bucket after passing through each mesh was discarded. Both fractions were then allowed to dry for at least 48 hours after which the light fraction

was passed through nested geological sieves into 6 subsamples: > 4 mm, <4 - >2 mm, <2 mm - > 1 mm, <1 mm - >0.5 mm, <0.5 mm - > 0.25 mm, and <0.25 mm. The heavy fraction was separated into 5 subsamples (>6.35 mm, >4 mm, <4 mm - >2mm, <2 mm - >1 mm, and >1 mm) and was microscopically scanned for the presence of botanical material; all other material was retained but is not discussed within this archaeobotanical report. The > 6.35 mm (1/4 inch) heavy fraction subsample was analyzed and catalogued as a part of the site's main catalogue since this subsample separated all artifacts that would have been recovered in the field. The above subsampling method is standard archaeobotanical procedure and facilitates specimen identification and mitigates against the obstruction of fragmentary macroremains (Marston et al. 2014; Pearsall 2015).

The subsamples were examined using an AmScope Trinocular Zoom Stereo Microscope at 3.5-90X magnification and were tabulated by subsample in the archaeobotanical catalogue. All subsamples were then examined microscopically, including the heavy fraction, since plant remains can be coated in heavy fraction soil matrices that inhibit them from floating properly despite agitation (Fecteau 2008).

The sample taken from Feature 1 consisted of 24.1 L of soil weighing 25.9 kg and produced 922 mL (738.91 g) of heavy fraction and 204 mL (70.62 g) of light fraction material. The total sorted remains from Feature 1 produced 109.37 g of charred botanical remains and 0.110 g of uncharred botanical remains. The taxonomic diversity is low across all the lots within Feature 1 and few charred botanical remains were recovered apart from wood charcoal, which dominated the macrobotanical assemblage.

6.4.2 Feature 1 Results

The charcoal assemblage on the whole at the AeHg-61 site contains 13 unique identifiable taxa but is dominated by beech (16.05 g; 0.666 g/24.1 L) and maple (9.367g; 0.389 g/24.1 L) with secondary contributions from black ash (1.626g; 0.067 g/24.1 L), birch (0.9 g; 0.037 g/24.1L), and ironwood (0.646 g; 0.027 g/24.1L). However, the majority of beech charcoal (11.636 g) was recovered from Lot 13 which is considered to be the wood lining of the cellar and excluding this potential targeted use reduces the site-wide density of beech wood to 4.414 g (0.221 g/19.9 L). In the mid-19th century, beech wood was often used for flooring or subflooring (Fecteau 2008; Little 2001) and its choice as a timber lining within the root cellar of AeHg-61 represents a common silvicultural practice of contemporary Euro-Canadian famers. The prevalence of beech in Lots 11, 16, and 20 may also be a result of post-depositional admixture between contexts. Maple charcoal is found most densely in Lot 17 and may represent a targeted use of this taxon for other structural features within the cellar such as shelving (Fecteau 2008; Little 2001). Significantly, Lot 17 is the deepest stratigraphic context within Feature 1 and has a greater chance of representing use-life components of Feature 1 rather than secondary depositional events or demolition debris.

Table 29: AeHg-61 Soil Sample Volume, Weight, Density, and Ubiquity

Feature 1	L11	L13		L16		L17		L20	Sum	% of Total Charred Remains (g)	% of Total Recovered Remains (g)
	SW	SW	SE	SW	SE	SE	SW	SE			
Soil Volume (L)	3.0	3.1	3.0	2.2	2.0	2.3	3.0	5.5	24.10		

Feature 1	L11	L13		L16		L17		L20	Sum	% of Total Charred Remains (g)	% of Total Recovered Remains (g)
	SW	SW	SE	SW	SE	SE	SW	SE			
Heavy Fraction (g)	54.51	291.83	99.48	37.35	32.50	32.14	113.30	77.80	738.91		
Light Fraction (g)	5.07	15.48	4.01	3.52	3.55	17.05	6.44	15.50	70.62		
Wood Charcoal (g)	9.32	60.55	1.63	3.88	6.05	15.34	4.39	6.65	107.81	98.57%	73.31%
Density (g/L)	*3.11*	*19.53*	*0.54*	*1.76*	*3.02*	*6.67*	*1.46*	*1.21*	*4.47*		
Charred Plant Remains excl. Charcoal (g)	0.174	0.930	0.001	0.000	0.001	0.029	0.078	0.346	1.56	1.43%	1.06%
Density (g/L)	*0.058*	*0.300*	*0.000*	*0.000*	*0.001*	*0.013*	*0.026*	*0.063*	0.460		
Uncharred Plant Remains (g)	0.016	0.012	0.011	0.007	0.014	0.021	0.017	0.016	0.11		0.08%
Density (g/L)	*0.005*	*0.004*	*0.004*	*0.003*	*0.007*	*0.009*	*0.006*	*0.003*	*0.005*		
Residue	4.73	15.62	2.65	1.75	1.055	1.262	3.251	7.264	37.57		25.55%
Density (g/L)	*1.58*	*5.04*	*0.88*	*0.79*	*0.53*	*0.55*	*1.08*	*1.32*	11.77		
Total Charred Remains (g)	9.50	61.48	1.63	3.88	6.05	15.36	4.47	6.99	109.37		
Total Recovered Remains (g)	**14.24**	**77.11**	**4.29**	**5.63**	**7.12**	**16.65**	**7.74**	**14.27**	**147.06**		**100.00%**

Based on the secondary-depositional composition of the lots within Feature 1, the charcoal assemblage likely reflects a conglomeration of land clearance, outbuilding construction, and demolition practices on the farmscape at AeHg-61. As such, the forest composition within the AeHg-61 site farmscape represents a beech-maple-ash climax forest with ironwood and birch as secondary understory components.

Though they were not present in abundance, the recovery of 4 fragments of flax (Linum usitatissimum L.) seeds at AeHg-61 provides an interesting glimpse into the production of a spatially and temporally significant “specialty” crop. In mid-19th century southwestern Ontario, flax was grown for the production of linen fibres and linseed oil (MacFadyen 2018). If flax production occurred on site, the recovered flax seeds may represent its use for linen production. However, given the limited number of recovered seeds, it is more probable that their presence reflects discarded seeds resulting from crop cultivation in adjacent agricultural fields.

The early 19th century settlers of Elgin County often relied on locally produced flax for textiles since sheep were scarce in the pioneer era (Ermatinger 1895). Despite its labour-intensive cultivation and generally inferior quality to imported linen, a flax industry took root around St. Thomas. Individuals such as Moses B. Perine and Alexander Young established flax mills in the 1860s, and advocates such as Benjamin Walker—secretary of the Elgin Flax Association—pushed for the modernization of flax production. By the 1870s, flax production around the St. Thomas region reached its peak, emerging as a minor hub of flax fibre milling and linseed oil production; the Keith Mill produced both linseed oil and linen fibres for low quality yarn (MacFadyen 2018). By the late 19th century, with cheaper cotton and imported fibers reasserting dominance and flax production shifting to new prairie frontiers for oilseed, Elgin County's flax boom had subsided (MacFadyen 2018).

6.4.3 Lot 11

The sample taken from the southwestern quadrant of Lot 11 consisted of 3.0 L of soil weighing 2.7 kg and produced 81 mL (54.51 g) of heavy fraction and 13 mL (5.07 g) of light fraction material. The total sorted remains from Lot 11 produced 9.45 g of charred botanical remains and 0.016 g of uncharred botanical remains, comprising approximately 6.46% of the charred botanical material recovered within the whole feature.

An estimated total of 1,806 charred and uncharred macrobotanical specimens were recovered from Lot 11 SW. Wood charcoal is the most ubiquitous remain (n=1,729, 95.74% of lot), followed by uncharred plant remains (n=46, 2.55% of lot), and charred plant remains (n=31, 1.72% of lot).
Lot 11 SW produced 3.06 g (0.88 g/L) of charred plant remains. Identifiable remains are primarily cultigens (n=11, 0.61%) which include maize (Zea mays L.) and a possible radish (cf. Raphanus sativus L.) seed. The maize remains are dominated by fragmentary cupules (n=7/10, 70%) followed by kernel fragments (n=2/10, 20%).

Other charred plant remains include a single bulrush (Juncus spp. L.) seed and two fragments of acorn (Quercus spp. L.) nutshell. These specimens are considered incidental inclusions and likely do not represent targeted use. Lot 11 produced 3.107 g/L of wood charcoal. The charcoal assemblage produced mostly American beech (Fagus grandifolia Ehrh.) and sugar maple (A. saccharum Marshall.), followed by red maple (A. rubrum L.), birch (Betula spp. L.) and elm (Ulmus spp.).

6.4.4 Lot 13

Lot 13 represents the degrading wood lining of the cellar feature and, unsurprisingly, accounts for over 42% of the feature-wide recovered charcoal assemblage. The sample taken from Lot 13 consisted of two samples from the southeast and southwest quadrants totalling of 6.1 L (3.1 L SE; 3.0 L SW) of soil weighing 6 kg. The southeastern quadrant produced 95 mL (99.48 g) of heavy fraction and 11 mL (4.01 g) of light fraction material. The southwestern quadrant produced 440 mL (291.83 g) of heavy fraction and 43 mL (15.48 g) of light fraction material. Overall, Lot 13, specifically the southwestern quadrant, is one of the most botanically productive contexts of Feature 1. However, this lot is also lacking in taxonomic diversity and identifiable, whole, seeds or plant parts.

The southwestern quadrant produced 10.19 g/L of wood charcoal, and 0.15 g/L of charred plant remains including mostly fragments of maize (Zea mays L.), all of which were fragmented cupules (n=5, 0.008

g/L). The remaining charred plant remains consist of indeterminate charred plant matter (n=16, 0.25 g/L) and a couple of charred bramble seeds. The identifiable wood charcoal assemblage of the southwestern quadrant (60.55 g) consists of mostly American beech (n=55 11.58 g, 1.91 g/L), with few contributions from maple (Acer spp.), birch, oak, and ironwood/eastern hophornbeam (Ostrya virginiana (Mill.) K. Koch).

The southeastern quadrant produced 0.544 g/L of wood charcoal and a single charred bramble (Rubus spp. L.) seed. The charcoal assemblage lacked the relative dominance of beech that was apparent in the southwestern quadrant and also produced fewer charcoal fragments (n=429). Maple comprised the majority of the identified charcoal fragments (n=12, 0.168 g/L), with basswood (n=2, 0.023 g/L) and beech fragments (n=1, .019 g/L) comprising a small minority

6.4.5 Lot 16

Lot 16 represents the demolition layer of the cellar feature which consisted of two samples from the southeast and southwest quadrants totalling of 4.2 L (2 L SE; 2.2 L SW) of soil weighing 5.2 kg. The southeastern quadrant produced 36 mL (32.5 g) of heavy fraction and 13 mL (3.55 g) of light fraction material. The southwestern quadrant produced 36 mL (37.35 g) of heavy fraction and 12 mL (3.52 g) of light fraction material. Both quadrants of Lot 16 produced very little in terms charred botanical remains other than wood charcoal.

The total sorted botanical remains from Lot 16 produced a total of 9.93 g of charred botanical remains and 0.02 g of uncharred botanical remains. The southwestern quadrant produced 1.76 g/L of wood charcoal and no other charred plant remains. The identifiable wood charcoal assemblage of the southwestern quadrant consists of mostly American beech (n=24 1.56 g, 0.710 g/L), with single contributions from maple (Acer spp.), and black ash (Fraxinus nigra Marshall).
The southeastern quadrant of Lot 16 produced 3.024 g/L (n=855, 6.05 g) of wood charcoal and a single charred seed that was unidentifiable past. The charcoal assemblage consists of maple (n=22, 0.59 g; 0.025 g/L), beech (n=12, 0.83 g; 0.415), basswood (Tilia americana L. n=6, 0.433 g; 0.217 g/L), and birch (Betula spp. L. n=4, 0.255 g; 0.128 g/L).

6.4.6 Lot 17

Lot 17 represents the fill layer within the cellar feature which consisted of two samples from the southeast and southwest quadrants totalling of 5.3 L (2.3 L SE; 3 L SW) of soil weighing 5.9 kg. The southeastern quadrant produced 34 mL (32.14 g) of heavy fraction and 48 mL (17.05) of light fraction material. The southwestern quadrant produced 120 mL (113.3 g) of heavy fraction and 16 mL (6.44 g) of light fraction material. Both quadrants of Lot 17 produced little in terms charred botanical remains however, the southwestern quadrant produced the only evidence of flax (Linum usitatissimum L.) within Feature 1.

The total sorted botanical remains from Lot 17 produced 19.84 g of charred botanical remains and 0.04 g of uncharred botanical remains. The southwestern quadrant produced 1.76 g/L of wood charcoal and 0.026 g/L of other charred plant remains. Maize fragments including kernels (n=4, 0.019 g; 0.006 g/L) and cupules (n=1, 0.002 g; 0.001 g/L) were recovered within the southwestern side of the cellar fill, along with 0.002 g/L (n=4, 0.007 g) of charred flax seed that showed evidence of severe heat distortion. The identifiable wood charcoal assemblage of the southwestern quadrant of Lot 17 is the most taxonomically

diverse across all of AeHg-61. The charcoal collection is dominated by maple (n=52 4.105 g, 1.37 g/L) and to a lesser extent beech (n=11, 0.332 g; 0.111 g/L), with significant contributions from birch (Betula spp.), elm (Ulmus spp. L.), and ash (Fraxinus spp. Tourn ex. L.).

The southeastern quadrant of Lot 17 produced 1.910 g/L (n=1049, 4.394 g) of wood charcoal and a single charred maize cupule fragment. The charcoal assemblage consists of maple (n=10, 0.301 g; 0.131 g/L), beech (n=9, 0.233 g; 0.101 g/L), ironwood (Ostrya virginia (Mill.) K. Koch, n=4, 0.176 g; 0.077 g/L), and elm (Ulmus spp. L. n=4, 0.089 g; 0.039 g/L).

6.4.7 Lot 20

Lot 20 represents a layer deposited within the entryway of cellar feature which consisted of a sample from the southeast quadrants totalling of 5.5 L of soil weighing 6.1 kg. The southeastern quadrant produced 80 mL (77.8 g) of heavy fraction and 48 mL (15.5) of light fraction material.

The total sorted botanical remains from Lot 20 produced a total of 6.99 g of charred botanical remains and 0.016 g of uncharred botanical remains. The southeastern quadrant produced 1.209 g/L of wood charcoal and 0.063 g/L of other charred plant remains. A single maize kernel fragment and a single charred elderberry (Sambucus canadensis L.) were recovered along with 0.010 g/L (n=3, 0.061 g) of charred acorn shell that it likely an incidental inclusion. Lot 20 interestingly produced the most ubiquitous and dense concentration of indeterminate specimens of charred plant remains that could not be identified to plant part, let alone genus.

The identifiable wood charcoal assemblage of the southeastern quadrant of Lot 20 produced the highest density and quantity (n=11, 1.542 g; 0.280 g/L) of black ash (Fraxinus nigra Tourn ex. L.) across all lots. Minor contributions from maple (n=4, 0.156 g; 0.028 g/L), beech (n=3, 0.182 g; 0.101 g/L), and ironwood (Ostrya virginia (Mill.) K. Koch, n=2, 0.064 g; 0.012 g/L),

6.5 Faunal Analysis

6.5.1 Methodology

A total of 260 faunal fragments were recovered from the Marwood Gilbert Site AeHg-61. The assemblage was analyzed by a True North Archaeological Services faunal analyst to adhere to the Ontario Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists* (2011).

All bone fragments were counted (NISP=number of identified species) and identified to the lowest taxonomic level possible. Each fragment was described in terms of element, portion, side, cultural and natural modifications and age category at death where possible. For many fragments, where only the element and taxonomic class could be identified, the specimen could sometimes be placed in a size category (Table 30). In the faunal inventory mammals are described by size such that a large mammal is the size of a domestic horse or cattle, a medium mammal is the size of a pig or sheep and a small mammal is the size of a cat or dog or less (i.e. rodents). A large portion of the assemblage was highly fragmented and only the taxonomic class (i.e. Mammalia) could be identified. Each fragment was examined for alterations caused by heating, butchering, natural erosion, pathology and animal gnawing. The faunal inventory is included as Appendix C.

Table 30. Examples of size categories for mammal and bird species.

Size Category	Mammals	Birds
Small	Domestic cat or smaller (small rodent)	Small perching birds
Medium	Large rodent, dog, lamb/kid, small pig	Chicken/duck sized birds
Medium to Large	Mature lamb and pigs, immature cattle, deer	Larger than chicken, smaller than turkey
Large	Cattle, moose, horse	Turkeys, geese and larger birds

Age at death was estimated using dental wear and eruption of cow, sheep and pigs using Grant (1982) and epiphyseal fusion of the bones (Wilson *et. al*, 1982) based on categories such as juvenile and adult. Diagnostic areas of the bone were scored 'y' if present (Serjeantson, 2005). Bird bone identification was done using Cohen and Serjeantson (1996).

The *Standards and Guidelines* require that NISP and either MNI (minimum number of individuals) or MNE (minimum number of elements) be tabulated. The minimum number of individuals (MNI) for each species was determined by counting the number of the same side elements while taking into account differences in age and size. This measurement of abundance is a conservative estimate only. In addition, MNI estimates will vary depending on how the NISP is grouped. For the purpose of this report, MNI calculations were grouped by the entire site, with examples by lot, as the small assemblage was sparingly distributed.

Similarly, although historic faunal assemblages are often submitted to meat cut analysis, which provides a more accurate quantification of meat usage in a large market economy, the context of the site, size and collection did not lend itself well to this approach. Therefore, detailed observations on butchering cut marks made with an axe/cleaver, knife or a bone saw and their locations and directions were included, but were not, however, interpreted in too great of detail.

The faunal inventory is presented in Appendix C.

6.5.2 Faunal Assemblage Analysis

The faunal assemblage consisted of 260 individual or fragmented bones and teeth (Table 31, Appendix C). The faunal material recovered from the current archaeological investigation was relatively well preserved but, in some cases, very weathered and fragmentary. As a result, it was possible to identify only 22% (n=56) of the assemblage below taxonomic class. All taxa identified are consistent with the time-period and location of the site. The collection contained bones of 6 distinct taxa identified of which 3 were of domestic species. For comparison and analysis purposes, Table 31 provides details of the faunal assemblage by total site and the three features which contained faunal remains.

Table 31. Total Faunal assemblage and key features summary.

CLASS/TAXON		Total Site			Feature 1			Feature 3			Feature 7		
Mammals		NISP	%	MNI	NISP	%	MNI	NISP	%	MNI	NISP	%	MNI
Bos taurus	cow	1	0.5	1	1	0.5	1	0	0	0	0	0	0
Ovis aries	sheep	14	5	2	12	4.7	12	2	98	2	0	0	0
Sus scrofa	pig	38	15	3	37	14.5	3	1	1	1	0	0	0
Cervis	dear	2	0.8	1	2	0.7	1	0	0	0	0	0	0
Rodentia	mice, moles, vole	1	0.5	1	1	0.5	1	0	0	0	0	0	0
Unidentified Mammal	large	12	4.7	1	11	4.3	1	0	0	0	1	33.3	1
	medium	104	40	1	103	40.5	1	0	0	0	1	33.3	1
	small	1	0.5	1	1	0.5	1	0	0	0	0	0	0
	unidentified	84	32	1	84	33	1	0	0	0	0	0	0
	total mammal	**257**	**99**	**12**	**252**	**99.2**	**22**	**3**	**99**	**3**	**2**	**66.6**	**2**
Birds													
Class Aves	medium bird	3	1	1	2	0	1	0	0	0	1	0	1
	total bird	**3**	**1**	**1**	**2**	**0**	**3**	**0**	**0**	**0**	**1**	**33.3**	**1**
TOTAL FAUNAL		**260**	**100**	**13**	**254**	**100**	**21**	**3**	**100**	**4**	**3**	**100**	**3**

Table 32 details the NISP by Feature and Lot. As expected, Feature 1 contains the highest percent of total faunal remains (98%) present on the site, with Feature 3 and Feature 7 each representing only 1%.

Table 32: NISP Counts by Feature and Lot

Feature	Lot	NSP
Feature 1	17	119
	11	53
	13	49
	16	33
Feature 3	10	3
Feature 7	15	3
Total		**260**

6.5.3 Species Discussion

Domestic mammals made up the greatest proportion of the collection (20%) with a total of 53 fragments identified and 201 unidentified fragments that likely belonged to domestics (Appendix C, Table 31).

Table 33 - 35 detail the distribution of Species by Feature and Lot. Given the ubiquitous nature of the distribution of species across all lots, especially for Feature 1, and the highly fragmented nature of the faunal assemblage, a discussion of the overall site has been included in the following sections.

Table 33: NISP by General Species for Feature 1 by Lot

Species by Common Name	Lot 11	Lot 13	Lot 16	Lot 17	Total
bird: medium	2				2
cow	1				1
deer			1	1	2
mammal	5	22	7	50	84
mammal: large	4	1	4	2	11
mammal: medium	35	14	2	52	103
mammal: small	1				1
mice, rats, moles, voles		1			1
pig	2	7	16	12	37
sheep	3	4	3	2	12
Grand Total	**53**	**49**	**33**	**119**	**254**

Table 34: NISP by General Species for Feature 3 by Lot 10

Species by Common Name	Lot 10	Total
pig	1	1
sheep	2	2
Grand Total	**3**	**3**

Table 35: NISP by General Species for Feature 7 by Lot 15

Species by Common Name	Lot 10	Total
bird: medium	1	1
mammal: large	1	1
mammal: medium	1	1
Grand Total	**3**	**3**

Cattle (*Bos taurus*) comprised the lowest number of domestic mammals with 1 molar identified (2% of domestics and 0.5% of site). If we include the 12 large mammal bones, most of which are probably cattle (because no horse or moose was identified), the contribution of cattle to the mammal food taxa increases by 22%.

Sheep (*Ovis aries*) or goats were represented at 26% (5% of site) with 14 identifiable elements (Table 31). Although these two species are often too similar to differentiate, especially when bones are immature or fragmentary, it is likely that all of the bones in this category are those of sheep. At least 2 individuals were represented, including 1 juvenile and 1 adult. MNI was based mainly on size and epiphysial fusion. Butchering evidence consisted of chopped (n=2) and sawn (n=1). Elements attributed to butchering waste,

such as head and feet were found in relative proportion to the MINI and were less than those of pig (Table 31). Meat bearing cuts such as leg and loin were represented. Post depositional canine gnawing was found on 5 bone fragments and a total of 5 were significantly eroded.

Pigs (*Sus scrofa*) were represented by 38 identifiable elements at 72% (15% of site) (Table 31). It is likely that most of the 104 unidentifiable medium sized mammal bones also derive from pigs for good reason; it is one of the most easily and useful animals to raise. A total MNI of 3 included 2 juvenile and 1 adult based from the presence of complete mandibles and age. There was evidence for sawn (n=4) and chopped (n=5) butchering on the pig bones. There was some (n=11) evidence for weathering and soil staining along with post depositional gnawing from a canine (n=9).

Pigs are often over-represented in faunal assemblages because of the preservation of numerous loose teeth which are frequent on domestic sites. The Marwood Gilbert site assemblage contained 21 loose pig teeth from both deciduous and permanent dentition and 11 mandible fragments with teeth intact (Table 31, Image 37). Pigs are also home butchered more often than cattle, the head meat used to make head cheese, and waste bones discarded on site. Butchering waste elements from heads and feet comprised a total of 92% (n=35) of the identified pig elements. There were a few examples of bones from parts of the body which characterized primary butchering units. Butchering alterations included 1 radius with knife cuts and evidence of chopped by a cleaver or axe to a mandible and a femur fragment.

Table 36. Faunal Element Totals

Skeletal Element	Identified Taxon			Unidentified Mammal		
	Cow	Sheep	Pig	Small	Medium	Large
skull	0	0	11	0	0	1
loose teeth	1	3	21	0	0	0
vertebrae	0	0	0	0	0	28
ribs	0	0	0	0	0	32
sternum	0	0	0	0	0	0
innominate	0	2	0	0	0	2
scapula	0	0	0	0	0	5
humerus	0	3	0	0	1	0
radius	0	4	1	0	0	1
ulna	0	0	0	0	0	0
carpals/tarsals	0	0	0	0	0	1
femur	0	0	2	0	1	0
tibia	0	1	0	1	0	0
fibula	0	0	0		0	0
metapodials	0	1	0	0	0	0
phalanges	0	0	3	0	0	0
unid long bones	0	0	0	0	0	10
unid bones	0	0	0	0	0	0
Totals	**1**	**14**	**38**	**1**	**2**	**80**

The presence of abundant loose teeth for all three main domestic species is fairly common on sites where animals are raised and home butchering has been practised. The waste products of butchering are expected to include skull fragments and foot bones, although teeth preserve in the soil much better than

bone and are usually overabundant. Table 33 illustrates the distribution of the carcass elements for the three main meat species on the site. Pigs, the most abundant meat species, displays substantial evidence for home processing and almost equally, relative to the MNI and NISP counts, does sheep. Although all of the species are slightly underrepresented by the main meat bearing bones of the carcass, this lack is made up to some extent in the unidentifiable categories of ribs, vertebrae and long bones, in which many of the missing elements are likely found.

Alterations in the form of carnivore gnawing, likely produced by the family dog(s), comprised all of the gnawing evidence, making up 4 % (n=10) of the entire faunal assemblage (Table 34). This kind of attrition often leads to the loss of considerable bone evidence over time and may account for the paucity of identifiable meat bearing elements on the site. The majority of the Stage 4 Marwood Gilbert assemblage was found in the root cellar (Feature 1). This less disturbed contexts (compared to, for example, plough zone) provided a higher identifiable portion of faunal material.

Birds and Wild Animals

Ducks, geese, and chickens may have been valued for their eggs as well as their meat. Birds likely representing mostly domestic fowl comprised 1% (n=3) of the faunal assemblage and a minimal number of 1 individual (Table 31). It is not always possible to tell domestic from wild fowl taxa, especially when the bone is incomplete. The 3 chicken and duck-sized bones could be from domestic duck or wild duck.

Clear evidence for the use of the local wild resources was documented by the presence of 1 deer tibia bone and 1 tine (antler) (Image 38). A total of at least 2 deer bones represented 1 adult. The subspecies most likely belonged to the northern white-tailed deer (*Cervus odocoileus virginianus*) being the only deer species in the area. Bones belonging to the unidentified medium and large ribs, vertebra and unidentified long bone elements likely consist of some deer as well. Butchering in the form of a saw was identified used to remove one of the tines from the deer antler and a spiral fracture created by a blow from an axe or a cleaver was likely used for marrow extraction from the tibia (Image 38).

Two small mammal bones were found and likely represented a small wild mammal such as from a mouse, rat, mole or vole family (*Family Rodentia*) common to the woods and fields of Ontario. These are often found in cultural deposits as intrusive species.

6.5.4 Alterations and Butchering

Bone alterations were found to include axe/cleaver cuts (chopped), knife cuts or sawn, heat alteration (charred or calcined) and post-discard gnawing by canine (dog) and staining/weathered (Table 33).

Butchering and/or heat altered bone made up 53% (n=139) of the entire assemblage, most of which were attributed to sheep, pig and the medium and unidentified domestic mammals. Heat alteration was observed in 27% (n=70) of the assemblage, mostly calcined, which indicates heating to high temperatures compared to charring. Heat alteration tends to affect bone identification where, in this case, most of the heat-altered bone could not be identified below class and general size class.

Only 7 mammal fragments displayed cut marks from de-fleshing or table knife cuts and 25 fragments were chopped using an axe or cleaver. A total of 4 saw fragments were identified by the characteristic parallel grooves suggesting the later occupation of the site when saw butchering techniques became popular in rural settings. Most of the butchering evidence on the site indicated the use of an axe or cleaver to remove feet. Axe butchering is to be expected for the initial settlement of the site.

Alterations in the form of carnivore gnawing, likely produced by the family dog(s), comprised of 10 fragments of the entire faunal assemblage which seemed quite high. Eroded and weathered bone consisted of 9% (n=23) of the domestic assemblage.

Table 37. Summary of Bone Alterations

Taxon	Total NISP	Cut (Knife)	Chopped (axe/cleaver)	Calcined	Charred	Sawn	Gnawed (Canine)	Erosion
Cow	0	0	0	0	0	0	0	0
Sheep	13	0	2	0	0	1	5	5
Pig	8	1	2	0	0	0	3	2
Deer	2	0	0	0	0	1	0	1
Large Mammal	8	3	3	0	1	0	0	1
Medium Mammal	47	3	18	0	8	2	2	14
Unid. Mammal	61	0	0	55	6	0	0	0
Bird	0	0	0	0	0	0	0	0
TOTALS	**139**	**7**	**25**	**55**	**15**	**4**	**10**	**23**

6.5.5 Summary and Discussion

The taxa identified were consistent with the location and time period of the site. The assemblage indicates a strong pattern of domestic mammal meat utilization, a small sample of potential domestic poultry usage and the exploitation of local wild resources.

