4040-BA04-1

CANADIAN TURBO (1993) INC.
[redacted] Floor, 630 - 4th Avenue S.W.
Calgary, Alberta, Canada T2P 0J9
Telephone: 403-294-6400
Facsimile: (Direct) 403-294-6573

April 17, 1996

RECEIVED
APR 22 1996

Alberta Environmental Protection
Groundwater Protection Branch
Room 279, Provincial Building
200 - 5th Avenue South
Lethbridge, Alberta T1J 4C7

Attention: Mr. Don Wyrostock

Dear Don:

Re: Barons Bulk Station #2520
235 Main Street, Baron, AB

Please find enclosed a copy of the "Soil Vapour Probe Survey Delineation" dated October 17th - 20th, 1992 prepared by Hazmacon project no. TRB-097 and a "Site Investigation" dated September 17, 1993 prepared by Seacor Environmental Engineering Inc. job no. H0031-093 on the above site. As these reports are confidential in nature, Turbo requests that Alberta Environmental Protection make all reasonable efforts to protect this confidentiality. Turbo requests that these reports not be copied, reproduced or disclosed to any party.

If you have any question and/or concerns, please feel free to call me at (403) 294 - 6463.

Yours very truly,

CANADIAN TURBO (1993) INC.

Bradley Mersereau, P. Eng.
Health Safety and Environment

Enclosures: "Soil Vapour Probe Survey"
Dated: October 17th - 20th, 1992
Prepared by: Hazmacon

"Site Investigation"
Dated: September 17, 1993
Prepared by: Seacor Environmental Engineering Inc.

Alberta
ENVIRONMENT
Environmental Protection Services
Wastes and Chemicals Division
Groundwater Protection Branch

Box 3014, Cousins Building, Lethbridge, Alberta, Canada T1J 4B3 403/381-5456

March 1, 1993

OUR FILE #: 4040-BA04
PCD FILE #: 110201

Canadian Turbo Inc.
815 - 8 Ave. S. W.
Calgary, Alberta
T2P 3P2

ATTENTION: MR. KEITH MADSEN, P. ENG.

Dear Keith:

RE: BARONS BULK STATION (CURLE'S AGRI SERVICES)

I have reviewed the Hazmacon Environmental Services Inc. soil vapour probe survey report. The vapour survey indicated that some spillage has occurred near the pump island location and loading ramp area. At this time, it appears that on and off site impact is not serious. It appears that impact to the Hardware store could occur if spillage or leakage near the pump islands continues.

The evaluation presented in this letter is not intended to absolve Canadian Turbo Inc. from the potential for future liability for remediating this site in situations where either the land use may change or additional concerns arise from the contaminants remaining on or off site.

Please feel free to give me a call if you wish further discussion concerning the Barons Turbo Bulk station.

Yours truly,

DON WYROSTOCK
TECHNOLOGIST

cc: Peter Schonekess
Brian Dalshaug - Barons-Eureka- Warner Health Unit

DW/tlm

MAILED 3/5/93

CANADIAN TURBO INC.
815 - 8th Avenue S.W
Calgary, Alberta, Canada T2P 3P2
Telephone: 403-294-6400
Fax: 403-294-6573

TURBO

DEC - 4 1992
DEPT. 20

December 2, 1992

Mr. Don Wyrostock
Alberta Environment
Groundwater Protection Branch
P.O. Box 3014
Cousins Building, Lethbridge Community College
Lethbridge, Alberta T1J 4C7

Dear Don :

Re: BARONS BULK STATION (CURLE'S AGRI SERVICE)

Please find enclosed a copy of the Hazmacon site assessment report entitled:

Soil Vapour Probe Survey Delineation
Curle's Agri Service
Canadian Turbo Inc.
Bulk Station Facility
Lots 21-27, Block 6,

If you have any questions or concerns please feel free to call me at (403) 294-6524.

Yours very truly,

CANADIAN TURBO INC.

Keith Madsen, P. Eng.
Field Services Engineer

cc: Brad Mersereau

040-6A04

HAZMACON

Environmental Services Inc.

