

Ministry of Tourism and Culture
Culture Programs Unit
Programs & Services Br.
900 Highbury Avenue
London, ON N5Y 1A4
Tel: 519-675-6898
Fax: 519-675-7777
e-mail: shari.prowse@ontario.ca

Ministre du Tourisme et de la Culture
Unité des programmes culturels
Direction des programmes et des services
900, av. Highbury
London, ON N5Y 1A4
Tél: 519-675-6898
Télé: 519-675-7777
e-mail: shari.prowse@ontario.ca



September 21, 2011

Kyoung Chun Kim
Manager, Renewable Energy Approvals
Samsung Renewable Energy
55 Standish Court
Mississauga ON L5R 4B2
kc1206.kim@samsung.com

RE: Grand Renewable Energy Park, Haldimand County, Ontario, Licence/PIF # P002-208-2010, P002-211-2010, P002-222-2011, P218-012-2010, P218-098-2011 and P218-023-2011, MTC File HD00565

Dear Proponent:

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

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

The reports recommend the following:

Stage 1 Report (Licence/PIF # P002-208-2010), Received August 27, 2010, Addendum Received February 25, 2011

It is Stantec's professional opinion that most parts of the Project area demonstrate potential for the presence of significant archaeological deposits of integrity. It should be anticipated for Project component siting exercises that Stage 2 Archaeological Assessment is likely to be required for most locations of project-related infrastructure construction, including all turbine pads, access roads, underground cable links, construction offices, laydown areas and temporary storage areas and any other areas where soil disturbances into and below the topsoil may occur.

Stage 2 archaeological survey generally takes two forms: pedestrian survey and test pit excavation survey. Pedestrian survey, the preferred methodology, requires that the area to be surveyed be ploughed as if the ground were to be cultivated and allowed to weather through one hard or several light rainfalls. After weathering the ground is walked at a slow pace and the locations of artifacts recorded using a Geographic Positioning System (GPS). During a pedestrian survey only diagnostic artifacts are collected; all others are left in situ.

If ploughing is not technically feasible in some locations due to the nature and extent of existing ground cover or other conditions, Stage 2 assessment will need to be completed using a test pit excavation strategy. In this instance standard archaeological test pits of 30 x 30 cm or greater are excavated and all excavated soils passed through screens of 6 mm mesh. During test pit survey all artifacts encountered are retained. In either case the survey interval will be at no more than 5 m. During Stage 2 assessment all field activities will be recorded using a GPS.

Stantec cautions, however, that it is possible that deeply buried archaeological resources, could still exist within the limits of the proposed project and that the following standard conditions will continue to apply:

- Should human remains be identified during operations, all work in the vicinity of the discovery will be suspended immediately. Notification will be made to the Ontario Provincial Police, or local police, who will conduct a site investigation and contact the district coroner. Notification must also be made to the Ministry of Tourism and Culture and the Registrar of Cemeteries, Cemeteries Regulation Unit, Ministry of Small Business and Consumer Services.
- Should other cultural heritage values (archaeological or historical materials or features) be identified during operations, all work in the vicinity of the discovery will be suspended and the Ministry of Tourism and Culture archaeologist contacted. This condition provides for the potential for deeply buried or enigmatic local site areas that are not typically identified in archaeological field assessments.

Stage 2 Report (Licence/PIF # P002-211-2010), Revised Report, February 28, 2011, Received March 1, 2011

Stage 2 AA of the GREP to date by Stantec has resulted in the documentation of 165 archaeological resources, including 45 archaeological sites which have been registered with the MTC and of 50 artifact clusters and 70 isolated findspots.

Stage 2 Archaeological Assessment at Solar Woodlot

Given the identification of several archaeological resources within 250 m of the Solar Woodlot it is recommended that if the woodlot area is required for Project related components that the area that was test pit surveyed at 10 m intervals be re-tested to a 5 m interval. These extra test pits can be excavated between the existing test pits.

Sites Requiring Stage 3 Archaeological Assessment

Stage 2 AA of the GREP to date by Stantec has resulted in the documentation of 45 registered archaeological sites which will require further archaeological assessment (Table 4-1). At minimum all 45 sites will require Stage 3 AA in order to determine the extent of each archaeological resource, and to further refine our understanding of the age, cultural association and cultural heritage value of the sites. Stage 3 AA will also determine what appropriate mitigation options, such as avoidance or excavation, are available at each site location. Based on current calculations of site area it is anticipated that Stage 3 AA of the 45 sites will encompass an area of approximately 104,000 square metres, or 10.4 ha of the 359 ha assessed.

Table 4-1 Archaeological Sites Requiring Further Assessment

GREP Site #	Location	Borden #	Easting	Northing	# Tools/ Diagnostics	# non-Tools	Total # Artifacts	Cultural Period	Dimensions (in m)	Site Area (m ²)
1	T36	AfGx-710	589964	4755625	0	11	11	Indeterminate	25 x 20	500
2	T46	AfGx-711	590521	4752280	2	3	5	Indeterminate	35 x 20	581
3	T46	AfGx-712	590603	4752068	0	32	32	Indeterminate	65 x 30	1950
4	T23	AfGx-713	591237	4751861	0	22	22	Indeterminate	25 x 25	509
5	T23	AfGx-714	591145	4752137	0	28	28	Indeterminate	30 x 30	733
6	T23	AfGx-715	591097	4752326	0	32	32	Indeterminate	55 x 35	1571
7	T28	AfGx-716	591169	4752307	0	11	11	Indeterminate	25 x 25	535
8	T28	AfGx-717	591295	4752310	0	25	25	Indeterminate	35 x 25	659
9	T28	AfGx-718	591339	4752251	2	9	11	Indeterminate	35 x 20	508
10	T23	AfGx-719	590901	4752878	0	25	25	Indeterminate	60 x 30	1423
11	T20	AfGx-720	592626	4749531	3	114	117	Early Woodland	90 x 90	6939
12	SF1	AfGw-137	596156	4748772	2	16	18	Late Palaeo-Indian/ Early Woodland	40 x 40	641
13	SF1	AfGw-138	596243	4748449	9	89	98	Middle/Late Archaic, Middle Woodland	150 x 110	12309
14	SF1	AfGw-139	596237	4748626	2	47	49	Late Archaic	145 x 115	4188
15	T13	AfGw-140	596811	4748748	n/a	n/a	n/a	Indeterminate	20 x 20	303
16	SF2	AfGw-141	596644	4748742	10		10	19th Century Historic	55 x 55	1026
17	SF1	AfGw-142	596286	4748783	2	18	20	Late Archaic	90 x 55	3036
18	SF1	AfGw-143	596176	4748858	2	29	31	Early Archaic	115 x 50	3320
19	SF1	AfGw-144	596014	4749261	2	18	20	Early Woodland	110 x 110	9788
20	SF1	AfGw-145	596198	4749235	1	86	87	Indeterminate	50 x 50	1763