The high representation of the waste portions of pork and lamb (head and feet) suggests that these animals were raised and butchered on site and that the “waste” bone may have been re-cycled for marrow extraction. The presence of saw cut bones on the Marwood Gilbert site reflects both the extended occupation of the homestead past the second quarter of the 19th century, when saw butchering came into common usage; however, the larger portion of chopped marks using an axe or cleaver suggests an earlier 19th century representation. It was noted that some of the primary butchering cuts took multiple strikes to separate the units and therefore supporting evidence of farmers butchering their own livestock rather than made by a professional.

Pig dominated the domestic mammal assemblage, with 3 individuals represented and sheep (MNI 2) close behind. Local wild resources in the form of 1 deer were used for meat determined by butchering techniques similarly found in the domestic assemblage. This is to be expected considering the rural environment during the nineteenth century.

The largest proportion of the assemblage which included cow, sheep, pig and mammal were found in Feature 1 identified as a root cellar (n=254), leaving a total of 3 to the adjoining refuse pit (Feature 3) and another 3 fragments to the indeterminate feature (Feature 6). There was no defining comparison between the features to note due to the huge discrepancy of elements compared to the high count of Feature 1. The faunal material found in the cellar indicates the extended refuse of nineteenth century farmstead husbandry.

7.0 Analysis and Conclusions

The Stage 4 mitigation by mechanical topsoil removal resulted in the investigation of 7 subsurface features (Map 8), which were documented, cross-sectioned and assessed for cultural significance. Further investigation determined 4 subsurface features did not have cultural value and were the result of natural or non-natural (e.g., bioturbation, ploughing, etc.) processes, 2 features interpreted to possess cultural heritage value or interest (CHVI), and one being of modern origin (Map 9).

Although a significant amount of material culture reflecting historical land use at the Marwood Gilbert site (AeHg-61) has been displaced during former ploughing, artifacts recovered from the ploughzone (Lot 1) provide temporal context and insight into the occupation period and use of specific materials (TNAS 2025b) and a spatial assessment based on the features possessing CHVI documented during the Stage 4 excavation that were preserved below the ploughzone (Lot 1) is provided below.

7.1 Feature Interpretations

7.1.1 Feature 1

Feature 1 has been interpreted to represent a root cellar and is located in the northwest corner of the site and was fully exposed and investigated following MTR. Though the cellar appeared to be square when initially encountered prior to MTR, the structure revealed itself to be generally sub-square in profile, and therefore a circular structure; the less popular root cellar shape. Root cellars were typically rectangular with hard packed dirt floors and plain dirt walls and were in some instances wood lined (Macdonald 1997). Another important pit feature for homesteads in the early 19th century was the icehouse which are often conflated with root cellars (Kimmel 1993). Ice houses were typically lined with mortar or stone, wooden planks and filled with wood shavings, straw, leaves, or bark (Macdonald 1997). In southern Ontario settlers typically built a log house when they first settled and later replaced their original dwelling with frame or stone houses. During this process, nonfunctioning pit features were filled-in in order to continue to use the area for agricultural purposes, this resulted in root cellars appearing generally rectangular in subsoil (Kimmel 1993).

Lots 11 and 17 represent the upper and lower deposits used to fill in the root cellar so that the area may be reused as an agricultural field. Lot 17 is notable for the concentration of structural artifacts within the deposit; representing 74% of the total structural artifact class. Lot 17 is also notable for the recovery of five half pennies from the 1840s. The ceramic tableware assemblage of Lot 17 did not differ greatly from the rest of the site as it returned a date from the early to mid 19th century. Further, Maple charcoal is found most densely in Lot 17 and may represent a targeted use of this taxon for other structural features within the cellar such as shelving. The botanical deposit from Lot 17 also contained samples of burnt maize and flax seed. In contrast, Lot 11 which represents the most superficial deposit of Feature 1 does not return any notable artifacts or density of botanical or faunal remains.

Lot 16 consisted of the demolition fill created during the destruction of the original feature. There are no unique artifact concentrations in Lot 16, nor did the botanical remains return any unique concentrations, other than a preponderance of charred wood charcoal. Finally, Lot 13 consisted of the degraded wood and mortar lining of the cellar feature. Botanical analysis of soil samples taken from Feature 1 indicated that Lot 13 was largely comprised of American Beech which was often used for flooring or subflooring (MAP 2025). The ceramic tableware from Lot 13 did appear to skew slightly earlier as there are a notable concentration of hand painted pearlware. Though it is possible the cellar feature was an ice house, it is

also consistent with a root cellar used by the previously standing log house inhabited by Marwood Gilbert before a more substantial dwelling was built by Richard Gilbert. While the 1862 Tremaine map does not depict a homestead within Marwood Gilbert's property, it is known he had moved to Port Stanley by the 1880s and had likely demolished his former homestead.

The excavation of Feature 1 produced 95% (n=1,269) of the total Stage 4 artifact assemblage. The assemblage generally reflects land use during the early 19th century and extending to at least the 1870s, indicating the cellar feature was likely used during this period. The artifact assemblage reflects this date range as 28% of the ceramic tableware is comprised of pearlware, and decorative styles spanning from the early 19th century to the mid 19th century. Two rosehead nails were recovered from site which predate the more common machine cut nail, and four half pennies which have been impressed with dates from the 1840s. Further, there was very little evidence of sawed butchered faunal remains, the majority of the faunal remains appeared to have been chopped and cut which was more common in the early 19th century. The cellar feature would have been infilled when the site became an agricultural field, which was likely in the late 19th century, as 20th century mapping does not depict a building where Marwood or Richard Gilbert's homesteads stood.

7.1.2 Feature 3

Feature 3 is interpreted to be a refuse pit and is located approximately 9 m northwest of Feature 1. The feature was fully exposed and excavated following MTR. Due to the shallow profile of the feature and its location in close proximity to Feature 1, Feature 3 was interpreted to be a small discrete refuse pit likely associated with the root cellar. It was typical for settlers to form small refuse pits just beyond their homesteads during the 19th century.

The excavation of Feature 3 produced 2% (n=37) of the total Stage 4 artifact assemblage. Although the artifacts recovered from this feature only represent those preserved below the ploughzone (Lot 1), the assemblage generally reflects land use during the early 19th century and extending to at least the 1870s, indicating the pit were likely used during the Marwood Gilbert phase of occupation. The most notable artifact recovered from Feature 2 was a bowl decorated with cabled industrial slip which returns a date range of 1790 to 1820.

7.2 AeHg-61 Marwood Gilbert Overall Summary

Archaeological investigations conducted between the Stage 1 through Stage 4 assessments have provided a detailed understanding of the Marwood Gilbert site (AeHg-61), situated on Lot 8, Concession 1, in the former Township of Yarmouth, Elgin County. The site represents a mid-19th century Euro-Canadian domestic occupation associated with the Gilbert family, the first known settlers of the property following its 1832 Crown patent to Edward Peverency and 1840 transfer to Marwood Gilbert. Background research and Stage 2 surface recovery identified AeHg-61 as a discrete artifact concentration characterized by early to mid-19th century ceramics, glass, and structural materials consistent with a short-term domestic occupation. The historical record, corroborated by the artifact assemblage, situates the Gilbert family's residence between approximately 1840 and 1886, aligning with the occupational timeline derived from both documentary and archaeological sources.

The Stage 3 assessment refined this interpretation through systematic test unit excavation, recovering an assemblage dominated by food and beverage-related ceramics (primarily refined white earthenware, creamware, and pearlwares). The assemblage also included structural materials such as cut and wrought nails and window glass, confirming the presence of a domestic structure. The decorative styles and

manufacturing attributes of the ceramic and glass artifacts, alongside the relative frequencies of nail types, consistently dated the site to the mid-19th century. Based on these results, AeHg-61 was determined to retain cultural heritage value or interest (CHVI) under Section 3.4.2, Standard 1a of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011), warranting Stage 4 mitigation of development impacts.

Stage 4 mitigation through mechanical topsoil stripping revealed seven subsurface features, of which two (Features 1 and 3) were interpreted as cultural in origin. These features, as described in Section 7.1, provide evidence of early Euro-Canadian rural lifeways within Elgin County and offer insight into domestic practices during the Gilbert family's tenure.

The results of the Stage 4 assessment confirm that the Marwood Gilbert site (AeHg-61) represents the earliest known occupation of Lot 8, Concession 1, and retains substantial interpretive value relating to early settlement patterns and domestic organization in mid-19th century Elgin County. Although ploughing and subsequent agricultural activities have displaced some material culture, the subsurface features identified during Stage 4 provide significant contextual information regarding household storage and refuse disposal practices during this period. With completion of Stage 4 excavation, all cultural heritage value and interest associated with AeHg-61 has been fully documented, and the site is considered mitigated of any further archaeological concern.

8.0 Recommendations

This Stage 4 excavation archaeological assessment has provided the basis for the following recommendations:

1) The Stage 4 mitigation by mechanical topsoil removal of AeHg-61 has been completed in accordance with the standards outlined in Section 4.2.3 and 4.4 of the MCM's (2011) *Standards and Guidelines for Consultant Archaeologists,* as such all archaeological concerns can be considered addressed and the site fully mitigated of development impacts.

2) In the event that future planning results in the identification of additional areas of impact beyond the limits of the BESS Study Area, located on part of Lot 8, Range 1 North of Edgeware Road, Geographic township of Yarmouth, Elgin County, now the City of St. Thomas, not under assessment as part of the current development, further Stage 1 and 2 archaeological assessments may be required. It should be noted that impacts include all aspects of the proposed development causing soil disturbances or other alterations, including additional temporary property needs (i.e. access roads, staging/lay down areas, associated works etc.).

9.0 Advice on Compliance with Legislation

This report is submitted to the Ministry of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33, (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Public and Business Service Delivery and Procurement.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

10.0 Important Information and Limitations of this Report

This report has been prepared for the specific site, development objective, and purpose as requested by the client and outlined in the original proposal, and subsequent agreed changes, for this project. The specific results, factual data, interpretations, and recommendations, outlined in this report are for the sole use of the client, and applicable only to this project and site location. No other warranty, expressed or implied, is made. No other party may rely on all, or portions, of this report without True North Archaeological Services Inc.'s express written consent. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of True North Archaeological Services Inc. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client can only rely upon the electronic media versions of this True North Archaeological Services Inc. report or other work products at their discretion.

True North Archaeological Services Inc. prepared this report in a manner consistent with the level of care and skill ordinarily exercised by other members of the archaeological consulting community currently practicing within the Province of Ontario, in accordance with the *Ontario Heritage Act* the Ministry of Citizenship and Multiculturalism's (MCM) 2011 *Standards and Guidelines for Consultant Archaeologists*, and all the subsequent MCM bulletins.

There are special risks whenever an archaeological assessment is completed, whether they be solely desktop assessments or in-field assessments, and even a thorough background study, comprehensive field investigation or sampling and testing program may fail to detect all archaeological resources present within the project area. The desktop review, field strategies and subsequent interpretations utilized for this report comply with the Ministry of Citizenship and Multiculturalism's (MCM) 2011 *Standards and Guidelines for Consultant Archaeologists*, and all the subsequent MCM bulletins.

All artifacts collected as part of this archaeological assessment, when applicable, will be housed and curated by True North Archaeological Services Inc. until such time that the collection may be transferred to an appropriate MCM approved repository or repatriated to an appropriate First Nation. As part of Licensing obligations, this report, along with pertinent written information will be uploaded to the MCM Past Portal website and reviewed for compliance with the 2011 *Standards and Guidelines for Consultant Archaeologists*.

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2022 **Stage 2 Archaeological Assessment – July/August Fieldwork Proposed Industrial Development Part of Lots 9 and 10, Range 1 North of Edgeware Road and Part of Lots 9 and 10, Range 2 North of Edgeware Road, City of St. Thomas, Lot 11, Range 1 South of Edgeware Road Municipality of Central Elgin, Geographic Township of Yarmouth, Elgin County, Ontario.** Consultant's Report Submitted to the Ministry of Citizenship and Multiculturalism PIF Number P324-0761-2022.
2022 **Stage 1 and 2 Archaeological Assessment Proposed Industrial Development Part of Lots 9 and 10, Range 1 South of Edgeware Road and Lots 9 and 10, Range 1 North of Edgeware Road, City of St. Thomas, Lots 11 and 12, Range 1 South of Edgeware Road Lot 11, Range 1 North of Edgeware Road and Lots 9, 10, and 11, Range 2 North of Edgeware Road Municipality of Central Elgin, Geographic Township of Yarmouth, Elgin County, Ontario.** Consultant's Report Submitted to the Ministry of Citizenship and Multiculturalism PIF Number P324-0737-2022.
2023 **Stage 3 Archaeological Assessment Location 88 (AeHg-124) Proposed Industrial Development Part of Lot 9, Range 1 North of Edgeware Road, City of St. Thomas, Geographic Township of Yarmouth, Elgin County, Ontario.** Consultant's Report Submitted to the Ministry of Citizenship and Multiculturalism PIF Number P324-0772-2022**.**
2024 **Stage 1-2 Archaeological Assessment Centennial Transformer Station and Line Project, Part of Lots 8 and 9, Range 1 South of Edgeware Road, City of St. Thomas, Geographic**

Township of Yarmouth, Elgin County, Ontario. Consultant's Report Submitted to the Ministry of Citizenship and Multiculturalism PIF Number P1189-0041-2023

True North Archaeological Services Inc.

2025a **Stage 1 & 2 Archaeological Assessments Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario.** Consultant's Report Submitted to the Ministry of Citizenship and Multiculturalism. PIF Number P311-0354-2025.

2025b **Stage 3 Archaeological Assessment, AeHg-61, Edgeware Battery Energy Storage Site, Concession 1, Part of Lot 8, Range 1 North of Edgeware Road, Yarmouth Township, Elgin County, now City of St-Thomas, Ontario.** Consultant's Report Submitted to the Ministry of Citizenship and Multiculturalism. PIF Number P311-0355-2025.

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12.0 Images



Image 1. Portrait of Marwood Gilbert



Image 2. Overall view of AeHg-61 prior to MTR from the south end of site, view northeast.



Image 3. Field crew completing hand excavation of Feature 1, view northeast.



Image 4. Field crew hand excavating Feature 1, view southeast



Image 5. Field crew hand excavating Feature 3, view northwest.



Image 6. View of CAT heavy machinery completing MTR, view east.



Image 7. Overall view of AeHg-61 following MTR, view south.



Image 8. Plan view of Feature 1 pre-excavation, view east.



Image 9. West profile of NE quadrant of Feature 1, view Northwest.



Image 10. South profile of NE quadrant of Feature 1, view southwest.



Image 11. North profile of SW quadrant of Feature 1, view northeast.



Image 12. Plan view of Lot 16 in SW quadrant of Feature 1, view north.



Image 13. Plan view of SW quadrant of Feature 1 mid-excavation, view southeast.



Image 14. Plan view of Feature 3 prior to excavation, view northeast.



Image 15. North profile of Feature 3, view northeast.



Image 16. Plan view of Feature 5 prior to excavating, view northwest.



Image 17. West profile of Feature 5, view northwest.



Image 18. Plan view of Feature 4 prior to excavation, view northeast.



Image 19. North profile of Feature 4, view northeast.



Image 20. West profile of Feature 2, view west.

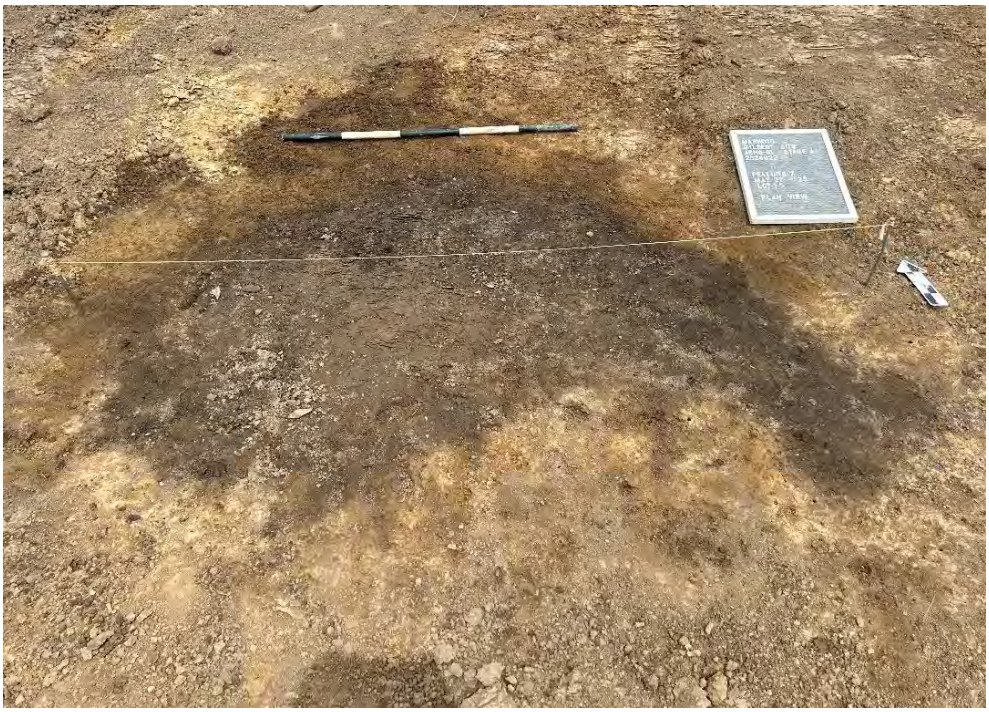


Image 21. Plan view of Feature 7 prior to excavation, view north.



Image 22. North profile of Feature 7, face north.



Image 23. Plan view of Feature 6 prior to excavation, view northeast.



Image 24. North profile of Feature 6, view northeast.



Image 25. Examples of hand painted pearlware, including a maker's mark (inv.# 275).

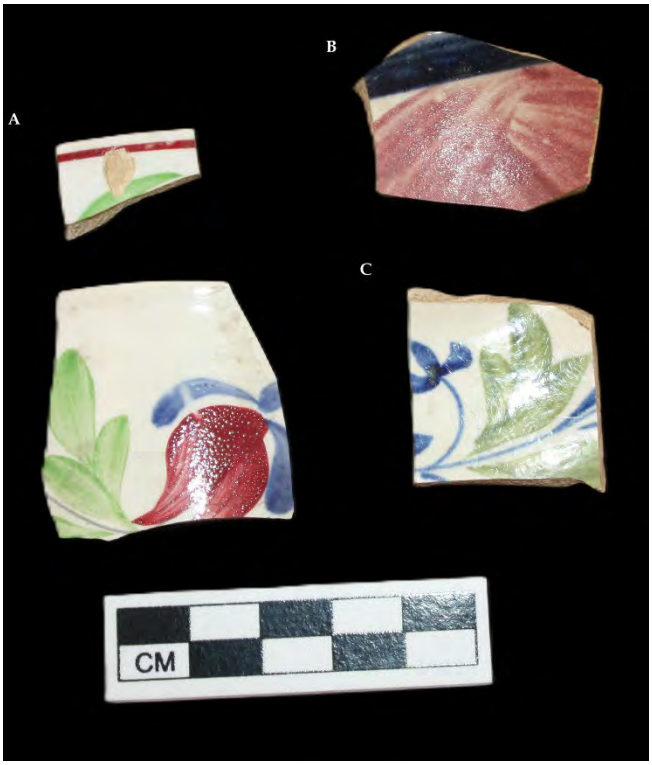


Image 26. Examples of hand painted refine white earthenware; A. (inv.# 83) early palette, B. (inv.# 257) late palette, C. (inv.# 70) late palette.

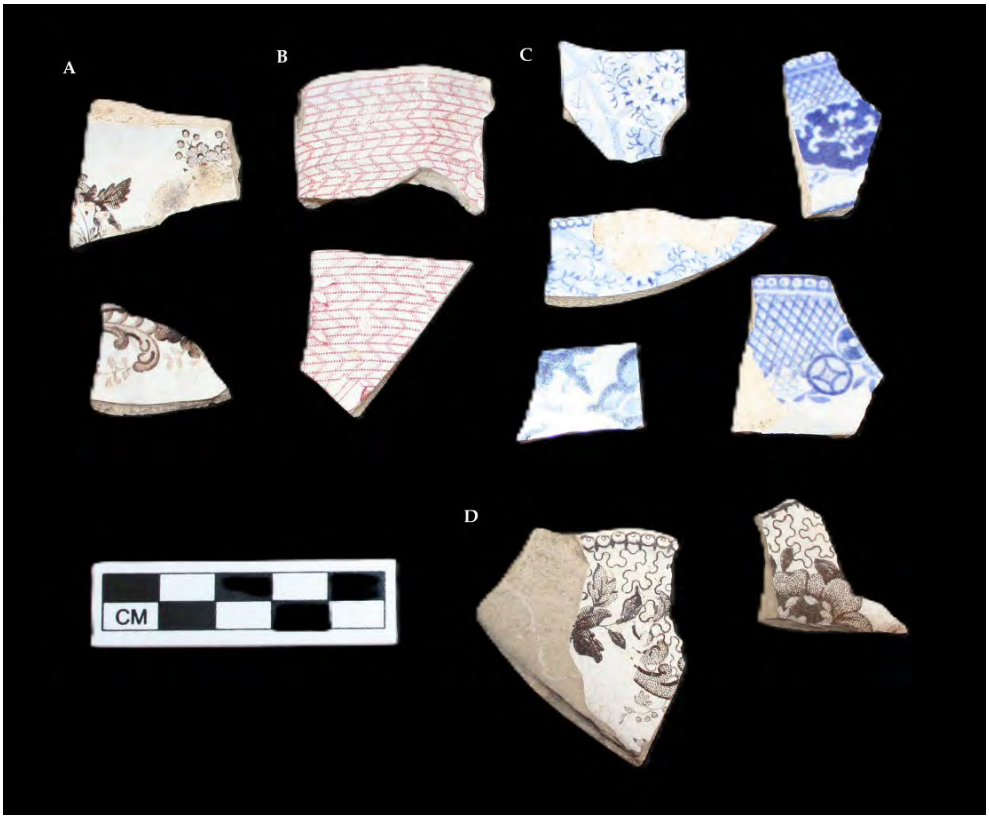


Image 27. Examples of transfer printed refined white earthenware; A. (inv.# 167) brown transferware, B. (inv.# 204) red transferware, C (inv.# 81) blue transferware, D (inv.# 217) black transferware.



Image 28. Examples of blue scalloped edged pearlware plates; A (inv.# 253) & B. (inv.# 39).



Image 29. Examples of sponge decorated refined white earthenware with green and red decorations (inv.#203).

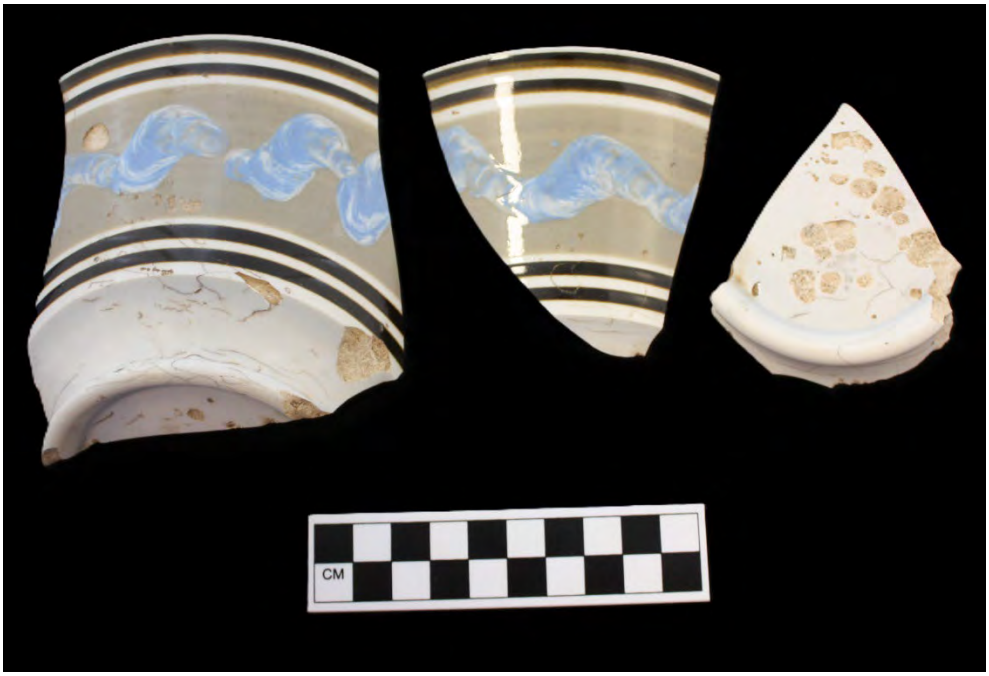


Image 30. Examples of industrial slipware with blue cabled decorations (inv.#98).



Image 31. Examples of ceramic utilitarian ware; A (inv.# 181) derbyshire, B (inv.# 180) brown lead glaze, C. (inv.#108) olive glaze, D (inv.# 179) jackfield.



Image 32. Examples of glass tableware; A (inv.#270) moulded tumbler, B. (inv.#1) glass stemware.



Image 33. Examples of utensils; A (inv.#222) large corroded knife, B (inv.#202) antler knife handle, C (inv.# 193) silver spoon, D (inv.#192) copper spoon.



Image 34. Examples of structural artifacts; A (inv.#194) window glass, B (inv.#91) cut nails, C (inv.# 246) wrought nails.



Image 35. Examples of personal/society artifacts; A (inv.#199) geometric copper alloy buttons, B (inv.#153) hunting button depicting a man on a horse with two hounds, C (inv.# 152) wooden button, D (inv.#196) copper thimble, E (inv.# 197) Province of Canada half penny dated to 1844, F (inv.# 198) Province of Canada half penny dated to 1842, G (inv.# 187) human effigy "Turks" head pipe bowl, H (inv.# 184) glazed pipe mouthpiece, I (inv.#188) maritime themed pipe bowl, J (inv.# 188) impressed pipe bowl.



Image 36. English Gun flint (inv.# 272)

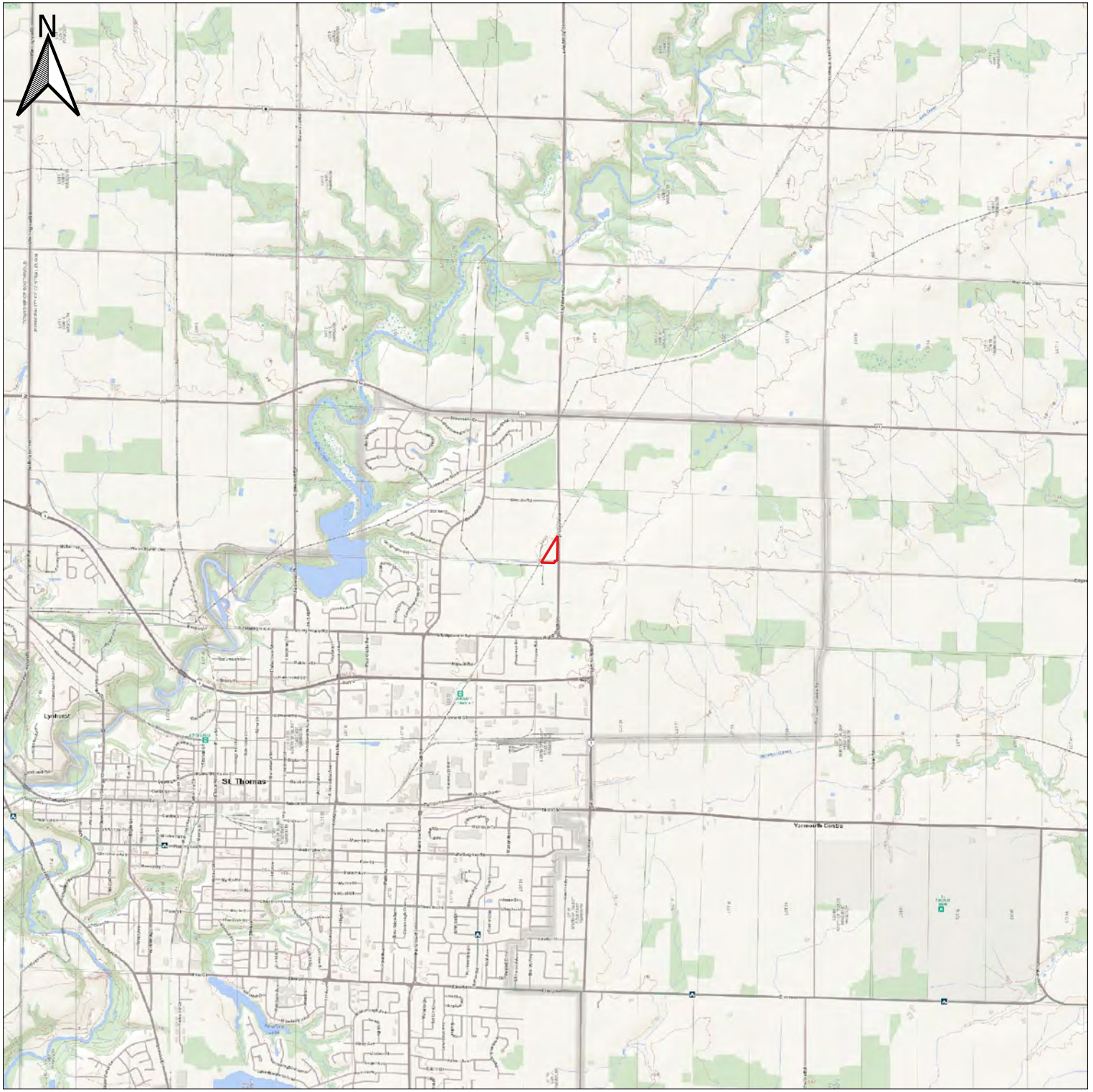


Image 37. Pig comprised the highest number of domestic animals present at the site. The Marwood Gilbert site assemblage contained 21 loose pig teeth from both deciduous and permanent dentition and 11 mandible fragments with teeth intact. Image illustrates a pig mandible with a male canine tusk (canine).



