

COPY

Minnesota Pollution Control Agency

October 7, 1997

Mr. Ellsworth Jackson
701 36th Drive SW
Austin, Minnesota 55912

SCANNED

RE: Petroleum Tank Release Site File Closure
Site: Steer Truck Stop, 3401 West Oakland Avenue, Austin
Site ID#: Leak00008578

Dear Mr. Jackson:

We are pleased to inform you that the Minnesota Pollution Control Agency (MPCA) Tanks and Emergency Response Section (TERS) has determined that your investigation and/or cleanup has adequately addressed the petroleum tank release at the site listed above. Based on the information provided, the TERS has closed the release site file.

Closure of the file means that the TERS requires no additional investigation and/or clean-up work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this site. However, the TERS has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment.

The MPCA reserves the right to reopen this file and to require additional investigation and/or clean-up work if new information or changing regulatory requirements make additional work necessary. If you or other parties discover additional contamination (either petroleum or non-petroleum) that was not previously reported to the MPCA, Minnesota law requires that the MPCA be immediately notified.

You should understand that this letter does not release any party from liability for the petroleum contamination under Minn. Stat. ch. 115C (1996) or any other applicable state or federal law. In addition, this letter does not release any party from liability for non-petroleum contamination, if present, under Minn. Stat. ch. 115B (1996), the Minnesota Superfund Law.

The monitoring wells for this site should be abandoned in accordance with the Minnesota Department of Health Well Code, Chapter 4725. If you choose to keep the monitoring wells, the Minnesota Department of Health will continue to assess a maintenance fee for each well.

Mr. Ellsworth Jackson
Page 2
October 7, 1997

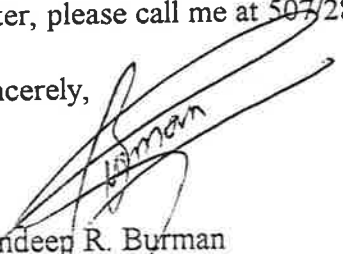
Because you performed the requested work, the state may reimburse you for a major portion of your costs. The Petroleum Tank Release Cleanup Act establishes a fund which may provide partial reimbursement for petroleum tank release clean-up costs. This fund is administered by the Department of Commerce Petro Board. Specific eligibility rules are available from the Petro Board at 612/297-1119 or 612/297-4203.

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present. If petroleum contamination is encountered during future development work, the MPCA should be notified immediately.

For specific information regarding petroleum contamination that may remain at this leak site, please call the TERS File Request Program at 612/297-8499. The MPCA fact sheet #3.35, "*Leak/Spill and Underground Storage Tank File Request Form*" (April 1996), must be completed prior to arranging a time for file review.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment. If you have any questions regarding this letter, please call me at 507/280-2996.

Sincerely,



Sandeep R. Burman
Hydrogeologist
Southeast Region
Tanks and Emergency Response Section

SRB/ml

cc: Patrick McGarvey - City Administrator, Austin
D. Wilson - Fire Chief, Austin
Bill Buckley - Mower County Environmental Health Department, Austin
Matthew S. Stevens - Northern Environmental Technologies, Inc., New Brighton
Petrofund Section - Minnesota Department of Commerce, St. Paul

RECEIVED

SEP 10 1997

MPCA
Rochester

**QUARTERLY MONITORING REPORT
(1997, Quarter No. 2)**

**Steer Truck Stop
3401 West Oakland Avenue
Austin, Minnesota 55912**

MPCA LEAK LUST # 8578

September 4, 1997

September 4, 1997
(CMG235084)

Mr. Ellsworth Jackson
701 36th Drive Southwest
Austin, Minnesota 55912

RE: 1997 2nd Quarter Report; Steer Truck Stop, 3401 West Oakland Avenue, Austin, Minnesota.

Dear Mr. Jackson:

Northern Environmental Technologies, Incorporated (Northern Environmental) has prepared this report as required by the Minnesota Pollution Control Agency (MPCA). Ground-water monitoring continues at the Steer Truck Stop, located at 3401 West Oakland Avenue, Austin Minnesota (hereafter referred to as "the Property") (Figure 1). The monitoring results are described in this report.

DESCRIPTION OF REMEDIAL ACTIVITIES

Monitoring Well Surveying

On August 4, 1997, the reference elevation of monitoring RW1A was determined from the existing site datum. Monitoring well RW1A was installed in November 1996 and replaced RW1 which was accidentally removed by a contractor during excavation activities that occurred in June 1996. Monitoring RW1A was installed proximate to the location of former RW1 (Figure 2) and was completed flush grade to a depth of approximately 14 feet below grade.

Ground-Water Monitoring

Historical background information and activities occurring prior to February 1996 are described in Northern Environmental's report entitled "Remedial Investigation and Corrective Action Design Report," (January 2, 1996).

Ground-water monitoring activities conducted on June 17, 1997 included measurement for product presence and thickness, depth to ground-water measurements, and ground-water purging and sampling from all monitoring wells.

