Phase 1 Environmental Site Investigation

401 Kingston Road
Pickering, ON

Prepared for:
Montessori Learning Centre
401 Kingston Road
Pickering, ON
L1V 1A3

Prepared by:
Pottinger Gaherty Environmental Consultants Ltd.
102 – 250 Water Street
Whitby, ON
L1N 0G5

PGL File: 4049-01.01

April 17, 2012

PGL

Executive Summary

Pottinger Gaherty Environmental Consultants Ltd. (PGL) conducted a Phase 1 Environmental Site Investigation at 401, 409 and 417 Kingston Road in Pickering, Ontario (the Site). To look for risks of environmental contamination on the subject Site, PGL reviewed the history of the Site and area and interviewed people familiar with it. The Phase 1 Site visit was completed on April 5, 2012.

The roughly 0.6ha Site is on the south side of Kingston Road, roughly 160m east of Rougemont Drive in Pickering. The Site consists of three municipal addresses and is improved with three buildings and a portable structure. The Site has been operating as a Montessori Learning Centre (private school) since 1991.

The properties at 409 and 417 Kingston Road were first developed from vacant land prior to 1939 and the property at 401 Kingston Road was developed in the late 1950 to early 1960s. All the properties were residential until converted to the private school.

The area has been used for a mix of commercial and residential purposes since the mid-1940s. A summary of the area uses include:

- North: Kingston Road followed by residential properties.
- Northwest: a retail plaza has been present since the mid-1940s.
- South: Highway 401 was constructed from agricultural land in the 1930–40s.
- West: a retail plaza has been present 60m west of the Site since the late 1980 to early 1990s and includes a dry-cleaning operation since 1992. An auto wrecker is present adjacent (west) the Site and has been in operation for close to 60 years (1960s).
- East: residential properties

PGL reviewed the Site for environmental issues normally assessed in a Phase 1 investigation. PGL identified an auto wrecker adjacent to the Site and that may generate contaminants of potential concern. A dry cleaner west of the Site is considered a lower risk of impact to the Site as it is cross-gradient to the Site. Further investigation of these risks is not a regulatory requirement and the need for further investigation can be evaluated based on your tolerance for risk, your plans for the Site, and your specific financial situation.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.

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List of Acronyms

APEC	-	area of potential environmental concern
MLC	-	Montessori Learning Centre
MOE	-	Ontario Ministry of Environment
PCA	-	potentially contaminating activity
PCBs	-	polychlorinated biphenyls
PGL	-	Pottinger Gaherty Environmental Consultants Ltd.

1.0 INTRODUCTION

Pottinger Gaherty Environmental Consultants Ltd. (PGL) is pleased to provide our Phase 1 Environmental Site Investigation for 401, 409 and 417 Kingston Road in Pickering, Ontario (the Site; Figure 1). This Phase 1 investigation was conducted to assess the likelihood of environmental contamination originating on the Site as well as the potential for contamination from adjacent properties to migrate to the Site. This report describes the Site and area uses and history, reviews previous work, discusses environmental contamination risks, and presents our conclusions.

1.1 Purpose

This work was completed as part of due diligence for financing. The Phase 1 investigation has been completed in accordance with Canadian Standards Association Z768-01 and in general compliance with Ontario Regulation 153/04. The work was conducted by qualified staff as defined by Ontario Regulation 153/04.

This Phase 1 investigation does not meet the regulatory requirements of a Phase 1 for Ontario Regulation 153/04. A regulatory report requires additional detail and complexity not required for your purposes. If a regulatory submission is required in the future, information from this Phase 1 investigation can be used in that submission.

2.0 SITE DESCRIPTION

The 0.6ha Site is on the south side of Kingston Road, roughly 160m east of Rougemont Drive in Pickering. The Site comprises three municipal addresses: 401, 409 and 417 Kingston Road. The buildings at 401 and 409 Kingston Road and the basement level of 417 Kingston Road are operating as the Montessori Learning Centre (MLC). The main floor of 417 Kingston Road is operating as a retail comic book store. The Site has 93m of frontage on Kingston Road and the depth varies between 44m and 78m. A brief description of each of the municipal addresses from west to east is listed below:

1. 401 Kingston Road: single-storey, slab-on-grade, brick-clad building with areas north and south paved for parking. There is an enclosed playground southwest of the building and the property is accessed from Kinston Road. Original MLC location developed in 1991.
2. 409 Kingston Road: two-storey, brick-clad building with basement and associated single-storey, frame-clad portable building. The area south of the portable is grass-covered. A walkway structure runs west to east between the two-storey building and the portable to the back entrance of 417 Kingston Road. There is a paved area for parking west of the building and portable structure. This property is accessed from Kinston Road.
3. 417 Kingston Road: single-storey, brick-clad building with basement. There is a covered area south of the building followed by a grassy area. There is a paved area north of building for parking. This property is accessed from Evelyn Avenue, east of the building.

The Site is generally flat with the south half gently sloping down to the south. Stormwater is collected by catch basins in paved areas and by surface flow over grassed areas south of the buildings. The area slopes down to the south and east. Petticoat Creek is roughly 120m east of the Site and the Rouge River is 630m west. Lake Ontario is roughly 2km south of the Site.

Geological maps indicate the Site soil is comprised of sandy silt to silty sand-textured till on Paleozoic terrain. Bedrock is over 30m below ground surface. Based on geotechnical work conducted at the Site groundwater is between 2.4 and 7m below ground surface. Based on topography and surface water, we assume that groundwater is flowing south with a possible eastern component.

Table A: Site Identification Information

Civic Address	401, 409 and 417 Kingston Road, Pickering, ON
Land Use	Commercial
Universal Transverse Mercator Coordinates	Zone 17 Easting 650647 Northing 4852465
Legal Description	Part Lots 17, 18 and 19 Registered Plan 230, City of Pickering, Durham Region
Site Area	0.6 hectares (approximate)

3.0 RECORDS REVIEW

This assessment was based on our review of the following records:

1. Historical aerial photographs of the area;
2. Historical business directories of the area;
3. Historical fire insurance maps of the area;
4. Ontario Ministry of Environment (MOE) records regarding the Site;
5. An Ecolog Eris search of numerous databases; and
6. Reports, various historical maps, and other information regarding the Site area.

For this project, a title search was not conducted, a fire insurance map was not available, and a response has not yet been received from the Ontario MOE. A title search was not conducted as they rarely result in useful information regarding environmental risk. Fire insurance maps were not prepared for this area. Freedom of Information requests require over six weeks for a response and PGL's experience is that they rarely provide additional information of use. The absence of this information is not considered a significant limitation to this investigation, as sufficient information was obtained from reviewed sources. If information is received that changes the conclusions of this report, PGL will communicate this to you.

A complete list of sources is presented in the Bibliography, and a discussion of the scope of the Phase 1 work program is found in the attached Site History Fact Sheet – Phase 1 Site Investigation Scope Outline.

3.1 Site History

The properties at 409 and 417 Kingston Road were first developed from vacant land prior to 1939, based on historical aerial photographs. The property at 401 Kingston Road was developed after 1950 but before 1966. Based on business directory review and anecdotal evidence, all properties were residential. The property at 401 Kingston Road was converted to a private school in 1991 and was purchased in 1995 by the MLC. MLC purchased 409 Kingston Road in 1997 and 417 Kingston Road in 2003. Minor renovations were conducted at each of the properties when acquired. The portable building at 409 Kingston Road was erected in 1998 to provide extra classroom space.

The historical (residential) and current (private school) uses are not considered potentially contaminating activities (PCA).

3.2 Surrounding Site History

The area has been used for a mix of commercial and residential purposes. The following is a summary of the historical uses surrounding the Site. There is, however, limited documented information regarding the area history.

North

Kingston Road is north of the Site. This was likely constructed from agricultural land in the 1930s. Based on historical aerial photographs, residential properties were present north of Kingston Road and the Site prior to 1946.

Based on aerial photos, a retail facility was present northwest of the Site at the northeast corner of Kingston Road and Rougemount Road from 1946 to the mid-1950. This property appears to have been redeveloped with a retail plaza in the 1960s and was again redeveloped in the late 1980s to early 1990s with a plaza with a new configuration (Rougemount Centre – 376 Kingston Road). There are professional services and restaurants at the plaza.

The Rougemount Co-operative at 400 Kingston Road (apartment building) directly north of the Site was constructed in the late 1980s to early 1990s. Residential properties are still present northeast of the Site.

East

A residential property has been east of the Site since before 1939. This property is now used for commercial offices. Further east are the valley lands associated with Pettiecoat Creek. There have been no other uses of note east of the Site.

South

Highway 401 is south of the Site. This was constructed from agricultural land in the 1930–40s.

West

Allison Auto Wreckers has been present adjacent the Site for close to 60 years. The outdoor storage across the auto wrecker's property is visible in the aerial photographs viewed starting in 1966. The storage was across the entire property and adjacent to the Site.

