File No. 7-92-514-SA

ADDITIONAL SUBSURFACE INVESTIGATION AT THE PROPERTY LOCATED AT 3609 EAST 14th STREET AND ADJACENT PROPERTY, IN OAKLAND, CALIFORNIA

OCTOBER 15, 1996

PREPARED FOR:
MR. ABOLGHASSEM RAZI
TONY'S EXPRESS AUTO SERVICES
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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October 15, 1996

File No. 7-92-514-SA

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

SUBJECT: ADDITIONAL SUBSURFACE INVESTIGATION AT THE PROPERTY Located at 3609 East 14th Street and Adjacent Properties, in Oakland, California

Dear Mr. Razi:

Enclosed is a supplemental report summarizing the results of Soil Tech Engineering, Inc.'s (STE's) subsurface investigation of the subject site located at 3609 East 14th Street, in Oakland, California.

During the current phase of investigation, conducted in August and September 1996, five boreholes were drilled and three were converted to monitoring wells. These additional soil borings were drilled and monitoring wells were installed off-site of the property in order to define the extent of dissolved hydrocarbon contamination in groundwater down-gradient from the underground storage tank system.

We recommend quarterly monitoring of all on-site wells for one year and eventual re-evaluation of the site condition. Additional subsurface investigation of down gradient property is recommended in order to define the extent of hydrocarbon contamination in groundwater.

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

ADDITIONAL SUBSURFACE INVESTIGATION FOR THE PROPERTY LOCATED AT 3609 EAST 14TH STREET AND ADJACENT PROPERTY IN OAKLAND, CALIFORNIA OCTOBER 15, 1996

INTRODUCTION:

This report summarizes the results of an additional subsurface investigation conducted by Soil Tech Engineering, Inc. (STE) for Mr. Razi's property located at 3609 East 14th Street and adjacent property, in Oakland, California (Figure 1). The purpose of this investigation was to assess the extent of subsurface petroleum hydrocarbon contamination down-gradient from the underground storage system at the subject site.

The supplemental subsurface investigation was conducted in accordance with STE's work plan dated May 13, 1996 and amendment to the work plan per Alameda County Health Department's (ACHD) August 1, 1996 letter. Subsequent to ACHD's letter referenced above, a letter confirming this investigation plan were forwarded from STE to ACHD dated July 8, 1996. The investigation was conducted in accordance with Alameda County Department of Environmental Health (ACDEH) and Zone 7 – Water Agency guidelines.

GENERAL SITE DESCRIPTION:

The site is located at the intersection of 36th Avenue and East 14th Street, in Oakland, California (Figure 1). It is currently used as a gasoline service station. The site is relatively flat, and the surrounding properties are primarily commercial businesses and residential housing. Figure 2 shows the location of the main building, fuel tank areas, existing monitoring wells, on-site and off-site borings / monitoring well(s).

BACKGROUND:

The subject site is a gasoline service station. On July 18, 1992, Soil Tech Engineering, Inc. (STE) conducted a limited subsurface investigation to determine whether soil near the product lines and underground storage tanks at the site were contaminated with petroleum hydrocarbons. Six soil borings were drilled, and one soil sample was collected from each boring from depths of 5 to 15 feet below grade. The samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPHg), and Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX). Laboratory results indicated that the samples contained TPHg ranging from 20 to 460 milligrams per kilogram (mg/Kg) and low levels of BTEX. These results were presented in our preliminary subsurface (soil) investigation report dated August 3, 1992.

On July 1, 1993, a 10,000 gallon and a 6,000 gallon underground gasoline storage tank and a 550 gallon underground waste oil storage tank were removed from the site and properly disposed. STE was retained to conduct soil sampling in the excavations created by the removal of tanks and associated piping. All soil sampling was conducted under the supervision of Mr. Barney Chan of ACHD. Three new underground gasoline storage tanks were installed at the site in July and August 1993.

Soil samples from the tank areas were taken at approximately 12 feet below grade, soil samples from waste oil storage tank area were taken at approximately 7 feet below grade and soil samples from the piping area were collected from 2 to 5 feet below grade. Laboratory analytical results of soil samples detected low to moderate levels of Total Petroleum Hydrocarbons as Gasoline (TPHg) which ranged from 2.1 mg/Kg to 640 mg/Kg. Soil samples from the old piping areas showed elevated TPHg ranging from 75 mg/Kg to 4,100 mg/Kg. No hydrocarbons or Volatile Organic Compounds (VOCs) were detected in the soil samples from waste oil storage area. The details of the soil sampling event are described in STE's report titled "Soil Sampling Below Removed Underground Storage Tanks at Tony's Express Station...", dated July 27, 1993.

Due to the elevated level of TPHg in the soil samples, ACHD requested a work plan for subsurface investigation in a letter, dated August 6, 1993. STE prepared a preliminary site assessment work plan, dated August 5, 1993. The work plan was submitted to the ACHD for approval. The county approved the work plan in a letter, dated August 18, 1993.

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 former underground fuel tanks. Groundwater was first encountered at the depth of 16 feet below grade during drilling operations. STE recommended quarterly monitoring for at least one year to further assess the site condition as required by ACHD.

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 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 were 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 surface 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 has decreased significantly compared to the initial sampling activity in October 1993 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 regularly 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 their analytical results for TPHg and BTEX, three boreholes were converted to monitoring wells.

OBJECTIVE:

The main objective of additional subsurface investigation was to define the lateral extent of dissolved hydrocarbons in groundwater down-gradient from the underground storage tank system.

FIELD ACTIVITIES:

During this phase of investigation, five exploratory borings were drilled off-site down-gradient of the tank system. Three of these borings were converted to 2" monitoring wells.

Permits to install groundwater monitoring wells were obtained from Alameda County – Zone 7 Water Agency prior to drilling. A copy of the well permit is included in Appendix "F" of this report. All utility lines were located prior to drilling.

STE conducted the field work for this investigation which occurred on in August and September, 1996. Field work included drilling of three soil borings (B-1, B-2 and B-3) on August 13, 1996. These borings were extended into the groundwater and temporary well casings were assigned to them. Grab groundwater samples were collected from temporarily installed 2-inch PVC casing, and based on the results of laboratory analyses, B-1 and B-2 were backfilled and sealed. B-3 was converted to STMW-9 and two new borings were drilled on September 7, 1996, one at the corner of 36th Avenue and East 12th Street which was converted to monitoring well STMW-10 and the other 16 feet south of B-1 which was converted to STMW-11. The field work comprised drilling boreholes, soil and grab

groundwater sampling, installation of three monitoring wells, development of the wells, water sampling and chemical analysis of soil and ground water samples.

The well borings were drilled using a truck mounted mobile drill rig B - 40L, equipped with eight-inch diameter, hollow-stem, continuous flight augers. STE staff engineer observed the drilling operations and prepared a log of each soil boring. These logs are presented in Appendix "D".

The soil borings were drilled to a depth of 15 feet below grade. Groundwater was first encountered at a depth of approximately 15 feet below surface grade in the borings during the drilling operation.

