QUARTERLY GROUNDWATER
MONITORING AND SAMPLLING
AT THE PROPERTY
LOCATED AT 5175 BROADWAY STREET
OAKLAND, CALIFORNIA
SEPTEMBER 8, 1999

PREPARED FOR: MR. MOHAMMAD MEHDIZADEH 678 LA CORSO DRIVE WALNUT CREEK, CALIFORNIA 94598

BY: ENVIRO SOIL TECH CONSULTANTS 131 TULLY ROAD SAN JOSE, CALIFORNIA 95111

### LIST OF TABLE

TABLE 1 ... GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS

TABLE 2 ... GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (8260B)

### LIST OF FIGURES

FIGURE 1 ... VICINITY MAP SHOWING 5175 BROADWAY STREET, OAKLAND, CALIFORNIA

FIGURE 2 ... SITE PLAN SHOWING BUILDING, FORMER UST AREAS AND MONITORING WELLS

### LIST OF APPENDICES

APPENDIX "A" ... TABLE 1 AND TABLE 2

APPENDIX "B" ... FIGURE 1 AND FIGURE 2

APPENDIX "C" ... STANDARD OPERATION PROCEDURES

APPENDIX "D" ... ANALYTICAL LABORATORY RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION

TABLE OF CONTENTS	PAGE NO.
LETTER OF TRANSMITTAL	1
PURPOSE	1
SITE DESCRIPTION	2
BACKGROUND	2-4
SCOPE OF PRESENT WORK	4-5
CURRENT FIELD WORK	5
GROUNDWATER MONITORING GROUNDWATER SAMPLING	5 5
GROUNDWATER FLOW DIRECTION	6
LABORATORY ANALYTICAL RESULTS	6
RECOMMENDATIONS	7
LIMITATIONS	7-8
APPENDIX "A"	
TABLE 1 - GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS	T1-T9
TABLE 2 - GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS	T10-T11
APPENDIX "B"	
FIGURE 1 - VICINITY MAP FIGURE 2 - SITE PLAN	M1 M2

TABLE OF CONTENTS CONT'D

PAGE NO.

APPENDIX "C"

GROUNDWATER SAMPLING

SOP1

APPENDIX "D"

PRIORITY ENVIRONMENTAL LABS REPORT AND CHAIN-OF-CUSTODY

### ENVIRO SOIL TECH CONSULTANTS

Environmental & Geotechnical Consultants

131 TULLY ROAD, SAN JOSE, CALIFORNIA 95111

Tel: (408) 297-1500 Fax: (408) 292-2116

September 8, 1999

File No. 8-90-420-GI

Mr. Mohammad Mehdizadeh 678 La Corso Drive Walnut Creek, California 94598

SUBJECT: QUARTERLY GROUNDWATER MONITORING AND SAMPLING AT THE PROPERTY

Located at 5175 Broadway Street, in Oakland, California

Dear Mr. Mehdizadeh:

This report presents the results of quarterly groundwater monitoring and sampling conducted on August 17, 1999, by Enviro Soil Tech Consultants (ESTC), at the subject site located at 5175 Broadway Street, in Oakland, California (Figure 1).

The five monitoring wells (MW-1 through MW-3, STMW-4 and STMW-5) located on-site (Figure 2) were monitored for presence of floating product and/or distinctive odor and sampled for analyses.

#### **PURPOSE:**

The purpose of this quarterly groundwater monitoring and sampling investigation was to determine the extent of subsurface contamination and direction of groundwater flow.

#### SITE DESCRIPTION:

The site is located at 5175 Broadway Street, in Oakland, California. The area in the vicinity of the site consists mainly of residential and light commercial (Figure 1).

#### **BACKGROUND:**

In January 1990, Tank Protect Engineering, Inc. (TPE), was retained to supervise the removal of underground fuel tanks and to conduct soil sampling, soil excavation, soil treatment and disposal. In addition, TPE installed three monitoring wells on-site.

Initial analytical results of soil samples collected from the tank excavation area showed moderate levels of Total Petroleum Hydrocarbons as gasoline (TPHg) in two locations. The rest of the samples showed TPHg ranging from non-detected to less than 120 parts per million (ppm). Due to the presence of elevated levels of TPHg detected in the excavation, TPE installed three on-site monitoring wells (MW-1 to MW-3), as required by state and local regulatory agencies (Figure 2). TPE's preliminary groundwater assessment also indicated that the shallow groundwater had been impacted.

The Alameda County Health Department (ACHD) requested the property owner to conduct further investigation in order to define the extent of dissolved hydrocarbon contamination in the groundwater.

Soil Tech Engineering, Inc. (STE), was retained in September 1990 to conduct monitoring and sampling of the on-site monitoring wells. The objective of the quarterly groundwater sampling program was to monitor seasonal and long-term variations in the conditions of the shallow aquifer beneath the site and to assess the direction of groundwater flow for further investigation.

STE sampled the three on-site groundwater monitoring wells (MW-1 to MW-3) on September 26, 1990, and January 14, 1991. The sampling was conducted in accordance with ACHD and California Regional Water Quality Control Board (CRWQCB) guidelines and STE's Standard Operating Procedures (SOP) included in Appendix "C".

The three on-site wells contained moderate to high levels of dissolved hydrocarbons. A comparison of the September 1990 sampling with TPE's analytical results of April 1990 showed an increase in dissolved hydrocarbons in wells MW-1 and MW-2. In well MW-3 (the down-gradient well), TPHg and Toluene levels decreased, whereas Benzene, Ethylbenzene and Total Xylenes increased slightly.

The analytical results for groundwater samples collected on January 14, 1991, showed an increase in TPH and BTEX levels in well MW-2 compared to those reported in September 1990. Well MW-1 also showed a slight increase in TPH and Benzene, but showed a decrease in Toluene, Ethylbenzene and Total Xylenes levels. Well MW-3 showed a substantial decrease in TPH and BTEX.

The Alameda County Health Department (ACHD) in a letter dated March 29, 1991, requested additional investigation to define the extent of dissolved hydrocarbon plume. STE installed two additional monitoring wells STMW-1 (STMW-4) and STMW-2 (STMW-5) on June 21, 1991. The July 3, 1991, water sampling results showed low levels of dissolved Total Hydrocarbons as gasoline (TPHg) and Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) in all five wells. The presence of low levels of TPHg and BTEX in the up-gradient well, STMW-1 (STMW-4), (located on the east corner of the property) indicated a potential off-site source. Based on the water level data, the groundwater direction was west to southwest on July 3, 1991. The detail of this investigation is summarized in STE's report dated July 23, 1991. STE recommended a quarterly monitoring and sampling of five on-site wells for at least a year.

The second quarterly sampling was conducted in November 1991. The detail of the sampling is described in STE's report dated November 22, 1991. The quarterly monitoring and samplings conducted by STE are described in STE's report dated March 10, 1992, June 1992, October 1992 and January 1993.

The last quarterly monitoring and sampling was conducted by STE on August 15, 1994, details in STE report dated September 20, 1994. STE prepared a work plan proposal for additional soil and groundwater investigation of the property dated October 5, 1994 but no further activity on the subject site was authorized by the owner. Hence, there was a discontinuation of quarterly monitoring and sampling activity from August 15, 1994 to November 7, 1996. The quarterly monitoring and sampling activity resumed on November 7, 1996.

