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PROTECTION
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**QUARTERLY GROUNDWATER MONITORING
AND SAMPLING AT THE PROPERTY
LOCATED AT 3609 EAST 14th STREET,
OAKLAND, CALIFORNIA
DECEMBER 30, 1996**

**PREPARED FOR:
MR. ABOLGHASSEM RAZI
3609 EAST 14th STREET
OAKLAND, CA 94601**

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

SOIL TECH ENGINEERING, INC.

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SOP1

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December 30, 1996

File No. 7-92-514-SA

Mr. Abolghassem Razi
Tony's Express Auto Services
3609 East 14th Street
Oakland, California 94601

**SUBJECT: QUARTERLY GROUNDWATER MONITORING
AND SAMPLING AT THE PROPERTY Located at
3609 East 14th Street, in Oakland, California**

Dear Mr. Razi:

This report presents the results of quarterly groundwater monitoring and sampling conducted by Soil Tech Engineering, Inc. (STE), on December 9, 1996, at the subject site (Figure 1).

SITE DESCRIPTION:

The site is located at the intersection of 36th Avenue and East 14th Street, in Oakland, California (Figure 1). The site is relatively flat and the area in the vicinity consists mainly of light commercial businesses and residential buildings (Figure 1).

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BACKGROUND:

In July 1993, three fuel tanks and a waste oil tank were removed by Alpha Geo Services (AGS). STE was retained to conduct soil sampling from the tanks excavation area and the old piping associated with the fuel tanks. All soil sampling was conducted under the supervision of Alameda County Health Department staff Mr. Barney Chan.

Soil samples from the tank areas were taken at approximately 12 feet depth, soil samples from the waste oil tank area were taken at approximately 7 feet, and the piping areas ranged from 2 to 5 feet below grade, respectively. Soil analyses from the tank excavation detected low to moderate levels of Total Petroleum Hydrocarbons as gasoline (TPHg) ranging from 2.1 to a maximum of 640 milligrams per kilogram (mg/Kg). Soil samples from the old piping areas showed elevated TPHg ranging from 75 to a maximum of 4,100 mg/Kg. No hydrocarbons nor Volatile Organic Compounds (VOCs) were detected in the waste oil tank excavation area. The details of the soil sampling event are described in STE's report titled "Soil Sampling Below Removed Underground Tanks at Tony's Express Station...", dated July 27, 1993.

Due to the elevated TPHg, Alameda County Health Department requested a work plan for subsurface investigation in a letter, dated August 6, 1993. Therefore, STE prepared a preliminary site assessment work plan, dated August 15, 1993. The work plan was submitted to the Alameda County Health Department for approval. The county approved the plan in a letter, dated August 18, 1993.

The objective of the proposed work plan was to assess the extent of dissolved petroleum hydrocarbons beneath the site in order to determine whether or not the groundwater beneath the site has been impacted.

In August, 1993, STE conducted an interim corrective action and preliminary soil and groundwater investigation by drilling thirteen soil borings and converting three into monitoring wells. Monitoring wells STMW-1, STMW-2 and STMW-3 were drilled in the vicinity of the former underground fuel tanks. Groundwater was first encountered at a depth of 16 feet below grade during drilling operation. STE recommended quarterly groundwater monitoring and sampling for at least one year to further evaluate the site condition as required by Alameda County Health Department.

The details of preliminary soil and groundwater investigation is described in STE's report titled "Interim Corrective Action & Preliminary Soil & Groundwater Investigation for Tony's Express Service Station" dated November 8, 1993.

To allow for future in-situ remediation of impacted soils which were difficult to reach, four vertical 6-inch diameter soil vapor extraction probes were installed in four soil borings. In addition, two horizontal perforated pipes were installed connecting ^{the} four soil borings and two horizontal perforated pipes were installed next to the two dispenser islands. These six probes were connected by non-perforated pipes to a vault in front of the northeast corner of the site building.

All impacted soils removed during excavation of former tanks and over-excavation of contaminated soil were bio-remediated on-site. When contaminant levels were acceptably low, a letter of request for disposal was sent to Redwood Landfill in Novato, California. A copy of STE's letter to Redwood Landfill requesting the disposal of treated soil along with soil analyses was included in the November 1993 request.

