

ARCHEOWORKS INC.

**Stage 4 Excavation of the
H1 (AIGs-508) Site
Within Proposed Development of 3225 Fifth Concession Road
Draft Plan of Subdivision 18T-87096
Lot 4, Concession 5
In the Geographic Township of Pickering
Now in the City of Pickering
Regional Municipality of Durham
Ontario**

**Project #: 345-PI8332-21
Licensee (#): Kim Slocki (P029)
PIF#: P029-1060-2022**

Original Report

May 4, 2023

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EXECUTIVE SUMMARY

Archeoworks Inc. was retained by *869547 Ontario Inc.* to conduct the Stage 4 excavation of the **H1 (AIGs-508)** site as part of the proposed development of 3225 Fifth Concession Road in the City of Pickering, Regional Municipality of Durham, Ontario. The site area is encompassed within Draft Plan of Subdivision 18T-87096, within Lot 4, Concession 5 of the Geographic Township of Pickering, Historic County of Ontario.

The Stage 4 excavation involved the hand-excavation of 38 one-square-metre units, resulting in the recovery of 183 Indigenous lithic artifacts, all consisting of debitage without any formal tools or diagnostic attributes. This was followed by mechanical removal of approximately 680 square metres of topsoil from the site area. However, no Indigenous or historic Euro-Canadian cultural features were encountered.

Given that no additional artifacts were recovered for the Euro-Canadian component of the H1 site during the Stage 4 fieldwork, the conclusions drawn from the Stage 3 AA — namely that the historic remains, which date from the early 1840s into the 1850s, represent a residential occupation attributable to one or several unrecorded labourer tenancies when non-resident landowners William Coffin (ca. 1838-1845) and Lawrence Heydon (1845-1861) owned the property, remain valid.

Analysis of the overall lithic assemblage from the Stage 3 and 4 fieldwork, on the other hand, suggests that the Indigenous component of the H1 site represents a small, specialized site for re-tooling, probably representing a single event in which a hunter discarded a broken point and fashioned a new one. The lack of diagnostic attributes, however, does not permit a designation more specific than Indigenous, and the site cannot be assigned to a specific time-period or technological tradition.

Based on the results of the completed Stage 4 excavation and completed artifact analysis, it is recommended that the **H1 (AIGs-508)** site be considered free of further archaeological concern.

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1.0 PROJECT CONTEXT

1.1 Objectives

The objectives of a Stage 4 site excavation, as outlined by the 2011 *Standards and Guidelines for Consultant Archaeologists* ('2011 S&G') published by the *Ministry of Citizenship and Multiculturalism* (MCM) (MCM, 2011), are as follows:

- To document the archaeological context, cultural features and artifacts for all parts of the archaeological site;
- To document the removal of the archaeological site; and
- To preserve the information about the archaeological site for future study.

1.2 Development Context

Archeoworks Inc. was initially retained to conduct a Stage 1-2 AA of the Draft Plan of Subdivision 18T-87096, covering lands within the property municipally addressed as 3225 Fifth Concession Road in the City of Pickering, Regional Municipality of Durham, Ontario (*Archeoworks Inc.*, 2022a – P1059-0074-2021) (*see Appendix A – Map 1*). This property, henceforth referred to as the “original study area,” is legally described as Part 1 of Plan 40R-25092, and is encompassed within Lots 3 and 4, Concession 5, in the Geographic Township of Pickering, Former County of Ontario.

During the Stage 2 field survey, a total of 58 Euro-Canadian artifacts were recovered from the excavation of 9 test pits and one 1m x 1m test unit near the northwest corner of the property (*see Maps 1-2*). The artifact collection — designated as **H1** and registered under the Borden number **AIGs-508** — was dated to the period 1840s to 1860s, and was recommended to be subjected to Stage 3 AA to further investigate its cultural heritage value (*Archeoworks Inc.*, 2022a).

Archeoworks Inc. was subsequently retained to conduct the Stage 3 AA of the H1 (AIGs-508) site, which consisted of the excavation of 34 test units (*see Map 2*). A total of 176 Indigenous lithic artifacts and 915 historic Euro-Canadian artifacts were recovered. No *in situ* potential cultural features were encountered, but a majority (n=117) of the Indigenous artifacts were recovered from subsoil.

With greater than 80% of the time span of occupation dating to before ca. 1870, the Euro-Canadian component of H1 (AIGs-508) was determined to have significant cultural heritage value or interest, as per *Section 3.4.1, Standard 1.c* of the 2011 S&G. Likewise, the Indigenous component of H1 was considered to have significant cultural heritage value or interest for having one or more test units that yielded 10 or more lithic artifacts, as per *Section 3.4.1, Standard 1.a* of the 2011 S&G. Both the Euro-Canadian and Indigenous components of the site therefore required a Stage 4 mitigation of development impacts. Since protection and avoidance was not

a viable option, Stage 4 excavation of the site within the project limits was recommended (Archeoworks Inc., 2022b – P1059-0114-2021).

The Stage 4 excavation, documented herein, continues work associated with the land development process triggered by the *Ontario Planning Act*. The Stage 4 excavation was conducted under the project direction of Ms. Kim Slocki, under archaeological consultant licence P029, in accordance with the *Ontario Heritage Act* (1990; amended 2021) and *2011 S&G*. Permission to conduct this stage of investigation and to collect artifactual remains associated with the H1 site was granted by *869547 Ontario Inc.* on March 24, 2022.

1.3 Historical Context

To establish the historical context of the site area, *Archeoworks Inc.* previously conducted the Stage 1-2 and Stage 3 AAs of the project area (2022a; 2022b) which included a comprehensive review of Indigenous and Euro-Canadian settlement history, and a review of available historic mapping and archival records.

The results of this background research, as it relates to the H1 site, are detailed below.

1.3.1 Pre-Contact Period

The pre-contact period of Southern Ontario includes numerous Indigenous groups that continually progressed and developed within the environment they inhabited (Ferris, 2013, p.13). **Table 1** includes a brief overview and summary of the pre-contact Indigenous history of Southern Ontario. In order to provide context more local to H1 (AIGs-508), information from the “Historical Review of the Carruthers Creek Watershed” in the *Carruthers Creek State of the Watershed Report* by the Toronto and Region Conservation Authority (TRCA, 2002, pp.7-11) are added at the end of each section.

Table 1: Pre-Contact Period

Period	Date Range	Overview and Attributes
PALEO-INDIAN		
Early	ca. 11000 to 8500 BC	Small groups of nomadic hunter-gatherers used seasonal and naturally available resources; sites are rare; hunted in small family groups that periodically gathered into larger groups/bands during favourable periods in the hunting cycle; campsites used during travel episodes and found in well-drained soils in elevated locations; sites found primarily along glacial strandlines per current understanding of regional geological history; artifacts include fluted and lanceolate stone points, scrapers, dart heads. - Gainey, Barnes, Crowfield Fluted Points (Early Paleo-Indian) - Holcombe, Hi-Lo, Lanceolates (Late Paleo-Indian) (Ellis and Deller, 1990, pp.37-64; Wright, 1994, p.25).
Late	ca. 8500 to 7500 BC	
As of 2002 no Paleo-Indian sites had been identified in the Carruthers Creek watershed (TRCA, 2002, p.7).		

Period	Date Range	Overview and Attributes
ARCHAIC		
Early	ca. 7800 to 6000 BC	<p>Descendants of Paleo-Indians; lithic scatters are the most commonly encountered site type; trade networks appear; artifacts include reformed fluted and lanceolate stone points with notched bases to attach to wooden shafts; ground-stone tools shaped by grinding and polishing; stone axes, adzes and bow and arrow; introduction of copper tools by Shield Archaic culture in Northern Ontario.</p> <ul style="list-style-type: none"> - Side-notched, corner-notched, bifurcate projectile points (Early Archaic) - Stemmed, Otter Creek/Other Side-notched, Brewerton side and corner-notched projectile points (Middle Archaic) - Narrow Point, Broad Point, Small Point projectile points (Late Archaic) (Dawson, 1983, pp.8-14; Ellis et al., 1990, pp.65-124; Ellis, 2013, pp.41-46; Wright, 1994, pp.26-28).
Middle	ca. 6000 to 2000 BC	
Late	ca. 2500 to 500 BC	
<p><i>As of 2002 five findspots yielding artifacts from the Archaic Period have been identified within the Carruthers Creek watershed, pointing to exploitation of places further inland from the Lake Ontario shore by Archaic peoples (TRCA, 2002, p.8).</i></p>		
WOODLAND		
Early	ca. 800 BC to AD 1	<p>Evolved out of Late Archaic Period; introduction of pottery, earliest of which were coil-formed, under-fired and likely utilitarian; two primary cultural complexes: Meadowood (broadly southern Ontario) and Middlesex (restricted to eastern Ontario); poorly understood settlement-subsistence patterns; artifacts include cache blades, and side-notched points that were often recycled into other tool forms; primarily Onondaga chert; commonly associated with Saugeen and Point Peninsula complexes; oral traditions of the <i>Michi Saagiig</i>/Mississauga Anishinaabeg claim descent from ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods.</p> <ul style="list-style-type: none"> - Meadowood side-notched projectile points (Ferris and Spence, 1995, pp.89-97; Gagné, 2015; Gitiga Migizi and Kapyrka, 2015, p.1; Spence et al., 1990, pp.125-142; Williamson, 2013, pp.48-61; Wright, 1994, pp.29-30).
Middle	ca. 200 BC to AD 700	<p>Three primary cultural complexes in Southern Ontario: Point Peninsula (generally throughout south-central and eastern Southern Ontario), Saugeen (generally in southwestern Southern Ontario), and Couture (generally in southwestern-most part of Ontario); “given the dynamics of hunter-gatherer societies, with high levels of interaction and intermarriage among neighbouring groups, one would not expect the existence of discrete cultures” and the “homogeneity of these complexes have been challenged” (Ferris and Spence, 1995, p.98); introduction of large “house” structures and substantial middens; settlements have dense debris cover indicating increased degree of sedentism; incipient horticulture; burial mounds present; shared preference for stamped, scallop-edged or tooth-like decoration, but each cultural complex had distinct pottery forms; Laurel Culture (ca. 500 BC to AD 1000) established in boreal forests of Northern Ontario.</p> <ul style="list-style-type: none"> - Saugeen Point projectile points (Saugeen) - Vanport Point projectile points (Couture) - Snyder Point projectile points - Laurel stemmed and corner-notched projectile points (Dawson, 1983, pp.15-19; Ferris and Spence, 1995, pp.97-102; Gagné, 2015; Hessel, 1993, pp.8-9; Spence et al., 1990, pp.142-170; Williamson, 2013, pp.48-61; Wright, 1994, pp.28-33; Wright, 1999, pp.629-649).
<p><i>As of 2002 two Initial (Early and Middle) Woodland Period sites — both short-term campsites — have been identified within the Carruthers Creek watershed (TRCA, 2002, p.9).</i></p>		

Period	Date Range	Overview and Attributes		
Late Woodland				
Late (Transitional)	ca. AD 600 to 1000	<p>Earliest Iroquoian development in Ontario: Princess Point culture, which exhibits few continuities from earlier developments with no apparent predecessors, and hypothesized to have migrated into Ontario; settlement data is limited, but oval houses are present; artifacts include ‘Princess Point Ware’ vessels that are cord-roughened, with horizontal lines and exterior punctation; smoking pipes and ground stone tools are rare; introduction of maize/corn horticulture; continuity between Princess Point and Late Woodland cultural groups.</p> <ul style="list-style-type: none"> - Triangular projectile points <p>(Ferris and Spence, 1995, pp.102-106; Fox, 1990, pp.171-188; Gitiga Migizi and Kapyrka, 2015, pp.1-3).</p> <table border="1" data-bbox="537 632 1419 1184"> <thead> <tr> <th data-bbox="537 632 1419 663"><i>Oral Traditions</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="537 663 1419 1121"> <p>According to their oral traditions, the north shore of Lake Ontario in Southern Ontario was occupied throughout the entire Late Woodland Period by the <i>Michi Saagiig</i> (Mississauga Anishinaabeg); their traditional territory extended north where they would hunt and trap during the winter months, followed by a return to Lake Ontario in the spring and summer; “the traditional territories of the Michi Saagiig span from Gananoque in the east, all along the north shore of Lake Ontario, west to the north shore of Lake Erie at Long Point. The territory spreads as far north as the tributaries that flow into these lakes, from Bancroft and north of the Haliburton highlands” (Gitiga Migizi and Kapyrka, 2015, p.1); oral traditions speak of people (the Iroquois) coming into their territory between AD 500-1000 who wished to establish villages and grow corn; treaties were made allowing the Iroquois to stay in their traditional territories (Gitiga Migizi and Kapyrka, 2015, pp.1-3).</p> <p>This oral tradition is not supported by other First Nation communities based on both archaeological evidence and other oral traditions (<i>see Appendix B</i>).</p> </td> </tr> </tbody> </table>	<i>Oral Traditions</i>	<p>According to their oral traditions, the north shore of Lake Ontario in Southern Ontario was occupied throughout the entire Late Woodland Period by the <i>Michi Saagiig</i> (Mississauga Anishinaabeg); their traditional territory extended north where they would hunt and trap during the winter months, followed by a return to Lake Ontario in the spring and summer; “the traditional territories of the Michi Saagiig span from Gananoque in the east, all along the north shore of Lake Ontario, west to the north shore of Lake Erie at Long Point. The territory spreads as far north as the tributaries that flow into these lakes, from Bancroft and north of the Haliburton highlands” (Gitiga Migizi and Kapyrka, 2015, p.1); oral traditions speak of people (the Iroquois) coming into their territory between AD 500-1000 who wished to establish villages and grow corn; treaties were made allowing the Iroquois to stay in their traditional territories (Gitiga Migizi and Kapyrka, 2015, pp.1-3).</p> <p>This oral tradition is not supported by other First Nation communities based on both archaeological evidence and other oral traditions (<i>see Appendix B</i>).</p>
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Early	ca. AD 900 to 1300	<p>Two primary Iroquoian cultures in Southern Ontario: Glen Meyer (located primarily in southwestern Ontario from Long Point on Lake Erie to southwestern shore of Lake Huron) and Pickering (encompassed north of Lake Ontario to Georgian Bay and Lake Nipissing); early houses were small and elliptical; developed into multi-family longhouses and some small, semi-permanent palisade villages; adoption of greater variety of harvest goods; increase in corn-yielding sites; well-made and thin-walled clay vessels with stamping, incising and punctation; crudely made smoking pipes, and worked bone/antler present; evolution of ossuary burials; grave goods are rare and not usually associated with a specific individual.</p> <ul style="list-style-type: none"> - Triangular-shaped, basally concave projectile points with downward projecting corners or spurs <p>(Ferris and Spence, 1995, pp.106-109; Williamson, 1990, pp.291-320).</p>		
Middle	ca. AD 1300 to 1400	<p>Two primary Iroquoian cultures in Southern Ontario: Uren and Middleport; increase in village sizes (0.5 to 1.7 hectares) and campsites (0.1 to 0.6 hectares) appear, some with palisades; classic longhouse takes form; increasing reliance on maize and other cultigens such as beans and squash; intensive exploitation of locally available land and water resources; decorated clay vessels decrease; well-developed clay pipe complex that includes effigy pipes; from Middleport emerged the Huron-Wendat, Petun, Neutral Natives and the Erie.</p> <ul style="list-style-type: none"> - Triangular and (side of corner or corner removed) notched projectile points - Middleport Triangular and Middleport Notched projectile points <p>(Dodd et al., 1990, pp.321-360; Ferris and Spence, 1995, pp.109-115).</p>		

Period	Date Range	Overview and Attributes
Late	ca. AD 1400 to 1600	<p>Algonquian-speaking groups (e.g., Mississauga, Odawa, Ojibwe, Chippewa, etc.) maintain stable relations with Iroquoian-speaking groups (e.g., Huron-Wendat, Petun, Neutral, Petun), who continued to establish settlements in southern Ontario according to <i>Michi Saagig</i> oral tradition (Gitiga Migizi and Kapyrka, 2015, pp.1-3). Two major Iroquoian groups: the Neutral to the west of the Niagara Escarpment and Huron-Wendat to the east; Huron-Wendat villages distributed along “the north shore of Lake Ontario from just west of Toronto to Belleville and north in a triangular area bounded on the Northeast by the Trent River system, and on the west roughly by the Niagara escarpment” (Ramsden, 1990, p.363); within this large area, Huron-Wendat sites occur in the valleys of the Humber, Rouge, Duffin Creek, Trent valleys, Lake Scugog and Simcoe County (Ramsden, 1990, p.363); Scugog Carrying Place Trail (or Scugog Trail) “linked Lake Scugog with Lake Ontario to the south and Lake Simcoe to the northwest” through the southern townships of the County of Ontario (Karcich, 2013 p.32); longhouses; villages enlarged to 100 longhouses clustered together as horticulture (maize, squash and beans) gained importance in subsistence patterns; villages chosen for proximity to water, arable soils, available fire wood and defensible position; diet supplemented with fish; ossuaries; tribe/band formation; gradual relocation to north of Lake Simcoe.</p> <p>- Huron-Wendat points are limited but change from predominantly side-notched to unnotched triangular (Ferris and Spence, 1995, pp.115-122; Gitiga Migizi and Kapyrka, 2015, pp.1-3; Heidenreich, 1978, pp.368-388; Ramsden, 1990, pp.361-384; Warrick, 2000, p.446; Warrick, 2008, p.15).</p>
<p><i>As of 2002 no Late Woodland sites have been identified within the Carruthers Creek watershed (TRCA, 2002, p.10).</i></p>		

1.3.2 Contact Period

The contact period of Southern Ontario is defined by European arrival, interaction and influence with the established Indigenous communities of Southern Ontario. **Table 2** includes an overview of some of the main developments that occurred during the contact period of Southern Ontario.

Table 2: Contact Period

Period	Date Range	Overview and Attributes
European Contact	ca. AD 1600s	<p>Algonquian-speaking groups (e.g., Ojibway, Chippewa, Odawa, Mississauga, etc.) continue to inhabit Ontario, alongside Iroquoian-speaking groups such as the Huron-Wendat north of Lake Simcoe and the Neutral (<i>Attiewandaron</i>) in the Niagara Peninsula; intermarriage between Algonquian- and Iroquoian-speaking groups; Algonquian-speaking groups of the Anishinaabeg often wintered with Iroquoian neighbours, resulting in a complex archaeological record; oral traditions also speak of the <i>Michi Saagig</i> “paddling away” to their northern hunting territories to escape disease and warfare in southern Ontario at this time; French arrival into Ontario; extensive trade relationship with Huron-Wendat and French established; trade goods begin to replace traditional tools/items; Jesuit and Recollect missionaries; epidemics (Fox and Garrad, 2004, p.124; Gitiga Migizi and Kapyrka, 2015, pp.1-3; Heidenreich, 1978, pp.368-388; McMillan and Yellowhorn, 2004, pp.110-111; Trigger, 1994, pp.47-55; Warrick, 2008, pp.12, 245).</p>

Period	Date Range	Overview and Attributes
Five Nations of Iroquois (Haudenosaunee)	ca. AD 1650s	The Five (later Six) Nations of Iroquois (or Haudenosaunee), originally residing south of the Great Lakes, engaged in warfare with other Iroquois groups as their territory no longer yielded enough furs; the Five Nations, armed with Dutch firearms, attacked and destroyed numerous Huron-Wendat villages in 1649-50; the small groups that remained became widely dispersed throughout the Great Lakes region, ultimately resettling in Quebec, in southwestern Ontario and in America; the Five Nations established settlements along the northern shoreline of Lake Ontario at strategic locations along canoe-and-portage routes and used territory for extensive fur trade; villages included Ganatsekwyagon at the mouth of the Rouge River; European fur trade and exploration continues (Abler and Tooker, 1978, p.506; Gitiga Migizi and Kapyrka, 2015, p.2; Robinson, 1965, pp.15-16; Schmalz, 1991, pp.12-34; Trigger, 1994, pp.53-59; Williamson, 2013, p.60).
Anishinaabeg Return (and Arrival)	ca. AD 1650s to 1700	Some narratives tell of Mississauga Anishinaabeg groups either returning (Gitiga Migizi and Kapyrka, 2015, p.2) or moving by military conquest (MCFN, 2017) to southern Ontario in the 1690s; by 1690s, the Haudenosaunee settlements were abandoned; battles fought throughout Southern Ontario; by 1701, Haudenosaunee were driven out by the Anishinaabeg and returned to their homelands south of the Great Lakes though some remained in parts of Southern Ontario; the Mississauga settled in the basin of Lake Scugog; the term 'Mississauga' was applied to those on the north shore of Lake Ontario; they were focused on hunting/fishing/gathering with little emphasis on agriculture; temporary and moveable houses (wigwam) left little archaeological material behind (Hunter, 1909, p.10; Hathaway, 1930, p.433; Trigger, 1994, pp.57-59; Johnston, 2004, pp.9-10; Gibson, 2006, pp.35-41; Mississaugas of Scugog Island First Nation, 2021; Smith, 2013, pp.16-20; Williamson, 2013, p.60).
Trade, Peace and Conflict	ca. AD 1700 to 1770s	Great Peace negotiations of 1701 in Montreal established peace around the Great Lakes; collectively referred to the Anishinaabeg and Five Nations of Iroquois as the First Nations; European exploration resumed; the Anishinaabeg continued to trade with both the English and the French; beginnings of the Métis and their communities; skirmishes between France and Britain as well as their respective First Nations allies erupt in 1754 ("French and Indian Wars") and forms part of the larger Seven Years' War; French defeat transferred the territory of New France to British control; Treaty of Paris signed in 1763; Royal Proclamation of 1763 established framework for negotiation of treaties with First Nations and the British administration of North American territories ceded by France to Britain; uprising by several First Nations groups against British ("Pontiac's War"); fur trade continued until Euro-Canadian settlement (Hall, 2019a; Jaenen, 2021; Johnston, 2004, pp.13-14; Schmalz, 1991, pp.35-62, 81; Surtees, 1994, pp.92-97).
Early British Administration and Early Euro-Canadian Settlement	ca. AD 1770s to 1800s	American Revolutionary War (1775-1783) drove large numbers of United Empire Loyalists (those who were loyal to the British Crown), military petitioners, and groups who faced persecution in the United States to re-settle in Upper Canada; Treaty of Paris signed in 1783/1784 formally recognized the independence of the United States; Province of Quebec divided in 1791 into sparsely populated Upper Canada (now southern Ontario) and culturally French Lower Canada (now southern Quebec); Jay's Treaty of 1795 establishes American/Canadian border along the Great Lakes; large parts of Upper Canada opened to settlement from the British Isles and continental Europe after land cession treaties were negotiated by the British Crown with various First Nations groups (Department of Indian Affairs, 1891; Ontario Ministry of Indigenous Affairs, 2021; Hall, 2019b; Jaenen, 2014; Surtees, 1994, p.110; Sutherland, 2020).

