ORIGINAL REPORT

Stage 1 and 2 Archaeological Assessment

Sand Road Pit Expansion
Part Lot 14, Concession 5, and
Part Lot 15, Concession 6,
Geographic Township of Asphodel,
Current Township of Asphodel-Norwood
County of Peterborough, Ontario

Prepared For

Josiah Latone
Aggregate Division Manager
Drain Bros. Excavating Limited
2130 8th Line Road
North Dummer, ON
jlatone@drainbros.ca
(705)-875-6787

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PIF: P369-0508-2024
Ben Mortimer (License Number P369)

Report: MH1304-REP.01R1

Matrix Heritage Inc.
6131 Perth Street
Richmond, Ontario
K0A 2Z0
Tel: (613) 807-2071
www.MatrixHeritage.ca

1.0 Executive Summary

Matrix Heritage, on behalf of Drain Bros. Excavating Limited, conducted a combined Stage 1 and 2 archaeological assessment for the proposed Sand Road Pit expansion on Part Lot 14, Concession 5, and Part Lot 15, Concession 6 in the Geographic Township of Asphodel, Township of Asphodel-Norwood, County of Peterborough, Ontario (Map 1).

The archaeological assessment process supports a license application under the *Aggregate Resources Act* for an expansion to the Sand Road Pit (Map 2). This assessment was completed in accordance with the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011).

The Stage 1 archaeological assessment included a review of the MCM's archaeological site databases, relevant environmental, historical literature, and primary historical research including: historical maps, land registry, and census records. The assessment concluded that, based on criteria outlined in the *Standards and Guidelines for Consultant Archaeologists* (Section 1.3, (2011)), the entire study area has both pre-contact Indigenous as well as historical Euro-Canadian archaeological potential due to the location within drumlin and esker fields, well-drained sandy loam and gravel soils, early patent dates, proximity to the historic road (Sand Road), and previously known archaeological sites in the area.

The Stage 2 archaeological assessment involved subsurface testing consisting of hand excavated test pits at 5 metre intervals in areas of archaeological potential as per Standard 1.a., Section 2.1.2 (MCM 2011). The fieldwork was undertaken on August 19-23, 26-30, and September 23-24, 2024. Weather conditions ranged from overcast and breezy to sunny and humid with brief periods of rain and temperatures between 19°-38°C. Ground conditions were excellent with no saturation or other excessive ground cover to impede visual assessment as per Section 2.1. Standard 3 (MCM 2011). Permission to access the property was provided by the owner without limitations.

During Stage 2 archaeological assessment, an approximately 26 m x 7 m artifact scatter was identified in the central portion of the study area through two positive test pits with two additional intensification units and surrounding test pits (Map 3). In total, the Stage 2 assessment at this location produced an assemblage of 27 artifacts dating to the late 19th and early 20th centuries. Accordingly, the scatter has been registered with the MCM as the Sand Road Pit 1 Site (BcGm-2).

Analysis of the assemblage demonstrated that fewer than 20 of the artifacts date the period of use of the site to before 1900. Accordingly, the site does not qualify as having cultural heritage value or interest (CHVI) as per Section 2.2, Standard 1 c. (MCM 2011). The Sand Road Pit 1 Site (BcGm-2) has been sufficiently assessed and documented through the Stage 2 and does not require Stage 3 assessment.

Based on the results of this investigation it is recommended:

1. No further archaeological study is required for the subject property as delineated in Map 1.

2. Due to the nature of archaeological assessments, the potential exists to miss information; and if any artifacts of Indigenous interest or human remains are encountered during the development of the subject property, please contact:

Alderville First Nation
11696 Second Line Rd,
Alderville, Ontario K0K 2X0
Tel: 905-352-2011
Email: APAdmin@curvelake.ca

Beausoleil First Nation
11 O'Gemaa Miikaan
Christian Is., ON L9M 0A9
Tel: 705-247-2051
Email: consultation@chimnissing.ca

Curve Lake First Nation
Lands Resource Consultation
22 Wiinookeedaa Rd.
Curve Lake, ON K0L 1R0
Tel: 705-657-8045
Email: ConsultationLead@curvelake.ca

Chippewas of Rama First Nation
5884 Rama Rd., Suite 200
Rama, ON L3V 6H6
Tel: 705-325-3611
Email:
consultation@ramafirstnation.ca

Hiawatha First Nation
123 Paudash St.
Hiawatha, ON K9J 0E6
Tel: 705-295-4421
Email: mmcgonigle@hiawatha.ca
tcowie@hiawathafn.ca;
sdavison@hiawathafn.ca

Chippewas of Georgina Island
R.R. #2, Box N-13
Sutton W., ON L0E 1R0
Tel: 705-437-1337
Email:
natasha.charles@georginaisland.com;
jl.porte@georginaisland.com

Mississaugas of Scugog Island First Nation
22521 Island Rd.
Port Perry, ON L9L 1B6
Tel: 905-985-3337
Email: consultation@scugogfirstnation.com

Kawartha Nishnawbe First Nation
Email: nodin.webb@hotmail.com

Huron-Wendat Nation
255 place Chef Michel Laveau,
Wendake, QC, G0A 4V0
Email: consultations@wendake.ca

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3.0 Project Personnel

Licensee	Ben Mortimer, MA (P369)
Field Director	Mercedes Hunter, MA (R1331)
Field Crew	Doug Connell Carina Hochgeschurz Leandro Iglesias Danny Kavanagh Marc Kelly Em Miller Ronan Moloughney Isabelle Sauvé Delaney Scott
Artifact Inventory	Mercedes Hunter, MA (R1331)
Report Preparation	Mercedes Hunter, MA (R1331)
Archival Research	Mercedes Hunter, MA (R1331)
GIS and Mapping	Em Miller
Report Review	Ben Mortimer, MA (P369)

4.0 Project Context

4.1 Development Context

Matrix Heritage, on behalf of Drain Bros. Excavating Limited, conducted a combined Stage 1 and 2 archaeological assessment for the proposed Sand Road Pit expansion on Part Lot 14, Concession 5, and Part Lot 15, Concession 6 in the Geographic Township of Asphodel, Township of Asphodel-Norwood, County of Peterborough, Ontario (Map 1).

The archaeological assessment process supports an aggregate resource expansion license application for the Sand Road Pit under the Aggregate Resources Act (Map 2). This assessment was completed in accordance with the Standards and Guidelines for Consultant Archaeologists (MCM 2011).

Permission to access the property was granted by the owner prior to the commencement of any field work and no limits were placed on this access.

4.2 Historical Context

4.2.1 Historic Documentation

The study areas fall within the traditional territory of the Michi Saagiig, part of the larger Anishinaabeg Nation. Their lands extend across the Kawarthas, southern Ontario, and along the northern shores of Lake Ontario. The name Michi Saagiig translates to "Great River Mouth," reflecting a deep connection to the waterways that have sustained their communities for generations.

Historically, the Michi Saagiig were known for their extensive trade networks, expertise in hunting, fishing, and agriculture, and active participation in regional diplomacy. Like other Anishinaabe groups, they speak a dialect of Anishinaabemowin, which belongs to the broader Algonquian language family. Their presence is reflected in longstanding cultural landscapes, oral histories, and numerous treaty agreements that have shaped the region's history.

Over time, the Michi Saagiig played a central role in treaties and agreements with the British Crown, influencing the governance of what is now Ontario. Recognizing their enduring relationship with these lands is essential to understanding the historical and cultural significance of the study areas and ensuring respectful engagement with the Nation throughout the assessment process. Today, the Michi Saagiig continue to uphold their cultural traditions and assert their inherent rights to their traditional lands.

The history of the Michi Saagiig homeland has been recounted in several published histories by members of the nation including the earliest publication, the autobiography of Kahgegagahbowh (George Copway) (1847), *Oshkigmong: The Curve in the Lake - A History* (Whetung 2015), and *Michi Saagiig Nishnaabeg: This is Our* Territory (Williams 2018).

4.2.2 Pre-Contact Period

Early Human Occupation

Indigenous histories speak of the advance and retreat of glaciers and of their presence on the land from time immemorial. Presently, the earliest human occupation of the Americas has been archaeologically documented to predate 14,000 years ago. However, at that time much of

eastern Canada was covered by thick and expansive glaciers and the Laurentide Ice Sheet of the Wisconsinian glacier blanketed southwestern Ontario until about 12,500 B.P. At this time the receding glacial terminus was at the southern edge of present-day Georgian Bay and melt water in the region created Early Lake Erie and Lake Iroquois (the basin of today's Lake Ontario).

The earliest archaeologically recovered evidence in northeastern North America dates from circa 11,000 B.P. and relates to groups archaeologically referred to as Paleo people. For Ontario the Paleo period is divided into the Early Paleo period (11,000 - 10,400 B.P.) and the Late Paleo period (10,500-9,400 B.P.), based on changes in tool technology (Ellis and Deller 1990). The Paleo people, who had moved into hospitable areas of southwest Ontario (Ellis and Deller 1990), likely consisted of small groups of exogamous hunter-gatherers relying on a variety of plants and animals who ranged over large territories (Jamieson 1999).

Archaic Period

As the climate continued to warm, the forests became dominated with white pine and some deciduous trees and the ice sheet receded further northwards, allowing areas to be travelled and occupied in what is known as the Archaic Period (9,500 – 2,900 B.P.). Archaic populations generally remained hunter-gatherers with an increasing emphasis on fishing. People began to organise themselves into small family groups operating in a seasonal migration, congregating annually at resource-rich locations for social, religious, political, and economic activities. Often sites from this time are located on islands, waterways, and at narrows on lakes and rives where caribou and deer would cross, suggesting a common widespread use of the birchbark canoe that was so prominent in later history (McMillan 1995).

In the Boreal forests of the Canadian Shield, the Archaic period is referred to as the "Shield Archaic," characterized by adaptations to a forested environment with a focus on hunting, fishing, and gathering, using stone tools made from locally available materials. In contrast, the mixed forests to the south are associated with the "Laurentian Archaic," marked by a broader range of subsistence activities, including fishing with nets and woodworking using ground-stone tools such as axes and gouges.

Woodland / Pre-European Contact Period

Generally, the introduction of the use of ceramics marks the transition from the Archaic Period into the Woodland Period. Populations continued to participate in extensive trade networks that extended across much of North America. Social structure appears to have become increasingly complex with some status differentiation recognized in burials. Towards the end of this period domesticated plants were gradually introduced to the region. This coincided with other changes including the development of semi-permanent villages. The Woodland period is commonly divided into the Early Woodland (1000 – 300 B.C.), Middle Woodland (400 B.C. to A.D. 1000), and the Late Woodland (A.D. 900 – European Contact) periods.

The Early Woodland is typically noted via lithic point styles (i.e., Meadowood bifaces) and pottery types (i.e., Vinette I). The Middle Woodland period is identified primarily via changes in pottery style (e.g., the addition of decoration). The divides within the Middle Woodland and the shift into the period held as the Late Woodland are not well defined. There are general trends for increasingly sedentary populations, the gradual introduction of agriculture, and changing pottery and lithic styles. However, nearing the time of contact, Ontario was populated with somewhat distinct regional populations that broadly shared many traits. In the southwest, in good cropland areas, groups were practicing corn-bean-squash agriculture in semi-permanent, often palisaded villages which are commonly assigned to Iroquoian-speaking peoples (Wright 2004:1297–1304). Algonquian-speaking peoples, including the Michi Saagiig (Mississauga) and the

Chippewa, inhabited the same or neighbouring areas, but their presence in the archaeological record is less visible owing in part to seasonal rounds of hunting, fishing, and gathering, relying on the waterways of the Kawarthas, Rice Lake, and Georgian Bay for subsistence and travel (Kapyrka and Migizi 2016:4–5). These waterways supported extensive trade networks, connecting Indigenous communities across the region.

4.2.3 Contact Period

The appearance of European trade goods in archaeological material culture assemblages ushers in a new period of history. When the French arrived, there was already a long-standing and vast trade network extending from the Saguenay to Huronia. This route existed at least from the early beginnings of agricultural societies in Ontario around A.D. 1000 (Moreau et al. 2016). This trade increased rapidly after the arrival of the Europeans with the introduction of European goods and the demand for furs. The Huron held a highly strategic commercial location controlling the trade to the south and the west, and the Algonquin, Michi Saagiig, and Chippewa were their critical connection to goods from the east, including European products.

The so-called St. Lawrence Iroquoians were the first Iroquoian people to be contacted by Europeans, when Jacques Cartier encountered villages around present day Québec City and Montréal in 1535. A few decades later, they had disappeared with various branches likely being subsumed by the more powerful Huron-Petun (Wendat-Tionontate) or Five Nations (Haudenosaunee) Iroquoian confederacies and others incorporated into Algonquian groups in the Ottawa Valley or further east (Wabanaki) (Warrick 2008:203). At this time, late in the 16th century, several changes occurred in the distribution of Iroquoian villages in southern Ontario as well. Prior to contact with Europeans, Iroquoian communities along the north shore of Lake Ontario and the Trent River Valley appear to have dispersed, likely relocating to Huronia. By the 17th century, missionaries and explorers collectively referred to these groups as the Hurons. This migration is generally attributed to increased participation in the fur trade.

When Samuel de Champlain first passed through the region of the Bay of Quinte and the Kawarthas in 1615, he recounted that he found the area deserted, which is incorrect and in stark contrast to the long and continuous history of occupation of the area by Indigenous communities. The two most numerous confederacies in Ontario were the Huron-Petun and the Neutral, often amalgamated by archaeologists into a group called the Ontario Iroquois (Wright 2004:1299–1424). They numbered 30,000 and 20,000 respectively in the late 15th and early 16th centuries after substantial population booms in the 14th century (Warrick 2000:446). The Neutral were so named by Champlain because they did not participate in the conflict between the Wendat and Haudenosaunee confederacies. They were, however, involved in their own conflict with Central Algonquian groups to the southwest (called the Western Basin Tradition by archaeologists).

The French, as well as other Europeans making their way into North America like the Dutch and the English, were able to align their own political and economic rivalries with those of the native populations they encountered. The competitive greed and obsession with expanding the fur trade entrenched the rivalries that were already in place and were intensified by European weapons and economic ambition. Involving the native populations deeper in the fur trade promised more furs filling European ships and more Indigenous dependence on European goods. For their part, the Europeans offered the promise of safety and support to battle existing conflicts. The trading policies of Europeans created an imbalance between these native rivalries as the Haudenosaunee were readily supplied muskets by their Dutch allies, while the French, allied with the Huron and their trading partners the Algonquin, Nippissing, Michi Saagiig, and Chippewa, only supplied guns to Christian converts (Lackenbauer et al. 2010:21–23). Prior to European contact, the hostilities between the native populations had been mainly skirmishes

and raids, but everything changed as European reinforcement provided deadlier weapons and higher economic stakes with the introduction of the fur trade.

Besides the hostilities, the demands of the fur trade had caused major impacts to the traditional way of life including a change in tools, weapons, and a shift in diet to more European as hunting was more for furs and not for food. This dependence on European food, ammunition, and protection tied people to European settlements and the summer gathering sites shifted from prominent fishing areas to trading posts (McMillan 1995). This further spurred social changes in community structure and traditional land distribution and use. The introduction of European diseases, the devastating influence of alcohol, and the increasing pressure to convert to Christianity massively contributed to the weakening of the Indigenous populations of Ontario and their traditional culture in the 16th and 17th centuries (Warrick 2008:227–236).

As the increasing demand of the fur trade caused the depletion of the beaver population in the Haudenosaunee territory, they pushed into the lands of the Anishinabe Algonquin, Michi Saagiig, Chippewa, and Huron with the added strength of Dutch weaponry. Through the 1630s and 40s constant and increased raiding into other's territories by the Haudenosaunee nations had forced many multi-generational residents to leave their lands. By 1650 Huronia, the home of the Huron and traditional and treaty territory of the Chippewa, had been decimated by the Haudenosaunee.

The Haudenosaunee then attacked and destroyed the Attawandaron and Tionontati to their north, the Susquehanna to their east, and the Erie and Wenrohronon to their west (McMillan and Yellowhorn 2009:88). By the 1660s the Seneca, the western-most member of the Haudenosaunee Confederacy, occupied two sites—Teiaiagon, at the mouth of the Humber River, and Ganatsekwyagon, located near the mouth of the Rouge River.

Sometime after 1687, the Seneca were forced from these sites and rejoined the Haudenosaunee Confederacy south of Lake Ontario. Michi Saagiig oral traditions tell of how Anishinaabe groups came together to push the Haudenosaunee south. This oral history was documented in written form in 1905, by the telling of Robert Paudash (Guillet 1957) and recounted by Elder Gitiga Migizi (Williams 2018:41–44). Battles were fought along the Otonabee River and in the Rice Lake region. Eventually the Anishinaabe made peace with the Haudenosaunee nations. The agreements of peace between the Anishinaabe and Haudenosaunee are encoded on wampum belts.

As the British gained control of Canada from the French in 1758-1760, they included in the Articles of Capitulation a guarantee that the Indigenous allies of the French would be maintained in the lands they inhabited. By this time central and eastern Ontario was being surveyed by the British and fur traders arrived by the late 1700s. Those who had remained on the land and continued to be active in the fur trade, now did so with the English through companies in Montreal like the North West Company, and in the north with the Hudson Bay Company. Anishinaabe people continued to travel in their seasonal rounds, assembling in the summer months in the southern part of central Ontario along the larger river mouths and moving north and inland for the winter in smaller groups (Williams and Kapyrka 2015:101). Residing at the water's edge, they sustained themselves through a variety of means, including, hunting, trapping, gathering plants, fishing, and harvesting wild rice, called "manoomin", which was an important part of the diet. Kahgegagahbowh (George Copway), a Michi Saagiig born near the mouth of Trent River in 1818, shared in his autobiography the traditional migratory existence of his parents, who lived by fishing, hunting, and trapping in the Rice Lake area. He described Rice Lake as having "large quantities of wild rice…in almost every part of the lake; it resembles fields of wheat. As ducks of all kinds resort here in abundance, to feed upon the rice, consequently, there is much good game in the fall of the year" (Copway 1847:65). The influx of European settlers resulted in the disruption of these practices.

