

**STAGE 2 ARCHAEOLOGICAL ASSESSMENT
McLEAN'S MOUNTAIN WIND FARM
Part Lots 12-15, Concession 3
Geographic Township of Howland
Part Lot 24, Concession 12
Geographic Township of Bidwell and
Goat Island (formerly known as Mink Island area)
Northeastern Manitoulin Island (NEMI)
District of Manitoulin**

**Original Report
F-000522-WIN-130-601, F-000520-WIN-130-601**

Prepared for
Northland Power
and
Ministry of Tourism and Culture

**SCARLETT JANUSAS
ARCHAEOLOGICAL AND HERITAGE
CONSULTING AND EDUCATION
269 Cameron Lake Road
Tobermory, Ontario N0H 2R0
phone and fax 519-596-8243 cell 519-374-1119
jscarlett@amtelecom.net**



Previous Licenses for areas within 50 m P027-093-2010 Stage 2
P100-016-2009 Stage 1
License # P027, PIF #P027-140-2011
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Table of Contents

Project Personnel	iii
Acknowledgements	iii
Executive Summary	iv
1.0 PURPOSE – Development Context	1
2.0 STUDY METHODS	8
2.1 Stage 1 (Summary of Background Research)	8
2.2 Stage 2 (Field Assessment)	8
3.0 RESULTS	10
3.1 Perch Lake Road Access	10
3.2 Perch Creek Road Access	13
3.3 Goat Island Easement	14
4.0 RECOMMENDATIONS	23
5.0 REFERENCES CITED AND CONSULTED	24
Tables	
1. UTM Coordinates for Photographs	16
Figures	
1. Location of Project in Northern Ontario	2
2. Location of Project Area on Manitoulin Island	3
3. Location of Access Road Realignment North of Perch Lake	4
4. Location of Access Road Realignment East of Perch Creek	5
5. Proposed Easement on Goat Island	6
6. Location of Photographs Perch Lake Area	17
7. Location of Photographs Perch Creek Area	18
8. Location of Photographs on Goat Island	19
9. Assessment Methodology Access Road North of Perch Lake	20
10. Assessment Methodology Access Roads East of Perch Creek	21
11. Assessment Methodology Proposed Easement on Goat Island	22
Photographs	
1. Facing East along Access Road	11
2. Facing East towards Gate and Culvert	11
3. Snake Rail Fence along South Side of Access Road facing East	12
4. Culvert and Rise in Elevation facing East	12
5. Facing West towards Perch Creek	13
6. Facing South	14
7. Test Pitting Easement facing North	15
8. Shoreline Area Subject to Pedestrian Transect facing West	15
9. Area of Exposed Bedrock facing Southwest	16

Project Personnel

Project Manager
Principal Archaeologist,
And Report Preparation

Scarlett Janusas (P027)

Assistant Field Director

Chelsea Robert

Field Crew

Rachel Boniface
Angela Holmes
Megan Powers
Amelia Sweiger
Virginia Sweiger

Acknowledgments

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Executive Summary

The proponent, Northland Power, retained the services of Scarlett Janusas Archaeological and Heritage Consulting and Education (SJAHCE) to conduct a Stage 2 archaeological resource assessment on new site layouts for two access roads for the McLean Mountain Wind Farm. A new access road is being proposed north of Perch Lake, across Lots 12-15, Concession 3, in the geographic township of Howland. Two new access roads were proposed east and south of Perch Creek, across Lot 24, Concession 12 in the geographic township of Bidwell. In addition, a proposed easement corridor was proposed for Goat Island (formerly known as the Mink Island Area). The access roads were 10 m in width. The width of the easement was 31 m, but was widened to 40 m for archaeological assessment purposes. The study area is part of Northeastern Manitoulin and Islands (NEMI) in the District of Manitoulin.

The archaeological assessment was triggered by the Green Energy Act.

A Stage 1 archaeological assessment of a large area encompassing the areas of proposed access road changes was conducted by the Archaeological Survey of the Laurier University in 2009. A Stage 2 archaeological assessment of turbine areas, staging areas, access roads and transmission corridors was conducted by SJAHCE in 2010.

The current Stage 2 archaeological assessment of the study property was conducted under license P027 (Scarlett Janusas, PIF #P027-140-2011) on May 16th, 2011 with good to excellent assessment conditions. None of the affected areas could be ploughed and were therefore subject to a test pitting methodology conducted along the 10 m wide access road in two lines spaced 3 metres apart. The linear length was tested in standard 5 m intervals. The proposed easement was subject to test pitting of areas of scrub and the remaining area was exposed bedrock which was subject to pedestrian transect. The easement was assessed in 5 m intervals.

No cultural material was located during the Stage 2 archaeological assessment.

The following is therefore recommended:

- With respect to this specific study area related to the access to, and construction of the access roads north of Perch Lake and east and south of Perch Creek (refer to Figure 3 and 4 for location details), and for the proposed easement (refer to Figure 5), no further archaeological assessment is required.
- 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 Registry or Archaeology Reports referred to in Section 65.1 of the Ontario Heritage Act.

- Should previously undocumented archaeological resources be discovered, they may be an 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 sec. 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.

This archaeological assessment has been conducted under the 2011 Standards and Guidelines for Consultant Archaeologists (Ministry of Tourism and Culture, 2011).

This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of 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.

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McLEAN'S MOUNTAIN WIND FARM
Part of Lots 12-15, Concession 3
Geographic Township of Howland
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Geographic Township of Bidwell
Goat Island (formerly known as Mink Island area)
Northeastern Manitoulin and Islands (NEMI)
District of Manitoulin
Original Report

1.0 PURPOSE – Development Context

The proponent retained the services of Scarlett Janusas Archaeological and Heritage Consulting and Education (SJAHCE) to conduct a Stage 2 archaeological resource assessment on a proposed realignment of three access roads in the McLean Mountain Wind Farm project. The first access road is located north of Perch Lake, and the remaining two access road realignments are located east and south of Perch Creek. The Perch Lake access road runs across (on an east-west alignment) part of Lots 12-15, Concession 3 in the geographic Township of Howland. The Perch Creek access roads (n=2) realignment run across part of Lot 24, Concession 12, in the geographic Township of Howland. In addition, a proposed easement was assessed on Goat Island (formerly known as Mink Island area), which is located northeast of the town of Little Current. Figures 1 and 2 illustrate the general location of the study areas, and Figures 3-5 illustrate the location of the proposed access roads and easement.

