June 2011

REPORT ON

Phase I Environmental Site Assessment 645 Longfields Drive, Ottawa, Ontario

Submitted to: Tartan Land Corporation 233 Metcalfe Street, Ottawa, Ontario K2P 2C2

Attention: Mr. Pierre Dufresne

REPORT

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Executive Summary

Golder Associates Ltd. (hereafter referred to as "Golder Associates") was retained by Tartan Land Corporation (hereafter referred to as "Tartan") to conduct a Phase I Environmental Site Assessment (hereafter referred to as "Phase I ESA") of the property located at 645 Longfields Drive in Ottawa, Ontario (hereafter referred to as the "Site") as shown on Figures 1 and 2. The Site is located north of the future Highbury Park Drive, between Greenbank Road and Longfields Drive and currently is vacant land, overgrown with vegetation and trees.

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

The Phase I ESA was completed in general accordance with the November 2001 Canadian Standards Association document entitled Phase I Environmental Site Assessment, Z768 01 (R2006). The scope of work for this project was described in the Golder Associates Proposal # P1-1121-0090 and dated May 5, 2011. It is understood that the Phase I ESA is being carried out for a Site plan approval application to the City of Ottawa for the proposed new residential development on the Site.

Based on the information obtained during the Phase I ESA, no issues of potential environmental concern were identified for the Site.

At the time this report was issued, a response letter from the City of Ottawa had not been received by Golder. When formal response to Golder's request for information is received, it will be reviewed. If, in Golder's opinion, the response details any issues of potential environmental concern with respect to the Site, a copy will be forwarded to Tartan (with a brief discussion) so that it can be appended to this report.





Table of Contents

EXE	CUTIVE	SUMMARY	i
1.0	INTRO	DUCTION AND BACKGROUND	1
	1.1	General	1
	1.2	Scope of Work	1
2.0	PHYSI	CAL SETTING	2
	2.1	Site Setting and Activities	2
	2.2	Regional Geological Setting	3
3.0	REVIE	W OF HISTORICAL INFORMATION	4
	3.1	Interview	4
	3.2	Aerial Photograph Review	5
	3.3	Title Search	6
	3.4	Agreement of Purchase and Sale ("A of P/S")	6
	3.5	Review of Fire Insurance Plan Records	6
	3.6	Review of Street Directories	7
	3.7	Previous Reports	7
4.0	REGU	LATORY INFORMATION REVIEW	8
	4.1	Ontario Ministry of Environment Correspondence	8
	4.2	Technical Standards and Safety Authority Correspondence	9
	4.3	City of Ottawa Correspondence	9
	4.4	City of Ottawa Document Review	9
	4.5	Ontario Ministry of Environment Document Review	9
	4.5.1	MOE Database on PCB Storage Sites, 2000	9
	4.5.2	Waste Disposal Site Inventory, June 1991	9
	4.5.3	Inventory of Coal Gasification Plant Waste Sites in Ontario, April 1987	9
	4.5.4	MOE Database on Registered Waste Generators, 2001	10
	4.5.5	Database on Brownfields Environmental Site Registry - Records of Site Condition ("RSC"), October 2004	10
	4.5.6	Environment Canada National Pollutant Release Inventory ("NPRI"), 2006	10
5.0	SITE V	ISIT FINDINGS AND COMMENTS	11



PHASE I ENVIRONMENTAL SITE ASSESSMENT

5.1	Outside (Exterior) Areas	11
5.2	Building	11
5.2.1	Suspect Asbestos-Containing Materials	11
5.2.2	Suspect PCB-Containing Materials and Equipment	12
5.2.3	Urea Formaldehyde Foam Insulation	12
5.2.4	Lead	12
5.2.5	Ozone-Depleting Substances	13
5.2.6	Radon	13
5.2.7	Mercury	13
5.2.8	Air Emissions	13
5.2.9	Mould	13
5.2.10	Radioactive Materials	13
5.3	Solid Waste Disposal Practices and/or Areas of Storage/Waste	14
5.4	Water and Wastewater Discharges	14
5.5	Odour, Noise and Vibration	14
5.6	Electromagnetic Radiation	14
5.7	Storage Tanks	14
5.7.1	Aboveground Storage Tanks	14
5.7.2	Underground Storage Tanks	14
5.8	Storage, Handling and Disposal of Hazardous Materials	14
5.9	Adjacent Land Use	14
ISSUES	OF POTENTIAL ENVIRONMENTAL CONCERN	16
LIMITA	TIONS AND USE OF REPORT	17
CLOSU	RE	18

FIGURES

6.0

7.0

8.0

Figure 1: Key Plan Figure 2: Site Plan





APPENDICES

APPENDIX A Site Photographs

APPENDIX B Regulatory Documentation

APPENDIX C Qualifications of Environmental Assessors



1.0 INTRODUCTION AND BACKGROUND

1.1 General

Golder Associates Ltd. (hereafter referred to as "Golder Associates") was retained by Tartan Land Corporation (hereafter referred to as "Tartan") to conduct a Phase I Environmental Site Assessment (hereafter referred to as "Phase I ESA") of the property located at 645 Longfields Drive in Ottawa, Ontario (hereafter referred to as the "Site") as shown on Figures 1 and 2. The Site is located north of the future Highbury Park Drive, between Greenbank Road and Longfields Drive and currently is vacant land, overgrown with vegetation and trees.

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Appendix A includes resumes of Golder Associates staff involved with this Phase I ESA.

1.2 Scope of Work

As previously indicated, the scope of work for the Phase I ESA carried out on the Site is based on the November 2001 Canadian Standards Association (hereafter referred to as "CSA") document entitled Phase I Environmental Site Assessment, Z768-01. The Phase I ESA consisted of the following components:

- A records review;
- A Site visit;
- Requests/interview with the regulatory officials and/or personnel associated with the Site and adjoining properties (if possible);
- An evaluation of information obtained; and,
- Preparation of this report.

This Phase I ESA report is not a compliance audit or review. Any environmental compliance issues noted are strictly mentioned as they relate to physical conditions present at the time of the Site visit. This Phase I ESA did not include an evaluation of operational or management systems compliance. Furthermore, Golder Associates did not conduct a health and safety, engineering or structural evaluation of the Site.

A "designated substance", as defined in The Occupational Health and Safety Act (hereafter referred to as "OHSA") and the Workplace Hazardous Material Information System (hereafter referred to as "WHMIS") regulation (1990) is a "biological, chemical or physical agent or combination thereof prescribed as a designated substance to which the exposure of a worker is prohibited, regulated, restricted, limited, or controlled". Sections of this report discuss the designated substances normally reviewed as part of a Phase I ESA. The designated substances review was performed for the Site as a whole. No intrusive sampling or analytical testing for materials/substances of potential environmental concern (e.g., polychlorinated biphenyls, lead, mercury, asbestos-containing materials, mould, etc.) was undertaken as part of this Phase I ESA.



