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March 3, 2006

Mr. Don Hwang Hazardous Materials Specialist Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, California 94502-6577

Subject: Former Val Strough Chevrolet 327 34th Street, Oakland, California Site ID #3035, RO#0000134

Dear Mr. Hwang:

This letter is to accompany the *Fourth Quarter 2005 Groundwater Monitoring Report* for the above-referenced site previously sent to your attention by ETIC Engineering, Inc. of Pleasant Hill, California.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions, please contact Thomas E. Neely of ETIC Engineering, Inc. at (925) 602-4710, ext. 17.

Sincerely,

Don Strough

Mr Thomas E Neely, ETIC Engineering, Inc., 2285 Morello Avenue, Pleasant Hill, California 94523
 Mr. Gregory Brandt, Esq., Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607
 Mr Jonathan Redding, Esq., Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607

RECEIVED By lopprojectop at 8:55 am, Mar 16, 2006

3 March 2006

Mr. Don Hwang Hazardous Materials Specialist Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, California 94502-6577

Subject: Former Val Strough Chevrolet 327 34th Street, Oakland, California Site ID #3035, RO#0000134

Dear Mr. Hwang:

This letter is to accompany the *Work Plan for Well Installation and Remediation Enhancements* for the above-referenced site previously sent to your attention by ETIC Engineering, Inc. of Pleasant Hill, California.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions, please contact Thomas E. Neely of ETIC Engineering, Inc. at (925) 602-4710, ext. 17.

Sincerely,

Don Strough

Mr. Thomas E. Neely, ETIC Engineering, Inc., 2285 Morello Avenue, Pleasant Hill, California 94523
 Mr. Gregory Brandt, Esq., Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607
 Mr. Jonathan Redding, Esq., Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607



RECEIVED By lopprojectop at 4:48 pm, Mar 06, 2006

3 March 2006

Mr. Don Hwang Hazardous Materials Specialist Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, California 94502-6577

Subject: Former Val Strough Chevrolet 327 34th Street, Oakland, California Site ID #3035, RO#0000134

Dear Mr. Hwang:

Attached for your review and comment is a copy of the *Fourth Quarter 2005 Groundwater Monitoring Report* for the above-referenced site. ETIC Engineering, Inc. of Pleasant Hill, California, is submitting the attached report on behalf of the owner of the property. The signed letter from the owner of the property will be submitted under separate cover.

If you have any questions or require further information, please contact me at (925) 602-4710, ext. 17.

Sincerely,

ETIC Engineering, Inc.

Thomas E. Neely, PG, CHG, REA II Senior Project Manager

Attachment

Mr. Don Strough, Strough Family Trust, P.O. Box 489, Orinda, California 94563
 Mr. Gregory Brandt, Esq., Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607
 Mr. Jonathan Redding, Esq., Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607





FOURTH QUARTER 2005 GROUNDWATER MONITORING REPORT

FORMER VAL STROUGH CHEVROLET 327 34th STREET OAKLAND, CALIFORNIA

Prepared For:

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

Prepared By:

ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523

3 March 2006





Fourth Quarter 2005 Groundwater Monitoring Report

Former Val Strough Chevrolet 327 34th Street Oakland, California

3 March 2006

Prepared for:

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

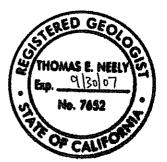
Prepared by:

ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523

acy A. Sol-

Tracy Iob Project Geologist

Thomas E. Neely, PG, CHG, REA II Senior Project Manager



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SITE CONTACTS

Site Name:	Former Val Strough Chevrolet
Site Address:	327 34 th Street Oakland, California
Consultant:	ETIC Engineering, Inc. 2285 Morello Ave. Pleasant Hill, CA 94523 (925) 602-4710
ETIC Project Manager:	Thomas E. Neely, PG, CHG, REA II
Regulatory Oversight:	Don Hwang Alameda County Health Care Services Agency (ACHCSA) 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 *Fourth Quarter 2005 Groundwater Monitoring Report* for the former Val Strough Chevrolet site located in Oakland, California. This report documents the procedures and findings of the 12 December 2005 groundwater monitoring event. This report summarizes operational data for the dual phase extraction (DPE) system at the site. Groundwater monitoring data and well construction details are shown on the figures and presented in the tables. Groundwater monitoring protocols, field data, and analytical results are provided in the appendixes.

1.1 GENERAL SITE INFORMATION

Former Val Strough Chevrolet Site name: 327 34th Street, Oakland, California Site address: Strough Family Trust of 1983 **Current property owner:** Automotive Dealership and Service Center Current site use: Groundwater monitoring, DPE system operation **Current phase of project:** Tanks at site: Two former tanks (1 gasoline, 1 waste-oil) removed in 1993 7 (all onsite), DPE from well MW2 Number of wells: 3035 Site ID #: **RO #:** 0000134



2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

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

The site is situated approximately 2 miles east of San Francisco Bay at approximately 61 feet above mean sea level (msl) (EDR, 2003). The land surface in the vicinity slopes toward the south. The nearest surface water body is Lake Merritt, located approximately 1 mile south of the site (Figure 1).

Site Features: The site consists of a multi-level building and an adjacent parking lot (Figure 2). The former fuel dispenser and underground storage tanks (USTs) were located in the northwestern portion of the site. Seven groundwater monitoring wells are located at the site. Construction details for the wells are presented in Table 1.

Underground Utilities: A box culvert for a former tributary of Glen Echo Creek is located approximately 17 feet below ground surface (bgs) in the eastern portion of the site (Figure 2). The culvert consists of a reinforced concrete box measuring 5 feet by 6 feet. During the winter of 1983, a section of the culvert collapsed and was replaced with a 5-foot-diameter pipeline.

Sanitary sewer, electrical, and natural gas utilities are generally present at depths less than two feet bgs at the site. Approximately 40 feet north of the site, along the northern edge of 34th Street, a storm sewer pipeline flows toward the east and into the box culvert. Sanitary sewer lines run parallel to both 34th Street and Broadway, north and east of the site, respectively. A lateral pipeline located along the western edge of the site connects to the sanitary sewer line below 34th Street. Natural gas service is located on the east side of the property. Water service appears to enter the site from the north.

Water Supply Well Search: A 2003 report compiled by EDR indicates that there are no federal U.S. 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 ¹/₂-mile radius of the site (ETIC, 2003).



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2.2 SUMMARY OF PREVIOUS INVESTIGATIONS AND MONITORING ACTIVITIES

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

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

The depth to groundwater beneath the site has ranged from approximately 17 to 23 feet bgs. As shown in the modified rose diagram on Figure 2, the direction of groundwater flow is generally toward the southwest to south-southwest, with an average hydraulic gradient of approximately 0.02 to 0.03 foot/foot.

Primary Sources: Two USTs (one gasoline and one waste-oil) were located beneath the sidewalk on the northern side of the property. A fuel dispenser was located inside the building (Figure 2). These primary sources of petroleum hydrocarbons were removed from the site in 1993.

Constituents of Potential Concern: Based on the type of fuel stored in the USTs and the results of previous subsurface investigations, the constituents of potential concern (COPCs) at the site include total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl t-butyl ether (MTBE). TPH as diesel (TPH-d) and TPH as motor oil (TPH-mo) are not routinely detected in groundwater samples and are considered secondary COPCs for the site.

Residual Source Area: Elevated concentrations of TPH-g, BTEX, and MTBE are present in soil in the vadose zone and upper portion of the aquifer near the former USTs and fuel dispenser. Separate phase petroleum hydrocarbons (SPH) have been intermittently detected in wells MW2 and MW3. These data indicate that most of the residual petroleum hydrocarbon mass is present near the former USTs and fuel dispenser, herein referred to as the source area.

Petroleum Hydrocarbon Distribution in Groundwater: The highest concentrations of petroleum hydrocarbons have been detected in samples collected from wells MW2 and MW3. Generally lower levels of petroleum hydrocarbons have been detected in samples collected from well MW4.



The extent of dissolved-phase petroleum hydrocarbons in groundwater is largely defined by concentrations detected in downgradient and cross-gradient monitoring wells MW5, MW6, and MW7. Historically, TPH-g, BTEX, and MTBE concentrations in samples from wells MW5, MW6, and MW6, and MW7 are relatively low and stable (Table 2). In addition, fuel oxygenates (tertiary amyl methyl ether, ethyl tertiary butyl ether, di-isopropyl ether, tertiary butyl alcohol and ethanol) and lead scavengers (ethylene dibromide and ethylene dichloride) were detected near laboratory reporting limits or were not detected in groundwater samples collected from borings HP1 and HP3, drilled on 18 December 2003 (Table 3). These data suggest that the petroleum hydrocarbon plume is stable.

DPE Pilot Test: In March 2004, ETIC performed a DPE pilot test at the site. As summarized in the June 2004 *Dual Phase Extraction Pilot Test and Interim Remedial Action Plan* (DPE and IRAP Report), vacuum was applied to source area wells MW2 and MW3 while water and vacuum levels were measured 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 flow rates and petroleum hydrocarbon concentrations in the vapor stream during the short-term pilot test, removal rates of approximately 90 pounds of petroleum hydrocarbons per day were estimated. These data suggested that DPE from wells MW2 and MW3 can successfully remove petroleum hydrocarbons from the site subsurface and induce vacuum influence across the source area.

Interim Remedial Action: The DPE and IRAP Report (ETIC, 2004) described the planned reduction of residual petroleum hydrocarbon mass in the source area through temporary DPE system installation and operation. The remediation technology consists of a liquid ring pump which applies high vacuum to source area wells MW2 and MW3 to extract soil vapor and groundwater simultaneously. A knockout vessel is used to separate the soil vapor and water streams. Extracted vapor is treated using a thermal oxidizer (with propane as a supplemental fuel), and extracted water is treated using aqueous-phase granular activated carbon. The DPE system is currently operating and field data indicate significant mass removal from the source area wells.

20 August 2004 ACHCSA Correspondence: In a 20 August 2004 correspondence, the ACHCSA provided general concurrence with the scope of work presented in the DPE Report and IRAP and requested that additional activities be performed, including preparation of a work plan for source characterization and shallow soil remediation. In the 26 October 2004 Technical Memorandum, ETIC presented an evaluation of site data concluding that the source area was adequately characterized and that the planned DPE interim remedial action would address the shallow soil remediation requested by the ACHCSA.

4 February 2005 ACHSCA Correspondence: In a 4 February 2005 correspondence, the ACHCSA provided concurrence with initiation of DPE interim remedial activities and requested an Addendum to the Interim Remedial Action Plan for verification monitoring of remediation effectiveness. The following summarizes ETIC's response to this request.



During operation of the remediation system, petroleum hydrocarbon concentrations in vapor and water are anticipated to decline, resulting in reduction in mass removal rates. As mass removal rates approach asymptotic levels, operation of the DPE system will cease temporarily (2 to 4 weeks) to allow the subsurface to re-equilibrate. Following re-equilibration, the site data will be evaluated and if warranted the system will be restarted and operated until mass removal rates again approach asymptotic levels. This process may be repeated. As described in ETIC's 24 June 2004 DPE Report and IRAP, the effectiveness of interim remedial action activities will be evaluated through multiple lines of evidence. The following provides a brief summary:

- Extracted water entering and exiting the carbon vessels will be analyzed to comply with EBMUD permit conditions and to evaluate carbon breakthrough. These data will also be used with groundwater extraction rates to evaluate mass removal rates in the aqueous phase.
- Extracted vapors entering and exiting the thermal oxidizer will be monitored using a photoionization detector (PID) on a weekly basis to comply with Bay Area Air Quality Management District (BAAQMD) permit conditions and determine the effectiveness of the treatment system. These data, along with monthly laboratory analyses of vapor samples, will be used with vapor extraction rates to evaluate mass removal rates in the vapor phase.
- Groundwater monitoring at the site, including the extraction wells, will continue on a quarterly basis. Additional groundwater samples from these extraction wells will be collected intermittently to evaluate the effectiveness of the DPE system. The absence of SPH and declining hydrocarbon concentrations in these wells will also be used to evaluate the system effectiveness.



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 all wells for SPH.
- Gauging the depth to groundwater in all wells.
- Purging the monitoring wells to be sampled.
- Collecting and analyzing groundwater samples from the wells where no SPH is detected.
- Calculating the hydraulic gradient and flow direction.
- Evaluating the data and preparing a written report summarizing the results of the monitoring event.

3.1 GROUNDWATER GAUGING

The monitoring 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 fixed reference point at the top of the well casing.

The groundwater elevation map (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 2. Field data forms are presented in Appendix B.

3.2 WELL PURGING

Approximately three well casing volumes of water were purged from wells MW4 and MW6 using a WaTerra inertial pump. Well MW3 was purged for approximately 1 hour using the DPE system. Well MW2 is continually purged due to operation of the DPE system. Field parameters including pH, temperature, and electrical conductance were measured during purging of MW4 and MW6. Groundwater monitoring 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, or a disposable bailer. Sample containers were sealed, labeled, stored in a cooler and transported under chain-of-custody protocol to STL San Francisco, a state-certified analytical laboratory in Pleasanton, California. Groundwater analytical results and chain-of-custody documentation are presented in Appendix C.



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4.0 MONITORING RESULTS

4.1 SEPARATE-PHASE HYDROCARBON MONITORING

The wells were monitored for the presence of SPH using a disposable bailer and/or interface probe. SPH was not detected in the monitoring wells during this monitoring event.

4.2 GROUNDWATER ELEVATION AND HYDRAULIC GRADIENT

Groundwater elevations in the site wells during this monitoring event ranged from 40.55 feet above msl in well MW2 to 43.48 feet above msl in well MW7 (Figure 2). Groundwater elevations show the localized influence of the DPE system operation (Figure 2). The hydraulic gradient is approximately 0.01 ft/ft and flow direction is towards the south outside the cone of depression. The groundwater elevation in well MW7 during December 2005 appears to be anomalously high and was disregarded in calculating the gradient. At the request of the ACHCSA, a rose diagram depicting historical hydraulic gradients and groundwater flow directions are also presented on Figure 2.

4.3 GROUNDWATER ANALYTICAL RESULTS

On 12 December 2005, groundwater samples were collected from wells MW2, MW3, MW4, and MW6 and analyzed by STL for TPH-g, BTEX, and MTBE by EPA Method 8260 and for TPH-d and TPH-mo by EPA Method 8015. Analytical results for this event are presented on Figure 3, and historical results are presented in Table 2. Copies of the chain-of-custody and laboratory analytical reports for the groundwater samples are presented in Appendix C.

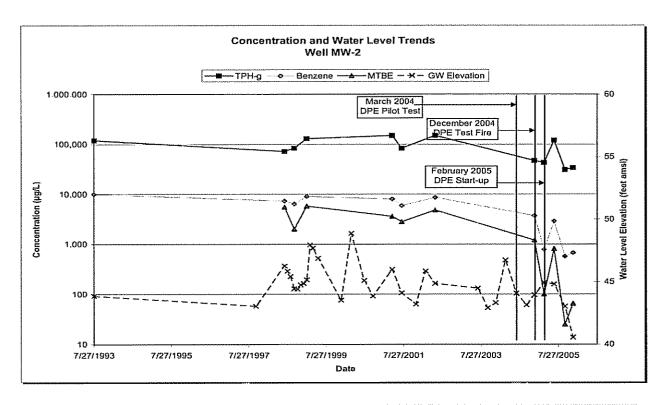
Laboratory analytical results are summarized below:

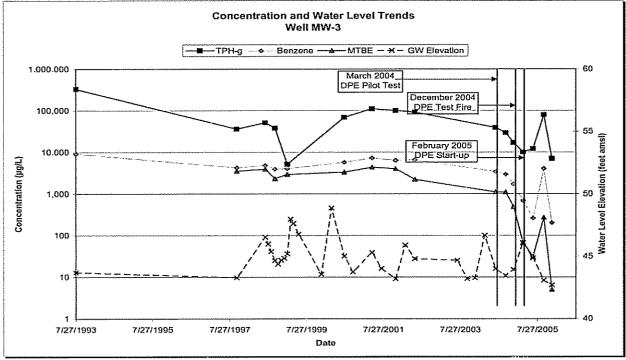
- TPH-g was detected in the samples at concentrations ranging from 81 µg/L (well MW6) to 34,000 µg/L (well MW2). The concentrations of TPH-g decreased in wells MW3, MW4, and MW6 and increased in well MW2 compared to the previous sampling event.
- Benzene was detected in the samples at concentrations ranging from 0.62 µg/L (well MW6) to 670 µg/L (well MW2). The concentrations of benzene decreased in well MW3, increased in wells MW2 and MW6, and remained below laboratory reporting limits in well MW4 compared to the previous sampling event.
- MTBE was detected in the samples at concentrations ranging from 65 µg/L (well MW2) to 1,000 µg/L (well MW4). The concentrations of MTBE decreased in wells MW3 and MW6 and increased in wells MW2 and MW4 compared to the previous sampling event.
- TPH-d was detected at concentrations of 2,800 µg/L and 550 µg/L in wells MW2 and MW3, respectively. TPH-d was not detected in wells MW4 and MW6.
- TPH-mo was not detected in groundwater samples collected from any well this quarter.
- Concentration trends in wells MW2 and MW3 are presented in the graphs on the following page.



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5.0 INTERIM REMEDIAL ACTION SUMMARY

5.1 DPE SYSTEM OPERATIONAL STATUS

Permits: Appropriate BAAQMD and East Bay Municipal Utility District (EBMUD) discharge permits have been acquired. The City of Oakland Building and Fire Departments have inspected and approved the remediation system construction.

System Construction: Wells MW2 and MW3 are connected to the DPE unit via underground piping. The DPE unit consists of a liquid-ring pump, knock-out vessel, and thermal oxidizer. Propane is used as a supplemental fuel for the thermal oxidizer. Installation of the DPE system was completed in December 2004.

Operational Status: The DPE unit was initially "test fired" in December 2004 once construction was complete. Based on data collected during initial operation, the DPE unit required modifications for more efficient operation. The motor was replaced in February 2005 and the system began operation on 23 February 2005. DPE has been applied to well MW2 since 23 February 2005. From 23 February 2005 to 15 July 2005, DPE was applied to well MW3. DPE was discontinued in well MW3 due to operational issues.

5.2 DPE SYSTEM PERFORMANCE

- Since December 2004, the system has been operational for approximately 232 days which corresponds to 75% of the total time available (Table 7).
- Influent concentrations of TPH-g in groundwater increased from 15,000 μg/L (10/10/05) to 20,000 μg/L (12/8/05) during the fourth quarter of 2005 (Table 4).
- The DPE system has extracted approximately 677,540 gallons of groundwater at an average flow rate of 1.3 gallons per minute (gpm) since operation began (Table 6).
- Approximately 111.02 pounds of TPH-g and 2.18 pounds of benzene have been removed in the aqueous phase during the operation of the DPE system (Table 6).
- Influent concentrations of TPH-g in soil vapor ranged from 1,400 parts per million by volume (ppmv) to 2,700 ppmv during the fourth quarter of 2005 (Table 5). The average system vapor flow rate has been 30 cubic feet per minute (CFM) since operation began (Table 7).
- Approximately 7,900 pounds of TPH-g and 99.9 pounds of benzene have been removed in the vapor phase during the operation of the DPE system (Table 7). These mass removal calculations are based on influent vapor samples typically collected while the system was operational for more than 3 days prior to vapor sample collection.



5.3 DPE SYSTEM PERFORMANCE EVALUATION

The DPE system continues to extract significant quantities of petroleum hydrocarbons; however the system does not operate efficiently while simultaneously extracting from both wells MW2 and MW3. Well MW3 was taken offline 15 July 2005 to increase the hydrocarbon mass recovery and operational up-time.

Residual petroleum hydrocarbon contamination is present in shallow soil near the former underground tanks and dispenser. Residual petroleum hydrocarbons in shallow soil can be an ongoing source of contamination to groundwater. The existing configuration of the DPE system is removing significant quantities of petroleum hydrocarbons from the subsurface, but cannot effectively remediate the contamination in shallow soil. ETIC Engineering is planning to implement certain enhancements to the remediation system to address the residual contamination in shallow soil and to reduce the length of time required for remediation. These enhancements include: 1) installation of extraction wells that will be constructed to address the contamination in shallow soil and 2) conversion of the vapor treatment system from propane-fired oxidizer to carbon filtration. Details concerning remediation system enhancements will be presented to Alameda County Health Care Services Agency under separate cover.



6.0 PLANNED SITE ACTIVITIES

6.1 INTERIM REMEDIAL ACTION

ETIC recommends the following:

- Continue operating the DPE system until influent concentrations approach asymptotic levels. Sample the system concentrations for water and vapor on a monthly basis to evaluate the effectiveness of the DPE system. These data will be used to calculate mass removal rates and system efficiency.
- Once influent concentrations approach asymptotic levels, shut down the system and evaluate "rebound" concentrations in the extraction wells. When mass removal rates diminish and/or the concentration rebound is limited, submit a request for site closure.
- ETIC Engineering is planning to implement certain enhancements to the remediation system to address the residual contamination in shallow soil and to reduce the length of time required for remediation. These enhancements include: 1) installation of extraction wells that will be constructed to address the contamination in shallow soil and 2) conversion of the vapor treatment system from propane-fired oxidizer to carbon filtration. Details concerning remediation system enhancements will be presented to Alameda County Health Care Services Agency under separate cover.

6.2 MONITORING ACTIVITIES

Groundwater will be monitored in accordance with the schedule presented in Table 8.



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7.0 **REFERENCES**

- Alameda County Health Care Services Agency. 2004. Fuel Leak Case No. RO0000134, Val Strough Chevrolet, 327-34th St., Oakland, California. August 20.
- Alameda County Health Care Services Agency. 2005. Fuel Leak Case No. RO0000134, Val Strough Chevrolet, 327-34th St., Oakland, California. February 4.
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- ETIC Engineering, Inc. 2003. Third Quarter 2003 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. October.
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- ETIC Engineering, Inc. 2004. First Quarter 2004 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. May.
- 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.
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- ETIC Engineering, Inc. 2004. Fourth Quarter 2004 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. March.
- ETIC Engineering, Inc. 2005. First Quarter 2005 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. May.

