# Stage 4 Mitigation of Impacts
# P1 (AfGr-118)
# 825 Garrison Road, Fort Erie

Part of Lot 2, Concession 3, Geographic Township of Bertie,
Historical County of Welland, now the
Regional Municipality of Niagara

**Submitted to**:

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and

Ontario's Ministry of Citizenship and Multiculturalism

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CP Number: 2024-110

**ORIGINAL REPORT**

December 26th, 2024

# Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by Paul DiFrancesco from 2071380 Ontario Inc. (the 'Proponent') to conduct Stage 4 Mitigation of Developmental Impacts at archaeological site P1 (AfGr-118) located on part of Lot 2, Concession 3, in the Geographic Township of Bertie, within the Historical County of Welland, now the Regional Municipality of Niagara, Ontario (Figure 1). This assessment was undertaken in advance of future development on the property at 825 Garrison Road, Fort Erie and the development will span the entire property (the 'Study Area;' Figure 4).

Mitigation of P1 (AfGr-118) was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario, 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (Government of Ontario, 1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet this condition, a Stage 4 mitigation by hand excavation at the site was conducted as part of the application phase of development under archaeological consulting license P462 issued to Mr. Mike Pitul by the Ministry of Citizenship and Multiculturalism ('MCM') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario, 1990b) and the MCM's *Standards and Guidelines for Consultant Archaeologists* ('*Standards and Guidelines*'; Government of Ontario, 2011).

P1 (AfGr-118) was identified during a Stage 1-2 assessment of the Study Area, conducted by Detritus on July 29th, 2024 (PIF# P017-1120-2024; Detritus Consulting Ltd., 2024a). The Study Area comprises a rectangular-shaped parcel that fronts onto Garrison Road and measures approximately 1.3 hectares ('ha'). The Study Area is bound by Garrison Road to the north, forested area to the east, residential properties to the west, and an open field to the south. At the time of assessment, the Study Area included one residential building, a garage, a gravel driveway, and a drainage ditch along the north side of the property. A manicured lawn with scattered trees makes up the remainder of the property (Figure 4). The Stage 1 background research conducted by Detritus indicated that the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. This research also included the consultation of the *Niagara Region Archaeological Management Plan* which indicated that the Study Area is located within an area of archaeological potential (Niagara Region, 2023). As such, a Stage 2 field assessment was recommended for all the Study Area (Detritus Consulting Ltd., 2024a).

During the Stage 2 field assessment, the manicured lawns with trees throughout the Study Area were assessed by means of a typical test pit survey at 5m intervals. This investigation resulted in the identification and documentation of two pre-contact Indigenous sites registered with the MCM as P1 (AfGr-118) and P2 (AfGr-119).

The Stage 2 assessment of P1 (AfGr-118) resulted in the documentation of six pre-contact Indigenous artifacts from two positive test pits located 5m apart to the southeast of the residential building. All of the artifacts recovered from the site were manufactured from Onondaga chert and were identified as pieces of chipping detritus. Morphological analysis of the chert flakes identified the fragments as three secondary flakes, two flake fragments, and one tool thinning flake, which suggested late-stage reduction for the production and maintenance of formal and informal tools. Based on the results of the Stage 2 assessment, P1 (AfGr-118) was interpreted as a small-sized activity area occupied by unspecified Indigenous people during the pre-contact period and was recommended for a Stage 3 archaeological assessment.

The subsequent Stage 3 assessment of P1 (AfGr-118) was conducted between September 2nd and October 14th, 2024, under archaeological consulting license P462 issued to Mr. Mike Pitul by the MCM (Detritus Consulting Ltd., 2024b). The Stage 3 assessment of P1 (AfGr-118) resulted in the documentation of 146 pre-contact Indigenous artifacts from the excavation of 18 one-metre units covering an area roughly 20m by 10m in the southeastern quadrant of the manicured lawn (PIF# P462-0315-2024). All of the artifacts recovered from the site were manufactured from Onondaga

chert and comprised 143 pieces of chipping detritus, 2 retouched flakes, and 1 core. According to morphological analysis, the flake assemblage from P1 (AfGr-118) featured primarily fragmentary flakes (n=112; 78.4%), with lesser amounts of shatter flakes (n=29; 20.2%), and two secondary flakes (1.4%).

Artifact yields ranged from 0 to 25; three units were sterile. The highest yielding unit located at 237E, 317N yielded 25 artifacts and the second highest yielding unit located at 245E, 315N yielded 24 artifacts. One unit roughly between these two units located at 240E, 315N yielded 20 artifacts and one unit diagonal from this unit located at 242E, 317N yielded 17 artifacts. Only one other unit located at 235E, 315N yielded more than 10 artifacts (n=13). Each of the test units contained a single stratigraphic layer, consisting of medium-brown loam above a heavy orange-brown loam subsoil. All of the artifacts were recovered from the topsoil.

Based on the available evidence, P1 (AfGr-118) was interpreted as a small-sized activity area characterised by late-stage lithic reduction for the production and maintenance of formal and informal tools occupied briefly by Indigenous people prior to the arrival of European settlers. Given the results of the Stage 3 assessment, wherein five test units from P1 (AfGr-118) yielded ten or more lithic artifacts, Stage 4 archaeological mitigation of developmental impacts to P1 (AfGr-118) were recommended.

The Stage 4 mitigation of impacts assessment was conducted at P1 (AfGr-118) between October 15th and November 5th, 2024. This investigation resulted in the documentation of 2,678 pre-contact Indigenous artifacts from the hand excavation of 131 one-metre square units. The vast majority of artifacts recovered were chipping detritus (n=2,671), along with two retouched flakes, one core, three bifaces, and a single projectile point (Table 5). The artifacts recovered from the site were manufactured from Onondaga and Flint Ridge cherts. According to morphological analysis, the flake assemblage from P1 (AfGr-118) featured primarily fragments (72.18%; n=1,933), followed by thinning flakes (14.8%; n= 396) and secondary flakes (10.9%; n=292). This variety of flake types suggests all stages of lithic reduction for the production and maintenance of formal and informal tools occurred at the site, which is an expansion of the characteristics observed in the Stage 1-2 and Stage 3 assemblages (Detritus Consulting Ltd., 2024a; Detritus Consulting Ltd., 2024b).

These units formed a single, continuous excavation block measuring 10m north to south and 17m east to west (Figure 5). Artifact yields ranged from 0 to 120 per unit. The highest yielding unit was 237E, 315N with 120 artifacts and the second highest yielding unit was 240E, 314N with 106 artifacts. The limits of the block were extended until yields dropped to less than ten artifacts per unit. Based on all the results of the Stage 4 excavation, P1 (AfGr-118) has been identified as a small-sized activity area – probably a campsite. A single projectile point, identified as a probable Brewerton Side notched point, dating to the Middle Archaic was found. No Indigenous ceramics, or fire cracked rock were recovered during any stage of assessment, nor were any subsurface features observed.

Based on all the results of the Stage 4 excavation, P1 (AfGr-118) has been identified as a small-sized campsite, characterised by all stages of lithic reduction occupied for brief a period during the Middle Archaic (3000-2500 B.C.). Given all the available evidence, P1 (AfGr-118) provides further evidence of the settlement pattern within a much larger region of ongoing, seasonal occupation that spans all periods of Indigenous occupation from the Paleo-Indian period until contact with European settlers.

**The Stage 4 mitigation of P1 (AfGr-118) is now complete. The CHVI of P1 (AfGr-118) has been fully documented and the information will be preserved for future study. P1 (AfGr-118) has no further CHVI, as per Section 7.11.4 Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011).**

*The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.*

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## Acknowledgments

Generous contributions by Paul DiFrancesco from 2071380 Ontario Inc made this report possible.

# 1.0 Project Context

## 1.1 Development Context

Detritus Consulting Ltd. ('Detritus') was retained by Paul DiFrancesco from 2071380 Ontario Inc. (the 'Proponent') to conduct Stage 4 Mitigation of Developmental Impacts at archaeological site P1 (AfGr-118) located on part of Lot 2, Concession 3, in the Geographic Township of Bertie, within the Historical County of Welland, now the Regional Municipality of Niagara, Ontario (Figure 1). This assessment was undertaken in advance of future development on the property at 825 Garrison Road, Fort Erie and the development will span the entire property (the 'Study Area;' Figure 4).

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The purpose of a Stage 4 mitigation of impacts by hand excavation is to document an archaeological site through its controlled removal in order to address archaeological concerns under land use planning and development processes. In compliance with the *Standards and Guidelines* (Government of Ontario, 2011), the objectives of the following Stage 4 investigation are:

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

The licensee received permission from the Proponent to enter the Study Area and conduct all required archaeological fieldwork activities at P1 (AfGr-118), including the recovery of artifacts.

## 1.2 Historical Context

### 1.2.1 Post-Contact Indigenous Resources

The earliest documented pre-European settlers arrived to the Niagara Peninsula from southwestern Ontario during the 14th century AD, at the peak of Iroquois culture. By 1400, the majority of the region was occupied by an Iroquoian-speaking tribe referred to as the Attawandaran (aka the Atiquandaronk or Attouanderonks), who exploited the fertile land and abundant water sources throughout the region for fishing, hunting and agriculture (Niagara Falls Info, 2022). This moniker was given to the community by the neighbouring Wendat as a slur against their unusual dialect. Those Attawandaran tribes who settled along the Niagara River were referred to as the Onguiaahra (later the Ongiara), which has been loosely translated as one of "the Straight," "the Throat," or "the Thunder of Waters" (Niagara-on-the-Lake, 2016; Niagara-on-the-Lake Realty, 2022). The name 'Neutral' was given to the Attawandaran by French explorers who began arriving in the 17th century. This new designation referred to the community's status as peacekeepers between the warring Huron and Iroquois tribes (Niagara Falls Info, 2022).

The earliest recorded European visit to the Niagara region was undertaken by Étienne Brûlé, an interpreter and guide for Samuel de Champlain. In June 1610, Brûlé requested permission to live

among the Algonquin people and to learn their language and customs. In return, Champlain agreed to take on a young Huron named Savignon and to teach him the language and customs of the French. The purpose of this endeavour was to establish good relations with Indigenous communities in advance of future military and colonial enterprises in the area. In 1615, Brûlé joined twelve Huron warriors on a mission to cross enemy territory and seek out the Andaste people, allies of the Huron, to ask for their assistance in an expedition being planned by Champlain (Heidenreich, 1978). It is believed that Brûlé first visited the future site of Niagara-on-the-Lake during this excursion (Niagara-on-the-Lake, 2016). The mission was a success but took much longer than anticipated. Brûlé returned with the Andaste two days too late to help Champlain and the Hurons, who had already been defeated by the Iroquois (Heidenreich, 1978).

Throughout the middle of the 17th century, the Iroquois of the Five Nations sought to expand upon their territory and to monopolise the local fur trade as well as trade between the European markets and the tribes of the western Great Lakes. A series of bloody conflicts followed known as the Beaver Wars, or the French and Iroquois Wars, were contested between the Iroquois and the French with their Huron and other Algonquian-speaking allies of the Great Lakes region. Many communities were destroyed during this protracted conflict including the Huron, Neutral, Erie, Susquehannock, and Shawnee leaving the Iroquois as the dominant group in the region. By 1653 after repeated attacks, the Niagara peninsula and most of Southern Ontario had been vacated. By 1667, all members of the Five Nations had signed a peace treaty with the French and allowed their missionaries to visit their villages (Heidenreich, 1978).

Ten years later, hostilities between the French and the Iroquois resumed after the latter formed an alliance with the British through an agreement known as the Covenant Chain (Heidenreich, 1978). In 1696, an aging Louis de Buade, Comte de Frontenac et de Palluau, the Governor General of New France, rallied the Algonquin forces and drove the Iroquois out of the territories north of Lake Erie, as well as those to the west of present-day Cleveland, Ohio. A second treaty was concluded between the French and the Iroquois in 1701, after which the Iroquois remained mostly neutral (Jamieson, 1992; Noble, 1978).

Throughout the late 17th and early 18th centuries, various Iroquoian-speaking communities had been migrating into southern Ontario from New York State. In 1722, the Five Nations adopted the Tuscarora in New York becoming the Six Nations (Pendergast, 1995). This period also marks the arrival of the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes (Konrad, 1981; Schmalz, 1991). The oral traditions of the Mississaugas, as told by Chief Robert Paudash suggest that the Mississaugas defeated the Mohawk nation, who retreated to their homeland south of Lake Ontario. Following this conflict, a peace treaty was negotiated and, at the end of the 17th century, the Mississaugas settled permanently in Southern Ontario (Praxis Research Associates, n.d.). Around this same time, members of the Three Fires Confederacy (the Chippewa, Ottawa, and Potawatomi) began immigrating from Ohio and Michigan into southwestern Ontario (Feest & Feest, 1978).

The Study Area first enters the Euro-Canadian historic record on May 9th, 1781, as part of the Niagara Treaty No. 381 with the Mississauga and Chippewa (Morris, 1943). This treaty involved the surrender of,

> *…all that certain tract of land situated on the west side of the said strait or river, leading from Lake Erie to Lake Ontario, beginning at a large white oak tree, forked six feet from the ground, on the bank of the said Lake Ontario, at the distance of four English miles measured in a straight line, from the West side of the bank of the said straight, opposite to the Fort Niagara and extending from thence by a southerly course to the Chipeweigh River, at the distance of four miles on a direct line from where the said river falls into the said strait about the great Fall of Niagara or such a line as will pass at four miles west of the said Fall in its course to the said river and running from thence by a southeasterly course to the northern bank of Lake Erie at the distance of four miles on a straight line, westerly from the Post called Fort Erie, thence easterly along the said Lake by the said Post, and northerly up the west side of the said strait to the said lake Ontario, thence westerly to the place of beginning.*

Morris, 1943, pp. 15-16

Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of Indigenous material culture began to shift with the establishment of European settlers. By 1834 it was accepted by the Crown that losses of portions of the Haldimand Tract to Euro-Canadian settlers were too numerous for all lands to be returned. Lands in the Lower Grand River area were surrendered by the Six Nations to the British Government in 1832, at which point most Six Nations people moved into Tuscarora Township in Brant County and a narrow portion of Oneida Township (Page, The Illustrated Historical Atlas of the County of Haldimand, Ontario, 1879; Tanner, 1987; Weaver, 1978). Following the population decline and the surrender of most of their lands along the Credit River, the Mississaugas were given 6000 acres of land on the Six Nations Reserve, establishing the Mississaugas of New Credit First Nation, now the Mississaugas of the Credit First Nation, in 1847 (Smith, 2022).