SOIL VAPOUR PROBE SURVEY

DELINEATION

PROJECT # TRB-097

CURLE'S AGRI SERVICE

CANADIAN TURBO INC.

BULK STATION FACILITY

LOTS 21-27, BLOCK 6, PLAN 2605X

BARONS, ALBERTA

Project Date: October 17th - 20th, 1992

Prepared For: Mr. Keith Madsen, P.Eng., Field Services Engineer
Canadian Turbo Inc.
815-8th Avenue, S.W.
Calgary, Alberta
T8A-2A6

P.O. Box 3179 Sherwood Park Alberta, T8A-2A6
Edmonton, Telephone: (403) 461-0049
Calgary, Telephone: (403) 239-963
Toronto, Telephone: (416) 771-9313
Ventura, Ca., Telephone: (805) 648-1195

Introduction

HAZMACON Environmental Services Inc., was contracted to perform a Soil Vapour Probe Delineation program at Canadian Turbo's Bulk Station facility in Barons Alberta known as Curle's Agri Centre. The street address of the site is 235 Main Street, Barons Alberta and the current proprietor is Mr. Phil Curle. The delineation project was carried out during October 17th to 20th, 1992 by Mr. Brian Buoy and Mr. Barry St. Croix of HAZMACON Environmental Services Inc.

Table of Contents

Site Description

Canadian Turbo's Bulk Station in Barons Alberta, is known as Curle's Agri Centre and has the street address of 235 Main Street Barons Alberta. The legal location is Lots 21-27, Block 6, Plan 2605X. The site is very large and has an area of approximately 5,147 square metres (181,763 square feet) with dimensions of approximately 107.9 by 47.7 metres. This land size relates to about 1.3 acres.

There are 7 above ground fuel storage tanks enclosed in an 18 inch high concrete berm situated at the east side of the property. Near the south side of the berm is the on/off loading ramp area. To the west of the tanks location, at a distance of 60 metres, is the Barons Hardware Store in front of which are two fuel pumps. Aut-Utilities service corridor intersects the property from the north property line through the site at a point between the office building and the warehouse. According to the proprietor, the two very long runs of buried product lines which run from the storage tank area to the two pump islands are from different points of origin. The gasoline line runs out from the south side of the tank area and then leads west to the pump island and the second a diesel line, runs out of the north side of the berm and across to the pump island.

To the north of the site and across the service alley is a residential housing area. To the east across the street is a church and to the south across main street is a manufacturing business. The nearest fresh water body is Keho Lake, approximately 8 to 10 kilometres away.

Site Sampling Plan

The site specific plan began with Soil Vapour Probes taken around the above ground storage tanks at the bulk station followed by testing along the diesel line leading from the bulk tanks to the pumps in front of the Hardware with plume delineation around the pumps. Next, probes were done along the gasoline line to the pumps in front of the Hardware. Two areas of hydrocarbon concentrations were discovered. These were at the south of the bermed area at the on/off loading site at the pump area near the Hardware. Both these areas were delineated. The areas between the tanks to the Hardware were also checked.

APPENDIX A, SOIL VAPOUR PROBE RESULTS

TRB-097
Soil Vapour Probe Results
Barons Turbo Bulk Station
Curle's Agri Centre
October 1992

HOLE NUMBER	DEPTH (METRES)	READING (PPM)	COORDINATES
#1	1.0 metre	2 ppm	100.7, 29.0
	1.5 metres	1 ppm	
	2.0 metres	0 ppm	
#2	0.5 metre	2 ppm	100.7, 17.0
	1.0 metre	3 ppm	
	1.5 metres	3 ppm	
	2.o metres	4 ppm	
#3	1.0 metre	15 ppm	92.5, 23.0
	1.5 metres	21 ppm	
	2.0 metres	6 ppm	
#4	0.5 metre	2 ppm	80.5,30.4
	1.0 metre	1 ppm	
	1.5 metres	120 ppm	
	2.0 metres	11 ppm	
#5	0.5 metre	6 ppm	80.5, 17.0
	1.0 metre	10 ppm	
	1.5 metres	25 ppm	
	2.0 metres	7 ppm	

