

**Stage 3 Archaeological Assessment
of the Jasper Site (BbGa-23)
Proposed Tallman Subdivision
205 Elmwood Drive,
Parts 1-16 & 21-31, Registered Plan 28R-12422
Part of Lot 16, Concession 1
Geographic Township of Leeds
Town of Gananoque
County of Leeds, Ontario
Original Report**

**Approval
Authority:** **Town of Gananoque**

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PIF# **P246-0537-2021**
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Executive Summary

In December of 2019 Abacus Archaeological Services was retained to undertake a Stage 1 and 2 archaeological assessment of a property with municipal address 205 Elmwood Drive, an approximately 9.6 ha parcel of land located within parts 1 through 16 and 21 through 31 of Registered Plan 28R-12422, Part of Lot 16 of Concession 1 of the Geographic Township of Leeds, now within the Town of Gananoque (Map 3). The subject property is situated on the north shore of the St. Lawrence River and is bounded to the west by John Street and to the north by Arthur Street and Elmwood Drive. The property is currently primarily undeveloped but does contain an existing home/cottage structure with surrounding surfaces at municipal address 375 John Street (Map 4). The owner of the property is proposing a residential plan of subdivision on the lands with the creation of up to 63 residential development lots. An archaeological assessment was a condition of municipal applications for Site Plan Control.

Five registered archaeological sites are found within 1 kilometre of the subject property which is located within the Thousand Islands region of the St. Lawrence River that straddles Canada and the United States. This region has long been home to, or visited by, members of the Iroquois Confederacy and Ojibwa peoples. Of these five registered archaeological sites two feature Woodland Period campsites. Historical research has shown that the area around the subject property was potentially subject to Euro-Canadian development during the c. 1850s following the purchase of the southern 100 acre portion of the Lot by Dr. Thomas Richmond, a local physician. During the early 20th century the property transitioned from a traditional farm to a dairy farm which was maintained by the Macdonald and then later the Conner families of Gananoque.

The Stage 2 assessment in May of 2020 identified a single positive test pit located within an isolated central area of the property. Intensification testing at the positive test pit resulted in the cumulative recovery of 70 lithic flake finds featuring different parent materials, all of Pre-Contact origin. The site was subsequently registered as the Jasper Site (BbGa-23).

The Jasper site (BbGa-23) was the subject of a Stage 3 assessment between August 3rd and 4th, 2021 under Project Information Form number P246-0537-2021 in the form of seven (7) 1m² excavation units (Map 12). The Stage 3 assessment was conducted in order to define the limits of the site and gather more information about its function, and age. Based on the Stage 3 findings, the Jasper Site (BbGa-23) appears to be a small or diffuse lithic scatter and/or a single component/use archaic site.

Based upon these results the licensee makes the following recommendations with regard to the study area (Map 13).

- The Jasper site (BbGa-23) contains the remains of an archaic period single use kill or camp related site which represents a significant archaeological site requiring further assessment.
- Accordingly, the Jasper site (BbGa-23) requires Stage 4 mitigation in the form of protection and avoidance measures, or alternatively via Stage 4 mitigation excavations. The proponent has indicated that long term Protection and Avoidance measures are the preferred route in this instance.
- The property owner plans to pursue long term protection and avoidance by formally surveying the site limits, including a 10m buffer zone, and having these put on the registered survey of the property and engaging with the use of an “H” designation on the official plan, which would forbid development on this part of the property. The Zoning By-Law and “H” designation provides a reliable mechanism to ensure the effective implementation of a long-term protection strategy.
- Development of the area of the Jasper site (BbGa-23) would only be possible following municipal applications for a Zoning By-Law Amendment and the completion of a Stage 4 excavation of the site by a licenced archaeologist and the issuing of a concurrence letter by the Ministry of Tourism, Culture and Sport for the associated report.

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Project Personnel

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1.0 Project Context

1.1 Development Context:

In December of 2019 Abacus Archaeological Services was retained to undertake a Stage 1 and 2 archaeological assessment of a property with municipal address 205 Elmwood Drive, an approximately 9.6 ha parcel of land located within Part of Lot 16 of Concession 1, Geographic Township of Leeds, now within the Town of Gananoque (Map 3) (Berry, 2021). The subject property is situated on the north shore of the St. Lawrence River and is bounded to the west by John Street and to the north by Arthur Street and Elmwood Drive. The property is currently primarily undeveloped but does contain an existing home/cottage structure with surrounding surfaces (Map 4). The owner of the property is proposing a residential plan of subdivision on the lands with the creation of up to 63 residential development lots (see attached development plan). An archaeological assessment was a condition of municipal applications for Site Plan Control. The legislation triggering the assessment is the Planning Act. The Town of Gananoque is the approval authority for this application.

The Jasper site (BbGa-23) was the subject of a Stage 3 assessment between August 3rd and 4th, 2021 under Project Information Form number P246-0537-2021 in the form of seven (7) 1m² excavation units (Map 12). The Stage 3 assessment was conducted in order to define the limits of the site and gather more information about its function, and age. Based on the Stage 3 findings, the Jasper Site (BbGa-23) appears to be a small or diffuse lithic scatter and/or a single component/use archaic site.

All activities carried out during the Stage 3 assessment were completed in accordance with the terms of the *Ontario Heritage Act* and the Ministry of Tourism and Culture's (now Ministry of Tourism, Culture and Sport) 2011 *Standards and Guidelines for Consultant Archaeologists*. This report was written and assembled by Michael Berry, PhD of Abacus Archaeological Services. Background research utilized Land Registry Records, local histories and relevant maps. Permission to access the subject property and to carry out the assessment was granted by the proponent. All images and documents generated during this project will be archived by the licensee until such time that a suitable repository is established.

1.2 Historical Context:

As result of the long history of occupation in the Gananoque area there is a great wealth of information available in the form of primary archival documents such as maps, diaries and personal illustrations as well as a number of publications. Key texts include *Souvenir of Gananoque and the Thousand Islands* (Britton, 1901), and *History of Leeds and Grenville, Ontario, from 1749-1879* (Leavitt, 1879).

Settlement in the St. Lawrence Valley area was not actively encouraged by the British colonial government until the late eighteenth century. The period of European settlement in Leeds and Grenville began in June, 1784 when Loyalist settlers arrived from Lachine, Quebec via bateaux. Following the end of the American Revolution the British began settlement in earnest in the original townships along the shore of Lake Ontario via land grants to United Empire Loyalists who chose to build new lives in British North America. Leeds Township was opened for settlement in 1788 when it was surveyed and the system of lots and concessions established.

The period of European settlement in Gananoque began in 1791 when Joel Stone and Sir. John Johnson approached the Crown for land grants in payment for their Loyalist services. The 700 acres on the west bank of the Gananoque River abutting the St. Lawrence River were granted to Joel Stone and the 1,000 acres on the east bank being granted to Sir John Johnson in 1792 (Leavitt, 1879: 126). A sawmill and gristmill constructed by Sr. John Johnson on Lot 13, Concession 1 was well fed by the Gananoque River. A period commenter noted that “on the opposite side of the River another may be erected, there being always water sufficient” (Lockwood, 2006:33). However, Sir John Johnson would never settle permanently in the area as he was the first superintendent of Indian Affairs and held considerable land around Montreal.

Stone is generally considered the founder of Gananoque and from the time of the Crown patent in 1792 to the War of 1812 he created several businesses which served to develop the area into the industrial town it would become. By the War of 1812 a considerable settlement had grown up around the mills. The settlement was sizeable enough to warrant attack by American forces. Approximately 200 Americans marched on the town and traded fire with the 110 British regulars and members of the Leeds Militia posted there. The outnumbered British retreated after which the Americans destroyed the King Street Bridge and Col. Stone’s home, as well as the government supply depot. Following the raid a blockhouse was built along the east side of the Gananoque River. By the latter part of the 19th century the town had continued to expand, based largely on the industrial power supplied by the river. Gananoque continued to develop during the 19th century, pushed on by the town’s location along a vital water transport corridor. However, as other power sources overtook industrial activity the town slowly stagnated. The present population of approximately 5200 is aided by an active tourist industry featuring boat cruises and live theatre.

1.3 Property and Structural History:

*Lot 16, Concession 1
Geographic Township of Leeds
(Based on material from Berry, 2021)*

The study area is located in the southern frontage of Lot 16, Concession 1 of the Geographic Township of Leeds (Map 5). The 300 acres of Lot 16 was granted by the Crown to Neil McMullan on May 17, 1802 (OLR). McMullan retained the entire parcel until May 4, 1821 when he sold the approximate 100 acres described as an “irregular parcel N. of Kings Road partly within limits of Gananoque” to Timothy Chambers (OLR)¹. On May 29, 1835 Neil McMullan sold the remainder of the Lot not within the boundaries of Gananoque to the Hon. John McDonald.

John McDonald was a businessman and later a justice of the peace and politician. Born in Saratoga, N.Y. in 1787 he immigrated to Gananoque in 1817 (Shepard, 1985). His businesses in New York State likely suffered due to the War of 1812 and subsequent economic depression while his brother, Charles McDonald, was already well established in the town. Charles McDonald worked for Joel Stone’s lumber and mercantile business and was married to his daughter Mary. Following the retirement of Col. Stone, Charles McDonald built a new grist mill and admitted his brother John into the business, which was renamed C. and J. McDonald (later C. and J. McDonald and Company). The company expanded rapidly and was one of the areas suppliers of mercantile goods, lumber and flour. After 1825 the McDonald brothers acquired the lands on the east side of the Gananoque River and established controlling rights over all waterpower along the lower part of the river. Aided by colonial preference and other British tariff policies that protected cereal grains the firm shifted towards flour production and became a major producer. John McDonald never resided within the subject property, living in a large home on King Street East which now serves as the Gananoque Town Hall.

On October 22, 1841 the Hon. John McDonald agreed a deal with Archibald Cuthill for a block of land which is undescribed in the Land Registry Abstracts but can be inferred as the whole 300 acres of Lot 16 and some other lands totally to 500 acres. The property was located east of the town centre of Gananoque in an area of what was then rural county side (Map 5). At the same time Archibald Cuthill agreed to sell the portions of the property located north of the roadway, totally 150 acres, to Thomas Russel while retaining the southern half of the Lot (OLR).

On February 22, 1850 Archibald Cuthill sold a parcel then described as the southern 97 1/4 acres of Lot 16 to Thomas Richmond (OLR). Thomas Richmond completed the purchase of the Lot on October 30, 1851 when he bought the portion north of the roadway from Thomas Russel. Dr. Thomas Richmond was a well-known local physician born in Scotland in 1814 who had arrived in Canada in 1848. His personal accomplishments include sitting on the provincial Board of Agriculture in 1866 (1866). Dr. Richmond constructed a one storey stone home which became known as Graiglea House located

¹ The exact amount of acreage for the Lot alters slightly over time, likely due to the changing shoreline.

upon the south frontage of the Kings Road in an area north of the subject property (Map 6) (2020). The 1861 Federal Census records that Dr. Richmond was cultivating his entire 99 acre parcel with 40 acres under crops and 58 acres in use as pasture (Ancestry.com, 2020). The approximately 100 acre southern parcel which contains the subject property was retained by Dr. Thomas Richmond and his wife Helen (Bruce) until November 26, 1869 when the land was sold to Charles McNab (OLR); Richmond would die in June 1870. It appears that McNab sold this land one year later to James Dempster. The official plan of Gananoque (Plan No. 86) was registered on January 3, 1887, a plan by Walter Beatty, P.L.S. and B.J. Saunders (OLR).