Access roads were 10 metre widths and differed in length depending on the location (see Figures 3-5). The easement is 31.5 metres in width. The adjacent (west side) area noted on Figure 5 was subject to a Stage 2 assessment by SJAHCE (P027-093-2010) in 2010. No cultural materials were located during that assessment. For purposes of this current assessment, a width of 40 metres was subject to assessment to capture a small area between the proposed transmission corridor and the possible easement.

The archaeological assessment was triggered by the Green Energy Act. The FIT numbers for this project are: F-000522-WIN-130-601, and F-000520-WIN-130-601.

A Stage 1 archaeological assessment of the entire McLean Mountain Wind Farm area was conducted by the Archaeological Survey of Laurentian University in 2009 (PIF P100-016-2009). A Stage 2 archaeological assessment of the former layout and areas of archaeological potential was conducted in 2010 by SJAHCE (P027-093-2010). The current Stage 2 archaeological assessment is conducted under PIF P027-140-2011.

The current Stage 2 archaeological assessment was conducted under license P027 held by Scarlett Janusas on May 16, 2011 under excellent conditions (high of 9 degrees C cool and windy).

Figure 1
Location of Project in Northern Ontario

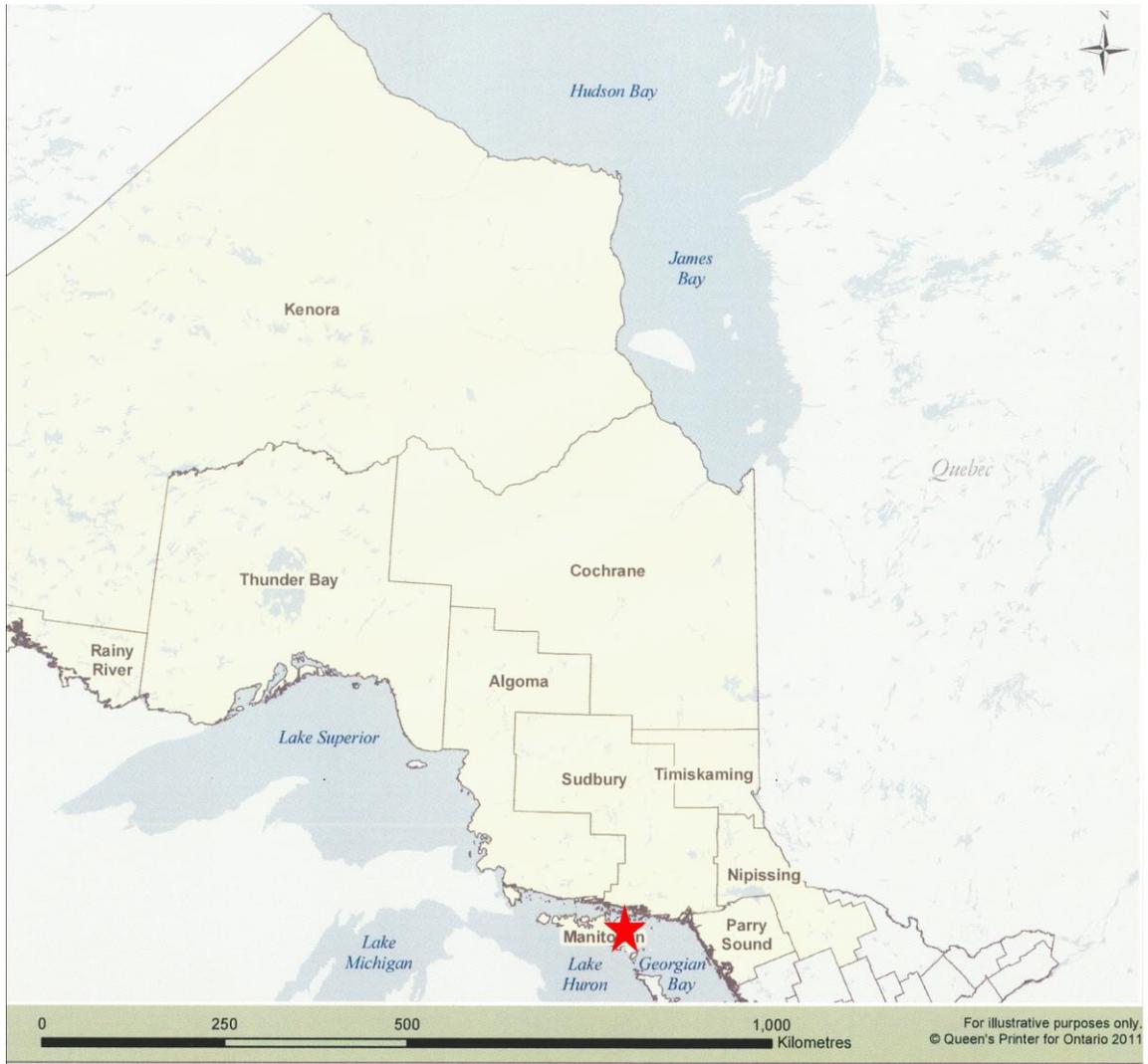


Figure 2
Location of Project Area on Manitoulin Island



Figure 3
Location of Access Road Realignment North of Perch Lake

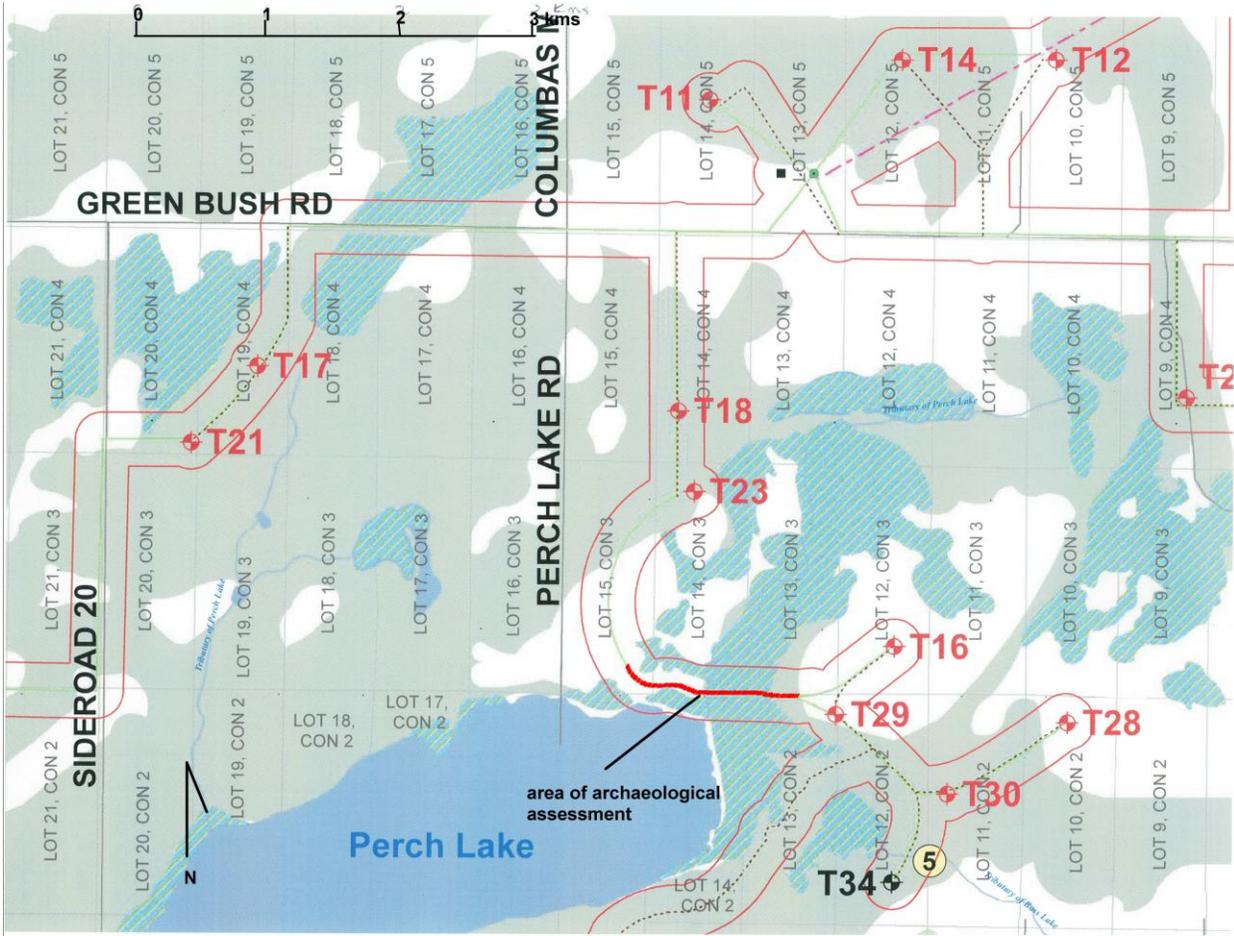
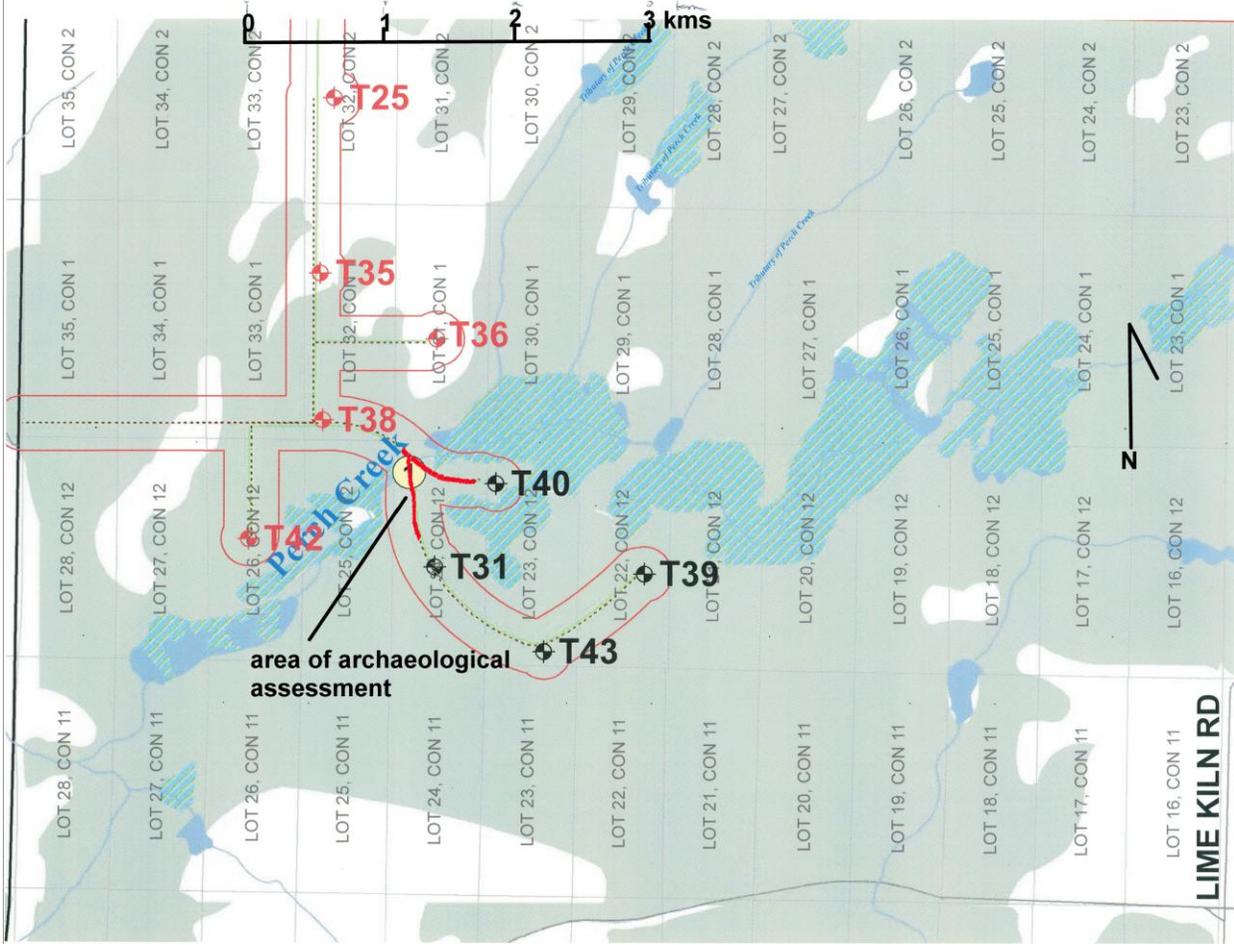


Figure 4
Location of Access Road Realignment East of Perch Creek



This archaeological assessment has been conducted under the 2011 Standards and Guidelines for Consulting Archaeologists (Ministry of Tourism and Culture, 2011).

