

# THRIFTY OIL CO.

January 7, 2013

O.1319

Mr. Paresh Khatri  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, CA 94502

Local #RO0000004  
RWQCB #01-1478  
EDF # 9894727587

RE: **Former Thrifty Oil Co. Station #049**  
3400 San Pablo Avenue  
Oakland, CA 94612  
**Fourth Quarter 2012, Status Report and Request  
for Low-Threat Underground Storage Tank Case Closure**

**RECEIVED**

*By Alameda County Environmental Health at 4:17 pm, Jan 17, 2013*

Dear Mr. Khatri:

Presented herein is the Fourth Quarter 2012, Status Report and Request for Low-Threat Underground Storage Tank (UST) Case Closure prepared for former Thrifty Oil Co. (Thrifty) Station #049 located at 3400 San Pablo Avenue, Oakland, California (**Figure 1**). Presented in this report are the results of the Fourth Quarter 2012 groundwater-monitoring program. Thrifty has retained the services of Earth Management Company (EMC) to conduct quarterly groundwater monitoring and sampling at this site.

The Fourth Quarter 2012 groundwater monitoring event completes the four quarters of groundwater monitoring required by the ACHCS in a letter dated February 23, 2012 and addressed to Thrifty. Fourth Quarter 2012 sampling results indicate maximum benzene and MTBE concentrations at 83 micrograms per liter ( $\mu\text{g/L}$ ), 34  $\mu\text{g/L}$  and no TBA concentrations above the laboratory method detection limit (MDL) of 5.2  $\mu\text{g/L}$ , respectively.

Fourth Quarter 2012 results indicate a significant decrease from the anomalous high concentrations observed in the Second Quarter 2012, and more closely compare with historical concentrations which have been stable to decreasing over the last several quarters. Thrifty believes that the results of previously reported site assessment activities as well as the results of historical groundwater data indicate the Thrifty hydrocarbon plume has been defined, is stable, is essentially restricted to the site property, and will continue to diminish through natural attenuation. The Thrifty hydrocarbon plume at the site therefore poses very little to no threat to human health or the environment.

Thrifty believes that the current Site conditions and remediation activities completed at the Site warrant Low-Threat Underground Storage Tank Case Closure in accordance with the May 1, 2012 State Water Resources Control Board Low-Threat Underground Storage Tank Case Closure Policy and we have provided a completed Low-Threat UST Case Closure checklist in **Appendix D**.

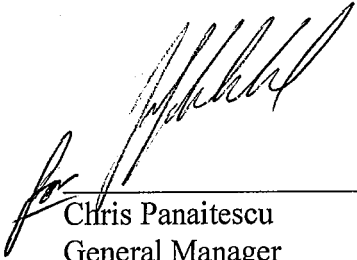


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I declare, under penalty of perjury, that the information and/or recommendations contained in this document are true and correct to the best of my knowledge.

Should you have any questions regarding this report, please contact Simon Tregurtha at (562) 921-3581 Ext. 260, or myself at Ext. 390.

Respectfully submitted,



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Chris Panaitescu  
General Manager  
Environmental Affairs

cc: File

**Summary of Monitoring and Sampling Activities**  
**Thrifty Oil Co. Station #049**  
**Fourth Quarter 2012**  
**Reporting Period: 09/31/2012 to 12/31/2012**

**Site Information:**

Site address:	TOC SS #049 (ARCO #9535) 3400 San Pablo Avenue Oakland, CA
Global ID No.:	T0600101365
EDF Confirmation No.:	9894727587
Lead Agency No.:	Local #RO0000004
Lead Agency:	Alameda County Health Care Services
Agency Contact:	Mr. Paresh Khatri / 510 777-2478
Project Manager:	Simon Tregurtha / 562-921-3581 ext. 260

**Field Activity:**

Groundwater wells onsite:	8
Groundwater wells offsite:	0
Date(s) monitored:	December 4, 2012
Date(s) sampled:	December 4, 2012
Groundwater wells gauged:	8
Groundwater wells sampled:	8
Purging method:	Bailer / Pump
Treatment / disposal method during sampling event:	Existing groundwater treatment system on-site
Groundwater wells with free product:	0
Free product thickness (feet):	NA
Free product bailouts other than sampling event:	NA
Treatment / disposal method/free product bailouts:	NA

**Site Hydrogeology:**

Depth to groundwater (feet bgs):	4.36 to 5.46
Groundwater elevation (feet above mean sea level):	25.26 to 27.98
Groundwater gradient and flow direction:	Variable; mainly westerly at approx. 0.02 ft/ft
Consistent with previous quarter:	Varies slightly from previous quarter

**Groundwater Conditions:**

TPHg concentration (ug/L):	ND<6.6 to 10,300 (MW-3)
Benzene concentration (ug/L):	ND<0.18 to 83 (MW-3)
Toluene concentration (ug/L):	ND<0.24 to 2,100 (MW-3)
Ethyl benzene concentration (ug/L):	ND<0.21 to 350 (MW-3)
Total Xylenes concentration (ug/L):	ND<0.45 to 1,900 (MW-3)
MTBE concentration (ug/L):	ND<0.19 to 34 (MW-3)
DIPE concentration (ug/L):	ND<0.20 (all wells)

ETBE concentration (ug/L):	ND<0.23 (all wells)
TAME concentration (ug/L):	ND<0.19 to 3.9 (MW-3)
TBA concentration (ug/L):	ND<5.2 (all wells)
Ethanol concentration (mg/L)	ND<0.100 to 13.000 (MW-3)

**Remediation Activity (1) :**

Activity:	Soil excavation during UST removal
When Occurred:	March 1998
Hydrocarbon impacted soil removed:	1,093 tons (3,697 pounds of hydrocarbons, based 1,691 mg/kg average soil concentration)

**Remediation Activity (2):**

System type:	Mobile HVDPE
Period Conducted	March 22 through 27, 2010 and August 4 to September 4, 2010.
Operation this Semester (hrs):	0
Cumulative Operation (hrs):	840
GW removed this Semester (gals):	0
Cumulative GW removed (gals):	25,349 (included in the volume reported for the GWPT system – see below)
Vapor Phase Hydrocarbons removed this Semester (lbs):	0
Cumulative Vapor Phase Hydrocarbons removed (lbs):	2,124.37

**Remediation Activity (3):**

System type:	GWPT
System start-up:	4/8/91 (Upgraded System Start-Up 6/21/04)
Operation this Semester (hrs.):	NA
Cumulative Operation (hrs.):	NA
GW discharge this Semester (gal.):	0
Total GW discharge (gal.):	2,684,436 (System permanently shutdown on 4/28/11)

**Total Remediation Achievements through December 28, 2012:**

Total groundwater removed (gals):	2,684,436
Total pounds of hydrocarbon removed (lbs):	2,124.37 + 3,697 = 5,821.37

**Groundwater Monitoring**

Depth to groundwater is measured in each monitoring well on a quarterly basis in accordance with the requirements of the ACHCS letter dated February 23, 2012. Groundwater monitoring well locations for former Thrifty Station #049 at 3400 San Pablo Avenue and the former Shell Station at 3420 San Pablo Avenue are presented on **Figure 1**. A groundwater elevation contour map based on the Fourth Quarter 2012

monitoring data is presented in **Figure 1**. Groundwater elevation data indicates a generally westerly flow direction at 0.02 feet/feet.

### **Quarterly Groundwater Sampling**

As part of the groundwater-monitoring program, Earth Management Company (EMC) obtained groundwater samples from monitoring wells MW-1, MW-2R, MW-3, MW-4R, MW-5, MW-6, MW-7, and RW-1R on December 4, 2012. Groundwater samples were delivered by EMC in a chilled state following strict Chain-of-Custody procedures to a state-certified laboratory and analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015B. Volatile organic compounds of benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tert butyl ether (MTBE), and other oxygenates (including ethanol) were analyzed by EPA Method 8260B. Fourth Quarter 2012 groundwater sampling and monitoring results are included in the **Summary Table**. A summary of historical analytical sampling results for TPHg, BTEX, MTBE and ethanol is provided in **Table 1** and additional oxygenates in **Table 2**. Copies of the EMC Field Data Groundwater Sampling Forms are provided in **Appendix A**, and copies of the laboratory analytical reports are contained in **Appendix B**.

TPHg, benzene, MTBE, tertiary butyl alcohol (TBA) and ethanol isoconcentration maps were prepared using Thrifty's data from the December 4, 2012 sampling event, and results are presented in **Figures 2, 3, 4, 5 and 6**, respectively. Laboratory results indicate that the maximum concentrations of TPHg and benzene were detected in well MW-3 at 10,300 micrograms per liter ( $\mu\text{g/L}$ ) and 83  $\mu\text{g/L}$ , respectively. The maximum MTBE concentration was detected in well MW-3 at 34  $\mu\text{g/L}$ . TAME was detected in one well (MW-3) at a concentration of 3.9  $\mu\text{g/L}$ . TBA and ETBE were not detected in any wells. Ethanol was detected in 5 of the 8 site wells with a maximum concentration detected in well MW-3 at 13.000 mg/L.

Fourth Quarter 2012 results indicate a significant decrease from the anomalous high concentrations observed in the Second Quarter 2012 (with the exception of ethanol), and more closely compare with historical concentrations which have been stable to decreasing over the last several quarters (the groundwater remediation system was permanently shut down on April 28, 2011). The Thrifty hydrocarbon plume at the site therefore poses very little to no threat to human health or the environment.

As mentioned earlier, ethanol was detected in groundwater samples collected from 5 of the 8 site wells during the Fourth Quarter 2012 sampling event, including first-time detections in wells MW-1, MW-3 and MW-7. The current and historical presence of ethanol (since year 2009) in several site wells strongly suggests that release(s) have occurred from a source other than Thrifty. Thrifty terminated their operation of the station and USTs and associated piping in May 1997 and this first generation of USTs and associated piping were removed from the site in March 1998 at which time ethanol was not used as a gasoline additive. The ethanol has likely originated from ARCO (who operated the station from May 1997 to May 2012), from Tesoro (who has operated the station from May 2012 to present), or from the adjacent and cross gradient Shell Station located at 3420 San Pablo Avenue, Oakland, CA.

Historic groundwater elevations and concentrations over time for each of the eight site wells is presented in graphs 1 through 8 and included in **Appendix C**.

## **Remediation Status**

Site remedial activities were initiated in April 1991. Originally, the remediation equipment consisted of a Groundwater Treatment System using activated carbon, with groundwater extraction from recovery well RW-1. On April 4, 2003, the system was shut off for upgrading activities. As of April 4, 2003, the system treated approximately 1,445,088 gallons of groundwater since start up (April 1991).

In 2004 Thrifty selected Advanced GeoEnvironmental (AGE) to conduct remedial system upgrade activities including installation of a new treatment compound, installation of new piping, connection of piping to the replacement well network, and the operation and maintenance of the upgraded groundwater pump and treat system. In January 2004, AGE abandoned wells MW-2, MW-4, and RW-1 and replaced them with wells MW-2R, MW-4R, and RW-1R.

The upgraded remediation system was restarted by AGE for continuous operation on June 21, 2004. The primary components of the upgraded system within the treatment compound consist of an air compressor, 500 gallon Poly settling tank, control panel, and three 200-pound granular activated carbon canisters. The upgraded system is extracting groundwater from extraction wells MW-2R, MW-4R, and RW-1R that are each equipped with downhole submersible pumps. On November 2, 2004, AGE reported that the pump had been stolen from well MW-4R. Because well MW-4R was producing more water than well MW-2R, the pump from well MW-2R was removed and installed in well MW-4R. On February 25, 2005, a new pump was installed in well MW-4R and the existing pump was replaced in well MW-2R.

On January 26, 2011, Thrifty emailed Paresh Khatri of the ACHCS requesting case closure based upon results of the December 27, 2010 report. In a letter dated March 31, 2011, the ACHCS stated that the site was ready for consideration for closure and they would notify Thrifty within 180-days of the results of their evaluation. In an email dated April 4, 2011, the ACHCS granted Thrifty permission to cease all groundwater monitoring and reporting activities while the case was being considered for closure.

On April 28, 2011, the groundwater remediation system was permanently shutdown with a cumulative total of 2,648, 436 gallons being extracted and treated since it was started in April 1991.

## **Interim Remedial Action**

During underground storage tanks (UST) removal activities conducted in March 1998, approximately 1,093 tons of impacted soil were excavated and removed from the site for disposal.

On April 22, 2008 Thrifty submitted the *Workplan for Five Bi-Weekly 24-Hour Mobile Dual Phase Extraction Events* (Workplan). The Workplan proposed conducting five bi-weekly 24 hour mobile DPE events as an interim remedial action in order to supplement current groundwater pump-and-treat operations and accelerate the remediation of the groundwater and soil contamination at the site and expedite case closure. Historical groundwater analytical data indicates a decreasing trend in dissolved-phase hydrocarbon concentrations at the site with the plume currently being limited to the area of wells MW-2R, MW-4R, and RW-1R. Thrifty proposed using onsite wells MW-2R, MW-4R, and RW-1R as simultaneous extraction points, and wells MW-1, MW-3, and MW-7 as observation wells.

In a letter, dated July 29, 2008 the ACHCS stated that they did not agree with the scope of work proposed in Thrifty's Workplan and directed Thrifty to submit a Feasibility Study and Corrective Action Plan (FS/CAP). On September 25, 2008, Thrifty submitted a FS/CAP prepared by GeoHydrologic Consultants, Inc. and dated September 22, 2008. The FS/CAP proposed a 5-Day 24-hour MPE event.

*A High Vacuum Dual Phase Extraction (HVDPE) Report* dated September 13, 2010 and prepared by CalClean Inc. (CalClean) summarized the results of the continuous 30-Day (24-hour/Day) mobile HVDPE event (HVDPE Event) conducted from August 4 to September 4, 2010). The HVDPE event was conducted in accordance with the *Continuous 5-Day Mobile High Vacuum Dual Phase Extraction Report and Workplan to Conduct a Continuous 30-Day Mobile High Vacuum Dual-Phase Extraction Event* dated April 21, 2010 which was approved by default under the 60-Day rule. During the HVDPE Event, approximately 12,869 gallons of groundwater and 1,613.97 pounds of hydrocarbons (as vapor) were removed. The average hydrocarbon removal rate over the 30-days was approximately 2.24 pounds per hour. However, hydrocarbon removal rates during the last 10 days of extraction declined to approximately 0.54 pounds per hour and ending influent vapor concentrations were low (as noted above) indicating that asymptotic conditions have likely been reached. The very low vapor concentrations at the conclusion of the event indicate that asymptotic conditions have been reached and that very little hydrocarbon mass remains beneath the site.

### **Recent Site Investigation**

In a transmittal letter dated March 11, 2004, Thrifty submitted preliminary soil and groundwater data from the four offsite soil borings and onsite well replacement activities performed by AGE. On March 18, 2004, Thrifty, AGE, and the Alameda County Health Care Services (ACHCS) met at the site to discuss the location of offsite well MW-8 and the soil and groundwater data provided by Thrifty. In a letter dated March 19, 2004, the ACHCS requested that Thrifty prepare a workplan to address the offsite contamination detected during the January 2004 site assessment conducted by AGE. After further discussing the scope of work with the ACHCS in an e-mail dated April 27, 2004, Thrifty submitted a workplan to install one onsite and two offsite wells downgradient of the site. The ACHCS responded in an e-mail dated May 4, 2004, requesting additional borings to delineate the plume to the west and southwest of the site. Thrifty submitted a revised Workplan for Additional Offsite Assessment dated May 7, 2004 that included two additional borings to the southwest of the site.

In a letter dated May 17, 2004, the ACHCS approved the May 7, 2004, workplan with the request that additional borings be considered if soil and groundwater samples indicate significant hydrocarbon contamination. The ACHCS also suggested moving the location of onsite well MW-10 slightly to the west to be more downgradient of the Shell Station. Thrifty previously selected GeoHydrologic Consultants, Inc. (GHC) to conduct site assessment activities. Thrifty has not been able to obtain an encroachment permit or access agreements from the City of Oakland Public Works Department (COPWD).

On May 18, 2007, ACHCS sent a letter to Thrifty with technical comments regarding: the dissolved hydrocarbon plume characterization; proposed soil boring installation and soil sampling; well installation and development; preferential pathway study; soil and groundwater chemical analysis; and site conceptual model development. ACHCS has requested the preparation of a Revised Workplan for Soil and Groundwater Investigation with Revised Site Conceptual Model and Updated Preferential Pathway Study and a Soil and Groundwater Investigation Report.

On July 18, 2007, Thrifty submitted a *Revised Workplan for Additional Off-Site Assessment* (Workplan). The Workplan proposed three offsite soil borings, three offsite groundwater wells and one onsite groundwater well. The Workplan also proposed completing a revised preferential pathway study and revised site conceptual model. On August 7, 2007 the Alameda County Health Care Services Agency (ACHCS) provided approval for the Workplan.

In a letter dated August 7, 2007, ACHCS requested that Thrifty Oil Co. (Thrifty) provide an explanation for the inconsistent groundwater monitoring data observed in the analytical results of groundwater samples collected during the first and second quarter of 2007. On August 21, 2007 Thrifty submitted an *Explanation of Fluctuating Dissolved-Phase Hydrocarbon Concentrations* in response to the August 7, 2007 ACHCS letter.

The “*Revised Workplan, Additional Off-Site Assessment, Thrifty Oil Co. Station No. 049, ARCO Products Company Station # 9535, 3400 San Pablo Avenue, Oakland, California*” (Revised Workplan) dated July 18, 2007 prepared by EQC was submitted to the ACHCS to address the ACHCS request. On August 7, 2007 the ACHCS conditionally-approved the Revised Workplan.

On August 8, 2007 Thrifty contacted the City of Oakland and requested an encroachment permit application package for the proposed offsite groundwater well locations on San Pablo Avenue, Oakland.

Thrifty’s legal representatives have had numerous communications City of Oakland Attorneys office regarding encroachment permit requirements but to date no agreement has been reached.

On September 13, 2007 Equipoise (EQC) on behalf of Thrifty submitted a *Request for Extension* letter to the ACHCS. EQC had submitted requests to both the DWR and ACPW for production well information needed for the Revised Preferential Pathway Study. As of September 13, 2007 EQC had not received a response from either agency, and therefore requested that the ACHCS provide an extension of the due date of the requested report.

On September 27, 2007, Thrifty submitted an “Encroachment Permit Delays and Request for Revised Well and Soil Borings Locations” letter (Encroachment Delays Letter) to the ACHCS. The letter indicated that Thrifty was still negotiating with the City of Oakland regarding the encroachment permits for the wells proposed in San Pablo Avenue, Oakland, but requested that the ACHCS consider revised well locations (which were proposed on private property).

On November 6, 2007, ACHCS sent a letter to Thrifty responding to Thrifty’s September 27, 2007 letter and indicated that moving the monitoring wells MW-8, MW-9, and MW-11 to adjacent private properties was acceptable provided the new locations of the monitoring wells are as close as practicable to the sidewalk at each location.

On November 13, 2007, EQC submitted the Revised Preferential Pathway Study (PPS), which discussed the results of the nearby well survey.

Thrifty and EQC identified and contacted the property owners for the three proposed offsite well locations (MW-8, MW-9 and MW-11). Site access agreements were sent via certified mail to each property owner on December 7, 2007.



In concurrently sent letters dated January 31, 2008, Mr. Steven Plunkett of the ACHED informed the adjacent property owners that they were required to execute the access agreements sent by Thrifty otherwise they could potentially be responsible for the cost of environmental assessments on their properties.

On February 12, 2008, Thrifty received an executed access agreement from the Vern Lenberg LLC (executed by Mr. Vernon Coleman) for the property located at 3431 San Pablo Avenue, Oakland, California.

On March 5, 2008, Thrifty spoke to Mr. Kelvin Tse (the owner of the property located at 3315 San Pablo Avenue, Oakland, California). During the telephone conversation Mr. Tse requested that Thrifty Oil Co. (Thrifty) supply: (1) an assurance that the proposed groundwater well be installed as close as possible to the northern corner of your property; (2) an explanation of why Thrifty has proposed to install a groundwater well on your property and the details of the sampling and chemical analysis Thrifty will conduct during the installation and during quarterly groundwater sampling events, and (3) a guarantee that Thrifty will mitigate contamination encountered during our investigation at the above mentioned property. Mr. Tse indicated that his brother was also a legal owner of the property. On March 5, 2008 Thrifty sent an email summarizing the telephone conversation to Mr. Tse with an attached copy of the Third Quarter 2007, Status Report for Thrifty Station No. 049. On March 12, 2008 Thrifty sent a letter to Mr. Tse in response to his request on March 5, 2008 for information and guarantees. Included in Thrifty's letter were documents that Thrifty acquired from online databases that indicated Mr. Kelvin Tse and Ms. Linda Tse are the only legal owners of the above mentioned property.

The access agreement Thrifty sent to the Moriah Christian Fellowship Baptist Church, Inc located at 3354 San Pablo Avenue Oakland, CA 94608, was returned to Thrifty on March 14, 2008. It appears that the post office attempted delivery the package on December 13, 2007 and March 8, 2008, and finally returned it to Thrifty with a "final notice" and "unable to forward" stamps on the front of the package. Thrifty called the United States Postal Service (USPS) at 800 275-8777 and they confirmed that the stamps on the front of the envelope indicated that the package not been received by the addressee and the package had probably been classified as abandoned, and therefore return to Thrifty. A short examination of the returned envelope showed that the seals applied on the envelope as part of the certified mail features were broken which suggests that somewhere, someone searched the contents of the envelope. Thrifty conducted a search on the United States Postal Service website to track the package (tracking number 7007 0710 0005 2435 5749) and discovered that the only recorded delivery of the package was its return to Thrifty on March 14, 2008 at 8:49 AM.

On April 21, 2008, a Thrifty representative contacted Mr. Kelvin Tse to request that he return an executed copy of the access agreement that had been mailed to him on March 12, 2008. During the conversation with Mr. Kelvin Tse once again insisted that his brother, Mr. Jack Chi Tse, was an owner of the property located at 3315 San Pablo Avenue, Oakland, California. On April 21, 2008, Thrifty completed an additional property title database search, results of the search identified Mr. Jack Chi Tse as an owner of the property located at 3315 San Pablo Avenue, Oakland, California. On April 22, 2008, Thrifty mailed a revised access agreement (which include Mr. Jack Chi Tse) to Mr. Kelvin Tse and Mr. Jack Chi Tse. In early May 2008, executed access agreements were received by Thrifty from Mr. Jack Tse and Mr. and Mrs. Kelvin Tse and on May 19, 2008 Thrifty executed the agreements and mailed copies back to the respective parties. On June 25, 2008, Steven Plunkett of the ACHCS contacted Simon Tregurtha (a Thrifty representative) via the telephone and stated he had recently been in contact with a representative of the Moriah Christian

Fellowship Baptist Church (the Church) regarding the placement of a groundwater monitoring well on their property. Mr. Plunkett said that the Church representative had indicated they would be reviewing the access agreement and would return a signed copy to Thrifty in the near future. Mr. Plunkett also stated that he was going to enlist the help of the Oakland Fire Department to convince the Church to sign the access agreement. To date, Thrifty has not received the executed access agreement from the Church.

In a letter dated October 14, 2010, the Alameda County Health Care Services (ACHCS) conditionally approved the *Verification Sampling and Downgradient Investigation Workplan* (Workplan) prepared by Thrifty Oil Co. (Thrifty) and dated September 22, 2010, for the above-referenced site. As a condition of approval, the ACHCS letter requested that Thrifty propose one additional offsite boring location across Linden Street north of the proposed boring SB-3. In response to the ACHCS letter, Thrifty proposes one additional offsite soil boring location (SB-4 as seen in **Figure 1**). The purpose of the offsite soil boring SB-4, and previously proposed and approved soil boring SB-3 was to characterize the current downgradient subsurface soil conditions and to define the downgradient limit of the dissolved-phase contamination plume.

Site assessment activities were conducted on November 30, 2010, and a report summarizing these activities will be submitted under separate cover by January 15, 2011. In accordance with the above-mentioned Workplan dated September 22, 2010 and subsequent amendments, soil borings SB-1 through SB-4 were all installed to approximately 20-feet below ground surface (bgs) and soil samples were collected from 5-foot bgs to 20-foot bgs in all four borings with a groundwater grab sample collected from SB-4 (Thrifty had intended to collect a groundwater sample from boring SB-3 but no groundwater was encountered in that boring). The results of the soil samples indicated no detectable concentrations of total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX) or oxygenates in soil samples collected in the offsite soil borings SB-3 and SB-4 (with the exception of 5.2 µg/Kg MTBE in sample SB-4-15), and low to moderate constituent concentrations in the soil samples from the onsite borings SB-1 and SB-2. Groundwater sample analytical results indicated no detectable concentrations for all constituents of concern with the exception of very low MTBE at 12 µg/L from boring SB-4.

### **Evaluation for Low-Threat UST Case Closure**

Given that this case does not appear to pose a significant threat or risk to resources or nearby receptors, has a stable remnant plume, and has undergone extensive remediation, Thrifty believes this site should be granted, Low-Threat UST Case Closure. Accordingly, the subsurface conditions were examined using the State Water Resources Control Board's 2012 Low-Threat UST Closure Policy as designated by SWRCB Resolution 2012-0016. The policy provides a series of media-specific criteria to determine whether a site is suitable for Low-Threat UST Case Closure. The criteria include evaluation of soil gas/vapor intrusion risks, dermal contact and potential outdoor air impacts, and groundwater.