2.0 PHYSICAL SETTING2.1 Site Setting and Activities

The general location of the Site is shown on the Key Plan, Figure 1 and the general Site configuration is shown on the Site Plan, Figure 2. Characteristics of the Site, based on the Golder Associates Site visit carried out on May 30, 2011, are as follows:

		SITE CHARAC	TERISTICS			
Use	Currently v	acant land overgro	wn with vegetatio	n and trees		
Address or Location	645 Longfi 100 m eas	elds Drive, Ottawa t of the Site.	, Ontario. Note:	Longfields Drive	is currently about	
O atting a	North the So	of the future Highl outhwest Transitwa	bury Park Drive, y	west of Longfield	ds Drive and east of	
Setting	There	is no vehicle acces	ss to the Site			
	Resid	ential and parkland	setting			
Area (approx.)	13.92 acres	s (5.6 hectares)				
Legal Description	Part lot 18,	Concession 2 (RF))			
Configuration	Irregular					
Services	None	None				
Presence of Fill Material	No piles of	fill material were ol	bserved at the Sit	e during the Pha	se I ESA Site visit.	
Other Site Comments	Project	ct North: Based on	Greenbank Road	having a north-s	outh axis.	
	Waste	Container	Location	Disposal	Contractor	
Waste Storage	The Site is vacant land and no waste is currently generated or stored on the Site.					
		Exterior	Areas			
Gravel Areas	A gravel co	overed trail runs alo	ng the north Site	boundary.		
Landscaped/Grassed Areas	The Site is	overgrown with gra	ass and trees.			
Paved Areas	None					
Treed Areas	Trees are l	ocated throughout	the Site.			
Exterior Storage Tanks	Undergroui are discuss	nd storage tanks ("l sed in Sections 5.7.	USTs") and/or ab 1 and 5.7.2.	ove ground stora	ige tanks ("ASTs")	
Other Exterior Observations	None					
		Buildi	ng			
Name	Currently n	o buildings are pre	sent on the Site.	A proposed resid	ential development	





2.2 Regional Geological Setting

The following maps/reports were reviewed to determine the general geological and topographical conditions in the area of the Site:

- Golder Associates Ltd. GIS Database (Reference Digital Basemap Data supplied by DMTI Spatial Inc., Canmap, 2006);
- Map 1506A, Surficial Geology, Ottawa, Ontario, Belanger J. R., Urban Geology of the National Capital Area, Geological Survey of Canada, Open file D3256, 2001; and,
- Map 1508A. Generalized Bedrock Geology, Ottawa, Ontario, Belanger J. R., Urban Geology of the National Capital Area, Geological Survey of Canada, Open file D3256, 2001.

Geological information on the Site and/or surrounding area [200 metres ("m")], based on the above, is as follows:

GEOLOGICAL INFORMATION			
Native Subsurface Soils (expected)	Till, plain with local relief <5 m in the southern part of the Site and offshore marine deposits: clay, silty clay and silt and the northern part of the Site		
Depth to Bedrock (approximately)	3 to 5 m		
Type of Bedrock (expected)	March Formation (Sandstone and Dolomite, interbedded)		
Topography (expected)	Slight slope downward to the south.		
Regional Groundwater Flow (inferred)	South towards Jock River located approximately 2.1 km south of the Site.		
Nearest Open Water Body	Jock River located approximately 2.1 km south of the Site.		
Prominent Physical Features	None		

Local groundwater flow may be influenced by underground utilities (i.e., service trenches) if any exist. For example, the gravel pack used around utilities, such as storm sewers, can act as interceptors and redirect groundwater flow along the direction of the pipe. If a more accurate description of geology, groundwater flow and groundwater quality is required, a subsurface investigation would be required





3.0 REVIEW OF HISTORICAL INFORMATION

Historical information on the Site and/or surrounding area (250 m) was obtained from the following sources:

SUMMARY OF HISTORICAL INFORMATION SOURCES								
	Interview(s)							
Name			Inte	rview Date	Position	Company		
* Dhaneshwar Neermul				e 14, 2011	Program Manager, Real Estate Services	City of Ottawa		
* <u>Note</u> :	Hereafter known as t	he "Si	te Re	presentative".				
				Aerial Photogra	ph Review			
Year	1952	1973	}	1984	1994	2002, 2005, 2007 and 2008 City of Ottawa e-maps		
No.	A13637-46	A23 ² 44	185-	A26459-110	A28149-21			
Scale	1:16,000	1:15	5,000 1:12,000		1:10,000	1:5,310		
				Title Sea	rch			
No title	search provided							
			Rev	view of Fire Insurar	nce Plan Records			
Source	e(s)		Natio	onal Archives, Ottav	va			
Year(s)		Not	available for the Site	9			
				Review of Street	Directories			
Source	e(s)		Natio	onal Archives, Ottav	va			
Year(s)		1987	7, 1992, 1999/2000,	2004/2005, 2009/2010			
				Previous Environm	iental Reports			
No pre	vious environmental	reports	s for t	he Site were provide	ed for review as part of this Pha	ase I ESA.		

3.1 Interview

Refer to the Summary of Historical Information Sources table for interview contact information. The Site Representative completed a Phase I ESA interview form and provided the following information which is pertinent to the Phase I ESA:

- The Site has always been vacant land;
- A residential development is proposed to be built on the Site;
- The current Site owner is the City of Ottawa;
- No vehicle fuelling or repairs have ever taken place on the Site;
- No manufacturing or processing operations have been carried out at the Site;
- No pesticides or other agricultural chemicals have been applied, mixed or stored at the Site;



- No spills of chemical products, liquid waste or hydrocarbons have occurred on the Site;
- No underground storage tanks ("USTs") or aboveground storage tanks ("ASTs") exist on the Site and there have never been any USTs or ASTs on the Site;
- No hazardous waste is generated or stored on the Site;
- No fill material has been placed on the Site;
- No storage, handling or management of chemicals takes place at the Site; and,
- A snow disposal facility was present on the lands west of the Site, however the snow dump has been decommissioned, and no snow has been stored there since the winter of 2010.

The information provided by the Site Representative does not indicate any issues of potential environmental concern.

3.2 Aerial Photograph Review

Selected aerial photographs for the Site were obtained from the National Air Photo Library in Ottawa, Ontario by Golder Associates personnel. The review of the aerial photographs was conducted to develop a general history of the development of the Site and surrounding properties within 250 m of the Site. Aerial photographs may be at a scale that limits a detailed review of the Site and surrounding area. Information obtained from the aerial photographs is summarized as follows:

Date Scale	Site	Surrounding Property Direction					
Dute Obule	one	North East		South	West		
The Site is vacant land1952which appears1:16,000to be used for agricultural purposes.		Agricultural and lands followed by a road which is currently a railway.	Agricultural and forested lands	Agricultural land, isolated farm houses and Standherd Drive	Greenbank Road followed by agricultural lands and scattered houses.		
1973 1:15,000	As per 1952	As per 1952 with the addition of residential development further to the northwest of the Site	As per 1952	As per 1952	As per 1952		
1984 1:12,000	Forested and grassy land	Not visible on this aerial photograph	Forested and grassy lands	As per 1973 with the addition of a residential development southwest of the Site	Not visible on this aerial photograph		





