Please note change of address:
P.O. Box 1760
205 Main Street
Brattleboro, VT 05302
214 Main Street
Brattleboro, VT 05301
XXXXX

TRI-STATE
ENVIRONMENTAL
CONSULTING

(802) 254-3677 (24 hrs.)
(802) 254-7630 (FAX)

November 13, 1992

Charles Schwer
Hazardous Materials Division
103 South Main Street/West Bldg
Waterbury, VT 05676

Re: Initial Site Investigation Report for Henry Transportation, Guilford, VT

Dear Mr. Schwer:

Enclosed please find the above named report for Henry Transportation.

Should you have any questions please call David Gagnon at 254-3677.

Sincerely,

Dee Tapley

Dee Tapley
Secretary

Enclosure

Branch Office:
25 Pinney Street, Ellington, CT 06029 (203) 875-2110 (24 hrs.)
Fax: (203) 875-8587 (24 hrs.)

Initial Site Investigation
Henry Transportation
Guilford, VT

Prepared for
Sandy Garland

November 10, 1992

Executive Summary

Two underground storage tanks (UST's), previously containing gasoline and diesel, were cleaned in place, filled with sand, and closed on June 23, 1992. Work was overseen by Jim Shippee who submitted the tank closure report to the state. Soils surrounding the tanks were found to be contaminated. Approximately three and one half cubic yards of contaminated soil were excavated, polyencapsulated, and stockpiled on site. Tri-S Environmental Consulting was then contracted to perform an initial site investigation of the site. Four monitor wells were installed and sampled. Samples were also taken from a nearby stream and household drinking water wells. Results indicate contamination of ground-water ranging from 8 to 1008 ppb total VOC's in three of the wells. Based on these results, and since the extent of contamination has not been identified, TRI-S is recommending that additional wells be emplaced and sampled.

Table of Contents

I. Introduction

Upon the request of Sandy Garland, Secretary and Treasurer of Henry Transportation, TRI-S Environmental Consulting (TEC) developed a work plan for the Henry Transportation Site. With the approval of the Sites Management Section (SMS) of the Vermont Department of Environmental Conservation, TEC carried out proposed work at the site. The purpose of this work was to determine the extent and degree of contamination and to provide recommendations for further actions if necessary.

II. Site Setting and Layout

Henry Transportation is located on Route 5 in Guilford Vermont, approximately one mile southwest of Exit 1 off Route I-91 (Site Location Map, Appendix A). The only building on the site is a four bay truck garage with an attached office. The building is set in a low lying area downgradient of the road. A wetland area is located to the north of the building. Photographs of the site are included in Appendix B.

III. Site History

Prior to being occupied by Henry Transportation the site was pasture land. According to Sandy Garland the site has not been used for any other purposes. Henry Transportation, Inc. provides hauling services for a local dairy cooperative.

IV. Initial Sampling and Screening

According to a tank closure report and tank pull forms submitted to the DEC by James Shippee on June 23, 1992, two underground storage tanks (UST's) at Henry Transportation were filled with sand, and closed. Soils surrounding the UST's site were found to be contaminated. Approximately three and one half cubic yards of contaminated soil were excavated, polyencapsulated, and stockpiled on site. In response to the Shippee report the SMS requested further work on this site.

On August 18, 1992, a work plan was submitted to the SMS. The work plan was approved on August 24, 1992, by the SMS. On September 2, 1992, TEC and T & K Drilling of Troy, NH installed four monitoring wells on the Henry Transportation site. During drilling, split spoon samples were taken and the soil was screened with an organic vapor meter (OVM). Soil from monitor well HT-4 registered readings of 15 ppm on the OVM (calibrated to benzene). Soils from HT-4 were stockpiled on site and polyencapsulated. All other well borings registered non-detectable readings on the OVM. Locations of these wells are shown on the site sketch map (Appendix C). Well logs are also included in Appendix D.

On September 8, 1992, TEC sampled and surveyed monitoring wells at Henry Transportation. Samples were also taken from the nearby stream upgradient and downgradient of site and from three nearby drinking water wells. Samples were analyzed by EPA Methods 8020 and 418.1 (TPH by IR). Results are shown below in Table I. Complete laboratory reports are included as Appendix E.

Table I
Groundwater Sampling Results for 9/8/92

Compound	HT-1	HT-2	HT-3	HT-4	TB	FB	SUG	SDG	DWW-1	DWW-2	DWW-3
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	250.0	ND	2.0	ND	ND	ND	ND	ND	ND	ND
Xylene	8.0	670.0	ND	50.0	ND	ND	ND	ND	ND	ND	ND
MTBE	ND	88.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH (ppm)	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Results reported in parts per billion — ND = Non-detectable — TPH = Total Petroleum Hydrocarbons
TB = Trip Blank — FB = Field Blank — DWW = Drinking Water Wells
SUG = Stream Upgradient — SDG = Stream Downgradient — ppm = parts per million

Groundwater elevations were measured before sampling and results are shown below in Table II. A groundwater potentiometric map, showing the direction of groundwater flow, and an isoconcentration map, documenting the pathway of groundwater contamination, are included in Appendices F and G, respectively.

Table II
Groundwater Potentiometric Chart

Wells >	HT-1	HT-2	HT-3	HT-4
Top of PVC	98.59	98.68	99.32	99.64
9/8/92	93.25	95.26	96.19	96.93
All readings measured in feet from an arbitrary datum point				

V. Initial Risk Evaluation

Based on the laboratory analysis of water samples collected from the Henry Transportation site, contamination was found in monitoring wells HT-1, HT-2, and HT-4 (see Appendix G). Contaminant levels in HT-2 and HT-4 exceed State of Vermont Drinking Water Standards of 5 ppb benzene and 50 ppb BTEX. Potential receptors include all buildings within a half mile radius of the site, all of which have private wells, and a small stream that runs along the southern side of the Henry Transportation property. One drinking water well, is located in the wetland on the Henry Transportation site, and services the trailer park to the east of Henry Transportation. At this time it does not appear that any of these receptors are being impacted by the contamination found on the site.

VI. Conclusions

Based on the information in this report, the following conclusions can be made:

- Soil screening during installation of HT-4 revealed contaminant levels of 15 ppm as measured with an OVM calibrated to benzene

- Upon sampling and analysis, BTEX and TPH contamination was not found in monitor well HT-3, nor any of the drinking water wells or stream water sampled.

- BTEX levels in Monitor wells HT-1, HT-2, and HT-4 were found to contain 8 ppb, 920 ppb, and 52 ppb, respectively.

- Monitor well HT-2 was found to contain 88 ppb MTBE and 0.4 ppm TPH.

- The bulk of subsurface comtamination is found directly downgradient (HF2) of the former UST's and along the former pump island (HT-4)

- Groundwater is found at a depth of approximately 4-5 feet below grade.

VII. Recommendations

TEC offers the following recommendations:

- Contaminated soil removed during monitoring well installation should remain poly-encapsulated and screened bi-annually with an OVM to monitor contamination levels. Soils will be reused at the site once they have reached non-detectable levels as determined with the OVM.

