210 Prescott Street, Unit 1 P.O. Box 189 Kemptville, Ontario K0G 1J0

Civil . Geotechnical . Structural . Environmental .

Hydrogeology .

(613) 860-0923

FAX: (613) 258-0475

August 1, 2012

120080-2

Lakeland Meadows Ltd. 202-1422 Wellington Street West Ottawa, Ontario K1Y 0X7

Attention:

Mr. A. Cinnamon

RE:

PARTIAL PHASE II ENVIRONMENTAL ASSESSMENT 1626 OLD PRESCOTT ROAD, GREELY CITY OF OTTAWA (GREELY), ONTARIO

Dear Sirs:

This letter reports the results of additional site information and soil sampling and testing carried out to address some of the issues of potential environmental concern identified by a previous Phase I Environmental Site Assessment (ESA) carried out for the site by Kollaard Associates Inc. (KAI)

The results of the Phase I ESA are presented in the Kollaard Associates Inc. Report Number 120080, dated March 9, 2012, which should be read in conjunction with this present letter.

#### **Procedure**

Subsequent to the above noted Phase I ESA, two test pits were advanced at the above note site on July 12, 2012. One test pit was advanced adjacent to a former above ground fuel storage tank that existed within the basement of the existing dwelling at the site. Since the Phase I ESA was written, the basement furnace oil storage tank had been removed from the existing dwelling at the site. Another test pit was advanced in the area of a former above ground gasoline fuel storage tank formerly located near the northeast corner of an existing barn at the site. A description of the subsurface conditions encountered at the test pit locations is given in the attached Table I, Record of Test Pits. The approximate locations of the test pits are shown on the attached Site Plan, Figure 1. The field work was supervised throughout by a member of our engineering staff who located the test pits in the field, logged the test pits and cared for the samples obtained.

#### Test Pit 1

Test pit 1 (TP1) was excavated adjacent to the foundation wall of the existing dwelling opposite to the former above ground furnace oil storage tank formerly located within the basement of the dwelling at the site. The test pit was extended to a depth of about 2.24 metres below existing ground surface. The test pit was dry at the time of sampling. No hydrocarbon odour or staining was observed in the test pit. A soil sample, SA1, was obtained from the test pit at a depth of about 2.2 metres below existing ground surface. The soil sample was collected and prepared/preserved in the field using appropriate techniques and submitted to Exova Accutest Laboratories Ltd. in Nepean, Ontario, for testing of volatile organic compounds, including benzene, ethylbenzene, toluene and xylene, and total petroleum hydrocarbons F1, F2, F3 and F4.

#### **Test Pit 2**

The test pit was excavated near the northeast corner of an existing barn and in the area of a former above ground gasoline storage tank at the site. The test pit was extended to a depth of about 2.3 metres below existing ground surface. The test pit was dry at the time of sampling. No hydrocarbon odour or staining was observed in the test pit. A soil sample, SA2, was obtained from the test pit at a depth of about 2.3 metres below existing ground surface. The soil sample was collected and prepared/preserved in the field using appropriate techniques and submitted to Exova Accutest Laboratories Ltd. in Nepean, Ontario, for testing of volatile organic compounds, including benzene, ethylbenzene, toluene and xylene, and total petroleum hydrocarbons F1, F2, F3 and F4.

#### Results

The results of the laboratory testing of the soil samples are provided in Appendix A. Based on the MOE *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act: Table 2* dated July 1, 2011, for coarse textured soils in a potable groundwater condition with residential/parkland/institutional property use, the maximum acceptable criteria for TPH Fractions F1, F2, F3 and F4 are 55  $\mu$ g/g, 98  $\mu$ g/g, 300  $\mu$ g/g and 2800  $\mu$ g/g, respectively. The maximum acceptable criteria for the gasoline compounds of benzene, toluene, ethylbenzene and zylenes are 0.21, 2.3, 1.1 and 3.1 $\mu$ g/g, respectively.

The results of laboratory testing indicate hydrocarbon compounds were not detected in any of the soil samples obtained from the test pits and submitted to the laboratory.

#### Conclusions

Based on the results of soil sampling and testing carried out for this Partial Phase II ESA, there is no indication of any impact on the soil and groundwater at the subject site from the two former above ground storage tanks noted in the Phase I ESA.