Despite the encroachment of European settlers on previously established Indigenous territories, "written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought" (Ferris, 2009, p. 114). As Ferris observes, despite the arrival of a competing culture, First Nations communities throughout Southern Ontario have left behind archaeologically significant resources that demonstrate continuity with their pre-contact predecessors, even if they have not been recorded extensively in historical Euro-Canadian documentation.

### 1.2.2 Euro-Canadian Resources

P1 (AfGr-118) is located on part of Lot 2, Concession 3, in the Geographic Township of Bertie, within the Historical County of Welland, which is now the Regional Municipality of Niagara, Ontario.

In 1763, the Treaty of Paris brought an end to the Seven Years' War, contested between the British, the French, and their respective allies. Under the Royal Proclamation of 1763, the large stretch of land from Labrador in the east, moving southeast through the Saint Lawrence River Valley to the Great Lakes and on to the confluence of the Ohio and Mississippi Rivers became the British Province of Québec (Niagara Historical Society and Museum, 2008).

On July 24, 1788, Sir Guy Carleton, the Governor-General of British North America, divided the Province of Québec into the administrative districts of Hesse, Nassau, Mecklenburg, and Lunenburg (Archives of Ontario, 2012-2024). Further change came in December 1791 when the former Province of Québec was rearranged into Upper Canada and Lower Canada under the provisions of the Constitutional Act. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada and he spearheaded several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them (Coyne, 1895).

In July 1792, Simcoe divided Upper Canada into 19 counties, including Welland County, stretching from Essex in the west to Glengarry in the east. Each new county was named after a county in England or Scotland; the constituent townships were then given the names of the corresponding townships from each original British county (Powell & Coffman, 1956).

Later that year, the four districts originally established in 1788 were renamed the Western, Home, Midland, and Eastern Districts. As population levels in Upper Canada increased, smaller and more manageable administrative bodies were needed resulting in the establishment of many new counties and townships. As part of this realignment, the boundaries of the Home and Western Districts were shifted and the London and Niagara Districts were established. Under this new territorial arrangement, the Study Area became part of the Niagara District (Archives of Ontario, 2012-2024). In 1845, after years of increasing settlement that began after the War of 1812, the southern portion of Lincoln County was severed to form Welland County, of which Bertie Township was a part. The two counties would be amalgamated once again in 1970 to form the Regional Municipality of Niagara.

Settlement within Bertie Township began in 1764, immediately following the end of the Seven Years' War. To help defend his newly acquired territory, King George III built a series of military forts along the Niagara River. Fort Erie was the first to be constructed and represents earliest permanent British Army Fort in Ontario. The Military Reserve around the fort was also set aside by the Crown at that time to demarcate the ordinance boundary for the garrison stationed there (Bradford, 1988).

During the American Revolutionary War, contested between 1775 and 1783, Fort Erie was used as a supply depot for British troops. In 1784, following the conflict, the land around the fort, later designated as the Town of Fort Erie, was granted to members of the disbanded Butler's Rangers. A number of Loyalist settlements emerged including the village of Ridgeway, which was named after the limestone ridge that passes through it from north to south (Niagara Parks, n.d.).

The earliest roads throughout the township followed existing Indigenous trails along the river and along the Onondaga Escarpment. Lakeshore Road connected Fort Erie and its occupants to growing community around it. The first survey of Bertie Township was completed in 1789 by Amos Chapman, who referred to the area as 'Quaker Township'; the name Bertie was not used until 1793 (Archaeological Services, Inc., 2003). Settlers continued to arrive throughout the remainder of the 18th and early 19th centuries, attracted by the fertile soil throughout the township, which was suitable for growing barley, wheat, oats amongst other crops (Niagara Parks, n.d.). In 1808, approximately 40 homes were located throughout the township. By 1812, the township boasted several mills, schools, and churches. Stevensville was the largest community at that time (Archaeological Services, Inc., 2003).

Following the winter of 1803, a new stone fort was constructed inland from the site of the original Fort Erie, which was made of wood and susceptible to ice damage. This new fort remained incomplete at the start of the War of 1812. American troops captured the new Fort Erie on two occasions during the War of 1812. In 1814, following a long, protracted siege by British forces, the Americans destroyed the fort before retreating back to Buffalo (Niagara Parks, n.d.).

In 1850, Bertie was officially incorporated as a township. Later, on June 2, 1866, between 1,000 and 1,350 Irish American invaders known as the Fenians crossed the Niagara River and defeated the local militia at the Battle of Ridgeway. The next day, as they were withdrawing back to America, the Fenian raiders met with another small force of Canadian volunteers and defeated them at the Battle of Fort Erie. Eventually, the Fenians retired back across the river and surrendered to American authorities. This conflict was the largest engagement of the Fenian raids and the only armed victory for the Irish during their battle for Irish Independence between 1798 and 1919 (Niagara Parks, n.d.).

Much of the development of Bertie Township during the second half of the 19th century can be attributed to the advancement of the railroad. In the 1850s, Ridgeway received an arm of the Buffalo, Brantford and Goderich Railway, the earliest railway to be built in southwestern Ontario. Later, in 1873, the Grand Trunk Railway built the International Railway Bridge, resulting in large population increases throughout the township and the establishment of a new town just north of the original settlement of Fort Erie. This town was originally called Victoria but would later be renamed Bridgeburg. By 1876, Victoria had three railway stations (Scrimgeour, 1990). The population of Fort Erie, meanwhile, had reached approximately 1,200 and the village of Ridgeway, 800. A decade later the population of Fort Erie had climbed to around 4,000 while Victoria boasted nearly 700 residents. Ridgeway, conversely, experienced a slight decrease in its growth, with a population of around 600 at that time. The following year witnessed the opening of a new amusement park at Crystal Beach. The park remained active for just over a century before closing its doors in 1989. In 1970, Bertie Township amalgamated with Fort Erie and Crystal Beach to form the Town of Fort Erie (Niagara Parks, n.d.).

*George Tremaine's Map of the Counties of Lincoln and Welland, Canada West* ('*Tremaine Map*') demonstrates the extent to which the region had been settled by 1862 (Tremaine, 1862). Landowners are listed for most of the lots throughout the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the second half of the 19th century. The Study Area occupies a portion of the northern end of Lot 2 Concession 3. According to the Tremaine Map, the lot is owned in its entirety by an S.

Woolover with a single structure in the northwest corner of the Lot (Figure 2). The Grand Trunk Railway runs to the east and south of the Study Area.

The *Illustrated Historical Atlas of the Counties of Lincoln and Welland* ('*Historical Atlas*'), demonstrates the extent to which Bertie Township had been settled by 1876 (Page, 1876). Landowners are listed for most of the lots within the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century. Structures and orchards are prevalent throughout the township, almost all of which front early roads and waterways, especially the Niagara River and Lake Erie.

According to the *Historical Atlas* map of Bertie Township, the Study Area is located in the northeastern part of Lot 2 Concession 3. The Lot is owned in its entirety by Jacob Shisler, and an orchard and structure are depicted fronting what is now Garrison Road (Figure 3). The Grand Trunk Railway passes the Study Area to the east. Various other railways crisscross the township, including the Canadian Southern Railway to the north of the Study Area. The historic community of Fort Erie is visible on the Niagara River to the east of the Study Area, along the eastern edge of the township.

Although significant and detailed landowner information is available on the historical maps discussed here, it should be recognized that historical county atlases were funded by subscriptions fees and were produced primarily to identify factories, offices, residences and landholdings of subscribers. Landowners who did not subscribe were not always listed on the maps (Caston, 1997, p. 100). Moreover, associated structures were not necessarily depicted or placed accurately (Gentilcore & Head, 1984).

### 1.2.3 Recent Reports

P1 (AfGr-118) was discovered during a test pit survey conducted by Detritus (PIF# P017-1120-2024) during the Stage 2 assessment of the Study Area and documented in the following assessment report;

> *Stage 1-2 Archaeological Assessment on Part of Lot 2 Concession 3 within the Geographic Township of Bertie and Historical County of Welland, now the Regional Municipality of Niagara, Ontario* (Detritus Consulting Ltd., 2024a).

P1 (AfGr-118) was subject to a Stage 3 assessment conducted by Detritus (PIF# P462-0315-2024) and documented in the following assessment report;

> *Stage 3 Archaeological Assessment on Part of Lot 2 Concession 3 within the Geographic Township of Bertie and Historical County of Welland, now the Regional Municipality of Niagara, Ontario* (Detritus Consulting Ltd., 2024b)

The results of this investigation will be discussed in greater detail below in Section 1.3.4.

## 1.3 Archaeological Context

### 1.3.1 Property Description and Physical Setting

The Study Area comprised a rectangular-shaped parcel that fronts onto Garrison Road and measures approximately 1.3ha. The Study Area is bound by Garrison Road to the north, forested area to the east, residential properties to the west, and an open field to the south. At the time of assessment, the Study Area included one residential building, a garage, a gravel driveway, and a drainage ditch along the north side of the property. A manicured lawn with scattered trees makes up the remainder of the property (Figure 4).

The majority of the region surrounding the Study Area has been subject to European-style agricultural practices for over 100 years, having been settled by Euro-Canadian farmers by the mid-19th century. Much of the region today continues to be used for agricultural purposes.

The Study Area is located within Haldimand Clay Plain physiographic region (Chapman & Putnam, 1984). During pre-contact and early contact times, this area comprised a mixture of deciduous trees and open areas. In the early 19th century, Euro-Canadian settlers began to clear

the forests for agricultural purposes, which have been ongoing in the vicinity of the Study Area for over 100 years.

Haldimand Clay is slowly permeable, imperfectly drained with medium to high water-holding capacities. Surface runoff is usually rapid, but water retention of the clayey soils can cause it to be droughty during dry periods (Kingston & Presant, 1989). According to Chapman and Putnam,

> ...although it was all submerged in Lake Warren, the till is not all buried by stratified clay; it comes to the surface generally in low morainic ridges in the north. In fact, there is in that area a confused intermixture of stratified clay and till. The northern part has more relief than the southern part where the typically level lake plains occur.
>
> Chapman & Putnam, 1984, p. 156

Huffman and Dumanski add that the soil within the region is suitable for corn and soybeans in rotation with cereal grains as well as alfalfa and clover (Huffman & Dumanski, 1986).

The Niagara Region as a whole is located within the Deciduous Forest Region of Canada and contains tree species which are typical of the more northern Great Lakes-St. Lawrence Biotic zone, such as beech, sugar maple, white elm, basswood, white oak, and butternut (MacDonald & Cooper, 1997). During pre-contact and early contact times, the land in the vicinity of the Study Area comprised a mixture of hardwood trees such as sugar maple, beech, oak, and cherry. This pattern of forest cover is characteristic of areas of clay soil within the Maple-Hemlock Section of the Great Lakes-St. Lawrence Forest Province-Cool Temperate Division (McAndrews & Manville, 1987). In the early 19th, Euro-Canadian settlers began to clear the forests for agricultural purposes.

The closest source of potable water is an unnamed creek that lies 40m to the east of the Study Area.

### 1.3.2 Pre-Contact Indigenous Land Use

This portion of southern Ontario was occupied by people as far back as 11,000 years ago as the glaciers retreated. For the majority of this time, people were practicing hunter-gatherer lifestyles with a gradual move towards more extensive farming practices. Table 1 provides a general outline of the cultural chronology of Bertie Township (Ellis & Ferris, 1990).

**Table 1: Cultural Chronology for Bertie Township**

| Time Period | Cultural Period | Comments |
|---|---|---|
| 9500–7000 BC | Paleo Indian | first human occupation<br>hunters of caribou and other extinct Pleistocene game<br>nomadic, small band society |
| 7500–1000 BC | Archaic | ceremonial burials<br>increasing trade network<br>hunter-gatherers |
| 1000–400 BC | Early Woodland | large and small camps<br>spring congregation/fall dispersal<br>introduction of pottery |
| 400 BC–AD 800 | Middle Woodland | kinship based political system<br>incipient horticulture<br>long distance trade network |
| AD 800–1300 | Early Iroquoian (Late Woodland) | limited agriculture<br>developing hamlets and villages |
| AD 1300–1400 | Middle Iroquoian (Late Woodland) | shift to agriculture complete<br>increasing political complexity<br>large, palisaded villages |
| AD 1400–1650 | Late Iroquoian | regional warfare and political/tribal alliances<br>destruction of Huron and Neutral |

### 1.3.3 Previous Identified Archaeological Work

In order to compile an inventory of archaeological resources, the registered archaeological site records kept by the MCM were consulted. In Ontario, information concerning archaeological sites stored in the ASDB (Government of Ontario, n.d.) is maintained by the MCM. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 kilometres ('km') east to west and approximately 18.5km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The Study Area lies within block AfGr.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario, 1990c). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MCM will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

According to the ASDB, four Euro-Canadian archaeological sites have been registered within a 1km radius of the Study Area (Table 2).