21	SF3	AfGw-146	597043	4749303	1	10	11	Indeterminate	35 x 35	1140
22	SF3	AfGw-147	596901	4749626	6	206	212	Late Woodland	250 x 160	29376
23	SF7	AfGw-148	597046	4749740	0	18	18	Indeterminate	70 x 40	2132
24	SF7	AfGw-149	597206	4749996	2	63	65	Late Archaic	75 x 50	3750
25	SF8	AfGw-150	597512	4750457	1	30	31	Indeterminate	40 x 30	1014
26	SF8	AfGw-151	597431	4750516	2	0	2	Middle Archaic	10 x 10	92
27	SF8	AfGw-152	597405	4750435	0	36	36	Indeterminate	40 x 35	1145
28	SF7	AfGw-153	596799	4750597	1	28	29	Late Palaeo-Indian	60 x 40	2193
29	SF5	AfGw-154	596309	4750150	2	14	16	Indeterminate	105 x 40	2723
30	SF4	AfGw-155	596193	4750040	1	10	11	Indeterminate	60 x 30	767
31	SF4	AfGw-156	596052	4750102	1	18	19	Indeterminate	50 x 40	898
32	SF4	AfGw-157	595992	4750003	2	11	13	Middle Archaic	30 x 30	473
33	SF4	AfGw-158	596044	4749943	6	35	41	Early Woodland	40 x 30	367
34	SF4	AfGw-159	596142	4749695	0	14	14	Indeterminate	20 x 20	341
35	SF4	AfGw-160	596174	4749580	0	5	5	Indeterminate	10 x 10	100
36	SF4	AfGw-161	596313	4749612	1	49	50	Indeterminate	80 x 50	3393
37	SF4	AfGw-162	596328	4749533	0	27	27	Indeterminate	25 x 25	564
38	SW	AfGw-163	596603	4749418	0	10	10	Indeterminate	10 x 10	100
39	SF1	AfGw-164	596123	4749106	1	0	1	Early Archaic	10 x 10	100
40	SF4	AfGw-165	596105	4750015	2	2	4	Late Palaeo-Indian	20 x 20	227
41	SF6	AfGw-166	596722	4750265	1	0	1	Early Archaic	10 x 10	100
42	T55	AfGw-167	600123	4746735	1	0	1	Late Palaeo-Indian	10 x 10	100
43	T34	AfGx-721	589820	4753974	1	0	1	Early Archaic	10 x 10	100
44	T13	AfGw-184	594647	4751614	0	62	62	Indeterminate	20 x 25	364
45	T10	AfGx-732	594689	4751585	0	16	16	Indeterminate	20 x 25	389
					Total #					
					Artifacts		1349		Total m2	104230

Stage 3 AA (the Archaeological Site Assessment) of the 45 identified sites will be conducted according to the 2010. Standards and Guidelines for Consultant Archaeologists. The following standards for Stage 3 AA work will apply:

- Before carrying out fieldwork, review all relevant reports of previous fieldwork on the archaeological site or for that property;
- Carry out the archaeological site assessment when weather and lighting conditions permit good visibility of all parts of the archaeological site. Do not carry out the archaeological site assessment when weather and lighting conditions (e.g., snow cover, frozen ground, excessive rain or drought, heavy fog) reduce the ability to identify and document any part of the archaeological site;
- Using GPS record the locations of the following:
 - a central fixed point within the archaeological site
 - a permanent datum that can be tied to a development map; and
- Provide representative photographs of all field conditions (e.g., ploughed field, pasture or woodlot, disturbances).

For each site located using pedestrian survey methodology the Stage 3 AA will be composed of two elements: a controlled surface pick-up (CSP) of artifacts on the surface of ploughed fields and test unit excavation. A CSP is a detailed survey of the ground surface in open fields that allows for precise recording of artifact locations and the collection of a representative sample of artifacts, including non-diagnostic artifacts. The following standards for Stage 3 AA CSP will apply:

- If ground surface visibility has decreased in the time between the Stage 2 survey and the Stage 3 CSP, ensure that the site area is re-cultivated and weathered;
- Accurately map the location of all artifacts on the ground surface using a total station, transit and tape, stadia rod, or GPS unit. Record and catalogue artifacts by their mapped location, recording any relevant information (e.g., spatial relationship of diagnostics, artifact concentration areas). Tie this map to the general site GPS readings by recording a central point in the scatter;
- For very large and dense surface scatters, conduct a full CSP by grid units (maximum 5 m by 5 m units) over the archaeological site. Record and catalogue artifacts with their grid unit designation.
- Ensure that decisions regarding the type and number of artifacts collected strike a balance between gathering enough artifacts to document the archaeological site and leaving enough in place to relocate the site if required (e.g., to conduct further assessment, define a protected area or conduct excavation);
- Collect all formal artifact types and diagnostic categories, including, for 19th century archaeological sites, all refined ceramic sherds; and
- Collect a representative sample of non-diagnostic artifacts, taking into consideration the archaeological site type, type and frequency of non-diagnostic artifacts, and the likelihood that further fieldwork will be required.

Based on the results of the Stage 2 AA, use of a grid unit CSP will likely need to be conducted at AfGx-720, AfGw-144 and AfGw-147 due to their size and artifact densities. All other sites should not require grid unit CSP.

The second component of the Stage 3 AA, test unit excavation, will be required at all identified archaeological sites, including AfGw-163, the site located through test pit survey. The purpose of the test unit excavation is to document the extent of buried artifacts, cultural features, soil stratigraphy and structures and to recover a representative sample of artifacts from across the archaeological site. The interval of the Stage 3 AA grid (of either 5 m or 10 m intervals) will be dependent on the age, type and nature of each identified site. Specific guidelines for this interval are provided in the 2010 Standards and Guidelines for Consultant Archaeologists. The following standards for Stage 3 AA test unit excavation will apply:

- Excavate by 1 m square units;
- To determine the placement of test units, establish a grid on the site based on the permanent datum to at least the accuracy of transit and tape measurements. Placing test units in unmeasured, estimated locations is not acceptable;
- Excavate test units by hand. Do not use heavy machinery (e.g., gas-powered augers, backhoes) except to remove sterile or recent fill covering confirmed, deeply buried or sealed archaeological sites;

- Excavate test units by systematic levels (stratigraphic or standardized);
- Excavate test units into the first 5 cm of subsoil, unless excavation uncovers a cultural feature;
- If test unit excavation uncovers a cultural feature, do not excavate into feature fill. Instead:
 - Record the exposed plan of the feature.
 - Place geotextile fabric over the unit floor and backfill the unit;
- Screen all excavated soil through mesh with an aperture of no greater than 6 mm. For confirmed single component Paleo-Indian and Early Archaic archaeological sites, for a sample of units (at least 20% of the total number of units in sandy soil and at least 10% of the total number of units in heavy soil), screen the entire contents of each unit through mesh with an aperture of no greater than 3 mm; and
- Unless otherwise specified collect and retain all artifacts. Record and catalogue them by their corresponding grid unit designation.

Based on the results of the Stage 2 AA there are seven sites that are presently believed to be single component Palaeo-Indian or Early Archaic sites: AfGw-143; AfGw-153; AfGw-164; AfGw-165; AfGw-166; AfGw-167; and AfGx-721. All seven of these sites are located in what are considered to be heavy soils. For these seven sites 10% of the total number of test units excavated (specific number to be determined based on Table 3.1 in the 2010 Standards and Guideline for Consultant Archaeologists) will need to be screened using 3 mm mesh.

The 2010 Standards and Guideline for Consultant Archaeologists also make special Stage 3 AA provisions for large sites and Late Woodland village sites. At present we cannot determine whether the Late Woodland site AfGw-147 in Solar Fields 3 and 6 represents a Late Woodland village site or a smaller special purpose site. As such it does not qualify for the special provisions of the Late Woodland village, but it does qualify as a large site. Accordingly, this one site may only require excavation of 50% of the required total test units, as determined by Table 3.1 of the 2010 Standards and Guideline for Consultant Archaeologists. This determination will only be able to be made in the field after the initiation of the Stage 3 AA and these provisions should be kept in mind during that work.

It should be anticipated that several of the sites will likely require Stage 4 mitigative excavations in the event that project design cannot avoid the sites. Sites of already identified cultural heritage value and interest include all sites with Palaeo-Indian or Early Archaic components, and the Late Woodland site.

With the large number of Aboriginal archaeological sites documented through the Stage 2 AA it is expected that the involvement of First Nations in subsequent Stage 3 and/or Stage 4 AA will increase beyond the current level of the Stage 2 AA. Ongoing Aboriginal consultation will be part of the overall Project development, for archaeological resources and for other environmental components, and is a requirement of the 2010 Standards and Guideline for Consultant Archaeologists. It is recommended that Aboriginal Engagement be carried out as required by the Standards and Guidelines and as outlined in the bulletin Engaging Aboriginal Communities in Archaeology.

Resources Not Requiring Stage 3 Archaeological Assessment

A total of 50 artifact clusters (CL) and 70 isolated findspots (IF) were also documented at Project components during the Stage 2 AA (Table 4-2). None of these resources meet the criteria for sufficient Cultural heritage value or interest as per the 2010 Standards and Guideline for Consultant Archaeologists. None of these resources require further archaeological assessment. Details regarding all identified artifacts (e.g., Scraper 1-5) can be found in the Artifact Catalogue in Appendix B.