- Regarding additional exploratory or remedial work at the site, Sandy Garland of Henry Transportation requests, if possible, that a meeting be arranged onsite or in Waterbury with the SMS site manager, and TRI-S to discuss options. Please call David Gagnon of TRI-S, at 1-800-359-3677 to discuss. Thank you.

APPENDIX A

SITE LOCATION MAP

BASE MAP IS A PORTION OF THE FOLLOWING 7.5' U.S.G.S. QUADRANGLE(S):

Brattleboro, Vermont

LOCATION MAP

HENRY TRANSPORTATION
Route 5
Guilford, Vermont

TRI-S ENVIRONMENTAL CONSULTING

FIGURE 1

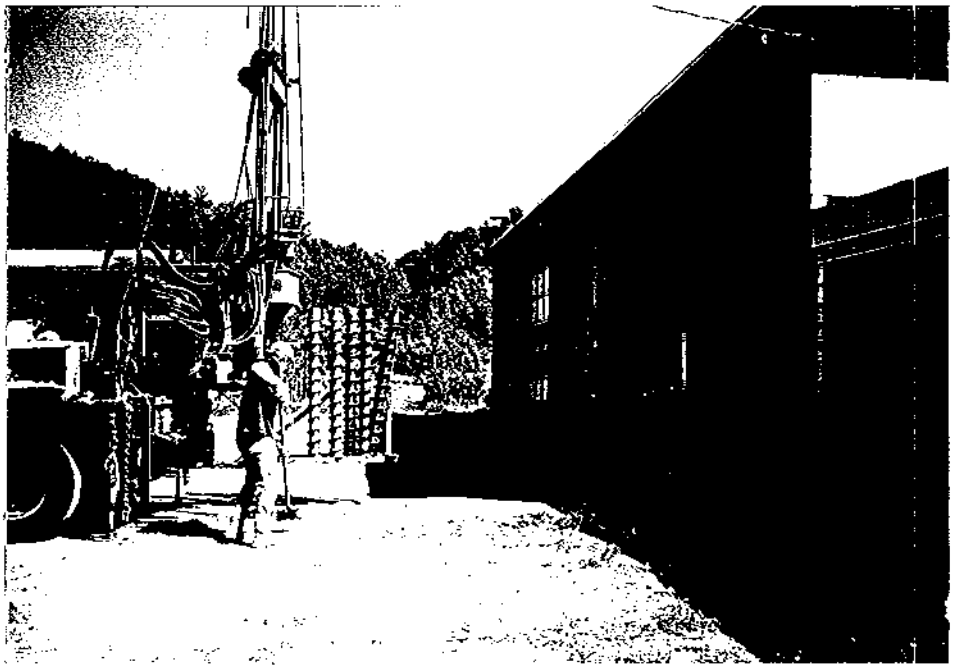
APPENDIX B

PHOTOGRAPHS

1. A view of Henry Transportation building

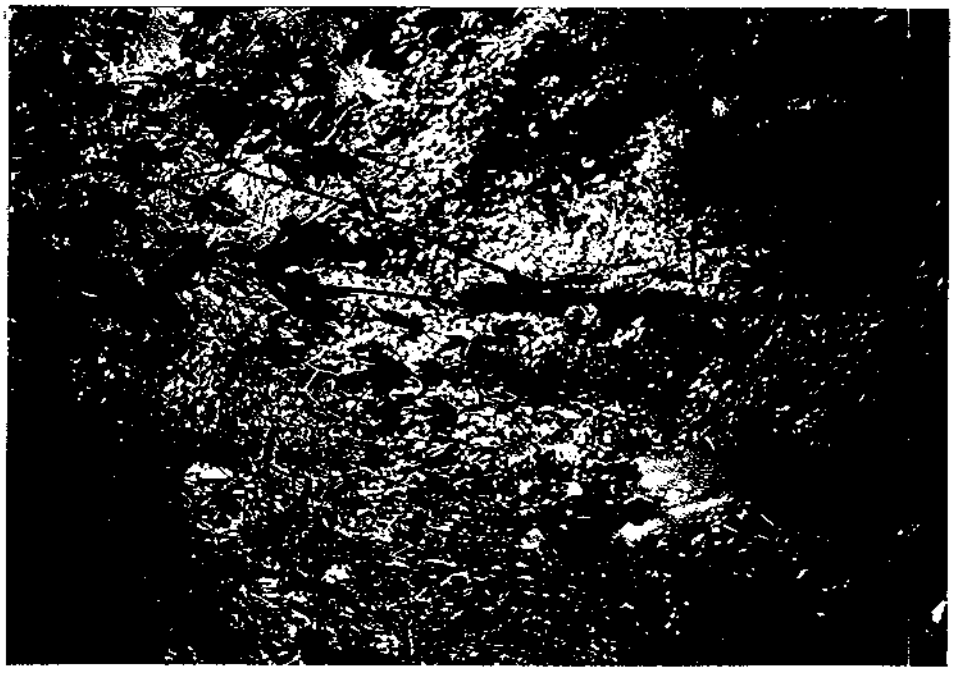
2. Installation of Monitoring Well HT-3

3. Monitoring Well HT-2



4. Installation of Monitoring Well HT-4

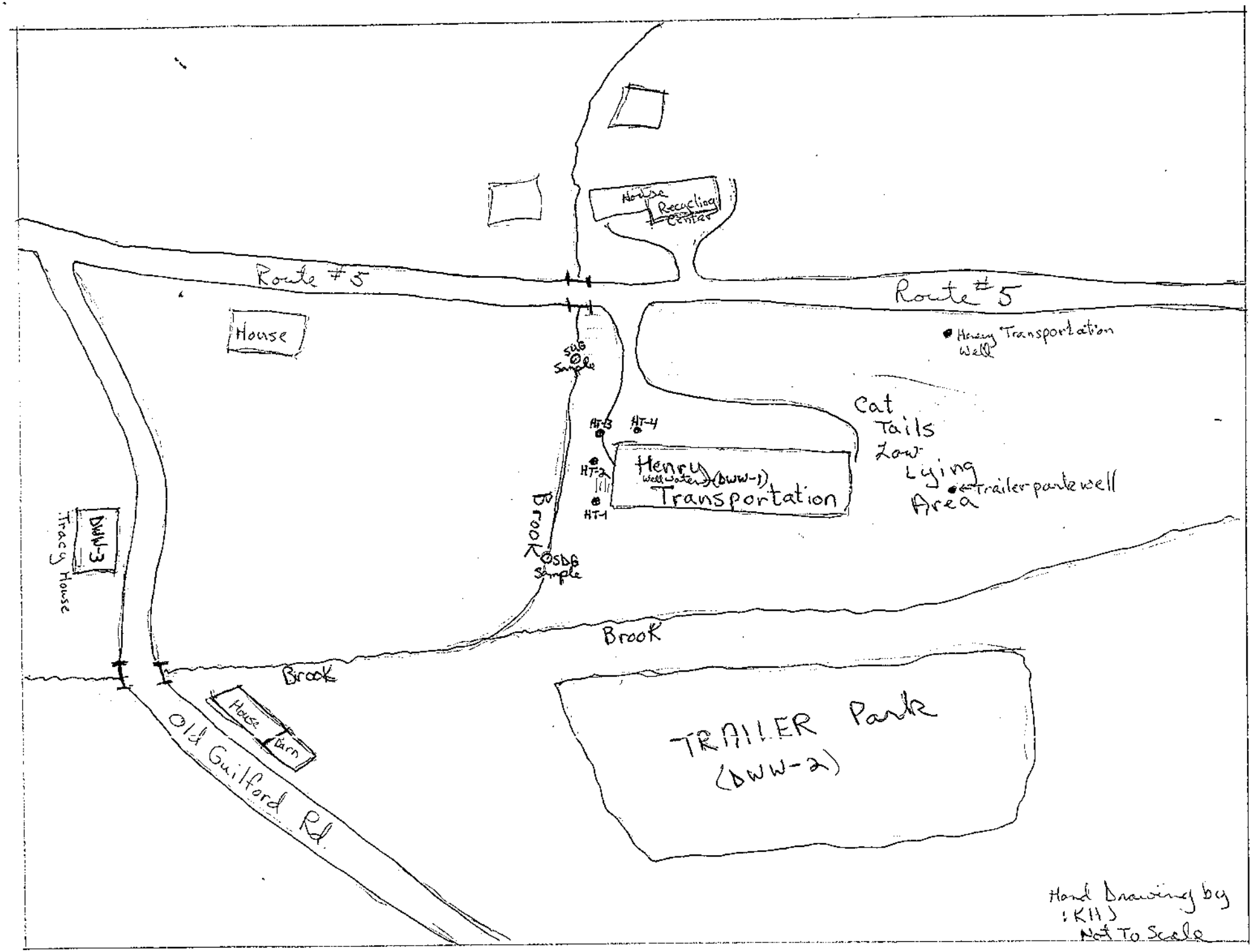
5. A view of the southerly side of the Henry Transportation building