In its “Historical Review of the Carruthers Creek Watershed” in the *Carruthers Creek State of the Watershed Report* the TRCA notes that no large, important village sites — such as the ones built by the Seneca near the mouths of the Rouge (Ganatsekiagon) and Humber (Teiaiaagon) rivers — were established in the Carruthers Creek watershed during the Contact Period. However, Indigenous peoples would have continued to exploit the resources available in the vicinity (TRCA, 2002, pp. 11).

1.3.3 Euro-Canadian Settlement History

In 1787, senior officials from the Indian Department met with representatives of certain Anishinaabe groups to acquire land along the northern shores of Lake Ontario extending northward to Lake Simcoe in what is sometimes referred to as the “Gunshot Treaty” or the “Johnson-Butler Purchase.” The documentation which formalized the 1787 transaction did not include an exact description of the area surrendered, and these irregularities resulted in Lieutenant-Governor John Graves Simcoe invalidating the surrender. The Williams Treaties of 1923 provided for the last surrender of a substantial portion of the territory that had not been given up to government that included the Township of Pickering (Department of Indian Affairs, 1891, pp.liii-liv; Surtees, 1986, p.19; Surtees, 1994, p.107; Ontario Ministry of Indigenous Affairs, 2021).

1.3.3.1 Township of Pickering

The Township of Pickering, initially known as Township No. 9, then given the name Edinburgh, was first surveyed in 1791 by Augustus Jones. The township was primarily settled after Asa Danforth completed the construction of Kingston Road (now Durham Highway 2), a commuter road from Ancaster to Kingston, which was two rods wide to accommodate horses and built a safe distance from the lake shore. The first settler in the township was William Peak, a trader and interpreter who settled at the mouth of Duffins Creek. The first influx of settlers into the township dates from the second decade of the 19th century when the southeastern portion of the township was settled by Quakers from the eastern United States, specifically, those that came with Timothy Rogers. After helping settle numerous Quakers in Newmarket, Rogers returned to Vermont and brought over several more Quaker families and helped settle them south and east of Duffins Creek (Farewell, 1907, pp.11-13; Wood, 1911, pp.16-18).

Settlement continued with the timber boom, as the Township of Pickering was characterized by rolling hills covered in hardwood trees with little pine intermixed. By 1846, of the total 74,660 acres within the Township of Pickering, 63,061 acres were taken up and 24,551 acres were under cultivation. Population numbers increased from 3,752 inhabitants in 1842 to 6,385 inhabitants in 1850, demonstrating the prosperity of the Township of Pickering at this time. The Township of Pickering was considered one of the best settled townships in the County of Ontario and contained a number of fine farms. The economic centres were Audley and Duffins Creek (later Pickering Village) (Smith, 1846, p.146; J.H. Beers & Co., 1877; p.ix; Murison, 1970, p.3; Nisbet, 1995, p.18).

With the continuation of settlement along the north shore of Lake Ontario, the lake itself became a highway of communication and exports. At Frenchman’s Bay, the natural enclosed harbour was

proposed as a location for a commercial harbour that was believed to rival the port at Liverpool, England. In the 1840s, the Pickering Harbour Company was formed for the development and management of the harbour. By 1845, a channel was opened along the gravel bar that enclosed the harbour, and within a few years, Pickering Harbour, or Port of Liverpool, was a busy port exporting pine logs, timber and agricultural products (Wood, 1911, pp.163-164).

In 1875, the Pickering Harbour was improved which allowed for the export of large quantities of barley grown in the Township of Pickering to the United States. During the latter part of the 19th century, the Township of Pickering experienced an economic slump, where mills and small businesses closed and much of its population emigrated to other parts of Canada (J.H. Beers & Co., 1877; Wood, 1911, p.166; Nisbet, 1995, p.19).

1.3.3.2 Village of Kinsale

Kinsale, located at the intersection of present-day Highway 7 and Kinsale Road/Audley Road in the Geographic Township of Pickering, is located north of the H1 (AIGs-508) site area. By the middle of the 19th century a post office (opened 1856), a saddlery, a harness maker, a carriage maker, a wagon maker and a school had been established in Kinsale (McKay, 1961, p.119; Wood, 1911, p.168). By 1873, the population stood at about 90 (Crossby, 1873, p.160; LAC, 2021).

1.3.4 Documented Past Land Use

1.3.4.1 Land Use History for the South Half of Lot 4, Concession 5

Extensive archival research was conducted for the area where the H1 (AIGs-508) site lies — namely the south half of Lot 4, Concession 5 (“L4C5”), Township of Pickering — in accordance with the *Section 3.1, Standard 1* of the 2011 S&G and *The Archaeology of Rural Historical Homesteads Draft Technical Bulletin* (MCM, 2014). The review of available archival data pertaining to L4C5 was conducted via various online resources, which include: *Abstract Land Indexes, Land Petitions of Upper Canada, Township Papers, Census Records, Tax Assessment Rolls* and *County Directories*. Raw archival data from the *Abstract Land Indexes* and the *Tax Assessment Rolls* are presented within **Appendix C** as **Tables C1** and **C2** respectively.

SUMMARY

The Crown Patent for all 200 acres of L4C5 was initially obtained by James Coffin in 1799. James Coffin passed away in 1838, and his son William later sold the S½ of L4C5 to Lawrence Heydon in 1845. Lawrence Heydon was a resident of the Township of Whitby and eventually relocated to the Township of York by 1850. He was listed as a non-resident in the *Tax Assessment Rolls* on the S½ of L4C5 from 1851 and 1861; no tenants were listed on the S½ of L4C5 during Lawrence Heydon’s ownership. In 1861, Lawrence Heydon sold the S½ of L4C5 to William Stephenson who arrived from England in 1850 and had been residing as a tenant on the south half of nearby Lot 3, Concession 6 at the time of purchase, and resided there until ca. 1867.

The first known direct occupation on the property dates to ca. 1863. The *Tax Assessment Rolls* indicate that in the 1860s the S½ of L4C5 was divided into two parcels: a one-acre part occupied

by labourers Lee Hudson (ca. 1863 to 1864) and Jacob Winters (ca. 1865 to 1869) and a 99-acre part owned by William Stephenson, who moved in to the property only ca. 1867.

William Stephenson resided in the S½ of L4C5 until 1885; he moved to Orillia five weeks before his death. John Cawthra gained owned the property from 1885 to 1888, but there is no indication that he or anyone lived on the property. In 1888, John Cawthra sold the S½ of L4C5 to Albert Asa Post, the owner of the neighbouring south 100 acres of Lot 3, Concession 5. From 1889 to 1899, the south 100 acres of L4C5 was combined with the south 100 acres of Lot 3, Concession 5. Albert Asa Post’s tenants — Michael Byron (ca. 1889) and Patrick O’Grady (ca. 1891-1895) — appear to have lived on the south half of Lot 3, Concession 6, and merely used the S½ of L4C5 as additional farmland and did not settle there.

In 1896, the south halves of Lots 3 and 4, Concession 5 were sold to Charles Henry Pickey, who retained ownership until 1914. He was listed in the 1901 *Census Record* in a one-storey, seven-room wood dwelling located on L4C5. This dwelling is likely the structure depicted within the 1914 military topographic map; it stood until the mid-20th century.

The complete timeline of recorded occupation of the site area to the year 1914 is presented in **Table 3**.

Table 3: Timeline of Recorded Occupation of the South Half of Lot 4, Concession 5 up to 1914

Date	Owner	Occupant(s)
All of Lot 4, Concession 5, Township of Pickering, County of Ontario – 200 acres		
1799-1838	James Coffin	Vacant
	<p>* James Coffin obtained the Crown Patent for all 200 acres of L4C5. This was registered in the <i>Abstract Land Index</i> on the 8th of August 1799.</p> <p>* According to the <i>Township Papers</i>, James Coffin, an esquire and United Empire Loyalist, received the location ticket for all 200 acres of L4C5 (as well as an additional 400 acres of Lots 3 and 6, Concession 5) on an unlisted day (Township Papers, Pickering: film 1398870 Items 1-899).</p> <p>* Between 1797 and 1818, James Coffin petitioned for land in the Town of Newark (now the Niagara-on-the-Lake) and in the Township of Sidney, in the County of Hastings (Land Petitions of Upper Canada, 1763-1865: Coffin, James: Bundle C 3, Petition 165, 203; C 4, Petition 16, microfilm, C-1648; Bundle C11, Petition 159, microfilm C-1652). It appears that at the time of his first petition on the 13th of July 1797, James Coffin noted he arrived in Lower Canada and joined the British military at the commencement of the American War. He resettled in Upper Canada; however, his request for land was denied since he was only a resident due to his military duty and only when he became “an actual & bona fide settler in the Province in his private character, his petition [would] be attended to.” By the 20th of August 1797, he petitioned for and received land in the Town of Newark.</p>	
South Half of Lot 4, Concession 5, Township of Pickering, County of Ontario – 100 acres		
1838-1845	William Coffin	Vacant
	<p>* Only one individual was listed on L4C5 in Walton’s 1837 <i>Toronto & Home District Commercial Directory</i>: John Clarke (p.119); from later documents he is known to have occupied the north half of L4C5. The division of L4C5 into north and south halves therefore likely occurred even before 1838 (see below).</p>	

Date	Owner	Occupant(s)
		<p>* In 1838, William Coffin, the executor of James Coffin, sold the north 100 acres of L4C5 to John McDonell (or McDonald). Two years later, the north 100 acres of L4C5 was sold to John Clarke, who was a resident of the Township of Pickering (Instrument and Deeds, no. 16616 & 17949: film 179191). The south half was retained by the Coffin family; it very likely remained unoccupied.</p>
1845-1861	Lawrence Heydon	Vacant
		<p>* In March of 1845, William Coffin (who was a resident of the City of Montreal), the heir at law of the late James Coffin (formerly of the City of Quebec), sold the south 100 acres of L4C5 to Lawrence Heydon of the Township of Whitby for £105 (Instrument and Deed, no.24549: film 179192).</p> <p>* According to J.E.C. Farewell's 1907 <i>County of Ontario: Short Notes as to the Early Settlement and Progress of the County</i>, "in 1821 'the four Irishmen' arrived from Ireland. They were John Borlase Warren, William Warren, Laurence Hayden [Lawrence Heydon] and O'Callaghan Holmes. They were County of Cork men and they entered into an agreement to emigrate to Canada and carry on in partnership agricultural pursuits. They settled north of Hamers' Corner. Messrs. J. B. Warren, Hayden and Holmes were commissioners of the Court of Requests for Whitby and Reach...Mr. Hayden is said to have been the first Roman Catholic who settled in South Ontario [county]. At the time of his death, he was the chief clerk of the Court of Common Pleas at Toronto" (Farewell, 1907, pp.22-23).</p> <p>* Only one individual was listed on L4C5 in Brown's 1846 <i>Toronto-City and Home District Directory</i>: John Clarke (p.58), who is known to have occupied the north part of the lot. [Lawrence] Hayden was listed on Lot 34, Concession 1 in the Township of Whitby (p.108). Additionally, he was listed on Lot 35, Concession 1 in the Township of Whitby in Walton's 1837 <i>Toronto & Home District Commercial Directory</i> (p.156), indicating that he did not settle on L4C5.</p> <p>* Only the Personal Schedule of the 1851 <i>Census Record</i> is available for Part 1 of Pickering Township (containing the eastern portion, i.e. Lots 1 to 18), preventing direct identification of individuals and the lands they occupied (1851 Census Record, Township of Pickering, Part 1: microfilm c-11742).</p> <p>* Only one individual is listed on L4C5 in Rowsell's 1850-1 <i>City of Toronto and County of York Directory</i>: John Clarke (p.68). Lawrence Heydon was listed as a gentleman who lived on Yonge, near Carleton Street (p.60), indicating he did not occupy the property.</p> <p>* The first available <i>Tax Assessment Roll</i> for the Township of Pickering dates to 1852. From this time to 1862, the <i>Tax Assessment Rolls</i> were segregated into Residents and Non-Residents (the latter contained in several pages towards the end of the roll). All entries were then organized by Concession, then Lot. From 1852 to 1861, Lawrence Heydon was listed as a non-resident and owner of the south 100 acres of L4C5. During this time, no tenants (or occupants) were listed on the south 100 acres of L4C5; the resident of the north half was John Clarke.</p> <p>* In the 1860 <i>Tremaine Map of the County of Ontario</i> Lawrence Hayden is identified as the owner of the south half of L4C5, and no structures are depicted within the property (<i>see Map 3</i>).</p> <p>* Only one farm is enumerated in the 1861 <i>Census Record</i>: that of John Clarke, who occupied the north 100 acres of L4C5 (1861 Census Record, Township of Pickering, Agricultural Census, Enumeration District No.3, p.26, line 5: microfilm c-1057). - The owner of the south half, Lawrence Hayden, was listed in Enumeration District No. 3 in the Township of York (south east part). He was a 57-year-old from Ireland who was a clerk of the borough. He listed with his 50-year-old wife, Barbara and their three adult children: Barbara (b.1832), Judith (b.1834) and Lawrence (b.1835) (1861 Census Record, Township of York, Personal Census, Enumeration District No.3, p.125, lines 1-6: microfilm c-1090).</p>

Date	Owner	Occupant(s)
1861-1885	William Stephenson (1861 to 1872)	<i>1-acre parcel:</i> Lee Hudson (ca. 1863 to 1864) Jacob Winters (ca. 1865 to 1869) <i>99-acre parcel:</i> William Stephenson (ca. 1867 to 1885)
	Barbara Heydon (1872 to 1873)	
	Joseph Davids (1872 to 1881)	
	William Stephenson (1881 to 1885)	
<p>* In September of 1861, Lawrence Heydon (who was noted be of the City of Toronto) and his wife Barbara, sold the south 100 acres of L4C5 to William Stephenson (of the Township of Pickering) for £1,000 (Instrument and Deed, No.17398: film 179195). William Stephenson and his wife, Ann Jessie, mortgaged £900 from Lawrence Heydon (Instrument and Deed, No.17369: film 179195).</p> <p>- William Stephenson was a Methodist Preacher from Yorkshire, England. He was married to his first wife, Catherine Archbutt 1830 and together they had eight children. William and Catherine Stephenson, along with their children, arrived in Canada in about 1843. Catherine Archbutt died during the 1849 cholera epidemic, and William Stephenson married Catherine’s sister, Sarah. Their marriage was brief, likely due to her death, and William Stephenson married a third time, to Ann Jessie Davids (Ancestry [username: Oublieh], 2021).</p> <p>* William Stephenson was listed on Lot 8, Concession 2 of Pickering Township in Rowsell’s 1850-1 <i>City of Toronto and County of York Directory</i> (p.74).</p> <p>* William Stephenson [Stevenson] was enumerated in the 1861 <i>Census Record</i> on the south half of Lot 3, Concession 6 (1861 Census Record, Township of Pickering, Agricultural Census, Enumeration District No.2, p.24, line 4: microfilm c-1057). Since William Stephenson was not listed in any land transactions in the <i>Abstract Land Indexes</i> for Lot 3, Concession 6, he was likely only a tenant on that property. He was a 52-year-old farmer from England who lived with his 41-year-old wife, Jessie, their three children (Samuel, Charles and Jessie), 15-year-old Arthur Bloomfield, 45-year-old Edmond Stevenson, and George Coats, a 28-year-old labourer (1861 Census Record, Township of Pickering, Personal Census, Enumeration District No.2, p.32, lines 5-12: microfilm c-1057).</p> <p>* From 1863 to 1867, two parcels were enumerated in the <i>Tax Assessment Records</i> in the south 100 acres of L4C5: a one-acre parcel occupied by Lee Hudson (years: 1863) and Jacob Winters (years 1865, 1867) and a 99-acre parcel owned by William Stephenson. During this time, William Stephenson was listed as a householder (or tenant) on 98 acres of Lot 4, Concession 6 that was owned by David L. Reid.</p> <p>* Three individuals are listed on L4C5 in Conner & Coltson’s 1869-70 <i>County of Ontario Directory</i>: James D. Clark, a freeholder; William Stephenson, a freeholder; and Jacob Winter, a labourer and householder (pp.137, 147, 149). James D. Clark was located on the north 100 acres of L4C5, leaving the remaining two as occupants of the south half.</p> <p>* Two individuals are enumerated on L4C5 in the 1871 <i>Census Record</i>: Phoebe Clark (John Clark’s widow) on the north 100 acres of L4C5, and William Stephenson on the south 100 acres of L4C5 (1871 Census Record, Township of Pickering, Schedule No.4, Division No.3, p.2, line 6; p.8, line 10: microfilm C-9973/4).</p> <p>- William Stephenson was listed as a 64-year-old farmer from England who lived with his 52-year-old wife, Jessie, and their two children: Charles (b.1858) and Jessie (b.1860). Of the 100 acres of land occupied, 60 acres were improved (of which 20 acres were in pasture and one acre was in gardens/orchards). He farmed wheat, peas, beets, potatoes, turnip, hay and hops. He was also listed as owning one dwelling house, and one barn/stable (1871 Census Record, Township of Pickering, Division No.3, p.7, lines 10-13, microfilm C-9973/4).</p>		