**Table 2: Registered Archaeological Sites within 1km of the Study Area**

| Borden Number | Site Name | Time Period | Affinity | Site Type |
|---|---|---|---|---|
| AfGr-13 | AfGr-13 | Post-Contact | Euro-Canadian | house |
| AfGr-105 | | Post-Contact | Euro-Canadian | scatter |
| AfGr-104 | | Post-Contact | Euro-Canadian | scatter |
| AfGr-103 | | Post-Contact | Euro-Canadian | scatter |

To the best of Detritus' knowledge, no other assessments have been conducted adjacent to the Study Area, and no sites are registered within 50m of the Study Area.

### 1.3.4 Summary of Previous Investigations

P1 (AfGr-118) was identified during a Stage 1-2 assessment of the Study Area, conducted by Detritus on July 29th, 2024 (PIF# P017-1120-2024; Detritus Consulting Ltd., 2024a). The Study Area comprises a rectangular-shaped parcel that fronts onto Garrison Road and measures approximately 1.3 hectares ('ha'). The Study Area is bound by Garrison Road to the north, forested area to the east, residential properties to the west, and an open field to the south. At the time of assessment, the Study Area included one residential building, a garage, a gravel driveway, and a drainage ditch along the north side of the property. A manicured lawn with scattered trees makes up the remainder of the property (Figure 4). The Stage 1 background research conducted by Detritus indicated that the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. This research also included the consultation of the *Niagara Region Archaeological Management Plan* which indicated that the Study Area is located within an area of archaeological potential (Niagara Region, 2023). As such, a Stage 2 field assessment was recommended for all the Study Area (Detritus Consulting Ltd., 2024a).

During the Stage 2 field assessment, the manicured lawns with trees throughout the Study Area were assessed by means of a typical test pit survey at 5m intervals. This investigation resulted in the identification and documentation of two pre-contact Indigenous sites registered with the MCM as P1 (AfGr-118) and P2 (AfGr-119).

P1 (AfGr-118) was identified in an area of manicured lawn to the southeast of the residential building in the eastern portion of the Study Area. The Stage 2 assessment resulted in the documentation of six pre-contact Indigenous artifacts from two positive test pits located 5m apart to the southeast of the residential building. All of the artifacts recovered were manufactured from Onondaga chert and were identified as pieces of chipping detritus. Morphological analysis of the chert flakes identified the fragments as three secondary flakes, two flake fragments, and one tool

thinning flake, which suggested late-stage reduction for the production and maintenance of formal and informal tools. Based on the results of the Stage 2 assessment, P1 (AfGr-118) was interpreted as a small-sized activity area occupied by unspecified Indigenous people during the pre-contact period and was recommended for a Stage 3 archaeological assessment.

P2 (AfGr-119) was identified in an area of manicured lawn directly to the west of the residential building and gravel driveway. The Stage 2 assessment of P2 (AfGr-119) resulted in the documentation of one pre-contact Indigenous artifacts from one positive test pit located to the west of the residential building. The artifact was identified as a piece of chipping detritus manufactured from Onondaga identified as a secondary flake. Based on the results of the Stage 2 investigation and the proximity to P1 (AfGr-118), P2 (AfGr-119) was recommended for a Stage 3 archaeological assessment.

The subsequent Stage 3 assessments of P1 (AfGr-118) and P2 (AfGr-119) were conducted between September 2nd and October 14th, 2024, under archaeological consulting license P462 issued to Mr. Mike Pitul by the MCM (Detritus Consulting Ltd., 2024b).

The Stage 3 assessment of P1 (AfGr-118) resulted in the documentation of 146 pre-contact Indigenous artifacts from the hand excavation of 18 one-metre units covering an area roughly 20m by 10m in the southeastern quadrant of the manicured lawn (PIF# P462-0315-2024). All of the artifacts recovered from the site were manufactured from Onondaga chert and comprised 143 pieces of chipping detritus, 2 retouched flakes, and 1 core. According to morphological analysis, the flake assemblage from P1 (AfGr-118) featured primarily fragmentary flakes (n=112; 78.4%), with lesser amounts of shatter flakes (n=29; 20.2%), and two secondary flakes (1.4%).

Artifact yields ranged from 0 to 25; three units were sterile. The highest yielding unit located at 237E, 317N yielded 25 artifacts and the second highest yielding unit located at 245E, 315N yielded 24 artifacts. One unit roughly between these two units located at 240E, 315N yielded 20 artifacts and one unit diagonal from this unit located at 242E, 317N yielded 17 artifacts. Only one other unit located at 235E, 315N yielded more than 10 artifacts (n=13). Each of the test units contained a single stratigraphic layer, consisting of medium-brown loam above a heavy orange-brown loam subsoil. All of the artifacts were recovered from the topsoil.

Based on the available evidence, P1 (AfGr-118) was interpreted as a small-sized activity area characterised by late-stage lithic reduction for the production and maintenance of formal and informal tools occupied briefly by Indigenous people prior to the arrival of European settlers. Given the results of the Stage 3 assessment, wherein five test units from P1 (AfGr-118) yielded ten or more lithic artifacts, Stage 4 archaeological mitigation of developmental impacts to P1 (AfGr-118) were recommended.

The Stage 3 assessment of P2 (AfGr-119) resulted in the documentation of eight pre-contact Indigenous artifacts from nine test units covering an area roughly 15m by 15m in the western quadrant of the manicured lawn directly to the west of the residential building and gravel driveway (PIF# P462-0316-2024). All of the artifacts recovered from the site were manufactured from Onondaga chert and were identified as pieces of chipping detritus. According to morphological analysis, the flake assemblage from P2 (AfGr-119) featured primarily flake fragments (n=6; 75%) with lesser amounts of shatter flakes (n=2; 15%).

Artifact yields ranged from 0 to 5; six units were sterile. The highest yielding unit located at 205E, 335N yielded five artifacts. The remaining eight units ranged in yield from 0 to 2 artifacts. Each of the test units contained a single stratigraphic layer, consisting of medium-brown loam above a heavy orange-brown loam subsoil. All of the artifacts were recovered from the topsoil.

Based on the available evidence, P2 (AfGr-119) was interpreted as a small-sized activity area characterised by late-stage lithic reduction for the production and maintenance of formal and informal tools occupied briefly by unspecified Indigenous people prior to the arrival of European settlers. Given the results of the Stage 3 archaeological assessment of P2 (AfGr-119), wherein none of the nine test units yielded ten or more lithic artifacts, Stage 4 archaeological mitigation of developmental impacts to P2 (AfGr-119) were not recommended.

### 1.3.5 Archaeological Potential

Detritus applied archaeological potential criteria commonly used by the MCM to determine areas of archaeological potential within the Study Area. According to Section 1.3.1 of the *Standards and Guidelines* (Government of Ontario, 2011), these variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, when considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect site locations and types to varying degrees. As per Section 1.3.1 of the *Standards and Guidelines* (Government of Ontario, 2011), water sources may be categorized in the following manner:

- Primary water sources, lakes, rivers, streams, creeks;
- secondary water sources, intermittent streams and creeks, springs, marshes and swamps;
- past water sources, glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- accessible or inaccessible shorelines, high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

As was discussed above, the closest source of potable water is an unnamed creek that lies 40m to the east of the Study Area.

Soil texture is also an important determinant of past settlement, usually in combination with other factors such as topography. The Study Area is situated within the Haldimand Clay Plain physiographic region. As was discussed earlier, the soils within this region are imperfectly drained, but suitable for pre-contact and post contact Indigenous agricultural. Considering also the length of occupation of Bertie Township prior to the arrival of Euro-Canadian settlers, the pre-contact and post-contact Indigenous archaeological potential of the Study Area is judged to be moderate to high.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; and properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario, 1990b) or property that local histories or informants have identified with possible historical events. The *Tremaine Map* from 1862 and the *Historical Atlas* map of Bertie Township from 1876 show the Study Area in close proximity to historical infrastructure, including the Grand Trunk Railway. Considering the location of the Study Area near to the town of Fort Erie, as well as the four post-contact Euro-Canadian registered within 1km, the potential for post-contact Euro-Canadian archaeological resources is judged to be moderate to high. Additionally, Detritus reviewed the *Niagara Region Archaeological Management Plan* (Niagara Region, 2023) which indicates that portions of the Study Area retain archaeological potential.

Finally, despite the factors mentioned above, extensive land disturbance can eradicate archaeological potential within a Study Area, as outlined in Section 1.3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). Aerial imagery identified a possible disturbance area within the Study Area in the form of the one residential building, a garage, a gravel driveway, and a drainage ditch along the north side of the property. It is recommended that these potential disturbances be subject to a Stage 2 property inspection to confirm the limits of the disturbance. Detritus determined that the remainder of the Study Area, including the manicured lawns with trees, demonstrated the potential for the recovery of pre-contact Indigenous, post-contact Indigenous, and Euro-Canadian archaeological resources, and were recommended for Stage 2 assessment.

# 2.0 Field Methods

The Stage 4 mitigation of impacts assessment of P1 (AfGr-118) was conducted between October 15th and November 5th, 2024, under archaeological consulting license P462 issued to Mr. Mike Pitul by the MCM. These investigations began with a review of all relevant reports of previous fieldwork on the property as per Section 4.2.1, Standard 2 of the *Standards and Guidelines* (Government of Ontario, 2011).

During the Stage 4 fieldwork, conditions were excellent and at no time were the field, weather or lighting conditions detrimental to the recovery of archaeological material as per Section 4.2.1, Standard 3 and Section 7.9.1, Standard 1a of the *Standards and Guidelines* (Government of Ontario, 2011). Table 3 provides a summary of the weather and field conditions during the Stage 4 archaeological assessment. Photos 1 to 9 demonstrate the field and weather conditions at the time of the field survey and are provided in Section 9.1 of this report. Figure 5 provides illustrations of the Stage 4 assessment results, as well as photograph locations and directions (see Section 8.0 below).

**Table 3: Field and Weather Conditions**

| Date | Weather | Field Conditions | Tasks |
|---|---|---|---|
| October 15th, 2024 | 5˚C; overcast | soil dry and screens easily | Began block excavation around positive Stage 3 units |
| October 16th, 2024 | 7˚C; drizzly | soil dry and screens easily | Continued block excavation |
| October 17th, 2024 | 4˚C; cloudy | soil dry and screens easily | Continued block excavation |
| October 18th, 2024 | 18˚C; sunny | soil dry and screens easily | Continued block excavation |
| October 21st, 2024 | 24˚C; sunny | soil dry and screens easily | Continued block excavation |
| October 22nd, 2024 | 20˚C; sunny | soil dry and screens easily | Continued block excavation |
| October 23rd, 2024 | 21˚C, sunny | soil dry and screens easily | Continued block excavation |
| October 24th, 2024 | 18˚C; sunny | soil dry and screens easily | Continued block excavation |
| October 25th, 2024 | 12˚C; overcast | soil dry and screens easily | Continued block excavation |
| October 28th, 2024 | 20˚C; sunny | soil dry and screens easily | Continued block excavation |
| October 31st, 2024 | 18˚C; overcast | soil dry and screens easily | Continued block excavation |
| November 4th, 2024 | 20˚C; sunny | soil dry and screens easily | Continued block excavation |
| November 5th, 2024 | 20˚C; sunny | soil dry and screens easily | Completed block excavation |

Upon arrival at the site, the original Stage 3 grid was still in place and all excavated units still open and visible, thus meeting the conditions of Section 4.2.1, Standard 5 of the *Standards and Guidelines* (Government of Ontario, 2011).

The Stage 4 assessment at P1 (AfGr-118) involved the hand excavation of 131 one-metre units conducted according to Sections 4.2.1 and 4.2.2 of the *Standards and Guidelines* (Government of Ontario, 2011). These units surrounded the highest yielding Stage 3 unit located at 245E 315N located in the eastern end of the site extent, as per Section 4.2.2, Standard 3c of the *Standards and Guidelines* (Government of Ontario, 2011), and resulted in a single, continuous Stage 4 excavation block measuring 10m north to south and 17m east to west (Figure 5). Artifact yields among the Stage 4 units ranged from 0 to 120 per unit. The extent of the excavation block was determined in accordance with Section 4.2.2, Standard 4 and Table 4.1 of the *Standards and Guidelines* (Government of Ontario, 2011).

All Stage 4 units were excavated by hand in systematic levels, as per Section 4.2.1, Standards 1 and 6 of the *Standards and Guidelines* (Government of Ontario, 2011). All of the 131 Stage 4 units contained a single stratigraphic layer, which consisted of a brown sandy loam topsoil. The units were excavated into the first five centimetres ('cm') of subsoil, which was an orange/brown sand, as per Section 4.2.2, Standard 6 of the *Standards and Guidelines* (Government of Ontario, 2011). Overall, the Stage 4 units at P1 (AfGr-118) ranged in depth from 30cm to 65cm.

All soil was screened through six-millimetre hardware cloth to facilitate the recovery of small artifacts, as per Section 4.2.2, Standard 6 of the *Standards and Guidelines* (Government of Ontario, 2011). All artifacts recovered during the Stage 4 block excavation were recorded with reference to their one-metre grid unit number and retained for laboratory analysis and

description, as per Section 4.2.1, Standards 8 of the *Standards and Guidelines* (Government of Ontario, 2011). The subsoil surface of each unit was shovel-shined, trowelled, and examined for any evidence of subsurface cultural features. No other formal tools, Indigenous ceramics, or fire cracked rock were recovered during any stage of investigation.

# 3.0 Record of Finds

The Stage 4 archaeological assessment of P1 (AfGr-118) was conducted employing the methods described in Section 2.0 above. Maps indicating the exact site location of the site, and all UTM coordinates recorded during the assessment, are included in the Supplementary Documentation to this report. An inventory of the documentary record generated by the fieldwork is provided in Table 4 below. A description of the locations and the recovered artifacts are provided in Sections 3.1 and 3.2.