6. A view of the stream running adjacent to Henry Transportation property

APPENDIX C

SITE SKETCH MAP


Route #5
Route #5
House
Recycling Center
Henry Transportation Well
SUB Simple
HT-3
HT-4
HT-2
HT-1
Henry Transportation
(DWW-1)
Cat Tails Low Lying Area
Trailer park well
Brook
OSDS Simple
DWW-3
Tracy House
Brook
Brook
House
Barn
Old Guilford Rd.
TRAILER Park
(DWW-2)
Hand Drawing by: KHJ
Not To Scale

APPENDIX D

MONITORING WELL LOGS

TRI-S ENVIRONMENTAL CONSULTING
SOIL BORING / MONITORING WELL LOG

WELL NUMBER HT-1 SHEET No. 1 of 4

CLIENT Henry Transportation (Sandy Garland) DATE DRILLED 9/2/92 DRILLING METHOD HSA
PROJECT NAME Henry Transportation WELL TOP ELEV. 98.74 TOTAL DEPTH OF WELL 10'
PROJECT # 258 PVC ELEV. 98.59 SCREEN DIA. 2" LENGTH 10'
WELL LOCATION See enclosed Maps GROUND ELEV. 98.74 RISER DIA. — LENGTH —
DRILLING CO. T+K Drilling DRILLER Alan Tammila SLOT SIZE 10
LOG BY Kirsten Jeppesen

DEPTH (FEET)	SAMPLE No.	SAMPLE PEN/REC.	SAMPLE DEPTH (FT.)	SAMPLE BLOWS/6"	FIELD CLASSIFICATION AND REMARKS	FIELD TESTING	EQUIPMENT INSTALLED
1'					Black to Gray Silt and Fine to Coarse Sand Trace Fine Gravel	NO	Flush Mounted/Aboveground Well Cap; Bentonite; Screen; Grade I Silica Sand Pack
5	1	24"/24"	5-7'	4-10 10-14			
10					End of Boring		
15							
20							
25							
30							
35							
40							

NOTES:
1. FIELD TESTING PERFORMED USING A THERMO ENVIRONMENTAL INSTRUMENTS INC. ORGANIC VAPOR METER (OVM) MODEL 580B. METER RESPONSE IN PPM.
2. NO INDICATES NON-DETECTABLE CONTAMINANT CONCENTRATIONS ON OVM.
3. SAMPLES COLLECTED USING A SPLIT SPOON SAMPLER UNLESS OTHERWISE INDICATED.
4. SPLIT SPOON SAMPLER HAS A 2" DIAMETER AND IS DRIVEN USING A 140 LB. HAMMER FALLING 30 INCHES
5. HSA = HOLLOW STEM AUGER
   AR = AIR ROTARY

TRI-S ENVIRONMENTAL CONSULTING
SOIL BORING / MONITORING WELL LOG

WELL NUMBER HT-2 SHEET No. 2 of 4

CLIENT Henry Transportation (Sandy Garland) DATE DRILLED 9/2/92 DRILLING METHOD HSA
PROJECT NAME Henry Transportation WELL TOP ELEV. 99.30' TOTAL DEPTH OF WELL 10'
PROJECT # 258 PVC ELEV. 98.68' SCREEN DIA. 2" LENGTH 10'
WELL LOCATION See enclosed Maps GROUND ELEV. 99.30' RISER DIA. — LENGTH —
DRILLING CO. T+K Drilling DRILLER Alan Tammila SLOT SIZE 10
LOG BY Kirsten Jeppesen

DEPTH (FT)	SAMPLE No.	SAMPLE PEN/REC.	SAMPLE DEPTH (FT)	SAMPLE BLOWS/6"	FIELD CLASSIFICATION AND REMARKS	FIELD TESTING	EQUIPMENT INSTALLED
1'					Brown Fine to Coarse Sand and Silt some Fine to Coarse Gravel	ND	Flush Mounted Concreted Well Cap; Bentonite
					Black Silt and Clay some Fine Gravel		
5	2	24"/24"	5-7'	7-12 11-11	Black Silt and Fine to Coarse Sand some Clay, Trace Fine Gravel		Screen; Grade 1 Silica Sand Pack
10					End of Boring		
15							
20							
25							
30							
35							
40							

NOTES:
1. FIELD TESTING PERFORMED USING A THERMO ENVIRONMENTAL INSTRUMENTS INC. ORGANIC VAPOR METER (OVM) MODEL 580B. METER RESPONSE IN PPM.
2. ND INDICATES NON-DETECTABLE CONTAMINANT CONCENTRATIONS ON OVM.
3. SAMPLES COLLECTED USING A SPLIT SPOON SAMPLER UNLESS OTHERWISE INDICATED.
4. SPLIT SPOON SAMPLER HAS A 2" DIAMETER AND IS DRIVEN USING A 140 LB. HAMMER FALLING 30 INCHES
5. HSA = HOLLOW STEM AUGER
   AR = AIR ROTARY

TRI-S ENVIRONMENTAL CONSULTING
SOIL BORING / MONITORING WELL LOG

WELL NUMBER HT-3 SHEET No. 3 of 4

CLIENT Henry Transportation (Sandy Garland) DATE DRILLED 9/2/92 DRILLING METHOD HSA
PROJECT NAME Henry Transportation WELL TOP ELEV. 99.51' TOTAL DEPTH OF WELL 10'
PROJECT # 358 PVC ELEV. 99.32' SCREEN DIA. 2" LENGTH 10'
WELL LOCATION See enclosed Maps GROUND ELEV. _____ RISER DIA. _____ LENGTH _____
DRILLING CO. T&K Drilling DRILLER Alan Tammila SLOT SIZE 10
LOG BY Kirsten Jeppesen

