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September 25, 2012

Mr. Glen Tomkinson
Penn Energy Renewables Ltd.
1 Yonge Street, Suite 1801
Toronto, ON M5E 1W7
glen@pennrealestategroup.com

RE: Brantgate Solar Facility Project, Lots 1 and 2, Concession 11, Geographic Township of Burford, Brant County, Ontario, FIT Application Number: FIT-FCELIHJ (Consolidated from: FIT-FCELIHJ, FIT-FJVVSKP, FIT-F41M94U) FIT Contract Number: F-001576-SPV-130-505 (Consolidated from: F-001576-SPV-130-505, F-001577-SPV-130-505, F-001578-SPV-130-505), PIF # P025-220-2011, MTCS RIMS Number HD00448

Dear Proponent:

This letter constitutes the Ministry of Tourism and Culture's written comments as required by s. 22(3)(a) of O. Reg. 359/09 under the *Environmental Protection Act* regarding archaeological assessments undertaken for the above project.

Based on the information contained in the report you have submitted for this project, the Ministry believes the archaeological assessment complies with the *Ontario Heritage Act's* licensing requirements, including the licence terms and conditions and the Ministry's 1993 Archaeological Assessment Technical Guidelines or the 2011 Standards and Guidelines for Consultant Archaeologists (whichever apply). Please note that the Ministry makes no representation or warranty as to the completeness, accuracy or quality of the reports.*

The report recommends the following:

Stage 1-2, P025-220-2011, Dated September 20, 2012, Received by MTCS on September 25, 2012, MTCS Satisfaction Letter issued September 25, 2012

At the discretion of the proponent, the area where historic material was found, along with an appropriate sized buffer, was removed from the development area as shown in the revised plan Map 10.2. as per Section 7.5.12 Standard 4 (MTCS, 2011). Taking this into consideration, this report does not find it necessary to proceed with any further archaeological work in this area as the material is outside of the project location boundary as defined in Maps 10.2, and therefore not

in danger of being disturbed. Any work or use of machinery with a risk of soil disturbance in the proximity of this buffer zone should be monitored by a licenced archaeologist.

Any consideration of development in the site area containing the historical archaeological resources identified in Map 1 of the Supplementary Documentation Package must be proceeded by further archaeological investigation to determine the need for Stage 3 assessment.

The pre-contact lithics recovered during initial and intensified pedestrian survey/Stage 2 excavation of the fields within the subject property did not result in the recovery of sufficient material to be considered a site, nor to proceed to Stage 3 assessment (Stand. 1. a. i, (1), (3), Sect. 2.2, MTC, 2011) It is therefore the recommendation of this report that no further archaeological work is required within the development area.

The Ministry is satisfied with these recommendations.

This letter does not waive any requirements which you may have under the Ontario *Heritage Act*. A separate letter addressing archaeological licensing obligations under the Act will be sent to the archaeologist who completed the assessment and will be copied to you.

This letter does not constitute approval of the renewable energy project. Approvals of the project may be required under other statutes and regulations. It is your responsibility to obtain any necessary approvals or licences.

Please feel free to contact me if you have questions or require additional information.

Sincerely,

Shari Prowse
Archaeology Review Officer

cc. Dr. Lawrence Jackson, Northeastern Archaeological Associates Ltd.

** In no way will the Ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*

STAGE 1 TO 2 ARCHAEOLOGICAL ASSESSMENT OF THE BRANTGATE SOLAR FACILITY
PROJECT, LOTS 1 AND 2, CONCESSION 11, GEOGRAPHIC TOWNSHIP OF BURFORD, BRANT
COUNTY, ONTARIO.

FIT Application Number: FIT-FCELIHJ
(Consolidated from: FIT-FCELIHJ, FIT-FJVVSKP, FIT-F41M94U)

FIT Contract Number: F-001576-SPV-130-505
(Consolidated from: F-001576-SPV-130-505, F-001577-SPV-130-505, F-001578-SPV-130-505)

Type of Report: Revised

For:

Penn Energy Renewables, Ltd.

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Bala Cynwyd
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Ph: 610-668-0300

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From:

Northeastern Archaeological Associates Ltd.
Licenced to: Dr. Lawrence Jackson (P-025)
PIF#: P-025-220-2011

September 20, 2012

Northeastern Archaeological Associates Limited
P.O. Box 493,
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EXECUTIVE SUMMARY

In the spring of 2011 Northeastern Archaeological Associates Limited was contacted by a representative of Penn Energy Renewables Ltd. who requested that, in compliance with the requirements outlined by the Ministry of Tourism and Culture and the Renewable Energy Approval Regulation (O.Reg. 359/09), an archaeological assessment be conducted at the proposed location an 8.5 megawatt solar energy generation facility. Development plans indicate that the arrays would cover 30 hectares in part of lots 1 and 2 in concession 11, geographic Township of Burford, Brant County, Ontario. Stage 1 research conducted in relation to this property indicates that it is of high archaeological potential, as outlined by the Ministry of Tourism and Culture, due to its proximity to known archaeological sites and areas of historic development. Stage 2 testing of this property therefore took place at a high potential (5 meter) interval. A trained Six Nations representative, Aiyana Maracle, was on site at all times during the assessment. The proposed development property consists of a series of large crop fields, a small area of lawn surrounding a house and greenhouse, and a large disturbed area associated with a decommissioned quarry. In accordance with Ministry standards, the fields were tested by means of pedestrian survey and the unploughed lawn was tested by means of test-pitting. The disturbed area of the property was considered to have zero potential, and was therefore not tested. Testing was conducted under clear conditions in the spring and fall of 2011. This survey resulted in the discovery of several fragments of pre-contact lithic artifacts, as well as a small amount of Euro-Canadian historic artifacts.

The pre-contact artifacts did not meet the requirements for an archaeological site as per the 2011 Standards and Guidelines for Consultant Archaeologists (MTC, 2011). The area where the historic material was located was subsequently removed from the development area along with a large (70+ meter) buffer area. Consequently, it is the recommendation of Northeastern Archaeological Associates Limited that the development property does not require further archaeological assessment. If any further archaeological resources should be discovered during the course of development, all excavation must stop immediately and an archaeologist must be contacted.

