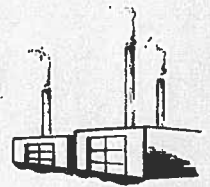


# MARKWILL INDUSTRIES (1979) LTD.

PHONE 222-3265 / 2477 DAY STREET / WINNIPEG, MANITOBA R2C 2X5 / CANADA



C. 0621

11 October 1994

Mr. Rick Lemoine, Environment Officer  
Dangerous Goods  
Winnipeg Region, Manitoba Environment  
Building 2 - 139 Tuxedo Avenue  
Winnipeg, Manitoba  
R3N OH6

Dear Sir:

Re: Your letter dated September 26, 1994 addressed to  
"Aero Foam Ltd., Box 5, Group 514, RR 5, Winnipeg"

Please be advised that the former fuel storage tank site referred to in your above-mentioned letter is located at 2477 Day Street on the property of Markwill Industries (1979) Ltd. and not at 2485 Day Street.

We have retained the services of Geokwan Environmental Ltd. to do subsurface investigation. Mr. Walter Kwan has advised that his report should be available before October 30, 1994.

Please direct your correspondence to the undersigned at 2147 Portage Avenue (Head Office), Winnipeg, Manitoba. Our telephone number is 837-1383.

Yours very truly,

MARKWILL INDUSTRIES (1979) LTD.

per

R.G. Smerchanski



FILE. C. 0621

DAVE RE: MARKWILL INDUSTRIES 2477 DAY ST.

I have told Walter Kwan to contact you in my absence next week.

Here's the scoop! OWNER - Rhonda Smerchanski.

Geotwar investigation says - 1600 yd<sup>3</sup> of soil in order to bring down to Level III which is the applicable level for clean-up.

~ 200-300 yd<sup>3</sup> is Haz. Waste (xylenes - 160-600 mg/kg)

I have given verbal OK for on-site land farming of non-Haz. soil. They will stockpile Haz. on-site (liner & cover) until the answer from R.D. (they're going to ask to land farm Haz. waste also - I've told them "Not likely").

They may want to SVE the site to prevent vapors into building or to reduce soil HC concentrations. I've indicated exhaust treatment may be necessary if vapors are high.

If they have to truck to MITWMC, they will want to use their own trucks. They are likely TDG trained for chemicals already. They'll be talking to Randy for licensing.  
File

# Geokwan Environmental Limited

SITE ASSESSMENT, INVESTIGATION & REMEDIATION

Markwill Industries Ltd.  
2147 Portage Avenue  
Winnipeg, MB R3J 0C5

September 21, 1995

VIA FAX: 832-7244

**ATTENTION: Ms. Rhonda Smerchanski**

Dear Ms. Smerchanski:

**RE: Soil Sampling from Temporary Treatment Site  
Markwill Industries, 2477 Day St.  
Winnipeg, MB Our Project No. E308-2**

Geokwan Environmental Ltd. was retained to perform soil sampling and testing at the temporary soil treatment site at the above noted property.

Over 110 samples were recovered from the treated soils to a maximum depth of about 0.6m in a 5m grid across the treatment area on September 12 & 13. These samples were checked for flammable soil vapour concentrations using empirical headspace technology and an organic vapour analyzer with methane elimination. The sampling locations along with the maximum vapour reading at each location are shown on Plate 1.1. The vapour levels measured were all low to very low ranging from 0 to 98ppm.

Three of the worst samples were submitted to the Saskatchewan Research Council for confirmatory chemical analyses. A copy of the SRC report is attached. The chemical results have been tabulated in Table A along with the relevant provincial and federal soil remediation guidelines. With the exception of the total volatile hydrocarbon concentration measured from the C-12 sample, all of the soil testing results meet the Manitoba Level I-III soil remediation criteria. The total volatile hydrocarbon concentration of the C-12 sample exceeded the Level II criteria but satisfied Level III.

It can be inferred from the soil vapour readings and confirmatory chemical analyses that the contaminated soil in the temporary treatment site has been remediated to meet level III of the Manitoba Environment soil remediation criteria. Subject to written approval by Manitoba Environment, the treated soil can be used for filling in the perimeter ditch around the treatment area and for levelling the ground surface within the Markwill Industries property, thereby effectively decommissioning the treatment area.

