Stage 1 & 2
Archaeological Assessment

Part of Lot 17, Concession 1
Geographic Township of Collingwood
Town of the Blue Mountains
County of Grey

Prepared for:
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PIF: P310-0222-2018
Original Report

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Executive Summary

Earthworks Archaeological Services Inc. was retained by the Royalton Homes to conduct a Stage 1 & 2 archaeological assessment of a 20.9 hectare property located on part of Lot 17, Concession 1, Geographic Township of Collingwood, Town of the Blue Mountains, County of Grey, Ontario. The assessment is undertaken as part of a site development application and was conducted as part of the requirements defined in Section D3.4.1 of the *Town of the Blue Mountains Official Plan,* which requires an archaeological impact assessment in support of new plans of subdivision or condominium, where the development is being proposed on sites which have not already been significantly disturbed.

The study area contains evidence of archaeological potential. The location of Silver Creek in within the boundaries of the study area suggests the potential for locating pre-contact Aboriginal archaeological material. Additionally, the proximity of a historic transportation route suggests additional potential for recovering historic Euro-Canadian archaeological material. In summary, a Stage 2 archaeological assessment was determined to be required in order to identify and document any archaeological material that may be present. A portion of the study area was accessible for ploughing, and as a result, a combined test pit and pedestrian survey was determined to be required.

The Stage 2 archaeological assessment of the study area was conducted between October 24 and November 14, 2018 under PIF #: P310-0222-2018, issued to Anthony Butler, M.Sc. (P310). The weather during the survey was overcast and mild. The portion of the study area subject to pedestrian surveyed was recently ploughed and had been weathered by heavy rainfall. The topsoil was completely exposed, with an estimated surface visibility of 80% to 100% of the ploughed ground surface. At no time were weather or lighting conditions detrimental to the observation or recovery of archaeological material.

Approximately 42% of the study area was assessed through a pedestrian survey. Pedestrian survey transects were spaced at maximum intervals of 5 metres apart. The remaining 58% study area was assessed through a test pit survey, with less than 1% of the study area consisting of an area of permanent inundation that was subsequently not assessed. Test pits were spaced at maximum intervals of 5 metres apart. Each test pit was excavated by hand to 30 cm in diameter and were excavated into the first 5 centimetres of subsoil. Depth averaged 20 centimetres. Each test pit was examined for stratigraphy, cultural features, or evidence of fill, and all soil was screened through wire mesh of 6 millimetre width. All test pits were backfilled. The soil consisted of a reddish brown clay topsoil horizon over a dull orange clay subsoil.

One historic, Euro-Canadian archaeological site, Holden (BdHb-9) was identified during the course of the pedestrian survey. A total of 126 historic Euro-Canadian artifacts were recovered over an area measuring 32 metres on a N-S axis by 45 metres on an E-W axis.

The age range of the recovered historic ceramics suggest a period of occupation from approximately 1870 to 1910, and likely associated with the occupation of the property by James Holden and Douglas Smith.

Section 2.2, Standard 1(c) of the *Standards and Guidelines for Consultant Archaeologists* details that historic Euro-Canadian sites containing at least 20 artifacts that date the period of

use to before 1900 demonstrate sufficient cultural heritage value or interest to require a Stage 3 archaeological assessment. However, Section 3.4.2 details that 80% or more of the timespan of occupation of a historic Euro-Canadian archaeological site must date to before 1870 to require Stage 4 archaeological mitigation.

The historic background research and artifact data recovered from the CSP of Holden (BdHb-9) demonstrates that the majority of occupation of Holden (BdHb-9) dates to after 1870. Land registry data and assessment rolls indicate that occupation of the study area likely began around 1867 and extended into the early twentieth century. This historical research is supported by the recovered artifacts, the manufacture and use of which has been documented to a late nineteenth century date range.

Artifact distribution analysis does not indicate an area of earlier occupation within the boundaries of the site. The mid nineteenth century or earlier artifacts consist of a single sherd of refined white earthenware. As a result, Holden (BdHb-9) site does not meet the criteria defined in Section 3.4.2 of the *Standards and Guidelines for Consultant Archaeologists* to warrant additional cultural heritage value or interest, and as a result, no further archaeological assessments are required

Based on the results of the Stage 1 background investigation and the subsequent Stage 2 survey, the study area is considered to be free of archaeological material of further cultural heritage value or interest. Therefore, no additional archaeological assessments are recommended.

The MTCS is requested to review this report and provide a letter indicating their satisfaction that the fieldwork and reporting for this archaeological assessment are consistent with the Ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports.

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Project Personnel

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Licensed Field Directors:	**Shane McCartney, M.A. (R321)**
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Field Technicians:	**Kia Ohora, B.A.**
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Artifact Analysis:	**Kia Ohora, B.A.**
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1.0 Project Context

1.1 Development Context

Earthworks Archaeological Services Inc. was retained by the Royalton Homes to conduct a Stage 1 & 2 archaeological assessment of a 20.9 hectare property located on part of Lot 17, Concession 1, Geographic Township of Collingwood, Town of the Blue Mountains, County of Grey, Ontario (Map 1). The assessment is undertaken as part of a site development application (Map 2) and was conducted as part of the requirements defined in Section D3.4.1 of the *Town of the Blue Mountains Official Plan,* which requires an archaeological impact assessment in support of new plans of subdivision or condominium, where the development is being proposed on sites which have not already been significantly disturbed (Town of the Blue Mountains 2016:191).

The objective of the Stage 1-2 archaeological assessment, as outlined by the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), are as follows:

- To provide information about the property's geography, history, previous archaeological fieldwork and current land condition
- To evaluate the property's archaeological potential.
- To document archaeological resources located on the property
- To determine whether any identified archaeological resources require further assessment
- To recommend Stage 3 assessment strategies for any archaeological sites determined to require additional assessment.

As part of this assessment, background research was conducted in the Earthworks corporate library, the Archives of Ontario, and the Ontario Land Registry Access website.

Permission to access the property was provided by Samer Chaaya of Royalton Homes.

1.2 Historic Context

1.2.1 Pre-contact Aboriginal History

Table 1 provides a breakdown of the general culture history of southern Ontario, as based on Ellis and Ferris (1990)

Table 1 Pre-contact Culture History of Ontario

Culture Period	Diagnostic Artifacts	Time Span (Years B.P.)	Detail
Early Paleo-Indian	Fluted Projectile Points	11,000-10,400	Nomadic caribou hunters
Late Paleo-Indian	Hi-Lo, Holcombe, Plano Projectile Points	10,400-10,000	Gradual population increase
Early Archaic	Nettling and Bifurcate Points	10,000-8,000	More localized tool sources
Middle Archaic	Brewerton and Stanly-Neville Projectile Points	8,000-4,500	Re-purposed projectile points and greater amount of endscrapers
Narrow Point Late Archaic	Lamoka and Normanskill Projectile Points	4,000-3,800	Larger site size
Broad Point Late Archaic	Genessee, Adder Orchard Projectile Points	3,800-3,500	Large bifacial tools. First evidence of houses
Small Point Late Archaic	Crawford Knoll, Innes Projectile Points	3,500-3,100	Bow and Arrow Introduction
Terminal Archaic	Hind Projectile Points	3,100-2,950	First evidence of cemeteries
Early Woodland	Meadowood Points, Cache Blades, and pop-eyed birdstones	2,950-2,400	First evidence of Vinette I Pottery
Middle Woodland	Pseudo-scallop shell	2,450-1550	Burial Mounds
	Princess Point pottery	1550-1100	First evidence of corn horticulture
Late Woodland	Levanna Point	1,100-700	Early longhouses
	Saugeen Projectile Points	700-600	Agricultural villages
	Nanticoke Notched Points	600-450	Migrating villages, tribal warfare

1.2.2 Post Contact Aboriginal History

Current research suggests that the study area was inhabited by the Odawa prior to contact and trade with Europeans. By 1580, the Petun Deer and Wolf tribes migrated into the region to take advantage of the fur trade and appear to have cohabited with the Odawa (Garrad 2014).

