



REVISED REPORT

Stage 1 Archaeological Assessment:

1486 O'Neill Road
Part Lots 13 and 14, Concession 8
Geographic Township of Oxford,
North Grenville Township
United Counties of Leeds and Grenville
Oxford Station, Ontario

Prepared For

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1.0 Executive Summary

Matrix Heritage, on behalf of R.W. Tomlinson Limited, undertook a Stage 1 Archaeological Assessment of the study area located in part Lots 13 and 14, Concession 8, in the Geographic Township of Oxford in the United Counties of Leeds and Grenville, Ontario (Map 1). This Stage 1 assessment is in support of a proposed aggregate resource license application process required as per the *Aggregate Resources Act* (Map 2) This assessment is in accordance with the Ministry of Citizenship and Multiculturalism's (MCM) *Standards and Guidelines for Consultant Archaeologists* (Ministry of Citizenship and Multiculturalism, [MCM] 2011).

The Stage 1 assessment included a review of updated MCM archaeological site database, a review of relevant environmental, historical, and archaeological literature, and primary historical research including: land registry records and historical maps, and a property inspection.

A property inspection was undertaken on October 26, 2022. Permission to access the property was provided by the proponent with no limitations. Weather conditions were an unseasonably warm 23° C, very humid, and sunny with some haze. Surface visibility at the time of the visit was excellent.

This Stage 1 background assessment concludes that, based on criteria outlined in the MCM's *Standards and Guidelines for Consultant Archaeologists* (Section 1.3, 2011), the study area has both pre-contact Indigenous as well as historical Euro-Canadian archaeological potential.

Based on the results of this investigation it is recommended:

1. A Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the pedestrian survey method at 5 m intervals in all agricultural fields as per Section 2.1.1 (MCM 2011) (approximate area shown in green in Map 3). Appropriate field conditions must be achieved prior to assessment as per Section 2.1.1. (MCM 2011).
2. In areas which cannot be ploughed (as per Section 2.1.2, Standard 1. MCM 2011) (approximate area shown in blue in Map 3), a Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the test pit survey method at 5 m intervals, as per Section 2.1.2 (MCM 2011).
3. Areas found to have low or no archaeological potential as shown in on Map 3 require no further archaeological study.

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3.0 Project Personnel

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|--------------------|-------------------------------|
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| Report Preparation | Andrea Jackson, MLitt (P1032) |
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4.0 Project Context

4.1 Development Context

Matrix Heritage, on behalf of R.W. Tomlinson Limited, undertook a Stage 1 archaeological assessment of the study area located in part Lots 13 and 14, Concession 8, in the Geographic Township of Oxford in the United Counties of Leeds and Grenville, Ontario (Map 1). This Stage 1 assessment is in support of a proposed aggregate resource license application process required as per the *Aggregate Resources Act* (Map 2). This assessment is in accordance with the Ministry of Citizenship and Multiculturalism's (MCM) *Standards and Guidelines for Consultant Archaeologists* (2011).

At the time of the archaeological assessment, the study area was owned by R.W. Tomlinson Limited. Permission to access the study property was granted by the owner, prior to the commencement of any field work; no limits were placed on this access.

4.2 Historical Context

4.2.1 Historic Documentation

Notable histories of the Algonquins include: *Algonquin Traditional Culture* (Whiteduck 1995) and *Executive Summary: Algonquins of Golden Lake Claim* (Holmes and Associates 1993a).

The subject property is located east of Kemptville Creek, in the Geographic Township of Oxford, currently the Municipality of North Grenville, United Counties of Leeds and Grenville, Ontario. There are a few publications of the early history of the county and township. Notable references include; *Historical Review of Kemptville and District* (Kemptville Centennial Committee 1957); *Kemptville Past and Present* (Kemptville & District Historical Society 1991); *Leeds and Grenville: Their First 200 Years* (McKenzie 1967); and a useful historical resource *History of Leeds and Grenville Ontario from 1749-1879* (Leavitt 1879).

4.2.2 Pre-Contact Period

Archaeological information suggests that ancestral Algonquin people lived in the region for at least 8,000 years before the Europeans arrived in North America. This traditional territory is generally considered to encompass the Ottawa Valley on both sides of the river, in Ontario and Quebec, from the Rideau Lakes to the headwaters of the Ottawa River. The region is dominated by the Canadian Shield which is characterized by low rolling land of Boreal Forest, rock outcrops and muskeg with innumerable lakes, ponds, and rivers. This environment dictated much of the traditional culture and lifestyle of the Algonquin peoples. At the time of European contact, the Algonquin territory was bounded on the east by the Montagnais people, to the west by the Nipissing and Ojibwa, to the north by the Cree, and to the south by the lands of the Iroquois.

Naming

The Algonquins' name for themselves is Anishinabeg, which means "human being." The word Algonquin supposedly came from the Malecite word meaning "they are our relatives", which French explorer Samuel de Champlain recorded as "Aloumequin" in 1603. The name stuck and the term "Algonquin" refers to those groups that have their traditional lands around the Ottawa Valley. Some confusion can arise regarding the term "Algonquian" which refers to the broader language family, of which the dialect of the Algonquin is one. The Algonquian linguistic group

stretches across a significant part of North America and comprises scores of Nations related by language and customs.

Early Human Occupation

The earliest human occupation of the Americas has been documented to predate 14,000 years ago, however at this time much of eastern Canada was covered by thick and expansive glaciers. The Laurentide Ice Sheet of the Wisconsinian glacier blanketed the Ottawa area until about 11,000 B.P. when then the glacial terminus receded north of the Ottawa Valley, and water from the Atlantic Ocean flooded the region to create the Champlain Sea. This sea encompassed the lowlands of Quebec on the north shore of the Ottawa River and most of Ontario east of Petawawa, including the Ottawa Valley and Rideau Lakes. By 10,000 B.P. the Champlain Sea was receding and within 1,000 years has drained from Eastern Ontario (Watson 1990:9).

The northern regions of eastern Canada were still under sheets of glacial ice as small groups of hunters first moved into the southern areas following the receding ice and water. By circa 11,000 B.P., when the Ottawa area was emerging from glaciations and being flooded by the Champlain Sea, northeastern North America was home to what are commonly referred to as the 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, likely consisted of small groups of exogamous hunter-gatherers relying on a variety of plants and animals who ranged over large territories (Jamieson 1999). The few possible Paleo period artifacts found, as surface finds or poorly documented finds, in the broader Eastern Ontario region are from the Rideau Lakes area (Watson 1990) and Thompson's Island near Cornwall (Ritchie 1969:18). In comparison, little evidence exists for Paleo occupations in the immediate Ottawa Valley, as can be expected given the environmental changes the region underwent, and the recent exposure of the area from glaciations and sea. As Watson suggests (Watson 1999:38), it is possible Paleo people followed the changing shoreline of the Champlain Sea, moving into the Ottawa Valley in the late Paleo Period, although archaeological evidence is absent.

Archaic period

As the climate continued to warm, the glacial ice sheet receded further northwards allowing areas of the Ottawa Valley to be travelled and occupied in what is known as the Archaic Period (9,500 – 2,900 B.P.). In the Boreal forests of the Canadian Shield this cultural period is referred to as the “Shield Archaic”. The Archaic period is generally characterized by increasing populations, developments in lithic technology (e.g., ground stone tools), and emerging trade networks.

Archaic populations 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. Sites from this period in the Ottawa Valley region include Morrison's Island-2 (BkGg-10), Morrison's Island-6 (BkGg-12) and Allumette Island-1 (BkGg-11) near Pembroke, and the Lamoureaux site (BiFs-2) in the floodplain of the South Nation River (Clermont 1999). 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). It is suggested that the Algonquin peoples in the Ottawa Valley area developed out of this Shield Archaic culture.

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 Ottawa Valley 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). Early Woodland sites in the Ottawa Valley region include Deep River (CaGi-1) (Mitchell 1963), Constance Bay I (BiGa-2) (Watson 1972), and Wyght (BfGa-11) (Watson 1980). The Middle Woodland period is identified primarily via changes in pottery style (e.g., the addition of decoration). Some of the best documented Middle Woodland Period sites from the region are from Leamy Lake Park (BiFw-6, BiFw-16) (Laliberté 1999). On the shield and in other non-arable environments, including portions of the Ottawa Valley, there seems to remain a less sedentary lifestyle often associated with the Algonquin groups noted in the region at contact (Wright 2004:1485–1486).

The Woodland Period Algonquin peoples of the Ottawa Valley area had a social and economic rhythm of life following an annual cyclical pattern of seasonal movements. Subsistence was based on small independent extended family bands operating an annual round of hunting, fishing, and plant collecting. Families returned from their winter hunting camps to rejoin with other groups at major fishing sites for the summer. The movements of the people were connected with the rhythm of the natural world around them allowing for efficient and generally sustainable subsistence (Ardoch Algonquin First Nation 2015). Their annual congregations facilitated essential social, political, and cultural exchange.

The Woodland Period Algonquin peoples in the Ottawa Valley also established significant trade networks and a dominance of the Ottawa River (in Algonquian the “Kitchissippi”) and its tributaries. The trade networks following the Ottawa River connected the Algonquins to an interior eastern waterway via Lake Timiskaming and the Rivière des Outaouais to the St. Maurice and Saguenay as well as the upper Great Lakes and interior via Lake Nipissing and Georgian Bay. From there their Huron allies would distribute goods to the south and west. The Iroquois and their allies along the St. Lawrence River and the lower Great Lakes dominated the trade routes on those waterways to the south thus leading to a rivalry that would escalate with European influence (Moreau et al. 2016).

European Contact

The addition of European trade goods to artifacts of native manufacture in archaeological material culture assemblages’ ushers in a new period of history. Archaeological data shows that European goods penetrated the Canadian Shield as early as 1590 and the trade was well entrenched by 1600 through the trade routes established by the Algonquin peoples along the Ottawa River (Moreau et al. 2016) and their neighbouring allies the Michi Saagiig and the Chippewa nations.

The first recorded meeting between Europeans and Algonquins occurred at the first permanent French settlement on the St. Lawrence at Tadoussac in the summer of 1603. Samuel de Champlain came upon a party of Algonquins, the Kitchissipirini under Chief Tessouat, who were celebrating a recent victory over the Iroquois with their allies the Montagnais and Malecite (Hessel

1993). Champlain made note of the “Algonmequins” and his encounter with them, yet the initial contact between Champlain and the Algonquin people within their own territory in the Ottawa Valley was during his travels of exploration in 1613.

By the time of Champlain’s 1613 journey, the Algonquin people along the Ottawa River Valley were important middlemen in the rapidly expanding fur-trade industry. Champlain knew this and wanted to form and strengthen alliances with the Algonquins to further grow the fur-trade, and to secure guidance and protection for future explorations inland and north towards a potential northwest passage. Further, involving the Algonquins deeper in the fur trade promised more furs filling French ships and more Indigenous dependence on European goods. For their part, the French offered the promise of safety and support against the Iroquois to the south.

Early historical accounts note many different Algonquian speaking groups in the region at the time. Of note for the lower Ottawa Valley area were the Kichesipirini (focused around Morrison Island); Matouweskari (upstream from Ottawa, along the Madawaska River); Weskarini (around the Petite Nation, Lièvre, and Rouge rivers west of Montreal), Kinouchepirini (in the Bonnechere River drainage); and the Onontcharonon, (along the South Nation River) (Holmes and Associates 1993a; Morrison 2005; Pilon 2005). However, little archaeological work has been undertaken regarding Algonquins at the time of contact with Europeans (Pilon 2005).

Fur Trade, Early Contact with the French

Champlain understood that the Algonquins would be vital to his eventual success in making his way inland, exploring, and expanding the fur trade. This was partially due to their language being the key to communication with many other groups, as well as their dominance over trade routes surrounding the Ottawa River and the connection with the Huron in the west.

When the French arrived, there was already a vast trade network in place linking the Huron and the Algonquins, the Michi Saagiig and Chippewa, extending from the Saguenay to Huronia. This route existed at least from the very 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.

By the mid-17th century, 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 (McMillan 1995). The summer gathering sites shifted from prominent fishing areas to trading posts. This further spurred social changes in community structure and traditional land distribution and use.

The well-situated Algonquin, particularly the Kichesipirini who controlled passage around Allumette Island, were originally reluctant to cede any of their dominance in fear of being cut out of their lucrative middleman role in the trade economy. However, an alliance with the French meant protection and assistance against the Iroquois. The French, as well as other Europeans like the Dutch and English, were able to align their own political and economic rivalries with those of the native populations. The competitive greed and obsession with expanding the fur trade entrenched the rivalries that were already in place, and these were intensified by European weapons and economic ambition.

Haudenosaunee (Iroquois) Wars

Little information exists about inter-tribal warfare prior to European contact, however, there was existing animosity between the Haudenosaunee and the Algonquins when Champlain first arrived in the Ottawa Valley. Like his fellow Europeans, Champlain was able to use this existing rivalry to make a case for an alliance, thus gaining crucial access to the established trade networks and economic power of the Algonquin. Prior to European contact, the hostilities 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.