Table 4-2 Archaeological Resources Not Requiring Further Assessment

GREP Site #	Location	Easting	Northing	# Tools	# Lithic Flakes	Total # Artifacts	Material Type	Tool Size (in mm)	Cultural Period	Dimensions (in m)	Figure #	Plate #	Comments
CL 1	SF1	596255	4749292	0	2	2	n/a	n/a	Indeterminate	25 X 5	3-1	n/a	
CL 2	SF1	596378	4749049	2	0	2	Bois Blanc	36 x 22 28 x 21	Late Archaic	25 X 10	3-1	2, 4	Point 2-5 Point 2-6
CL 3	SF1	596145	4749020	0	2	2	n/a	n/a	Indeterminate	5 X 5	3-1	n/a	
CL 4	SF1	596136	4748931	0	3	3	n/a	n/a	Indeterminate	60 X 35	3-1	n/a	
CL 5	SF1	596076	4749054	0	4	4	n/a	n/a	Indeterminate	60 X 15	3-1	n/a	
CL 6	SF1	596124	4748835	0	4	4	n/a	n/a	Indeterminate	65 X 40	3-2	n/a	
CL 7	SF1	596270	4748611	1	3	4	Bois Blanc	49 x 31 x 17	Indeterminate	40 X 40	3-2	n/a	Tool 2-1
CL 8	SF1	596504	4748588	1	1	2	Bois Blanc	40 x 26	Early Woodland	35 x 10	3-2	3	Point 2-4
CL 9	SF2	596802	4748763	2	0	2	Bois Blanc	59 x 46 x 24	Indeterminate	35 x 10	3-2	n/a	Core (not kept) , Core 1-4
CL 10	SF2	596509	4749027	0	3	3	n/a	n/a	Indeterminate	10 x 10	3-2	n/a	
CL 11	SF3	596986	4748618	0	2	2	n/a	n/a	Indeterminate	25 x 10	3-3	n/a	
CL 12	SF3	597107	4749098	0	12	12	n/a	n/a	Indeterminate	160 x 70	3-3	n/a	
CL 13	SF3	597062	4749468	1	1	2	Bois Blanc	60 x 66 x 18	Indeterminate	40 x 10	3-3	n/a	Axe 2-1
CL 14	SF4	595986	4749523	0	2	2	n/a	n/a	Indeterminate	25 x 25	3-4	n/a	
CL 15	SF4	596294	4749544	0	7	7	n/a	n/a	Indeterminate	35 X 20	3-4	n/a	
CL 16	SF4	596138	4749583	0	2	2	n/a	n/a	Indeterminate	35 x 15	3-4	n/a	
CL 17	SF4	596271	4749572	0	7	7	n/a	n/a	Indeterminate	30 x 25	3-4	n/a	
CL 18	SF4	596222	4749715	1	2	3	Bois Blanc	28 x 22	Indeterminate	35 x 25	3-4	5	Point 1-15
CL 19	SF4	596169	4750079	1	1	2	Bois Blanc	43 x 28	Late Archaic	40 x 25	3-4	2	Point 2-13
CL 20	SF4	596171	4750142	0	3	3	n/a	n/a	Indeterminate	30 x 10	3-4	n/a	
CL 21	SF4	596102	4749942	0	7	7	n/a	n/a	Indeterminate	65 x 45	3-4	n/a	
CL 22	SF4	596231	4749820	0	3	3	n/a	n/a	Indeterminate	60 x 30	3-4	n/a	
CL 23	SF4	596098	4749815	1	2	3	Bois Blanc	56 x 47 x 17	Indeterminate	45 x 10	3-4	n/a	Core 1-3
CL 24	SF4	596041	4749749	0	6	6	n/a	n/a	Indeterminate	55 x 30	3-4	n/a	
CL 25	SF4	595959	4749714	0	7	7	n/a	n/a	Indeterminate	40 X 30	3-4	n/a	
CL 26	SF5	596444	4749751	0	5	5	n/a	n/a	Indeterminate	40 x 25	3-4	n/a	
CL 27	SF5	596338	4750019	1	1	2	Bois Blanc	27 x 24	Indeterminate	30 x 15	3-4	n/a	Scraper 1-5
CL 28	SF6	596685	4750254	2	0	2	Bois Blanc	36 x 24 x 12 27 x 24	Indeterminate	35 x 20	3-5	5	Core 1-5 Graver 1-1
CL 29	SF7	597032	4749983	0	4	4	n/a	n/a	Indeterminate	30 x 20	3-5	n/a	
CL 30	SF7	597099	4749984	0	6	6	n/a	n/a	Indeterminate	30 x 15	3-5	n/a	
CL 31	SF7	597015	4750305	1	1	2	Bois Blanc	36 x 23	Middle Woodland	40 x 20	3-6	3	Point 1-30
CL 32	SF7	597203	4749883	0	2	2	n/a	n/a	Indeterminate	30 x 15	3-6	n/a	

GREP Site #	Location	Easting	Northing	# Tools	# Lithic Flakes	Total # Artifacts	Material Type	Tool Size (in mm)	Cultural Period	Dimensions (in m)	Figure #	Plate #	Comments
CL 33	SF7	597104	4749687	0	3	3	n/a	n/a	Indeterminate	30 x 10	3-5	n/a	
CL 34	SF7	596893	4750628	1	3	4	prob. Local	64 x 42	Indeterminate	50 x 20	3-6	n/a	Biface 1-10
CL 35	SF8	597470	4750503	0	2	2	n/a	n/a	Indeterminate	25 x 10	3-6	n/a	
CL 36	SF8	597537	4750415	0	2	2	n/a	n/a	Indeterminate	25 x 10	3-6	n/a	
CL 37	SF1	596388	4748416	1	1	2	prob. Local	50 x 38	Indeterminate	25 x 10	3-2	n/a	Biface 2-1
CL 38	SF1	596388	4748482	1	1	2	Bois Blanc	43 x 36	Indeterminate	30 x 15	3-2	4	Point 2-10
CL 39	SF1	596322	4748466	0	3	3	n/a	n/a	Indeterminate	25 x 15	3-2	n/a	
CL 40	T23	591178	4752032	0	2	2	n/a	n/a	Indeterminate	30 x 10	3-9	n/a	
CL 41	T23	591119	4752236	0	5	5	n/a	n/a	Indeterminate	40 x 20	3-9	n/a	
CL 42	T46	590594	4752117	0	2	2	n/a	n/a	Indeterminate	35 x 15	3-9	n/a	
CL 43	T13	594711	4751650	0	3	3	n/a	n/a	Indeterminate	15 x 10	3-11	n/a	
CL 44	T48	594469	4750961	0	2	2	n/a	n/a	Indeterminate	20 x 10	3-12	n/a	
CL 45	T48	594120	4750435	0	6	6	n/a	n/a	Indeterminate	20 x 15	3-12	n/a	
CL 46	T16	594409	4750003	0	3	3	n/a	n/a	Indeterminate	25 x 25	3-13	n/a	
CL 47	T16	594358	4749899	0	2	2	n/a	n/a	Indeterminate	25 x 25	3-13	n/a	
CL 48	T16	594390	4749953	0	2	2	n/a	n/a	Indeterminate	25 x 25	3-13	n/a	
CL 49	T19	606258	4750182	0	6	6	n/a		Indeterminate	85 x 10	3-17	n/a	
CL 50	T36	589998	4755730	0	3	3	n/a	n/a	Indeterminate	50 x 25	3-8	n/a	
IF 1	SF1	596042	4749141	1	0	1	Bois Blanc	49 x 37	Indeterminate	n/a	3-1	5	Biface 1-1
IF 2	SF1	596033	4749102	0	1	1	n/a	n/a	Indeterminate	n/a	3-1	n/a	Isolated lithic flake
IF 3	SF1	596335	4749021	0	1	1	n/a	n/a	Indeterminate	n/a	3-1	n/a	Isolated lithic flake
IF 4	SF1	596462	4748417	1	0	1	Bois Blanc	49 x 37	Indeterminate	n/a	3-2	5	Scraper 2-2
IF 5	SF1	596408	4748428	1	0	1	Bois Blanc	42 x 32	Indeterminate	n/a	3-2	4	Point 2-11
IF 6	SF1	596172	4748742	1	0	1	Bois Blanc	38 x 37	Indeterminate	n/a	3-2	n/a	Biface 1-2
IF 7	SF1	596132	4748742	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 8	SF1	596353	4748964	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 9	SF1	596245	4748575	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 10	SF1	596260	4748649	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 11	SF1	596341	4748641	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 12	SF1	596385	4748597	1	0	1	Bois Blanc	30 x 29	Indeterminate	n/a	3-2	n/a	Biface 2-2
IF 13	SF2	596545	4748637	1	0	1	Bois Blanc	46 x 35	Late Archaic	n/a	3-2	2	Point 2-17
IF 14	SF2	596547	4748647	1	0	1	Bois Blanc	38 x 32	Indeterminate	n/a	3-2	4	Point 1-13