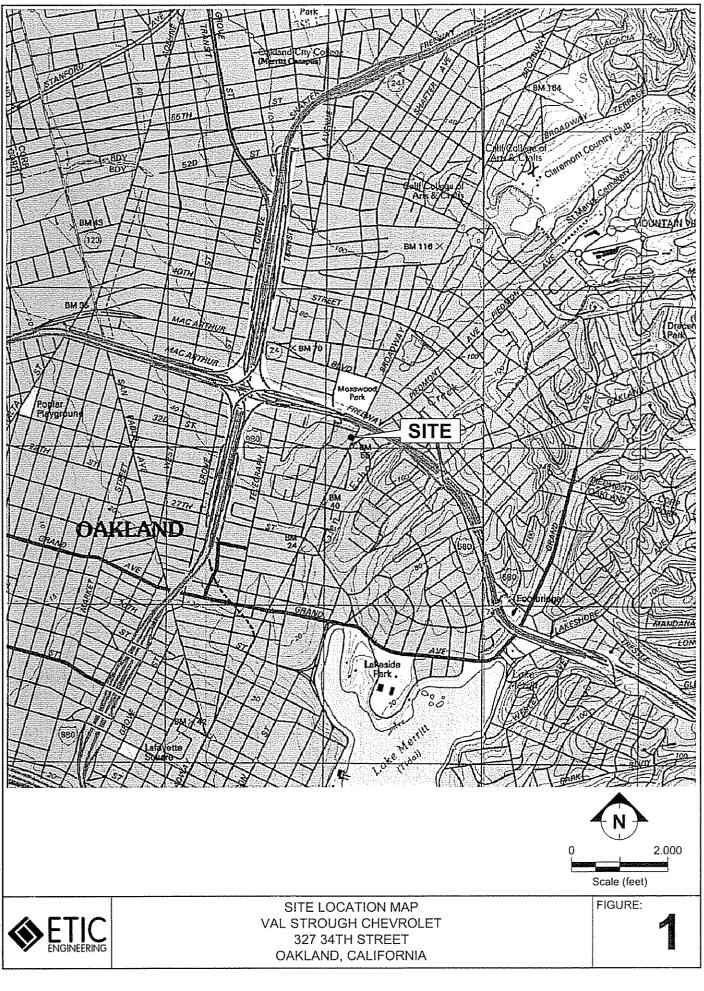


- ETIC Engineering, Inc. 2005. Second Quarter 2005 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. July.
- ETIC Engineering, Inc. 2005. Third Quarter 2005 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. November.

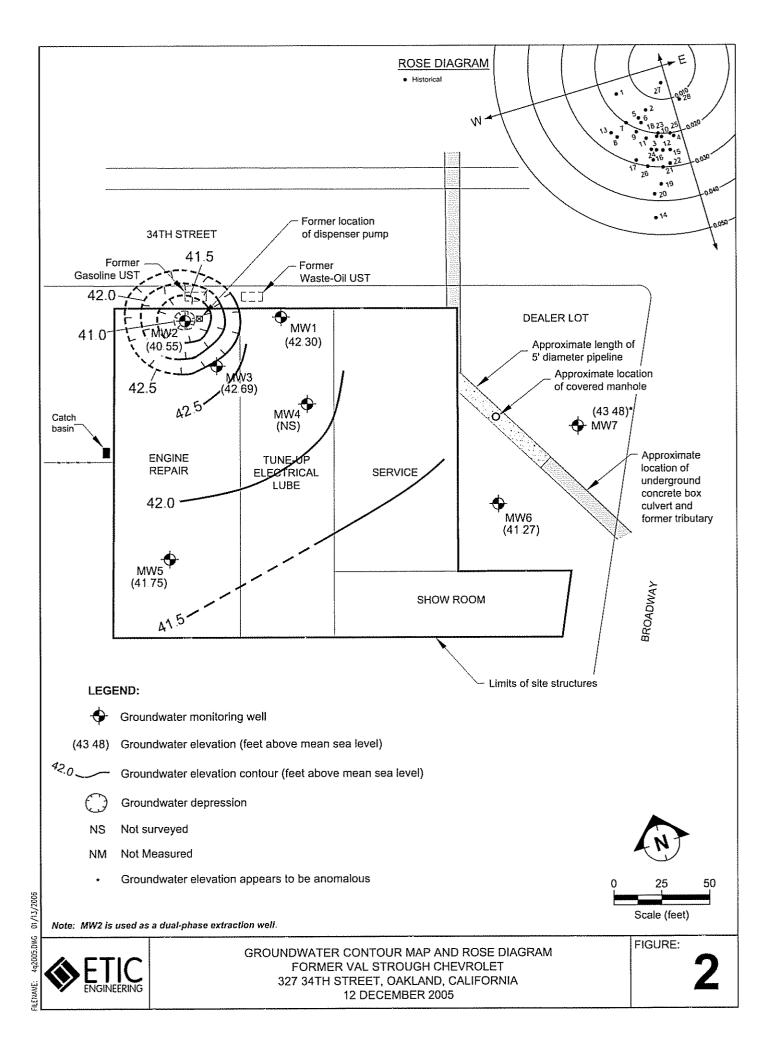


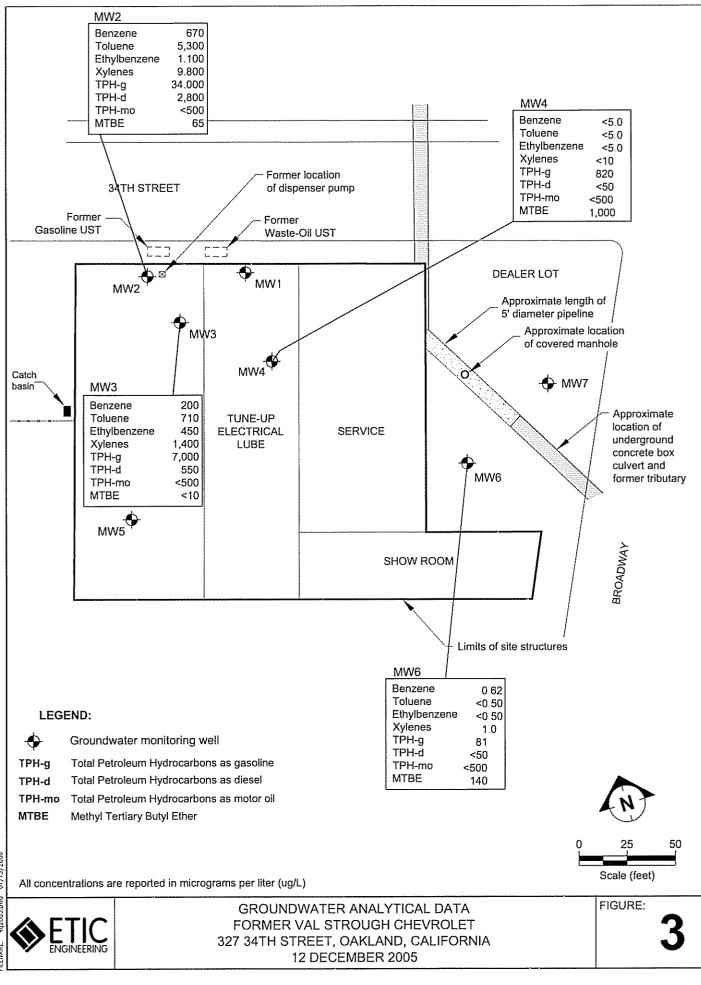
Figures

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Tables

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TABLE I WELL CONSTRUCTION DETAILS

Well ID	Well Installation Date	Top-of-Casing Elevationa (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
MWI	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	15-3I	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

FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

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.

														1									
		Casing	Depth to		SPH					itration (µg/	L)							Conce	ntration (m	ig/L)			
Well	_	Elevation	Water	Elevation	Thickness			Ethyl-	Totai					CO,	DO	Eh (mv)	pН						
Number	Date	(fect)	(feet)	(feet)	(feet)	Benzene	Tolucne	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	(lab)	(field)	(field)	(field)	Fc(II)	Mn	SO₄	N-NH3	N-NO ₁	0-PO4
MWI	07/27/93	100.00		79.21	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50												
MWI	10/02/97	100.00		78.78	0.00	< 0.50	<0.50	< 0.50	<0.50	<50			<2.0										-
MWI	06/30/98	100.00		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
MWI	07/29/98	100.00		81.26	0.00			**								-						-	**
MWI	08/26/98 10/01/98	100.00 a 100.00 a		80.72 80.07	0.00 0.00			~1.0		 <50			<2.0	192	3.6		6.49						
MW1 MW1	10/01/98	100.00		79.78	0.00	<1.0	<1.0	<1.0	<1.0	~30	**	**	~4.0	192	3.0		0.49	**	-		-		
MW1	10/30/98	100.00 4		80.01	0.00	-													-				
MW1	12/28/98	100.00		80.19	0.00							_	-			-	_		_	_		_	
MW1	01/25/99	100.00		80.38	0.00	<1.0	<1.0	<1.0	<1.0	<50	_	_	<2.0	389	3.4	-	6.72	-	-	-			
MWI	02/26/99	100.00		82.82	0.00	-1.0	-1.0	~1.0		~50	-		~2.0			-	0.72						-
MW1	03/24/99		a 17.28	82.72	0.00		_															_	
MW1	05/12/99	100.00		82,09	0.00													-					
MW1	12/15/99	100.00		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		83.75	0.00						**												
MW1	07/20/00	100.00		80.37	0.00	<0.50	<0.50	<0.50	<0.50	<\$0	<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		79,20	0.00																		
MWI	04/10-11/01		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		79,49	0.00																		
MWI	11/20/01	64.69		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
MWI	02/19/02	64.69		45.74	0.00																		
MW1	05/21/02	64.69		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
MWI	06/27/03	64.69		44.76	0.00																		
MWI	09/29/03	64.69		43.45	0.00	<0.50	<0,50	<0.50	<1.0	<50	<50	<500	< 0.50										
MW1	12/12/03	64.69		43.42	0.00	<0.50	< 0.50	<0.50	1.i	<50	58	<500	<0.50						***	**	**		**
MW1	03/15/04	64.69	6 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		5 20.48	44.21	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50		0.15	**			**	**			
MWI	09/29/04	64.69	6 21.37	43.32	0.00	<0.50	0.51	<0.50	<1.0	<50	<50	<500	<0.50		1.01	**	6.42				**		
MWI	12/13/04	64.69	b 20.63	44.06	0.00																		
MWI	03/14/05	64.69	b 18.69	46.00	0.00	<0.50	<0.50	<0.50	<1.0	<50	73	h <500	<0.50		1.96		6.04						
MW1	06/15/05	64.69	b 20.32	44.37	0.00																		**
MW1	09/26/05	64.69	b 22.10	42.59	0.00	<0.50	<0.50	<0.50	<1.0	<50	۱ <50	<500	<0.50		1.84	317.4	6.43						***
MW1	12/12/05	64.69 1	22.39	42.30	0.00																		-
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	*		*	•	*	•	•	٠	*	٠	*	*	٠	*	•	•	*	*
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		79.73	0.10																		
MW2	11/30/98	101.27	a 21.21	80.06	0.04				**			**	**		**	**	**	**	~~	**	**	**	**
MW2	12/28/98	101.27		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	n 18.00	83.27	sheen	**																	
MW2	03/24/99	101.27		83.00	trace					-			-			-		-				**	**
MW2	05/12/99	101.27	a 19.08	82.19	trace												-		**	**	**	**	**

		Casing	Depth to	GW	SPH				Concer	tration (µg/l	`							Concer	itration (m	or/1.)			
Well		Elevation	Water	Elevation		-		Ethyl-	Total	unon (µp)	-1			CO2	DO	Eh (mv)	pН	Concer	iunion (ii	001			
Number	Date	(feet)	(feet)	(feet)	(feet)	Benzene	Toluene			TPH-g	TPH-d	TPH-mo	MTBE	(lab)	(field)	(field)	(field)	Fe(II)	Mn	SO4	N-NH ₃	N-NO ₁	o-PO4
, tamoet	Dute	(2007)	(1001)	(1001)	(1001)	Duncent			719101100					(()	(11012)	(0000)	,,				,	
MW2	12/15-16/99	101.27	a 27.47	78.85	0.025		•			•	•	•	•	•	•	•	•	•	•	•	•	•	
MW2	03/20/00	101.27		84,18	0.026		-		**		**	**	**				~~						+
MW2	07/20/00	101.27		80,41	0.017				*	*	•	*			0.88	*	6.37		•		•		
MW2	10/11/00	101.27		79.17	0.00							••	**			**	••						
MW2	04/10-11/01	101.27		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		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		43.20	0.00							**		120	NR		6.15	1.8	2	16	<0.10		<0.20
MWZ	02/19/02	65.95		45.83	0.00	-								**	••	**							
MW2	05/21/02	65.95		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		44,47	0.35									-			-						
MW2	09/29/03	65.95		42.91	0.48	•	*	•	•	•	•	•	٠	•	٠	•	•	•	•	٠	•	•	•
MW2"	12/12/03	65.95		43.31	0.16	•	*	•	•	•	•	•		•		•	•	*	•	*	•	•	•
MW2°	03/15/04	65.95		46.72	0.01	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MW2 ^e	06/24/04	65.95		44.06	0.31	٠	•	٠		•					*		•	•	*	*		•	*
MW2 ^e	09/29/04	65.95		43.14	sheen	*	+	•	•	•	•	•		•	*			•	*				•
MW2 ^e	12/13/04	65.95		43.95	0.08	3,700	12,000	1,900	10,000	47,000	2,600	<500	1,200	•	0.27	•	6.63	•	*	٠		•	
MW2 ^j	03/14/05	65.95		40.95	0.00	780	3,700	920	6,400	43,000	43,000	h <5,000	<200		*	*				•	•		
MW2	06/15/05		6 21.14	44.81	0.00	2,900	15,000	2,400	22,000	120,000	13,000	<2,500	810		3.05	-147.6							
MW2	07/18/05	65.95	NM	NC	NM	2,700	13,000	1,800	15,000	120,000	17,000		530										
MW2	09/26/05	65.95	22.93	43.02	0.00	570	4,000	620	6,200	31,000	63,000	28,000 k	<50				••						***
MW2	12/12/05	65.95	25.40	40,55	0.00	670	5,300	1,100	9,800	34,000	2,800	<500	65							++	**		
									,														
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		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	i.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	10,000	1200	6700	5,100			2900	238	l		7.01						
MW3	02/26/99	101.29		83.27	0.00			••				**											
MW3	03/24/99	101,29		82.92	0.00					-		-											
MW3	05/12/99	101.29		82.07	0.0083	-												↔	**			⊷	
MW3	12/15-16/99	101.29		78.86	0.00	•	•		*	•	*	*	•		•	•	*	*	•	•	•	*	*
MW3	03/20/00	101.29		84.15	0.00											**	••	**	**		***		
MW3	07/20/00		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		79.05	0.00			.,	-														
MW3	04/10-11/01	101.29		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		a 21.97	79.32	0.00	**		**															
MW3	11/20/01		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		b 20.11	45.88	0.00											**							
MW3	05/21/02		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		b 21.32	44.67	sheen							-											
MW3	09/29/03		b 22.79	43.20	sheen		•	•	•	•	•	•	•	*	•	•	*	+	*	*	*	*	*
MW3 ^e	12/12/03		ь 22.73	43.27	0.01	•		•	•	•	•	•	•	•	•		•		*		*	•	•
MW3 ^e	03/15/04		b 19.32	46.67	sheen					•	•	•		•			•	•		•			

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		Casing	Depth t	o GW	SPH				Concer	ntration (µş	2/L)									Concer	ntration (m	ıg/L)			
Well		Elevation	Water	Elevation	Thickness			Ethyl-	Total							со,	DO	Eh (mv)	pН						
Number	Date	(feet)	(feet)	(feet)	(fect)	Benzene	Toluene	benzene	Xylenes	TPH-g	3	TPH-d	TPH-m	0	MTBE	(lab)	(field)	(field)	(field)	Fc(II)	Mn	SO₄	N-NH ₁	N-NO ₃	o-PO₄
MW3	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	09/29/04		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						
MW3	12/13/04		6 22.06		0.00	1,700	2,900	790	3,400	17,000		1,300	<500		490		0.16		6.7						**
MW3 ¹	03/14/05		ь 24.00	41.99	0.00	680	1,700	380	1,600	10,000			h <500		67										
MW3	06/15/05		6 21.13	44,86	0.00	260	960	330	1,400	12,000		1,200	<500		31		1.93	-150.4	**				~~	**	
MW3	07/18/05		b NM	NC	NM	1,000	5,600	1,100	4,300	23,000		1,700	_		81										
MW3	09/26/05		b 22.92	43,07	0.00	4,000	17,000	1,900	17,000	79,000		5,100	540	k	270				•••	**			**	**	
MW3	12/12/05		ь 23,30	42.69	0,00	200	710	450	1,400	7,000		550	<500		<10						**	**	**		-
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					i,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		i,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		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		b 18.72		0.00																				
MW4	09/29/03		b 20.11	43.24	0.00	<5.0	<5.0	<5.0	<10	1,100			d <500		1,700		••			-	-	-	-	-	-
MW4	12/12/03		b 20.06	43.29	0.00	<13	<13	<13	<25	<1,300		<50	<500		1,000		**								
MW4	03/15/04		b 16.89	46.46	00,0	1.5	<0.50	<0.50	<1.0	54	d	<50	<500		41		0.16	**	*				**		••
MW4	06/24/04		b 19.31	44.04	0.00	69 56 0	<5.0	<5.0	<10	920		<50	<500		1,100	-	0.15					**			
MW4	09/29/04		5 20.20 5 20.44	43.15 NC	0.00	<5.0	<5.0	<5.0	<10	940 740	g	<50	<500		1,200		0.13		6.63 6.84						
MW4	12/13/04		b 20.44	NC	0.00	<5.0	<5.0	<5.0	<10	740		<50 <50	<500		860 070		0.58		6.84 6.34						
MW4 MW4	03/14/05		b 18.30	NC	0.00	20	<5.0	<5.0	<10	930 2100	1	<50 89	<500 <500		930 2100		0.28	-98.9	6.34			-			
MW4 MW4	06/15/05 07/18/05	**	b 20.03 NM	NC NC	0.00 NM	350 11	6.1 <5.0	<5.0 <5.0	<10 <10	2100 540	1	89 <50	<500		1,100 1,100	~~	0.46	-98.9	**						
MW4 MW4	09/26/05	••	21.79		0.00	<5.0	<5.0 <5.0	<3.0 <5.0	<10	960	1	<50	<500		660		2.20	210.4	6.73						
	12/12/05	**	21.79		0.00	<5.0	<5.0	<5.0	<10	820		<50	<500		1,000		2.05		6.62						
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		a 21.52		0.00				-0.00				**		-*									-	
MW5	08/26/98		a 22.21		0.00													**		**					+
MW5	10/01/98		a 22.95		0.00	<1.0	<1.0	<1.0	<1.0	<50			_		<2.0	256	4.8		6.71						
MW5	10/30/98		a 23.23		0.00																				
MW5	11/30/98		a 23.12		0.00		**								-									+-	
					5184																				

		Casing	Depth	to GW	SPH				Concen	tration (µg	:/L)							Conce	ntration (n	g/L)			
Well		Elevation	Wate					Ethyl-	Total					CO,	DO	Eh (mv)	pН						
Number	Date	(feet)	(feet)		(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	(lab)	(field)	(field)	(field)	Fc(II)	Mn	SO4	N-NH3	N-NO1	o-PO ₄
fW5	12/28/98	100.9	a 23.18	77.72	0.00					-										-			
{W5	01/25-26/99		a 22.61	78.29	0.00	<1.0	<1.0	<1.0	<1.0	<50			<2.0	305	9,7		7.04						**
fW5	02/26/99	100.9	a 19.78	81.12	0.00							++							•••				
1W5	03/24/99	100.9	a 20.25	80.65	0,00						-			-									
IW5	05/12/99	100.9	a 21.06	79.84	0.00	••		**															
W5	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		••	**			
W5	03/20/00	100.9	a 19.15	81.75	0.00		**	**	**		**	**	**	••									++
W5	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
W5	10/11/00	100.9	a 23.4	77.50	0,00										**				**		++		
W5	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
W5	07/10/01	100.9	a 23.64	77.26	0.00				**		***	**		••									
W5	11/20/01	65.59	b 24.65	40.94	0.00	0.83	12	1.2	11	140	860	2,500	10	"	66	•••	6.01	0.2	2.5	42	<0.10	**	<0.20
W5	02/19/02	65.59	ь 22.37	43.22	0.00						+-					**			••				
W5	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
W5	06/27/03	65.59	6 23.07	42.52	0.00				**													-	
W5	09/29/03	65.59	b 24.38	41.21	0.00	<0.50	0.52	7.1	35	100	<50	d <500	i.4				-	-	-	-	-	-	
W5	12/12/03	65.59	6 23.90	41.69	0.00	<0.50	<0.50	<0.50	<1	<50	<50	<500	1.5	**	**	**	***		**	**	++	••	
W5	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							-	
W5	06/24/04	65.59	Ь 23.57	42.02	0,00	<0.50	<0.50	<0.50	<1.0	<50	130	۲ <500	0.79		5.56								
W5	09/29/04	65.59	b 24.44	41.15	0.00	**		**	**		••	**		**	**	**	**		~~	**	++	**	
W5	12/13/04	65.59	b 23.87	41.72	0.00																		
W5	03/14/05	65.59	b 20.18	45.41	0.00	<0.50	1.3	1.5	8.6	82	<50	<500	<0.50		3.91		5.57						
W5	06/15/05	65.59	6 12.96	52.63	0.00				**	**	**		**	**	**	++	**	**	**		++	++	
W5	09/26/05	65.59	b 23.6(41.99	0.00	-		-													**		
W5	12/12/05	65.59	b 23.84	41.75	0.00				••			-			-	-	-		-				
W6	07/20/00	96.60	a 18.3(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	<0.2
W6	10/11/00	96.60	a 18.69	77.91	0.00									-									
W6	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	<0.2
W6	07/10/01	96.60	a 18.42	78.17	0.00							**			**					**	**		
W6	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		<0.2
W6	02/19/02	59.60	6 17.40	42.20	0.00																		
W6	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	<0.2
W6	06/27/03	59.60	b 17.73	41.87	0.00	**		**	**			***	**		**	••	++	++		**	**		
W6	09/29/03	59.60	ь 18.48	41.12	0.00	<1.0	<1.0	<1.0	<2.0	230	d <50	<500	340		-	-	-	-	-	_	-	-	
WG	12/12/03	59.60	b 17.89	41.71	0.00	<2.5	<2.5	<2.5	<5.0	<250	51	<500	190										**
W6	03/15/04	59.60	b 16.40	43.14	0.00	<1.0	<1.0	<1.0	<2.0	200	<50	<500	220	**	0.11		**	++			⊷	++	
W6	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		-						
W6	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						
W6	12/13/04	59.60	6 17.88	41.72	0.00		***					~*											
W6	03/14/05	59.60	b 16.82	42.78	0.00	<0.50	<0.50	<0.50	1.8	160	<50	<500	190		0.08	**	5.65						++
	06/15/05		b 17.6{		0.00																	•••	***
W6	09/26/05		b NM	NM	0.00																		
	12/12/05		b 18.33		0.00	0.62	<0.50	<0.50	1.0	81	<50	<500	140		1.52	**	6.61	**					
W7	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
W7	10/11/00	96.75			0.00																		

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		Casing	Depth to	GW	SPH				Concen	tration (µg/l	_)							Concen	tration (rr	g/L)			
Well		Elevation	Water	Elevation	Thickness			Ethyl-	Total					CO2	DO	Eh (mv)	рĦ						
Number	Date	(feet)	(feet)	(feet)	(feet)	Benzene	Tolucne	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	(lab)	(field)	(field)	(field)	Fe(II)	Mn	SO4	N-NH ₁	N-NO1	o-PO ₄
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	6 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		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		b 16.33	43.14	0.00	<0.50	<0.50	<0.50	<1.0	<50	300	£ <500	<0.50		0.20			••					
MW7	09/29/04		b 16.88	42.59	0.00		-				**												
MW7	12/13/04		b 15.26	44.21	0.00								**										
MW7	03/14/05	CD 4P	b 15.00	44,47	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50		0.47	**	6.15						
MW7	06/15/05	co (0	b 15.32	44.15	0.00				-	-								-					
MW7	09/26/05	~~ · ~	b NM	NM	0.00																		
MW7	12/12/05	59.47		43.48	0.00	-								_									
114 11 1	14/12/03	22.47	0 (3,3)	72.40	0.00			4		-	-	-		-	-								

SPH Separate-phase hydrocarbons.