Three quarterly monitoring of the three on-site wells were conducted by STE in December 1994, March 1995 and June 1995. The results of these groundwater monitoring and sampling activities are presented in our reports dated December 8, 1994, March 10, 1995 and June 13, 1995. The groundwater level had risen from approximately 15 feet

below grade during our initial sampling in October 1993 to approximately 9 to 10 feet below grade during the quarterly monitoring in June 1995.

Low to moderate levels of TPHg and BTEX were detected in the groundwater for the last three quarters. Levels of contaminants were lower in March 1995 than in December 1994. Levels of contaminants have decreased significantly compared to the initial sampling activity in October 1993 which could be due to the high groundwater elevation and dissolution. Groundwater flow direction has been to the south-southeast during all three monitoring and sampling events.

Additional five monitoring wells (STMW-4 through STMW-8) were installed in August 1995. The details of additional investigation is described in STE's report dated October 9, 1995. Since then, all the wells have been monitored and sampled on a quarterly basis.

An additional subsurface investigation was conducted by STE on August 13 and September 7, 1996 per its May 13, 1996 work plan and ACHD's August 1, 1996 recommendations for amendments to the work plan. During this phase of investigation, five boreholes were drilled, soil and grab groundwater samples were collected from each of these borings, and based on the analytical results for TPHg and BTEX, three boreholes were converted to monitoring wells. These three newly installed monitoring wells (STMW-9, STMW-10 and STMW-11) along with five existing on-site wells (STMW-2, STMW-3, STMW-4, STMW-6 and STMW-8) were monitored and sampled. STMW-1, STMW-5 and STMW-7 were monitored but not sampled per ACHD. ^(for elevation)

The details of this additional sub-surface investigation is described in STE's October 15, 1996 report titled "Additional Subsurface Investigation...".

SCOPE OF PRESENT WORK:

The scope of present work comprised:

- Monitoring wells STMW-1 through STMW-11 for presence of sheen/odor and measuring the depth-to-water
- Purging the eight monitoring wells (STMW-2, STMW-3, STMW-4, STMW-6, STMW-8, STMW-9, STMW-10 and STMW-11) prior to sampling
- Sampling the eight monitoring wells
- Submitting water samples to a state-certified laboratory for analysis of Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethyl Benzene, Total Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE). In addition submitting water sample STMW-6 for analysis of Total Oil & Grease (TOG)
- Reviewing results and preparing a report of the investigation

CURRENT FIELD WORK:

GROUNDWATER MONITORING:

On December 9, 1996, STE's staff monitored the eleven on-site wells (STMW-1 through STMW-11) to measure the water depth and check for presence of sheen and/or odor. No sheen or odor were detected in monitoring wells STMW-2, STMW-5 and STMW-11. Well STMW-1, STMW-3, STMW-8 detected no sheen and very light petroleum odor while STMW-6 detected rainbow sheen spots and light petroleum odor. Very light to light sewage odor was noted in monitoring wells STMW-4, STMW-7,

STMW-9 and STMW-10. The groundwater levels ranged from 10.44 feet to 12.58 feet below ground surface. Table 1 summarizes the depth to groundwater measurements and observations made.

GROUNDWATER SAMPLING:

Following groundwater monitoring, the wells were purged at least five well volumes and sampled in accordance with STE's Standard Operation Procedures (see Appendix "C"), which contains state and local guidelines for sampling of monitoring wells.

The water samples were placed in a cool ice chest and submitted to Priority Environmental Labs, a state-certified laboratory with appropriate chain-of-custody.

Water samples STMW-2, STMW-3, STMW-4, STMW-6, STMW-8, STMW-9, STMW-10 and STMW-11 were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg) per EPA Methods 5030/8015, Benzene, Toluene, Ethyl Benzene, Total Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE) per EPA Method 602. In addition, water sample STMW-6 was analyzed for Total Oil & Grease.