The study area enters the historic record in 1616, when Samuel de Champlain, Father Joseph le Caron, and a group of French explorers entered the region, visiting the main village and up to 9 additional villages in the region (Champlain 1929). These early accounts named the confederacy as the Petun, or Tobacco people. A more accurate designation would be the Tionontaté, or "people of the place where the hills are" (Garrad and Heidenreich 1978: 396). European influence in the region was generally restricted to the beaver pelt trade, and Aboriginal groups practiced a way of life that did not differ significantly from the pre-Contact period until the establishment of the Mission of the Apostles by the Jesuits in 1639 (Garrad 2014:210). Over the following decade a combination of worsening environmental conditions, smallpox epidemics, and escalating raids from the Five Nation Iroquois placed severe strains on the extant Petun populations, which culminated in the dispersal of the Petun from the region in 1650 following the destruction of the principal village of Etharita in December 1649.

The Odawa also vacated the area in 1650, but eventually returned shortly thereafter and resided locally through to the nineteenth century (Garrad 1979:29). Following the War of 1812, settlement pressures prompted the British Government to enter into negotiations with the Odawa to purchase over five hundred thousand hectares of land south and west of Lake Simcoe. These negotiations were concluded with the Lake Simcoe-Nottawasaga purchase in 1818 (Surtees 1994:116).

1.2.3 European Settlement

The study area is located in the historic township of Collingwood, which was first surveyed in 1833 by Charles Rankin, with assistance from local Algonquian populations (H. Belden & Co 1880:5; Winearls 1990:482). Early settlement proved difficult, as many landowners were absentees that did not tend their parcels and proved to be significant travel impediments (Rorke 1987:99). Conditions improved by the late 1860s with the establishment of additional open roads and bridges, and by the 1880s the township contained the two major towns of Thornbury and Clarksburg. Throughout the twentieth century, the township remained as low density agriculture and resort destination. In 1998, the township was amalgamated with the town of Thornbury to create the Town of the Blue Mountains.

1.2.4 Land Use History of Study Area

The study area is located on Lot 17, Concession 1 of the Geographic Township of Collingwood, which was first granted to Walter Lee in 1867. Mr. Lee sold the southern 100 acres to Peter

McArthur the following year, and is listed in the owner of the study area in the 1872 Topographical Map of Collingwood Township (Map 3). Mr. McArthur is listed as a 39 year old Scottish farmer in the 1871 Federal Census (Government of Canada 1871:73). In 1872 the property was sold to a Freehold L&S Coporation, who sold it to Joseph Holden in 1874. Assessment rolls from that year indicate that 20 acres of the southern 100 acres were cleared for a total value of $900, which was reduced to $100 the following year. The study area is next listed in the 1880 assessment rolls, and lists Douglas Smith as the owner, with 30 acres cleared. Mr. Smith purchased the property in 1877, and by 1883 had cleared 40 acres. The study area was subdivided into its current configuration in 1927. Analysis of topographic maps suggest the property has remained a mix of agricultural land and woodlot through to the present day.

1.3 Archaeological Context

1.3.1 Current Conditions

The property consists of a ploughed agricultural field bordered by a laneway of grass along the southern boundary, and pockets of trees in the centre and northeast corner of the map (Images 1 thru 16).

1.3.2 Natural Environment

The study area is situated on the western border of the Simcoe Lowlands physiographic region. This region consists of a series of steep sided, flat-floored valleys which were flooded by Lake Algonquin, and is bordered by beaches and boulder terraces (Chapman and Putnam 1984:176)

The soils of the study area consist of a mix of Kemble Silty Clay and Brighton Sand. Kemble Silty Clay is a very dark grey-brown silty clay loam developed on fine textured greyish brown till and is considered part of the Brown Forest Grey Soil Group (Gillespie and Richards 1954:38). Brighton Sand was developed on well sorted high lime sands, part of the Grey-Brown Podzolic Great Soil Group, and consists of greyish brown sand (Gillespie and Richards 1954:54).

The nearest potable water source is a tributary of Silver Creek, which runs through the property and empties into Lake Huron approximately 2.3 kilometres northeast of the study area.

The study area is located within the Barrie District of the Lake Simcoe – Rideau Ecoregion, which itself is situated within the Mixedwood Plains Ecozone. This region encompasses 6,311,957 hectares, and contains a diverse array of flora and fauna. It is characterized by diverse hardwood forests dominated by sugar maple, American beech, white ash, eastern hemlock, and numerous other species are found where substrates are well developed on upland sites. Lowlands, including rich floodplain forests, contain green ash, silver maple, red maple, eastern white cedar, yellow birch, balsam fir, and black ash. Peatlands (some quite large) occur along the northern edge and in the eastern portion of the ecoregion, and these contain fens, and rarely bogs, with black spruce and tamarack.

Characteristic mammals include white-tailed deer, Northern raccoon, striped skunk, and woodchuck. Wetland habitats are used by many species of water birds and shorebirds, including wood duck, great blue heron, and Wilson's snipe. Open upland habitats are used by species such as field sparrow, grasshopper sparrow, and eastern meadowlark. Upland forests support populations of species such as hairy woodpecker, wood thrush, scarlet tanager, and rose-breasted grosbeak. Reptiles and amphibians found in this ecosystem include American bullfrog, northern leopard frog, spring peeper, red-spotted newt, snapping turtle, eastern gartersnake, and common watersnake. Characteristic fish species in the ecoregion include the white sucker, smallmouth bass, walleye, northern pike, yellow perch, rainbow darter, emerald shiner, and pearl dace.

(Crins et al. 2009:48-49)

1.3.3 Known Archaeological Sites

A search of registered archaeological sites within the MTCS Archaeological Sites Database was conducted. No archaeological sites were identified within a one kilometre radius of the study area. Additionally, no archaeological assessments within 50 metres were identified.

1.4 Summary

As documented in Section 1.0, the study area contains evidence of archaeological potential. The location of a tributary of Silver Creek in within the boundaries of the study area suggests the potential for locating pre-contact Aboriginal archaeological material. Additionally, the proximity of a historic transportation route suggests additional potential for recovering historic Euro-Canadian archaeological material. In summary, a Stage 2 archaeological assessment was determined to be required in order to identify and document any archaeological material that may be present. A portion of the study area was accessible for ploughing, and as a result, a combined test pit and pedestrian survey was determined to be required.

2.0 Field Methods

The Stage 2 archaeological assessment of the study area was conducted between October 24 and November 14, 2018 under PIF #: P310-0222-2018, issued to Anthony Butler, M.Sc. (P310). The weather during the survey was overcast and mild. The portion of the study area subject to pedestrian surveyed was recently ploughed and had been weathered by heavy rainfall. The topsoil was completely exposed, with an estimated surface visibility of 80% to 100% of the ploughed ground surface (Image 17). At no time were weather or lighting conditions detrimental to the observation or recovery of archaeological material.