On May 26, 1900 the unnamed widow of James Dempster sold the southern parcel of Lot 16 to siblings David & Ellen L. Taylor. Following the death of David Taylor the land was sold on April 16, 1907 by Ellen L. Taylor (spinster) to Charles E. Britton (OLR); a separate transaction registered on the same date sold “Island No. 2” in Beatty’s survey of the Thousand Islands to Charles Britton. Both parcels were sold just months later in August 1907 to William S. Macdonald (OLR).

The subject property area south of the Kings Road (modern day Highway 2/ King Street, Gananoque) was retained by the Macdonald family into the early 20th century. On April 7, 1928 the southern 97 ½ acres of Lot 16, the property then known as the “Maplecroft Dairy Farm” was granted by Louise D. McDonald to Thomas Herbert Conner. Thomas Conner died on May 29, 1931 and passed the land to his widow and heir Jomina Conner on February 10, 1932 (OLR).

In May 1941 the land was passed within the family to eldest son Wilmer Herbert Conner and his wife Jean whom continued to operate the Maplecroft Dairy Farm under the Conner name into the mid-20th century (Map 9). In 1956 Wilmer H. Conner and Jean H. Conner agreed an easement with the Corporation of the Town of Gananoque to erect electrical poles over part of the property. In July 1964 Wilmer and Jean Conner agreed to a grant allowing the Ontario Water Resources Commission to establish a sewer easement across the property (OLR). Throughout the latter 20th century smaller lots within what was the expanding town of Gananoque were severed and sold off from the original Conner family farm property.

The subject property remained in the Conner family into the latter part of the 20th century. Following the death of Wilmer Conner in 1969 and his wife Winnifred in 1977 portions were passed to his eldest son, Thomas Conner, in the early 1980s. Recent conversation with the previous property owner, Mr. Thomas Conner, identified the modern alterations to the property. Mr. Conner confirmed the property was primarily used as pasture lands for dairy cows and was never ploughed or utilized for active agriculture during his family’s possession of the land. The central area of the property was open grassed pasture lands in the past; it was not until the town of Gananoque began to direct storm water through the lands that the central portion became flooded wetlands. The recent history and use of the property has seen large areas overgrow with trees and vegetation as the dairy operations were abandoned (Map 10).

1.4 Archaeology of the Region:

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (BP) (Ferris, 2013). The earliest human occupation of southern Ontario began with the arrival of small groups of hunter-gatherers referred to by archaeologists as Paleo-Indians (Ellis and Deller, 1990: 39). The Paleo-Indian Period in Eastern Ontario (here defined as the Trent Valley and eastwards) begins during the Belleville phase of Lake Iroquois (12,000 BP) when the land between the ice covered Algonquin Highlands and Lake Iroquois was exposed as far east as the Champlain Sea (Muller and Prest, 1985). Later as the land rebounded from the weight of the glacier the shallows of Lake Iroquois became a fertile plain. Small bands of hunters likely moved into the area after a steppe environment had been established and they could hunt caribou and megafauna such as mastodons. As the climate moderated to the general conditions of the recent Holocene a boreal lifeway became established. This lifeway can be superficially described as alternating between spring/summer amalgamation of the regional people around locations for harvesting spawning fish; the fall/winter dispersal of the population into small family units, to winter in large hunting territories where moose hunting was important (Wright, 1972).

Paleo-Indian sites are rare but not unknown in Eastern Ontario and are usually the random find of a spear point typical of the Late-Paleo Period. The rarity of Paleo-Indian sites is in part due to physiographic changes upon the landscape. Between approximately 10,000-5,500 BP, the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. However, late Paleo-Indian non-fluted lanceolate points have been found in the Thousand Islands and along the Cataraqui River.

The Archaic Period begins around 7000 BP in Eastern Ontario and is marked by the extinction of the megafauna and the switch to a way of life focused on fishing and the harvesting of wild foods such as hickory nuts. The earliest evidence of heavy wood working tools appears in this period, which is interpreted as an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. With greater ties to direct land areas and socially prescribed territories we see the earliest evidence for cemeteries and indications of increased social organization (approximately 4,500-3,000 BP), and an investment of labour into social infrastructure, and the establishment of socially prescribed territories (Ellis et al., 1990).

For the most part the Archaic way of life appears similar to the historic way of life of the Cree and Ojibwa of northern Ontario. In the spring, family groups coalesce into large encampments around rapids and waterfalls in order to catch spawning fish. In the late fall, family groups disperse across the landscape to individual hunting territories where they trap and hunt locally. The bulk of the goods made by natives were of biodegradable materials so the majority of the artifacts found on Archaic sites are of stone, though in good soil conditions bone tools and refuse bone can survive. On occasion tools or fragments of copper are also found. Copper appears on sites east of the Rouge River

about 5000 BP, particularly along the Trent and Ottawa River systems. Maize was first introduced into southern Ontario during this period, though at that time it would have only supplemented people's diet and would not have been the primary energy source. Archaic sites have been identified in the Rideau Lakes area (Watson, 1981) and at Jessups Falls (Daechsel, 1980). Late Archaic components consisting of Narrow Point traditions have been recorded on Wolfe Island including the Armstrong site on Button Bay. Evidence of Archaic occupations within the Upper St. Lawrence Valley includes the Gordon Island (Wright, 2004: 357).

The beginning of the Woodland period is marked by the appearance of pottery on First Nation's sites. The Early Woodland people of Ontario were the first to use pottery in this province. In many other respects, people of the Early Woodland Period continued to live in much the same way as their predecessors of the Late Archaic. In Eastern Ontario this occurs around 3000 BP a time when the Meadowood Culture of Western New York State begins to occupy the province.

Shortly after 2300 BP the Middle Woodland Period begins with a steady increase in the population of Ontario. Long distance trade is evident from the appearance of exotic materials such as marine shell, mica and copper. Evidence from archaeological sites indicates that by the Middle Woodland Period the people of Ontario began to identify with specific regions of the province. For the first time this allows archaeologists to distinguish regional cultural traditions - sets of characteristics which are unique to a part of the province. Archaeologists have named these cultural traditions Laurel (northern Ontario), Point Peninsula (eastern and south-central Ontario), Saugeen (southwestern Ontario) and Couture (extreme southwestern Ontario).

The range of sites and archaeological evidence collected thus far have provided a picture of the seasonal patterns of activity that Middle Woodland people used to exploit the wide variety of resources in their territories. The spring, summer and fall saw macrobands, larger groups of people congregating at lakeshore sites to fish, collect shellfish and hunt in the surrounding forests. The approaching close of the summer season resulted in an emphasis on collection and storage of hunted resources, due to the need to store up large quantities of food for the winter. By late fall and early winter, the community would split into microbands, small family hunting groups, each relocating to a smaller 'family' hunting area inland where they would stay until the process repeated and larger macrobands rejoined in the spring.

The Thousand Islands appears to have been an attractive location for Middle Woodland populations. A number of Middle Woodland sites, attributed to the Point Peninsula complex, have been identified throughout the Thousand Islands and adjoining drainage. Woodland period materials have been located on Gordon Island, and the interior reaches of the Gananoque River Basin. The Ault Park site near Cornwall is one of the most significant sites in eastern Ontario with other significant sites including the Long Sault Mounds and the Malcolm Site (Dailey and Wright, 1955, Fox, 1990).

By the Late Woodland Period, c. 800 AD, a definitively Iroquoian people were occupying the north shore of Lake Ontario. The period is most clearly distinguished by the changes in pottery construction and decoration. By the beginning of the Late Woodland (ie. by A.D. 900) period the coil method with various stamped decorations (dentate, rocker, pseudo scallop shell) was abandoned in favour of the paddle and anvil method, with vessels decorated with 'cord-wrapped stick' decoration. Intensive horticulture is practiced in this period as maize provided a large food reserve. Beans, squash and sunflowers were also grown. Villages of longhouses with many hundreds of people begin to be seen particularly in Prince Edward County and on the sandy ridges along the north shore of Lake Ontario. The area appears to have been largely abandoned around 1550 AD likely due to conflict between the Iroquois of New York State and the Huron Confederacy.

In the wider Kingston region most archaeological sites are known from the north shore of Lake Ontario and the islands to the south, the mouth of the Cataraqui River, the Napanee River and Wilton Creek environs and the shore of the St. Lawrence east of Kingston along with the Thousand Islands. Many of the registered sites in this region around Kingston and up the Cataraqui/Rideau Waterway were first documented by avocational archaeologist Guy Blomely and subsequently registered by Hugh Daechsel (Daechsel, 1988, 1989).

It would appear that the majority of the sites in the area are located south of the Frontenac Axis. The Frontenac Axis is a continuation of the exposed granites of the Canadian Shield that runs southeast crossing the St. Lawrence River and thus forming the Thousand Islands before it enters Up State New York and rises as the Adirondack Mountains. Sites on the Frontenac Axis are generally restricted to the shores of the many lakes in this area and at portage points along the connecting rivers. This pattern may be due to a lack of archaeological survey work over most of the Frontenac Axis but given the terrain a settlement pattern focused on the waterways is not surprising.

Period	Group	Time Range	Comment
Paleo-Indian			
	Fluted Point Hi-Lo	11000 - 10400 BP 10400 - 9500 BP	big game hunters small nomadic groups
Archaic			
Early	Side Notched Corner Notched Bifurcate Base	10000 - 9700 BP 9700 - 8900 BP 8900 - 8000 BP	nomadic hunters and gatherers
Middle	Early Middle Archaic Laurentian	8000 - 5500 BP 5500 - 4000 BP	transition to territorial settlements
Late	Narrow Point Broad Point Small Point Glacial Kame	4500 - 3000 BP 4000 - 3500 BP 3500 - 3000 BP ca. 3000 BP	polished - ground stone tools, river - lakeshore orientation burial ceremonialism
Woodland			
Early	Meadowood Middlesex	2900 - 2400 BP 2400 - 2000 BP	introduction of pottery elaborate burials
Middle	Point Peninsula Sandbanks - Princess Point	2300 - 1300 BP 1500 - 1200 BP	long distance trade, burial mounds agriculture begins
Late	Pickering Middleport Huron - St. Lawrence Iroquois	1100 - 700 BP 670 - 600 BP 600 - 350 BP	transition to defended villages, horticulture large village sites tribal organization, warfare abandonment
Historic			
Early	Mississauga	300 - Present	southward migration
Late	Euro-Canadian	225 - Present	European Settlement

² Table based upon material assembled by N. Adams.