CO, Carbon dioxide.

DO Dissolved oxygen.

Fe(II) Ferrous iron.

Mn Manganese.

SO4 Sulfate.

N-NH, Ammonia.

- N-NO₃ Nitrate.
- o-PO4 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.
- NC Not calculated.

NM Not measured.

- NR Not reported.
- µg/L Micrograms per liter.
- mg/L Milligrams per liter.
- SPH present; not sampled.
- ** Well MW4 elevation modified due to site renovation activities. Not Surveyed.
- -- 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.
- h Quantity of unknown hydrocarbon(s) in sample based on diesel.

		Casing	Depth to	GW	SPH				Concen	tration (µg/	L)							Concen	tration (m	g/L)			
Well		Elevation	Water	Elevation	Thickness			Ethyl-	Total					CO2	DO	Eh (mv)	pН						
Number	Date	(feet)	(feet)	(fect)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	(lab)	(field)	(field)	(field)	Fe(II)	Mn	SO4	N-NH-	N-NO ₁	o-PO ₄

The concentration reported reflect(s) individual or discrete unidentified peaks not matching a typical fuel pattern.

j Depth to groundwater is based on the depth of the stingers.

k Quantity of unknown hydrocarbon(s) in sample based on mtor oil.

TABLE 3 HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

									Concentratio	ms (μg/L)						
Boring		Depth			Ethyl-	Total										
ID	Date	(fect)	Benzene	Toluene	benzene	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	<\$0	75	<500	<5.0	0.55	<1.0	<0.50	<0.50	1.3	<0.50

TPH-g	Total Petroteum 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-isopropyt 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.

Sample	Sample			Cc	ncentrations (µg/		
Location	Date	TPH-g	TPH-d	Benzene	Toluene	Ethylbenzene	Total Xylend
Influent							* 10
	12/20/04	2,100	NA	440	110	77	340
	02/28/05	NA	1,700	550	2,500	410	4,300
	03/23/05	70,000	4,000	360	2,300	740	6,300
	03/28/05	7,900	1,100	240	1,100	150	1,900
	04/04/05	16,000	2,900	150	890	150	2,200
	04/18/05	17,000	990	610	2,300	300	3.500
	04/29/05	7,600	1,000	190	870	95	1,800
	05/13/05	15,000	4,200	130	530	78	2,000
	05/20/05	9,700	660	210	930	81	2,400
	06/09/05	13,000	1,200	360	1.700	150	2,900
	07/11/05	19,000	1,300	760	2,800	220	3,700
	08/01/05	25,000	3,200	490	2,600	150	4,200
	08/15/05	18,000	2,800	540	2,500	150	4,300
	09/06/05	10,000	2,900	310	1,400	35	3,000
	10/10/05	15,000	1,300	380	2,500	87	4,000
	11/07/05	17,000	2,400	330	2,700	200	3,800
	12/08/05	20,000	3,100	260	1,500	51	5,300
Midfluent							
	02/28/05	NA	< 50	< 0 50	< 0 50	< 0.50	< 10
	03/23/05	< 50	< 50	< 0.50	< 0.50	< 0 50	< 1.0
	03/28/05	< 50	< 50	< 0 50	< 0 50	< 0.50	< 0 50
	04/04/05	< 50	< 50	< 0.50	< 0 50	< 0.50	< 1.0
	04/18/05	< 50	< 50	< 0 50	< 0.50	< 0 50	< 1.0
	04/29/05	< 50	< 50	< 0 50	< 0.50	< 0.50	< 10
	05/13/05	< 50	< 50	< 0.50	< 0 50	< 0 50	< 10
	05/20/05	< 50	< 50	< 0 50	< 0.50	< 0 50	< 10
	06/09/05	< 50	< 50	< 0 50	< 0 50	< 0.50	< 10
	07/11/05	< 50	< 50	< 0 50	< 0 50	< 0 50	< 10
	08/01/05	< 50	< 50	< 0.50	< 0.50	< 0.50	< 10
	08/15/05	< 50	< 50	< 0 50	< 0 50	< 0 50	< 1.0
	09/06/05	< 50	< 50	< 0.50	< 0.50	< 0.50	< 10
	10/10/05	< 50	< 50	< 0 50	< 0.50	< 0 50	< 10
	11/07/05	< 50	< 50	< 0 50	< 0 50	< 0 50	< 10
	12/08/05	< 50	80	< 0 50	< 0 50	< 0 50	< 10
Effluent							
	12/20/04	NA	NA	< 0 50	< 0 50	< 0 50	< 10
	02/28/05	NA	< 50	< 0 50	< 0.50	< 0 50	< 10
	03/23/05	< 50	< 50	< 0 50	< 0 50	< 0 50	< 1.0
	03/28/05	< 50	< 50	< 0 50	< 0 50	< 0 50	< 0 50
	04/04/05	< 50	< 50	< 0.50	< 0 50	< 0 50	< 1.0
	04/18/05	< 50	< 50	< 0.50	< 0 50	< 0.50	< 10
	04/29/05	< 50	< 50	< 0 50	< 0.50	< 0.50	< 1.0
	05/13/05	< 50	< 50	< 0.50	< 0 50	< 0 50	< 10
	05/20/05	< 50	< 50	< 0 50	< 0 50	< 0 50	< 10
	06/09/05	< 50	< 50	< 0 50	< 0 50	< 0 50	< 10
	07/11/05	< 50	< 50	< 0 50	< 0 50	< 0.50	< 1.0
	08/01/05	< 50	< 50	< 0 50	< 0 50	< 0.50	< 10
	08/15/05	< 50	< 50	< 0 50	< 0 50	< 0 50	< 10
	09/06/05	< 50	< 50	< 0.50	< 0 50	< 0 50	< 10
	10/10/05	< 50	< 50	< 0 50	< 0 50	< 0.50	< 10
	11/07/05	< 50	< 50	< 0.50	< 0.50	0 78	< 10
	12/08/05	< 50	< 50	< 0 50	< 0.50	< 0 50	< 10

TABLE 4 DPE SYSTEM - GROUNDWATER ANAYLTICAL RESULTS FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

μg/L - micrograms per liter TPH-g - Total Petroleum Hydrocarbons as gasoline TPH-d - Total Petroleum Hydrocarbons as diesel MIBE - Methyl tert-butyl ether

NA- Not analyzed

Revie	wer:	Q	12
Date:		Ι	6

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Sample Location Date		Concentration (ppmv) by EPA Method 8015M/8020					
	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	Efficiency Based on Lab results	
Influent							
	02/28/05	5,400	77	260	45	270	
	03/23/05	6,100	92	340	54	340	
	03/28/05	3,300	40	170	25	140	
	04/04/05	14,000	150	730	120	7.30	
	04/18/05	3,100	46	160	27	170	
	04/29/05	37	0.77	2.5	0.34	2.2	
	05/13/05	4,800	72	300	62	380	
	05/20/05	5,600	61	310	60	450	
	06/09/05	3,121	34	138	18	144	
	07/11/05	1,300	15	50	5.7	52	
	08/01/05	920	14	50	5.9	41	
	08/15/05	870	10	42	4.0	37	
	09/06/05	1,100	10	52	4.3	41	
	10/10/05	1,900	18	86	7.9	68	
	11/07/05	2,700	19	150	17	190	
	12/08/05	1,400	58	470	63	550	
Effluent							
	02/28/05	< 14	< 0.15	< 0.13	< 0.11	< 0.23	99.7%
	03/23/05	< 14	< 0.15	< 0.13	< 0.11	< 0.23	99.8%
	03/28/05	< 14	< 0.15	< 0.13	< 0.11	< 0.23	99.6%
	04/04/05	< 14	< 0.15	< 0.13	< 0.11	< 0.23	99.9%
	04/18/05	< 14	< 0.15	< 013	< 0.11	< 0.23	99.5%
	04/29/05	< 14	< 0.15	< 0.13	< 0.11	< 0.23	62.2%
	05/13/05	< 14	< 0.15	1.40	0.54	4.60	99.7%
	05/20/05	< 14	< 0.15	< 0.13	< <0.11	0.41	99.8%
	06/09/05	< 14	< 0.15	< 013	< 0.11	< 0.23	99 6%
	07/11/05	< 14	< 0.15	< 013	< 0.11	< 0.23	98 9%
	08/01/05	< 14	< 0.15	< 013	< 011	< 0.23	98 5%
	08/15/05	< 14	< 0.15	0 39	< 0.11	0.47	98 4%
	09/06/05	< 14	< 0.15	< 0.13	< 0.11	< 0.23	98 7%
	10/10/05	< 14	< 0.15	< 013	< 0.11	< 0.23	99 3%
	11/07/05	< 11	< 0 15	< 013	< 0.11	< 0.23	99 5%
	12/08/05	< 11	< 0.15	< 0.13	< 0.11	< 0.23	99 0%

TABLE 5DPE SYSTEM - VAPOR ANALYTICAL RESULTSFORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

TPHg - Total petroleum hydrocarbons as gasoline

ppmv- Parts Per Million by Volume

POC- Precursor Organic Compound

Reviewer: 007 Date: 3/3/6

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	Days	Percent	Cumulative Total	Average Operational Flow rate	Influent Conc. (µg/L)	Influent Conc. (μg/L)	Est. Pounds Removed*	Cumulative Pounds Removed	Est. Pounds Removed*	Cumulative Pounds Removed
Date	Operational	Operational	(gallons)	(gpm)	TPH-g	Benzene	TPH-g	TPH-g	Benzene	Benzene
12/20/04	0.0	0%	0	0.0	2,100	440	0.00	0.00	0.00	0.00
02/23/05	0.0	0%	19,148	0.0			5.75	5.75	0.08	0.08
02/25/05	2.0	99%	25,840	2.3			2.01	7.77	0.03	0.11
02/28/05	3.0	100%	51,770	5.9	NA	550	7.79	15.56	0.12	0.23
03/04/05	1.5	38%	63,010	5.1			3.38	18.94	0.04	0.27
03/07/05	1.4	48%	73,950	5.3			3.29	22.23	0.04	0.31
03/11/05	4.0	98%	92,050	3.2			5.44	27.67	0.07	0.38
03/14/05	3.1	100%	93,080	0.2			0.31	27.98	0.00	0.38
03/21/05	5.1	73%	128,800	4.9			10.74	38.71	0.14	0.52
03/21/05	0.0	0%	128,810	0.0			0.00	38.71	0.00	0.52
03/23/05	0.6	30%	133,270	5.3	70,000	360	2.60	41.32	0.01	0.53
03/25/05	0.6	26%	137,720	5.4			1.45	42.76	0.01	0.54
03/28/05	2.6	94%	156,980	5.2	7,900	240	1.27	44.03	0.04	0.58
03/30/05	2.2	98%	172,040	4.8			1.50	45.53	0.02	0.61
04/01/05	1.7	95%	177,610	2.3			0.55	46.09	0.01	0.61
04/04/05	1.3	45%	186,830	4.8	16,000	150	1.23	47.32	0.01	0.63
04/05/05	0.5	51%	190,620	5.1			0.52	47.84	0.01	0.64
04/07/05	1.3	64%	199,220	4.7			1.18	49.02	0.03	0.67
04/08/05	0.5	53%	203,140	5.0			0.54	49.56	0.01	0.68
04/11/05	0.5	18%	206,960	4.9			0.53	50.08	0.01	0.69
04/12/05	0.9	96%	213,660	4.9			0.92	51.01	0.02	0.71
04/14/05	2.1	100%	222,830	3.1			1.26	52.27	0.03	0.74
04/15/05	0.1	14%	223,760	4.7			0.13	52.40	0.00	0.74
04/18/05	0.0	1%	223,960	6.7	17,000	610	0.03	52.42	0.00	0.74
04/18/05	0.0	0%	223,960	0.0			0.00	52.42	0.00	0.74
04/20/05	1.5	76%	234,520	4.9			1.08	53.51	0.04	0.78
04/22/05	2.0	99%	244,950	7.4			1.07	54.58	0.03	0.81
04/27/05	0.7	13%	249,050	15.2			0.42	55.00	0.01	0.83
04/29/05	1.5	76%	257,120	5.6	7,600	190	0.51	55.51	0.01	0.84

	Days	Percent	Cumulative Total	Average Operational Flow rate	Influent Conc. (µg/L)	Influent Conc. (µg/L)	Est. Pounds Removed*	Cumulative Pounds Removed	Est. Pounds Removed*	Cumulative Pounds Removed
Date	Operational	Operational	(gallons)	(gpm)	TPH-g	Benzene	TPH-g	TPH-g	Benzene	Benzene
05/02/05	1.3	44%	265,580	8.6			0.80	56.30	0.01	0.85
05/04/05	0.8	41%	270,850	11.8			0.50	56.80	0.01	0.86
05/06/05	1.9	99%	273,650	2.9			0.26	57.07	0.00	0.86
05/09/05	1.5	47%	273,980	1.5			0.03	57.10	0.00	0.86
05/11/05	0.0	1%	274,000	19.4			0.00	57.10	0.00	0.86
05/13/05	1.0	59%	278,000	2.8	15,000	130	0.50	57.60	0.00	0.87
05/18/05	2.5	47%	285,030	3.1			0.72	58.32	0.01	0.88
05/20/05	1.0	61%	291,370	8.8	9,700	210	0.51	58.83	0.01	0.89
05/26/05	3.4	57%	299,570	2.9			0.78	59.61	0.02	0.91
05/31/05	5.2	99%	325,600	4.5			2.46	62.07	0.06	0.97
06/03/05	1.8	65%	334,930	13.8			0.88	62.96	0.02	0.99
06/09/05	4.2	70%	347,080	3.5	13,000	360	1.32	64.27	0.04	1.03
06/10/05	1.1	100%	353,340	11.2			0.84	65.11	0.03	1.06
06/13/05	1.9	63%	363,280	5.9			1.33	66.43	0.05	1.10
06/17/05	0.3	7%	363,650	24.5			0.05	66.48	0.00	1.11
06/20/05	1.8	62%	374,370	4.2			1.43	67.91	0.05	1.16
06/23/05	2.2	77%	384,660	6.5			1.37	69.29	0.05	1.20
06/27/05	1.2	30%	389,010	8.6			0.58	69.87	0.02	1.22
06/30/05	1.3	45%	396,470	6.2			1.00	70.86	0.03	1.26
07/05/05	3.2	64%	405,550	3.6			1.21	72.07	0.04	1.30
07/08/05	0.1	2%	405,910	98.3			0.05	72.12	0.00	1.30
07/11/05	1.5	52%	410,020	2.0	19,000	760	0.65	72.77	0.03	1.33
07/15/05	4.0	94%	410,880	0.9			0.16	72.93	0.00	1.33
07/18/05	2.2	79%	416,100	1.9			0.96	73.89	0.03	1.36
07/22/05	3.3	80%	423,910	2.7			1.43	75.32	0.04	1.40
07/25/05	1.0	36%	426,060	6.8			0.39	75.71	0.01	1.41
07/29/05	4.0	99%	435,140	2.0			1.67	77.38	0.05	1.46
08/01/05	3.0	100%	441,790	3.6	25,000	490	1.39	78.77	0.03	1.49
08/05/05	3.4	82%	449,130	2.9			1.32	80.08	0.03	1.52

	Days	Percent	Cumulative Total	Average Operational Flow rate	Influent Conc. (µg/L)	Influent Conc. (μg/L)	Est. Pounds Removed*	Cumulative Pounds Removed	Est. Pounds Removed*	Cumulative Pounds Removed
Date	Operational	Operational	(gallons)	(gpm)	TPH-g	Benzene	TPH-g	TPH-g	Benzene	Benzene
	Operational	орогановая	(ganons)	(gpm)	1111-5	Denzene		1111-g	Delizene	Delizenc
08/08/05	2.8	97%	455,200	3.4			1.09	81.17	0.03	1.54
08/12/05	3.3	81%	462,270	2.8			1.27	82.44	0.03	1.57
08/15/05	3.0	100%	468,700	3.1	18,000	540	0.96	83.40	0.03	1.60
08/19/05	3.9	99%	476,890	2.6			0.96	84.36	0.03	1.63
08/22/05	3.1	100%	483,190	3.2			0.74	85.09	0.02	1.66
08/29/05	7.0	100%	497,280	2.0			1.64	86.74	0.05	1.71
09/06/05	8.1	99%	499,380	1.4	10,000	310	0.25	86.98	0.01	1.71
09/09/05	2.8	99%	505,100	1.9			0.60	87.58	0.02	1.73
09/15/05	6.2	99%	517,140	2.0			1.25	88.83	0.03	1.76
09/19/05	4.0	100%	524,690	3.4			0.79	89.62	0.02	1.79
09/23/05	4.0	98%	533,140	2.8			0.88	90.50	0.02	1.81
09/26/05	2.1	74%	540,516	5.3			0.77	91.27	0.02	1.83
10/03/05	2.1	30%	543,336	3.3			0.29	91.56	0.01	1.84
10/10/05	7.0	100%	557,440	1.7	15,000	380	1.47	93.03	0.04	1.88
10/14/05	3.9	100%	557,860	2.6			0.06	93.09	0.00	1.88
10/17/05	3.1	100%	557,980	0.1			0.02	93.10	0.00	1.88
10/21/05	2.3	56%	558,100	0.1			0.02	93.12	0.00	1.88
10/24/05	3.2	100%	558,340	0.1			0.03	93.15	0.00	1.88
10/28/05	3.7	94%	562,391	0.8			0.54	93.69	0.01	1.89
10/31/05	3.1	100%	569,085	2.4			0.89	94.59	0.02	1.91
11/04/05	3.9	100%	577,073	2.6			1.07	95.65	0.02	1.94
11/07/05	3.1	100%	583,268	3.2	17,000	330	0.83	96.48	0.02	1.96
11/11/05	4.0	100%	590,939	2.4			1.18	97.66	0.02	1.97
11/14/05	3.1	100%	596,620	3.0			0.88	98.54	0.01	1.99
11/18/05	4.0	100%	603,850	2.2			1.12	99.65	0.02	2.01
11/21/05	3.0	99%	609,160	2.9			0.82	100.47	0.01	2.02
11/28/05	7.0	100%	621,840	1.8			1.96	102.43	0.03	2.05
12/02/05	3.2	80%	627,560	4.0			0.88	103.31	0.01	2.06
12/08/05	6.1	100%	638,590	1.9	20,000	260	1.70	105.01	0.03	2.09

Date	Days Operational	Percent Operational	Cumulative Total (gallons)	Average Operational Flow rate (gpm)	Influent Conc. (µg/L) TPH-g	Influent Conc. (µg/L) Benzene	Est. Pounds Removed* TPH-g	Cumulative Pounds Removed TPH-g	Est. Pounds Removed* Benzene	Cumulative Pounds Removed Benzene
12/12/05	3.9	100%	645,340	3.2			1.04	106.05	0.01	2.11
12/16/05	3.9	98%	652,310	2.5			1.08	107.13	0.02	2.12
12/19/05	3.0	99%	657,670	2.9			0.83	107.95	0.01	2.13
12/23/05	4.0	100%	664,650	2.2			1.08	109.03	0.02	2.15
12/30/05	7.0	100%	677,540	2.0			1.99	111.02	0.03	2.18
Total	239	******	677,540	1.3			111.02		2.18	
Gallons dicha	urged from 2/23	/05 to 3/30/05	i	172040						
Gallons dicha	allons dicharged from 3/30/05 to 6/30/05			224430						
Gallons dicha	Gallons dicharged from 7/1/05 to 12/30/05			281070						

µg/L - Micrograms per liter.

* Est. Mass TPH Removed (pounds) = Average influent conc. (µg/L) * period flow total (gallons) * i lb/454 g * 1/1,000,000 * 3.785 L/gallon

Note: MW3 was turn off on 15 July 2005.

TPH - Total Petroleum Hydrocarbons (measured as Total Petroleum Hydrocarbons as both gasoline and diesel as analyzed by EPA Method 8015 modified).

gpm - Gallons per minute.