If you have any questions on the above, please call the undersigned at your convenience.

Yours truly,

**GEOKWAN ENVIRONMENTAL LTD.**

Per:  for:

Joel Wortley, EIT  
WK/JW:tbs  
Encl.

cc John McFadzean, Markwill Fax: 222-8817



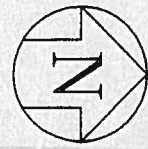
  
Walter Kwan, M. Eng., P. Eng.

# GE

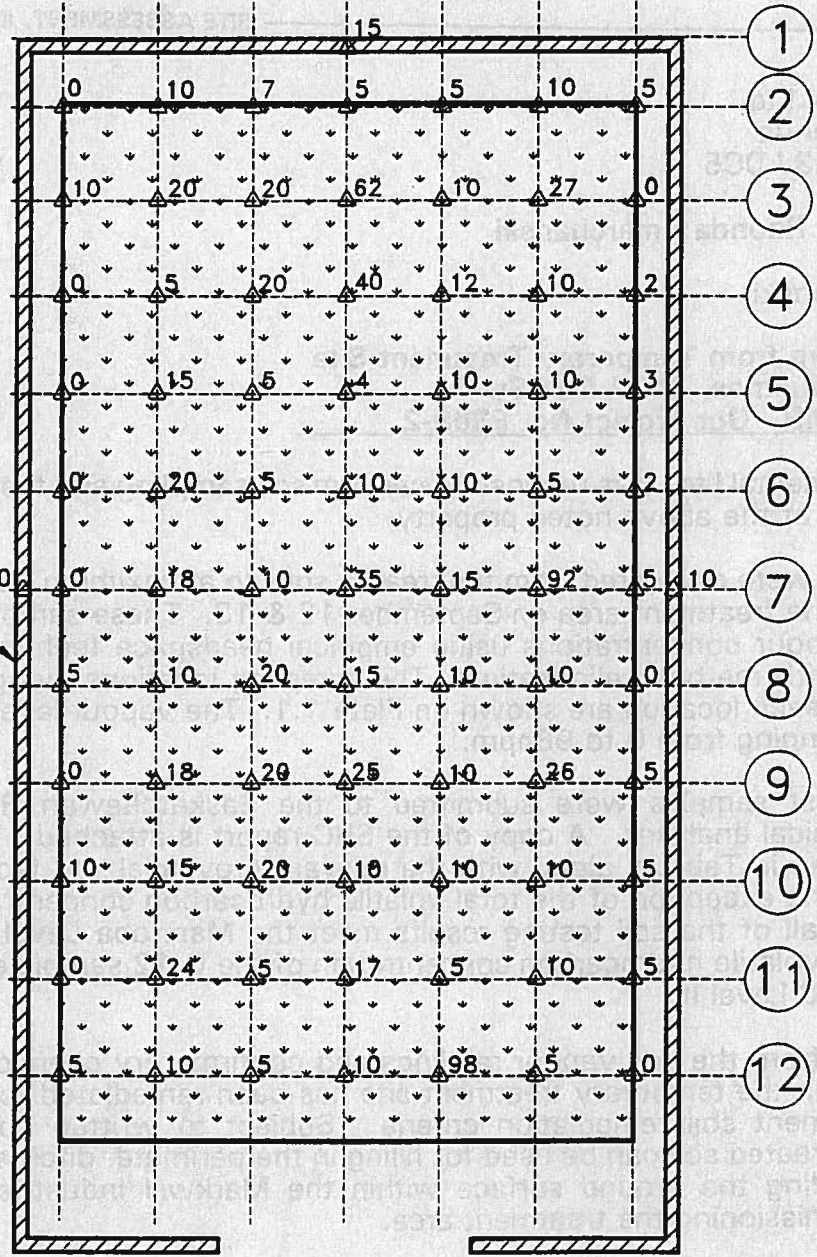
103A SCURFIELD BLVD. WINNIPEG, MB. CANADA R3Y 1M6

TELEPHONE (204) 488-8103

FAX (204) 488-8102



G F E D C B A



PERIMETER DITCH

PROPERTY LINE

△ SAMPLING LOCATION  
 NUMBER NEXT TO SYMBOL INDICATES  
 THE MAXIMUM FLAMMABLE SOIL  
 VAPOUR (NMR) READING IN ppm  
 TAKEN AT THAT LOCATION