Image 38. The presence of a butchered deer tibia and tine from an antler demonstrate the use of local wild resources.

13.0 Maps



LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLANs: OPEN DATA LIO TOPOGRAPHIC MAP

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SCALE 1:50,000

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

KEY PLAN

CONSULTANT

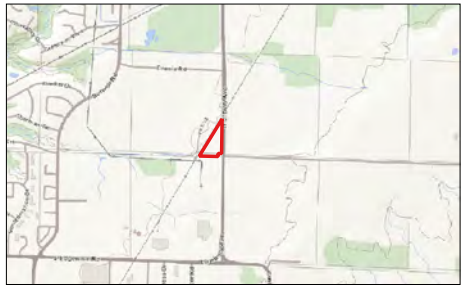
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YYYY-MM-DD	2025-12-08
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
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KEY MAP



SCALE 1:50,000

LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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SCALE 1:4,250

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

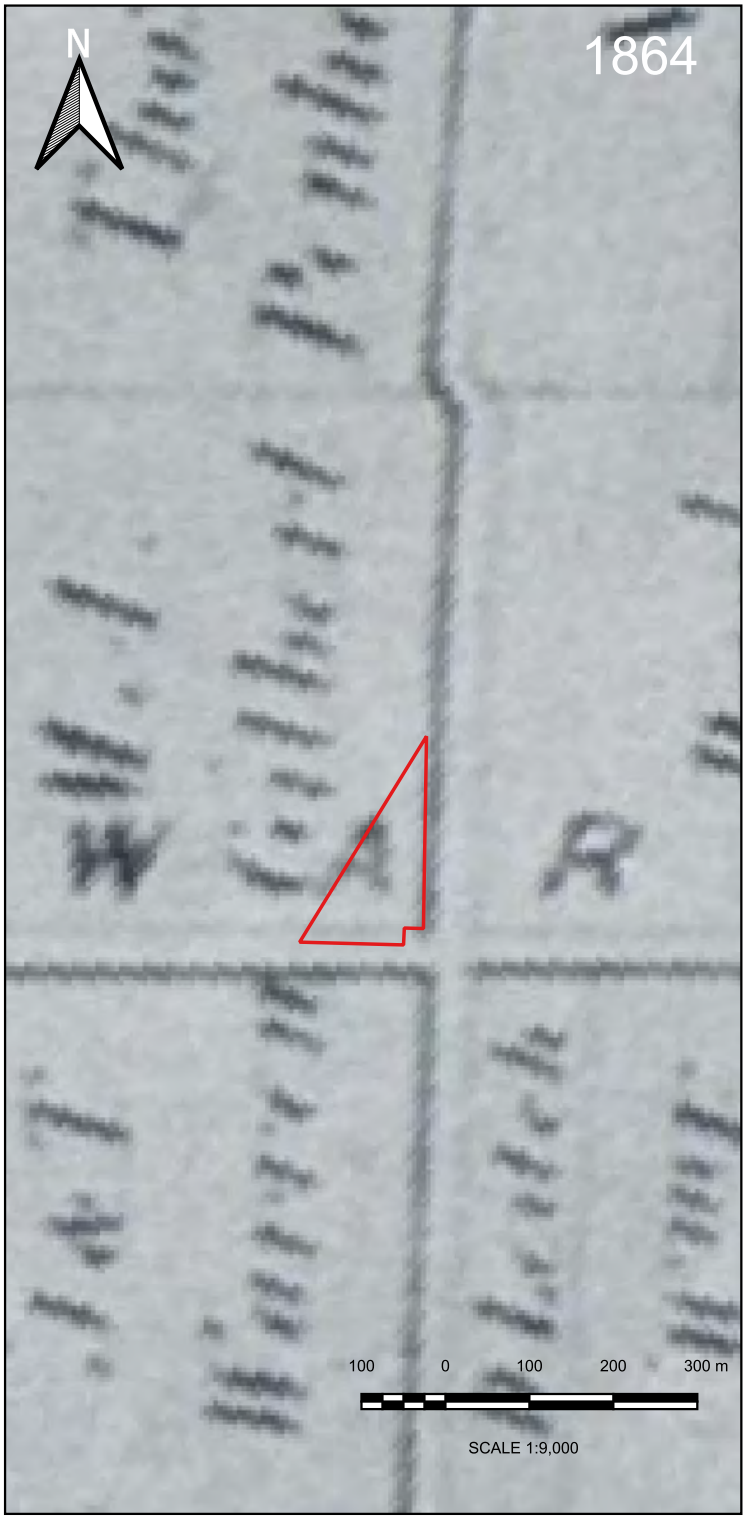
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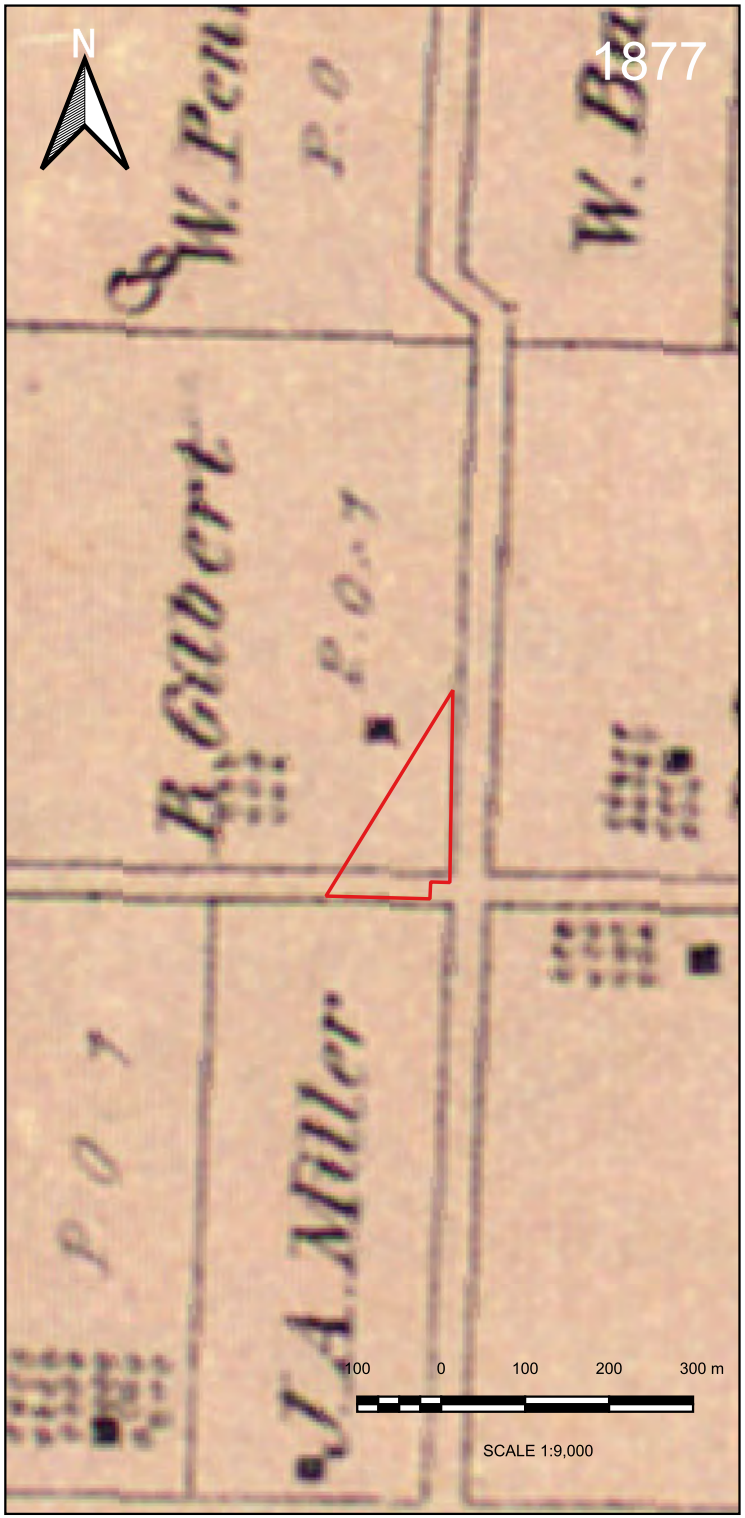
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TRUE NORTH ARCHAEOLOGICAL SERVICES

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APPROVED	BD

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LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. 1864 PLAN OF YARMOUTH TOWNSHIP, ELGIN COUNTY, GEORGE R. TREMAINE

3. 1877 PLAN OF YARMOUTH TOWNSHIP, ELGIN COUNTY, H.R. PAGE & CO.

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

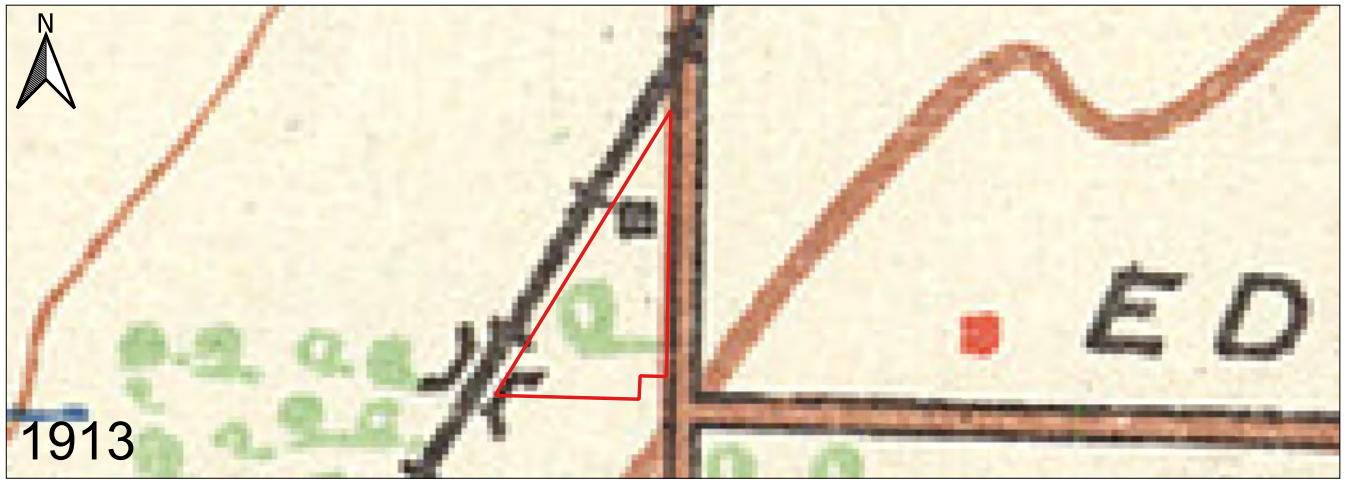
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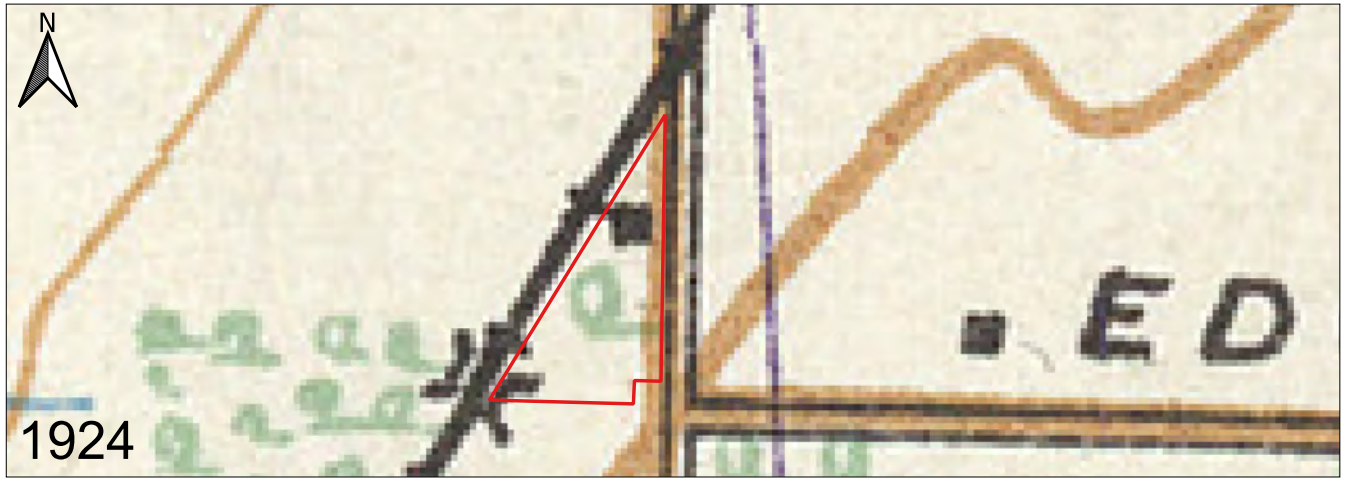
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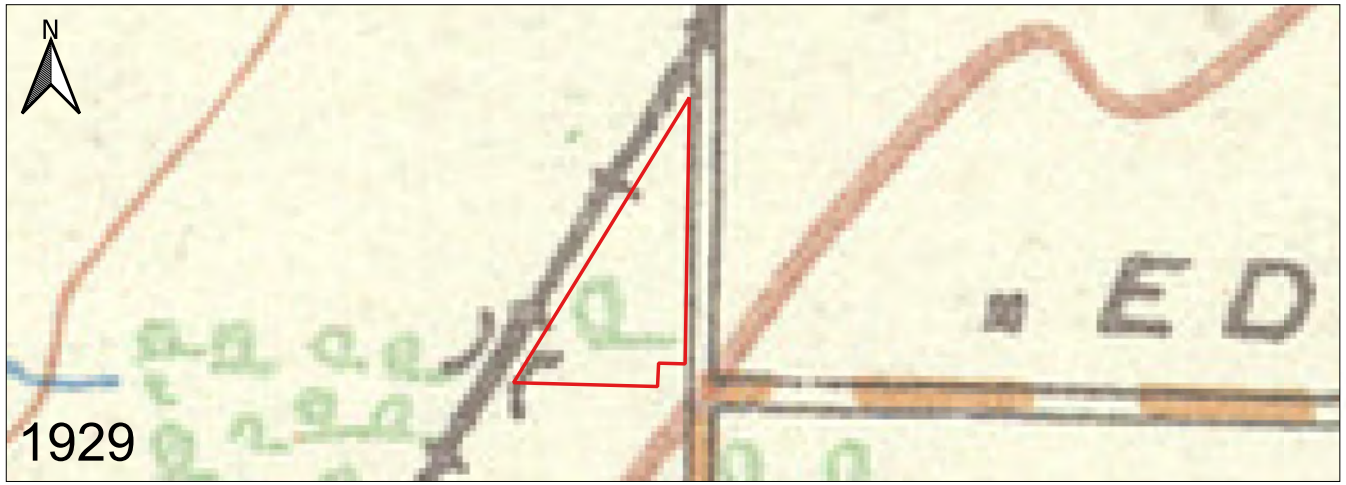
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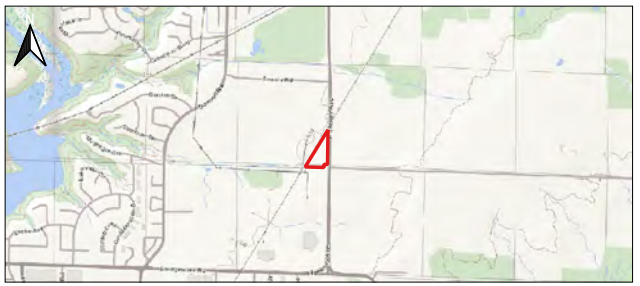
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SCALE 1:50,000

LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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SCALE 1:6,500

CLIENT

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PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

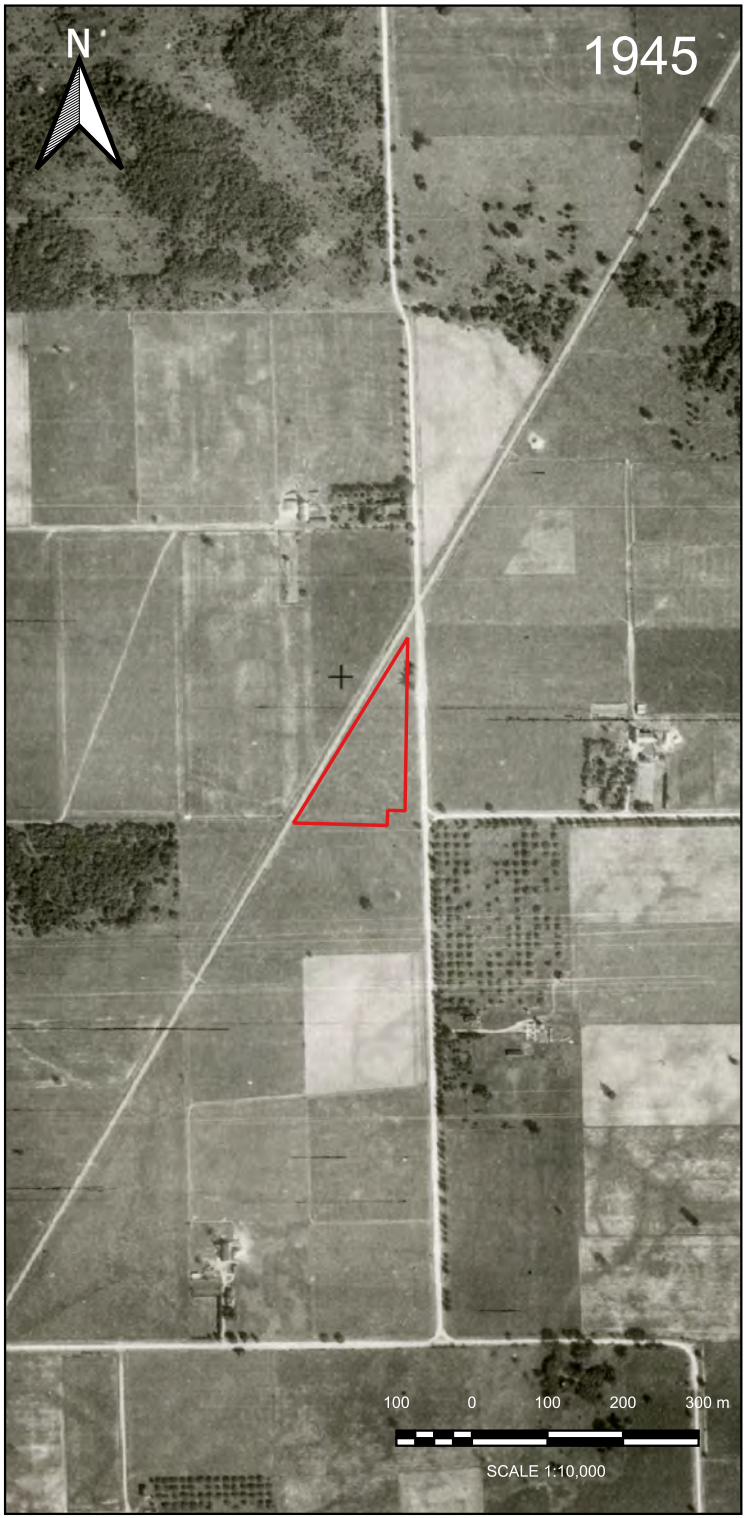
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CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

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APPROVED	BD

PROJECT NO.	REV.	MAP
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LEGEND

Study Area

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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3. 1978, DEPARTMENT OF FORESTRY AND MINING, ROLL#: 4255, PHOTO#: 204_50

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PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

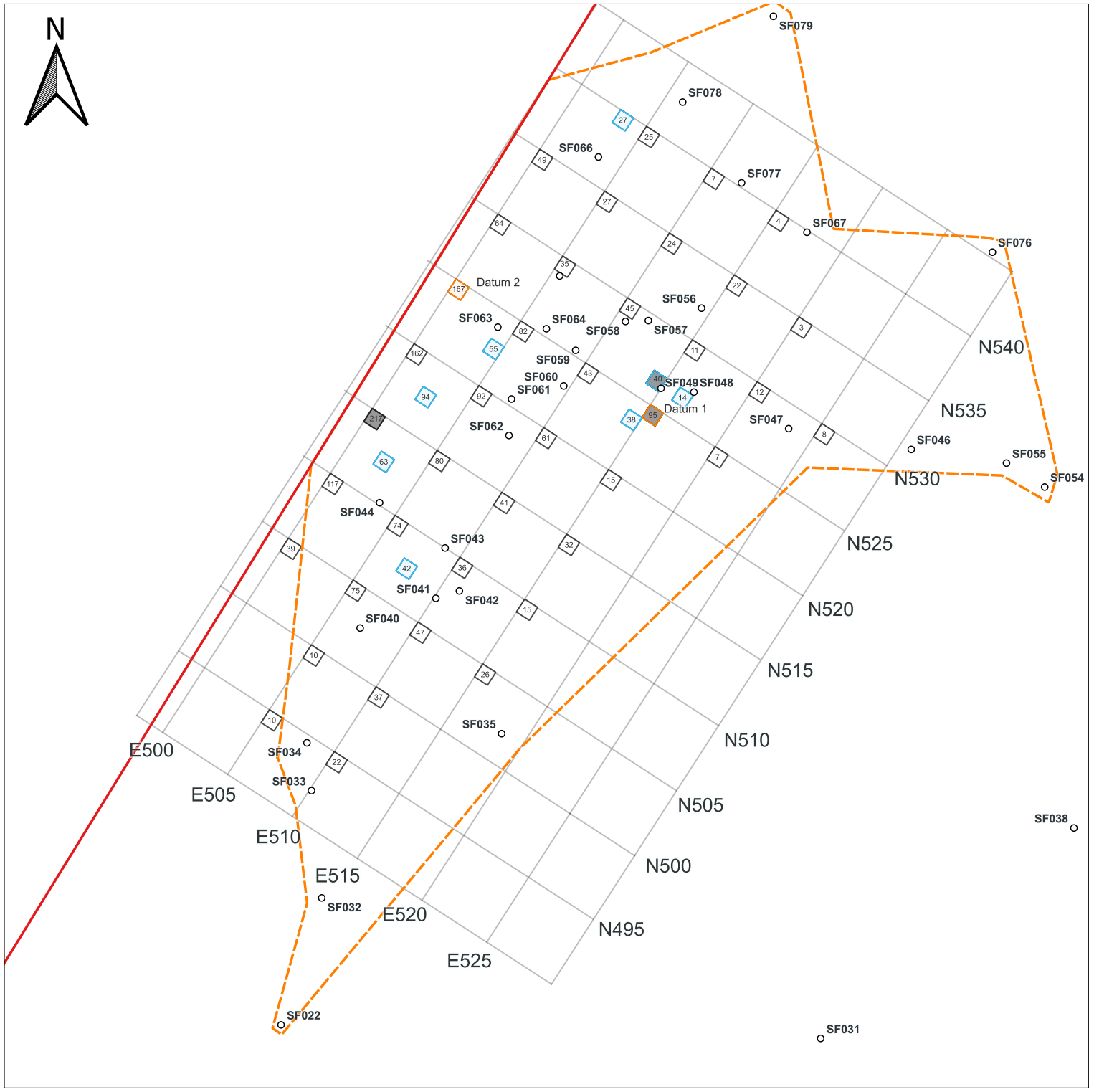
1945 AND 1978 AERIAL IMAGES

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-12-08
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	5



LEGEND

- Study Area

Stage 2 AA Results (PIF#: P311-0354-2024)

- Surface Find
- AeHg-61 Site Limits

Stage 3 AA Results (PIF#: P311-0355-2024)

- Stage 3 Unit; with corresponding artifact count
- Stage 3 Infill Unit
- Location of Cultural Feature
- Datum
- 5 m Grid

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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SCALE 1:350

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

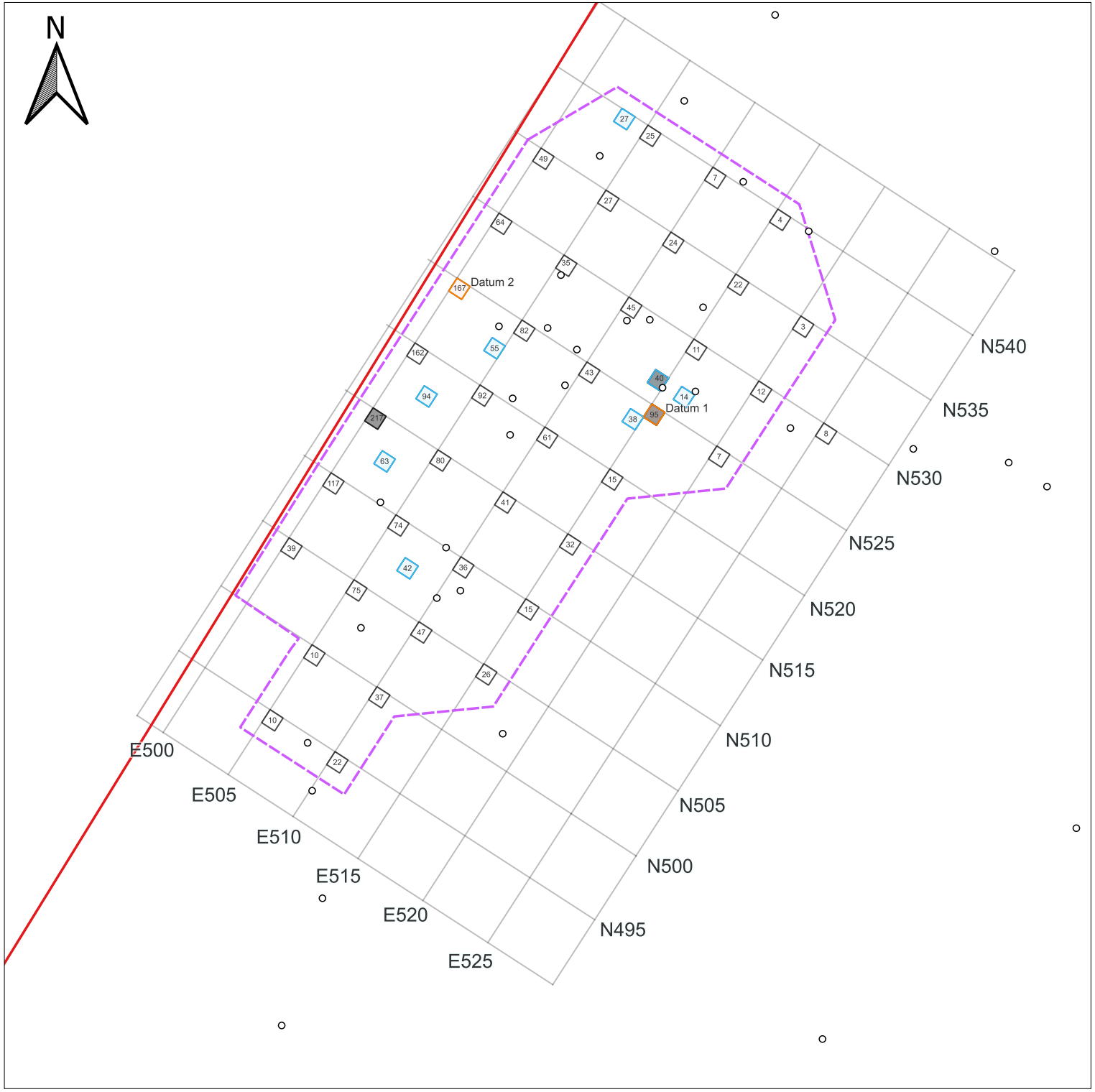
AeHg-61 COMBINED STAGE 2 AND 3 RESULTS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