TRB-097
Soil Vapour Probe Results
Barons Turbo Bulk Station
Curle's Agri Centre
October 1992

HOLE NUMBER	DEPTH (METRES)	READING (PPM)	COORDINATES
#6	1.0 metre	65 ppm	85.8, 17.0
	1.5 metres	220 ppm	
	2.0 metres	110 ppm	
#7	0.5 metre	1,200 ppm	81.9, 12.2
	1.5 metres	>25,000 ppm	
	2.0 metres	25,000 ppm	
#8	1.0 metre	5 ppm	74.2, 12.4
	1.5 metres	2 ppm	
	2.0 metres	10 ppm	
#9	1.0 metre	1 ppm	60.2, 13.2
	1.5 metres	5 ppm	
	2.0 metres	32 ppm	
#10	1.0 metre	5 ppm	48.7, 13.2
	2.0 metres	5 ppm	
#11	0.5 metre	4,000 ppm	32.5, 11.7
	1.0 metre	4,150 ppm	
	1.5 metres	6,500 ppm	
	2.0 metres	6,000 ppm	

TRB-097
Soil Vapour Probe Results
Barons Turbo Bulk Station
Curle's Agri Centre
October 1992

HOLE NUMBER	DEPTH (METRES)	READING (PPM)	COORDINATES
#12	0.5 metre	>25,000 ppm	29.5, 11.7
	0.7 metre	obstruction	
#13	0.5 metre	900 ppm	28.8, 8.3
	1.0 metre	2,200 ppm	
	1.5 metres	>25,000 ppm	
	2.0 metres	>25,000 ppm	
#14	2.0 metres	2,500 ppm	21.0, 12.0
	2.5 metres	>25,000 ppm	
	3.0 metres	300 ppm	
#15	0.5 metre	1,200 ppm	24.3, 3.6
	1.0 metre	1,250 ppm	
#16	0.5 metre	1 ppm	70.9, 24.3
	1.0 metre	1 ppm	
	1.5 metres	0 ppm	
	2.0 metres	1 ppm	
#17	1.0 metre	1 ppm	60.5, 25.0
	1.5 metres	10 ppm	
	2.0 metres	1 ppm	

TRB-097
Soil Vapour Probe Results
Barons Turbo Bulk Station
Curle's Agri Centre
October 1992

HOLE NUMBER	DEPTH (METRES)	READING (PPM)	COORDINATES
#18	0.5 metre	1 ppm	55.3, 22.5
	1.0 metre	1 ppm	
	1.5 metres	6 ppm	
	2.0 metres	8 ppm	
#19	1.0 metre	0 ppm	47.4, 24.4
	1.5 metres	0 ppm	
	2.0 metres	0 ppm	
#20	1.0 metre	1 ppm	41.6, 20.0
	1.5 metres	2 ppm	
	2.0 metres	1 ppm	
#21	2.0 metres	560 ppm	27.1, 16.5
	2.5 metres	30 ppm	
	3.0 metres	3 ppm	
#22	1.0 metre	5 ppm	33.6, 20.0
	1.5 metres	8 ppm	
	2.0 metres	22 ppm	
#23	1.0 metre	600 ppm	33.6, 8.5
	1.5 metres	1,500 ppm	
	2.0 metres	1,300 ppm	

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
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TRB-097
Soil Vapour Probe Results
Barons Turbo Bulk Station
Curle's Agri Centre
October 1992

