

**FINAL REPORT  
STAGE 2 PROPERTY ASSESSMENT  
PARCEL 14A ,21, 22, 23 & 24  
SOL-LUCE KINGSTON SOLAR PV ENERGY PROJECT  
ERNESTOWN AND KINGSTON TOWNSHIPS,  
FRONTENAC, LENNOX AND ADDINGTON COUNTIES,  
ONTARIO**

**Submitted to:  
Kingston Solar LP  
55 Standish Court  
Mississauga, Ontario  
L5R 4B2**

**Phone: (905) 501-5658 Fax: (416) 635-7697**

**AND  
THE ONTARIO MINISTRY OF TOURISM,  
CULTURE AND SPORT**

**Submitted by:  
AMEC Environment & Infrastructure,  
a Division of AMEC Americas Limited.  
505 Woodward Avenue, Unit 1  
Hamilton, Ontario  
L8H 6N6  
Ph: (905) 312-0700  
Fx: (905) 312-0771**










**Archaeological Consulting  
Licence # P141 (Austin)  
P.I.F. #: P141-166-2011  
Associated with # P141-160-2011 (Austin)  
and # P348-001-2011 (Slim)  
AMEC Project # TB111077  
168335-0002-160-RPT-0024 Rev 0  
03 February 2012**

**Distribution:**

- Kingston Solar LP– 2 Copies;
- Ministry of Tourism, Culture & Sport – 1 Copy; and,
- AMEC Environment & Infrastructure - 1 Copy.

**IMPORTANT NOTICE**

*This Document was prepared exclusively for Kingston Solar LP, by AMEC Americas Limited. The quality of information contained herein is consistent with the level of effort involved in AMEC services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions and qualifications set forth in this document. This document is intended to be used by Kingston Solar LP only, subject to the terms and conditions of its contract with AMEC. Any other use of, or reliance upon this document by any third party for any other purpose will be at that party's sole risk.*

REV.	DATE	DETAILS OR PURPOSE OF REVISION	PREPARED	CHECKED	APPROVED
A	30/01/12	Draft Issued for Client Review			
B	01/02/12	Final Report Issued for Client Review			
0	03/02/12	Final Report issued to MTCS			

## EXECUTIVE SUMMARY

AMEC Environment & Infrastructure, a division of AMEC Americas Limited (“AMEC”) was retained by Kingston Solar LP (the “CLIENT”) to conduct a Stage 2 property assessment of selected parcels within the Sol-luce Kingston Solar PV Energy Project (the “PROJECT”). The CLIENT intends to design and construct a 100 MWac solar power development in Eastern Ontario near Kingston. The output of the solar project will be collected and connected to an electrical substation capable of transforming the power from distribution voltage to a transmission voltage of 230 kV. The proposed development is known as the PROJECT for the purpose of this report.

In December 2011, the CLIENT selected 5 parcels of vacant un-ploughable land for solar development (comprising 69.1 hectares in area). A Stage 2 property assessment of the selected 5 parcels was conducted. The study area is legally described as North ½ of Lot 7, Concession V in Kingston Township, County of Frontenac and Part of Lot 37 to 39, Concession IV in Ernestown Township, County of Lennox and Addington<sup>1</sup>. The legal description for each parcel can be found in Section 1.1 of this report. These parcels are owned by private individuals (the “OWNER”) and consist of vacant forested or heavily weeded/bushed properties.

The Stage 2 property assessment was carried out under Ontario Professional Licence to Conduct Archaeological Fieldwork No. P141 held by Dr. Shaun Austin of AMEC. The project information was acknowledged by the Ministry of Tourism, Culture and Sport (“MTCS”) on 16 December 2011 with the approval of PIF# P141-166-2011. Permission to enter the lands for a property inspection was granted to AMEC on 16 December 2011. The Stage 2 property assessment was conducted from 19 December 2011 to 23 December 2011 with a crew ranging from 31 to 38 personnel (from AMEC and Golder Associates Ltd. [“Golder”]) under the direction of Mr. Jason Seguin (P354) and Ms. Nicole Beattie (R353). Weather conditions were appropriate when conducting the archaeological assessment and did not impede the assessment in any way.

The Stage 2 assessment conducted for the solar development on the 5 parcels resulted in the identification of a pre-contact Aboriginal findspot consisting of a medial section from an unidentifiable refined biface (Findspot A1). Eight additional test-pits were dug in a 2.5 m radius around the initial positive test-pit, followed by the excavation of a 1 x 1 metre unit at the first positive test pit. The additional test pits and one-metre unit contained no additional artifacts. After this isolated findspot was thoroughly investigated, the artifact was collected and curated by AMEC.

No other Aboriginal or Euro-Canadian artifacts were recovered during the Stage 2 property assessment.

---

<sup>1</sup> Please note that Kingston Township has been amalgamated into the City of Kingston and the Township of South Frontenac, in the County of Frontenac. Ernestown Township has been amalgamated into Loyalist Township, County of Lennox and Addington.

Based on the results of the Stage 2 assessment of the 5 parcels selected for solar development for the Sol-luce Kingston Solar PV Energy Project it is recommended that:

- Findspot A1 consists of an isolated non-diagnostic artifact and may be considered free of any further archaeological concern; and,
- The balance of Parcels 14A, 22, 23, and 24, and the assessed portion of Parcel 21 may be considered free of any further archaeological concern.

**The above recommendation is subject to Ministry of Tourism, Culture and Sport's approval, and it is an offence to alter any archaeological site without Ministry of Tourism, Culture and Sport's concurrence.**

No grading or other activities that may result in the destruction or disturbance of an archaeological site are permitted until notice of Ministry of Tourism, Culture and Sport's approval has been received.

These recommendations are subject to the conditions found in Section 8.0.

## PROJECT PERSONNEL

Project Director: Barbara Slim, M.A. (P348) and  
Dr. Shaun Austin, Ph.D. (P141)

Field Directors: Jason Seguin, M.A. (P354) and  
Nicole Beattie, H.B.A. (R353)

Staff Archaeologist:

Mathew Birarda, H.B.Sc. (AMEC)  
Devon Brusey, H.B.A. (R410) (AMEC)  
Andrew Chillman (Golder)  
Aaron Clemens, H.B.A. (R329) (Golder)  
Jamie Davidson, B.A. (R305) (Golder)  
Sarah Davis (AMEC)  
Owen Ellsworth (AMEC)  
Tom Gordon (AMEC)  
Deanna Gemmell, B.A. (AMEC)  
Simon Gowland (AMEC)  
Peter Henderson, B.A. (Golder)  
Andrew Herman, B.A. (Golder)  
Mathew Hewer (AMEC)  
Adam Hossack, B.A. (P084) (Golder)  
Bri-Anna Jaksic, B.Sc. (AMEC)  
Cassandra Johnston, H.B.A. (AMEC)  
Arshad Khan, C.E.T. (AMEC)  
David Knill, B.A. (Golder)  
Christopher Lemon, B.Sc. (R289) (Golder)  
Shane MacLeod, B.Sc. (AMEC)  
Alex MckInstry (Golder)  
Steven Marks (AMEC)  
Doriano Mastrogiacomo, C.E.T. (AMEC)  
Dr. Scott Martin, Ph.D. (P218) (Golder)  
Carey Mathews, H.B.Sc. (R404) (Golder)  
Lafe Meicenheimer, M.Sc. (Golder)  
Mathew Mosher, M.A. (AMEC)  
Shannon Neill-Sward, B.A. (Golder)  
Christopher Petrucci, B.A. (AMEC)  
Musibur Rehman (AMEC)  
Jeffrey Schuster, B.A. (R334) (Golder)  
Jedekiah Secord (Golder)  
Jason Silver (Golder)  
Sheila Silver (Golder)  
Jeffrey Stott, B.A. (AMEC)  
Lauren Zaphishny, B.A. (Golder)

Report Preparation:

Barbara Slim, M.A.  
Jason Seguin, M.A.  
Nicole Beattie, H.B.A.  
Jeffrey Stott, B.A.

Artifact Processing and Analysis:

Cara Howell, B.A. (R180)

Graphics:

Christopher Petrucci, B.A.

Report Reviewers:

Tara Jenkins, M.A. (P357) and  
Shaun Austin, Ph.D.

### **ACKNOWLEDGEMENTS**

We would like to extend our thanks to Golder Associates Ltd. for providing us with field personnel to successfully complete this Stage 2 assessment.



**TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE</u></b>
1.0 PROJECT CONTEXT .....	1
1.1 Development Context .....	1
1.1.1 Scope of Work .....	2
1.2 History of Archaeological Investigations.....	2
1.3 Historical Context .....	3
1.4 Archaeological Context .....	8
1.4.1 Environmental Context .....	9
1.5 Overview of Project Context and Previous Recommendations .....	10
2.0 STAGE 2 PROPERTY ASSESSMENT.....	11
2.1 Introduction.....	11
2.2 Field Methods and Weather Conditions .....	11
2.3 Stage 2 Results .....	12
3.0 RECORD OF FINDS: FINDSPOT A1 .....	19
3.1 Field Results.....	19
3.2 Artifact Analysis.....	19
3.3 Conclusions.....	19
4.0 ANALYSIS AND CONCLUSIONS.....	20
5.0 RECOMMENDATIONS .....	21
6.0 ADVICE ON COMPLIANCE WITH LEGISLATION .....	22
7.0 ASSESSOR QUALIFICATIONS .....	23
8.0 CLOSURE.....	24
9.0 BIBLIOGRAPHY .....	26

**LIST OF TABLES**

Table 1: Selected Lands for Solar Development. ....	1
Table 2: Ownership names illustrated in the <i>1797 Plan of the Township of Kingston</i> . ....	4
Table 3: Residents and Historical Features illustrated in the <i>1860 Map of United Counties of Frontenac, Lennox and Addington Canada West</i> . ....	4
Table 4: Residents and Historical Features illustrated in the <i>1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington</i> .....	6
Table 5: Archaeological Sites located in vicinity of study area .....	8
Table 6: Weather Conditions and Crew, Stage 2 Property Inspection of Parcels Selected for Solar Development.....	11
Table 7: Stage 2 Investigations of Selected Lands for Solar Farm .....	13

## LIST OF APPENDICES

### Appendix A: Maps

- Figure 1 Location of Study Area.
- Figure 2 Aerial Photograph showing Location of Study Area.
- Figure 3 1994 Topographic Map showing Location of Study Area.
- Figure 4 Map of Physiographic Regions showing Location of Study Area.
- Figure 5 Soil Survey of Frontenac and Lennox-Addington Counties showing Location of Study Area.
- Figure 6 1797 Plan of the Township of Kingston in the County of Frontenac showing Location of Study Area.
- Figure 7 1860 Map of United Counties of Frontenac, Lennox and Addington showing Location of Study Area.
- Figure 8 1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington showing Location of Study Area.
- Figure 9 Archaeological Potential, Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Parcels Selected for Solar Development (Figures 4-Key and 4A to 4F).

### Appendix B: Images

### Appendix C: Artifact Catalogue

### Appendix D: Qualifications of the Assessors

### Appendix E: Limitations

## SUPPLEMENTARY PACKAGE

### *Section 1: Maps*

Figure 10 Stage 2 Archaeological Assessment Results: Location of Isolated Findspot A1 and Photograph Locations.

Figure 11 Stage 2 Archaeological Assessment Overview.

### *Section 2: GPS Readings of Isolated Findspot A1*

### *Section 3: Artifact Catalogue exhibiting associated GPS Reading*

### *Section 4: Aboriginal Consultation*

### *Section 5: Inventory of the Documentary Record Generated in the Field*



## 1.0 PROJECT CONTEXT

### 1.1 Development Context

AMEC Environment & Infrastructure, a division of AMEC Americas Limited (“AMEC”) was retained by Kingston Solar LP (the “CLIENT”) to conduct a Stage 2 property assessment of selected parcels within the Sol-luce Kingston Solar PV Energy Project (the “PROJECT”). The CLIENT intends to design and construct a 100 MWac solar power development in Kingston Township, County of Frontenac and Ernestown Township, County of Lennox and Addington, near Kingston, Ontario. The output of the solar project will be collected and connected to an electrical substation capable of transforming the power from distribution voltage to a transmission voltage of 230 kV. The proposed development is known as the PROJECT.

In December 2011, the CLIENT selected 5 parcels for solar development, comprising 69.1 hectares in area (“Study Area”) (Figures 1 to 3). A Stage 2 property assessment of the selected 5 parcels was conducted: Parcel 14, the majority of Parcel 21, Parcel 22, Parcel 23, and Parcel 24 (Figures 1 to 3). These parcels are owned by private individuals (the “OWNER”) and consist of vacant forested land, scrub areas, grassland or heavily weeded/bushed properties.

The following table provides the legal description and area associated with the selected parcels.

<b>Parcel</b>	<b>Legal Description</b>	<b>Area (in Hectares)</b>
14A	North ½ of Lot 7, Concession 5, Western Addition, Kingston; Lying West of Travelled Road Except Parts 14 & 15 RP1562; S/T Debts in FR319484, Kingston (PIN 361280024).	7.7
21	Part of Lot 39, Concession 4, Ernestown Part 1, 2 and 3 29R7698; S/T LA26055 As Amended By PL478; S/T LA86443; Loyalist (PIN 451220229)	21.8*
22	Part Lot 38, Concession 4, Ernestown As In LA101545 (Parcel # 2) Except Part 2 29R5702; S/T LA26168 As Amended By PL478; S/T LA85936; Loyalist (PIN 451220231)	20.6
23	Part of Lot 38, Concession 4, Ernestown; As in LA64275 Except Part 1 29R5702; S/T LA26053 As Amended by PL478; S/T LA86444, Loyalist (PIN 451220285).	3.6
24	Part Lot 37-39 Concession 4 Ernestown Part 2, 29R3887; S/T LA47223; Loyalist (PIN 451220285)	15.4

The Stage 2 property assessment was carried out under Ontario Professional Licence to Conduct Archaeological Fieldwork No. P141 held by Dr. Shaun Austin of AMEC. The project information was acknowledged by the Ministry of Tourism, Culture and Sport on

16 December 2011 with the approval of PIF# P141-166-2011. Permission to enter the lands for a property assessment was granted to AMEC on 16 December 2011. The Stage 2 property assessment was conducted from 19 December 2011 to 23 December 2011 with a crew ranging from 31 to 38 personnel under the direction of Mr. Jason Seguin (P354) and Ms. Nicole Beattie (R353). Weather conditions were appropriate when conducting the archaeological assessment (see Table 6 in Section 4.2 for weather conditions detail).