Approximately 42% of the study area was assessed through a pedestrian survey. Pedestrian survey transects were spaced at maximum intervals of 5 metres apart.

The remaining 58% study area was assessed through a test pit survey (Images 18 and 19), with less than 1% of the study area consisting of an area of permanent inundation that was subsequently not assessed.

Test pits were spaced at maximum intervals of 5 metres apart. Each test pit was excavated by hand to 30 cm in diameter and were excavated into the first 5 centimetres of subsoil. Depth averaged 20 centimetres. Each test pit was examined for stratigraphy, cultural features, or evidence of fill, and all soil was screened through wire mesh of 6 millimetre width. All test pits were backfilled. The soil consisted of a reddish brown clay topsoil horizon over a dull orange clay subsoil (Images 20 and 21).

One historic, Euro-Canadian archaeological site was identified during the course of the pedestrian survey. Once initially identified, survey transects were reduced to 1 metre intervals over a minimum of a 20 metre radius around the find to determine whether it was an isolated find or part of a larger scatter. This interval was continued, working outward until the full extent of the surface scatter was determined. In order to obtain better quality evidence to inform Stage 3 recommendations, a Controlled Surface Pickup was conducted, as suggested in Section 2.2 of the Draft Technical Bulletin *The Archaeology of Rural Historical Farmsteads* (Government of Ontario 2014:9). As a result, all artifacts were mapped and recovered for analysis.

Archaeological material that was identified was recorded in UTM coordinates with a Trimble Nomad employing the North American Datum 83, with a stated real time accuracy of 1 metre.

The results of the Stage 2 archaeological survey are presented in Map 4.

3.0 Record of Finds

Table 2 provides an inventory of the documentary record generated in the field

Table 2 Information Inventory of Documentary Record

Document	Location	Description
Field Notes	Earthworks Office Project File	5 pages of notes
Photographs	Earthworks Office Project File	60 digital photographs,
Field Map	Earthworks Office Project File	1 page
UTM Coordinates	Earthworks Office Project File	151 coordinates

The recovered artifacts were washed, catalogued, and analyzed and are currently stored in one banker's box, measuring 40.0 x 31.5 x 25 centimetres at the Earthworks Corporate Storage Unit. The artifacts and documents will be stored by Earthworks until arrangements can be made to transfer them to an MTCS approved storage facility.

3.1 Terms of Reference

This section provides definitions of the most commonly used artifact terms utilized in the site artifact catalogues and descriptions.

3.1.1 Ceramic Tableware Types

Tablewares are the cream or white-bodied wares intended primarily for use at the table, be it for the kitchen table or for a more formal dining room setting. Though each artifact contributes to the dating of a site's occupation, the ceramic assemblage, and the tableware assemblage in particular is generally the most significant temporal indicator on domestic sites. What counts is not so much when the ceramic was made, but when it was made available. Since there was very little ceramic tableware production in North America during the 19th century in North America, this means it had to be shipped to Canada across the Atlantic, and it came predominantly from England. If new ceramic styles were very popular, they might be "sold out"

in England for several years after their initial appearance. Only as their popularity waned at home did they begin to be exported. They were likely to be sent first to wealthy colonies such as Virginia or Georgia where demand was high and the relatively poorer colonies, such as Canada, received most ceramics later still.

3.1.1.1 Refined White Earthenware

Refined white earthenware is a slightly porous, white-pasted earthenware with a near colourless glaze that replaced earlier near white ceramics, such as pearlware and creamware, by the early 1830s. The use of refined white earthenware continued throughout the 19th century, and is still used today, but its popularity began to decline by the 1840s with the introduction of ironstone and vitrified white earthenware (Adams et al 1994; Miller 2000:10, 13).

3.1.1.2 Ironstone

The term ironstone comes from “Mason’s Patent Ironstone China”, first patented by Mason in 1813 (Godden 1980:102). Early ‘Stone Chinas’ were produced by several other potters during the first quarter of the 19th century as well, and were vitrified or semi-vitrified, heavy dense wares. They tended to be heavily decorated, usually with a combination of painting and printing, yet faintly coloured to resemble oriental porcelain. Most of the patterns were inspired by the East, and the majority were made before the 1830s (Collard 1967:125-127; Miller 1991a:9-10).

The ‘Ironstone’ ware that came on the Ontario market in the late 1840s evolved out of these earlier wares, but were much less vitrified (Wetherbee 1980:6). Despite being more durable, it was rather plain looking beside the more colourful wares of the mid-19th century and expensive too, costing about the same as printed. It became an increasingly popular commodity during the 1860s, but it still took several decades to capture a significant place in the Ontario market. By the 1870s it was often the dominant tableware in many Ontario households (Kenyon 1991:8). Paste colour and porosity varies, from the more vitrified bluish/grayish-white wares typical from 1847 to the 1880s, and the lighter, more porous, creamier-coloured ironstone wares that began to appear in the 1880s and continued into the 20th century. Many of the American-made wares, most 20th century reproductions and a very few early patterns (mostly a few by Alcock), are of this colour as well (Wetherbee 1996:13). By the close of the 19th century, few Staffordshire potters made ironstone wares, and those that did largely restricted production to either toilet wares or hotel china (Wetherbee 1996: 10).

Many ironstone pieces are decorated with a maker’s mark indicating manufacturing origin on the bottom of a ware. This likely dates a piece after 1891, as maker’s marks were required as part of the McKinley Tarrif Act (Adams et al. 1994:102).

3.1.1.3 Porcelain and Semi-porcelain

Porcelain and semi-porcelain refers to a variety of dense, highly vitreous and translucent white-bodied wares. It was introduced around the mid-19th century, and remained an expensive luxury item until the turn of the century (Collard 1967). Porcelain becomes relatively common during the early 20th century as less expensive production techniques were developed in Europe.

3.1.1.4 Unassigned Refined Earthenware

A number of ceramics were too exfoliated or burnt to assign to a specific ware. These sherds were catalogued as the Unassigned Refined Earthenware type.

3.1.2 Ceramic Tableware Decorative Types

Decorative types must also be considered as they too are temporally sensitive and help to tighten the occupation time frame for the site's occupation. Most general stores stocked a variety of tablewares and although local availability varied, a customer's choice also depended not only on their personal taste but also on their pocketbook. Different decorative types were differentially priced, and this is particularly true for the first half of the 19th century, after which point the relationship between a vessel's cost and the way in which it was decorated began to weaken (Miller 1991b:40). Since ceramics are consumer items, the relative value of various types may provide some insight into the socio-economic status for the household.

3.1.2.1 Transfer Printed Wares

Transfer printed ceramics (1783+) tended to be more costly during the 19th century than the simpler decorative wares discussed above, and a high proportion of printed sherds may be an indicator of the occupant's wealth or, at the very least, their middle class aspirations (Kenyon 1980). Common printed (1783+) tablewares reached their peak during the 1830s and 1840s and enjoyed a revival again in the 1880s (Kenyon 1995: 12). Flown transfer prints (ca. 1844-1920s) were most popular in the late 1840s and 1850s (Collard 1967: 118; Lofstrom and Tordoff 1982: 9). Vessels with flown prints were premium priced wares selling for about 20% more than the common transfer printed ceramics until the 1850s (Kenyon 1991: 6). Transfer printed tablewares, in general, began to decline in popularity during the 1850s in face of the increase in use of white ironstone. Domestic sites dating from the middle of the 1830s into the last third of the 19th century are often conspicuous by the diversity of transfer printed colours.