GROUNDWATER FLOW:

Water elevation data were used to determine groundwater flow direction. Table 1 summarizes the groundwater elevations. The groundwater flow direction beneath the site was in a southwesterly direction as of December 9, 1996 (Figure 2).

ANALYTICAL RESULTS:

Laboratory analytical results of the water samples indicate TPHg concentrations in the range of 0.58 mg/L to 57 mg/L, Benzene from a minimum of 0.0008 mg/L to 0.48 mg/L and low levels of Toluene, Ethyl Benzene and Total Xylene. MTBE concentrations were below laboratory detection limit in all six monitoring wells. The laboratory results are summarized in Table 1, and the laboratory report is enclosed with this report (see Appendix "D").

SUMMARY:

A comparison of the recent groundwater analytical results with the last quarterly sampling (September 1996) shows reduced levels of TPHg and BTEX in monitoring wells STMW-2, STMW-3, STMW-8, STMW-9, STMW-10 and STMW-11. Elevated levels of TPHg and reduced levels of BTEX were noted in STMW-4 while STMW-6 noted elevated levels of TPHg, BTEX and TOG. MTBE concentrations were below laboratory detection limit in all six monitoring wells. The reduction of contamination may be due to the increase in water level and dilution factor.

RECOMMENDATIONS:

STE recommends the continuation of quarterly monitoring and sampling of the eight on-site wells. Contingent on the approval by ACHD, STE recommends initiation of a supplemental subsurface investigation in order to delineate dissolved hydrocarbon contaminant plume.

A copy of this report should be forwarded to ACHD and Regional Water Quality Control Board (RWQCB).

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 this owner or his/her representative to ensure that the information and recommendations contained herein are called to the attention of the Local Environmental Agency.

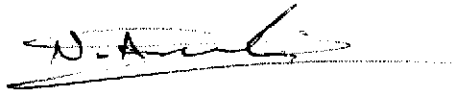
Services performed by STE have been in accordance with generally accepted environmental professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. This report is not meant to represent a legal opinion. No other warranty, express or implied is made.

File No. 7-92-514-SA

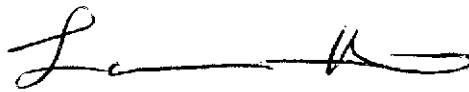
If you have any questions or require additional information, please contact our office at (408) 441-1881 at your convenience.

Sincerely,

SOIL TECH ENGINEERING, INC.



NOORI AMELI
PROJECT ENGINEER



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



FRANK HAMEDI-FARD
GENERAL MANAGER

SOIL TECH ENGINEERING, INC.

File No. 7-92-514-SA

A P P E N D I X "A"

SOIL TECH ENGINEERING, INC.

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
10/05/93	STMW-1 (97.99)	30	10	15.39	82.60	Brown sheen spots Light pet. odor	320	24	21	2.6	15	NA	NA
12/02/94				9.32	88.67	Rainbow sheen spots Light pet. odor	80	3.8	6.6	2.3	11	NA	NA
03/06/95				8.07	89.92	Brown sheen spots Mild pet. odor	32	0.19	0.16	0.15	0.49	NA	NA
06/05/95				9.53	88.46	Brown sheen spots Mild pet. odor	21	0.95	0.65	0.57	1.5	NA	NA
10/02/95				13.29	84.70	Rainbow sheen spots Mild pet. odor	59	0.14	0.13	0.14	0.39	NA	NA
01/03/96				10.07	87.92	Rainbow sheen spots Mild pet. odor	30	0.071	0.073	0.05	0.12	NA	NA
04/03/96				8.26	89.73	Rainbow sheen spots Mild pet. odor	31	0.098	0.012	0.063	0.17	NA	NA
09/12/96				14.06	83.93	No sheen V. light pet. odor	NA	NA	NA	NA	NA	NA	NA
12/09/96				11.67	86.32	No sheen V. light pet. odor	NA	NA	NA	NA	NA	NA	NA