By the late 1700s, the Indigenous peoples were entrenched in the British trade system, increasingly relying on goods such as iron axes and guns to maintain their lands and way of life. This reliance grew during the American Revolutionary War as they sought to secure their territories against encroachment. The aftermath of the war led to a series of land grants to Loyalists, formalized through various treaties signed between the 18th and 20th centuries which opened the door for significant Euro-Canadian immigration and settlement (Boyce 2009; Surtees 1984).

The Sand Road Pit is located on the eastern side of the Kawartha Lakes and Rice Lake regions which was a border area between the Michi Saagiig and the Iroquois prior to the arrival of Europeans. Located to the north of the study areas is the Quackenbush Site which was excavated between 1954 and 1973. This site is the closest known Iroquoian village to the Canadian Shield and the lands of the Algonquins, and thus acted as a centre of trade and interaction between the two peoples (Ministry of Natural Resources 1986).

The Michi Saagiig in this area had previously shared the land north of Lake Ontario with the Odawa and the Huron nations, but in the 16th and early 17th centuries they retreated inland in an attempt avoid European diseases and the pressures from the growing fur trade and European conflicts in the area (Curve Lake First Nation 2025). The Michi Saagiig returned to their traditional territory in southern Ontario around 1680. Following the American Revolution and the influx of European settlers, the Crown, seeking to use the land in the area for settlement, worked with a missionary group called the New England Company to encourage farming and the education of the local Indigenous populations. These entities chose a peninsula along Mud Lake to relocate the community to and to establish what is known as the Curve Lake First Nation. The Mud Lake settlement officially became a reserve in 1899, and the community officially changed its name to “Curve Lake First Nation #35” in 1964 (Curve Lake First Nation 2025).

4.2.4 Michi Saagiig Historical and Background Context

The following section was prepared by Gitiga Migizi, a respected Elder and Knowledge Keeper of the Michi Saagiig Nation (Migizi and Kapyrka 2015) and was graciously provided for inclusion herein by Dr. Julie Kapyrka.

The traditional homelands of the Michi Saagiig (Mississauga Anishinaabeg) encompass a vast area of what is now known as southern Ontario. The Michi Saagiig are known as “the people of the big river mouths” and were also known as the “Salmon People” who occupied and fished the north shore of Lake Ontario where the various tributaries emptied into the lake. Their territories extended north into and beyond the Kawarthas as winter hunting grounds on which they would break off into smaller social groups for the season, hunting and trapping on these lands, then returning to the lakeshore in spring for the summer months.

The Michi Saagiig were a highly mobile people, travelling vast distances to procure subsistence for their people. They were also known as the “Peacekeepers” among Indigenous nations. The Michi Saagiig homelands were located directly between two very powerful Confederacies: The Three Fires Confederacy to the north and the Haudenosaunee Confederacy to the south. The Michi Saagiig were the negotiators, the messengers, the diplomats, and they successfully mediated peace throughout this area of Ontario for countless generations.

Michi Saagiig oral histories speak to their people being in this area of Ontario for thousands of years. These stories recount the “Old Ones” who spoke an ancient Algonquian dialect. The histories explain that the current Ojibwa phonology is the 5th transformation of this language,

demonstrating a linguistic connection that spans back into deep time. The Michi Saagiig of today are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo periods. They are the original inhabitants of southern Ontario, and they are still here today.
The traditional territories of the Michi Saagiig span from Gananoque in the east, all along the north shore of Lake Ontario, west to the north shore of Lake Erie at Long Point. The territory spreads as far north as the tributaries that flow into these lakes, from Bancroft and north of the Haliburton highlands. This also includes all the tributaries that flow from the height of land north of Toronto like the Oak Ridges Moraine, and all the rivers that flow into Lake Ontario (the Rideau, the Salmon, the Ganaraska, the Moira, the Trent, the Don, the Rouge, the Etobicoke, the Humber, and the Credit, as well as Wilmot and 16 Mile Creeks) through Burlington Bay and the Niagara region including the Welland and Niagara Rivers, and beyond. The western side of the Michi Saagiig Nation was located around the Grand River which was used as a portage route as the Niagara portage was too dangerous. The Michi Saagiig would portage from present-day Burlington to the Grand River and travel south to the open water on Lake Erie.

Michi Saagiig oral histories also speak to the occurrence of people coming into their territories sometime between 500-1000 A.D. seeking to establish villages and a corn growing economy – these newcomers included peoples that would later be known as the Huron-Wendat, Neutral, Petun/Tobacco Nations. The Michi Saagiig made Treaties with these newcomers and granted them permission to stay with the understanding that they were visitors in these lands. Wampum was made to record these contracts, ceremonies would have bound each nation to their respective responsibilities within the political relationship, and these contracts would have been renewed annually (see Gitiga Migizi and Kapyrka 2015). These visitors were extremely successful as their corn economy grew as well as their populations. However, it was understood by all nations involved that this area of Ontario were the homeland territories of the Michi Saagiig.

The Odawa Nation worked with the Michi Saagiig to meet with the Huron-Wendat, the Petun, and Neutral Nations to continue the amicable political and economic relationship that existed – a symbiotic relationship that was mainly policed and enforced by the Odawa people. Problems arose for the Michi Saagiig in the 1600s when the European way of life was introduced into southern Ontario. Also, around the same time, the Haudenosaunee were given firearms by the colonial governments in New York and Albany which ultimately made an expansion possible for them into Michi Saagiig territories. There began skirmishes with the various nations living in Ontario at the time. The Haudenosaunee engaged in fighting with the Huron-Wendat and between that and the onslaught of European diseases, the Iroquoian speaking peoples in Ontario were decimated.

The onset of colonial settlement and missionary involvement severely disrupted the original relationships between these Indigenous nations. Disease and warfare had a devastating impact upon the Indigenous peoples of Ontario, especially the large sedentary villages, which mostly included Iroquoian speaking peoples. The Michi Saagiig were largely able to avoid the devastation caused by these processes by retreating to their wintering grounds to the north, essentially waiting for the smoke to clear.

Michi Saagiig Elder Gitiga Migizi (2017) recounts:

"We weren't affected as much as the larger villages because we learned to paddle away for several years until everything settled down. And we came back and tried to bury the bones of the Huron but it was overwhelming, it was all over, there were bones all over – that is our story.

There is a misnomer here, that this area of Ontario is not our traditional territory and that we came in here after the Huron-Wendat left or were defeated, but that is not true. That is a big misconception of our history

that needs to be corrected. We are the traditional people, we are the ones that signed treaties with the Crown. We are recognized as the ones who signed these treaties and we are the ones to be dealt with officially in any matters concerning territory in southern Ontario.

We had peacemakers go to the Haudenosaunee and live amongst them in order to change their ways. We had also diplomatically dealt with some of the strong chiefs to the north and tried to make peace as much as possible. So we are very important in terms of keeping the balance of relationships in harmony.

Some of the old leaders recognized that it became increasingly difficult to keep the peace after the Europeans introduced guns. But we still continued to meet, and we still continued to have some wampum, which doesn't mean we negated our territory or gave up our territory – we did not do that.

We still consider ourselves a sovereign nation despite legal challenges against that. We still view ourselves as a nation and the government must negotiate from that basis."

Often times, southern Ontario is described as being "vacant" after the dispersal of the Huron-Wendat peoples in 1649 (who fled east to Quebec and south to the United States). This is misleading as these territories remained the homelands of the Michi Saagiig Nation.

The Michi Saagiig participated in eighteen treaties from 1781 to 1923 to allow the growing number of European settlers to establish in Ontario. Pressures from increased settlement forced the Michi Saagiig to slowly move into small family groups around the present-day communities: Curve Lake First Nation, Hiawatha First Nation, Alderville First Nation, Scugog Island First Nation, New Credit First Nation, and Mississauga First Nation.

The Michi Saagiig have been in Ontario for thousands of years, and they remain here to this day.

4.2.5 Chippewas of Rama Historical and Background Context

The following was provided by Chippewas of Rama First Nation (2023)

> *The Chippewas of Rama First Nation are an Anishinaabe (Ojibway) community located at Rama First Nation, ON. Our history began with a great migration from the East Coast of Canada into the Great Lakes region. Throughout a period of several hundred years, our direct ancestors again migrated to the north and eastern shores of Lake Huron and Georgian Bay. Our Elders say that we made room in our territory for our allies, the Huron-Wendat Nation, during their times of war with the Haudenosaunee. Following the dispersal of the Huron-Wendat Nation from the region in the mid-1600s, our stories say that we again migrated to our territories in what today is known as Muskoka and Simcoe County. Several major battles with the Haundenosaunee culminated in peace being agreed between the Anishinaabe and the Haudenosaunee, after which the Haudenosaunee agreed to leave the region and remain in southern Ontario. Thus, since the early 18th century, much of central Ontario into the lower parts of northern Ontario has been Anishinaabe territory.*
>
> *The more recent history of Rama First Nation begins with the creation of the "Coldwater Narrows" reserve, one of the first reserves in Canada. The Crown intended to relocate our ancestors to the Coldwater reserve and ultimately assimilate our ancestors into Euro-Canadian culture. Underlying the attempts to assimilate our ancestors were the plans to take possession of our vast hunting and harvesting territories. Feeling the impacts of increasingly widespread settlement, many of our ancestors moved to the Coldwater reserve in the early 1830s. Our ancestors built homes, mills, and farmsteads along the old portage route which ran through the reserve, connecting Lake Simcoe to Georgian Bay*

(this route is now called "Highway 12"). After a short period of approximately six years, the Crown had a change of plans. Frustrated at our ancestors continued exploiting of hunting territories (spanning roughly from Newmarket to the south, Kawartha Lakes to the east, Meaford to the west, and Lake Nipissing to the north), as well as unsuccessful assimilation attempts, the Crown reneged on the promise of reserve land. Three of our Chiefs, including Chief Yellowhead, went to York under the impression they were signing documents affirming their ownership of land and buildings. The Chiefs were misled, and inadvertently allegedly surrendered the Coldwater reserve back to the Crown.

Our ancestors, then known as the Chippewas of Lakes Simcoe and Huron, were left landless. Earlier treaties, such as Treaty 16 and Treaty 18, had already resulted in nearly 2,000,000 acres being allegedly surrendered to the Crown. The Chippewas made the decision to split into three groups. The first followed Chief Snake to Snake Island and Georgina Island (today known as the Chippewas of Georgina Island). The second group followed Chief Aissance to Beausoleil Island, and later to Christian Island (Beausoleil First Nation). The third group, led by Chief Yellowhead, moved to the Narrows between Lakes Simcoe and Couchiching and eventually, Rama (Chippewas of Rama First Nation).

A series of purchases, using Rama's own funds, resulted in Yellowhead purchasing approximately 1,600 acres of abandoned farmland in Rama Township. This land makes up the core of the Rama Reserve today, and we have called it home since the early 1840's. Our ancestors began developing our community, clearing fields for farming and building homes. They continued to hunt and harvest in their traditional territories, especially within the Muskoka region, up until the early 1920's. In 1923, the Williams Treaties were signed, surrendering 12,000,000 acres of previously unceded land to the Crown. Once again, our ancestors were misled, and they were informed that in surrendering the land, they gave up their right to access their seasonal traditional hunting and harvesting territories.

With accessing territories difficult, our ancestors turned to other ways to survive. Many men guided tourists around their former family hunting territories in Muskoka, showing them places to fish and hunt. Others worked in lumber camps and mills. Our grandmothers made crafts such as porcupine quill baskets and black ash baskets and sold them to tourists visiting Simcoe and Muskoka. The children were forced into Indian Day School, and some were taken away to Residential Schools. Church on the reserve began to indoctrinate our ancestors. Our community, along with every other First Nation in Canada, entered a dark period of attempted genocide at the hands of Canada and the Crown. Somehow, our ancestors persevered, and they kept our culture, language, and community alive.

Today, our community has grown into a bustling place, and is home to approximately 1,100 people. We are a proud and progressive First Nations community.

4.2.6 Colonial History

The study area is within Peterborough County. Notable references relating to the broader county include: *Peterborough and the Kawarthas* (Adams and Taylor 1985), *County of Peterborough* (Miles & Co 1879), *History of the County of Peterborough* (Mulvany 1884), and the *Illustrated Historical Atlas of Peterborough County* (Cole 1975).

Although the French exerted some influence in the region that would become central and eastern Ontario through the 17th and 18th centuries, with permanent settlements established to the east on the Island of Montreal and at Cataraqui (present day Kingston), permanent European settlement did not occur until the end of the 18th century. Despite having gained control of Canada at the end of the Seven Years' War (1754–1763), the British did not express interest in establishing settlements until the end of the American Revolution, when United Empire Loyalists left the newly established Republic.

Early Euro-Canadian land divisions into districts, counties, townships, etc. and the expansion of settlement were facilitated by the Indigenous Nations who agreed to enter formal treaty relationships with the newcomers to share the land and resources. The study area is located within the traditional territory of the Michi Saagiig, which was part of the lands of the Rice Lake Purchase (Treaty 20).

The signing of Treaty 20, or the Rice Lake Purchase, on 5 November 1818, facilitated initial historical Euro-Canadian colonial settlement of the area. This treaty was part of a series of pre-Confederation purchases by the Crown known as the Upper Canada Land Surrender Treaties. The context of relationships between Indigenous peoples and the Crown had changed during this period. The military role of Indigenous Nations had ended following the end of the War of 1812, and with the growth of settlement in the preceding decades, colonial settlers had come to outnumber the Indigenous population of Upper Canada. The goal of the Indian Department with the Rice Lake Purchase (and the four other purchases in the decade after the War of 1812) was to open a secondary area of settlement north of the St. Lawrence River and Lake Ontario purchases. Thus, an area of more than 1.9 million acres was purchased for an annual sum of £740. The terms of the treaties, including the perpetual surrender of most hunting and fishing rights, have recently been questioned (Morin 2013).

The signing of the Williams Treaties in 1923 was a significant moment in the colonial settlement of the area (Surtees 1986). In the first decade of the 20th century, concerns were increasingly raised that some lands in Central Ontario were not covered by the pre-existing Upper Canada Land Surrenders and were being encroached upon by colonial settlement. Issues with these existing treaties spurred the federal government to convene with the Ontario government in an effort to address Indigenous claims of invalid treaties. A commission headed by A.S. Williams determined that the Indigenous claims were valid and in fact included more extensive areas than previously suggested. Two treaties were quickly signed: the first with the Chippewas of Rama, Christian Island (now Beausoleil) and Georgina Island, and the second with the Mississaugas of Alderville, Scugog Lake, Mud Lake (now Curve Lake), and Rice Lake (now Hiawatha). The treaties covered three large areas along the northern shore of Lake Ontario between the Etobicoke and Trent Rivers, north to Lake Simcoe, and between Lake Huron and the Ottawa River. Payments were made for only a fraction of the land's estimated value.

Anishinaabe peoples had numerous concerns regarding the 1923 Williams Treaties. These treaties were predetermined by the government without the involvement of the Michi Saagiig or Chippewa, who felt they were forced to sign without negotiation. The treaties claimed that these Anishinaabe groups surrendered their traditional rights to fishing, hunting, and harvesting, which they have consistently denied since 1923. Disagreements over the treaty's wording and implications persisted, with the Anishinaabe feeling continuously denied access to their ancestral lands while settlers were granted utilization rights. Pushback from the Michi Saagiig and Chippewa led to legal actions, and in 2018, after decades of dispute, the *Alderville Litigation and Settlement* was reached that compensated affected communities and confirmed their inherent rights to hunting, fishing, and harvesting in their territories (Cowie 2023:14–15).

Peterborough County

The area had been part of the Montreal District until 1788, when Lord Dorchester, Sir Guy Carleton formed four new districts west of Montreal. From east to west these were Lunenburg, Mecklenburg, Nassau, and Hesse, reflecting the German origins of the Royal family and the many Germans among the Loyalists. With the Canada Act of 1791 that divided Quebec into Upper and Lower Canada, Colonel John Graves Simcoe, first Lieutenant-Governor of Upper Canada, established the original 19 counties. In 1792, the Nassau District was renamed the

Home District. The lands that became the County of Peterborough, were originally part of the Newcastle District formed in 1802 from the Home District.

In 1841, the northern part of the Newcastle District was detached to form the Colborne District, centred on Peterborough, which became the County of Peterborough in 1850. In 1851, Peterborough County was divided into the counties of Peterborough and Victoria, which were united for municipal purposes as the United Counties of Peterborough and Victoria. Further townships were surveyed, extending the reach of the county northwards, but in 1874 were withdrawn from the county and transferred to the new Provisional County of Haliburton.

4.2.7 Asphodel Township

Asphodel Township was opened for European settlement in 1821 (Middleton 1927). Zaccheus Burnham acquired the patent for over a thousand acres in the spring of 1820 and hired his son-in law, Richard Birdsall, to survey the land. It was Birdsall who gave the township its name as he saw the similarity of the area's trilliums with the asphodel flowers of his home in England (Brunger 2020).

Birdsall settled in the township on Lot 1, Concession 1, becoming Justice of the Peace in 1821, a land agent for the Canada Company in 1830, the first representative for Asphodel on the new District Council from 1842 to 1843, and served as the township's first reeve from 1850 to 1852 (Brunger 2020). One of the Asphodel's earliest communities grew around the well-located Birdsall homestead on the eastern end of Rice Lake which served as port of access to the township. This community, called Birdsall's Landing, became an economic hub for the shipment of supplies and livestock by steamers and a railway stop (Graham 1978: 55-56).