Blue printed ceramics only became a relatively common sight on Canadian tables during the 1810s despite the fact that they had been in production for at least three decades. They appeared, however, largely as tea wares, and dinner wares such as plates were not really seen until the mid. 1820s or so (Kenyon 1995: 3-4). Blue was, and still is, the most popular colour used in transfer printing. Despite its continued popularity, however, blue printed tablewares did hit something of a low point in the last quarter of the 19th century (Kenyon 1991: 9). The earliest under-glaze prints on earthenwares are the Willow design and other chinoiserie patterns (Majewski and O'Brien 1987: 35). Although the Willow pattern had been developed by English potters in the 18th century, it was not commonly exported to the Canadas until the early 1830s and appeared only as dinnerwares. By 1814, this pattern was already considered the cheapest and most common printed pattern available. Willow-patterned tea wares were not introduced until 1883 (Miller 1991a: 8).

Black is one of the colours introduced to the English market by Staffordshire potters by 1829 along with red, purple and green, and they made their way into the colonies shortly thereafter (Collard 1967: 117-118). Black transfer printing was popular until ca. 1850 and enjoyed a revival again ca. 1900 (Collard 1967: 117-118; Kenyon 1991a: 10; Loftstom and Tordoff 1982: 9).

3.1.2.2 Moulded Wares

Non-vitrified white earthenware with moulded relief patterns tend to date before 1860 (Majewski and O'Brien 1987: 38).

Moulded relief patterns which was by far the post popular way of decorating ironstone. The earliest moulded ironstone shapes produced by Staffordshire potters were introduced during the 1840s and 1850s and belong to the Gothic of shapes with the hexagonal and octagonal lines so popular during the 1840s and 1850s (Wetherbee 1980: 37). The Sydenham-type patterns were brought out in the early 1850s and were similar in many ways to the earlier Gothic shapes, echoing their geometric forms though round shapes were being made as well (Wetherbee 1980: 48).

During the 1860s, Staffordshire ironstone potters took inspiration from the fields, forests and gardens for their patterns. These designs were known as *Fuschia* patterns (Wetherbee 1980:95)

Another common motifs during the 1860s were ribbing and the revival of old Grecian patterns and names. A small classical revival was seen in clothes and furniture during the later half of the 19th century and in the late 1860s, this influence reached the ceramic tableware industry (Wetherbee 1980:106).

The best known, and most popular, ironstone pattern through the years is the wheat design. It has been continuously reproduced since 1859, and there are still several British and American

companies making it today. Despite the fact that the earliest wheat type pattern was registered in England in 1859, the first mention of a wheat pattern in Ontario is 1865 (Kenyon 1995: 10).

Although innumerable other patterns were available throughout the next three or four decades, the wheat pattern continued to be as popular as ever even at the end of the 19th century (Kenyon 1991: 9).

3.1.3 Utilitarian Ceramics

Utilitarian wares were generally made of clays that fired red, grey, buff or tan, and were glazed with lead or salt glazes. These vessels were meant for the kitchen, cellar, laundry, pantry and milk house. In the general absence of temporally diagnostic shapes and/or maker's marks, these ceramic utilitarian wares tend to be more indicative of function than date. The sherds all look to be derived from hollowware forms such as crocks, bowls, jugs, etc.

Coarse Earthenware was usually used in crockery such as open-mouth crocks, jugs, bottles and preserve jars, and was present throughout the nineteenth century prior to declining in use at the beginning of the twentieth century (Adams et al 1994:101).

Stoneware was first produced by 1849 in Brantford and Picton, Ontario, and prior to this date it would have had to have been imported, making this durable but heavy ceramic a notably more expensive ware than the common earthenwares which were produced in Ontario throughout the 19th century (Newlands 1979:24). It is only by the last quarter of the 19th century that stoneware and glass containers became common items on domestic sites.

Rockingham ware is a yellow bodied ceramic that became popular in the 1840s, and continues to be made in the present day.

3.1.4 Structural Artifacts

The majority of the artifacts in this class such as the nails, door/window hardware and window glass are likely derived from various wooden buildings, both domestic and utilitarian ones, that would once have sat on the property during the 19th century. Buildings that would be expected on a home/farmstead include, but are not limited to, a cabin/house and utilitarian outbuildings such as barns, stables, storage sheds and, of course, outhouses. With rare exception, the average home in the 19th century had no indoor bathroom, and these functions were normally performed either in the bedroom in a chamber pot, or in the outhouse.

Bricks have been developed in a wide variety of sizes and styles. There are relatively few chronological markers, with early nineteenth century bricks being thin, flat and rectangular that gradually transition into highly uniform shape, size and colour with sharp edges and well-defined

impressed rectangular moulds with manufacturer stamps (Adams et al 1994:95). The bricks recovered from BaGu-190 were too fragmentary to use as chronological indicators.

During the 19th century, window glass was produced by the cylinder glass technique. A molten ball of glass was blown into a sphere, and then swung into a cylinder shape. While the glass was still workable, the cylinder's ends were cut off, and the cylinder was cut along its length forming two curved panes, which were then flattened, cooled and cut into smaller panes (Weiland 2009:29). Over the course of the 19th century, the demand for larger windows increased resulting in thicker windows. The chronological variability in the thickness of window glass has been applied as a dating method for archaeological sites; however, it has been determined that the accuracy of this dating method is largely dependent upon the presence of relatively large sample sizes and the availability of regionally developed chronological models (Jones and Sullivan 1989:172).

3.2 Holden (BdHb-9)

The Holden Site (BdHb-9) was identified during the pedestrian survey at the southern edge of the ploughed field. A total of 126 historic Euro-Canadian artifacts were recovered over an area measuring 32 metres on a N-S axis by 45 metres on an E-W axis. A summary of the artifacts recovered is presented in Table 3 and Images 21 and 22.

Table 3 Summary of Artifacts recovered from Holden (BdHb-9)

Historic Euro Canadian Artifacts	Freq.	%
Ceramic	55	43.65
Structural	16	12.70
Utilitarian	11	8.73
Glass Container fragments	32	25.40
Modern	2	1.59
Lighting	1	0.79
Faunal	2	1.59
Ferrous	3	2.38
Personal	2	1.59
Smoking	2	1.59
TOTAL	**126**	**100.00**

3.2.1 Ceramic Tableware

A total of 55 pieces of ceramic tableware were recovered from Holden (BdHb-9), and includes refined white earthenware, ironstone, semi-porcelain and porcelain. A summary is presented in Table 4.

Table 4 Ceramic Tableware by Ware Type and Decorative Style recovered from Holden (BdHb-9)

Ware Type and Decorative Style	Date Range	Freq.	%
Refined White Earthenware			
undecorated	*1830-1860*	1	1.82
Ironstone			
moulded	*1850-1930*	1	1.82
moulded, stamped	*1850-1930*	1	1.82
transfer printed	*1850-1930*	2	3.64
undecorated	*1850-1930*	21	38.18
Subtotal		**25**	**45.45**
Semi-Porcelain			
undecorated	*1890+*	4	7.27
enamel printed	*1890+*	3	5.45
moulded	*1890+*	2	3.64
transfer printed	*1890+*	1	1.82
transfer printed, moulded, scalloped	*1890+*	1	1.82
Subtotal		**11**	**20.00**
Porcelain			
undecorated	*1890+*	1	1.82
Unassigned White Earthenware		**17**	**30.91**
TOTAL		**55**	**100.00**

3.2.2 Structural

A total of 16 structural artifacts were recovered from Holden (BdHb-9), and consisted of six brick fragments, nine pieces of window glass and one flathead screw.