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1.0 PROJECT PERSONNEL

Name	Licence Number	Position
Lawrence Jackson Ph. D.	P-025	Senior Archaeologist Project Director
Marika Atfield	R-333	Field Director, Report Preparation
Justin Tighe	N/A	Field Technician, Report Preparation
Myles Allen	N/A	Field Technician
Kris Martin	N/A	Field Technician
Aiyana Maracle	N/A	Six Nations Monitor

2.0 PROJECT CONTEXT

2.1 Development Context

In compliance with the Ontario Ministry of Tourism and Culture requirements regarding land development, as well as the Renewable Energy Protection Act (O.Reg. 359/09), a contract to carry out a pre-purchase Stage 1 to 2 archaeological assessment of the Brantgate Solar Facility Project was awarded to Northeastern Archaeological Associates Limited by Penn Energy Renewables on April 2, 2011. The property in question consists of approximately 30 hectares of primarily crop fields, as well as existing buildings (modern house, greenhouse, radio tower base), and in-filled areas associated with a decommissioned quarry (see Map 10.4). The disturbance to the property from the quarry operations and subsequent re-grading is extensive (see Map 10.4 and Appendix A). A small amount of the re-graded area has been reclaimed as crop fields, but the majority is clearly disturbed. At the time of assessment the subject property was in active use as a ginseng and rye farm. The proposed development includes installation of solar arrays as shown in the development plan (Map 10.2) below. Permission to enter was granted by the land owner and the proponent. The Development Plan (Map 10.2) has been revised since the original report to avoid the area within 70 meters of the historic archaeological material.

2.2 Historical Context

The subject property (in lots 1 and 2, Concession 11) is in the former Township of Burford Ontario, Brant County. This township was originally part of the County of Oxford, but incorporated into Brant County in 1852 (Page & Smith 1875). The township was first surveyed in 1793, and settled early on by United Empire loyalists. Growth occurred rapidly from 550 people in 1817, to 6000 by 1874. There were no mills early on in the township, and milling was therefore completed in the nearby Township of Blenheim. The first church in the township was built through the efforts of Rev. James Nall in the early 1830s. (Page & Smith 1875). The 1875 Historic Atlas map for the area shows the property as owned by Charles Rand (see Map 10.5). This map does show a historic house that corresponds with an existing historic house to the east of the subject property. This house is not part of the subject property. There is a school house shown to the north, and a church to the northwest in the town of Fairfield Plain. (Page & Smith 1875).

Land registry records for the property indicate that that patent for Lot 1 was in 1816 to Elizabeth Havens, who sold in parts in 1825 to Robert Dier and Alishai Rand. William Rand, John Rand, and Charles Rand also appear in the records in the mid-1800s. Other names appearing on the records for Lot 1 during the 1800s include: Joseph Smith, William Pitcher, Archibald Campbell, Ellen and James Davis, Lawrence Daniels, George Doody, John Williams, Peter Wood, William Wilson, and David Myers among others. The patent for the north half of Lot 2 was not until 1856 to Rachel Zimmerman, and the south half was not until 1862 to Elias Zimmerman. Charles Rand, who is shown on the historic atlas map, is recorded as

having purchased part of this lot in 1871 from Rachel Zimmerman et al. Other names appearing in the records for this lot are: Margaret and Josiah Smith, George Lovejoy, Margaret Phillips, and Allan Smith among others.

Historical use of the subject property has been primarily farming of rye and tobacco, which is common for the area. Major quarrying operations in the 1990s led to the disturbance of approximately 10 acres of the property, including the southern portion of the development area (Map 10.4). Regrading efforts in 2003/2003 (Appendix A) reclaimed the land for crop farming, including rye and ginseng. A small active ginseng processing facility is located to the north of the development area.

2.3 Archaeological Context

The subject property is located in the Norfolk Sand Plain physiographic region of southern Ontario (Chapman and Putnam 1973). This physiographic region was formed as a delta in the glacial Whittlesey and Warren Lakes and now slopes very gently downwards towards Lake Erie. The Norfolk Sand Plain is characterized by nearly level ground cut by streams which form tributaries to the Grand River or flow directly into Lake Erie. Plainfield sand is the dominant soil type, which has a very thin organic surface layer and is prone to erosion when worked. This thin soil was heavily farmed for tobacco and rye in the early and mid 20th century and is now the location of numerous ginseng farms. Underlying this region is the Salina and Bass Island bedrock formation (Chapman and Putnam 1973). Locally, the property consists of level crop fields, a small house lot with lawns which extend to surround an unused greenhouse, and a depressed area in the south where an aggregate pit has removed large amounts of material, see Image 9.9. Maps 10.2 and 10.3 below show the development plan and an aerial view of the property with the locations of the proposed solar arrays.

A search of the archaeological sites data base of the Ontario Ministry of Tourism and Culture by data co-ordinator Robert von Bitter on April 15, 2011 revealed the existence of 11 recorded sites within a 5km radius of the subject property. A summary of these sites is included in the table below. Many of these, referenced here as ROM, were registered by the Royal Ontario Museum and did not have associated reports. All of the sites provided by the site search are pre-contact.