In 1823, United Empire Loyalist Joseph Keeler established the town of Keeler's Mill (now Norwood) after receiving 500 acres of land along the Ouse River, where he developed mill operations (Middleton 1927). By 1836, Keeler expanded his holdings with the purchase of 2,000 acres and subdivided portions into village lots (Poole and Romaine 1867).

The Pearce family, notably mill operator Peter Pearce, became one of Norwood's most prominent families. Peter Pearce Jr. served on the township's first council and later as reeve, while the large Pearce family home functioned as a venue for public meetings and religious services for all denominations (Graham 1978: 60). By the 1830s, as Keeler's mill expanded and village lots were established, Norwood saw the construction of its first church, school, and store. The town continued to develop, eventually housing county offices and serving as the seat of the municipal government of Asphodel (Poole and Romaine 1867).

4.2.8 Study Area Specific History

The study area consists of two separate parcels: one northeastern parcel in the southwestern section of Lot 15, Concession 6, and one southwestern parcel crossing Lot 14, Concession 5, both within the Geographic Township of Asphodel, County of Peterborough (Map 1).

Historic mapping from 1879 does not indicate any structures or owners within these lots. The tributary creeks of the Ouse River, along with the historic Sand Road, are depicted crossing the study area (Map 4).

Lot 14, Concession 5

The Crown patent for all 200 acres of Lot 14, Concession 5 was granted to John Johnston in 1822 (LRO (045)). Less than a year later, in 1823, Johnston sold the lot to Philip F. Hall, who,

within a few months, sold it to Neil McLeod. McLeod held the land for two years before selling it to James Wilson in 1825. Nearly two decades later, in 1843, Wilson sold the lot to Archibald McFaul who then sold it the following year to James B. Greenshields. A decade later, in 1854, Greenshields sold the lot to Michael Hurley, who retained ownership for a decade before selling it to William Lundy in 1865. In 1869, Lundy divided the land, selling the western half to John Fitzpatrick and the eastern half to Lawrence Lonergan (LRO (045)).

John Fitzpatrick deeded the western half to his son, John Fitzpatrick Jr., in 1880. The property remained in the Fitzpatrick family until 1916, when Edward Fitzpatrick sold it to Michael English. The land was later sold to Richard J. Coughlin in 1943, and it stayed within the Coughlin family until at least the late 1970s (LRO (045)).

Lawrence Lonergan sold the eastern half to John Fitzpatrick Jr. in 1884. In 1925, Fitzpatrick sold the land to Michael English, who sold it a few months later to Daniel J. Gooley. Over 25 years later, in 1951, Gooley sold the property to Elmer and Helen Warr, who transferred ownership to Clifford Ivey in 1966. Ivey then sold the land to Allen and Lois Tucker in 1970. The Tuckers subdivided the property, selling multiple parcels over the following decades (LRO (045)).

Lot 15, Concession 6

The study area lies within the western portion of Lot 15; therefore, this report details only that section.

The Crown patent for the western 100 acres of Lot 15 was granted to John Weaver in 1823 (LRO (045)). In 1826, Weaver sold the land to Walter Scott, and the property remained within the Scott family for over six decades. During this time, the land underwent multiple mortgages, legal complications, conveyances, assignments, and a sheriff's deed before Walter Scott sold it to John and John W. Carberry in 1890.

In 1891, the Carberrys sold the property to George Read, who later deeded it to John C. and William G. Read in 1897. The Reads then granted the land to Stanley Comstock and Charles J. Blake in 1913. In 1917, Comstock quit his claim, leaving Blake as the sole owner. Following Blake's death in 1955, ownership passed to his wife, Susan Blake. After Susan's death in 1970, her estate granted the land to Ruby Cuthbertson, presumably her daughter.

In 1992, following Ruby Cuthbertson's passing, her estate transferred the property to Marion Robson, presumably her sister. Marion Robson sold the land to Drain Bros. Excavating in 1998 (LRO (045)).

4.3 Archaeological Context

4.3.1 Current Conditions

The 38.6-hectare study area is located between Highway 7 to the north and Sand Road to the south, approximately 5 km west of Norwood (Map 1). It is divided into two separate parcels, one northeastern and one southwestern (Map 5).

The northeastern parcel features undulating topography, dominated by a large esker that rises over 20 metres in the southeastern corner (Figure 1). The esker is covered with a mix of open grass, scrub, and thicker forest in the western section. A former quarry sits north of the esker in the northeastern section of the parcel (Figure 2 and Figure 3). A gravel/sand road servicing current quarry operations runs along the northern boundary, following the southern edge of a marshland, and extends into the northeastern corner of the adjoining parcel (Figure 4 and Figure 5). In addition to the marshland, permanently wet pockets are scattered across the parcel (Figure 6 and Figure 7). The non-esker areas consist mainly of deciduous forest (Figure 8 to Figure 10),

with low-lying cedar scrubland around wetland areas (Figure 11). A hydro line, running north-south, separates the two parcels (Figure 12).

The southwestern parcel is similarly dominated by the large esker, which runs through its central section (Figure 13 to Figure 16). A road extends from the northeastern parcel, following the northern edge of the esker before cutting south through it to connect with Sand Road (Figure 17 and Figure 18). Multiple ATV trails cross the western half of the parcel (Figure 19). The southeastern corner consists of a gently sloped field with scattered tree patches (Figure 20). To the east of the road, an open field contains disturbed areas with remnants of modern structures and concrete pads (Figure 21 to Figure 23). The forested areas in this parcel are mixed, with dense underbrush and scrub (Figure 24 to Figure 28). The north-central and northwestern sections feature cleared open areas with tall grass, scrub, varying topography, disturbance zones, and large brush piles (Figure 29 to Figure 35).

4.3.2 Physiography

The study area lies within the Peterborough Drumlin Field physiographic region (Map 6). The glacial eskers noted across the study area are characteristic of this region. The Peterborough Drumlin Field is a rolling till plain extending from Hastings County in the east to Simcoe County in the west. Generally, the rock underlying this region is limestone of the Lindsay and Verulam Formations which are somewhat softer and less massive; they are highly fossiliferous and disintegrate easily. The general orientation of the drumlin axes in this field is from northeast to southwest, but there are some local variations. The drumlins throughout this region, like the ones that travel just to the north of the study area, are composed of highly calcareous till with localised variations in size and composition. The Peterborough Drumlin Field is notable for its eskers as well as its drumlins. These gravel ridges provide poor soils but they area valuable as sources of good gravel. There are significant deposits of clay or sand flats that lie between the drumlins in some areas while in other areas these valleys can have wide swampy bottoms traversed by sluggish streams. The forest on the higher, well-drained areas consists largely of maple and beech with a fair mix of white pine and hemlock. Although the triple handicap of stoniness, steep slopes, and wet swampy hollows restricts most agricultural use, the uniform slopes of most drumlins are amenable to contour cultivation and strip cropping (Chapman and Putnam 2007).

The soils in the study area are varied and consist of Bottomland soils in the northeastern section, Cramahe gravelly sand loam across the southern boundary, Brinco loamy sand in the northwestern portion, and Washago soils in the northwestern corner (Map 6).

Bottom Land soils are immature, low-lying soils along stream courses that show little horizon differentiation and are subject to flooding. There are usually successive layers of alluvial silt, fine sand, and clay intermixed with layers of organic matter. The profile usually consists of a deep, dark-coloured surface underlain by greyish material. The drainage varies but is usually poor. Vegetation consists of willow, elm, and cedar with bulrushes, sedges, and marsh grasses occurring where the land is flooded for most of the season. Bottom Land is used largely for pasture but in some locations, it can be cultivated and used for general farm crops (Hoffman and Richards 1955).

Cramahe soils are developed in mixed calcareous sand and gravel, in generally hilly topography, with good internal and external drainage. The surface is very dark brown, gravelly, friable, alkaline, sandy loam. The coarseness of the materials and the steep slopes make cultivation impractical but can be used for pasture (Gillespie and Acton 1981:16).

Brinco Loamy Sand soils are gently sloping, well-draining soils that have a coarse grade of sand and low clay content (Gillespie and Acton 1981:14). These soils have the ability for agriculture despite being somewhat prone to drought. With management these soils are known for supporting specialized fruit and vegetable crops but are most well known for well-established pine plantations (Gillespie and Acton 1981:14).

Washago soils are developed from decomposing organic materials like grass, wood, and moss and are often found on top of a mineral layer like gravel or sand (Gillespie and Acton 1981:26). These strongly acidic, shallow soils have poor drainage and are flooded for most of the year. Clearing and draining practices make little improvement on the soil's agricultural potential as the water table is often too high and organic material too shallow. For these reasons, Washago soils are rarely used for agricultural or recreational purposes (Gillespie and Acton 1981:26).

The surficial geology of the study area mainly consists of ice-contact stratified deposits of sand, gravel, minor silt, clay, and till along the eskers, with areas of coarse-textured foreshore-basinal deposits of sand, gravel, minor silt, and clay along the northern edge (Map 6). There are significant drumlins to the immediate north and south of the study area.

4.3.3 The Peterborough Drumlin Field and the Norwood Esker

As noted, the study area lies within the Peterborough Drumlin Field physiographic region, a landscape dominated by drumlins and eskers (Map 6). These landforms were created when the Simcoe lobe of the Laurentide Ice Sheet advanced south across Lake Ontario and into the northern United States during its maximum extent (Hahn and Handley 2019:14). The Peterborough Drumlin Field extends through the south-central section of Peterborough County, containing thousands of drumlins that create an undulating and rolling topography. These drumlins generally align northeast to southwest, varying in size from 45 m to 5 km in length and rising 5 to 35 m above the surrounding landscape (Hahn and Handley 2019:12).

Esker ridges, common throughout the region, can reach heights of over 20 m. According to local geological surveys, these eskers contain valuable sand and gravel deposits, making them prime locations for aggregate extraction (Hahn and Handley 2019:14).

The Norwood Esker, a major glaciofluvial feature, crosses the study area. This esker extends nearly 25 km, running continuously from the southwestern end of Round Lake to the Trent River east of Keene (Hahn and Handley 2019:157). It ranges in height from 10 to 25 m and consists of a primary ridge surrounded by kame deposits and undifferentiated ice-contact stratified drift with glaciofluvial outwash deposits (Hahn and Handley 2019: 17). The Norwood Esker contains 16 active aggregate pits along its length, with an estimated 100 million tonnes of remaining aggregate material (Hahn and Handley 2019: 17).

The esker is subdivided into three sections (1a, 1b, and 1c), categorized by aggregate composition and quality. The study area falls within section 1b, which consists of cobble gravel forming the core of the esker, with fine-grained silty sand deposits running along its margins (Hahn and Handley 2019:18).

4.3.4 Previous Archaeological Assessments

Archaeological investigations in the region have primarily been cultural resource management studies conducted in response to specific property developments or infrastructure projects. In 2001, a Stage 1 and 2 archaeological assessment was conducted in advance of proposed quarrying operations in the western portions of Lots 15 and 16, Concession 6, overlapping with the eastern portion of the current study area boundaries (Map 7). This Stage 1 and 2 assessment

resulted in no archaeological resources identified (Adams Heritage Inc 2002). This assessment did not identify any archaeological resources (Adams Heritage Inc. 2002). However, as this work was completed prior to the implementation of the Ministry's Standards and Guidelines in 2011, a reassessment of the property was included in the current investigation to ensure compliance with updated methodologies.

Beyond this previous assessment, no other archaeological studies have been conducted in the immediate vicinity of the study area to the best of our knowledge. Most archaeological investigations within the township have been associated with development projects in Norwood and Hastings.

4.3.5 Registered Archaeological Sites and Commemorative Plaques

A search of the Ontario Archaeological Sites Database indicated that no registered archaeological sites exist within 1 km of the study area. Expanding the search to 3 km identified three registered archaeological sites.

The Crowley Farm Site (BcGl-3) is a mid to late 19th century Euro-Canadian residential site that was partially excavated in 2016. The unnamed BcGl-4 site is a late 19th to early 20th century surface scatter identified during a 2018 pedestrian survey. Both sites retain no further cultural heritage value or interest (CHVI).

The Moore Site (BbGl-1) is a mound feature identified in 1967 on a shallow knoll north of Hastings. It is attributed to the Lamoka tradition, a Late Archaic tradition largely found in the Northeast United States, particularly New York. The site was identified during the Trent Valley Archaeological Survey (Hakas 1967) and was noted to contain several adzes. However, no further information was filed with the Ministry and its current status is unknown.

There are no known historical plaques within the vicinity of the study area.

4.4 Archaeological Potential

Potential for pre-contact Indigenous sites is based on physiographic variables that include distance from the nearest source of water, the nature of the nearest source/body of water, distinguishing features in the landscape (e. g. ridges, knolls, eskers, and wetlands), the types of soils found within the area of assessment and resource availability. The study area has high potential for pre-contact Indigenous archaeological resources due to the presence of eskers and drumlins, well-drained loamy sandy soils, proximity to several large significant wetlands, and a registered Pre-Contact Indigenous archaeological site in the general vicinity.

Potential for historical Euro-Canadian sites is based on proximity to the historical transportation routes, historical community buildings such as schools, churches, and businesses, and any known archaeological or culturally significant sites. The study area has potential for historical Euro-Canadian archaeological resources due to the relatively early patent dates, the proximity to historical Sand Road, and its location between the two historic villages of Norwood and Westwood.

5.0 Indigenous Engagement

Engagement for the Sand Road Pit Expansion included the seven Williams Treaties First Nations of Alderville First Nation, Beausoleil First Nation, Curve Lake First Nation, Chippewas of Georgina Island First Nation, Hiawatha First Nation, Mississaugas of Scugog Island First

Nation, and Chippewas of Rama First Nation. After the initial engagement process, Kawartha Nishnawbe First Nation and the Huron-Wendat Nation were included in the report review process. A Record of Engagement is provided in a separate Record of Indigenous Engagement document.

While invited to participate, there were no Indigenous liaisons present for the Stage 2 field assessment. As requested, a draft of this report will be shared with Indigenous communities for review with comments to be addressed prior to MCM submission.

6.0 Field Methods

The 38.6 ha study area consists of forested areas, marshland, steep slopes, and open fields with rocky soils that were not suitable for ploughing as per Standards 1.a. and b., Section 2.1.2 (MCM 2011), (Map 7).

Portions of the study area (2.0 ha) associated with the modern occupation of the southeast field (metal building and concrete pad), roads, and the old gravel pit were clearly deeply disturbed, removing archaeological potential, and were therefore not tested as per Section 2.1, Standard 2.b (MCM 2011) (Map 7) (Figure 36).

Some sections of the study area were believed to be disturbed (0.2 ha) and were therefore test pitted at a judgmental interval to confirm disturbance as per Section 2.1.8, Standard 2 (Map 7) (Figure 37).

Portions of the property (11.6 ha), often along the sides of the Norwood Esker, were sloped greater than 20° and were not tested as per Section 2.1, Standard 2.a.iii (MCM 2011) (Map 7) (Figure 38 and Figure 39). Areas identified for exclusion from Stage 2 testing based on steep slopes were measured in the field using a handheld digital inclinometer to ensure accuracy. Permanently wet marshland and areas of open water (0.5 ha) were not tested, as per Section 2.1, Standard 2.a.ii (MCM 2011) (Map 7) (Figure 42).

The remainder of the study area (24.3 ha) was test pitted at 5 metre intervals as per Section 2.1.2, Standard 1a. and b. (Map 7) (Figure 43 to Figure 45). All test pits were a minimum of 30 cm in diameter and were excavated 5 cm into subsoil or to bedrock and extended to within 1 m of structures (Section 2.1.2). All soil was screened using 6 mm mesh screens. All test-pits were examined for cultural features and stratigraphy then backfilled upon completion.

Test pitting on the 5 m grid resulted in two positive test pits (WP 1 and 2) producing a total of four possible 19th century artifacts in the southeastern field of the southwestern parcel (Map 3). These four artifacts did not meet the level of CHVI required for Stage 3 assessment and accordingly, as per Standard 2., Section 2.1.3, when insufficient archaeological resources are found through continued survey on the grid to meet the criteria for continuing to Stage 3, intensification was required.

Intensification was undertaken at both WP1 and WP2 following Section 2.1.3, Standard 2. Option A with 1 x 1 m unit over each of the positive test pits along with eight test pits every two meters around the initial positive test pit (Figure 46 and Figure 47). The 1 x 1 m units were stratigraphically hand excavated with artifacts recovered and recorded by stratigraphic layer.

Provenience data for the project is based on the project number and positive test pits are each assigned a sequential test pit number (e.g., MH1304-WP1). The intensification 1x1 m units were assigned within operation number (1) and each received a suboperation letter (A or B) with stratigraphic lots numbered sequentially, thus MH1304-1A2 represents stratigraphic lot 2 in unit

A of operation 1. Positive intensification test pits were assigned cardinal directions relative to the test unit, for example MH1304-1ANE is the northeastern pit.
All Stage 2 field activity and testing areas were mapped using an iPad (9th generation) with ArcGIS Field Maps. Average accuracy at the time of survey was approximately 5 m horizontal. Study area boundaries were determined in the field using the area to be licensed as delineated by the proponent in project mapping, digitized and overlaid in ArcGIS Field Maps. All survey data is compiled into ArcGIS and every survey point has a UTM Zone 17N NAD 83 coordinate.

Field notes and photographs of the property were taken during fieldwork to document the current land conditions as per Standard 1.a., Section 7.8.6 (MCM 2011). Locations of all photos included in this report are shown on Map 7, identified by figure number. Site photograph, map, document, and artifact catalogues appear in Appendices A, B, C, and D.