TPHg - Total Petroleum Hydrocarbons as Gasoline

B- Benzene T - Toluene E - Ethyl Benzene X - Total Xylenes

ND - Not Detected NA - Not Analyzed

GW Elev. - Groundwater Elevation

TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether

Perf. - Perforation Pet. - Petroleum V. - Very

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
10/05/93	STMW-2 (98.58)	30	10	15.36	83.22	No sheen or odor	260	17	19	0.57	10	NA	NA
12/02/94				8.60	89.98	No sheen Mild sewage odor	42	1.7	2.2	1.2	3.6	NA	NA
03/06/95				7.68	90.90	No sheen or odor	0.49	0.0032	0.0026	0.0016	0.0059	NA	NA
06/05/95				9.59	88.99	No sheen V. light pet. odor	8.0	0.22	0.33	0.35	0.66	NA	NA
10/02/95				13.42	85.16	No sheen V. light pet. odor	46	0.16	0.13	0.093	0.24	NA	NA
01/03/96				9.93	88.65	No sheen V. light sewage odor	3.4	0.0076	0.013	0.0074	0.026	NA	NA
04/03/96				8.13	90.45	No sheen V. light sewage odor	27	0.10	0.092	0.044	0.13	NA	NA
09/12/96				14.15	84.43	No sheen V. light sewage odor	19	0.21	0.22	0.11	0.40	ND	NA
12/09/96				11.40	87.18	No sheen No odor	6.2	0.011	0.0066	0.0021	0.014	ND	NA

TPHg - Total Petroleum Hydrocarbons as Gasoline

B- Benzene T - Toluene E - Ethyl Benzene X - Total Xylenes

ND - Not Detected NA - Not Analyzed

GW Elev. - Groundwater Elevation

TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether

Pet. - Petroleum Perf. - Perforation V. - Very

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
10/05/93	STMW-3 (97.78)	30	10	16.79	80.99	NMFP V. strong pet. odor	30,000	190	740	310	1,300	NA	NA
12/02/94				9.79	87.99	NMFP Strong pet. odor	250	19	22	4.4	28	NA	NA
03/06/95				8.69	89.09	No sheen V. light pet. odor	21	0.08	0.073	0.035	0.13	NA	NA
06/05/95				10.25	87.53	Brown sheen spots Strong pet. odor	350	20	42	5.8	36	NA	NA
10/02/95				12.91	84.87	Rainbow sheen spots Strong pet. odor	150	0.51	0.41	0.21	0.65	NA	NA
01/03/96				10.55	87.23	Rainbow sheen spots Strong pet. odor	190	0.29	0.27	0.097	0.89	NA	NA
04/03/96				8.76	89.02	Rainbow sheen spots Mild pet. odor	70	0.31	0.26	0.089	0.28	NA	NA
09/12/96				14.65	83.13	No sheen V. light pet. odor	66	0.43	0.42	0.21	0.51	ND	NA
12/09/96				12.02	85.76	No sheen V. light pet. odor	54	0.32	0.28	0.090	0.25	ND	NA

NMFP - Non Measurable Floating Product

TPHg - Total Petroleum Hydrocarbons as Gasoline

B- Benzene T - Toluene E - Ethyl Benzene X - Total Xylenes

ND - Not Detected NA - Not Analyzed

GW Elev. - Groundwater Elevation

TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether

Pet. - Petroleum Perf. - Perforation V. - Very

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
10/02/95	STMW-4 (97.85)	27	7	13.34	84.51	No sheen V. light pet. odor	9.3	0.023	0.011	0.0099	0.029	NA	NA
01/03/96				10.11	87.74	No sheen or odor	1.1	0.004	0.0013	0.0009	0.0033	NA	NA
04/03/96				8.35	89.50	No sheen or odor	1.9	0.012	0.0075	0.0052	0.014	NA	NA
09/12/96				14.04	83.81	No sheen Light sewage odor	2.1	0.046	0.024	0.031	0.073	ND	NA
12/09/96				11.58	86.27	No sheen Light sewage odor	4.0	0.014	0.0063	0.0042	0.012	ND	NA