This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of 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.

2.0 Study Methods

2.1 Summary of Stage 1 (Background Research)

A summary of the background research and recommendations are presented below from the 2009 Stage 1 background research report prepared by Archaeological Survey of Laurentian University (2009:21):

1. The majority of the project area has low potential, and well removed above most permanent water, is mostly high plateau with near surface bedrock, has no evidence of eskers or similar features, and the vast majority does not contain useable toolstone.
2. The stream draining Perch Lake to Honora Bay is permanent water, has moderate to high archaeological potential, and if an access road is built across, a Stage 2 survey and test pitting is required.
3. The transmission line crossing east of Little Current may require excavation for transmission towers, and a Stage 2 survey, as noted above.
4. In conclusion, because Stage 1 assessment has indicated three predictors for high potential for archaeological sites..., namely proximity to several existing sites and suitable toolstone deposits, and two locations with permanent water, some Stage 2 investigations of those areas are recommend [sic] if development proceeds.

SJAHCE determined that based on the proximity of the wetlands, Perch Creek, Perch Lake and the water between Little Current and Goat Island (North Channel), parts of the access road realignment and easement were subject to Stage 2 archaeological assessment.

2.2 Stage 2 (Field Assessment)

None of the areas archaeologically assessed were agricultural properties that could be ploughed. The areas either consisted of pasture with high rock content, with bedrock very close to the surface, exposed bedrock, or scrub areas. Assessment therefore consisted of using a test pitting methodology, conducted in 5 metre intervals. Along the access roads, which will have a 10 m wide configuration, 2 lines spaced three metres apart were test pitted to ensure satisfactory coverage of the entire access road. The area of the easement was larger and was subject to test pitting in areas of scrub in 5 metre intervals. The remaining areas of the easement were exposed bedrock and these areas were assessed using a pedestrian transect interval conducted in 4 m intervals, and 3 m intervals along the shoreline.

Test pits were a minimum of 30 cms in diameter and were excavated either to refusal (bedrock) or into 5 cms of sterile subsoil. If features were encountered, during the test pitting, no deeper testing was done but the feature recorded and photographed (no features were encountered). Soils from the test pits were screened through 6 mm mesh, and holes were backfilled. Each test pit was examined for stratigraphy and presence of cultural features.

If any positive test pits were encountered (that is, containing archaeological artifacts or cultural features), and it was not obvious that the find would proceed to a Stage 3 assessment, 8 additional test pits spaced at no more than 2 m intervals from the positive test pit would be used to assess the positive find and a one metre square excavated over the positive test pit. If sufficient positive test pits were found in the normal 5 m grid pattern to warrant proceeding to Stage 3, the above was not conducted.

In the case of positive finds found during pedestrian transect survey, a 20 m radius from the findspot would be subject to additional assessment conducted in 1 m intervals. All finds, both from test pitting or pedestrian transect assessment, were recorded using a GARMIN GPSmap 60CSx, with an accuracy of 2 m or less. Photographic documentation of field conditions and finds were maintained throughout the project, in addition to field notes. Any artifacts recovered were bagged and tagged according to provenience, tied to a permanent datum, and returned to the lab for processing.

3.0 RESULTS

The following discusses each of the three areas of archaeological assessment. Permission to access the properties and recover artifacts should any be located was provided by the proponent prior to the assessment. Assessment was conducted on May 16th, 2011. The weather was cool, high of 9° C, and sunny. Conditions were deemed good to excellent for purposes of archaeological assessment.

3.1 Perch Lake Access Road

The Perch Lake access road was accessed using ATV's. Areas within 50 m of Perch Lake or any wetlands or other water bodies were assessed using a test pitting methodology. The length of the access road subject to archaeological assessment was approximately 1.5 kms long. No cultural materials were located during the test pitting survey.

The study area was generally level, and was intersected by two small freshets cutting across the access road to Perch Lake. The area was pasture with high rock content. Test pits were approximately 15 cms in depth, and the subsoil was either clay or bedrock. At the eastern end of the study area, a gate and fencing delineated a change in topography, from level (west) to a gradual rise in elevation (east). On the east side of the gate was a small culvert for diverting a small stream to Perch Lake. The disturbance in this area was minimal, and still subject to test pitting. The access road along the elevated area of the property also served as an existing snowmobile and recreational trail. The remnants of a snake rail fence were located along the south side of the trail.

Photographs 1 – 4 illustrate the access road/study area.

Photograph 1
Facing East along Access Road



Photograph 2
Facing East Towards Gate and Culvert



Photograph 3
Snake Rail Fence along South Side of Access Road facing East



Photograph 4
Culvert and Rise in Elevation facing East



3.2 Perch Creek Access Road

The Perch Creek access roads were accessed using ATV's. Areas within 50 m of Perch Creek or any wetlands or other water bodies were assessed using a test pitting methodology. The length of the access roads subject to archaeological assessment was approximately 1.25 km long. No cultural materials were located during the test pitting survey.

The study area was generally level to very gently sloping. There were areas of wet meadow adjacent to the access roads. The area was pasture with high rock content.

Photographs 5 and 6 illustrate the assessment conditions.

Photograph 5
Facing West towards Perch Creek



**Photograph 6
Facing South**



3.3 Goat Island Easement

The Goat Island easement was accessed by crossing the bridge from Little Current over the North Channel and continuing along Highway 6 to a service road located on the east side of Highway 6. A service road intersected the easement area, and was considered to be disturbed to a high degree (road bed) and was therefore not archaeologically assessed.