**Table 4: Inventory of Document Record**

| Document Type | Current Location of Document Type | Additional Comments |
|---|---|---|
| 1 Page of Field Notes | Detritus' office | Stored digitally in project file |
| 1 Map provided by the Proponent | Detritus' office | Stored digitally in project file |
| 1 Field Map | Detritus' office | Stored digitally in project file |
| 17 Digital Photographs | Detritus' office | Stored digitally in project file |

All of the material culture collected during the Stage 4 Mitigation of Impacts assessment of P1 (AfGr-118) is contained in one box and will be temporarily housed in the offices of Detritus until formal arrangements can be made for its transfer to His Majesty the King in right of the Province of Ontario or another suitable public institution acceptable to the MCM.

## 3.1 Cultural material

The Stage 4 Mitigation of Impacts assessment of P1 (AfGr-118) resulted in the documentation of 2,678 pre-contact Indigenous artifacts manufactured from Onondaga (Plates 1-13) and Flint Ridge Chert. Chert type identification was accomplished visually using reference materials located in personal collections.

Onondaga chert is a dense non-porous rock that derives from the Middle Devonian age, with outcrops occurring along the north shore of Lake Erie between Long Point and the Niagara River. (Eley & von Bitter, 1989). Primary outcrops have also been reported along the banks of the Grand River (Ellis & Ferris, 1990). Onondaga chert typically occurs in nodules or irregular thin beds, and may appear light to dark grey, bluish grey, brown, or black. It can also be mottled with a dull to vitreous or waxy lustre. Onondaga chert is often found at archaeological sites in southern Ontario and is commonly recognised as a high-quality raw material that was frequently utilized by pre-contact Indigenous people (Eley & von Bitter, 1989).

Flint Ridge Chalcedony is a higher quality Flint Ridge deposit of bluish-grey chert that is semi-translucent and vitreous. It occurs as a bedded chert within the parent limestone and is irregularly distributed throughout the Flint Ridge formation of east central Ohio along the Flint Ridge in Licking, Muskingum, and Perry Counties (DeRegacourt & Georgiady, 1998). It appears this chert was highly prized by the Indigenous inhabitants of Ohio and was widely traded and utilized, as evidenced by Flint Ridge chalcedony tools found as widespread as Indiana, northern Kentucky, Ohio, Michigan, southern Ontario, northern west Virginia and western Pennsylvania (DeRegacourt & Georgiady, 1998).

Furthermore, all pieces of chipping detritus were subject to morphological analysis following the classification scheme described by Lennox, Dodd and Murphy for the Wiacek Site (Lennox, Dodd, & Murphy, 1986) and expanded upon by Fisher for the Adder Orchard site (Fisher, 1997).

Primary and secondary flakes, along with cortical removal flakes, are a product of percussion flaking undertaken during the initial reduction phases of raw material into blanks, bifaces and preforms. These early-stage reduction flakes tend to exhibit minimal dorsal flake scarring, and are often characterized by the presence of cortex, or the original unflaked chert exterior, on their dorsal surfaces and proximal ends. For cortical removal flakes, over half of the dorsal surface comprises cortex; for primary flakes, less than half. Secondary flakes, meanwhile, may not contain any cortex. Thinning flakes are produced during the latter stages of lithic reduction, when blanks, bifaces, and preforms are shaped into projectile points and formal tools. They are the result of

pressure flaking, where the maker uses a softer material such as antler, wood or bone to apply direct pressure onto a specific part of the tool. Pressure flaking generally produces smaller, thinner flakes than does percussion flaking. Thinning flakes also exhibit more flake scars on their dorsal surface than do primary or secondary flakes. Fragmentary flakes are flakes that may have some identifiable flake characteristic but cannot be classified with certainty into a specific category.

Chipping detritus is the waste product from the production of stone tools and is the most frequently recovered artifact on pre-contact Indigenous sites in southern Ontario. Chipping detritus has a low significance and interpretive value when it is not associated with any diagnostic material, therefore they cannot be used to determine the cultural affiliation or time period of the occupation of a site.

## 3.2 Artifact Assemblage

The Stage 4 Mitigation of Impacts assessment of P1 (AfGr-118) resulted in the documentation of 2,678 pre-contact Indigenous artifacts from the hand excavation of 131 one-metre square units. The vast majority of artifacts recovered were chipping detritus (n=2,671), along with two retouched flakes, one core, three bifaces, and a single projectile point (Table 5). The artifacts recovered from the site were manufactured from Onondaga and Flint Ridge cherts.

**Table 5: Artifact Assemblage**

| Artifact | Frequency | Percentage (%) |
|---|---|---|
| Chipping detritus | 2,671 | 99.74 |
| Retouched flakes | 2 | 0.07 |
| Core | 1 | 0.04 |
| Biface | 3 | 0.11 |
| Projectile point | 1 | 0.04 |
| **Total** | **2,678** | **100.00** |

### Chipping Detritus

The results of the morphological analysis of the chipping detritus recovered from the Stage 4 mitigation of P1 (AfGr-118) are detailed Table 6 below.

**Table 6: Flake Analysis**

| Chert Type | Primary | | Secondary | | Thinning | | Fragment | | Micro-flake | | Shatter | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Onondaga | 2 | 0.07 | 292 | 10.9 | 396 | 14.8 | 1,933 | 72.18 | 11 | 0.41 | 35 | 1.31 | 2,669 | 99.93 |
| Flint Ridge | 0 | 0 | 1 | 0.04 | 0 | 0.00 | 1 | 0.04 | 0 | 0.00 | 0 | 0.00 | 2 | 0.07 |
| **Total** | **2** | **0.07** | **293** | **10.94** | **396** | **14.8** | **1934** | **72.22** | **0** | **0.41** | **0** | **1.31** | **2,671** | **100** |

According to the morphological analysis presented above, the flake assemblage from P1 (AfGr-118) featured primarily fragments (72.18%; n=1,933), followed by thinning flakes (14.8%; n= 396) and secondary flakes (10.9%; n=292). This variety of flake types suggests all stages of lithic reduction for the production and maintenance of formal and informal tools occurred at the site, which is an expansion of the characteristics observed in the Stage 1-2 and Stage 3 assemblages (Detritus Consulting Ltd., 2024a; Detritus Consulting Ltd., 2024b).

### Retouched Flake

Two retouched flakes (Cat# 91; Plate 10 and Cat# 213; Plate 11) were recovered during the Stage 4 mitigation of P1 (AfGr-118). Retouched flakes are pieces of chipping detritus that have been worked or sharpened. They are considered informal tools that were discarded after use and cannot be used to determine the cultural affiliation or time period of the occupation of a site.

### Core

A single reduced core manufactured from Onondaga chert (Cat# 80; Plate 6) was recovered during the Stage 4 mitigation of P1 (AfGr-118). A core is a nodule of chert that has been struck to remove spalls, sections of chert that will be reduced through flaking to finished tools. After repeated removal of spalls from the faces of the core, too little remains to render further spalls, and it is discarded. Chert cores are not temporally diagnostic.

### Bifaces

Three bifaces manufactured from Onondaga chert (Cat#s 25, 90, and 247), were recovered during the Stage 4 mitigation of P1 (AfGr-118), detailed in Table 7, and illustrated in Plates 3, 9, and 13.

The term biface refers to any unfinished, discarded, or broken bifacially worked form that cannot be identified as a specific tool or projectile point. Therefore, bifaces could represent a variety of tools with different functions. The three bifaces recovered from P1 (AfGr-118) were incomplete tools of unknown intended use. Due to their long span of production, bifaces cannot be used to determine the cultural affiliation or time period of the occupation of a site.

**Table 7: Biface Metrics**

| CAT # | Chert Type | Length (mm) | Width (mm) | Thickness (mm) |
|---|---|---|---|---|
| 25 | Onondaga | 30 | 17 | 4 |
| 90 | Onondaga | 41 | 33 | 13 |
| 247 | Onondaga | 40 | 25 | 9 |

### Projectile Point

One projectile point manufactured from Onondaga chert (Cat# 243; Plate 12) was recovered during the Stage 4 mitigation of P1 (AfGr-118).

The point is a triangular point with an elliptical profile, excurvate edges and irregular flaking. Given the size, blade characteristics, flaking and chert type, it shares characteristics with the Brewerton side notched type point, which dated to the Middle Archaic (3000-2500B.C.). The measurements for the projectile point are as follows: the length is 55mm, the width is 20mm, the thickness is 6mm, the base width is 3mm, the neck width is 17mm, and the hafting is 20mm.

## 3.2 Artifact Distribution and Settlement Pattern

This investigation resulted in the documentation of 2,678 pre-contact Indigenous artifacts from the hand excavation of 131 one-metre square units. These units formed a single, continuous excavation block measuring 10m north to south and 17m east to west (Figure 5). Artifact yields ranged from 0 to 120 per unit. The highest yielding unit was 237E, 315N with 120 artifacts and the second highest yielding unit was 240E, 314N with 106 artifacts. The limits of the block were extended until yields dropped to less than ten artifacts per unit. Based on all the results of the Stage 4 excavation, P1 (AfGr-118) has been identified as a small-sized activity area. No Indigenous ceramics, or fire cracked rock were recovered during any stage of assessment, nor were any subsurface features observed.

## 3.3 Artifact Catalogue

See Appendix 10.1 for the Stage 4 artifact assemblage catalogue for P1 (AfGr-118). A sample of the artifacts recovered from the Stage 4 assessments are illustrated in Section 9.2

# 4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct Stage 4 Mitigation of Developmental Impacts at archaeological site P1 (AfGr-118) in advance of future development on the property at 825 Garrison Road, Fort Erie.

P1 (AfGr-118) was identified during a Stage 1-2 assessment of the Study Area, conducted by Detritus on July 29th, 2024 (PIF# P017-1120-2024; Detritus Consulting Ltd., 2024a). The Study Area comprises a rectangular-shaped parcel that fronts onto Garrison Road and measures approximately 1.3 hectares ('ha'). The Study Area is bound by Garrison Road to the north, forested area to the east, residential properties to the west, and an open field to the south. At the time of assessment, the Study Area included one residential building, a garage, a gravel driveway, and a drainage ditch along the north side of the property. A manicured lawn with scattered trees makes up the remainder of the property (Figure 4). The Stage 1 background research conducted by Detritus indicated that the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. This research also included the consultation of the *Niagara Region Archaeological Management Plan* which indicated that the Study Area is located within an area of archaeological potential (Niagara Region, 2023). As such, a Stage 2 field assessment was recommended for all the Study Area (Detritus Consulting Ltd., 2024a).

During the Stage 2 field assessment, the manicured lawns with trees throughout the Study Area were assessed by means of a typical test pit survey at 5m intervals. This investigation resulted in the identification and documentation of two pre-contact Indigenous sites registered with the MCM as P1 (AfGr-118) and P2 (AfGr-119).

The Stage 2 assessment of P1 (AfGr-118) resulted in the documentation of six pre-contact Indigenous artifacts from two positive test pits located 5m apart to the southeast of the residential building. All of the artifacts recovered from the site were manufactured from Onondaga chert and were identified as pieces of chipping detritus. Morphological analysis of the chert flakes identified the fragments as three secondary flakes, two flake fragments, and one tool thinning flake, which suggested late-stage reduction for the production and maintenance of formal and informal tools. Based on the results of the Stage 2 assessment, P1 (AfGr-118) was interpreted as a small-sized activity area occupied by unspecified Indigenous people during the pre-contact period and was recommended for a Stage 3 archaeological assessment.

The subsequent Stage 3 assessment of P1 (AfGr-118) was conducted between September 2nd and October 14th, 2024, under archaeological consulting license P462 issued to Mr. Mike Pitul by the MCM (Detritus Consulting Ltd., 2024b). The Stage 3 assessment of P1 (AfGr-118) resulted in the documentation of 146 pre-contact Indigenous artifacts from the excavation of 18 one-metre units covering an area roughly 20m by 10m in the southeastern quadrant of the manicured lawn (PIF# P462-0315-2024). All of the artifacts recovered from the site were manufactured from Onondaga chert and comprised 143 pieces of chipping detritus, 2 retouched flakes, and 1 core. According to morphological analysis, the flake assemblage from P1 (AfGr-118) featured primarily fragmentary flakes (n=112; 78.4%), with lesser amounts of shatter flakes (n=29; 20.2%), and two secondary flakes (1.4%).

Artifact yields ranged from 0 to 25; three units were sterile. The highest yielding unit located at 237E, 317N yielded 25 artifacts and the second highest yielding unit located at 245E, 315N yielded 24 artifacts. One unit roughly between these two units located at 240E, 315N yielded 20 artifacts and one unit diagonal from this unit located at 242E, 317N yielded 17 artifacts. Only one other unit located at 235E, 315N yielded more than 10 artifacts (n=13). Each of the test units contained a single stratigraphic layer, consisting of medium-brown loam above a heavy orange-brown loam subsoil. All of the artifacts were recovered from the topsoil.

Based on the available evidence, P1 (AfGr-118) was interpreted as a small-sized activity area characterised by late-stage lithic reduction for the production and maintenance of formal and informal tools occupied briefly by Indigenous people prior to the arrival of European settlers. Given the results of the Stage 3 assessment, wherein five test units from P1 (AfGr-118) yielded ten

or more lithic artifacts, Stage 4 archaeological mitigation of developmental impacts to P1 (AfGr-118) were recommended.

The Stage 4 mitigation of impacts assessment was conducted at P1 (AfGr-118) between October 15th and November 5th, 2024. This investigation resulted in the documentation of 2,678 pre-contact Indigenous artifacts from the hand excavation of 131 one-metre square units. The vast majority of artifacts recovered were chipping detritus (n=2,671), along with two retouched flakes, one core, three bifaces, and a single projectile point (Table 5). The artifacts recovered from the site were manufactured from Onondaga and Flint Ridge cherts. According to morphological analysis, the flake assemblage from P1 (AfGr-118) featured primarily fragments (72.18%; n=1,933), followed by thinning flakes (14.8%; n= 396) and secondary flakes (10.9%; n=292). This variety of flake types suggests all stages of lithic reduction for the production and maintenance of formal and informal tools occurred at the site, which is an expansion of the characteristics observed in the Stage 1-2 and Stage 3 assemblages (Detritus Consulting Ltd., 2024a; Detritus Consulting Ltd., 2024b).