NOTE: DRAWING IS REPRESENTATIONAL ONLY

Geokwan Environmental Ltd  
 WINNIPEG, MANITOBA

TITLE: SOIL SAMPLING LOCATIONS  
 TEMPORARY TREATMENT SITE  
 2477 DAY STREET, WPG, MB

SCALE: 1" = 30'	DATE: 95/9/12	MADE: JW	CHKD: WK	JOB: E308-2	PLATE: 1.1
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**TEMPORARY SOIL TREATMENT SITE  
2477 DAY STREET  
WINNIPEG, MANITOBA**

<u>Contaminant</u>	Manitoba Remediation Guidelines					CCME <u>Comm/Ind</u>
	<u>D-3</u>	<u>B-7</u>	<u>C-12</u>	<u>Level I</u>	<u>Level II</u>	
Benzene	0.02	0.04	0.16	0.05	0.5	5
Toluene	0.23	0.32	6.3	0.1	3.0	30
Ethylbenzene	0.29	0.06	3	0.1	5.0	50
Xylene	0.74	0.14	5.2	0.1	5.0	50
Total Volatile Hydrocarbons	34*	4.8*	320*	100	150	800

NOTES

All values given in ppm

CCME = Canadian Council of Ministers of the Environment

Comm/Ind = Commercial/Industrial

\* Total Volatile Hydrocarbons Measured as Gasoline

Level I - High Sensitivity Site

Level II - Moderate Sensitivity Site

Level III - Low Sensitivity Site

NS - Not Specified

# SASKATCHEWAN RESEARCH COUNCIL ANALYTICAL SERVICES

Geokwan Environmental Ltd.  
103-A Scurfield Blvd.  
Winnipeg, Manitoba R3Y 1M6  
Attn: Joel Wortley

20-Sep-95 14:10

Date Samples Received: 15-Sep-95

Client P.O.: PROJ#E308-2

SAMPLE CLIENT DESCRIPTION  
14215 D-3 \*SOIL\*

ANALYTE	UNITS	14215
	GLC	
Benzene	ug/g	0.02
Ethylbenzene	ug/g	0.29
Gasoline	ug/g	34
Toluene	ug/g	0.23
Xylene	ug/g	0.74

Results are reported on a dry basis.

# SASKATCHEWAN RESEARCH COUNCIL ANALYTICAL SERVICES

Geokwan Environmental Ltd.

20-Sep-95 14:10

Date Samples Received: 15-Sep-95

Client P.O.: PROJ#E308-2

SAMPLE CLIENT DESCRIPTION  
14216 B-7 \*SOIL\*

ANALYTE	UNITS	14216
GLC		
Benzene	ug/g	0.04
Ethylbenzene	ug/g	0.06
Gasoline	ug/g	4.8
Toluene	ug/g	0.32
Xylene	ug/g	0.14

Results are reported on a dry basis.



*[Handwritten signature]*

Geotechnical Engineer

of Rick Lamore, P. Geol., Manitoba Environment

202113 JEX

**AGRA**  
**Earth & Environmental**

95 Scurfield Boulevard  
Winnipeg, Manitoba  
Canada R3Y 1G4  
Tel. (204) 488-2997  
Fax. (204) 489-8261

February 17, 1995  
Project: WX03667

Plasti-Fab Ltd.  
270 3015 - 5th Street N.E.  
Calgary, Alberta  
T2A 6T8

Attention: Mr. Dan Stearne

Dear Sir:

RE: Areofoam Plant  
2485 Day Street, Winnipeg, Manitoba

It came to our attention while reviewing an updated contaminated sites list (January 5, 1995) published by Manitoba Environment (ME), that the Areofoam Plant at 2485 Day Street had been entered on the list. In discussion with Mr. Rick Lemoine, P.Geol, ME, it was determined that the entry had been made with respect to the underground fuel storage tank that had been removed from the Markwell site at 2477 Day Street. The entry had been made because some of the correspondence on file at ME regarding the tank removal at Markwill used the the address of 2485 Day Street. Because Markwell, at 2477 Day Street, is also entered on the contaminated sites list and is the address on the tank registration, Mr. Lemoine indicated that 2485 Day Street should not be listed and would take action to remove it from the list.

