RO 134

ETIC ENGINEERING

LETTER OF TRANSMITTAL

1333 Broadway, Suite 1015
Oakland, California 94612

Tel: (510) 208-1600
Fax: (510) 208-1604

DATE: October 26, 2004		
PROJECT NO.	TASK	DEPT
TMSFT1		
RE: Former Val Strough Chevrolet		
327 34th Street		
Oakland, California		

TO: Don Strough
Strough Family Trust
PO Box 489
Orinda, CA 94563

ENCLOSED ARE THE FOLLOWING ITEMS:

NO. COPIES	DESCRIPTION
1	Third Quarter 2004 Groundwater Monitoring Report
1	Letter Report - Technical Response to the August 20, 2004 Alameda County Health Cares Services Agency Correspondence
1	Unauthorized Release Form

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ For your use ☐ As requested ☒ For review and comment ☐ For your information ☐ Other:

MESSAGE:

Mr. Strough,

ETIC Engineering, Inc. is pleased to submit the enclosed copies of the above referenced reports. We have distributed additional copies of the report as noted below.

ETIC appreciates the opportunity to provide the Strough Family Trust of 1983 with environmental consulting services. If you have any questions or comments, please contact me at (510) 208-1600, extension 11.

COPY TO:

SIGNED Katherine Brandt
Katherine Brandt

Cc: Jonathan Redding, Wendel Rosen Black and Dean, 1111 Broadway, 24th Floor, Oakland, California 94607
Don Hwang, Hazardous Materials Specialist, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250, Alameda, California 94502-6577

Sent via: ☐ Federal Express Priority ☐ Federal Express Standard ☐ Federal Express 2-Day ☐ Express Mail ☒ First Class Mail
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RO 134

ETIC ENGINEERING

THIRD QUARTER 2004
GROUNDWATER MONITORING REPORT

FORMER VAL STROUGH CHEVROLET
327 34th STREET
OAKLAND, CALIFORNIA

Prepared For:

Mr. Don Strough
Strough Family Trust of 1983
PO Box 489
Orinda, California 94563

Prepared By:

ETIC Engineering, Inc.
1333 Broadway, Suite 1015
Oakland, California 94612

October 26, 2004

ETIC ENGINEERING

Third Quarter 2004
Groundwater Monitoring Report

Former Val Strough Chevrolet
327 34th Street
Oakland, California

October 26, 2004

Prepared for:

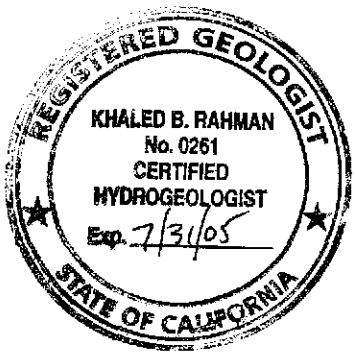
Mr. Don Strough
Strough Family Trust of 1983
PO Box 489
Orinda, California 94563

Prepared by:

ETIC Engineering, Inc.
1333 Broadway, Suite 1015
Oakland, California 94612

Katherine Brandt
Project Manager

Khaled Rahman, R.G., C.Hg.
Senior Geologist



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SITE CONTACTS

Site Name:	Former Val Strough Chevrolet
Site Address:	327 34th Street Oakland, California
Consultant:	ETIC Engineering, Inc. 1333 Broadway, Suite 1015 Oakland, California 94612 (510) 208-1600
ETIC Project Manager:	Katherine A. Brandt
Regulatory Oversight:	Don Hwang Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577 (510) 567-6746

1.0 INTRODUCTION

At the request of the Strough Family Trust of 1983, ETIC Engineering, Inc. has prepared this *Third Quarter 2004 Groundwater Monitoring Report* for the former Val Strough Chevrolet site located in Oakland, California. This report documents the procedures and findings of the 29 September 2004 groundwater monitoring event. Groundwater monitoring results, well construction details, and groundwater monitoring plan are provided in the attached figures and tables. Groundwater monitoring protocols, field data, and analytical results are provided in the attached appendices.

As proposed in the 17 September 2003 *Supplemental Site Investigation Workplan* and the *Third Quarter 2003 Groundwater Monitoring Report*, the monitoring frequency of the site wells was re-evaluated after four consecutive quarters of monitoring prior to the third quarter 2004 monitoring event. Based on the observed hydrocarbon concentrations and associated trends over time in key site wells, reduction of sampling at downgradient and cross-gradient wells to semi-annually or annually was recommended in the *Second Quarter 2004 Groundwater Monitoring Report*. The modified sampling frequency schedule is shown on Table 1. The sampling frequency modifications were verbally approved by Don Hwang of the ACHCSA during a 10 September 2004 telephone conversation.

1.1 GENERAL SITE INFORMATION

Site name:	Former Val Strough Chevrolet
Site address:	327 34th Street, Oakland, California
Current property owner:	Strough Family Trust of 1983
Current site use:	Automotive Dealership and Service Center
Current phase of project:	Groundwater monitoring, temporary dual-phase extraction (DPE) system installation
Tanks at site:	Two former tanks (1 gasoline, 1 waste-oil) removed in 1993
Number of wells:	7 (all onsite)

1.2 GROUNDWATER MONITORING SUMMARY

Gauging and sampling date:	29 September 2004
Wells gauged and sampled:	MW1, MW3, MW4 and MW6
Wells gauged only:	MW2, MW5 and MW7
Groundwater flow direction:	South-southwest
Groundwater gradient:	0.03
Separate-phase hydrocarbons:	Sheen observed in well MW2
Laboratory:	Severn Trent Laboratories, Inc (STL) San Francisco of Pleasanton, California

Analyses performed: Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl t-butyl ether (MTBE) by EPA Method 8260B. Total Extractable Petroleum Hydrocarbon (TEPH) with Silica Gel Clean-up by modified EPA Method 8015.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

Site Location and Land Use: The former Val Strough Chevrolet site is an automobile dealership and service center located on the southwest corner of the intersection of Broadway (Auto Row) and 34th Street (see Figure 1). The property is located south of Interstate 580. Land use in the area is primarily commercial.

The site is located at an elevation of approximately 61 feet above mean sea level (Environmental Data Resources, Inc. [EDR], 2003), and topography slopes slightly toward the south. The site is located approximately 2 miles east of the San Francisco Bay. The nearest surface water body is Lake Merritt, which is located approximately 1 mile south of the site (see Figure 1).

Site Features: The site consists of a multi-story building with adjacent parking lot (see Figure 2). The former underground storage tanks (USTs) and fuel dispenser were located near the northwestern portion of the site. Seven monitoring wells and several soil borings are located at the site. Well construction details for the site wells are presented in Table 2.

Underground Utilities: A box culvert for a former tributary of Glen Echo Creek that drains to Lake Merritt is located beneath the parking lot near Broadway (see Figure 2). The box culvert consists of a reinforced concrete box measuring 5 feet by 6 feet. The depth of the top of the culvert is approximately 17 feet below ground surface (bgs). During the winter of 1983, a section of the culvert caved-in and was replaced with a 5-foot-diameter pipe.

Other utilities at the site are generally less than two feet bgs, namely sanitary sewer, electrical, and natural gas. A storm drain flows to the east along the northern border of 34th Street, approximately 40 feet north of the site, and is diverted into the box culvert. A sanitary sewer lateral from the site connects to a sanitary sewer line running beneath 34th Street approximately 40 feet north of the site. This sanitary sewer line connects to a main line which runs beneath Broadway. The natural gas service is located on the east side of the property. The water service appears to enter the site from the north.

Water Supply Well Search: The EDR Report (2003) indicated that there are no federal US Geological Survey wells and no public water supply wells located within a 1-mile radius of the site. No water supply wells were identified by the Alameda County Department of Public Works within a ½-mile radius of the site.

2.2 SUMMARY OF PREVIOUS INVESTIGATIONS AND MONITORING ACTIVITIES

As presented in previous site reports, the USTs were removed and multiple investigations, including installation of seven monitoring wells, were conducted. In addition, a routine groundwater monitoring program has been in-place since 1993. The following summarizes the findings of these activities.

Site Hydrogeology: In general, the site is underlain by silt and clay to depths ranging from 15 to 20 feet bgs. Silty sand and fine-grained sand mixed with thin clay intervals are encountered from approximately 20 feet bgs to the total explored depth of 35 feet bgs.

Groundwater is typically measured at 17 to 23 feet bgs in the site wells. As shown in the modified rose diagram on Figure 2, the historic monitoring data indicate a prevailing groundwater flow direction toward the southwest, with an average hydraulic gradient of approximately 0.03 to 0.02 foot/foot. It should be noted that groundwater does not appear to be significantly influenced by underground utilities, including the box culvert (see Figure 2).

Primary Sources: Two USTs (one gasoline and one used oil) were located beneath the sidewalk along 34th Street on the north side of the property. A fuel dispenser was located inside the building (see Figure 2). These primary sources of hydrocarbons were removed from the site in 1993.

Constituents of Potential Concern: Based on the material stored in the USTs and the results of previous subsurface investigations at the site, the constituents of potential concern (COPCs) at the site include TPH-g, BTEX and MTBE. TPH-d and TPH-mo are not routinely reported in groundwater samples and are considered secondary COPCs for the site.

Residual Source Area: Separate phase hydrocarbons (SPHs) have been intermittently observed in wells MW2 and MW3, and elevated concentrations of TPH-g, BTEX, and MTBE are limited to the vadose and capillary fringe soils adjacent to the former UST fuel dispenser, near these wells. These findings indicate that most of the residual hydrocarbon mass is localized near the former USTs and fuel dispenser, herein referred to as the source area.

Hydrocarbon Distribution in Groundwater: The hydrocarbon mass in groundwater within the source area is defined by wells MW2, MW3 and MW4. SPH has been historically observed only in monitoring wells MW2 and MW3 (see Table 3). Due to the SPH presence, groundwater has not been regularly sampled in source area wells MW2 and MW3 during most of the recent monitoring events. Nearby monitoring wells MW1 (approximately 50 feet east of MW2 and 50 feet northeast of MW3) and MW4 (approximately 50 feet southeast of MW3) have not reported measurable SPH (see Table 3). The highest concentrations of dissolved constituents are typically reported in well MW4, where relatively low and stable/decreasing levels define the extent of the source area.