SOIL BORING AND SAMPLING:

STE drilled three soil borings at the site on August 13, 1996, which were assigned temporary casings and following laboratory analytical results of soil and grab groundwater samples, one was converted to a monitoring well and two were backfilled and sealed. During the second phase of field activity, which occurred on September 7, 1996, STE drilled two additional boreholes and converted them into monitoring wells. The locations of these borings/monitoring wells are shown in Figure 2. These borings were drilled to a depth of 15 feet below surface grade using 8-inch hollow stem auger. All equipment used in the boreholes was steam cleaned prior to use in each boreholes to minimize the potential for cross-contamination. A detailed lithologic log of each boring was prepared by STE staff engineer on-site. These logs are included in Appendix "D".

Discrete soil samples were collected at five-foot intervals by advancing a modified California-sampler through the hollow stem of the augers. The sampler was driven a maximum of 18 inches, using a 140-pound hammer with a 30-inch drop. For each sampling interval, undisturbed soil samples were collected in two-inch diameter brass

liners. Selected soil samples were retained for chemical analysis by covering both ends of the liner with aluminum foil, and sealing with plastic end caps and tape. The samples were then labeled and stored in a chilled ice chest and transported to a state-certified analytical laboratory. Strict chain-of-custody procedures were followed throughout sample acquisition, storage and transport to Priority Environmental Labs for analysis. Copies of chain-of-custody records are included in Appendix "E" of this report.

Soil cuttings from drilling operation were temporarily stored on-site pending laboratory analytical results.

Soil samples in brass liners were described according to the Unified Soil Classification System. The descriptions are shown on the boring logs presented in Appendix "D".

SOIL DESCRIPTION:

As shown on the logs, the native soils encountered below surface grade consist predominantly of stiff silty clays.

MONITORING WELL CONSTRUCTION:

Three groundwater monitoring wells (STMW-9 through STMW-11) were installed in the soil borings, following laboratory analytical results of soil and grab groundwater samples from the soil borings. The location of these wells are shown in Figure 2. Monitoring wells STMW-9, STMW-10 and STMW-11 were constructed of two-inch diameter Schedule 40, flush threaded PVC well casing with threaded bottom cap. Drilling of exploratory borings and installation of monitoring wells was conducted in accordance with ACHD and Zone 7 – Water Agency requirements and STE's Standard Operation

Procedures (SOP - see Appendix "C") The detailed construction of these six wells are shown in Piezometric Schematic presented in Appendix "D".

WELL DEVELOPMENT:

STE conducted the development of the three newly installed on-site wells (STMW-9 through STMW-11) on September 9, 1996. Monitoring wells were developed by mechanical purging and bailing until the water was reasonably free of sediment. The development equipment was steam cleaned prior to usage for each well to reduce the potential for cross-contamination. The purged water was temporarily stored on-site in labeled drums pending the results of laboratory analyses.

GROUNDWATER SAMPLING:

Water samples from five on-site monitoring wells (STMW-2, STMW-3, STMW-4, STMW-6 and STMW-8) and three off-site wells (STMW-9 through STMW-11) were collected and analyzed for TPHg, BTEX and MTBE. STMW-1, STMW-5 and STMW-7 were monitored but not sampled per recommendation of ACHD. Approximately four to five well volumes of water was purged from each well using a bailer before the sample was collected in order to assure the sample was representative of surrounding groundwater. A stainless steel bailer was used for sample collection. Water sampling equipment was decontaminated before and after each well sampling using Tri-sodium Phosphate (TSP) and water wash, followed by double rinsing. Groundwater samples were contained in 40 millimeter glass vials with Teflon-lined septa. After labeling, they were immediately stored in a cold ice chest. Strict chain-of-custody procedures were maintained during sample acquisition, storage and transport. The sampling was conducted in accordance with STE's Standard Operation Procedure (SOP) and ACHD guidelines.

LABORATORY SOIL AND GRAB GROUNDWATER ANALYSIS:

Selected soil samples from each well boring were analyzed by Priority Environmental Laboratory in Milpitas, California. Selected soil samples B-1-10, B-2-10 and B-3-10 and grab groundwater samples from same soil borings (WB-1, WB-2 and WB-3) were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPHg), Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX).

As shown in Table 2, soil samples B-1-10 and B-3-10 detected TPHg and BTEX below laboratory detection limit. Soil sample B-2-10 (at 10 feet below grade) detected TPHg at 240 mg/Kg and low levels of BTEX.

Grab groundwater samples detected TPHg concentrations ranging from a minimum of 3.0 mg/L to a maximum of 340 mg/L while low to moderate levels of BTEX were detected. A summary of grab groundwater sample observation and analytical results is presented in Table 3.

LABORATORY GROUNDWATER ANALYSIS:

Following well completion, wells STMW-9, STMW-10 and STMW-11 were developed in September, 1996. The three newly installed off-site wells along with the eight existing on-site wells were surveyed and monitored on September 12, 1996. Wells STMW-1, STMW-5 and STMW-7 were not sampled per Alameda County Environmental Health Services, Hazardous Waste Specialist Mr. Barney Chan's recommendation. All monitoring and sampling was conducted in accordance with the existing Local and State Fuel Leak Guidelines.

Water samples from STMW-2, STMW-3, STMW-4, STMW-6, STMW-8, STMW-9, STMW-10 and STMW-11 were analyzed for TPH as gasoline, BTEX and MTBE. In addition, sample from STMW-6 was analyzed for TOG. The results indicate concentration of TPHg ranging from 2.1 mg/Kg to 66 mg/Kg. Concentration of Benzene ranged from 0.007 to 0.43 mg/Kg, low levels of Toluene, Ethyl Benzene and Total Xylenes were detected. TOG level in STMW-6 was detected at 0.5 mg/L. All eight samples detected MTBE below the laboratory detection limit.

A summary of groundwater monitoring data and analytical results is presented in Table 1.

GROUNDWATER FLOW DIRECTION:

A level and depth survey was conducted in order to estimate groundwater flow direction. To estimate the flow direction, the depths to groundwater were measured relative to an arbitrarily established datum assumed to be 100 feet above sea level. Well casing and groundwater elevations are summarized in Table 1.

The results of this investigation indicate a southwesterly direction of groundwater flow as of September 12, 1996 (Figure 2).

SUMMARY:

Comparing the laboratory test results with the last quarter, STMW-2, STMW-3, STMW-6, STMW-8 indicate reduced levels of TPHg contamination, while a slight increase in TPHg level was detected in STMW-4. The comparison of laboratory test results for these wells in the same quarter in the previous year reveal reduced levels of TPHg. Elevated levels of Benzene are detected in STMW-2, STMW-3, STMW-4, STMW-6

compared to the previous quarter while STMW-8 detected reduced level of Benzene. Laboratory test results for Benzene compared to the same quarter in the previous year indicates a slight increase in the concentration levels in STMW-2 and STMW-4, and a slightly decreased level in STMW-3, STMW-6 and STMW-8. Toluene, Ethyl Benzene and Total Xylene levels vary very slightly when compared to the test results from the previous quarter and the same quarter in the previous year.