Along with the French, the Algonquin were allied against the Haudenosaunee with the Huron, Nipissing, Michi Saagiig, and Chippewa. French records suggest that at the end of the sixteenth century the Algonquins were the dominant force and were proud to have weakened and diminished the Iroquois. The first Algonquin campaign the French took part in was a 1609 attack against the Mohawk. The use of firearms in this fight marked the beginning of the escalation of brutality between these old enemies. The Haudenosaunee corn stalk shields could stop arrows but not bullets or French swords (Hessel 1993).

Eventually the tide changed and as the Haudenosaunee exhausted the beaver population in their own territory they became the aggressors, pushing into the lands of the Algonquin, Michi Saagiig, Chippewa, and Huron, with the added strength of Dutch weaponry. Through the 1630s and 40s constant and increased raiding into Algonquin, Michi Saagiig, and Chippewa territory by the Haudenosaunee nations had forced many multi-generational residents to leave their lands in seek protection from their French allies in places like Trois Rivières and Sillery while others fled to the north. By 1650 Huronia, the home of the long-time allies of the Algonquin and traditional and treaty territory of the Chippewa, had been destroyed by the Haudenosaunee. The Algonquins of the Ottawa Valley had largely been scattered or displaced, reduced through war and disease to small family groups under the protection of the French missions only fifty years after the first Europeans had travelled the Ottawa River (Morrison 2005:26).

There is some evidence that Algonquins did not completely abandon the Ottawa Valley but withdrew from the Ottawa River to the headwaters of its tributaries and remained in those interior locations until the end of the century. Taking advantage of the Algonquin absence, the Ottawa people, originally from the area of Manitoulin Island, used the river for trade during this time and their name became historically applied to the river.

Aftermath of War

As the Haudenosaunee push continued and the Algonquin sought refuge amongst their French allies, other factors came into play that significantly contributed to their displacement and near destruction. 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 Algonquin people and their traditional culture.

The Algonquins thought of themselves as part of the natural world with which they must live in harmony. The traditional stories of Algonquin folklore contained lessons and guides to behaviour. The French missionaries regarded them as “heathens” and dismissed their religion as superstition (Day 2005). The missionaries believed it was their duty to convert these people to Christianity to save them from evil. Algonquin chief Tessouat had seen his Huron neighbours become ill and die after interactions with the European missionaries and had thus originally warned his people about abandoning their old beliefs and the dangers of conversion (Hessel 1993). Eventually the French imposed laws allowing only those converted to Christianity to remain within the missions and under

French protection. This created divisions amongst the Algonquin themselves which weakened the social structure as some settled into a new religion and new territory.

Starting in the 1630s and continuing into the 1700s, European disease spread among the Algonquin groups along the Ottawa River, bringing widespread death (Trigger 1986:230). As disease spread through the French mission settlements the priests remained certain that the suffering was punishment for resisting Christianity. An additional threat lurking amongst the French settlements was alcohol which precipitated many issues.

The Long Way Back

After the Haudenosaunee (Iroquois) Wars, the remaining Algonquin people were generally settled around various French trading posts and missions from the north end of the Ottawa Valley to Montreal. A large settlement at Oka was the first mission established on Algonquin lands in 1720. This settlement included peoples from many groups who had been collected and moved around from various locations. It became a type of base camp; occupied during the summer while the winters were spent at their traditional hunting territories in the upper Ottawa Valley. This arrangement served the French well, since the Algonquin converts at Oka maintained close ties with the northern bands and could call upon the inland warriors to join them in case of war with the British or Iroquois League.

As the British gained control of Canada from the French in 1758-1760 they included in the Articles of Capitulation a guarantee that the Indian allies of the French would be maintained in the lands they inhabited. Many of the Algonquin and other native groups that had been living on French mission settlements were shuffled around to new reserves while others began to migrate back to their traditional territories. 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.

Some Algonquin people began to return to their traditional territory to join those groups who had remained in the lower Ottawa Valley and continued their traditional lifeway through to the influx of European settlement in the late 1700s and early 1800s. This included bands noted to be living along the Gatineau River and other rivers flowing into the Ottawa. These traditional bands maintained a seasonal round focused on harvesting activities into the 1800s when development pressures and assimilation policies implemented by the colonial government saw Indigenous lands taken up, albeit under increasing protest and without consideration for Indigenous claims, for settlement and industry. Algonquin lands began to be encroached upon by white settlers involved in the booming lucrative logging industry or having been granted the land as Loyalist soldiers or through other settler groups.

As some Algonquins had been redistributed to lands in Quebec, their traditional territory within the Ottawa Valley was included in multiple land transfer deals, agreements, and sales with the British Crown beginning in the 1780s and continuing till the 1840s. The Algonquin were not included in these transactions and numerous petitions and inquiries on behalf of their interests were often overruled or ignored (Holmes and Associates 1993a, 1993b; Sarazin). The Constitution Act of 1791 divided Quebec into the Provinces of Upper and Lower Canada with Ottawa River as the division line, thus the lands claimed by the Algonquins fell under two separate administrations creating more confusion, exclusion, and oversight.

Two “protectorate” communities were eventually established in the nineteenth century for the Algonquin people at Golden Lake in Ontario and River Desert (Maniwaki) in Quebec. One of the last accounts of the Algonquins living traditionally was from 1865. The White Duck family was living

just west of Arnprior when they were forced to leave their wigwams as surveyors arrived to tell them the railway was being expanded through their land (Hessel 1993).

Algonquin people continue to live in the Ottawa Valley and there are still many speakers of several Algonquian dialects. Outside of the officially recognized bands there are an unspecified number of people of Algonquin descent throughout the Ottawa Valley unaffiliated with any reserve. Today there are ten Algonquin communities that comprise the Algonquins of Ontario: The Algonquins of Pikwàkanagàn First Nation, Antoine, Kijicho Manito Madagouskarini, Bonnechere, Greater Golden Lake, Mattawa/North Bay, Ottawa, Shabot Obaadjiwan, Snimikobi, and Whitney and area.

Struggles to officially secure title to their traditional land, as well as fight for hunting and fishing rights have continued into modern times. The Algonquins of Ontario (AOO) and the Governments of both Canada and Ontario are working together to resolve this land claim through a negotiated settlement. The claim includes an area of 9 million acres of unceded territory within the watersheds of the Ottawa and Mattawa Rivers in Ontario including the city of Ottawa and most of Algonquin Park. The signing of the Agreement-in-Principle in 2016 by the AOO and the provincial and federal governments, signifying a mutual intention for a lasting partnership, was a key step towards a final agreement to clarify the rights and nurture new economic and development opportunities in the area.

4.2.3 Contact Period

European contact with Indigenous peoples along the St. Lawrence River began with the visits of Jacques Cartier in 1534. The following year, Cartier was only able to travel and map as far as what is now Montreal, due to the impassable Lachine Rapids. The St. Lawrence River earned its name as Cartier first travelled the area on the 10th of August which is the feast day of St. Lawrence. The following year, he travelled upriver as far as Montreal where he encountered the permanent St. Lawrence Iroquois settlements of Stadacona and Hochelaga near present day Quebec City and Montreal, respectively. Cartier's accounts of the St. Lawrence Iroquois are the only that exist of these people at the time of contact, as by the time of Samuel de Champlain's 1603 voyage, these people had disappeared and instead *Algonquian* speaking peoples occupied the area (Jamieson 1990:385). Trading between the French and Natives was minimal in the 16th century as the French saw that the country had little to offer Europe, and trade in furs was not viable until the end of the 16th century. It was not until 1599, when the king of France authorized the colonization of New France, and Champlain's 1603 voyage that permanent French-Native relations were established (Heidenreich 1990:480–483). Following these initial expeditions, the St. Lawrence served as the main artery for European exploration and trade into the interior of North America.

4.2.4 Post-Contact Period

Although the French exerted some influence in the study area through the 17th and 18th centuries, with permanent settlements established to the east and west on the Island of Montreal and 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. The Governor of Quebec, General Frederick Haldimand, made lands available for settlement for the Loyalists in what would become Upper Canada. In 1783, Captain William Redford Crawford negotiated an agreement that surrendered lands that extended west along the north shore of the St. Lawrence River and Lake Ontario from the Mississauga, whom the British believed to be the sole First Nation peoples in the area, to the British crown. This became known as the 'Crawford Purchase' and included most of eastern Ontario to the Gananoque River. While the British at the

time believed the Mississauga with whom they were negotiating were the sole First Nation peoples in the area, most of the lands surrendered in this treaty were the traditional territory of the Algonquins. This transaction was not only problematic for its poor documentation and overlooking other First Nations' rights, it was also never clear on the compensation to be awarded for the lands granted (Gwen Reimer 2019:40–41). In 1784, Major Samuel Holland, Surveyor General for Canada surveyed the new lands.

The original plan of settlement was to extend the *seigneurial* system of the old Province of Quebec westward from the seigneurie of Longueuil (the most westerly of established seigneuries in Quebec). Two ranges of townships were laid out. The first nine townships west of Longueuil were known as the Royal Townships and extended to Cataraqui (Kingston). The next five townships, known as the Cataraqui Townships extended to the Bay of Quinte. Townships were divided into concessions and laid out into 200 acre lots. The original townships were numbered as they were to be a part of the Quebec seigneurial system. Not long after settling in these new townships, the Loyalists petitioned the Crown to establish a British form of land tenure and law, as there was a good deal of resistance to French custom and law in the newly settled areas (Craig 1963:4-9).

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. The future counties of Leeds and Grenville became affiliated with the most eastern district of Lunenburg, which extended from the eastern edge of Lancaster Township, the first of the Royal Townships, to just below present-day Kingston (Harkness 1946). By 1788, the numbered Royal Townships were named for some of the fifteen children of King George III (1760-1820). 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 Lunenburg District was renamed the Eastern District. The district was originally bounded to the west by a line running north from the mouth of the Gananoque River and to the east by Lower Canada. This included Grenville County that was surveyed in 1792 and named after Francis Osborne, 5th Duke of Leeds. William Grenville, 1st Baron Grenville, who was the British Secretary of State responsible for the colonies in 1790. It originally comprised five townships: Edwardsburgh, Augusta, Wolford, Oxford-on-Rideau (Oxford), and South Gower. Oxford-on-Rideau township, in which the study area lies, was first surveyed in 1791. In 1798 the new Parliament of Upper Canada divided the Eastern District in two, which was put into effect in 1800. At that time the counties of Carleton, Grenville, and Leeds were drawn out of the Eastern District to form the Johnstown District. In 1850, Leeds County merged with Grenville County to create the United Counties of Leeds and Grenville.

To ensure that the lands were distributed somewhat purposefully within Upper Canada, the British employed measures to distribute settlement throughout the territory, rather than pockets of habitation. One seventh of all surveyed lands were then set aside for the crown, another seventh set aside for the Church and the rest divided between United Empire Loyalists, the military, surveyors, and farmers, with some later sold to the Canada Company (a British-based land development company) (Walker 2012:129). Upon their arrival, Loyalists drew their lots for their free land grants. The 1783 Royal Instructions granted 100 acres to every "Master of a Family", plus an additional 50 acres for each other member. Military claimants were granted from 200 acres for a private, rising from there up to 5,000 acres for a field officer. In 1789, the Dorchester Resolution allowed for the disbursement of 200 acres to be extended to the sons and daughters of the original United Empire Loyalists. Lots fronting on the St. Lawrence were granted first and were usually not more than 200 acres, meaning higher ranking officers would select their further grants in the rear of the townships, often quite distant from their first. Likewise, the grants to children of Loyalists were in the rear of townships or townships further inland (Moorman 1997:11–20). As a result, the

entire riverfront within the newly surveyed Townships of Lancaster, Charlottenburgh, Cornwall, Osnabruck, Williamsburg, Matilda, Edwardsburgh, Augusta, and Elizabethtown (the Royal Townships) was settled almost simultaneously, while the rear lots of the township and other townships were granted but not always settled. Generally, Scots were placed in the eastern townships and the western townships were comprised mostly German immigrants.

The Geographic Township of Oxford was first surveyed in 1791, and while most of the township was granted by 1801, only one family was living there, the remaining patent holders were Officers residing in the fronting townships. The modern town of Oxford Mills now stands on the land originally granted to William Snyder in 1802. The community took its name from the saw and grist mills built in the center of the township taking advantage of the sizeable Kemptville Creek, (historically a southern branch of the Rideau River), to power their operations. The township was incorporated in 1850 and then included the communities of Acton's Corners, Bedell (Kempton), Bishop's Mills, Beckett's Landing, Burritt's Rapids, Christies Corners, East Oxford, Millar's Corners, Newmanville, Oxford Mills, Oxford Station, Patterson's Corners, and Swan Station. Kemptville was part of the township until its incorporation in 1857.

In 1998, Oxford-on-Rideau Township, South Gower Township, and the Town of Kemptville amalgamated to form the Municipality of North Grenville.