West of the auto wrecker the property was used a drive-through restaurant until it was developed in the late 1980 to early 1990s with a retail plaza. Atlantis Cleaners has been present at the plaza since at least 1992.

PGL identified two PCAs from the historical and current uses surrounding the Site. These include an auto wrecker and a dry cleaner both west of the Site. The risks are discussed further in Section 7.0.

3.3 Environmental Source Information

The Ecolog Eris database search confirmed the presence of an auto wrecker adjacent to and a dry-cleaning facility west of the Site. The report also identified auto junkyards (Rosebank junkyards) west of the Site operating from the 1960 to 1980s. This listing confirms that the auto wrecker has been present west of the Site since the 1960s. The entire EcoLog Eris database search is provided in Appendix 2. A summary of relevant findings are presented below.

- Allison Auto Wrecker: adjacent the Site and identified as generating light fuel waste;
- Atlantis Cleaners: 60m west of the Site and identified as generating halogenated solvents and residues; and
- Hardwood Rent-All: 60m west of the Site and generates petroleum distillates.

Both the auto wrecker and dry clearer are considered risks to the Site. No new PCAs were identified from the database search.

4.0 REPORTS REVIEWED

No previous environmental reports were reviewed for this Phase 1. However, a 2009 Geotechnical Investigation conducted for a proposed expansion of the MLC completed by V.A. Wood Associates Limited was briefly reviewed. Seven boreholes were completed as part of the investigation. Borehole depths ranged from 1.8 to 7.8m below ground surface (bgs). The borehole logs did not identify any field indications of environmental impact. Groundwater was observed to be between 2.4m and 7m bgs. PGL also briefly reviewed Sections 1 and 3 of a land use planning document completed in 2003 by McDermott & Associates Limited on behalf of the MLC.

Pertinent information from these two documents is included in this report. A source citation for these reports is presented in the Bibliography.

5.0 INTERVIEWS

PGL interviewed Nicola Phillips who owns the MLC. The MLC has operated at 401 Kinston Road since 1991 and the property was purchased in 1995. Ms. Phillips confirmed the Site and area history and provided information regarding Site operations. She was not aware of any issues related to spills or other environmental incidents. PGL also spoke briefly with personnel from

Alison Auto Wreckers who identified that the operation has been present at this location for close to 60 years. Information from the interviews is provided in relevant sections of the report.

6.0 SITE VISIT

PGL inspected the Site and surrounding area from publically accessible areas on April 5, 2012. Our Site visit included:

- Inspecting the Site and improvements for indications of environmentally significant materials;
- Carrying out a reconnaissance of the neighbouring properties; and
- Reviewing physical factors that may affect Site contamination, such as topography, groundwater, and soils.

The following sections discuss Site visit items that may be of environmental significance.

6.1 Fill

There were no physical indications of filling at the Site. The property is at the same elevation as Kingston Road to the north. However, the neighbouring property to the west is roughly 1m higher than the Site.

6.2 Aboveground Storage Tanks

PGL did not observe any aboveground fuel-storage tanks onsite.

6.3 Underground Storage Tanks

There are no underground fuel-storage tanks evident onsite.

6.4 Hazardous Materials

Other than household cleaning products, there are no chemicals present at the Site.

6.5 Waste Streams

Refuse generated at the Site is collected by third party contractor (Waste Management). There are two waste bins south of the building at 401 Kingston Road; one for recycling (cardboard and plastic) and the second for domestic waste.

6.6 Stains, Odours, and Stressed Vegetation

PGL did not identify staining, adverse odours, or stressed vegetation indicative of contamination.

6.7 Wells or Indications of Environmental Investigation/Remediation

PGL observe two of the seven former borehole locations conducted for the geotechnical investigation. A hand pump is present north of the building, however it appears to be decorative only. No other indications of investigation or remedial activity were noted at the Site.

6.8 Heating and Cooling

The buildings are heated and cooled by natural gas.

6.9 Regulated Building Materials

Based on the age of the buildings, there is a risk of regulated building materials being present onsite. Items such as asbestos, polychlorinated biphenyls (PCBs) and lead paint were banned by the early 1980s. However all building materials were observed to be in good condition and are not a concern for ongoing operation as a learning centre. Our Site History Fact Sheet has additional information on regulated building materials and is attached in Appendix 2.

For compliance with Ontario Regulation 278/05, an asbestos survey should be conducted, and if asbestos is found, an asbestos management plan completed for the Site.

6.10 Potable Water and Sewage

Water is supplied municipally and the sewage is discharged to the municipal system.

6.11 Sumps, Pits, and Underground Structures

There is a sump pump in the two-storey building at 409 Kingston Road.

6.12 In-ground Hydraulics/Lifting Equipment

There is no in-ground hydraulics or lifting equipment at the Site.

6.13 Permits and Approvals

There are no environmental permits in place for the Site and we not aware of the need for any.

6.14 Neighbouring Property Use

Surrounding property uses include:

- North: Kingston Road and an apartment building, with a retail plaza to the northwest and residential properties to the northeast;
- West: auto wrecker (adjacent) and retail plaza with dry cleaner (60m to west);
- South: Highway 401; and
- East: Evelyn Avenue followed by lawyer's offices.

The auto wrecker and dry cleaner are PCAs.

7.0 DISCUSSION

PGL's research identified two PCAs that lead to areas of potential environmental concern (APEC) onsite. These are summarized below.

1. The property adjacent to 401 Kingston Road has operated as an auto wrecker for close to 60 years. As part of this operation, various solvents, fuels and lubricants were handled. Auto wreckers typically have poor housekeeping practices. Operations at this property are along the shared property line and since this property is at a higher elevation than the Site, any surface leaks/drips could potentially be carried to the Site by precipitation and by groundwater flow. Groundwater flow in the area would be south to Lake Ontario, but there may also be a small component that goes east towards Pettiecoat Creek to the east.
2. A dry cleaner operated roughly 60m west of the Site from the early 1990s. This operation used halogenated solvents as identified in the EcoLog report from 1992 to 2008. This operation is cross-gradient of the Site and there is a risk of contamination to the Site.

A Phase 2 soil and groundwater investigation would be needed to provide information on the presence/absence of impacts from the risks identified. A Phase 2 is not a regulatory requirement at this time and the need for further investigation should be evaluated based on your tolerance for risk, your plans for the Site, and your specific financial situation A Phase 2 investigation may also be required for obtaining a building permit for potential expansion of the MLC and would be required for filing a Record of Site Condition. We understand that a Record of Site Condition is not required at this time.

8.0 PHASE 1 CONCLUSIONS

PGL reviewed the Site for environmental issues normally assessed in a Phase 1 investigation. PGL identified an auto wrecker adjacent to the Site and that may generate contaminants of potential concern. A dry cleaner west of the Site is considered a lower risk of impact to the Site as it is cross-gradient to the Site. Further investigation of these risks is not a regulatory requirement and the need for further investigation can be evaluated based on your tolerance for risk, your plans for the Site, and your specific financial situation.

9.0 STANDARD LIMITATIONS

PGL prepared this report for the Montessori Learning Centre and its lenders and agents exclusively. PGL accepts no responsibility for any damages that may be suffered by third parties as a result of decisions or actions based on this report.

The purpose of this report is to provide an assessment of the potential for environmental contamination on the subject property. Our investigation identified reasonably foreseeable risks that can be detected by normal archival research and a single untimed Site visit with no sampling or testing. Our conclusions rely on there having been complete and accurate disclosure of conditions by the client and our sources. As with all environmental investigations, potential remains for unknown, unidentified, or unforeseen contamination. Environmental investigations are limited by both practical limitations in scope and inherent limitations in technique.

The findings and conclusions are Site-specific and were developed in a manner consistent with that level of care and skill normally exercised by environmental professionals currently practicing under similar conditions in the area. Changing assessment techniques, regulations, and Site conditions means that environmental investigations and their conclusions can quickly become dated, so this report is for use now. The report should not be used after that without PGL review/approval.

The project has been conducted according to our instructions and work program. Additional conditions and limitations on our liability are set forth in our work program/contract. This report is neither an endorsement nor a condemnation of the subject property. No warranty, expressed or implied, is made.

We trust this meets your needs. If you have any questions or require clarification, please contact Salima Jaffer or John DeWilde at 905-668-4908.

POTTINGER GAHERTY ENVIRONMENTAL CONSULTANTS LTD.

Per:

Salima Jaffer, B.Sc.
Environmental Scientist

John DeWilde, M.Eng., P.Eng., QP_{RA}
Senior Environmental Engineer

SAJ/JDW/stm
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Bibliography

Aerial Photographs: 1999, 1981, 1972, 1966, 1946, 1950, 1939.

Business Directories: 2000, 1995, 1990, 1986/85, 1982/81, 1975, 1970, 1965, 1959, 1953, 1949, and 1945.