The extent of dissolved hydrocarbons in groundwater is largely defined by downgradient and crossgradient monitoring wells MW5, MW6 and MW7, which show stable concentrations of TPH-g, BTEX, and MTBE over the last two years (see Table 3). Fuel oxygenates (Tertiary Amyl Methyl Ether, Ethyl Tertiary Butyl Ether, Di-Isopropyl Ether, and Tertiary Butyl Alcohol and Ethanol) and the lead scavengers (Ethylene Dibromide and Ethylene Dichloride) were near or below reporting limits in previously analyzed grab groundwater samples for the site (see Table 4). These data suggest that hydrocarbons in groundwater are largely limited to the property boundaries, and that the plume is stable and has limited potential for offsite migration.

Dual Phase Extraction Pilot Test: In March 2004, ETIC performed a high vacuum dual-phase extraction (DPE) pilot test at the site. As summarized in the June 2004 *Dual Phase Extraction Pilot Test and Interim Remedial Action Plan* (DPE Report and IRAP), vacuum was applied to source area wells MW2 and MW3 while water and vacuum levels were observed in nearby monitoring wells. The DPE pilot test induced more than 1 foot of drawdown up to 50 feet from the extraction wells and an estimated radius of vacuum influence of 55 to 70 feet. Based on vapor flowrates and hydrocarbon concentrations in the vaporstream during the short-term pilot test, removal rates of approximately 90 pounds of hydrocarbons per day were estimated. These findings suggest that DPE can successfully remove hydrocarbons from the site subsurface and induce vacuum influence across the source area. The DPE Report and IRAP described the temporary DPE system installation and operation planned for the site.

Interim Remedial Action: In a 20 August 2004 correspondence, the ACHCSA provided general concurrence with the scope of work presented in the DPE Report and IRAP. Accordingly, ETIC has also begun installation of the temporary DPE system. The ACHCSA correspondence also requested incorporation of technical comments, performance of requested work, and submittal of several technical reports. ETIC is preparing a response to these items separately.

3.0 PROTOCOLS FOR GROUNDWATER MONITORING

The following sections of this report present information relevant to the methods employed during the collection of groundwater samples from site wells. The scope of work for the quarterly groundwater monitoring event at the site included:

- Checking for SPH in the wells.
- Gauging depth to groundwater in the wells.
- Purging wells to be sampled.
- Collecting and analyzing groundwater samples from scheduled wells with no observed SPH.
- Calculating the groundwater gradient and flow direction.
- Preparing this report summarizing the results of the monitoring event.

3.1 GROUNDWATER GAUGING

The wells were opened prior to gauging to allow the groundwater level to equilibrate with atmospheric pressure. The depth to groundwater and depth to SPH, if present, were then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements were made from a permanent reference point at the top of the well casing. Wells with a sheen or measurable SPH were not purged or sampled.

The groundwater elevation map (see Figure 2) for this monitoring event was constructed using depth-to-groundwater measurements collected during the current sampling event. Depth-to-groundwater measurements and calculated groundwater elevations are presented in Table 3. Field data forms are presented in Appendix B.

3.2 WELL PURGING

Approximately of three well casing volumes of water were purged from each well using a Waterra inertial pump. Field parameters including pH, temperature, and electrical conductance were measured during purging. After purging and prior to sampling, the water level was checked to ensure that the well had recharged to at least 80 percent of its pre-purge water level. Field protocols are presented in Appendix A.

3.3 GROUNDWATER SAMPLING

After purging, groundwater in each well was sampled using dedicated tubing and a WaTerra inertial pump. The samples were submitted to STL San Francisco of Pleasanton, California, a state-certified laboratory. Groundwater analytical results and chain-of-custody documentation are presented in Appendix C.

4.0 RESULTS

4.1 SEPARATE-PHASE HYDROCARBON MONITORING

Wells were monitored for the presence of SPH using a disposable bailer and/or interface probe. SPH sheen was observed in well MW2. SPH was not observed in the other site wells.

4.2 GROUNDWATER ELEVATION AND GRADIENT

Groundwater elevations in the site wells during this monitoring event ranged from 41.05 feet above mean sea level (msl) at well MW6 to 43.45 feet msl at well MW3 (see Figure 2). Groundwater flow is generally to the south-southwest with a hydraulic gradient of approximately 0.03 foot/foot. At the request of the ACHCSA, a rose diagram is also presented on Figure 2.

4.3 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples were collected from wells MW1, MW3, MW4 and MW6. Well MW2 was not sampled on 29 September 2004 due to the presence of SPH. Samples were analyzed by STL San Francisco for TPH-g, BTEX, MTBE, and TEPH with silica gel clean-up. Analytical results for this and prior monitoring events are presented in Table 3. Analytical results for this monitoring event are presented on Figure 3. Copies of the chain-of-custody and laboratory analytical reports for the groundwater samples are presented in Appendix C.

4.4 FINDINGS

The following observations are made comparing the results of the September 2004 monitoring event with the results of the previous monitoring events. Note that the DPE pilot test took place between the March and June 2004 monitoring events.

- SPH was reported in well MW2, which is consistent with recent monitoring events. However, well MW3, which had reported hydrocarbon sheen during recent monitoring events prior to the DPE pilot test, did not report SPH presence. This finding may be a direct result of hydrocarbon mass removal during the DPE pilot test.
- TPH-g was below laboratory reporting limits in the monitoring wells sampled, except wells MW3, MW4 and MW6 which reported concentrations at 29,000 µg/L, 940 µg/L, and 210 µg/L, respectively. As mentioned above, well MW3 has reported SPH sheen during monitoring events prior to the DPE pilot test. The absence of SPH and reported TPH-g concentration in well MW3 represent a decline in hydrocarbon concentration at this well location, most likely in response to the DPE pilot test. TPH-g concentrations in wells MW4 and MW6 are generally consistent with previous monitoring events.
- BTEX concentrations were below the laboratory reporting limits in the monitoring wells sampled expect for wells MW1, MW3 and MW6. As mentioned above, the absence of SPH and reported BTEX concentrations in well MW3 represent a decline in hydrocarbon concentration at this well location, perhaps in response to the DPE pilot test. BTEX concentrations in well MW4 are generally consistent with previous monitoring events.

- MTBE concentrations ranged from 190 µg/L in well MW6 to 1,200 µg/L in wells MW4. These findings are generally consistent with previous monitoring events.
- TPH-d concentrations were below laboratory reporting limits in the monitoring wells sampled, except for well MW3, which was reported TPH-d at 2,200 µg/L.
- TPH-mo concentrations were below laboratory reporting limits in each of the monitoring wells sampled.

5.0 PLANNED SITE ACTIVITIES

5.1 INTERIM REMEDIAL ACTION

As mentioned previously, the ACHCSA approved the general scope of work presented in the DPE Report and IRAP in a 20 August 2004 correspondence. The short-term high vacuum DPE system is currently under construction at the site. Start-up for the system is expected during the fourth quarter 2004.

5.2 MONITORING ACTIVITIES

As approved by ACHCSA, the sampling frequency has been modified. Groundwater will be monitored in accordance with the groundwater monitoring schedule presented as Table 1.

5.3 RESPONSE TO 20 AUGUST 2004 ACHCSA CORRESPONDENCE

The 20 August 2004 ACHCSA correspondence also requested incorporation of technical comments, performance of requested work, and submittal of several technical reports. ETIC's response to the ACHCSA technical comments, and associated request for additional sampling and technical reports will be submitted separately.

6.0 REFERENCES

Alameda County Health Cares Services Agency. 2004. Fuel Leak Case No. RO0000134, Val Strough Chevrolet, 327-34th St., Oakland, CA. August 20.

Environmental Data Resources. 2003. EDR Radius Map with GeoCheck, Strough Family Trust, 327 34th Street, Oakland, California. September 10.

ETIC Engineering, Inc. 2003. Supplemental Site Investigation Workplan, Fuel Case No. RO0000134, Val Strough Chevrolet, 327 34th Street, Oakland, California. September 17.

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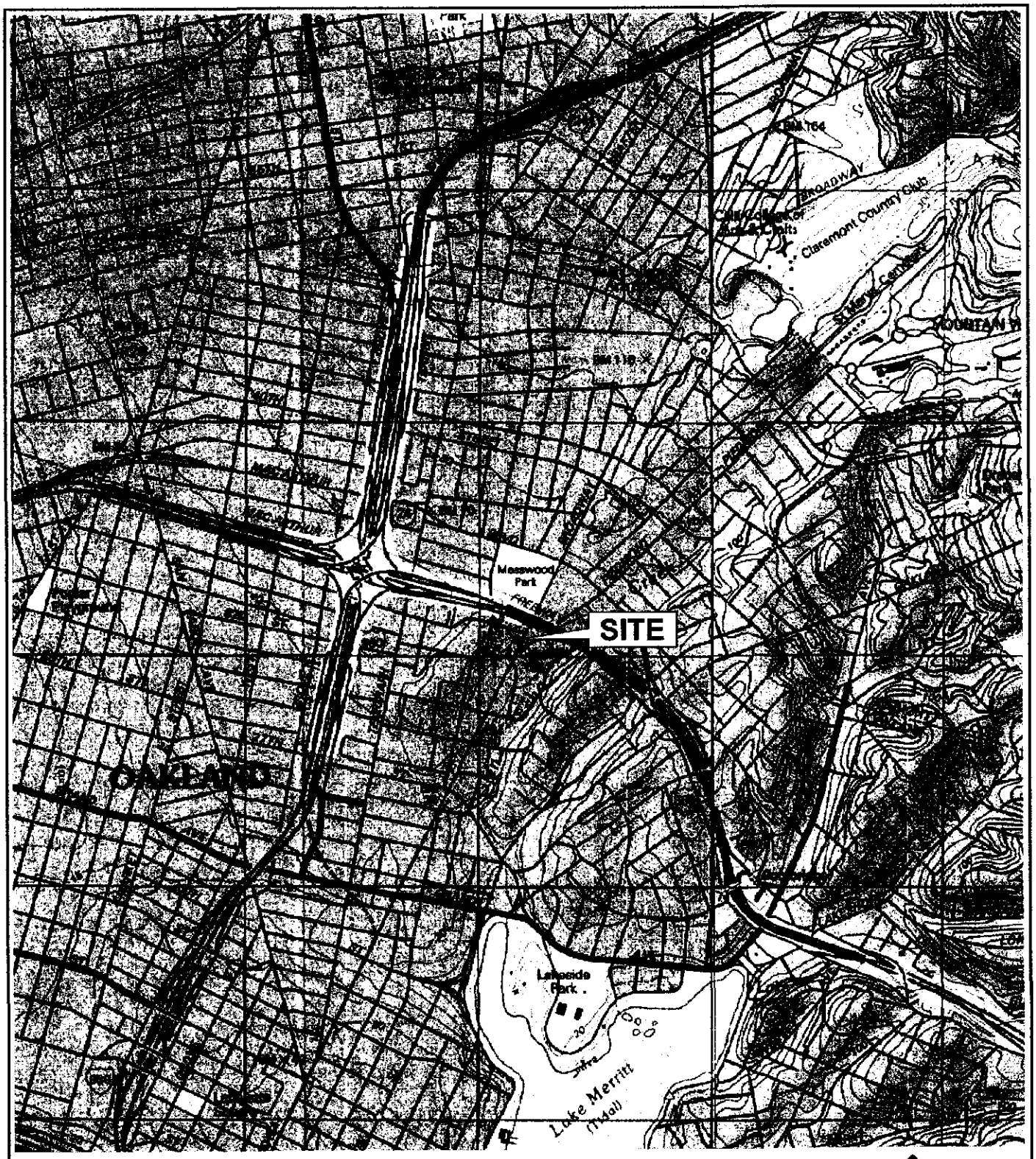
ETIC Engineering, Inc. 2004. First Quarter 2004 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. -Oakland, California. May .