The media specific criteria of the policy were used for analyzing the current soil and groundwater conditions. The soil gas media criteria is waived for active service stations due to the ambient conditions during normal business operation. The soil-specific criterion is intended to protect against exposure to direct contact with contaminated soil or inhalation of contaminants volatilized to outdoor air. The policy provides screening numbers for benzene, ethylbenzene, naphthalene, and poly-aromatic hydrocarbons (PAH) in residential and commercial settings for depth intervals of 0-5 feet bgs and 5-10 feet bgs. According to the January 11, 2011 *Verification Soil Sampling and Downgradient Investigation Report and Recommendation for Low Risk Regulatory Closure* report, the data from the November 30, 2010 verification soil sampling

(which followed extensive fixed groundwater remediation and mobile DPE) indicated a maximum benzene concentration of 0.0059 mg/kg and a maximum ethylbenzene concentration of 1.52 mg/kg in the top 10-feet of subsurface soils at the site. The maximum concentrations of benzene and ethylbenzene in shallow soils are well within the residential threshold values of 1.9 mg/kg and 21 mg/kg, respectively, and given that groundwater depths at the site typical range between 4 -6 feet bgs it seems highly unlikely that remaining contamination in the soils would pose a threat to human health. There is no data for naphthalene in soil.

The Low-Threat Groundwater Specific Criteria considers several scenarios based on the plume size, location of nearest public well, presence of free product, and the remaining dissolved levels. The most relevant of these requires a plume length of less than 250 feet in length, dissolved benzene of less than 3,000 µg/L, dissolved MTBE levels less than 1,000 µg/L, no free product, and no supply well within 1,000 feet of the defined plume boundary. Based on the data from current monitoring event (4<sup>th</sup> Quarter 2012), the maximum plume length is approximately 160 feet, the maximum dissolved benzene was 83 µg/L and the maximum dissolved MTBE was 34 µg/L, there has been no measurable free product at the site since March 1998 and there are no production wells within a half-mile of the site. Based on the data, the site meets the requirements of the groundwater specific criteria for Scenario 2. The Low-Threat UST Case Closure Policy Checklist is provided in **Appendix D**.

Thrifty believes that the current Site conditions and remediation activities completed at the Site warrant Low-Threat Underground Storage Tank Case Closure in accordance with the May 1, 2012 State Water Resources Control Board Low-Threat Underground Storage Tank Case Closure Policy.

#### **Possible New Release From Source Other Than Thrifty**

As mentioned earlier, ethanol was detected in groundwater samples collected from 5 of the 8 site wells during the Fourth Quarter 2012 sampling event, including first-time detections in wells MW-1, MW-3 and MW-7. The current and historical presence of ethanol (since year 2009) in several site wells strongly suggests that release(s) have occurred from a source other than Thrifty. Thrifty terminated their operation of the station and USTs and associated piping in May 1997 and this first generation of USTs and associated piping were removed from the site in March 1998 at which time ethanol was not used as a gasoline additive. The ethanol has likely originated from ARCO (who operated the station from May 1997 to May 2012), from Tesoro (who has operated the station from May 2012 to present), or from the adjacent and cross gradient Shell Station located at 3420 San Pablo Avenue, Oakland, CA.

#### **Planned Activities**

Since the four quarters of groundwater monitoring required by the ACHCS in a letter dated February 23, 2012 have been completed, Thrifty will cease all reporting and monitoring at this site and await a response from the ACHCS to our request for Low-Threat UST Case Closure.


### Closing Comments

Interpretations expressed herein are based solely upon data collected and provided by EMC and Associated Laboratories. Should you have any questions regarding this report or require any additional information, please contact Simon Tregurtha at 562-921-3581, Ext. 260.

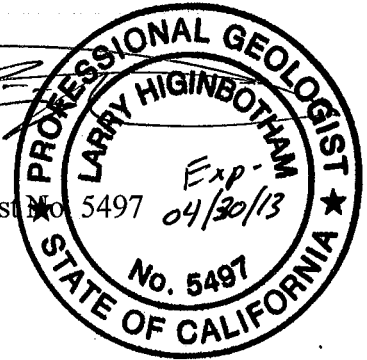
Sincerely:



Simon Tregurtha  
Project Manager



Larry Higinbotham  
Professional Geologist No. 5497



PROFESSIONAL GEOLOGIST  
LARRY HIGINBOTHAM  
Exp. 04/30/13  
No. 5497  
STATE OF CALIFORNIA

# ***TABLES***

**SUMMARY TABLE  
CURRENT PERIOD GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA, 94612  
T0600101365**

WELL	STATUS	Monit/ Sampl. Date	ANALYTICAL PARAMETERS											MONITORING PARAMETERS				ELEVATION		WELL	
			TPHg (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	ETH (mg/L)	DTP (feet)	DTW (feet)	DTB (feet)	PT (feet)	CASING (feet)	GW (feet)	DIA (inches)	SCREEN (feet)
MW-1	ACT	12/04/12	4,340	43	990	160	840	<0.19	<0.2	<0.23	<0.19	<5.2	2.600	NP	4.55	17.77	0.00	31.55	27.00	2"	5 - 25
MW-2R	ACT	12/04/12	762	10	220	34	210	<0.19	<0.2	<0.23	<0.19	<5.2	4.600	NP	4.57	16.79	0.00	30.49	25.92	4"	5 - 20
MW-3	ACT	12/04/12	10,300	83	2,100	350	1,900	34	<0.2	<0.23	3.9	<5.2	13.000	NP	5.46	24.14	0.00	31.15	25.69	2"	5 - 25
MW-4R	ACT	12/04/12	1,010	8.7	170	31	200	<0.19	<0.2	<0.23	<0.19	<5.2	5.400	NP	4.97	19.65	0.00	30.23	25.26	4"	5 - 20
MW-5	ACT	12/04/12	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	<0.2	<0.23	<0.19	<5.2	<0.100	NP	4.36	13.75	0.00	32.30	27.94	2"	4 - 14
MW-6	ACT	12/04/12	<6.6	<0.18	<0.24	<0.21	<0.45	2.4	<0.2	<0.23	<0.19	<5.2	<0.100	NP	5.16	13.02	0.00	33.14	27.98	2"	4 - 14
MW-7	ACT	12/04/12	1,670	9.7	240	41	250	<0.19	<0.2	<0.23	<0.19	<5.2	5.300	NP	4.85	13.55	0.00	31.61	26.76	4"	4 - 14
RW-1R	ACT	12/04/12	<6.6	<0.18	<0.24	<0.21	<0.45	2.7	<0.2	<0.23	<0.19	<5.2	<0.100	NP	4.75	19.08	0.00	30.59	25.84	4"	5 - 20

<p><b>NOTE:</b></p> <p><b>ACT</b> Groundwater well currently used for monitoring</p> <p><b>INACT</b> Groundwater well is NOT included in monitoring program</p> <p><b>DRY</b> Groundwater well is dry and cannot be sampled</p> <p><b>NOACC</b> Presently no access to groundwater well</p> <p><b>DEST</b> Well has been properly destroyed, no longer a conduit to subsurface</p> <p><b>AB</b> Groundwater well is abandoned, but not yet destroyed</p>	<p><b>TPHg</b> = Total Petroleum Hydrocarbons as gasoline</p> <p><b>TPHd</b> = Total Petroleum Hydrocarbons as diesel</p> <p><b>B</b> = Benzene</p> <p><b>T</b> = Toluene</p> <p><b>E</b> = Ethylbenzene</p> <p><b>X</b> = Total Xylenes</p>	<p><b>MTBE</b> = Methyl-tert-butyl ether</p> <p><b>DIPE</b> = Isopropyl ether</p> <p><b>ETBE</b> = Ethyl-tert-butyl ether</p> <p><b>TAME</b> = Tert-amyl methyl ether</p> <p><b>TBA</b> = Tertiary butyl alcohol</p> <p><b>ETH</b> = Ethanol</p>	<p><b>DTP</b> = Depth To Product</p> <p><b>DTW</b> = Depth To Water</p> <p><b>DTB</b> = Depth To Bottom</p> <p><b>PT</b> = Product Thickness</p> <p><b>GW</b> = Groundwater</p> <p><b>NP</b> = No free product</p>	<p>" - " = Not analyzed / Not available</p> <p>" &lt; " = Less than detection level indicated</p> <p>" J " = Flag indicating value between MDL &amp; PQL</p> <p>ug/L = micrograms per liter</p> <p>mg/L = milligrams per liter</p>
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**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
<b>MONITORING WELL #MW-1</b>											
Screen Interval = 5 to 25 feet						Casing Diameter = 2 inches					
01/09/92	-	-	-	-	-	-	NP	5.54	0.00	98.03	92.49
04/13/92	-	-	-	-	-	-	NP	5.86	0.00	98.03	92.17
10/05/92	-	-	-	-	-	-	NP	9.39	0.00	98.03	88.64
01/06/93	-	-	-	-	-	-	NP	4.76	0.00	98.03	93.27
04/26/93	-	-	-	-	-	-	NP	4.96	0.00	98.03	93.07
01/04/94	-	-	-	-	-	-	NP	7.00	0.00	98.03	91.03
04/05/94	-	-	-	-	-	-	NP	6.44	0.00	98.03	91.59
10/09/95	44,000	4,500	4,300	1,700	10,000	-	-	-	-	98.03	-
01/08/96	21,000	1,200	150	34	4,800	-	NP	6.15	0.00	98.03	91.88
04/08/96	4,700	80	110	10	910	-	NP	5.40	0.00	98.03	92.63
07/22/96	7,000	280	130	<3.0	2,100	440	NP	5.50	0.00	98.03	92.53
10/16/96	120	<0.3	<0.3	<0.3	<0.5	180	NP	6.02	0.00	98.03	92.01
01/22/97	160	<0.3	<0.3	<0.3	<0.5	360	NP	4.40	0.00	98.03	93.63
04/21/97	20,000	420	140	5.8	840	55,000	NP	6.30	0.00	98.03	91.73
07/14/97	13,000	<0.3	<0.3	<0.3	<0.55	30,000	NP	5.92	0.00	98.03	92.11
10/07/97	-	-	-	-	-	-	7.70	7.71	0.01	98.03	90.33
01/15/98	<50	0.3	<0.3	<0.3	<0.5	-	NP	4.40	0.00	98.03	93.63
04/23/98	540	<0.3	<0.3	<0.3	<0.5	<20	NP	8.10	0.00	98.03	89.93
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	5.55	0.00	98.03	92.48
10/14/98	50	1.4	0.56	<0.3	11	22	NP	7.05	0.00	98.03	90.98
01/21/99	<50	0.59	<0.3	<0.3	<0.5	<5.0	NP	4.10	0.00	98.03	93.93
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	4.30	0.00	98.03	93.73
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	5.54	0.00	98.03	92.49
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.13	0.00	98.03	91.90
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.04	0.00	98.03	91.99
04/05/00	<50	<0.25	<0.25	<0.25	<0.5	<5.0	NP	4.03	0.00	98.03	94.00
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	4.00	0.00	98.03	94.03
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.53	0.00	98.03	92.50
01/17/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.97	0.00	98.03	94.06
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.98	0.00	98.03	94.05
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.51	0.00	98.03	92.52
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.97	0.00	98.03	94.06
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.95	0.00	98.03	94.08
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	2.42	0.00	98.03	95.61
07/31/02	<50	<0.18	1.3	<0.18	<0.26	<0.24	NP	5.49	0.00	98.03	92.54
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	16	NP	6.13	0.00	98.03	91.90
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	2.45	0.00	98.03	95.58
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	7.02	0.00	98.03	91.01
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.15	0.00	98.03	92.88
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	5.13	0.00	98.03	92.90
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	3.92	0.00	98.03	94.11
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	4.54	0.00	98.03	93.49
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	7.01	0.00	98.03	91.02
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.46	0.00	98.03	92.57
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.48	0.00	98.03	92.55
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.99	0.00	98.03	91.04
07/20/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.42	0.00	98.03	91.61
10/19/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.98	0.00	98.03	91.05
01/24/06	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	4.56	0.00	98.03	93.47
04/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	3.93	0.00	98.03	94.10

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
07/19/06	17,100	21	279	388	2,010	128	NP	5.92	0.00	98.03	92.11
09/15/06	<5.6	<0.32	<0.10	<0.24	<0.30	33	NP	6.38	0.00	98.03	91.65
10/18/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.99	0.00	98.03	91.04
01/17/07	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.40	0.00	31.55	26.15
04/18/07	<5.6	<0.32	<0.10	<0.24	<0.3	7.1	NP	5.46	0.00	31.55	26.09
07/18/07	<5.6	<0.18	<0.24	<0.21	<0.45	4.9	NP	5.92	0.00	31.55	25.63
10/17/07	<5.6	<0.18	<0.24	<0.21	<0.45	1.6	NP	5.46	0.00	31.55	26.09
01/16/08	<5.6	<0.18	<0.24	<0.21	<0.45	1.3	NP	5.46	0.00	31.55	26.09
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.45	0.00	31.55	26.10
07/16/08	<6.6	<0.18	<0.24	<0.21	1.2 J	<0.19	NP	6.96	0.00	31.55	24.59
10/15/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.44	0.00	31.55	26.11
01/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.47	0.00	31.55	26.08
04/15/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.48	0.00	31.55	26.07
10/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.46	0.00	31.55	26.09
04/21/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.30	0.00	31.55	26.25
10/20/10	<6.6	<0.18	1.1 J	<0.21	1.7 J	<0.19	NP	5.46	0.00	31.55	26.09
01/19/11	<6.6	<0.18	<0.24	<0.23	<0.45	<0.19	NP	5.44	0.00	31.55	26.11
03/16/12	1,560	40	11	130	220	29.0	NP	3.54	0.00	31.55	28.01
06/06/12	1,300	14	3.0 J	48	120	10.0	Sheen	5.26	0.00	31.55	26.29
09/05/12	1,280	6.4	<0.24	<0.21	<0.45	16	NP	5.46	0.00	31.55	26.09
12/04/12	4,340	43.0	990	160	840	<0.19	NP	4.55	0.00	31.55	27.00
<b>MONITORING WELL #MW-2</b>											
Screen Interval = 5 to 25 feet											
01/09/92	-	-	-	-	-	-	NP	5.35	0.00	97.44	92.09
04/13/92	-	-	-	-	-	-	NP	7.42	0.00	97.44	90.02
10/05/92	-	-	-	-	-	-	NP	12.15	0.00	97.44	85.29
01/06/93	-	-	-	-	-	-	NP	5.46	0.00	97.44	91.98
04/26/93	-	-	-	-	-	-	NP	5.15	0.00	97.44	92.29
01/04/94	-	-	-	-	-	-	NP	9.45	0.00	97.44	87.99
04/05/94	-	-	-	-	-	-	NP	8.23	0.00	97.44	89.21
10/09/95	33,000	6,000	390	1,700	4,900	-	-	-	-	97.44	-
01/08/96	<50	0.32	<0.3	0.41	2.1	-	NP	5.60	0.00	97.44	91.84
04/08/96	10,000	490	210	210	830	-	NP	5.43	0.00	97.44	92.01
07/22/96	60,000	6,500	1,000	1,500	10,000	8,500	NP	5.65	0.00	97.44	91.79
10/16/96	6,500	12	0.34	0.72	110	4,700	NP	5.82	0.00	97.44	91.62
01/22/97	3,200	<0.3	0.46	0.37	<0.5	8,000	NP	4.30	0.00	97.44	93.14
04/21/97	66,000	5,300	1,000	2,300	14,000	30,000	NP	5.80	0.00	97.44	91.64
07/14/97	17,000	1.8	4.6	4.6	350	24,000	NP	8.92	0.00	97.44	88.52
10/07/97	220,000	5,200	1,700	3,800	15,000	-	NP	6.80	0.00	97.44	90.64
01/19/98	25,000	5.4	2.2	2.1	240	-	NP	8.50	0.00	97.44	88.94
04/23/98	7,700	<0.3	0.55	0.38	4.9	28,000	NP	7.60	0.00	97.44	89.84
07/20/98	430,000	4,200	10,000	5,400	28,000	77,000	NP	6.94	0.00	97.44	90.50
10/14/98	27,000	<0.3	4.5	4.1	4.6	65,000	NP	8.45	0.00	97.44	88.99
01/21/99	16,000	7.6	9.8	4.2	310	*49,000 / 42,000	NP	6.95	0.00	97.44	90.49
04/15/99	20,000	<0.3	<0.3	<0.3	<0.5	*31,000 / 30,000	NP	8.45	0.00	97.44	88.99
07/26/99	6,700	<6.0	<6.0	<6.0	<10	*11,000 / 15,000	NP	6.94	0.00	97.44	90.50
10/13/99	7,600	<3.0	3.7	<3.0	11	11,000	NP	5.48	0.00	97.44	91.96
01/20/00	7,500	<6.0	<6.0	<6.0	<10	*14,000 / 16,000	NP	5.84	0.00	97.44	91.60
04/05/00	10,400	<0.25	<0.25	<0.25	<0.5	*10,000 / 14,400	NP	5.41	0.00	97.44	92.03
07/19/00	130	<0.3	<0.3	<0.3	<0.6	*9,620 / 6,520	NP	5.40	0.00	97.44	92.04



**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
10/18/00	150	<0.18	<0.14	<0.18	<0.26	*9,090 / 6,560	NP	6.91	0.00	97.44	90.53
01/17/01	75	<0.18	2.0	2.0	3.0	*8,650 / 9,710	NP	5.41	0.00	97.44	92.03
04/19/01	4,380	<0.18	<0.14	<0.18	<0.26	8,890	NP	5.40	0.00	97.44	92.04
07/18/01	3,260	<0.18	<0.14	<0.18	2.0	*7960 / 1,710	NP	6.92	0.00	97.44	90.52
10/10/01	1,760	<0.18	<0.14	<0.18	<0.26	*2,980 / 2,600	NP	3.87	0.00	97.44	93.57
01/30/02	1,770	<0.18	1.0	1.0	2.0	*2,560 / 1,590	NP	8.45	0.00	97.44	88.99
04/17/02	1,470	1.0	<0.14	<0.18	<0.26	*2,460 / 2,080	NP	8.45	0.00	97.44	88.99
07/31/02	3,910	<0.18	1.2	<0.18	2.1	*2,090 / 1,740	NP	9.98	0.00	97.44	87.46
11/14/02	39,400	1,680	728	173	5,120	8,270	NP	5.40	0.00	97.44	92.04
01/29/03	22,100	746	76	<1.0	2,840	8,220	NP	8.43	0.00	97.44	89.01
04/23/03	19,500	<0.8	<0.4	<0.4	<1.2	9,580	NP	5.38	0.00	97.44	92.06
07/10/03	29,900	<2.2	<3.2	<3.1	<4.0	6,690	NP	5.10	0.00	97.44	92.34
10/20/03	13,000	4.79	<0.02	<0.02	<0.06	*6,330 / 5,980	NP	5.10	0.00	97.44	92.34
WELL ABANDONED 01/2004											
<b>MONITORING WELL #MW-2R</b>											
Screen Interval = 5 to 20 feet						Casing Diameter = 4 inches					
02/03/04							-	-	-	-	-
04/08/04	11,600	304	16 J	55	427	4,170	NP	4.58	0.00	-	-
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.72	0.00	-	-
10/20/04	20,900	3,180	2,970	259	1,240	92	NP	3.72	0.00	-	-
01/19/05	18,900	537	250	866	2,290	3,340	NP	4.50	0.00	-	-
04/20/05	13,100	<2.2	<3.2	<3.1	<4.0	563	NP	5.27	0.00	-	-
07/07/05	2,500	70	7.6	<0.24	160	1,930	-	-	-	-	-
07/20/05	4,260	392	15 J	175	100	742	NP	6.12	0.00	-	-
10/19/05	321	<0.32	<0.10	<0.24	<0.30	423	NP	5.28	0.00	-	-
01/24/06	3,200	34	331	87	510	86	NP	4.58	0.00	-	-
04/19/06	22,100	440	4,240	234	1,530	195	NP	3.38	0.00	-	-
07/19/06	15,800	377	629	627	578	530	NP	8.10	0.00	-	-
09/15/06	-	-	-	-	-	-	-	-	-	-	-
10/18/06	57,600	75	5,730	1,770	7,820	263	NP	5.28	0.00	-	-
01/17/07	117,000	254	15,200	4,840	28,800	300	NP	6.82	0.00	30.49	23.67
04/18/07	896	<0.32	<0.10	<0.24	117	49	NP	7.60	0.00	30.49	22.89
07/18/07	2,290	106	3.7 J	2.2 J	160	146	NP	5.62	0.00	30.49	24.87
10/17/07	313	<0.18	5.9	1.6 J	20	162	NP	3.41	0.00	30.49	27.08
01/16/08	77	<0.18	<0.24	<0.21	<0.45	105	NP	4.51	0.00	30.49	25.98
04/22/08	30,300	165	3,660	2,060	11,400	<19	NP	7.59	0.00	30.49	22.90
07/16/08	15,100	62	600	186	1,280	148	NP	5.26	0.00	30.49	25.23
10/15/08	291	12	<0.24	<0.21	1.1 J	263	NP	4.52	0.00	30.49	25.97
01/21/09	1,060	11	176	41	243	123	NP	4.52	0.00	30.49	25.97
04/15/09	26,500	154	2,360	874	5,600	66	NP	4.53	0.00	30.49	25.96
10/21/09	12,600	396	2,380	469	2,870	<1.9	NP	3.79	0.00	30.49	26.70
04/21/10	6,350	40	180	109	878	24	NP	4.35	0.00	30.49	26.14
10/20/10	83	<0.18	<0.24	<0.21	<0.45	23	NP	4.51	0.00	30.49	25.98
01/19/11	12,900	340	1,460	<0.23	2,000	9.2	NP	4.48	0.00	30.49	26.01
03/16/12	1,200	2.2	<0.24	29	9.4	12	NP	3.09	0.00	30.49	27.40
06/06/12	1,090	2.2	<0.24	38	4.0 J	16	NP	4.28	0.00	30.49	26.21
09/05/12	163	<0.18	<0.24	<0.21	<0.45	16	NP	4.52	0.00	30.49	25.97
12/04/12	762	10	220	34	210	<0.19	NP	4.57	0.00	30.49	25.92

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
<b>MONITORING WELL #MW-3</b>											
Screen Interval = 5 to 25 feet						Casing Diameter = 2 inches					
01/09/92	-	-	-	-	-	-	NP	17.60	0.00	97.69	80.09
04/13/92	-	-	-	-	-	-	NP	17.40	0.00	97.69	80.29
10/05/92	-	-	-	-	-	-	NP	17.35	0.00	97.69	80.34
01/06/93	-	-	-	-	-	-	NP	17.40	0.00	97.69	80.29
04/26/93	-	-	-	-	-	-	NP	17.90	0.00	97.69	79.79
01/04/94	-	-	-	-	-	-	NP	17.60	0.00	97.69	80.09
04/05/94	-	-	-	-	-	-	NP	16.25	0.00	97.69	81.44
01/08/96	-	-	-	-	-	-	NP	7.11	0.00	97.69	90.58
04/08/96	8,800	610	31	530	900	-	NP	7.20	0.00	97.69	90.49
07/22/96	38,000	4,100	1,500	1,600	5,400	2,600	NP	6.82	0.00	97.69	90.87
10/16/96	2,400	<0.3	<0.3	<0.3	<0.5	3,800	NP	6.84	0.00	97.69	90.85
01/22/97	2,200	<0.3	<0.3	<0.3	<0.5	5,500	NP	4.80	0.00	97.69	92.89
04/21/97	15,000	1,500	36	260	710	11,000	NP	9.40	0.00	97.69	88.29
07/14/97	5,400	0.45	<0.3	<0.3	<0.5	14,000	NP	10.92	0.00	97.69	86.77
10/07/97	8,800	0.39	<0.3	<0.3	0.88	-	NP	11.95	0.00	97.69	85.74
01/19/98	22,000	1,300	15	20	310	-	NP	7.85	0.00	97.69	89.84
04/23/98	9,200	3.9	3.1	5.7	9.8	16,000	NP	11.20	0.00	97.69	86.49
07/20/98	750	0.41	1.4	0.47	1.8	2,800	NP	7.36	0.00	97.69	90.33
10/14/98	750	<0.3	<0.3	<0.3	<0.5	15,000	NP	11.95	0.00	97.69	85.74
01/21/99	4,700	0.32	<0.3	<0.3	<0.5	* 12,000 / 16,000	NP	10.45	0.00	97.69	87.24
04/15/99	7,900	0.59	0.69	<0.3	0.94	* 11,000 / 14,000	NP	7.86	0.00	97.69	89.83
07/26/99	5,200	<3.0	<3.0	<3.0	<5.0	*9,600 / 11,000	NP	10.40	0.00	97.69	87.29
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	7.09	0.00	97.69	90.60
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.86	0.00	97.69	90.83
04/05/00	<50	0.8	<0.25	<0.25	<0.5	*5.6 / <5.0	NP	8.85	0.00	97.69	88.84
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	8.86	0.00	97.69	88.83
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	7.32	0.00	97.69	90.37
01/17/01	<50	<0.18	2.0	<0.18	1.0	*39 / 39	NP	5.40	0.00	97.69	92.29
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	8.87	0.00	97.69	88.82
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	7.32	0.00	97.69	90.37
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	8.87	0.00	97.69	88.82
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.78	0.00	97.69	91.91
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	7.31	0.00	97.69	90.38
07/31/02	138	1.1	1.2	<0.18	<0.26	<0.24	NP	5.76	0.00	97.69	91.93
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	21	NP	5.73	0.00	97.69	91.96
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	16	NP	7.30	0.00	97.69	90.39
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	16	NP	5.76	0.00	97.69	91.93
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	11	NP	5.63	0.00	97.69	92.06
10/20/03	13,700	4.13	<0.02	<0.02	<0.06	*6,570 / 4,920	NP	5.61	0.00	97.69	92.08
01/14/04	1,160	2.0	2.2	6.1	7.8	*1,510 / 767	NP	4.23	0.00	97.69	93.46
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.48	0.00	97.69	92.21
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.66	0.00	97.69	91.03
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	4.20	0.00	97.69	93.49
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.74	0.00	97.69	91.95
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	7.23	0.00	97.69	90.46
07/20/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.82	0.00	97.69	90.87
10/19/05	<2.9	<0.32	<0.10	<0.24	<0.30	7.0	NP	7.26	0.00	97.69	90.43
01/24/06	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.50	0.00	97.69	92.19
04/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.72	0.00	97.69	91.97
07/19/06	12,900	539	744	169	296	1,640	NP	5.63	0.00	97.69	92.06