TPHg - Total Petroleum Hydrocarbons as Gasoline

B- Benzene T - Toluene E - Ethyl Benzene X - Total Xylenes

ND - Not Detected NA - Not Analyzed

GW Elev. - Groundwater Elevation

TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether

Pet. - Petroleum

Perf. - Perforation

V. - Very

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
10/02/95	STMW-5 (99.04)	26	6	13.57	85.47	No sheen V. light pet. odor	1.5	0.0011	0.0013	0.0039	0.0053	NA	NA
01/03/96				10.03	89.01	No sheen or odor	0.83	ND	ND	0.0013	0.0022	NA	NA
04/03/96				8.24	90.80	No sheen or odor	0.78	0.0013	0.001	0.0048	0.0038	NA	NA
09/12/96				14.30	84.74	No sheen or odor	NA	NA	NA	NA	NA	NA	NA
12/09/96				11.48	87.56	No sheen or odor	NA	NA	NA	NA	NA	NA	NA

TPHg - Total Petroleum Hydrocarbons as Gasoline

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TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether

Pet. - Petroleum

Perf. - Perforation

V. - Very

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
10/02/95	STMW-6 (98.77)	26	6	13.94	84.83	No sheen Light pet. odor	120	0.35	0.31	0.2	0.61	NA	0.60
01/03/96				10.55	88.22	Rainbow sheen spots Mild pet. odor	68	0.06	0.061	0.027	0.18	NA	1.4
04/03/96				8.76	90.01	Rainbow sheen spots Mild pet. odor	48	0.14	0.11	0.062	0.17	NA	1.1
09/12/96				14.51	84.26	Rainbow sheen spots V. Light Pet. odor	23	0.15	0.16	0.11	0.31	ND	0.5
12/09/96				12.04	86.73	Rainbow sheen spots Light pet. odor	57	0.48	0.45	0.16	0.46	ND	1.6

TPHg - Total Petroleum Hydrocarbons as Gasoline
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 GW Elev. - Groundwater Elevation
 TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether
 Pet. - Petroleum Perf. - Perforation V. - Very

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
10/02/95	STMW-7 (97.83)	26	6	12.95	84.88	Rainbow sheen spots Mild pet. odor	3.3	0.0089	0.012	0.017	0.045	NA	NA
01/03/96				9.57	88.26	No sheen V. light sewage odor	1.5	0.0015	0.0009	0.003	0.0041	NA	NA
04/03/96				7.75	90.08	No sheen V. light sewage odor	1.9	0.0021	0.0026	0.0051	0.0069	NA	NA
09/12/96				13.75	84.08	No sheen V. light sewage odor	NA	NA	NA	NA	NA	NA	NA
12/09/96				10.97	86.86	No sheen V. light sewage odor	NA	NA	NA	NA	NA	NA	NA

TPHg - Total Petroleum Hydrocarbons as Gasoline

B- Benzene T - Toluene E - Ethyl Benzene X - Total Xylenes

ND - Not Detected NA - Not Analyzed

GW Elev. - Groundwater Elevation

TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether

Pet. - Petroleum Perf. - Perforation V. - Very

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
10/02/95	STMW-8 (97.25)	27	7	12.86	84.39	Rainbow sheen spots Mild pet. odor	94	0.31	0.25	0.18	0.48	NA	NA
01/03/96				9.79	87.46	Rainbow sheen spots Light pet. odor	23	0.019	0.012	0.0088	0.047	NA	NA
04/03/96				7.98	89.27	Rainbow sheen spots Light pet. odor	58	0.25	0.17	0.14	0.33	NA	NA
09/12/96				13.55	83.70	No sheen V. light pet. odor	46	0.21	0.15	0.16	0.36	ND	NA
12/09/96				11.13	86.12	No sheen V. light pet. odor	27	0.088	0.043	0.044	0.080	ND	NA