The fieldwork was undertaken on August 19-23, 26-30, and September 23-24, 2024. Weather conditions ranged from overcast and breezy to sunny and humid with brief periods of rain and temperatures between 19°-38°C. Ground conditions were excellent with no saturation or other excessive ground cover to impede visual assessment as per Section 2.1. Standard 3 (MCM 2011). Field assessment was paused during any precipitation that reduced the ability to screen soils or surface visibility. Permission to access the property was provided by the owner through the proponent without limitations.

7.0 Record of Finds

This Stage 2 archaeological assessment of the study area resulted in the identification of a small artifact scatter (26 x 7 m) consisting of two positive test pits (WP1 and WP2) on the 5 m testing grid within the southeastern field of the southwestern parcel (Map 3, Table 1). The two positive test pits produced a total of four artifacts which were insufficient to trigger further Stage 3 archaeological assessment. Intensification was undertaken at both WP1 and WP2 following Section 2.1.3, Standard 2. Option A with 1 x 1 m unit over each of the positive test pits along with eight test pits every two meters around the initial positive test pit. The intensification produced an additional 23 artifacts. Accordingly, the scatter of 27 artifacts has been registered as the Sand Road Pit 1 Site (BcGm-2).

Point	UTM NAD 83 Coordinate
North	17T 737423 4915560
East	17T 737430 4915550
South	17T 737431 4915535
West	17T 737423 4915547
Centre	17T 737427 4915548
Elevation	208 m asl

Table 1: Sand Road Pit 1 Site (BcGm-2) site area coordinates.

All artifact dates are sourced from the Park Canada Archaeological Resources Database (Parks Canada 2012) unless otherwise noted. No pre-contact Indigenous artifacts or sites were found.

Unit 1A, placed over positive test pit WP1, was located at the top of a gradual rise and consisted of a rocky, medium to dark brown sandy topsoil over compact light brown silty sandy subsoil reached at a depth of 35 cm (Figure 48). Intensification unit 1A produced 13 artifacts and the associated cardinal test pits produced another four.

Unit 1B, placed over positive test pit WP2, was located on the other side of the rise, north of Unit 1A. The unit consisted of a compact orange-brown silty sand topsoil in the northwestern corner with the remainder being a lighter brown sand with pebble inclusions over sandy subsoil reached

at a depth of 27 cm (Figure 49). Intensification unit 1B produced four artifacts and the associated cardinal test pits produced another two artifacts.

In total, the Stage 2 assessment produced an assemblage of 27 artifacts. The most common artifacts recovered were cut nails (n=13, 1830-1890), followed by glass bottle fragments (n=5), iron wire fragments (n=5), iron sheet pieces (n=2), a cartridge casing (n=1), and a bird bone (n=1). The bottle glass included two fragments of solarized manganese tinted glass (1880-1915), two amber fragments, and a light blue fragment. The bullet casing is for a .22 long rifle rimfire (+1887).

Of the 27-piece assemblage, only 16 artifacts are potentially diagnostic of site use before 1900. Therefore, as per Section 2.2, Standard 1.c. (MCM 2011), the site does not have significant CHVI and requires no further work. The site has been registered as Sand Road Pit 1 Site (BcGm-2) (Figure 50).

The soils encountered throughout the study area were generally a dark brown sand to sandy loam topsoil overlying a light brown to orange-brown sandy loam subsoil. The depths of subsoil across the study area ranged between 25-60 cm, increasing in depth in the open fields. Rockiness varied throughout the study area with some sections producing high levels of pebble sized inclusions, specifically along the top of the slopes and on the esker (Figure 51 and Figure 52). In wetter areas around the marshland in the northeastern parcel, the soils were more organic with a grey silty clay subsoil. In areas of disturbance, soils were very mottled with significant limestone granular inclusions and modern garbage (e.g., plastics) present down to subsoil (Figure 53).

8.0 Analysis and Conclusions

The Stage 1 archaeological assessment concluded that the study area has both pre-contact Indigenous and post-contact Euro-Canadian archaeological potential and was therefore subject to Stage 2 assessment.

The Stage 2 archaeological assessment identified a small artifact scatter (26 x 7 m) within the southeastern field of the southwestern parcel (Map 3). This scatter has been registered with the MCM as Sand Road Pit 1 Site (BcGm-2).

Initial testing and intensification yielded 27 artifacts, of which only 16 artifacts are potentially datable to before 1900. Accordingly, as per Section 2.2, Standard 1(c) (MCM 2011), since fewer than 20 artifacts from the site predate 1900, it does not meet the criteria for CHVI warranting Stage 3 assessment. The CHVI of the site has been sufficiently assessed and documented through this Stage 2 assessment, and no further archaeological investigation is required.

9.0 Recommendations

The Stage 1 assessment determined that the study area retained archaeological potential, requiring a Stage 2 field assessment. The Stage 2 assessment identified a small artifact scatter dating to the late 19th and early 20th century, registered as the Sand Road Pit 1 Site (BcGm-2). Testing and intensification conducted during Stage 2 confirmed that the Sand Road Pit 1 Site (BcGm-2) does not have significant CHVI and therefore no further assessment is required.

Based on the results of this investigation it is recommended:

1. No further archaeological study is required for the subject property as delineated in Map 1.

2. Due to the nature of archaeological assessments, the potential exists to miss information; and if any artifacts of Indigenous interest or human remains are encountered during the development of the subject property, please contact:

Alderville First Nation
11696 Second Line Rd,
Alderville, Ontario K0K 2X0
Tel: 905-352-2011
Email: APAdmin@curvelake.ca

Beausoleil First Nation
11 O'Gemaa Miikaan
Christian Is., ON L9M 0A9
Tel: 705-247-2051
Email: consultation@chimnissing.ca

Curve Lake First Nation
Lands Resource Consultation
22 Wiinookeedaa Rd.
Curve Lake, ON K0L 1R0
Tel: 705-657-8045
Email: ConsultationLead@curvelake.ca

Chippewas of Rama First Nation
5884 Rama Rd., Suite 200
Rama, ON L3V 6H6
Tel: 705-325-3611
Email:
consultation@ramafirstnation.ca

Hiawatha First Nation
123 Paudash St.
Hiawatha, ON K9J 0E6
Tel: 705-295-4421
Email: mmcgonigle@hiawatha.ca
tcowie@hiawathafn.ca;
sdavison@hiawathafn.ca

Chippewas of Georgina Island
R.R. #2, Box N-13
Sutton W., ON L0E 1R0
Tel: 705-437-1337
Email:
natasha.charles@georginaisland.com;
jl.porte@georginaisland.com

Mississaugas of Scugog Island First Nation
22521 Island Rd.
Port Perry, ON L9L 1B6
Tel: 905-985-3337
Email: consultation@scugogfirstnation.com

Kawartha Nishnawbe First Nation
Email: nodin.webb@hotmail.com

Huron-Wendat Nation
255 place Chef Michel Laveau,
Wendake, QC, G0A 4V0
Email: consultations@wendake.ca

10.0 Advice on Compliance with Legislation

a. This report is submitted to the *Minister of Citizenship and Multiculturalism* as a condition of licencing 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.

b. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licenced 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 Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

c. 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 licenced consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

d. 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 Consumer Services.

11.0 Closure

Matrix has prepared this report in a manner consistent with the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made. The strategies incorporated in this study comply with those identified in the Ministry of Citizenship and Multiculturalism's *Standards and Guidelines for Consultant Archaeologists* (2011) however; archaeological assessments may fail to identify all archaeological resources.

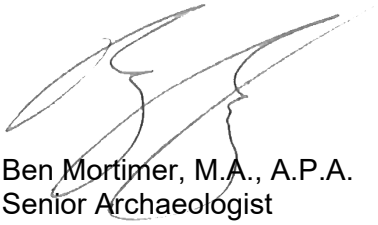
The present report applies only to the project described in the document. Use of this report for purposes other than those described herein or by person(s) other than Drain Bros or their agent(s) is not authorized without review by this firm for the applicability of our recommendations to the altered use of the report.

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This report is pending Ministry approval.

If you have any questions or we may be of further assistance, please contact the undersigned.

Matrix Heritage Inc.



Ben Mortimer, M.A., A.P.A.
Senior Archaeologist



Mercedes Hunter, M.A.
Senior Field Director

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13.0 Images



Figure 1: Sloped esker in SE corner of eastern parcel (MH1304-D006).



Figure 2: Sloped esker in SE corner of eastern parcel (MH1304-D004).



Figure 3: Disturbed sand pit in NE corner, eastern parcel (MH1304-D007).



Figure 4: Sand road that traverses the eastern parcel cut into landscape (MH1304-D014).



Figure 5: Sand road that traverses the eastern parcel (MH1304-D028).



Figure 6: Wet marshy conditions, central section, eastern parcel (MH1304-D018).



Figure 7: Wet marshy conditions, NW section, eastern parcel (MH1304-D035).



Figure 8: General conditions down slope, NE corner, eastern parcel (MH1304-D009).



Figure 9: Steeply sloped conditions, eastern parcel (MH1304-D012).



Figure 10: General sloped forested conditions, western section, eastern parcel (MH1304-D039).



Figure 11: Test pitting in progress, eastern parcel (MH1304-D010).



Figure 12: Hydro lines, NW section, eastern parcel (MH1304-D034).



Figure 13: Sloped conditions from edge of road cut, western parcel (MH1304-D050).



Figure 14: Sloped conditions, western parcel (MH1304-D047).



Figure 15: Sloped conditions, western parcel (MH1304-D054).



Figure 16: Sloped conditions, western parcel (MH1304-D099).



Figure 17: Sand road that crosses the western parcel (MH1304-D052).



Figure 18: Gravel road leading into the western parcel through the southeast boundary (MH1304-D057).



Figure 19: ATV trail running throughout western parcel (MH1304-D081).



Figure 20: Test pitting in progress, western parcel (MH1304-D042).



Figure 21: Metal outbuilding in disturbed area, east central section, western parcel (MH1304-D067).



Figure 22: Concrete pad in disturbed area, east central section, western parcel (MH1304-D073).



Figure 23: Concrete steps in disturbed area, east central section, western parcel (MH1304-D070).



Figure 24: Sloped conditions, western parcel (MH1304-D048).



Figure 25: General forested conditions, northern boundary, western parcel (MH1304-D064).

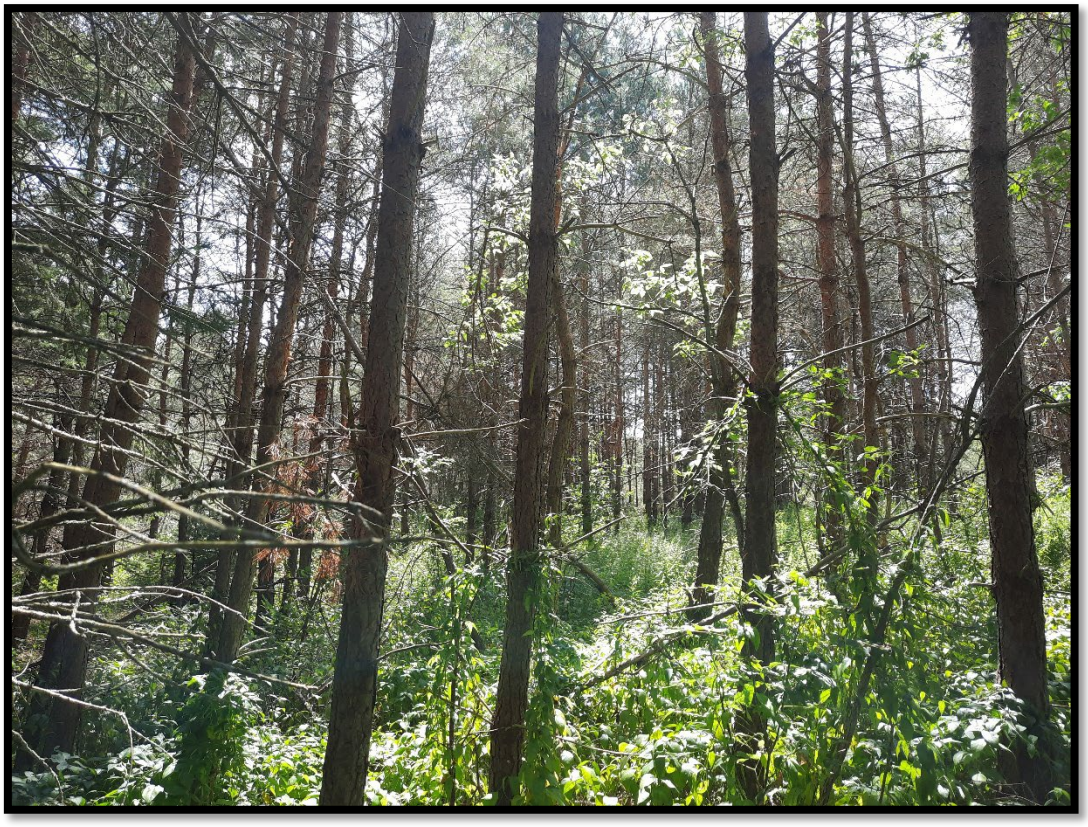


Figure 26: Sloped conditions, western parcel (MH1304-D076).



Figure 27: General forested conditions, central section, western parcel (MH1304-D112).



Figure 28: Deadfall and debris, southwestern corner, western parcel (MH1304-D138).



Figure 29: General conditions in north central fields, western parcel (MH1304-D085).



Figure 30: Gently sloped conditions in north central fields, western parcel (MH1304-D086).



Figure 31: General conditions of northwestern fields, western parcel (MH1304-D096).



Figure 32: General overview of southwestern fields, western parcel (MH1304-D142).



Figure 33: General overview of northwestern fields, western parcel (MH1304-D128).



Figure 34: Disturbed soils, north central fields, western parcel (MH1304-D089).



Figure 35: Disturbed soils and brush piles, north central field, western parcel (MH1304-D093).



Figure 36: Sand pit, disturbed soils, south central section, western parcel (MH1304-D100).



Figure 37: General conditions in potentially disturbed area, east central section, western parcel (MH1304-D071).



Figure 38: Sloped conditions, western parcel (MH1304-D117).



Figure 39: Sloped conditions, western parcel (MH1304-D135).



Figure 40: Test pitting in progress, eastern parcel (MH1304-D038).



Figure 41: Test pitting in progress, eastern parcel (MH1304-D011).



Figure 42: Wet conditions along north central boundary, western parcel (MH1304-D42).



Figure 43: Test pitting in progress, western parcel (MH1304-D131).

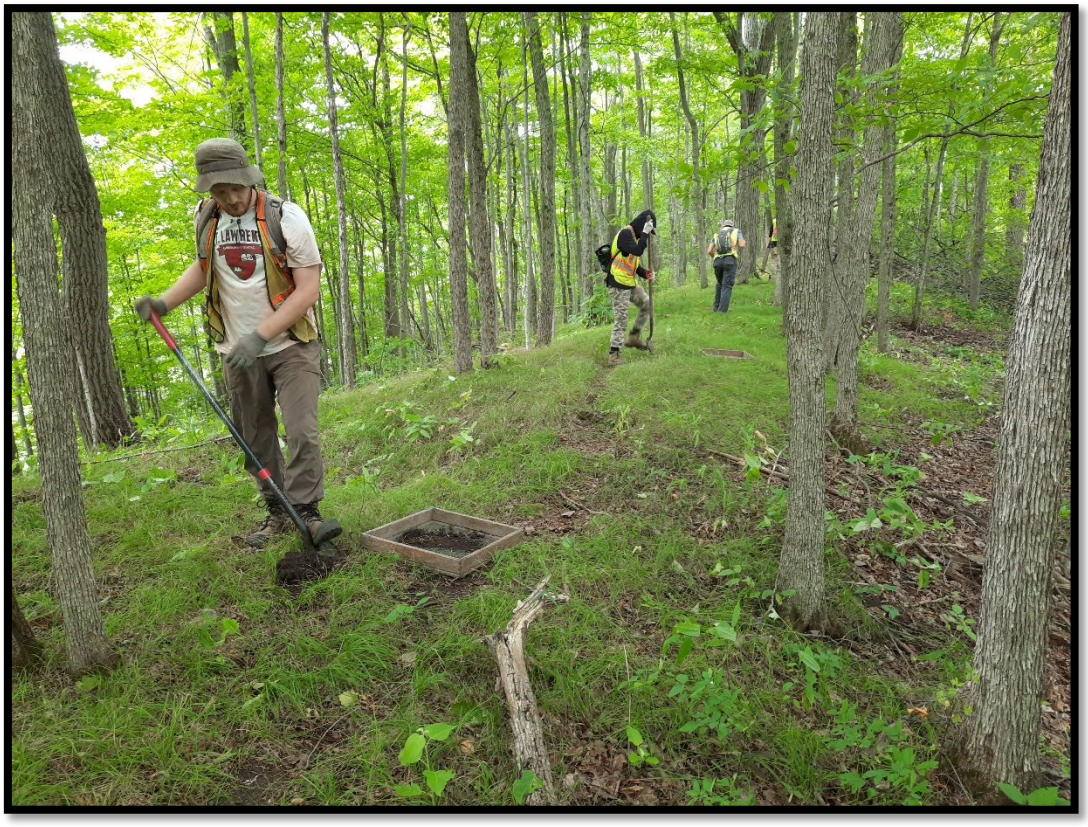


Figure 44: Test pitting in progress, western parcel (MH1304-D049).



Figure 45: Test pitting in progress, western parcel (MH1304-D072).



Figure 46: Excavating unit 1A and cardinal test pits, southeast field, western parcel (MH1304-D104).



Figure 47: Excavating unit 1B and cardinal test pits, southeastern field, western parcel (MH1304-D107).



Figure 48: East profile unit 1A (MH1304-D106).



Figure 49: North profile intensification unit 1B (MH1304-D108).