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PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	6



LEGEND

- Study Area

Stage 2 AA Results (PIF#: P311-0354-2024)

- Surface Find

Stage 3 AA Results (PIF#: P311-0355-2024)

- Area Recommended for Stage 4 AA
- Stage 3 Unit; with corresponding artifact count
- Stage 3 Infill Unit
- Location of Cultural Feature
- Datum
- 5 m Grid

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83. COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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SCALE 1:350

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

AeHg-61 STAGE 3 RECOMMENDATIONS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-12-08
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	7



LEGEND

- Study Area

Stage 3 AA Results (PIF#: P311-0355-2024)

- Stage 3 Unit; with corresponding artifact count
- Location of Cultural Feature; identified during Stage 3 unit excavation
- 5 m Grid

Stage 4 AA Results (PIF#: P311-0363-2025)

- AeHg-61 Stage 4 Site Limit
- Feature 1 - Historic
- Feature 2 - Modern
- Feature 3 - Historic
- Feature 4 - Natural
- Feature 5 - Natural
- Feature 6 - Natural
- Feature 7 - Natural

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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SCALE 1:350

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

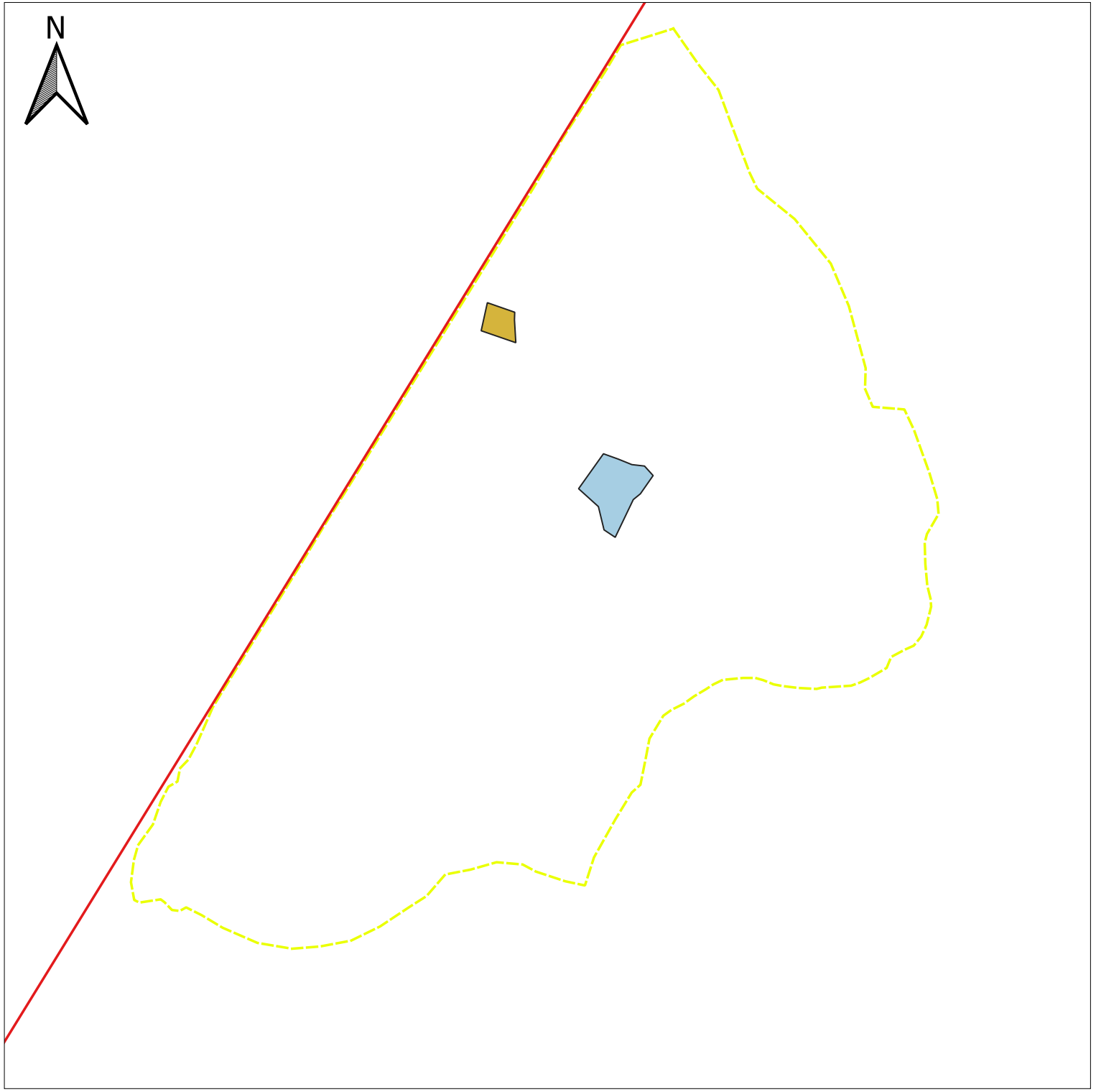
AeHg-61 COMBINED STAGE 3 & 4 RESULTS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-12-08
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	8



LEGEND

- Study Area

Stage 4 AA Results (PIF#: P311-0363-2025)

- AeHg-61 Stage 4 Site Limit
- Feature 1
- Feature 2

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83.
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

5 0 5 10 15 m

SCALE 1:350

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

AeHg-61 STAGE 4 FEATURES WITH CHVI

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-12-08
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	9



LEGEND

- Study Area

Stage 4 AA Results (PIF#: P311-0363-2025)

- AeHg-61 Stage 4 Site Limit
- Feature 1 - Historic
- Feature 2 - Modern
- Feature 3 - Historic
- Feature 4 - Natural
- Feature 5 - Natural
- Feature 6 - Natural
- Feature 7 - Natural
- Location and Direction of Field Photographs;with corresponding report image #.
- Datum 1
- Datum 2

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83. COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

2. BASE PLANS: 26/05/2025 DRONE IMAGERY

2.5 0 2.5 5 7.5 m

SCALE 1:325

CLIENT

DNV

PROJECT

STAGE 4 ARCHAEOLOGICAL ASSESSMENT, AeHg-61, EDGEWARE BATTERY STORAGE SITE, CONCESSION 1, PART OF LOT 8, RANGE 1 NORTH OF EDGEWARE ROAD, YARMOUTH TOWNSHIP, ELGIN COUNTY, NOW CITY OF ST-THOMAS, ONTARIO

TITLE

IMAGE LOCATIONS AND DIRECTIONS

CONSULTANT

TRUE NORTH ARCHAEOLOGICAL SERVICES

YYYY-MM-DD	2025-12-08
PREPARED	GKB
REVIEWED	BD
APPROVED	BD

PROJECT NO.	REV.	MAP
2024022	001	10

14.0 Signature Page

We trust that this report meets with your current needs. If you have any questions, or if we may be of further assistances, please contact either of the undersigned.

TRUE NORTH ARCHAEOLOGICAL SERVICES INC.

Gabryell Kurtzrock Belyea, M.A.
Project Archaeologist

Bradley Drouin, M.A.
Principal, Senior Archaeologist

15.0 APPENDIX A : Artifact Inventory

ID	MTCS PIF #	Stage	Borden #	Prov 1	Prov 2	Lot	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Attribute 1	Attribute 2	Manufacture	Alteration	# of	Note	Date
375	P311-0363-2025	4	AeHg-61	Feature 6		15	glass	indeterminate	food/beverage	tableware	stemware	base	plain	clear/colourless	indeterminate		13	Wine glass	
376	P311-0363-2025	4	AeHg-61	Feature 6		15	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	transfer printed:	blue	indeterminate		4		1780-1840
377	P311-0363-2025	4	AeHg-61	Feature 6		15	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white	indeterminate		1		
378	P311-0363-2025	4	AeHg-61	Feature 6		15	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	plain	blue: light	indeterminate		1		1780-1840
379	P311-0363-2025	4	AeHg-61	Feature 6		15	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate					2		
380	P311-0363-2025	4	AeHg-61	Feature 6		15	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate					1		
381	P311-0363-2025	4	AeHg-61	Feature 6		15	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	incomplete	plain	clear/colourless	indeterminate		1		
382	P311-0363-2025	4	AeHg-61	Feature 2		19	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white	indeterminate		2		
383	P311-0363-2025	4	AeHg-61	Feature 2		19	synthetic	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate			indeterminate		1	plastic bag	
384	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	fauna	bone	fauna: indeterminate	indeterminate	indeterminate	indeterminate					2		
385	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	fauna	bone	fauna: indeterminate	indeterminate	indeterminate	indeterminate				heat altered: calcined	4		
386	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white	indeterminate		2		
387	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	ceramic	creamware	food/beverage	tableware	indeterminate	indeterminate	plain	cream/yellow	indeterminate		3		1760-1830
388	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	plain	blue: light	indeterminate		2		1780-1840
389	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain	clear/colourless	indeterminate		1		
390	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	glass	indeterminate	structural	building component	window pane	indeterminate	plain	clear/colourless	indeterminate		1		
391	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	ceramic	clay: terracotta	structural	building component	brick	incomplete	indeterminate	red	indeterminate		1		
392	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	fauna	bone	fauna: indeterminate	indeterminate	bird	indeterminate					1		
393	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	ceramic	coarse earthenware: red	food/beverage	storage container	indeterminate	indeterminate	glaze: lead	brown: light	indeterminate		3		1796+ (Ontario made)
394	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	transfer printed	blue			1	Willow	1780-1840
395	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	hand painted	green: dark olive	indeterminate		2	polychrome late	1830-1840
396	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	metal	iron	tools/equipment	indeterminate	hook	incomplete				corroded	1		
397	P311-0363-2025	4	AeHg-61	Feature 1	NE	13	mortar	sample	structural	indeterminate	indeterminate	indeterminate					1		
398	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	metal	iron	structural	building component	nail: common	complete	square head	red	machine made		5		
399	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	glass	indeterminate	structural	building component	window pane	indeterminate	plain	clear/colourless	indeterminate		12		
400	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	glass	indeterminate	food/beverage	indeterminate	bottle:	indeterminate	plain	black	indeterminate		1		1889+
401	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	fauna	bone	fauna: indeterminate	indeterminate	indeterminate	indeterminate				heat altered: calcined	5		
402	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate					5		
403	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate					1	Tooth	
404	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	green: light	indeterminate		4		1796+ (Ontario made)
405	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	indeterminate				3		1796+ (Ontario made)
406	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: coloured	black	indeterminate		3		1796+ (Ontario made)
407	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	yellow	indeterminate		1		1796+ (Ontario made)
408	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	coarse earthenware: red	food/beverage	storage container	indeterminate	indeterminate	glaze: lead	brown: light	indeterminate		9		1796+ (Ontario made)
409	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain	clear/colourless	indeterminate		1		
410	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	bowl	plain	clear/colourless	indeterminate		2		
411	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	clay: terracotta	structural	building component	brick	incomplete	plain	red	indeterminate		2		
412	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	fauna	shell	personal/societal	clothing	button: 4 hole	complete	plain	white	indeterminate		1		
413	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	pearlware	food/beverage	tableware	plate:	incomplete	scallop	blue	indeterminate		9		1780-1840

414	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	creamware	food/beverage	tableware	indeterminate	indeterminate	plain	cream/yellow	indeterminate		13		1760-1830
415	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white	indeterminate		6		
416	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	black	indeterminate		1		1832-1845
417	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green: dark olive	indeterminate		3	green leaves, black band	1830-1872
418	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	blue	indeterminate		3		1825+
419	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	pink	indeterminate		2	early palette	1820-1860
420	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green: light	indeterminate		1	late palette	1830-1872
421	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	blue	indeterminate		1	late palette	1830-1872
422	P311-0363-2025	4	AeHg-61	Feature 1	NE	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	black	indeterminate		1	late palette	1830-1872
423	P311-0363-2025	4	AeHg-61	Feature 1	SE	20	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	plain	blue: light	indeterminate		6		1780-1840
424	P311-0363-2025	4	AeHg-61	Feature 1	SE	20	ceramic	coarse earthenware: red	food/beverage	storage container	indeterminate	indeterminate	glaze: lead	brown: light	indeterminate		1		1796+ (Ontario made)
425	P311-0363-2025	4	AeHg-61	Feature 1	SE	20	metal	iron	structural	building component	nail: common	complete	square head	red	machine made		1		
426	P311-0363-2025	4	AeHg-61	Feature 1	SE	16	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	hand painted	green: dark olive	indeterminate		8	polychrome late	1830-1840
427	P311-0363-2025	4	AeHg-61	Feature 1	SE	16	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	brown	indeterminate		1		1820-1860
428	P311-0363-2025	4	AeHg-61	Feature 1	SE	16	ceramic	creamware	food/beverage	tableware	indeterminate	indeterminate	plain	cream/yellow	indeterminate		4		1760-1830
429	P311-0363-2025	4	AeHg-61	Feature 1	SE	16	glass	indeterminate	structural	building component	window pane	indeterminate	plain	clear/colourless	indeterminate		1		
430	P311-0363-2025	4	AeHg-61	Feature 1	SE	16	ceramic	coarse earthenware: red	food/beverage	storage container	indeterminate	indeterminate	glaze: lead	brown: light	indeterminate		3		1796+ (Ontario made)
431	P311-0363-2025	4	AeHg-61	Feature 1	SE	16	fauna	bone	fauna: indeterminate	indeterminate	indeterminate	indeterminate			indeterminate		1	bone	
432	P311-0363-2025	4	AeHg-61	Feature 1	SE	16	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white	indeterminate		1		
433	P311-0363-2025	4	AeHg-61	Feature 1	SE	16	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	industrial slip	brown: light	indeterminate		1	black bands	1830-1840
434	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	creamware	food/beverage	tableware	mug/tankard	incomplete	plain	cream/yellow	indeterminate		2		1760-1830
435	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	black	indeterminate		11		1832-1845
436	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white	indeterminate		8		
437	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	industrial slip	grey	indeterminate		1		1820-1920
438	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	incomplete	plain	clear/colourless	indeterminate		1		
439	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	coarse earthenware: red	food/beverage	storage container	indeterminate	indeterminate	glaze: lead	red	indeterminate		1		1796+ (Ontario made)
440	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate				heat altered: calcined	1		
441	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	glass	indeterminate	food/beverage	indeterminate	bottle:	indeterminate	moulded	clear/colourless	indeterminate		1		1820+
442	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	creamware	food/beverage	tableware	indeterminate	rim	hand painted	blue	indeterminate		1		1760-1830
443	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green: olive	indeterminate		1	early palette	1820-1860
444	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green: light	indeterminate		1	early palette	1820-1860
445	P311-0363-2025	4	AeHg-61	Feature 1	SE	13	fauna	bone	fauna: indeterminate	indeterminate	indeterminate						9	possible pig jaw	
446	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	fauna	bone	fauna: indeterminate	indeterminate	indeterminate						18		
447	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	metal	iron	structural	building component	nail: common	indeterminate			machine made		2		
448	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	fauna	bone	fauna: indeterminate	indeterminate	indeterminate	indeterminate				heat altered: calcined	11		
449	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	coarse earthenware: buff	food/beverage	storage container	indeterminate	incomplete	glaze: lead	brown	indeterminate		1		1796+ (Ontario made)
450	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	coarse earthenware: red	food/beverage	storage container	indeterminate	incomplete	glaze: lead	brown	indeterminate		4		1796+ (Ontario made)
451	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	yellow	indeterminate		1		1796+ (Ontario made)
452	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	glass	indeterminate	structural	building component	window pane	indeterminate	plain	clear/colourless	indeterminate		14		
453	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	embossed	clear/colourless	indeterminate		5	floral motif	
454	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	black	indeterminate		2		1832-1845
455	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	brown	indeterminate		8		1820-1860
456	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	Ceramic	pearlware	food/beverage	tableware	indeterminate	incomplete	scallop	blue	indeterminate		6		1780-1840
457	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	hand painted	red	indeterminate		13	polychrome late	1830-1840
458	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green: olive	indeterminate		4	black band: late platte	1830-1872
459	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	blue	indeterminate		5		1825+
460	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	red	indeterminate		2		1828+

461	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	fine earthenware:	food/beverage	tableware	indeterminate	indeterminate	glaze: jackfield	black	indeterminate		1		1796+
462	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	black	indeterminate		1	thick black band, late	1830-1840
463	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white	indeterminate		26		
464	P311-0363-2025	4	AeHg-61	Feature 1	SE	17	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	plain	blue: light	indeterminate		1		1780-1840
465	P311-0363-2025	4	AeHg-61	Feature 3		10	metal	iron	structural	building component	nail: common		square head		machine made		8		
466	P311-0363-2025	4	AeHg-61	Feature 3		10	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate					5		
467	P311-0363-2025	4	AeHg-61	Feature 3		10	glass	indeterminate	structural	building component	window pane	indeterminate	plain	clear/colourless			2		
468	P311-0363-2025	4	AeHg-61	Feature 3		10	glass	indeterminate	food/beverage	indeterminate	bottle:	indeterminate	plain	clear/colourless			1		1889+
469	P311-0363-2025	4	AeHg-61	Feature 3		10	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	handle	glaze: lead	black			1		1796+ (Ontario made)
470	P311-0363-2025	4	AeHg-61	Feature 3		10	ceramic	refined white	food/beverage	tableware	indeterminate	incomplete	plain	white			6		
471	P311-0363-2025	4	AeHg-61	Feature 3		10	ceramic	refined white	food/beverage	tableware	indeterminate	incomplete	transfer printed	blue			1		1825+
472	P311-0363-2025	4	AeHg-61	Feature 3		10	ceramic	refined white	food/beverage	tableware	bowl	bowl	industrial slip	grey			13	cabled: blue circular	1790-1820
473	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	metal	iron	structural	building component	nail: common	incomplete	square head		machine made		9		
474	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate					25		
475	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	fauna	bone	fauna: indeterminate	indeterminate	mammal	incomplete					3	teeth	
476	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain	white			6		
477	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	bowl	embossed	white			5		
478	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	metal	iron	indeterminate	indeterminate	indeterminate	indeterminate				corroded	4		
479	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	glass	indeterminate	structural	building component	window pane	indeterminate	plain	clear/colourless			12		
480	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	glass	indeterminate	food/beverage	indeterminate	bottle:	indeterminate	plain	clear/colourless			7		1889+
481	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	brown			4		1796+ (Ontario made)
482	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	brown: light			3		1796+ (Ontario made)
483	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	fine earthenware:	food/beverage	tableware	indeterminate	incomplete	glaze: jackfield	black			1		1796+
484	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	earthenware: ind.	food/beverage	tableware	indeterminate	indeterminate	glaze: none				2		1796+
485	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	blue			22	late palette, blue, green	1830-1872
486	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	red			5	late palette, red band	1830-1872
487	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	yellow			1	yellow leaf, late palette	1830-1872
488	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green			11	early palette, black	1820-1860
489	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white			26		
490	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	base	plain	white			2		
491	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	blue			13		1825+
492	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware		rim	industrial slip	brown			1	blue and brown circular	1820-1920
493	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	rim	industrial slip	grey			1	grey background with	1820-1920
494	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	industrial slip	brown: light			1	cabled light brown	1790-1820
495	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	flora	wood	personal/societal	clothing	button: 4 hole	complete					1	polished	
496	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	fauna	bone	fauna: indeterminate	indeterminate	mammal	incomplete					37		
497	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	fauna	bone	fauna: indeterminate	indeterminate	bird	incomplete					1		
498	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	fauna	bone	fauna: indeterminate	indeterminate	mammal	incomplete					3	tooth	
499	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	iron	structural	building component	nail: common	incomplete	square head		machine made	corroded	13		
500	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	iron	indeterminate	indeterminate	indeterminate	indeterminate				corroded	7		
501	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	iron	personal/societal	indeterminate	weight	complete				corroded	1		
502	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain	clear/colourless			2		
503	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	Ceramic	refined white earthenware	personal/societal	Smoking	smoking pipe	bowl	plain	clear/colourless			3		
504	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	bowl	embossed	clear/colourless			5		

505	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	glass	indeterminate	structural	building component	window pane	indeterminate		clear/colourless			8		
506	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	glass	indeterminate	food/beverage	indeterminate	bottle:	incomplete	plain	clear/colourless			6		1889+
507	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	pearlware	food/beverage	tableware	indeterminate	rim	transfer	blue			1		1780-1840
508	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	rim	hand painted	blue			1	polychrome early	1820-1860
509	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	pearlware	food/beverage	tableware	indeterminate	base	hand painted	blue			2	broad brush	1775-1840
510	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	rim	edge decorated:	blue			2	similar to scalloped	1841-1857
511	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	Tableware	plate:	base	transfer printed	blue			1		1825+
512	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	rim	transfer printed	blue			3		1825+
513	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	blue			13		1825+
514	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	Ceramic	pearlware	food/beverage	tableware	indeterminate	rim	hand painted	green			3	hand painted	1830-1840
515	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	rim	transfer printed	brown			1		1820-1860
516	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	sponged	red			3		1843-1875
517	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	rim	hand painted	red			3	early palette: blue and	1820-1860
518	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green			1	late palette: light green	1830-1872
519	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	incomplete	industrial slip	blue			1	light blue	1785-1840
520	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	Tableware	indeterminate	indeterminate	transfer printed	black			1		1832-1845
521	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	incomplete	glaze: lead	red			1		1796+ (Ontario made)
522	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	brown			3		1796+ (Ontario made)
523	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	Tableware	Indeterminate	Incomplete	plain	white			14		
524	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	pearlware	food/beverage	tableware	indeterminate	base	plain				3		1780-1840
525	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	Tableware	cup/mug	indeterminate	moulded	white			3		1820+
526	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	flora	wood	personal/societal	clothing	button: 4 hole	complete					1		
527	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	Metal	copper alloy	personal/societal	clothing	button: domed: 1 piece	complete	effigy	copper			1	Front is embossed with a man riding a horse and shooting a hunting	1834-1843
528	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	copper alloy	personal/societal	commerce	coin: half penny	complete	engraved	copper			1	made by the bank of montreal for the province of canada.	1844
529	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	metal	iron	structural	building component	nail: common	incomplete	square head		machine made		8		
530	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	glass	indeterminate	structural	building component	window pane	indeterminate		clear/colourless			11		
531	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	glass	indeterminate	food/beverage	indeterminate	bottle:	incomplete					1		1889+
532	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	Metal	Iron	Indeterminate	indeterminate	indeterminate	indeterminate					5		
533	P311-0363-2025	4	AeHg-61	Feature 1	SW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain	clear/colourless			1		
534	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	Fauna	bone	fauna: indeterminate	indeterminate	indeterminate	indeterminate				heat altered: calcined	1	polished	
535	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	pearlware	food/beverage	tableware	plate (pane)	rim	scallop	blue			4	scallop edged	1780-1840
536	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	rim	scallop	green			1	scallop edged	1820-1845
537	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain				10		
538	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	pearlware	food/beverage	tableware	plate (pane)	incomplete	plain				3	incomplete makers	1780-1840
539	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	rim	industrial slip	black			5		1820-1920
540	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	black			2		1832-1845
541	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	brown			2		1820-1860
542	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	red			5	early palette, green	1820-1860
543	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	cup/mug	handle	transfer printed	blue			1		1825+
544	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	blue			1		1825+
545	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	rim	hand painted	blue			1	late palette	1830-1872
546	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	blue			3	blue band on edge, light	1820-1860
547	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	hand painted	blue			2	broad brush, dark blue	1775-1840
548	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	base	plain	white			3		
549	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	red			2	dark pink flowers, late	1830-1872
550	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	red			1	late palette: red	1830-1872
551	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	blue			2	red flower, blue flowers,	1830-1872
552	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	plain				3		1796+ (Ontario made)
553	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	coarse earthenware: buff	food/beverage	food container	indeterminate	indeterminate	glaze: coloured	black			2		1796+ (Ontario made)

554	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	coarse earthenware: buff	food/beverage	food container	indeterminate	indeterminate	glaze: lead	brown			8		1796+ (Ontario made)
555	P311-0363-2025	4	AeHg-61	Feature 1	NW	11	ceramic	fine stoneware:	food/beverage	storage container	indeterminate	incomplete	glaze: derbyshire	brown			3		1800-1900
556	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	fauna	bone	fauna: indeterminate	indeterminate	indeterminate	indeterminate				heat altered: calcined	17		
557	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate					43		
558	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe: mouthpiece	mouthpiece	glaze: amber				2		
559	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain				8		
560	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	bowl	plain				1		
561	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white earthenware	personal/societal	Smoking	smoking pipe	bowl	effigy				5		
562	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	bowl	embossed				5	anchor motif	
563	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	iron	structural	building component	nail: common	incomplete	square head		machine made		19		
564	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	iron	indeterminate	indeterminate	indeterminate	indeterminate				corroded	16		
565	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	iron	indeterminate	indeterminate	bracket	incomplete				corroded	1		
566	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	Metal	copper alloy	food/beverage	tableware	spoon:						2		
567	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	Metal	silver alloy	food/beverage	tableware	spoon:						1		
568	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	glass	indeterminate	structural	building component	window pane	indeterminate					15		
569	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	glass	indeterminate	food/beverage	indeterminate	bottle:	indeterminate					2		1889+
570	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	copper alloy	personal/societal	sewing	thimble	complete					1		
571	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	copper alloy	personal/societal	commerce	coin: half penny	complete	engraved				3	made by the bank of montreal for the province of canada.	1844
572	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	copper alloy	personal/societal	commerce	coin: half penny	complete	engraved				1	made by the bank of montreal for the province of canada.	1842
573	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	Metal	copper alloy	personal/societal	clothing	button: domed: 1 piece	complete	engraved	embossed pattern			2	geometric design	
574	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	metal	iron	personal/societal	clothing	button hook	incomplete					1	button eyelit	
575	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	clay: terracotta	structural	building component	brick	incomplete					2		
576	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	Fauna	Bone	food/beverage	food preparation	knife	handle					1	antler knife handle	
577	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	sponged	green and red			11		1843-1875
578	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	rim	transfer printed	red			3	scalloped edge	1828+
579	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	rim	scallop	blue			4		1820-1845
580	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	teacup	incomplete	transfer printed	brown			1		1820-1860
581	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	yelloware	food/beverage	tableware	indeterminate	indeterminate	plain	yellow			2		1830+
582	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	transfer printed	black			1		1832-1845
583	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	hand painted	black and red			14	black band around rim	1830-1840
584	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	rim	hand painted	pink			3	early palette	1820-1860
585	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	pink, red, green,			12	late palette	1830-1872
586	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green			1	late palette	1830-1872
587	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green			1	early palette	1820-1860
588	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	brown			1		1796+ (Ontario made)
589	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	light brown			2		1796+ (Ontario made)
590	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	coarse earthenware: red	food/beverage	tableware	indeterminate	indeterminate	glaze: coloured	black			1		1796+ (Ontario made)
591	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	Tableware	Indeterminate	incomplete	transfer printed	blue			24		1825+
592	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	sponged	blue			3		1843-1875
593	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	pearlware	food/beverage	tableware	cup/mug	rim	hand painted	blue			3	berry motif	1775-1840
594	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	refined white	food/beverage	tableware	indeterminate	incomplete	plain	white			40		
595	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	ceramic	pearlware	food/beverage	tableware	indeterminate	incomplete	plain				6		1780-1840