Date	Owner	Occupant(s)
		<p>* Lawrence Heydon passed away in 1868 (Find A Grave, 2011) and at the time of his death, William Stephenson had not completed his mortgage payments. Consequently, likely to settle Lawrence Heydon's estate, a quit claim was issued in 1872 returning the south 100 acres of L4C5 to his widow Barbara Heydon. Barbara Heydon sold the south 100 acres to Joseph Davids (resident of the City of Toronto, and probably a relative of William Stephenson's wife Ann Jessie) for \$2,200. A subsequent mortgage for \$2,850 was taken out between Joseph Davids and two trustees (William R. G. Elwell of the City of London, England and William H. Rae of the Town of Plymouth, England) appointed under the marriage settlement of John Cawthra and his present wife, Elizabeth Jane. This mortgage was assigned to John Cawthra in 1874 (Instrument and Deeds, No.1185, 1383: film 179189; No.1384, 2238, film: 179199). During this time, William Stephenson continued to live on the south 100 acres of L4C5.</p> <p>* From 1867 to 1885, William Stephenson was listed on the south 100 acres of L4C5 where the total value of real and personal property increased from \$1,900 in 1869 to \$3,100 in 1882. William Stephenson owned cows, sheep, hogs and horses.</p> <p>* Two individuals are listed on L4C5 in Crawford's 1876 <i>Gazetteer and Directory of the County of Ontario</i>: John W. Clark and William Stephenson (pp.158, 160).</p> <p>* In the 1877 <i>Illustrated Historical Atlas of the County of Ontario</i> the south half of Lot 4 was identified as the property of W. Stevenson [William Stephenson], whose farmstead was located on the west side of the Carruthers Creek (see Map 4).</p> <p>* In November of 1881, Joseph Davids sold the south 100 acres of L4C5 to William Stephenson for \$4,000. To afford this increase in property value, he took out two mortgages: one for \$2,400 from John Cawthra and a second for \$900 with Joseph Davids (Instrument and Deeds, No.4461, 4462, 4463).</p> <p>* Three individuals are listed on L4C5 in Union Publishing Co.'s 1884-85 <i>Farmers and Business Directory</i>: Aaron Parkins (a freeholder), Charles Stephenson (a tenant) and William Stephenson (a freeholder) (pp.68, 70). Aaron Parkins is known to have purchased the north 100 acres of L4C5 in 1880. Charles was a son of William Stephenson and was listed as a tenant to his father in the 1884 <i>Tax Assessment Roll</i>.</p> <p>* William Stephenson died on the 25th of November 1885. His obituary published in the <i>Pickering News</i> noted that he was a resident near Kinsale until five weeks before his death when he moved to Orillia. He was a local preacher associated with the Methodist church and was described as, "always exemplary in his habits and conduct, consequently was highly esteemed by a large circle of friends and acquaintances" (Pickering Central Library, 2001).</p> <p>* Four individuals are listed on L4C5 in Union Publishing Co.'s 1886-87 <i>Farmers and Business Directory</i>: Wm. Barker (a tenant), Aaron Parkins (a freeholder), Charles Stephenson (a tenant) and William Stephenson (a freeholder) (pp.88, 97,99-100). This resource was likely compiled a year earlier before William Stephenson's passing.</p>
1885-	Cawthra family	Vacant
1888		<p>* After William Stephenson's passing, the ownership of the south 100 acres of L4C5 passed to the Cawthra Family. Between 1886 and 1889, Elizabeth Jane Cawthra, her son Henry and their land agent, Thomas Williams, was listed in the <i>Tax Assessment Rolls</i> on the south 100 acres of L4C5. All three individuals were listed as non-residents of Pickering Township and residents of Toronto.</p> <p>* No tenants were listed on the south 100 acres in L4C5 in the <i>Tax Assessment Rolls</i> from 1885 to 1888 suggesting the south part of L4C5 was vacant.</p>

Date	Owner	Occupant(s)
1888-1896	Albert Asa Post	Vacant
<p>* In October of 1888, Joseph Cawthra issued a conveyance to Albert Asa Post for the south 100 acres of L4C5 for an unspecified value (Instrument and Deed, No.7041). Albert Asa Post was the owner of the south 100 acres of Lot 3, Concession 5 beginning in ca. 1865.</p> <p>* Only one individual was listed on L4C5 in Union Publishing Co.'s 1893 <i>Farmers and Business Directory</i>: Aaron Parkins (a freeholder) (p.81); he is known as the occupant of the north half of L4C5. [Albert] A[sa] Post was listed in Lot 8, Concession 4 (p.81); the south half of L4C5 was vacant.</p> <p>* From 1889 to 1895, the south 100 acres of L4C5 was combined with the south 100 acres of Lot 3, Concession 5 in the <i>Tax Assessment Rolls</i>. The resulting 200-acre property was farmed by tenants of Albert Asa Post: Michael Byron (ca. 1889) and Patrick O'Grady (ca. 1891 to 1895). Both resided on neighbouring Lot 3, Concession 5, while the south half of L4C5 remained unoccupied.</p> <p>* Patrick O'Grady is listed in the 1891 <i>Census Record</i> as a 50-year-old farmer from Ireland who lived with his 50-year-old wife, Elizabeth and their four children: Mary, Margaret, Catharine and William in a one-and-a-half-storey, seven-room wood house (1891 Census Record, Township of Pickering, Division A, p.29, lines 8-13, microfilm T-6358).</p>		
1896-1914	Charles Henry Pickey	Charles Henry Pickey
<p>* Albert Asa Post defaulted on his mortgage (TRCA, 2002, p.16), resulting in the Ontario Loan and Savings Company conveying the south halves of both Lots 3 and 4, Concession 5 (totalling 200 acres) to Charles Henry Pickey for \$3,000 in 1896 (Instrument and Deed, No. 8322, 8336, 8367, 8763, 8770: film 1723813).</p> <p>- Charles H. Pickey (also spelled Pilkey) and his wife mortgaged \$2,500, which was discharged after all payments had been made in 1914 (Instrument and Deed, No.8771: film 1723813).</p> <p>* Charles H[enry] Pickey was listed in the ca.1896 to 1899 <i>Tax Assessment Rolls</i> as a 40-year-old farmer of 200 acres that included the south halves of Lots 3 and 4, Concession 5. During this time, the total value of real and personal property decreased from \$3,500 in 1897 to \$3,000 in 1899.</p> <p>* Two farms are listed on L4C5 in the 1901 <i>Census Record</i>: Aaron Parkins on 100 acres of the north half, and Charles H. Pickey on 200 acres that included land in Lot 3, Concession 5. It should be noted that his address was erroneously flipped to read as Lot 5, Concession 4.</p> <p>- C[harles] Henry Pickey is listed as a 42-year-old farmer from Ontario who lived with his 38-year-old wife, Mary, and their seven children: Ethel, Robert, Florence, Mable, Charles, Eva and Herbert. Charles H. Pickey was listed as owning 200 acres of L4C5 where a one-storey, seven-room wood dwelling, and two barns/stables/outbuildings were located (1901 Census Record, Township of Pickering, Enumeration District No.6, pp.4-5, lines 44-50, 1-2, microfilm t-6487). The dwelling is likely the one depicted in the first military topographic map of the area which was published in 1914 (see Map 5).</p> <p>* In 1914, Charles H. Pickey sold the south halves of Lots 3 and 4, Concession 5 to Theodore A. McGillivray for \$2,500 (Instrument and Deed, No.13505).</p>		

1.3.4.2 Post-1900 Land Use

Post-1900 mapping and aerial imagery (**see Maps 6-7**) show that the vicinity of H1 (AIGs-508) was clear of vegetation until at least 1972. By the early 2000s the site area had become wooded, and remained so by the time of Stage 4 fieldwork.

1.3.5 Present Land Use

The property on which H1 (AIGs-508) sits is categorized as Country Residential land under the City of Pickering’s Official Plan (City of Pickering, 2018).

1.4 Archaeological Context

1.4.1 Registered Archaeological Sites

Per *Section 1.1, Standard 1* and *Section 7.5.8, Standard 1* of the 2011 S&G, the *Ontario Archaeological Sites Database (OASD)* maintained by the MCM was consulted in order to provide a summary of registered or known archaeological sites within a minimum one-kilometre distance of the site area. One Late Woodland archaeological site located within the Lynde Creek watershed — Waltham (AIGs-9) — has been registered within one kilometre of the study area (MCM, 2022) (*see Table 4*). Also added to the table is one archaeological site — AIGs-509 — identified by *Archeoworks Inc.* (Archeoworks Inc., 2022b). Neither site is located within 50 metres of AIGs-508, and therefore will not be impacted by the current fieldwork.

Table 4: Registered Archaeological Sites within One Kilometre of H1 (AIGs-508)

Borden #	Name	Time Period, Affinity	Type
AIGs-9	Waltham	Late Woodland, Iroquoian	Village
AIGs-509	H2	Post-Contact, Euro-Canadian	Homestead

Per *Section 1.1, Standard 1* and *Section 7.5.8, Standards 4-5* of the 2011 S&G, to further establish the archaeological context of the study area, a review of previous AAs carried out within the limits of, or immediately adjacent (i.e., within 50 metres) to the study area (as documented by all available reports) was undertaken. Four reports were identified (*see Table 5*):

Table 5: Previous Archaeological Assessments

Company, Year	Stage of Work	Relation to Current Site Area	Details & Recommendations
Previous assessments tied to current development project:			
ASI, 2008	Stage 1-2 AA	Encompasses site area	Stage 1-2 AA for the Draft Approved Plan 18T-87096. Stage 1 background research identified archaeological potential based on the presence of Carruthers Creek and documented 19 th century farmhouses. However, no archaeological resources were encountered during the Stage 2 field survey. The subject property was recommended to be considered free from further archaeological concern. It must be noted that some portions of the study area were considered disturbed and not subjected to survey; it was among these areas that the H1 (AIGs-508) site was encountered.

Company, Year	Stage of Work	Relation to Current Site Area	Details & Recommendations
Archeoworks Inc., 2022a	Stage 1-2 AA	Encompasses site area	Stage 1-2 AA for 3225 Fifth Concession Road, encompassing the same property as ASI's 2008 assessment. Renewed Stage 2 survey of areas previously considered as disturbed resulted in the identification of the H1 (AIGs-508) and H2 (AIGs-509) sites. No further work was recommended for H2 given its mostly post-1870 date. However, H1 dated to the 1840s-1860s time period, and was considered to have further cultural heritage value or interest, thereby necessitating Stage 3 AA.
Archeoworks Inc., 2022b	Stage 3 AA	Encompasses site area	Stage 3 AA for H1 (AIGs-508). A total of 34 test units were excavated, resulting in the recovery of 915 Euro-Canadian and 176 Indigenous artifacts. Both Euro-Canadian and Indigenous components of the site were determined to have significant cultural heritage value or interest. As avoidance and protection is not a viable option, a Stage 4 excavation was recommended.
Previous assessments tied to other development projects:			
ASI, 2011	Stage 1 AA	Encompasses site area	Stage 1 AA for the Carruthers Creek Flood Management and Analysis Class EA. The broader EA study area encompasses the current subject property, which was determined to generally retain archaeological potential due to the presence of Carruthers Creek, documented 19 th century farmhouses and the Sideline 4 roadway. Stage 2 AA was recommended for lands exhibiting archaeological potential.

1.4.3 Current Land Conditions

The site area is situated within a wooded area along the east side of Sideline 4 or Balsam Road, west of a tributary of the Carruthers Creek. The topography slightly slopes down eastward toward the creek tributary, and elevation sits at approximately 136-137 metres above sea level. The site lies within the Iroquois Plain physiographic region of Southern Ontario, and is encompassed within the Carruthers Creek watershed.

1.4.5 Dates of Fieldwork

The Stage 4 excavation of the H1 site was undertaken in 2022 on October 5-7, 11-12, 18, 24-25 (block excavation); and November 10 (mechanical topsoil removal).

1.4.6 Stage 4 Fieldwork Strategy

The Stage 4 adheres to the recommended fieldwork strategies presented in the Stage 3 AA report pertaining to the H1 (AIGs-508) site (Archeoworks, 2022b) are as follows:

1. “Per Section 3.5, Standard 1 of the 2011 S&G, the **H1 (AIGs-508)** has been identified by Indigenous communities to be of interest. Therefore, the following Stage 4 mitigation strategies have been formulated with feedback and approval from the interested Indigenous communities. Furthermore, the interested Indigenous communities will be invited to participate during Stage 4 excavation activities, as per the 2011 *Draft Technical Bulletin for Consultant Archaeologist in Ontario – Engaging Aboriginal Communities in Archaeology*.

2. The **Indigenous Component** of the **H1 (AIGs-508)** site represents a small habitation or specialized site, possibly a re-tooling station. As such, this site has significant cultural heritage value or interest, and requires Stage 4 mitigation prior to development impacts.

According to *Sections 3.5 and 4.2* of the *2011 S&G*, the preferred approach is avoidance and protection of the site. As such, the following options were presented and discussed with the proponent: project redesign; excluding the area of the archaeological site; or incorporating the area of the archaeological site into the project design. It was subsequently determined that the portion of this site lying within the project area limits cannot be avoided or protected; therefore, the site must be subjected to a comprehensive Stage 4 archaeological excavation in accordance with the requirements set within *Sections 4.2.1 (General Excavation Requirements), 4.2.2 (Excavation by Hand), 4.2.3 (Excavation by Mechanical Topsoil Removal), and 4.3 (Determining the Extent of Excavations), 4.4 (Collecting Soil Samples)* of the *2011 S&G*.

STAGE 4 EXCAVATION:

Block Excavation Recommendations

Per *Section 4.2.2* of the *2011 S&G*, hand excavation “is the preferred technique for documenting the full range of materials and formation processes at an archaeological site.” Additionally, *Section 4.2.9, Standard 1* requires the excavation of one metre square units by hand.

The Stage 4 hand excavation of contiguous one-square-metre units (“block excavation”) will follow the methods and requirements outlined in the *2011 S&G’s Sections 4.2.1* (general Stage 4 excavation requirements), *4.2.2* (general hand excavation requirements) and *4.2.9* (specific hand excavation requirements for undisturbed sites), as well as *Table 4.1* (determination of hand excavation extent). Hand excavation by trowel and shovel will commence in units immediately adjacent to the four Stage 3 test units that yielded more than 10 lithic artifacts, namely: 304-495, 305-494, 305-495 and 305-497.

Block Excavation of Topsoil

Hand excavation of the plough-disturbed topsoil deposit in each unit must be screened through mesh with an aperture of no greater than six millimetres in order to facilitate artifact recovery, with no need to individually piece-plot artifacts given that the material is no longer *in situ* owing to decades of agricultural ploughing. All exposed subsoil surfaces under the topsoil must be cleaned by shovel (“shovel shine”) or trowel to aid in identifying subsurface cultural features. Care should be taken during block excavation to examine the exposed subsoil for faint staining or concentrations of artifacts at the surface of subsoil.

Excavation of Features Identified on Surface of Subsoil

All Indigenous cultural features clearly identified on the topsoil–subsoil interface must be hand-excavated by systematic (stratigraphic or standardized) levels and fully documented only after complete exposure, except when not possible (e.g., where full exposure is restricted by the project limits). All cultural features must be hand-excavated according to *Section 4.2.2, Standard 7* of the *2011 S&G*. All hand-excavated soils must be screened through mesh with an aperture of no greater than six millimetres to facilitate artifact recovery, with the exception of any samples retrieved from appropriate cultural features that are reserved for specialist analysis. Any soil samples taken for flotation and specialist analysis must be collected in accordance with *Section 4.4* of the *2011 S&G*. All cultural features must be documented with photographs and drawings according to *Section 4.2.1, Standard 9* of the *2011 S&G*, and mapped and recorded relative to the grid established during the Stage 3 AA.

Excavation of Invisible Feature(s) in Subsoil

Given the site’s unusual lithic distribution pattern, wherein a substantial proportion of the debitage had been recovered from the subsoil as opposed to the plough-disturbed topsoil, while likely the cause of root disturbance it is also possible that the subsoil at the site core consists an invisible or “ghost” feature that could be defined solely by the presence of artifacts and thereby only have a form by the distribution of those artifacts (i.e. there is no staining or visible cut for a feature to define its limits). If no Indigenous features are identified at the topsoil–subsoil interface, the subsoil deposit in the core of the site must be excavated with care. Hand excavation of subsoil must be carried out per unit, within the grid system established in the Stage 3 AA, in order to determine the unit’s overall (topsoil + subsoil) artifact yield.

Per *Section 4.2.2, Standard 7.b* of the *2011 S&G*, if a ghost feature is determined to be present, the undisturbed subsoil deposit/invisible feature surrounding must be excavated by careful trowelling, and all recovered artifacts horizontally and vertically mapped by piece-plotting to facilitate the reconstruction of the plan and profile of the deposit. In accordance with *Section 4.2.9* of the *2011 S&G*, hand excavation must extend down until at least 10 cm below any artifact has proved sterile.

All loose soils generated from trowelling must be screened through mesh with an aperture of no greater than six millimetres to recovery of smaller artifacts not spotted during the trowelling and recording process, with the exception of any samples retrieved from appropriate cultural features that are reserved for specialist analysis. Any soil samples taken for flotation and specialist analysis must be collected in accordance with *Section 4.4* of the *2011 S&G*. Subsoil excavation must be documented with photographs and drawings according to *Section 4.2.1, Standard 9* of the *2011 S&G*, and mapped and recorded relative to the grid established during the Stage 3 AA.

Horizontal Extent of Hand Excavation.

Block excavation must be conducted in accordance with requirements outlined for small pre-contact sites in *Table 4.1* of the 2011 S&G, namely that: excavation must proceed outwardly from test units 304-495, 305-494, 305-495 and 305-497 until there are total (topsoil and subsoil) yields of fewer than 10 artifacts from the edge units; excavation must continue if units include at least two formal tools/diagnostic artifacts and/or fire-cracked rock, bone or burnt Indigenous artifacts; and excavation must extend a minimum of 2 m beyond identified Indigenous cultural features.

Mechanical Topsoil Removal Recommendations

Once block excavation is completed mechanical topsoil removal is then to be performed over the entirety of the H1 (AIGs-508) site area where feasible and not restricted by the project area limits, in accordance with *Section 4.2.3* of the 2011 S&G.

Topsoil stripping must be carried out using a Gradall machine or back hoe with a smooth bucket under the supervision of a licenced archaeologist. Mechanical topsoil removal must stop at or above the topsoil/subsoil interface. In accordance with *Section 4.3, Table 4.1* of the 2011 S&G mechanical topsoil removal must extend a minimum of 2 metres beyond uncovered Indigenous cultural features where possible (e.g., where not restricted by the property limits).

Other Requirements

A thorough record of on-site investigations, including field notes, maps and photographs, should be maintained. Finally, a report documenting the methods and results of excavation and laboratory analysis, together with an artifact inventory, and all necessary cartographic and photographic documentation should be produced in accordance with the licensing requirements of the *MCM*.

3. The **Euro-Canadian Component** of the **H1 (AIGs-508)** site represents a historical domestic archaeological resource dating primarily to the 1840s-1850s period. As such, this site has significant cultural heritage value or interest, and requires Stage 4 mitigation prior to development impacts. According to *Sections 3.5* and *4.2* of the 2011 S&G, the preferred approach is avoidance and protection of the site. As such, the following options were presented and discussed with the proponent: project redesign; excluding the area of the archaeological site; or incorporating the area of the archaeological site into the project design. It was subsequently determined that the portion of this site lying within the project area limits cannot be avoided or protected; therefore, the site must be subjected to a comprehensive Stage 4 archaeological excavation in accordance with the requirements set within *Sections 4.2.1 (General Excavation Requirements), 4.2.2 (Excavation by Hand), 4.2.3 (Excavation by Mechanical Topsoil Removal), 4.2.7 (Excavation of 19th Century Domestic Sites), 4.3 (Determining the Extent of Excavations)* and *4.4 (Collecting Soil Samples)* of the 2011 S&G.

STAGE 4 EXCAVATION:

Block Excavation Recommendations

Per *Section 4.2.2* of the *2011 S&G*, hand excavation “is the preferred technique for documenting the full range of materials and formation processes at an archaeological site.” Additionally, *Section 4.2.7, Standard 2* of the *2011 S&G* stipulates that sites mostly dating to after 1830 must be subjected to hand excavation of midden areas first, followed by mechanical topsoil removal on the remainder of the site.

The Stage 3 AA has given a complete stratigraphic understanding of the topsoil/subsoil interface, and resulted in the collection of a representative sample of artifacts from the excavation of 34 one-metre-square test units on a five-metre grid. These, along with the absence of distinct midden deposits, the redundancies in material being collected, as well as the possibility of recovering more valuable intact subsurface artifacts and data through feature excavation, further hand excavation of additional contiguous one-metre square units (“block excavation”) is not recommended.

Mechanical Topsoil Removal Recommendations

As no additional hand excavation of the plough zone soil is recommended, once block excavation tied to the Indigenous component of the site is complete, mechanical topsoil removal is to be performed over the entirety of the H1 (AIGs-508) site area where feasible and not restricted by the project area limits, in accordance with *Section 4.2.3* of the *2011 S&G*.

Topsoil stripping must be carried out using a Gradall machine or back hoe with a smooth bucket under the supervision of a licenced archaeologist. Mechanical topsoil removal must stop at or above the topsoil/subsoil interface. In accordance with *Section 4.3, Table 4.1* of the *2011 S&G* mechanical topsoil removal must extend a minimum of 10 metres beyond uncovered Euro-Canadian cultural features where possible (e.g., where not restricted by the property limits).

Other Requirements

All exposed subsoil surfaces must be cleaned by shovel (“shovel shine”) or trowel to aid in identifying subsurface cultural features. All identified cultural features must be hand-excavated by systematic levels and fully documented only after complete exposure, except when not possible (e.g., where full exposure is restricted by the project limits). All cultural features must be hand-excavated according to *Section 4.2.7, Standards 3-5* of the *2011 S&G*. All hand-excavated soils must be screened through mesh with an aperture of no greater than six-millimetres to facilitate artifact recovery, except for any samples retrieved from appropriate cultural features that are reserved for specialist analysis. Any soil samples taken for flotation and specialist analysis must be collected in accordance with *Section 4.4* of the *2011 S&G*. All cultural features must be documented with photographs and drawings according to *Section 4.2.1, Standard 9* of the *2011 S&G*, mapped and recorded relative to the grid established during the Stage 3 AA.