DEPTH (FT)	SAMPLE No.	SAMPLE PEN/REC.	SAMPLE DEPTH (FT)	SAMPLE BLOWS/6"	FIELD CLASSIFICATION AND REMARKS	FIELD TESTING	EQUIPMENT INSTALLED
1'					Brown Fine to Coarse Sand and Fine to Coarse Gravel	ND	Flush-Mounted Cemented Well Cap
					Black Silt and Clay, Some Fine Gravel		Bentonite
5	3	24"/24"	5-7'	12-9	Black Fine to Coarse Sand, Trace Silt		Grade 1 Silica Sand Pack
				9-16	Brown/Tan Fine to Medium Sand		Screen
					Black Silt and Fine to Coarse Sand Some Clay, Trace Fine Gravel		
10					End of Boring		
15							
20							
25							
30							
35							
40							

NOTES:
1. FIELD TESTING PERFORMED USING A THERMO ENVIRONMENTAL INSTRUMENTS INC. ORGANIC VAPOR METER (OVM), MODEL 580B. METER RESPONSE IN PPM.
2. ND INDICATES NON-DETECTABLE CONTAMINANT CONCENTRATIONS ON OVM.
3. SAMPLES COLLECTED USING A SPLIT SPOON SAMPLER UNLESS OTHERWISE INDICATED.
4. SPLIT SPOON SAMPLER HAS A 2" DIAMETER AND IS DRIVEN USING A 140 LB. HAMMER FALLING 30 INCHES
5. HSA = HOLLOW STEM AUGER
   AR = AIR ROTARY

TRI-S ENVIRONMENTAL CONSULTING
SOIL BORING / MONITORING WELL LOG

WELL NUMBER HT-4 SHEET No. 4 of 4

CLIENT Henery Transportation (Sandy Garland) DATE DRILLED 9/2/92 DRILLING METHOD HSA
PROJECT NAME Henery Transportation WELL TOP ELEV. _____ TOTAL DEPTH OF WELL 10'
PROJECT # 258 PVC ELEV. _____ SCREEN DIA. 2" LENGTH 10'
WELL LOCATION See enclosed Maps GROUND ELEV. _____ RISER DIA. — LENGTH —
DRILLING CO. T+K Drilling DRILLER Alan Tammila SLOT SIZE 10
LOG BY Kirsten Seppesen

FT. BGS	SAMPLE No.	PEN/REC.	DEPTH (FT.)	BLOWS/6"	FIELD CLASSIFICATION AND REMARKS	FIELD TESTING	EQUIPMENT INSTALLED
1'					Brown Fine to Coarse Sand and Fine to Coarse Gravel	15 ppm.	Flush Mounted Concreted Well Cap
					Black Silt and Clay, Some Gravel		Bentonite
5	4	24"/24"	5-7'	4-7	Brown Fine to Coarse Sand and Fine to Coarse Gravel		Grade 1 Silica Sand Pack
				9-9	Black Sand and Gravel, Trace Silt		Screen
					Brown/Tan Silt and Fine to Coarse Sand Some Clay, Trace Gravel		
10					End of Boring		
15							
20							
25							
30							
35							
40							

NOTES:
1. FIELD TESTING PERFORMED USING A THERMO ENVIRONMENTAL INSTRUMENTS INC. ORGANIC VAPOR METER (OVM), MODEL 580B. METER RESPONSE IN PPM.
2. ND INDICATES NON-DETECTABLE CONTAMINANT CONCENTRATIONS ON OVM.
3. SAMPLES COLLECTED USING A SPLIT SPOON SAMPLER UNLESS OTHERWISE INDICATED.
4. SPLIT SPOON SAMPLER HAS A 2" DIAMETER AND IS DRIVEN USING A 140 LB. HAMMER FALLING 30 INCHES
5. HSA = HOLLOW STEM AUGER
   AR = AIR ROTARY

APPENDIX E

LABORATORY RESULTS

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-001	Date Sampled:	09/08/92 09:44
Client Id:	HT1-9892-258	Date Received:	09/08/92 : 0
Matrix:	Water	Date Reported:	09/11/92

RECEIVED SEP 1 1 1992

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	5	8020	tf	09/10/92
Chlorobenzene	ND	ug/l	5	8020	tf	09/10/92
1,2-Dichlorobenzene	ND	ug/l	5	8020	tf	09/10/92
1,3-Dichlorobenzene	ND	ug/l	5	8020	tf	09/10/92
1,4-Dichlorobenzene	ND	ug/l	5	8020	tf	09/10/92
Ethylbenzene	ND	ug/l	5	8020	tf	09/10/92
MTBE	ND	ug/l	25	8020	tf	09/10/92
Toluene	ND	ug/l	5	8020	tf	09/10/92
Xylene	8	ug/l	5	8020	tf	09/10/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/10/92
SURROGATE STUDIES - VOLATILES						
4-Bromofiurobenzene	91	Percent			tf	09/10/92
1,2-Dichlorobenzene-d4	91	Percent			tf	09/10/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-002	Date Sampled:	09/08/92 09:52
Client Id:	HT2-9892-258	Date Received:	09/08/92 : 0
Matrix:	Water	Date Reported:	09/11/92

RECEIVED SEP 1 1 1992

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	50	8020	tf	09/10/92
Chlorobenzene	ND	ug/l	50	8020	tf	09/10/92
1,2-Dichlorobenzene	ND	ug/l	50	8020	tf	09/10/92
1,3-Dichlorobenzene	ND	ug/l	50	8020	tf	09/10/92
1,4-Dichlorobenzene	ND	ug/l	50	8020	tf	09/10/92
Ethylbenzene	250	ug/l	50	8020	tf	09/10/92
MTBE	88	ug/l	50	8020	tf	09/10/92
Toluene	ND	ug/l	50	8020	tf	09/10/92
Xylene	670	ug/l	50	8020	tf	09/10/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	0.4	mg/l	0.1	418.1	jf	09/10/92
SURROGATE STUDIES - VOLATILES						
Bromofluorobenzene	103	Percent			tf	09/10/92
1,2-Dichloroethane-D	89	Percent			tf	09/10/92
Toluene-D	101	Percent			tf	09/10/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-003	Date Sampled:	09/08/92 09:59
Client Id:	HT3-9892-258	Date Received:	09/08/92 : 0
Matrix:	Water	Date Reported:	09/11/92

RECEIVED SEP 1 1 1992

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/11/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
Ethylbenzene	ND	ug/l	1	8020	tf	09/11/92
MTBE	ND	ug/l	5	8020	tf	09/11/92
Toluene	ND	ug/l	1	8020	tf	09/11/92
Xylene	ND	ug/l	1	8020	tf	09/11/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/10/92
SURROGATE STUDIES - VOLATILES						
4-Bromoflurobenzene	89	Percent			tf	09/11/92
1,2-Dichlorobenzene-d4	93	Percent			tf	09/11/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account: TRI-S Environmental Consulting
Address: P.O. Box 1760
Brattleboro, VT 05302

