

QUARTERLY GROUNDWATER MONITORING AND SAMPLLING AT THE PROPERTY LOCATED AT 5175 BROADWAY STREET OAKLAND, CALIFORNIA MAY 21, 1998

PREPARED FOR: MR. MOHAMMAD MEHDIZADEH 150 RANDOM WAY PLEASANT HILL, CALIFORNIA 94523

BY: SOIL TECH ENGINEERING, INC. 1761 JUNCTION AVENUE SAN JOSE, CALIFORNIA 95112

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SOIL TECH ENGINEERING, INC.

SOIL TECH ENGINEERING, INC.

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May 21, 1998

File No. 8-90-420-GI

Mr. Mohammad Mehdizadeh 150 Random Way Pleasant Hill, California 94523

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 April 24, 1998, by Soil Tech Engineering, Inc. (STE), at the subject site located at 5175 Broadway Street, in Oakland, California (Figure 1).

Five monitoring wells (MW-1 through MW-3, STMW-4 and STMW-5) located on-site (Figure 2) were monitored for presence of sheen and/or odor, sampled and analyzed for the presence of Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg), Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE) and Total Lead (Pb).

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 you have any questions or require additional information, please feel free to contact our office at (408) 441-1881.

Sincerely,

FRANK HAMEDI-FARD

GENERAL MANAGER

LAWRENCE KOO, P. E. C. E. #34928

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SITE DESCRIPTION AND BACKGROUND:

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).

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 hydrocarbons 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 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 Petroleum Hydrocarbons as gasoline (TPHg) and Benzene, Toluene, Ethylbenzene and 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.

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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.

Since November 17, 1996, quarterly monitoring and sampling of the subject site was resumed without interruption.

SCOPE OF PRESENT WORK:

The scope of work for this sampling was to:

- 1) Measure the depth-to-groundwater and monitor the presence of dissolved hydrocarbons in the five on-site wells.
- 2) Collect groundwater samples from the on-site wells for analyses of Total Petroleum Hydrocarbons as diesel and gasoline (TPHd and TPHg), Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE) and Total Lead (Pb) and submit to a State-Certified laboratory.
- 3) Update the database for water level, dissolved hydrocarbon level and groundwater field observation data.
- 4) Review analytical results and prepare a report.

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CURRENT FIELD WORK:

On April 24, 1998, the five on-site wells were monitored, purged and sampled in accordance with state and local guidelines and STE's Standard Operating Procedures (SOP) (Appendix "C").

GROUNDWATER MONITORING:

During field observation, Light rainbow sheen and light sewerage odor were detected in monitoring well MW-1. Only slight sewerage odor was detected in monitoring well MW-2. Rainbow sheen and light sewerage odor were detected in monitoring well MW-3. Rainbow sheen and strong sewerage odor were detected 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 glass vials and 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.

The water samples were analyzed for TPHg, TPHd, BTEX and MTBE and Total Lead.

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 April 24, 1998.

LABORATORY ANALYTICAL RESULTS:

Monitoring wells MW-1 and STMW-4 detected TPHd, TPHg and BTEX concentrations below laboratory detection limit. Monitoring well MW-2 detected low levels of TPHd at 1.4 mg/L; TPHg at 2.1 mg/L and BTEX at (0.018 mg/L, 0.0065 mg/L, 0.0048 mg/L and 0.021 mg/L), respectively. Monitoring well STMW-5 detected low levels of TPHg at 3.3 mg/L and BTEX at 0.012 mg/L; 0.0094 mg/L; 0.0085 mg/L and 0.037 mg/L while TPHd concentration is below laboratory detection limit. Monitoring well MW-3 detected low levels of TPHd at 0.68 mg/L, but TPHg and BTEX concentration are below laboratory detection limit. All five monitoring wells detected MTBE and Total Lead concentrations below laboratory detection limit. Table 1 summarizes the water sample 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, STE recommends the continuation of monitoring and sampling of the five monitoring wells. In addition, STE 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 Department (ACHD) and the California Regional Water Quality Control Board (CRWQCB).