Date Scale	Site	Surrounding Property Direction					
Duto Obulo	ono	North	East	South	West		
1994 1:10,000	As per 1984	Vacant land overgrown with vegetation and trees. The road passing north of the Site is converted to a railway.	As per 1984	As per 1984 with the addition of the Nepean fire station and a church	Vacant land followed by Greenbank Road and major residential development		
2002 City of Ottawa eMap 1:5,310	As per 1994	As per 1994 with the addition of residential development north of the railway.	Vacant lands followed by Longfields Drive	Grassed area followed by a residential development	As per 1994		
2005 City of Ottawa eMap 1:5,310	As per 2002	As per 2002	As per 2002	As per 2002	As per 2002		
2008 City of Ottawa eMap 1:5,310	As per 2005, however some earth work appears in the southwest part of the Site	As per 2005	As per 2005 with the addition of new buildings east of Longfields Drive	As per 2005 with the addition of more residential houses	As per 2005, however some earth work and fill material are visible on the vacant lands immediately west of the Site		

The review of aerial photographs of the Site and surrounding area indicates that the Site has always been vacant land and was never developed. The surrounding lands were vacant or agricultural lands prior to 1973 when gradually were developed with residential houses.

The aerial photograph review of the Site and surrounding area (within approximately 250 m) does not indicate issues of potential environmental concern.

3.3 Title Search

A title search was not provided and as such, a review of this information has not been included in this Phase I ESA.

3.4 Agreement of Purchase and Sale ("A of P/S")

As part of the CSA Z768-01(R2006) protocol, when an A of P/S exists, it should be reviewed for information on vendor warranties or special conditions concerning contamination. It is understood that no A of P/S is pending.

3.5 Review of Fire Insurance Plan Records

Research was carried out at the National Archives in Ottawa, Ontario to review fire insurance plans or drawings for the Site. No fire insurance plans were available for the Site or surrounding lands.



3.6 Review of Street Directories

A review of street directories at the National Archives in Ottawa, Ontario was completed for the Site and addresses within approximately 250 m of the Site. Based on the review of the street directories the following was noted:

- The Site was never listed; and,
- The surrounding lands were either never listed or were not listed until 2004/05 when were listed as residential properties.

3.7 **Previous Reports**

No previous reports were provided to Golder for review as part of this Phase I ESA.





4.0 **REGULATORY INFORMATION REVIEW**

Regulatory information requests and reviews for the Site and/or surrounding area (200 m) included the following sources:

SUMMARY OF REGULATORY INFORMATION

Regulatory Agencies and/or Government Departments Contacted

Ontario Ministry of Environment ("MOE")

Technical Standards Safety Authority ("TSSA")

City of Ottawa ("City")

City Documents

1988 Intera report entitled Mapping and Assessment of Former Industrial Sites, City of Ottawa*

- *<u>Note:</u> This report was reviewed if the Site was within the City of Ottawa municipal boundary prior to the 2001 amalgamation
- 2004 City of Ottawa Waste Disposal Sites Inventory.

MOE and EC Documents/Databases

- MOE Database on PCB Storage Sites, 2000*;
- Waste Disposal Site Inventory, June 1991;
- MOE Database on Brownfields Environmental Site Registry Records of Site Condition ("RSC"), October 2004;
- Inventory of Coal Gasification Plant Waste Sites in Ontario, April 1987;
- MOE Database on Registered Waste Generators 2001*; and,
- EC National Pollutant Release Inventory ("NPRI"), March 2006

*<u>Note:</u> The information extracted from the MOE PCB Storage Sites and Waste Generator databases was used by Golder Associates under license with the Ontario Ministry of Environment, Queens Printer for Ontario (2000 and 2001).

4.1 Ontario Ministry of Environment Correspondence

The Ontario Ministry of Environment ("MOE") was contacted (refer to copy of correspondence in Appendix B) to provide an Index Report with respect to active orders and approvals for the Site as detailed below:

- Active orders under the Environmental Protection Act ("EPA"), the Ontario Water Resources Act ("OWRA"), and the Pesticides Act ("PA"); and,
- Approvals under Sections 9 and 39 of the EPA as well as Sections 52 and 53 of the OWRA.

A formal response from the MOE was received by Golder on June 13, 2011. The response indicated that no Active Orders or Certificates of Approval have been issued for the Site.



4.2 Technical Standards and Safety Authority Correspondence

The Technical Standards and Safety Authority ("TSSA") was contacted (refer to copy of correspondence in Appendix B) to determine if any underground storage tanks ("USTs") were registered or are in non-compliance on the Site. In addition, inquiries were made to determine if there are records of fuel spills, accidents or incidents on or near the Site (within approximately 200 m). The TSSA has maintained records since 1987.

Mr. Prem Lal of the TSSA responded via email on May 26, 2011 and indicated that the TSSA had no registrations for USTs for the Site, currently or historically, nor are there any records of incidents, accidents or spills within 250 m of the Site.

4.3 City of Ottawa Correspondence

Golder Associates forwarded a correspondence (refer to copy of correspondence in Appendix B) to the City of Ottawa ("City") that requested the City to search the Historical Land Use Inventory ("HLUI") for records for the Site.

At the time of preparation of this report, a formal response from the City had not been received by Golder. When a formal response to Golder's request for information is received, it will be reviewed. If, in Golder's opinion, the response contains any issues of potential environmental concern with respect to the Site, a copy will be forwarded to Tartan (with a brief discussion) so that it can be appended to this report.

4.4 City of Ottawa Document Review

Prior to the 2001 amalgamation, the City of Ottawa did not have a consolidated database of environmental concerns for City properties and typically referred all inquiries to the 1988 Intera report entitled *Mapping and Assessment of Former Industrial Sites, City of Ottawa*. Since the Site was not within the former City of Ottawa municipal boundary (prior to 2001 amalgamation) a review of the 1988 Intera report was not performed as a part of this Phase I ESA.

The review of the 2004 City of Ottawa Waste Disposal Sites Inventory indicated that the Site is not registered as an active or closed waste disposal site and no waste disposal sites are known to be located within 3 km of the Site.

4.5 Ontario Ministry of Environment Document Review

4.5.1 MOE Database on PCB Storage Sites, 2000

Based on a search (250 m radius from the Site) of the MOE database of PCB storage sites, the Site is not a registered PCB storage site.

4.5.2 Waste Disposal Site Inventory, June 1991

A search of the 1991 MOE waste disposal Site inventory indicates no record of closed or active waste disposal Sites within 2 km of the Site.

4.5.3 Inventory of Coal Gasification Plant Waste Sites in Ontario, April 1987

A review of the inventory of coal gasification plant waste sites in Ontario (250 m radius from Site) was carried out. The latter classification includes tar distillation plants, creosoting plants, roofing felt and tarred paper products manufacturers, by-product charcoal and coke oven plants of the iron and steel industry, industrial manufactured gas plants, and wood distillation plants.





It indicates that the Site is not registered as a former coal gasification plant or as an industrial site producing and/or using coal tar or related tars. Furthermore, there are no known former municipal coal gasification plants or industrial sites producing and/or using coal tar and related tars located within 250 m of the Site.