Site	Name	Type	Culture	Collection	Reference
AgHb-141	Barnes 2	Campsite	Paleo, Archaic, Woodland	points, bifaces, scrapers, wedges, drill, flakes, cores	R. Michael, 1990. P.J. Woodley, 1991
AgHb-24	Weed	Campsite	Archaic	points, graveurs, scrapers, worked lithics	ROM
AgHb-29	Pajor	Campsite?	Archaic	points, scrapers, worked lithics	ROM
AgHb-49	Vine	Campsite	Archaic	point, worked lithics	ROM
AgHc-19	Arnold	Campsite	E. Woodland	point, scraper, debitage, worked lithics	P. Boyer, 1981
AgHc-21	Klus	Campsite	Archaic	debitage	ROM
AgHc-24	Rammage	Campsite, station, hunting	Archaic	points	ROM
AgHc-25	Red Oak	Campsite, station, hunting	Archaic	points	ROM
AgHc-27	Yarek	Campsite	L. Paleo, Archaic	lithics	ROM
AgHc-28	Horvath	Campsite	Archaic, Woodland	points	Nixon Field Notes
AgHc-90	Kopec	Campsite	M. Archaic,	point, biface,	P. Lennox, 1996



			Otter Creek	flakes	
AgHb-140	Barnes 2	Campsite?, work station?	E. Woodland?	lithics	R. Michael, 1990
AgHb-142	Barnes 4	undetermined	Archaic?	lithics	R. Michael, 1990
AgHb-143	Barnes 5	undetermined	M. Archaic?	lithics	R. Michael, 1990
AgHc-18	Arthur	Campsite	undetermined	lithics	ROM
AgHb-51	Mount Pleasant	Campsite	Archaic?	small	NA
AgHc-23	Pine Tree	Campsite	Archaic	small	ROM

3.0 FIELD METHODS

This property is considered to be of high archaeological potential according to the 2011 standards set out for Consultant Archaeologists by the Ministry of Tourism and Culture, due to its proximity to known archaeological sites and areas of historic settlement. In accordance with these standards, the entire property was surveyed at a 5 meter test interval. Stage 2 testing methodology is illustrated in Map 10.3.

Approximately 5% of the property consisted of lawn surrounding existing buildings with existing infrastructure (water, electrical, septic, etc.) and was therefore surveyed by means of shovel testing as per Stand. 1.e., Sect. 2.1.2 (MTC, 2011), see Images 9.3, 9.4, and 9.5. Test-pits were a minimum of 30cm in diameter and were excavated into the first 5cm of sterile subsoil. All test-pits were examined for evidence of stratigraphy, cultural features or disturbance. All soil from test pits was processed through 6mm mesh rocker screens then backfilled. Test-pits were excavated to within 1m of all sides built structures this included a modern house and greenhouse (Map 10.3). Soil in this area was found to be severely disturbed, with heavily mixed topsoil and subsoil horizons, as shown in Image 9.8. Two positive test-pits were located in the north-east corner of the lawn area containing historic material. Sixteen additional test pits excavated in all directions at 2.5m resulted in two more positive test pits as shown in Map 2 (Supplementary Documentation).

At this point the decision was made to avoid further disturbance of a possible Historic Euro-Canadian archaeological site. The area of positive test pits as well as a large buffer (70+m) has since been removed from the development area to avoid disturbance of the site (Map 10.2). Please refer to the Supplementary Documentation package for GPS location information and map (Maps 1 and 2).

Pedestrian survey was used to assess the crop fields comprising approximately 70% of the subject property. Fields were worked to MTC standards as per Sect. 2.1.1 (MTC S&G, 2011), see Images 9.1, 9.2, and 9.6. At the time of the initial assessment in May of 2011 a portion of the fields was in active use for ginseng farming and was covered in shelter structures, see Images 9.1, and 9.3. These were removed following the harvest and the remaining pedestrian survey was carried out in November of the same year. During pedestrian survey of the south-west field, four fragments of chert were found. An intensified survey at 1m intervals was undertaken in the area of 20m in all directions from each find-spot, but failed to result in any additional material being recovered. Additionally a 1m² Stage 2 unit was excavated over each surface collection, as shown in Image 9.7. Each unit was excavated by systematic 10cm levels into the upper 5cm of sterile subsoil. Unit floors were cleaned and examined for cultural features, then photographed, drawn, and profiled. All unit soil was processed using shaker screens with a 6mm aperture. All test units were backfilled. These resulted in the recovery of two more lithic artifacts. Subsequently one of the chert fragments from the pedestrian survey was discarded as non-cultural. This resulted in a total of five recovered lithic artifacts. All artifacts were recorded using a GPS unit to an accuracy of +/-5m or better using WGS84. These locations are plotted on a satellite image in Map 3 in the Supplementary Documentation package along with GPS coordinates.

Approximately 25% of the subject property was previously disturbed by an aggregate quarry and subsequent re-grading efforts. These operations are documented in Appendix A and are visible in Map 10.5, and Image 9.9. Disturbance in this area was observed to be complete and therefore exempt from Stage 2 assessment under Stand. 2.b., Sec. 2.1 of the Standards and Guidelines for Consultant Archaeologists (MTC, 2011).

Archaeological field work was undertaken on May 10 and 11, 2011, in warm and clear conditions, as well as November 17, 18, 2011 in mild and clear conditions following the harvest of the ginseng crop

and removal of the shelter structures. Weather and lighting conditions during both work periods allowed for good ground visibility as per Stand. 3, Section 2.1 (MTCS, 2011).

4.0 RECORD OF FINDS

A total of eight historic artifacts were recovered during test-pit survey in the lawns to the north-east of the small modern home on the subject property. These included two white-clay pipe stem fragments, one fragment of refined white earthenware, three fragments of colourless flat window glass, and two machine cut iron nails, one lacking a head. A catalogue is provided in Appendix B, and representative historic artifacts are illustrated in Image 9.11.

A total of five pieces of worked Onondaga chert were recovered during pedestrian survey (3) and subsequent Stage 2 excavation (2) near the centre of the property. These consisted of a single small corner-notched point base fragment, a large flake, and a single biface-thinning flake from pedestrian survey, followed by a single biface-thinning flake and a flake fragment from Stage 2 unit excavations. These lithics are illustrated in Image 9.10, and a catalogue is provided in Appendix B. All artifacts are curated at the Northeastern Archaeological Associates Limited offices.

Field work for this assessment generated a total of 51 photographs, four pages of field notes including two maps. GPS coordinates taken in the field are provided in the Supplementary Documentation package.

5.0 ANALYSIS AND CONCLUSIONS

Stage 2 archaeological testing of the subject property conducted in accordance with the Standards and Guidelines outlined by the Ministry of Tourism and Culture resulted in the recovery of eight historic artifacts and five pre-contact lithic artifacts made from Onondaga chert, one of which was a point base fragment.