Maps:

- Quaternary Geology of Ontario, Southern Sheet, 1:1,000,000, 1991, Map 2556
- Ontario Geological Survey 2010, Surficial geology of Southern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 128-REV
- Ontario Ministry of Natural Resources Topographic maps 30M/14A and 30M/14B

Databases: Ecolog Eris report dated April 12, 2012 – includes a search of 50 databases (noted in report)

Reports:

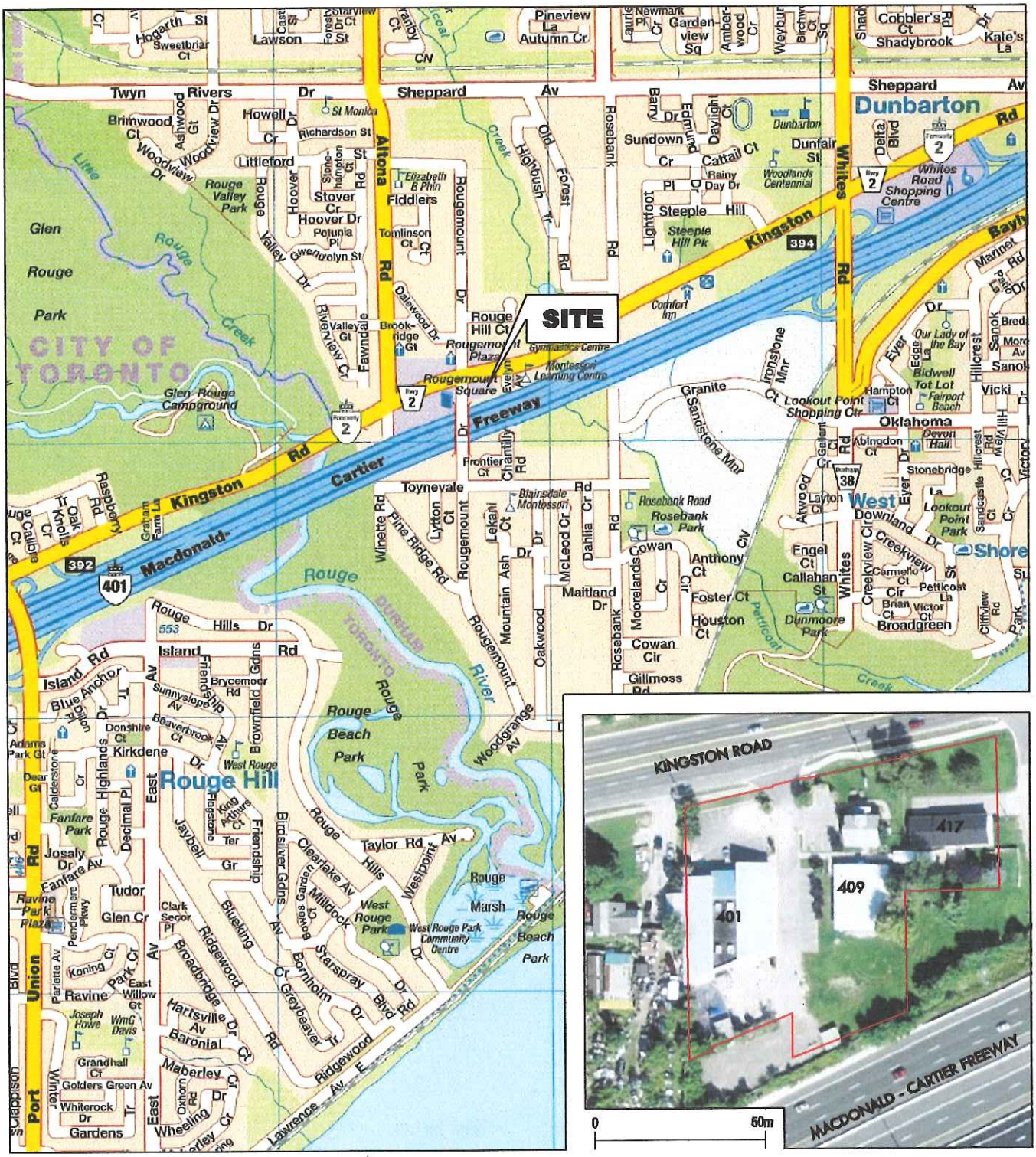
Geotechnical Investigation Proposed Additions Montessori Learning Centre 401 Kinston Road, Pickering, Ontario, by V.A. Wood Associates Limited. September 2009.

Land Use Planning Assessment in Support of the Application of the Montessori Learning Centre for an Amendment to By-Law No. 3036, as amended, McDermott & Associates Limited. June 2003. (PGL reviewed Sections 1 and 3 only)

Interviewed:

- Nicola Philips, Montessori Learning Centre
- Property owner's son (395 Kingston Road), Alison Auto Wrecker

Figure



SITE LOCATION	File No.: 4049-01.01
401, 409 and 417 Kingston Road, Pickering, ON	Date: APR 2012
Montessori Learning Centre	Dwg.: 40490101_11
PGL | Pottinger Gaherty ENVIRONMENTAL CONSULTANTS	Drawn by: IRB
	Figure 1

Appendix 1

Ecolog Eris Report

PGL

SITE DIAGRAM

ECOLOG ERIS
Pinpointing Your Environmental Risks

12 Concorde Pl, Suite 800 North York, ON M3C 4J2
416-510-5204

Project Property: 4049-01.01
401 Kingston Road
Pickering, ON

ERIS Project #: 20120403024

Date: APR-12-2012

LEGEND

- Project Property
- Database Location

Points of Interest
- Chimney
- Silo

Pipe & Transmission Lines
- Pipeline
- Transmission Line
- Transmission Tower
- Transformer Station

Rail
- Railway - Main
- Railway - Sidetrack
- Railway - Abandoned
- Bridge
- Tunnel

Transportation - Other
- Embankment
- Trail
- Runway

Hydrographic Features
- Permanent Waterway
- Intermittent Waterway
- Open Reservoir
- Dyke/Levee
- Dam
- Breakwall
- Wetland

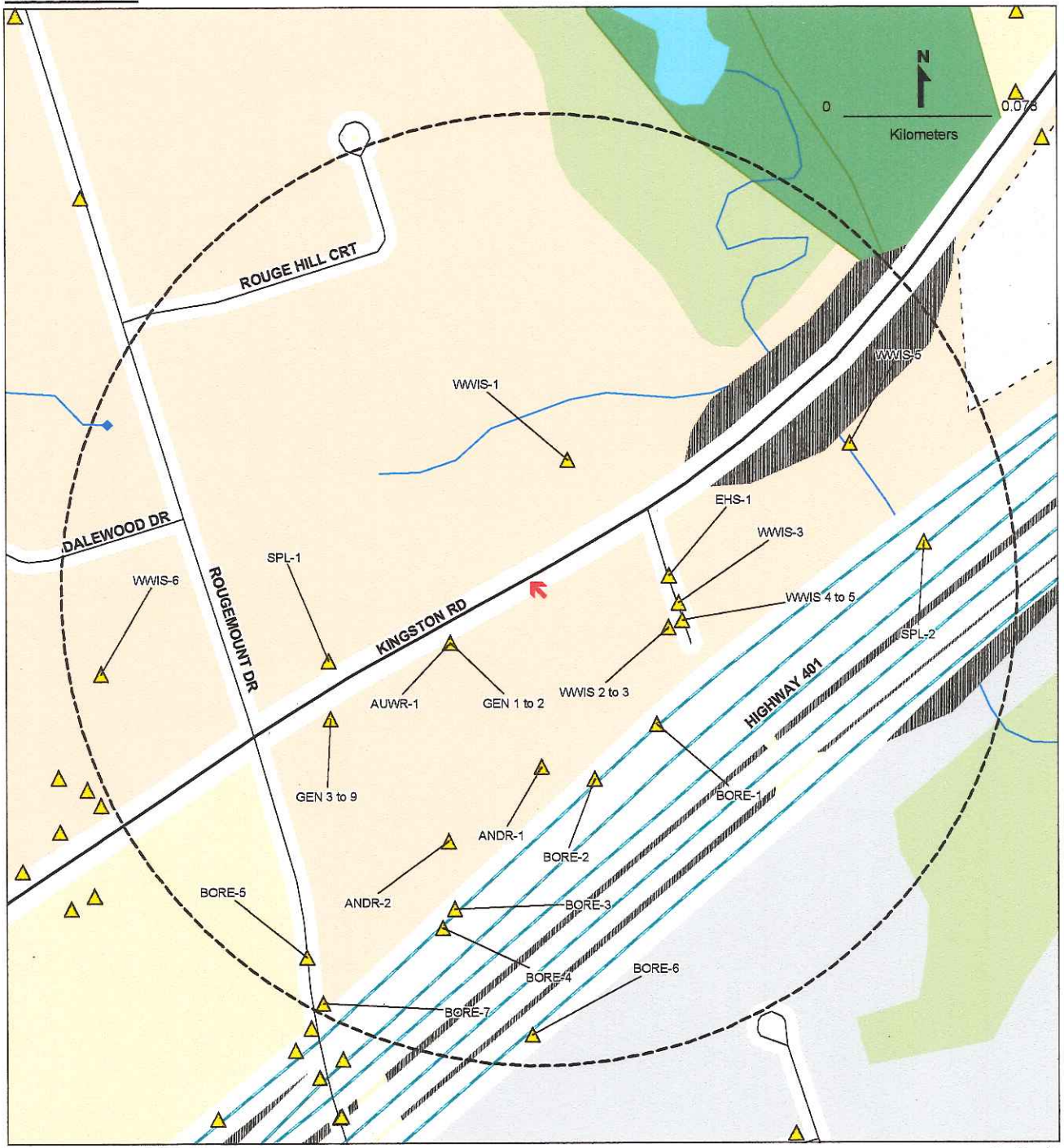
Landuse Classifications
- Open Area
- Residential
- Commercial
- Resource and Industrial
- Government and Institutional
- Parks and Recreational
- Waterbody

Recreation
- Golf Course/Driving Range
- Park/Sports Field
- Other Recreation Area
- Sports/Race Track
- Cemetery
- Campground

Vegetation
- Wooded Area
- Orchard
- Vineyard

Industrial Resources
- Conveyor
- Crane: Moveable
- Crane: Stationary
- Tank
- Rock Cut
- Auto Wrecker
- Lumber Yard
- Pit

This diagram is to be used solely for relative street location purposes. It may not accurately portray street or site positions.