### SCOPE OF PRESENT WORK:

The scope of present work are as follow:

- 1) Measure the depth-to-groundwater and monitor the presence of dissolved petroleum hydrocarbons in the five on-site wells.
- 2) Collect groundwater samples from the monitoring wells for analyses of Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE).
- 3) Per new regulations, groundwater samples were also analyzed for petroleum hydrocarbons constituents adaptive Volatile Organic Compounds (VOC's) per EPA Method 8260B].

- 4) Update the database for water level/dissolved hydrocarbon level and groundwater field observation data.
- 5) Review analytical results and prepare a report.

#### **CURRENT FIELD WORK:**

On August 17, 1999, the five on-site wells were monitored, purged and sampled in accordance with ESTC's Standard Operating Procedures (SOP) (Appendix "C"), which comprise state and local guidelines.

#### GROUNDWATER MONITORING:

During field observation, ESTC staff detected light sheen and sewerage odors in monitoring well MW-1. Only sewerage odor was noted in monitoring well MW-2. Rainbow sheen and strong petroleum odor were noted in monitoring well MW-3. Rainbow sheen and light petroleum odor were noted in monitoring wells STMW-4 and STMW-5. Table 1 summarizes the groundwater monitoring data and laboratory analytical results.

#### GROUNDWATER SAMPLING:

Following groundwater monitoring, the on-site wells were purged at least five well volumes and sampled. The water samples were collected in 40 millimeter glass vials and 1 liter amber bottles with teflon-lined caps, labeled and placed in an ice-cooled chest for transportation to Priority Environmental Labs, a State-Certified laboratory with appropriate chain-of-custody record.

### GROUNDWATER FLOW DIRECTION:

Groundwater elevation data was used to determine the direction of groundwater flow. Groundwater flow was approximately in a southwesterly direction as of August 17, 1999 (Figure 2).

#### LABORATORY RESULTS:

The groundwater samples were analyzed for TPHg, TPHd, BTEX and MTBE. In addition, per new regulations, groundwater samples were also analyzed for petroleum hydrocarbons constituents [Volatile Organic Compounds (VOC's) per EPA Method 8260B].

Groundwater sample from monitoring well MW-1 detected low level of TPHg at 0.79 milligrams per liter (mg/L), TPHd at 0.086 mg/L and BTEX at (0.0056 mg/L; 0.0043 mg/L; 0.0045 mg/L and 0.011 mg/L). Groundwater sample from monitoring well MW-2 detected low levels of TPHg at 2.9 mg/L; TPHd at 0.26 mg/L and BTEX at (0.02 mg/L; 0.018 mg/L; 0.017 mg/L and 0.038 mg/L). Water sample from monitoring well MW-3 detected low levels of TPHg at 20 mg/L; TPHd at 1.8 mg/L and low levels of BTEX at (0.051 mg/L; 0.041 mg/L; 0.061 mg/L and 0.13 mg/L). Monitoring well STMW-4 detected low levels of TPHg at 12 mg/L; TPHd at 0.99 mg/L and BTEX at (0.026 mg/L; 0.022 mg/L; 0.033 mg/L and 0.072 mg/L), respectively. Monitoring well STMW-5 detected low levels of TPHg at 2.8 mg/L; TPHd at 0.23 mg/L and BTEX at (0.018 mg/L; 0.017 mg/L; 0.018 mg/L and 0.036 mg/L). All five monitoring wells detected MTBE concentrations below laboratory detection limit in the groundwater samples. All five monitoring wells detected low levels of VOC's in the groundwater samples. Table 1 and Table 2 summarizes the groundwater samples analytical results.

#### RECOMMENDATIONS:

Since dissolved hydrocarbons continue to be present in the wells and some of the hydrocarbon constituents decreased and some have increased in the wells, ESTC recommends the continuation of monitoring and sampling of the five monitoring wells. In addition, ESTC recommends a meeting with ACEHD and the Regional Water Quality Control Board to discuss the results and obtain a sense of direction as to the additional investigation(s) necessary for the site.

A copy of this report should be sent to the Alameda County Health Care Services Agency (ACHCSA) and the California Regional Water Quality Control Board (CRWQCB).

#### LIMITATIONS:

This report and the associated work have been provided in accordance with the general principles and practices currently employed in the environmental consulting profession. The contents of this report reflect the conditions of the site at this particular time. The findings of this report are based on

- 1) The observations of field personnel.
- 2) The results of laboratory analyses performed by a state-certified laboratory.

It is possible that variations in the soil and groundwater could exist beyond the points explored in this investigation. Also, changes in groundwater conditions of a property can occur with the passage of time due to variations in rainfall, temperature, regional water usage and other natural processes or the works of man on this property or adjacent properties.

The services that ESTC provided have been in accordance with generally accepted environmental professional practices for the nature and conditions of the work completed in the same or similar localities at the time the work was performed.

This report was prepared in accordance with the currently accepted standards for environmental investigations. The contents of this report reflect the conditions of the subject site at this particular time. No other warranties, expressed or implied, as to the professional advice provided are made.

This quarterly monitoring and sampling was conducted in accordance with STE's work plan dated October 5, 1994 and October 10, 1996 letter from Alameda County Health Department requesting immediate initiation of quarterly monitoring program.

If have any questions or require additional information, please feel free to contact our office at (408) 297-1500 at your convenience.

Sincerely,

C. E. #34928

ENVIRO SOIL TECH CONSULTANTS

LAWRENCE KOO, P. E

GENERAL MANAGER

APPENDIX "A"

Date	Well No./ Elevation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	TPHg	TPHd	В	T	Ē	X	MTBE
4/30/89	MW-1 (97.71)	23	10	N/A	N/A	No sheen or odor	0.2	NA	0.018	0.005	0.002	0.012	NA
5/17/90	(2)./1)			9,26	88.45	N/A	NA	NA	NA	NA	NA	NA	NA
9/26/90				9.92	87.79	No sheen/Mild petroleum odor	1.3	NA	0.055	0.031	0.12	0.1	NA
1/14/91	<u> </u>			9.54	88.17	No sheen/Mild petroleum odor	3.1	NA	0.35	0.083	0.086	0.13	NA
7/03/91	(102.04) resurveyed			9.42	92.62	No sheen/Light petroleum odor	0.58	NA	0.032	0.041	0.04	0.055	NA
11/11/91	resurveyed			9.45	92.59	No sheen/Mild petroleum odor	0.33	NA	0.02	0.002	0.002	0.011	NA
3/04/92	(101.83) resurveyed			7.93	93.90	No sheen/Light petroleum odor	0.81	NA	0.011	0.005	0.01	0.023	NA
6/01/92	Tesurveyed			8.98	92.85	No sheen/Mild sewerage odor	2.2	NA	0.093	0.032	0.04	0.12	NA
9/28/92				9.29	92.54	No sheen/Mild sewerage odor	2.9	NA	0.024	0.0078	0.019	0.037	NA
1/11/93				7.56	94.27	No sheen/Light sewerage odor	1.7	NA	0.0057	0.006	0.011	0.028	NA
8/15/94				9.19	92.64	No sheen/Mild sewerage odor	2.0	NA	0.12	0.003	0.006	0.016	NA
11/07/96	(97.50) resurveyed			8.73	88.77	No sheen/Light sewerage odor	1.2	0.27	0.003	0.0011	0.0015	0.0038	ND
2/12/97	resurveyed			7.92	89.58	No sheen/Light sewerage odor	1.8	ND	0.013	0.0057	0.0048	0.017	ND