596	P311-0363-2025	4	AeHg-61	Feature 1	NW	17	Metal	iron	food/beverage	food preparation	knife	complete					2		
597	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain				3		
598	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate	indeterminate			heat altered: calcined	6		
599	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	fauna	bone	fauna: indeterminate	indeterminate	mammal	indeterminate	indeterminate				8		
600	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	ceramic	refined white	food/beverage	tableware	plate (pane)	incomplete	transfer printed	red			5		1828+
601	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	Ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	black			1	late palette	1830-1872
602	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	red			1	early palette	1820-1860
603	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	ceramic	refined white	food/beverage	tableware	indeterminate	rim	plain	white			1		
604	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	metal	iron	indeterminate	indeterminate	indeterminate	indeterminate				corroded	5		
605	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: lead	brown			1		1796+ (Ontario made)
606	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	ceramic	coarse	food/beverage	tableware	indeterminate	incomplete	glaze: jackfield	black			1		1796+
607	P311-0363-2025	4	AeHg-61	Feature 1	SW	13	ceramic	pearlware	food/beverage	tableware	indeterminate	rim	hand painted	blue			14		1780-1840
608	P311-0363-2025	4	AeHg-61	Feature 1	NW	16	metal	iron	indeterminate	indeterminate	indeterminate					corroded	2		
609	P311-0363-2025	4	AeHg-61	Feature 1	NW	16	Fauna	bone	fauna: indeterminate	indeterminate	mammal						11		
610	P311-0363-2025	4	AeHg-61	Feature 1	NW	16	fauna	bone	fauna: indeterminate	indeterminate	indeterminate					heat altered: calcined	2		
611	P311-0363-2025	4	AeHg-61	Feature 1	NW	16	glass	indeterminate	structural	building component	window pane						2		
612	P311-0363-2025	4	AeHg-61	Feature 1	NW	16	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white			9		
613	P311-0363-2025	4	AeHg-61	Feature 1	NW	16	ceramic	pearlware	food/beverage	tableware	indeterminate	base	plain				3		1780-1840
614	P311-0363-2025	4	AeHg-61	Feature 1	NW	16	ceramic	refined white	food/beverage	tableware	indeterminate	incomplete	hand painted	blue and green			2	late palette	1830-1872
615	P311-0363-2025	4	AeHg-61	Feature 1	NW	16	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	green			1	early palette, very thick	1820-1860
616	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	fauna	bone	fauna: indeterminate	indeterminate	mammal						16	likely pig	
617	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	fauna	bone	fauna: indeterminate	indeterminate	bird						2		
618	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	fauna	bone	fauna: indeterminate	indeterminate	indeterminate					heat altered: calcined	4		
619	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	metal	iron	structural	building component	nail: common		square head		machine made		3		
620	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	metal	iron	structural	building component	nail: common		rosehead		machine made		2		
621	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	glass	indeterminate	structural	building component	window pane			clear/colourless			5		
622	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	clay: terracotta	structural	building component	brick						1		
623	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	clay: terracotta	structural	building component	tile						1		
624	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	glass	indeterminate	food/beverage	indeterminate	bottle:	indeterminate					1		1889+
625	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	bowl	plain				1		
626	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain				1		
627	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	pearlware	food/beverage	tableware	plate (pane)	rim	scallop	blue			7		1780-1840
628	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	pearlware	food/beverage	tableware	cup/mug	rim	hand painted	blue			10	berry motif	1775-1840
629	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	pearlware	food/beverage	tableware	cup/mug	base	plain				7		1780-1840
630	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	industrial slip	green and black			2		1820-1920
631	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	blue and pink			4	early palette	1830-1860
632	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	pearlware	food/beverage	tableware	indeterminate	base	hand painted	green and blue			1	polychrome late	1830-1860
633	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	pearlware	food/beverage	tableware	indeterminate	rim	hand painted	green			2	polychrome late	1830-1840
634	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	hand painted	black			1	polychrome late	1830-1840
635	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	hand painted	blue			6	broad brush	1775-1840
636	P311-0363-2025	4	AeHg-61	Feature 1	SW	16	ceramic	fine stoneware:	food/beverage	food container	indeterminate	rim	glaze: none	black			1	black basalt	1750-1820
637	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	fauna	bone	fauna: indeterminate	indeterminate	mammal						6		
638	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	fauna	bone	fauna: indeterminate	indeterminate	mammal					heat altered: calcined	9		
639	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	stem	plain				1		
640	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	refined white earthenware	personal/societal	smoking	smoking pipe	bowl	plain				6		

641	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	metal	iron	structural	building component	nail: common		square head		machine made		1		
642	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	glass	indeterminate	structural	building component	window pane						1		
643	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	coarse	food/beverage	tableware	indeterminate	indeterminate	glaze: jackfield				1		1796+
644	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	glass	indeterminate	food/beverage	tableware	cup/mug	base	decorated	clear/colourless	moulded:		1	suction scar on the	1889+
645	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	coarse earthenware: red	food/beverage	food container	indeterminate	indeterminate	glaze: coloured	light brown			1		1796+ (Ontario made)
646	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	stone	flint	arms/ammunition	firearm	gunflint	complete				heat altered: burnt	1	potlid on base	
647	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	pearlware	food/beverage	tableware	indeterminate	rim	hand painted	pink			3	polychrome late	1830-1840
648	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	refined white	food/beverage	tableware	indeterminate	indeterminate	plain	white			1		
649	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	pearlware	food/beverage	tableware	indeterminate	indeterminate	hand painted	blue			80	pieces of a cup and a	1775-1840
650	P311-0363-2025	4	AeHg-61	Feature 1	NW	13	ceramic	pearlware	food/beverage	tableware	indeterminate		transfer printed	blue			2		1780-1840
																	1332		

16.0 APPENDIX B : Botanical Remains

MORNINGSTAR ARCHAEOLOGY & PALEOBOTANY INC.

Archaeobotanical Assessment of the AeHg-61 Site, a mid 19th century Euro-Canadian site located in St. Thomas, Elgin County, Ontario

Prepared for:

Name: Bradley Drouin P311

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Dylan Morningstar, B.A. (Hons.) (R1166)
CEO, Paleoethnobotanist and Lead Archaeologist
Morningstar Archaeology and Paleobotany (MAP) Inc.
56 Sailors Landing, Bowmanville ON, L1C 7G4

EXECUTIVE SUMMARY

This report presents the archaeobotanical analysis of Feature 4, a root cellar at the AeHg-61 site in St. Thomas, Ontario. Analysis of 24.1 L of soil revealed a charcoal-rich assemblage dominated by beech and maple, with limited charred plant remains including maize and flax. A total of 20,863 fragments (147.6 g) of botanical material was recovered from 8 contexts. The botanical assemblage likely reflects the cellar's use as a secondary refuse deposit rather than a direct reflection of stored food during its use-life. AeHg-61 fits broader regional patterns for 19th-century Euro-Canadian root cellars but is unique for its flax remains and lack of conifer charcoal, offering insight into local land-use practices and historical flax production in Elgin County.

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The following section describes the recovery and analysis of eight soil samples collected from an historic root cellar (Feature 4) during the Stage 4 Archaeological Assessment of the AeHg-61 site in accordance with Standard 4.4.1-3 and Table 6.3.3-4 of the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists* (2011). The soil samples were subject to water floatation and their archaeobotanical contents were examined under a high-resolution microscope. Non-botanical artifacts larger than 4 mm that were recovered from the soil samples are included within the main report catalogue; non-botanical material ≤4mm is not discussed within this report but was retained within their respective samples and returned to the PIF Licensee.

1.0 Collection and Analytical Procedure

Soil samples were collected from the AeHg-61 site following *S&G* Standard 4.4.1-3 (Ministry of Tourism, Culture and Sport 2011). Due to varying size and volume of the contexts within Feature 4 encountered during excavation, professional judgement was used to estimate the appropriate volume of soil per feature context needed to provide an accurate sample relative to the feature size (see Table 1). Soil samples were collected using a shovel and a large Ziploc bag which was filled to its maximum carrying capacity (~6 L per bag). A total of 24.1 L of soil was subject to floatation, subsampling, and analysis.

1.1 Flotation and Subsampling

Samples were subjected to machine-assisted water flotation using a modified Siraf machine (De Moulins 1996; Pearsall 2015:44–59; Williams 1973, 1976). Each sample was slowly poured into water over 1 mm wire mesh and agitated by hand with the assistance of pressured agitator under the mesh which allowed for the separation and suspension of lighter, organic material from the surrounding soil matrix. The water containing the suspended materials was then slowly decanted over a 300-micron cloth mesh to separate the light from the heavy fractions. Soil left at the bottom of the bucket after passing through each mesh was discarded. Both fractions were then allowed to dry for at least 48 hours after which the light fraction was passed through nested geological sieves into 6 subsamples: > 4 mm, <4 - >2 mm, <2 mm - > 1 mm, <1 mm - >0.5 mm, <0.5 mm - > 0.25 mm, and <0.25 mm. The heavy fraction was separated into 5 subsamples (>6.35 mm, >4 mm, <4 mm - >2mm, <2 mm - >1 mm, and >1 mm) and was microscopically scanned for the presence of botanical material; all other material was retained but is not discussed within this archaeobotanical report. The > 6.35 mm (1/4 inch) heavy fraction subsample was analyzed and catalogued as a part of the site's main catalogue since this subsample separated all artifacts that would have been recovered in the field. The above subsampling method is standard archaeobotanical procedure and facilitates specimen identification and mitigates against the obstruction of fragmentary macroremains (Marston et al. 2014; Pearsall 2015).

1.2 Microscopic Identification and Analysis

The subsamples were examined using an AmScope Trinocular Zoom Stereo Microscope at 3.5-90X magnification and were tabulated by subsample in the archaeobotanical catalogue (see Appendix A). All subsamples were then examined microscopically, including the heavy fraction, since plant remains can be coated in heavy fraction soil matrices that inhibit them from floating properly despite agitation (Fecteau 2008:30). Within the 4 and 2 subsamples, if possible, at least 10 wood charcoal specimens containing diagnostic features were collected for identification to the lowest taxon (Ministry of Tourism, Culture and Sport 2011:108–109). Attempts at charcoal identification were made within the 2 subsample only if there were adequate identifiable features

on the sorted specimens; otherwise, procedures for the 1, 0.5, and <0.5 subsamples were followed (see below). Chosen charcoal specimens were broken transversely, and their cross-sections were examined for microstructural indicators such as ray position and morphology, resin canals, tracheids, etc. Reporting on counts and weights of tree genera provide researchers a basis on which to quantify the relative contributions of tree genera to the entire assemblage and provide a basis for paleoecological reconstruction.

Attempts at wood charcoal identification were not made at 1, 0.5, or <0.5 subsamples due to the lack of diagnostic features and were considered unidentifiable (Fecteau 1978:5–6, 2023 [2008]:40). The unidentified charcoal specimens in the 4, 2, and 1 subsamples were weighed and an estimate of specimen count per subsample was made by dividing the subsample into fourths or eights, counting the number of charcoal within the divided portion, and multiplying the number by either ×4 or ×8 to estimate the total number of charcoal. Though the interpretive utility of these fragmentary specimens is low, recording their weight and volume provides further analytical insight into the relative botanical composition of each soil sample. The fragmentary nature of the charcoal in the 0.5 and smaller subsamples would overinflate the relative count/frequency of charcoal, therefore it was not tallied.

If present, additional identifiable charred botanical material such as seeds, nuts, tubers, and other plant parts were counted and weighed for analysis in all subsample. If uncharred material was recovered, attempts were made to identify them to the lowest possible taxon. The recovery of uncharred botanical material within archaeological contexts is generally thought to result from modern intrusion due to reproductive (i.e., seed and pollen rain), edaphic (i.e., bioturbation), and taphonomic (i.e., site formation) processes (Minnis 1981). However, in extenuating circumstances such as freezing, desiccation, and rapid inundation, uncharred material can preserve for long periods of time (Pearsall 2015). Additionally, in some organic deposits on historical sites such as privies, uncharred plant remains may be considered archaeological depending on the age and nature of the deposit (Archaeological Services Inc. 2006:28). Wood charcoal, seed, nut, and other plant macroremains were identified using available monographs (Cappers and Bekker 2022; Government of Canada 2017; Hoadley 1990, 2000; Martin and Barkley 2000; Minnis 1981; Montgomery 2019), and unpublished reference guides (Fecteau 2018).

Upon identification, subsamples were divided into CHA (charred wood/charcoal), CBA (charred bark), CPR (charred plant remains, i.e. anything not CHA/CBA), WOO (uncharred wood), UBA (uncharred bark), ROO (uncharred root), and UPR (uncharred plant remains) following Dr. Scott Martin (personal communication, 2021). The lowest identifiable taxon was then determined. If an identification was attempted but not feasible due to specimen fragmentation, it was labelled IND (indeterminate); if an identification was not attempted, it was labeled “Not Analyzed.” Each soil sample bag analyzed from this site has been labelled sequentially as a SuperBag, as noted in Appendix A. SubBags were numbered sequentially as decimal places following the SuperBag number and refer to sieve size subsamples that produced archaeobotanical remains. For example, SuperBag 1 is the first analysed soil sample received from Feature 1, while SubBag 1.1 is the first sieve size analysed (i.e. 4 mm subsample). The results are tabulated in Section 2.0 below and in Appendix A, and the implications of species presence/absence data is further discussed.

1.3 Calculated Ratios and Simple Statistics

In addition to absolute counts and metric data per context, relative percentages and densities were calculated to increase inter- and intrasite comparability. A common issue that confronts archaeobotanical datasets is a lack of standardized soil sample size within and between

excavations (Crawford 2018; Lennstrom and Hastorf 1992, 1995; Pearsall 2015:144–168). Calculating relative percentages and densities allows the analyst to compensate for the variable nature of sample size, and also minimize the statistical inaccuracies of datasets with low absolute counts and weights (Ball 2020:90–91; Marston et al. 2014; Pearsall 2015:144–168). Relative assemblage contributions (nRAC) are calculated as nT/tT, where nT is the number of specimens in a taxon and tT is the total number of recovered specimens per feature or feature context. This is a simple diversity measure accounting for species variety/richness, however, and does not account for the relative abundance of a taxon or its possible prioritization in regard to acquisition and use (Ball 2020:91). Densities are calculated as g/L of soil and ubiquity is calculated as frequency/L of soil. A calculation of nTaxa, the number of diverse taxa per feature context, is included in Table 4. To avoid overrepresentation, the nTaxa calculation excludes a genus-level identification from the count if a specimen in the same genera was identified to species within the same context.

1.4 Analytical Considerations - Macrobotany

Given the tenure of archaeobotanical studies in North America (Pearsall 2015:5-6), the interpretive effectiveness of relying solely on macrobotanical studies has been scrutinized as a narrow view of the past (Crawford 2014; Hart and Lovis 2013; Marston et al. 2014; Surette 2008). What follows is a brief review of recent discussions on macrobotanical studies and their implications for archaeological analysis.

As stated above, due to post-depositional processes, modern botanical “contaminants” can be found within seemingly secure archaeological contexts. Historical contaminants have also been found intruding into older archaeological deposits (e.g. Hart and Adovasio 2022). Due to this infrequent but alarming possibility, researchers have cautioned against relying heavily on stratigraphic association between artifacts even within a closed stratigraphic context (Hart and Lovis 2013:184). Even when a discrete context is encountered and the wood charcoal is dated, due to the effects of old-wood researchers should be wary to make a direct chronological connection. Unless multiple archaeobotanical remains are directly AMS (accelerator mass spectrometry) dated and a median or range is collected, archaeologists should cautiously associate botanical materials with their surrounding soil matrices.

Additional consideration should be given to what exactly the macrobotanical record tells us about the past. Despite efforts to enforce standardized collection procedures, the sampling strategies and analytical expertise vary between CRM and academic specialists, as do the research goals and funding, which can cause discrepancies when comparing botanical datasets. Moreover, the nature of botanical preservation on archaeological sites has been widely studied (e.g. Lyons and Orchard 2007; Spicer 1991) and it is well known that recovered macroremains represent only those plant remains subjected to the perfect conditions for preservation. Experimental studies demonstrate that food processing techniques influence both the manner and likelihood of macrobotanical preservation, and that certain practices may leave behind residues discernible only through alternative methods of detection, such as microbotanical analyses (Dezendorf 2013; López-Dóriga 2015; Mueller 2017; Yost et al. 2013). As such, researchers should use caution when making inferences solely from recovered macroremains since they represent a fraction of past plant life and only one line of botanical study. The reliability of microbotanical studies such as phytoliths and starch granules as stand alone studies have been proven to be fruitful additions to our knowledge of past human-plant interactions (Crawford 2018; Nurse et al. 2017; Pearsall 2019; Ramsey and Nadel 2021; St.-Pierre et al. 2021). Whenever possible, archaeobotanists and archaeologists should seek to augment botanical data through other lines of research, particularly

microbotanical studies such as starch granule analysis, phytoliths, pollen, and other residue analyses.

2.0 Feature 4 (F 4) Archaeobotanical Analysis Results

The pre- and post-processed volume and weight of each soil sample and its associated fractions are listed in Table 1, along with relative percentage and density data of all recovered charred materials. Table 2A-B shows the recovered charred plant taxa, excluding charcoal, and is organized in relation to how occupants would have collected and prepared their plant resources. For example, the fleshy fruits are categorized together because the logistics of fruit collection are generally similar, and their structure and preparatory methods are nearly identical. Herbaceous plants are likewise categorized together since the constituent taxa produce either starchy seeds, useful tubers, or their leaves are collected and consumed. Table 3A-B displays the frequency, weight, density, and relative assemblage contributions of the recovered wood charcoal assemblage. The complete archaeobotanical catalogue is recorded in Appendix A, which references storage bag numbers (SuperBag and SubBag), light or heavy fractions, sieved subsamples, weights, and frequencies. It should be noted that sclerotia, hardened mycelial masses, were abundant in the light fraction subsamples but were not collected in their entirety; however, a small sample was collected per feature to document their presence.

Table 1 AeHg-61 Soil Sample Volume, Weight, Density, and Ubiquity

Feature 4	L 11	L 13		L 16		L 17		L 20		% of Total Charred Remains (g)	% of Total Recovered Remains (g)
	SW	SW	SE	SW	SE	SE	SW	SE	Sum		
Soil Volume (L)	3.0	3.1	3.0	2.2	2.0	2.3	3.0	5.5	24.10		
Heavy Fraction (g)	54.51	291.83	99.48	37.35	32.50	32.14	113.30	77.80	738.91		
Light Fraction (g)	5.07	15.48	4.01	3.52	3.55	17.05	6.44	15.50	70.62		
Wood Charcoal (g)	9.32	60.55	1.63	3.88	6.05	15.34	4.39	6.65	107.81	98.57%	73.31%
Density (g/L)	*3.11*	*19.53*	*0.54*	*1.76*	*3.02*	*6.67*	*1.46*	*1.21*	*4.47*		
Charred Plant Remains excl. Charcoal (g)	0.174	0.930	0.001	0.000	0.001	0.029	0.078	0.346	1.56	1.43%	1.06%
Density (g/L)	*0.058*	*0.300*	*0.000*	*0.000*	*0.001*	*0.013*	*0.026*	*0.063*	0.460		
Uncharred Plant Remains (g)	0.016	0.012	0.011	0.007	0.014	0.021	0.017	0.016	0.11		0.08%
Density (g/L)	*0.005*	*0.004*	*0.004*	*0.003*	*0.007*	*0.009*	*0.006*	*0.003*	*0.005*		
Residue	4.73	15.62	2.65	1.75	1.055	1.262	3.251	7.264	37.57		25.55%
Density (g/L)	*1.58*	*5.04*	*0.88*	*0.79*	*0.53*	*0.55*	*1.08*	*1.32*	11.77		
Total Charred Remains (g)	9.50	61.48	1.63	3.88	6.05	15.36	4.47	6.99	109.37		
Total Recovered Remains (g)	14.24	77.11	4.29	5.63	7.12	16.65	7.74	14.27	147.06		100.00%

Sclerotia are ubiquitous in some archaeobotanical assemblages, can represent a number of mycelial species, and can have implications for paleoenvironmental reconstruction (Benedict

2011; Watanabe et al. 2021). Further analysis of sclerotia aside from noting their presence is beyond the scope of this report.

Although no conditions of exceptional preservation were noted on site, uncharred wood and seeds on historic sites in Ontario are commonly found in secure archaeological contexts and are known to preserve for fairly long periods of time depending on soil conditions (Archaeological Services Inc. 2006:28). However, uncharred seeds considered archaeologically contextual often number in the tens of thousands, and small amounts of uncharred seeds are usually considered a product of modern or historical seed rain (Fecteau 2014:5–6, 2016a:11). Uncharred seeds recovered at the AeHg-61 site are few (n=231) and represent common ruderal species that thrive in open, fallow, or active agricultural fields. They are therefore considered seed rain and noted only as presence/absence within a feature context. There were no specimens of uncharred wood recovered within the Feature 4 samples.

The sample taken from Feature 4 consisted of 24.1 L of soil weighing 25.9 kg and produced 922 mL (738.91 g) of heavy fraction and 204 mL (70.62 g) of light fraction material. The total sorted remains from Feature 4 produced 109.37 g of charred botanical remains and 0.110 g of uncharred botanical remains. The taxonomic diversity (Table 4) is low across all the lots within Feature 4 and few charred botanical remains were recovered apart from wood charcoal, which dominated the macrobotanical assemblage.

2.1 Lot 11 Southwest (L 11 SW)

Lot 11 is considered the fill layer of the cellar and represents a post-demolition deposit. The sample taken from the southwestern quadrant of Lot 11 consisted of 3.0 L of soil weighing 2.7 kg and produced 81 mL (54.51 g) of heavy fraction and 13 mL (5.07 g) of light fraction material. The total sorted remains from Lot 11 produced 9.45 g of charred botanical remains and 0.016 g of uncharred botanical remains, comprising approximately 6.46% of the charred botanical material recovered within the whole feature.

2.1.1 Macrobotanical Remains

An estimated total of 1,806 charred and uncharred macrobotanical specimens were recovered from Lot 11 SW (Table 2). Wood charcoal is the most ubiquitous remain (n=1,729, 95.74% of lot), followed by uncharred plant remains (n=46, 2.55% of lot), and charred plant remains (n=31, 1.72% of lot).

Lot 11 SW produced 3.06 g (0.88 g/L) of charred plant remains. Identifiable remains are primarily cultigens (n=11, 0.61%) which include maize (*Zea mays* L.) and a possible radish (cf. *Raphanus sativus* L.) seed. The maize remains are dominated by fragmentary cupules (n=7/10, 70%) followed by kernel fragments (n=2/10, 20%).

Other charred plant remains include a single bulrush (*Juncus* spp. L.) seed and two fragments of acorn (*Quercus* spp. L.) nutshell. These specimens are considered incidental inclusions and likely do not represent targeted use. Lot 11 produced 3.107 g/L of wood charcoal. The charcoal assemblage produced mostly American beech (*Fagus grandifolia* Ehrh.) and sugar maple (*A. saccharum* Marshall.), followed by red maple (A*. rubrum* L.), birch (*Betula* spp. L.) and elm (*Ulmus* spp.).

2.1.2 Uncharred botanical and Non-botanical Remains

Identifiable uncharred botanical remains from Lot 11 include bramble (*Rubus* spp. L.), little hogsweed (*Portulaca oleracea* L.), and amaranths (*Amaranthus* spp. L), all of which are common ruderal species that thrive in open, fallow, or active agricultural fields. A total of 4.3 g of residue from the <1 mm heavy fraction subsample was also weighed and retained but not included in this analysis.

2.2 Lot 13, SW & SE Quadrants

Lot 13 represents the degrading wood lining of the cellar feature and, unsurprisingly, accounts for over 42% of the feature-wide recovered charcoal assemblage. The sample taken from Lot 13 consisted of two samples from the southeast and southwest quadrants totalling of 6.1 L (3.1 L SE; 3.0 L SW) of soil weighing 6 kg. The southeastern quadrant produced 95 mL (99.48 g) of heavy fraction and 11 mL (4.01 g) of light fraction material. The southwestern quadrant produced 440 mL (291.83 g) of heavy fraction and 43 mL (15.48 g) of light fraction material. Overall, Lot 13, specifically the southwestern quadrant, is one of the most botanically productive contexts of Feature 4. However, this lot is also lacking in taxonomic diversity and identifiable, whole, seeds or plant parts.

2.2.1 Macrobotanical Remains

The sorted botanical remains from Lot 13 produced a total of 63.11 g of charred botanical remains and 0.02 g of uncharred botanical remains. The southwestern quadrant produced 10.19 g/L of wood charcoal, and 0.15 g/L of charred plant remains including mostly fragments of maize (*Zea mays* L.), all of which were fragmented cupules (n=5, 0.008 g/L). The remaining charred plant remains consist of indeterminate charred plant matter (n=16, 0.25 g/L) and a couple of charred bramble seeds. The identifiable wood charcoal assemblage of the southwestern quadrant (60.55 g) consists of mostly American beech (n=55 11.58 g, 1.91 g/L), with few contributions from maple (*Acer* spp.), birch, oak, and ironwood/eastern hophornbeam (*Ostrya virginiana* (Mill.) K. Koch).

The southeastern quadrant produced 0.544 g/L of wood charcoal and a single charred bramble (*Rubus* spp. L.) seed. The charcoal assemblage lacked the relative dominance of beech that was apparent in the southwestern quadrant and also produced fewer charcoal fragments (n=429). Maple comprised the majority of the identified charcoal fragments (n=12, 0.168 g/L), with basswood (n=2, 0.023 g/L) and beech fragments (n=1, .019 g/L) comprising a small minority.

2.2.2 Uncharred botanical and Non-botanical Remains

Identifiable uncharred botanical remains from Lot 13 include ragweed (*Ambrosia* spp. L), rush, chenopods (*Chenopodium* spp. L.), and amaranths (*Amaranthus* spp. L). The lack of density and economic utility of these plants to Euro-Canadian settlers excludes them from the possibility of being a targeted plant resource. A total of 18.27 g of residue from the <1 mm heavy fraction subsample was also weighed and retained but not included in this analysis.

Table 2A AeHg-61 Site Charred Plant Remains (excluding wood charcoal) by Category and Plant Part

	L 11 SW				L 13												L 20 SE			
	SE				SE				SW				L 13 Total							
	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Lot)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)
Charred Plant Remains (excl. charcoal)	31	1.72%	0.174	0.058	1	0.22%	0.001	0.0003	27	0.21%	0.93	0.300	28	0.21%	0.931	0.153	85	15.60%	0.346	0.063
Aquatic/Mesic	1	0.60%	0.001	0.000																
Seed	1	0.60%	0.001	0.000																
Rush *Juncus spp.*	1	0.60%	0.001	0.000																
Arboreal Fleshy Fruit					1	0.22%	0.001	0.0003	2	0.02%	0.001	0.000	3	0.02%	0.002	0.0003	1	0.18%	0.001	0.0002
Seed																	1	0.18%	0.001	0.0002
Elderberry *Sambucus canadensis*																	1	0.18%	0.001	0.0002
Stone					1	0.22%	0.001	0.0003	2	0.02%	0.001	0.000	3	0.02%	0.002	0.0003				
Bramble *Rubus spp.*					1	0.22%	0.001	0.0003	2	0.02%	0.001	0.000	3	0.02%	0.002	0.0003				
Cultigen	11	0.61%	0.111	0.037					5	0.04%	0.049	0.016	5	0.04%	0.049	0.008	1	0.18%	0.037	0.007
Maize *Zea mays*	**10**	**0.56%**	**0.11**	**0.030**					**5**	**0.04%**	**0.049**	**0.016**	**5**	**0.04%**	**0.049**	**0.008**	**1**	**0.18%**	**1.037**	**0.189**
Cob and cupule fragment	1	0.06%	0.068	0.023																
Cupule fragment	7	0.39%	0.019	0.006					5	0.04%	0.049	0.016	5	0.04%	0.049	0.008				
Kernel Fragment	2	0.11%	0.023	0.008													1	0.18%	4.037	0.734
Seed	**1**	**0.22%**	**0.001**	**0.0003**																
Mustard family (Radish?) *Brassicaceae* cf. *Raphanus sativus*	1	0.22%	0.001	0.0003																
Indeterminate	17	0.94%	0.054	0.018					16	0.12%	0.788	0.254	16	0.12%	0.788	0.129	81	14.86%	0.294	0.053
MISC	13	0.72%	0.050	0.017					14	0.11%	0.787	0.254	14	0.10%	0.787	0.129	74	13.58%	0.286	0.052

	L 11 SW				L 13												L 20 SE			
	SE								SW				L 13 Total							
	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Lot)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)
Seed	4	0.22%	0.004	0.001					2	0.02%	0.001	0.0003	2	0.01%	0.0010	0.0002	7	1.28%	0.008	0.001
Nuts	2	0.11%	0.008	0.003					4	0.03%	0.092	0.030	4	0.03%	0.092	0.015	2	0.37%	0.014	0.003
Nutshell	2	0.11%	0.008	0.003					4	0.03%	0.092	0.030	4	0.03%	0.092	0.015	2	0.37%	0.014	0.003
Indeterminate									1	0.01%	0.031	0.010	1	0.01%	0.031	0.005	2	0.37%	0.014	0.003
Acorn *Quercus spp.*	2	0.11%	0.008	0.003					3	0.02%	0.061	0.020	3	0.02%	0.061	0.010				

Table 2A **AeHg-61** Site Charred Plant Remains (excluding wood charcoal) by Category and Plant Part

Table 2B AeHg-61 Site Charred Plant Remains (excluding wood charcoal) by Category and Plant Part

	L 16												L 17											
	SE				SW				L 16 Total				SE				SW				L 17 Total			
	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)
Charred Plant Remains (excl. charcoal)	1	0.11%	0.001	0.001					1	0.11%	0.001	0.0002	7	0.29%	0.029	0.013	28	2.48%	0.078	0.026	35	0.99%	0.107	0.020
Cultigen													1	0.04%	0.015	0.007	9	0.80%	0.028	0.009	10	0.28%	0.043	0.008
Maize *Zea mays*																								
Cupule fragment													1	0.04%	0.015	0.007	1	0.09%	0.002	0.001	2	0.06%	0.017	0.003
Kernel Fragment																	4	0.35%	0.019	0.006	4	0.11%	0.019	0.004
Seed																	**4**	**0.35%**	**0.007**	**0.002**	**4**	**0.11%**	**0.007**	**0.001**
Flax *Linum cf. usitatissimum*																	4	0.35%	0.007	0.002	4	0.11%	0.007	0.001
Herbaceous																	3	0.27%	0.002	0.001	3	0.08%	0.002	0.0004
Seed																	3	0.27%	0.002	0.001	3	0.08%	0.002	0.0004
Mustard family (Hare's ear mustard?) *Brassicaceae* cf. *Conringia orientalis*																	1	0.09%	0.001	0.0003	1	0.03%	0.001	0.0002
Grass (Indet.) *Poaceae*																	2	0.18%	0.001	0.0003	2	0.06%	0.001	0.0002
Indeterminate	1	0.11%	0.001	0.001					1	0.11%	0.001	0.0002	6	0.25%	0.014	0.006	12	1.06%	0.047	0.016	18	0.51%	0.061	0.012
MISC													6	0.25%	0.014	0.006	12	1.06%	0.047	0.016	18	0.51%	0.061	0.012
Seed	1	0.11%	0.001	0.001					1	0.11%	0.0010	0.0002												
Nuts																	4	0.35%	0.001	0.0003	4	0.11%	0.001	0.0002
Nutshell																	4	0.35%	0.001	0.0003	4	0.11%	0.001	0.0002
Indeterminate																	4	0.35%	0.001	0.0003	4	0.11%	0.001	0.0002

2.3 Lot 16, SW & SE Quadrants

Lot 16 represents the demolition layer of the cellar feature which consisted of two samples from the southeast and southwest quadrants totalling of 4.2 L (2 L SE; 2.2 L SW) of soil weighing 5.2 kg. The southeastern quadrant produced 36 mL (32.5 g) of heavy fraction and 13 mL (3.55 g) of light fraction material. The southwestern quadrant produced 36 mL (37.35 g) of heavy fraction and 12 mL (3.52 g) of light fraction material. Both quadrants of Lot 16 produced very little in terms charred botanical remains other than wood charcoal.