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Order Number: 20120403024
Site Name: 4049-01.01
Site Address: 401 Kingston Road Pickering, ON
Report Type: Standard Report, 0.25 km Search Radius

Report Summary

Order Number: 20120403024
Site Name: 4049-01.01
Site Address: 401 Kingston Road Pickering, ON
Report Type: Standard Report, 0.25 km Search Radius

Number of Mappable Records Surrounding the Site

Database		Selected	On-site	Within 0.25	0.25km to 2.00km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0	0
AGR	Aggregate Inventory	Y	0	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	2	0	2
AUWR	Automobile Wrecking & Supplies	Y	0	1	0	1
BORE	Borehole	Y	0	7	216	223
CA	Certificates of Approval	Y	0	0	84	84
CFOT	Commercial Fuel Oil Tanks	Y	0	0	1	1
CHEM	Chemical Register	Y	0	0	0	0
COAL	Coal Gasification Plants	Y	0	0	0	0
CONV	Compliance and Convictions	Y	0	0	0	0
CPU	Certificates of Property Use	Y	0	0	0	0
DRL	Drill Hole Database	Y	0	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0	0
EBR	Environmental Registry	Y	0	0	15	15
ECA	Environmental Compliance Approval	Y	0	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0	0
EHS	ERIS Historical Searches	Y	0	1	18	19
EIIS	Environmental Issues Information System	Y	0	0	0	0
EXP	List of TSSA Expired Facilities	Y	0	0	40	40
FCON	Federal Convictions	Y	0	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0	0
FOFT	Fisheries & Oceans Fuel Storage Tanks	Y	0	0	0	0
FST	Fuel Storage Tank	Y	0	0	24	24
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	9	99	108
HINC	TSSA Historic Incidents	Y	0	0	26	26
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0	0
INC	TSSA Incidents	Y	0	0	12	12
LIMO	Landfill Inventory Management Ontario	Y	0	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0	0
MNR	Mineral Occurrences	Y	0	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0	0
NDFT	National Defence & Canadian Forces Fuel Storage Tanks	Y	0	0	0	0
NDSP	National Defence & Canadian Forces Spills	Y	0	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0	0
NPCB	National PCB Inventory	Y	0	0	1	1
NPRI	National Pollutant Release Inventory	Y	0	0	6	6
OGW	Oil and Gas Wells	Y	0	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	1	1
OPCB	Inventory of PCB Storage Sites	Y	0	0	0	0

Report Summary

Order Number: 20120403024
Site Name: 4049-01.01
Site Address: 401 Kingston Road Pickering, ON
Report Type: Standard Report, 0.25 km Search Radius

Database		Selected	On-site	Within 0.25	0.25km to 2.00km	Total
ORD	Orders	Y	0	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	1	1
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0	0
PES	Pesticide Register	Y	0	0	24	24
PINC	TSSA Pipeline Incidents	Y	0	0	9	9
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	17	17
PTTW	Permit to Take Water	Y	0	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0	0
RSC	Record of Site Condition	Y	0	0	10	10
RST	Retail Fuel Storage Tanks	Y	0	0	12	12
SCT	Scott's Manufacturing Directory	Y	0	0	71	71
SPL	Ontario Spills	Y	0	2	93	95
SRDS	Wastewater Discharger Registration Database	Y	0	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0	0
WWIS	Water Well Information System	Y	0	6	108	114
		TOTAL	0	28	888	916

The databases chosen by the client as per the submitted order form are denoted in the 'Selected' column in the above table. Counts have been provided outside the primary buffer area for cursory examination only. These records have not been examined or verified, therefore, they are subject to change.

Site Report

Order Number: 20120403024
Site Name: 4049-01.01
Site Address: 401 Kingston Road Pickering, ON
Report Type: Standard Report, 0.25 km Search Radius

FOR COMPLETE INFORMATION, REFER TO DETAIL REPORT

A search has been conducted for this site (address) and company name. No records were found, within the database(s) selected, that meet either of these criteria.

Detail Report

Order Number: 20120403024
Site Name: 4049-01.01
Site Address: 401 Kingston Road Pickering ON
Report Type: Standard Report, 0.25 km Search Radius

If information is required for sites located beyond the selected address, please contact your ERIS representative.

Anderson's Waste Disposal Sites

Automobile Wrecking & Supplies

Borehole

Certificates of Approval

ERIS Historical Searches

Ontario Regulation 347 Waste Generators Summary

Ontario Spills

Water Well Information System

Anderson's Waste Disposal Sites

Map Key	Name	Facility	Location	City/Town	Known Active Decade	Reference #
ANDR-1	Rosebank junkyard 1980 **Related Site(s)**	Auto Junkyard	N of 401, S of Highway 2	Pickering	1970s, 1980s	JY DUR6 1980
ANDR-2	Rosebank junkyard 1965 **Related Site(s)**	Auto Junkyard	N of 401, S of Highway 2 [Kingston Rd]	Pickering	1960s, 1970s	JY DUR6 1965

Automobile Wrecking & Supplies

Map Key	Company	Address	Facility	Description
AUWR-1	ALLISON GREENWOOD AUTO WRECKERS	395 KINGSTON RD PICKERING L1V 1A3	AUTOMOBILE WRECKING & RECYCLING	

Borehole

Map Key	Company	Address	Borehole ID	Type	Use
BORE-1			866951	Borehole	Geotechnical/Geological Investigation

Status: Decommissioned
Drill Method: Solid stem auger
UTM Zone: 17
Easting: 650673.000
Northing: 4852430.000
Location Accuracy:
Orig. Ground Elevation(m): 100.099998
Elev. Reliability Note:
DEM Ground Elevation(m): 101.500000
Total Depth(m): 7.700000
Primary Name:
Township: PICKERING
Concession: RANGE 3
Lot: 0
Municipality
Completion Date: 1994-MAR-30
Static Water Level:
Primary Water Use:
Secondary Water Use:
Location Description: Foundation Investigation Report for Retaining Walls, Hwy. 2 to Fairport Road, Highway 401, Central Region. The proposed retaining walls are to be located along proposed Highway 401 westbound and eastbound collector lanes between highway 2 and Fairport Road in Pickering.

Geology Stratum ID	Top Depth(m)	Bottom Depth(m)	Stratum Desc
7018523	0	7.700000	40cm topsoil. Glacial till: heterogeneous mixture of sand and silt, some clay, trace gravel, dense to very dense, brown to grey, damp to moist

Borehole

Map Key	Company	Address	Borehole ID	Type	Use
BORE-2			866950	Borehole	Geotechnical/Geological Investigation

Status: Decommissioned
Drill Method: Solid stem auger
UTM Zone: 17
Easting: 650641.000
Northing: 4852401.000
Location Accuracy:
Orig. Ground Elevation(m): 102.199997
Elev. Reliability Note:
DEM Ground Elevation(m): 103.500000
Total Depth(m): 4.600000
Primary Name:
Township: PICKERING
Concession: RANGE 3
Lot: 0
Municipality
Completion Date: 1994-MAR-30
Static Water Level:
Primary Water Use:
Secondary Water Use:
Location Description: Foundation Investigation Report for Retaining Walls, Hwy. 2 to Fairport Road, Highway 401, Central Region. The proposed retaining walls are to be located along proposed Highway 401 westbound and eastbound collector lanes between highway 2 and Fairport Road in Pickering.