Detailed descriptions of the methods used to conduct ground-water monitoring and conform to procedures outlined in Minnesota Pollution Control Agency (MPCA) January 1995, "Ground Water Sampling Guidance." Ground-water quality samples were collected from wells RW1A, RW2, and RW3 and submitted under chain-of-custody to Spectrum Labs, Incorporated. The samples were analyzed for gasoline range organics (GRO) and benzene, ethyl benzene, toluene, and xylenes (BETX). In addition, a quality assurance (QA) sample labeled "Trip Blank" was analyzed for these same compounds.

SUMMARY OF FINDINGS/DISCUSSION

Ground-Water Elevations

Ground-water elevation measurements observed during ground-water sampling at RW1A, RW2, and RW3 were 4.85 feet bg, 4.05 feet bg, and 4.97 feet bg, respectively. Ground-water flow direction appears to be northwest under an approximate hydraulic gradient of .0037 ft/ft. This apparent flow direction appears to be consistent with historical ground-water measurements and flow directions.

Recent and historical ground-water elevation data is summarized on Table 1 and illustrated on Figure 3. Apparent ground-water flow direction is presented on Figure 6.

Ground-Water Analytical Results

Ground-water analytical results from RW1A, RW2, and RW3 indicated that BETX and GRO compounds were present. Benzene concentrations at RW1A (1,300 $\mu\text{g/l}$) exceeded State Health Risk Limits (HRLs) of 10 $\mu\text{g/l}$. Laboratory analyses indicated GRO concentrations at RW1A, RW2, and RW3 were 3,800 $\mu\text{g/l}$, 150 $\mu\text{g/l}$ and 290 $\mu\text{g/l}$, respectively. Historical laboratory results at the property are summarized on Table 2. A completed copy of MPCA Factsheet # 7, "Site Monitoring Worksheet" summarizing this periods monitoring results is included in Appendix B. A copy of the laboratory report and chain-of-custody form is presented in Appendix C.

Figure 4 represents historic benzene concentrations versus time at RW1/RW1A and reflects a flattening out of the benzene concentration at this monitoring point. Historical benzene concentrations at RW1/RW1A remain above the Minnesota Department of Health (MDH) Health Risk Limit (HRL) of 10 $\mu\text{g/L}$. Figure 5 reflects a consistent downward trend in the benzene concentration at RW3 since May of 1996. During the second quarter sampling period, the benzene concentration at RW3 is below the 10 $\mu\text{g/L}$ HRL value for this compound.

Site Closure/Recommendation

Based on monitoring results, the MPCA may conditionally close this site. However, Northern Environmental recognizes that there is residual contamination above MPCA cleanup levels and therefore, may require a corrective action plan in the future. If you wish to pursue closure, be advised that a "no further action recommendation" does not eliminate potential liability.

We trust this information meets your needs. Please feel free to contact us if you have any questions or comments.

Sincerely,
**Northern Environmental
Technologies, Incorporated**



**Matthew S. Stevens
Senior Project Manager**

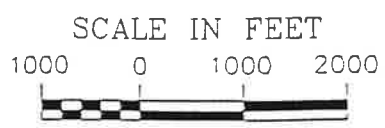
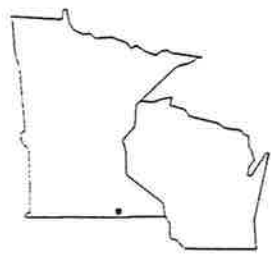
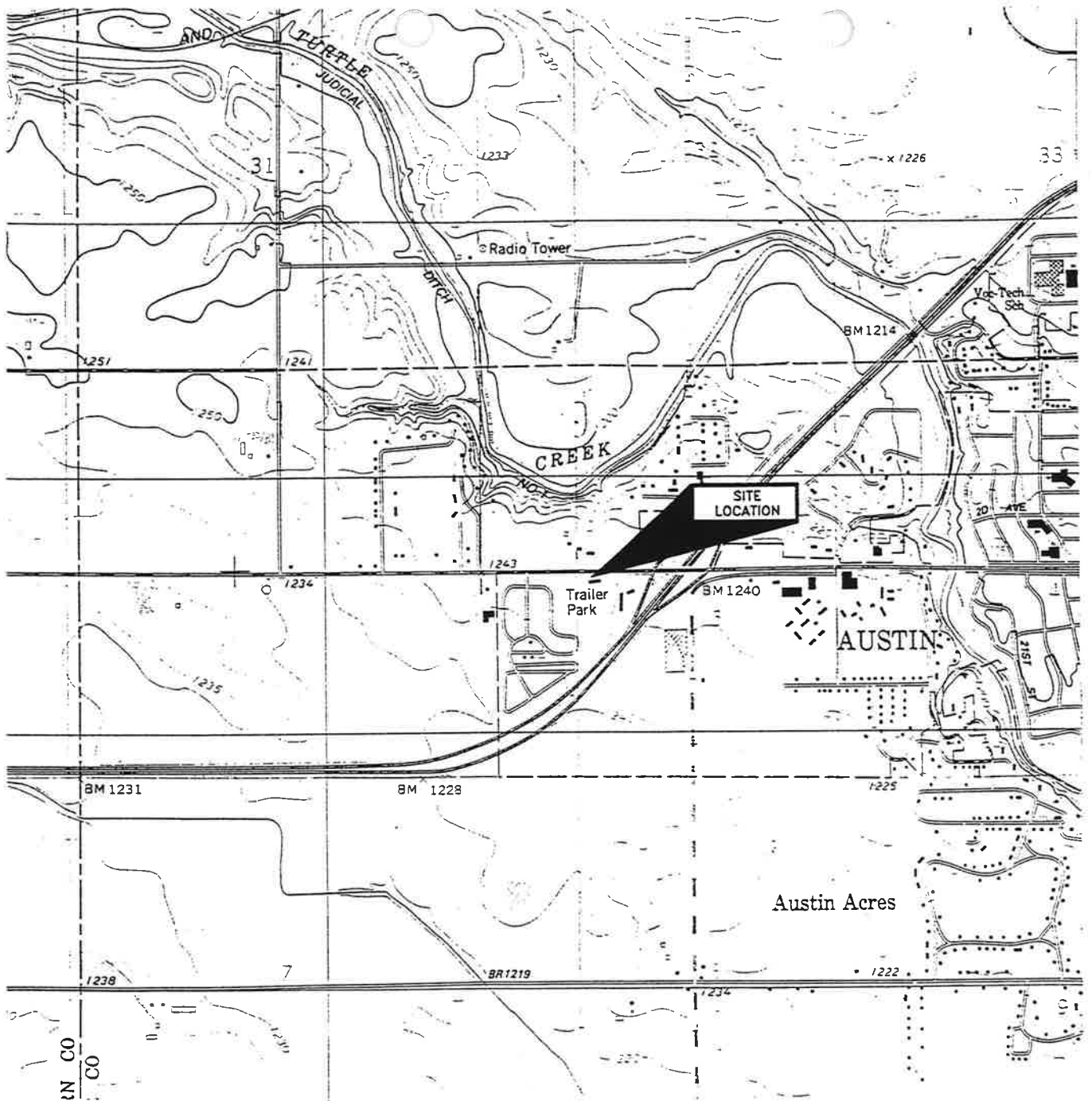
MSS/tcs/njf