Recovered lithics were isolated in that there were less than five in any 10mx10m area, and the single diagnostic artifact was not accompanied by any other lithics. Therefore this material does not meet the requirements to be registered as a site or proceed to Stage 3 as per Stand. 1. a. i, (1), (3), Sect. 2.2 of the Standards and Guidelines (MTC, 2011). Given the nature and amount of the material recovered it is not possible to hypothesize a cultural affinity or date.

The small amount of historic material is lacking in diagnostic characteristics, but likely dates to near the end of the 19th century. This material was recovered just to the south of a historic house which is not part of the development property. It is probable that the material is associated with this structure. The location of this material as provided in the Supplementary Documentation has been removed from the development area as shown on Maps 10.2.

6.0 RECOMMENDATIONS

At the discretion of the proponent, the area where historic material was found, along with an appropriate sized buffer, was removed from the development area as shown in the revised plan Map 10.2. as per Section 7.5.12 Standard 4 (MTCS, 2011). Taking this into consideration, this report does not find it necessary to proceed with any further archaeological work in this area as the material is outside of the project location boundary as defined in Maps 10.2, and therefore not in danger of being disturbed. Any work or use of machinery with a risk of soil disturbance in the proximity of this buffer zone should be monitored by a licenced archaeologist.

Any consideration of development in the site area containing the historical archaeological resources identified in Map 1 of the Supplementary Documentation Package must be proceeded by further archaeological investigation to determine the need for Stage 3 assessment.

The pre-contact lithics recovered during initial and intensified pedestrian survey/Stage 2 excavation of the fields within the subject property did not result in the recovery of sufficient material to be considered a site, nor to proceed to Stage 3 assessment (Stand. 1. a. i, (1), (3), Sect. 2.2, MTC, 2011)

It is therefore the recommendation of this report that no further archaeological work is required within the development area.

7.0 ADVICE ON COMPLIANCE WITH LEGISLATION

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

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

8.0 REFERENCES CITED

Boyer, P.

1981 **Licence Report**

Chapman, L.J. and D.F. Putnam

1973 **The Physiography of Southern Ontario**. 2nd Edition, Toronto.

Lennox, P.

1996 **An Archaeological Survey of Aggregate Resource B13-157, Kopec Property, Lot 7, Con. 2, Brantford Township, Brant County.**

Michael, R.

1990 **A.A. of Barnes Subdivision 29T-90011, Part Lot 4, 1st Range W., Reg. Plan 48, Twp of Brantford.**

MTC

2011 **Standards and Guidelines for Consultant Archaeologists**, Queen's Printer for Ontario.

Nixon, C.

1981 **Nixon Field Notes**

Page and Smith.

1875 **Illustrated Historical Atlas of the County of Brant, Ont.** Toronto.

Woodley, P.J.

1991 **The Preliminary Mapping Survey of the Barnes II Site (AgHb-141), Mount Pleasant, Brant County.**

9.0 IMAGES



Image 9.1: Oriented North, Surface Survey in East End of Central Ploughed Field, Note Ginseng Shelters in Background.



Image 9.2: Oriented East, Surface survey in west end of central ploughed field.



Image 9.3: Oriented West, Shovel testing lawn in North-East End of Property, Note Ginseng Shelters.



Image 9.4: Oriented North, Shovel Testing Lawn in North-East Portion of Property, Buildings in Photo are Not Within Subject Property Boundaries.



Image 9.5: Oriented West, Shovel Testing Along South Side of Greenhouse in North-East End of Subject Property.



Image 9.6: Oriented North, Pedestrian Survey in North End of Property After the Removal of Ginseng Shelters

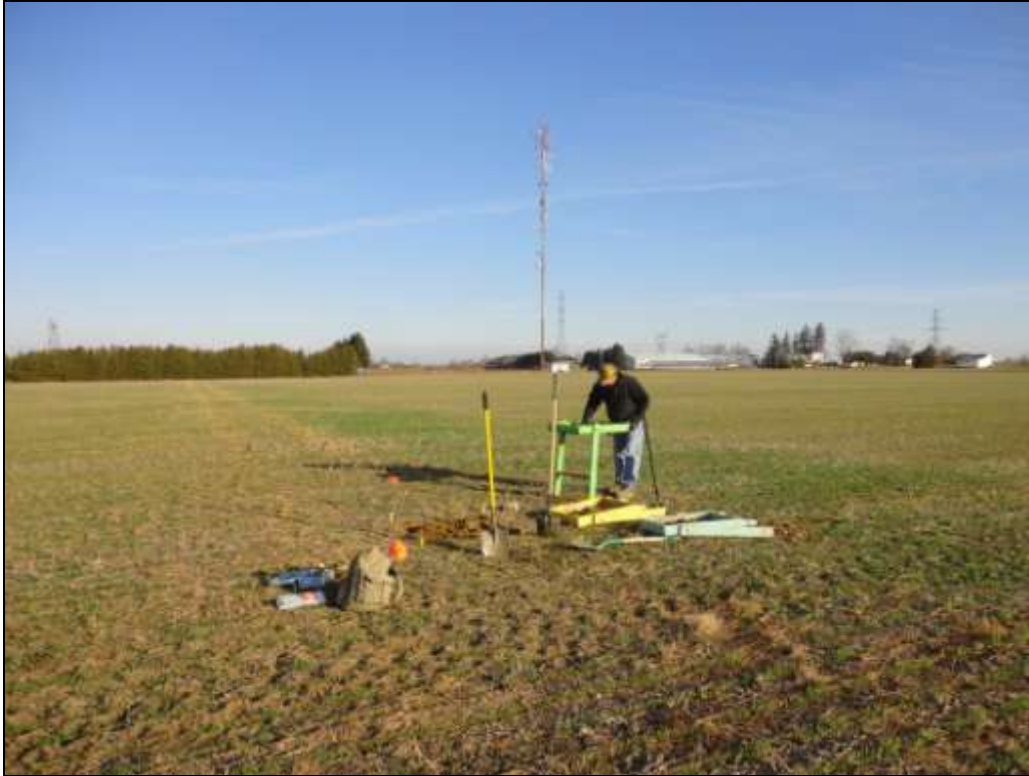


Image 9.7: Oriented North-East, Excavation of Stage 2 1m Unit in Location of Surface Find.