HOLE NUMBER	DEPTH (METRES)	READING (PPM)	COORDINATES
#24	1.0 metre	1 ppm	17.3, 16.5
	1.5 metres	1 ppm	
	2.0 metres	2 ppm	
#25	1.0 metre	3 ppm	18.8, 8.9
	1.5 metres	8 ppm	
	2.0 metres	2 ppm	
#26	1.0 metre	4,500 ppm	26.3, 11.2
	2.0 metres	>25,000 ppm	
	2.5 metres	>25,000 ppm	
	3.0 metres	>25,000 ppm	
#27	1.0 metre	12,000 ppm	29.1, 3.6
	1.5 metres	17,500 ppm	
	2.0 metres	15,000 ppm	
#28	1.0 metre	550 ppm	33.9, 0.9
	1.5 metres	950 ppm	
	2.0 metres	1,400 ppm	
#29	0.5 metre	200 ppm	36.4, 4.7
	1.0 metre	240 ppm	
	1.5 metres	800 ppm	
	2.0 metres	600 ppm	

TRB-097
Soil Vapour Probe Results
Barons Turbo Bulk Station
Curle's Agri Centre
October 1992

HOLE NUMBER	DEPTH (METRES)	READING (PPM)	COORDINATES
#30	0.5 metre	2,100 ppm	26.6, 0.6
	1.0 metre	2,400 ppm	
	1.5 metres	3,000 ppm	
	2.0 metres	1,200 ppm	
#31	0.5 metre	1 ppm	15.2, 13.0
	1.0 metre	1 ppm	
	1.5 metres	2 ppm	
	2.0 metres	7 ppm	
#32	1.0 metre	7,000 ppm	22.7, 14.2
	1.5 metres	6,800 ppm	
	2.0 metres	10,900 ppm	
	3.0 metres	5,500 ppm	
	3.5 metres	7,200 ppm	
	4.0 metres	10,500 ppm	
#33	0.5 metre	4,500 ppm	86.1, 11.7
	1.0 metre	10,000 ppm	
	1.5 metres	17,500 ppm	
	2.0 metres	15,000 ppm	
#34	1.0 metre	6 ppm	81.7, 8.8
	1.5 metres	65 ppm	
	2.0 metres	32 ppm	

TRB-097
Soil Vapour Probe Results
Barons Turbo Bulk Station
Curle's Agri Centre
October 1992