GREP Site #	Location	Easting	Northing	# Tools	# Lithic Flakes	Total # Artifacts	Material Type	Tool Size (in mm)	Cultural Period	Dimensions (in m)	Figure #	Plate #	Comments
IF 15	SF2	596616	4748820	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 16	SF2	596679	4748825	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 17	SF2	596812	4748729	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 18	SF2	596707	4748741	1	0	1	n/a	25 x 30 x 26	Indeterminate	n/a	3-3	n/a	Grndstn2-1
IF 19	SF2	596719	4748737	1	0	1	Bois Blanc	27 x 19	Late Archaic	n/a	3-3	2	Point 2-18
IF 20	SF2	596731	4748722	1	0	1	n/a	n/a	Euro-Canadian	n/a	3-3	6	19th century smoking pipe
IF 21	SF2	596507	4749146	1	0	1	Bois Blanc	46 x 22	Early Woodland	n/a	3-3	3	Point 1-12
IF 22	SF3	597124	4748771	0	1	1	n/a	n/a	Indeterminate	n/a	3-3	n/a	Isolated lithic flake
IF 23	SF3	596802	4749182	1	0	1	Bois Blanc	38 x 21	Indeterminate	n/a	3-3	n/a	Biface 2-5
IF 24	SF3	597087	4749190	1	0	1	Bois Blanc	36 x 22	Indeterminate	n/a	3-3	n/a	Tool 2-2
IF 25	SF3	597157	4749264	1	0	1	Bois Blanc	36 x 24	Indeterminate	n/a	3-3	4	Point 2-12
IF 26	SF3	597004	4749262	0	1	1	n/a	n/a	Indeterminate	n/a	3-3	n/a	Isolated lithic flake
IF 27	SF3	596946	4749205	0	1	1	n/a	n/a	Indeterminate	n/a	3-3	n/a	Isolated lithic flake
IF 28	SF3	596975	4749436	0	1	1	n/a	n/a	Indeterminate	n/a	3-3	n/a	Isolated lithic flake
IF 29	SF4	596368	4749536	1	0	1	Bois Blanc	38 x 32 mm	Indeterminate	n/a	3-4	n/a	Biface 1-3
IF 30	SF4	596126	4749476	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 31	SF4	596193	4749487	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 32	SF4	596284	4749660	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 33	SF4	596165	4749694	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 34	SF4	596247	4749751	1	0	1	Bois Blanc	36 x 22	Middle Woodland	n/a	3-4	3	Point 1-14
IF 35	SF4	596298	4749839	1	0	1	Bois Blanc	35 x 28	Early Woodland	n/a	3-4	3	Point 1-16
IF 36	SF4	596153	4750039	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 37	SF4	596150	4749857	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 38	SF4	596060	4749694	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 39	SF5	596591	4749651	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 40	SF5	596265	4750195	0	1	1	n/a	n/a	Indeterminate	n/a	3-4	n/a	Isolated lithic flake
IF 41	SF5	596717	4749694	0	1	1	n/a	n/a	Indeterminate	n/a	3-5	n/a	Isolated lithic flake
IF 42	SF6	596749	4749673	0	1	1	n/a	n/a	Indeterminate	n/a	3-5	n/a	Isolated lithic flake
IF 43	SF6	596767	4749716	0	1	1	n/a	n/a	Indeterminate	n/a	3-5	n/a	Isolated lithic flake
IF 44	SF6	596752	4749764	1	0	1	Bois Blanc	44 x 28	Late Archaic	n/a	3-5	2	Point 1-27
IF 45	SF6	596948	4749752	0	1	1	n/a	n/a	Indeterminate	n/a	3-5	n/a	Isolated lithic flake
IF 46	SF6	596685	4750179	1	0	1	Bois Blanc	53 x 27	Late Archaic	n/a	3-5	2	Point 1-19
IF 47	SF6	596788	4750316	0	1	1	n/a	n/a	Indeterminate	n/a	3-5	n/a	Isolated lithic flake

GREP Site #	Location	Easting	Northing	# Tools	# Lithic Flakes	Total # Artifacts	Material Type	Tool Size (in mm)	Cultural Period	Dimensions (in m)	Figure #	Plate #	Comments
IF 48	SF7	597293	4750032	1	0	1	Bois Blanc	41 x 27	Indeterminate	n/a	3-6	4	Point 1-22
IF 49	SF8	597665	4750148	1	0	1	Bois Blanc	56 x 33	Late Archaic	n/a	3-6	2	Point 1-23
IF 50	SF7	596916	4750590	1	0	1	Bois Blanc	31 x 26	Indeterminate	n/a	3-6	4	Point 1-26
IF 51	SF8	597607	4750174	1	0	1	Bois Blanc	43 x 24	Middle Woodland	n/a	3-6	3	Point 1-24
IF 52	SF8	597600	4750269	1	0	1	Bois Blanc	31 x 16	Late Archaic	n/a	3-6	2	Point 1-29
IF 53	SF8	597564	4750589	0	1	1	n/a	n/a	Indeterminate	n/a	3-6	n/a	Isolated lithic flake
IF 54	SF8	597396	4750478	0	1	1	n/a	n/a	Indeterminate	n/a	3-6	n/a	Isolated lithic flake
IF 55	SF1	596424	4748473	0	1	1	n/a	n/a	Indeterminate	n/a	3-2	n/a	Isolated lithic flake
IF 56	T36	589886	4755449	0	1	1	n/a	n/a	Indeterminate	n/a	3-8	n/a	Isolated lithic flake
IF 57	T45	590112	4753820	0	1	1	n/a	n/a	Indeterminate	n/a	3-8	n/a	Isolated lithic flake
IF 58	T23	591151	4752114	0	1	1	n/a	n/a	Indeterminate	n/a	3-9	n/a	Isolated lithic flake
IF 59	T23	591227	4751891	0	1	1	n/a	n/a	Indeterminate	n/a	3-9	n/a	Isolated lithic flake
IF 60	T23	591095	4752272	0	1	1	n/a	n/a	Indeterminate	n/a	3-9	n/a	Isolated lithic flake
IF 61	T28	591277	4752296	0	1	1	n/a	n/a	Indeterminate	n/a	3-9	n/a	Isolated lithic flake
IF 62	T20	592615	4749466	0	1	1	n/a	n/a	Indeterminate	n/a	3-10	n/a	Isolated lithic flake
IF 63	T16	594290	4749960	0	1	1	n/a	n/a	Indeterminate	n/a	3-13	n/a	Isolated lithic flake
IF 64	T12	601602	4747206	1	0	1	Bois Blanc	40 x 33	Indeterminate	n/a	3-15	5	Biface 2-7
IF 65	T12	601497	4747141	1	0	1	Bois Blanc	46 x 23	Indeterminate	n/a	3-15	n/a	Biface 2-6
IF 66	T19	606321	4749345	0	1	1	n/a	n/a	Indeterminate	n/a	3-17	n/a	Isolated lithic flake
IF 67	T40	604246	4749585	0	1	1	n/a	n/a	Indeterminate	n/a	3-17	n/a	Isolated lithic flake
IF 68	T40	604256	4749554	1	0	1	Bois Blanc	26 x 29	Indeterminate	n/a	3-17	4	Point 2-23
IF 69	T55	600236	4746268	1	0	1	Bois Blanc	44 x 25	Late Archaic	n/a	3-15	2	Point 2-22
IF 70	T55	600232	4746205	0	1	1	n/a	n/a	Indeterminate	n/a	3-15	n/a	Isolated lithic flake