2.3.1 Macrobotanical Remains

The total sorted botanical remains from Lot 16 produced a total of 9.93 g of charred botanical remains and 0.02 g of uncharred botanical remains. The southwestern quadrant produced 1.76 g/L of wood charcoal and no other charred plant remains. The identifiable wood charcoal assemblage of the southwestern quadrant consists of mostly American beech (n=24 1.56 g, 0.710 g/L), with single contributions from maple (*Acer* spp.), and black ash (*Fraxinus nigra* Marshall).

The southeastern quadrant of Lot 16 produced 3.024 g/L (n=855, 6.05 g) of wood charcoal and a single charred seed that was unidentifiable past. The charcoal assemblage consists of maple (n=22, 0.59 g; 0.025 g/L), beech (n=12, 0.83 g; 0.415), basswood (*Tilia americana* L. n=6, 0.433 g; 0.217 g/L), and birch (*Betula* spp. L. n=4, 0.255 g; 0.128 g/L).

2.3.2 Uncharred botanical and Non-botanical Remains

Identifiable uncharred botanical remains from Lot 16 include ragweed (*Ambrosia* spp. L), a sedge seed (*Cyperaceae*), chenopods (*Chenopodium* spp. L.), and amaranths (*Amaranthus* spp. L). The lack of density and economic utility of these plants to Euro-Canadian settlers excludes them from the possibility of being a targeted plant resource. A total of 2.8 g of residue from the <1 mm heavy fraction subsample was also weighed and retained but not included in this analysis.

2.4 Lot 17, SW & SE Quadrants

Lot 17 represents the fill layer within the cellar feature which consisted of two samples from the southeast and southwest quadrants totalling of 5.3 L (2.3 L SE; 3 L SW) of soil weighing 5.9 kg. The southeastern quadrant produced 34 mL (32.14 g) of heavy fraction and 48 mL (17.05) of light fraction material. The southwestern quadrant produced 120 mL (113.3 g) of heavy fraction and 16 mL (6.44 g) of light fraction material. Both quadrants of Lot 17 produced little in terms charred botanical remains however, the southwestern quadrant produced the only evidence of flax (*Linum usitatissimum* L.) within Feature 4.

2.4.1 Macrobotanical Remains

The total sorted botanical remains from Lot 17 produced a total of 19.84 g of charred botanical remains and 0.04 g of uncharred botanical remains. The southwestern quadrant produced 1.76 g/L of wood charcoal and 0.026 g/L of other charred plant remains. Maize fragments including kernels (n=4, 0.019 g; 0.006 g/L) and cupules (n=1, 0.002 g; 0.001 g/L) were recovered within the southwestern side of the cellar fill, along with 0.002 g/L (n=4, 0.007 g) of charred flax seed that showed evidence of severe heat distortion. The identifiable wood charcoal assemblage of the southwestern quadrant of Lot 17 is the most taxonomically diverse across all of AeHg-61. The charcoal collection is dominated by maple (n=52 4.105 g, 1.37 g/L) and to a lesser extent beech

(n=11, 0.332 g; 0.111 g/L), with significant contributions from birch (*Betula* spp.), elm (*Ulmus* spp. L.), and ash (*Fraxinus* spp. Tourn ex. L.).

The southeastern quadrant of Lot 17 produced 1.910 g/L (n=1049, 4.394 g) of wood charcoal and a single charred maize cupule fragment. The charcoal assemblage consists of maple (n=10, 0.301 g; 0.131 g/L), beech (n=9, 0.233 g; 0.101 g/L), ironwood (*Ostrya virginia* (Mill.) K. Koch, n=4, 0.176 g; 0.077 g/L), and elm (*Ulmus* spp. L. n=4, 0.089 g; 0.039 g/L).

2.4.2 Uncharred botanical and Non-botanical Remains

Identifiable uncharred botanical remains from Lot 17 include a similar range of ruderal species as the other lots including ragweed (*Ambrosia* spp. L), sedge (*Cyperaceae*), chenopods (*Chenopodium* spp. L.), and amaranths (*Amaranthus* spp. L). The lack of density and economic utility of these plants to Euro-Canadian settlers once again excludes them from the possibility of being a targeted plant resource. A total of 4.513 g of residue from the <1 mm heavy fraction subsample was also weighed and retained but not included in this analysis.

2.5 Lot 20, SE Quadrant

Lot 20 represents a layer deposited within the entryway of cellar feature which consisted of a sample from the southeast quadrants totalling of 5.5 L of soil weighing 6.1 kg. The southeastern quadrant produced 80 mL (77.8 g) of heavy fraction and 48 mL (15.5) of light fraction material.

2.5.1 Macrobotanical Remains

The total sorted botanical remains from Lot 20 produced a total of 6.99 g of charred botanical remains and 0.016 g of uncharred botanical remains. The southeastern quadrant produced 1.209 g/L of wood charcoal and 0.063 g/L of other charred plant remains. A single maize kernel fragment and a single charred elderberry (*Sambucus canadensis* L.) were recovered along with 0.010 g/L (n=3, 0.061 g) of charred acorn shell that it likely an incidental inclusion. Lot 20 interestingly produced the most ubiquitous and dense concentration of indeterminate specimens of charred plant remains that could not be identified to plant part, let alone genus.

The identifiable wood charcoal assemblage of the southeastern quadrant of Lot 20 produced the highest density and quantity (n=11, 1.542 g; 0.280 g/L) of black ash (*Fraxinus nigra* Tourn ex. L.) across all lots. Minor contributions from maple (n=4, 0.156 g; 0.028 g/L), beech (n=3, 0.182 g; 0.101 g/L), and ironwood (*Ostrya virginia* (Mill.) K. Koch, n=2, 0.064 g; 0.012 g/L),

2.5.2 Uncharred botanical and Non-botanical Remains

Identifiable uncharred botanical remains from Lot 20 include ragweed (*Ambrosia* spp. L), an elderberry seed (*Sambucus canadensis* L.), chenopods (*Chenopodium* spp. L.), and amaranths (*Amaranthus* spp. L). The lack of density and economic utility of these plants to Euro-Canadian settlers excludes them from the possibility of being a targeted plant resource. A total of 7.264 g of residue from the <1 mm heavy fraction subsample was also weighed and retained but not included in this analysis.

Table 3A Wood Charcoal by Taxa Per Context

	L 16												L 17											
	SE				SW				L 16 Total				SE				SW				L 17 Total			
	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)
Charred Plant Remains (excl. charcoal)	1	0.11%	0.001	0.001					1	0.11%	0.001	0.0002	7	0.29%	0.029	0.013	28	2.48%	0.078	0.026	35	0.99%	0.107	0.020
Cultigen													1	0.04%	0.015	0.007	9	0.80%	0.028	0.009	10	0.28%	0.043	0.008
Maize ***Zea mays***																								
Cupule fragment													1	0.04%	0.015	0.007	1	0.09%	0.002	0.001	2	0.06%	0.017	0.003
Kernel Fragment																	4	0.35%	0.019	0.006	4	0.11%	0.019	0.004
Seed																	**4**	**0.35%**	**0.007**	**0.002**	**4**	**0.11%**	**0.007**	**0.001**
Flax *Linum cf. usitatissimum*																	4	0.35%	0.007	0.002	4	0.11%	0.007	0.001
Herbaceous																	3	0.27%	0.002	0.001	3	0.08%	0.002	0.0004
Seed																	3	0.27%	0.002	0.001	3	0.08%	0.002	0.0004
Mustard family (Hare's ear mustard?) *Brassicaceae* cf. *Conringia orientalis*																	1	0.09%	0.001	0.0003	1	0.03%	0.001	0.0002
Grass (Indet.) *Poaceae*																	2	0.18%	0.001	0.0003	2	0.06%	0.001	0.0002
Indeterminate	1	0.11%	0.001	0.001					1	0.11%	0.001	0.0002	6	0.25%	0.014	0.006	12	1.06%	0.047	0.016	18	0.51%	0.061	0.012
MISC													6	0.25%	0.014	0.006	12	1.06%	0.047	0.016	18	0.51%	0.061	0.012
Seed	1	0.11%	0.001	0.001					1	0.11%	0.0010	0.0002												
Nuts																	4	0.35%	0.001	0.0003	4	0.11%	0.001	0.0002
Nutshell																	4	0.35%	0.001	0.0003	4	0.11%	0.001	0.0002
Indeterminate																	4	0.35%	0.001	0.0003	4	0.11%	0.001	0.0002

Table 3B Wood Charcoal by Taxa Per Lot

	L 16												L 17											
	SE				SW				L 16 Total				SE				SW				L 17 Total			
	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)	Sum of Freq.	nRAC (Freq/Context)	Sum of Weight (g)	Density (g/L)
Charcoal by Taxa	855	98.05%	6.048	3.024	684	98.42%	3.882	1.765	1539	98.21%	9.930	2.3643	2367	98.38%	15.34	6.667	1049	93.08%	4.394	1.465	3416	96.69%	19.729	3.722
Red maple *Acer rubrum*													5	0.21%	0.436	0.190		0.00%		0.000	5	0.14%	0.436	0.082
Sugar maple *Acer saccharum*	1	0.11%	0.046	0.023					1	0.001	0.046	0.011	13	0.54%	1.265	0.550	8	0.71%	0.249	0.083	21	0.59%	1.514	0.286
Maple *Acer spp.*	22	2.52%	1.197	0.599	1	0.14%	0.055	0.025	23	0.015	1.252	0.298	24	1.00%	2.103	0.914	2	0.18%	0.052	0.017	26	0.74%	2.155	0.407
Birch *Betula spp.*	4	0.46%	0.255	0.128					4	0.003	0.255	0.061	3	0.12%	0.19	0.083		0.00%		0.000	3	0.08%	0.190	0.036
American beech *Fagus grandifolia*	12	1.38%	0.829	0.415	24	3.45%	1.562	0.710	36	0.023	2.391	0.569	2	0.08%	0.099	0.043	9	0.80%	0.233	0.078	11	0.31%	0.332	0.063
Black ash *Fraxinus nigra*					1	0.14%	0.084	0.038	1	0.001	0.084	0.020												
Ash *Fraxinus spp.*													2	0.18%	0.039	0.017	2	0.18%	0.039	0.013	2	0.06%	0.039	0.007
Indeterminate													135	5.61%	3.686	1.603	1	0.09%	0.02	0.007	136	3.85%	3.706	0.699
Indeterminate Diffuse Porous	6	0.69%	0.44	0.220	8	1.15%	0.162	0.074	14	0.009	0.602	0.143	5	0.21%	0.119	0.052	5	0.44%	0.142	0.047	10	0.28%	0.261	0.049
Indeterminate Ring Porous	1	0.11%	0.043	0.022					1	0.001	0.043	0.010	1	0.09%	0.029	0.013	1	0.09%	0.029	0.010	1	0.03%	0.029	0.005
Indeterminate Semi-Ring Porous	1	0.11%	0.036	0.018					1	0.001	0.036	0.009												
Not Analyzed	802	91.97%	2.769	1.385	650	93.53%	2.019	0.918	1452	0.927	4.788	1.140	2176	90.44%	7.16	3.113	1012	89.80%	3.343	1.114	3188	90.23%	10.503	1.982
Ironwood/Eastern hophornbeam *Ostrya virginiana*													1	0.04%	0.085	0.037	4	0.35%	0.176	0.059	5	0.14%	0.261	0.049
Basswood *Tilia americana*	6	0.69%	0.433	0.217					6	0.004	0.433	0.103	2	0.08%	0.144	0.063	1	0.09%	0.022	0.007	3	0.08%	0.166	0.031
Elm *Ulmus spp.*													1	0.04%	0.048	0.021	4	0.35%	0.089	0.030	5	0.14%	0.137	0.026

3.0 Discussion

This section will briefly review the archaeological literature on root cellars in the context of 19th century Euro-Canadian rural homesteads focusing on formation processes as they relate to archaeobotanical assemblages. Discussion will then turn to the implied local floral communities and resource extraction practices within the farmscape based on the recovered charred assemblage. Consideration is given to how the archaeobotanical assemblage informs the use-life of the cellar feature, as well as the composition and site seasonality inferred from the archaeobotanical assemblage. Lastly, an intra-context analysis will provide insight into the distribution of plant taxa between Lots 11, 13, 16, 17, and 20 in Feature 4 to investigate local depositional patterns in comparison to regional trends.

3.1 A Brief Archaeobotany of Root Cellars

Root cellars are relatively common subterranean features on Euro-Canadian archaeological sites and a hallmark of mid-19th century homesteads and farmsteads (MacDonald 1997; Mayer 1995; Poulton and Dodd 2007; Venovcevs 2021). Most early log shanties and their associated root cellars or subterranean storage features were established during the clearing of the first 15-20 acres of land surrounding the initial settler log cabin (Rempel 2018 [1967]:34,55; Strickland 2005 [1853]:170). The necessity for subterranean storage in the face of harsh Canadian winters meant these features were integral to survival and success for early settlers (Gage 2017:1; Strickland 2005 [1853]:165). Many contemporary mid-19th century settler guidebooks provided instructions on how to construct the most efficient storage features (Strickland 2005 [1853]:165; Talbot 2022 [1824]:302; Tourigny 2018), and eye-witness accounts of their construction attest to their widespread use and efficacy (Traill 1974 [1857]:123, 1997 [1855]:303).

The prevalence of root cellars on Euro-Canadian archaeological sites in Ontario has led to feature-specific Standards and Guidelines within the CRM sector (Ministry of Tourism, Culture and Sport 2011:Section 4.2.7.1–3) which has resulted in a robust comparative dataset for most artifact types. Though far from standardized, archaeologists have noted similarities between the structural morphology (e.g. stone or wood lining, drains, etc.) and artifact compositions of root cellars that infer secondary refuse deposition (MacDonald 1997:60; Mayer 1995:10–11; Venovcevs 2021:181). Many root cellars are therefore interpreted as secondary depositional events related to post-use refuse disposal rather than reflective of the foodstuffs stored within the root cellars during their use (ibid.). Storage within subterranean features typically presumes the processing and preparation of plant foodstuffs which is carried out at specific site locations exclusive of root cellars. These activities take place in, or their byproducts are initially discarded in, areas such as hearths, trash middens, or latrines, where preservation of materials through charring or desiccation is more likely to occur. The archaeobotanical remains recovered within the fill of root cellars is, therefore, not necessarily indicative of the foodstuff stored within the cellar, but rather of the post-depositional use-life of the feature.

3.2 Landscape Reconstruction and Land-use History

The charcoal assemblage on the whole at the AeHg-61 site contains 13 unique identifiable taxa but is dominated by beech (16.05 g; 0.666 g/24.1 L) and maple (9.367g; 0.389 g/24.1 L) with secondary contributions from black ash (1.626g; 0.067 g/24.1 L), birch (0.9 g; 0.037 g/24.1L), and ironwood (0.646 g; 0.027 g/24.1L) (Figure 1). However, the majority of beech charcoal (11.636 g) was recovered from Lot 13 which is considered to be the wood lining of the cellar,

Table 4 Site-Wide Charred Taxa Ubiquity

Identifiable Charred Taxa (n=23)	L 11	L 13	L 16	L 17	L 20	Taxa Ubiquity
Wood Charcoal, unique taxa = 13	*X*	*X*	*X*	*X*	*X*	*100%*
Acer rubrum	*X*			*X*		40%
Acer saccharum	*X*	*X*	*X*	*X*	*X*	100%
Acer spp.		*X*	*X*	*X*	*X*	80%
Betula spp.	*X*	*X*	*X*	*X*		80%
Crataegus spp.	*X*					20%
Fagus grandifolia	*X*	*X*	*X*	*X*	*X*	100%
Fraxinus nigra			*X*		*X*	40%
Fraxinus spp.				*X*		20%
IND				*X*		20%
Ind. Diffuse Porous	*X*	*X*	*X*	*X*	*X*	100%
Ind. Ring Porous			*X*	*X*		40%
Ind. Semi-Ring Porous			*X*			20%
Not Analyzed	*X*	*X*	*X*	*X*	*X*	100%
Ostrya virginiana		*X*		*X*	*X*	60%
Platanus occidentalis		*X*				20%
Quercus alba		*X*				20%
Quercus rubra		*X*				20%
Tilia americana		*X*	*X*	*X*		60%
Ulmus americana	*X*					20%
Ulmus cf. thomasii	*X*					20%
Ulmus spp.				*X*		20%
Unique Charcoal Taxa Per Lot	**7**	**8**	**5**	**8**	**4**	
Charred Plant Remains, unique taxa = 10	*X*	*X*	*X*	*X*	*X*	*100%*
Brassicaceae cf. Conringia orientalis				*X*		20%
Brassicaceae cf. Raphanus sativus	*X*					20%
cf. Eragrostis minor	*X*					20%
IND	*X*	*X*	*X*	*X*	*X*	100%
Juncus spp.	*X*					20%
Linum cf. usitatissimum				*X*		20%
Poaceae				*X*	*X*	40%
Quercus spp.	*X*	*X*				40%
Rubus spp.		*X*				20%
Sambucus canadensis					*X*	20%
Zea mays	*X*	*X*		*X*	*X*	80%
Other Unique Taxa Per Lot	**5**	**3**	**0**	**4**	**3**	
Total Unique Genus/Species Per Lot	**12**	**11**	**5**	**12**	**7**	

and excluding this potential targeted use reduces the site-wide density of beech wood to 4.414 g (0.221 g/19.9 L). In the mid-19th century, beech wood was often used for flooring or subflooring (Fecteau 2008:49; Little 2001:381) and its choice as a timber lining within the root cellar of AeHg-61 represents a common silvicultural practice of contemporary Euro-Canadian famers. The

prevalence of beech in Lots 11, 16, and 20 may also be a result of post-depositional admixture between contexts. Maple charcoal is found most densely in Lot 17 and may represent a targeted use of this taxon for other structural features within the cellar such as shelving (Fecteau 2008:49; Little 2001:381). Significantly, Lot 17 is the deepest stratigraphic context within Feature 4 and has a greater chance of representing use-life components of Feature 4 rather than secondary depositional events or demolition debris.

Based on the secondary-depositional composition of the lots within Feature 4, the charcoal assemblage likely reflects a conglomeration of land clearance, outbuilding construction, and demolition practices on the farmscape at AeHg-61. As such, the forest composition within the AeHg-61 site farmscape represents a beech-maple-ash climax forest with ironwood and birch as secondary understory components.

The caveat to the charcoal analysis of the AeHg-61 site is that due to the time and budget constrains of many CRM projects, only a small sample of the identifiable charcoal was analyzed. The sample in this report was chosen by balancing fiscal constraints with professional judgement based on the diversity of identified taxa and the likelihood of substantial diversity being uncovered in the remaining unidentified wood charcoal assemblage. Although, when possible, the quantity of identifiable specimens per feature context within this report exceeds the minimum number per context (n=10) required by the MTCS Standards and Guidelines (2011:106), there remains a substantial number of charcoal fragments within the >4 mm subsample that could be subject to further analysis.

Equation 1 Sample Size Calculation for Finite Population

$$n = \frac{N \cdot Z^2 \cdot p \cdot (1-p)}{(E^2 \cdot (N-1)) + Z^2 \cdot p \cdot (1-p)}$$

N = population size (760); Z = Z-score (1.96); p = estimated proportion (0.5); E = margin of error (0.05)

The sample size calculation for the finite population of recovered wood charcoal would be 256 identified specimens out of the 760 total fragments from Feature 4 where specimens were whole enough to facilitate identification (>4 mm subsample). A total of 291 specimens were identified to at least the genus which is 114% of a viable site-wide sample of the wood charcoal.

Table 5 Sample Size Calculation for Finite Populations Per Context

	Lot 11	Lot 13	Lot 16	Lot 17	Lot 20	Site-Wide
Population Size	62	343	102	228	25	760
Sample Size Finite Pop.	54	182	81	144	24	256
Specimens ID'd	38	81	71	81	20	291
% of Sample Size ID'd	70%	45%	88%	56%	83%	114%
% of Total CHA >4mm ID'd	61%	24%	70%	36%	80%	38%

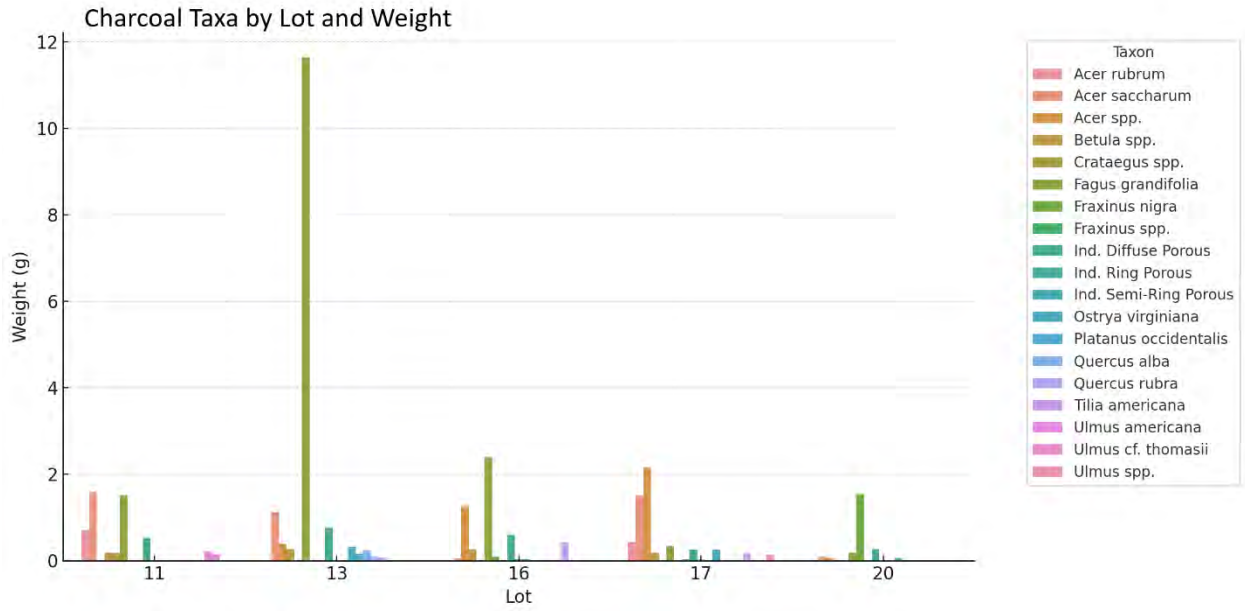
However, the relative percentage of charcoal specimens identified per Lot varies widely (see Table 5) and, due to the fragmentary nature of the charcoal assemblage, no Lot was able to be completely analyzed. Most other charred taxa recovered from Feature 4, by weight, consist of maize and acorn shell fragments, which were not present in large enough quantities to suggest a

feature-specific association and were likely recovered as a result of agroturbation or refuse deposition (Figures 1 & 2). The presence of indeterminate grasses (*Poaceae*) and other cultigens (radish, flax) along with ruderal species associated with fallow fields and field edges seem to suggest that their inclusion was a result of similar processes.

3.3 Composition and Seasonality

The secondary-depositional nature of the root cellar at AeHg-61 precludes any inferences about feature seasonality. Furthermore, the sedentarism of Euro-Canadian land occupation and the palimpsestic nature of deposits related to these subterranean features makes it difficult to delineate seasonal use (MacDonald 1997:60–61; Mayer 1995:10–11). The historic record and general settler agricultural calendar suggest that fall to early winter would comprise the zenith of active use-life for a root cellar, but the archaeobotanical assemblage recovered from AeHg-61 does not reflect these timelines despite limited inclusions of fall harvest crop remnants.

Figure 1



3.4 Spatial Distribution

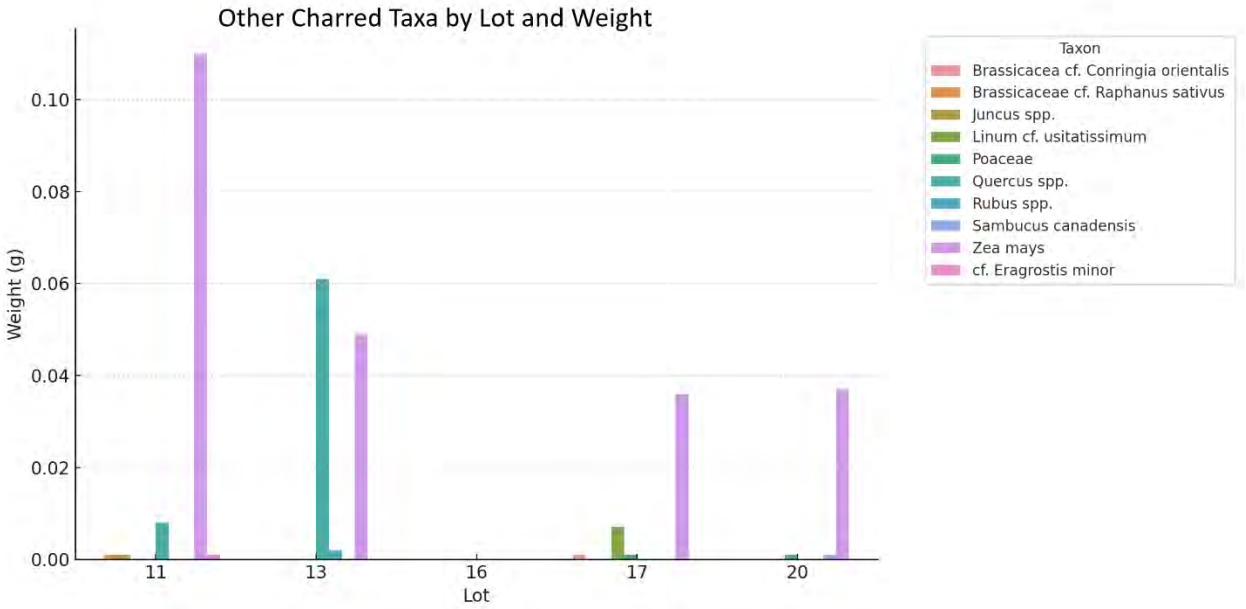
This section discusses the archaeobotanical distribution between the five lots that comprise Feature 4 at AeHg-61 and compares them to six other mid-19th century Euro-Canadian sites with root cellars in Ontario that have published archaeobotanical analyses (Table 7).