2.0 Project Context: Archaeological Context

2.1 Previous Archaeological Research near the Subject Property:

In May of 2020 a Stage 2 assessment was completed within the property resulting in the recovery and identification of 12 positive test pits at four discrete locations containing 337 finds of both Pre-Contact and Euro-Canadian origin. Three of these locations met the criteria for registry as an archaeological site; the Little Island Site (BbGa-21), the Jasper Site (BbGa-23) and the Conner Site (BbGa-22). The results of the Little Island Site (BbGa-21) and the Conner Site (BbGa-22) assessments are discussed in other reports. No additional archaeological assessments are known to have been completed within 50 m of the property. Consultation with the Ministry of Heritage, Sport, Tourism and Culture Industries' Archaeological Sites Database found that five registered archaeological sites are found within 1 km of the study area within Borden Block BbGa³.

Each of the five sites is located west of the subject property within the town centre area of Gananoque. The Stone's Mill site (BbGa-5) is located on the west bank of the Gananoque River on Mill Street south of Highway 2/King Street, excavation was located around an old shed on the north side of the old mill structure. The site featured building hardware, nails, wire, window glass, coins, spinning wheel spindle, and corset stays dating from 1794 onward.

The John & Henrietta McDonald Estate Site (BbGa-19) is located at the Town Park/Town Hall in Gananoque. Assessments starting in 2017 found historic period material related to the administrative and residential operations of the home and area. The Riviyyra Site (BbGa-18) was an Aboriginal campsite from the Point Peninsula Woodland Period culture (c. 700-1300 AD). The site was found in a gravel parking lot associated with former marina, accessible from South Street. Stage 4 block excavation over an area of 223 m² resulted in 682 artifacts recovered.

The Riverstone Gananoque Site (BbGa-17) appears to represent the location of a mid-nineteenth century (c.1830s to 1850s) homestead which predates the industrial developments within the property. The Site was found along the western shore of the Gananoque River within an abandoned industrial complex off of Mill Street. Stage 2 mechanical test trenches at the site found 445 artifacts from the Euro-Canadian period. Due to later disturbance from industrial activity the site was determined to hold no further archaeological value or interest. The Island Harbour Site (BbGa-16) was located the furthest from the study area near the inner harbour area of the town. The site was located in an urban area below a former late twentieth century parking lot. Much of the site had been heavily disturbed through industrial use in the 20th century however the site contained finds from the Post-Contact period to the Early Woodland period.

³ Information courtesy of the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries.

The intensity of the archaeological remains in Gananoque and the Thousand Islands demonstrates the rich heritage of this area. Any relative paucity of registered sites in the wider area is likely more a result of the number of archaeological studies previously performed in the area and not a true reflection of the archaeological richness of the region.

Borden Number	Site Name	Time-Period	Cultural Affinity	Site Type
BbGa-5	Stone's Mill	Post-Contact	Euro-Canadian	Manufacturing, mill
BbGa-19	John & Henrietta McDonald Estate	Post-Contact	Euro-Canadian	House
BbGa-18	Riviyra	Woodland	Aboriginal	Campsite, seasonal
BbGa-17	Riverstone Gananoque Site	Post-Contact	Euro-Canadian	Residential
BbGa-16	Island Harbour Site	Post-Contact, Woodland	Euro-Canadian, Unknown	Campsite, seasonal

2.2 Physiography of the Study Area:

The property is located on the north bank of the St. Lawrence River, west of the mouth of the Gananoque River. The subject study property lies within the Leeds Knobs and Flats physiographic region of southern Ontario (Chapman and Putnam, 1984:336). The Leeds Knobs and Flats region is characterized by frequent outcrops of Precambrian bedrock, interrupted by flat to undulating areas with clay soils. The existing soil is the upper limits of the sediments laid down in the former glacial period of the Champlain Sea; as such the rock knobs are relatively bare because the former shallow soils were removed by the wave action of the sea. Dairy farming and related crop growth has long been an agricultural mainstay in the area as the deep clay soils found between the “thousand islands” of rock knobs promote excellent yields of hay, oats and corn. This area lies within the Huron-Ontario sub-region of the Great Lakes - St. Lawrence Forest Region (Rowe, 1977: 93). Deciduous trees common to this area include sugar and red maples, beech, basswood, white and red ashes, yellow birch, and red, white and burr oaks, while coniferous trees include eastern hemlock, eastern white pine and balsam fir.

The subject property is situated within an area of Napanee Clay (Nc) with a pocket of Rockland soil series (R.L.), within a topographic zone of gently sloping, very rocky land (Gillespie and Wicklund, 1968) (Map 11). The Rockland soils are similar in form to the Monteagle sandy loam rocky phase soils but features smaller amounts of sandy loam soils amongst the rocky outcrops. Much of the area contains bare rock outcrop or low relief marshy depressions but where soil cover exists it is a gravelly but porous and well-draining. The Napanee clays are poorly drained soils which occupy the level and depressional areas within the county. The soils are often found on gentle slopes representing the rising elevations to a limestone plain, and are therefore the upper limits of the sediments laid down by the former glacial lake before isostatic rebound lifted the region. A part of this region was covered by salt waters of the Champlain Sea and it is assumed that these clay sediments originated during the period of glacial inundation (13000 – 10000 BP). The common crops grown on these soils are hay, corn for silage, and oats.

The property is located on the shoreline of the St. Lawrence River, located approximately 700 metres east of the mouth of the Gananoque River (Map 2). The eastern limit of the property features an inlet which is fed by a southward flowing creek. The natural topography of the study area is marked by a gently southward sloping waterfront with the rear or northern portion of the property featuring two east-west running ridges which are separated by a lowland area in between (Map 3). The Town of Gananoque has routed storm water through the two ridges into the lowlands which has created a flooded marshy area near the eastern inlet.

2.3 Archaeological Potential of the Study Area:

The subject property has high archaeological potential according to the 2011 MHSTCI Standards and Guidelines (2011). The Stage 2 assessment in May of 2020 identified a single positive test pit located within a wooded area of the property. The positive test pit resulted in the cumulative recovery of 70 finds of Pre-Contact origin located in an area bounded by a lowly-lying creek to the north and a near vertical rock ridge to the south. The site was subsequently registered as the Jasper Site (BbGa-23).

In accordance with Ministry of Heritage, Sport, Tourism and Culture Industries Standards and Guidelines (2011) a Stage 3 archaeological assessment was recommended and subsequently performed within the subject property. The results of this testing will follow.

Stage 1 Recommendation (Berry, 2021)

- The site was registered with the Ministry of Heritage, Sport, Tourism and Culture Industries as the Jasper Site (BbGa-23). BbGa-23 contains further cultural heritage value. If possible within the physiographic confines of the area the site should be assessed through the excavation of 1m² units on a 10 m grid surrounding the Stage 2 positive test pits with 40% of the grid total in-fill intensification units (Table 3.1, , 2011).

3.0 Field Methods

The Jasper site (BbGa-23) was assessed through the excavation of 1m² units on a 5m grid as it was yet to be determined if the site had archaeological significance requiring Stage 4 mitigation (as per Table 3.1, , 2011). A total of seven 1m² excavation units were assessed under Project Information Form number P246-0537-2021 (Map 12).

Upon arriving at the site a permanent datum was established and a grid was laid out over the area of the site as identified during the Stage 2 assessment which incorporated the positive Stage 2 test pit and intensification unit location (Map 12). The Stage 3 excavation units were plotted onto the grid. For ease of reference the units were referred to by a number-letter designation similar to that used by Parks Canada where each unit is identified by an operation and a sub-operation number. The Stage 3 excavation began with Operation 1, with the units labeled 1A and then sequentially through the alphabet; in order to avoid potential confusion during laboratory analysis the letters O and I are omitted from the sequence as a standard practice. The Parks Canada model was also used for the designation of lots – where a lot designation is given to each archaeological unit or stratum and also to each feature within a unit, thus 1A2 refers to unit 1A, lot 2. Lots were designated sequentially for each unit.

At BbGa-23 seven (7) 1m² units were excavated on the grid arranged around the original artifact finds and extended as necessary as more artifacts were found. Four units were located on grid and a total of one additional unit was excavated within the grid for intensification purposes. The excavated units were labeled 1A through 1G. In each excavation unit the soils were removed by hand and the excavation extended 5 cm into sterile subsoil, to the surface of bedrock or until a feature was exposed. The units were examined for evidence of fill, stratigraphy and cultural features and the surface of the exposed subsoil was examined for the presence of negative features. All soils from the Stage 3 excavation units were screened through 6mm mesh. Unit profiles and plan views were recorded through photographs and scaled drawings. Other relevant information was also recorded, such as soil composition, inclusions, shape, artifacts and interpretation.

The artifacts were bagged and catalogued based on their provenience. The artifacts recovered during the Stage 3 excavations are listed in the artifact catalogue at the end of this report. The artifacts were catalogued by lot. All units were backfilled upon completion of the project. Permission to enter the property and remove artifacts was received from the landowner prior to commencement of the project. Field conditions were photo documented. A total of 2 field notebook pages were used during the Stage 3 assessment, as well as seven test unit record forms. The packed collection of the site consists of two bags of artifacts contained within 1 box. The artifacts, field notes and photographs will be retained by the licensee. The record is considered stable and the long-term curation plan is that the data be stored within the licensee's archive. During the course of the Stage 3 assessment the weather was consistently hot and sunny. At all times the property was assessed during weather and lighting conditions which permitted good visibility of land features and was conducive to the identification and recovery of archaeological resources.

4.0 Record of Finds

The property is located within a rural/suburban area of east Gananoque (Images 1-8). The Jasper site (BbGa-23) Stage 3 assessment area is found in the northwestern portion of the property. A central rocky ridge runs east-west through the centre of the property. On the northern side of this ridge, at the base of the rock and within a short distance of a small creek, lies the site area. The site is located within a thin band of soils bounded to the north by the creek and wetlands area and to the south by the vertical ridge of bedrock which surrounds the area in a semi-circular shape. The whole of the site appears to occupy a small area which would have provided a good natural wind-break from the shoreline as well as providing the occupants protection from view along the river.

Stage 3 units were excavated within and around the central locus of the site as determined by the Stage 2 test pit survey and intensification work. Excavations were extended out from the centre until artifacts or features were found to dramatically decrease within the excavation units. Accordingly, intensification units amounting to 20% of the grid total were placed within the central locus of the site and around high yielding units.

The grid was initially laid out in relation to the site datum established at an area south of the positive test pit location. The site datum was utilized to establish a five metre grid system which encircled the positive test pit/intensification unit. Excavation units were extended as necessary until artifacts disappeared or natural boundaries were encountered (water, bedrock). High yield units were encountered around the centre of the site and the area directly northeast of the Stage 2 finds (Map 13). Artifacts were recovered from units 1B and 1E exclusively. The site limits were established through the excavation of sterile units at the outer edges, as well as the natural limits created by the surrounding topography/geography.

The stratigraphic profile within the limits of the site was unilinear and consistently identified as a single layer of topsoil in a mid greyish brown fine sandy clay soil matrix (30% sand, 70% clay) measuring 8-15 cm below existing grade. The topsoil deposit included a high organic content of leaf litter and other naturally composting humus. The topsoils were found to seal over the natural light yellowish brown subsoil clay. The Stage 3 units were excavated to depths between 12 and 25 cm below existing grade.