Date	Well No./ Elevation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	TPHg	TPHd	В	Т	E	X	MTBE
6/16/97	MW-1	23	10	9.04	88.46	No sheen/Very light sewerage odor	0.33	ND	0.0027	ND	ND	0.0012	ND
9/30/97	(97.50)			7.56	89.94	No sheen or odor	ND	ND	ND	ND	ND	ND	ND
1/27/98				7.96	89.54	No sheen or odor	ND	ND	ND	ND	ND	ND	ND
4/24/98		-		7.98	89.52	Light rainbow sheen Light sewerage odor	ND	ND	ND	ND	ND	ND	· ND
8/17/98		,		8.98	88.52	No sheen Light sewerage odor	ND	ND	ND	ND	ND	ND	ND
11/16/98				8.90	88.90	No sheen Light sewerage odor	ND	ND	ND	ND	ND	ND	ND
1/28/99	J			8.64	88.86	Light rainbow sheen Slight sewerage odor	0.11	ND	ND	ND	ND	ND	ND
5/17/99				8.50	89.00	No sheen/Strong sewerage odor	0.28	NA	0.0011	0.0006	ND	ND	ND
8/17/99				9.24	88.26	Light sheen Sewerage odor	0.79	0.086	0.0056	0.0043	0.0045	0.011	ND
4/30/89	MW-2 (97.78)	23	15	N/A	N/A	No sheen or odor	0.23	NA	0.039	0.018	0.005	0.023	NA
5/17/90	(3,)	-		10.00	87.78	N/A	NA	NA	NA	NA	NA	NA	NA
9/26/90				10.83	86.95	No sheen/Mild petroleum odor	0.85	NA	0.94	0.005	0.025	0.047	NA
1/14/91		<del> </del>		10.63	87.15	No sheen or odor	3.1	NA	0.35	0.083	0.086	0.13	NA
7/03/91	(102.02) resurveyed			10.08	91.94	No sheen/Light petroleum odor	1.59	NA	0.03	0.052	0.024	0.034	ÑΑ

Date	Well No./ Elevation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	ТРНд	TPHd	В	T	E	X	MTBE
11/11/91	MW-2	23	15	10.21	91.81	No sheen Mild petroleum odor	0.96	NA	0.32	0.0.15	0.004	0.029	NA
3/04//92	(101.67)			8.70	92.97	No sheen Light petroleum odor	1.5	NA	0.0095	0.0084	0.0098	0.022	NA
6/01/92				9.52	92.15	No sheen Mild sewerage odor	2.8	NA	0.084	0.041	0.059	0.095	NA
9/28/92				10.09	91.58	No sheen Mild sewerage odor	1.6	NA	0.047	0.02	0.047	0.097	NA
1/11/93				8.52	93.15	No sheen Light sewerage odor	2.5	NA	0.0086	0.01	0.017	0.032	NA
8/15/94	(97.49) resurveyed			9.91	91.76	No sheen/Light petroleum odor	6	NA	0.45	0.06	0.1	0.095	NA
11/07/96				10.02	87.47	No sheen/Very light sewerage odor	4.2	0.78	0.025	0.0049	0.0081	0.014	ND
2/12/97				8.91	88.58	No sheen/Very light sewerage odor	1.8	5.7	0.016	0.0031	0.0034	8800.0	ND
6/16/97				9.75	87.74	No sheen/Very light sewerage odor	2.5	ND	0.022	0.0051	0.0078	0.011	ND
9/30/97				7.98	89.51	No sheen or odor	ND	ND	ND	ND	ND	ND	ND
1/27/98		<del>                                     </del>		8.38	89.11	No sheen or odor	ND	ND	ND	ND	ND	ND	ND
4/24/98				8.68	88.81	No sheen/Slight sewerage odor	2.1	1.4	0.018	0.0065	0.0048	0.021	ND
8/17/98		<u> </u>		9.74	87.75	No sheen or odor	2.9	ND	0.0051	0.0045	0.0058	0.017	ND
11/16/98				10.14	87.35	No sheen Light sewerage odor	1.4	ND	0.0021	0.0019	0.0023	0.0048	ND

Date	Well No./ Elevation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	TPHg	TPHd	В	Т	E	Х	МТВЕ
1/28/99	MW-2 (97.49)	23	15	8.92	88.57	No sheen Slight sewerage odor	1.6	ND	0.082	0.016	ND	0.04	0.059
5/17/99	(91.40)		<u> </u>	9.26	88.23	No sheen Mild sewerage odor	8.2	NA	0.43	0.073	0.14	0.1	ND
8/17/99				10.04	87.45	No sheen Sewerage odor	2.9	0.26	0.02	0.018	0.017	0.038	ND
4/30/90	MW-3 (98.14)	27	20	N/A	N/A	No sheen Mild petroleum odor	56	NA	3.6	8.6	1.3	7.2	NA
5/17/90	(20.11)	<u> </u>	<del> </del>	12.42	85.72	N/A	NA	NA	NA	NA	NA	NA	NA
9/26/90				13.50	84.64	No sheen/Mild petroleum odor	54	NA	5.1	0.42	1.6	8	NA
1/14/91				12.58	85.56	Light sheen/Strong petroleum odor	35	NA	2.6	6.6	1.5	5.7	NA 
7/03/91	(102.46) resurveyed			12.08	90.38	Rainbow sheen Strong petroleum odor	33	NA	4.12	4.3	1.4	4.8	NA
11/11/91	resurveyed			12.29	90.17	Very light rainbow sheen Mild petroleum odor	57	NA	3.9	8.4	2.1	14	NA
3/04/92	(102.18) resurveyed	<del>                                     </del>		10.26	91.92	Brown sheen Strong petroleum odor	57	NA	0.72	0.87	0.81	3.1	NA
6/01/92	(97.94) resurveyed			11.40	90.78	Rainbow sheen/Mild petroleum odor	50	NA	0.24	0.24	0.22	0.74	NA
9/28/92	resurveyed			12.64	89.54	Rainbow sheen spots Strong petroleum odor	64	NA	0.11	0.093	0.097	0.25	NA

Date	Well No./ Elevation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	TPHg	TPHd	В	Т	E	X	MTBE
1/11/93	MW-3 (97.94)	27	20	10.10	92.08	Rainbow sheen Mild petroleum odor	68	NA	0.21	0.28	0.36	0.99	NA
8/15/94				12.20	89.98	Brown sheen spots Mild petroleum odor	50	NA	0.87	1.2	1.3	3	NA
11/07/96				12.40	85.54	Very thin layer of brown sheen/Light petroleum odor	68	0.47	0.033	0.027	0.063	0.12	ND
2/12/97			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10.23	87.71	Brown sheen spots Light petroleum odor	25	3.5	0.039	0.043	0.015	0.091	ND
6/16/97				11.79	86.15	Light brown sheen spots/Very light petroleum odor	9.7	ND	0.026	0.029	0.045	0.081	ND
9/30/97				9.40	88.54	No sheen or odor	6	1.6	0.043	0.036	0.012	0.11	ND
1/27/98	·			9.80	88.14	No sheen or odor	0.38	0.56	0.0057	0.0041	0.0017	0.0091	ND
4/24/98				9.90	88.04	Rainbow sheen Light sewerage odor	ND	0.68	ND	ND	ND	ND	ND
8/17/98		<del> </del>		11.46	86.48	No sheen or odor	16	ND	0.02	0.018	0.031	0.082	ND
11/16/98				12.40	85.54	Rainbow sheen Strong sewerage odor	68	ND	0.086	0.054	0.069	0.13	ND
1/28/99		-		10.72	87.22	Rainbow sheen Strong sewerage odor	33	ND	0.27	0.11	ND	0.77	0.17
5/17/99				10.54	87.40	Rainbow sheen Strong petro. odor	72	NA	0.28	0.23	0.32	0.89	ND
8/17/99				11.92	86.02	Rainbow sheen Strong petro. Odor	20	1.8	0.051	0.041	0.061	0.13	ND