4.2.5 Study Area Specific History

The subject property is located at 1486 O'Neill Road, west of Oxford Station and south of Oxford Mills and Kemptville. The study area sits within the northern halves of Lots 13 and 14, Concession 8, in the Geographic Township of Oxford, in the United Counties of Leeds and Grenville. The historic mapping for the area from 1861 (Map 4) depicts a house in the northern portion of Lot 13 belonging to L. Russell (within the study area), and a house in the southern portion of the lot along County Road 20 attributed to J. Anderson (outside of the study area). Lot 14 on the map is shown to have a house in the northeastern portion belonging to J. McAvoy which is in the study area. Outside of the study area are a house in the central eastern portion belonging to William Dougherty, and a house south of County Road 20 in the southeastern portion of the lot, attributed to Anderson. Patterson's Corners Road, which runs along the eastern edge of the study area, appears to have been a prominent road as there are multiple houses and a church in the stretch of Concession 8 (Walling 1862).

Lot 13, Concession 8

The original Crown patent for Lot 13, Concession 8 was granted to Captain James Brackenridge in 1795 (LRO (015)). Often early land grants such as this, particularly in this area, were to Loyalist soldiers and their families. These land grants were typically in areas that were not yet settled, and the original early grantee likely never saw the property in person. This is potentially the case with James Brackenridge as the next transaction on the lot was thirty-six years, later in 1831, when he quit his claim in preference to Alexander, William, and James Morris. Only five years later, in 1836, the Morris family quit their claim in preference to Eliza A. M. Chambers. Soon after, in 1839, Eliza and her husband James A. Chambers sold the lot to Edmund Burritt. In 1857, Burritt sold the southern half of the lot to John Anderson and then the northern half to Lewis Russell in 1861 (LRO (015)). This report focuses on the history of the northern portion of the lot where the study area lies.

The 1851 census records list Lewis Russell, aged 45, living with his wife Mary Ann, aged 41, and three children ranging in ages from 3 to 14, in a one-storey log house (Statistics Canada 1851). It is possible the family was living on the property before officially acquiring the deed for the land in

1861. The census records from 1861 remains the same with Lewis and Mary Ann living with their three children in a log house (Statistics Canada 1861). The census states that Lewis and Mary Ann were both born in Ireland, their eldest son John was born in England, and the two younger children, William, and Alice, were born in the United States; however, different censuses claim the younger children were born in Ontario. It seems the couple travelled from Ireland to England, where they had John, before arriving in Canada, a journey that possibly included some time in the United States. By 1871, William had moved out but John, aged 31, and Alice, a 22-year-old schoolteacher, were both living at home with their parents (Statistics Canada 1871).

Lewis Russell died in 1873 (Ancestry.com 2010), and following his death, his widow and younger children granted the land to the eldest son John (LRO (015)). The census records from 1881 list John, aged 42, and his wife Eliza living with their two young children (Statistics Canada 1881). John died in 1907 at the age of 69 (Ancestry.com 2012). Over fifty years after John officially acquired the land from his family, his widow Eliza sold the property to James Alfred Anderson in 1925 (LRO (015)).

Lot 14, Concession 8

The original crown patent for the north half of Lot 14, Concession 8 was in 1855 to John McAvoy. Twelve years later, in 1867, McAvoy sold the property to James Anderson for \$2,000. Another twelve years passed, and Anderson sold the land to Albert Buker in 1879. In 1887, Buker sold one acre in the northeastern portion to the municipal council of the Township of Oxford for a gravel pit for public use. Upon his death in 1918, Albert Buker's widow Letitia quit her claim in preference to Emmaline Crawford and Annie Bailey, her stepdaughters. In 1920 Emmaline and Annie and their husbands sold the land to Stanley John Sanderson. In 1955 Sanderson sold the property to William E. Brown Construction Ltd. (LRO (015)).

The 1851 census records list John McAvoy as a 30-year-old Irish-born farmer living with his wife Mary and four young children (Statistics Canada 1851). Their youngest child, Elizabeth (aged 2 in 1851), is not listed in the 1861 records suggesting she died sometime before reaching the age of 12. By 1861, the McAvoy household had grown significantly. John and Mary had seven children ranging in ages from 3 months to 17 years. Living with them were three other members of the McAvoy family, Mark aged 60, Jane aged 20, and Eliza aged 6 months, however their specific relation to John and Mary is not clear. All twelve McAvoy's, from babies to the elderly, are listed as living in a one-story log house (Statistics Canada 1861).

Multiple households of the Buker family can be found throughout the historic census records for Oxford Township. The 1861 census lists Albert Buker as 19 years old, living with his parents and five siblings (Statistics Canada 1861). By the time of the 1871 census, Albert was married to Elizabeth and they had three young daughters, Mary Jane, aged 5, Emmaline, aged 3, and Jessie, aged 1 (Statistics Canada 1871). By 1881, the family still included three daughters, yet the youngest was Ann, aged 8, suggesting Jessie died before the age of 11 (Statistics Canada 1881). The 1891 census lists Albert and Elizabeth living with their two youngest daughters, while the eldest, Mary Jane, had presumably married and moved out by that time (Statistics Canada 1891). By the time of the 1901 census little had changed, Emmaline, aged 31, and Ann, aged 27, still lived at home with their parents who were by then in their late fifties (Statistics Canada 1901). Significant changes had occurred in the following decade as by the time of the 1911 census Albert had been widowed and had a new wife, Leticia, while Emmaline and Ann had both been married (Statistics Canada 1911). Albert died in 1918 at the age of 73 (Ancestry.com 2012).

4.3 Archaeological Context

4.3.1 Current Conditions

The study area is an 86.3 hectare rectangular property to the southwest of the intersection of O'Neill Road and Patterson's Corners Road, just north of the hamlet of East Oxford (Map 3). The property is bounded to the north by O'Neill Road, to the east by Patterson's Corners Road, to the south by County Road 20, and to the west by the agricultural fields of the neighbouring farm. In the north-eastern portion of the study area are an uninhabited house and multiple barns, sheds, and outbuildings surrounded by grassy yards. Most of the eastern portion of the property is under a corn crop with a strip of pine trees along the eastern and south-eastern boundaries. The western portion of the study area is low-lying marshland with piles of trees and berms of soil from extensive grubbing and logging activities. A sandy ridge diagonally crosses the study area dividing the eastern and western portions.

4.3.2 Physiography

The study area lies within the Edwardsburg Sand Plains physiographic region (Map 5). In this region the bedrock and most of the boulder clay are covered by beds of sand. The surface of the sand plain is nearly level or slightly undulating, although hummocks and ridges appear in some places. The sand is glaciofluvial in origin. As the land emerged from below the level of the Champlain Sea a few beach ridges were formed on the high ground and some drier areas became dunes. The water table generally stands near the surface, so much so that shallow muck and even peat bogs have frequently developed. Common forest on this plain is moisture-loving trees including elm, ash, soft maple, and white cedar while tamarack and black cedar are seen in the bogs and wetter lands, and white pine, hard maple, birch, and burr oak on the ridges. The soils are acid and deficient in all important nutrients. This land is best for pasture or crops for feeding stock and has thus been historically well known for dairy production (Chapman and Putnam 2007).

The soil in the study area consists of Uplands series soils in the eastern portion, a strip of muck through the central portion, and soils of the Allendale series with a pocket of Grenville soils in the western portion (Map 5).

The parent materials of the Upland soils were deposited by water as it flowed out over the area in front of the glacier. As the rate of flow of water decreased, particles of sand and fine gravel settled out to form the outwash plains of today. The Uplands soil series developed on these strongly undulating to rolling outwash materials of sand or sandy loam under good to excessive drainage conditions. There are no boulders within the profile although very occasionally one may be found on the surface. The natural forest for this soil type is a coniferous forest. The cultivated surface soil is very low in organic matter and available plant nutrients are in short supply. The soil is not well suited to general farming because of low fertility and a tendency to be droughty (Matthews and Richards 1954).

Allendale soils are poorly drained, both internally and externally, and have a topography of level to slightly undulating. The natural vegetation in these soils is elm, ash, and poplar. The organic matter in these soils is not well incorporated with the mineral fraction, and in some areas, it has accumulated to such an extent that the soil is similar to a shallow muck. With improved drainage and careful cultivation, the surface soil can produce medium to low fertility. The most common use for this type of soil is for permanent pasture or forest (Matthews and Richards 1954).

The Grenville soil series is developed from morainic material that is underlain predominantly by limestone of the Black River Formation in Stormont County. The underlying topography is

undulating to slightly rolling. The Grenville Loam Phase is a very dark grey-brown loam with stones occurring throughout the profile. In some areas boulders occur on the surface in sufficient numbers to interfere with cultivation. These areas have been mapped as the Bouldery Phase of the Grenville Loam. Natural vegetation in this soil series includes sugar maple, beech, ash, and some elm. General farming and dairying are successful in this soil as corn, alfalfa, clover, and small grains thrive in this soil type, however the stoniness can hinder cultivation in the Bouldery Phase (Matthews and Richards 1954).

The surficial geology in the study area consists of foreshore-basinal deposits of sand with a strip of littoral-foreshore deposits across the central eastern portion (Map 5). Basinal deposits are defined by a fine-to medium-grained sand, calcareous and commonly fossiliferous. It is a nearshore sand that generally occurs as a sheet or as bars or spits associated with glaciofluvial materials. The Littoral-foreshore geology consists of a nearshore fine to medium-grained sand, which is calcareous and commonly fossiliferous. This nearshore sand generally occurs as a sheet or as bars or spits associated with glaciofluvial materials.

The western portion of the study area is mostly marshland with a small creek that feeds into the substantial Kemptville Creek located just over a kilometre to the west.

4.3.3 Previous Archaeological Assessments

Archaeological work in the region has primarily consisted of cultural resource management studies related to specific properties or development projects. There are no known previous assessments within or adjacent to the current study area.

4.3.4 Registered Archaeological Sites and Commemorative Plaques

A search of the Ontario Archaeological Sites Database indicated that there are no registered archaeological sites located within a 1 km radius of the study area. An expanded search indicated that there was one registered archaeological site within a 5 km radius of the study area. That site is the Oxford Mills Gristmill Site (BfFw-1), a post-contact historic Euro-Canadian mill site located within the village of Oxford Mills.

No commemorative plaques or monuments are located within 1km of the subject property.

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, wetlands), the types of soils found within the area of assessment, and resource availability. The study area has potential for pre-contact Indigenous archaeological sites based on the sandy soils, the proximity to a wetland water source, and the natural beach ridge through the centre of the property.

Potential for historical Euro-Canadian sites is based on proximity to historical transportation routes, historical community buildings such as schools, churches, and businesses, and any known archaeological or culturally significant sites. The study area exhibits potential for historical period Euro-Canadian archaeological sites based on the early patent dates, the early occupation of the property by families including the Russells, Bukers, and McAvoy's, and the proximity to the historical routes of Patterson's Corner's Road and O'Neill Road.

5.0 Field Methods

A property inspection of the subject property was undertaken on October 26, 2022, as per Section 1.2 (MCM 2011). Permission to access the property was provided by the owner with no limitations. Weather conditions were an unseasonably warm 23° C, very humid, and sunny with some haze. Ground surfaces were clear of obstruction and visibility was excellent. During the site visit the entire property was systematically inspected (Section 1.2 Standard 1.).

Study area boundaries were determined in the field using digitized boundaries from the site plan mapping provided by the proponent (Map 2) overlaid in ESRI Field Map. This data layer was then accessed on an iPad with GPS for real-time positioning in the field with horizontal accuracies averaging +/- 5 m. All survey data is compiled into ArcGIS and every survey point has a UTM Zone 18T NAD 83 coordinate.

This inspection was undertaken to confirm the extent of possible disturbances and to determine what survey strategies and effort would be appropriate for a Stage 2 assessment, should it be required. Areas were examined to confirm if features of archaeological potential were present and if there were any areas of disturbance which would have removed archaeological potential.

Field notes and photographs of the property were taken during the visit 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 3, identified by figure number. Site photograph, document, and map catalogues appear in Appendices A, B, and C.

6.0 Record of Finds

The study area is an 86.3 hectare rectangular property to the southwest of the intersection of O'Neill Road and Patterson's Corners Road, just north of the hamlet of East Oxford.

The north-eastern portion of the study area consists of a yard around an uninhabited house and multiple outbuildings (Figure 1 to Figure 4). There are grassy fields with some stands of trees, and various abandoned vehicles and equipment (Figure 5 to Figure 9). A driveway enters the property from O'Neill Road in the north and curves around a utility pole to exit on Patterson's Corners Road on the east (Figure 10 and Figure 11).

Most of the eastern portion of the study area consists of an agricultural field, under a corn crop at the time of the site assessment. Recent aerial imagery showed the area had been forested and evidence of clearing was visible on site through banked soil and burned tree stumps (Figure 12). The eastern and southern edges of this field retain approximately 10 – 30 m of pine tree forest along the roadside (Figure 13 to Figure 16). A track cuts across the northern portion of the field from the top of the ridge to the back yard of the house (Figure 17).

Diagonally through the centre of the study area is a sandy ridge separating the eastern portion from the western marshland (Figure 18 to Figure 23). This ridge is prominent in the landscape and has not been subject to the logging or grubbing activities that have been undertaken in the west.