LIMITATIONS:

This report and the associated work has 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.

This report is issued with the understanding that it is the responsibility of the owner or his her representative to ensure that the information and recommendations contained herein are called to the attention of the Local Environmental Agency.

Services performed by STE 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 is not meant to represent a legal opinion. No other warranty, express or implied is made.

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APPENDIX "A"

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TABLE 1 GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./	Depth of	Perf.	Depth to	GW	Well Observation	TPHg	TPHd	В	Т	Е	X	MTBE
	Elevation	well	Length	water	Elev.				ļ			_	
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				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				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				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				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				7.92	89.58	No sheen/Light sewerage odor	1.8	ND	0.013	0.0057	0.0048	0.017	ND

TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Weil No./	Depth of	Perf.	Depth to	GW	Well Observation	TPHg	TPHd	В	Т	E	X	MTBE
	Elevation	Well	Length	Water	Elev.								
6/16/97	MW-1	23	10	9.04	88.46	No sheen/Very	0.33	ND ⁻	0.0027	ND	ND	0.0012	ND
	(97.50)					light sewerage odor		,					
9/30/97				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	ND	ND	ND	ND	ND	ND	ND
						Light sewerage odor							
4/30/89	MW-2	23	15	N/A	N/A	No sheen or odor	0.23	NA	0.039	0.018	0.005	0.023	NA
	(97.78)												
5/17/90				10.00	87.78	N/A	NA	NA	NA	NA	NA	NA	NA
9/26/90	······································			10.83	86.95	No sheen/Mild	0.85	NA	0.94	0.005	0.025	0.047	NA
						petroleum odor		1					
1/14/91				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)			10.08	91.94	No sheen/Light	1.59	NA	0.03	0.052	0.024	0.034	NA
	resurveyed					petroleum odor							
11/11/91				10.21	91.81	No sheen/Mild	0.96	NA	0.32	0.015	0.004	0.029	NA
						petroleum odor							
3/04/92	(101.67)			8.70	92.97	No sheen/Light	1.5	NA	0.0095	0.0084	0.0098	0.022	NA
	resurveyed					petroleum odor	}						
6/01/92				9.52	92.15	No sheen	2.8	NA	0.084	0.041	0.059	0.095	NA
			1			Mild sewerage odor							
9/28/92				10.09	91.58	No sheen	1.6	NA	0.047	0.020	0.047	0.097	NA
				1		Mild sewerage odor			,				
1/11/93		· ·		8.52	93.15	No sheen	2.5	NA	0.0086	0.01	0.017	0.032	NA
					<u> </u>	Light sewerage odor		· ·					

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TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./	Depth of	Perf.	Depth to	GW	Well Observation	TPHg	TPHd	B	Т	E	X	MTBE
	Elevation	Well	Length	Water	Elev.								
8/15/94	MW-2	23	15	9.91	91.76	No sheen/Light	6	NA	0.45	0.06	0.1	0.095	NA
	(97.49)					petroleum odor			:				
	Resurveyed												
11/07/96				10.02	87.47	No sheen/Very	4.2	0.78	0.025	0.0049	0.0081	0.014	ND
						light sewerage odor							
2/12/97				8.91	88.58	No sheen/Very	1.8	5.7.	0.016	0.0031	0.0034	0.0088	ND
						light sewerage odor							
6/16/97				9.75	87.74	No sheen/Very	2.5	ND	0.022	0.0051	0.0078	0.011	ND
						light sewerage odor							
9/30/97				7.98	89.51	No sheen or odor	ND	ND	ND	ND	ND	ND	ND
1/27/98			· ·	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	2.1	1.4	0.018	0.0065	0.0048	0.021	ND
						sewerage odor							
4/30/90	MW-3	27	20	N/A	N/A	No sheen/Mild	56	NA	3.6	8.6	1.3	7.2	NA
1/50/20	(98.14)					petroleum odor							
5/17/90				12.42	85.72	N/A	NA	NA	NA	NA	NA	NA	NA
9/26/90				13.50	84.64	No sheen/Mild	54	NA	5.1	0.42	1.6	8.0	NA
5720750						petroleum odor							
1/14/91				12.58	85.56	Light sheen/Strong	35	NA	2.6	6.6	1.5	5.7	NA
				-		petroleum odor							
7/03/91	(102.46)			12.08	90.38	Rainbow sheen	33	NA	4.12	4.3	1.4	4.8	NA
Į	resurveyed			1		Strong petroleum odor							
11/11/91			1	12.29	90.17	V. light rainbow sheen	57	NA	3.9	8.4	2.1	14	NA
1						Mild petroleum odor							
3/04/92	(102.18)			10.26	91.92	Brown sheen/Strong	57	NA	0.72	0.87	0.81	3.1	NA
ļ	resurveyed					petroleum odor							

TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./	Depth of	Perf.	Depth to	GW	Well Observation	TPHg	TPHd	В	Т	E	X	MTBE
	Elevation	Well	Length	Water	Elev.								
6/01/92	MW-3	27	20	11.40	90.78	Rainbow sheen/Mild	50	NA	0.24	0.24	0.22	0.74	NA
	(97.94)	1				petroleum odor							
9/28/92		1		12.64	89.54	Rainbow sheen spots	64	NA	0.11	0.093	0.097	0.25	NA
						Strong petroleum odor							
1/11/93				10.10	92.08	Rainbow sheen/Mild	68	NA	0.21	0.28	0.36	0.99	NA
						petroleum odor							1
8/15/94				12.20	89.98	Brown sheen spots	50	NA	0.87	1.2	1.3	3	NA
						Mild petroleum odor							
11/07/96				12.40	85.54	Very thin layer of brown	68	0.47	0.033	0.027	0.063	0.12	ND
				Į		sheen/Light							
		ļ				petroleum odor							
2/12/97				10.23	87.71	Brown sheen spots	25	3.5	0.039	0.043	0.015	0.091	ND
						Light petroleum odor	1						
6/16/97				11.79	86.15	Light brown sheen	9.7	ND	0.026	0.029	0.045	0.081	ND
						spots/Very light petroleum		1					
			ļ			odor							
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	ND	0.68	ND	ND	ND	ND	ND
						sewerage odor							<u> </u>
7/02/01	STMW1	10.5		11.00	92.58	Light rainbow sheep	3 1	l NA	0.61	0.062	0.039	0.15	NA
1105/71	(103.58)	17.5	11.5	11.00	14.20	Mild netroleum odor	2.1		0.01	0.002			
11/11/91	STMW-4			11.08	92.5	Light rainbow sheen	3.6	NA	0.99	0.015	0.0026	0.18	NA
	(renamed)					Strong pet, odor	5.0						
	[(renumeu)	1	1		1				I	1		1	1