This report presents the results of the Stage 2 property assessment and makes pertinent recommendations.

### 1.1.1 Scope of Work

This Stage 2 assessment was carried out in accordance with the Terms of Reference provided in AMEC proposal / work agreement dated 16 December 2011. This Stage 2 property assessment was conducted in accordance with the Technical Standards defined in the *Standards and Guidelines for Consultant Archaeologists, 2011*, set out by the Ministry of Tourism, Culture and Sport ("MTCS"), and with the Ontario Heritage Act, R.S.O. 1990, c. 0.18.

The scope of work for this study consisted of the following tasks:

- Stage 2 identification of physical features of no or low archaeological potential (i.e., permanently wet areas, exposed bedrock, steep slopes, areas of extensive and deep land alteration, among other);
- Test pit survey (conducted at 5 m intervals) of all un-ploughable lands with archaeological potential;
- Mapping, photographing and other relevant graphics;
- Artifact processing and analysis, where applicable; and,
- Report preparation.

## 1.2 History of Archaeological Investigations

A Stage 1 archaeological assessment for the Primary Study Area of the Sol-luce Kingston Solar PV Energy Project was completed by AMEC in 2011 (AMEC 2011). This assessment included a background study of the Parcels assessed herein. In addition to the Stage 1 background study, AMEC completed a Stage 2 property assessment of 22 parcels of land located in the vicinity of the 5 parcels currently under review (AMEC 2011). A Stage 1 Archaeological Assessment and Stage 2 Property Assessment report

was prepared by AMEC in 2011. The following sections provide a brief summary of the project context for the study area as described in AMEC's (2011) study.

### **1.3 Historical Context**

Based on a review of the Stage 1 and 2 archaeology report (AMEC 2011), this area was first settled in the late 1700s (AMEC 2011: 8). Kingston (located to the southeast of the study area) was first settled in 1673 with the construction of the Fort Frontenac trading post (ASI 2010: Appendix C). The first survey of the Upper St. Lawrence was started in 1783 (MacRow 1982: 472). Kingston Township was nine miles deep and spread six miles along the waterfront. The boundaries originally did not join with Ernestown Township and a pie-shaped piece of land (identified as the Western Addition / Western Division) was added to Kingston Township so that Ernestown and Kingston Townships could be joined to facilitate road building (MacRow 1982: 472).

Ernestown Township was first settled in 1784 with the arrival of United Empire Loyalist refugees from the American Revolutionary War, in particular former soldiers known as Jessup's Loyal Rangers and their families (Turner 1993: 11). Similarly, this area of Kingston Township was settled between 1783 and 1814 (Nuttall 1982: 48). Sir John Johnson, commanding officer of the King's Royal Regiment of New York, was in charge of the overall loyalist settlement in this area (Turner 1993: 42). A second wave of immigration occurred following the War of 1812 when emigrants from Great Britain were encouraged to populate the province. Between 1820 and 1860, English, Scots, and Irish immigrant families arrived (Turner 1993: 19). Settlement consisted of dispersed family farms distributed along concessions and lots. Its focus was on the expansion and intensification of agricultural pursuits (Nuttall 1982: 48). Furthermore, two settlements developed in this area: the village of Glenvale and the small settlement of Sharpton (AMEC 2011: 35).

The later part of the nineteenth century was characterized by rural de-population (Turner 1993:19; Osborne 1982: 81). This decrease was based on four main factors: 1) emigration to cities in search of employment opportunities; 2) the shift towards commercially oriented mixed farming in the rest of Ontario, which was not feasible here due to the low quality of the soils; 3) the opening of the Grand Trunk Railway in 1856, creating a competitive farming market, and, 4) the increasing settlement opportunities in western Canada. In spite of these challenges, the regional economy continued to be dominated by agriculture (Turner 1993: 134).

The Stage 1 and 2 report prepared by AMEC (2011) conducted a review of historical plans from 1797 until 1878. The following tables are excerpts from this report and provide a summary of features observed in these historical maps within the 5 parcels assessed for this study.

The 1797 Plan of the Township of Kingston was examined in an effort to determine the potential for historic archaeological sites within the primary study area (Figure 6), which at the time consisted of various parcels with identified patents. Ownership names are provided in this plan; however, no further historical features are illustrated. The following table provides a summary of ownership identified within the 5 parcels currently under review:

<b>Table 2: Ownership names illustrated in the 1797 Plan of the Township of Kingston.</b>				
<b>Parcel</b>	<b>Lot</b>	<b>Concession</b>	<b>Township</b>	<b>Name(s) on Patent</b>
14A	7	V W. Div..	Kingston	o William Brookey; Clergy; James Gordon
21 & 24	39	IV	Ernestown	<i>Not Illustrated</i>
24	37	IV	Ernestown	<i>Not Illustrated</i>
22, 23 & 24	38	IV	Ernestown	<i>Not Illustrated</i>

In addition, the 1860 Map of United Counties of Frontenac, Lennox and Addington Canada West (Walling 1860) (Figure 7) was examined by AMEC (2011) during the Stage 1 background study. The following table provides a summary of ownership and features identified within the 5 parcels currently requiring a Stage 2 assessment:

<b>Table 3: Residents and Historical Features illustrated in the 1860 Map of United Counties of Frontenac, Lennox and Addington Canada West.</b>					
<b>Parcel</b>	<b>Lot</b>	<b>Concession</b>	<b>Township</b>	<b>Resident(s)/ Owner(s)</b>	<b>Historical Feature (s)</b>
14A	7	V W. Div	Frontenac	C. Gordon (E ½)	The following features were observed within the parcel corresponding to the study area: o A roadway is illustrated alongside the eastern edge of the parcel. It should be noted that residential dwellings are illustrated on the northern portion of this parcel; however, this portion of the parcel is not located within the study area.

**Table 3: Residents and Historical Features illustrated in the 1860 Map of United Counties of Frontenac, Lennox and Addington Canada West.**

Parcel	Lot	Concession	Township	Resident(s)/ Owner(s)	Historical Feature (s)
21	Pt. 39	IV	Ernestown	D. Lee (NE pt) W. Harvey (NW pt) and T. Hullett (S ½)	The following features were observed within the parcel corresponding to the study area: <ul style="list-style-type: none"> <li>○ A roadway is present alongside the eastern boundary of this parcel.</li> </ul> It should be noted that residential dwellings are illustrated on the northern portion of this parcel; however, this portion of the parcel is not located within the study area.
22	Pt. 38	IV	Ernestown	J. Lee (NE pt)	Although residential dwellings and a roadway are illustrated on the northern portion of this parcel, no historical features are illustrated within the study area under review.
23	Pt. 38	IV	Ernestown	L. Fraser (S pt)	Although two residential dwellings and a roadway are illustrated on the northern portion of this parcel, no historical features are illustrated within the study area under review.
24	Pt. 37	IV	Ernestown	J. Smith (W pt), and H. Henry (E pt)	Although residential dwellings and roadways are illustrated on the southern and northern portions of this parcel, no historical features are illustrated within the study area under review.
	Pt. 38	IV	Ernestown	L. Fraser (S pt)	Although two residential dwellings and a roadway are illustrated on the northern portion of this parcel, no historical features are illustrated within the study area under review.

**Table 3: Residents and Historical Features illustrated in the 1860 Map of United Counties of Frontenac, Lennox and Addington Canada West.**

Parcel	Lot	Concession	Township	Resident(s)/ Owner(s)	Historical Feature (s)
	Pt. 39	IV	Ernestown	D. Lee (NE pt) W. Harvey (NW pt) and T. Hullett (S ½)	The following features were observed within the parcel corresponding to the study area: <ul style="list-style-type: none"> <li>o A roadway is present alongside the eastern boundary of this parcel.</li> </ul> It should be noted that residential dwellings are illustrated on the northern portion of this parcel; however, this portion of the parcel is not located within the study area.

Furthermore, the 1878 *Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington* (Meacham & Co. 1878) (Figure 8) was examined by AMEC in 2011. This map shows some slight changes in settlement from the 1860 map. The following table provides a summary of ownership and features identified within the 5 parcels currently under review:

**Table 4: Residents and Historical Features illustrated in the 1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington.**

Parcel	Lot	Concession	Township	Resident(s)/ Owner(s)	Historical Feature (s)
14A	7	V W. Div	Frontenac	Mrs. Gordon (N ½)	The following features were observed within the parcel corresponding to the study area: <ul style="list-style-type: none"> <li>o A roadway is illustrated alongside the eastern edge of the parcel.</li> </ul> It should be noted that a residential dwelling is illustrated on the northern portion of this parcel; however, this portion of the parcel is not located within

**Table 4: Residents and Historical Features illustrated in the 1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington.**

Parcel	Lot	Concession	Township	Resident(s)/ Owner(s)	Historical Feature (s)
					the study area.
21	Pt. 39	IV	Ernestown	D. Lee (NW pt), John Lee (W Central pt). Geo Lee Sen (E pt) and John McCornich (SW pt)	The following features were observed within the parcel corresponding to the study area: <ul style="list-style-type: none"> <li>o A roadway is present alongside the eastern boundary of this parcel.</li> </ul> It should be noted that residential dwellings are illustrated on the northern portion of this parcel; however, this portion of the parcel is not located within the study area.
22	Pt. 38	IV	Ernestown	John Lee (E Central pt)	Although residential dwellings and a roadway are illustrated on the northern portion of this parcel, no historical features are illustrated within the study area under review.
23	Pt. 38	IV	Ernestown	Harry Denyes (W Central pt)	Although residential dwellings and a roadway are illustrated on the northern portion of this parcel, no historical features are illustrated within the study area under review.
24	Pt. 37	IV	Ernestown	Henry Henry (S pt)	Although residential dwellings and roadways are illustrated on the southern and northern portions of this parcel, no historical features are illustrated within the study area under review.
	Pt. 38	IV	Ernestown	John McCornich (S pt)	Although residential dwellings and a roadway are

<b>Table 4: Residents and Historical Features illustrated in the 1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington.</b>					
<b>Parcel</b>	<b>Lot</b>	<b>Concession</b>	<b>Township</b>	<b>Resident(s)/ Owner(s)</b>	<b>Historical Feature (s)</b>
					illustrated on the northern portion of this parcel, no historical features are illustrated within the study area under review.
	Pt. 39	IV	Ernestown	Geo Lee Sen (E pt)	The following features were observed within the parcel corresponding to the study area: ○ A roadway is present alongside the eastern boundary of this parcel. It should be noted that residential dwellings are illustrated on the northern portion of this parcel; however, this portion of the parcel is not located within the study area.

#### 1.4 Archaeological Context

Based on a review of the Stage 1 & 2 archaeological assessment report prepared by AMEC (2011), six archaeological sites are located in the vicinity of the 5 parcels. The following table provides a summary of these archaeological sites:

<b>Table 5: Archaeological Sites located in vicinity of study area</b>				
<b>Borden Number</b>	<b>Site Name</b>	<b>Cultural Affiliation</b>	<b>Site Type</b>	<b>Researcher &amp; Date</b>
BbGd-48	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Homestead	S. Austin & B. Slim (2011)



<b>Table 5: Archaeological Sites located in vicinity of study area</b>				
<b>Borden Number</b>	<b>Site Name</b>	<b>Cultural Affiliation</b>	<b>Site Type</b>	<b>Researcher &amp; Date</b>
BbGd-49	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Homestead	S. Austin & B. Slim (2011)
BbGd-50	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Homestead / Blacksmith Shop	S. Austin, B. Slim & J. Seguin (2011)
BbGd-51	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Domestic scatter	S. Austin & B. Slim (2011)
BbGd-52	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Homestead	S. Austin & J. Seguin (2011)
BbGd-53	-	Aboriginal (Early Woodland)	Isolated Findspot	S. Austin & B. Slim (2011)

In addition, as reviewed in the Stage 1 background research (AMEC 2011), the Master Plan of Archaeological Resources for the City of Kingston (ASI 2010: Figure 1) identified three precontact archaeological sites over a kilometre to the southeast of the 5 parcels. Further information with respect to these archaeological sites was not available.

#### 1.4.1 Environmental Context

The study area is underlain by a bed of limestone (Napanee Plain) carved by glaciers in the last ice age into flat-to-undulating terrain (Turner 1993: 14). Various creeks transect the township, providing rich stratified clay loam deposits. Glenvale Creek is located to the east of the study area, whereas Odessa Lake is located to the north/northwest. (Figures 3, 4 and 5). Due to the limestone plain and the above-mentioned depression, agriculture in this area was historically found to be difficult. The region is characterized by an uneven patchwork of fertile farms interspersed with sections of marginal plots. In some areas, heavy clays require drainage before they can be cultivated, whereas in other locations there is no soil cover, only exposed limestone (Osborne 1982: 81).

This study area is situated within the Napanee Plain physiographic region of Ontario (Chapman and Putnam 1984: 113; Figure 4). The Napanee Plain, which contains limestone of the Gull River and Bobcaygeon Formations, is a counterpart of the smaller

Carden Plain (Chapman and Putnam 1984: 186). The soil is only a few inches deep over much of the region (Chapman and Putnam, 1984: 186) and consists of six soil types: Farmington Loam, Lindsay Clay Loam, Lyons Loam-Shallow Phase, Guerin Loam, Guerin Loam-Shallow Phase, and Bondhead Loam (Figure 5).