The western portion of the study area, as shown in the aerial imagery and topographic mapping (Map 1 and 3), was a low-lying wet and wooded area. At the time of the inspection, extensive grubbing had been previously undertaken, removing trees and stumps, moving topsoil, and exposing subsoil. What was already largely a permanently wet area, became a jumbled mix of permanently wet and marshland conditions that has been extensively logged and grubbed removing any potential for intact archaeological deposits (Figure 24 to Figure 36). As shown in Map 3 the area is deeply disturbed, removing archaeological potential, but is also of low potential as a permanently wet area. Logging has also occurred in the eastern portion, as shown in the changed landscape from the aerial to site inspection, however these areas are more elevated the logging did not have the same dramatic impact as it did in the low-lying areas where it was much more invasive.

7.0 Conclusions and Recommendations

This Stage 1 assessment included a review of the Ontario Ministry of Citizenship and Multiculturalism's (MCM) archaeological sites database, relevant environmental, historical, and archaeological literature, and primary historical research. The assessment concluded that based on criteria outlined in the MCM's *Standards and Guidelines for Consultant Archaeologists* (Section 1.3, 2011), the study area has both pre-contact Indigenous as well as historic Euro-Canadian archaeological potential.

The property inspection revealed that the eastern portion of the study area including the yard area in the northeast, the cornfield, the treed boundary around the field, and the sandy ridge through the centre of the property, retains archaeological potential as per Section 1.3.1. (MCM 2011). Conversely, the western portion of the property has is low to no potential as per Section 1.3.2. (MCM 2011). Prior to extensive logging, grubbing, and soil moving disturbances, the area was largely a permanently wet area and has more recently undergone extensive disturbances related to grubbing of the vegetation.

Accordingly, the eastern portion of the study area (Map 3), is considered to retain archaeological potential for pre-contact Indigenous and historical period Euro-Canadian archaeological sites and requires further assessment as shown in Map 3.

Based on the results of this investigation it is recommended:

1. A Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the pedestrian survey method at 5 m intervals in all agricultural fields as per Section 2.1.1 (MCM 2011) (approximate area shown in green in Map 3). Appropriate field conditions must be achieved prior to assessment as per Section 2.1.1. (MCM 2011).
2. In areas which cannot be ploughed (as per Section 2.1.2, Standard 1. MCM 2011) (approximate area shown in blue in Map 4), a Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist using the test pit survey method at 5 m intervals, as per Section 2.1.2 (MCM 2011).
3. Areas found to have low or no archaeological potential as shown in on Map 3 require no further archaeological study.

8.0 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.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

9.0 Closure

Matrix Heritage 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 sampling 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 R.W. Tomlinson Limited 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.

This report is pending Ministry approval.

We trust that this report meets your current needs. If you have any questions or we may be of further assistance, please contact the undersigned.

Matrix Heritage Inc.



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11.0 Images



Figure 1: Sheds and outbuildings in northeastern portion of study area. (MH1132-D001)



Figure 2: Uninhabited house in the northeastern portion of the study area. (MH1132-D006)



Figure 3: Yard behind house, tractor, and greenhouse. (MH1132-D011)



Figure 4: Log shed in the northeastern portion of the study area. (MH1132-D018)



Figure 5: Track and general conditions in yard area in northeastern portion. (MH1132-D014)



Figure 6: Field in yard area east of house in northeastern portion of study area. (MH1132-D019)



Figure 7: Evidence of logging activities in the yard area along the eastern side of the study area. (MH1132-D033)



Figure 8: Yard area to the southwest of the house. (MH1132-D174)



Figure 9: General conditions behind house showing logging, equipment, and cornfield. (MH1132-D180)



Figure 10: Asphalt driveway, utility pole, and buildings in yard area around house. (MH1132-D005)



Figure 11: Hard packed gravel driveway and buildings towards eastern access, log house across the road visible. (MH1132-D016)



Figure 12: Banked soil and evidence of burning along eastern side of cornfield. (MH1132-D041)



Figure 13: Transition between cornfield and trees along the eastern edge of the study area. (MH1132-D037)



Figure 14: Trees along the edge of the cornfield in the southeastern corner of the study area. (MH1132-D049)



Figure 15: Transition from trees to cornfield along the southern edge of the study area. (MH1132-D051)



Figure 16: View towards the southeastern corner of the study area showing field and trees. (MH1132-D055)



Figure 17: Track through the northern portion of the cornfield. (MH1132-D105)



Figure 18: View of southern portion of ridge. (MH1132-D064)



Figure 19: View of the ridge along the edge of the cornfield. (MH1132-D096)



Figure 20: View from the ridge towards the western portion of the study area. (MH1132-D099)



Figure 21: View of the ridge from the north. (MH1132-D106)



Figure 22: View of the ridge from the track along the edge of the marshland. (MH1132-D160)



Figure 23: Northern portion of ridge, from the track. (MH1132-D169)



Figure 24: General conditions in the southwestern portion from the cornfield, wet area. (MH1132-D069)



Figure 25: Example of wet soil and vegetation conditions in the southwestern portion. (MH1132-D070)



Figure 26: General conditions along the boundary between the wet and disturbed west and the cornfield in the east. (MH1132-D082)



Figure 27: General conditions in the central western portion showing brush piles, ruts, water. (MH1132-D084)



Figure 28: General conditions in the central western portion showing grubbed and wet conditions. (MH1132-D088)



Figure 29: General conditions in the northwestern portion showing ruts, wet, and brush piles. (MH1132-D110)



Figure 30: General conditions in the northwestern portion showing marshy and disturbed conditions. (MH1132-D117)



Figure 31: Example of disturbed conditions in the northwestern portion showing berms, ditch, wet conditions. (MH1132-D131)



Figure 32: General conditions in the southwestern portion, logging and grubbing activities. (MH1132-D140)



Figure 33: Marsh area in southwestern portion, marsh grasses, dogwood. (MH1132-D142)



Figure 34: Example of conditions in the southwestern portion showing ruts, logging, wet muck. (MH1132-D153)

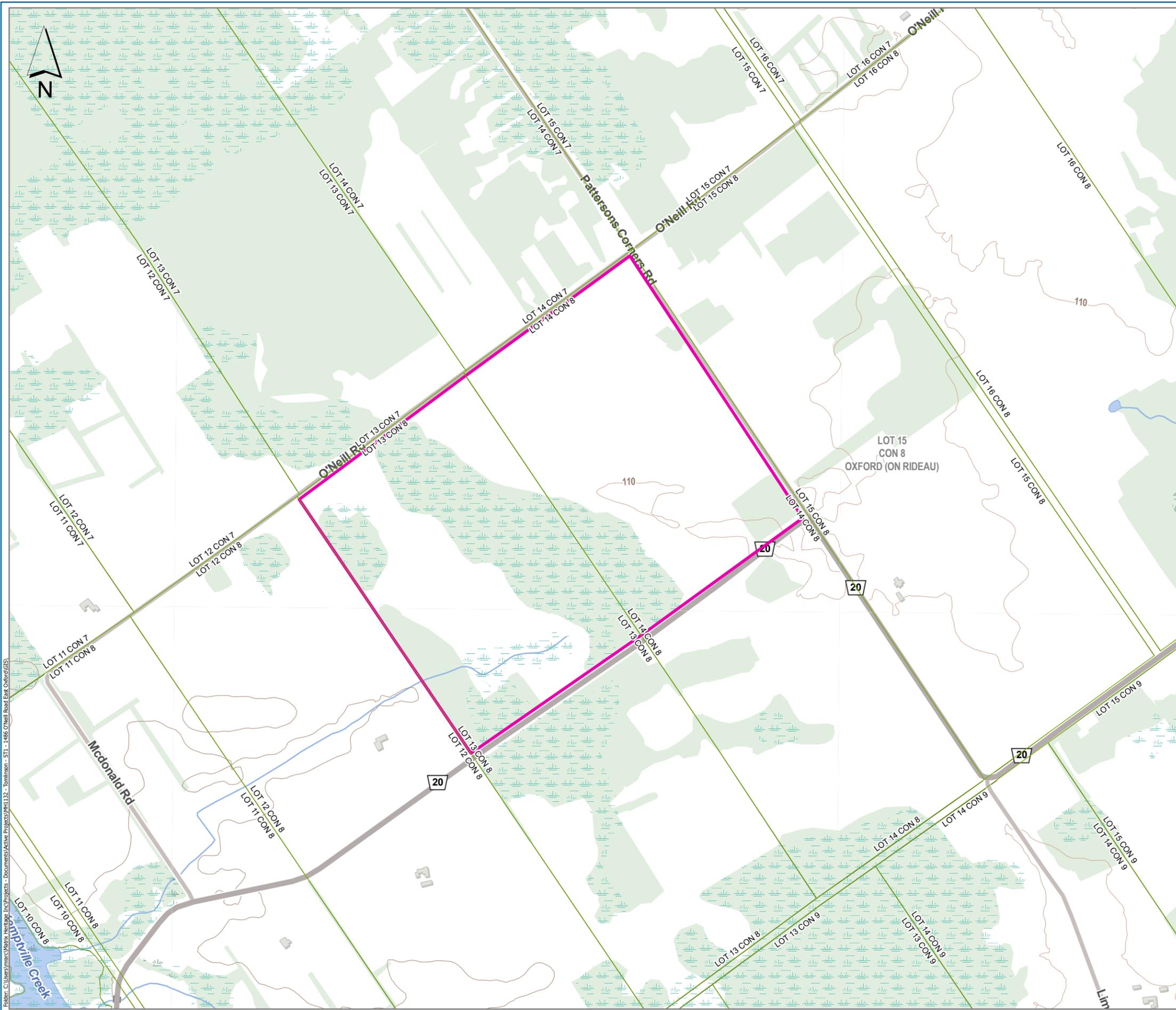


Figure 35: Example of conditions in the southwestern portion showing wet and mucky soil, logging, and grubbing activities. (MH1132-D158)



Figure 36: General conditions of the western portion showing brush piles and wet rutted ground. (MH1132-D167)

12.0Maps



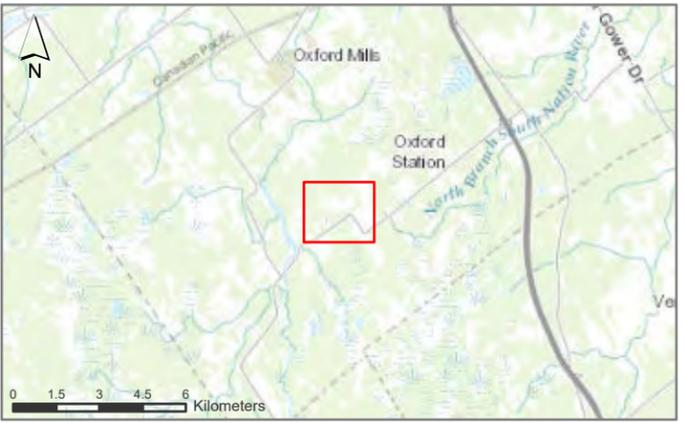
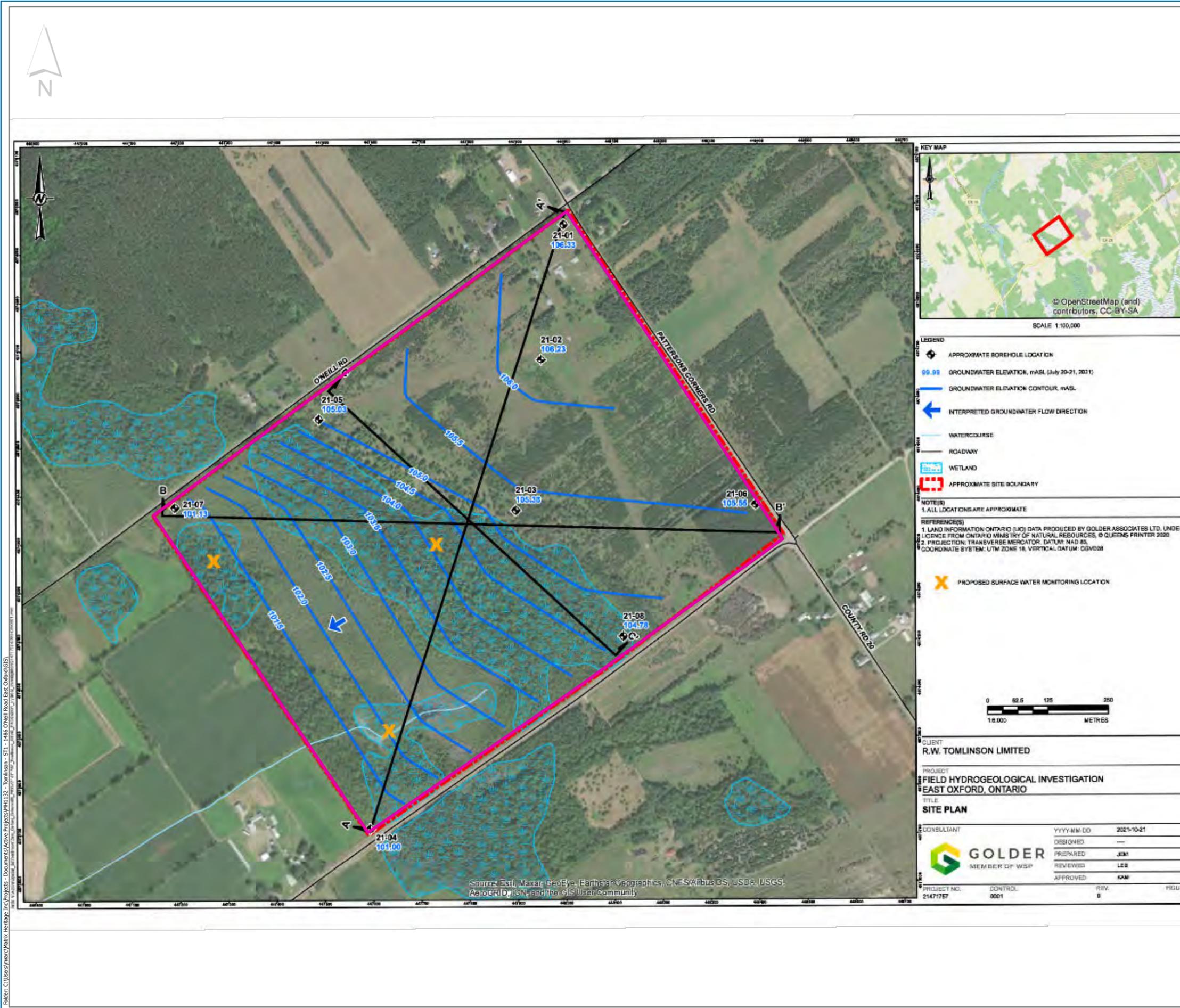
LEGEND
 STUDY AREA