Attachments

cc: Sandeep Burman, MPCA

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S:\PROJ\CMG\235084\REPORTS\QTRLY\1997\QTR2.WPD



BASE MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE - AUSTIN WEST, MINNESOTA

DRAWN BY: CPP		PROJECT: CMG235084	DATE: 01/13/97	BIG STEER AUSTIN, MINNESOTA
REV. DATE	THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF NORTHERN ENVIRONMENTAL INCORPORATED AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS EXPRESSLY FURNISHED.			
				SITE LOCATION AND LOCAL TOPOGRAPHY

FIGURE 1

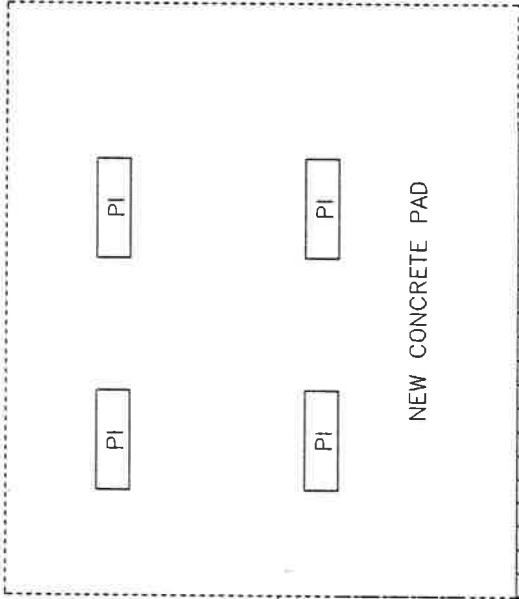
DITCH

RW-2

FORMER KEROSENE AST

RW-3

LP GAS AST



RW-1A

FORMER RW-1

FORMER USTS

NEW CONCRETE PAD

PI

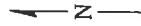
PI

PI

PI

FORMER DIESEL UST

BUILDING



SCALE

REV:

DRAWN BY: CPP PROJECT: CMG235084 DATE: 01/10/97

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BIG STEER
AUSTIN, MINNESOTA

SITE LAYOUT

Ground-Water Monitoring Well Hydrograph

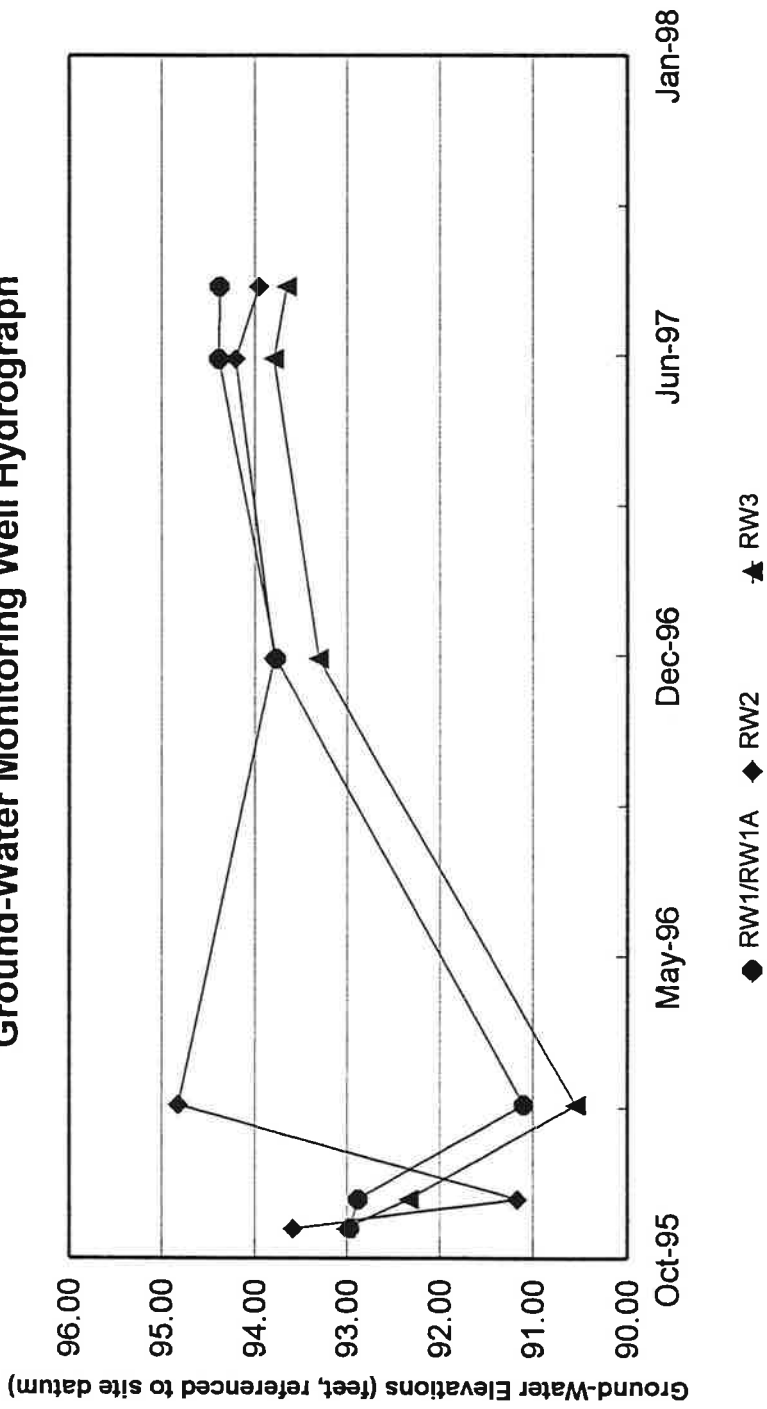
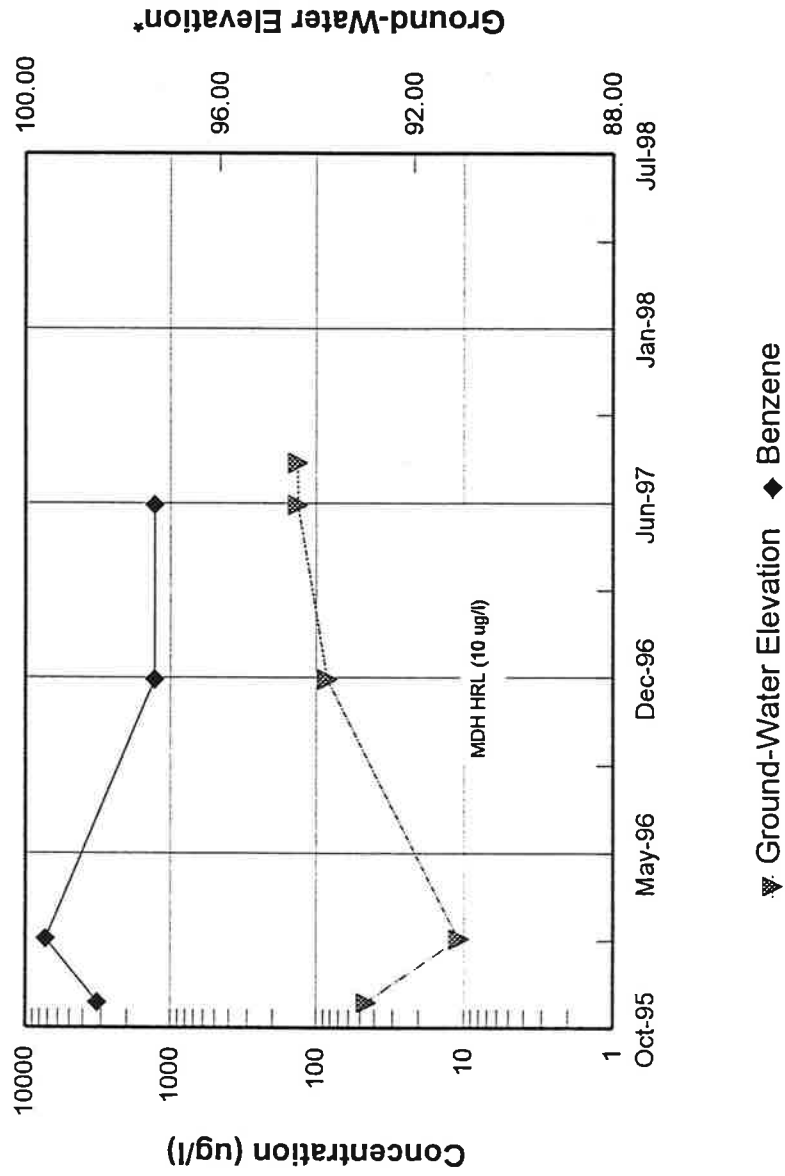


FIGURE 3

S:\proj\mg035084\ahh\h1\hydrograph1.mxd

Monitoring Well RW1/RW1A Benzene Concentration and Ground-Water Elevation



Note: * = Ground-water elevations referenced to site datum.