TPHg - Total Petroleum Hydrocarbons as Gasoline

B- Benzene T - Toluene E - Ethylbenzene X - Total Xylenes

ND - Not Detected NA - Not Analyzed

GW Elev. - Groundwater Elevation

TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether

Pet. - Petroleum Perf. - Perforation V. - Very

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE	TOG
09/12/96	STMW-9 (98.29)	25	8	14.62	83.67	No sheen V. light pet. odor	7.7	0.020	0.026	0.044	0.16	ND	NA
12/09/96				12.58	85.71	No sheen Light sewage odor	0.58	0.0008	ND	0.0007	0.0036	ND	NA
09/12/96	STMW-10 (94.54)	25	8	12.05	82.49	No sheen V. light pet. odor	26.0	0.098	0.037	0.063	0.099	ND	NA
12/09/96				10.44	84.10	No sheen Light sewage odor	3.0	0.0081	0.0022	0.0015	0.0071	ND	NA
09/12/96	STMW-11 (95.94)	25	8	13.60	82.34	No sheen V. light sewage odor	2.3	0.007	0.0072	0.012	0.031	ND	NA
12/09/96				11.99	83.95	No sheen No odor	0.69	0.0018	0.0005	0.0008	0.0042	ND	NA

TPHg - Total Petroleum Hydrocarbons as Gasoline

B- Benzene

T - Toluene

E - Ethyl Benzene

X - Total Xylenes

ND - Not Detected

NA - Not Analyzed

Perf. - Perforation

GW Elev. - Groundwater Elevation

V. - Very

Pet. - Petroleum

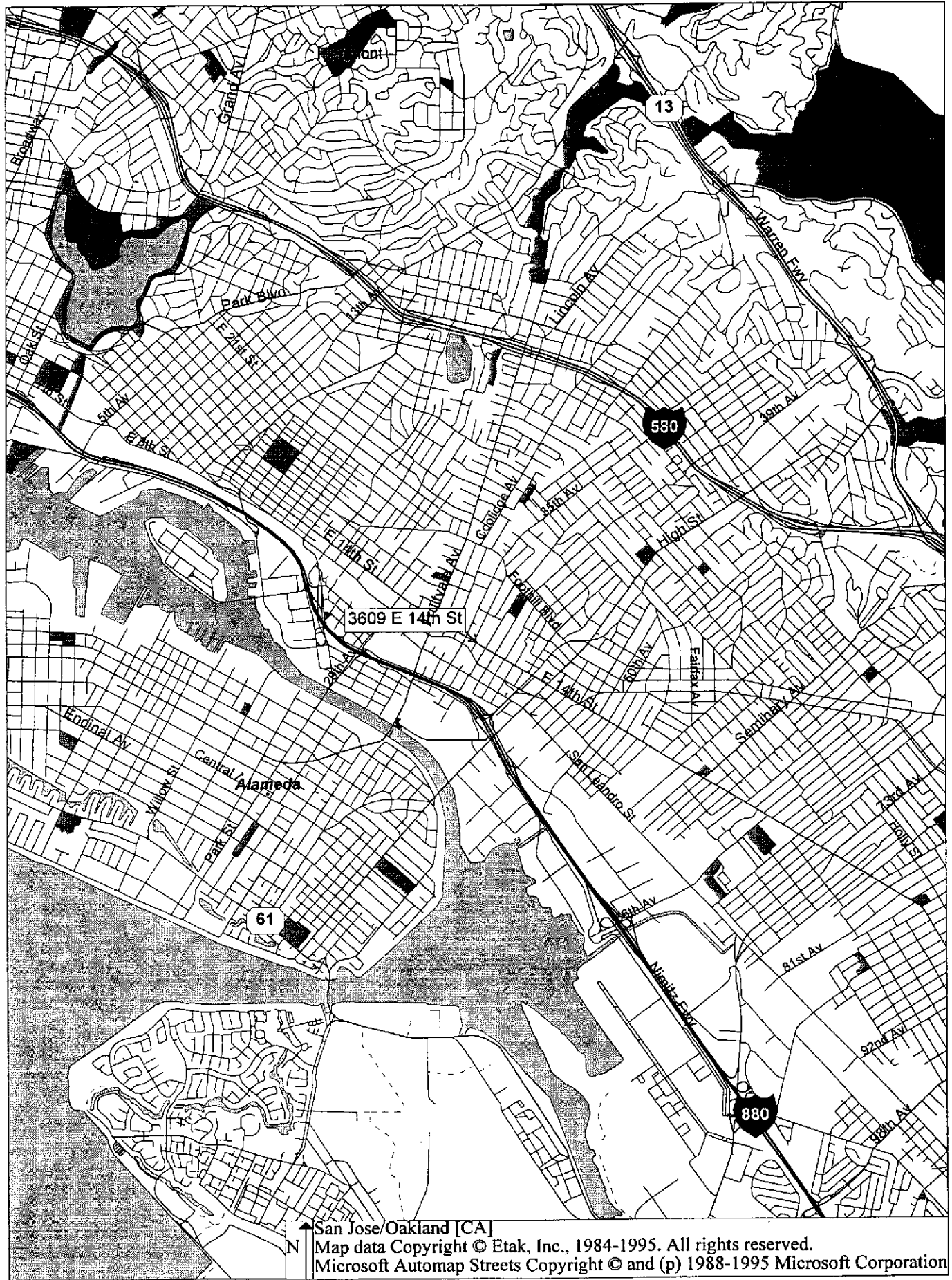
TOG - Total Oil & Grease

MTBE - Methyl Tertiary Butyl Ether

File No. 7-92-514-SA

A P P E N D I X "B"

SOIL TECH ENGINEERING, INC.



San Jose/Oakland [CA]
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File No. 7-92-514-SA

A P P E N D I X "C"

SOIL TECH ENGINEERING, INC.



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

December 16, 1996

PEL # 9612024

SOIL TECH ENGINEERING

Attn: Noori Ameli

Re: Eight water samples for Gasoline/BTEX with MTBE and Oil & Grease analyses.