Geology Stratum ID	Top Depth(m)	Bottom Depth(m)	Stratum Desc
7018522	0	4.600000	20 cm topsoil. Glacial till: heterogeneous mixture of sand and silt, some clay, trace gravel, dense to very dense, damp to moist, brown

Borehole

Map Key	Company	Address	Borehole ID	Type	Use
BORE-3			866949	Borehole	Geotechnical/Geological Investigation

Status: Decommissioned
Drill Method: Solid stem auger
UTM Zone: 17
Easting: 650569.000
Northing: 4852331.000
Location Accuracy:
Orig. Ground Elevation(m): 108.599998
Elev. Reliability Note:
DEM Ground Elevation(m): 105.099998
Total Depth(m): 8.100000
Primary Name:
Township: PICKERING
Concession: RANGE 3
Lot: 0
Municipality
Completion Date: 1994-MAR-20
Static Water Level:
Primary Water Use:
Secondary Water Use:
Location Description: Foundation Investigation Report for Retaining Walls, Hwy. 2 to Fairport Road, Highway 401, Central Region. The proposed retaining walls are to be located along proposed Highway 401 westbound and eastbound collector lanes between highway 2 and Fairport Road in Pickering.

Geology Stratum ID	Top Depth(m)	Bottom Depth(m)	Stratum Desc
7018520	0	4.200000	Fill: brown to dark brown mixed silt, sand, gravel and clay with scattered organics, very loose to loose. 30 cm topsoil near bottom or stratum.
7018521	4.200000	8.100000	Glacial till: heterogeneous mixture of sand and silt, some clay, trace gravel, very dense. Damp to moist

Borehole

Map Key	Company	Address	Borehole ID	Type	Use
BORE-4			866533	Borehole	Geotechnical/Geological Investigation

Status: Decommissioned
Drill Method: Solid stem auger
UTM Zone: 17
Easting: 650563.000
Northing: 4852321.000
Location Accuracy:
Orig. Ground Elevation(m): 104.699997
Elev. Reliability Note:
DEM Ground Elevation(m): 105.199997
Total Depth(m): 8
Primary Name:
Township: PICKERING
Concession: RANGE 3
Lot: 0
Municipality
Completion Date: 1988-MAR-21
Static Water Level:
Primary Water Use:
Secondary Water Use:
Location Description: Cut Slope Stability between Rouge River and Rougemount Drive. The site is approx. 550m long and is located on the north and south sides of Hwy, 401 near Rougemount Drive just east of the Rouge River.

Geology Stratum ID	Top Depth(m)	Bottom Depth(m)	Stratum Desc
7017198	0	8	Heterogeneous mixture of clayey silt/silt with sand, trace gravel, occasional boulders, occasional silt and sand seams. Hard/loose to dense (glacial till)

Borehole

Map Key	Company	Address	Borehole ID	Type	Use
BORE-5			866974	Borehole	Geotechnical/Geological Investigation

Status: Decommissioned
Drill Method: Solid stem auger
UTM Zone: 17
Easting: 650492.000
Northing: 4852304.000
Location Accuracy:
Orig. Ground Elevation(m): 106.099998
Elev. Reliability Note:
DEM Ground Elevation(m): 106.599998
Total Depth(m): 3.200000
Primary Name:
Township: PICKERING
Concession: RANGE 3
Lot: 0
Municipality
Completion Date: 1992-SEP-22
Static Water Level:
Primary Water Use:
Secondary Water Use:
Location Description: Rougemount Drive Overpass at Highway 401, Site 22-162, District 6, Toronto. The site is located on Highway 401 at Rougemount Drive, in the town of Pickering, Regional Municipality of Durham.

Geology Stratum ID	Top Depth(m)	Bottom Depth(m)	Stratum Desc
7018575	0	0.600000	Pavement Structure
7018576	0.600000	3.200000	Heterogeneous mixture of clayey silt, some sand, trace gravel. Hard. Brown. (Glacial till)

Borehole

Map Key	Company	Address	Borehole ID	Type	Use
BORE-6			866526	Borehole	Geotechnical/Geological Investigation

Status: Decommissioned
Drill Method: Solid stem auger
UTM Zone: 17
Easting: 650611.000
Northing: 4852266.000
Location Accuracy:
Orig. Ground Elevation(m): 105.800003
Elev. Reliability Note:
DEM Ground Elevation(m): 103.199997
Total Depth(m): 8.100000
Primary Name:
Township: PICKERING
Concession: RANGE 3
Lot: 0
Municipality
Completion Date: 1988-MAR-18
Static Water Level:
Primary Water Use:
Secondary Water Use:
Location Description: Cut Slope Stability between Rouge River and Rougemount Drive. The site is approx. 550m long and is located on the north and south sides of Hwy, 401 near Rougemount Drive just east of the Rouge River.

Geology Stratum ID	Top Depth(m)	Bottom Depth(m)	Stratum Desc
7017184	0	8.100000	Heterogeneous mixture of clayey silt/silt with sand, trace gravel, occasional boulders, occasional silt and sand seams. Hard/very dense. (glacial till)

Borehole

Map Key	Company	Address	Borehole ID	Type	Use
BORE-7			866966	Borehole	Geotechnical/Geological Investigation

Status: Decommissioned
Drill Method: Solid stem auger
UTM Zone: 17
Easting: 650501.000
Northing: 4852280.000
Location Accuracy:
Orig. Ground Elevation(m): 105.900002
Elev. Reliability Note:
DEM Ground Elevation(m): 106.500000
Total Depth(m): 13.800000
Primary Name:
Township: PICKERING
Concession: RANGE 3
Lot: 0
Municipality
Completion Date: 1992-SEP-22
Static Water Level:
Primary Water Use:
Secondary Water Use:
Location Description: Rougemount Drive Overpass at Highway 401, Site 22-162, District 6, Toronto. The site is located on Highway 401 at Rougemount Drive, in the town of Pickering, Regional Municipality of Durham.

Geology Stratum ID	Top Depth(m)	Bottom Depth(m)	Stratum Desc
7018549	0	2.100000	Silt, trace sand. Brown, dense
7018550	2.100000	13.800000	Heterogeneous mixture of clayey silt, some sand, trace gravel. Occasional cobbles and boulders. Hard. (glacial till)

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
n/a	SANDBURY HOMES C/O DEKKEMA DEVELOPMENTS	ROUGE HILL COURT PICKERING TOWN	3-2175-88-	88	11/10/1988	Municipal sewage	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
n/a	INDUCON CONSULTANTS OF CANADA LTD.	PICKERING AUTO CTR.KINGSTON RD PICKERING TOWN	3-1700-89-	89	8/22/1989	Municipal sewage	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
n/a	PICKERING SQUARE INC.	ROUGEMOUNT DR. PICKERING TOWN	7-0772-88-	88	6/23/1988	Municipal water	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
n/a	SANDBURY HOMES C/O DEKKEMA DEVELOPMENTS	ROUGE HILL COURT PICKERING TOWN	7-1839-88-	88	11/10/1988	Municipal water	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
n/a	734 KINGSTON ROAD LIMITED	KINGSTON RD/STREET A PICKERING	3-1663-98-	98	11/10/1998	Municipal sewage	Cancelled	
			Client Name: **Client Address:** **Client City:** **Client Postal Code:** **Project Description:** **Contaminants:** **Emission Control:**					
n/a	CENTRAL CANADA GROCERS LTD.	EASEMENT S.OF KINGSTON RD. PICKERING	3-0421-85-006	85	5/27/85	Municipal sewage	Approved	
			Client Name: **Client Address:** **Client City:** **Client Postal Code:** **Project Description:** **Contaminants:** **Emission Control:**					
n/a	DEKKEMA DEVELOPMENTS	DALEWOOD DR. PICKERING TOWN	7-1064-85-006	85	11/22/85	Municipal water	Approved	
			Client Name: **Client Address:** **Client City:** **Client Postal Code:** **Project Description:** **Contaminants:** **Emission Control:**					
n/a	DEKKEMA DEVELOPMENTS	DALEWOOD DR. PICKERING TOWN	3-1413-85-006	85	11/22/85	Municipal sewage	Approved	
			Client Name: **Client Address:** **Client City:** **Client Postal Code:** **Project Description:** **Contaminants:** **Emission Control:**					

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
n/a	DEKKEMA DEVELOPMENTS	DALEWOOD DR. PICKERING TOWN	3-1419-85-006	85	11/22/85	Municipal sewage	Approved	

Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

ERIS Historical Searches

Map Key	Company	Address	Order No.	Report Date	Report Type	Search Radius (km)
EHS-1		Evelyn Avenue Pickering	20081118015	11/26/2008	Standard Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerials Photos		