The finds from the Stage 3 assessment are discussed in the proceeding section. Based on the collective findings the Jasper Site (BbGa-23) appears to be a small or diffuse lithic scatter and/or a single component archaic site. Based upon the quantity of lithic material in a highly localized area we can postulate that the site may be a single individual or group campsite/kill site. Given the location the camp or kill site may have been utilized in the winter/fall months as the stony ridge to the south provides a considerable wind break from the prevailing weather coming off of the shore of the St. Lawrence River.

4.1 Stage 3 Artifact Analysis; Jasper Site (BbGa-23)

A total of 58 Pre-Contact artifacts were recovered from two (2) 1m² Stage 3 excavation units. All of the artifacts were from the Pre-Contact period except for a single find of a brass .22 caliber “short” shell casing; this find is a modern intrusion/infiltrated find and is not subject to the following discussion. The site assemblage was recovered from a cluster of two units in the central area of the site (units 1B, 1E). Within these units the lithic assemblage dominated the overall collection with 37 lithic finds. Also related to domestic food preparation and consumption, the faunal remains were the second most find type in the collection (N=21, 36%). The faunal remains consisted of small fragmented mammal bone and were burnt or calcined and not identifiable to specific species. The bones appear to be the results of human agency, such as crushing bone and extracting marrow, as opposed to a natural or modern deposition.

Unit/Context	Lithics	Faunal	Total
1B1	31	19	50
1E1	6	2	8
Total	37	21	58

A total of 37 lithic artifacts were recovered from the Stage 3 excavations. Lithic material consisted of 64% of the Pre-Contact period site assemblage consisting primarily of secondary reduction flakes or fine finishing flakes (92% of lithic assemblage) along with two examples of potential tool and point finds.

Lithic type	#	% of Whole
Flakes	34	91.9%
Points	1	2.7%
Tools	2	5.4%
Total	37	100.0%

Onondaga chert was the primary material used in the flaking process with jasper flakes also included in the assemblage (Image 9, 10). Jasper is commonly found as yellow, red or brown microcrystalline chert. It is given its colour by iron and other mineral inclusions found in the sedimentary rock. Jasper has been used by Pre-Contact peoples of North American for at least 10, 000 years, it was desirable as a toolstone material in part due to its abundance and availability in very large blocks as well as its qualities as a flaking material due to its glass-like structure. A total of 28 Onondaga chert flakes, a light greyish chert, was recovered during stage 3 unit excavation.

Material	Flake	Point	Tool	Total
Jasper	6	0	0	6
Onondaga chert	28	1	2	31
Total	34	1	2	37

The lithic tools consisted of a single potential scrapper piece recovered in two sections. The scrapper is made of Onondaga chert and featured retouched and sharpened edges for functionality and a base which appears intentionally thinned. The find measures 48.5 mm in length, 31 mm in width, and is approximately 5 mm thick (Image 11). The remaining lithic find is a possible point fragment consisting of a shaped and retouched edge; there is not enough remaining material on the potential point fragment with which to make a determination of type and form. The find measures 33 mm by 18 mm by 4 mm (Image 11).

The faunal remains were primarily small fragments of burnt or calcined bone and are solely interpreted as originating from the precontact period. The faunal material consists of small pieces of split long bones which were burnt indicating they were culturally modified and not naturally occurring faunal finds (Image 12). As the faunal material was so small and burnt it was not possible to identify to individual species.

The collective evidence including background material and the totality of the on-site finds provides insight onto the site and its potential function and use. The site is strategically located to provide protection from the prevailing weather as well as shielding the inhabitants from view. The likelihood that the low-lying area directly to the north would have provided a fresh water source, adds to the Jasper site (BbGa-23) potential as a temporary camp.

The Jasper site (BbGa-23) finds suggest a single use occupation. The abundance of lithic material and alternatively the complete lack of ceramic materials or other diagnostics finds from later periods suggest the site dates to the latter Archaic Period. From this observation we can postulate that the Jasper site (BbGa-23) represents a single use kill site or temporary camp site utilised by a small family group or an individual.

4.2 Inventory of Documentary Record Generated in the Field

Photographs

Photo #	Description	Direction	Date
2460537D01	View of site location along creek edge	N	03-Aug-21
2460537D02	View of site location along creek edge	N	03-Aug-21
2460537D03	View of site location along creek edge	N	03-Aug-21
2460537D04	View of site location along creek edge	N	03-Aug-21
2460537D05	View of site location from rocky ridge top	W	03-Aug-21
2460537D06	View of site location from rocky ridge top	W	03-Aug-21
2460537D07	View of site location from rocky ridge top	W	03-Aug-21
2460537D08	View of site location from rocky ridge top	N	03-Aug-21
2460537D09	View of site location along creek edge	N	03-Aug-21
2460537D10	View of site location along creek edge	N	03-Aug-21
2460537D11	View of site location along creek edge	E	03-Aug-21
2460537D12	View of site location along creek edge	E	03-Aug-21
2460537D13	Unit 1B planview	N	04-Aug-21
2460537D14	Unit 1B north profile	N	04-Aug-21
2460537D15	Unit 1A planview	N	04-Aug-21
2460537D16	Unit 1A north profile	N	04-Aug-21
2460537D17	Unit 1C planview	N	04-Aug-21
2460537D18	Unit 1C north profile	N	04-Aug-21
2460537D19	View of site location from rocky ridge top	W	04-Aug-21
2460537D20	View of site location from rocky ridge top	W	04-Aug-21
2460537D21	View of site location from rocky ridge top	N	04-Aug-21
2460537D22	View of site location from rocky ridge top	N	04-Aug-21
2460537D23	View of site location from rocky ridge top	E	04-Aug-21
2460537D24	View of site location from rocky ridge top	E	04-Aug-21
2460537D25	Unit 1E planview	N	04-Aug-21
2460537D26	Unit 1E north profile	N	04-Aug-21
2460537D27	Unit 1D planview	N	04-Aug-21
2460537D28	Unit 1D north profile	N	04-Aug-21
2460537D29	Unit 1F planview	N	04-Aug-21
2460537D30	Unit 1F north profile	N	04-Aug-21
2460537D31	Unit 1G planview	N	04-Aug-21
2460537D32	Unit 1G north profile	N	04-Aug-21
2460537D33	View of site location from rocky ridge top	W	04-Aug-21
2460537D34	View of site location from rocky ridge top	W	04-Aug-21

Photo #	Description	Direction	Date
2460537D35	View of site location from rocky ridge top	E	04-Aug-21
2460537D36	View of site location from rocky ridge top	E	04-Aug-21

Field Notes

Catalogue #	Format
P246-0537-N-1	Field Notebook page
P246-0537-N-2	Field Notebook page
P246-0537-N-3	Unit Form
P246-0537-N-4	Unit Form
P246-0537-N-5	Unit Form
P246-0537-N-6	Unit Form
P246-0537-N-7	Unit Form
P246-0537-N-8	Unit Form
P246-0537-N-9	Unit Form

Packed Artifact Collection

Catalogue #	Format	Lot	Box #
P246-0537-A-1	Artifact bag	1B1	1
P246-0537-A-2	Artifact bag	1E1	1

5.0 Analysis and Conclusions

In December of 2019 Abacus Archaeological Services was retained to undertake a Stage 1 and 2 archaeological assessment of a property with municipal address 205 Elmwood Drive, an approximately 9.6 ha parcel of land located within parts 1 through 16 and 21 through 31 of Registered Plan 28R-12422, Part of Lot 16 of Concession 1 of the Geographic Township of Leeds, now within the Town of Gananoque (Map 3). The subject property is situated on the north shore of the St. Lawrence River and is bounded to the west by John Street and to the north by Arthur Street and Elmwood Drive. The property is currently primarily undeveloped but does contain an existing home/cottage structure with surrounding surfaces at municipal address 375 John Street (Map 4). The owner of the property is proposing a residential plan of subdivision on the lands with the creation of up to 63 residential development lots. An archaeological assessment was a condition of municipal applications for Site Plan Control.

Five registered archaeological sites are found within 1 kilometre of the subject property which is located within the Thousand Islands region of the St. Lawrence River that straddles Canada and the United States. This region has long been home to, or visited by, members of the Iroquois Confederacy and Ojibwa peoples. Of these five registered archaeological sites two feature Woodland Period campsites. Historical research has shown that the area around the subject property was potentially subject to Euro-Canadian development during the c. 1850s following the purchase of the southern 100 acre portion of the Lot by Dr. Thomas Richmond, a local physician. During the early 20th century the property transitioned from a traditional farm to a dairy farm which was maintained by the Macdonald and then later the Conner families of Gananoque.

The Stage 2 assessment in May of 2020 identified a single positive test pit located within an isolated central area of the property. Intensification testing at the positive test pit resulted in the cumulative recovery of 70 lithic flake finds featuring different parent materials, all of Pre-Contact origin. The site was subsequently registered as the Jasper Site (BbGa-23).

The Jasper site (BbGa-23) was the subject of a Stage 3 assessment between August 3rd and 4th, 2021 under Project Information Form number P246-0537-2021 in the form of seven (7) 1m² excavation units (Map 12). The Stage 3 assessment was conducted in order to define the limits of the site and gather more information about its function, and age. Based on the Stage 3 findings, the Jasper Site (BbGa-23) appears to be a small or diffuse lithic scatter and/or a single component/use archaic site.

6.0 Recommendations

Based upon these results the licensee makes the following recommendations with regard to the study area (Map 13).

- The Jasper site (BbGa-23) contains the remains of an archaic period single use kill or camp related site which represents a significant archaeological site requiring further assessment.
- Accordingly, the Jasper site (BbGa-23) requires Stage 4 mitigation in the form of protection and avoidance measures, or alternatively via Stage 4 mitigation excavations. The proponent has indicated that long term Protection and Avoidance measures are the preferred route in this instance.
- The property owner plans to pursue long term protection and avoidance by formally surveying the site limits, including a 10m buffer zone, and having these put on the registered survey of the property and engaging with the use of an “H” designation on the official plan, which would forbid development on this part of the property. The Zoning By-Law and “H” designation provides a reliable mechanism to ensure the effective implementation of a long-term protection strategy.
- Development of the area of the Jasper site (BbGa-23) would only be possible following municipal applications for a Zoning By-Law Amendment and the completion of a Stage 4 excavation of the site by a licenced archaeologist and the issuing of a concurrence letter by the Ministry of Tourism, Culture and Sport for the associated report.

7.0 Advice on Compliance with Legislation

This report is submitted to the Minister of Tourism and Culture 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 Heritage, Sport, Tourism and Culture Industries, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of 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*. d.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence. (Section 7.5.9, Standard 2).

8.0 Bibliography and Sources

Image and Topographic Map References

1:250, 000 Topographical Map - NTS 31/C 1975
1:25, 000 Topographical Map - NTS 31/C8b 1975
1:10, 000 Ontario Base Map – OBM # 1018 4050 49050

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Images



Image 1. A view during Stage 3 excavation at the Jasper Site (BbGa-23).



Image 2. A view east along the rocky which bounds the site to the south.



Image 3. A view north down the slope of the ridge towards the creek and site plateau area.



Image 4. A view west of the Jasper Site (BbGa-23) location.



Image 5. A view during Stage 3 unit excavation; note low-lying creek to rear of image.