Image 9.8: Disturbed Soil Horizons in Test-Pits in Lawn Area.



Image 9.9: Oriented East, Re-Graded Quarry Pit in South-East Portion of Property

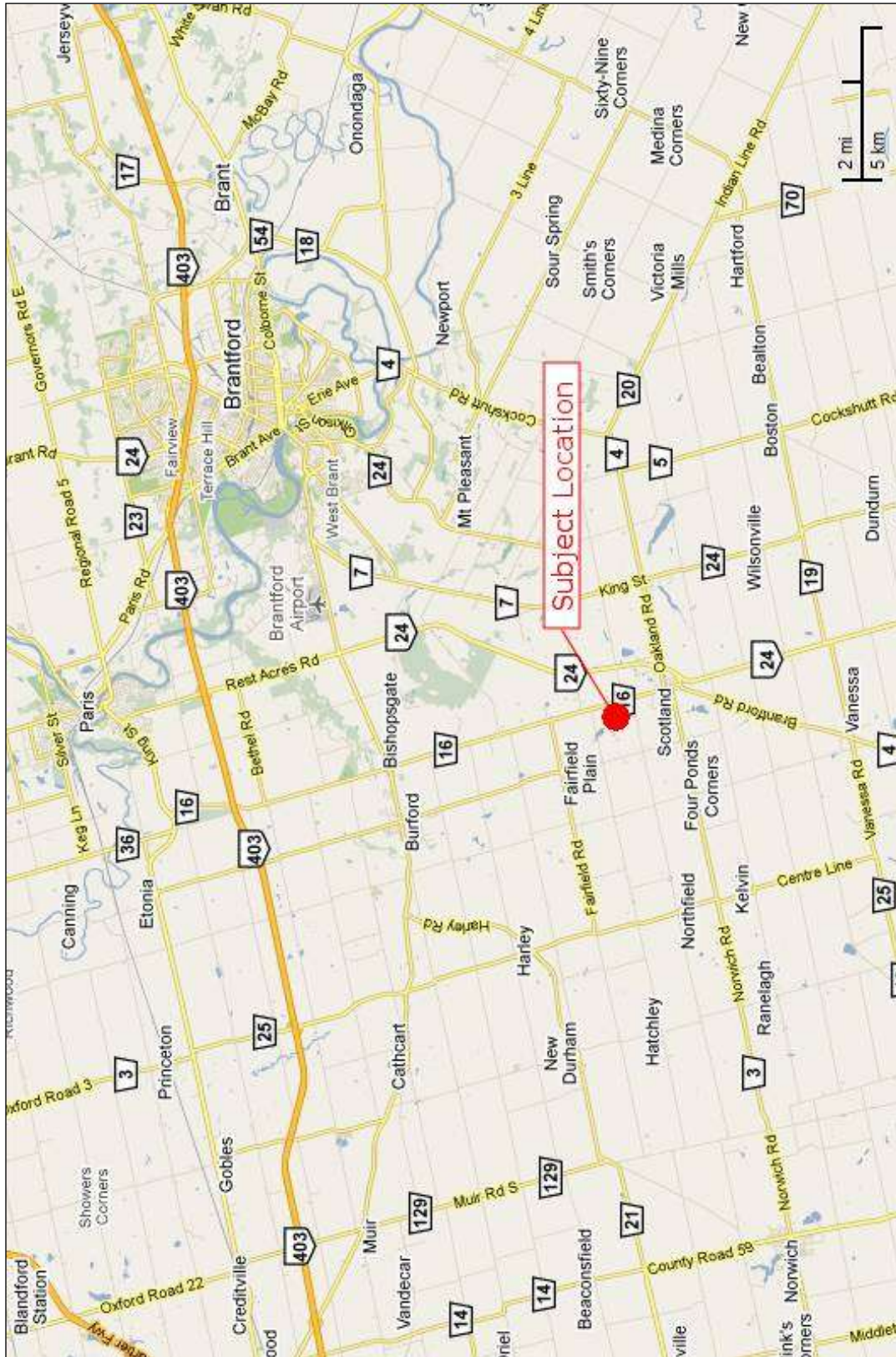


Image 9.10: Pre-Contact Lithics Recovered During Pedestrian Survey