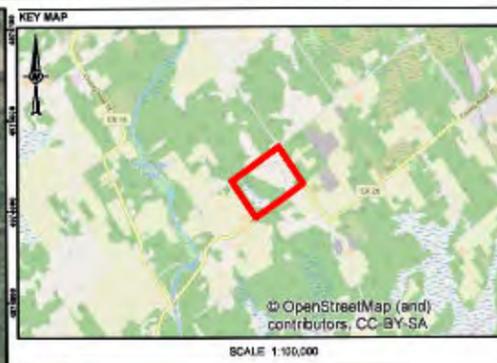
REFERENCES:
 NEW YORK STATE, MAXAR, LEEDS AND GRENVILLE, UC OF LEEDS AND GRENVILLE,
 ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP
 CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN

| | |
|--|-----------------|
| FILE MH1132 | DATE 2022-10-24 |
| PROJECTION: NAD 1983 UTM Zone 18N | CREATED BY: BM |
| PROJECT | CHECKED BY: NK |
| STAGE 1 ARCHAEOLOGICAL ASSESSMENT | |
| 1486 O'NEIL ROAD, EAST OXFORD, ONTARIO | |
| TITLE | MAP |
| LOCATION | 1 |

Field: C:\Users\mrc\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1132 - Tomlinson - ST1 - 1486 O'Neil Road East Oxford\GIS



LEGEND
 STUDY AREA



- LEGEND
- ◆ APPROXIMATE BOREHOLE LOCATION
 - 99.99 GROUNDWATER ELEVATION, mASL (July 20-21, 2021)
 - GROUNDWATER ELEVATION CONTOUR, mASL
 - ← INTERPRETED GROUNDWATER FLOW DIRECTION
 - WATERCOURSE
 - ROADWAY
 - WETLAND
 - APPROXIMATE SITE BOUNDARY

NOTE(S)
 1. ALL LOCATIONS ARE APPROXIMATE

REFERENCES
 1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENSE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEEN'S PRINTER 2020
 2. PROJECTION: TRANSVERSE MERCATOR; DATUM: NAD 83
 COORDINATE SYSTEM: UTM ZONE 18; VERTICAL DATUM: CGVD28

- X PROPOSED SURFACE WATER MONITORING LOCATION
- 0 60.0 120 240 360 480
 1:8,000 METRES

| | | | | | | | | | | | |
|--|---|-----------|------------|----------|---|----------|-----|----------|-----|----------|-----|
| CLIENT R.W. TOMLINSON LIMITED | | | | | | | | | | | |
| PROJECT FIELD HYDROGEOLOGICAL INVESTIGATION EAST OXFORD, ONTARIO | | | | | | | | | | | |
| TITLE SITE PLAN | | | | | | | | | | | |
| CONSULTANT GOLDER MEMBER OF WSP | <table border="1"> <tr> <td>YYYYMM-DD</td> <td>2021-10-21</td> </tr> <tr> <td>DESIGNED</td> <td>—</td> </tr> <tr> <td>PREPARED</td> <td>JEM</td> </tr> <tr> <td>REVIEWED</td> <td>LEB</td> </tr> <tr> <td>APPROVED</td> <td>KAM</td> </tr> </table> | YYYYMM-DD | 2021-10-21 | DESIGNED | — | PREPARED | JEM | REVIEWED | LEB | APPROVED | KAM |
| YYYYMM-DD | 2021-10-21 | | | | | | | | | | |
| DESIGNED | — | | | | | | | | | | |
| PREPARED | JEM | | | | | | | | | | |
| REVIEWED | LEB | | | | | | | | | | |
| APPROVED | KAM | | | | | | | | | | |
| PROJECT NO. 21471767 | CONTROL 0001 | | | | | | | | | | |
| REV. 0 | PREPARED BY KAM | | | | | | | | | | |



REFERENCES:
 LEEDS AND GRENVILLE, UC OF LEEDS AND GRENVILLE, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN
 PLAN PROVIDED BY PROPONENT

FILEMH1132 DATE 2022-10-24

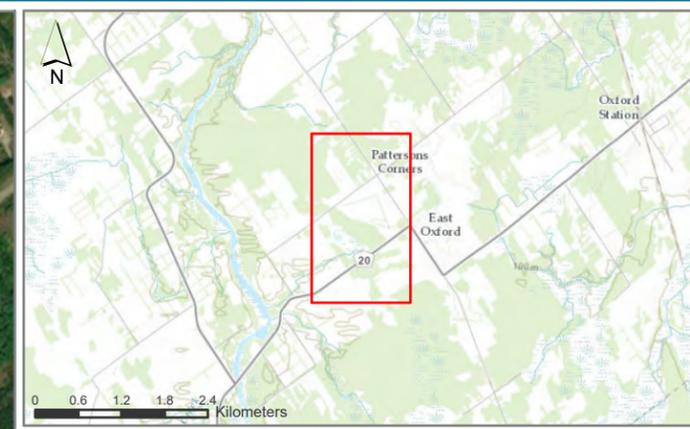
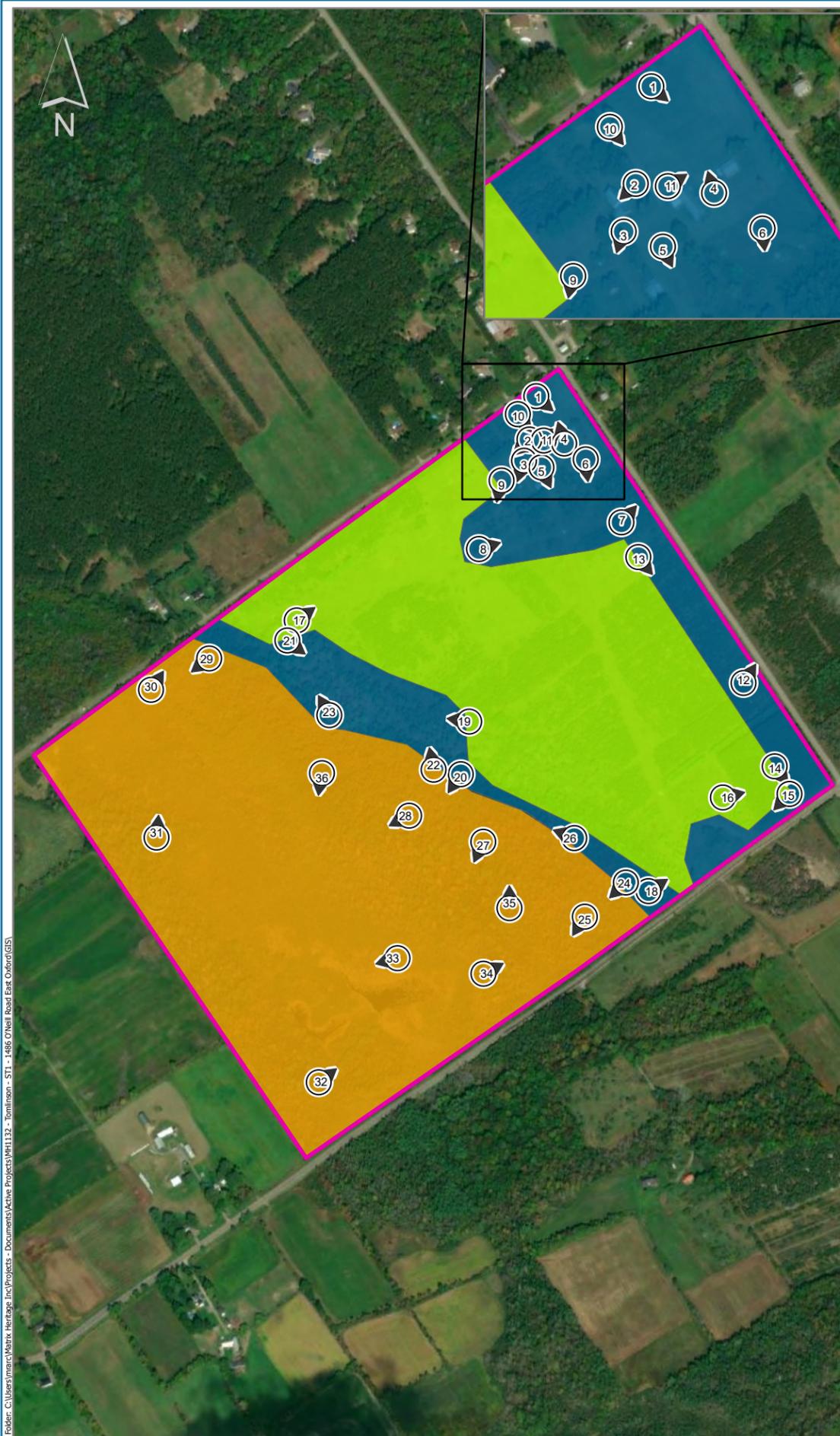
PROJECTION: NAD 1983 UTM Zone 18N CREATED BY: BM

CHECKED BY: NK
 PROJECT
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 1486 O'NEIL ROAD, EAST OXFORD, ONTARIO

TITLE DEVELOPMENT PLAN MAP 2

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Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



LEGEND

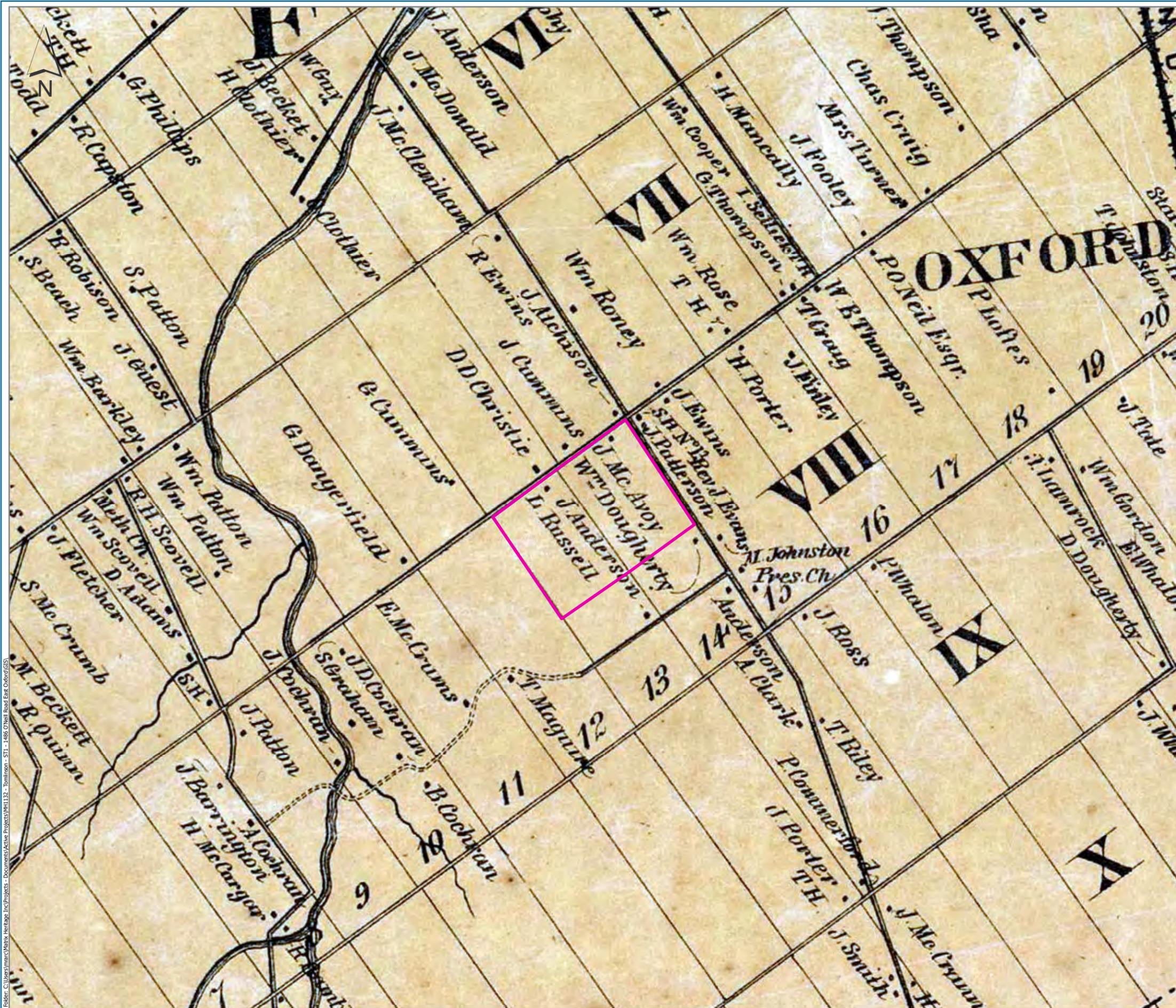
- STUDY AREA
- SHOVEL TEST (5 M INTERVAL)
- PEDESTRIAN SURVEY (5 M INTERVAL)
- LOW/NO POTENTIAL - EXCLUDED
- GRUBBED AREA - BOTH DEEPLY DISTURBED & PERMANENTLY WET
- PHOTO LOCATION, DIRECTION, AND FIGURE NUMBER