ETIC Engineering, Inc. 2004. Second Quarter 2004 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. -Oakland, California. August.

ETIC Engineering, Inc. 2004. Dual Phase Extraction Pilot Test Report and Interim Remedial Action Plan, Strough Family Trust of 1983, Former Val Strough Chevrolet, 327 34th Street, Oakland, California. June.

Figures



ETIC ENGINEERING	SITE LOCATION MAP VAL STROUGH CHEVROLET 327 34TH STREET OAKLAND, CALIFORNIA	FIGURE: 1

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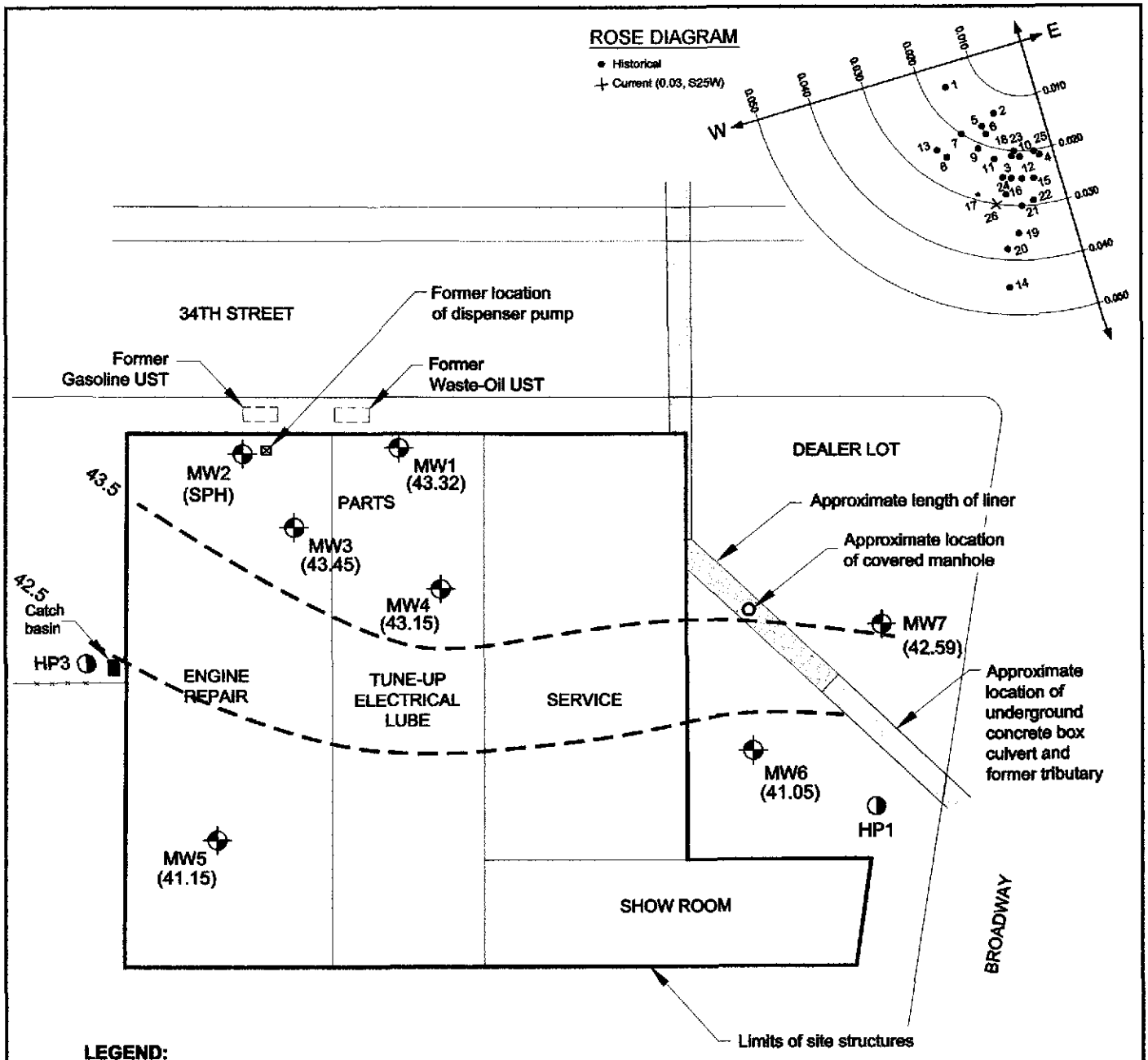
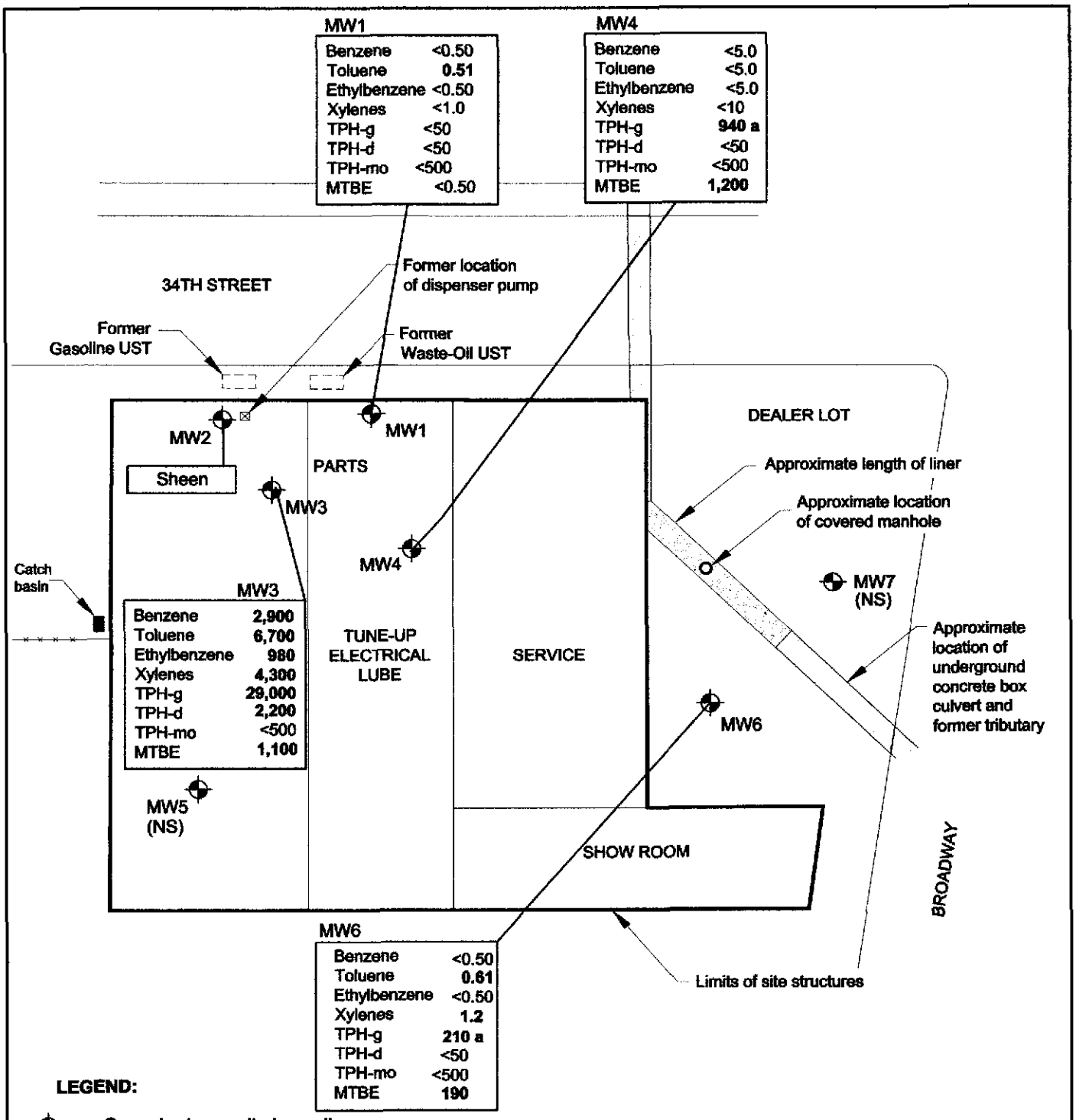


FILENAME: 402004.DWG 10/26/2004

ETIC ENGINEERING

SEPTEMBER 2004 GROUNDWATER CONTOUR MAP AND ROSE DIAGRAM
FORMER VAL STROUGH CHEVROLET
327 34TH STREET
OAKLAND, CALIFORNIA

FIGURE: **2**



LEGEND:

- Groundwater monitoring well
- **TPH-g** Total Petroleum Hydrocarbons as gasoline
- **TPH-d** Total Petroleum Hydrocarbons as diesel
- **TPH-mo** Total Petroleum Hydrocarbons as motor oil
- **MTBE** Methyl Tertiary Butyl Ether
- **SPH** Separate-Phase Hydrocarbons
- **a** Sample contains discrete peak in gasoline range identified by lab as MTBE
- **NS** Not Sampled

All concentrations are reported in micrograms per liter (ug/L)

N

0 25 50

Scale (feet)

FILENAME: 402004.DWG 10/25/2004

ETIC ENGINEERING

SEPTEMBER 2004 GROUNDWATER ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET
327 34TH STREET
OAKLAND, CALIFORNIA

FIGURE: **3**

Tables

TABLE 1 GROUNDWATER MONITORING SCHEDULE

STROUGH FAMILY TRUST, 327 34th STREET, OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency		
		BTEX and TPH-g	MTBE	TEPH
MW1	Q	S	S	S
MW2	Q	Q	Q	Q
MW3	Q	Q	Q	Q
MW4	Q	Q	Q	Q
MW5	Q	A	A	A
MW6	Q	S	S	S
MW7	Q	A	A	A

Q = Quarterly.
S = Semiannual.
A = Annual.