Project Name: Henry Transportation(258)(09/08/92
Project Number: 258
Project Manager:
Sampler Name: TRI-S

Sample Information

Lab ID: 22525360-004
Client Id: HT4-9892-258
Matrix: Water

Date Sampled: 09/08/92 10:02
Date Received: 09/08/92 : 0
Date Reported: 09/11/92

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	5	8020	tf	09/10/92
Chlorobenzene	ND	ug/l	5	8020	tf	09/10/92
1,2-Dichlorobenzene	ND	ug/l	5	8020	tf	09/10/92
1,3-Dichlorobenzene	ND	ug/l	5	8020	tf	09/10/92
1,4-Dichlorobenzene	ND	ug/l	5	8020	tf	09/10/92
Ethylbenzene	ND	ug/l	5	8020	tf	09/10/92
MTBE	ND	ug/l	25	8020	tf	09/10/92
Toluene	ND	ug/l	5	8020	tf	09/10/92
Xylene	50	ug/l	5	8020	tf	09/10/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/10/92
SURROGATE STUDIES - VOLATILES						
4-Bromofluorobenzene	91	Percent			tf	09/10/92
1,2-Dichlorobenzene-d4	93	Percent			tf	09/10/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-005	Date Sampled:	09/08/92 10:02
Client Id:	HT5-9892-258 Trip Blank	Date Received:	09/08/92 : 0
Matrix:	Water	Date Reported:	09/11/92

RECEIVED SEP 1 1 1992

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/11/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
Ethylbenzene	ND	ug/l	1	8020	tf	09/11/92
MTBE	ND	ug/l	5	8020	tf	09/11/92
Toluene	ND	ug/l	1	8020	tf	09/11/92
Xylene	ND	ug/l	1	8020	tf	09/11/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/10/92
SURROGATE STUDIES - VOLATILES						
Bromofluorobenzene	77	Percent			tf	09/11/92
1,2-Dichloroethane-D	80	Percent			tf	09/11/92
Toluene-D	89	Percent			tf	09/11/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-006	Date Sampled:	09/08/92 10:14
Client Id:	HT6-9892-258 Field Blank	Date Received:	09/08/92 : 0
Matrix:	Water	Date Reported:	09/11/92

RECEIVED SEP 1 1 1992

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/11/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
Ethylbenzene	ND	ug/l	1	8020	tf	09/11/92
MTBE	ND	ug/l	5	8020	tf	09/11/92
Toluene	ND	ug/l	1	8020	tf	09/11/92
Xylene	ND	ug/l	1	8020	tf	09/11/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/09/92
SURROGATE STUDIES - VOLATILES						
4-Bromofluorobenzene	89	Percent			tf	09/11/92
1,2-Dichlorobenzene-d4	84	Percent			tf	09/11/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account: TRI-S Environmental Consulting
Address: P.O. Box 1760
Brattleboro, VT 05302

Project Name: Henry Transportation(258)(09/08/92
Project Number: 258
Project Manager:
Sampler Name: TRI-S

Sample Information

Lab ID: 22525360-007
Client Id: HT7-9892-258
Matrix: Water

Duplicate for HT-4

RECEIVED SEP 1 1 1992

Date Sampled: 09/08/92 10:18
Date Received: 09/08/92 : 0
Date Reported: 09/11/92

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/11/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
Ethylbenzene	2	ug/l	1	8020	tf	09/11/92
MTBE	ND	ug/l	5	8020	tf	09/11/92
Toluene	ND	ug/l	1	8020	tf	09/11/92
Xylene	50	ug/l	1	8020	tf	09/11/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/09/92
SURROGATE STUDIES - VOLATILES						
4-Bromoflurobenzene	91	Percent			tf	09/11/92
1,2-Dichlorobenzene-d4	95	Percent			tf	09/11/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-008	Date Sampled:	09/08/92 10:33
Client Id:	HTSU-9892-258 Upgradient stream	Date Received:	09/08/92 : 0
Matrix:	Water	Date Reported:	09/11/92

RECEIVED SEP 1 1 1992

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/10/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
Ethylbenzene	ND	ug/l	1	8020	tf	09/10/92
MTBE	ND	ug/l	5	8020	tf	09/10/92
Toluene	ND	ug/l	1	8020	tf	09/10/92
Xylene	ND	ug/l	1	8020	tf	09/10/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/09/92
SURROGATE STUDIES - VOLATILES						
4-Bromoflurobenzene	94	Percent			tf	09/10/92
1,2-Dichlorobenzene-d4	94	Percent			tf	09/10/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-009 RECEIVED SEP 1 1 1992	Date Sampled:	09/08/92 10:35
Client Id:	HTSD-9892-258	Date Received:	09/08/92 : 0
Matrix:	Water Downgradient Stream	Date Reported:	09/11/92

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/10/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
Ethylbenzene	ND	ug/l	1	8020	tf	09/10/92
MTBE	ND	ug/l	5	8020	tf	09/10/92
Toluene	ND	ug/l	1	8020	tf	09/10/92
Xylene	ND	ug/l	1	8020	tf	09/10/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/09/92
SURROGATE STUDIES - VOLATILES						
4-Bromoflurobenzene	91	Percent			tf	09/10/92
1,2-Dichlorobenzene-d4	91	Percent			tf	09/10/92

Matrix Analytical, Inc.
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Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-010	Date Sampled:	09/08/92 10:28
Client Id:	HTHW1-9892-258 DWW1	Date Received:	09/08/92 : 0
Matrix:	Water	Date Reported:	09/11/92

- RECEIVED SEP 1 1 1992

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/11/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/11/92
Ethylbenzene	ND	ug/l	1	8020	tf	09/11/92
MTBE	ND	ug/l	5	8020	tf	09/11/92
Toluene	ND	ug/l	1	8020	tf	09/11/92
Xylene	ND	ug/l	1	8020	tf	09/11/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/09/92
SURROGATE STUDIES - VOLATILES						
4-Bromoflurobenzene	89	Percent			tf	09/11/92
1,2-Dichlorobenzene-d4	91	Percent			tf	09/11/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-011	Date Sampled:	09/08/92 10:49
Client Id:	HTHW2-9892-258 RECEIVED SEP 1 1 1992	Date Received:	09/08/92 : 0
Matrix:	Water DWW	Date Reported:	09/11/92

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/10/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
Ethylbenzene	ND	ug/l	1	8020	tf	09/10/92
MTBE	ND	ug/l	5	8020	tf	09/10/92
Toluene	ND	ug/l	1	8020	tf	09/10/92
Xylene	ND	ug/l	1	8020	tf	09/10/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/09/92
SURROGATE STUDIES - VOLATILES						
4-Bromoflurobenzene	86	Percent			tf	09/10/92
1,2-Dichlorobenzene-d4	87	Percent			tf	09/10/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account:	TRI-S Environmental Consulting	Project Name:	Henry Transportation(258)(09/08/92
Address:	P.O. Box 1760	Project Number:	258
	Brattleboro, VT 05302	Project Manager:	
		Sampler Name:	TRI-S

Sample Information

Lab ID:	22525360-012	Date Sampled:	09/08/92 10:52
Client Id:	HTHW3-9892-258 RECEIVED SEP 1 1 1992	Date Received:	09/08/92 : 0
Matrix:	Water DWW3	Date Reported:	09/11/92