There were areas of scrub that were subject to test pitting, and large areas of exposed bedrock and the shoreline. The latter two areas were subject to pedestrian transect survey. Photographs 7-9 illustrate the conditions of the archaeological assessment.

Photograph 7
Test Pitting Easement facing North



Photograph 8
Shoreline Area Subject to Pedestrian Transect facing West



Photograph 9
Area of Exposed Bedrock facing Southwest



Table 1 presents the UTM locations of the photographs. Figures 6-8 illustrate the locations of the photographs and their orientation.

Table 1
UTM Coordinates for Photographs

Photograph Number	UTM Coordinates	Direction of Photograph
1		East
2		East
3		East
4		East
5		West
6		South
7		North
8		West
9		Southwest

Figure 6
Location of Photographs Perch Lake Area

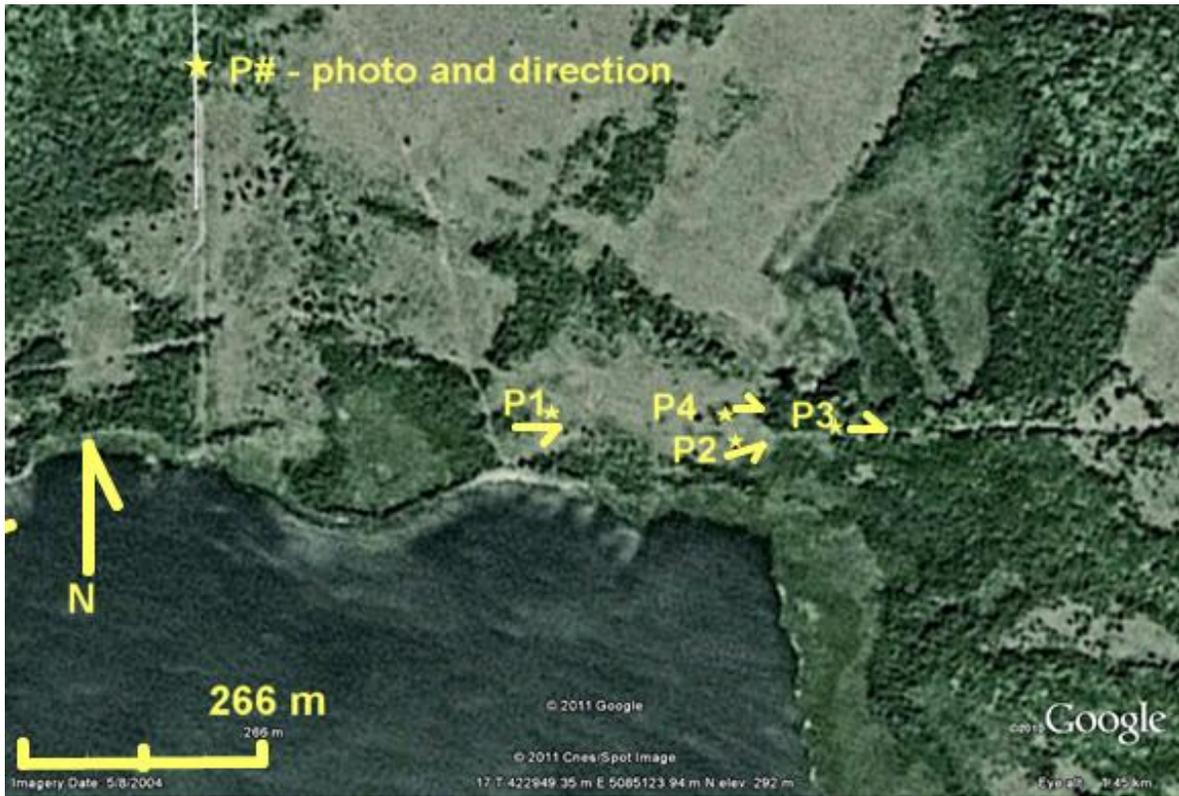


Figure 7
Location of Photographs Perch Creek Area

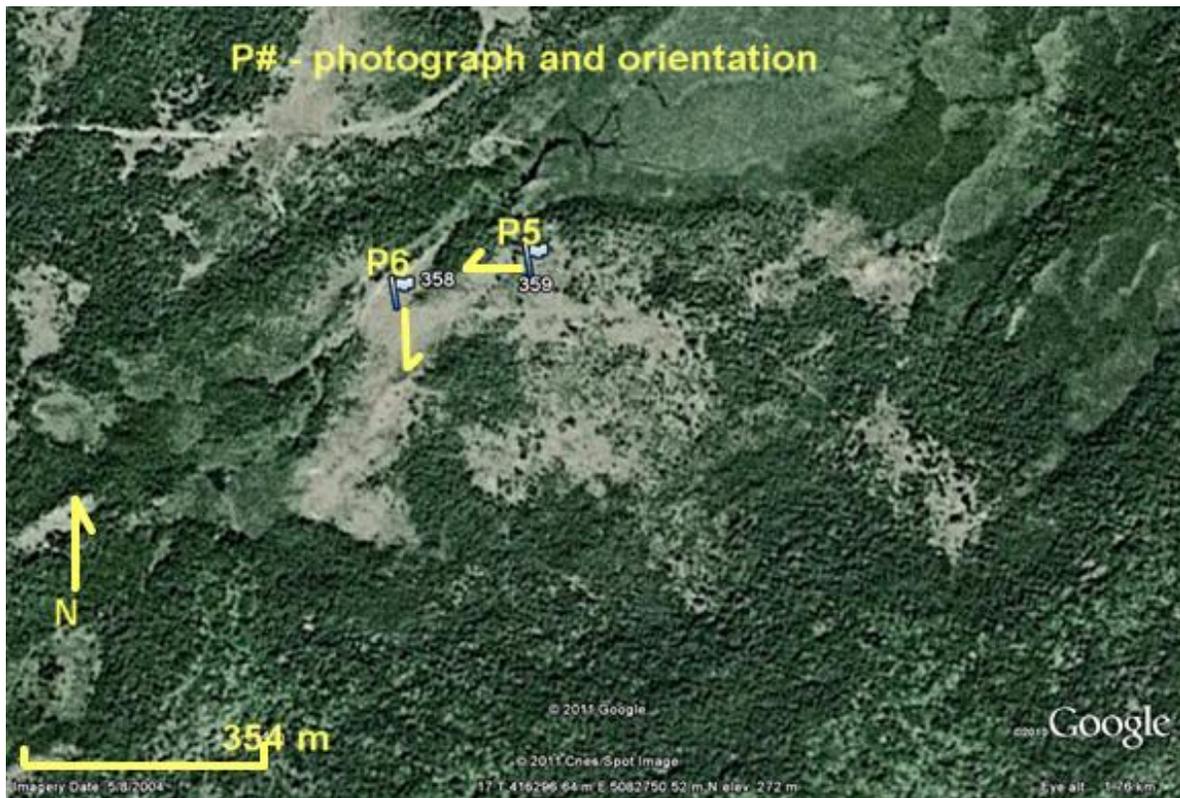
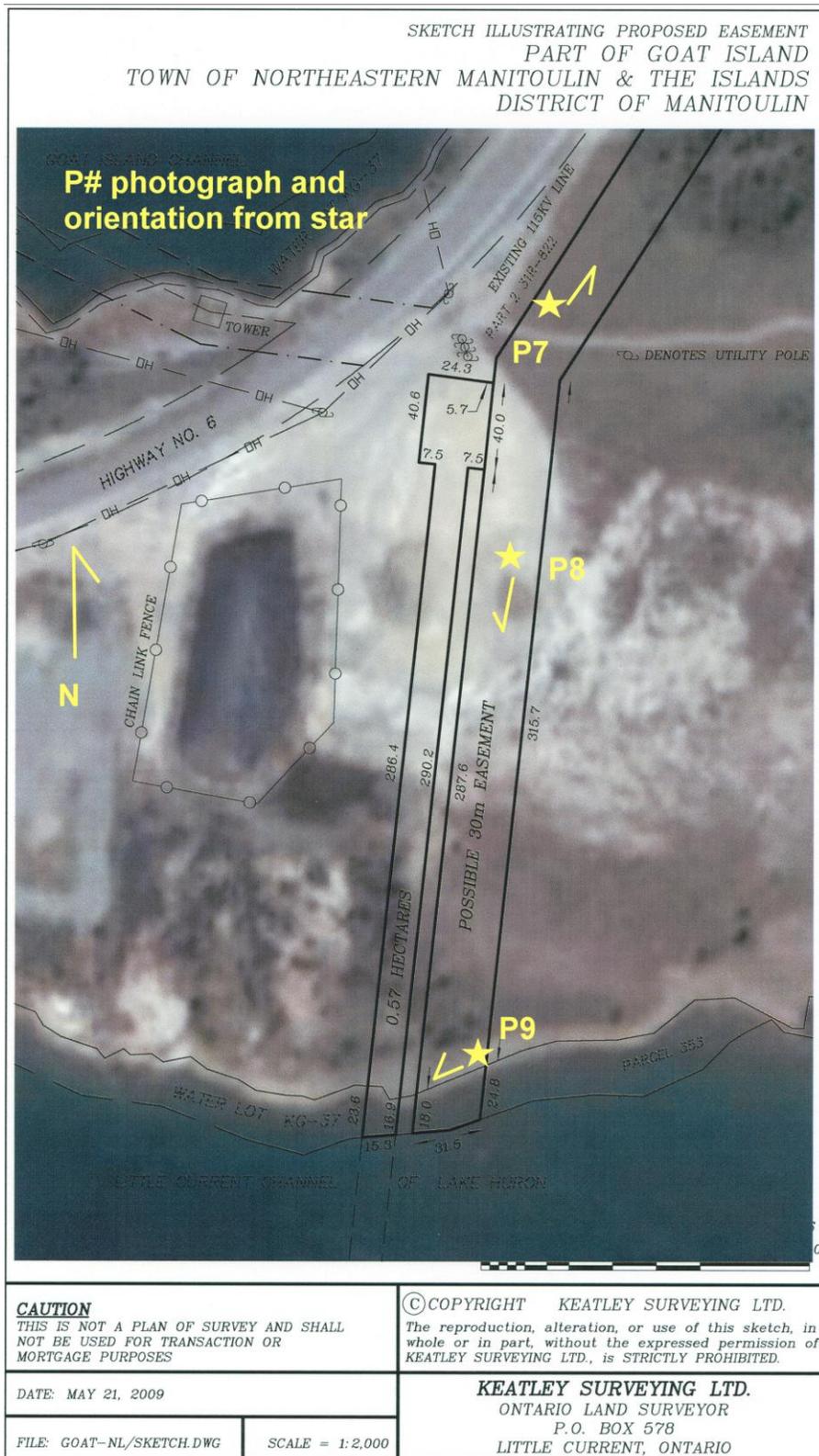


Figure 8
Location of Photographs on Goat Island



Figures 9-11 illustrate the assessment methodology for each of the assessment areas.