Advice on Compliance with Legislation

At the close of the 2010 field season Stage 2 AA had not been completed for access roads and turbine pads for 16 turbine installations. All of these areas are slated to be assessed using a pedestrian survey methodology. The total area left to be assessed is 61 ha, or approximately 14% of the total of 420 ha that Stantec was scheduled to assess. It is anticipated that the remaining Stage 2 AA will require about 12 person days of field time to complete. It is recommended that the remaining Stage 2 and 3 assessment work for this project be completed as required under the Ontario Heritage Act and that the Ministry of Tourism and Culture provide concurrence with the recommendations made within this report by accepting it into the Ontario Public Register Archaeology Reports.

Stantec cautions, however, that it is possible that deeply buried archaeological resources, could still exist within the limits of the proposed project and that the following standard conditions will continue to apply:

- It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the Ontario Heritage Act;
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject 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; and
- 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.

Stage 2 Report (Licence/PIF # P218-012-2010), Revised Report, February 2011, Received February 4, 2011

The Stage 2 archaeological assessment of a portion of the proposed project was undertaken by Golder, on behalf of Stantec, in order to meet the requirements of an environmental assessment conducted under the Renewable Energy Act, as outlined in Ontario Regulation 359/09 section 22(3). The Stage 2 Assessment was conducted from December 2nd, 2010 to December 22nd, 2010 and January 2nd, 2011 to January 3rd, 2011. This work was conducted under archaeological consulting licence P218, issued to Scott Martin, Ph.D., by the Ontario Ministry of Tourism and Culture. The Stage 2 assessment focused upon the proposed wind turbine and solar lands layout, including turbine sites, collector cable routes, access roads, construction roads, transmission lines, laydown areas and substations. A total of approximately 75 hectares was subject to Stage 2 archaeological assessment.

The remainder of the project area, consisting entirely of ploughed agricultural fields (total of approximately 102 hectares), will be assessed when weather conditions allow using the pedestrian survey method at five metre intervals. In total, 20 turbine locations, 11 access road or collector cable routes and two portions of solar panel lands still need to be assessed. This remaining work is estimated to take a crew of 6 individuals, three field days, after which time the Stage 2 assessment will be complete.

The Stage 2 archaeological assessment resulted in the identification of 55 locations, comprising 54 pre-contact Aboriginal sites and one historic Euro-Canadian site. In summary, 25 of the 55 archaeological locations identified within the study area are recommended for Stage 3 assessment. It is recommended that these sites be subject to a Stage 3 archaeological investigation to further evaluate their cultural heritage value or interest.

The following recommendations are made concerning these locations.

Sites Recommended for Stage 3 Assessment

Table 3 lists the pre-contact Aboriginal sites requiring Stage 3 assessment. Of the 54 pre-contact Aboriginal archaeological locations recorded, 25 of them are being recommended for further archaeological assessment.

Table 3: Pre-contact Aboriginal Sites Requiring Stage 3 Archaeological Assessment

Site Name	Borden Number	Cultural Affiliation	Date
Location 2	AfGw-168	pre-contact Aboriginal	indeterminate
Location 5	AfGw-169	pre-contact Aboriginal	indeterminate
Location 12	AfGw-170	pre-contact Aboriginal	c. 3780-3200 B.C.
Location 15	AfGw-171	pre-contact Aboriginal	indeterminate
Location 16	AfGw-172	pre-contact Aboriginal	indeterminate
Location 17	AfGw-173	pre-contact Aboriginal	indeterminate
Location 18	AfGw-174	pre-contact Aboriginal	indeterminate
Location 21	AfGw-175	pre-contact Aboriginal	indeterminate
Location 24	AfGw-176	pre-contact Aboriginal	indeterminate
Location 29	AfGw-177	pre-contact Aboriginal	indeterminate
Location 30	AfGw-178	pre-contact Aboriginal	indeterminate
Location 34	AfGw-179	pre-contact Aboriginal	c. 500 B.C. - A.D. 1
Location 38	AfGw-180	pre-contact Aboriginal	indeterminate
Location 39	AfGx-722	pre-contact Aboriginal	indeterminate
Location 41	AfGw-182	pre-contact Aboriginal	indeterminate
Location 44	AfGw-183	pre-contact Aboriginal	indeterminate
Location 45	AfGx-723	pre-contact Aboriginal	indeterminate
Location 46	AfGx-724	pre-contact Aboriginal	indeterminate
Location 47	AfGx-725	pre-contact Aboriginal	indeterminate

Site Name	Borden Number	Cultural Affiliation	Date
Location 48	AfGx-726	pre-contact Aboriginal	indeterminate
Location 49	AfGx-727	pre-contact Aboriginal	indeterminate
Location 50	AfGx-728	pre-contact Aboriginal	indeterminate
Location 51	AfGx-729	pre-contact Aboriginal	indeterminate
Location 52	AfGx-730	pre-contact Aboriginal	indeterminate
Location 53	AfGx-731	pre-contact Aboriginal	indeterminate

Sites Not Requiring any Further Archaeological Assessment

Table 4 lists the pre-contact Aboriginal sites not requiring Stage 3 assessment. Of the 54 pre-contact Aboriginal archaeological locations recorded, 29 of them have been sufficiently documented and require no further archaeological assessment.

Table 4: Pre-contact Aboriginal Sites Not Requiring Any Further Archaeological Assessment

Site Name	Borden Number	Cultural Affiliation	Date
Location 1	none	pre-contact Aboriginal	indeterminate
Location 3	none	pre-contact Aboriginal	indeterminate
Location 4	none	pre-contact Aboriginal	indeterminate
Location 6	none	pre-contact Aboriginal	indeterminate
Location 7	none	pre-contact Aboriginal	indeterminate
Location 8	none	pre-contact Aboriginal	indeterminate
Location 9	none	pre-contact Aboriginal	indeterminate
Location 10	none	pre-contact Aboriginal	indeterminate
Location 11	none	pre-contact Aboriginal	indeterminate
Location 13	none	pre-contact Aboriginal	indeterminate
Location 14	none	pre-contact Aboriginal	indeterminate
Location 19	none	pre-contact Aboriginal	indeterminate
Location 20	none	pre-contact Aboriginal	indeterminate
Location 22	none	pre-contact Aboriginal	indeterminate
Location 23	none	pre-contact Aboriginal	indeterminate
Location 25	none	pre-contact Aboriginal	indeterminate
Location 26	none	pre-contact Aboriginal	indeterminate
Location 27	none	pre-contact Aboriginal	indeterminate
Location 28	none	pre-contact Aboriginal	indeterminate
Location 31	none	pre-contact Aboriginal	indeterminate
Location 32	none	pre-contact Aboriginal	indeterminate
Location 33	none	pre-contact Aboriginal	indeterminate
Location 35	none	pre-contact Aboriginal	indeterminate

Site Name	Borden Number	Cultural Affiliation	Date
Location 36	none	pre-contact Aboriginal	indeterminate
Location 37	none	pre-contact Aboriginal	indeterminate
Location 42	none	pre-contact Aboriginal	indeterminate
Location 43	none	pre-contact Aboriginal	indeterminate
Location 54	none	pre-contact Aboriginal	indeterminate
Location 55	none	pre-contact Aboriginal	indeterminate

Table 5 lists the single historic Euro-Canadian site not requiring Stage 3 assessment. Of the one Historic Euro-Canadian archaeological location recorded, zero of them are being recommended for further archaeological assessment.

