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SECOND QUARTER OF 2004 GROUNDWATER
MONITORING AND SAMPLING
AT THE PROPERTY
LOCATED AT 20570 STANTON AVENUE
CASTRO VALLEY, CALIFORNIA
JULY 20, 2004

PREPARED FOR:
MR. SEAN KAPOOR
STOP 'N SAVE, INC.
25064 VIKING STREET
HAYWARD, CALIFORNIA 94545

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

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SOP1

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Field Notes

July 20, 2004

File No. 2-00-706-ST

Mr. Sean Kapoor Stop 'N Save, Inc. 25064 Viking Street Hayward, California 94545

SUBJECT: SECOND QUARTER OF 2004 GROUNDWATER MONITORING & SAMPLING AT THE PROPERTY

Located at 20570 Stanton Avenue, in Castro Valley, California

Dear Mr. Kapoor:

This report presents the second quarter of 2004 groundwater monitoring and sampling results that were conducted by Enviro Soil Tech Consultants (ESTC), on July 5, 2004, at the subject site (Figure 1).

Three monitoring wells (STMW-1, STMW-2 and STMW-3) are located on-site. The locations of the wells are shown on Figure 2. This quarterly monitoring and sampling was conducted in accordance with ESTC's recommendations made in "Preliminary Soil and Groundwater Assessment at the Property...", dated October 13, 2000.

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File No. 2-00-706-ST If you have any questions or require additional information, please feel free to contact our office at (408) 297-1500. Sincerely, ENVIRO SOIL TECH CONSULTANTS LAWRENCE KO C. E. #34928 GENERAL MANAGER **ENVIRO SOIL TECH CONSULTANTS**

PURPOSE:

The purpose of this investigation was to determine the direction of groundwater flow and the extent of subsurface hydrocarbon contamination at the subject site.

The groundwater monitoring and sampling was conducted in accordance with ESTC's Standard Operation Procedure (SOP) and Alameda County Health Care Services Agency (ACHCSA) guidelines.

SITE DESCRIPTION:

The site is located at the southeast corner of San Carlos Avenue and Stanton Avenue, in Castro Valley, California (Figure 1). The site is currently used as a quick stop mini mart. The site is relatively flat, and the surrounding properties are primarily residential and light commercial businesses.

BACKGROUND:

On February 24, 2000, two 10,000gallon underground storage gasoline tanks were removed by Johnson Tank Testing and Maintenance.

During tanks removal activities, ESTC was retained by Mr. Randy Johnson of Johnson Tank Testing and Maintenance to conduct soil sampling from the tanks excavations. In addition, at the request of Mr. Robert Weston of ACHCSA-EHS, soil sampling was also conducted on the stockpiled soil and between the two removed underground storage tank areas. All soil sampling activities were conducted under the supervision of Mr. Robert Weston of ACHCSA-EHS.

The soil samples from the tanks and from between the tanks area were collected at approximately 2 feet below the excavation areas.

The four soil samples from the two 10,000 gallon UST excavations areas detected TPHg upto 11 milligram per kilogram (mg/Kg), and the maximum levels detected BTEX were (0.07 mg/Kg; 0.26 mg/Kg; 0.15 mg/Kg and 1.1 mg/Kg), respectively. MTBE in this area ranged between 0.11 mg/Kg to a maximum of 3.8 mg/Kg.

The soil samples between the two USTs area detected TPHg at 71 mg/Kg; BTEX at (0.22 mg/Kg; 0.47 mg/Kg; 0.49 mg/Kg and 3.7 mg/Kg, respectively) and MTBE at 1.2 mg/Kg.

The stockpiled soil samples detected TPHg upto 1,100 mg/Kg; BTEX at (4.2 mg/Kg; 22 mg/Kg; 12 mg/Kg and 110 mg/Kg); MTBE at 12 mg/Kg and Total lead at 11 mg/Kg.

The details of soil sampling are described in ESTC's report entitled "Soil Sampling Beneath Removed USTs at the Property...", dated March 8, 2000.

Since concentrations of TPHg, BTEX and MTBE were detected in the soil samples collected during USTs removal, further investigation was verbally requested by the Alameda County Health Care Services Agency (ACHCSA).