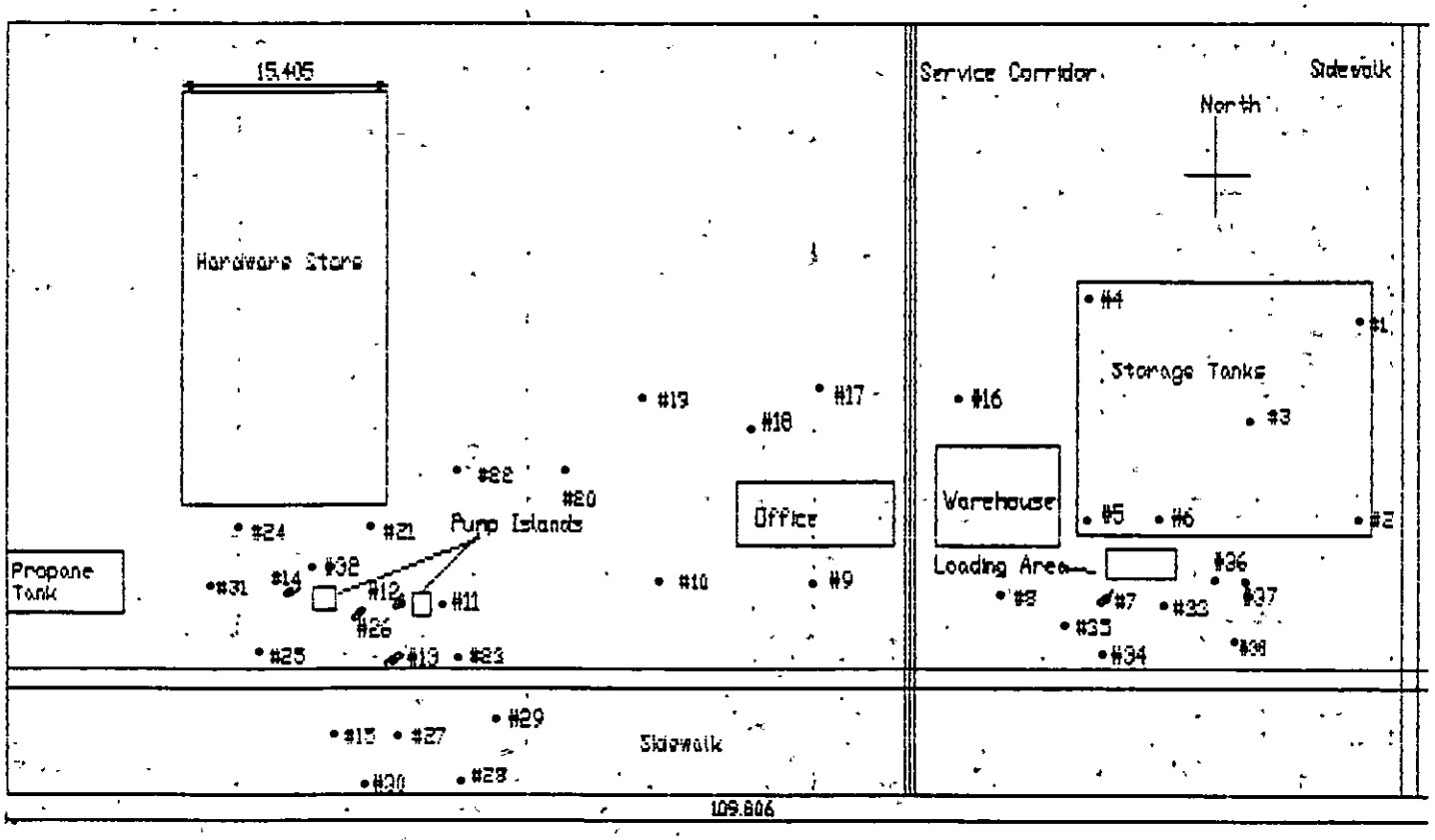
HOLE NUMBER	DEPTH (METRES)	READING (PPM)	COORDINATES
#35	0.5 metre	270 ppm	78.8, 10.5
	1.0 metre	280 ppm	
	1.5 metres	190 ppm	
	2.0 metres	150 ppm	
#36	1.5 metres	9,500 ppm	89.9, 13.3
	2.0 metres	5 ppm	
#37	1.0 metre	300 ppm	92.1, 13.3
	1.5 metres	1,400 ppm	
	2.0 metres	1,500 ppm	
#38	1.0 metre	8 ppm	91.4, 9.6
	1.5 metres	10 ppm	
	2.0 metres	6 ppm	