Figure 9
Assessment Methodology Access Road North of Perch Lake

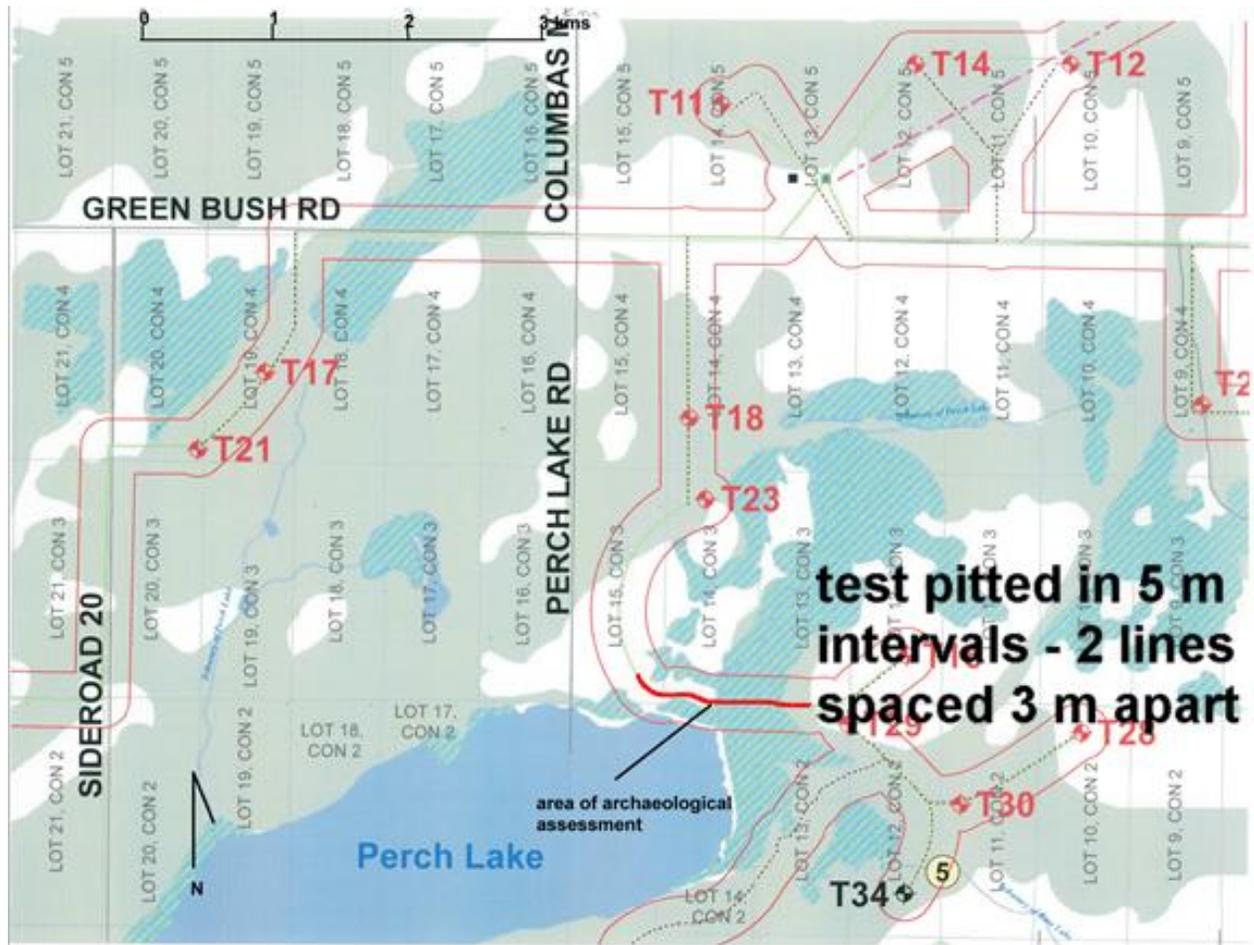


Figure 10
Assessment Methodology Access Roads East of Perch Creek

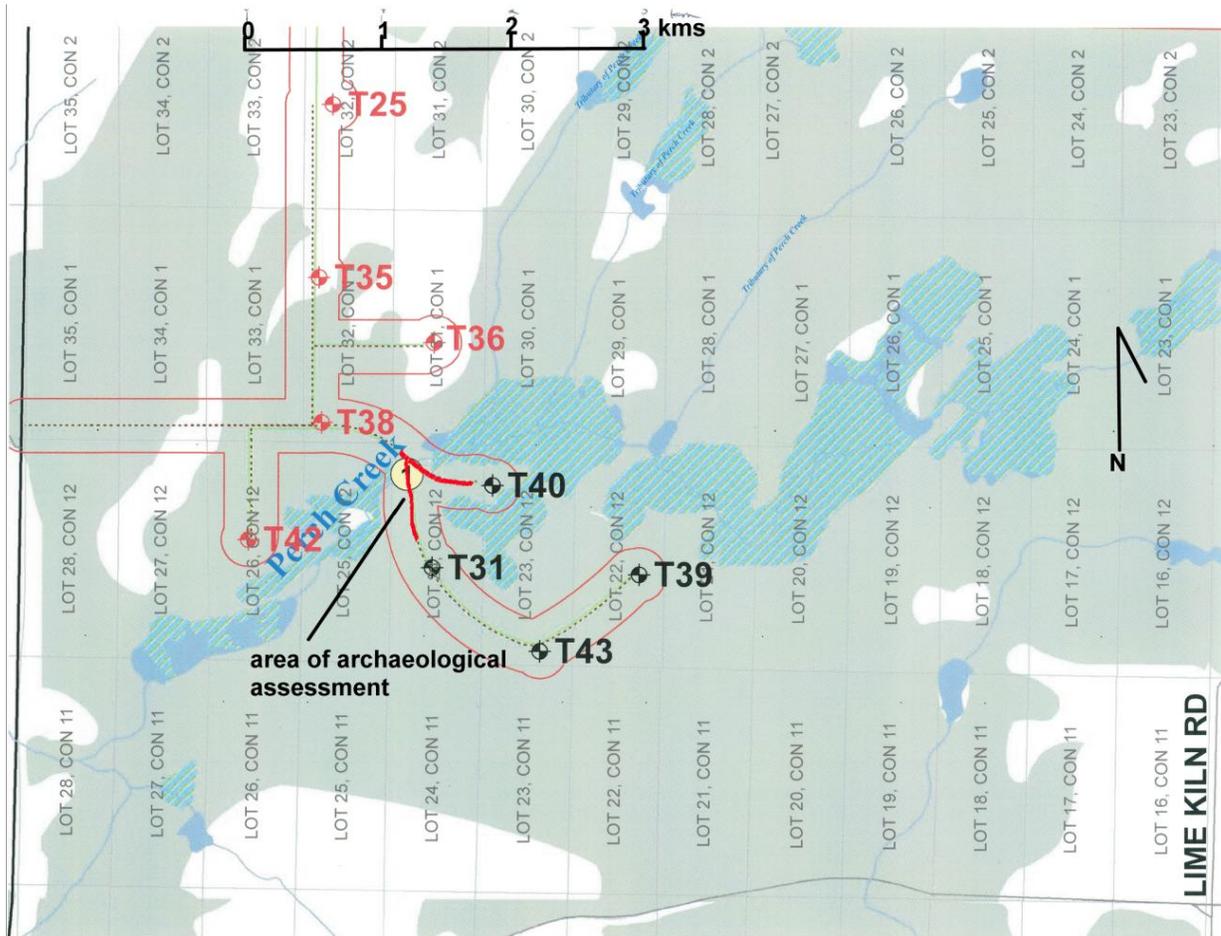
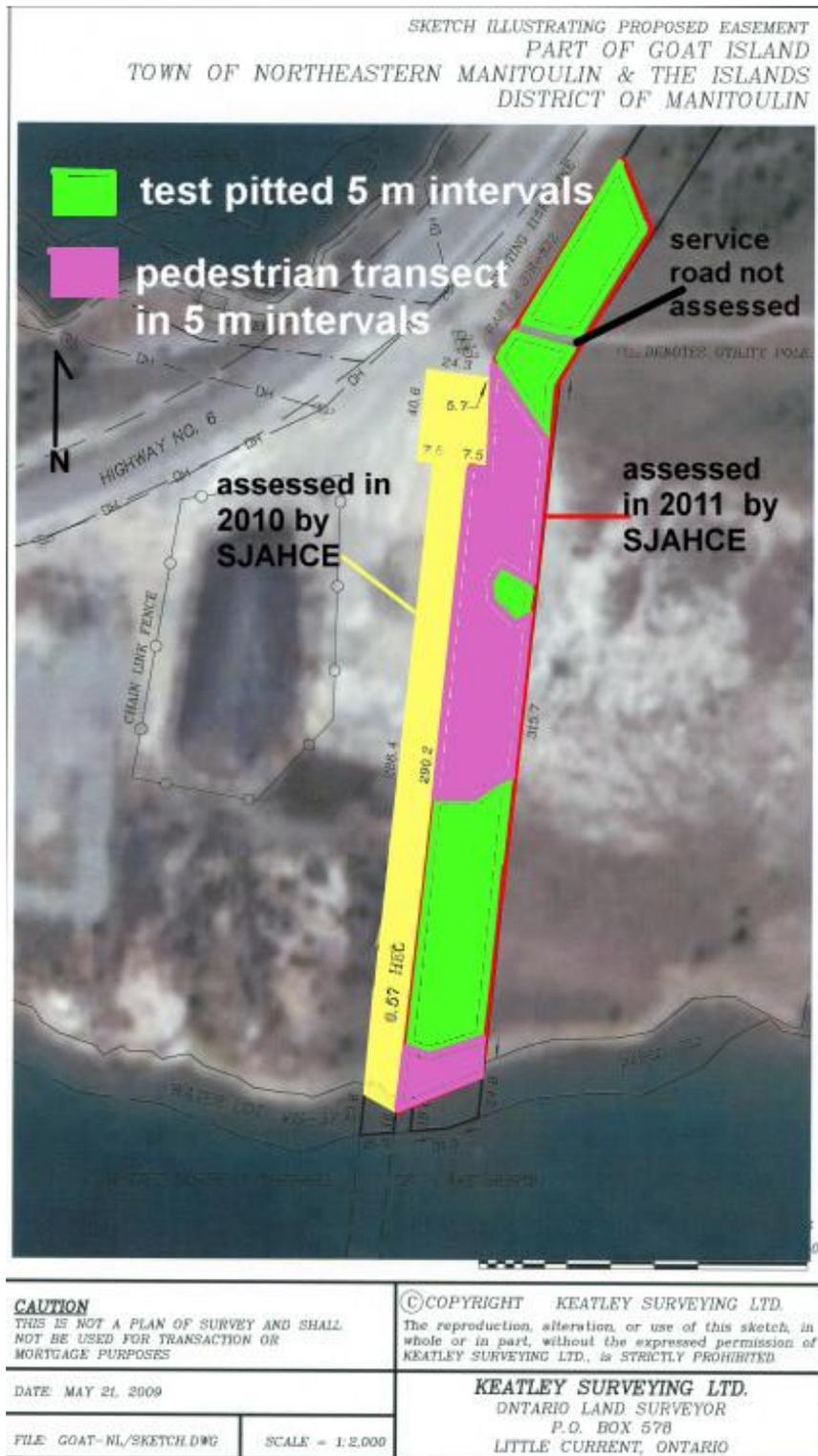


Figure 11
Assessment Methodology Proposed Easement on Goat Island



4.0 RECOMMENDATIONS

No cultural material was located during the Stage 2 archaeological assessment.

The following is therefore recommended:

- With respect to this specific study area related to the access to, and construction of the access roads north of Perch Lake and east and south of Perch Creek (refer to Figure 3 and 4 for location details), and for the proposed easement (refer to Figure 5), no further archaeological assessment is required.
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5.0 REFERENCES CITED AND CONSULTED

Archaeological Survey of Laurentian University

2009 Report on Stage 1 Archaeological Assessment of the Manitoulin Island Wind Farm, by Northland Power, in Northeast Manitoulin and the Island. P-100-016-2009. On file with the Ministry of Tourism and Culture, Public Registry.

Government of Ontario

2009 **The Green Energy Act.**