Figure 50: Sample of artifacts found during Stage 2 assessment (L to R, top to bottom): Manganese tinted solarized glass bottle fragment (WP2, 93057), amber glass bottle fragment (A1, 93093), .22 bullet casing (WP1, 93065), light blue glass bottle fragment (A1, 93091), selection of cut nails (MH1304-D158).



Figure 51: Example of typical stratigraphy found in eastern parcel (MH1304-D023).

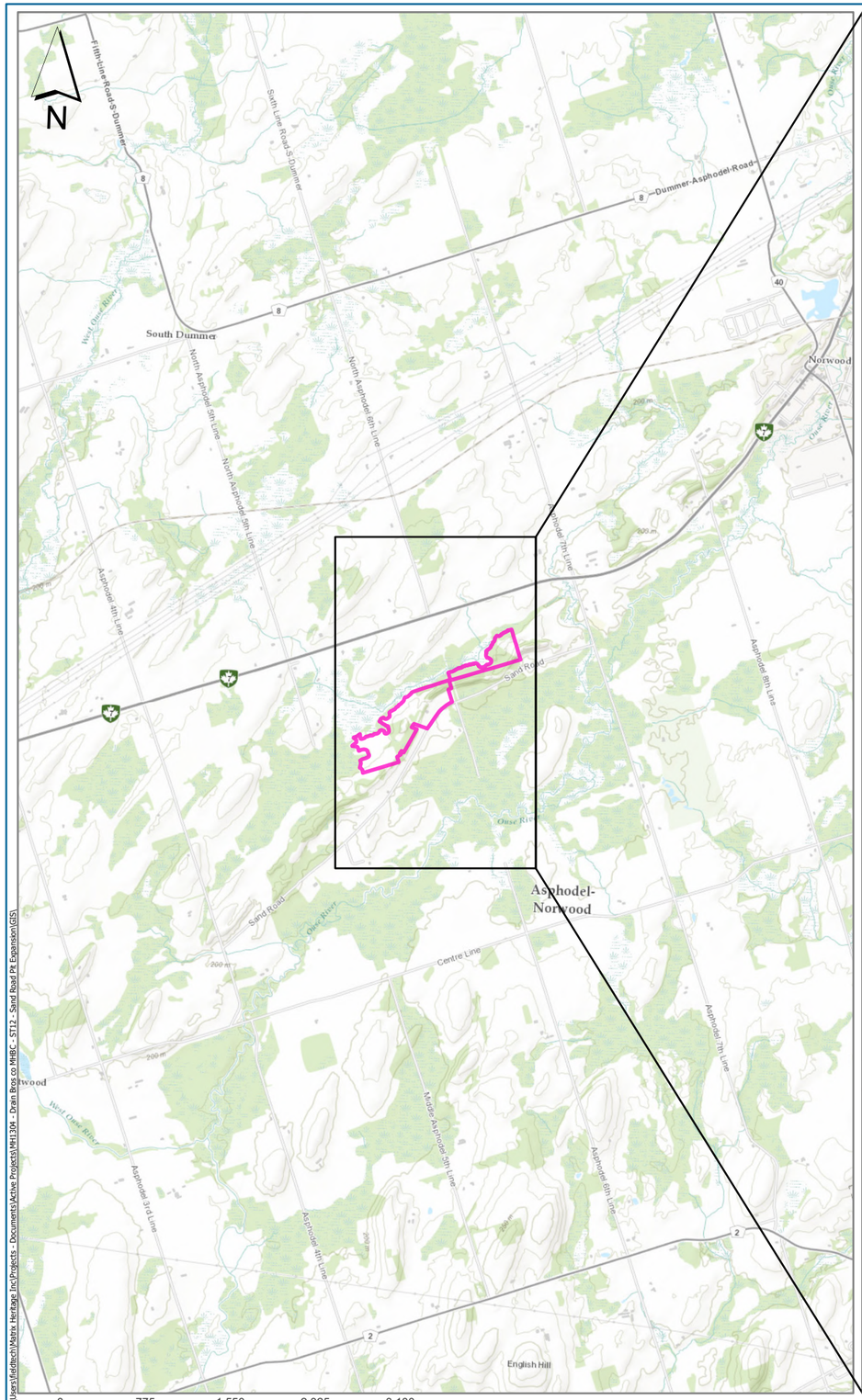


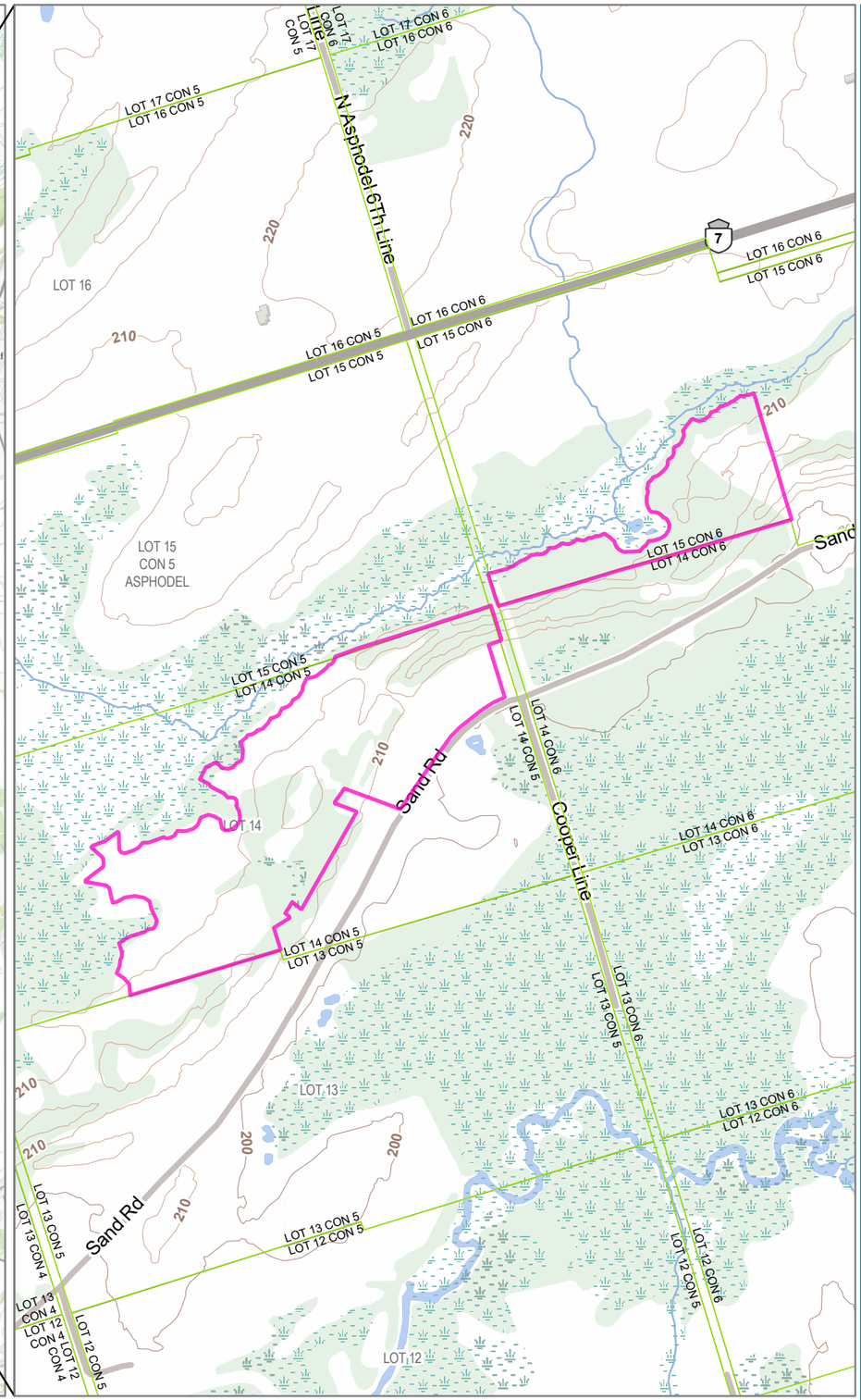
Figure 52: Example of typical stratigraphy, found in western parcel (MH1304-D044).

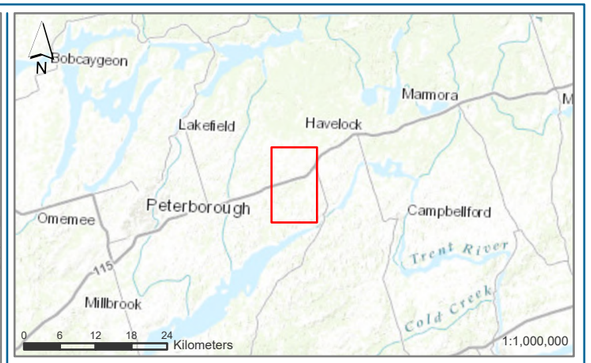


Figure 53: Disturbed test pit, east central section, western parcel (MH1304-D075).

14.0 Maps







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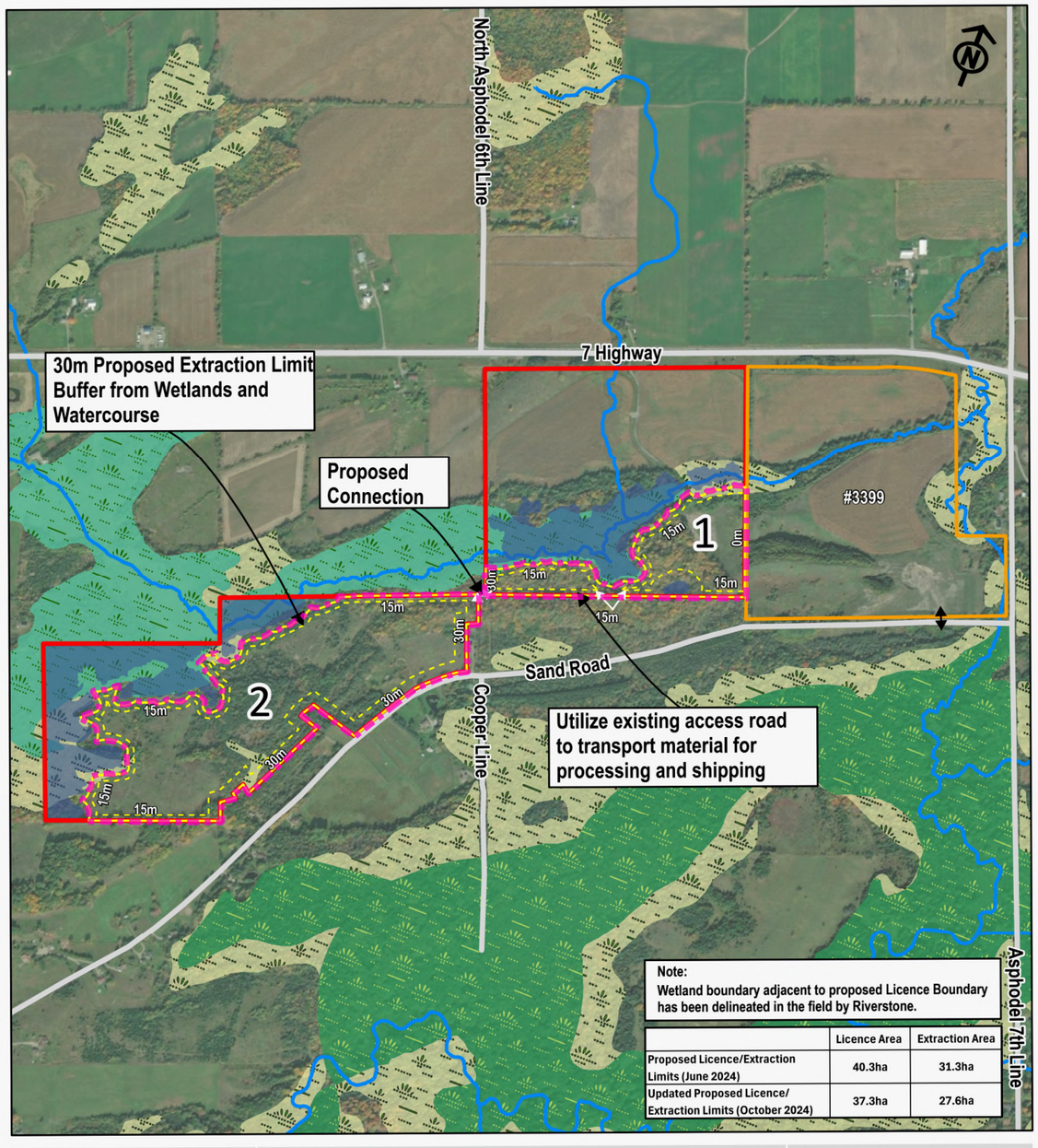
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PROJECT
STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT
SAND ROAD PIT EXPANSION, ONTARIO

TITLE
LOCATION

MAP
1

Folder: C:\Users\fedtech\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1304 - Drain Bros co MHBC - ST12 - Sand Road Pit Expansion\GIS\



	Licence Area	Extraction Area
Proposed Licence/Extraction Limits (June 2024)	40.3ha	31.3ha
Updated Proposed Licence/ Extraction Limits (October 2024)	37.3ha	27.6ha

POTENTIAL EXTRACTION LIMIT TO BE ASSESSED

LEGEND

- Existing ARA Licence
- Property Boundary
- Proposed Licence Boundary
- Proposed Limit of Extraction
- Provincially Significant Wetland - LIO
- Non Provincially Significant Wetland - LIO
- Unevaluated Wetlands - LIO
- Wetlands as mapped by Riverstone 2024
- Watercourse
- Existing Entrance/Exit

1 3749 Highway 7
Potential Extraction Area of 6.02ha

2 926 Sand Road
Potential Extraction Area of 21.6ha

Sand Road Expansion
Part of Lots 14 & 15, Con 5 & 6
Township of Asphodel–Norwood
County of Peterborough

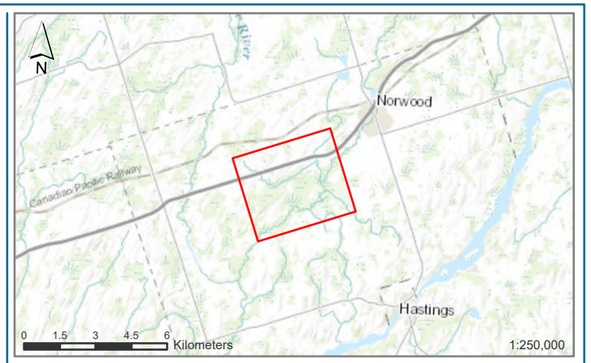
DATE October 23, 2024

SOURCES
Land Information Ontario
County of Peterborough GIS
RiverStone Environmental Solutions Inc

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21100B - Potential Limit of Extraction

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE



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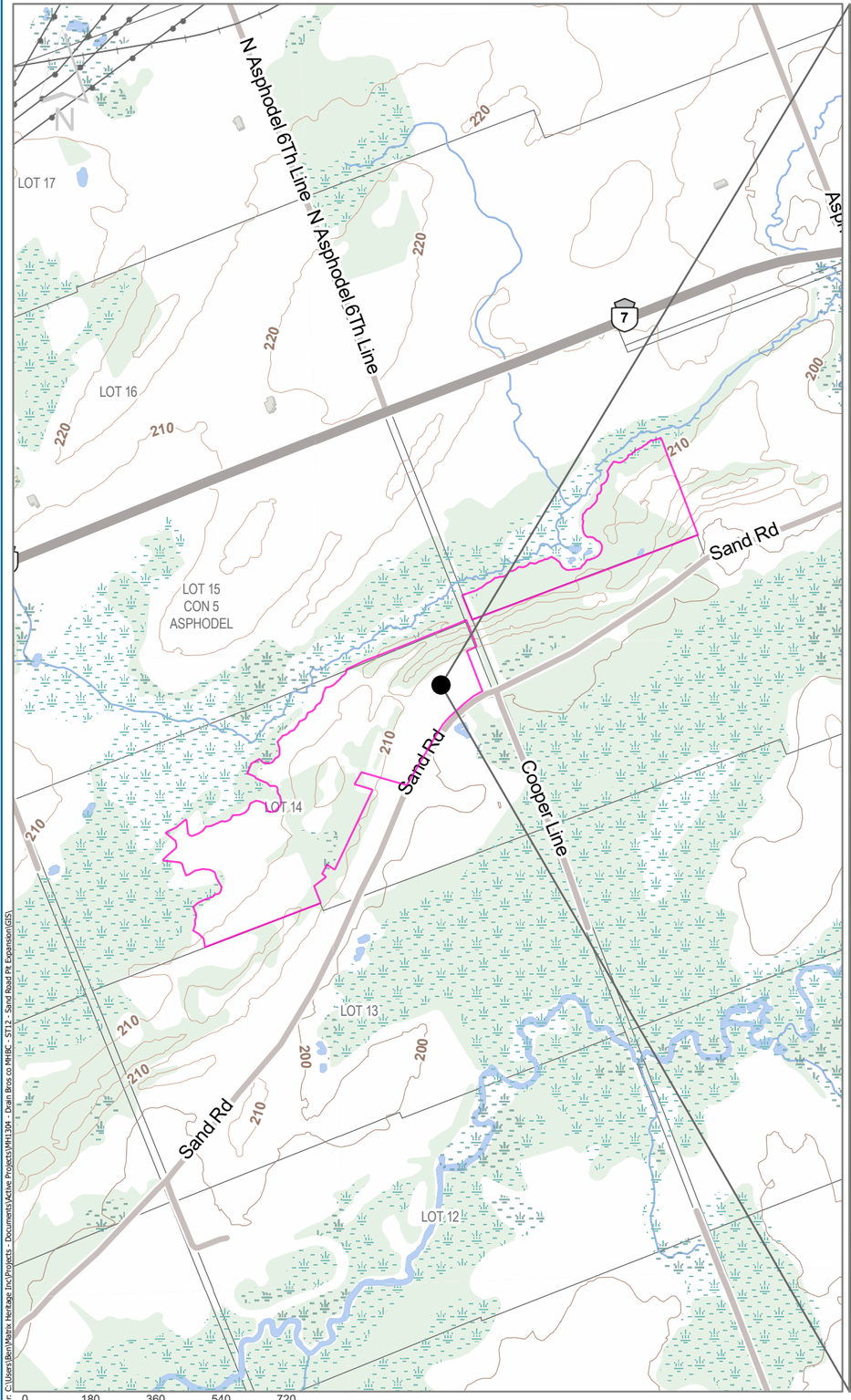
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SAND ROAD PIT EXPANSION, ONTARIO