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
09/15/06	1,750	4.3	68	11	90	502	NP	6.62	0.00	97.69	91.07
10/18/06	75	<0.32	<0.10	1.1 J	1.1 J	47	NP	5.72	0.00	97.69	91.97
01/17/07	<5.6	<0.32	2.1 J	<0.24	1.0 J	13	NP	5.73	0.00	31.15	25.42
04/18/07	<5.6	<0.32	2.0 J	<0.24	6.2	11	NP	5.74	0.00	31.15	25.41
07/18/07	<5.6	<0.18	2.2 J	<0.21	1.3 J	5.3	NP	8.36	0.00	31.15	22.79
10/17/07	<5.6	1.0	<0.24	<0.21	<0.45	1.5	NP	5.74	0.00	31.15	25.41
01/16/08	<5.6	<0.18	<0.24	<0.21	<0.45	1.3	NP	5.73	0.00	31.15	25.42
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	1.2	NP	5.73	0.00	31.15	25.42
07/16/08	<6.6	<0.18	1.0 J	<0.21	1.5 J	<0.19	NP	7.23	0.00	31.15	23.92
10/15/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.72	0.00	31.15	25.43
01/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.76	0.00	31.15	25.39
04/15/09	<6.6	<0.18	1.1 J	<0.21	<0.45	<0.19	NP	5.73	0.00	31.15	25.42
10/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.23	0.00	31.15	26.92
04/21/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.90	0.00	31.15	25.25
10/20/10	<6.6	<0.18	<0.24	<0.21	1.2 J	<0.19	NP	5.71	0.00	31.15	25.44
01/19/11	326	2.5	43	10	53	<0.19	NP	5.69	0.00	31.15	25.46
03/16/12	20,600	38	7,600	25	6.9	59	NP	4.42	0.00	31.15	26.73
06/06/12	4,670	36	290	37	<2.25	37	Sheen	5.74	0.00	31.15	25.41
09/05/12	482	8.7	2.3 J	<0.21	3.7 J	42	NP	5.74	0.00	31.15	25.41
12/04/12	10,300	83	2,100	350	1,900	34	NP	5.46	0.00	31.15	25.69
<b>MONITORING WELL #MW-4</b>											
Screen Interval = 4 to 14 feet											
01/09/92	-	-	-	-	-	-	NP	5.25	0.00	97.33	92.08
04/13/92	-	-	-	-	-	-	NP	6.40	0.00	97.33	90.93
10/05/92	-	-	-	-	-	-	NP	9.95	0.00	97.33	87.38
01/06/93	-	-	-	-	-	-	NP	4.10	0.00	97.33	93.23
04/26/93	-	-	-	-	-	-	NP	4.84	0.00	97.33	92.49
01/04/94	-	-	-	-	-	-	NP	9.05	0.00	97.33	88.28
04/05/94	-	-	-	-	-	-	NP	8.10	0.00	97.33	89.23
10/09/95	63,000	9,000	2,100	2,500	9,600	-	-	-	-	97.33	-
01/08/96	23,000	2,200	830	880	3,600	-	NP	5.57	0.00	97.33	91.76
04/08/96	56,000	5,000	2,500	2,600	11,000	-	NP	5.36	0.00	97.33	91.97
07/22/96	33,000	3,700	1,600	1,400	6,000	2,400	NP	4.80	0.00	97.33	92.53
10/16/96	2,800	7.8	0.60	0.41	52	2,000	NP	5.47	0.00	97.33	91.86
01/22/97	1,400	<0.3	<0.3	<0.3	<0.5	3,100	NP	5.15	0.00	97.33	92.18
04/21/97	-	-	-	-	-	-	5.30	6.36	1.06	97.33	91.77
07/14/97	-	-	-	-	-	-	5.21	5.24	0.03	97.33	92.11
10/07/97	-	-	-	-	-	-	7.80	7.82	0.02	97.33	89.53
01/15/98	-	-	-	-	-	-	6.60	6.68	0.08	97.33	90.71
04/23/98	-	-	-	-	-	-	5.30	6.36	1.06	97.33	91.77
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.05	0.00	97.33	91.28
10/14/98	3,100	86	23	2.0	520	1,100	NP	6.85	0.00	97.33	90.48
01/21/99	9,100	3.2	5.6	1.8	130	* 24,000 / 17,000	NP	6.10	0.00	97.33	91.23
04/15/99	14,000	<0.3	0.71	<0.3	<0.5	* 20,000 / 22,000	NP	6.05	0.00	97.33	91.28
07/26/99	4,500	<6.0	<6	<6	<10	*8,700 / 9,800	NP	6.07	0.00	97.33	91.26
10/13/99	410	<0.3	0.63	<0.3	<0.5	660	NP	5.54	0.00	97.33	91.79
01/20/00	770	<0.3	<0.3	<0.3	<0.5	*2,400 / 1,900	NP	5.49	0.00	97.33	91.84
04/05/00	61,200	0.9	<0.25	<0.25	<0.5	*18,500 / 21,900	NP	5.30	0.00	97.33	92.03
07/19/00	96,600	1,770	1,760	2,690	8,730	21,900 / 9,740 J	NP	5.29	0.00	97.33	92.04
10/18/00	34,900	698	1,010	607	4,130	*27,800 / 15,900	NP	6.02	0.00	97.33	91.31

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
01/17/01	29,100	799	930	614	3,400	*24,300 / 31,400	NP	4.88	0.00	97.33	92.45
04/19/01	103,000	4,880	3,980	3,260	11,800	66,900	NP	4.89	0.00	97.33	92.44
07/18/01	52,200	3,320	2,090	440	5,520	*55,500 / 16,800	NP	6.04	0.00	97.33	91.29
10/10/01	8,580	6.1	14	5.3	70	*40,100 / 30,000	NP	4.51	0.00	97.33	92.82
01/30/02	36,500	<0.18	3.0	1.0	3.0	*43,000 / 24,900	NP	4.51	0.00	97.33	92.82
04/17/02	12,900	8.0	1.0	<0.18	1.0	16,000 / 13,600	NP	4.51	0.00	97.33	92.82
07/31/02	19,300	<0.18	1.2	1.5	2.6	*13,200 / 10,100	NP	5.26	0.00	97.33	92.07
11/14/02	36,200	1.720	940	235	6,190	8,280	NP	5.27	0.00	97.33	92.06
01/29/03	13,000	444	39	<0.4	1,200	8,160	NP	4.50	0.00	97.33	92.83
04/23/03	7,430	130	5.7	<0.2	387	5,830	NP	4.80	0.00	97.33	92.53
07/10/03	16,200	<2.2	<3.2	<3.1	<4.0	3,930	NP	4.55	0.00	97.33	92.78
10/20/03	6,040	672	384	3.4	444	*3,780 / 3,220	NP	4.56	0.00	97.33	92.77
WELL ABANDONED 01/2004											
<b>MONITORING WELL #MW-4R</b>											
Screen Interval = 5 to 20 feet						Casing Diameter = 4 inches					
02/03/04											
04/08/04	37,900	819	424	159	3,190	18,400	NP	4.96	0.00	-	-
07/21/04	14,500	<2.2	<3.2	<3.1	39 J	18,900	NP	6.60	0.00	-	-
10/20/04	66,000	6,390	6,560	672	3,290	13,300	NP	3.38	0.00	-	-
01/19/05	17,600	513	240	855	2,230	3,310	NP	4.32	0.00	-	-
04/20/05	19,200	190	109	452	974	1,870	NP	4.72	0.00	-	-
07/07/05	11,500	233	68	369	875	2,350	-	-	-	-	-
07/20/05	11,300	251	90	154	1,460	1,280	NP	6.08	0.00	-	-
10/19/05	1,310	<0.32	<0.10	<0.24	<0.30	1,160	NP	5.08	0.00	-	-
01/24/06	41,300	391	2,310	871	5,430	388	NP	4.98	0.00	-	-
04/19/06	26,100	399	1,290	254	3,350	732	NP	4.72	0.00	-	-
07/19/06	34,500	38	1,120	251	3,950	115	NP	6.84	0.00	-	-
09/15/06	-	-	-	-	-	-	-	-	-	-	-
10/18/06	37,000	<32	3,910	1,350	5,770	389	NP	5.85	0.00	-	-
01/17/07	211,000	223	22,800	5,670	33,800	<126	NP	6.62	0.00	30.23	23.61
04/18/07	13,000	52	2,300	97 J	5,140	102	NP	7.02	0.00	30.23	23.21
07/18/07	2,510	88	1.7 J	<0.21	107	124	NP	5.36	0.00	30.23	24.87
10/17/07	580	<0.18	24	3.9 J	81	120	NP	4.72	0.00	30.23	25.51
01/16/08	2,040	14	5.6	33	97	107	NP	4.34	0.00	30.23	25.89
04/22/08	1,310	24	329	111	582	<1.9	NP	7.00	0.00	30.23	23.23
07/16/08	33,400	236	2,030	1,030	6,990	6.6	NP	5.05	0.00	30.23	25.18
10/15/08	1,800	61	2.4 J	<0.21	23	130	NP	4.35	0.00	30.23	25.88
01/21/09	750	15	170	38	221	109	NP	4.35	0.00	30.23	25.88
04/15/09	27,100	197	2,300	834	4,810	<19.0	NP	4.35	0.00	30.23	25.88
10/21/09	5,240	161	712	145	1,000	<1.9	NP	3.40	0.00	30.23	26.83
04/21/10	2,480	22	<1.2	17 J	723	27	NP	4.52	0.00	30.23	25.71
10/20/10	20,300	351	3,600	483	2,780	<3.8	NP	4.32	0.00	30.23	25.91
01/19/11	63,300	586	9,360	1,970	16,300	<3.8	NP	4.30	0.00	30.23	25.93
03/16/12	1,080	1.8	<0.24	15	7.8	8.0	NP	2.78	0.00	30.23	27.45
06/06/12	663	2.4	<0.24	5.6	1.3 J	48	NP	4.03	0.00	30.23	26.20
09/05/12	58.0	<0.18	<0.24	<0.21	<0.45	7.8	NP	4.32	0.00	30.23	25.91
12/04/12	1,010	8.7	170	31	200	<0.19	NP	4.97	0.00	30.23	25.26

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
<b>MONITORING WELL #MW-5</b>											
Screen Interval = 4 to 14 feet						Casing Diameter = 2 inches					
01/09/92	-	-	-	-	-	-	NP	5.32	0.00	98.85	93.53
04/13/92	-	-	-	-	-	-	NP	4.82	0.00	98.85	94.03
10/05/92	-	-	-	-	-	-	NP	8.78	0.00	98.85	90.07
01/06/93	-	-	-	-	-	-	NP	3.46	0.00	98.85	95.39
04/26/93	-	-	-	-	-	-	NP	4.66	0.00	98.85	94.19
01/04/94	-	-	-	-	-	-	NP	6.36	0.00	98.85	92.49
04/05/94	-	-	-	-	-	-	NP	5.94	0.00	98.85	92.91
07/12/95	<100	<0.5	<0.5	<0.5	<1.0	-	-	-	-	98.85	-
10/09/95	440	31	11	19	84	-	-	-	-	98.85	-
01/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	NP	6.63	0.00	98.85	92.22
04/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	NP	5.22	0.00	98.85	93.63
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	6.62	0.00	98.85	92.23
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	6.12	0.00	98.85	92.73
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	5.17	0.00	98.85	93.68
04/21/97	73	2.5	0.34	0.74	3.8	21	NP	6.64	0.00	98.85	92.21
07/14/97	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	6.67	0.00	98.85	92.18
10/07/97	130	<0.3	<0.3	<0.3	<0.5	-	NP	8.20	0.00	98.85	90.65
01/19/98	85	<0.3	<0.3	<0.3	<0.5	-	NP	1.55	0.00	98.85	97.30
04/23/98	220	0.39	<0.3	<0.3	<0.5	350	NP	8.10	0.00	98.85	90.75
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.30	0.00	98.85	92.55
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	7.65	0.00	98.85	91.20
01/21/99	<50	<0.3	<0.3	<0.3	<0.5	*6.7 / <5.0	NP	6.15	0.00	98.85	92.70
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	1.60	0.00	98.85	97.25
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.13	0.00	98.85	92.72
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.61	0.00	98.85	92.24
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.14	0.00	98.85	92.71
04/05/00	<50	0.5	<0.25	<0.25	<0.5	*5.4 / <5.0	NP	4.58	0.00	98.85	94.27
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5.0	NP	4.59	0.00	98.85	94.26
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	6.28	0.00	98.85	92.57
01/17/01	<50	<0.18	<0.14	<0.18	1.0	*5.0 / 4.8	NP	4.58	0.00	98.85	94.27
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	4.58	0.00	98.85	94.27
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	6.12	0.00	98.85	92.73
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	4.58	0.00	98.85	94.27
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	4.48	0.00	98.85	94.37
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	4.58	0.00	98.85	94.27
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	6.10	0.00	98.85	92.75
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	9.0	NP	6.11	0.00	98.85	92.74
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	7.1	NP	4.55	0.00	98.85	94.30
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	7.9	NP	3.03	0.00	98.85	95.82
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	7.4	NP	5.25	0.00	98.85	93.60
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	*9.11 / 9.2	NP	5.25	0.00	98.85	93.60
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	*8.2 / 4.1	NP	3.03	0.00	98.85	95.82
04/08/04	797	<0.22	<0.32	<0.31	<0.4	635	NP	4.35	0.00	98.85	94.50
07/21/04	548	<0.22	<0.32	<0.31	<0.4	788	NP	5.56	0.00	98.85	93.29
10/20/04	901	<0.22	<0.32	<0.31	<0.4	734	NP	4.15	0.00	98.85	94.70
01/19/05	350	<0.22	<0.32	<0.31	<0.4	860	NP	4.57	0.00	98.85	94.28
04/20/05	718	<0.22	<0.32	<0.31	<0.4	848	NP	6.10	0.00	98.85	92.75
07/20/05	255	<0.32	<0.10	<0.24	<0.30	274	NP	5.76	0.00	98.85	93.09
10/19/05	225	<0.32	<0.10	<0.24	<0.30	300	NP	6.10	0.00	98.85	92.75
01/24/06	681	<0.32	<0.10	<0.24	<0.30	334	NP	4.34	0.00	98.85	94.51

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
04/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	4.58	0.00	98.85	94.27
07/19/06	3,500	11	584	52	208	<0.63	NP	5.56	0.00	98.85	93.29
09/15/06	<5.6	<0.32	<0.10	<0.24	<0.30	1.8	NP	5.81	0.00	98.85	93.04
10/18/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.08	0.00	98.85	92.77
01/17/07	162	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.09	0.00	32.30	26.21
04/18/07	<5.6	<0.32	<0.10	<0.24	<0.3	<0.63	NP	6.09	0.00	32.30	26.21
07/18/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	6.52	0.00	32.30	25.78
10/17/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.55	0.00	32.30	27.75
01/16/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.56	0.00	32.30	27.74
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	6.11	0.00	32.30	26.19
07/16/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	6.08	0.00	32.30	26.22
10/15/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.53	0.00	32.30	27.77
01/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.60	0.00	32.30	27.70
04/15/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.60	0.00	32.30	27.70
10/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.17	0.00	32.30	28.13
04/21/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.06	0.00	32.30	28.24
10/20/10	<6.6	<0.18	1.3 J	<0.21	2.0 J	1.2	NP	4.59	0.00	32.30	27.71
01/19/11	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.56	0.00	32.30	27.74
03/16/12	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	2.78	0.00	32.30	29.52
06/06/12	6,020	83	830	160	1,100	<0.19	Sheen	5.37	0.00	32.30	26.93
09/05/12	<6.6	<1.8	<2.4	<2.1	<4.5	<1.9	NP	4.57	0.00	32.30	27.73
12/04/12	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.36	0.00	32.30	27.94

**MONITORING WELL #MW-6**

Screen Interval = 4 to 14 feet

Casing Diameter = 2 inches

01/09/92	-	-	-	-	-	-	NP	6.30	0.00	99.67	93.37
04/13/92	-	-	-	-	-	-	NP	5.47	0.00	99.67	94.20
10/05/92	-	-	-	-	-	-	NP	9.85	0.00	99.67	89.82
01/06/93	-	-	-	-	-	-	NP	4.16	0.00	99.67	95.51
04/26/93	-	-	-	-	-	-	NP	5.75	0.00	99.67	93.92
01/14/94	-	-	-	-	-	-	NP	7.20	0.00	99.67	92.47
04/05/94	-	-	-	-	-	-	NP	6.76	0.00	99.67	92.91
07/10/95	<100	<0.5	0.9	<0.5	1.1	-	-	-	-	99.67	-
10/09/95	250	4.8	5.6	11	58	-	-	-	-	99.67	-
01/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	NP	6.16	0.00	99.67	93.51
04/08/96	230	4.6	4.7	3.2	33	-	NP	4.60	0.00	99.67	95.07
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	7.30	0.00	99.67	92.37
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	5.82	0.00	99.67	93.85
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	4.40	0.00	99.67	95.27
04/21/97	130	<0.3	<0.3	<0.3	<0.5	<20	NP	7.10	0.00	99.67	92.57
07/14/97	<50	<0.3	<0.3	<0.3	0.70	<20	NP	7.35	0.00	99.67	92.32
10/07/97	<50	0.78	0.3	<0.3	<0.5	-	NP	6.98	0.00	99.67	92.69
01/23/98	<50	<0.3	<0.3	<0.3	<0.5	-	NP	2.35	0.00	99.67	97.32
04/23/98	<50	<0.3	<0.3	<0.3	<0.5	<20	NP	6.90	0.00	99.67	92.77
07/20/98	<50	<0.3	1.1	<0.3	1.4	<5.0	NP	5.45	0.00	99.67	94.22
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	4.95	0.00	99.67	94.72
01/21/99	<50	0.35	0.62	<0.3	<0.5	<5.0	NP	3.90	0.00	99.67	95.77
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	2.35	0.00	99.67	97.32
07/26/99	1,000	<0.3	<0.3	<0.3	<0.5	*2,300 / 3,900	NP	3.93	0.00	99.67	95.74
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5.0	NP	6.15	0.00	99.67	93.52
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*42 / 41	NP	5.84	0.00	99.67	93.83

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
04/05/00	4,600	338	2.8	1.2	55.2	*282 / 230	NP	3.89	0.00	99.67	95.78
07/19/00	60	1.0	2.0	<0.3	<0.6	*87 / 76	NP	3.07	0.00	99.67	96.60
10/18/00	-	-	-	-	-	-	-	-	-	99.67	-
01/17/01	103	<0.18	2.0	<0.18	3.0	*78 / 106	NP	3.87	0.00	99.67	95.80
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.86	0.00	99.67	95.81
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.40	0.00	99.67	94.27
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.86	0.00	99.67	95.81
01/30/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.86	0.00	99.67	95.81
04/17/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	3.86	0.00	99.67	95.81
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	<0.24	NP	5.40	0.00	99.67	94.27
11/14/02	140	3.2	<0.18	5.2	<0.4	111	NP	5.42	0.00	99.67	94.25
01/29/03	694 J	<0.04	<0.02	<0.02	<0.06	630	NP	3.88	0.00	99.67	95.79
04/23/03	1,550	<0.04	<0.02	<0.02	<0.06	578	NP	3.86	0.00	99.67	95.81
07/10/03	1,670	<0.22	<0.32	<0.31	<0.4	509	NP	5.31	0.00	99.67	94.36
10/20/03	1,320	<0.04	<0.02	<0.02	<0.06	*656 / 662	NP	5.30	0.00	99.67	94.37
01/14/04	272	<0.04	<0.02	<0.02	<0.06	*304 / 180	NP	3.82	0.00	99.67	95.85
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.18	0.00	99.67	94.49
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.42	0.00	99.67	93.25
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.62	0.00	99.67	94.05
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.40	0.00	99.67	94.27
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.41	0.00	99.67	94.26
07/20/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	4.07	0.00	99.67	95.60
10/19/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	3.86	0.00	99.67	95.81
01/24/06	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.20	0.00	99.67	94.47
04/19/06	78	<0.32	<0.10	<0.24	<0.30	201	NP	3.87	0.00	99.67	95.80
07/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.54	0.00	99.67	93.13
09/15/06	-	-	-	-	-	-	-	-	-	-	-
10/18/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.40	0.00	99.67	94.27
01/17/07	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.40	0.00	33.14	27.74
04/18/07	2,110	29	357	37	914	<0.63	NP	5.40	0.00	33.14	27.74
07/18/07	65	<0.18	<0.24	<0.21	<0.45	<0.19	NP	7.38	0.00	33.14	25.76
10/17/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	3.86	0.00	33.14	29.28
01/16/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.39	0.00	33.14	27.75
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.42	0.00	33.14	27.72
07/16/08	<6.6	<0.18	3.0 J	<0.21	2.7 J	<0.19	NP	3.84	0.00	33.14	29.30
10/15/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.40	0.00	33.14	27.74
01/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.42	0.00	33.14	27.72
04/15/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.42	0.00	33.14	27.72
10/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.60	0.00	33.14	27.54
04/21/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.75	0.00	33.14	28.39
10/20/10	<6.6	<0.18	1.7 J	<0.21	2.5 J	<0.19	NP	5.40	0.00	33.14	27.74
01/19/11	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.38	0.00	33.14	27.76
03/16/12	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	3.12	0.00	33.14	30.02
06/06/12	131,000	5,700	26,000	3,600	19,000	<19	NP	6.31	0.00	33.14	26.83
09/05/12	514	2.3	<0.24	<0.21	1.3 J	15	NP	5.43	0.00	33.14	27.71
12/04/12	<6.6	<0.18	<0.24	<0.21	<0.45	2.4	NP	5.16	0.00	33.14	27.98

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
<b>MONITORING WELL #MW-7</b>											
Screen Interval = 4 to 14 feet						Casing Diameter = 4 inches					
01/09/92	-	-	-	-	-	-	NP	6.30	0.00	99.02	92.72
04/13/92	-	-	-	-	-	-	NP	6.68	0.00	99.02	92.34
10/05/92	-	-	-	-	-	-	NP	9.60	0.00	99.02	89.42
01/06/93	-	-	-	-	-	-	NP	13.90	0.00	99.02	85.12
04/26/93	-	-	-	-	-	-	NP	5.55	0.00	99.02	93.47
01/04/94	-	-	-	-	-	-	NP	7.58	0.00	99.02	91.44
04/05/94	-	-	-	-	-	-	NP	6.66	0.00	99.02	92.36
10/09/95	27,000	2,400	140	1,700	2,700	-	-	-	-	99.02	-
01/08/96	13,000	800	42	540	860	-	NP	6.94	0.00	99.02	92.08
04/08/94	9,100	840	31	690	1,200	-	NP	5.48	0.00	99.02	93.54
07/22/96	11,000	1,700	22	660	700	840	NP	6.60	0.00	99.02	92.42
10/16/96	180	<0.3	<0.3	<0.3	<0.5	270	NP	6.42	0.00	99.02	92.60
01/22/97	130	<0.3	<0.3	<0.3	<0.5	470	NP	5.70	0.00	99.02	93.32
04/21/97	10,000	1,400	27	820	490	1,100	NP	5.30	0.00	99.02	93.72
07/14/97	8,200	660	15	230	270	560	NP	7.90	0.00	99.02	91.12
10/07/97	7,700	480	15	8.4	350	-	NP	7.70	0.00	99.02	91.32
01/19/98	1,400	20	0.74	0.46	4.4	-	NP	6.05	0.00	99.02	92.97
04/23/98	590	<0.3	<0.3	<0.3	<0.5	1,700	NP	7.60	0.00	99.02	91.42
07/20/98	4,900	570	150	300	500	1,500	NP	5.30	0.00	99.02	93.72
10/14/98	1,100	1.0	<0.3	<0.3	5.3	2,000	NP	8.60	0.00	99.02	90.42
01/21/99	570	0.32	<0.3	<0.3	<0.5	*1,500 / 1,700	NP	6.70	0.00	99.02	92.32
04/15/99	770	<0.3	<0.3	<0.3	<0.5	*1,400 / 1,200	NP	6.07	0.00	99.02	92.95
07/26/99	500	<0.3	<0.3	<0.3	<0.5	*710 / 950	NP	7.86	0.00	99.02	91.16
10/13/99	<50	<0.3	0.44	<0.3	0.62	<5.0	NP	6.93	0.00	99.02	92.09
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*5.0 / <5.0	NP	6.44	0.00	99.02	92.58
04/05/00	5,670	415	19	1.7	60.1	*329 / 194	NP	7.86	0.00	99.02	91.16
07/19/00	1,350	14	<3.0	<3.0	10	*237 / 120	NP	7.10	0.00	99.02	91.92
10/18/00	<50	<0.18	<0.14	<0.18	<0.26	*63 / 41.1	NP	5.28	0.00	99.02	93.74
01/17/01	<50	<0.18	<0.14	<0.18	3.0	*57 / 81	NP	5.27	0.00	99.02	93.75
04/19/01	<50	<0.18	<0.14	<0.18	<0.26	66	NP	7.86	0.00	99.02	91.16
07/18/01	<50	<0.18	<0.14	<0.18	<0.26	*9.0 / 3.5	NP	6.30	0.00	99.02	92.72
10/10/01	<50	<0.18	<0.14	<0.18	<0.26	*9.4 / 7.9	NP	8.23	0.00	99.02	90.79
01/30/02	2,590	40	9.0	8.0	6.0	*45 / 22	NP	5.14	0.00	99.02	93.88
04/17/02	51	<0.18	<0.14	<0.18	<0.26	*58 / 45	NP	5.53	0.00	99.02	93.49
07/31/02	<50	<0.18	<0.14	<0.18	<0.26	*39 / 33	NP	5.93	0.00	99.02	93.09
11/14/02	<50	<0.08	<0.18	<0.17	<0.4	6.8	NP	5.92	0.00	99.02	93.10
01/29/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	5.51	0.00	99.02	93.51
04/23/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	5.14	0.00	99.02	93.88
07/10/03	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.03	0.00	99.02	93.99
10/20/03	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	5.01	0.00	99.02	94.01
01/14/04	<15	<0.04	<0.02	<0.02	<0.06	<0.03	NP	4.38	0.00	99.02	94.64
04/08/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	4.86	0.00	99.02	94.16
07/21/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	6.82	0.00	99.02	92.20
10/20/04	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.71	0.00	99.02	93.31
01/19/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	4.77	0.00	99.02	94.25
04/20/05	<15	<0.22	<0.32	<0.31	<0.4	<0.18	NP	5.54	0.00	99.02	93.48
07/20/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.80	0.00	99.02	92.22
10/19/05	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.89	0.00	99.02	93.13
01/24/06	<2.9	<0.32	<0.10	<0.24	<0.30	<0.63	NP	4.89	0.00	99.02	94.13
04/19/06	<5.6	<0.32	<0.10	<0.24	<0.30	2.9	NP	5.13	0.00	99.02	93.89