4.5.4 MOE Database on Registered Waste Generators, 2001

A review of the MOE database on registered waste generators (within 250 m of the Site), using "Greenbank Road", "Longfields Drive" and "Highbury Park Drive" as the search criteria, indicated that neither the Site or the surrounding properties within 250 m of the Site were registered as waste generators MOE

4.5.5 Database on Brownfields Environmental Site Registry - Records of Site Condition ("RSC"), October 2004

A search of the brownfields environmental site registry was carried out for the Site to determine whether a record of Site condition has been filed for the Site. The search indicated that no RSC has been filed for the Site or for adjacent properties within 250 m of the Site.

4.5.6 Environment Canada National Pollutant Release Inventory ("NPRI"), 2006

The NPRI provides information for the facility's total releases to air, water and land and also includes any disposal and /or recycling the facility may have. The search of the Environment Canada NPRI (within 250 m of the Site) indicated that there are no registered facilities located within 250 m of the Site.





5.0 SITE VISIT FINDINGS AND COMMENTS

A Site visit was carried out by a representative of Golder Associates' staff on May 30, 2011. Golder Associates was not accompanied during the Site visit.

The Site is vacant land overgrown with grass and trees. A gravel path runs on the Site, parallel to the north Site boundary.

The visit was documented with a questionnaire/checklist, photographs and additional notes, where warranted. The Site was examined for visual and olfactory indications of potential environmental concern. The Site visit also included a cursory inspection of adjacent properties from the Site and publicly accessible areas. The approximate limits of the Site (i.e., property boundary) are noted on the Site Plan, Figure 2. Refer to the Site Characteristics table in Section 2.1 for a general description of the Site.

5.1 Outside (Exterior) Areas

The Site is generally flat and at grade with the surrounding lands east, south and north of the Site and above the grade of the lands west of the Site. The overall slope of the Site is downwards to the southwest.

No obvious issues of potential environmental concern (i.e. stains, sheens on water, stressed vegetation) were observed at the Site at the time of the Site reconnaissance.

5.2 Building

No buildings are currently present on the Site. A new residential development is proposed to be built on the Site.

5.2.1 Suspect Asbestos-Containing Materials

Since the late 1970's the manufacture and use of asbestos-containing building materials has continued to decrease. There is no firm cut-off date outlining when asbestos in building materials was discontinued. Manufacturers produced and ceased production of asbestos-containing materials at different times. It is commonly presumed that buildings constructed prior to 1980 are more likely to contain both friable and non-friable forms of asbestos such as mechanical insulations, ceiling tiles, floor tiles, ceiling textures etc. Generally, buildings constructed from 1980 to 1985/86 are more likely to contain non-friable asbestos in the form of floor tiles, sheet flooring, drywall joint compound etc. Even buildings constructed much more recently may contain asbestos-containing materials ("ACM") in the form of exterior window caulking, roofing materials, fire-stop or transite piping.

Ontario Regulation ("O. Reg.") 278/05, which replaced O. Reg. 838/90, became law on November 1, 2005. This regulation governs work that disturbs or is likely to disturb ACMs in provincially regulated buildings and applies to contractors in the province of Ontario (even in a federal workplace). O. Reg. 278/05 outlines the specific procedure for identification of ACMs, protocols for their removal, the requirements for building owners and asbestos management, and the training requirements for asbestos workers. Subsequent to November 1, 2007 a written asbestos management plan will be required for every building (in Ontario) with asbestos (friable and non-friable). The only method of confirming whether materials are asbestos-containing is to sample and analyze the suspect materials.

The Site has no buildings. ACMs are generally associated with building functions/material and, as such, ACM is not considered to be an issue of potential environmental concern.

5.2.2 Suspect PCB-Containing Materials and Equipment

In Canada, *The Federal Chlorobiphenyls Regulation, SOR/91-152* prohibits polychlorinated biphenyls ("PCBs") from being used in products, equipment, machinery, electrical transformers and capacitors which were manufactured or imported into the country after July 1, 1980. However, older equipment in use after this date may still contain PCBs if the equipment's fluid has not been changed or the equipment was not decontaminated when the fluid was changed to a non-PCB-containing fluid. In general, potential PCB-containing equipment could include fluorescent, mercury and sodium vapour light ballasts, oil-filled capacitors and oil-filled transformers.

No electrical transformers are present on the Site. The Site has no buildings. Therefore, the presence of building-related PCBs (switches, capacitors, fluorescent light ballasts, transformers) is not considered to be an issue of potential environmental concern.

5.2.3 Urea Formaldehyde Foam Insulation

Urea formaldehyde foam insulation ("UFFI") is low-density foam, which is formed by the polymerization of urea and formaldehyde liquids. The concerns with UFFI are human health and safety, and are associated with the release of gases as the UFFI cures, ages and degrades. UFFI was widely used as an insulating material until December 1980 when a ban on the use of UFFI was enacted under the *Hazardous Products Act* ("HPA"). UFFI was commonly injected through walls by drilling injection holes, typically in roof structures, ceilings and overhangs. Except for residential properties, the HPA does not require the licensing, approval or registration of a property where UFFI has been identified.

The Site has no buildings. UFFI is generally associated with building functions/material and, as such, UFFI is not considered to be an issue of potential environmental concern.

5.2.4 Lead

Lead in the workplace is regulated under OHSA. As outlined in the OHSA, persons in the workplace are required to be notified of the presence of lead in the workplace. The exposure to lead in the workplace can be managed through various methods, including encapsulation and removal. Although lead-based paints were banned from use on exterior, or interior surfaces of buildings, furniture or household products in the late 1970s, various commercial paints are still known to contain lead in concentrations greater than the 0.5 percent weight to weight of lead (e.g., road paint).

The Site has no buildings. Lead is generally associated with building functions/material and, as such, lead is not considered to be an issue of potential environmental concern.





5.2.5 Ozone-Depleting Substances

An ozone-depleting substance ("ODS") refers to any substance containing chlorofluorocarbon ("CFC"), hydrochlorofluorocarbon ("HCFC"), halon or any other material capable of destroying ozone in the atmosphere. ODSs have been used in rigid polyurethane foam and insulation, laminates, aerosols, air conditioners, fire extinguishers, cleaning solvents and the sterilization of medical equipment. Federal regulations introduced in 1995 required the elimination of production and import of CFCs by January 1, 1996 (subject to certain essential uses) and a freeze on the production and import of HCFC-22 by January 1, 1996. These regulations also require the complete elimination of HCFC-22 by the year 2020.

Since the regulations govern only the production and import of certain ODSs, they are allowed to be used in Canada, as long as there is a supply in place. Eventually the supply will run out, and the present equipment will either need to be refitted or replaced. It is understood from several air conditioning companies, that there is a sufficient supply of CFCs and HCFC-22 in Canada for at least the next several years. The federal HPA does not require the licensing, approval or registration of a property in which ODSs have been identified. However, provincial regulations require the licensing of contractors who handle ODSs through equipment servicing.

The Site has no buildings. ODSs are generally associated with building functions/material and, as such, ODSs are not considered to be an issue of potential environmental concern.