These units formed a single, continuous excavation block measuring 10m north to south and 17m east to west (Figure 5). Artifact yields ranged from 0 to 120 per unit. The highest yielding unit was 237E, 315N with 120 artifacts and the second highest yielding unit was 240E, 314N with 106 artifacts. The limits of the block were extended until yields dropped to less than ten artifacts per unit. Based on all the results of the Stage 4 excavation, P1 (AfGr-118) has been identified as a small-sized activity area – probably a campsite. A single projectile point, identified as a probable Brewerton Side notched point, dating to the Middle Archaic was found. No Indigenous ceramics, or fire cracked rock were recovered during any stage of assessment, nor were any subsurface features observed.

Based on all the results of the Stage 4 excavation, P1 (AfGr-118) has been identified as a small-sized activity area – probably a campsite, characterised by all stages of lithic reduction occupied for brief a period during the Middle Archaic (3000-2500 B.C.). Given all the available evidence, P1 (AfGr-118) provides further evidence of the settlement pattern within a much larger region of ongoing, seasonal occupation that spans all periods of Indigenous occupation from the Paleo-Indian period until contact with European settlers.

# 5.0 Recommendations

**The Stage 4 mitigation of P1 (AfGr-118) is now complete. The CHVI of P1 (AfGr-118) has been fully documented and the information will be preserved for future study. P1 (AfGr-118) has no further CHVI, as per Section 7.11.4 Standard 1 of the *Standards and Guidelines* (Government of Ontario, 2011).**

# 6.0 Advice on Compliance with Legislation

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

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*.

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.

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# 8.0 Maps

**Figure 1: Study Area Location Map**

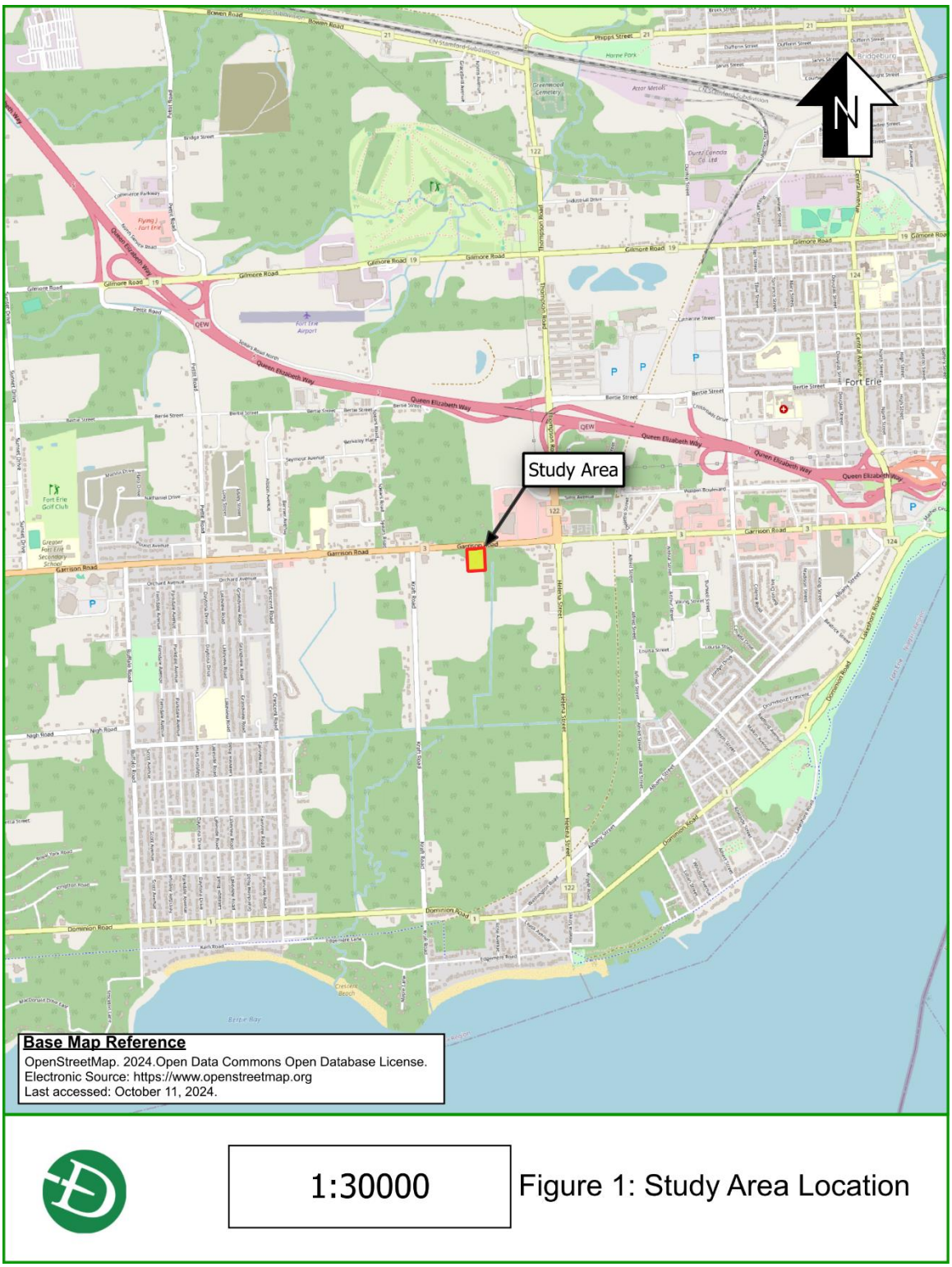
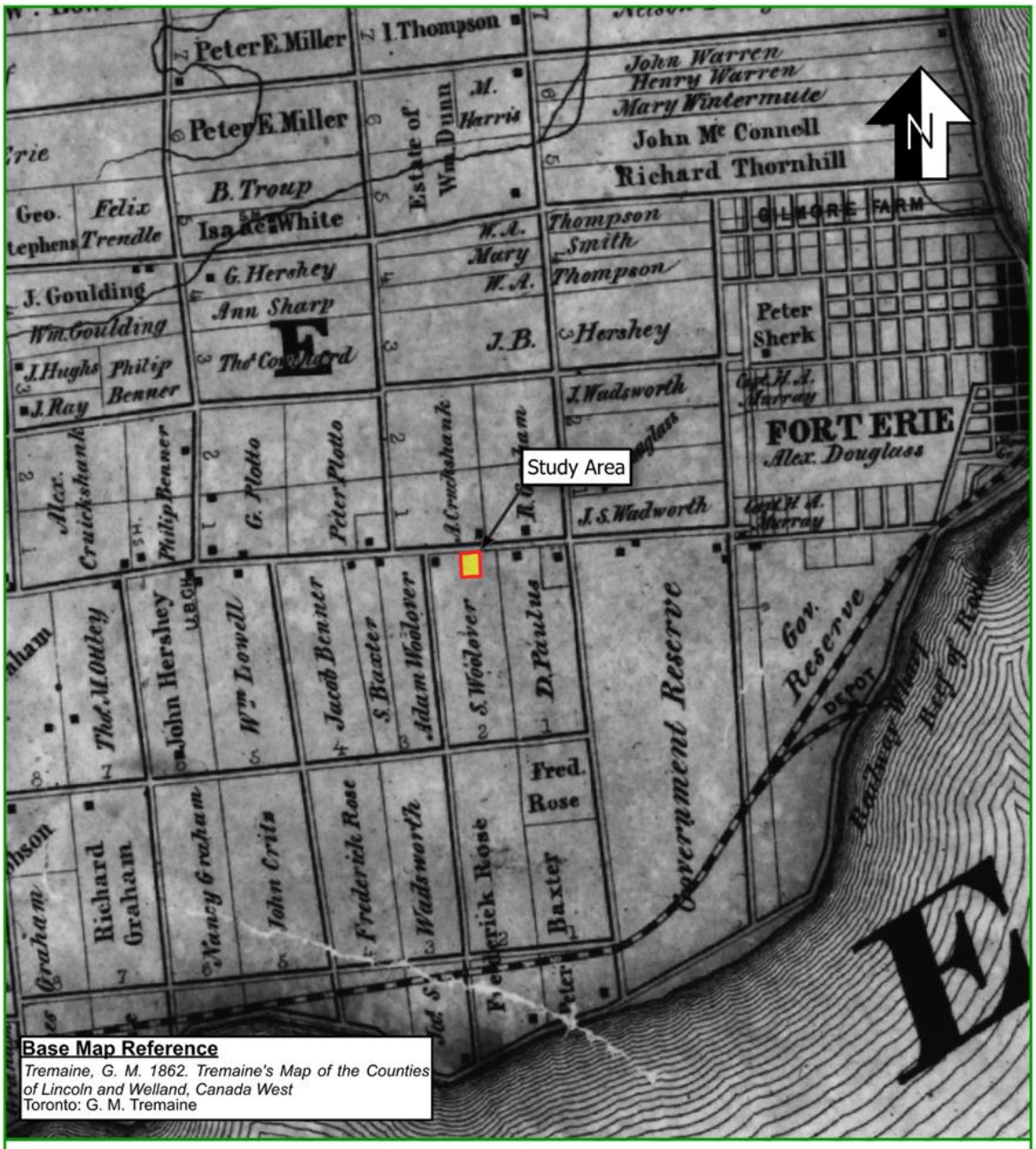


**Figure 2: Historic Map Showing Study Area Location**




Not to Scale

Figure 2: Portion of Tremaine's Map of the Counties of Lincoln and Welland, Canada West

**Figure 3: Historic Map Showing Study Area Location**

Not to Scale

Figure 3: Portion of H. R. Page & Co. 1876 Historical Atlas Map of Bertie Township