**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
07/19/06	3,430	58	28 J	<2.4	447	528	NP	6.31	0.00	99.02	92.71
09/15/06	<5.6	<0.32	<0.10	<0.24	<0.30	16	NP	6.72	0.00	99.02	92.30
10/18/06	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	5.13	0.00	99.02	93.89
01/17/07	<5.6	<0.32	<0.10	<0.24	<0.30	<0.63	NP	6.62	0.00	31.61	24.99
04/18/07	<5.6	<0.32	<0.10	<0.24	<0.3	<0.63	NP	5.86	0.00	31.61	25.75
07/18/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	6.82	0.00	31.61	24.79
10/17/07	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.87	0.00	31.61	25.74
01/06/08	<5.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.79	0.00	31.61	26.82
04/22/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.84	0.00	31.61	25.77
07/16/08	<6.6	<0.18	2.1 J	<0.21	5.6	<0.19	NP	5.86	0.00	31.61	25.75
10/15/08	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.80	0.00	31.61	26.81
01/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.80	0.00	31.61	26.81
04/15/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.80	0.00	31.61	26.81
10/21/09	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	5.70	0.00	31.61	25.91
04/21/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.15	0.00	31.61	27.46
10/20/10	<6.6	<0.18	<0.24	<0.21	<0.45	<0.19	NP	4.79	0.00	31.61	26.82
01/19/11	<6.6	<0.18	1.7 J	<0.21	3.3 J	<0.19	NP	4.76	0.00	31.61	26.85
03/16/12	1,500	20	1.5 J	4.0 J	<0.45	6.2	NP	3.96	0.00	31.61	27.65
06/06/12	1,880	16	<0.24	1.8 J	1.6 J	7.2	Sheen	5.46	0.00	31.61	26.15
09/05/12	65.7	<0.18	<0.24	<0.21	2.3 J	22	NP	4.79	0.00	31.61	26.82
12/04/12	1,670	9.7	240	41	250	<0.19	NP	4.85	0.00	31.61	26.76

MONITORING WELL #RW-1											
DATE	Screen Interval = 5 to 20 feet						Casing Diameter = 4 inches				
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)	DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
01/09/92	-	-	-	-	-	-	NP	14.00	0.00	-	-
04/13/92	-	-	-	-	-	-	NP	14.00	0.00	-	-
10/05/92	-	-	-	-	-	-	NP	15.05	0.00	-	-
01/06/93	-	-	-	-	-	-	NP	5.43	0.00	-	-
04/26/93	-	-	-	-	-	-	NP	13.20	0.00	-	-
01/04/94	-	-	-	-	-	-	NP	14.30	0.00	-	-
04/05/94	-	-	-	-	-	-	NP	14.13	0.00	-	-
01/08/96	-	-	-	-	-	-	NP	14.22	0.00	-	-
04/08/96	-	-	-	-	-	-	NP	14.33	0.00	-	-
07/22/96	8,100	530	84	120	860	-	NP	14.27	0.00	-	-
10/16/96	-	-	-	-	-	-	NP	13.10	0.00	-	-
01/22/97	-	-	-	-	-	-	NP	16.97	0.00	-	-
10/07/97	-	-	-	-	-	-	NP	14.20	0.00	-	-
01/15/98	-	-	-	-	-	-	NP	15.60	0.00	-	-
04/23/98	81,000	0.72	1.4	3.2	5.7	270,000	NP	14.20	0.00	-	-
07/20/98	-	-	-	-	-	-	NP	14.30	0.00	-	-
10/14/98	-	-	-	-	-	-	NP	11.20	0.00	-	-
01/21/99	-	-	-	-	-	-	-	-	-	-	-
04/15/99	-	-	-	-	-	-	NP	13.10	0.00	-	-
07/26/99	4,400	<3.0	<3.0	<3.0	<5.0	*6,800 / 9,000	NP	13.83	0.00	-	-
10/13/99	-	-	-	-	-	-	-	-	-	-	-
01/20/00	-	-	-	-	-	-	NP	13.22	0.00	-	-
04/05/00	-	-	-	-	-	-	-	-	-	-	-
07/19/00	-	-	-	-	-	-	NP	13.25	0.00	-	-
10/18/00	-	-	-	-	-	-	NP	11.14	0.00	-	-
01/17/01	-	-	-	-	-	-	NP	11.12	0.00	-	-
04/19/01	-	-	-	-	-	-	-	-	-	-	-

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
07/18/01	-	-	-	-	-	-	NP	11.20	0.00	-	-
10/10/01	-	-	-	-	-	-	NP	11.20	0.00	-	-
01/30/02	-	-	-	-	-	-	NP	12.30	0.00	-	-
04/17/02	-	-	-	-	-	-	NP	14.30	0.00	-	-
07/31/02	-	-	-	-	-	-	NP	14.21	0.00	-	-
11/14/02	-	-	-	-	-	-	NP	14.13	0.00	-	-
01/29/03	-	-	-	-	-	-	NP	13.12	0.00	-	-
04/23/03	-	-	-	-	-	-	-	No Access	-	-	-
07/10/03	-	-	-	-	-	-	-	No Access	-	-	-
10/20/03	-	-	-	-	-	-	-	No Access	-	-	-
WELL ABANDONED 01/2004											
<b>MONITORING WELL #RW-1R</b>											
Screen Interval = 5 to 20 feet											
02/03/04	-	-	-	-	-	-	-	-	-	-	-
04/08/04	6,740	42	32 J	<3.1	1,160	239	NP	4.76	0.00	-	-
07/21/04	118	<0.22	<0.32	<0.31	<0.4	107	NP	6.85	0.00	-	-
10/20/04	29,900	3,850	4,010	381	1,920	103	NP	4.28	0.00	-	-
01/19/05	13,400	272	243	24 J	2,230	2,110	NP	4.54	0.00	-	-
04/20/05	1,220	<0.22	<0.32	<0.31	<0.4	1,580	NP	4.95	0.00	-	-
07/07/05	6,490	410	74	84	620	2,560	-	-	-	-	-
07/20/05	4,900	133	52	<2.4	750	465	NP	6.32	0.00	-	-
10/19/05	572	<0.32	<0.10	<0.24	<0.30	417	NP	5.68	0.00	-	-
01/24/06	14,500	192	1,150	342	2,980	432	NP	4.78	0.00	-	-
04/19/06	7,430	94	411	<2.4	1,820	571	NP	4.94	0.00	-	-
07/19/06	5,020	55	17 J	<2.4	457	636	NP	7.10	0.00	-	-
09/15/06	-	-	-	-	-	-	-	-	-	-	-
10/18/06	41,500	63	4,710	1,510	6,390	343	NP	6.06	0.00	-	-
01/17/07	164,000	249	25,300	6,040	35,200	217	NP	6.83	0.00	30.59	23.76
04/18/07	13,000	<16	2,230	121 J	5,070	92	NP	7.22	0.00	30.59	23.37
07/18/07	3,930	90	64	291	437	117	NP	5.76	0.00	30.59	24.83
10/17/07	993	<0.18	22	4.7 J	85	108	NP	4.93	0.00	30.59	25.66
01/16/08	1,990	14	5.6	33	99	108	NP	4.56	0.00	30.59	26.03
04/22/08	22,400	330	2,350	517	3,250	15	NP	7.23	0.00	30.59	23.36
07/16/08	5,140	35	315	94	761	3.0	NP	5.65	0.00	30.59	24.94
10/15/08	2,430	71	3.5 J	<0.21	35	179	NP	4.55	0.00	30.59	26.04
01/21/09	75	<0.18	<0.24	<0.21	<0.45	128	NP	4.57	0.00	30.59	26.02
04/15/09	2,740	33	395	89	514	61	NP	4.56	0.00	30.59	26.03
10/21/09	16,400	124	920	358	2,250	5.1	NP	4.30	0.00	30.59	26.29
04/21/10	1,570	18	<1.2	<1.05	276	24	NP	3.92	0.00	30.59	26.67
10/20/10	49,000	425	7,260	2,700	15,900	<19.0	NP	4.55	0.00	30.59	26.04
01/19/11	8,420	180	1,390	158	1,270	<1.9	NP	4.53	0.00	30.59	26.06
03/16/12	1,420	2.2	<0.24	27	64	3.4	NP	3.09	0.00	30.59	27.50

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO PRODUCT (feet)	DEPTH TO GROUNDWATER (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	EthylBenzene (µg/L)	XYLENE (µg/L)	MTBE (µg/L)					
06/06/12	1,050	15	<0.24	16	18	32	NP	4.45	0.00	30.59	26.14
09/05/12	186	2.1	<0.24	<0.21	<0.45	5.6	NP	4.57	0.00	30.59	26.02
12/04/12	<6.6	<0.18	<0.24	<0.21	<0.45	2.7	NP	4.75	0.00	30.59	25.84

**NOTE:** \* MTBE 8020 / 8260  
 ND = Nondetectable  
 NP = No free hydrocarbon product  
 " - " = Not analyzed / Not available  
 J = Flag indicating value between MDL and PQL

Benzene, toluene, ethlybenzene, and xylene analyzed by EPA method 8020.  
 Total petroleum hydrocarbons (TPH) analyzed by EPA method 8015 modified for gasoline  
 Methyl-tert Butyl Ether (MTBE) analyzed by EPA method 8020 or 8260  
 On 7/21/04, 4/08/04, 7/10/03 & 11/14/02, BTEX and MTBE done by 8260B

**TABLE 2  
ADDITIONAL GROUNDWATER DATA  
THRIFTY OIL STATION # 049, OAKLAND, CA.**

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (mg/L)	Methanol (mg/L)
<b>MONITORING WELL # MW-1</b>						
11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	<0.28	<10	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	<0.28	12	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<0.29	<0.17	<0.28	<10	<20	<20
07/19/06	<2.9	<1.7	<2.8	<100	-	-
09/15/06	<0.29	<0.17	<0.28	<10	-	-
10/18/06	<0.29	<0.17	<0.28	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	<10	-	-
07/18/07	<0.20	<0.23	<0.19	<10	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/16/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
10/15/08	<0.20	<0.23	<0.19	<5.2	-	-
01/21/09	<0.20	<0.23	<0.19	<5.2	-	-
04/15/09	<0.20	<0.23	<0.19	<5.2	-	-
10/21/09	<0.20	<0.23	<0.19	<5.2	<0.1	-
04/21/10	<0.20	<0.23	<0.19	<5.2	-	-
10/20/10	<0.20	<0.23	<0.19	<5.2	-	-
01/19/11	<0.20	<0.23	<0.19	<5.2	-	-
03/16/12	<0.2	<0.23	<0.19	18	-	-
06/06/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
09/05/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
12/04/12	<0.2	<0.23	<0.19	<5.2	2.600	-
<b>MONITORING WELL #MW-2</b>						
11/14/02	<2.0	<1.2	111	341	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<2.9	<1.7	59	449	-	-
10/20/03	-	-	-	-	-	-
WELL ABANDONED 01/2004						
<b>MONITORING WELL #MW-2R</b>						
02/03/04	<0.29	<0.17	76	1,610	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/07/05	<0.29	<0.17	37	1,130	-	-
07/20/05	<0.29	<0.17	95	151	<20	<20
10/19/05	<0.29	<0.17	13	33	<20	<20
01/24/06	<0.29	<0.17	<0.28	42	<20	<20
04/19/06	<5.8	<3.4	<5.6	<200	<20	<20
07/19/06	<2.9	<1.7	68	113	-	-
09/15/06	-	-	-	-	-	-
10/18/06	<2.9	<1.7	<2.8	174.0	-	-
01/17/07	<58	<34	<52	<2000	-	-
04/18/07	<0.29	<0.17	5.2	122.0	-	-
07/18/07	<0.20	<0.23	<0.19	39	-	-
10/17/07	<0.20	<0.23	11	119	-	-
01/16/08	<0.20	<0.23	2.9	<10	-	-

**TABLE 2  
ADDITIONAL GROUNDWATER DATA  
THRIFTY OIL STATION # 049, OAKLAND, CA.**

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (mg/L)	Methanol (mg/L)
04/22/08	<20	<23	<19	<1,000	-	-
07/16/08	<0.20	<0.23	<0.19	9.5 J	-	-
10/15/08	<0.20	<0.23	25	151	-	-
01/21/09	<0.20	<0.23	1.6	<5.2	-	-
04/15/09	<2.0	<2.3	<1.9	<52.0	-	-
10/21/09	<2.0	<2.3	<1.9	<52.0	9.66	-
04/21/10	<0.20	<0.23	<0.19	<5.2	-	-
10/20/10	<0.20	<0.23	1.4	21	-	-
01/19/11	<0.20	<0.23	<0.19	<5.2	-	-
03/16/12	<0.2	<0.23	<0.19	32	-	-
06/06/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
09/05/12	<0.2	<0.23	4.8	27	<0.100	-
12/04/12	<0.2	<0.23	<0.19	<5.2	4,600	-

**MONITORING WELL # MW-3**

11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	<0.28	<10	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	<0.28	<10	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<0.29	<0.17	<0.28	<10	<20	<20
07/19/06	<2.9	<1.7	173	128	-	-
09/15/06	<0.29	<0.17	38	<10	-	-
10/18/06	<0.29	<0.17	2.8	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	18	-	-
07/18/07	<0.20	<0.23	<0.19	11	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/16/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	10	-	-
10/15/08	<0.20	<0.23	<0.19	<5.2	-	-
01/21/09	<0.20	<0.23	<0.19	<5.2	-	-
04/15/09	<0.20	<0.23	<0.19	<5.2	-	-
10/21/09	<0.20	<0.23	<0.19	<5.2	<0.1	-
04/21/10	<0.20	<0.23	<0.19	12	-	-
10/20/10	<0.20	<0.23	<0.19	<5.2	-	-
01/19/11	<0.20	<0.23	<0.19	<5.2	-	-
03/16/12	<0.2	<0.23	<0.19	140	-	-
06/06/12	<1	<1.15	<0.95	100	<0.500	-
09/05/12	<0.2	<0.23	<0.19	63	<0.100	-
12/04/12	<0.2	<0.23	3.9	<5.2	13,000	-

**MONITORING WELL # MW-4**

11/14/02	<2.0	<1.2	106	281	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<2.9	<1.7	35	<100	-	-
10/20/03	-	-	-	-	-	-

WELL ABANDONED 01/2004

**MONITORING WELL # MW-4R**

02/03/04	<0.29	<0.17	209	1,350	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-

**TABLE 2  
ADDITIONAL GROUNDWATER DATA  
THRIFTY OIL STATION # 049, OAKLAND, CA.**

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (mg/L)	Methanol (mg/L)
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/07/05	<0.29	<0.17	57	167	-	-
07/20/05	<0.29	<0.17	<0.28	369	<20	<20
10/19/05	<0.29	<0.17	39	335	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<2.9	<1.7	36	231	<20	<20
07/19/06	<2.9	<1.7	<2.8	<100	-	-
09/15/06	-	-	-	-	-	-
10/18/06	<29	<17	<28	<1000	-	-
01/17/07	<58	<34	<52	<2000	-	-
04/18/07	<14.5	<8.5	<14	<500	-	-
07/18/07	<0.20	<0.23	<0.19	20	-	-
10/17/07	<0.20	<0.23	3.9	89	-	-
01/16/08	<0.20	<0.23	<0.19	25	-	-
04/22/08	<2.0	<2.3	<1.9	<100	-	-
07/16/08	<0.20	<0.23	<0.19	18	-	-
10/15/08	<0.20	<0.23	<0.19	23	-	-
01/21/09	<0.20	<0.23	2.6	51	-	-
04/15/09	<20	<23	<19	<520	-	-
10/21/09	<2.0	<2.3	<1.9	<52.0	25.4	-
04/21/10	<1.0	<1.15	<0.95	<26.0	-	-
10/20/10	<4.0	<4.6	<3.8	<104.0	-	-
01/19/11	<4.0	<4.6	<3.8	<104.0	-	-
03/16/12	<0.2	<0.23	<0.19	<5.2	-	-
06/06/12	<0.2	<0.23	<0.19	77	<0.100	-
09/05/12	<0.2	<0.23	1.3	<5.2	<0.100	-
12/04/12	<0.2	<0.23	<0.19	<5.2	5.400	-

**MONITORING WELL # MW-5**

11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	<0.28	<10	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	1.4	<10	<20	<20
01/24/06	<0.29	<0.17	1.2	19	<20	<20
04/19/06	<0.29	<0.17	<0.28	<10	<20	<20
07/19/06	<0.29	<0.17	<0.28	<10	-	-
09/15/06	<0.29	<0.17	<0.28	<10	-	-
10/18/06	<0.29	<0.17	<0.28	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	<10	-	-
07/18/07	<0.20	<0.23	<0.19	<10	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/16/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
10/15/08	<0.20	<0.23	<0.19	<5.2	-	-
01/21/09	<0.20	<0.23	<0.19	<5.2	-	-
04/15/09	<0.20	<0.23	<0.19	<5.2	-	-
10/21/09	<0.20	<0.23	<0.19	<5.2	<0.1	-
04/21/10	<0.20	<0.23	<0.19	<5.2	-	-
10/20/10	<0.20	<0.23	<0.19	<5.2	-	-
01/19/11	<0.20	<0.23	<0.19	<5.2	-	-

**TABLE 2  
ADDITIONAL GROUNDWATER DATA  
THRIFTY OIL STATION # 049, OAKLAND, CA.**

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (mg/L)	Methanol (mg/L)
03/16/12	<0.2	<0.23	<0.19	<5.2	-	-
06/06/12	<0.2	<0.23	<0.19	<5.2	9.300	-
09/05/12	<2.0	<2.3	<1.9	<52.0	6.2	-
12/04/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
<b>MONITORING WELL # MW-6</b>						
11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	2.1	38	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	<0.28	<10	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<0.29	<0.17	<0.28	13	<20	<20
07/19/06	<0.29	<0.17	<0.28	<10	-	-
09/15/06	-	-	-	-	-	-
10/18/06	<0.29	<0.17	<0.28	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	<10	-	-
07/18/07	<0.20	<0.23	<0.19	<10	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-
01/16/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
10/15/08	<0.20	<0.23	<0.19	<5.2	-	-
01/21/09	<0.20	<0.23	<0.19	<5.2	-	-
04/15/09	<0.20	<0.23	<0.19	<5.2	-	-
10/21/09	<0.20	<0.23	<0.19	<5.2	<0.1	-
04/21/10	<0.20	<0.23	<0.19	<5.2	-	-
10/20/10	<0.20	<0.23	<0.19	<5.2	-	-
01/19/11	<0.20	<0.23	<0.19	<5.2	-	-
03/16/12	<0.2	<0.23	<0.19	<5.2	-	-
06/06/12	<20	<23	<19	<520	51.000	-
09/05/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
12/04/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
<b>MONITORING WELL # MW-7</b>						
11/14/02	<0.2	<0.12	<0.16	<10	-	-
01/29/03	-	-	-	-	-	-
04/23/03	-	-	-	-	-	-
07/10/03	<0.29	<0.17	<0.28	<10	-	-
10/20/03	-	-	-	-	-	-
01/14/04	-	-	-	-	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	<0.28	<10	<20	<20
01/24/06	<0.29	<0.17	<0.28	<10	<20	<20
04/19/06	<0.29	<0.17	<0.28	<10	<20	<20
07/19/06	<2.9	<1.7	25	216	-	-
09/15/06	<0.29	<0.17	<0.28	<10	-	-
10/18/06	<0.29	<0.17	<0.28	<10	-	-
01/17/07	<0.29	<0.17	<0.28	<10	-	-
04/18/07	<0.29	<0.17	<0.28	<10	-	-
07/18/07	<0.20	<0.23	<0.19	<10	-	-
10/17/07	<0.20	<0.23	<0.19	<10	-	-

**TABLE 2  
ADDITIONAL GROUNDWATER DATA  
THRIFTY OIL STATION # 049, OAKLAND, CA.**

DATE SAMPLED	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (mg/L)	Methanol (mg/L)
01/06/08	<0.20	<0.23	<0.19	<10	-	-
04/22/08	<0.20	<0.23	<0.19	<10	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
10/15/08	<0.20	<0.23	<0.19	<5.2	-	-
01/21/09	<0.20	<0.23	<0.19	<5.2	-	-
04/15/09	<0.20	<0.23	<0.19	<5.2	-	-
10/21/09	<0.20	<0.23	<0.19	<5.2	<0.1	-
04/21/10	<0.20	<0.23	<0.19	<5.2	-	-
10/20/10	<0.20	<0.23	<0.19	<5.2	-	-
01/19/11	<0.20	<0.23	<0.19	<5.2	-	-
03/16/12	<0.2	<0.23	<0.19	<5.2	-	-
06/06/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
09/05/12	<0.2	<0.23	4.0	51	<0.100	-
12/04/12	<0.2	<0.23	<0.19	<5.2	5.300	-
<b>MONITORING WELL # RW-1R</b>						
02/03/04	<0.29	<0.17	53	1,370	-	-
04/08/04	-	-	-	-	-	-
07/21/04	-	-	-	-	-	-
10/20/04	-	-	-	-	-	-
01/19/05	-	-	-	-	-	-
04/20/05	-	-	-	-	-	-
07/07/05	<0.29	<0.17	71	1,740	-	-
07/20/05	<0.29	<0.17	<0.28	<10	<20	<20
10/19/05	<0.29	<0.17	9.6	65	<20	<20
01/24/06	<2.9	<1.7	<2.8	156	<20	<20
04/19/06	<2.9	<1.7	11	206	<20	<20
07/19/06	<2.9	<1.7	<2.8	217	-	-
09/15/06	-	-	-	-	-	-
10/18/06	<2.9	<1.7	<2.8	209	-	-
01/17/07	<58	<34	<52	<2000	-	-
04/18/07	<14.5	<8.5	<14	<500	-	-
07/18/07	<2.0	<2.3	<1.9	<100	-	-
10/17/07	<0.20	<0.23	<0.19	81	-	-
01/16/08	<0.20	<0.23	<0.19	31	-	-
04/22/08	<2.0	<2.3	<1.9	<100	-	-
07/16/08	<0.20	<0.23	<0.19	<5.2	-	-
10/15/08	<0.20	<0.23	<0.19	31	-	-
01/21/09	<0.20	<0.23	1.6	14	-	-
04/15/09	<2.0	<2.3	<1.9	<52.0	-	-
10/21/09	<1.0	<1.15	<0.95	<26.0	10.6	-
04/21/10	<1.0	<1.15	<0.95	<26.0	-	-
10/20/10	<20.0	<23.0	<19.0	<520.0	-	-
01/19/11	<2.0	<2.3	<1.9	<52.0	-	-
03/16/12	<0.2	<0.23	<0.19	11	-	-
06/06/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
09/05/12	<0.2	<0.23	<0.19	<5.2	<0.100	-
12/04/12	<0.2	<0.23	<0.19	<5.2	<0.100	-