BTEX = Benzene, toluene, ethylbenzene, total xylenes.
MTBE = Methyl tertiary butyl ether.
TPH-g = Total Petroleum Hydrocarbons as gasoline.
TEPH = Total Extractable Petroleum Hydrocarbons, includes TPH-diesel and TPH-motor oil.

TABLE 2 WELL CONSTRUCTION DETAILS
STROUGH FAMILY TRUST, 327 34th STREET, OAKLAND, CALIFORINA

Well ID	Well Installation Date	Top-of-Casing Elevation[a] (feet)	Casing Material	Total Depth of Borehole (ft bgs)	Casing Diameter (inches)	Screened Interval (ft bgs)	Slot Size (inches)	Filter Pack Interval (ft bgs)	Filter Pack Material
MW1	07/19/93	64.69	PVC	32	2	17-32	0.020	15-32	Gravel Pack
MW2	07/20/93	65.95	PVC	33	2	18-33	0.020	16-33	Gravel Pack
MW3	07/20/93	65.99	PVC	34	2	18-34	0.020	16-34	Gravel Pack
MW4	06/26/98	63.35	PVC	31	2	15-31	0.020	13-31.5	Lonestar #3 Sand
MW5	06/26/98	65.59	PVC	31	2	15-31	0.020	13-31.5	Lonestar #3 Sand
MW6	07/17/00	59.60	PVC	31.5	2	10-30	0.020	8-30	Lonestar #3 Sand
MW7	07/17/00	59.47	PVC	36.5	2	15-35	0.020	13-35	Lonestar #3 Sand

a Elevations based on a survey conducted August 2002 and referenced benchmark with known elevation (NGVD 29) of 60.40 feet above mean sea level.
PVC Polyvinyl chloride.
ft bgs Feet below ground surface.

TABLE 3 CUMULATIVE GROUNDWATER ANALYTICAL DATA
STROUGH FAMILY TRUST, 327 34th STREET OAKLAND, CALIFORINA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								Concentration (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW1	07/27/93	100.00	a	20.79	79.21	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	--	--	--	--	--	--	--	--	--	--	--
MW1	10/02/97	100.00	a	21.22	78.78	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<2.0	--	--	--	--	--	--	--	--	--
MW1	06/30/98	100.00	a	18.21	81.79	0.00	<0.50	<0.50	2.1	0.6	84	--	--	2.1	204	5	6.16	0.15	0.046	55	<0.10	<0.10	2
MW1	07/29/98	100.00	a	18.74	81.26	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	08/26/98	100.00	a	19.28	80.72	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	10/01/98	100.00	a	19.93	80.07	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	192	3.6	6.49	--	--	--	--	--	--
MW1	10/30/98	100.00	a	20.22	79.78	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	11/30/98	100.00	a	19.99	80.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/28/98	100.00	a	19.81	80.19	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	01/25/99	100.00	a	19.62	80.38	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	389	3.4	6.72	--	--	--	--	--	--
MW1	02/26/99	100.00	a	17.18	82.82	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/24/99	100.00	a	17.28	82.72	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	05/12/99	100.00	a	17.91	82.09	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/15/99	100.00	a	21.01	78.99	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<0.50	--	3.31	6.52	--	--	--	--	--	--
MW1	03/20/00	100.00	a	16.25	83.75	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	07/20/00	100.00	a	19.63	80.37	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	3.4	120	7.37	6.66	0.13	<0.01	54	<0.10	3.4	<0.2
MW1	10/11/00	100.00	a	20.80	79.20	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	04/10-11/01	100.00	a	18.81	81.19	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	1.2	117	NR	NR	<0.10	0.045	57	<0.10	6.6	0.15
MW1	07/10/01	100.00	a	20.51	79.49	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	11/20/01	64.69	b	21.36	43.33	0.00	<0.50	1.3	<0.50	0.81	<50	<50	<300	<2.0	--[c]	0.65	6.47	0.32	1.8	63	<0.10	--	<0.20
MW1	02/19/02	64.69	b	18.95	45.74	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	05/21/02	64.69	b	19.82	44.87	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<2.0	120	0.96	6.25	<0.10	0.5	58	<0.10	5.5	<0.20
MW1	06/27/03	64.69	b	19.93	44.76	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/29/03	64.69	b	21.24	43.45	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	--	--	--	--	--	--	--	--
MW1	12/12/03	64.69	b	21.27	43.42	0.00	<0.50	<0.50	<0.50	1.1	<50	58	<500	<0.50	--	--	--	--	--	--	--	--	--
MW1	03/15/04	64.69	b	18.18	46.51	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	0.14	--	--	--	--	--	--	--
MW1	06/24/04	64.69	b	20.48	44.21	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	0.15	--	--	--	--	--	--	--
MW1	**09/29/04**	**64.69**	**b**	**21.37**	**43.32**	**0.00**	**<0.50**	**0.51**	**<0.50**	**<1.0**	**<50**	**<50**	**<500**	**<0.50**	--	**1.01**	**6.42**	--	--	--	--	--	--
MW2	07/27/93	101.27	a	22.10	79.17	0.00	10,000	27,000	2,900	20,000	120,000	--	--	--	--	--	--	--	--	--	--	--	--
MW2	10/02/97	101.27	a	22.91	78.36	0.43	*	*	*	*	*	--	--	*	--	--	--	--	--	--	--	--	--
MW2	06/30/98	101.27	a	19.69	81.58	0.45	7,300	18,000	2,500	15,600	72,000	--	--	5,500	185	2.2	5.98	--	--	--	--	--	--
MW2	07/29/98	101.27	a	20.11	81.16	0.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	08/26/98	101.27	a	20.54	80.73	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	10/01/98	101.27	a	21.52	79.75	0.42	6,400	17,000	2,600	17,000	84,000	--	--	2,000	--	2.7	6.47	--	--	--	--	--	--
MW2	10/30/98	101.27	a	21.54	79.73	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	11/30/98	101.27	a	21.21	80.06	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/28/98	101.27	a	21.10	80.17	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	01/25/99	101.27	a	20.80	80.47	0.01	9,000	26,000	3,800	27,500	130,000	--	--	5,800	386	0.3	6.69	--	--	--	--	--	--
MW2	02/26/99	101.27	a	18.00	83.27	sheen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	03/24/99	101.27	a	18.27	83.00	trace	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	05/12/99	101.27	a	19.08	82.19	trace	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/15-16/99	101.27	a	22.42	78.85	0.025	*	*	*	*	*	*	*	*	--	*	*	--	--	--	--	--	--
MW2	03/20/00	101.27	a	17.09	84.18	0.026	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3 CUMULATIVE GROUNDWATER ANALYTICAL DATA
STROUGH FAMILY TRUST, 327 34th STREET OAKLAND, CALIFORINA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								Concentration (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW2	07/20/00	101.27	a	20.86	80.41	0.017	*	*	*	*	*	*	*	*	*	0.88	6.37	*	*	*	*	*	*
MW2	10/11/00	101.27	a	22.10	79.17	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	04/10-11/01	101.27	a	19.98	81.29	0.00	8,000	22,000	2,600	23,500	150,000	1,500	<600	3,600	168	NR	NR	3.1	2.5	16	0.14	0.19	<0.20
MW2	07/10/01	101.27	a	21.85	79.42	0.00	5,900	15,000	2,300	12,100	83,000	5,700	<1,500	2,800	--	--	--	--	--	--	--	--	--
MW2	11/20/01	65.95	b	22.75	43.20	0.00	--	--	--	--	--	--	--	--	120	NR	6.15	1.8	2	16	<0.10	--	<0.20
MW2	02/19/02	65.95	b	20.12	45.83	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	05/21/02	65.95	b	21.10	44.85	0.00	8,600	25,000	3,500	26,000	150,000	31,000	<3,000	4,800	160	0.88	5.99	3.9	1.7	13	<0.10	0.54	<0.20
MW2	06/27/03	65.95	b	21.48	44.47	0.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	09/29/03	65.95	b	23.04	42.91	0.48	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[c]	12/12/03	65.95	b	22.75	43.31	0.16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[c]	03/15/04	65.95	b	19.24	46.72	0.01	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[c]	06/24/04	65.95	b	22.10	44.06	0.31	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[c]	**09/29/04**	**65.95**	**b**	**22.81**	**43.14**	**sheen**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3	07/27/93	101.29	a	22.28	79.01	0.02	9,100	24,000	5,300	33,000	330,000	--	--	--	--	--	--	--	--	--	--	--	--
MW3	10/02/97	101.29	a	22.71	78.58	0.03	4,200	11,000	1,800	10,600	36,000	--	--	3,500	--	--	--	--	--	--	--	--	--
MW3	06/30/98	101.29	a	19.47	81.82	0.00	4,800	11,000	1,200	7,100	51,000	--	--	3,900	300	2	6.03	1.4	9.8	13	1.4	<0.10	2.4
MW3	07/29/98	101.29	a	20.01	81.28	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	08/26/98	101.29	a	20.62	80.67	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	10/01/98	101.29	a	21.33	79.96	0.00	3,900	8,500	1,200	6,000	38,000	--	--	2,300	240	2	6.65	--	--	--	--	--	--
MW3	10/30/98	101.29	a	21.62	79.67	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	11/30/98	101.29	a	21.31	79.98	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/28/98	101.29	a	21.15	80.14	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	01/25/99	101.29	a	20.79	80.50	0.00	4,000	10000	1200	6700	5,100	--	--	2900	238	1	7.01	--	--	--	--	--	--
MW3	02/26/99	101.29	a	18.02	83.27	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	03/24/99	101.29	a	18.37	82.92	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	05/12/99	101.29	a	19.22	82.07	0.0083	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/15-16/99	101.29	a	22.43	78.86	0.00	*	*	*	*	*	*	*	*	--	*	*	--	--	--	--	--	--
MW3	03/20/00	101.29	a	17.14	84.15	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	07/20/00	101.29	a	20.98	80.31	0.00	5,700	14,000	1,600	9,300	69,000	2,900	<300	3,300	128	2.05	6.73	3.9	6.6	20	<0.10	0.55	<0.20
MW3	10/11/00	101.29	a	22.24	79.05	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	04/10-11/01	101.29	a	20.70	80.59	0.00	7,200	<0.001	2,300	12,900	110,000	4,700	<1,500	4,300	137	NR	NR	1	6	8.2	<0.10	0.13	<0.20
MW3	07/10/01	101.29	a	21.97	79.32	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	11/20/01	65.99	b	22.80	43.19	0.00	6,300	16,000	2,400	14,900	100,000	5,900	<900	4,000	120	2.93	6.67	0.84	12	31	<0.10	--	<0.20
MW3	02/19/02	65.99	b	20.11	45.88	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	05/21/02	65.99	b	21.20	44.79	0.00	6,500	17,000	2,200	12,700	91,000	14,000	<3,000	2,200	130	1.01	6.62	4.2	9.6	25	<0.10	0.77	<0.20
MW3	06/27/03	65.99	b	21.32	44.67	sheen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	09/29/03	65.99	b	22.79	43.20	sheen	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3[c]	12/12/03	65.99	b	22.73	43.27	0.01	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3[c]	03/15/04	65.99	b	19.32	46.67	sheen	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3[c]	06/24/04	65.99	b	21.99	44.00	0.00	3,400	7,700	1,000	4,800	39,000	1,700	<500	1,100	--	0.07	--	--	--	--	--	--	--
MW3[c]	**09/29/04**	**65.99**	**b**	**22.54**	**43.45**	**0.00**	**2,900**	**6,700**	**980**	**4,300**	**29,000**	**2,200**	**<500**	**1,100**	--	**0.80**	**6.42**	--	--	--	--	--	--