EST was retained by Mr. Sean Kapoor to conduct further investigation as requested by ACHCSA. A detailed proposed work plan, which was prepared by ESTC for the further investigation of the property, is described in a report entitled "Proposed Work Plan for Preliminary Site Assessment for the Property...", dated May 18, 2000.

On July 25 and 26, 2000, ESTC over-excavated the contaminated soil in the vicinity of former gasoline tanks areas to a practical extent. Approximately 150 cubic yards of contaminated soil was over-excavated.

Excavated soil from the removed USTs and over-excavation activities were stored on-site, sampled prior to treatment and treated by bio-remediation on a weekly basis. The details of the bio-remediation activities of the stockpiled soil is described in ESTC's report entitled "Interim Corrective Action for the Property...", dated August 17, 2000.

ESTC sampled the stockpiled soil to confirm if bio-treatment of the stockpiled soil was successful in reducing the contamination levels in the stockpiled soil. Upon approval of acceptance from Republic Services Vasco Road Landfill (former BFI Landfill), approximately 500 yards of soil were disposed at Republic Services Landfill in the City of Livermore. The details of sampling and disposal activities is described in ESTC's report entitled "Soil Sampling, Treatment and Disposal of Contaminated Stockpiled Soil from the Property...", dated August 21, 2000.

After ESTC's work plan (dated May 18, 2000) was approved by the Alameda County Health Cares Services Agency (ACHCSA), ESTC performed a preliminary soil and groundwater assessment of the subject property in September 2000.

The details of the preliminary soil and groundwater assessment are described in ESTC's report entitled "Preliminary Soil and Groundwater Assessment at the Property...", dated October 13, 2000. The report recommended quarterly monitoring and sampling of the on-site wells for at least one year.

Up-to-date, ESTC has conducted one quarterly groundwater monitoring and sampling of the on-site wells. The details of groundwater monitoring and sampling are described in ESTC's report entitled "Quarterly Groundwater Monitoring and Sampling at the Property...", dated January 19, 2001.

During concrete paving of the subject property parking lot done by Kapoor Enterprises' contractor, two of the wells were damaged. ESTC halted the quarterly groundwater monitoring and sampling events until the wells were fixed.

SCOPE OF PRESENT WORK:

- Measured depth-to-water table in the three on-site wells STMW-1, STMW-2 and STMW-3 and monitored for presence of any floating product and/or odor.
- Purged each monitoring well prior to sampling.
- Sampled monitoring wells STMW-1, STMW-2 and STMW-3 for laboratory analyses.
- Submitted water samples to a State-Certified laboratory for analyses of Total Petroleum Hydrocarbons as gasoline (TPHg), BTEX, MTBE and other hydrocarbon fuel oxygenated constituents per EPA Method 8260B.
- Reviewed results and prepared a report of the investigation.

FIELD ACTIVITIES:

The three monitoring wells (STMW-1 through STMW-3) were monitored for the presence of floating product(s) and/or any distinctive odor. Groundwater samples were collected and submitted to a state-certified laboratory for analyses.

GROUNDWATER MONITORING:

On July 5, 2004, ESTC's staff monitored three on-site wells to measure water depth and check for the presence of sheen and/or odor.

The recent water measurement revealed that the wells screen was submerged at least 7 to 10 feet.

During monitoring of the wells, only sewerage odor was detected in groundwater sample from monitoring well STMW-1. No sheen or odor was noted in groundwater samples from monitoring wells STMW-2 and STMW-3.

GROUNDWATER SAMPLING:

Water samples from the three monitoring wells (STMW-1, STMW-2 and STMW-3) were collected and analyzed for TPHg BTEX, MTBE and other hydrocarbon fuel oxygenate constituents using EPA Method 8260B. 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 that 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-milliliter 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 ESTC's Standard Operation Procedures (Appendix "C").

ANALYTICAL RESULTS:

The water samples from the monitoring wells were submitted to Entech Analytical Labs, in Santa Clara, California to be analyzed for TPHg, BTEX, MTBE and other hydrocarbon fuel oxygenated constituents (per EPA Method 8260B).