The characteristic forest in this area is made up of sugar maple, white elm, silver and red maple, white cedar, basswood, beech and bur oak trees. White pine, hemlock, balsam fir, hawthorne, hickory, black ash and white spruce are also prevalent (Chapman and Putnam 1984: 187). Ground cover plants include Canada blue grass, mullein, blueweed and ground juniper.

The Napanee Plain is among the earliest areas of Upper Canada to be occupied and settled historically (Chapman and Putnam 1984: 187). The City of Kingston, located to the southeast, exerted considerable influence over the study area; however, small pioneer outposts located within this region also provided important supplies. One of these outposts was Odessa, located to the southwest of the study area. This general area was used as agricultural land, the majority of which remained in cultivation until the 1960s.

### **1.5 Overview of Project Context and Previous Recommendations**

As shown above, the previous Stage 1 and 2 archaeological assessment report (AMEC 2011) identified that the 5 parcels currently under review exhibit archaeological potential. This conclusion is based on three main factors, including: proximity to water, historic settlement and transportation routes, and previously identified archaeological sites in the vicinity of the study area.

The Stage 1 & 2 report authored by AMEC resulted in a recommendation for a Stage 2 property assessment if these 5 parcels were to be impacted by development. The fieldwork strategies presented herein coincide with AMEC's (2011) recommendations.

## 2.0 STAGE 2 PROPERTY ASSESSMENT

### 2.1 Introduction

A Stage 2 property assessment was conducted within the 5 Parcels selected for the Sol-luce Kingston Solar PV Energy Project.

### 2.2 Field Methods and Weather Conditions

The Stage 2 property assessment consisted of an on-site evaluation of no or low archaeological potential as described in the *Standards and Guidelines for Consultant Archaeologists, 2011* (pg. 28) and a test pit survey at 5 m intervals of all areas deemed to have archaeological potential using techniques required by the MTCS and described in the *Standards and Guidelines for Consultant Archaeologists, 2011* (Figures 9-Key Map, 9A to 9C). The Stage 1 background research for Parcels 14A, 22, 23, and 24, and the assessed portion of Parcel 21 was, completed in the course of the previous Stage 1 & 2 assessment (AMEC 2011). Property inspections were not carried out for the current Stage 2 study area.

Table 6 describes the crew and weather conditions encountered during the completion of the Stage 2 property assessment. The weather did not impede in the assessment in any way.

<b>Table 6: Weather Conditions and Crew, Stage 2 Property Inspection of Parcels Selected for Solar Development</b>		
<b>Date</b>	<b>Weather</b>	<b>Crew Initials</b>
12/19/11	Cold, Damp and Sunny	B.S.,J.S,D.B.,N.B.,J.S.,M.R.,C.P.,M.M.,D.M.,M.H.,S.M.,S.M.,A.K.,C.J.,B.J.,S.G.,D.G.,T.G.,O.E.,S.D.,M.B.,J.D.,C.L.,S.S.,C.M.,J.S.,J.S.,S.M.,J.S.,A.C.,A.H.
12/20/11	Cold and Sunny	B.S.,J.S,D.B.,N.B.,J.S.,M.R.,C.P.,M.M.,D.M.,M.H.,S.M.,S.M.,A.K.,C.J.,B.J.,S.G.,D.G.,T.G.,O.E.,S.D.,M.B., J.D., C.L., S.S., C.M., J.S., J.S., S.M., J.S., A.C., A.H.
12/21/11	Cold and Sunny	J.S,D.B.,N.B.,J.S.,M.R.,C.P.,M.M.,D.M.,M.H.,S.M.,S.M.,A.K.,C.J.,B.J.,S.G.,D.G.,T.G.,O.E.,S.D.,M.B.,A.C.,G.F.,P.H.,A.H.,D.K.,A.M.,LM.,S.N.,C.P.,L.Z.
12/22/11	Cold, Overcast with Sunny Periods.	J.S,D.B.,N.B.,J.S.,M.R.,C.P.,M.M.,D.M.,M.H.,S.M.,S.M.,A.K.,C.J.,B.J.,S.G.,D.G.,T.G.,O.E.,S.D.,M.B., A.C.,G.F.,P.H.,A.H.,D.K.,A.M.,LM.,S.N.,C.P.,L.Z.
12/23/11	Cold and Overcast.	J.S,D.B.,N.B.,J.S.,M.R.,C.P.,M.M.,D.M.,M.H.,S.M.,S.M.,A.K.,C.J.,B.J.,S.G.,D.G.,T.G.,O.E.,S.D.,M.B., A.C.,G.F.,P.H.,A.H.,D.K.,A.M.,LM.,S.N.,C.P.,L.Z.

The following section provides a description of the existing conditions observed and their significance with reference to the determination of archaeological potential. Low-lying and wet areas with associated wetland vegetation were deemed to be perennially wet and therefore not to warrant intensive testing. Nevertheless the edges of such areas were strategically shovel tested to confirm where five-metre shovel testing should resume.

As the Stage 2 study area consisted entirely of unploughable land, the survey strategy consisted of shovel testing at 5 metre intervals.

Test pits were placed throughout areas of archaeological potential, including areas with high rock content and/or alvar soils. All test pits were a minimum of 30 cm in diameter and dug to a minimum of 5 cm into the subsoil or until bedrock was encountered. Soil fills were screened through 6 millimetre (“mm”) mesh screens in order to facilitate artifact recovery. Test pit profiles were also examined for cultural deposits prior to being backfilled.

Upon discovery of cultural materials, the first step was to continue along the survey grid to determine whether immediately succeeding test pits also contained archaeological resources. If not, then we returned to the positive test pit and dug eight additional test-pits around it at a radial distance of 2.5 m. This was followed by the excavation of a 1 x 1 m unit over the first positive test pit. All test pits and test units were backfilled. Cultural artifacts encountered were collected and bagged according to provenience. The location of any positive test pit was recorded by means of Global Positioning System (“GPS”) waypoint. GPS coordinates for each artifact were recorded using a Garmin™ GPSMAP 62s GPS set to the NAD 83 with a minimum accuracy of plus or minus three metres.

### **2.3 Stage 2 Results**

Table 7 provides a detailed observation of terrain by parcel, accompanied by the appropriate assessment activities and the testing results. All images (i.e., photographs) described below are provided in Appendix B.

**Table 7: Stage 2 Investigations of Selected Lands for Solar Farm**

Parcel	Current Conditions & Archaeological Potential	Assessment Methods	Soil Conditions	Findings
14A	<p>Parcel 14A consisted of a mixture of woodlots, scrub areas (heavily brushed, thorned and weeded land), and low-lying and wet terrain (perennially wet conditions) associated with tributaries of Glenvale Creek.</p> <p>Parcel 14A was identified as having mixed potential as follows:</p> <ul style="list-style-type: none"> <li>• The following areas contained no archaeological potential: low-lying and wet areas associated with tributaries of Glenvale Creek, (Figure 9A, Photographs 1 to 3); and,</li> <li>• The following areas exhibited archaeological potential: woodlots and scrub areas (Figure 9A, Photographs 4 and 5).</li> </ul>	<p>The Stage 2 property assessment for Parcel 14A was conducted as follows:</p> <ul style="list-style-type: none"> <li>• A test pit survey was conducted at 5 m intervals in areas of archaeological potential using the methods described in Section 4.2 (Figure 9A, Photographs 4 and 5).</li> </ul>	<p>Soils within this parcel consisted of a brown (10YR 5/3) sandy loam; light brownish grey (10YR 6/2) subsoil and/or bedrock was encountered approximately 5 to 10 cm in depth.</p>	<p>Archaeological materials were not recovered and no archaeological sites were identified during this assessment.</p>

**Table 7: Stage 2 Investigations of Selected Lands for Solar Farm**

Parcel	Current Conditions & Archaeological Potential	Assessment Methods	Soil Conditions	Findings
21	<p>Parcel 21 consisted of a mixture of woodlots, scrub areas (heavily brushed, thorned and weeded land), scrub and treed areas with alvar-like soils and exposed bedrock, low-lying and wet terrain (perennially wet conditions) associated with tributaries of Glenvale Creek and disturbed areas.</p> <p>Alvar soils are defined as thin soils (&lt;15 cm) over limestone bedrock.</p> <p>Parcel 21 was identified as having mixed potential as follows:</p> <ul style="list-style-type: none"> <li>The following areas contained no archaeological potential: an extensively disturbed gravel driveway, the thoroughly disturbed Trans Canada Pipe Line and low-lying and wet areas (perennially wet conditions) located in the central portion of the parcel (Figure 9B, Photographs 6 to 12);</li> </ul>	<p>The Stage 2 property assessment for Parcel 21 was conducted as follows:</p> <ul style="list-style-type: none"> <li>A test pit survey was conducted at 5 m intervals in areas of archaeological potential using the methods described in Section 4.2 (Figure 9B, Photographs 16 to 25).</li> </ul>	<p>Soils in this parcel consisted of a dark brown (10 YR 3/3) with a very wet clay loam; light yellowish brown (10 YR 6/4) subsoil or bedrock was encountered at 5 to 35 cm in depth.</p> <p>Exposed bedrock (where alvar-like soils are present) was encountered throughout.</p>	<p>Archaeological materials were not recovered and no archaeological sites were identified during this assessment.</p>

**Table 7: Stage 2 Investigations of Selected Lands for Solar Farm**

Parcel	Current Conditions & Archaeological Potential	Assessment Methods	Soil Conditions	Findings
	<p>and,</p> <ul style="list-style-type: none"> <li>The following areas exhibited archaeological potential: woodlots, scrub areas and scrub and treed areas with alvar-like soils and exposed bedrock, (Figure 9B, Photographs 13 to 15).</li> </ul>			
22	<p>Parcel 22 consisted of a mixture of woodlots, scrub areas (heavily brushed, thorned and weeded land), scrub and treed areas with alvar-like soils and exposed bedrock, low-lying and wet terrain (perennially wet conditions) associated with tributaries of Glenvale Creek and disturbed areas.</p> <p>Parcel 22 was identified as having mixed potential as follows</p> <ul style="list-style-type: none"> <li>The following areas contained no archaeological potential: the thoroughly disturbed Trans Canada Pipe Line located on the northern portion of the parcel</li> </ul>	<p>The Stage 2 property assessment for Parcel 22 was conducted as follows:</p> <ul style="list-style-type: none"> <li>A test pit survey was conducted at 5 m intervals in areas of archaeological potential using the methods described in Section 4.2 (Figure 9B, Photographs 36 to 39).</li> </ul>	<p>Soils in this parcel consisted of a dark brown (10 YR 3/3) clay loam, often wet; light yellowish brown (10 YR 6/4) subsoil or bedrock was encountered at 5 to 30 cm in depth.</p> <p>Exposed bedrock (where alvar-like soils are present) was encountered throughout.</p>	<p>Archaeological materials were not recovered and no archaeological sites were identified during this assessment.</p>

**Table 7: Stage 2 Investigations of Selected Lands for Solar Farm**

Parcel	Current Conditions & Archaeological Potential	Assessment Methods	Soil Conditions	Findings
	<p>(Photograph 7) and low-lying and wet areas (perennially wet conditions) located within the central portion of the parcel (Figure 9B; Photographs 26 to 32); and,</p> <ul style="list-style-type: none"> <li>The following areas exhibited archaeological potential: woodlots, scrub areas, scrub and treed areas with alvar-like soils, (Figure 9B, Photographs 33 to 35).</li> </ul>			
23	<p>Parcel 23 consisted of a mixture of woodlots, scrub areas (heavily brushed, thorned and weeded land), a steep sloped area (greater than 20°) and a low-lying and wet area (perennially wet conditions).</p> <p>Parcel 23 was identified as having mixed potential as follows:</p> <ul style="list-style-type: none"> <li>The following areas contained no archaeological potential: a low-lying and wet area</li> </ul>	<p>The Stage 2 property assessment for Parcel 23 was conducted as follows:</p> <ul style="list-style-type: none"> <li>A test pit survey was conducted at 5 m intervals in areas of archaeological potential using the methods described in Section 4.2 (Figure 9C, Photographs 43 to 45).</li> </ul>	<p>Soils within this parcel consisted of a dark brown (10YR 3/23) sandy loam; light yellowish brown (10YR 6/4) subsoil was encountered at approximately 25 to 30 cm in depth.</p>	<p>Archaeological materials were not recovered and no archaeological sites were identified during this assessment.</p>



**Table 7: Stage 2 Investigations of Selected Lands for Solar Farm**

Parcel	Current Conditions & Archaeological Potential	Assessment Methods	Soil Conditions	Findings
	<p>located on the southern portion of the parcel and a steep sloped area located within a woodlot on the eastern portion of the parcel (Figure 9C, Photographs 40 and 41); and,</p> <ul style="list-style-type: none"> <li>The following areas exhibited archaeological potential: woodlots and scrub areas (Figure 9C, Photograph 42).</li> </ul>			
24	<p>Parcel 24 consisted of woodlots, scrub areas (heavily brushed, thorned and weeded land), scrub and treed areas with alvar-like soils and exposed bedrock, grassland with alvar-like soils and low-lying and wet terrain (perennially wet conditions) associated with tributaries of Glenvale Creek. The terrain was very undulating.</p> <p>Parcel 24 was identified as having mixed potential as follows:</p>	<p>The Stage 2 property assessment for Parcel 24 was conducted as follows:</p> <ul style="list-style-type: none"> <li>A test pit survey was conducted at 5 m intervals in areas of archaeological potential using the methods described in Section 4.2 (Figure 9C, Photographs 55 to 57).</li> </ul>	<p>Soils within this parcel comprised of moist brown (10YR 5/3) clay loam; light yellowish brown (10YR 6/24) subsoil or bedrock was encountered at a range for 1 to 30 cm in depth.</p> <p>Exposed bedrock (where alvar-like soils are present) was encountered on the eastern and western portions of the parcel.</p>	<p>One precontact Aboriginal artifact was encountered during the test pit survey. Upon discovery of each artifact, 8 test-pits were dug in a two 2.5 m radius around the initial positive test-pit, followed by the excavation of a 1 x 1 m unit at the first positive test pit (please refer to Section 5.0 for more detail). No further artifacts were encountered.</p>

**Table 7: Stage 2 Investigations of Selected Lands for Solar Farm**

Parcel	Current Conditions & Archaeological Potential	Assessment Methods	Soil Conditions	Findings
	<ul style="list-style-type: none"> <li>• The following areas contained no archaeological potential: low-lying and wet areas in the northern and southern portions of the parcel (Figure 9C, Photographs 46 to 49); and,</li> <li>• The following areas exhibited archaeological potential: woodlots, scrub areas, scrub and treed areas with alvar-like soils and exposed bedrock and grassland with alvar-like soils (Figure 9C, Photographs 50 to 54).</li> </ul>			

### **3.0 RECORD OF FINDS: FINDSPOT A1**

#### **3.1 Field Results**

Findspot A1 refers to an isolated pre-contact Aboriginal artifact that was encountered on sparsely vegetated, undulating terrain within Parcel 24. The grid (excavated at 5 m intervals) was continued to determine if any nearby test pits contained additional artifacts. Once it became apparent that there was only one positive test pit (consisting of one artifact) within the original grid, AMEC advanced 8 additional test-pits in a 2.5 m radius around the initial positive test-pit, followed by the excavation of a 1 x 1 m unit over the positive test pit (Figure 10, Photographs 58 and 59). The additional test pits and one-metre unit contained no additional artifacts.