A thorough record of on-site investigations, including field notes, maps and photographs, should be maintained. Finally, a report documenting the methods and results of excavation and laboratory analysis, together with an artifact inventory, and all necessary cartographic and photographic documentation should be produced in accordance with the licensing requirements of the *MCM*.

No construction activities shall take place within the study area prior to the *MCM* (Archaeology Programs Unit) confirming in writing that all archaeological licensing and technical review requirements have been satisfied.”

2.0 FIELD METHODS

The Stage 4 excavation was conducted in compliance with the 2011 S&G. The weather during the Stage 4 investigations varied between mostly sunny to mixed sun and cloud, with temperature averages ranging between 0° and 26° Celsius. These conditions permitted good visibility of all parts of the site area and were conducive to the identification and recovery of archaeological resources.

The results of the Stage 4 fieldwork are presented as **Maps 8 to 15**. A thorough photographic record of on-site investigations was maintained, and a representative sample of photographs taken in the field are presented within **Appendix D**. Location and orientation information associated with the selected images is provided within **Map 8**.

The Stage 4 excavation commenced with the relocation of the H1 site, which was based on GPS data and mapping provided within the related Stage 3 AA supplementary document (Archeoworks Inc., 2022b), as well as the identification of Stage 3 test units in the field. The Stage 3 grid was re-established (*see Image 1*), with the site datum (UTM 17T 658207 4864972) remaining as grid coordinate 300E-500N. The Enbridge marker along the east side of Sideline 4, southwest of the site (UTM 17T 658203 4864954), was retained as a fixed reference landmark. A *Trimble GeoExplorer* handheld GPS device was employed and the North American Datum (NAD) 1983 Canadian Spatial Reference System (CSRS) was utilized to record all GPS readings to an accuracy of less than one metre. A Base Differential Correction method was applied to all GPS data.

2.1 Indigenous Engagement

Representatives from the *Mississaugas of the Credit First Nation* (MCFN), *Six Nations First Nation* (SNFN), *Chippewas of Rama First Nation* (CRFN), *Alderville First Nation* (AFN), *Chippewas of Georgina Island First Nation* (CGFN), *Chimnissing First Nation* (CFN), *Curve Lake First Nation* (CLFN), *Hiawatha First Nation* (HFN), *Scugog First Nation* (SFN) and *Huron Wendat First Nation* (HWFN) were engaged starting June 2022. Engagement activities included, but were not limited to: information dissemination about the results of the Stage 3 AA as well as requesting input on Stage 4 excavation strategies, extending invitations to participate in Stage 4 fieldwork, seeking feedback/approval regarding halting block excavations and proceeding to mechanical topsoil removal (MTR), and sharing updates on the results of the Stage 4 excavation. Communication details with the various First Nations communities regarding their participation and feedback in this project have been documented within the attached **Indigenous Engagement Document**, per *Section 7.6.2* of the 2011 S&G.

2.2 Block Excavation

In accordance with the Stage 3 AA recommendations (Archeoworks Inc., 2022b) for the Indigenous component of the site, the hand-excavation of contiguous one-square-metre units (“block excavation”) was pursued after the re-establishment of the site datum and grid (*see Images 2-9*). The units immediately surrounding the Stage 3 test units that yielded 10 or more lithic artifacts in total (i.e. 304-495, 305-494, 305-495 and 305-497) were first excavated. Block excavation continued until there were total (topsoil and subsoil) yields of fewer than 10 artifacts from the edge units. Units were also excavated to test the periphery in the four cardinal directions (north, south, east, west). No formal tools/diagnostic artifacts, fire-cracked rock or bone were encountered.

All units were systematically excavated by stratigraphic layer. In accordance with the recommendations in the Stage 3 AA report, all ploughzone/topsoil fills were screened through six-millimetre aperture wire mesh to facilitate artifact recovery. To aid in identifying subsurface cultural features, all exposed subsoil surfaces under the topsoil were cleaned by shovel (“shovel shine”) or trowel, and carefully examined for faint staining or concentrations of artifacts at the surface of subsoil. However, no sub-surface cultural features (Indigenous or historic Euro-Canadian) were identified.

Given that no Indigenous features were identified at the topsoil–subsoil interface, the subsoil deposit in the core of the site was excavated per unit, within the grid system established in the Stage 3 AA, to determine each unit’s overall (topsoil and subsoil) artifact yield. The undisturbed subsoil deposit at the site core was excavated by careful trowelling, and all artifacts recovered from trowelling were horizontally and vertically mapped by piece-plotting to facilitate the reconstruction of the plan and profile of the deposit. Subsoil excavation was documented with photographs and drawings according to *Section 4.2.1, Standard 9* of the *2011 S&G*, and mapped and recorded relative to the grid established during the Stage 3 AA.

All loose soils generated from trowelling were also screened through mesh with an aperture of no greater than six millimetres to recover smaller artifacts not spotted during the trowelling and recording process. Subsoil was systematically excavated by standardized levels; these stratigraphic levels are summarized in **Section 3.1**. All artifacts were collected and bagged by layer and unit. In accordance with *Section 4.2.9* of the *2011 S&G*, hand excavation extended to at least 10 cm below any artifact to ensure sterile subsoil levels. No soil samples were taken for flotation and specialist analysis.

By late October 2022, a total of 38 Stage 4 block excavation units had been excavated, yielding 183 lithic artifacts. A proposal to halt block excavation and commence with mechanical topsoil removal (MTR) was presented to, and received concurrence from engaged First Nations groups (*see Indigenous Engagement Document*).

2.3 Mechanical Topsoil Removal

In accordance with the recommendations in the Stage 3 AA report (Archeoworks Inc., 2022b), mechanical topsoil removal (MTR or “stripping”) was undertaken using a mini hydraulic excavator employing a smooth bucket (CAT 303.5E2 CR) on November 10, 2022 (*see Images 10-12*).

MTR commenced at the core of site, and generally proceeded outward from the core. Topsoil was stripped around and between trees, where possible. To ensure that all subsurface features were exposed, topsoil stripping stopped at or above the topsoil–subsoil interface, and extended a minimum of one metre from the outermost excavated Stage 3 and 4 units, except along the western edge where MTR extended to the property fence.

MTR throughout the remainder of the site revealed non-culturally significant marks or stains. Neither Indigenous nor historic Euro-Canadian cultural features were identified.

Approximately 680 square metres of topsoil was mechanically removed from the site area (*see Maps 8-10, 15*). The full limits of the site area subjected to mechanical topsoil removal are as follows:

north = UTM 17T 658214.58 4864989.72,
east = UTM 17T 658226.45 4864963.33,
south = UTM 17T 658209.83 4864952.93,
west = UTM 17T 658192.98 4864985.87,
centre = UTM 17T 658209.71 4864971.33.

3.0 RECORD OF FINDS

A total assemblage of 183 lithic artifacts were recovered during the Stage 4 excavation. Photographs of a representative sample are provided in **Appendix D** as **Image 13**. A complete catalogue of lithic artifacts is provided in **Appendix E**. An inventory of the documentary and material record generated in the field can be found within **Appendix G**. All artifacts were analyzed and catalogued, and are stored in one plastic bin (L: 40.0 cm x W: 31.0 cm x H: 30.0 cm), identified as Box: 345-PI8332-21-ST4-01.

3.1 Euro-Canadian Component

No historic Euro-Canadian cultural features were identified following block excavation or mechanical topsoil removal across the H1 (AIGs-508) site (*see Appendix A – Map 9*). Thus no further historic Euro-Canadian artifacts were recovered at H1.

3.2 Indigenous Component

The H1 (AIGs-508) site was discovered in the summer of 2021, during the Stage 2 assessment of the 3225 Fifth Concession Road property. The Stage 2 property survey at H1 yielded only Euro-Canadian artifacts and no Indigenous material; it was during Stage 3 test unit excavation in the fall of 2021 that a total of 176 lithic artifacts — 175 pieces of debitage and one formal tool fragment — were recovered. Four one-square-metre units produced most of the lithics: one unit produced a high count of 97 (305-495, both topsoil and subsoil), followed by 305-494 with 32 lithics, 305-497 with 28 lithics and 304-495 with 14 lithics.

3.2.1 Block Excavation

A total of 38 one-metre-square units were hand-excavated into subsoil by arbitrary levels (*see Table 6*). The topsoil was designated Level 0 in the database, then the interface between topsoil and subsoil Level 1. The subsequent arbitrary levels, as measured below the topsoil—subsoil interface, are as follows: 0-5 cm is Level 2; 5-7.5 cm is Level 3; 7.5-10 cm is Level 4; 10-15 cm is Level 5, and so on in five-centimetre intervals until no further artifacts were recovered. Stage 4 units were excavated to a total depth of up to 45 cm below the topsoil—subsoil interface. Total Stage 4 lithic artifact frequencies per unit ranged from 0 to 28 (*see Appendix A – Map 10*).

The topsoil across the site consisted of a single topsoil layer — a mottled sandy loam (Munsell values 10YR 4/3 brown and 10YR 5/2 greyish brown) — that was subjected to ploughing for much of the 20th century. The subsoil encountered was generally a light-coloured sand with Munsell values 10YR 5/8 yellowish brown and 10YR 5/4 yellowish brown, mottled 10YR 3/2 very dark greyish brown and 10YR 6/1 grey.

Table 6: Hand-excavated Stage 4 Units at H1 (AIGs-508)

UNIT	TOPSOIL		SUBSOIL ARTIFACT COUNTS (<i>Depth below Topsoil—Subsoil Interface</i>)											TOTAL ARTIFACT COUNT
	Avg Depth Range below Baseline	Artifact Count	Level 1 (<i>interface</i>)	Level 2 (<i>0-5 cm</i>)	Level 3 (<i>5-7.5 cm</i>)	Level 4 (<i>7.5-10 cm</i>)	Level 5 (<i>10-15 cm</i>)	Level 6 (<i>15-20 cm</i>)	Level 7 (<i>20-25 cm</i>)	Level 8 (<i>25-30 cm</i>)	Level 9 (<i>30-35 cm</i>)	Level 10 (<i>35-40 cm</i>)	Level 11 (<i>40-45 cm</i>)	
298-495	29-52 cm	0	0	0	0	0	0	-	-	-	-	-	-	0
303-493	31-54 cm	0	0	0	0	0	0	-	-	-	-	-	-	0
303-494	25-48 cm	0	0	0	0	0	0	-	-	-	-	-	-	0
303-495	23-46 cm	0	0	0	0	0	0	-	-	-	-	-	-	0
303-496	21-45 cm	1	0	0	1	0	0	0	-	-	-	-	-	2
303-497	19-43 cm	1	0	1	0	0	0	-	-	-	-	-	-	2
304-491	32-55 cm	3	0	0	0	0	0	-	-	-	-	-	-	3
304-492	29-55 cm	4	0	0	1	0	0	0	-	-	-	-	-	5
304-493	29-53 cm	4	0	0	0	0	0	-	-	-	-	-	-	4
304-494	23-49 cm	5	0	2	0	0	0	-	-	-	-	-	-	7
304-496	18-45 cm	2	2	3	1	0	0	0	-	-	-	-	-	8
304-497	14-42 cm	4	1	2	0	0	0	-	-	-	-	-	-	7
304-498	17-44 cm	1	0	2	2	0	0	0	-	-	-	-	-	5
305-486	25-51 cm	1	0	0	0	0	0	-	-	-	-	-	-	1
305-491	28-57 cm	2	0	0	0	0	0	0	-	-	-	-	-	2
305-492	26-56 cm	3	1	0	0*	0	0	0	-	-	-	-	-	4
305-493	24-55 cm	9	4	1	0	0	0	-	-	-	-	-	-	14
305-496	16-48 cm	15	3	6	1	1	2	0	0	-	-	-	-	28
305-498	17-44 cm	0	0	2	0	0	0	-	-	-	-	-	-	2
305-504	18-48 cm	0	0	0	0	0	0	-	-	-	-	-	-	0
306-491	31-58 cm	2	0	0	0	0	0	-	-	-	-	-	-	2
306-492	26-54 cm	2	0	0	0	0	0	-	-	-	-	-	-	2
306-493	25-55 cm	5	1	0	0	0	0	-	-	-	-	-	-	6
306-494	26-54 cm	3	1	3	0	0	2	1	0*	0	0	-	-	10
306-495	25-54 cm	3	0	4	1	2	0	2	0	0	-	-	-	12
306-496	24-53 cm	5	1	4	2	1	0	2	1	1	1	0	0	18
306-497	20-52 cm	2	1	1	1	1	1	0	0	-	-	-	-	7
306-498	20-48 cm	1	0	0	0	0	0	-	-	-	-	-	-	1
307-492	30-56 cm	4	0	0	0	0	0	-	-	-	-	-	-	4
307-493	31-56 cm	1	0	0	0	0	0	-	-	-	-	-	-	1
307-494	29-55 cm	2	0	2	1	1	0	2	2	0	0	-	-	10
307-495	26-56 cm	3	0	1	1	0	0	1	0	1	0	0	-	7
307-496	25-56 cm	2	0	0	0	0	0	-	-	-	-	-	-	2
307-497	24-54 cm	0	0	0	0	0	0	-	-	-	-	-	-	0
308-493	31-57 cm	0	0	1	0	0	0	-	-	-	-	-	-	1
308-494	30-57 cm	0	0	0	0	0	0	-	-	-	-	-	-	0
308-495	27-56 cm	2	0	0	1	0	0	1	1	0	1	0	0	6
314-494	20-49 cm	0	0	0	0	0	0	-	-	-	-	-	-	0

*denotes level where artifact was initially collected, but discarded during analysis as it was classified as natural rock.

3.2.2 Feature Excavation

No discrete Indigenous cultural features were identified at the topsoil—subsoil interface. The piece-plotted artifacts recovered during block excavation are presented as **Map 13** within **Appendix A**.

3.2.3 Brief Summary

All recovered lithics during the Stage 4 excavation are classified as debitage; there were no tools, nor cores recovered. All are of Onondaga chert. A more detailed analysis of the combined Stage 3 (n=176) and Stage 4 (n=183) lithic assemblage is provided in **Section 4.0**.

4.0 ANALYSIS AND CONCLUSIONS

4.1 Euro-Canadian Component

No further historic Euro-Canadian artifacts were recovered from the H1 (AIGs-508) site during the Stage 4 excavation, as no cultural features tied to the post-contact occupation of the property were identified.

There remains no change to the interpretation of the Euro-Canadian component of the H1 site. The conclusions from Stage 3 AA report (Archeoworks Inc., 2022b, p.43-44) remain valid:

“The artifact assemblage and the archival data consulted indicate that this site may have been occupied as early as the mid-1850s into the later years of the 1860s, with its core assemblage falling into the 1840s to 1850s period. The first occupants on a one-acre parcel somewhere within Lot 4, Concession 5 — possibly encompassing AIGs-508 — are tenant labourers Lee Hudson (ca. 1863-1864) and Jacob Winters (ca. 1865-1869) under William Stephenson’s (1861-1872) ownership of the property. The predominance of material from the early 1840s to 1850s period, however, may suggest that the initial occupation of the site occurred prior to the property’s 1861 sale to Stephenson, with an unknown and/or unrecorded occupant, possibly a tenant hired to clear the land, living at this location during Heydon’s ownership from 1845 to 1861. If this is indeed the case, the homestead may have been subsequently re-occupied by Stephenson’s tenants between ca. 1863 and 1869 on the one-acre portion of Stephenson’s holdings. Both were short-term occupations and the homestead looks to have been abandoned by 1870 at the latest. The overall small size of the collection and the relatively low artifact counts, even in the high count units, do suggest that the actual domestic dwelling, at the core of the site, has probably been obliterated by post-abandonment road related construction activities. It is also possibly that the site’s deposits may consist, at least in part, of re-deposited midden material resulting from the latter disturbances.

The assemblage is likely comprised of a combination of both day to day refuse disposal as well as “house cleanings” as the various inhabitants left the site in turn over the years, and to a final house cleaning when the homestead was abandoned by 1870. The assemblage left behind, and the ceramic tableware assemblage in particular, does suggest that the occupants of the AIGs-508 Site were of modest economic means living very much the life of the average settler in rural Ontario.”

4.2 Indigenous Component

The analysis in this section details the findings of the Stage 4 excavation work in conjunction with that of the Stage 3 AA. A full catalogue of lithic artifacts recovered during the Stage 3 and 4 fieldwork are provided in **Appendix E**.

4.2.1 Analysis Methodology

Definitions for the various terms may be found in **Appendix F**, and a brief description of each of the categories' methodology is described below.

The analysis of the lithic material is based on four broad artifact categories:

1. *Formal Tools* (deliberate reduction strategy employed) – analysis includes raw material typing, heat exposure, tool type, tool subtype, and the segment of the tool that is present;
2. *Expedient Tools* (utilized and/or retouched) – analysis includes lithic raw material, reduction sequencing, heat exposure, types of use-wear, edge type, and surface type.
3. *Cores* – analysis includes the core type, the lithic raw material, and heat exposure;
4. *General Debitage* (waste flakes) – analysis includes raw material typing, reduction sequencing, and heat exposure.

This is a standard breakdown of categories for lithics, of which only two (formal tools anddebitage) were present in these clusters.

4.2.1.1 Raw Material

A visual inspection of thedebitage was conducted to determine lithic raw material type. A concerted effort was made to classify raw material type only when it could be positively identified. Only Onondaga chert was identified on the site.

Onondaga Chert

Onondaga is a Middle Devonian chert whose primary sources are found on the northeast shore of Lake Erie and continues eastward into New York State (Parkins, 1977 in Fisher, 1997, p. 19). The chert is comprised of three members — Edgecliff, Moorehouse and Cliff — that cannot be distinguished macroscopically (Eley & von Bitter, 1989, p. 18). As a secondary source Onondaga is ubiquitous in southern Ontario, and its “prevalence in the region is reflected by secondary deposit use on sites extending from Paleo... to historic sites. Onondaga chert was used extensively throughout the Archaic, and was almost the sole chert relied on during the Early Woodland Meadowood Phase” (Ritchie 1969, p.183; Granger, 1978, pp. 237-238; Ellis et al., 1988, p. 14; Fisher, 1997, p. 19).

4.2.1.2 Debitage Analysis Methodology

The analysis ofdebitage is important for determining various site activities and to differentiate possible activity areas. Each flake was examined macroscopically to determine its place in the lithic reduction sequence. Criteria considered (but not necessarily recorded) when categorizing the lithics into various types include the presence or absence of striking platform, bulb of percussion, angle of the platform, dorsal scarring – the frequency and direction, and presence

(percentage) of cortex (parent rock). Based on these criteria, flakes were categorized as primary decortication, secondary decortication, initial, thinning, trimming, shatter and fragments (*see Appendix F – Table F2*). Debitage analysis categories is based on Chris Ellis’ thesis (1979).

4.2.2 Debitage Analysis

4.2.2.1 Reduction Sequence

Tables 7 and 8 summarize the results of the debitage reduction sequence. Overall, the types of lithic reduction carried out on site represent the late stages of biface manufacture once the fragment/shatter categories have been removed. The thinning flakes (56.3%) represent a good portion of the analyzable sample, followed by trimming flakes (31%). There are indications that earlier stages of reduction were being carried out on site as initial represents 11.3% of the analyzable sample. However, it is such a small proportion of the overall assemblage, and the assemblage itself is small, that not too much may be stated with confidence about the extent of the activities carried out on site. Therefore, that being stated, the main activity carried out on site was the final thinning and finishing of biface(s).

Table 7: H1 (AIGs-508) Debitage Reduction Sequence — Stage 4 Lithics Only

FLAKE TYPE	TOTAL ASSEMBLAGE		ANALYZABLE SAMPLE	
	Frequency	%	Frequency	%
Primary Decortication	0	0	0	0
Secondary Decortication	0	0	0	0
Initial	3	1.6	3	4.3
Thinning	44	24.0	44	63.8
Trimming	22	12.0	22	31.9
Fragment/shatter	114	62.3	--	--
TOTAL	183	99.9	69	100.0

Table 8: H1 (AIGs-508) Debitage Reduction Sequence — Stage 3 & 4 Lithics

FLAKE TYPE	TOTAL ASSEMBLAGE		ANALYZABLE SAMPLE	
	Frequency	%	Frequency	%
Primary Decortication	0	0	0	0
Secondary Decortication	1	0.3	1	0.7
Initial	11	3.1	11	7.9
Thinning	84	23.5	84	60.0
Trimming	44	12.3	44	31.4
Fragment/shatter	218	60.9	--	--
TOTAL	358	100.1	140	100.0

During the Stage 4 excavation, no primary and secondary flakes were recovered, and only one secondary flake was recovered during the Stage 3 AA. When the Stage 4 results are compared to the Stage 3 results, they are stunningly similar. The proportion of thinning flakes to trimming flakes is essentially the same, while there were fewer initial flakes recovered in the later work.