**NOTE:**

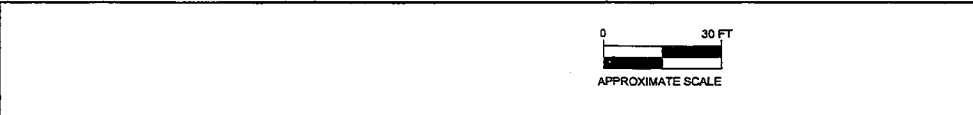
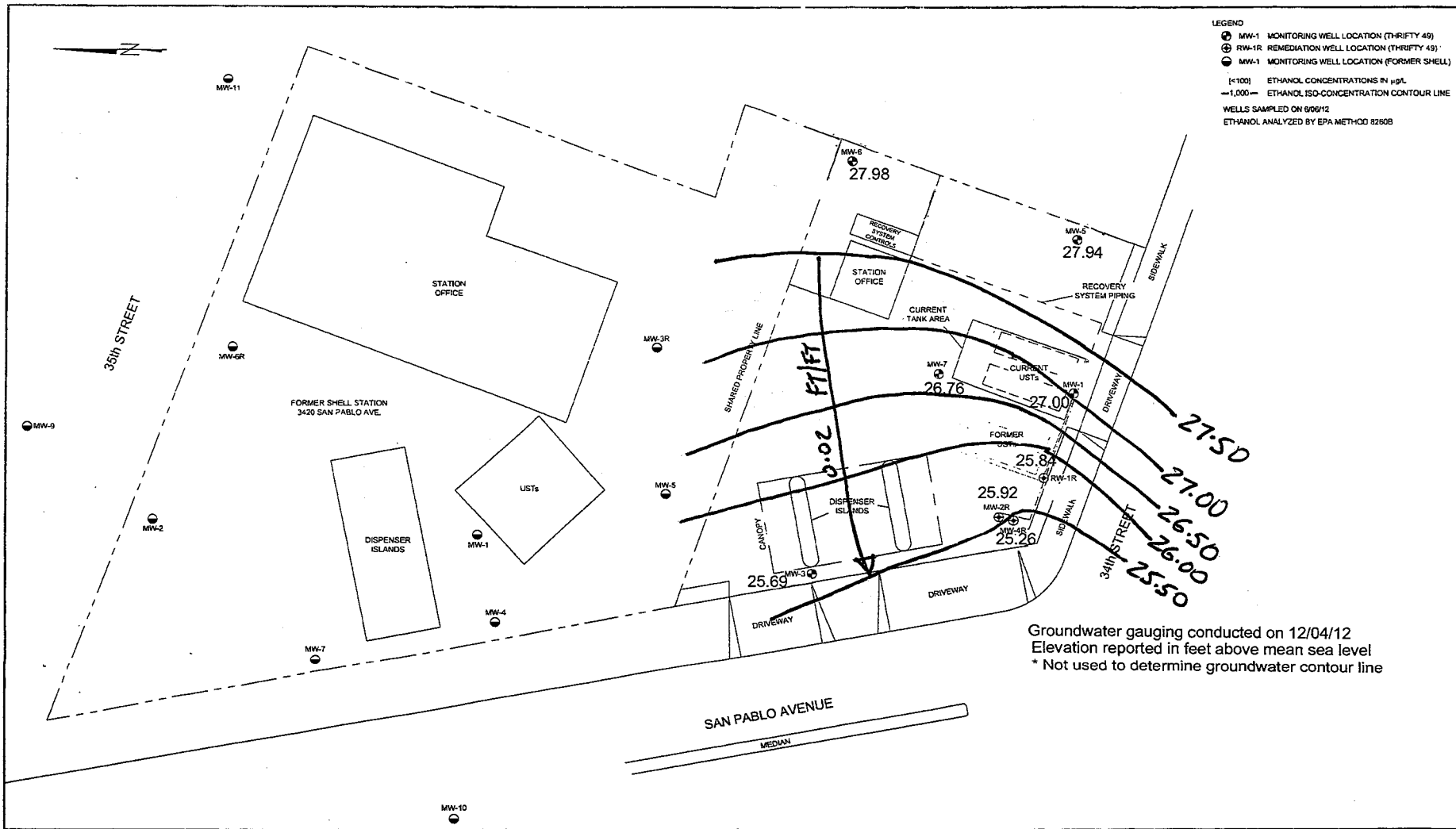
ug/L = micrograms per liter  
 mg/L = milligrams per liter  
 DIPE = di-isopropyl ether  
 ETBE = ethyl tertbutyl ether  
 TAME = tert amylmethylether  
 TBA = tertiary butyl alcohol

**Analysis:**

DIPE, ETBE, TAME, TBA analyzed by EPA Method 8260B

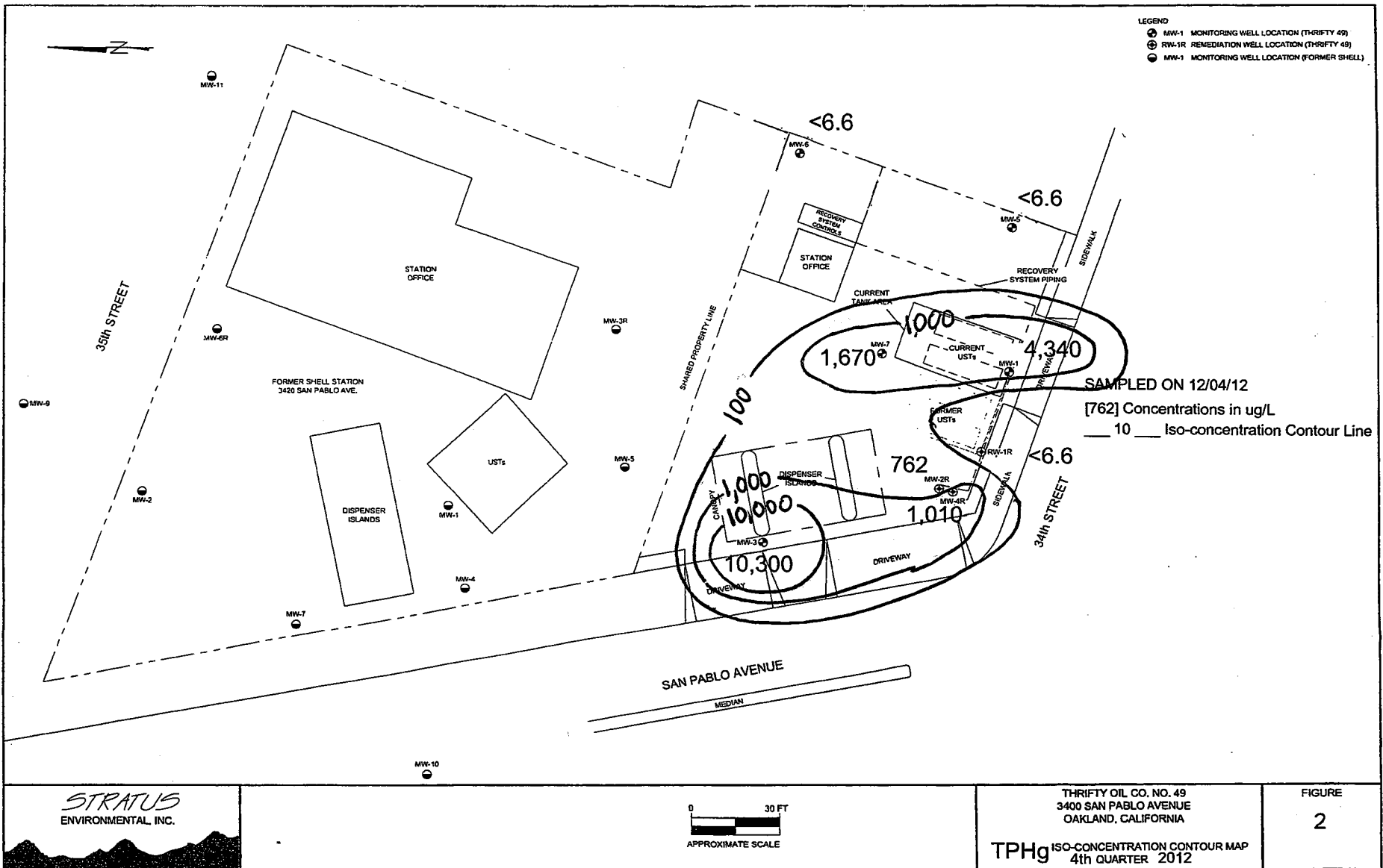


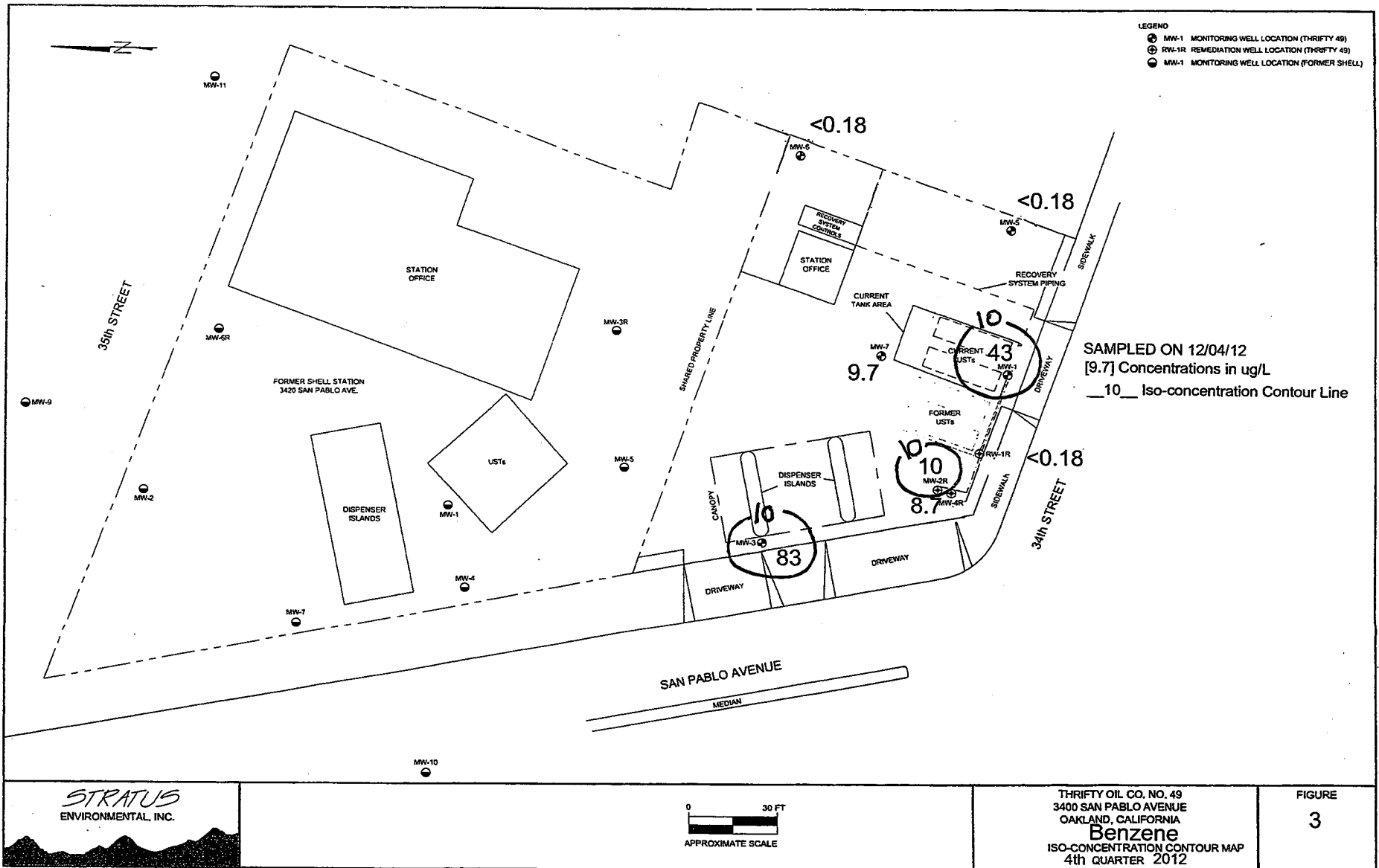
# ***FIGURES***

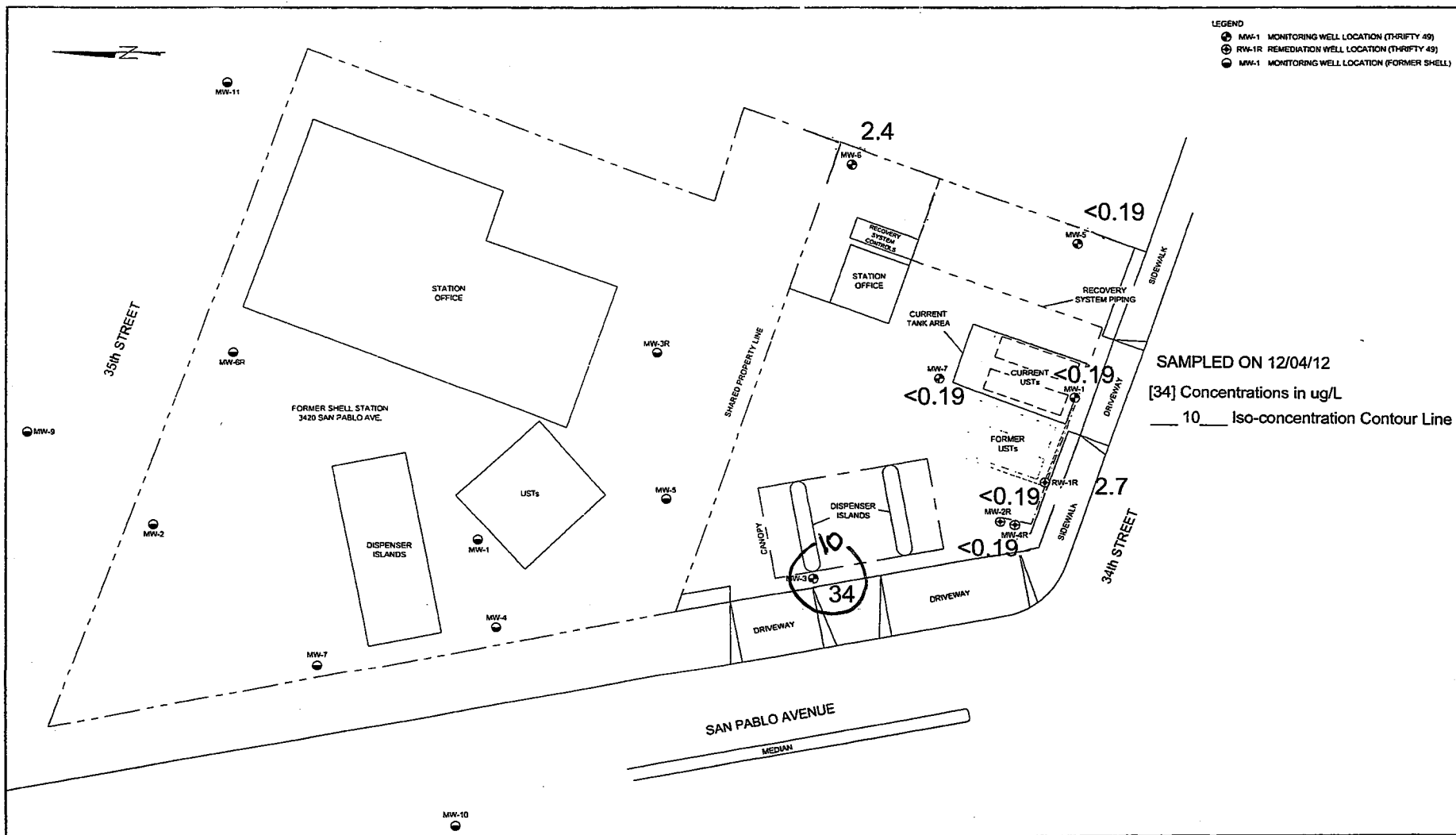


THRIFTY OIL CO. NO. 49  
3400 SAN PABLO AVENUE  
OAKLAND, CALIFORNIA  
**Groundwater Contour Map**  
ISO-CONCENTRATION CONTOUR MAP  
4th QUARTER 2012

FIGURE  
**1**







- LEGEND
- MW-1 MONITORING WELL LOCATION (THRIFTY 49)
  - ⊕ RW-1R REMEDIATION WELL LOCATION (THRIFTY 49)
  - MW-1 MONITORING WELL LOCATION (FORMER SHELL)

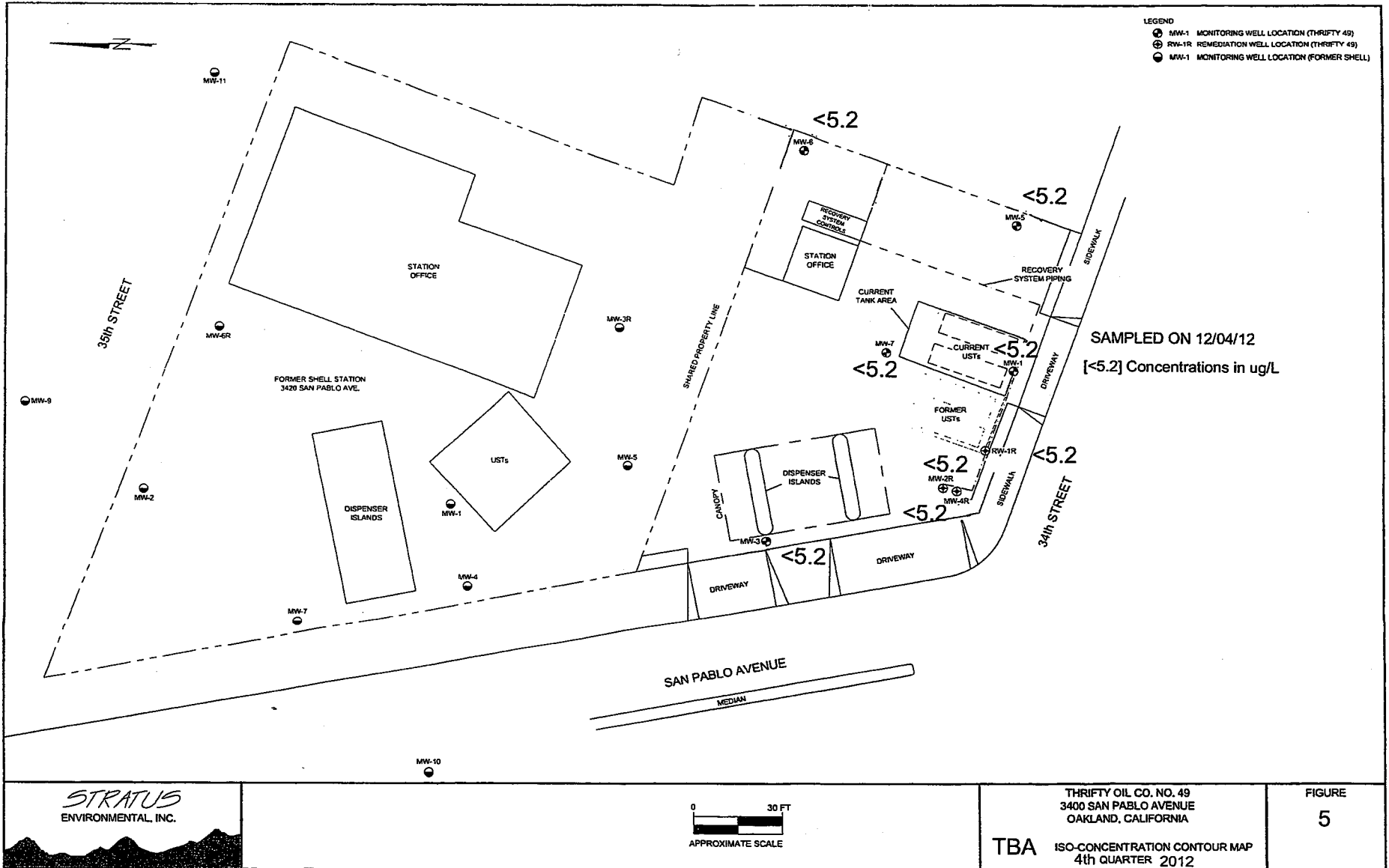
SAMPLED ON 12/04/12  
 [34] Concentrations in ug/L  
 — 10 — Iso-concentration Contour Line

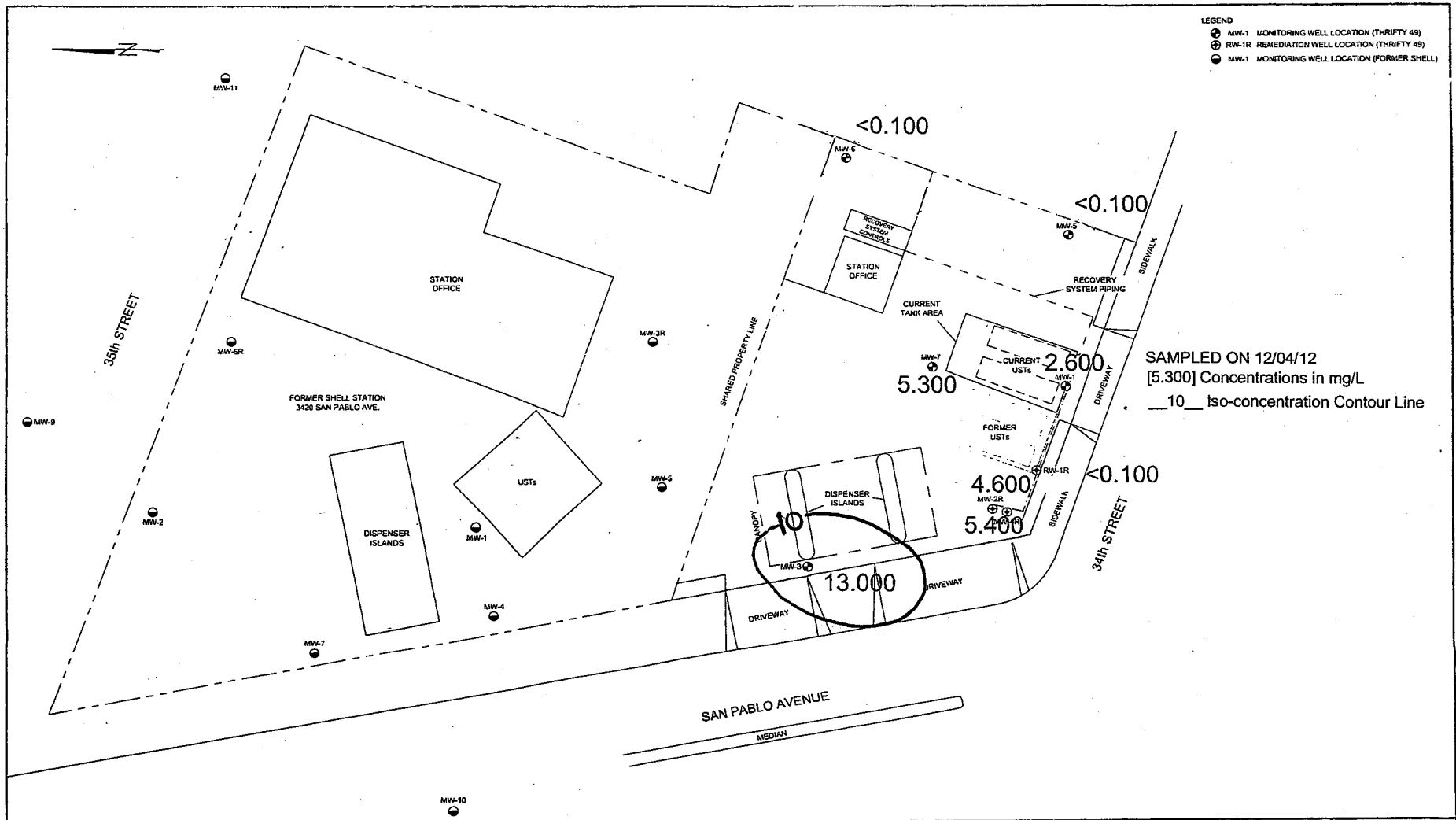


THRIFTY OIL CO. NO. 49  
 3400 SAN PABLO AVENUE  
 OAKLAND, CALIFORNIA

MTBE ISO-CONCENTRATION CONTOUR MAP  
 4th QUARTER 2012

FIGURE  
 4





LEGEND  
 ● MW-1 MONITORING WELL LOCATION (THRIFTY 49)  
 ● RW-1R REMEDIATION WELL LOCATION (THRIFTY 49)  
 ● MW-1 MONITORING WELL LOCATION (FORMER SHELL)

SAMPLED ON 12/04/12  
 [5.300] Concentrations in mg/L  
 10 Iso-concentration Contour Line



THRIFTY OIL CO. NO. 49  
 3400 SAN PABLO AVENUE  
 OAKLAND, CALIFORNIA  
**Ethanol**  
 ISO-CONCENTRATION CONTOUR MAP  
 4th QUARTER 2012

FIGURE  
 6

# ***APPENDIX A***





# PROJECT STATUS REPORT

SITE: THRIFTY OIL CO. #049  
 ADDRESS: 3400 SAN PABLO AVE.  
OAKLAND, CA. 94612  
 DATE: 12-04-2012  
 PERSONNEL: SERBATH D.