TABLE 3 CUMULATIVE GROUNDWATER ANALYTICAL DATA
STROUGH FAMILY TRUST, 327 34th STREET OAKLAND, CALIFORINA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								Concentration (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW4	06/30/98	98.65	a	16.93	81.72	0.00	2,200	930	850	2,100	10,000	--	--	1,800	222	2.6	6.18	0.14	4.3	14	0.8	0.8	1.5
MW4	07/29/98	98.65	a	17.48	81.17	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	08/26/98	98.65	a	18.65	80.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	10/01/98	98.65	a	18.74	79.91	0.00	570	46	130	36	1,100	--	--	1,300	320	3.4	<0.001	--	--	--	--	--	--
MW4	10/30/98	98.65	a	19.02	79.63	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	11/30/98	98.65	a	18.74	79.91	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/28/98	98.65	a	18.60	80.05	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	01/25-26/99	98.65	a	18.32	80.33	0.00	230	<8.3	<8.3	<8.3	290	--	--	1,300	475	6.7	7	--	--	--	--	--	--
MW4	02/26/99	98.65	a	15.81	82.84	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	03/24/99	98.65	a	16.01	82.64	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	05/12/99	98.65	a	17.71	80.94	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/15-16/99	98.65	a	19.83	78.82	0.00	5.8	<0.50	<0.50	<0.50	<50	--	--	1,400	--	1.75	7.02	--	--	--	--	--	--
MW4	03/20/00	98.65	a	14.9	83.75	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	07/20/00	98.65	a	18.38	80.27	0.00	91	4.6	19	12.9	210	<50	<300	1,500	126	3.88	6.67	9.5	5.3	11	<0.10	0.04	<0.20
MW4	10/11/00	98.65	a	19.61	79.04	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	04/10-11/01	98.65	a	17.55	81.10	0.00	110	<5.0	<5.0	<5.0	350	<50	<300	1,100	107	NR	NR	0.8	6.3	10	<0.10	<0.05	<0.20
MW4	07/10/01	98.65	a	19.34	79.31	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	11/20/01	63.35	b	20.16	43.19	0.00	<2.5	4	<2.5	3.7	96	<50	<300	2,500	130	0.83	6.51	1.6	10	11	<0.10	--	<0.20
MW4	02/19/02	63.35	b	17.34	46.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	05/21/02	63.35	b	18.57	44.78	0.00	340	5.7	70	<1.0	940	83	<300	1,600	150	1.65	6.32	3.1	8.4	9	<0.10	0.06	<0.20
MW4	06/27/03	63.35	b	18.72	44.63	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	09/29/03	63.35	b	20.11	43.24	0.00	<5.0	<5.0	<5.0	<10	1,100	<50[d]	<500	1,700	--	--	--	--	--	--	--	--	--
MW4	12/12/03	63.35	b	20.06	43.29	0.00	<13	<13	<13	<25	<1,300	<50	<500	1,000	--	--	--	--	--	--	--	--	--
MW4	03/15/04	63.35	b	16.89	46.46	0.00	1.5	<0.50	<0.50	<1.0	54[d]	<50	<500	41	--	0.16	--	--	--	--	--	--	--
MW4	06/24/04	63.35	b	19.31	44.04	0.00	69	<5.0	<5.0	<10	920[d]	<50	<500	1,100	--	0.15	--	--	--	--	--	--	--
MW4	**09/29/04**	**63.35**	**b**	**20.20**	**43.15**	**0.00**	**<5.0**	**<5.0**	**<5.0**	**<10**	**940[g]**	**<50**	**<500**	**1,200**	--	**0.13**	**6.63**	--	--	--	--	--	--
MW5	06/30/98	100.9	a	20.60	80.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	23	220	4.3	6.1	--	--	--	--	--	--
MW5	07/29/98	100.9	a	21.52	79.38	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	08/26/98	100.9	a	22.21	78.69	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	10/01/98	100.9	a	22.95	77.95	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	256	4.8	6.71	--	--	--	--	--	--
MW5	10/30/98	100.9	a	23.23	77.67	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	11/30/98	100.9	a	23.12	77.78	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/28/98	100.9	a	23.18	77.72	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	01/25-26/99	100.9	a	22.61	78.29	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	305	9.7	7.04	--	--	--	--	--	--
MW5	02/26/99	100.9	a	19.78	81.12	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	03/24/99	100.9	a	20.25	80.65	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	05/12/99	100.9	a	21.06	79.84	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/15-16/99	100.9	a	24.19	76.71	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<0.50	--	2.72	7.19	--	--	--	--	--	--
MW5	03/20/00	100.9	a	19.15	81.75	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	07/20/00	100.9	a	21.84	79.06	0.00	<0.50	0.98	<0.50	<0.50	<50	<50	<300	1.9	134	5.58	6.35	0.11	0.017	49	<0.10	3.9	<0.20
MW5	10/11/00	100.9	a	23.4	77.50	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	04/10-11/01	100.9	a	22.3	78.60	0.00	<0.50	2.6	<0.50	0.6	<50	<50	<300	1.5	183	66	NR	<0.10	0.042	45	<0.10	2.9	0.11
MW5	07/10/01	100.9	a	23.64	77.26	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3 CUMULATIVE GROUNDWATER ANALYTICAL DATA
STROUGH FAMILY TRUST, 327 34th STREET OAKLAND, CALIFORINA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								Concentration (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW5	11/20/01	65.59	b	24.65	40.94	0.00	0.83	12	1.2	11	140	860	2,500	10	--[c]	66	6.01	0.2	2.5	42	<0.10	--	<0.20
MW5	02/19/02	65.59	b	22.37	43.22	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	05/21/02	65.59	b	23.10	42.49	0.00	<0.50	<0.50	<0.50	<0.50	<50	2,200	<300	<2.0	140	66	6.3	<0.1	0.22	44	<0.10	3	<0.20
MW5	06/27/03	65.59	b	23.07	42.52	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	09/29/03	65.59	b	24.38	41.21	0.00	<0.50	0.52	7.1	35	100	<50[d]	<500	1.4	--	--	--	--	--	--	--	--	--
MW5	12/12/03	65.59	b	23.90	41.69	0.00	<0.50	<0.50	<0.50	<1	<50	<50	<500	1.5	--	--	--	--	--	--	--	--	--
MW5	03/15/04	65.59	b	20.82	44.77	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	6.4	--	--	--	--	--	--	--
MW5	06/24/04	65.59	b	23.57	42.02	0.00	<0.50	<0.50	<0.50	<1.0	<50	130[f]	<500	0.79	--	5.56	--	--	--	--	--	--	--
MW5	**09/29/04**	**65.59**	**b**	**24.44**	**41.15**	**0.00**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	07/20/00	96.60	a	18.30	78.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	160	122	2.72	6.66	120	1.9	53	6	0.05	<0.20
MW6	10/11/00	96.60	a	18.69	77.91	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	04/10-11/01	96.60	a	17.85	78.75	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	180	142	NR	NR	22	2.2	0.69	5.2	<0.05	<0.20
MW6	07/10/01	96.60	a	18.43	78.17	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	11/20/01	59.60	b	18.67	40.93	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	450	100	2.03	6.44	29	5.2	1.1	3.4	--	<0.20
MW6	02/19/02	59.60	b	17.40	42.20	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	05/21/02	59.60	b	17.68	41.92	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	170	100	0.76	6.6	11	3.4	1.4	8.9	0.65	<0.20
MW6	06/27/03	59.60	b	17.73	41.87	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/29/03	59.60	b	18.48	41.12	0.00	<1.0	<1.0	<1.0	<2.0	230[d]	<50	<500	340	--	--	--	--	--	--	--	--	--
MW6	12/12/03	59.60	b	17.89	41.71	0.00	<2.5	<2.5	<2.5	<5.0	<250	51	<500	190	--	--	--	--	--	--	--	--	--
MW6	03/15/04	59.60	b	16.46	43.14	0.00	<1.0	<1.0	<1.0	<2.0	200	<50	<500	220	--	0.11	--	--	--	--	--	--	--
MW6	06/24/04	59.60	b	17.97	41.63	0.00	<1.0	<1.0	<1.0	<2.0	130	<50	<500	190	--	0.05	--	--	--	--	--	--	--
MW6	**09/29/04**	**59.60**	**b**	**18.55**	**41.05**	**0.00**	**<0.50**	**0.61**	**<0.50**	**1.2**	**210[g]**	**<50**	**<500**	**190**	--	**0.37**	**6.60**	--	--	--	--	--	--
MW7	07/20/00	96.75	a	15.93	80.82	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	32.2	7.15	7.43	<0.1	0.002	7.5	<0.10	2.6	0.13
MW7	10/11/00	96.75	a	16.90	79.85	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW7	04/10-11/01	96.75	a	15.80	80.95	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	77.6	NR	NR	0.18	0.048	49	<0.10	2.7	0.31
MW7	07/10/01	96.75	a	16.71	80.04	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW7	11/20/01	59.47	b	16.17	43.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<2.0	62	0.96	7.11	0.16	1.8	63	<0.10	--	<0.20
MW7	02/19/02	59.47	b	14.92	44.55	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW7	05/21/02	59.47	b	15.18	44.29	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	68	1.03	7.57	0.11	0.35	51	<0.10	2.8	0.11
MW7	06/27/03	59.47	b	16.28	43.19	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW7	09/29/03	59.47	b	16.88	42.59	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	0.62	--	--	--	--	--	--	--	--	--
MW7	12/12/03	59.47	b	14.95	44.52	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	--	--	--	--	--	--	--	--
MW7	03/15/04	59.47	b	14.77	44.70	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	0.54	--	--	--	--	--	--	--
MW7	06/24/04	59.47	b	16.33	43.14	0.00	<0.50	<0.50	<0.50	<1.0	<50	300[f]	<500	<0.50	--	0.20	--	--	--	--	--	--	--
MW7	**09/29/04**	**59.47**	**b**	**16.88**	**42.59**	**0.00**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3 CUMULATIVE GROUNDWATER ANALYTICAL DATA
STROUGH FAMILY TRUST, 327 34th STREET OAKLAND, CALIFORINA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								Concentration (mg/L)								
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$