APPENDIX B, SITE PLAN AND CONTOUR MAP

TRB-097
SITE PLAN AND SOIL VAPOUR PROBE TEST POINTS
CANADIAN TURBO INC.
CURLE'S AGRI SERVICE
BARONS ALBERTA

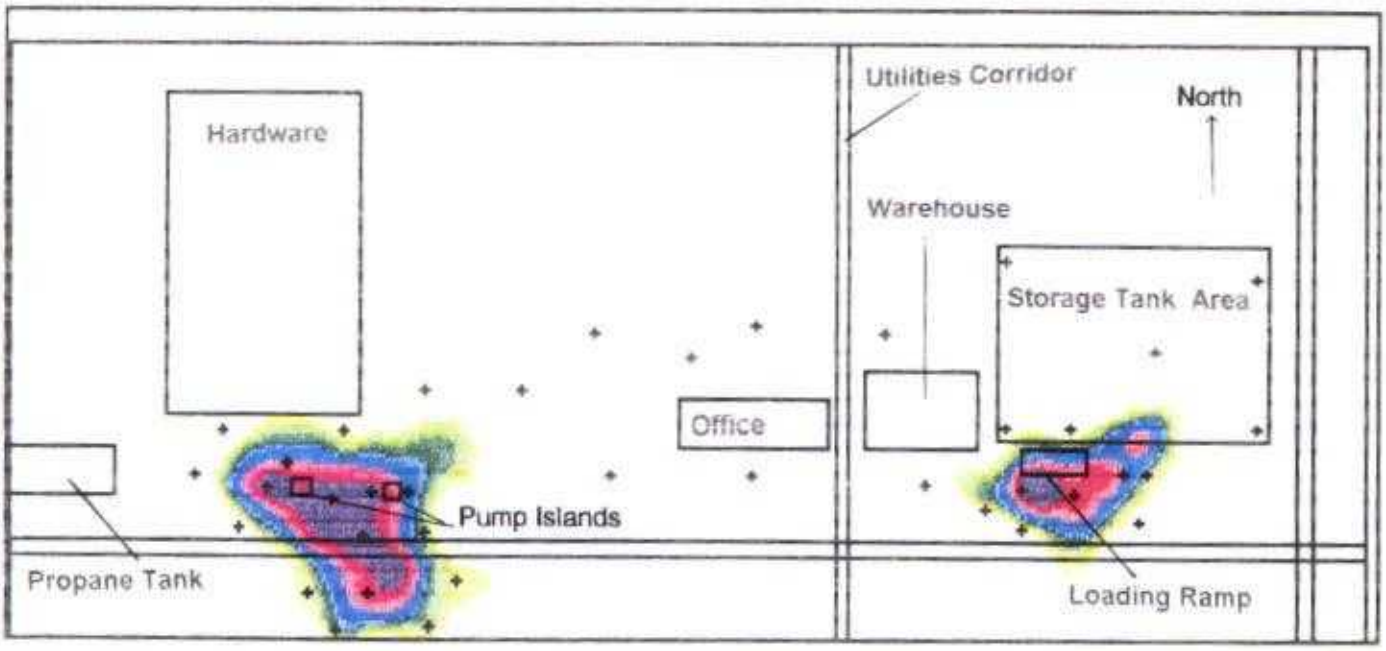
Scale: 1 cm = 5.7 metres

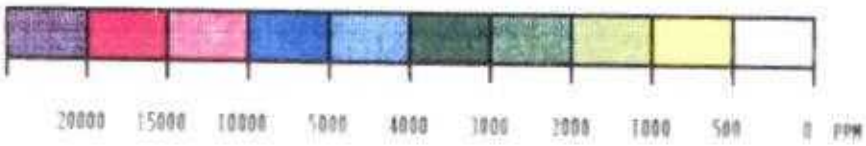
SOIL VAPOUR PROBE SURVEY - BARONS



TRB-097