3.2.3 Utilitarian

A total of 11 utilitarian ceramics were recovered from Holden (BdHb-9), and consisted of nine pieces of coarse earthenware, one piece rockingham ware, and one piece of stoneware.

3.2.4 Glass Containers

A total of 17 glass bottle fragments and 17 glass container fragments were recovered from Holden (BdHb-9). Bottle glass colour has proven ineffective in providing dates of manufacture, and the sherds do not provide any chronologically sensitive features that would assist in dating Holden (BdHb-9) (Lindsey 2018).

3.2.5 Lighting

A piece of lighting glass was recovered from Holden (BdHb-9). Oil lamps and candles were the primary sources of light for most farmsteads and small towns situated away from major cities until well into the first half of the 20th century (Woodhead, Sullivan and Gusset 1984). Until the mid. 19th century, whale oil and lard were the most widely used lamp fuel (Woodhead, Sullivan and Gusset 1984:48). The lamps to which this site's oil chimney and globe/shade glass are derived likely burned kerosene. Kerosene was first discovered in 1846, commercial production began by 1855 and, by the mid. 1860s it was the most commonly used lamp fuel (Woodhead, Sullivan and Gusset 1984:47).

3.2.6 Ferrous

The ferrous items recovered from Holden (BdHb-9) consisted of one file, one piece of miscellaneous hardware and one piece of latch hardware.

3.2.7 Faunal

The faunal items recovered from Holden (BdHb-9) consisted of one mammal bone fragment and one premolar from a large herbivore.

3.2.8 Smoking

A single ceramic pipe bowl fragment and one ceramic pipe stem fragment were recovered from Holden (BdHb-9). Throughout the 17th and 18th century, smoking was a common pastime not for just English men, but for women as well, including the upper class. By the 1850s, however, pipe smoking in general became associated with the working class and female smoking began to decline, at least in public. By the 19th century, clay pipes were being mass produced in England, Scotland, France and Germany, and, by the second half of the century, in Canada as well. Smoking pipes are the most common smoking item found on 19th century sites.

3.2.9 Personal

A single porcelain doll fragment was recovered from Holden (BdHb-9). A ceramic button was also recovered. It is made of a type of pressed ceramic powder using the so-called “Prosser Method”, a process patented by Richard Prosser of Birmingham, England ca.1840 (Smith-Albert and Kent 1949: 35). Also known as “agate” buttons, they were widely distributed in Canada by the late 1840s and pretty much replaced the shell buttons commonly used on shirts and dresses as they could be produced quickly and much less expensively than other button types (Sprague 2002: 111). Agate buttons can still be found for sale in late 19th century catalogues, such as Sears, Roebuck and Company (Isreal 1993: 320). Ceramic buttons were made in tremendous quantities to about 1910 (Smith-Albert and Kent 1949: 35).

3.2.10 Artifact Catalogue

Cat. #	CSP #	Artifact Group	Artifact Type	Decoration	Colour	Motif (AP)	Function	Freq.	Comment
1	6	Faunal	Mammalia- premolar fragment					1	medium-large herbivorous mammal, premolar
2	6	Ferrous	Latch Hardware					1	
3	32	Structural	Brick		orange			1	burnt
4	32	Glass	Glass Container Fragment		light blue			1	
5	42	Ceramic	Semi-Porcelain	enamel printed	green	indeterminate	unidentifiable	1	overglaze enamel printed, motif indeterminate
6	42	Ceramic	Semi-Porcelain	transfer printed, moulded, scalloped	green	floral, garland	flatware	1	rim sherd, scalloped rim; moulded on rim; transfer printed over top moulded rim, floral garland motif encircling rim
7	50	Glass	Glass Container Fragment		light purple			1	
8	50	Ceramic	Semi-Porcelain	transfer printed	green	floral	unidentifiable	1	
9	35	Structural	Brick		red			2	
10	35	Glass	Glass Bottle Fragment		dark green			1	
11	34	Structural	Window Glass					1	
12	34	Ceramic	Unassigned White Earthenware				hollowware	1	handle sherd, burnt
13	22	Glass	Glass Container Fragment	pressed	opaque white	geometric bands		1	pressed glass, moulded geometric bands of dots and lines
14	23	Glass	Glass Container Fragment		clear			1	
15	27	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	burnt
16	27	Ceramic	Ironstone	undecorated			unidentifiable	2	
17	4	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	burnt
18	5	Ceramic	Ironstone	undecorated			unidentifiable	1	
19	39	Ceramic	Ironstone	undecorated			unidentifiable	1	
20	72	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	rim sherd
21	72	Structural	Screw- flathead					1	
22	10	Utilitarian	Coarse Red Earthenware	glazed	clear		hollowware	1	clear lead glaze
23	41	Ferrous	Miscellaneous Hardware					1	
24	41	Structural	Window Glass					1	

25	31	Structural	Window Glass					1	
26	31	Glass	Glass Container Fragment		clear			1	
27	1	Ceramic	Ironstone	moulded, stamped			unidentifiable	1	moulded exterior, indeterminate type; stamped possible makers mark, embossed, indeterminate maker
28	3	Ceramic	Semi-Porcelain	undecorated			unidentifiable	1	
29	20	Glass	Glass Container Fragment		clear			1	
30	20	Ceramic	Ironstone	undecorated			unidentifiable	1	
31	12	Structural	Brick		buff			1	
32	12	Ceramic	Semi-Porcelain	undecorated			unidentifiable	1	
33	12	Personal	Porcelain doll fragment	printed	brown			1	porcelain doll fragment, face fragment with hole for eyeball and brown eyebrow present
34	11	Structural	Brick		red			1	
35	11	Ceramic	Ironstone	undecorated			unidentifiable	1	rim sherd
36	11	Faunal	Mammalia- fragment					1	
37	11	Smoking	Ceramic Pipe Bowl Fragment	undecorated	white			1	
38	2	Structural	Brick		red			1	
39	7	Modern	Refined Red Earthenware				hollowware	1	terracotta flowerpot/hollow vessel
40	14	Ceramic	Ironstone	undecorated			unidentifiable	1	
41	14	Utilitarian	Rockingham	glazed	mottled brown		hollowware	1	
42	19	Ceramic	Unassigned White Earthenware	moulded, transfer printed	blue, white	floral, shell	hollowware	1	burnt, unidentifiable type; moulded shell/floral motif, white; blue and white transfer printed background; possible reprod. of blue and white stoneware
43	8	Ceramic	Unassigned White Earthenware	moulded, transfer printed			unidentifiable	1	burnt, unidentifiable type; moulded rim, band of dots
44	8	Utilitarian	Coarse Red Earthenware	undecorated			hollowware	1	
45	16	Glass	Glass Bottle Fragment		dark green			1	
46	16	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	
47	16	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	burnt, unidentifiable type
48	28	Modern	Brick and Mortar		buff, grey			1	
49	28	Structural	Window Glass					1	
50	21	Ceramic	Semi-Porcelain	enamel printed	pink, green	floral	unidentifiable	1	
51	26	Ceramic	Unassigned White Earthenware	glazed	blue		unidentifiable	1	
52	26	Utilitarian	Stoneware	salt glazed, slipped	grey, dark brown		hollowware	1	dark brown slipped interior; grey paste, salt glazed exterior; possible North American stoneware
53	29	Ceramic	Ironstone	undecorated			unidentifiable	1	
54	29	Ceramic	Semi-Porcelain	undecorated			unidentifiable	1	
55	25	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	rim sherd
56	30	Ceramic	Unassigned White Earthenware	moulded	white	shell	hollowware	1	moulded shell motif, white; burnt, unidentifiable type