NM - Not Measured.

t - Extraction from well MW3 was discontinued on 15 July 2005

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Reviewer:	OCK
Date: 3	12/1

Date	Days Operational	Percent Operational	Throughput Cu-ft	Average Flow rate (CFM)	Influent Field FID/PID Concentration (ppmv)	Influent Lab Concentration TPH-g (ppmv)	Influent Lab Concentration Benzene (ppmv)	Estimated Pounds TPH-g Removed	Estimated Pounds TPH-g Emitted	Estimated Pounds Benzene Removed	Estimated Pounds Benzene Emitted
02/23/05	0.0	0%	0	55	4,000		77	0.0	1.54	0.00	0.00
02/25/05	2.0	99%	149,448	52	4,000		,,	211.7	1.46	2.56	0.00
02/28/05	3.0	100%	257,712	59	3,996	5,400		365.0	0.11	4.42	0.00
03/04/05	1.5	38%	85,878	39	NM	5,100		129.5	0.00	1.47	0.00
03/07/05	1.4	48%	65,583	32	3,996			98.9	0.12	1.12	0.00
03/11/05	4.0	98%	176,347	31	NM			265.9	0.00	3.02	0.00
03/14/05	3.1	100%	144,576	32	4,026			218.0	0.12	2.48	0.00
03/21/05	5.1	73%	233,645	32	NM			352.4	0.00	4.01	0.00
03/21/05	0.0	0%	0	0	0			0.0	0.00	0.00	0.00
03/23/05	0.6	30%	38,493	46	4,000	6,100	92	61.6	2.12	0.72	0.00
03/25/05	0.6	26%	26,082	32	4,000	0,000		32.2	2.47	0.35	0.00
03/28/05	2.6	94%	117,558	32	4,000	3,300	40	101.7	3.00	0.95	0.00
03/30/05	2.2	98%	185,496	59	NM		150	155.7	0.00	5.65	0.00
04/01/05	1.7	95%	76,923	32	4,000			64.6	2.29	1.53	0.00
04/04/05	1.3	45%	60,480	32	4,000			50.8	2.29	1.20	0.00
04/05/05	0.5	51%	23,247	32	4,000			19.5	2.29	0.46	0.00
04/07/05	1.3	64%	57,834	32	4,000			48.5	2.88	1.15	0.00
04/08/05	0.5	53%	24,759	32	4,000			20.8	3.06	0.49	0.00
04/11/05	0.5	18%	24,759	32	4,000			20.8	2.29	0.49	0.00
04/12/05	0.9	96%	43,092	32	4,000			36.2	2.29	0.86	0.00
04/14/05	2.1	100%	196,812	66	4,000			165.2	9.37	3.91	0.00
04/15/05	0.1	14%	6,237	32	4,000			5.2	1.82	0.12	0.00
04/18/05	0.0	1%	945	32	4,000	3,100	46	0.8	10.59	0.01	0.00
04/18/05	0.0	0%	0	32	4,000			0.0	4.06	0.00	0.00
04/20/05	1.5	76%	69,312	32	4,000			28.5	4.06	0.33	0.00
04/22/05	2.0	99%	91,008	32	1,978			37.4	4.06	0.43	0.00
04/27/05	0.7	13%	30,051	32	4,000			12.4	1.18	0.14	0.00
04/29/05	1.5	76%	68,418	32	3,984	37	0.77	0.7	2.47	0.01	0.00
05/02/05	1.3	44%	60,480	32	4,000			38.4	10.59	0.45	0.00
05/04/05	0.8	41%	36,666	32	NM			23.3	0.00	0.27	0.00
05/06/05	1.9	99%	163,548	59	3,982			103.7	2.75	1.21	0.00
05/09/05	1.5	47%	123,900	59	NM			78.6	0.00	0.91	0.00
05/11/05	0.0	1%	567	32	904			0.4	0.00	0.00	0.00
05/12/05	0.7	100%	70,092	66	NM			44.5	0.00	0.52	0.00
05/13/05	1.0	59%	45,927	32	824	4,800	72	57.8	0.35	0.67	0.00
05/18/05	2.5	47%	185,016	52	789			252.3	1.55	2.50	0.01
05/20/05	1.0	61%	47,628	32	884	5,600	61	70.0	0.00	0.59	0.00

TABLE 7 DPE SYSTEM OPERATION AND PERFORMANCE DATA - VAPOR FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

 Date	Days Operational	Percent Operational	Throughput Cu-ft	Average Flow rate (CFM)	Influent Field FID/PID Concentration (ppmv)	Influent Lab Concentration TPH-g (ppmv)	Influent Lab Concentration Benzene (ppmv)	Estimated Pounds TPH-g Removed	Estimated Pounds TPH-g Emitted	Estimated Pounds Benzene Removed	Estimated Pounds Benzene Emitted
05/26/05	3.4	57%	156,114	32	816			178.5	0.00	1.51	0.00
05/31/05	5.2	99%	237,195	32	920			271.3	0.00	2.30	0.01
06/03/05	1.8	65%	80,514	32	782			92.1	0.35	0.78	0.00
06/09/05	4.2	70%	360,018	59	1,059	3,121	34	294.7	0.00	2.52	0.01
06/10/05	1.1	100%	97,350	59	971	2,=.		56.4	0.00	0.49	0.00
06/13/05	1.9	63%	160,716	59	NM			93.2	0.00	0.81	0.00
06/17/05	0.3	7%	13,230	32	1,126			7.7	0.35	0.07	0.00
06/20/05	1.8	62%	63,504	24	1,218			36.8	0.27	0.32	0.00
06/23/05	2.2	77%	211,860	66	598			122.8	3.45	1.06	0.01
06/27/05	1.2	30%	53,487	32	741			31.0	0.94	0.27	0.00
06/30/05	1.3	45%	99,247	52	621			57.5	0.00	0.50	0.00
07/05/05	3.2	64%	241,145	52	NM			139.8	0.00	1.21	0.01
07/08/05	0.1	2%	5,664	59	NM			3.3	0.00	0.03	0.00
07/11/05	1.5	52%	113,568	52	179	1,300	15	38.7	0.00	0.35	0.00
07/15/05	4.0	94%	296,400	52	127			86.3	0.00	0.87	0.01
07/18/05	2.2	79%	209,088	66	191			60.9	0.00	0.62	0.01
07/22/05	3.3	80%	114,336	24	2,656			33.3	0.00	0.34	0.00
07/25/05	1.0	36%	38,064	26	891			11.1	0.00	0.11	0.00
07/29/05	4.0	99%	428,850	75	1,850			124.8	0.00	t.26	0.01
08/01/05	3.0	100%	126,846	29	436	920	14	30.6	0.00	0.36	0.00
08/05/05	3.4	82%	241,500	50	718			56.7	0.00	0.59	0.01
08/08/05	2.8	97%	183,816	46	396			43.1	0.00	0.45	0.01
08/12/05	3.3	81%	215,556	46	1,160			50.6	0.00	0.52	0.01
08/15/05	3.0	100%	205,860	47	417	870	10	47.0	0.00	0.42	0.01
08/19/05	3.9	99%	209,124	37	1,445			54.0	0.00	0.42	0.01
08/22/05	3.1	100%	183,270	41	440			47.3	0.00	0.37	0.01
08/29/05	7.0	100%	322,752	32	491			83.4	0.00	0.66	0.01
09/06/05	8.1	99%	197,880	17	521	1,100	10	51.1	0.00	0.40	0.01
09/09/05	2.8	99%	149,577	37	482			58.8	0.00	0.42	0.00
09/15/05	6.2	99%	320,112	36	516			125.9	0.00	0.91	0.01
09/19/05	4.0	100%	273,600	48	289			107.6	0.00	0.78	0.01
09/23/05	4.0	98%	230,160	40	300			90.5	0.00	0.65	0.01
09/26/05	2.1	74%	164,010	55	590			64.5	0.00	0.47	0.00
10/03/05	2.1	30%	110,160	36	328			43.3	5.38	0.31	0.00
10/10/05	7.0	100%	363,960	36	4,903	1,900	18	143.2	0.00	1.03	0.01
10/14/05	3.9	100%	204,765	37	9			123.5	0.00	0.77	0.01
10/17/05	3. i	100%	160,746	37	9			97.0	1.50	0.60	0.00
10/21/05	2.3	56%	100,116	31	9			60.4	1.96	0.38	0.00
10/24/05	3.2	100%	143,957	31	9			86.8	1.28	0.54	0.00
10/28/05	3.7	94%	159,485	30	934			96.2	2.05	0.60	0.00
10/31/05	3.1	100%	135,719	30	912			81.9	1.24	0.51	0.00

TABLE 7 DPE SYSTEM OPERATION AND PERFORMANCE DATA - VAPOR FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

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Date	Days Operational	Percent Operational	Throughput Cu-ft	Average Flow rate (CFM)	Influent Field FID/PID Concentration (ppmv)	Influent Lab Concentration TPH-g (ppmv)	Influent Lab Concentration Benzene (ppmv)	Estimated Pounds TPH-g Removed	Estimated Pounds TPH-g Emitted	Estimated Pounds Benzene Removed	Estimated Pounds Benzene Emitted
11/04/05	3.9	100%	164.280	30	804			99.1	0.00	0.62	0.01
11/07/05	3.1	100%	133,726	30	915	2,700	19	80.7	0.00	0.62	0.01
						2,700	19				
11/11/05	4.0	100%	207,612	37	833			111.6	0.00	1.62	0.01
11/14/05	3.1	100%	193,776	44	832			104.2	0.00	1.51	0.01
11/21/05	3.0	43%	193,860	45	1,044			104.2	0.00	1.51	0.01
11/28/05	7.0	100%	421,344	42	1,135			226.5	1.26	3.29	0.01
12/08/05	6.1	61%	389,756	44	930	1,400	58	143.1	0.82	3.05	0.01
12/12/05	3.9	100%	242,953	43	866			89.2	1.78	2.86	0.01
12/16/05	3.9	98%	233,604	42	430			85.8	0.00	2.75	0.01
12/19/05	3.0	99%	185,760	43	430			68.2	0.00	2.19	0.01
12/23/05	4.0	100%	234,270	41	430			86.0	0.00	2.76	0.01
12/30/05	7.0	100%	394,992	39	430			145.0	0.87	4.65	0.01
Total/Average	232.3	75%	13,367,771	30				7,900		99.9	

TABLE 7 DPE SYSTEM OPERATION AND PERFORMANCE DATA - VAPOR FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

* Est. pounds/day removed/emitted TPH-g = Average Combined well conc.(ppm,) * 4.2(µg/L/ppm,) * Average combined well flowrate (CFM) * 1440 min/day * 1 g/1,000,000 µg * 0.002205 lbs/g * 28.32 1/ft3 * Est. pounds/day removed/emitted Benzene = Average Combined well conc.(ppm,) * 3.25(µg/L/ppm,) * Average combined well flowrate (CFM) * 1440 min/day * 1 g/1,000,000 µg * 0.002205 lbs/g * 28.32 1/ft3

Cumulative Total - Total as measured since system start-up.

TPH-g - Total Petroleum Hydrocarbons as gasoline.

* Extraction from well MW3 was discontinued on 15 July 2005

CFM - Cubic feet per minute.

ppmy - Parts Per Million by Volume.



TABLE 8GROUNDWATER MONITORING SCHEDULEFORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

117 - 11	Groundwater	Groundwater	Groundwater Sampling and Analysis Frequency						
Well Number	Gauging Frequency	BTEX and TPH-g	MTBE	ТЕРН					
MW1	Q	S	S	S					
MW2	Q	Q	Q	Q					
MW3	Q	Q	Q	Q					
MW4	Q	Q	Q	Q					
MW5	Q	Α	A	A					
MW6	Q	S	S	S					
MW7	Q	A	A	Α					

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.



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.



Appendix B

Field Documents



_____ MONITORING WELL DATA FORM _____

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Client:	STROUGH FA	MILY TRUST			Date: 2,12/05				
Project Number:	TMSFT.1 TAS	K 11			Station Number	SFT			
-	327 34TH ST. OAKLAND , C		,		Samplers: 🥧	M / IZR	-		
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	22.39					3043	2"		
MW2*	25,40					31.87	2"		
MW3*	2330					3212	2"		
MW4	21.307					27.62	2"		
MW5	23-54					26.41	2"		
MW6	1833					26 69	2"		
MW7	15.99					34.45	2"		
* POSSIBLE	LPH - USE IP /	AND CONFIRM	V WITH BAILE	R			 1		
······································									
		-							

Engineering, Inc.		- GROUNDWA	TER PURGE	AND SAMPLE		
Project Name:	STROUGH FAM			Well No: MMM	<u> </u>	12/12/05
Project No:	TMSFT1. TASK	11		Personnel:	1, chy	/
GAUGING DAT Water Level Me	A asuring Method: V	VLM / (P)				
WELL PURGE	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)
CALCULATION	(1 2 4 6 0.04 0.16 0.64 1.44		€
PURGING DAT Purge Method:	A WATERRATBA	LERY SUB		PURGE RATE	GPM	
Time		5V9	Lun	,110	317	
Volume Purge (gal)	·	1411	Val	Gall	Mud	· · · · · · · · · · · · · · · · · · ·
Temperature (C)		af A	1.01	NIL.	but	<u>= (/ </u>
pH	:	, , , , , , , , , , , , , , , , , , ,				
Spec.Cond.(umhos)					
DO (mg/L)						
ORP						
Turbidity/Color						
Odor (Y/N)		·····				
Dewatered (Y/N)						
Comments/Obse	rvations:	<u>.</u>				

Time Sampled: \	6:10		Approximate Depti	proximate Depth to Water During Sampling: 7.5.4 (/(feet)					
Comments:						المراجع والمراجع والمراجع والمراجع والمراجع			
Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis			
11122	4	VOA	HCL	40 ml		SEE COC			
MIMZ	2	AMBER	NONE	1L		SEE COC			
- Chirdle Je >		······································							
Total Purge Volu	ume:	(gallons)		Disposal:	System				
Weather Condition					BOLTS /	<u>() N</u>			
······································		at Time of Samp	ling: (CAP & LOCK	<u> </u>			
	itions Requiring (Viene	GROUT X	€//Ν			
•····		rging and Sampli	na:	10100	WELL BOX	(Y.) N			
Comments:					SECURED	<u> </u>			

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Engineering, Inc.		GROUNDWA	TER PURGE	AND SAMPLE Well No: MW		13/13/05
Project Name:	STROUGH FAM	LY TRUST				
Project No:	TMSFT1. TASK	11		Personnel: /	M. J. h.	<u>+ []</u>
GAUGING DATA Water Level Mea	A Isuring Method: W	/LM / (IP)				
WELL PURGE	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)
CALCULATION	Ċ			1 2 4 6 0.04 0.16 0.64 1.4	4	↓ ▶
PURGING DAT/ Purge Method:	A WATERRA /(BAI			PURGE RATE	GPM	
Time		Sugty	MA	1Uged	60,0	
Volume Purge (gal)		UNVOX	oine	lic.	priou	
Temperature (C)		11 + 2	Call	pling		*
pH				/ /		
Spec.Cond.(umhos)						
DO (mg/L)						
ORP						
Turbidity/Color						
Odor (Y/N)						
Dewatered (Y/N)						
Comments/Obser	vations:			······································		

Time Sampled:	16 45 Approximate Depth to Water During Sampling:					(feet)
Comments:					2011 - Alexandra Martin Carlos et al	state of the cost-level.
Sample Number	Number of Containers	Container Type	Preservative	, Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW3	4	VOA	HCL	40 ml		SEE COC
MW3	2 AMBER NONE		NONE	1L		SEE COC
<u><u>v</u><u>v</u><u>v</u></u>						-
Total Purge Volu	ıme:	(gallons)		Disposal:	System	
Weather Condition			, ()	0U	BOLTS	Y / N'
		at Time of Samp	bling: ver	061	CAP & LOCK	<u>Y'/ N</u>
Well Head Conditions Requiring Correction:					GROUT	<u>X`/N</u>
······································	Problems Encountered During Purging and Sampling:					X / N
Comments:	increa 2 danig	<u> </u>	<u> </u>		SECURED /	Y / N

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Engineering, Inc.			TER PURGE	AND SAMPLE	<u>ل</u> م	10/
Project Name:	STROUGH FAM	LY TRUST		Well No: MUJU		12/12/100
Project No:	TMSFT1 TASK	11		Personnel: 2.2	ίζ <u>ρ.</u>	
GAUGING DAT	A asuring Method: V					
WELL PURGE	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)
CALCULATION	2762	0.21.89	95.730	1 2 4 6 0.04 0.16 0.64 1.44	0.920	2.76
PURGING DAT. Purge Method		LER / SUB		PURGE RATE	GPM	
Time	1512	1513	1514			
Volume Purge (gal)	l	2	3			
Temperature (C)	18,52	18,47	18,50			······································
pH	10.70	6.62	6.62			
Spec.Cond.(umhos)	914	917	909			
DO (mg/L)	2.29	2.44	2.05			
ORP	11.8	16.1	17.4			
Turbidity/Color	OLEHE BEN	CIENE	CIEPY/BEL			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N				
Comments/Obse	rvations:					

Time Sampled: \	a Sampled: 1517 Approximate Depth to Water Du					(feet)		
Comments:								
Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color		alysis thod	
MNH	4	VOA	HCL	40 ml		SEE		
MNH	2	AMBER	NONE	1L.		SEE		
Total Purge Volu	ime: 3	(gallons)		Disposal:	System			
Weather Conditi			014		BOLTS (<u> </u>	N	
······································		at Time of Samp			CAP & LOCK (<u>91</u>	<u>N</u>	
Well Head Conditions Requiring Correction:					GROUT ((Y) /	N	
Problems Encountered During Purging and Sampling: WELL BOX Y /					Ý) /	N		
Comments:			X			<u>¥ 1</u>	N	
oomnomo.	Comments.							

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Engineering, Inc.			TER PURGE	AND SA	MPLE ·	Data:	12/12/03
Project Name:	STROUGH FAM			Well No:			1.2/1.2/02
Project No:	TMSFT1 TASK	11		Personnel	"Cicl	<u>(12</u>	
GAUGING DAT Water Level Me	A asuring Method: V	VEM / (IP)					
WELL PURGE	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multipl Casing D		Casing Volume (gal)	Total Purge Volume (gal)
CALCULATION	26.69	8.33	38,36 0	0.04 0.16	4 6 0.64 1.44	1,330	3.99
PURGING DAT Purge Method:		LER / SUB		PURGE F	RATE	GPM	T
Пте	1551	1593	1555				
Volume Purge (gal)	1,5	3.0	45				
Temperature (C)	18.68	18.89	18.87				
рH	6.61	6.61	6.61				
Spec.Cond.(umhos		849	856				
DO (mg/L)	1.68	1.64	1.52				
ORP	-131.7	-132.7	-134.3	<u> </u>			
Turbidity/Color	SiltyBEN	Silly BRN	SillsBER	1			
Odor (Y/N)	N	N	Ň				
Dewatered (Y/N)	1.	\sim	N				<u> </u>
Comments/Obse	vations:						

Time Sampled:	1558		Approximate Depth to Water During Sampling: 19 (feet)				
Comments:					A NAMES OF A DESCRIPTION OF A DESCRIPTIO	Bushin Marine me every	
Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method	
MW6	4	VOA	HCL	40 ml		SEE COC	
MNG	2	AMBER	NONE	1L		SEE COC	
Total Purge Volu	Ime: US	(gallons)		Disposal:	System		
Weather Conditi			οK		BOLTS /	<u>/Ŷ)/N</u>	
		at Time of Samp	oling: OK		CAP & LOCK	Y / N	
			GROUT 7	<u>Ý / N</u>			
Well Head Conditions Requiring Correction: N Problems Encountered During Purging and Sampling: N					WELL BOX /	Ŷ, / N	
Comments:	intered Duning i L	nging and bampi			SECURED	Ŷ) / N	

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Appendix C

Laboratory Analytical Reports and Chain-of-Custody Documentation



O & M Laboratory Analytical Results

ANALYTICAL REPORT

Job Number: 720-339-1

Job Description: Strough Family Trust

For:

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

Attention: Ms. Kathy Brandt

Alharm

Dimple Sharma Project Manager I dsharma@stl-inc.com 11/30/2005

cc: Mr. Stephen Lao

METHOD SUMMARY

Client: ETIC Engineering, Inc

Job Number: 720-339-1

Description		Lab Location	Method	Preparation Method
Matrix:	Air-Florida	······		
Volatile Or	ganic Compounds by GC/MS	STL-SF	SW846 8260B	}
	Purge and Trap with Tedlar Bags (72 Hour Hold	STL-SF		SW846 5030B
Volatile Co	ompounds by GC/MS	STL-SF	SW846 8260B	}
	Purge and Trap with Tedlar Bags (72 Hour Hold	STL-SF		SW846 5030B
Matrix:	Water			
Volatile Or	ganic Compounds by GC/MS	STL-SF	SW846 8260B	}
	Purge-and-Trap	STL-SF		SW846 5030B
Nonhaloge Range Org	enated Organics using GC/FID -Modified (Diesel ganics)	STL-SF	SW846 8015B	3
Ų,	Separatory Funnel Liquid-Liquid Extraction	STL-SF		SW846 3510C
	Silica Gel Cleanup	STL-SF		SW846 3630C

LAB REFERENCES:

STL-SF = STL-San Francisco

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: ETIC Engineering, Inc.

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-339-1	EFFLUENT	Water	11/07/2005 1025	11/07/2005 1632
720-339-2	MIDFLUENT	Water	11/07/2005 1039	11/07/2005 1632
720-339-3	INFLUENT	Water	11/07/2005 1102	11/07/2005 1632
720-339-4	OUTLET	Air-Florida Tedlar	11/07/2005 1120	11/07/2005 1632
720-339-5	INLET	Air-Florida Tedlar	11/07/2005 1122	11/07/2005 1632
720-339-6	MW2	Water	11/07/2005 1203	11/07/2005 1632
720-339-7	MW3	Water	11/07/2005 1223	11/07/2005 1632

Client: ETIC Engineering, Inc.

Client Sample ID	EFFLUENT		
Lab Sample ID:	720-339-1		Date Sampled: 11/07/2005 1025
Client Matrix:	Water		Date Received: 11/07/2005 1632
	8260B \	/olatile Organic Compounds by	/ GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 1 0 11/08/2005 1708 11/08/2005 1708	Analysis Batch: 720-1581	Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\11 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene	lina z mana na na na na na na shinnan ki ki mana kumin ki ki kiyongin dan kini ki kina na na kina kina ka ka k	ND	0 50
Toluene		ND	0.50
Ethylbenzene		0.78	0.50
Xylenes, Total		ND	1.0
Gasoline		ND	50
Surrogate		%Rec	Acceptance Limits
Toluene-d8		111	77 - 121
1,2-Dichloroethan	e-d4	118	73 - 130

Client: ETIC Engineering, Inc.