5.2.6 Radon

Radon gas is a product of the decay series that begins with uranium. Radon is produced directly from radium, which can be commonly found in geological units which contain black shale and/or granite. Radon gas can migrate through the ground and enter buildings through porous concrete or fractures. In open air or locations with high air circulation, radon is not considered a health problem, due to the dilution of the gas. In confined spaces (e.g., basements) it can concentrate and become a health hazard.

Given the geological setting of the Site and that currently there are no buildings on the Site; radon is not a current issue of potential environmental concern for the Site. Only actual testing of radon gas concentrations in built structures could determine if it is an actual health concern.

5.2.7 Mercury

The Site has no buildings. Mercury is generally associated with building functions/material (thermostats) and, as such, mercury is not considered to be an issue of potential environmental concern.

5.2.8 Air Emissions

The Site has no buildings. Air emissions are generally associated with building functions and, as such, air emissions are not considered to be an issue of potential environmental concern.

5.2.9 Mould

The Site has no buildings. The presence of mould is not considered to be an issue of potential environmental concern.

5.2.10 Radioactive Materials

The Site has no buildings. The presence of radioactive material would generally be related to building use, and as such, is not considered to be an issue of potential environmental concern.



5.3 Solid Waste Disposal Practices and/or Areas of Storage/Waste

No waste was observed to be generated or stored at the Site at the time of the Site visit.

5.4 Water and Wastewater Discharges

The Site will be connected to the municipal water supply or sewers. No water wells or septic system is present on the Site. The adjacent lands to the Site are serviced with municipal water supply and sewers. No process water is generated at the Site. No water discharge concerns (stains, sheens) were identified or reported at the time of the Site visit. Currently the precipitation seeps into the soil via infiltration. There are no surface water features.

5.5 Odour, Noise and Vibration

No major sources of odour, noise or vibration were noted at the Site during the Site visit, other than those associated with the Transitway running in close proximity to the west Site boundary.

5.6 Electromagnetic Radiation

Electromagnetic radiation is generally associated with high voltage power lines. No high voltage power lines were noted within 250 m of the Site.

5.7 Storage Tanks

5.7.1 Aboveground Storage Tanks

No ASTs were observed on the Site. No evidence of piping associated with former ASTs was observed during the Site visit. In addition, the Site representative is not aware of the former or current presence of any ASTs on the Site.

No ASTs were observed during the Site visit on the adjacent lands. It was noted that the buildings located on the surrounding properties were natural gas heated.

5.7.2 Underground Storage Tanks

Based on information obtained during the Phase I ESA, no petroleum or chemical USTs are suspected to be present on the Site. No evidence (filler/vent pipes extending through walls or slabs/ground surface, no staining or any obvious odours) was observed during the Site visit to indicate the current presence or former presence of fuel or chemical USTs. In addition, the Site representative is not aware of the former or current presence of any USTs on the Site.

5.8 Storage, Handling and Disposal of Hazardous Materials

There was no reported or observed storage, handling and disposal of hazardous materials at the Site.

5.9 Adjacent Land Use

Based on visual observations during the Site visit, adjacent property use is for residential and commercial purposes. A summary of adjacent land use is as follows:

North



Forested and grassed land followed by a railway and residential development;



South

- Sub-base fill material likely associated with the construction of the future Highbury Road to be built along the south Site boundary was noted in the southwest part of the Site;
- Vacant strip of land overgrown with vegetation followed by a residential development.

West

- Asphalted cycling path runs immediately west of the Site followed by the Southwest transitway;
- Southwest transitway running below grade;
- Vacant land followed by Greenbank Road and residential development. Piles of fill material were observed on the vacant land immediately west of the Southwest transitway which are most likely associated with the recent construction of the transitway. Part of the vacant land west of the Site and the transitway and east of Greenbank Road was previously used as snow dump during the winter months.

East

Forested and grassed land followed by Longfields Drive, Longfields Davidson Heights Secondary School, playground fields, and residential development.

No current industrial complexes, retail fuel outlets or dry cleaning facilities are present in the immediate vicinity of the Site.

Part of the land located west of the transitway and west of the Site was previously used as snow dump during the winter months. Based on the information provided by the Site Representative the snow dump was decommissioned and is no longer in use. Given that the land is located hydraulically cross gradient to the Site (inferred groundwater flow is in south direction, towards Jock River), the Site is separated from the former snow dump facility by the transitway and the Site is above the grade of the lands west of the Site, it is considered that likelihood for subsurface impacts on the Site due to the presence of this facility is low.

Based on current adjacent land uses no issues of potential environmental concern were identified.





6.0 ISSUES OF POTENTIAL ENVIRONMENTAL CONCERN

Based on the information obtained during the Phase I ESA, no issues of potential environmental concern were identified for the Site.





7.0 LIMITATIONS AND USE OF REPORT

This report was prepared for the exclusive use of Tartan Land Corporation, and is intended to provide Tartan Land Corporation with an assessment of the current environmental conditions at the Site located at 645 Longfields Drive in Ottawa, Ontario. 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 parties. Should additional parties require reliance on this report, written authorization from Golder Associates will be required. No assurance is made regarding the accuracy and completeness of these data. Golder Associates disclaims responsibility for 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 Phase I ESA of the Site conducted by Golder Associates. It is based solely on the conditions on the Site encountered at the time of the Site visit on May 30, 2011 supplemented by a review of historical information and data obtained by Golder Associates as described in this report, and discussion with a representative of the owner/occupant, as reported herein. No soil, water, liquid, gas, mould, product or chemical sampling and analytical testing at or in the vicinity of the Site were conducted as part of this assessment.

In evaluating the property, Golder Associates has relied in good faith on information provided by other individuals noted in this report. We assumed that the information provided is factual and accurate. We accept 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.

If new information is discovered during future work, including but not limited to, Site assessment, excavations, borings or other studies, Golder Associates should be requested to re-evaluate the conclusions presented in this report and to provide amendments as required.





PHASE I ENVIRONMENTAL SITE ASSESSMENT

8.0 CLOSURE

We trust this report provided the information required. Should you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES LTD.

Tens

Maria Staneva, M.Eng. Environmental Consultant

Nerle lett

Don Plenderleith, M. Sc, P.Eng. Senior Project Manager/Associate

MS/DHP/kf \\Ott1-s-filesrv1\data\Active\2011\1121 - Geotechnical\11-1121-0090 Jock River Farm Phase 4 Barrhaven\Phase 2000-Ph. I ESA\Report\Rpt. Ph. I ESA, 645 Longfields, June 2011 .doc

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Site Photographs





Photograph 1: View of the Site looking west.



Photograph 2: View of the central part of the Site looking northeast.



Photograph 3: View of the central part of the Site looking north.



Photograph 4: View of the western Site boundary.





Photograph 5: View of the gravel trail running parallel to the north Site boundary.



Photograph 6: View of the lands east of the Site.





Photograph 7: View of the sub-base fill material likely associated with the construction of the future Highbury Road to be built along the south Site boundary.



Photograph 8: View of the asphalted cycling path and the transitway running along the western Site boundary looking north.





Photograph 9: View of the Southwest Transitway west of the Site.



Photograph 10: View of the lands south of the Site looking south.





Photograph 11: View of the lands south of the Site looking east.