57	30	Ceramic	Ironstone	undecorated			unidentifiable	1	
58	30	Glass	Glass Container Fragment		clear			1	melted
59	18	Utilitarian	Coarse Red Earthenware	glazed	mottled brown		hollowware	1	
60	18	Glass	Glass Container Fragment		clear			1	
61	69	Ceramic	Refined White Earthenware	undecorated			unidentifiable	1	
62	68	Ceramic	Ironstone	undecorated			unidentifiable	1	
63	24	Lighting	Decorative Glass Fragment		clear			1	glass light fixture pendant, melted
64	36	Ceramic	Ironstone	transfer printed	green	floral	unidentifiable	1	
65	36	Glass	Glass Bottle Fragment		light blue			1	
66	33	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	burnt, unidentifiable type
67	15	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	burnt, unidentifiable type
68	38	Glass	Glass Bottle Fragment		light blue			1	
69	38	Structural	Window Glass					1	
70	64	Glass	Glass Bottle Fragment		dark olive green			1	
71	61	Utilitarian	Coarse Earthenware	glazed	clear		unidentifiable	1	clear lead glazed, buff-orange paste
72	61	Utilitarian	Coarse Red Earthenware	glazed	clear, light brown		hollowware	1	clear glazed exterior, light brown glazed interior
73	54	Glass	Glass Bottle Fragment		light green			1	
74	54	Ferrous	File					1	rectangular bastard file, handle missing
75	74	Smoking	Ceramic Pipe Stem Fragment	undecorated	white			1	
76	74	Ceramic	Semi-Porcelain	undecorated			unidentifiable	1	
77	55	Ceramic	Porcelain	undecorated			flatware	1	porcelain saucer, small size; possible childrens toy
78	55	Ceramic	Ironstone	transfer printed	green	indeterminate	unidentifiable	1	
79	55	Ceramic	Ironstone	undecorated			unidentifiable	1	
80	49	Ceramic	Ironstone	undecorated		plain	flatware	1	
81	49	Glass	Glass Bottle Fragment		clear			1	
82	13	Utilitarian	Coarse Red Earthenware	unglazed			unidentifiable	1	
83	13	Ceramic	Semi-Porcelain	enamel printed	green, blue	floral	hollowware	1	rim sherd
84	44	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	burnt, unidentifiable
85	44	Structural	Window Glass					1	
86	53	Glass	Glass Bottle Fragment		clear			1	rectangular bottle glass fragment, base and body sherd
87	53	Utilitarian	Coarse Earthenware	glazed	light brown		unidentifiable	1	pale buff-yellow-red paste, light brown glazed
88	53	Ceramic	Semi-Porcelain	moulded		geometric	unidentifiable	1	moulded rim, geometric 'leaf' pattern on rim
89	71	Glass	Glass Bottle Fragment		light purple			1	body and finish sherd, crown top
90	70	Glass	Glass Bottle Fragment		dark green			1	
91	76	Glass	Glass Bottle Fragment	moulded	light blue			1	moulded lettering on side, indeterminate
92	63	Ceramic	Ironstone	undecorated		plain	hollowware	1	base sherd

93	58	Ceramic	Ironstone	undecorated			unidentifiable	1	
94	67	Glass	Glass Container Fragment		light blue			1	mason jar fragment
95	52	Glass	Glass Container Fragment		clear			1	
96	62	Glass	Glass Bottle Fragment		dark green			1	
97	66	Glass	Glass Bottle Fragment		light blue			1	
98	65	Glass	Glass Bottle Fragment		dark olive green			1	
99	75	Structural	Window Glass					1	
100	57	Glass	Glass Bottle Fragment		dark olive green			1	
101	59	Ceramic	Ironstone	undecorated			hollowware	1	handle sherd
102	59	Ceramic	Semi-Porcelain	moulded			flatware	1	base sherd; moulded makers mark on base, circle with cross, indeterminate maker
103	56	Glass	Glass Container Fragment		clear			1	
104	56	Ceramic	Ironstone	undecorated			unidentifiable	1	
105	51	Utilitarian	Coarse Earthenware	glazed	clear		unidentifiable	1	
106	51	Glass	Glass Bottle Fragment		light green			1	patinated; base sherd, indeterminate make type, likely push up
107	37	Glass	Glass Container Fragment		light blue			1	
108	45	Glass	Glass Bottle Fragment		light blue			1	
109	40	Glass	Glass Container Fragment		clear			1	
110	46	Ceramic	Ironstone	undecorated			unidentifiable	1	
111	46	Glass	Glass Container Fragment	pressed	light purple	ribbed	hollowware	1	pressed glass, ribbed; hollow dish fragment
112	46	Ceramic	Unassigned White Earthenware	moulded, transfer print	blue, white		hollowware	1	moulded leaf/baroque pattern; burnt, unidentifiable type
113	60	Ceramic	Ironstone	undecorated		plain	flatware	1	rim and base sherd, flatware plate; slight linear moulded line on rim, otherwise undecorated
114	48	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	
115	48	Utilitarian	Coarse Red Earthenware	undecorated			unidentifiable	1	
116	48	Ceramic	Ironstone	undecorated			unidentifiable	2	
117	48	Personal	Ceramic Prosser Button	undecorated	white			1	small white Prosser button, 4-hole, sew through
118	43	Structural	Window Glass					2	
119	47	Glass	Glass Container Fragment		clear			1	
120	9	Ceramic	Unassigned White Earthenware	undecorated			unidentifiable	1	
121	17	Ceramic	Ironstone	moulded		foliage	hollowware	1	rim and body sherd; foliage motif on rim
122	73	Ceramic	Ironstone	undecorated			hollowware	1	

4.0 Analysis and Conclusions

A Stage 2 archaeological assessment resulted in the documentation of the Holden site (BdHb-9), which indicated evidence of a late nineteenth century occupation.

The age range of the recovered historic ceramics suggest a period of occupation from approximately 1870 to 1910, and likely associated with the occupation of the property by James Holden and Douglas Smith.

Section 2.2, Standard 1(c) of the *Standards and Guidelines for Consultant Archaeologists* details that historic Euro-Canadian sites containing at least 20 artifacts that date the period of use to before 1900 demonstrate sufficient cultural heritage value or interest to require a Stage 3 archaeological assessment. However, Section 3.4.2 details that 80% or more of the timespan of occupation of a historic Euro-Canadian archaeological site must date to before 1870 to require Stage 4 archaeological mitigation.

The historic background research and artifact data recovered from the CSP of Holden (BdHb-9) demonstrates that the majority of occupation of Holden (BdHb-9) dates to after 1870. Land registry data and assessment rolls indicate that occupation of the study area likely began around 1867 and extended into the early twentieth century. This historical research is supported by the recovered artifacts, the manufacture and use of which has been documented to a late nineteenth century date range.