FIGURE 4

Monitoring Well RW3 Benzene Concentration and Ground-Water Elevation

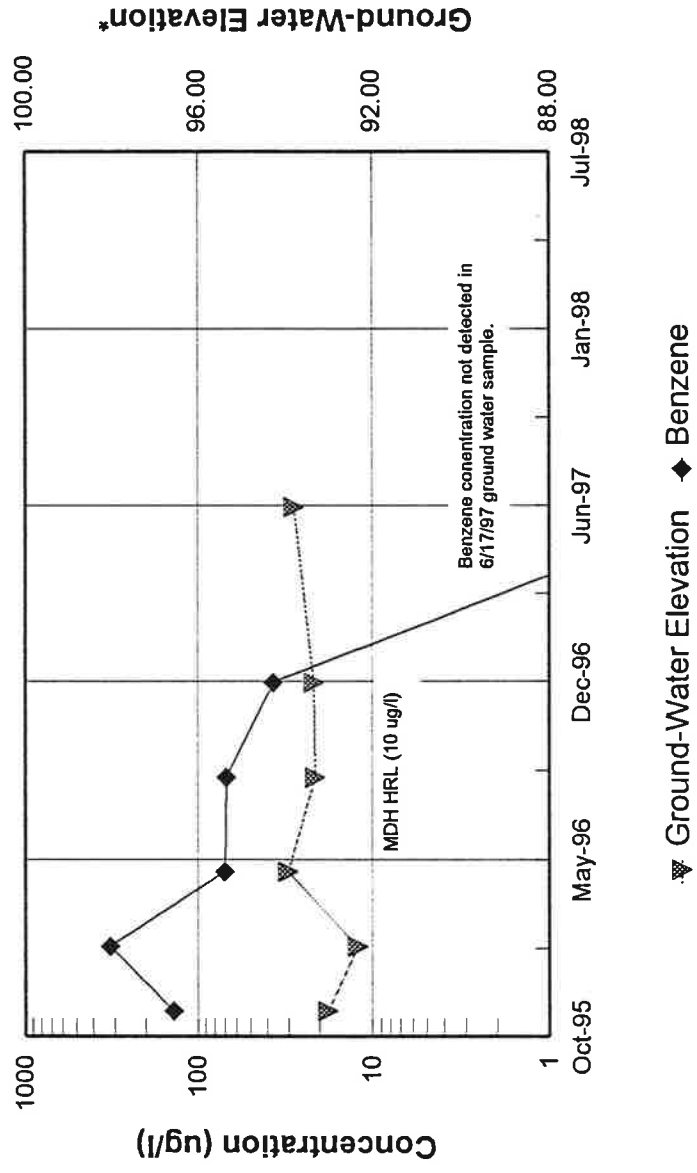
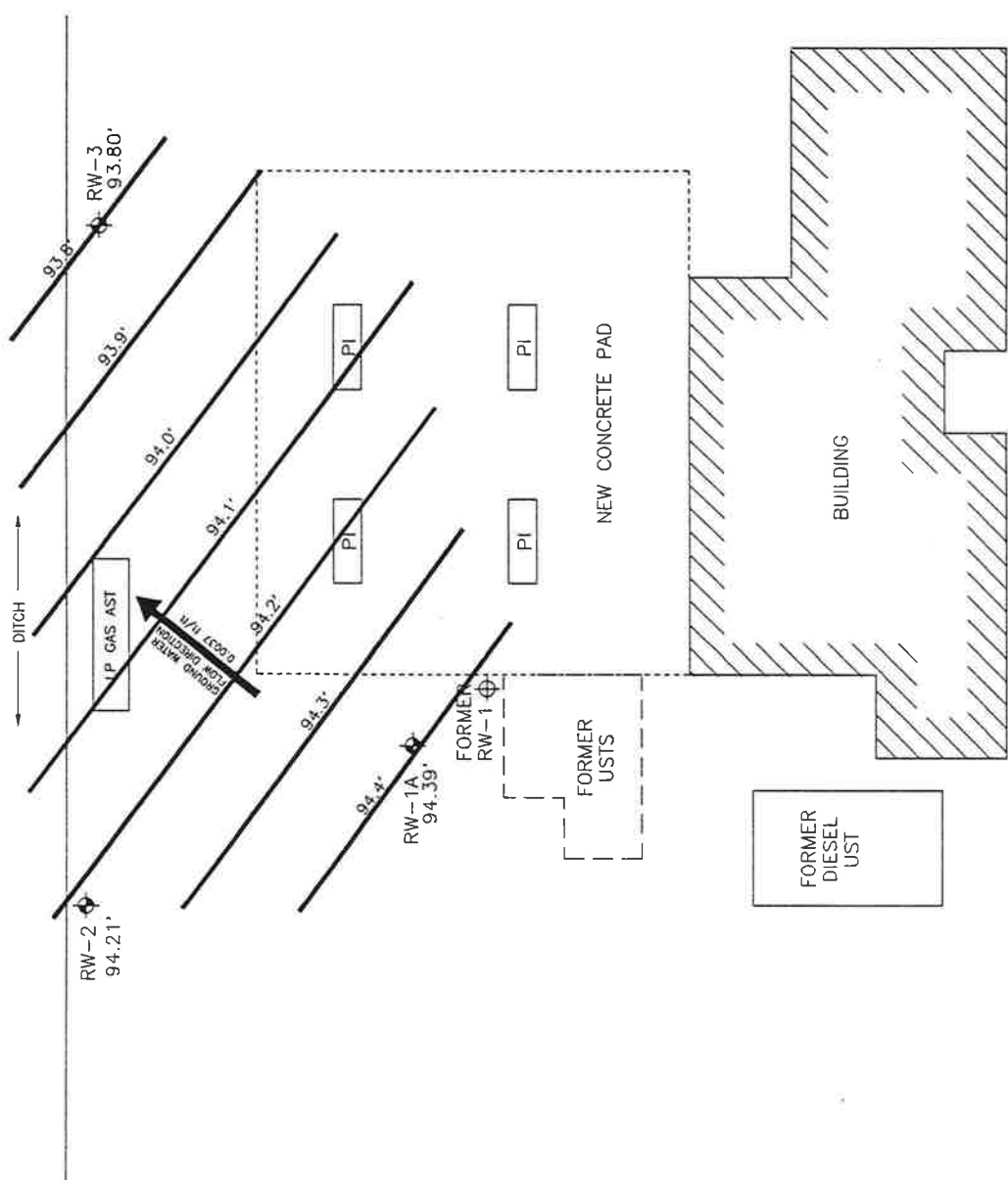
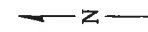