Groundwater samples from monitoring wells detected TPHg ranging from non-detectable (well STMW-3) to the maximum of 2100 microgram per liter (μg/L) (well STMW-1), Benzene ranging from non-detectable (wells STMW-2 and STMW-3) to maximum of 17 μg/L (STMW-1), Toluene ranging from non-detectable (STMW-2 and STMW-3) to maximum of 240 μg/L, Ethylbenzene ranging from non-detectable (STMW-2 and STMW-3) to maximum of 2.6 μg/L, Total Xylenes ranging from non-detectable (STMW-2 and STMW-3) to maximum of 12 μg/L and MTBE ranging from 2.5 μg/L (sTMW-3) to maximum of 1800 μg/L (STMW-2). Only monitoring well STMW-1 detected other hydrocarbon fuel oxygenated constituents (Acetone at 820 μg/L) in the groundwater sample. A summary of groundwater monitoring data and analytical results are presented in Table 1 (Appendix "A"). The laboratory analytical report is included in Appendix "E".

GROUNDWATER FLOW DIRECTION:

In order to estimate groundwater gradient and flow direction, a level and depth survey was conducted. Depths to groundwater were measured relative to an arbitrarily established datum assumed to be 100 feet above sea level. Well casing and ground surface elevations are summarized in Table 1. The results of this investigation indicated southerly direction of groundwater flow as of July 5, 2004.

SUMMARY:

Only sewerage odor was noted in monitoring wells STMW-1. No sheen or odor was noted in monitoring wells STMW-2 and STMW-3. Only monitoring well STMW-1 detected TPHg, BTEX, MTBE and other hydrocarbon fuel oxygenated constituents in the water sample. Monitoring well STMW-2 detected TPHg and MTBE in the water sample. Monitoring well STMW-3 only detected MTBE in the groundwater sample.

RECOMMENDATIONS:

Since two out of three monitoring wells continued to detect dissolved TPHg, and all three monitoring wells detected hydrocarbon fuel oxygenates constituents in the groundwater, ESTC recommends continuation of quarterly groundwater monitoring and sampling of on-site monitoring wells. Furthermore, since the screens of all the wells are submerged, water samples may not be representative of the surrounding groundwater; therefore, we recommend further investigation and/or replacement of the existing wells.

It is the responsibility of the owner and/or his/her representative agent to make sure a copy of this report is send to Alameda County Health Care Services Agency (ACHCSA).

LIMITATIONS:

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

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

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

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 ESTC 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.

APPENDIX "A"

TABLES

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

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	МТВЕ
10/04/00	STMW-1 (97.93)	23	14	8.34*	89.59	No sheen Light petroleum odor	60000	ND <2500	ND <2500	ND <2500	ND <2500	69000
1/04/01				7.86*	90.07	No sheen Light sewerage odor	71000	ND <5000	ND <5000	ND <5000	ND <5000	89000
3/16/04				5.70*	92.23	No sheen Sewerage odor	260	52	64	7.9	38	39
7/05/04				4.82*	93.11	No sheen Sewerage odor	2100	17	240	2.6	12	520
10/04/00	STMW-2 (99.04)	22	13	8.22*	90.82	No sheen or odor	69	ND<5	ND<5	ND<5	ND<5	66
1/04/01				6.70*	92.34	No sheen or odor	110	ND<5	ND<5	ND<5	ND<5	120
3/16/04				6.08*	92.96	No sheen Sewerage odor	1100 a	ND<10	ND<10	ND<10	ND<20	1700
7/05/04				6.86*	92.18	No sheen or odor	1800 b	ND<10	ND<10	ND<10	ND<20	1800
10/04/00	STMW-3 (99.60)	22	13	8.42*	91.18	No sheen or odor	ND<50	ND<5	ND<5	ND<5	ND<5	ND<5
1/04/01				6.16*		No sheen or odor	ND<50	ND<5	ND<5	ND<5	ND<5	ND<5
3/16/04				7.18*	92.42	No sheen or odor	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	2.8
7/05/04				6.27*	93.33	No sheen or odor	ND<25	ND<0.5	ND<0.5	ND<0.5	ND<1	2.5

TPHg – Total Petroleum Hydrocarbons as gasoline

MTBE – Methyl Tertiary Butyl Ether

Perf. – Perforation

μg/L – Microgram Per Liter

a – No other indication of gasoline besides MTBE

BTEX – Benzene, Toluene, Ethylbenzene, Total Xylenes

GW Elev. – Groundwater Elevation

ND – Not Detected (Below Laboratory Detection Limit)