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TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./	Depth of	Perf.	Depth to	GW	Well Observation	TPHg	TPHd	В	Т	Е	X	MTBE
	Elevation	Well	Length	Water	Elev.								
3/04/92	STMW-4	19.50	11.50	9.44	93.64	Brown sheen spots	5	NA	0.035	0.02	0.022	0.071	NA
	(103.08)				i	Mild petroleum odor							
	Resurveyed			1									
6/01/92	(98.80)			10.32	92.76	No sheen	13	NA	0.14	0.045	0.063	0.21	NA
	Resurveyed					Light petroleum odor							
9/28/92				10.76	92.32	Brown sheen spots	40	NA	0.035	0.02	0.048	0.11	NA
						Mild petroleum odor							
1/11/93				9.28	93.80	Brown sheen spots	24	NA	0.026	0.088	0.092	0.28	NA
				ļ		Mild petroleum odor							
8/15/94				10.54	92.54	Light rainbow sheen	9	NA	0.5	0.034	0.046	0.13	NA
;						spots/Light petroleum							
						odor							
11/07/96				10.37	88.43	Rainbow sheen spots	13	0.18	0.04	0.0029	0.0078	0.019	ND
					1	Very light petroleum							
						odor							
2/12/97				9.36	89.44	Rainbow sheen spots	5.3	5.7	0.095	0.0053	0.0059	0.018	ND
						Very light petroleum							
						odor							
6/16/97	· · · · · · · · · · · · · · · · · · ·	· · ·		10.40	88.40	No sheen/Very light	5.3	ND	0.037	0.0062	0.0017	0.011	ND
						sewerage odor							
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				8.90	89.90	No sheen or odor	3	0.3	0.06	0.017	0.012	0.049	ND
4/24/98				9.50	89.30	Rainbow sheen	ND	ND	ND	ND	ND	ND	ND
						Strong sewerage odor			ļ.				
								900-0 Alexanda					
7/03/91	STMW-2	24	16	13.92	88.07	No sheen or odor	0.69	NA	0.099	0.081	0.019	0.098	NA
	(101.99)	1		<u> </u>									

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TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./	Depth of	Perf.	Depth to	GW	Well Observation	TPHg	TPHd	В	Т	Е	Х	MTBE
	Elevation	Well	Length	Water	Elev.								
11/11/91	STMW05	24	16	14.00	87.99	No sheen/Very light	0.41	NA	0.061	0.0024	0.0014	0.02	NA
	(Renamed)					petroleum odor							
3/04/92	(101.36)			11.80	89.56	No sheen/Very light	0.46	NA	0.013	0.0065	0.011	0.018	NĂ
	Resurveyed					petroleum odor					· .		
6/01/92	[13.06	88.30	No sheen	1.8	NA	0.027	0.02	0.021	0.043	NA
						Mild petroleum odor							
9/28/92				14.04	87.32	No sheen	1.5	NA	0.014	0.0061	0.018	0.022	NA
						Mild sewerage odor							
1/11/93				11.61	89.75	No sheen	0.8	NA	0.0018	0.003	0.0031	0.0094	NA
						Light sewerage odor							
8/15/94				13.85	87.51	No sheen	3	NA	0.32	0.062	0.034	0.22	NA
				1		Mild sewerage odor							
11/07/96	(97.14)			13.67	87.51	Rainbow sheen spots	1.2	0.33	0.011	0.0017	0.0044	0.013	ND
	Resurveyed					Very light pet. odor							
2/12/97				12.07	85.07	Rainbow sheen spots	1.0	3.7	0.011	0.0017	0.0017	0.0097	ND
						Very light pet. odor							
6/19/97				13.33	83.81	No sheen/Very	0.95	2.3	0.0074	0.001	0.001	0.0072	ND
						light sewerage odor		1					
9/30/97				11.24	85.90	No sheen	0.71	1.1	0.0058	0.004	0.001	0.011	ND
						Light sewerage odor					L	l	
1/27/98				11.64	85.50	No sheen	0.34	1.1	0.002	0.0018	0.0016	0.0082	ND
			1			Light sewerage odor		<u> </u>					

TABLE 1 CONT'D GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date W	Vell No./ levation	Depth of Well	Perf. Length	Depth to Water	GW Elev.	Well Observation	TPHg	TPHd	В	Т	E	X	MTBE
4/24/98 S' (R	TMW-5 (enamed)	24	16	11.84	85.30	Rainbow sheen Strong sewerage odor	3.3	ND	0.012	0.0094	0.0085	0.037	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