FIGURE 5



SCALE

0' 25' 50'



DRAWN BY: MTJ PROJECT: CMG235084 DATE: 08/22/97

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Northern Environmental
Hydrologists • Engineers • Geologists

BIG STEER
AUSTIN, MINNESOTA

GROUND WATER
CONTOUR MAP
(DATA RECORDED 06/17/97)

Table 1 - Summary of Ground-Water Elevation Measurements, Big Steer Truck Stop, Austin, Minnesota

Well I.D.	Ground Surface Elevation * (feet)	Reference Point Elevation ** (feet)	Date	Depth to Water Below Reference Point (feet) **	Water Table Elevation (feet) *			
RW1	99.30	99.35	11/17/95	6.38	92.97			
			12/06/95	6.47	92.88			
			02/07/96	8.25	91.10			
			05/01/96	4.83***	94.52			
			08/15/96	Well Destroyed				
RW1A	---	99.24	11/29/96	5.46	93.78			
			06/17/97	4.85	94.39			
			08/04/97	4.86	94.38			
RW2	93.24	98.26	11/17/95	4.67	93.59			
			12/06/95	5.23	93.03			
			02/07/96	7.09	91.17			
			05/01/96	3.43	94.83			
			08/15/96	4.70	93.56			
			11/29/96	4.46	93.80			
			06/17/97	4.05	94.21			
			08/04/97	4.30	93.96			
			RW3	98.83	98.77	11/17/95	5.76	93.01
						12/06/95	6.44	92.33
02/07/96	8.22	90.55						
05/01/96	4.84	93.93						
08/15/96	5.46	93.31						
11/29/96	5.43	93.34						
			4.97	93.80				
			5.11	93.66				

Note: Benchmark is southwest corner of the kerosene aboveground storage tank (AST) cement vault.

* = elevation referenced to site datum

** = reference point is the north side of PVC riser

*** = product encountered at 4.68, 0.15 feet thick prior to purging, unmeasurable thickness after purging.

**** = RW1A not surveyed as of 11/29/96

NETI = Northern Environmental Technologies, Incorporated

(CMG235084)

August 1997

e:\proj\cmg235084\tables\tbl-3.wk4

Table 2 - Summary of Ground-Water Sampling Results, Big Steer Truck Stop, Austin, Minnesota

Well I.D.	Date Sampled	GRO (µg/l)	DRO (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	*1,2,4 Tri-methylbenzene (µg/l)	*n-Butylbenzene (µg/l)
RW1	11/26/95	9980	2400	3240	1270	179	718	--	--
	02/07/96	17000	--	7300	1700	260	4320	610	280
RW1A	05/01/96	Emulsified free product present in well.							
	08/15/96	Not sampled - well destroyed in June, 1996							
RW2	11/29/96	5200	--	1300	360	37	360	--	--
	06/17/97	3800	--	1300	ND	140	190	--	--
RW3	11/26/95	680	2700	ND	3.6	ND	5.8	--	--
	02/07/96	1100**	--	ND	4.4	1.2	ND	--	--
	05/01/96	440	--	ND	ND	ND	ND	--	--
	08/15/96	460	--	1.3	5.5	2.7	6.4	--	--
	11/29/96	380	--	ND	ND	ND	ND	--	--
	06/17/97	150	--	ND	ND	ND	ND	--	--
RW3	11/26/95	15100	8500	138	530	768	2153	--	--
	02/07/96	14000	--	320	400	780	2900	--	--
	05/01/96	4800	--	70	36	190	440	--	--
	08/15/96	4100	--	69	16	220	330	--	--
	11/29/96	3000	--	37	18	100	170	--	--
	06/17/97	290	--	ND	ND	3	ND	--	--
Trip Blank	08/15/96	--	--	ND	ND	ND	ND	--	--
	06/17/97	NR	--	ND	ND	ND	ND	--	--
HRLs		NR	NR	10	1000	700	10000	NR	NR