Client Sample ID:	MIDFLUENT			
Lab Sample ID:	720-339-2		Date Sampled: 11/07/2005 1039	
Client Matrix:	Water		Date Received: 11/07/2005 1632	
	8260B	Volatile Organic Compounds by	GC/MS	
Method:	8260B	Analysis Batch: 720-1581	Instrument ID: Varian 3900A	
Preparation:	5030B		Lab File ID: c:\saturnws\data\200511\11	
Dilution:	10		Initial Weight/Volume: 10 mL	
Date Analyzed:	11/08/2005 1729		Final Weight/Volume: 10 mL	
Date Prepared:	11/08/2005 1729			
Applyto		Result (ug/L)	Qualifier RL	
Analyte				
Benzene		ND	0 50 0 50	
Toluene		ND ND	0.50	
Ethylbenzene		ND	1.0	
Xylenes, Total Gasoline		ND	50	
Gasonne		NB		
Surrogate	%Rec Acceptance Limits		Acceptance Limits	
Toluene-d8		110	77 - 121	
1,2-Dichloroethane	44	114	73 - 130	

Client: ETIC Engineering, Inc.

Client Sample ID:	INFLUENT			
Lab Sample ID:	720-339-3		Date Sample	
Client Matrix:	Water		Date Receive	ed: 11/07/2005 1632
	8260B 1	/olatile Organic Compounds by	GC/MS	
Method:	8260B	Analysis Batch: 720-1689	Instrument ID:	Varian 3900A
Preparation:	5030B		Lab File ID:	c:\saturnws\data\200511\11
Dilution:	50		Initial Weight/Volu	ime: 10 mL
Date Analyzed:	11/11/2005 0052		Final Weight/Volu	me: 10 mL
Date Prepared:	11/11/2005 0052			
0 lute			Qualifier	RL
Analyte	an a sur de desta de sur de stra de se de se de se de se	Result (ug/L)	Qualitiei	
Benzene		330		25
Toluene		2700		25 25
Ethylbenzene		200 3800		25 50
Xylenes, Total		17000		2500
Gasoline		17000		2500
Surrogate		%Rec	Acc	eptance Limits
Toluene-d8	******	110	77	- 121
1,2-Dichloroethane	5_rl/	103	73 - 130	

Client: ETIC Engineering, Inc.

Client Sample ID	: OUTLET				
Lab Sample ID:	720-339-4		Date Sampled: 11/07/2005 1120		
Client Matrix:	Air-Florida		Date Received: 11/07/2005 1632		
	8260B Vo	latile Organic Compounds by	GC/MS		
Method:	8260B	Analysis Batch: 720-2340	Instrument ID: Varian 3900E		
Preparation:	5030B		Lab File ID: N/A		
Dilution:	10		Initial Weight/Volume: 10 mL		
Date Analyzed:	11/08/2005 0533		Final Weight/Volume: 10 mL		
Date Prepared:	11/08/2005 0533				
Analyte		Result (mg/m3)	Qualifier RL		
Benzene		ND	0 50		
Ethylbenzene		ND	0.50		
Toluene		ND	0 50		
Xylenes, Total		ND	1.0		
Gasoline Range C	organics (GRO)-C5-C12	ND	50		
Surrogate		%Rec	Acceptance Limits		
Toluene-d8		117	77 - 121		
1.2-Dichloroethane-d4		99	73 - 130		

Client: ETIC Engineering, Inc.

	700 000 5		Dete Complete 11/07/0005 1100
Lab Sample ID:	720-339-5		Date Sampled: 11/07/2005 1122
Client Matrix:	Air-Florida		Date Received: 11/07/2005 1632
	8260B V	olatile Organic Compounds by	/ GC/MS
Method:	8260B	Analysis Batch: 720-2340	Instrument ID: Varian 3900E
Preparation:	5030B		Lab File ID: N/A
Dilution:	10		Initial Weight/Volume: 10 mL
Date Analyzed:	11/08/2005 0533		Final Weight/Volume: 10 mL
Date Prepared:	11/08/2005 0533		
Analyte		Result (mg/m3)	Qualifier RL
		Result (mg/m3) 61	Qualifier RL 0.50
Benzene			
Benzene Ethylbenzene		61	0.50
Benzene Ethylbenzene Toluene Xylenes, Total		61 73 570 840	0.50 0.50 0.50 1.0
Analyte Benzene Ethylbenzene Toluene Xylenes, Total Gasoline Range C	Drganics (GRO)-C5-C12	61 73 570	0.50 0.50 0.50
Benzene Ethylbenzene Toluene Xylenes, Total	Organics (GRO)-C5-C12	61 73 570 840	0.50 0.50 0.50 1.0
Benzene Ethylbenzene Toluene Xylenes, Total Gasoline Range C	Drganics (GRO)-C5-C12	61 73 570 840 9300	0.50 0.50 0.50 1.0 50

Client: ETIC Engineering, Inc.

Client Sample ID:	MW2			
Lab Sample ID: Client Matrix:	720-339-6 Water		Date Sample Date Receive	
) <u></u>	8260B	Volatile Organic Compounds by	GC/MS	
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 2 0 11/12/2005 1438 11/12/2005 1438	Analysis Batch: 720-1768	Instrument ID: Lab File ID: Initial Weight/Volu Final Weight/Volu	
Analyte		Result (ug/L)	Qualifier	RL
Benzene	ar an an an tha an	46		10
Toluene		230		10
Ethylbenzene		36		10
Xylenes, Total		260		20
Gasoline		1200		100
Surrogate		%Rec	Acc	eptance Limits
Toluene-d8		112	77	' - 121
1,2-Dichloroethane	∋-d4	105	73	- 130

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Client: ETIC Engineering, Inc

Client Sample ID:	MW3		
Lab Sample ID:	720-339-7		Date Sampled: 11/07/2005 1223
Client Matrix:	Water		Date Received: 11/07/2005 1632
	8260B	Volatile Organic Compounds by	GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 100 11/08/2005 1832 11/08/2005 1832	Analysis Batch: 720-1581	Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\11 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene		1200	50
Toluene		5000	50
Ethylbenzene		530	50
Xylenes, Total		6900	100
Gasoline		37000	5000
Surrogate		%Rec	Acceptance Limits
Toluene-d8		113	77 - 121
1,2-Dichloroethane	e-d4	113	73 - 130

Client: ETIC Engineering, Inc.

Client Sample ID	: EFFLUENT		
Lab Sample ID: Client Matrix:	720-339-1 Water		Date Sampled: 11/07/2005 1025 Date Received: 11/07/2005 1632
80	15B Nonhalogenated C	rganics using GC/FID -Modified	d (Diesel Range Organics)
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8015B 3510C 1 0 11/10/2005 1225 11/09/2005 0833	Analysis Batch: 720-1730 Prep Batch: 720-1573	Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY
Analyte		Result (ug/L)	Qualifier RL
Diesel (C10-C28)		ND	50
Surrogate		%Rec	Acceptance Limits
o-Terphenyl		70	60 - 130

Client: ETIC Engineering, Inc.

Client Sample ID	: MIDFLUENT		
Lab Sample ID:	720-339-2		Date Sampled: 11/07/2005 1039
Client Matrix:	Water		Date Received: 11/07/2005 1632
80	15B Nonhalogenated O	rganics using GC/FID -Modifie	d (Diesel Range Organics)
Method:	8015B	Analysis Batch: 720-1730	Instrument ID: HP DR05
Preparation:	3510C	Prep Batch: 720-1573	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 250 mL
Date Analyzed:	11/10/2005 1252		Final Weight/Volume: 1 mL
Date Prepared:	11/09/2005 0833		Injection Volume:
			Column ID: PRIMARY
Analyte		Result (ug/L)	Qualifier RL
Diesel (C10-C28)		ND	50
Surrogate		%Rec	Acceptance Limits
o-Terphenyl		72	60 - 130

Client: ETIC Engineering, Inc.

Client Sample ID	: INFLUENT		
Lab Sample ID:	720-339-3		Date Sampled: 11/07/2005 1102
Client Matrix:	Water		Date Received: 11/07/2005 1632
8()15B Nonhalogenated C	rganics using GC/FID -Modifie	d (Diesel Range Organics)
Method:	8015B	Analysis Batch: 720-1730	Instrument ID: HP DR05
Preparation:	3510C	Prep Batch: 720-1573	Lab File ID: N/A
Dilution:	10		Initial Weight/Volume: 250 mL
Date Analyzed:	11/10/2005 1319		Final Weight/Volume: 1 mL
Date Prepared:	11/09/2005 0833		Injection Volume:
·			Column ID: PRIMARY
Analyte		Result (ug/L)	Qualifier RL
Diesel (C10-C28)	na - Maran Marana na Kanana kanana kanan	2400	50
Surrogate		%Rec	Acceptance Limits
o-Terphenyl		72	60 - 130

Client: ETIC Engineering, Inc.

Client Sample ID	: MW2		
Lab Sample ID:	720-339-6		Date Sampled: 11/07/2005 1203
Client Matrix:	Water		Date Received: 11/07/2005 1632
80	15B Nonhalogenated O	rganics using GC/FID -Modified	d (Diesel Range Organics)
Method:	8015B	Analysis Batch: 720-1730	Instrument ID: HP DR05
Preparation:	3510C	Prep Batch: 720-1573	Lab File ID: N/A
Dilution:	10		Initial Weight/Volume: 250 mL
Date Analyzed:	11/10/2005 1347		Final Weight/Volume: 1 mL
Date Prepared:	11/09/2005 0833		Injection Volume:
·			Column ID: PRIMARY
Analyte		Result (ug/L)	Qualifier RL
Diesel (C10-C28)	namet data da ana ang kanang kanan	980	50
Surrogate		%Rec	Acceptance Limits
o-Terphenyl		73	60 - 130

Client: ETIC Engineering, Inc

Client Sample ID	: MW3			
Lab Sample ID: Client Matrix:	720-339-7 Water		Date Sampled: 11/07/2005 1223 Date Received: 11/07/2005 1632	
80	15B Nonhalogenated	Organics using GC/FID -Modifie	d (Diesel Range Organics)	
Method:	8015B	Analysis Batch: 720-1798	Instrument ID: HP DRO3	
Preparation:	3510C	Prep Batch: 720-1719	Lab File ID: N/A	
Dilution:	1.0		Initial Weight/Volume: 250 mL	
Date Analyzed:	11/15/2005 1122		Final Weight/Volume: 1 mL	
Date Prepared:	11/14/2005 1218		Injection Volume:	
			Column ID: PRIMARY	
Analyte		Result (ug/L)	Qualifier RL	
Diesel (C10-C28)	nan an Annahad An Anaham ya an Anna Anna Anna Anna Anna Anna Ann	8200	50	
Surrogate		%Rec	Acceptance Limits	
o-Terphenyl		78	60 - 130	

Client: ETIC Engineering, Inc.

Client Sample ID:	OUTLET			
Lab Sample ID:	720-339-4		Date Sampled:	11/07/2005 1120
Client Matrix:	Air-Florida		Date Received:	11/07/2005 1632
	8260E	3 Volatile Compounds by GC	/MS	
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 1.0 11/08/2005 0853 11/08/2005 0853	Analysis Batch: 720-2267	Instrument ID: Var Lab File ID: N/A Initial Weight/Volume: Final Weight/Volume: Injection Volume:	10 mL
Analyte		Result (ppm v/v)	Qualifier	RL
Benzene		ND		0.15
Toluene		ND		0.13
Ethylbenzene		ND		0.11
Xylenes, Total		ND		0 23
Gasoline Range O	rganics (GRO)-C5-C12	ND		11
Surrogate		%Rec	Accepta	nce Limits
Toluene-d8		99	77 - 12	21
1,2-Dichloroethan	e-d4	113	73 - 13	30

Client: ETIC Engineering, Inc.

Client Sample ID:	INLET			
Lab Sample ID:	720-339-5		Date Sampled:	11/07/2005 1122
Client Matrix:	Air-Florida		Date Received:	11/07/2005 1632
	82608	3 Volatile Compounds by GC	MS	
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 1 0 11/08/2005 0853 11/08/2005 0853	Analysis Batch: 720-2267	Instrument ID: Vai Lab File ID: N/A Initial Weight/Volume Final Weight/Volume: Injection Volume:	: 10 mL
Analyte		Result (ppm v/v)	Qualifier	RL
Benzene		19		0 15
Toluene		150		0 13
Ethylbenzene		17		0 11
Xylenes, Total		190		0 23
Gasoline Range O	rganics (GRO)-C5-C12	2700		11
Surrogate		%Rec	Accepta	ance Limits
Toluene-d8		99	77 - 1:	21
1,2-Dichloroethane	e-d4	107	73 - 1	30

DATA REPORTING QUALIFIERS

Lab Section

Qualifier

Description

Client: ETIC Engineering, Inc.

Job Number: 720-339-1

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
GC/MS VOA				
Analysis Batch:720-	1581	alanan kalan bahar kalan kalan dari kalan kalan kalan dari kalan dara kalan dara kalan kalan kalan kalan kalan		n a fairte a shine a strain a shine a s
LCS 720-1581/5	Lab Control Spike	Water	8260B	
LCSD 720-1581/4	Lab Control Spike Duplicate	Water	8260B	
MB 720-1581/6	Method Blank	Water	8260B	
720-339-1	EFFLUENT	Water	8260B	
720-339-2	MIDFLUENT	Water	8260B	
720-339-7	MW3	Water	8260B	
Analysis Batch:720-	1687			
LCS 720-1687/2	Lab Control Spike	Water	8260B	
LCSD 720-1687/1	Lab Control Spike Duplicate	Water	8260B	
MB 720-1687/3	Method Blank	Water	8260B	
Analysis Batch:720-	1689			
LCS 720-1689/2	Lab Control Spike	Water	8260B	
LCSD 720-1689/1	Lab Control Spike Duplicate	Water	8260B	
MB 720-1689/3	Method Blank	Water	8260B	
720-339-3	INFLUENT	Water	8260B	
Analysis Batch:720-	1768			
LCS 720-1768/2	Lab Control Spike	Water	8260B	
LCSD 720-1768/1	Lab Control Spike Duplicate	Water	8260B	
MB 720-1768/3	Method Blank	Water	8260B	
720-339-6	MVV2	Water	8260B	
Analysis Batch:720-	2340			
LCS 720-2340/2	Lab Control Spike	Air-Florida	8260B	
LCSD 720-2340/3	Lab Control Spike Duplicate	Air-Florida	8260B	
MB 720-2340/1	Method Blank	Air-Florida	8260B	
720-339-4	OUTLET	Air-Florida	8260B	
720-339-5	INLET	Air-Florida	8260B	

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QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
GC Semi VOA				
Prep Batch: 720-1573		ann an drammada ar air an d' an aire e de da de se a ne aid rair lan rai dan ar bainn an brinn ann ann am	alaan kanalaan oo xaayo ahaan ahaal kanalaan yaammaa ahaadaa ahaa ahaa	
LCS 720-1573/2-B	Lab Control Spike	Water	3510C	
_CSD 720-1573/3-B	Lab Control Spike Duplicate	Water	3510C	
MB 720-1573/1-B	Method Blank	Water	3510C	
/20-339-1	EFFLUENT	Water	3510C	
20-339-2	MIDFLUENT	Water	3510C	
720-339-3	INFLUENT	Water	3510C	
20-339-6	MW2	Water	3510C	
Prep Batch: 720-1719				
_CS 720-17 19/14-B	Lab Control Spike	Water	3510C	
_CSD 720-1719/15-B	Lab Control Spike Duplicate	Water	3510C	
VIB 720-1719/13-B	Method Blank	Water	3510C	
/20-339-7	MVV3	Water	3510C	
Analysis Batch:720-17	30			
_CS 720-1573/2-B	Lab Control Spike	Water	8015B	720-1573
_CSD 720-1573/3-B	Lab Control Spike Duplicate	Water	8015B	720-1573
MB 720-1573/1-B	Method Blank	Water	8015B	720-1573
720-339-1	EFFLUENT	Water	8015B	720-1573
720-339-2	MIDFLUENT	Water	8015B	720-1573
720-339-3	INFLUENT	Water	8015B	720-1573
720-339-6	MW2	Water	8015B	720-1573
Analysis Batch:720-17	98			
CS 720-1719/14-B	Lab Control Spike	Water	8015B	720-1719
_CSD 720-1719/15-B	Lab Control Spike Duplicate	Water	8015B	720-1719
VIB 720-1719/13-B	Method Blank	Water	8015B	720-1719
720-339-7	MW3	Water	8015B	720-1719
Air Toxics				
Analysis Batch:720-22	67			******
_CS 720-2267/2	Lab Control Spike	Air-Florida	8260B	
_CSD 720-2267/3	Lab Control Spike Duplicate	Air-Florida	8260B	
	Eab oblight oping Duplicate		02000	

LCS /20-226//2	Lab Control Spike	Alf-Florida	8260B
LCSD 720-2267/3	Lab Control Spike Duplicate	Air-Florida	8260B
MB 720-2267/1	Method Blank	Air-Florida	8260B
720-339-4	OUTLET	Air-Florida	8260B
720-339-5	INLET	Air-Florida	8260B

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ETIC Engineering, Inc

Method Blank - Batch: 720-1581

Lab Sample ID:MB 720-1581/6Client Matrix:WaterDilution:1.0Date Analyzed:11/08/2005Date Prepared:11/08/2005

Analysis Batch: 720-1581 Prep Batch: N/A Units: ug/L

Quality Control Results

Job Number: 720-339-1

Method: 8260B Preparation: 5030B

Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\1* Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

Analyte			Result		Qual	RL		
Benzene						0 50		
Toluene			ND			0.50 0.50		
Ethylbenzene			ND			1.0		
Xylenes, Total Gasoline			ND ND			50		
Gasoline			ND			50		
Surrogate			% Red	2		Acceptance Limits		
Toluene-d8			108			77 - 121		
1,2-Dichloroethane	-d4		96			73 - 130		
Laboratory Con	trol/					Method: 8260B		
	trol Duplicate Recover	y Repoi	rt - Batch:	720-1581		Preparation: 5030B		
			1 and 1 F					
LCS Lab Sample II			vsis Batch:			Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\11080		
Client Matrix:	Water	•	Batch: N/A					
Dilution:	10	Units	: ug/L					
Date Analyzed:	11/08/2005 1040					Final Weight/Volume: 10 mL		
Date Prepared:	11/08/2005 1040							
	ID: LCSD 720-1581/4	Anal	vsis Batch:	720 1581		Instrument ID: Varian 3900A		
Client Matrix:	Water		Batch: N/A			Lab File ID: c:\saturnws\data\200511\110805\		
Dilution:	1.0		s:ug/L			Initial Weight/Volume: 10 mL		
	11/08/2005 1101	Onte	. ugi L			Final Weight/Volume: 10 mL		
Date Analyzed:	11/08/2005 1101					rina weight volume. To the		
Date Prepared:	11/06/2005 1101							
			<u>% Rec.</u>					
Analyte		LCS	LCSD	Limit	R	PD RPD Limit LCS Qual LCSD Qual		
Benzene		93	95	69 - 129	€ 2			
Toluene		98	98	70 - 130	0 (25		
Surrogate		*****	LCS % Rec	c LCSD % Rec Acceptance Limits		c Acceptance Limits		
Toluene-d8			108	111		77 - 121		
1,2-Dichloroethane	e-d4		97	97				

Analysis Batcl

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Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ETIC Engineering, Inc.

Method Blank - Batch: 720-1687

Lab Sample ID: MB 720-1687/3 Client Matrix: Water Dilution: 10 Date Analyzed: 11/08/2005 0739 Date Prepared: 11/08/2005 0739

Analysis Batch: 720-1687 Prep Batch: N/A Units: ug/L

Quality Control Results

Job Number: 720-339-1

Method: 8260B Preparation: 5030B

Instrument ID: Varian 3900E Lab File ID: c:\varianws\data\110805\m Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

Analyte			Result		Qual	RL		
Benzene			ND			0 50		
Toluene			ND			0.50		
Ethylbenzene			ND			0.50		
Xylenes, Total			ND			1.0		
Gasoline			ND			50		
Surrogate			% Red	c		Acceptance Limits		
Toluene-d8			95			77 - 121		
1,2-Dichloroethane	e-d4		95			73 - 130		
Laboratory Cor						Method: 8260B		
Laboratory Cor	ntrol Duplicate Recove	ry Repor	t - Batch:	720-1687		Preparation: 5030B		
I CS I ab Sample I	D: LCS 720-1687/2	Analy	sis Batch:	720-1687		Instrument ID: Varian 3900E		
Client Matrix:	Water	-	Batch: N/A			Lab File ID: c:\varianws\data\110805\ls-wa-5		
Dilution:	10		ug/L			Initial Weight/Volume: 10 mL		
Date Analyzed:	11/08/2005 0656		- 3			Final Weight/Volume: 10 mL		
Date Prepared:	11/08/2005 0656							
	10.1.000 700 4607/4	Analy	nin Deteks	720-1687		Instrument ID: Varian 3900E		
Client Matrix:	e ID: LCSD 720-1687/1 Water	-	Batch: N/A			Lab File ID: c:\varianws\data\110805\ld-wa-5-		
Dilution:	1 0	Units:				Initial Weight/Volume: 10 mL		
+		Units:	ug/L					
Date Analyzed:	11/08/2005 0718					Final Weight/Volume: 10 mL		
Date Prepared:	11/08/2005 0718							
			<u>6 Rec.</u>					
Analyte		LCS	LCSD	Limit	R	PD RPD Limit LCS Qual LCSD Qual		
Benzene		100	99	69 - 129	ə 1	25		
Toluene		102	101	70 - 130) 2	25		
Surrogate		L	CS % Rec	S % Rec LCSD % Rec Acceptance Li		c Acceptance Limits		
Toluene-d8			8	97		77 - 121		
1,2-Dichloroethan	e-d4	9	3	90		73 - 130		

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Calculations are performed before rounding to avoid round-off errors in calculated results

Client: ETIC Engineering, Inc.