SOIL VAPOUR PROBE CONTOUR PLOT, TOTAL SITE
CANADIAN TURBO INC.
CURLE'S AGRI SERVICE
BARONS ALBERTA

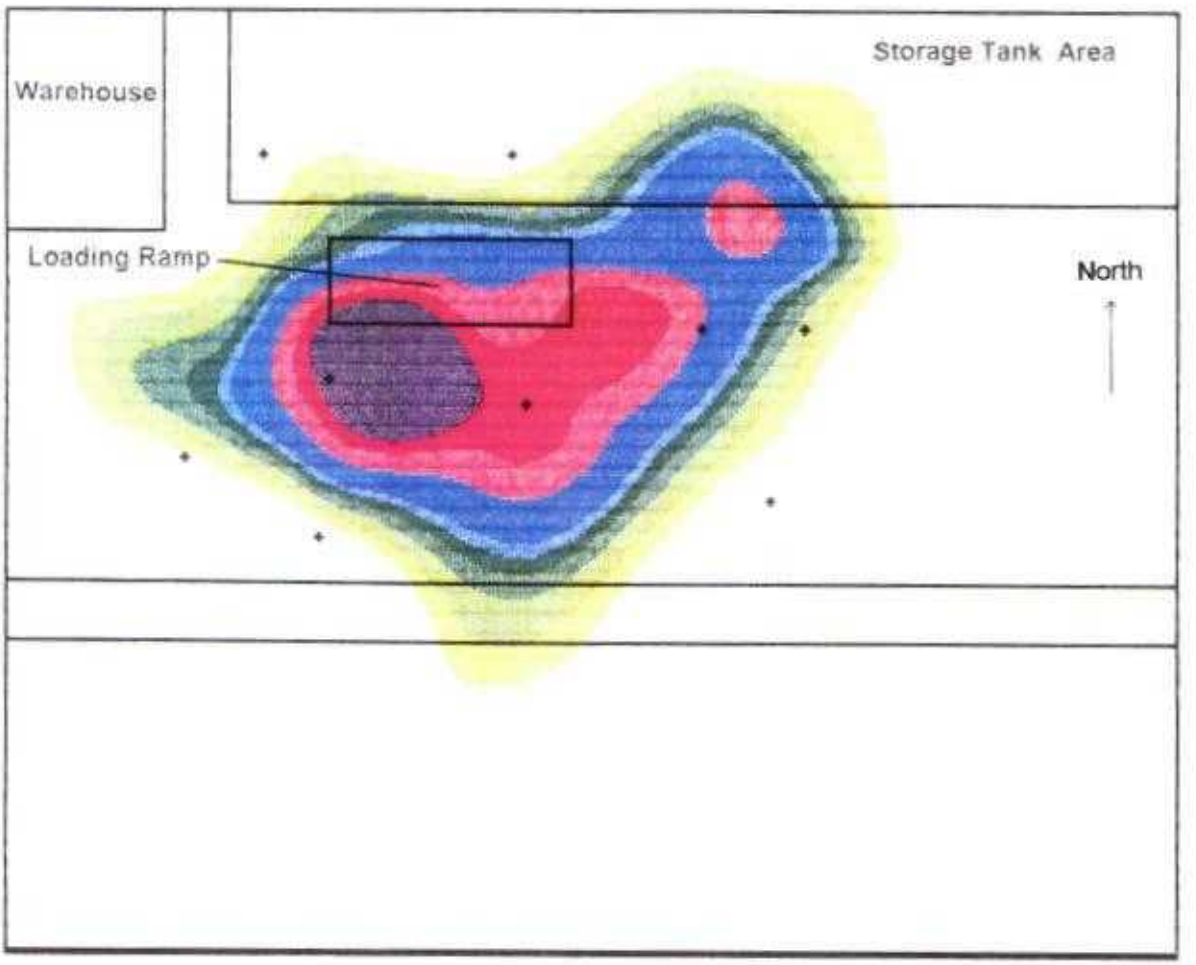
Scale: 1 cm = 7.0 metres

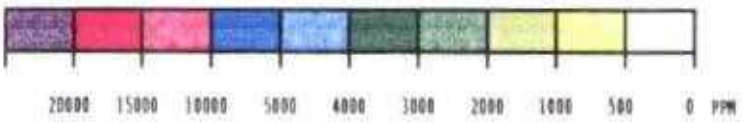




TRB-097
SOIL VAPOUR PROBE CONTOUR PLOT, ON/OFF LOADING AREA, MAGNIFICATION
CANADIAN TURBO INC.
CURLE'S AGRI SERVICE
BARONS ALBERTA