Date	Well No./ Elevation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	TPHg	TPHd	В	Т	Е	X	МТВЕ
7/03/91	STMW-1 (103.58)	19.50	11.50	11.00	92.58	Light rainbow sheen Mild petroleum odor	3.1	NA	0.61	0.062	0.039	0.15	NA
11/11/91	STMW-4 (renamed)			11.08	92.50	Light rainbow sheen Strong petro. odor	3.6	NA	0.99	0.015	0.0026	0.18	NA
3/04/92	(101.08) Resurveyed			9.44	93.64	Rainbow sheen spots Mild petroleum odor	5	NA	0.035	0.02	0.022	0.071	NA
6/01/92	(98.80) Resurveyed			10.32	92.76	No sheen Light petroleum odor	13	NA	0.14	0.045	0.063	0.21	NA
9/28/92		-		10.76	92.32	Brown sheen spots Mild petroleum odor	40	NA	0.035	0.02	0.048	0.11	NA
1/11/93				9.28	93.80	Brown sheen spots Mild petroleum odor	24	NA	0.026	0.088	0.092	0.28	NA
8/15/94				10.54	92.54	Light rainbow sheen spots/Light petroleum odor	9	NA	0.5	0.034	0.046	0.13	NA
11/07/96				10.37	88.43	Rainbow sheen spots Very light petroleum odor	13	0.18	0.04	0.0029	0.0078	0.019	ND
2/12/97				9.36	89.44	Rainbow sheen spots Very light petroleum odor	5.3	5.7	0.095	0.0053	0.0059	0.018	DZ
6/16/97				10.40	88.40	No sheen/Very light sewerage odor	5.3	ND	0.037	0.0062	0.0017	0.011	ND
9/30/97				8.50	90.30	No sheen or odor	2.7	ND	0.042	0.0077	0.0057	0.026	ND
1/27/98	<del> </del>	<del>                                     </del>	<u> </u>	8.90	89.90	No sheen or odor	3	0.3	0.06	0.017	0.012	0.049	ND

Date	Well No./ Elevation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	ТРНд	TPHd	В	T	E	X	MTBE
4/24/98	STMW-4	19.50	11.50	9.50	89.30	Rainbow sheen	ND	ND	ND	ND	ND	ND	ND
	(98.80)		<u></u>			Strong sewerage odor	20	NID	0.036	0.024	0.059	0.16	ND
8/17/98				10.36	88.44	Rainbow sheen	29	ND	0.030	0.024	0.039	0.10	עאו
						Light petroleum odor			0.006	0.001	0.00	0.041	N14
11/16/98				10.56	88.24	Rainbow sheen	13	ND	0.026	0.021	0.02 ·	0.041	NA
	į	[				Strong sewerage odor							
1/28/99				9.64	89.16	Rainbow sheen	32	ND	0.66	0.016	0.016	0.15	ND
1120.19				ļ		Strong sewerage odor		1	<u> </u>				
5/17/99				9.96	88.84	Rainbow sheen	13	NA	1.6	0.03	0.045	0.078	ND
31 (1177						Strong petro. odor							
8/17/99				10.64	88.16	Rainbow sheen	12	0.99	0.026	0.022	0.033	0.072	ND
• • • • • •	1				İ	Light petroleum odor							
7/03/91	STMW-2	24	16	13.29	88.07	No sheen or odor	0.69	NA	0.099	0.081	0.019	0.098	NA
7703791	(101.99)												
11/11/91	STMW-5			14.00	87.99	No sheen/Very light	0.41	NA	0.061	0.0024	0.0014	0.02	NA
[1/[1/91	(renamed)	Ì				petroleum odor		-	1				
3/04/92	(101.36)		<del> </del>	11.80	89.56	No sheen/Very light	0.46	NA	0.013	0.0065	0.011	0.018	NA
3/04/92	1 '		1	1		petroleum odor							
(10.1.10.0	resurveyed	<u> </u>		13.06	88.30	No sheen	1.8	NA	0.027	0.02	0.021	0.043	NA
6/01/92				15.00	00.50	Mild petroleum odor							
	<u> </u>	1	<u> </u>	14.04	87.32	No sheen	1.5	NA NA	0.014	0.0061	0.018	0.022	NA
9/28/92				14.04	01.32	Mild sewerage odor	1	1	"""	"	*****		1
			ļ	11.61	90.75	No sheen	0.8	NA -	0.0018	0.003	0.0031	0.0094	NA
1/11/93				11.61	89.75	· ·	0.8	I INA	0.0010	0.003	0.0051	0.0074	1373
						Light sewerage odor					<u> </u>		

Date	Well No./ Elevation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	TPHg	TPHd	В	Т	E	Х	MTBE
8/15/94	STMW-5 (101.36)	24	16	13.85	87.51	No sheen Mild sewerage odor	3	NA	0.32	0.062	0.034	0.22	NA
11/07/96	(97.14)			13.67	87.51	Rainbow sheen spots Very light pet. odor	1.2	0.33	0.011	0.0017	0.0044	0.013	ND
2/17/97				12.07	85.07	Rainbow sheen spots Very light pet. odor	1-	3.7	0.011	0.0017	0.0017	0.0097	ND
6/19/97				13.33	83.81	No sheen/Very light sewerage odor	0.95	2.3	0.0074	0.001	0.001	0.0072	ND
9/30/97				11.24	85.90	No sheen Light sewerage odor	0.71	1.1	0.0058	0.004	0.001	0.001	ND
1/27/98				11.64	85.50	No sheen Light sewerage odor	0.34	1.1	0.002	0.0018	0.0016	0.0082	ND
4/24/98				11.84	85.30	Rainbow sheen Strong sewerage odor	3.3	ND	0.012	0.0094	0.0085	0.037	ND
8/17/98				13.20	83.94	Rainbow sheen Light sewerage odor	5.3	ND	0.026	0.017	0.014	0.039	ND
11/16/98				13.74	83.40	Rainbow sheen Strong sewerage odor	ND	ND	ND	ND	ND	ND	ND
1/28/99				12.22	84.92	Rainbow sheen Strong sewerage odor	0.95	ND	0.15	0.0038	0.0014	0.014	0.011
5/17/99				12.58	84.56	Rainbow sheen Mild petroleum odor	2.8	NA	0.067	0.0094	ND	0.016	0.03
8/17/99				13.48	83.66	Rainbow sheen Light petroleum odor	2.8	0.23	0.018	0.017	0.018	0.036	ND

TPHd - Total Petroleum Hydrocarbons as diesel

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes

GW Elev. - Groundwater Elevation

ND - Not Detected

N/A - Not Applicable

TPHg - Total Petroleum Hydrocarbons as gasoline

MTBE - Methyl Tertiary Butyl Ether

Perf. - Perforation

NA- Not Analyzed

Petro. - Petroleum

TABLE 2
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (8260B)