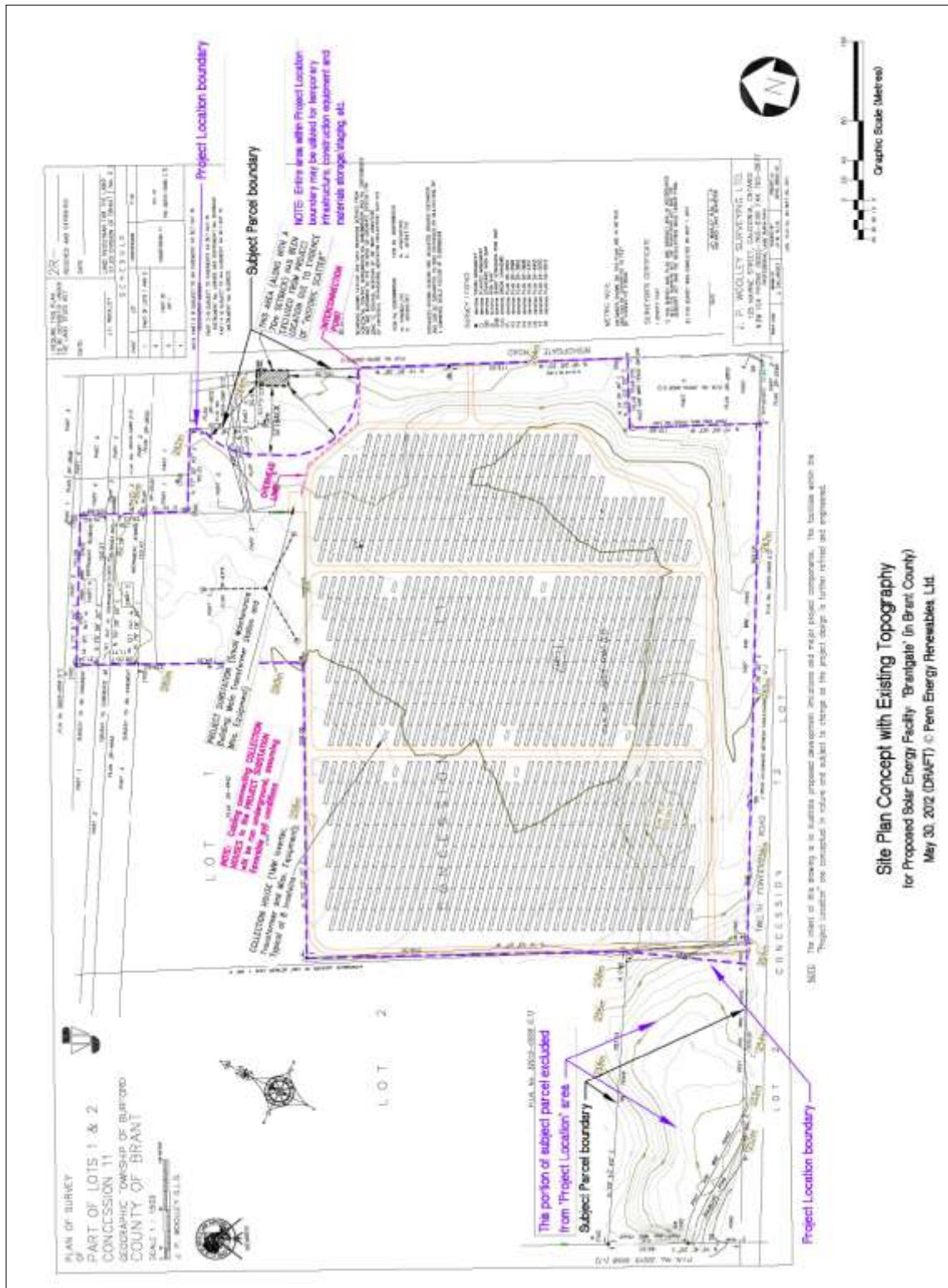


Image 9.11: Representative Historic Artifacts Recovered from Test-Pit Survey

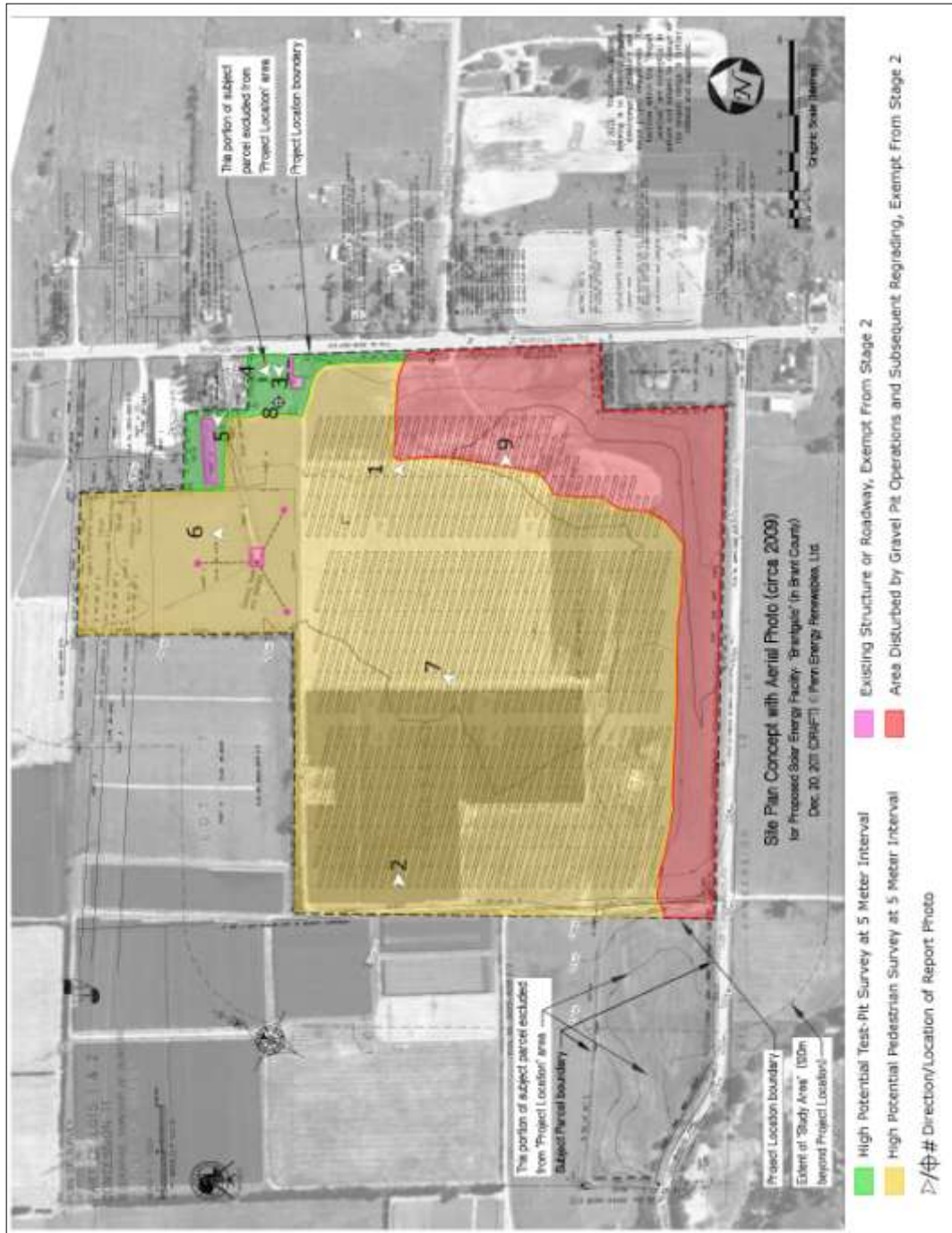
10.0 MAPS



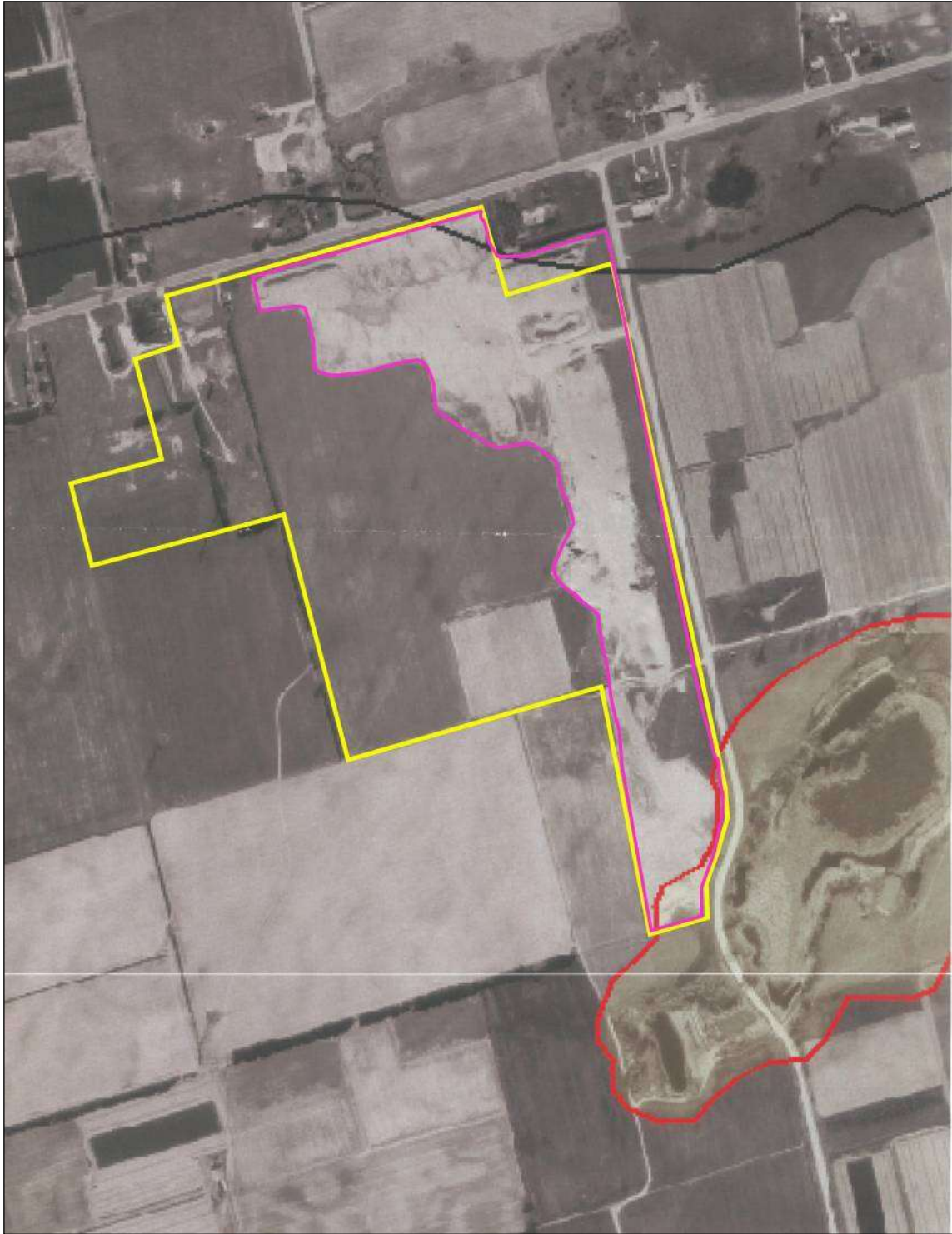