Image 6. A view during Stage 3 unit excavation; note low-lying creek to rear of image.



Image 7. A plan view image of Stage 3 unit 1B.



Image 8. A view of the north profile of Stage 3 unit 1E.



Image 9. Finds from the Jasper site (BbGa-23); lithic flakes, Onondaga chert (1B1).

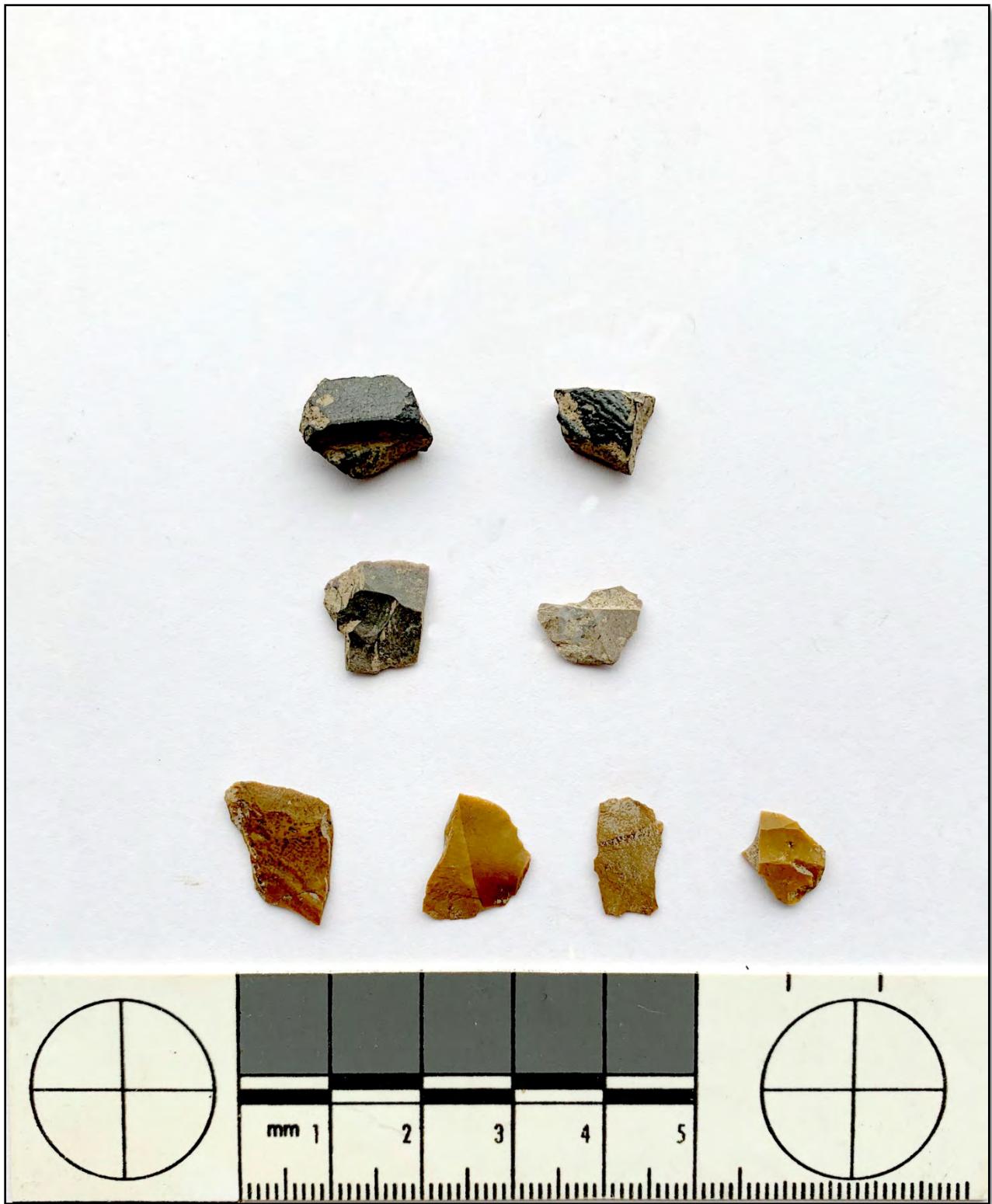


Image 10. Finds from the Jasper site (BbGa-23); top row, burnt bone fragments, middle row, Onondaga chert flakes, bottom row, Jasper flakes (1E1).

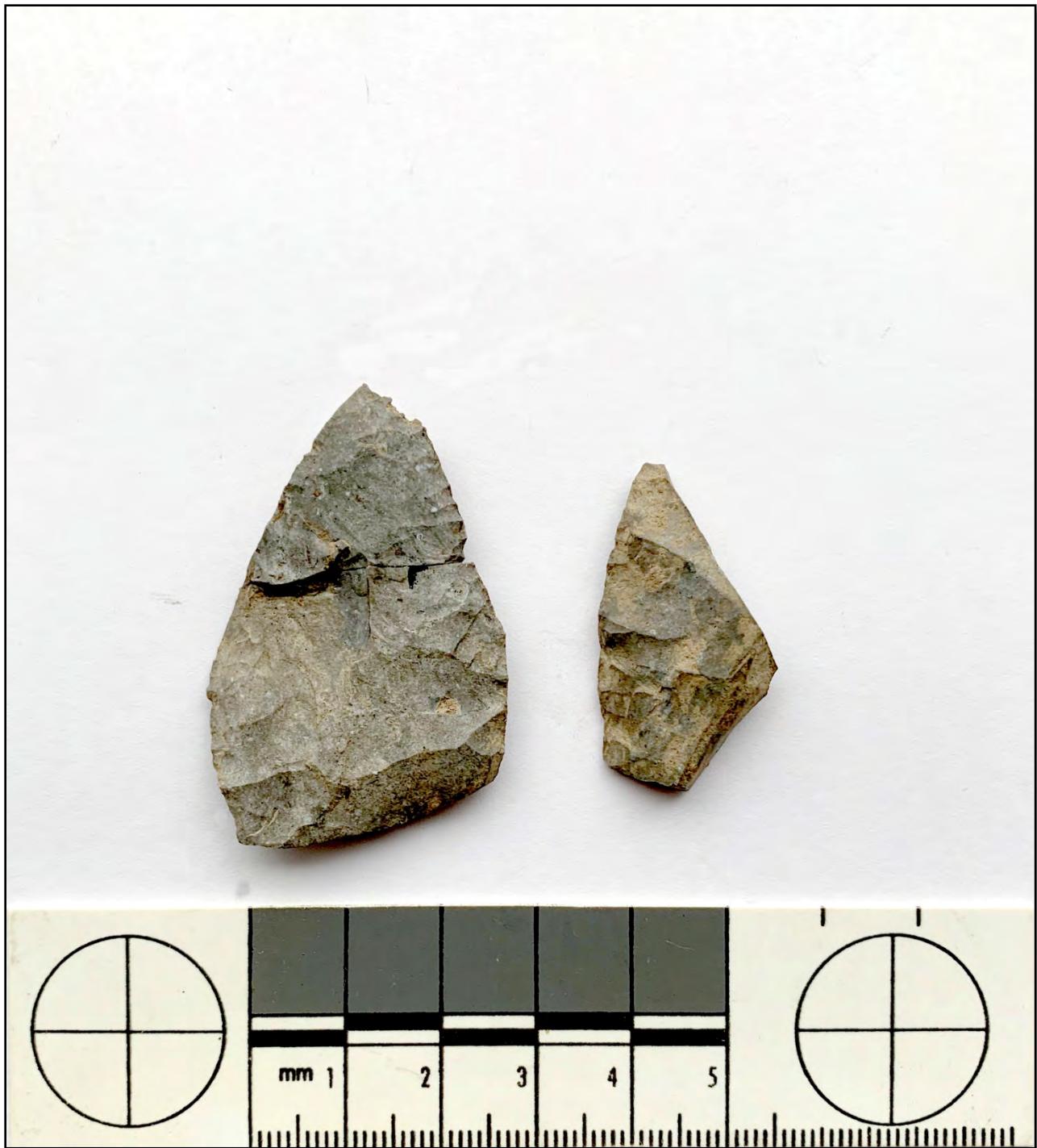
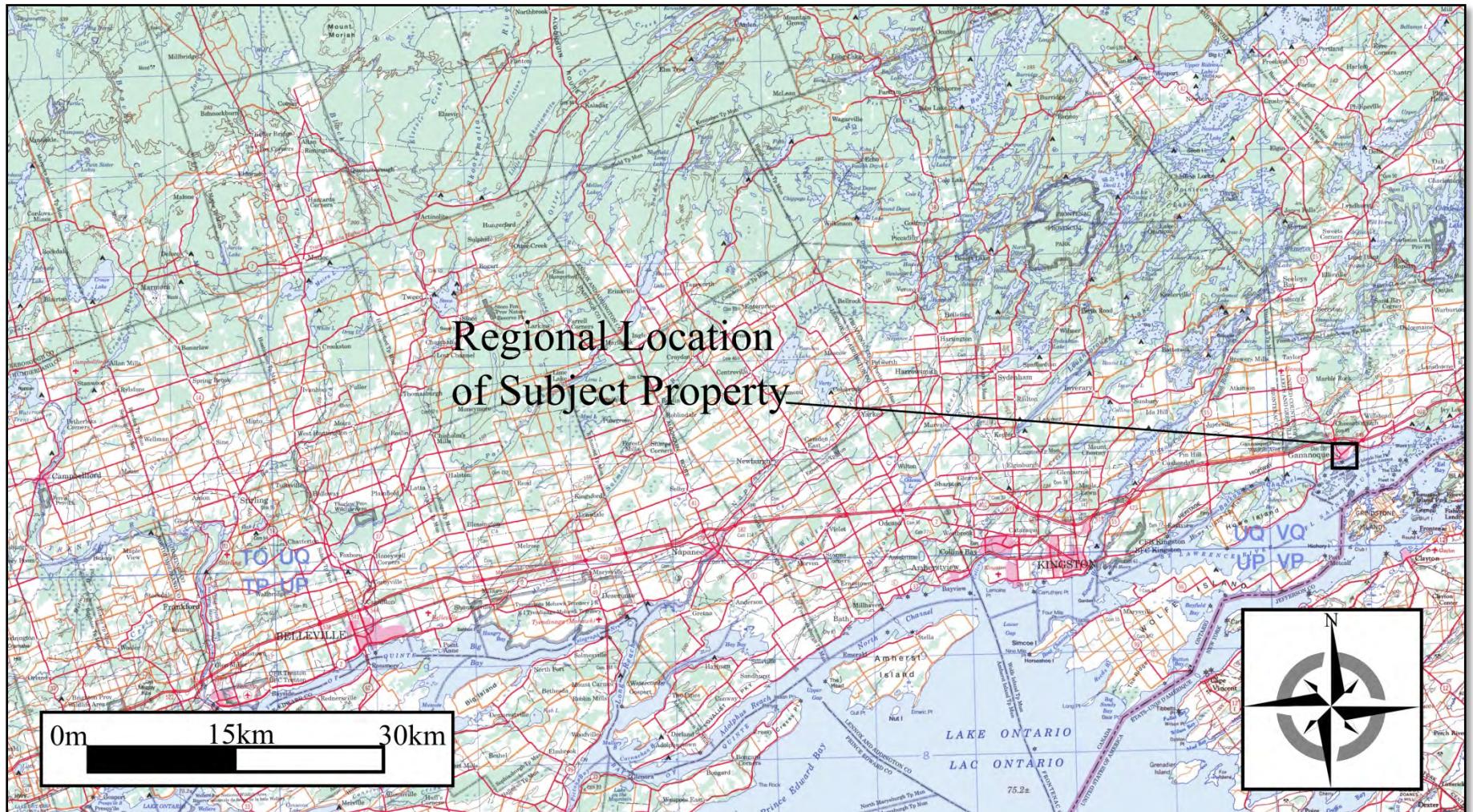


Image 11. Finds from the Jasper site (BbGa-23); left, Onondaga chert scrapper/tool, right, projectile point fragment (1B1).