* Well screens are submerged

b – TPH as gasoline reported value due to high concentration of MTBE present in the TPH as gasoline

TABLE 2 GROUNDWATER ANALYTICAL RESULTS FOR PETROLEUM HYDROCARBONS CONSTITUTENTS (EPA 8260B) IN MICROGRAM PER LITER (µg/L)

Date	Well No.	Petroleum Hydrocarbons Constituents	Detection
10/04/00	STMW-1	Methyl tert-butyl Ether	69000
1/04/01		Methyl tert-butyl Ether	89000
3/16/04		1,2,4-Trimethylbenzene	5.2
		2-Butanone (MEK)	21
		Acetone	22
		Benzene	52
		Carbon Disulfide	0.75
		Ethylbenzene	7.9
		Methyl tert-Butyl Ether	39
		Styrene	1.5
		Toluene	64
		Xylenes, Total	38
7/05/04		Acetone	820
		Benzene	17
		Ethylbenzene	2.6
		Methyl tert-butyl Ether	520
		Toluene	240
		Xylenes, Total	12
10/04/00	STMW-2	Methyl tert-butyl Ether	66
1/04/01		Methyl tert-butyl Ether	120
3/16/04		Methyl tert-butyl Ether	1700
7/05/04		Methyl tert-butyl Ether	1800
10/04/00	STMW-3	None Detected	<5
1/04/01		None Detected	<5
3/16/04		Methyl tert-butyl Ether	2.8
7/05/04		Methyl tert-butyl Ether	2.5

APPENDIX "B"

FIGURES

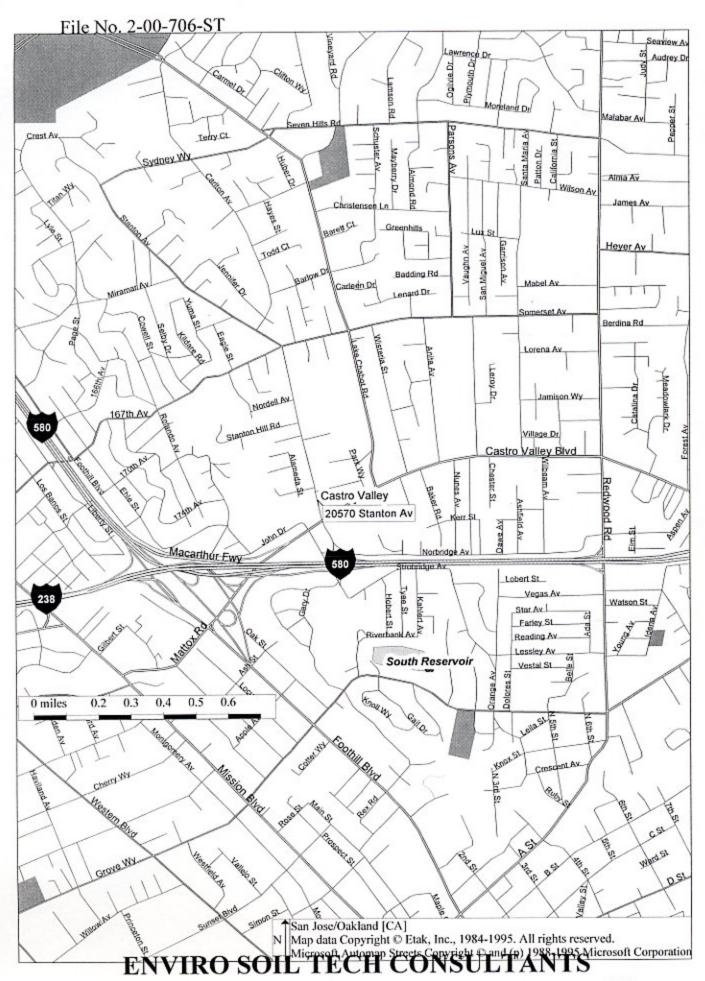
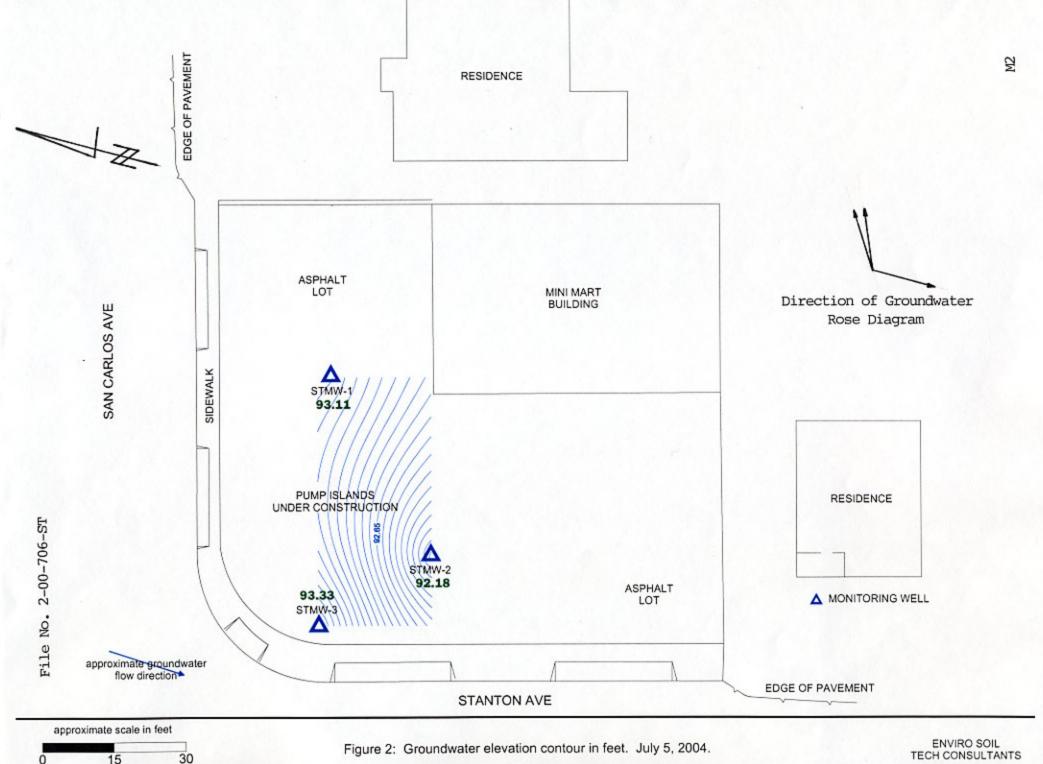