RECOMMENDATIONS:

An additional subsurface investigation of the subject site is recommended in order to delineate subsurface hydrocarbon contamination in groundwater. STE recommends installation of additional off-site monitoring wells down-gradient from STMW-10

STE also recommends continuation of quarterly groundwater monitoring and sampling for one year. The proposed program should then be re-evaluated at the end of one year.

A copy of this report should be sent to Alameda County Health Department (ACHD) and California Regional Water Quality Control Board - San Francisco Bay Region (CRWQCB-SFBR).

LIMITATIONS AND UNIFORMITY OF CONDITIONS:

The monitoring well installation services or soil and water sampling for pollution on this project was a direct request by Soil Tech Engineering Inc.'s client. These installations were performed to meet the existing requirements for fuel leak regulations.

This service does not make Soil Tech Engineering, Inc. liable for future maintenance, repairs, damages, injury to third party or any other elements causing future problems.

The locations of these monitoring wells are approximate and should not be used for any reference point, surveying, or any other uses except studying groundwater.

Any recommendations that were made in this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings.

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

The findings of this report are based on the results of an independent laboratory and are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man, on this property or adjacent properties.

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

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. Length - Perforation Pet. - Petroleum

T1

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

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

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

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

T3

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
1/03/96				10.11	87.74	No sheen or odor	1.1	0.004	0.0013	0.0009	0.0033	NA	NA
4/03/96				8.35	89.50	No sheen or odor	1.9	0.012	0.0075	0.0052	0.014	NA	NA
9/12/96				14.04	83.81	No sheen Light sewage odor	2.1	0.046	0.024	0.031	0.073	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

T4

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
1/03/96				10.03	89.01	No sheen or odor	0.83	ND	ND	0.0013	0.0022	NA	NA
4/03/96				8.24	90.80	No sheen or odor	0.78	0.0013	0.001	0.0048	0.0038	NA	NA
9/12/96				14.30	84.74	No sheen or 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

TT5

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
1/03/96				10.55	88.22	Rainbow sheen spots Mild pet. odor	68	0.06	0.061	0.027	0.18	NA	1.4
4/03/96				8.76	90.01	Rainbow sheen spots Mild pet. odor	48	0.14	0.11	0.062	0.17	NA	1.1
9/12/96				14.51	84.26	Rainbow sheen spots V. Light Pet. odor	23	0.15	0.16	0.11	0.31	ND	0.5

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

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
1/03/96				9.57	88.26	No sheen V. light sewage odor	1.5	0.0015	0.0009	0.003	0.0041	NA	NA
4/03/96				7.75	90.08	No sheen V. light sewage odor	1.9	0.0021	0.0026	0.0051	0.0069	NA	NA
9/12/96				13.75	84.08	No sheen V. light sewage odor	NA	NA	NA	NA	NA	NA	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

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
1/03/96				9.79	87.46	Rainbow sheen spots Light pet. odor	23	0.019	0.012	0.0088	0.047	NA	NA
4/03/96				7.98	89.27	Rainbow sheen spots Light pet. odor	58	0.25	0.17	0.14	0.33	NA	NA
9/12/96				13.55	83.7	No sheen V. light pet. odor	46	0.21	0.15	0.16	0.36	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

T8

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
9/12/96	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
9/12/96	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
9/12/96	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

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 Perf. - Perforation
TOG - Total Oil & Grease MTBE - Methyl Tertiary Butyl Ether

TABLE 2
SUMMARY OF SOIL OBSERVATIONS AND ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/Kg)

Date	Sample I.D.	Depth (ft)	Soil Observation	TPHg	B	T	E	X
08/13/96	B-1-5	5	No odor	NA	NA	NA	NA	NA
	B-1-10	10	No odor	ND	ND	ND	ND	ND
08/13/96	B-2-5	5	No odor	NA	NA	NA	NA	NA
	B-2-10	10	V. light pet. odor	240	0.39	0.21	0.43	0.94
08/13/96	B-3-5	5	No odor	NA	NA	NA	NA	NA
	B-3-10	10	No odor	ND	ND	ND	ND	ND

TPHg - Total Petroleum Hydrocarbons as Gasoline
B - Benzene T - Toluene
E - Ethyl Benzene X - Total Xylenes
Pet. - Petroleum

TABLE 3
SUMMARY OF GRAB GROUND WATER SAMPLES
OBSERVATIONS AND ANALYTICAL RESULTS
IN MILLIGRAMS PER LITER (mg/L)

Date	Sample I.D.	Sample Observation	TPHg	B	T	E	X
08/13/96	WB-1	No sheen Light pet. odor	16.0	0.055	0.0023	0.043	0.043
	WB-2	Rainbow sheen spots Mild pet. odor	340.0	2.7	1.9	2.7	5.9
	WB-3	No sheen V. light pet. odor	3.0	0.015	0.0033	0.014	0.014

likely FP?

TPHg - Total Petroleum Hydrocarbons as Gasoline
B - Benzene T - Toluene
E - Ethyl Benzene X - Total Xylenes
Pet. - Petroleum

File No. 7-92-514-SA

A P P E N D I X "B"

SOIL TECH ENGINEERING, INC.