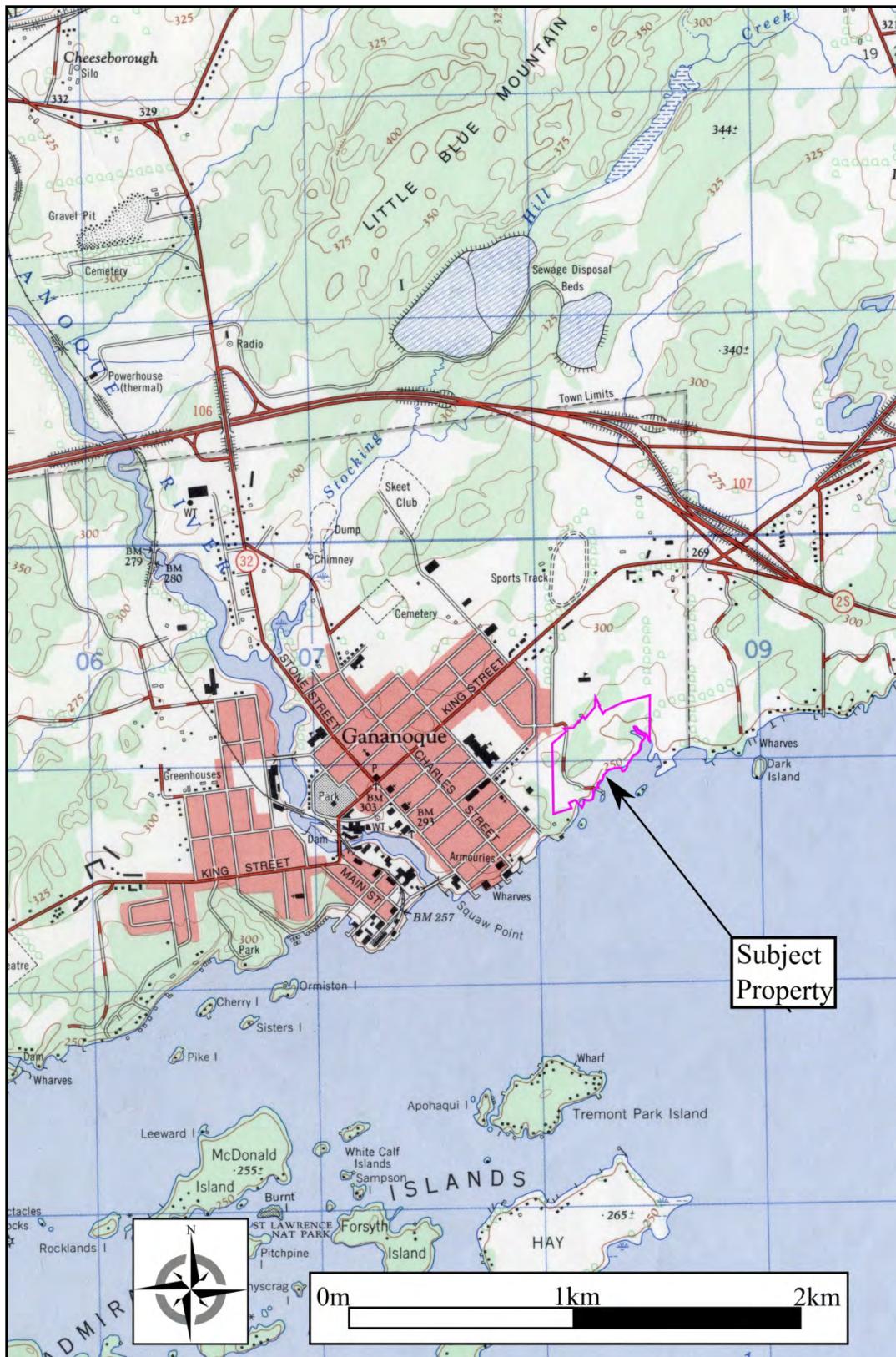


Image 12. Finds from the Jasper site (BbGa-23); burnt/calcined bone fragments (1B1).

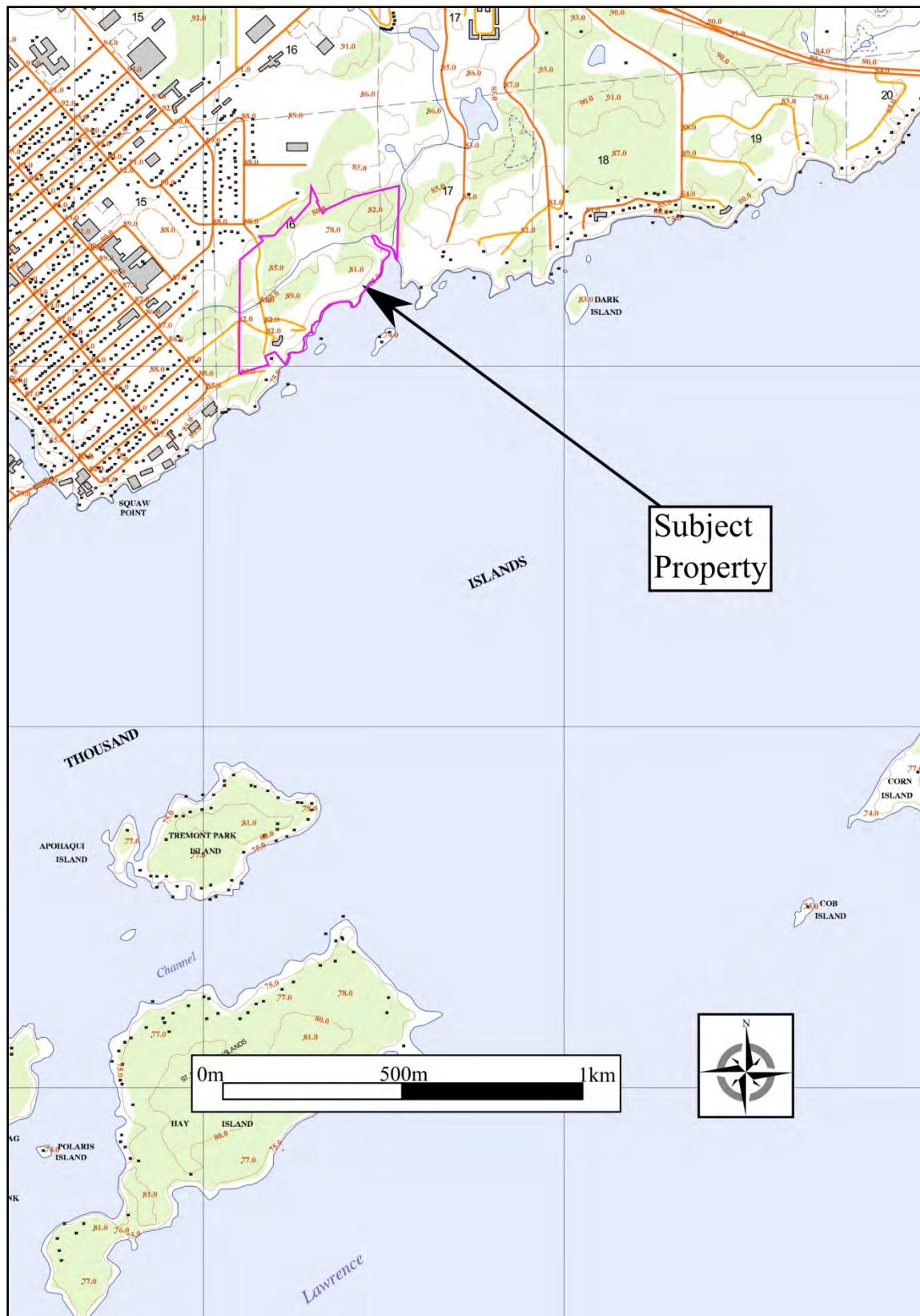
Maps

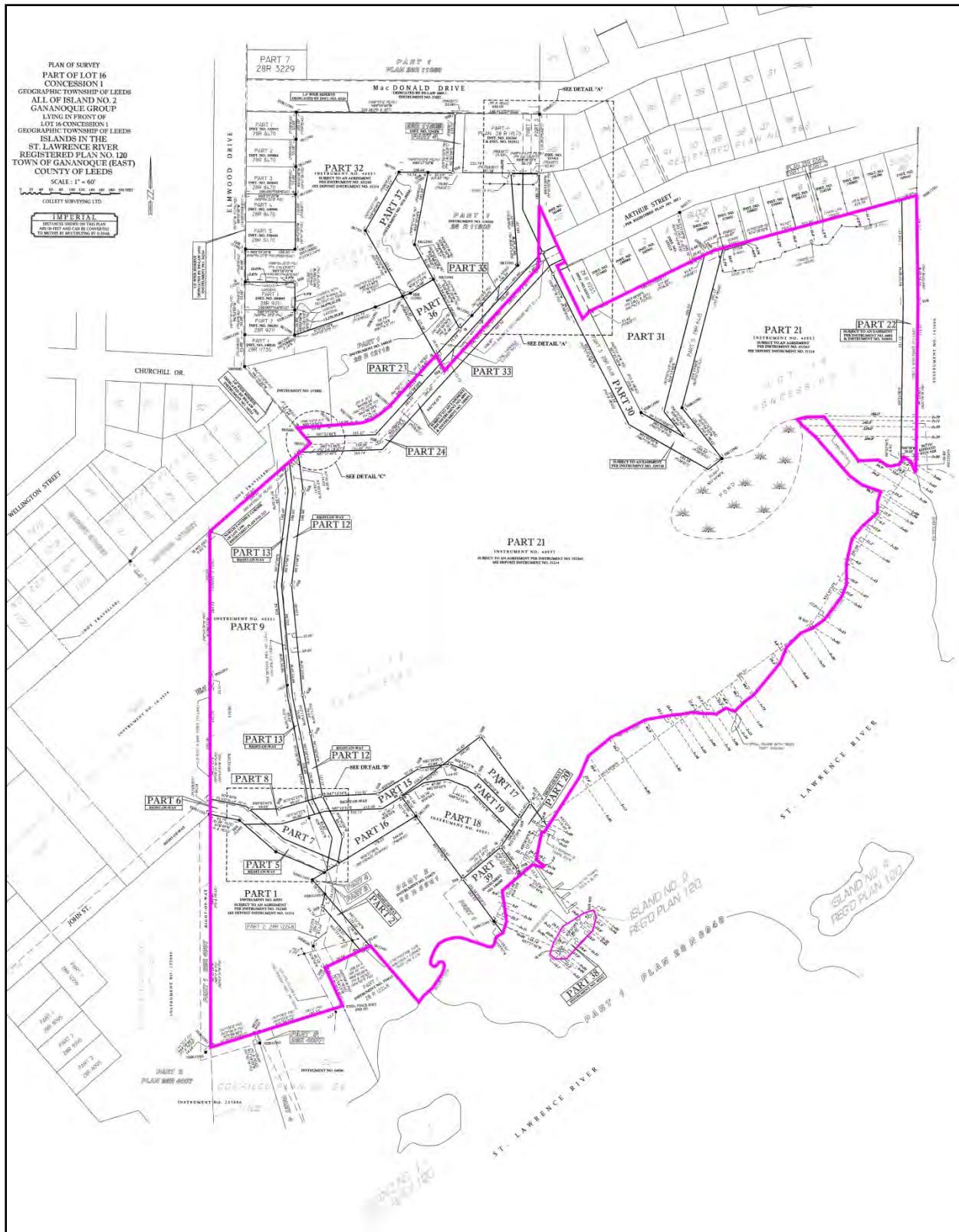


Map 1. The subject property location on 1:250 000 NTS plan (31 C).