If you have any questions please contact the undersigned.

Sincerely;

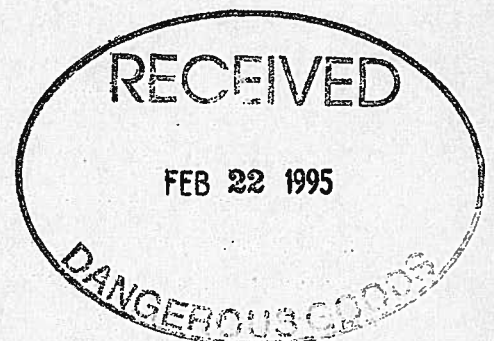
**AGRA Earth & Environmental Limited**



Jeff Tallin, P.Eng  
Geotechnical Engineer

cc Rick Lemoine, P.Geol., Manitoba Environment

3367LT3.JET





November 14, 1994

Markwill Industries (1979) Ltd.  
2477 Day Street  
Winnipeg, Manitoba  
R2C 2X5

**Attention: Rhonda Smerchanski**

Dear Ms. Smerchanski:

**RE: FORMER UNDERGROUND PETROLEUM STORAGE TANK SITE  
2477 DAY STREET, WINNIPEG, MANITOBA**

This letter acknowledges receipt of your letter of November 10, 1994 outlining the proposed remedial action plan for the aforementioned site. It is understood that Markwill Industries will be retaining the services of Geokwan Environmental Ltd. in conducting the remedial action plan, which will consist of the following proposed operations:

- removal and destruction of underground fuel storage tank
- excavation of petroleum hydrocarbon contaminated soil
- disposal of Hazardous Waste soils at MHWMC site
- on-site treatment of non-hazardous waste soils via landfarming

The Remedial Action Plan operations are to follow those outlined in the proposal and as discussed with Mr. R. Lemoine, P.Geol. of Manitoba Environment, during a site meeting held on October 28, 1994. Soil testing and disposal/treatment operations must adhere to established guidelines and regulations.

The proposed remedial operations as outlined in your letter are hereby approved by Manitoba Environment for the clean-up of the 2477 Day Street site. Manitoba Environment must be advised of the date for commencement of remedial actions (understood at present to be November 18, 1994), and of any proposed changes in the design or operation of the Remedial Action Plan. Following completion of the Remedial Action Plan, a summary detailing the operations conducted, analytical testing results, and proposed monitoring programs, must be submitted to Manitoba Environment for review.

Should you require any additional information or have any questions, please contact the undersigned.

Sincerely,

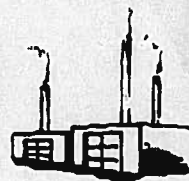


Rick M. Lemoine, M.Sc., P.Geol.  
Environment Officer  
Contaminated Sites  
Winnipeg Region

File No.: C.0621

**MARKWILL INDUSTRIES (1973), LTD.**

PHONE 222-3285 / 2477 DAY STREET / WINNIPEG, MANITOBA R2C 2X5 / CANADA



*letter ASAP.*

10 November 1994

*File - C.0621*

Mr. Rick Lemoine, P. Geol.  
Environment Officer  
Dangerous Goods  
Winnipeg Region, Manitoba Environment  
Building 2 - 139 Tuxedo Avenue  
Winnipeg, Manitoba  
R3N 0H6

Dear Sir:

Re: Former Underground Petroleum Fuel Storage Tank Site  
Markwill Industries Property, 2477 Day Street  
Winnipeg, Manitoba

Further to our site meeting of October 28, 1994 and after reviewing the various remediation alternatives with our environmental consultant, Geokwan Environmental Ltd., we are pleased to propose the following site remediation plan for your review and approval as soon as possible:

**Proposed Site Remediation Plan**

1) The former UST site will be cleaned up by physical excavation and removal to meet the Manitoba Environment (July/93) Level III (low sensitivity site) soil remediation criteria. The excavated soils falling into the hazardous waste criteria - HWC (expected to be one to 2 truck loads) will be hauled to Manitoba Environmental Centre in Letellier for final disposal, whereas the other excavated soils above the Manitoba Level III but below the HWC criteria will be deposited in a temporary treatment area at the back of the Markwill Industries property and treated with the land farming technique.