**Figure 4: Previous Archaeological Assessments**

**Figure 5: P1 (AfGr-118) Stage 4 Results**

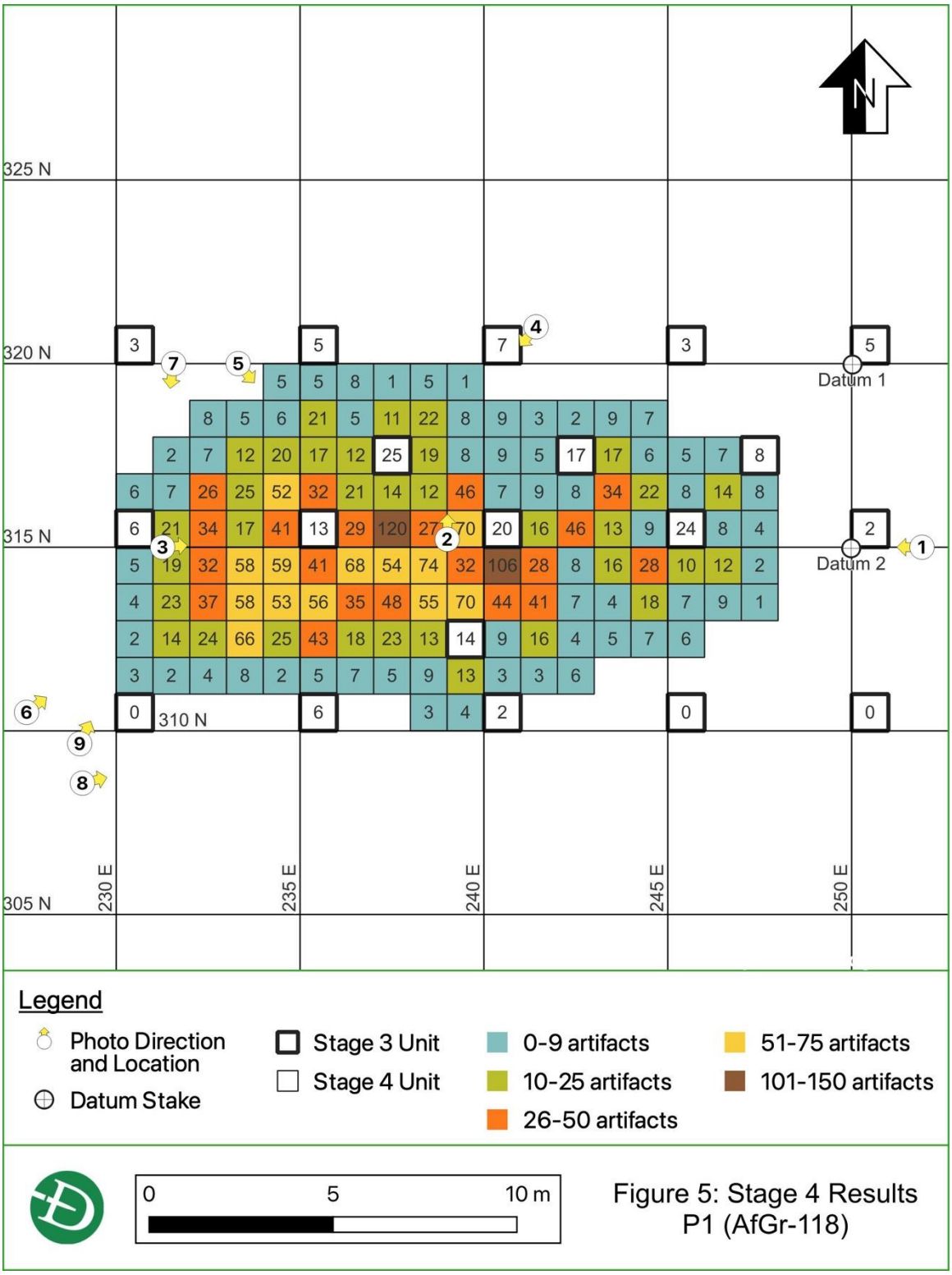
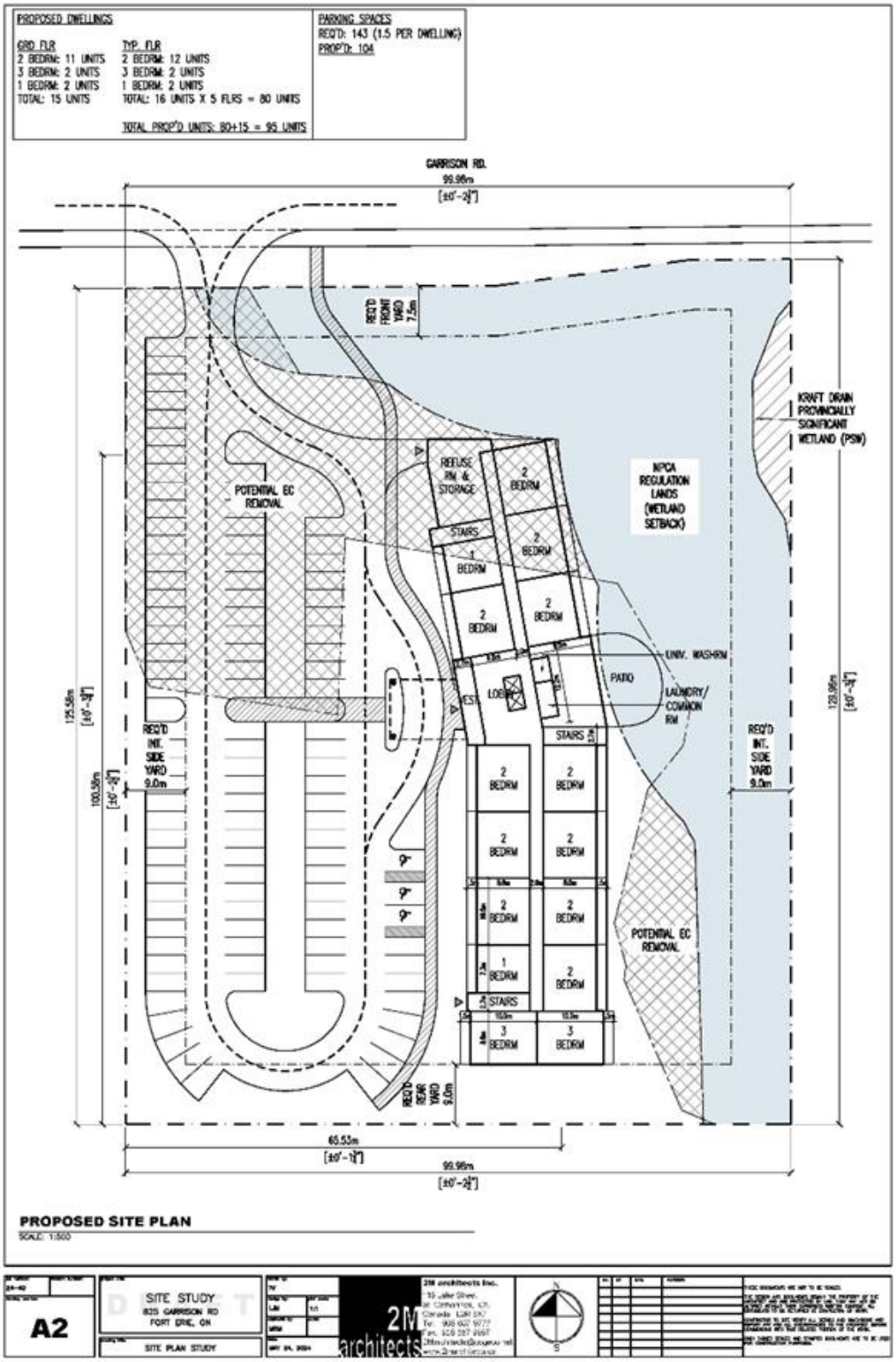


**Figure 6: Development Plan**



# 9.0 Images

## 9.1 Field Photos

**Photo 1: Beginning of Stage 4 Unit Excavation at P1 (AfGr-118), looking west**

**Photo 2: Typical Stratigraphy at P1 (AfGr-118), looking north**

**Photo 3: Stage 4 Unit Excavation at P1 (AfGr-118), looking east**

**Photo 4: Stage 4 Unit Excavation at P1 (AfGr-118), looking southwest**

**Photo 5: Stage 4 Unit Excavation at P1 (AfGr-118), looking southeast**

**Photo 6: Stage 4 Unit Excavation at P1 (AfGr-118), looking northeast**

**Photo 7: Typical Stratigraphy at P1 (AfGr-118), looking south**

**Photo 8: Stage 4 Unit Excavation at P1 (AfGr-118), looking east**

**Photo 9: Stage 4 Unit Excavation at P1 (AfGr-118), looking northeast**

## 9.2 Artifacts

**Plate 1: Chipping detritus: secondary flake, Cat# 12**

**Plate 2: Chipping Detritus: tool thinning, Cat# 17**

**Plate 3: Biface, Cat# 25**

**Plate 4: Chipping Detritus: shatter, Cat# 31**

**Plate 5: Chipping Detritus: fragment, Cat# 46**

**Plate 6: Core, Cat# 80**

**Plate 7: Chipping Detritus: primary flake, Cat# 81**

**Plate 8: Chipping Detritus: secondary flake, Cat# 87**

**Plate 9: Biface, Cat# 90**

**Plate 10: Retouched flake, Cat# 91**

**Plate 11: Retouched flake, Cat# 213**

**Plate 12: Projectile point, Cat# 243**

**Plate 13: Biface, Cat# 247**

# 10.0 Appendix

## 10.1 Stage 4 Artifact Catalogue

| Cat # | Context: Easting and Northing | Unit Depth (m) | Artifact | Freq. | Morphology | Chert Type | Comments |
|---|---|---|---|---|---|---|---|
| 1 | Test Unit Excavation 237 318 | 0.38 | chipping detritus | 11 | fragment | Onondaga | |
| 2 | Test Unit Excavation 237 313 | 0.65 | chipping detritus | 10 | secondary | Onondaga | |
| 3 | Test Unit Excavation 237 313 | 0.65 | chipping detritus | 10 | tool thinning | Onondaga | |
| 4 | Test Unit Excavation 237 313 | 0.65 | chipping detritus | 28 | fragment | Onondaga | |
| 5 | Test Unit Excavation 238 312 | 0.4 | chipping detritus | 2 | secondary | Onondaga | |
| 6 | Test Unit Excavation 238 312 | 0.4 | chipping detritus | 4 | tool thinning | Onondaga | |
| 7 | Test Unit Excavation 238 312 | 0.4 | chipping detritus | 7 | fragment | Onondaga | |
| 8 | Test Unit Excavation 238 315 | 0.42 | chipping detritus | 6 | secondary | Onondaga | |
| 9 | Test Unit Excavation 238 315 | 0.42 | chipping detritus | 6 | tool thinning | Onondaga | |
| 10 | Test Unit Excavation 238 315 | 0.42 | chipping detritus | 15 | fragment | Onondaga | |
| 11 | Test Unit Excavation 237 319 | 0.35 | chipping detritus | 1 | fragment | Onondaga | |
| 12 | Test Unit Excavation 238 313 | 0.5 | chipping detritus | 15 | secondary | Onondaga | |
| 13 | Test Unit Excavation 238 313 | 0.5 | chipping detritus | 27 | fragment | Onondaga | |
| 14 | Test Unit Excavation 238 313 | 0.5 | chipping detritus | 1 | fragment | Flint ridge | |
| 15 | Test Unit Excavation 238 313 | 0.5 | chipping detritus | 12 | tool thinning | Onondaga | |
| 16 | Test Unit Excavation 237 315 | 0.4 | chipping detritus | 72 | fragment | Onondaga | |
| 17 | Test Unit Excavation 237 315 | 0.4 | chipping detritus | 40 | tool thinning | Onondaga | |
| 18 | Test Unit Excavation 237 315 | 0.4 | chipping detritus | 8 | secondary | Onondaga | |
| 19 | Test Unit Excavation 236 317 | 0.36 | chipping detritus | 3 | secondary | Onondaga | |
| 20 | Test Unit Excavation 236 317 | 0.36 | chipping detritus | 9 | fragment | Onondaga | |
| 21 | Test Unit Excavation 236 318 | 0.35 | chipping detritus | 4 | fragment | Onondaga | |
| 22 | Test Unit Excavation 236 318 | 0.35 | chipping detritus | 1 | tool thinning | Onondaga | |
| 23 | Test Unit Excavation 238 316 | 0.41 | chipping detritus | 2 | secondary | Onondaga | |
| 24 | Test Unit Excavation 238 316 | 0.41 | chipping detritus | 9 | fragment | Onondaga | |
| 25 | Test Unit Excavation 238 316 | 0.41 | biface | 1 | | Onondaga | 30.0mm; 17.0mm; 4.0mm |
| 26 | Test Unit Excavation 238 317 | 0.35 | chipping detritus | 2 | secondary | Onondaga | |
| 27 | Test Unit Excavation 238 317 | 0.35 | chipping detritus | 15 | fragment | Onondaga | |
| 28 | Test Unit Excavation 238 317 | 0.35 | chipping detritus | 2 | tool thinning | Onondaga | |
| 29 | Test Unit Excavation 238 318 | 0.33 | chipping detritus | 19 | fragment | Onondaga | |
| 30 | Test Unit Excavation 238 318 | 0.33 | chipping detritus | 3 | tool thinning | Onondaga | |
| 31 | Test Unit Excavation 238 319 | 0.34 | chipping detritus | 1 | shatter | Onondaga | |
| 32 | Test Unit Excavation 238 319 | 0.34 | chipping detritus | 3 | fragment | Onondaga | |
| 33 | Test Unit Excavation 238 319 | 0.34 | chipping detritus | 1 | tool thinning | Onondaga | |
| 34 | Test Unit Excavation 238 310 | 0.41 | chipping detritus | 3 | secondary | Onondaga | |

| Cat # | Context: Easting and Northing | Unit Depth (m) | Artifact | Freq. | Morphology | Chert Type | Comments |
|---|---|---|---|---|---|---|---|
| 35 | Test Unit Excavation 239 310 | 0.42 | chipping detritus | 3 | tool thinning | Onondaga | |
| 36 | Test Unit Excavation 239 310 | 0.42 | chipping detritus | 1 | fragment | Onondaga | |
| 37 | Test Unit Excavation 239 311 | 0.41 | chipping detritus | 8 | tool thinning | Onondaga | |
| 38 | Test Unit Excavation 239 311 | 0.41 | chipping detritus | 5 | fragment | Onondaga | |
| 39 | Test Unit Excavation 239 312 | 0.41 | chipping detritus | 2 | secondary | Onondaga | |
| 40 | Test Unit Excavation 239 312 | 0.41 | chipping detritus | 4 | tool thinning | Onondaga | |
| 41 | Test Unit Excavation 239 312 | 0.41 | chipping detritus | 8 | fragment | Onondaga | |
| 42 | Test Unit Excavation 238 314 | 0.43 | chipping detritus | 9 | tool thinning | Onondaga | |
| 43 | Test Unit Excavation 238 314 | 0.43 | chipping detritus | 3 | shatter | Onondaga | |
| 44 | Test Unit Excavation 238 314 | 0.43 | chipping detritus | 50 | fragment | Onondaga | |
| 45 | Test Unit Excavation 238 314 | 0.43 | chipping detritus | 12 | secondary | Onondaga | |
| 46 | Test Unit Excavation 239 315 | 0.45 | chipping detritus | 37 | fragment | Onondaga | |
| 47 | Test Unit Excavation 239 315 | 0.45 | chipping detritus | 26 | tool thinning | Onondaga | |
| 48 | Test Unit Excavation 239 315 | 0.45 | chipping detritus | 7 | secondary | Onondaga | |
| 49 | Test Unit Excavation 239 316 | 0.41 | chipping detritus | 17 | secondary | Onondaga | |
| 50 | Test Unit Excavation 239 316 | 0.41 | chipping detritus | 25 | fragment | Onondaga | |
| 51 | Test Unit Excavation 239 316 | 0.41 | chipping detritus | 4 | tool thinning | Onondaga | |
| 52 | Test Unit Excavation 239 314 | 0.45 | chipping detritus | 7 | secondary | Onondaga | |
| 53 | Test Unit Excavation 239 314 | 0.45 | chipping detritus | 7 | tool thinning | Onondaga | |
| 54 | Test Unit Excavation 239 314 | 0.45 | chipping detritus | 18 | fragment | Onondaga | |
| 55 | Test Unit Excavation 239 319 | 0.31 | chipping detritus | 1 | fragment | Onondaga | |
| 56 | Test Unit Excavation 239 318 | 0.32 | chipping detritus | 1 | tool thinning | Onondaga | |
| 57 | Test Unit Excavation 239 318 | 0.32 | chipping detritus | 1 | secondary | Onondaga | |
| 58 | Test Unit Excavation 239 318 | 0.32 | chipping detritus | 6 | fragment | Onondaga | |
| 59 | Test Unit Excavation 239 317 | 0.38 | chipping detritus | 3 | secondary | Onondaga | |
| 60 | Test Unit Excavation 239 317 | 0.38 | chipping detritus | 5 | fragment | Onondaga | |
| 61 | Test Unit Excavation 240 318 | 0.31 | chipping detritus | 3 | fragment | Onondaga | |
| 62 | Test Unit Excavation 240 318 | 0.31 | chipping detritus | 2 | tool thinning | Onondaga | |
| 63 | Test Unit Excavation 240 318 | 0.31 | chipping detritus | 4 | secondary | Onondaga | |
| 64 | Test Unit Excavation 240 313 | 0.43 | chipping detritus | 5 | secondary | Onondaga | |
| 65 | Test Unit Excavation 240 313 | 0.43 | chipping detritus | 22 | fragment | Onondaga | |
| 66 | Test Unit Excavation 240 313 | 0.43 | chipping detritus | 7 | shatter | Onondaga | |
| 67 | Test Unit Excavation 240 313 | 0.43 | chipping detritus | 10 | tool thinning | Onondaga | |
| 68 | Test Unit Excavation 240 312 | 0.42 | chipping detritus | 2 | secondary | Onondaga | |
| 69 | Test Unit Excavation 240 312 | 0.42 | chipping detritus | 5 | fragment | Onondaga | |
| 70 | Test Unit Excavation 240 312 | 0.42 | chipping detritus | 2 | tool thinning | Onondaga | |
| 71 | Test Unit Excavation 240 316 | 0.4 | chipping detritus | 3 | secondary | Onondaga | |
| 72 | Test Unit Excavation 240 316 | 0.4 | chipping detritus | 4 | fragment | Onondaga | |