SPH Separate-phase hydrocarbons.
CO_2 Carbon dioxide.
DO Dissolved oxygen.
Fe(II) Ferrous iron.
Mn Manganese.
SO_4 Sulfate.
$N\text{-}NH_3$ Ammonia.
$N\text{-}NO_3$ Nitrate.
$o\text{-}PO_4$ Ortho-Phosphate.
GW Groundwater.
TPH-g Total Petroleum Hydrocarbons as gasoline.
TPH-d Total Petroleum Hydrocarbons as diesel.
TPH-mo Total Petroleum Hydrocarbons as motor oil.
MTBE Methyl tertiary butyl ether.
NR Not reported.
µg/L Micrograms per liter.
mg/L Milligrams per liter.
* SPH present; not sampled.
-- Not analyzed or not sampled.
< Less than the laboratory reporting limits.
a Elevations are referenced to monitoring well MW1, with assumed datum of 100.00 feet.
b Elevations based on a survey conducted August 2002 and referenced benchmark with known elevation (NGVD 29) of 60.40 feet above mean sea level.
c Analysis not conducted due to broken sample containers.
d Hydrocarbon reported in the gasoline range does not match laboratory gasoline standard.
e Groundwater elevation in wells with LPH are corrected by multiplying the specific gravity of gasoline (0.69) by the LPH thickness and adding this value to the water elevation.
f Hydrocarbon reported is in the early diesel range, and does not match the laboratory diesel standard.
g Sample contained discrete peak in gasoline range and identified by lab as MTBE.

TABLE 3 HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
STROUGH FAMILY TRUST, 327 34th STREET OAKLAND, CALIFORINA

Boring ID	Date	Depth (feet)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
HP1	12/18/2003	26-30	<5.0	<5.0	<5.0	**11**	**410**	**180**	<500	<50	**480**	<10	<5.0	<5.0	<5.0	<5.0
HP3	12/18/2003	32-36	<0.50	<0.50	<0.50	<1.0	<50	**75**	<500	<5.0	**0.55**	<1.0	<0.50	<0.50	**1.3**	<0.50

Concentrations reported in micrograms per liter

TPH-g	Total Petroleum Hydrocarbons as gasoline.
TPH-d	Total Petroleum Hydrocarbons as diesel.
TPH-mo	Total Petroleum Hydrocarbons as motor oil.
TBA	t-butyl alcohol.
MTBE	Methyl tertiary butyl ether.
DIPE	di-isopropyl ether.
ETBE	ethyl t-butyl ether.
TAME	t-amyl methyl ether.
1,2-DCA	1,2-dichloroethane.
EDB	ethylene dibromide.
<	less than the laboratory reporting limits.

TABLE 4 HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
STROUGH FAMILY TRUST, 327 34th STREET OAKLAND, CALIFORNA

Boring ID	Date	Depth (feet)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
HP1	12/18/2003	26-30	<5.0	<5.0	<5.0	**11**	**410**	**180**	<500	<50	**480**	<10	<5.0	<5.0	<5.0	<5.0
HP3	12/18/2003	32-36	<0.50	<0.50	<0.50	<1.0	<50	**75**	<500	<5.0	**0.55**	<1.0	<0.50	<0.50	**1.3**	<0.50

Concentrations reported in micrograms per liter

TPH-g	Total Petroleum Hydrocarbons as gasoline.
TPH-d	Total Petroleum Hydrocarbons as diesel.
TPH-mo	Total Petroleum Hydrocarbons as motor oil.
TBA	t-butyl alcohol.
MTBE	Methyl tertiary butyl ether.
DIPE	di-isopropyl ether.
ETBE	ethyl t-butyl ether.
TAME	t-amyl methyl ether.
1,2-DCA	1,2-dichloroethane.
EDB	ethylene dibromide.
<	less than the laboratory reporting limits.

ETIC ENGINEERING

Appendix A

Protocols for Groundwater Monitoring

PROTOCOLS FOR GROUNDWATER MONITORING

GROUNDWATER GAUGING

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed from the well and, if the well does not recover, the well is considered "functionally dry." Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

WELL PURGING

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH, temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

GROUNDWATER SAMPLING

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40-milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler's initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.

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Appendix B

Field Documents

ETIC Engineering, Inc.

FIELD SUMMARY COPY

Client: STROUGH FAMILY TRUST **Station No.:** SFT

Project No.: TMSFT 1.1 **Task No.:** 1

Sample Team: WT / CM **Budgeted time:**

Date: 9/28 - 9/29 **Time Billed:**

No. of Drums on Site: _____ **Water** _____ **Soil** _____ **Empty**

- **Task:** 3RD QUARTER QM 2004

OPEN & GAUGE WELLS MW1 THRU MW7 WITH IP CHECKING DTW, DTP, DTB. PURGE & SAMPLE WELLS MW1 THRU MW4, MW6 WITH WATERRA. CLOSE & SECURE ALL WELLS. DELIVER WATER TO ROMIC.

- **summary:**

OPENED & GAUGED WELLS MW1 THRU MW7 WITH IP CHECKING DTW, DTP, DTB (MW2 INDICATED PRODUCT PRESENT). PURGED & SAMPLED WELLS MW1 THRU MW4, MW6 WITH WATERRA (NO PURGE OR SAMPLE MW2). CONFIRMED PRODUCT IN MW2 WITH BAILER. CLOSED & SECURED ALL WELLS. DELIVERED WATER TO ROMIC. PURGED APPX 15 GALLONS.

	ONSITE	OFFSITE	
9/29 WP	13:00	14:30	
9/29 WP	6:15	8:15	SUSAN BROWN 9.29.04
9/29 CM	7:30	8:15	

ETIC
Engineering, Inc.

MONITORING WELL DATA FORM

Client: STROUGH FAMILY TRUST	Date: 9 Z8 04
Project Number: TMSFT.6	Station Number: SFT
Site Location: 327 34TH ST. OAKLAND , CA.	Samplers: WJ

MONITORING WELL NUMBER	DEPTH TO WATER (TOC)	DEPTH TO PRODUCT (TOC)	APPARENT PRODUCT THICKNESS	AMOUNT OF PRODUCT REMOVED	MONITORING WELL INTEGRITY	DEPTH TO BOTTOM (TOC)	GENERAL FIELD COMMENTS
MW1	Z1.37					30.55	2"
MW2*	ZZ 81					32.15	2"
MW3*	ZZ54					32.45	2"
MW4	Z0.20					26.85	2"
MW5	Z444					26.35	2"
MW6	18.55					27.15	2"
MW7	na88					34.75	2"

* POSSIBLE LPH - USE IP AND CONFIRM WITH BAILER

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: STROUGH FAMILY TRUST Well No: MW1 Date: 9-29-04

Project No: TMSFT.6 Personnel: WS

GAUGING DATA

Water Level Measuring Method: WLM / IP

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	30.55	−	21.37	=	9.18	X	1	(2)	4	6	1.46	=	4.40
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA / BAILER / SUB PURGE RATE .50 GPM

Time (2400)	7:44	7:46	7:48			
Volume Purged (gal)	1	2	3			
Temperature (°C)	18.60	18.61	18.60			
pH	6.42	6.42	6.42			
Spec Cond. (umhos)	1287	1270	1268			
DO (mg/L)	10.0% .93 MG/L	11.4% 1.06 MG/L	10.9% 1.01 MG/L			
ORP	4.8	7.3	11.6			
Turbidity/Color	SLIM / SAN	SLIM / SAN	SLIM / SAN			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Alkalinity:

Comments/Observations:

SAMPLING DATA

Time Sampled: 7:55 Approximate Depth to Water During Sampling: 22 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/Color	Analysis Method
MW1	3	VOA	HCL	40 ml		HVOCs by 8260B
MW1	2	AMBER	HCL	1L		TPH-D,TEHO

Total Purge Volume: 3 (gallons) Disposal: System

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

BOLTS	(Y) / N
CAP & LOCK	(Y) / N
GROUT	(Y) / N
WELL BOX	(Y) / N
SECURED	(Y) / N

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Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: STROUGH FAMILY TRUST Well No: MW3 Date: 9/29/04

Project No: TMSFT.6 Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: (WLM) / IP

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	32.45	−	22.54	=	9.91	×	1	(2)	4	6	1.58	=	4.75
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA / BAILER / SUB PURGE RATE GPM

Time	7:52	7:56	8:00			
Volume Purge (gal)	2	4	6			
Temperature (C)	18.35°C	18.37°C	18.38°C			
pH	6.47	6.44	6.42			
Spec Cond (umhos)	623mS/cm	593mS/cm	557mS/cm			
DO (mg/L)	1.33 mg/L	.80mg/L	.62mg/L			
ORP	-35.1	-54.7	-62.9			
Turbidity/Color	Silty	Silty	Silty			
Odor (Y/N)	Y	Y	Y			
Dewatered (Y/N)	N	N	N			

Alkalinity:

Comments/Observations:

SAMPLING DATA

Time Sampled: 8:05 Approximate Depth to Water During Sampling: 23 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW3	3	VOA	HCL	40 ml		HVOCs by 8260B
MW3	2	AMBER	HCL	1L		TPH-D,TEHO