2) The locations of the proposed temporary treatment area complete with a proposed shallow perimeter ditch are indicated on Plate GE1 appended. This treatment area has been verbally approved by Mr. Lemoine of Manitoba Environment since the site meeting of October 28, 1994 and according to Geokwan Environmental Ltd., meets the site selection criteria described in the Manitoba Environment document, entitled "Guideline for Development of Treatment Areas for Petroleum Contaminated Soils, dated May 29, 1991".

3) The excavation and soil hauling will be conducted by Chabot Enterprises Ltd. and the geoenvironmental testing and soil screening during the excavation will be performed by Geokwan Environmental Ltd. Any contaminated water will be removed by A-1 Sewage as required.

4) The contaminated soils deposited at the temporary treatment site will be remediated in accordance with the "Design & Operational Standards" described in the Manitoba Environment document noted in item 2) above. Markwill Industries will arrange for turning and tilling of the contaminated soils every 4 to 6 weeks (weather permitting). The soil sampling and confirmatory soil chemistry analysis for BTEX and total volatile hydrocarbons will be undertaken by Geokwan Environmental Ltd. in late Spring of 1995.

5) The proposed date of commencing the remediation is November 18, 1994 and the entire site remediation (i.e. excavation, removal and backfilling) is expected to be completed in 2 to 3 working days thereafter.

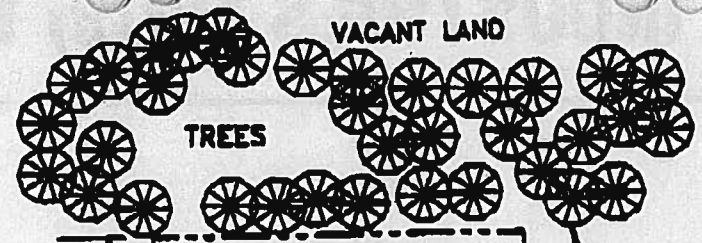
Time is of the essence in this matter. With the upcoming freezing weather, we would appreciate receiving your written approval of the proposed site remediation plan as soon as possible so that we may proceed with the work without delay.

Yours truly,

MARKWILL INDUSTRIES (1979) LTD.

per   
R.G. Smerchanski

Encl.



Chain Link Fence

100'±



VACANT OPEN FIELD

VACANT OPEN FIELD

PROPERTY LINE

Proposed Perimeter Ditch (2' wide x 1' deep)

25'

Chain Link Fence

MARKWILL INDUSTRIES

LIGHT INDUSTRIAL

AEROFOAM

GUARD HOUSE

DAY STREET

OPEN FIELD (BASEBALL DIAMOND)

GRIFFIN STEEL

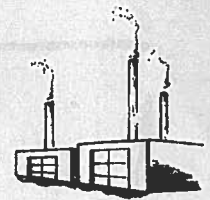
**Geokwan Environmental Ltd**  
WINNIPEG, MANITOBA

**PROPOSED TEMPORARY TREATMENT AREA**  
**MARKWILL INDUSTRIES**  
**2477 DAY STREET, WPG, MB**

SCALE 1"=125'	DATE 94/11/08	WEEK MP	NO. WK	NO. E308	PLAT. GE1
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# MARKWILL INDUSTRIES (1979) LTD.

PHONE 222-3265 / 2477 DAY STREET / WINNIPEG, MANITOBA R2C 2X5 / CANADA



26 October 1994

Mr. Rick Lemoine, Environment Officer  
Dangerous Goods  
Winnipeg Region, Manitoba Environment  
Building 2 - 139 Tuxedo Avenue  
Winnipeg, Manitoba  
R3N 0H6

Dear Sir:

Re: Former Underground Petroleum Fuel Storage Tank Site  
2477 Day Street Site, Winnipeg, Manitoba

Further to our letter of October 11, 1994, enclosed please find the report by Geokwan Environmental Ltd. on the above captioned matter.

This report details the subsurface investigation, summary of results and options for site remediation as requested in your letter of September 26, 1994.