Table 5: Historic Euro-Canadian Sites Not Requiring Any Further Archaeological Assessment

Site Name	Borden Number	Cultural Affiliation	Date
Location 40	AfGw-181	historic Euro-Canadian	Late 19 th Century

In summary, 25 of the 55 archaeological locations identified within the study area are recommended for Stage 3 assessment since they are judged to be of cultural heritage value or interest requiring further documentation.

This assessment was undertaken in order to meet the requirements of an environmental assessment conducted under the Renewable Energy Approval (REA) process, as outlined in Ontario Regulation 359/09 section 22(3). The Ontario Ministry of Tourism and Culture is asked to review the results presented and to accept this report into the Ontario Public Register of Archaeological Reports. Additional archaeological assessment is still required and so the archaeological sites recommended for further archaeological fieldwork remain subject to Section 48(1) of the Ontario Heritage Act and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.

This report is submitted to the Minister of 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 the licensed consultant archaeologist has met the terms and conditions of their archaeological licence, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario.

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 sec. 48(1) of the Ontario Heritage Act.

The Cemeteries Act requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries, Ministry of Consumer Services.

Stage 2 Report (Licence/PIF # P002-222-2011), Revised Report, September 20, 2011, Received September 20, 2011

The Stage 2 AA completed by Stantec in 2011 resulted in the identification and recording of 30 archaeological sites consisting of several hundred discrete pre-contact period artifacts, including 12 formal or expedient tools (11 projectile points, or “arrowheads” and one core). One other archaeological site was discovered where the density of lithic flakes was too high to record individually. For 21 of these (Table 6-1), represented by 8 artifact clusters and 13 isolated find spots, the cultural heritage value or interest has been sufficiently documented and assessed at Stage 2, therefore, no further archaeological assessment of these is required or recommended.

Table 6-1 Archaeological Sites Not Requiring Stage 3 Assessment

GREP Site #	Location	Borden #	# Tools	# Lithic Flakes	Total # Artifacts	Cultural Period	Dimensions (in m)	Figure #	Plate #
CL 51	T41	n/a	0	5	5	Indeterminate	25 X 5	4-1	n/a
CL 52	T58	n/a	0	4	4	Indeterminate	35 x 20	4-3	n/a
CL 53	C 3	n/a	0	3	3	Indeterminate	25 x 10	4-6	n/a
CL 54	T12	n/a	0	5	5	Indeterminate	15 x 10	4-8	n/a
CL 55	T12	n/a	0	5	5	Indeterminate	20 x 6	4-8	n/a
CL 56	C 3	AfGv-128	1	1	2	Early Woodland	5 x 5	4-6	1
CL 57	T23	AfGx-901	0	6	6	Indeterminate	10 x 10	4-9	n/a
CL 58	T23	AfGx-902	0	5	5	Indeterminate	10 x 10	4-9	n/a
IF 71	T41	n/a	0	1	1	Indeterminate	n/a	4-1	n/a
IF 72	T41	n/a	0	1	1	Indeterminate	n/a	4-1	n/a
IF 73	T41	AfGx-906	1	0	1	Middle Archaic	n/a	4-1	n/a
IF 74	T65	n/a	0	1	1	Indeterminate	n/a	4-2	n/a
IF 75	T30	n/a	0	1	1	Indeterminate	n/a	4-5	n/a
IF 76	T58	AfGx-903	1	0	1	Poss. Late Archaic	n/a	4-3	1
IF 77	T58	n/a	1	1	1	Indeterminate	n/a	4-3	1
IF 78	T58	n/a	1	0	1	Indeterminate	n/a	4-3	1
IF 79	T58	AfGx-904	1	0	1	Late Archaic	n/a	4-3	1
IF 80	T58	n/a	0	1	1	Indeterminate	n/a	4-3	n/a
IF 81	T58	AfGx-905	1	0	1	Late Archaic	n/a	4-3	1
IF 82	T12	n/a	0	1	1	Indeterminate	n/a	4-3	n/a
IF 83	T12	n/a	0	1	1	Indeterminate	n/a	3-3	n/a

A Stage 3 AA (the Archaeological Site Assessment) is recommended for the remaining nine (9) archaeological sites as they have further cultural heritage value and interest that needs to be documented beyond Stage 2AA: AfGx-768; AfGx-769; AfGx-770; AfGx-771; AfGx-772; AfGv-124; AfGv-125; AfGv-127; and AfGw-229. These will be conducted according to the 2011 Standards and Guidelines for Consultant Archaeologists. For each site that was located using pedestrian survey methodology the Stage 3 AA will be composed of three elements: historical documentation, a controlled surface pick-up (CSP) of artifacts on the surface of ploughed fields and test unit excavation.

A CSP is a detailed survey of the ground surface in open fields that allows for precise recording of artifact locations and the collection of a representative sample of artifacts, including non-diagnostic artifacts. Based on the Stage 2 AA use of a grid unit CSP may need to be conducted at AfGx-768 and -769 due to their size and artifact densities. No other sites should require grid unit CSP. Dependent upon when CSP occurs, fields where visibility has decreased since the Stage 2 AA may require reploughing and weathering prior to CSP.

Test unit excavation will be required at all identified archaeological sites. The purpose of the test unit excavation is to document the extent of buried artifacts, cultural features, soil stratigraphy and structures and to recover a representative sample of artifacts from across the archaeological site. As no sites identified during the Stage 2 AA will require the use of 3 mm mesh screens all soil will be screened though 6 mm mesh. Each site identified as requiring Stage 3 AA will need to have test units excavated at 5 m intervals and additional supplementary test units excavated as per Table 6.2 below.

Archaeological sites requiring Stage 3 AA have been identified on Project components at Turbine 41, Turbine 66, Turbine 51, Turbine 58, Turbine 65, Turbines 23 and 28 (from the 2010 Stage 2 AA) and Turbine 10 (from the 2010 Stage 2 AA). Project components at Complex 3 (Turbines 59-64), Turbine 12, and Turbines 15, 49 and 50 do not contain archaeological resources requiring Stage 3 AA. In the event that the extra area to the west of the current T23/28 access road is required for the Project it will need to be ploughed, allowed to weather and then surveyed using a pedestrian survey methodology.

At present no construction activities related to Project infrastructure are planned to occur prior to completion any required Stage 3 AA. No archaeological sites were found during the assessment of Turbines 15, 49 and 50 (Figure 4-7) and their associated access road, as such, it is recommended that this area requires no further archaeological assessment.

With the large number of Aboriginal archaeological sites documented through the Stage 2 AA it is expected that the involvement of First Nations in subsequent Stage 3 and/or Stage 4 AA will increase beyond the current level of the Stage 2 AA. Ongoing Aboriginal consultation will be part of the overall Project development, for archaeological resources and for other environmental components, and is a requirement of the 2011 Standards and Guideline for Consultant Archaeologists. It is recommended that Aboriginal Engagement be carried out as required by the Standards and Guidelines and as outlined in the bulletin Engaging Aboriginal Communities in Archaeology.