WELL ID	DTP (FT)	DTW (FT)	DTB (FT)	PT (FT)	WC (FT)	DIA (IN)	PURGE (GAL)		COMMENT	
							EST.	ACT.		
<i>MONTHLY/QUARTERLY</i>										
1	MW-1		4.55	17.77		13.22	2"	7	10	
2	MW-2R		4.67	16.79		12.22	4"	24	24	
3	MW-3		5.46	24.14		18.68	2"	10	10	
4	MW-4R		4.97	19.65		14.68	4"	29	29	
5	MW-5		4.36	13.75		9.39	2"	5	10	
6	MW-6		5.16	13.02		7.86	2"	4	10	
7	MW-7		4.85	13.55		8.70	4"	17	20	
8	RW-1R		4.75	19.08		14.33	4"	28	28	

FREE PRODUCT REMOVED: APPROX. 0 GALLONS      PURGE-WATER REMOVED: APPROX. 141 GALLONS

REMARKS: MONITORING WELLS AND AFTER PURGE TAKE WATER SAMPLING FROM 8 WELLS -

EXPLANATION: DTP= DEPTH TO PRODUCT, DTW= DEPTH TO WATER, DTB= DEPTH TO BOTTOM; ALL MEASURED FROM TOP OF CASING  
 PT= PRODUCT THICKNESS, WC= WATER COLUMN, DIA= DIAMETER, EST=ESTIMATE, ACT= ACTUAL, FT= FEET, GAL= GALLONS  
 REV: 6/30/2004

# FIELD DATA - GROUNDWATER PURGING & SAMPLING

<b>Site:</b> <b>TOC# 49</b>	<b>Location:</b> <b>3400 SAN PABLO AVE, OAKLAND 94612</b>	<b>Well ID#</b> <b>MW-1</b>
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## GAUGING DATA

Date: **12-04-2012** Time: **7:00 AM** by: **SP.**

Total Well Depth (ft): **17.77** Depth To Product (ft): **0**

Depth To Water (ft): **4.55** Product Thickness (ft): **0**

Water Column (ft): **13.22**

Purge Vol Calculation:  Casing Vol.  Borehole Vol. (SD)

Well Dia	1"	2"	4"	6"	12"
3 Casing Vol	0.12	0.49	1.96	4.40	17.67
Borehole Vol	0.40	0.77	1.51	2.57	7.71

**Estimated Purge Volume (gal):**  
**13.22 x 0.49 = 7**

Note for borehole volume, add 1/2 BH vol for each subsequent passes

## PURGING DATA

Purge Start Time: **8:30 AM** Purge Method: **BATHER** pH/Temp/Cond: **HANNA** by:

Time <small>(hh:mm) (min)</small>	Volume removed <small>(gallons)</small>	Temp <small>°F or °C</small>	pH	Cond <small>µS</small>	Turbidity	Observations
8:32 2	2	71.2	5.83	1420	CLEAR	
8:34 2	2	70.9	5.81	1410	CLEAR	
8:36 2	2	70.6	5.80	1420	CLEAR	
8:38 2	2	70.4	5.83	1420	CLEAR	
8:40 2	2	70.3	5.84	1420	CLEAR	

DTW immed. after purge (ft): **4.60** Actual purged volume (gal): **10** Avg Purge Rate (gpm): **1**

## RECOVERY CALCULATION

Method:  Total Well Depth: 80% Recovery =  $[\text{Water Column}] \times 0.20 + [\text{DTW initial}] = \underline{7.19}$  ft

Max Drawdown (SD): 80% Recovery =  $([\text{DTW after purge}] - [\text{DTW initial}]) \times 0.20 + [\text{DTW initial}] = \underline{\hspace{2cm}}$  ft

## SAMPLING DATA

DTW (ft) before sampling: <b>8.40</b>	Date: <b>12.04.12</b>	Time: <b>11:50</b>	Temp	pH	D.O.	ORP	by
Sampling Method: <input checked="" type="checkbox"/> Disposable Bailor	Notes:						

### Well Inspection:

Well Box:  Round ( \_\_\_\_\_ " )  Square ( \_\_\_\_\_ " ) # of Bolts \_\_\_\_\_ ( 7/16" : 1/2" : 9/16" : 5/8" : 3/4" : 5/16" : \_\_\_\_\_ " )

Well Plug Secured \_\_\_\_\_ Well Plug Locked \_\_\_\_\_ Well Cover Secured \_\_\_\_\_

Well Box Cleaned and Free of Water \_\_\_\_\_ Well Box Concrete Support Condition \_\_\_\_\_

Repair/Replacement Performed: \_\_\_\_\_

Repair/Replacement needed: \_\_\_\_\_

Comments: \_\_\_\_\_

# FIELD DATA - GROUNDWATER PURGING & SAMPLING

Site:	Location: <b>TOC# 049 3400 SAN PABLO AVE, OAKLAND 94612</b>	Well ID#	MW-2R
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## GAUGING DATA

Date: **12-04-2012** Time: **7:10 AM** by: **SP.**

Total Well Depth (ft): **16.79** Depth To Product (ft): \_\_\_\_\_

Depth To Water (ft): **4.57** Product Thickness (ft): \_\_\_\_\_

Water Column (ft): **12.22**

Purge Vol Calculation:  Casing Vol.  Borehole Vol. (SD)

Well Dia	1"	2"	4"	6"	12"
Casing vol	0.12	0.49	1.96	4.40	17
Borehole vol	0.40	0.77	1.51	2.57	7

Multipliers for purge volume estimation:  
*Note for borehole volume, add 1/2 BH vol for each subsequent passes*

Estimated Purge Volume (gal): **12.22 x 1.96 = 24**

water column      multiplier      est. volume

## PURGING DATA

Purge Start Time: **8:35 AM** Purge Method: **BAILER** pH/Temp/Cond: **MANNA** by: \_\_\_\_\_

Time (hh:mm) (min)	Volume removed (gallons)	Temp °F or °C	pH	Cond µS	Turbidity	Observations
<b>8:45</b> <b>5</b>	<b>5</b>	<b>69.8</b>	<b>5.97</b>	<b>1360</b>	<b>CLEAR</b>	
<b>8:50</b> <b>5</b>	<b>5</b>	<b>69.7</b>	<b>5.93</b>	<b>1340</b>	<b>CLEAR</b>	
<b>8:55</b> <b>5</b>	<b>5</b>	<b>69.7</b>	<b>5.92</b>	<b>1320</b>	<b>CLEAR</b>	
<b>8:59</b> <b>4</b>	<b>4</b>	<b>69.8</b>	<b>5.97</b>	<b>1320</b>	<b>CLEAR</b>	

DTW immed. after purge (ft): **4.68** Actual purged volume (gal): **24** Avg Purge Rate (gpm): **1**

## RECOVERY CALCULATION

Method:  Total Well Depth: 80% Recovery =  $[\text{Water Column}] \times 0.20 + [\text{DTW initial}] = \underline{7.01}$  ft

Max Drawdown (SD): 80% Recovery =  $([\text{DTW after purge}] - [\text{DTW initial}]) \times 0.20 + [\text{DTW initial}] = \underline{\hspace{2cm}}$  ft

## SAMPLING DATA

DTW (ft) before sampling: <b>7.80</b>	Date: <b>12.04.12</b>	Time: <b>11:55</b>	Temp	pH	D.O.	ORP	by
Sampling Method: <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> _____	Notes:						

### Well Inspection:

Well Box:  Round ( \_\_\_\_\_ )  Square ( \_\_\_\_\_ ) # of Bolts \_\_\_\_\_ ( 7/16" : 1/2" : 9/16" : 5/8" : 3/4" : 5/16" : \_\_\_\_\_ )

Well Plug Secured \_\_\_\_\_ Well Plug Locked \_\_\_\_\_ Well Cover Secured \_\_\_\_\_

Well Box Cleaned and Free of Water \_\_\_\_\_ Well Box Concrete Support Condition \_\_\_\_\_

Repair/Replacement Performed: \_\_\_\_\_

Repair/Replacement needed: \_\_\_\_\_

Comments: \_\_\_\_\_

Site: <b>TOC# 049</b>	Location: <b>3400 SAN PABLO AVE. OAKLAND 94612</b>	Well ID# <b>MW-3</b>
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**GAUGING DATA**

(circle well diameter)

Date: <b>12-04-2012</b>	Time: <b>7:20 AM</b>	by: <b>SP.</b>	<b>Multipliers for purge volume estimation:</b> <small>Note for borehole volume, add 1/2 BH vol for each subsequent passes</small>	Well Dia	1"	<b>2"</b>	4"	6"	12"
Total Well Depth (ft): <b>24.14</b>	Depth To Product (ft): _____			3 Casing vol	0.12	0.49	1.96	4.40	17.1
Depth To Water (ft): <b>5.46</b>	Product Thickness (ft): _____		Borehole vol	0.40	0.77	1.51	2.57	7.7	
Water Column (ft): <b>18.68</b>	Purge Vol Calculation: <input type="checkbox"/> Casing Vol. <input type="checkbox"/> Borehole Vol. (SD)		<b>Estimated Purge Volume (gal)</b>		<b>18.68 x 0.49 = 10</b>				
				<small>water column</small>	<small>multiplier</small>	<small>est. volume</small>			

**PURGING DATA**

Purge Start Time: <b>9:10</b>	Purge Method: <b>BAILER</b>	pH/Temp/Cond: <b>HANNA</b>	by: _____			
Time <small>(hh:mm, min)</small>	Volume removed <small>(gallons)</small>	Temp <small>°F or °C</small>	pH	Cond <small>µS</small>	Turbidity	Observations
9:12 2	2	70.3	5.89	1280	CLEAR	
9:14 2	2	70.4	5.94	1260	CLEAR	
9:16 2	2	69.8	5.96	1270	CLEAR	
9:18 2	2	69.7	5.97	1260	CLEAR	
9:20 2	2	70.1	5.96	1270	CLEAR	
DTW immed. after purge (ft): <b>5.52</b>		Actual purged volume (gal): <b>10</b>			Avg Purge Rate (gpm): <b>1</b>	

**RECOVERY CALCULATION**

Method: <input checked="" type="checkbox"/> Total Well Depth:	80% Recovery = $[\text{Water Column}] \times 0.20 + [\text{DTW initial}] = \underline{9.19}$ ft
<input type="checkbox"/> Max Drawdown (SD):	80% Recovery = $([\text{DTW after purge}] - [\text{DTW initial}]) \times 0.20 + [\text{DTW initial}] =$ _____ ft

**SAMPLING DATA**

DTW (ft) before sampling: <b>11.06</b>	Date: <b>12.04.12</b>	Time: <b>12:05</b>	Temp	pH	D.O.	ORP	by
Sampling Method: <input checked="" type="checkbox"/> Disposable Bailer	Notes: _____						

Well Inspection:

Well Box:  Round ( \_\_\_\_\_ " )  Square ( \_\_\_\_\_ " ) # of Bolts \_\_\_\_\_ ( 7/16" : 1/2" : 9/16" : 5/8" : 3/4" : 5/16" : \_\_\_\_\_ " )

Well Plug Secured \_\_\_\_\_ Well Plug Locked \_\_\_\_\_ Well Cover Secured \_\_\_\_\_

Well Box Cleaned and Free of Water \_\_\_\_\_ Well Box Concrete Support Condition \_\_\_\_\_

Repair/Replacement Performed: \_\_\_\_\_

Repair/Replacement needed: \_\_\_\_\_

Comments: \_\_\_\_\_



# FIELD DATA - GROUNDWATER PURGING & SAMPLING

Site: <b>TOC# 049</b>	Location: <b>3400 SAN PABLO AVE, OAKLAND 94612</b>	Well ID#: <b>MW-4R</b>
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## GAUGING DATA

(circle well diameter)

Date: <b>12-04-2012</b>	Time: <b>7:30AM</b>	by: <b>SP.</b>	<b>Multipliers for purge volume estimation:</b> <small>Note for borehole volume, add 1/2 BH vol for each subsequent passes</small>	Well Dia	1"	2"	<b>4"</b>	6"	12"
Total Well Depth (ft): <b>19.65</b>	Depth To Product (ft): _____			3 Casing Vol	0.12	0.49	1.96	4.40	17.6
Depth To Water (ft): <b>4.97</b>	Product Thickness (ft): _____		Borehole Vol	0.40	0.77	1.51	2.57	7.71	
Water Column (ft): <b>14.68</b>	Purge Vol Calculation: <input checked="" type="checkbox"/> Casing Vol. <input type="checkbox"/> Borehole Vol. (SD)		<b>Estimated Purge Volume (gal):</b>		<b>14.68 x 1.96 = 29</b>				
				<small>water column</small>	<small>multiplier</small>	<small>est. volume</small>			

## PURGING DATA

Purge Start Time: <b>9:20</b>	Purge Method: <b>BAILER</b>	pH/Temp/Cond: <b>HANNA</b>	by: _____			
Time <small>(hh:mm) (min)</small>	Volume removed <small>(gallons)</small>	Temp <small>°F or °C</small>	pH	Cond <small>µS</small>	Turbidity	Observations
9:26 6	6	71.2	5.93	1340	CLEAR	
9:32 6	6	71.0	5.96	1320	CLEAR	
9:38 6	6	71.3	6.01	1310	CLEAR	
9:44 6	6	71.1	5.97	1320	CLEAR	
9:50 5	5	71.2	5.93	1320	CLEAR	
DTW immed. after purge (ft): <b>5.10</b>		Actual purged volume (gal): <b>29</b>			Avg Purge Rate (gpm): <b>1</b>	

## RECOVERY CALCULATION

Method: <input checked="" type="checkbox"/> Total Well Depth	80% Recovery = $[\text{Water Column}] \times 0.20 + [\text{DTW initial}] = \underline{7.90}$ ft
<input type="checkbox"/> Max Drawdown (SD):	80% Recovery = $([\text{DTW after purge}] - [\text{DTW initial}]) \times 0.20 + [\text{DTW initial}] = \underline{\hspace{2cm}}$ ft

## SAMPLING DATA

DTW (ft) before sampling: <b>9.06</b>	Date: <b>12.04.12</b>	Time: <b>12:15</b>	Temp	pH	D.O.	ORP	by
Sampling Method: <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> _____	Notes: _____						

### Well Inspection:

Well Box:  Round ( \_\_\_\_\_ " )  Square ( \_\_\_\_\_ " ) # of Bolts \_\_\_\_\_ ( 7/16" : 1/2" : 9/16" : 5/8" : 3/4" : 5/16" : \_\_\_\_\_ " )

Well Plug Secured \_\_\_\_\_ Well Plug Locked \_\_\_\_\_ Well Cover Secured \_\_\_\_\_

Well Box Cleaned and Free of Water \_\_\_\_\_ Well Box Concrete Support Condition \_\_\_\_\_

Repair/Replacement Performed: \_\_\_\_\_

Repair/Replacement needed: \_\_\_\_\_

### Comments:

# FIELD DATA - GROUNDWATER PURGING & SAMPLING

Site: <b>TOC# 049</b>	Location: <b>3400 SAN PABLO AVE, OAKLAND, 94612</b>	Well ID# <b>MW-5</b>
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## GAUGING DATA

Date: **12-04-2012** Time: **7:40AM** by: **SP**

Total Well Depth (ft): **13.75** Depth To Product (ft): \_\_\_\_\_

Depth To Water (ft): **4.36** Product Thickness (ft): \_\_\_\_\_

Water Column (ft): **9.39**

Purge Vol Calculation:  Casing Vol.  Borehole Vol. (SD)

Multipliers for purge volume estimation:

Well Dia	1"	2"	4"	6"	8"
Casing vol	0.12	0.43	1.96	4.40	7.75
Borehole vol	0.40	0.77	1.51	2.57	4.00

Note for borehole volume: add 1/2 BH vol for each subsequent passes

Estimated Purge Volume (gal): **9.39 x 0.49 = 5**

water column      multiplier      est. volume

## PURGING DATA

Purge Start Time: **10:00AM** Purge Method: **BAILER** pH/Temp/Cond: **HANNA** by: \_\_\_\_\_

Time <small>(hh:mm) (min)</small>	Volume removed <small>(gallons)</small>	Temp <small>°F or °C</small>	pH	Cond <small>µS</small>	Turbidity	Observations
<b>10:04</b>	<b>2</b>	<b>70.2</b>	<b>5.93</b>	<b>1220</b>	<b>CLEAR</b>	
<b>10:06</b>	<b>2</b>	<b>70.2</b>	<b>5.90</b>	<b>1220</b>	<b>CLEAR</b>	
<b>10:08</b>	<b>2</b>	<b>70.1</b>	<b>5.91</b>	<b>1210</b>	<b>CLEAR</b>	
<b>10:10</b>	<b>2</b>	<b>70.2</b>	<b>5.91</b>	<b>1220</b>	<b>CLEAR</b>	

DTW immed. after purge (ft): **4.40** Actual purged volume (gal): **10** Avg Purge Rate (gpm): **1**

## RECOVERY CALCULATION

Method:  Total Well Depth: 80% Recovery =  $[ 9.39 ] \times 0.20 + [ 4.36 ] = 6.23$  ft

Water Column      DTW initial

Max Drawdown (SD): 80% Recovery =  $( [ ] - [ ] ) \times 0.20 + [ ] =$  \_\_\_\_\_ ft

DTW after purge      DTW initial      DTW initial

## SAMPLING DATA

DTW (ft) before sampling: <b>6.72</b>	Date: <b>12.04.12</b>	Time: <b>12:20</b>	Temp	pH	D.O.	ORP	by
Sampling Method: <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> _____	Notes:						

### Well Inspection:

Well Box:  Round ( \_\_\_\_\_ " )  Square ( \_\_\_\_\_ " ) # of Bolts \_\_\_\_\_ ( 7/16" : 1/2" : 9/16" : 5/8" : 3/4" : 5/16" : \_\_\_\_\_ " )

Well Plug Secured \_\_\_\_\_ Well Plug Locked \_\_\_\_\_ Well Cover Secured \_\_\_\_\_

Well Box Cleaned and Free of Water \_\_\_\_\_ Well Box Concrete Support Condition \_\_\_\_\_

Repair/Replacement Performed: \_\_\_\_\_

Repair/Replacement needed: \_\_\_\_\_

Comments: \_\_\_\_\_

Site: <b>TOC# 049</b>	Location: <b>3400 SAN PABLO AVE, OAKLAND 94612</b>	Well ID# <b>MW-6</b>
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**GAUGING DATA**

(circle well diameter)

Date: <b>12-04-2012</b> Time: <b>7:55AM</b> by: <b>SP</b>		Multipliers for purge volume estimation: Note for borehole volume, add 1/2 BH vol for each subsequent passes	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Well Dia</th> <th>1"</th> <th>2"</th> <th>4"</th> <th>6"</th> <th>12"</th> </tr> <tr> <td>Casing vol</td> <td>0.12</td> <td>0.49</td> <td>1.96</td> <td>4.40</td> <td>17</td> </tr> <tr> <td>Borehole vol</td> <td>0.40</td> <td>0.77</td> <td>1.51</td> <td>2.57</td> <td>7.7</td> </tr> </table>						Well Dia	1"	2"	4"	6"	12"	Casing vol	0.12	0.49	1.96	4.40	17	Borehole vol	0.40	0.77	1.51	2.57	7.7
Well Dia	1"		2"	4"	6"	12"																				
Casing vol	0.12	0.49	1.96	4.40	17																					
Borehole vol	0.40	0.77	1.51	2.57	7.7																					
Total Well Depth (ft): <b>13.02</b>	Depth To Product (ft): <b>—</b>	Purge Vol Calculation: <input checked="" type="checkbox"/> Casing Vol. <input type="checkbox"/> Borehole Vol. (SD)	<b>Estimated Purge Volume (gal)</b> $7.86 \times 0.49 = 4$																							
Depth To Water (ft): <b>5.16</b>	Product Thickness (ft): <b>—</b>		water column      multiplier      est. volume																							
Water Column (ft): <b>7.86</b>																										

**PURGING DATA**

Purge Start Time: <b>10:20AM</b>		Purge Method: <b>BAILER</b>		pH/Temp/Cond: <b>HANNA</b>				by:
Time	Volume removed (gallons)	Temp (°F or °C)	pH	Cond (µS)	Turbidity	Observations		
							(hh:mm)	(min)
10:22	2	69.4	5.96	1340	CLEAR			
10:24	2	69.3	5.94	1340	CLEAR			
10:26	2	69.6	5.93	1320	CLEAR			
10:28	2	69.5	5.91	1320	CLEAR			
10:30	2	69.4	5.93	1310	CLEAR			
DTW immed. after purge (ft): <b>5.20</b>		Actual purged volume (gal): <b>10</b>			Avg Purge Rate (gpm): <b>1</b>			

**RECOVERY CALCULATION**

Method: <input checked="" type="checkbox"/> Total Well Depth:	80% Recovery = $[\text{Water Column}] \times 0.20 + [\text{DTW initial}] = \underline{6.73}$ ft
<input type="checkbox"/> Max Drawdown (SD):	80% Recovery = $([\text{DTW after purge}] - [\text{DTW initial}]) \times 0.20 + [\text{DTW initial}] = \underline{\hspace{2cm}}$ ft

**SAMPLING DATA**

DTW (ft) before sampling: <b>7.03</b>	Date: <b>12.04.12</b>	Time: <b>12:35</b>	Temp	pH	D.O.	ORP	by:
Sampling Method: <input checked="" type="checkbox"/> Disposable Bailer	Notes:						

Well Inspection:

Well Box:  Round ( \_\_\_\_\_ )     Square ( \_\_\_\_\_ )    # of Bolts \_\_\_\_\_ ( 7/16" : 1/2" : 9/16" : 5/8" : 3/4" : 5/16" : \_\_\_\_\_ )

Well Plug Secured \_\_\_\_\_    Well Plug Locked \_\_\_\_\_    Well Cover Secured \_\_\_\_\_

Well Box Cleaned and Free of Water \_\_\_\_\_    Well Box Concrete Support Condition \_\_\_\_\_

Repair/Replacement Performed: \_\_\_\_\_

Repair/Replacement needed: \_\_\_\_\_

Comments: \_\_\_\_\_

# FIELD DATA - GROUNDWATER PURGING & SAMPLING

Site: <b>TOC# 049</b>	Location: <b>3400 SAN PABLO AVE, OAKLAND, 94612</b>	Well ID# <b>MW-7</b>
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## GAUGING DATA

Date: **12-04-2012** Time: **8:10AM** by: **JP**

Total Well Depth (ft): **13.65** Depth To Product (ft): **—**

Depth To Water (ft): **4.85** Product Thickness (ft): **—**

Water Column (ft): **8.70**

Multipiers for purge volume estimation:

Well Dia	1"	2"	<input checked="" type="checkbox"/> 3"	4"	6"
Casing vol	0.12	0.49	1.96	4.40	17.6
Borehole vol	0.40	0.77	1.51	2.57	7.71

Note for borehole volume: add 1/2 BH vol for each subsequent passes

Estimated Purge Volume (gal):

Purge Vol Calculation:  Casing Vol.  Borehole Vol. (SD) **8.70 x 1.96 = 17**

water column      multiplier      est. volume

## PURGING DATA

Purge Start Time: **10:40** Purge Method: **BATHER** pH/Temp/Cond: **HANNA** by:

Time	Volume removed	Temp	pH	Cond	Turbidity	Observations
(hh:mm)	(gallons)	°F or °C		µS		
10:44      4	4	71.2	6.01	1390	CLEAR	
10:48      4	4	70.9	6.03	1370	CLEAR	
10:52      4	4	70.9	6.01	1370	CLEAR	
10:56      4	4	70.7	5.98	1360	CLEAR	
11:00      4	4	70.7	6.01	1370	CLEAR	

DTW immed. after purge (ft): **4.96** Actual purged volume (gal): **20** Avg Purge Rate (gpm): **1**

## RECOVERY CALCULATION

Method:  Total Well Depth: 80% Recovery =  $[ 8.70 ] \times 0.20 + [ 4.85 ] = 6.59$  ft

Water Column      DTW initial

Max Drawdown (SD): 80% Recovery =  $( [ ] - [ ] ) \times 0.20 + [ ] =$  ft

DTW after purge      DTW initial      DTW initial

## SAMPLING DATA

DTW (ft) before sampling: <b>7.09</b>	Date: <b>12.04.12</b>	Time: <b>13:05</b>	Temp	pH	D.O.	ORP	by
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Sampling Method:  Disposable Bailer  \_\_\_\_\_ Notes:

### Well Inspection:

Well Box:  Round ( \_\_\_\_\_ )  Square ( \_\_\_\_\_ ) # of Bolts \_\_\_\_\_ ( 7/16" 1/2" 9/16" 5/8" 3/4" 5/8" \_\_\_\_\_ )

Well Plug Secured \_\_\_\_\_ Well Plug Locked \_\_\_\_\_ Well Cover Secured \_\_\_\_\_

Well Box Cleaned and Free of Water \_\_\_\_\_ Well Box Concrete Support Condition \_\_\_\_\_

Repair/Replacement Performed: \_\_\_\_\_

Repair/Replacement needed: \_\_\_\_\_

Comments: \_\_\_\_\_





# FIELD DATA - GROUNDWATER PURGING & SAMPLING

Site: <b>TOC# 049</b>	Location: <b>3400 SAN PABLO AVE, OAKLAND, 94612</b>	Well ID#: <b>RW-1R</b>
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## GAUGING DATA

Date: **12-04-2012** Time: **8:20AM** by: **SP.**

Total Well Depth (ft): **19.08** Depth To Product (ft): \_\_\_\_\_

Depth To Water (ft): **4.75** Product Thickness (ft): \_\_\_\_\_

Water Column (ft): **14.33**

Purge Vol Calculation:  Casing Vol.  Borehole Vol. (SD)

(circle well diameter)					
Well Dia	1"	2"	4"	6"	12"
3 Casing vol	0.12	0.49	1.96	4.40	17.6
Borehole vol	0.40	0.77	1.51	2.57	7.7

Estimated Purge Volume (gal): **14.33 × 1.96 = 28**

water column      multiplier      est. volume

## PURGING DATA

Purge Start Time: **11:10AM** Purge Method: **BAILER** pH/Temp/Cond: **HANNA** by: \_\_\_\_\_

Time (hh:mm) (min)	Volume removed (gallons)	Temp °F or °C	pH	Cond µS	Turbidity	Observations
11:22	6	70.2	6.01	1330	CLEAR	
11:28	6	70.1	6.01	1330	CLEAR	
11:34	6	70.3	6.04	1310	CLEAR	
11:40	4	70.3	6.04	1310	CLEAR	