Figure 10 (provided in the supplemental package) identifies the location of this findspot. In addition, Sections 3 and 4 of the Supplemental Package provide GPS readings for the artifact location. The elevation of the site is 135 m above mean sea level. Sediments at the site consist of medium brown (10YR5/3) clay loam with subsoil and bedrock encountered at a depth of 21 cm.

#### **3.2 Artifact Analysis**

The artifact recovered consisted of a medial section of a refined biface made of Onondaga chert. (Appendix C; Photograph 60). This non-diagnostic artifact measures 29.8 mm in partial length, 22.7 mm in width and 6.6 mm in thickness.

#### **3.3 Conclusions**

Findspot A1 was identified by a single pre-contact Aboriginal artifact which was curated following the investigation. The discovery of this isolated biface fragment, perhaps representing a hunting loss event, demonstrates the ephemeral presence of First Nation's peoples in the area. As Findspot A1 consists of an isolated find, no further archaeological investigation is recommended.

#### **4.0 ANALYSIS AND CONCLUSIONS**

The Stage 2 assessment conducted for the solar development on the 5 parcels resulted in the identification of a pre-contact Aboriginal findspot consisting of a medial section from an unidentifiable refined biface (Findspot A1). Eight additional test-pits were dug in a 2.5 m radius around the initial positive test-pit, followed by the excavation of a 1 x 1 metre unit at the first positive test pit. The additional test pits and one-metre unit contained no additional artifacts. After this isolated findspot was thoroughly investigated, the artifact was collected and curated by AMEC.

No other Aboriginal or Euro-Canadian artifacts were recovered during the Stage 2 property assessment.

## 5.0 RECOMMENDATIONS

Based on the results of the Stage 2 assessment of the 5 parcels selected for solar development for the Sol-luce Kingston Solar PV Energy Project it is recommended that:

- Findspot A1 consists of an isolated non-diagnostic artifact and may be considered free of any further archaeological concern; and,
- The balance of Parcels 14A, 22, 23, and 24, and the assessed portion of Parcel 21 may be considered free of any further archaeological concern.

**The above recommendation is subject to Ministry of Tourism, Culture and Sport's approval, and it is an offence to alter any archaeological site without Ministry of Tourism, Culture and Sport's concurrence.**

No grading or other activities that may result in the destruction or disturbance of an archaeological site are permitted until notice of Ministry of Tourism, Culture and Sport's approval has been received.

## 6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 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, Culture and Sport, 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 an 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 Archaeological 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.

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 license.

The documentation related to this archaeological assessment will be curated by AMEC until such time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the Ontario MTCS, and any other legitimate interest groups.

## **7.0 ASSESSOR QUALIFICATIONS**

This report was prepared and reviewed by the undersigned, employees of AMEC Environment & Infrastructure, a division of AMEC Americas Limited. AMEC is one of North America's leading engineering firms, with more than 50 years of experience in the earth and environmental consulting industry. The qualifications of the assessors involved in the preparation of this report are provided in Appendix D.

## **8.0 CLOSURE**

This report was prepared for the exclusive use of Kingston Solar LP and is intended to provide a Stage 2 property assessment of the 5 Parcels selected for solar development. The project is legally described as North ½ of Lot 7, Concession V in Kingston Township and Part of Lot 37 to 39, Concession IV in Ernestown Township located in the counties of Frontenac, Lennox and Addington.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third party. Should additional parties require reliance on this report, written authorization from AMEC will be required. With respect to third parties, AMEC has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The report is based on data and information collected during the Stage 1 background study of the property conducted by AMEC. It is based solely on the conditions of the property encountered at the time of the Stage 2 property assessment conducted from 19 to 23 December 2011, supplemented by a review of historical information and data obtained by AMEC as described in this report. Except as otherwise maybe specified, AMEC disclaims any obligation to update this report for events taking place, or with respect to information that becomes available to AMEC after the time during which AMEC conducted the archaeological assessment.

In evaluating the property, AMEC has relied in good faith on information provided by other individuals noted in this report. AMEC has assumed that the information provided is factual and accurate. In addition, the findings in this report are based, to a large degree, upon information provided by the current owner/occupant. AMEC accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted.

AMEC makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.

This report is also subject to the further Standard Limitations contained in Appendix E.

We trust that the information presented in this report meets your current requirements. Should you have any questions, or concerns, please do not hesitate to contact the undersigned.



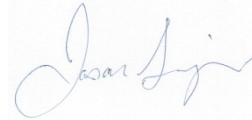
Respectfully Submitted,

**AMEC Environment & Infrastructure,  
a Division of AMEC Americas Limited**

Prepared by,



Barbara Slim, M.A.  
Staff Archaeologist (P348)



Jason Seguin, M.A.  
Archaeologist (P354)



Nicole Beattie, H.B.A.  
Archaeologist (R353)



Jeff Stott, B.A.  
Archaeologist

Reviewed by,



Tara Jenkins, M.A.  
Archaeologist (P357)



Shaun Austin, Ph.D.  
Senior Archaeologist (P141)

## 9.0 BIBLIOGRAPHY

### AMEC

2011 *Stage 1 Archaeological Assessment and Stage 2 Property Assessment: Sol-luce Kingston Solar PV Energy Project, Ernestown and Kingston Townships, Frontenac, Lennox and Addington Counties, Ontario, prepared by AMEC Earth & Infrastructure (PIF 348-001-2011 and P141-160-2011), Report on file with the Ministry of Tourism, Culture and Sport.*

### Archaeological Services Inc.

2010 *Master Plan of Archaeological Resources: City of Kingston Technical Report.* Prepared for the City of Kingston.

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

1984 *The Physiography of Southern Ontario.* Second Edition. Ontario Geological Survey, Special Volume 2. Ontario Ministry of Natural Resources, Toronto University Press, Toronto.

### Ellis, Chris J., Ian T. Kenyon and Michael W. Spence

1990 "The Archaic" in *The Archaeology of Southern Ontario to AD 1650*, eds. Chris J. Ellis and Neal Ferris. Occasional Publication of the London Chapter, Ontario Archaeological Society Inc., London, Ontario.

### Government of Ontario

1990 *Heritage Act RSO 1990.* Queen's Printer, Toronto.

### MacRow, Kathy

1982 "Kingston Township" in *County of a Thousand Lakes: The History of the County of Frontenac 1673-1973*, ed. B. Rollason, pp 472-481. Frontenac County Council, Kingston.

### Meacham and Co.

1878 *Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington, Ontario.*

### Ministry of Tourism and Culture

2011 *Standards and Guidelines for Consultant Archaeologist*, Ontario Ministry of Tourism and Culture, Toronto.

### Nuttall, A. Jay

1982 "Pushing Back the Frontier" in *County of a Thousand Lakes: The History of the County of Frontenac 1673-1973*, ed. B. Rollason, pp 48-66. Frontenac County Council, Kingston.

### Osborne, Brian S.

1982 "The Farmer and the Land" in *County of a Thousand Lakes: The History of the County of Frontenac 1673-1973*, ed. B. Rollason, pp 81-94. Frontenac County Council, Kingston.

Turner, Larry  
1993 *Ernestown: Rural Spaces, Urban Places*. Best Gagne Book Manufacturers,  
Louisville, Quebec.

Walling, H.F.  
1860 *Map of United Counties of Frontenac, Lennox, and Addington*.

**APPENDIX A**

**MAPS**

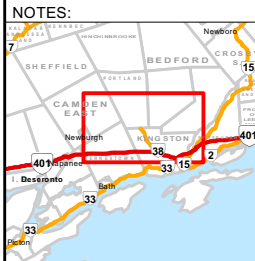
349807 351807 353807 355807 357807 359807 361807 363807 365807 367807 369807 371807 373807 375807 377807 379807 381807 383807 385807 387807

4923312  
4919312  
4917312  
4915312  
4913312  
4911312  
4909312  
4907312  
4905312  
4903312  
4901312



01 February 2012 C:\Users\chris.peteruk\Desktop\TB11077\maps\Figure 1 study area.mxd

LEGEND	
Study Area	Lower Tier Municipalities
Railway	Residential Area
Freeway	Waterbody
Expressway / Highway	Golf Course
Arterial Road	Park / Sportsfield
Transmission Line	Wetlands
U.G. Pipeline	Woodland Area