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Benzene	ND	ug/l	1	8020	tf	09/10/92
Chlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,2-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,3-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
1,4-Dichlorobenzene	ND	ug/l	1	8020	tf	09/10/92
Ethylbenzene	ND	ug/l	1	8020	tf	09/10/92
MTBE	ND	ug/l	5	8020	tf	09/10/92
Toluene	ND	ug/l	1	8020	tf	09/10/92
Xylene	ND	ug/l	1	8020	tf	09/10/92
HYDROCARBON ANALYSIS						
Total Petroleum Hydrocarbon (IR)	<0.1	mg/l	0.1	418.1	jf	09/09/92
SURROGATE STUDIES - VOLATILES						
4-Bromofluorobenzene	86	Percent			tf	09/10/92
1,2-Dichlorobenzene-d4	90	Percent			tf	09/10/92

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
1 800 3-MATRIX

Client Information

Account: TRI-S Environmental Consulting
Address: P.O. Box 1760
Brattleboro, VT 05302

Project Name: Henry Transportation(258)(09/08/92
Project Number: 258
Project Manager:
Sampler Name:

Sample Information

Lab ID: 22525360-013
Client Id: QC-Report
Matrix: Water
Comment: Water

Date Sampled: / / :
Date Received: / / :0
Date Reported: 09/11/92

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
METHOD BLANK - VOLATILES						
Method Blank	ND	ug/l		8020		

METHOD SUMMARIES

Total petroleum hydrocarbons are performed by Fourier Transform Infrared Spectroscopy (FTIR) using BioRad FTS-7 system. Samples are extracted in freon and subsequently treated with silica gel (to remove vegetable/animal fats) before measurement. 10 and 100 mm sample cells are routinely used to provide necessary detection limits.

Volatile organic analysis is performed using H/P 5995 or 5970 GC/MS, Tekmar purge and trap, and ALS autosampler. Chromatography incorporates packed and megabore columns. Data reduction is performed on RTE 1000 and ChemStation systems. Tuning is based on BFB standards. Procedural guidelines follow EPA 624 or SW846 for all analyses. Aromatic volatiles listed in VOA 8020 are analyzed using GC/MS systems.

METHOD REFERENCES

1. Test Methods For Evaluating Solid Waste: Physical Chemical Methods. EPA SW 846. November 1986.
2. Methods For Chemical Analysis of Water and Wastes. EPA 600/4-79-200. Revised March 1983.
3. Standard Methods For Examination of Water and Wastewater. APHA-AWWA-WACF., 16th Edition. 1985.

CHAIN-OF-CUSTODY RECORD

CLIENT: TRI-S Environmental Consulting

ADDRESS: P.O. Box 1760

205 Main Street, Brattleboro, Vt. 05302

CLIENT CONTACT/PHONE: (802) 254-3677

PROJECT NAME: Henry Transportation NO.: 258

LAB CONTACT: Susan Donnelly EXT. NO.: 305

LAB ID (LAB USE ONLY)	SAMPLE ID / CLIENT DESCRIPTION	TYPE*	COLLECTION DATE / TIME		ANALYSES REQUESTED: 8020	418.1									COMMENTS	TOTALS
					IMPORTANT - INDICATE THE NUMBER OF BOTTLES PER SAMPLE IN THE SPACES BELOW											
	HT1-9892-258	GW	9/8/92	9:44	2	1										3
	HT2-9892-258			9:52	2	1										3
	HT3-9892-258			9:59	2	1										3
	HT4-9892-258			10:02	2	1										3
	HT5-9892-258			9:29	2	1										3
	HT6-9892-258			10:14	2	1										3
	HT7-9892-258			10:18	2	1										3
	HTSU-9892-258			10:33	2	1										3
	HTSD-9892-258			10:35	2	1										3
	HTHW1-9892-258			10:28	2	1										3
				TOTALS:	20	10										30

RECEIVED SEP 11 1992

*TYPE: W = water; GW = groundwater; DW = drinking water; SW = surface water; S = soil; SED = sediment; SL = sludge; DS = drum sample; O = oil; WI = wipe; X = other (please describe)

SPECIAL PRICE QUOTE FOR THIS PROJECT? NO YES NUMBER:

SPECIAL INSTRUCTIONS / NOTES:

3-day Rush approved by S. Donnelly P.O. 1196

MATRIX ANALYTICAL USE ONLY

Samples: 1) were shipped / hand-delivered / ambient / chilled
2) were received preserved / unpreserved
3) were received intact / broken / leaking
4) were received within / past holding times
5) agreed with COC form / discrepancies were present
6) were sealed / not sealed with COC tape; tape was broken / intact
7) were in cooler sealed / not sealed with COC tape; tape was broken / intact

NOTES:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	COMMENTS
[signature]	Donna M. Lott	9/8/92	P.M.	
D.M.S.	[illegible] Anderson			
W Anderson	K Lonergan	9/8/92	4:30	

SAMPLER'S INITIALS: KHS

MATRIX ANALYTICAL, INC.
100 South Street
Hopkinton, MA 01748
1 (800) 3-MATRIX

22525360-001

CHAIN-OF-CUSTODY RECORD

CLIENT: TRI-S Environmental Consulting

ADDRESS: P.O. Box 1760

205 Main Street, Brattleboro, Vt. 05302

CLIENT CONTACT/PHONE: (802) 254 - 3677

PROJECT NAME: Henry Transportation NO.: 258

LAB CONTACT: Susan Donnelly EXT. NO.: 305

ANALYSES REQUESTED

LAB ID (LAB USE ONLY)	SAMPLE ID / CLIENT DESCRIPTION	TYPE*	COLLECTION DATE / TIME		8020	418.1										COMMENTS	TOTALS
					IMPORTANT - INDICATE THE NUMBER OF BOTTLES PER SAMPLE IN THE SPACES BELOW												
	HTHW2-9892-258	GW	9/8/92	10:49	2	1											3
	HTHW3-9892-258		↓	10:52	2	1											3
			TOTALS:		4	2											6

*TYPE: W = water; GW = groundwater; DW = drinking water; SW = surface water; S = soil; SED = sediment; SL = sludge; DS = drum sample; O = oil; Wi = wipe; X = other (please describe)

SPECIAL PRICE QUOTE FOR THIS PROJECT? NO YES NUMBER:

SPECIAL INSTRUCTIONS / NOTES:

RECEIVED SEP 14 1992

MATRIX ANALYTICAL USE ONLY

Samples: 1) were shipped / hand-delivered / ambient / chilled
2) were received preserved / unpreserved
3) were received intact / broken / leaking
4) were received within / past holding times
5) agreed with COC form / discrepancies were present
6) were sealed / not sealed with COC tape; tape was broken / intact
7) were in cooler sealed / not sealed with COC tape; tape was broken / intact

NOTES:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	COMMENTS
D.M.S.	Donna M. Scott	9/8/92	P.M.	
	Wm Anderson			
Wm Anderson	K. Lonergan			