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-1	Allison Auto Wreckers	395 Kingston Road Pickering L1V 1A3	453999	All Other Miscellaneous Store Retailers (except Beer and Wine-Making Supplies Stores)	221	LIGHT FUELS
			Generator #:	ON4456188		
			Approval Yrs:	07,08		
GEN-2	Allison Auto Wreckers	395 Kingston Road Pickering L1V 1A3			221	Light fuels
			Generator #:	ON4456188		
			Approval Yrs:	As of Oct 2010		
GEN-3	ATLANTIS CLEANERS	375 KINGSTON ROAD, UNIT #9 PICKERING L1V 1A3			241	HALOGENATED SOLVENTS
			Generator #:	ON1296000		
			Approval Yrs:	02,03,04,05,06,07,08		
GEN-4	ATLANTIS CLEANERS	375 KINGSTON ROAD PICKERING L1V 1A3	9721	POWER LAUND./CLEANERS	241	HALOGENATED SOLVENTS
			Generator #:	ON1296000		
			Approval Yrs:	99,00,01		
GEN-5	ATLANTIS CLEANERS	375 KINGSTON RD. PICKERING L1V 1A3	9721	POWER LAUND./CLEANERS	241	HALOGENATED SOLVENTS
			Generator #:	ON1296000		
			Approval Yrs:	98		
GEN-6	ATLANTIS CLEANERS 02-345	375 KINGSTON RD. PICKERING L1V 1A3	9721	POWER LAUND./CLEANER	241	HALOGENATED SOLVENTS
			Generator #:	ON1296000		
			Approval Yrs:	92,93,94,95,96,97		
GEN-7	HARWOOD RENT-ALL (PICKERING) LTD 20-359	UNIT 11 - 375 KINGSTON RD. PICKERING L1V 1A3	9911	IND. MACH. RENTAL	213	PETROLEUM DISTILLATES
			Generator #:	ON0703001		
			Approval Yrs:	92,93,94,95,96,97,98		
GEN-8	HARWOOD RENT-ALL (PICKERING) LTD	UNIT 11 - 375 KINGSTON RD. PICKERING L1V 1A3	9911	IND. MACH. RENTAL	213	PETROLEUM DISTILLATES
			Generator #:	ON0703001		
			Approval Yrs:	89,90		

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-9	ATLANTIS CLEANERS	375 KINGSTON ROAD, UNIT #9 PICKERING L1V 1A3			241	Halogenated solvents and residues
			Generator #:	ON1296000		
			Approval Yrs:	As of Oct 2010		
n/a	Trans-Norhtern Pipelines Inc.	Lot 31, Con. 3 Pickering L1X 2R5	486910	Pipeline Transportation of Refined Petroleum Products	251	OIL SKIMMINGS & SLUDGES
			Generator #:	ON7351674		
			Approval Yrs:	05		

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-1	1158560 Ontario Limited	376 Kingston Road Pickering L1V 6K4	3724-5P6N29	7/5/2003	7/5/2003	SEWAGE,RAW UNCHLORINATED	
			Incident Summary:	Pickering: Manhole overflow, raw sewage to grnd/CB			
			Incident Cause:	Process Upset			
			Incident Reason:	Unknown - Reason not determined			
			Nature of Impact:	Human Health/Safety			
			Receiving Medium:	Land & Water			
			Environmental Impact:	Not Anticipated			
SPL-2	MOTOR VEHICLE	PETTY COAT CREEK & HWY. 401 MOTOR VEHICLE (OPERATING FLUID) PICKERING TOWN	45792	//	1/17/1991		
			Incident Summary:	ROAD ACCIDENT- DIESEL OILFOUND IN PETTY COAT CR. LIKELY FROM ACCIDENT			
			Incident Cause:	OTHER TRANSPORTATION ACCIDENT			
			Incident Reason:	ADVERSE ROAD CONDITION			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	LAND / WATER			
			Environmental Impact:	CONFIRMED			
n/a	TRANSPORT TRUCK	W-BOUND LANE OF HWY. 401 JUST WEST OF THE ROUGEMOUNT CUTOFF MOTOR VEHICLE (OPERATING FLUID) PICKERING TOWN	99180	4/27/1994	4/27/1994		
			Incident Summary:	TRANSPORT TRUCK - 900 L OF DIESEL FUEL TO HWY. & GROUND FROM SADDLE TANKS.			
			Incident Cause:	OTHER CONTAINER LEAK			
			Incident Reason:	ERROR			
			Nature of Impact:	Soil contamination			
			Receiving Medium:	LAND			
			Environmental Impact:	POSSIBLE			
n/a		Highway 401 Eastbound Pickering	5706-5ZV9PH	6/12/2004	6/12/2004	DIESEL FUEL	50 L
			Incident Summary:	50 L diesel fuel to road shoulder.			
			Incident Cause:	Other Transport Accident			
			Incident Reason:	Spill			
			Nature of Impact:	Soil Contamination			
			Receiving Medium:	Land			
			Environmental Impact:	Not Anticipated			
n/a	Elite Freight Lines<UNOFFICIAL>	Highway 401 Eastbound Pickering	1807-82L6F4		2/11/2010	DIESEL FUEL	100 L
			Incident Summary:	MVA: 100 gal diesel to road side, HWY 401			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:	Soil Contamination			
			Receiving Medium:				
			Environmental Impact:	Confirmed			

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-1		lot 31 con 3	4601915	031	03	RANGE	DURHAM	PICKERING TOWN

Easting Nad83: 650623.8
Northing Nad83: 4852568
Zone: 17
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 6/14/1964
Primary Water Use:
Secondary Water Use:
Well Depth: 218 ft
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Supply
Construction Method: Cable Tool
Flowing (y/n):
Elevation (m): 102.565971
Elevation Reliability:
Depth to Bedrock: 133
Overburden/Bedrock: Bedrock
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material
133 ft	133 ft	GREY	CLAY
5 ft	138 ft	GREY	SHALE
80 ft	218 ft		LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-2			7162828				DURHAM	PICKERING TOWN

Easting Nad83: 650678
Northing Nad83: 4852481
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/26/2011
Primary Water Use:
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status:
Construction Method:
Flowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-3			7162827				DURHAM	PICKERING TOWN

Easting Nad83: 650683
Northing Nad83: 4852494
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/26/2011
Primary Water Use:
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status:
Construction Method:
Flowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-4			7162829				DURHAM	PICKERING TOWN

Easting Nad83: 650685
Northing Nad83: 4852485
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/26/2011
Primary Water Use:
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status:
Construction Method:
Flowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-5		lot 31 con 3	1915420	031	03	RANGE	DURHAM	PICKERING TOWN

Easting Nad83: 650771.1
Northing Nad83: 4852580
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 11/8/2001
Primary Water Use:
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method: Not Known
Flowing (y/n):
Elevation (m): 91.903152
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: No formation data
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-6		lot 32 con 3	4601919	032	03	RANGE	DURHAM	PICKERING TOWN

Easting Nad83: 650381.3
Northing Nad83: 4852451
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 3/15/1947
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 204 ft
Pump Rate: 7 GPM
Static Water Level: 25 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m): 109.530937
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
100 ft	100 ft		MEDIUM SAND, CLAY, BOULDERS
5 ft	105 ft		MEDIUM SAND, GRAVEL
55 ft	160 ft	BLUE	CLAY, STONES
30 ft	190 ft		QUICKSAND
10 ft	200 ft		COARSE SAND
4 ft	204 ft		GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 31	1915706	031			DURHAM	PICKERING TOWN

Easting Nad83:
Northing Nad83:
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 4/9/2002
Primary Water Use:
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method: Not Known
Flowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: No formation data
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 31	1915708	031			DURHAM	PICKERING TOWN

Easting Nad83:
Northing Nad83:
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 4/9/2002
Primary Water Use:
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method: Not Known
Flowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: No formation data
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 31	1916717	031			DURHAM	PICKERING TOWN

Easting Nad83:
Northing Nad83:
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 8/27/2003
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 276 ft
Pump Rate: 25 GPM
Static Water Level: 12 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: CONCRETE

Thickness	Original Depth	Material Colour	Material
276 ft	276 ft	BROWN	SAND

Appendix: Ontario Database Descriptions

EcoLog Environmental Risk Information Services Ltd can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to EcoLog ERIS at the time of update. **Note:** Databases denoted with "*" indicates that the database will no longer be updated. See the individual database descriptions for more information.

Provincial Government Source Databases:

Abandoned Aggregate Inventory **Up to Sept 2002** **AAGR**

The MAAP Program maintains a database of all abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.

Aggregate Inventory **Up to Jun 2011** **AGR**

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. Please note that the database is only referenced by lot\concession and city/town location. The database provides information regarding the registered owner/operator, location, status, licence type, and maximum tonnage.

Abandoned Mines Information System **1800-Jan 2012** **AMIS**

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Borehole **1875-Aug 2011** **BORE**

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc.
For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Certificates of Approval **1985-Oct 30, 2011*** **CA**

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

TSSA Commercial Fuel Oil Tanks 1948-Aug 2011 **CFOT**

Since May 2002, Ontario developed a new act where it became mandatory for fuel oil tanks to be registered with Technical Standards & Safety Authority (TSSA). This data would include all commercial underground fuel oil tanks in Ontario with fields such as location, registration number, tank material, age of tank and tank size.