A calculation of the date of occupation was made using Stanley South's method (South 1972). South argued that a date for a site could be determined by multiplying the frequency of a given artifact type with its median manufacturing date. Table 10 provides a summary of this method using the most chronologically sensitive material recovered from Holden (BdHb-9) and is based on date ranges established by references cited in Section 3.0.

Table 5 Holden (BdHb-9) Date Range Analysis

Artifact	Freq.	Start	End	Median	Total*Med.
Refined White Earthenware	1	1830	1860	1845	1845
Ironstone - moulded	1	1850	1930	1890	1890
Ironstone - moulded, stamped	1	1850	1930	1890	1890
Ironstone - transfer printed	2	1850	1930	1890	3780
Ironstone - undecorated	21	1850	1930	1890	39690
Semi-Porcelain - undecorated	4	1890	1930	1910	7640
Semi-Porcelain - undecorated	3	1890	1930	1910	5730
Semi-Porcelain - undecorated	2	1890	1930	1910	3820
Semi-Porcelain - undecorated	1	1890	1930	1910	1910
Semi-Porcelain - undecorated	1	1890	1930	1910	1910
Porcelain - undecorated	1	1890	1930	1910	1910
Total	38				72015
Date	**1895.13**				

Artifact distribution analysis does not indicate an area of earlier occupation within the boundaries of the site. The mid nineteenth century or earlier artifacts consist of a single sherd of refined white earthenware. As a result, Holden (BdHb-9) site does not meet the criteria defined Section 3.4.2 of the *Standards and Guidelines for Consultant Archaeologists* to warrant additional cultural heritage value or interest, and as a result, no further archaeological assessments are required

5.0 Recommendations

Based on the results of the Stage 1 background investigation and the subsequent Stage 2 survey, the study area is considered to be free of archaeological material of further cultural heritage value or interest. Therefore, no additional archaeological assessments are recommended.

The MTCS is requested to review this report and provide a letter indicating their satisfaction that the fieldwork and reporting for this archaeological assessment are consistent with the Ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports.

6.0 Advice on Compliance with Legislation

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act,* R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed 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.*

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act.* The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act.*

The *Funeral, Burial and Cremation Services Act,* 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

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8.0 Images

Image 1: Study Area Conditions. Facing West

Image 2: Study Area Conditions. Facing Southwest.

Image 3: Study Area Conditions. Facing South.

Image 4: Study Area Conditions. Facing Southeast.

Image 5: Study Area Conditions. Facing North.

Image 6: Study Area Conditions. Facing West.

Image 7: Study Area Conditions. Facing East.

Image 8: Study Area Conditions. Facing Southeast.

Image 9: Study Area Conditions. Facing Southeast.

Image 10: Study Area Conditions. Facing Northeast.

Image 11: Study Area Conditions. Facing North.

Image 12: Study Area Conditions. Facing East.

Image 13: Study Area Conditions. Facing West.

Image 14: Study Area Conditions. Facing Northeast.

Image 15: Study Area Conditions. Facing North.

Image 16: Study Area Conditions. Facing Southeast.

Image 17: Surface visibility at time of pedestrian survey.

Image 18: Test Pit Survey in progress. Facing West.

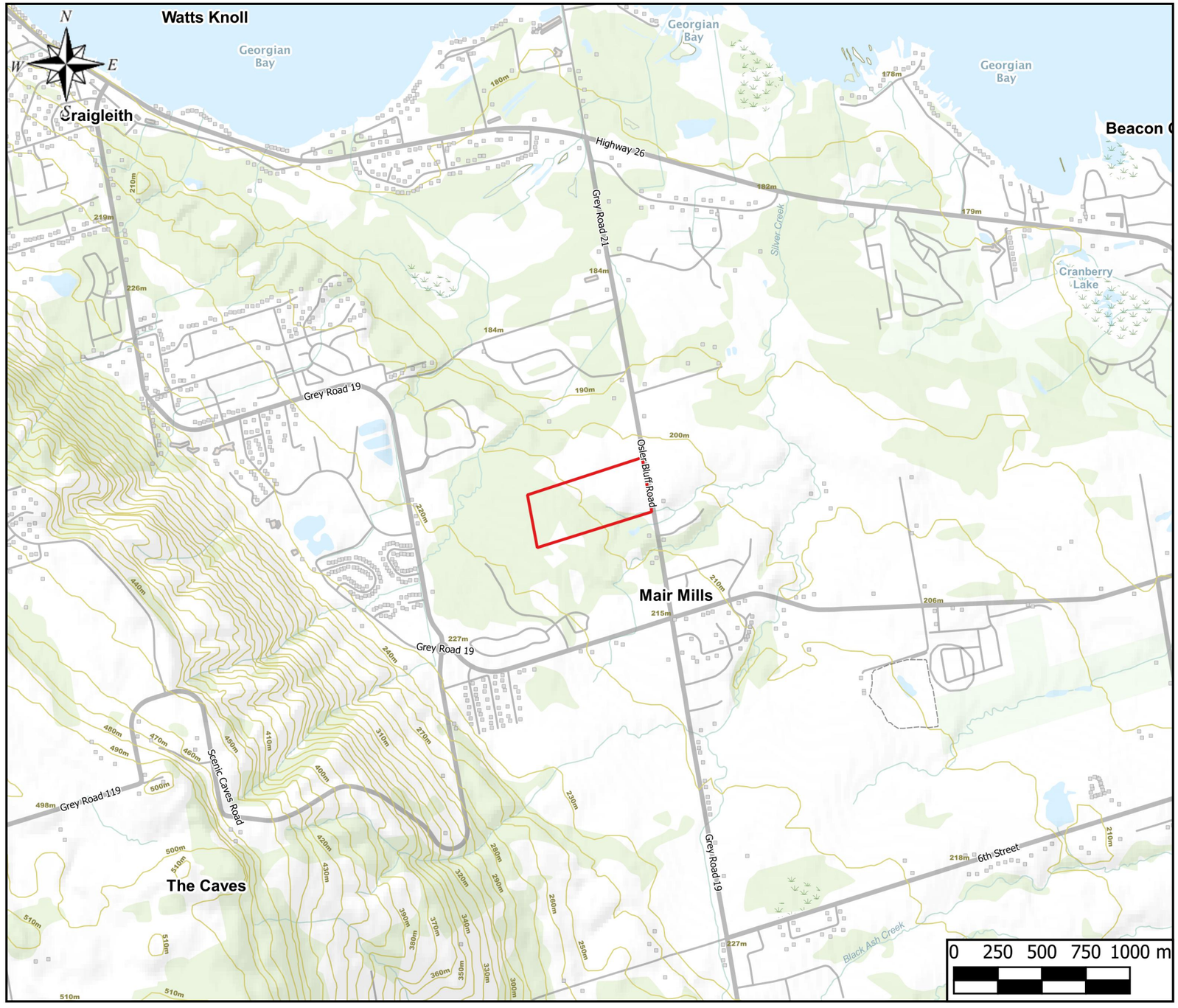
Image 19: Test Pit subsurface stratigraphy.