Total Purge Volume: 6 (gallons) Disposal: System

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

Comments:

BOLTS	(Y) / N
CAP & LOCK	(Y) / N
GROUT	(Y) / N
WELL BOX	(Y) / N
SECURED	(Y) / N

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Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: STROUGH FAMILY TRUST Well No: MW4 Date: 9.29.04

Project No: TMSFT.6 Personnel: [illegible]

GAUGING DATA

Water Level Measuring Method: (WLM) / IP

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	26.85	−	20.20	=	6.65	×	1	(2)	4	6	1.06	=	3.19
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA / BAILER / SUB PURGE RATE .50 GPM

Time (min)	7:12	7:14	7:16			
Volume Purged (gal)	1	2	3			
Temperature (°C)	18.90	18.90	18.90			
pH	6.64	6.62	6.63			
Spec Conductivity (mS)	798	804	805			
DO (mg/L)	4.6% .43 MG/L	2.7% .25 MG/L	1.4% .13 MG/L			
ORP (mV)	-62.7	-48.6	-43.6			
Turbidity/Color	SLIGHT/BRN	<SLIGHT/BRN	<SLIGHT/BRN			
Odor (Y/N)	N	N	N			
Deviated (Y/N)	N	N	N			

Alkalinity:

Comments/Observations:

SAMPLING DATA

Time Sampled: 7:25 Approximate Depth to Water During Sampling: 21 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/Color	Analysis Method
MW4	3	VOA	HCL	40 ml		HVOCs by 8260B
MW4	2	AMBER	HCL	1L		TPH-D,TEHO

Total Purge Volume: 3 (gallons) Disposal: System

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

BOLTS	(Y)	N
CAP & LOCK	(Y)	N
GROUT	(Y)	N
WELL BOX	(Y)	N
SECURED	(Y)	N

G:\USERS\DFitzgerald\STROUGH FAMILY TRUST (2)\[purge form.xls]Sheet1

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Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: STROUGH FAMILY TRUST Well No: MW6 Date: 9.29.04

Project No: TMSFT.6 Personnel: (MP)

GAUGING DATA

Water Level Measuring Method: (WLM) / IP

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	27.15	−	18.55	=	8.60	X	1	(2)	4	6	1.37	=	4.12
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: (WATERRA) / BAILER / SUB PURGE RATE .50 GPM

Time	6:37	6:39	6:41			
Volume Purge (gal)	1	2	3			
Temperature (C)	18.93	18.93	18.91			
pH	6.51	6.57	6.60			
Spec Cond (umhos)	805	817	830			
DO (mg/L)	5.8% .54 MG/L	4.7% .44 MG/L	4.0% .37 MG/L			
ORP	-126.8	-131.0	-133.8			
Turbidity/Color	SLTY/BRN	SLTY/BRN	SLTY/BRN			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Alkalinity:

Comments/Observations:

SAMPLING DATA

Time Sampled: 6:50 Approximate Depth to Water During Sampling: 19 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (ml. or L)	Turbidity/Color	Analysis Method
MW6	3	VOA	HCL	40 ml		HVOCs by 8260B
MW6	2	AMBER	HCL	1L		TPH-D,TEHO

Total Purge Volume: 3 (gallons) Disposal: System

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

BOLTS	(Y) / N
CAP & LOCK	(Y) / N
GROUT	(Y) / N
WELL BOX	(Y) / N
SECURED	(Y) / N

ETIC ENGINEERING

Appendix C

Laboratory Analytical Reports

SEVERN TRENT STL

Submission#: 2004-10-0012

RECEIVED
OCT 20 2004
ETIC ENGINEERING

October 12, 2004

ETIC Oakland

1333 Broadway, Suite 1015
Oakland, CA 94612

Attn.: Kathy Brandt

Project#: TMSFT.9
Project: Strough Family Trust

Kathy

Attached is our report for your samples received on 09/30/2004 18:45
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/14/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: ssidhu@stl-inc.com

Sincerely,

Surinder Sidhu

Surinder Sidhu
Project Manager

SEVERN TRENT STL

Submission: 2004-10-0012

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW1	09/29/2004 07:55	Water	1
MW3	09/29/2004 08:05	Water	2
MW4	09/29/2004 07:25	Water	3
MW6	09/29/2004 06:50	Water	4

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**MW1**	Lab ID:	2004-10-0012 - 1
Sampled:	09/29/2004 07:55	Extracted:	10/8/2004 01:06
Matrix:	Water	QC Batch#:	2004/10/07-02.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/08/2004 01:06	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/08/2004 01:06	
Benzene	ND	0.50	ug/L	1.00	10/08/2004 01:06	
Toluene	0.51	0.50	ug/L	1.00	10/08/2004 01:06	
Ethylbenzene	ND	0.50	ug/L	1.00	10/08/2004 01:06	
Total xylenes	ND	1.0	ug/L	1.00	10/08/2004 01:06	
Surrogate(s)						
1,2-Dichloroethane-d4	110.1	72-128	%	1.00	10/08/2004 01:06	
Toluene-d8	96.6	80-113	%	1.00	10/08/2004 01:06	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Prep(s): 5030B
Test(s): 8260B
Sample ID: **MW3**
Lab ID: 2004-10-0012 - 2
Sampled: 09/29/2004 08:05
Extracted: 10/10/2004 15:34
Matrix: Water
QC Batch#: 2004/10/10-01.64
Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	29000	5000	ug/L	100.00	10/10/2004 15:34	
Methyl tert-butyl ether (MTBE)	1100	50	ug/L	100.00	10/10/2004 15:34	
Benzene	2900	50	ug/L	100.00	10/10/2004 15:34	
Toluene	6700	50	ug/L	100.00	10/10/2004 15:34	
Ethylbenzene	980	50	ug/L	100.00	10/10/2004 15:34	
Total xylenes	4300	100	ug/L	100.00	10/10/2004 15:34	
Surrogate(s)						
1,2-Dichloroethane-d4	107.4	72-128	%	100.00	10/10/2004 15:34	
Toluene-d8	106.1	80-113	%	100.00	10/10/2004 15:34	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Prep(s): 5030B
Test(s): 8260B
Sample ID: **MW4**
Lab ID: 2004-10-0012 - 3
Sampled: 09/29/2004 07:25
Extracted: 10/8/2004 09:38
Matrix: Water
QC Batch#: 2004/10/08-01.68
Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	940	500	ug/L	10.00	10/08/2004 09:38	dp
Methyl tert-butyl ether (MTBE)	1200	5.0	ug/L	10.00	10/08/2004 09:38	
Benzene	ND	5.0	ug/L	10.00	10/08/2004 09:38	
Toluene	ND	5.0	ug/L	10.00	10/08/2004 09:38	
Ethylbenzene	ND	5.0	ug/L	10.00	10/08/2004 09:38	
Total xylenes	ND	10	ug/L	10.00	10/08/2004 09:38	
Surrogate(s)						
1,2-Dichloroethane-d4	111.5	72-128	%	10.00	10/08/2004 09:38	
Toluene-d8	101.1	80-113	%	10.00	10/08/2004 09:38	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**MW6**	Lab ID:	2004-10-0012 - 4
Sampled:	09/29/2004 06:50	Extracted:	10/8/2004 15:57
Matrix:	Water	QC Batch#:	2004/10/08-02.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	210	50	ug/L	1.00	10/08/2004 15:57	dp
Methyl tert-butyl ether (MTBE)	190	0.50	ug/L	1.00	10/08/2004 15:57	
Benzene	ND	0.50	ug/L	1.00	10/08/2004 15:57	
Toluene	0.61	0.50	ug/L	1.00	10/08/2004 15:57	
Ethylbenzene	ND	0.50	ug/L	1.00	10/08/2004 15:57	
Total xylenes	1.2	1.0	ug/L	1.00	10/08/2004 15:57	
Surrogate(s)						
1,2-Dichloroethane-d4	99.4	72-128	%	1.00	10/08/2004 15:57	
Toluene-d8	91.1	80-113	%	1.00	10/08/2004 15:57	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 5030B
Method Blank
MB: 2004/10/07-02.68-025

Water

Test(s): 8260B
QC Batch # 2004/10/07-02.68
Date Extracted: 10/07/2004 19:25

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/07/2004 19:25	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/07/2004 19:25	
Benzene	ND	0.5	ug/L	10/07/2004 19:25	
Toluene	ND	0.5	ug/L	10/07/2004 19:25	
Ethylbenzene	ND	0.5	ug/L	10/07/2004 19:25	
Total xylenes	ND	1.0	ug/L	10/07/2004 19:25	
Surrogates(s)					
1,2-Dichloroethane-d4	102.6	72-128	%	10/07/2004 19:25	
Toluene-d8	94.2	80-113	%	10/07/2004 19:25	

Fuel Oxygenates by 8260B

ETIC Oakland
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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 5030B
Test(s): 8260B

Method Blank **Water** **QC Batch # 2004/10/08-01.68**

MB: 2004/10/08-01.68-016
Date Extracted: 10/08/2004 07:16

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/08/2004 07:16	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/08/2004 07:16	
Benzene	ND	0.5	ug/L	10/08/2004 07:16	
Toluene	ND	0.5	ug/L	10/08/2004 07:16	
Ethylbenzene	ND	0.5	ug/L	10/08/2004 07:16	
Total xylenes	ND	1.0	ug/L	10/08/2004 07:16	
Surrogates(s)					
1,2-Dichloroethane-d4	95.6	72-128	%	10/08/2004 07:16	
Toluene-d8	98.8	80-113	%	10/08/2004 07:16	

Fuel Oxygenates by 8260B

ETIC Oakland
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Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 5030B
Test(s): 8260B

Method Blank
Water
QC Batch # 2004/10/08-02.65

MB: 2004/10/08-02.65-020
Date Extracted: 10/08/2004 14:20

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/08/2004 14:20	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/08/2004 14:20	
Benzene	ND	0.5	ug/L	10/08/2004 14:20	
Toluene	ND	0.5	ug/L	10/08/2004 14:20	
Ethylbenzene	ND	0.5	ug/L	10/08/2004 14:20	
Total xylenes	ND	1.0	ug/L	10/08/2004 14:20	
Surrogates(s)					
1,2-Dichloroethane-d4	87.8	72-128	%	10/08/2004 14:20	
Toluene-d8	94.2	80-113	%	10/08/2004 14:20	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

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Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 5030B
Method Blank
MB: 2004/10/10-01.64-043