Inventory of Coal Gasification Plants and Coal Tar Sites April 1987 and November 1988* **COAL**

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the "Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Compliance and Convictions 1989-Feb 2012 **CONV**

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Certificates of Property Use 1994-Feb 2012 **CPU**

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Drill Holes 1886-Oct 2011 **DRL**

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Environmental Activity and Sector Registry Oct 31, 2011-Mar 2012 **EASR**

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Environmental Registry 1994-Feb 2012 **EBR**

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Environmental Compliance Approval **Oct 31, 2011-Mar 2012** **ECA**

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For CofA's prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

List of TSSA Expired Facilities **Current to Feb 2012** **EXP**

This is a list of all expired facilities that fall under the TSSA (TSS Act & Safety Regulations), including the six regulations that exist under the Fuels Safety Division. It will include facilities such as private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. These tanks have been removed and automatically fall under the expired facilities inventory held by TSSA.

TSSA Fuel Storage Tanks **Current to Jun 2011** **FST**

The Technical Standards & Safety Authority (TSSA), under the *Technical Standards & Safety Act* of 2000 maintains a database of registered private and retail fuel storage tanks in Ontario with fields such as location, tank status, license date, tank type, tank capacity, fuel type, installation year and facility type.

Ontario Regulation 347 Waste Generators Summary **1986-Oct 2010** **GEN**

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

TSSA Historic Incidents **2006-June 2009** **HINC**

This database will cover all incidences recorded by TSSA with their older system, before they moved to their new management system. TSSA's Fuels Safety Program administers the *Technical Standards & Safety Act* 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. We also work to protect the public, the environment and property from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from pipelines, diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

TSSA Incidents **June 2009-Mar 2012** **INC**

TSSA's Fuels Safety Program administers the *Technical Standards & Safety Act* 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Includes incidents from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

Landfill Inventory Management Ontario 2010 **LIMO**

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Mineral Occurrences 1846-Nov 2011 **MNR**

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the planimetric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Non-Compliance Reports 1992(water only), 1994-2010 **NCPL**

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Ontario Oil and Gas Wells 1800-Feb 2012 **OOGW**

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, well cap date, licence no., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Ontario Inventory of PCB Storage Sites 1987-Oct 2004 **OPCB**

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Orders 1994-Feb 2012 **ORD**

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Pesticide Register 1988-Mar 2011 **PES**

The Ontario Ministry of Environment maintains a database of all manufacturers and vendors of registered pesticides.

TSSA Pipeline Incidents **June 2009-Mar 2012** **PINC**

TSSA's Fuels Safety Program administers the *Technical Standards & Safety Act* 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. This database will include spills, strike and leaks from recorded by the TSSA.

Private and Retail Fuel Storage Tanks **1989-1996*** **PRT**

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Permit to Take Water **1994-Feb 2012** **PTTW**

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Ontario Regulation 347 Waste Receivers Summary **1986-2008** **REC**

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Record of Site Condition **1997-Sept 2001, Oct 2004-Feb 2012** **RSC**

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Ontario Spills **1988-2011** **SPL**

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Wastewater Discharger Registration Database **1990-2011** **SRDS**

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample'Result Data Store (SRDS).

TSSA Variances for Abandonment of Underground Storage Tanks **Current to October 2011** **VAR**

The TSSA, Under the Liquid Fuels Handling Code and the Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, you may apply to seek a variance from this code requirement. This is a list of all variances granted for abandoned tanks.

Waste Disposal Sites - MOE CA Inventory **1970-Mar 2012** **WDS**

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Waste Disposal Sites - MOE 1991 Historical Approval Inventory **Up to Oct 1990*** **WDSH**

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Water Well Information System **1955-2011** **WWIS**

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Federal Government Source Databases: **Diagram Identifier:**

Environmental Effects Monitoring **1992-2007*** **EEM**

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Environmental Issues Inventory System **1992-2001*** **EIIS**

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Federal Convictions **1988-Jun 2007** **FCON**

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Contaminated Sites on Federal Land **June 2000-Jan 2012** **FCS**

The Treasury Board of Canada Secretariat maintains an inventory of all known contaminated sites held by various Federal departments and agencies. This inventory does not include properties owned by Crown corporations, but does contain non-federal sites for which the Government of Canada has accepted some or all financial responsibility. All sites have been classified through a system developed by the Canadian Council of Ministers of the Environment. The database provides information on company name, location, site ID #, property use, classification, current status, contaminant type and plan of action for site remediation.

Fisheries & Oceans Fuel Tanks **1964-Sept 2003** **FOFT**

Fisheries & Oceans Canada maintains an inventory of all aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Indian & Northern Affairs Fuel Tanks **1950-Aug 2003** **IAFT**

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of all aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

National Analysis of Trends in Emergencies System (NATES) **1974-1994*** **NATE**

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

National Defence & Canadian Forces Fuel Tanks **Up to May 2001*** **NDFT**

The Department of National Defence and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

National Defence & Canadian Forces Spills **Mar 1999-Aug 2010** **NDSP**

The Department of National Defence and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

National Defence & Canadian Forces Waste Disposal Sites **2001-April 2007** **NDWD**

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

National Environmental Emergencies System (NEES) 1974-2003 **NEES**

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for all previous Environment Canada spill datasets. NEES is composed of the historic datasets – or Trends – which dates from approximately 1974 to present. **NEES Trends** is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

National PCB Inventory 1988-2008 **NPCB**

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites.

National Pollutant Release Inventory 1993-2009 **NPRI**

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Parks Canada Fuel Storage Tanks 1920-Jan 2005 **PCFT**

Canadian Heritage maintains an inventory of all known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Transport Canada Fuel Storage Tanks 1970-March 2007 **TCFT**

With the provinces of BC, MB, NB, NF, ON, PE, and QC; Transport Canada currently owns and operates 90 fuel storage tanks. This inventory will also include The Pickering Lands, which refers to the 7,530 hectares (18,600 acres) of land in Pickering, Markham and Uxbridge - owned by the Government of Canada since 1972. Properties on this land has been leased by the government since 1975, falls under the Site Management Policy of Transport Canada, but administered by Public Works and Government Services Canada. Our inventory provides information on the site name, location, tank age, capacity and fuel type.

Private Source Databases:

Anderson's Waste Disposal Sites 1860s-Present **ANDR**

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the *Ontario MOE Waste Disposal Site Inventory*, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. *Please note that the data is not warranted to be complete, exhaustive or authoritive. The information was collected for research purposes only.*

Automobile Wrecking & Supplies 2001-Jun 2010 **AUWR**

This database provides an inventory of all known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Chemical Register 1992, 1999-Jun 2010 **CHEM**

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

ERIS Historical Searches 1999-Sept 2011 **EHS**

EcoLog ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Canadian Mine Locations 1998-2009 **MINE**

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Oil and Gas Wells Oct 2001-2011 **OGW**

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickles' database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Canadian Pulp and Paper 1999, 2002, 2004, 2005, 2009 **PAP**

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Retail Fuel Storage Tanks 2000-Jun 2010 **RST**

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks. Information is provided on company name, location and type of business.

Scott's Manufacturing Directory 1992-Mar 2011 **SCT**

Scott's Directories is a data bank containing information on over 70,000 manufacturers in Ontario. Even though Scott's listings are voluntary, it is the most comprehensive database of Ontario manufacturers available. Information concerning a company's address, plant size, and main products are included in this database. This database begins with 1992 information and is updated annually.

Anderson's Storage Tanks 1915-1953* **TANK**

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. *Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.*

Appendix 2

Site History Fact Sheets

Phase 1 Site Investigation Scope Outline
Asbestos
PCBs
Lead Paint and Other Non-asbestos/PCB Building Hazards

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SITE HISTORY FACT SHEET

PHASE 1 SITE INVESTIGATION SCOPE OUTLINE

This fact sheet reviews what is covered in a due diligence Phase 1 Environmental Site Investigation and the qualifications of the preparer. These items bear on its usefulness and credibility of the Phase 1 and are important to understand. This information is also submitted as a requirement of CSA Z768-01.

Coverage

The Phase 1 investigation assesses, based on archival review, interviews, and a visual inspection, only risks that are likely to have contaminated the site or building from use up to the present. It does not evaluate compliance of operations or the risk that an ongoing operation might contaminate the site; these would be evaluated in an operations or compliance audit. The topics we cover in a Phase 1 investigation to assess contamination risk include:

- Present activities at the site and adjacent sites.
- Past activities at the site and adjacent sites with a general review of properties within 250m of the Site.
- Environmental certificates, permits, and orders (presence/absence only).
- Regulatory history and concerns.
- Fill, spills, and waste disposal onsite (visible indicators, records).
- Fuel/chemical storage facilities and past use.
  - Aboveground storage tanks, underground storage tanks, fixed hydraulic equipment, and chemicals and hazardous substances.
- Hazardous material storage and use.
- Visual scan for the possible presence of PCB materials/equipment, asbestos containing materials, lead paint and other regulated building materials.

We review those risks that are identified by our sources or that are visible and readily inspected. No destructive investigation or testing is ordinarily conducted.

Issues are discussed in the report if our investigation or experience indicates they have reasonable potential to contaminate the subject site. Issues that are not a concern or not applicable are not normally documented in PGL's reports, but are documented in our files.