TABLE 2 GROUNDWATER SAMPLES ANALYZED FOR TOTAL LEAD (Pb) IN mg/L

全部性、新聞 Date Line 単語	Sample Number	malead (Ph) Results
11/07/98	MW-1	Not Detected
	MW-2	Not Detected
	MW-3	Not Detected
	STMW-4	Not Detected
	STMW-5	Not Detected
2/12/97	MW-1	Not Detected
	MW-2	Not Detected
	MW-3	Not Detected
	STMW-4	Not Detected
	STMW-5	Not Detected
6/16/07	MW-1	Not Detected
6/10/97	MW-2	Not Detected
	MW-3	Not Detected
····	STMW-4	Not Detected
	STMW-5	Not Detected
		17 Februar and a service warding and a service and an an an advance of service and a service of the service of
9/30/97	MW-1	Not Detected
	MW-2	Not Detected
	MW-3	Not Detected
	SIMW-4	Not Detected
	SIMW-5	Not Detected
1/27/98	MW-1	Not Detected
	MW-2	Not Detected
	MW-3	Not Detected
	STMW-4	Not Detected
	STMW-5	Not Detected

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TABLE 2 GROUNDWATER SAMPLES ANALYZED FOR TOTAL LEAD (Pb) IN mg/L

Date 2 Million	Sample Number	Bead (Pb) Results
4/24/98	MW-1	Not Detected
	MW-2	Not Detected
	MW-3	Not Detected
	STMW-4	Not Detected
	STMW-5	Not Detected

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APPENDIX "B"

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APPENDIX "C"

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GROUNDWATER SAMPLING PROCEDURE

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"

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PRIORITY LABS

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May 14, 1998	PEL # 9804050						
SOIL TECH EL	GINEERING						
Attn: Frank	Hamedi		· ·· ,	، مرس	••••••		
Re: Five wat	ter samples	for Ga	soline/B1	EX with 1	WTBE and	Diesel a	malyses.
Project name Project numb	e: 5175 Bro per: 8-90-4	adway S 20-GI	t - Oakla	Ind			
Date sampled Date extract	l: Apr 24, ced: Apr 28	1998 -30, 199	98	Date Date	e submitt e analyze	ed: Apr d: Apr 2	28, 1998 8-30, 19
<u>RESULTS:</u>	·						
SAMPLE I.D.	Gasoline.	Diesel	Benzene	Toluene	Ethyl	Total	MTBE
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
fw-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
(W-2 64-2	2100	1400	18	6.5	4.8	21	N.D.
	N.D.	680	N.D.	N.D.	N.D.	N.D.	N.D.
STMW-5	3300	N.D.	N.D. 12	N.D. 9.4	N.D. 8.5	N.D. 37	N.D. N.D.
lank	N D	ť Ír n		it in	the second of	۱	
	ALU:	11.0.	M.D.	N.y.	N+D.	N.D.	N.D.
piked							
Recovery	89./%	84.43	83.4*	91.68	97.8*	95.18	
etection limit	50	, 5 0	0.5	0.5	0.5	0.5	0.5
ethod of Analysis	5030 / 8015	3510 / 8015	502	502	602	602	602
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PEL # 9804050 SOIL TECH ENGINEERING Attn: Frank Hamedi Re: Five water samples for total Lead analysis. Project name: 5175 Broadway St. - Oakland Project humber: 8-90-420-GI Date sampled: Apr 24, 1998 Date sampled: Apr 24, 1998 Date extracted: May 01-02, 1998 Date extracted: May 01-02, 1998 Date analyzed: May 01-02, 1998 RESULTS: SAMPLE Lead I.D. (mg/L)MW-1 N.D. MW-2 N.D. MW-3 N.D. STMW-4 N.D. STMW-5 N.D. 1. K. (i N.D. Blank Detection _ . . . , limit 0.10 : Nethod of Analysis 7420

C-David Duong

Laboratory Director

Fax: 408-946-9663

Michael ManlercontractionNO. DATE TIME $\overrightarrow{3}$ $\overrightarrow{1}$ $\overrightarrow{4}$ $\overrightarrow{1}$ $\overrightarrow{3}$ $\overrightarrow{1}$	REMARKS
NO. DATE TIME \vec{x} LOCATION TAINER 1 4[24]71/039 V MIN-(2 2 (2)15 V M(N-2) 2 3 (3)19 V M(N-3) 2	
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