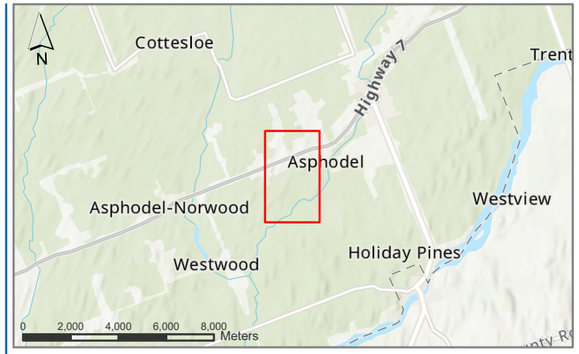
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LEGEND

- STUDY AREA
- ARCHAEOLOGICAL SITE AREA
- POSITIVE TEST PIT (5 M INTERVAL)
- POSITIVE INTENSIFICATION TEST PIT
- 1 X 1 M INTENSIFICATION UNIT

Matrix

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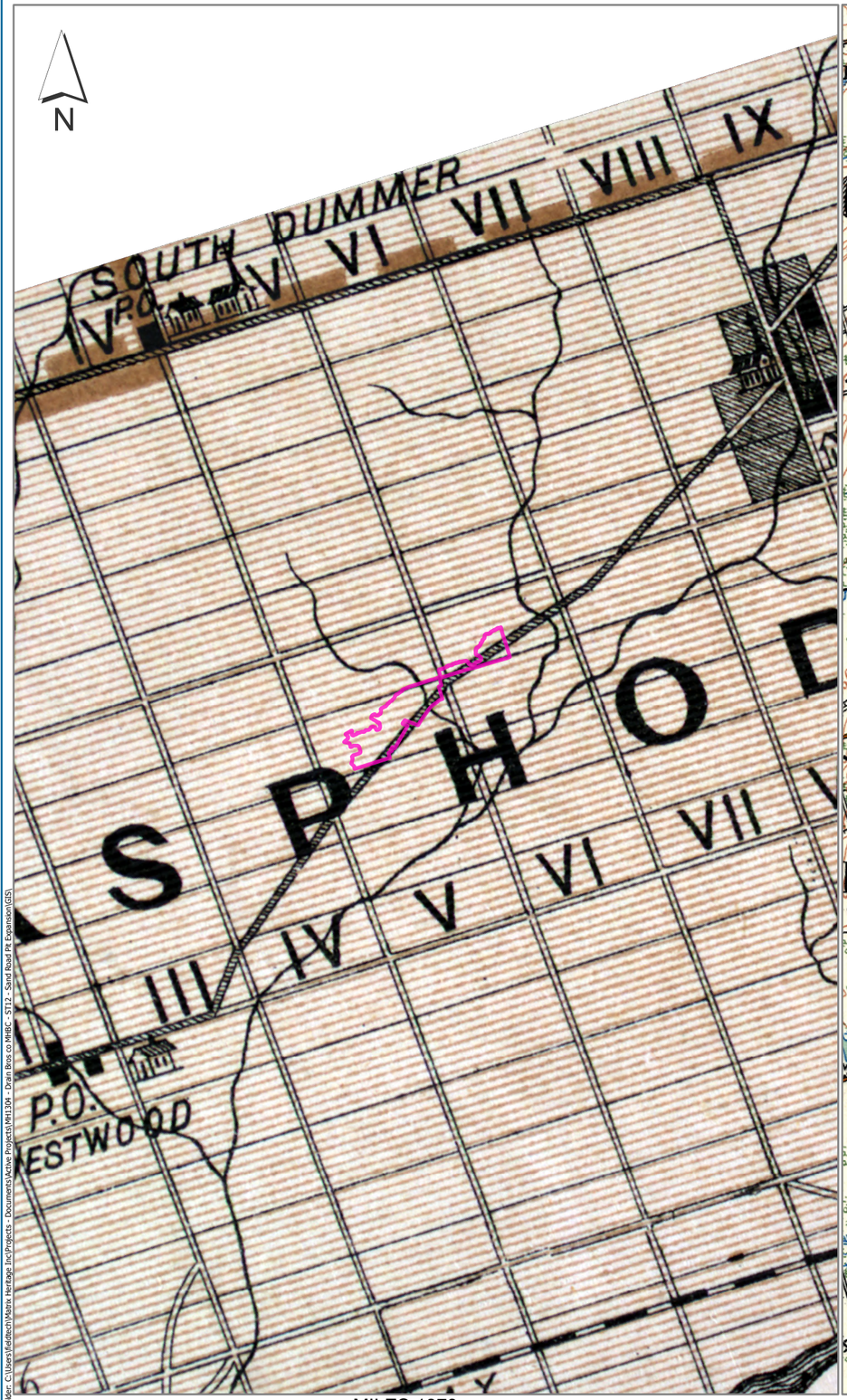
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SAND ROAD PIT EXPANSION, ONTARIO

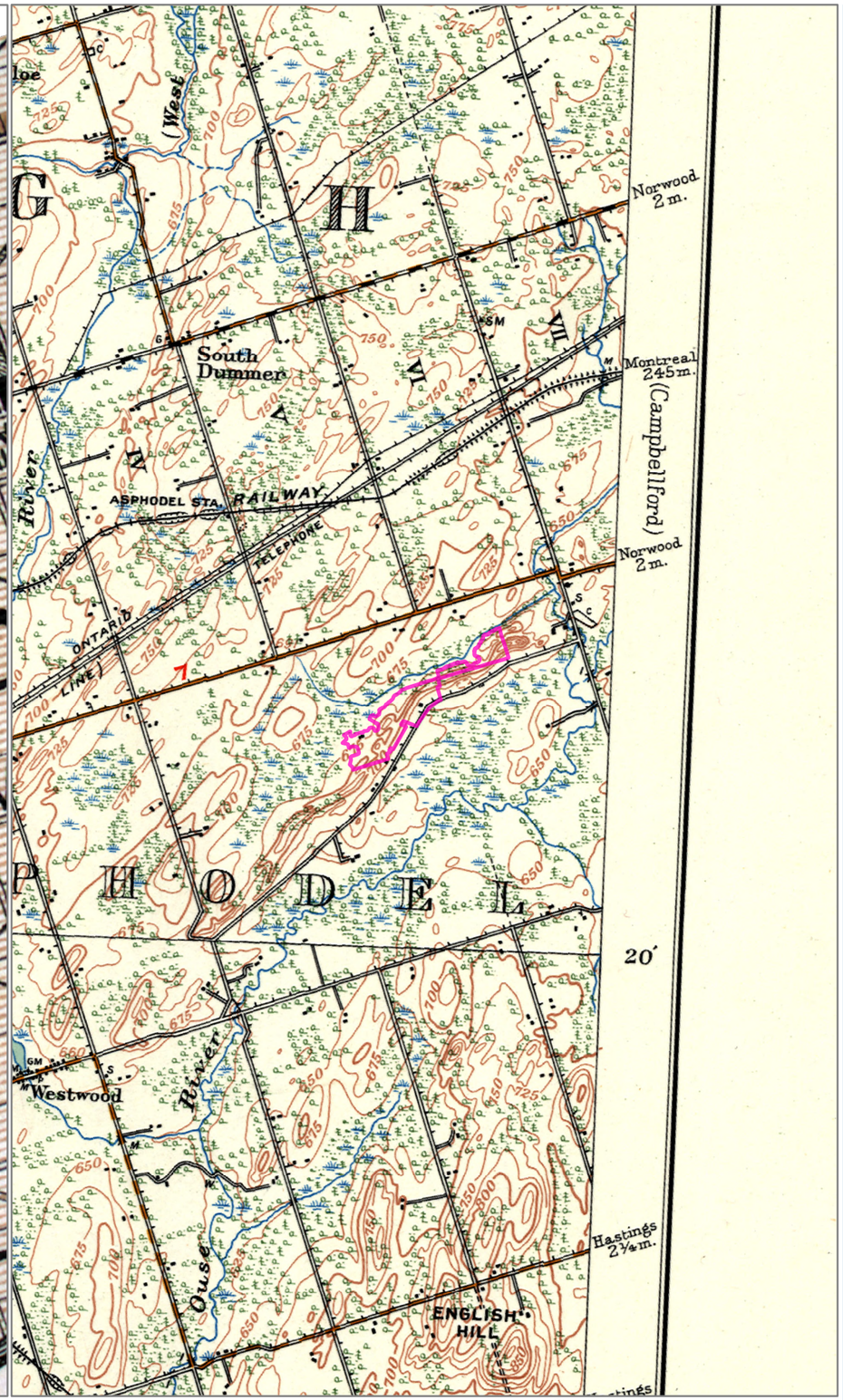
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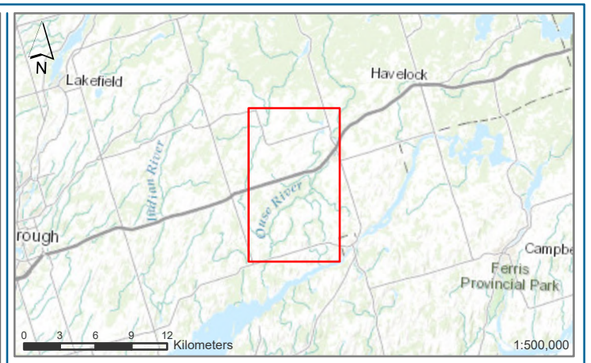
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DEPARTMENT OF NATIONAL DEFENCE 1932



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TOWNSHIP OF ASPHODEL FROM COUNTY OF PETERBOROUGH. TORONTO: MILES & CO., 1879.

TOPOGRAPHIC MAP, SHEET 31 D/8, PETERBOROUGH. GEOPGRAPHICAL SECTION, DEPARTMENT OF NATIONAL DEFENCE, 1932.

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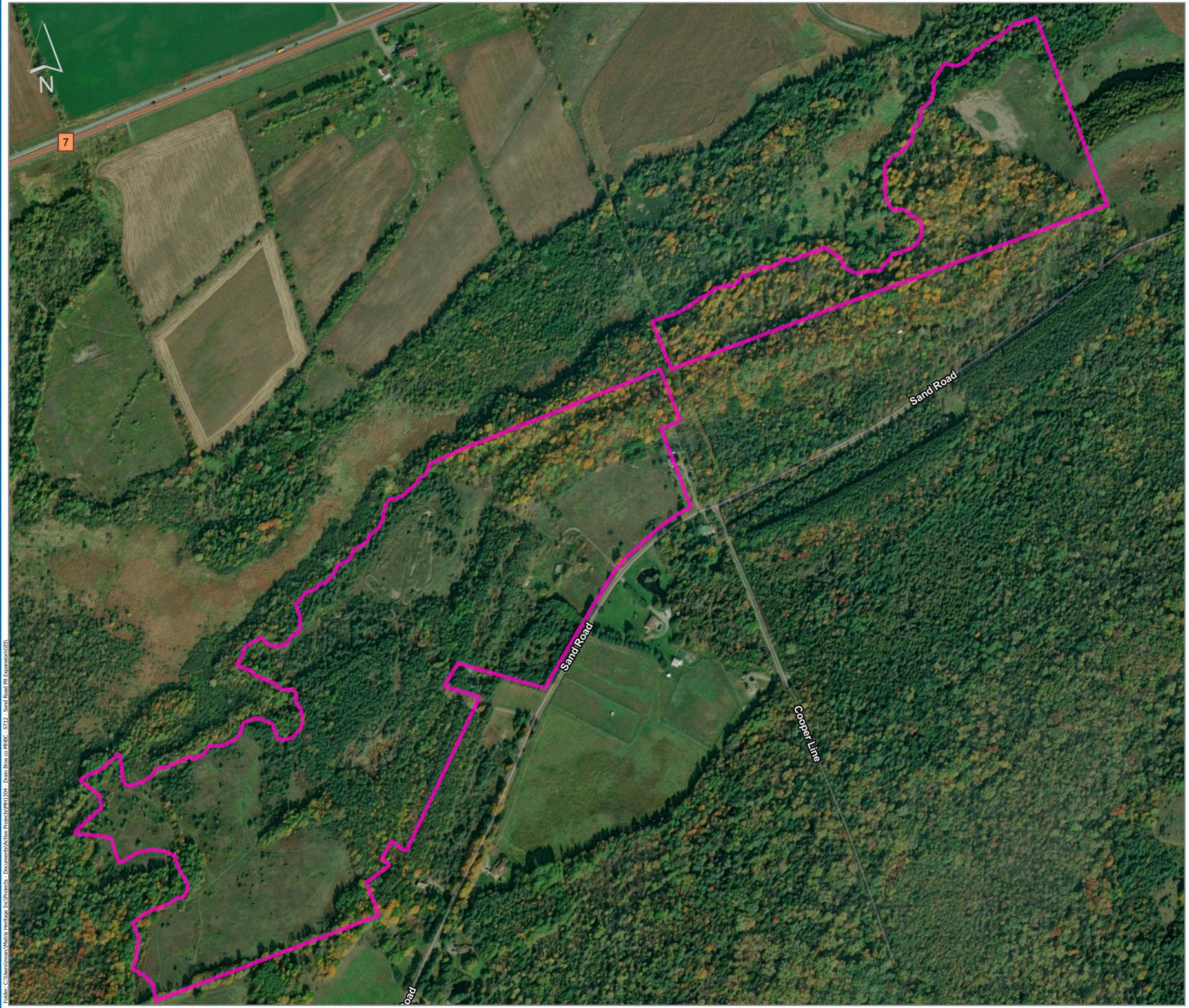
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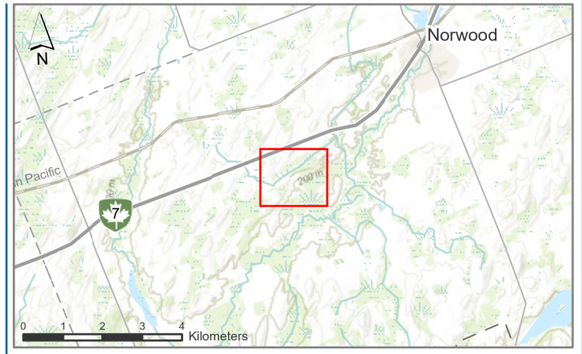
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SAND ROAD PIT EXPANSION, ONTARIO

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REFERENCES:
SOURCES: ESRI, MAXAR, AIRBUS DS, USGS, NGA, NASA, CGIAR, N ROBINSON, NCEAS, NLS, OS, NMA, GEODATASTYRELSEN, RIJKSWATERSTAAT, GSA, GEOLAND, FEMA, INTERMAP, AND THE GIS USER COMMUNITY, MAP DATA © OPENSTREETMAP CONTRIBUTORS, MICROSOFT, FACEBOOK, GOOGLE, ESRI COMMUNITY MAPS CONTRIBUTORS, MAP LAYER BY ESRI, MAXAR

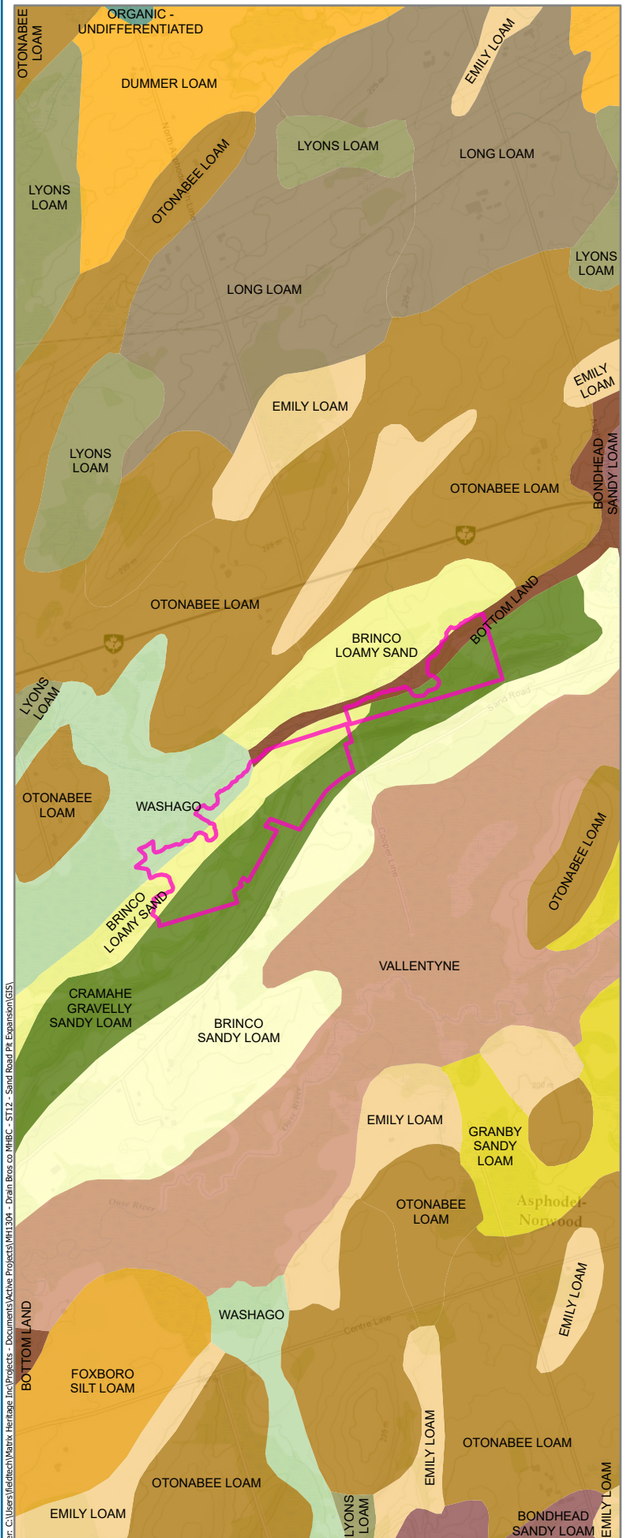
FILE MH1304 DATE 2025-02-07
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 17N CHECKED BY: BM