NOTE: RW1A installed on 11/18/96 as a replacement well for RW1 which was destroyed in June 1996

- µg/l = micrograms per liter
- ND = below detection limit
- GRO = gasoline range organics
- DRO = diesel range organics
- HRLs = Health Risk Limits
- NR = not regulated
- = not analyzed
- xxx = exceeds HRLs
- * = detected in MDH 465D scan from RW1
- ** = high boiling point hydrocarbons present

ATTACHMENT A

**MINNESOTA POLLUTION CONTROL AGENCY SITE MONITORING WORKSHEET
FACTSHEET #7**

SITE MONITORING WORKSHEET
Fact Sheet #7
Minnesota Pollution Control Agency
LUST Cleanup Program
April 1993

The Minnesota Pollution Control Agency (MPCA) staff expect this worksheet to simplify the required post-investigation site monitoring reports. Submit this worksheet:

- * quarterly, after the remedial investigation (RI) is complete but before corrective action is taken;
- * quarterly, during corrective action design (CAD) installation; and
- * quarterly, after CAD is operational, along with "CAD System Monitoring Worksheet," (fact sheet #11).

Completion and submittal according to the above schedule fulfills your quarterly site monitoring report requirements. You may include a short cover letter whenever circumstances require. However, you must still submit an annual progress report as described in "Petroleum Tank Release Report" (fact sheet #3). [NOTE: MPCA staff may reduce the frequency of progress reporting on a site specific basis.]

Where attachments are requested (tables, maps, graphs, etc.), please check off those items attached. The only table not mandatory is that for dissolved oxygen.

MPCA Leak Number: 8578

I. Ground Water Monitoring

Please attach the following:

- X Cumulative table of ground water monitoring results, including all sample blanks.
- X Copies of most recent laboratory reports for ground water analyses, including a copy of the Chain of Custody.
- X Cumulative table of ground water elevation and product thickness results.
- X Hydro graph for all monitoring and recovery wells.
- X Graph(s) showing contaminant concentrations over time for all monitoring and recovery wells.
- X Ground water contour map based on the most recent ground water elevation data.
- NA Table of dissolved oxygen sample results (if collected)

Site Monitoring Worksheet

Page 2

April 1993

Please describe unusual circumstances that may have influenced the sampling results: None

Please detail significant observations made at the site: None

II. Vapor Impact Monitoring

If vapor impacts were detected during the remedial investigation, please attach:

No vapor impacts were detected during the remedial investigation.

- a cumulative table of vapor monitoring results. The table should identify the location of all vapor monitoring points (i.e., sewer manholes, basements, etc.)
- a map of vapor monitoring locations.

Sampling instrument used: _____

Sampling method: _____

Note: If vapor concentrations exceed 10 percent of the lower explosive limit, exit the building and contact the local fire department immediately. Then contact the MPCA spills unit at voice 612/297-3529, TDD 612/297-5353 or Greater Minnesota TDD 1-800-627-3529.

III. Recommendations

Use this space to detail any recommendations for modifying the current monitoring schedule:

Based on current risk-based guidance, additional monitoring appears to be unwarranted at this site, at this time.

Upon request, this document can be made available in other formats, including Braille, large print and audio tape. TDD Users, call the Minnesota State Relay Service, 612/297-5353 or Greater Minnesota TDD 1-800-627-3529.

ATTACHMENT B

LABORATORY ANALYSIS REPORT AND CHAIN-OF-CUSTODY FORM

LABORATORY ANALYSIS REPORT

JUL 07 1997

DATE: July 3, 1997

PAGE: 1 Of 4

CLIENT: Northern Environmental
372 West Co Rd. D
New Brighton, MN 55112PROJECT NO.: 062397-200004
COLLECTION DATE: 6/17/97
COLLECTED BY: Client
RECEIVED DATE: 6/23/97
PROJECT DESCRP.: CMG235084

CONTACT: Matt Stevens

<u>ANALYSIS</u>	<u>UNITS</u>	<u>Sample No.:</u> <u>Sample ID.:</u> <u>MDL</u>	<u>POL</u>	<u>L973934-1</u> <u>MW-3</u> <u>RESULT</u>
EPA 8021/WIS DNR GRO				
Date Analyzed: 6/25/97				
Benzene	ug/L	3	10	ND
Toluene	ug/L	3	10	ND
Ethylbenzene	ug/L	3	10	(r)3
m,p-Xylene*	ug/L	6	10	ND
o-Xylene	ug/L	2	10	ND
Gasoline Range Organics	ug/L	20	100	(p)290

<u>Surrogate Recovery</u>	<u>Detector</u>	<u>% Recovery</u>
1-Chloro-4-Fluorobenzene	FID	119%
1-Chloro-4-Fluorobenzene	PID	103%

(r) Result is above MDL, but below PQL.