Date:	.:Sample#Yumber#5.	Compounds	Detection (mg/L)
1/28/99	MW-1	Not Analyzed	
	MW-2	Not Analyzed	
	MW-3	Not Analyzed	
	STMW-4	Not Analyzed	
	STMW-5	Not Analyzed	and a supplied to the control of the general series and a control of the control
5/17/99	MW-1	Diisopropyl Ether	0.12
	MW-2	Benzene	0.4
		Ethylbenzene	0.14
	MW-3	Benzene	0.19
		1,2,4-Trimethylbenzene	0.48
		1,3,5-Trimethylbenzene	0.29
:		Xylenes (total)	0.59
· · · · · · · · · · · · · · · · · · ·	STMW-4	Benzene	1.6
	STMW-5	Benzene	0.088
8/17/99	MW-1	Benzene	0.0052
		o-Xylene	0.0054
+		p-Xylene	0.0053
···	MW-2	Benzene	0.019
		Ethylbenzene	0.019
		Toluene	0.018
		o-Xylene	0.014
		m-Xylene	0.011
		p-Xylene	0.015
	MW-3	p-Xylene Benzene	0.049
	MW-3	·	0.049 0.063
	MW-3	Benzene	0.049 0.063 0.039
	MW-3	Benzene Ethylbenzene	0.049 0.063 0.039 0.044
	MW-3	Benzene Ethylbenzene Toluene	0.049 0.063 0.039

### TABLE 2 CONT'D GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (8260B)

Date .	Sample Number	Compounds 👙 💢	Detection (mg/L)
8/17/99	STMW-4	Benzene	0.024
		Ethylbenzene	0.031
		Toluene	0.025
		o-Xylene	0.028
		m-Xylene	0.021
		p-Xylene	0.026
<u> </u>	STMW-5	Benzene	0.019
		Ethylbenzene	0.021
		Toluene	0.016
		o-Xylene	0.014
		m-Xylene	0.011
		p-Xylene	0.016

mg/L - Milligrams Per Liter

APPENDIX "B"



Figure 1 M1

Monitoring Well

Flow Line

SCALE: 1"=20'

APPENDIX "C"

### **GROUNDWATER SAMPLING**

Prior to collection of groundwater samples, all of the sampling equipment (i.e. bailer, cables, bladder pump, discharge lines and etc...) was cleaned by pumping TSP water solution followed by distilled water.

Prior to purging, the well "Water Sampling Field Survey Forms" were filled out (depth to water and total depth of water column were measured and recorded). The well was then bailed or pumped to remove four to ten well volumes or until the discharged water temperature, conductivity and pH stabilized. "Stabilized" is defined as three consecutive readings within 15% of one another.

The groundwater sample was collected when the water level of the well recovered to 80% of its static level.

Forty milliliter (ml) glass volatile organic analysis (VOA) vials with Teflon septa were used as sample containers. The groundwater sample was decanted into each VOA vial in such a manner that there was a meniscus at the top. The cap was quickly placed over the top of the vial and securely tightened. The VOA vial was then inverted and tapped to see if air bubbles were present. If none were present, the sample was labeled and refrigerated for delivery under chain-of-custody to the laboratory. The label information would include a sample identification number, job identification number, date, time, type of analysis requested and the sampler's name.

APPENDIX "D"

Fax: 408-946-9663



### RIORITY ENVIRONMENTAL LABS

Environmental Analytical Laboratory Precision

August 21, 1999

PEL # 9909001

SOIL TECH ENGINEERING, Inc.

Attn: Frank Hamedi

Re: Five water samples for Gasoline/BTEX with NTBE and Diesel analyses.

Project name: 5175 Broadway Street, Oakland

Project number: 8-90-420-GI

Date sampled: Aug 17, 1999

Date extracted: Aug 19-20, 1999

Date submitted: Aug 18, 1999 Date analyzed: Aug 19-20, 1999

44

RESULTS:

SAMPLE I.D.	Gasoline	Diesel	MTBE	Benzene	Toluene	Ethyl Benzene	Tota Xyle:
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/)
MW-1	790	<u>-</u> 86	N.D.	5.6 <sub>PE</sub>	4.3	4.5	11
MW-2	2900	260	N.D.	20 PE;	18	17	38
MW-3	50000 Fire	1800	N.D.	51	41	61	130
STMW-4	12000	990	N.D.	26	22	33	72
STMW-5	2800	230	N.D.	18	17	18	36
Blank Spiked	N.D.	N.D.	Ŋ. D,.	N.D.	N.D.	N.D.	N.D.
Recovery	82.8%	90.1%		86.6%	83.0%	91.7%	104.2
Detection	* 2 - 2						
limit	50 ,	50	0.5	0.5	0.5	0.5	0.5
Method of	5030/	3510/	-	• .			
Analysis	8015	8015	602	605	602	602	602

David Duong Laboratory Director



Environmental Analytical Laboratory

August 27, 1999

PEL # 9909001 Page 01 of 02

SOIL TECH ENGINEERING

Attn: Frank Hamndi

Project name: 5175 Broadway St., Oakland, Project number: 8-90-420-GI

Sample I.D.: MW-1

Date Sampled: Aug 18, 1999

Date Submitted: Aug 18, 1999

Date Analyzed: Aug 19-25, 1999

Method of Analysis:

EPA 8260 Detection limit: 5.0 ug/L

COMPOUND NAME	CONCENTRATION ( ug/L)	C.A.S. no.
Benzene	5.2	71-43-2
Bronobenzene	N.D.	108-86-1
Bromochloromethane	N.D.	74-97-5
Bromodichloromethane	N.D.	75-27-4
Bromoform	N.D.	75-25-2
Bromomethane	N.D.	74-83-9
n-Butylbenzene	N.D.	104-51-8
sec-Butylbenzene	N.D.	135-98-8
tert-Butylbenzene	N.D.	98-06-6
Carbon tetrachloride	NaD.	56-32-E
Chlorobenzene	N.D.	108-90-7
Chloroethane	N.D.	75-00-3
Chloroform	N.D.	67-66-3
Chloromethane 1000	N.D. out	74 67 -
2-Chlorotoluene	N.D.	95-49-8
4-Chlorotoluene	N.D.	106-43-4
Dibromochloromethane 16:4.	Entropy D. D. C. Laborator	404
1,2-Dibromo-3-chloropropane	N.D.	96-12-8
1,2-Dibromoethane	N.D.	106-93-4
Dibromoethane	N.D.	74-95-3
1,2-Dichlorobenzene	N.D.	95-50-1
1,3-Dichlorobenzene	N.D.	541-73-1
1,4-Dichlorobenzene	N.D.	106-46-7
Dichlorodifluoromethane	Ŋ.Ô.	75-71-8
1,1-Dichloroethane	Ŋ.p.	75-34-3
1,2-Dichloroethane	N.D.	107-06-2
1,1-Dichloroethene	N.D.	75-35-4
cis-1,2-Dichloroethene	Ñ.D.	156-69-4
trans-1,2-Dichloroethene	n D	156-60-5
1,2-Dichloropropane	N.B.	78-87-5
1,3-Dichloropropane	หี.อี.	142-28-9
2,2-Dichloropropane	Ŋ.Ď.	594-20-7
1,1-Dichloropropene	N.D.	563-58-6
	Nasi.	<b>+                                 </b>