Method Blank - Batch: 720-1689

 Lab Sample ID:
 MB 720-1689/3

 Client Matrix:
 Water

 Dilution:
 1 0

 Date Analyzed:
 11/10/2005
 1902

 Date Prepared:
 11/10/2005
 1902

Analysis Batch: 720-1689 Prep Batch: N/A Units: ug/L

Quality Control Results

Job Number: 720-339-1

Method: 8260B Preparation: 5030B

Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\1' Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

Analyte			Result		Qual	RL	
Benzene		ND				0 50	
Toluene			ND			0.50	
Ethylbenzene			ND ND			0 50 1 0	
Xylenes, Total Gasoline			ND			50	
Gasonne			ND			50	
Surrogate			% Red	>		Acceptance Limits	
Toluene-d8			109			77 - 121	
1,2-Dichloroethane	e-d4		101			73 - 130	
Laboratory Cor	ntrol/ ntrol Duplicate Recove	rv Renor	t - Batch:	720-1689		Method: 8260B Preparation: 5030B	
Laboratory CO	ntor Duplicate Necove	ту перот	c - Daton.	120-1005			
Client Matrix: Dilution: Date Analyzed:	D: LCS 720-1689/2 Water 1 0 11/10/2005 1841 11/10/2005 1841	Prep	rsis Batch: Batch: N/A : ug/L			Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\11100 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL	
Client Matrix: Dilution:	e ID: LCSD 720-1689/1 Water 1 0	•	rsis Batch: Batch: N/A : ug/L			Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\111005\ Initial Weight/Volume: 10 mL	
Date Analyzed: Date Prepared:	11/10/2005 1923 11/10/2005 1923					Final Weight/Volume: 10 mL	
		c	% Rec.				
Analyte		LCS	LCSD	Limit	R	PD RPD Limit LCS Qual LCSD Qual	
Benzene	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	90	87	69 - 129) 4	25	
Toluene		91	90	70 - 130) 1		
Surrogate		Ł	.CS % Rec	LCSE	LCSD % Rec Acceptance Limits		
Toluene-d8			12	109		77 - 121	
1,2-Dichloroethan	e-d4		06	100	100 73 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results

Client: ETIC Engineering, Inc.

Method Blank - Batch: 720-1768

Lab Sample ID:MB 720-1768/3Client Matrix:WaterDilution:1 0Date Analyzed:11/12/2005 0742Date Prepared:11/12/2005 0742

Analysis Batch: 720-1768 Prep Batch: N/A Units: ug/L

Quality Control Results

Job Number: 720-339-1

Method: 8260B Preparation: 5030B

Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\1* Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

Analyte			Result		Qual RL		
Benzene Toluene Ethylbenzene Xylenes, Total Gasoline		ND 0 50 ND 0 50 ND 0 50 ND 0 50 ND 1.0 ND 50			0 50 0 50 1.0		
Surrogate			% Red	•		Acceptance Limits	
Toluene-d8 1,2-Dichloroethane	-d4		107 104			77 - 121 73 - 130	
Laboratory Control/ Laboratory Control Duplicate Recovery			rt - Batch:	720-1768		Method: 8260B Preparation: 5030B	
LCS Lab Sample I Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: LCS 720-1768/2 Water 1.0 11/12/2005 0722 11/12/2005 0722	Prep	ysis Batch: Batch: N/A :: ug/L			Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\111205 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL	
LCSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	ID: LCSD 720-1768/1 Water 1 0 11/12/2005 1233 11/12/2005 1233	Prep	Analysis Batch: 720-1768 Prep Batch: N/A Units: ug/L			Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200511\111205\I Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL	
Analyte		LCS	<u>% Rec.</u> LCSD	Limit	RI	PD RPD Limit LCS Qual LCSD Qual	
Benzene Toluene		90 95	83 90	69 - 129 70 - 130		25 25	
Surrogate			LCS % Rec	LCSE) % Rec	Acceptance Limits	
Toluene-d8 1,2-Dichloroethane	e-d4		109 98	110 77 - 121 99 73 - 130			

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Calculations are performed before rounding to avoid round-off errors in calculated results

Client: ETIC Engineering, Inc.

Method Blank - Batch: 720-2340

Lab Sample ID:	
Client Matrix:	Air-Florida Tedlar Bag
Dilution:	10
Date Analyzed:	11/08/2005 0533
Date Prepared:	11/08/2005 0533

Analysis Batch: 720-2340 Prep Batch: N/A Units: mg/m3

Quality Control Results

Job Number: 720-339-1

Method: 8260B Preparation: 5030B

Instrument ID: Varian 3900E Lab File ID: N/A Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

Analyte	lyte		Result		Qual			RL	
Benzene			ND					0 50	
Ethylbenzene			ND					0 50	
Toluene			ND					0 50	
Xylenes, Total			ND					1.0	
Gasoline Range O	rganics (GRO)-C5-C12		ND					50	
Surrogate			% Red	>		Acceptant	e Lim	its	
Toluene-d8			95			77 - 1	21		
1,2-Dichloroethane	e-d4		95			73 - 1	30		
Laboratory Cor						Method: 8		-	
Laboratory Cor	ntrol Duplicate Recover	y Report	t - Batch:	720-2340		Preparati	on: 5	030B	
I CS Lab Sample I	D: LCS 720-2340/2	Analy	sis Batch:	720-2340		Instrument II): Va	arian 3900E	
Client Matrix:	Air-Florida Tedlar Bag		Batch: N/A			Lab File ID: N/A			
Dilution:	10		mg/m3			Initial Weight/Volume: 10 mL			nL
Date Analyzed:	11/08/2005 0533					Final Weight/Volume: 10 mL			
Date Prepared:	11/08/2005 0533								
I CSD Lab Sample	D: LCSD 720-2340/3	Analy	sis Batch:	720-2340		Instrument II)· \	/arian 3900B	Ξ
Client Matrix:	Air-Florida Tedlar Bag	-	Analysis Batch: 720-2340 Prep Batch: N/A			Lab File ID: N/A			-
Dilution:	10	,	mg/m3			Initial Weight		•	
Date Analyzed:	11/08/2005 0533	G11163.	mgmio			Final Weight			
Date Prepared:	11/08/2005 0533								-
		9	6 Rec.						
Analyte		LCS	LCSD	Limit	R	PD RPD	Limit	LCS Qual	LCSD Qual
Benzene		100	99	69 - 129	€ 1	25			
Toluene		102	101	70 - 130) 2	25			
Surrogate	***	L	CS % Rec	LCSE) % Red	; /	Accept	tance Limits	
Toluene-d8		98		97				7 - 121	
1,2-Dichloroethan	e-d4	93 90			73 - 130				

Job Number: 720-339-1

Client: ETIC Engineering, Inc.

Method Blank -	Batch: 720-1573				Method: 8015B Preparation: 3510C				
Lab Sample ID: MI Client Matrix: W Dilution: 1.0 Date Analyzed: 11 Date Prepared: 11	ater) /10/2005 1103	Analysis Batch: 720-1730 Prep Batch: 720-1573 Units: ug/L			Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY				
Analyte			Result		Qual	RL			
Diesel (C10-C28)			ND			50			
Surrogate			% Rec			Acceptance Limits			
o-Terphenyl			68			60 - 130			
Laboratory Con Laboratory Con	trol/ trol Duplicate Recover	y Report	- Batch: 7	20-1573		Method: 8015B Preparation: 3510C			
LCS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: LCS 720-1573/2-B Water 1.0 11/10/2005 1131 11/09/2005 0833	Analysis Batch: 720-1730 Prep Batch: 720-1573 Units: ug/L				Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY			
LCSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	ID: LCSD 720-1573/3-B Water 1 0 11/10/2005 1158 11/09/2005 0833	Analysis Batch: 720-1730 Prep Batch: 720-1573 Units:ug/L				Instrument ID: HP DR05 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY			
Analyte		<u>%</u> LCS	<u>Rec.</u> LCSD	Limit	RPI				
Diesel (C10-C28)	*****	72	69	60 - 130	3	30			
Surrogate		LC	S % Rec	LCSD	% Rec	Acceptance Limits			
o-Terphenyl		73		71		60 - 130			

Calculations are performed before rounding to avoid round-off errors in calculated results.

Job Number: 720-339-1

Client: ETIC Engineering, Inc.

Method Blank - Batch: 720-1719						Method: 8015B Preparation: 3510C	
Lab Sample ID: Mi Client Matrix: W Dilution: 1 Date Analyzed: 11 Date Prepared: 11	ater 0 /15/2005 1122	Analysis Batch: 720-1798 Prep Batch: 720-1719 Units: ug/L				Instrument ID: HP DRO3 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY	
Analyte		R	esult		Qual	RL	
Diesel (C10-C28)		N	D			50	
Surrogate			% Rec			Acceptance Limits	
o-Terphenyl			84			60 - 130	
Laboratory Cor Laboratory Cor	ntrol/ htrol Duplicate Recovery	/ Report - Bi	atch: 7	20-1719		Method: 8015B Preparation: 3510C	
LCS Lab Sample I Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: LCS 720-1719/14-B Water 1 0 11/15/2005 1118 11/14/2005 1218	Analysis B Prep Batch Units: ug/	n: 720-1			Instrument ID: HP DRO3 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY	
LCSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	ID: LCSD 720-1719/15-B Water 1 0 11/15/2005 1145 11/14/2005 1218	Prep Batch: 720-1719 Units: ug/L			Instrument ID: HP DRO3 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY		
Analyte		<u>% Re</u> LCS L	CSD	Limit	RPD	RPD Limit LCS Qual LCSD Qual	
Diesel (C10-C28)	****	80 7	7	60 - 130	5	30	
Surrogate		LCS %	% Rec	LCSD	% Rec	Acceptance Limits	
o-Terphenyl		94		90		60 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Calculations are performed before rounding to avoid round-off errors in calculated results.

Method Blank - Batch: 720-2267

Client: ETIC Engineering, Inc.

Lab Sample ID:MB 720-2267/1Client Matrix:Air-Florida Tedlar BagDilution:1 0Date Analyzed:11/08/2005 0853Date Prepared:11/08/2005 0853

LCS Lab Sample ID: LCS 720-2267/2

Analyte	Result	Qual	RL
Benzene	ND		0 15
Toluene	ND		0 13
Ethylbenzene	ND		0 1 1
Xylenes, Total	ND		0 23
Gasoline Range Organics (GRO)-C5-C12	Err		11

Analysis Batch: 720-2267

Prep Batch: N/A

Units: ppm v/v

Surrogate	% Rec	Acceptance Limits	
Toluene-d8	95	77 - 121	
1,2-Dichloroethane-d4	91	73 - 130	

Analysis Batch: 720-2267

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-2267

Method: 8260B Preparation: 5030B

Instrument ID: Varian 3900E

Method: 8260B Preparation: 5030B

Lab File ID: N/A

Injection Volume:

Instrument ID: Varian 3900E

Initial Weight/Volume: 10 mL

Final Weight/Volume: 10 mL

Client Matrix: Dilution: Date Analyzed: Date Prepared:	Air-Florida Tedlar Bag 1.0 11/08/2005 0853 11/08/2005 0853	Prep	Batch: N/A ppm v/v		La In Fi	ab File ID: N/A itial Weight/Volur nal Weight/Volur jection Volume:		
	 ID: LCSD 720-2267/3 Air-Florida Tedlar Bag 1 0 11/08/2005 0853 11/08/2005 0853 	Prep	rsis Batch: Batch: N/A ppm v/v	720-2267	ln La In		ne: 10 mL	
		0 	<u>% Rec.</u>					
Analyte		LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual LCSD Qua	31
Benzene		99	99	69 - 129	0	20		
Toluene		106	102	70 - 130	3	20		
Surrogate		L	.CS % Rec	LCSD %	Rec	Accept	ance Limits	
Toluene-d8	·····	ç	98	97		77	′ - 121	
1,2-Dichloroethan	e-d4	9	90	87		73	8 - 130	

Quality Control Results

Job Number: 720-339-1

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Attn:Ketherine Brandt, Sau	rabh Gog	ate																						:	
Company:ETIC Engineering	9				311		10			s)			608			A I		-	~	ш Ш					
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Bill To: ETIC Engineering	S	ampled I	By:		D 2015/9021	Aromatics [] 8021 [] 82608	TEPH EPA 8015M E Silca G Epiesel El Motor Oil El Other	Fuel Tests EPA 62600: Cl Cas Cl 87EX Five Oxyenales Cl DCA, EOB Cl Ethand	Purgeable Halecarbons (HVOCs) EPA 8021	Volatie Organics GC/MS (VOCs) D EPA 82603 D 624	Semivolatiles GC/AS		1 EPA 8081 1 EPA 8082	8270	CAM17 Metals (EPA 6010/7470/7471)	Metals: 🗆 Lead 🗆 LUFT 🗆 Other:	W.E.T (STLC) TCLP	Hexavalent Chromium pH (24h hold lime for H ₂ O)		CN D SO					Number of Containers
Attn: Katherine Brandt		none:208		x11		ble Are PA-1	EPA 80	s EPA I enales	blo Ha	Orgar 8260	latiles 8270	Oil and Grosse (EPA 1664)	5 6	ם א	Alotal D10/74	د پ ۵	CLP CLP	exiivo H (24h	Spec Cond. TSS						L of C
Sample ID	Date	Time	Malri	Pre ser	TPH EPA	Purgeablo / BTEX EPA	EPH E	uel Tes fre Org	- HVOC	dlatte 3 EPA	emivo EPA	in and EPA 1	Pesticides PCBs	PNAs by	EPA 6	fetals: D Othe				Anlons					lumbe
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Influent	11/21	11.02	1	1	X		X																		
Outlet	117	11.20	Alr	<u> </u>	x				-	·		·							1						
iniet	1/1	11.22			X						<u> </u>							1							
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LOGIN SAMPLE RECEIPT CHECK LIST

Client: ETIC Engineering, Inc

Job Number: 720-339-1

Login Number: 339

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present	NA	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler Temperature is acceptable	True	
Cooler Temperature is recorded	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time	True	
Sample containers have legible labels	True	
Containers are not broken or leaking	True	
Sample collection date/times are provided	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

ANALYTICAL REPORT

Job Number: 720-877-1

Job Description: Strough Family Trust

For:

ETIC Engineering, Inc 1333 Broadway Suite 1015 Oakland, CA 94612

Attention: Ms Kathy Brandt

Sharm

Dimple Sharma Project Manager I dsharma@stl-inc com 12/22/2005

cc: Mr Stephen Lao Mr Thomas Neely

۰.,

Severn Trent Laboratories, Inc. STL San Francisco 1220 Quarry Lane, Pleasanton, CA 94566 Tel 925-484-1919 Fax 925-484-1096 www sll-inc com

METHOD SUMMARY

Client: ETIC Engineering, Inc.

Job Number: 720-877-1

1

Descript	ion	Lab Location	Method	Preparation Method
Matrix:	Air-Florida			
Volatile O	rganic Compounds by GC/MS Purge and Trap with Tedlar Bags (72 Hour Hold	STL-SF STL-SF	SW846 820	60B SW846 5030B
Volatile Co	ompounds by GC/MS Purge and Trap with Tedlar Bags (72 Hour Hold	STL-SF STL-SF	SW846 820	60B SW846 5030B

LAB REFERENCES:

STL-SF = STL-San Francisco

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates

SAMPLE SUMMARY

Client: ETIC Engineering, Inc.

Job Number: 720-877-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-877-1	OUTLET	Air-Florida Tedlar	12/08/2005 1415	12/08/2005 1745
720-877-2	INLET	Air-Florida Tedlar	12/08/2005 1410	12/08/2005 1745

Client: ETIC Engineering, Inc

Job Number: 720-877-1

	Client Sample ID:		
Client Matrix: Air-Florida Date Received: 12/08/2005 1745	•	Date Sampled: 12/08/2005 1415 Date Received: 12/08/2005 1745	

8260B Volatile Organic Compounds by GC/MS

Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 1 0 12/09/2005 0228 12/09/2005 0228	Analysis Batch: 720-2814	Instrument ID: Lab File ID: Initial Welght/Volt Final Weight/Volt	ume:	3900B mws\data\200512\12 10 mL 10 mL	2
--	---	--------------------------	--	------	---	---

Analyte	Result (mg/m3)	Qualifier	RL
Benzene	ND		0 50
Ethylbenzene	ND		0 50
Toluene	ND		0 50
Xylenes, Total	ND		10
Gasoline Range Organics (GRO)-C5-C12	ND		50
Surrogate	%Rec		Acceptance Limits
Toluene-d8	83		77 - 121
1,2-Dichloroethane-d4	109		73 - 130

Client: ETIC Engineering, Inc

Job Number: 720-877-1

Client Sample ID:	INLET		
Lab Sample ID: Client Matrix:	720-877-2 Air-Florida	•	12/08/2005 1410 12/08/2005 1745

8260B Volatile Organic Compounds by GC/MS

Method: Preparation:	8260B 5030B	Analysis Batch: 720-2959		rn 3900B turnws\data\200512\12
Dilution: Date Analyzed:	1 0 12/10/2005 1044		Initial Weight/Volume: Final Weight/Volume:	10 mL 10 mL
Date Prepared:	12/10/2005 1044			
Analuta		Result (ma/m3)	Qualifier	RL

Analyte	Result (mg/m3)	Qualifier	KL
Benzene	76		0 50
Ethylbenzene	11		0 50
Toluene	72		0 50
Xylenes, Total	97		10
Gasoline Range Organics (GRO)-C5-C12	940		50
Surrogate	%Rec		Acceptance Limits
Toluene-d8	87		77 - 121
1,2-Dichloroethane-d4	92		73 - 130

Client: ETIC Engineering, Inc

10

12/09/2005 0228

Dilution:

Date Analyzed:

Job Number: 720-877-1

10 mL

10 mL

Initial Weight/Volume:

Final Weight/Volume:

Client Sample ID	: OUTLET				
Lab Sample ID: Client Matrix:	720-877-1 Aìr-Florida		Date Samp Date Recei		
		8260B Volatile Compounds by GC/MS			
Method: Preparation:	8260B 5030B	Analysis Batch: 720-2831	Instrument ID: Lab File ID:	No equipment used N/A	

Date Prepared: 12/09/2005 0228	Injection Volume:			
Analyte	Result (ppm v/v)	Qualifier	RL	
Benzene	ND		0 15	
Toluene	ND		0 13	
Ethylbenzene	ND		0 1 1	
Xylenes, Total	ND		0.23	
Gasoline Range Organics (GRO)-C5-C12	ND		11	
Surrogate	%Rec		Acceptance Limits	
Toluene-d8	B4		77 - 121	
1,2-Dichloroethane-d4	106		73 - 130	

i T

Job Number: 720-877-1

Client: ETIC Engineering, Inc

Client Sample ID:	INLET		
Lab Sample ID: Client Matrix:	720-877-2 Air-Florida	Date Sampled: Date Received:	

8260B Volatile Compounds by GC/MS

Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 5 0 12/10/2005 1044 12/10/2005 1044	Analysis Batch: 720-3054		
Analyte		Result (ppm v/v)	Qualifier	RL

Analyte	Result (ppm WV) Qualitier	RL
Benzene	58	0 77
Toluene	470	0 65
Ethylbenzene	63	0 57
Xylenes, Total	550	11
Gasoline Range Organics (GRO)-C5-C12	1400	57
Surrogate	%Rec	Acceptance Limits
Toluene-d8	88	77 - 121
1,2-Dichloroelhane-d4	89	73 - 130

DATA REPORTING QUALIFIERS

Lab Section

Qualifier

Description

Client: ETIC Engineering, Inc

Job Number: 720-877-1

1

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
GC/MS VOA				
Analysis Batch:720-2	2814	Constrained and the constrained and the second sec second second sec	in an an and an array brieffile of the an example of a first service as	− 2 a bar a bar dan dan dari bar bar bar bar da Phara da a Al anan a an a bar bar bar bar bar bar bar bar bar b
LCS 720-2814/3	Lab Control Spike	Air-Florida	8260B	
LCSD 720-2814/2	Lab Control Spike Duplicate	Air-Florida	8260B	
MB 720-2814/4	Method Blank	Air-Florida	8260B	
720-877-1	OUTLET	Air-Florida	8260B	
Analysis Batch:720-2	2959			
LCS 720-2959/3	Lab Control Spike	Air-Florida	8260B	
LCSD 720-2959/2	Lab Control Spike Duplicate	Air-Florida	8260B	
MB 720-2959/4	Method Blank	Air-Florida	8260B	
720-877-2	INLET	Air-Florlda	8260B	
Air Toxics				
Analysis Batch:720-2	2831	ан тара ау дини тараттар дар дар ар сар сар сар сар сар са на бранителна била станат била.	ang na gangan ng na ganag na na na na kan na n	
LCS 720-2831/1	Lab Control Spike	Air-Florida	8260B	
LCSD 720-2831/2	Lab Control Spike Duplicate	Air-Florida	8260B	
MB 720-2831/3	Method Blank	Air-Florida	8260B	
720-877-1	OUTLET	Air-Florida	8260B	
Analysis Batch:720-3	3054			
LCS 720-3054/1	Lab Control Spike	Air-Florida	8260B	
LCSD 720-3054/2	Lab Control Spike Duplicate	Air-Florida	8260B	
MB 720-3054/3	Method Blank	Air-Florida	8260B	
720-877-2	INLET	Air-Florida	8260B	

Job Number: 720-877-1

Client: ETIC Engineering, Inc

Method Blank - Batch: 720-2814

Method: 8260B Preparation: 5030B

Method: 8260B

Preparation: 5030B

Lab Sample ID:MB 720-2814/4Analysis Batch:720-2814Instrument ID:Saturn 3900BClient Matrix:Alr-Florida Tedlar BagPrep Batch:N/ALab File ID:c:\saturnws\data\200512\12Dilution:1 0Units:mg/m3Initial Weight/Volume:10 mLDate Analyzed:12/08/2005 2233Final Weight/Volume:10 mL

Analyte	Result	Qual	RL
Benzene	ND		0 50
Ethylbenzene	ND		0 50
Toluene	ND		0 50
Xylenes, Total	ND		10
Gasoline Range Organics (GRO)-C5-C12	ND		50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8	83	77 - 121	
1,2-Dichloroethane-d4	93	73 - 130	