Figure 1



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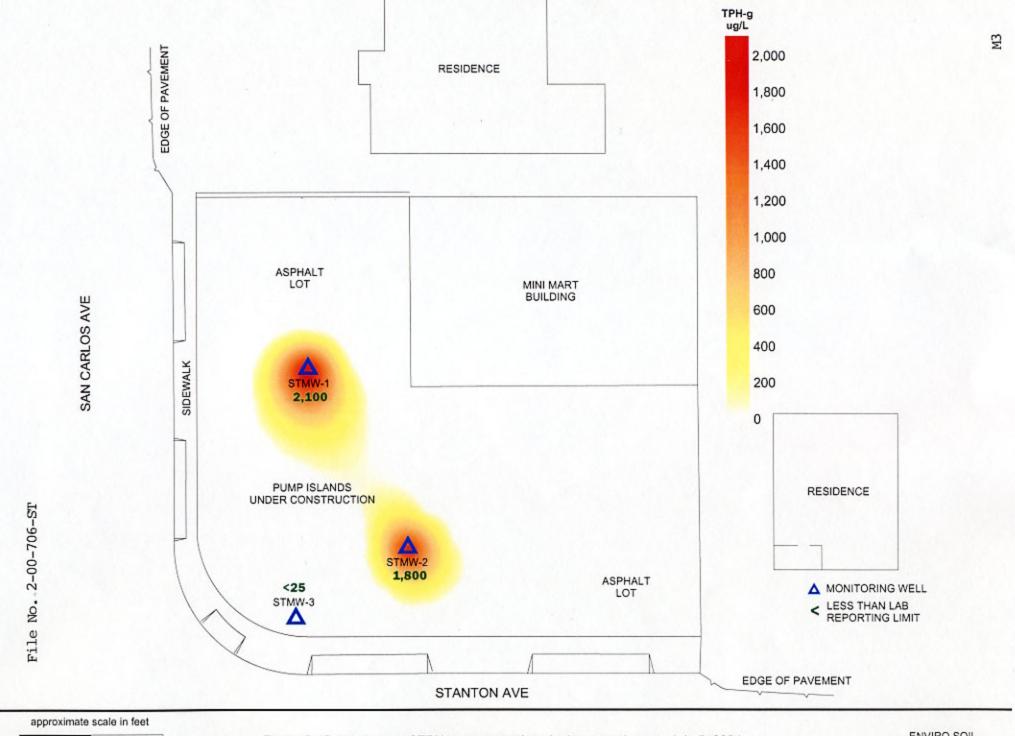
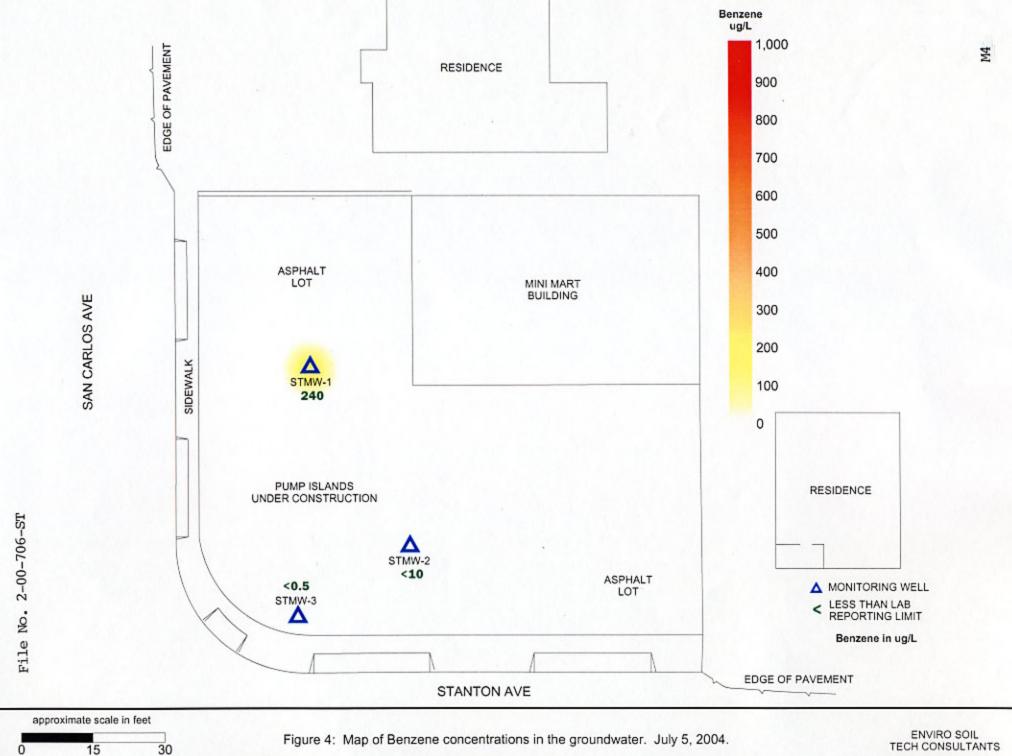


Figure 3: Contour map of TPH-g concentrations in the groundwater. July 5, 2004.