\\Ott1-s-filesrv1\data\Active\2011\1121 - Geotechnical\11-1121-0090 Jock River Farm Phase 4 Barrhaven\Phase 2000-Ph. I ESA\Report\Appendix A site photos 11-1121-0090.doc





APPENDIX B

Regulatory Documentation



Ministry of the Environment

Ottawa District Office

2430 Don Reid Drive Ottawa ON K1H 1E1

Tel: (613) 521-3450 Fex: (613) 521-5437

Ministère de l'Environnement

Bureau du district d'Ottawa

2430, promenade Don Reid Ottawa (Ontario) K1H 1E1

Tél. : (613) 521-3450 Téléc. : (613) 521-5437



OTT File No: 89

INDEX REVIEW REPORT COMMERCIAL/INDUSTRIAL/AGRICULTURAL

Attention: Maria Staneva	Your File: 11-1121-0090 (2000)
Golder Associates	Date Received: May 26, 2011

PROPERTY OWNER AND LOCATION

Present Owne	r:				
Past Owners:					
Location:	Municipality:	Ottawa			
	Address:	645 Gree	enbank	с.	
		Lot	Concession		

INDEX OF NAMES FOR ORDERS

We have searched the *Ottawa* District Index Record of Active Orders under the Environmental Protection Act (EPA), Ontario Water Resources Act (OWRA) and the Pesticides Act (PA) issued to: and the following information has been found:

Check here if no Active Orders are outstanding

Date of Search: June 9, 2011

INDEX OF NAMES FOR APPROVALS

We have requested a search of the Index Record of names of all persons to whom approvals have been issued, maintained by the Director, Approvals Branch and the Regional Director, *Eastern Region*, and the District Manager, *Ottawa District*, under Section 19 EPA and Section 13 OWRA and the following information has been provided :

Туре	Number	Issued To	Issue Date
Section 9 EPA (Air)			
Section 39 EPA (Waste Management)			
Section 52 OWRA (Water)		8	
Section 53 OWRA (Municipal/Privatel Industrial Sewage)			
Other			
Check he	ere if no Approvals have	e been issued.	
Date of Search: J	une 6, 2011		

Please Note:

- 1) The information provided above is based solely on the name(s) of the present and past owners provided by you.
- 2) The Index Record of Names to whom approvals have been issued, maintained by the Regional Director and District Manager, has been searched back to 1993.
- 3) The Index Record of Names to whom approvals have been issued, maintained by the Director of Environmental Assessment and Approvals, has been searched back to 1985.
- 4) If an inspection of the Orders and/or Approvals identified is required please contact this office.
- 5) A search of our records does **NOT** indicate whether there are:
 - other uses for which an approval may have been required, nor

- other uses on the property or in the vicinity that may affect the suitability of the property, for the use proposed to be made of it.

If a comprehensive knowledge of the property and the nearby lands and their environmental condition is required, you must examine them and other relevant records yourself, with the aid of a qualified person, if needed.

6) Please advise your colleagues that responses to requests for searches always take some time. As a result MOE may not be able to meet deadlines imposed by other parties on real estate and other transactions.

	$\bigcap I$			
Signature: Contact Name: Title:	Johanne Veilleux Administrative Assistant	P.		
Address:	Ministry of the Environment 2430 Don Reid Drive Ottawa, ON K1H 1E1	27		
Phone:	(613) 521-3450 Ext 221		Date:	June 9, 2011



FACSIMILE

DATE May 26, 2011

TO Ministry of the Environment

PROJECT No. 11-1121-0090 (2000)

FAX No. 613-521-5437

CC

FROM Maria Staneva

TOTAL PAGES 2 (Including cover sheet)

EMAIL mstaneva@golder.com

REQUEST FOR ENVIRONMENTAL INFORMATION FOR A PHASE I ENVIRONMENTAL SITE ASSESSMENT, 645 LONGFIELDS DRIVE, OTTAWA, ONTARIO

We are in the process of preparing a Phase I Environmental Site Assessment for the site noted above. For your reference we have included a key plan showing the location of the study area.

It is requested that the Ministry provide an Index Review Report with respect to the following:

- Active Orders under the Environmental Protection Act (EPA), the Ontario Water Resources Act (OWRA), and the Pesticides Act (PA); and,
- Approvals under Sections 9 and 39 of the EPA as well as Sections 52 and 53 of the OWRA.

Your usual prompt attention to this matter is appreciated. Should you have any questions please contact our office.

Golder Associates Ltd.

MS

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Please advise immediately if any pages are not received. The document(s) included in this transmission are intended only for the recipient(s) names above and contain privileged and confidential information. Any unauthorized disclosure, dissemination or copying of this transmission is strictly prohibited. If you have received this transmission in error, please immediately notify our receptionist by telephone and destroy this transmission. Thank you,

N:Active\2011\1121 - Geotechnical\11-1121-0090 Jock River Farm Phase 4 Barrhaven\Phase 2000-Ph. I ESA\Reg Requests\Fax-001 MOE Request.doc







Staneva, Maria

From: Sent: To: Subject: plal@tssa.org on behalf of publicinformationservices@tssa.org Thursday, May 26, 2011 11:16 AM Staneva, Maria Re: TSSA request for information

Hi Maria:

Thank you for your inquiry.

We have no record in our database of any fuel storage tanks at the subject address (addresses).

For a further search in our archives please submit your request in writing to Public Information Services via e-mail (<u>publicinformationservices@tssa.org</u>) or through mail along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

Thank you and have a great day!

Prem

"Putting Public Safety First"

Technical Standards and Safety Authority 14th Floor, Centre Tower 3300 Bloor Street West Toronto, ON M8X 2X4

Toll-Free: 1-877-682-8772 Email: <u>publicinformationservices@tssa.org</u> Web Site: <u>www.tssa.org</u>

	"Staneva.	Maria"	<maria< th=""><th>Staneva@golder.com></th></maria<>	Staneva@golder.com>
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05/26/2011 11:03 AM

To "<u>publicinformationservices@tssa.org</u>" <<u>publicinformationservices@tssa.org</u>> cc Subject TSSA request for information

Hi Prem,

Could you please review your records to determine if any bulk fuel underground storage tanks (USTs) were registered on or near the addresses listed below. Also could you check if there are records of fuel spills, accidents or incidents on these addresses in Ottawa, ON.

645, 600 Longfields Drive; 1045 Greenbank Road; and 53 Highbury Park Drive

Thank you very much!

Maria Staneva (M.Eng.) | Environmental Consultant/Due Diligence Assessor | Golder Associates Ltd. 32 Steacie Drive, Kanata, Ontario, Canada K2K 2A9 T: +1 (613) 592 9600 | D: +1 613-592-9600 | F: +1 (613) 592 9601 | C: +1 613-868-2595 | E: Maria Staneva@golder.com | www.golder.com

Work Safe, Home Safe

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This electronic message and any attached documents are intended only for the named addressee(s). This communication from the Technical Standards and Safety Authority may contain information that is privileged, copied, forwarded or distributed without authorization. If you have received this message in error, please notify the s Thank you.

.