REFERENCES:
 NEW YORK STATE, MAXAR, LEEDS AND GRENVILLE, UC OF LEEDS AND GRENVILLE,
 PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, GEOTECHNOLOGIES, INC.,
 USGS, METI/NASA, NGA, EPA, USDA, AAFC, NRCAN

| | |
|--|-----------------|
| FILE MH1132 | DATE 2024-08-20 |
| PROJECTION: NAD 1983 UTM Zone 18N | CREATED BY: BM |
| PROJECT | CHECKED BY: NK |
| STAGE 1 ARCHAEOLOGICAL ASSESSMENT | |
| 1486 O'NEIL ROAD, EAST OXFORD, ONTARIO | |
| TITLE | MAP |
| STAGE 1 FINDINGS/POTENTIAL | 3 |

Folder: C:\Users\mmax\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1132 - Tomlinson - ST1 - 1486 O'Neil Road East Oxford\GIS



LEGEND
 STUDY AREA

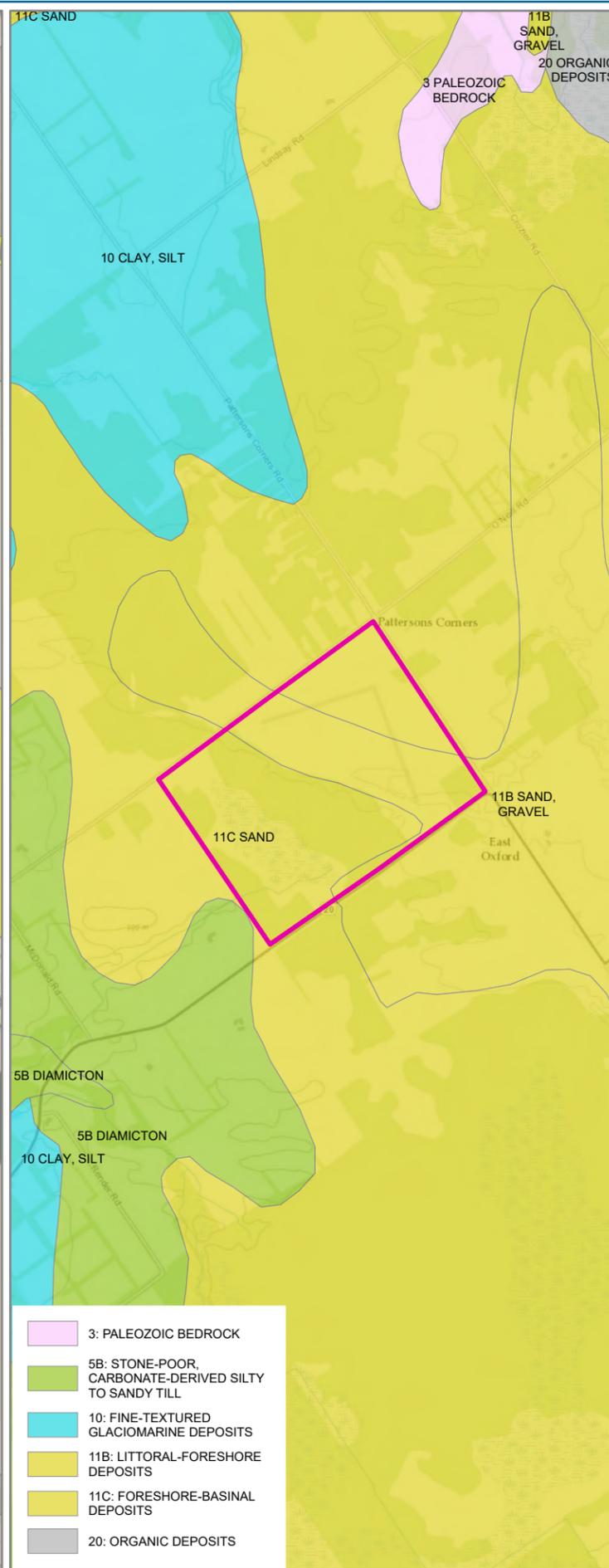
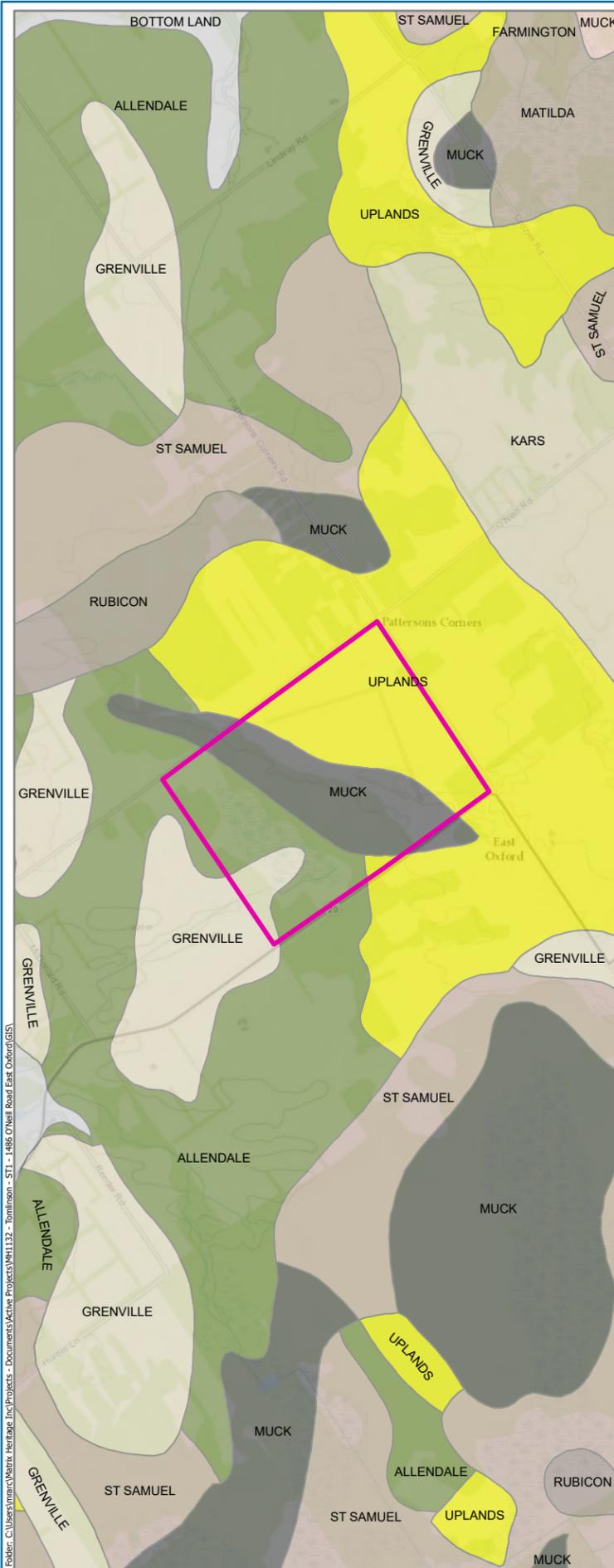


REFERENCES:
 LEEDS AND GRENVILLE, UC OF LEEDS AND GRENVILLE, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAF, NRCAN
 SEGMENT OF VILLAGE OF KEMPTVILLE INSET FROM WALLING 1861 MAP OF THE UNITED COUNTIES OF LEEDS AND GRENVILLE, CANADA WEST

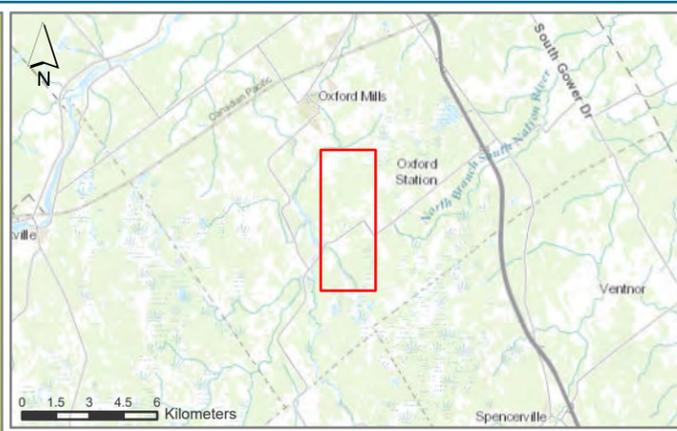
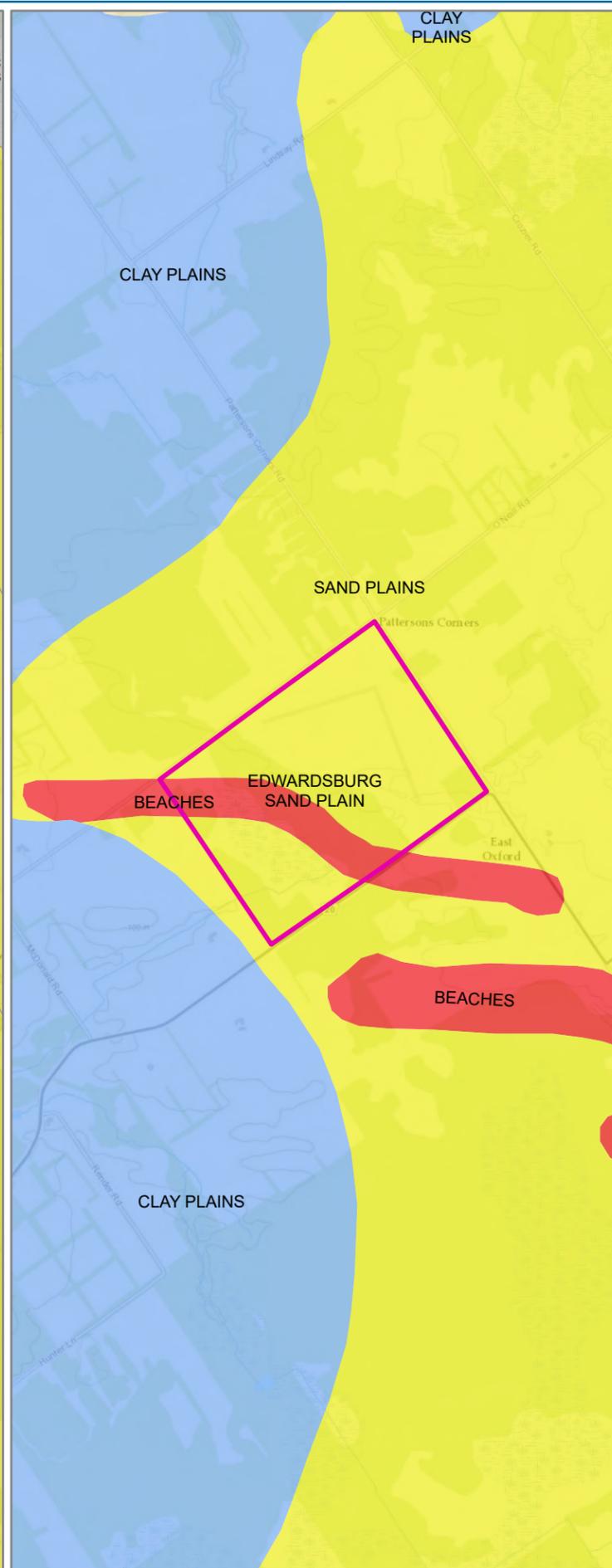
FILEMH1132 DATE 2022-10-24
 PROJECTION: NAD 1983 UTM Zone 18N CREATED BY: BM
 CHECKED BY: NK
 PROJECT
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 1486 O'NEIL ROAD, EAST OXFORD, ONTARIO