DTW immed. after purge (ft): **4.90** Actual purged volume (gal): **28** Avg Purge Rate (gpm): **1**

## RECOVERY CALCULATION

Method:  Total Well Depth: 80% Recovery =  $[(14.33) \times 0.20 + (4.75)] = 7.51$  ft

Water Column      DTW initial

Max Drawdown (SD): 80% Recovery =  $([ ] - [ ] \times 0.20 + [ ] = [ ]$  ft

DTW after purge      DTW initial      DTW initial

## SAMPLING DATA

DTW (ft) before sampling: <b>9.05</b>	Date: <b>12.04.12</b>	Time: <b>13:45</b>	Temp	pH	D.O.	ORP	by
Sampling Method: <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> _____	Notes:						

### Well Inspection:

Well Box:  Round ( \_\_\_\_\_ " )  Square ( \_\_\_\_\_ " ) # of Bolts \_\_\_\_\_ ( 7/16" : 1/2" : 9/16" : 5/8" : 3/4" : 5/16" : \_\_\_\_\_ " )

Well Plug Secured \_\_\_\_\_ Well Plug Locked \_\_\_\_\_ Well Cover Secured \_\_\_\_\_

Well Box Cleaned and Free of Water \_\_\_\_\_ Well Box Concrete Support Condition \_\_\_\_\_

Repair/Replacement Performed: \_\_\_\_\_

Repair/Replacement needed: \_\_\_\_\_

### Comments:

## ***APPENDIX B***



## Associated Laboratories

806 N. Batavia - Orange, CA 92868  
Tel (714)771-6900 Fax (714)538-1209  
www.associatedlabs.com  
Info@associatedlabs.com



04232CA

Client: Thrifty Oil Company  
Address: 13116 Imperial Hwy.  
P.O. Box 2128  
Santa Fe Springs, CA 90670  
Attn: Jeff Suryakusuma  
Project: Station #049  
Comments: 3400 San Pablo Avenue, Oakland, CA  
Global ID: T0600101365  
Ethanol reported by TIC

Lab Request: 314879  
Report Date: 12/12/2012  
Date Received: 12/06/2012

Client ID: 8871

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
314879-001	TOC#049 RW-1R
314879-002	TOC#049 MW-7
314879-003	TOC#049 MW-6
314879-004	TOC#049 MW-5
314879-005	TOC#049 MW-4R
314879-006	TOC#049 MW-3
314879-007	TOC#049 MW-2R
314879-008	TOC#049 MW-1
314879-009	TOC#049 Trip Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Lab Director

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012 13:45	Site:	Notes:
Sample #: 314879-001	Client Sample #: TOC#049 RW-1R	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 <i>NELAC</i>	Prep Method: EPA 5030B					QCBatchID: QC1132123		

TPH Gasoline	ND	1	6.6	50	ug/L	12/06/12	lyt	
<u>Analyte</u>	<u>% Recovery</u>		<u>Limits</u>					<u>Notes</u>
4-Bromofluorobenzene (SUR)	74		60-140					

Method: EPA 8260 <i>NELAC</i>	Prep Method: EPA 5030B					QCBatchID: QC1132112		
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Benzene	ND	1	0.18	1	ug/L	12/07/12	ryanp	
Di-isopropyl ether (DIPE)	ND	1	0.2	1	ug/L	12/07/12	ryanp	
Ethanol	ND	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	ND	1	0.21	5	ug/L	12/07/12	ryanp	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L	12/07/12	ryanp	
Methyl-t-butyl Ether (MTBE)	2.7	1	0.19	1	ug/L	12/07/12	ryanp	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L	12/07/12	ryanp	
Tert-amylmethylether (TAME)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
Toluene	ND	1	0.24	5	ug/L	12/07/12	ryanp	
Xylenes (Total)	ND	1	0.45	5	ug/L	12/07/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	115	70-145	
4-Bromofluorobenzene (SUR)	101	70-145	
Dibromodifluoromethane (SUR)	104	70-145	
Toluene-d8 (SUR)	96	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor



Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012 13:05	Site:	Notes:
Sample #: 314879-002	Client Sample #: TOC#049 MW-7	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 <i>NELAC</i>		Prep Method: EPA 5030B		QCBatchID: QC1132123				
TPH Gasoline	1670	1	6.6	50	ug/L	12/06/12	lyt	

Analyte	% Recovery	Limits	Notes
4-Bromofluorobenzene (SUR)	126	60-140	

Method: EPA 8260 <i>NELAC</i>		Prep Method: EPA 5030B		QCBatchID: QC1132112				
Benzene	9.7	1	0.18	1	ug/L	12/07/12	ryanp	
Di-isopropyl ether (DIPE)	ND	1	0.2	1	ug/L	12/07/12	ryanp	
Ethanol	5300	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	41	1	0.21	5	ug/L	12/07/12	ryanp	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L	12/07/12	ryanp	
Methyl-t-butyl Ether (MTBE)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L	12/07/12	ryanp	
Tert-amylmethylether (TAME)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
Toluene	240	1	0.24	5	ug/L	12/07/12	ryanp	
Xylenes (Total)	250	1	0.45	5	ug/L	12/07/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	113	70-145	
4-Bromofluorobenzene (SUR)	101	70-145	
Dibromodifluoromethane (SUR)	100	70-145	
Toluene-d8 (SUR)	97	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor



Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012 12:35	Site:	Notes:
Sample #: 314879-003	Client Sample #: TOC#049 MW-6	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 <i>NELAC</i>	Prep Method: EPA 5030B		QCBatchID: QC1132123					
TPH Gasoline	ND	1	6.6	50	ug/L	12/06/12	lyt	

Analyte	% Recovery	Limits	Notes
4-Bromofluorobenzene (SUR)	92	60-140	

Method: EPA 8260 <i>NELAC</i>	Prep Method: EPA 5030B		QCBatchID: QC1132112					
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Benzene	ND	1	0.18	1	ug/L	12/07/12	ryanp	
Di-isopropyl ether (DIPE)	ND	1	0.2	1	ug/L	12/07/12	ryanp	
Ethanol	ND	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	ND	1	0.21	5	ug/L	12/07/12	ryanp	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L	12/07/12	ryanp	
Methyl-t-butyl Ether (MTBE)	2.4	1	0.19	1	ug/L	12/07/12	ryanp	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L	12/07/12	ryanp	
Tert-amylmethylether (TAME)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
Toluene	ND	1	0.24	5	ug/L	12/07/12	ryanp	
Xylenes (Total)	ND	1	0.45	5	ug/L	12/07/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	116	70-145	
4-Bromofluorobenzene (SUR)	102	70-145	
Dibromodifluoromethane (SUR)	102	70-145	
Toluene-d8 (SUR)	98	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor



Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012 12:20	Site:	Notes:
Sample #: 314879-004	Client Sample #: TOC#049 MW-5	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 NELAC		Prep Method: EPA 5030B		QCBatchID: QC1132123				
TPH Gasoline	ND	1	6.6	50	ug/L	12/06/12	lyt	

Analyte	% Recovery	Limits	Notes
4-Bromofluorobenzene (SUR)	80	60-140	

Method: EPA 8260 NELAC		Prep Method: EPA 5030B		QCBatchID: QC1132112				
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Benzene	ND	1	0.18	1	ug/L	12/07/12	ryanp	
Di-isopropyl ether (DIPE)	ND	1	0.2	1	ug/L	12/07/12	ryanp	
Ethanol	ND	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	ND	1	0.21	5	ug/L	12/07/12	ryanp	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L	12/07/12	ryanp	
Methyl-t-butyl Ether (MTBE)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L	12/07/12	ryanp	
Tert-amylmethylether (TAME)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
Toluene	ND	1	0.24	5	ug/L	12/07/12	ryanp	
Xylenes (Total)	ND	1	0.45	5	ug/L	12/07/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	118	70-145	
4-Bromofluorobenzene (SUR)	101	70-145	
Dibromodifluoromethane (SUR)	103	70-145	
Toluene-d8 (SUR)	96	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor



Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012 12:15	Site:	Notes:
Sample #: 314879-005	Client Sample #: TOC#049 MW-4R	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 <i>NELAC</i>	Prep Method: EPA 5030B					QCBatchID: QC1132123		

TPH Gasoline	1010	1	6.6	50	ug/L	12/06/12	lyt	
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Analyte	% Recovery	Limits	Notes
4-Bromofluorobenzene (SUR)	108	60-140	

Method: EPA 8260 <i>NELAC</i>	Prep Method: EPA 5030B					QCBatchID: QC1132112		
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Benzene	8.7	1	0.18	1	ug/L	12/07/12	ryanp	
Di-isopropyl ether (DIPE)	ND	1	0.2	1	ug/L	12/07/12	ryanp	
Ethanol	5400	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	31	1	0.21	5	ug/L	12/07/12	ryanp	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L	12/07/12	ryanp	
Methyl-t-butyl Ether (MTBE)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L	12/07/12	ryanp	
Tert-amylmethylether (TAME)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
Toluene	170	1	0.24	5	ug/L	12/07/12	ryanp	
Xylenes (Total)	200	1	0.45	5	ug/L	12/07/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	115	70-145	
4-Bromofluorobenzene (SUR)	96	70-145	
Dibromodifluoromethane (SUR)	105	70-145	
Toluene-d8 (SUR)	94	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 314879 Page 6 of 10





Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012 12:05	Site:	Notes:
Sample #: 314879-006	Client Sample #: TOC#049 MW-3	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 NELAC	Prep Method: EPA 5030B		QCBatchID: QC1132127					

TPH Gasoline	10300	10	66	500	ug/L	12/07/12	lyt	
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Analyte	% Recovery	Limits	Notes
4-Bromofluorobenzene (SUR)	106	60-140	

Method: EPA 8260 NELAC	Prep Method: EPA 5030B		QCBatchID: QC1132112					
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Benzene	83	1	0.18	1	ug/L	12/07/12	ryanp	
Di-isopropyl ether (DIPE)	ND	1	0.2	1	ug/L	12/07/12	ryanp	
Ethanol	13000	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	350	10	2.1	50	ug/L	12/11/12	ryanp	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L	12/07/12	ryanp	
Methyl-t-butyl Ether (MTBE)	34	1	0.19	1	ug/L	12/07/12	ryanp	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L	12/07/12	ryanp	
Tert-amylmethylether (TAME)	3.9	1	0.19	1	ug/L	12/07/12	ryanp	
Toluene	2100	10	2.4	50	ug/L	12/11/12	ryanp	
Xylenes (Total)	1900	10	4.5	50	ug/L	12/11/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	107	70-145	
4-Bromofluorobenzene (SUR)	98	70-145	
Dibromodifluoromethane (SUR)	109	70-145	
Toluene-d8 (SUR)	91	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor



Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012 11:55	Site:	Notes:
Sample #: 314879-007	Client Sample #: TOC#049 MW-2R	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 NELAC		Prep Method: EPA 5030B		QCBatchID: QC1132127				
TPH Gasoline	762	1	6.6	50	ug/L	12/07/12	lyt	

Analyte	% Recovery	Limits	Notes
4-Bromofluorobenzene (SUR)	102	60-140	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8260 NELAC		Prep Method: EPA 5030B		QCBatchID: QC1132112				
Benzene	10	1	0.18	1	ug/L	12/07/12	ryanp	
Di-isopropyl ether (DIPE)	ND	1	0.2	1	ug/L	12/07/12	ryanp	
Ethanol	4600	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	34	1	0.21	5	ug/L	12/07/12	ryanp	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L	12/07/12	ryanp	
Methyl-t-butyl Ether (MTBE)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L	12/07/12	ryanp	
Tert-amylmethylether (TAME)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
Toluene	220	1	0.24	5	ug/L	12/07/12	ryanp	
Xylenes (Total)	210	1	0.45	5	ug/L	12/07/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	113	70-145	
4-Bromofluorobenzene (SUR)	105	70-145	
Dibromodifluoromethane (SUR)	105	70-145	
Toluene-d8 (SUR)	98	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor



Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012 11:50	Site:	Notes:
Sample #: 314879-008	Client Sample #: TOC#049 MW-1	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 <i>NELAC</i>	Prep Method: EPA 5030B					QCBatchID: QC1132127		

TPH Gasoline	4340	5	33	250	ug/L	12/07/12	lyt	
<u>Analyte</u>	<u>% Recovery</u>		<u>Limits</u>					<u>Notes</u>
4-Bromofluorobenzene (SUR)	104		60-140					

Method: EPA 8260 <i>NELAC</i>	Prep Method: EPA 5030B					QCBatchID: QC1132112		
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Benzene	43	1	0.18	1	ug/L	12/07/12	ryanp	
Di-isopropyl ether (DIPE)	ND	1	0.2	1	ug/L	12/07/12	ryanp	
Ethanol	2600	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	160	1	0.21	5	ug/L	12/07/12	ryanp	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L	12/07/12	ryanp	
Methyl-t-butyl Ether (MTBE)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L	12/07/12	ryanp	
Tert-amylmethylether (TAME)	ND	1	0.19	1	ug/L	12/07/12	ryanp	
Toluene	990	10	2.4	50	ug/L	12/11/12	ryanp	
Xylenes (Total)	840	10	4.5	50	ug/L	12/11/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	110	70-145	
4-Bromofluorobenzene (SUR)	103	70-145	
Dibromodifluoromethane (SUR)	106	70-145	
Toluene-d8 (SUR)	92	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor



Matrix: Water	Client: Thrifty Oil Company	Collector: Client
Sampled: 12/04/2012	Site:	Notes:
Sample #: 314879-009	Client Sample #: TOC#049 Trip Blank	

Analyte	Result	DF	MDL	RDL	Units	Analyzed	By	Notes
Method: EPA 8015 NELAC	Prep Method: EPA 5030B					QCBatchID: QC1132123		

TPH Gasoline	ND	1	6.6	50	ug/L	12/06/12	lyt	
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Analyte	% Recovery	Limits	Notes
4-Bromofluorobenzene (SUR)	78	60-140	

Method: EPA 8260 NELAC	Prep Method: EPA 5030B					QCBatchID: QC1132112		
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Benzene	ND	1	0.18	1	ug/L	12/07/12	ryanp	
Ethanol	ND	1	100	500	ug/L	12/07/12	ryanp	
Ethylbenzene	ND	1	0.21	5	ug/L	12/07/12	ryanp	
Toluene	ND	1	0.24	5	ug/L	12/07/12	ryanp	
Xylenes (Total)	ND	1	0.45	5	ug/L	12/07/12	ryanp	

Analyte	% Recovery	Limits	Notes
1,2-Dichloroethane-d4 (SUR)	119	70-145	
4-Bromofluorobenzene (SUR)	100	70-145	
Dibromodifluoromethane (SUR)	106	70-145	
Toluene-d8 (SUR)	95	70-145	

ND = Not Detected or < MDL    MDL = Method Detection Limit    RDL = Reporting Detection Limit    DF = Dilution Factor



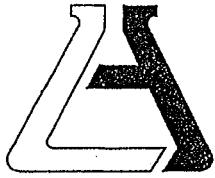


**Chain of Custody Record**

Company <b>THRIFTY OIL CO.</b>		Phone <b>(562) 921-3581</b>		A.L. Job No.		Page <b>1</b> of <b>1</b>			
Project Manager <b>JEFF SURYAKUSUMA</b>		Fax <b>(562) 921-7510</b>		Analysis Requested				Test Instructions & Comments <b>GLOBAL ID: T0600101365</b>	
Project Name <b>WATER SAMPLING WELLS</b>		Project # <b>049</b>							
Site Name and Address <b>3400 SAN PABLO AVE OAKLAND CA. 94612</b>				TNAH (8016M) BTRP B260 OXYGENATE					
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.			
✓ 1 RW-10		12-04-12	13:45	H <sub>2</sub> O	4-VOA	NOH <sub>2</sub>			
✓ 2 MW-7			13:05	↑	↑	↑			
✓ 3 MW-6			12:35	↑	↑	↑			
✓ 4 MW-5			12:20	↑	↑	↑			
✓ 5 MW-4R			12:15	↑	↑	↑			
✓ 6 MW-3			12:05	↑	↑	↑			
✓ 7 MW-2R			11:55	↑	↑	↑			
✓ 8 MW-1			11:50	↓	↓	↓			
✓ 9 TRIP BLANK			00:00	H <sub>2</sub> O	2-VOA	NOH <sub>2</sub>	X	X	
10									
11									
12									
13									
14									
15									

Sample Receipt - To Be Filled By Laboratory				Relinquished by Sampler: <b>EMC</b> 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers	Properly Cooled Y/N/NA	Samples Intact Y/N/NA	Samples Accepted Y/N	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:	Signature:
Custody Seals Y/N/NA				Printed Name: <b>ERD BATT D</b>	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Received in Good Condition Y/N				Date: <b>12-04-12</b> Time: <b>16:00</b>	Date:	Date:	Date:	Date:	Time:
Turn Around Time				Received By: <b>G.S.O.</b> 1.		Received By: 2.		Received By: 3.	
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input type="checkbox"/> Same Day	<input type="checkbox"/> 48 hrs.	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:	Signature:
		<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.	Printed Name: <b>David Lee</b>	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
				Date: <b>12/6/12</b> Time: <b>9:10</b>	Date:	Date:	Date:	Date:	Time:



**ASSOCIATED LABORATORIES**

806 North Batavia – Orange, California 92868 – 714-771-6900

FAX 714-538-1209

**SAMPLE ACCEPTANCE CHECKLIST**

**Section 1**  
 Client: TCC Project: \_\_\_\_\_  
 Date Received: 12/6/12 Sampler's Name:  Yes No  
 Sample(s) received in cooler:  Yes No (Skip Section 2)  
 Shipping Information: GSO Tracking # 106806261

**Section 2**  
 Was the cooler packed with:  Ice \_\_\_\_\_ Ice Packs \_\_\_\_\_ Bubble Wrap \_\_\_\_\_ Styrofoam  
 \_\_\_\_\_ Paper \_\_\_\_\_ None \_\_\_\_\_ Other \_\_\_\_\_  
 Cooler or box temperature: 2°C  
 (Acceptance range is 0 to 6 Deg. C.)

Section 3	YES	NO	N/A
Was a COC received?	✓		
Is it properly completed? (IDs, sampling date and time, signature, test)	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?	✓		
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?		✓	
Were the containers labeled with correct preservatives?	✓		
Was total residual chlorine measured (Fish Bioassay samples only)? *			✓

\*: If the answer is no, please inform Fish Bioassay Dept. immediately.

**Section 4**  
 Explanations/Comments

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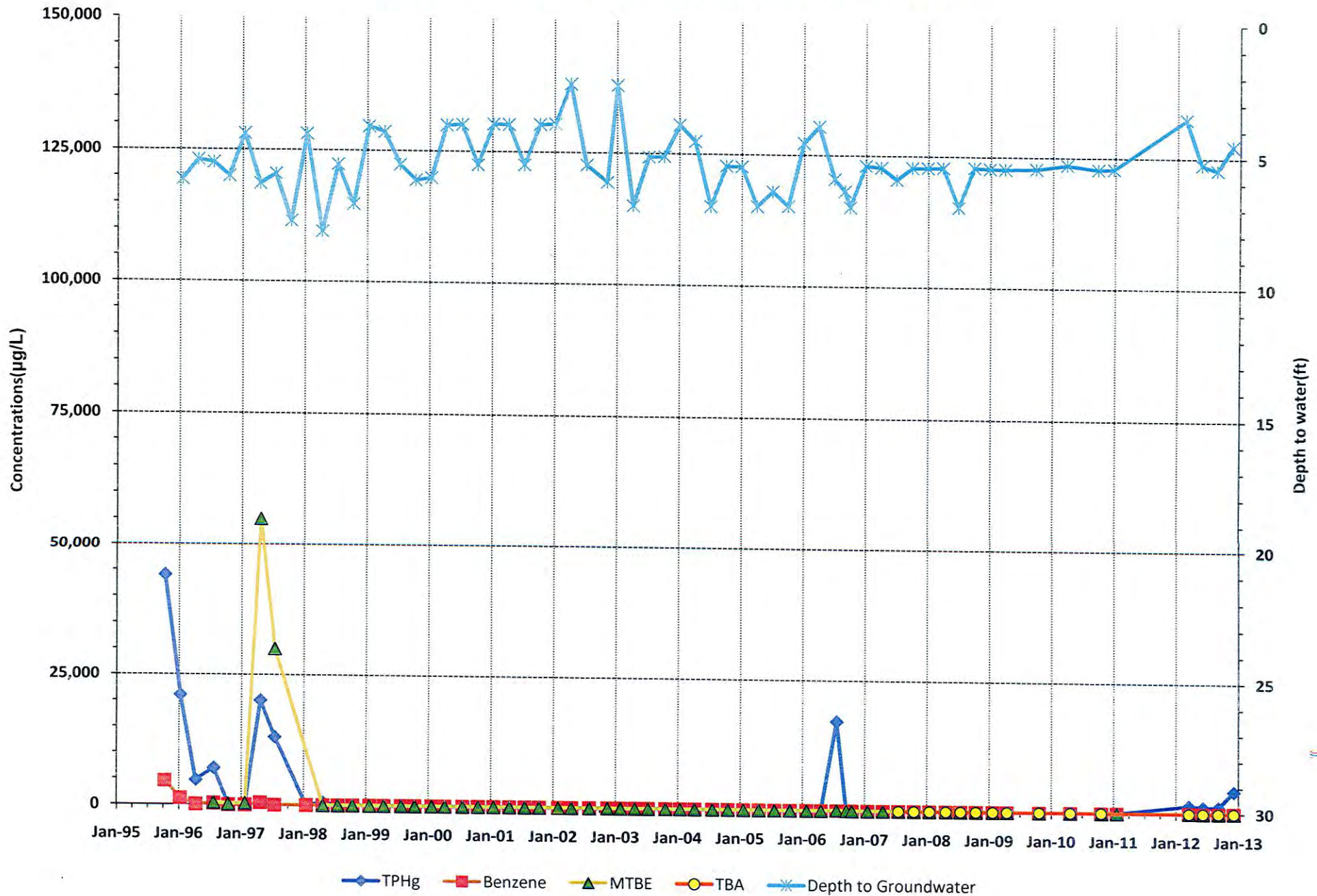
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**Section 5**  
 Was Project Manager notified of discrepancies: Y / N N/A