The vast majority of the initial and thinning flakes were small, indicating that the lithic raw material brought on site was in the form of nearly finished preforms to be further reduced into projectile points, or to a much lesser degree as a small block that was turned into a preform and then finished as a final product (projectile point). Given the overall extent of the excavation and that there were a total of 358 pieces of debitage recovered from the Stage 3 and Stage 4 work, there was maybe just one tool or possibly two tools that were produced at this site. It must be noted that a side-notched projectile point base made from Onondaga chert (artifact # L0007) was recovered from Stage 3 test unit 305-495.

4.2.2.2 Lithic Raw Material Type

There was no lithic raw material type variation. The lithic assemblage consists solely of Onondaga chert, and which may be represented by a couple of varieties of Onondaga – medium grey with white blotches and a darker variety.

4.2.2.3 Debitage Heat Exposure

Approximately 60% (n=110) of the debitage from the Stage 4 excavation does not show any indications of having been exposed to heat. There were 63 (34.4 %) that showed surficial colour change, and the remaining ten (5.5%) showed some combination of potlidding heat damage. The distribution of the heat-exposed debitage was mapped across the block excavation (*see Map 14*).

It was also divided into surficial change and various levels of potlidding, and as well by distribution by layers (i.e. topsoil versus subsoil) (*see Section 4.2.2.4 – Table 10 below*). In total, there were 73 pieces of debitage from the Stage 4 excavation that showed evidence of exposure to heat, with just over half of those being found in the topsoil and interface levels (n=44; 53%); 12 (14.5%) pieces were found in Level 2, six (7.2%) from Level 3; three (3.6%) from Level 5; four (4.8%) from Level 6; three (3.6%) from Level 7; and one (1.2%) from Level 9 (subsoil 30–35 cm).

Having plotted the distribution across the site, the patterning for heat exposure distribution is a fairly normal looking pattern. The concentration of heated material is around the two Stage 3 units of 305-494 and 305-495, with the distribution spreading to the north, south and eastwards from there. This simply matches the density of lithic distribution as a whole across the site. The more burnt pieces (i.e. those with potlids) were located in the Stage 3 units, and then off along the edges of the Stage 4 units, mostly to the east.

4.2.2.4 Debitage Distribution

The site itself is currently within a copse of trees and bushes on the east side of Sideline 4. However, the 1954 aerial clearly shows the site to be within an agricultural field (*see Map 6*). The distribution patterning for the lithics is a fairly typical one for a ploughed context, as there are no spikes in distribution patterning that one would normally see from an undisturbed (non-ploughed context). This site has a typical distribution of one area with a high count that then is distributed outward in lessening numbers as the excavation continues. The highest-count unit was from the Stage 3 AA (305-495) with the second-highest count being adjacent to this one to the south (305-494). The counts then radiate out from those two units, rapidly dropping off in frequency. It is interesting to note that the distribution pattern seems to have been influenced by the probable

direction of the former ploughing direction. The site is adjacent to a north-south road; the field is triangular in shape, with a watercourse defining its north-easterly boundary. The logical direction for ploughing would be in a north-south direction, running parallel to the road. The centre of the site is a three-metre section east-west, with its long axis north-south covering six metres, following the direction of the road, and presumably that of ploughing.

In the Stage 3 AA there were 175 pieces of debitage recovered, but only 58 (33.1%) were from the topsoil layer, with the remaining 117 (66.9%) from the subsoil. For the Stage 4 excavation, the frequency was increased to 92 (50.3%) from the topsoil, with the remaining 91 (49.7%) from the subsoil. This would still be considered high, given that usually most artifacts would be recovered from the topsoil/ploughzone or features, with fewer present in the subsoil. However, the site soil is sandy, which is conducive vertical movement of artifacts. This has probably occurred due to tree pulling when the land was cleared by settlers, and then further by root action.

Table 9: H1 (AIGs-508) Debitage Distribution by Level

LEVEL	STAGE 3		STAGE 4	
	Frequency	%	Frequency	%
Topsoil/Ploughzone	58	33.1	92	50.3
Topsoil—Subsoil Interface	n/a	n/a	15	8.2
Subsoil 0-5	15	8.6	35	19.1
Subsoil 5-10*	65	37.1	19	10.4
Subsoil 10-15	15	8.6	5	2.7
Subsoil 15-20	16	9.1	8	4.4
Subsoil 20-25	4	2.3	5	2.7
Subsoil 25-30	1	0.6	2	1.1
Subsoil 30-35	1	0.6	2	1.1
TOTAL	175	100.0	183	100.0

*The 5-10 cm level was split into 5-7.5 cm (Level 2) and 7.5-10 cm (Level 3) during Stage 4 excavation. These levels are combined here for ease of presentation.

For the most part, the general distribution of debitage decreases as the depth increases. However, there is an anomaly with the Subsoil 5-10 cm level which has a skewed percentage of the debitage recovered. This is likely the result of root activity in one unit (305-495) that carried artifacts deeper than would normally be expected given the sandy subsoil conditions. In unit 305-495, the topsoil level contained 21 pieces of debitage, while the first 0-5 cm of subsoil had 11, then 5-10 cm had 12, and then the frequency decreased. Whatever the reason, unit 305-495 contained 76 pieces of debitage in its subsoil levels; this is out of 117 in total, making up 65% of the debitage recovered from subsoil.

The distribution of debitage by level and exposure to heat was also compared to determine if there was any difference between topsoil and subsoil levels (*see Table 10*).

Table 10: H1 (AIGs-508) Debitage Distribution by Level and Heat Exposure

Heat Exposure	STAGE 3				STAGE 4				OVERALL			
	Topsoil		Subsoil		Topsoil		Subsoil		Topsoil		Subsoil	
	#	%	#	%	#	%	#	%	#	%	#	%
No exposure	39	67.2	96	82.1	56	60.9	54	59.3	95	63.3	150	72.1
Surficial colour change	16	27.6	20	17.1	30	32.6	33	36.3	46	30.7	53	25.5
Potlids present	3	5.2	1	0.9	6	6.5	4	4.4	9	6.0	5	2.4
TOTAL	58	100.0	117	100.0	92	100.0	91	100.0	150	100.0	208	100.0

Table 10 demonstrates that for overall there is more exposure to heat in the topsoil level, and less so in the subsoil levels. Based on the Stage 3 and 4 assemblage, approximately 72% of thedebitage did not show any signs of being exposed to heat. Surficial colour change represented 25.5% of those flakes that showed signs of heat exposure, while flakes that displayed potlids were minimal, and only represented 2.5% of the assemblage.

While some heat exposure to the assemblage (27.9%) has been noted, the vast majority of the lithics has not been exposed to rapid changes in temperature (i.e. enough to cause potlidding). It should be noted that no fire-cracked rock was recovered from the Stage 3 or Stage 4 excavations. Therefore, there does not appear to have been a hearth on site.

4.2.3 Conclusions

The Stage 4 excavation of the Indigenous component of H1 (AIGs-508) has produced 183 pieces ofdebitage. There were no other types of lithic artifacts recovered. However, during the Stage 3 AA a side-notched projectile point base made from Onondaga chert was recovered. It is not considered diagnostic, and therefore, no specific cultural affiliation can be ascribed to it apart from being Indigenous in origin.

The overall distribution patterning of thedebitage shows an area of high frequency that rapidly drops off in all directions from the highest-yielding unit (305-495). The patterning in a north-south direction runs parallel to the road adjacent to the site, and probably reflects a Settler ploughing direction. The reduction sequence as a whole indicates that tool finishing was a primary activity on the site.

Just over 50% of thedebitage from the Stage 4 excavation had been recovered from the topsoil, with the remainder being recovered from various levels of subsoil; the most being from the first 10 centimetres of the subsoil (~30%). The percentage ofdebitage recovered from the subsoil in the Stage 3 AA was much higher than the overall subsoil recovery rate, and could represent either tree root action pulling artifacts down into the subsoil, or a feature that has been leached of organics. Since the soil is sandy, staining is often faded or non-existent producing a cultural feature called a “ghost feature”. No other high concentrations in the subsoil were noted apart from the original Stage 3 units. The recovery ofdebitage from those units surrounding these Stage 3 units could have been produced by inhabitants’ trampling in this small activity, and then by subsequent tree root action and possible plough action if ploughing was too deep, impacting subsoil.

In conclusion, the Indigenous portion of the site is a small specialized site. There was no fire-cracked rock recovered, no evidence of substantial heat exposure to the debitage that was recovered, and therefore, a hearth is not indicated to have been present on the site. The amount of debitage in the assemblage is telling, in that this represented a snap-shot in time, of probably a single event. The type of analyzable debitage recovered (thinning and trimming flakes) reflects a specific activity. The presence of one projectile point base (from the Stage 3 AA) attests to that singular activity. This was most likely a re-tooling stop for a hunter; a point was broken, taken out of its haft (it had been ground), discarded and a new one was fashioned and sharpened. Slotted into the haft, and the hunter moved on. Unfortunately, the lack of diagnostic tools does not permit a designation more specifically than Indigenous, and cannot be assigned to a specific time frame or archaeological type (i.e. Broadpoint, Smallpoint, Brewerton etc.). What it does speak to is the activity of one person or a small group, moving across the landscape, leaving little trace of their presence, except what could not be re-used.

5.0 RECOMMENDATION

Based on the results of the completed Stage 4 excavation, the following recommendations are submitted to the *MCM*:

1. The **H1 (AIGs-508)** site, having been subjected to a complete Stage 4 excavation, no longer has cultural heritage value or interest. It is therefore recommended to be deemed free of further archaeological consideration.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

1. This report is submitted to the *MCM* as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the *MCM*, 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.
2. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
3. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
4. The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Burial Sites at the *Ministry of Government and Consumer Services*.
5. 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.

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- 1861 Census Record, Township of Pickering, Personal Census, Enumeration District No.2, p.32, lines 5-12: microfilm c-1057.
- 1861 Census Record, Township of York, Personal Census, Enumeration District No.3, p.125, lines 1-6: microfilm c-1090.
- 1891 Census Record, Township of Pickering, Division A, p.29, lines 8-13, microfilm T-6358.
- 1901 Census Record, Township of Pickering, Enumeration District No.6, pp.4-5, lines 44-50, 1-2, microfilm t-6487.

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- Union Publishing Co. (1884). *Farmers and Business Directory for the Counties of Ontario, Peel and York, 1884-85*. Microfilm B 70 Ser. C Reel 11.
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 - *Pickering Township (v. 1-2, 27-19283) 1798-1842*: film 17919
 - *Pickering Township (v. 3, 19289-28805) 1842-1847; Pickering Township (v. 4, 28842-36963, indexed) 1847-1850*: film 179192.
 - *Pickering Township (v. 8-9, 12770-26278, indexed) 1859-1865*: film 179195.
 - *Pickering Township (v. 14-15, 991-1707, indexed) 1872-1874*: film 179198.
 - *Pickering Township (v. 16-17, 1708-2437, indexed) 1872-1874*: film 179199.
 - *Pickering Township (v. 35, 8120-8143) 1893; (v. 36, 8144-8491) 1893-1895; (v. 37, 8492-8911) 1895-1896; (v. 38, 8912-9017) 1896-1897*: film 1723813.

LIBRARY AND ARCHIVES CANADA [LAC]:

- Statistics Canada. *Census Returns* (RG 31).
 - 1871 Census Record, Township of Pickering, Schedule No.4, Division No.3, p.2, line 6; p.8, line 10: microfilm C-9973/4
 - 1871 Census Record, Township of Pickering, Division No.3, p.7, lines 10-13, microfilm C-9973/4.
- Land Petitions of Upper Canada, 1763-1865: Coffin, James: Bundle C 3, Petition 165, 203; C 4, Petition 16, microfilm, C-1648; Bundle C11, Petition 159, microfilm C-1652.

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 - *Pickering, Book 10: Concession 2 to 9*. [Online]. Available at: <https://www.onland.ca/ui/40/books/60451> [Accessed 27 August 2021].

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7.3 Map Imagery

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- Department of Militia and Defence (1914). *Topographic Map – Ontario – Markham Sheet No. 58*. Surveyed in 1909. [Online]. Available at: <https://ocul.on.ca/topomaps/collection/> [Accessed on 25 January 2023].
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ONTARIO HISTORICAL COUNTY MAPS PROJECT

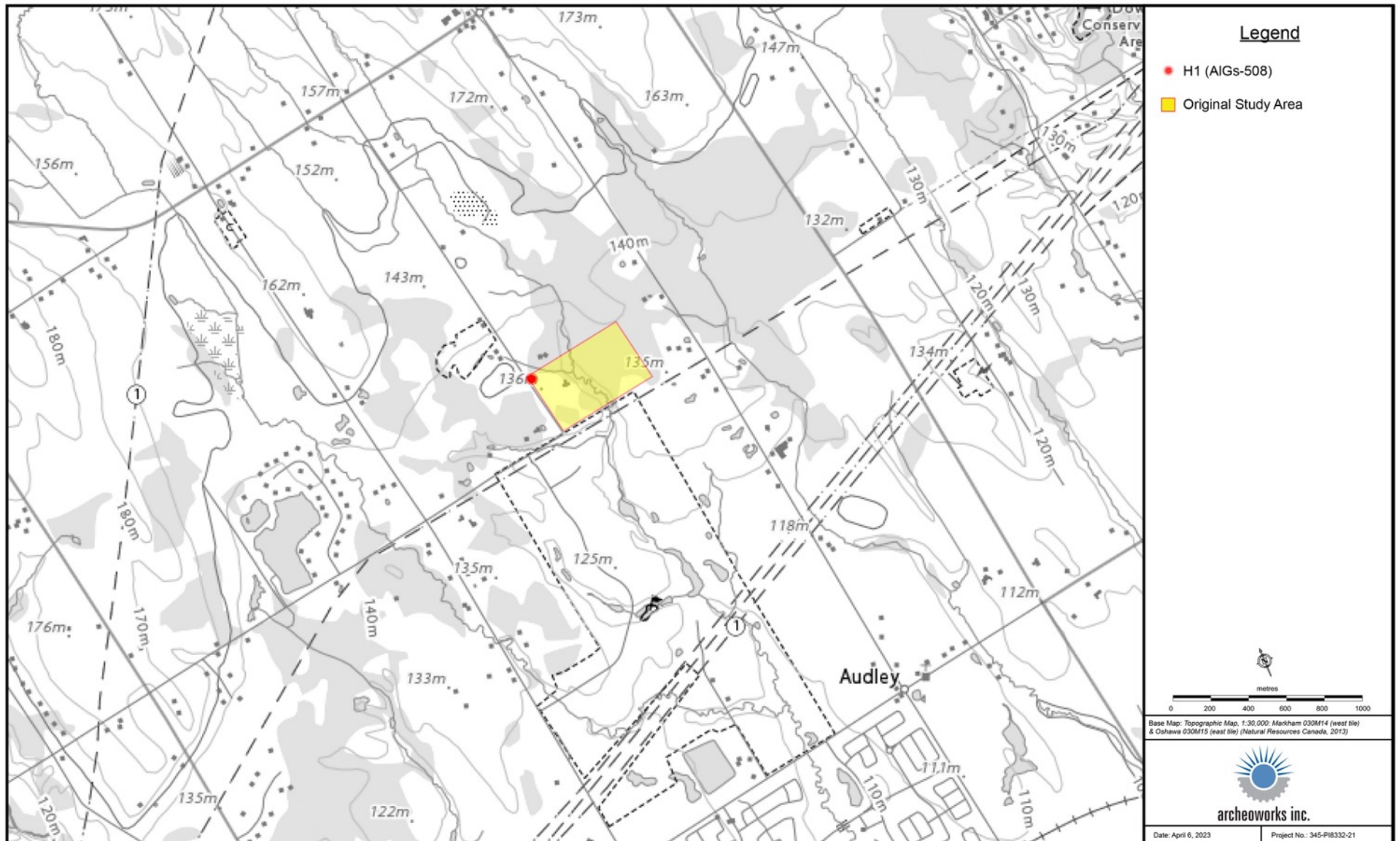
- Shier, J. (1860). *Tremaine's Map of the County of Ontario, Upper Canada*. Toronto: Geo. C. Tremaine. [Online]. Available at: <http://maps.library.utoronto.ca/hgis/countymaps/maps.html> [Accessed 25 January 2023].

UNIVERSITY OF TORONTO MAP AND DATA LIBRARY, 1954 Air Photos of Southern Ontario

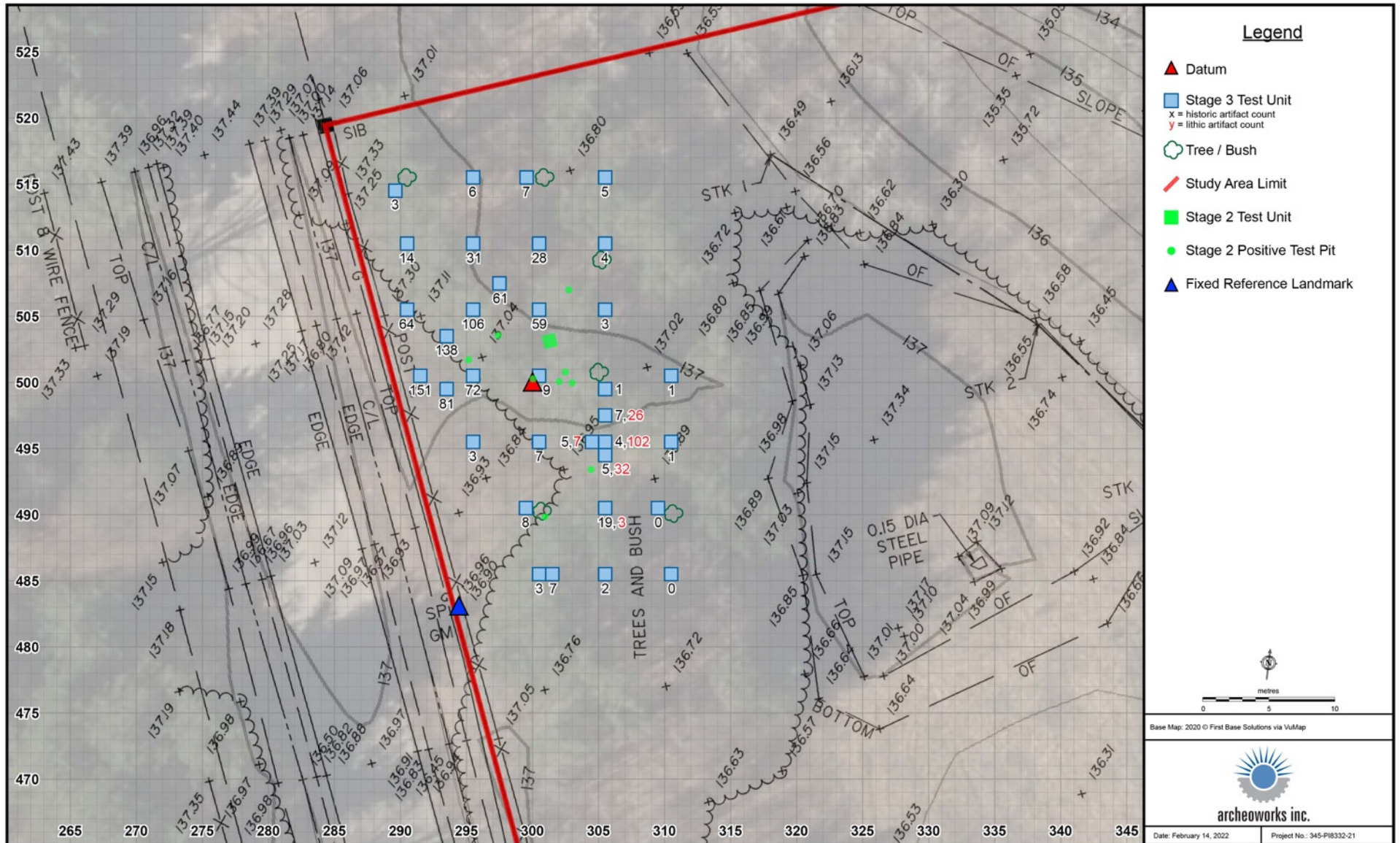
- *Tile 437.784*. [Online]. Available at: <https://mdl.library.utoronto.ca/collections/air-photos/1954-air-photos-southern-ontario/index> [Accessed 25 January 2023].