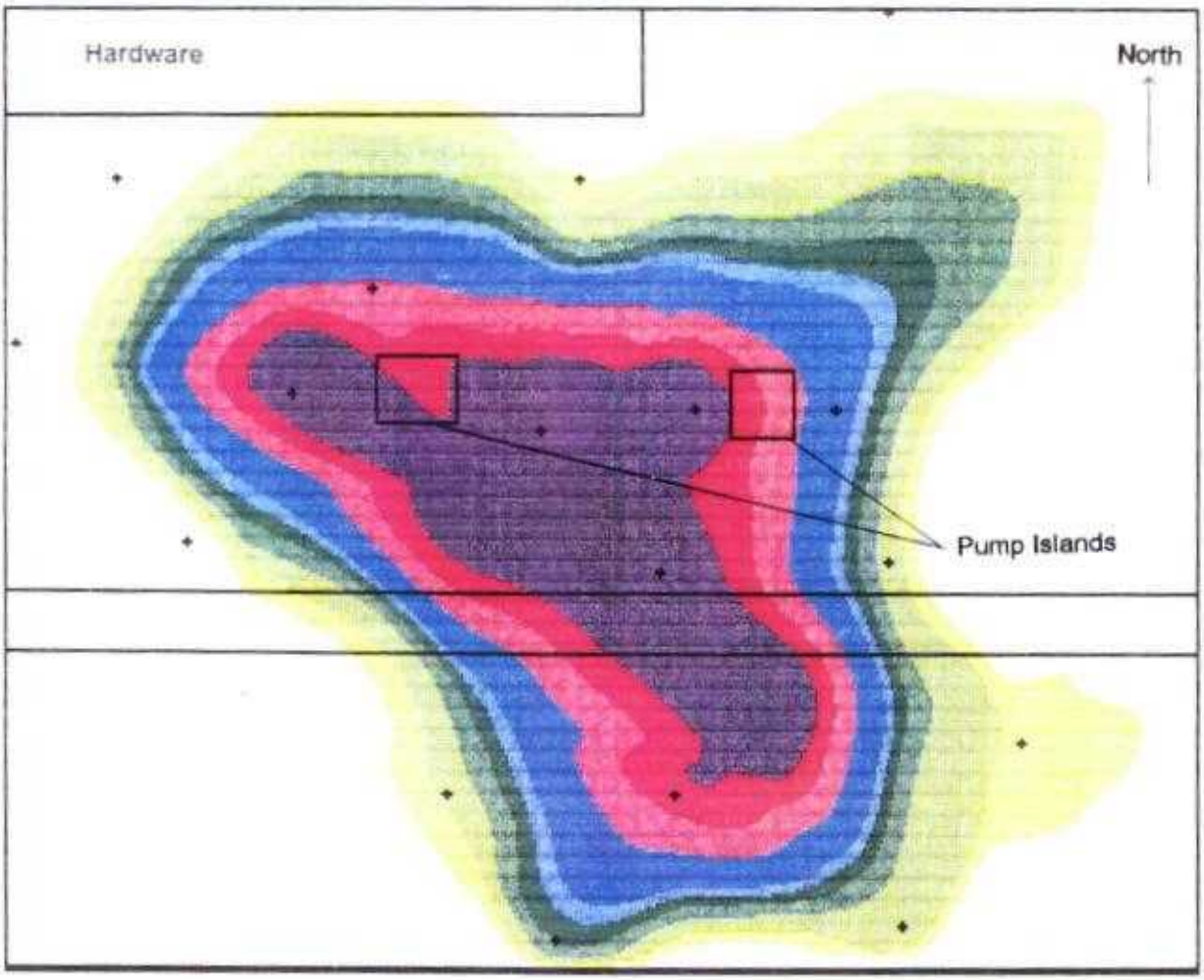
Scale: 1 cm = 1.4 m

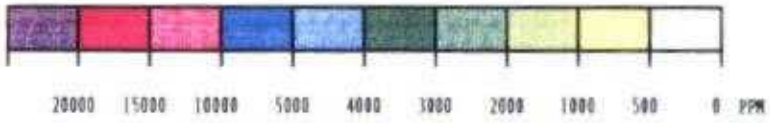




TRB-097
SOIL VAPOUR PROBE CONTOUR PLOT, PUMP ISLAND AREA, MAGNIFICATION
CANADIAN TURBO INC.
CURLE'S AGRI SERVICE
BARONS ALBERTA

Scale: 1 cm = 1.5 m





APPENDIX C, CHROMATOGRAMS AND DISCUSSION

Chromatograms and Discussion

The results of the survey indicate two areas of contaminant concentration. The first is at the off/on loading area at the south side of the tank area and at the pump islands south of the Hardware store. Four chromatograms were performed at the location. Each scan showed hydrocarbon species of the volatile to mid volatile range with backflush (heavier) material present.