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-2814

Instrument ID: Saturn 3900B Analysis Batch: 720-2814 LCS Lab Sample ID: LCS 720-2814/3 Lab File ID: c:\saturnws\data\200512\1; Prep Batch: N/A Client Matrix: Air-Florida Tedlar Bag Units: mg/m3 Initial Weight/Volume: 10 mL 10 Dilution: Final Weight/Volume: 10 mL 12/08/2005 2207 Date Analyzed: Date Prepared: 12/08/2005 2207 Instrument ID: Saturn 3900B Analysis Batch: 720-2814 LCSD Lab Sample ID: LCSD 720-2814/2 Lab File ID: c:\saturnws\data\200512\12(Prep Batch: N/A Air-Florida Tedlar Bag Client Matrix: Initial Weight/Volume: 10 mL Units: mg/m3 Dilution: 10 Final Weight/Volume: 10 mL Date Analyzed: 12/08/2005 2259 12/08/2005 2259 Date Prepared:

	<u>9</u>	<u>6 Rec.</u>					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	112	113	69 - 129	1	25		
Toluene	116	120	70 - 130	3	25		
Surrogate	L.	CS % Rec	LCSD %	Rec	Accer	otance Limits	
Toluene-d8	8	5	84		7	7 - 121	
1,2-Dichloroethane-d4	8	5	85		7	3 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results

Job Number: 720-877-1

Client: ETIC Engineering, Inc

Lab Sample ID: MB 720-2959/4

10

Date Analyzed: 12/10/2005 0914 Date Prepared: 12/10/2005 0914

Dilution:

Method Blank - Batch: 720-2959

Client Matrix: Air-Florida Tedlar Bag

Method: 8260B Preparation: 5030B

Analysis Batch:720-2959Instrument ID:Saturn 3900BPrep Batch:N/ALab File ID:c:\saturnws\data\200512\12Units:mg/m3Initial Weight/Volume:10mLFinal Weight/Volume:10mL

Analyte	Result	Qual	RL	
Benzene	ND	******	0 50	•
Ethylbenzene	ND		0 50	
Toluene	ND		0 50	
Xylenes, Total	ND		10	
Gasoline Range Organics (GRO)-C5-C12	ND		50	
Surrogate	% Rec	Acceptan	ce Limits	-
Toluene-d8	85	77 -	121	
1,2-Dichloroethane-d4	104	73 -	130	

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-2959

12/10/2005 0849

Method: 8260B Preparation: 5030B

LCS Lab Sample ID Cllent Matrix: Dilution: Date Analyzed: Date Prepared:	: LCS 720-2959/3 Air-Florida Tedlar Bag 1 0 12/10/2005 1110 12/10/2005 1110	Analysis Batch: 720-2959 Prep Batch: N/A Units: mg/m3	Instrument ID: Salurn 3900B Lab File ID: c:\saturnws\data\200512\1; Initial Weight/Volume: 10 mL Final Welght/Volume: 10 mL
LCSD Lab Sample I Client Matrix: Dilution: Date Analyzed:	D: LCSD 720-2959/2 Air-Florida Tedlar Bag 1 0 12/10/2005 0849	Analysis Batch: 720-2959 Prep Batch: N/A Units: mg/m3	Instrument ID: Saturn 3900B Lab File ID: c:\saturnws\data\200512\121 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

	<u>9</u>	<u> Rec.</u>					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	116	112	69 - 129	3	25		
Toluene	121	118	70 - 130	3	25		
Surrogate	L	CS % Rec	LCSD %	Rec	Accer	otance Limits	
Toluene-d8	8	6	83		7	7 - 121	
1,2-Dichloroethane-d4	9	1	86		7	3 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results

Date Prepared:

Job Number: 720-877-1

1

Client: ETIC Engineering, Inc

Lab Sample ID: MB 720-2831/3

Dilution:

Method Blank - Batch: 720-2831

Client Matrix: Air-Florida Tedlar Bag

10

Date Analyzed: 12/08/2005 2233

Date Prepared: 12/08/2005 2233

Method: 8260B Preparation: 5030B

Instrument ID: No Equipment Assigned Lab File ID: N/A Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL Injection Volume:

Analyte	Result	Qual	RL
Benzene	ND		0 15
Toluene	ND		0 13
Ethylbenzene	ND		0 11
Xylenes, Total	ND		0 23
Gasoline Range Organics (GRO)-C5-C12	ND		11
Surrogate	% Rec	Accep	tance Limits
Toluene-d8	84		7 - 121
1,2-Dichloroethane-d4	90	73	3 - 130

Analysis Batch: 720-2831

Prep Batch: N/A

Units: ppm v/v

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-2831

Method: 8260B Preparation: 5030B

LCS Lab Sample ID Client Matrix: Dilution: Date Analyzed: Date Prepared:	9: LCS 720-2831/1 Air-Florida Tedlar Bag 1 0 12/08/2005 2207 12/08/2005 2207	Analysis Batch: 720-283 t Prep Batch: N/A Units: ppm v/v	Instrument ID: No Equipment Assigned Lab File ID: N/A Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL Injection Volume:
LCSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	ID: LCSD 720-2831/2 Air-Florida Tedlar Bag 1 0 12/08/2005 2259 12/08/2005 2259	Analysis Batch: 720-2831 Prep Batch: N/A Units:ppm v/v	Instrument ID: No Equipment Assigned Lab File ID: N/A Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL Injection Volume:

	9/	Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	112	113	69 - 129	1	20		
Toluene	116	108	70 - 130	7	20		
Surrogate	L.	CS % Rec	LCSD %	Rec	Accep	otance Limits	
Toluene-d8	8	7	85		7	7 - 121	
1,2-Dichloroethane-d4	8	3	83		7	3 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results

Job Number: 720-877-1

Client: ETIC Engineering, Inc

Lab Sample ID: MB 720-3054/3

Date Analyzed: 12/10/2005 0914

Date Prepared: 12/10/2005 0914

Dilution: 10

Method Blank - Batch: 720-3054

Client Matrix: Air-Florida Tedlar Bag

Method: 8260B Preparation: 5030B

Instrument ID: No Equipment Assigned Lab File ID: N/A Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL Injection Volume:

Analyte	Result	Qual	RL
Benzene	ND		0 15
Toluene	ND		0 13
Ethylbenzene	ND		0 11
Xylenes, Total	ND		0 23
Gasoline Range Organics (GRO)-C5-C12	ND		11
Surrogate	% Rec	Accept	ance Limits
Toluene-dB	93	77	- 121
1,2-Dichloroethane-d4	101	73	3 - 130

Analysis Batch: 720-3054

Prep Batch: N/A

Units: ppm v/v

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-3054

Method: 8260B Preparation: 5030B

LCS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: LCS 720-3054/1 Air-Florida Tedlar Bag 1 0 12/10/2005 1110 12/10/2005 1110	Analysis Batch: 720-3054 Prep Batch: N/A Units: ppm v/v	Instrument ID: No Equipment Assigned Lab File ID: N/A Initial Weight/Volume: 10 mL Final Welght/Volume: 10 mL Injection Volume:
LCSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	ID: LCSD 720-3054/2 Air-Florida Tedlar Bag 1 0 12/10/2005 0849 12/10/2005 0849	Analysis Batch: 720-3054 Prep Batch: N/A Units:ppm v/v	Instrument ID: No Equipment Assigned Lab File ID: N/A Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL Injection Volume:

	9	Re <u>c.</u>					
Analyte	LCS	LCSD	Limit	RPD	RPD Llmit	LCS Qual	LCSD Qual
Benzene	116	112	69 - 129	3	20		
Toluene	121	118	70 - 130	3	20		
Surrogate	L	CS % Rec	LCSD %	Rec	Accer	stance Limits	
Toluene-d8	8	7	85		7	7 - 121	
1,2-Dichloroethane-d4	8	8	83		7	3 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results

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Company:ETIC Engineering					ជា ដោ		125	۲ ۲		ទ		_	609 608			CRA		õ	Ą	ц.					
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Altn: Stephen Las	1		5-602-1		A M	EPA	Scl D	13 EP	(alde) (s)	c 0.0	ctatile A 82	d Gro	i and	λq	7 1/10		1 1 1 1 1 1	Hoxa PH (2	Spec						
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LOGIN SAMPLE RECEIPT CHECK LIST

Client: ETIC Engineering, Inc

Job Number: 720-877-1

Login Number: 877

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present	NA	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler Temperature is acceptable	True	
Cooler Temperature is recorded	True	
COC is present	True	
COC is filled out in ink and legible	True	
COC is filled out with all pertinent information	True	
There are no discrepancies between the sample IDs on the containers and the COC	False	TIME discrepancy logged by COC, sample Outlet 1410, Inlet 1415
Samples are received within Holding Time	True	
Sample containers have legible labels	True	
Containers are not broken or leaking	True	
Sample collection date/times are provided	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
There is sufficient vol for all requested analyses, incl any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

ANALYTICAL REPORT

Job Number: 720-900-1

Job Description: Strough Family Trust

For:

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

Attention: Ms. Kathy Brandt

Sharm a-

Dimple Sharma Project Manager I dsharma@stl-inc.com 12/23/2005

cc: Mr. Stephen Lao

METHOD SUMMARY

Client: ETIC Engineering, Inc.

Description		Lab Location	Method	Preparation Method
Matrix:	Water			
Volatile Or	ganic Compounds by GC/MS	STL-SF	SW846 8260	B
	Purge-and-Trap	STL-SF		SW846 5030B
Nonhaloge Range Ord	enated Organics using GC/FID -Modified (Diesel panics)	STL-SF	SW846 8015	iΒ
	Separatory Funnel Liquid-Liquid Extraction Silica Gel Cleanup	STL-SF STL-SF		SW846 3510C SW846 3630C

LAB REFERENCES:

STL-SF = STL-San Francisco

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates

SAMPLE SUMMARY

Client: ETIC Engineering, Inc.

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-900-1	EFFLUENT	Water	12/08/2005 1330	12/08/2005 1745
720-900-2	MIDFLUENT	Water	12/08/2005 1345	12/08/2005 1745
720-900-3	INFLUENT	Water	12/08/2005 1400	12/08/2005 1745

Client: ETIC Engineering, Inc.

Client Sample ID:	EFFLUENT		
Lab Sample ID:	720-900-1		Date Sampled: 12/08/2005 1330
Client Matrix:	Water		Date Received: 12/08/2005 1745
	8260B \	olatile Organic Compounds by	/ GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 1 0 12/22/2005 1517 12/22/2005 1517	Analysis Batch: 720-3467	Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200512\12 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene		ND	0 50
Toluene		ND	0.50
Ethylbenzene		ND	0.50
Xylenes, Total		ND	1.0
Gasoline		ND	50
Surrogate		%Rec	Acceptance Limits
Toluene-d8		109	77 - 121
1,2-Dichloroethane	e-d4	89	73 - 130

Job Number: 720-900-1

Client: ETIC Engineering, Inc.

Client Sample ID	: MIDFLUENT		
Lab Sample ID:	720-900-2		Date Sampled: 12/08/2005 1345
Client Matrix:	Water		Date Received: 12/08/2005 1745
	8260B '	Volatile Organic Compounds by	GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 1.0 12/21/2005 0039 12/21/2005 0039	Analysis Batch: 720-3469	Instrument ID: Varian 3900C Lab File ID: c:\saturnws\data\122005\72 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene	······································	ND	0.50
Toluene		ND	0 50
Ethylbenzene		ND	0 50
Xylenes, Total		ND	10

Gasoline	ND	50	
Surrogate	%Rec	Acceptance Limits	
Toluene-d8	94	77 - 121	
1,2-Dichloroethane-d4	95	73 - 130	

Client: ETIC Engineering, Inc.

Client Sample ID:	INFLUENT			
Lab Sample ID:	720-900-3		Date Sa	mpled: 12/08/2005 1400
Client Matrix:	Water		Date Re	ceived: 12/08/2005 1745
	8260B \	olatile Organic Compounds by	GC/MS	
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 25 12/22/2005 1539 12/22/2005 1539	Analysis Batch: 720-3467	Instrument II Lab File ID: Initial Weight Final Weight	c:\saturnws\data\200512\12 /Volume: 10 mL
Analyte		Result (ug/L)	Qualifier	RL
Benzene	an oronan a na Phinth cuil is bid s din sharabili shi bi bi bi bi bi da bi a shi di bi bi bi bi bi bi bi bi bi	260		13
Toluene		1500		13
Ethylbenzene		51		13
Xylenes, Total		5300		25
Gasoline		20000		1300
Surrogate		%Rec		Acceptance Limits
Toluene-d8		112	77 - 121	
1,2-Dichloroethane-d4		93		73 - 130

Client: ETIC Engineering, Inc.

Client Sample ID	: EFFLUENT			
Lab Sample ID:	720-900-1		Date Sampled: 12/08/2005 1330	
Client Matrix:	Water		Date Received: 12/08/2005 1745	
80)15B Nonhalogenated O	rganics using GC/FID -Modified	d (Diesel Range Organics)	
Method:	8015B	Analysis Batch: 720-3060	Instrument ID: HP DRO3	
Preparation:	3510C	Prep Batch: 720-2849	Lab File ID: N/A	
Dilution:	10		Initial Weight/Volume: 250 mL	
Date Analyzed:	12/13/2005 2012		Final Weight/Volume: 1 ml.	
Date Prepared:	12/12/2005 0827		Injection Volume:	
			Column ID: PRIMARY	
Analyte		Result (ug/L)	Qualifier RL	
Diesel (C10-C28)	9999 - 11 - 11 - 11 - 11 - 11 - 11 - 11	ND	50	
Surrogate		%Rec	Acceptance Limits	
o-Terphenyl		72	60 - 130	

Client: ETIC Engineering, Inc.

Client Sample ID	: MIDFLUENT					
Lab Sample ID:	720-900-2		Date Sampled: 12/08/2005 1345			
Client Matrix:	Water		Date Received: 12/08/2005 1745			
8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)						
Method:	8015B	Analysis Batch: 720-3060	Instrument ID: HP DRO3			
Preparation:	3510C	Prep Batch: 720-2849	Lab File ID: N/A			
Dilution:	1.0		Initial Weight/Volume: 250 mL			
Date Analyzed:	12/13/2005 2039		Final Weight/Volume: 1 mL			
Date Prepared:	12/12/2005 0827		Injection Volume:			
-			Column ID: PRIMARY			
Analyte		Result (ug/L)	Qualifier RL			
Diesel (C10-C28)		80	50			
Surrogate		%Rec	Acceptance Limits			
o-Terphenyl		77	60 - 130			

Client: ETIC Engineering, Inc.

Client Sample ID	: INFLUENT					
Lab Sample ID:	720-900-3		Date Sampled: 12/08/2005 1400			
Client Matrix:	Water		Date Received: 12/08/2005 1745			
8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)						
Method:	8015B	Analysis Batch: 720-3060	Instrument ID: HP DRO3			
Preparation:	3510C	Prep Batch: 720-2849	Lab File ID: N/A			
Dilution:	10		Initial Weight/Volume: 250 mL			
Date Analyzed:	12/13/2005 2107		Final Weight/Volume: 1 mL			
Date Prepared:	12/12/2005 0827		Injection Volume:			
			Column ID: PRIMARY			
Analyte		Result (ug/L)	Qualifier RL			
Diesel (C10-C28)		3100	50			
Surrogate		%Rec	Acceptance Limits			
o-Terphenyl		68	60 - 130			

DATA REPORTING QUALIFIERS

Lab Section

Qualifier

Description

Client: ETIC Engineering, Inc.

Job Number: 720-900-1

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
GC/MS VOA				
Analysis Batch:720-3	467	yn rywy yn ryfer odd ronn oll ollefolaethau farfallan frod anolfennor ar on ornan y fann 1967 (1979)	ynnen en yn er Andreig er en i'r feloren barlander ar an er ar bernene. Fer arh	
LCS 720-3467/3	Lab Control Spike	Water	8260B	
LCSD 720-3467/2	Lab Control Spike Duplicate	Water	8260B	
MB 720-3467/4	Method Blank	Water	8260B	
720-900-1	EFFLUENT	Water	8260B	
720-900-3	INFLUENT	Water	8260B	
Analysis Batch:720-3	469			
LCS 720-3469/15	Lab Control Spike	Water	8260B	
LCSD 720-3469/14	Lab Control Spike Duplicate	Water	8260B	
MB 720-3469/16	Method Blank	Water	8260B	
720-900-2	MIDFLUENT	Water	8260B	
GC Semi VOA				
Prep Batch: 720-2849				
LCS 720-2849/2-B	Lab Control Spike	Water	3510C	
LCSD 720-2849/3-B	Lab Control Spike Duplicate	Water	3510C	
MB 720-2849/1-B	Method Blank	Water	3510C	
720-900-1	EFFLUENT	Water	3510C	
720-900-2	MIDFLUENT	Water	3510C	
720-900-3	INFLUENT	Water	3510C	
Analysis Batch:720-3	060			
LCS 720-2849/2-B	Lab Control Spike	Water	8015B	720-2849
LCSD 720-2849/3-B	Lab Control Spike Duplicate	Water	8015B	720-2849
MB 720-2849/1-B	Method Blank	Water	8015B	720-2849
720-900-1	EFFLUENT	Water	8015B	720-2849
720-900-2	MIDFLUENT	Water	8015B	720-2849
720-900-3	INFLUENT	Water	8015B	720-2849

Job Number: 720-900-1

Client: ETIC Engineering, Inc

Method Blank - Batch: 720-3467

Lab Sample ID: MB 720-3467/4 Client Matrix: Water Dilution: 10 Date Analyzed: 12/22/2005 0951 Date Prepared: 12/22/2005 0951 Analysis Batch: 720-3467 Prep Batch: N/A Units: ug/L

Method: 8260B Preparation: 5030B

Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200512\12 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline	ND		50
Surrogate	% Rec	Acceptance Limits	5
Toluene-d8	111	77 - 121	
1.2-Dichloroethane-d4	94	73 - 130	

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-3467

Method: 8260B Preparation: 5030B

LCS Lab Sample ID Client Matrix: Dilution: Date Analyzed: Date Prepared:	0: LCS 720-3467/3 Water 1.0 12/22/2005 0908 12/22/2005 0908	Analysis Batch: 7 Prep Batch: N/A Units: ug/L	720-3467	Instrument ID: Varian 3900A Lab File ID: c:\saturnws\data\200512\1; Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
· · · ·	· · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
LCSD Lab Sample	ID: LCSD 720-3467/2	Analysis Batch: 7	720-3467	Instrument ID: Varian 3900A
Client Matrix:	Water	Prep Batch: N/A		Lab File ID: c:\saturnws\data\200512\122
Dilution:	1.0	Units: ug/L		Initial Weight/Volume: 10 mL
Date Analyzed:	12/22/2005 0930			Final Weight/Volume: 10 mL
Date Prepared:	12/22/2005 0930			

	%	Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	120	121	69 - 129	1	25		
Toluene	115	114	70 - 130	1	25		
Surrogate	LC	S % Rec	LCSD %	Rec	Accep	tance Limits	
Toluene-d8	11	1	113		7	7 - 121	
1,2-Dichloroethane-d4	87		87		7	3 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results

Job Number: 720-900-1

Client: ETIC Engineering, Inc.

Method Blank - Batch: 720-3469

Lab Sample ID:MB 720-3469/16Client Matrix:WaterDilution:1.0Date Analyzed:12/20/2005Date Prepared:12/20/20051642

Analysis Batch: 720-3469 Prep Batch: N/A Units: ug/L

Method: 8260B Preparation: 5030B

Instrument ID: Varian 3900C Lab File ID: c:\saturnws\data\122005\m Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Benzene	ND		0 50
Toluene	ND		0.50
Ethylbenzene	ND		0 50
Xylenes, Total	ND		10
Gasoline	ND		50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8	99	77 - 121	
1,2-Dichloroethane-d4	93	73 - 130	

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-3469

Method: 8260B Preparation: 5030B

LCS Lab Sample ID Client Matrix: Dilution: Date Analyzed: Date Prepared:	0: LCS 720-3469/15 Water 1 0 12/20/2005 1547 12/20/2005 1547	Analysis Batch: 720-3469 Prep Batch: N/A Units: ug/L	Instrument ID: Varian 3900C Lab File ID: c:\saturnws\data\122005\ls Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
			· ··· ······
LCSD Lab Sample	ID: LCSD 720-3469/14	Analysis Batch: 720-3469	Instrument ID: Varian 3900C
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\122005\ld-v
Dilution:	10	Units: ug/L	Initial Weight/Volume: 10 mL
Date Analyzed:	12/20/2005 1615		Final Weight/Volume: 10 mL
Date Prepared:	12/20/2005 1615		

	<u>% R</u>	<u> 3C.</u>				
Analyte	LCS	LCSD Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	121	121 69 - 129	0	25		
Toluene	116	118 70 - 130	1	25		
Surrogate	LCS	% Rec LCSD 9	% Rec	Accep	otance Limits	
Toluene-d8	97	95		7	7 - 121	
1,2-Dichloroethane-d4	92	89		7	3 - 130	

Job Number: 720-900-1

1

Client: ETIC Engineering, Inc.