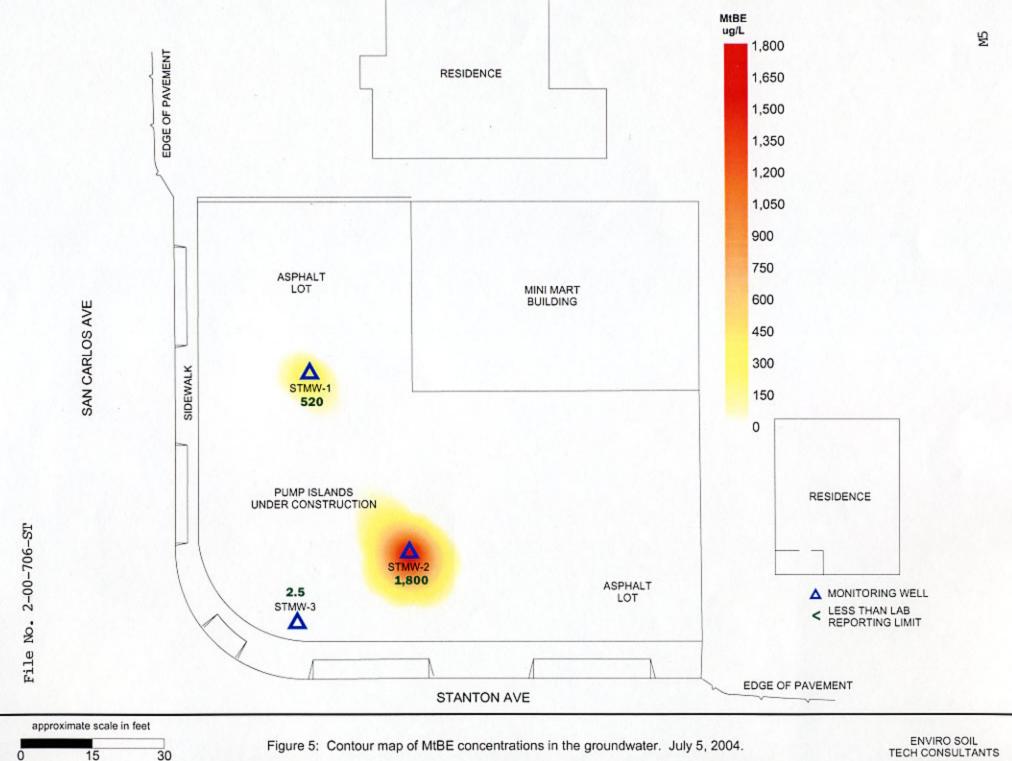
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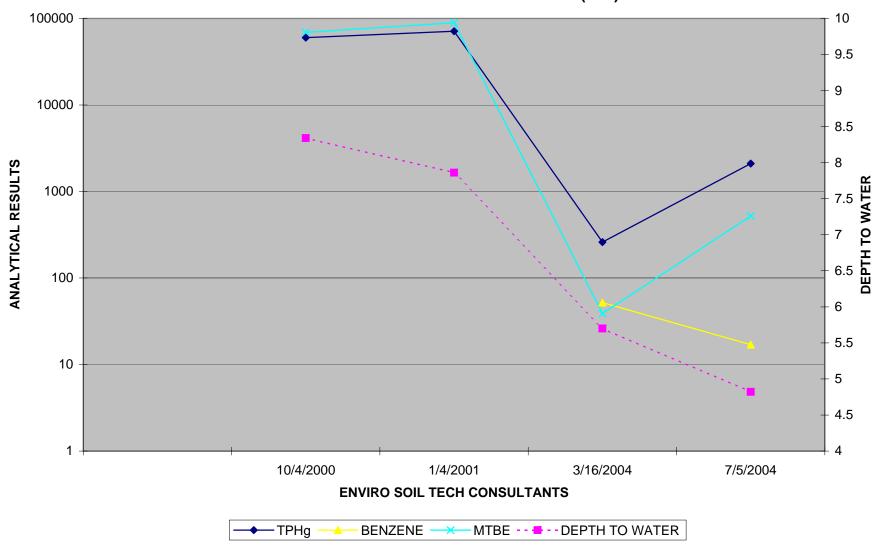
TECH CONSULTANTS



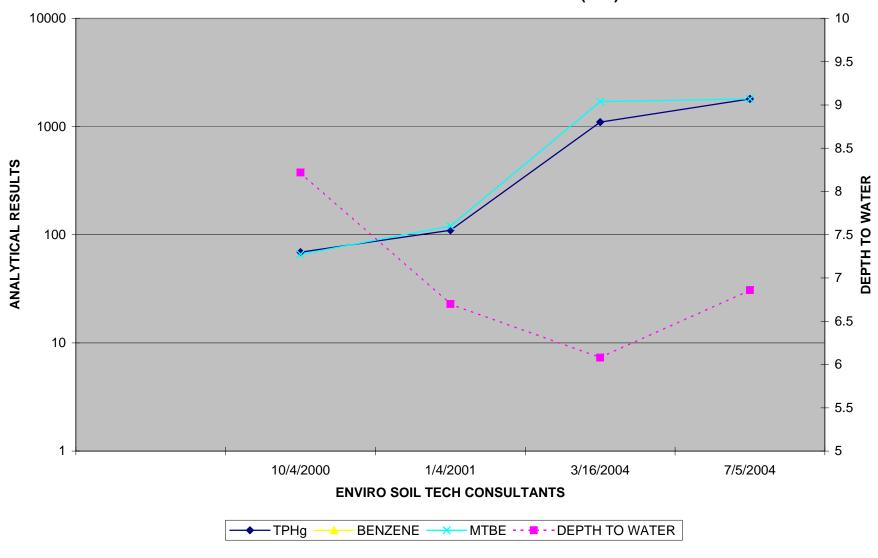
APPENDIX "C"