APPENDICES

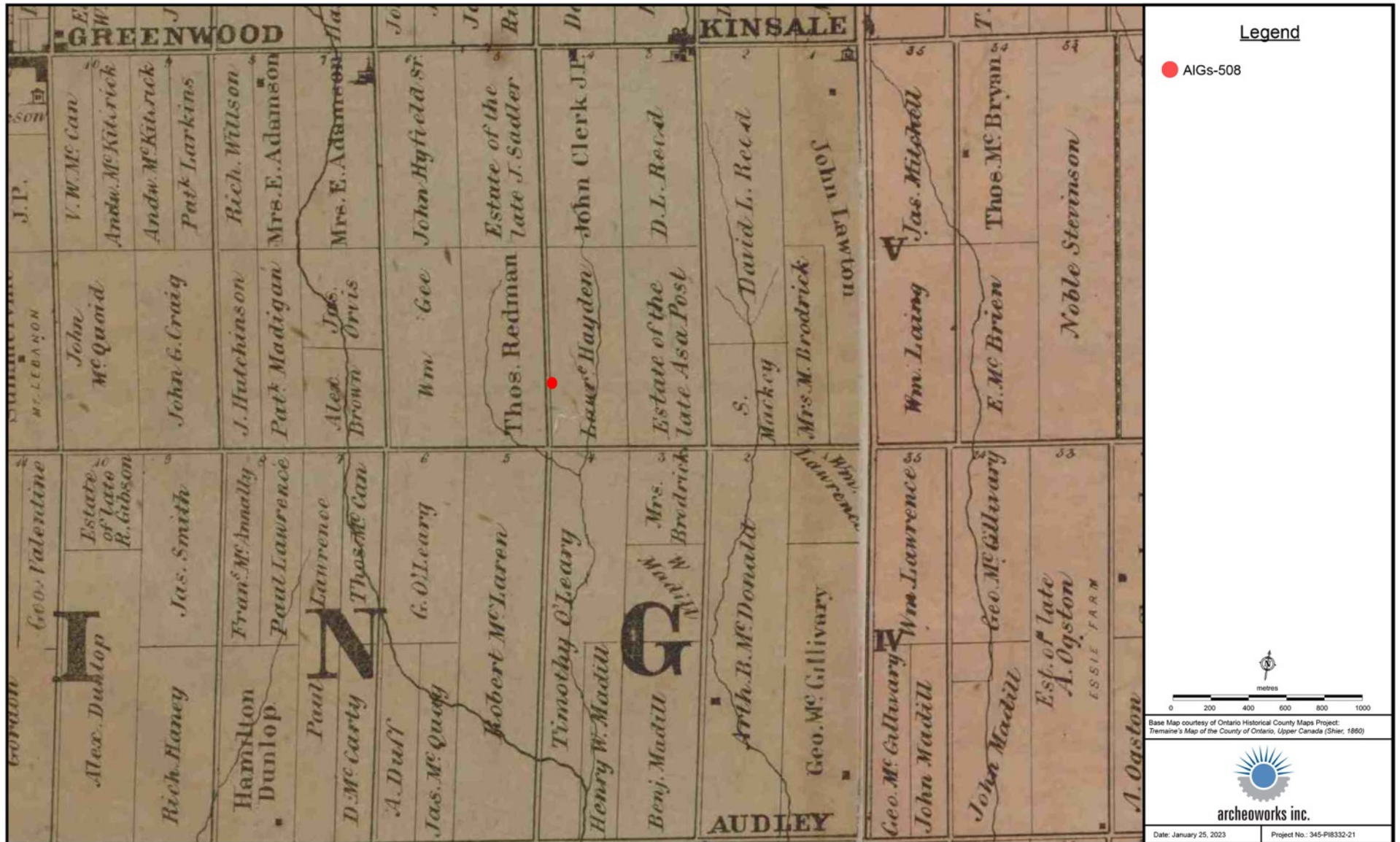
APPENDIX A: MAPS



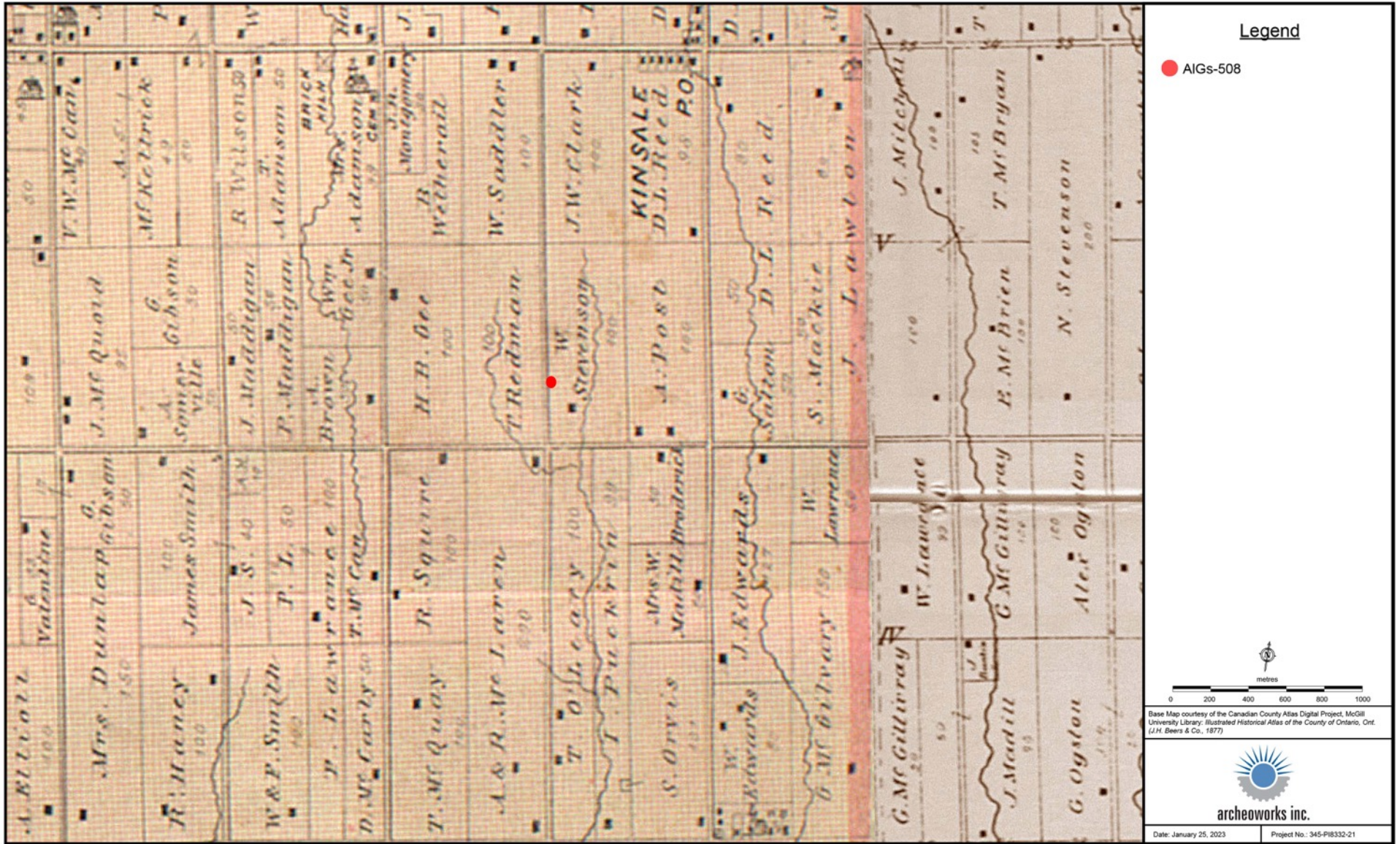
Map 1: Topographic map section identifying the location of the H1 (AIGs-508) site within the 3225 Fifth Concession Road property.



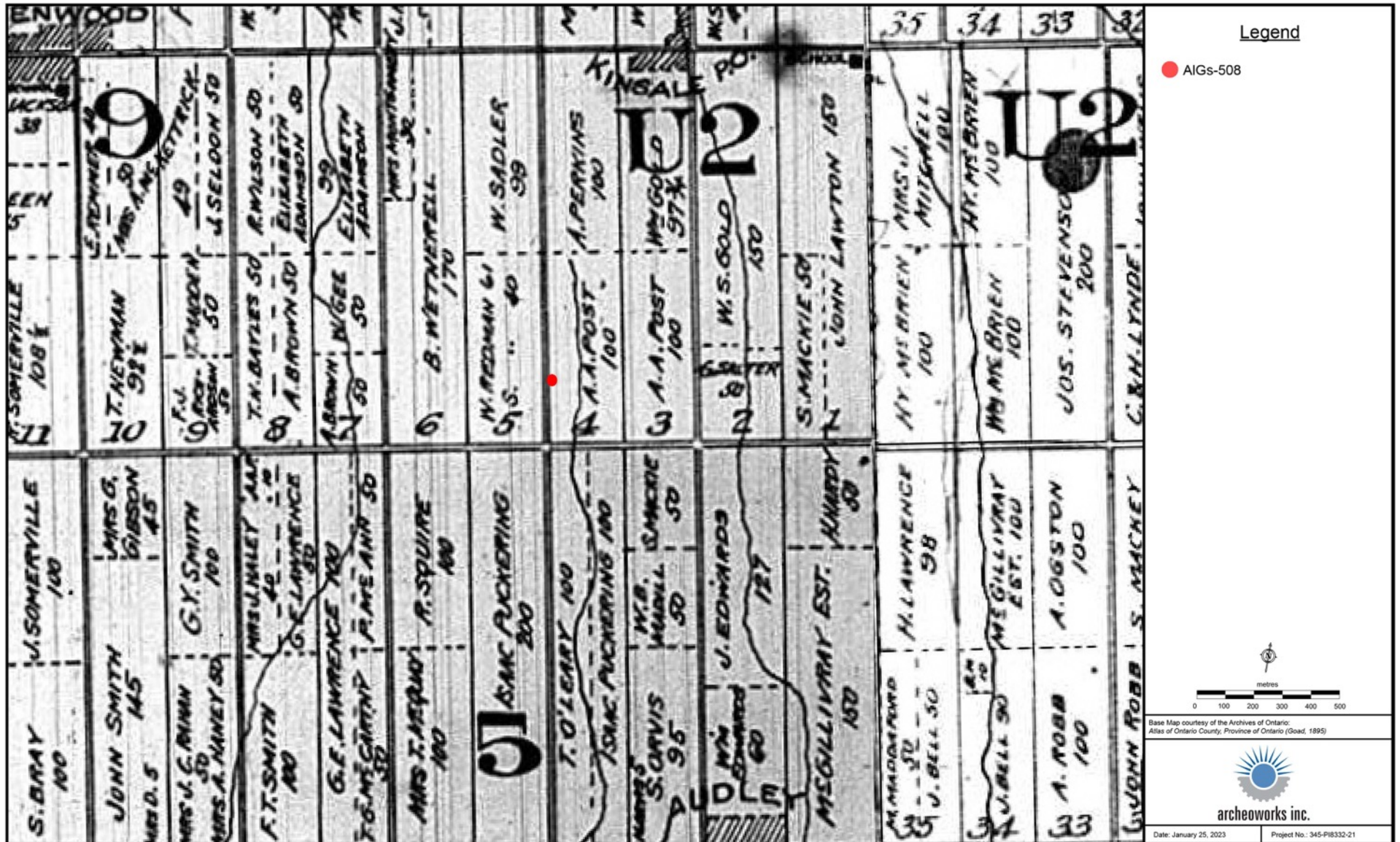
Map 2: Results of the Stage 2 and 3 AA (from Archeoworks Inc., 2022b).



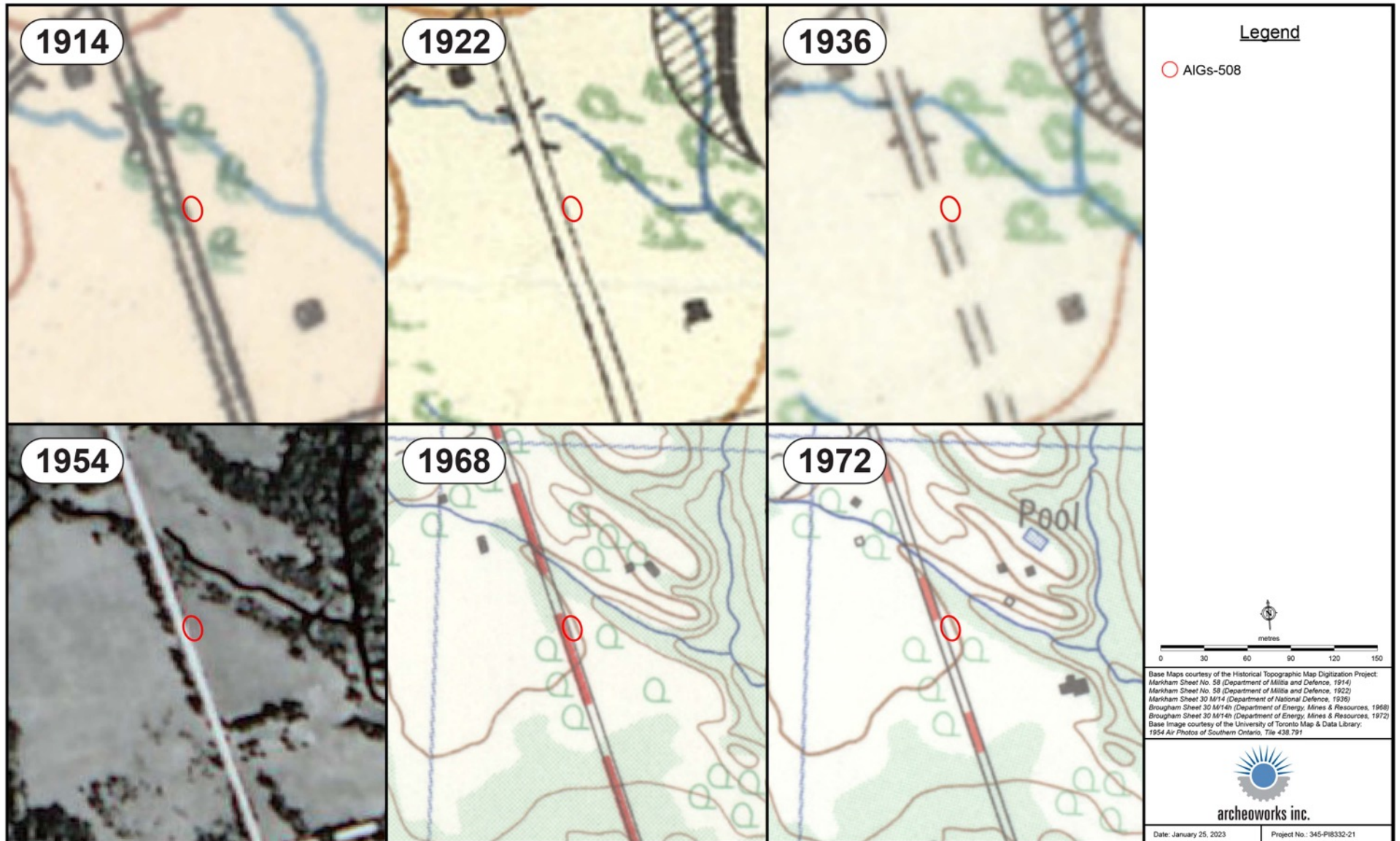
Map 3: H1 (AIGs-508) site within the 1860 Tremaine's Map of the County of Ontario.



Map 4: H1 (AIGs-508) site within the 1877 *Illustrated Historical Atlas of the County of Ontario*.



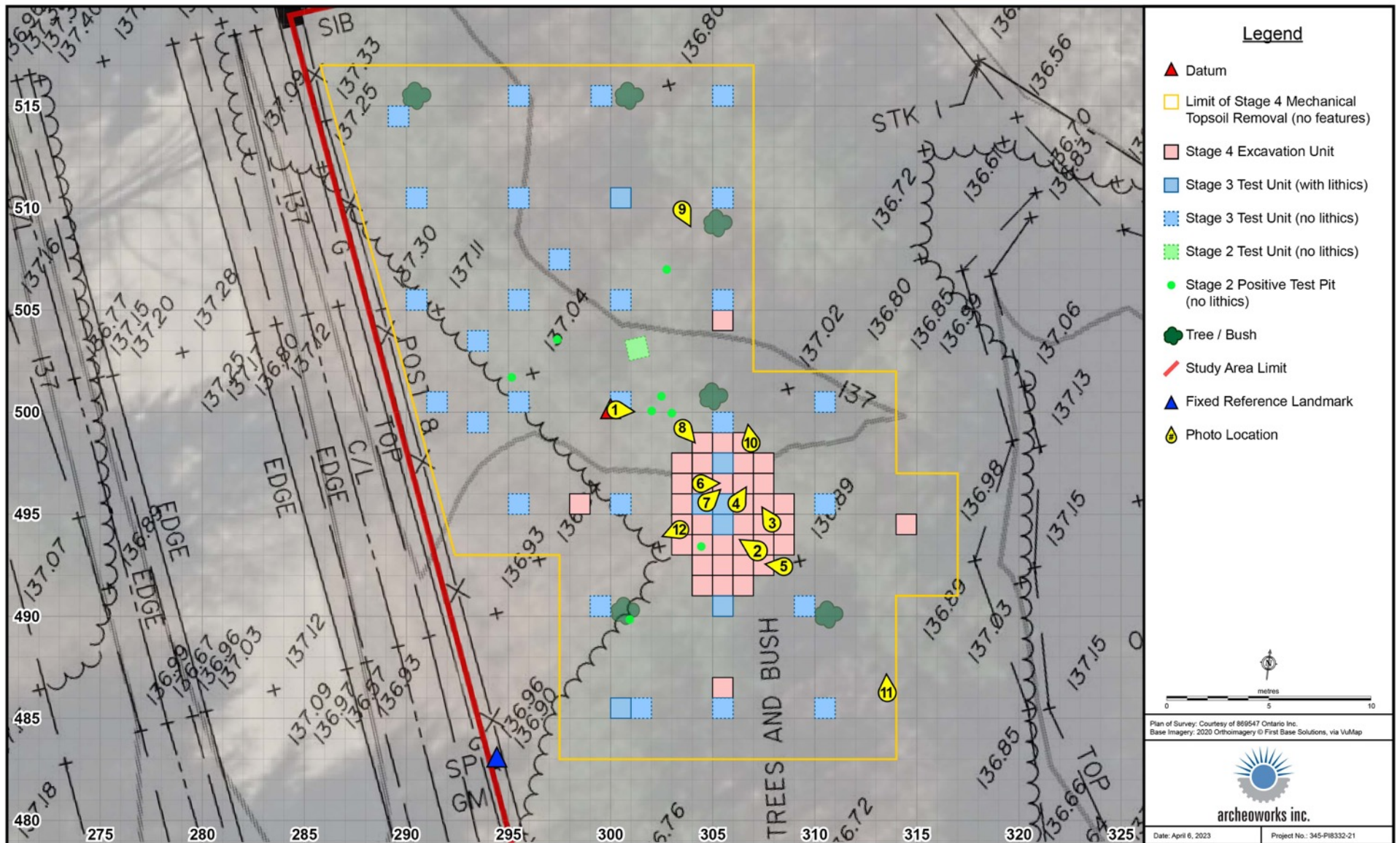
Map 5: H1 (AIGs-508) site within the 1895 Atlas of Ontario County.



Map 6: H1 (AIGs-508) site within topographic maps and aerial imagery from the 20th century.