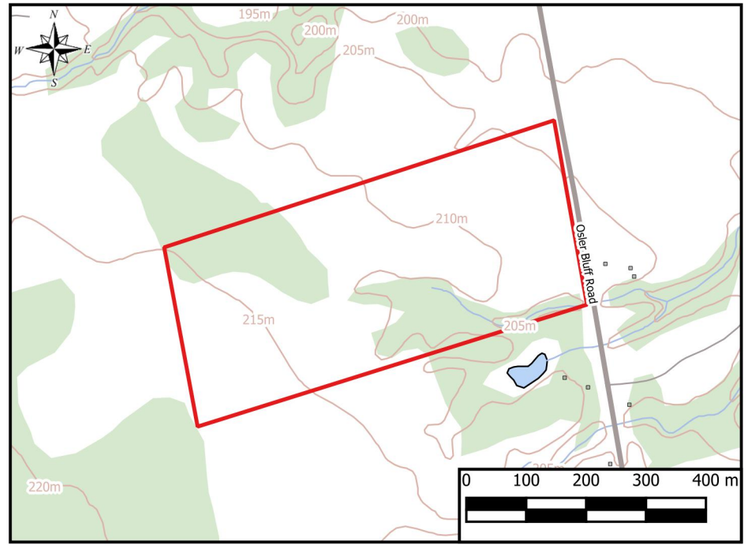
Image 20: Test Pit subsurface stratigraphy.

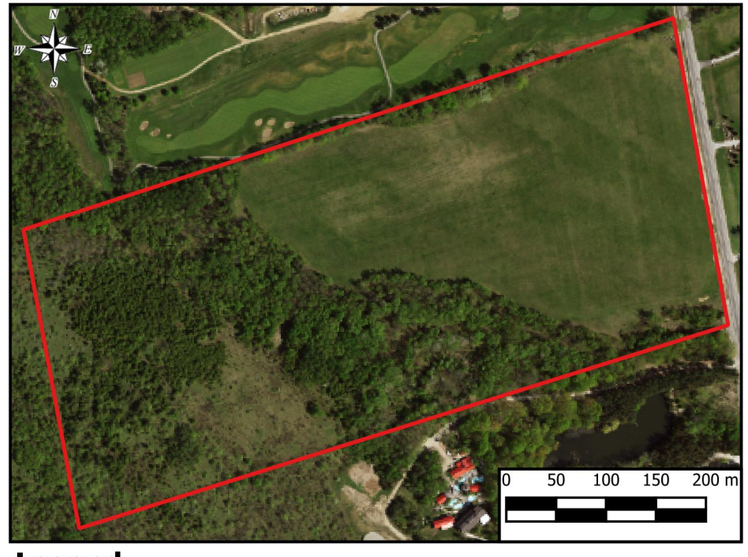
Image 21: Sample of Artifacts recovered from Holden (BdHb-9).

Image 22: Sample of Artifacts recovered from Holden (BdHb-9).

9.0 Maps





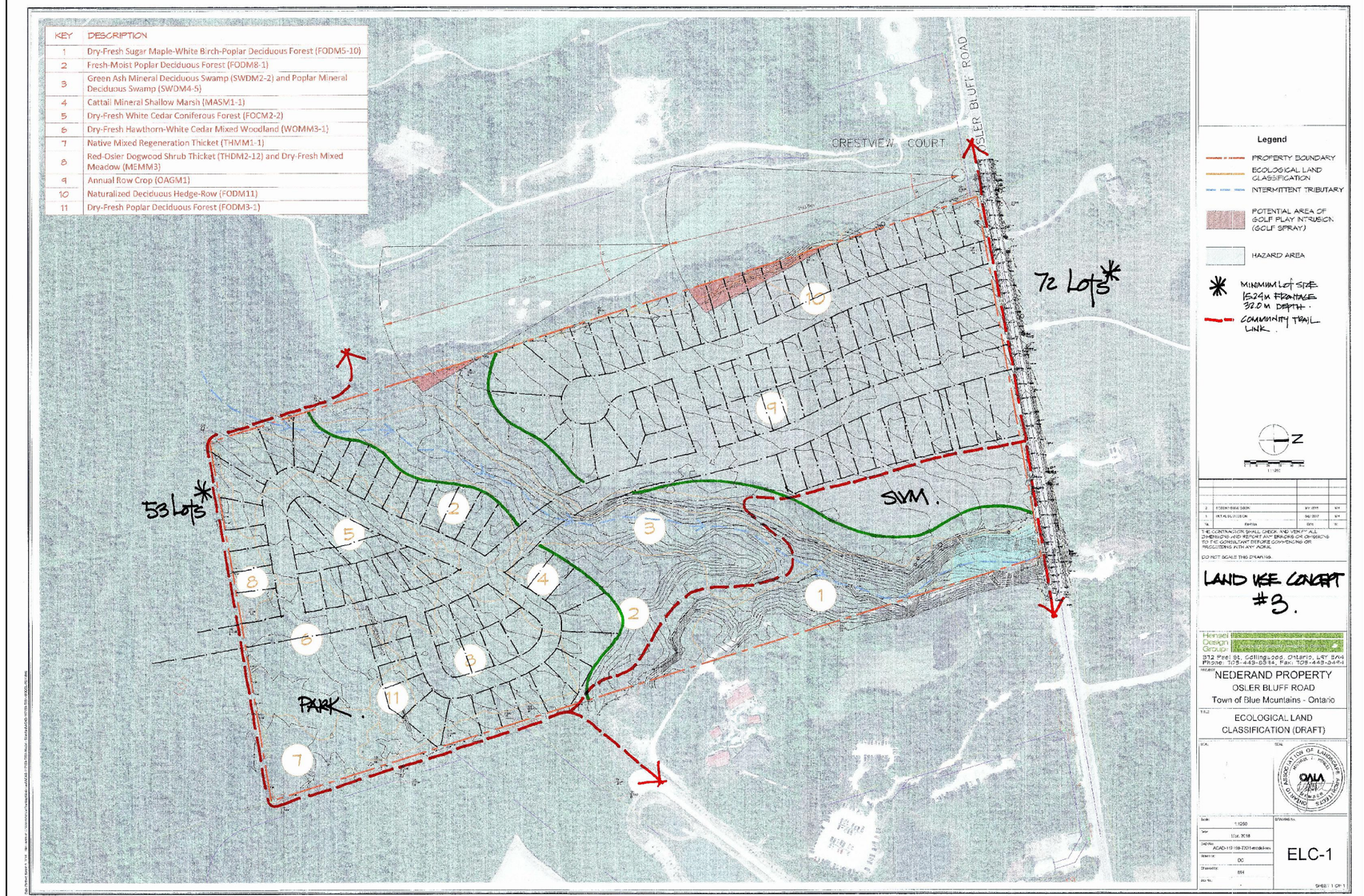


Legend

Study Area

Reference:
Canvec Data. Scale 1:50000
Ontario Basic Mapping. Scale 1:10000
Grey County 2015 Aerial Imagery

Map 1: Regional Map



Map 2: Site Plan

Legend	Base Map:	Not to Scale
Study Area	J. Fleming 1872 Topographical Map of the Township of Collingwood	

Map 3: Nineteenth Century Mapping

Legend

- Study Area
- Area Subject to Test Pit Survey at 5 metre intervals
- Area Subject to Pedestrian Survey at 5 metre intervals
- Area of Permanent Inundation - Not Assessed
- (#) Photo Location and Direction

Reference:
Grey Count 2015 Aeria Imagery

Map 4: Stage 2 Assessment Results