Map 2. The subject property location on 1:25 000 NTS plan (31C7a).

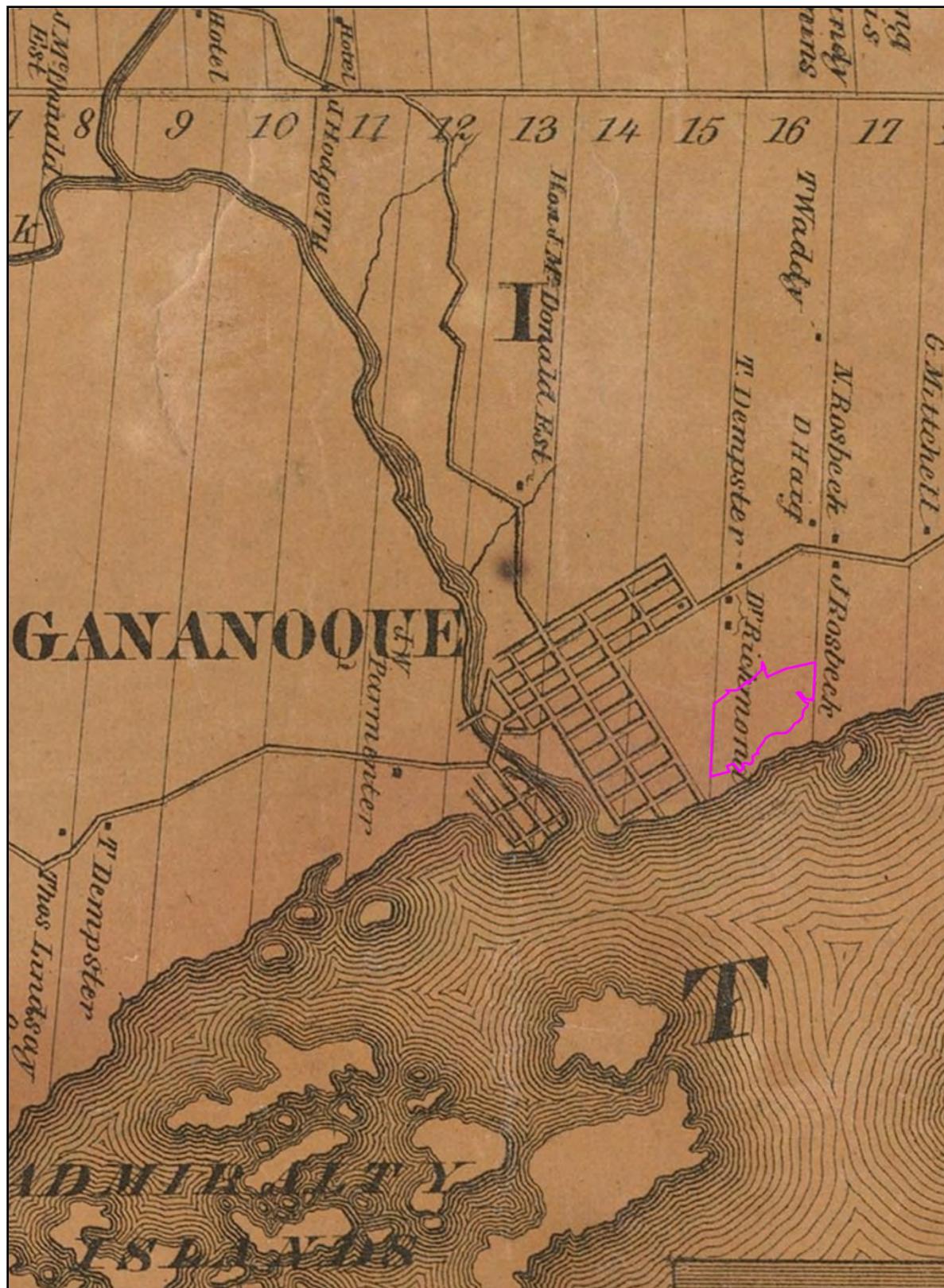




Map 4. A survey plan of the subject property (Registered Plan 28R-12422, October 20, 2005).



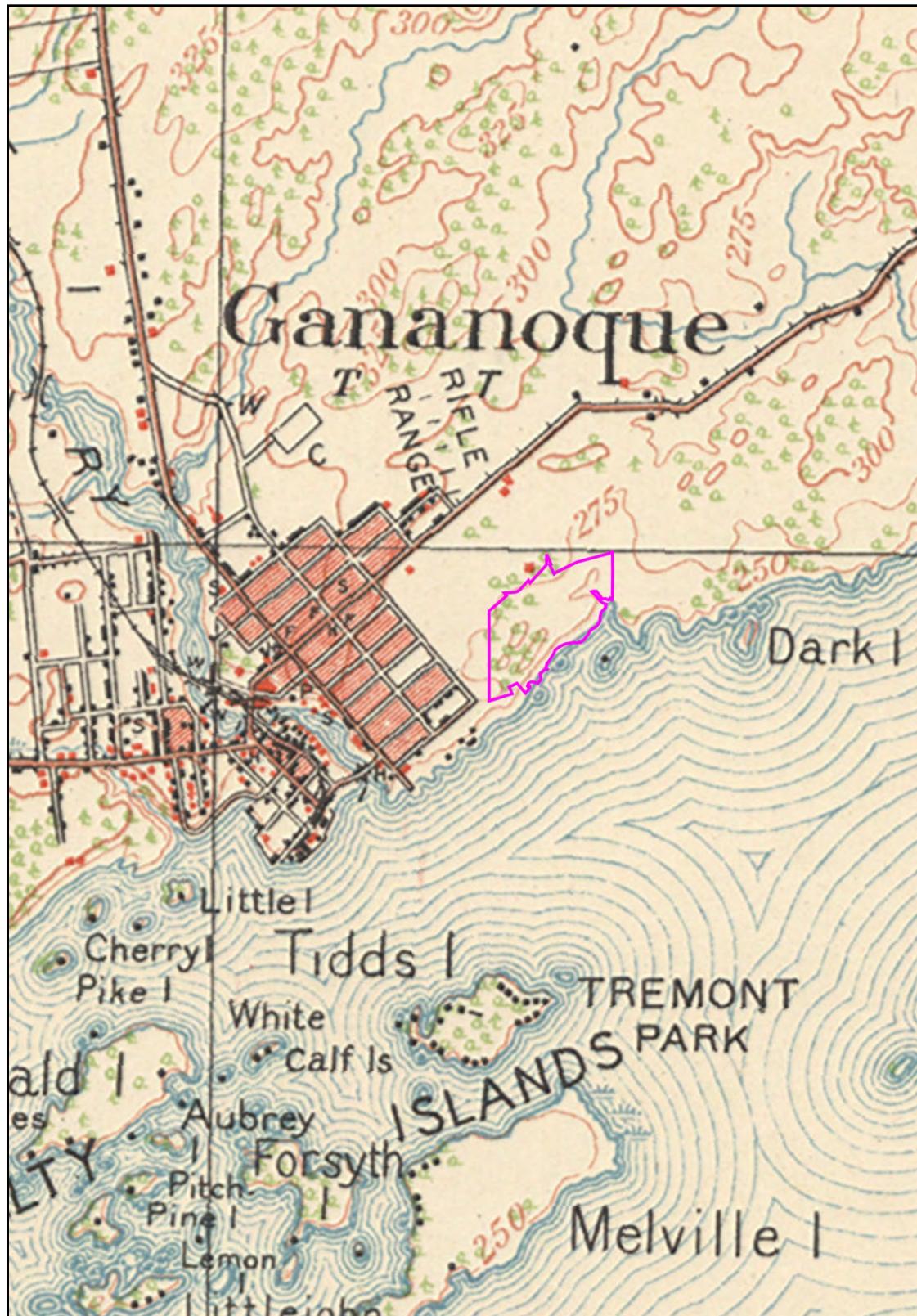
Map 5. A section from an 1858 map of Gananoque showing the relation between the subject property and the town centre.



Map 6. A section from Walling's 1861 map of Leeds and Grenville County.



Map 7. A section from Meacham's 1878 map of Leeds and Grenville County.