Method Blank - Batch: 720-2849		Method: 8015B Preparation: 3510C
Lab Sample ID:MB 720-2849/1-BClient Matrix:WaterDilution:1.0Date Analyzed:12/13/2005Date Prepared:12/12/2005	Analysis Batch: 720-3060 Prep Batch: 720-2849 Units: ug/L	0 Instrument ID: HP DRO3 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY
Analyte	Result	Qual RL
Diesel (C10-C28)	ND	50
Surrogate	% Rec	Acceptance Limits
o-Terphenyl	77	60 - 130
Laboratory Control/ Laboratory Control Duplicate Recover	y Report - Batch: 720-28	Method: 8015B 849 Preparation: 3510C
LCS Lab Sample ID: LCS 720-2849/2-BClient Matrix:WaterDilution:1.0Date Analyzed:12/13/2005 1212Date Prepared:12/12/2005 0827	Analysis Batch: 720-306 Prep Batch: 720-2849 Units: ug/L	060 Instrument ID: HP DRO3 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY
LCSD Lab Sample ID: LCSD 720-2849/3-BClient Matrix:WaterDilution:1.0Date Analyzed:12/13/2005 1239Date Prepared:12/12/2005 0827	Analysis Batch: 720-306 Prep Batch: 720-2849 Units: ug/L	060 Instrument ID: HP DRO3 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY
Analyte	<u>% Rec.</u> LCS LCSD Lim	nit RPD RPD Limit LCS Qual LCSD Qual
Diesel (C10-C28)	96 95 60 -	- 130 1 30
Surrogate	LCS % Rec L	LCSD % Rec Acceptance Limits
o-Terphenyl	83 8	82 60 - 130

SEWERN STL 720-96 San Francisco Chain of Custody 1220 Quarry Lane • Pleasanton CA 94566-4756 Phone: (925) 484-1919 • Fax: (925) 484-1096

Reference #: 1143890

e: (925) 484-	1919	0	Fax:	(925)	484-1	109
Email:	www	.stl	-inc.c	com		

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Alln: Tom Neely, Stephen	120								1								[a de la companya de l			
Company:ETIC Engineerin	g				1 					(S)			606 608			8		-	*	u O		A NUMBER OF CONTRACTOR			
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Phone: 925-602-7410 ×38	Email: sl	ao@etic	ceng.cc	m		0826	S I I		SUC	SMS 024	68	Petro Total	8081 8082	۵	£			romik ma k	DD A H						ង
Bill To: ETIC Engineering		ampled [+ C II 46		(f #	CI 8015/8021 CI 82608 CI 81EX CI MT8E	Aromatics A - CI 6021 CI 82608	0151/ 1 Viator C	82608: (D 0CA,	llocarbi A 8021	alles GC	SC MA	00	L EPA	1 8270	15 170/747		W.E.T (STLC) TCLP	Hexavalent Chromium pH (24h hold time for H ₂ O)	Cand. 1						Intainer
Altn: Stephen Lao		ione: 92			- UU \$ 3	pA -		s EPA Adas	Ae He	Orga 8260	atiles 8270	Grea; 64)		□ ≽	Metal 10/72			5X8V8	Spec C	00					C T
Sample ID	Date	Time	Matri X	Pre ser	TPH EPA - (E Gas W	Purgeable A BTEX EPA	TEPH EPA 8015M (2) Silica Gol Silicasi 🗆 Motor Oil 🗆 Other	Fuci Tests EPA 82608: CI Gas CI BTEX Five Oxyencess CI DOA, ED0 CI Ethano	Purgeable Halocarbons (HVOCs) EPA 8021	Vetatile Organics GC/MS (VOCs) C EPA 82603 C 024	Semivolatiles GC/MS D EPA 8270 D 625	Oil and Grease (EPA 1664)	Pasticides PCBs	PNAs by	CAM17 Metals (EPA 6010/7470/7471)	Metals ⁻ El Lead El LUFT El Othen	\$ ¥ 0 0		52	Anicna :					Number of Cantainers
Effluent	12-18-69	1770	H₂O		X		X				<u> </u>														5
Midfluent		1945	H₂O		X		X										1								5
Influent	V	1400	H ₂ O		X		X																		5
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## LOGIN SAMPLE RECEIPT CHECK LIST

## Client: ETIC Engineering, Inc.

Job Number: 720-900-1

## Login Number: 900

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present	NA	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels	True	
Containers are not broken or leaking	True	
Sample collection date/times are provided	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	



Quarterly Monitoring Laboratory Analytical Results

.

## ANALYTICAL REPORT

Job Number: 720-962-1

Job Description: Strough Family Trust

For:

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

Attention: Ms. Kathy Brandt

Maron R

Dimple Sharma Project Manager I dsharma@stl-inc.com 12/23/2005

cc: Mr. Stephen Lao Mr. Thomas Neely

#### METHOD SUMMARY

#### Client: ETIC Engineering, Inc.

Descript	ion	Lab Location	Method	Preparation Method		
Matrix:	Water					
Volatile O	rganic Compounds by GC/MS	STL-SF	SW846 8260	3		
	Purge-and-Trap	STL-SF		SW846 5030B		
Nonhaloge Range Ore	enated Organics using GC/FID -Modified (Diesel ganics)	STL-SF	SW846 80158	3		
	Separatory Funnel Liquid-Liquid Extraction Silica Gel Cleanup	STL-SF STL-SF		SW846 3510C SW846 3630C		

#### LAB REFERENCES:

STL-SF = STL-San Francisco

#### **METHOD REFERENCES:**

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates

## SAMPLE SUMMARY

## Client: ETIC Engineering, Inc

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-962-1	MW2	Water	12/12/2005 1610	12/13/2005 1540
720-962-2	MW3	Water	12/12/2005 1645	12/13/2005 1540
720-962-3	MW4	Water	12/12/2005 1517	12/13/2005 1540
720-962-4	MW6	Water	12/12/2005 1558	12/13/2005 1540

## Client: ETIC Engineering, Inc.

Client Sample ID	: MW2		
Lab Sample ID:	720-962-1		Date Sampled: 12/12/2005 1610
Client Matrix:	Water		Date Received: 12/13/2005 1540
	8260B Vo	latile Organic Compounds by	GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 50 12/16/2005 2109 12/16/2005 2109	Analysis Batch: 720-3205	Instrument ID: Saturn 3900B Lab File ID: c:\saturnws\data\200512\12 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene		670	25
Ethylbenzene		1100	25
MTBE		65	25
Toluene		5300	25
Xylenes, Total		9800	50
Gasoline Range C	rganics (GRO)-C5-C12	34000	2500
Surrogate		%Rec	Acceptance Limits
Toluene-d8	***********	89	77 - 121
1,2-Dichloroethan	e-d4	110	73 - 130

#### Client: ETIC Engineering, Inc.

Client Sample ID:	MW3		
Lab Sample ID:	720-962-2		Date Sampled: 12/12/2005 1645
Client Matrix:	Water		Date Received: 12/13/2005 1540
	8260B Vo	latile Organic Compounds by	GC/MS
Method:	8260B	Analysis Batch: 720-3468	Instrument ID: Saturn 3900B
Preparation:	5030B		Lab File ID: c:\saturnws\data\200512\12
Dilution:	20		Initial Weight/Volume: 10 mL
Date Analyzed:	12/20/2005 2046		Final Weight/Volume: 10 mL
Date Prepared:	12/20/2005 2046		
Analyte		Result (ug/L)	Qualifier RL
Benzene		200	10
Ethylbenzene		450	10
MTBE		ND	10
Toluene		710	10
Xylenes, Total		1400	20
Gasoline Range O	rganics (GRO)-C5-C12	7000	1000
Surrogate		%Rec	Acceptance Limits
Toluene-d8		97	77 - 121
1,2-Dichloroethane	e-d4	121	73 - 130

#### Client: ETIC Engineering, Inc.

Client Sample ID	: MW4		
Lab Sample ID: Client Matrix:	720-962-3 Water		Date Sampled: 12/12/2005 1517 Date Received: 12/13/2005 1540
	8260B V	olatile Organic Compounds by	GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 10 12/20/2005 2112 12/20/2005 2112	Analysis Batch: 720-3468	Instrument ID: Saturn 3900B Lab File ID: c:\saturnws\data\200512\12 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene		ND	5.0
Ethylbenzene		ND	50
MTBE		1000	50
Toluene		ND	5 0
Xylenes, Total		ND	10
Gasoline Range C	Drganics (GRO)-C5-C12	820	500
Surrogate		%Rec	Acceptance Limits
Toluene-d8	ty name also be defined and a second seco	94	77 - 121
1,2-Dichloroethar	ne-d4	122	73 - 130

## Client: ETIC Engineering, Inc.

Client Sample ID	: MW6		
Lab Sample ID:	720-962-4		Date Sampled: 12/12/2005 1558
Client Matrix:	Water		Date Received: 12/13/2005 1540
	8260B Vo	latile Organic Compounds by	GC/MS
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8260B 5030B 1 0 12/17/2005 0100 12/17/2005 0100	Analysis Batch: 720-3205	Instrument ID: Saturn 3900B Lab File ID: c:\saturnws\data\200512\12 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
Analyte		Result (ug/L)	Qualifier RL
Benzene		0 62	0 50
Ethylbenzene		ND	0 50
MTBE		140	0 50
Toluene		ND	0 50
Xylenes, Total		10	1.0
Gasoline Range O	rganics (GRO)-C5-C12	81	50
Surrogate		%Rec	Acceptance Limits
Toluene-d8	gy it glann y ly hy he blie ann i dean an bai ann ait de ann air a da bhinn a marach an ann far a la mBhird da bhill All 1999. Ann air	87	77 - 121
1,2-Dichloroethan	e-d4	106	73 - 130

Client: ETIC Engineering, Inc.

Client Sample ID	: MW2		
Lab Sample ID:	720-962-1		Date Sampled: 12/12/2005 1610
Client Matrix:	Water		Date Received: 12/13/2005 1540
80	)15B Nonhalogenated O	organics using GC/FID -Modifie	d (Diesel Range Organics)
Method:	8015B	Analysis Batch: 720-3081	Instrument ID: Varian DRO1
Preparation:	3510C	Prep Batch: 720-3035	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 250 mL
Date Analyzed:	12/15/2005 2016		Final Weight/Volume: 1 mL
Date Prepared:	12/14/2005 1333		Injection Volume:
			Column ID: PRIMARY
Analyte		Result (ug/L)	Qualifier RL
Diesel Range Org	anics [C10-C28]	2800	50
	Organics [C24-C36]	ND	500
Surrogate		%Rec	Acceptance Limits
o-Terphenyl	marananan dalamatiran − ar baranan bir dalama ya ya marana dalama ya ya marana dalama dalama dalama dalama dala	65	60 - 130

Client: ETIC Engineering, Inc

Client Sample ID	: MW3		
Lab Sample ID:	720-962-2		Date Sampled: 12/12/2005 1645
Client Matrix:	Water		Date Received: 12/13/2005 1540
80	15B Nonhalogenated C	Organics using GC/FID -Modified	d (Diesel Range Organics)
Method:	8015B	Analysis Batch: 720-3081	Instrument ID: Varian DRO1
Preparation:	3510C	Prep Batch: 720-3035	Lab File ID: N/A
Dilution:	10		Initial Weight/Volume: 250 mL
Date Analyzed:	12/15/2005 2042		Final Weight/Volume: 1 mL
Date Prepared:	12/14/2005 1333		Injection Volume:
			Column ID: PRIMARY
Analyte		Result (ug/L)	Qualifier RL
Diesel Range Orga	anics [C10-C28]	550	50
Motor Oil Range C	Organics [C24-C36]	ND	500
Surrogate		%Rec	Acceptance Limits
o-Terphenyl		72	60 - 130

#### Client: ETIC Engineering, Inc.

Client Sample ID	): MW4		
Lab Sample ID: Client Matrix:	720-962-3 Water		Date Sampled: 12/12/2005 1517 Date Received: 12/13/2005 1540
8(	)15B Nonhalogenated C	Organics using GC/FID -Modifie	d (Diesel Range Organics)
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8015B 3510C 1 0 12/15/2005 2108 12/14/2005 1333	Analysis Batch: 720-3081 Prep Batch: 720-3035	Instrument ID: Varian DRO1 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY
Analyte		Result (ug/L)	Qualifier RL
Diesel Range Org Motor Oil Range 0	anics [C10-C28] Drganics [C24-C36]	ND ND	50 500
Surrogate		%Rec	Acceptance Limits
o-Terphenyl	**************************************	67	60 - 130

Client: ETIC Engineering, Inc.

Client Sample ID	): MW6		
Lab Sample ID: Client Matrix:	720-962-4 Water		Date Sampled: 12/12/2005 1558 Date Received: 12/13/2005 1540
80	015B Nonhalogenated O	rganics using GC/FID -Modifie	d (Diesel Range Organics)
Method: Preparation: Dilution: Date Analyzed: Date Prepared:	8015B 3510C 1 0 12/15/2005 2135 12/14/2005 1333	Analysis Batch: 720-3081 Prep Batch: 720-3035	Instrument ID: Varian DRO1 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY
Analyte		Result (ug/L)	Qualifier RL
Diesel Range Org Motor Oil Range (	anics [C10-C28] Organics [C24-C36]	ND ND	50 500
Surrogate		%Rec	Acceptance Limits
o-Terphenyl	a an a th annual and annual mannan ann ann ann ann an ann an ann an	65	60 - 130

## DATA REPORTING QUALIFIERS

Client: ETIC Engineering, Inc.

Lab Section	Qualifier	Description
GC/MS VOA		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

## Client: ETIC Engineering, Inc.

#### Job Number: 720-962-1

#### **QC Association Summary**

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
GC/MS VOA				
Analysis Batch:720-320	)5			
LCS 720-3205/13	Lab Control Spike	Water	8260B	
LCSD 720-3205/12	Lab Control Spike Duplicate	Water	8260B	
MB 720-3205/14	Method Blank	Water	8260B	
720-962-1	MW2	Water	8260B	
720-962-1MS	Matrix Spike	Water	8260B	
720-962-1MSD	Matrix Spike Duplicate	Water	8260B	
720-962-4	MVV6	Water	8260B	
Analysis Batch:720-346	58			
LCS 720-3468/15	Lab Control Spike	Water	8260B	
LCSD 720-3468/14	Lab Control Spike Duplicate	Water	8260B	
MB 720-3468/16	Method Blank	Water	8260B	
720-962-2	MW3	Water	8260B	
720-962-3	MW4	Water	8260B	
GC Semi VOA				
Prep Batch: 720-3035				
LCS 720-3035/2-B	Lab Control Spike	Water	3510C	
LCSD 720-3035/3-B	Lab Control Spike Duplicate	Water	3510C	
MB 720-3035/1-B	Method Blank	Water	3510C	
720-962-1	MW2	Water	3510C	
720-962-2	MVV3	Water	3510C	
720-962-3	MW4	Water	3510C	
720-962-4	MW6	Water	3510C	
Analysis Batch:720-308	31			
LCS 720-3035/2-B	Lab Control Spike	Water	8015B	720-3035
LCSD 720-3035/3-B	Lab Control Spike Duplicate	Water	8015B	720-3035
MB 720-3035/1-B	Method Blank	Water	8015B	720-3035
720-962-1	MW2	Water	8015B	720-3035
720-962-2	MW3	Water	8015B	720-3035
720-962-3	MW4	Water	8015B	720-3035
720-962-4	MW6	Water	8015B	720-3035

Job Number: 720-962-1

#### Client: ETIC Engineering, Inc.

#### Method Blank - Batch: 720-3205

#### Method: 8260B Preparation: 5030B

Lab Sample ID: MB 720-3205/14	Analysis Batch: 720-3205	Instrument ID: Saturn 3900B
Client Matrix: Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200512\12
Dilution: 10	Units: ug/L	Initial Weight/Volume: 10 mL
Date Analyzed: 12/16/2005 1827		Final Weight/Volume: 10 mL
Date Prepared: 12/16/2005 1827		

Analyte	Result	Qual	RL
Benzene	ND		0 50
Ethylbenzene	ND		0 50
MTBE	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Gasoline Range Organics (GRO)-C5-C12	ND		50
Surrogate	% Rec	Acceptance Li	mits
Toluene-d8	91	77 - 121	
1,2-Dichloroethane-d4	92	73 - 130	

Job Number: 720-962-1

#### Client: ETIC Engineering, Inc

#### Method: 8260B Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 720-3205 Preparation: 5030B LCS Lab Sample ID: LCS 720-3205/13 Analysis Batch: 720-3205 Instrument ID: Saturn 3900B c:\saturnws\data\200512\1; Client Matrix: Water Prep Batch: N/A Lab File ID: Units: ug/L Initial Weight/Volume: 10 mL Dilution: 10 Date Analyzed: 12/16/2005 1735 Date Prepared: 12/16/2005 1735 Final Weight/Volume: 10 mL

LCSD Lab Sample	ID: LCSD 720-3205/12	Analysis Batch: 720-3205	Instrument ID: Saturn 3900B
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200512\121
Dilution:	10	Units: ug/L	Initial Weight/Volume: 10 mL
Date Analyzed:	12/16/2005 1801		Final Weight/Volume: 10 mL
Date Prepared:	12/16/2005 1801		

	<u>%</u>	<u>Rec.</u>					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	116	114	69 - 129	2	25	********	
MTBE	102	103	65 - 165	2	25		
Toluene	119	121	70 - 130	2	25		
Surrogate	L	CS % Rec	LCSD %	Rec	Acce	ptance Limits	
Toluene-d8	9	0	90		7	7 - 121	
1,2-Dichloroethane-d4	8	9	90		ī	/3 - 130	

Client: ETIC Engineering, Inc.

Job Number: 720-962-1

#### Matrix Spike/

## Matrix Spike Duplicate Recovery Report - Batch: 720-3205

#### Method: 8260B Preparation: 5030B

MS Lab Sample ID: Client Matrix: Dilution: Date Analyzed: Date Prepared:	720-962-1 Water 50 12/16/2005 2135 12/16/2005 2135	Analysis Batch: Prep Batch: N/A	Instrument ID: Saturn 3900B Lab File ID: c:\saturnws\data\200512\ Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
MSD Lab Sample ID: Client Matrix: Dilution: Date Analyzed: Date Prepared:		Analysis Batch: Prep Batch: N/A	Instrument ID: Saturn 3900B Lab File ID: c:\saturnws\data\200512\12 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

	<u>%</u>	Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Q	ual MSD Qual
Benzene	118	118	69 - 129	0	20		
МТВЕ	109	110	65 - 165	1	20		
Toluene	130	114	70 - 130	3	20	4	4
Surrogate		MS % Rec	MSD 9	% Rec	Acce	eptance L	imits
Toluene-d8		92	90		7	7 - 121	
1,2-Dichloroethane-d4		97	96		7	3 - 130	

Job Number: 720-962-1

## Client: ETIC Engineering, Inc.

#### Method Blank - Batch: 720-3468

#### Method: 8260B Preparation: 5030B

Lab Sample ID: MB 720-3468/16	Analysis Batch: 720-3468	Instrument ID: Saturn 3900B
Client Matrix: Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200512\12
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 10 mL
Date Analyzed: 12/20/2005 1502		Final Weight/Volume: 10 mL
Date Prepared: 12/20/2005 1502		

Analyte	Result	Qual	RL
Benzene	ND		0 50
Ethylbenzene	ND		0 50
MTBE	ND		0 50
Toluene	ND		0 50
Xylenes, Total	ND		10
Gasoline Range Organics (GRO)-C5-C12	ND		50
Surrogate	% Rec	Acceptance	Limits
Toluene-d8	93	77 - 12	1
1,2-Dichloroethane-d4	114	73 - 130	D

Client: ETIC Engineering, Inc.

Job Number: 720-962-1

# Laboratory Control/ Method: 8260B Laboratory Control Duplicate Recovery Report - Batch: 720-3468 Preparation: 5030B

LCS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: LCS 720-3468/15 Water 1 0 12/20/2005 1410 12/20/2005 1410	Analysis Batch: 720-3468 Prep Batch: N/A Units: ug/L	Instrument ID: Saturn 3900B Lab File ID: c:\saturnws\data\200512\1: Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL
LCSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	ID: LCSD 720-3468/14 Water 1.0 12/20/2005 1436 12/20/2005 1436	Analysis Batch: 720-3468 Prep Batch: N/A Units:ug/L	Instrument ID: Saturn 3900B Lab File ID: c:\saturnws\data\200512\122 Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

	9	Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	106	110	69 - 129	4	25	14-1	ang a success of the second
MTBE	114	100	65 - 165	12	25		
Toluene	109	112	70 - 130	3	25		
Surrogate	L	CS % Rec	LCSD %	Rec	Accer	otance Limits	)
Toluene-d8	9	3	95		7	7 - 121	
1,2-Dichloroethane-d4	1	03	96		7	3 - 130	

Job Number: 720-962-1

Client: ETIC Engineering, Inc.

Method Blank -	Batch: 720-3035					Method: 8015B Preparation: 3510C			
Lab Sample ID: M Client Matrix: W Dilution: 1 Date Analyzed: 12 Date Prepared: 12	/ater 0 2/15/2005 0507	Prep I	sis Batch: 720 3atch: 720-30 ug/L			Instrument ID: Varian DRO1 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY			
Analyte			Result		Qual	RL			
Diesel Range Orga Motor Oil Range C	anics [C10-C28] Organics [C24-C36]		ND ND			50 500			
Surrogate			% Rec			Acceptance Limits			
o-Terphenyl			85			60 - 130			
Laboratory Cor Laboratory Cor	ntrol/ ntrol Duplicate Recover	y Repo	rt - Batch: 7	20-3035		Method: 8015B Preparation: 3510C			
LCS Lab Sample I Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: LCS 720-3035/2-B Water 1 0 12/15/2005 0534 12/14/2005 1333	Prep	lysis Batch: 7: b Batch: 720-3 s: ug/L			Instrument ID: Varian DRO1 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY			
LCSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	e ID: LCSD 720-3035/3-B Water 1 0 12/15/2005 0600 12/14/2005 1333	Prep	lysis Batch: 7 5 Batch: 720-3 s:ug/L			Instrument ID: Varian DRO1 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY			
Analyte		LCS	<u>% Rec.</u> LCSD	Limit	RPE	RPD Limit LCS Qual LCSD Qual			
Diesel Range Org	anics [C10-C28]	79	80	60 - 130	) 2	30			
Surrogate			LCS % Rec	LCSD	D % Rec Acceptance Limits				
o-Terphenyl			89	107		60 - 130			

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Company: ETIC Engineering			*****	E MTBE	and and a shake a shake a	Gel	1		(\$)			608 608			AN I		ñ	\$	u. D				
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Bill To: ETIC Engineering	Sample	ed By: Linet	زدل	A Method: El 825 TPH-Gas w/ El	Purgeable Aromatics BTEX EPA - [] 8021 [] 82638	TEPH EPA 8015M	Fuel Tests EPA 82639: II Gas II BTEX Five Oxyenates II OCA, EDG II Efsand	Purgeable Halocarbons (HVOCs) EPA 8021	Velatite Organics GC/MS (VOCs)	s GC/MS 0 [] 625	00	<pre>C EPA 8081 C EPA 8082</pre>	O 8270	CAM17 Meteis (EPA 6010/7470/7471)	Metals: D Load D LUFT D Other	W.E.T (STLC) TCLP	Hexavalant Chronium pH (24h hold time far H _r O)	Spec Cond. TSS					Number of Containers
Attn: Accounts Payable	Phone:	602-4710	x27	ethoo 4-Gae	ible A	EPA	th fill	1910 - 12) EF	0 0rg	statile \$ 827	1 Gree	des	1	7 Mol		CLP CLP	łaxa. H (2	SS					r of (
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## LOGIN SAMPLE RECEIPT CHECK LIST

Job Number: 720-962-1

#### Login Number: 962

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible	True	
COC is filled out with all pertinent information	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time	True	
Sample containers have legible labels	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
There is sufficient vol for all requested analyses, incl any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	