File No. 7-92-514-SA

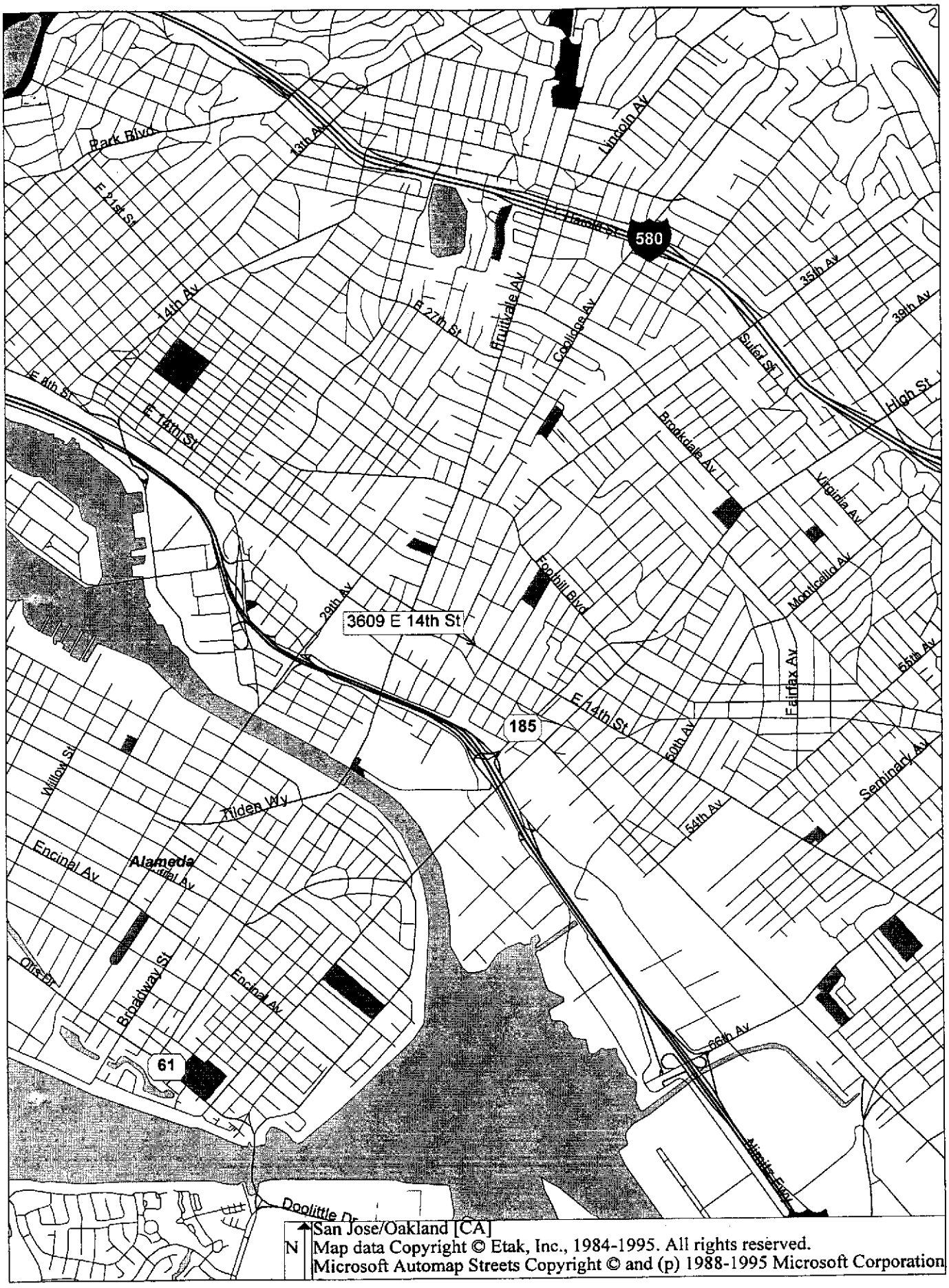
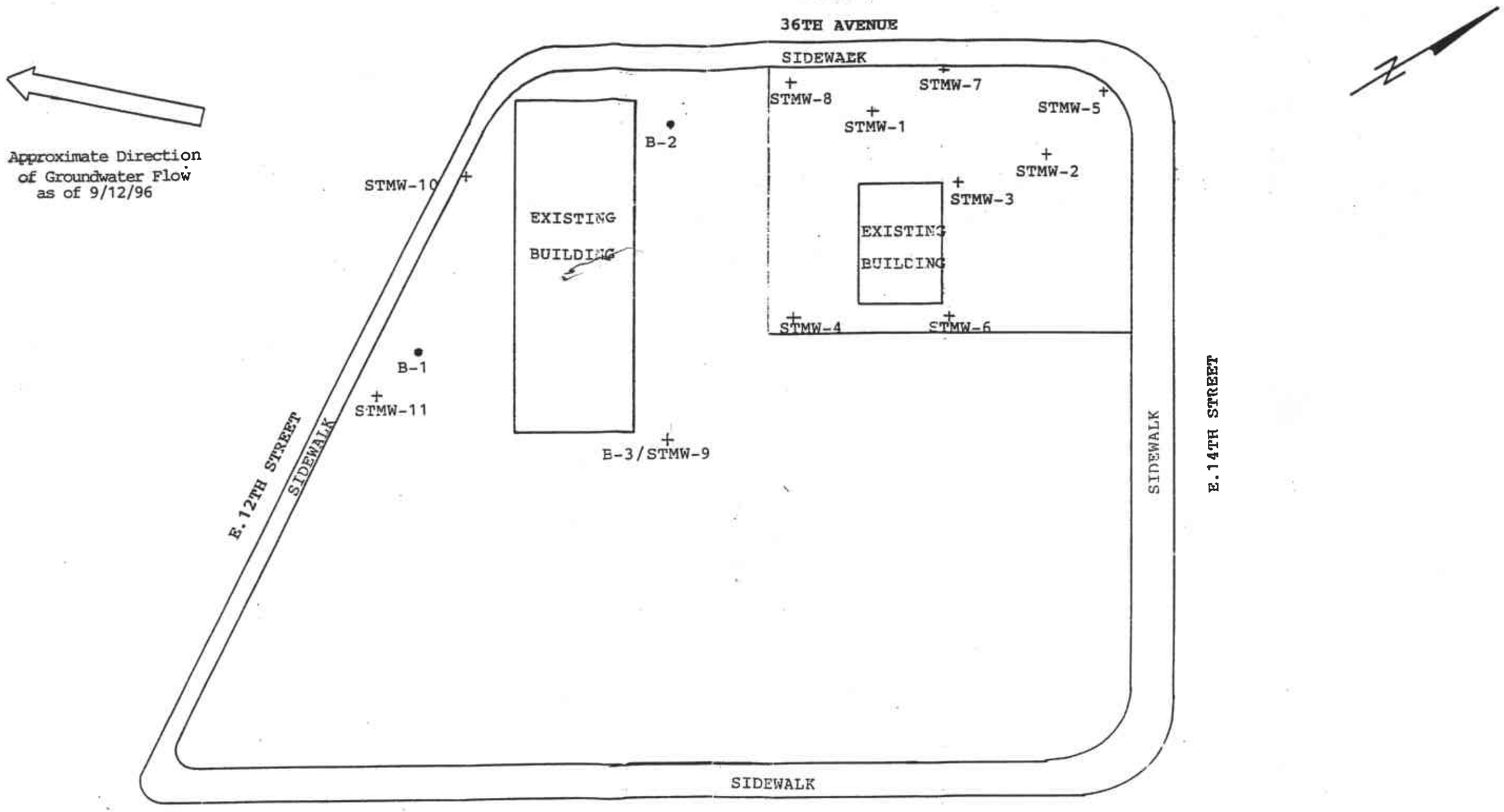


Figure 1 SOIL TECH ENGINEERING, INC. M1



LEGEND

MONITORING WELL

EXPLORATORY BORING

TONY'S EXPRESS AUTO SERVICES		
SCALE: 1"=40'		DRAWN BY NA
DATE: 9/12/96	7-92-514-SA	REVISED
3609 E. 14TH STREET OAKLAND CA, 94601		
SOIL TECH ENGINEERING INC		DRAWING NUMBER

File No. 7-92-514-SA

DRILLING AND SOIL SAMPLING PROCEDURE

A hand auger was used in drilling the soil boring to the desired depth (see the Boring Log for more details).

Prior to drilling, all drilling equipment (i.e. auger, pin, drilling head) was thoroughly steam-cleaned to minimize the possibility of cross-contamination and/or vertical migration of possible contaminants.

In addition, prior to obtaining each individual soil sample, all sampling tools, including sampler and brass liners were thoroughly washed in a Trisodium Phosphate (TSP) solution followed by a rinse in distilled water.