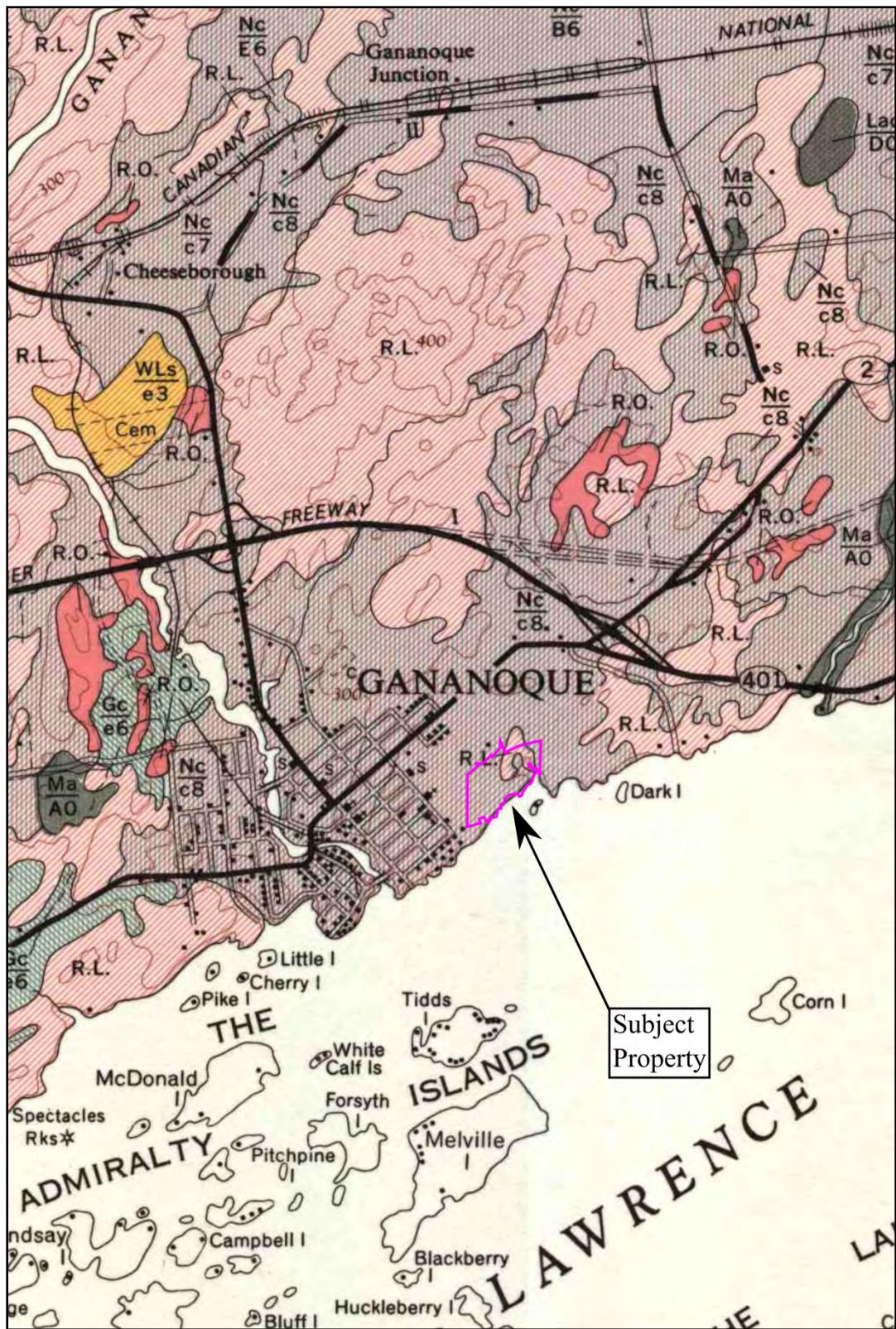
Map 8. A section from the 1916 National Topographic Series map (NTS Sheet 61).



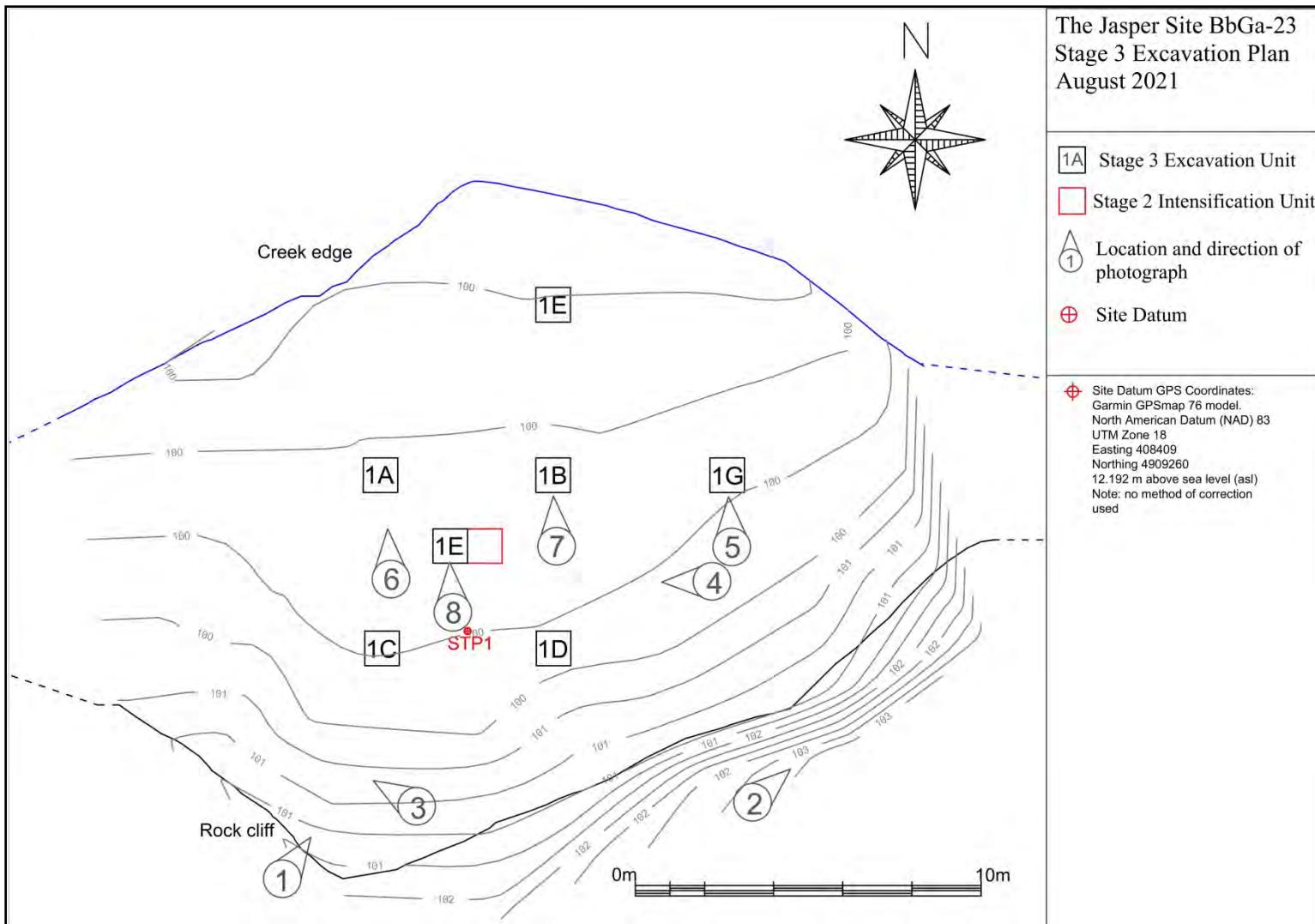
Map 9. An aerial photograph of the subject property in 1954.



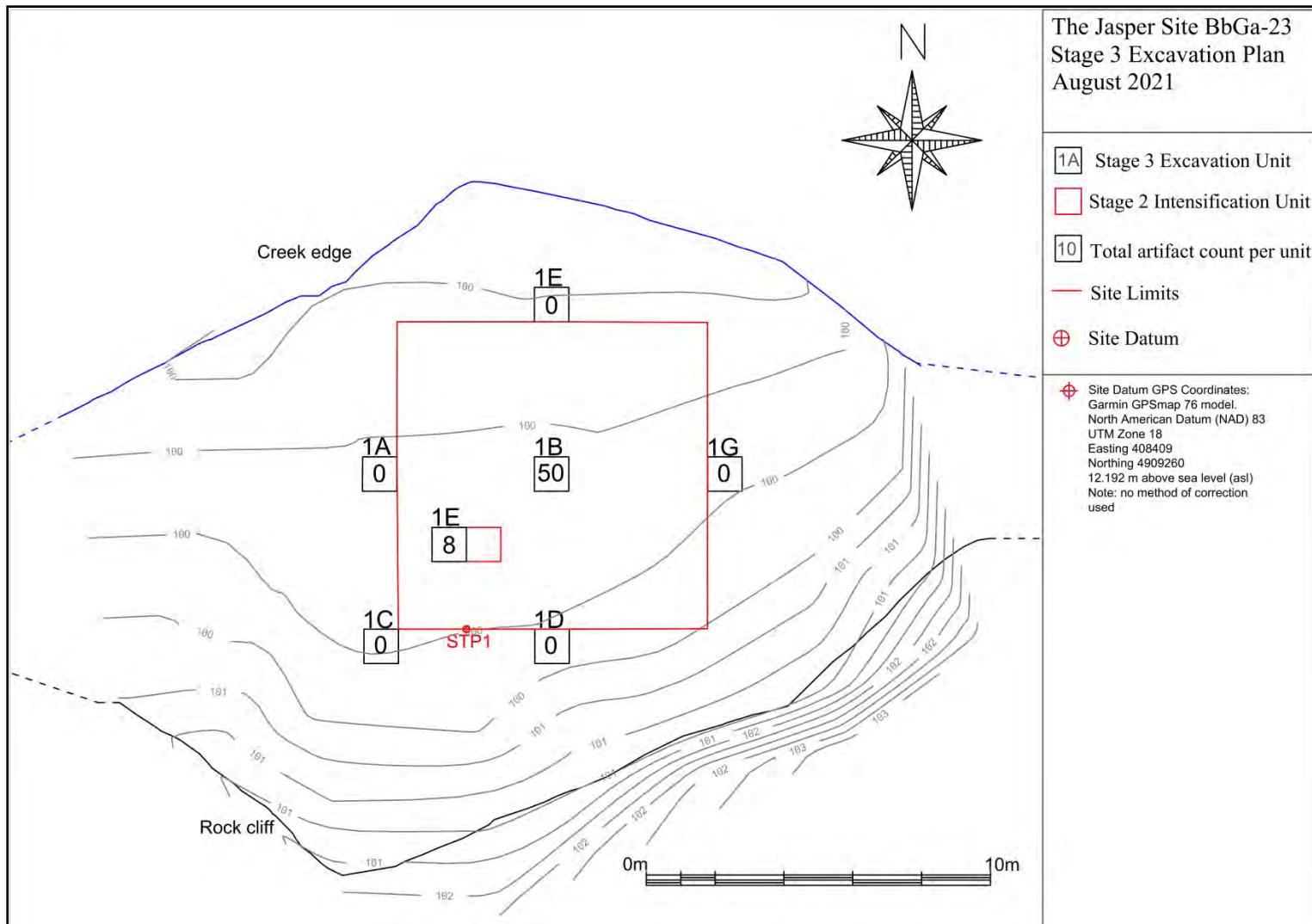
Map 10. An aerial view of the subject property in 2018 (Google Earth, 2020).



Map 11. A section of the soil survey plan of Leeds County (Gillespie and Wicklund, 1968).



Map 12. A plan of the Stage 3 archaeological assessment of the Jasper Site (BbGa-23).



Map 13. A plan of the Stage 3 artifacts at the Jasper Site (BbGa-23).

Artifact Inventory

Cat#	Context	# Frags	Material	Shape	Portion	Fabric	Brief Description
P246-0537-001	1E1	2	faunal	unknown	fragment		small burnt calcined bone fragments, animal unknown
P246-0537-002	1E1	4	lithic	unknown	flake	jasper	
P246-0537-003	1E1	2	lithic	unknown	flake	Onondaga	
P246-0537-004	1E1	1	metal	shell	whole	brass	.22 short shell casing
P246-0537-005	1B1	19	faunal	unknown	fragment		small burnt calcined bone fragments, animal unknown
P246-0537-006	1B1	2	lithic	unknown	flake	jasper	
P246-0537-007	1B1	26	lithic	unknown	flake	Onondaga	
P246-0537-008	1B1	2	lithic	tool	fragment	Onondaga	same object, scrapper or indeterminate point form
P246-0537-009	1B1	1	lithic	tool	fragment	Onondaga	indeterminate point form