Table 6-2 Stage 3 Recommendations for Archaeological Sites Identified During the Stage 2 AA

GREP Identifier	Borden #	Site Type	Cultural Heritage Value Sufficiently Documented?	Stage 3 AA Required?	Stage 3 AA Strategy Recommended
Site 46	AfGx-768	Plough-disturbed, large single component lithic scatter; recommendation to proceed to Stage 4 likely	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -place grids over areas of concentrations and excavate 1 m test units at 5 m interval across grids; excavate an additional 20% of grid unit total between areas of concentration; excavate an additional 10% of initial grid total on periphery of surface scatter
Site 47	AfGx-769	Plough-disturbed, large single component lithic scatter; recommendation to proceed to Stage 4 likely	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -place grids over areas of concentrations and excavate 1 m test units at 5 m interval across grids; excavate an additional 20% of grid unit total between areas of concentration; excavate an additional 10% of initial grid total on periphery of surface scatter
Site 48	AfGv-124	Small precontact site: level of cultural heritage value or interest sufficient for recommendation to proceed to Stage 4 unclear	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -excavate test units in 5 m grid across site; excavate an additional 20% of grid unit total in areas of interest within the site extent
Site 49	AfGv-125	Small precontact site: level of cultural heritage value or interest sufficient for recommendation to proceed to Stage 4 unclear	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -excavate test units in 5 m grid across site; excavate an additional 20% of grid unit total in areas of interest within the site extent
Site 50	AfGw-229	Small precontact site: level of cultural heritage value or interest sufficient for recommendation to proceed to Stage 4 unclear	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -excavate test units in 5 m grid across site; excavate an additional 20% of grid unit total in areas of interest within the site extent
Site 51	AfGx-770	Small precontact site: level of cultural heritage value or interest sufficient for recommendation to proceed to Stage 4 unclear	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -excavate test units in 5 m grid across site; excavate an additional 20% of grid unit total in areas of interest within the site extent
Site 52	AfGx-771	Small precontact site: level of cultural heritage value or interest sufficient for recommendation to proceed to Stage 4 unclear	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -excavate test units in 5 m grid across site; excavate an additional 20% of grid unit total in areas of interest within the site extent

Site 53	AfGx-772	Small precontact site: level of cultural heritage value or interest sufficient for recommendation to proceed to Stage 4 unclear	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -excavate test units in 5 m grid across site; excavate an additional 20% of grid unit total in areas of interest within the site extent
Site 54	AfGv-127	Small precontact site: level of cultural heritage value or interest sufficient for recommendation to proceed to Stage 4 unclear	No	Yes	-documentary research of land use and occupation, where available -replough field as necessary; conduct CSP -excavate test units in 5 m grid across site; excavate an additional 20% of grid unit total in areas of interest within the site extent

Stage 2 Report (Licence/PIF # P218-098-2010 and P218-023-2011), Revised Report, July 28, 2011, Received August 2, 2011

A Stage 1 archaeological background study was previously conducted on behalf of Samsung by Stantec for a project area located in the Geographic Townships of Dunn, Rainham, South Cayuga, North Cayuga and Walpole in Haldimand County, Ontario. This area is proposed to be the site of approximately 67 wind turbines, at least three areas of solar panels and project-related infrastructure comprising the Grand Renewable Energy Park.

The Stage 1 archaeological assessment resulted in the determination that the potential for pre-contact Aboriginal and Euro-Canadian sites was deemed to be moderate to high. As a result, Stage 2 archaeological assessment was recommended for any areas to be impacted by turbine or solar panel construction, access road corridor construction or other infrastructure construction related activities.

During the winter of 2010 and 2011, Stage 2 archaeological assessment of a portion of the proposed project area was undertaken by Golder on behalf of Stantec (Golder 2011). The winter 2010-2011 Stage 2 assessment focused upon the proposed wind turbine and solar lands layout, including turbine sites, collector cable routes, access road corridors, construction roads, transmission lines, laydown areas and substations. A total of approximately 75 hectares was subject to Stage 2 archaeological assessment, consisting of approximately 34 hectares of land that could not be ploughed and, therefore, was assessed using the test pit method at an interval of five metres as well as approximately 40.5 hectares of ploughed fields, assessed using the standard pedestrian survey method at an interval of five metres. The Stage 2 archaeological assessment conducted by Golder in winter 2010-2011 resulted in the identification of 55 locations, comprising 54 pre-contact Aboriginal sites and one historic Euro-Canadian site. In summary, 25 of the 55 archaeological locations identified within the study area in winter 2010-2011 were recommended for Stage 3 assessment to further evaluate their cultural heritage value or interest.

During the spring and summer of 2011, Stage 2 archaeological assessment of the remainder of the portion of the proposed project area to be assessed by Golder Associates Ltd. was undertaken and is the subject of this report (Figure 1). The spring and summer 2011 Stage 2 assessment focused on 22 turbine locations, 25 access road corridors or collector cable routes and three portions of solar panel lands. A total of approximately 160 hectares of ploughed agricultural fields was subject to Stage 2 archaeological assessment using the standard pedestrian survey method at an interval of five metres. Additionally, a small area of approximately 10 metres by 40 metres was

assessed using the test pit method at an interval of five metres. The Stage 2 archaeological assessment conducted by Golder in the spring and summer of 2011 resulted in the identification of a further 128 locations, all of which are pre-contact Aboriginal sites. In order to further evaluate their cultural heritage value or interest, 48 of the 128 archaeological locations identified within the study area in the spring and summer of 2011 are recommended for Stage 3 assessment.

Recommendations are made concerning these locations in the subsections below.

Sites Recommended for Stage 3 Assessment

Table 4 lists the pre-contact Aboriginal sites requiring Stage 3 assessment. Of the 128 pre-contact Aboriginal archaeological locations recorded in the spring and summer of 2011, 48 of them are being recommended for further archaeological assessment.

Table 1: Pre-contact Aboriginal Sites Requiring Stage 3 Archaeological Assessment

Site Name	Borden Number	Cultural Affiliation	Date
Location 58	AfGw-188	pre-contact Aboriginal	indeterminate
Location 59	AfGw-189	pre-contact Aboriginal	indeterminate
Location 64	AfGw-190	pre-contact Aboriginal	c. 500-100 B.C.
Location 65	AfGw-191	pre-contact Aboriginal	indeterminate
Location 66	AfGw-192	pre-contact Aboriginal	c. 8000-6910 B.C.
Location 68	AfGw-193	pre-contact Aboriginal	indeterminate
Location 69	AfGw-194	pre-contact Aboriginal	indeterminate
Location 70	AfGw-195	pre-contact Aboriginal	indeterminate
Location 71	AfGw-196	pre-contact Aboriginal	c. 1000-500 B.C.
Location 72	AfGw-197	pre-contact Aboriginal	indeterminate
Location 73	AfGw-198	pre-contact Aboriginal	c. 1800-1300 B.C.
Location 78	AfGw-199	pre-contact Aboriginal	indeterminate
Location 79	AfGw-200	pre-contact Aboriginal	c. 1800-1300 B.C.
Location 81	AfGw-201	pre-contact Aboriginal	indeterminate
Location 82	AfGw-202	pre-contact Aboriginal	c. 3780-3200 B.C.
Location 85	AfGw-203	pre-contact Aboriginal	indeterminate
Location 86	AfGw-204	pre-contact Aboriginal	indeterminate
Location 88	AfGw-206	pre-contact Aboriginal	c. 8600-8000 B.C.
Location 89	AfGw-207	pre-contact Aboriginal	indeterminate
Location 91	AfGw-208	pre-contact Aboriginal	c. 3780-3200 B.C.
Location 98	AfGw-226	pre-contact Aboriginal	indeterminate
Location 99	AfGw-227	pre-contact Aboriginal	indeterminate
Location 104	AfGw-209	pre-contact Aboriginal	indeterminate
Location 105	AfGw-210	pre-contact Aboriginal	indeterminate
Location 109	AfGw-211	pre-contact Aboriginal	c. A.D. 500-1000

Site Name	Borden Number	Cultural Affiliation	Date
Location 110	AfGw-212	pre-contact Aboriginal	indeterminate
Location 111	AfGw-213	pre-contact Aboriginal	c. A.D. 500-Contact
Location 114	AfGw-214	pre-contact Aboriginal	indeterminate
Location 115	AfGw-215	pre-contact Aboriginal	indeterminate
Location 118	AfGw-216	pre-contact Aboriginal	c. 4340-3960 B.C.
Location 119	AfGw-217	pre-contact Aboriginal	indeterminate
Location 122	AfGw-218	pre-contact Aboriginal	indeterminate
Location 123	AfGw-219	pre-contact Aboriginal	indeterminate
Location 124	AfGw-220	pre-contact Aboriginal	indeterminate
Location 125	AfGw-221	pre-contact Aboriginal	indeterminate
Location 126	AfGw-222	pre-contact Aboriginal	c. 3780-3200 B.C.
Location 127	AfGw-228	pre-contact Aboriginal	indeterminate
Location 129	AfGw-223	pre-contact Aboriginal	indeterminate
Location 131	AfGx-737	pre-contact Aboriginal	indeterminate
Location 132	AfGx-738	pre-contact Aboriginal	indeterminate
Location 137	AfGx-741	pre-contact Aboriginal	indeterminate
Location 140	AfGx-742	pre-contact Aboriginal	indeterminate
Location 152	AfGw-225	pre-contact Aboriginal	indeterminate
Location 155	AfGw-241	pre-contact Aboriginal	indeterminate
Location 157	AfGw-242	pre-contact Aboriginal	indeterminate
Location 163	AfGw-244	pre-contact Aboriginal	indeterminate
Location 165	AfGw-246	pre-contact Aboriginal	indeterminate
Location 176	AfGw-249	pre-contact Aboriginal	indeterminate

Sites Not Requiring any Further Archaeological Assessment

Table 5 lists the pre-contact Aboriginal sites not requiring Stage 3 assessment. Of the 128 pre-contact Aboriginal archaeological locations recorded in the spring and summer of 2011, 80 of them have been sufficiently documented and require no further archaeological assessment.