1990a **The Ontario Heritage Act R.S.O. 1990.** Ontario Regulation 9/06, made under the Ontario Heritage Act. Criteria for Determining Cultural Heritage Value or Interest. Queen's Printer, Toronto.

1990b **The Environmental Assessment Act. R.S.O. 1990, C. E18.**

1990c **The Planning Act. R.S.O. 1990.**

Ministry of Culture

2004 Draft Standards and Guidelines for Consulting Archaeologists. Ministry of Culture.

Ministry of Tourism and Culture

2011a **Standards and Guidelines for Consulting Archaeologists.** Ministry of Tourism and Culture.

2011b Archaeological Data Base Files. Heritage Branch, Ministry of Tourism and Culture, Toronto.

Scarlett Janusas Archaeological and Heritage Consulting and Education

2010 Stage 2 Archaeological Resource Assessment McLean's Mountain Wind Farm, Part of Lots 21 and 22, Concession 12; Part of Lot 3, Concession 8, Part of Lot 20, Concession 11; Part of Lot 9, Concession 6; Part of Lots 7-8, Concession 5; Part of Lot 7, Concession 4; Part of Lots 11-13, Concession 2; Part of Lot 14, Concession 3; Part of lot 19-20, Concession 4; Part of Lot 31, Concession 1; Part of Lots 22,-23,25-26, Concession 12, Geographic Township of Howland, Northeastern Manitoulin and the Islands (NEMI), District of Manitoulin. P027-093-2010

2011 Stage 2 Archaeological Resource Assessment McLean's Mountain Wind Farm Addendum. Received by MTC January 26, 2011.