Map 10.1: Location of Subject Property Southwest of the City of Brantford, Ontario.



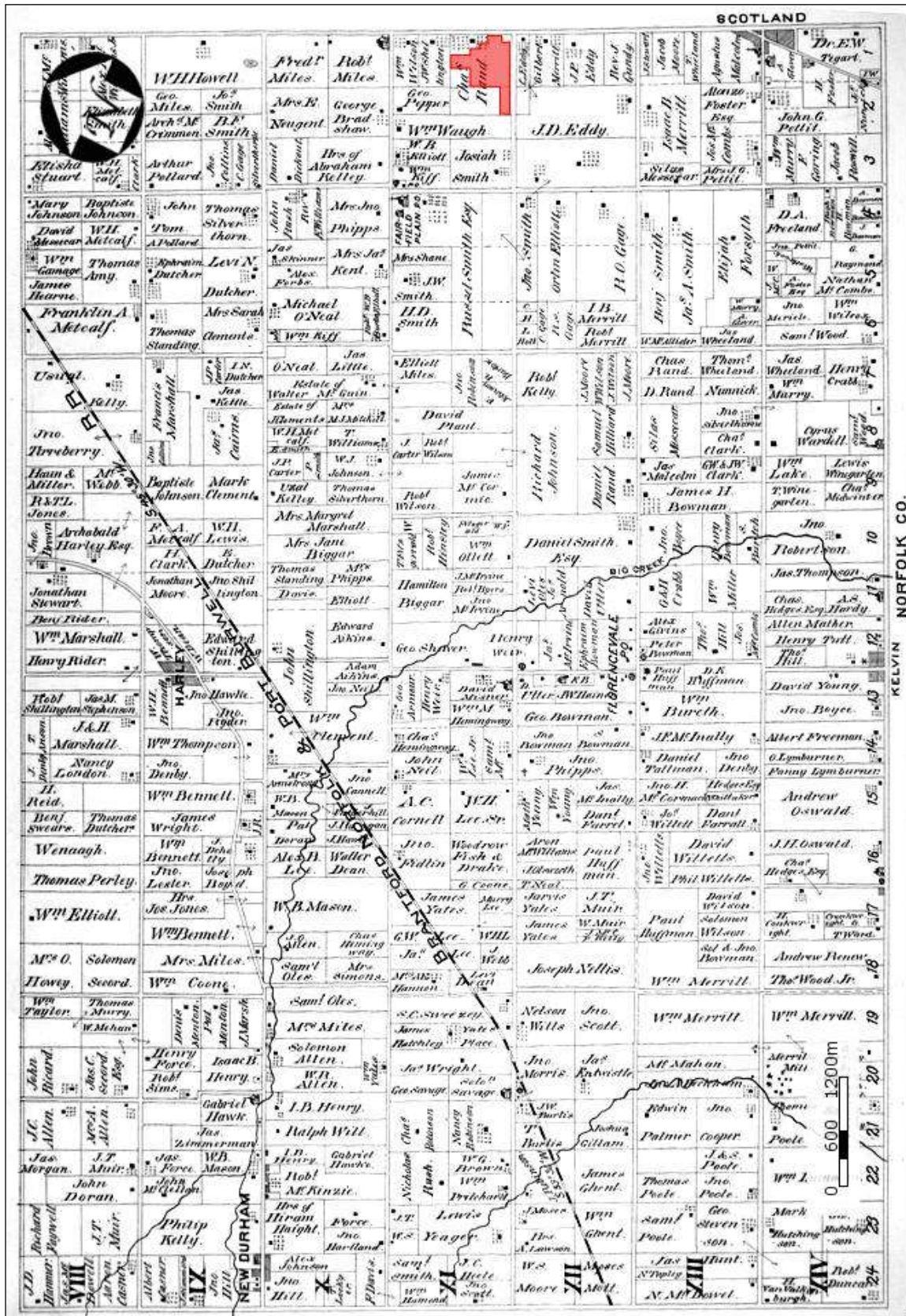
Map 10.2: Revised Development Plan with Appropriate Buffer Avoiding Historic Material, Provided by Proponent.