بدء (



Precision Environmental Analytical Laboratory

SAMPLE I.D. MW-1

PEL # 9909001 Page 2 of 2

			rage	E & OL &
COMPOUND NAME	•	CONCENTRATION ( ug/L)		C.A.S.
Ethylbenzene		N.D.		100-41-1
Hexachlorobutadiene	)	N.D.		87-68-3
MTBE Isopropultaliana		Й.D.		
Isopropyltoluene p-Isopropyltoluene		N.D.		98-82-8
Methylene chloride		N.D.		99-87-6
Naphthalene	:	N.D. N.D.		75-09-2
n-Propylbenzene		N.D.		91-20-3 103-65-1
Styrene		N.D.		100-42-5
1,1,1,2-Tetrachlord	ethane	N.D.		630-20-6
l,1,2,2-Tetrachloro	ethane	N.D.	•	79-34-5
Tetrachloroethene		N.D.		127-18-4
Poluene		N.D.		108-88-3
1,2.3-Trichlorobenz	ene	N.D.		87-61-6
1,2,4-Trichlorobenz	ene	и. D.		120-82-1
1,1,1-Trichloroetha 1,1,2-Trichloroetha	ne 	N.D.		71 <del>-</del> 55-6
richloroethene	ne	и.р.	be .	79-00-5
richlorofluorometh	270	N.D.		79-01-6
1,3,3-Trichloroprop	ane ane	77 N D - 100		75-69-4
1,2,4-Trimethylbenz	ene ene	N.D. N.D.		96-18-4
1,3,5-Trimethylbenz	ene	N.D.		95-63-6
Vinyl chloride		N.D.		108-67-8
o-Xylene		5.4		75-01-4 95-47-6
a-Xylene		Ñ.Ď.		108-38+3
p-Xylene		Ñ.Ď. 5∙3		106-42-3
		ia 1		
		F. A.		
		h . (t)		
		$\mathbf{E}_{\mathrm{col}}(G)$		
	,	<b>₹</b> ,Ð,		
	16, . 11_	Line.		
	Mirch Ind	#4 = 1.0 g		
		$V_{*}\mathcal{D}_{*}$		
		\$5 a.d.) i		
h 11 -		$L_{i}^{t} \longrightarrow i$		
Danddus	- ·	ls ≟ gk , ls		
≥vid Duong		Room Noon		
aboratory Director		n.b.		
		N.C.		
	<u>.</u>	, com		

1764 Houret Court Milpitas, CA. 95035

Tel: 408-946-9636



Environmental Analytical

August 27, 1999

PEL # 9909001 Page 01 of 02

SOIL TECH ENGINEERING

Attn: Frank Hamndi

Project name: 5175 Broadway St., Oakland Project number: 8-90-420-GI

Sample I.D.: MW-2

Date Sampled: Aug 18, 1999

Date Submitted: Aug 18, 1999

Date Analyzed: Aug 19-25, 1999

Method of Analysis:

EPA 8260 Detection limit: 5.0 ug/L

	( ug/L)	no.
Benzene	19	71-43-2
Bromobenzene	N.D.	108-86-1
Bromochloromethane	N.D.	74-97-5
Promodichloromethane	N.D.	75-27-4
Comoform .	N.D.	75-25-2
romomethane	N.D.	74-83-9
-Butylbenzene	N.D.	104-51-8
ec-Butylbenzene	N.D.	135-98-8
ert-Butylbenzene	N.D.	98-06-6
arbon tetrachloride	NARio las	56-23-5
hlorobenzene	N.D.	108-90-7
hloroethane	N.D.	75-00+3
hloroform	N.D.	67-66-3
hloromethane	N.D. Lat	74-87-3
-Chlorotoluene 🛒 🛴	N.D.	95-49-8
-Chlorotoluene	N.D.	106-43-4
ibromochloromethane	N.D.	124-38-1
,2-Dibromo-3-chloropropane	N.D.	96-12-8
,2-Dibromoethane	Co. N.D. Louis Ch	106-93-4
ibromoethane	N.D.	74-95-3
,2-Dichlorobenzene	W.D.	95-50-1
,3-Dichlorobenzene	N.D.	541-73-1
4-Dichlorobenzene	N,D.	106-46-7
ichlorodifluoromethane	Ŋ.p.	75-71-8
,1-Dichloroethane	Ŋ.Ď.	75-34-3
,2-Dichloroethane	Ŋ.D.	107-06-2
,1-Dichloroethene	Ŋ,p.	75-35-4
is-1,2-Dichloroethene	N.D.	156-69-4
rans-1,2-Dichloroethene	M-D.	156-60-5
,2-Dichloropropane	Ŋ.D.	78-87-5
,3-Dichloropropane	N.D.	142-28-9
,2-Dichloropropane	N.D. N.D. N.D. N.D.	594-20-7
,1-Dichloropropene	и.р.	563-58-6

1764 Houret Court Milpitas, CA. 95035

Tel: 408-946-9636



Precision: Environmental Analytical Laboratory

SAMPLE I.D. MW-2

PEL # 9909001
Page 2 of 2

COMPOUND NAME	CONCENTRATION	C.A.S.
	( ug/L)	no.
Ethylbenzene	19	100-41-1
Hexachlorobutadiene	N.D.	87-68-3
MTBE	N.D.	~~~~
Isopropyltoluene	N.D.	98-52-8
p-Isopropyltoluene	N.D.	99-87-6
Methylene chloride	N.D.	75-09-2
Vaphthalene	N.D.	91-20-3
n-Propylbenzene Styrene	N.D.	103-65-1
	N.D.	100-42-5
1,1,1,2-Tetrachloroethane	N.D.	630-20-6
etrachloroethene	N.D.	79+34-5
Poluene	N.D.	127-18-4
,2.3-Trichlorobenzene	18	108-68-3
,2,4-Trichlorobenzene	H.D.	87-61-6
,1,1-Trichloroethane	N.D.	120-82-1
,1,2-Trichloroethane	N.D.	71-55-6
richloroethene	И.D. И.D.	⊬ <sub>5</sub> , 79-00-5
richlorofluoromethane	N D	79-01-6
,2,3-Trichloropropane	据"护"	75-69-4
,2,4-Trimethylbenzene	N.D.	96-18-4
,3,5-Trimethylbenzene	N.D.	95-63-6
inyl chloride	N.D.	108-67-8
≻Xylene	31 <b>4</b>	75-01~4 95-47-6
-Xylene	8 <b>1</b> 2	108-38-3
-Xylene	<b>%</b> 15.	106-42-3
	La plan	100-44-3
	Civily.	
	N,O,	
	18 (D)	
	[8.15]	
الفهار الوان ﴾	N , $D$	
Ž: A jake	[8], O	
ı	$\frac{1}{2} \frac{1}{2} \frac{1}{2} $	
	L3	
	atji is	
Dandduer	D 10	
James	24 . 15	
vid Duong	\$4 b	
aboratory Director	h sab	
•	$N \cdot L$	
. 4	N . C	
!	St.	