**KINGSTON SOLAR LP**

**SOL-LUCE KINGSTON  
STAGE 2 ARCHAEOLOGICAL ASSESSMENT**

**Location of Study Area**

Datum: NAD83  
Projection: UTM Zone 18N



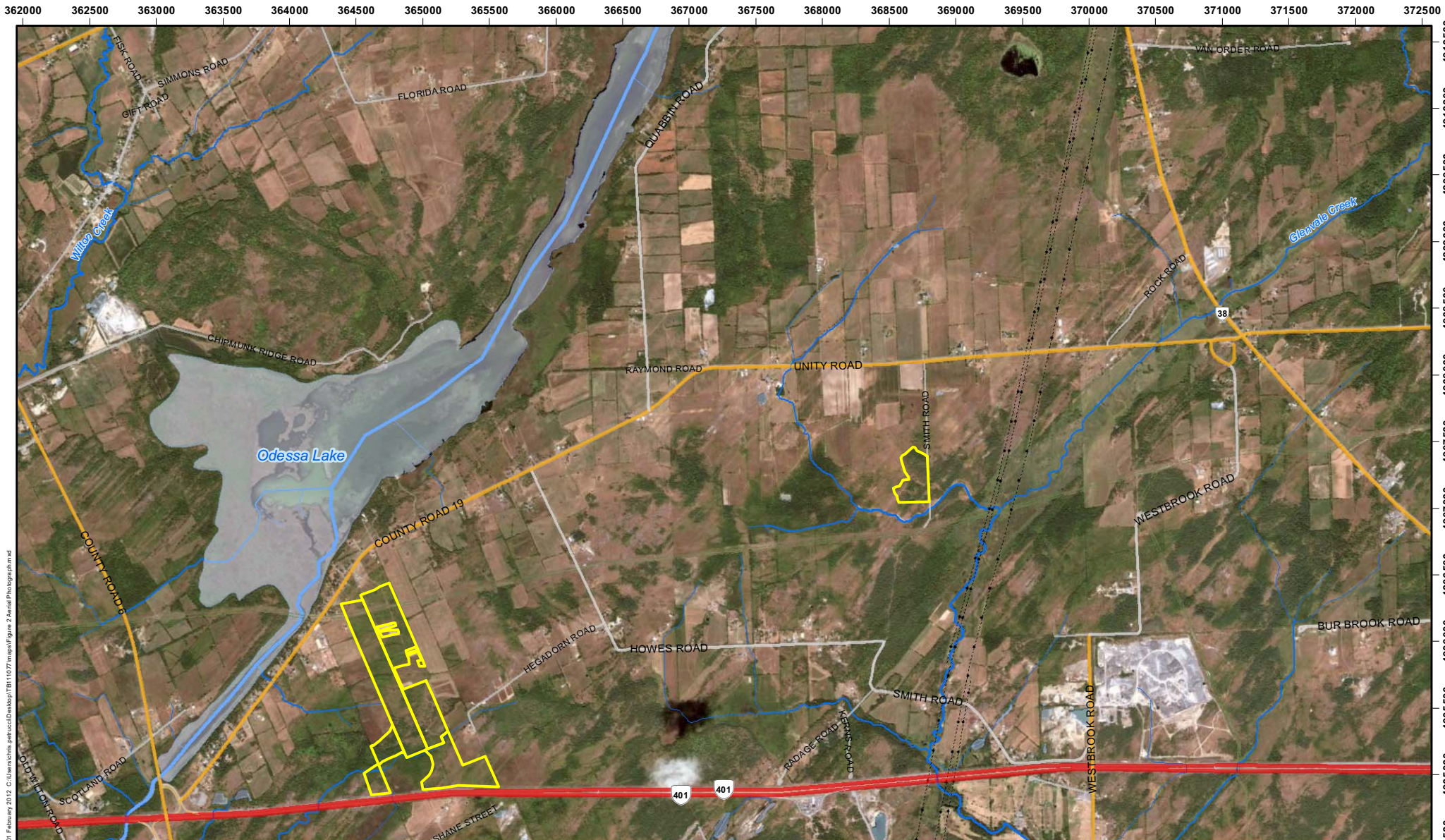
PROJECT N°: TB11077

FIGURE: 1



SCALE: 1:150,000

DATE: January 2012

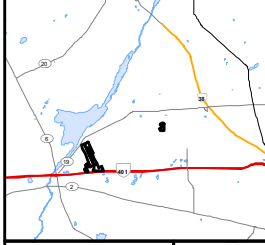


01 February 2012 C:\Users\chris.peterico\Desktop\TB11077\maps\Figure 2 Aerial Photograph.mxd

**LEGEND**

- Study Area
- Railway
- Transmission Line
- U.G. Pipeline

**NOTES:**



Datum: NAD83  
Projection: UTM Zone 18N



**KINGSTON SOLAR LP**

**SOL-LUCE KINGSTON  
STAGE 2 ARCHAEOLOGICAL ASSESSMENT**

**Aerial Photograph showing  
Location of Study Area**

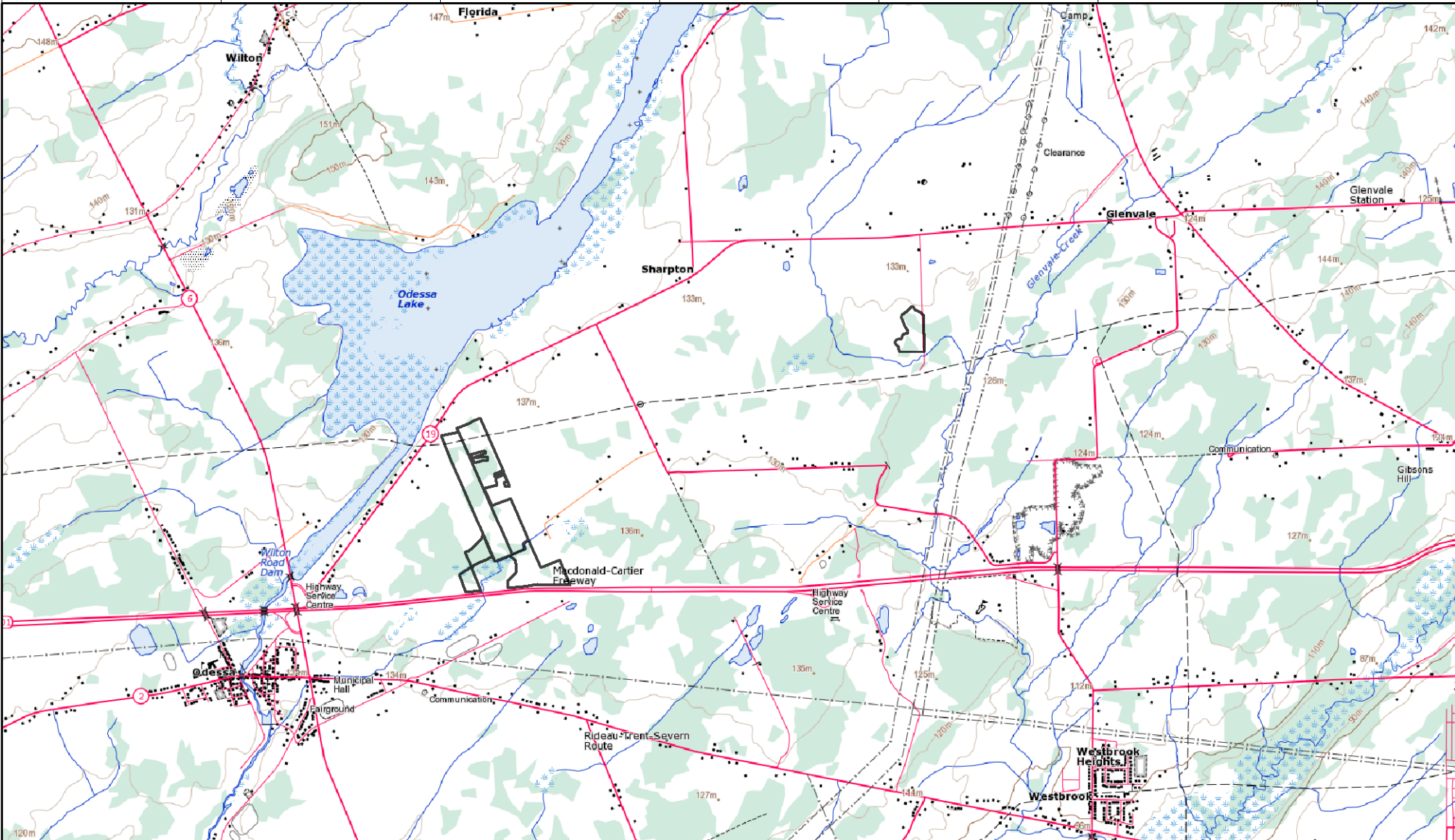
PROJECT N<sup>o</sup>: TB11077

FIGURE: 2

SCALE: 1:40,000

DATE: January 2012

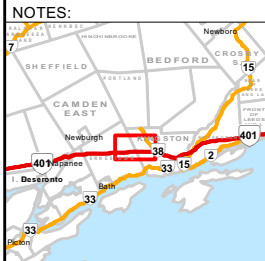




01 February 2012 C:\Users\chris.peterco\Desktop\TB11077\mapa\Figure 3 1994 Topographic Map.mxd

4908552  
4906552  
4904552  
4902552

**LEGEND**  
 Study Area



**KINGSTON SOLAR LP**

**SOL-LUCE KINGSTON  
 STAGE 2 ARCHAEOLOGICAL ASSESSMENT**

**1994 Topographic Map showing  
 Location of Study Area**

Datum: NAD83  
 Projection: UTM Zone 18N



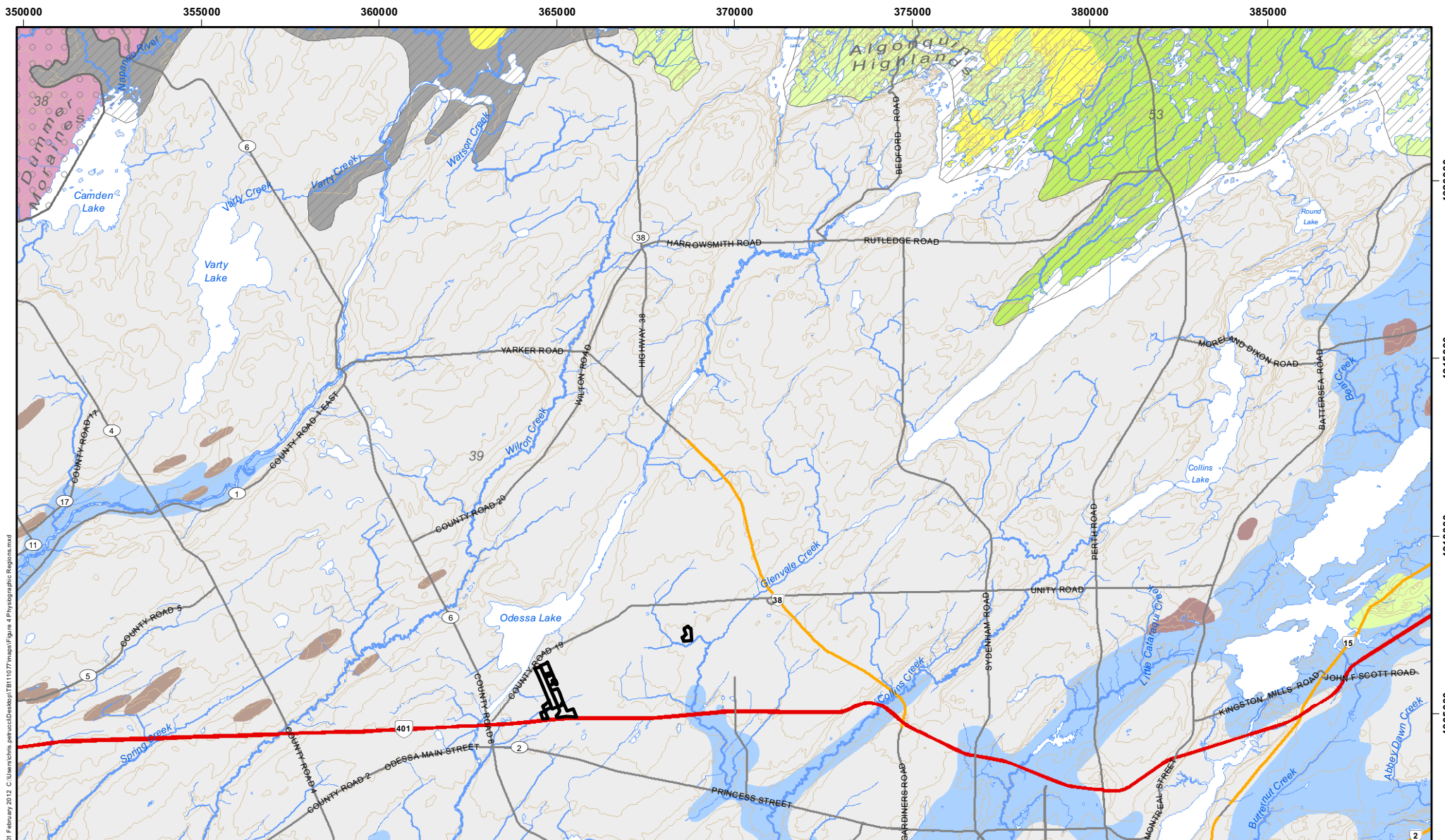
PROJECT N<sup>o</sup>: TB11077

FIGURE: 3

SCALE: 1:50,000

DATE: January 2012

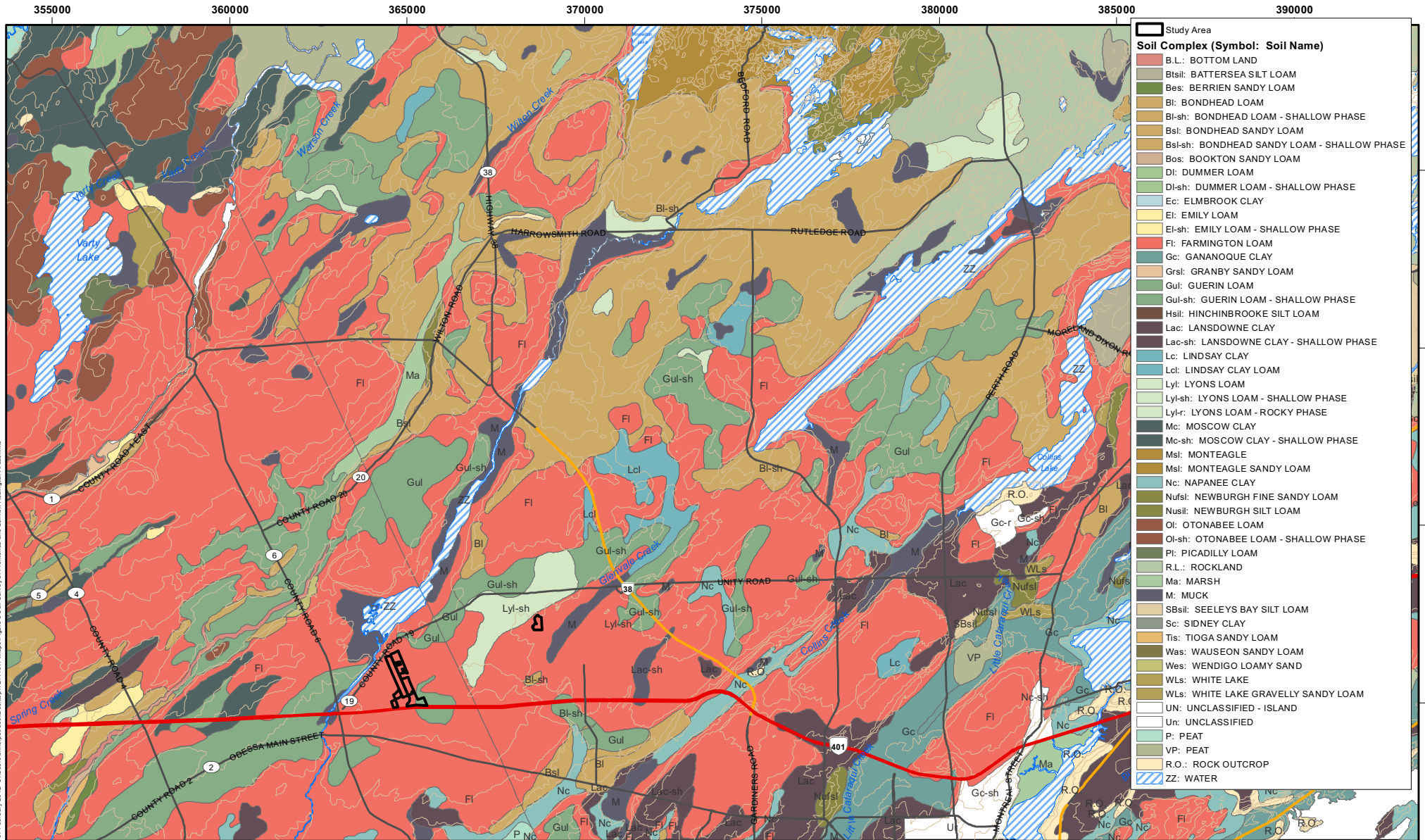




01 February 2012 C:\Users\chris.peter\Desktop\TB1107\maps\Figure 4 Physiographic Regions.mxd

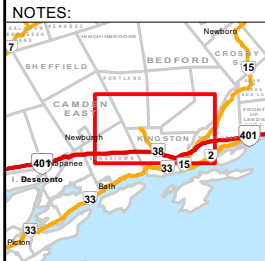
<b>LEGEND</b> 		<b>NOTES:</b> 		<b>KINGSTON SOLAR LP</b> <b>SOL-LUCE KINGSTON</b> <b>STAGE 2 ARCHAEOLOGICAL ASSESSMENT</b>	
<b>Physiographic Region</b> 38, Dummer Moraine 39, Napanee Plain 53, Algonquin Highlands		<b>Physiographic Unit</b> 1: Escarpments 2: Till Moraines 3: Spillways 4: Kame Moraines 7: Drumlins 8: Bevelled Till Plains 9: Limestone Plains 10: Shale Plains 11: Sand Plains 5: Till Plains (Undrumlined) 6: Till Plains (Drumlined) 12: Clay Plains 13: Eskers 14: Beaches 15: Shallow Till And Rock Ridges 16: Bare Rock Ridges And Shallow Till 17: Peat And Muck		<b>Map of Physiographic Regions showing Location of Study Area</b>	
Datum: NAD83 Projection: UTM Zone 18N				<b>PROJECT N°: TB11077</b> <b>FIGURE: 4</b>	
		<b>SCALE: 1:150,000</b>		<b>DATE: January 2012</b>	