Based on a discussion with Lakeland Meadows Ltd., it is understood that the existing buildings at the site will be demolished at a later date. It is also understood that the debris from the demolition and other debris noted at the site will be removed and disposed of in an environmentally acceptable manner to a licensed landfill.

It is considered that no further action with regards to the soil and groundwater at the site is required at this time, however, if during the demolition and removal of the above noted debris there is indication of soil or groundwater impact from potential unforseen sources, more sampling and laboratory testing may be considered necessary.

The results of this Partial Phase II ESA should in no way be construed as a warranty that the subject property is free from any and all contaminants other than those noted in this letter, nor that all compliance issues have been addressed.

This letter was prepared for the exclusive use of Lakeland Meadows Ltd. and is based on data and information collected by Kollaard Associates Inc. This letter may not be relied upon by any other person or entity without the express written consent of Lakeland Meadows Ltd. and Kollaard Associates Inc. Any use of this letter by a third party is the responsibility of the third party. Kollaard Associates Inc. accepts no responsibility for damages, if any, sustained by any third party as a result of decisions made or action based on this letter. Kollaard Associates Inc. has relied in good faith on information provided by others. We accept no responsibility for any deficiencies, or inaccuracies in this letter as a result of omissions, misinterpretations, or fraudulent acts of others.

The material in this letter reflects the best judgement of Kollaard Associates Inc. in view of the scope of work, and information available at the time of preparation. Due to the nature of the investigation and the limited data available, we cannot warrant against undiscovered environmental liabilities. If new information is discovered during future work, including excavations, borings or other studies, Kollaard Associates Inc. should be requested to re-evaluate the conclusions presented in this report and provide amendments as required.

We trust that this letter is sufficient for your present requirements. If you have any questions concerning this letter, please do not hesitate to contact our office.

Yours truly,

KOLLAARD ASSOCIATES, INC.

Dean Tataryn, B.E.S., EP.



William Kollaard, P. Eng.

Attachments: Table I, Record of Test Pits

Figure 1, Site Plan

Appendix A

August 2012

20080

#### TABLE I

### RECORD OF TEST PITS 1626 OLD PRESCOTT ROAD, GREELY CITY OF OTTAWA, ONTARIO

TEST PIT NUMBER	DEPTH (METRES)	DESCRIPTION
TP 1	0.00 - 1.20	Topsoil, grey brown sand (FILL)
	1.20 – 2.24	Red brown to grey brown medium to coarse SAND
	2.24	End of test pit
Test pit dry, July 12, 2012.		
TP 2	0.00 - 0.66	Topsoil, roots, silty sand, gravel and ash (FILL)
	0.66 - 1.70	Red brown to grey brown fine to medium SAND
	1.70 – 2.34	Grey fine to medium SAND
	2.34	End of test pit

Test pit dry, July 12, 2012.



## APPENDIX A RESULTS OF CHEMICAL LABORATORY TESTING

# **EXOVA** OTTAWA

Certificate of Analysis

Kollaard Associates Inc. Client:

210 Prescott St., Box 189 Kemptville, ON

K0G 1J0

Ms. Colleen Vermeersch Attention: PO#:

Kollaard Associates Inc. Invoice to:

2012-07-13 0 Report Number:

1214780

Exova |

Date Submitted:	2012-07-1
Date Reported:	2012-07-2
Project:	120080
COC#:	145346

						_								
971431 Soil	2012-07-12 TP 2		4.9	<10	<10	<10	<20	<20	94	<0.02	<0.05	<0.05	<0.05	<0.20
971430 Soil	2012-07-12 TP 1		6.5	<10	<10	<10	<20	<20	93	<0.02	<0.05	<0.05	<0.05	<0.20
Lab I.D. Sample Matrix Sample Type	Sampling Date Sample I.D.	Guideline												
		Units	%	6/6n	g/gn	6/6n	6/6n	6/6n	%	6/6n	6/6n	6/6n	6/Bn	6/6n
		MRL	0.1	10	10	10	20	20	0	0.02	0.05	0.05	0.05	0.20
		Analyte	Moisture	F1 (C6-C10)	F1-BTEX (C6-C10)	F2 (C10-C16)	F3 (C16-C34)	F4 (C34-C50)	Toluene-d8	Benzene	Ethylbenzene	m/p-xylene	o-xylene	Toluene
		Group	General Chemistry	Hydrocarbons		Others		,	VOC Surrogates	VOCs				

Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective. MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.

\* = Guideline Exceedence

Guideline =