PROJECT
STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT
SAND ROAD PIT EXPANSION, ONTARIO

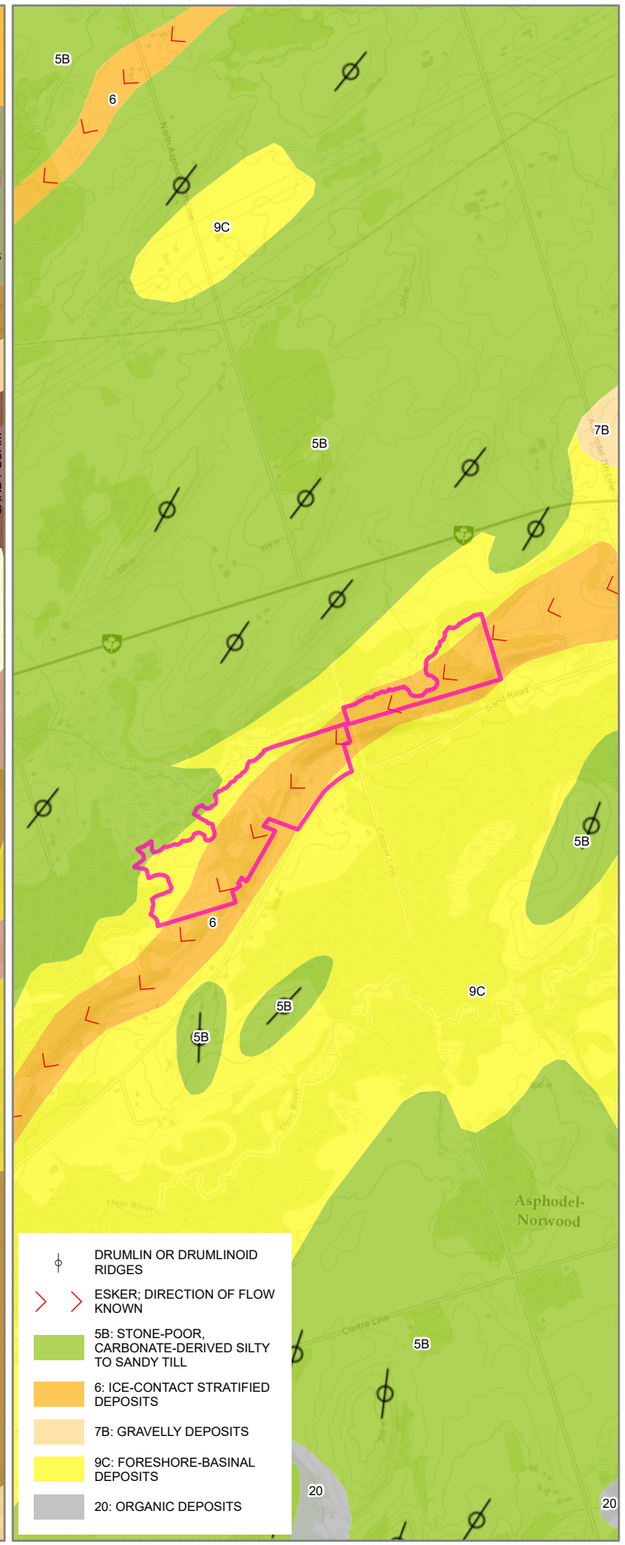
TITLE
CONDITIONS

MAP
5

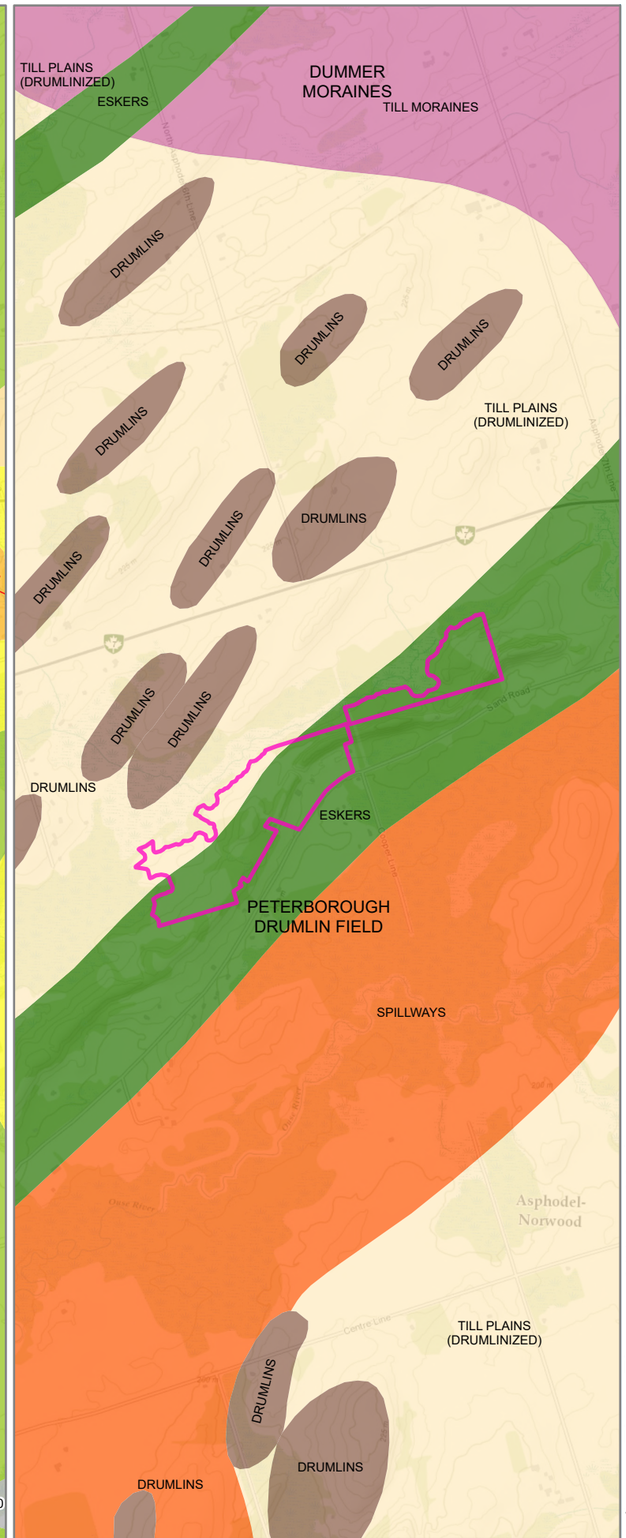
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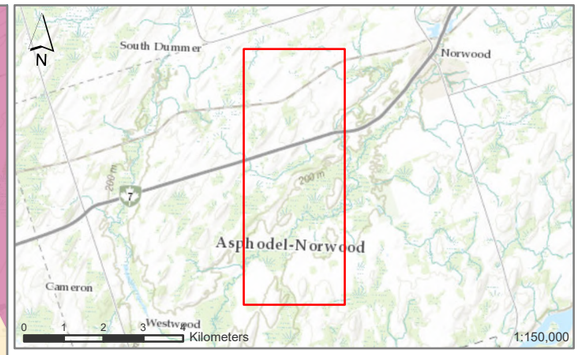
SOIL SURVEY COMPLEX



SURFICIAL GEOLOGY



PHYSIOGRAPHY



LEGEND

AREA TO BE LICENSED

Matrix

0 250 500 750 1,000 Meters

1:25,000

REFERENCES:
CITY OF PETERBOROUGH, HASTINGS COUNTY, PETERBOROUGH COUNTY, PROVINCE OF ONTARIO, ONTARIO MNR, ESRI CANADA, ESRI, HERE, GARMIN, INCREMENT P, USGS, METI/NASA, EPA, USDA, AAFC, NRCAN, CITY OF PETERBOROUGH, HASTINGS COUNTY, PETERBOROUGH COUNTY, PROVINCE OF ONTARIO, ONTARIO MNR, ESRI CANADA, ESRI, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN
SOIL SURVEY COMPLEX LIO
SURFICIAL GEOLOGY OF SOUTHERN ONTARIO 2003
CHAPMAN AND PUTNAM 2007 PHYSIOGRAPHY OF SOUTHERN ONTARIO

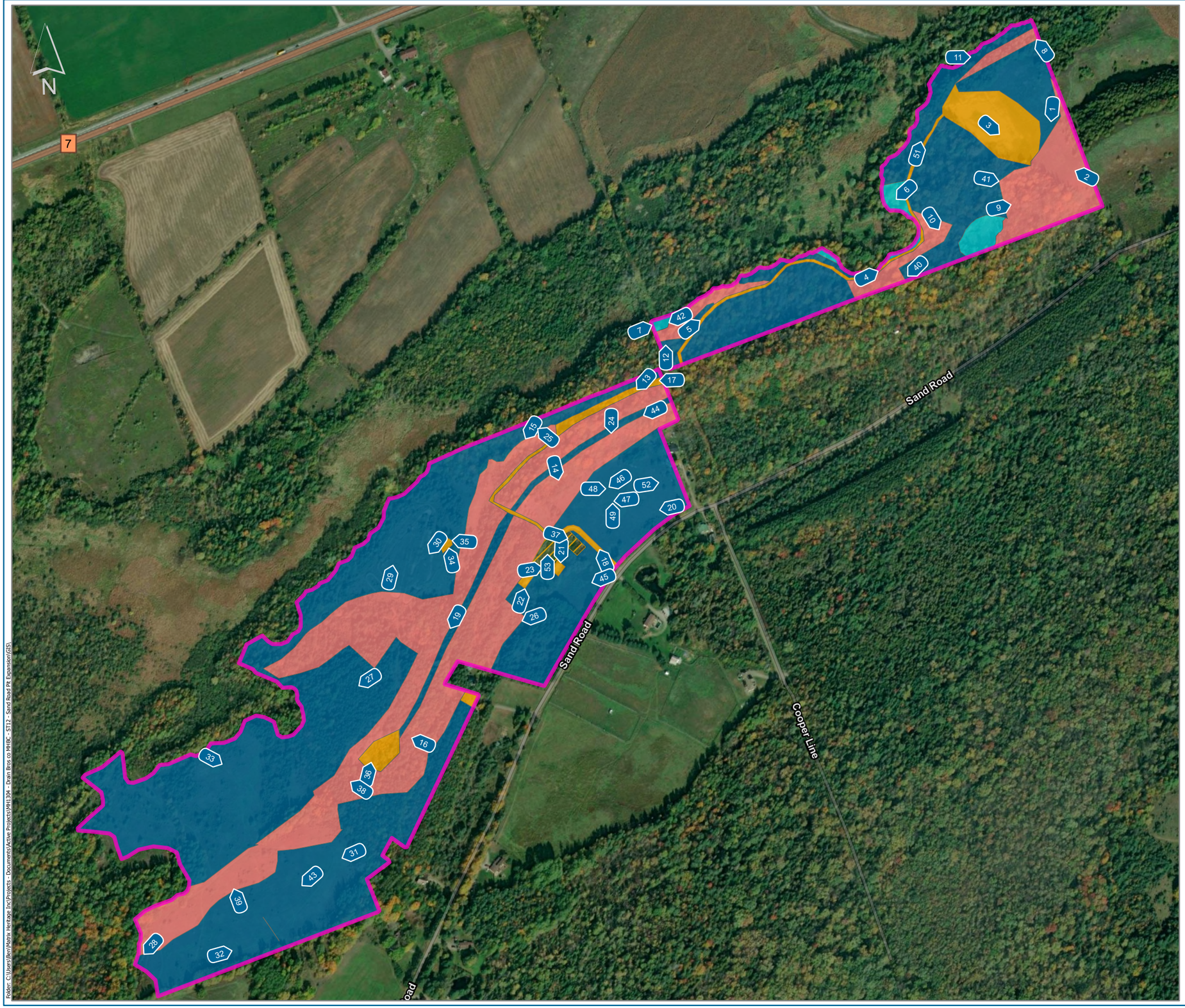
FILE MH1304
DATE 2025-01-24
CREATED BY: EM
PROJECTION: NAD 1983 UTM Zone 18N
CHECKED BY: BM

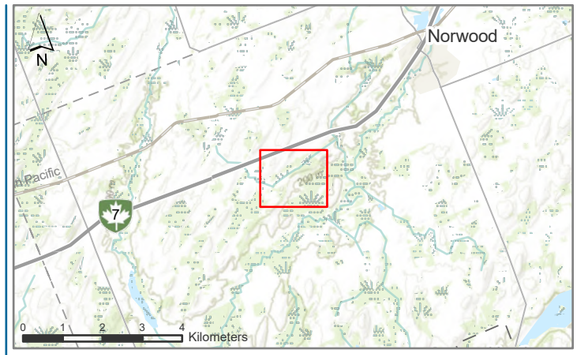
PROJECT
STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT
SAND ROAD PIT EXPANSION, ONTARIO

TITLE
SOILS AND GEOLOGY

MAP
6

Folder: C:\Users\Redtech\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1304 - Drain Bros co MHBC - ST12 - Sand Road Pit Expansion\GIS\





LEGEND

AREA TO BE LICENSED

METHODS

ASSESSMENT METHOD (ARCHAEOLOGICAL POTENTIAL)

SHOVEL TEST (5 M INTERVAL)

SHOVEL TEST TO CONFIRM DISTURBANCE (JUDGEMENTAL)

EXCLUDED (LOW TO NO POTENTIAL)

DEEPLY DISTURBED

PERMANENTLY WET

STEEPLY SLOPED (GREATER THAN 20 DEGREES)

PHOTO LOCATION, DIRECTION, AND FIGURE NUMBER

Matrix

0 80 160 240 320 Meters

1:5,500

REFERENCES:
SOURCES: ESRI, MAXAR, AIRBUS DS, USGS, NGA, NASA, CGIAR, N ROBINSON, NCEAS, NLS, OS, NMA, GEODATASTYRELSEN, RIJKSWATERSTAAT, GSA, GEOLAND, FEMA, INTERMAP, AND THE GIS USER COMMUNITY, MAP DATA © OPENSTREETMAP CONTRIBUTORS, MICROSOFT, FACEBOOK, GOOGLE, ESRI COMMUNITY MAPS CONTRIBUTORS, MAP LAYER BY ESRI, MAXAR

FILE MH1304

DATE 2025-02-10

CREATED BY: EM

PROJECTION: NAD 1983 UTM Zone 17N

CHECKED BY: BM

PROJECT

STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT
SAND ROAD PIT EXPANSION, ONTARIO

TITLE

METHODS AND KEY

MAP

7

Folder: C:\Users\Ben\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1304 - Dunn Bros co.MHBC - 5712 - Sand Road Pit Expansion\GIS\