DATE May 26, 2011

TO City of Ottawa

PROJECT No. 11-1121-0090 (2000)

TOTAL PAGES 5 (Including cover sheet)

FAX No. 613-560-6006

Development Approvals Division

EMAIL mstaneva@golder.com

FROM Maria Staneva

CC

REQUEST FOR ENVIRONMENTAL INFORMATION FOR A PHASE I ENVIRONMENTAL SITE ASSESSMENT, 645 LONGFIELDS DRIVE, OTTAWA, ONTARIO

We are in the process of preparing a Phase I Environmental Site Assessment for the site noted above and are requesting that the City provide information from their files with respect to this site.

As per your requirements we have included the Request for Information - Phase I Environmental Site Assessment form, a disclaimer form, property owner authorization and key plan.

The information that we are requesting includes, but is not limited to, the following:

- Active Orders under the Environmental Protection Act (EPA), the Ontario Water Resources Act (OWRA), and the Pesticides Act (PA)
- Approvals
- Reports relating to environmental concerns
- Records of non-compliance or regulatory concerns
- Dumping infractions, spills or discharges to the environment
- Violations of sewer use or environmental by-laws
- Historic information related to landfill or dumpsites on or in proximity to the property
- Any other environmental information

Your usual prompt attention to this matter is appreciated. Should you have any questions please contact our office.

Golder Associates Ltd.

MS

Hard copy to follow by mail: Yes No Researe advise inmediately if any pages or not received. T is transmission are intended only for the recipient(s) names above and contain privileged and continential information. Any unauthorized disclosure, discentination or copyring of this transmission is stiridy prohibited. If you have received this transmission in error, places immediately notify our received from and dealing that transmission. Thank you. NAddive/2011/1121 - Geotechnics/(11-1121-0090 Jock River Farm Phase 4 Banhaven/Phase 2000-Ph. I ESAINeg Requestat/Copy of Fax-002. City Request.doc

Golder Associates Ltd. 32 Steacle Drive, Kanata, Ontario, Canada K2K 2A9 Tel: +1 (613) 592 9600 Fax: +1 (613) 592 9601 www.golder.com Golder Associates: Operations in Africa, Asla, Australasia, Europe, North America and South America

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FACSIMILE

DATE May 26, 2011

TO City of Ottawa Development Approvals Division FAX No. 613-560-6006

TOTAL PAGES 5 (Including cover sheet)

PROJECT No. 11-1121-0090 (2000)

FROM Maria Staneva

CC

EMAIL mstaneva@golder.com

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- Records of non-compliance or regulatory concerns
- Dumping infractions, spills or discharges to the environment
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- Historic information related to landfill or dumpsites on or in proximity to the property
- Any other environmental information

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Golder Associates Ltd.

MS

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Golder Associates Ltd. 32 Steacie Drive, Kanata, Ontario, Canada K2K 2A9 Tel: +1 (613) 592 9600 Fax: +1 (613) 592 9601 www.golder.com Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America



This form has been prepared by Golder Associates, for client use, with regard to submissions to the City of Ottawa ("City") for environmental related information on the property noted below. It will be used by Golder Associates, who have been retained to carry out a Phase I Environmental Site Assessment.

This form is to be completed by the <u>property owner/agent</u> and forwarded to Golder Associates Ltd. who will then append it with a request for information to the City. The intent of the form is to notify the City that Golder Associates Ltd. is authorised to access the requested environmental information.

.....

Property Location Information:

Civic Address

RP

Legal Description

Property Contact Information:

Owner

Z

Phone Number

Fax Number

560-6051

Owner Representative

Shaneshwar Neermul

Owner Representative Signature

Date

CONFIDENTIAL

File No.: 11 - 1121 - 0090(2000)Deadline for Response: ASAP

Phase 1 – Environmental Site Assessment

Request for Information				
	(Informal Request)*			
1. REQUESTER INFORMATION				
a) b) c) d)	Name of Requester: <u>Golder Associates</u> <u>Utd.</u> Address of Requester: <u>S2 Steacre Dr. Kapata</u> , <u>ON</u> Telephone Number: <u>613 592 9600</u> Site Address: Lot- <u>Long Lielle</u> Concession:			
e)	Street: 645 Geeelingen Rogerown: Offaue Postal Code: Legal Plan Attached: Yes () No (>>			
f) g)	Site Owner: <u>UMKNOWH</u> Adjacent Property Owners:			
h)	Date of Ownership: Previous Owner(s):			
i)	Type of Site: (V) vacant, () residential, () commercial, () other (specify)			
j)	Requestors relationship to Site: Cougulfant			
\mathbf{k}	Date of Previous Request: <u>NA</u>			
n)	Information Requested: as per cover page			
<u>2.</u> (<u>CONFIDENTIALITY</u>			
a) b)	Consent Required: () Owner () Tenant () Purchaser () Legal** Consent Obtained: () Owner () Tenant () Purchaser () Legal**			
	 *(If formal MFIPPA request, please forward to Corporate Access and Privacy Coordinator, Clerk's Department) **(Consent letters must contain the information required, give authorization to requestor, and be dated and signed) 			

DISCLAIMER For use with HLUI Database

CITY OF OTTAWA ("the City") is the owner of the HISTORICAL LAND USE INVENTORY ("HLUI"), a database of information on the type and location of land uses within the geographic area of Ottawa, which had or have the potential to cause contamination in soil, groundwater or surface water.

The City, in providing information from the HLUI, to <u>Golder Attocation</u> (The Requester") does so only under the following conditions and understanding:

- 1. This is a free service offered by the City.
- 2. The information which is contained in the HLUI has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that such records and sources of information may be flawed. Changes in municipal addresses over time may have introduced error in such records and sources of information. The City is not responsible for any errors or omissions in the HLUI and reserves the right to change and update the HLUI without further notice. The City does not, however, make any commitment to update the HLUI. Accordingly, all information from the HLUI is provided "as is".
- 3. City staff will perform a search of the HLUI based on the information given by the Requester. City staff will make every effort to be accurate, however, the City does not provide an assurance, guarantee, warranty, representation (express or implied), as to the availability, accuracy, completeness or currency of information which will be provided to the Requester. The HLUI in no way confirms the presence or absence of contamination or pollution of any kind. The information to be provided by the City to the Requester is provided on the assumption that no person shall rely on it without undertaking independent verification of it for any purpose whatsoever and all liability to any such person is denied.
- 4. The City, its employees, servants, agents, boards, officials or contractors take no responsibility for any actions, claims, losses, liability, judgments, demands, expenses, costs, damages or harm suffered by any person whatsoever including negligence in compiling or disseminating information in the HLUI.
- 5. Copyright is reserved to the City.
- 6. Any use of the information provided from the HLUI which a third party makes, or any reliance on or decisions to be based on it, are the responsibilities of such third parties. The City, its employees, servants, agents, boards, officials or contractors accept no responsibility for any damages, if any, suffered by a third party as a result of decisions made as a result of an information search of the HLUI.
- 7. Any use of this service by the Requestor indicates an acknowledgement, acceptance and limits of this disclaimer.
- 8. All information collected under this request and all records provided in response to this request are subject to the provisions of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990,c. M56, as amended.