During the drilling operation, relatively undisturbed soil samples were taken from the required depth by forcing a 2-inch I.D. sampler insert with a brass liner into the ground by means of a 40-lb. hammer falling 30-inches at various depths.

The samplers withdrew relatively undisturbed soil. In general, the first section of soil from the sampler (shoe) was used in the field for lithologic inspection and evidence of contamination. The selected brass liner was immediately trimmed, the ends of the brass liner were covered tightly with aluminum foil and plastic caps, sealed with tape, labeled, placed in a plastic bag

and stored in an ice chest in order to minimize the escape of any volatiles present in the samples. Soil samples for analysis were sent to a state-certified hazardous waste laboratory accompanied by a chain-of-custody record.

Soil samples collected at each sampling interval were inspected for possible contamination (odor or peculiar colors). Soil vapor concentrations were measured in the field by using a Photoionization Detector (PID), PhotoVac Tip Air Analyzer. The soil sample was then sealed in a ZipLoc plastic bag and placed in the sun to enhance volatilization of the hydrocarbons from the sample. The purpose of this field analysis was to qualitatively determine the presence or absence of hydrocarbons and to establish which soil samples would be analyzed at the laboratory. The data was recorded on the drilling log at the depth corresponding to the sampling point.

Other soil samples might be collected to document the stratigraphy and estimate relative permeability of the subsurface materials.

Soil tailings obtained during drilling were stored at the site, pending the analytical test results to determine proper disposal.

SOP1 cont'd

File No. 7-92-514-SA

MONITORING WELL INSTALLATION

The boreholes for the monitoring wells were hand augered with a diameter of at least two inches larger than the casing outside diameter (O.D.).

The monitoring wells were cased with threaded, factory-perforated and blank, schedule 40 PVC. The perforated interval consisted of slotted casing, generally 0.010 to 0.040 inch wide by 1.5 inch long slot size, with 42 slots per foot (slots which match formation grain size as determined by field grain-size distribution analysis). A PVC cap was fastened to the bottom of the casing (no solvents, adhesive, or cements were used), the well casing was thoroughly washed and steam-cleaned.

After setting the casing inside the borehole, kiln-dried sand or gravel-filter material was poured into the annular space to fill from the bottom of the boring to two feet above the perforated interval. A one to two feet thick bentonite plug was placed above this filter material to prevent grout from infiltrating down into the filter material. Approximately one to two gallons of distilled water were added to hydrate the bentonite pellets. Then the well was sealed from the top of the bentonite seal to the surface with concrete or neat cement containing about 5% bentonite (see Well Construction Detail).

To protect the well from vandalism and surface water contamination, Christy boxes with a special type of Allen screw were installed around the well head, (for wells in parking lots, driveways and building areas). Steel stove pipes with padlocks were usually set over well-heads in landscaped areas.

In general, groundwater monitoring wells extend to the base of the upper aquifer, as defined by the consistent (less than 5 feet thick) clay layer below the upper aquifer, or at least 10 to 15 feet below the top of the upper aquifer, whichever is shallower. The wells do not extend through the laterally extensive clay layer below the upper aquifer. The wells are terminated one to two feet into such a clay layer.

SOP2 cont'd

File No. 7-92-514-SA

WELL DEVELOPMENT

For all newly installed groundwater monitoring wells, the well casing, filter pack and adjacent formations were cleared of disturbed sediment and water.

Well development techniques included pumping, bailing, surging, swabbing, jetting, flushing or air lifting by using a stainless steel or Teflon bailer, a submersible stainless steel pump, or air lift pump. The well development continued until the discharged water appeared to be relatively free of all turbidity.

All water and sediment generated by well development were collected in 55-gallon steel drums (Department of Transportation approved), closed-head (17-H) for temporarily storage, and were then disposed of properly, depending on analytical results.

To assure that cross-contamination did not occur between wells, all well development tools were steam-cleaned or thoroughly washed in a Trisodium Phosphate (TSP) solution followed by a rinse in distilled water before each well development.

File No. 7-92-514-SA

GROUNDWATER SAMPLING

Prior to collection of groundwater samples, all of the sampling equipment (i.e. bailer, cables, bladder pump, discharge lines, 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.

File No. 7-92-514-SA

A P P E N D I X "D"

SOIL TECH ENGINEERING, INC.

File No 7-92-514-SA

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. B-1
Date Drilled: 8/13/96	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
1					4-inch concrete, 6-inch dark yellowish-brown baserock. Munsell Color: HUE 10YR 4/4 Very dark grey silty clay, very stiff. Munsell Color: HUE 5Y 3/1
2					
3					Color gets lighter to dark olive-grey silty clay, very stiff. Munsell Color: HUE 5Y 3/2
4					
5	B-1-5		N=15	CL	Dark olive-grey silty clay with minor pea gravel, stiff. Munsell Color: HUE 5Y 3/2
6					
7					
8					
9					
10	B-1-10		N=17	CL	Color gets lighter to olive-grey silty clay, stiff. Munsell Color: HUE 5Y 4/2 Olive-grey silty clay, stiff.
11					
12					Color gets darker to dark olive-grey silty pea gravelly clay, very light petroleum odor, damp. Munsell Color: HUE 5Y 3/2
13					
14					
15					▽ First groundwater encountered at 15 feet. Boring terminated at 15 feet.
16					

Remarks

File No. 7-92-514-SA

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. B-2
Date Drilled: 8/13/96	Approx. Elevation	Boring Diameter 8-inch

Drilling Method	Sampling Method
Mobile drill rig B-40L	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
1					3-inch asphalt, 6-inch dark yellowish-brown baserock. Munsell Color: HUE 10YR 4/4
2					Very dark grey silty clay, very stiff. Munsell Color: HUE 5Y 3/1
3					Color gets lighter to dark olive-grey silty clay, very stiff.
4					Munsell Color: HUE 5Y 3/2
5	B-2-5		N=14	CL	Dark olive-grey silty clay, stiff. Munsell Color: HUE 5Y 3/2
6					
7					
8					Color gets lighter to olive-grey silty clay, stiff,
9					very light petroleum odor. Munsell Color: HUE 5Y 4/2
10	B-2-10		N=19	CL	Olive-grey silty clay, stiff, light petroleum odor. Munsell Color: HUE 5Y 4/2
11					
12					Petroleum odor gets stronger, damp.
13					
14					
15					▽ First groundwater encountered at 15 feet. Boring terminated at 15 feet.
16					

Remarks

File No. 7-92-514-SA

Logged By: Noori Ameli	Exploratory Boring Log	Boring No. B-3/STMW-9
Date Drilled: 8/13/96	Approx. Elevation	Boring Diameter 8-inch

Drilling Method: Mobile drill rig B-40L

Sampling Method:

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
1					12-inch dark yellowish-brown baserock. Munsell Color: HUE 10YR 4/4 Very dark greyish-brown silty clay, stiff. Munsell Color: HUE 2.5Y 3/2
2					
3					
4					
5	B-3-5		N=16	CL	Very dark greyish-brown silty clay, stiff. Munsell Color: HUE 2.5Y 3/2
6					
7					
8					Color gets lighter to olive-brown silty clay. Munsell Color: HUE 2.5Y 4/4
9					
10	B-3-10		N=15	CL	Olive-brown silty clay, stiff. Munsell Color: HUE 2.5Y 4/4
11					Color changes to dark greyish-brown silty clay, damp, stiff. Munsell Color: HUE 2.5Y 4/2
12					
13					
14					
15					▽ First groundwater encountered at 15 feet. Boring terminated at 15 feet.
16					

Remarks

File No. 7-92-514-SA

Logged By: Frank Hamedi	Exploratory Boring Log	Boring No. STMW-9
Date Drilled: 9/06/96	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification	DESCRIPTION
1					Previously logged on 8/13/96.
4					
8					
9					
10					
11					
12					
13					
14					
15				CL	Greyish-brown silty clay, very moist, stiff, petroleum.
16					

Remarks

File No. 7-92-514-SA

Logged By: Frank Hamedi	Exploratory Boring Log	Boring No. STMW-9
Date Drilled: 9/06/96	Approx. Elevation	Boring Diameter 8-inch

Drilling Method: Mobile drill rig B-40L

Sampling Method:

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17				CL	Greyish-brown silty clay, very moist, stiff, petroleum odor.
18					
19					
20					
21					
22					
23				CL	Color changes to brown silty clay, very moist, stiff, petroleum odor.
24					
25					Boring terminated at 25 feet.
26					
27					
28					
29					
30					
31					
32					

Remarks

File No. 7-92-514-SA

Logged By: Frank Hamedi	Exploratory Boring Log	Boring No. STMW-10	
Date Drilled: 9/06/96	Approx. Elevation	Boring Diameter 8-inch	
Drilling Method: Mobile drill rig B-40L		Sampling Method	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
1					4-inch asphalt concrete. 12-inch greyish-brown baserock.
2					
3					
4					
5	B-10-5		N=17		Dark grey silty clay, stiff.
6					
7					
8					
9					
10	B-10-10		N=20		Light brown silty clay, petroleum odor, moist.
11					
12					
13					
14					▽ First groundwater encountered at 14 feet.
15					
16					Color changes to dark brown silty clay, stiff to very stiff.

Remarks

File No. 7-92-514-SA

Logged By: Frank Hamedi	Exploratory Boring Log	Boring No. SIMW-10
Date Drilled: 9/06/96	Approx. Elevation	Boring Diameter 8-inch

Drilling Method	Sampling Method
Mobile drill rig B-40L	

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17				CL	Light brown silty clay, moist, petroleum odor.
18					
19					
20				CL	Color changes to dark brown silty clay, stiff to very stiff.
21					
22					
23					
24					
25					Boring terminated at 25 feet.
26					
27					
28					
29					
30					
31					
32					

Remarks

File No. 7-92-514-SA

Logged By: Frank Hamedi	Exploratory Boring Log	Boring No. SIMW-11
Date Drilled: 9/06/96	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/6"	Unified Soil Classification	DESCRIPTION
1					3-inch asphalt, 12-inch brown baserock. Dark grey silty clay,
2					
3					
4					
5	B-11-5		N=16	CL	Dark grey silty clay, very stiff.
6					
7					
8					
9					
10	B-11-10		N=19	CL	Light brown silty clay with some gravel, petroleum odor.
11					
12					
13					
14					▽ First groundwater encountered at 14 feet.
15					
16					

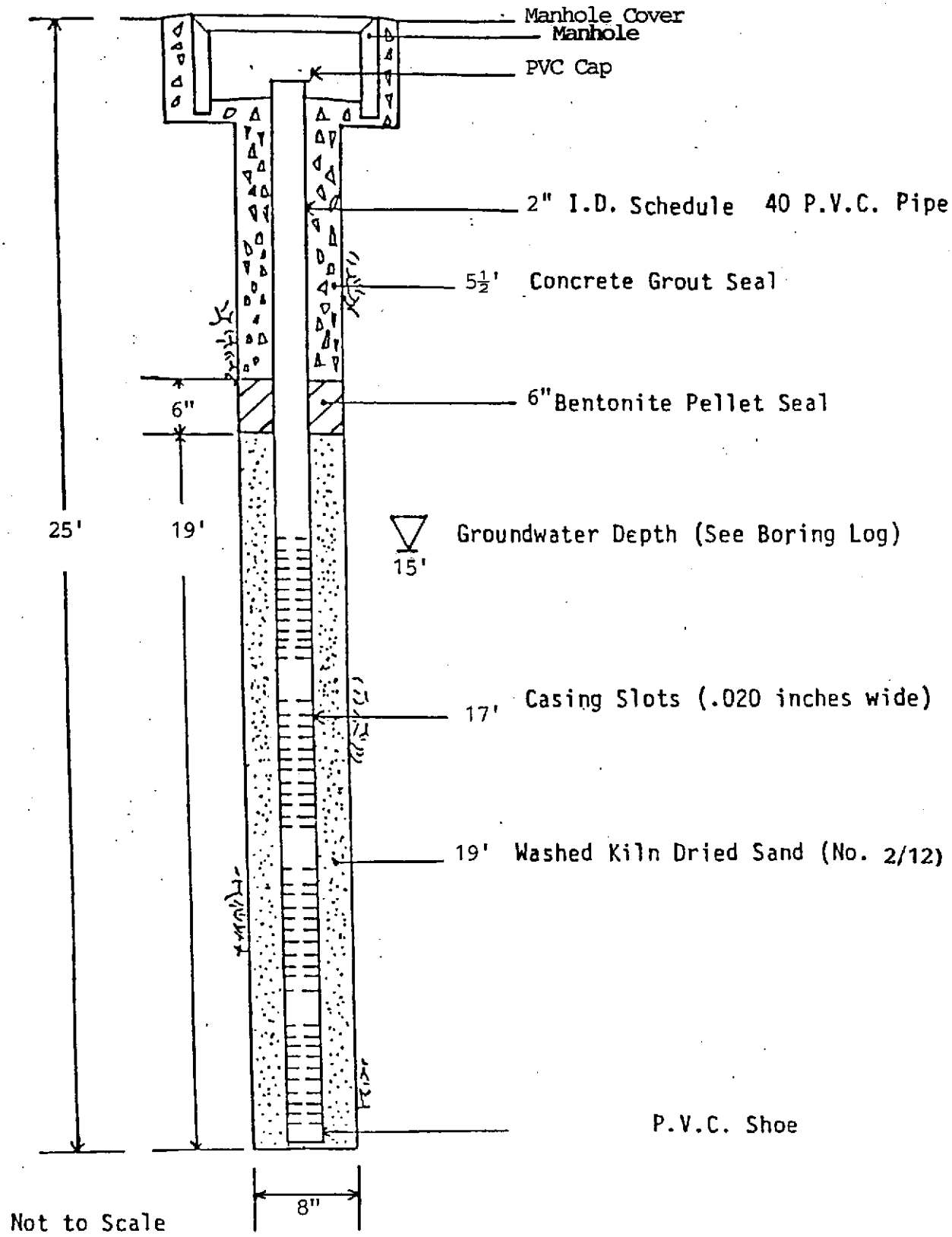
Remarks

File No. 7-92-514-SA

Logged By: Frank Hamedi	Exploratory Boring Log	Boring No. STMW-11
Date Drilled: 9/06/96	Approx. Elevation	Boring Diameter 8-inch
Drilling Method: Mobile drill rig B-40L		Sampling Method