01 February 2012 C:\Users\paul\Documents\TB1107\maps\Figure 5 Soil Survey of Frontenac and Lennox-Addington Areas.mxd

- LEGEND**
- Study Area
  - Freeway
  - Expressway / Highway
  - Arterial Road



**KINGSTON SOLAR LP**

**SOL-LUCE KINGSTON  
STAGE 2 ARCHAEOLOGICAL ASSESSMENT**

**Soil Survey of Frontenac and  
Lennox-Addington Counties  
showing Location of Study Area**

Datum: NAD83  
Projection: UTM Zone 18N



PROJECT N<sup>o</sup>: TB11077

FIGURE: 5

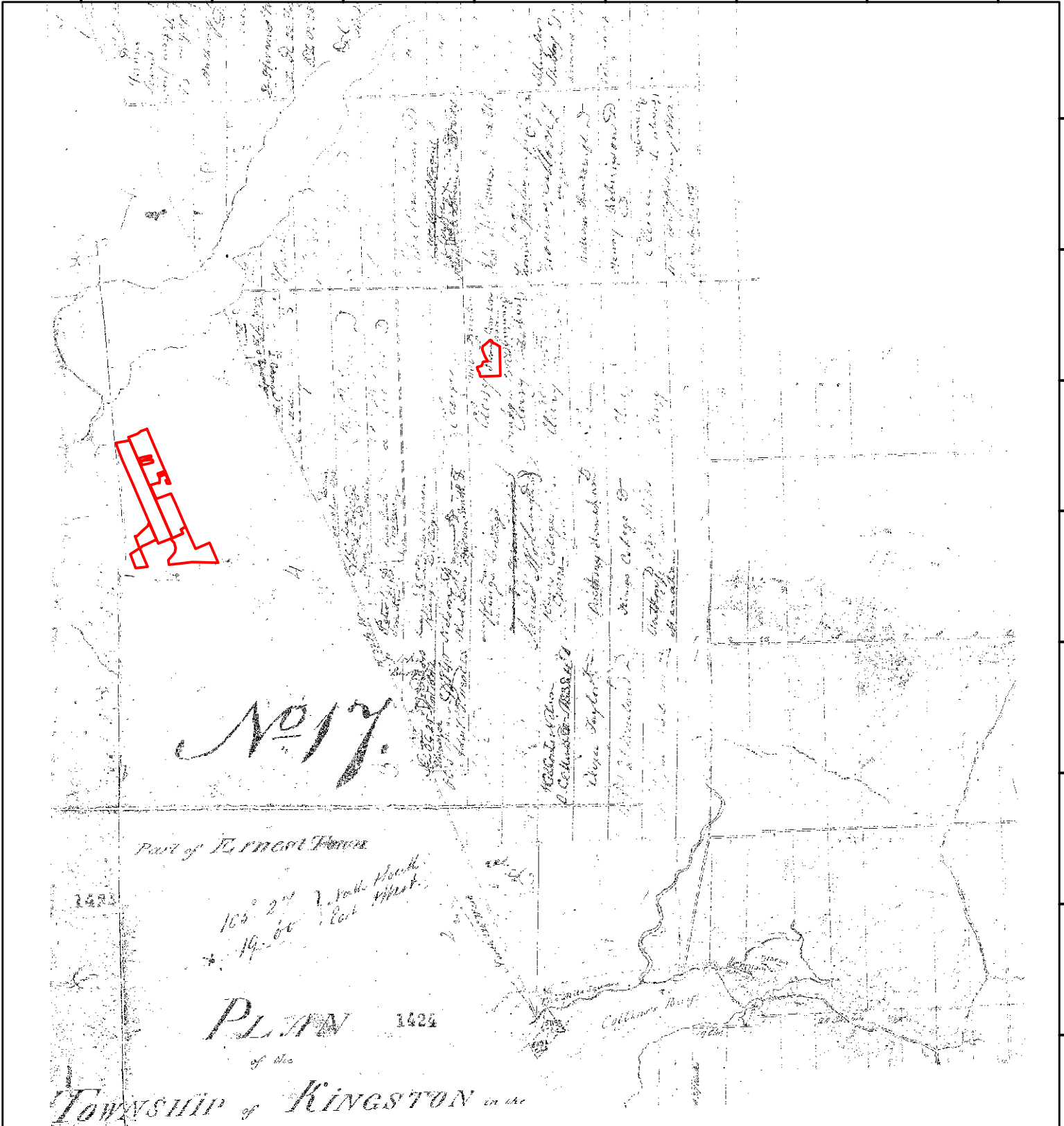


SCALE: 1:150,000

DATE: January 2012


364000 365500 367000 368500 370000 371500 373000 374500

491000  
4908500  
4907000  
4905500  
4904000  
4902500  
4901000  
4899500



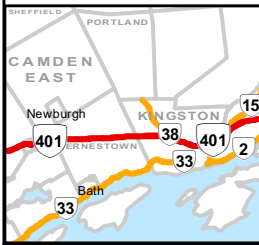
01 February 2012 11:07:33 AM (GIS\_Work)\TCT11406 - Samsung Solar Archaeo\_MAPS\Figure 6 1797 Plan of the Twp of Kingston County of Frontenac.mxd

**LEGEND**

 Study Area

Source: Aitken, A., 1797.  
Best available image quality is shown.

**NOTES:**



Datum: NAD83  
Projection: UTM Zone 18N



**KINGSTON SOLAR LP** 

SOL-LUCE KINGSTON  
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

**1797 Plan of the Township of Kingston  
in the County of Frontenac  
showing Location of Study Area**

PROJECT N<sup>o</sup>: TB11077

FIGURE: 6

SCALE: 1:60,000

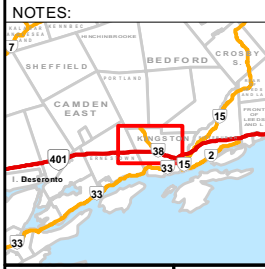
DATE: January 2012



01 February 2012 11:07:3365(G)B - Scanning User: Archival - MAPS\Figures 9 - 1860 Map of United Counties of Frontenac, Lennox & Addington.mxd

**LEGEND**  
 Study Area

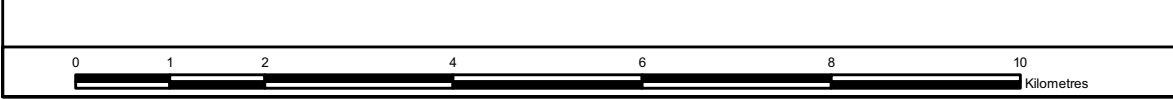
Source: Walling, H.F., 1860.  
 Best available image quality is shown.



**KINGSTON SOLAR LP**

**SOL-LUCE KINGSTON  
 STAGE 2 ARCHAEOLOGICAL ASSESSMENT**

**1860 Map of United Counties of  
 Frontenac, Lennox & Addington,  
 showing Location of Study Area**



PROJECT N°: TB11077      **FIGURE: 7**

SCALE: 1:80,000      DATE: January 2012

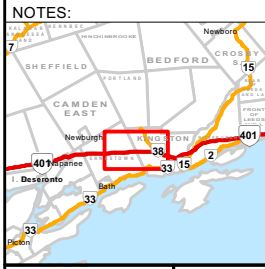


01 February 2012 C:\Users\chris.petro\Desktop\TB1107\maps\Figure 8 1878 Illustrated Historical Atlas.mxd

**LEGEND**

Study Area

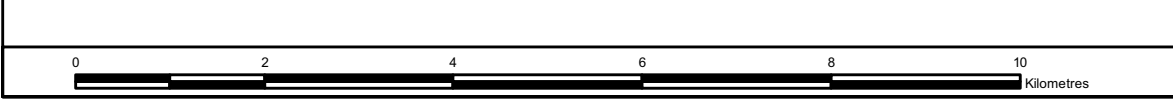
Source: Meacham & Co., 1878.



**KINGSTON SOLAR LP**

**SOL-LUCE KINGSTON  
STAGE 2 ARCHAEOLOGICAL ASSESSMENT**

**1878 Illustrated Historical Atlas of the  
Counties of Frontenac, Lennox & Addington  
showing Location of Study Area**



Datum: NAD83  
Projection: UTM Zone 18N

PROJECT N<sup>o</sup>: TB11077  
SCALE: 1:80,000

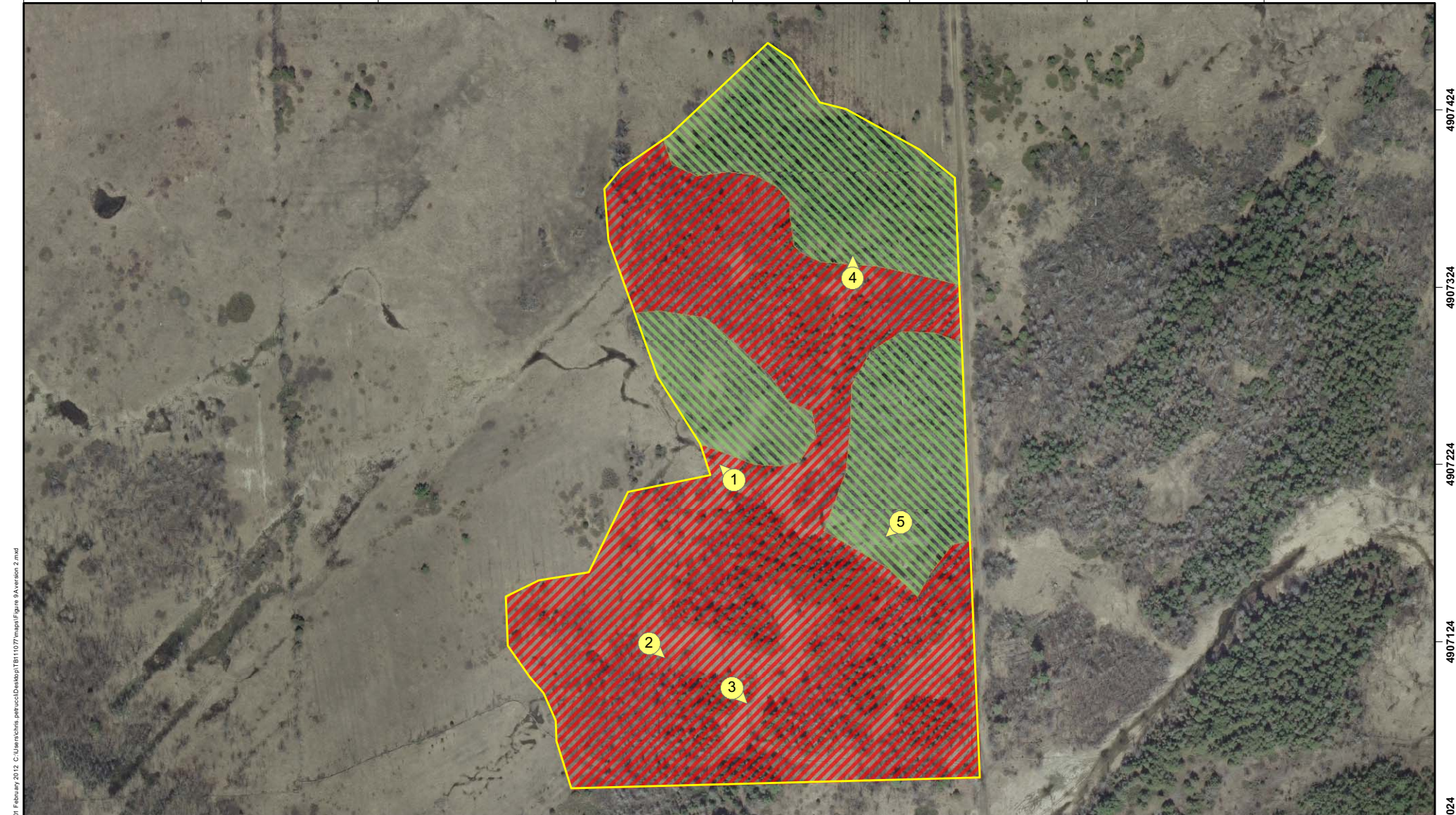
FIGURE: 8  
DATE: January 2012



01 February 2012 C:\Users\pau\Documents\TB11077\maps\Figure 9 key version 2.mxd

4907161  
4906661  
4906161  
4905661  
4905161  
4904661

<p><b>LEGEND</b></p> <p><span style="border: 1px solid yellow; display: inline-block; width: 20px; height: 10px;"></span> Parcels Selected for Solar Development</p> <p><span style="border: 1px solid red; display: inline-block; width: 20px; height: 10px;"></span> Reference Map Sheets</p> <p><b>Areas of Archaeological Potential</b></p> <p><span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, green 2px, green 4px); border: 1px solid green; display: inline-block; width: 20px; height: 10px;"></span> Non-Ploughable (Woodlots, Scrub Areas, Scrub Areas with Alvar-Like Soils and Exposed Bedrock, Grassland with Alvar-Like Soils) Test-Pitted at 5 Metre Intervals</p>	<p><b>Areas of No Archaeological Potential</b></p> <p><span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, red 2px, red 4px); border: 1px solid red; display: inline-block; width: 20px; height: 10px;"></span> Low Lying and Wet Areas</p> <p><span style="background: repeating-linear-gradient(-45deg, transparent, transparent 2px, red 2px, red 4px); border: 1px solid red; display: inline-block; width: 20px; height: 10px;"></span> Sloped (Greater than 20 Degrees)</p> <p><span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, red 2px, red 4px), repeating-linear-gradient(-45deg, transparent, transparent 2px, red 2px, red 4px); border: 1px solid red; display: inline-block; width: 20px; height: 10px;"></span> Extensively Disturbed Terrain</p>	<p><b>NOTES:</b></p>	<p><b>KINGSTON SOLAR LP</b></p>
<p><b>SOL-LUCE KINGSTON</b></p> <p><b>STAGE 2 ARCHAEOLOGICAL ASSESSMENT</b></p>			
<p><b>Archaeological Potential, Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Parcels Selected for Solar Development</b></p>			
<p>Datum: NAD83 Projection: UTM Zone 18N</p>		<p>PROJECT N<sup>o</sup>: TB11077</p> <p>SCALE: 1:19,000</p>	<p>FIGURE: 9 KEY MAP</p> <p>DATE: January 2012</p>