HYDROGRAPHS

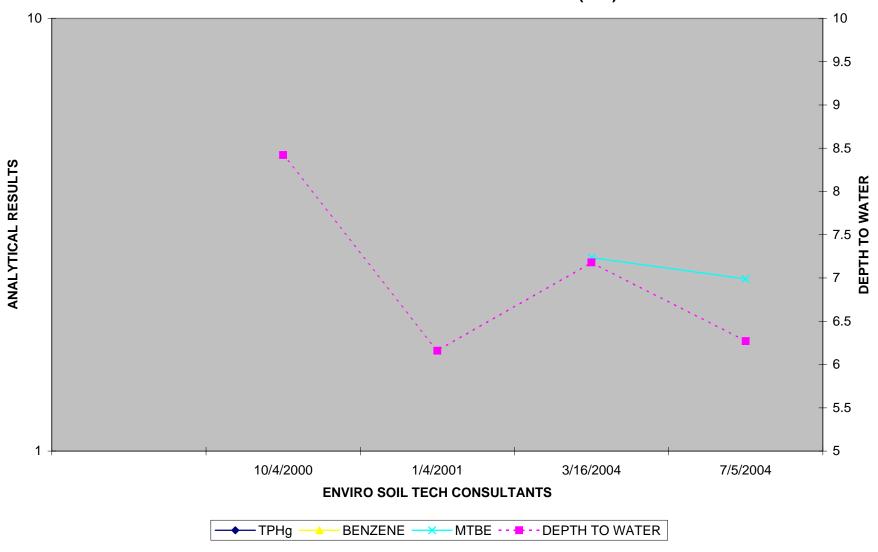
File No.: 2-00-706-ST TPHg, BENZENE & MTBE RESULTS FOR STMW-1 ($\mu g/L$) AND DEPTH TO WATER MEASUREMENT (feet)



 $\label{eq:FileNo::2-00-706-ST} File No.: 2-00-706-ST\\ TPHg, BENZENE \& MTBE RESULTS FOR STMW-2 (µg/L)\\ AND DEPTH TO WATER MEASUREMENT (feet)$



File No.: 2-00-706-ST TPHg, BENZENE & MTBE RESULTS FOR STMW-3 ($\mu g/L$) AND DEPTH TO WATER MEASUREMENT (feet)



APPENDIX "D"

STANDARD OPERATION PROCEDURE

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 vials and securely tightened. The VOA vials were 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 "E"

LABORATORY REPORT

APPENDIX "F"

FIELD NOTES

INCASTED.

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Francisco (408) 202 2116

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

FILE NO.: 2, 00		1	WELL NO .: SAMPLER: Rich	w -1 muly
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HEIGHT OF WATER	COLUMN:		ACTUALTURGED	, 020.12.
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4" x 0.653	-		-	
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SAMPLE METHOD:	BAILER	OTHER		
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FILE NO.: 200- DATE: 7-05			WELL NO.:	Me)-2
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	9 500	7,02	21.0	1094
	-			

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ENVIRO SOIL TECH CONSULTANTS

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

FILE NO.: 2-00- DATE: 7/05/0		W SA	ELL NO.: STA	nw-3 ml Waly
DEPTH TO WELL:		1	WELL VOLUME:_	2.6
DEPTH TO WATER:	6ft 27	5	WELL VOLUME:_	/.3
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CALCULATIONS:				
2" x 0.1632	15.73	7, 74		
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SHEEN: NO	YES, DES	CRIBE:		
SHEEN: NO ODOR: NO	YES, DES			
		MEASUREMEN		
TIME	VOLUME	<u>Ph</u>	TEMP.	E.C.
CONTRACT	3 946	7.74	TEMP.	1374
	6 SAC	7,43	19.9	1495
the same of	9940	7,45	0.0	<u>1552</u>