Table 2: Pre-contact Aboriginal Sites Not Requiring Any Further Archaeological Assessment

Site Name	Borden Number	Cultural Affiliation	Date
Location 56	none	pre-contact Aboriginal	indeterminate
Location 57	none	pre-contact Aboriginal	indeterminate
Location 60	none	pre-contact Aboriginal	indeterminate
Location 61	AfGw-230	pre-contact Aboriginal	indeterminate
Location 62	none	pre-contact Aboriginal	indeterminate
Location 63	none	pre-contact Aboriginal	indeterminate
Location 67	none	pre-contact Aboriginal	indeterminate
Location 74	none	pre-contact Aboriginal	indeterminate

Site Name	Borden Number	Cultural Affiliation	Date
Location 75	none	pre-contact Aboriginal	indeterminate
Location 76	AfGw-231	pre-contact Aboriginal	indeterminate
Location 77	AfGw-232	pre-contact Aboriginal	indeterminate
Location 80	none	pre-contact Aboriginal	indeterminate
Location 83	none	pre-contact Aboriginal	indeterminate
Location 84	none	pre-contact Aboriginal	indeterminate
Location 87	AfGw-205	pre-contact Aboriginal	c. 1000-500 B.C.
Location 90	none	pre-contact Aboriginal	indeterminate
Location 92	none	pre-contact Aboriginal	indeterminate
Location 93	none	pre-contact Aboriginal	indeterminate
Location 94	none	pre-contact Aboriginal	indeterminate
Location 95	none	pre-contact Aboriginal	indeterminate
Location 96	none	pre-contact Aboriginal	indeterminate
Location 97	none	pre-contact Aboriginal	indeterminate
Location 100	none	pre-contact Aboriginal	indeterminate
Location 101	none	pre-contact Aboriginal	indeterminate
Location 102	none	pre-contact Aboriginal	indeterminate
Location 103	none	pre-contact Aboriginal	indeterminate
Location 106	AfGw-233	pre-contact Aboriginal	indeterminate
Location 107	none	pre-contact Aboriginal	indeterminate
Location 108	AfGw-234	pre-contact Aboriginal	indeterminate
Location 112	AfGw-235	pre-contact Aboriginal	indeterminate
Location 113	AfGw-236	pre-contact Aboriginal	indeterminate
Location 116	none	pre-contact Aboriginal	indeterminate
Location 117	none	pre-contact Aboriginal	indeterminate
Location 120	AfGw-237	pre-contact Aboriginal	indeterminate
Location 121	AfGw-238	pre-contact Aboriginal	indeterminate
Location 128	none	pre-contact Aboriginal	indeterminate
Location 130	none	pre-contact Aboriginal	indeterminate
Location 133	none	pre-contact Aboriginal	indeterminate
Location 134	AfGx-739	pre-contact Aboriginal	indeterminate
Location 135	AfGx-854	pre-contact Aboriginal	indeterminate
Location 136	AfGx-740	pre-contact Aboriginal	c. 3780-3200 B.C.
Location 138	AfGx-855	pre-contact Aboriginal	indeterminate
Location 139	none	pre-contact Aboriginal	indeterminate
Location 141	none	pre-contact Aboriginal	indeterminate
Location 142	none	pre-contact Aboriginal	indeterminate
Location 143	none	pre-contact Aboriginal	indeterminate
Location 144	none	pre-contact Aboriginal	indeterminate

Site Name	Borden Number	Cultural Affiliation	Date
Location 145	none	pre-contact Aboriginal	indeterminate
Location 146	none	pre-contact Aboriginal	indeterminate
Location 147	none	pre-contact Aboriginal	indeterminate
Location 148	none	pre-contact Aboriginal	indeterminate
Location 149	AfGw-224	pre-contact Aboriginal	c. 1000-500 B.C.
Location 150	AfGw-239	pre-contact Aboriginal	indeterminate
Location 151	none	pre-contact Aboriginal	indeterminate
Location 153	AfGw-240	pre-contact Aboriginal	indeterminate
Location 154	none	pre-contact Aboriginal	indeterminate
Location 156	none	pre-contact Aboriginal	indeterminate
Location 158	AfGw-243	pre-contact Aboriginal	indeterminate
Location 159	none	pre-contact Aboriginal	indeterminate
Location 160	none	pre-contact Aboriginal	indeterminate
Location 161	none	pre-contact Aboriginal	indeterminate
Location 162	none	pre-contact Aboriginal	indeterminate
Location 164	AfGw-245	pre-contact Aboriginal	indeterminate
Location 166	none	pre-contact Aboriginal	indeterminate
Location 167	none	pre-contact Aboriginal	indeterminate
Location 168	none	pre-contact Aboriginal	indeterminate
Location 169	none	pre-contact Aboriginal	indeterminate
Location 170	none	pre-contact Aboriginal	indeterminate
Location 171	none	pre-contact Aboriginal	indeterminate
Location 172	none	pre-contact Aboriginal	indeterminate
Location 173	AfGw-248	pre-contact Aboriginal	indeterminate
Location 174	none	pre-contact Aboriginal	indeterminate
Location 175	none	pre-contact Aboriginal	indeterminate
Location 177	none	pre-contact Aboriginal	indeterminate
Location 178	none	pre-contact Aboriginal	indeterminate
Location 179	AfGw-250	pre-contact Aboriginal	indeterminate
Location 180	AfGw-251	pre-contact Aboriginal	indeterminate
Location 181	none	pre-contact Aboriginal	indeterminate
Location 182	none	pre-contact Aboriginal	indeterminate
Location 183	none	pre-contact Aboriginal	indeterminate

In summary, 48 of the 128 archaeological locations identified within the study area in the spring and summer of 2011 are recommended for Stage 3 assessment since they are judged to be of cultural heritage value or interest requiring further documentation.

The Ontario Ministry of Tourism and Culture is asked to review the results presented and to accept this report into the Ontario Public Register of Archaeological Reports. Additional

archaeological assessment is still required; hence the archaeological sites recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.

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.

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 fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act*.

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

Stage 2 Report (Licence/PIF # P218-098-2010 and P218-023-2011), Addendum, September 2, 2011, Received September 6, 2011

In summary, the Stage 2 archaeological assessment of the Turbine 47 study area did not result in the identification of any archaeological resources of cultural heritage value or interest and no further archaeological assessment is recommended.

The Ontario Ministry of Tourism and Culture is asked to review the results and recommendations presented herein and accept this as an addendum to the Revised Stage 2 Archaeological Assessment Report (Report Number: 10-1136-0072-R03).

The Ministry is satisfied with these recommendations.

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

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

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

Sincerely,

Shari Prowse
Archaeology Review Officer

cc. Dr. Scott Martin, Golder Associates
Mr. Colin Varley, Stantec Consulting Ltd.
Mr. Rob Nadolny, Senior Project Manager, Stantec Consulting Ltd.

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