Water

Test(s): 8260B
QC Batch # 2004/10/10-01.64
Date Extracted: 10/10/2004 10:43

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/10/2004 10:43	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/10/2004 10:43	
Benzene	ND	0.5	ug/L	10/10/2004 10:43	
Toluene	ND	0.5	ug/L	10/10/2004 10:43	
Ethylbenzene	ND	0.5	ug/L	10/10/2004 10:43	
Total xylenes	ND	1.0	ug/L	10/10/2004 10:43	
Surrogates(s)					
1,2-Dichloroethane-d4	102.6	72-128	%	10/10/2004 10:43	
Toluene-d8	101.2	80-113	%	10/10/2004 10:43	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2004/10/07-02.68**

LCS 2004/10/07-02.68-047 Extracted: 10/07/2004 Analyzed: 10/07/2004 18:47
LCSD 2004/10/07-02.68-006 Extracted: 10/07/2004 Analyzed: 10/07/2004 19:06

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	26.5	26.3	25.0	106.0	105.2	0.8	65-165	20		
Benzene	22.9	23.4	25.0	91.6	93.6	2.2	69-129	20		
Toluene	22.7	24.3	25.0	90.8	97.2	6.8	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	481	492	500	96.2	98.4		72-128			
Toluene-d8	479	500	500	95.8	100.0		80-113			

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2004/10/08-01.68**

LCS 2004/10/08-01.68-032 Extracted: 10/08/2004 Analyzed: 10/08/2004 06:32
LCSD 2004/10/08-01.68-052 Extracted: 10/08/2004 Analyzed: 10/08/2004 06:52

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	23.8	24.6	25.0	95.2	98.4	3.3	65-165	20		
Benzene	21.3	22.2	25.0	85.2	88.8	4.1	69-129	20		
Toluene	22.4	23.5	25.0	89.6	94.0	4.8	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	444	475	500	88.8	95.0		72-128			
Toluene-d8	491	484	500	98.2	96.8		80-113			

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2004/10/08-02.65**

LCS 2004/10/08-02.65-043 Extracted: 10/08/2004 Analyzed: 10/08/2004 14:43
LCSD 2004/10/08-02.65-056 Extracted: 10/08/2004 Analyzed: 10/08/2004 13:56

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	23.2	24.4	25.0	92.8	97.6	5.0	65-165	20		
Benzene	21.7	22.1	25.0	86.8	88.4	1.8	69-129	20		
Toluene	21.5	22.4	25.0	86.0	89.6	4.1	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	401	411	500	80.2	82.2		72-128			
Toluene-d8	474	461	500	94.8	92.2		80-113			

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2004/10/10-01.64**

LCS 2004/10/10-01.64-019 Extracted: 10/10/2004 Analyzed: 10/10/2004 09:58
LCSD 2004/10/10-01.64-020 Extracted: 10/10/2004 Analyzed: 10/10/2004 10:20

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	23.7	24.0	25.0	94.8	96.0	1.3	65-165	20		
Benzene	21.6	22.5	25.0	86.4	90.0	4.1	69-129	20		
Toluene	23.1	23.4	25.0	92.4	93.6	1.3	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	484	489	500	96.8	97.8		72-128			
Toluene-d8	524	521	500	104.8	104.2		80-113			

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

dp

Sample contains discrete peak in gasoline range.

SEVERN TRENT STL

Submission: 2004-10-0012

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW1	09/29/2004 07:55	Water	1
MW3	09/29/2004 08:05	Water	2
MW4	09/29/2004 07:25	Water	3
MW6	09/29/2004 06:50	Water	4

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Prep(s): 3510/8015M
Test(s): 8015M
Sample ID: **MW1**
Lab ID: 2004-10-0012 - 1
Sampled: 09/29/2004 07:55
Extracted: 10/5/2004 10:18
Matrix: Water
QC Batch#: 2004/10/05-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	10/07/2004 10:51	
Motor Oil	ND	500	ug/L	1.00	10/07/2004 10:51	
Surrogate(s)						
o-Terphenyl	81.1	50-120	%	1.00	10/07/2004 10:51	

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Prep(s): 3510/8015M
Sample ID: **MW3**
Sampled: 09/29/2004 08:05
Matrix: Water

Test(s): 8015M
Lab ID: 2004-10-0012 - 2
Extracted: 10/5/2004 10:18
QC Batch#: 2004/10/05-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	2200	50	ug/L	1.00	10/07/2004 11:19	edr
Motor Oil	ND	500	ug/L	1.00	10/07/2004 11:19	
Surrogate(s)						
o-Terphenyl	84.4	50-120	%	1.00	10/07/2004 11:19	

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Prep(s): 3510/8015M
Sample ID: **MW4**
Sampled: 09/29/2004 07:25
Matrix: Water

Test(s): 8015M
Lab ID: 2004-10-0012 - 3
Extracted: 10/5/2004 10:18
QC Batch#: 2004/10/05-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	10/07/2004 11:47	
Motor Oil	ND	500	ug/L	1.00	10/07/2004 11:47	
Surrogate(s)						
o-Terphenyl	75.0	50-120	%	1.00	10/07/2004 11:47	

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Prep(s): 3510/8015M
Sample ID: **MW6**
Sampled: 09/29/2004 06:50
Matrix: Water

Test(s): 8015M
Lab ID: 2004-10-0012 - 4
Extracted: 10/5/2004 10:18
QC Batch#: 2004/10/05-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	10/07/2004 10:23	
Motor Oil	ND	500	ug/L	1.00	10/07/2004 10:23	
Surrogate(s)						
o-Terphenyl	72.3	50-120	%	1.00	10/07/2004 10:23	

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 3510/8015M
Test(s): 8015M

Method Blank **Water** **QC Batch # 2004/10/05-06.10**

MB: 2004/10/05-06.10-001

Date Extracted: 10/05/2004 10:18

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	10/05/2004 20:12	
Motor Oil	ND	500	ug/L	10/05/2004 20:12	
Surrogates(s)					
o-Terphenyl	75.9	60-130	%	10/05/2004 20:12	

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Batch QC Report

Prep(s): 3510/8015M

Test(s): 8015M

Laboratory Control Spike **Water** **QC Batch # 2004/10/05-06.10**

LCS 2004/10/05-06.10-002 Extracted: 10/05/2004 Analyzed: 10/05/2004 20:39
LCSD 2004/10/05-06.10-003 Extracted: 10/05/2004 Analyzed: 10/05/2004 21:07

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Diesel	698	653	1000	69.8	65.3	6.7	60-130	25		
Surrogates(s)										
o-Terphenyl	17.1	16.9	20.0	85.3	84.7		60-130	0		

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Kathy Brandt

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 09/30/2004 18:45

Legend and Notes

Result Flag

edr

Hydrocarbon reported is in the early Diesel range, and does not match our Diesel standard

SEVERN TRENT SERVICES

STL

Chain of Custody 2004-10-0012

1220 Quarry Lane ● Pleasanton CA 94566-4756
Phone: (925) 484-1919 ● Fax: (925) 484-1096
Email: info@chromalab.com

Reference #: 89336

Date 9/29/04 Page 1 of 1

From

Proj.Mgr	KATHY BRANDT
Company	ETIC
Address	1333 BROADWAY,STE. 1015 OAKLAND CA. 94612
Sampler (Signature)	WINN PACHER
Phone (510)208-1600	Fax/Email(510)208-1604

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH (EPA 8260) X Gas w/ X BTEX X MTBE	TPH-d and TEPH-o by 8015 with silica gel clean-up	EDF	Number of Containers
MW1	9/29	7:55	W	HCL	X	X	X	5
MW2			W	HCL	X	X	X	0
MW3		8:05	W	HCL	X	X	X	5
MW4		7:25	W	HCL	X	X	X	5
MW6		6:50	W	HCL	X	X	X	5

Project Info.

Project Name: **STROUGH FAMILY TRUST**

Project# TMSFT.9

PO#: OAK4107

Credit Card#:

TAT: Std 5 Day | 72h | 48h | 24h

Report: ☐ Routine ☐ Level 2 ☐ Level 3 ☐ Level 4 (EDF)

Special Instructions / Comments:

GLOBAL ID#

Sample Receipt

of Containers:

Head Space:

Temp: 4°C

Conforms to record:

Other

Relinquished / Received

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: 17:00 Time	Signature: Time	Signature: Time
Printed Name: WINN PACHER 9.29.04 Date	Printed Name: 1845 Date	Printed Name: Date
Company: ETIC ENGINEERING	Company: 09-30-04 STL S.F	Company:
1) Received by:	**2) Received by:**	**3) Received by:**
Signature: Time 1120	Signature: 18:45 Time	Signature: Time
Printed Name: 09-30-04 Date	Printed Name: T. Bulloch 9/30/04 Date	Printed Name: Date
Company: STL S.F	Company: STL-SF	Company:

Rev 05/01

SEVERN TRENT STL

STL San Francisco

Sample Receipt Checklist

Submission #:2004- 10 - 0012

Checklist completed by: (initials) SM Date: 10/01/04

Courier name: ☒ STL San Francisco ☐ Client _____

Custody seals intact on shipping container/samples	Yes____	No____	Not Present ✓
Chain of custody present?	Yes ✓	No____	
Chain of custody signed when relinquished and received?	Yes ✓	No____	
Chain of custody agrees with sample labels?	Yes ✓	No____	
Samples in proper container/bottle?	Yes ✓	No____	
Sample containers intact?	Yes ✓	No____	
Sufficient sample volume for indicated test?	Yes ✓	No____	
All samples received within holding time?	Yes ✓	No____	
Container/Temp Blank temperature in compliance (4° C ± 2)?	Temp 4 °C	Yes ✓	No____
Potential reason for > 6°C: Ice melted ☐; Ice in bags ☐; Not enough ice ☐; Not enough blue ice ☐; Samples in boxes ☐; Sampled < 4hr. ago? ☐; Ice not required (e.g. air or bulk sample) ☐	Ice Present:	Yes ✓	No____
Water - VOA vials have zero headspace?	No VOA vials submitted____	Yes ✓	No____

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small ~O), M (medium ~ O) or L (large ~ O)

Water - pH **acceptable upon receipt?** ☐ Yes ☐ No

☐ **pH adjusted**– Preservative used: ☐ HNO_3 ☐ HCl ☐ H_2SO_4 ☐ NaOH ☐ ZnOAc **–Lot #(s)** _____

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments:

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) _____ Date: _____/_____/04 Client contacted: ☐ Yes ☐ No

Summary of discussion:

Corrective Action (per PM/Client):