| Cat # | Context: Easting and Northing | Unit Depth (m) | Artifact | Freq. | Morphology | Chert Type | Comments |
|---|---|---|---|---|---|---|---|
| 73 | Test Unit Excavation 240 317 | 0.39 | chipping detritus | 9 | fragment | Onondaga | |
| 74 | Test Unit Excavation 241 315 | 0.44 | chipping detritus | 5 | fragment | Onondaga | |
| 75 | Test Unit Excavation 241 315 | 0.44 | chipping detritus | 3 | tool thinning | Onondaga | |
| 76 | Test Unit Excavation 241 315 | 0.44 | chipping detritus | 8 | secondary | Onondaga | |
| 77 | Test Unit Excavation 241 316 | 0.39 | chipping detritus | 6 | fragment | Onondaga | |
| 78 | Test Unit Excavation 241 316 | 0.39 | chipping detritus | 1 | tool thinning | Onondaga | |
| 79 | Test Unit Excavation 241 316 | 0.39 | chipping detritus | 2 | secondary | Onondaga | |
| 80 | Test Unit Excavation 240 314 | 0.45 | core | 1 | | Onondaga | |
| 81 | Test Unit Excavation 240 314 | 0.45 | chipping detritus | 1 | primary | Onondaga | |
| 82 | Test Unit Excavation 240 314 | 0.45 | chipping detritus | 8 | secondary | Onondaga | |
| 83 | Test Unit Excavation 240 314 | 0.45 | chipping detritus | 30 | tool thinning | Onondaga | |
| 84 | Test Unit Excavation 240 314 | 0.45 | chipping detritus | 66 | fragment | Onondaga | |
| 85 | Test Unit Excavation 239 313 | 0.41 | chipping detritus | 3 | shatter | Onondaga | |
| 86 | Test Unit Excavation 239 313 | 0.41 | chipping detritus | 16 | secondary | Onondaga | |
| 87 | Test Unit Excavation 239 313 | 0.41 | chipping detritus | 1 | secondary | Flint ridge | |
| 88 | Test Unit Excavation 239 313 | 0.41 | chipping detritus | 35 | fragment | Onondaga | |
| 89 | Test Unit Excavation 239 313 | 0.41 | chipping detritus | 13 | tool thinning | Onondaga | |
| 90 | Test Unit Excavation 239 313 | 0.41 | biface | 1 | | Onondaga | 41.00mm; 33.00mm; 13.00mm |
| 91 | Test Unit Excavation 239 313 | 0.41 | retouched flake | 1 | | Onondaga | |
| 92 | Test Unit Excavation 241 311 | 0.41 | chipping detritus | 3 | tool thinning | Onondaga | |
| 93 | Test Unit Excavation 241 312 | 0.4 | chipping detritus | 6 | fragment | Onondaga | |
| 94 | Test Unit Excavation 241 312 | 0.4 | chipping detritus | 7 | tool thinning | Onondaga | |
| 95 | Test Unit Excavation 241 312 | 0.4 | chipping detritus | 3 | secondary | Onondaga | |
| 96 | Test Unit Excavation 241 318 | 0.34 | chipping detritus | 3 | fragment | Onondaga | |
| 97 | Test Unit Excavation 241 317 | 0.39 | chipping detritus | 1 | tool thinning | Onondaga | |
| 98 | Test Unit Excavation 241 317 | 0.39 | chipping detritus | 2 | secondary | Onondaga | |
| 99 | Test Unit Excavation 241 317 | 0.39 | chipping detritus | 2 | fragment | Onondaga | |
| 100 | Test Unit Excavation 241 313 | 0.45 | chipping detritus | 24 | fragment | Onondaga | |
| 101 | Test Unit Excavation 241 313 | 0.45 | chipping detritus | 10 | tool thinning | Onondaga | |
| 102 | Test Unit Excavation 241 313 | 0.45 | chipping detritus | 7 | secondary | Onondaga | |
| 103 | Test Unit Excavation 242 311 | 0.41 | chipping detritus | 3 | tool thinning | Onondaga | |
| 104 | Test Unit Excavation 242 311 | 0.41 | chipping detritus | 3 | fragment | Onondaga | |
| 105 | Test Unit Excavation 242 312 | 0.42 | chipping detritus | 1 | secondary | Onondaga | |
| 106 | Test Unit Excavation 242 312 | 0.42 | chipping detritus | 1 | tool thinning | Onondaga | |
| 107 | Test Unit Excavation 242 312 | 0.42 | chipping detritus | 2 | fragment | Onondaga | |
| 108 | Test Unit Excavation 242 314 | 0.44 | chipping detritus | 1 | secondary | Onondaga | |
| 109 | Test Unit Excavation 242 314 | 0.44 | chipping detritus | 7 | fragment | Onondaga | |
| 110 | Test Unit Excavation 242 316 | 0.45 | chipping detritus | 5 | tool thinning | Onondaga | |

| Cat # | Context: Easting and Northing | Unit Depth (m) | Artifact | Freq. | Morphology | Chert Type | Comments |
|---|---|---|---|---|---|---|---|
| 111 | Test Unit Excavation 242 316 | 0.45 | chipping detritus | 3 | fragment | Onondaga | |
| 112 | Test Unit Excavation 242 318 | 0.38 | chipping detritus | 2 | fragment | Onondaga | |
| 113 | Test Unit Excavation 241 314 | 0.43 | chipping detritus | 3 | secondary | Onondaga | |
| 114 | Test Unit Excavation 241 314 | 0.43 | chipping detritus | 15 | fragment | Onondaga | |
| 115 | Test Unit Excavation 241 314 | 0.43 | chipping detritus | 5 | shatter | Onondaga | |
| 116 | Test Unit Excavation 241 314 | 0.43 | chipping detritus | 5 | tool thinning | Onondaga | |
| 117 | Test Unit Excavation 242 315 | 0.42 | chipping detritus | 4 | secondary | Onondaga | |
| 118 | Test Unit Excavation 242 315 | 0.42 | chipping detritus | 23 | fragment | Onondaga | |
| 119 | Test Unit Excavation 242 315 | 0.42 | chipping detritus | 6 | shatter | Onondaga | |
| 120 | Test Unit Excavation 242 315 | 0.42 | chipping detritus | 13 | tool thinning | Onondaga | |
| 121 | Test Unit Excavation 242 313 | 0.43 | chipping detritus | 1 | secondary | Onondaga | |
| 122 | Test Unit Excavation 242 313 | 0.43 | chipping detritus | 6 | fragment | Onondaga | |
| 123 | Test Unit Excavation 243 316 | 0.42 | chipping detritus | 9 | secondary | Onondaga | |
| 124 | Test Unit Excavation 243 316 | 0.42 | chipping detritus | 22 | fragment | Onondaga | |
| 125 | Test Unit Excavation 243 316 | 0.42 | chipping detritus | 3 | tool thinning | Onondaga | |
| 126 | Test Unit Excavation 243 313 | 0.43 | chipping detritus | 4 | secondary | Onondaga | |
| 127 | Test Unit Excavation 243 315 | 0.41 | chipping detritus | 5 | fragment | Onondaga | |
| 128 | Test Unit Excavation 243 315 | 0.41 | chipping detritus | 8 | secondary | Onondaga | |
| 129 | Test Unit Excavation 243 318 | 0.34 | chipping detritus | 2 | secondary | Onondaga | |
| 130 | Test Unit Excavation 243 318 | 0.34 | chipping detritus | 1 | tool thinning | Onondaga | |
| 131 | Test Unit Excavation 243 318 | 0.34 | chipping detritus | 6 | fragment | Onondaga | |
| 132 | Test Unit Excavation 244 315 | 0.41 | chipping detritus | 1 | primary | Onondaga | |
| 133 | Test Unit Excavation 244 315 | 0.41 | chipping detritus | 2 | secondary | Onondaga | |
| 134 | Test Unit Excavation 244 315 | 0.41 | chipping detritus | 6 | fragment | Onondaga | |
| 135 | Test Unit Excavation 245 314 | 0.41 | chipping detritus | 10 | secondary | Onondaga | |
| 136 | Test Unit Excavation 243 312 | 0.41 | chipping detritus | 4 | fragment | Onondaga | |
| 137 | Test Unit Excavation 243 312 | 0.41 | chipping detritus | 1 | secondary | Onondaga | |
| 138 | Test Unit Excavation 243 314 | 0.47 | chipping detritus | 2 | tool thinning | Onondaga | |
| 139 | Test Unit Excavation 243 314 | 0.47 | chipping detritus | 11 | microflake | Onondaga | |
| 140 | Test Unit Excavation 243 314 | 0.47 | chipping detritus | 3 | secondary | Onondaga | |
| 141 | Test Unit Excavation 243 317 | 0.42 | chipping detritus | 10 | fragment | Onondaga | |
| 142 | Test Unit Excavation 243 317 | 0.42 | chipping detritus | 7 | tool thinning | Onondaga | |
| 143 | Test Unit Excavation 244 312 | 0.42 | chipping detritus | 2 | secondary | Onondaga | |
| 144 | Test Unit Excavation 244 312 | 0.42 | chipping detritus | 3 | tool thinning | Onondaga | |
| 145 | Test Unit Excavation 244 312 | 0.42 | chipping detritus | 2 | fragment | Onondaga | |
| 146 | Test Unit Excavation 244 314 | 0.43 | chipping detritus | 5 | secondary | Onondaga | |
| 147 | Test Unit Excavation 244 314 | 0.43 | chipping detritus | 10 | tool thinning | Onondaga | |
| 148 | Test Unit Excavation 244 314 | 0.43 | chipping detritus | 13 | fragment | Onondaga | |

| Cat # | Context: Easting and Northing | Unit Depth (m) | Artifact | Freq. | Morphology | Chert Type | Comments |
|---|---|---|---|---|---|---|---|
| 149 | Test Unit Excavation 244 316 | 0.41 | chipping detritus | 6 | secondary | Onondaga | |
| 150 | Test Unit Excavation 244 316 | 0.41 | chipping detritus | 8 | tool thinning | Onondaga | |
| 151 | Test Unit Excavation 244 316 | 0.41 | chipping detritus | 8 | fragment | Onondaga | |
| 152 | Test Unit Excavation 244 313 | 0.38 | chipping detritus | 6 | secondary | Onondaga | |
| 153 | Test Unit Excavation 244 313 | 0.38 | chipping detritus | 6 | tool thinning | Onondaga | |
| 154 | Test Unit Excavation 244 313 | 0.38 | chipping detritus | 6 | fragment | Onondaga | |
| 155 | Test Unit Excavation 244 317 | 0.45 | chipping detritus | 4 | fragment | Onondaga | |
| 156 | Test Unit Excavation 244 317 | 0.45 | chipping detritus | 2 | secondary | Onondaga | |
| 157 | Test Unit Excavation 244 318 | 0.4 | chipping detritus | 3 | tool thinning | Onondaga | |
| 158 | Test Unit Excavation 244 318 | 0.4 | chipping detritus | 1 | fragment | Onondaga | |
| 159 | Test Unit Excavation 244 318 | 0.4 | chipping detritus | 3 | secondary | Onondaga | |
| 160 | Test Unit Excavation 246 315 | 0.4 | chipping detritus | 1 | fragment | Onondaga | |
| 161 | Test Unit Excavation 246 315 | 0.4 | chipping detritus | 7 | secondary | Onondaga | |
| 162 | Test Unit Excavation 246 316 | 0.52 | chipping detritus | 1 | secondary | Onondaga | |
| 163 | Test Unit Excavation 246 316 | 0.52 | chipping detritus | 10 | fragment | Onondaga | |
| 164 | Test Unit Excavation 246 316 | 0.52 | chipping detritus | 3 | tool thinning | Onondaga | |
| 165 | Test Unit Excavation 245 312 | 0.37 | chipping detritus | 6 | fragment | Onondaga | |
| 166 | Test Unit Excavation 245 313 | 0.4 | chipping detritus | 4 | fragment | Onondaga | |
| 167 | Test Unit Excavation 245 313 | 0.4 | chipping detritus | 3 | tool thinning | Onondaga | |
| 168 | Test Unit Excavation 245 316 | 0.4 | chipping detritus | 1 | secondary | Onondaga | |
| 169 | Test Unit Excavation 245 316 | 0.4 | chipping detritus | 7 | fragment | Onondaga | |
| 170 | Test Unit Excavation 245 317 | 0.4 | chipping detritus | 5 | fragment | Onondaga | |
| 171 | Test Unit Excavation 247 315 | 0.38 | chipping detritus | 2 | secondary | Onondaga | |
| 172 | Test Unit Excavation 247 315 | 0.38 | chipping detritus | 2 | fragment | Onondaga | |
| 173 | Test Unit Excavation 247 313 | 0.41 | chipping detritus | 1 | fragment | Onondaga | |
| 174 | Test Unit Excavation 247 316 | 0.42 | chipping detritus | 4 | secondary | Onondaga | |
| 175 | Test Unit Excavation 247 316 | 0.42 | chipping detritus | 2 | tool thinning | Onondaga | |
| 176 | Test Unit Excavation 247 316 | 0.42 | chipping detritus | 2 | fragment | Onondaga | |
| 177 | Test Unit Excavation 247 314 | 0.43 | chipping detritus | 1 | secondary | Onondaga | |
| 178 | Test Unit Excavation 247 314 | 0.43 | chipping detritus | 1 | fragment | Onondaga | |
| 179 | Test Unit Excavation 235 318 | 0.45 | chipping detritus | 1 | secondary | Onondaga | |
| 180 | Test Unit Excavation 235 318 | 0.45 | chipping detritus | 20 | fragment | Onondaga | |
| 181 | Test Unit Excavation 246 317 | 0.42 | chipping detritus | 2 | tool thinning | Onondaga | |
| 182 | Test Unit Excavation 246 317 | 0.42 | chipping detritus | 4 | fragment | Onondaga | |
| 183 | Test Unit Excavation 246 317 | 0.42 | chipping detritus | 1 | secondary | Onondaga | |
| 184 | Test Unit Excavation 246 313 | 0.39 | chipping detritus | 6 | fragment | Onondaga | |
| 185 | Test Unit Excavation 246 313 | 0.39 | chipping detritus | 3 | secondary | Onondaga | |
| 186 | Test Unit Excavation 246 314 | 0.42 | chipping detritus | 2 | tool thinning | Onondaga | |