(p) Significant peaks detected outside GRO window.

* means Coeluting Compounds

ND means Not Detected or below reported MDL

MDL means Method Detection Limit

PQL means Practical Quantification Limit

ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

LABORATORY ANALYSIS REPORT

DATE: July 3, 1997 **PAGE:** 2 Of 4

CLIENT: Northern Environmental **PROJECT NO.:** 062397-200004
372 West Co Rd. D **COLLECTION DATE:** 6/17/97
New Brighton, MN 55112 **COLLECTED BY:** Client
RECEIVED DATE: 6/23/97
PROJECT DESCRP.: CMG235084

CONTACT: Matt Stevens

<u>ANALYSIS</u>	<u>UNITS</u>	<u>Sample No.:</u> <u>Sample ID.:</u> <u>MDL</u>	<u>POL</u>	<u>L973934-2</u> <u>MW-2</u> <u>RESULT</u>
EPA 8021/WIS DNR GRO				
Date Analyzed: 7/01/97				
Benzene	ug/L	3	10	ND
Toluene	ug/L	3	10	ND
Ethylbenzene	ug/L	3	10	ND
m,p-Xylene*	ug/L	6	10	ND
o-Xylene	ug/L	2	10	ND
Gasoline Range Organics	ug/L	20	100	(p) 150
Surrogate Recovery				
1-Chloro-4-Fluorobenzene	Detector			% Recovery
1-Chloro-4-Fluorobenzene	FID			102%
1-Chloro-4-Fluorobenzene	PID			99.0%

(p) Significant peaks/baseline rise detected outside GRO window.
* means Coeluting Compounds
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

LABORATORY ANALYSIS REPORT

DATE: July 3, 1997

PAGE: 3 Of 4

CLIENT: Northern Environmental
372 West Co Rd. D
New Brighton, MN 55112

PROJECT NO.: 062397-200004
COLLECTION DATE: 6/17/97
COLLECTED BY: Client
RECEIVED DATE: 6/23/97
PROJECT DESCRP.: CMG235084

CONTACT: Matt Stevens

<u>ANALYSIS</u>	<u>UNITS</u>	<u>Sample No.:</u>		<u>RESULT</u>
		<u>MDL</u>	<u>POL</u>	
EPA 8021/WIS DNR GRO				L973934-3(d)
Date Analyzed: 7/01/97				MW-1
Benzene	ug/L	30	100	1300
Toluene	ug/L	30	100	ND
Ethylbenzene	ug/L	30	100	140
m,p-Xylene*	ug/L	60	100	190
o-Xylene	ug/L	20	100	ND
Gasoline Range Organics	ug/L	200	1000	(P)3800
Surrogate Recovery	Detector	% Recovery		
1-Chloro-4-Fluorobenzene	FID	114%		
1-Chloro-4-Fluorobenzene	PID	110%		

(d) A dilution was necessary due to levels present; therefore, detection limits were raised.

(p) Significant peaks detected outside GRO window.

* means Coeluting Compounds

ND means Not Detected or below reported MDL

MDL means Method Detection Limit

PQL means Practical Quantification Limit

ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

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LABORATORY ANALYSIS REPORT

DATE: July 3, 1997 **PAGE:** 4 Of 4

CLIENT: Northern Environmental **PROJECT NO.:** 062397-200004
372 West Co Rd. D **COLLECTION DATE:** 6/17/97
New Brighton, MN 55112 **COLLECTED BY:** Client
RECEIVED DATE: 6/23/97
PROJECT DESCRP.: CMG235084

CONTACT: Matt Stevens

<u>ANALYSIS</u>	<u>UNITS</u>	<u>Sample No.:</u> <u>Sample ID.:</u> <u>MDL</u>	<u>POL</u>	<u>L973934-4</u> <u>Trip Blank</u> <u>RESULT</u>
EPA 8021/WIS DNR GRO				
Date Analyzed: 7/01/97				
Benzene	ug/L	3	10	ND
Toluene	ug/L	3	10	ND
Ethylbenzene	ug/L	3	10	ND
m,p-Xylene*	ug/L	6	10	ND
o-Xylene	ug/L	2	10	ND
Gasoline Range Organics	ug/L	20	100	ND
Surrogate Recovery	Detector	% Recovery		
1-Chloro-4-Fluorobenzene	FID	87.0%		
1-Chloro-4-Fluorobenzene	PID	85.0%		

* means Coeluting Compounds

ND means Not Detected or below reported MDL

MDL means Method Detection Limit

PQL means Practical Quantification Limit

ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

This report has been reviewed by me for technical accuracy and completeness. The analyses were performed using EPA or other approved methodologies and the results were reported on an "as received" basis unless otherwise noted. Organic soil analyses were reported on a dry weight basis. The results reported relate only to the items tested. Please contact me if you have any questions or comments regarding this report. Spectrum Labs, Inc. appreciates the opportunity to provide this analytical service for you.

Report Submitted By,



Thomas L. Halverson
Laboratory Manager

TLH:wmc
ne184-3

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