01 February 2012 C:\Users\peteruco\Desktop\TB11077\maps\Figure 9A version 2.mxd

4907424  
4907324  
4907224  
4907124  
4907024

**LEGEND**

- Parcels Selected for Solar Development
- Photograph Location and Direction

**Areas of Archaeological Potential**

- Non-Ploughable (Woodlots, Scrub Areas, Scrub Areas with Alvar-Like Soils and Exposed Bedrock, Grassland with Alvar-Like Soils) Test-Pitted at 5 Metre Intervals

**Areas of No Archaeological Potential**

- Low Lying and Wet Areas

Meters

**NOTES:**

Datum: NAD83  
Projection: UTM Zone 18N

**KINGSTON SOLAR LP**

---

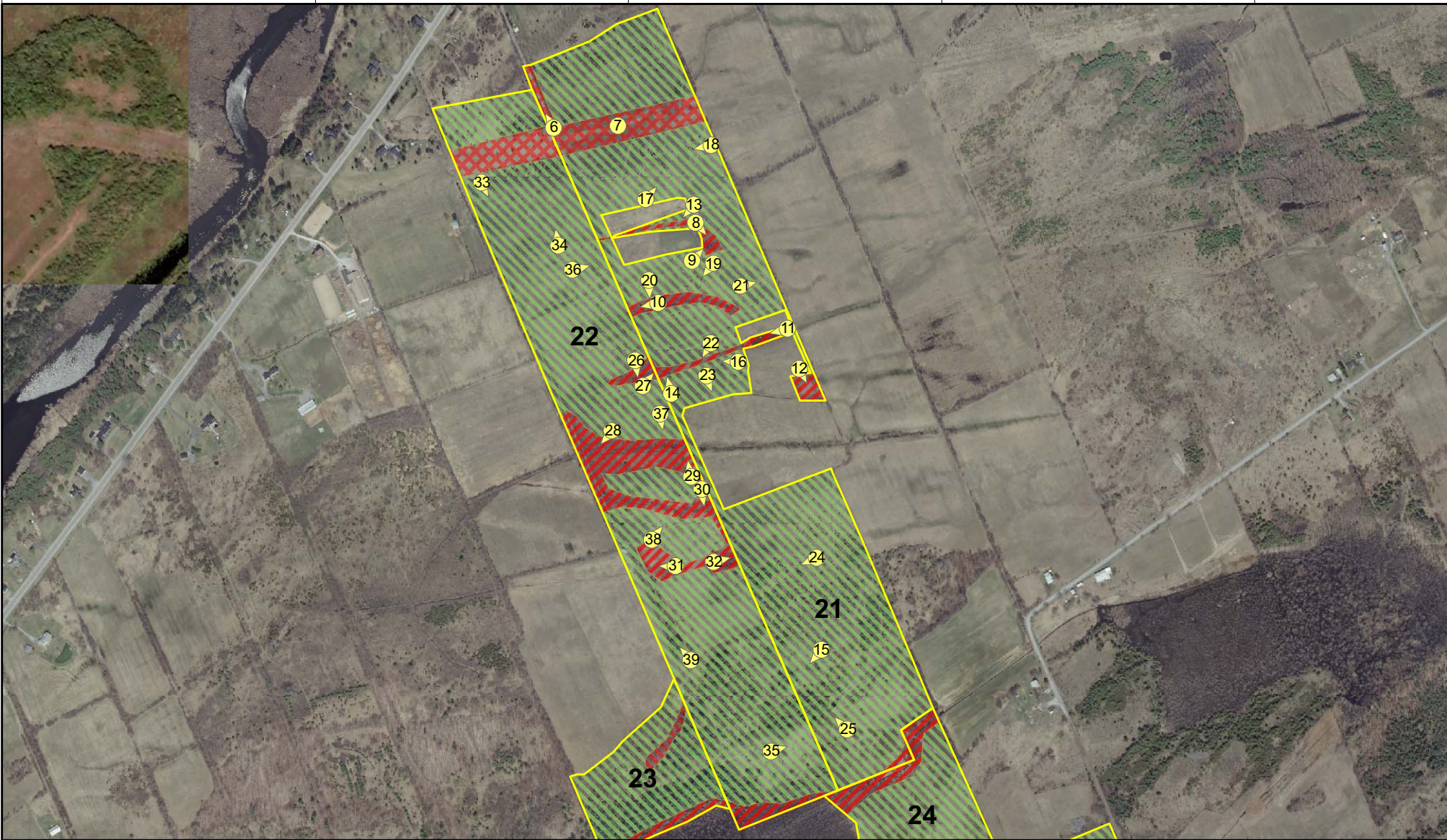
**SOL-LUCE KINGSTON  
STAGE 2 ARCHAEOLOGICAL ASSESSMENT**

---

**Archaeological Potential, Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Parcels Selected for Solar Development**

---

PROJECT N <sup>o</sup> : TB11077	FIGURE: 9A
SCALE: 1:3,000	DATE: January 2012



01 February 2012 C:\Users\sthep\paw\proj\TB11077\mapa\Figure 9B version 2.mxd

4905113

4905613

4905113

**LEGEND**

- Parcels Selected for Solar Development
- Photograph Location and Direction

**Areas of Archaeological Potential**

Non-Ploughable (Woodlots, Scrub Areas, Scrub Areas with Alvar-Like Soils and Exposed Bedrock, Grassland with Alvar-Like Soils) Test-Pitted at 5 Metre Intervals

**Areas of No Archaeological Potential**

- Low Lying and Wet Areas
- Sloped (Greater than 20 Degrees)
- Extensively Disturbed Terrain

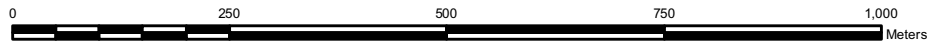
**NOTES:**

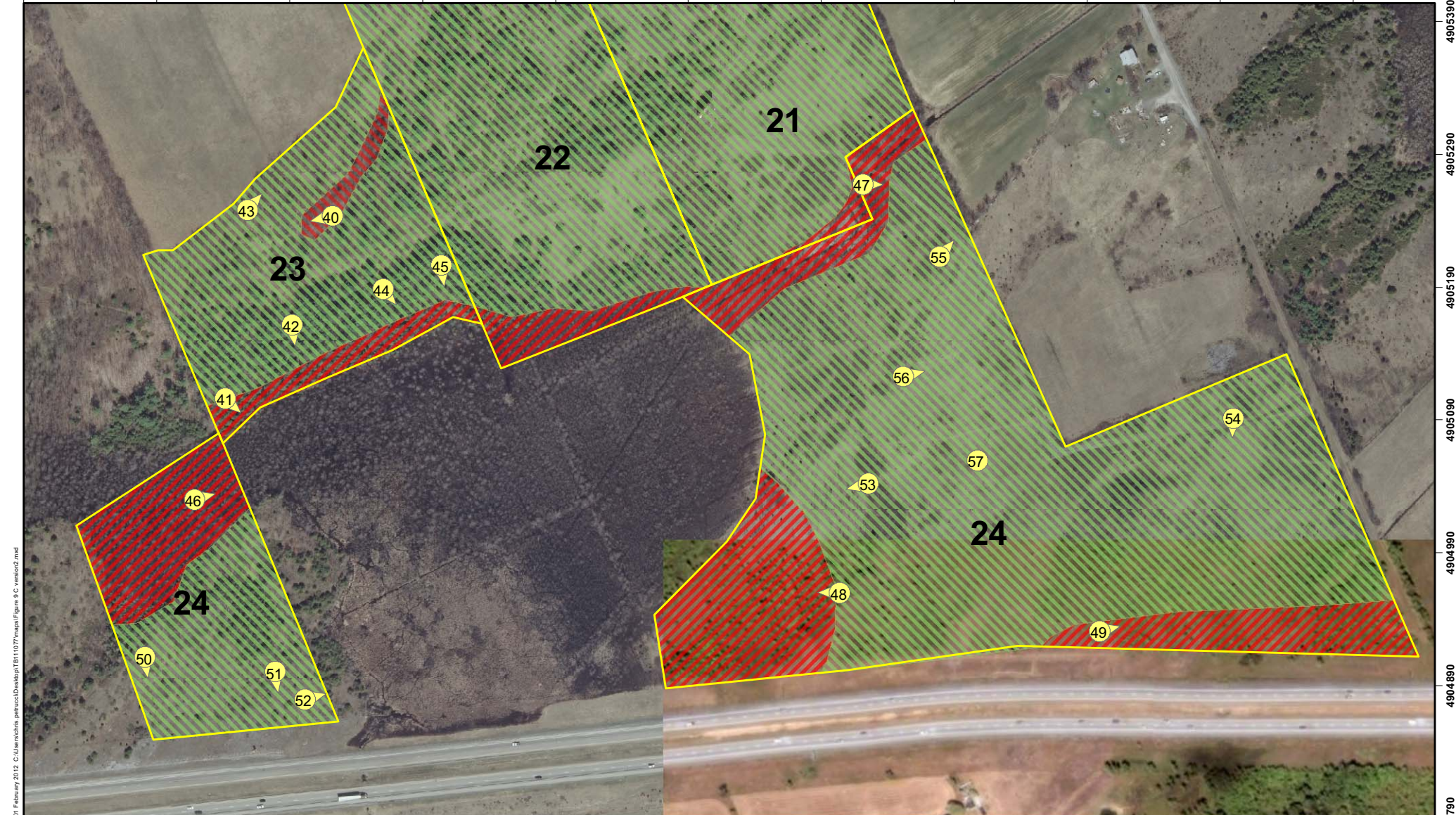


Datum: NAD83  
Projection: UTM Zone 18N



<p><b>KINGSTON SOLAR LP</b> </p>	
<p><b>SOL-LUCE KINGSTON</b> <b>STAGE 2 ARCHAEOLOGICAL ASSESSMENT</b></p>	
<p><b>Archaeological Potential, Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Parcels Selected for Solar Development</b></p>	
<p>PROJECT N<sup>o</sup>: TB11077</p>	<p>FIGURE: 9B</p>
<p>SCALE: 1:8,700</p>	<p>DATE: January 2012</p>





01 February 2012 C:\Users\schaepe\p\work\TB11077\maps\Figure 9 C version2.mxd

<p><b>LEGEND</b></p> <p> Parcels Selected for Solar Development</p> <p> Photograph Location and Direction</p> <p><b>Areas of Archaeological Potential</b></p> <p> Non-Ploughable (Woodlots, Scrub Areas, Scrub Areas with Alvar-Like Soils and Exposed Bedrock, Grassland with Alvar-Like Soils) Test-Pitted at 5 Metre Intervals</p>		<p><b>Areas of No Archaeological Potential</b></p> <p> Low Lying and Wet Areas</p> <p> Sloped (Greater than 20 Degrees)</p>		<p><b>NOTES:</b></p> <p>Datum: NAD83 Projection: UTM Zone 18N</p>		<p><b>KINGSTON SOLAR LP</b> </p> <p><b>SOL-LUCE KINGSTON</b> <b>STAGE 2 ARCHAEOLOGICAL ASSESSMENT</b></p> <p><b>Archaeological Potential, Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Parcels Selected for Solar Development</b></p>	
<p>0 100 200 300 400 Meters</p>				<p>PROJECT N<sup>o</sup>: TB11077</p>		<p>FIGURE: 9C</p>	
				<p>SCALE: 1:4,000</p>		<p>DATE: January 2012</p>	



**APPENDIX B**

**IMAGES**

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 1:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 14A, facing northwest.



**Photograph 2:** View of low-lying and wet terrain (cattail marsh) located within Parcel 14A, facing southeast.



**Photograph 3:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 14A, facing southeast.



**Photograph 4:** View of crew conducting test-pitting program in sparse woodlot within Parcel 14A, facing north.



**Photograph 5:** View crew conducting test-pitting program in scrub area within Parcel 14A, facing southwest.



**Photograph 6:** View of disturbed terrain (gravel driveway) located within Parcel 21, facing north.

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 7:** View of disturbed terrain (Trans-Canada Pipeline easement) located within Parcel 21.



**Photograph 8:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 21, facing southeast.



**Photograph 9:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 21, facing northeast.



**Photograph 10:** View of low-lying and wet terrain (tributary of Glenvale Creek) located within Parcel 21, facing west.



**Photograph 11:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 21, facing west.



**Photograph 12:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 21, facing south.

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 13:** View of scrub terrain located within Parcel 21, facing southwest.



**Photograph 14:** View of scrub and woodlot terrain located within Parcel 21, facing north.



**Photograph 15:** View of scrub areas with alvar-like soils and exposed bedrock located within Parcel 21, facing southwest.