Project name: 3609 E. 14th St., - Oakland

Project number: 7-92-514-SA

Date sampled: Dec 09, 1996

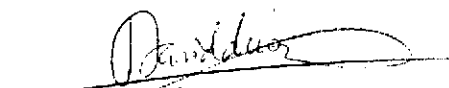
Date submitted: Dec 11, 1996

Date extracted: Dec 11-14, 1996

Date analyzed: Dec 11-14, 1996

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	Oil & Grease (mg/L)
STMW-2	6200	N.D.	11	6.6	2.1	14	---
STMW-3	54000	N.D.	320	280	90	250	---
STMW-4	4000	N.D.	14	6.3	4.2	12	---
STMW-6	57000	N.D.	480	450	160	460	1.6
STMW-8	27000	N.D.	88	43	44	80	---
STMW-9	580	N.D.	0.8	N.D.	0.7	3.6	---
STMW-10	3000	N.D.	8.1	2.2	1.5	7.1	---
STMW-11	690	N.D.	1.8	0.5	0.8	4.2	---
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	106.8%	---	97.7%	104.7%	88.9%	100.4%	---
Detection limit	50	0.5	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	602	602	602	602	602	5520 C & F


 David Duong
 Laboratory Director

File No. 7-92-514-SA

A P P E N D I X "D"

SOIL TECH ENGINEERING, INC.

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 in 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.

SOP-1

PROJ. NO. 7-92-514-SA NAME 3609 E. 14th. St. OAKLAND

SAMPLERS: (Signature) *N. Amel*

NO.	DATE	TIME	SOIL	WATER	LOCATION
1	12/9/96			✓	STMW-2
2				✓	STMW-3
3				✓	STMW-4
4				✓	STMW-6
5				✓	STMW-8
6				✓	STMW-9
7				✓	STMW-10
8				✓	STMW-11

CON-TAINER

ANALYSES REQUESTED:
 TP MG/BTEX
 MTBE
 TO&G

PEL # 9612024
INV # 27464

Relinquished by: (Signature) <i>N. Amel</i>	Date / Time	Received by: (Signature) <i>W. L...</i>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time 12/10/96 15:50	Received for Laboratory by: (Signature) /	Date / Time	Remarks	



SOIL TECH ENGINEERING

Environmental and Geotechnical Engineers

1761 Industrial Ave. San Jose, CA 95128 (408)441-1991