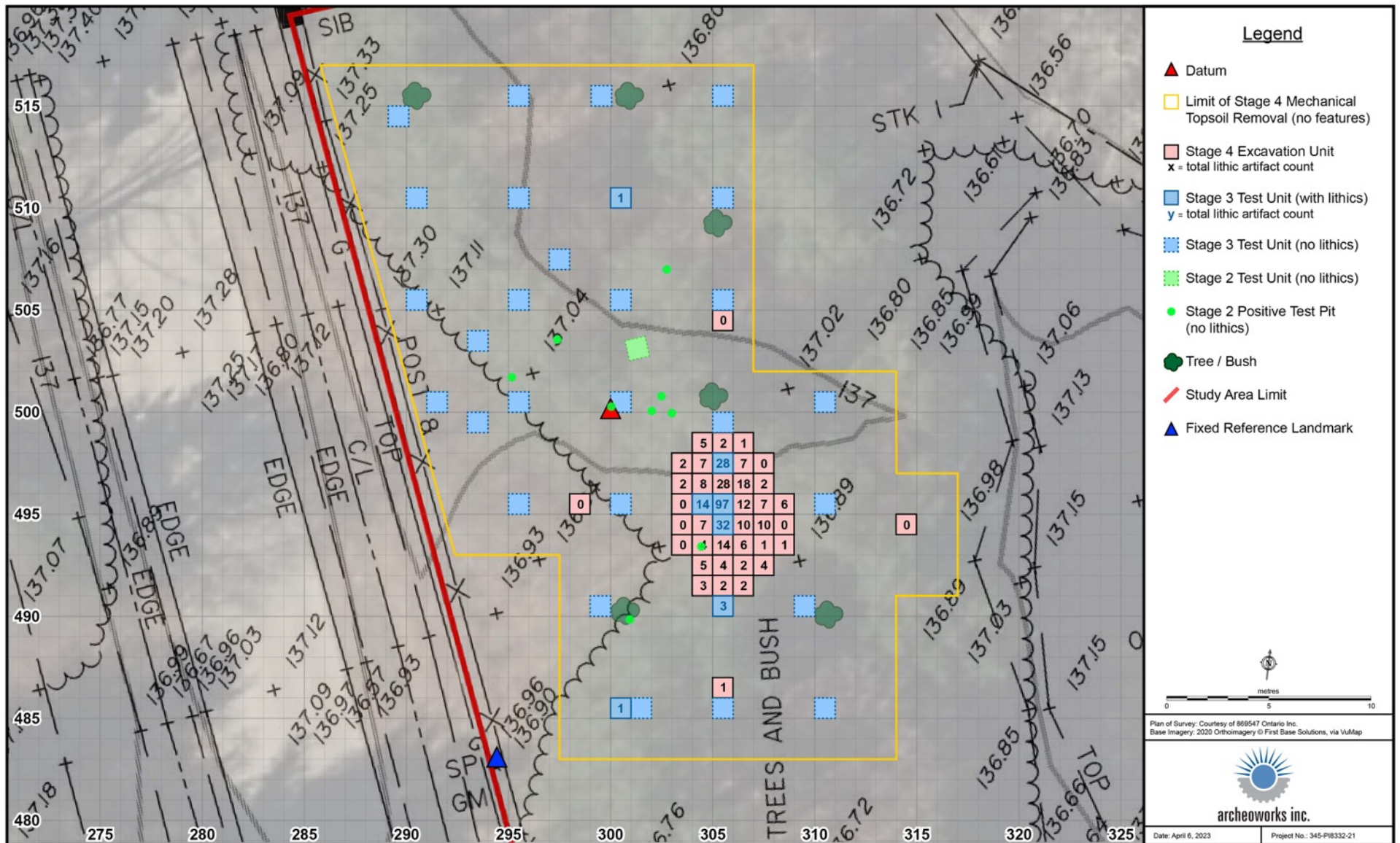
Map 7: H1 (AIGs-508) site within orthoimagery from the 21st century.



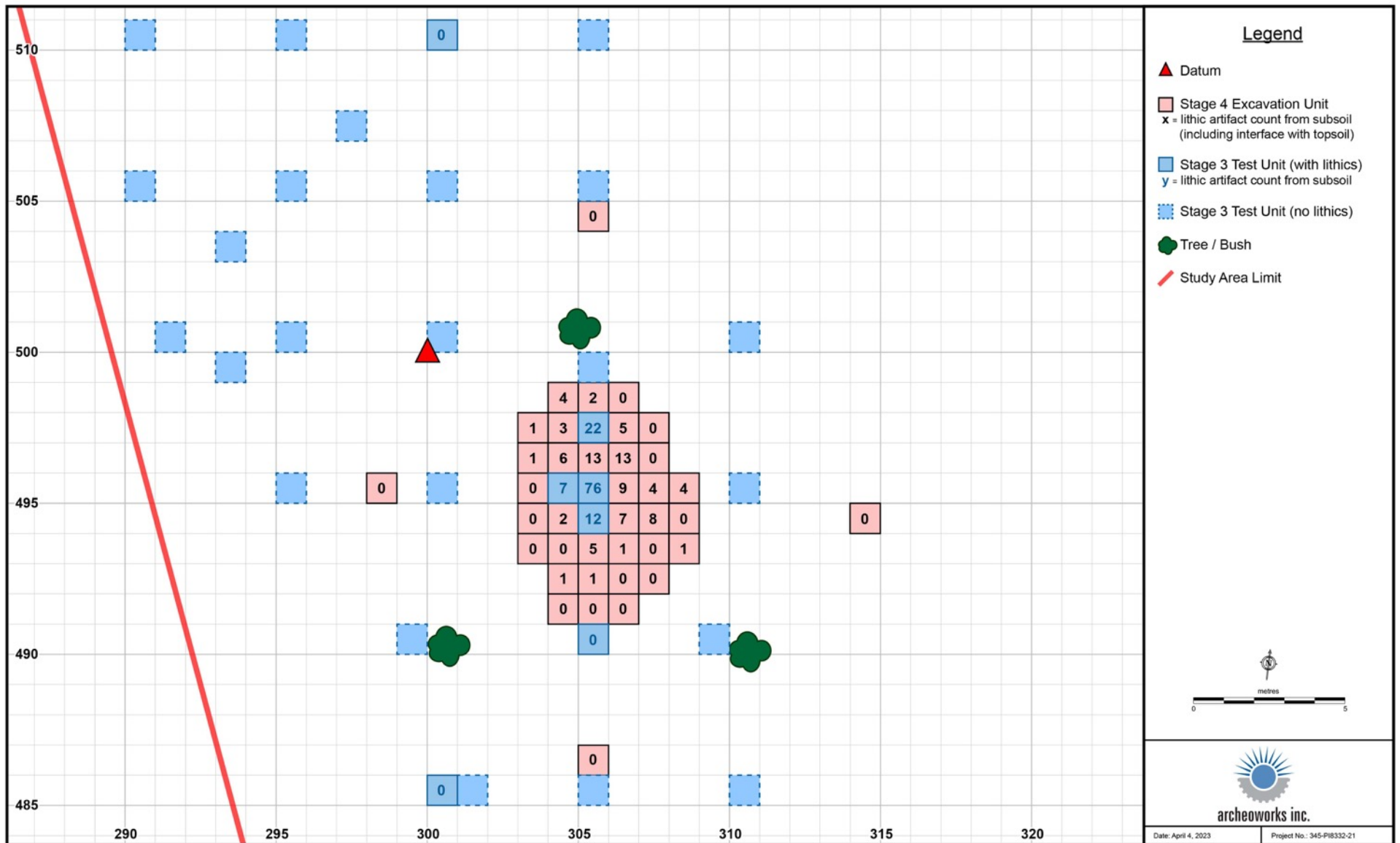
Map 8: Map showing the locations of a selection of Stage 4 fieldwork photographs.



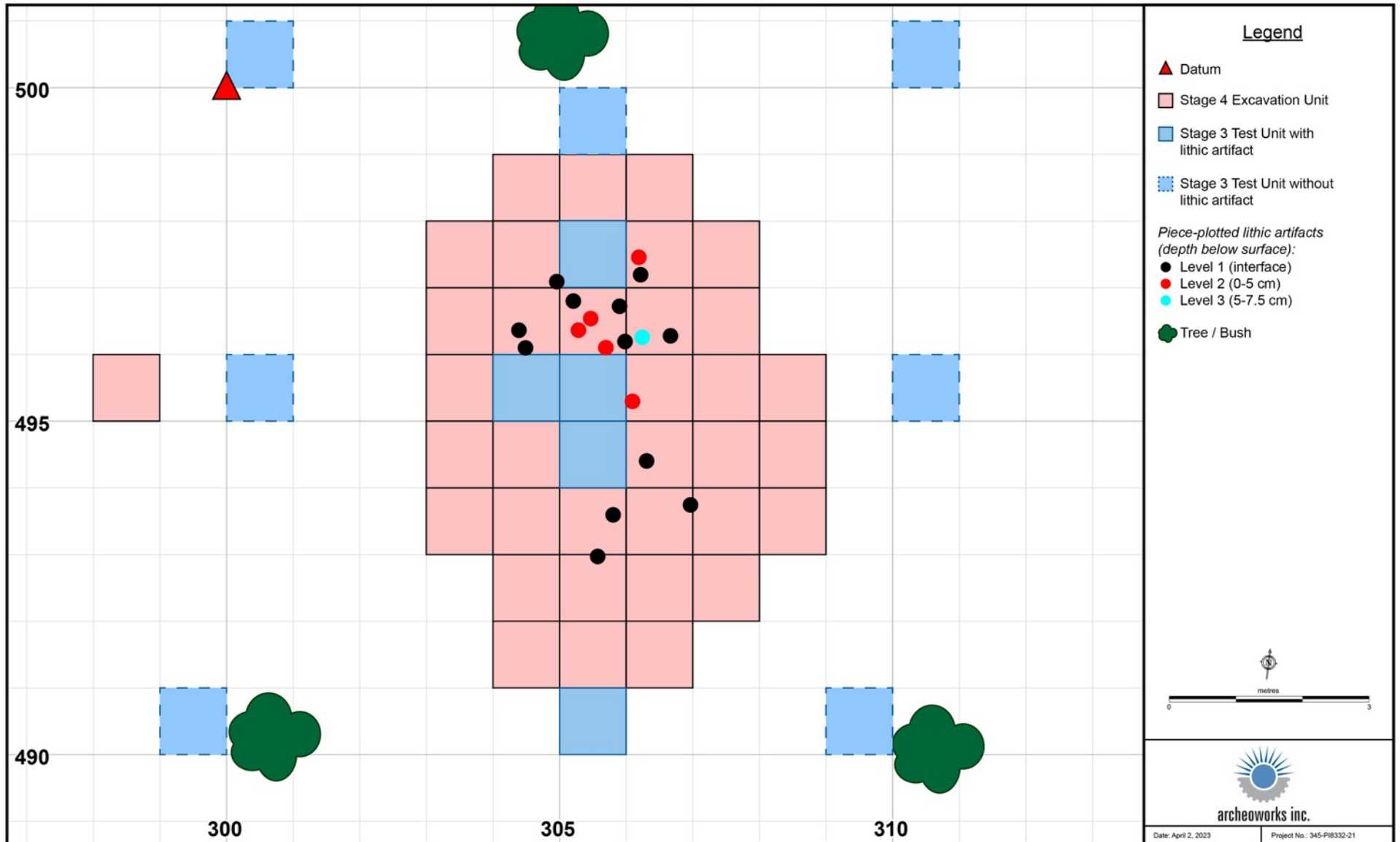
Map 9: Results of Stage 4 excavation for the historic Euro-Canadian component of H1 (AIGs-508).



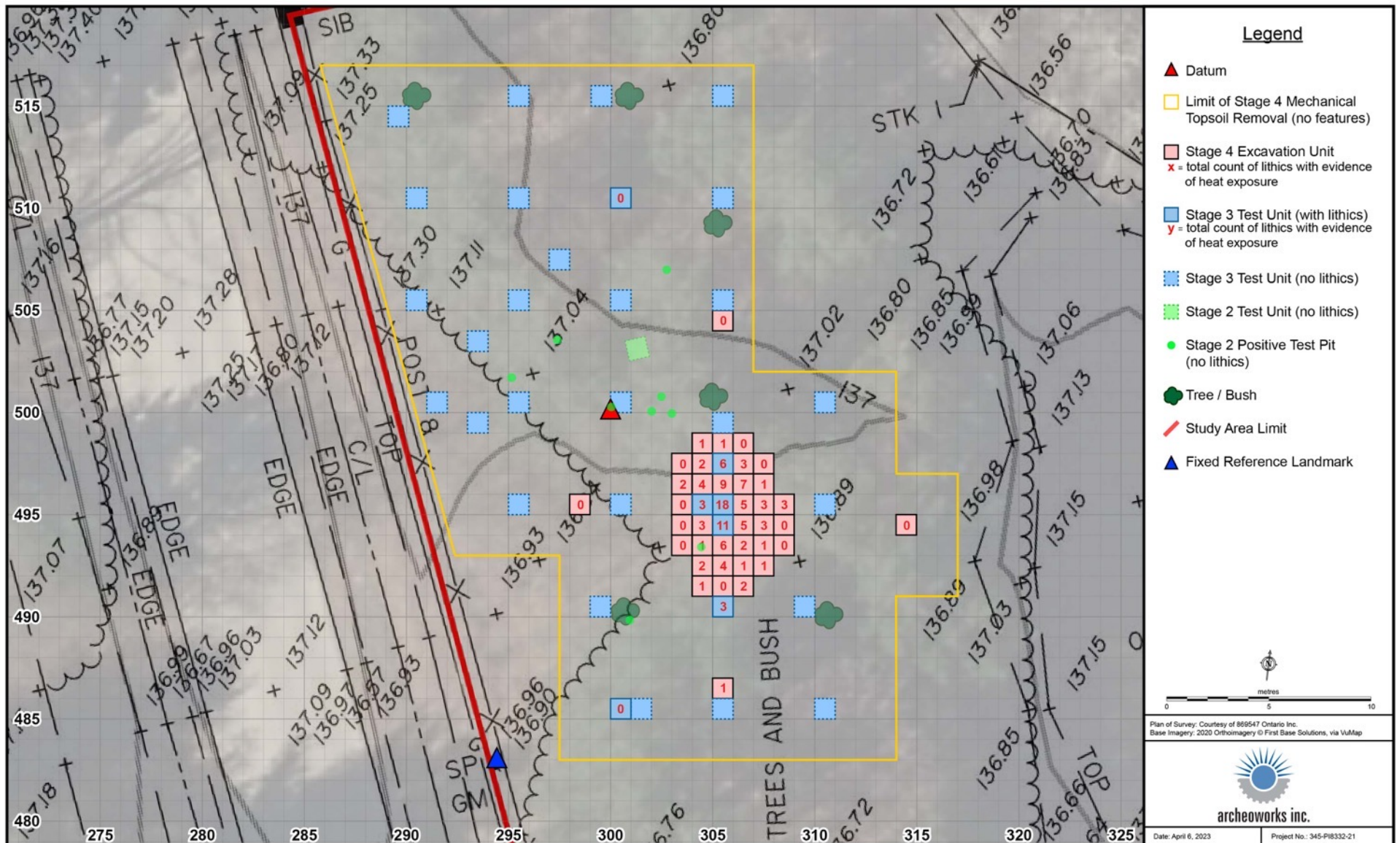
Map 10: Results of Stage 4 excavation for the Indigenous component of H1 (AIGs-508). Note that the total counts per unit include finds from all stratigraphic levels.



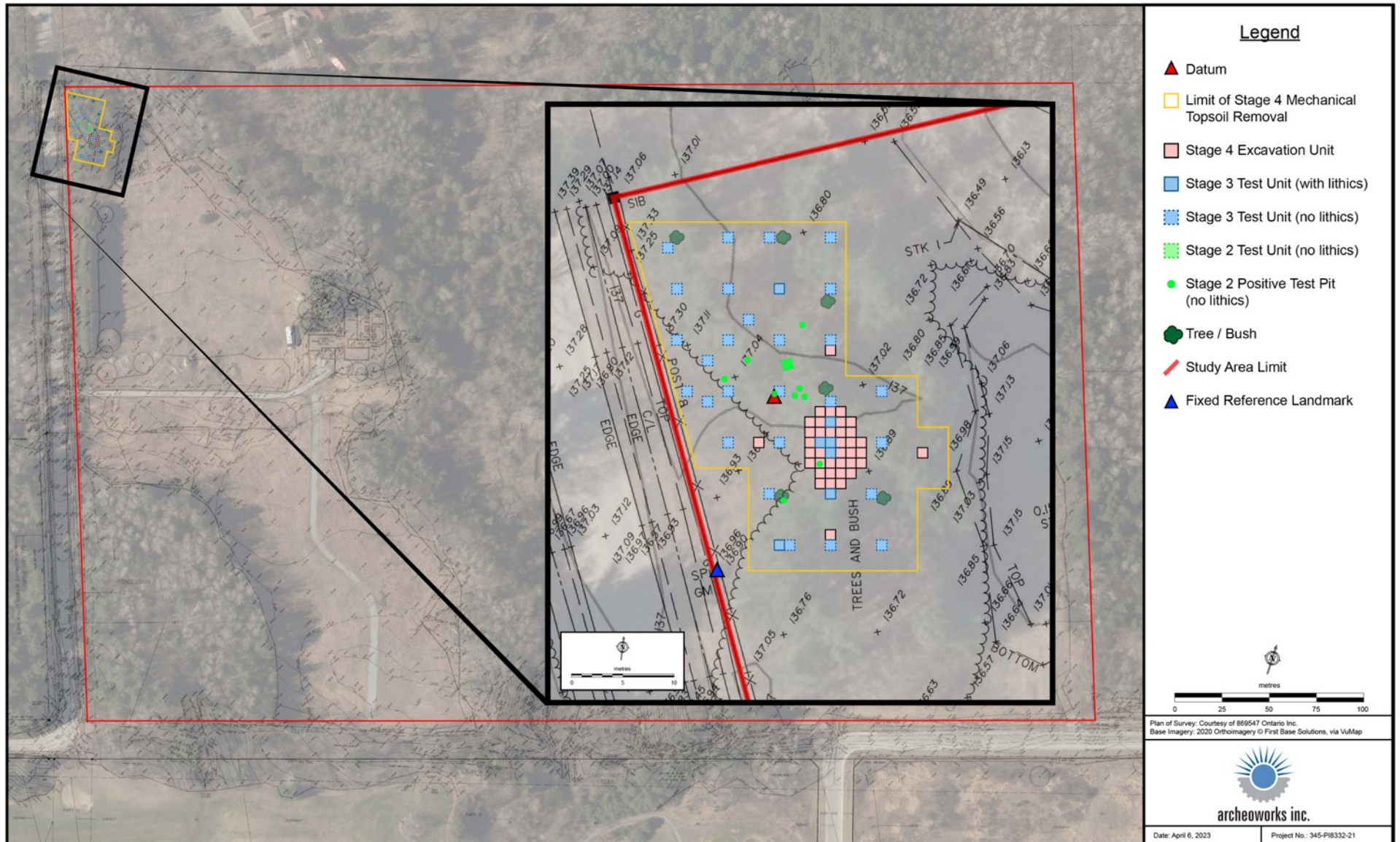
Map 12: Results of Stage 4 excavation for the Indigenous component of H1 (AIGs-508), showing only subsoil artifact counts per unit.



Map 13: Results of Stage 4 excavation for the Indigenous component of H1 (AIGs-508), showing locations and depths of piece-plotted artifacts.



Map 14: Results of Stage 3 and 4 fieldwork for the Indigenous component of H1 (AIGs-508), showing total per-unit counts of artifacts with heat exposure.



Map 15: Map showing the H1 (AIGs-508) site within the plan of survey.

APPENDIX B: HURON-WENDAT NATION HISTORY

ANNEX

History of the Nation Huronne-Wendat

As an ancient people, traditionally, the Huron-Wendat, a great Iroquoian civilization of farmers and fishermen-hunter-gatherers and also the masters of trade and diplomacy, represented several thousand individuals. They lived in a territory stretching from the Gaspé Peninsula in the Gulf of Saint Lawrence and up along the Saint Lawrence Valley on both sides of the Saint Lawrence River all the way to the Great Lakes. Huronia, included in Wendake South, represents a part of the ancestral territory of the Huron-Wendat Nation in Ontario. It extends from Lake Nipissing in the North to Lake Ontario in the South and Île Perrot in the East to around Owend Sound in the West. This territory is today marked by several hundred archaeological sites, listed to date, testifying to this strong occupation of the territory by the Nation. It is an invaluable heritage for the Huron-Wendat Nation and the largest archaeological heritage related to a First Nation in Canada.

According to our own traditions and customs, the Huron-Wendat are intimately linked to the Saint Lawrence River and its estuary, which is the main route of its activities and way of life. The Huron-Wendat formed alliances and traded goods with other First Nations among the networks that stretched across the continent.

Today, the population of the Huron-Wendat Nation is composed of more than 4000 members distributed on-reserve and off-reserve.

The Huron-Wendat Nation band council (CNHW) is headquartered in Wendake, the oldest First Nations community in Canada, located on the outskirts of Quebec City (20 km north of the city) on the banks of the Saint Charles River. There is only one Huron-Wendat community, whose ancestral territory is called the Nionwentsïo, which translates to "our beautiful land" in the Wendat language.

The Huron-Wendat Nation is also the only authority that have the authority and rights to protect and take care of her ancestral sites in Wendake South.

APPENDIX C: ARCHIVAL DATA

Table B1: Abstract Index Books, ca.1799-1922 – Lot 4, Concession 5, Township of Pickering, County of Ontario

Note: Entries pertaining to the parcel on which the site area is situated are in **bold**.