| Cat # | Context: Easting and Northing | Unit Depth (m) | Artifact | Freq. | Morphology | Chert Type | Comments |
|---|---|---|---|---|---|---|---|
| 187 | Test Unit Excavation 246 314 | 0.42 | chipping detritus | 1 | secondary | Onondaga | |
| 188 | Test Unit Excavation 246 314 | 0.42 | chipping detritus | 9 | fragment | Onondaga | |
| 189 | Test Unit Excavation 230 311 | 0.37 | chipping detritus | 3 | fragment | Onondaga | |
| 190 | Test Unit Excavation 230 312 | 0.4 | chipping detritus | 2 | fragment | Onondaga | |
| 191 | Test Unit Excavation 230 313 | 0.47 | chipping detritus | 3 | fragment | Onondaga | |
| 192 | Test Unit Excavation 230 313 | 0.47 | chipping detritus | 1 | shatter | Onondaga | |
| 193 | Test Unit Excavation 230 314 | 0.46 | chipping detritus | 4 | fragment | Onondaga | |
| 194 | Test Unit Excavation 230 314 | 0.46 | chipping detritus | 1 | shatter | Onondaga | |
| 195 | Test Unit Excavation 230 316 | 0.38 | chipping detritus | 2 | secondary | Onondaga | |
| 196 | Test Unit Excavation 230 316 | 0.38 | chipping detritus | 4 | fragment | Onondaga | |
| 197 | Test Unit Excavation 231 311 | 0.38 | chipping detritus | 2 | fragment | Onondaga | |
| 198 | Test Unit Excavation 231 312 | 0.4 | chipping detritus | 13 | fragment | Onondaga | |
| 199 | Test Unit Excavation 231 312 | 0.4 | chipping detritus | 1 | secondary | Onondaga | |
| 200 | Test Unit Excavation 231 313 | 0.45 | chipping detritus | 23 | fragment | Onondaga | |
| 201 | Test Unit Excavation 231 314 | 0.43 | chipping detritus | 19 | fragment | Onondaga | |
| 202 | Test Unit Excavation 231 315 | 0.34 | chipping detritus | 21 | fragment | Onondaga | |
| 203 | Test Unit Excavation 231 316 | 0.34 | chipping detritus | 7 | fragment | Onondaga | |
| 204 | Test Unit Excavation 231 317 | 0.31 | chipping detritus | 2 | fragment | Onondaga | |
| 205 | Test Unit Excavation 232 311 | 0.4 | chipping detritus | 3 | fragment | Onondaga | |
| 206 | Test Unit Excavation 232 311 | 0.4 | chipping detritus | 1 | shatter | Onondaga | |
| 207 | Test Unit Excavation 232 312 | 0.4 | chipping detritus | 2 | secondary | Onondaga | |
| 208 | Test Unit Excavation 232 312 | 0.4 | chipping detritus | 20 | fragment | Onondaga | |
| 209 | Test Unit Excavation 232 312 | 0.4 | chipping detritus | 2 | tool thinning | Onondaga | |
| 210 | Test Unit Excavation 232 313 | 0.43 | chipping detritus | 1 | secondary | Onondaga | |
| 211 | Test Unit Excavation 232 313 | 0.43 | chipping detritus | 36 | fragment | Onondaga | |
| 212 | Test Unit Excavation 232 314 | 0.4 | chipping detritus | 31 | fragment | Onondaga | |
| 213 | Test Unit Excavation 232 314 | 0.4 | retouched flake | 1 | | Onondaga | |
| 214 | Test Unit Excavation 232 315 | 0.4 | chipping detritus | 34 | fragment | Onondaga | |
| 215 | Test Unit Excavation 232 316 | 0.35 | chipping detritus | 26 | fragment | Onondaga | |
| 216 | Test Unit Excavation 232 317 | 0.32 | chipping detritus | 4 | fragment | Onondaga | |
| 217 | Test Unit Excavation 232 317 | 0.32 | chipping detritus | 3 | shatter | Onondaga | |
| 218 | Test Unit Excavation 232 318 | 0.32 | chipping detritus | 8 | fragment | Onondaga | |
| 219 | Test Unit Excavation 236 313 | 0.5 | chipping detritus | 5 | secondary | Onondaga | |
| 220 | Test Unit Excavation 236 313 | 0.5 | chipping detritus | 30 | fragment | Onondaga | |
| 221 | Test Unit Excavation 236 315 | 0.41 | chipping detritus | 29 | fragment | Onondaga | |
| 222 | Test Unit Excavation 236 312 | 0.48 | chipping detritus | 18 | fragment | Onondaga | |
| 223 | Test Unit Excavation 236 311 | 0.46 | chipping detritus | 7 | fragment | Onondaga | |
| 224 | Test Unit Excavation 235 312 | 0.48 | chipping detritus | 3 | secondary | Onondaga | |

| Cat # | Context: Easting and Northing | Unit Depth (m) | Artifact | Freq. | Morphology | Chert Type | Comments |
|---|---|---|---|---|---|---|---|
| 225 | Test Unit Excavation 235 312 | 0.48 | chipping detritus | 40 | fragment | Onondaga | |
| 226 | Test Unit Excavation 235 311 | 0.42 | chipping detritus | 5 | fragment | Onondaga | |
| 227 | Test Unit Excavation 235 316 | 0.34 | chipping detritus | 3 | secondary | Onondaga | |
| 228 | Test Unit Excavation 235 316 | 0.34 | chipping detritus | 26 | fragment | Onondaga | |
| 229 | Test Unit Excavation 235 316 | 0.34 | chipping detritus | 3 | tool thinning | Onondaga | |
| 230 | Test Unit Excavation 235 313 | 0.5 | chipping detritus | 5 | secondary | Onondaga | |
| 231 | Test Unit Excavation 235 313 | 0.5 | chipping detritus | 47 | fragment | Onondaga | |
| 232 | Test Unit Excavation 235 313 | 0.5 | chipping detritus | 4 | tool thinning | Onondaga | |
| 233 | Test Unit Excavation 234 313 | 0.48 | chipping detritus | 4 | secondary | Onondaga | |
| 234 | Test Unit Excavation 234 313 | 0.48 | chipping detritus | 49 | fragment | Onondaga | |
| 235 | Test Unit Excavation 234 311 | 0.45 | chipping detritus | 2 | fragment | Onondaga | |
| 236 | Test Unit Excavation 234 312 | 0.45 | chipping detritus | 20 | fragment | Onondaga | |
| 237 | Test Unit Excavation 234 312 | 0.45 | chipping detritus | 5 | tool thinning | Onondaga | |
| 238 | Test Unit Excavation 234 319 | 0.3 | chipping detritus | 5 | fragment | Onondaga | |
| 239 | Test Unit Excavation 234 315 | 0.46 | chipping detritus | 34 | fragment | Onondaga | |
| 240 | Test Unit Excavation 234 315 | 0.46 | chipping detritus | 7 | tool thinning | Onondaga | |
| 241 | Test Unit Excavation 234 317 | 0.34 | chipping detritus | 1 | secondary | Onondaga | |
| 242 | Test Unit Excavation 234 317 | 0.34 | chipping detritus | 18 | fragment | Onondaga | |
| 243 | Test Unit Excavation 234 317 | 0.34 | projectile point | 1 | | Onondaga | 50.00mm; 20.00mm; 6.00mm; 3.00mm; 17.00mm; 20.00mm |
| 244 | Test Unit Excavation 234 314 | 0.42 | chipping detritus | 5 | secondary | Onondaga | |
| 245 | Test Unit Excavation 234 314 | 0.42 | chipping detritus | 49 | fragment | Onondaga | |
| 246 | Test Unit Excavation 234 314 | 0.42 | chipping detritus | 4 | tool thinning | Onondaga | |
| 247 | Test Unit Excavation 234 314 | 0.42 | biface | 1 | | Onondaga | 40mm; 25mm; 9mm |
| 248 | Test Unit Excavation 234 316 | 0.39 | chipping detritus | 1 | secondary | Onondaga | |
| 249 | Test Unit Excavation 234 316 | 0.39 | chipping detritus | 51 | fragment | Onondaga | |
| 250 | Test Unit Excavation 233 311 | 0.36 | chipping detritus | 8 | fragment | Onondaga | |
| 251 | Test Unit Excavation 233 313 | 0.41 | chipping detritus | 2 | secondary | Onondaga | |
| 252 | Test Unit Excavation 233 313 | 0.41 | chipping detritus | 54 | fragment | Onondaga | |
| 253 | Test Unit Excavation 233 313 | 0.41 | chipping detritus | 2 | tool thinning | Onondaga | |
| 254 | Test Unit Excavation 233 315 | 0.37 | chipping detritus | 1 | secondary | Onondaga | |
| 255 | Test Unit Excavation 233 315 | 0.37 | chipping detritus | 16 | fragment | Onondaga | |
| 256 | Test Unit Excavation 233 312 | 0.47 | chipping detritus | 63 | fragment | Onondaga | |
| 257 | Test Unit Excavation 233 312 | 0.47 | chipping detritus | 3 | tool thinning | Onondaga | |
| 258 | Test Unit Excavation 233 314 | 0.4 | chipping detritus | 54 | fragment | Onondaga | |
| 259 | Test Unit Excavation 233 314 | 0.4 | chipping detritus | 4 | tool thinning | Onondaga | |
| 260 | Test Unit Excavation 233 318 | 0.33 | chipping detritus | 5 | fragment | Onondaga | |
| 261 | Test Unit Excavation 233 317 | 0.35 | chipping detritus | 12 | fragment | Onondaga | |

| Cat # | Context: Easting and Northing | Unit Depth (m) | Artifact | Freq. | Morphology | Chert Type | Comments |
|---|---|---|---|---|---|---|---|
| 262 | Test Unit Excavation 233 316 | 0.38 | chipping detritus | 1 | secondary | Onondaga | |
| 263 | Test Unit Excavation 233 316 | 0.38 | chipping detritus | 24 | fragment | Onondaga | |
| 264 | Test Unit Excavation 234 318 | 0.35 | chipping detritus | 6 | fragment | Onondaga | |
| 265 | Test Unit Excavation 235 317 | 0.33 | chipping detritus | 9 | fragment | Onondaga | |
| 266 | Test Unit Excavation 235 317 | 0.33 | chipping detritus | 8 | tool thinning | Onondaga | |
| 267 | Test Unit Excavation 235 314 | 0.5 | chipping detritus | 16 | fragment | Onondaga | |
| 268 | Test Unit Excavation 235 314 | 0.5 | chipping detritus | 25 | tool thinning | Onondaga | |
| 269 | Test Unit Excavation 235 319 | 0.35 | chipping detritus | 5 | fragment | Onondaga | |
| 270 | Test Unit Excavation 236 316 | 0.37 | chipping detritus | 15 | fragment | Onondaga | |
| 271 | Test Unit Excavation 236 316 | 0.37 | chipping detritus | 6 | tool thinning | Onondaga | |
| 272 | Test Unit Excavation 236 319 | 0.31 | chipping detritus | 4 | fragment | Onondaga | |
| 273 | Test Unit Excavation 236 319 | 0.31 | chipping detritus | 4 | tool thinning | Onondaga | |
| 274 | Test Unit Excavation 238 311 | 0.41 | chipping detritus | 9 | fragment | Onondaga | |
| 275 | Test Unit Excavation 237 311 | 0.44 | chipping detritus | 3 | tool thinning | Onondaga | |
| 276 | Test Unit Excavation 237 311 | 0.44 | chipping detritus | 2 | shatter | Onondaga | |
| 277 | Test Unit Excavation 237 314 | 0.52 | chipping detritus | 52 | fragment | Onondaga | |
| 278 | Test Unit Excavation 237 314 | 0.52 | chipping detritus | 2 | shatter | Onondaga | |
| 279 | Test Unit Excavation 237 316 | 0.4 | chipping detritus | 14 | fragment | Onondaga | |
| 280 | Test Unit Excavation 237 312 | 0.45 | chipping detritus | 23 | fragment | Onondaga | |
| 281 | Test Unit Excavation 236 314 | 0.53 | chipping detritus | 57 | fragment | Onondaga | |
| 282 | Test Unit Excavation 236 314 | 0.53 | chipping detritus | 11 | tool thinning | Onondaga | |