Appendix A: Photo Catalogue

Photo Number	Description	Bearing	Date	Photographer
MH1304-D001	Sloped esker in SE corner of eastern parcel	334	Aug. 19, 2024	M. Hunter
MH1304-D002	Sloped esker in SE corner of eastern parcel	296	Aug. 19, 2024	M. Hunter
MH1304-D003	Active sand pit outside the eastern boundary	103	Aug. 19, 2024	M. Hunter
MH1304-D004	Sloped esker in SE corner of eastern parcel	296	Aug. 19, 2024	M. Hunter
MH1304-D005	Gravel road leading into the eastern parcel through the NE corner	273	Aug. 19, 2024	M. Hunter
MH1304-D006	Sloped esker in SE corner of eastern parcel	186	Aug. 19, 2024	M. Hunter
MH1304-D007	Disturbed sand pit in NE corner, eastern parcel	130	Aug. 19, 2024	M. Hunter
MH1304-D008	Test pitting in progress, eastern parcel	183	Aug. 19, 2024	M. Hunter
MH1304-D009	General conditions, NE corner, eastern parcel	325	Aug. 19, 2024	M. Hunter
MH1304-D010	Test pitting in progress, eastern parcel	89	Aug. 19, 2024	M. Hunter
MH1304-D011	Test pitting in progress, eastern parcel	100	Aug. 19, 2024	M. Hunter
MH1304-D012	Sloped conditions, eastern parcel	77	Aug. 19, 2024	M. Hunter
MH1304-D013	Wet marshy conditions, SE section, eastern parcel	180	Aug. 19, 2024	M. Hunter
MH1304-D014	Sand road that traverses the eastern parcel	64	Aug. 19, 2024	M. Hunter
MH1304-D015	Wet marshy conditions, central section, eastern parcel	333	Aug. 19, 2024	M. Hunter
MH1304-D016	Debris pile along sand road, eastern parcel	148	Aug. 19, 2024	M. Hunter
MH1304-D017	Test pitting in progress, eastern parcel	355	Aug. 19, 2024	M. Hunter
MH1304-D018	Wet marshy conditions, central section, eastern parcel	228	Aug. 19, 2024	M. Hunter
MH1304-D019	ATV trail that runs through the center of eastern parcel around marsh	152	Aug. 19, 2024	M. Hunter
MH1304-D020	Wet marshy conditions, central section, eastern parcel	287	Aug. 19, 2024	M. Hunter
MH1304-D021	Wet marshy conditions, central section, eastern parcel	138	Aug. 19, 2024	M. Hunter
MH1304-D022	Wet marshy conditions, central section, eastern parcel	89	Aug. 19, 2024	M. Hunter
MH1304-D023	Example of typical stratigraphy found in eastern parcel	17	Aug. 19, 2024	M. Hunter
MH1304-D024	Test pitting in progress, eastern parcel	69	Aug. 19, 2024	M. Hunter
MH1304-D025	Sloped conditions, eastern parcel	271	Aug. 20, 2024	M. Hunter
MH1304-D026	Test pitting in progress, eastern parcel	90	Aug. 20, 2024	M. Hunter
MH1304-D027	Sloped conditions, eastern parcel and road leading from eastern to western parcel	187	Aug. 20, 2024	M. Hunter
MH1304-D028	Sand road that traverses the eastern parcel	53	Aug. 20, 2024	M. Hunter
MH1304-D029	Water monitoring wells along sand road, eastern parcel	184	Aug. 20, 2024	M. Hunter
MH1304-D030	General conditions, central section, eastern parcel	207	Aug. 20, 2024	M. Hunter
MH1304-D031	Sloped conditions, eastern parcel	194	Aug. 20, 2024	M. Hunter
MH1304-D032	Wet marshy conditions, NW section, eastern parcel	255	Aug. 20, 2024	M. Hunter
MH1304-D033	Test pitting in progress, eastern parcel	166	Aug. 20, 2024	M. Hunter
MH1304-D034	Hydro lines, NW section, eastern parcel	359	Aug. 20, 2024	M. Hunter
MH1304-D035	Wet marshy conditions, NW section, eastern parcel	68	Aug. 20, 2024	M. Hunter
MH1304-D036	Wet marshy conditions, NW section, eastern parcel	210	Aug. 20, 2024	M. Hunter
MH1304-D037	Test pitting in progress, eastern parcel	231	Aug. 20, 2024	M. Hunter
MH1304-D038	Test pitting in progress, eastern parcel	225	Aug. 20, 2024	M. Hunter
MH1304-D039	General forested conditions, western section, eastern parcel	148	Aug. 21, 2024	M. Hunter
MH1304-D040	Test pitting in progress, eastern parcel	295	Aug. 21, 2024	M. Hunter
MH1304-D041	General conditions in open field, SE corner, western parcel	338	Aug. 21, 2024	M. Hunter
MH1304-D042	Test pitting in progress, western parcel	257	Aug. 21, 2024	M. Hunter
MH1304-D043	Example of typical stratigraphy found in western parcel	8	Aug. 21, 2024	M. Hunter
MH1304-D044	Example of typical stratigraphy found in western parcel	80	Aug. 21, 2024	M. Hunter
MH1304-D045	Test pitting in progress, western parcel	261	Aug. 21, 2024	M. Hunter
MH1304-D046	Storage containers along eastern boundary, western parcel	32	Aug. 21, 2024	M. Hunter
MH1304-D047	Sloped conditions, western parcel	165	Aug. 21, 2024	M. Hunter
MH1304-D048	Sloped conditions, western parcel	181	Aug. 21, 2024	M. Hunter

Photo Number	Description	Bearing	Date	Photographer
MH1304-D049	Test pitting in progress, western parcel	246	Aug. 21, 2024	M. Hunter
MH1304-D050	Sloped conditions, western parcel	221	Aug. 21, 2024	M. Hunter
MH1304-D051	Sloped conditions, western parcel	163	Aug. 21, 2024	M. Hunter
MH1304-D052	Sand road that traverses the western parcel	268	Aug. 21, 2024	M. Hunter
MH1304-D053	Sloped conditions, western parcel	221	Aug. 21, 2024	M. Hunter
MH1304-D054	Sloped conditions, western parcel	251	Aug. 21, 2024	M. Hunter
MH1304-D055	Gravel road leading into the western parcel through the southeast boundary	147	Aug. 21, 2024	M. Hunter
MH1304-D056	Gravel road leading into the western parcel through the southeast boundary	152	Aug. 21, 2024	M. Hunter
MH1304-D057	Gravel road leading into the western parcel through the southeast boundary	337	Aug. 21, 2024	M. Hunter
MH1304-D058	Modern garbage pile found along northern boundary, western parcel	62	Aug. 21, 2024	M. Hunter
MH1304-D059	Test pitting in progress, western parcel	118	Aug. 21, 2024	M. Hunter
MH1304-D060	Modern garbage pile found along northern boundary, western parcel	301	Aug. 21, 2024	M. Hunter
MH1304-D061	Test pitting in progress, western parcel	173	Aug. 21, 2024	M. Hunter
MH1304-D062	Game trail going through northern forested section, western parcel	82	Aug. 21, 2024	M. Hunter
MH1304-D063	Test pitting in progress, western parcel	251	Aug. 21, 2024	M. Hunter
MH1304-D064	General forested conditions, northern boundary, western parcel	309	Aug. 21, 2024	M. Hunter
MH1304-D065	Test pitting in progress, western parcel	274	Aug. 21, 2024	M. Hunter
MH1304-D066	Test pitting in progress, western parcel	101	Aug. 22, 2024	M. Hunter
MH1304-D067	Metal outbuilding found in disturbed area, east central section, western parcel	183	Aug. 22, 2024	M. Hunter
MH1304-D068	General conditions in open field, east central section, western parcel	243	Aug. 22, 2024	M. Hunter
MH1304-D069	Test pitting in progress, western parcel	181	Aug. 22, 2024	M. Hunter
MH1304-D070	Cement/concrete steps leading into depression, found in disturbed area, east central section, western parcel	81	Aug. 22, 2024	M. Hunter
MH1304-D071	General conditions, found in disturbed area, east central section, western parcel	107	Aug. 22, 2024	M. Hunter
MH1304-D072	Test pitting in progress, western parcel	248	Aug. 22, 2024	M. Hunter
MH1304-D073	Concrete pad found in disturbed area, east central section, western parcel	18	Aug. 22, 2024	M. Hunter
MH1304-D074	Concrete pad found in disturbed area, east central section, western parcel	36	Aug. 22, 2024	M. Hunter
MH1304-D075	Disturbed test pit, east central section, western parcel	80	Aug. 22, 2024	M. Hunter
MH1304-D076	Sloped conditions, western parcel	199	Aug. 22, 2024	M. Hunter
MH1304-D077	Test pitting in progress, western parcel	236	Aug. 22, 2024	M. Hunter
MH1304-D078	General forested conditions, southcentral section, western parcel	89	Aug. 22, 2024	M. Hunter
MH1304-D079	Sloped conditions, western parcel	307	Aug. 22, 2024	M. Hunter
MH1304-D080	Sloped conditions, western parcel	253	Aug. 22, 2024	M. Hunter
MH1304-D081	ATV trail that runs throughout western parcel	207	Aug. 22, 2024	M. Hunter
MH1304-D082	Sloped conditions, western parcel	97	Aug. 22, 2024	M. Hunter
MH1304-D083	Sloped conditions, western parcel	187	Aug. 22, 2024	M. Hunter
MH1304-D084	Test pitting in progress, western parcel	334	Aug. 22, 2024	M. Hunter
MH1304-D085	General conditions in north central grassy fields, western parcel	14	Aug. 23, 2024	M. Hunter
MH1304-D086	Sloped conditions in north central grassy fields, western parcel	215	Aug. 23, 2024	M. Hunter
MH1304-D087	General conditions in north central grassy fields, western parcel	52	Aug. 23, 2024	M. Hunter
MH1304-D088	Sloped conditions in north central grassy fields, western parcel	193	Aug. 23, 2024	M. Hunter
MH1304-D089	Disturbed soils, north central grassy fields, western parcel	348	Aug. 23, 2024	M. Hunter
MH1304-D090	Test pitting in progress, western parcel	15	Aug. 23, 2024	M. Hunter
MH1304-D091	General overview of north central grassy field, western parcel	229	Aug. 23, 2024	M. Hunter
MH1304-D092	Sloped conditions in north central grassy fields, western parcel	222	Aug. 23, 2024	M. Hunter
MH1304-D093	Disturbed soils and brush piles, north central grassy field, western parcel	274	Aug. 23, 2024	M. Hunter
MH1304-D094	General overview of northwestern grassy fields, western parcel	88	Aug. 23, 2024	M. Hunter

Photo Number	Description	Bearing	Date	Photographer
MH1304-D095	General conditions of northwestern grassy fields, western parcel	19	Aug. 23, 2024	M. Hunter
MH1304-D096	General conditions of northwestern grassy fields, western parcel	246	Aug. 23, 2024	M. Hunter
MH1304-D097	Sloped conditions, western parcel	83	Aug. 23, 2024	M. Hunter
MH1304-D098	Residential property and manicured lawn along south-central boundary	231	Aug. 23, 2024	M. Hunter
MH1304-D099	Sloped conditions, western parcel	293	Aug. 23, 2024	M. Hunter
MH1304-D100	Sand pit, disturbed soils, south central section, western parcel	15	Aug. 23, 2024	M. Hunter
MH1304-D101	Residential property and outbuildings along south-central boundary	77	Aug. 23, 2024	M. Hunter
MH1304-D102	Residential property and manicured lawn along south-central boundary	330	Aug. 23, 2024	M. Hunter
MH1304-D103	Test pitting in progress, western parcel	290	Aug. 23, 2024	M. Hunter
MH1304-D104	Excavating intensification unit and cardinal test pits, southeast field, western parcel	236	Aug. 26, 2024	M. Hunter
MH1304-D105	Excavating intensification unit and cardinal test pits, southeast field, western parcel	124	Aug. 26, 2024	M. Hunter
MH1304-D106	East profile intensification unit 1A	90	Aug. 26, 2024	M. Hunter
MH1304-D107	Excavating intensification unit and cardinal test pits, southeast field, western parcel	262	Aug. 26, 2024	M. Hunter
MH1304-D108	North profile intensification unit 1B	0	Aug. 26, 2024	M. Hunter
MH1304-D109	Test pitting in progress, western parcel	200	Aug. 27, 2024	M. Hunter
MH1304-D110	Test pitting in progress, western parcel	354	Aug. 27, 2024	M. Hunter
MH1304-D111	Test pitting in progress, western parcel	98	Aug. 27, 2024	M. Hunter
MH1304-D112	General forested conditions, central section, western parcel	237	Aug. 27, 2024	M. Hunter
MH1304-D113	Sloped conditions, western parcel	107	Aug. 27, 2024	M. Hunter
MH1304-D114	General forested conditions, central section, western parcel	160	Aug. 27, 2024	M. Hunter
MH1304-D115	Sloped conditions, western parcel	101	Aug. 27, 2024	M. Hunter
MH1304-D116	Sloped conditions, western parcel	114	Aug. 27, 2024	M. Hunter
MH1304-D117	Sloped conditions, western parcel	303	Aug. 27, 2024	M. Hunter
MH1304-D118	Test pitting in progress, western parcel	32	Aug. 27, 2024	M. Hunter
MH1304-D119	General forested conditions, north central section, western parcel	257	Aug. 27, 2024	M. Hunter
MH1304-D120	Test pitting in progress, western parcel	222	Aug. 27, 2024	M. Hunter
MH1304-D121	Test pitting in progress, western parcel	99	Aug. 28, 2024	M. Hunter
MH1304-D122	Southern boundary delineated by barb wire fence	216	Aug. 28, 2024	M. Hunter
MH1304-D123	General overview of northwestern grassy fields, western parcel	328	Aug. 28, 2024	M. Hunter
MH1304-D124	Test pitting in progress, western parcel	48	Aug. 28, 2024	M. Hunter
MH1304-D125	General overview of northwestern grassy fields, western parcel	293	Aug. 28, 2024	M. Hunter
MH1304-D126	Atypical stratigraphy found in northwestern field, western parcel	122	Aug. 28, 2024	M. Hunter
MH1304-D127	Test pitting in progress, western parcel	223	Aug. 28, 2024	M. Hunter
MH1304-D128	General overview of northwestern grassy fields, western parcel	118	Aug. 29, 2024	M. Hunter
MH1304-D129	Typical stratigraphy found in northwestern field, western parcel	137	Aug. 29, 2024	M. Hunter
MH1304-D130	Sloped conditions, western parcel	90	Aug. 29, 2024	M. Hunter
MH1304-D131	Test pitting in progress, western parcel	229	Aug. 29, 2024	M. Hunter
MH1304-D132	Test pitting in progress, western parcel	61	Aug. 29, 2024	M. Hunter
MH1304-D133	General overview of northwestern grassy fields, western parcel	130	Aug. 29, 2024	M. Hunter
MH1304-D134	Test pitting in progress, western parcel	94	Aug. 29, 2024	M. Hunter
MH1304-D135	Sloped conditions, western parcel	340	Aug. 29, 2024	M. Hunter
MH1304-D136	Test pitting in progress, western parcel	191	Aug. 30, 2024	M. Hunter
MH1304-D137	Deadfall and debris characterizing forested section, southwest corner, western parcel	351	Aug. 30, 2024	M. Hunter
MH1304-D138	Deadfall and debris characterizing forested section, southwest corner, western parcel	222	Aug. 30, 2024	M. Hunter
MH1304-D139	Test pitting in progress, western parcel	32	Aug. 30, 2024	M. Hunter
MH1304-D140	Sloped conditions, western parcel	160	Aug. 30, 2024	M. Hunter
MH1304-D141	Test pitting in progress, western parcel	253	Aug. 30, 2024	M. Hunter
MH1304-D142	General overview of southwestern grassy fields, western parcel	75	Aug. 30, 2024	M. Hunter
MH1304-D143	Test pitting in progress, western parcel	172	Aug. 30, 2024	M. Hunter

Photo Number	Description	Bearing	Date	Photographer
MH1304-D144	Sloped conditions, western parcel	282	Aug. 30, 2024	M. Hunter
MH1304-D145	Test pitting in progress, western parcel	51	Aug. 30, 2024	M. Hunter
MH1304-D146	Test pitting in progress, western parcel	159	Sep. 23, 2024	M. Hunter
MH1304-D147	Test pitting in progress, western parcel	279	Sep. 23, 2024	M. Hunter
MH1304-D148	General conditions in northwest corner, western parcel	145	Sep. 24, 2024	M. Hunter
MH1304-D149	Test pitting in progress, western parcel	61	Sep. 24, 2024	M. Hunter
MH1304-D150	Test pitting in progress, western parcel	247	Sep. 24, 2024	M. Hunter
MH1304-D151	General conditions along west central boundary, western parcel	252	Sep. 24, 2024	M. Hunter
MH1304-D152	Wet conditions along north central boundary, western parcel	344	Sep. 24, 2024	M. Hunter
MH1304-D153	Test pitting in progress, western parcel	85	Sep. 24, 2024	M. Hunter
MH1304-D154	Wet conditions along north central boundary, western parcel	4	Sep. 24, 2024	M. Hunter
MH1304-D155	Wet conditions along north central boundary, western parcel	340	Sep. 24, 2024	M. Hunter
MH1304-D156	General conditions along north central boundary, western parcel	178	Sep. 24, 2024	M. Hunter
MH1304-D157	Wet conditions along north central boundary, western parcel	244	Sep. 24, 2024	M. Hunter
MH1304-D158	Sample of artifacts found during Stage 2 assessment (L to R, top to bottom): Manganese tinted solarized glass bottle fragment (WP2, 93057), amber coloured glass bottle fragment (A1, 93093), .22 bullet casing (WP1, 93065), light blue glass bottle fragment (WP1A, 93091), a variety of cut nails (1A, 93094).		Dec. 05, 2024	M. Hunter

Appendix B: Map Catalogue

Map Number	Description	Created By
1	Location	E. Miller
2	Development Map	E. Miller
3	Finds	E. Miller
4	Historic	E. Miller
5	Conditions	E. Miller
6	Soils and Geology	E. Miller
7	Methods, Photo key	E. Miller

Appendix C: Document Catalogue

Project Number	Description	Created By
MH1304	Sand Road Pit Expansion – Norwood - Stage 2 Field Notes (One Note File)	M. Hunter

Appendix D: Artifact Inventory

Project	Prov.	Record	Qty	Object	Function	Material	Comment
MH1304	1A1	93089	1	Bottle unidentified	Unspecified	Solarized Glass Manganese Tint	
MH1304	1A1	93090	1	Bird bone	Bird / Aves	Bone	
MH1304	1A1	93091	1	Bottle unidentified	Unspecified	Blue Glass (light)	
MH1304	1A1	93093	2	Bottle unidentified	Unspecified	Amber/Brown Glass	
MH1304	1A1	93094	6	Cut nail	Hardware Fasteners	Iron	
MH1304	1A1	93095	2	wire	Unspecified	Iron	
MH1304	1AE	93100	1	Cut nail	Hardware Fasteners	Iron	
MH1304	1ANE	93099	2	Cut nail	Hardware Fasteners	Iron	
MH1304	1ANW	93101	1	Cut nail	Hardware Fasteners	Iron	
MH1304	1B1	93076	1	Cut nail	Hardware Fasteners	Iron	
MH1304	1B1	93077	1	wire	Unspecified	Iron	
MH1304	1B1	93082	2	sheet	Unspecified	White Metal	
MH1304	1BN	93085	2	wire	Unspecified	Iron	
MH1304	WP1	93064	1	Cut nail	Hardware Fasteners	Iron	
MH1304	WP1	93065	1	Cartridge casing	Ammunition & Accoutrements	Copper Alloy	.22 Long/Long Rifle rimfire, "SUPER" on base
MH1304	WP2	93056	1	Cut nail	Hardware Fasteners	Iron	
MH1304	WP2	93057	1	Bottle unidentified	Unspecified	Solarized Glass Manganese Tint	