Yours very truly,

MARKWILL INDUSTRIES (1979) LTD.

per

R.G. Smerchanski



12085 12085

C.0621 127

CONTAMINATED  
SITES COPY

Registration Form

Complete

New Storage Tank System Installation

Business Name: AERO FOAM LTD. Box 5 Group 514  
 Business Address: 2485 PAY Street - 222-3261  
 Owner: TOM WINNIPEG, MANITOBA. R.R. 5  
 Operator: Mr. SMERCHANSKI Jr. WPG  
 Installer: J.R. STEPHENSON LTD. RJC 272

Please check one of the following:

- New Installation, no existing tankage at this location
- New Installation, all existing tankage to remain
- Tank Replacement, some or all existing tanks/piping to be removed

Provide information as outlined below:

Tank No.	1					
Tank Type aboveground/underground steel/fiberglass	UNDER GROUND STEEL.					
Tank Capacity	(1 ONLY 5000 GALLONS)					
Tank Manufacturer	WESTEEL ROSCO					

C.P. Check #1 - ZINC } July 6/81  
#2 - .51

**RECEIVED**  
 DEC 12 1976  
 EMD

PERMISSION IS REQUESTED TO  
REMOVE EXISTING PIPING WITH THE  
AN ASSOCIATED PUMP AT PERMITS  
INDUSTRIAL

EXISTING TANK  
EXISTING PUMP

EXISTING ALIQUANT

Next Form Industrial  
Plant Office  
2485 Day St.

PARKING LOT

PROPERTY LINE

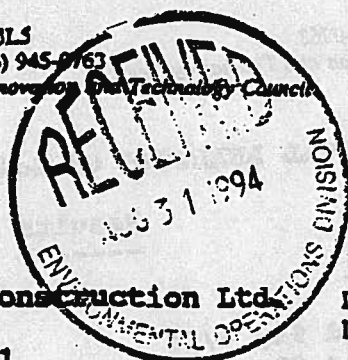
DAY ST.

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

ENVIRONMENTAL SCIENCES CENTRE  
 W. M. WARD BUILDING  
 745 LOGAN AVENUE  
 WINNIPEG, MANITOBA R3E 3L5  
 TEL: (204) 945-3705 FAX: (204) 945-0763  
 An Operation of the Economic Innovation and Technology Council

ATT: *PALU*

From *Clark*  
*WPC*



Chartrand W  
 Western Petroleum Construction Ltd.  
 1165 Sanford St  
 Winnipeg MB R3E 3A1

Date Received :94/ 8/22  
 Date Reported :94/ 8/25

**CHEMICAL ANALYSIS OF Soil**

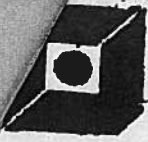
Submitted By: Chartrand W  
 COPIES TO: Environment/McEachern D

Lab. No.	Analyte	Results	Date Analysed
94-A13495	Sample I.D. South Wall Location Aero Foam Date Sampled/Collected 94/ 8/19 Total Purgeables C1 to C8	390 mg/kg	94/ 8/22
	Benzene	1.3 mg/kg	94/ 8/22
	Toluene	5.5 mg/kg	94/ 8/22
	Ethyl Benzene	1.4 mg/kg	94/ 8/22
	Xylenes	160 mg/kg — Haz Waste	94/ 8/22
94-A13496	Sample I.D. South Bottom Location Aero Foam Date Sampled/Collected 94/ 8/19 Total Purgeables C1 to C8	1600 mg/kg	94/ 8/22
	Benzene	8.5 mg/kg — + II	94/ 8/22
	Toluene	59. mg/kg + III	94/ 8/22
	Ethyl Benzene	11. mg/kg	94/ 8/22
	Xylenes	620 mg/kg — Haz waste	94/ 8/22
94-A13497	Sample I.D. East Wall Location Aero Foam Date Sampled/Collected 94/ 8/19 Total Purgeables C1 to C8	220 mg/kg	94/ 8/22
	Benzene	0.70 mg/kg	94/ 8/22
	Toluene	1.9 mg/kg	94/ 8/22
	Ethyl Benzene	0.76 mg/kg	94/ 8/22
	Xylenes	39. mg/kg	94/ 8/22