No. of Instrument	Instrument	Its Date	Date of Registry	Grantor	Grantee	Quantity of Land	Consideration or Amount of Mortgage	Remarks
	Patent	Aug8,1799			James Coffin	200 acres		
16616	B&S	Sept12,1838	Oct2,1839	Wm. Coffin (by Atty)	John McDonell	N½	£101.10	
17949	B&S	Dec15,1840	Jan2,1841	John McDonald & wife	John Clarke	N½		
24549	B&S	Mar14,1845	May1,1845	Wm. Coffin (by Atty)	Lawrence Heyden	S½	£105	
17398	B&S	Sept12,1861	Oct1,1861	Lawrence Heyden & wife	Wm. Stephenson	S½	£1000	
17369	Mort	Sept12,1861	Oct1,1861	Wm. Stephenson & wife	Lawrence Heyden	S½	£900	
1185	Q.C.	Mar25,1872	Apr3,1872	Wm. Stephenson & wife	Barbara Heyden	S½	\$1.00	
1383	B&S	Oct17,1872	Jan23,1873	Barbara Heyden (Extrx)	Joseph Davids	S½	\$2,200	
1384	Mort	Oct22,1872	Jan23,1873	Joseph Davids	Wm. R. G. Elwell, et all (Trustees)	S½	\$2,850	Dis. By No.6476
2238	Ass of Mort	Jan29,1874	Sept22,1875	Wm. R. G. Elwell, et all (Trustees)	John Cawthra	S½	\$2,850	Ass of No.1384
4461	B&S	Nov28,1881	Nov30,1881	Joseph Davids & wife	Wm. Stephenson	S½	\$4,000	
4462	Mort	Nov24,1881	Nov30,1881	Wm. Stephenson & wife	John Cawthra	S½	\$2,400	
4463	Mort	Nov25,1881	Nov30,1881	Wm. Stephenson & wife	Joseph Davids	S½	\$900	
6476	Dis of Mort	Nov4,1887	Nov8,1887	Henry Cawthra	Isabel Davids	S½		
6633	Mort	Mar23,1888	Apr14,1888	Albert A. Post	Helena Burnham	S½	\$2,500	
7041	Conveyance	June20,1888	Oct15,1888	Joseph Cawthra	Albert Asa Post	S½		
7455	Mort	Mar9,1891	Mar9,1891	Albert A. Post	Isabella M. Brooke	S½	\$500	dis. By No.8367
7847	Ass of Mort	June21,1892	June21,1892	Helena Burnham	The Ontario L. & S. Co.	S½		Ass of No.6633
8322	Deed	Apr1894	Apr29,1894	Albert A. Post	Margaret E. Post	S½		
8336	Mort	Sept22,1894	Oct1,1894	Marg. E. & A.A. Post	Isabella Brooke	S½	\$500	
8367	Dis of Mort	Oct1894	Nov16,1894	Isabella M. Brooke	Albert Asa Post	S½		dis. Of no.7455
8763	H. of Justice	Apr1,1896	Apr2,1896	D. F. Every & A.A. Post, Pltf	Marg. E. & A.A. Post, Dfts	S½		
8770	Conveyance	Mar28,1896	Apr7,1896	The Ontario Loan & S. Co.	Chas. H. Pickey	S½		
8771	Mort	Apr1,1896	Apr7,1896	Chas. H. Pickey & wife	The Ontario Loan & S. Co.	S½	\$2,500	Dis by no.13504
12117	Right of Way Deed	Apr23,1910	May26,1910	Chas. H. Pickey & wife	The Canadian Northern Ontario Railway Company	part	\$338.25	
12143	Dis of Mort	May31,1910	July16,1910	The Ontario Loan & S. Co.	Chas. H. Pickey	part		Dis of no.8771
12812	Dis of Mort	July24,1912	Aug9,1912	The Ontario Loan & S. Co.	Charles H. Pickey	N.pt of S½		Dis in part of No.8771
12813	Grant	July22, 1912	Aug9,1912	Chas. H. Pickey & wife	John A. O'Connor	N.pt of S½	\$1,305	
13504	Dis of Mort	Sept21, 1914	Oct19,1914	The Ontario L. & S. Co.	Charles Henry Pickey	S½		Dis of no.8771
13505	Grant	Sept 15,1914	Oct19,1914	Charles Henry Pickey & wife	Theodore A. McGillivray	part S½	\$2,500	
14946	Grant	Mar16,1920	Mar22,1920	Theodore A. McGillivray & wife	Otilla K. Morrissey	part S½	\$4,500	
15722	Grant	Mar3,1922	Mar4,1922	Otilla K. Morrissey	Joseph F. Quinlan	part S½	\$4,500	

Table B2: Tax Assessment Rolls, ca.1852-1899 – Lot 4, Concession 5, Township of Pickering, County of Ontario

Note: Entries pertaining to the parcel on which the site area is situated are in **bold**.

Year	Name	Profession/ Occupation	f/h/t	Age	Owner and Address	No. of Acres	No. of Acres Cleared	Total Value of Real Property	Total Value of Real and Personal Property	Remarks
1852	John Clerk		fh					£550	£592	
	Lawrence Heydon							£200	£200	S½
1853	John Clerk	yeoman	fh	45		100		£550	£602	
	Lawrence Hodgson					100		£200	£200	S½: non-resident
	Squire Hadon					100		£300		S½: non-resident
1854	John Clerk	yeoman	fh	47		100		£575	£575	
	Squire Hadon					100		£300		S½: non-resident
1855	John Clerk	yeoman	fh	47		100		£575	£600	
	Lawrence Heydon					100		£200		S½: non-resident
1857	John Clerk	yeoman	f	50		100		£600	£625	
	Lawrence Heydon					100		£350		non-resident
	Post					100		£300		non-resident
1859	John Clerk	yeoman	f	54		100		\$2,400	\$2,400	
	Lawrence Haydon, Toronto					100		\$1,400		S. half: non-resident
1861	John Clarke	yeoman	f	56		100		\$2,400	\$2,400	
	Lawrence Haydon					100		\$1,400		S½: non-resident
	William Stevenson	yeoman	h		David S. Reid	98		\$2,300	\$2,700	Listed on Lot 4, Con6
1862	John Clarke	yeoman	f	50		100		\$2,400	\$2,800	
	William Stevenson	yeoman	f	40		100		\$1,600	\$4,300	also a householder of 98ac of L4C6 valued at \$2300 & owned by David L. Reid
1863	James D. Clarke	yeoman	h	20	Mrs. Clarke	100		\$2,400	\$2,500	N½
	Lee Hudson	yeoman	h		William Stevenson	1		\$40	\$40	S½
	William Stevenson	yeoman	f	53		99		\$1,600	\$4,100	S½; also a householder of 98ac of L4C6 valued at \$2300 & owned by David L. Reid
1865	James D. Clarke	yeoman	h	28	Mrs. Clarke	100		\$2,400	\$2,500	N½
	Jacob Winter	labourer	h	52		1		\$50	\$50	S½
	William Stevenson	yeoman	f	58		99		\$1,600	\$3,900	S½; also a householder of 98ac of L4C6 valued at \$2300 & owned by David L. Reid
1867	William Stevenson	yeoman	f	58		99	30	\$1,800	\$3,900	S½; also a householder of 98ac of L4C6 valued at \$2300 & owned by David L. Reid; 8 in family; 12cows;3sheep;9hogs;4horses separate entry after L4C6 with no acreage listed
	William Stevenson									
	Jacob Winter	labourer	t	55		1	1	\$50	\$50	S½: 9 in family: 3hogs
1869	James D. Clarke	yeoman	t	33	Mrs. J. Clarke	100	95	\$2,300	\$2,500	N½: 7 in family: 19cows;8sheep;7hogs;5horses
	William Stevenson	yeoman	f	60		100	50	\$1,800	\$1,900	S½: 7 in family: 8cows;7sheep;1hog;6horses
1871	John W. Clarke	yeoman	f	21		100	90	\$2,300	\$2,400	N½: 4 in family: WM: 2cows;1hog;2horses
	William Stevenson	yeoman	f	63		100	50	\$1,800	\$1,900	S½: 7 in family: WM: 6cows;7hogs;5horses
1873	John W. Clarke	yeoman	t	24		100	95	\$2,300	\$2,400	N½: 4 in family: Wes M: 11cows;8sheep;1hog;3horses
	William Stevenson	yeoman	f	53		100	60	\$1,800	\$1,900	S½: 6 in family: Wes M: 6cows;4horses
1876	John W. Clarke	yeoman	f	25		100	100	\$4,800	\$5,100	N½: 5 in family: CM: 14cows;9sheep;5hogs;5horses
	Robert Hamilton	yeoman	h	36				\$20	\$20	6 in family
	William Stevenson	yeoman	f	67		100	60	\$3,000	\$3,100	S½: 6 in family: CM: 6cows;6sheep;4horses
1878	John W. Clarke	yeoman	f	27						
	Harvey S. Clarke	yeoman	f	24		100	100	\$4,800	\$5,100	N½: 5 in family: CM: 11cows;1hog;7horses
	William Stevenson	yeoman	f	68		100	80	\$3,000	\$3,100	S½: 3 in family: CM: 2cows;6horses

STAGE 4 EXCAVATION OF THE H1 (AIGs-508) SITE
CITY OF PICKERING, R.M. OF DURHAM, ONTARIO

Year	Name	Profession/ Occupation	f/h/t	Age	Owner and Address	No. of Acres	No. of Acres Cleared	Total Value of Real Property	Total Value of Real and Personal Property	Remarks
1880	John W. Clarke		f	33						
	Harvey S. Clarke		f	30						
	Frederick W. Clarke	yeoman	f	21	Kinsale	100	90	\$4,800	\$5,150	N½: 3 in family: CM: 9cows;1hog;8horses
	William Stevenson	yeoman	f	71	Kinsale	100	100	\$3,000	\$3,100	S½: 3 in family: CM: 7cows;4horses
1882	Aaron Parkins	yeoman	f	30	Kinsale			\$3,750		on Lot 4, Concession 6
	William Parkins	yeoman	f	27	Kinsale	100	100	\$4,800	\$8,850	N½: 4 in family: CM: 10cows;10sheep;2hogs;4horses
	Eli A. Willson	yeoman	t	24	Kinsale	100	100	\$3,000	\$3,100	S½: 4 in family: CM: 8cows;6sheep;6hogs;3horses
	William Stevenson		o	73						
1884	William Barker		t	45		100	100	\$4,800	\$4,800	N½: CM: 6 in family: 7cows;2hogs;3horses
	Thomas Barker		t	19						
	Robert Barker		t	17						
	Aaron Parkins		o	33						
	Charles Stevenson	yeoman	t	26	Kinsale	100	90	\$3,000	\$3,000	S½: 9 in family: CM: 8cows;6hogs;3horses
	William Stevenson		o	76						
1886	William Barker	yeoman	t	47	Kinsale	100	100	\$4,800	\$4,800	N½: M: 6 in family: 14cows;6sheep;2hogs;4horses
	Thomas Barker	yeoman	t	21						
	Robert Barker	yeoman	t	19						
	Aaron Parkins		o							
	Henry Cawthra	non-resident	f		Toronto	100	90	\$1,500	\$1,500	S½
	Mrs. E. J. Cawthra	non-resident	f		Toronto					
	Thomas Williams	non-resident	agent		25 Toronto St, Tor.					
1887	Henry Cawthra	non-resident	f		Toronto	100	90	\$1,500	\$1,500	S½
	Mrs. E. J. Cawthra	non-resident	f		Toronto					
	Thomas Williams	non-resident	agent		28 Toronto St, Tor.					
	Aaron Parkins	yeoman	f	35	Kinsale	100	100	\$4,800	\$5,000	N½: M: 2 in family: 10cows;2hogs;4horses
1889	Michael Byron	yeoman	t	33	Kinsale	200	150	\$4,500	\$4,600	S½ of both L3 and L4 in C5: 2 in family: RC: 5cows;3hogs;3horses
	A. A Post		o		Whitby					
	Aaron Parkins	yeoman	f	36	Kinsale	100	100	\$4,800	\$4,900	N½: M: 2 in family: 10cows;1hog;2horses
1891	Patrick O'Grady	yeoman	t	50	Kinsale	200	150	\$4,000	\$4,000	S½ of both L3 and L4 in C5: 6 in family: RC: 3cows;6hogs;4horses
	A. A Post		f		Whitby					
	Aaron Parkins	yeoman	f	40	Kinsale	100	100	\$4,800	\$5,000	N½: M: 4 in family: 9cows;1hog;4horses
1893	Patrick O'Grady	yeoman	t	54	Kinsale	200	150	\$3,800	\$3,800	S½ of both L3 and L4 in C5: 5 in family: RC: 3cows;1hog;2horses
	William O'Grady	yeoman	t	21	Kinsale					
	A. A Post		f		Whitby					
	Aaron Parkins	yeoman	f	45	Kinsale	100	100	\$4,800	\$4,900	N½: M: 3 in family: 10cows;1hog;3horses
1895	Patrick O'Grady	yeoman	t	54	Kinsale	200	150	\$3,800	\$3,800	S½ of both L3 and L4 in C5: 4 in family: RC: 20cows;3hogs;6horses
	William O'Grady	yeoman	t	22	Kinsale					
	A. A Post		f		Whitby					
	Henry Pickey		f		Kinsale					"duplicate...[unreadable]...1296,1297 & 1298 on Page 82")
	Aaron Parkins	yeoman	f	48	Kinsale	100	100	\$4,800	\$4,900	N½: M: 2 in family: 18cows;3horses
1897	Chas. H. Pickey	yeoman	f	38	Kinsale	200	150	\$3,500	\$3,500	S½ of both L3 and L4 in C5: 8 in family: Pres: 13cows;3hogs;4horses
	Aaron Parkins	yeoman	f	47	Kinsale	100	100	\$4,800	\$4,800	N½: M: 2 in family: 22cows;1hog;3horses
1899	Chas. H. Pickey	yeoman	f	40	Kinsale	200	150	\$3,000	\$3,000	S½ of both L3 and L4 in C5: 9 in family: Pres: 6cows;10hogs;4horses
	Aaron Parkins	yeoman	f	45	Kinsale	100	100	\$4,800	\$4,800	N½: M: 2 in family: 18cows;3hogs;1horses

APPENDIX D: IMAGES



Image 1: View of grid set up at H1.



Image 2: Topsoil excavation in progress in units west of the high-yielding Stage 3 AA test units.



Image 3: Topsoil excavation in progress in units east of the high-yielding Stage 3 AA test units.



Image 4: Cleaning the topsoil—subsoil interface by trowel to identify sub-surface cultural features.

STAGE 4 EXCAVATION OF THE H1 (AIGs-508) SITE
CITY OF PICKERING, R.M. OF DURHAM, ONTARIO



Image 5: Careful per-unit subsoil excavation in progress.



Image 6: Typical photograph taken of in-situ subsoil artifacts (flagged in white) prior to recording, with a 20-cm grid overlay.

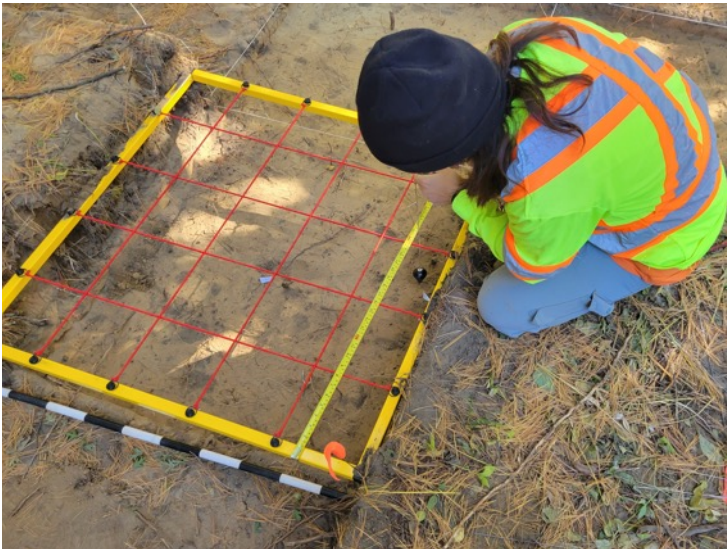


Image 7: Piece plotting artifacts from Level 2 in unit 305-496 using grid with 20-cm guides.



Image 8: Laying down geo-textile for protection at end of work day.



Image 9: Excavation of northern periphery unit 305-504 in progress.



Image 10: MTR proceeding outwardly from the north end of the site core.



Image 11: MTR at the east edge of the site.



Image 12: MTR in progress at the west part of the site.



Image 13: Representative sample of lithic debitage artifacts recovered during Stage 4 excavation at the H1 (AIGs-508) site.

APPENDIX F: LITHIC DEFINITIONS

(Courtesy of Jacqueline Fisher, Fisher Archaeological Consulting)

FLAKE DEFINITIONS

Primary Decortication

Primary flakes are the by-products of the initial stages of reduction of lithic raw material. Typically, they are large, with a pronounced bulb of percussion. The angle of the striking platform is approximately 90 degrees, and the platform is usually large and unfaceted. The dorsal surface contains 50-100% of its cortical surface, indicating little or no modification of the core prior to the removal of the primary flake.

Secondary Decortication

Secondary flakes are generally large, although size really does not matter. They have a diffuse bulb of percussion, and the striking platform angle is about 90 degrees and unfaceted. The dorsal surface of the secondary flake retains up to 50% of its cortical surface, indicating that some flakes had been struck from the core prior to its removal. Dorsal flake scars are few in number and large.

Tertiary

Tertiary flakes usually lack any traces of cortical surface, but may exhibit some remnants as the flakes were removed to eliminate any bumps or flaws in the tool. Tertiary flakes represent an advanced stage of the reduction sequence, being by-products of preform and biface manufacture. Tertiary flakes may be divided into initial, biface thinning and biface retouch flakes.

- a) **Initial:** Initial flakes are associated with the core reduction process and early preform manufacture. They typically should have no cortical surface, dorsal scars are few and large, and the striking platform is unprepared, approximately 90 degrees.
- b) **Thinning:** These flakes are smaller and thinner than initial flakes, and are produced "in the thinning to shaping stage of biface manufacture" (Ellis, 1979, p. 35). Platforms are varied from large to small and "pseudo" faceted to multi-faceted. The platform angle is acute, ranging from 40 to 65 degrees forming an overhanging lip on the ventral surface (Ellis, 1979, pp. 37 and 53).
- c) **Trimming/Retouch:** In this definition, trimming flakes includes those flakes produced by the manufacture and rejuvenation of a biface. Although the flakes are the product of two different activities, it is difficult to distinguish between these flakes (Ellis, 1979, p. 48), and therefore it is expeditious to place them in the same general category of trimming flakes. Trimming flakes are generally so small that they are not recovered using the conventional 6mm hardware cloth. The platform angle is acute, as well as abraded, the lip is overhanging, and the bulb of percussion is diffuse (Ellis, 1979, p. 44).

***Note:** The reduction of lithic material into a finished stone tool is a reductive process and one conducted on a continuum. It is for the convenience of the analyst to attempt to place the

debitage into discrete categories. The designation of primary, secondary and tertiary is not to imply that the size of the flakes decreases as the process continues, nor is it to suggest that all tertiary flakes are removed following secondary flakes, and all secondary are removed after all primary flakes. The definitions are more the end result, rather than the sequence, and the nomenclature is for ease of reference.

Utilized Flakes

Pieces of debitage that have been selected to be used as tools. The piece has been picked up, used in a specific task or task and then discarded.

Retouched Flakes

Pieces of debitage that have been selected to be used as tools. The piece has been picked up, modified to in order to be adapted for a specific task or task, and then discarded.

Uniface

A tool that has been knapped on only one face, i.e. a formal endscraper.

Biface

A tool that has been knapped on both (two) faces.

Catalogue codes/abbreviations

CSP = controlled surface pickup

Lithic Raw Material

Anc = Lockport

BLa = Balsam Lake

BrFl = British (Euro) Flint

FH = Fossil Hill

FR = Flint Ridge

Ha - D = Haldimand Dark Phase

Ha = Haldimand

KP = Kettle Point

Loc = Local

On = Onondaga

PC = Port Colborne (Bois Blanc)

Unk = Unknown

Heat Category

0 = no discernible change

1 = surface colour change due to heat

2 = pot lid(s) on dorsal face

6 = pot lid(s) both faces

14 = heat rippling on edges, potlid(s) on dorsal face

APPENDIX G: INVENTORY OF DOCUMENTARY AND MATERIAL RECORD

Project Information:				
Project Number:		345-PI8332-21		
Licensee:		Ian Boyce (P1059)		
MCM PIF:		P1059-0114-2021		
Document/ Material		Details	Location	
1.	Research/ Analysis/ Reporting Material	Digital files stored in: /2021/345-PI8332-21 - 3225 Fifth Concession - Pickering/Stage 4	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON L3X 1X4	Stored on Archeoworks network servers.
2.	Annotated Field Maps/Field Notes/ Field Forms/ Drawings	Total of 52 pages	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON L3X 1X4	Scanned and stored on Archeoworks network servers.
3.	Fieldwork Photographs	815 digital photographs	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON L3X 1X4	Stored on Archeoworks network servers.
4.	Artifacts	All 183 Stage 4 artifacts placed in Box: 345-PI8332-21-ST4-01	Archeoworks Inc., 16715-12 Yonge St., Suite 1029, Newmarket, ON L3X 1X4	Collections may be transferred to one of Archeoworks' secure, off-site storage facilities if deemed necessary.

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