Completed By: [Signature] Date: 12/6/12

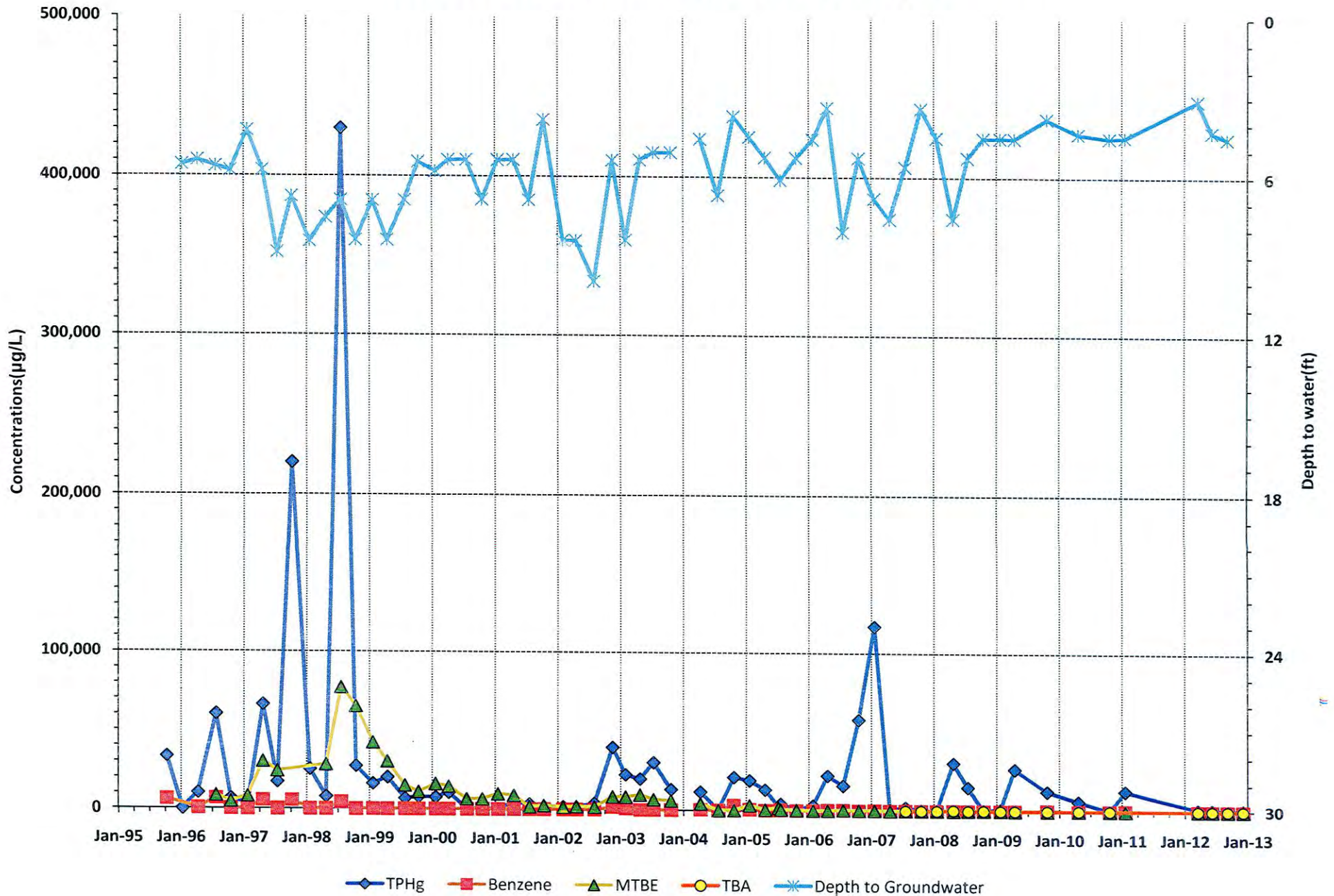
## ***APPENDIX C***

# TPHg, BENZENE, MTBE, and TBA for MW-1 THRIFTY OIL STATION #049, OAKLAND, CA

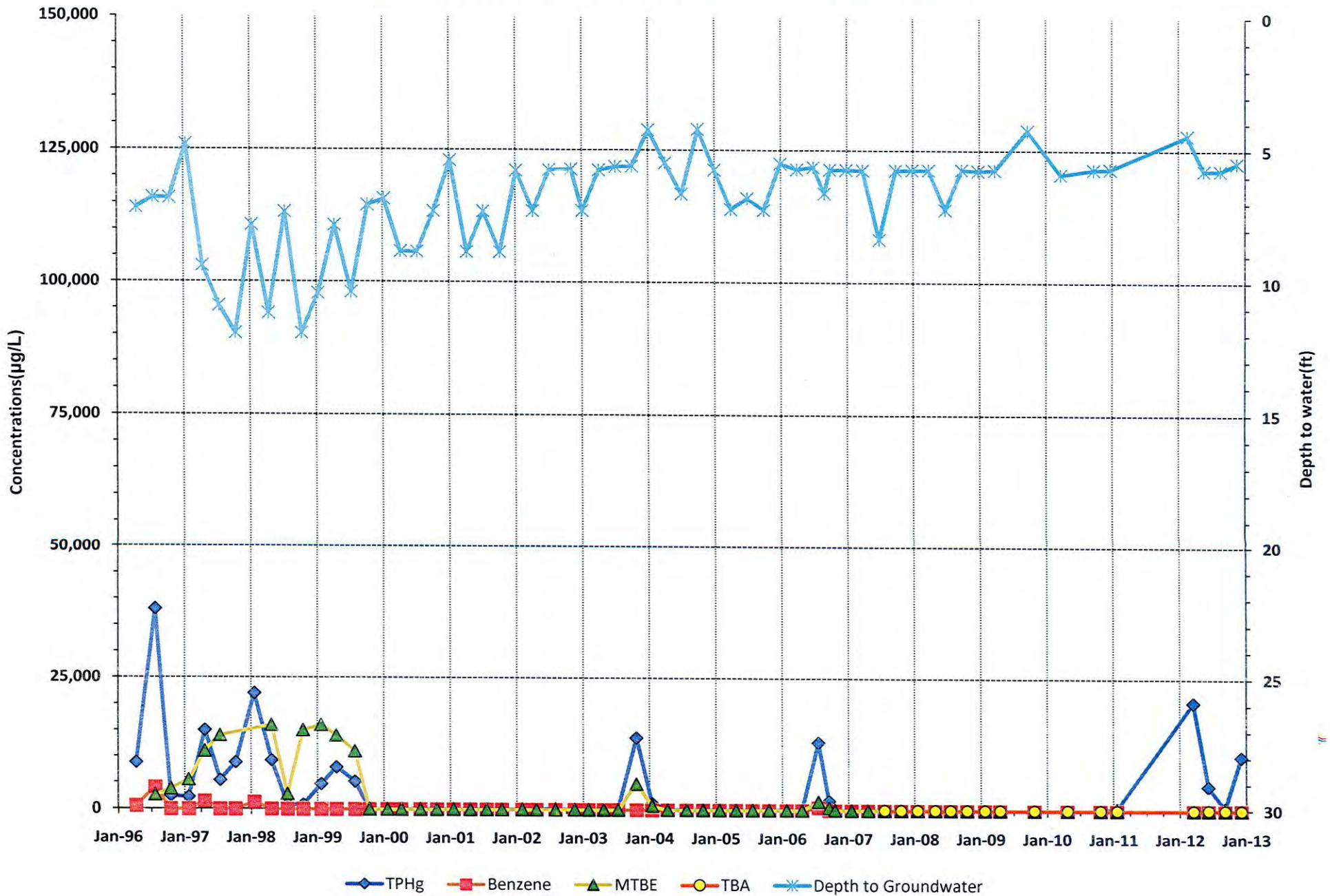




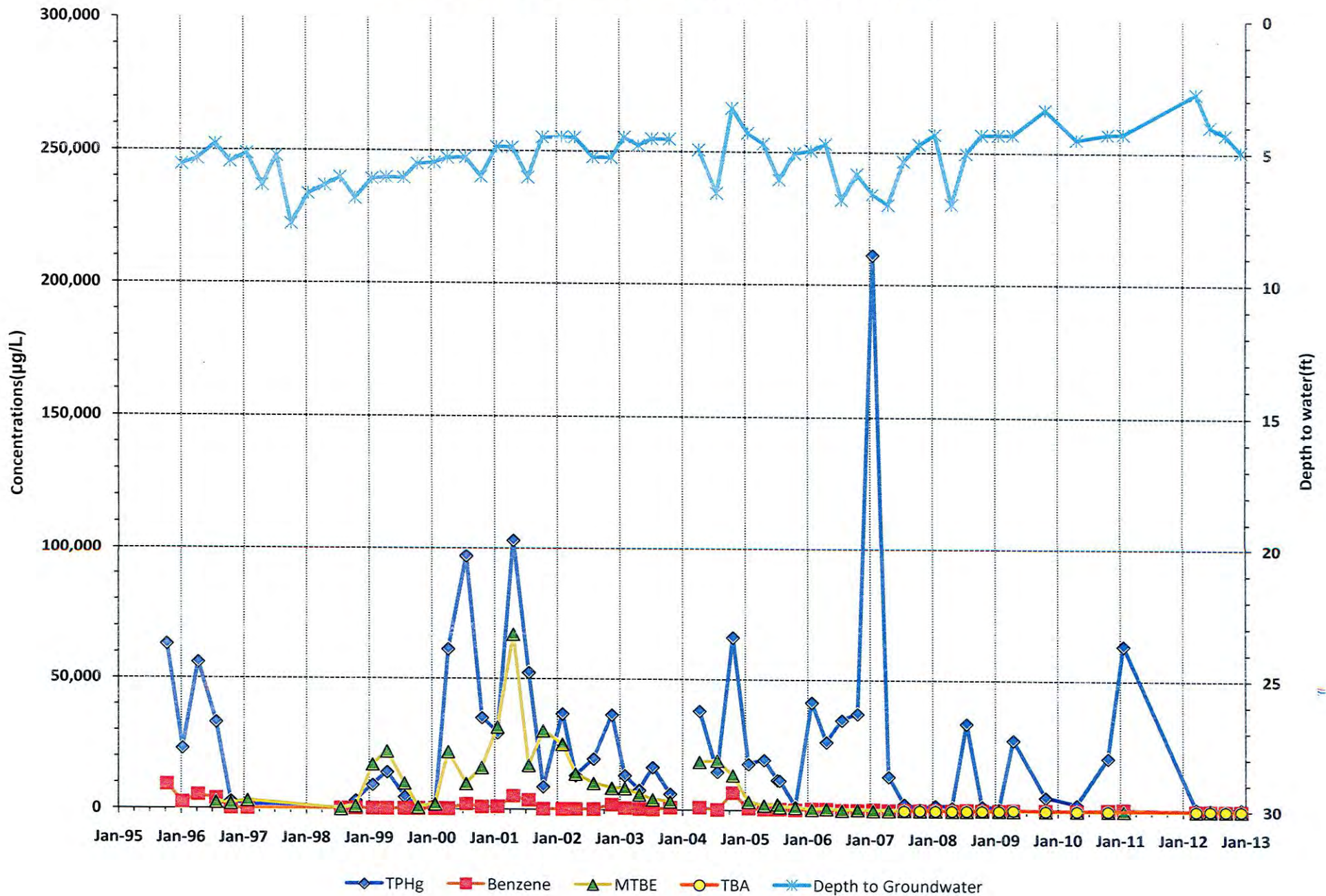
# TPHg, BENZENE, MTBE, and TBA for MW-2 and MW-2R THRIFTY OIL STATION #049, OAKLAND, CA



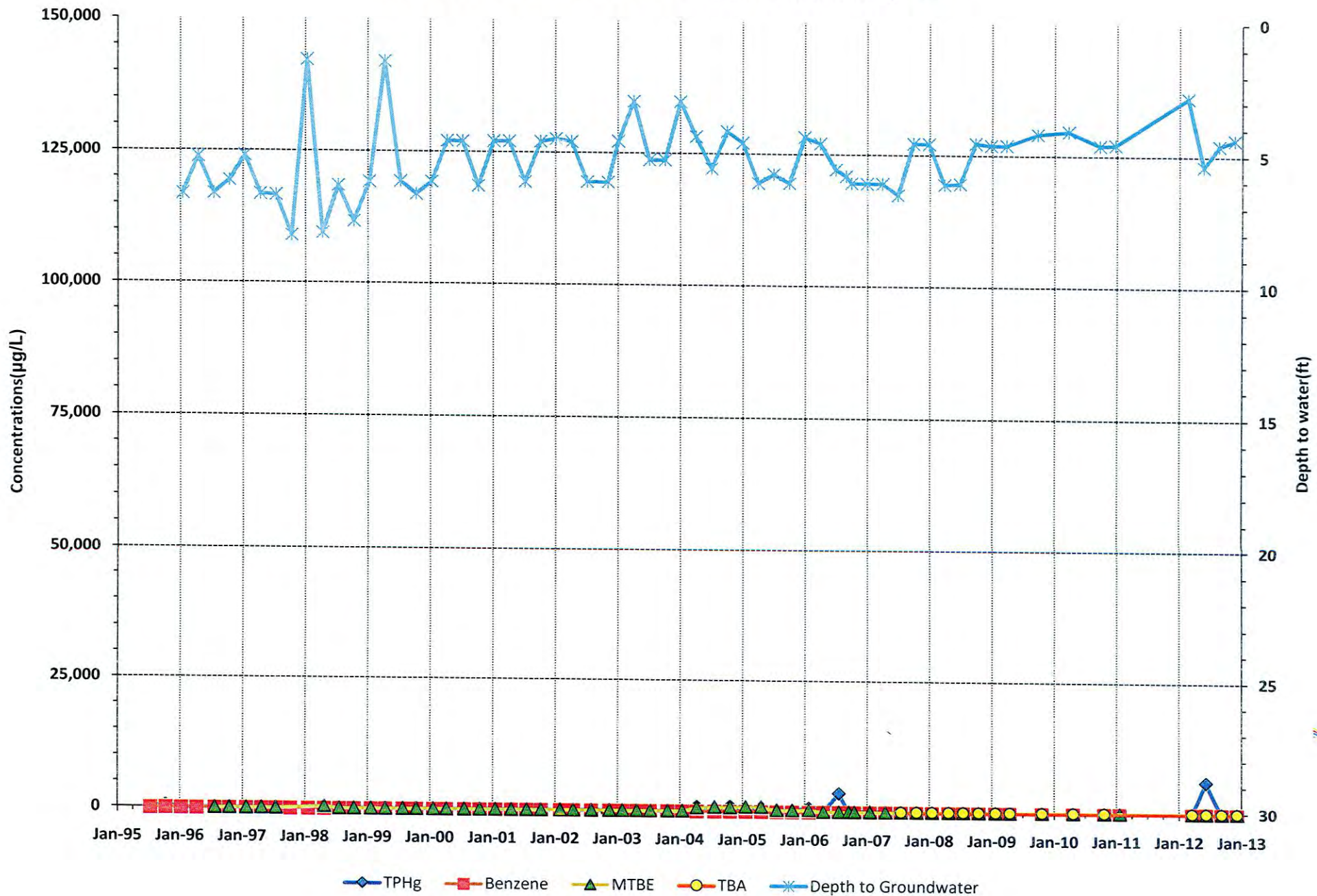
# TPHg, BENZENE, MTBE, and TBA for MW-3 THRIFTY OIL STATION #049, OAKLAND, CA



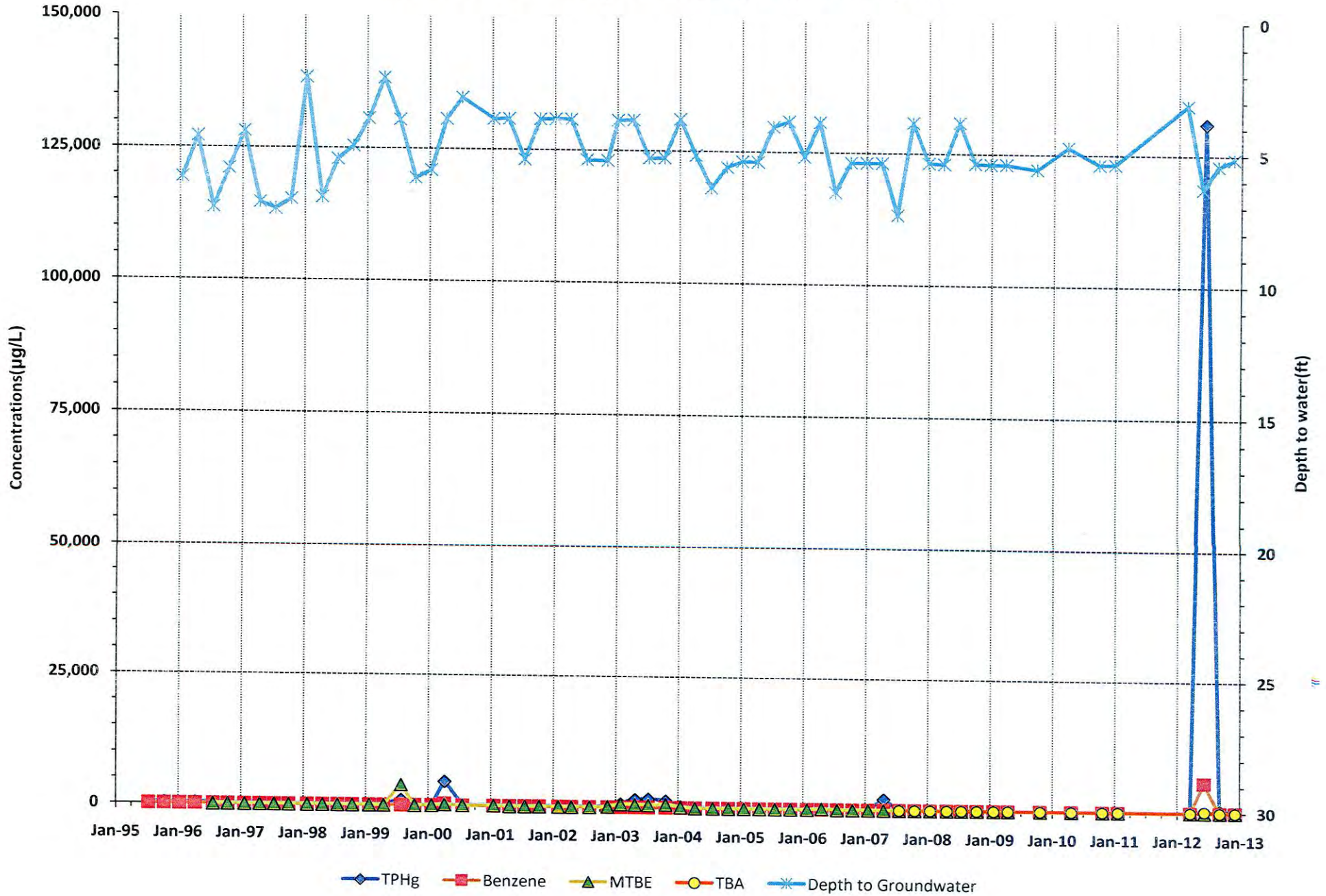
# TPHg, BENZENE, MTBE, and TBA for MW-4 and MW-4R THRIFTY OIL STATION #049, OAKLAND, CA



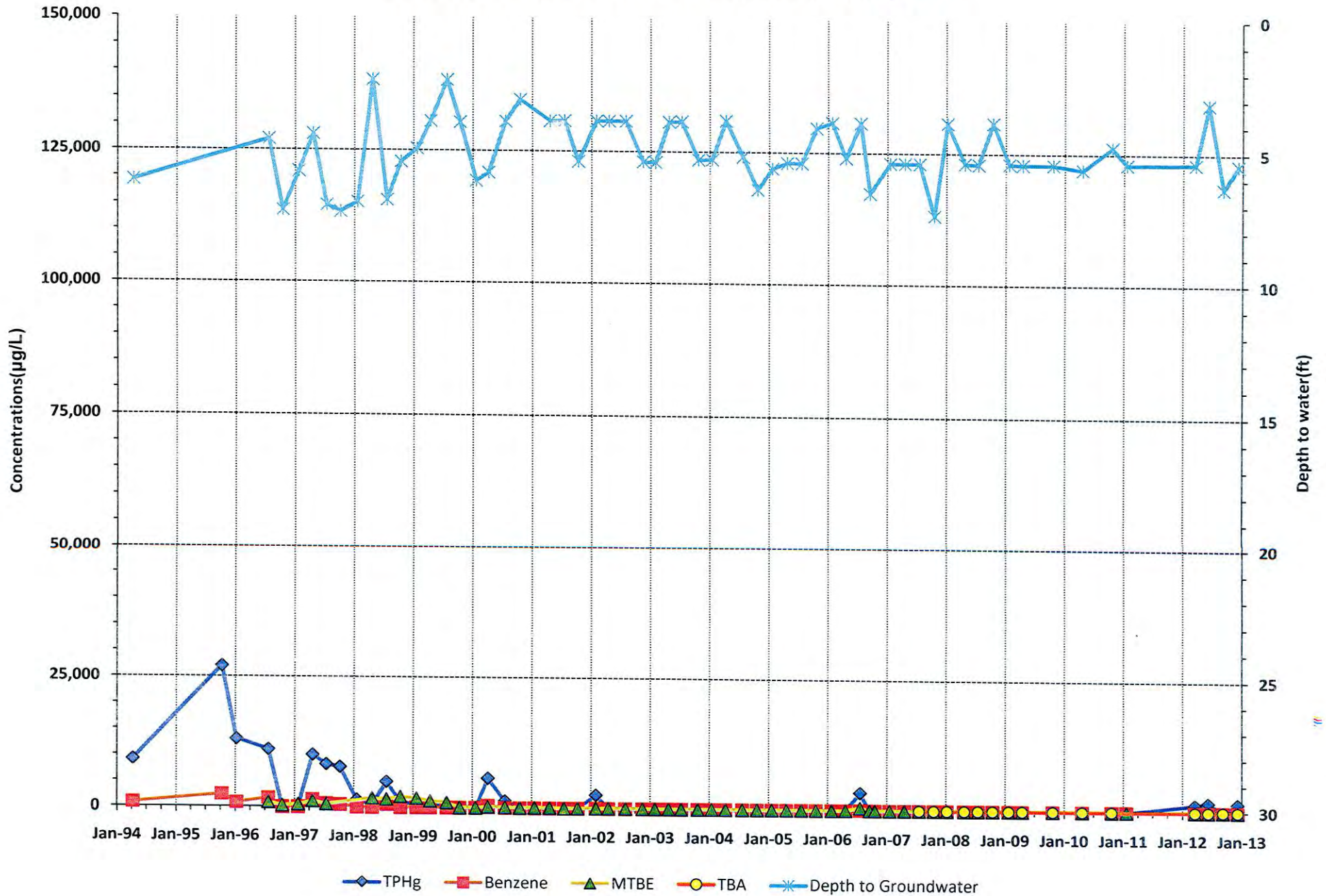
# TPHg, BENZENE, MTBE, and TBA for MW-5 THRIFTY OIL STATION #049, OAKLAND, CA



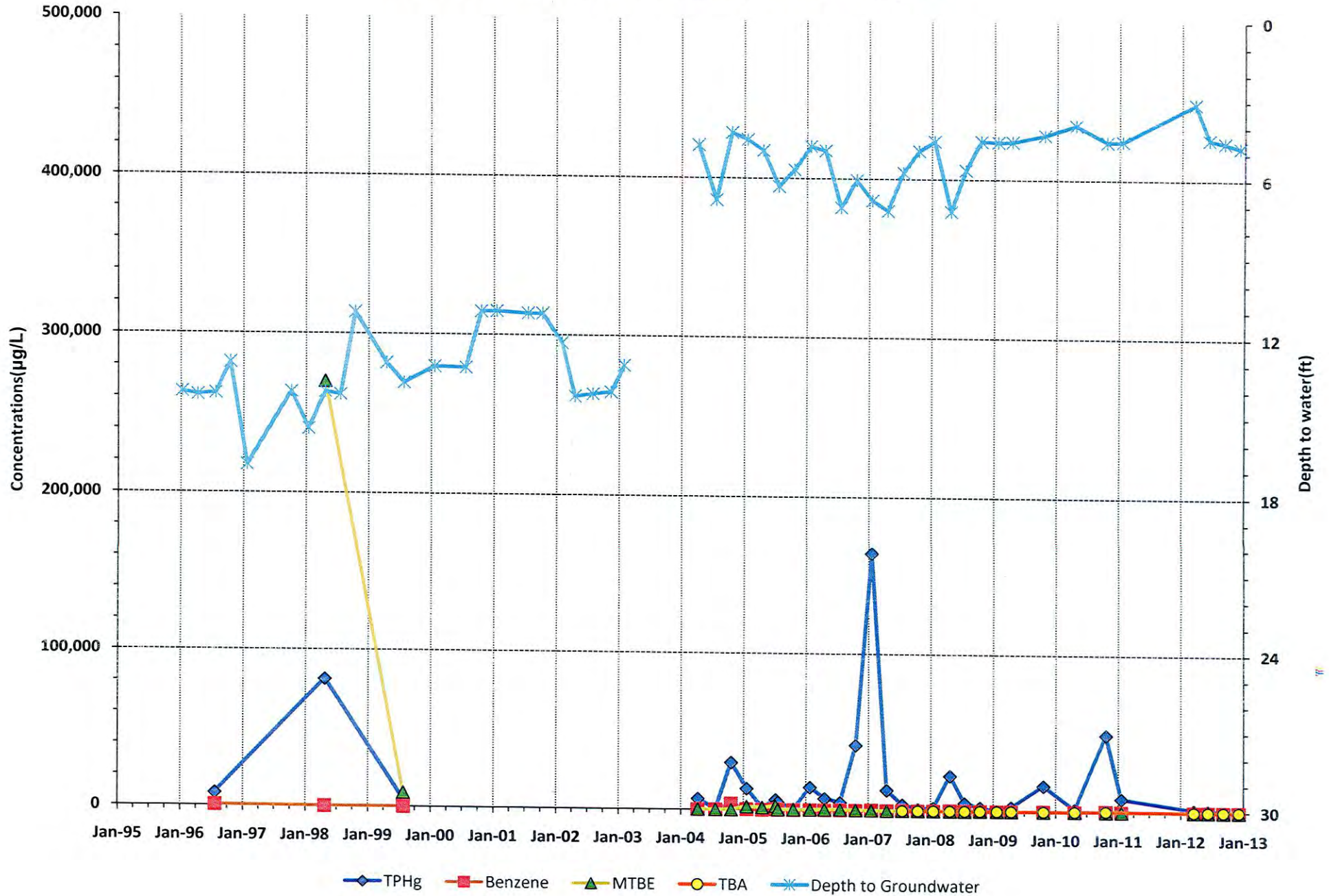
# TPHg, BENZENE, MTBE, and TBA for MW-6 THRIFTY OIL STATION #049, OAKLAND, CA



# TPHg, BENZENE, MTBE, and TBA for MW-7 THRIFTY OIL STATION #049, OAKLAND, CA



# TPHg, BENZENE, MTBE, and TBA for RW-1 and RW-1R THRIFTY OIL STATION #049, OAKLAND, CA



# ***APPENDIX D***



Site Name: **THRIFTY OIL CO STATION NO. 049**  
 Site Address: **3400 SAN PABLO AVE., OAKLAND, CA**

**Site meets the criteria of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.<sup>1</sup>**

<p><b><u>General Criteria</u></b>          General criteria that must be satisfied by all candidate sites:</p> <p><b>Is the unauthorized release located within the service area of a public water system?</b></p> <p><b>Does the unauthorized release consist only of petroleum?</b></p> <p><b>Has the unauthorized ("primary") release from the UST system been stopped?</b></p> <p><b>Has free product been removed to the maximum extent practicable?</b></p> <p><b>Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?</b></p> <p><b>Has secondary source been removed to the extent practicable?</b></p> <p><b>Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?</b></p> <p><b>Does nuisance as defined by Water Code section 13050 exist at the site?</b></p> <p><b>Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?</b></p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p><b><u>Media-Specific Criteria</u></b>          Candidate sites must satisfy all three of these media-specific criteria:</p> <p><b>1. Groundwater:</b>          To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites:</p> <p><b>Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?</b></p> <p><b>Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?</b></p> <p>If YES, check applicable class: <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>

<sup>1</sup> Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.

Site Name: THIRTY OIL CO. STATION NO. 049  
 Site Address: 3400 SAN PABLO AVE., OAKLAND, CA

<p>For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p><b>2. Petroleum Vapor Intrusion to Indoor Air:</b>          The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.</p> <p><b>Is the site an active commercial petroleum fueling facility?</b>          Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.</p> <p>a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4?          If YES, check applicable scenarios: <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4</p> <p>b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?</p> <p>c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p><b>3. Direct Contact and Outdoor Air Exposure:</b>          The site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).</p> <p>a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?</p> <p>b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?</p> <p>c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>