Our Phase 1 investigation protocols and checklists are based on industry standards and meet the requirements of the Canadian Mortgage and Housing Corporation (CMHC) and of banks, credit unions, and other lenders, as well as CSA Standard Z768-01. As the work was conducted for due diligence purposes it does not meet all the requirements of Ontario Ministry of Environment (Ontario Regulation 153/04).

PGL Qualifications

PGL is well qualified to conduct Phase 1 investigations. PGL has conducted over 5,000 Phase 1s since 1991, for over 3,000 clients. We have also conducted over 1,000 Phase 2 and many Phase 3 investigations and so have the benefit of that experience. The firm has over 40 specialist professionals in engineering, geoscience, and soil science involved full-time in environmental site investigations/site audits/business audits.

PGL involves senior staff on all projects to ensure a high level of service to our clients. All work is supervised by, and all reports are reviewed by, a senior project manager or a principal of the firm. Supervision, and most of the work, is conducted by a qualified professional as required by Ontario Regulation 153/04. PGL is covered by professional errors and omissions insurance in accordance with Ontario Regulation 153/04.

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SITE HISTORY FACT SHEET

ASBESTOS

Asbestos is a fibrous silicate mineral that was once widely used in building materials. Most uses were phased out about 1980, but some products were available into the early 1990s and continue to be available. Materials at risk of containing asbestos include spray-on fire-proofing and insulation, acoustic tiles and plaster, texture coat plaster, vinyl flooring, roof felt and patch compound, cement siding and pipe, pipe insulation and drywall joint compound. Asbestos hazard arises from inhaling the fibres. Asbestos can be positively identified only by laboratory analysis. The most dangerous forms of asbestos are "friable," meaning that the fibres can become airborne if disturbed. Exposed, friable asbestos has been identified and managed in most situations where occupational exposures are likely (i.e., industrial and large commercial buildings), but have been less examined in either single- or multi-family residential buildings.

Most buildings built prior to mid-1980s have some asbestos-containing materials. Asbestos in a building has implications to owners and occupants. Where buildings contain friable asbestos in poor condition, it must be removed or encapsulated, often at high cost. Non-friable asbestos is very common and usually less of a problem. It is dealt with by identification and a management system to notify potentially exposed workers. At demolition or renovation, asbestos materials must be removed and disposed of under strict health and safety controls. The cost can be closely estimated by asbestos consultants and contractors. In the case of demolition, asbestos management costs are generally reasonable in the context of overall redevelopment costs, but make some renovation projects economically impractical.

According to Section 30 of the Ontario Occupational Health and Safety Act, Owners are required to identify all designated substances (such as asbestos) prior to beginning a "project." They are also required to submit this information to any bidders of the work. Exposing workers to asbestos where that could reasonably be prevented can result in substantial fines, work stoppage and may affect WCB rates.

Three pieces of legislation currently regulate asbestos and asbestos wastes in Ontario:

- **Ontario Regulation R.R.O. 837** – of the Occupational Health and Safety Act identifies asbestos as a designated substance and details the responsibilities of employers to protect workers.
- **Ontario Regulation R.R.O. 278/05** – details instructions for construction, building and repair projects that are likely to encounter asbestos. This regulation is the primary document governing asbestos and its control within buildings and building projects.
- **Ontario Regulation 347, Section 17** – of the Ontario Environmental Protection Act deals with how asbestos waste is to be handled, transported and disposed.

Ontario Regulation 278/05 requires an asbestos survey and management plan for all building (except owner occupied residences). The regulation has specific survey requirements regarding the sampling and analysis of asbestos. The survey is to be updated annually and is to be provided to people who may be exposed. Asbestos surveys cost roughly $0.10/ square foot but may be significantly more or less depending on the type of building. Full asbestos surveys are destructive and so complete surveys are normally only done prior to demolition. For example, sampling of roofing membranes risks roof integrity and so may invalidate insurance

The presence of asbestos in buildings is generally not a significant issue in buildings. Asbestos is a common building material that can be managed in place in most cases. Its presence will increase cost during renovation, building maintenance and demolition and people planning this work should be aware of its presence. If well maintained, asbestos containing materials do not affect the health and safety of the building occupants and do not affect ongoing use of the building.

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SITE HISTORY FACT SHEET

PCBs

Polychlorinated biphenyls (PCBs) are a stable dielectric oil or wax that were used mostly in electrical equipment, high stress hydraulic fluid and lubricants, and plasticizers in plastic and rubber manufacturing. PCBs are persistent in the environment and considered toxic, and were therefore banned from production in about 1980 in the US and Canada. However, they are still commonly found in old transformers and capacitors, particularly in fluorescent light ballasts. Although they were normally used at high concentration, many non-PCB oils and dielectric fluids were inadvertently contaminated and so PCBs have become widespread in electrical equipment.

Fluorescent lighting installed prior to 1980 is likely to have PCB-containing ballasts, although some ballasts will likely have failed and therefore have been replaced. PCB-containing ballasts can be identified by examination of the model and date codes. Disposal of PCB-containing apparatus is regulated by Ontario Regulation 347. Management and storage of PCB-contaminated wastes is controlled by Ontario Regulation 362.

The Ministry of Environment's interpretation of Regulation 362 is that 40 ballasts or more must be managed as a PCB waste or stored according to the appropriate regulations. If, during the regular course of maintenance, the PCB-containing ballasts are replaced at a rate that never exceeds the quantity limit, compliance with the disposal and storage requirements is voluntary. Usually the registration threshold will only be exceeded during renovation or demolition.

If PCB wastes are generated in amounts exceeding the exempted weight and volumes, Regulation 347 requires that they be disposed of, or collected and stored as a PCB waste. Canada has two licensed PCB incineration facilities and there are numerous contractors who can dispose of this waste. Storage in sealed 205L (45-gallon) drums within a "registered short-term storage facility" on the subject property or another site deemed acceptable by the Ontario Ministry of Environment is allowed but is rarely an attractive option.

The price for removal and disposal of ballasts can range from $5 to $20 per ballast depending on the type of ballast and quantity of PCBs and ballasts.

PGL

SITE HISTORY FACT SHEET

LEAD PAINT AND OTHER NON-ASBESTOS/PCB BUILDING HAZARDS

In addition to PCBs and asbestos, other hazardous or potentially hazardous materials have been, or are used, in building materials. These risks may sometimes require management. Risks include lead paint, mercury-containing electrical equipment, and contaminants deposited in a structure by historical activities (principally metal working industries including auto body, foundries, plating, electric motor rebuilding, etc.).

The Ontario Occupational Health and Safety Act addresses worker exposure. Section 30 of this Act requires Owners to identify all Designated Substances at a site prior to a "Project." This list is to be given to contractors for them to bid and manage their work. Designated Substances consist of acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, isocyanates, lead, mercury, silica, and vinyl chloride. Lead and mercury are the most common items found in buildings.

If renovation or demolition is being considered, a property owner should conduct a regulated building materials survey. These can be conducted at a reasonable cost ($1,500 to $5,000) and will allow for the planning and budgeting of protective measures for workers and regulatory compliance.

Paint

Paint can contain hazardous metals, most commonly lead and, to a lesser extent, mercury and others. Most solid-colour paints manufactured before 1976 contained percent quantities of lead. Paint did not become fully "lead free" until 1992. Most buildings built prior to 1976 contain some lead paint. Mercury was used as an anti-mildew agent (interior and exterior) and other metals were used as pigments (primarily exterior paints).

Lead paint hazard management depends on the situation. Lead paint management at demolition, to the extent it occurs in Ontario, is done for worker protection reasons (Regulation 843 of the Occupational Health and Safety Act). Lead paint in existing buildings is mostly a concern in multi-family residential buildings where exposure of children is possible, or in renovations where workers are exposed during paint stripping. Testing of paint chips for lead is inexpensive and *in situ* testing can be done using qualitative swabs that react with lead in paint. Control measures for paint are stripping (costly), covering (costly), or sealing with special paints. Regulation 347 of the Ontario Environmental Protection Act deals with hazardous waste management and identifies lead and related compounds as hazardous waste. Lead waste must be handled and disposed in accordance with this regulation.

Mercury

Mercury may be present in electrical equipment such as thermostats, switches or lights. This material is not considered a hazard if properly contained within the electrical equipment. The management and disposal of this material is regulated by Ontario Regulations 844 and 347.

Other Hazards

Activities that generate dust or fumes containing heavy metals or other hazardous compounds can leave residues that are toxic. If disturbed, these residues can become airborne and cause a hazard if inhaled. Even careful housekeeping may be insufficient to prevent the accumulation of this hazard. Dust can filter into wall cavities, down through floors and up into ceiling spaces, settle onto structural members, and be ground into all types of flooring. Fumes can deposit on walls, ceilings, and floor surfaces. Removal of these residues can be expensive, as partition removal may be required. Fumes may need to be removed by chemical washes or surface removal. This risk may not significantly affect buildings that will continue to be used for similar purposes, but major renovation, or alteration to more sensitive uses, may require major decontamination efforts to protect renovation workers or future occupants.