Per: MARIA STANEIA (Please print name) Title: Env. Consultant Company: Golder Associates Ud. Signed:



APPENDIX C

Qualifications of Environmental Assessors





Education

M.Eng. Environmental Engineering, Concordia University, Montreal, Quebec, 2006

B.Eng. Civil Engineering and Geodesy, University of Architecture, Sofia, Bulgaria, 1992

Diploma Geodesy, Photogrametry and Cartography, College in construction "Hristo Botev", Sofia, Bulgaria, 1987

Languages

English – Fluent

Golder Associates Ltd. – Ottawa

Due Diligence Assessor

Maria Staneva is a Due Diligence Assessor/Environmental Consultant with Golder Associates in Ottawa. She has a Bachelor degree in civil engineering majored in water and wastewater treatment and Master's degree in Environmental engineering. She is responsible for conducting environmental site assessment Phase I and Phase II including contaminated site investigation and interviews, historical reviews, report writing, project management and proposal preparation, assisting in soil sampling, monitoring well installations, groundwater and surface water sampling. Ms. Staneva is involved in data management, analyses and interpretation for landfill monitoring programs. She is assisting with asbestos containing building materials surveys in office buildings throughout the City of Ottawa and residential buildings including identifying the presence of asbestos containing materials, asbestos bulk materials sampling in accordance with Ontario Regulation 278/05 and proposal preparation for designated substances surveys.

Employment History

Golder Associates Ltd. – Ottawa, Ontario Due Diligence Assessor (2007 to Present)

Responsible for conducting environmental site assessment Phase I and Phase II. Specific duties included:

Conducting contaminated site investigations and interviews, historical reviews, report writing, project management and proposal preparation. Clients included PWGSC, National Capital Commission, City of Ottawa and a variety of financial institutions;

Conducting soil sampling, monitoring well installations, and groundwater and surface water sampling;

Assisting in data management, analyses and interpretation for landfill monitoring programs;

Assisting in treatability studies for arsenic removal from mining tails water; Assisting with asbestos containing building materials surveys in office buildings throughout the City of Ottawa and residential buildings including identifying the presence of asbestos containing materials, asbestos bulk materials sampling in accordance with Ontario Regulation 278/05, lead-containing paints sampling, proposal preparation and report writing for designated substances surveys.

LUKO-K Ltd. – Sofia, Bulgaria

Environmental Engineer (1995 to 1998)

Responsible for conducting environmental assessment of contaminated properties working on various phases of the remediation process, including review, data interpretation and preparation of reports and proposals, monitoring and system installation.





BORA Ltd. – Sofia, Bulgaria

Design Civil Engineer (1993 to 1995)

Responsible for designing of municipal Wastewater Treatment Plant's units, process design calculations for wastewater treatment processes including designing of the pumping stations, gravity sewers and forcemains.

TRAINING

Health and Safety Module 1 and Module 2 Golder Associates Ltd., 2007

Workplace Hazardous Materials Information System (WHMIS) Golder Associates Ltd., 2007

Asbestos Awareness Workshop Golder Associates Ltd., 2007





Education

B.Eng. Geological Engineering, Ecole Polytechnique de Montreal, Montreal, Quebec, 1990

M.Sc. Geophysics, Specialization in Earth Electrical Resistivity, University of British Columbia, Vancouver, British Columbia, 1983

B.Sc. Geophysics, Honours, University of British Columbia, Vancouver, British Columbia, 1980

Certifications

Registered as ing. with l'Ordre des ingénieurs du Québec (OIQ)

Registered as P.Eng. with the Professional Engineers of Ontario (PEO)

Languages

English – Fluent

French – Fluent

Golder Associates Ltd. – Ottawa

Career Summary

Mr. Don Plenderleith, is an Associate and senior project manager at Golder, Ottawa with 16 years of experience in conducting assessment and remediation of contaminated sites. He is a geological engineer with a M.Sc. in geophysics. He has worked extensively on federal sites throughout his career, and manages approximately 10 environmental projects per year under Golder's Standing Offer Agreement with PWGSC-Environmental Services in the National Capital Region. His experience related to drinking water includes preparing a manual for use at the Department of Foreign Affairs' diplomatic properties that treat their own potable water. The manual includes drinking water sampling procedures, water lab set-up, procedures for using a Hach Portable Water Test Lab, and appropriate actions to take when various parameters exceed their limits. Mr. Plenderleith leads Golder's national client service team for the federal government. Mr. Plenderleith has his Secret Security Clearance.

Employment History

Golder Associates Ltd. – Ottawa, Ontario

Associate, Senior Project Manager and Federal Client Service Team Leader (2000 to Present)

Responsible for: federal government client development, project management and technical direction of a variety of environmental projects from the Ottawa office. Mr. Plenderleith's key expertise includes: contaminated site assessment and remediation, peer-reviews of contaminated site work, environmental compliance audits, and providing advice to property managers regarding property acquisition and divestitures. Mr. Plenderleith is Golder Associates' Ottawa coordinator for projects with the Canadian federal government. Contaminated site experience includes: Phase I and II ESAs and site remediation projects at military bases, power generating facilities, petroleum sites, residential properties, railway lands, and other industrial and commercial properties.

Conor Pacific Environmental Technologies Inc. – Ottawa, Ontario *Project Manager (1995 to 2000)*

Responsibilities included managing personnel on environmental assessments, managing several key client accounts and developing new business in the National Capital Region, performing environmental compliance audits and Certificate of Approval related work at a variety of industrial facilities in Ontario and Québec, providing technical review of projects (hydrogeology, site assessment, and remediation).





Lupien, Rosenberg & Associates Inc. – Montreal & Ottawa

Branch Manager/Project Manager (1993 to 1995)

Responsibilities included new business development, and participating in environmental investigations at major rail yards in North Bay, Sudbury, Hamilton, and Montreal. Also performed a mercury vapour survey and formulated a mercury remediation and decommissioning program at a dental alloys plant.

Hydrosult Inc. – Montreal, Canada & Jakarta, Indonesia Project Engineer (1991 to 1992)

Worked on international development projects for Canadian International Development Agency (CIDA) in a building within the Ministry of Public Works capacity - Water Resources Sector, Government of Indonesia. Responsibilities included analyzing precipitation, stream flow, and water use data to develop the water balance for two Indonesian provinces. Throughout the project Mr. Plenderleith was partnered with an Indonesian engineer.

TRAINING

Project Management Professional (PMP) Exam Preparation PMI, 2004

OSHA 40-hr Contaminated Sites Operations Health and Safety Training 2001

Workshop: Environmental Management System Issues in Government, Pitfalls in Contaminated Site Assessment & Remediation Ministry of the Environment, 2000

Ontario's 3Rs Regulations, Waste Audits and Work Plans *Ministry of the Environment, 1995*

Ontario's Environmental Protection Act (EPA) Training *Ministry of the Environment, 1994*

Remediation Techniques for Contaminated Sites, Continuing Education Ecole Polytechnique de Montreal, 1992

PROFESSIONAL AFFILIATIONS

Board Member, Air & Waste Management Association, Ottawa Valley Chapter



At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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