**Photograph 16:** View of crew conducting test-pitting program in scrub areas within Parcel 21, facing west.



**Photograph 17:** View of crew conducting test-pitting program in scrub areas within Parcel 21, facing northwest.



**Photograph 18:** View of crew conducting test-pitting program in scrub areas within Parcel 21, facing west.

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 19:** View of crew conducting test-pitting program on edge of woodlot within Parcel 21, facing southwest.



**Photograph 20:** View of crew conducting test-pitting program on edge of scrubland within Parcel 21, facing south.



**Photograph 21:** View of crew conducting test-pitting program on edge of scrubland within Parcel 21, facing east.



**Photograph 22:** View of crew conducting test-pitting program on scrub area with alvar-like soils within Parcel 21, facing southwest.



**Photograph 23:** View of crew conducting test-pitting program on scrubland within Parcel 21, facing south.



**Photograph 24:** View of crew conducting test-pitting program on scrub area with alvar-like soils within Parcel 21, facing west.

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 25:** View of crew conducting test-pitting program on scrubland within Parcel 21, facing northwest.



**Photograph 26:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 22, facing south.



**Photograph 27:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 22, facing northeast.



**Photograph 28:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 22, facing southwest.



**Photograph 29:** View of low-lying and wet terrain (tributary of Glenvale Creek) located within Parcel 22, facing north.



**Photograph 30:** View of low-lying and wet terrain (tributary of Glenvale Creek) located within Parcel 22, facing south.

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 31:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 22, facing west.



**Photograph 32:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 22, facing east.



**Photograph 33:** View of scrub terrain located within Parcel 22, facing southeast.



**Photograph 34:** View of scrub terrain located within Parcel 22, facing north.



**Photograph 35:** View of scrub and treed areas with alvar-like soils within Parcel 22, facing east.



**Photograph 36:** View of crew conducting test-pitting program in sparse woodlot within Parcel 22, facing east.

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 37:** View of crew conducting test-pitting program along the edge of scrub area within Parcel 22, facing south.



**Photograph 38:** View of crew conducting test-pitting program in scrub area within Parcel 22, facing northeast.



**Photograph 39:** View of crew conducting test-pitting program along sparse woodlot within Parcel 22, facing northwest.



**Photograph 40:** View of sloped terrain located within Parcel 23, facing west.



**Photograph 41:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 23, facing southeast.



**Photograph 42:** View of sparse woodlot located within Parcel 23, facing south.



## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 43:** View of crew conducting test-pitting program in woodlot within Parcel 23, facing northeast.



**Photograph 44:** View of crew conducting test-pitting program in woodlot within Parcel 23, facing southeast.



**Photograph 45:** View of crew conducting test-pitting program in woodlot within Parcel 23, facing south.



**Photograph 46:** View of low-lying and wet terrain (tributary of Glenvale Creek) located within Parcel 24, facing east.



**Photograph 47:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 24, facing east.



**Photograph 48:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 24, facing west.

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 49:** View of low-lying and wet terrain (perennially wet terrain) located within Parcel 24, facing east.



**Photograph 50:** View of scrub and treed areas with alvar-like soils within Parcel 24, facing south.



**Photograph 51:** View of scrub terrain within Parcel 24, facing south.



**Photograph 52:** View of areas of exposed bedrock located within Parcel 24, facing east.



**Photograph 53:** View of sparse woodlot located within Parcel 24, facing west.



**Photograph 54:** View of scrub terrain within Parcel 24, facing south.

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** TB111077  
**PROJECT** Stage 2 Archaeological Assessment  
**LOCATION** Sol-luce Kingston Solar PV Energy Project



**Photograph 55:** View of crew conducting test-pitting program along scrub area within Parcel 24, facing northeast.



**Photograph 56:** Crew conducting test-pitting program (note small trees in foreground) within Parcel 24, facing east.



**Photograph 57:** View of test-pit advanced within Parcel 24.



**Photograph 58:** View of crew excavating 1x1m unit within Parcel 24, facing southwest.



**Photograph 59:** View of 1x1 m unit excavated within Parcel 24. Note pavement barren/alvar environment.



**Photograph 60:** View of refined biface (Cat. No. A1: L1).

**APPENDIX C**  
**ARTIFACT CATALOGUE**

STAGE 2 ARTIFACT CATALOGUE OF ISOLATED FINDSPOT: A1



Catalogue

No.	WPT#	Layer	Flake Type	Material	Portion	Thermal Alteration	Comments	
L1	1	457	Topsoil	Refined Biface	Onondaga	Midsection	No	Midsection of Refined Biface. Length = 29.8 mm, Thickness = 6.6 mm, Width = 22.7 mm.

**APPENDIX D**

**QUALIFICATIONS OF THE ASSESSORS**

## **ASSESSOR QUALIFICATIONS**

### **Dr. Shaun Austin, Ph.D. – Senior Archaeologist**

Dr. Austin is the Group Leader of AMEC's archaeology group and is based in the AMEC Hamilton Office. He has been working in Canadian Archaeology since 1976 and has over 23 years of archaeological consulting experience in Southern Ontario. He is a dedicated cultural heritage consultant with repeated success guiding archaeological projects through to completion to the satisfaction of the development proponent, the cultural heritage community and all other stakeholder groups. Dr. Austin currently holds a professional archaeology license (License P141) issued by the Ontario Ministry of Tourism and Culture and is a member of the Association of Professional Archaeologists.

### **Barbara Slim, M.A. – Intermediate Archaeologist**

Ms. Slim is an archaeologist with over 8 years of experience in the archaeology industry. Ms Slim has been involved in numerous Stage 1 – 4 Archaeological Assessments within southern Ontario for federal, provincial and municipal government agencies and private developers. These have been conducted in support of Environmental Assessments, municipal infrastructure projects and other developments. Ms. Slim has been engaged in historical and archaeological background searches, field surveys, excavations, analysis of cultural artifacts, laboratory work and reporting. Ms. Slim's education and work experience have provided her with an extensive knowledge base, consisting of theoretical and practical experience in cultural resource management in Canada and Central America. Ms. Slim holds a Master's Degree in Anthropology from Trent University and an Honours Bachelors Degree in Environmental Studies and Anthropology from Trent University. Ms. Slim currently holds a professional licence (Licence P348) issued by the Ontario Ministry of Tourism and Culture.

### **Jason Seguin, M.A. - Intermediate Archaeologist**

Mr. Seguin is an archaeologist with a combination of 8 years experience in the archaeological industry. In the archaeological field Mr. Seguin as conducted stage 1 to 4 archaeological assessments including background searches, field surveys, archaeological excavations, analysis of cultural artifacts, laboratory work and reporting. Mr. Seguin has also been involved in various aspects of project management and supervision as well as being an archaeological laboratory director. Mr. Seguin has developed research and communication skills through editing field reports, teaching university level students in both lecture and seminar environments, as well as preparing and presenting presentations at academic conferences. Mr. Seguin's education and work experience have provided him with an extensive knowledge base, consisting of theoretical and practical experience in cultural resource management in Canada and Central America, as well as curatorial, archival and museum management experience. Mr. Seguin holds a Master's Degree in Anthropology from Trent University, a Bachelors of Art Honours degree in Anthropology from Trent University, and a Post-Graduate Certificate in Museum Management and Curatorship from Sir Sandford Fleming College. Mr. Seguin currently holds a professional archaeology license (License P354) issued by the Ontario Ministry of Tourism and Culture.

### **Nicole Beattie, Hons. B.A. - Intermediate Archaeologist**

Ms. Beattie has worked as a consulting archaeologist since 2006. She has helped to supervise archaeological fieldwork throughout southern Ontario, has overseen laboratory artifact processing for numerous pre-contact Aboriginal and historic Euro-Canadian sites, and has prepared Stage 1 through 4 archaeological assessment reports for many of these projects. Her current research interests include ancient Greek and Latin languages as well as underwater archaeology. Ms. Beattie holds a degree in Classics from York University and holds an archaeological Research license (R353) issued by the Ontario Ministry of Tourism and Culture.

### **Tara Jenkins, M.A., - Intermediate Archaeologist**

Ms. Jenkins has over 11 years experience working in cultural resource management (CRM). She has obtained her M.A. from McMaster University and holds a professional archaeology license (License P357) issued by the Ministry of Tourism and Culture. Ms. Jenkins has been accountable for managing CRM activities as part of an archaeological team. She has acquired valuable hands-on archaeological expertise in the field conducting Stage 1 to 4 archaeological assessments, ultimately holding the position of field director. Ms. Jenkins has over seven years experience in laboratory analysis, analyzing both early Euro-Canadian and pre-contact Aboriginal artifacts. She has designed archaeological field forms and artifact management systems, including computer-based cataloguing systems. Her solid oral and written communication skills have been demonstrated by her responsibility as author of final field reports for all stages of excavation for the Ministry of Tourism and Culture. In addition, she has published archaeological and archival based articles and chapters in peer-reviewed and other recognized archaeological journals and books. She has substantial experience in archival research related to the investigation of the land-use history of properties. Ms. Jenkins has taught at the university level in lecture and seminar environments, as well as preparing and presenting presentations for academic conferences. Through these experiences, Ms. Jenkins has developed skills to aid in the formation and direction of museum archaeology programs for students of all ages. In addition, Ms. Jenkins has been an active participant in the involved engagement with a stakeholder group during archaeological investigations, such as with First Nations. Ms. Jenkins's education and work experience has provided her with an extensive knowledge base, consisting of theoretical and practical experience in cultural resource management specific to southern Ontario.

### **Cara Howell, B.A. – Intermediate Archaeologist**

Ms. Howell is an archaeologist with over 10 years of experience in the archaeology industry. During this time she has acquired a full range of archaeological skills and has developed an expert understanding of historic Euro-Canadian artifacts. As a laboratory director, her duties included the development and implementation of a computerized artifact cataloguing system for historic artifacts of late eighteenth to twentieth century resources. She has completed historic research from literature review to archival



documentation through designing and implementing detailed historic artifact analysis. Ms. Howell holds a Degree in Anthropology from McMaster University and currently serves as the Laboratory Director for AMEC's Archaeology Group. Ms. Howell currently holds a research archaeology license (License R180) issued by the Ontario Ministry of Tourism and Culture.

**Jeff Stott, B.A. – Archaeologist**

Mr. Stott has worked as a consultant archaeologist since May 2011. He has worked predominantly as a field archaeologist on various projects in north eastern British Columbia and southern Ontario. Some of these projects include oil and gas, hydroelectric, solar and wind farm investigations. He has helped to supervise archaeological fieldwork in both Ontario and British Columbia and has helped to write numerous reports including Archaeological Impact Assessments, Archaeological Permit Reports, and Archaeological Assessment Information Forms. He currently has a Bachelor of Arts degree in Anthropology from Laurentian University and a post graduate certificate in Environmental Monitoring and Impact Assessment from Cambrian College.

**Devon Brusey B.A. Hon., – Archaeologist**

Ms. Brusey is an archaeologist with over five years experience in the consulting industry. Throughout this period she has acquired a wide variety of archaeological skills and a thorough understanding of archaeological practices. Ms. Brusey holds an honorary bachelors degree in Anthropology and Japanese Studies from McMaster University. Ms. Brusey has worked on dozens of Stage 1 through Stage 4 assessments throughout Ontario, many of which have been completed as part of the environmental assessment process for the development of wind and solar farms, hydro line corridors and municipal road widenings. In addition to the recovery of archaeological evidence from pedestrian survey and excavation, Ms. Brusey's responsibilities have included overseeing the photo-documentation and geo-referencing required for each of the projects she has worked on. She has also been instrumental in the processing of recovered artifacts and other data in the laboratory. Recently Ms. Brusey acted as crew supervisor on an extensive Stage 4 multi-component precontact and historic site excavation in Burlington, Ontario. Ms. Brusey currently holds an Archaeological Research License (R410) issued by the Ontario Ministry of Tourism and Culture.

.

.

**APPENDIX E**  
**LIMITATIONS**

## LIMITATIONS

1. The work performed in the preparation of this report and the conclusions presented are subject to the following:
  - (a) The Standard Terms and Conditions which form a part of our Professional Services Contract;
  - (b) The Scope of Services;
  - (c) Time and Budgetary limitations as described in our Contract; and,
  - (d) The Limitations stated herein.
2. No other warranties or representations, either expressed or implied, are made as to the professional services provided under the terms of our Contract, or the conclusions presented.
3. The conclusions presented in this report were based, in part, on visual observations of the Study Area. Our conclusions cannot and are not extended to include those portions of the Study Area which were not reasonably available, in AMEC's opinion, for direct observation.
4. The potential for archaeological resources, and any actual archaeological resources encountered, at the Study Area were assessed, within the limitations set out above, having due regard for applicable heritage regulations as of the date of the inspection.
5. Services including test-pitting was performed. AMEC's work, including test-pitting, was conducted in a professional manner and in accordance with the Ministry of Tourism, Culture, and Sport's (MTCS) guidelines (the Guidelines). It is possible that unforeseen and undiscovered archaeological resources which cannot be discovered by way of surveys conducted in accordance with the Guidelines may be present at the Study Area between areas test-pitted.
6. The utilization of AMEC's services during the implementation of any further archaeological work recommended will allow AMEC to observe compliance with the conclusions and recommendations contained in the report. AMEC's involvement will also allow for changes to be made as necessary to suit field conditions as they are encountered.
7. This report is for the sole use of the parties to whom it is addressed unless expressly stated otherwise in the report or contract. Any use which any third party makes of the report, in whole or in part, or any reliance thereon, or decisions made based on any information or conclusions in the report, is the sole responsibility of such third party. AMEC accepts no responsibility whatsoever for damages or loss of any nature or kind suffered by any such third party as a result of actions taken or not taken or decisions made in reliance on the report or anything set out therein.
8. This report is not to be given over to any third-party other than a governmental entity, for any purpose whatsoever without the written permission of AMEC, which shall not be unreasonably withheld.