Chemist Signature *Paul Nicol*

Date *Aug 26/94*





**CHEMICAL ANALYSIS OF SOIL**

2

Lab. No.	Analyte	Results	Date Analysed
94-A13498	Sample I.D. West Wall		
	Location Aero Foam		
	Date Sampled/Collected 94/ 8/19		
	Total Purgeables C1 to C8		
	Benzene	400 mg/kg	94/ 8/22
	Toluene	< 0.5 mg/kg	94/ 8/22
94-A13499	Ethyl Benzene	3.9 mg/kg	94/ 8/22
	Xylenes	2.0 mg/kg	94/ 8/22
		48. mg/kg	94/ 8/22
			94/ 8/22
94-A13499	Sample I.D. North Bottom		
	Location Aero Foam		
	Date Sampled/Collected 94/ 8/19		
	Total Purgeables C1 to C8		
	Benzene	1000 mg/kg	94/ 8/22
	Toluene	4.4 mg/kg	94/ 8/22
94-A13500	Ethyl Benzene	9.0 mg/kg	94/ 8/22
	Xylenes	3.4 mg/kg	94/ 8/22
		160 mg/kg	94/ 8/22
			94/ 8/22
94-A13500	Sample I.D. North Wall		
	Location Aero Foam		
	Date Sampled/Collected 94/ 8/19		
	Total Purgeables C1 to C8		
	Benzene	280 mg/kg	94/ 8/22
	Toluene	< 0.5 mg/kg	94/ 8/22
94-A13500	Ethyl Benzene	2.1 mg/kg	94/ 8/22
	Xylenes	1.3 mg/kg	94/ 8/22
		14. mg/kg	94/ 8/22
			94/ 8/22

Chemist Signature Paul Nicolas Date Aug 26/94

C. 0621

September 26, 1994

Aero Foam Ltd.  
Box 5, Group 514  
R.R. 5  
Winnipeg, Manitoba  
R2C 2Z2

**Attention: Mr. Tom Smerchanski Jr.**

Dear Sir:

**RE: FORMER UNDERGROUND PETROLEUM FUEL STORAGE TANK SITE  
2485 DAY STREET SITE, WINNIPEG, MANITOBA**

This letter acknowledges receipt of testing results forwarded to Mr. Dale McEachern, Environment Officer at Manitoba Environment, by Western Petroleum Construction Ltd., for soil samples recovered during the removal of a single 5,000 gallon petroleum fuel storage tank from the aforementioned site.

The laboratory testing results indicate that excessively high concentrations of petroleum hydrocarbon compounds are present within in-situ soils in the immediate area of the former fuel storage tank. Specifically, concentrations detected fall into the Hazardous Waste criteria (ie. greater than 100 ppm) for xylenes in the South Wall (160 ppm), South Bottom (620 ppm), and North Bottom (160 ppm) soil samples. The remaining samples contain concentrations of petroleum hydrocarbon compounds which fall into the Level II to Level III Remediation Criteria for Soils, cited within the Manitoba Environment Guidelines for the Environmental Investigation and Remediation of Petroleum Storage Sites in Manitoba (July, 1993).

It is the position of Manitoba Environment, therefore, that you conduct the following operations at the former petroleum storage tank site:

- retain the services of a qualified environmental consultant in order to conduct a detailed subsurface investigation which will delineate the areal and vertical extent of soil and/or groundwater contamination with petroleum hydrocarbons emanating from the subject site.
- submit a copy of the consultant's report to Manitoba Environment which summarizes the results of the investigation conducted. The report should include options for site remedial actions, as required.
- the investigation should be conducted immediately, with a copy of the consultant's report submitted to this office no later than October 30, 1994.

Until such time that the aforementioned site investigation is conducted and the report and/or required remedial actions are completed to the satisfaction of Manitoba Environment, the subject property will be classified as a contaminated site. For your convenience, Manitoba Environment has enclosed a copy of the list of approved consultants who are capable of conducting the required investigation.

It should be understood that the position of Manitoba Environment as stated in this letter, is based upon information provided by Western Petroleum Construction Ltd., and relates only to the matters within the scope of the soil sampling and testing conducted. No additional site investigative work has been conducted by Manitoba Environment.

Should you have any questions or require further assistance in this matter, please contact the undersigned.

Sincerely,



Rick M. Lemoine, M.Sc., P.Geol.  
Environment Officer  
Dangerous Goods  
Winnipeg Region

Enclosure