3.4.1 Intra-feature distribution

The overall density of charred plant remains (including charcoal) is highest in Lot 13 which can be attributed to the abundance of wood charcoal since this lot represents the wood lining of the cellar. Lot 17 also produced a relatively high abundance of wood charcoal (19.73 g) that heavily favoured maple species. Charcoal taxa diversity is highest in Lots 13 and 17 and lowest in Lot 20. The taxa ubiquity of other charred plant taxa is relatively low and only three species possibly represent horticultural/agricultural practices at AeHg-61. Considering the occupational range of the AeHg-61 site (1840-1880), the recovery of maize and flax archaeobotanical byproducts and

the absence of grains such as wheat (*Triticum* spp. L.), barley (*Hordeum* spp. L.), and oats (*Avena* spp. L.) is interesting as these were all "cash" crops that were highly profitable during the mid-19th century (MacDonald 1997:58). The presence of flax is of note and will be discussed below (Section 3.4.2).

Figure 2



The most notable discrepancies between sampled lot quadrants occur in Lot 13 and Lot 17, with the southwestern quadrant of Lot 13 (19.8 g/L SW vs 0.54 g/L SE) and the southern quadrant of Lot 17 (6.68 g/L SE vs 1.46 g/L SW) being at least 4.5 times more dense with archaeobotanical remains than their sampled counterpart.

Table 6 AeHg-61 Feature 4 Charred Plant Remain Density (g/L) and Keynotes

Lot	Density (g/L)	Charred Taxa Ubiquity Per Feature	Key Notes
11	0.394	12/23; 52% of unique taxa site-wide	Maple-beech charcoal dominates; most dense maize presence site-wide, acorn shells present
13	2.619	11/23; 48% of unique taxa site-wide	Most dense (g/L) botanical remains; beech dominates charcoal assemblage
16	0.412	5/23; 22% of unique taxa site-wide	Beech and maple prominent charcoal; no identifiable CPR
17	0.823	12/23; 52% of unique taxa site-wide	Maple dominant charcoal assemblage; presence of maize and only instance of linseed in assemblage
20	0.290	7/23; 30% of unique taxa site-wide	Lowest charcoal diversity; limited presence of cultigens (maize) and modern ruderal taxa

These discrepancies lend support to calls for a reassessment of the sampling strategy employed in the Standards and Guidelines for Euro-Canadian root cellars (Berger 2020; Ferris 2007) and the assumption that excavating half of these features will accurately represent the entire life-use of these subterranean features.

3.4.2 Regional Archaeobotanical Comparison

The following section is a brief comparative analysis of seven archaeobotanical assemblages, including AeHg-61, from Euro-Canadian archaeological sites containing root cellars dating from the late eighteenth to mid-nineteenth century. This comparison focuses on similarities and differences in wood charcoal, charred non-wood taxa, and uncharred taxa between each site to evaluate the relationship between feature use-life and the archaeobotanical assemblage (Table 7).

3.4.2.1 Charred and Uncharred Non-wood Taxa

The overall pattern of minimal recovery of charred and uncharred non-wood taxa persists within the site sample. The majority of recovered non-wood specimens are uncharred and, aside from lamb's quarters (*C. album* L.) which is often abundant on open air sites in Ontario, occur in low enough densities to rule them out as intrusive contaminants. Apart from the Butler site, which produced a notable quantity of grape (*Vitis* spp. cf*. V. vinifera* L.) seeds, the recovery of other cultigens is relatively rare and amongst the archaeobotanical assemblages under review. Additional cultigen patterns across the sampled Euro-Canadian root cellars show that maize was recovered at two other sites (James and Patrick Murphy), along with a single sunflower (*Helianthus annus* L.) achene at the James Young site. Charred specimens of rye (*Secale cereale* L.) and a possible tobacco (*Nicotiana rustica* L.) seed were also encountered as single examples on the Patrick Murphy site.

Though they were not present in abundance, the recovery of 4 fragments of flax (*Linum usitatissimum* L.) seeds at AeHg-61 provides an interesting glimpse into the production of a spatially and temporally significant "specialty" crop. In mid-19th century southwestern Ontario, flax was grown for the production of linen fibres (MacFadyen 2018:15-19,85-88) and linseed oil (MacFadyen 2018:95–104). Historical flax (*Linum usitatissimum*) was cultivated in two distinct forms: fiber flax, grown for linen, and oilseed flax (linseed), grown for its seeds. Fiber flax plants were tall (up to 1.2 m), slender, and unbranched, producing long bast fibers ideal for spinning; they were densely sown and harvested early—before full seed maturity—to preserve fiber quality (Barker 1917:504; MacFadyen 2018:88). In contrast, oilseed flax was shorter, bushier, and heavily branched, maximizing seed capsule production; it was sown at lower densities and left to fully mature, making its coarse, woody stems unsuitable for textiles (ibid.). Each was selected over generations for its target product—fiber or oil—with limited crossover since linen flax was sown thickly and oilseed flax was sown thinly (Lugger 1890:16; O. Judd Company 1883:7). By the 19th century, this divergence was formalized in agronomic texts, and farmers recognized that flax could not be optimized for both uses simultaneously (ibid.). Table 6 shows the key differences in production methods for each flax byproduct. The recovered flax seeds from the AeHg-61 assemblage exhibit extrusion and distortion that is atypical to the processing of flax for oil or fibres (MacFadyen 2018:85–88; 95–104). These seeds likely represent a sample of discarded material and suggest incidental inclusion into the site's refuse deposits.

Table 7 Differences in Flax By-Products (summarized from MacFayden 2018)

Step	Flax for Linen	Flax for Linseed Oil
Harvest Timing	*Early (immature seeds)*	*Late (fully mature seeds)*
Main Product	*Fiber from stalks*	*Oil from seeds*
Retting (soaking) Needed?	*Yes*	*No*
Processing	*Break, scutch, hackle*	*Grind, press, boil/filter*
Use of Seed	*Often discarded or saved*	*Primary product*
By-products	*Tow (coarse fibers)*	*Linseed cake (feed)*

If flax production occurred on site, the recovered flax seeds may represent its use for linen production. However, given the limited number of recovered seeds, it is more probable that their presence reflects discarded seeds resulting from crop cultivation in adjacent agricultural fields.

The early 19th century settlers of Elgin County often relied on locally produced flax for textiles since sheep were scarce in the pioneer era (Ermatinger 1895:14). Despite its labour-intensive cultivation and generally inferior quality to imported linen, a flax industry took root around St. Thomas. Individuals such as Moses B. Perine and Alexander Young established flax mills in the 1860s, and advocates such as Benjamin Walker—secretary of the Elgin Flax Association—pushed for the modernization of flax production (MacFadyen 2018:53–62).

Table 8 Regional Comparison Keynotes

Site Name - Township	Borden	Time Period	Key Cultigens	Fleshy Fruits	Greens/Grains	Nuts	Wood Charcoal Findings	Notes	References
AeHg-61 Site, St. Thomas	AeHg-61	1840-1880	Maize, linseed, radish (?)	Bramble, sumac	Goosefoot, aster, knotweed, amaranth	Acorn	Beech dominant, maple secondary	Root cellar with beech wood lining; evidence of local linseed production	CURRENT REPORT
Butler Homestead, Niagara-on-the-Lake	AhGs-18	1784-1812	Grape	Bramble, strawberry, chokecherry, pin cherry	Goosefoot, daisy, purslane	None	White pine (floorboards), white oak (living floor)	Early settler cabin; root cellar F 7; unclear if seeds charred	(Archaeological Services Inc. 2011)
Block 55 House 6, City of Vaughan	AlGv-385	1840-1870	None	None	None	None	Majority pine	One lot from one feature (root cellar)	(Fecteau 2015)
EH34, Clarke Twp	BaGp-46	1850-1870	None	Elderberry, raspberry	Goosefoot, spikenard	None	Sugar maple, pine	One feature, cellar; wood charcoal dominant (maple-beech)	(Fecteau 2016b)
James Murphy, Ops Twp	BcGq-16	1850-1880	Maize	None	None	*Juglans* spp.	Uncharred pine; charred cedar, maple	One cellar feature	(Morningstar 2023a)
Patrick Murphy, Ops Twp	BcGq-17	1850-1880	Tobacco, maize, rye	Elderberry	Purslane, goosefoot	*Juglans* spp.	Pine, cedar/hemlock	One cellar feature, multiple lots	(Morningstar 2023b)
James Young, Whitby Twp	AlGr-191	~1815-1860	Sunflower	Bramble, elderberry	Goosefoot, amaranth, knotweed, thistle	None	White pine dominant	2 features, both root cellars;	(Fecteau 2019)

During the American Civil War, disrupted cotton supplies drove up linen demand and spurred higher linen prices (MacFadyen 2018:24–88). By the 1870s, flax production around the St. Thomas region reached its peak, emerging as a minor hub of flax fibre milling and linseed oil production; the Keith Mill produced both linseed oil and linen fibres for low quality yarn (MacFadyen 2018:33–38). By the late 19th century, with cheaper cotton and imported fibers reasserting dominance and flax production shifting to new prairie frontiers for oilseed, Elgin County's flax boom had subsided (MacFadyen 2018:98). What remained was a modest, fluctuating industry that had briefly linked St. Thomas to a continental "flax web" of farms, mills and markets but ultimately proved too limited and price-sensitive to compete with larger agricultural trends.

3.4.2.2 Wood Charcoal

Wood charcoal is pervasive amongst all sites sampled and is considered as structural remnants on all sites, most often as floorboard or subfloor components. Once again, AeHg-61 stands out amongst the sampled sites for its lack of recovered conifer (pine or cedar) species. The dominance of beech and maple within the AeHg-61 site likely represents the use of byproducts from early land clearing operations surrounding the homestead.

3.4.2.3 Summary of Local and Regional Site Patterns

Section 3.4.2 examines the distribution of archaeobotanical remains within Feature 4 at AeHg-61, noting that the highest density of charred plant material was found in Lot 13, largely due to wood charcoal from the cellar lining. Lot 17 is also significant for its high diversity and concentration of maple charcoal. Variations in archaeobotanical density across the AeHg-61 lots confirm that each lot likely corresponds to a distinct depositional event. Variations in density and distribution across lot quadrants may indicate uneven refuse deposition or suggest that prevailing excavation standards may not adequately account for the variability within root cellars.

Regionally, a comparative analysis of seven Euro-Canadian sites with root cellars from the late 18th to mid-19th centuries reveals consistently low recovery rates of non-wood plant remains. At AeHg-61, the presence of flax seeds is noteworthy, reflecting the historical importance of flax in local linen and linseed oil production, especially before sheep became common for wool. The flax seeds recovered likely represent incidental disposal rather than evidence of on-site processing.

Additionally, all sites examined showed wood charcoal as a common feature, typically originating from structural materials. AeHg-61 is distinct for its absence of conifer charcoal and the prevalence of beech and maple, which likely relates to land clearing practices by early settlers.

4.0 Report Summary

The archaeobotanical assessment of the AeHg-61 site, a mid-19th century Euro-Canadian homestead in St. Thomas, Ontario, focused on the analysis of soil samples recovered from a root cellar (Feature 4). A total of 24.1 litres of soil from five distinct stratigraphic contexts (Lots 11, 13, 16, 17, and 20) were subjected to flotation and microscopic analysis to identify charred and uncharred plant remains. The assemblage is dominated by wood charcoal—particularly beech and maple—reflecting forest clearance and the use of beech in cellar construction. Uncharred seeds are sparse and primarily represented ruderal species associated with disturbed agricultural fields. Charred non-wood botanical remains include maize fragments across several lots and a notable presence of flax seeds in Lot 17, offering a rare glimpse into the cultivation of a locally significant crop.

This study supports the notion that root cellars typically function as repositories of secondary refuse, not primary storage, and that their archaeobotanical contents reflect post-use depositional practices rather than everyday food storage. Intra-feature differences in assemblage composition highlight the limitations of partial feature excavation. When compared with other Euro-Canadian cellar assemblages from southern Ontario, AeHg-61 aligns with common patterns of low botanical diversity, though it stands out for the presence of flax and absence of conifer charcoal.

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Appendix A: Soil Sample Catalogue

**Yellow highlight = estimated frequency

Cat No.	Feature	Lot	SuperBag and SubBag	Fraction (HF, LF)	Sieve Size Cohort (mm)	Freq.	Weight (g)	Botanical Remains	Lowest Identifiable Taxon	Plant Part	Common Name	Artifacts and Faunal
BOT 1	F 4	11	SW	1.1	LF	4	3	0.176	CHA	Wood	Crataegus spp.	Charcoal
BOT 2	F 4	11	SW	1.1	LF	4	1	0.395	CHA	Wood	Acer saccharum	Charcoal
BOT 3	F 4	11	SW	1.1	LF	4	4	0.393	CHA	Wood	Acer rubrum	Charcoal
BOT 4	F 4	11	SW	1.1	LF	4	2	0.149	CHA	Wood	Ulmus cf. thomasii	Charcoal
BOT 5	F 4	11	SW	1.1	LF	4	4	0.1	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 6	F 4	11	SW	1.2	LF	2	64	0.468	CHA	Wood	Not Analyzed	Charcoal
BOT 7	F 4	11	SW	1.2	LF	2	1	0.007	CPR	Nut	Quercus spp.	Nutshell
BOT 8	F 4	11	SW	1.2	LF	2	4	0.02	CPR	N/A	IND	MISC
BOT 9	F 4	11	SW	1.3	LF	1	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 10	F 4	11	SW	1.3	LF	1	1	0.001	CPR	N/A	IND	Seed
BOT 11	F 4	11	SW	1.3	LF	1	1	0.001	CPR	Cultigen	Brassicaceae cf. Raphanus sativus	Seed
BOT 12	F 4	11	SW	1.3	LF	1	1	0.001	CPR	N/A	IND	Seed
BOT 13	F 4	11	SW	1.3	LF	1	1	0.001	CPR	N/A	IND	Seed
BOT 14	F 4	11	SW	1.3	LF	1	2	0.004	CPR	N/A	IND	MISC

BOT 15	F 4	11	SW	1.3	LF	1	1	0.001	CPR	Nut	Quercus spp.	Nutshell
BOT 16	F 4	11	SW	1.3	LF	1	142	0.231	CHA	Wood	Not Analyzed	Charcoal
BOT 17	F 4	11	SW	1.3	LF	1	1	0.001	UPR	Arboreal fleshy fruit	Rubus spp.	Stone
BOT 18	F 4	11	SW	1.3	LF	1	2	0.001	UPR	Herbaceous	Amaranthus spp.	Achene
BOT 19	F 4	11	SW	1.4	LF	0.5	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 20	F 4	11	SW	1.4	LF	0.5	2	0.001	CPR	N/A	IND	MISC
BOT 21	F 4	11	SW	1.4	LF	0.5	2	0.001	CPR	N/A	IND	MISC
BOT 22	F 4	11	SW	1.4	LF	0.5	1	0.001	CPR	N/A	cf. Eragrostis minor	Seed
BOT 23	F 4	11	SW	1.4	LF	0.5	1	0.001	UPR	Weed	Thlaspi arvense	Seed
BOT 24	F 4	11	SW	1.4	LF	0.5	8	0.001	UPR	Herbaceous	Portulaca oleracea	Seed
BOT 25	F 4	11	SW	1.4	LF	0.5	26	0.006	UPR	Herbaceous	Amaranthus spp.	Achene
BOT 26	F 4	11	SW	1.5	LF	0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 27	F 4	11	SW	1.5	LF	0.25	1	0.001	CPR	Aquatic/mesic	Juncus spp.	Seed
BOT 28	F 4	11	SW	1.5	LF	0.25	3	0.001	UPR	Herbaceous	Portulaca oleracea	Seed
BOT 29	F 4	11	SW	1.6	LF	<0.25		1.789	n/a	N/A	Not Analyzed	MISC
BOT 30	F 4	11	SW	1.7	HF	4	16	0.378	CHA	Wood	Not Analyzed	Charcoal
BOT 31	F 4	11	SW	1.7	HF	4	1	0.068	CPR	Cultigen	Zea mays	Cob and cupule fragment
BOT 32	F 4	11	SW	1.7	HF	4	4	0.184	CHA	Wood	Betula spp.	Charcoal
BOT 33	F 4	11	SW	1.7	HF	4	4	0.424	CHA	Wood	Ind. Diffuse Porous	Charcoal

BOT 34	F 4	11	SW	1.7	HF	4	1	0.205	CHA	Wood	Ulmus americana	Charcoal
BOT 35	F 4	11	SW	1.7	HF	4	3	0.319	CHA	Wood	Acer rubrum	Charcoal
BOT 36	F 4	11	SW	1.7	HF	4	8	1.187	CHA	Wood	Acer saccharum	Charcoal
BOT 37	F 4	11	SW	1.7	HF	4	12	1.509	CHA	Wood	Fagus grandifolia	Charcoal
BOT 38	F 4	11	SW	1.8	HF	2	245	1.735	CHA	Wood	Not Analyzed	Charcoal
BOT 39	F 4	11	SW	1.8	HF	2	2	0.023	CPR	Cultigen	Zea mays	Kernel fragment
BOT 40	F 4	11	SW	1.8	HF	2	1	0.008	CPR	Cultigen	Zea mays	Cupule fragment
BOT 41	F 4	11	SW	1.8	HF	2	3	0.024	CPR	N/A	IND	MISC
BOT 42	F 4	11	SW	1.9	HF	1	1216	1.468	CHA	Wood	Not Analyzed	Charcoal
BOT 43	F 4	11	SW	1.9	HF	1	2	0.006	CPR	Cultigen	Zea mays	Cupule fragment
BOT 44	F 4	11	SW	1.9	HF	1	1	0.001	UPR	Herbaceous	Chenopodium album	Achene
BOT 45	F 4	11	SW	1.9	HF	1	1	0.001	UPR	Grasses	Poaceae	Seed
BOT 46	F 4	11	SW	1.9	HF	1	4	0.005	CPR	Cultigen	Zea mays	Cupule fragment
BOT 47	F 4	11	SW	1.10	HF	<1		2.94	n/a	N/A	Not Analyzed	MISC
BOT 48	F 4	13	SW	2.1	LF	4	1	0.035	CPR	N/A	IND	MISC
BOT 49	F 4	13	SW	2.1	LF	4	1	0.02	CPR	Nut	Quercus spp.	Nutshell
BOT 50	F 4	13	SW	2.1	LF	4	8	0.383	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 51	F 4	13	SW	2.1	LF	4	2	0.162	CHA	Wood	Platanus occidentalis	Charcoal
BOT 52	F 4	13	SW	2.1	LF	4	2	0.087	CHA	Wood	Quercus rubra	Charcoal

BOT 53	F 4	13	SW	2.1	LF	4	11	1.287	CHA	Wood	Fagus grandifolia	Charcoal
BOT 54	F 4	13	SW	2.1	LF	4	1	0.234	CHA	Wood	Quercus alba	Charcoal
BOT 55	F 4	13	SW	2.2	LF	2	153	0.9	CHA	Wood	Not Analyzed	Charcoal
BOT 56	F 4	13	SW	2.2	LF	2	1	0.007	CPR	N/A	IND	MISC
BOT 57	F 4	13	SW	2.2	LF	2	1	0.004	CHA	Wood	Not Analyzed	Charcoal
BOT 58	F 4	13	SW	2.2	LF	2	2	0.012	CPR	N/A	IND	MISC
BOT 59	F 4	13	SW	2.3	LF	1	1	0.005	CPR	Cultigen	Zea mays	Cupule fragment
BOT 60	F 4	13	SW	2.3	LF	1	3	0.007	CPR	N/A	IND	MISC
BOT 61	F 4	13	SW	2.3	LF	1	2	0.001	UPR	Herbaceous	Chenopodium album	Achene
BOT 62	F 4	13	SW	2.3	LF	1	2	0.002	UPR	N/A	IND	Achene
BOT 63	F 4	13	SW	2.3	LF	1	2	0.001	CPR	Arboreal fleshy fruit	Rubus spp.	Stone
BOT 64	F 4	13	SW	2.3	LF	1	2	0.001	CPR	N/A	IND	Seed
BOT 65	F 4	13	SW	2.3	LF	1	2272	1.776	CHA	Wood	Not Analyzed	Charcoal
BOT 66	F 4	13	SW	2.4	LF	0.5	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 67	F 4	13	SW	2.4	LF	0.5	15	0.001	UPR	Herbaceous	Chenopodium album	Achene
BOT 68	F 4	13	SW	2.5	LF	0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 69	F 4	13	SW	2.6	LF	<0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 70	F 4	13	SW	2.7	HF	4	1	0.209	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 71	F 4	13	SW	2.7	HF	4	2	0.271	CHA	Wood	Betula spp.	Charcoal

BOT 72	F 4	13	SW	2.7	HF	4	1	0.321	CHA	Wood	Ostrya virginiana	Charcoal
BOT 73	F 4	13	SW	2.7	HF	4	44	10.292	CHA	Wood	Fagus grandifolia	Charcoal
BOT 74	F 4	13	SW	2.7	HF	4	3	1.01	CHA	Wood	Acer saccharum	Charcoal
BOT 75	F 4	13	SW	2.7	HF	4	248	12.176	CHA	Wood	Not Analyzed	Charcoal
BOT 76	F 4	13	SW	2.7	HF	4	1	0.031	CPR	Nut	IND	Nutshell
BOT 77	F 4	13	SW	2.7	HF	4	1	0.67	CPR	N/A	IND	MISC
BOT 78	F 4	13	SW	2.7	HF	4	2	0.041	CPR	Nut	Quercus spp.	Nutshell
BOT 79	F 4	13	SW	2.8	HF	2	1	0.005	UPR	N/A	Poaceae	Achene
BOT 80	F 4	13	SW	2.8	HF	2	6	0.056	CPR	N/A	IND	MISC
BOT 81	F 4	13	SW	2.8	HF	2	4	0.044	CPR	Cultigen	Zea mays	Cupule fragment
BOT 82	F 4	13	SW	2.8	HF	2	1872	21.552	CHA	Wood	Not Analyzed	Charcoal
BOT 83	F 4	13	SW	2.9	HF	1	8288	9.888	CHA	Wood	Not Analyzed	Charcoal
BOT 84	F 4	13	SW	2.1	HF	<1		15.618	n/a	N/A	Not Analyzed	MISC
BOT 85	F 4	13	SE	3.1	LF	4	2	0.07	CHA	Wood	Tilia americana	Charcoal
BOT 86	F 4	13	SE	3.1	LF	4	5	0.174	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 87	F 4	13	SE	3.1	LF	4	7	0.17	CHA	Wood	Acer spp.	Charcoal
BOT 88	F 4	13	SE	3.1	LF	4	1	0.115	CHA	Wood	Acer saccharum	Charcoal
BOT 89	F 4	13	SE	3.2	LF	2	22	0.107	CHA	Wood	Not Analyzed	Charcoal
BOT 90	F 4	13	SE	3.2	LF	2	1	0.001	UPR	Herbaceous	Chenopodium album	Achene

BOT 91	F 4	13	SE	3.3	LF	1	1	0.001	UPR	Herbaceous	Ambrosia spp.	Achene
BOT 92	F 4	13	SE	3.3	LF	1	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 93	F 4	13	SE	3.3	LF	1	280	0.2	CHA	Wood	Not Analyzed	Charcoal
BOT 94	F 4	13	SE	3.3	LF	1	1	0.001	UPR	Herbaceous	Chenopodium album	Achene
BOT 95	F 4	13	SE	3.4	LF	0.5	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 96	F 4	13	SE	3.4	LF	0.5	15	0.003	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 97	F 4	13	SE	3.5	LF	0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 98	F 4	13	SE	3.6	LF	<0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 99	F 4	13	SE	3.7	HF	4	4	0.219	CHA	Wood	Acer spp.	Charcoal
BOT 100	F 4	13	SE	3.7	HF	4	1	0.057	CHA	Wood	Fagus grandifolia	Charcoal
BOT 101	F 4	13	SE	3.8	HF	2	29	0.4	CHA	Wood	Not Analyzed	Charcoal
BOT 102	F 4	13	SE	3.9	HF	1	78	0.119	CHA	Wood	Not Analyzed	Charcoal
BOT 103	F 4	13	SE	3.9	HF	1	1	0.001	CPR	Arboreal fleshy fruit	Rubus spp.	Stone
BOT 104	F 4	13	SE	3.9	HF	1	1	0.001	UPR	Aquatic/mesic	Cyperaceae	Seed
BOT 105	F 4	13	SE	3.9	HF	<1		2.648	n/a	N/A	Not Analyzed	MISC
BOT 106	F 4	16	SW	4.1	LF	4	8	0.162	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 107	F 4	16	SW	4.1	LF	4	1	0.084	CHA	Wood	Fraxinus nigra	Charcoal
BOT 108	F 4	16	SW	4.1	LF	4	16	1.124	CHA	Wood	Fagus grandifolia	Charcoal
BOT 109	F 4	16	SW	4.2	LF	2	1	0.001	UPR	Herbaceous	Ambrosia spp.	Achene

BOT 110	F 4	16	SW	4.2	LF	2	165	0.9	CHA	Wood	Not Analyzed	Charcoal
BOT 111	F 4	16	SW	4.3	LF	1	1	0.001	UPR	Herbaceous	Chenopodium album	Seed
BOT 112	F 4	16	SW	4.3	LF	1	201	0.369	CHA	Wood	Not Analyzed	Charcoal
BOT 113	F 4	16	SW	4.4	LF	0.5	5	0.001	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 114	F 4	16	SW	4.4	LF	0.5	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 115	F 4	16	SW	4.5	LF	0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 116	F 4	16	SW	4.6	LF	<0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 117	F 4	16	SW	4.7	HF	4	8	0.438	CHA	Wood	Fagus grandifolia	Charcoal
BOT 118	F 4	16	SW	4.7	HF	4	1	0.055	CHA	Wood	Acer spp.	Charcoal
BOT 119	F 4	16	SW	4.8	HF	2	60	0.502	CHA	Wood	Not Analyzed	Charcoal
BOT 120	F 4	16	SW	4.9	HF	1	1	0.001	UPR	Aquatic/mesic	Cyperaceae	Seed
BOT 121	F 4	16	SW	4.9	HF	1	224	0.248	CHA	Wood	Not Analyzed	Charcoal
BOT 122	F 4	16	SW	4.10	HF	<1		1.745	n/a	N/A	Not Analyzed	MISC
BOT 123	F 4	16	SE	5.1	LF	4	6	0.099	CHA	Wood	Not Analyzed	Charcoal
BOT 124	F 4	16	SE	5.1	LF	4	7	0.458	CHA	Wood	Fagus grandifolia	Charcoal
BOT 125	F 4	16	SE	5.1	LF	4	4	0.134	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 126	F 4	16	SE	5.1	LF	4	1	0.046	CHA	Wood	Acer saccharum	Charcoal
BOT 127	F 4	16	SE	5.1	LF	4	5	0.382	CHA	Wood	Acer spp.	Charcoal
BOT 128	F 4	16	SE	5.1	LF	4	4	0.255	CHA	Wood	Betula spp.	Charcoal

BOT 129	F 4	16	SE	5.1	LF	4	4	0.3	CHA	Wood	Tilia americana	Charcoal
BOT 130	F 4	16	SE	5.2	LF	2	78	0.5	CHA	Wood	Not Analyzed	Charcoal
BOT 131	F 4	16	SE	5.2	LF	2	2	0.004	UPR	Herbaceous	Ambrosia spp.	Achene
BOT 132	F 4	16	SE	5.3	LF	1	132	0.179	CHA	Wood	Not Analyzed	Charcoal
BOT 133	F 4	16	SE	5.3	LF	1	3	0.004	UPR	Herbaceous	Ambrosia spp.	Achene
BOT 134	F 4	16	SE	5.3	LF	1	1	0.001	CPR	N/A	IND	Seed
BOT 135	F 4	16	SE	5.3	LF	1	1	0.001	UPR	Aquatic/mesic	Cyperaceae	Seed
BOT 136	F 4	16	SE	5.4	LF	0.5	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 137	F 4	16	SE	5.4	LF	0.5	7	0.002	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 138	F 4	16	SE	5.5	LF	0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 139	F 4	16	SE	5.6	LF	<0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 140	F 4	16	SE	5.7	HF	4	2	0.133	CHA	Wood	Tilia americana	Charcoal
BOT 141	F 4	16	SE	5.7	HF	4	17	0.815	CHA	Wood	Acer spp.	Charcoal
BOT 142	F 4	16	SE	5.7	HF	4	2	0.306	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 143	F 4	16	SE	5.7	HF	4	9	0.272	CHA	Wood	Not Analyzed	Charcoal
BOT 144	F 4	16	SE	5.7	HF	4	5	0.371	CHA	Wood	Fagus grandifolia	Charcoal
BOT 145	F 4	16	SE	5.7	HF	4	1	0.043	CHA	Wood	Ind. Ring Porous	Charcoal
BOT 146	F 4	16	SE	5.7	HF	4	1	0.036	CHA	Wood	Ind. Semi-Ring Porous	Charcoal
BOT 147	F 4	16	SE	5.8	HF	2	171	1.509	CHA	Wood	Not Analyzed	Charcoal