Depth, Ft.	Sample No.	Field Test for Total Ionization	Penetration Resistance Blows/Ft.	Unified Soil Classification	DESCRIPTION
17					Light brown silty clay with some gravel, petroleum odor.
18				CL	Olive-grey silty clay, petroleum odor.
19					
20					
21				CL	Dark brown silty clay with gravel, very stiff.
22					
23					
24					
25					Boring terminated at 25 feet.
26					
27					
28					
29					
30					
31					
32					

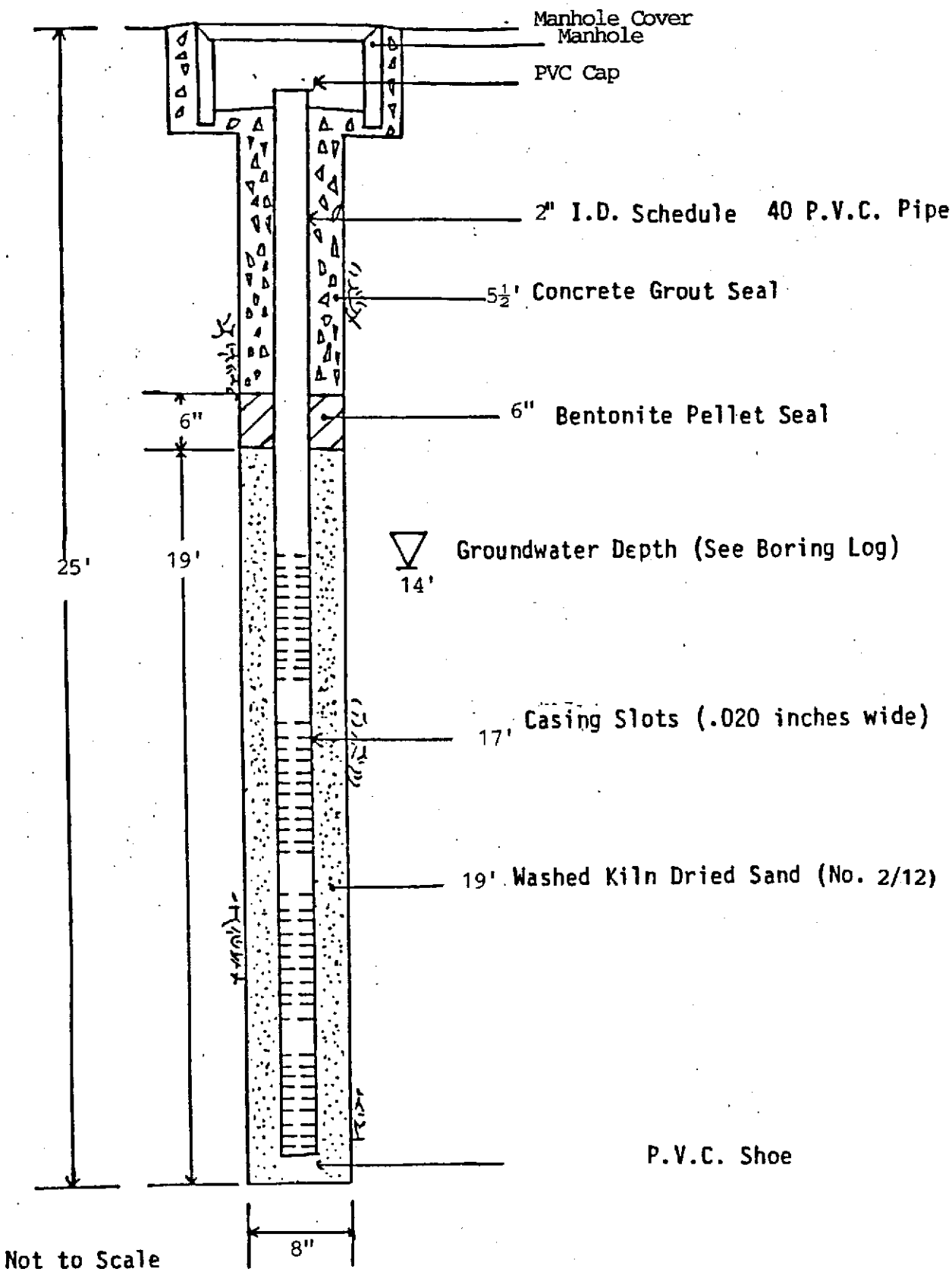
Remarks



STMW-9

Piezometer Schematic

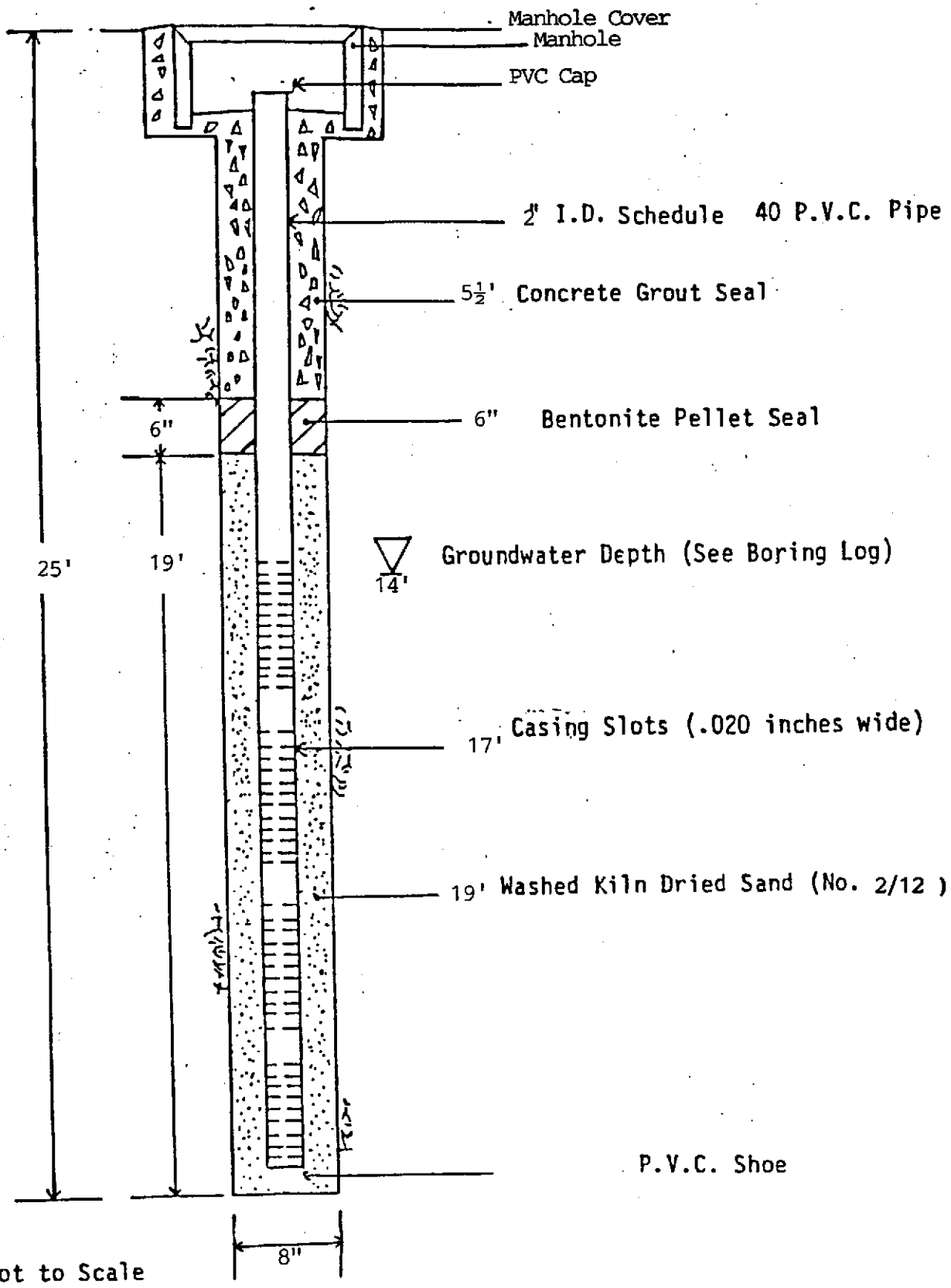
PS1



STMW-10

Piezometer Schematic

PS2



SIMW-11

Piezometer Schematic

PS3

SOIL TECH ENGINEERING INC

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

August 16, 1996 PEL # 9608027

SOIL TECH ENGINEERING Attn: Noori Ameli

Re: Three water and three soil samples for Gasoline/BTEX analysis.

Project name: 3609 E. 14th St., - Oakland
Project number: 7-92-514-SA

Date sampled: Aug 13, 1996 Date submitted: Aug 14, 1996
Date extracted: Aug 14-15, 1996 Date analyzed: Aug 14-15, 1996

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)
WB-1	16000	55	2.3	43	43
WB-2	340000	2700	1900	2700	5900
WB-3	3000	15	3.3	14	14
Detection Limit	50	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	602	602	602	602

SAMPLE I.D.	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylene (ug/Kg)
B-1-10	N.D.	N.D.	N.D.	N.D.	N.D.
B-2-10	240	390	210	430	940
B-3-10	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	86.9%	82.0%	94.0%	106.8%	112.4%
Detection limit	1.0	5.0	5.0	5.0	5.0
Method of Analysis	5030 / 8015	8020	8020	8020	8020

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

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

SAMPLERS: (Signature) N. Amel

PEL# 9608027

INV# 27204

NO.	DATE	TIME	SOIL	WATER	LOCATION	CONTAINER	ANALYSES REQUESTED (2) TPH G/BTEX
1	8/13/96	10:50	✓		B-1-10	1	✓
2		11:40	✓		B-2-10	1	✓
3		13:25	✓		B-3-10	1	✓
4		15:35		✓	WB-1	1	✓
5		15:45		✓	WB-2	1	✓
6	↓	15:55		✓	WB-3	1	✓

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Receive by: (Signature)
N. Amel					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
			08/14/96 12:35 PM		

SOIL TECH ENGINEERING

Environmental and Geotechnical Engineers

1761 Junction Ave. San Jose CA 95112 (408)441-1881

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

September 16, 1996 PEL # 9609028