SAMPLER'S INITIALS: KHJ

MATRIX ANALYTICAL, INC.
100 South Street
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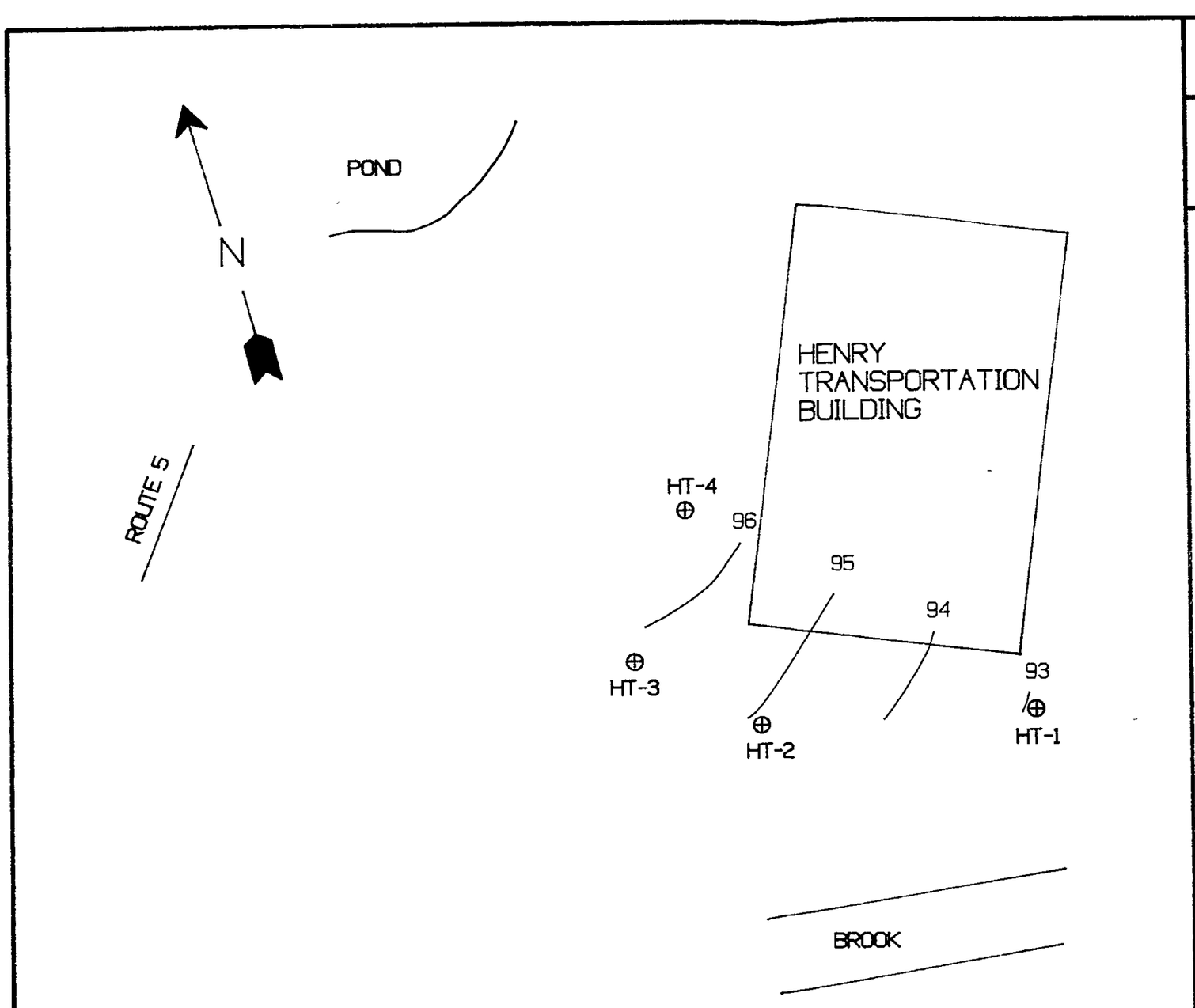
1 (800) 3-MATRIX

22525360-001

PAGE 2 OF 2

APPENDIX F

GROUNDWATER POTENTIOMETRIC MAP



GROUNDWATER POTENTIOMETRIC MAP FOR 9/08/92

HENRY TRANSPORTATION
ROUTE 5
GUILFORD, VERMONT

LEGEND

HT-3 — MONITORING WELL HT-3

93 — GROUNDWATER CONTOUR AT 93.00 FEET

MONITORING WELL GROUNDWATER ELEVATIONS (IN FEET)