1764 Houret Court Milpitas, CA. 95035

Tel: 408-946-9636



Precision Environmental Analytical Laboratory

August 27, 1999

PEL # 9909001 Page 01 of 02

SOIL TECH ENGINEERING

Attn: Frank Hamndi

Project name: 5175 Broadway St., Oakland Project number: 8-90-420-GI

Sample I.D.: MW-3

Date Sampled: Aug 18, 1999 Date Analysed: Aug 19-25, 1999

Date Submitted: Aug 18, 1999

Method of Analysis:

EPA 8260

PRIORITY LABS

Detection limit: 5.0 ug/L

COMPOUND NAME	CONCENTRATION ( ug/L)	C.A.S. no,
Benzene	49	72 40 -
Bromobenzene	N.D.	71-43-2 108-86-1
Bromochloromethane	N.D.	74-97-5
Bromodichloromethane	N.D.	75-27-4
Bromoform	N.D.	75-25-2
Bromomethane	N.D.	74-83-9
n-Butylbensene	N.D.	104-51-8
sec-Butylbenzene	V7 7%	135-98-8
tert-Butylbenzene	N.D.	98-06-6
Carbon tetrachloride	N V	56-23-5
-triot one UREVE	N.D.	108-90-7
Chloroethane	N.D.	75-00-3
Chloroform	N.D.	67-66-3
hloromethane	<b>W</b> .ft	74-87-3
r-Chiorotoluene ,,	e e te a calla a calla	95-49-8
-cutotofotnelle	N.D.	106-43-4
ibromochloromethane		124-38-1
1,4-Dloromo-j-chloropropane	N.D.	96-12-8
,2-Dibromoethane	Contraction of the Contraction	106-93-4
ibromoethane	N.D. N.D.	74-95-3
,2-Dichlorobenzene		95-50-1
,3-Dichlorobenzene	N.D.	541-73-1
.,4-Dichlorobenzene	n,ņ.	106-46-7
ichlorodifluoromethane	Ŋ.D.	75-71-8
,1-Dichloroethane	N.D.	75-34-3
,2-Dichloroethane	N.D. N.D.	107-06-2
1-Dichloroethene	N.D.	75-35-4
is-1,2-Dichloroethene	N <sub>1</sub> B:	156-69-4
rans-1,2-Dichloroethene	N + D :	156-60-5
,2-Dichloropropane	<b>Д.</b> Д.	78-87-5
,3-Dichloropropane	й.В:	142-28-9
,2-Dichloropropane	й.В;	594-20-7
,1-Dichloropropene	N.B.	563-58-6

ež.

1764 Houret Court Milpitas, CA. 95035

Tel: 408-946-9636

[ , UC



### PRIORITY ENVIRONMENTAL LABS

Precision - Environmental Analytical Laboratory

SAMPLE I.D. MW-3

PEL # 9909001 Page 2 of 2

COMPOUND NAME		CONCENTRATION ( ug/L)	C.A.s.
Ethylbenzene	<del>1,</del>	63	100-41-1
Hexachlorobutadien	1e	N.D.	87-68-3
MTBE		N.D.	******
<b>Isopropyltoluene</b>	1	M·D-	98-82-8 00-83-6
p-Isopropyltoluene	<b>&gt;</b>	n.d.	99-87-6 75-09-2
dethylene chloride	2	N.D.	91-20-3
Naphthalene		N.D. M.O.	103-65-1
n-Propylbenzene		N.D.	100-42-5
Styrene 1,1,1,2-Tetrachlo	roothane	N.D.	630-20-6
1,1,2,2-Tetrachlor		и.р.	79-34-5
retrachloroethene		N.D.	127-18-4
Toluene		39	108-88-3
1,2.3-Trichlorober	nzene	N.D.	87-61-6
1,2,4-Trichlorober	nzene	N.D.	120-82-1
1,1,1-Trichloroet	ha <b>ne</b>	N.D.	71-55-6
1,1,2-Trichloroet	nane	N.D.	79-00-5
Trichlorosthens		N.D.	79-01-6 75-69-4
Trichlorofluorome		walk Ma De Land and a	96+18-4
1,2,3-Trichloropro		N.D.	95-63-6
1,2,4-Trimethylber	nzene	N.D. N.D.	108-67-8
1,3,5-Trimethylber	nzene	и.D.	75-01-4
Vinyl chloride		^44. ∧2€.	95-47-6
o-Xylene m-Xylene		₩ <b>3</b> 8;	108-38-3
p-Xylene		K 4 9	106-42-3
h_w} rene		ην +12 · 	
		7 3 ·	
		W.C.	
	•		
		$\mu$ . $\omega$	
		je.p.	
	a athri	д. у. У. у.	
	a inches English b	И.D. И.D. И.D.	
		и.р. и.р. и.р. и.р.	
		и.р. и.р. и.р. и.р.	
		и.р. и.р. и.р. и.р. зе г.б.	
1 Mars		N.D. N.D. N.D. 19 2 G. N.D.	
(Dandduan)		N.D. N.D. N.D. N.D. 19 15 N.D. N.D.	
Daniddus -		N.D. N.D. N.D. N.D. 19 10 N.D. N.D. N.D.	
DEAID BROILE	t switch	N.D. N.D. N.D. N.D. S.D. N.D. N.D. N.D.	
David Duong Laboratory Direct	A sported	N.D. N.D. N.D. N.D. 19 10 N.D. N.D. N.D.	

1764 Houret Court Milpitas,

CA. 95035

Tel: 408-946-9636

1.1.

4.4



Environmental Analytical Laboratory

August 27, 1999

PEL # 9909001 Page 01 of 02

SOIL TECH ENGINEERING

Attn: Frank Hamndi

Project name: 5175 Broadway St., Oakland Project number: 8-90-420-GI

Sample I.D.: STMW-4

Date Sampled: Aug 18, 1999 Date Analyzed: Aug 19-25, 1999 Date Submitted: Aug 18, 1999

Method of Analysis:

EPA

8260 Detection limit: 5.0 ug/L

COMPOUND NAME	CONCENTRATION ( ug/L)	c.A.S.
Benzene	24	71-43-2
Bromobenzene	N.D.	108-86-1
Bromochloromethane	N.D.	74-97-5
Bromodichloromethane	N.D.	75-27-4
Bromoform	N.D.	75-25-2
Bromomethane	N.D.	74-83-9
n-Butylbenzene	и.D.	104-51-8
sec-Butylbenzene	N.D. (C. 1-71) - F	135-98-8
tert-Butylbenzene	N.D.	98-06-6
Carbon tetrachloride ( and )	The Bar of the same of the same of	56-23-5
Chlorobenzene	Ň.Ď.	108-90-7
Chloroethane	N.D.	75-00-3
Chloroform	N.D.	67-66-3
Chloromethane 1975	N.D. Carline on 1836	74-87-3
2-Chlorotoluene	N.D.	95-49-8
4-Chlorotoluene	N.D.	106-43-4
Dibromochloromethane this	* · · ·	124-38-1
1,2-Bibromo-3-chloropropane	N.D.	96-12-8
1,2-Dibromoethane	N.D.	106-93-4
Dibromoethane		74-95-3
1,2-Dichlorobenzene	N.D.	95-50-1
1,3-Dichlorobenzene	N.D.	541-73-1
1,4-Dichlorobenzene	N.O.	106-46-7
Dichlorodifluoromethane	N.D.	75+71-8
1,1-Dichloroethane	й.р.	75-34-3
1,2-Dichloroethane	Ŋ-D-	107-06-2
1,1-Dichloroethene	Ñ.Ď.	75-35-4
cis-1,2-Dichloroethene	Й•Д• И•Д•	156-69-4
trans-1,2-Dichloroethene	ที. อี.	156-60-5
1,2-Dichloropropane	<u>й.</u> й.	78-87-5
1,3-Dichloropropane	Ñ.B.	142-28-9
2,2-Dichloropropane	Ñ.Đ.	594-20-7
1,1-Dichloropropene	N.B.	563-58-6
TIT PTOUTOT AND ABOUT		
	N . D Ç	
	∱% +¢	