TITLE MAP
HISTORIC 4

Folder: C:\Users\matrix\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1132 - Tomlinson - ST1 - 1486 O'Neil Road East Oxford\GIS



- 3: PALEOZOIC BEDROCK
- 5B: STONE-POOR, CARBONATE-DERIVED SILTY TO SANDY TILL
- 10: FINE-TEXTURED GLACIOMARINE DEPOSITS
- 11B: LITTORAL-FORESHORE DEPOSITS
- 11C: FORESHORE-BASINAL DEPOSITS
- 20: ORGANIC DEPOSITS



LEGEND
 STUDY AREA



REFERENCES:
 LEEDS AND GRENVILLE, UC OF LEEDS AND GRENVILLE, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, GEOTECHNOLOGIES, INC., USGS, METI/NASA, EPA, USDA, AAFC, NRCAN, LEEDS AND GRENVILLE, UC OF LEEDS AND GRENVILLE, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN

FILE MH1132 DATE 2022-10-24
 PROJECTION: NAD 1983 UTM Zone 18N CREATED BY: BM CHECKED BY: NK
 PROJECT
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 1486 O'NEIL ROAD, EAST OXFORD, ONTARIO
 TITLE MAP
SOILS AND GEOLOGY 5

Folder: C:\Users\matrix\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1132 - Tomlinson - STI - 1486 O'Neil Road East Oxford\GIS

Appendix A: Photographic Catalogue

| Photo Number | Description | Bearing | Date | Photographer |
|--------------|--|---------|-----------|--------------|
| MH1132-D001 | View of some of the outbuildings from the driveway in the northeastern corner | 130 | 26-Oct-22 | A. Jackson |
| MH1132-D002 | View of the field in the northeastern corner | 71 | 26-Oct-22 | A. Jackson |
| MH1132-D003 | Driveway coming into the property in the northeast corner, showing trees and conditions | 161 | 26-Oct-22 | A. Jackson |
| MH1132-D004 | Facing west from the northeastern corner towards small stand of trees | 232 | 26-Oct-22 | A. Jackson |
| MH1132-D005 | Asphalt portion of driveway with hydro pole | 142 | 26-Oct-22 | A. Jackson |
| MH1132-D006 | Uninhabited house in northeastern portion | 225 | 26-Oct-22 | A. Jackson |
| MH1132-D007 | Yard area to the north of the house | 295 | 26-Oct-22 | A. Jackson |
| MH1132-D008 | Edge of the stand of trees by the cornfield just behind the house | 248 | 26-Oct-22 | A. Jackson |
| MH1132-D009 | Old satellite dish in lawn area behind house | 147 | 26-Oct-22 | A. Jackson |
| MH1132-D010 | Back of house | 75 | 26-Oct-22 | A. Jackson |
| MH1132-D011 | Yard behind house, tractor, greenhouse | 198 | 26-Oct-22 | A. Jackson |
| MH1132-D012 | Side of house facing the northeastern corner of the property, with hydro pole | 13 | 26-Oct-22 | A. Jackson |
| MH1132-D013 | Biggest barn building, with tractors | 67 | 26-Oct-22 | A. Jackson |
| MH1132-D014 | Roadway leading into the property, showing outbuildings, equipment, and general conditions | 154 | 26-Oct-22 | A. Jackson |
| MH1132-D015 | Asphalt driveway facing north towards access, showing hydro pole | 330 | 26-Oct-22 | A. Jackson |
| MH1132-D016 | Hard packed gravel driveway towards the east, showing outbuildings | 57 | 26-Oct-22 | A. Jackson |
| MH1132-D017 | General conditions in the shed on the biggest barn building | 157 | 26-Oct-22 | A. Jackson |
| MH1132-D018 | Small log structure | 343 | 26-Oct-22 | A. Jackson |
| MH1132-D019 | Field east of house | 173 | 26-Oct-22 | A. Jackson |
| MH1132-D020 | Main barn building with tractor | 250 | 26-Oct-22 | A. Jackson |
| MH1132-D021 | smaller shed, "smokehouse" | 304 | 26-Oct-22 | A. Jackson |
| MH1132-D022 | smaller shed, "smokehouse" | 241 | 26-Oct-22 | A. Jackson |
| MH1132-D023 | smaller shed, "smokehouse", close up | 220 | 26-Oct-22 | A. Jackson |
| MH1132-D024 | View of log house across the road and driveway entering from the east | 40 | 26-Oct-22 | A. Jackson |
| MH1132-D025 | Field just south of the sheds | 125 | 26-Oct-22 | A. Jackson |
| MH1132-D026 | Yard and shed just south of the house | 246 | 26-Oct-22 | A. Jackson |
| MH1132-D027 | General conditions between the "lawn" area and the "field" area | 68 | 26-Oct-22 | A. Jackson |
| MH1132-D028 | Evidence of logging | 189 | 26-Oct-22 | A. Jackson |
| MH1132-D029 | Evidence of logging | 215 | 26-Oct-22 | A. Jackson |
| MH1132-D030 | Logging evidence facing back to "smoke house" | 349 | 26-Oct-22 | A. Jackson |
| MH1132-D031 | Evidence of logging | 30 | 26-Oct-22 | A. Jackson |
| MH1132-D032 | General conditions between the "lawn" area and the "field" area | 131 | 26-Oct-22 | A. Jackson |
| MH1132-D033 | Evidence of logging | 42 | 26-Oct-22 | A. Jackson |
| MH1132-D034 | Disturbed soil along eastern edge, road visible behind | 52 | 26-Oct-22 | A. Jackson |
| MH1132-D035 | Edge of cornfield, showing berm and trees to the east | 189 | 26-Oct-22 | A. Jackson |
| MH1132-D036 | Strip of trees remaining between the cornfield and Patterson Corner's Road | 32 | 26-Oct-22 | A. Jackson |
| MH1132-D037 | Transition area between cornfield and remaining trees | 122 | 26-Oct-22 | A. Jackson |
| MH1132-D038 | Berm between field and trees | 349 | 26-Oct-22 | A. Jackson |
| MH1132-D039 | Transition area between cornfield and remaining trees | 154 | 26-Oct-22 | A. Jackson |
| MH1132-D040 | Transition area between cornfield and remaining trees, showing berm | 327 | 26-Oct-22 | A. Jackson |
| MH1132-D041 | Berm between field and trees, showing evidence of burning | 32 | 26-Oct-22 | A. Jackson |
| MH1132-D042 | Berm between field and trees, showing evidence of | 25 | 26-Oct-22 | A. Jackson |

| Photo Number | Description | Bearing | Date | Photographer |
|--------------|---|---------|-----------|--------------|
| MH1132-D043 | burning transition area between cornfield and remaining trees | 121 | 26-Oct-22 | A. Jackson |
| MH1132-D044 | Strip of trees, planted in rows | 152 | 26-Oct-22 | A. Jackson |
| MH1132-D045 | transition area between cornfield and remaining trees | 175 | 26-Oct-22 | A. Jackson |
| MH1132-D046 | Evidence of disturbed soils along the edge of the field | 213 | 26-Oct-22 | A. Jackson |
| MH1132-D047 | Trees and Patterson's Corners Road | 91 | 26-Oct-22 | A. Jackson |
| MH1132-D048 | Monitoring well in the southeastern corner | 245 | 26-Oct-22 | A. Jackson |
| MH1132-D049 | Trees along cornfield in the southeastern corner | 142 | 26-Oct-22 | A. Jackson |
| MH1132-D050 | Trees along cornfield in the southeastern corner | 176 | 26-Oct-22 | A. Jackson |
| MH1132-D051 | Transition between trees and cornfield along the southern edge, along County Road 20 | 224 | 26-Oct-22 | A. Jackson |
| MH1132-D052 | Transition between trees and cornfield along the southern edge, along County Road 20 | 72 | 26-Oct-22 | A. Jackson |
| MH1132-D053 | Overgrown section between the southern portion of the cornfield and County Road 20 | 174 | 26-Oct-22 | A. Jackson |
| MH1132-D054 | Transition between cornfield and overgrown portion | 242 | 26-Oct-22 | A. Jackson |
| MH1132-D055 | General view towards the southeastern portion of the study area | 76 | 26-Oct-22 | A. Jackson |
| MH1132-D056 | Overgrown sloping section between the southern portion of the cornfield and County Road 20 | 235 | 26-Oct-22 | A. Jackson |
| MH1132-D057 | Overgrown sloping section between the southern portion of the cornfield and County Road 20 | 186 | 26-Oct-22 | A. Jackson |
| MH1132-D058 | Overgrown sloping section between the southern portion of the cornfield and County Road 20 | 189 | 26-Oct-22 | A. Jackson |
| MH1132-D059 | Overgrown sloping section between the southern portion of the cornfield and County Road 20 | 240 | 26-Oct-22 | A. Jackson |
| MH1132-D060 | Pathway up ridge in grassy section south of cornfield | 7 | 26-Oct-22 | A. Jackson |
| MH1132-D061 | Overgrown sloping section between the southern portion of the cornfield and County Road 20 | 56 | 26-Oct-22 | A. Jackson |
| MH1132-D062 | Pathway up ridge in grassy section south of cornfield | 199 | 26-Oct-22 | A. Jackson |
| MH1132-D063 | Some pits dug in the grassy section at the edge of the cornfield, showing sandy conditions | 245 | 26-Oct-22 | A. Jackson |
| MH1132-D064 | View of grassy area, showing slope and ridge | 57 | 26-Oct-22 | A. Jackson |
| MH1132-D065 | Weedy conditions in the corner of the cornfield by County Road 20 | 175 | 26-Oct-22 | A. Jackson |
| MH1132-D066 | Facing west from the southern tip of the cornfield | 236 | 26-Oct-22 | A. Jackson |
| MH1132-D067 | General view of the transition area between the cornfield and the marshy portion to the west | 279 | 26-Oct-22 | A. Jackson |
| MH1132-D068 | Example of the conditions west of the cornfield, ruts in the soil | 262 | 26-Oct-22 | A. Jackson |
| MH1132-D069 | Example of the conditions west of the cornfield, piles of brush, banks of soil, water-loving plants | 226 | 26-Oct-22 | A. Jackson |
| MH1132-D070 | Evidence of wet soils | 212 | 26-Oct-22 | A. Jackson |
| MH1132-D071 | Example of the conditions west of the cornfield, piles of brush, banks of soil, water-loving plants | 262 | 26-Oct-22 | A. Jackson |
| MH1132-D072 | Example of the conditions west of the cornfield, piles of brush, banks of soil, water-loving plants | 242 | 26-Oct-22 | A. Jackson |
| MH1132-D073 | Example of the conditions west of the cornfield, piles of brush, banks of soil, water-loving plants | 185 | 26-Oct-22 | A. Jackson |
| MH1132-D074 | General view from the marshy area towards the corn field, the ridge is visible | 335 | 26-Oct-22 | A. Jackson |
| MH1132-D075 | General view from the marshy area towards the southeastern portion of the study area | 72 | 26-Oct-22 | A. Jackson |
| MH1132-D076 | Example of logging debris in the marshy area | 210 | 26-Oct-22 | A. Jackson |
| MH1132-D077 | General conditions in the southwestern portion | 184 | 26-Oct-22 | A. Jackson |
| MH1132-D078 | Example of the conditions west of the cornfield, piles of brush, banks of soil, water-loving plants | 237 | 26-Oct-22 | A. Jackson |
| MH1132-D079 | Evidence of wet soils | 250 | 26-Oct-22 | A. Jackson |
| MH1132-D080 | General view of the southern section, just west of | 203 | 26-Oct-22 | A. Jackson |