HT-1	92.89	HT-3	95.83
HT-2	94.90	HT-4	96.57

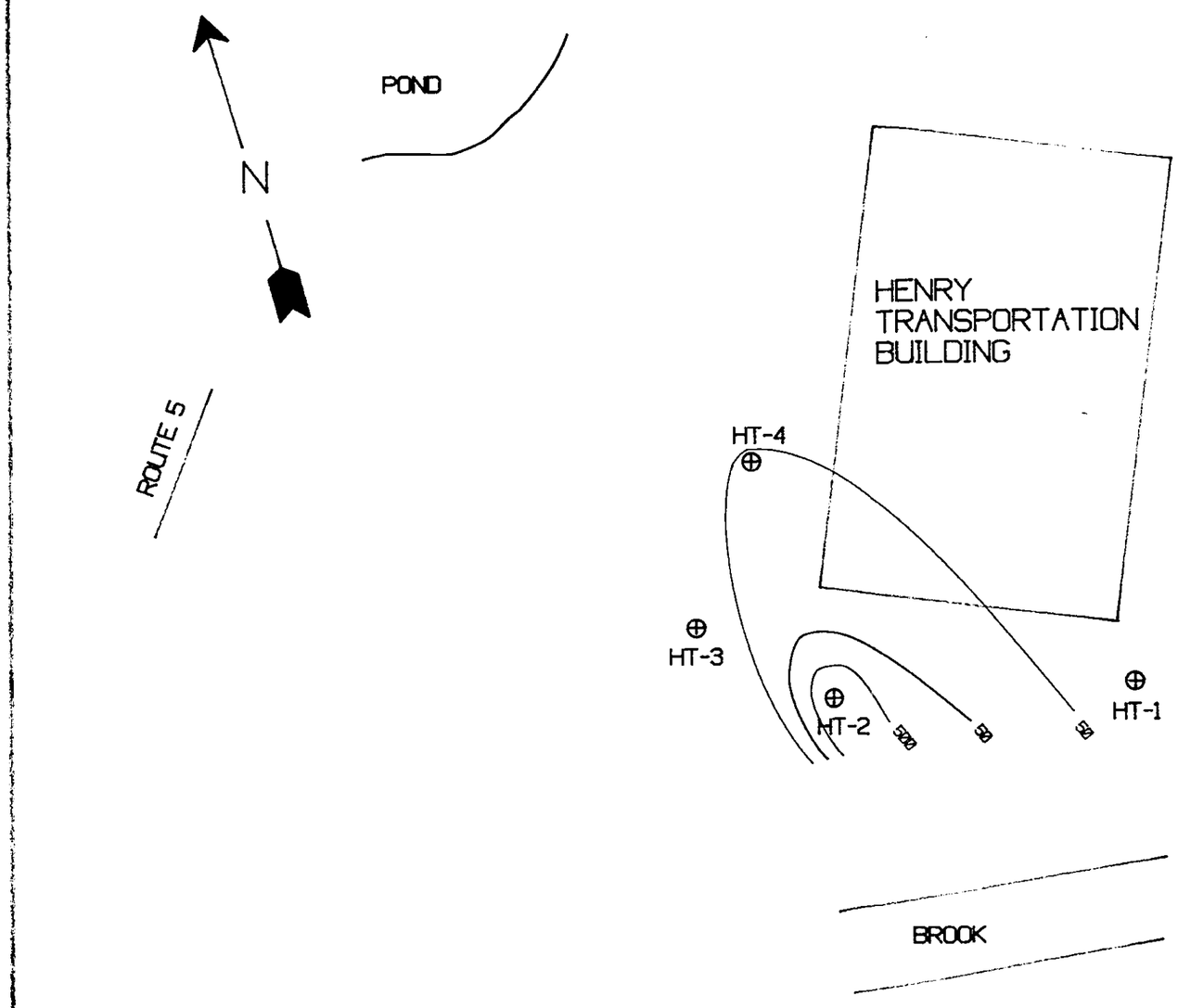
SCALE 1 : 300

0 25 50 75 FEET

PREPARED BY:
TRI-S ENVIRONMENTAL CONSULTING, INC.
P.O. BOX 1760, 205 MAIN STREET
BRATTLEBORO, VT 05302

APPENDIX G

BTEX/MTBE ISOCONCENTRATION MAP



BTEX/MTBE ISOCONCENTRATION MAP
MAP FOR 9/08/92

HENRY TRANSPORTATION
ROUTE 5
GUILFORD, VERMONT

LEGEND

HT-3 — MONITORING WELL HT-3

500 — BTEX ISOCONCENTRATION CONTOUR OF 500 PPB

50 — MTBE ISOCONCENTRATION CONTOUR OF 50 PPB

MONITORING WELL CONTAMINANT CONCENTRATIONS (PPB)

	BTEX	MTBE
HT-1	8	ND
HT-2	920	88
HT-3	ND	ND
HT-4	52	ND

ND=NON-DETECTABLE

SCALE 1 : 300

0 25 50 75 FEET

PREPARED BY:
TRI-S ENVIRONMENTAL CONSULTING, INC.
P.O. BOX 1760, 205 MAIN STREET
BRATTLEBORO, VT 05302

Appendix H

Health and Safety Plan

SITE SPECIFIC HEALTH AND SAFETY PLAN

FOR

Henry Transportation, Guilford, Vermont

To be used in conjunction with all applicable sections of the Tri-S Programs and Procedures.

A. Site Description

Location: Route 5 south, approximately 1 mile past Exit One Industrial Park, turn left across from Recycled Auto Parts.

Special Hazards:

See Section F, Major Contaminants, and Section G, Health and Safety Risks.

B. Objectives

General Summary: Sample and analyze adjacent drinking water supplies according to EPA Methods 8020 and 418.1. Install 4 shallow monitoring wells, collect and analyze soil and ground water samples. Prepare groundwater gradient map and distribution map of contaminated plume. Develop treatment/monitoring plan for stockpiled soils. Assess local area receptors and determine environmental impact. Provide detailed report indicating findings, recommendations, and treatment of contaminated site.

C. On-Site Organization

Project Team Leader/Tri-S Supervisor: David Gagnon

Site Health & Safety Officer: Paul Miller

Site Representative of Owner: Sandy Garland, 257-1897

State DEC Officer: Ms. Lynda Wedderspoon (802) 244-8702
Charles Schwer

Other State Representatives: n/a

US EPA Representative: n/a

Other Federal Agency Representatives: n/a

Local Agency Representatives: n/a

D. Emergency Telephone Numbers

Local Police: (802) 254-2382

Local Fire: (802) 254-2636

Local Ambulance: (802) 254-2010

Tri-S Response: (203) 875-2110

State DEC Spills Division: (802) 244-8702

State DEC Hazardous Waste Division: (802) 244-8702

US EPA Region 1: (617) 860-4300

US EPA Hotline (24 hours): (617) 223-7265

National Response Center: 1 (800) 424-8802

Chemtrec: 1 (800) 424-9300

Local Poison Information Center: (802) 658-3456

State Police: (802) 254-2382

Town Clerk: (802) 254-6857

Local Hospitals: Brattleboro Memorial

Other Hospitals in Region: n/a

Directions to Hospital: Exit driveway, take right, continue straight through lights, third street, turn left on Belmont Ave.

E. Pertinent Site History
Underground storage tanks containing gasoline and diesel were filled with sand and closed June 23, 1992 soils surrounding the site were found to be contaminated.

F. Major Contaminants
Gasoline and diesel fuels

G. Health & Safety Risks

The only known or suspected contaminant at this site is gasoline in both the soils and groundwater. Gasoline, primarily used as a fuel for automobiles, is highly flammable and moderately explosive when exposed to heat or flame, and can react vigorously with oxidizing materials. Only foam, CO_2, or dry chemical should be used to fight a gasoline fire.

Symptoms following exposure include the following: prolonged or repeated dermal exposure causes dermatitis and can cause blistering of the skin; oral routes, including inhalation, causes central nervous system depression; severe pneumonitis will result from pulmonary aspiration of gasoline; brief inhalation of high concentrations can cause hyperemia of the conjunctiva and other disorders of the eyes. Should levels of gasoline vapors reach sufficient levels, the vapors will act as an asphyxiant. According to some sources, addiction to gasoline vapors has been noted.

Action Levels: Ambient levels of total organic vapors will be monitored by the Tri-S Health and Safety Officer with a Thermo Environmental Model 508 Organic Vapor Meter capable of detecting organic vapors to 0.1 ppm and measured at the breathing zone. Any detectable levels above 10 ppm will require that Level C protection be utilized.

H. Tri-S Employee Training Assignments

Refer to Tri-S Employee Training Program

I. Equipment Assignment and Levels of Protection

All personnel will be assigned Level C protection including a half-face respirator with a North 7500-2 yellow organic cartridge should it be required on site. Level D protection will be utilized throughout all drilling operations or when there is potential for exposure to gasoline on site. All Tri-S field personnel have been trained to use Level C protection and will be provided the appropriate equipment. The level of personal protection will be determined by the on-site Tri-S Health and Safety Officer in accordance with Section G, Health and Safety Risks, above.

Health and Safety Plan

J. Medical Surveillance

Refer to Medical Surveillance segment of the Tri-S Health and Safety Plan

K. Air Monitoring

Ambient air will be monitored at breathing level with an organic vapor meter (Thermo Environmental Model 508) capable of reading total organic vapors as low as 0.5 ppm.

See Section G for specific air monitoring procedures.

L. Site Control and Security

Only personnel as designated by the Tri-S Health and Safety Officer will be allowed in the work zone. The work Zone will be identified by barricade tape and appropriate signage. An access walkway will be provided through the barricade tape.

M. Decontamination Procedures

Drill rig and augers will be steam-cleaned before and after each soil boring. All wells will be completed and cemented in place at completion of each boring. Any disposable personal protection equipment will be packaged for proper disposal.

N. Site Standard Operating Procedures

All personnel will utilize appropriate and prudent actions during all phases of work.

O. Contingency Plan

See Tri-S Contingency Plan