Map 10.3: Aerial Photo with Original Development Plan and Stage 2 Methodology



Map 10.4: Aerial Photo of Parcel (yellow) Containing Subject Property, Quarry Disturbances are Shown as Red and Pink Outlined Areas



Map 10.5: Historic Map of Burford Township Showing Subject Property in Red.

APPENDIX A: The Ontario Aggregate Resource Corporation Notes Regarding Quarry on Subject Property.



Aggregate Resources Trust Rehabilitation Initiative 2003

The Aggregate Resources Trust has as one of its important objectives "the rehabilitation of land for which a licence or permit has been revoked and for which final rehabilitation has not been completed". In the first instance, the Trust looks to the former licensee or permittee to complete the rehabilitation of a former aggregate site. However, there are times when circumstances prevent this from happening. In such instances, the Trust has authority under subsection 6.1(5) of the Aggregate Resources Act, RSO (as amended) to undertake the rehabilitation and then seek restitution from the former licensee or permittee. Such was the case with a property in Burford

Township (County of Brant) known as the GMC Pit.

The property is located in part of Lots 1 & 2, Concession XI, former Township of Burford, County of Brant. Originally, 29.1 hectares of land were licensed with approximately 23.7 hectares available for extraction. Only 10 hectares of land was actually disturbed before the licence was revoked in June of 2002. The property exhibited typical conditions of many unused pits: abandoned equipment, accumulation of waste materials from trespassers, erosion and growth of weeds.

Fortunately, there were a number of positive factors from the point of

view of rehabilitating the property. Although the topsoil and subsoil had not been carefully separated at the time it was stripped, it was saved in perimeter berms around the property and easily accessible for spreading on the pit floor and side slopes. The excavation was relatively shallow with a considerable amount of granular material available from around the scale house area, and in old stockpiles of sand, that could be used for establishing gentle side slopes. Work on the project commenced in early September of 2003 and was completed just before Thanksgiving. The County of Brant Fire Department burnt brush and logs on site, inert concrete was buried according to

Relatively shallow extraction, garbage left by trespassers and stockpile of sand (looking west)



Old scale deck, concrete footings and rubbish requiring disposal



Site grading commences (looking west)



Backhoe removing concrete footings from beneath scales

*Dozer pushing soil from
boundary berm*



Rough grades (looking east)



*Motorized scraper moving soil for
placement on pit floor*

MOEE guidelines and metal scrap and other wastes were removed for recycling or disposal in an approved landfill. Bestweigh Scale, a local company, removed the scales for salvage value.

Side slopes were graded to a maximum of 5:1 to allow for the use of farm machinery. All drainage on the site was internalized. The site was seeded with a mixture of 50% Annual Rye and 50% Buckwheat along with the application of a 25-0-15 NPK commercial fertilizer at the rate of 250 kg/ha.

JCJ Contracting from Virgil, Ontario, was the successful bidder

for the contract to rehabilitate the site with a price of \$131,302.18. Pre-bid survey work, preparation of cut and fill drawings, landscape architectural consulting and legal costs brought the total price of the project to approximately \$146,000.

*Cultivating soil for
seeding - 2004*



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Appendix B: Artifact Catalogues

Brantgate Historic Material Catalogue					
#	Qty.	TP#	Description	Material	Wgt. (g)
1	1	1	pipe stem frag.	clay	0.74
2	1	1	flat window frag.	glass	2.79
3	1	1	machine cut nail, no head	iron	3.47
4	1	2	machine cut nail	iron	0.99
5	1	3	vessel body frag.	RWE*	0.44
6	2	3	flat window frag.	glass	3.01
7	1	4	pipe stem frag.	clay	0.68
*RWE = Refined White Earthenware					

Brantgate Pre-Contact Material Catalogue				
#	Qty.	Description	Material	Wgt. (g)
1	1	biface-thinning flake	Onondaga chert	1.42
2	1	biface-thinning flake	Onondaga chert	0.59
3	1	corner-notched point base	Onondaga chert	1.34
4	1	large flake	Onondaga chert	3.86
5	1	flake fragment	Onondaga chert	0.16