BOT 148	F 4	16	SE	5.9	HF	1	406	0.21	CHA	Wood	Not Analyzed	Charcoal
BOT 149	F 4	16	SE	5.10	HF	<1		1.055	n/a	N/A	Not Analyzed	MISC
BOT 150	F 4	17	SE	7.1	LF	4	124	3.486	CHA	Wood	IND	Charcoal
BOT 151	F 4	17	SE	7.1	LF	4	1	0.048	CHA	Wood	Ulmus spp.	Charcoal
BOT 152	F 4	17	SE	7.1	LF	4	3	0.19	CHA	Wood	Betula spp.	Charcoal
BOT 153	F 4	17	SE	7.1	LF	4	1	0.085	CHA	Wood	Ostrya virginiana	Charcoal
BOT 154	F 4	17	SE	7.1	LF	4	1	0.1	CHA	Wood	Tilia americana	Charcoal
BOT 155	F 4	17	SE	7.1	LF	4	8	0.718	CHA	Wood	Acer saccharum	Charcoal
BOT 156	F 4	17	SE	7.1	LF	4	24	2.103	CHA	Wood	Acer spp.	Charcoal
BOT 157	F 4	17	SE	7.1	LF	4	5	0.436	CHA	Wood	Acer rubrum	Charcoal
BOT 158	F 4	17	SE	7.2	LF	2	584	4.248	CHA	Wood	Not Analyzed	Charcoal
BOT 159	F 4	17	SE	7.2	LF	2	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 160	F 4	17	SE	7.3	LF	1	2	0.001	UPR	Herbaceous	Chenopodium album	Seed
BOT 161	F 4	17	SE	7.3	LF	1	1	0.001	UPR	Arboreal fleshy fruit	Sambucus canadensis	Seed
BOT 162	F 4	17	SE	7.3	LF	1	1	0.001	UPR	Aquatic/mesic	Cyperaceae	Seed
BOT 163	F 4	17	SE	7.3	LF	1	1120	1.496	CHA	Wood	Not Analyzed	Charcoal
BOT 164	F 4	17	SE	7.4	LF	0.5	6	0.003	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 165	F 4	17	SE	7.4	LF	0.5	15	0.005	UPR	Herbaceous	Chenopodium album	Seed
BOT 166	F 4	17	SE	7.5	LF	0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium

BOT 167	F 4	17	SE	7.5	LF	0.25	1	0.001	UPR	Herbaceous	Alyssum alyssoides	Seed
BOT 168	F 4	17	SE	7.6	LF	<0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 169	F 4	17	SW	6.7	HF	4	1	0.02	CHA	Wood	IND	Charcoal
BOT 170	F 4	17	SW	6.7	HF	4	1	0.024	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 171	F 4	17	SW	6.7	HF	4	1	0.029	CHA	Wood	Ind. Ring Porous	Charcoal
BOT 172	F 4	17	SW	6.7	HF	4	1	0.02	CHA	Wood	Ulmus spp.	Charcoal
BOT 173	F 4	17	SW	6.7	HF	4	2	0.052	CHA	Wood	Acer spp.	Charcoal
BOT 174	F 4	17	SW	6.7	HF	4	6	0.139	CHA	Wood	Fagus grandifolia	Charcoal
BOT 175	F 4	17	SW	6.7	HF	4	1	0.022	CHA	Wood	Tilia americana	Charcoal
BOT 176	F 4	17	SW	6.7	HF	4	4	0.176	CHA	Wood	Ostrya virginiana	Charcoal
BOT 177	F 4	17	SW	6.8	HF	2	1	0.013	CPR	Cultigen	Zea mays	Kernel fragment
BOT 178	F 4	17	SW	6.8	HF	2	154	1.131	CHA	Wood	Not Analyzed	Charcoal
BOT 179	F 4	17	SW	6.9	HF	1	1	0.001	UPR	Arboreal fleshy fruit	Rubus spp.	Stone
BOT 180	F 4	17	SW	6.9	HF	1	2	0.001	UPR	Grasses	Poaceae	Seed
BOT 181	F 4	17	SW	6.9	HF	1	1	0.001	UPR	Aquatic/mesic	Cyperaceae	Seed
BOT 182	F 4	17	SW	6.9	HF	1	1	0.006	CPR	Cultigen	Linum cf. usitatissimum	Seed
BOT 183	F 4	17	SW	6.9	HF	1	6	0.011	CPR	N/A	IND	MISC
BOT 184	F 4	17	SW	6.9	HF	1	3	0.006	CPR	Cultigen	Zea mays	Kernel fragment
BOT 185	F 4	17	SW	6.9	HF	1	1	0.002	CPR	Cultigen	Zea mays	Cupule fragment

BOT 186	F 4	17	SW	6.9	HF	1	400	0.704	CHA	Wood	Not Analyzed	Charcoal
BOT 187	F 4	17	SW	6.10	HF	<1		3.251	n/a	N/A	Not Analyzed	MISC
BOT 188	F 4	17	SE	7.7	HF	4	11	0.2	CHA	Wood	IND	Charcoal
BOT 189	F 4	17	SE	7.7	HF	4	1	0.044	CHA	Wood	Tilia americana	Charcoal
BOT 190	F 4	17	SE	7.7	HF	4	1	0.015	CPR	Cultigen	Zea mays	Cupule fragment
BOT 191	F 4	17	SE	7.7	HF	4	5	0.119	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 192	F 4	17	SE	7.7	HF	4	2	0.099	CHA	Wood	Fagus grandifolia	Charcoal
BOT 193	F 4	17	SE	7.7	HF	4	5	0.547	CHA	Wood	Acer saccharum	Charcoal
BOT 194	F 4	17	SE	7.8	HF	2	152	1.016	CHA	Wood	Not Analyzed	Charcoal
BOT 195	F 4	17	SE	7.8	HF	2	1	0.007	CPR	N/A	IND	MISC
BOT 196	F 4	17	SE	7.9	HF	1	320	0.4	CHA	Wood	Not Analyzed	Charcoal
BOT 197	F 4	17	SE	7.9	HF	1	2	0.001	UPR	Aquatic/mesic	Cyperaceae	Seed
BOT 198	F 4	17	SE	7.9	HF	1	1	0.005	UPR	Herbaceous	Ambrosia spp.	Achene
BOT 199	F 4	17	SE	7.9	HF	1	5	0.007	CPR	N/A	IND	MISC
BOT 200	F 4	17	SE	7.10	HF	<1		1.262	n/a	N/A	Not Analyzed	MISC
BOT 201	F 4	17	SW	6.1	LF	4	8	0.249	CHA	Wood	Acer saccharum	Charcoal
BOT 202	F 4	17	SW	6.1	LF	4	4	0.118	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 203	F 4	17	SW	6.1	LF	4	3	0.094	CHA	Wood	Fagus grandifolia	Charcoal
BOT 204	F 4	17	SW	6.1	LF	4	2	0.039	CHA	Wood	Fraxinus spp.	Charcoal

BOT 205	F 4	17	SW	6.1	LF	4	3	0.069	CHA	Wood	Ulmus spp.	Charcoal
BOT 206	F 4	17	SW	6.2	LF	2	130	0.964	CHA	Wood	Not Analyzed	Charcoal
BOT 207	F 4	17	SW	6.2	LF	2	2	0.031	CPR	N/A	IND	MISC
BOT 208	F 4	17	SW	6.3	LF	1	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 209	F 4	17	SW	6.3	LF	1	328	0.544	CHA	Wood	Not Analyzed	Charcoal
BOT 210	F 4	17	SW	6.3	LF	1	3	0.001	UPR	Herbaceous	Chenopodium album	Seed
BOT 211	F 4	17	SW	6.3	LF	1	1	0.001	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 212	F 4	17	SW	6.3	LF	1	1	0.001	UPR	Herbaceous	Ambrosia spp.	Seed
BOT 213	F 4	17	SW	6.3	LF	1	3	0.001	CPR	Cultigen	Linum cf. usitatissimum	Seed
BOT 214	F 4	17	SW	6.3	LF	1	3	0.004	CPR	N/A	IND	MISC
BOT 215	F 4	17	SW	6.3	LF	1	4	0.001	CPR	Nut	IND	Nutshell
BOT 216	F 4	17	SW	6.4	LF	0.5	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 217	F 4	17	SW	6.4	LF	0.5	26	0.004	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 218	F 4	17	SW	6.4	LF	0.5	1	0.001	CPR	N/A	IND	MISC
BOT 219	F 4	17	SW	6.4	LF	0.5	9	0.001	UPR	Herbaceous	Portulaca oleracea	Seed
BOT 220	F 4	17	SW	6.4	LF	0.5	1	0.001	UPR	Arboreal fleshy fruit	Sambucus canadensis	Seed
BOT 221	F 4	17	SW	6.4	LF	0.5	1	0.001	UPR	Herbaceous	Ambrosia spp.	Seed
BOT 222	F 4	17	SW	6.4	LF	0.5	1	0.001	CPR	Herbaceous	Brassicacea cf. Conringia orientalis	Seed
BOT 223	F 4	17	SW	6.5	LF	0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium

BOT 224	F 4	17	SW	6.5	LF	0.25	2	0.001	CPR	Herbaceous	Poaceae	Seed
BOT 225	F 4	17	SW	6.6	LF	<0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 226	F 4	20	SE	8.1	LF	4	9	1.432	CHA	Wood	Fraxinus nigra	Charcoal
BOT 227	F 4	20	SE	8.1	LF	4	3	0.182	CHA	Wood	Fagus grandifolia	Charcoal
BOT 228	F 4	20	SE	8.1	LF	4	2	0.095	CHA	Wood	Acer saccharum	Charcoal
BOT 229	F 4	20	SE	8.1	LF	4	4	0.158	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 230	F 4	20	SE	8.2	LF	2	85	0.726	CHA	Wood	Not Analyzed	Charcoal
BOT 231	F 4	20	SE	8.2	LF	2	1	0.002	UPR	Herbaceous	Ambrosia spp.	Seed
BOT 232	F 4	20	SE	8.2	LF	2	1	0.001	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 233	F 4	20	SE	8.2	LF	2	9	0.034	CPR	N/A	IND	MISC
BOT 234	F 4	20	SE	8.3	LF	1	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 235	F 4	20	SE	8.3	LF	1	20	0.035	CPR	N/A	IND	MISC
BOT 236	F 4	20	SE	8.3	LF	1	5	0.002	UPR	Herbaceous	Ambrosia spp.	Achene
BOT 237	F 4	20	SE	8.3	LF	1	1	0.002	UPR	Arboreal fleshy fruit	Sambucus canadensis	Seed
BOT 238	F 4	20	SE	8.3	LF	1	2	0.002	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 239	F 4	20	SE	8.3	LF	1	1	0.001	CPR	N/A	Poaceae	Seed
BOT 240	F 4	20	SE	8.3	LF	1	5	0.006	CPR	N/A	IND	Seed
BOT 241	F 4	20	SE	8.3	LF	1	160	3.52	CHA	Wood	Not Analyzed	Charcoal
BOT 242	F 4	20	SE	8.4	LF	0.5	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium

BOT 243	F 4	20	SE	8.4	LF	0.5	1	0.001	CPR	N/A	IND	Seed
BOT 244	F 4	20	SE	8.4	LF	0.5	1	0.001	CPR	Arboreal fleshy fruit	Sambucus canadensis	Seed
BOT 245	F 4	20	SE	8.4	LF	0.5	4	0.001	CPR	N/A	IND	MISC
BOT 246	F 4	20	SE	8.4	LF	0.5	6	0.001	UPR	Herbaceous	Chenopodium album	Seed
BOT 247	F 4	20	SE	8.4	LF	0.5	9	0.001	UPR	Herbaceous	Amaranthus spp.	Seed
BOT 248	F 4	20	SE	8.5	LF	0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 249	F 4	20	SE	8.6	LF	<0.25	1	0.001	UPR	N/A	Sclerotia	Hardened mycelium
BOT 250	F 4	20	SE	8.7	HF	4	2	0.061	CHA	Wood	Acer spp.	Charcoal
BOT 251	F 4	20	SE	8.7	HF	4	1	0.108	CHA	Wood	Ind. Diffuse Porous	Charcoal
BOT 252	F 4	20	SE	8.7	HF	4	2	0.064	CHA	Wood	Ostrya virginiana	Charcoal
BOT 253	F 4	20	SE	8.7	HF	4	2	0.11	CHA	Wood	Fraxinus nigra	Charcoal
BOT 254	F 4	20	SE	8.7	HF	4	1	0.037	CPR	Cultigen	Zea mays	Kernel fragment
BOT 255	F 4	20	SE	8.8	HF	2	6	0.039	CPR	N/A	IND	MISC
BOT 256	F 4	20	SE	8.8	HF	2	1	0.013	CPR	Nut	IND	Nutshell
BOT 257	F 4	20	SE	8.8	HF	2	14	0.1	CPR	N/A	IND	MISC
BOT 258	F 4	20	SE	8.9	HF	1	160	0.192	CHA	Wood	Not Analyzed	Charcoal
BOT 259	F 4	20	SE	8.9	HF	1	21	0.077	CPR	N/A	IND	MISC
BOT 260	F 4	20	SE	8.9	HF	1	1	0.001	CPR	Nut	IND	Nutshell
BOT 261	F 4	20	SE	8.9	HF	1	1	0.001	UPR	Herbaceous	Amaranthus spp.	Seed

BOT 262	F 4	20	SE	8.10	HF	<1		7.264	n/a	N/A	Not Analyzed	MISC

17.0 APPENDIX B: Faunal Remains

Fauna #	Borden #	Feature	Detail	Lot	Taxon	Species Common Name	Skeletal Element	Portion	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Tooth	Side	Sex	Age	Fusion	NSP	MNI	Altered yes/no	Butchered	Heat Altered	Gnawed	Taphonomy	Alteration Location	Alteration Direction
1	AeHg-61	F001	NW, #122	11	Mammalia	mammal: large	scapula	fragment	n	n	n	n	n	y	n	y		ind.		ind.		1	1	no						
2	AeHg-61	F001	NW, #122	11	Mammalia	mammal: large	rib	body	n	n	y	y	y	n	n	n		ind.		ind.		3	3	yes	cut				cut multiple	perpindicular to long axis
	AeHg-61			11	Mammalia	mammal: medium	pelvis	illiacic bridge	n	y	n	n	n	n	n	n		ind.		ind.		1	1	yes					trasnverse chop	
3		F001	NW, #122																						chop				fractures	perpindicular to long axis
4	AeHg-61	F001	NW, #122	11	Mammalia	mammal: medium	carpal/tarsal	complete	y	y	y	y	y	y	y	y		ind.		ind.		1	1	no						
5	AeHg-61	F001	NW, #122	11	Mammalia	mammal: medium	rib	fragment	n	n	n	n	n	n	n	n		ind.		ind.		12	12	no						
6	AeHg-61	F001	NW, #122	11	Mammalia	mammal: medium	long bone	fragment	n	n	n	n	n	n	n	n		ind.		ind.		5	5	yes	chop					
7	AeHg-61	F001	NW, #122	11	Mammalia	mammal: medium	vertebra	fragment	n	n	n	n	n	n	n	n		ind.		juvenile	unfused	7	7	no						
8	AeHg-61	F001	NW, #122	11	Mammalia	mammal: medium	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		5	5	no						
9	AeHg-61	F001	NW, #122	11	Aves	bird: medium	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	2	no						
10	AeHg-61	F001	NW, #124	11	Sus Scrofa	pig	tooth	complete	y	y	y	y	y	y	y	y	incisor	ind.		ind.		1	1	no						
11	AeHg-61	F001	NW, #124	11	Ovis Aries	sheep	tooth	fragment	n	n	n	n	n	n	n	n	incisor, molar	ind.		ind.		2	2	no						
12	AeHg-61	F001	NW, #123	11	Mammalia	mammal: small	femur	proximal	y	y	y	n	n	n	n	n		R		ind.		1	1	no						
13	AeHg-61	F001	NW, #266,264	13	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		13	13	yes		calcined				
14	AeHg-61	F001	NW, #266	13	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	2	yes		charred				
15	AeHg-61	F001	NW, #263	13	Mammalia	mammal: large	scapula	fragment	n	n	n	n	n	y	n	n		ind.		ind.		1	1	yes		charred				
16	AeHg-61	F001	NW, #263	13	Mammalia	mammal: medium	long bone	fragment	n	n	n	n	y	n	n	n		ind.		ind.		3	3	yes	chop	charred			partial chop	diagonal to long axis
17	AeHg-61	F001	NW, #263	13	Mammalia	mammal: medium	vertebra	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	2	yes		charred				
18	AeHg-61	F001	SE, #72	17	Sus Scrofa	pig	femur	diaphysis	n	n	n	y	y	y	n	n		R		ind.		1	1	no				erosion		
19	AeHg-61	F001	SE, #72	17	Mammalia	mammal: medium	long bone	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	2	no						
20	AeHg-61	F001	SE, #72	17	Mammalia	mammal: large	vertebra	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	2	yes	chop				partial chop	spine
21	AeHg-61	F001	SE, #72	17	Mammalia	mammal: medium	vertebra	fragment	n	n	n	n	n	n	n	n		ind.		juvenile	unfused	2	2	no				erosion		
22	AeHg-61	F001	SE, #72	17	Mammalia	mammal: medium	rib	fragment	n	n	n	n	n	n	n	n		ind.		ind.		3	3	no						
23	AeHg-61	F001	SE, #72	17	Mammalia	mammal: medium	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		5	5	no						
24	AeHg-61	F001	SE, #72	17	Sus Scrofa	pig	tooth	fragment	n	n	n	n	n	n	n	n	canine, PM	ind.		juvenile	unfused	2	2	no						
25	AeHg-61	F001	SE, #72	17	Ovis Aries	sheep	tooth	fragment	n	n	n	n	n	n	n	n	M1	ind.		adult		1	1	no						
26	AeHg-61	F001	SE, #74	17	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		7	7	yes		calcined				
27	AeHg-61	F001	SE, #74	17	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		4	4	yes		charred				
28	AeHg-61	F001	NW, #236	16	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	2	yes		calcined				
29	AeHg-61	F001	NW, #235	16	Mammalia	mammal: medium	vertebra	fragment	n	n	n	n	n	n	n	n		ind.		juvenile	unfused	2	1	yes	chop			erosion	complete chop through	saggital midline
30	AeHg-61	F001	NW, #235	16	Ovis Aries	sheep	humerus	distal	n	n	n	n	n	n	y	y		L		ind.		3	1	yes			canine	erosion		
31	AeHg-61	F001	NW, #235	16	Mammalia	mammal: large	rib	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	1	no				erosion		
32	AeHg-61	F001	NW, #235	16	Sus Scrofa	pig	phalange	fragment	n	n	n	n	n	y	y	y		ind.		juvenile	unfused	1	1	yes			canine	erosion		
33	AeHg-61	F001	NW, #235	16	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		1	1	no						
34	AeHg-61	F001	NE, #18	13	Rodentia	mice, rats, moles, voles	humerus	diaphysis	n	n	y	y	y	y	n	n		L		juvenile	unfused	1	1	no						
35	AeHg-61	F001	NE, #10	13	Ovis Aries	sheep	radius	fragment	n	n	n	y	y	n	y	n		ind.		juvenile	unfused	2	1	yes				erosion		
36	AeHg-61	F003	#92	10	Sus Scrofa	pig	femur	diaphysis	n	n	n	y	y	y	n	n		ind.		ind.		1	1	yes	cut				partial cut	transverse diaphysis
37	AeHg-61	F003	#92	10	Ovis Aries	sheep	radius	diaphysis	n	n	n	y	y	y	n	n		R		ind.		2	1	yes			canine			
38	AeHg-61	F001	SW, #242	16	Cervus	deer	tibia	proximal	y	y	y	n	n	n	n	n		L		adult	fused	1	1	no						
39	AeHg-61	F001	SW, #242	16	Mammalia	mammal: large	vertebra	thoracic	n	n	y	y	y	y	y	n		A		juvenile	unfused	1	1	yes	chop				cut through	saggital left lateral
40	AeHg-61	F001	SW, #242	16	Mammalia	mammal: large	sternum	fragment	n	n	n	n	n	n	n	n		A		ind.		1	1	no						
41	AeHg-61	F001	SW, #242	16	Sus Scrofa	pig	mandible	fragment	n	n	n	n	n	n	n	n		ind.		ind.		5	5	no						
42	AeHg-61	F001	SW, #242	16	Sus Scrofa	pig	tooth	fragment	n	n	n	n	n	n	n	n	M3, M1-2, incisors, canine	ind.		juvenile	unfused	9	8	no						
43	AeHg-61	F001	SW, #244	16	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		4	4	yes		calcined				
44	AeHg-61	F001	SE, #71	13	Sus Scrofa	pig	tooth	canine	y	y	y	y	y	y	y	y	lower canine	L	male	ind.		1	1	no						
45	AeHg-61	F001	SE, #71	13	Sus Scrofa	pig	mandible	fragment	n		n	n	n	n	n	n	upm	L		juvenile		2	1	no						
46	AeHg-61	F001	SE, #71	13	Sus Scrofa	pig	radius	distal epiphysis	n	n	n	n	n	n	y	y		L		juvenile	unfused	1	1	no						
47	AeHg-61	F001	SE, #71	13	Mammalia	mammal: medium	vertebra	fragment	n	n	n	n	n	n	n	n		A		adult	fused	3	3	no						
48	AeHg-61	F001	SE, #71	13	Mammalia	mammal: medium	rib	fragment	n	n	n	n	n	n	n	n		ind.		ind.		1	1	yes		charred	canine	erosion		
49	AeHg-61	F001	SE, #71	13	Mammalia	mammal: medium	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	2	yes		charred				
50	AeHg-61	F001	SW, #100	17	Mammalia	mammal: medium	vertebra	fragment	n	n	n	n	n	n	n	n		A		juvenile	unfused	7	7	yes	chop				cut through	saggital midline
51	AeHg-61	F001	SW, #100	17	Mammalia	mammal: medium	rib	fragment	n	n	n	n	n	n	n	n		ind.		ind.		6	6	no						
52	AeHg-61	F001	SW, #100	17	Ovis Aries	sheep	metacarpal	diaphysis	n	n	n	y	y	n	n	n		ind.		juvenile	unfused	1	1	yes	saw				cut through	diagonal midshaft
53	AeHg-61	F001	SW, #100	17	Mammalia	mammal: medium	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		8	8	no						
54	AeHg-61	F001	SW, #100	17	Mammalia	mammal: medium	scapula	fragment	n	n	n	n	n	n	n	n		ind.		ind.		3	3	yes	cut				knife marks	diagonal
55	AeHg-61	F001	SW, #100	17	Sus Scrofa	pig	tooth	fragment	n	n	n	n	n	n	n	n	premolar, incosor	ind.		ind.		3	3	no						
56	AeHg-61	F001	#57	16	Sus Scrofa	pig	tooth	fragment	n	n	n	n	n	n	n	n	canine	ind.		juvenile	unfused	1	1	no						
57	AeHg-61	F007	#005	15	Mammalia	mammal: medium	mandible	ramus fragment	n	n	n	n	n	n	n	n		ind.		ind.		1	1	no						
58	AeHg-61	F007	#005	15	Mammalia	mammal: large	long bone	fragment	n	n	n	n	n	n	n	n		ind.		ind.		1	1	yes				erosion		
59	AeHg-61	F007	#006	15	Aves	bird: medium	tarso-metatrsus	distal	n	n	n	y	y	y	y	y		R		adult	fused	1	1	no						

60	AeHg-61	F001	NE, #0028	11	Ovis Aries	sheep	tibia	distal	n	n	n	y	y	y	y	y		L		adult	fused	1	1	yes	chop				transverse cut through	mid diaphysis
61	AeHg-61	F001	NE, #0028	11	Sus Scrofa	pig	phalange	fragment	n	n	y	y	y	y	y	y		L		juvenile	unfused	1	1	no						
62	AeHg-61	F001	NE, #0028	11	Mammalia	mammal: medium	rib	fragment	n	n	n	n	n	n	n	n		ind.		ind.		1	1	no						
63	AeHg-61	F001	NE, #0028	11	Mammalia	mammal: medium	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		3	3	no						
64	AeHg-61	F001	NE, #0028	11	Bos Taurus	cow	tooth	fragment	n	n	n	n	n	n	n	n	molar	ind.		ind.		1	1	no						
65	AeHg-61	F001	NE, #0027	11	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		5	5	yes		calcined				
66	AeHg-61	F001	SW, #225	13	Ovis Aries	sheep	pelvis	acetabulum	n	n	n	y	y	y	n	n		R		ind.		1	1	no						
67	AeHg-61	F001	SW, #225	13	Ovis Aries	sheep	pelvis	illium	y	y	n	n	n	n	n	n		ind.		ind.		1	1	yes	chop				illiacic bridge	cut through perpindicular to long axis
68	AeHg-61	F001	SW, #225	13	Sus Scrofa	pig	mandible	fragment	y	y	n	n	n	n	n	n	PM, M1-2	R		juvenile		2	2	yes			canine			
69	AeHg-61	F001	SW, #225	13	Sus Scrofa	pig	tooth	fragment	n	n	n	n	n	n	n	n	canine	ind.	male	ind.		1	1	no						
70	AeHg-61	F001	SW, #225	13	Mammalia	mammal: medium	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		3	3	no						
71	AeHg-61	F001	SW, #224	13	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		7	7	yes		calcined				
72	AeHg-61	F001	NW, #202	17	Cervus	deer	antler	tine	n	n	n	n	n	n	n	n		ind.		ind.		1	1	yes	saw			erosion	cut through tine	transverse perpindicular to long axis
73	AeHg-61	F001	NW, #182	17	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		17	17	yes		calcined				
74	AeHg-61	F001	NW, #183	17	Sus Scrofa	pig	mandible	fragment	n	n	n	n	n	n	n	n	PM, M1-2, canine	ind.		adult		2	2	yes	chop				cleaver cut through M2	transverse perpindicular to long axis
75	AeHg-61	F001	NW, #183	17	Sus Scrofa	pig	tooth	fragment	n	n	n	n	n	n	n	n	canine, incisor, P2	ind.		ind.		3	3	no						
76	AeHg-61	F001	NW, #183	17	Mammalia	mammal: medium	scapula	fragment	n	n	n	y	y	n	n	n		ind.		ind.		2	2	yes	saw			erosion		
77	AeHg-61	F001	NW, #183	17	Mammalia	mammal: medium	rib	fragment	n	n	n	n	n	n	n	n		ind.		ind.		9	9	yes				erosion		
78	AeHg-61	F001	NW, #183	17	Mammalia	mammal: medium	pelvis	fragment	n	n	n	n	n	n	n	n		ind.		juvenile	unfused	1	1	no						
79	AeHg-61	F001	NW, #183	17	Mammalia	mammal: medium	long bone	fragment	n	n	n	n	n	n	n	n		ind.		ind.		1	1	no						
80	AeHg-61	F001	NW, #183	17	Mammalia	mammal: medium	radius	fragment	n	n	n	y	y	n	n	n		ind.		ind.		1	1	yes			canine			
81	AeHg-61	F001	NW, #183	17	Mammalia	mammal: medium	vertebra	fragment	n	n	n	n	n	n	n	n		ind.		ind.		2	2	no						
82	AeHg-61	F001	NW, #183	17	Mammalia	mammal	indeterminate	fragment	n	n	n	n	n	n	n	n		ind.		ind.		22	22	no						
83	AeHg-61	F001	NW, #183	17	Sus Scrofa	pig	phalange	fragment	n	n	n	n	n	n	n	n		ind.		juvenile	unfused	1	1	no						



About DNV

We are the independent expert in assurance and risk management. Driven by our purpose, to safeguard life, property and the environment, we empower our customers and their stakeholders with facts and reliable insights so that critical decisions can be made with confidence. As a trusted voice for many of the world's most successful organizations, we use our knowledge to advance safety and performance, set industry benchmarks, and inspire and invent solutions to tackle global transformations.