1764 Houret Court Milpitas, CA. 95035

Tel: 408-946-9636



Precision Environmental Analytical Laboratory

SAMPLE I.D. STMW-4

PEL # 9909001 Page 2 of 2

		1	
COMPOUND NAME	-	CONCENTRATION ( ug/L)	C.A.S. no.
Ethylbenzene		31	100-41-1
Hexachlorobutadiene		N.D.	87-68-3
MTBE		Ŕ.D.	DO_01_6
Isopropyltoluene p-Isopropyltoluene		N.D. N.D.	98-82 <b>-8</b> 99-87 <b>-</b> 6
Methylene chloride	•	N.D.	75-09-2
Naphthalene		N.D.	91-20-3
n-Propylbenzene		N.D.	103-65-1
Styrene		N.D.	100-42-5
1,1,1,2-Tetrachloroet		N.D.	630-20-6
1,1,2,2-Tetrachloroet	:hane	N.O.	79+34-5
Tetrachloroethene		N.D.	127-18-4
Toluene		25	108-88-3
1,2.3-Trichlorobenzen		H.D.	87-61-6
1,2,4-Trichlorobenzen 1,1,1-Trichloroethane		N.D.	120-82-1
1,1,2-Trichloroethane		N.D.	71-55-6
Trichloroethene	•	N.D. N.D.	. 79-00-5 79-01-6
Trichlorofluoromethan	te .	N.D.	75-69-4
1,2,3-Trichloropropan		<b>₩.Ď.</b>	96-18-4
1,2,4-Trimethylbenzen		N.B.	95-63-6
1,3,5-Trimethylbenzen		N.D.	108-67-8
Vinyl chloride		N <sub>5</sub> p.	75-01-4
o-Xylene		, 2 <u>8</u>	95-47-6
m-Xylene		N <b>2</b> 1	108-38-3
p-Xylene		<b>25</b>	106-42-3
		#4 - 1.1 ·	
		₩,Ł.	
		14 · D ·	
		R.D.	
•		$\mathcal{R}_{+}\mathcal{D}_{+}$	
	kokuadi Paraza	и,о. И.р.	·
	a wa ces≡	garaga Anglas	
		25	•
	ę.	r' '1).	
	¢.	R.D.	
Handa		N	
David Duong		h 'D'	
Laboratory Director		$\mathbf{h}_{\mathbf{r}}$ , $\mathbf{v}_{\mathbf{r}}$	
	·	li, 1),	
	<u>ء</u> را	ية والإي	
	. '	4.1.	

. . . .

31

1764 Houret Court Milpitas, CA. 95035

Tel: 408-946-9636



Precision Environmental Analytical Laboratory

August 27, 1999

PEL # 9909001 Page 01 of 02

SOIL TECH ENGINEERING

Attn: Frank Hamndi

Project name: 5175 Broadway St., Oakland Project number: 8-90-420-GI

Sample I.D.: STMW-5

Date Sampled: Aug 18, 1999 Date Analyzed: Aug 19-25, 1999

Date Submitted: Aug 18, 1999

Method of Analysis:

EPA 8260

Detection limit: 5.0 ug/L

COMPOUND NAME CONCENTRATION C.A.S. { ug/L} no. Benzene 19 71-43-2 Bromobenzene N.D. 108-86-1 Bromochloromethane N.D. 74-97-5 Bromodichloromethane N.D. 75-27-4

Bronoform N.D. Bromomethane N.D. n-Butylbenzene N.D. sec-Butylbenzene tert-Butylbenzene 135-98-8 N.D. Carbon tetrachloride (Malling) (M.D. N.D. Chlorobenzene Chloroethane N.D. Chloroform N.D.

N.D. Oak Chloromethane 2-Chlorotoluene L 3 12 31 

1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene N.D. N.D. и,д. Dichlorodifluoromethane N.B.

1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethane N.D. Й.Ď. cis-1,2-Dichloroethene N.B. trans-1,2-Dichloroethene N.D.

1,2-Dichloropropane 1,3-Dichloropropane 2,2-Dichloropropane

1,1-Dichloropropene

Ñ.C.

N.D.

й-Б-

98-06-6 56-23-5 108-90-7 75-00-3 67-66-3 74-87-3

75-25-2

74-83-9

104-51-8

95-49-8 106-43-4 124-38-1 96-12-8

> 106-93-4 74-95-3 95-50-1 541-73-1 106-46-7

75-71-8 75-34-3 107-06-2 75-35-4 156-69-4

156-60-5 78-87-5 142-28-9 594-20-7

563-58-6



Environmental Analytical Laboratory

SAMPLE I.D. STMW-5
--------------------

PEL # 9909001 Page 2 of 2

		•	
COMPOUND NAME	ļŧ	CONCENTRATION	C.A.S.
		( ug/L)	no.
Ethylbenzene		21	100-41-1
Hexachlorobutadie	ine	N.D.	87-68-3
MTBE		N.D.	~~~~
Isopropyltoluene		N.D.	98-82-8
-Isopropyltoluen	e	N.D.	99-87-6
Methylene chlorid	8	N.D.	75-09-2
Naphthalene		N.D.	91-20-3
n-Propylbenzene		N.D.	103-65-1
Styrene		N.D.	100-42-5
1,1,1,2-Tetrachlo	rosthane	N.D.	630-20-6
1,1,2,2-Tetrachlo	roethane	N.D.	79-34-5
Tetrachloroethene		N.D.	127-18-4
Toluene		16	108-88-3
1,2.3-Trichlorobe	nzene	N.D.	87-61-6
1,2,4-Trichlorobe	nzene	N.D.	120-82-1
1,1,1-Trichloroet	hane	и.р.	71-55-6
1,1,2-Trichloroet	hane	N.D.	79-00-5
richloroethene		N.D.	79-01-6
richlorofluorome	thane	N.D.	75-69-4
,2,3-Trichloropro	opane	N.Da	96-18-4
ارک,4-Trimethylbe،	nzene	n.D.	95-63-6
L,3,5-Trimethylbe	nzene	N.D.	108-67-8
/inyl chloride		N.D.	75-01-4
-Xylene		41 <u>4</u>	95-47-6
т-Хујеле		n <b>ii</b> ,	108-38-3
-Xylene		1.15	106-42-3
		en views Reliable	740-45-2
		R.E.	
		F.D.	
		y, p, $y, p$ ,	
	±iquat Lanco	H.D.	
	կանու	N.D.	
		$W_{i}\mathcal{D}_{i}$	
	£. k	16	
the Iduary	4	ti.D.	
Jawddus	· **	24 (4)	
		1, 1,	
vid Duong		N . D .	
aboratory Directo	r	X.E.	
		N. D.	
	괯	$N$ , $\Gamma$ ,	
	e <sub>n</sub> ft	II. L	
7.74.74	i,1	$H_{i}(\Gamma)$	

1 1.

Confirmancial & Gentochical Consulanta 131 VILLY RIAD, SAN FISC, CALIFORNIA 95111 Tel: (408) 297-1560 Fac: (408) 292-2416