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: Sep 12, 1996 Date submitted: Sep 13, 1996
Date extracted: Sep 13-16, 1996 Date analyzed: Sep 13-16, 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	19000	N.D.	210	220	110	400	---
STMW-3	66000	N.D.	430	420	210	510	---
STMW-4	2100	N.D.	46	24	31	73	---
STMW-6	23000	N.D.	150	160	110	310	0.5
STMW-8	46000	N.D.	210	150	160	360	---
STMW-9	7700	N.D.	20	26	44	160	---
STMW-10	26000	N.D.	98	37	63	99	---
STMW-11	2300	N.D.	7.0	7.2	12	31	---
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	94.4%	---	86.6%	97.1%	101.3%	96.6%	---
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

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

CHAIN OF CUSTODY RECORD

PEL

PROJ. NO.	NAME
7-92-514-5A	3609 E. 14th st. OAKLAND

SAMPLERS: (Signature)

N. Ample

PEL # 9609028

INV # 27279

NO.	DATE	TIME	SOIL	WATER	LOCATION	CONTAINER	Analyses Requested (2) TPHG/BTEX	MTBE	TO&G
1	9/12/96	12^{20}		✓	STMW-2	1	✓	✓	
2	9/12/96	14^{10}		✓	STMW-3	1	✓	✓	
3	9/12/96	11^{55}		✓	STMW-4	1	✓	✓	
4	9/12/96	16^{20}		✓	STMW-6	2	✓	✓	✓
5	9/12/96	17^{00}		✓	STMW-8	1	✓	✓	
6	9/12/96	14^{45}		✓	STMW-9	1	✓	✓	
7	9/12/96	15^{15}		✓	STMW-10	1	✓	✓	
8	9/12/96	15^{50}		✓	STMW-11	1	✓	✓	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Receive by: (Signature)
N. Ample	9/12/96 12:10				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Daniddua	09/13/96 12:10 PM		

SOIL TECH ENGINEERING

Environmental and Geotechnical Engineers

09-13-1996 02:45PM FROM TO 9469663 P.01

AIN CUS Y RD

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

SAMPLERS: *(Signature)*

N. Amoli

NO.	DATE	TIME	SOIL	WATER	LOCATION	CONTAINER	Analyses Requested (2) TPHG/BTEX	MTBE	TOG				REMARKS
1	9/12/96	12^{20}		✓	STMW-2	1	✓	✓					
2	9/12/96	14^{10}		✓	STMW-3	1	✓	✓					
3	9/12/96	11^{35}		✓	STMW-4	1	✓	✓					
4	9/12/96	16^{20}		✓	STMW-6	2	✓	✓	✓				
5	9/12/96	17^{00}		✓	STMW-8	1	✓	✓					
6	9/12/96	14^{45}		✓	STMW-9	1	✓	✓					
7	9/12/96	15^{15}		✓	STMW-10	1	✓	✓					
8	9/12/96	15^{50}		✓	STMW-11	1	✓	✓					

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Receive by: *(Signature)*
N. Amoli	9/12/96 12^{10}				
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	

SOIL TECH ENGINEERING

Environmental and Geotechnical Engineers

File No. 7-92-514-SA

A P P E N D I X "G"

SOIL TECH ENGINEERING, INC.

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