| Photo Number | Description | Bearing | Date | Photographer |
|--------------|---|---------|-----------|--------------|
| | the cornfield | | | |
| MH1132-D081 | Western edge of the cornfield, showing conditions | 38 | 26-Oct-22 | A. Jackson |
| MH1132-D082 | General conditions along the western edge of the cornfield, water, disturbed soils, logging activity | 254 | 26-Oct-22 | A. Jackson |
| MH1132-D083 | General conditions along the western edge of the cornfield, water, disturbed soils, logging activity | 260 | 26-Oct-22 | A. Jackson |
| MH1132-D084 | General conditions along the western edge of the cornfield, water, disturbed soils, logging activity | 204 | 26-Oct-22 | A. Jackson |
| MH1132-D085 | General conditions along the western edge of the cornfield, water, disturbed soils, logging activity | 237 | 26-Oct-22 | A. Jackson |
| MH1132-D086 | Western edge of the cornfield, showing conditions | 351 | 26-Oct-22 | A. Jackson |
| MH1132-D087 | General conditions along the western edge of the cornfield, water, disturbed soils, logging activity | 261 | 26-Oct-22 | A. Jackson |
| MH1132-D088 | General conditions along the western edge of the cornfield, water, disturbed soils, logging activity | 242 | 26-Oct-22 | A. Jackson |
| MH1132-D089 | Western edge of the cornfield, showing conditions | 343 | 26-Oct-22 | A. Jackson |
| MH1132-D090 | Large brush piles and disturbed ground along the base of the ridge, in the central northern portion | 259 | 26-Oct-22 | A. Jackson |
| MH1132-D091 | View towards the southwest from the ridge in the cornfield | 204 | 26-Oct-22 | A. Jackson |
| MH1132-D092 | View towards the central west from the ridge | 231 | 26-Oct-22 | A. Jackson |
| MH1132-D093 | View towards the central west from the ridge | 248 | 26-Oct-22 | A. Jackson |
| MH1132-D094 | View to the northwest along the ridge | 287 | 26-Oct-22 | A. Jackson |
| MH1132-D095 | View to the east over the cornfield atop the ridge | 347 | 26-Oct-22 | A. Jackson |
| MH1132-D096 | Transition between ridge and cornfield | 277 | 26-Oct-22 | A. Jackson |
| MH1132-D097 | General conditions on the ridge | 254 | 26-Oct-22 | A. Jackson |
| MH1132-D098 | General conditions on the ridge | 221 | 26-Oct-22 | A. Jackson |
| MH1132-D099 | Old tree on the ridge, facing the disturbance in the western half | 213 | 26-Oct-22 | A. Jackson |
| MH1132-D100 | General view of the ridge | 264 | 26-Oct-22 | A. Jackson |
| MH1132-D101 | General view of the ridge | 247 | 26-Oct-22 | A. Jackson |
| MH1132-D102 | Transition between ridge and cornfield | 270 | 26-Oct-22 | A. Jackson |
| MH1132-D103 | General view of the ridge | 268 | 26-Oct-22 | A. Jackson |
| MH1132-D104 | General conditions on the ridge | 206 | 26-Oct-22 | A. Jackson |
| MH1132-D105 | Roadway through the cornfield | 54 | 26-Oct-22 | A. Jackson |
| MH1132-D106 | General view along the ridge from the north | 126 | 26-Oct-22 | A. Jackson |
| MH1132-D107 | Roadway into the western portion, showing large piles of logging debris | 230 | 26-Oct-22 | A. Jackson |
| MH1132-D108 | Logging debris in northern portion | 212 | 26-Oct-22 | A. Jackson |
| MH1132-D109 | Large piles of brush and deep ruts in vert wet ground in the northwestern portion | 191 | 26-Oct-22 | A. Jackson |
| MH1132-D110 | Large piles of brush and deep ruts in vert wet ground in the northwestern portion | 232 | 26-Oct-22 | A. Jackson |
| MH1132-D111 | Large piles of brush and deep ruts in vert wet ground in the northwestern portion | 43 | 26-Oct-22 | A. Jackson |
| MH1132-D112 | Large piles of brush and deep ruts in vert wet ground in the northwestern portion | 238 | 26-Oct-22 | A. Jackson |
| MH1132-D113 | Large piles of brush and deep ruts in vert wet ground in the northwestern portion | 318 | 26-Oct-22 | A. Jackson |
| MH1132-D114 | Example of wet ground in northwestern portion | 247 | 26-Oct-22 | A. Jackson |
| MH1132-D115 | Piles of brush and marshy conditions in northwestern portion | 273 | 26-Oct-22 | A. Jackson |
| MH1132-D116 | Example of wet ground in northwestern portion | 217 | 26-Oct-22 | A. Jackson |
| MH1132-D117 | Large piles of brush and deep ruts in vert wet ground in the northwestern portion | 33 | 26-Oct-22 | A. Jackson |
| MH1132-D118 | Large piles of brush and deep ruts in vert wet ground in the northwestern portion | 64 | 26-Oct-22 | A. Jackson |
| MH1132-D119 | Track into northwestern portion, berms, wet | 210 | 26-Oct-22 | A. Jackson |
| MH1132-D120 | General conditions in the northwestern portion, ditch, berms, water-loving plants, ground disturbance | 154 | 26-Oct-22 | A. Jackson |
| MH1132-D121 | General wet conditions in the northwestern portion, water-loving plants | 304 | 26-Oct-22 | A. Jackson |
| MH1132-D122 | General wet conditions in the northwestern portion, | 326 | 26-Oct-22 | A. Jackson |

| Photo Number | Description | Bearing | Date | Photographer |
|--------------|---|---------|-----------|--------------|
| | water-loving plants | | | |
| MH1132-D123 | Track into northwestern portion, berms, wet | 29 | 26-Oct-22 | A. Jackson |
| MH1132-D124 | Logging debris in northwestern portion | 271 | 26-Oct-22 | A. Jackson |
| MH1132-D125 | Example of the ground conditions in the northwestern portion | 213 | 26-Oct-22 | A. Jackson |
| MH1132-D126 | General conditions in the northwestern portion | 177 | 26-Oct-22 | A. Jackson |
| MH1132-D127 | View towards the northwestern corner of the study area | 308 | 26-Oct-22 | A. Jackson |
| MH1132-D128 | Example of the ground conditions in the northwestern portion | 55 | 26-Oct-22 | A. Jackson |
| MH1132-D129 | Example of the ground conditions in the northwestern portion | 353 | 26-Oct-22 | A. Jackson |
| MH1132-D130 | Berms, disturbed soil, wet soil in northwestern portion | 83 | 26-Oct-22 | A. Jackson |
| MH1132-D131 | General conditions in the northwestern portion, ditch, berms, water-loving plants, ground disturbance | 4 | 26-Oct-22 | A. Jackson |
| MH1132-D132 | Berms, disturbed soil, wet soil in northwestern portion | 273 | 26-Oct-22 | A. Jackson |
| MH1132-D133 | Track in northwestern portion, heading towards the southwestern corner of the property | 150 | 26-Oct-22 | A. Jackson |
| MH1132-D134 | Small creek running into the southwestern portion of the study area, view towards adjacent property | 220 | 26-Oct-22 | A. Jackson |
| MH1132-D135 | Small creek running into the southwestern portion of the study area, view into the study area | 62 | 26-Oct-22 | A. Jackson |
| MH1132-D136 | General conditions in the central western portion, along the western edge of the study area | 20 | 26-Oct-22 | A. Jackson |
| MH1132-D137 | Logging debris and general conditions in the southwestern portion | 187 | 26-Oct-22 | A. Jackson |
| MH1132-D138 | General conditions in the southwestern portion | 6 | 26-Oct-22 | A. Jackson |
| MH1132-D139 | General conditions in the southwestern portion | 159 | 26-Oct-22 | A. Jackson |
| MH1132-D140 | Logging debris and general conditions in the southwestern portion | 52 | 26-Oct-22 | A. Jackson |
| MH1132-D141 | Logging debris and general conditions in the southwestern portion | 96 | 26-Oct-22 | A. Jackson |
| MH1132-D142 | Marshy conditions in the southwestern portion | 254 | 26-Oct-22 | A. Jackson |
| MH1132-D143 | Marshy conditions in the southwestern portion | 11 | 26-Oct-22 | A. Jackson |
| MH1132-D144 | General conditions facing north, showing marshy conditions | 320 | 26-Oct-22 | A. Jackson |
| MH1132-D145 | Ruts and wet muck soils of the southwestern portion | 93 | 26-Oct-22 | A. Jackson |
| MH1132-D146 | Ruts and wet muck soils of the southwestern portion | 76 | 26-Oct-22 | A. Jackson |
| MH1132-D147 | Ruts and wet muck soils of the southwestern portion | 39 | 26-Oct-22 | A. Jackson |
| MH1132-D148 | Ruts and wet muck soils of the southwestern portion | 285 | 26-Oct-22 | A. Jackson |
| MH1132-D149 | Logging debris and ruts and wet muck soils in the southwestern portion | 87 | 26-Oct-22 | A. Jackson |
| MH1132-D150 | Logging debris and ruts and wet muck soils in the southwestern portion | 27 | 26-Oct-22 | A. Jackson |
| MH1132-D151 | Logging debris and ruts and wet muck soils in the southwestern portion | 103 | 26-Oct-22 | A. Jackson |
| MH1132-D152 | Logging debris and ruts and wet muck soils in the southwestern portion | 201 | 26-Oct-22 | A. Jackson |
| MH1132-D153 | Logging debris and ruts and wet muck soils in the southwestern portion | 62 | 26-Oct-22 | A. Jackson |
| MH1132-D154 | Logging debris and ruts and wet muck soils in the southwestern portion | 351 | 26-Oct-22 | A. Jackson |
| MH1132-D155 | Logging debris and ruts and wet muck soils in the southwestern portion | 256 | 26-Oct-22 | A. Jackson |
| MH1132-D156 | Logging debris and ruts and wet muck soils in the southwestern portion | 15 | 26-Oct-22 | A. Jackson |
| MH1132-D157 | Logging debris and ruts and wet muck soils in the southwestern portion | 353 | 26-Oct-22 | A. Jackson |
| MH1132-D158 | Logging debris and ruts and wet muck soils in the southwestern portion | 359 | 26-Oct-22 | A. Jackson |
| MH1132-D159 | Logging debris and ruts and wet muck soils in the southwestern portion | 205 | 26-Oct-22 | A. Jackson |

| Photo Number | Description | Bearing | Date | Photographer |
|--------------|--|---------|-----------|--------------|
| | southwestern portion | | | |
| MH1132-D160 | View of the ridge from the central portion | 348 | 26-Oct-22 | A. Jackson |
| MH1132-D161 | View of the ridge, showing banked soils | 321 | 26-Oct-22 | A. Jackson |
| MH1132-D162 | General conditions of the northwestern portion, logging debris, disturbed, wet soils | 228 | 26-Oct-22 | A. Jackson |
| MH1132-D163 | General conditions of the northwestern portion, logging debris, disturbed, wet soils | 206 | 26-Oct-22 | A. Jackson |
| MH1132-D164 | Track along base of ridge | 325 | 26-Oct-22 | A. Jackson |
| MH1132-D165 | General conditions of the northwestern portion, logging debris, disturbed, wet soils | 239 | 26-Oct-22 | A. Jackson |
| MH1132-D166 | Track along base of ridge | 330 | 26-Oct-22 | A. Jackson |
| MH1132-D167 | General conditions of the northwestern portion, logging debris, disturbed, wet soils | 188 | 26-Oct-22 | A. Jackson |
| MH1132-D168 | General conditions of the northwestern portion, logging debris, disturbed, wet soils | 268 | 26-Oct-22 | A. Jackson |
| MH1132-D169 | Along the track in the north, base of the ridge | 330 | 26-Oct-22 | A. Jackson |
| MH1132-D170 | piles of brush and debris along the track in the northwestern portion | 48 | 26-Oct-22 | A. Jackson |
| MH1132-D171 | View along the ridge | 105 | 26-Oct-22 | A. Jackson |
| MH1132-D172 | Track up the ridge into the cornfield | 61 | 26-Oct-22 | A. Jackson |
| MH1132-D173 | Stand of trees behind the house | 18 | 26-Oct-22 | A. Jackson |
| MH1132-D174 | Open area, test pit-able, between the house area and the cornfield | 72 | 26-Oct-22 | A. Jackson |
| MH1132-D175 | Examples of random farm equipment around the grounds | 309 | 26-Oct-22 | A. Jackson |
| MH1132-D176 | Small stand of trees near the house | 95 | 26-Oct-22 | A. Jackson |
| MH1132-D177 | Behind one of the sheds, general conditions of the yard | 47 | 26-Oct-22 | A. Jackson |
| MH1132-D178 | General conditions of the yard, logs and equipment amongst the trees | 336 | 26-Oct-22 | A. Jackson |
| MH1132-D179 | Yard behind the house | 330 | 26-Oct-22 | A. Jackson |
| MH1132-D180 | Example of equipment and general conditions behind the house | 192 | 26-Oct-22 | A. Jackson |
| MH1132-D181 | Edge of lawn and cornfield | 288 | 26-Oct-22 | A. Jackson |
| MH1132-D182 | Back yard of the house | 10 | 26-Oct-22 | A. Jackson |
| MH1132-D183 | Stand of trees just west of the driveway | 253 | 26-Oct-22 | A. Jackson |

Appendix B: Document Catalogue

| Project | Description | Created By |
|---------------|---|----------------|
| MH1132 | Stage 1 Site Visit Field Notes (One Note File "MH1132 – 1486 O'Neill Road, Oxford Station - Field Notes.pdf") | Andrea Jackson |

Appendix C: Map Catalogue

| Map Number | Description | Created By |
|------------|--|-------------|
| 1 | Location | B. Mortimer |
| 2 | Map of area to be Licensed | B. Mortimer |
| 3 | Conditions, Recommendations, Photo Key | B. Mortimer |
| 4 | Historic Map | B. Mortimer |
| 5 | Soils, Physiography, and Surficial Geology | B. Mortimer |